Digitized by the Internet Archive
in 2009 with funding from
University of Toronto

http://www.archive.org/details/1904britishmedic01brit

P MED B

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

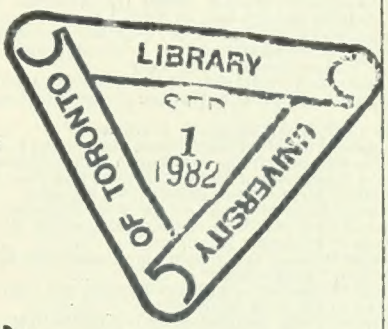
1472

EDITED BY

DAWSON WILLIAMS, M.D.,

ASSISTED BY

CHARLES LOUIS TAYLOR.



63500
18/1/05
R
31
B93
1904
v.1
cop.2

VOLUME I 1904.

JANUARY TO JUNE.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

ILLUSTRATIONS.

PAGE

Empyema and Bronchiectasis, Dr. Alexander James (Two Figures) 5
A Method for Anastomosing a severed Vas Deferens, Mr. J. Lynn Thomas (Two Figures) 14
Injuries and Effects of a Rifle Shot at Close Quarters, Mr. R. Ramsey (Three Figures) 16, 17
Horsedung in the Streets, Dr. Calantarients (Two Figures) ... 26
Brain Elevator and Retractor, Mr. D. Armour 26
Observations on the Pathogenesis of Gout, Dr. Chalmers Watson (Seven Figures) 69, 70
Portrait of Mr. J. Knowsley Thornton 109
Changes in the Spinal Cord in Diabetes Mellitus, Dr. R. T. Williamson (Three Figures) 122
A Somnoform Inhaler, Mr. H. E. G. Boyle 140
The Etiology of Carcinoma, Mr. Keith W. Monsarrat. Six Figures on Special Plate between ... ... 174 and 175
A Case of Rodent Ulcer treated with Radium, Mr. G. Sichel (Two Figures) 182, 183
The Leishman-Donovan Body and Tropical Splenomegaly, Sir Patrick Manson and Dr. G. C. Low (Fourteen Figures) ... 185
Suprapubic Prostatectomy, Sir T. Stoker (Three Figures) ... 229, 230, 231
Prostatic Enlargement and its Treatment by Freyer's Method, Mr. G. Barling (Fourteen Figures) 235, 236, 237
An Anatomical Criticism of the Procedure known as Total Prostatectomy, Mr. C. S. Wallace (Seventeen Figures) 239, 240, 241, 242, 243, 244
Notes on Myiasis, Captain F. S. Lelean 245
Detachment of Odontoid Process, Lieutenant L. B. Scott 247
The Convalescent Home at Osborne House (Three Figures) 255, 256, 257
Cirsoid Aneurysm of Forehead treated by Free Incision and Extirpation, Mr. Rushton Parker (Two Figures) 304, 305
The Royal Army Medical College (Four Figures) 314, 315
A Case of Vesicular Mole of Unusual Size, Mr. T. S. Jones 361
Portrait of Professor Kussmaul 375
A Case of Primary Quadruple Amputation, Dr. E. Harrison ... 430
An Indian "Snake-stone" 438
Mycosis Fungoides or Alibert's Disease, Dr. John Reid 482
Portrait of Dr. R. M. Murray 521
Recurrent Fever associated with Spirilla in the Blood in a Patient from Gibraltar, Sir Patrick Manson 538
The Humphry Museum, Cambridge 553
Plans of New Medical School Buildings at Cambridge ... 554, 555
Portrait of Sir Edward Sieveking 581
Extensive Carcinoma of the Oesophagus, Professor R. Saundby and Dr. J. T. Hewetson (Thirteen Figures) ... 589, 590, 591, 592, 593
Instrument for the Removal of Foreign Bodies from the Nose, Mr. A. Roberts 612
Splint for Transverse Fractures of the Patella, Major C. H. Johnston 612
A Portable Lamp for Laryngoscopic Purposes, Mr. E. C. Baber ... 612
Syringe, etc., for Treatment of Serious Effusions, Dr. James Barr ... 650
Apparatus for Treating Lung Disease with Thorium Nitrate, Dr. Gordon Sharp 654
Capsule Formation by Dipplococcus Pneumoniae in Culture, Dr. M. H. Gordon 659
An Ethyl Chloride Somnoform Inhaler, Mr. H. George 673
Uterine "Flag Mop," Mr. E. Solly 673
A New Uterine Forceps Applicator, Dr. P. J. Macnamara 674
Two Cases involving the Question of the Site of Impregnation, Mr. Harrison Cripps and Mr. Herbert Williamson (Two Figures) ... 713
A Pessary for Prolapsus Uteri, Mr. Derham-Reid 790
Royal Army Medical College (Mess and Officers Quarters). Block from the north-east 802
Portrait of Deputy Surgeon-General Cayley 811
Some Experiments on Enterica, Scarlet Fever, and Measles in the Chimpanzee, Dr. A. S. Grünbaum (Four Figures) ... 817, 818
The Life-History of Filaria Immitis Leidy, Mr. T. L. Bancroft (Two Figures) 822
Papilliferous Cyst from an Axillary Sudoriparous Gland, Mr. H. B. Robinson 832
Median Hare-lip, Mr. W. H. Lowman 892
Case of Strangulated Inguinal Hernia, Perforation of the Bowel, Resection of 7 in. of Gangrenous Gut, Recovery, Lieutenant-Colonel W. H. Burke 893
A Colour Test Appliance, Mr. P. Dunn 899
Self-Retaining Drainage Tube and Pilot for the Maxillary Antrum, Mr. L. McGavin 899

PAGE

Entropion Forceps, Mr. L. Stretton 899
The Hamidie Hospital for Children, Constantinople (Two Figures) ... 900
Portrait of Sir P. C. Smyly 925
Demonstration on Recent Electro-therapeutic Work, Dr. J. Macintyre (Eight Figures) 935, 936, 937, 938, 939, 940
Rodent Cancer treated with X Rays, Dr. G. G. Stopford Taylor (Four Figures) 946, 947
Inhaler for Administering Chloride of Ethyl and Somnoform alone or in Conjunction with Nitrous Oxide and Ether, Mr. G. W. Bampfylde Daniell 949
Intraspinal Cocainization, Dr. A. S. Gubb (Two Figures) ... 950, 951
A Case of Cystic Hygroma, Removal, Recovery, Lieutenant-Colonel J. Lewtas 951
An Aspirator and Insufflator, Dr. A. Rosenau 958
Plans of Queen Victoria Memorial Pavilions, Royal Alfred Hospital, Sydney (Two Figures) 959, 960
Portrait of Sir Henry Thompson, Bart. 991
The Examination of the Tissues of the Case of Sleeping Sickness in a European, Drs. G. C. Low and F. W. Mott (Eight Figures, on special plate) ... ... Between 1000 and 1002
Structural Links in Malignant Growths, Dr. F. Bushnell and Mr. F. Cavers (Two Figures) 1006
A Tonsillotome, Mr. L. McGavin 1024
An Instrument for rapidly Enlarging Opening in Skull, Mr. W. A. Lane 1024
Pile-suture Forceps, Mr. A. S. Barling 1024
A Head-rest for Post-nasal Operations, Dr. F. A. Nyulasy 1024
A Case of Strangulated Femoral Hernia, Mr. A. Clark 1062
An Operation for the Radical Cure of Hernia, Mr. J. H. Pringle (Four Figuree) 1063, 1064
The Infective Nature of Rheumatic Fever, Dr. F. J. Poynton ... 1119
Sterilized Surgical Swabs, Mr. J. Jackson Clarke 1142
The Galérie des Sources, Vichy 1143
Haematoma and Haematocele, Mr. A. Doran (Two Figures) 1181, 1182
Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ, Mr. P. J. Freyer (Four Figures) ... 1185, 1186
Total Prostatectomy, Mr. C. S. Wallace 1187
A Bed Punkah, Dr. W. Ewart 1200
Thorn Evaporating Wall for Producing Mother-lye at Nauheim ... 1203
Bath House and Pump Room at Schwalbach 1263
Arterial Sclerosis and Hypertonus in their Relation to Diet and to the Digestive System, Dr. W. Russell (Two Figures) 1298
Cancer of the Pancreas, Sir Lauder Brunton 1353
Notes of Experiments to Determine the Relative Efficiency of some Surgical Dressing Materials, Dr. A. N. McGregor and Mr. R. Ramsay (Two Figures) 1363
Further Observations on the Therapeutic Value of Radium and Thorium, Dr. J. M. H. MacLeod (Eight Figures) 1366, 1367, 1368 1369
Primary Quadruple Amputation, Recovery, Mr. J. T. Williams (Two Figures) 1371
A Set of Portable Retractors, Mr. B. Dyball 1374
PREVENTION AND TREATMENT OF TUBERCULOSIS IN CHILDHOOD.—Berck-sur-Mer, Hôpital Maritime, sea front, 1375; Berck-sur-Mer, patients in a verandah, 1376; Berck-sur-Mer, Hôpital Maritime, one of the dormitories, ib.; Sanatorium at St. Pol-sur-Mer, general view of pavilions, 1377; Sanatorium at St. Pol-sur-Mer, pavilion for young children, ib.; Sanatorium of Hendaye, the pavilions, 1379; L'Oeuvre des Enfants Tuberculeux d'Ormesson, garden front, ib.; Margate Royal Sea-bathing Hospital, patients in the verandah, 1381; Margate Royal Sea-bathing Hospital, view from one of the wards, ib.
Some Survivals of Mediaeval Medicine in East Anglia. Dr. C. B. Plowright (Fifteen Figures) 1397, 1398, 1399
A Case of Leukanaemia, with great hyperplasia of the spleen and prevertebral haemolymph glands, and with increase of connective tissue in the bone marrow Dr. Parkes Weber (Three Figures) 1417
The Surgical Treatment of Abdominal Aneurysm. Mr. R. C. B. Maunsell (Three Figures) 1423, 1424
A Bedside Spittoon. Dr. S. R. Williams (Two Figures) 1434
Kreuznach; the Elizabeth-Quelle and Park from the River ... 1435
The Harvcian Oration on I-em-hotep, the Egyptian god of medicine, etc., Dr. R. Caton (Three Figures) 1473, 1475
A New Post-mortem Table, Dr. D. Lloyd Smith 1492
Ground Plan of the Brompton Hospital Sanatorium and Convalescent Home, Heatherside, Camberley 1496
Portrait of Sir David Palmer Ross 1519

INDEX TO VOLUME I FOR 1904.

A.

Abdomen, hydatid cysts in, 389; upper, the association of surgical lesions in, 1438
Abdominal cases, four, 1309
———— conditions, some deceptive and the question of operation, 361
———— diagnosis, discussion on pelvic lesions in relation to, 249
———— operations during pregnancy, 64
———— wall, spontaneous rupture of the, 892; hydatid cyst in the, 1427
Aberdare, contract medical practice at, 313
Ability, bulk and, 851
Abortion, constructive production of, 928; tubal, 1428
Abortionmongering, wholesale, in Florence, 1266
Abraham, P., the biographic puff, 1053
Abscess of the lung, three cases of, 8; intraperitoneal, due to pneumococcus, 128; subphrenic, 250; uterine, 308; of appendix in recto-vesical pouch, treatment of, 426, 639; cerebral, with unusual complications, 604; iliac, following gonorrhoea, 724; cerebral, following otitis media, operation, recovery, 836; hepatic, opening into the pleural cavity, 837; of liver, case of, 1487
Abscesses pointing in the epigastrium in spinal caries in a man aged 60, 192
Absorption of haemoglobin, 823
Abstainers and non-abstainers, the mortality experience of, 145, 155
Abyssinia, hypnotism in, 96
Académie de Médecine de Paris, insanitary state of council room of, 264; the action of a maritime climate in the treatment of phthisis, 633; the prophylaxis of malaria in Madagascar, 753; the extinction of infantile mortality in the commune of Villiers-le-Duc, ib.; administration of chloroform by Roth's apparatus, 861; tuberculosis in the French army, 1044; anaemia among miners, ib.; epithelioma of both breasts cured by castration, 1045; influence of the "nascent state" on drugs, 1338; breast feeding of infants of factory hands, 1339; lady reads paper at meeting of, 1507
———— des Sciences de Paris, the fall in the number of cases of malaria in Egypt by measures adopted by the Suez Canal Company, 753
Academy, Royal, of Medicine in Ireland, the secretaryship of, 914, 1038
———— Royal, of Medicine in Ireland, Section of Anatomy and Physiology, the pelvic fascia, 369; a confirmation of Pawlow, ib.; blood films, ib.
———— Royal, of Medicine in Ireland, Medical Section, milk, human and bovine, 729; myxoedema, 1372; radium in therapeutics, ib.
———— Royal, of Medicine in Ireland, Section of Obstetrics, meeting of, 785, 1080
———— Royal, of Medicine in Ireland, Section of Pathology, paraffin methods of embedding, 369; ringworm, ib.; exhibits, ib.; meeting of, 839, 1256
———— Royal, of Medicine in Ireland, Section of State Medicine, public health problems in Ireland, 548; physical and mental education, ib.; poisoning by cantharides, 1195; coal gas poisoning, ib.
———— Royal, of Medicine in Ireland, Section of Surgery, meeting of, 1256
Accident to Madrali, 346
Accidents to workmen, 389
"Accouchement forcé," forcible dilatation of the cervix in, 67, 228, 472; discussion of at the Glasgow Obstetrical and Gynaecological Society, 78
Accounts, partnership, 523
Achill Island, small-pox in, 630
Achondroplasia with spinal curvature, 549
Ackerley, A. R., when is a banana ripe? 1412
Acne, treatment of by inoculation of staphylococcus vaccine, 1075
Act, the Companies, dentists and, 976
—— the Dental of Jersey, 449
—— the Midwives, note as to fees under, 59; the application of Section E of, 107; correspondence on, 164, 221, 461; Irish midwives and, 209, 267, 332, 395, 569, 572, 976, 1100; medical fees under in midwives cases, 1040; memorandum on by Central Midwives Board, 1041; county councils and, 1163
—— the Public Health, amendments to, 638
—— Superannuation (1896) powers of guardians under, 1470
—— Vaccination (Scotland) answers to questions as to, 1470
—— the Workmen's Compensation, medical referees under, 52, 700, 1328; injuries to the eyes in relation to, 483; claim under, 642; examinations under, 760
Action, for wrongful dismissal in Scotland, 167; for burns from hot-water bottles, 282; for alleged negligence, 283
Actions, naval, the wounded in, 152, 910
Acton, a municipal crèche for, 815
Acts, Medical, prosecution under, 167
Adam, J., papilliferous cysts from sudoriparous glands, 1049
Adams, A. M., trypanosomiasis and morbus dormitivus, 889
Adaptation of the pancreas, 778
Aden, the plague at, 1434
Addison, C., the localization of abdominal viscera, 1196
Addison's disease. See Disease
Address, inaugural as Professor of Surgery at Cambridge University by Mr. Howard Marsh, 289; by Sir W. Taylor at the opening of session of the Royal Army Medical College, 291
Adelaide, the health of, 762
Adenoid growths, treatment of, 841
Adenoids and varicocele, 764
Adiposa dolorosa (Dercum's disease) in a male, 781
Adrenalin, in Addison's disease, 131; in pulmonary haemoptysis, 191, 365, 781; influence of on the nitrogenous metabolism of the bird, 549; in neurotic heart, 1009; post-partum haemorrhage treated by, 1254
———— chloride, paper on, 430; with chloretone in epistaxis, 489; haemophilia treated with, 1247; in haemorrhage, 1312
———— diagnosis, some suggestions in, 1312
Adulteration of honey, 232
Advertisement, of medical works in the lay press, 407; the penalties of, 621; of Mr. Alabone in newspapers, 1053; of ambulance lectures, 1228; friendly, 1267, 1466
Advertisements, trade, medical testimonials in, 55, 342, 467, 809; in the lay press, 55; trade, the medical profession and, 283, 583; a year's, 1085; illustrated, 1324; post-office censorship of, 1332; indecent, the United States Post-office department and, 1506
Advertising, medical, in former days, 206; medical, 223, 467, 1349, 1466; of quack nostrums, 621; by retail opticians, 1389; of health lectures, 1467
Advice, medical, in the lay press, 761
Ady, J. C., prosecution of, 167
Aesculin, note on, 172
Age, old, the prevention of, 1501
Agent for life insurance company, medical practitioner as, 872
Agreements, partnership, 1815
Ahlfeld, F., Lehrbuch der Gebertshilfe, rev., 196
Aid, municipal, for hospitals, 95
Air, of railway tubes, 450, 528; pure, admission of into serous cavities, 759, 808, 868, 923, 988, 1048
—— passages, rheumatic infection through the, 1314
Aitchison, C. U., tumour of left auricle, 1316
———— J., testing the eyesight of a nation, 1170, 1463
Aitken, R. Y., gastric ulcer, perforation twice in five months, 665
Aix-la-Chapelle, expenses of course at, 932
Alabone, E. W., advertisements of in newspapers, 1053
Albumen in urine, some tests for, 882
Albuminuria, postural, 5; the coagulation time of the blood in pregnant and puerperal women suffering from, 709; decapsulation of the kidney for the treatment of, 1011
Alcohol, the medical profession and, 50, 648; and the death-rate, 145, 155; review of book on, 251; the control of the traffic in, 915
Alcoholism, case of, followed by hyperpyrexia, coma, death, 133; "cures" for, 316, 324; in Ireland, 1457
Alderson, F. H., doctors in Parliament, 107, 339; the feeding of infants, 867
———— W. E., passage of a renal calculus through a lumbar sinus, 834
Aldred, W. A., case of severe and fatal haemoptysis in a child aged 3½ years, 1015
Alexander, G., three cases of erysipelas, 547
Algeria, malaria in, 88
Alibert's disease. See Mycosis fungoides
Alienism and inebriety, 1033
Alimentary canal, mechanism of, 1018
Allan, F. J., an old medical bill, 1176
———— J. W., transplantation of the pancreas in diabetes, a correction, 759
Allbutt, T. C., the Goverment Lunacy Bill, 1286
Allchin, W. H., A Manual of Medicine, rev., 842
Allingham, H. W., epigastric operation for drainage of pericardium, 106
Alpine climbers, medical appliances for, 340
Altitudes, high, changes in the blood in, 1097
Ambassador, a medical, 566
Ambidexterity, lectures on, 455
Ambulance challenge shield. See Shield
———— men, railway, competition of, 955
———— service, an efficient, for London, 327, 340, 386, 399, 505, 566, 580, 622, 677, 849, 1109, 1152, 1161, 1336, 1447
———— trophy, a volunteer, 583; the Scottish volunteer, 1038, 1218
America, United States of. See United States
Ammonia nitrogen, relation of to the total nitrogen in diabetes, 549
Ammonuria, note on, 1060
Amputation, quadruple, case of, recovery, 429; through hip-joint for hydatid of femur, 546; at hip-joint in osteo-myelitis, 1313; primary quadruple, recovery, 1371
Anaemia, splenica infantum, 368; malignant, 431; miners', 611, 1044; miners' and ankylostomiasis, 1272
Anaesthesia, a tooth in the trachea during, 940; by the rectum, 996
Anaesthetic, choice of a, 411
Anaesthetics, demonstration on, 19
Analgesic, a new ocular, dionine, 1009
Analyst, public qualifications of, 1175
Analysts, milk warranties and certificates of, 927
Anastomosing, a severed vas deferens, a method of, 13; intra-abdominal, 1236
Anastomosis of nerves in facial paralysis, 227
Anatomy, reviews of books on, 434, 896; of the prostate, 1372
Anders, J. W., Textbook of the Practice of Medicine, rev., 843

Anderson, Mrs. E. G., the treatment of inebriety by drugs, 1169
——— R. W., pulmonary hydatid, 1311
Andrews, C. W., cancer and its origin, 402
——— Dr. E., obituary notice of, 403
——— H. R., a case of bilateral extrauterine pregnancy, 75
Anencephaly, the retina in, 1138
Aneurysm, racemose, of the brain, 77; cirsoid, of forehead, treated by free excision and extirpation, 304; thoracic, rupture of, 841; of descending aorta, 894; abdominal, the surgical treatment of, 1422
Aneurysms, multiple, 249; leaking, 303
Angers, H. B., ruptured duodenal ulcer, laparotomy, 1315
Angina pectoris, lumbago and, 640
Angioma, extensive cavernous, 1315
Animals, control of contagious diseases of, 386; thyroidectomized, 954; living, experiments on, 1400
Ankylosis of the jaws, 432
Ankylostoma infection, detection of, 1233
Ankylostomiasis, in miners, 214; treatment of, 545, 1014; in Porto Rico, 736; miners' anaemia and, 1272
Annual meeting. See Meeting
Annuals, reviews of, 25
Anthony, Captain, R. W., case of old ectopic gestation, complicating normal pregnancy, pain, suicide, 15
Anthrax, immunization against, 264; order as to in Cheshire, 904; from horsehair, 956; discussion on at the Epidemiological Society, 1079; in Cheshire, 1088
Antidipso, a cure for alcoholism, 316
Antidote for rattle-snake bite, 1451
Antikamnia, poisoning by, 545
Antimony, chronic poisoning by, 433
Antipneumococcus serum. See Serum
Antipyrin and purpura, 325
Antirabic treatment in Havana, 603
Antiseptics in the navy, 528
Antistreptococcus serum. See Serum
Antitoxin and club patients, 346; diphtheria and, 566
Antivaccination in Parliament, 971
——— professors, rival, 508
Antivaccinists, the ethics of, 699, 927
Antivivisection in the United States, 1206
Aorta, elasticity of the, 1316
Apert, E., La Goutte et son Traitement, rev., 1432
Apes, inoculation of with syphilis, 852
Apoplexy, is atmospheric pressure a cause of? 835, 1311, 1352, 1464, 1516
Apothecaries' Society of London, pass lists, 344, 407, 525, 761, 931, 1055, 1469
Apparatus, sewage-testing, 409
Appeal, an, 60; to the cow, 346
Appendicitis, some practical points associated with, 297; strangulation by band simulating, 546; acute, 841; complicated by the presence of an ovarian cyst, 1077, 1287; and leucocytosis, 1137; acute, influence of early operation on the mortality and results of, 1138
Appendix vermiformis, treatment of abscess in recto-vesical pouch, 426, 639
Appleton, R., the trial of, 1033
Appliances medical, for Alpine climbers, 340
Appointments, club, how elections to are sometimes conducted, 197; Poor-law, salary of, 1108; Post-office in Highlands and Islands of Scotland, 1262; post-office medical, 1328, 1346, 1396; Poor-law medical, competition for, 1522
Archer, Mr G., death of, 706
Argentina, the plague in, 513
Armies, different European, relative condition of, 1087
Armour, D., brain elevator and retractor, 26; breakage of a coin-catcher, gastrotomy, recovery, 893
Armstrong, H., digital deformities, 1370
——— H. G., the simultaneous incubation of two infective diseases, 580
——— W. B., clinical notes on the use of Bossi's delator, 717
Army, British, promotions and appointments in medical staff of, 110, 222, 583, 814, 992; promotions and appointments in medical reserve of, 110, 166, 341, 520, 697, 814, 993, 1051, 1112, 1171, 1226, 1408, 1465, 1518; the medical service of the, 381, 442, 445, 468, 511, 561, 929, 1503; dentists for the, 627; the estimates for, 641; the medical service of and Lord Esher's Committee, 791, 813; appointment of dental surgeons to the, 814; statement of the case of re-employed medical officers of in the South African war, 979; reforms in medical service of, ib.; vision of candidates for, 1060; temperance work in, 1153
——— a citizen, physical training for, 443
——— Council. See Council
——— French, Society of medical officers of, 510; tuberculosis in, 1044
——— the German, and the Hereros, 1094
——— Indian, promotions and appointments in the medical service of, 54, 111, 166, 223, 284, 341, 405, 520, 697, 760, 814, 871, 930, 1052, 1112, 1171, 1227, 1292, 1408; the medical service of and the monthly Army list, 54; successful candidates for medical service of, 284; books for examination for medical service of, 411; study leave, 697; the civil department of the medical service of, 861; the director-general of the medical service of, ib.; pay and prospects in the medical service of, 871, 1106, 1227; military employment in, 930; government restriction on medical fees, 1291; annual dinner of medical service of, 1464
Army, Japanese, the medical service, 507, 567; American nurses for, 678
——— Russian, antidysentery serum for, 1498
——— the United States, the medical department of, 697
Arnold-Foster, Mr., on "accepted professional opinion," 1092
Arranmore, sanitary state of, 393
Arsenic in beer, 643
Arterial sclerosis and hypertonus in their relation to diet and the digestive system, 1297
Arteries, calcareous changes in, 952; cut, first-aid treatment of, 1352
Arterio-sclerosis, discussion on at the Pathological Society of London, 432
Artery, middle meningeal, rupture of by contre-coup, 726; axillary, rupture of, 731
Arthritis, rheumatoid, eye symptoms of, 309; tuberculous, 1137
Arthur, G., facial paralysis following forceps delivery, 246
Ascites, treatment of, 19; due to pressure on the portal vein by enlarged spleen, 429
Ashby, H., a case of scurvy in an infant fed on municipal "humanized" sterilized milk, 479
Ashton-in-Makerfield, contract medical practice at, 254
Aspirator and insufflator, a, 958, 1201
Aspland, W. H. G., multiple vaginal septa, 74
Assam, kala-azar in, 151; charitable hospitals and dispensaries in, 374; sanitary report of, 751
Assessors, medical, in cases of physical injury, 990, 1048
Assistant, the bicycle of, 223; notice to be given by, 872; indoor, the work of, 1228
Assistants, and contracts not to practise, 283; responsibility of surgeon for, 1446 (1524)
Association, After-care, annual meeting of, 449
——— American Medical, annual meeting of, 1437, 1506; the oration in Medicine, 1437; address on State Medicine, ib.; the oration in Surgery, 1438
——— Anglo-American Medical of Berlin, organization and purposes of, 403
——— Asylum Workers', annual meeting of, 1214
——— British, for the Advancement of Science, programme of annual meeting of, 1035
——— British Dental, and British skulls, 60
——— British Laryngological, Rhinological, and Otological, meeting of, 309 (371)
ASSOCIATION, BRITISH MEDICAL, the local organization of, 51, 279; the Year Book of, 322; and medical unions, 399, 460; and the medical service of the army, 442, 445, 468, 511; and medical defence, 443, 513, 577, 755, 805, 863, 919, 988, 1110, 1169, 1223, 1287; notice as to grants by, for scientific research, 752, 804, 859; the Prince of Wales and, 795; notices of motion for representative meeting of, 984; the medico-political work of the, 1089
——— Royal Naval and Military Committee and the War Office Reconstitution Committee, 814, 1032
——— Scientific Grants Committee, reports to, 173, 473, 769, 778, 817, 819, 822, 1413
——— Aberdeen Branch, meeting of, 1455
——— Bath and Bristol Branch, tuberculosis, 305; double ovarian hydrocele, ib.; acute gastric dilatation, ib.; specimens, ib.; meeting of, 606, 1135; electrical treatment of lumbago, 840; parasite of aestivo-autumnal fever, ib.; cysts and other abnormalities arising from branchial clefts, ib.; incontinence of urine in children, ib.; sinus thrombosis, 1314; rheumatic infection through air passages, ib.; cardiac neuroses, ib.
——— Birmingham Branch, epilepsy following mastoiditis and cerebral abscess, 79; sarcoma of femur, ib.; enlarged prostate, ib.; suprapubic prostatectomy, 80; specimens, 80, 368; traumatic neurosis, 367; congenital deficiency of pigmentation in negroes, ib.; enlarged prostate, ib.; decapitation in impacted shoulder presentation, ib.; medico-legal aspect of injuries to the eye, ib.; sarcoma, ib.; hemiplegia, ib.; hydatid mole, ib.; joint disease, ib.; septicaemia, ib.; actinomycosis of face, 547; modern treatment of fibromyoma of the uterus, ib.; disinfection of the hands, ib.; apparatus for administration of creosote, 953; sections of prostate glands, ib.; typhoid fever, ib.; exhibits, ib.
ASSOCIATION, BRITISH MEDICAL, Birmingham Branch, Coventry Division, registration of births and deaths, 248; cases and specimens 248, 430; suppurative diseases of the ear, 430
——— Border Counties Branch, cases, 305
——— Edinburgh Branch, conjoint meeting of with other Scottish Branches, 453
——— Glasgow and West of Scotland Branch, annual meeting of, 1276
——— Gloucestershire Branch, meeting of, 606, 840; personal hygiene and prevention of disease, 1135
——— Grahamstown and Eastern Province Branch, malarial disease in South Africa, 894; modified horse sickness, ib.; aneurysm of ascending aorta, ib.; other communications, ib.
——— Hong Kong and China Branch, adrenalin chloride, 430; meeting of, 547; and Sir F. Treves, 854; fracture of fibula, 1488; caries of ischium, ib.; specimens, ib.; mixed infection in tuberculosis, ib.
——— Lancashire and Cheshire Branch, meeting of, 783, 1316
——— Lancashire and Cheshire Branch, South Manchester Division, on contract medical practice, 1396
——— Metropolitan Counties Branch, City Division, meeting of, 666, 1255; joint disease as encountered in medical practice, 1135
——— Metropolitan Counties Branch, St. Pancras Division, consumptives and sanatoria, 368; specimens, ib.; meeting of, 547, 1136
——— Metropolitan Counties Branch, Walthamstow Division, joint disease as encountered in medical practice, 1135; meeting of, 1255
——— North of England Branch, gumma of cord, 1314; the surgical treatment of tuberculosis, ib.; tuberculous knee, erasion, ib.; tuberculous knee, excision, 1315; tuberculous disease of spine, psoas abscess, radical operation, ib.; tuberculous disease of palmar bursa, ib.; ruptured duodenal ulcer, laparotomy, ib.; a case of post operative myxoedema with tetany, ib.; extensive cavernous angioma, ib.; congenital dislocation of hip, ib.
——— North of England Branch, Tyneside Division, meeting of, 547
——— North Lancashire and South Westmorland Branch, hour-glass contraction of the uterus, 547; fatal poisoning by potassium bromide, ib.; three cases of erysipelas, ib.; Midwives Act, ib.; cases, ib.; specimens, ib.; visit to North Lonsdale Hospital, ib.
——— Oxford and Reading Branch, annual meeting of, 1136; election of president-elect, ib.; cases, ib.; morbid specimens, ib.; ectopic pregnancy, ib.
——— Perthshire Branch, cases, 894; appointment of joint secretary, ib.; presentation to Dr. Urquhart, 912
——— Southern Branch, Portsmouth Division, clinical meeting of, 953
——— South-Eastern Branch, Canterbury Division, meeting of, 1255
——— South-Eastern Branch, Chichester and Worthing Division, case, 18; therapeutics of lung diseases, ib.
——— South-Eastern Branch, Isle of Thanet Division, treatment of adenoid growths, 841; rupture of thoracic aneurysm, ib.; acute appendicitis, ib.; treatment of lupus, ib.
——— South-Eastern Branch, Sevenoaks Division, infantile paralysis, 1315
——— South-Eastern of Ireland Branch, meeting of, 783
——— South Midland Branch, Northamptonshire Division, president's address, 19; the treatment of haemorrhoids, ib.; treatment of ascites, ib.; choroidal sarcoma, ib.
——— South Wales and Monmouthshire Branch, meeting of, 841
——— South Wales and Monmouthshire Branch, Cardiff Division, meeting of, 783
——— South Wales and Monmouthshire Branch, Monmouth Division, meeting of, 548
——— South-Western Branch, cases, 306, 953
——— Staffordshire Branch, patients, 18; appendicitis, 19; speci-

mens, ib.; gastro-jejunostomy for gastric ulcer, 1193; enterectomy, removal of uterine appendages, ib.; amputation of hip-joint, ib.; carcinoma of treatment, ib.; epithelioma of rectum, ib.; prostatectomy, ib.; suprapubic and perineal prostatectomy, 1194; cases, ib.; x-ray and high-frequency currents, ib.

ASSOCIATION, BRITISH MEDICAL, Sydney and New South Wales Branch, confirmation of minutes, 306; new members, ib.; communications, ib; resolutions, ib.; annual meeting and list of officers, 1340

——— Ulster Branch, meeting of, 306; rupture of the uterus, 1136; ruptured extrauterine pregnancy, ib.; lithotomy, ib.; operation for perforated typhoid ulcer, ib.; gastric ulcer, ib.

——— Yorkshire Branch, cases, 783; bacteriology in general practice, ib.; baths, 785; new members, ib.; dinner, ib.; specimens, 1255; gastric ulcer and high-frequency currents, ib.; Porro's operation, ib.

Association, British Medical Temperance, annual meeting of Belfast Branch of, 333; annual meeting of, 1324

——— Building By-laws Reform, report of, 705

——— of Certifying Factory Surgeons and the ventilation of factories and workshops, 21

——— Colonial Nursing, contributions to, 188

——— of Diplomates of the Royal Colleges of Physicians and Surgeons of Edinburgh, 1169

——— Dublin Sanitary, report of, 748

——— Garioch and Northern Medical, summer meeting of, 1158

——— Guy's Hospital Ladies', annual meeting of 1324

——— Home for Inebriates, report of committee of, 1158

——— International, for the Prevention of Tuberculosis, meeting of at Copenhagen, 1331

——— Invalid Children's Aid, conference of, 1213

——— Irish Medical, and the Irish Poor-law Medical Service, 209, 331, 392; a new branch of, 392; and the report of the Poor-law medical system in Ireland, 862; meeting of co. Meath Branch of, 1159; annual meeting of Belfast and District Branch of, 1335; annual meeting of, 1394, 1456; dinner of, 1456

——— Irish Medical Schools' and Graduates', meeting of on St. Patrick's Day, 742; and the Irish Poor-law Medical Service, 1334

——— Lad's Drill, annual meeting of, 1212

——— Medico-Psychological of Great Britain and Ireland (Northern and Midland Division), saline injections and mental disease, 955; general paralysis and workmen's compensation, ib.; annual meeting of Irish Division of, 1277

——— Metropolitan Provident Medical, and the prevention of consumption, 99

——— Metropolitan Street Ambulance, objects, etc., of, 340, 566; invitation to medical men to join, 505; motions to be submitted at meeting of, 1033; general meeting of, 1101; deputation of to the London County Council, 1161; subscriptions towards funds of, 1336

——— National, for the Prevention of Consumption and other Forms of Tuberculosis, meeting of Paisley Branch of, 98; meeting of Cork Branch of, 392; report of council of, 573; general meeting of, 691; report of Glasgow Branch of, 1157; annual meeting of Cork Branch of, 1510

——— National, for Promoting the Welfare of the Feeble-minded, meeting of Oxford Branch of, 386

——— Public house Trust, annual report of, 915

——— of Registered Medical Women, meeting of, 787, 1139

——— Royal Army Temperance, annual meeting of, 1153

——— Rural Housing and Sanitation, deputation of to President of Local Government Board, 564

——— Rural Midwives, conference of with county councils, etc., 284; annual meeting of, 1146

——— St. Andrew Ambulance, annual report of, 1509

——— Scottish, for the Medical Education of Women, report of, 736

——— Scottish Poor-law Medical Officers', annual meeting of, 275

——— Scottish Volunteer Medical Officers new trophy competition of, 1038

——— State Children's Aid, annual meeting of, 1498

——— of Teachers in the Secondary Schools of Scotland, meeting of, 330

Association for the Training and Supply of Midwives, offices and objects of, 83

——— Volunteer Medical, annual dinner of, 968

——— Western Counties Dairy Farmers', objects of, 646

Assumption of title, 990

Asthenopia, paper on, 308

Astley Cooper prize. See Prize

Asylum, Ballinasloe District, the medical superintendentship of, 914, 1039, 1160, 1394, 1457

——— Bangour, progress of building of, 800

——— Bristol Lunatic, report of, 1234

——— City of London Lunatic, report of, 1234

——— Cork District Lunatic, report of, 1394, 1510

——— Derry Lunatic, report of, 210

——— Earlswood, appeal for funds for, 1502, 1515

——— East Sussex County Lunatic, report of, 1234

——— Grahamstown, report of, 469

——— Hertfordshire County, report of, 701

——— Infant Orphan, Wanstead, the committee and medical staff of, 1344, 1390

——— Joint Counties, Carmarthen, report of, 469

——— the Kingseat, opening of, 1218

——— Middlesbrough, report of, 1234

——— Monaghan and Cavan, overcrowding in, 570

——— Richmond Lunatic, estimates for, 268

——— Royal, Edinburgh, report of, 568

——— Royal, Gartnavel, report of, 1234

——— Warneford, Oxford, annual report of, 520

Ataxia, Frenkel's treatment of, 875

Athletics by proxy, 1389

Atkey, O., the inquest on Mr. Whitaker Wright, 340

Atkins, J. B., National Physical Training, an Open Debate, rev., 1318

Atkinson, F. P., the stage of invasion of measles, 228

——— S. B., life, birth, and live-birth, 1149

Atmospheric pressure, is it a possible cause of cerebral haemorrhage? 835, 1311, 1352, 1464, 1516

Atresia, vaginae, the perils of, 853

Atrophy, acute yellow of the liver, 892; primary optic, due to lead, 1429; optic, after post-partum haemorrhage, ib.

Atropine eye-drops, poisoning from, 189; treatment of inebriety by, 1006

Attendance, medical on soldiers on sick furlough, 111; on midwifery cases by Poor-law medical officers, 147, 204; on minors, liability for, 523; on servants, responsibility of master's agent for, 643; medical, powers of relieving officers in reference to granting orders of, 994, 1174; medical, on rural postmen in Scotland, 1172

Attendant, medical, position of in criminal cases, 1466

Atterbury, W., an efficient ambulance service for London, 580

Attfield, D. H., decoration of, 1442

——— J., Chemistry, General, Medical, and Pharmaceutical, rev., 312

Audistère, C., De la Dégénérescence Cancereuse de l'Ulcère de l'Estomac, rev., 494

Auricle, left, tumour of, 1316

Australasia, insanity in, 565

Australia, fees to medical witnesses in, 58; a medical man as delegate to the Commonwealth of, 288; prevention of consumption in, 573, 616; Dr. Dowie in, 859; the plague in, 1204

Austria, the medical profession in, 121

Automobiles for medical men, 142, 199, 288, 1505; regulations for, 872; in India, 996; and medicine, 1034

Axe, J. W., on milk epidemics and bovine mammitis, 619

Ayr, proposed consumptive sanatorium for the county of, 41

B.

Baber, E. C., a portable lamp for laryngoscopic purposes, 612

Babies, school, and measles, 909, 989; school, 1110

Babinski, treatment of incontinence of urine by lumbar puncture, 1166

Baby, expected, clothes for, 1471

Baccelli, G., resumes work as clinical teacher, 627

Bacilli of tubercle, method of demonstrating in the urine, 13; typhosis and coli communis, a rapid method of preparing Brigalski and Conrad's medium for the differentiation of, 190 (281); of plague, a new method for detecting in the blood, 544; of dysentery, 626

Bacillus, a new pathogenic (B. carnis), 193; enteritidis sporogenes, a method of isolating, ib; colon, from a case of emphysematous gangrene, 194; coli communis, action of blood serum from cases of acute mental disorder on, 826; of tubercle, strains of the, 847; dysinteriae, asylum dysentery in relation to, 1002; typhosus and B. coli communis, differentiation of by means of the photographic plate, 1004

Bacterial test of pollution, 469, 526

Bacteriological examination of water, value of, 207

——— inquiry into the sterilization of hands, 1364

Bacteriology in general practice, 783; of climatic bubo, 953; of so-called "sterilized" milk, 1122; of acute rheumatism, 1223

Badger, Mr. S. T., death of, 110

Bäumler, C. G. H., the early diagnosis of tuberculosis of the lungs, 769

Bagnall, report of small-pox hospital at, 872

Bailey, W., leprosy, 588

Bainbridge, F. A., on the adaptation of the pancreas, 778

Bakehouses, underground, 1233

Baker, Brigade-Surgeon J. B., death of, 468

Baking powder, the effects of, 836

Balconies as sanatoria, 105, 163, 400, 639

Baldness, quackery and, 205

Baldwin, F. A., thermometer for the tropics, 438

Balfour of Burleigh, Lord. See Lord

Ball, Sir C. B., appointed honorary surgeon to the King, 1217

——— Sir R., address of at Birmingham University, 1404

Ballachulish, the quarriers and their medical officer, 203, 526

Ballance, H. A., vaccination and politics, 216

Ballantyne, J. W., Bossi's dilator, 193; the obstetric satchel, a problem in asepsis, 1303

Ballingall, G. A., potassium bromide in influenza, 725

Banana, a, when is it ripe? 1271, 1412

Bancroft, T. L., some further observations on the life-history of filaria immitis Leidy, 822

Band, strangulation by simulating appendicitis, 546

Banks, Sir W., the modern surgery of the prostate, 307

Barbers, antiseptic, 43; and infection, 876

Barcelona, the climate of, 411

Bardswell, N. D., the economic value of the sanatorium treatment, 1016

Barker, A. E. J., the medical profession and trade advertisements, 283, 583

——— W. H., Mental Diseases, rev., 1199

Barling, A. S., pile-suture forceps, 1024

——— H. G., prostatic enlargement and its treatment by Freyer's method, 232; gastro-jejunostomy, 493; gastro-jejunostomy for pyloric stenosis, gastric ulcer, and some other non-malignant conditions, 1064

Barnard, H. L., pulsating exophthalmos, 77

Barnes, A. S., cerebral tumour, 250

Barnett, H. N., the medical profession and alcohol, 50; presentation to, 1013

Barr, J., the treatment of pneumonia, 457; the treatment of serous effusions, 649; improvements in dietetics of diabetics, 693; the introduction of pure air into serous cavities, 808, 923, 988, 1048

——— J., introductory address to Otological Society of the United Kingdom, 370

Barrack-room equipment, 1053

Barratt, J. O. W., the reaction of protoplasm in relation to chemiotaxis, 1413

Barrett, H., puerperal sepsis, 1049

Barristers, doctors v., 228

Barrs, A. G., typhoid perforation, 194

Bartholow, Dr. R., obituary notice of, 1291

Barton, J. K., the pathogenesis of gout, 162; atmospheric pressure and apoplexy, 1311

——— W. M., A Thesaurus of Medical Words and Phrases, rev., 495

Baruch, S., The Principles and Practice of Hydrotherapy, rev., 1141

Bashford, E. F., the significance of the zoological distribution, the nature of the mitoses, and the transmissibility of cancer, 259, 269; graphic records of experiments on immunity, 683

Basin, a self-retaining ear-douche, 313

Bateman, A. G., doctors in Parliament, 339; fee for restoration to "Medical Register," 1168, 1346

Bath, radium in the waters of, 96, 586

Baths, medicated public, 287

Batten, F. E., complete ophthalmoplegia externa with blindness of acute onset, 249; lumbago, 279

Battle of the clubs at Oldbury, 40, 47

Battle, W. H., fracture of the spine without symptoms, 249; femoral hernia, 549

Baudry, S., Etude Médico-Légal sur les Traumatismes de l'Oeil et de ses Annexes, rev., 842

Baumann, E. P., the value of Hammerschlag's method in clinical estimations of the specific gravity of the blood, 473

Bavaria, homoeopathy in, 1382

Bazaar, the Mirus, 1394

Beadnell, Fleet Surgeon, C. M., a correction, 1291

Beale, P. T. B., Aids to Physiology, rev., 312

Bearer companies, book on training of, 587
Beatson, G. T., cancer and its origin, 51, 278
Beattie, Dr. G. W., death of, 1111
——— T., gumma of the cord, 1314
Beaumont, W. H., eye symptoms in rheumatoid arthritis, 309
Beckmann, H., Das Eindringen der Tuberkulose und ihre rationelle Behandlung, 671
Béclère, A., Les Rayons de Röntgen et le Diagnostic des Maladies Internes, rev., 1260
Bed punkah, a, 1200
Beddard, A. P., relation of ammonia nitrogen to the total nitrogen in diabetes, 549
Bedford, C. H., A Clinical Handbook of Urine Analysis, 1082 (1236)
Beer, arsenic in, 643
Beevor, Sir H., therapeutics of lung diseases, 18
Beggs, S. T., the management of the icebag in the treatment of pneumonia, 488
Behring, E., v., serumtherapeutics of tetanus, 796
——— Institute. See Institute
Belben, F., atmospheric pressure and apoplexy, 1464
Belfast, proposed consumptive sanatorium for the workhouse at, 42, 97, 268, 1217; the health of, 97, 393, 630, 914, 1160, 1394; consumption in, 97; the milk supply of, ib.; small-pox in, 268, 1511; the Board of Guardians of and the Local Government Board, 1100; sewage purification scheme for, 1277; visit of the Lord Lieutenant to, 1394
——— Lough, the foreshore nuisance in, 332
Belfrage, S. H., repetition of prescriptions containing dangerous drugs, 337
Belgium, infant mortality in, 752
Bell, J., a new method for determining plague bacilli in the blood, 544
———Dr. R. (Canada) decoration of, 526
———R. (Glasgow) cancer and its origin, 162, 460; the biological significance of malignant growths, 866
———W. B., swallowed foreign bodies, 1080
Belladonna poisoning, 1472
Bengal, report of sanitary commissioner of 526; veterinary administration in, 618
Benham, W. G., The Laws of Scientific Hand Reading, rev., 673
Bennecke, Operationsübungen an der Leiche, rev., 311
Bennett, N. G., degrees in dentistry, 759
———W. E., a case of syphilitic convulsions preceded by marked somnolence of long duration, 594
Benson, F. R., a self-supporting hospital, 1047
Bentley, C. A., Leishman-Donovan bodies in kala-azar, 861
Bequests, 30, 73, 136, 200, 210, 331, 450, 452, 470, 593, 1028, 1088, 1158, 1324, 1427, 1442
Béraneck's tuberculin, 194, 735
Berck-sur-Mer, the Maritime Hospital at, 1375; the Hôpital Rothschild at, 1376
Bergmann, E. v., Anleitende Vorlesungen für den Operations-Cursus an der Leiche, rev., 1319
Bergouignan, P., Le Traitement Renal des Cardiopathies Artérielles, rev., 80
Beri-beri, the urine in, 480; watercress in the treatment of, 564; acute or pernicious, case of, 835, 1427
Berlin, correspondence from, 103, 214, 860, 1221; the prevention and treatment of venereal diseases, 103; the Emperor and Empress Frederick Hospital, ib.; ankylostomiasis in miners, 214; popular lectures on tuberculosis, 214, 860; quackery in Germany, 214; disease notification and death registration, ib.; the Imperial family and revaccination, 860; tuberculosis in prisons, ib.; proposed experimental investigation of syphilis in Borneo, ib.; cremation, ib.; vacation courses in, 1176; Professor Lassar on radium, 1221; post-operative sanatoria, ib.; the Municipal Hospital, ib.; the Institution of School Medical Officers, 1222
Berlioz, note on, 152
Berridge, W. A., Holman testimonial fund, 862
Berry, Miss F., on the physical examination of 1,580 girls from elementary schools in London, 1248
——— J. B., treatment of lupus, 841
Bettencourt, A., La Maladie du Sommeil, rev. 1258
Beverley, M., life insurance examinations, 49, 161
Blais, Traité d'Analyse Chirurgie Quantitative, rev., 312
Bickerstetth, R., intravesical separation of urine, 433
Bickham, W. S., A Textbook of Operative Surgery, rev., 311
Bicycle, the assistant's, 223
Biden, Fleet-Surgeon E. J., wounded in naval actions, 1060
Biernacki, J., intubation in laryngeal diphtheria, 1127
Biggs, H. M., the administrative control of tuberculosis, 626; address on State Medicine at the American Medical Association, 1437
Bilharzia haematobia in Persia, 725
Bill, an old medical, 1176
——— the Education (Scotland), leading article on, 1445
——— Medical Acts Amendment, an address on, 889; correspondence on, 1346
——— Lunacy Acts Amendment introduced in the House of Commons, 1214, 1279, 1280; leading article on, 1269; correspondence as to, 1286, 1344, 1406
——— Nurses Registration, introduced into the House of Commons, 508
——— the Revaccination, 1904, notes on, 447; manifesto in favour of, 790; the National Vaccination League and, 1036; petition in favour of, 1336
Billington, W., otitis media, 370; cerebral abscess following otitis media, operation, recovery, 836
Bingham, J. J., early pregnancy, 1472
Biological signifiance of maligunant growth, 800, 866
Biology, reviews of books on, 81
Bird influence of adrenalin on the nitrogenous metabolism of the, 549
Bird, A. C., adrenalin in pulmonary haemoptysis, 191; an unusual dislocation of the clavicle, 1191
——— Major R., and the Ameer of Afghanistan, 1324
Birds, trypanosoma in, 789
Birmingham, correspondence from, 575, 692, 754, 805, 918, 1046, 1107, 1404; the Hospital for Sick Children, 575; the General Dispensary, ib.; death of Mr. Shirley Page, ib.; lectures by Sir Oliver Lodge, 575, 692; the General Hospital, 692; Birmingham District Nursing Society, ib.; health of Erdington, ib.; the Huxley lecture, 754; the Queen's Hospital, 754, 1404; the Moseley Hall Convalescent Home for Children, ib.; the Birmingham Medical Institute, 805; care of the feeble-minded, ib.; the Ear and Throat Hospital, ib.; National Trades Exhibition, ib.; a new lunatic asylum for, 918; care of the feeble-minded, ib.; judgement under the Workmen's Compensation Act, 1107; Midland Counties Asylum, Knowle, ib.; the Dudley Guest Hospital, ib.; resignation of Dr. Rickards, 1404
Birt, Lieutenant-Colonel C., lesion of post-central convolution without paralysis, 598
——— G., potatoes and glycosuria, 544
Birth, live, middle-ear test of, 348; treatment of depressed fracture of the skull caused during, 880
Birth-rate, in Germany, 391; the diminishing, and what is involved by it, 427; the diminishing, 573, 636, 694, 756, 807, 865, 1051; of New South Wales, 969; the relation between infantile mortality and, 1210
Births, multiple, hereditary tendency to 75; and deaths, registration of, 248
Bishop, E. S., accidental haemorrhage in pregnant women, 20; Essentials of Pelvic Diagnosis with Illustrative Cases, rev., 371; gall-bladder surgery, 607, 886; and Dr. Wackerhagen, 1236
Biss, H. E. J., isolation hospitals, 517
Bissett-Snell, Deputy Surgeon-General W., death of, 583
Bitter cup, a 1114
Bladder, fetal, labour impeded by cyst of, 190; the use of oxygen gas in distending the for cystoscopy, 539; villous tumour of, suprapubic cystotomy, recovery, 782; ruptured, and diaphragmatic hernia, 1487
Blair, Dr. A., death of, 645
Blaker, P. S., haemophilia in a female child, 189
Blanchard, Professor, visits London School of Tropical Medicine, 41
Blanchet, on automobiles and medicine, 1034
Bland-Sutton, J., fibroids complicating pregnancy, 1430
Blau, post-mortem delivery in hospital and in private, 796
Bleeding in pneumonia, 365, 638
Blennerhassett, Sir R., Queen's College, Cork, 1168
Blindness attributed to methyl alcohol, 151
Blomfield, J. E., cancer and its origin, 106
Blondlot rays, the romance of the, 35; leading article on, 50; emission of by nerve centres, 150
Blood, the value of Hammerschlag's method in clinical estimations of the specific gravity of the, 473; recurrent fever associated with spirilla in the, in a patient from Gibraltar, 538; a new method for detecting plague bacilli in the, 544; coagulation time of the in pregnant and puerperal women suffering from albuminuria and eclampsia, 709; the glycogen reaction in, 880; changes in the at high altitudes, 1097
——— affinities, immunity and, 906
——— pressure instruments, 987, 1048, 1109, 1168
——— serum from cases of acute mental disorder, action of on the bacillus coli communis, 826
"B. N." Guide to Motor Cycling, rev., 437
Board of Agriculture, the, and epizootic laryngitis, 904
——— Central Midwives, meeting of, 47, 332, 572, 801, 1205, 1323; and Irish midwifery nurses, 209, 267, 332, 395, 569, 572, 976, 1100; memorandum of on Midwives Act, 1041; correspondence as to, 1341, 1406
——— Edinburgh District Lunacy, meeting of, 1038
——— Local Government, memorandum by Editor of British Medical Journal on reconstitution of, 27; deputation to President of, 501, 564; on the tenure of medical officers of health, 924; Lord Jersey's Committee and, 1446
——— Local Government for Ireland, report of on sewage contamination of shellfish, 497; and the Poor-law medical system in Ireland, 1099; and the Belfast Board of Guardians, 1100; the economies of, 1394
——— Metropolitan Asylums and the investigation of small-pox, 1093, 1206
——— Quarantine of Egypt, appointments of, 468
——— School, for London and the ophthalmic departments, 38
Bohemia, prevention of consumption in, 750
Boissard, a rare mode of poisoning by sublimate, 450
Boisseau, treatment of incontinence of urine by lumbar puncture, 116
Bombay, hospitals and dispensaries in, 374; sanitary report of, 618; report of health officer of, 702
Bone, histology of, 59
——— cyst. See Cyst
Bonesetter, the boom of the, 1505
Bonney, V., pyometra, 308
Books, inspection of after sale, 1292, 1467
Bootle, report on summer diarrhoea in, 456
Bordeaux, opening of nursing school at, 346
Bossi's dilator, paper on, 193; clinical notes on the use of, 717
Boswell, A., a large dose of cloral, 996
Bottles, hot-water, action for burns from, 282
Bouchard, Professor, presentation to, 515
Bowen, O., adrenalin in pulmonary haemoptysis, 781
Bowlby, A. A., pain, its importance in diagnosis and tendency to mislead, 194; the Infant Orphan Asylum, Wanstead, 1344
Box, C., the tendon reflexes in uraemia, 781
Box beds, 915
Boxer, E. A., haemoglobinuric fever, 1078
Boy, feeble-minded, institution for, 647
Boyce, R., the antimalaria campaign at Ismailia, 760
Boycott, A. E., the detection of ankylostoma infection, 1233; alleged illness of, 1498
Boyd, Mrs. S., fibroids complicated by pregnancy, 730
——— S., intraperitoneal abscess due to pneumococcus, 128
Boyle, H. E. G., a somnoform inhaler, 140
Bradford, quackery in, 1053
Bradford, J. R., "internal secretions" in disease and treatment, 727
Bradshaw, T. R., the pathogenesis of gout, 161
Brain, dermoid tumours of, 77; racemose aneurysm of, ib.; tumour of, 250, 307
——— elevator and retractor, 26
Braithwaite, P. F., twins, different sex, double amnion, common chorion, 952
Branch, C. W., treatment of ankylostomiasis, 545
Brand, A. T., cancer and its origin, 402
Brandy, what is it? 1330
Branfort, Colonel A. M., appointed president of the Medical Board, India Office, 40
Brazil, the plague in, 30, 513, 615
Breach of colliery contract, 342
Breast, hypertrophy of and pregnancy, 388; epithelioma of, cured by castration, 1045; hypertrophy of, 1175
——— feeding of infants of factory hands, 1339
Breathing in living beings, 623
Breslau's test, 227
Brewis, N. T., some renal cases, 492
Brice, Fleet Surgeon, notices of medical men in the lay press, 700
Bridgend, the water supply of, 207
Briggs, H. (Liverpool), accidental haemorrhage in pregnant women, 20; placenta praevia, 492
——— H. (Southport), death of, 1056
Bristol, correspondence from, 862, 1514; reports of the Royal Infirmary and General Hospital, ib.; the union infirmary at, 923; small-pox, 1514; diphtheria, ib.
British Columbia, a university for, 606; practice in, 1059
——— Empire, leprosy in, 116, 348
Broadbent, G. H., the local organization of the British Medical Association, 51, 279
——— Sir W. H., postural albuminuria, 5; on Sir E. Sieveking, 592
Bronchiectasis and empyema, 5
Bronchus, foreign body impacted in, 729
Bronner, A., gonorrhoeal conjunctivitis and hydrogen peroxide, 432
Brook, W. F., congenital hour-glass stomach, 1073

Brook, W. H. B., total paraplegia due to vertebral caries, 24; X rays in the diagnosis of pulmonary tuberculosis, 114
Brookhouse, J. O., the sanatorium treatment of consumptives, 62
Brooks-Lank-James, C., asthenopia, 56
Brouardel, P., Les Intoxications, rev., 1425
Brown, Dr. A., death of, 7
——— Mrs. E., Recent Excavations in the Roman Forum, 1504; rev., 1511
——— C., Clinical lectures in 1744, 135
——— J. J. G., life insurance examinations, 107
——— Dr. N. M., death of, 117
Bruce, A., high-tire quency currents, 667
——— Colonel D., on sleeping sickness, 575
——— W. J., 1480, 1620, 2160, Poor-law medical relief in Scotland, 11
Brunton, Sir L., on "internal secretion" in disease and treatment, 667; retirement of, 696; on Professor E. J. Marey, 1200; on cancer of the pancreas, 1353
Bryan, C. D., post-partum haemorrhage treated by adrenalin, 1254
Bubo, lunatic, bacteriology of, 253
Buchanan, R. J. M., perforating gastric and duodenal ulcers, 442; pleural effusion, 1
Buck, J. A., vasectomy for enlarged prostate, 240
Buda-Pesth, female hospital physician in, 14
Budin, on the feeding of infants, 446; breast-feeding of infants of factory hands, 1359
Buenos Ayres, correspondence from, 14
Buist, R. C., gynaecology and the thyroid gland, 54
Bulk and ability, 251
Buller, blindness attributed to methyl alcohol, 151
Bullin, Mr. F., death, 1111
Burgess, A. H., case of pancreatatic cyst, laparotomy and drainage, 256
Burgoyne, Burbidges, and Co., a disclaimer, 2
Burial, premature, 206
Burke, W. H., case of strangulated inguinal hernia, perforation of the bowel, resection of 18 in. of gangrenous gut, recovery, 1653
Burmah, hospitals and dispensaries in, 442; sanitary report of, 721
Burns, X ray treatment of, 1256
Burns, W. C., rupture of the middle meningeal artery by contrecoup, 7 6
Bury, J. S., trauma in relation to disease of the nervous system, 1207
Bushnell, F. G., doctors in Parliament, 1; the proposed Ministry of Health, 1; structural links in malignant growths, 1665; acute or pernicious beri-beri, 1447; the so-called "pancreatic reaction" in the urine, 1462
Bussorah, medical practice in, 1317
Buzzard, F., the science and art of medicine, 17; dermoid tumours of brain, 77
Byers, J. W., on glandular fever, 71 (172); portrait of, 65, 74
Byrne v. Thorne, 1468, 1446
——— J. S., the metric system of weights and measures, 1472
Bywater, H. H., iridectomy as a prophylactic measure in glaucoma, 45

C

Caesarean section, case of, 1; vaginal, 1; in eclampsia, 1428
Caisson disease. See Diseases
Camantarients, L. A., horseshoeing in the streets, 20
Calcareous changes in heart, diaphragm, and arteries in a patient 2 years of age, 2
Calculi, vesical, a series of 120 operations for, 1125; urinary, description of, 1236
Calculus renal, X rays and, 1; renal, passage of through a lumbar sinus, 534, 1472
California, practice in, 1
Calomel, ecthemoration of first injection of in syphilis, 1429
Cambridge, Duke of. See Duke
Cameron prize. See Prize
——— M., mesenteric cyst, 1429
Cammidge, P. J., the chemistry of the urine in diseases of the pancreas, 776, 6; bacteriology in general practice, 1665; the so-called "pancreatic reaction" in the urine, 1462
Camp, a tuberculosis, at Pensacola, 1
Campagna. See Rome
Campbell, A. W., histological studies on cerebral localization, 326
——— C., cane sugar and beetroot sugar, 645; radium and tuberculous ulceration, 714
——— H. J., the causation of cancer, 1604
——— R., tetanus following operation for radical cure of hernia, 132; influence of skin-grafting on the recurrence of morbid growths, 511; congenital hypertrophic stenosis of the pylorus, pyloroplasty, result, 1450
Canada, notes from, 43, 333, 631, 689, 855, 1090, 1278, 1453; new and enlarged hospitals, 4; colleges in, ib.; small-pox and typhoid fever in, ib.; the Quebec College of Physicians and Surgeons and British diplomas, 224; enteric fever at Montreal, ib.; aneurysm of abdominal aorta, ib.; radium, ib.; congress of French-speaking physicians, ib.; practice in, 4; prevention of consumption in, 1665, 1715; conference on school hygiene, 224; public health department of Ontario, ib.; the death-rate of Ontario, ib.; International Congress of Tuberculosis, ib.; the National Sanatorium Association, ib.; Christian Scientists, ib.; McGill University, 632; Professor Halliburton, ib.; the Toronto Pathological Society, ib.; the Hamilton General Hospital, ib.; the Ontario Epileptic Hospital, ib.; testimonial to Professor Osler, 1; nursing fees, ib.; undesirable immigrants, ib.; the University of Manitoba, ib.; alcohol in proprietary medicines, ib.; the Canadian Medical Association, 1665, 1715; lunatic and idiot asylums, Ontario, 855; institution for the feebleminded, ib.; the Ontario Anatomy Act, ib.; public health of Ontario, ib.; sanatoria for consumptives, ib.; professional interests in Ontario, ib.; radium-bearing minerals, ib.; school drill and fire rescues, ib.; the late Dr. Langster, 856; the cigarette habit in, 856; congress of French-speaking physicians, 1453; a medico-political association, ib.; decapsulation in Bright's disease, ib.; gonorrhoeal endocarditis, ib.; lung capacity and thoracic type, ib.; sanatorium in South Alberta, 1278; snow and lake water, ib.; leprosy, ib.; Imperial Service Order, ib.; Toronto University, ib.; the senile insane, ib.; kidney decapsulation, ib.; qualification by private Bill, 1394; Queen's University, Kingston, 1395; waterborne typhoid, ib.; tinned foods and "improved" milk, ib.; bacteriological diagnosis, ib.; sanatoria for consumptives, 1453; notification of tuberculosis in Ontario, ib.; anthrax, ib.; sewage disposal in Toronto, ib.; instruction in public health, ib.; municipal supply of diphtheria toxin, ib.; comparative pathology, ib.; hospitals, refuges and orphanages of Ontario, ib.; notification of births, 1454
Canal, the Panama, precaution and treatment of sickness amongst workmen in, 4; sanitation of, 1449
Cancer. See Carcinoma
——— Research Fund. See Fund
Cane, L., a case of severe and fatal haemoptysis in a child aged 3 years, 1611
Cant, W. E., the operation for trichiasis, 113
Cantharides, poisoning by, 1175
Canthe, J., bacteriology of climatic bubo, 253
Canvassing, personal, by medical practitioners, 1665; systematic, the General Medical Council and, 1458
Cape Colonial Medical Service, promotions and appointments in, 111
——— Colony, the plague in, 70, 154, 275, 515, 615, the leper question in, 912
——— of Good Hope, correspondence from, 277; the South African Medical Congress, ib.
Capetown, the medical profession in, 107; the health of, 170
Cappelletti, L., La Neurastenia, rev., 1
Capsule, anterior, of the lens, 1200 perforating wounds of the, 1311
——— formation by diplococcus pneumoniae in culture, 1
Capillaries, dilated, treatment of, 348
Carbolic acid, turpentine as an antidote in poisoning by, 1024
Carcinoma, and its origin, 51, 115, 176, 1665, 1715, 1744, 1744; note on the distribution of, in the Freemington Union Rural District, 1665; Dr. Otto Schmidt's treatment of, 55, 1665, 1715; in Spain, 1665; the parasitic theory of, 11, 1665; research as to, in America, 1665; the etiology of, 1665; the cholin test for, 1665; its treatment by colectomy, 1665; in Ireland, an economical question, 1665; X ray treatment of, 1665; research as to, in Prussia, 1665; the distribution of, 471; M. Doyen's treatment of, 1665; research on, at Middlesex and Fulham Hospitals, 1665; extensive, of the oesophagus, 1665; cardiac dilatation in cases of, of the stomach, broken vessels and, 1665; the causation of, 1665; recent mortality from, in the Thames Valley, 1665; metastasis in, 1665; treated by X rays, 1665; of the oesophagus gastrostomy, 1665; reviews of books on, 1665; pericystic simulating, 1665; research as to, in Liverpool, 1665; research as to, in Prussia, 1665; research in, 1471; of rectum, 1665; recurrent, treated by X rays, 1665; spread of, in Spalding, 1254; research as to, at the Middlesex Hospital, 1271; diminished cardiac dullness in patients suffering from, 1346; of the pancreas, Sir L. Brunton on, 1665; primary, of the ovaries, 1665; war against, 1245
Cardiff, Sir W. Macewen at, 324
Caries, 1665, with abscesses, 1665
Caries, J. [illegible] des dents; Ab[illegible] sorption et l'Elimination des Substances Etrangères Organisée, rev., 1
Carlyon, E. L., tool, drilling and tapping plus, 1251
Carnall, E., actual convection of small pox, 1665
Carnegie, Mr., establishment of fund for benefit of persons dependent on those losing life in heroic efforts to save life, 1665
——— Institute. See Institute
Carriages, railway, for tuberculous patients, 1665
Carroll, J., the etiology of yellow fever, 1665
Carter, E. C., lumbago, 117
——— H. B., a case of ruptured bladder and diaphragmatic hernia, 1487
——— R. B., on physiology in education, 1665
——— W., Malarial fever, 1665
Carwardine, T., double ovarian hydrocele, 1665 cysts and other abnormalities arising from branchial clefts, 1665
Casellis, G. A., leprosy and fish eating, 1665
Cases, a, with a moral and a sequel, 1665
Caskie, W. A., venesection in opium poisoning, 1665
Cassell's Family Lawyer, rev., 1140
Cassie, A. W., observations on temperature, 664
Cassirer, R., Tabes und Psychose, rev., 1665
Castlereagh rural district, health of, 1665
Castration, a modified operation of, 127; epithelioma of both breasts cured by, 1665
Catalogue, International, of Scientific Literature, rev., 1665
Cathcart, C. W., essential similarity of innocent and malignant tumours, 1665
Catheter, rubber, retention of after external urethrotomy, 1665
Catheters, sterilization of, 637
Cator, R., Tem-i-otep, the Egyptian god of medicine, Egyptian views as to the circulation, rest in incipient valvular disease, 137, 1665
Cattle, C. H., bilateral neuritis of fifth and sixth cervical nerves, 595
Cautery, hot-air, 433
Caution, a, 135
Cautley, E., the feeding of infants, 807, 922
Cavers, F., structural links in malignant growths, 1665
Cavities, serous, the admission of pure air into, 759, 808, 868, 923, 988, 1048
Cayley, Colonel H., death of, 1665; obituary notice of, 511; the late, 1665; the estate of, 1665
Celli, A., Manuale dell 'Igienista, rev., 1140
Censures on medical men by coroner's juries, 1665
Central Africa, natives of in the Transvaal, 1665
Centrum ovale, cylindrical epithelioma in the, 1665
Cerebral. See Brain
Certificate, for workmen's compensation, 1665; of lunatic in workhouse, 1254; of insurance, liability for, 1665
Certificates, medical, by district medical officers, 1665; for school children, 413, 1665; of analysts and milk warranties, 1665; medical for non-attendance at school, 1665; accident assurance, charges for, 1427; school in Scotland, 151
Certification of lunatics in workhouses, 1665
Cerumen, accumulation of, 875
Cervix uteri. See Uterus
Ceylon, sanitary report of, 751
Chailletia toxicaria. See Ratsbane
Chaldecott, J. H., repetition of prescriptions containing dangerous drugs, 1665
Chamberlain, Mr., the health of, 1665
Chantemesse, Dr., appointed inspector general of sanitation in France, 97, 515
Chapman, C. W., the medical profession and alcohol, 1665
——— H. C. A Manual of Medical Jurisprudence, Insanity and Toxicology, rev., 1665
——— J. E., the economic value of the sanatorium treatment, 1665
Charges against a hospital staff, 1467
Charity administration, instruction in, 1665
Charles, J., neuritis in coal miners, 1665
Charlottenburg, museum of security at, 1665
Chemiotaxis, the reaction of protoplasm in relation to, 141
Chemistry, reviews of textbooks on, 1665; of the urine in diseases of the pancreas, 776
Chemists' premises, nameplate on, 523
Cheshire, and rev., 1665
Chest, common causes of error in examination of the, 1241
Chevers, M. J., case of adiposa dolorosa in a male, 781
Chiari, O., Die Krankheiten des Rachens, rev., 1665
Chicago, instruction in charity administration at, 1665; the spitting disease at, 1665; typhoid and anthrax at, 1665; the Presbyterian Institute at, 1665; Michael Reese Hospital, 1665; Rush Medical College, 1665; Cook County Hospital, 1665
Chicken-pox, notification of, 1665
Child, aged 7 years, persistent pericarditis associated with empyema in a, 1665; respiratory spasm followed by cessation of breathing in a, 1665; female, labia phalloidea in a, 1665; [illegible]

warning sign of danger to the ensuing labour [illegible] aged [illegible] years, severe and fatal [illegible] epilepsy [illegible] operation, complete relief [illegible] artificial leg for [illegible]
Childhood, the study of [illegible] treatment and prevention of tuberculosis in [illegible]
Children [illegible]
[illegible] certificates [illegible] in Edinburgh [illegible] epileptic, [illegible] the care of, in New South Wales, [illegible]
school, medical examination of, [illegible] alleged to be mentally deficient [illegible] sucking [illegible] scarlet fever [illegible] Pennsylvania [illegible] of [illegible] the occurrence of primary tuberculous [illegible] the [illegible] primary [illegible] tuberculosis [illegible] inspection [illegible]
Chili, the plague in [illegible]
Chimpanzee, some experiments [illegible] scarlet fever and measles [illegible]
China, the plague in [illegible]
Chinese [illegible]
Chittenden, R. H. [illegible]
Chloral, a large [illegible]
Chloretone and adrenalin [illegible]
Chloride [illegible] See Ethyl chloride
Chlorodyne habit, tre[illegible]
Chloroform, administration [illegible] apparatus [illegible] death [illegible] the preparation of [illegible]
Chlorosis [illegible]
Crokey, N. [illegible] The Treatment of [illegible] with Professor [illegible]
Cholera in Persia [illegible]
Cholmeley, W. F. [illegible] through [illegible] removal of uterine [illegible]
Chorea [illegible]
Christ [illegible]
Christy, C. [illegible]
Chromatin [illegible] malaria [illegible]
Church, A., Nervous and Mental Diseases, rev. [illegible]
[illegible]
Cieranowski [illegible] Arterial [illegible] Hypertension and Allied [illegible] Processes [illegible] rev. [illegible]
[illegible]
Clark, A. [illegible]
Clarke, A. B. [illegible]
[illegible]

Clutton, H. H., hydatid disease in the pelvis, [illegible]
Coagulation of the blood in pregnancy and [illegible]
Cochrane [illegible]
Coats, J., A Manual of Pathology, rev. [illegible]
Coates, Miss E. P., death of [illegible]
Cobbett, Colonel R. de la C., death of [illegible]
Cocaine, operation for strangulated hernia under [illegible]
——— **habit, the, in Washington**, 4
[illegible] hospital [illegible]
Cock [illegible] treatment of [illegible]
[illegible] D. J., medicine in the modern university [illegible]
Cohen, E., Physical Chemistry for Physicians and Biologists, rev. [illegible]
——— S. S., A System of Physiologic Therapeutics, rev. [illegible]
Coin [illegible], breakage of [illegible] gastrotomy, recovery [illegible]
——— debased, and quack doctor [illegible]
Colectomy, treatment of carcinoma of the colon by [illegible]
Coleridge, Hon. S., and Mr. F. E. Pirkis, [illegible] penitent's progress, [illegible]
Colic, appendicular, [illegible]
Colitis, membranous, reviews of books on, [illegible] acute septic, due to milk poisoning, [illegible] muco-membranous, tetany associated with, [illegible]
Colon, ascending, malignant disease of, [illegible]
College, Epsom, honours won by scholars from, [illegible] annual meeting of, [illegible]
——— **of Medicine, Newcastle-upon-Tyne, new laboratories for**, [illegible]
——— Owens, Manchester, the merging of [illegible] the lectureship in laryngology at, [illegible] meeting of Court of Governors of, [illegible] post-graduate courses at, [illegible] the Bill for passed, [illegible] re-erection of Dr. Schunck's laboratory at, [illegible]
——— **Queen's, Belfast, appeal for Government aid**, [illegible] and the Ulster Medical Society, [illegible] donation to, [illegible] lectureship in medical jurisprudence [illegible] Dunville health lectures, ib.; **annual dinner of, 749**
——— Queen's, Cork, resolution of grand jury as to, [illegible] Sir R. Blennerhassett on, [illegible]
——— Queen's, Galway, visitation of, [illegible]
——— Royal Army Medical, the work and purpose of, [illegible] description of, [illegible] mess and officers' quarters, book of, [illegible]
——— Royal, of Physicians of Edinburgh, the Morison lectures at, [illegible] quarterly meeting of, [illegible]
——— Royal, of Physicians of Ireland, the president and the viceregal court, [illegible] admission to licences, [illegible]
——— Royal, of Physicians of London, donation to, for establishing lecture on origin, etc., of bacilli, [illegible]
——— Royal, of Surgeons of Edinburgh, admission to licences, [illegible] fellowship examination, [illegible] Bathgate memorial prize, ib.
——— Royal, of Surgeons of England, pass lists, [illegible] meeting of council of, [illegible] 700, 994, 1231, 1468; **Members of, and the title of "esquire,"** [illegible] a matter of ethics, [illegible] the council of, [illegible] country practitioners and the fellowship of, [illegible]
——— Royal, of Surgeons in Ireland, the president and the viceregal court, [illegible] annual charter dinner of, [illegible] election of examiners, 1115; **academic costume**, 1204 [illegible] election of officers [illegible] fellowship examination of, [illegible] Barker anatomical prize, [illegible]
——— of Science, Durham, extension of, [illegible]
——— Trinity, Dublin, pass lists [illegible] 747, [illegible]
——— University, London, [illegible]
——— **and Polyclinic, Medical** [illegible]
Colleges of Physicians and Surgeons. See Conjoint Board
[illegible]
Collins [illegible]
[illegible]
Committee, Educational, report of [illegible]

Commission, Royal, on the Militia and Volunteers, report of, [illegible]
——— Royal, on Sewage Disposal, report of, [illegible]
——— Royal, on Tuberculosis, report of, [illegible]
——— the Viceregal, on Irish Poor-law Reform, meeting of, [illegible]
Committee on Antityphoid Inoculation, members of, [illegible]
——— French Consultative of Hygiene, the presidency of, [illegible]
——— Interdepartmental, on the Model Course of Physical Exercises, report of, [illegible]
——— Lord Esher's, and the Army Medical Service, [illegible] the Royal Naval and Military Committee and, [illegible]
——— Lord Esher's, report of, 1442
——— of Military Hygiene, French formation of, 1442
——— Parliamentary Public Health, meeting of, [illegible]
——— the Physical Degeneration, meeting of, [illegible]
——— War Office Reconstitution. See Committee, Lord Esher's
Companies Act. See Act
Company, another medical, [illegible]
——— the Fishmongers and the cooking of shellfish, [illegible]
——— the Goldsmiths, and investigations into radium, [illegible]
——— of Plumbers, the, and the registration of plumbers, [illegible]
——— the Spectacle Makers, the diploma of, 686; **and testing the eyesight of the nation**, [illegible]
——— law, [illegible]
——— practice, [illegible]
Competition for Poor-law medical appointments, 1442
Complaint against an eye infirmary, 990
Condamin, pregnancy and dermoids of both ovaries, [illegible]
Condy, Mr. W. J., obituary notice of, [illegible]
Conference on defective and epileptic children, [illegible] of delegates of charity organization societies, 1498
Confinements, [illegible] attended in the outdoor **department of the Leeds General Infirmary**, [illegible]
Conford, G. J., empyema [illegible]
Congo, sleeping sickness in the, [illegible] Congo [illegible] typanosomiasis on the, [illegible]
Congress, Anatomical, at Toulouse, meeting of, [illegible]
——— against Drink and Consumption, date and place of meeting of, [illegible]
——— of Experimental Psychology, date, place of meeting, etc., of, [illegible]
——— **French, of Alienists and Neurologists**, date, place of meeting, etc., [illegible]
——— French Anatomical, meeting of, [illegible]
——— French, of Climatotherapy, date, place of meeting, etc., of, [illegible]
——— French, of Colonial Hygiene, date, place of meeting, etc., of, [illegible] programme of, [illegible]
——— German Balneological, date, place of meeting, etc., [illegible]
——— **German, of Internal Medicine**, date, place of meeting, etc., of, 14; discussions at, [illegible]
——— German Orthopaedic, date, place of meeting, etc., of, [illegible]
——— International, of Dermatology, date, place of meeting, etc., of, [illegible]
——— International Home Relief, date, place of meeting, etc., of, [illegible] at Edinburgh, [illegible] meeting, 1442; president's opening address, [illegible] the closing general meeting, [illegible]
——— International Medical, [illegible]
——— International, of Military Surgeons, date, etc., [illegible]
——— International [illegible], date, place of meeting, etc., of, 1444
——— International, of [illegible], date, place of meeting, etc., [illegible]
——— International, of Physical Culture, place of meeting, etc., [illegible]
——— International, of Physiology, date and place of meeting, [illegible]
——— International, of School Hygiene, date, place of meeting, etc., [illegible]
——— International, of South American, date, place of meeting, etc., [illegible]
——— International, of Tuberculosis, date, place of meeting, etc., [illegible]
——— International, of [illegible] in France, [illegible]
——— [illegible], date, place of meeting, etc., [illegible]
——— South African Medical, difficulties of attendance [illegible] papers read, ib.

Congress, World's of Medicine, abandonment of, 1...
Conjoint Board in England and the General Medical Council, 1..., 16..., 404, pass lists, 1..., 115
——— Board in Ireland, pass lists, 40..., 1..., 158, 1201, 1411, the secretaryship, 1...
——— Board in Scotland, pass lists, 12..., 1..., 155, 1...
Conjunctivitis, gonorrhœal, and hydrogen peroxide, 4...
Connor, W. F., luxation of the jaw during sea sickness, 1472
Connell, A., ruptured gastric ulcer, ...
Conradi. See Brigalski
Conscience, a health, 4...
Conservatism in medicine and surgery, the price of, 1...
Constantinople, the Hamidie Hospital for Children at, 90...
Consultant, the disability of a, 1467
Consultation, the relation of a practitioner to a patient whom he has seen in, 771
Consultations, between medical witnesses ... with homœopaths, 1..., 1467
Consulting room and "office," 14
Consumption. See Tuberculosis
Consumptive poor. See Poor
Consumptives, horseflesh for, 1..., sanatoria for, 516, 1..., 1..., the treatment of, ... favoured, outdoor employment for ... outdoor shelters for, 1..., special Pullman cars for, 1149, poor, the home treatment of, 1443
Contract medical practice, 1..., 254, 31..., 335, 11..., 574, 11..., 1..., 1..., 1..., 1140, 117..., 1211, 1..., 1..., 1458, 1511; Mr W. J. Galloway on, 54; a comparison of work and pay, 574; provident medical associations, an interest, 715; rates for mixed club, 676; the attitude of Friendly Societies, 802, 856; a medical attendance society, 1040; a burial club, 1162; a joint medical scheme, ib.; the advantages of union, ib., at Mansfield, 1..., 1458; in the Highlands and Islands of Scotland, 1262; fees for operation, 1511; employment of canvassers, ib.
Contracts not to practise, assistants and, ...
Contrast, a, 565
Contrecoup, rupture of middle meningeal artery by, 736
Contributions, medical, to the lay press, 467
Convalescents, surgical, 6...
Convection, aerial, of small-pox, 404, 51...
Convolution, post-central, lesion of without paralysis, 5...
Convulsions, syphilitic preceded by marked somnolence of long duration, 594, puerperal, a suggestion for the treatment of by spinal subarachnoid puncture, 11...
Cook, A. R., A Medical Vocabulary and Phrase-book in Luganda, rev., 495
Cooke, J. B., A Nurse's Handbook of Obstetrics, rev., 11...
——— M., A., a warning, 47...
Cooking of shellfish, 26...
Cooper, C. M., some suggestions in adrenalin diagnosis, ...
——— P. R., accidental bacteriuria in pregnant women, 20; puerperal sepsis, 457
Co-operation, the Nurses', report of, 1028
Cootehill, insanitary state of infirmary at, 1..., 57...
Copeman, S. M., increase in vaccination, 1...; report of on epidemic of skin disease at Hendon Asylum, 1448
Copenhagen, the meeting of International Association for the Prevention of Tuberculosis at, 1431
Coplans, M., etiology of scurvy, 7...
Corby, Dr. H., appointed high sheriff of Cork, 4...
Cord, spinal, changes in the in diabetes mellitus, 122; detachment of the odontoid process of the axis without fracture of the atlas, continued life without symptoms of injury to the, 24..., gumma of the, 1...
Cork, a consumptive sanatorium for, 154, 629, 7..., 1...
Cornea, pannus and associated changes in the, 11...
Corner, A., inflammation of the lachrymal passages, 1014; non-perforating wounds of the anterior capsule of the lens, 1511; treatment of ophthalmia neonatorum, 1370
——— E. M., fracture of the spine without symptoms, 242; tuberculosis of the choroid, 432, pyopneumothorax due to phthisis, 542, the value of the imperfectly descended testis, the advisability of operation, and the value of the operations performed for its relief, 1306
Cornwall as a health resort, 211
Coroner, legal decision of, 11...; a Dublin, 1...
Coroners and medical evidence, 221, 42..., 44..., 47..., 514
Coronership, the, for East Middlesex, 96
Corps, Royal Army Medical, promotions and appointments in, 84, 11..., 1...2..., 2..., 321, 4..., 4..., 5..., 7..., 842, 90..., 9..., 10..., 1111, 1171, 122..., 1..., 1..., 1..., 1..., 1..., 1..., retirement on pension after twenty years service in, 84, passes in military law examination, 11..., lost time at Netley, 111, precedence, 1..., changes of station, 2..., 567, 1..., 1..., 1473, successful candidates for, 341; the "prior claim" to employment, 20, 1..., Indian pay, 21, nursing regulations, 1473
Corps, Royal Army Medical (Militia), promotions and appointments in, 4, 341, 1..., 1...
——— Royal Army Medical Volunteers, promotions and appointments in, 111, 4..., 7..., 1..., 1..., 1171, 1227, 1..., 1460, the "Annual" of the Glasgow Companies of, 114, presentation of prizes to London companies of, 453, promotions and appointments in bearer companies of, 1171, annual inspection of Aberdeen companies of, 1...
Corrosive sublimate. See Sublimate
Corsica, malaria in, 1...
Cotterill, J. M., a case of paraplegia of sixteen months' standing, laminectomy, recovery, 1...
Coudert, a rare form of poisoning by sublimate, 47...
Cough, the paroxysmal of influenza, ...; hysterical, the treatment of, 587; and its significance, 1...
Council, the Army, and military medical administration, 442, 445, 4..., 511, exclusion of Director-General from, 1...
——— General Medical. See Medical
County Council, London, report of medical officer of health of, 1..., 253, 2..., medical members of, 646; and the notification of chicken-pox, ...; the new education authority for London, 1328; the educational work of, 1450
——— Courts, new rules for, ...
——— of Washington, the climate of, 411
Court of Probate, medical evidence in, 1228
Coutts, J. A., purulent pericarditis associated with empyema in a child aged ... years, ...
Covenant, the restriction, 760
Cow, the appeal to the, 35...
Cowie, J. M., intrauterine infection of the fœtus in small-pox, 1485
Cowley, J. S., isolation hospitals, 162
Cows, dairy, tuberculosis in, 5...; epidemic sore throat from suppurative mammitis in ..., an outbreak of sore throat coincident with a teat eruption in, 15...3
Cox, A., the Association and medical defence, 7..., 10..., 111
——— Deputy Inspector General, H. T., osteomyelitis, amputation of the hip-joint, recovery with new bone growth, 131
Craemer, F., Magenerweiterung, motorische, Insufficienz, und Atonie des Magens, rev., 22
Craig Colony prize. See Prize
Craven, Sir R. M., the will of, 1...
Crawford, J. R., a case of pelvic peritonitis treated with antistreptococcus injections, 133
Crèche, a municipal, 815
Cree, Lieutenant-Colonel E. S., death of, 110
Cremation, the Manchester guardians and, 705; in Prussia, 860; in France, 1450
Crendiropoulo, M., note on haemosozic sera, 6...; note on the anti-haemolytic (haemosozic) properties of normal urine, 1...8
Creosote, apparatus for administering, 953
Cretin, mental condition of, 172
Cretinism, sporadic, 1426
Crichton, G., St. Bartholomew's and the out-patients, 52, 51...; the metric system..., the Medical Acts Amendment Bill, 114
Crieff, proposed cottage hospital at, 1233
Crime, drink and, ...
Crimea, the army medical service in the, 620
Criminal cases, the position of the medical attendant in, 1...
Criminology, the study of, 7..., 1112
Cripps, H., two cases involving the question of the site of impregnation, 711
Critchett, Sir A., elected honorary member of the Gesellschaft der Aerzte of Vienna, 1...
Crocker, J. H., medical inspection of schools, 85...
Croft, E. O., inversion of the uterus, ...
Croom, Sir H., Cæsarean section in eclampsia, 1445
Crosby, Mr. W., death of, 404
Croyden and Co., repetition of prescriptions containing dangerous drugs, ...
Crusade, a new anti-tobacco, 12...
Cullen, T. S., Adeno-myome des Uterus, rev., 733
Cullingworth, C. J., hydatid disease in the pelvis, 12...
Cuneo, B., the Lymphatics, rev., 4...
Cunning, J., Aids to surgery, rev., ...
Cunningham, D. J., Manual of Practical Anatomy, rev., 4...
Cunynghame, Dr. K. J. B., obituary notice of, 52
Cup and butter, 111...
"Cure" for rheumatism, 117...
Cures for alcoholism, 1...
Currents, high-frequency. See Electricity
Cushing, H., extirpation of the Gasserian ganglion, ...
Cutaneous. See Skin
Cyanide centres, in the ...
Cyst, fetal bladder, labour impeded by, 190; pancreatic, hæmorrhagic, ... drainage, ... dermoid, 4..., hydatid, in the ... papilliferous, ... renal, ... suprarenal gland, ..., ..., ..., ... by ... case of appendicitis ... in the presence of, ... gangrene of ovarian, removal of uterine fibroid with, ..., large sebaceous, ... in the abdominal wall, 1427; mesenteric, 1429
Cystoscopy, the ... oxygen gas in distending the bladder, ... gaseous ... in ... medicine, 4...
Cystotomy, suprapubic, for villous tumour of bladder, 78...
Cysts, ... bladder, ... and pelvis, ... and other abnormal ... arising from ... clefts, 4...
Cytology of ... glands, 11... books on, 1...

D

Daggett, H. I., a case of malignant obstruction of œsophagus ... by, 1...4
Dairy, a co-operative, ... farm, ... successfully worked, 4...
Dakhyl. See Labouchere, ...
Dalal, K. R., round worms simulating abdominal tumours, 835
Dallas, W. L., variation of the population of India compared with the variation of rainfall, 1891-1901, 1...42
Dalton, N., malignant anæmia, 2...1
Danger to the child during labour, a warning sign of, 715, 1...4
Daniel, F. E., a warning sign of danger to the child during labour, 71...
Daniell, G. W. B., the administration of chloride of ethyl and somnoform, alone or in conjunction with nitrous oxide or ether, 94...
Danysz, J., a microbe pathogenic to rats and its use in the destruction of these animals, 47...
Dapper. Sammlung klinischer Abhandlungen ueber Pathologie und Therapie der Stoffwechsel und Ernährungskrankheiten, rev., 1...
Darker, G. F., hypodermic injection of quinine sulphate, 1486
Date, W. H., mesenteric embolism, 725
David, M. L. de th..., 1...
Davidson, Dr. A., obituary notice of, 1...; the late, 745
——— H. A. C., extreme hyperpyrexia, 12...
——— J. M., radium bromide, some notes on cases in which it has been used, 5...1
Davies, H., a pessary for prolapsus uteri, 1...1
——— L. G., life insurance examinations, ...
Davis, G. J., spontaneous rupture of spleen, 1...7
Davison, A., Mammalian Anatomy, rev., 897
Davos, a new sanatorium ...
Dawbarn, R. H. M., The Treatment of Certain Malignant Growths by Excision of the External Carotids, rev., 956
Deanesly, E., the relative advantages of suprapubic and perineal prostatectomy, 1..., 1..., areolar ... of rectum, epithelioma of rectum, ib.; prostatectomy, ib.; cases, ib.
Dearden, Mr H. F., obituary notice of, 1...
Death, ... of patient before arrival, ... from tuberculosis, primary ... of infection in cases ... of, ... carcinoma, ... from, a rare, ...
Death-rate, ... and ... 1..., ... from phthisis in England and Wales, ... the Registrar-General's ... 2..., 4..., ... and ... 5..., ... 6..., ... 7..., ... 8..., ... 9..., ... 10..., ... 11..., ... 12..., ... 13..., ... 14..., ... 15..., ... 16..., ... 17..., ... 18..., ... 19..., ... 20..., ... 21..., ... 22..., ... 23..., ... 24..., ...

Delivery by forceps [illegible]

Dental A[illegible] See A[illegible]

Dercum's disease. See Adiposa dolorosa

Dermatology, reviews of books on [illegible]

Dessauer apparatus, the [illegible]

Deterioration, physical. See Degeneration and Physique

Dettweiler, Dr. P., death of [illegible]

Diaphragm, calcareous changes in [illegible]

[illegible] and medical unions.

[illegible] improvements in, 537, 603; reviews of books on [illegible]

Diplo[illegible]

Dispensary doctors. See Medical officers ... service in Ireland, the report on, [illegible] system in Ireland [illegible]

Dispensing, by doctors, prohibition of, [illegible]; reviews of books on [illegible]

Distribution of cancer, [illegible]

Dixon, W. E., hereditary tendency to multiple birth, [illegible]

Dobson, A., case of [illegible] tetanus, death, [illegible]

Dock, G., diagnosis, its theory and practice, 1437

Doctor, the, in his social aspect, [illegible]

Doctors in Parliament, [illegible]; prohibition of dispensing by [illegible]

Dodd, J. T., the causes of high infant mortality, [illegible]

Donald, J. Q., treatment of inebriety by drugs, [illegible]

—— Dr. W., death of, [illegible]

Donaldson, Dr. E., obituary notice of, [illegible]

Donations, [illegible]

Door plates on doctors' houses of call, 1172

Doran, A., pelvic lesions in relation to abdominal diagnosis, [illegible]; the size of [illegible] pregnancy after double ovariotomy, [illegible] haematoma and haematocele, a study of two cases of early tubal pregnancy, [illegible]; elected honorary member of the Berlin Gesellschaft für Geburtshülfe und Gynäkologie, [illegible]

Dorchester, report of medical officer of health of, 1253

Dorland, W. A. N., the Illustrated Medical Dictionary, rev., [illegible]

D'Orsellas, [illegible]

Douglas, C., the coagulation time of the blood in pregnant and puerperal women suffering from albuminuria [illegible]

Dove, Mr. J. R. B., obituary notice of, [illegible]

Dowie, Dr., in Australia, [illegible] leading article on, 1434

Doyen, M., the toxin treatment of cancer, [illegible]

Drage, L., the Central Midwives Board, [illegible]

Drainage of [illegible]

Duffy, Lady, and district nursing in Ireland, [illegible]

Duke, A., [illegible] dilatation of the cervix [illegible]

Dukes, C., treatment of [illegible]

—— T. A., bleeding in pneumonia, 638

Dun, R. C., congenital hydroneph[illegible]

Duncan, Lieutenant-Colonel G., death of, [illegible]

Duncanson, J. G., the danger of suprarenal [illegible]

Du Pasquier, L., Les [illegible] dans la Tuberculose Pulmonaire Chronique, rev., [illegible]

Dutch auction, an Irish, [illegible]

Dutton, Dr. E. G., death of, 706

—— J. E., human trypanosomiasis on the Congo, [illegible]

—— T., a sanitary milk supply, [illegible]; sudden illness and accidents in the streets of London, [illegible]

Dux femina facti, [illegible]

Duxhurst Industrial Farm Colony, the work, etc., of, [illegible]

Dyball, B., a case of tubal gestation, primary intraperitoneal rupture, operation, recovery, [illegible]; a fatal case of secondary parotitis, 1012; a set of portable retractors, 1474

Dyer, I., leprosy [illegible]; leprosy in Russia, ib.; reputed discovery of cure for leprosy by, [illegible]

Dysentery, the bacilli of, [illegible]

E

Eady, W. H., fire insurance and its deceptions [illegible]

Ear, book on embryology of, [illegible]; middle, [illegible]

Earl of Rosebery, letter to, on the London University [illegible]

East Anglia, some survivals of mediaeval medicine in, [illegible]

Eastbourne, the spitting nuisance at, [illegible]

Eat too much, do we, [illegible]

Eclampsia, puerperal, [illegible]; puerperal, treated by thyroid extract, [illegible]; Caesarean section [illegible]; puerperal, twice in the same patient, 1437

Eden, T. W., hydatid disease of the pelvis, 1446

Edgar, J. C., the Practice of Obstetrics, [illegible]

Edgeworth, F. H., [illegible]

Edinburgh, [illegible] report, ib.

Editor of the British Medical Journal, [illegible]

Education, [illegible] children, [illegible]

—— Bill. See B[illegible]

[illegible]
Egypt, the plague in [illegible], and the Sounding [illegible] visit of Professor Koch [illegible]
Eisenstadt, D. N., A Text-book of Clinical Anatomy, rev. [illegible]
Electricity [illegible] currents of [illegible]
Electro-therapeutic work [illegible] demonstration [illegible]
Elliott, F. K., personal hygiene and prevention of disease [illegible]
[illegible] Blake H., the Midwives Act, 164; London degrees and diplomas [illegible]
Ellis, Inspector-General H. M., appointed Director-General of the Medical Department of the Royal Navy, [illegible]
Embolism, mesenteric, [illegible]
Emigrants, undesirable, the United States and, 1424
Emphysema, surgical, secondary to tuberculous pneumothorax, [illegible] in a child, [illegible]
Employers, liability of [illegible]
Empyema and bronchiectasis, [illegible] in a child aged [illegible] years, purulent pericarditis associated with, [illegible] in an infant of 4 months, simple [illegible], recovery, [illegible]; double, [illegible]
England, public health administration in, [illegible] the necessity for improving the teaching of massage in, [illegible] proposed visit of French medical men to, 1451
English, the evicted, [illegible]
Enterectomy, removal of uterine appendages, [illegible]
Epigastrium, abscesses pointing in in a case of spinal caries in a man aged [illegible]
Epilepsy, the mental condition in in relation to prognosis, [illegible]; Jacksonian, in a child of [illegible] years, operation, complete relief, 1134
Epileptic case, an unusual, [illegible]
——— fit, method of arresting, [illegible]
Epileptics, home for in Hampshire, [illegible] colony for in Texas, [illegible] institutions for, [illegible]
Epistaxis, adrenalin with chloretone in, [illegible]
Epithelioma of both breasts cured by castration, [illegible] cylindrical, in centrum ovale, [illegible]
Erysipelas, three cases of, [illegible]
Erythema scarlatiniforme [illegible], case of, [illegible]
Erythromelalgia and polycythaemia, [illegible]
Esdell, G. A., successful replacing of a severed finger, [illegible]
Esperanto, the progress of, 1050; M. J. Clarétie and, 1401
Ether vapour, [illegible], 1471
Ethics, a matter of, [illegible]; of antivaccinists, [illegible]; medical, [illegible]
Ethyl chloride inhaler for, [illegible]; a simple method for the administration of, [illegible], the administration of, [illegible] and somnoform, the administration of alone or in conjunction with nitrous oxide or ether, [illegible]
Etiology of gout, [illegible], of carcinoma, [illegible], of yellow fever, [illegible], of leprosy, [illegible], of scurvy [illegible]
Etiquette, medical, 55, [illegible]
European examination of the tissues of the case of sleeping sickness in a, [illegible]
Euthanasia, [illegible]
Evans, H. M., Jacksonian epilepsy in a child of [illegible] years, operation, complete relief, 1134
——— [illegible], traumatic neurosis, [illegible], medico-legal aspects of injuries to the eye, [illegible]
——— J. J., injuries to the eyes in relation to the Workmen's Compensation Act, [illegible]
——— W. H., [illegible]
Evans-Gordon, Major, the evicted English, [illegible]
Evatt, Surgeon-General G., the Indian Medical Service and the monthly Army List, [illegible]; doctors in Parliament, 578; the Army Council, [illegible]
Eve, F. C., a diphtheria epidemic, 1102
Evidence, medical, coroners and, [illegible]; medical, in Court of Probate, 1225
Ewart, W., a bed [illegible]
Ewing, J., Clinical Pathology of the Blood, rev., [illegible]
Examination, state, in the United States, [illegible]
Examinations under the Workmen's Compensation Act, [illegible]
Excision, five consecutive cases of perforated gastric ulcer treated by, [illegible]; of Gasserian ganglion, [illegible]
Exercise, physical, in schools, [illegible]
Exophthalmos, pulsating, 77
Experiments on living animals, [illegible]
Extirpation of the Gasserian ganglion, [illegible]
Eye, books on embryology of, 59; medico-legal aspects of injuries to the, 367; artificial, for child, [illegible]
——— testing, opticians and, [illegible]
Eyes, of school children, [illegible]; injuries to the in relation to the Workmen's Compensation Act, [illegible]
Eyesight of the nation, testing the, [illegible]
Eyre, J. W. H., nutrose agar, [illegible]; asylum dysentery in relation to B. dysenteriae, 1002

F.

Fabre, an anaemia among [illegible]
"Face treatment," [illegible]
Factories and workshops, ventilation of, 211
Factory Girls' Holiday Fund. See Fund
——— hands, breast feeding of infants of, [illegible]
Faculty, an international, [illegible]
Faecal ball formation, causes of, 172
Fagge, C. H., atresia auris congenita, [illegible]
——— F. T., lumbago, [illegible]
Family, one, five successful hysterectomies for fibroid disease in, [illegible]
——— record, a, [illegible]
——— tree, a, [illegible]
Famine foods. See Foods.
Far East, the war in the, 384
Farmer, J. B., cancer and its origin, [illegible]; the biological significance of malignant growths, [illegible]; the cytology of malignant growths, [illegible]
Farquhar, J., sciatica and lumbago, [illegible]
Farrar, J., forcible dilatation of the cervix uteri in "accouchement forcé," 472
——— R., the Life of Frederick William Farrar, sometime Dean of Canterbury, rev., 958
Fascia, the pelvic, [illegible]
Fatigue, the physiology of, 145, [illegible]; mental, [illegible]
Faulds, A. G., the use of oxygen gas in distending the bladder for cystoscopy, [illegible]
Fawcitt, J. W., fatal case of poisoning by potassium bromide, 547
Fedderson, on sciatica, [illegible]
Federated Malay States, campaign against mosquitos in, 55
Fee, one, two insurance reports, 55; for attending patient confined by midwife, 928; for revaccination disapproved by auditor of union, [illegible]; liability for, [illegible]; for restoration to "Medical Register," 1168, 1224, 1346; for "false pain" visit, [illegible]; midwifery, refusal of, [illegible]; consultation in a doubtful case of small-pox, [illegible]; a question of, [illegible]; for accident attendance on employe, [illegible]
Feeble-minded, the care of, [illegible]
Feeding of infants, [illegible]; in relation to the health of the young, 674; of infants, a formula for, [illegible]
Fees to medical witnesses in criminal prosecutions, [illegible]; for insurance work, [illegible]; medical, 55; to medical witnesses in Australia, 58; delay in payment of, 223; for vaccination at Newark, 284; a question of, 342, 471; for notification of infectious disease in paupers and others, [illegible]; for medical witnesses in civil cases, 700; the new scale of for medical witnesses, 741; to medical witnesses, discretion in the payment of, [illegible]; for police calls, [illegible]; assistants [illegible]; for examination under the Workmen's Compensation Act, [illegible]; medical, in midwives' cases under the Midwives Act, [illegible]; medical, at inquests, [illegible]; to assistant in [illegible]
Feet, the Japanese soldiers' [illegible]
Female. See Women
Femur, amputation through hip-joint for hydatid of, [illegible]; spontaneous fracture of neck of, [illegible]
Fenn, S. B., the so-called "gold cure" of inebriety, [illegible]
Fenwick, B., state registration of nurses, [illegible]
——— E. H., The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney, rev., 609; treatment of urinary tuberculosis, [illegible]
——— P. C., intestinal obstruction, due to paralysis of a loop of jejunum, 605
——— S., Student's Guide to Medical Diagnosis, rev., [illegible]
Ferguson, Lady Helen M., the State registration of nurses, 987
——— R. C., Aids to the Mathematics of Hygiene, rev., [illegible]
Ferments, review of book on, [illegible]
Ferrier, [illegible]
Fetus, intrauterine infection of [illegible]
Fever, aestivo-autumnal, parasite of, [illegible]
——— continued, with Leishman-Donovan bodies, 1487
——— enteric, watercress and, [illegible]; tidal waters and endemicity of, [illegible]; exceptional case of, [illegible]; perforation in, [illegible]; oysters and, [illegible]; drug rash complicating and simulating scarlet fever, [illegible]; transmission of by flies, [illegible]; in Hamburg, [illegible]; in chimpanzee, 817; intestinal obstruction after, [illegible]; varieties of, [illegible]; at Harton, [illegible]; prevalence of in Prussia from [illegible]
——— glandular, Dr. J. W. Byers on, [illegible]; in Jamaica, 952
——— haemoglobinuric, case of, [illegible]; the treatment of, 544
——— hay, treatment of by Dunbar's serum, [illegible]
——— intermittent, suckling of children when suffering from, 932
——— malarial, four cases of, [illegible]
——— Mediterranean, formation of committee to investigate, 1387
——— recurrent, associated with spirilla in the blood in a patient from Gibraltar, 538
——— relapsing, morphology of the spirillum of, [illegible]
——— rheumatic, the staphylococcus aureus and, [illegible]; the infective nature of, [illegible]; the bacteriology of, [illegible]; study of a case of, [illegible]
——— scarlet, drug rash complicating enteric fever and simulating, [illegible]; duration of infectivity of, 469; at Portsmouth and isolation, [illegible]; in Edinburgh, [illegible]; in the chimpanzee, [illegible]; return cases of, [illegible]; an obscure case of, 1370; observations on an epidemic of, [illegible]; protracted and recrudescent infection in, [illegible]
——— yellow, in Jamaica, [illegible]; the etiology of, [illegible]; in Texas, 1450
Fevers, cachexial, Leishman-Donovan bodies in, 1249
Fiolhott, Brigade Surgeon W., death of, [illegible]
Fibroid, uterine, with ovarian cyst, removal of, [illegible]
Fibroids complicated by pregnancy, 730; complicating pregnancy, [illegible]
Fibromyoma, of the round ligament, 308; a degenerating, [illegible]
Fibromyomata, malignant, complications of, [illegible]
Fidelian, A. P., the metric system in English medical practice, 921
Figure weights. See Weights
Filaria immitis Leidy, the life history of, [illegible]
Filariasis, note on Dr. Primrose's paper on, [illegible]; cure of by removal of the adult worm, [illegible]
Findlay, D. W., obituary notice of, [illegible]
Finger, severed, successful replacing of, 131
Fingers, gangrene of, [illegible]
"Fingers and toes," [illegible]
Fink, Major G. H., the parasitic theory of cancer, 116; Cancer and Precancerous Changes, rev., 956
Finlay, D. W., the treatment of pneumonia, [illegible]; pyopneumothorax, 131
Finlayson, J., tuberculous disease and heredity in relation to life assurance, etc., [illegible]
Finsen, Dr. N. R., and the Nobel prize, [illegible]; gets Cameron prize, 390
Fire insurance and its deceptions, [illegible]
First aid, instruction of railway employes in, [illegible]; treatment of cut arteries, [illegible]
Firth, J. L., sinus thrombosis, 1314
——— Lieutenant-Colonel R. H., the bacillary dysentery, [illegible]; notes on some experiments concerning bacillary dysentery, [illegible]
Fish-eating, leprosy and, [illegible]
——— theory of leprosy, [illegible]
Fisher, T., on tuberculosis, 305; an inquiry into the primary seat of infection in [illegible] death from tuberculosis, [illegible]
Fisk, E., [illegible] thoracic aneurysm, [illegible]
Fissure, the parieto occipital, 743
Fit, epileptic. See Epileptic
"Flag more," a uterine, [illegible]
Flannel Shirt Club. See Club
Flashman, F., the parieto-occipital fissures, 743
Flasks, sputum, disinfecting of, [illegible]
Flax and linen, health [illegible]
Fletcher, Mr. R. V., obituary notice of, 222
Flies, transmission of typhoid fever by, 566
Florence [illegible]
Foa, C., changes in the [illegible]
Food, pure, in America, [illegible]
——— question, [illegible] and disease, [illegible]
——— values, Professor [illegible] on, [illegible]
Foods, famine, in India, [illegible]

Football injuries, [illegible]
Foot Guards, medical officers of, [illegible]
Forceps [illegible]
[illegible] applied [illegible]
Forbes, D., intrauterine infection of the fetus in small pox, [illegible]
Forehead [illegible] of, treated by [illegible] and extirpation, [illegible]
Foreign bodies swallowed, [illegible]
—— [illegible] retained [illegible] for seven months [illegible]
Formalin and skin disease, [illegible]
Foster, A. E. M., [illegible]
Fothergill, E. R., repetition of prescriptions containing dangerous drugs, [illegible]; proposed [illegible] the Association and medical defence, [illegible]
—— W. E., [illegible] Manual of Midwifery, rev., [illegible]
Fowler, [illegible] stenosis [illegible] oesophagus, and [illegible] in a patient [illegible] years of age, [illegible]
Fox, J. T., the mechanism of the alimentary canal, [illegible]
—— P. H., [illegible]
Foxwell, A., septicaemia, [illegible]
Fracture, ununited, of radius and ulna [illegible]; of the spine with [illegible] symptoms, [illegible]; depression of skull, caused during birth, treatment of, [illegible]; spontaneous, of neck of femur, [illegible]
Fractures, reviews of books on, [illegible]; massage in, [illegible]
Fraenkel, A., Spezielle Pathologie und Therapie der Lungenkrankheiten, [illegible]
France, [illegible]
Francis, E., a case of [illegible] treated with adrenalin chloride, [illegible]
Frank, F., [illegible] midwives, [illegible]
Franklin, [illegible] enteric fever, [illegible]
Franze, P. C., the Nauheim baths, [illegible]
Fraser, [illegible]
—— [illegible] H., a case of [illegible] during whooping-cough and diphtheria, [illegible]
Free [illegible]
Freeborn [illegible]
Freer, E. L., [illegible]
Frenchay [illegible]
Freyer, P. J., [illegible] prostate [illegible]
Fripp, Sir A., and the Imperial Yeomanry Hospitals, [illegible]
[illegible]
Friendly societies [illegible]
[illegible]
Fuel, [illegible]
[illegible]
Furunculosis, [illegible]

Fyfe, Mrs. M. N., treatment of puerperal [illegible]

G.

Gadd, H. W., Drugs, their Production, Preparation, and Properties, rev., [illegible]
Galabin, A. L., Diseases of Women, rev., [illegible]
Gall bladder, surgery of the, [illegible]
Galvani, T., pleuropagous twins, difficult labour, [illegible]
Galloway, Mr. W. J., on contract practice, [illegible]
Galton, F., inquiry by, as to ability in families, [illegible]
—— J. H., Holman testimonial fund, [illegible]
Gardner, C. P., chronic pancreatitis, [illegible]
Ganglion, Gasserian, extirpation of, 689; excision of, [illegible]
Gangrene, emphysematous, colon bacillus from a case of, [illegible]; of fingers, [illegible]
Garcia, M., appreciation of, [illegible]
Garden, W. F., medical practice in Bussorah, [illegible]
Gardening for women, [illegible]
Garner, Major C., decoration of, 677
Garratt, G. C., metabolism in the febrile state, [illegible]
Garrington, Dr. A. M., obituary notice of, [illegible]
Garrod, A. E., tumour of the liver, [illegible]; a survey of the recorded cases of haematoporphyrinuria not due to sulphonal, [illegible]
Garry, T. G., the intrusion of the layman into medical practice, [illegible]
Gas griller, a, [illegible]
Gastric. See Stomach
Gastro-enterostomy, the operation of, [illegible]; for pyloric stenosis, gastric ulcer, and other non-malignant conditions, [illegible]; for gastric ulcer, [illegible]
Gastrotomy, in case of breakage of coin-catcher; recovery, 893
Gastrostomy, for carcinoma of oesophagus, 954; for malignant obstruction of oesophagus, 1074
Gateshead, small pox and vaccination at, [illegible]
Geach, R. N., a mental case treated with ovarian extract, complete recovery, [illegible]
Gemmell, J. E., the Central Midwives Board, [illegible]
General Medical Council. See Medical
Genth, Dr. C., death of, [illegible]
Geoghegan, Dr. and Mrs., presentation to, [illegible]
George, H., an ethyl chloride somnoform inhaler, 67
German Emperor. See Emperor
Germany, leprosy in, [illegible]; a Behring Institute for, [illegible]; vaccination, isolation, and small pox in, [illegible]; the birth rate in, [illegible]; tuberculosis in, [illegible]; small pox in, [illegible]; prevention of consumption in, [illegible]; the cost of vaccination in and the risks attending its use, [illegible]; prevention of small pox in, [illegible]; the vivisection question in, [illegible]; post-graduate clinical teaching in, [illegible]; club practice in, [illegible]
Gestation, old ectopic, complicating normal pregnancy, pain, [illegible]; unruptured tubal, 369; tubal, case of, 718, 730; ruptured tubal, after history of, [illegible]; ectopic, early diagnosis, operation, recovery, 1485
[illegible]
Gibraltar, recurrent fever associated with [illegible] in the blood in a patient from, [illegible]
[illegible] angina pectoris, [illegible]
Giles, Lieutenant-Colonel G. M., A Revision of the Anophelinae, rev., [illegible]
—— P. B., prohibition of dispensing by doctors, [illegible]; doctors in Parliament, [illegible]
Gilles de la Tourette, Dr., death of, [illegible]
Giles, [illegible] D. T., A Textbook of Practical Gynaecology for Practitioners and Students, rev., [illegible]
[illegible] r, J. R., [illegible] and mental [illegible]
[illegible] anthrax [illegible]
[illegible] elementary [illegible] in London, [illegible]
[illegible]
Glands, suprarenal. See Suprarenal
Glasgow, [illegible] sleeping sickness [illegible] degeneration [illegible]
[illegible] small pox [illegible]
[illegible]
[illegible]

"Glossina," transmission of sleeping sickness by, 696
Gloucestershire, prevention of consumption in, [illegible]
Glover, G. J., the whisky habit, [illegible]
Glück, leprosy of the ovaries, [illegible]
Glycogen reaction in blood, [illegible]
Glycosuria, potatoes and, [illegible]
Godin, P., Recherches Anthropométriques sur la Croissance des Diverses Parties du Corps, rev., [illegible]
Godston, Mr. C., obituary notice of, [illegible]
Goerbersdorf Sanatorium converted into a company, 306
Goitre, exophthalmic, didymin in, [illegible]; exophthalmic, disseminated sclerosis and, [illegible]
Gold Coast, sanitary improvement of the, [illegible]
"Gold cure," the so-called, of inebriety, [illegible]
Golf, medico-legal, [illegible]
—— match at Oxford, notice as to, [illegible]; a medical, [illegible]
Gonorrhoea, iliac abscess following, 724
Gonorrhoeal matter, [illegible]
Gonsalves, V. P., prospects of Indian medical practitioners, [illegible]
Goodall, E., medical women in Sweden, [illegible]; the action of the blood serum from cases of acute mental disorder on the bacillus coli communis, [illegible]; the Government Lunacy Bill, [illegible]
—— E. W., intestinal obstruction after typhoid fever, 838
Gordon, H. M., capsule formation by diplococcus pneumoniae in culture, [illegible]
—— Miss M. L., treatment of inebriety by drugs, 1345
—— W., preliminary general education of medical students and the General Medical Council, [illegible]; doctors in Parliament, [illegible]; cardiac dullness in cases of cancer, [illegible]
Gorgas, Colonel W. C., sanitation of the Panama Canal, 1449
Gosport, the water supply of, 1058
Gosse, W., [illegible] medical practice, [illegible]; the Association and medical defence, [illegible]
Gottschalk, uterine affection and constitutional disease, [illegible]
Gould, Salisbury, [illegible]
—— A. P., Dr. Otto Schmidt's treatment of cancer, [illegible]
—— G. M., Saunders' Year Book of Medicine and Surgery, rev., [illegible]
Gout, the pathogenesis of, [illegible]; Dr. Laville's remedy for, [illegible]
Gouttes de lait et consultations de nourrissons, [illegible]
Gowers, Sir W. R., on lumbago, its lessons and analogues, [illegible]; Subjective Sensations of Sight and Sound, Abiotrophy, and other Lectures, rev., [illegible]
Gowland, W. P., hydatid cyst in the abdominal wall, 1427
Grabham, M., the alleged transmissibility of the malaria parasite from mother to infant, [illegible]
Gradenigo, G., Die Hypertrophie der Rachentonsille, rev., [illegible]
Graham, Dr. J., the Belfast Committee and [illegible]
—— J. W. C., case of villous tumour of bladder, suprapubic cystotomy, recovery, [illegible]
Grant, D., an inspiratory nasal [illegible]
—— Major A. H., obituary notice of, [illegible]
—— H., the diminishing birth rate, [illegible]
—— L., and the Ballachulish quarries, [illegible]
Grants to university colleges, [illegible]
[illegible] naval surgeons, [illegible]
Gray, Lieutenant A. C. H., [illegible] in sleeping sickness
—— Dr. G., [illegible]
—— H., [illegible]
Great Britain, [illegible]
Greathead, J. B. S., [illegible]
Green, A. B., [illegible]
—— A. S., [illegible]
—— [illegible]
Greenwood, Mr. H., [illegible]
—— M., [illegible] and medical defence, [illegible]
—— M., [illegible]
Greer, W. J., [illegible] between medical [illegible]
Gregory, Miss A., [illegible]
Greig, Captain E. D. W., [illegible]
Grey, [illegible]
Griffith, W. S. A., [illegible]
Griffiths, [illegible] honorary fellowship for, [illegible]
[illegible]
[illegible]
Grünbaum, A. S., [illegible]

tica, scarlet fever and measles in the chimpanzee, 1[illegible]
Gruner, O. C., the so-called pancreatic reaction, 1[illegible]
Guardians, regulations as to public vaccinators' contracts with, 14[illegible]; powers of, under Superannuation Act, 15[illegible], 1[illegible]; and tuberculosis, 15[illegible]
Gubb, A. S., decoration of, 4[illegible]; intraspinal cocainization, 4[illegible]
Guéard, F. P., Revue Critique sur les Lois de la Formation des Sexes, rev., 1[illegible]
Guild the Manchester Medical and combination among medical men, 11[illegible]
Guinea-worm, the life span of the, 5[illegible], some clinical features associated with, 18[illegible]
Guiraud, Manuel Pratique d'Hygiène, rev., 1[illegible]
Gulland, G. L., the glycogen reaction of the blood, 431, 880
Gumma of the cord, 1[illegible]
Gunn, Mr. D. R., death of, 5[illegible]
Guthrie, A. C., croupous pneumonia treated with antipneumonic serum recovery, 1[illegible]
Gynaecology, reviews of books on, 371, 14[illegible], and the thyroid gland, 5[illegible]

H

Haddon, J., dietetics and the "elixir of life," 1[illegible]; the physiology of fatigue, 27[illegible]; lumbago, 4[illegible]; ammonuria, 1[illegible]
Haematocele and haematoma, 11[illegible], 1105
Haematoma and haematocele, 11[illegible], 1145
Haematoporphyruria, not due to sulphonal, a survey of the recorded cases of, 54[illegible]
Haematuria of unknown origin, 5[illegible]
Haemoglobin, investigations as to in cases in chronic heart disease, 53[illegible], digestion and absorption of, 7[illegible]
——— scale, 147[illegible]
Haemoglobinuric fever. See Fever
Haemophilia in a female child, 15[illegible]; treated with adrenalin chloride, 1247
Haemoptysis, pulmonary, adrenalin in, 141, 365, 721; the danger of supra-renal treatment in, 7[illegible]; treatment of at a sanatorium, 652; severe and fatal in a child aged 3½ years, 1[illegible]
Haemorrhage, accidental, in pregnant women, 2[illegible]; pancreatic, case of, 4[illegible]; cerebral, is atmospheric pressure a possible cause of? 835, 1311, 1352, 1454, 1516; twins, placenta praevia, and concealed accidental, 5[illegible]; pulmonary, suprarenalin in, 1246; post-partum, treated by adrenal, 1[illegible]; adrenalin chloride in, 1312; post-partum, optic atrophy after, 1423
Haemorrhoids, the treatment of, 1[illegible]
Haemosozic sera. See Sera
Haines, Mr. R. W., obituary notice of, 870
——— W. S., a Textbook of Legal Medicine and Toxicology, rev., 1490
Hajèk, M., Pathologie und Therapie der entzundlichen Erkrankungen der Nebenhoehen der Nase, rev., 1[illegible]
Haldane, J. S., miners' anaemia, 611; the cause and prevention of miners' phthisis, 1387
Hall, G. R., some grievances of the West African medical staff, 5[illegible]
——— J. W., renal decapsulation, 5[illegible], experimental nephritis followed by decapsulation of the kidney, 5[illegible]
——— W., the feeding of infants, 966
Hall-Edwards, J., the annual museum at the Oxford meeting, 14[illegible]
Halliburton, W. D., on food values, 680; digestion and absorption of haemoglobin, 823; regeneration of nerves, 1[illegible]
Hallux rigidus, note on, 7[illegible]
Ham, C. E., the so-called "pancreatic reaction" in the urine, 1347
Hamburg, enteric fever in, 7
Hamidié Hospital. See Hospitals for Children
Hamilton, J., erythema scarlatiniforme (influenzal), 9[illegible], after-history of a ruptured tubal gestation, 1[illegible]
——— R., torsion of Fallopian tube, 5[illegible]
Hammerschlag's method, the value of in clinical estimations of the specific gravity of the blood, 473
Hammersley, P. H. V., a new ligature, 552
Hammond, J. A. B., radium in a case of rodent ulcer, 946
Hampshire, home for epileptics in, 17
Handbooks for Volunteers, rev., 1149
Handfield-Jones, M., pelvic lesions in relation to abdominal diagnosis, 240; tubal gestation, 730
Hands, disinfection of, 54[illegible]; sterilization of the, 1[illegible], a bacteriological inquiry into the sterilization of, 1304
Hanna, W., trypanosoma in birds, 5[illegible]
Hansell, H. F., Textbook of Diseases of the Eye, rev., 842
Hansemann, D. v., cancer and it's origin, 21[illegible]
Haran, Inspector-General T. J., death of, 926
Harbin, typhoid fever at, 964
Harbinson, G. C. R., scleroderma associated with Raynaud's disease and Addisonian pigmentation, 1[illegible]; case of double ureter, 1[illegible]; septate vagina, 1153
Hardiesty, J., Neurological Technique rev., 1141
Hardie, H. N., the Association and medical defence, 111
Hare, F., Mechanism of the Paroxysmal Neuroses, rev., 1[illegible]
Harelip, median, 1[illegible]
Harman, N. B., knee jerk phenomenon in interstitial keratitis, 471
Harris, C., treatment of inebriety by drugs, 14[illegible]
——— W., post-diphtheritic bulbar paralysis, 1[illegible]
——— Brigade-Surgeon W. H., death of, 520
Harrison, E., primary quadruple amputation, recovery, 429
Harrisson, D., excision of Gasserian ganglion, 784
Hart, D. B., hebotomy, 4[illegible]; tubal abortion, 14[illegible]
Hartley, Dr. R., death of, 1[illegible]
Hartridge, The Refraction of the Eye, rev., 4[illegible]
Harveian Festival, the Edinburgh, 11[illegible], 1464
——— Oration. See Oration
Haslar. See Hospital, Royal Naval
Haughton, E., the ethics of antivaccinists, 1[illegible], 027
Haultain, F. W. N., the malignant complications of fibromyomata, 1[illegible]
Havana, antirabic treatment in, 6[illegible]
Havemeyer, W. F., medical practice in Bussorah, 1517
Hawley, life insurance examinations, 64
Haworth, F. G., a case of jaundice, 1[illegible], the feeding of infants, 8[illegible], 75[illegible]
Hawthorne, E. S., vaccination after small-pox, 117[illegible]
Hay fever. See Fever
Hayden, J. R., Venereal Diseases, rev., 251
Hayes, Dr. P. J., obituary notice of, 1[illegible]
Haynes, Capt. H. E., death of, 1051
Hazell's Annual for 1[illegible]4, rev., 1[illegible]44
Headache, morning, 996, 1059
Head-rest for post-nasal operations, 1024
Health conscience, a 94
——— resort, an arctic, 565
——— resorts, reviews of books on, 898; notes on, 1143, 1208, 1263, 1435
Hearsey, H., the treatment of haemoglobinuric fever, 544
Heart, the inception of the rhythm of by the ventricle, 529; some haemoglobin investigations in cases of chronic disease of the, 536; review of book on, 551, the movements of the, 5[illegible], 6[illegible]; suture of the, 736; calcareous changes in 952, neurotic, adrenalin in, 1[illegible], and lungs, reviews of books on diseases of, 1319
——— symptoms, first manifestation of about the age of 4[illegible] 137
Heatherside Sanatorium. See Sanatorium
Heaton, G., obstructive suppression of urine, 370; otitis media, 731
Hebotomy, note on, 401
Hedley, A. S., adrenalin in pulmonary haemoptysis, 365
Heidenhain, perils of atresia vaginae, 853
Heinz, R., Handbuch der experimentellen Pathologie und Pharmacologie, rev., 1[illegible]65
Heitz, J., Les Nerfs du Coeur chez les Tabetiques, rev., 1140
Helferich, H., Atlas and Epitome of Traumatic Fractures and Dislocations, rev., 957
Hellier, J. B., 1[illegible] confinements attended in the outdoor maternity department of the Leeds General Infirmary, 76
Helme, T. A., a suggestion for the treatment of puerperal convulsions by spinal subarachnoid puncture, with notes of a case so treated, 11[illegible]
Hemianopia, right, case of, 731
Hemiplegia, brain from a case of, 367
Hendaye, the sanatorium for tuberculous children at, 1[illegible]
Henry, J. P., testing the eyesight of a nation, 1[illegible]
——— Phipps Institute. See Institute
Hepburn, M. L., atmospheric pressure and apoplexy, 1516
——— Dr. W. A., death of, 1111
Herbert, Major H., Practical Details of Cataract Extraction, rev., 842; pannus and associated corneal changes, 11[illegible]
Heredity, tuberculosis, and life assurance, 1[illegible]
Hereros, the German military forces and, 1[illegible]
Hericourt, J., the physician of the future, 5[illegible]
Herman, G. E., operative and expectant treatment in ectopic pregnancy, 61, ventrifixation of the uterus, 6[illegible], the treatment of retroversion of the gravid uterus, 877
Hernia, tetanus following operation for radical cure of, 132; strangulated, operation for under cocaine, 192; femoral, 549; properitoneal, 6[illegible]; right duodenal, 6[illegible]; strangulated inguinal, perforation of the bowel, resection of, in, of gangrenous gut, recovery, 6[illegible]; strangulated femoral, a case of, 1[illegible], an operation for the radical cure of, 1[illegible] strangulated, case of, 1[illegible]; diaphragmatic, 1429; diaphragmatic in ruptured bladder, 1487
Heroin hydrochloride, a stable solution of, 1[illegible]
Heron, G. A., workmen and sanatoria, 2[illegible]
Herpes zoster, recurrent, 7[illegible], 1[illegible]
Herring, Mr. G., and the Hospital Sunday Fund, 1[illegible]
——— H. T., the fallacy of prostatectomy, 1[illegible]
Herringham, W. P., St. Bartholomew's Hospital, 1[illegible], the glomerular lesions in diffuse (parenchymatous) nephritis, 11[illegible], elasticity of the aorta, 1[illegible], the Infant Orphan Asylum, Wanstead, 1344
Herschell, G., Manual of Intragastric Technique, rev., 1[illegible], Polyphase Currents in Electrotherapy, rev., 436
Herxheimer, G., experimental nephritis followed by decapsulation of the kidney, 1[illegible]
Hewetson, J. T., extensive carcinoma of the oesophagus, with unusual nervous complications, 579
Hewlett, R. T., a method of isolating B. enteritidis sporogenes, 123, "internal secretion" in disease and treatment, 726; bacteriology of climatic bubo, 953
Hey, H. D., supernumerary digits, 1[illegible]
Hicks-Beach, Sir M., on company law, 1[illegible]
Higgens, C., A Manual of Ophthalmic Practice, rev., 842
Highet, J., public health administration in England, 1[illegible]
Highlands and Islands of Scotland, medical officers in, 58; post-office medical appointments in, 1262
Hill, J., ascites due to pressure on the portal vein by enlarged spleen, 1[illegible]
——— L. E., blood pressure instruments, 11[illegible]
——— L. G., recurrent herpes zoster, 7[illegible]
——— Brigade-Surgeon-Lieutenant-Colonel, P. E., extension of service of, 54
Hill-Climo, Lieutenant Colonel, cancer in Ireland, an economical question, 22[illegible]
Hillier, A., the Prevention of Consumption, rev., 1[illegible]
Hind, E. A., extrauterine pregnancy, 879
Hinshelwood, J., dionine, a new ocular analgesic, 1009
Hip, rival methods of treating dislocations of, 54[illegible], congenital dislocation of, 1[illegible]
Hip joint, amputation through for hydatid of femur, 54[illegible], amputation at in osteo myelitis, 1313
Hirzel S., Handatlas der Anatomie des Menschen rev., 435
His, Professor W., death of, 11[illegible], obituary notice of, 1225
Histology, of bone, 59; reviews of books on, 14[illegible]
Hobbes, C. E., a warning sign of danger to the child during labour, 1[illegible]
Holidays, winter, 20, 1[illegible], district medical officers' 1294
Holland, C. T., x rays and renal calculus, 136; x rays and malignant disease, 7[illegible]
——— Hon. S., the State registration of nurses, 12[illegible], 111
Holleman, A. F., A Textbook of Organic Chemistry, rev., 789
Holman, Dr., testimonial to, 752, 8[illegible] (See also Fund); gets honorary fellowship of Medical Society of London, 8[illegible], Earlswood Asylum, 1[illegible]
Holmes, Mr. T., complimentary dinner to, 447
Holt, T. E., the Diseases of Infancy and Childhood, rev., 310
Home, Mary Wardell Convalescent, appeal for, 904
——— treatment of pulmonary tuberculosis, 1[illegible]
——— Office, the secret of its charity, 1[illegible]
Homes, Medical and Surgical Nursing, Limited, 93, convalescent, in London parks, 1[illegible], for convalescent, 14[illegible], 14[illegible], 1[illegible]
Homoeopaths, consultations with, 1[illegible]
Homoeopathy, Dr. C. S. Mack on, 565; statistics of, 7[illegible], in Bavaria, 1[illegible]
Honey, adulteration of, 1[illegible]
Hong Kong, the plague in, 3[illegible], 5[illegible], 7[illegible], 1[illegible], 1[illegible], 4, 1[illegible], 14[illegible], correspondence on, 1[illegible], 1[illegible], 1[illegible], bubonic plague at during the last seven months of the year, 1[illegible]
Honours, New Year, 97; for medical officers of Colonial contingents in South Africa, 1[illegible]
Hooker, C. P., atmospheric pressure and apoplexy, 1311
——— J. S., treatment of cardiodynia, 1[illegible]
Hooton, Captain A., a note on perineal lithotomy, 3
Hope, E. W., infant mortality and its causes, 1[illegible]
Hopgood, T. F., sarcoma of the capsule, excision, recovery, 837; ruptured gastric ulcer, operation, recovery, ib.
Horder, T. G., hospital reform, 50; doctors in Parliament, 461; the intrusion of the layman into medical practice, 1[illegible]
——— T. H., pyocyaneus pyaemia, 954
Horrocks, P., puerperal sepsis, 349; a degenerating fibromyoma, 11[illegible]
——— W. H., [illegible] on Porro [illegible] and a suggested modification, [illegible] Porro's operation, 1255
Horse, influenza in the, 1273
Horseriding in the street, 172

Horse test for consumptives, [illegible]
Horse hair, anthrax from, [illegible]
Horse hire, note on, [illegible]
Horse sickness in Natal, [illegible]
Horsley, Sir V., on "internal secretion" in disease and treatment, [illegible]
Hospital administration, public control of, 31
—— Adelaide, Dublin, annual report of, [illegible]
—— Alexandra, for Hip Disease in Children, annual festival of, [illegible]
—— Bolingbroke, [illegible]
—— Cancer, Fulham, annual meeting of, [illegible]
—— Chalmers, Edinburgh, extension of, [illegible]
—— Children's, Bradford, annual meeting of governors of, [illegible]
—— for Children, the Hamidie at Constantinople, the Sultan and, [illegible]
—— City of London Maternity, opening of "France" ward, [illegible]; annual meeting of, [illegible]
—— for Consumption, Belfast, annual meeting of, [illegible]
—— for Consumption, Brompton, convalescent home for, [illegible]
—— Dental, Birmingham, appeal for funds for, 918
—— for Diseases of the Chest, City of London, festival dinner of, [illegible]
—— for Diseases of the Skin, Blackfriars, report of, [illegible]
—— the Dufferin, at Rangoon, the work of, [illegible]
—— Eye and Ear, Bradford, annual meeting of, [illegible]
—— Guy's and the Southwark Board of Guardians, [illegible]; annual report of, [illegible]
—— High Wycombe and Earl of Beaconsfield Memorial, operating theatre for, 879
—— a hypnotic, [illegible]
—— for Incurables, Aberdeen, annual meeting of, [illegible]
—— Infants, London, the consulting physicianship of, [illegible]
—— isolation, payment for pauper patients in, [illegible]
—— Johns Hopkins, Baltimore, loss by fire, [illegible]
—— King's College, the removal of, 327, 646, 701, 846, 1151; annual court of corporation of, [illegible]
—— the London, small-pox at, 744; Queen accepts presidency of, [illegible]
—— Meath, Dublin, annual meeting of, [illegible]
—— the Middlesex, the "Archives" of, [illegible]; treatment of cancer by Dr. Otto Schmidt's serum at, [illegible]; annual court of governors of, [illegible]; festival dinner of, [illegible]; cancer research at, 1271
—— National, for the Paralysed and Epileptic, appeal by, 505
—— Norfolk and Norwich, donations to by Duke of Norfolk to found ophthalmic department, [illegible]
—— Northampton General, opening of two new wings of, [illegible]
—— Orthopaedic, of Ireland, annual report of, [illegible]
—— private for out-patients, 342, 466
—— Queen Charlotte's Lying-in, report of Committee of, 520
—— reform. See Reform
—— Royal Chest, the physicianship of, [illegible]
—— Royal Dental, London, annual meeting of governors of, [illegible]
—— Royal London Ophthalmic, annual report of, [illegible]; postponement of festival dinner of, [illegible]
—— Royal Maternity, Edinburgh, the teaching of midwifery at, [illegible]
—— Royal Naval, Haslar, distribution of prizes [illegible]
—— Royal Orthopaedic, vacates premises [illegible]
—— Royal Portsmouth, annual meeting of, [illegible]
—— Royal Prince Alfred, Sydney, the Queen Victoria [illegible]
—— Royal Sea Bathing, Margate, description of, [illegible]
—— [illegible] for [illegible] Children, Aberdeen, annual report of, [illegible]
—— [illegible] Liverpool [illegible]
—— Royal Victoria, Belfast, donation to [illegible]
—— [illegible]
—— Royal Waterloo, [illegible]
—— St. Andrew's, [illegible], Northampton, [illegible]
—— St. Bartholomew's, [illegible] 140, [illegible]
—— St. George's [illegible] Marmorek at [illegible]; proposed [illegible]
Hospital, St. Luke's, New York, plans for, [illegible]
—— St. Thomas's, the Samaritan fund of, [illegible]; regulations by Charity Commissioners as to future regulation of, [illegible]; award of prizes at, [illegible]
—— Samaritan Free, Leap year festival of, [illegible]
—— a self-supporting, [illegible], 1047
—— ships. See Ships
—— for Sick Children, Belfast, annual meeting of, [illegible]
—— Sunday. See Fund
—— the Tottenham, annual report of, [illegible]
—— Victoria, for Children, completion of new wing of, [illegible]
—— for Women, Birmingham and Midland, annual meeting of, [illegible]
—— for Women, New, report of, [illegible]
—— for Women, Wolverhampton and District, annual meeting of subscribers to, [illegible]
—— for Women and Children, Manchester Southern, report of, [illegible]
Hospitals, of London, out-patients at, 35, 44, [illegible]; municipal aid for, [illegible]; isolation, [illegible]; rate aid for, [illegible]; cubic space in, ib.; in the United States, [illegible]; of London, a windfall for, [illegible]; isolation, leading article on, [illegible]; in New York, [illegible]
—— cottage, operations by poor-law medical officers in, [illegible]
—— the Imperial Yeomanry and Sir A. Fripp, 431
Hour-glass stomach. See Stomach
House, cost of sanitary alterations in a, [illegible]
—— duty on stables, [illegible]
Household Cavalry, promotions and appointments in medical service of, 1112
Housing of the working classes in Dublin, [illegible]; rural, [illegible]
Howard, H., Earlswood Asylum, 1515
Hoyle, J. C., raised scars after vaccination, [illegible]
Hughes, S., bleeding in pneumonia, [illegible]
—— Mr. T. H., obituary notice of, [illegible]
Hulbert, H. H., Natural Physical Remedies in the Treatment of Disease, rev., [illegible]
Hull, C. C. P., Earlswood Asylum, 1515
Humphrys, A. A., the effects of baking powder, [illegible]
Hungary, state medical appointment of women in, [illegible]
Hunter, W. (Hong Kong), the occurrence of primary tuberculous infection of the intestinal tract in children, [illegible]; mixed infection in tuberculosis, [illegible]
—— W. (London), myositis ossificans, [illegible]
Huntley, E., strangulated femoral hernia, operation under cocaine, [illegible]; malignant disease of ascending colon, [illegible]
Husband, repudiation of debts by, 467
Husband's Forensic Medicine, Toxicology and Public Health, rev., 1084
Hutchinson, J., the annual museum at the Oxford meeting, [illegible]
—— J., jun., epileptiform neuralgia of superior maxillary nerve, [illegible]
Hutchison, Dr. W., death of, [illegible]
Hydatid, of femur, amputation through hip-joint for, [illegible]; pulmonary, [illegible]
—— disease in the pelvis, [illegible]
Hyderabad Assigned Districts, charitable dispensaries in the, [illegible]; sanitary report of, [illegible]
Hydrocele, double ovarian, [illegible]
Hydrogen peroxide and gonorrhoeal conjunctivitis, [illegible]
Hydronephrosis, congenital, [illegible]; due to abnormalities in the ureters, [illegible]
Hydrophobia at Chicago, [illegible]
Hydrotherapeutics, reviews of books on, [illegible]
Hygeia, an insanitary temple of, [illegible]
Hygiene, instruction in, [illegible]; reviews of books on, [illegible]; school, discussion on at Cardiff, [illegible]; personal and the prevention of disease, [illegible]; books on, [illegible]; tropical book on, ib.
[illegible]
Hyoscine in nervous disorders, [illegible]
Hyperpyrexia, extreme, case of, [illegible]
[illegible]
Hypertonic and [illegible] in relation to [illegible] the digestive system, [illegible]
Hypertrophy of the heart and pregnancy, [illegible]
[illegible]
[illegible], Abernethy [illegible], books on, 431
[illegible]
[illegible]

I

[illegible] of the [illegible]
[illegible]
Illegitimacy and infant mortality, [illegible]
Illness, due to milk, report on an outbreak of, [illegible]
Imbeciles in workhouses, [illegible]
Immunity, graphic records of experiments on, [illegible]
Immunization against anthrax, [illegible]
Impregnation, the site of, 711, 720, 74[illegible]
Ince, J., Elementary Dispensing Practice, rev., [illegible]
Inception of the rhythm of the heart by the ventricle, [illegible]
Income-tax, deductions from, 115, [illegible]; assistantships, [illegible]; assessments to, [illegible]; partnerships and, [illegible]; and the assurance, 1524
Incubation, simultaneous, of two infections, [illegible]
—— period of [illegible]
—— stage of small-pox, vaccination in the, 488
India, the plague in, [illegible]; native foods in, [illegible]; sanitary reports in, [illegible]; drugs and licences in, 702; correspondence from, [illegible]; prospects of medical practitioners, [illegible]; automobiles in, [illegible]; variation in population compared with variation in rainfall, [illegible]; the anti-malarial campaign at Mian-Mir, 1106; plague inoculation in the Punjab, ib.; the station hospital system in, 1171; charge allowance for station hospitals in, 1408
Indians, American, insanity among, [illegible]
Indigo dye worker, alleged poisoning in an, [illegible]
Inebriety, the treatment of by atropine, [illegible]; the so-called "gold cure" for, [illegible]; drug treatment of, [illegible]
Infant, of 4 months, empyema in an, single incision, recovery, [illegible]; fed on municipal "humanized" sterilized milk, scurvy in an, [illegible]; the alleged transmissibility of the malaria parasite from mother to, [illegible]
—— mortality. See Mortality
Infants, splenic anaemia of, [illegible]; feeding of, [illegible]; physical development and the feeding of, [illegible]; milk for, [illegible]; a formula for the feeding of, [illegible]; factory hands, breast feeding of, [illegible]
Infection, the paths of in tuberculosis, [illegible]; in acute rheumatism, 247; barbers and, [illegible]; in death from tuberculosis, seat of, [illegible]; protracted and recrudescent in diphtheria and scarlet fever, [illegible]; intrauterine, of the fetus by small-pox, 14[illegible]
Infections, pyogenic, serum and other medications in, [illegible]
Infectious cases in a surgery, [illegible]
Infectivity of scarlet fever, duration of, [illegible]
Infirmary, an eye, complaint against, [illegible]
—— Leeds, General, [illegible] confinements attended in the outdoor maternity department of, [illegible]
—— North Charitable, Cork, an operating theatre for, 1217
—— North Staffordshire, opening of Nurses' Home in connexion with, [illegible]
—— Royal, Aberdeen, annual report of, 800; appointments at, [illegible]
—— Royal, Edinburgh, notes on, 41; annual meeting of, [illegible]; age limit of professors at, 98, 153, 210, 1101; changes in staff of, [illegible]; transfer of old buildings of to the University, [illegible]; the last kitchen concert, ib.; appointment of gynaecologist, ib.
—— Royal, Glasgow, the reconstruction of, [illegible]
—— Royal, Liverpool, enlargement of Medical Board of, [illegible]; assistant gynaecological surgeon to, [illegible]
—— Royal, Manchester, annual general meeting of, [illegible]; proposed ambulance service for, [illegible]; Jewish ward and kitchen in, [illegible]; progress of, [illegible]; clearing site for, [illegible]
—— Royal, Newcastle-on-Tyne, the presidency of, [illegible]; new building for, [illegible]
Inflammation of the lachrymal passages, [illegible]
Influenza, the past year, [illegible]; potassium bicarbonate in, [illegible]; in Philadelphia, [illegible]; in the horse, [illegible]
Ingram, P. C. P., single [illegible] plasma secondary to tubercle, [illegible]
Inhaled [illegible]
Inhaler, [illegible] anaesthetic [illegible]; rubber, Ormsby, [illegible] ether and ethyl chloride, [illegible]
Injection, hypodermic, [illegible]
Injections, hypodermic, [illegible] mercury, [illegible]
Injuries to the [illegible]
Injury, [illegible] assessors in, [illegible]
Inman, [illegible] W., [illegible]
[illegible]
[illegible] typhoid, committee appointed to consider, [illegible]
[illegible] and other [illegible]
[illegible]

Inquest, the, on Mr. Whitaker Wright [illegible]
Insane, care of the [illegible] the Philippine Islands, [illegible] progressive paralysis of the, [illegible]
Insanity, variation in its relation to, [illegible] among American Indians [illegible]; in the United States [illegible]; the plea of [illegible]; in New York, [illegible]; in Australasia, [illegible]
Inspection of educational work in Poor-law schools, [illegible]
Institute, a Behring, for Germany, [illegible]
——— the Birmingham Consultative, raking over extinct ashes of, [illegible]
——— the Carnegie, meeting of Board of Trustees of [illegible]
——— the Henry Phipps lectures at, [illegible]
——— the Keeley, Dr. J. Edmunds and, [illegible]
——— the Lister, descriptive pamphlet of, [illegible]
——— London University of Medical Sciences, contributions towards fund for raising, [illegible]; letter to Lord Rosebery as to, [illegible]; donation by the King to, [illegible]
——— **the Pasteur, at Kasauli, annual report** of, [illegible]; at Paris, the directorship of, [illegible]
——— Queen Victoria's Jubilee for Nurses, annual report of Scottish branch of, [illegible]
——— the Sanitary, discussion on school hygiene at Cardiff, [illegible]; annual dinner of, [illegible]; congress of at Glasgow, [illegible]
——— Weidhaas Hygienic, the methods of, [illegible]
Institution, Liverpool Medical, meeting of, [illegible], 839; **congenital hydronephrosis**, 136; **x rays and renal calculus**, ib.; clinical lectures in 1749, **ib.; cerebral tumour, cerebral thrombosis**, [illegible]; the modern surgery of the prostate, [illegible]; officers of, [illegible]; hot-air cautery, [illegible]; chronic antimony poisoning, ib.; intravesical separation of the urine, ib.; puerperal sep**ticaemia, ib.; the president's badge**, 456; perforating gastric and duodenal ulcers, [illegible]; the treatment of malarial fever, ib.; placenta **praevia, ib.; history of its foundation and** progress, [illegible]; radium and tuberculous ulcera**tion, 784; x rays and malignant disease, ib.**; infant mortality and milk, ib.; carcinoma of the oesophagus, gastrostomy, [illegible]; excision of **Gasserian ganglion, ib.; the technique of aseptic surgery, ib.; strangulated hernia**, [illegible]; swallowed foreign bodies, ib.; **pleural effusion, ib.**
——— Royal, lectures at, [illegible]; annual meeting of, [illegible]; vice-presidents of, [illegible]
Insufflator and aspirator, a, [illegible]
Interrupter, a new, [illegible]
Intestinal tract in children, the occurrence of primary tuberculous infection of, [illegible]
Intestine, large, siphonage and hydraulic pressure in, [illegible]; large, annular stricture of, [illegible]; rupture of, [illegible]; small, traumatic rupture of the, [illegible]
Intubation in laryngeal diphtheria, [illegible]
Intussusception, two cases of, [illegible]
Inversion of the uterus, [illegible]
Investigation of small-pox, 1093
Iodine, a non-toxic preparation of, [illegible]
Ireland, notes from, 41, [illegible], 454, [illegible]; the Poor-law medical service in, [illegible]; vital statistics of, [illegible]; **the Midwives Act and training institutions in**, [illegible]; cancer in, **an economical question**, [illegible]; the viceregal court, [illegible]; the university question in, [illegible]; removal of infectious cases in, [illegible]; **medical officers' substitutes**, 510; **public health problems in**, 54[illegible]; **the legal and medical professions in**, 578; **the Poor-law medical system in**, [illegible]; the Irish Medical Association and the report on the Poor-law medical system in, [illegible]; the report on the dispensary service in, [illegible]; medical attendance on West Coast islands of, [illegible]; **superannuation of Poor-law medical officers** in, [illegible]; the Local Government Board and the Poor-law medical system in, [illegible]; the West Coast islands of, [illegible]; Lady Dudley's scheme for district nursing in, [illegible]; the King in, [illegible]; tuberculosis in the south of, [illegible]; **the dispensary system in, 1467; alcoholism in, 1457; Dr. J. O'Carroll on the Poor-law medical service in, 1477; Mr. R. Tobin on the strike in the Poor-law medical service in, 1480**
Iridectomy in glaucoma, 489
Irrigation of wounds with chemical irritants, [illegible]
Irrigator, an inspiratory nasal, 734
Irritants, chemical, irrigation of wounds with, [illegible]
Irwin, S. T., tetanus following operation for radical cure of hernia, [illegible]
Isdell, F., treatment of whooping-cough, [illegible]
Ismailia, the prevention of malaria at, [illegible]
Isolation, and scarlet fever at Portsmouth, 585; **of 2,745 contagious cases at the Pasteur Hospital**, [illegible]
Italy, foreign medical practitioners in, [illegible]
public health in, [illegible]; the healing art in, [illegible]; medical senators of, [illegible]; prophylaxis of infectious disease in schools of, [illegible]
Ives, Mr. E., death of, [illegible]

J.

Jacobi, A., Therapeutics of Infancy and Childhood, rev., [illegible]
——— **E., Portfolio of Dermochromes, rev.**, 1421
——— Miss G. B., lumbago, [illegible]; the necessity for improving the teaching of massage in England, [illegible]
Jalland, W. H., appendicitis and ovarian cyst, [illegible]
Jamaica, yellow fever in, 127; **glandular fever in**, 952
James, Alexander, empyema and bronchiectasis, [illegible]
——— **Arthur, the Metropolitan Street Ambulance Association**, [illegible]
——— **Captain S. P., The Causation and Prevention of Malarial Fevers, rev.**, [illegible]
Jamieson, W. A., light treatment and cutaneous disease, [illegible]
Janes, Miss Emily, The Englishwoman's Year Book and Directory, rev., 734
Japan, closing of a medical school in, [illegible]; the military medical system of, [illegible]; the plague in, [illegible]; the Red Cross Society in, [illegible]; the influence of medicine in the development of, [illegible]
Japanese, the physique of the, 622; **soldiers, the** feet of, [illegible]
Jardine, R., "accouchement forcé," 78; Practical Textbook of Midwifery for Nurses, rev., [illegible]; **obstructed labour**, 954
Jaundice, a case of, [illegible]
Java, the climate of, [illegible]
Jaw, ankylosis of the, [illegible]; permanent closure of resulting from infantile paralysis, [illegible]; luxation of during sea-sickness, 147
Jealousy, professional, 151
Jeanselme, E., Cours de Dermatologie Exotique, rev., [illegible]
Jefferson, A., rupture of the middle meningeal artery by contrecoup, [illegible]
Jejunum, intestinal obstruction due to paralysis of a loop of, [illegible]; peptic ulcer of the, [illegible]
Jellett, H., A Short Practice of Midwifery, rev., 196; A Short Practice of Gynecology, rev., [illegible]
Jenner, Mr. L. J., obituary notice of, [illegible]
Jepson, E., medical unions and the British Medical Association, [illegible]
Jersey, the Dental Act of, [illegible]
Jessop, W. H. H., [illegible]
Johannesburg, the plague in, [illegible], **848; notification in, 854**
Johnson, Miss A. N. V., appointed medical officer to West Norwoood schools, 170; the action of the blood serum from cases of acute mental disorder on the bacillus coli communis, [illegible]
——— C., a case of acute traumatic tetanus, 782
——— R., translucent cystic swelling of root of nose, [illegible]; multiple aneurysms, ib.
Johnston, Major C. A., leprosy in Travancore, 462; splint for transverse fracture of the patella, 612
Joint disease as encountered in medical practice, [illegible]
——— operations, mobility after, [illegible]
Jolly, Professor F., death of, 110
Jones, A. T., puerperal sepsis, 1288
——— E. H., [illegible]
——— **H. E., acute dermatitis produced by satinwood irritation**, 1484
——— [illegible], school [illegible]
——— H. L., the interests of the layman in medical practice, [illegible]
——— **R. (Claybury), alienism and inebriety**, 1138
——— **R. (Liverpool), tuberculous arthritis**, [illegible]
——— **T. S., a case of vesicular mole of unusual** size, [illegible]
Jordan, A. C., veronal, a new hypnotic, 538
Joseph, Miss A. R., school children out of school, [illegible]
"Journal of Tropical Medicine," award of prize essays given by, 410
Jubb, A. A., case of [illegible] pernicious beri-beri, [illegible]
——— [illegible], congenital dislocation of the knee with **talipes calcaneus**, [illegible]
Judd, W. R., a case of lead encephalopathy, 888
Juler, H. E., A Handbook of Ophthalmic Science and Practice, rev., [illegible]
Juries, coroners', censure by medical men of, [illegible]
Jury, a discreet, 1210
——— [illegible] medical practitioners [illegible]

K.

Kahn, [illegible], a [illegible] for infant feeding [illegible]
Kaiser. See Emperor, German
Kala-azar in Assam, [illegible]; Leishman-Donovan bodies found in, [illegible]
Karamitsas, Dr. G., death of, 1291
Kasauli Institute. See Institute
Katrak, N. N., Materia Medica of India and their Therapeutics, rev., [illegible]
Kaye, J. R., water supplies from the new red sandstone, [illegible]
Kearton, R., Wild Nature's Ways, rev., [illegible]
Keeley Institute. See Institute
Keen, W. W., A Textbook of Surgery for Practi**tioners and Students, rev.**, 957
Keith, S., cancer research, [illegible]
Kellock, T. H., foreign body impacted in bronchus, [illegible]
Kelly, A. O. J., International Clinics, rev., [illegible]
——— Major M., [illegible] treatment of [illegible] cutaneous ulcers, [illegible]
Kelsch, tuberculosis in the French army, [illegible]
Kelson, W. H., cicatrized external meatus, 371
Kemp, D. C., some clinical features associated with guinea worm, [illegible]
Kempe, G., case of pancreatic haemorrhage, [illegible]
Kempster, Dr. W. H., obituary notice of, [illegible]
Kennard, Dr. D., death of, 645
Kennedy, A. E., jun., perforative typhlitis, operation, recovery, [illegible]
Kent, Mr. H. A., obituary notice of, [illegible]
Kentucky, appointment of expert witnesses in, [illegible]
Kenwood, H., abstract of a report upon a recent outbreak of illness due to milk, [illegible]
Kephir and koumiss, [illegible]
Keratitis, interstitial, the knee-jerk pheno**menon in**, 471
Kerr, J. M. M., forcible dilatation of the cervix in "accouchement forcé," 67; vaginal Caesarean section, [illegible]; spontaneous rupture of the uterus, [illegible]
Key, M. A., preservation of rubber instruments, [illegible]
Keyser, C. R., achondroplasia with spinal curvature, 549
Keyworth, Dr. J. W., obituary notice of, 404
Khory, R. K., Materia Medica of India and their Therapeutics, rev., [illegible]
Kidd, L., on the Irish Poor-law medical service, [illegible]
——— W., The Direction of the Hair in Animals and Man, rev., [illegible]
Kidney, reviews of books on disorders of the, [illegible]; some cases of disease of, [illegible]; decapsulation of, [illegible]; decapsulation of following ex**perimental nephritis, 819; decapsulation of** for the treatment of albuminuria, [illegible]; "floating," case of in which nephrorrhaphy was successfully performed, 1415
——— [illegible] cough, [illegible]
Kids and rabbits, [illegible]
King, the gift of to the nation, [illegible]; the visit of to Cambridge, [illegible]; the and medical education, [illegible]; visit of to Osborne House, [illegible]; visit of to Portsmouth, [illegible]; and St. Bartholomew's Hospital, [illegible]; visits Finsen Light Institute, [illegible]; and the **physical development of children**, 973
King, A., alcohol and the medical profession, 648
King's Lynn, meat case at, [illegible]
Kirby, E. D., doctors in Parliament, 280
Kirker, Fleet-Surgeon G., the late, 55
Kirmisson, administration of chloroform by Roth's apparatus, [illegible]
Kitchens, restaurant, [illegible]
Klein, aerated preserved milk, [illegible]; a new patho**genic bacillus (B. carnis), 193; bacterial test of pollution**, [illegible]
Knaggs, R. L., tranmatic rupture of the small intestine, 832
Knee, congenital dislocation of with talipes calcaneus, [illegible]; osteo-[illegible] of the, [illegible]
Knee-jerk phenomenon, the, in interstitial keratitis, 471
Knox, Captain E. B., raised scars after vaccination, [illegible]
Koch, Professor R., the sixtieth birthday of, [illegible]; visit of to Egypt, [illegible]; abode of, [illegible]; return of to Berlin, [illegible]
Kocher, T., Textbook of Operative Surgery, rev., [illegible]
Koplik, H., The Diseases of Infancy and Childhood, rev., [illegible]
Korea, a medical [illegible] Red **Cross Society in**, [illegible]
Koumiss and kephir, [illegible]
Kraepelin, Professor, [illegible]
Kreuznach as a health resort, [illegible]
Krohne, C. W., ether vapour, 1471
Kussmaul, Professor, [illegible]
Kynsey, Sir W. R., [illegible]

L

Labbé, H., La Molécule [illegible] Phosphorée, etc., rev., [illegible]
Laboratories, the Thompson Yates [illegible], Report of, rev., [illegible]
Laboratory, Glamorgan and Cardiff Borough, report of, [illegible]; pathological, of the lunacy department in New South Wales, [illegible]; the New York State Cancer, [illegible]
——— reports, the medical profession and, [illegible]
Labouchere, Dakhel, [illegible]
Labour, [illegible] causing delay in, 74; [illegible] impeded by [illegible] bladder [illegible]; warning sign of danger to the child during, [illegible]
Labyrinth, suppuration of, [illegible]
Lachrymal passages, inflammation of, [illegible]
Lallan, T., ventilation of operating theatres, [illegible]
Lamb, E. A. R., a case of alcoholism followed by hyperpyrexia, coma, death, [illegible]
Laminectomy in a case of paraplegia of sixteen months' standing, recovery, [illegible]
Lamp [illegible]; portable, for laryngoscopic purposes, [illegible]
Lancashire, the county council of, and the Midwives Act, [illegible]
Land scurvy. See Scurvy
Lander, Mr. F. J., death of, [illegible]
Landerkin, Dr., death of, [illegible]
Lane, W. A., an instrument for rapidly enlarging openings in skull, [illegible]
Langerhans, R., Die traumatische Spätapoplexie, rev., [illegible]
Language, an international, of medicine, [illegible]
Laparotomy in [illegible] rupture of uterus, recovery, [illegible]; and drainage in a case of [illegible]
Lapland, a health resort in, 565
Lapper, R., [illegible]
Larking, A. E., the [illegible] and medical defence, [illegible]; salary of Poor-law appointments, 1108
Larymore, Mrs., an early African explorer, [illegible]
Laryngoscope, [illegible]
Larynx, [illegible] with syphilis, [illegible]
Latham, [illegible] postal employés, [illegible]; Marmorek's tuberculous serum, 857
Lawrence, S. M., case of poisoning by phenacetin, [illegible]
Lavan, [illegible] T., The Diseases of the Mouth and Throat, rev., [illegible]
Laveran, the prophylaxis of malaria in Madagascar, [illegible]; the Leishman-Donovan parasite, [illegible]
Laville, [illegible]
Law, [illegible]
Lawrence, Sir T., St. Bartholomew's Hospital, [illegible]
Lawrie, E. M., [illegible]
Layman, the [illegible] medical practice, [illegible]
Lazarus-Barlow, W. S., Dr. [illegible] A Manual of General or Experimental Pathology, rev., [illegible]
Le[illegible], W., [illegible]
Lead [illegible]
Lea[illegible] indus[illegible]
LEADING ARTICLES: [illegible]

last [illegible]; Lord Esher's Committee and the Army Medical Service, [illegible]; the physiology and pathology of the pancreas, [illegible]; plague at [illegible]; [illegible] strains of the tubercle bacillus, [illegible]; the London milk supply, [illegible]; the predominance of the psychoses, [illegible]; immunity and blood [illegible]; [illegible] employment for "cured" consumptives, [illegible]; and vagrancy, [illegible]; [illegible] and [illegible]; the Poor-law [illegible] service in Scotland, [illegible]; mental fatigue, [illegible]; the National Anti-vaccination League, [illegible]; the medico-political work of the Association, [illegible]; the attitude of the medical profession towards the treatment of [illegible] persons, [illegible]; physical [illegible] in elementary schools, [illegible]; overlooked forces, [illegible]; the bacteriology of rheumatic fever, [illegible]; live birth and live birth, [illegible]; the future of London medical education, [illegible]; the food question in health and disease, [illegible]; heredity, tuberculosis, and life assurance, [illegible]; friendly advertisement, [illegible]; dementia praecox and simulation, [illegible]; the Government Lunacy Bill, [illegible]; deterioration and development, [illegible]; home defence and compulsory service, [illegible]; human and bovine tuberculosis, ib.; the Oxford meeting, [illegible]; euthanasia, 1354; the home treatment of poor consumptives, 1443; the prophet of the New Zion, 1443; the Education (Scotland) Bill, 1443; the future of St. George's Hospital, 1500; the prevention of old age, 1501; Earlswood Asylum, [illegible]
League, International Tuberculosis, date, etc., of meeting of, [illegible]
——— the National Antivaccination, Dr. E. Haughton and, 699, 927; leading article on, [illegible]
——— National Sunday, donations to charities by, [illegible]
——— the Workmen's, Rotherhithe, and patent medicines, [illegible]
Lecture, Richard Middlemore, post graduate, [illegible]; the Oliver-Sharpey, [illegible]
Lectures, clinical, in [illegible]; the Hunterian, by Mr. A. Bowlby, [illegible]; at the Henry Phipps Institute, [illegible]; on medical [illegible]; the Morison, at the Royal College of Physicians of Edinburgh, by Dr. J. Macpherson, [illegible]; the Lettsomian, on aseptic surgery in theory and practice by Mr. C. B. Lockwood, [illegible]; on [illegible]; the Hunterian, on the pathology and surgery of certain diseases of the pancreas, by Mr. A. W. Mayo Robson, [illegible]; to teachers at Dundee, [illegible]; the Ingleby, subject of, [illegible]; the Tillinghast, subject of, [illegible]
Le Dantec, F., Traité de Biologie, rev., [illegible]
Le Double, A. F., Traité des Variations des Os du Crâne de l'Homme, rev., [illegible]
Lee, J. B. D., Obstetrics for Nurses, rev., [illegible]
Leedham-Green, C. A., double empyema, [illegible]; subphrenic abscess, ib.; [illegible] yeasts of [illegible]; disinfection of the hands, ib.
Leeds, health of, 468; milk and mortality at, [illegible]; meeting in aid of university for, 745; opening of public dispensary at, [illegible]
Lees, D. B., the treatment of pneumonia, [illegible]
Le Feuvre, W. P., infection in acute rheumatism, [illegible]
Leftwich, R. W., on Syphonage and Hydraulic Pressure in the Large Intestine, rev., [illegible]; the air of railway tube, [illegible]
Legge, T. M., on anthrax, [illegible]
Leighton, G., [illegible] Lizards, rev., [illegible]
Leishman, Major W. B., notes on the nature of the parasitic bodies found in the spleen [illegible]; [illegible] deep [illegible] in India, [illegible]
Leishman-Donovan bodies found [illegible] [illegible] found at Omdurman, [illegible] continued fever, [illegible]
Leishmania [illegible]. See Leishman-Donovan bodies
[illegible]
Lennox, [illegible] death of, [illegible]
[illegible]
[illegible] Dundee, [illegible]
[illegible]
[illegible]
[illegible] apoplexy, [illegible]
[illegible]
[illegible] to

in Nebraska, [illegible]; in the United States, [illegible]; from a sanitary standpoint, [illegible]; in Russia, ib.; in Travancore, [illegible]; the etiology of, 471; [illegible] research as to, at Molokai, [illegible]; South America, [illegible]; of the ovaries, [illegible]; reported cure for, [illegible]; history of, 1443
Lesion of post central convolution without paralysis, [illegible]
Lesser, A., Stereoskopischer gerichtsärztlicher Atlas, rev., [illegible]
Letulle, La Pratique des Autopsies, rev., 437
Leucocytosis and appendicitis, [illegible]
Leukanaemia, a case of, [illegible]
Levy, A. G., the administration of ethyl chloride, [illegible]
Lewers, A. H. N., A Practical Textbook of the Diseases of Women, rev., [illegible]
Lewis, consumption in, [illegible]
Lewis, L., called to the Bar, [illegible]
——— W. H., an unusual epileptic case, 126
Lewtas, Lieutenant-Colonel J., cystic hygroma, removal, recovery, [illegible]
Liability, employers', [illegible]
Liebault, Dr. A. A., death of, [illegible]
Life, risks to, in London, [illegible]; birth, and live birth, [illegible]; on the West Coast of Africa, [illegible]
——— Guards, promotions and appointments in medical service of, [illegible]
——— insurance aspects of phthisis, [illegible]
——— insurance examinations, [illegible]
——— saving competition, [illegible]
——— span of the guinea worm, [illegible]
Ligament, round, fibromyoma of, [illegible]
Ligaments, broad, [illegible] intra-abdominal operations on, [illegible]
Ligature, a new, [illegible]
Light treatment and cutaneous disease, [illegible]; instruction in, 348
Lincoln, epidemic of sore throat at, [illegible]
Lindsay, J., diaphragmatic hernia, [illegible]
——— J. A., Lectures (Clinical) on Diseases of the Lungs and the Heart, rev., [illegible]
Linen and flax, health of operatives in, [illegible]
Links, [illegible] malignant growths, [illegible]
Lipomatosis, diffuse, [illegible]
Lister, T. D., the life insurance aspects of phthisis, [illegible]
LITERARY NOTES, [illegible]; M. Anatole France on [illegible]; J. Snowman on Jewish influence on medical science in the Middle Ages, ib.; Mark Twain on vivisection, ib.; Laveran and the discovery of the malarial parasite, [illegible]; Mr. [illegible]; George Bird, [illegible]; Herbert Spencer [illegible]; Dr. [illegible]; Mr. A. [illegible] Stewart on the death of the fourth Earl of Atholl, [illegible]; Mr. S. G. Shattock on Latin as an international scientific language, [illegible]; R. L. Stevenson at Saranac Lake, [illegible]; Dr. C. W. Saleeby on Herbert Spencer, ib.; public [illegible] in the United States, [illegible]; Dr. Hamilton on the duties of a surgeon, [illegible]; [illegible] seventeenth century, ib.; the discovery of the stomach tube, [illegible]; Dr. Judson Bury on the spleen, ib.; the [illegible] medical students, [illegible]; Mr. W. H. [illegible]; [illegible] Hunter [illegible] natural history, [illegible]; [illegible] Medical Paris during [illegible]; [illegible]; [illegible] of Ulster, [illegible]
Little, [illegible]
[illegible]
Little, Mr. H. J., death of, [illegible]
[illegible]
Liver, [illegible] yellow atrophy of the, [illegible]
Liverpool, [illegible] Sunday, [illegible]; [illegible] the Royal Infirmary, [illegible]; the recognition of the [illegible] by the Midwives Board, ib.; the Chamber of Commerce at, and the prevention of malaria, [illegible]

vote to University of, 456; study of tropical diseases in, [illegible]; milk precautions at, [illegible]; cancer research in, [illegible]; district nursing, [illegible]; the Consumption Hospital and Delamere Sanatorium, [illegible]; the isolation of measles and whooping cough, [illegible]; Epileptic Home, Maghull, ib.; health report of Bootle, ib.
Livingston, J., the Midwives Act, [illegible]
Llewellyn, T. L., empyema in an infant of 4 months, simple incision, recovery, [illegible]
Lloyd, F. G., Diseases of the Appendix Vermiformis and their Treatment, rev., [illegible]
——— J., enlarged prostate, [illegible]; apparatus for administering creosote, [illegible]; sections of prostate glands, ib.
Lloyd-Roberts, J., the Public Health Act, [illegible]
Localization, cerebral, histological studies on, [illegible]; of abdominal viscera, [illegible]
Lockwood, C. B., aseptic surgery in theory and practice, [illegible]; the health of, [illegible]
Lockyer, C., primary carcinoma of the ovaries, 1430
——— Sir N., education in London, [illegible]
Locum tenens, remuneration of, [illegible]; work of in Irish dispensaries, [illegible]; an inform, [illegible]
Loewenthal, N., Atlas zur vergleichenden Histologie de Wirbeltiere, rev., [illegible]
L'Oeuvre des Enfants Tuberculeux d'Ormesson, [illegible]
Löfquist, R., Zur Pathologie der Mucosa Corporis Uteri, rev., [illegible]
Lomer, R., war against cancer, [illegible]
London, the consumptive poor of, [illegible]; the small-pox epidemic of [illegible] in, [illegible]; an efficient ambulance service for, [illegible], 1152, 1161, [illegible], 1447; education in, [illegible]; small-pox in, [illegible]; the milk supply of, [illegible], 1322; recrudescence of small-pox in, [illegible]; degrees and diplomas in, [illegible]; risks to life in, [illegible], 1152, 1447; the future of medical education for, [illegible]; physical examination of [illegible] girls in elementary schools of, [illegible]; the new education authority for, 1328
——— County Council. See County
——— Manual for [illegible], rev., [illegible]
——— University Institute. See Institute
Longden, Mr. D. C., obituary notice of, 282
Longevity, increased, in the United States, [illegible]
Lorenz, Dr., and the penalties of advertisement, 621
Lovell, Sir F., the mission of, [illegible]
Lorand, A., the rational treatment of diabetes, [illegible]
Lord Balfour of Burleigh, opening address at the Fourth International Home Relief Congress at Edinburgh, 1440
Low, G. C., the Leishman-Donovan body and tropical splenomegaly, [illegible]; examination of the tissues of the case of sleeping sickness in a European, [illegible]; the Leishman-Donovan body, [illegible]
Lowell, Dr. Ellen L., appointed chief bacteriologist to the Groves Pathological Laboratory, [illegible]
Lowenthal, the relative sanitary condition of different European armies, [illegible]
Lowman, W. H., the etiology of leprosy, [illegible]; median hare-lip, 892
Lowndes, F. W., fees to medical witnesses, [illegible]; the address of, [illegible]
Lucas, A., rupture of axillary artery, [illegible]
Luke, T. D., Anaesthesia in Dental Surgery, rev., [illegible]
Lumbago, its lessons and analogues, [illegible]; treatment of, [illegible], [illegible]; and angina pectoris, 640; electrical treatment of, 840; and sciatica, [illegible]
Lunacy in Scotland, [illegible]
——— Acts Amendment Bill. See Bill
——— laws in Scotland, [illegible]
——— legislation, [illegible]
——— reform, [illegible]
Lunatics, magisterial action in reference to, 58, [illegible]; in workhouses, certification of, [illegible]; in workhouses, [illegible]
Lung, three cases of abscess of the, [illegible]
Lungs, oedema of the and its importance as a mode of death, [illegible]; therapeutics of diseases of, [illegible]; two cases of disease of treated with the emanations of thorium nitrate, 654; the detection of early tubercle on the, [illegible]; the early diagnosis of tuberculosis of the, [illegible]; reviews of books on diseases of the, [illegible]
Lunn, J. R., spinal caries in a man aged [illegible], with abscesses pointing in the epigastrium, 192; ununited fracture of radius and ulna, [illegible]; tuberculosis of the choroid, 309
Lupton, A., on the Prussian vaccination law of [illegible]
Lupus, treatment of, [illegible]
Luxation of the jaw during sea-sickness, [illegible]
Luxenburger, A., Experimentelle Studien ueber Rückenmarks-Verletzungen, rev., [illegible]
Lyle, H., treatment of x-ray burns, [illegible]
——— W., the Irish dispensary system, [illegible]
Lymphangitis, epizootic, the Board of Agriculture and, [illegible]

M.

MacAdam, Lieutenant-Colonel J. S., death of, [illegible]
MacAlister, D., a diploma in tropical medicine, [illegible]
Macara, Dr., the case of, [illegible]
Macartney, R., medical referees under the Workmen's Compensation Act, [illegible]
McBride, C. A., the treatment of inebriety by atropine, 1006; treatment of inebriety by drugs, [illegible]
McCann, A. E., puerperal eclampsia twice in the same patient, [illegible]
McCardie, W. J., on anaesthetics, [illegible]; an all rubber Ormsby inhaler for ether and ethyl chloride, 1492
McCaw, J., congenital hypertrophic stenosis of the pylorus, pyloroplasty, result, 1483
Macclesfield, contract practice at, [illegible], 1458
MacConaghey, J. C., a method of arresting an epileptic fit, [illegible]
MacConkey, A., the bacterial test of pollution, [illegible]
Macdonald, D., suprarenalin in pulmonary haemorrhage, [illegible]
——— D. S., hereditary deformities, [illegible]
——— S., streptothrix infection, [illegible]
Macdonogh, D., brachial neuralgia, [illegible]; treatment of whooping cough, 1471
MacEwan, D., four abdominal cases, [illegible]
Macewen, Sir W., at Cardiff, 324
McFarland, J., A Textbook upon the Pathogenic Bacteria, rev., 1083
Macfie, R. C., New Poems, rev., [illegible]
McGavin, L., self-retaining drainage tube and pilot for the maxillary antrum, 899; a tonsillotome, 1024
MacGregor, A. N., notes of experiments to determine the relative efficiency of some surgical dressing materials, 1361
——— Sir W., the teaching of sanitation in schools, 682
McIlroy, Miss A. Louise, some conditions of the Fallopian tubes, 370
McInnes, Hon. T. R., death of, 871
Macintyre, J., demonstration on recent electro-therapeutic work, with special reference to lupus, rodent ulcer, and malignant disease, [illegible]
Mack, C. S., "Are we to have a united profession?" [illegible]
Mackenzie, J., the inception of the rhythm of the heart by the ventricle as the cause of the continuous irregularity of the heart, 529; movements of the heart, 637; blood-pressure instruments, [illegible]
——— W. L., The Medical Inspection of School Children, rev., 1432
Mackeown, Surgeon R. J., an obscure case of scarlet fever, 1370
Mackie, J. E., medical practice in Bussorah, 1517
Macknight, T. M., Food for the Tropics, rev., [illegible]
Maclaren, R., on the operative treatment of uterine myomata, 65
McLean, W., the relation between infantile mortality and the birth-rate, 1210
MacLeod, J. M. H., further observations on the therapeutic value of radium and thorium, 1366
——— Dr. W., death of, 645
McNamara, J. the treatment of pneumonia, 218
——— P. J., a new uterine forceps applicator, [illegible]
Macphail, J., the etiology of varicocele, [illegible]
Macpherson, J., on variation, its relation to the origin of insanity and the allied neuroses, [illegible]
——— J., extreme hyperpyrexia, [illegible]
——— Lieutenant-Colonel W. G., attached to Japanese Army, [illegible]
MacRae, C. M., consumption in the Lewis, [illegible]
McVail, J. C., isolation hospitals, [illegible]
McVittie, R. B., physical and mental education, [illegible]
McWeeney, E. J., paraffin method of embedding, [illegible]; ringworm, ib.; sewage contamination of shellfish, 497; on ultra-microscopic disease germs, [illegible]; poisoning by coal gas, [illegible]
MacWilliam, J. A., Aberdeen Anatomical and Anthropological Society, [illegible]
Madagascar, the prophylaxis of malaria in, [illegible]
Madden, E. M., homoeopathic statistics, 797
Madrali, the accident to, 346
Madras, sanitary report of, [illegible]
Magdeleine, the transmission of music by gesture under hypnotic influence, [illegible]
Magennis, E., the medical and legal professions in Ireland, 578; Eye Symptoms as Aids in Diagnosis, rev., 842
Magistrates, action of in reference to lunatics, [illegible]
Mair, W., bacteriology of so-called "sterilized" milk, [illegible]
Makins, G. H., the late Fleet Surgeon Parker, R.N., [illegible]
Malaria, the Glossina [illegible] and the prevention of, [illegible] in the Roman Campagna, [illegible]
[illegible] and, [illegible] the [illegible]; the prevention of at Ismailia, [illegible]; deep [illegible]; the prophylaxis of in Madagascar, [illegible]; prevention of in the Roman Campagna, [illegible]
Malarial [illegible]. See Parasite
Malarial fever. See Fever
Malcolm, [illegible]
Malignant disease, x rays and, [illegible]; primary, of [illegible]; of [illegible]
——— growths, the biological significance of, [illegible]; structural links in, [illegible]; the cytology of, [illegible]
M[illegible], J. W., a case of land scurvy, [illegible]
Malting, articles on, [illegible]
Malins, Dr. E., presentation to, 508
Mal[illegible], S., estimation of the specific gravity of urine, [illegible]; haemoglobinuric fever, [illegible]
Mammitis, bovine, and milk epidemics, [illegible]; suppurative in cows, epidemic sore throat from, [illegible]
Man, aged [illegible], spinal caries with abscesses pointing in the epigastrium, [illegible]
Manchester, correspondence from, [illegible], 214, [illegible]; against spitting, [illegible]; compulsory notification of phthisis, ib.; lectures on public health, 214; free dinners for poor school children, 215; memorial to Joule, ib.; hygiene in slums, [illegible]; improvements in work of coroner, ib.; abandonment of proposal for compulsory notification of phthisis, 277; home for nurses, ib.; gratitude for benefit received at a hospital, ib.; the milk supply of and precautions for its purity, ib.; deaths from burning, [illegible]; new agent for fireproofing flannelette, [illegible]; causes of enteric fever in South Africa, ib.; Aberdeen University Club dinner, [illegible]; the "light" treatment of skin diseases, [illegible]; feeding of poor children, [illegible]; Joseph Priestley memorial, ib.; grant to Victoria University, [illegible]; the Children's Hospital and its out-patient department, [illegible]; Dr. Mott's lecture to medical men at Owens College on pathology of sleeping sickness, [illegible]; report of the coroner, ib.; death of chairman of Infirmary Board, ib.; unwholesome condemned food, ib.; Victoria Dental Hospital, ib.; selection of architects and cost of new infirmary, [illegible]; the spitting nuisance, [illegible]; drunkenness in, ib.; finances of the Northern Hospital, ib.; the guardians of and vaccination, [illegible]; stray dogs in, [illegible]; public health in, [illegible]; voluntary notification of consumption, ib.; extent of physical unfitness for army service, [illegible]; provision for confirmed inebriates in Lancashire, ib.; education of deficient children, ib.; the wonders of Christian Science at, [illegible], 1154; contributions to hospitals, [illegible]; report on unwholesome dwellings, ib.; tuberculosis and imported cattle, ib.; relative density of population in Manchester and London, [illegible]; new public health laboratory, ib.; city coroner, ib.; the medical worthies of, [illegible]; auxiliary fund for Children's Hospital, 1222; Sunday Hospital Fund, ib., water filtration, ib.; Citizens' Association, ib.; the housing question in, ib; nature study for poor children, ib.; industrial oxygen, ib.; increase of rates and instruction in cookery, [illegible]; dirty school children, ib.; self-supporting convalescent homes, ib.; removal of St. Mary's Hospital, [illegible]; the changes in hospital distribution to citizens' life-saving classes, [illegible]; insanitary houses in Salford, ib.; greater Manchester, [illegible]; cost of epileptic homes, ib.; largest reservoir for water supply in the country, ib.; neglected children, 1513
Mann, Mr. C. F. G., death of, 1405
——— T. L., an efficient ambulance service for London, [illegible]; Physiology and Pathology of the Urine, rev., [illegible]
Manouvriez, A., miners' anaemia and ankylostomiasis, [illegible]
Manson, Sir P., note on Dr. Pinnatelli's paper on filariasis, [illegible]; the Leishman-Donovan body and tropical splenomegaly, [illegible]; remittent fever associated with spindle in the blood in a patient from Gibraltar, 538; the disease problem in the West Indies, [illegible]; the Leishman-Donovan body, [illegible]
Mapleton, G. H., puerperal sepsis, 868
Marey, Professor E. J., death of, 1212; obituary notice of, [illegible]
Maritime climate, action of in the treatment of phthisis, 633
Marmorek, the serum of in tuberculosis, 575, 749, 857
Marriage, [illegible]
Marriott, E. D., the sanatorium for consumptives, [illegible]
Marsh, H., [illegible] 280
——— J. [illegible]

M[illegible] E. D., [illegible] Bussorah, [illegible]
M[illegible] C. F., [illegible] cancer, [illegible]
—— I. H. A., the [illegible] the [illegible]
M[illegible], Staff-Surgeon, C., the [illegible]
M[illegible], A. J., [illegible] table, rev., [illegible]
—— A. M., [illegible]
[illegible] at the [illegible] Hospital, [illegible]
Martindale, W. H., The Extra Pharmacopoeia [illegible]
Martindale and Westcott [illegible]
M[illegible], A. J., [illegible]
M[illegible] C. [illegible]
M[illegible], Dr. A[illegible] M., death of, [illegible]
M[illegible]
M[illegible] H. A., [illegible]
[illegible]
M[illegible]
M[illegible] W. H., [illegible]
M[illegible]
M[illegible] J. M. A., [illegible] rev., [illegible]
M[illegible]
M[illegible], R[illegible], Die [illegible] Syphilis, rev., [illegible]
M[illegible] R. C. B., the surgical treatment of [illegible]
M[illegible]
M[illegible] of the [illegible]
M[illegible] H., M[illegible] Diseases of the Eye, rev., [illegible]
M[illegible] A. G., the [illegible] Medical Association of Berlin, [illegible]
[illegible] Gynaecological [illegible]
M[illegible] A. J., [illegible] gastric [illegible]
M[illegible] W. E., [illegible]
M[illegible] lesions [illegible]
M[illegible], on [illegible]
Mazzarelli, Dr. A., death of, [illegible]
M[illegible] W. E., a case of [illegible]
M[illegible]
[illegible] the wearing of, [illegible]
Medical [illegible] See [illegible]
[illegible] See Company
[illegible] and the English College [illegible]
[illegible]
Medical Knowledge, [illegible] Workmen [illegible]
[illegible]
Medicine, [illegible]
Mee[illegible], [illegible] railway [illegible]
M[illegible] D. H., [illegible]
M[illegible] A., [illegible]
Memorandum [illegible] British Medical Journal [illegible] of the Local Government Board, [illegible]
M[illegible] development of [illegible]
M[illegible] extract, [illegible]
[illegible] epilepsy in relation to pregnancy, [illegible]
[illegible] disease, [illegible]; reviews of [illegible]
Men[illegible] Home of Rest at [illegible]
M[illegible], Dr. [illegible]
Mercier, C. [illegible] degenerates [illegible] the Government Lunacy Bill, [illegible]
Mercury, [illegible] injections of, [illegible]
Meredith, W. A., pregnancy after removal of both ovaries for dermoid tumour, [illegible]
Merthyr, the [illegible] question at, [illegible]
Messages to [illegible]
Messiter, M. A., the Association and Medical Defence, [illegible]
Metabolism in the febrile state, [illegible]; nitrogenous, of the [illegible] influence of adrenalin on, [illegible] human, experiments on, 1414
Metastasis in cancer, [illegible]
Metcalfe, J., gastric ulcer and high-frequency currents, [illegible]
—— R., Essays and Notes on Hydrotherapeutics, rev., [illegible]
Metchnikoff, E., the prevention of syphilis, [illegible]; the prevention of [illegible] age, [illegible]
Meteorology [illegible]
Methyl alcohol, blindness attributed to, 151
Metric system, the, in the House of Lords, [illegible]; [illegible] English medical [illegible] a step [illegible]
Michigan, [illegible]
M[illegible], Dr. [illegible], death of, [illegible]
Microbe, a pathogenic [illegible] a new [illegible]
M[illegible] J., general paralysis and work [illegible]
Middlesex, the [illegible]
Midwife, [illegible]
Midwifery, [illegible] training [illegible] medical officers [illegible]
Midwives, Irish, [illegible] Midwives Act, [illegible]
[illegible] Act. See Act
M[illegible] A. M., [illegible] Surgery, rev., [illegible]
M[illegible] for medical officers of, 167; promotion [illegible]
[illegible]
M[illegible]
M[illegible] W., [illegible]
M[illegible]
M[illegible] A., [illegible]
[illegible]
Ministry of death, [illegible]
M[illegible] attention on, [illegible]
Missionaries, medical, and private practice, [illegible]
Mitchell, S. W., the rest treatment, [illegible]
—— T. H., [illegible]
Mobility after [illegible] operations, [illegible]
M[illegible], L., Diabetic and Non-Diabetic Auto-intoxications, rev., [illegible]
Mole, [illegible], of unusual size, [illegible]
Molokai, leprosy research at, [illegible]
Monarchs as medical advisers, [illegible]
Monsarrat, K., on the etiology of carcinoma, researches on the morphology of an organism associated with carcinoma [illegible] and on the etiological significance of the association, [illegible]
Monster, double, [illegible], 47[illegible]
Montgomery, E. E., Practical Gynaecology, rev., [illegible]
Montreal, the spitting nuisance in, 14
Mooney, L., Some Mechanical Peculiarities of the Human Body, rev., [illegible]
Moore, Dr. C. F., obituary notice of, 53
—— Sir J., public health problems in Ireland, [illegible]
—— J. E. S., cancer and its origin, [illegible]; the cytology of malignant growths, [illegible]
—— M. M., registration of births and deaths, 248
—— R. M., alcohol and the death-rate, 145, [illegible]
—— W., isolation hospitals, 107
Moral, a case with [illegible]
Morbid growths, influence of skin grafting on the recurrence of, [illegible]
Morbus dormitivus. See Sleeping Sickness
Morison, P. G., prohibition of dispensing by doctors, [illegible]
—— R., the surgical treatment of tuberculosis, 1414
Morphology of the spirillum of relapsing fever, 1414
Morris, H., Dr. Otto Schmidt's treatment of cancer, 57
—— Dr. S. G., presentation to, 171
Morrison, D. W., obituary notice of, 221
—— T. J., congenital deficiency of pigmentation in negresses, [illegible]
Morrow, P. A., Social Diseases and Marriage, rev., [illegible]
Mors notilis, [illegible]
Mortality, high, of infants, the causes of, [illegible]; among American practitioners, [illegible]; infant, illegitimacy and, [illegible]; milk and, [illegible] of infants, in Belgium, [illegible]; infant, [illegible]; from cancer in the Thames Valley, [illegible]; infantile, and the birth-rate, the relation between, [illegible]; infantile, Dr. H. M. Richards on, [illegible]
Mortimer, W. G., Histoire de la Coca, rev., [illegible]
Morton, C. J., puerperal sepsis, [illegible]
—— Mrs. E., death of, [illegible]
—— R., treatment by Roentgen and radium rays, [illegible]
Moscow, a cancer hospital in, [illegible]
Mosher, J. M., Electro-diagnosis, rev., [illegible]
Mosquito, the extermination of the, [illegible] in America, [illegible]
Mosquito, campaign against, in the Federated Malay States, [illegible] malaria and a challenge [illegible] crusade of children against, in Texas, [illegible]
Mother, alleged transmissibility of the parasite [illegible]
Mothers, nursing and [illegible]
M[illegible] W., [illegible] Owens College, on the [illegible] of sleeping sickness, [illegible]
M[illegible] C. M., the subsequent history of [illegible] upon whom gastric operations had been performed, [illegible]
Movement of the [illegible]
M[illegible] B. G. A., hour-glass stomach, [illegible]; two cases of [illegible] treated by plastic operation [illegible] congenital hour-glass stomach, [illegible]
M[illegible] G. P., A Classbook of Botany, rev., [illegible]
M[illegible] J. C., [illegible] diphtheria, [illegible]
M[illegible], Surgeon J., death of, [illegible]
M[illegible] in the Highlands and Islands of Scotland, [illegible]
M[illegible] reported to London County Council, [illegible]
Murray, C., some tests for [illegible]
—— [illegible], a case of post-operative myxoedema with [illegible]
—— J. A., the significance of the [illegible] the nature of the mitoses and the transmissibility of cancer, [illegible]

Murray R. M., axis-traction forceps, 1[illegible]
——— obituary notice of, 2[illegible]; the late, [illegible]
Museum, of security at Charlottenburg, [illegible]; the annual at the Oxford meeting, 134, 1[illegible], 1447
Musgrave, Sir J., death of, 570
——— W. E., Trypanosoma and Trypanosomiasis, with Special Reference to the Philippine Islands, rev., 1[illegible]
Music, from medicine to, 152; the translation of, by gesture under hypnotic influence, [illegible]
Mysprato, C. D., acute hemorrhagic pancreatitis, operation, recovery, [illegible]
Mutter, T., A Short Manual of Analytical Chemistry, rev., 512
Mycosis fungoides, case of, 4[illegible]
Myers, Brigade-surgeon-Lieutenant-Colonel W. B. R., nurses for passenger boats, 645
Myiasis, notes on, 445; the treatment of, [illegible]
Myoma of the uterus, is it often a fatal disease? 1[illegible]; case of, [illegible]
Myomata, uterine, the operative treatment of, [illegible]
Myopia, removal of the crystalline lens in high degrees of, 4[illegible]
Myositis ossificans, case of, 540
Myrtle, A. S., adrenalin in neurotic heart, [illegible]
Myxoedema, post-operative, with tetany, 1[illegible]; paper on, 1572

N.

N rays. See Blondlot
Nameplate on chemist's premises, 23
Narro, F. L., La Methode de Prokowrow dans le Traitement de la syphilis, rev., 2
Narrowness, congenital, of pyloric orifice, a cause of chronic gastric disease in an adult, 4[illegible]
"Nascent state," influence of, on drugs, 1[illegible]
Nason, E. N., sarcoma, 387
Naso-pharynx, some general results of affections of the, 1[illegible]
Natal, the health of the colony of, 264; horse-sickness in, 4[illegible], prevention of consumption in, 1265
Natural history, reviews of books on, 1196, 1199
Nauheim, the baths at, [illegible]; as a health resort, 1[illegible]
Naval actions, treatment of wounded in, 152, 1[illegible]
Navy, Royal, appointments and promotions in, 4[illegible], 467, 519, 591, 641, 697, 763, 814, 871, 1[illegible], 1[illegible], 1651, 1112, 1171, 1228, 1[illegible], 1349, 1408, 1465, 1518; defects of the medical service of, 54, 5[illegible], 1[illegible]; promotions and appointments in the medical service of, 52, 109, 169, 222, 2[illegible], 341, the Volunteer Reserve of, 54, 2[illegible], 4[illegible], 4[illegible], 5[illegible], 5[illegible], 937, 1171, 1231, the department of the Medical Director-General of, 166; antiseptics in the, 52[illegible]; the medical service of, in the early part of the last century, 612; report on the health of the, 640; estimates for, for the year 1903, 641; leading articles on medical service of, 6[illegible], 765, 1396; medical officers of, on the retired list, 697; promotions and appointments in the Volunteer medical service of, 925; voluntary retirement of surgeons in, 783; vision of candidates for, 1[illegible]; retired pay of medical officers of, 1292
——— United States, titles of surgeons in, 1[illegible]
Neave, S., a razor sharpener, 14[illegible], Leishmania donovani in the Soudan, 1[illegible]
Nebraska, leprosy scare in, 284
Needle, Reverdin's curved, in cleft palate, 1[illegible]
Neglect, an unfounded charge of, 9[illegible]
Negligence, alleged, action for, [illegible], a charge of, 1227; the law of, 1[illegible]
Negresses, congenital deficiency of pigmentation in, 367
Nephritis, experimental, followed by decapsulation of the kidney, 219; diffuse (parenchymatous) the glomerular lesions in, 1196
Nephrorrhaphy, successful, in a case of "floating" kidney, 1441
Nerve, facial, chronic paralysis of, operation, recovery, 13[illegible]; deep ulnar, paralysis of, [illegible]; superior maxillary, epileptiform neuralgia of, 749
——— centres, emission of Blondlot rays by, 15; deafness, sympathetic, [illegible]
Nerves, anastomosis of, in facial paralysis, 1[illegible]; fifth and sixth cervical, bilateral neuritis of, 595; regeneration of, 1[illegible]
Nervous disorders, hyoscine in, 6[illegible]
——— system, alleged increase of disorders of the, 532; trauma in relation to disease of the, 227
Netley, lost time at, 111
Nettle-rash medal, establishment of, 451
Neuralgia, "brachial," note on, 124, 604; epileptiform of superior maxillary nerve, 1[illegible]
Neuritis, in coal miners, 1[illegible]; bilateral of fifth and sixth cervical nerves, 595
Neurology, reviews of books on, 435, 734, 1147
Neuroses, cardiac, 1[illegible]
Neurosis, traumatic, 3[illegible]
Nevitt, Dr J. G., death of, 4[illegible]
New Orleans, Pasteur Institute for, 1[illegible]
——— South Wales, the care of children in, [illegible], the birth rate of, [illegible]
——— Year honours. See Honours
——— York, insanity in, 454, pneumonia in, [illegible], tuberculous children in, 7[illegible], professional secrecy in, 7[illegible], proposed abolition of office of coroner in, 764, hospitals in, 122[illegible], post office censorship of advertisements in, 1[illegible]
——— Zealand, practice in, 34[illegible], prevention of consumption in, 61[illegible], annual report of chief health officer of, 7[illegible]
Newark, vaccination fees at, 7[illegible]
Newcastle upon-Tyne, correspondence from, 3[illegible], 515, 992, 1405; the house-physician question, 3[illegible]; Lying-in-Hospital, ib.; Hospital for Diseases of Women, ib.; dinner of past and present students of the College of Medicine, ib.; proposed laboratory extension of the College of Medicine, ib.; Royal Victoria Infirmary, ib.; North of England Edinburgh University Club, 515; North of England Glasgow University Club, 515, 632; dedication of a pulpit to the memory of the late T. A. Dodd, 632; death of Mr J. D. Dixon, ib.; outbreak of glanders at a Northumbrian colliery, ib.; extension of infectious hospital at, 1495; sanatorium for, 14[illegible]
Newbiggin, T. D., the repetition of prescriptions containing dangerous drugs, 412
Newell, P., horsedung in the streets, 172
Newman, D., decapsulation of the kidney for the treatment of albuminuria, 1011; unique case of "floating kidney" in which nephrorrhaphy was successfully performed, 1415
——— G., Bacteriology of Milk, rev., 137
Newsholme, A., school babies and measles, 280; diphtheria and scarlet fever, 1428
Newton, P., carcinoma of the oesophagus, gastrostomy, 954
Nicholls, F. L., life insurance examinations, 161
Nicholson, Sir C., the will of, 5[illegible]
——— O., thyroidectomized animals, 634
Nicol, B. A., treatment of adenoid growths, 541
Nitrogen, total, in diabetes, relation of ammonia nitrogen to the, 549
Niven, Dr. G., obituary notice of, 462
——— J., feeding in relation to the health of the young, 674
Noguchi, an antidote for rattle-snake bite, 1451
Non-abstainers and abstainers, the mortality experience of, 145, 155
Noorden, C. V., Sammlung klinischer Abhandlungen ueber Pathologie und Therapie des Stoffwechsel und Ernährungstörungen, rev., 51; Obesity, the Indications for Reduction Cures, rev., 897
Norris, Surgeon H. L., some notes on Chinese medicines, 1[illegible]
Norstrom, G., The Manual Treatment of Diseases of Women, rev., 7[illegible]; La Migraine, Traitement par la Massage, rev., 7[illegible]
Northcote, Lady R., The Book of Herbs, rev., [illegible]
Northrupp, W. P., "O'Dwyer, the Man," 1504
Northumberland, sanatorium for, 1461
Norway, the control of the traffic in alcohol in, 613
Nose, translucent cystic swelling of root of, 249; instrument for removing foreign bodies from the, 612; some general results of affections of the, [illegible]; bone cyst of the, 7[illegible]
Notes on Books, 25, 85, 107, 317, 437, 496, 551, 611, 670, 734, 792, 844, 898, 957, 1023, 1024, 1141, 1200, 1259, 1423, 1491
Nothnagel, Professor, decoration of, 1024
Nothnagel's System of Medicine, rev., 7[illegible]
Notification, by medical officers of health, 113; of disease in Philadelphia, 169, action of sanitary authority on receiving, ib., of infectious diseases, 585; of pneumonia in America, 705, 949, of chicken pox, 7[illegible], 1[illegible], in Johannesburg, 954; of whooping-cough, 624, of measles, 141
Nottingham, the small-pox hospital at, 474
Nottinghamshire, the county council of, and the Midwives Act, 1163, prevention of consumption in, 1[illegible]
Novae et vetera, [illegible], 47[illegible], 612, [illegible], 969, 1[illegible], 1[illegible], 1[illegible], 1347
Novelties in medicine, the modern pursuit of, 1334, 1[illegible]
Nucleus, value of, 1[illegible]
Nunn, Lieutenant-Colonel J. A., the preservation of rubber instruments, [illegible]
Nurses, the State registration of, 11, 14[illegible], [illegible], 5[illegible], 6[illegible], 8[illegible], 1[illegible], 1[illegible], 1[illegible], 1212, trained for passenger ships, 1[illegible], 1[illegible], 4[illegible] registration of, in America, 6[illegible], American, for the Japanese army, 6[illegible], colonial, 1[illegible]
——— Co-operation. See Co-operation
——— Registration Bill. See Bill
Nursing district, in Ireland, Lady Dudley's scheme for, 1[illegible]
——— home, responsibilities of a, 1[illegible]
Nutrose agar, method of preparing, 1[illegible]
Nuttall, G. H. F., on blood relationship and blood relationship, [illegible]
Nuzum, J. A., a head rest for post nasal operations, [illegible]

O.

Obesity, reviews of books on, [illegible]
O'Brien, C. M., radium in therapeutics, 1[illegible]
Obstetric practice, students' outdoor, 867
Obstetrics, reviews of books on, 1[illegible], 732, 1147
Obstruction, intestinal, due to paralysis of a loop of jejunum, [illegible], acute intestinal, discussion on at the Medical Society of London, 1[illegible], intestinal, after typhoid fever, 3[illegible], acute intestinal, caused by syphilitic ulceration of the ileum, 1[illegible], intestinal, some cases of successfully treated, 1069; malignant, of oesophagus, gastrostomy for, 1074
O'Carroll, J., on the Irish Poor law medical service, 1477
Odell, Dr. W., presentation to, 790
Odontoid process of the axis, detachment of the without fracture of the atlas, continued life without symptoms of injury to the spinal cord, 247
"O'Dwyer, the Man," 1504
Oedema of the lungs and its importance as a mode of death, 1
Oesophagus, extensive carcinoma of the, 580; carcinoma of, gastrostomy, 54; foreign body impacted for seven months in the, 1074; malignant obstruction of, gastrotomy, ib.
Oestrous cycle. See Cycle
"Office," consulting room, the term, 648
Ogston, A., on education and medicine, 350
Oldbury, the battle of the clubs at, 4[illegible], 47, 451
Oldman, Dr. C. E., obituary notice of, 869
Oliver, G., blood-pressure instruments, 1048
O'Meara, T. J., alcoholism in Ireland, 1457
Omdurman, Leishman-Donovan bodies found at, 1049
O'Neill, Dr. W., death of, 1100
Onodi, A., Die Anatomie und Physiologie der Kehlkopfnerven, rev., 137
Openshaw, T. H., osteo-arthritis of the knee, 1013
Operation, the question of in some deceptive abdominal conditions, 5[illegible], an illegal, 8[illegible]
Operations by Poor-law medical officers in cottage hospitals, 762
Operatives, flax and linen, health of, 970
Ophthalmia neonatorum, treatment of, 1370
Ophthalmic departments, the London School Board and, 3
Ophthalmology, reviews of books on, 841
Ophthalmoplegia externa, complete, with blindness of acute onset, 24[illegible]
Opinion, accepted professional, 1[illegible]
Opium, venesection in poisoning by, 674
Oppenheimer, C., Die Fermente und ihre Wirkungen, rev., 1[illegible]
Opticians and eye testing, [illegible], 342; retail, and advertising by, 1389
Orange River Colony, a medical ordinance for, [illegible], 2
Oration, the Harveian, by Dr. R. Caton, 1472, 1504
Order of St. John of Jerusalem, promotions, etc., in, 7[illegible]
Orthopaedics, reviews of books on, 736
Osborne House, description of, 55[illegible], visit of King to, 5[illegible], opening of, 5[illegible]
Osler, W., chronic cyanotic polycythaemia with enlarged spleen, 1[illegible]
Osteo-arthritis of the knee, 1[illegible]
Osteo-arthropathy hypertrophic pulmonary, 134
Osteomyelitis, amputation at hip joint, recovery with new bone growth, 1[illegible]
O'Sullivan, the late Professor, memorial to, 13[illegible]
Otitis media, case of, [illegible], cerebral abscess following, 836
Ott, A., Die chemische Pathologie der Tuberculose, rev., 2[illegible]
——— O., A Textbook of Physiology, rev., 1432
Oudney, W., table of, 71
Out-patients, at London hospitals, [illegible], 44 (1903), at St. Bartholomew's Hospital, [illegible], papers [illegible] private hospital for
Ovarian extract, a mental case treated with, complete recovery, 1[illegible]
Ovaries, may conservative intra-abdominal operations on, 354; leprosy of, 851; both, dermoids of, and pregnancy, 9[illegible], pregnancy after removal of, for dermoid tumour, 1[illegible], primary carcinoma of, 1[illegible]
Ovariotomy, double, pregnancy after, [illegible], for epithelioma of breast, 1[illegible]
Ovario-hysterectomy, Porro, twelve cases of, 9[illegible]
Ovary, hydatid cyst in the, 7[illegible]
Overall, C. W., A New Surgical Treatise on Diseases of the Prostate Gland and Adnexa, rev., 1491
Owen, D., the repetition of prescriptions, 9[illegible]
——— D. C. L., resignation of, 1[illegible]; Spectacle Makers' Company, 2[illegible]

Owen, E., treatment of appendix abscess in recto-vesical pouch, [illegible]
—— Sir I., oedema of the lungs and its importance as a mode of death, [illegible]; the future of electro-therapeutics, [illegible]; the detection of early [illegible]
Oxford, the annual meeting at, [illegible]; railway arrangements for, [illegible]
Oxygen gas, the use of, in distending the bladder for cystoscopy, [illegible]; the administration of, [illegible]
Oysters and typhoid fever, [illegible]

P.

Pacific, a paradise of rest in, 1442
Page, W. S., spinal cases in a man aged [illegible], with abscess pointing in the epigastrium, [illegible]
Paget, S., myositis ossificans, [illegible]
Pain, its importance in diagnosis and tendency to the head, [illegible]; abdominal, in acute rheumatism, [illegible]
Paine, A., medical defence, [illegible]
Palate, cleft, Reverdin's curved needle in, [illegible]
"Pall Mall Gazette," the, on milk and national degeneration, [illegible]
Palm, [illegible]
Palmer, [illegible]
Panax ginseng, note on, 12
Pancreas, review of book on, [illegible]; disease of the, [illegible]; the pathology and surgery of certain diseases of the, [illegible]; transplantation of [illegible]; the chemistry of the urine in disease of the, [illegible]; on the adaptation of, [illegible]; two cases of [illegible] disease of the, [illegible]
"Pancreatic reaction," so-called, in the urine, [illegible]
Paracentesis, [illegible]
Paradise of rest in the Pacific, a, 1442
Paralysis, [illegible]
Paraplegia, [illegible]
Parasites, [illegible]
Parker, [illegible]
Paris, [illegible]
Parotitis, secondary, fatal case of, [illegible]
Parry, L. A., the feeding of infants, [illegible]
Parsons, C. T., and professional secrecy, [illegible]
—— J. H., congenital anterior staphyloma, [illegible]; The Ocular Circulation, rev., 841
Partnership, purchase of, [illegible]
—— accounts, [illegible]
—— agreements, [illegible]
—— —— introduction of a, [illegible]
Pasteur, W., Dr. Otto Schmidt's treatment of cancer, [illegible]; foreign body impacted in bronchus, [illegible]
—— Institute. See Institute
Pasteurism in Philadelphia, [illegible]
Patent medicines. See Medicines
Paterson, A. W., labour impeded by fetal bladder cyst, [illegible]
—— [illegible], glaucoma and glaucoma theories, [illegible]
—— W. C., vaccination in the incubation stage of small-pox, [illegible]
Pathogenesis. See Etiology
Pathology, geographical, review of book on, 24; reviews of books on, [illegible]; a European case of sleeping sickness, [illegible]; at the Victoria University of Manchester, [illegible]
Patient, death of, before arrival, [illegible]; the position of a medical practitioner in legal proceedings concerning [illegible] whom he has seen in consultation, relation of a practitioner to, [illegible]
Patmore, T., deep ulnar nerve paralysis and [illegible] powers, [illegible]
Paton, D. N., influence of adrenalin on the nitrogenous metabolism of the bird, [illegible]
Paul, F. T., the technique of aseptic surgery, [illegible]
Pawlow, a confirmation of, [illegible]
Payment for pauper patients in an isolation hospital, [illegible]
Payne, H., Hadden's Pocket Vocabulary of Medical Terms, rev., [illegible]
Peabody, J. E., Studies in Physiology, Anatomy, and Hygiene, rev., [illegible]
Pearce, [illegible]
Pearson, S. V., [illegible]
Peculiar People, [illegible]
Pelvis, hydatid cysts in [illegible]; hydatid disease in the, [illegible]
Pembrey, M. S., remarks [illegible] temperature, [illegible]
Penn, [illegible]
Pennsylvania, [illegible]
Penny, F., [illegible]
—— J., a [illegible] sanatorium [illegible]
Perforation, [illegible]
Pericardial, [illegible]
Pericarditis, [illegible]
Perineal, [illegible]
Peritonitis, [illegible]
Perkins, [illegible], dilated capillaries, [illegible]
Pershing, H. T., The Diagnosis of Nervous and Mental Diseases, rev., [illegible]

Speech from the Throne, ib.; private members' legislation, ib.; the deterioration of national physique, ib.; the course of business, ib.; the ballot and private members' Bills, [illegible]; Government Bills, ib.; the physical condition of children, [illegible]; the constitution of the Local Government Board, [illegible]; the sanitary condition of the House of Commons, ib.; pure beer, ib.; the registration of nurses, ib.; street accidents and covered vehicles, ib.; factory inspection in the Potteries, ib.; the prospects of private members' Bills, [illegible]; the record of cancer cases in Indian hospitals, ib.; reforms in Irish lunatic asylums, ib.; the sanitary condition of telegraph rooms, [illegible]; the Sanitary Inspectors Examination Board, ib.; the cost of vaccination, ib.; lunacy and the use of immature spirits, ib.; the medical officers of the female prison, Limerick, ib.; the treatment of the blind in Ireland, ib.; the constitution of the Local Government Board, ib.; the Nurses Registration Bill, [illegible]; the new lady inspector in the Potteries, [illegible]; lead poisoning, ib.; plague at Hong Kong, [illegible]; dental surgeons for the army, [illegible]; dispensary medical officers in Ireland, ib.; sewage in the Thames, ib.; vivisection and inspection, ib.; vivisection, [illegible]; the medical lessons of the war, [illegible]; overcrowding in Poor-law schools, ib.; the sanitary administration of the army, [illegible]; medical officers of health and milk supply, ib.; losses during the war, ib.; the Sale of Butter Bill, ib.; the Pharmacy Bill, ib.; the Police and Sanitary Committee, ib.; the Poor-law Superannuation (Ireland) Bill, [illegible]; the sale of poisons, [illegible]; the Vaccination Prosecutions Bill, [illegible]; the course of business, ib.; in a Parliamentary committee, [illegible]; War Office reconstitution and army sanitation, ib.; the medical services and study leave, ib.; the Royal Commission on Tuberculosis, [illegible]; vaccination, 628; small-pox at Greenock, ib.; glycerinated calf lymph for Scotland, ib.; obstacles to enlistment, ib.; dispensing at the Portsmouth lunatic asylum, ib.; enteric fever and inoculation, ib.; the Board of Lunacy, ib.; the Pharmacy Act and its amendment, ib.; tuberculosis and milk supply, ib.; the Local Government (Scotland) Act Amendment Bill, ib.; the Departmental Committee on Physical Degeneration, 687; plague in India and inoculation, ib.; fees of public vaccinators, ib.; mild epidemics, ib.; the payment of a locum tenens in Fermanagh, ib.; Royal Commission on Feeble-minded and Imbeciles, ib.; miners' phthisis in the Transvaal, [illegible]; fees for medical witnesses, ib.; plague in the Transvaal, [illegible]; plague in India, [illegible]; the sale of poisons, [illegible]; the payment of locum tenens, ib.; anthrax, ib.; glanders, ib.; rabies and quarantine, ib.; uncertified deaths in Scotland, ib.; expenditure on the sanitation of the House, ib.; Meath Hospital, Dublin, [illegible]; the plague in Johannesburg, [illegible]; exemptions from vaccination, ib.; vaccination in Scotland, [illegible]; death certification in England and Wales, ib.; experiments on animals, ib.; the treatment of blacks and whites at Johannesburg, ib.; the Woking and Finchley sore throat epidemics, ib.; the Easter recess, ib.; reassembling of, [illegible]; the physical condition of children, ib.; vaccination mortality, ib.; vaccination Bills, [illegible]; vivisection of dogs, ib.; doctor and magistrate, ib.; the Osborne Convalescent Home, ib.; antivaccination in [illegible]; underfed school children, [illegible]; rats and the plague in Capetown, ib.; plague in South Africa, ib.; legislation for plague in Johannesburg, ib.; the Tuberculosis (Animals) Compensation Bill, ib.; the Weights and Measures Bill, [illegible]; the evasion of the Factory Acts, ib.; the Licensing Bill, ib.; calf lymph for Scotland, [illegible]; the Revaccination [illegible]; the Aliens Bill, [illegible]; rabies and imported dogs, ib.; experiments on dogs, [illegible]; fees of medical witnesses in Scotland, ib.; the Prevention of Corruption Bill, ib.; Poor-law guardians as public vaccinators, [illegible] [illegible]

poisoning and pure beer, 1212; the Chinese labourers and medical inspection, ib.; vivisection and its results, ib.; uncertified deaths in Ross-shire, ib.; the death-rate in the Transvaal mines, ib.; the pollution of the Thames, ib.; the sanitary condition of Derrygonnelly, ib.; business after Whitsuntide, ib.; the medical profession in, [illegible]; the adjournment for Whitsuntide, [illegible]; vivisection and the Royal College of Physicians, ib.; the health of the Hampshire Regiment at Aden, ib.; the Poor-law Officers Superannuation (Scotland) Bill, ib.; Bills sent down from the Lords, ib.; after the recess, [illegible]; tuberculosis in abattoirs, ib.; antitoxin and the Lister Institute, ib.; the Shop Hours Bill, ib.; the Local Government Board vote, [illegible]; the registration of nurses, [illegible]; antityphoid inoculation, ib.; nursing at military stations, ib.; the army medical vote, ib.; Poor-law relief in Scotland, ib.; the water supply of Scottish schools, ib.; the business of the week, 1451; infant mortality and medical relief, ib.; nursing in workhouses, [illegible]; ringworm and ophthalmia among Poor-law children, ib.; alcohol as a cause of insanity, ib.; phosphorus necrosis, ib.; the Registrar-General and the supply of information to the press, [illegible]; the use of humanized vaccine lymph in Scotland, [illegible]; epidemic sore throat in Glasgow, ib.; the mortality in South Africa, [illegible]; beriberi and the [illegible]; cholera in Persia, ib.; the distribution of Poor-law children, ib.; out-relief for children, [illegible]

Persia, bilharzia in, 725; cholera in, 1154, 1461
Peru, the plague in, 672, 1461
Pessary, a, for prolapsus uteri, 570, 1201, 1434
Peterson, E., A Textbook of Legal Medicine and Toxicology, rev., 1459
——— F., Nervous and Mental Diseases, rev., 45
Peypers, Dr. H. F. A., death of, 823
Pharmacology, review of book on, 1683
Phenacetin, poisoning by, 515
Phenology of the year 1903, 736
Philadelphia, notification of disease in, 400; medical inspection of schools in, 682; virulent influenza at, 704; Pasteurism in, 1140; pasteurized milk in, 1254
Philip, R. W., the organization of the home treatment of pulmonary tuberculosis, 1357
Philippine Islands, care of the insane in, 390; the plague in, 615; public health in the, 1028
Philips's Anatomical Model of the Female Human Body, rev., 1364
Phillips, C. D. J., Materia Medica, Pharmacology and Therapeutics, rev., 1373
——— G. A., life insurance examinations, 289; the General Medical Council and systematic canvassing, 1458
——— H. C., puerperal sepsis, 630
——— S., disease of the pancreas, 431
Phoenix collieries, the surgeoncy of, 342
Phosphaturia, diet in, 115, 227
Photographic plate, differentiation of B. typhosus and B. coli communis by means of the, 1004
Physical degeneration. See Physique
——— exercise. See Exercise
——— remedies, reviews of books on, 1260
Physician of the future, the, 502
Physiology of fatigue, 145, 279; reviews of books on, 311, 1433; in education, 754
Physique, degeneration in, 37, 45, 86, 104, 140, 107, 272, 319, 491; national, and an idea, 441; of the Japanese, 622
Picqué, eunuchoid gianticism, 972
Picric acid test, the, 1175
Pierce, R. W. C., milk epidemics and bovine mammitis, 756
Pigmentation, Addisonian in scleroderma, 126; congenital deficiency of, in negresses, 367; facial, 1352
Pilewort ointment and suppository, 14
Pinard, the extinction of infantile mortality in the Commune of Villiers-le-Duc, 753
Pincus, L., Atmokausis und Zestokausis, rev., 372
Pirkis, Mr. F. E., the Hon. S. Coleridge and, 37, 93
Pistor, M., prevalence of enteric fever in Prussia from 1892 to 1901, 1197
Pitt, G. N., a case of general pneumococcal infection, acute pleurisy, lobar pneumonia, pericarditis, endocarditis, peritonitis, and colitis, with delirium, fatal in less than four days, 665
Pittock, G. M., Flora of Thanet, rev., 497
Placenta praevia, case of, 74, 472; twins, 67; concealed accidental haemorrhage, 835
Plague, prevalence of, 31, 152, 275, 513, 615, 744, 752, 885, 961, 1123, 1204, 1345, 1424; bubonic, the prevention of, 1153
Plants, medicinal, in America, 684
Playfair, Dr. D. T., obituary notice of, 40
Plea of insanity, the, 567
Pleural cavity, hepatic abscess opening into, 57
Plicque, A. F., La Cure de la Tuberkulose dans les Sanatoriums Français, rev., 471
Plonies, W., Die Reizwirgen des Nervus Sympathicus und Vagus beim Ileus Ventriculi mit besonderer Berücksichtigung ihr er Bedeutung für Diagnose und Therapie, rev., 405
Plowright, C. B., notes on the distribution of cancer in the Freebridge Lynn Rural District, 72; some survivals of mediaeval medicine in East Anglia, 1397
Plug, a, for antral perforations, 1434
Plumbers, the registration of, 52, 1233; examination of, 1055
Plummer, H. B. W., the use of the electromagnet, 647
Pneumococcal infection, general, case of, 665
Pneumococcus, intraperitoneal abscess due to, 1
Pneumonia, the treatment of, 52, 114, 203, 411, 513, 572; bleeding in, 35, 36; the management of the icebag in the treatment of, 488; in New York, 542; treated with antipneumococcus serum, 1260; notification of, in America, 1273, 1423; cases of, 1114, croupous, treated with antipneumococcus serum, recovery, 1223
Pneumothorax, tuberculous, surgical emphysema secondary to, 1
Pogson, B., isolation hospitals, 403
Poirier, P., The Lymphatics, rev., 444
Poisoning, from atropine eyedrops, chronic, by antimony, 1422; alleged, in an indigo dye worker, 487; by phenacetin and antikamnia, 545; by opium venesection in, 664; by carbolic acid, camphorated oil, 724; by cantharides, 1195; by coal gas, ib.; by the fruit of ratsbane, 1114; by belladonna, 1472
Poley, A. P., A Guide to the Housing Acts, rev., 1
Politics, vaccination and, 16; medical men and, 17
Pollard, B., carcinoma of the colon and its treatment by colectomy, 175
Pollock, R., puerperal sepsis, 75
Pollution of tidal waters, 37; bacterial test of, 43
Polson, Dr. R., presentation to, 24
Polycythaemia, chronic cyanotic, with enlarged spleen, 121; chronic, with enlarged spleen, probably a disease of the bone marrow, 720; and erythromelalgia, 1017
Poor, the consumptive of London, 22, 31
Poor-law medical appointments, competition for, 1522
——— medical relief. See Relief
——— medical service, the, in Ireland, 42, 278, 448, 720, 807, 1090, 1499; in Scotland, 143, 220, 223, 1090, 1345; in Ireland, Dr. J. O'Carroll on, 1477; in Ireland, Mr. R. F. Tobin on the strike in, 1480
Poplar, measles and workshops in, 1255
Porro's operation, note on and a suggested modification, 1001; two cases of, 1185
Port of London, the health of, 1144
Porter, A. E., the prophylactic use of diphtheria antitoxin, 1081
Porto Rico, ankylostomiasis in, 736
Portsmouth, scarlet fever and isolation at, 1355; visit of the King to, 52
Portugal, cancer research in, 1402; prevention of consumption in, 617
Postmen, rural, in Scotland, medical attendance on, 1172
Post Office, proposed sanatorium for employés of, 691; medical appointments of in Highlands and Islands of Scotland, 1262; medical appointments in, 1338, 1340
Potassium bromide, fatal case of poisoning by, 847; in influenza, 725
Potatoes and glycosuria, 544
Powell, A., the life-span of the guinea worm, 73; morphology of the spirillum of relapsing fever, 1014
——— A. F. M., medical defence, 32
Power, D'A., notes on an ineffectual treatment of cancer, being a record of three cases injected with Dr. Otto Schmidt's serum, 1003
Poynton, F. J., the staphylococcus aureus and rheumatic fever, 77; the infective nature of rheumatic fever, 1117; study of a case of rheumatic fever, 1133
Practice, in America, 115; medical, by foreigners in Spain, 332; in Canada and New Zealand, 345; in the United States, 398; company, 760, English medical, the metric system in, 31, medical, the intrusion of the layman into, 111, 1056, 1105, 1265, 1343, medical, in Bussorah, 1217, unqualified, 1118
Practice, purchasing a, 282, 370; value of share of, 682, inspection of books after sale of, 1122, 1457, value of, 1430, subsequent, sale and, 1457
Practitioner, may he offer his services gratuitously to a public body? 1081, the medical, the position of in legal proceedings concerning his patient, 583, 700; the relation of to a patient whom he has seen in consultation, 701, medical, as agent for life insurance company, 572
Practitioners, foreign medical, in Italy, 72, medical, personal canvassing by, 103; female, in Paris, 194; qualified, as dentists, 342, 407; American, mortality among, 366; the relation of to advertising electro-magnetic institutions, 700; Indian medical, prospects of, 876; medical, exemption of from jury service, 1466
Pregnancy, normal, complicated by old ectopic gestation, pain, suicide, 15; ectopic, operative and expectant treatment in, 61; abdominal operations during, 64; plural, triplets, presenting some unusual features, 66; bilateral, extrauterine, case of, 170; treatment of syphilis during, 222; in a fixed uterus, 300; hypertrophy of the breast and, 382; fibroids complicated by, 720, with deficient tubes and ovaries, 743; after double ovariotomy, 808; extrauterine, case of, 1081; and dermoids of both ovaries, 871; syphilis and, 1121; after removal of both ovaries for dermoid tumour, 1321; complicating pregnancy, 1423; early, 1471
Prepuce, adherent, reflex disturbances associated with, 526
Prescribing by the metric system, 1031, 1031
Prescriptions, illegible, 1; containing dangerous drugs, the repetition of, 215, 278, 336, 412, 588, 708
Presentation, suboccipital, 75
Press, lay medical contributors to, 407, 1421; notices of medical men in, 1081; medical advice in, 721
Preston, C. H., Handbook of Surgical Anatomy, rev., 405
Primrose, Dr., note on the paper of on Mariasis, 7; the cure of Mariasis by the removal of the adult worm, 491; decapsulation of the kidney in Bright's disease, 1177
Prince d'Arenberg on malaria in Egypt and the Suez Canal Company, 77
——— of Wales, the, and the Association, 52
Princess Christian opens medical and surgical home near Windsor, 1
Pringle, H., a confirmation of Pawlow, 1
——— J. H., an operation for the radical cure of hernia, 1
Prize, the Nobel, Dr. Finsen and, 4, the Craig Colony, particulars as to, 52, 672, T. Henry Green, particulars as to, 11, the Ruecker, award of, 153, the Cameron, award of, 1, the Vallauri, award of, 7, Sir William Taylor, particulars as to, 51, the Astley Cooper, particulars as to, 1, Parkes memorial, particulars as to, 1, the Nobel, Major R. Ross's essay for, 1
——— essays on tropical medicine, award to, 40
Prizes, international Red Cross, 67
Prodromata of the psychoses, 1
Profession, the medical, and alcohol, 50, 547, the medical, in Capetown, 167, the medical, in Austria, 191, the medical, and trade advertisements, 282, 563, the medical, and the South African Colonization Society, 50; the medical, the attitude of towards the treatment of disease by unqualified persons, 1091, the medical and laboratory reports, 1111, the medical in Parliament, 1224
Professional conduct, 407
Professions, the medical and legal in Ireland, 578
Prognosis, the mental condition in epilepsy in relation to, 604
Proprietary remedies. See Medicines, patent
Proptosis, paper on, 307
Prostate, Freyer's method for the treatment of enlargement of, 232; enlarged, vasectomy for, 246; the modern surgery of the, 267, enlarged, 367; total extirpation of the, 398; the, and prostatectomy, 728; total extirpation of for radical cure of enlargement of that organ, 1183, the anatomy of the, 1221, reviews of books on hypertrophy of, 1491
Prostatectomy, suprapubic, Sir T. Stoker on, 229, 1355, total, an anatomical criticism of the procedure known as, 33, leading article on, 260, the fallacy of, 297, 691, 807, complete, 518, the prostate and, 728, total, 1121, suprapubic and perineal, the relative advantages of, 1121, 1144, case of, 1193, suprapubic in a man aged 74 years, 1467
Prostates, sections of, 955
Prostatorrhoea, note on, 1472
Protein dietary, effects of, 1131
Protest, a, and a disclaimer, 523, 700
Protoplasm, the reaction of in relation to chemiotaxis, 1121
Protozoa, the literature of
Proxy, athletics by, 1389
Prussia, the vaccination law of 1835 in, 378, 517, prevalence of enteric fever in from 1892 to 1901, 1197
Pryor, W. R., Gynaecology, a Textbook for Students and a Guide to Practitioners, rev., 37
Prytherch, Mr. H., death of, 1
Psychoses, prodromata of the, 1
PUBLIC HEALTH: Health of English, Scotch and Irish towns, 52, 112, 220, 284, 347, 403, 455, 574, 646, 703, 760, 814, 872, 934, 992, 1052, 1112, 1174, 1232, 1293, 1350, 1410, 1469, 1522; vital statistics of London, 27, 1081, vital statistics of England and Wales, 28, 284, English urban mortality, 574, 703, 1112, the Registrar-General's quarterly return, 344, 1293; in Italy, 346; epidemic mortality in London, 403, 1261, vital statistics of metropolitan boroughs, 854, reviews of books on, 872, 1141, population of the United Kingdom, 1081
——— Health Act. See Act
——— health administration in England, 1
Public house Trust. See Association
Pull, the biographic, 1111
Pullman cars, special, for consumptives, 114
Punctures, spinal subarachnoid, a suggestion for the treatment of puerperal convulsions by, 1111, lumbar, treatment of incontinence of urine by, 1176
Punjab, the, sanitary report of, 617
Punkah, a bed, 1086
Purchas, F. A. G., glandular fever in Jamaica, 1
Purchase of remaining shares, 1
Purchasing a practice, 1
Purpura, antipyrin and, 1
Pearslow, C. L., decapitation in impacted shoulder presentation, 1, a uterine cyst, 1, fleshy mole, 1, students and midwifery practice, 1
Pyaemia, lateral sinus case of, 1, pyocyanea, 1
Pylorus, congenital narrowing of, 1, causing infantile gastric crises, 1, congenital hypertrophic stenosis of the, 1, pyloroplasty, result, 1483
Pyloroplasty for carcinoma pylori, 1
Pyometra, case of, 1
Pyopneumothorax, due to phthisis, case of, 1176

Q.

Quack doctors [illegible]
—— [illegible] the [illegible]
—— remedies, the [illegible]
Quackery and [illegible] in Bradford [illegible] congress for [illegible] in France [illegible]
Quarantine [illegible] whooping-cough [illegible]
—— Board. See Board
Queen, the visit of [illegible] King's College Hospital [illegible] president of the London Hospital [illegible] Finsen's Light Institute [illegible]
—— Victoria [illegible] Institute. See Institute
Queensland [illegible] Government subsidies to hospitals [illegible] Dental Act in [illegible] plague in, 796 [illegible]
Quinine [illegible] hypodermic [illegible]

R.

Rabbits [illegible]
Radio-activity [illegible] waters [illegible]
Radium [illegible] waters [illegible] of the rays [illegible] in a case of [illegible] Company [illegible] therapeutic value of [illegible]
—— [illegible]
Rae, W. [illegible]
Railway [illegible]
—— carriages. See Carriages
—— employés [illegible]
—— [illegible]. See [illegible]
Rainfall [illegible]
R[illegible] phthisis [illegible]
Ramsden, W. [illegible] the General Medical Council [illegible]
Ramsey [illegible]
Random, M. [illegible] recovery [illegible]
Ranken [illegible]
Rasch, C. [illegible]
Ra[illegible]
Rats, the plague [illegible]
Rat[illegible]
Rattlesnake [illegible]
Raven, H. M. [illegible]
Raw [illegible]
R[illegible]
Rayner, H. [illegible]
Rays [illegible]
Razor [illegible]
Record [illegible]
—— Recovery [illegible]
Rectum [illegible]
Re[illegible]
Red Cross [illegible]
Redmond [illegible]
Re[illegible]
Reed, C. A. L. [illegible]
Referees [illegible] under the W[illegible]
Reflex [illegible]
Reform [illegible]
Refraction [illegible]
Registration [illegible]
Registrar [illegible]
Registrars [illegible]
Registration [illegible] nurses [illegible]
A[illegible]

Reid, J. (Ba[illegible]) mycosis fungoides or Alibert's disease [illegible]
—— [illegible] (South Shields) [illegible]
—— Denham. See Denham Reid
Re[illegible] Hamburg [illegible]
Relief, Poor [illegible] Scotland [illegible] 1474
Relieving officers, powers of, in reference to the granting of orders for medical attendance [illegible] 1574
Removal of infectious cases in Ireland [illegible]
Remuneration of district medical officers [illegible] of Poor-law medical officers [illegible] Poor-law medical officers' deputies [illegible]
Renal. See Kidney
Renaud, Dr. F., death of [illegible]; obituary notice of [illegible]
Rendall, P., pneumonia treated by antipneumococcus serum [illegible]
Rendle, C. E. R., a case of perforating gastric or duodenal ulcer [illegible]
Re[illegible]er, W., poisoning by the fruit of the [illegible] toxic[illegible] [illegible]
Re[illegible], J. C., [illegible] paralysis of the facial nerve, operation, recovery, 133; Reverdin's curved needle in cleft palate [illegible]
Rentoul, R. R., doctors [illegible] barristers and solicitors [illegible]; raised scars after vaccination [illegible]; a short way with "degenerates," [illegible]; the term "office consulting room," [illegible]; proposed sterilisation of certain degenerates [illegible]
Report on aerated preserved milk [illegible]; of the medical officer of health of the London County Council [illegible]; of the Royal Commission on Sewage Disposal [illegible]; of Local Government Board for Ireland on sewage contamination of shellfish [illegible]; on the health of the navy [illegible]; of Lord Cromer on Egypt and the Soudan [illegible]; annual, of the Inspector-General of Recruiting [illegible]; on the dispensary service in Ireland [illegible]; of the Mosely Educational Commission [illegible]; of the Inter-Departmental Committee on the Model Course of Physical Exercises [illegible]; of Dr. Bruce Low on smallpox in Germany [illegible]; on the general conditions affecting the health of the Port of London [illegible]; of the General Board of Commissioners in Lunacy for Scotland [illegible]; annual, of the Registrar-General for Scotland [illegible]; of the Royal Commission on the Militia and Volunteers [illegible]; of the Royal Commission on Tuberculosis [illegible]; of inspector on experiments on living animals [illegible]; of Lord Jersey's Committee [illegible]
Reporter, the, in the sick room [illegible]
Reports, Scientific, on the Investigations of the Cancer Research Fund [illegible] and Transactions, rev. [illegible]
Reprints of medical papers [illegible]
Residence within district [illegible]
Respiratory spasm followed by cessation of breathing [illegible]
Rest treatment, the [illegible] in valvular disease [illegible]
Restaurants, the kitchens of [illegible]
Re[illegible]
Retina, the [illegible]
Retractors, a set of portable [illegible]
Retroversion of gravid uterus, treatment of [illegible]
Re[illegible], Professor M. G., gets honorary degree at Cambridge [illegible]
Re[illegible] the German Imperial [illegible]
—— [illegible]. See [illegible]
Re[illegible] cleft palate [illegible]
Rey[illegible] rev. [illegible]
Re[illegible] of both breasts cured by [illegible]
Re[illegible]
Rheumatic fever. See Fever
[illegible]
R[illegible], M., the Midwives Act [illegible]
[illegible]

R[illegible] H. M., [illegible] ophthalmos [illegible]
Rigden, Mr. G., [illegible] notice of [illegible]
Rigor mortis after [illegible]
Ringworm [illegible] hairs of [illegible]
R[illegible] London [illegible] 1467
Roberts, A., instrument for removing foreign bodies from the nose [illegible]
—— D. L., case of Caesarean section [illegible]
—— G. I., [illegible] exophthalmic goitre [illegible]
—— L., chronic antimony poisoning [illegible]
Robertson, D. A., dinner to [illegible]
—— Dr. J., dinner to [illegible]
—— G. D., [illegible] atrophy of the liver, 892
—— W., bacteriology of so-called "sterilized" milk [illegible]
—— W. G. A., Contributions to the Physiology of Digestion and to Dietetics, rev. [illegible]
Robin, A., the action of a maritime climate in the treatment of pulmonary phthisis [illegible]; Les Maladies de l'Estomac, rev. [illegible]; [illegible] of the "nascent" state [illegible] the properties of drugs [illegible]
Robinson, Beverley, the plea for conservatism in medicine and surgery [illegible]
—— Byron, Arteria Uterina Ovarica, rev. [illegible]
—— E. L., ectopic gestation, early diagnosis, operation, recovery, 14[illegible]
—— Mr. H., obituary notice of [illegible]
—— H. B., [illegible] papilliferous cyst from an axillary sudoriparous gland [illegible]
—— Lieutenant-Colonel T., treatment of obstinate scabies [illegible]
Robson, A. W. M., the Hunterian lectures on the pathology and surgery of the pancreas [illegible]; [illegible] ulcer of the [illegible]; Diseases of the Gall Bladder and Bile Ducts, including Gall Stones, rev. [illegible]
Roche, B., Anleitung zum Vollständigen [illegible] den Operationscursus am der Leiche, rev. [illegible]
Rock drilling and miners' phthisis [illegible]
Rodgers, Inspector-General M., death of [illegible]
Rodriguez, W. P., the [illegible] theory of leprosy [illegible]
Roentgen rays, the, and renal calculus [illegible]; treatment of cancer by [illegible]; a burn by [illegible]; apparatus for [illegible]; information as to work with [illegible]; and malignant disease [illegible]; in the treatment of [illegible]; treatment by [illegible]; [illegible] typical examples of treatment by [illegible]; rodent cancer treated with [illegible]; in the diagnosis of pulmonary tuberculosis [illegible]; recurrent carcinoma treated by [illegible]; treatment of [illegible] by [illegible]
Roethlisberger, P., [illegible] Sulphur Baths, rev. [illegible]
Roger, G. H., Introduction à l'Étude de la Médecine, rev. [illegible]
Rogers, B. M. H., the Regius Professorship at Oxford [illegible]
—— Mr. F. C., obituary notice of [illegible]
—— Major L., on the occurrence of Leishman-Donovan bodies [illegible] fevers [illegible]
Rolleston, H. D., on internal secretion in disease and treatment [illegible]
Rollett, Dr. A., obituary notice of [illegible]
Rome, the prevention of malaria in the Campagna of [illegible]
Rooney, Dr. [illegible], death of [illegible]
Roper, H. [illegible]
Ro[illegible], A. D., An Atlas of Normal Anatomy, rev. [illegible]
Roscoe, Sir H., the [illegible]
Rosebery, Lord. See Lord
Rose[illegible], A., an aspirator and insufflator [illegible]
Rosenbach, O., [illegible] und Medicin, rev. [illegible]
Rose[illegible], W., [illegible]
Rosenthal, C., [illegible]
[illegible]
Ross, A. E., [illegible]
—— [illegible]
—— Major [illegible] Leishman-Donovan [illegible]
—— [illegible] the essay of [illegible]
Ro[illegible] the Australian [illegible]
Ro[illegible]
Ro[illegible]
Ro[illegible] syphilis [illegible]
Rowland, H. M., [illegible] examinations [illegible]
Royal [illegible]
Ro[illegible]
R[illegible], A., [illegible] properties [illegible]

Rugg, Dr. G. P., presentation to, [illegible]
Rumpf, Th., Herr. und Kreislaufsfunktion [illegible], rev., [illegible]
Rupture, spontaneous, of uterus, laparotomy, recovery, [illegible]; of intestine, [illegible]; of the [illegible] meningeal artery by [illegible]; axillary artery [illegible] traumatic, [illegible] the small intestine, [illegible]; spontaneous, of the abdominal wall, [illegible]; spontaneous, of the spleen, [illegible]; spontaneous, of uterus, [illegible]
Rush, Benjamin, monument to, 1332
Rushton, W., degrees in dentistry, [illegible]
Russell, W., arterial sclerosis and hypertension in their relation to diet and the digestive system, [illegible]
Russia, the military [illegible] system of, [illegible]; leprosy in, [illegible]; the Red Cross Society in, [illegible]
Rutherford, Professor, on radium and radio-activity, [illegible]

Sabouraud, R., Maladies du Cuir Chevelu, rev., [illegible]
Sachs, H., Die Haemolysine und ihre Bedeutung fuer die Immunitaetslehre, rev., [illegible]
St. Aubyn-Farrer, C., the Association of Diplomates of the Royal Colleges of Physicians and Surgeons of Edinburgh, [illegible]
St. Louis, abandonment of proposed World's Medical Congress at, [illegible]
St. Patrick's Day, celebration of, by Irish Medical Schools and Graduates' Association, [illegible]
St. Pol-sur-Mer, the milk depot at, [illegible]; the sanatorium at, [illegible]
Saleeby, C. W., examination of a case treated by Dr. Otto Schmidt's method, 77
Salary of Poor-law appointments, [illegible]
Sale, inspection of books after, [illegible] and subsequent practice, [illegible]
Saleeby, C. W., a disclaimer, [illegible]
Salford Infirmary [illegible] Amalgamated Society of Registered Midwives at, [illegible]; insanitary houses in, [illegible]
Salicylic acid, the United States Food Commission and, [illegible]
Salle de Bearns, note on, [illegible]
[illegible] and mental disease, [illegible]
[illegible]
Salivation in paralysis [illegible]; susceptibility to, [illegible]
Salmon, Dr., death of, 267
Sambon, L. W., on sleeping sickness, [illegible]; the transmission of sleeping sickness by the genus Glossina, [illegible]
Samways, D. W., the administration of oxygen, [illegible]; the introduction of pure air into serous cavities, [illegible]; erythema [illegible]
Sanatoria, a public danger from inmates of, [illegible]; in the prevention of consumption, [illegible]; balconies at, [illegible]; consumption and, [illegible]; for consumptives, [illegible]; for workmen, [illegible]; the economic value of the treatment in, 1016
Sanatorium, the earliest American, 100; Queen Alexandra, at Davos, [illegible]; treatment of haemoptysis at, [illegible]; proposed for postal employés, [illegible]; National for Consumption, Bournemouth, annual meeting of, [illegible]; for Newcastle and Northumberland, [illegible]; Heatherside, and convalescent home, opening of, [illegible]
Sanders, T. W., Roses and their Cultivation, rev., [illegible]
Sanderson, Deputy Surgeon-General A., death of, [illegible]
Sandwith, Dr. F.M., joins staff of London School of Tropical Medicine, [illegible]
Sanitary alterations in a house, cost of, 343
——— authorities and the milk supply, [illegible]; action of on receiving notification, [illegible]
——— inspection of schools, [illegible]
——— inspectors, results of examinations for, [illegible]
Sanitation, the teaching of in schools, [illegible]; Panama, [illegible] of Vera Cruz, [illegible] of the Panama canal, [illegible]
Sankey, E. H. O., remuneration of Poor-law medical officers, [illegible]
Sarcoma, choroidal, [illegible]; of scapula, operation, recovery, [illegible]
Satchel, the obstetric, a problem in asepsis, [illegible]
Satin-wood irritation, acute dermatitis produced by, [illegible]
Saul, B., alleged poisoning in an indigo dye worker, [illegible]
Saundby, R., mechano-therapeutics, 161; extensive carcinoma of the oesophagus with unusual nervous complication, [illegible]
Saunders, Dr. C. E., obituary notice of, 165
Savage, E. S., hydatid mole, 367
[illegible] D., on arterio-sclerosis, [illegible]
Sawyer, Sir J., [illegible] comment and suggestions, improvements in dietetics of diabetes, [illegible]; Contributions to Practical Medicine, rev., [illegible]; Insomnia, its Causes and Cure, rev., ib.
Saxer, Miss E., the deterioration of vision during school life, [illegible]
Scabies, obstinate treatment of, 227
Scanlan, Surgeon-General F. E., death of, [illegible]
Scapula, sarcoma of, operation, recovery, 837
Scarlet fever and scarlatina. See Fever, scarlet
Scars, raised, after vaccination, [illegible]
Scharlieb, Mrs., unruptured tubal gestation, [illegible]
Schenck, F., Die Pathologie und Therapie der Unfruchtbarkeit des Weibes, rev., 374
Schism among the Peculiar People, 409
Schlenck, Professor C., gets Beneke prize, [illegible]
Schmidt, M. B., metastasis in carcinoma, [illegible]
——— O., examination of a case treated by the method of, 77; ineffectual treatment of cancer by the method of, [illegible]; the treatment of cancer by the method of at the Middlesex Hospital, [illegible]
School, medical certificates for non-attendance at, [illegible]
——— of Instruction, Volunteer Ambulance, annual banquet of, [illegible]
——— life, the deterioration of vision during, [illegible]
——— a medical in Japan, closing of, 21
——— of Tropical Medicine, Liverpool, annual report of, [illegible]; Report of the Trypanosomiasis Expedition to Senegambia, rev., [illegible]
——— of Tropical Medicine, London, visit of French professors to, [illegible]; entries at, [illegible]; pass list, [illegible]
Schoolboy, the London, physical development of, [illegible]
Schools, medical, of London and out-patient work, [illegible]; sanitary inspection of, [illegible]; the teaching of sanitation in, [illegible]; medical inspection of in Philadelphia, 683; Italian, prophylaxis of infectious diseases in, [illegible]; for midwives, 742; medical inspection of in Chicago, 754, 1083; Poor-law, inspection of educational work in, 762; medical inspection of, 850; secondary, the inspection of, [illegible]; physical exercise in, 1026; elementary, physical education in, [illegible]; elementary, London, physical examination of 1580 girls from, 1248
Schott, T., on some haemoglobin investigations in cases of chronic heart disease, 536
Schwalbach as a health resort, [illegible]
Schweinburg, Handbuch des allgemeinen und speciellen Hydrotherapie, rev., 1141
Sciatica, Dr. Feddersen on, 146; and lumbago, [illegible]
Science, new conceptions in, [illegible]
Sclerodema associated with Raynaud's disease and Addisonian pigmentation, [illegible]
Sclerosis, disseminated and exophthalmic goitre, [illegible]
Scotland, notes from, 41, 98, 153, 210, 266, 330, 393, [illegible]; Poor-law midwifery in, [illegible]; the Poor-law medical service in, [illegible]; lunacy laws in, [illegible]; vaccination returns in, 815; Poor-law medical relief in, [illegible]; medical attendance on rural postmen in, 1172; lunacy in, [illegible]; report of the Registrar-General for, ib.; the Poor-law medical service in, 1390; prosecution of unqualified dentist in, [illegible]; women medical practitioners in, 1509; school certificates in, [illegible]
Scots Guards, promotions and appointments in medical staff, [illegible]
Scott, H. H., Compounding and Dispensing Made Easy, rev., 844
——— J. [illegible]
——— [illegible] detachment of the odontoid process of the axis, with fracture of atlas, continued life without symptoms of injury to the spinal cord, 247
Scudder, C. L., The Treatment of Fractures, with Notes upon a Few Common Dislocations, rev., 957
Scurvy, [illegible] fed on municipal "humanized" sterilized milk, 479; and sterilized milk, 503; etiology of, [illegible]
Sea-sickness, [illegible] during, [illegible]
Secrecy, medical, [illegible]
Secretion [illegible] treatment, [illegible]
Section, Dental (proposed) for annual meeting, [illegible]
Seegen, J., Gesammelte Abhandlungen ueber Zuckerbildung in der Leber, rev., 897
Selby, E. W., [illegible] hernia, [illegible]
[illegible]
Senator, H., Die Erkrankungen der Nieren, rev., [illegible]
[illegible]
Sepsis, [illegible]
Septic [illegible]
Septicaemia, [illegible] puerperal, [illegible]
Sera, haemosozic, note on, [illegible]
Serum, [illegible] cases treated by, [illegible]; antistreptococcic [illegible]; treated by [illegible]; in tuberculosis, [illegible]; pneumonia treated by, [illegible]; scarlet fever, [illegible]; in hay fever, [illegible]; treated with recovery, [illegible]; antidysentery for the Russian army, [illegible]
Serumtherapeutics of tetanus, 796
Serumtherapy, human, [illegible]
Servants, responsibility of master's agent for attendance [illegible]
Sewage, contamination of shell-fish by, [illegible]
——— testing apparatus. See Apparatus
Sex, determination of, review of book on, [illegible]; determination of, [illegible]
Sharp, G., two cases of lung disease treated with the emanations of thorium nitrate, 654
——— P., messages to medical men, 1407
Shaw, H. B., congenital deformities, [illegible]
——— J., The Physiognomy of Mental Diseases and Degeneracy, rev., 1199
——— T. C., the Government Lunacy Bill, [illegible]
——— W. G., the staphylococcus aureus and rheumatic fever, 77
Sheen, W., cases of lateral sinus pyaemia, 827; medical assessors, [illegible]
Sheep, the oestrous cycle in the, [illegible]
Sheffield, the health of, [illegible]; correspondence from, 634; the Privy Council and the charter for the University of, 634
Shell-fish, the cooking of, [illegible]; and the pollution of tidal waters, [illegible]; sewage contamination of, [illegible]
Shelters, outdoor, for consumptives, [illegible]
Shennan, T., Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh, rev., 437
Shield, Volunteer Ambulance Challenge, contest for, [illegible]
Ships, passenger, trained nurses on, 148, 165, [illegible]; hospital, in war time, [illegible]; a warning to medical men applying for surgeoncies on, [illegible]; the destruction of rats on board of, 695; Japanese hospital, 909
Short, T., hemiplegia, [illegible]
Shuttleworth, G. E., the future of feeble-minded children, 1034; degeneracy, physical, mental, and moral, [illegible]
Siberia, small-pox in, [illegible]
Sichel, G., a case of rodent ulcer treated with radium bromide, [illegible]; the defects of the naval medical service, 520
Sick room, the reporter in, [illegible]
Sieveking, A. F., a case of liver abscess, [illegible]
——— Sir E., death of, 508; obituary notice of, [illegible]; the estate of, [illegible]
Sime, D., Rabies, its Place among Germ Diseases and its Origin in the Animal Kingdom, rev., [illegible]
[illegible]
Simon, R. M., reflex disturbances associated with adherent prepuce, [illegible]; typhoid fever, [illegible]
Simpson, F. B., a hydatid cyst in the ovary, 724
——— J. C., [illegible]
Simulation, dementia praecox and, [illegible]
Sinclair, [illegible]
——— W. J., accidental haemorrhage in pregnant women, [illegible]; the Central Midwives Board and, [illegible]
Sinus, lumbar, passage of a renal calculus through, 834, 1372
——— thrombosis, [illegible]
Siphonage and [illegible] in the large intestine, [illegible]
Skey, G. W. R., drug rash complicating enteric fever and simulating scarlet fever, [illegible]
Skin, [illegible] and disease of, 134; formalin and disease of, [illegible]
——— grafting, [illegible]
[illegible]
Skull, [illegible] birth, [illegible]
Smith, [illegible] the British Dental Association and, [illegible]
Sleeping sickness in Uganda, [illegible] the Congo, [illegible]; discussion on the Epidemic [illegible]

logical Society. [illegible] French [illegible] Colonel D. [illegible] lecture by Dr. [illegible] on the pathology of, [illegible] lymphatic glands in, 1252; review of books on, [illegible]
Sleeman, Surgeon-Major R. [illegible] R.A.M.C. [illegible]
Sl[illegible]
Small-pox [illegible] 454, 470, 568, 747, 801, 856, 914, 1038, 1101, [illegible] 328; [illegible]
—— [illegible] Thames [illegible]
Smiles, Dr. S., note [illegible]
Smith [illegible]
—— [illegible] a new post-mortem table [illegible]
—— E., the [illegible]
—— E. A. C[illegible]
—— [illegible] Development of the Chest [illegible]
—— Major F., [illegible] paraplegia in the male [illegible]
—— [illegible]
—— H., [illegible] uterus [illegible]
—— Dr. H. [illegible]
—— Dr. John [illegible] the portrait of [illegible]
—— W. [illegible]
Smoke abatement [illegible]
Smolensky, P., Tropical Hygiene, rev. [illegible]
Smyly, Sir P. C. [illegible]
Smyth, Mr. Watt, see Watt Smyth
Snake-stones [illegible] India [illegible]
Snell, S. [illegible] the crystalline lens [illegible] primary optic atrophy due to lead, [illegible] optic atrophy after post-partum haemorrhage, ib.; optic [illegible]
Snyder, C. [illegible] science [illegible]
Sobotta, J. [illegible] der deskriptiven Anatomie des Menschen, rev. [illegible]
Societies, Friendly, [illegible] to contract practice, [illegible] medical aid [illegible] medical officers [illegible]
Society, American, of Tropical Medicine, first meeting of, [illegible]
—— [illegible] meeting of [illegible]
—— Anatomical of Great Britain and Ireland, the localization of abdominal viscera, [illegible]
—— [illegible] Anthropological, Aberdeen, objects, etc., of [illegible]
—— [illegible] See Apothecaries
—— Balneological, British, meeting of, [illegible]
—— Benefit, surgeons' petition on dissolution of, [illegible]
—— Clinical, Chelsea, debate on [illegible]
—— Clinical, of London, [illegible] peritonitis [illegible]
[illegible] cancer [illegible] fever [illegible] thorax [illegible]
—— [illegible] deformities [illegible] annual meeting and election of officers in [illegible]
Society, Clinical, of Manchester, accidental haemorrhage in pregnant women [illegible]
—— Coal Smoke Abatement, annual meeting of, [illegible]
—— Dermatological of Great Britain and Ireland, meeting of, [illegible]
—— Epidemiological, discussion on sleeping sickness [illegible] the etiology of scurvy, [illegible] enteric fever in Hamburg [illegible] anthrax [illegible] prevalence of enteric fever in Prussia from [illegible]
—— of French Army Medical Officers, formation of, [illegible]
—— French Orthopaedic, proposed formation of, 580
—— Harveian, of London, meeting of, [illegible]
—— Hunterian, meeting of, [illegible] the Nasal [illegible]
—— Laryngological, of London, annual meeting and list of officers, [illegible] meeting of, [illegible]
—— London Licentiates and Members, general meeting of, [illegible]
—— Medical, Aberdeen Students', meeting of, [illegible]
—— Medical Benevolent, Birmingham, annual meeting of, [illegible]
—— Medical Benevolent, Devon and Exeter, note on, [illegible]
—— Medical Diplomates of London, formation of, [illegible]
—— Medical, Folkestone, officers of, [illegible]
—— Medical, of London, serum and other injections in pyogenic infections, [illegible] discussion on pelvic lesions in relation to abdominal diagnosis, [illegible] meeting of, [illegible] progressive paralysis of the insane, [illegible] anniversary dinner of, [illegible] discussion on acute intestinal obstruction, 669; treatment of urinary tuberculosis, 784; prevention and early treatment of disease, 1018; perityphlitis simulating cancer, ib.; study of a case of rheumatic fever, [illegible] influence of early operation on the mortality and results of acute appendicitis, ib.; election of officers, ib.; the annual oration, [illegible]
—— Medical, Manchester, procidentia recti, 550; malaria, ib.; colour photography, ib.; renal decapsulation, [illegible] gall bladder surgery, ib.; a family record, [illegible] meeting of, [illegible]
—— Medical, Midland, double empyema, [illegible] cerebral tumour, ib.; subphrenic abscess, ib.; otitis media, [illegible] obstructive suppression of urine, ib.; cases, ib.; chronic pancreatitis, [illegible] a uterine cyst, ib.; fleshy mole, ib.; gastro-[illegible]ostomy, ib.; rupture of the axillary artery [illegible] right hemianopsia, ib.; otitis media, ib.; meeting of, 787
—— of Medical Phonographers, prizes offered by, [illegible]
—— Medical Protection, London and Counties, annual meeting of, [illegible] and medical defence, [illegible]
—— Medical Sickness and Accident, monthly meeting of Executive Committee of, [illegible] annual report and quinquennial valuation [illegible] annual meeting [illegible]
—— Medical, Southport, officers, etc., of, [illegible]
—— Medical, Ulster and Queen's College, Belfast, [illegible] general meeting of [illegible] meeting of [illegible]
—— Medico-Chirurgical, Bradford, meeting of [illegible]
—— Medico-Chirurgical, Bristol, meeting of, [illegible]
—— Medico-Chirurgical, Edinburgh, light treatment and cutaneous disease, [illegible] the [illegible] reaction of the blood [illegible] strepto[illegible] glaucoma, ib.; [illegible] annular stricture of the large intestine, ib.; tuberculous arthritis, [illegible] meeting of, [illegible] the anatomy of the prostate, [illegible] cases, ib.; card specimens, ib.
—— Medico-Chirurgical, Glasgow, meeting of, [illegible]
—— Medico-Chirurgical, Leeds and West Riding [illegible] typhoid perforation, [illegible] specimens, ib.; rupture of the [illegible] inversion of the uterus, ib.; the [illegible] the prophylactic use [illegible] of the alimentary canal, ib.
—— Medico-Chirurgical, Sheffield, meeting of, [illegible]
—— Medico-Chirurgical, West London, anniversary dinner of, [illegible]
—— of Members of the Royal College of Surgeons of England, meeting of council of, [illegible]
—— National Antivivisection, annual meeting [illegible]
—— National Health, lectures of, [illegible]
—— Obstetrical, of Edinburgh, vaginal Caesarean section, 193; Bossi's dilator, ib., [illegible] hebotomy, [illegible] some renal cases, [illegible] obstructed labour, [illegible] gynaecology and the thyroid gland, ib.; thyroid [illegible] malignant complications [illegible] asepsis, [illegible] Caesarean section [illegible] eclampsia, [illegible] tubal abortion, ib.; specimens, ib.
Society, Obstetrical, of London, fibromyoma of the round ligament, [illegible] pyometra, ib.; [illegible] pregnancy in a fixed uterus, [illegible] ruptured tubal gestation, [illegible] specimens, [illegible] presidential address, [illegible] Fellows, ib.; [illegible] of impregnation [illegible] eclampsia [illegible] degeneration [illegible] and haematoma [illegible] of the ovaries [illegible] the body of the uterus, ib.; fibroids complicating pregnancy, ib.; hydatid disease [illegible]
—— Obstetrical and Gynaecological, Glasgow, meeting of, [illegible] X-ray treatment of cancer, [illegible] of the Fallopian tube, ib.; spontaneous rupture of the uterus, [illegible] mesenteric cyst, ib.; diaphragmatic hernia, ib.
—— Obstetrical and Gynaecological, North of England, meeting of, [illegible]
—— Ophthalmological, of the United Kingdom, proptosis [illegible] asthenopia, ib.; rheumatoid arthritis [illegible] tubercle [illegible] of the choroid, ib.; specimens, 309, 433, 1139, 1429; gonorrhoeal conjunctivitis and hydrogen peroxide, [illegible] congenital anterior staphyloma, [illegible] meeting of, [illegible] the retina in anencephaly, [illegible] pannus and associated corneal changes, ib.; the operation for trichiasis, ib.; primary optic atrophy due to lead, [illegible] optic atrophy after post-partum haemorrhage, ib.; optic glioma, ib.; microphthalmos, ib.
—— the Optical, and testing the eyesight of the nation, [illegible]
—— Otological, of the United Kingdom, introductory address, [illegible] atresia auris congenita, [illegible] labyrinthine suppuration, [illegible] cicatrized external meatus, [illegible] exostosis, [illegible] cases, [illegible] meeting of at Glasgow, 1556, 1451
—— Pathological, of London, the staphylococcus aureus and rheumatic fever, 77; dermoid tumours of brain, ib.; racemose aneurysm of the brain, ib.; pulsating exophthalmos, ib.; examination of a case treated by Dr. Otto Schmidt's method, ib.; on the pathogenesis of carcinoma, [illegible] nutrose agar, ib.; a new pathogenic bacillus [illegible] a method of isolating B. enteritidis sporogenes, ib.; colon bacillus from a case of emphysematous gangrene, [illegible] meeting of, [illegible] arterio-sclerosis [illegible] the influence of adrenalin on the nitrogenous metabolism of the bird, [illegible] relation of ammonia nitrogen to the total nitrogen in diabetes, ib.; a survey of the recorded cases of haematoporphyrinuria not due to sulphonal, ib.; note on some experiments concerning bacillary dysentery, [illegible] deep chromatin staining in malaria, ib.; bacteriology of climatic bubo, [illegible] pyaemia, [illegible] the glomerular lesions in diffuse (parenchymatous) nephritis [illegible] the cytology of malignant growth [illegible] papers [illegible]
—— Pathological, of Manchester, meeting of, [illegible]
—— Pathological and Clinical, Glasgow, meeting of, [illegible]
—— Pharmaceutical, of Great Britain, annual dinner of, [illegible]
—— Physiological, Edinburgh University, opening address [illegible]
—— for Promoting the Training and Supply of Midwives, aims and objects of, [illegible]
—— the [illegible]
—— the Red Cross [illegible] in Japan, [illegible] in Russia, [illegible] in Korea, [illegible]
—— for the Relief of Widows and Orphans of Medical Men, meeting of court of directors of, [illegible]
—— Royal, new Fellows of, [illegible] conversazione of, [illegible]
—— Royal Medical, Edinburgh, dinner of, [illegible]
—— Royal Medical and Chirurgical, hypertrophic pulmonary osteo-arthropathy, [illegible] hour-glass stomach, [illegible] anaemia splenica infantum [illegible] presidential address [illegible] election of officers [illegible] cancer [illegible] the prostate and prostatectomy [illegible] the mental condition [illegible] leprosy in relation to [illegible] the [illegible] treatment, [illegible] effects of a protein dietary [illegible] appendicitis [illegible]

of the aorta, 1316; protracted and recrudescent infection in diphtheria and scarlet fever 1426
Society Royal Meteorological, annual meeting of, 1
——— South African Colonization and the medical profession, 1
——— Royal Statistical annual meeting of, 1427
——— for the State Registration of Trained Nurses, general meeting of, 1
——— for the Study of Diseases in Children, meeting of, 28, 695, 749, 1132, 1251; meeting at Bristol, 1514
——— for the Study of the Mental and Physical Conditions of Children, annual meeting of, 1251
——— Therapeutical, meeting of, 99, 101
——— Zoological, of London, exhibits, 299
Sodium hydrosulphate, preparation of, 764
Soldiers on sick furlough, medical attendance on, 111
Solicitors, doctors v., 298
Solly, E., uterine "flag mop" for use in case of malignant obstruction of oesophagus, gastrostomy, 1374
Somerset, Lady Henry, on cures for alcoholism, 1424
Somersetshire, prevention of consumption in, 1274
Somerville, R., the Harveian oration at Edinburgh, 1454
Sommerville, D., a rapid method of preparing Drigalski and Conradi's medium for the differentiation of B. typhosus and B. coli communis, 1301 (1321)
Somnoform and ethyl chloride, the examination of alone or in conjunction with nitrous oxide or ether, 949
——— - inhaler, a, 1429
Somnolence of long duration, syphilitic convulsions preceded by, 594
Sore throat, and milk, 57; epidemic, and suppurative mammitis in cows, 1251
Soudan, and Egypt, report of Lord Cromer on 1901: Leishmania-donovani in, 1252
South Africa, prevention of consumption in, 80; honours for medical officers of Colonial contingents in, 401; lepers in, 717; the plague in, 752, 836, 962, 1193, 1224, 1338, 1444; malarial disease in, 804
——— African Colonization Society. See Society
——— America, leprosy in, 721
——— Stoneham, remuneration of district medical officers of, 507
——— Wales, correspondence from, 456, 918, 1046, 1405, 1514; infectious diseases, 456; tuberculosis, ib.; small-pox, 918, 1514; school hygiene, 918; midwives, ib.; midwifery training, 1304; infectious diseases, 1405; Glamorgan County Council and the training of midwives, 1514; sewerage of Ely and Fairwater Grove, 1515; Aberavon water supply, ib.; Glamorgan County Council Sanitary Committee, ib.
Southam, F. A., remarks on a series of 120 operations for vesical calculi, 1193
Southwark, the Board of Guardians of and Guy's Hospital, 263, 427
Spain, cancer in, 1251; medical practice by foreigners in, 321; the protection of children in, 567
Spalding, spread of cancer in, 1214
Spanton, W. D., some practical points associated with appendicitis, 297
Specialists, the methods of some, 1518
Specific gravity of urine, estimation of, 1181, of the blood, the value of Hammerschlag's method in clinical estimations of the, 473
Spectacle Makers' Company. See Company
——— prescribing in France, 1167
Spence, Dr. R., presentation to, 39
Spencer, H. R., Messrs. Mayer and Meltzer's gynaecological operating table, 26; fibromyoma of the round ligament, 352
——— W. G., serum and other inoculations in pyogenic infections, 135; enlargement of both testicles, 249; fatal haematuria of unknown origin, 755
Spinal cord. See Cord
Spirilla in the blood in a patient from Gibraltar, recurrent fever associated with, 538
Spirillum of relapsing fever, morphology of, 1214
Spitting nuisance, the, 12, 13, 38, 103, 617, 634, 635, 678, 856
Spittoon, a bedside, 1434
Spleen enlarged, in chronic cyanotic polycythaemia, 121; enlarged rhexis due to pressure on the portal vein by, 426; enlarged in chronic polycythaemia, 726; the Leishman-Donovan parasite in the juice of, 911; spontaneous rupture of, 1077
Splenomegaly tropical, the Leishman-Donovan body and its, note on the nature of the parasite bodies found in, 1
Splint, for transverse fracture of the patella, 712
Sporozoa and disease, 563, 681, 683, 742, 747, 1093, 1153, 1213;
Springs, I. I., relation of ammonia nitrogen to the total nitrogen in diabetes, 542
Spurgin, P. B., the paroxysmal cough of malaria, 1
Sputum flasks. See Flasks
Squire, J. E., common cause of error in examination of the chest, 1
St. Ives, mouse duty on, 1
Stack, E. H. E., an ethyl chloride inhaler, 1
Staff, hospital, charges against, 1426
Stafford, Dr. J., celebrates 90th birthday, 542
Stamp duty on medicines, alterations in the incidence of, 1
Standardization, bacteriological, of disinfectants, 1
Stanley, D., joint disease, 367
Staphylococcus aureus, the and rheumatic fever, 1
——— vaccine. See Vaccine
Staphyloma, congenital anterior, 1
Status epilepticus, fatal case of, 1
Steavenson, A. P., extreme hyperpyrexia, 130
Stedman, F. O., adrenalin chloride, 1
Steel matting, 1
Steinbuchel, R. v., Schmerzverminderung und Narkose in der Geburtshilfe mit speziellen Berücksichtigung der kombinierten Skopolamin-Morphium-Anaesthesia, rev., 1
Stengel, A., A Textbook of Pathology, rev., 1053
Stenosis, congenital hypertrophic, of pylorus, 1073; congenital hypertrophic of pylorus, pyloroplasty, result, 1433
Stephens, G. A., the national physique, 104
——— J. W. W., The Practical Study of Malaria and other Blood Parasites, rev., 1022
Sterilization of catheters, 637; proposed, of certain degenerates, 695, 808, 868, 1104, of the hands, 1133; of the hands, a bacteriological inquiry into, 1364
Stevens, A. A., Modern Materia Medica and Therapeutics, rev., 1
——— W. M., the tendon reflexes in uraemia, 1233
Stevenson, W. C., differentiation of B. typhosus and B. coli communis by means of the photographic plate, 1004
Steward, F. J., mobility after joint operations, 1
Stewart, H. M., dermoid tumours of brain, 77
——— James, treatment of inebriety by drugs, 122
——— Joseph, two cases of primary malignant disease of the pancreas, 685; "kidney cough," 1433
——— P., cerebro-spinal meningitis, late development of head retraction, long illness, recovery, 1434
Stirling, R. J., the prevention of syphilis, 1
——— W., breathing in living beings, 1
Stitt, R. R., unfounded charge of neglect against, 1
Stockman, R., the causes and treatment of chronic rheumatism, 477; the treatment of ankylostomiasis, 1014
Stockport, small-pox at, 1053
Stoker, G., the treatment of consumptives, 1270
——— Sir T., on prostatectomy, 1
Stokes, C. E., hyperpyrexia in measles, 130
Stomach, hour-glass, 248, 413; congenital narrowing of the pyloric orifice a cause of chronic disease of, in an adult, 413, the subsequent history of eighteen patients upon whom operations on the had been performed, 417; congenital hour-glass, 1377, 1221, reviews of books on disorders of, 1681, 1256
Stone, "dodi" twig as a nucleus of a, 490
Stoney, R. A., the pelvic fascia, 1
Strachan, B., suboccipital presentation, 75; reduction of dislocation immediately after the accident, 1
Straits Settlements, the plague in, 159; annual report of medical department of, 409
Strangulation by band simulating appendicitis, 1
Stratton, J. E., double monster, xiphopagus, 1
Strauss, H., Untersuchungen ueber den Magensaftfluss, rev., 1
Streets, horse-shoeing in the, 1, 1
Streptothrix actinomyces, 431
Stretcher parties, regimental, 929
Stretton, J. L., entropion forceps, 899; suprapubic prostatectomy in a man aged 74 years, 1427
Stricture, annular, of large intestine, 607
Strike, the, in the Irish Poor-law medical service, 1
Strutt, Hon. R. J., radio-activity and mineral waters, 1
Stuart, Dr., obituary notice of, 911
——— T. P. A., the Queen Victoria Memorial Pavilions, Royal Prince Alfred Hospital, Sydney, 1
Students, medical, preliminary general education of and the General Medical Council, 144, 280, 384; medical, in the United States, 313; outdoor, obstetric practice of, 867; university, visits of, 1447
Sturrock, Lieutenant-Colonel, the [illegible] of sea-sickness by thyroid extract, 1
Sturrock, P. S., baking a city's, 1
Style, Dr. A. H., treatment of pneumonia, 111
Sublimate solution, perils of, 1
Suckling of children who [illegible] from intermittent fever, 1
Sugar, cane, and beetroot, 695
Suicide, in a case of pain in old ectopic gestation complicating normal pregnancy, 1 in the United States, 1
Sulphonal, a survey of the recorded cases of haematoporphyrinuria not due to, 1
Sultan, the, and the Hamidie Hospital at Constantinople, 1
Sunderland, S., repetition of prescriptions containing dangerous drugs, 1, pernicious stimulating cancer, 1
Superannuation of Irish Poor-law medical officers, 1
——— Act. See Act
"Supplement," the, leading article on, 1
Suppression, obstructive, of urine, 1
Suppuration, labyrinthine, 371
Suprarenal gland, the dangers of treatment by extract of in haemoptysis, 1
Suprarenalin in pulmonary haemorrhage, 1240
Surgeon, certifying, appointment of, 409; responsibility of for assistants, 1447 (1541), veterinary charges by, 1523
Surgeons, dental, to the army, appointment of, 814, civil, and gratuities, 1171, 1252, metropolitan police, appointment of, 1471
Surgery, infectious cases in a [illegible] Professor Howard Marsh on the progress of, 1; aseptic in theory and practice, 294, 422, 549, modern, of the prostate, 307; operative, reviews of books on, 311, preanaesthetic, 320; rectal, reviews of books on, 404, gall-bladder, 667, 760, reviews of books on, 665, 955, 1118; dental, reviews of books on, 710; plea for conservatism in, 850; aseptic, the technique of, 864, orthopaedic, books on, 1
Sussex, prevention of consumption in, 80
Sutcliffe, W. G., acute appendicitis, 541, removal of uterine fibroid with a gangrenous ovarian cyst, 1371
Sutherland, W. G., Dispensing made Easy, rev., 843; Dr. Laville's antigout remedies, 1297
Suture of the heart, 736
Swabs, sterilized surgical, 1142
Swain, J., fifty consecutive intra-abdominal operations, on the ovaries, Fallopian tubes, and broad ligaments, 354
Swan, Captain, J. G., case of continued fever with Leishman Donovan bodies, 1424
——— R. H. J., primary vesical tuberculosis, 764
Swanzy, H. R., A Handbook of Diseases of the Eye and their Treatment, rev., 541
Sweating of medical men, 104, 211, 415, 1
Sweden, medical women in, 108
Sweeny, Lieutenant-Colonel T. H., ovaro-hysterectomy (Porro), notes on twelve cases performed during the last seven years in the Ishwari Memorial Hospital, Benares, 350
Sweet, W. M., Textbook of Diseases of the Eye, rev., 842
Swithinbank, H., Bacteriology of Milk, rev., 137
Switzerland, the thermal waters of, 471
Sycosis, treatment of by inoculation of staphylococcus vaccine, 1175
Sydney, correspondence from, 335, 638, 1102, 1252, the use of preservatives in food, 335, 555, the abattoirs at, 335; the Queen Victoria Home for Consumptives, 335, 1249, Prince Alfred Hospital appointments, ib.; expectoration in trams and trains, 635; infectious diseases, ib.; vital statistics, ib.; leprosy in New South Wales, 1102; purifying the milk supply, 1102, the bubonic plague, 1102, 1335, the declining birth-rate, 1102; the New Guinea expedition, ib., boracic acid in milk, 1334, Hospital for Sick Children, ib.; anniversary of opening of Prince Alfred Hospital, ib.; death of Dr. Blaxland, ib.
Sykes, J. F. J., consumption and sanatoria, 368
Syme, W. S., some general results of affections of the nose and naso-pharynx, 1; case of bone cyst of the nose, 1
Symes, J. O., on tuberculosis, 1; parasite of aestivo-autumnal fever, 840; an inquiry into the primary seat of infection in [illegible] cases of death from tuberculosis, 884
Symes-Thompson, E., a winter holiday, 165
Symonds, C. J., gangrene of fingers, 1018; spontaneous fracture of neck of femur, ib.
Syphilis, the prevention of, 81, treatment during pregnancy, 1, alleged irrigating serum for, 52, inoculation of apes with, 5 and pregnancy, 1
Syphilology, reviews of books on, 1

T

Table, Messrs. Mayer and Meltzer's gynaecological operating, 26, a new pool in the, 1442
Tabloid, the sale of drugs in, 1
Tahiti, Dr. N. Senn on, 1449

Talipes calcaneus, congenital dislocation of the knee with,
Tallerman treatment the,
Tallgvist, T. W., haemoglobin scale, 1472
Taplin, Dr. J. F., [illegible] notice of
Tarbouriech, [illegible] de hautes des Analyses Chimiques, rev.,
Tate, W. H. H., [illegible]
——— W., Pharmacopoeia dependence and,
Taxation by weight,
Taylor, F., [illegible] peritonitis,
——— G. G. S., rodent cancer treated by x rays,
——— J. W. (Birmingham) the diminution in birth rate and what is involved in it,
——— J. W. E. stet., the Association and medical decence,
——— S., treatment of whooping cough,
——— W., some cases of intestinal obstruction successfully treated,
——— Sir W., on the work and purpose of the Royal Army Medical College,
Teaching of children alleged to be mentally defective,
Teeth, artificial, the supply etc., of school children,
Temporary, hypertrophy of the breast and pregnancy
Temperance, instruction in, 201, 202, 203, 1241; books on,
——— work in the army,
Temperature records on,
Temperatures in Clinics,
Temple of Hygeia and sanatory,
Tendeloo, N. P., Stephen ueber die Ursachen der Lungenkrankheiten, rev., 787
Tendon reflexes, the [illegible] in uraemia,
Tenure of office of medical officer of health, 757
Testicles, enlargement of both,
Testing the eyes, [illegible] of,
Tests, the imperfectly-descended, the value of,
Tetanus, following operation for radical cure of hernia,
——— serum, the [illegible] of,
Tetany, [illegible] with convulsions and embarrassed respiration,
Texas, Eastern, [illegible] the tornado in, 1241; an epileptic epidemic in,
Thames, the [illegible] valley, the cancer mortality of the,
Therapeutic [illegible],
Therapeutics of sea voyages, [illegible] books on,
Thermometer, [illegible],
Thibbet, [illegible] arrangements of the eyelid,
Thin, Dr., [illegible] of the estate of,
Thomas, A. M., [illegible],
——— G. D., [illegible] pleurisy complicating tuberculous disease,
——— J. [illegible] and [illegible] in severe [illegible],
——— W. [illegible] congenital [illegible],
——— W. [illegible] in [illegible] dental,
Thompson, [illegible] surgery, [illegible]; the [illegible],
——— [illegible],
——— [illegible] surgical [illegible],
——— [illegible],
Thorburn, A., [illegible],
Thorne, A., [illegible],
Thornton, J. C., [illegible],
Thorowgood, [illegible],
Threlfall, J. C., [illegible] Water Analysis,
Thrush, [illegible] operation during pregnancy,
Thumb, [illegible],
Thyroid, [illegible] in acute [illegible],
Thyroid gland, [illegible] treated by extract of, in gynaecology and,
Tibbles, W., [illegible],
Tick, a parasitic,
Ticket, a cancelled,
Tidal waters and enteric endemicity, the pollution of,
Tides, S., balconies as sanatoria, 1691; the treatment of pneumonia,
Times, x rays in the treatment of, 868
Tinnitus, case of, 838
Tire, assumption of,
Tobin, E. F., the strike in the Irish Poor law medical service,
Todd, J. L., human trypanosomiasis on the Congo,
Toldt, C., An Atlas of Human Anatomy, rev.,

Tolstoi, Count L. L., a hygienic decalogue,
Tomes, C. S., mechano-therapeutics,
Tomkinson, J. G., twins, placenta praevia [illegible] concealed accidental haemorrhage,
Tommasoli, Dr. P., death of, 1111
Tongue, review of book on,
Tonsillotome, a,
Tooth in the trachea during anaesthesia,
Toronto, proposed consumptive sanatorium for,
Torsion of Fallopian tube, 895
Tottenham, sanitary inspection of schools in,
Tournament, the Royal Military,
Trachea, tooth in the during anaesthesia,
Tracheotomy, in an apparently dead man, recovery,
Traill, Dr., presentation to,
Training, of bearer companies, book on, and national degeneration,
Transactions and Reports, rev.,
Transvaal, report of medical officer of, 114
——— Central African natives in,
Trauma in relation to disease of the nervous system,
Travancore, leprosy in,
Tree, a family,
Trend, Dr., the late, 207
Tresilian, F., a plea for some old drugs,
Treves, Sir F., A Manual of Operative Surgery, rev., the Hong Kong Branch and, medical aspects of the Russo-Japanese war
——— Z., the physiology of fatigue,
Trevithick, E., note on the method of demonstrating tubercle bacilli in the urine,
Trichiasis, the operation for,
Trimmer, Mr. E., appreciation of, obituary notice of,
Triplets, presenting some unusual features in a case of plural pregnancy,
Trophy, a volunteer ambulance, the Scottish Volunteer Ambulance,
Tropics, thermometer for the,
Trotbeck, Mr. J., and medical evidence
Trudeau, E. L., the Adirondack Sanatorium,
Truhart, H., Pankreas Pathologie, rev.,
Truth," libel action against, on Christian Science,
Trypanosoma in birds,
Trypanosomiasis, human on the Congo,
and [illegible] derivatives, ; Laveran on,
Tubby, A. H., some deceptive abdominal conditions and the question of operation,
infantile paralysis,
Tube, Fallopian torsion of,
tube, the early, the detection of in the lungs,

Tuberculin, Beranek's,
Tuberculosis, in the Lewis, the prevention of, in Ballarat, pulmonary, compulsory notification of, review of book on, the paths of infection in, analysis of cases of, necropsies of, of the choroid, pulmonary, death-rate from in England and Wales, and anatomia, in Germany, Marmorek's serum in, in dairy cows, pulmonary, tetany associated with, the administrative control of pulmonary, the action of a maritime climate in the treatment of pulmonary, of the larynx, the early diagnosis of, treatment of, the primary seat of infection in, in death from, in the Dutch Indies, pulmonary, in the dairy cow, pulmonary, in the Scottish Highlands, intestinal, in children, the surgical treatment of pulmonary, in tigers, price for the production of, the international [illegible] against, pulmonary, the operative treatment of pulmonary, [illegible] detection in, [illegible] and treatment of, in cancer, the [illegible] and prevention of, in cows, the [illegible] and prevention of, [illegible] and
Tuberculous, primary, of the intestinal tract in children, the [illegible] of

Tube, Fallopian, fifty consecutive intra-abdominal operations on, Fallopian sense [illegible] of the,
——— a way the air of,
Tucker, Captain H. H. G., the Symptoms and Pathology of Paget's disease,
Tumour of the liver, cerebral, villous, of bladder, suprapubic cystotomy, recovery of left ovarian, dermoid, pregnancy after removal of both ovaries for
Tumours, dermoid, of brain, abdominal round worms simulating, innocent and malignant essential identity of
[illegible], G. G., the treatment of appendix abscess by the recto-vesical pouch, Some Surgical Aspects of Appendicitis, rev.,
——— Mr. [illegible] obituary notice of,
——— R., the abscess following gonorrhoea,
——— the modern pursuit of novelties in medicine,
——— W. A., the mental condition in epilepsy in relation to [illegible],
Turpentine in [illegible] poisoning,
Turvey Treatment Company, treatment of alcoholism by,
Tuttle, H. P., A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon, rev.,
Twins, pleuropagous, difficult labour, placenta praevia, coincidental [illegible] haemorrhage, difference of sex, double monster, [illegible] chorion, quintuple,
Tylecote, F. E., a fatal case of status epilepticus,
Tyler, W. F., a scheme for the comparison of
Typhlitis,
Typhoid fever, See Fever, enteric,
Tyson, W., [illegible] and early treatment of

Uganda, sleeping sickness in, 39
Ulcer, rodent treated with radium bromide, perforated gastric, successful case of treated by excision, a case of perforated gastric or duodenal recovery without operation, gastric perforation twice in five months, ruptured gastric, operation, recovery, peptic, of the jejunum, rodent, radium in a case of, gastric, gastrojejunostomy for, in gastric and high frequency currents, ruptured duodenal, laparotomy, [illegible] tuberculous, and, and [illegible] perforation of ileum, causing acute intestinal obstruction,
Ulcers, perforating gastric and duodenal, 492; **specific cutaneous, local treatment of,**
Underwood, A. S., degrees in dentistry, studies in Comparative Odontology rev.,
Union, Medical Defence, reserves to maintain its integrity, report of council, solicitor's report, annual meeting of the
——— Medical and Dental Defence of Scotland, annual meeting of
——— Midland Medical, the position of the medical attendant in case of
United Kingdom Medical and the British Medical Association,
United States of America and Canada, sanitary report of,
——— States of America, increased longevity in the medical profession of the, [illegible] in the medical students of the, [illegible] in the medical profession in the, practice of the, the Red Cross Society in the, the oldest lawyer in, the plague in, the prevention of consumption in, edible plants in, pure food and drugs in, sale of the [illegible] population of Society for Study of Tuberculosis in, medical education in, medical examinations in, medical defence in, and, extension of, and, and the Ablest emigrants, State examination in, [illegible] dentistry in, the, the Post office department and indecent advertisements,
University College Hospital staff at,
University the study of, edinburgh,
——— Arts, honorary degrees at, graduation ceremony at, [illegible] lists, the session in, [illegible] celebration at, meeting of Court,
——— Ireland, physics and therapeutics, [illegible] of, court of governors of, Sir Robert Hall's address at, [illegible] chair in surgery, degrees in, the anatomical department, the Richard memorial prize,
——— [illegible] prelists,
——— of California, European professors [illegible] summer session of,

University of Cambridge, appointments, [illegible] degrees, [illegible] 224, [illegible] 1114, [illegible] 1468, 1521; pass lists, [illegible] 1521; Addenbrooke's Hospital, [illegible] the new schools and laboratories at, [illegible] royal visit [illegible] tropical medicine [illegible] 1521; boards of Electors [illegible] State Medicine Syndicate, [illegible] medical and surgical examinations, ib.; recognised schools, [illegible] University of Wisconsin, [illegible] examiners, 1054; examinations, 1054; botany, 1173, 1521; honorary degrees, [illegible] pathology, [illegible] surgery, ib.; experimental psychology, ib.; theses for M.B., ib.; anthropology, ib.; Professor of Surgery, [illegible] gift of drawings, ib.; prize, 1521; surgery, [illegible]

—— of Cincinnati, the presidency of, [illegible]

—— of Dublin, degrees, [illegible] degrees for women in, 1457, [illegible]

—— of Durham, pass lists, [illegible]; degrees, [illegible] the Heath scholarship, [illegible]

—— of Edinburgh, extension of the chemistry department of, [illegible] annual report of for [illegible] rectorial address at, [illegible] the rectorial disturbance at, [illegible] meeting of university court of, [illegible] pass lists, [illegible] notes from, [illegible] meeting of general council of, [illegible] examination for the M.D. degree of, [illegible]

—— of Glasgow, and the medical education of women, 208; proposed commemoration day at, [illegible] honorary degrees at, [illegible] close of winter session at, [illegible] the chemical department of, ib.; the chancellorship of, [illegible] pass lists, [illegible] commemoration and graduation days at, [illegible] graduation ceremony, [illegible] professor of geology at, [illegible]

—— Johns Hopkins, Baltimore, loss to by fire, [illegible]

—— of Liverpool, a Fellowship of Dermatology at, [illegible] vote by city of Liverpool to, [illegible] diploma in tropical medicine, [illegible] diploma in veterinary hygiene, ib.; postgraduate courses at, [illegible]

—— of London, the medical degrees of, [illegible] recognition of teachers, [illegible] physiological laboratory, [illegible] B.Sc. degree of research, 56; Brown Animal Sanatory Institution, ib.; pass lists, [illegible] the Institute of Medical Sciences at, [illegible] meeting of convocation of, [illegible] 1114, 1173; courses of advanced study and research, [illegible] preliminary scientific examination, ib.; preliminary scientific investigation, [illegible] recognition of teachers, ib.; books for the examination in pharmacology at the Intermediate M.B. Examination of, 411; meeting of senate of, 761, 873; chemistry in the medical curriculum, [illegible]

—— of Oxford, the Regius Professorship of Medicine at, [illegible] degree days, [illegible] degrees, [illegible] Radcliffe Travelling Fellowship, ib.; the Philip Walker studentship in Pathology, 407, 446, [illegible] research scholarship, [illegible] pathology at the M.B. examination, 523; B.M. and B.Ch. degrees, ib.; the question of exemption from Greek, [illegible] forensic medicine and public health at the M.B. examination, [illegible] scholarships, ib.; the chairmanship of the Faculty of Medicine at, 643; Board of Faculty of Medicine, [illegible] examinations, [illegible] 1114, [illegible] notes from, [illegible] examinations for the degrees of B.M. and Ch., 1229; representative on the General Medical Council, [illegible] examiners, [illegible] 1521; representative on the General Medical Council, 1521; pass lists, ib.

—— of Paris, opening of information bureau at, [illegible]

—— of Pennsylvania, the new medical laboratory at, [illegible]

—— of Philadelphia, claim of to be oldest American university, 421

—— Queen's, Kingston, gift to, 571

—— Royal, of Ireland, meeting of senate, 1229; pass lists, ib.

—— of St. Andrews, honorary degree, 874

—— Victoria, of Manchester, pass lists, [illegible] vote of city of Manchester to, [illegible] qualifying medical examinations in, ib.; the bacteriological laboratory, 700; degree ceremonial, ib.; appointment of examiner, [illegible] notes from, [illegible] meeting of court, [illegible] pathology at, 1331, [illegible] appointments, etc. at, 1468

—— of Wales, annual meeting of university court of, [illegible]

Upham, C. H., early detection of râles in phthisis, 1370

Uraemia, the tendon reflexes in, 125, 761

Ureter, double, case of, 488

Ureters, hydronephrosis due to abnormalities of the, [illegible]

Urethrotomy, external, retention of rubber catheter after, 604, 759

Urgency cases and no beds, 263, 327

Uric acid, estimation of in the urine, [illegible]

Urine, method of demonstrating tubercle bacilli in the, [illegible] of grave cases of hepatic cirrhosis, reaction with [illegible] in the, [illegible] estimation [illegible] gravity of, [illegible] obstructive [illegible] intravesical separation [illegible] the [illegible] the [illegible] of the pancreas, [illegible] children, [illegible] some tests for [illegible] estimation of [illegible] reviews of books on analysis of, [illegible] treatment [illegible] so-called "pancreatic reaction" [illegible] normal [illegible] haemolytic (haem[illegible]

Urquhart, A. [illegible] mortality in the Thames valley, [illegible]

—— A. R. [illegible]

Utah, patent [illegible]

Uterus, the operative treatment of myomata of, [illegible] the cervix of, [illegible] abscess of, [illegible] ventrifixation of, 325, 400; spontaneous rupture of, [illegible] affections of and [illegible] myoma of often a fatal disease [illegible] modern treatment [illegible] hour-glass contraction of, ib.; inversion of the, 669, 1191; [illegible] gravid, retroversion of, [illegible] appendages of the [illegible] rupture of, [illegible]

V.

Vacation courses in Berlin, [illegible]

Vaccination [illegible] and politics, [illegible] raised scar [illegible] and small-pox [illegible] stage of [illegible] successful grant [illegible] and the [illegible] increase of, [illegible] 1154; and small-pox at Gateshead, 1150

—— Act [illegible]

—— Inquiry [illegible] small-pox in Germany, [illegible]

—— law [illegible]

—— [illegible]

—— [illegible]

—— [illegible]

Vaccinators, public [illegible] contracts of with guardians, [illegible]

Vaccine [illegible]

Vagina, septate [illegible] labour, [illegible] multiple septa [illegible] septate [illegible]

Vagrancy, small-pox and, [illegible]

Valentini, A., Aromatici e Nervini nell' Alimentazione, [illegible]

Vancouver, the climate of, [illegible]

[illegible]

[illegible]

Variot, G., gouttes de lait et consultations de nourrissons, [illegible]

Vas deferens [illegible]

Vasectomy for enlarged [illegible]

Vaughan, G. T., The Principles and Practice of Surgery, rev., [illegible]

[illegible] enlarged spleen, [illegible]

[illegible]

[illegible] operating th[illegible]

Ventricle [illegible] heart by the, 57

[illegible] the uterus, [illegible]

Vera Cruz, the sanitation [illegible]

[illegible] and medical defence, [illegible]

[illegible] rev., 1070

[illegible]

[illegible] rev., 81

[illegible]

Verworn, M., Allgemeine [illegible] rev., [illegible]

Veterinary surgeon [illegible]

Vicars, F. [illegible]

Viceregal court, the, [illegible]

Vichy, as a health resort, [illegible]

Victoria Cross, statistics [illegible]

[illegible]

Vienna, medical [illegible] from, [illegible] the surgical clinic at the General Hospital, ib.; a new [illegible] for the General Hospital [illegible] Austria, [illegible] the [illegible] universities, [illegible] calling [illegible] statistics [illegible]

Villiers [illegible] the extinction of infant mortality in, 753

Villiers-sur-Marne, the sanatorium at, 1380

Vincent, G. F., acute septic colitis due to milk poisoning, [illegible]

Viscera, anthropometry of the, 970; abdominal, localization of, [illegible]

Viscount Wolseley, two [illegible] from the "Story of a Soldier's Life," [illegible]

Vision, defective, in school children, [illegible] candidates for the army and navy, [illegible] deterioration [illegible] school life, 1415; of university students, [illegible]

Visit, proposed, of French medical men to England, 1451

Vivisection question, the, in Germany, [illegible]

Vocabularies, reviews [illegible]

Volunteer Infantry Brigade, promotions and appointments in medical service of, [illegible]

—— Infantry Brigade Bearer Companies, promotions and appointments in, [illegible] formation of Lancashire [illegible] Brigade of, [illegible]

—— Rifles, promotions and appointments in medical service of, [illegible]

Volunteers, report of Royal Commission on, [illegible]

—— Royal Engineers, promotions and appointments in medical service of, [illegible] 1227

—— Royal Engineers, Submarine Miners, promotions and appointments in medical service of, [illegible]

—— Royal Garrison Artillery, promotions and appointments in medical service of, [illegible] 1112, [illegible]

Vouzelle, La Syphilis [illegible] Secondaire, re[illegible]

W.

Wackerhage, Dr. and Mrs. E., Bishop [illegible]

Wade, E. W. [illegible]

Wake [illegible]

Walden, Miss E., death of, [illegible]

Waldeyer, Professor H. W. G., gets honorary degree at Cambridge, [illegible]

Waldo, F. J., lectures on medical jurisprudence, [illegible]

—— H., recurrent [illegible] pneumococcal peritonitis, 1254; facial pigmentation, [illegible]

Wales, T. G., Dr. Laville's antigout remedies, [illegible]

Walford, W. G., reduction of dislocations immediately after the accident, [illegible]

Walker, A. E. W., The General Pathology of Inflammation, Infection and Fever, rev., [illegible]

—— C. E., [illegible] the cytology of malignant growths, [illegible]

—— H. T., yerba maté, [illegible]

—— J. W. T., [illegible] cystoscopy, [illegible] the prostate and prostatectomy, 728

—— X rays in the treatment of [illegible]

Wallace, A. R., The Wonderful Century, rev., [illegible]

—— C. S., an [illegible] procedure known as total prostatectomy, [illegible] total prostatectomy, [illegible] stricture of small intestine, 607

—— J. S., Essay on the Irregularities of the Teeth, re[illegible]

—— J. W., ventrifixation, uterine, [illegible]

Walls, W. [illegible] accidental [illegible] women, [illegible]

Walsham, W. J., Surgery, its Theory and Practice, rev., 609

Walter, F. [illegible] possible cause of cerebral haemorrhage, [illegible]

Walters, F. R. [illegible]

War, in the Far East, the, [illegible] 1448

—— Office, the [illegible] Russo-Japanese medical [illegible]

Ward, A. O. [illegible]

Wares [illegible]

Waring, H. J., Manual of Operative Surgery, rev., [illegible]

Warning, a, to medical men applying for [illegible] surgeoncies, 228; a, 471

—— [illegible] labour, [illegible]

Warrington, W. [illegible] throat, [illegible]

Washington, the cocaine habit in, 4

Watercress [illegible] fever [illegible] the treatment of [illegible]

Water supplies, lead poisoning and [illegible] country [illegible]
—— supply, of [illegible] [illegible]
Waters, mineral, [illegible]
Watkins, [illegible]
Watkins-Pitchford, [illegible] stone, [illegible]
[illegible] stone, [illegible]
Watson, [illegible] gout [illegible] Volunteer [illegible]
—— C. G., [illegible] dinner, [illegible]
—— Captain E., [illegible]
—— J. H., [illegible] enlarged spleen, [illegible] marrow, [illegible]
—— J. K., The Examination of the Urine, rev., [illegible]
—— [illegible]
—— Sir P. H., [illegible]
Watt, T. M., [illegible]
Watt-Smyth, Mrs. A., [illegible] its Cause and the Cure, rev., [illegible]
Watt, A. M., [illegible]
Weatherly, L. A., [illegible]
Weber, F. P., [illegible] leukanaemia with great hyperplasia of the spleen and prevertebral haemolymph glands, and with increase [illegible] bone marrow, [illegible]
Webster, J. [illegible]
[illegible]
Wells, F. M., [illegible]
—— J. W., [illegible]
[illegible]
[illegible] Coal [illegible]
[illegible]
West Australian Medical Staff, [illegible]
—— Australia, [illegible]
—— Coast of Africa, [illegible]
—— Indies, the [illegible]
—— Riding of Yorkshire, report [illegible]
—— Wales [illegible]
[illegible]
—— W. W. [illegible]
[illegible]
[illegible]
Whiteabbey, proposed Poor-law sanatorium at, [illegible]
Whiteford, C. H., a case of perforated gastric or duodenal ulcer recovery without operation, [illegible]; a simple method for the administration of ethyl chloride, [illegible]; retention of catheter after external urethrotomy, [illegible]; irrigation of wounds with chemical irritant, [illegible]
Whitelaw, [illegible] atmospheric pressure and cerebral haemorrhage, [illegible]
Whitfield, Dr. L., death of, 1111
Whittaker, Lieutenant Colonel J. H., death of, [illegible]
Whooping-cough, quarantine after, 4[illegible]; hemiplegia occurring during [illegible]; notification of, [illegible]; treatment of, 1412, 1471
[illegible] reaction, [illegible]
Wiggins, D., Midwifery for Midwives, rev., 11[illegible]
Wightman, C. F., first aid treatment of cut arteries, [illegible]
Wiglesworth, J., St. Kilda and its Birds, rev., [illegible]
Wignore, A. W., some typical examples of Roentgen-ray and high-frequency treatment, [illegible]
Wilkin, G. C., treatment of hysterical cough, [illegible]; the Association and medical defence, [illegible]
Wilkinson, R., belladonna poisoning, 1472
Wilks, Sir S., illness of, 417, [illegible], 567, 627, 6[illegible], 654, [illegible]; recovery of, 1[illegible]
Williams, C. T., the x rays in the diagnosis of pulmonary tuberculosis, 1[illegible]
—— D. J., three cases of abscess of the lung, 8
—— H., report of on the health of the Port of London, 1144
—— J. F., primary quadruple amputation, recovery, 1[illegible]
—— J. F., puerperal eclampsia, 1[illegible]
—— L., foul convalescent homes, 1[illegible]
—— P. W., rheumatic infection through the air passages, [illegible]
—— S. R., a bedside spittoon, 14[illegible]
—— W. M., puerperal sepsis, [illegible]
—— W. R., [illegible]oma of the uterus often a fatal disease? 461; Vaginal Tumours, with Special Reference to Cancer and Sarcoma, rev., [illegible]
Williams-Freeman, J. P., on the Medical Acts Amendment Bill, [illegible]
Williamson, Professor A., death of, 12[illegible]
—— A. M., annual report of the Sanitary and Markets Department of the City of Edinburgh, 11[illegible]
—— H., two cases involving the question of the site of impregnation, 711
—— J. R., sterilization of the hands, 1[illegible]
—— R. T., changes in the spinal cord in diabetes mellitus, 1[illegible]; cylindrical epithelioma in centrum ovale, 11[illegible]
Wills, medical, [illegible]
Wills, W. A., elasticity of the aorta, 131
Wilson, C., rupture of intestine, [illegible]
—— Mr. H., medical examination of school children, [illegible]
—— Dr. J., death of, [illegible]
—— Dr. J. A., presentation to, [illegible]
—— J. M., sanitary authorities and the milk supply, [illegible]
—— S. W., preliminary general education of medical students, [illegible]; the finances of the General Medical Council, [illegible]; fee for restoration to the Medical Register, [illegible]
—— T., modern treatment of fibromyoma of the uterus, [illegible]
Wiltshire, prevention of consumption in, [illegible]
Windle, J. D., the bacteriology of acute rheumatism, [illegible]
Wingrave, W., a non-toxic preparation of iodine, [illegible]
Winter holidays. See Holidays
[illegible] C. H., poisoning from atropine eyedrops, [illegible]
[illegible] certificates for children, [illegible]; Poor-law medical [illegible] in Ireland, [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] hospital at, [illegible]
Women as hospital physicians in Buda-Pesth, [illegible]
Women, pregnant, accidental haemorrhage in, [illegible]; guidance for, [illegible]; medical, [illegible]; Sweden, [illegible]; Glasgow University and the medical education of, [illegible]; medical in the United States, [illegible]; reviews of books on diseases of, [illegible]; medical practitioners in Scotland, [illegible]
Wood, F. E., strangulation by band simulating appendicitis, [illegible]
—— T. O., the repetition of prescriptions containing dangerous drugs, [illegible]
Woodcock, H. M., the literature of the protozoa, [illegible]
—— Dr. S., memorial portrait of, [illegible]
Woods, H., the Association and medical defence, [illegible]
Woodward, M., inversion of the uterus, 11[illegible]
—— W., passage of a renal calculus through a lumbar sinus, 147
Woolcombe, Assistant Surgeon R., death of, 1127
Wooldridge, A. T., watercress and enteric fever, 57
Work, educational, inspection of the Poor-law schools, 7[illegible]
Workhouses, certification of lunatics in, [illegible]; imbeciles and lunatics in, 12[illegible]
Workmen, accidents to, [illegible]; sanatoria for, [illegible]; general paralysis and compensation of, [illegible]
Workmen's Compensation Act. See Act
Workshops and factories, ventilation of, [illegible]; measles and, [illegible]
Worms, round, simulating abdominal tumours, [illegible]
Wounded, in naval action, treatment of, [illegible]
Wounds, non-perforating of the anterior capsule of the lens, [illegible]; irrigation of with chemical irritants, 14[illegible] (15[illegible])
Wrestling, Japanese, in America, [illegible]
Wright, A. E., inoculation on staphylococcal infection, [illegible]; on internal secretion in disease and treatment, [illegible]; the treatment of acne, furunculosis and sycosis by therapeutic inoculations of staphylococcus vaccine, 1[illegible]
—— C. R. A., Animal and Vegetable Fixed Oils, Fats, Butters, and Waxes, rev., [illegible]
—— G. A., Handbook of Surgical Anatomy, rev., 435
—— W., the inquest on, [illegible]
Wundt, W., Outlines of Psychology, rev., 11[illegible]
Wynne, J. D., tuberculosis in the South of Ireland, 1[illegible]

X.

X rays. See Roentgen

Y.

Year Book, the Association, [illegible]
Yellow fever. See Fever
Yeomanry, Imperial, promotions and appointments in medical service of, [illegible]
Yerba mate, correspondence as to, [illegible]
Yonge, E. S., a self-retaining ear-douche basin, [illegible]
York, small-pox at, [illegible]; prevention of consumption in, [illegible]
Yorkshire, vaccination in, [illegible]
Young, feeding in relation to the health of the, [illegible]
Young, A., total extirpation of the prostate, [illegible]
—— W., cerebral abscess with unusual complications, [illegible]
Younge, Lieutenant-Colonel G. H., the treatment of [illegible]

Z.

Zarniko, C., Die Krankheiten der Nase und des Nasenrachens, rev., [illegible]
[illegible] a bright exemplar of, [illegible]

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

British Medical Journal

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 2, 1904.

A Clinical Lecture
ON
OEDEMA OF THE LUNGS AND ITS IMPORTANCE AS A MODE OF DEATH.

Delivered at St. George's Hospital,

By Sir ISAMBARD OWEN, M.A., M.D., F.R.C.P.,

Physician to, and Lecturer on the Principles and Practice of Physic at, the Hospital.

The search for specific remedies for diseases has not up to the present yielded any considerable harvest. It is true that we seem to be on the verge of a new epoch. Now that *materies morbi*, which to our fathers was little more than an abstract conception, has begun to take particulate form, and chemical analysis is diving into the secret of its mode of action on the body, we may reasonably hope that experimental science will one day surmount the further step of discovering the means of counteracting it. That step, however, is a long one, and at present we must reconcile ourselves to the fact that there are few remedies known to us to which we can even plausibly attribute the property of destroying or neutralizing the physical basis of any disease inside the human body.

We physicians, however, cannot therefore sit down idly and await further discovery. Our business is with the present. Disease, with its train of suffering and death, is in the field. If we cannot always destroy the enemy, we can at least place some obstacles in its path; strategy is open to us, though we may not have the force for direct attack: and by well-directed therapeutic strategy death may be avoided as well as suffering. In fighting disease delay is often equivalent to victory, and *cunctando restituit rem* may be written as well of therapeutic as of Fabian campaigns.

The tendency of acute diseases in particular to run a course definitely limited in point of time is not a newly-observed fact, though modern bacteriology has confirmed and partly explained it. If the patient survive the allotted time the gravest danger to life is past. He may, indeed, be left crippled, he may have sustained during conflict with the disease an organic lesion which will eventually cut short his life; but the acute illness is over. If no permanent organic lesion is left behind his recovery is complete. Such is the normal course of the greater number of acute diseases, without reference to treatment. In some few we have already the power of cutting the attack short; in most we can only endeavour to limit its effects on important organs, and to stave off a fatal issue until the time is passed at which the malady possessed the power to cause it.

Successfully to resist an enemy one must know something of his resources and methods. If we are to succeed in averting death from disease we need, above all things, to know how in each case the fatal result may be brought about. It is to this subject, or at least to a part of it, that I wish to direct your attention to-day. I do so the more particularly as it is a subject to which, I venture to think, adequate attention is seldom given. We are too apt to content ourselves with generalities. It is so easy to say that a patient died of scarlatina, or cerebral haemorrhage, or granular kidney; so much more difficult to define how the malady actually brought life to an end. But this is often the really important matter; the malady itself we may not have the means of removing; its fatal effects we may perhaps find ourselves able to avert if we know precisely what they are.

Death means the permanent arrest of the heart and respiration, or practically of either, for neither can go on long without the other. It may be brought about by destruction or by temporary abeyance of function of any one of the active elements which are necessary to the cardiac or respiratory movements, from the nerve centres in the medulla oblongata to the haemoglobin in the red corpuscles, and it can occur in no other way. Older authors used to classify deaths into deaths occurring from the heart, deaths occurring from the lungs, and deaths occurring from the brain. This triple classification was unsound and misleading. There is no death from the brain except through the agency of the nerves and muscles of the heart, the thorax or the arterial channels; there is no death at all as long as the heart and respiratory muscles are still in action.

The mechanism of death, you will find, is in the great majority of cases neither obvious nor simple. When, indeed, a ventricle which is the seat of advanced fatty degeneration has stopped contracting, or a large aneurysm ruptured, or a mediastinal growth occluded the trachea, or an intracranial effusion been present in sufficient amount seriously to compress the medulla oblongata, it needs no profound physiological knowledge to tell us in what way the condition of things had become incompatible with the further maintenance of life. But such simple cases are the exception, and from the examples I have quoted you will be correct in judging that the most obvious modes of death are, generally speaking, those that least admit of remedy.

Some cases of poisoning, again, show us the mechanism of death in a simple form. We have poisons that kill, like morphine, by paralysing the respiratory centre; like curare, by paralysing the motor terminals of the respiratory nerves, like carbon monoxide, by paralysing (or I may so call it) the haemoglobin; like chloral and prussic acid, by bringing both heart and respiration to a standstill. To these modes of death we oppose, and with some measure of success, equally simple and direct remedies. We have no means of destroying or neutralizing, in the chemical sense, any of these poisons, once they have been absorbed into the circulation; but in the less severe cases, by means of artificial respiration, for example, we may succeed in keeping going the respiratory function, or by means of digitalin that of the heart, until such time as the excretory glands have been able to eliminate the absorbed poison from the fluids of the body, and the danger to life is past.

In the greater number of cases of disease the problem is far less simple. We know that in many acute diseases definite poisonous substances are thrown into the circulation: we know that in some forms of organic disease equally definite poisons are retained in it, and some at least of these poisons seem to possess a directly depressant action on the cardiac and bulbar nerve tissue; but in clinical experience it is exceptional to witness a death directly and solely due to such intoxication of the cardiac or respiratory nerve apparatus or the muscles which they actuate. In by far the greater number of instances the immediate cause of death is to be traced in some more tangible lesion of vital organs; but I must warn you that even in diseases which essentially involve

lesions of the heart or respiratory organs the proximate cause of death is seldom that which a primâ facie knowledge of the disease would suggest. In illustrating this I shall have particularly to ask your attention to a lesion the clinical significance of which is often overlooked, and which has hardly received the measure of attention in medical literature that its real importance seems to me to claim. The lesion I mean is oedema of the lungs.

In cases of disease of the heart valves, to take an example, it is exceptional to find death occurring primarily from stoppage of the heart. The damaged heart, in fact, seldom stops as long as the respiration is free. I have often invited your particular attention in the wards to the phenomena of mitral stenosis in its successive stages. The narrowing of the left auriculo-ventricular orifice, if duly compensated by adequate hypertrophy of the right ventricle, may exist, as we almost daily see, for many years, not, indeed, without causing troublesome symptoms, but at any rate without immediately threatening a fatal issue. At length the day comes when compensation fails. The right ventricle gives way under the strain. Perhaps the stenosis has increased beyond the capacity of the ventricle to compensate; perhaps bronchitis has aggravated the obstruction in the pulmonary circulation; perhaps the nutrition of the thickened ventricular wall has begun to fail. The ventricle dilates; the right auriculo-ventricular orifice becomes stretched; the tricuspid valves are therefore incompetent; and the scene is changed. The systemic and portal veins become engorged, oedematous effusion appears in the lower extremities and mounts upwards, the liver swells, and the obstructed portal circulation unloads itself into the peritoneal cavity. The patient is now quite disabled, his legs waterlogged, his abdomen distended, his heart struggling to overcome the deficiency of its valves, his breathing oppressed, and his blood insufficiently aërated. But in all this disablement, serious as it is, there is as yet little of a *fatal* element. Oedema of the extremities does not kill, unless cellulitis supervene. Digestive disturbances and impaired nutrition kill but slowly. Ascites, it is true, may hinder the respiration by preventing the descent of the diaphragm, but ascites may be relieved, in some cases many times in succession, by paracentesis. In such a condition, seriously ill, but not immediately threatened with death, the patient may linger weeks or months before fatal lesions appear; he may even improve under treatment and partly recover. Danger is chiefly to be looked for neither in the extremities nor in the abdomen, nor even in the heart, the original source of the trouble, but in the lungs and the pleural cavities. In these regions several untoward events may happen. The systemic dropsy may extend to a pleural cavity; though this, indeed, may be relieved, like ascites, by paracentesis. Infarction of the lung may take place by means of emboli from the dilated right ventricle; pneumonia may [illegible]; but by far the commonest danger to be apprehended is the extension of the dropsy to the lung itself.

You may have often seen me, when brought for the first time [illegible] of heart valve disease in the wards, without waiting for a detailed examination of the heart itself, proceed [illegible] to make the patient sit forward, and begin by investigating the state of the bases of the lungs. It is there that the most significant signs of immediate danger are to be [illegible] oedema of the condition most to be suspected. [illegible] appears first in the most dependent parts. In its early stages it interferes little with the resonance of the chest, and it [illegible] [illegible] fine [illegible] of uniform size. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] enable you [illegible] [illegible] [illegible]

[illegible] n. If the oed[illegible] [illegible]

ness may be complete, and breath sounds over the region entirely abolished; but the persistence of the voice sounds and vocal fremitus enable the condition to be distinguished without difficulty from one of pleural effusion.

The subjective symptoms of pulmonary oedema are few, and not distinctive. Distress of breathing, needless to say, is increased by it; cough is often increased, and becomes more hacking; but expectoration of the oedematous fluid occurs only when the oedema is extreme. In slighter grades of oedema there is no *vis a tergo* to expel the fluid, as there is in the case of bronchial secretion, the fluid being in the air sacs themselves. There is little, therefore, in the symptoms to draw particular attention to the onset of oedema; it has to be watched for by regular and systematic examination of the back of the chest.

Oedema of the lungs, though for the time and even more than once it may be checked by treatment, usually proves sooner or later the last scene of the drama. When treatment finally fails to control it, the *râles* become more and more abundant and large; the respiration-rate goes on mounting higher and higher as long as the reserve forces of the respiratory apparatus hold out against the increasing demands upon them; cyanosis becomes more and more marked; until at last the reserve of respiratory force begins to fail, and the respiratory movements grow slower and shallower, till in the end they stop altogether. The end, however, is not always purely by failure of respiratory movements; the obstruction to the passage of blood in the lungs adds to the strain already suffered by the right ventricle, and the damaged heart may stop somewhat suddenly as things are rapidly nearing the fatal end, even before the respiratory power is quite exhausted. In either case, nevertheless, necropsy plainly reveals the waterlogged state of the lung tissue which is the real method of death.

I have spoken here for the sake of clearness of mitral stenosis; but the case of aortic regurgitation is not very different. In aortic regurgitation the compensation is made by a marked hypertrophy with dilatation of the left ventricle. As long as the hypertrophied ventricular wall remains sound no serious results are likely to occur. The downward course is generally started by such additional dilatation or partial degeneration of the left ventricle as renders the mitral valves insufficient and throws part of the work of compensation on the right ventricle, which in the actual state of the heart at the time has preserved little power of hypertrophy, and ere long undergoes dilatation in its turn, causing the tricuspid valves to be incompetent and systemic dropsy to set in. What I have just said of the final stage of mitral stenosis may be said with little variation of almost any common form of heart-valve disease; in all these cases alike oedema of the lung is the danger chiefly to be dreaded, the condition most often calling for treatment in the last resort.

In acute croupous pneumonia, to take a second illustration, we might think we discerned an obvious method of death in the inflammatory consolidation that is its most constant lesion; but I have frequently pointed out to you in the wards, on the one hand, how large an extent of lung tissue we may find involved in the inflammation without its causing or even seriously threatening a fatal termination, and in the *post-mortem* room, on the other hand, how small a portion may be found inflamed even in a rapidly fatal case. "A patient," says a recent writer, "may die of pneumonia, and yet the area of consolidation be not larger than a small [illegible]." The average extent of lung [illegible] consolidated after death is indeed much less than that which is found destroyed or rendered useless in many cases of pleural effusion or tuberculous disease, in which, nevertheless, life is preserved for a far longer period than would cover the limited duration of a pneumonic attack. Consolidation alone is obviously not always the proximate cause of death. But, as I have also taken occasion to point out to you on the *post-mortem* table, the unconsolidated portions of the lung in a fatal case of pneumonia are seldom in a state of health. Large tracts of them, if not the whole, are usually the seat of a morbid condition nearly as detrimental to their utility as inflammation. They appear after death fully distended with the surface stretched smooth, and their cavities are found on section to be more or less completely filled, to the exclusion of air, with a clear albuminous fluid exuded from the blood. They are, in a word, affected by a severe oedematous process.

Now we cannot regard this oedema as a mere terminal or *post-mortem* change, for two plain reasons: that the distension

of the lung tissue is usually too great to be the result of such passive oozing, and that the physical signs of oedema have often been heard during life; heard, I mean, not merely *in articulo mortis*, but for hours or days before death in a fatal case, and occasionally for hours or days in severe cases that ultimately end in recovery. Nor can the theory be deemed tenable which represents the oedema as but a secondary and mechanical phenomenon, the result of engorgement of the pulmonary veins from failure of the left ventricle of the heart owing to the direct action of pneumonic toxins. This theory, I believe, reverses cause and effect. Neither in the phenomena of a mild case of pneumonia, nor in those of the early stage of a fatal case, do we see anything to suggest, as we do in cases of typhoid, diphtheria, and influenza, that the poison of the disease exerts a marked and direct depressing action on the heart. On the contrary, the characteristic pulse of pneumonia is full and bounding, the pulse-rate is seldom excessive, and the face usually wears a bright flush.

Nor is oedema of the lung by any means so easy to produce by mechanical means as this explanation assumes. Obstructive oedema, even in the area of the systemic circulation, requires either one of two conditions—a fairly complete obstruction, or a sufficient duration of obstruction to allow of changes taking place in the walls of the distended vessels. And mechanical oedema of the lungs is, if anything, less easy to produce than systemic oedema. Let me remind you again of the phenomena of mitral stenosis. We saw that in a well-established case of this lesion, compensated by hypertrophy of the right ventricle, serious obstruction to the outflow of blood from the pulmonary veins may go on for years, though the raised pressure in the pulmonary circulation may be evidenced by high accentuation of the pulmonary second sound during life, and by tortuous dilatation of the pulmonary capillaries seen after death. Nor can it be supposed that it is merely the rapidity of the onward flow maintained by the hypertrophied right ventricle that prevents the oedema appearing; for even when the right ventricle has failed and systemic dropsy set in, the latter may, as we have seen, persist weeks and months before any sign of pulmonary oedema appears. In view of this everyday experience it is difficult to understand what form of cardiac failure can take place in pneumonia which is to produce instantaneous and abundant oedema in the lungs without a trace of leakage from the systemic vessels.

Oedema of cardiac origin, further, as we see it in the later stages of valve disease of the heart, begins, as might be expected, in the most dependent parts, and thence extends upwards; but this is by no means always the case in pneumonic oedema, the signs of which may sometimes be detected in the scapular regions, or even in front, as early as at the base.

And, finally, I have satisfied myself in more than one actual case of severe pneumonia that signs of oedema have begun to appear before any appearance whatever of failure of the heart was observable.

In truth, I have long since found reason to believe that the theory of death from cardiac failure, which bulks so largely in clinical descriptions of pneumonia, is, to a considerable extent at least, founded on a misreading of clinical facts. Whenever I have myself had the opportunity of witnessing the terminal stage of a pneumonia it has been a respiratory and not a cardiac death that I have seen. Whenever the fatal stage has been sufficiently prolonged to allow of adequate physical examination, signs of oedema have preceded instead of following anything that could be called paralysis of the heart. What giving way of the heart or dilatation of its cavities takes place in pneumonia is, in my belief, more often a consequence than a cause of the lesions of the respiratory apparatus, the consequence, it may be, of advancing consolidation, it may be of bronchitis associated with consolidation, but in most cases of oedema attacking those portions of the lungs which have escaped inflammatory consolidation.

It is true that in a severe case the end sometimes comes on with startling rapidity, but we know how rapidly in many other instances oedematous fluid may increase once transudation has begun. In pneumonia we have less need to marvel at the rapidity of the oedema if, as seems reasonable to suppose, it is not of mechanical origin at all, but a direct effect of the pneumonic poison on the walls of the pulmonary capillaries. It is true also that in the most rapid deaths little or no implication of respiratory distress is seen; but this by no means excludes death from asphyxia. Under No. 5,444 in our museum you will find a lung taken from a recent case of mine in which death occurred rather suddenly during a moderate attack of haemoptysis, six or eight ounces only of blood being coughed up. At the necropsy the cause of death was plain; most of the secondary bronchi were plugged with fresh blood clot, and the lungs were in a state of forced distension behind them such as occurs during an attack of asthma. That death occurred from pure asphyxia was obvious, but I was assured in this case that the patient sank quite quietly, without any choking or appearance of suffocation. It is cases similarly rapid in their fatality that are especially attributed to cardiac failure, but their phenomena during life are equally compatible with the hypothesis of a death from the rapid occurrence of the oedema which is almost invariably found in the lungs after death.

I am labouring this point not merely as an interesting item of pathology, but as a matter of grave practical importance. The fear, exaggerated as I think it, of cardiac failure in pneumonia deters many medical men from that systematic examination of the back of the chest which, from my point of view, is necessary to descry the approach of the most serious danger to life. In dealing with a severe case of pneumonia the duty of repeated thorough examination of the chest, not merely for the purpose of defining the limits of consolidation but with the equally important end of knowing the state of the unconsolidated portions, cannot, I think, be too strongly insisted upon.

These are but two out of the many conditions of fatal disease in which oedema of the lungs plays a part in the closing scene. The frequency with which this condition is met with in necropsies has long been noted, though the tendency has been to overlook or to ignore its clinical importance and treat it as an inevitable and irremediable terminal phenomenon. Our careful pathologist, Dr. Salusbury Trevor, at my request recently ran through the records of 228 consecutive necropsies from January 1st to November 26th of the present year. He found that in no less than 124 oedema of both lungs, and, in 8 more, of one or other lung, had been discovered in such amount as to preclude the possibility of its being due to *post-mortem* oozing.

I cannot in the limited space of a single lecture discuss all the classes of disease in which this appearance was found, or attempt to determine in each the part which it may have played in the mechanism of death. One class of case only I will ask your attention to to-day in addition to those we have already considered; it is a class of case commoner even than heart disease or pneumonia. Simple as it may seem to assume that in a fatal case of bronchitis death has ensued owing to asphyxia from obstruction of the bronchial tubes, it is doubtful whether, except in very young children, death ever occurs precisely in that way. In more advanced life the reserve power of the respiratory system is very great, and bronchitis, perhaps, seldom occludes the entire system of tubes in equal degree. In children, catarrhal occlusion of the small tubes tends to induce collapse of the air sacs from the impediment it offers to inspiration; in adults inspiration seems rarely to be prevented to the same extreme degree, and the result on the air sacs is more often to produce distension of them owing to impeded expiration. But vesicles distended with air alone are not often seen in the *post mortem* examination of a fatal case; over the greater part of the affected lungs the pulmonary tissue will be found to contain very little air, and a great deal of thin clear fluid. The lung pits on pressure; and the condition, in short, is again seen to be one of oedematous effusion. Now, in bronchitis there can be no practical question whether the oedema is an *ante-mortem* or *post-mortem* phenomenon. Its onset is gradual, and the signs of its progress are plainly discernible, not merely for hours, but for days and even weeks before a fatal termination, and for days and weeks also in many cases that do not terminate fatally at all. The course of a severe bronchitis in an elderly person (it is mainly at the extremes of life that the fatality of bronchitis is seen) often resolves itself into a combat between the physician and the oedema. I have many times warned you against the habit so prevalent in hospitals of passing over cases of bronchitis as "ordinary" or "uninteresting." The treatment of bronchitis forms a large proportion of general medical practice; no two cases of bronchitis are exactly alike, and every case invites individual study. The degree of emphysema present, the amount of available expansion, the presence or signs of bronchial dilatation, the probability of fibrous thickenings or of pleural adhesions, the condition of the right heart, the range of the tubes affected, the degree, if any, of [illegible] are questions very pertinent to the prognosis and treatment, but the most important point of all is to be quick to detect

the presence, among rhonchi and *rales* ascribable to bronchial secretion, of those sharper, clearer broken sounds that, as in our previous illustrations, indicate the onset and progress of oedema. The detection of them in bronchitis is more difficult, perhaps, than in any other form of disease, as *rales* of another kind so constantly accompany them; but with adequate practice it is easy to avoid error in most cases, particularly if the direct method of auscultation, without the intervention of a stethoscope, is habitually employed for the bases. In the absence of oedema and with evidence of sound heart tissue, the prospects of recovery in bronchitis are always good; the advent of signs of oedema indicates a further stage of grave import in the case.

I have thus restricted my illustrations almost entirely to the single subject of oedema. I have not even attempted to enlarge on the passive pleural effusions, passive pneumonias, and insidious hæmic pneumonias that play also a large part in the pathology of death, and that the careful examination I have urged of the pulmonary bases may also bring to light. To what I have sought to impress on you is the necessity of careful and repeated examination of these regions in cases of serious disease. Clinical mistakes, said Sir William Jenner, are more often due to neglect of examination than to lack of knowledge. When, therefore, your patient's countenance changes, when his complexion grows pale and dusky, when he becomes drowsy and apathetic, and his pulse begins to flag, do not content yourself with holding your hands and saying "toxæmia," or "collapse," or "asthenia," or "cardiac failure," but examine with care, and ascertain whether there may not be some condition involved that admits of treatment. The first three of the imposing terms I have cited are mere cloaks for ignorance, the last is more likely to be wrong than right. Unless its walls are the seat of fatty degeneration, the heart is a much more resistant organ than it is the fashion to admit, and has very little tendency to stop unless there is some strong hindrance to its continuing its work. Weakness of the pulse is not necessarily an indication that the heart is failing; it may equally be the result of deficient supply of blood to the cavities of the left side. A fatal end directly due to the heart is the exception rather than the rule in disease. In the majority of cases the issue of life and death is determined in the bases of the lungs.

The administration of "expectorants" still forms the staple of the current treatment of bronchial catarrh. Drugs that augment the fluidity of bronchial secretion or increase the activity of the excretive cough are rationally indicated in dealing with such an affection. For ridding the lungs of oedema the term "expectorant" action is no less obviously misused, as effusion is nearly always a thin fluid, and as I have pointed out, it is in a situation from which it cannot be expelled by coughing. The clearing of the air sacs is chiefly the work of the absorbent vessels. How much of the fluid in bronchitis may fall on the veins I will not attempt to define, it seems at least reasonable to assume that the bulk of it falls on the pulmonary lymphatics, which deliver into the thoracic and right lymphatic ducts. These ducts discharge, I may remind you, into the great veins at the root of the neck, and the efficacy of their discharge is therefore affected by the degree of blood pressure in those veins, which in its turn depends on the efficiency of the right side of the heart. A careful investigation of the right side of the heart is, therefore, an important preliminary to the treatment of oedema of the lungs, particularly as the right ventricle, even if previously healthy, is liable to give way before the strain of any sudden great increase of resistance to the pulmonary circulation. The signs of dilatation of this ventricle, undue extension of dullness to the right of the sternal displacement of the apex beat to the left, the presence of a hearing impediment over the middle of the lower sternum with limiting of the apex beat or the transference of the most marked impulse to the epigastrium must be looked for. Of even greater importance is it to note the presence of any forced or obstructed venous circulation, such as may be effected by distention of the jugular veins.

If these signs are present and the conditions are at all urgent, venesection should be without hesitation resorted to. The letting of blood may be practised without fear, but I am not convinced that the large quantities too commonly recommended are really necessary. The removal of 10 or even 6 oz. of blood has in some cases seemed to me to do all that is necessary. In very urgent cases, however, it is safe to go to 15 or 20 oz. at once.

The relief afforded by venesection is often very marked; not always as speedy as would be the case were the relief of the right ventricle the sole question at issue, but as speedy as can be expected on the assumption that absorption of some portion of the œdematous fluid is the actual means of relief.

Failing venesection, other less efficacious methods of reducing the venous pressure may be resorted to. The application of six or eight leeches over the front of the chest is in some cases attended with good results, though less marked than those furnished by venesection. We may, further, use with effect free watery purgation, by means of elaterin, jalap, or gamboge, or the synthetic purgative compound that has been recently introduced into medicine. Diuretics are practically useless; a hot air bath is not always applicable, and the only other really efficient sudorific—pilocarpin—is contraindicated by the probable state of the heart. I will mention, also, dry cupping, as it is recommended by some authors, though my own experience of it is insufficient for me to give a definite opinion of its merits.

When marked dilatation of the right ventricle has existed, some damage to the left is nearly certain to have followed. On account of both ventricles bleeding should be followed up by the administration of digitalis, digitalin, strophanthus, convallaria, or squill, to aid in restoring the tone of the stretched cardiac wall. None of these drugs are likely to be of avail unless any serious engorgement of the right side that may exist has previously been relieved by more direct means; but in lesser degrees of dilatation, unaccompanied as yet by urgent symptoms, one or other of them may suffice to overcome the cardiac difficulty without resort to the removal of blood.

Though isolated doses of alcoholic liquors, particularly brandy in hot water, are often of service as temporary stimulants, particularly in the early hours of the morning, when the forces of the heart and of the respiration are at their minimum, the continuous administration of alcohol when oedema is present in the lungs has always seemed to me useless, if not actually injurious. Oxygen will, of course, find a place in the plan of treatment. The reasons for employing it are so obvious that I need not enlarge on them. The effects, it is true, are only palliative; but then a mere postponement of complete asphyxia may be of cardinal importance in the case. The use of atropine and ammonia as stimulants to the respiratory centre is at least indicated by theory if not fully confirmed by practice, and may be employed without risk. I was in the habit of administering potassium iodide in these cases at one time on account of its alleged "absorbent" properties, but have seen no reason to think that it has any good effect.

One drug I have yet to mention, and that, I believe, the most important of all. I have so often seen marked and speedy improvement, accompanied by a corresponding clearing up of the characteristic signs, follow the administration of strychnine by hypodermic injection in cases of pulmonary oedema that I can scarcely suppose the connexion to be accidental. How the strychnine acts I will not pretend to say; its effects are equally observable in slight cases and in severe ones, in cases apparently independent of cardiac dilatation, and in cases accompanying it. I have for some years past regularly resorted to this mode of treatment almost as a matter of routine as soon as any signs of serious oedema of the lungs appear, to whatever cause they may be due.

THE COCAINE HABIT IN WASHINGTON.—The superintendent of the Washington police force has recently reported that the cocaine habit is greatly on the increase among the lower classes of that city, and urges that vigorous measures should be taken at once to check the evil. He says: "If cocaine is bound to become a destructive agency unless something is done to prevent its sale by druggists. Two years ago the drug was hardly known, but the habit has grown, and the wreck of lives which accompanies the use of this deadly drug and its sister drugs, morphine, chloral, and other pharmaceutical preparations, and even patent medicines, is becoming apparent." At present the police are almost powerless in the matter. Mr. J. M. Robinson, of Indiana, a member of the House of Representatives, intends to introduce a Bill for the regulation of the sale of poisons in the district of Columbia. The Bill has the approval of the Medico-Legal Society of Columbia, and the measure is in harmony with recommendations made by the coroner, Dr. J. Ramsay Nevitt, in his annual report to the Commissioners of the District of Columbia.

A Note
ON
POSTURAL ALBUMINURIA.

BY SIR WILLIAM H. BROADBENT, M.D., F.R.S.,
Physician-in-Ordinary to the King and to the Prince of Wales; Consulting Physician to St Mary's Hospital.

FUNCTIONAL albuminuria, which was the subject of three important papers read before the Medical Society by the President, Dr. Rose Bradford, and Dr. West, and of an interesting debate, is a question which has occupied my attention for many years, and as time did not permit of my taking part in the discussion, I hope I may be allowed to make a few observations now.

The first point which comes out is the necessity for greater precision in the definition of what we mean by functional albuminuria. Albuminuria can never be physiological; the term "functional," though admissible in the sense given to it by Dr. Pavy as a contradistinction to structural, is vague; the albuminuria of the apparently healthy, the designation accepted by Dr. Rose Bradford, is still more unsatisfactory. To begin with, many of the subjects of intermittent albuminuria are not in apparent health; they faint in church or at drill, as pointed out by Dr. Armstrong and Dr. Clement Dukes, and as a descriptive term it includes structural disease of various kinds and continuous, as well as intermittent or occasional, presence of albumen in the urine. It can only serve as a starting-point for discrimination and classification. Without entering upon this point, which occupied much of all three of the original papers, it may be said definitely that there is an affection which may be called postural albuminuria. We can eliminate early nephritis and nephritis in process of recovery, early stages of contracted granular kidney, unsuspected heart disease, albuminuria from fever, from overfeeding or indigestion, gout or oxaluria, or from adventitious discharges from different parts of the genito-urinary tract. There is left a group of cases in which the characteristic feature is albuminuria on rising from bed in the morning, usually passing off in the course of the day. These cases are exceedingly common, especially in boys and young men working up for examination, and, applied to them, the designation albuminuria of adolescence is perfectly appropriate, but the name postural albuminuria is no doubt better, as open to no uncertainty. The albumen is not due to food; it does not appear if the patient remains in bed to breakfast or after meals later in the day; it cannot, as was clearly shown by Dr. Rose Bradford, be toxaemic; it disappears quickly on lying down. It is obviously in relation with the erect posture after a night's rest in bed, and scarcely less obviously with imperfect cardio-vascular adjustment to the changed hydrostatic conditions. Albuminuria from excessive exertion is also circulatory, the cardio-vascular capacity for adjustment having been overpassed. It does not seem to me that any antecedent affection of the kidneys by febrile disease need be postulated.

The amount of albumen is usually small, but it may be very considerable. It is important that this form of albuminuria should be recognized, since the treatment required is the exact reverse of the milk diet and protection from exposure to cold and fatigue, which would be suitable in renal disease; and the debate will have been of signal service if it should lead to the adoption of the term postural.

The antecedent which in my experience has been most common is a neurotic family history, and the condition invariably existing in the patients themselves has been cardio-vascular instability. The pulse varies greatly in frequency and tension, often while under examination, certainly at different periods of the day, and is unduly influenced by changes of position, such as lying down or standing up. A distinctly high-tension pulse, not very uncommon in childhood and early youth, would take the patient out of the category of postural albuminuria, and would warrant suspicion of actual renal disease or of juvenile gout.

The action of the heart affords further evidence of the instability of the circulatory system. Both Dr. Pavy and Dr. Armstrong spoke of the violent cardiac impulse. According to my experience it is the impulse of the right ventricle which is forcible, the apex beat being weak. Contrast between a weak apex beat and left ventricle sounds and the powerful right ventricle impulse and loud sounds has seemed to me to be constant in these cases. Another observation of like significance is that the second sound is reduplicated when the patient lies down.

The prognosis is favourable. I have never known true postural albuminuria to resist treatment or to develop into actual renal disease. Usually all the treatment required is good simple food, fresh air, and vigorous exercise. There is no need to forbid school games, except perhaps house runs and long paper-chases. Tonics such as iron, arsenic, strychnine, and quinine will be useful in many of the cases. Constipation should be corrected by aloetic or other aperient of the tonic class. On the morning after a mild pil. hydrarg., c. colocynth. et hyoscyamo the albumen may be absent even when habitually abundant. This should be borne in mind when a candidate for one of the public services has to undergo the medical examination.

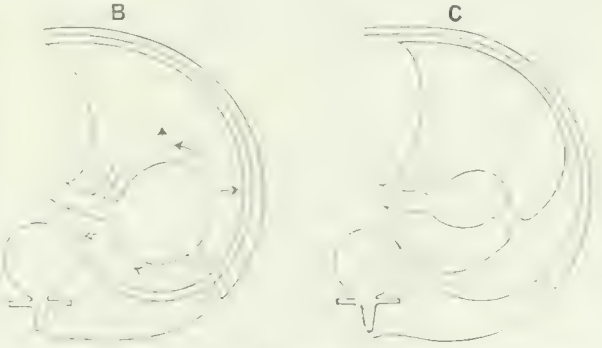
If these cases are treated for renal disease, put on milk diet, protected from cold, and forbidden to take exercise, they will probably go from bad to worse, and I have met with several instances of confirmed nervous valetudinarianism apparently attributable to this error in early life.

A SUMMARY OF
Two Clinical Lectures
ON
EMPYEMA AND BRONCHIECTASIS.

Delivered in the Edinburgh Royal Infirmary.

BY ALEX. JAMES, M.D., F.R.C.P.EDIN.
Physician to the Infirmary.

WE have seen how a large bronchiectatic cavity, when incised and drained through the chest wall, tends to produce a pleural cavity. The fibrosed lung around the bronchiectatic cavity, being allowed to contract by the establishment of drainage, separates itself from the parietal pleura to which it has been previously bound by adhesions, and so tends to produce a pleural cavity which much resembles an empyema. The diagrams show how this occurs; they also show two practical points which should always be borne in mind in dealing with such cases. The first is that extensive resection of ribs is as necessary for the healing of a large bronchiectatic cavity as it is for an old-standing empyema. The second is that, if this extensive rib resection is not performed, we must, as time goes on, experience increasing difficulty in introducing the drainage tube into the lung cavity through the pleural opening.



The diagrams represent how a large bronchiectatic cavity B will tend to [illegible] and form a pleural cavity C, as the result of the establishment of drainage through the chest wall, causing a lessening of its distending forces.

Let me here further make a slight digression to demonstrate how these same mechanical conditions account for the difficulty which we experience in the healing of phthisical empyemas. I have a skiagraph of one such case, which was lately in my ward, and in which, months after the operation, could be seen a long probe passed through the wall opening, which easily reached the apex of the lung above the clavicle. In this case the original empyema cavity had been a relatively small one containing only about 10 oz. or 12 oz. of pus, but it had been sufficient to start progressive cicatricial contraction of the lung apex, and so to separate it from the posterior wall of the chest.

But next we also have seen that an inflammatory effusion into the pleural cavity can produce a bronchiectatic cavity. In its [illegible] form this occurs when a sero-fibrinous effusion has lasted too long. In this case the portion of lung corresponding to the effusion has its air cells obliterated, and its tissues transformed into what is practically fibrous tissue. As the pleuritic fluid gradually becomes absorbed the space left in the thorax must be filled up. In part this is done by drawing in of the chest wall, by drawing up of the diaphragm, by drawing over the heart and mediastinum, and by producing over-distension (hypertrophous emphysema) of any air cells in the neighbourhood which are still capable of being inflated. But in other part, and this is the important matter, this space is filled up by drawing outward the bronchial walls, and thus producing a bronchiectasis.

When the pleuritic effusion is purulent and, still more, when it is fetid as well, this bronchiectatic production process is much more active and more serious. In such cases we have in the first place the same factor acting as in sero-fibrinous effusion, namely, the lung tissue with its obliterated air cells, which with the removal of the pus cannot be reinflated. [illegible], a purulent, and still more a fetid purulent, [illegible] tends to erode its way through the lung tissue into a bronchial tube. This, although it is Nature's way of [illegible] recovery, and though it is often fortunately [illegible], is often unfortunately not successful [illegible] insufficient. A certain amount of the pus gets away by expectoration, and the patient feels better; but soon the opening through the lung closes, and the purulent fluid collects again, to come away after it has regathered in sufficient quantity to burst through. In this way the patient goes on for weeks or months expectorating pus, and suffers [illegible] all the bad results of insufficient drainage.

But we have to note a still more unfortunate occurrence. [illegible] ally so if it is fetid pus, sets up irritative [illegible], perhaps gangrenous, changes in the lung tissue in its course through it to the bronchi; it irritates also to a very great degree the bronchial tissues themselves. In this way portions of lung tissue are destroyed and bronchial walls [illegible] are weakened, so that if eventually the empyema pus be got rid of and the original empyema cavity closes, the patient is left with a bronchiectasis. That empyema, and specially fetid empyema, is frequently a cause of bronchiectatic cavities is certain, and I now wish to describe [illegible] in which this process was either taking place or had [illegible]. I shall not waste time by describing instances of empyemata, or of bronchiectatic cavities which were easily recognised, and easily got at and drained. I shall [illegible] these in which the indications were not absolutely clear, and the treatment by drainage presented some little difficulty.

The first [illegible] in which a fetid empyema still existed, [illegible] of setting up local lung destruction and [illegible].

Case I.

[illegible]

[illegible] over the upper lobe on this side, and [illegible] the lower lobe on the left side.

Here then was a case in which we believed there was a small fetid empyema [illegible] lower lobe. It had burst through into the bronchi [illegible] setting up a fetid bronchitis [illegible] was being [illegible] left side [illegible] positively simple one. Dr. M[illegible] [illegible] small fetid empyema [illegible]. It was drained [illegible].

This case shows very clearly how a very small fetid empyema can set up a very copious fetid spit. As has been stated, the cavity hardly contained an ounce of pus, whilst the patient was expectorating at least 12 oz. in the twenty-four hours. The explanation of this is that the bulk of the expectoration is the result of a fetid bronchitis or bronchorrhoea.

The next case is one in which the empyema had healed itself, but had set up fetid bronchiectasis.

Case II.

A. H., aged [illegible], belonged to the [illegible], was admitted to the [illegible] on April [illegible]. His family history was [illegible]. There is no doubt, however, that he tended [illegible] regards [illegible]. He had had the [illegible] and no other illness, except typhoid fever some years before when in China.

History of Present Illness.—His present [illegible] some ten weeks before his admission. He [illegible] pain in the left side, and he seems also to have been [illegible] weeks. He had noticed little clots of blood in the spit [illegible] suddenly the spit became much more copious and fetid. [illegible] sometimes better, sometimes worse. He also felt himself getting weaker and thin, and so he applied for admission to the infirmary.

State on Admission.—He appeared a fairly well nourished and developed man. [illegible] The appetite was [illegible] [illegible] circulatory, [illegible] showed nothing abnormal. [illegible]

[illegible] except after [illegible] operative interference more serious than one simple exploratory punc[illegible]

[illegible]

ever, on all occasions being felt to pass through firm condensed tissue.

October 29th Dr James, in exploring, came on pus. It was found upwards towards the root of the lung, at a distance of about [illegible] in. from the pleura. The opening was enlarged by a probe-pointed forceps, and a drainage tube about 2 in. long, with only one side opening near the point, was inserted.

November 11th. The purulent collection is draining thoroughly. There is practically no cough or spit.

November 22nd The patient left for home with orders to have the drainage tube looked after by his doctor. The drainage tube has been shortened to about 4in., and some difficulty is experienced in introducing it at times. He has practically no cough or spit, and feels quite well.

The next record of him is in the following June the note being that he had been very well, but that one day he had coughed up some "stringy stuff," and that for three days after he had coughed up some fetid pus, and passed it through the tube. Since then he had been well. Lastly, on December 14th, 1892, he reported that the cough, spit, and fetor of breath had all gone, that the tube, after having been gradually shortened, had been discontinued, and that the chest wound had healed. Examination at the left base revealed percussion impairment with weak breath sounds, but no crepitation.

In this case there had probably been several bronchiectatic sacculi, only one of which was properly drained. This drainage, however, and the fact that by the rib resection the lung has been allowed to fall in, had practically cured the condition.

CASE III.

The next case was one of fetid empyema, which had produced bronchiectasis and lung induction, and also a sinus through an interspace.

C. K., aged 53, a traveller, was admitted to the Royal Infirmary, August 25th, 1892, complaining of pain in the right side and cough with copious, at times fetid, spit. His family history was fairly good, and his surroundings at home and at work were quite satisfactory. He acknowledged to have taken formerly a good deal of alcohol. He has had practically no previous illnesses.

History of Present Illness.—About six months ago he caught a cold and was feverish, with pain in the right side and cough, his doctor telling him that he had pleurisy. After some weeks he recovered somewhat, and was moving about, and one day he had a severe fit of coughing, and he noticed great increase in the amount of spit, and that it had a disagreeable taste and smell. This condition has persisted till now in spite of all treatment. For some weeks he says he would notice some improvement as regards cough and expectoration, and then for some weeks it would be worse again. At times there is blood in the spit. He has lost nearly 3 st. in weight since the commencement of his illness, and feeling that no treatment was doing him any good, he came to the Royal Infirmary.

State on Admission.—He was found to be of rather poor muscularity, his height 5 ft. [illegible] in., and his weight 8 st. 4½ lb. His temperature varied from 98° to [illegible]. His pulse was usually about [illegible] per minute and respirations 24 per minute. His digestive, circulatory, urinary, integumentary, and nervous systems were all normal. Examination of his blood showed a leucocyte count of 21,200.

Respiratory System.—He has a severe, loose cough, with a large quantity of sputum, sometimes amounting to 20 oz. in the 24 hours. It is muco-purulent, often brownish-red in colour, and shows no tubercle bacilli. At the present the fetor is but slight. Examination of the chest shows deficient movement on the right side all over, with a somewhat impaired percussion note posteriorly, becoming dull at the base of the lung. In the right interscapular region there is some pain and tenderness, and on palpation there and down the vertebral of the scapula, some bulging with crackling can be felt, when the patient coughs. On auscultation, the breath sounds were very faintly heard over the right side, becoming specially faint at the base posteriorly. Crepitation can be heard all over the side, especially also at the base posteriorly.

Operation.—Believing that this was the case in which an empyema of the right base had burst into a bronchial tube, and had set up bronchiectasis, with fibroid changes at the base of the lung, and believing that my best chance of draining it would be by getting at it from below, I got Mr. Caird to remove for me about 2 in. of the seventh rib posteriorly. When this was being done a sinus was found in the line of case to the chest wall, leading up to a point opposite the spine of the scapula where the bulging and crackling had been noticed. A long [illegible] put in this sinus, and the wound was packed. Some improvement followed from this, as a good deal of discharge occurred from the sinus, but on my return from my holidays in the beginning of October I determined to explore more thoroughly. Needles passed into the sinus from the lower opening, and revealed that the whole lung base was consolidated. In fact, it felt as if the needles were passing through cartilage. In a straight line inwards, forwards, and a little upwards from the pleural opening was struck, and this communication having been enlarged, a drainage tube 2 in. long was introduced.

Progress.—From this time the patient's condition showed marked improvement. With free drainage along the two tubes the discharge soon ceased. By the end of October the upper tube had been discontinued, and he is now (November 23rd) an out patient, only requiring a day or two to get the tube cleaned and replaced. The tube has been shortened to about 3 in.

In this case there had been, I believe, a fetid empyema, which had burst into the bronchi and possibly also, aided by violent coughing, through the fourth interspace in the interscapular region. By the time he came to the infirmary it had itself disappeared, leaving however a bronchiectasis, an extremely indurated lung base, and a sinus through the chest wall posteriorly. The patient's condition is one which still requires great care, but we may anticipate for him a fair recovery.

It will be evident that with those cases of empyema which have gone on to bronchiectasis, some will be easy of treatment, and others difficult. It is also evident that the difficult ones will be those in which the condition is one of multiple sacculation of bronchi, rather than one of one or two large sacculations. Of such I propose to give one instance out of several in which I have been unsuccessful.

It is evident further that if an empyema occur out of its usual position, more especially if it occur at or near the lung apex, so that when it perforates the lung it can drain in a downward direction, and therefore less incompletely than when it is in its usual situation, its recognition will be more than usually difficult.

The following is a case in point, one in which multiple sacculations of the bronchi existed, and in which efforts to drain were unsuccessful. This was one of the first cases of the kind which I endeavoured to treat in this way.

CASE IV.

H. P., a little girl of 9, was brought to me at the infirmary in September, 1889.

History of Illness.—She had been well until about two years previously, when, after exposure to cold, she had "inflammation" in the right side. The nature of this inflammation could not clearly be ascertained, but she had had pain in the side, cough, fever, and sweatings. After some two months, during which time she was mostly in bed, she suddenly coughed up about a teacupful of fetid purulent matter. She seemed to have improved somewhat after this, but the cough and expectoration of fetid matter, though in smaller quantity, continued, and she had remained weak and feverish, and was manifestly ill.

State on Admission.—Dullness on percussion was noted, and cavernous breathing and resonating crepitation were heard over the lower half of the right lung, and some harsh breathing with crepitation at the base of the left.

Operation.—In this case I resected portions of two ribs, and on some six or eight occasions afterwards explored from the exposed pleura. Although on one or two occasions I seemed to strike pus, I never could establish a proper drainage. On three occasions, into an opening made by a probe-pointed forceps, a drainage tube was introduced and left in in the hope that the pus might find its way to it, but it was of no avail.

Result.—Becoming gradually weaker, and with the cough and fetid spit persisting, the child died some six months afterwards. At the necropsy, the larger bronchi at the base of the right lung were found much dilated, and the surrounding lung tissue in a state of fibrosis. The pleura all over the lower lobe was adherent, except at a spot laterally, where about an ounce of yellow serous fluid was found encapsuled. At the left base there existed, but to a very much less marked extent, a similar condition of lung and bronchi.

CASE V.—*Fetid Empyema Bursting into the Lung at an Unusual Position and Recovered.*

A. N., aged 49, a cabman, was admitted to the Royal Infirmary March 11th, 1892, complaining of cough, with profuse fetid expectoration and odour of breath. His family history was excellent. As a cabman he has taken a good deal of alcohol, and his home surroundings were good.

History of Present Illness.—Until November, 1891, he had been perfectly strong and well. At that date, as the result of an exposure, he caught a cold, and was ill in bed with pain in the right side and cough. After two weeks of this, during a severe paroxysm of cough and pain, he suddenly expectorated a considerable quantity of bad smelling spit. After this he seems to have improved considerably, the cough and spit gradually diminished, and in a few weeks he was able to return to work. During the summer of 1891, however, he began to cough again. The spit was not so copious or bad smelling, but, as time went on, gradually worse. In February, 1892, he was obliged to take to bed. He again had a cough, with an expectoration more copious and more fetid than before, and at times he was a little blood-stained. He became emaciated and weak, and was troubled with profuse night sweats. It was noticed that on some days there would be very little expectoration, whilst on others it would be very copious. These days were apt to occur in paroxysms, and to cause great exhaustion. After the paroxysms, with the chest pain which accompanied them, weakened him very much. Finding himself getting rapidly worse, he entered the Royal Infirmary.

State on Admission.—Although not extremely emaciated, patient appeared very feeble and weak. The face was rather cyanosed, and very slight movement induced severe paroxysms of coughing, so that a thorough examination of his chest was [illegible]. His temperature varied from [illegible] of fever. His pulse varied from [illegible]

cough was very troublesome, the slightest change of position bringing on a severe paroxysm, with copious fetid expectoration. On examination of the chest the left side was found normal to percussion, whilst on the right side some impairment was met with all over the upper part, and dullness was [illegible] over the lower part, especially laterally, where the dullness extended as high as the level of the [illegible]. Auscultation, which was extremely difficult owing to the very feeble condition of the patient and the paroxysms of cough, revealed [illegible] and [illegible] over both sides of the chest and very much enfeebled breath sounds over the right base posteriorly. The other organs appeared fairly healthy, except that the urine contained a small quantity of albumen.

Progress.—In this case I believed that I had to deal with a bronchiectasis at the base of the right lung, the result most probably of a fetid empyema which had burst into the bronchial tube. I felt that the only possible way of doing good in the case was to drain, and I therefore on several occasions [illegible] exploratory punctures to [illegible] the cavity or cavities. Distinctly to my surprise, however, I never could strike pus, nor could I feel that the exploring needle passed through dense tissue. I was content therefore to [illegible] to antiseptic inhalations, and [illegible] and general stimulants. The patient got rapidly worse, the cough and fetid expectoration continued, some days more, some days less. Paresis of the right arm was noticed, and pericarditis supervened, death occurring on April [illegible].

Necropsy.—April [illegible]. External appearances: Body somewhat emaciated generally; [illegible] slight rigidity in lower limbs only. Thorax: Pericardium showed a recent purulent inflammation. Sac contained about [illegible] of turbid fluid. The parietal layer was [illegible] and covered with fibrinous exudation. The left pleural cavity contained about [illegible] of turbid fluid; no adhesions. The [illegible] in a very [illegible] condition. Over the upper [illegible] the parietal pleura showed dense chronic thickening [illegible] adherent to the thoracic wall. When this was [illegible] a cavity was exposed containing over [illegible] of fetid greenish pus. This cavity was confined to the anterior portion of the upper lobe of the lung by dense fibrous adhesions, but closer investigation showed that the pus had burrowed, both into the chest wall in front and into the lung below. As regards the chest wall it had burrowed through the first and second right intercostal spaces, and had caused gangrenous changes in the muscular tissue there. As regards the lung, it had burrowed through the fibrous adhesions into the anterior portion of the lower lobe.

Right lung on section this showed extensive collapse. The pleura all round was [illegible] thickened and the lobes were all adherent. In the lower lobe was found a cavity of about the size of a walnut, with soft [illegible] walls, and into this cavity opened three or four bronchi of about [illegible] diameter with greatly thickened walls. The entire right lung was [illegible] collapsed, so that the liver had risen high into the thoracic cavity. The other organs showed nothing specially noteworthy.

This was a case in which there had been a fetid empyema bursting into the lung, and the fact that the purulent expectoration varied much in amount was due probably to the very imperfect communication between the empyema cavity and the lung tissue. The fact that the empyema cavity was not diagnosed was probably due to its being at the times of examination comparatively empty. The dullness and feeble breathing at the base of the right lung were accounted for by the great collapse and high position of the diaphragm. The slight paresis of the right arm was a condition not at all uncommon in empyema.

THREE CASES OF ABSCESS OF THE LUNG.*

By D. J. WILLIAMS, F.R.C.S.Eng.,

[illegible]

The surgical treatment of suppuration within the thorax has been marked by slower progress than that of allied conditions within the abdominal cavity. Successful if primitive operations on lung abscesses are recorded in medical literature from the time of Hippocrates down to the latter half of the last century, but operative interference in these cases was not recognized as a justifiable proceeding until Lister's antiseptic methods were fully appreciated.

The cases I have to report are: first, one of tuberculous abscess diagnosed as an empyema; secondly, one of abscess following [illegible] pneumonia, on which no operation was performed; and thirdly, a case of septic embolism and abscess which recovered after operation.

Case I.—A [illegible] gave the following history. [illegible] completely [illegible].

[illegible] over the right side and [illegible] between the left nipple line [illegible] dullness on the right side from

* [illegible] Medical Association.

the level of the fourth rib in front and seventh behind, downwards and continuous with that of the liver, which projected two finger-breadths below the costal margin. Vocal fremitus and resonance were absent over the same area. The breath sounds were weak over the left apex, but no adventitious sounds were noted on either side. An exploring needle being introduced above the sixth rib [illegible], pus was readily withdrawn. Empyema was diagnosed and operation advised.

Operation.—On May 8th, 1891, the patient being anaesthetised, a portion of the eighth rib was removed, and on opening the pleura about two pints of a slightly opalescent fluid escaped, totally different in character from that withdrawn by the exploring needle. The pulmonary pleura seemed fairly glistening, but on [illegible] the finger it was found adherent to the costal pleura above. On exploring again above the sixth rib thick pus was again withdrawn. The wound was closed, carefully sutured and sealed with [illegible]. A second incision was made over the sixth rib and about an inch of it removed. A sinus forceps was then pushed in by the side of the exploring needle, the cavity freely opened, and about [illegible] to 12 oz. of thick pus evacuated. Some iodoform was introduced, a large drainage tube inserted, and the wound dressed. There was no communication with the bronchus.

Progress.—The little patient soon improved in health, appetite improved, and when seen three months later she had gained [illegible] lb. in weight, but some pus had discharged from the wound in the interval. I did not see her again, but I heard she died three years later from acute tuberculosis of the left lung.

Case II.—W. G., aged [illegible], returned home ill on November [illegible]th, [illegible], and I saw him on the following morning, when he gave the following history. He was quite well up to a month previously, when he had influenza, but did not give up his work [illegible]. He had a bad cough, had rusty expectoration and pain in the left side. He was allowed to go to his office daily until he returned home.

State on Examination.—His left [illegible] dull from apex to base. The heart's apex beat [illegible], and cardiac dullness extended well beyond the sternum to the right, and all the symptoms of fluid in the left pleural cavity were noted. An exploratory aspiration gave clear fibrinous serum. His temperature was [illegible] F., pulse [illegible], respirations [illegible], and he looked exceedingly pale and ill.

Progress.—Counter-irritation and general treatment resulted, after a week's trial, in no improvement, and it was decided on December 3rd to aspirate, and four pints of fluid was withdrawn. Examination of the chest immediately after gave physical signs of [illegible] and a guarded prognosis was given. The dry, hacking cough continued, but his general condition was, for a time, improved. Signs of fluid in the pleural cavity reappeared, and on December [illegible] it was decided again to aspirate, and a further two pints of fluid were removed. On examination immediately after it was found that the dullness over the lower lobe was increased, the temperature continued high [illegible] in the evening, with morning remissions to [illegible], and from the general symptoms abscess of the lung was diagnosed. There was no further reaccumulation of fluid in the pleura, but the general condition [illegible], and the lung symptoms became predominant. I strongly advised operation, and with this view had a consultation on January [illegible]. I have this note of his condition on that date: "Temperature [illegible], pulse [illegible], respirations [illegible]; looks worn out, thin, emaciated, and [illegible] over the left upper lobe, front and back, fairly [illegible], breath sounds distinct but distant, percussion note dull over base [illegible] as high as sixth rib in posterior axillary line, breath sounds absent."

Result.

The patient's friends adopted the consultant's advice to postpone operation notwithstanding my expressed reluctance. The condition of the patient became gradually worse, and I continued impressing the necessity of operating. Another consultation and another consultant resulted in a further postponement, this time for three days, but before its termination the abscess perforated into the abdomen, probably the colon, and the patient died on March 1st without any operation having been performed.

Case III.—I was called to see the patient (Mrs. J., aged 33) on June 23rd, 1901, when the following history was elicited. She was taken ill on June 7th with what was supposed to be influenza; she miscarried at the first month on June 12th, and became seriously ill three days later, and the local practitioner was called in.

State on Examination.—At my visit on June [illegible] she complained of pain and distension in the abdomen [illegible] region. There was no cough, but she was [illegible] the bowels constipated. Her [illegible] thirst. Her tongue was [illegible] dry. Temperature [illegible], respirations [illegible]. On examination the abdomen was [illegible] and very tender over the [illegible] abdominal wall [illegible] the left [illegible] and sixth [illegible] on percussion [illegible] over the [illegible] to the level of the [illegible] rib in the [illegible] line [illegible] percussion and auscultation normal, breath sounds distinct at the base behind,

and there was no adventitious sound, and no cough or expectoration. The only area of dulness was the one alluded to. This was triangular in shape, with the apex at the rib in the mid axillary line, becoming broader towards the costal margin, where it was continuous with the swelling felt below. There were no vocal fremitus, rales, or crepitation to be detected over the area. The uterus was repeatedly irrigated, and portions of fetid secundines removed. Quinine and opium were administered internally, and enemata to relieve the bowels.

Progress.—June 25th. Condition much improved; there was no sickness, and she was able to take liquid nourishment. Temperature, 102°; pulse, 120; respirations 32. I was called hurriedly on June 28th, and the patient complained of pain in the left side over the dead area, which I found increased. There was pain at the end of inspiration, and a pleuritic rub was audible over the area. Temperature 104°, pulse 124, respirations 52. On July 2nd, Dr. Tudor Thomas, who visited her for me, found symptoms of effusion into the pleura, and her condition very grave. On July 3rd I made an exploratory examination with a long needle of large bore in the seventh space in the mid axillary line, and from a depth of 2½ in. withdrew a syringeful of thick, reddish offensive pus, and an operation was advised as the only means of saving the patient.

Operation.—The condition of the patient was extremely grave. The pulse 140, temperature 103°, respirations 40. It was a question whether she would stand the shock of the operation. Dr. Edgar Davies, who gave the anæsthetic, examined the patient and found incidentally a patch of consolidation in the right base. I made a 3½ in. incision over the eighth rib and removed about 2 in. of its length, and on opening the pleural cavity a considerable quantity of thin blood-stained serum escaped from the sac. Portions of costal pleura were excised, and in a window about 2 in. square, the lung presented. The needle was again plunged into abscess and a long sinus forceps was with difficulty forced into the abscess cavity, but so dense and tough was the lung substance that I had to introduce a grooved director and cut it freely with a scalpel before I could introduce the finger. About 1½ oz. of thick reddish and most offensive pus was evacuated. The cavity had a craggy uneven wall and extended to the pericardium, the finger feeling in detail the movements of the heart in its sac. Iodoform was introduced into the abscess cavity, two large drainage tubes inserted, the wound around the tubes packed with iodoform gauze, a large padding of alembroth wool applied, and the patient put back to bed. Dr. Davies injected strychnine before and during the administration of the anæsthetic. She bore the operation, which did not last 20 minutes, well.

Progress.—The case was dressed daily, and a great deal of pus continued to be discharged for ten or twelve days. The temperature continued high, 101° to 103°, and though she took nourishment well her condition continued grave through the continuous septic absorption. I now irrigated the abscess cavity with 1 in 40 carbolic, and in this way removed several masses of lymph or necrotic tissue, and improvement was soon evident. Her temperature went down to 99° to 101°, appetite improved, and she began to gain flesh, but the discharge continued in lessening quantities until September 2nd, when the tube was not further used.

She has made a perfect recovery. I examined her chest recently, and the physical signs are normal, excepting a circular area of an inch and a half in diameter over the cicatrix.

REMARKS.

In Case I the signs of pleuritic effusion masked those of pulmonary abscess, and the operation was performed with the idea that the condition was one for empyema. Had I known the case was one of tuberculous abscess of the lung I should not have advised operative measures: but once committed to it, the operation was completed. The result justified the procedure, for the patient's health was improved, and, I have no doubt, her life prolonged. The results of operation on tuberculous cavities have not been satifactory, and I would not recommend operation excepting in large basic cavities, especially if septic, and then only in the hope of relieving the constant distressing cough and arresting septic absorption.

Case II I have reported in some detail as an example of those that should in my opinion be operated upon. Had this been done in January, in all probability the patient would have recovered. It is a curious pathological fact that most basic abscesses due to pneumonia perforate downwards, and those secondary to abdominal lesions generally open into the bronchus. In my earlier experience three basic abscesses (two following acute lobar pneumonia and one following enteric fever) perforated into the abdominal cavity, and one following typhlitis (or appendicitis) and subphrenic abscess perforated finally into the bronchus, death being due to septic absorption. No attempt was made or would then have been regarded as justifiable, to operate. In my opinion all were cases that should have been operated upon and with every prospect of success. When non-tuberculous, I regard the aphorism "*Ubi pus ibi incisio*" as being as applicable to the lung as to any other organ, provided Paquelin's cautery and a scalpel are regarded as convertible terms. In Case II every condition favourable to operation were present. The abscess could be definitely located, the costal and pulmonary pleurae were adherent and yet fatal delay was recommended and adopted by the friends for the intercession, I suppose, of some special providence.

In Case III the diagnosis was fairly clear when I first saw the patient, and the operation was performed shortly after the appearance of the secondary pleurisy. As to the operation, when the abscess can be accurately located the opening into the pleura need not be large. A long linear incision down to the rib and the removal of 2 in. of its length will be enough. It is stated by True that the lung should not be opened if the costal and pulmonary pleurae are not already adherent or sutured together so as to shut off the pleural cavity. This was not done, though the cavity was at any rate partially open, and yet no empyema ensued. The lung tissue was so dense and infiltrated that it was thought safe to open with the knife and not with the cautery. There was scarcely any haemorrhage. It is also laid down as a rule by the same authority that on no account should the abscess cavity be irrigated. For some time after the operation there was evidence of septic absorption, the temperature continued high, and the patient's condition most precarious. There being no communication between the abscess and the bronchus, I irrigated the cavity daily with a 1 in 40 carbolic lotion with immediate benefit, and with no other untoward result than a transient carboluria, which I met by using a weaker solution.

A CASE OF PURULENT PERICARDITIS ASSOCIATED WITH EMPYEMA IN A CHILD AGED TWO AND A-HALF YEARS.

DEATH NEARLY FOUR MONTHS AFTER A DOUBLE OPERATION.

BY

J. A. COUTTS, M.B.Cantab., F.R.C.P., Physician, East London Hospital for Children.

and

R. P. ROWLANDS, M.S.Lond., F.R.C.S., Assistant Surgeon, East London Hospital for Children; Demonstrator of Anatomy, Guy's Hospital.

PURULENT pericarditis is a not infrequent disorder in children, but cases of operation for its relief are sufficiently rare to justify the putting each one on record. The present case is a specially noteworthy one, both from the youthful age of the patient and the time he lived after the operation. The notes are abridged and slightly altered from the careful ones taken by Dr. A. Emerson, formerly House-Physician at the East London Hospital for Children.

M. P., a Jewish child, aged 2½ years, was admitted into the East London Hospital for Children on February 11th, 1903, under the care of Dr. Coutts.

Family History.

In the family history there was little to note. The father had been drowned. The mother was healthy, and there were no other children. There was no family history of tuberculosis.

History.

The present illness commenced with pneumonia a month ago, and the child has never been well since. He has had a bad cough ever since pneumonia, and he has suffered from loss of appetite and langour, with occasional vomiting. The bowels were regular. During the past few weeks he has wasted somewhat.

Condition on Admission.

The patient was a fairly well-nourished child, presenting distinct evidence of rickets. There was well-marked beading of the ribs, along with slight enlargement of the epiphyses of the long bones with bowing of the tibiae. The abdomen was not distended, the liver was not enlarged, but the spleen could just be felt below the costal margin. On examination of the thorax, the cardiac dulness was found to be slightly increased, and the heart's apex beat almost impalpable. The heart sounds were weak, but apparently pure. There was no audible pericardial friction. The pulse was 120, regular in force and rhythm and of fair tension. On the right side posteriorly the percussion note was impaired at the apex, and from the sixth rib downwards absolutely dull. This dull area extended into the axilla and right round to the front of the chest. Over the dull area the breath sounds were extremely weak and faintly bronchial in character. Over the rest of the right chest both percussion and breath sounds were normal. The left lung was normal both to percussion and auscultation, with the exception of a patch at the anterior apex where there was some doubtful bronchial breathing and increased vocal resonance. The respirations were rapid—40 per minute. The child was very ill and peevish, and seemed in pain, giving a short grunt with each expiration. There was no cough, but the appetite poor. There was no diarrhoea or vomiting. On admission the temperature was 100°, but in the evening it rose to 101°.

[illegible]

February [illegible]. The child [illegible] very ill. [illegible] the temperature has [illegible]. The right base [illegible], [illegible] except a little blood. The needle [illegible].

February [illegible]. The child was much worse and his condition [illegible]. The signs over the right lung [illegible], and there were signs of [illegible] over the left. [illegible] the sternal [illegible] below extended [illegible] inch outside the left [illegible]. The apex beat could not be felt, and the heart sounds were almost inaudible. No pericardial rub could be heard. [illegible] very [illegible] and weak, but regular. [illegible] purulent pericarditis. A consultation was held with Mr. [illegible], who agreed to operate on condition of the mother's consent being obtained.

Operation.

At [illegible] at night Dr. W. [illegible] gave chloroform, and Mr. [illegible] operated [illegible] exposing [illegible] and the neighboring sternum. The [illegible] been removed with care to avoid [illegible], the internal mammary vein was seen greatly distended and lying close the sternal margin. Some fibres of [illegible] were separated, and the thin parietal pleura was [illegible] the sternal margin; therefore a semi-[illegible] was pared away, the [illegible] and [illegible] outwards, thus ex-[illegible] the inner edge of the wound. An exploring needle was inserted and withdrew a syringeful of thin, [illegible] the pericardium along the needle, [illegible] to a height of three feet, probably about [illegible], but it was impossible to collect it for measurement. [illegible] the pericardial sac failed to discover any masses of [illegible] was not resorted to, but a rubber drainage tube w[illegible] the wound closed.

The [illegible] the operation were very striking, the internal [illegible], the cyanosis diminished, [illegible] rate and that of respiration [illegible] to [illegible] at this juncture [illegible] at the right base, and the child was [illegible].

[illegible] on the pericardial fluid stated that it [illegible] and from its staining properties [illegible] resembled the pneumococcus.

After-History.

[illegible]. The [illegible] of the night before [illegible] was again explored and pus was [illegible] under [illegible] and Dr. Branson [illegible], and with some difficulty [illegible]. An extremely [illegible]

[illegible]

[illegible] the pericardial wound [illegible] the pericardial wound broke open again and [illegible] quantity of purulent discharge [illegible].

April [illegible]th. Measles rash almost disappeared, temperature lower. There are signs of bronchitis over the left [illegible], and in the right axilla are some tubular breathing and increased [illegible], considered to be due to a consolidation of the [illegible] of the right lung. The pericardial wound is discharging freely.

May 2nd. There is no improvement in his general condition. The signs of consolidation in the right lung [illegible]. There is [illegible] discharge from the pericardial wound, and there is well marked oedema of the feet and ankles. The tongue is clean, and he is taking his food fairly well.

May [illegible]th. The signs of consolidation of the right lung have cleared up, and the oedema of the feet disappeared. The [illegible], however, remains very variable, and he gets very restless at nights and appears to be in a good deal of distress. The pericardial wound discharges freely, and the surrounding skin is red and [illegible].

In the rest of the history there is little to note. The child's recovery in the weak condition he was in from a severe attack of measles and broncho-pneumonia was totally unexpected. In the later weeks of his life a permanent recovery never seemed probable. A week before death he developed two bedsores posteriorly, [illegible] the last two months he was emaciated in the extreme, and [illegible] covered with a profuse branny desquamation. The discharge from the pericardium, after its re-establishment, showed no tendency to [illegible], but remained profuse and purulent to the end. The severe [illegible], which had almost gone, reappeared after the [illegible] and persisted until death. In the last few weeks of life tenderness to [illegible] percussion or palpation over the precordium became more marked. The temperature remained very irregular, but [illegible] until the last few days of life. The child gradually sank, and died on May [illegible]nd, in the sixteenth week after the two operations.

Necropsy.

Notes on the necropsy by Dr. W. P. S. Branson, Pathologist to the Hospital.

On opening the thorax there was found a condition of universal dense adhesion of the contained viscera to each other and to the chest wall, and the whole anterior mediastinum was [illegible] by a thick fibro-gelatinous deposit. The wound over the [illegible] drained a small pocket on the anterior surface of the [illegible], but elsewhere the pericardium was inseparably adherent to the heart in front. On attempting to separate the pericardium [illegible] the left lung an abscess cavity was opened, with a discharge of [illegible] thick pus. This cavity lay behind, and to the left of the heart [illegible] the pericardial sac, its walls were very thick from the presence of [illegible] matter similar to that occupying the mediastinum. Between the heart and the right lung there lay another smaller cavity, independent of the first, and full of very inspissated pus. The [illegible] cavities was extremely dry and gritty to the feel [illegible]. The tracheal glands were greatly enlarged [illegible] all sign of tubercle. The pleurae were everywhere [illegible], but not inseparably except at the right base behind the [illegible] to drain the empyema. Here the adhesions were old [illegible] no trace of a pleural membrane could be discovered. [illegible] the pleurae were much thickened, again with what appeared to be [illegible] infiltration. The lung tissue was [illegible], but [illegible] and not enlarged. The liver showed [illegible] "nutmeg" order and the spleen and kidneys were [illegible]. Examination of the head was not allowed.

Remarks by Dr. Coutts.

The frequency of purulent pericarditis in childhood is only appreciated by those who have [illegible] of witnessing necropsies in young children. That the complaint is usually first discovered on the *post mortem* table is due to the large majority of cases being [illegible], owing to the scantiness of the pericardial [illegible] absence of all symptoms referrable to it. Certain cases that might have been diagnosed during life are missed because the condition of the patient has been too urgent to admit of any satisfactory or adequate examination. Other cases [illegible] unrecognized owing to the reluctance to harass the child by having the dressings over an empyema wound removed in order to examine the chest. The complaint, however, is so frequent in infants dying with empyema that the possibility of its being discovered *post mortem* should not be lost sight of, although there may never have been any recognizable signs of pericarditis during life.

To calculate roughly the number of cases of purulent pericarditis occurring annually at the Shadwell Hospital at about [illegible] would probably be to underestimate its frequency at that institution. A limited number of such cases occur in the course of [illegible] bone disease, [illegible] practically all the rest [illegible] origin in the [illegible] the pneumococcus. As might be expected from this, then, purulent pericarditis in children, in the vast majority of instances, is associated with pneumonia or empyema, or a combination of these two [illegible]. In brief notes of 15 cases of purulent pericarditis under my care, where a necropsy was made, in 8 cases

it was associated with empyema alone, in 4 with evidence of recent pneumonia alone, and in 2 with a combination of recent pneumonia and empyema. In only one case was there no evidence of either of these last. This association with recent pneumonia or empyema may afford a valuable aid, often an indispensable one, in the diagnosis of the complaint.

The combination of purulent pericarditis and empyema is much more frequent than is commonly supposed. In a valuable paper on empyemata in children,[1] founded on a personal observation of 81 cases, Mr. P. S. Blaker gives statistics which show that purulent pericarditis occurs in 11 per cent. of empyemata in children of all ages, and where infants alone are taken into account this percentage becomes much greater. In 23 cases of fatal empyemata, the same observer found purulent pericarditis *post mortem* in 7—or an average of about 30 per cent. An experience of a much larger number of cases than 81 would not induce me to believe there is anything exceptional in Mr. Blaker's figures, and I believe they may be taken as fairly representative of the frequency of the association of the two conditions, empyema and purulent pericarditis.

There is, unfortunately, a prevalent impression, and one often expressed, that the diagnosis of purulent pericarditis is in every case too difficult, or even impossible, to be made with any degree of precision. In the absence of empyema or suppurative bone disease, or in that of a history of recent pneumonia, there might be justification for this pessimistic view. But given the presence of one of these three last, then I would contend that the diagnosis can at times be made with a reasonable degree of certainty. Under such conditions, in fact, the possibility of the diagnosis mainly rests on that of determining the presence of free fluid in the pericardial sac. That cases arise where it is impossible to distinguish between fluid in the pericardium and a cardiac dilatation has to be admitted. But cases where insuperable difficulties exist in differentiating between the two are, in my opinion, mainly those of rheumatism of some standing, where, in addition to the cardiac dilatation, there is also thickening of the pericardium itself.

The conditions, moreover, associated with purulent pericarditis are not such as to lead frequently to a cardiac dilatation sufficiently great to embarrass the diagnosis when dealing with the question of fluid in the pericardium. The slighter degrees of pericardial effusion are admittedly undiagnosable, but in cases where there is marked pericardial dullness along with diminution of the cardiac sounds the difficulties of diagnosis have certainly been exaggerated. Many cases are missed solely from the want of a thorough examination, either because the urgent state of the patient forbids it or from a natural reluctance to cause discomfort to the child by the removal of the dressings over an empyema wound. A remembrance of the frequency of a combination of the two complaints, and a preliminary hunt as to the possibility of a purulent pericarditis being discovered at the necropsies on infants dying with empyemata, will often disarm the satire of the pathologist at the expense of the clinician.

Having satisfied oneself as to the presence of fluid in the pericardium in early cases, there need be but little hesitation as to its character; if not already purulent, it will speedily become so. I can see no advantage, then, in a preliminary exploration before deciding on a more radical operation, if such be contemplated. In more than one instance I have known a left-sided pleurisy added to the other gravities of the case simply from the use of the exploratory needle. On six or seven occasions, too, I have known the cardiac wall to be pierced by the needle, and although in no instance was this attended by any subsequent harm, still the possibility of such a contingency is not one to be contemplated with any satisfaction or complacency. The present is the third case I have had operated on without preliminary exploration, and in each one the assumption as to the nature of the fluid was verified at the operation.

In a few other cases where I have ventured on the diagnosis without a preliminary exploration, and where operation was deemed inadvisable or refused, the supposition as to the presence and nature of the fluid in the pericardium has been justified on necropsy. Occasionally, instead of pus, a merely turbid fluid is found, yielding a pure cultivation of the pneumococcus. There is, however, a growing opinion, which I am inclined to share, that such cases should be treated as if the fluid were already pus, whether it be in the pericardium or the pleura. Very often, indeed, flakes of pus are discovered at the bottom of a cavity that at first sight is apparently filled only with such turbid fluid.

One reason for purulent pericarditis being so frequently missed is the absence, in the vast majority of cases, of any audible pericardial friction. In the rare cases where the pericarditis arises in connexion with, but independently of, disease of the lungs, the friction may be loud and persistent. But in the far more numerous cases associated with the pneumococcus an audible friction is usually absent, invariably so in my experience. The absence of audible friction is perhaps due to empyemata and pericarditis, when associated with pneumonia, being in no sense sequelae of the last complaint, the relationship dating back to that of the pneumonia itself. If this be so, the time for hearing any pericardial friction would be in the very earliest stages of the pneumonia. Unfortunately, in the early stages of that complaint, the attention is so centred on the predominating lung symptoms that possibly an adequate examination over the pericardium is seldom made. But, as a rule, no opportunity occurs of seeing these cases of purulent pericarditis until several weeks after the onset of pneumonia or empyema. It may well be, however, that audible friction is absent from the very beginning of the complaint.

Occasional aids to diagnosis are extreme pallor, orthopnoea, irregular pulse, and other signs of cardiac and respiratory distress. Pallor, indeed, is a fairly constant feature in most cases, but the other symptoms are of very uncertain occurrence. In a case I lately published[2] there were 10 oz. of pus in the pericardium of a child aged 4 years, with a total absence of any respiratory or cardiac embarrassment.

When all things are considered, it has to be admitted that the diagnosis is often extremely difficult, and in the majority of cases impossible. At other times, as I have said, the difficulties are not insuperable, and the diagnosis can be made with a reasonable degree of confidence. And when the frequency of the association of purulent pericarditis with empyema and pneumonia is more generally recognized, I believe that a diagnosis made during life will with increasing frequency replace that which is at present usually only made upon the *post-mortem* table.

In my present case the diagnosis was attended with no special difficulty. Although there was no audible pericardial friction, yet the history of a recent pneumonia, the presence of a probable empyema, the increase of the precordial dullness, along with the diminution of the cardiac sounds, and the absence of a definable apex beat, the extreme pallor, and the precordial pain associated with both cardiac and respiratory distress, all combined to make the diagnosis of pericarditis a fairly certain one. The history of pneumonia, too, with the case in part empyema, left little room for doubt as to the character of the fluid in the pericardium. When I first saw the child his condition was critical in the extreme, and it was clear that no measure short of operation offered any hope of relief. The case was put fairly before the mother that there was but faint prospect of recovery after an operation, and that there was a great possibility that the child would die under the anæsthetic, and she elected to give the child the outside chance that surgical interference offered.

As the child lived so long after the operation, the ultimate result was disappointing in the extreme. At the time of the unfortunate contraction of measles, the child was improving in many ways, and seemed to have a fair chance of recovery. That the measles and the concomitant bronchitis should have shortened life will hardly be doubted. But whether a ultimate recovery was possible, with the heart clogged as it was with the pockets of inspissated pus, is open to question; it is equally open to question, moreover, whether recovery was desirable with the heart hampered in the manner it must always have been. Life in any case, under such circumstances, could not have been, either a pleasant or a prolonged one. The deformities of the ribs, and pain, must in such cases, raise the inquiry whether the usual operation of opening the pericardium from the front is the best one under such circumstances. The question, however, is a purely surgical one, and I leave it to the more capable hands of Mr. Rowlands to deal with.

REMARKS BY MR. ROWLANDS.

It is now generally believed that ... should be indicated in practically all cases of purulent pericarditis ... owing to difficulties of diagnosis, the operation is ... too long deferred for a permanent success to be expected, and although temporary relief follows the evacuation of the fluid in most cases, recovery is unlikely, when from delay

such complications as myocarditis, mediastinitis, or pyaemia have arisen.

The anatomical relations of the pericardium are not favourable for the safe establishment of efficient drainage, and this may explain the number and the variety of the operations which have been proposed and practised for this condition. It is impossible to open the sac from the back without also opening the pleura. Having noticed that the right extremity of the oblique sinus of the pericardium was opposite and only about 2 in. away from the vertebral end of the seventh right rib, I removed a portion of this bone, and attempted to displace the pleura from the vertebrae, and thus to reach the pericardium through the posterior mediastinum, but in each of four attempts on the cadaver the pleura was perforated; the vena azygos major and thoracic duct are also in danger of being wounded.

Luschka's statement, that no parietal pleura lies between the pericardium and the inner 1.5 cm. of the fifth left costal cartilage, the inner 2.0 cm. of the sixth, and the inner 3.5 cm. of the seventh, is only true of exceptional cases, but it has been so often quoted that it has been almost generally believed. The researches of Sick and others have since established the fact that it is usual for the left pleural reflexion to lie under cover of the sternum at the level of the fifth costal cartilage, and often also at the level of the sixth. My own observations in the dissecting room during some years convince me of the accuracy of Sick's description. Delorme and Mignon have shown that a pericardial effusion has little or no effect in displacing the pleural margin outwards; but protective pleural adhesions sometimes form when that effusion is purulent. Paracentesis, however useful it may be in some cases of serous pericarditis, cannot afford more than a temporary relief of pressure in pyopericardium, for the pus rapidly and persistently reaccumulates; but as a preliminary to a more radical treatment it may be of considerable service in patients too seriously ill to take an anaesthetic safely. A very striking improvement of the circulation generally occurs after allowing the fluid to escape, and then the treatment may be completed with all the advantages of a general anaesthetic.

In a very few cases recovery has followed mere tapping, but only after the lucky establishment of a sinus along the track of the needle. Paracentesis is not quite devoid of danger, for empyema, pleurisy, and perforation of the heart have resulted in rare cases.

From anatomical considerations and experiments on the cadaver it is certain that the safest place to tap or to insert the needle of the exploring syringe is the left costo-xiphoid angle as suggested by Roberts years ago. The instrument should touch the lower end of the gladiolus and pass backwards upwards and a little inwards behind the sternum until it is felt to enter the cavity of the pericardium, at a distance of not more than 2 in. from the skin. The pleura and the internal mammary vessels are too far out to be injured, and the peritoneum too low, and the heart, unless adherent in front, lies too far back within its distended sac to be reached if the above precautions be taken. The inner extremity of the fifth left space is probably the next best situation, where the needle should be passed backwards and inwards in close contact with the sternal edge; but although the internal mammary vessels are quite safe, the pleura will certainly be pierced occasionally. The sixth left space is to be preferred, if wide enough, at its sternal end, which is not often the case.

Exploratory aspiration through the left xiphoid fossa deserves more frequent use in doubtful cases, so that delay in diagnosis and treatment may be avoided if possible.

Operations.

Which is the best operation is a question still to be answered by time and experience.

1. *Simple incision* through the fifth or fourth left intercostal space near the sternum has been the method most frequently employed and can be very quickly performed, which is an advantage in these grave cases, but the drainage is far from perfect, especially in children and the pleura and internal mammary vessels are difficult to define and avoid through the narrow space available.

2. *Excision of the Fifth Left Costal Cartilage.*—Parker was the first to perform this operation on a child at the Last London Hospital. It has since been strongly recommended by Porter and others, and has of late become the most popular operation. More room is given for exploration and also for drainage, and the pleura and vessels can generally be seen, displaced, and avoided; it is, however, not possible to explore the pericardial sac thoroughly and to remove masses of lymph from the auricular regions. Moreover, the wound is not placed low enough on the anterior wall of the sac, so that a pool of fluid remains undrained even when the body is upright. In the case above related, having excised the sternal end of the left fifth costal cartilage, I also removed a semilunar portion of the cartilaginous gladiolus in order to avoid injury of the pleura and to provide better and more permanent drainage. As far as I know, this was the first occasion on which this modification of Parker's operation was employed in actual practice; but Durand and Dwight had each suggested it several years ago. This step, which only takes a few seconds, may be found useful if Parker's operation cannot be completed without endangering the delicate and perhaps extensive pleura of a small child; it gives an excellent view of the pericardium, but in my case the drainage it afforded was not perfect, as proved at the necropsy, and it is possible, or even probable, that Allingham's operation would have been more satisfactory in this important respect.

3. *Flap Operation.*—Roberts, in a most instructive and exhaustive paper, proposed a new operation based on experiments on the dead body. A flap containing the fourth and fifth left costal cartilages is lifted upwards and the internal mammary vessels and pleura can then be well seen and displaced outwards, so that the pericardium can be fearlessly opened by a vertical incision. The chief objections to this operation are its unnecessary severity and comparatively long duration in a patient whose circulation is seriously embarrassed; moreover, it is by no means so easy to raise the flap with safety to the pleura and vessels, especially in children. I once opened the pleura in performing the operation on a stillborn but mature infant. It may, however, be of use after pressure symptoms have been relieved by aspiration, as Roberts himself suggests. It certainly gives a better view of and access to the pericardium than any other operation, but it does not provide as efficient drainage as Allingham's operation.

4. *The Epigastric Operation.*—Allingham[1] in 1900 gave a full account of an operation performed by him on the cadaver. In this operation the left rectus abdominis is incised, and the peritoneum having been avoided, the cellular interval between the sternal and costal fibres of the diaphragm is opened up, and the pericardium thus exposed and incised at the lowest part of its anterior wall. Allingham also claims that a finger can be passed to any part of the sac to remove débris and open loculi, and that the pleura is not in danger.

The following are some of the chief drawbacks of this ingenious operation:

(*a*) The little room available in most adults, who have wide, firm, or even ossified ensiform cartilages and rigid costal cartilages; the costo-xiphoid space is too narrow in these cases.

(*b*) The operation is necessarily performed somewhat in the dark, and under cover of the sternum and seventh costal cartilage, and it is not easy to be sure whether the exploring finger is above or below the diaphragm, so that the peritoneum may be opened, especially by an operator not quite familiar with the anatomy of this region.

(*c*) The superior epigastric artery may be wounded as it comes through the diaphragm and cause troublesome haemorrhage out of sight in the depth of the wound.

(*d*) The pericardium may be separated by the finger from the parietes, and pus may then leak into the loose connective tissues and set up a fatal mediastinitis.

When the pericardium is much distended, these dangers and difficulties are diminished. In children, who are the most common subjects of suppurative pericarditis, the operation is much easier owing to the elasticity of the boundaries of the costo-xiphoid angle. In them a large drainage tube can be easily introduced, as I have found in several stillborn children. This operation is without doubt the best one to adopt in children.

In adults I have not been able to pass my fingers through the costo-xiphoid angle into the basal sinuses of the pericardium, nor even safely far into the oblique sinus. In them Allingham's modification of his own operation will be required in most cases; a portion of the seventh and sometimes even of the sixth costal cartilage will have to be removed to provide the necessary room for exploration and drainage; the pleura must be pushed away first if necessary. The patient must be kept upright or even leaning a little forwards before the fluid can drain away; he should also lie on his face for a short time at intervals during the day. A soft rubber tube

may be guided into the lower end of the oblique sinus past the termination of the inferior cava, and another one towards the base of the heart on its right side. The edges of the pericardial wound should be sewn to the parietes whenever possible to try to avoid suppurative mediastinitis. Irrigation at the time of the operation is only necessary if masses of lymph or false membranes can be felt by the finger, and care must be taken to use two tubes side by side to ensure a free exit for the fluid, which may otherwise compress the heart; Mr. Parker believed this was the cause of death in his case. Daily irrigations may be used in the after-treatment. About 60 cases of operations for suppurative pericarditis have been recorded, with a mortality of about 65 per cent.; the real mortality is certain to be higher than this, for it is no doubt true that many unsuccessful operations have not been recorded.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1897, i. pp. 961. [2] Ibid., 1900, ii. pp. 1553. [3] *Trans. Amer. Surg. Assoc.* [4] *Lancet*, June, 1896.

NOTE ON THE METHOD OF DEMONSTRATING TUBERCLE BACILLI IN THE URINE.

BY EDGAR TREVITHICK, M.D.CAMB.,
Physician, Cheltenham General Hospital.

I have heard it remarked by observers that tubercle bacilli, when occurring in urine, are usually only to be found in very scanty numbers, and are to be considered as being somewhat difficult of demonstration. My own experience is opposed to this. And I am led to believe that the secret of finding representative numbers of bacilli in film preparations made from urinary deposits depends upon the thorough washing of such deposits with distilled water before the films are made from them. I have lately compared films made from urinary deposit after being thus washed with films made from the same deposit without this precaution being taken, and I find that in the latter very many fewer bacilli are to be found. The explanation of this appears to be that the urinary salts prevent the bacilli and even the pus cells from adhering sufficiently well to the cover slip to withstand the subsequent treatment necessitated in the process of staining, and that in reality in some parts of this process many, and I believe the majority of them, get dislodged and washed away.

The method which I have found eminently successful is as follows. The lower part of the urine which has been resting in a conical glass is transferred to the receiver of the centrifugal machine. After centrifugalizing, the supernatant fluid is carefully decanted from the minute collection of deposit which will be found adhering to the bottom of the glass. The glass is then filled with distilled water, and the centrifugalate shaken up with it. This is once more centrifugalized, and after that the foregoing process is once more repeated. From the final centrifugalate the films are prepared. In my experience the number of tubercle bacilli found in such films will be very greatly in excess of those that will be demonstrated from the same urine where this precaution of washing away the urinary salts is not followed.

In my experience the demonstration of tubercle bacilli in tuberculous urine is not more difficult, but on the contrary more simple and certain than their demonstration when occurring in sputum, and I find, moreover, that in the urinary films their numbers are not less, but on the contrary much greater, than is the case with films made from tuberculous sputum.

This is not surprising, seeing that in the case of urine one is able to take advantage of the concentration brought about by the process of centrifugalizing, an advantage which is not easily possible in dealing with sputum.

REACTION WITH PERCHLORIDE OF IRON IN THE URINE OF GRAVE CASES OF HEPATIC CIRRHOSIS.

BY F. PARKES WEBER, M.D., F.R.C.P.,
Physician, German Hospital.

I HAVE lately been struck by the presence of a strong perchloride of iron reaction in the urine of several patients with hepatic cirrhosis. On adding a weak solution of perchloride of iron to the urine the colour obtained was sometimes similar to that obtained from the presence of diacetic acid in cases of diabetes mellitus, but sometimes it appeared to me more like that obtained in the urine of patients taking sodium salicylate, so that I should have expected that some drug like aspirin had been taken. In only one of the cases was there any history of there ever having been any glycosuria. The appearance of the reaction sometimes coincided with very threatening general symptoms, such as drowsiness in Case 1. I unfortunately delayed exact analysis, and at present can obtain no urine giving the reaction. I therefore am unable to say that the reaction is due to the presence of diacetic acid in the urine, and must content myself by giving a few clinical details of the cases in which the reaction was present, hoping that it will be detected in other cases of hepatic cirrhosis when its nature can be fully investigated.

CASE I.—Mrs. T. B., aged 42, admitted to the German Hospital June 5th, 1903. A fat woman, with slight jaundice, ascites, and epigastric pains. No cardiac or renal disease. No vomiting. Menses absent last two months. History of free use of beer and whisky during last five years. Ascites commenced apparently about three months before admission. Soon after admission the patient became drowsy and more jaundiced, and her pulse was very weak. She was treated by magnesium sulphate, digitalis, camphor hypodermics, and the temporary use of alcohol, and her general condition soon improved. A strong perchloride of iron reaction was first noted on July 2nd (the first time the urine was tested in that way), and the reaction was present after that date whenever the urine was tested. Paracentesis abdominis was twice performed. The patient left the hospital without permission on July 10th, and died not long afterwards.

CASE II.—Mrs. L. D., aged 55, admitted October 5th, 1903. A very sallow woman, with uniform great enlargement of the liver, but without ascites. History of taking whisky and beer. Pulsating enlargement of the abdomen noted two years before admission. Brought up blood three weeks before admission. The urine was free from albumen and sugar, and on many occasions gave a strong perchloride of iron reaction, though it had been rendered alkaline by giving the patient sodium bicarbonate. The patient left the hospital on November 15th. On December 14th, when in her own home, she became unconscious, and died on the following day. No necropsy.

CASE III.—J. A., aged 45, a carter, admitted September 22nd, 1903, for ascites, apparently of recent onset. History of habitual indulgence in beer and whisky. After paracentesis abdominis the liver could be felt enlarged. The urine was free from albumen and sugar, but dark, and at one time showed a distinct urobilin band by spectroscopic examination. On several occasions it gave a marked perchloride of iron reaction, but this has been invariably absent of late though diligently searched for. The patient has been tapped for ascites six times, and is still in the hospital.

CASE IV.—Mrs. A. B., aged 53, admitted November 18th, 1903, on account of ascites, vomiting, and great frequency of cardiac action. The patient, a fat woman with a bloated face, used to drink much ale and whisky. About seven years before admission she was told she had "diabetes"; this disappeared after some time, and she has generally enjoyed good health. Her abdomen began to swell about six months before admission, and before her admission it had already been tapped twice at another hospital. The urine was free from albumen and sugar, but although often alkaline, usually gave a marked perchloride of iron reaction. Her general condition has improved, she has had no vomiting lately, and her appetite is better; recently the perchloride of iron reaction has been absent. She has been tapped twice since admission, and is still an in-patient.

A METHOD FOR ANASTOMOSING A SEVERED VAS DEFERENS.

BY J. LYNN THOMAS, C.B., F.R.C.S.,
Surgeon, Cardiff Infirmary; Consulting Surgeon, Hamadryad Hospital, Perth Hospital, Bridgend Hospital, and the Cardiff Provident Dispensary.

ABOUT twelve months ago I had under my care a gentleman who had his vasa deferentia tampered with, one being completely divided, and the other one incompletely severed by his wife during a fit of jealousy. I was consulted in the matter about a week after the somewhat tragical episode had taken place, and I found two scars in the scrotum anteriorly, one on each lateral aspect. I was informed that they had been performed by the patient's wife by means of a surgical knife whilst the patient was in a state of advanced semi-comatose intoxication. On the side where the vas deferens had been completely divided there was a rounded hard swelling in the spermatic cord about 1 in. above the testis of the size of a big pea; the testis itself being more sensitive than the one on the other side. I was asked if anything could be done in the case, as the participants in the tragedy had become very much concerned as to the result with regard to sexual impotence, for the effect of double vasectomy was

considered by the husband and wife to lead to atrophy of the testis with consequent wasting of the gland.

After experimenting I carried out the following method of uniting the vas deferens.

An oblique incision was made along the course of the inguinal canal opposite that used in the operation for the radical cure of an inguinal hernia, the spermatic cord was exposed, and the parts dissected through the wound, carrying with it the small swelling referred to above as being the size of a large pea. The tumour was found to be a collection of semen contained in a loose sheath between the ends of the divided vas deferens. The vas was found to be completely divided and its ends were separated to the extent of half an inch.

The following diagrams will assist in elucidating the method adopted by the operator. Very small curved needles had to be used for applying the silk sutures in the operation performed.

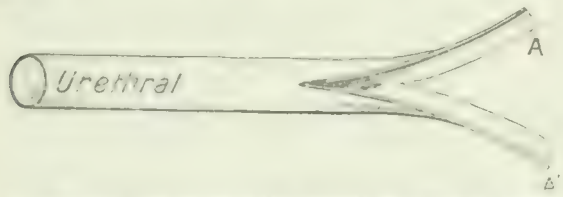


Fig. 1. [illegible]

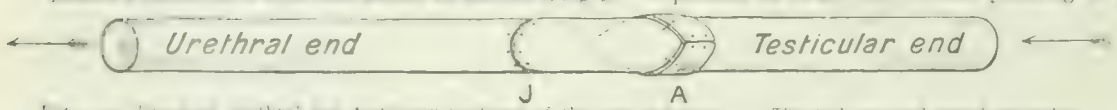


Fig. 2. [illegible] A, The tail wrapped round testicular [illegible] along the

The testicular end of the vas deferens was cut obliquely by means of a cataract knife. The distal or urethral portion of the vas was split longitudinally for about 1 in.; this free end was further divided up for about half an inch from its extremity so as to provide two tails of equal size; in other words, each tail consisted of one-half of the longitudinally split vas deferens. The utility of these tails will, I think, be appreciated from the diagram representing the completed anastomosis. The oblique cut free end of the testicular portion of the vas was placed with its lumen in contact with that of the urethral portion, and was fixed by means of fine silk sutures as closely applied as the whipcord-like tube would admit. The two tails of the distal end were then enveloped around the testicular portion of the vas in order to counteract the dragging tension of the weight of the testis. Afterwards the tail which had been wrapped round the anastomosed vas deferens was tied [illegible]

I found it necessary to open the tube in order to secure a free and permanent communication of the divided end. It appeared to me that end-to-end anastomosis was not practicable owing to the swelling of the tissues for suturing. Immediately the coils was impossible on account of the tightness [illegible] round the cord in the inguinal canal.

[illegible] the operation by the method of [illegible] the semen by injecting the [illegible] by means of a syringe.

After [illegible] I found it necessary to [illegible] the [illegible] of the [illegible] of an injured vas deferens.

I saw the patient about two months after the operation, and on examination I found the testicle normal in size and consistence, and the vas deferens [illegible] the testicle. The opening of the [illegible] was inevitably [illegible] and I found it was about the same size as the [illegible] of the vas deferens.

The patient informed me that his wife was [illegible] pregnant and that she considered the operation had been a perfect success.

GERMAN CONGRESS OF INTERNAL MEDICINE.—The twenty-first annual session of the German Congress of Internal Medicine will be held at Leipzig, April 12th to 15th. Communications are to be addressed to the Perpetual Secretary of the Congress, Dr. Emil Pfeiffer, Hygienic Institute, Wiesbaden.

PILEWORT OINTMENT AND SUPPOSITORY.

By SIR JAMES SAWYER, M.D. Lond., F.R.C.P., [illegible]

More than two years ago I published a formula for pilewort ointment, unguentum ranunculi ficariæ.[1] Many cases of haemorrhoids are surgical in nature, management, and cure, and rightly are not usually included in a physician's practice. But there are many diseased conditions, haemorrhoidal or haemorrhoidabid, affecting the mucous covering of the lower part of the rectum and the anal margin which come into a physician's daily work, as incidents in the course of greater or more general maladies, and he must even often relieve by medicinal methods haemorrhoids which are distinct tumours within or without the anus, which, for sufficient reasons in particular cases, are not submitted to the usual surgical methods of cure. In such cases various ointments are used locally, and I have used pilewort ointment for several years with much therapeutic success. Of course, local medication in such cases can only be supplementary to the relief or cure of the well known visceral obstructions and constitutional conditions which occasion the local disease.

To prepare this ointment I direct that the whole fresh plant be used, gathered in the spring. The plants, cut into small fragments, are kept immersed in melted hog's lard, at a temperature of about 100° F., for twenty-four hours, in the proportion of one part by weight of the plant to three parts of lard. Then the portions of infused herb in the fused lard are pressed to cause the further yielding of their juices to the fatty infusion, which infusion is afterwards strained to form, when cold, the ointment. The heat of the mixture must not be too high lest the bright green of the ointment be spoiled.

In some cases in practice in which the use of this ointment may be indicated, the prescriber may wish to exhibit the remedy as a suppository. To harden the ointment up to an adequate consistency for a suppository, I am accustomed to direct that one part by weight of spermaceti be mixed with four parts of the ointment, by fusing by heat. Of such a mixture 1½ drachm, is a serviceable quantity for a rectal suppository. In a mixture of spermaceti and unguentum ranunculi ficariæ, in the proportion of 1 to 4, the melting point of the solidified mixture would be kept well below the normal temperature of the rectum, taking the melting point of spermaceti at 120° F., and that of the ointment at 85° F., the mixture of them here recommended would melt at a temperature of about 90.4° F., and it will be found in practice that a suppository so made will be sufficiently firm for easy introduction within the rectal cavity. The only reason why a rectal suppository should be sufficiently hard is, that it should be stiff enough to be easily placeable in the site of its employment, once in that position, its quantity of softness and lowness of melting point invest the application of the remedy it carries under conditions propitious for remedial action. For such a suppository the proportions would may be as follows: R Unguentum [illegible] gr. xxxij. Ceræ albæ, gr. xxxij. Misce fiat cataplasma.

Pilewort has an ancient vogue amongst our country people as a local remedy for "piles."

[illegible]

A FEMALE HOSPITAL PHYSICIAN IN HUNGARY.—It is announced that Dr. Ida Szentesy has been appointed Assistant Physician to the Early Post Hospital. She is said to be the first medical woman to be elected to the staff of a public hospital in Hungary.

THE SPITTING NUISANCE IN MONTREAL.—Dr. Laberge, Medical Officer of Health of Montreal, reports that for some time past his department has been conducting an active campaign for the suppression of the practice of spitting in churches, theatres, halls, and other public places. Ministers and priests of congregations have promised to make public appeals to their congregations to do all in their power to abate the objectionable custom. Many notices have been sent in to the Health Department asking that every effort should be made to suppress the filthy practice.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF OLD ECTOPIC GESTATION COMPLICATING NORMAL PREGNANCY: PAIN: SUICIDE.

On December 7th, 1903, I was asked to make a necropsy of the body of a Hindu female, aged 23 years. She had committed suicide by throwing herself into a well. It was said she had suffered severe pain in the abdomen lately, which had impelled her to suicide, and I was asked if there was anything to account for this pain.

The history of her illness was imperfectly given by her husband. He stated that the woman had thought herself pregnant a year ago. Her abdomen had swollen to a considerable size, when, without anything in the nature of pains or haemorrhage or collapse, the swelling gradually got less, but did not disappear altogether. A few months later her abdomen was observed to be swelling again, and during the last two months the woman had suffered very severely from abdominal pain and vomiting.

On opening the abdomen a gravid uterus containing a seven-months fetus was found. This fetus seems to have died at the same time as its mother. In the position of the left Fallopian tube was a bridge of tissue about the thickness of the thumb, which connected the uterus with another gestation sac occupying the left side of the abdominal cavity. On opening this sac I found a full-time fetus, whose skin had undergone adipocere formation. There was no liquor amnii, and the degenerated placenta, which was about the size and thickness of the palm of one's hand, was attached near the pedicle of the gestation sac. A large part of the omentum was adherent to the gestation sac, but was fairly easily stripped off it. The small intestine also adhered to it in three places.

I presume one would account for the pain and vomiting as being caused by the enlarging gravid uterus pulling on these adhesions through its connexion with the gestation sac, that is, the altered left Fallopian tube. The diminution in size of the abdomen after the death of the first fetus would doubtless be due to the gradual absorption of the liquor amnii.

Godhra. R. W. ANTHONY, Captain I.M.S.

LEPROSY AND FISH EATING.

THE BRITISH MEDICAL JOURNAL of October 17th, 1903, contains a letter from Mr. Hutchinson *re* Dr. Turner's report on leprosy, and specially refers to Basutos as a non-fish-eating race. As a former resident medical officer in Basutoland, and as the son and grandson of men who have lived most of their lives in the country, and as one who has an intimate knowledge of the customs and habits of the people, I regret to say that Dr. Turner is utterly wrong, and I entirely agree with Mr. Hutchinson that Basutos are very fond of all kinds of fish, and will eat it whenever available. Some few years ago I wrote a somewhat extensive report on leprosy and lepers in my district, and, if I am not mistaken, I pointed out at the time that although the consumption of salt fish is practically unknown in the country, it is a matter of common knowledge that fresh fish is eaten in fairly large quantities by the inhabitants. In the valleys of the Maluti, an offshoot of the Drakensberg, the streams are well supplied with two kinds of fish, and these the natives catch by means of hooks, rarely nets, but often destroy a large quantity of animals by exploding cartridges of dynamite in the water. I have seen as many as 100 so killed on the Thlotse River by Kimberley boys, who had secured dynamite caps at the diamond fields for that express purpose. The fish is always eaten fresh, and I have never seen it cured by any process, nor am I aware that it has ever been used as such by natives. Tinned fish, specially sardines, is considered a delicacy and eagerly bought. I have seen scores of times a Mo-Suto enter a trader's store, buy a couple of boxes, and there and then devour the whole at once on the counter. I confess never having seen herrings in barrel, or any other kind of salt fish. If these are now sold in Basutoland they are a recent importation, and hardly likely to affect the question.

Dr. E. Casalis, my late father, told me that as far as he knew, leprosy was introduced in Basutoland before 1830, when my grandfather, the Rev. Dr. Casalis, first came there. The Basutos called it "Lefer la Baroa," the disease of Hottentots, meaning by that that it came from Hottentots, most of whom then inhabited East and West Griqualand. He thought there had been an increase of the disease when the diamond fields were first opened and the intercourse between Basutos and Griquas become more frequent; but of this he had no definite proof to go upon except native evidence.

That leprosy entered the country many years before is likely. For instance, the Barotse, who now live on the banks of the Zambesi, and are an offshoot from the Basuto race—a native chief emigrated there from Basutoland over a century ago—are greatly affected by leprosy. The Rev. Mr. Coillard, who has laboured among them for several years, told me, the natives say they brought it with them from the south, and it appeared to him to be on the increase. Now the Barotse are a great fish-eating race, the Zambesi abounds with several varieties, but here, contrary to the Basutos, it is not always eaten fresh, some of it being preserved by drying in the sun. I am not aware, however, that it is salted or cured in any other way: this I think improbable, as salt is too valuable an article in native territories to be used to that extent. It is a noted fact, however, that Basutos or other natives who come down to the coast, readily partake of salt fish whenever meat is not available. If Mr. Hutchinson's fish theory is correct, it is possible that during their stay at sea-coast towns, the men should get infected, and thus show a greater proportion to women lepers in Basutoland. As for Dr. Turner's boy not eating fish, it is merely an exception. We don't all love oysters! I have now a Zulu boy in my service who objects to it, and calls it "a snake." He says Zulu boys never eat fish! And still not a hundred yards from my gates, rickshaw boys, unmistakably Zulu, eat voraciously all kinds of fresh, tinned, and salt fish.

My experience with natives—and it is very extensive—is that they will refuse very few articles of diet, when out of their kraals, and when not bound down to observe the customs and habits of their own people as when at home.

Capetown. G. A. CASALIS, M.B., C.M.Edin.

DIDYMIN IN EXOPHTHALMIC GOÎTRE.

IT is difficult to ascertain the determining factor in the causation of exophthalmic goitre. Every system has from time to time been looked upon as having some influence upon the etiology of the disease, but it appears to me that the theory of perverted and excessive secretion of the thyroid gland itself is the most rational. Of course the disease is, with few exceptions, peculiar to the female, and it is one belonging to the menstruating epoch. There seems to be, too, a correlation between the sexual organs and the thyroid gland, as instanced by the engorgement of the gland at the menstrual periods, pregnancy, etc. I have had a case under observation, where tumour, exophthalmos, and rapid pulse characterized the menstrual periods, and the symptoms passed off with the cessation of the flow. I have also had a case of severe exophthalmic goître which was absolutely cured after marriage.

Is it possible, therefore, that the secretion of the ovary may in some way contribute the irritant to the thyroid gland which stimulates it to excessive and perverted secretion, and, further, can it be possible that the testicular secretion may have some influence in counteracting to some extent this tendency on the part of the ovarian secretion?

I have had ten cases of this disease under treatment during the last three years, and have tried almost every known therapeutic procedure except surgical interference. In one case I was tempted to try ovarian gland substance. The patient took 15 gr. per diem for three to six months, without, however, any improvement. I then superseded this by didymin tablets, beginning with 10 gr. a day, and going up to 20 gr. In four weeks there was marked improvement. Two other patients showed no reaction to ovarian substance, but satisfactorily improved under didymin. My next two patients were treated from the first by testicular gland substance, and in both cases there has been noted marked improvement in the pulse-rate, tremor, the nervous excitability, and exophthalmos, but there has not been a corresponding improvement in the size of the thyroid tumour. The treatment was continued for a period of six to [illegible] then discontinued.

I have therefore no doubt as to the efficacy of testicular secretion in the treatment of this disease, although my experience is limited in its use. I hope to be able to report at greater length later on, after a more prolonged use of this therapeutic agent.

Carnarvon. G. LLOYD ROBERTS, M.D.Edin.

CONSUMPTION IN THE LEWIS.

In her recent popular book, *The Outer Isles*, Miss Goodrich-Freer, quoting from an older work, Smith's *Lewisiana*, endorses a statement as a present fact what is simply traditional, that "tuberculous consumption is unknown in Lewis." For the sake of truth and the best interests of Lewismen this assertion has to be not only disputed, but very seriously denied. It is believed that a century ago, when this remote "outer isle" was more isolated from foreign intercourse and outside influences and diseases, specially the infections, which, like commerce, follow the various flags, it may have been then justly credited with partial if not total immunity from phthisis.

But, alas! this character of blessed exemption from a malady so death-dealing can no longer be maintained, much less boasted of. The pitiless tubercle bacilli have in recent years been silently depositing their deadly virus in every class of dwelling and inmate so widely and so fatally that its victims in Lewis number from 40 to 60 annually, and are yearly on the increase. Seeing that the rumoured absence of consumption is thus entirely fabulous, its ravages so deplorably spreading, the well known means of prevention so utterly beyond local effort, all baseless barriers to public sympathy removed by true representation of facts, the insular authorities are resolved to take such steps as may prove efficient in securing such remedial means as have proved a priceless boon to their more favoured fellow-subjects.

CHARLES M. MACRAE,
Stornoway Island of Lewis. M O H for Lewis District.

PUERPERAL ECLAMPSIA.

THE two papers on this subject in the BRITISH MEDICAL JOURNAL of November 7th, 1903, serve to remind us how very unsettled our views are as to the best method of dealing with the condition. Radical and conservative measures are strenuously advocated by different observers from time to time under apparently similar conditions. I venture to again remind your readers that the Clinical Society of Manchester is endeavouring, by a collective investigation, to acquire and disseminate more definite knowledge on the whole subject of eclampsia, particularly in its clinical aspects. Every member of the profession is earnestly invited to report any case of eclampsia he may attend and in order to facilitate reporting and subsequent analysis we have drawn up a form of report which can be filled in in a very few minutes. Since February last rather more than fifty reports have been sent in—enough, I think, to warrant us in asking for more and continuing the inquiry. Several of those reports show conclusively that death does sometimes occur, "if the patient survives the emptying of the uterus, whether by artificial or natural means." I have just had an application for forms from Calcutta, a very encouraging sign. I may mention that fatal cases and cases of threatened eclampsia, which recover under treatment without developing convulsions, are quite as valuable for our purpose as those which recover from convulsions, and that cases in which the excretion of urea has been noted are especially valuable as tending to establish or correct modern opinions as to the pathology, etiology and symptomatology of the condition. If deficiency of urea excretion is a proximate cause of the convulsions, a cup of strong beef tea may conceivably determine an attack in a patient already on the verge of eclampsia, just as a glass of beer may in some individuals, bring on an attack of gout. Some of us are quite convinced as to the latter possibility, and I have some practical reason for believing in the former. The question is of some practical importance in both cases. Abundant evidence is wanted on the whole subject of eclampsia. We believe that there is plenty of evidence available if only we can collect it, and to this end every general practitioner can help us. I shall be very pleased to send report forms to any member of the profession who will apply by postcard to

J. Price Williams,
[illegible]

GERMAN BALNEOLOGICAL CONGRESS. The twenty-third annual meeting of the German Balneological Congress will be held at Aix-la-Chapelle, May 6th to 9th, under the presidency of Professor Geheimrath Dr. Leyden. Communications should be addressed to the General Secretary of the German Balneological Society, Geheimer Sanitätsrath Dr. [illegible], Thermalbad, Aix-la-Chapelle.

[illegible] MEDICAL JOURNAL November 7th, page [illegible]

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL INFIRMARY, GLASGOW.

INJURIES AND EFFECTS OF A RIFLE SHOT AT CLOSE QUARTERS.

(By R. RAMSEY, M.B., Ch.B., Senior Resident Surgeon).

THE following account of the effects of a rifle shot at close quarters is of interest as showing the character of the wounds of the different tissues caused by a bullet travelling at a high rate of speed. The value of this record is enhanced by the position of the men in line, as if for experiment, and the different kinds of tissue involved.

Fig. 1. Bullet that first pierced the right [illegible] perforated the right and the left buttock, got out the back [illegible]

History of the patient.—Three men were [illegible] the Gordon Highlanders, stationed at Maryhill, were [illegible] to the Royal Infirmary, Glasgow, on January 28th, 1903, with [illegible] caused by the discharge of a rifle at close [illegible]. The [illegible] of the wounds pointed to the fact that the [illegible] were [illegible] at the time of the accident. The [illegible] of the usual pattern, except that a support [illegible] was [illegible]. It did not [illegible] and was [illegible] to the [illegible] men [illegible] were [illegible] in a line, where they [illegible] to the [illegible] of the [illegible] was standing [illegible] the [illegible] where [illegible] went off, shooting [illegible] the [illegible] was [illegible] of the gun, then [illegible]

[illegible] and the bullet [illegible] pierced its [illegible] left hand [illegible] the left thigh, [illegible] the wounds on the [illegible] and left thigh were [illegible] and [illegible] [illegible] Macdonald was sitting at a [illegible] and was struck in the [illegible] by a bullet [illegible] a point a little [illegible] and external to the right posterior superior

iliac spine, passed through that prominence, the posterior surface of the upper end of the sacrum, the left posterior superior iliac spine, and emerged at a similar position to the wound of entry. The haemorrhage was profuse, and the track of the bullet had to be laid open and packed. Owing to the nature of the bleeding surface—cancellous bone for the most part—the packing had little effect until the gauze was saturated with a solution of adrenalin chloride 1 in 1,000. The wounds of entry and exit were small and of about the same size. A clean bored track could be seen, and in addition, for about 2 in. on each side, the bone was shattered. The spinal canal was just opened, but there were no symptoms of disturbed innervation, motor or sensory. The bowels and bladder acted normally soon after admission. This patient suffered considerably from shock, as evidenced by his restlessness, feeble pulse, and mental distress. The great loss of blood no doubt contributed much to this condition. Bathgate's wound was the least serious of the three. A piece of the bullet was found in the subcutaneous tissue of his forehead and was readily removed through an incision. This portion was about a sixth of the bullet, and was free from all covering and much altered in shape. He was rendered unconscious, and remained in that condition for about two hours, but, after he once regained consciousness, there was no further mental disturbance.

Progress.—The subsequent history was uneventful. Bathgate was dismissed well on May 23th, nine days after the accident. On June 8th Rioch's injuries were practically healed, though there was a small area of anaesthesia on the front of the left thigh below the bullet marks. MacDonald at the same date had made rapid progress. His wound was healing by granulation, and very little bare bone remained visible. All attempts at suture had resulted in the stitches tearing through.

REMARKS.—Had these injuries occurred in actual warfare it is possible that Rioch and MacDonald could have stumbled on for a short distance, but the injuries to the hands in the

Fig. 2.—MacDonald, shot second; bullet perforated the back from the one posterior superior iliac spine to the other, the track was laid open to arrest haemorrhage.

one case and the loss of blood in the other would very soon have rendered them *hors de combat*, while Bathgate, with the least wound, became at once unconscious. It is curious to note in this connexion that the effect of the unexpected report of the shot startled the men so much that it was difficult to elicit their relative and individual positions at the time of the accident. The wounds, where only soft parts were involved, healed very quickly. There was no scorching or blackening of the skin, no foreign matters such as particles of clothing in the wounds, and the speedy recovery seemed to indicate that the passage of the bullet did not cause sufficient elevation of temperature to produce necrosis of tissue. The only injury to bone in the first case was the punched-out half-circle of the second phalanx of the second left finger. There was no splitting or starring of the rest of the bone. The bony lesions in MacDonald's case, however, were very marked. The two posterior superior iliac spines, in addition to being perforated, were smashed into little fragments. So too the sacrum showed a large amount of comminution for a distance of about 2 in. on each side of the bullet track. When this patient was admitted to the ward, the flow of blood from the wounds of entry and exit was alarmingly free, and, as indirect pressure had no apparent effect, the track of the bullet was laid open in the hope of finding some bleeding vessel. The incision revealed a broad area of torn spongy bone from which the blood welled up continuously, and, as the pressure of iodoform gauze packing was not sufficient to arrest the haemorrhage, it was replaced by gauze saturated with a solution of adrenalin, as above noted, which soon had the desired effect. In the course of three days the iodoform dressings were reapplied. An early attempt, and a later, to suture the wound, were unsuccessful, the stitches being torn out on each occasion, probably by the contractions of the longissimi dorsi muscles. The freedom from nerve disturbances seems remarkable in view of the proximity of the sacral nerves and the concussion of the spinal column. It may be taken as likely that the bullet was broken up in its passage through the pelvic and sacral bones (MacDonald) for the fragment found in Bathgate's forehead, formed only about a sixth of the whole. A search was made in the patients, with the aid of the Roentgen rays, and at the site of the accident, for the rest of the bullet and its casing, without result. In conclusion, I wish to thank Dr. James A. Adams, for permission to publish this report, and to Dr. A. N. McGregor for the photographs illustrating this article.

At the end of August MacDonald reported himself; the back was healed, and his only trouble was slight pain on stooping.

Fig. 3. Bathgate, shot third; a portion of the bullet was found under the skin of the forehead.

EAST LONDON HOSPITAL FOR CHILDREN.

EMPYEMA IN AN INFANT OF FOUR MONTHS: SIMPLE INCISION: RECOVERY.

(By T. L. LLEWELLYN, M.D., B.S., Resident Medical Officer.)

THE patient, an infant of four months, was admitted into hospital on August 26th, 1903, under the care of Dr. Coutts:

Previous History.—Until August 12th the child was in good health on that day a severe cough developed, and the child was thought to be suffering from bronchitis. This did not clear up, and of late the child had had considerable difficulty in breathing.

State on Admission.—The child, a well nourished baby, was suffering from severe dyspnoea; the respirations were shallow, grunting, and of the rate of 72 a minute. There was marked cyanosis. The pulse was very feeble, and could be counted only with great difficulty. The heart's apex beat could not be seen or felt, but by percussion was found to be situated in the nipple line of the fourth left interspace. The right side of the chest, which did not move at all on respiration, was completely dull, and the breath sounds were weak, distant, and tubular. The breathing was exaggerated over the left side of the chest.

Progress.—An hour after admission the child's condition became worse, and aspiration was performed in the ninth right intercostal space; 5 oz. of pus were drawn off, and the relief of the patient was immediate. The parents refused to give their consent for an operation

[illegible] The dyspnoea [illegible] [illegible] grew a [illegible].

[illegible]

[illegible]

[illegible] ema drained well, and there was no [illegible].

[illegible] The child was discharged [illegible] good health.

REMARKS.

Cases of empyema at the age of 4 months are very uncommon, and recovery must be very rare.

The prognosis in cases of empyemata in young infants is extremely grave, and this gravity depends largely on the shock which operative interference produces. In the present case the extreme youth of the patient, together with the nature of the infection and the delay before the operation was performed, all seemed to point to an inevitably fatal issue. That this fatal issue was avoided I attribute solely to performance of the simple operation above described. The advantages of this method over rib resection, of which this case seems to me a striking example, are, on the one hand, the ease and quickness with which the operation can be done, and, on the other hand, the avoidance of all the risks of chloroform and of rib necrosis. The disadvantage generally urged against this method, namely, that of inadequate drainage, was in no way experienced.

ST. MARY'S HOSPITAL, MANCHESTER.

CASE OF CAESAREAN SECTION.

[Under the care of D. LLOYD ROBERTS, M.D.St.And., F.R.C.P.Lond., from notes taken by HAROLD CLIFFORD, M.B.Lond., House-Surgeon.]

H. H., a married woman, aged 2[illegible], was admitted to St. Mary's Hospital, June 1st, 1903, when about 8½ months pregnant. She had been pregnant previously seven times. The first three times she went to full time, and on each occasion it was found necessary to perform craniotomy. The next three labours were induced artificially. One of the children was born alive but lived only five days; the others were stillborn. The seventh pregnancy ended with a miscarriage at six months.

Pelvic Measurements.—Internal conjugate, 3¼ in.; external conjugate, 6¼ in.; diagonal, 4 in.; between superior iliac spines, [illegible]; crests of ilium, [illegible] in.

On June [illegible], Caesarean section was performed. A vertical incision was made in the middle line through the abdominal wall, and then in the same direction through the uterus. The child was easily extracted, the placenta being situated high up and towards the back of the uterus. The wound in the uterus was closed by means of interrupted silk sutures passing through the peritoneum and the muscular wall, avoiding the most internal layers of the wall. A few superficial sutures were put in afterwards. The abdominal wound was closed with silkworm-gut sutures passing through its whole thickness.

The patient made an uninterrupted recovery. The baby weighed [illegible], and [illegible] increased in weight.

REMARKS BY DR. LLOYD ROBERTS.—The point of interest [illegible] that the patient had had seven children all born dead but one. The presumption is that all the children were alive *in utero* before labour was induced or [illegible] by craniotomy, though all were born dead except the one [illegible]. Hitherto the patient would not allow Caesarean section to be performed; in this last pregnancy, however, she elected to have the operation done. [illegible] in the operation, the uterus was not drawn through the abdominal wound until it had been opened and emptied of its contents. At this stage of the operation it is advisable to bring the uterus out through the abdominal wound, in order to promote better contraction by digital manipulation, and thus prevent haemorrhage; it also permits of more accurate suturing of the uterine wound.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.

J. C. THOROWGOOD, M.D., in the Chair.

Bognor, November 20th, 1903.

Case.—Dr. MORRIS (Bognor) showed a case of tumour of the liver in a boy aged 11, which was generally thought to be syphilitic.

Therapeutics of Lung Diseases.—Sir HUGH BEEVOR read a paper entitled Some Ancient and some Modern Therapeutics in Lung Disease. He introduced the subject by pointing out the advances made in the treatment of pulmonary affections since 1837, when Stokes wrote his well-known work. Although Stokes's knowledge of physical signs had hardly been improved on even in our own day, his treatment showed little advance on the methods of his predecessors. Stokes's treatment of acute and chronic bronchitis was compared with modern methods, and it was pointed out that, although his antiphlogistic system of treating the acute variety was obsolete, nearly all his therapeutics were still employed in the chronic stage. The giving up of systems was probably the greatest advance in the treatment. The therapeutics were now based on broad considerations of physiology and pathology. Venesection, so largely advocated by Stokes, was still recognized as a powerful aid in the treatment of bronchitis and emphysema when the right heart was overloaded. The methods of external applications in modern custom appeared to be merely a less energetic continuation of the old applications. In reference to the treatment of asthma, the drugs recommended by Watson in 1848 were still their mainstays. Salter in introducing arsenic and Thorowgood in bringing forward caffeine placed two valuable remedies in the hands of practitioners. Asthma had always been the happy hunting-ground of quacks, and one enterprising American was at the present time making a fortune out of a nostrum containing cocaine and sodium nitrite. The modern method of intertracheal injections was a very uncertain one, as most frequently the fluid injected tended to distribute itself in one lung only. A modern method of treating lung disease was by oxygen. The best indication for its use was cyanosis, but it was a waste of time if such cyanosis was due to a blocking of the bronchi with sputum. Its greatest use was in pneumonia; but even then it should not be given too undiluted, as 80 per cent. of it was said to diminish movements of respiration. Treatment by fumes of creosote acted mainly by the coughing it produced rather than by its antiseptic virtue. Contrasting the treatment of pneumonia in the time of Stokes with that of to-day, instead of the use of depressants like antimony, aconite, and veratrin, practitioners now employed stimulants such as alcohol, ether, ammonia, strychnine, and digitalis. The antipneumococcus serum was on its trial, but the published statistics did not help much in forming a conclusion as to its efficacy. The relative value of ice-bags and poultices was discussed, to the advantage of the former, and reference was made to the occasional use of saline injections.

Papers.—Dr. GOING (Littlehampton) read a paper on a case of meningitis supposed to be tuberculous which showed unusual symptoms and finally recovered.—Mr. RAWLINSON (Bognor) read a paper on a case of infantile scurvy.

STAFFORDSHIRE BRANCH.

F. MILNES BLUMER, President, in the Chair.

Stoke-on-Trent, Thursday, November [illegible]th, 1903.

Patients.—Dr. HIND showed a case of paralysis of the serratus magnus in a man, the result of an injury.—Dr. HUGHES showed (1) a schoolboy, aged 13, with cerebral tumour. The patient complained of inability to write properly, staggering gait, nausea, and progressive deafness, with occipital headache for nine months. He had much the aspect of a boy suffering from adenoids. There was marked inco-ordination in movement, but no loss of muscular power

in all four limbs. The deep reflexes were all exaggerated. There was complete deafness in the left ear, partial in the right. An auroscopic examination gave negative results. The tuning-fork placed on the centre of the forehead was heard equally well in both ears. There was marked paresis of the left side of the face. The retinae were pale, the discs pale; there was slight cupping of the left. No swelling or haziness. Both visual fields were contracted. Cutaneous sensation was normal. Sensations of smell and taste were blunted. On being told to stand with the feet together and the eyes closed the patient at once fell. On percussion a tender area was found in the left occipital region. The naso-pharynx was blocked by soft growth or growths. Diagnosis was made of sarcomatous tumour growing from the bones at the base of the skull, involving in the first instance the cerebellum, now growing forwards involving the auditory and the facial nerves of the left side.—Dr. PETGRAVE JOHNSON showed: (1) A case of lupus erythematosus; (2) a case of hypertrophic pulmonary osteo-arthropathy in a boy aged 10 years.—Dr. LIST showed radiographs of a case of osteo-arthropathy and of the limbs of a cripple.—The PRESIDENT, Dr. DEANESLY, and Dr. MCALDOWIE discussed the cases.

Appendicitis.—Mr. W. D. SPANTON read a paper on some practical points associated with appendicitis, which will be published.—Mr. R. ALCOCK read notes of a case of hydatid cyst simulating appendicitis.—The PRESIDENT, Drs. DEANESLY, HIND, HATTON, STUART, BYRNE, HARTILL, and SPANTON took part in the discussion.

Specimens.—Dr. HUNT showed the following: (1) Gall stone removed from the ileum for obstruction; (2) fractured astragalus which had to be excised; (3) lower end of femur with sequestrum; (4) myoma of the uterus.—Dr. HADLEY showed the head of a taenia mediocanellata.—Mr. W. D. SPANTON showed (1) sarcoma and myoma of the uterus. A married lady, aged 64, living in Derbyshire, had pelvic pains and obstructive symptoms with colic three or four years before he saw her, with Dr. Boswell, in March, 1903. The uterus felt normal on vaginal examination, but a large, movable tumour and several nodular outgrowths were found on abdominal examination. She had lost flesh, and was unable to move about without pain. There was an occasional, but not constant, rise of temperature. An operation was performed on April 18th, 1903. A large, hard tumour was found attached to the fundus uteri by a sloughing pedicle which had become twisted, and to which a large mass of omentum was firmly adherent. The tumour was cut away and the stump sutured over. Six subperitoneal myomata were also enucleated and removed, each wound being sutured separately. The uterine cavity was not opened. The large tumour was very dense, dark-coloured on section, and consisted of fibro-myomatous tissue undergoing sarcomatous changes, the sarcoma cells being infiltrated between the fibrous and myomatous tissue. The separate smaller growths were myomata undergoing calcareous degeneration. The patient made a good recovery but had recently developed a swelling in the neighbourhood of the omental stump which looked very much like secondary sarcoma. The case afforded a good instance of secondary changes in simple growths, and some of the dangers incident to them. (2) Papilloma and cystic ovaries: A married lady, aged 42, previously married to a syphilitic husband, no family, noticed some abdominal enlargement with pelvic pain about twelve months before she was seen in November, 1902. On examination a cystic tumour was found on each side of the pelvis, reaching to the umbilicus. The uterus was free, but a mass was felt on either side. Operation disclosed two ovarian cystic papillomatous tumours. These were removed and ligatured in the ordinary way. Sickness caused some trouble, but the patient eventually made a good recovery, and was now nearly (eighteen months after) in perfect health. One interesting feature about the tumours consisted of the outgrowth of papilloma through the cyst wall, forming an outside as well as intracystic tumour. (3) Myoma of uterus: A single lady, aged 39, April 2nd, 1093. The uterus was removed with soft oedematous myoma, leaving cervix. This lady first consulted Mr. Spanton on account of retention of urine in June, 1899. She had had three attacks since Christmas, 1898, each one being accompanied by rise of temperature to 103°. Uterine myoma was found to be the cause, and in August, 1900, both ovaries and appendages were excised. The catamenia continued, but the tumour diminished until the end of 1902, when the latter began to increase quickly and caused much discomfort. On April 3rd, 1903, abdominal hysterectomy was performed, and the patient made a quick recovery and was now perfectly well. The tumour was a fibromyoma. (4) Multiple myoma of uterus: A single lady, aged 51, first seen fifteen years before for uterine tumour, which was then recorded as multiple subperitoneal myomata. Mr. Spanton had seen her at intervals since. She suffered much inconvenience from sickness, pain, and menorrhagia, and afterwards from pressure symptoms. Five years ago a fresh outgrowth appeared, and it was evidently telling on her general health. Early this year it was found that there had been considerable increase in size, a new mass having appeared deep in the pelvis, the main uterine tumour reaching up to the ribs. Operation had been repeatedly advised, but owing chiefly to domestic reasons was as often deferred; but this year it was quite impossible to go on, as she was unable to move about, and going fast down hill. In April last Mr. Spanton opened the abdomen and found the main mass so incorporated with the abdominal and pelvic contents that removal was impossible. He therefore took away the large mass (shown) which was the one pressing upwards and also three smaller tumours, hoping this might afford some relief. She rallied well, but on the third day died rather suddenly from syncope with all the symptoms of pulmonary clot. The operation ought to have been done when it was first advised some years ago before the heart began to fail. The growths were myomatous, with a large proportion of fibrous element. (5) A very dense fibrous polypus removed from the uterine cervix of a single lady on account of obstruction, and in whom there also existed an epithelioma of the rectum. (6) Seventy-seven biliary calculi removed from the gall bladder of a married woman, 44 years of age, who had her first attack of biliary colic sixteen years before and repeated attacks since. The gall bladder was drained and she made a rapid recovery.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.

FRANK BUZZARD, M.D., F.R.C.S., President, in the Chair.

Northampton, December 10th, 1903.

President's Address.—The PRESIDENT gave an interesting address on the science and art of medicine, dwelling on the importance of the personal element in present-day practice, but foreseeing a happy future when medicine would be practised as an art which had a true basis of scientific fact.

The Treatment of Haemorrhoids. Mr. G. H. PERCIVAL read a paper on the treatment of haemorrhoids, external and internal. For external he relied chiefly on hot applications and anodynes. Internal he had found chiefly due to pregnancy, constipation, and associated with stricture of the rectum. Where the haemorrhage was severe he usually operated by the method of ligature.

Anaesthetics.—Dr. MCCARDIE (Anaesthetist, General Hospital, Birmingham) gave a demonstration on anaesthetics, especially ethyl chloride, which he said was cheaper than somnoform and quite as efficacious, the average duration of anaesthesia being 71.3 sec. He also showed several instruments and appliances, especially a form of chloroform inhaler in which the dose of the vapour could be regulated.

Treatment of Ascites.—Dr. CLEMENT DUKES (Rugby) read a paper on the treatment of some forms of ascites (especially those due to chronic peritonitis) by stitching the great omentum to the parietal peritoneum, thus establishing an anastomosis between the systemic and portal circulations.

Choroidal Sarcoma.—Mr. HARRIES JONES read notes and showed specimens of two cases of choroidal sarcoma which had occurred at Northampton Hospital, and drew attention to the differential diagnosis (1) in the early stage from retinal detachment due to other causes, (2) in the acute stage from acute glaucoma.

INTERNATIONAL CONGRESS ON PHYSICAL CULTURE. Preparations for the second meeting of the International Congress on Physical Culture which is to be held at Geneva in 1904, are now in active progress. The following is the provisional programme: 1. Facts and figures as to the actual condition of physical culture in different countries. 2. Scientific bases of physical culture. 3. The physical education of childhood and youth in the school: organization, programme, methods, time devoted to training, teaching, etc. 4. Teaching in universities: training of professors and masters, organization, etc. 5. Physical culture of the working classes: schools for adults, people's holidays, competitions. 6. School hygiene. 7. Unification of gymnastic terminology.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF MANCHESTER.

W. Milligan, M.D., President, in the Chair.

Tuesday, December 15th, 1903.

Accidental Haemorrhage in Pregnant Women.

Dr. Briggs opened a discussion on the treatment of severe cases of accidental haemorrhage, and claimed that there was a prima-facie case for reconsideration of what the treatment should be. By a detailed review of the literature of the past, including the essay of Rigby and the statistics of Sir James Simpson, he showed the high mortality which occurred in cases of placenta praevia when podalic version was practised by famous obstetricians. Better results had followed the adoption of gentler and more precise methods, such as external version and the use of the bag of Champetier de Ribes, as less rapid and more natural delivery was effected. It was doubtful, however, whether in the treatment of severe accidental haemorrhage equal improvement had occurred. The literature of this subject was also brought under review, and in conclusion Dr. Briggs drew attention to the Rotunda Hospital method of treatment by pressure effected by binder, vaginal tampon, and perineal bandage, which seemed to be effectual in that most difficult class of case in which with accidental haemorrhage the os uteri was closed, no pains present, and the patient suffering from shock, but still possessing a chance of recovery. In the hands of Smyly and his followers the treatment of this alarming complication had been of a more encouraging character than formerly, and he thought that the method, which he had himself tried in his own practice, should be adopted generally.

Dr. Walls considered the term "accidental haemorrhage" a misnomer, and in some measure responsible for unsatisfactory treatment. The cases should be regarded as influenced by some toxaemia of pregnancy, for the patients almost invariably expressed themselves as "never having been well" during pregnancy; and in many cases the urine was loaded with albumen. He considered that many cases might be suspected beforehand and treated on general lines appropriate to the toxaemia, taking the urine as guide, and improving the action of bowels, kidneys, and skin. The three great indications which guided his practice were to improve the patient's condition by quiet, rest, food, stimulants, and warmth, and encourage the uterus to overcome its inertia by friction, binder, and vaginal plug or Champetier de Ribes's bag. In the absence of proper uterine action he condemned the practice of rupturing the membranes; the second indication was to deliver the patient if improvement ceased to follow the preliminary treatment; and, thirdly, to guard especially against *post-partum* inertia and haemorrhage.

Dr. Sinclair thought true cases of accidental haemorrhage were extremely rare, not more than 1 in 10,000, but when it did occur energetic interference and treatment were demanded, and *accouchement force* should be adopted.

Dr. Fothergill explained the *rationale* of the Dublin treatment of accidental haemorrhage. A healthy uterus could not be distended to more than a certain extent; therefore, if escape of blood from the cervix could be prevented by vaginal plugging, the tension within the uterus would soon equal the blood pressure, and, according to the Dublin school, bleeding would cease. In a diseased uterus, however, distension could go much further, and practically all the blood in the body might empty into it. In really serious cases, perhaps, abdominal section gave the patient the best chance.

Dr. P. R. Cooper thought that cases of severe accidental haemorrhage were not so rare but that they might occur in the practice of any practitioner. He considered the essential guide to correct treatment was the condition of the uterine muscle. When this was active, or responded to stimulation, expediting delivery by the ordinary methods would probably answer best. When, however, the uterus was completely inactive and irresponsive, forcible extraction was absolutely contraindicated. In these cases a Porro's operation probably gave the patient the best if not the only chance of recovery.

Mr. Stevenson Bisson had had no experience of accidental haemorrhage, but in *post partum* haemorrhage he believed too much attention was directed to measures which could only act upon the uterus itself. He urged the more accurate consideration of the anatomy of the vessels supplying the blood lost, and the advantages of compression of the aorta to control the arterial and the elevation of the lower half of the body and legs so as to affect the venous supply. The essential thing was to keep the respiratory and cardiac centres supplied, and so to obviate the tendency to death.

Further observations were made by Drs. Helme, Martin, and Tytler; and Dr. Briggs replied.

Glasgow Obstetrical and Gynaecological Society.—A meeting was held on December 16th, 1903, Dr. J. Nigel Stark, President, in the chair, and was given up mainly to pathology.—Dr. Carstairs Douglas showed two pairs of kidneys from patients who had died of eclampsia. In one case the kidneys were small and cirrhotic, weighing 2 oz. In the other case the kidneys weighed 4 oz.—Dr. Jardine showed (1) a modification of Braun's hook, with a cutting edge on the concave side; (2) a ruptured uterus from a case in which decapitation was done: there was a tear extending up the left side of the uterus, and another across the lower uterine segment. Dr. Kelly showed: (1) A large soft myoma. (2) a dermoid cyst of the left ovary; (3) a myomatous uterus with an ovarian cyst on the right side. Dr. Balfour Marshall showed a uterus with carcinoma of the body.—Dr. A. McLennan showed microscopic sections from a case of endometritis glandularis hypertrophica.—Dr. A. Louise McIlroy showed microscopic sections.—Dr. Russel showed (for Dr. Edgar) a dermoid cyst of the ovary removed from a patient six months pregnant. Dr. Taylor showed a seven months female fetus in which the left half of the diaphragm was absent. Hernia of the greater part of the abdominal contents had taken place into the left side of the thorax. The heart was pushed over to the right. Dr. G. Scott MacGregor read a paper on the management of anterior and posterior displacements of the uterus. The paper was discussed by Drs. Kelly, McLennan, Marshall, and Russel. Dr. McLennan read notes of a case of sarcoma of the uterus. Hysterectomy was performed. The uterus was much enlarged. When split open it was found to contain a tumour involving the whole posterior wall, and almost rupturing into Douglas's pouch. Dr. McLennan attributed the enlargement of the uterus to the poison secreted by the tumour acting on the myometrium. Dr. J. Lindsay showed a double monster (thoracopagus), and read a clinical note by Dr. Edgar. All the serous cavities in the two fetuses were completely separate, except the pericardium, which contained two hearts. The organs were normal, except that the liver was composite. Dr. Lindsay gave a description of the circulatory arrangement.

Bradford Medico-Chirurgical Society.—At a meeting on December 15th, Dr. H. Angus, President, in the chair, Dr. Jason Wood read notes on a case of hydatid cyst simulating enlarged prostate, and causing complete retention of urine.

The patient was a man aged 78, who came to hospital with complete inability to void his urine. It was impossible to obtain any history, as he was almost completely deaf and was of deficient intelligence. His friends knew nothing of what he had been doing for some time prior to his entering the hospital. The bladder was distended up to the umbilicus, and was relieved by a soft catheter, which at first passed easily, but after a few days only a silver instrument could be used successfully. Examination per rectum showed a large fluctuating swelling in front of the rectum. It was smooth and rounded and no nodules were felt on it. The finger could not reach the bladder above it. On deep pressure above the pubes the lower edge of the swelling could be reached. A diagnosis of hypertrophied prostate (cystic) was made, and it was decided to operate on it by the suprapubic method. The patient was a healthy looking man, and showed no general signs of disease. The urine was clear acid specific gravity 1010, and contained no albumen at first; on the day of the operation however, a trace of albumen was found. On August 4th suprapubic cystotomy was performed. On opening the bladder the swelling was at once seen covered by the mucous membrane of the bladder. The vertical opening was in front of the swelling and led down to its projection into the bladder cavity. On incising the bladder membrane it was found to strip readily from the swelling and the latter was seen to be covered by a dense pearly-white capsule. It was not found practicable to enucleate the tumour owing to the limitations of the wound in the bladder and the depth to which it extended. The opening of the tumour was then enlarged and the contents of the case made evident by the escape of a large quantity of hydatid daughter cysts. As much as possible of these cysts was removed from the interior of the cavity packed with gauze the edges of which were brought out through a second hole in the skin through the perineum. The peritoneum easily was accidentally opened during the removal of the contents of the cyst. The bladder wall was sewn up with interrupted catgut sutures, the suprapubic wound partly sewn up and a large drain inserted. Patient did well for twelve days after the operation except that he early developed sub-acute bronchitis, but on the twelfth day after the operation the bowels had been moved. There was no escape of urine through the perineal wound, no signs of peritonitis, the wounds looked healthy. The

temperature was normal but the pulse was quick—110. He took nourishment well. On the thirteenth day he became lethargic and refused his food, gradually became comatose, and died on the fifteenth day after the operation, apparently from uraemia. Necropsy showed the cyst in the recto-vesical space; the peritoneal cavity was shut off by adhesions, and the bladder wound was healed by soft tissue. The kidneys were cystic, and the total kidney weight was 5 oz. The ureters were dilated. There were numerous small cysts in the liver but no sign of hydatid disease elsewhere. The prostate was natural in appearance and size, and in close relation to the cyst wall. The other organs were fairly healthy.

Drs. FARROW, SLATER, GOYDER, HALL, and ANGUS made remarks on the case; and Dr. WOOD replied. Dr. GOYDER gave some details of a case in which there were peculiar phenomena attending menstruation, and narrated its sequel.

The patient was a single woman, aged 32, who had some tenderness and pain in the iliac region, together with pain and fullness about the left ovary, as made out by vaginal examination. As the menstrual period came on there was *trismus*, the tongue became thickly coated, the external genitals swelled, and there was sometimes retention of urine, requiring the use of the catheter. There was soreness of the fauces, which passed into nausea and vomiting as the period advanced. She had also occasional hysterical manifestations.

These phenomena attended menstruation for ten years more or less constantly. Operative treatment was refused. As time went on she developed symptoms of haemophilia. When 42 years of age she developed ascites, and after removal of a quantity of bloodstained fluid by tapping, a tumour the size of an orange was felt in the left iliac region. She died in six months after repeated tappings, apparently from malignant disease of the peritoneum.—Dr. EURICH read notes of a series of cases of epilepsy, in which "fits" were not the prominent symptom. In some of them there were acute maniacal attacks, with homicidal tendencies. In one case lapses of consciousness occurred, in which the patient wandered away and did not remember where he had been. The importance of these cases from a medico-legal point of view was pointed out in their association with the plea of irresponsibility on account of epileptiform seizures by persons who had committed criminal acts. Dr. F. W. EURICH gave a demonstration of microscopical specimens, and Mr. C. M. ALTHORP showed a uterus removed for procidentia. Mr. B. H. SLATER showed (1) a patient whose tongue had been completely removed for epithelioma six months previously; (2) a case of secondary suture of the ulnar nerve; (3) sarcoma of thyroid gland from a child 2½ years old.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on December 17th, 1903, Mr. RUSHTON PARKER, B.S., F.R.C.S., President, in the chair, Mr. THELWALL THOMAS exhibited receptacles for dressings, designed by him to facilitate the carrying out of aseptic surgery in private practice. The boxes were rectangular, the lid placed underneath, and let in in such a way that when the box rested on a flattened surface dust could not enter; the sides had perforated "hit and miss" slides. They fitted into a large steam sterilizer, and each box held the necessary dressings, bandages, sheets of sterilizable waterproof material covered with thick muslin, and two specially-designed gowns. A dark macintosh cloth case was fitted over the box for transportation. The PRESIDENT thought the boxes shown were by far the most convenient and suitable ones he had seen.—Dr. GORDON GULLAN showed a lad, aged 18 years, suffering from morbus coeruleus. There were signs of enlargement of the right heart, with obstruction of the pulmonary artery, and probably a patent ductus arteriosus. He was able to follow his trade as a watchmaker. Dr. Gullan also reported two cases of cretinism in youths of 20, one patient being shown. Both were typical cases. One was improving under thyroid; the other had shown no improvement.—Dr. HUBERT ARMSTRONG referred to the risk of sudden death in congenital heart disease, and mentioned two cases in his own experience, one a baby and the other a boy of 12.—Mr. NIMMO WALKER showed a woman, aged 49, with double optic atrophy and double third nerve paralysis.

There was a history of "inflammation of the bowels" two years previously, with vomiting and headache, and the lesions were probably due to a basal syphilitic meningitis implicating the affected nerves in the interpeduncular space and the chiasma. Some power was returning under mercurial inunction and potassium iodide internally.

Mr. Walker said it was a rare case, and had only occurred once in 9,000 patients seen at St. Paul's Eye and Ear Hospital in the present year.—Mr. GEORGE G. HAMILTON read a paper on rapid paraplegia, and reported a case. In commenting on the condition, he suggested that discussion might usefully turn upon the following conditions—traumatic neurasthenia, meningitis, spinal haemorrhage, Landry's paralysis, peripheral nerves, and toxic palsies. In this particular case the necropsy revealed a haemorrhagic myelitis. Dr. E. E. GLYNN had examined the spinal cord and cerebro-spinal fluid and had found no evidence of bacterial infection. Dr. W. B. WARRINGTON said many cases of so-called acute myelitis were really due to softening of the cord following syphilitic arterial disease, but the differential diagnosis was difficult. He suggested that a syphilitic history and spread of the symptoms from one limb to the other with the Brown-Sequard features might help, and quoted two cases in which this symptom-complex was present. Primary haemorrhage into the cord was extremely rare. It was important to recognize a syphilitic origin as a guide to treatment. Drs. T. R. GLYNN, RAW, CARTER, and BARR spoke, and Mr. HAMILTON replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY. At a meeting on December 3rd, 1903, the PRESIDENT, Mr. G. H. WEST JONES, in the chair, Dr. A. E. NAISH showed a case of haemophilia with haemorrhage under the right iliac fossa.

The patient was a boy, aged 17. The ankles, knees, and elbows had been frequently affected since the age of 5. The left knee was the subject of extensive osteo-arthritic changes, with enlargement of the bones and fixation in a flexed position. A large haemorrhagic effusion had appeared suddenly in the right iliac fossa, accompanied by pain in the corresponding hip-joint. This mass had now mostly disappeared, leaving the psoas muscle firm and thickened. The patient was the eldest of a family of four boys, three of whom suffered from the disease. One brother had died from a minute cut on the lip. His mother suffered from haemophilia of a mild type.

—Dr. A. J. HALL read a paper entitled Some Remarks on Sudden Death, illustrated by pathological specimens. He referred to the different conditions under which sudden death, apart from violence, poison, drowning, etc., occurred, and the difficulty of framing a definition which would cover such cases. Even if the term "unexpected death" were used, it left out many cases. Specimens were shown illustrating various causes of sudden death—for example, pulmonary embolism, ruptured heart, ruptured aneurysms, meningeal haemorrhage from cerebral aneurysm, syphilitic fibrosis of heart, pontine haemorrhage, etc. Reference was also made to sudden death in which nothing was found *post mortem* to account for it; pneumonia in the aged apparently of a mild type was also mentioned as dangerous, also alcoholism in women and particularly the taking of strong purgatives by old people.—The following cases were shown: Mr. S. SNELL: (1) A boy, a file-cutter, aged 15, with optic atrophy from lead poisoning; (2) a woman with monocular proptosis and v. Graefe's sign; no enlargement of thyroid or tachycardia; (3) and (4) two sisters, one with coloboma of iris and choroid in each eye, the other in whom one eye only was affected; reference was made to a boy at present under observation with double microphthalmos, coloboma of the iris, and choroid in one eye, and remains of pupillary membrane in each eye; (5) well-marked case of diabetic retinitis in a middle-aged woman with diabetes of long duration; (6) a woman with marked albuminuric retinitis; (7) an instance of extreme convergent strabismus in a man; (8) trachoma in an alien. Dr. G. WILKINSON: Two cases of syphilitic lesions of the auditory meatus.—Dr. A. J. HALL: (1) Exophthalmic goître; (2) tertiary syphilitic eruption of the legs; (3) favus; (4) congenital syphilide.—Specimens of tumours of the uterus were shown by Mr. R. FAVELL, namely: A submucous fibroid, a submucous fibroid undergoing necrotic change, and sarcoma.

CLOSING OF A MEDICAL SCHOOL IN JAPAN.—According to the *Sei-I-Kwai Medical Journal*, the proprietors of the Saisei Gakusha, a well-known medical school which has existed for twenty-seven years, have closed both it and the Somon Byoin, the hospital attached to it. The reason assigned for this decisive step is the refusal of the Education Department to give permission to the school to call itself a college. Recently the law schools in Tokyo transformed themselves into colleges, "in order," says our contemporary, "to impress the public mind, which is notoriously impressionable by words," and the Saisei Gakusha wished to do likewise. The result of the rejection of its application to the Government is that no fewer than 3,000 students, 600 of whom have been in regular attendance, find their future prospects seriously affected by the closure of the school, and are clamouring against the authorities. The booksellers, lodging-house keepers, pawnbrokers, and others who have hitherto lived on the students are also agitating for a reconsideration of the decision.

REVIEWS

DIGESTIVE DISORDERS.

DR. ARCHISON ROBERTSON'S *Contributions to the Physiology of Digestion and to Dietetics* is a collection of papers published by him during the last few years in various periodicals. They appear here without modification and with no attempt to cover the whole of the ground. His ten papers, in fact, deal almost exclusively with the digestion of sugars and starch and the relation of the various digestive juices to these processes. It was well worth while to remind us of the enormous increase that has taken place in the consumption of cane sugar during the last two hundred years. According to M'Culloch, the amount consumed in Great Britain in 1700 was only 10,000 tons, which in 1891 it reached the total of 1,352,676 tons, which is equivalent to an annual consumption of 80 lb. per head. The amount consumed has increased nearly three times since 1864, and, although the author says nothing about it, this increase affords a highly probable explanation of the deterioration of the teeth and the proneness to digestive troubles of the present day. It is believed that cane sugar cannot be absorbed until it is inverted into glucose. This process of inversion is apparently effected by the hydrochloric acid of the gastric juice, healthy gastric juice and a solution of hydrochloric acid of the same strength giving practically the same results. Experiments with the gastric juice from a case of chronic gastritis showed the inverting power to be diminished and when a solution of cane sugar was poured into the stomach through a tube after the organ had been thoroughly washed out, it caused pain, heartburn, flatulence, and vomiting; on the other hand a solution of equal strength of invert sugar produced no discomfort. These experiments explain why cane sugar so often causes stomach trouble, and also indicate the desirability in gastritis of substituting for it invert sugar of which honey constitutes an agreeable and convenient form. It is probably on account of the high percentage of invert sugar contained in it that treacle has a good reputation in the nursery, and toffee is regarded as one of the most wholesome forms of confectionery. The study of the digestion of starch confirms the general belief that it goes on until the stomach contents contain free acid, but this will not happen so long as there are proteids present for the hydrochloric acid to attack, therefore starch is better digested when accompanied by a certain amount of proteid food. His careful experiments upon the digestibility of various infants' foods in the main confirm what was previously known. The salivary digestion of bread is only seriously interfered with when it is eaten in combination with acids, such as acid wines, particularly sherry and claret, so that the combination of sherry and a biscuit seems to be unphysiological; tea, which is also acid, has an inhibitory action, and so to some extent, though no explanation is forthcoming, has milk. The amount of saliva and its activity in various diseases and conditions have been studied by Dr. Robertson, and (but this is contrary to our own experience) he finds that in gastro-intestinal disorders there is frequently a decrease in the power of ptyalin; quite rarely the ferment may be almost absent or at least not active, but in other cases it may be above the average. A similar decrease was noted in nervous diseases, Addison's disease, and in renal diseases, while in diabetes it was found to be very active. He does not recommend the use of any of the preparations of malt, taka-diastase, or salivary gland substance as a means of remedying the deficiency, but prefers to give a sialagogue of which there are many; for example, columba, gentian ginger horseradish, and pepper, act powerfully in this way. These are the chief points brought out in Dr. Robertson's essays. We hope he will continue his work which is carefully planned and leads to practical conclusions.

In his lectures upon dilatation, motor insufficiency and atony of the stomach, Dr. FRIEDRICH CRAEMER has published an excellent, detailed and practical study of the subject. He follows the usual practice of dividing dilatation into two forms: first, that due to mechanical obstruction and second, that dependent upon atony of the muscular wall. With respect to the frequency of the two forms he is inclined to agree with those who do not believe the atonic form to be the more frequent, a conclusion in which he is probably wrong but which results from the method of diagnosis he exclusively employs. He defines dilatation of the stomach as "enlargement of the organ with or without obstruction of the outlet combined with motor insufficiency." This is a very good definition, for as he very truly points out mere enlargement such as may occur in copious eaters does not constitute disease so long as the stomach empties itself in due course, and even a certain amount of obstruction may be so compensated by muscular hypertrophy as to give rise to no symptoms at all. His test of motor insufficiency is whether the stomach contains traces of food when examined by the tube a sufficient time after a meal. For this purpose he employs a mixed meal, consisting of meat, vegetables, and bread, and not the simple test breakfast of Ewald, and in this we believe that he is quite right. He divides motor insufficiency into two degrees: in the first class he would put those cases in which the fasting stomach when examined in the morning contains the remains of food, and in the second those in which food may be found six hours after a meal. The quantity of residue present affords a good measure of the extent of the motor insufficiency, but a healthy stomach should in both conditions be entirely free from even microscopical traces of food. We may add, however, that there are many persons who suffer from motor insufficiency of a degree which would not be always revealed by this test, especially if they are kept quiet and at rest during the observation. Their stomachs fail in muscular power whenever they are fatigued or exhausted, but under ordinary circumstances are able to empty themselves. Such stomachs reveal their weakness by the ease with which they are distended by carbonic acid gas, and probably cannot be recognized by any other means. In considering the causes of obstruction he states that masses of cherry-stones, figs, and similar foreign bodies, which sometimes cause obstruction do so in consequence of relative weakness of the muscular wall, for children are able to swallow such things without suffering ill-effects. He says that German country boys always swallow the stones with the cherries, and if that is not the case in England we at least see them eat green apples with impunity. Dr. Craemer is not a believer in movable kidney as a cause of obstruction of the pylorus, but is much more disposed to regard it as merely secondary, for Landau has proved on physical grounds that the kidney cannot exercise such pressure upon the intestine as could give rise to dilatation of the stomach. The conditions leading to gastric atony are in the first rank, attacks of infectious disease, chlorosis, abuse of tobacco, tea, and coffee, diseases of the brain and spinal cord, and protracted dyspepsia; he overlooks the highly important influence of exhausion and debility from over-work, excessive fatigue, loss of sleep, or lactation in persons of feeble organization, especially where there is hereditary nervous predisposition. On the basis of the definition already given the author is less concerned to determine enlargement of the stomach than whether it can empty itself in due time, and therefore he attaches little importance to the means used for estimating its size by distending it with carbonic acid gas, air, or water, or by diaphany or by the x rays; he is in accordance with most stomach specialists in recognizing that the chemical examination of the stomach contents, however interesting, does not give results in proportion to the amount of time devoted to it; the existence of cancer cannot be affirmed or denied from the presence or absence of free hydrochloric acid, nor can any definite conclusions be drawn from the percentage of hydrochloric acid in the stomach contents. The value of the absence of rennet ferment as an indication of atrophy of the gastric mucous membrane (Boas) has yet to be determined, but the method is one which present no difficulty, and is worth attention. Is it a fact, as maintained by the author, that pyrosis or heartburn, which is common enough in ordinary dyspepsia, is always absent in true hyperacidity due to excessive secretion of gastric juice? He believes it to be always caused by fermentation, and recommends granuled carbonate as a remedy. The formation of gas by fermentation he holds to be an unfailing indication of motor insufficiency and food retention, but is it possible in a given case to determine whether the flatulence present is the result of fermentation or is merely due to the swallowing

Contributions to the Physiology of Digestion and to Dietetics. By W. A. ARCHISON ROBERTSON, M.D. Edin., F.C.P.I., F.R.S.E. Edinburgh: E. & S. Livingstone. 1903. Pp. 211. 6s. net.

Motor Insufficiency of the Stomach and Diseases of the Muscles. Von Dr. FRIEDRICH CRAEMER. Jena: Gustav Fischer. Medical Diagnosis and Methods of Examination of the Stomach. By CARL GERHARDT, Dr. Phil. and Med. Translated by Dr. ALBERT KNOPF. Munich: J. F. Lehmann. Pp. 111. M.

of air? He reminds us that Cohnheim has said that the presence of infusoria (amoebae) in the stomach contents is an indubitable sign of cancer, but quotes a case in opposition to this dictum, where both sarcinae and amoebae were found, yet nine years later the patient returned with his stomach in a perfectly healthy condition. The diminution in the quantity of urine marks the accumulation of gastric contents in a dilated stomach, and when the stomach empties itself or is emptied the quantity of urine increases at once. In a lecture devoted to tetany as a consequence of dilatation of the stomach, he lays stress upon the great gravity and frequent fatality of this complication. He believes it to be due chiefly to intoxication or blood poisoning from the absorption of poisonous substances formed in the stomach, but he does not deny that loss of water and reflex irritation play a part in its causation. A good example of the last element is seen in the case in which a fatal attack followed percussing the epigastrium, and he connects this with the intoxication theory by comparing it to the convulsions following disturbance in strychnine poisoning. He thinks the high temperature (106.7° F.) sometimes attained can only be explained as the result of toxin poisoning, and he quotes Bouveret's experiments to show that an alcoholic extract of the stomach contents causes tetanic phenomena in animals. In treating this condition it must not be forgotten that it has occasionally followed washing out the stomach, so that although this seems a rational proceeding, it is better to give large saline enemata, or to infuse normal salt solution under the skin, while, to control the convulsions, chloral is given by the rectum, or morphine subcutaneously. Dr. Craemer thinks that a favourable prognosis may always be given in simple atonic dilatation, with which we may agree if the statement is only taken to imply that such cases do not usually die if properly treated, and may in the long run get better; but many of them present the greatest practical difficulties in their management, and relapse over and over again. We join with him in protesting against the frequency with which such cases are dismissed with a diagnosis of simple nervous dyspepsia without the physical condition of the stomach having been recognized, or even looked for. The section on treatment is very clear and precise, and his conclusions on diet are those with which we are generally familiar, but we do not remember to have seen before the statement that either vermouth, or orange-juice or lemon-juice in small quantities is capable of seriously interfering with stomach digestion; grape-juice also is said to be often the cause of severe pains and great development of stomach gas. An excessive amount of importance is attached to washing out the stomach in the morning; the evening presents many advantages, for if the stomach is washed out before going to bed the patient will not be disturbed by indigestion and the mucous membrane of the stomach will remain for seven or eight hours free from the presence of irritating gastric contents. The disadvantage is that we diminish the time in which the stomach can digest and remove food which might have been absorbed, but this objection is not serious if, as we hold, washing should only be used when it is evident that the retention of gastric contents is irritating the stomach, and should not be continued daily for long periods. Intragastric electricity is spoken of favourably, but the author admits that his experience of it is limited; he disapproves of massage, but does not seem to appreciate that its real value is as a means of promoting improvement in general nutrition. Dr. Krecke in an appendix gives an excellent account of the surgical treatment of diseases of the stomach. He points out that such operations, even in recent years and with improved technique, are still serious; the causes of death are chiefly exhaustion, infection, pneumonia, and circulus vitiosus, and he discusses the means by which they may be prevented. He is of opinion that operations when undertaken in cases of primary atony of the stomach are not satisfactory. In cases of dilatation due to non-malignant obstruction operation is of course the only means of effecting a cure, and in this condition, where the obstruction is not due to a removable foreign body, such as masses of hair, shellac, or cherry-stones, the operation of gastro-enterostomy is generally selected, but in malignant obstruction pylorectomy is on the whole to be preferred as it at least affords a chance of a complete cure and after all is not really more dangerous. Statistics show that the average mortality from gastro-enterostomy for malignant obstruction is 38 per cent. and from pylorectomy 28 per cent; this is, no doubt, in part due to the cases of pylorectomy having been selected, while those of gastro-enterestomy have been done in more desperate conditions. But the ultimate results compare favourably, the duration of life after gastro-enterostomy being from five to nine and a-half months, while after pylorectomy it is from sixteen to seventeen months, some cases having lived as long as five or even eight years; he concludes, therefore, that resection is the operation of the future in cases of malignant obstruction. He believes that up to the present time pylorectomy for cancer of the stomach has not had a fair chance, and will not until it comes to be as commonly performed as the operation for appendicitis!

Dr. GEORGE HERSCHELL'S *Manual of Intragastric Technique*[3] may be described as a catalogue of instruments, with directions and recommendations for their use and selection. The burden of its teaching is that we want a great deal of stomach apparatus, and if we want it good we must get it from America, except where the transatlantic pattern has been modified and improved by the author. We confess to feeling some surprise, after reading the condemnation of English stomach tubes as capable of severely injuring the stomach because their eyes are not properly bevelled, to find, in the description of the use of the gyromele of Professor Turck of Chicago, that

> Turck has demonstrated by experiments with animals that the risk of injuring the stomach in the absence of any lesion is extremely small, and that any slight injury will quickly heal. It was found to be almost impossible with a rotating wire brush to produce injuries which could be found on killing the animal a few hours afterwards.

The ingenious instrument in question is a gyrating sponge driven by a mechanism similar to that of a dentist's drill. As to its use we are told that

> Professor Turck himself, in many such cases, dips the sponge of the gyromele in a solution of soft soap and water, and vigorously cleans up the whole of the interior of the stomach.

This is not quite an original invention, for Professor Ewald tells us that Rumsaeus in 1659 invented a "stomach brush" to remove mucus from the stomach—an instrument which was apparently popular among the beer-drinking companies of his day. We wonder whether the gyromele is likely to be much used in this country, or can Teutonic stomachs only bear such treatment? The value of the electrical treatment of stomach diseases is still unsettled. Without wishing to be too conservative, we may quote the author's own words that "it is the fate of all new methods of treatment to have claims made for them which will not stand the test of scientific investigation." It is certain that these methods do not grow more in favour in Germany than they do with us, and that only in the United States are they much employed. Although Dr. Herschell's apparatus seems to us unnecessarily elaborated, there are many useful suggestions and hints to be obtained by reading his book. But he is not quite fair to many ordinary instruments and methods; for example, he condemns the phloroglucin-vanillin test for free hydrochloric acid because lactic acid, oxalic acid, or tartaric acid will decompose sodium chloride with the evolution of HCl; but the only proper way to use the test is with an Ewald's test breakfast, in which there is no sodium chloride or oxalic or tartaric acid, so that, although the theoretical objection may be strong, properly used the test is quite trustworthy. Nor does the presence of lactic acid fallaciously favour the occurrence of the hydrochloric reaction, for in cases of an acidity where no hydrochloric acid reaction occurs, lactic acid is frequently present. Again, Uffelmann's test for lactic acid (the name is wrongly spelt Uffelman) is condemned because alcohol, sugar, and acid phosphates give similar reactions, but this test, too, should be only used with an Ewald's test breakfast in which these substances are not present. In the directions for testing for the presence of the milk-coagulating ferment, the author omits to direct the filtered stomach contents to be neutralized. In future editions the following slips might be corrected: p. 15, "pastel," which means a crayon for "pastille," a lozenge; on p. 19, "dilation" for dilatation; on p. 21, "Frerich" for Frerichs; and on p. 42, "enema" for enema-syringe.

As Dr. EINHORN'S work on *Diseases of the Stomach*[4] has now reached the dignity of a third edition, it may be said to have established for itself a place beyond the reach of criticism, but it is probably better known in the United States than here. The arrangement of the book is systematic; after a

[3] *Manual of Intragastric Technique.* By George Herschell, M.D. Lond. London: Henry J. Glaisher. 1903. (Demy 8vo, pp. 132.)

[4] *Diseases of the Stomach.* A Textbook for Practitioners and Students. By Max Einhorn, M.D. Third edition. London: Baillière, Tindall, and Cox. 1903. (Demy 8vo, pp. 559, 74 illustrations. 14s.)

chapter devoted to anatomy and physiology, there is a very adequate account of modern methods of examination; the third chapter is on diet, and the fourth on local treatment by such means as lavage, douches, sprays, and electricity. Then follow chapters upon organic and functional diseases of the stomach, and finally one upon the condition of the stomach in diseases of other organs. The last is too short and sketchy, for the subject is one of some importance, and deserves greater attention than it has perhaps ever received from any writer. The systematic plan of dealing with stomach diseases has the disadvantage of too rarely coinciding with clinical experience, as various conditions are so frequently associated in one patient: for example, many if not most cases of neurosis of the stomach are complicated by inflammatory lesions; atony is frequently associated with gastritis, ulcer with hyperchlorhydria, and so on; so that the rules for differential diagnosis laid down in a work like this are too schematic, and require a good deal of modification when we come to the bedside. The clinical descriptions are, moreover, by no means the strong part of the book, which is at its best in the description of modern methods of stomach examination and local treatment. As is well known, Dr. Einhorn is one of the strongest advocates for the treatment of stomach diseases by intragastric electricity, but he lays quite as much stress upon the use of intragastric sprays, particularly a spray of silver nitrate. We note with some surprise that he makes use of the gastrodiaphane as his ordinary means for determining the size of the stomach, although the fallacies attending its use were long ago pointed out, and it has, so far as we know, been given up by every other authority; moreover, it cannot be said that it is a simple and convenient means of ascertaining the size of the stomach: he also attaches a significance to "splashing" which is not accorded to it in this country or in Germany. The diet recommended is too German in its character, it needs modification to suit British tastes, and in some cases the statements should be modified in accordance with altered facts: the rectal enema recommended is far too large to be well borne by patients in this country. 10 gr. to 15 gr. of calomel is an unnecessarily large dose to recommend in simple acute gastritis, and it seems to us not rational to pass at once from a diet of bread and hot water and gruel to French bread, butter, and oysters, nor can we understand any experienced physician maintaining that butter is always easily borne by the stomach. Thus in Professor Ewald's bill of fare for chronic gastric catarrh only 20 grams, or two-thirds of an ounce, of butter is allowed in twenty-four hours, whereas in the author's bill of fare he gives 65 grams, or 3½ oz., and this in the first week of treatment. He recommends that the stomach should be washed out in the morning, without giving any reason why this time should be preferred, although the great advantage of letting the patient go through the night with a clean stomach seems so strong as to outweigh every other argument. He omits even to mention the Boas-Oppler bacillus in cancer of the stomach, while in the diagnosis of cancer he does not lay sufficient stress upon rapid emaciation as a means of distinguishing it from other stomach diseases. We doubt, too, whether he is sufficiently clear respecting the value of recognizing food residue in the fasting stomach as evidence of pyloric obstruction, and he is certainly insufficiently definite in advocating surgical intervention as soon as the diagnosis of pyloric obstruction has been made, but talks about "palliative treatment." We note unpardonable "scarlet fever" for "scarlatina," "pot" for cherry stones, "Foster" for Foster Moreau, and small Hospital.

THE PANCREAS

We are already [illegible] to the publication in English of the observations of Opie and Mayo Robson on diseases of the pancreas; but, despite the merits of Opie, Case, and others, so far as we are aware no work presents so satisfactory an exposition of the subject as that which has been written by Dr. Thursfield. [illegible] has become of great interest by the elucidation of disorders of the gland, and though there is [illegible] different opinions as to the possibility of establishing a well-defined symptom-complex of [illegible] pancreatitis, pancreatic [illegible] and fat necrosis, and [illegible] the pancreas, it is essential that a solid foundation should be laid in the way of collecting reliable evidence, and placing it before the reader in as compact a form as possible. One of the problems discussed is the determination of the causes which produce fat necrosis. Balser, who first gave a full account of the occurrence of fat necrosis, considered that it was the primary disorder, and that pancreatic haemorrhage and pancreatitis were secondary changes. This theory gave place to that so strongly advocated by Fitz, which is that fat necrosis and the other associated changes found in the pancreas are due to an invasion of the organ by bacteria. A number of cases have, however, been recorded in which there was no evidence of bacterial invasion; further, there is no constancy in the type of organism found in such cases where organisms have been found, and there is considerable doubt, backed by the opinions of Pasteur and Fränkel, whether bacteria are capable of splitting fats. Nor is there much support for Rolleston's view that fat necrosis is a neurotrophic change. On the whole, the more probable view seems to be that first enunciated by Langerhans and elaborated by Hildebrand, that all the changes can be traced to the action of the pancreatic juice upon the tissues, solution of the protoplasm of cells being effected by trypsin. In this way would be explained, first, the occurrence of haemorrhages from solution of vessel walls, and secondly the production of fat necrosis, a phenomenon due to the action of the lipolytic ferment, traces of which have been demonstrated by Flexner and others in the neighbourhood of areas of fat necrosis. Truhart favours the view that in all cases of fat necrosis some obstruction to the escape of the pancreatic secretion is responsible for its dissemination into the tissues of the pancreas, so that the intra-acinar structures are exposed to its fermentative action: angiosclerosis, so common in people of mature years or subjects of alcoholism is of secondary but weighty importance in determining the particular areas of susceptibility due to faulty blood supply. It is of importance to remember Truhart's warning, that fat necrosis may be present and yet be invisible to the naked eye, and he insists on the importance of applying Benda's new method in which by means of a solution of copper acetate the smallest areas of necrosis may be rendered visible. The reader will find an exhaustive analysis of cases, so complete indeed that it would be almost unnecessary to refer to the original descriptions. Hale White has recently commented on the current tendency to diagnose "chronic pancreatitis" as a cause of certain obscure affections of the upper abdominal regions. Truhart could only find records of 7 such cases in a series of 207, which he has analysed, notwithstanding the fact that he was quite aware of the risk of mistaking chronic pancreatitis for carcinoma of the pancreas (*Cf.* Case 61 described by Winkler). Another matter of considerable importance is whether the discovery of fat necrosis necessarily entails a grave prognosis. Truhart has been able to collect over ten cases in which the diagnosis was made, and yet an immediately fatal result did not take place, indeed in some cases such as those of Hahn, Finney, Halsted, Welch, Wiesinger, and others, life was prolonged for considerable periods.

If the second volume of this work, promised for publication in the near future, proves as exhaustive as the first, the medical profession will be much indebted to Dr. Truhart, who has shown very great industry. We do not doubt that his labours, undertaken in addition to the duties of a general practitioner form a fitting tribute to the memory of his Alma Mater, the University of Dorpat.

GEOGRAPHICAL PATHOLOGY

In his *Geography of Disease* Dr. Frank Clemow deals with a subject in the treatment of which he has [illegible] very many competitors. Hirsch, Lombard, and Davidson almost complete the list. The works of all these writers, to which may be added the studies of limited areas by Haviland in England and Dantec abroad, have to a greater or less extent become classics, and there is every reason to expect that Dr. Clemow's book will attain the same position. His natural bent towards the subject is shown by the several studies on epidemiology which have caused him to be already well known as a writer, and it is probably thanks to them that he was selected by the general editor and the managers of the Cambridge Geographical Series to carry out this part of the work of that undertaking. As a general [illegible] of work Dr. Clemow has

[illegible] Pathology. By Frank Clemow, M.R.C.S. Eng., D.P.H. Camb. Cambridge: University Press. 1903. Demy 8vo, pp. [illegible] with [illegible]

divided his subject into three books, of which the first deals with general medical and surgical diseases in 534 pages: the second treats in some 35 pages of diseases of the skin in general, but chiefly of craw-craw, oriental sore, tropical phagedaena, pinta, tinea imbricata, verruga Peruviana, and yaws; the last gives an account of some 35 or more animal parasites recognized to be the cause of disease, whether in the tropics or elsewhere. The work is limited to some 600 pages, and as the information is conveyed in a readable and scholarly style throughout, this fact may ensure for it greater popularity than that attained by its more ponderous predecessors. This result is more likely to be secured if steps are taken to provide new editions at frequent intervals. Research nowadays is being conducted with such energy that a work dealing with the known distribution of disease is in the nature of things likely to get quickly out of date in certain particulars. This is a fact which, in spite of the great position accorded to the monumental work of Hirsch in particular, should prevent any allied treatise being regarded as a true classic, for most of the information which is really intrinsic to the subject needs constant revision. Looking over the books that have been written on the subject, it is impossible for the thought not to occur that the writers have to some extent forgotten the titles of their works. Immense research and great space are accorded to historical surveys of epidemics, to their clinical features, and to statistics of the relative prevalence of disease at various times and in various places, while little information is given as to the physical features of the countries in which the diseases prevail, or to the climatic, meteorological, and economic conditions under which the inhabitants who suffer from them live. These, however, it seems to us, should be given the very first place. For it is not to be forgotten that the true interest of precise knowledge of the past and hypothetical or present known distribution of any given disease lies chiefly in the assistance which such information may afford to those who are endeavouring to ascertain what natural circumstances seem favourable to the persistence, propagation, and distribution of any organism known or supposed to be its cause. The study, in short, of geographical pathology, belongs rather to the department of preventive medicine than to that of the clinical physician. To the latter, in fact, books on geographical pathology may prove a stumbling-block, for diseases have a way of concealing themselves from those who do not look for them, and not a little harm probably has been done by men overlooking certain diseases simply because they have gathered from their reading that they are not known in the localities in which they reside. In a future edition, therefore, we should be glad to find that Dr. Clemow had divided up his subject not into diseases but into countries, dealing at length with the points to which we have referred, and giving only a brief description of the diseases which have been observed there, and of the history of their prevalence. In such case, as research extends or local observation becomes more accurate, it would be much easier to keep the work up to date without structural alteration.

NOTES ON BOOKS.

ANNUALS.

AMONG annual books of reference there is none of which we find ourselves making use so frequently as *Who's Who*[1] and *Whitaker's Almanack*[2]; very seldom does it happen that reference is made in vain, and still more rarely does the information which these two annuals contain prove to be erroneous. Mr. Joseph Whitaker, F.S.A., who edits the *Almanack*, has sought to meet the demand for information with regard to our fiscal system by adding, in the edition for 1904, articles on the British share of the world's commerce, on statistics of trade for fifty years, on bullion, and on food imports. We also find a note upon the Motor Car Act 1903, and particulars as to motor car licences. A new article of a type somewhat different from any that have previously appeared in the *Almanack* is that entitled a "Political History of the World"; it contains a brief record of the chief events in the British Empire and foreign countries, and will, we doubt not, prove very useful, for few things are more difficult to verify than facts of recent history.

Who's Who now consists solely of biographies, and as these are for the most part corrected by the persons mentioned, the information may be accepted as quite authentic, while the cast of the editor's net is so wide that very few fish of any size can have escaped it. The volume has grown so much in bulk that the plan now adopted of issuing in a separate volume, under the title of *Who's Who Year Book*, the tables which used to occupy the earlier pages of the volume itself is probably justified. The tables have been expanded and include lists of members of both Houses of Parliament, Government officials, principal newspapers and periodicals of learned and artistic societies, of steamship lines and university professors. There is also a list of clubs which might be improved by the addition of the telegraphic address, and a long list of peculiarly pronounced proper names, which might be very much shortened without loss.

The editor of *Whitaker's Peerage*,[3] a directory of titled persons, laments that the principal portion of the book, which is a directory of the peerage, baronetage, knightage, etc., has grown by a further twenty-eight pages, "in consequence of the enormous flow of new creations during the past two years." The index to residences has therefore been curtailed: it might without any great loss be abolished altogether. The volume is useful for reference, and its moderate price places it within the reach of every one.

The *Knowledge Diary and Scientific Handbook*[4] for 1904 is a desk diary for persons interested in science, and especially in astronomy; it is, in fact, perhaps too much given up to this science to make it useful to workers in other subjects.

The *Amateur Gardener's Diary and Dictionary*[5] is designed for the use of people who take a real interest in their gardens. We believe that their number is increasing, and that the tendency is one which deserves to be encouraged. We therefore wish well to this diary, which contains an immense amount of useful information on general principles and on the special cultivation of particular plants.

We have received the new and revised edition for 1904 of *Herbert Fry's Royal Guide to the London Charities*.[6] This, the fortieth edition, is edited by Mr. JOHN LANE. It is, as the preface states, a guide to the charities of London. We are told that the ill-effects of the South African war which led to a shrinkage of contributions to charities, though still traceable, are now disappearing. The revision has been made with the assistance of the secretaries of the charities, and the volume is one which medical practitioners in London will often find very convenient.

The well-known *Students' Guide to Medical Diagnosis*,[7] by DRS. SAMUEL and SOLEAU FENWICK, has reached a ninth edition, but it has not been sufficiently revised and modernized to meet the requirements of the present day. For example, the statement about the morbid anatomy of the nervous system in tabes dorsalis requires alteration and expansion; as Senator and others have shown, it is a mistake to apply nitric acid *and* heat in testing for albumen in the urine: Widal's test is referred to, and spelt sometimes with a W and sometimes with a V. Such illustrations as those on pp. 117, 135, and 137 are out of place, the latter two are relief representations and do not well represent the appearance of a microscopic section of the kidney. The authors did well to retain the original model of the book, for the plan adopted of mentioning the cardinal symptoms of a disease, then stating the diagnosis, and finally completing the picture by a fuller discussion of clinical details is excellent. The volume is no mere compilation of extracts from different works on chemical pathology and bacteriology. It is a useful guide to a student at the beginning of his practical medical work, but it needs a somewhat larger infusion of modern ideas to ensure it a success in the future as great as it has enjoyed in the past.

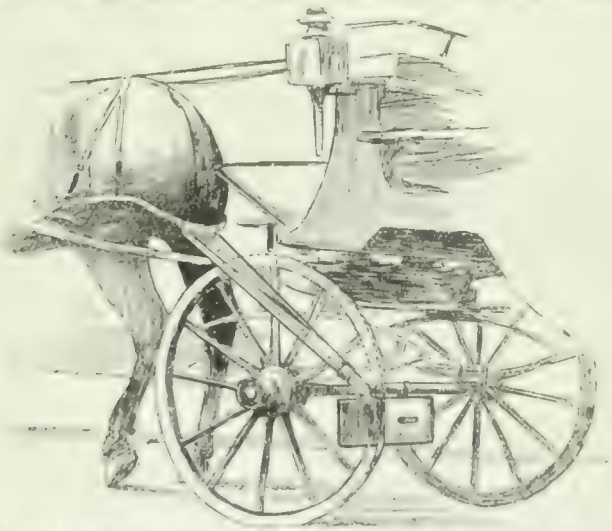
Major G. H. FINK, I.M.S. (retired), sends us a pamphlet which he has written on *Fungi, Protophyta, and Protozoa* as causative of malarial and other diseases [illegible] in tropical countries. He discusses parasitic diseases [illegible] which indicates a genuinely scientific interest in the subject, and the interesting descriptions of his medical experiences in India and Afghanistan prove that he was a very keen observer.

[1] London: Adam and Charles Black. 1s. 6d.
[2] London: Whitaker and Co. 1s. and 2s. 6d.
[3] London: Whitaker and Co. [illegible]
[4] London: *Knowledge* Office.
[5] London: [illegible]
[6] *The Students' Guide to Medical Diagnosis*. By [illegible] Fenwick, M.D., F.R.C.P., and Soleau Fenwick, M.D., B.S., and M.R.C.P. Ninth edition. London: J. and A. Churchill. 1904. Crown 8vo, pp. [illegible], with illustrations. 6s.

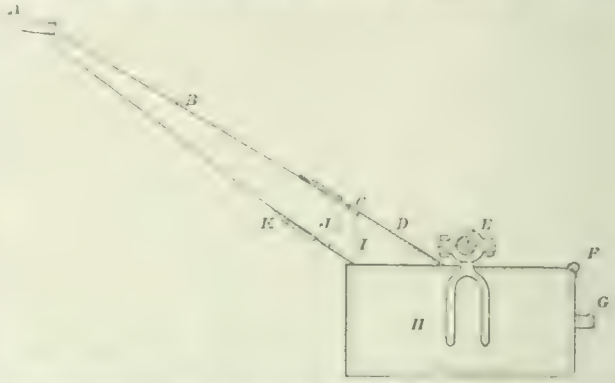
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

APPLIANCES.

Horsedung in the Streets.—The disgusting condition into which the frequented streets of London and other large cities get owing to the accumulation of horsedung on their surface has often attracted attention. In wet weather the streets are slimy with filth from this cause, and in dry weather the air of the streets is everywhere filled with the odour of pulverized dung droppings. These are swept up more or less frequently in proportion to the activity of the sanitary authority, but this attempt to remedy the nuisance is never completely effectual. The only complete remedy which has been suggested is the abolition of the horse and its replacement by the motor. Until this drastic cure has been carried out the question arises whether something might not be done, and Dr. Columbariensis, of Scarborough, has sent us an account of an invention which he has made; he calls it an automatic dung trap for carriage horses. It consists of a suitable reservoir or dung trap fixed to some convenient part of the vehicle,



as, for instance, to the axle of the front wheel, and of a shoot or collector of some flexible waterproof material, attached at one end to the breech-strap or its equivalent, and at the other end to an outlet tube extending from the top of the receiver in the direction of the animal's breech. The receiver or dung trap contains an open-topped drawer or removable lining, which can be withdrawn and replaced by its handle at the back of the receiver. The shoot or collector has an expanded trough-like shape near the breech, just large enough to catch the dung, but narrows down to the diameter of the inlet tube. The inlet tube is pivoted to the top of the receiver in such a manner that the shoot will always adjust itself so as to extend in a straight line from the breech strap, notwithstanding the variations in the heights of different horses. Dr. Columbariensis claims that whether the animal is standing or running its dung and its urine in the case of a mare is caught by the shoot or collector, and travels by gravity into the removable drawer, which can be emptied and cleaned periodically. With regard to the urine of a mare animal, if desired, a funnel-shaped receptacle might, he suggests, be arranged in the proper position to catch the urine and convey it by means of a rubber tube into the dung trap or separate receptacle. There is a valve at the inlet tubes of the receiver which allows the dung and urine to pass freely into the receiver, but prevents itself coming out. The shoot and receiver are permanently fastened together and to the carriage. When a horse is put to the carriage, the shoot is attached by means of clasps or straps and buckles. With the exception of the receiver which is placed quite out of the way, everything is neat and flexible, and no part of it touches the horse, therefore there is nothing, Dr. Columbariensis considers, to frighten the most timid animal. The only objection that he can see is its unusual or novel appearance. It is not very obtrusive or ugly, and he thinks that, considering its great utility, people will soon get used to its appearance as they have to the splashboard or any other necessary part of a carriage. He is convinced that if this apparatus were universally adopted, the streets of towns would become almost as clean and as wholesome as a garden walk, disease and mortality would diminish and the comforts of town life would be considerably increased. He does not enter into the economical question for that will at once suggest itself to municipal authorities, the enormous expense of scavenging the streets being necessitated mainly by horsedung.



Sectional view of dung trap and collector. H is the receiver or dung trap secured to the front axle (K) of the vehicle, and containing a perforated, open-topped drawer or removable lining, which can be withdrawn and replaced by its handle (G) through a suitable door at the back of the receiver, a catch (F) retaining it in place. The shoot or collector comprises the waterproof shoot (B), attached at one end to the breech strap (A) and at the other end to a telescopic and laterally adjustable inlet tube (C), extending from the top of H in the direction of the horse's breech. The inlet tube comprises the member (D) fixed to the receiver (H) and the spring telescopic member (E) pivoted within D so as to be laterally adjustable in a vertical direction. The spring telescopic member (E) permits extension of the shoot under stress and causes its return again to its normal length when the stress is relieved. The dotted line (I) represents a light flap valve hung so as to normally close the tube and prevent the escape of smell from the receiver, but swinging freely to allow the dung to pass by it.

Brain Elevator and Retractor.—Mr. Donald Armour, M.B., F.R.C.S. (London), writes: The instrument shown in the accompanying illustration is designed for use in the Krause-Hartley operation for removal of the Gasserian ganglion, in which the temporal lobe with its dural covering is elevated and retracted from the basis cranii. Its present form has

been attained after use in practice and it possesses the following advantages over the ordinary flat malleable copper retractor: (1) It is so shaped that it is comfortably held by an assistant's hand resting on the patient's head and does not obscure the field of operation; (2) it is deeply, but not sharply, serrated, and with an indirect bulbous extremity to prevent its sliding off the smooth and wet surface of the dura; (3) it is highly polished to act as a reflector to a head lamp worn by the operator. It was originally made for me by Mr. Farrow (Coxeter and Son) from my design, but can now only be obtained from Messrs. H. and W. Davis, 52, Grafton Street, W.C.

Messrs. Mayer and Meltzer's Gynæcological Operating Table.—Dr. Herbert R. Spencer, London, W., writes: In the British Medical Journal of August 6th, 1904, is figured a gynæcological operating table exhibited at the Annual Museums by Messrs. Mayer and Meltzer and described as being made "to the design of Professor Spencer." I should have been stated that the table is a modification of Professor Montprofit's table, a model well known to Messrs. Mayer and Meltzer, through whom I procured a Montprofit table when I was at University College Hospital until the table allotted to me arrived. Messrs. Mayer and Meltzer's table differs from Professor Montprofit's by having a horizontal frame on which the top can rest by having two arms to fix the top in a more convenient position for raising and lowering the top, and in being more simply made; it is, however, not so complete in particulars. As I have no wish to claim any credit connected with a surgical instrument, I have requested Messrs. Mayer and Meltzer to describe the table as a modification of Montprofit's, and not as made to my design. I was unaware till to-day that Messrs. Mayer and Meltzer had published a figure or description of the table.

British Medical Association.

PUBLIC HEALTH ADMINISTRATION IN ENGLAND.

MEMORANDUM ON THE RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

A CONFERENCE between the Medico-Political and the Public Health Committees of the British Medical Association was held on December 3rd, 1903, under the presidency of Mr. Andrew Clark, Chairman of Council. The conference considered matters with regard to public health administration and security of tenure of medical officers of health referred to it by the Council, and adjourned until January 14th, 1904. By desire of the conference the following memorandum which was placed before it is published for the information of members.

Memorandum by the Editor of the BRITISH MEDICAL JOURNAL.

The following Memorandum, submitted for the consideration of the Medico-Political Committee, consists of two parts: the first part (A) is a mere statement of facts, with a quotation giving Sir John Simon's opinion on certain points; the second part (B) contains some considerations which it is hoped may be of use to the Committee in coming to a decision as to the course which it may think fit to recommend the Association to adopt:

A.

ENGLAND.

The Local Government Board in England is, in theory, a Committee of the Privy Council, and consists of

The President of the Board.
The Lord President of the Council.
The Secretaries of State.
The Lord Privy Seal.
The Chancellor of the Exchequer.

This Board does not meet, and the persons responsible to Parliament are

The President primarily, also
The Parliamentary Secretary.

The staff of the office comprises—

(1) A Permanent Secretary, five Assistant Secretaries, and clerks of various grades.
(2) A Legal Adviser, a Parliamentary Agent, and a Legal Assistant.
(3) An Architect and three Assistant Architects.
(4) General Inspectors and Assistant General Inspectors.
(5) Medical Inspectors for Poor-law purposes (two).
(6) Inspectors of Poor-law Schools (two) and Inspectors of boarded-out children (three).
(7) The Audit Department.
(8) The Engineering Department.
(9) The Medical Department.
(10) The Vaccine Lymph Department.
(11) The Alkali Department.

And certain other officials appointed for special purposes.

The Registrar-General for England and Wales reports to the President of the Local Government Board, and may, therefore, be considered to be dependent on the Local Government Board, though the office of Registrar-General existed (1838) before the Board was created (1871).

SCOTLAND.

The Local Government Board in Scotland consists of

The Secretary for Scotland (President).
The Under-Secretary for Scotland.
The Solicitor-General for Scotland.
A Vice-President.
A Legal Member.
A Medical Member.

The Board employs

A Secretary.
Clerks.
Superintendents of Poor and Inspectors under the Public Health Act.
A Medical Officer under the same Act.
A Medical Inspector who also superintends the Vaccine Institution.

The General Registry of Births, Deaths, and Marriages is a department of the General Register House, Edinburgh, and reports to the Secretary for Scotland.

IRELAND.

The Local Government Board for Ireland consists of

The Chief Secretary (President).
A Vice-President.
Three Commissioners, namely,
(1) The Under-Secretary for Ireland.
(2) A Lay Commissioner.
(3) A Medical Commissioner.

The Board employs

A Secretary.
Clerks.
Inspectors.
Medical Inspectors.
Engineering Inspectors.
Auditors.
A Legal Adviser and Solicitors.

The Board of Public Works for Ireland appears to discharge some of the functions of the Architectural Department of the Local Government Board in England.

The General Registrar for Ireland reports to the Lord Lieutenant:

HOME OFFICE.

The Factory Department consists of

A Chief Inspector.
A Deputy Chief Inspector.
Superintending Inspectors.
A Medical Inspector.
Inspectors.
Lady Inspectors.

There are also

An Inspector under the Inebriates Act.
Two Inspectors under the Cruelty to Animals Act—one for England and one for Scotland. The Inspector for Ireland reports to the Chief Secretary for Ireland.
Three Inspectors of Anatomy.

History of the Local Government Board in England.

The Local Government Board in England was founded by an Act of 1871 as a consequence of the recommendations of the Royal Sanitary Commission of 1869-71, and its duties were extended by an Act of 1872, and a series of Acts of later date.

Sir John Simon, in his *English Sanitary Institutions*, in relating the history of the Royal Sanitary Commission, and the consequent legislation, makes the following observations:

A departmental Minister, controlling local authorities in respect of their machinery and finance and common municipal services, and in respect of their functions under health law, and Poor-law, and farm law, and of the conservancy of rivers and lands, and having under his direction such proceedings of registration and census, and such making of geodetic and geological surveys as civil administration requires, might no doubt be a sufficiently comprehensive Minister of Local Government, but would not, unless he commanded also the other sorts of central sanitary relation, be, in any satisfactory sense, a Minister of Health. The endeavour, it seems to me, ought to have been to fulfil consistently the two objects: to have aimed at consolidating in an equally full sense all the central responsibilities which relate to public health, and all the central responsibilities which relate to local government, with intention that they should all be in charge of one political department, and under one Chief Minister, with such assistant offices, political and other, and such divisions of service, as would be necessary, and with common rule, as between the component parts of the staff, that, in every affair concerning two or more sections of subject-matter the respective divisions of staff should act in concert. Arrangements for the transaction of central sanitary business could then have been planned with proper regard to scientific affinities, as well as to other exigencies and conveniences of the case. The Commission however, had not been authorized to take any such general view of the multifarious business which was in disorder; and the Government of the day not only showed no inclination to advance beyond the proposals of the Commission, but even as will hereafter appear) fell short of entire adhesion to them. Consolidation, to so limited an extent that it could not be deemed more than provisional, was an alternative with some risks of its own, but opinion prevailed that some such consolidation would be better than to let things remain quite as they were; and Government, though not accepting all that the Commission has recommended, accepted enough to justify the creation of a new department. It decided to propose the discontinuance of the Poor-law Board, and the creation of a department to be called the Local Government Board, in which new Board should be vested, first, all powers and duties of the discontinued Poor-law Board; secondly, certain powers and duties of the Secretary of State relating to local government outside the metropolis, and to the direction of the Inspectors of the Registrar-General, and, thirdly, certain powers and duties of the Privy Council relating to the public health, but not including (as the Commission had proposed) the powers and duties as to diseases of cattle.

These powers and duties were transferred to the Board of Agriculture.

The general effect of the Local Government Act of 1888

which created county councils was decentralization and devolution, but it did not diminish the importance of the work left to the central authority (Local Government Board in England).

B.

The following observations are offered for the consideration of the Committee.

I.

Some of the advocates of a separate Ministry of Health have referred to the defects in the sanitary administration of the navy and army without distinctly asserting that they suggest that the proposed Minister of Health should be responsible for the sanitation of the two military departments. The suggestion seems quite impracticable, but the objections to it need not be set out until the advocates of the new Ministry have expressed themselves distinctly on the point.

II.

The advocates of the change may be invited to state whether they propose that the new Minister shall direct, and be responsible for, the public-health administration of Scotland and Ireland as well as of England. If they do, their proposal seems to be entirely contrary to the whole trend of recent legislation and of public opinion, more especially in Ireland. If they do not, then it follows that their proposal amounts to no more than the creation of a Ministry of Public Health for England to take over part of the duties of the Local Government Board in England.

III.

It is common ground that public health administration suffers from the want of consideration attaching to the Ministry (the Local Government Board) which discharges the duties of a central public health authority.

The President of the Board is not a Secretary of State; he is not, as is the Home Secretary, inevitably a Cabinet Minister; he receives a smaller salary than a Secretary of State, and everybody in his office receives a smaller salary than corresponding officials in the office of a Secretary of State. The reason for this was stated by Mr. Austen Chamberlain, then Financial Secretary of the Treasury, to be that the work in the offices of Secretaries of State "requires higher qualifications than does that of other departments." This was not an *obiter dictum*, but an official statement to the House of Commons. This official view ought, it is submitted, to be combated as strongly as possible, on every suitable occasion; but it may be asked, Is the political consideration attaching to the Ministry at present charged with public health matters likely to be enhanced by splitting it into two parts—a Local Government Office and a Public Health Office?

IV.

If the Local Government Office is to be split into two parts where is the line of cleavage to be found?

It may be assumed that the advocates of a separate Ministry of Health would transfer the medical department (the Medical Inspection subdepartment) to the Ministry of Public Health.

Would they transfer the engineering and architectural department to the new Ministry? If not, then the Local Government Board would still require a medical department.

Is Poor Law administration to remain with the Local Government Board? If so, the Board would require a medical department.

If the Local Government Board were split both resulting Ministries would require a legal department.

The inspectors of the financial department of the Local Government Board ought to constantly borne in mind in considering this matter. For example, the Local Government Board audits the accounts of all local authorities except the county boroughs, and in this way checks robbery and prevents illegal expenditure; local authorities cannot contract loans without its sanction, and it pays half the salary of medical officers of health. It is very largely through this power of the purse that the Local Government Board brings its influence to bear on local authorities, and this duty would therefore have to be transferred to the proposed new Ministry for all expenditure relating to hospitals, water supply, [illegible] works of a sanitary nature.

If the medical department, the engineering and architectural departments, the Poor Law department and therefore, the legal department of the Local Government Board are to be transferred to the new Ministry of Public Health, what is left to the Local Government Board?

V.

The effects of the proposal on local sanitary administration must also be considered. The borough and district councils are the sanitary authorities at present. Is it proposed that these local authorities should be subject to the control of two central offices—the Local Government Board and the Ministry of Public Health—or that new special sanitary authorities should be created in every borough and district? The abolition of Boards of Guardians and the transfer of their powers to other existing local authorities would probably be a reform.

VI.

The factory department of the Home Office is largely concerned with matters affecting the health of workpeople, and to achieve symmetry ought to be transferred to the Ministry responsible for other public health administration. It is, however, very special work, and only touches ordinary public health administration indirectly. In practice there seems to be no clashing of authority, and no serious inconvenience arises from the present arrangement.

VII.

A survival from the past which may be noted in passing is that the Minister ultimately responsible for the administration of the Medical Acts is the Lord President of the Privy Council. Neither he nor the Privy Council secretariat know anything about medical or public health matters, and have no expert department to advise them. In fact, the late Lord President and Vice-President both on a recent occasion paraded their ignorance. The duty should be transferred to the President of the Local Government Board, whose attention is constantly directed to public health matters, and who has a medical department to advise him. There can be little doubt that this view would be endorsed by Sir John Simon, who was Medical Officer to the Privy Council before he was transferred as Medical Officer to the Local Government Board.

VIII.

It may be noted that the Foreign Office, which has to nominate representatives to international sanitary conferences, such as that now (November, 1903) sitting at Paris, and to conduct negotiations with foreign Powers as to sanitary inspection of ships, pratique, quarantine, etc., has no medical department or medical adviser. The precedent of the Colonial Office ought to be followed, and a medical officer appointed to the Foreign Office who could advise on all questions affecting international sanitation. In ordinary times he could be usefully employed in organizing and directing a system of international notification of epidemic diseases.[1]

IX.

It is submitted that when the proposal for a Minister of Public Health comes to be considered in detail it practically amounts to no more than proposing a new title for the President of the Local Government Board. This change of title may be desirable, and might have the effect of bringing into prominence the fact that the main business of the Local Government Board is public health. But it is submitted that the important point to which the Association should give attention is the vicious constitution of the Local Government Board. It is in fact a paper Board, and so far as is known has never once met in the thirty-odd years of its existence. The responsible political officers are the President and Parliamentary Secretary. The President may or may not ask for expert advice. If he asks for it it is probably given in the form of a written minute or memorandum. Unless he chooses to invite it, there is no room for argument, and from his individual decision there is no appeal.

Lord Esher in a note appended to the report of the Royal Commission on the War in South Africa suggested that the principle of the Board of Admiralty should be applied to the War Office. His selection as chairman of the new committee appointed to advise as to the creation of a Board for the administrative business of the War Office appears to indicate that the suggestion is likely to be adopted. The principle might be extended without difficulty to the Local Government Board, as shown in the following comparative table

[1] It is stated that the International Sanitary Conference soon will recommend the establishment of an international sanitary bureau in Paris to receive notifications from the sanitary bureaux

Admiralty.

First Lord	A Cabinet Minister
Senior Naval Lord	An Expert.
Second Naval Lord	An Expert
Third Naval Lord	An Expert
Junior Naval Lord	An Expert
Civil Lord	A Politician
Parliamentary and Financial Secretary ...	A Politician

(Three Politicians and four Experts.)

Local Government Board.

President	A Cabinet Minister.
Vice-President...	A Politician
Medical Member	An Expert.
Legal Member	An Expert
Engineering Member	An Expert
Poor law Member	An Expert
Parliamentary and Financial Secretary	A Politician

(Three Politicians and four Experts.)

The position of an expert officer, who is a member of a Board of which his political chief is President, is very different and far more influential than that of an expert official who may or may not be consulted, and whose views and arguments may be set aside or ignored without any explanation or reason assigned. Every important matter would have to come before the whole Board. The members of the Board would have the right to express their opinions, and to have them recorded, and the President could take no important decision without consulting his Board. If he worked loyally with his Board the opinions he expressed in the Cabinet would have in consequence greater weight with his colleagues.

In Scotland and Ireland the Local Government Boards are really Boards (see A), so that precedents for the reform here outlined exist.

November, 1903.

WINTER HOLIDAYS.

WE have been asked to suggest how and where a medical man could best spend a fortnight's holiday in the month of February. We have referred the question to a contributor of greater leisure and of more experience than the Editor or his colleagues have the opportunity of acquiring in this direction, and the following is the reply we have received:

This is the most difficult task of its kind imaginable; for whereas in summer fifty suggestions might be made, in winter to get to a warm climate seems indispensable, and to reach a warm climate means time spent in travelling. Then we do not know whether the inquirer is a good sailor, and would contemplate a sea voyage in the light of a holiday; whether he is so rich as to be regardless of expense, or so fagged out as to dread the racket of a railway journey; whether he likes scenery or company,—even Hercules might have shied at the task.

We can only suggest what we have done ourselves under the circumstances more than once, and perhaps our suggestion may inspire him with the wish to go and do likewise. It was the end of January last year that we decided to get out of England. We were able to spare just over a fortnight. We had long wished to see Algiers; we took railway and steamer but not hotel tickets from Cook via Dover, Calais, Paris, and Marseilles. As no one in real need of rest would dream of turning their holiday into a time of suffering, we naturally travelled first class, and for those who are fond of railway journeys nothing more delightful can be conceived than sitting in a comfortable carriage, dividing your attention between the scenery and a French novel, if you happen to have found one racy of the soil. The steamers of the Transatlantic Company run in connexion with the Mediterranean express trains, and Algiers is reached some fifty hours after leaving London.

Those who do not know Algiers may be envied their first visit, for a more beautiful and peaceful spot it would be impossible to imagine. On arriving you are landed in the town, but a drive of half an hour takes you into the upper quarter, Mustapha Supérieur, where snow-white villas and hotels peep out of tropical gardens. Perhaps the most ideal hotel is the St. Georges, formerly an old palace. From its marble terrace can be seen the deep blue waters of the Bay, with the Atlas Mountains everlastingly snow-tipped to the right, orange and palm gardens stretching far down to the edge of the shore. The drives and walks are wonderful, and for those who like gaiety there is the town with its cafés, where admirers of the *danse du ventre* may see it danced in all its glory.

Otherwise Algiers is rather an abode of rest and peace, and did he wish for gaiety, we would advise our inquiring colleague to go as fast as he could to Monte Carlo from London by the Mediterranée Sud Express; he would be there in twenty-four hours. Once there he should take up his quarters in a room with balconied windows facing the Casino and the sea. Surely with ten days spent between the Casino with its rooms and theatre, where there are generally in February some of the best Paris companies, varied by excursions, what more could heart of man desire? Or, if he preferred, he could stay at Nice or Cap Martin, for trains run continually between all the Riviera towns. If extreme quiet were desired, San Remo on the Italian Riviera might be selected.

Then there is Constantinople, that wondrous city which to see once is to long to see again and again: it exercises a sort of subtle fascination on any one with a soul. A halt of twenty-four hours may be made at Vienna, which is reached in about thirty hours (travelling via Ostend by the Orient express). There there are delightful shops, theatres, and drives. At Buda-Pesth, about five hours further on, another halt may be made, our friend leaving it probably a merrier, but a poorer, man.

Belgrade is dull, save for the bloody interest recently attached to it, so Constantinople may be the next halting place. From Buda-Pesth to Constantinople is a matter of thirty-six hours. The country is flat and dull, but this only makes the view which greets the traveller looking out of the Péra Palace Hotel windows (ask for a bedroom at the back of the house) all the more wonderful. No one who has ever seen it will forget that sight; the deep blue Bosphorus with ships and sails of every hue from cream to copper; green gardens and clumps of tall cypresses sloping down to the water, while against the deeper blue sky are outlined countless minarets; and then the endless excursions, the glamour of the bazaars, the mysteries of the harem and the palace. A fortnight would be all too little from London to London via Constantinople; but the return journey could be done without stopping, three days and three nights.

The Canary Islands might be suggested, but not in a fortnight. In a month, yes. The traveller could go by sea via Gibraltar to Tangier, coasting along Morocco to the Canary Islands, and bask in the mild and pleasant climate of Grand Canary, Teneriffe, or Madeira, where he would probably find the temperature about 65° F. The return journey might, if he wished, be made through Spain and France, so that he might have the chance of a last fling in Paris.

It is useless to talk of Egypt or the West Indies, for they would take too long; but in three weeks or a month a visit, such as that outlined, might be made to Constantinople, returning via Greece. Fair lines of steamers, for those who do not mind black beetles, run from Constantinople to Piraeus. Athens is reached in about a quarter of an hour. Choose the Hôtel d'Angleterre. Twenty-four hours will perhaps be enough for Athens; the Necropolis contains nearly all the marvels of ancient architecture, and the new town is very dull and uninteresting. The modern Greeks are a degraded looking race, who retain nothing of the grandeur of their ancestors. The railway journey from Athens to Corinth (about three hours) is interesting from beginning to end, passing as it does Eleusis with its famous temple; Megara, the birthplace of Euclid; the Corinth Canal, said to have been commenced by Nero, and only completed ten years ago; while Parnassus, at the foot of which is the famous temple of Delphi, is visible from every point of view. Six hours more bring you to Patras, the port of embarkation for Brindisi. But no one should dream of leaving Greece without seeing Olympia, an excursion which can be done from Patras in twenty-four hours. The marvellous Hermes of Praxiteles alone is worth travelling thousands of miles to see, and the whole of Olympia, the seat of the great Olympic games, teems with relics of the ancient Greeks.

From Patras to Brindisi by steamer, this time accompanied by cockroaches, is a matter of about forty-eight hours, with a break of a few hours at Corfu, an exquisite spot where one might well spend a month. Another forty-eight hours, and you are once more at home, like a giant refreshed, and with a brain clear enough to discover the hiding place of the most cunningly concealed microbes.

INTERNATIONAL CONGRESS ON SCHOOL HYGIENE. The first International Congress on School Hygiene will be held at Nuremberg from April 4th to 9th, 1904. Addresses will be delivered by Professor H. Cohn of Breslau, Professor Axel Johannesen of Christiania, Dr. Legendre of Paris, Professor Hueppe of Prague, and other sanitarians who have given special attention to school hygiene.

FEES TO MEDICAL WITNESSES IN CRIMINAL PROSECUTIONS.

NEW REGULATIONS BY THE HOME SECRETARY.

The new scale of fees to be allowed to prosecutors and witnesses in criminal trials has just been promulgated by the Home Office, to take effect on and after December 28th, 1903. These regulations are preceded by a memorandum which states that the annexed regulations are based on the report made to the Secretary of State by a majority of the members of a Committee specially appointed to consider the subject, of which Sir John Bourgton, Bart., M.P., was chairman. A few words of explanation, it is said appear to be necessary with regard to some of the allowances.

Witnesses Giving Professional Evidence.

There is a considerable increase in the allowance under this head. They are fixed on a higher scale than the rates for ordinary witnesses on the ground, stated by the Committee with reference to the medical profession, that "its members are much more frequently called on to assist criminal justice by evidence drawn from their professional experience than any other class of the community."

Except in one point the fees under this head follow the recommendations of the Committee, with a few alterations in the wording which seemed to be necessary to avoid ambiguities. The one exception is that the fee recommended by the Committee for making a preliminary examination in cases of suspected sexual offences has been omitted. Were this table inserted in a table of fees to witnesses, it would, of course, be payable only where the examination leads to a prosecution in which the medical man who made the examination is a witness. It appears to the Secretary of State to be wrong in principle that a medical man should be placed in the position of earning a fee if he recommends a prosecution, and of receiving nothing if his report negatives the institution of proceedings. In such cases the medical man makes the examination as the adviser to the police or to the prosecutor, and he is entitled to receive an appropriate fee, whether the examination is or is not followed by criminal proceedings.

Expert Witnesses.

It is not intended, the memorandum states, to make any alterations with regard to the allowances to expert witnesses, and no definition of an "expert witness" has been inserted, the term being well known to the courts of law. It is to be borne in mind that the Court has already power (under 7 George IV, cap. 64, Section XXII) to allow reasonable expenses for analyses, microscopical examinations, etc., which may be necessary for the prosecution.

Travelling Allowances.

The question whether a railway fare in excess of third class is to be allowed in any case will mainly depend on what may reasonably be supposed to be the witness's ordinary habit and practice. First-class fare should not be allowed even to a professional witness, unless there is reasonable ground for supposing that he ordinarily travels first class.

Lastly it should be noticed that no distinction is made between attendance at petty sessions and attendance at quarter sessions and assizes. In the former case, however, Regulation 7, which limits the allowances when the attendance involves less than four hours of time, will much more frequently apply.

Limitations as to Fees and Allowances.

[illegible] so much as is of interest to medical witnesses.

1. *Witnesses giving Professional Evidence.*

[illegible] to be allowed to practising members of the legal and medical professions [illegible] attending to give professional evidence, but not to barristers, [illegible] witnesses not exceeding the number stated in the following scale.

[illegible] attending to give evidence in the town or place where the witness resides or practises if the witness attends to give evidence [illegible] more than 1 guinea per diem. If the witness gives evidence on the same day in two or more separate and distant cases [illegible] their attendance. For attending before coroners, [illegible] or other persons, the witness may receive [illegible] whether in one case only or in more than 1 guinea per diem.

In this regulation "town" means [illegible] borough or urban district, and "place" [illegible] within a radius of three miles from the central [illegible] witness attends to give evidence.

Expert Evidence.

There may be allowed to expert witnesses such allowances for attending to give expert evidence as the Court may consider reasonable, including, where necessary, an allowance for qualifying to give evidence.

7. General Regulation.

No full day allowance under Regulations 1 (Professional Witnesses), 3, and 5 shall be paid unless the witness is necessarily detained away from his home, or place of business, or employment, for at least four hours, for the purpose of giving evidence. If the time be less than four hours the witness shall receive not more than one-half of the allowance which he would have received had he been detained for the full day.

Travelling Allowances.

There may be allowed to witnesses attending Court to give evidence from a distance of more than two miles their railway fares actually paid, or (where a railway is not available) reasonable expenses of conveyance actually incurred; provided that the railway fare, except for special reasons allowed by the Court, shall be third class fare, and if return tickets are available only return rates shall be allowed.

Form of Certificate.

A form of certificate given in the appendix to these regulations is directed to be used when a magistrate or magistrates grant a certificate for the allowances payable to witnesses who appear to give evidence. It provides spaces for the witness's name, profession, trade or occupation, residence, attendance for half-day, day, or night; and for travelling expenses or railway fare.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending November 14th, 21st, and 28th [illegible], the deaths from plague in India numbered 18[illegible], 17[illegible], and 16[illegible] respectively. These figures are some [illegible] higher than during the corresponding period of 1[illegible], when for the second week of November the deaths from plague recorded were 1[illegible]. The detailed figures for the three weeks in question are respectively as follows: Bombay City, [illegible], 42, and [illegible]; Bombay Presidency, [illegible], and [illegible]; Calcutta, 18, 22, and 11; Bengal, 4[illegible], and 21; North-West Provinces and Oudh, [illegible], [illegible], and [illegible]; Punjab, [illegible], 14, and 11; Central Provinces, 14[illegible], 20[illegible], and 14; Rajputana, 15, 14, and [illegible]; Kashmir, 17[illegible], and [illegible]; Central India, 4[illegible], 3[illegible], and [illegible]; Hyderabad, 72, 72, and 54; Madras Presidency, 242, 154, and [illegible]; Mysore state, [illegible], 17, and [illegible]. Up to November 21st the North-West Frontier Province was reported free of plague, but during the week ending November 28th 44 deaths from the disease was notified. Burmah and Baluchistan are free from plague.

CAPE COLONY.

During the weeks ending November 21st and 28th and December 5th the plague reports from the towns of Cape Colony were [illegible] as follows: No cases of plague in any part of Cape Colony, except at Kings Williamstown, where a native male was found dead of plague on November 26th. Plague-infected rats continue to be found at Port Elizabeth, East London, Knysna, Queenstown, and Lady Grey Bridge.

MAURITIUS.

For the weeks ending December 3rd, 10th, and 17th, the fresh cases of plague in Mauritius [illegible] and the deaths from the disease during the corresponding weeks were 4[illegible] and 42.

HONG KONG.

During the weeks ending December 5th and 12th the fresh cases of plague [illegible] were returned as 14 and [illegible], and the deaths from the disease as 12 and [illegible] respectively.

RIO DE JANEIRO.

A telegram from Rio de Janeiro, dated December 7th, [illegible] states that during the past week there were [illegible] cases of plague in the city, [illegible] fatal cases and [illegible] recoveries.

PRESENTATION. On Christmas Eve Dr. Robert Spence, of Burntisland, was the recipient of a pleasant surprise in the shape of a purse containing about 250 sovereigns. Dr. Spence, who has been Medical Officer of Burntisland and Medical Officer of Health for the district for a great many years past, has recently been ill, and the purse was intended as an expression of sympathy on the part of his many friends and patients, and as an acknowledgement of the many unrequited services for which they have been indebted to him during the course of his work.

BEQUESTS TO HOSPITALS. Mrs. Georgina Margaret Bower of Altamont, Co. Carlow, who died on October 24th, bequeathed the sum of £100 to each of the following medical charities in Ireland: The New Consumption Hospital near Delgeny, the City of Dublin Hospital, the St. Mark's Ophthalmic Hospital, Dublin and, the Orthopaedic Hospital, Dublin.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 2ND, 1904.

PUBLIC CONTROL OF HOSPITAL ADMINISTRATION.

THE need of some public body to exercise effectual control over the expansion, the administration, and the expenditure of hospitals and other medical charities experienced in every large city is felt with special acuteness in London, which contains nearly one-seventh of the people of England and Wales, and provides hospital accommodation for a still larger proportion of the country's population. The idea has been in the air for years, and six years ago the Charity Organization Society tried to bring the bird to ground. But for some reason the Society failed, perhaps because it came empty-handed. It sought to establish a controlling Board, but offered nothing in return. The *Times* on Boxing Day gave great prominence to an article "from a correspondent" purporting to propound a scheme for the creation of a Board which would exercise some central control over metropolitan hospitals, and published a leading article supporting the scheme, if it can be called a scheme. Shortly stated the proposal is that the central distributing funds, King Edward's Hospital Fund for London, and the Metropolitan Hospital Saturday and Sunday Funds should appoint "a small competent Board to advise" the administrative bodies of the central funds. Such a Board, it was maintained, would not only give stability to disciplinary measures taken on its advice by the distributing funds, but would direct its attention to such larger questions as the provision for the future needs of London under a definite scheme, including new institutions, removals and amalgamation. It would issue an annual report not only enjoining economy by showing how it might actually be effected, but would also supply detailed information derived from an examination into the working of the best managed and most economical medical charities.

The British Medical Association has a Hospitals Committee to consider how best the widespread abuses of medical charities can be removed. That Committee has, we understand, commenced its inquiry. Very much will be expected from it, and we trust that it may not be presumptuous to express the opinion that the Committee is numerically weak in the representation of London. The reform of hospital administration is a larger question in London than in any other centre, and it is also a more pressing question, and a question which we believe is rapidly ripening. Something must be done, and the medical profession through the British Medical Association, which alone of medical organizations represents the whole body, should take a leading part.

The questions upon which the Committee may be expected to make its voice heard are very numerous; they include questions of principle and of detail. As an illustration of matters of principle which arise we may refer in particular to the growth of the out-patient system. In another column is published an analysis of official statistics of the number of out-patients treated at the larger general hospitals. It has been found necessary to limit our inquiry to the general hospitals to which medical schools are attached, but probably similar statistics of other hospitals would be even more instructive. The comparison is between the year 1891 and the year 1901, and it will be seen that the gross number of out-patients had increased from six and a-third millions to over seven millions. Excluding the maternity cases, which did not show any notable increase, it will be seen that the number of medical and surgical out-patients and casualties had increased in the ten years by 12.4 per cent. It will be said that the population of London has increased during the decennium, but another table in the article shows that the increase in the number of out-patients, excluding confinements, is out of proportion to the increase in the population, the actual relative increase being 3.9 per cent. We are well aware that the figures upon which this analysis is based are not above suspicion, but the tendency of hospital secretaries to exaggerate the number of patients relieved by their hospitals was not greater in 1901 than in 1891, so that we conceive the statistics of the two years to be fairly comparable. They show a very distinct increase in the proportion of out-patients to the population and we are aware of no circumstances which justify such an increase. This is a point upon which we venture to think the Hospitals Committee of the Association would do well to obtain further statistics, and we make no doubt that a report from it, fortified by a statistical analysis, would have great weight with the public.

The objections to the unlimited and uncontrolled expansion of out-patient departments are manifold. We would put first the interests of the patients. Is it really to their advantage that they should be gathered together in out-patient waiting rooms to loiter there for hours until they obtain a brief interview with an overworked assistant physician or surgeon, or his deputy? Would it not be far better in their own interests that they should rather be encouraged to seek, in the first place, the advice of private medical practitioners in their own neighbourhood? They could obtain advice with far less loss of time, and in the vast majority of cases with equally good results to themselves. With regard to those cases in which a second opinion was found to be desirable, the system of out-patient relief should be so organized as to command the confidence of private practitioners, who would then be ready to refer suitable cases to the hospitals for consultation. Is it really in the interests of the hospitals to spend so much time and energy and money in endeavouring to give relief to these huge battalions of out-patients? Finally, is it to the interest of the medical staff of a hospital that its junior members should be called upon to devote a large part of the working days of the best years of their lives to the dreary round of the out-patient room? We believe that if those members of the staff who are called upon to do this work could be polled, or rather could be balloted, there would be an enormous majority in favour of measures of drastic reform, and for this reason, if for no other, we should like to see a public-spirited member of the junior staff of a London hospital upon the Association's Committee.

We might easily make a long list of principles which

require consideration, but we would conclude what we now have to say by indicating as matters of detail which appear to require more attention, the question of whether the site to which it is proposed to remove King's College Hospital is the best that could be chosen, and whether the opinion endorsed by the King Edward's Hospital Fund for London that a new hospital is urgently required at Earl's Court is correct. We may note also as a matter demanding inquiry the decision of this Fund to set apart a sum of £[illegible] to be drawn on as required for the amalgamation of hospitals. Similar questions of principle and detail arise from time to time in provincial cities, and we believe that the need for some central controlling body is felt also in such places as Manchester, Liverpool, and Glasgow.

THE MEDICAL DEGREES OF THE UNIVERSITY OF LONDON.

In the Educational Number of the BRITISH MEDICAL JOURNAL published on September 5th, 1903, a detailed summary of the regulations which are now in force in the medical faculty of the University of London was given at page 509, and upon page 522 of the same number attention was drawn to the principal points in which they differ from the regulations of the past. A good deal of misapprehension seems, however, still to exist as to the general effect of the new regulations. Graduates of the University who have not hitherto made a close study of the alterations effected appear to be under the impression that these are of a retrograde nature, and will lead to a lowering of the value of the medical degrees of the University in the public estimation. We believe, however, that this is very far from being a correct view of the case, and that to true friends of the University and of medical education and scientific progress alike, the alterations introduced should be a cause not of sorrowing but of rejoicing.

The greatest change of all is one that affects not the medical faculty alone but all faculties alike, for the regulations for matriculation have been altered materially. The aim has been to frame regulations which would be applicable to boys coming from different types of schools. Every candidate must pass in (1) English, (2) elementary mathematics, and (3, 4, 5) in three other subjects. Under (3) the the candidate has a choice between Latin, elementary mechanics, or elementary physics. Having made his selection he must choose two other subjects. If Latin has not been taken under (3) one of these must be another language, chosen from a long list, while the other subject may be taken from another long list which contains history, logic, geography, mathematics, mechanics, chemistry, physics, botany, zoology. If the candidate has taken Latin under (3) he is not compelled to take another language, but he may do so; thus, a public schoolboy can take up Latin, and, if he wishes, Greek with, for his fifth subject, a modern language or ancient or modern history, whereas the boy educated on the modern side can take up elementary mechanics or physics and a modern language, with, for a fifth subject, modern history or geography. But although the University allows this wide choice of subjects it is of course within the competence of any body which has to regulate the conditions of admission to a profession or calling to prescribe that candidates who require recognition from it must take up some particular subject. For instance the General Medical Council could prescribe that it would only accept the matriculation of the University of London as qualifying for admission to the *Students' Register* if the candidate produced a certificate that he had passed in Latin and so on. It should be added that it is now possible for a student who has passed certain examinations at certain universities and educational institutions recognized by the University for this purpose to become an undergraduate of the University without passing the matriculation examination. Though this alteration is undoubtedly most drastic it must be noted that the alternative examinations permitted in lieu of ordinary matriculation are of high class, and indicate a standard of knowledge fully as great as that of the old matriculation examination. The old unsatisfactory paper in elementary science is dropped, and the new regulations for matriculation make the portal wider, but do not make each individual path that leads through it a less adequate test of knowledge and ability than heretofore. The University of London, in short, has merely modernized its preliminary examinations upon the same lines as equally famous universities have modernized their final graduating tests. But this is far from saying that any of these universities have lowered their standard; they have merely extended the scope of possible study in view of the progress which has been made since the days when mathematics, theology, and the dead languages were considered to represent the whole sum of desirable human knowledge.

In the Preliminary Scientific Examination and others special to the Medical Faculty the changes are of a less radical nature, and, apart from minor modifications, it may be said that the general tendency is to throw more stress on practical work, and the regulations leave no room for doubt that throughout the whole series of examinations all tests of the laboratory type will be much more exacting than hitherto. Honours can still be obtained, but there is no longer any separate examination for them.

Under the old regulations the candidate for the degree of M.B. was examined in surgery, and thus the degree was made a qualification for registration, but the examination in surgery was undoubtedly inadequate. It was so found by the General Medical Council, and the impeachment has been admitted by the University. It was optional upon the candidate to proceed to the B.S. degree, and therefore the University was in the position of placing upon the *Medical Register* candidates who had been subjected to an insufficient examination in surgery. This has been changed under the new regulations. The double degree M.B., B.S., will be given after an examination, in the course of which the candidate will be subjected to a wide and practical test of his knowledge in surgery. This, so far as an examination can, will ensure that the graduate possesses an adequate knowledge of the subject. In future the curriculum will provide that the candidate for the degrees M.B., B.S., shall receive a better and more practical training in pathology, and the examination will likewise be more practical and of wider scope. The regulations for the degree of M.D. have also been materially modified. The principle which would appear to have inspired the alterations is that the M.B., B.S., being a degree qualifying for registration, must be complete and equal for all candidates, but that the University is justified in allowing holders of those degrees who wish to proceed to M.D. to specialize to some extent. In future a graduate who seeks the degree of M.D. can present himself for examination in one of five branches: in the first, medicine; in the second, pathology; in the third, mental disorders

and psychology: in the fourth, midwifery and diseases of women; and in the fifth State medicine will predominate. Every candidate will be required to pass an examination in medicine and every candidate will be subjected to a clinical or laboratory examination, but the main stress of the examination in each case will fall upon the special branch selected.

Other modifications designed to meet the needs of special cases are very slight in themselves, and are in the nature of cutting away some of the red tape which for the past twenty-five years has been a curse to the University of London itself, not less than to its would-be graduates. In effect it may be said that until this great upheaval took place the University had for a good many years practically stood still while other universities were advancing, especially in the direction of making their curricula and examinations more practical. This was no doubt owing to the fact that for the whole of this period the University was threatened with (or shall we say promised?) the drastic measure of reform which has now been carried out, and of which these new regulations are one evidence.

Jealousy in graduates at a change in regulations which may possibly lower the value of a degree which they have laboured hard to obtain is a very human feeling: but it is only justifiable if it results from a lowering of the standard of scholarship required. We do not believe that the new regulations of the University of London will have this effect, and we hope that the number of graduates will greatly increase. The M.B., B.S.Lond. as it now stands is probably the best qualifying degree in this country.

So far so good, but we cannot help feeling that the Senate of the University is throwing away a great source of strength by its failure to appeal to the loyal feelings which most of its graduates would be ready to display towards it if only they could find opportunity. Convocation, which used to be a kind of rallying point, has been shorn of some of the limited powers it formerly possessed; interest in its meetings has therefore very rapidly declined, and on the last occasion there was no quorum. The graduates know little or nothing of what goes on, they have no part or lot in the life of the University, and neither the Senate, nor the Academic Council, nor the Principal, nor indeed any other body or individual seems to think it worth while to maintain or conciliate their interest. It is true that a *London University Gazette* is "published by authority," and that it has now reached the forty-sixth number of its third volume, but we defy any one to match it for extreme dullness and dryness. It would be as reasonable to read the *London Gazette* for news of the day as the *London University Gazette* for news of what is happening in the University or its Colleges. Promptness of publication even of such information as it contains is not a characteristic of this authoritative periodical. The number issued on December 12th, for instance, consists largely of a report of the Acts of the Senate at its meeting on November 18th. No graduate is told what the Academic Council does; he knows that it meets, and that the Council for External Students, the Committee for this and the Committee for that meet because the *Gazette* contains a list of "University Agenda" in which the dates of coming meetings are set out. But what business they are to do is not revealed, and when it has been done the graduate is left dimly to conjecture from such decisions of the Senate as may be published what has been its nature. It is not so in other universities. We should be very much surprised to be told that the decisions of the Senate were always unanimous. We hope not, because out of controversy there generally comes wisdom. Would the whole fabric of the University come clattering about the head of the Principal if he took the graduates occasionally into his confidence, if he tried to put into the *Gazette* matters which would keep alive their interest, if he took opportunity now and again to speak in public on the problems and the difficulties, which no doubt are of the greatest interest to him? If to him, why not to them? Might not the Dean of the Faculty of Medicine do likewise? Might not the members of the Senate feel themselves, on some subjects at least, absolved from the oath of secrecy which seems to have been imposed on everybody who has anything to do with the business of the University? To put the matter on the lowest ground, the University wants money, and to get money it wants advertisement why does it so laboriously conceal its aspirations and its needs from its own graduates, who, though members of the University, cannot but feel that under the present régime they are given the cold shoulder?

MEDICAL WITNESSES' FEES.

THOSE who have followed with any closeness of attention the eight years' struggle in which a few active members of our profession have been engaged with the authorities at the Home Office, in order to secure a more suitable scale of remuneration for medical witnesses in criminal prosecutions than that laid down by Sir George Grey in 1858, will read with pleasure the new regulations sanctioned by the present Home Secretary, of which we give a summary at page 30.

It was in 1895, when Mr. Asquith was at the Home Office, that the facts of the case were laid before that department by a deputation which showed the utterly inadequate remuneration hitherto paid to medical witnesses in these cases, and the great injustice done to many country practitioners by compelling them to leave their practices, often for the best part of a week, and paying them at a rate which left them frequently out of pocket by the transaction. Mr. Asquith did not attempt to deny the injustice, but made the curious excuse that, as it had existed since 1858, and successive Home Secretaries had been afraid of burning their fingers by touching it, he himself was going to leave it as he found it. He also made the utterly unpractical suggestion that police surgeons, who are very frequently appearing as medical witnesses, should apply to their employers, the Watch Committees of town councils, etc., for extra remuneration for their other police duties in consequence of their being underpaid for this one.

Mr. Asquith's successor at the Home Office, Sir Matthew White Ridley, refused even to receive a deputation from the British Medical Association or the United Kingdom Police Surgeons' Association, the two bodies specially interested in the matter, and it was not till after the general election of 1900 that sufficient Parliamentary support was obtained by a Joint Committee of the two Associations to enable them to press for the appointment of a Departmental Committee. This Committee was appointed by Mr. Ritchie last year when at the Home Office, and it is on the basis of its report, which was summarized in the BRITISH MEDICAL JOURNAL of July 18th last, that these new regulations, are avowedly based.

The memorandum which accompanies these regulations points out that there is a considerable increase in the

allowances under the heading of witnesses giving professional evidence, and it is said that these are fixed on a higher scale than the rates for ordinary witnesses on the ground, stated by the Departmental Committee with reference to the medical profession, that its members are much more frequently called on to assist criminal justice by evidence drawn from their professional experience than any other class of the community. The Departmental Committee put the matter much more strongly, and said that "we think that the allowances hitherto paid have been inadequate, especially in the case of doctors summoned to places distant from their practice. It seems to us that the complaints made by the medical profession in respect of the present scale are justified by the very fact that its members are much more frequently called on to assist criminal justice, etc." We understand, however, from this sentence that the Home Secretary agrees with the Departmental Committee that the fees hitherto allowed are too low and ought to be raised.

On the one point on which the memorandum states that the new regulations do not follow the recommendations of the Departmental Committee, we must admit that there is something to be said in favour of the Home Secretary's view. We entirely agree that the fee should be paid to a medical man who makes an examination in sexual cases whether his examination leads to a prosecution being undertaken or not; and the same principle applies, as we shall see presently, to those cases to which the attention of the Departmental Committee was called, where in several parts of the country at petty sessions the medical witness receives no fee whatever unless the case is committed for trial. We cannot admit, however, that the fact of such a fee being inserted in a table of fees to medical witnesses, and its amount fixed, as recommended by the Departmental Committee, at one guinea, would be at all prejudicial to those who, employed by the police or other authorities to make such examinations without being called upon to appear as witnesses, might fairly, on the Home Secretary's own showing, claim a similar fee.

The Home Secretary has, however, means ready to his hand to show that he intends to carry out the recommendations of his Departmental Committee in regard to this matter. Under his direct authority examinations in suspected sexual cases are constantly being made by divisional surgeons of the metropolitan police, for which a most inadequate fee is at present paid. By a stroke of the pen he can authorize the payment of a guinea fee in all such cases, and so prevent the necessity of inquiries in the House of Commons when Parliament meets by one of the M.P.'s who sat on the Departmental Committee, as to the carrying out of this, one of the most important of the Committee's recommendations.

We are unwilling to believe that the General Regulation (No. 4) is intended to take away with one hand what has been granted with the other, but this will certainly be its effect in most cases heard at police courts and petty sessions, and probably also in some heard at quarter sessions and assizes when the medical witness resides in the assize town. It is pointed out in the memorandum that no distinction is made between attendance at petty sessions and at assizes, the intention apparently being that the half guinea fee at the former should be levelled up to the guinea at the latter; but as attendance at a police court or petty sessions does not usually involve a loss of four hours' time, the half-guinea fee would again become the rule. At quarter sessions and assizes the effect of this regulation in the case of those medical witnesses living in the town would be to reduce the present guinea fee to half-a guinea for those who were not detained from their homes for four hours. As this is directly contrary both to the recommendations of the Departmental Committee and to the expressed wish of the Home Secretary, as stated in the memorandum accompanying the Regulations, we can only look upon it as an unfortunate mistake, to be corrected at the first opportunity.

We very much regret not to see any recommendation added by the Home Secretary as to those cases in various country places, of which evidence was given before the Departmental Committee, where no fee whatever is allowed the medical witness unless the case is committed for trial. It is quite possible that a short Act of Parliament may be required to change the "may be allowed" of the Home Secretary's regulations into "shall be allowed," for those magistrates who are insensible to the injustice they are constantly inflicting on medical men who are compelled to waste their time in attendance before them. But a letter from the Home Office on the subject would doubtless have effect with some of them. The Home Secretary's own principle applies here: that the medical man is entitled to receive an appropriate fee whether his evidence is followed or not by criminal proceedings.

It is but the barest justice to add that the two members of the medical profession to whose efforts it is due that the whole question of medical witnesses' fees has gained its present position, and seems likely after all these years to be satisfactorily settled, are Mr. Frederick Lowndes, of Liverpool, and Mr. Nelson Hardy, of London. We do not think the profession will soon forget their labours on its behalf. Mr. W. F. Lawrence, M.P., has also rendered important services both in the House of Commons and on the Departmental Committee, which, we may assure him, are fully appreciated.

DISAPPEARING QUARANTINE.

OUR Paris correspondent, in a communication published in the BRITISH MEDICAL JOURNAL of December 12th, 1903, p. 1549, gave a summary of the provisions of the convention adopted by the International Sanitary Conference which met recently in Paris, and held many prolonged sittings. The convention has been signed by the representatives of twenty Powers, including all the chief European countries Egypt, Persia, and the United States.

This convention is the last of a long series, and differs from its predecessors mainly by reason of the greater amount of attention given therein to regulations as to medical inspection and the corresponding relegation of quarantine regulations to the background, or in certain instances their entire disappearance. This is a valuable testimony to the acumen of those sanitary experts who have enabled Great Britain to take the initiative in this matter, and to demonstrate that in the absence of quarantine regulations, but with medical supervision, and a good second line of defence in the shape of sanitary administration, she can keep her coasts and inland towns more free from exotic disease than the majority of countries which enforce rigid quarantine regulations.

It is evident from the contents of the articles of the convention that unanimity has only been reached by allowing alternatives in the measures to be enforced. Thus, under the head of plague, vessels infected with this dis-

case are subject to the following regulations:—The ship is medically inspected, the sick are taken ashore and isolated. So far there is uniformity of procedure, but from this point there is divergence. The persons remaining on board, it is stated, should also if possible be taken ashore, and (*a*) either put under observation (that is, isolated in a sanitary station before they obtain free pratique) for not more than five days; or (*b*) simply subjected to supervision, which is not to exceed ten days. The latter, it need hardly be said, is the British, the former the Continental system. It is something to have the period of quarantine thus reduced to five days, and there can be little doubt that this limited period will eventually disappear. On the other hand, a temporary detention is desirable for the disinfection of linen, clothing, and other articles belonging to persons who may have been in contact with infection, and the power to enforce this enables the sanitary authority temporarily to detain persons who could not in all probability be traced after landing.

Few things are more striking at the present day than the rapid manner in which the results of scientific investigation become embodied in sanitary administration. Ships infested by plague-infected rats are required to have all rats destroyed within forty-eight hours, and the disinfection of the ship is required.

It is pleasant to find that the last has been seen of land quarantine for the countries signing this convention. Such quarantine has always been useless as well as annoying and expensive. Now only persons showing symptoms of plague or cholera can be detained on the frontier.

A scheme for international notification of plague and cholera is also embodied in the convention. Each Government is charged with the duty of immediately notifying to other Governments the first appearance in its territory of cases of plague or cholera. This notification must state the place where the case has appeared, the date of its appearance, its origin, the form of disease, and the preventive measures taken. In the case of plague, the occurrence of an unusual mortality among rats or mice must also be notified.

The terms of the convention will, if carried out in the proper spirit, do much not only to prevent the spread of disease from country to country, but also to help forward the realization of the ideal of the international solidarity of interests in sanitary as well as in other concerns.

THE OUT-PATIENT WORK OF THE MEDICAL SCHOOLS.

In another part of this issue (page 44) will be found the result of some statistical investigations into the out-patient work of the eleven hospitals in London which have medical schools attached. The results are striking in point of the essential magnitude of the figures given, of their proportion to population, and of the growth shown to have occurred in ten years. As regards their magnitude, the extent of the out-patient work in London has long been known, but the fact that nearly three-quarters of a million persons are out-patients during the year at the eleven general hospitals alone may bring home the magnitude of their operations to some people more clearly. To others the growth in the work shown to have occurred in the short space of ten years may seem more notable still; and, indeed, it is curious that the numbers should have increased to such an extent as over 12 per cent. For it must be remembered that of late years some efforts have been made to restrict the benefits of the work to those who have a real claim upon medical charity, and that at the same time these general hospitals have been exposed to the increased competition, so to speak, of the special hospitals, and of the growth of smaller general hospitals further afield. The former factor is of particular import, for the general public ascribes more value to specialism than most medical men probably do and the growth in popularity of special hospitals has been correspondingly great. Certainly, however, the most important point brought out by this inquiry is the proportion borne by the out-patients of these eleven hospitals to the total population of the Administrative County of London. It will be seen that put into simple language the mathematical proportion shown is equivalent to saying that out of every twenty persons met in the streets three are, or have been during the year, out-patients at one or other of these hospitals. If this is the proportion of the public which receives gratuitous medical assistance at these general hospitals as out-patients, what would be the proportion if the work of all the other hospitals were taken into count and in-patients included as well? There are many difficulties in the way of an exact determination of this further proportion, but the figures now published are sufficient in themselves to bring home to the public the immense claim which the hospitals have upon the public purse, while to the social economist and the medical profession they may suggest ideas of another character. One of them will probably be that the whole question of out-patient relief demands much more organized attention than it has yet received. Apart from these general questions there is a point of a special character in which the results of the inquiry are of interest. During the last year or two the question of the continued necessity of a hospital at any particular spot has often been discussed, and has proved extremely difficult to decide. The figures contained in the report suggest that one of the best criteria of the continued need of a hospital in any given neighbourhood will, if it has a school, be furnished by the extent of its out-patient maternity work. This work of a hospital is always among the really poor, and is rarely conducted at any great distance from the hospital itself. Unless, therefore, the size of the school and the number of its students have greatly varied, or another school doing maternity work has sprung up in its neighbourhood, or pronounced changes have taken place in the general birth-rate, the extent of the maternity work of a hospital should not vary to any considerable degree; and if it is found to do so in a series of years, that fact may be taken as evidence that the character of the locality has altered in such way as to increase or decrease the need of a great hospital in its midst.

THE ROMANCE OF THE BLONDLOT RAYS.

The march of scientific discovery depends largely upon the invention and application of new methods of research. Amidst much that has been unpleasant in the year of grace 1903, it has left us a rich legacy of scientific advance achieved and given us promise of a still richer harvest in the future. The discovery of radio-activity, and above all that of radium and some of its allies, has perhaps obscured the importance of vibrations of far less frequency, the rays of Blondlot known as *n* rays. To the scientific imagination it is easy to conceive vibrations at the rate of one a second—for example, of a pendulum—to pass from such vibrations to those constituting auditory waves, then to those at still ever-increasing rates of vibration and therefore of shorter wave length, for example, electrical waves, and Hertzian waves. Beyond this, although the physicist assumes that nothing in Nature is discontinuous, there was until lately a great unknown territory. Now certain rays have been discovered in this region, and among them those of most interest to medical men are the rays of Blondlot, rays of a rate far below those of heat and light, and consequently far lower in the scale than the radio-active radiations and emanations of radium and its allies. Imagine a lighted incandescent gas lamp. It emits heat and light rays and also the rays of Blondlot. Find a filter or screen that will separate the individual rays as a prism sorts out those of light, find something that will filter out or be opaque to all rays save those of a particular

rate of vibration, and the problem is solved. Suppose a lighted incandescent lamp to be surrounded with an iron jacket, save at one spot, where a window of aluminium is let in. The aluminium stops all rays save those known as the rays of Blondlot. If these rays after they have traversed the aluminium plate be focussed by an aluminium lens, it is found that an electric light or a scarcely visible gas flame shines more brightly, and phosphorescent or fluorescent bodies become more luminous and more active. This is practically the way in which such rays are separated by filtration from the innumerable other rays mixed with them emitted by an incandescent gas lamp. One of the most remarkable discoveries made in the year which has just ended is that of Professor Charpentier of Nancy. He states that living nerve and muscle emit Blondlot's rays or *n* rays and that during activity of muscle and nerve there is a larger emission of these rays. This can be shown in a dark room by the following experiment: a phosphorescent body as little luminous as possible is chosen such as a fluorescent platino-cyanide of barium screen; its action is regulated by means of a salt of radium and it is covered with black paper so as to leave an air space between the two surfaces. The luminosity of this screen is increased when it is brought near to a living nerve or muscle or nerve centre and the effect rises with the degree of functional activity of the nerve or muscle. The course even of superficial nerves such as the ulnar or median can be traced by this means. The rays obtained seem to be identical with the *n* rays as they were transmitted by substance aluminium, paper which transmits *n* rays, and arrested by lead which stops *n* rays. Other tests were applied to prove the identity of these rays emitted by living and active nerve and muscle and *n* rays. They are not heat rays, as was proved by means of a calorific screen. Nor are they rays that have been stored up in daylight and emitted in the dark. Charpentier was able to map out the area of the beating heart, and to trace the course of superficial nerves by their aid. Here indeed we have something new. Physiologists know the electrical variations that accompany nerve action, and the chemical and thermal changes during muscular actions: but here we have evidence of rays far below the wave length of those of heat and above those of electricity. They may be expected to afford a test of the activity of nerve and nerve centres. The possibilities opened up by these researches far surpass anything that the wildest dreams of the imagination have so far suggested. We offer our hearty congratulations and thanks to Professor Charpentier, and we look forward to the promise of further contributions in this subject from one whose researches in physiological optics are amongst the classical investigations in that most interesting domain of science.

FRUIT CULTURE IN GREAT BRITAIN.

A Departmental Committee has been appointed by the President of the Board of Agriculture and Fisheries to inquire into and report upon the present condition of fruit culture in Great Britain, and to take measures to advance and encourage this industry. The Committee is constituted as follows: Mr. A. G. Boscawen, M.P., Chairman; Mr. C. W. Battcliffe Cooke, Mr. J. M. Hodge, Colonel Charles W. Long, M.P., Mr. George Morton, Mr. E. Spencer Pickering, M.A., F.R.S., Dr. W. Somerville, Assistant Secretary of the Board of Agriculture and Fisheries, Mr. Erwin Young, and the Rev. W. Wilks, M.A., Secretary of the Royal Horticultural Society, with Mr. Ernest Gateley, of the Board of Agriculture and Fisheries, as Secretary. When it is realised that in 1902 the fruit imported into the United Kingdom was £17,000,000 it will be seen that it is time something was done to improve our fruit growing conditions. At present that branch of horticulture is practically confined to a few counties, fully one-third of the area of small fruit in England being centred in Kent alone. British growers of fruit under glass are far more successful than those who grow fruit in the open, the latter branch being practically in its infancy. In countries like France, where orchards upon orchards of fruit trees such as apples, greengages, and pears, line the country roads, the fruit is often as good as our most carefully-selected specimens. When it comes to garden fruit grown either on standard trees or walls they equal our hothouse fruit. But in France fruit growing is a science, and gardeners spend half their lives studying and experimenting, with the result that they can command the high prices which we have to pay when we get our best fruit from France. At the present day, when the national physique is deteriorating on account of the migration of the rural population to town, every nerve should be strained to keep the people in the country; and there is in open-air fruit culture, conducted scientifically, an opening for many a man or woman of ordinary intelligence. Training colleges should be established in all the most promising districts so as to bring theoretical and practical training within the reach of students, male and female. Orchards and walled in gardens would be required for experimental purposes, and the profit on the sale of the fruit used to help to maintain the colleges. Valuable practical experience has been gained on the Woburn experimental fruit farm established in 1894 by the Duke of Bedford the object of which is "to ascertain facts relative to the culture of fruit, and to increase our knowledge of, and to improve our practice in, this industry;" the experiments prove the many errors into which the ordinary fruit grower falls. As in every other trade, the best article commands the best price, and repays extra initial cost and trouble.

CENSURES ON MEDICAL MEN BY CORONERS' JURIES.

Coroners' juries are apt on certain occasions to append a rider to their verdicts in which some censure on the conduct of medical practitioners is found. It is quite clear that such riders are *ultra vires*, and it was decided in the High Courts many years since that such censures are entirely beyond the province of a coroner's jury. It would be well for coroners to realize this and for newspaper reporters and editors also to consider that if such censures are reported no privilege would attach to such publications, and that an action for libel might ensue. In a case brought before Mr. Justice Coleridge in 1845 a Croydon coroner's jury had brought in a verdict "that E. Hopkins had died from exhaustion from protracted labour and that Dr Bernecastle had shown the greatest inhumanity in leaving the patient, and they thought him unfit to remain as a medical officer of the Union." There was an appeal to the High Court to quash the inquisition, but it failed, as Mr Justice Coleridge held that the rider was no part of the inquisition. He ruled, however, to the following effect: "The jury had exceeded their jurisdiction. They were empanelled to inquire into the cause of the death; they found that the cause of death was exhaustion, but they did not say, and no doubt they had plenty of disposition to say it, that Dr Bernecastle's conduct had anything to do with it, but they went on gratuitously to make accusations against him. It was to be regretted that the coroner had taken down the statement the jury had made. They were empanelled for a particular purpose, but they had no more authority to express an opinion on Dr. Bernecastle's conduct than on his (the learned judge's) or any other person who had nothing to do with the matter. He had in this case technically to rule, but with deep regret to dismiss, the application to quash the injunction. He held that the rider was no part of the verdict, and that the jury had exceeded their jurisdiction in expressing it." We commend this judicial decision to coroners and their juries in the hope that it will be remembered by them, and that the coroner's court will be only used for the purpose for which it was designed—to inquire into the cause of death—and not for the purpose of commenting gratuitously upon the action of any medical practitioner against whom no legal charge can be made or sustained.

MR. COLERIDGE'S CONVERSION.

The Hon. Stephen Coleridge has lately had the antivivisectionist stage almost to himself, it is scarcely surprising

therefore that his brethren of the cynophil persuasion—who do not include each other among the animals whose feelings need be spared—are anxious to have a turn. Mr. Frederick E. Pirkis, Chairman of the National Canine Defence League, has therefore come on with a "Nation's Petition to Parliament Against the Dissection of Live Dogs in Medical Laboratories." With the object of securing signatures to this document the League has distributed a leaflet inviting a credulous public to believe that "thousands of dogs are tortured yearly by licensed experimenters;" that "the total number of experiments performed in 1902 was 14,906, 12,776 of which were without anaesthetics;" that "the number 14,906 does not give the number of dogs used, for each experiment may include any number of dogs—there is no limit fixed by the law"; that "the Home Secretary stated in Parliament on July 10th, 1903, that one dog may be used *again* and *again* for vivisectional experiment or demonstration—and this without anaesthetics." These statements lead up to an appeal to the nation "to rise as one man and say, 'This shall not be.'" The nation, it may be remarked incidentally, is not in the least likely to say anything of the kind, for it knows that as a matter of fact these things are not. We should certainly not have taken the trouble to refute such ridiculous charges, which merely supply an additional example of the unscrupulous manner in which the wirepullers of antivivisectionist societies attempt to trade for their own purposes on the gullibility of the public, and Mr. Pirkis may possibly have counted on his lying leaflet being passed by with silent contempt by those who know the truth about his "facts" and "figures." But he counted without Mr. Coleridge, who has the true mummer's dislike of being thrown out of focus by a rival. To bring the light on him once more he is bold enough to appear in an entirely new character—as a lover of truth. He professes to be grieved by "the grossly false and misleading statements" put in circulation by the National Canine Defence League, and he feels it his duty to expose them. The assertion that "thousands of dogs are tortured yearly" he characterizes as a gross exaggeration, pointing out that "if every animal experimented on in 1902 under licence alone were a dog, and if every animal used under Certificate B. were a dog, and every animal used under Certificates B. and EE. and A. and EE. (which permit either dogs or cats) were a dog, the total would not come to thousands"; he adds that to assert that "no dog of all those experimented on under licence alone is ever painlessly vivisected and destroyed is not fair." Dealing with the statement that of the 14,906 experiments performed in 1902, 12,776 were without anaesthetics, Mr. Coleridge says it is not fair to make this statement without adding that the 12,776 experiments referred to were all inoculations or similar proceedings. He further shows that the figure 14,906 included all animals used—frogs, guinea-pigs, cats, etc., as well as dogs; and that in regard to the question of a "limit," the Home Secretary has stated that "the number of animals does not exceed the number of experiments given in the return—in fact, it is less." Finally, Mr. Coleridge affirms that the statement put into the mouth of the Home Secretary as to the repeated use of the same dog for vivisectional experiment or "demonstration" is misleading, as on the occasion presumably referred to the Home Secretary alluded to no "demonstration" nor to anything in the nature of "living dissections" but to certain drowning experiments made by Professor Schäfer. Mr. Pirkis's reply to this exposure is futile and, we must add, disingenuous. It is not, however, with the refutation of his easily-disproved charges that we are concerned; the interesting thing in the controversy is the conversion of Mr. Coleridge to a sense of the value of accuracy and fairness in dealing with opponents. It is truly edifying, after his recent experience in the High Court of Justice, to find him denouncing "false statements made by antivivisectionists" and declaring that he will not for a moment countenance controversial "methods which must bring disaster to any movement that employs them, and justly alienate the sympathies of all honourable people." The reproof administered by Mr. Coleridge to Mr. Pirkis must we suppose, be taken as an illustration of the zeal of the convert. But by some strange association of ideas, as we read it, there comes across our memory the scene in the *Fortunes of Nigel* in which King James says to "Jingling Geordie" that "it was grand to hear Baby Charles laying down the guilt of dissimulation, and Steenie lecturing on the turpitude of incontinence," and honest Heriot replies that it made him think of the old proverb about Satan reproving sin.

PHYSICAL DETERIORATION.

IT is gratifying to find the *Times* opening its columns to a discussion of the question of national physique, and we are glad to see that the views expressed in its leading article on December 29th, 1903, confirm and correspond in so striking a manner with those set forth in the BRITISH MEDICAL JOURNAL in the series of articles on physical deterioration which have been appearing for several weeks past. We have laid stress upon the view set forth by Dr. Farquharson in his letter published in the *Times* of December 26th, 1903, that it is imprudent to overwork underfed children in schools, and that if the State requires the children of the very poor to work, they should be so fed as to enable them to learn without injury. To this end we have recommended that every child should be provided with a dinner at school at a small cost to parents, to be cooked in classes by the elder children. We have also advocated the importance of teaching domestic economy, cooking, and the nutritive value of foods in order to instruct the future mothers. Again, we have pointed out that education is of small use to those children physically unfit to benefit by it. We have referred to such subjects as ventilation, and we have propounded a simple system of weighing and measuring all school children once every three months, the records to be carefully entered in registers for reference. A letter from Dr. Jones, of the Claybury Asylum, published in the *Times* of December 29th, 1903, contains the significant statement that 40 per cent. of male cases admitted to that asylum were country-born men who had gone to the wall because they found hoped-for town conditions unattainable, either from want of proper bringing-up, or through self-indulgence, the craving for pleasure, and the gratification of the passions in those whose poisoned environment had weakened their self-restraint. But, as is observed in the leading article of the *Times*, although due weight must be given to Dr. Jones's belief that the physical condition of the degenerates under his care has become worse during the period covered by his experience, this is a matter of individual impression to which too much importance must not be assigned. The article winds up: "The whole question seems to be eminently one for inquiry, not only for such inquiry as the expected Royal Commission will be likely to institute, but for inquiry established upon a national basis, and conducted for a sufficient time to give certainty to its results." With this we most heartily agree, and we are not sure that Dr. Donkin is right in maintaining that comparative statistics could be obtained only after an interval of fifty years. Anthropometric observations made on the children of elementary schools in districts of varying class, such as those which Dr. Hall has made in Leeds, would provide comparable figures within a year or two.

TYPHOID FEVER AND WATERCRESS.

ON several occasions watercress has been suspected of conveying the infection of enteric fever. A fairly convincing instance has occurred recently at Hackney. From a special report by Dr. King Warry it appears that in June and July last there was a marked increase in the number of notified cases of enteric fever. The first group consisted of 48 cases and the second of 62. The 110 cases were distributed in 95 households. After eliminating water, milk, shellfish, ice cream, and sanitary defects, as sources of infection, Dr. Warry found a particular incidence rested on persons who had consumed watercress. In the first 48

cases, 24 or 64.3 per cent.) and in the second group of 62 cases, 25 or 40.3 per cent.) had consumed watercress. In all, therefore, 55.3 per cent. of the cases had come in the way of infection from this food, if it had been infective. It was found that in the general population the watercress eaters might be taken at 27.5 per cent. It therefore became evident that the watercress eaters in the epidemic had suffered 4.6 times more than the non watercress eaters in the first group, and more than twice as much in the second. An inquiry was accordingly instituted into the source of the watercress and its bacteriological condition. In respect of the source Dr. Warry visited beds situate in West Ham fed by water from an adjoining ditch, into which it was pumped from a sump hole about 6 ft. deep adjacent to the Channelsea branch. This branch is one of the most polluted of the badly polluted river Lea; so that practically the West Ham beds were fed by almost undiluted sewage. A sample of water taken as it flowed from the ditch on to the watercress beds was found to contain at least 50 B. coli in every c.cm. Bacteriologically the Lister Institute reported that the water was polluted, B. coli being present, and the watercress (seventeen samples) was all found to be contaminated with sewage organisms of the intestinal type. "These organisms have been found in each sample," the report states, "and it is obvious, therefore, that all these samples of watercress have been contaminated with sewage." As Dr. Warry remarks, "these facts furnish material for serious reflection. They show that the bulk, if not the whole, of the watercress sold in Hackney is cultivated under such polluted conditions as to be liable at any time to be specifically polluted and to give rise to outbreaks of enteric fever. If so many samples of watercress sold in Hackney are in a polluted condition, is it not probable that watercress sold in other boroughs of London is similarly polluted?" This is a pertinent question.

THE SCHOOL BOARD AND THE OPHTHALMIC DEPARTMENTS.

Complaints continue to reach us both from the ophthalmic departments of general hospitals in London, and more especially from the ophthalmic hospitals, to the effect that the School Board deals in an inconsiderate manner with them in regard to the children whom its examiners find it necessary to refer for treatment. During recent years a great additional strain has been thrown, often spasmodically and without any notice, upon the ophthalmic departments of the London hospitals, and some hospitals have adopted rather summary measures, not unattended with some hardship to the patients. The question at issue is part of a larger one, namely, what relationship should exist between the public elementary schools on the one hand and the hospitals on the other in the matter of the treatment of such diseases and defects as the exigencies of school life discover and require to be dealt with. In this connexion cases of infectious disease, of ringworm, of pediculosis, deafness, post-nasal growths, mental deficiency as well as defects and diseases of the eye need to be considered. There is much to be said for the view which has been urged on behalf of the School Board to the effect that it is the business of the Board to make such observations for the discovery of the presence of such conditions in the interest of the individual child and the health of the school generally, but that it is no business of theirs to treat such cases. It appears from the last report of the Board's medical officer that from 6000 to 7000 of the school children in London should, in the opinion, annually receive detailed medical examination, and, if required, treatment in order to get the best educational results. The Board has been employing some half-dozen examiners to detect cases of ocular defect and disease, and when found we understand the children so affected receive either a green or red card according to the urgency of the case, the card is taken home to the parent, who is thereupon advised to seek medical advice as to the need of glasses, etc. The card, it is true, does not now bear any special direction to go to a hospital, but it bears a cautionary notice against glasses as prescribed by the various sight testing establishments, certified opticians, chemists, toy shops, or any other than qualified medical men." In the case of the ordinary parent of the ordinary School Board child, however, this amounts to advice to go to a hospital, and such advice is largely acted upon, too largely in the opinion of the governing bodies and overworked staffs of some of the hospitals. It is clear that solicitude for the educational well-being of the child, which no one will gainsay and which was never more thorough than now, is right, and maybe the disciples of the gospel of municipalization would desire to go further and have free physic and free spectacles all rate-provided. We confess we incline to the view of the School Board as being the correct one, that they should seek to discover any let or hindrance to the child's educational progress, else money is thrown away on its instruction, but that a sharp line should be drawn when it comes to treatment. We wish, however, they would not transgress the rule they appear to have laid down for themselves in this matter. We refer to a curious postscript which appears on the back of the aforesaid green card. We reproduce it verbatim:

> In most cases of pustular eye inflammation, irritable or sore eyelids in delicate children, a piece of the ointment, the size of a lentil, in each eye at bed time will be found of benefit. Any chemist will supply it of the following composition: Powdered yellow oxide of mercury, 1 grain; lanolin, 2 drams; vaseline, to half an ounce.

Without calling in question here the universal applicability of this School Board Golden Eye Ointment, we doubt the desirability of this wholesale and indiscriminate mode of prescribing. If the School Board adheres to the view laid down, the remedy for the grievances of the hospitals must be found in a proper mutual arrangement between the Board and them as to days and hours and means whereby this great addition to their ordinary work is to be provided for. It is neither fair nor tolerable that the regular work of a department should be suddenly and without notice dislocated or swamped by the invasion of a battalion of School Board ametropes. The work entailed is not particularly exhilarating, and needs to be done deliberately and conscientiously. Many hospitals we know have recently made special appointments of refractionists to meet the influx. We shall continue to watch the solution of the difficulties to which we have referred, and which, we trust, may proceed on the lines we have ventured to indicate.

THE DOCTOR IN HIS SOCIAL ASPECT.

Every now and again during the last two or three years we have had to contradict rumours as to the King's health which found their way into the newspapers. The latest of these reports was apparently inspired by an announcement made by the *Court Circular* that Sir Frederick Treves was a visitor at Balmoral. The fact that a circumstance of no importance in itself, and of no interest except to those immediately concerned, should give rise to such rumours suggests reflections of a not altogether pleasing character as to the light in which even the most distinguished members of the medical profession are still regarded from a social point of view in this country. We are in the habit of congratulating ourselves on our improved position; yet it is evidently deemed incredible that the Sovereign should invite a surgeon who has rendered him an incalculable service to spend a few days with him as his guest simply by way of social courtesy. Nor does this particular instance by any means stand alone. We can recall several occasions in recent years, when the mere accidental proximity of an eminent physician or surgeon has been made the basis of sinister suspicions and rumours. There is surely nothing more incongruous in the presence among the King's guests of an eminent doctor than in that of an eminent lawyer. Yet His Majesty may entertain a legal luminary without giving rise to the report that he is making his will. The fact is that the public will never allow the doctor to divest himself of his professional character. If he goes out to dinner he may be selected to take down a great lady, only to have his gratification at the honour dashed by the discovery that his fair companion wishes to be told what she is to eat and drink, and what she is to eschew. Perhaps, however,

many *grandes dames de par le monde* agree with Lady Chettam in *Middlemarch* in liking a medical man who is more on a footing with the servants. It may, indeed, sometimes be as awkward to meet one's doctor at dinner as it would be for a sinner to have to entertain his father confessor. A medical man at a social gathering of his patients, if not exactly like a death's head at the feast, must perhaps be something of a restraint. Fortunately society is large enough nowadays to give ample scope and verge enough even to the busiest practitioner for the satisfaction of his social instincts without acting as a *memento mori* to those about him. It is doubtless in a large measure the fault of the doctor himself or rather of his predecessors that he cannot so easily throw off his professional character as men of other callings. This is a legacy of the days when the physician thought it necessary to advertise his profession by the fashion of his garments, and the tradition of the wig and gold-headed cane still clings to his successors. Now that, like a well-known Nonconformist divine, we wear no clothes to distinguish us from our fellow Christians, it is surely time that it should be known that a man may practise medicine without forfeiting his right to be treated, even by the first gentleman in the land, as a friend as well as a physician. We only plead for a more general recognition of this fact, so that a doctor may accept an invitation to a country house without causing unpleasant myths to be woven around his hosts, or attend a wedding without being suspected of a far-seeing eye to future contingencies.

THE FUTURE OF ELECTRO-THERAPEUSIS.

AT the annual conversazione of the British Electro-Therapeutical Society an address was given by Sir Isambard Owen, who said that he took it as a proof of the critical spirit in which the Society conducted its work that it had invited an address not from a professed specialist in electro-therapeutics or neuro-pathology but from one whose field of work obliged him to take a general view of matters. The treatment of disease by physical methods and especially by certain recently-discovered forms of physical energy had been pushed forward with such enthusiasm and such remarkable claims had been made for it, that the profession at large was very much in need of sober guidance and of a source of authoritative information. The matter was further complicated by the fact that while most of the enthusiasts were honest many of them were entirely unfit, if one might judge by their published utterances, to deal with questions of scientific therapeutics; others, again, who had no *locus standi* in the matter at all, except the possession of a powerful instrument, yet claimed to take a leading part in directing treatment, although ignorant alike of pathology and diagnosis. In the face, therefore, of the extravagant promises made and the eager expectations evoked it was most desirable that those members of the medical profession who were in a position to undertake a really scientific investigation of the claims made should draw together, partly as a means of assuring their position in the eyes of their professional brethren and partly to give strength, by union of effort, to the cause of serious and critical inquiry. To sift the grains of sober fact from the chaff in which they are buried would be part of the work which the Society proposed to itself. Difficult, and even invidious, as the task must needs be, it was one of urgent necessity; for unless the two were separated a wind threatened ere long to arise that would carry both wheat and chaff indiscriminately away. To a period of exaggerated expectations one of equally groundless distrust must inevitably succeed. The popular idol whose day of unmerited favour is past is liable to become the victim of equally needless opprobrium, and it may be long before a hearing can be obtained for a calm and impartial judgment. No philosopher, as far as he knew, had made inquiry into that most suggestive subject, the psychology of therapeutic belief and therapeutic error. Few philosophers, it was true, had the necessary experience of medical practice, and few practising medical men had the necessary leisure for philosophic meditation. Were a philosopher with the requisite experience of medicine to arise, the results of his inquiry would be of practical no less than of theoretical value. While awaiting his advent it would not be rash to suggest that while some of the marvellous therapeutic results recently reported would eventually be referred to inadequate diagnosis, a still larger class would be ascribed to imperfect prognosis in the individual case. The medical Socrates of the future would probably reduce a part of our alleged curative results to the mere natural termination of transitory functional disorders, a part to the psychical relief of symptoms mainly of psychical origin, and yet another part to the natural pauses or fluctuations in the march of organic diseases, which, like most forms of pulmonary tubercle, for example, normally tended to run a remittent or intermittent course. But the conjecture might also be hazarded that when destructive criticism had done its worst, and all that it could reasonably challenge was left out of the account, the body of established fact which recent electro-therapeusis could claim would appear either small or unimportant. If it could be said to have shown no more than this: that in the various forms which radiant energy assumes we have a manageable means of modifying profoundly the vital processes of the individual cells; that in these modes of force we have further the power of checking, or of attenuating, or of rendering the tissues resistent to the action of certain parasitic organisms; and that these forces could be practically utilized for the effectual checking of such terrible maladies as lupus, epithelioma and rodent ulcer; we should have to allow that electro-therapeusis must be credited with one of the most remarkable steps in therapeutic knowledge that the present generation has seen.

SLEEPING SICKNESS IN UGANDA.

A REPORT on the Uganda Protectorate by the Commissioner, Lieutenant-Colonel Hayes Sadler, C.B., has been issued as a Parliamentary paper. The period under review, the year ending March, 1903, was "one of unbroken quiet, free from internal disturbance." The efforts of the administration to encourage trade and agriculture have, however, been handicapped by the epidemic of sleeping sickness which "has wrought such a sad havoc in the populous districts adjoining the Victoria Nyanza," adversely affecting the revenue, and retarding the general advancement of the country. The results of scientific inquiries into this mysterious disease are carefully followed by the local authorities. It has been found that there is no danger of infection spreading to places in which the tsetse fly is not found, though there may be some danger in bringing natives from healthy districts into the sleeping sickness area. So far as has been possible, natives in the affected areas have been kept to those areas, but with a disease which may be inherent in a patient for two and a-half years before any constant symptoms are declared; and, where whole districts are concerned, it is evident that, in the absence of any known remedial measure, the precautions taken can have little effect on the epidemic. So far, the disease has not spread inland, except in part of Busoga, and Unyoro, Toro, and Ankole and the Nile Province have not been effected. Not only tsetse flies but mosquitos are a source of trouble. Colonel Sadler is of opinion that mosquitos are more prevalent in Uganda than they were a year ago. The position of Entebbe, the administrative capital, in close proximity to the lake, renders the extermination of mosquitos "practically impossible"; but breeding places have been seen to, and wire gauze, sufficient to render at least one room of each house mosquito-proof, has been distributed among householders.

MEDICAL AND SURGICAL NURSING HOMES, LIMITED.

FOR the expressed purpose, *inter alia*, "to carry on the business of physicians, surgeons, dentists, chemists, druggists," etc., and to establish, equip, and "carry on such hospitals, homes, and institutions," a cashier, a clerk, two printers, a secretary, a merchant, and an in-

corporated accountant have formed themselves into a company. There is no initial public issue, and the directors are to be appointed by these signatories to the memorandum of association. It remains to be seen how this lay company will carry out its avowed object: will it secure, if it can get them, registered medical men to act as its servants, or will it employ with impunity persons not registrable in this country, following the example of some other companies? Even on the first supposition the evil is great enough, for all personal responsibility of practitioner to patient vanishes when a company is the master and proprietor. This is assuming that only properly qualified and registered medical men are employed. But there are not wanting plenty of examples where persons not qualified and not registrable in this country have been foisted upon the public under the wing of a company as medical practitioners, and the recent Irish appeal case of Jaffe, Limited, exemplifies once more the hopelessness, under the circumstances, of bringing legal responsibility home to any one, corporation or individual. It is nothing short of a scandal that such a means of evading laws framed for the benefit of the public should be allowed to remain unremedied. A correspondent suggests that the General Medical Council should define that association with a company would constitute "infamous or disgraceful conduct in a professional sense." There are, however, practical difficulties in framing any such resolution in general terms which may not have occurred to him—difficulties arising out of the legitimate employment of medical men by, for example, steamship companies, hydropathic institutions, and so on. After all, it would only remedy one form of evil—that in which a registered person is employed. The far more serious evil is the facility with which unqualified persons may be employed without risk to themselves or to the company, and this would remain untouched by any action of the General Medical Council, and can only be effectually met by legislation.

THE REVOLTING DOCTORS.

The story told elsewhere (p. 47) with regard to the action taken by the proprietors of certain alkali works at Oldbury and the Committee of their men is one we would particularly commend to the attention of our younger readers. It illustrates very well the high-handed manner in which certain manufacturers and workmen think it becoming to treat members of the medical profession. We believe that all our readers will agree that the medical men concerned are fully justified in protesting against the conditions of payment to which they have been consenting parties in the past. No doubt the rates are a legacy from a remotely distant past, and it is quite clear that they require revision. As will be seen, there was in force at these works a system of pooling: that is to say the men paid a certain sum weekly to a fund, and were at liberty at the beginning of every year to select, from the list of medical men who consented to act, that practitioner whom they preferred; the payment made to the medical man was in proportion to the number of workmen on his list. As usual various abuses crept in, among others that persons holding positions which cannot be held to entitle them to low contract rates of attendance claimed to be admitted, and were admitted. The fact that the medical men undertook to attend not only the workmen, but their families for £1 a year is a most objectionable feature of the scheme and we would strongly recommend that no compromise should be made upon this point. Of course the firm and its committee endeavoured to place the onus of the rupture on the shoulders of the medical men; but we may hope that the workmen at Oldbury, like those at Birmingham, possess sufficient discrimination and sense of justice to see through this manœuvre. Of course, also the medical men are menaced with the introduction of outside practitioners. We trust, however, that it may turn out that this threat is more easily made than carried out, and that no medical man will be found willing to sell his services for a rate which cannot be remunerative, to the detriment of the resident practitioners who are making a reasonable stand against oppression.

FEES FOR INSURANCE WORK.

A paragraph published under this title in our last issue has drawn from the chairman and honorary secretary of the Norwich Division of the British Medical Association the interesting letter which is published at page 49. As will be seen, that Division a short time ago appointed a Committee to report on the conditions under which medical men in Norwich are now examining lives for insurance companies. This will probably result in some further action which will bring the question formally before the other Divisions of the Association. The matter is one which will require careful handling, and the promised report from the Norwich Division will be awaited with much interest.

ST. BARTHOLOMEW'S HOSPITAL.

The statement to which we referred a fortnight ago to the effect that the Post Office had acquired an option over the remaining portion of the site of Christ's Hospital is now confirmed. The refusal or acceptance of the bargain now rests with H.M. Treasury, which is not likely to decline to sanction the purchase of the site, or rather its acquirement under a form of leasehold agreement. It is not, on the other hand, certain that the whole ground will be required for Post Office purposes, or that by dealing with the Government after its bargain has been completed the hospital may not be able to obtain at least some addition to its present ground in this, the most convenient, direction. In any case, however, the authorities are in no way discouraged, and intend to persist in the course upon which they have entered. They have, in fact, adopted one of the suggestions made in the British Medical Journal, and intend, if necessary, to plant out, so to speak, in the immediate neighbourhood as many of the administrative and allied buildings as need not be absolutely within the same boundaries as those intended for the care and treatment of the sick. The finding of contiguous sites on which to place such buildings as the nursing home must, nevertheless, take time, and it is a question whether the chances of a successful appeal to the public will not be greatly diminished if the authorities are not in a position to lay before the meeting at the Mansion House a clear outline sketch of what it is proposed and desired to do.

RICHARD MIDDLEMORE POST-GRADUATE LECTURE, BIRMINGHAM.

Dr. Jameson Evans, Surgeon to the Birmingham and Midland Eye Hospital, delivered the annual post-graduate lecture under the endowment of the late Mr. Richard Middlemore on December 18th, 1903, at the hospital. The subject was Bacterial Diseases of the Conjunctiva, and the lecturer discussed the etiology, symptoms, and treatment of the various forms of conjunctivitis, with especial reference to their microbic origin. The lecture was illustrated by the exhibition of numerous drawings, microscopical preparations, and clinical cases. Dr. Jameson Evans stated that bacterial conjunctivitis, in the total of all its varieties, accounted for 25 per cent. of the ophthalmic cases treated at the Birmingham Eye Hospital.

It is announced that three patients suffering from sleeping sickness have come from the Congo to England for treatment at the Liverpool School of Tropical Medicine. They were found by the mission sent out by the School at the instance of King Leopold.

Colonel Arthur Mudge Branfoot, C.I.E., Indian Medical Service, retired, has been appointed by the Secretary of State for India to be President of the Medical Board, India Office, upon the retirement, which will shortly take place, of Surgeon-General Sir William Roe Hooper, K.C.S.I.

DR. NILS RYBERG FINSEN, to whom the Nobel Prize for Medicine was recently awarded, has given £2,753 out of the £7,750 constituting the prize to the Light Institute founded by him at Copenhagen.

PROFESSOR BLANCHARD, of Paris, accompanied by Dr. R. Wurtz, Professeur Agrégé in the Medical Faculty of the University of Paris, and twelve students of the Paris Institut de Médecine Coloniale, paid a visit to the London School of Tropical Medicine on December 28th, 1903. They inspected the laboratories in the morning, and after being entertained at luncheon by the teachers of the School, attended Sir Patrick Manson's clinic in the afternoon.

Scotland.

EDINBURGH ROYAL INFIRMARY.

AT the weekly meeting of the Managers on Monday, December 28th, 1903, it was intimated that Dr. J. O. Affleck and Dr. C. E. Underhill had been elected as representatives of the Royal College of Physicians to the Infirmary Board for 1904. The managers of the Royal Infirmary have recently enacted that there shall be an age limit of 65 as regards the period of service of the physicians and surgeons to the infirmary, excepting however from this rule the University professors. In the case of these physicians and surgeons this age limit rule has hitherto practically never been required, because all have by the rules of the infirmary a period of service limited to 15 years, and in this way nearly all of them have been under 55 or 60 years of age when their periods of service had expired. In the future things may be different, and this age limit may become important. As there has been no age limit in the University, several professors have held their chairs and their infirmary appointments beyond the age of 65, and there have been instances in which, owing to age changes, they could not be regarded as being thoroughly fit for their work. It is felt by many that the age limit of 65 should be made to apply to every physician and surgeon in the institution. It must, of course, be understood that the managers of the infirmary might, in the case of any individual physician or surgeon, grant an extension of service with advantage. It is a pity that the reforming zeal of the managers cannot be diverted into utilitarian lines. Much remains to be done to bring the school and the hospital abreast of the times. Attention has already been drawn in the BRITISH MEDICAL JOURNAL to the fact that the managers neither appoint nor pay for a single skilled anaesthetist. Herein alone the Edinburgh Royal Infirmary lags behind most of the great hospitals of the kingdom. Even in Edinburgh, both the Royal Hospital for Sick Children and the Deaconness Hospital employ highly-trained anaesthetists. So do the private hospitals of the city.

THE PREVENTION OF CONSUMPTION: GLASGOW.

The movement which has been going on during the last few weeks in Glasgow to hasten the more effective control of consumption in the city has made considerable progress. Subscriptions are coming in for the proposed sanatorium at Lanark, and it is hoped that it will be possible soon to make a beginning with the work there. The *Evening News* fund, made up principally of shillings subscribed by the working men themselves, had by Christmas Day exceeded £4,000, and this very gratifying response is being daily added to. Moreover, the Corporation of the city, although they have not felt justified in recommending notification of the disease, are taking more active steps to assist the National Association for the Prevention of Consumption, and last week an important conference took place between the members of the Town Council and the various ward committees, the Lord Provost being in the chair. It was agreed that the various town councillors, with a representative from each ward committee, should co-operative with the Glasgow and District Branch of the National Association in considering the best means to be taken for the prevention of the disease in the city, and the treatment of the many sufferers therefrom.

QUEEN VICTORIA'S JUBILEE INSTITUTE OF NURSES: SCOTTISH BRANCH.

The fifteenth annual report, that for the year ending October 31st, 1903, shows that at that date the Scottish Council was responsible for the maintenance of 51 nurses and probationers. Of these, 18 were undergoing six months' district training, and 26 were in various institutions for hospital training; 37 nurses completed training, and 1 failed. 22 candidates entered the training home for the required month of probation before receiving hospital training, and 2 of these failed. In consequence of the managers of the Edinburgh Royal Infirmary having recently made new arrangements for the entry and training of nurses, the Council of the Scottish Board record with regret that they have no longer the 12 vacancies for the hospital training of their probationers in the Royal Infirmary as hitherto. They hope that a larger number of candidates who have already received hospital training will come forward for district training and become Queen's Nurses, and that the work of the Institute will not therefore suffer. Thirteen new branches have been established and affiliated to the Institute. The working classes in some districts make organized effort to support Queen's Nurses. At Prestonpans every miner makes a weekly contribution and every fishing-boat an annual contribution; Kinneil Collieries, Bo'ness, entirely support a Queen's Nurse for their own districts; at Keltz and Cowdenbeath nurses are supported from the proceeds of the Gothenburg system. There are now 238 Queen's nurses in Scotland. The excess of ordinary expenditure over the receipts has been £357. The Institute is therefore in pressing need of more funds, and few things can be so whole-heartedly commended to the consideration of a generous public.

PROPOSED CONSUMPTION SANATORIUM FOR THE COUNTY OF AYR.

A public meeting in support of the scheme for the erection of a consumption sanatorium for Ayrshire was held recently in the Corn Exchange Hall, Kilmarnock. Limelight pictures were exhibited to illustrate the nature of the disease and the method of its treatment at various sanatoria, the medical aspects of the subject being dealt with in a popular way by Dr. Chalmers, the Medical Officer of Health for Glasgow, and Dr. Caverhill, of Edinburgh. Patients who had undergone the open-air method of treatment in Germany and in this country were present, and gave testimony as to its efficacy. The meeting gave its hearty approval to the proposed sanatorium, and commended it to the support of all classes in the town and the county. A site of about thirty acres has been secured about two miles from New Cumnock, 800 ft. above the sea level, and very suitable in every respect. About £8,000 of the £14,000 required has now been subscribed, and building operations are about to be commenced.

THE PREVENTION OF MALARIA.

At a meeting of the Liverpool Chamber of Commerce held on December 29th, 1903, a letter was read from the Glasgow Corporation stating that the Glasgow Faculty of Physicians and Surgeons, the Chamber of Commerce, and the Corporation had allied their forces to co-operate with any other authorities interested in order to bring pressure on the Government with the view of inducing them to take some decisive action to mitigate the ravages of malaria in West Africa. It was resolved to ask the Liverpool School of Tropical Medicine to formulate a scheme which might be submitted to the Government.

Ireland.

HOUSING OF THE WORKING CLASSES IN DUBLIN.

LAST spring a deputation from the Trades Council waited upon the Corporation of Dublin with reference to the question of the housing of the working classes, and as a result it was arranged that a conference should be held between the Parliamentary representatives of the city and county of Dublin, the members of the Corporation, and the Trades Council. At this conference, held in September, a committee was appointed to consider and report upon all the questions involved. The report of this committee contains a complete summary of all that has been done in the recent past to provide suitable dwellings for the working classes, whether in connexion with the clearing of insanitary areas, or by commercial companies, or by schemes of private philanthropy, and gives details also of certain undertakings which are as yet incomplete. It shows that there are still some 13,000 persons living in houses which have already been or may shortly be expected to be condemned as insanitary, and makes certain suggestions as

to alterations required in the law in order that the matter may be dealt with in a satisfactory manner. Finally it ends with a strong expression of opinion that it would be a fatal mistake to continue to put a premium on bad sanitation and improper housing by purchasing insanitary areas at ruinous rates and reinstating on them. It is urged that the proper course is to erect upon the outskirts of the city cottages and other self-contained dwellings, and to secure by arrangement with the tramway and railway companies cheap means of transit for workpeople to and from the city. The erection of such semi-rural dwellings will, it is considered, not only contribute directly to the health of the population, but will, by lessening the pressure on tenement houses, make it possible for the corporation to enforce the laws with regard to insanitary dwellings strictly. The course thus recommended is practically the same as that which has been urged for some years past by the Professor of Hygiene at the Catholic University, Dr. Antony Roche.

THE IRISH POOR-LAW COMMISSION IN BELFAST.

At the third sitting in Belfast of the Irish Poor-Law Commission Dr. Bruce Smyth expressed the opinion that there should be a sanatorium for consumptives for each county. Boarding-out would be of immense benefit to pauper children, and epileptic colonies would be of advantage. Dr. Macintosh said that the proposal for the amalgamation of workhouses would not apply to Belfast. Some of the country workhouses, no longer required for Poor-law administration, could be taken over for the purposes of a fully-equipped auxiliary lunatic asylum. He approved of suitable buildings for sanatoria for consumptives, and an institution for aged pensioners, who deserved better treatment from the State than they now received. A system of old-age pensions would reduce the number of aged inmates. Children should be taken away from workhouses, and everything done to reduce the tendency to hereditary pauperism. He was in favour of cottage and scattered homes. Vagrancy should be treated as a disease to be cured; labour colonies could be instituted where vagrants could be put to productive labour. Dr. Kirk also approved of cottage hospitals throughout the country. Dr. Hall (Belfast) gave evidence as to the desirability of hospital patients paying for their treatment. Sanatoria for consumptives should be erected, and consumption should be made compulsorily notifiable. Dr. Lynass thought workhouse and fever hospitals should be separated from workhouses. Children over 4 should be removed from workhouses altogether. The guardians might subsidize charitable bodies which provided nurses for the sick poor. Dr. McLeish said lunatics and epileptics should be removed from workhouses. The best way to deal with surplus lunatics would be to send them to district asylums to which annexes on the cottage or villa plan could be built. A large amount of lay evidence was also submitted.

PROPOSED CONSUMPTIVE SANATORIUM FOR BELFAST WORKHOUSE.

The Local Government Board has written to the Belfast Board of Guardians notifying that its inspectors, Dr. E. C. Biggar and Mr. Agnew, will hold an inquiry regarding the proposal of the guardians to purchase certain premises at Whiteabbey, consisting of a house and thirty-three acres of land to be converted into a sanatorium for workhouse consumptives. The points to be inquired into are (1) whether under existing circumstances an additional workhouse is required for Belfast Union; (2) whether the premises proposed to be purchased are suitable and necessary and the price reasonable, and (3) what would be the probable amount of annual charge.

THE IRISH POOR-LAW MEDICAL SERVICE.

Dr. Leonard Kidd has recently addressed to the Irish press a lengthy and important letter in answer to Mr. McArdle and some others who have expressed the idea of the present unsatisfactory state of affairs in the Irish Poor-law Medical Service being remedied by the conversion of the latter into a State medical service. His letter is an historical summary of the principal events in organization which has been going on for years, and made of it is devoted to answering what is either merely destructive criticism, or, at the best, advocacy of a scheme which have been tried again and again and failed. The arbitration suggested between representatives of the medical profession and the Local Government Board would, says Dr. Kidd, be a very one-sided affair even if such a plan were not perfectly hopeless, owing to the fact that endless representations to that authority have already been made in vain. Nor would it be useful to hold a conference with the Boards of Guardians. The latter number over 150, and it is impossible to bring them into line. An attempt was once made, but half of them did not deign even to acknowledge the invitation. Besides, even if an agreement were reached, it would still be useless, for, to put it into effect, an increased contribution from the Local Government Board would be necessary, and this the Local Government Board, getting behind the Treasury, would refuse. The Local Government Board already knows the position of matters and avoided including the dispensary question in the work of the Viceregal Commission on the poor excuse of contention and expense. The only response open, therefore, was to show that in default of radical reform administration would be impossible. To urge men not to accept underpaid appointments has proved effective, for already in many places substantial additions to salaries have been made. There is nothing hostile to the "people" in recommending a State service in lieu of popular election of medical officers, for the idea was introduced years before the "people" had anything to do with the matter. Moreover, a proper scheme of promotion not less than a living wage is one of the objects of the Irish Medical Association, and it is difficult to secure that under a system of election more especially because religious and political views held by candidates are considered to be of greater importance than professional fitness for the posts sought. The Irish Medical Association, moreover, has merely fixed upon £200 per annum as a working and irreducible minimum. It desires that salaries should be graded from this point upwards in strict accord with the work involved and the contingent possibilities in the way of private practice; that is another reason which makes a popular election scheme more difficult. But besides this, no one knows except those who have visited them what dreadful places the dispensaries are and how utterly unfit for the treatment of men and women, however able the doctor may be; nor will they ever be any better as long as they are under local guardians. The dispensary doctors, in addition, are practically the only medical officers of health for Ireland, and the regeneration of Ireland requires that an immense amount of sanitary work should be done. The people also have to be taught to regard the asylums not as prisons but as hospitals for those who are temporarily sick in mind. Altogether, therefore, there is an immense field of practically untouched work and the only way in which it can really be taken in hand is by the creation of a uniform State service. The objections raised to such a service are mainly that its introduction would deprive the people of a newly acquired power, that it would be subject to Castle influence, and that complications would arise in fixing rates of superannuation. Superannuation being based on official pay the question would be settled as easily as in any other service, while the people would be fully compensated for any loss of power by partial relief from rates, and the expenses of the service would come out of funds to which the smaller people do not contribute except very indirectly. Besides this Dr. Kidd shows that the power which the people at present possesses is merely nominal, for the guardians cannot do anything without the approval of the Local Government Board, and the latter can over-ride the guardians to any extent that it pleases. Entrance examination with competition would secure the best men, and promotion based on examination records together with efficiency and good and long service would eliminate the dreaded Castle influence. To the profession the proposed service would offer all the advantages of a definite career. The Irish Medical Association may possibly prefer to move along the lines of least resistance and retain popular election in its programme, but from the point of view of the people what is to be prayed for is a State medical and sanitary service freed from all questions of religion, politics, interest, and favoritism.

THE LATE DR. GEORGE GRAY, J.P.

A large representative meeting of the residents in the Castlewellan district was held last month under the auspices of the Castlewellan Tenancy Society on the occasion of the first unveiling of a portrait of the late George Gray, M.D., J.P., who was the first president of the Society. The chair was taken by Lady Annesley, who, in the course of a stirring speech gave an account of all that the deceased had done for the inhabitants of Castlewellan and Newcastle, and said they had all met, young and old, rich and poor, and of various religious persuasions, to give expression to their thoughts and feelings with reference to one who had been a friend to

all of them, without respect to class or creed. She concluded by saying that to live in the hearts of those we leave behind, as did Dr. Gray, was not to die. Speeches of an allied character followed from a number of clergymen of various denominations and other residents.

Canada.

NEW AND ENLARGED HOSPITALS.

DURING the past six months remarkable activity has been shown throughout the Dominion in planning and erecting new hospitals, and extending the older institutions. This is undoubtedly due to the demand for greater accommodation on account of the substantial increase in population during the past few years. In Montreal the Royal Victoria Hospital and Hotel Dieu have both built a new wing. The Notre Dame Hospital has purchased a site, and will commence its new hospital in the spring. The Western Hospital, New Children's Hospital, and Hospital for Infectious Diseases have accepted plans for new building before their committees, and the Montreal General Hospital is seriously discussing an addition to its overtaxed accommodation, while the Montreal Maternity Hospital has commenced its foundations on the new site. In Toronto it is felt that the hospitals are inadequate, especially in regard to clinical facilities for medical students. Patients who can pay even the minimum fee are exempt from examination by any but the physician in charge, and consequently clinical material has to be drawn from the small class of pauper patients. Further, the outdoor departments have been poorly equipped and have lacked organization, and as a result are practically valueless from this standpoint. At a meeting of the Medical Faculty of Toronto University and the Boards of Trustees of the principal hospitals these questions were discussed and a plan agreed upon whereby the defect would be remedied. Dr. Rose Bradford, of University College, London, who was in Canada as a member of the Mosely Commission, addressed the meeting held at the General Hospital, and gave an account of hospital work in London and the methods adopted for the instruction of students. A Committee of the Faculty visited New York, Boston, Philadelphia, Chicago, Montreal, and Baltimore to find out the most approved methods of conducting the outdoor departments, and rendered a detailed report of the changes required in the Toronto General and St. Michael's Hospitals, that they might be rendered efficient. These improvements will doubtless be undertaken very shortly. In addition to this the Toronto Western Hospital has opened its doors to students, and has plans under consideration for the erection of a new set of buildings. Members of the Committee have been visiting many of the more modern hospitals in Canada and the United States in search of new ideas. In the Maritime Provinces a hospital has just been opened at Moncton, N.B. It is equipped with all modern appliances and contains a model operating room.

The completion of the new wing of the Winnipeg Hospital was unfortunately delayed owing to one of the walls being blown down in a gale while still incomplete; the work, however, was at once recommenced, and the completed hospital will stand comparison with the best in the Dominion.

Work has been begun on the new hospital for epileptics at Woodstock (Ont.). It is expected that the buildings will be ready for occupation on August 1st, 1904, and that the existing scarcity of accommodation in the province for the mentally unsound will be materially relieved.

PROPOSED MUNICIPAL CONSUMPTION SANATORIUM FOR TORONTO.

The Board of Control of the City of Toronto will submit to the electors at the beginning of the new year a proposition to devote $50,000 to the erection of a municipal consumption sanatorium. It is not stated whether this fund is to be expended by the city or used to aid any existing institution with a similar aim. The National Consumption Sanatorium Association maintains at Gravenhurst two institutions, one for pay patients, the other free, both treating only cases in the early stages of the disease, and are likewise undertaking the establishment of a hospital for the care of advanced cases, and they hope that part at least of this fund may be devoted to the support of the latter institution. According to the statistics prepared by the Provincial Health Department the the number of deaths from tuberculosis in Ontario shows a decided falling off during the last few years, due no doubt to the improved sanitary regulations. The figures for the past six years are as follows: 1897, 3,154; 1898, 3,201; 1899, 3,405; 1900, 3,484; 1901, 3,243; 1902, 2,694; total, 19,371.

COLLEGES.

The jubilee year of the Medical Faculty of Queen's University, Kingston, was celebrated recently. The chief speaker was Dr. W. L. Herriman, of Lindsay (Ont.), the only survivor of the first graduating class. Manitoba Medical College began its twenty-first consecutive session with the largest class in its history. Dr. J. C. Connell, M.A., has been appointed Dean of the Medical Faculty of Queen's University, Kingston. Dr. Jno. W. Scane has been appointed Registrar of the Faculty of Medicine at McGill.

ANTISEPTIC BARBERS.

The Board of Health of the Province of Ontario has conducted a preliminary series of experiments to determine the mode of sterilization of barbers' instruments which should best combine simplicity and effectiveness. Dr. Amyot, provincial bacteriologist, made the experiments by smearing knives with pus containing staphylococci, then using the various means of sterilization, after which they were immersed in culture tubes and the subsequent growth examined. It was found that for immersion in pure carbolic acid a period of at least five minutes was necessary. Formalin was used by placing it in a vessel over which the instruments were put in a tray, the whole being enclosed in an airtight box overnight. In two out of three cases growth was present. Immersion for fifteen minutes in 95 per cent. alcohol was also ineffective. The only method that seemed to be successful was the pouring of boiling water on the knives for fifteen minutes. This would not kill spore-bearing bacteria, and probably its value was partly due to the washing. In accordance with these results a set of rules for the guidance of barbers was formulated by the Board of Health, of which the chief points were as follows: Razors are to be washed with boiling water, brushes and combs to be washed every twenty-four hours with soap and soda, separate towels are to be provided for each client, and hands to be washed between each, fresh absorbent cotton to be used each time as powder puff, alum to be used in powder, soap and vaseline in collapsible tubes, shaving mugs to be avoided, a separate kit to be used for shaving the dead, and infectious-looking cases to be avoided. These rules are intended as suggestions for barbers in the management of their shops.

DIPHTHERIA ANTITOXIN AS A PROPHYLACTIC.

In the *Canadian Practitioner* for December, 1903, Dr. J. S. A. Graham reports the results of the use of antitoxin as a prophylactic for diphtheria in the Hospital for Sick Children, Toronto. The hospital had never been free from diphtheria for any length of time since its establishment, and in the six months previous to the experiment there occurred 42 cases, while in the six months which it lasted there occurred not a single case, and in the subsequent six months 8 cases occurred; 500 units were given to every child in the hospital over 3 years of age and 250 units to every child of 3 or under, every 21 days. In all 384 cases were treated and watched with results both instructive and valuable.

SMALL-POX AND TYPHOID FEVER.

Small-pox has appeared in the country about Tweed, Ontario. There were 29 cases in eight houses; one death resulting. The cases have been isolated, and measures adopted to prevent further extension. Fourteen cases are reported in Madawaska County, N.B., near the boundary of Maine, U.S.A. Typhoid fever has been unusually prevalent at Winnipeg this season, and temporary hospital accommodation had to be provided.

PROPOSED MEDICAL CLUB HOUSE.

The Executive Committee of the Ontario Medical Library Association has under consideration the establishment of a club-house, where all the recent works and current publications of interest to the profession will be available.

DEATH OF DR. LANDERKIN.

The Hon. Dr. Landerkin, of Hanover, Ontario, died on October 4th, 1903, aged 64. He was well known both as a physician and as a politician. He was a member of the House of Commons for many years, and was appointed a member of the Senate in February, 1901.

OUT-PATIENTS AT LONDON HOSPITALS.

It has been thought that a comparison of the number of out-patients seen at the principal London hospitals in the year 1891 and in the year 1901 respectively would probably yield some interesting and instructive results. This interval has been taken because it was believed that it would be sufficient to allow any general tendency to increase or decrease to manifest itself, while at the same time avoiding certain classes of errors due to changes in habit and administration which might have been introduced had a longer period been taken. The investigation has been made simply to ascertain the real and relative number, and is not concerned with such questions as the class of persons to whom medical attendance has been given in the out-patient departments—a matter as to which no statistical material, so far as we know, exists.

At an early stage it was found to be impossible, with the means at our disposal, to embrace all hospitals in London. The out-patient statistics at many hospitals in past years would appear to have been somewhat negligently compiled, while in others the system of record has been altered from time to time. For this and other reasons it was found advisable to limit the inquiry to the statistics of the eleven general hospitals which have medical schools attached. The figures which we have used have been taken in the main from Burdett's *Hospitals and Charities*, but we are indebted to the officials of certain hospitals for additional information.

Table I shows the crude total number of out-patients coming within all categories treated as stated at the eleven great general hospitals in the years 1891 and 1901 respectively. It will be seen that the number increased from 633,175 in the year 1891 to 706,307 in the year 1901; or in other words that 73,132 more out-patients were treated in the year 1901 than had been treated at the same hospitals in the tenth year before.

TABLE I.—*General Out-patient Work.*

Hospital.	Year 1891. Total No. of Persons Treated as Out-patients.	Year 1901. Total No. of Persons Treated as Out-patients.
St. Bartholomew's	157,211	134,5[illegible]
Guy's	59,540	121,4[illegible]
St. Thomas's	72,531	92,861
St. George's	26,203	31,843
University	43,151	42,080
London	114,219	109,020
Charing Cross	21,332	14,002
Westminster	26,205	22,344
Middlesex	39,353	47,084
St. Mary's	30,441	41,681
King's College ...	21,461	20,840
Totals ...	633,175	[illegible]

The second table shows the medical and surgical out-patients and casualties in the same years, and it will be seen that these increased from 617,731 in 1891 to 690,775 in 1901; or, in other words, that of the total increase shown in the foregoing Table I, 73,044 belonged to the ordinary medical and surgical and casualty class.

TABLE II.—*Medical and Surgical Out-patients and Casualties.*

Hospital.	Year 1891.	Year 1901.
St. Bartholomew's	155,348	[illegible]
Guy's	[illegible]	[illegible]
St. Thomas's	[illegible]	[illegible]
St. George's	[illegible]	[illegible]
University	[illegible]	[illegible]
London	[illegible]	[illegible]
Charing Cross	[illegible]	[illegible]
Westminster	[illegible]	[illegible]
Middlesex	[illegible]	[illegible]
St. Mary's	[illegible]	[illegible]
King's College	[illegible]	[illegible]
Totals	[illegible]	[illegible]

Table III shows the same particulars with regard to the maternity out-patient work, and that this was represented by 15,444 cases in 1891 against 15,532 cases in 1901, or, in other words, that of the total increase shown in Table I only 88 cases were due to increase in the confinements conducted by students or officers of the hospitals mentioned among out-patients.

TABLE III. *Maternity Cases.*

Hospital.	Year 1891.	Year 1901.
St. Bartholomew's ...	1,865	[illegible]
Guy's ...	2,582	474
St. Thomas's	2,207	[illegible]
St. George's	377	524
University	2,506	1,053
London	2,127	[illegible]
Charing Cross	279	272
Westminster	395	242
Middlesex	1,065	807
St. Mary's	1,069	[illegible]
King's College	[illegible]	69
Totals	15,444	[illegible]

Table IV shows by how much per cent. the out-patient work actually done at these hospitals has increased in the ten years. It will be seen that it amounts in the aggregate to 12.4, being made up of 11.8 per cent. increase in the medical, surgical, and casualty work, and of 0.6 per cent. only in the maternity work.

TABLE IV.

Nature of Work.	1901.	1901.	Percentage Difference.
Medical and surgical out-patients and casualties	617,731	690,775	11.8
Confinements	15,444	[illegible]	0.6
Totals	[illegible]	[illegible]	+12.4

The next three tables are based upon the foregoing, but regard matters from quite a different point of view, that is, in relation to population, etc., at the beginning and end of the period which the figures cover. From the first of them (No. V) it will be seen that in the earlier year out of every thousand persons in the administrative County of London 149.9 were in receipt of one or other form of out-patient relief at these eleven general hospitals alone, and that by the end of the year 1901, the proportion had increased 155.3 per 1,000.

TABLE V. *Out-patients in Proportion to Population.*

Number of Out-patients of all Classes per 1,000 of Population of the Administrative County of London.					
1891. Population, 4,221,452.			1901. Population, [illegible]		
Out-patients.	Maternity.	Total.	Out-patients.	Maternity.	Total.
146.3	3.6	149.9	[illegible]	3.4	155.4

Table VI deals with the figures from the same general point of view, but shows the percentage of increase or decrease in the work done in proportion to population. It is really a deduction from the preceding table, but may be compared also with Table IV. It will be seen that while general out-patient work at these hospitals has increased 3.7 per cent. in proportion to population as well as 12.4 per cent. in actual work, as shown in Table IV, the maternity work, in relation to population, has slightly decreased. As, however, no proper proportion can be established between maternity work and net population, any conclusion from this fact would be fallacious, so that the reduction must be disregarded.

TABLE VI. *Percentage of Increase or Decrease of Out-patient Work in Proportion to Population.*

Work.	1891.	1901.	Percentage Difference.
Medical and surgical out-patients, etc. [illegible]	146.	[illegible]	Increase [illegible]
Maternity cases per 1,000 of population	[illegible]	3.4	Decrease [illegible]
Total work per 1,000 of population	149.	155.4	Increase [illegible]

Table VII deals with the maternity work alone, and brings it into its proper relation—namely, with the number of registered births. It will be seen that although this part of the work of the eleven hospitals has practically stood still, yet nevertheless when compared with the total number of registered births in the two respective years, the relative increase in this part of their work is not less marked than that of their general work. In other words, it will be noted that whereas in the earlier year 115.2 cases per 1,000 registered births were conducted among out-patients, this proportion had increased to 118 3 per 1,000 by the end of 1901. There is a slight element of error introduced by this comparison, inasmuch as stillbirths are not registered, so that the total births registered do not necessarily represent the total confinements. This error would, however apply to both years.

TABLE VII.—*Maternity Cases in Comparison with Registered Births.*

1891. Registered Births, 134,003.		1901. Registered Births, 131,27		Increase per Cent.
Maternity patients at the 11 hospitals per 1,000 births	115 2	Maternity cases at the 11 hospitals per 1,000 births	118 3	2 7

As regards the apparently stationary character of the maternity work, it is to be observed that this class of work is affected by several factors, for example: (1) The number of students doing midwifery (at several hospitals the schools are considerably smaller than they were, while others are larger); (2) the birth rate (in the ten years this has fallen very considerably); (3) the growth of midwifery training schools; (4) alteration in the character of the neighbourhood surrounding a hospital, for midwifery work is never done at any great distance from the hospital, and if there are large movements of poor, either out of or into the locality, the maternity work of the hospital may be very greatly diminished, and cannot in the reverse circumstance be increased unless the number of students also grows.

It is necessary to observe one caution in the use of the tables; they are perfectly correct for the purpose for which they are compiled, that is, to show the combined work done; but fallacies would arise if it were attempted to use the earlier tables for comparing the work of one hospital with another. For it is not absolutely certain that the rules by which patients are recorded are the same at all the hospitals.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

VI.—EDUCATION OF THE ANCIENT GREEKS.

THE physical and intellectual beauty of the ancient Greeks, of which proofs innumerable have been handed down in their literature and works of art may be traced in large measure at least to the public games, which formed part of a religious observance bidding them worship their gods with athletic contests. No other nation has ever produced such perfection of human form, no other institutions have ever had such influence in moulding and elevating the mind. No honour has in the world's history been so coveted as that perishable garland of wild olive cut with a golden sickle from the sacred tree brought by Hercules "from the dark fountains of Ister, in the land of the Hyperboreans, to be a shelter common to all men, and a crown of noble deeds," that garland won at Olympia in the presence of the delegates of States and cities and enthusiastic multitudes assembled from the remotest corners of Greece for the great festival. The simple crown, placed on the head of the victor, and the palm he held in his hand, were awarded so that the combatants might contend for glory and not in the desire for gain; but the glory of the victor was immortal, and among the Spartans he had as his prerogative the post of honour in battle. Great sculptors such as Praxiteles and Phidias, were employed by the State to immortalize his form, and from the palaestra and gymnasium an inexhaustible supply of perfect models of youthful grace and manly strength were handed down to posterity. Pausanias mentions 230 bronze statues of Olympian victors adorning the streets and public places of Olympia even after its destruction.

The moral influence of these contests was as important as their physical effect. They had, as has been said, a religious character, and all athletes competing must be of pure Hellenic descent and free from religious or civil stain. In the presence of the presidents sitting in the Bouleuterion they must lay their hands on the bleeding victim, and swear before witnesses that they had no blot on their character which could prevent them from competing. So deep was the influence of these religious contests on the people of Greece that the care of their children's physique from earliest infancy was uppermost in the minds of parents. Their son must be perfect in body, so that he might grow up one day to be a warrior able to fight for his country. Thus the father had the right of life and death over his offspring. On the birth of a child it was laid at his feet, when, if he despaired of being able to correct certain defects in conformation, it might be put to death. Women bearing children were constantly reminded that it was their duty to eat nourishing food and to take gentle exercise.

Aristotle, writing on the care of infancy, says:

Once the children are born, it must be understood that the character of their diet makes a great difference to their bodily strength. From careful observation of the lower animals and of peoples which devote themselves to the creation of a warlike condition, we find that a diet consisting mainly of milk is best adapted to their bodies, and one without much wine, on account of the diseases which it produces. Further, it is good for them to make all the movements that it is possible for them to make at that age. To prevent their tender limbs being deformed, some peoples even at the present day have recourse to certain mechanical appliances to make their children's bodies straight.

The Spartan nurses were so careful and experienced that they brought up the children entrusted to them straight and well proportioned without the use of swaddling bands. So celebrated were these nurses that they were employed throughout Greece.

It is a good thing, too (says Aristotle), to accustom them to cold from early childhood; it is most serviceable from the point of view of health and as a preparation for military service. This is the reason of the custom which prevails among many of the barbarians, either of dipping children after birth into a cold stream, or of covering them only with a light wrapper, as the Celts do.

Usually the Greek child was bathed in warm water. It was then put in one of the wicker baskets used to separate wheat from chaff, as wishing for it future opulence and a numerous posterity.

Women of the highest rank suckled their babies. At a later period of Grecian history female slaves were employed as wet nurses, and generally became the friends and confidants of the girls they had brought up. Barthélemy in his *Travels of Anacharsis* (1788) states on the authority of Plato:

So rapid is the growth of the human body in the first five years of infancy, that according to some naturalists it does not double its height in the twenty succeeding years. It then requires plentiful nourishment and much exercise. Nature agitates the infant with a secret restlessness and nurses are often obliged to take him in their arms and gently lull his brain by pleasing and melodious songs. It should seem as if long habit had led them to consider music and dancing as the primary elements of our education; these promote digestion, procure calm sleep, and dissipate those sudden terrors which external objects are apt to produce on the yet feeble organs.

After the child was weaned it was fed on pap made with honey. When the nurse carried an infant who cried in the street she applied to its mouth a sponge dipped in honey to quiet it.

Schools in Athens were kept by private teachers, the Government occupying itself only with the moral qualifications of the schoolmaster. Music, drawing, grammar, and gymnastics were the ordinary subjects taught.

Aristotle was of opinion that to put the child to lessons before its fifth year would be to interfere with its growth. Occupation, above all play, it must have, in order to counteract sluggishness of the body. The games must not be vulgar, and must be neither too slack, too soft, nor yet too fatiguing. Officers called inspectors of children were to decide upon the kind of stories, true or fictitious, which were to be told to children of this age so that reverence might be aroused by properly chosen stories.

As all these things were a preparation for later life, most of the games were to be foreshadowers of what the child would have to do in earnest later on. Aristotle was emphatic in the matter of allowing children to shout and cry, and in his opinion the prohibition of this by the laws was a complete mistake. It was good for growth; in fact, a sort of gymnastic, for as holding the breath gave people strength in gymnastic exercises so children got the same advantage by shouting.

Children were not to be allowed into the company of scr-

vants during the time up to the age of 7—when they were necessarily at home. Xenocrates said that children needed ear protectors even more than boxers did. The Greek mother was taught to be particularly careful as to the first impressions her son should receive—"impressions sometimes so powerful and durable as to leave traces on the character for the remainder of life." She was impressed with the belief that a mind continually agitated in infancy by idle terrors would become more and more timid, therefore she withheld from her child all objects that might increase his fears, instead of multiplying them by menaces and blows.

Aristotle held it down that, broadly, there are four subjects which enter into education—reading and writing, gymnastics, music, and drawing. Reading and writing were of the highest utility for practical life; gymnastics to promote strength and courage; and music as a pastime, useful in making youths use leisure rightly, and to excite in them feelings of tenderness. Music represented the mental training of the Greeks, embodied in the art of expression, gymnastics the physical training. In the intervals of running, wrestling, and batting youths were instructed on such subjects as beauty, truth, and goodness. Thus, as their curiosity was aroused by the elegant discourses of the philosophers, they were enabled to defend their opinions upon any subject with facility and grace.

Children began physical exercises at a very early age, sometimes as early as 7, and they continued them until they were 20. They were first taught to be hardy by bearing heat and cold, and then by gentle exercises, throwing balls of different sizes to each other. As their strength developed they were taught to hurl javelins, run in deep sand, to leap over ditches and barriers, throw quoits of brass or stone, or hold heavy leaden weights. Later they were trained to run once, or oftener, the length of the stadium, frequently in heavy armour. The chief exercises of young men were wrestling, pugilistic encounters, and the various combats which took place in the Olympic games. A boy was required to indulge in games with moderation, and to correct their effects by mental exercises. He was taught arithmetic, geometry, and astronomy. Arithmetic, by increasing the sagacity of the mind, would prepare it for the reception of geometry, with the assistance of which, should he [illegible] one day be placed at the head of armies, he would be better enabled to mark out a camp, conduct a siege, arrange troops in order of battle, and direct their motions on [illegible]. Astronomy would serve to guard him against the panic terror with which the soldiers were often seized at the sight of eclipses and other rare phenomena of Nature.

Plato, who wrote the first treatise on education, emphasizes the fact that worthy and strong children spring from strong and worthy parents. He taught that the beautiful is allied [illegible] be indistinguishable, and that [illegible] was best able to grapple with the difficult problems of existence. Youth was to be [illegible] and in the rudiments of literature. [illegible] husbandry, manufactures and trade [illegible] a genteel education [illegible] learn music, philosophy, hunting, and gymnastic [illegible] and employed [illegible]

At the age of 7 the [illegible] education of the Spartan [illegible]. At the head of the children above this [illegible] He distributed [illegible] They [illegible] inured by [illegible] to cold their [illegible] hands without employing any [illegible] when they swam, hunted, wrestled, [illegible] in exercises in the gymnasium. After partaking of a frugal wholesome meal, their young leaders ordered them to sing or engaged them in conversation, in order that they might judge of their wit; those who answered carelessly were chastised. Their diet was watched and they were examined to see if they were disposed to corpulency, as this was considered a proof of luxurious indolence; in order to guard against it, they were employed the greater part of each day in the gymnasium.

A most marked characteristic of the ancient Greeks was the strong religious feeling which pervaded their daily lives. Those who were desirous of having children were liberal in making presents and offerings to the gods, especially to those who presided over generation. The infant on the fifth day after birth was put under the protection of the household gods, the hearth being emblematic of the altar; and on the eighth or tenth day it was named, and sacrifices were offered to the gods. At banquets statues of the gods were placed on the table, and those present offered libations to them; thus to dishonour the tables at which the gods presided by indecent or irreverent behaviour was considered a great crime. Special honour was paid to Jupiter, who, from the protection he afforded to guests and friends, was called the god of friendship and hospitality. Indeed, the Greeks were so convinced of the superintendence of the gods, that they thought it unlawful to eat until they had offered them part of their meal. The first oblation was to Vesta, who was the principal household goddess; and when they drank to their absent friends they frequently poured some of the wine on the earth; this seems to have been a sort of adoration of the gods or prayer for their friends. At the end of every entertainment a prayer was offered and a hymn sung to the gods.

The Greeks, in this religious belief had the strongest of all guarantees for a good national physique, for they tried to please their gods by worshipping them with athletic contests. Thus, the Olympic games were dedicated to Jupiter, the Pythian were celebrated in honour of Apollo, the Isthmian were held near a temple of Neptune, and were said to have been instituted by Theseus in honour of that god; while the Nemean games, it is said, were established by Hercules in honour of Jupiter. All these games, instituted in honour of the gods, or deified heroes, always commenced and ended with a sacrifice. If any one was conqueror in all the exercises, namely, leaping, running, wrestling, throwing and boxing, he was considered superior to mortals and the honours showered upon him extended to his parents, their relations, and to the city which gave him birth.

Boys were allowed to compete in the foot race, doing half or two-thirds of the course, and the foot-race was also considered a suitable gymnastic exercise for maidens, the length of their course being one-sixth shorter than that of the men.

Among gymnastic exercises the Greek physicians recommended the game at ball for strengthening the limbs and developing the grace and agility of the body. Boys, men, and girls practised it.

Dancing in the open air, especially chorus dancing, was greatly encouraged by the Greeks. Chorus dancing was in reality of sort of drill, and is often commended by their writers for its military advantages. Like gymnastics, the dance retained its original purity as long as public morality prevailed in Greece; its connexion with religious worship preserved it from being neglected or abused.

By reading aloud and singing much more than we do they kept their lungs sound. In fact, the general healthy mode of Greek life compensated for, and perhaps accounts for, their slow advance in medical science, which remained almost stationary from Hippocrates (in the time of Pericles about 450 B.C.) to Galen (in the time of Marcus Aurelius about 160 A.D.).

The absence of crowding, the climatic conditions, and their school life compensated for the want of sanitary science. Great cleanliness was observed by them, and they used to bathe and anoint themselves and change their apparel frequently. Sea water was considered strengthening for the nerves, and natural hot baths were highly esteemed.

It was certainly not the quality of the food they ate or its quantity which caused the ancient Greeks to possess the marvellous physique displayed in the statues that have survived. The Athenians lived sparingly, for their soil was poor. "To live like an Athenian" meant to live frugally. In the primitive ages they drank water, and later the water of hot springs was in great request as a beverage, and they also used much [illegible]. Indeed, in the primitive ages men lived on such fruits as grew without cultivation. At Argos the people ate chiefly

pears, at Athens figs; in Arcadia and most other parts of Greece acorns were eaten. Bread was made out of meal, salt, and water, to which some added oil. Barley meal was much used, while a dish made of rice, cheese, and eggs and honey wrapped in fig leaves was greatly esteemed. Another favourite dish was a mixture of cheese, garlic, and eggs, and the poor in Athens used much garlic and onion. The first animal used as food was, it is said, the swine. It was unlawful to eat oxen which were useful to man, and they were not killed for food until a later period. The Greeks considered it wrong to eat young animals as tending to destroy the species, and because they had scarcely tasted of the joys of life. Roast meat was preferred to boiled, and the Greeks loved fish, such as eels, dressed with beets. Their sweets consisted of apples, almonds, nuts, figs, and peaches. The Spartans, whose diet was sparing, ate meat, hares, partridges, and fish. The heroes often dressed their own food, and sometimes the heralds employed in civil and military duties performed many of the holy rites at sacrifices, serving as cooks.

Part of the education of the Spartan boys, after the Spartans commenced to drink wine, was to be occasionally shown a drunken slave at their banquets. This was done in order to disgust them and prevent them from drinking to excess themselves.

The few facts here brought together may serve to prove that a perfection which was attained hundred of years before Christ should not be unattainable by a nation such as ours, whose sons are imbued with courage, ambition, and endurance, if only given the means of improving their physique. This will only be done by teaching; by giving them some ideal to live up to, and by making them feel that the nation is one great living body of whom they are a part.

CENTRAL MIDWIVES BOARD.

WE have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Board Room, 6, Suffolk Street, S.W., on December 17th, 1903, the following business was transacted:

1. The report of the Standing Committee as to the principles on which the Board should act in dealing with applications for recognition under Section C of the rules as approved institutions, or as approved teachers, was considered, amended, and adopted.

2. In accordance with the recommendations of the Committee the Board resolved:

(1) To accept the signature to Form W of registered medical practitioners who are

A. Past or present holders of appointments to lying-in institutions or maternity charities, or

B. Past or present examiners in midwifery to any examining Board for a medical qualification, or

C. Lecturers on midwifery to institutions where pupil midwives or students of medicine are instructed.

(2) To consider individually, and on their own merits, applications from registered medical practitioners not coming within the above categories.

(3) To postpone for the present all applications from teachers in Poor-law institutions, in view of the fact that almost all midwives exercising their calling in such institutions are (at the express instance of the Local Government Board) specifically exempted from the operation of Section E of the rules.

3. The following applications for recognition as approved institutions under Section C of the rules were granted:

Queen Charlotte's Lying-in Hospital.
Liverpool Ladies' Charity and Lying-in Hospital.
Manchester Southern and Maternity Hospital.
British Lying-in Hospital.
Newcastle-on-Tyne Lying-in Hospital.
General Lying-in Hospital, York Road, Lambeth.
Glasgow Maternity Hospital.
Dundee Maternity Hospital.
District Nurses' Association, St. James's Square, Cheltenham.
Maternity Charity and District Nurses' Home, Plaistow.

4. The Board resolved that a slip be appended to Form III (Certificate of Attendance on Cases) as follows:

NOTE.—Although a case of labour may be used for the instruction of more than one pupil, the case can only be counted to the credit of the one pupil to whom the actual delivery is entrusted.

5. After consideration of applications for certificates the names of 270 women were passed under Section II of the Act, and ordered for entry on the Roll. Of this total, 65 claimed as holding the certificate of the Obstetrical Society of London, 5 that of the Rotunda Hospital, Dublin; 1 that of the Coombe Lying-in Hospital, Dublin; 1 that of the Liverpool Lying-in Hospital; 8 that of St. Mary's Hospital, Manchester; 2 that of the Salvation Army Maternity Home; and 138 were admitted as having been in bona-fide practice for one year prior to July 31st, 1902.

[Form V is a certificate to the effect that the candidate has attended, to the satisfaction of the person signing, a course of instruction given by him on the subjects enumerated in the regulations.]

BATTLE OF THE CLUBS.

OLDBURY.

WE are informed that seven medical men residing at Oldbury, Langley, about five miles from Birmingham, and surrounding districts, have been summarily dismissed from their posts as surgeons to the alkali works of Messrs. Chance and Hunt. It appears that the men have been paying 13s. per annum each for the medical services afforded, each man being free to chose yearly whichever medical man he preferred, the practitioner being paid according to the number of men on his list.

About 700 persons are employed at the works, each of whom is required to contribute 3d. a week. Instead, however, of receiving 13s. per annum for every man on his list, the authorities mulct the medical officer in the sum of 1s. 6d. per member, and pay over only 11s. 6d. It will be readily reckoned that 1s. 6d. from every subscription means an aggregate of upwards of £52. These deductions have been made for many years for the purpose of forming a "dispensary fund" from which the cost of supplying trusses and other small surgical appliances was defrayed. It is obvious that this amount could not be required for the purpose in any one year, and it is now asserted that from the accumulated funds the authorities have been in the habit of sending subscriptions "from the men, etc.," to convalescent homes and similar charitable institutions whereas, if the statement be correct, the amount has been taken, not from the men, but from the seven medical officers. Even if they had received the full amount earned the medical men would have been wretchedly underpaid. For the 13s. per annum paid by each employé the medical officers are required to attend, not only the employé himself, be he the chief foreman, works' manager or merely a day labourer, but the whole of his family, whether they be young or grown up (the fact that they earn their living at other factories or offices being no bar to their right to his services), the wife in her confinement, and to vaccinate.

As though all this was not bad enough, it has become the custom for subcontractors and their employés to contribute to the medical fund, and demand the same rights and privileges as the bona fide workmen at the factory. Recently the medical men held a meeting, and asked "either to have the full 13s. paid by the men, or else a fee of 10s. 6d. allowed for confinements."

Mr. Chance and his committee rudely replied that they would not allow either alternative, that the medical men were already sufficiently well paid and that no alteration in the rate of payment would be considered. The committee desired the secretary to say still further that "in future only four of the doctors would be allowed to fill the post; the three lowest at the election would be compelled to retire." A further threat was added to the effect that if the medical men did not like it they would all be dismissed, and one or two outside medical men would be kept to do the work.

Since many of the men live two and three miles from the alkali works, in different directions, it is not easy to understand how "one or two" men could cope with the work of attending upon 700 families.

The medical men, of course, refused the terms, and the following circular has been posted at the works. It will be noticed how the onus is placed upon the medical men:

Oldbury Alkali Works Provident Society, Dispensary Branch.

[illegible]

In consequence of the doctors having declined the [illegible] the committee for their services next year, this branch will cease on Thursday next, December 31st, [illegible] and after that date the deduction from the wages will cease.

(signed) [illegible], Chairman.
[illegible], Secretary.

Then follow the names of the committee.

We sincerely trust that no medical man with an atom of self-respect will apply for the post should it be advertised.

THE PREVENTION OF CONSUMPTION.

Sanatorium for West Wales.

At the second annual meeting of the West Wales Branch of the National Association for the Prevention of Consumption the Honorary Secretary submitted his report, which stated that a site for a sanatorium on the Highmead Estate had been kindly offered by Colonel Davies-Evans. The proposed sanatorium, which will be erected by Messrs. Speirs and Co., Glasgow, of composite iron and wood, with air-spaced walls, will provide accommodation for thirty beds, including two wings of four beds, each for special paying patients, with administrative block. The total cost, including foundation, lighting, etc., is £7,000.

A Sanatorium for Consumptives in West Australia.

The movement for providing open-air treatment for patients suffering from pulmonary tuberculosis is still active in Australia. We learn from the *Australasian Medical Gazette* that a deputation from the West Australian Branch of the British Medical Association recently asked the Colonial Secretary, Mr. Kingsmill, to provide for the establishment of a sanatorium for consumptives Mr. Kingsmill has promised to obtain reports upon the subject, with the view of making provision in the next year's estimates.

LITERARY NOTES.

Messrs. J. and A. Churchill are about to publish the second edition of *A Manual of General or Experimental Pathology*, by Dr. W. S. Lazarus-Barlow, Director of the Cancer Research Laboratories of the Middlesex Hospital. The preface states that "not only has much of the matter been altered, but also the entire form of the work has been changed, so that it now constitutes in large measure a complementary volume to the *Pathological Anatomy and Histology*." It is added, "that the work of revision has not proved a small one is perhaps evidenced by the fact that the Index of Authors in this edition contains nearly two hundred more names than it did in the last."

Folia Haematologica is the title of a new periodical described as an "International Central Organ of Blood and Serum Research." The editor is Dr. Arthur Pappenheim, and among the collaborators are Drs. Babes of Bucharest, Curschmann of Leipzig, Denys of Louvain, Ehrlich of Frankfort, Foà of Turin, Laache of Christiania, Marchiafava of Rome, Metchnikoff of Paris, Muir of Glasgow, Senator of Berlin, Sherrington of Liverpool, W. S. Thayer of Baltimore, and F. Widal of Paris. The publisher is August Hirschwald of Berlin.

M. Anatole France has written a preface for a volume containing a collection of the speeches of M. Combes, Prime Minister of France. It was published in *L'Aurore* of December 27th, 1903, and is in fact a detailed review of the agitation which brought about the Dreyfus case, and led eventually to the law against religious congregations which M. Combes has enforced. Incidentally M. France refers to the fact that M. Combes is a member of the medical profession. After referring to the honesty and firmness of his character, he goes on to speak of the great simplicity of his life. "In the little white house at Pons," M. France writes, "where the doctor's bell may still be seen, he M. Combes long practised medicine, he spends his holidays walking and reading; he knows the ancient [illegible] as I have been told, the orators and the historians of Greece, he does well, for the Greeks had [illegible] they knew how to maintain a just balance and never ran into excesses. In this M. Combes follows them. . . . When we remember that he has now maintained himself at the head of the French Government for nearly two years we may recognize in him a man of very unusual character and ability.

In a review of a paper on Jewish Influence on Medical Science in the Middle Ages by Dr. J. Snowman, which recently appeared in *Isis*, a letter from Maimonides (A.D. 1135-1205), the sultan Saladin's Jewish physician, was quoted. As it gives a vivid description of the life of a mediæval physician in busy practice it may not be out of place to transcribe it here.

[illegible] I am obliged to visit him every day, and when I arrive there I dismount and [illegible] I find the courtyard filled with people, judges, [illegible] and the whole body of the [illegible] I dismount from my [illegible] and [illegible] them to wait, and I pass through the crowd and enter the [illegible] I find [illegible] and [illegible] the only meal I take in the twenty-four hours. Then I go in to attend to my patients, write prescriptions and direct [illegible] ailments. Patients go in and out till nightfall, and sometimes even I solemnly swear to it, and I [illegible] two or more hours in the night. I prescribe for them and converse with them while lying down from sheer fatigue, and when night falls I am so exhausted I can scarcely speak.

For a generation Mark Twain has enjoyed the privileges of a chartered humorist whose dullest utterance is accepted as tending to laughter. And if the plain truth must be spoken, he was often, in his best days, not a little dull. Of late years, however, under the combined influence of osteopathy, in which he is a believer; of Christian Science, which he treats with much greater seriousness than it is worth, and of anti-vivisection, he has become very dull indeed. His latest production a dog story in the Christmas number of *Harper's Magazine* is not merely dull, but silly. The dog has saved the life of its master's child, and the master, a renowned scientist, by way of return, takes its puppy for the subject of an experiment, having for its object, as far as we can gather, the production of blindness by destruction of a part of the brain. This is how the experiment is described by the dog which tells the tale:

> And one day those men came again, and said, Now for the test; and they took the puppy to the laboratory, and I leaped three leggedly along, too, feeling proud, for any attention shown the puppy was a pleasure to me, of course. They discussed and experimented, and then suddenly the puppy shrieked, and they set him on the floor, and he went staggering around, with his head all bloody, and the master clapped his hands and shouted: "There, I've won,—confess it! He's as blind as a bat." And they all said, "It's so, you've proved your theory, and suffering humanity owes you a great debt from henceforth," and they crowded around him, and wrung his hand cordially and thankfully, and praised him.

An illustration shows the experimenter with the pup in his arms and the dog quietly looking on in the midst of a crowd of attentive spectators, while an instrument like a gimlet is about to be thrust into the puppy's head. There has been no preparation of the animal, and no attempt at anæsthesia. The whole thing is as absurdly unreal as it possibly could be from every point of view, including that of the dog, which would certainly not have looked on at the experiment with the air of complacent expectancy given her by the artist. We protest against this grotesque caricature, not in the name of science which cannot be hurt by such pointless weapons, but in the name of literary decency and common fairness.

Laveran communicated to the Paris Academy of Medicine his discovery of a hæmatozoon in the blood of persons suffering from malaria in December, 1880. According to Professor Blanchard the parasite had been seen by two previous observers, who however failed to understand the significance of what they saw. Blanchard tells the story in the *Archives de Parasitologie* for March, 1903. In looking through a work by P. F. H. Klencke, entitled *Neue physiologische Abhandlungen auf selbstständige Beobachtungen gegründet* (Leipzig, 1843), he found an account of the "marvellous parallelism between the manifestations of vertigo and the presence of infusorial animalcules in the human blood." The illustrations show that the "infusoria" were really Laveran's flagella, that is to say, the microgametes of the plasmodium malariæ. The crescentic and spherical bodies (microgametocytes) were also seen and figured by Klencke, who in fact was the first to describe the hæmatozoon of malaria in some of the phases of its evolution. His observations were made on himself, but he seems to have had no suspicion of the association of the parasites which he saw with malaria. The hæmatozoon was also observed in 1871 by Maxime Cornu at that time demonstrator in Duchartre's laboratory in the Sorbonne. He was a native of a notoriously malarial district in the Loir et Cher Department, and was himself a great sufferer from the disease. He sought for parasites in his blood and found many bodies which seemed to him to be such and which he afterwards recognized to be identical with the hæmatozoon described by Laveran. Cornu's observations were never published but the fact that he made them is attested by Professor Brissaud, who was his pupil. It need scarcely be said that the glory which rightly belongs to Laveran as the discoverer of the parasite of malaria is in no wise lessened by the fortuitous and imperfect work of Klencke and Cornu.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 420, Strand (corner of Agar Street), London, on Wednesday, the 20th day of January next, at 2 o'clock in the afternoon.

GUY ELLISTON, *General Secretary.*

COUNCIL.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A meeting of this Division will be held at the Coventry and Warwickshire Hospital at 4 p.m. on Tuesday, January 5th. Agenda: Clinical cases. Dr Orton: Unusual Abdominal Hernia. Mr. W. E. Bennett: Renal Calculus. Specimens: Dr. Orton: Acardiacus Monster. Dr. Snell: Excessive Desquamation after Scarlet Fever. Dr. Fenton: Note on a Case of Bilharzia Haematobia. Dr. Milner Moore will move a resolution in favour of the amendment of the law regulating the registration of births and deaths with a view to their more accurate definition, and to the remuneration of the profession in connexion therewith. Annual report to the Branch Council.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

PERTH BRANCH.—A Council meeting will be held in the Literary and Antiquarian Museum, Perth, on Friday, January 22nd, at 3.45 p.m. Business: Election of members: Medical Acts Amendment Bill: arrangements for clinical meeting. WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

CORRESPONDENCE.

A SCIENTIFICALLY WORKED DAIRY FARM.

SIR,—I am pleased to be able to give a practical answer to the letter signed "D. M.," which appeared in the BRITISH MEDICAL JOURNAL of December 19th, 1903. I think I cannot do better than describe a scientifically-worked dairy farm which, by the courtesy of Mr. Sorensen, the owner and manager of the farm, I was enabled to visit early this month at West Huntington, near York. The first thing which struck me was the extreme simplicity of all the appliances combined with spotless cleanliness. Mr. Sorensen is of Danish extraction and nephew of Mr. Busck of the Copenhagen Milk Supply Company, which is well known to be the most perfectly worked dairy company in the world. The dairy farm near York is worked on the same lines, with this advantage, that Mr. Sorensen supplies milk from his own herd of cows only and supervises everything himself.

He holds that milk should, with common care and cleanliness, be produced in such a manner as to be drunk in all confidence by the public without any necessity for pasteurization or sterilization. The essentials, he considers, for such a milk supply are, briefly:

1. Healthy, properly fed and housed cows.
2. Cleanliness from A to Z, and a responsible guarantee that nothing is added to or extracted from the milk.
3. Prompt and thorough cooling of the milk so as to prevent germ growth.
4. Delivery under hygienic conditions.

These conditions are all fulfilled at this farm. A York Corporation veterinary officer of experience inspects the cows every month, and is empowered to dispose of any unhealthy or suspected animal. The feeding of the cows is scientifically carried out. No brewers' grains, turnip tops, or other unsuitable foods are used: the hay the cows are fed upon, the mangolds, etc., are grown upon the farm, while water from the York city water supply is used for drinking, and also for cleansing purposes, washing the utensils, etc. The cowshed, containing fifty perfectly-groomed cows, is lofty, well lighted and ventilated, and the platform on which the cows are tethered is built short, so that their hind quarters do not rest on the ground, but over a drain made specially to carry away the manure. Thus the cows are unable to roll and soil themselves during the periods of weather too bad for them to remain out-of-doors. This is as seldom as possible, as Mr. Sorensen disapproves of housing his cows when it is possible for them to be out-of-doors.

In the cowshed I observed a simple wash basin fixed against the wall, with towels beside it, while on pegs hung the clean smocks worn by the milkers during milking.

No money is wasted on fancy fittings, which simply increase the cost without making the milk any better. The aim is to keep everything—from the cows to the smallest utensils—sweet and clean. The cans, etc., are cleansed with live steam from a high-pressure boiler.

After the cows are milked, the milk is cooled by allowing it to flow over a corrugated cylinder, inside which cold water and ice are passed, in order to reduce the temperature in a few seconds to a point unfavourable to germ life. Clean milk so treated will, without preservatives, remain sweet, if kept in a cool place, for several days.

Most of the milk is delivered in glass bottles, which are filled and sealed at the dairy, the rest being sent out in cans, also filled and sealed at the dairy. There is a third method of sending out the milk in a sealed can with a tap. To save himself the trouble and expense of book-keeping, Mr. Sorensen has a system of payment by tickets, which are sold in books, and handed by customers to the man who delivers the milk.

Now for the result of the theory preached, that to conduct a dairy farm cleanly and scientifically does not cost more than does to run a filthy one. The following were the charges: 3½d. per quart delivered in cans filled and sealed at the dairy; milk drawn by tap from sealed can in the cart, per quart, 3½d.; per pint, 2d. Special table or nursery milk in sealed glass bottles, per quart, 4d.; per pint, 2d.

To show that right methods are not really overlooked by the public, I may mention that the demand for Mr. Sorensen's milk is so great that twice during the last month he has raised the price of it for fresh customers whom he is unable to supply, and he is thoroughly satisfied with his venture from a pecuniary point of view. It is significant that many of his customers are medical men.

I, also, hope with "D. M.," that in spite of being conservative in the worst sense of the word, farmers may soon adapt themselves to the requirements of modern science. It is certain that if they do not a time will come, and is rapidly approaching, when the public will cease blindly to accept a poisonous milk supply without asking to see the source of that milk. The question has now become a national one, and no intelligent person should rest content until every farmer in England follows in the footsteps of Mr. Sorensen, who has proved so ably and intelligently that a farm managed scientifically may also be made profitable.—I am, etc.,

December 28th, 1903. THE WRITER OF THE MILK ARTICLES.

LIFE INSURANCE EXAMINATIONS.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1658, you refer to the vexed question of the fees given to medical examiners for insurance work, and conclude your remarks with the suggestion that the matter is one which the Divisions of the Association should consider. The Norwich Division of the British Medical Association appointed a Committee a few months ago to investigate and report on the present condition of the "insurance work" done by medical men in this city, and the Committee hopes to present its report at the next meeting of the Division; but as your article and the action of the "Law Union and Crown Insurance Company" have brought this question forward now, it may interest members of the Association if some of the facts elicited by the Committee are briefly stated.

In spite of the enormous sums as capital and income of which these companies proclaim themselves to be possessed, a large number grant to the applicant for examination in these instances only in which the policy asked for is of more than a certain value; if of less value the fee is half a guinea.

Some companies fix £100, others £200 or any intermediate sum as the standard by which the medical examiner's fee shall be regulated, but in no instance is the report required from him for the half-guinea less than that for which a guinea is given.

For policies of less than £50, or for those granted to members of the labouring classes, the scale of fees is ridiculously low always, however, in proportion to the value of the policy, and never to the work required from the medical examiner.

The fact that it is quite immaterial to the latter, whether the candidate he is examining is paying some one else £5 or £500, is ignored; but as the medical officer is in the employ of the company, and is giving an expert opinion to prevent it from losing money, it is surely only common justice that he should be paid according to the work he does for it.

In taking this matter up the Norwich Division hoped that it would be setting an example to the other Divisions, and that by common action and a statement of the case from the point of view of the medical examiner, the profession might induce insurance companies to refrain from asking, and medical men from accepting, conditions of work which are generally held to be unsuitable.—We are, etc.,

MICHAEL BEVERLEY, M.D.,
Chairman of the Norwich Division.

ARTHUR T. CLEVELAND, M.D.,
Hon. Sec. of the Committee.

Norwich, Dec. [illegible], 1903.

*** A correspondent sends us the following copy of a letter which he addressed recently to a life assurance company paying the medical referee a fee of 10s. 6d. for sums insured under £500.

"I have examined this life as requested, but I beg to express my opinion that [illegible] any advantage for itself by making the fee paid to the medical referee proportionate to the risk undertaken. In this instance I am sure [illegible] I have taken the same care and trouble over the examination as if [illegible] I am sure the company [illegible] the medical referee gets paid the same sum of [illegible] for valuing a life and carrying out an examination of an applicant as he does for reporting on a life for the same company. [illegible] I do not think a profession entitled to the consideration which the medical profession enjoys should be treated in this way. [illegible] My [illegible] I have [illegible] the [illegible] I am sure [illegible] the [illegible] I do, as I do, faithfully."

THE MEDICAL PROFESSION AND ALCOHOL.

SIR,—I am glad to see that the question of the attitude of the medical profession towards the alcohol question has been raised in your leading article this week. It is surely time that the profession, with its special knowledge of the effects of alcohol on the human organism, the public mind should be led to its responsibility. The [illegible] of the progress of [illegible] is marching to meet the public [illegible] what the true effects of alcohol are, but I fear that the majority do not yet grasp the [illegible] position of matters.

You write that "it has even been held a view [illegible] that is, that alcohol was a food in the sense in which it is healthy that it has been largely supported by physicians," but where can we find [illegible] would support [illegible] that such has been the case? We have only to look back to letters published in the British Medical Journal to find that the [illegible] to see that certainly there are some who [illegible] with the present extent of [illegible] that is, that alcohol is not only [illegible] harmful in health and that [illegible] in disease it is seldom necessary except as a temporary stimulant.

You write of the secondary action [illegible] of alcohol and attribute to it "the peculiar predilection for the flowing bowl." I think it has been shown by Sir Woodhead that the action is rather a destruction of the higher nervous control, and certainly the type of after-dinner speech, which owes its eloquence to alcohol seems to bear out this doctrine. You write in conclusion, "We should then have to consider . . . . whether, having regard to the evil consequences of intemperance and the insidious manner in which the alcohol habit becomes established, it is not the duty of the medical profession to prevent rather than to cure." I should think in view of these very facts it is the present duty of the profession to take a firm stand and in no uncertain way to let the public know its opinion of alcohol. There is an organization for this purpose in our midst. Why don't all medical men who think alike on this subject join its ranks, so as to derive that strength which comes from union? I am, etc.,

H. NORMAN BARNETT, F.R.C.S.,
Honorary Secretary North of Ireland Branch British Medical Temperance Association.

Belfast, Dec. 29th, 1903.

SIR,—All but rabid teetotallers will be grateful to you for the article on this subject in the BRITISH MEDICAL JOURNAL of December 26th, 1903.

In practice I constantly have to disabuse patients' minds of the idea that whisky as a beverage is superior to light wine and light beer. Partly influenced by medical opinion, the public have come to look upon the substitution of whisky for light wine as a positive virtue. How commonly one hears in reply to the question as to the amount and kind of stimulant taken, "Oh, I only take whisky;" and, if the patient is well-to-do or in the trade, it is added, "and the very best of that." What possible objection there could be to a glass of light wine in cases of chronic gout or rheumatism I have never been able to understand. My experience points quite the other way. It is generally conceded that gout, at any rate, is at the root due to faulty metabolism, caused or provoked as much by indolence and over-eating as by free indulgence in wine. The great objection to the prescription of whisky as an habitual stimulant is the danger that the limit laid down by the doctor will be overstepped, or, as you say, "the insidious manner in which the alcoholic habit becomes established." Verily we have paid dearly for the discovery of uric acid as an accompaniment of gout.

In my experience, gouty patients not infrequently benefit largely by discontinuing spirit of all kinds, and, if a stimulant is needed, a little light wine with the meals has been ordered. I feel persuaded that much of the excessive drinking of spirit among women has its origin in medical prescription of whisky for indigestion, rheumatism, gout, etc. I have had some of these patients excuse their habit of whisky drinking by referring to an enlarged and red great toe-joint which, on examination was clearly due to narrow and high-heeled boots. That this was the real cause was proved by the improvement that followed the adoption of proper footgear.—I am, etc.,

London W., Dec. [illegible], 1903. CHAS. W. CHAPMAN.

HOSPITAL REFORM.

SIR,—As it is evident that the hospital question is once more to be brought into the arena of discussion, it may be convenient and perhaps useful to remind your readers very briefly of the conclusions arrived at after much consultation and thought by the little society called the Hospital Reform Association.

It is rather more than seven years since the Association started its campaign with a view of carrying out the following objects:

1. The prevention of abuse of hospitals [illegible] and dispensaries.
2. The protection of [illegible] hospitals [illegible] under any other Bye-laws.
3. The [illegible] of properly organized provident dispensaries.

Perhaps the programme was too ambitious at all events, the Association found the first item on it was more than sufficient to be coped with in a satisfactory manner. Meetings were held in London, Manchester, Birmingham, Liverpool, Bristol, and Brighton, and speeches were delivered by many of the most prominent members of the profession and laymen interested in philanthropic work. I may mention the names of these gentlemen who rendered yeoman service to the cause: Sir Isambard Owen, Mr. Timothy Holmes, F.R.C.S., Thomas Bridgwater, M.D., W. Knowsley Sibley, M.D., Ernest Scale, M.D., the late F. J. A. Waring, M.D., David Walsh, M.D., Fred. J. Smith, M.D., Colonel Montefiore (C.O.S.), Mr. Douglas Dent, (Bristol), Arnold Lea, M.D.,

G. A. Hawkins-Ambler, F.R.C.S.E., G. A. Wright, F.R.C.S., Bertram M. H. Rogers, M.D., W. Richardson Rice, M.D., Mr. C. W. Warren and Dr. Beverley.

After discussing the matter from every point of view the Council of the Association drew up the following recommendations, and directed that they should be sent to the Managing Committees of every hospital in England and Wales:

1. That in the casualty department of the general hospitals only cases of urgent importance should be attended to.

2. That in the out-patient department patients bringing notes from medical men should have [illegible] priority claim to treatment. That a resident physician should be appointed whose duty it shall be to see all out-patients in the first instance, and select those that require immediate treatment, and decide which do not require hospital treatment. That after patients have received "first aid" their circumstances shall be inquired into by a competent officer. That the honorary medical officers shall not be required to treat more than 20 new cases at one sitting.

3. That the circumstances of all in-patients, with the exception of cases of accident, etc., should be carefully inquired into before admission.

4. That in the case of well to do people who are admitted to hospitals in consequence of accidents, etc., the hospitals should have the power at their discretion of recovering adequate fees for attendance.

5. In the case of small provincial hospitals, that the plan adopted at Cheltenham and Dorchester Infirmaries be recommended for trial.

6. That both in the large general hospitals and in the smaller ones out-patients coming from outside districts should be requested to bring notes from medical men before being treated.

7. In the case of special hospitals [illegible] That payments by patients should cease. [illegible] that the eligibility for free treatment should largely depend on the recommendation of private practitioners. [illegible] that some provision should be made outside the hospitals for people who are in a position to pay a reduced fee but are not in a position to pay the ordinary fee of specialists.

It will naturally be asked what was the outcome of all this work. Well, Sir, although it is sometimes difficult to state absolutely that reforms have been effected by any agitation that has taken place, yet I think without undue egoism one can reasonably say that hospital managers did take steps in many instances to endeavour, through the medium of inquiry officers, to prevent well-to-do people from abusing these institutions.

Now that the British Medical Association has determined to take up this subject in earnest, there seems to be an excellent chance of making the voice of the profession heard. The whole subject, if I may be allowed to say so, concerns the public much more than it does the profession. But it must be through the profession that the public must learn the truth. If it is the case, as many of us believe, that the public are asked to subscribe their money for the extensions of hospitals which are totally unnecessary, and if the public are asked to support hospitals which admit out-patients indiscriminately and without due cause—as many of us believe they do—then it becomes the manifest duty of any hospital to show cause why it requires additional funds, and to prove to its supporters that the work it performs is carried on for the benefit of the suffering and needy.—I am, etc.,

Cardiff, Dec. 26th, 1903. T. GARRETT HORDER.

THE LOCAL ORGANIZATION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—So far as I can make out, the work of organization of the Association is proceeding but slowly. This, to me, is not at all surprising. Much trouble and expense have been gone to in arranging the network which is to embrace the whole of the country, but it is not enough. There should be a heart to send its pulsations from the centre to the periphery, and a head to co-ordinate the whole, but these seem to be wanting. Medical men have not yet learned to organize, and the work of getting all the Divisions in working order will take more time and more trouble and expense.

Take our own Branch—that of Lancashire and Cheshire. Some Divisions even in this city have not met at all, except perhaps the initial meeting. Some of our prominent members in the medico-political world do not seem to have moved at all in their respective Divisions. It is certainly curious to observe that men who are energetic agitators appear to have no notion of how to organize, or to see the necessity for it. One cannot help wondering how soon they would move if there were some project they had in hand, and that required the sanction and support of their Division!

Now, Sir, I do not consider that this is an ideal mode of procedure. The sooner the members composing a Division are brought together the better. This should be the primary object to be achieved. Tact, of course, would be required to effect this and different means will be required in each Division, and the general benefit of members should be aimed at rather than for any prominent man or men in it to seek to push themselves forward.

It has occurred to me to send you, Sir, these cursory thoughts with a view to raising a discussion in these columns to stimulate sluggish Divisions, to invite suggestions from different quarters, and to obtain information of how the work is progressing in the various Branches.

In conclusion I would like to ask if there is one Branch Secretary who has called together the whole of the Secretaries of Divisions in his Branch with the object of conveying information to them as to their duties and in order to co-ordinate the work in all parts of his Branch?—I am, etc.,

Ardwick Green, Dec. 28th, [illegible] G. H. BROADBENT.

CANCER AND ITS ORIGIN.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, you give a very full account of the interesting paper recently communicated to the Royal Society by Professor Farmer and Messrs. Moore and Walker, in which they dwell on the resemblances between certain of the cells of malignant growths in man and those of normal reproductive tissues, and from which resemblances they draw the conclusion that the malignancy of these tumours is intimately connected with the reduction of the normal somatic cells into reproductive or germinal tissue. To me this communication is of special interest, as I have already put forward a similar view in my paper on Inoperable Mammary Carcinoma read before the Edinburgh Medico-Chirurgical Society in May, 1896, and published *in extenso* in the *Lancet* for July 11th and 18th of that year. I there say, when dealing with the etiology of cancer, that "in whatever way brought about, there seems to me a reasonable ground for thinking that the active processes seen in a cancerous tumour are best explained by regarding the epithelium of the part as having taken on the properties and powers of the germinal epithelium." I further expressed the belief that the special cells seen in sections or scrapings of cancer, and known as "cancer bodies," may eventually be shown to be special germinal cells corresponding to the ovum cells elaborated by the ovary in the female and by the testis in the male.

While Professor Farmer and his coadjutors seem to have come to the same conclusion as the result of their microscopical inquiry, I did so clinically, and chiefly in consequence of the results obtained by oöphorectomy in inoperable mammary cancer. Under that procedure cancerous activity has been arrested and proved cancerous tissue has disappeared, with, in addition, diminution of pain and improvement in the general health—a state of matters that has never before been observed in this disease under any other medication, and that, too, in advanced cases of the malady. In writing thus, I am not giving only my own individual experience. Other surgeons have observed the same results. Unfortunately, I think, the profession has regarded this method of treatment from a therapeutic aspect only and judged it solely by the standard of its value as a curative agent. This is of course quite right, but whatever be the final decision on this point I would fain hope that the effects following oöphorectomy will not be lost sight of, especially as we are dealing with a disease whose true nature has, so far, baffled inquiry. To cause cancerous tissue and cancerous glands to disappear is a very remarkable fact, and one that should have more importance attached to it than it has yet had, for I look upon it as furnishing a clue to the real nature of cancer, and as strongly confirmatory of the opinion I expressed in May, 1896, "that the disease consists in the epithelium of the part affected taking on the active proliferation which is the marked characteristic of the germinal epithelium." The observations of Professor Farmer and his coadjutors seem to support this view of mine, which, however, was arrived at by a different line of inquiry.

I am not sure that Professor Farmer and Messrs. Moore and Walker are altogether correct in the statement they make as to the exact mode of development of the special cells to which they give the term "gametogeni," but a matter such as this is not the place to go into such a question. The mere establishment of the presence of such cells in malignant tissue is a point of the greatest importance, and strongly corroborative of what I may call the germinal cell theory of cancer.—I am, etc.,

[illegible], Dec. 28th, [illegible] GEORGE THOS. BEATSON.

THE TREATMENT OF PNEUMONIA.

Sir,—But for the evidence of Dr. Barr's letter one would have found it impossible to believe that "an earnest inquirer after truth," with a quite superior knowledge of anatomy, could have any difficulty in perceiving that abstraction of blood by leeches from the wall of the chest lessens the amount of blood conveyed by the intercostal veins and the azygos vein to the right auricle, and thus produces a temporary diminution of intra-auricular tension, which may allow a much overstrained right heart to recover itself. But Dr. Barr "wants more evidence." Let him, then, apply six or eight leeches to the chest wall, or perform a small venesection, in a case of advanced mitral stenosis with dyspnœa and enlarged liver, or in one of mitral regurgitation with dyspnœa and general dropsy. The obvious improvement will soon convince him that relief to the right heart by moderate bleeding is one of the most certain, as well as one of the most helpful, of therapeutical facts.—I am, etc.,

London, W., Dec. 22nd, 1903. D. B. Lees.

Sir,—Dr. Barr's remarks on the uselessness of inhalations of oxygen in pneumonia seem to me to be more dogmatic than convincing. The test of therapeutic efficacy is not *a priori* reasoning but clinical experience, and no one who has watched, as I and many others have watched, the deep purple flush of increasing cyanosis fading rapidly away during the inhalation of oxygen, and the hurried respirations becoming comparatively slow and steady, will be greatly impressed by Dr. Barr's *ex cathedra* statements as to the supposed limits of the possible utility of this procedure. If the administration of pure oxygen is indeed valueless, how can we account for the fact that young children will eagerly and repeatedly demand it when the advent of air-hunger and cyanosis has rendered them indifferent to all other considerations but the craving for immediate relief?—I am, etc.,

Bath, Dec. 24th, 1903. C. J. Whitby.

A PUBLIC DANGER FROM SANATORIUM INMATES.

Sir,—During the last few years great attention has been paid to the treatment of tuberculous diseases, and especially those of the chest, by "fresh air."

The erection of sanatoria in different rural districts, in conjunction with the various hospitals for consumption in the larger towns, followed; and it is to the dangers arising from the patients residing in these that I wish to call your special attention.

My advice has been asked on several occasions when in these districts by innkeepers and others, "What means could be taken to stop the patients whilst out for their walks (part of the treatment) visiting their public-houses, and spitting on the floors, also of spitting on the highways."

I have seen this indiscriminate spitting myself, and in my opinion knowing the danger arising from infected dust, etc., I consider it should be stopped at once by the respective institutions in the interests of the local rural population.

The following preventive measures, to my mind, are the only practical ones available:

(*a*) That all sanatoria should be provided with sufficient ground to allow of the requisite walking exercise being taken without allowing the patients to stroll along the highways; or

(*b*) Where this is impossible that all patients should be under the supervision of a thoroughly reliable nurse or attendant when out for their walks.

The defence put forth by all these sanatoria is that their rules forbid both the entrance to any public-house and spitting on the roads, etc., under penalty of instant dismissal. Such rules are nevertheless daily broken, as I know only too well.—I am, etc.,

James Peyssy, D.Sc. (Public Health), M.B., F.R.S.E.

Great Hamlet, near Colchester.

ST. BARTHOLOMEW'S AND THE OUT-PATIENTS.

Sir,—Notwithstanding the plentiful discussion about the rebuilding of St. Bartholomew's Hospital one part of the scheme has not seem to have had its due share of attention. What has been the result of the incorrect deputations of three or four years ago at Whitehall and elsewhere about hospitals? As to out-patients the proposals would seem on the whole adverse to the present method which is no method. But the first fact to be realised is a new out-patient department. "The out-patients are limited to more than 100,000 annually." Is this not enough? And is it desirable that it should continue?

The better method has not been settled yet; it may be either a widening of the Poor law regulations or some modification of a provident scheme (weekly or monthly payments by patients). But the present ways should not be renewed. Is it at all necessary or advisable that there should be an out-patient department in connexion with the hospitals?

Surely there is a case for inquiry, and also with regard to King's College Hospital. I do not allege that the Governors of St. Bartholomew's have not considered the question, but it would be satisfactory if we had some authoritative assurance whether they have or no. It concerns indirectly the whole of the metropolis. In view of the more recent statements about the area available, it would certainly be well if the out-patient department were cut adrift.—I am, etc.,

London, S.W., Dec. 22nd, 1903. G. Crichton, M.D.

MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

Sir,—I enclose copy of a letter addressed by me to-day to the Home Secretary, resigning my position as medical referee under the Workmen's Compensation Act. My experience is no doubt similar to that of many of my professional brethren.—I am, etc.,

Cinderford, Dec. 14th. Richard Macartney.

Copy.

Lisanore, Cinderford, Gloucestershire,
December 14th, 1903.

Sir,—I hereby beg to tender my resignation of the position of Medical Referee, Workmen's Compensation Act. It has been a source of loss to me in my practice, and I have never been once called upon to perform any duty in connexion therewith.

I am, Sir, your obedient servant,
Richard Macartney.

The Right Honorable A. Akers-Douglas, M.P.,
His Majesty's Secretary of State for Home Affairs.

REGISTRATION OF PLUMBERS.

Sir,—I am desired by the Master and Wardens to express their appreciation of the reference to the registration of plumbers made by Sir Victor Horsley in his important address to the Northumberland and Newcastle Medical Association on December 9th, as reported in the British Medical Journal of December 19th.

The Master and Wardens feel that Sir Victor Horsley's words will go far to strengthen the influence which the British Medical Association has from the beginning exercised in building up the registration system, which was first discussed by the Association purely as a medical question at their meeting in Liverpool in 1883, when a resolution was passed recommending the technical instruction and registration of plumbers on public health grounds. Since that time the Association has continuously lent its aid towards promoting the registration system as a practical aid to the development of preventive medicine, the sphere of which is so widely and continually extending with such beneficial results.—I am, etc.,

Wm. R. E. Colles,
Clerk, the Worshipful Company of Plumbers.

London, E.C., Dec. 22nd, 1903.

OBITUARY.

ROBERT JAMES BLAIR CUNYNGHAME OF CRONAN.

M.D. Edin., F.R.C.S. Edin., J.P.,

Superintendent of Statistics, Registrar General's Department, Scotland.

The profession in Edinburgh has lost one of its most respected and beloved members by the death of Dr. Blair Cunynghame on Wednesday, December 23rd. He had nearly completed his 63rd year, having been born in January, 1841. For some years his friends had noticed with regret symptoms of failing health, and the death of a dearly loved daughter which occurred a fortnight before his own seemed to have made him less able to face the toil of living.

After a distinguished undergraduate career Blair Cunynghame took the M.D. degree in the University of Edinburgh in 1862. He was a favourite pupil and clerk in the wards of Dr. W. T. Gairdner, now the distinguished Sir Wm. T. Gairdner, K.C.B., Emeritus Professor of Medicine in the University of Glasgow. He took the University Gold Medal in the class of Forensic Medicine. This subject continued to be a favourite with him, and he acted as Examiner for the Triple Qualification in that branch till within a month or two of his death.

After graduation and a term of office as Resident Physician in the infirmary, he pursued his medical studies in London, Berlin, Paris, and Vienna, and then passed into the medical service of the army. He served in the Rifle Brigade for four years, chiefly in India. He then retired for family reasons; his only brother having died he was needed at home, and on his retirement he settled in practice in Edinburgh. He had taken the Fellowship of the Royal College of Surgeons in 1866, and the Membership of the Royal College of Physicians in 1877. He was a many-sided man in his professional work and tendencies. He was an expert physiologist, and did much excellent work in the teaching of that branch. He worked at pathology with the late Professor Sanders of Edinburgh, and for many years held the post of Conservator of the Museum of the Royal College of Surgeons; in this post he conducted classes for the study of the magnificent pathological collection, and also added many preparations to its shelves. He became Physician to the Royal Hospital for Sick Children, and continued to the end of his life a valued office-bearer on the staff of directors.

An acknowledged expert on questions of forensic medicine and public health, he obtained an important appointment as medical officer to a large life insurance office; this office he demitted a few weeks before his death.

He never seemed to care much for the routine and responsibilities of general private practice, and did not need to work at it as a means of subsistence; his friends were not surprised when some years ago he gave it up entirely and accepted an important Government appointment as Superintendent of Statistics in the Registrar-General's Department for Scotland. He liked this kind of work, and had exceptional qualifications for such a post, and did the work admirably. In fact in every position, as a professional man and as a citizen and a patriot, he worked with a will, quietly but diligently.

He served the Royal College of Surgeons of Edinburgh well—an admirable business man, punctual, courteous, and full of tact; he served it as Conservator, as member of President's Council for many years and as Secretary for several years, till in 1892-3 he was elected its President. This high office he filled with great tact and conscientiousness; indeed everything to which he put his hand was done as ever in "the Great Taskmaster's eye."

An enthusiastic Volunteer, he served as Surgeon in the Queen's Edinburgh Volunteer Brigade long enough for him to earn and receive the Victoria decoration for long service. He was a good citizen, and acted with great acceptance on the board of management of many of the most important of the charitable and philanthropic institutions which Edinburgh possesses in such numbers, notably the Longmore Hospital for Incurables and the Queen Victoria Jubilee Institute for Training District Nurses. He was a Justice of the Peace for Perthshire, the county in which his property is situated.

But after all this is said and done, his work detailed, and his public character and conduct lauded, our notice would be absolutely incomplete without an attempt, however feeble, to pourtray the man and his life. His very presence was elevating. A calm, beautiful face, with a gentle, cultured voice, the man himself the soul of honour and mirror of courtesy, he was a type of what the cultured physician should be. Nothing mean or unprofessional could look possible under his clear vision. He was to many of us a guide in matters of doubt. "What would Cunynghame think of this?" was an excellent touchstone of quality. A loyal friend and no one's enemy, his death leaves a sad blank in the lives of many of his old friends.

Dr. Blair Cunynghame is survived by two sons and one daughter. His wife died in 1893. His marriage had been an ideal one, and her loss was irreparable.

J. B.

SIR GEORGE THOMSON, K.C.B., M.B., C.M.ABERD.,

Surgeon-Colonel (retired), I.M.S.

WE regret to have to record the death, on December 21st, of Sir George Thomson, K.C.B., an Indian Medical Service officer of great distinction. Although he went on the retired list some five years ago, and had then put in full thirty years of active service, Sir George Thomson was only 61 years of age, and his death was sudden and unexpected. He was a native of Aberdeen, where he received both his professional and general education; about a year after obtaining the degrees of M.B., C.M., and in October, 1865, he entered the Indian Medical Service, winning a high place in the competitors' list. In India his service was mainly in the military department, but he was also for some years Civil Surgeon in the Punjab, and Medical Adviser to the Maharajah of Patiala. He was for some time Principal Medical Officer of the Lahore military district. He had a great deal of war service to his credit. It was mainly to his work with troops on active service that he owed the distinctions he acquired. Thus he took part in the Afghan campaign of 1878-9, and in 1895 was P.M.O. of the Chitral Relief Force. Two years later he was with the Malakand Field Force, and later in the same year served as P.M.O. of the Tirah Expeditionary Force. This it was which brought him the Knight Commandership of the Bath, the companionship of the same order having been awarded him for his services in the Chitral expedition. All his war service indeed must have been valuable, for he was three times mentioned in dispatches. Sir George Thomson had a brother who is a major in the same service. He leaves a widow and three sons, one of whom has entered in the army.

CHARLES FREDERICK MOORE, M.D. (UNIV. GLASG.), F.R.C.S.I.

THE death of this highly esteemed member of the medical profession took place, after a very brief illness, at an early hour on the morning of Christmas Day, at his residence, 10, Upper Merrion Street, Dublin. Although Dr. Moore had reached the advanced age of 83 years he was brisk and active to a remarkable degree, and may be said to have died in harness, for so recently as the Monday before his death he spent several hours in the discharge of his duties as Certifying Factory Surgeon for the Dublin district.

A scion of a medical family, Charles Moore at an early age chose medicine as his calling. He became a Licentiate of the Apothecaries' Hall, Dublin, in 1843, a Licentiate of the Royal College of Surgeons in Ireland in 1844, and a Doctor of Medicine of the University of Glasgow in the same year. In 1865 he obtained the Fellowship of the Royal College of Surgeons, Ireland, by examination.

Soon after he became qualified, Charles Moore entered the service of the Peninsular and Oriental Steam Navigation Company, in which he was in due time promoted to be Senior Surgeon. During his many voyages to the Far East he gained a sound knowledge of tropical and subtropical diseases, which he was in after-life able to turn to practical account in the interest of the public. He was an artist of no mean power, and in the Fifties often enriched the pages of the *Illustrated London News* by the work of his pencil.

After he retired from the company's service, Dr. Moore practised for a short time in London but soon returned to Ireland. At first he settled in the country, being finally appointed Medical Superintendent and Surgeon to Middletoun Hospital, co. Armagh. From this he removed to Dublin, where his life-work was mainly cast. For many years he acted as Medical Officer of one of the metropolitan dispensary districts, becoming a Medical Officer of Health under the Public Health Acts of 1875 and 1878. He was also for several years one of the Visiting Physicians of Cork Street Fever Hospital and House of Recovery. In more recent years he filled the important posts of Medical Inspector of Seamen for the port of Dublin and Certifying Factory Surgeon for the metropolitan district. For some years Dr. Moore represented the Apothecaries' Hall of Dublin on the General Medical Council. He was also in course of time chosen President of the State Medicine Section in the Royal Academy of Medicine in Ireland, President of the Dublin Sanitary Association, and a Vice-President of the British Association of Certifying Factory Surgeons—a conclusive proof of the estimation in which he was held by the public as well as by his professional brethren.

Dr. Moore wrote frequently, but published no large work. He was author of Suggestions for Improvements in the Sewerage of Cities and Towns (1854), and contributed to the *Dublin Journal of Medical Science* a Report of Cholera as observed in 1854 in the Finglas Cholera Hospital, to which he was physician, as well as reports of cases observed in the East Indies, Mediterranean, Egypt, and Turkey. He also published occasional clinical records in the weekly medical journals.

As to his private life, the Dublin *Daily Express* says: "Dr. Moore was a kindly, courteous gentleman, of retiring habits, and a keenly sensitive and refined disposition. He never

willingly did an injury to any one, and his death will be deplored by a host of friends who valued him for his sterling qualities of heart and mind. The fact that he passed away on Christmas Day adds a special touch of pathos to the sorrow with which the announcement has been received by all who knew Charles Frederick Moore, and held him as a true and faithful friend.

IT is with much regret that we have to record the death at an early age of [illegible] COURTNEY DRAKE of Spennymoor, County Durham, which took place on December [illegible]th, 1903. He received his medical education at Westminster Hospital, and after taking the diploma of L.S.A. in 18[illegible] spent some years in professional work in the south of England. Thence some five years later he moved to the north and established himself in the colliery district of Spennymoor, in which he acquired several Poor-law appointments, and eventually took a partner. Late this autumn he suffered an attack of influenza, and while barely convalescent resumed his work, but soon afterwards experienced symptoms of membranous laryngitis. During the illness which followed he received the most unremitting attention from his neighbour, Dr. Andersen, as well as from Dr. Hall, who was acting as *locum tenens*. A tracheotomy was required, and was duly performed, but in spite of it death occurred soon afterwards. One who knew Mr. Drake well writes that he was a most genial friend whom it was a pleasure to know, and that as a doctor he was most popular and never spared himself in the performance of his duties. The truth of this summary of his character is fully borne out by the extent of the sympathy and regret at his loss which were obvious as the funeral procession passed through the colliery villages inhabited by those amongst whom his work had been done.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been notified at the Admiralty: WILLIAM [illegible] [illegible] Fleet Surgeon [illegible] the Royal [illegible] [illegible] KENNEDY, M.B., Surgeon, to the [illegible] [illegible] on completing.

ROYAL NAVAL VOLUNTEER RESERVE.

THE [illegible] [illegible] Surgeons from the [illegible] REGINALD J. [illegible]

THE [illegible] OF THE NAVAL MEDICAL SERVICE.

[illegible]

candidates.

[illegible]

Lieutenant-Colonel Hall has been a volunteer medical officer for over twenty [illegible] years and this is the second occasion on which an extension of his service has been accorded.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL [illegible] WILLIAMSON, M.B., C.M.G., to be Colonel, to complete the establishment, December [illegible]. He was appointed [illegible] February 4th, 18[illegible]; Surgeon-Major, February [illegible]; was granted the rank of Lieutenant-Colonel, February 4th, [illegible], and made Brigade-Surgeon-Lieutenant-Colonel, December [illegible]. [illegible] Afghan War, [illegible], Battle of [illegible] North-West Frontier of India, [illegible] Operations [illegible] Field and Tirah Expeditionary Forces, mentioned in despatches, medal with two clasps; South African War, [illegible]. In charge of General Hospital; mentioned in despatches, C.M.G. [illegible] Colonel Williamson has been [illegible] Medical College [illegible].

Colonel W. SAUNDERS, C.B., has been transferred from the Poona District to the Meerut and [illegible] Districts, [illegible] will continue to officiate as Principal Medical Officer, Bombay Command, until relieved by Surgeon-General Gubbins.

SECOND LIFE GUARDS.

SURGEON-CAPTAIN J. H. POWER, from Royal Horse Guards, to be Surgeon-Major, October [illegible]. He entered the service as Surgeon-Lieutenant, January [illegible], and was [illegible] Captain [illegible]. He was attached to the [illegible] Horse Guards in [illegible], and confirmed as Medical Officer to that Regiment, October [illegible]th, 1[illegible].

INDIAN MEDICAL SERVICE.

CAPTAIN G. J. G. YOUNG, M.B., is appointed to officiate as Personal Assistant to the Principal Medical Officer, Bombay Command.

Surgeon-General ALFRED JAMES DALE died at [illegible] Rosary Gardens, South Kensington, on November [illegible], aged [illegible]. He was appointed Assistant-Surgeon in the Bengal Establishment [illegible], and became Surgeon-General, July [illegible], in which year he retired from the service. He was in the Afghan war in [illegible], and had the medal for that campaign.

Surgeon-Major HAMILTON DE TATHAM, M.D., late Bombay Establishment, died on November [illegible]th, aged [illegible]. His first commission bore date April 1st, [illegible]; that as Surgeon-Major, April [illegible]. He retired in [illegible]. He served in the Abyssinian war in [illegible], receiving a medal.

The undermentioned Majors are promoted to be Lieutenant-Colonels: [illegible] J. F. PEART, F. SHORT, M.D.; [illegible] W. [illegible] BANNERMAN, M.D.; [illegible] THOMSON, M.B.; [illegible] C. [illegible] SANDERS, M.B. [illegible] date [illegible] September [illegible]. [illegible] served with the Zhob Valley Expedition [illegible], the Burmese Campaign [illegible], [illegible] clasps; Lieutenant-Colonel [illegible] medal with two clasps), and in the Tirah campaign in 1897-8 (medal with two clasps).

Lieutenant-Colonel [illegible] MD., Madras Establishment, has retired from the service [illegible]. He was appointed Assistant-Surgeon, [illegible], and became Surgeon-Lieutenant-Colonel, March [illegible].

Lieutenant-Colonel W. K. HATCH, M.B., F.R.C.S., Bombay Establishment, has also retired, from November [illegible]. [illegible] Assistant-Surgeon, March 31st, 1877, and was made Brigade-Surgeon-Lieutenant-Colonel, March [illegible]. He was in the Afghan war in [illegible], receiving a medal.

The retirement from the service of Lieutenant-Colonel D. F. [illegible], M.D., [illegible] BRITISH MEDICAL JOURNAL [illegible].

[illegible]

THE INDIAN MEDICAL SERVICE AND THE MONTHLY ARMY LIST.

[illegible]

RETIREMENT ON PENSION AFTER TWENTY YEARS' SERVICE.

[illegible]

years must be definitely secured with or without examination, and it was secured. [illegible] Warrant of March 4th, 1901, we will here read the conditions under which a Major R.A.M.C. retires after twenty years service on pension and not on gratuity.

THE LATE FLEET SURGEON KIRKER, R.N.

MR. G. H. MASONS, C.B., F.R.C.S., writes: In the [illegible] notices of the late Fleet Surgeon Kirker [illegible] seem to have been made of that [illegible] work on the [illegible] medicine in the days of sail to [illegible] Kirker's [illegible] were [illegible] of the late Professor Longmore [illegible] of Military Medicine and Surgery in the International Medical Congress [illegible] read in the [illegible] of the International Medical Congress, vol. ii., p. [illegible] A careful study of this paper, entitled "Contributions to the Early Medical and Naval History of the West Indies," will [illegible] less [illegible] the experience of the [illegible] of modern [illegible] to be derived from the [illegible] Kirker [illegible] that he would [illegible] of assistant surgeon in University College, London, but as to such personal [illegible] I am afraid [illegible] application was asked for an explanation, when it was found that the University College referred to is the University College of Virginia, U.S.A. The second case is an obvious error. "McNab, Francis, C.M. (Edinburgh)" [illegible] In the [illegible] regulations, the virtues of which are attested by "A. B. Griffith, Major, A.M.S." We have been unable to trace this person, and it has been pointed out to us that at the time the Army Medical Staff was so described the title was surgeon-major, or for officers holding regimental rank [illegible] may have been a Surgeon-Major in A. B. Griffiths's regiment of the testimonial. These cases illustrate the difficulties met with in three earnest attempts to put a stop to this abuse.

MEDICAL MISSIONARIES AND PRIVATE PRACTICE.

SCRUTATOR refers to the enquiry, but adds no argument to those already adduced. The position in brief is this: [illegible] Turkish Arabia there is a [illegible] surgeon who is [illegible] the Indian Medical Service [illegible] to the [illegible] belonging to the Church Missionary Society who is [illegible] work gratuitously among the poor. Each of these gentlemen [illegible] addition to the work for which they are [illegible] private practice among the well-to-do natives. The question is whether the presidency surgeon has private practice, would it be part of the medical missionary's duty to [illegible] which the [illegible] supported, and supplies being [illegible] towards the object should [illegible] in the [illegible]

One of the [illegible] plans of the [illegible] missionary being invited [illegible] private practice [illegible] the Church Missionary Society [illegible] to its [illegible] to compete with him, and [illegible] and the latter.

It seems plain that if the Society makes a profit it can [illegible] its [illegible] and that these charges are not fully deductible. We cannot see that the reasons urged against an officer of the Church Missionary Society [illegible] private practice could hold good equally against the resident surgeon, and it would be a curious [illegible] for a practitioner who was trying to make a [illegible] any other [illegible] to help him. [illegible] that what is [illegible] the salaried resident surgeon is [illegible] the salaried medical missionary. [illegible] to which the Church Missionary Society intends [illegible] them to give [illegible] why we should object. Further we do not [illegible] the [illegible] practice is to be carried on [illegible] constitutes the [illegible] necessary [illegible] the [illegible] [illegible] and makes it necessary [illegible] the [illegible] [illegible] that the resident surgeon devotes [illegible] to private practice, subordinate to the needs and leave us [illegible] further.

MEDICAL ETIQUETTE.

R. D. M.—A., B., and C. are medical practitioners. X. is a patient. A. is called in to attend X. B. is called in in consultation with A., and advises removal of X. to hospital for immediate operation. A. sends X.'s friends with [illegible] to C. who is [illegible] to the hospital, asking that X. [illegible] that he would be present at the operation, and, in fact, [illegible] ability to it. C. explains that [illegible] cannot be done, as he is [illegible] geon for the week but that [illegible] X. [illegible] with A. [illegible] has admission. [illegible] that case X. under his care. This is done, and C. operates. Some days after leaving hospital X. calls [illegible] C. at his residence. C. [illegible] the world proper [illegible] to [illegible] under A.'s care, examines the chest, the wound, applies fresh [illegible] and makes no charge. He hears nothing more about X. for some months, when X. again comes to see him, for [illegible] operation would [illegible] C. again tells him to [illegible] consult A. X. replies that he had only been under A.'s care [illegible] occasion, and that he might [illegible] to [illegible] doctor he wished. What ought C. to do under the circumstances?

*** It seems reasonable that C. should have [illegible] he saw the case originally in consultation with A., we think he should refuse to accept X. as his own patient.

SEASIDE.—We see no reason why, under the circumstances, B. should not continue to attend to expect C. he was not to [illegible] him A. on the fact of his attendance A. is not [illegible] to do [illegible] but he meets C. he should talk the matter over with him in a friendly way without suggesting that he has any right to complain of C.'s conduct.

R. D. M.—A. is on the staff of the local Hospital. X. is admitted under [illegible] with a simple fracture and goes out in a few weeks with his leg in plaster. A few days after his discharge A. is sent for by X.'s friends, who [illegible] suffering, to attend him [illegible] A. [illegible] authorities. A. declines to [illegible], but X., as an [illegible] out-patient, is entitled to be treated by [illegible] the [illegible] surgeons [illegible] The friends, however, [illegible] that A. should attend him, and [illegible] to see that he is paid for his services. Was it right for A. to attend X., or should he have [illegible] from X. who were his previous medical attendant, [illegible] to send for one or other?

*** A was right to attend X. He was not bound to make [illegible] inquiries about his previous medical attendant.

ADVERTISEMENTS IN THE LAY PRESS.

NEWFOUNDLAND.—The custom of advertising a so-called "card," is, as our correspondent says, recognized as a [illegible] professional practice among the profession generally in many of the British colonies. In our opinion such matters should be regulated by local professional opinion, and if any contrary is declared desirable the question should be raised in the local Branch of the British Medical Association.

OUT-PATIENT PAPERS.

DUBITANS writes enclosing an out-patient prescription paper and complains of it as "a specious kind of advertisement for the gentleman whose name is printed in such bold type on the two sides of the form." The paper [illegible] added in two additional lines on the [illegible] sister [illegible] to the name of the physician, some directions to the patient as to [illegible] time of attendance. We can quite agree with our correspondent that the printing of the names of the staff of [illegible] hospital on out-patient prescription papers should be regarded as improper, or as [illegible] them open to the charge of advertising.

PARTNERSHIP INTRODUCTION.

Z. D. expresses dissatisfaction at an opinion expressed in our columns that it is the duty of a medical practitioner to introduce on meeting partner to all his patients, so far as necessary for the welfare of the [illegible] He thinks he should be introduced to all without reserve.

*** Such a [illegible] might have its drawbacks. A nervous patient might [illegible] that the introduction of a partner was the prelude to the loss of [illegible] doctor. In a good class practice such introductions should certainly be made with discrimination, and the senior partner would be by far the better judge as to how and when they should take place. If the incoming partner has no reason to doubt the bona fides of his senior such a matter can be of little importance, while if he has reason to imagine the converse his interests might suffer [illegible] as much were the latter compelled to introduce him without reserve.

TWO INSURANCE REPORTS AND ONE FEE.

ALPHA forwards details of a dispute which he has had with an insurance company, and seeks [illegible] an opinion thereon. He is not the ordinary medical [illegible] the company, but had two reports [illegible] handed to him by the proposer. These he filled up after completing his examination, and forwarded them to the company. It would appear, though it is not definitely so stated, that the reports were returned in connexion with two [illegible] and separate proposals to the same company by Alpha expressed his desire to receive two fees, but the company only sent a cheque, and refused to pay for the second report on the ground that the two reports [illegible] one examination. All the claims that are [illegible] were [illegible] by the company and were of a like to it. [illegible] Alpha [illegible] because it they were [illegible] identical [illegible] a simple transcript by a clerk would have sufficed.

*** In [illegible] by signing two reports for different sums of money the [illegible] two separate pieces of [illegible] and incurred a [illegible] certainly entitled to [illegible] double fee; whether or [illegible] two were required is beside the question, for the [illegible] to pay double and the responsibility on the examiner [illegible] Upon a further question it would be well to have a distinct [illegible]

MEDICAL FEES.

F. E. A. C. [illegible] respondent [illegible] seems reasonable, and under the [illegible] is probably responsible through its agent.

INDIA AND THE COLONIES.

FEDERATED MALAY STATES.

[illegible] Malaya [illegible] "An account of [illegible] with [illegible] in Selangor. [illegible] of the Federated [illegible] Malay States. Dr. Travers, the Surgeon-General of [illegible] of other [illegible] establishments. Two [illegible] were selected and [illegible] to [illegible] the mosquitoes [illegible] The results of these operations, as the [illegible] were eminently satisfactory; for example, the [illegible] during three months of October, November, and December, whereas after the campaign, in the [illegible] were only [illegible]. Similarly in Port

Swettenham, [illegible] they were [illegible], while in [illegible] there were [illegible]. The cost for the work, which was mostly of a permanent nature, came to a little over [illegible] a [illegible] when the great reduction in [illegible] and the [illegible] expenses is taken into account.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointment.—Dr. [illegible], Professor of Medicine in King's College, [illegible] has been appointed Examiner in Pharmacology for the Third M.B. Examination.

Degrees.—At the congregation on December [illegible]th the following degrees were conferred:—[illegible] C. T. Marriott, Clare. *M.B.*—G. B. Norman, St. John's; [illegible] Caius.

The following have passed the Second Examination for Medical and Surgical Degrees as indicated:

Human Anatomy and Physiology.—J. B. Banister, B.A., Jes.; F. A. Barker, B.A., Emm.; R. L. Barwick, B.A., Christ's; T. R. H. Blake, B.A., Pemb.; [illegible] King's; S. P. Chan, Cai.; S. Churchill, B.A., Trin.; H. N. Coleman, Christ's; H. B. Corry, B.A., Cai.; R. Crowley, Jes.; W. T. Denning, B.A., Trin.; A. W. C. Drake, B.A., Pemb.; A. C. [illegible], Corp. Chr.; E. G. Fearnsides, Trin.; S. M. [illegible], Magd.; W. J. [illegible], Sid. Suss.; R. L. Gamlen, B.A., Cai.; E. C. [illegible], M.A., Joh.; G. W. Goodhart, B.A., Trin.; G. [illegible], Trin.; G. F. Greenwood, B.A., Sid. Suss.; F. W. W. Griffin, B.A., King's; H. [illegible], B.A., Pemb.; R. A. Hill, Cai.; E. B. Hinde, B.A., Trin.; W. H. Hodgson, B.A., Christ's; R. S. Jenkins, B.A., Joh.; A. R. [illegible], Cai.; R. B. Lloyd, B.A., Emm.; R. G. Markham, Cai.; J. H. B. Martin, B.A., Emm.; D. C. Master, B.A., Cai.; J. B. Mennell, B.A., Pemb.; E. V. Oulton, B.A., Christ's; D. G. Pearson, B.A., Pemb.; R. C. Priest, Cai.; R. L. Rawlinson, B.A., Trin.; E. F. Skinner, Corp. Chr.; A. C. H. Suhr, B.A., Cai.; W. H. R. Sutton, B.A., Down.; E. S. Taylor, M.A., Cla.; C. B. Ticehurst, B.A., Joh.; C. Tyler, B.A., Cai.; K. M. Walker, Cai.; S. L. Walker, B.A., Sid. Suss.; [illegible] B.A., Trin.; H. P. Weaver, B.A., Trin.; H. B. Weir, B.A., Trin.; C. E. Whitehead, Cai.; F. P. Young, B.A., Christ's; R. F. Young, B.A., Christ's.

UNIVERSITY OF LONDON.

Recognition of Teachers.

DR. HENRY RUSSELL ANDREWS has been recognized as a teacher of obstetric medicine at the London Hospital Medical College, Mr. Stanley Boyd as a teacher of surgery, Mr. A. C. Latham, Mr. J. J. Perkins, and Dr. H. Batty Shaw as [illegible] at the Hospital for Consumption and Diseases of the Chest, [illegible] W. H. B. Stoddart as a teacher of medicine at the Bethlem Royal Hospital.

[illegible] Laboratory.

Dr. A. D. Waller, F.R.S., has been appointed Director, and Dr. T. L. Mears [illegible] of the [illegible] laboratory for [illegible].

[illegible] will be given by Dr. A. [illegible], beginning on January [illegible], at [illegible] p.m., and a course [illegible] of the stomach and intestines by Mr. J. S. [illegible], beginning on January 21st, at [illegible] p.m.

B.Sc. Degree by Research.

[illegible] to the degree of B.Sc. by research was Frederick [illegible] of the London Hospital College, who presented a thesis on the [illegible] of the [illegible] with an explanation of some of their commoner abnormalities.

Brown Animal Sanatory Institution.

A legacy left by Miss [illegible] has reverted to the institution, the [illegible]. A revised scheme for the [illegible] was approved and the Committee for [illegible]. The amount of the [illegible] is not disclosed.

M.B. Honours.

The following [illegible] passed the M.B. Examination for Honours as [illegible]:

Medicine.—First Class: C. N. Sears (Gold Medal), St. Thomas's Hospital; [illegible] University College. [illegible] Second Class: W. F. Annand, University [illegible] London Hospital; F. J. Maples, St. [illegible] B.Sc., University College [illegible]. Third Class: W. Applegard [illegible] London (Royal Free Hospital) School of Medicine for Women; A. M. H. Gray, University [illegible] University College and Bristol [illegible] Hospital; G. T. Wrench, Guy's Hospital.

Obstetric Medicine.—First Class: W. Applegard (Scholarship and Gold Medal), [illegible] London (Royal Free Hospital) School of Medicine for Women; [illegible] C. W. [illegible] M. C. M[illegible], B.A. [illegible] A. M. H. Gray, [illegible] College and [illegible] St. Bartholomew's [illegible] and Manchester Royal Infirmary; [illegible] London (Royal Free Hospital) School of Medicine for Women.

Forensic Medicine.—First Class: [illegible] Chambers (Gold Medal), London (Royal Free Hospital) School of Medicine for Women; [illegible] St. Mary's Hospital; [illegible] A. C. A. [illegible] Guy's Hospital. Third Class: A. A. [illegible] King's College; [illegible] Charing Cross Hospital; [illegible] Leeds General Infirmary; [illegible] University College and Bristol Royal Infirmary; [illegible] M. [illegible] St. Bartholomew's Hospital; N. I. Spriggs, Guy's Hospital; A. M. [illegible].

[N.B. [illegible] in the order of merit of candidates, is [illegible] the reports of the Examiners shall have been confirmed by the Senate.]

B.S. Examination.

The following candidates have passed the B.S. Examination as under noted:

First Division.—W. F. Annand, University College; E. Bayley, Charing Cross and London Hospitals; Mary Cecilia Bell, London (Royal Free Hospital) School of Medicine for Women; P. M. Heath, University College; Elizabeth Hill, London (Royal Free Hospital) School of Medicine for Women; J. [illegible], St. Bartholomew's Hospital; H. McD. Parrott, Guy's Hospital; M. H. Phillips, London Hospital and University College, Bristol; C. H. Robertson, Guy's Hospital; C. N. Sears, St. Thomas's Hospital; H. Wales, Guy's and St. George's Hospitals; A. M. Webber, Guy's Hospital; G. T. Wrench, Guy's Hospital.

Second Division.—A. L. Badcock, Charing Cross Hospital; Annie Thompson Barnard, London (Royal Free Hospital) School of Medicine for Women; E. A. Bell, King's College; J. Broadley, Yorkshire College; [illegible] Burton, St. Bartholomew's Hospital; E. R. Carling, Westminster Hospital; [illegible], St. Bartholomew's Hospital; R. V. Dolbey, London Hospital; Mary Gertrude Eles, London (Royal Free Hospital) School of Medicine for Women; Olive Muriel Elgood, London (Royal Free Hospital) School of Medicine for Women; J. Evans, Guy's Hospital; B. G. Fiddian, Charing Cross Hospital; [illegible], London (Royal Free Hospital) School of Medicine for Women; W. P. Gowland, Victoria University; W. O. Greenwood, Yorkshire College; [illegible] Hastings, Middlesex Hospital; T. [illegible], Guy's Hospital; Annie Elizabeth Hooper, London (Royal Free Hospital) School of Medicine for Women; G. S. Hughes, Middlesex Hospital; Jessie Lamb, London (Royal Free Hospital) School of Medicine for Women; R. C. Leaning, St. Mary's Hospital; G. Lewin, Guy's Hospital; H. A. Lyth, University College; E. H. B. [illegible], Guy's Hospital; C. S. Parker, University College; Agnes Agatha [illegible], London (Royal Free Hospital) School of Medicine for Women; C. W. Rowntree, Middlesex Hospital; A. R. Short, B.Sc., St. Bartholomew's Hospital and University College, Bristol; [illegible], London (Royal Free Hospital) School of Medicine for Women; N. I. Spriggs, Guy's Hospital; W. C. Swayne, [illegible] Guy's Hospital and University College, Bristol; Mary [illegible], London (Royal Free Hospital) School of Medicine for Women; A. C. A. Van Buren, St. Bartholomew's Hospital; J. H. Watson, London Hospital; H. V. Wenham, St. Bartholomew's Hospital; [illegible] C. W[illegible], St. Bartholomew's Hospital and University College [illegible] Southern Hospital, Liverpool; G. E. O. Williams, University College.

This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

LONDON SCHOOL OF TROPICAL MEDICINE.

OF the students of the London School of Tropical Medicine who presented themselves for the examination at the end of the [illegible] December session [illegible], the following have passed: Dr. A. E. [illegible] (Colonial Service), Dr. A. H. Barclay (Foreign Office), Major W. [illegible], R.A.M.C., M.B., etc., Dr. W. J. Radford (Foreign Office), Dr. D. Cowin (Colonial Service), Dr. J. E. Mitchell, Dr. S. G. Baradey, Dr. C. H. [illegible] (Colonial Service), Dr. J. T. Cartaya, Dr. F. A. Baldwin (Colonial Service), Dr. [illegible] G. Maver (Colonial Service), Dr. F. C. Sutherland, Dr. Gay [illegible]. The first four candidates on the list passed with distinction.

UNIVERSITY OF DUBLIN.

AT the Winter Commencements, in Michaelmas Term, held on Friday, December 18th, [illegible], the following Degrees in Medicine, Surgery, and Midwifery were conferred:

Baccalaurei in Medicina, in Chirurgia, et in Arte Obstetricia.—W. Boxwell, T. J. P. Crean, T. H. Gibbon, [illegible], R. H. Lee, H. R. Nelson, P. S. Stewart, H. Stokes, S. H. Vickery, E. F. C. Willington.

Doctores in Medicina.—W. J. T. Bradshaw, [illegible] W. Crosbie, T. H. Gibbon, R. E. Halahan, G. M. Holmes, A. L. Hoops [illegible], H. C. Macquaide, H. R. Nelson, H. M. D. Townshend, A. J. McNally (*in absentia*).

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed the Examination for the Diploma in Public Health as undernoted:

Part I.—J. H. Brunskill, J. T. Bouchier-Hayes, J. W. H. Houghton.

Part II.—J. H. Brunskill, J. T. Bouchier-Hayes, W. J. Erskine, J. W. H. Houghton, J. H. Douglass.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen have passed the First Professional Examination for the Diploma of Fellow:

O. L. Addison, M.B.Lond., M.R.C.S.Eng., L.R.C.P.Lond., University College Hospital and King's College; [illegible] A. Andrews, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.C.Camb., Cambridge University and Guy's Hospital; [illegible] Barton, [illegible] and G. Cockcroft, Guy's Hospital; [illegible] M.B., Ch.B.Edin., Edinburgh University; [illegible] Cambridge University, King's College and [illegible] Hospital; [illegible] Davies-Colley, B.A.Camb., Cambridge University and Guy's Hospital; A. [illegible], Charing Cross Hospital; [illegible] Liverpool University; F. L. Gillespie, St. Bartholomew's Hospital; W. [illegible], M.R.C.S.Eng., L.R.C.P.Lond., M.D. [illegible] University and King's College, London; A. H. [illegible], M.R.C.S.Eng., L.R.C.P.Lond., M.S. and M.D.Durh., Durham University and London Hospital; J. W. Heslop, M.R.C.S.Eng., L.R.C.P.Lond., M.B. and B.S.Durh., Durham University; M. L. Hine, Middlesex Hospital; A. C. Hudson, M.A., M.B., B.C.Camb., Cambridge University and St. Thomas's Hospital; [illegible] Guy's Hospital; J. T. McDougall, M.R.C.S.Eng., M.B.Vict., D.P.H.Camb., Liverpool University; G. P. Mills, Birmingham University; [illegible] E. Moore, B.A.Camb., [illegible] St. Bartholomew's Hospital; G. C. F. Robinson, Guy's Hospital; H. C. Samuel, King's College, London; C. H. Smith and E. O. Stallybrass, Liverpool University; C. E. Tangye, B.A.Lond., Birmingham University; W. [illegible], B.A.Cape of Good Hope, Guy's Hospital; H. B. Whitehouse, St. Thomas's Hospital; C. Yorke, Liverpool University.

Ninety-six gentlemen presented themselves for this examination, of whom thirty-two passed and sixty-four were referred.

The following gentlemen having passed the necessary Examinations

and conformed to the By-laws and Regulations have been admitted "Fellows" of the College

J. G. O. H. Lace, M.B., B.S.Durh., L.R.C.P.Lond., Guy's and St. Thomas's Hospital and Durham University; J. W. Myler, L.R.C.P.Lond., M.D.Brux., Middlesex Hospital; F. H. Molesworth, B.A., M.B., B.C.Camb., L.R.C.P.Lond., Cambridge University and St. Bartholomew's Hospital; F. E. Taylor, M.A., M.B., B.Ch.Oxf., L.R.C.P.Lond., Yorkshire College and General Infirmary, Leeds, and King's College Hospital; F. A. Rose, M.A., M.B., B.C.Camb., L.R.C.P.Lond., Cambridge University and St. Bartholomew's Hospital; B. H. Slater, B.A., M.B.Camb., L.R.C.P.Lond., Cambridge University and Middlesex Hospital; G. G. Turner, M.B., B.S.Durh., L.R.C.P.Lond., Durham University; H. F. Brown, L.R.C.P.Lond., Birmingham University; W. H. Maxwell, M.A., M.B.Camb., L.R.C.P.Lond., Cambridge University and London Hospital; J. F. Jennings, M.B.Lond., L.R.C.P.Lond., St. Bartholomew's Hospital; J. C. Marshall, M.B.Lond., L.R.C.P.Lond., St. Bartholomew's Hospital; M. H. Collings, M.B.Lond., L.R.C.P.Lond., University College, Bristol, and London Hospital; C. S. Parker, M.B.Lond., L.R.C.P., L.M.S.S., University College Hospital; H. T. Dobble, L.R.C.P.Lond., St. Mary's Hospital; F. W. F. Ross, M.D., C.M.Edin., L.R.C.P.Lond., D.P.H.Eng., Edinburgh University and Middlesex Hospital; G. Coates, M.D., Ch.B.Glas., Glasgow University and St. Bartholomew's Hospital; C. A. B. Hopkins, M.D., Ch.B.Edin., Edinburgh University and St. Bartholomew's Hospital; W. C. Wilson, M.B., Ch.B.Edin., Edinburgh University and St. Bartholomew's Hospital; D. S. Wylie, M.B., Ch.B.Vict., Owens College, Victoria University, and King's College Hospital.

Sixty-four gentlemen presented themselves for this examination, twenty-two of whom passed (including three gentlemen not yet entitled to their diplomas) and forty-two were referred, nine for one year and thirty-three for six months.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the large English towns, including London, 8,561 births and 5,159 deaths were registered during the week ending December 19th. The annual rate of mortality was 17·3 per 1,000, against 17·0, 18·0, and 19·2 per 1,000 in the three preceding weeks. The rates in the several towns ranged from 8·2 in King's Norton, 9·0 in East Ham, 9·1 in Bournemouth, 9·7 in Barrow-in-Furness, 10·3 in Grimsby, 10·7 in Hornsey, and 11·1 in Burton-on-Trent to 23·1 in Hanley, 23·2 in Walsall, 23·5 in Wigan, 23·6 in Warrington, 24·0 in Swansea, 24·1 in Stockton-on-Tees, 25·4 in Gateshead, 34·5 in York, and 36·0 in Preston. In London the rate of mortality was 15·6 per 1,000, while it averaged 18·3 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was 1·5 per 1,000: in London this death-rate was equal to 1·3 per 1,000, while in the seventy-five other large towns it ranged upwards to 4·0 in Wigan, 4·1 in Willesden, 4·5 in Barry, 5·2 in York, 5·3 in Warrington, and 6·1 in Rotherham, 6·3 in Gateshead, and 11·5 in Preston. Measles caused a death-rate of 1·1 in West Ham, 1·3 in Aston Manor, 1·4 in Ipswich, 2·0 in York, 2·1 in Warrington, 2·6 in Barry, 2·7 in Willesden, 4·7 in Rotherham, and 12·5 in Preston. Whooping-cough of 1·1 in Wolverhampton, 1·2 in Walsall, 1·3 in Merthyr Tydfil, 1·7 in Warrington, and in Swansea, 1·7 in Wigan, 1·8 in Rochdale, 1·9 in Liverpool, 2·0 in York, and 2·2 in Gateshead, and diarrhœa of 1·2 in Walsall, 1·4 in Gateshead, 1·5 in Merthyr Tydfil, 1·7 in Rochdale, and 1·8 in Preston. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Gateshead and one in Warrington, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 28 small-pox patients on Saturday, December 19th, against 40, 35, and 29 at the three preceding Saturdays; 7 new cases were admitted during the week, against 5, 3, and 2 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,770, 1,715, and 1,717 at the end of the three preceding weeks, had further declined to 1,655 at the end of the week under notice; 191 new cases were admitted during that week, against 157, 201, and 171 in the three preceding weeks.

During the week ending Saturday last, December 26th, 6,251 births and 4,474 deaths were registered in seventy-six of the largest English towns. The annual rate of mortality in these towns, which had been 17·3, 17·0, and 18·0 per 1,000 in the three preceding weeks, further declined last week to 16·8 per 1,000. The lowest death-rates among these towns were 7·1 in Barrow-in-Furness, 7·8 in Leyton, 7·9 in East Ham, 8·1 in Walthamstow, 8·2 in Hastings, 8·3 in Hornsey, 8·6 in Smethwick, and 8·7 in Tottenham and in Reading; the highest rates were 21·1 in Great Yarmouth, 21·2 in Bradford, 22·2 in Merthyr Tydfil, 23·2 in Stockport, 24·1 in Stockton-on-Tees, 24·6 in Preston, 25·7 in Warrington, 26·4 in Wigan, and 27·0 in York. In London the rate of mortality was 15·2 per 1,000, while it averaged 18·0 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·4 in the seventy-six large towns: in London this death-rate was equal to 1·1 per 1,000, while it ranged upwards in the seventy-five other large towns to 3·1 in West Bromwich, 3·6 in Swansea, 4·1 in Willesden, 5·1 in Gateshead, 4·6 in Rotherham, 6·1 in Warrington, and 11·5 in Preston. Measles caused a death-rate of 1·2 in Leeds, 1·3 in Warrington, 2·1 in Sunderland, 3·0 in Great Yarmouth, 3·1 in West Bromwich, 3·3 in Willesden, 3·6 in Rotherham, and 7·1 in Preston, diphtheria of 1·1 in Hanley, and whooping-cough of 1·5 in Leyton, 1·6 in Liverpool, 2·0 in Stockton-on-Tees, 2·4 in Warrington, 2·5 in Wigan, 2·7 in Swansea, and 7·0 in Gateshead. The mortality from scarlet fever, from "fever," and from diarrhœa showed no marked excess in any of the large towns. Three deaths from small-pox were registered in Warrington, one in Leeds, and one in Tynemouth, but not one in any other of the seventy-six large towns. The number of small-pox cases remaining under treatment in the Metropolitan Asylums Hospitals, which had been 28, 31, and 29 at the end of the three preceding weeks, had risen again to 37 at the end of last week: 7 new cases were admitted during the week, against 7, 5, and 2 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday, December 26th, was 1,718, against 1,655, 1,717, and 1,770 on the three preceding Saturdays; 142 new cases were admitted during the week, against 191, 157, and 201 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending December 19th, 1,161 births and 752 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17·2, 17·5, and 18·4 per 1,000 in the three preceding weeks, declined again to 17·0 per 1,000 during the week under notice, but was 2·2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13·7 in Leith and 15·1 in Greenock, to 20·2 in Perth and 23·1 in Paisley. The death-rate from the principal infectious diseases in these towns averaged 1·5 per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The 450 deaths registered in Glasgow included 2 which were referred to small-pox, 30 to measles, 2 to scarlet fever, 4 to whooping-cough, 10 to "fever," and 10 to diarrhœa. Two fatal cases of measles and 1 of diphtheria were recorded in Edinburgh, and 3 of whooping-cough in Aberdeen.

During the week ending Saturday last, December 26th, 814 births and 760 deaths were registered in the eight Scotch towns. The annual rate of mortality in these towns last week was 22·1 per 1,000, or 5·4 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12·0 in Paisley and 13·7 in Leith to 23·1 in Greenock and 24·9 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2·3 per 1,000, the highest rates being recorded in Glasgow and Perth. The 350 deaths registered in Glasgow included 4 from small-pox, 2 from measles, 2 from scarlet fever, 1 from diphtheria, 8 from whooping-cough, 2 from "fever," and 10 from diarrhœa. Five fatal cases of whooping-cough occurred in Aberdeen and 2 in Edinburgh. Two deaths from diphtheria occurred in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, December 19th, 465 births and 474 deaths were registered in six of the principal Irish towns, against 501 births and 488 deaths in the preceding period. The mean annual death-rate of these towns, which had been 19·8, 24·8, and 19·9 per 1,000 during the three preceding weeks, rose abruptly to 27·3 in the week under notice, this figure being 9·7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The death-rates from the principal zymotic diseases during the same period averaged 1·1 per 1,000, the highest point, 2·5, being reached in Belfast, while Waterford registered no deaths under this heading at all. During the following week, ending Saturday, December 26th, only 436 births and 348 deaths were registered in the same six towns, while the mean annual death-rate therein went a sudden decline to 20·1 per 1,000, and thus fell to only 0·2 above the mean of the seventy-six English towns during the same period instead of nearly 10 per 1,000 above it. The death-rate from zymotic diseases in the same towns also dropped to 0·6 per 1,000, the highest rate, 1·2, being reached in Belfast, while Londonderry, Limerick, and Waterford registered under this heading no deaths at all. The heavy rate in Belfast was due to whooping-cough, which was also the principal cause of death from zymotic disease during the fortnight in all the towns.

SORE THROAT AND MILK.

The Local Government Board has issued a report by Dr. L. W. Darra Mair on an outbreak of illness which occurred at Lincoln in May, 1902. The persons affected were mostly adults, and exhibited similar symptoms—sickness, sore throat, fever, and sometimes a rash. Nearly all the affected households were supplied with milk from one dairy. The local practitioners, whilst agreeing that a particular milk supply was responsible for the outbreak, held different opinions as to whether the disease was or was not scarlatina. Dr. Mair had an opportunity of seeing any of the patients in the initial stage of the disease. He did not see the rash, nor could he observe the earlier characteristics of the throat and tongue. Most of the patients he saw were desquamating, and in many of these the nature of the desquamation appeared to him to be typical of scarlatina. But on making inquiries as to the general course of the disease from the practitioners who attended the cases, Dr. Mair found that many symptoms present were unlike those of scarlatina.

He has arrived at the conclusion, that "the Lincoln epidemic was not only quite distinct from scarlet fever, but was in fact a special disease." Some of the points of distinction on which he lays stress are its frequent occurrence in old people, the rarity of albuminuria, the fall of temperature at the appearance of the eruption, the absence of "strawberry" tongue, and the rarity of vomiting. He also mentions that Dr. Samuel Gee saw one of the cases in consultation, and expressed the opinion that it was not scarlatina. Dr. Mair finds further corroboration of his views in the bacteriological investigations of the disease conducted by Drs. Klein and Gordon, of which a preliminary account has already been issued. From none of the seventeen swabbings of throats examined by these authorities was there streptococcus scarlatinae obtained; but in three cases an interesting yeast was isolated which proved pathogenic to animals, and these gentlemen suggest that this may have been the specific organism. But as we are told that Dr. Klein has not yet concluded his investigations of the yeast in question, it would be premature to discuss at present the value of this hypothesis.

WATERCRESS AND ENTERIC FEVER.

Dr. A. T. Woolridge (Canterbury) writes: I am glad to see that the Public Health Committee of the London County Council is causing inquiries to be made by the Medical Officer of Health with regard to the condition of watercress beds in the County of London, and that the inquiries are to be extended to sources outside the county from which watercress is supplied to London if it is found practicable to do so. I have for some time past been growing more and more suspicious of the so-called watercress as a carrier of typhoid germs, and have on several occasions, while passing some large "beds" in the train, seen what appeared to be garden privies at the ends of cottage gardens abutting on these "beds." Unfortunately I have not had time to visit the spot and verify my suspicions, as it is some miles off, but I intend doing so shortly. Surely it is high time something was done to remedy this state of affairs, and the county medical officers here should have such danger-spots closely inspected, so that country dwellers may be protected as well as their brethren in London.

MEDICAL OFFICERS IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

DR. ALEXANDER MURCHISON [illegible] Skye [illegible] ... [illegible] ... wrote ... [illegible] ... [illegible] ... removed.

[illegible]

Wester Daldowie, Broomhouse,
November [illegible]

To Dr. Alex. Murchison [illegible] Skye.

[illegible] ... [illegible] ... [illegible] ... red in your [illegible] ... [illegible]

Yours truly,
(Signed) WILLIAM [illegible] M[illegible].

The recently-formed Medical Union of Scotland acted for Dr. M[illegible] ... [illegible]

[illegible]

POOR LAW MIDWIFERY IN SCOTLAND.

[illegible] ... which was disallowed on the ground that such service was covered by [illegible] ... [illegible]

[illegible]

[illegible]

MEDICAL NEWS.

[illegible] ... [illegible] ... intro-duced by [illegible] ... [illegible]

Terrace, Strand, at 8 p.m. on Friday, January 8th. The meeting is open to public analysts and others interested in the question.

THE spring term of lectures at the Samaritan Free Hospital will commence on January 7th, when Mr. Alban Doran will give a lecture on Abdominal Tumours and Swellings in Women. The lectures are given on Thursdays at 3 p.m. and are free to medical practitioners.

DR. ARTHUR NEWSHOLME will deliver the inaugural address in connexion with the post-graduate lectures and demonstrations at the Mount Vernon Hospital for Consumption and Diseases of the Chest at 7, Fitzroy Square, on Thursday, January 7th, at 5 p.m. The subject of Dr. Newsholme's address will be Public Preventive Measures against Tuberculosis in relation to the Medical Practitioner.

PRESENTATION.—Dr. and Mrs. [illegible], who left Mickleton last year, have been presented with a handsome silver sugar bowl and cream jug and a testimonial "with Christmas greetings and all good wishes for their future happiness and prosperity from the undersigned friends and children of Mickleton, Christmas, 1903."

SIR CHARLES NICHOLSON, M.D., LL.D., D.C.L., J.P., who recently died at his residence, The Grange, Totteridge, Herts, at the age of 95, left estate of the gross value of [illegible]7,810, including net personalty valued at £73,808. Sir Charles was a member of the first Legislative Council of New South Wales (1844), and three times Speaker of that assembly (1845-56).

REMUNERATION OF MEDICAL WITNESSES IN AUSTRALIA.—In response to the representations of the Council of the New South Wales Branch of the British Medical Association, the following amended scale of fees payable to medical witnesses came into force on November 1st. For giving evidence, one guinea for each case (maximum per diem, two guineas); for attendance at court, one guinea for each day actually and necessarily away from his practice.

CRAIG COLONY PRIZE.—The "Craig Colony Prize" of 200 dollars (£40) is offered for the best essay on the etiology, pathology, and treatment of epilepsy. The following conditions must be complied with: The paper must show original work; its subject-matter must not have been previously published; the manuscript must be in English, and must be in the hands of Dr. Frederick Peterson, 4, West [illegible]th Street, New York, before September 30th, 1904. The manuscript must be accompanied by a sealed envelope enclosing the name and address of the writer, and bearing on its outside a device or motto corresponding to the device or motto on the manuscript.

INCREASED LONGEVITY IN THE UNITED STATES.—At the International Congress of Insurance Actuaries recently held in New York, Mr. John K. [illegible], of Newark, New Jersey, presented statistics showing that during the last five years of the nineteenth century there had been a very perceptible decrease in the mortality rate. From 1870 to 1874, the period including the fatal small-pox epidemic of 1872, there was an increase in the death-rate of every age group [illegible]. From 1880 to 1884 the rate was relatively high owing to the great prevalence and wide distribution of diphtheria, scarlet fever, and measles. The influenza epidemic of [illegible] caused an augmented death-rate from 18[illegible] to 18[illegible]. As to causes, it was stated that there had been a remarkable decrease in the death-rate from phthsis, and a slight decrease from typhoid fever in the northern countries. In a discussion on the subject there was practical unanimity as to the fact of the increase in longevity. Among the factors contributing thereto were mentioned the advance in medicine and surgery, the growth of hospitals, and the better care of the poor and suffering, and the more enlightened treatment of sick and weakly children.

MEDICAL VACANCIES.

[illegible]

FOLKESTONE: [illegible] ROYAL VICTORIA HOSPITAL.—House-Surgeon, resident. Salary, [illegible] per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Third House-Surgeon, resident. Salary, [illegible] per annum.

CAMBERWELL: PARISH OF ST. GILES.—Assistant Medical Superintendent of the [illegible]. Salary [illegible].

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Surgeon Accoucheur. Salary, [illegible] per annum [illegible].

HULL ROYAL INFIRMARY.—[illegible] House-Surgeon, resident. Salary, £[illegible] per annum.

LANARK COUNTY.—Resident Physician for the Middle Ward Isolation Hospital. Salary [illegible] per annum.

LEEDS: YORKSHIRE COLLEGE.—Junior Demonstrator of Pathology. Salary, £[illegible].

MANCHESTER: ANCOATS HOSPITAL.—Resident House-Surgeon. Salary, £[illegible] per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Surgeon.

NORTH-EASTERN HOSPITAL FOR WOMEN, Hackney Road, E.—[illegible] Surgeon. (2) Medical Officer in charge of Electrical Department. Salary, £50 per annum. (3) Pathologist and Bacteriologist. Salary, £50 per annum.

ST. MARK'S HOSPITAL FOR FISTULA, City Road, E.C.—[illegible] Honorary Surgeon. (2) Honorary Assistant Surgeon.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Physiology. Salary, £[illegible] per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon, resident. Salary at the rate of £[illegible] per annum.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary, £[illegible] per annum.

UNIVERSITY OF LONDON.—Two Examiners each in Medicine, Surgery, and Pathology, and one each in Materia Medica and Pharmaceutical Chemistry, and Mental Diseases.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon, resident. Salary, £[illegible] per annum.

MEDICAL APPOINTMENTS.

BLAKENEY, J. H., L.F.P.S.Glasg., Certifying Factory Surgeon for the Middleton District, Lancashire.

BOYD, A. J., B.A., M.D.Dubl., Honorary Assistant Medical Officer Hertford General Infirmary.

CROSSE, E. E., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer and Public Vaccinator of the Milford and Laundiloe, Union Workhouse.

FOLKES, H. H., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Hanley District, Staffordshire.

GARRETT, R., L.R.C.P. & S.Edin., Medical Officer for the Wolsingham District of the Weardale Union.

ISHERWOOD, F., L.R.C.P. & S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Cockermouth District, Cumberland.

McNAUGHT, H. Horsman, M.D., Assistant Honorary Surgeon to the Manchester Eye Hospital.

STANLEY, John Douglas, M.D.Edin., M.R.C.P.Lond., Honorary Physician to the Birmingham Children's Hospital, vice Dr. A. E. Clark, resigned.

TURNER, H. N., M.B., Certifying Factory Surgeon for the Castle Bytham District, Lincolnshire.

WADE, Henry, M.B., F.R.C.S.Edin., Conservator of the Museum of the Royal College of Surgeons, Edinburgh.

WALKER, J. D., M.B., C.M.Aberd., Certifying Factory Surgeon for the Shaftesbury District, Dorsetshire.

WATSON, C. Gordon, F.R.C.S.Eng., Assistant Surgeon to the Metropolitan Hospital.

WILLIAMS, S. R., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

WILLIAMSON, H. H., M.R.C.S., L.S.A., Certifying Factory Surgeon for the Ludgershall District, Wiltshire.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Drs. Pynton and Shaw: [illegible] Aureus and Rheumatic Fever. Dr. H. M. Stewart and Dr. F. Buzzard: Dermoid Tumours of Brain. Dr. Drysdale: [illegible] Aneurysm of Brain. Messrs. H. L. Barnard and H. M. Rigby: Pulsating Exophthalmos with Aneurysms of the Internal Carotid.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Dr. R. Hamilton Bell and Mr. J. D. Malcolm. Communications:—Dr. Victor Bonney: Pyometra in the Half of a Septate Uterus. Dr. A. W. W. Lea: Abscess of the Uterus. Paper:—Dr. Herbert R. Spencer: Fibromyoma of the Intra-abdominal Portion of the Round Ligament of the Uterus.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Dr. G. B. Batten: On the Revelations of Radium.

FRIDAY.

Incorporated Society of Medical Officers of Health, 1, Adelphi Terrace, Strand, W.C., [illegible] p.m.—Dr. J. Spottiswoode Cameron: Sophistication of Foods.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Sir Dyce Duckworth and Professor Howard Marsh: A case of Pneumococcal Peritonitis. Dr. Frederick Taylor: A case of Pneumococcal Peritonitis. Dr. Sidney Phillips: A case of Fibroid Disease of the Pancreas with Calculi, accompanied by Jaundice and subsequently by Diabetes: Laparotomy: Relief of Symptoms: Death.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.: Lecture on Gastric Ulcer.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Abdominal Tumours and Swellings in Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is [illegible] which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ANDERSON.—On December [illegible], 1903, at Newburgh, Fife[illegible], Perthshire, the wife of J. [illegible] Anderson, M.B., C.M.Edin., of a son.

LE BRUN.—On Wednesday, December 23rd, 1903, the wife of Philip J. Le Brun, M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., of Wennington House, Marine Parade, Worthing, of a son.

MURRAY.—On December 28th, 1903, at 2, Chevening Road, Kensal Rise, W., the wife of Richard Gowan Murray, M.R.C.S., L.R.C.P., D.P.H., of a daughter.

NEWSOME.—On December [illegible], 1903, to Dr. and Mrs. H. Newsome, [illegible], near Bristol, a daughter.

PENROSE.—On December 26th, 1903, at 2, Kingsley Road, Mutley, Plymouth, the wife of Staff-Surgeon F. A. Penrose, M.B., R.N., H.M.S. [illegible], of a son.

SAW.—On December 25th, 1903, at 1, Granada Road, Southsea, the wife of Major F. A. Saw, R.A.M.C., of a son.

MARRIAGE.

ARMONT—SMART.—At North Morningside United Free Church, Edinburgh, on December [illegible], 1903, by the Rev. [illegible] W. Forrest, D.D., assisted by the Rev. A[illegible] Mair, D.D., Minister of the Church, and the Rev. Robert [illegible] B.D., St. Stephen's Parish, [illegible] Perth, Edward Farr Armont, M.A., M.B., C.M., to [illegible], only daughter of John Smart, Solicitor in the Supreme Courts of Scotland, 1, Greenhill Place, Edinburgh.

DEATHS.

CLAPTON.—On December [illegible], 1903, at 41, Eltham Road, Lee, S.E., Mary, widow of Edward Clapton, M.D., F.R.C.P., aged [illegible].

O'FARRELL.—On December [illegible], 1903, at 21, Waterloo Road, [illegible], Malta, the dearly-loved wife of Surgeon-General O'Farrell. R.I.P.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF BILIARY FISTULA.

FISTULA has a case of biliary fistula, and would be glad of any suggestions for treatment. The wound, which is now very small, admits a probe, and the discharge, which is somewhat mucoid, is not at all free. Some months back it healed up for a fortnight. The patient's general health is good. She refuses further operation.

HISTOLOGY OF BONE.

B. M. A. asks: (1) Have nerve fibrils been found in the Haversian canals of compact bone? (2) Are Volkmann's canals the only canals which open on the exterior of long bones by piercing the periosteal lamellae, or do Haversian canals of Haversian systems also open upon the exterior, in addition to Volkmann's canals?

** (1) Nerve fibrils have been demonstrated in bone by Kolliker, Retzy, and Variot. (2) Volkmann's canals are not the only canals which open on the exterior of long bones. Haversian canals also open on the surface.

COCAINE IN POST-PARTUM HAEMORRHAGE.

DR. C. FOX (Caerphilly) writes: On November 30th I was called suddenly to a case of *post-partum* haemorrhage. On entering the room I could see at a glance the patient was in an exceedingly grave condition. Uterus on examination flaccid, haemorrhage profuse, the countenance portraying approaching death. Having no ergotine, I bethought me of a solution of cocaine (1 in 20), which I happened to have in my bag. I immediately injected a quantity equal to 1 gr., and in the course of two minutes at most was gratified to see a great change in the aspect of affairs. The uterus had contracted, the haemorrhage had ceased, and the facial expression completely altered. The patient then spoke in her usual voice and said she felt "quite well." She made an uninterrupted recovery. I should be very glad to hear if any of your numerous readers ever tried cocaine in a similar case. I have not heard of it being so used though I have often inquired. To me the effect was marvellous.

THE MIDWIVES ACT.

M. O. H. asks for information as to the scale of fees which should be paid by the local supervising authority under Section VIII of the Midwives Act, 1902, to a medical officer of health, whose appointment is not whole time, [illegible] to carry out [illegible] made by the Central Midwives Board, when that officer does not hold a full time appointment.

** So far as we are aware no such scale has yet been published. The duties of the local supervising authorities will vary with the population [illegible] and the [illegible] officers of health will [illegible] for the extra duties imposed upon them and also the [illegible] and the rules made under the Act. The [illegible] are responsible for the payment [illegible] and these [illegible] include the fees due to medical officers of health and their assistants.

ANSWERS.

H. L. is recommended to consult an ophthalmic surgeon.

R. W.—We have referred our correspondent's question to Mr. S. G. [illegible], F.R.C.S., who writes: [illegible] *[illegible]te,* 1903, our correspondent is advised to apply to Gustav Fischer, Jena.

[illegible] one of the following works would suit our correspondent's needs: *Atla*[illegible] H. [illegible] Crocker, M.D., F.R.C.P. [illegible] in 12 parts (London: Rebman, Limited, 1895 [illegible]

EMB[illegible] OF EYE AND EAR.

[illegible] A complete [illegible] the development of the [illegible] present knowledge of the

subject is given in Oscar Hertwig's *Handbuch der vergleichenden und* [illegible] *Entwickelungslehre der Wirbeltiere*, Vierte und Fünfte Lieferung. Published by Gustav Fischer, Jena. The literature of the eye will be found in the lists published in the [illegible]. Details of the earliest rudiments of the eye and ear in invertebrate animals together with [illegible] are contained in Korschelt and Heider's *[illegible]*, translated by M. Bernard and M. F. Woodward. [illegible] Swan Sonnenschein and Co.

NOTES, LETTERS, Etc.

AN APPEAL.

WE have received the following appeal: Will you kindly allow us to appeal to the benevolent readers of THE BRITISH MEDICAL JOURNAL for immediate help on behalf of the widow and [illegible] of a doctor who has just died [illegible], was for [illegible] years unable to support his family [illegible] now dependent on the widow, and one partially [illegible]. He was [illegible] respected in the country town in which, for [illegible] years, he practised, holding also Local Government appointments.

The widow has been and still is struggling to provide for herself and family, but financial support is absolutely necessary to render her efforts effective. The generosity of private friends has been severely taxed, and now the [illegible] whatever available. The [illegible] health of the widow and two of the children adds to the urgency of this appeal.

Any contributions will be gratefully received and acknowledged by Miss M. P. Dunford, [illegible], Miss [illegible], [illegible] Street, S.W., from whom any further information can be obtained.

We are, Sir, your obedient Servants,

(Signed) J. DUNSFORD, [illegible] Admiral.
W. B. C. [illegible], Surgeon-Lieut.-Colonel.
R. W. HOARE, Vicar of St. [illegible], Croydon.
E. H. WINNINGTON INGRAM, Rector of Ross.
C. J. VAUGHAN, [illegible], Ross.

"THE DOCTOR" BY LUKE FILDES, R.A.

WE are asked to warn possible purchasers against buying or in any way dealing with pirated copies of the picture called "The Doctor" by Luke Fildes, R.A., of which Messrs. Thos. Agnew and Sons, [illegible] Old Bond Street, are the owners of the copyright. The picture has been extensively reproduced in America, and from time to time pirated copies have been imported into the United Kingdom either as engravings or for use as advertisements [illegible] in connexion with American [illegible] preparations. Large numbers of these copies have been seized, and injunctions obtained against the importers. The electrotypes of the picture have also been offered to printers and [illegible] in the United Kingdom by several American electrotypers [illegible]. The importation, exhibition, or sale of any of these pirated copies or electrotypes constitutes a breach of the Copyright Acts, and the owners of the copyright feel compelled for their own protection to take proceedings against all persons whom they may find committing such breaches.

HYOSCINE IN NERVOUS DISORDERS.

DR. THOMAS PERCIVAL [illegible], Yorks, writes: I was very much interested in Dr. Ross's [illegible] in the BRITISH MEDICAL JOURNAL of December [illegible] [illegible] to the use of hyoscine. In the January number of the *Practitioner* of [illegible] there was inserted [illegible] of [illegible] by Dr. [illegible] of Paris. He used it in connexion with tremors, tabes, nervous and [illegible] I have [illegible] Dr. Charcot as having treated [illegible] all known [illegible] Dr. [illegible] of the [illegible] that [illegible] and also for [illegible] which [illegible] [illegible] and I found it act in a similar way in a case at Stretford.

FIRE INSURANCE AND ITS DECEPTIONS.

MR. W. H. FARR, M.A. [illegible], has forwarded to us a circular with reference to [illegible]

[illegible]

to make further [illegible] him at the above [illegible].

BRITISH SKULLS.

THE British Dental Association has appointed a committee in connexion with the inquiry at present taking place as to the alleged physical degeneration of the British race, to investigate the question of the alleged increase of dental caries. With this object the Committee is anxious to examine [illegible] skulls and teeth of the last few centuries if possible [illegible] to be found in museums and elsewhere in considerable [illegible], but with the exception of Professor [illegible] [illegible] have been examined [illegible]. The Honorary Secretary of the British Dental Association, [illegible] Leicester Square, W.C., would be grateful for any information concerning any such collection, if existing.

DEFERRED CLIMACTERIC.

ORMUZ writes: I have seen a woman to-day whose catamenia appeared for the last time last March. The old family Bible showed the date of her birth as October 21st, 18[illegible]. Her last child is a daughter born October, [illegible]. She herself looks quite ten years younger than she is [illegible], and has borne six children. This record may interest some medical statistician.

A GAS GRILLER.

MR. A. E. HARRIS requests us to state that in the large cooker, referred to last week, p. [illegible], eighty chops can be cooked in five minutes, and that he believes that by the superheating of the gas sulphuretted hydrogen and other impurities in it are destroyed.

ERRATUM.—In the annotation on the League of Mercy in the BRITISH MEDICAL JOURNAL of December [illegible]th, 19[illegible], p. [illegible], col. [illegible], line 9, for "one-fifth" read "one-fiftieth."

LETTERS, COMMUNICATIONS, Etc., have been received from

A Messrs. Allen and Hanburys, London; A. H. **B** Sir W. H. Broadbent, Bart., K.C.V.O., London; Messrs. Burroughs, Wellcome, and Co., London; B.M.A.; Mr. H. N. Barnett, Belfast; Dr. A. T. Brand, [illegible]; Mr. G. H. [illegible], Manchester; Dr. G. T. Beatson, Glasgow. **C** Dr. G. [illegible], London; Mr. W. R. B. Coles, London; W. Christie, M.B., Aberdeen; Capetown Medico; Messrs. J. and A. Churchill, London; Dr. C. W. Chapman, London; G. Carter, M.B., [illegible]; J. F. S. Caverhill, M.B., Edinburgh. **D** [illegible] Dick, M.B., Manchester; Messrs. Doulton and Co., London; Mr. G. W. Dancer, London; Dr. W. R. Dix, Wigan; Dr. [illegible] Dutton, London. **E** Mr. A. Ellis, Blake [illegible]; Dr. J. M. Elder, Montreal. **F** [illegible]; Mr. A. Flemming, Clifton; Mr. [illegible] S. G. Fowler, Leeds; Mr. H. E. [illegible], Halifax, N.S.; J. Fraser, M.B., Edinburgh; [illegible]. **G** Mr. [illegible] Green, [illegible]; Dr. W. Glegg, Birmingham; Gazette Publishing Co., Manager of, New York; Dr. J. Grimshaw, Birkenhead; Mrs. Gray, Newcastle, co. Down; Dr. A. [illegible] Geoghegan, Wimbledon. **H** Messrs. W. Hughes and Co., London; Mr. [illegible] Hole, London; M. C. M. Heasley, London; Mr. W. A. [illegible], London; Dr. J. W. Hamill, Manchester; Dr. W. Hartigan, London. **I** S. T. Irwin, M.B., Belfast. **J** Dr. G. J[illegible], Glasgow. **K** Mr. W. G. King, London. **L** Liverpool Medical Institution, Secretary of, Liverpool; Dr. D. B. Lees, London; Dr. G. H. Lancashire, Manchester; F. H. Low, M.B., London. **M** Dr. C. M. MacRae, [illegible]; Dr. W. A. M[illegible], [illegible]. **N** [illegible]. **O** One of the Crusted Doctors; Oculist. **P** Mr. T. Percival, Knottingley; Mr. A. W. Power, Sunningdale; Mr. [illegible] M. Pearse, Liskeard; Mr. F. [illegible] Perkis, Nutfield. **R** Reader; Mr. A. [illegible]; Dr. J. Reid, London; Dr. A. [illegible], Monte Carlo. **S** Dr. T. P. Stewart, Newport, Fife; Dr. [illegible] Semways, Mentone; Dr. G. A. Sutherland, London; Mr. C. H. Souter, Balaklava, S. Australia; [illegible]; Dr. E. Smith, London; Dr. [illegible] H. Snell, Coventry; Mr. J. A. Shawyer, [illegible]. **T** Trevor; Mr. J. Turton, Brighton. **W** Dr. H. Woods, London; J. Weir, M.B., Glasgow; Mr. G. W. Wight, Glasgow; Dr. F. J. Wood, Bradford; W. A. B.; Mr. C. Williams, London; Dr. F. Wilcocks, London; W. D. G.; D. C. Watson, M.B., [illegible]; Messrs. J. Walker and Co., London; Mr. A. T. Wooldridge, [illegible]; Dr. F. F. Willoughby, London. **Y** Young Practitioner, etc.

BOOKS, Etc., RECEIVED.

Milk, Its Production and Uses. By Edward F. Willoughby, M.D.Lond., D.P.H.Lond. and Camb. [illegible]: Charles Griffin and Co., Ltd. [illegible]

The Jewel and its Casket: an Address by George B[illegible], M.A.Edin. Torquay: Published by the Author. 1903.

Nursing Handbook for Students in India. By C. F[illegible]. Madras: M. E. Press. [illegible]

A Manual of Operative Surgery. By Sir Frederick Treves, Bart., K.C.V.O., C.B., LL.D., F.R.C.S. New edition, revised by the Author and Jonathan Hutchinson, jun., F.R.C.S. In two volumes. London: Cassell and Co., Ltd. [illegible]

The [illegible] of Urethra, Instruments. By Herbert [illegible] Herring, M.B., B.S. Durh., M.R.C.S. London: H. K. Lewis. [illegible]

A Short Practice of Gynaecology. By Henry Jellett, B.A., M.D., B.Ch., B.A.O.Dublin, F.R.C.P.I., L.M. Second edition. London: J. and A. Churchill. [illegible]

An Essay on the Irregularities of the Teeth. By J. Sim Wallace, D.Sc., M.D., L.D.S. London: The Dental Manufacturing Co., Ltd. [illegible]

A Method for the Treatment of the [illegible]. By [illegible], M.D., F.R.C.S. London: Baillière, Tindall, and Cox. [illegible]

Beiträge zur [illegible] Therapie. Herausgegeben von Professor Dr. E. v. Leyden [illegible] Verlag von Dr. Med. [illegible] H. Kerner. [illegible] August Hirschwald. 1904. M. 2.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	0	0
A page	5	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
OPERATIVE AND EXPECTANT TREATMENT IN ECTOPIC PREGNANCY.

Delivered before the Colchester Medical Society.

By G. ERNEST HERMAN, M.B.Lond., F.R.C.P., F.R.C.S.
Consulting Obstetric Physician, London Hospital

SOME interesting and instructive papers have recently appeared the writers of which have taken trouble in comparing the results of ectopic pregnancy treated on expectant principles and treated by operation. But such a comparison appears to me not helpful in practice. There ought to be no question of comparison. Each mode of treatment has its own place. There are events in the course of ectopic pregnancy which indicate operation, and there are also times at which expectant treatment is right. In this communication I purpose to point out as definitely as I can when an operation ought to be done and when it ought not to be done for ectopic pregnancy.

Let us consider first the very earliest stage, before haemorrhage has taken place. I am not sure that any case has been diagnosed as tubal fetation before haemorrhage has taken place. Mr. Rumley Dawson has published two cases[1] in which the diagnosis was made before the end of the first month, but the report does not state whether haemorrhage had taken place or not. The diagnosis is so seldom made thus early, because until haemorrhage has taken place either into the tube or outside it there are no symptoms beyond the vague subjective symptoms which often announce to the patient that she is pregnant. Now and then, although there are no definite symptoms, something will cause anxiety and she may come for examination. Then if the examiner is skilful he may perceive a slight enlargement of one tube, together with slight enlargement of the uterus. These physical signs, together with the patient's belief that she has become pregnant, will warrant a reasonable suspicion that there is a tubal pregnancy.

What ought to be done? Undoubtedly, the proper treatment is removal of the pregnancy by abdominal section. Contrast the immense dangers that the patient incurs if the tubal pregnancy is left to take its course with the small risk of the removal of a pregnant tube. The only consideration which can cause any hesitation about operating in such cases is the difficulty of the diagnosis. This difficulty is not usually in concluding that ectopic gestation is present, but is rather in being certain that there is anything at all the matter. No one likes to urge a serious operation on a patient who feels quite well, and whose physical signs are so slight that it is possible, were a second opinion asked for, that the surgeon consulted might in perfect good faith, and with every wish to agree with his colleague, yet be unable to perceive any disease. A pregnant Fallopian tube is not so firm as an inflamed Fallopian tube; and its detection by palpation is in consequence more difficult. For these reasons the removal of gravid tubes before rupture or haemorrhage is, and I think will continue for long to be, one of the rarest surgical achievements.

Take now the case a stage further. The pregnant tube has not been removed; and the chorionic villi have perforated the tube on its peritoneal aspect. The result is profuse bleeding into the peritoneal cavity. The doctor is hurriedly sent for. He finds the patient collapsed, blanched, with quick, feeble pulse. Her mind is clear, her breathing is easy, and there is no external bleeding, or, if any, its amount is too small to account for the patient's prostration. On inquiry the doctor finds that when menstruation was last expected it came not, and the patient suspected she was pregnant. With such signs and symptoms, and such a history, there can be little doubt as to the probable diagnosis. Ruptured tubal gestation is a far commoner cause of great intraperitoneal bleeding in a young woman than anything else: commoner far than all the other causes put together.

What should be done? At once open the abdomen, and remove the ruptured tube. What objections can be raised to this course? It may be said that, if nothing is done, syncope will come on, the bleeding may stop, and the patient get well without operation. It is true that the patient may get well without operation, but how many such cases do? Thirty years ago such cases were always treated without operation. The opinion of those who then practised is important evidence of the chances of recovery or death. Parry's estimate of the total mortality of ectopic pregnancy was about 68 per cent., and of this 53 per cent. he thought due to rupture. This does not give strong ground for trust in the resources of Nature. Further, if the bleeding stops, the patient is not always cured of her illness. The fetus may go on developing, and peril arise subsequently. I think, therefore, that the physician who in a case of internal haemorrhage advises the surgeon to do nothing assumes a very grave responsibility indeed.

It may be objected that the advice to operate is good when the patient is in a well-appointed hospital or in circumstances such that she can command the services of an experienced abdominal surgeon; but that when the patient must be operated upon in her own home, and the surgeon who has to operate is a general practitioner who only occasionally has surgery to do, he had better let the patient take her chance without an operation. If the practitioner's inexperience is such that he is not acquainted with antiseptics, I grant this. But with the younger generation of practitioners a knowledge of asepsis is, as it were, their surgical alphabet. The operation of removal of a perforated Fallopian tube is one of the simplest and easiest in surgery. The operator should open the abdomen in the middle line. Three inches is a long enough incision. Then he should put in two fingers and feel for the uterus. This is a body so large and firm and so different from everything else that is felt in the peritoneal cavity that there is no difficulty in its identification by touch. With the uterus as a guide the operator then traces outwards each Fallopian tube. He will find one of them enlarged, and, holding it between two fingers, can easily bring it up through the wound. The perforation will then be visible. The broad ligament should be transfixed and tied with two interlocking ligatures and the tube cut away. There is no need to remove the ovary. The inexperienced operator's confidence in himself will be strengthened if he remembers that the very fact of pregnancy implies that the pelvic peritoneum is practically healthy, for adhesions about the mouth of the tube almost of necessity produce sterility. As a matter of fact, in almost every operation for rupture of pregnant tubes—in all that I am acquainted with—the tubes were found free from adhesions.

Another objection, and one possibly operative in practice, is that the patient is so bad that she cannot stand the shock of an operation. If the patient is going to die the doctor naturally prefers she should die without his intervention rather than after it. But if the patient is dying from haemorrhage, the only way to get her out of the fatal collapse is to stop the haemorrhage. You cannot see through the abdominal wall whether the perforated tube has ceased to bleed or not. The only way to tell is to pick up the tube and look at it, and the only way of surely stopping the bleeding is to tie and remove the diseased tube. And however prostrate the patient may be, when the bleeding has been stopped there are means of reviving her—the introduction of water into the peritoneum, into the veins, or into the cellular tissue, which are most powerfully restorative when bleeding has been stopped but useless till then. It is as yet an open question whether it is necessary to remove clot from the peritoneal cavity. If the abdomen is not opened the blood is generally absorbed, and I have read of cases in which no attempt has been made to remove clot and the patient has done well. Still it would seem the better practice, when a mass of clotted blood is lying in the peritoneal cavity, to remove it and so save the peritoneum the trouble of dealing with it and the bacterium coli the temptation of invading it. I think it has been the practice of most, as it has been mine, to leave the peritoneum as clean as possible within a short time and with a small amount of friction.

For the foregoing reasons I think that the right thing to do, even if the practitioner be not an experienced abdominal surgeon, in the case of great intraperitoneal bleeding in a young woman, is to open the abdomen without delay and stop the bleeding.

Intraperitoneal bleeding is happily a comparatively rare, though a formidable accident in the course of tubal pregnancy. It is much commoner for some chorionic villi to give way, and bleeding to take place into the chorion or into the tube. This effused blood very soon distends the tube, and the pressure then stops further bleeding. The blood clots, and we have the condition known as a "tubal mole." What happens next? I have no doubt that the majority of tubal moles are ab-

sorbed. I think so for this reason. Of late years, during which abdominal section has been freely done for tubal pregnancy, tubal moles have been found to be very common, much commoner than ruptured tubes. Thirty years ago, when operations were not done tubal moles were never heard of. Now and then a tubal mole was seen, but they were not common enough for any one to take the trouble of comparing a number of them and describing the morbid process. But every museum contained specimens of ruptured tubes. The London Hospital museum contained several ruptured tubes put there by Dr. Lethaby and Dr. Ramsbotham, but I was the first person to add to it a tubal mole. The only explanation I can see, why in preoperative days tubal mole was so little heard of, was that they were nearly all absorbed.

When a tubal mole has been formed, the diagnosis is easier than it was at an earlier period. There are not only the subjective symptoms of pregnancy and the enlargement of the uterus, but there will have been pain, and very likely uterine haemorrhage from partial separation of the decidua. The tubal swelling will be larger and firmer, and clearly appreciable even to comparatively inexperienced fingers. What is to be done?

I have said that nearly all tubal moles are absorbed, but are they all absorbed? And if absorbed, are they absorbed without detriment to health or danger to life? Certainly not. The patient is in some danger of death and in considerable danger of a long illness. Perforation, with intraperitoneal bleeding, may yet take place. A pelvic haematocele may form. The tube may suppurate. On the other hand the removal of a tube which contains a mole is as easy and as safe as the removal of a tube which does not contain a mole. The only difference between the removal of a ruptured tube and the removal of a tubal mole is that in the latter case the operation may wisely be postponed until every preparation has been made for operating under the most favourable circumstances. The danger of removing a tubal mole is far less than the danger of leaving it in the abdomen.

Suppose now that the tubal mole is not removed; that, as often happens, the patient does not consult her medical man until something else has happened. Generally further haemorrhage takes place, and the blood escapes from the fimbriated end of the tube. Or the tube may be perforated, but only a slight haemorrhage occurs. In that case the blood irritates the peritoneum, and adhesions are formed among the bowels round it. Often further haemorrhage takes place, but the blood is then poured out into a space bounded by adhesions among the bowels, so that it cannot escape into the general peritoneal cavity, but remains in the pelvis and displaces the pelvic viscera. It generally fills Douglas's pouch, pushing the uterus forwards, and the bladder forwards and upwards. Its forward pressure may be so great as to cause retention of urine. Repeated haemorrhages occur, until the chorionic villi are so extensively damaged that the ovum dies. It may become completely detached, and expelled, presumably by contractions of the tube, out of the fimbriated end of the tube. When the ovum is dead these changes cease to occur, and in most cases the ovum and the effused blood are quickly absorbed. This is the common, but not the inevitable, course. In most cases the blood clots, but in some it remains fluid for weeks we know not why. Although some chorionic villi have been detached, and haemorrhage has taken place, yet the fetus may not die. It may become encysted in the peritoneal cavity. If so, it grows, chorionic villi will spread beyond the tube, and implant themselves on neighbouring abdominal viscera. If there should be a great haemorrhage, the limiting adhesions may be torn through and great haemorrhage into the peritoneal cavity take place. If the blood is not quickly absorbed, it may become invaded by microbes and suppuration take place. The tube may be perforated where it is in contact with the coverings between the folds of the broad ligament, and blood be poured out into the cellular tissue of the pelvis underneath the peritoneum. Considerable haemorrhage may occur here without the death of the fetus, which may develop and come to term with the pelvic peritoneum. These are the possibilities that we have to consider in deciding how to treat a case of pelvic haematocele. Most of them end in absorption. In a few the events I have mentioned occur.

An encysted effusion of blood in the pelvis is not hard to recognise. If the blood is in Douglas's pouch it will push the uterus forwards and bulge down between the rectum and vagina. Left from the rectum the swelling will be convex. It will at first be elastic and fluctuating afterwards, when the blood has clotted, firmer and irregular. The history will be of a sudden illness, marked by abdominal pain, pallor, and faintness, and preceded by the subjective symptoms of pregnancy. If the bleeding is into the cellular tissue it will surround the rectum, and the finger passed into the bowel will feel it like a hula-ring. In the case of a large haematocele there is less difficulty in diagnosis than in a small one, for an inflammatory swelling of large size requires time for its production, and is accompanied with general symptoms of inflammation.

The diagnosis of pelvic haematocele having been made, what is to be done? We may with profit look back fifty years. When French surgeons first taught the medical profession to diagnose clinically collections of blood in the pelvis they thought it was the best practice to let out the blood. But at that time they had no knowledge of antisepsis. They let out the blood with dirty instruments held in dirty fingers, and in consequence some of the patients died from blood poisoning. Such experience made them more chary of interference: they learned to let the haematoceles alone, and found that nearly all of them in time disappeared, and that some were absorbed very quickly. The structure of the human body has not altered since then, and I think the surgeons of forty years ago could diagnose pelvic haematocele as accurately as we can to-day. The chief thing about the disease which they did not know was the frequency with which it depended upon tubal mole and tubal abortion. We may learn, then, from the practice of forty years ago, that if we leave a pelvic haematocele alone it will probably—indeed, almost certainly—be absorbed. Sometimes it will be absorbed very quickly.

But absorption is not certain, and often it is slow. It is not safe to predict recovery without telling the patient that she will be more or less of an invalid for months. There is generally in the early days of a pelvic haematocele a little fever, there is pelvic pain, weakness, some bladder and bowel irritation: and these discomforts, to use the mildest term, often persist for many weeks. When I have been called in consultation to a pelvic haematocele, and have advised expectant treatment, I have usually told the patient that she would be an invalid at least three months.

Is it not, therefore, better to shorten the course of the illness, and avoid possible ulterior risks, by early operation? In considering this question, we must remember, first, that absorption sometimes takes place quickly, and secondly, that the risks which I have mentioned are not immediate, nor, with the exception of secondary rupture, which is very rare, are they sudden. A delay of two or three weeks will do no harm: and if we counsel expectant treatment for that length of time we may at the end of it find the symptoms gone and the pelvic swelling very much smaller. No better result than this can be attained by operation. I think therefore that a pelvic haematocele is best treated in the first instance by expectant treatment, that is, rest in bed, gentle laxatives (for when there is pressure on the rectum scybala will give trouble) suitable diet, and careful watching. If at the end of a fortnight it is found that the swelling is no smaller, or has increased in size, then the question of operation must be considered. If although there is not distinct shrinking of the swelling yet the patient is free from pain and fever, and is in such circumstances that the active discharge of social duties is not required from her, expectant treatment may be continued longer. But if, in addition to the fact that the lump is no smaller, the patient has pain or fever, then recovery may be hastened and made more sure by operation.

If operation is decided upon, the question arises, What operation? There are two routes by which the collection of blood may be reached, the abdominal and the vaginal. If the uterus is much displaced, that is proof that the effusion is under pressure, that it is in a cavity bounded by adhesions, and shut off from the general peritoneal cavity. The blood, therefore, can be let out by an incision from the vagina without opening the general peritoneal cavity. This is not an unimportant advantage, for if the effused blood has been invaded by microbes its introduction to the peritoneal cavity may be disastrous. The only objection that I can see to operating by the vagina is that the diseased parts cannot be well seen by this route. But it is in most cases not necessary that they should be seen. What is wanted is to remove the blood and the tubal mole. When this is done through an abdominal incision the operator is in most cases guided by touch. The operator should make a free incision through Douglas's pouch. He

can scoop out the blood clot through such an opening as easily as from the abdomen. By bimanual manipulation he can perceive which tube is diseased. If a tubal mole is lying in or near the fimbriated end of the tube he can detach it and remove it as easily by the one route as the other. It as is the case with most haematoceles, the ovum is dead and the pregnancy has ceased to advance, there will be no bleeding of amount needing to be stopped. If the cavity is afterwards kept clean, recovery will be rapid.

There are two contingencies in which this method of treatment may be unsatisfactory. One is that of a case in which the pregnancy has not come to an end, but in spite of the formation of a haematocele the fetus is living, and the placental circulation active. In that case there will be haemorrhage, which may be difficult to stop. If so, the operator will be better able to deal with the bleeding from above than from below. Should the operator think it necessary for this reason to open the abdomen, the fact that the vagina has been opened first does not add any difficulty or danger to the abdominal incision.

The other contingency is that the diagnosis may have been wrong, or the case a complicated one; so that after emptying the fluid contents of the sac it is found that the pelvic swelling is not entirely removed; that there is not merely a collection of fluid, blood, serum, or pus in the pouch of Douglas, but something else as well. In that case, if the operator is not certain of what he is dealing with, it may be better to open the abdomen, but in this event the patient's prospect of recovery will be none the worse because a vaginal incision had previously been made.

The disadvantages of attacking an encysted intraperitoneal haematocele in the first instance by the abdomen are that the exposure of the bowels to chilling and contact causes greater shock. There is the risk to which I have already referred of infection of the peritoneum if the effused blood should have been invaded by microbes, and there is the remote possibility of the abdominal scar becoming the site of a ventral hernia. In short, therefore, I think the best treatment of a pelvic haematocele is first to give it a chance of being absorbed, and if it is not clear that this is taking place to open it by a vaginal incision.

The case may have to be treated after the formation of a haematocele, while the pregnancy is still going on, but before the fetal heart is audible; or, which is rare, the pregnancy may have reached the fourth month and the fetus be (from its point of view) growing normally without the formation of a haematocele. At this stage the diagnosis is so difficult that I think I do not go too far if I say that ascertainment of the exact state of affairs is not possible. If the swelling, which at its formation was thought to be a pelvic haematocele, goes on slowly and steadily increasing in size, the conclusion may be drawn that there is a living and growing pregnancy; but as fetal heart sounds cannot be heard, fetal parts distinguished or fetal movements felt, there can be no certainty. There may be certainty as to this, that if there is a growing swelling in the pelvis beside the uterus, the sooner it is removed the better. If the swelling is so large that its upper pole cannot be reached by the vagina it had better be attacked from the abdomen.

Consider now the case at a later stage. The patient has entered the second half of pregnancy, and the fetal heart is audible. Supposing the case is let alone, what will happen? The pregnancy will in all probability go to, or nearly to, full term. Then spurious labour will come on, and the child will die. Any untoward event in the second half of ectopic pregnancy is a very rare thing. The placenta has by this time spread beyond the tube. The child is developing either in the peritoneal cavity or in the cellular tissue underneath the peritoneum. If in the peritoneum, there is no reason why the placenta should get prematurely detached. The child is enclosed in its amnion, and does not irritate or infect the peritoneum. If under the peritoneum, the peritoneum gradually rises as the child grows; it is a strong, tough membrane that has no proclivity to rupture.

When full term has been reached, spurious labour, although it may be disagreeable, is not in any way dangerous. After spurious labour has occurred the child dies, and then the liquor amnii is usually absorbed, which makes the abdominal swelling smaller. Then after a time, usually about six months, suppuration begins. It may begin sooner, within six weeks, or it may be postponed later, for a year or two years, or it may never happen, and the patient may live to old age, with no other trouble than a lump of some size in her abdomen. But this is exceptional; suppuration is the rule. The point on which I lay stress is this—that, *from the end of the first half of an ectopic pregnancy until the onset of suppuration the patient is practically in no danger*; fatal events during this period are excessively rare. There is therefore no urgent necessity for operation. The only reason that I can discover for urging immediate operation at this stage of the case is that ectopic pregnancy is an illness, and the earlier operation is done the shorter the illness.

The removal of an ectopic pregnancy during its second half while the child is alive is a very dangerous operation. Champneys, in 1887, collected the cases published up to that date and found that the mortality among them was 88.8 per cent. Whitridge Williams, in his excellent textbook on midwifery, gives the mortality as 31 per cent., and as operative technique has advanced since 1887, probably the mortality of cases operated on now would not reach the appalling figure of the cases before 1887. But a mortality of 31 per cent. is far too high to permit us to advise an operation for a patient who is in no immediate danger.

It may be said that, although the mortality has been high, yet surgical methods have been and will be so improved that a great reduction in this mortality may be taken for granted in the future: that the risk should not be greater than that of ovariotomy, hysterectomy, or Caesarean section. Is this likely? I think not, for there are special risks attending this operation which are not present in any other abdominal section. These risks arise from the presence of the placenta. While an extrauterine child is living, it is not possible, with our present means of diagnosis, to ascertain the site of the placenta, any more than we can determine the implantation of an intrauterine placenta. The placenta may be implanted on the anterior abdominal wall, and if so, the first incision will open placental sinuses, and be followed by great bleeding. In Caesarean section, if the placenta is implanted on the anterior uterine wall, the bleeding when it is divided is alarming. But after the child has been extracted it is quickly stopped, because the uterus contracts. In ectopic pregnancy the placental site has no contractile power, and there is no natural mechanism to stop bleeding when the placenta is divided or separated. If the placenta is not implanted on the anterior abdominal wall, the operator cannot see where it is until he has extracted the child; and it has often happened that in extracting the child the placenta has been accidentally detached or wounded, with terrible haemorrhage as the result. There have also been cases in which ill-informed or rash surgeons have tried to remove the placenta. However brought about, the bleeding from detachment or wounding of the placenta of an ectopic pregnancy is great, and the resources of the surgeon for stopping it have often proved inadequate: so that death from haemorrhage has often been the result of these operations. Hence it has been accepted as a cardinal rule not to attempt to remove the placenta, but to keep open a way for its subsequent separation and expulsion. A patient with an open wound leading into an open cavity from which a mass of dead tissue has to be slowly separated and cast off is not an ideal convalescent. The patient is not safe without the most careful attention to antisepsis for a long period. And even if this is maintained, the wound may close before the placenta has been separated, and the retained placenta may kill the patient. Besides these dangers, there are all the dangers that attend any abdominal section. Hence I do not believe that delivery of a living child in ectopic pregnancy by abdominal section will ever be accomplished with a mortality as low as that which attends most abdominal operations. I think if the 31 per cent. given by Whitridge Williams errs, it is by understating rather than overstating the mortality. And when we remember that at the time when this operation is so dangerous, the patient herself is, excepting for rare accidents, in no danger, I think it ought not to be performed. We ought to think of the mother's life, let spurious labour come and go, and the child die.

If we follow this course, sooner or later the circulation through the placenta will stop, and its vessels will become thrombosed. If the operation is postponed until this process is complete, the operator will then find the placenta resembling a piece of hepatized lung, and will be able to peel it off with only trifling bleeding.

Unfortunately we know not how soon after the death of the child the placenta becomes thrombosed. It is certain that the placental circulation may go on for many weeks after the child is dead. If we had some means of ascertaining whether the placenta had become thrombosed or not, I think there would hardly be two opinions as to the proper time to operate.

There being this uncertainty, I think the best rule for practice is to keep in mind the broad fact that, until suppuration has begun, the patient is in no danger. The mere presence of a lump in the abdomen is no justification for an operation with a mortality of 31 per cent. But when suppuration has begun, indicated by the presence of fever, then we know the patient is at the beginning of a long and exhausting illness which may prove fatal, and we ought not to let this go on. As soon as symptoms of suppuration begin, the child should be removed by operation, and in most such cases the placenta will be found thrombosed, and can be peeled off and removed with only trifling bleeding. The results of operation under such conditions ought to be as good as those of abdominal sections generally.

What should the operation be? When we are dealing with a large abdominal tumour of uncertain relations clearly abdominal section is indicated. But there are certain cases in which I think it better performed by the vagina. These are the cases in which the child develops in the broad ligament, lifting up its posterior peritoneal fold and displacing the uterus forward. In such a case the lower pole of the fetus bulges down between the rectum and vagina, and it has been found possible to feel through the vagina the cranial sutures and fontanelles. In such a case I think it will be best to open the fetus-containing sac by an incision through the vagina. The risk of infection of the peritoneum will then be avoided, and the cavity can be well drained from the vagina. The placenta need not be removed. The cavity can be kept clean by frequent irrigation, and the placenta will be broken down and discharged in shreds within about ten or fourteen days. I do not advise vaginal operation unless it is certain that the tissues between the vaginal canal and the fetus are thin, and that one end of the fetal ovoid lies downward; still less if there is the slightest doubt as to the diagnosis.

[illegible]

ABDOMINAL OPERATIONS DURING PREGNANCY.

By EDWARD T. THRING, F.R.C.S.,

[illegible]

Every medical man, whether engaged in general practice or in doing abdominal surgery, has probably met with instances of serious disease of one or other of the abdominal organs complicating pregnancy. If, however, I may judge from my own experience—first, of some years of general practice, and subsequently of ten years of abdominal surgery—such cases as usually require operative interference are less common than one might *a priori* have expected. Probably the most frequent pathological condition complicating pregnancy or, perhaps more correctly speaking, complicated by pregnancy is either an ovarian cyst or a fibromyoma of the uterus. Most surgeons who do much abdominal work have been, at some time or another called upon to remove such a tumour or tumours which would otherwise obstruct labour. In this country (Australia) one occasionally meets with instances of a hydatid cyst occupying the pelvis and calling for treatment in the same way. I have seen cases of renal calculus which were discovered during pregnancy and the question had to be decided as to whether removal should be undertaken immediately or delayed until after the confinement. In one instance I have been called upon to deal with a carcinomatous growth of the gut causing obstructive symptoms. We may roughly classify all the instances above referred to as mechanical complications, and each case must be judged upon its merits. There is, however, an entirely different class of cases, which fortunately is not commonly encountered during pregnancy. I mean cases in which an acute infective process attacks certain organs, such as the gall bladder and bile ducts, the vermiform appendix, and, more rarely still, the Fallopian tubes.

Under such conditions that is an acute infective cholecystitis, an acute appendicitis, or an acute infective salpingitis, are we to temporize, and trust that the acute symptoms will subside, and permit the pregnancy to terminate normally, or should we deal at once with the pathological condition, removing its cause by operation, and leave the physiological condition to go on to its natural ending? Comparatively recently I have, in my private practice, had to deal with a case of acute gangrenous appendicitis in a woman six months pregnant, and also an instance (the only one I have ever seen) of the kind of double pyosalpinx in a woman three months pregnant. A short account of each case, together with an instance of double ovarian dermoid cyst removed during pregnancy, and also presenting unusual features, is given. Not so many years ago, it was generally held that surgical interference with pregnant women was to be avoided under almost all circumstances. Even now one meets instances in which pregnant women who are suffering agonies from neuralgia, induced by carious teeth, are solemnly warned that the operation of extraction or "stopping" will probably induce premature labour, and they are left to go on with prolonged pain and discomfort, which might easily be removed without any untoward result. It is only of late years that the safety and generally good results of major abdominal operations in pregnant women have been demonstrated. I do not mean that we should choose to operate during pregnancy if it can with safety be avoided, but in such instances as the acute infective conditions to which reference has been made, and which in themselves threaten life, there can, I think, be no doubt of the advisability of operative interference. This fact was particularly brought home to me by the case of gangrenous appendicitis recorded below. This patient had been seen by a surgeon and a physician, both of large experience, and for whose opinion I have the greatest respect, but because the second and third attacks of appendicitis occurred after the commencement of pregnancy these gentlemen negatived operative interference and advised waiting. This was, I believe, a decided error in judgement; the verdict should have been reversed. In that case the patient would have been saved great risk to life, for, although she did recover perfectly and the pregnancy was in no way interfered with, the risk which both she and her child ran was infinitely greater than it would have been had the operation been done in the "quiet interval"—after either the second or third attack.

With regard to the case of double pyosalpinx, we had no choice. The pregnancy, however, was in no way interfered with, and it is now approaching its termination, apparently normally: the fetal heart sounds can be heard, and the movements felt.

The conclusion, therefore, to which I think we must come, is that all cases of acute infective disease during pregnancy, involving either the appendix vermiformis, the Fallopian tubes, or the gall-bladder and bile ducts, should be treated as though the pregnancy did not exist. By so doing, I believe we shall be acting in the best interests of our patients, and also of their unborn children. I do not propose to refer at length to those cases which I previously spoke of as mechanical complications during pregnancy. It has been abundantly demonstrated that the operations both of ovariotomy and myomectomy can, if necessary, be safely performed on pregnant women and without interfering with the pregnancy.

CASE I.

Mrs. M., aged [illegible] years, four children, [illegible] miscarriages. The patient was seen in consultation with Dr. McMaster of Penrith on December [illegible], 1903, at [illegible] she was then suffering from an acute attack of appendicitis, and had been ill for five days. She had severe abdominal pain, chiefly in the right iliac region, and marked "guarding tension" of abdominal muscles on the right side of the abdomen. The uterus was enlarged to about the size of a six months' pregnancy. The bowels had been relieved that day as the result of an aperient and enema. Vaginal examination confirmed the fact of the six months' pregnancy, and showed the presence of an inflammatory mass high up in the right posterior quarter of the pelvis, continuous with a tender swelling in the right iliac region. Temperature varied between [illegible] and [illegible] Fahrenheit. Uterus quiet, no normal contractions.

History.—The patient had had three previous attacks of undoubted appendicitis. The first two months before the present pregnancy, exactly eight months ago, but was slighter in attack than the present one. The second [illegible] months after the first attack, and a third two months after the second attack, when she was about four months pregnant. During the interval between the second and third attacks the patient had consulted a surgeon and a physician in Sydney and had been advised, as she was pregnant, that no operation should be undertaken.

On December [illegible]th, 1903, the patient came to Sydney, and was admitted to a private hospital. She stood the journey of [illegible] miles in the train very well.

December [illegible]th, 1903. Under ether anæsthesia the usual oblique incision in the right iliac region was made. The deeper layers of the abdominal wall were adherent (in this instance because of the altered pelvic conditions due to the pregnancy, the incision was not made at the outer border of the rectus sheath but through the oblique muscles, the fibres of which had to be divided, as simple separation did

not give sufficient room. There were adhesions involving the colon, omentum, small intestine, and appendix. The right half of the broad ligament was greatly thickened and oedematous, as well as the right ovary and Fallopian tube, the ovary being almost black in colour. The appendix, when separated and stripped from surrounding adhesions, was found to be swollen and gangrenous. It was removed close to the head of the colon. The right ovary and Fallopian tube were also removed, the separate vessels being picked up and ligatured, and the top of the broad ligament overstitched with catgut. A small gauze drain with guttapercha tissue round the middle portion was placed in position and the abdominal incision closed in layers, catgut sutures being used. Convalescence was quite uneventful, her temperature never reaching 100° F. The pregnancy went on to full term, and the patient was safely delivered of a living child, the line of incision remaining sound.

July 22nd, 1903. The patient reported herself and was examined. The abdominal scar was perfectly sound, nor was there any sign of hernia or stretching of the cicatrix, or any pain or discomfort, the patient being in perfect health. She was again pregnant, from seven to seven and a-half months.

CASE II.

Mrs. L., sent to me by Dr. Abbott, who attended during her confinement; aged 20 years, married fifteen months.

History.—Confinement at full time on October 14th, 1901. Labour difficult and prolonged. Convalescence delayed. Was in bed for one month after birth of child. Suffered from severe abdominal pain, high temperature; there was, in fact, marked peritonitis, the cause of which was not apparent at the time, as there was no *post partum* sepsis due to infection of the genital tract, so far as could be ascertained. Patient was first seen by me on December 7th, 1902. She was then complaining of pelvic pain and discomfort. Menses absent, was not nursing the child.

State on Examination.—The chest and abdomen showed nothing abnormal. Pelvic examination showed uterus to be involuted and in good position. There were adhesions about the left Fallopian tube and ovary, which was enlarged and fixed low down in Douglas's pouch. The right ovary and Fallopian tube were high up, fixed by adhesions at the level of the brim of the true pelvis, making a mass the size of a large hen's egg.

Progress.—On March 30th, 1903, patient was again seen. She had been "unwell" in January and on February 7th, but not since. On examination the uterus was found to be enlarged to about the size of a two-months pregnancy. Uterine appendages as before. April 28th, 1903. Uterus still further enlarged. As it was obvious that the fixed mass in Douglas's pouch would interfere with labour, abdominal section was advised with a view to removal of the two tumours, the intention being to disturb the uterus as little as possible, thus leaving the pregnancy to continue.

Operation.—May 28th, 1903. On opening the abdomen anteriorly in the middle line, the uterus was seen to be pregnant about four and a-half months. There were general adhesions between the omentum, uterus and appendages, intestinal coils, abdominal walls, and all about the pelvis. Both ovaries and Fallopian tubes, which were in the positions above described, were separated from adhesions and removed, the tubes being cut through in a line with the uterine cornua. The utero-ovarian arch and vessels in the broad ligament were cut and tied separately with fine catgut, and the top of the broad ligament overstitched with fine catgut, from the uterine cornua to the infundibulo-pelvic fold on each side. On the left side of the anterior abdominal wall, near the internal abdominal ring, was a flattened ovoid mass about 1½ in. in diameter, firmly attached to the parietal peritoneum, and close by were two similar, but smaller, masses; these were excised and removed. In all the adhesions over the uterus, bladder, etc., were dark brown hairs about ¾ in. to 1½ in. long, and on the fundus uteri was a felted plaque of hair attached by adhesions. This was peeled off. The abdomen was closed in three layers with catgut, mattress sutures of chromicized gut being used for the anterior layer of rectus sheath. No drainage.

***Result.*—Patient made an uneventful recovery, and was able to come to my consulting room to report five weeks afterwards. On examining the parts removed both ovaries contained dermoid cysts full of sebaceous material and hair. The right Fallopian tube was completely closed, the left still pervious. The masses excised from the anterior abdominal wall were all three secondary dermoid cysts, each containing sebaceous material and hair.**

July 30th, 1903. The pregnancy was still going on, and the patient was perfectly well.

CASE III.

Mrs. R., married November 25th, 1902; last menstrual period December 18th, 1902.

History.—She was first seen as a patient by Dr. Abbott, of Stanmore, Sydney, on January 26th, 1903. For a few days before this she had been feeling faint, feverish, and had had slight nausea and vomiting. On January 26th, 1903, there was slight pain and tenderness about the region of the appendix vermiformis and a feeling of nausea; temperature 99° F. A few days later the symptoms were the same. On examination of the pelvis there was a slight fullness and swelling posteriorly to the left. The uterus was not easy to define bimanually, but was not greatly enlarged.

State on Examination.—On February 4th, 1903, the patient was seen by Dr. Abbott and myself; symptoms and signs were as described above, and the conclusion arrived at was that a pregnancy existed, possibly extrauterine, on the left side, or that there was a normal uterine pregnancy complicated by a tubo-ovarian mass on the left, in connexion with which there had been an attack of pelvic peritonitis. In spite of the somewhat indefinite signs and symptoms, the patient was obviously ill, and it was decided, more especially as it was impossible to exclude a tubal gestation, to operate.

Operation.—On February 6th, Dr. Abbott assisting, abdominal section was performed, no preliminary curetting being done, because of the possible existence of a uterine pregnancy. On opening the abdominal cavity a pregnant uterus was found of a size equal to between two or three months gestation, together with double pyosalpinx, the pathological condition being more advanced on the left side than on the right. The adhesions were fairly extensive, and on the right side the vermiform appendix was involved in the inflammatory process. The ovaries were so adherent, oedematous, and involved in the general inflammatory process, that they were removed together with the Fallopian tubes and the vermiform appendix. Each Fallopian tube was excised from the corresponding uterine cornu. The vessels of the broad ligament were picked up and tied separately with fine catgut, and the tops of the broad ligament overstitched with the same material. The uterus was disturbed as little as possible, although considerable manipulation was unavoidable in separating the pelvic adhesions. The pelvis was drained per vaginam by means of iodoform gauze, and the abdominal incision closed in layers.

Result.—The patient made an uninterrupted recovery, and at this date (August 7th, 1903) Dr. Abbott tells me that she is still well and the pregnancy undisturbed. On examination of the parts removed each Fallopian tube was found to contain a considerable quantity of pus. The left tube had leaked at the fimbriated end, thus causing the pelvic peritonitis. Unfortunately no bacteriological examination of the pus was made, as by mistake the specimens were removed and destroyed.

ON THE OPERATIVE TREATMENT OF UTERINE MYOMATA.*

BY RODERICK MACLAREN, M.D.,
Senior Surgeon, Cumberland Infirmary, Carlisle.

THE relation of operative surgery to surgical disease is for ever changing, and in no condition is this more apparent than in regard to uterine myomata. At no distant date these tumours were rarely interfered with, the treatment of the pedicle was extraperitoneal, and only very large growths, placing life in immediate jeopardy, were touched. As a consequence the mortality of operation was appalling. An additional reason for unwillingness to meddle with them was the fact that their existence, as a rule, is not dangerous to life. Patients drag on a miserable existence, but they live. Occasionally, when the size of the growth is great, sudden death occurs, but this is a rare ending. Much more frequently a state of misery, invalidism, and suffering lasts till the menopause occurs and then an arrest of growth or retrocession may render the remainder of life more endurable. By slow degrees, however, methods of operation of simple kinds have been evolved and the total mortality has been reduced to little over that of ovariotomy. It is to report the cases of such operations that I have performed in the last three years that I bring the subject before you to-day.

Post-mortem records have revealed the fact that uterine myomata exist in 25 per cent. of all females examined after 25 years of age. In the vast majority of cases they are trivial in size and have given no evidence of their existence during life. They vary in size from extremely minute growths to great tumours, filling and distending the whole abdomen. Their shape varies, though they are all more or less globular, and they are often moulded to the shape of the pelvis. Their relation to the tissue of the uterus is subject to three variations. They may project into the cavity; they may be enclosed in the uterine wall; or they may form pedunculated growths on the outer surface. They are consequently distinguished as submucous, interstitial, and subperitoneal.

They only become the subjects of surgical attention when from their size or position, or from being the cause of haemorrhage they are either the sources of local suffering or general feebleness. The local symptoms are due to pressure. The size may be such as to be a serious inconvenience, from the sheer weight of the growth. Apart from absolute size, a growth may press on any of the pelvic contents. The bladder most commonly suffers, and pain on micturition, and either

* Read before the Border Counties Branch of the British Medical Association.

incontinence or retention, according to the position of the growth, are the symptoms produced. Occasionally the external iliac veins are pressed on, causing oedema of the feet. Pressure on nerves—sacral plexus, or obturator—may produce pelvic or lower limb pains. I shall also have to tell you of a case in which delivery would have been impossible owing to a myoma blocking the way, while I have known one so placed as to bar intercourse. The bowel is not often interfered with; it lies protected in the hollow formed between the sacrum and the ilium. Pressure and more or less blocking of a ureter is one of the conditions occasionally encountered.

Haemorrhage is the commonest symptom associated with myoma and one which from its very obviousness most often leads to a diagnosis being made. It is most common when the growth is submucous, less so in the interstitial, and often absent in the subperitoneal. It is at first generally an aggravation of the usual period, but it may gradually increase until it becomes almost continuous. Contrary to what was at one time believed, the arrival of the menopause is often postponed, and active bleeding is troublesome at a time when the normal discharge should have ceased. Frequently the menopause is delayed to the age of 52 or 53. From the continuance of bleeding the patient is gradually reduced to a state of extreme anaemia. This, combined with the inconvenience inseparable from a continual bleeding, gradually induces a condition of invalidism which deprives life of a great part of its pleasures.

Whenever such a tumour is making life a burden the time has come for the surgeon to interfere, whether the discomfort be due to general or local symptoms. The position of the growth alone may also occasionally make operation necessary as in cases when the outlet of the pelvis is blocked.

As a rule, the diagnosis of these growths is not difficult. The moderate, slightly elastic hardness, the mobility, and the attachment to the uterus, form a combination which is sufficiently distinctive. Sometimes, however, especially in stout women, it is very difficult to arrive at a correct conclusion. In such cases I would specially call your attention to the great help which complete anaesthesia gives. It abolishes sensitiveness and muscular action. It allows us to manipulate with a freedom which we cannot approach without it. We can press upon and define a growth in relation to the abdominal wall, the vagina, and the rectum in a way in which we could never accomplish with a conscious patient. The greatest difficulty arises with malignant growths, and it is quite possible to make mistakes in both directions; to believe a fibroid jammed in the pelvis to be malignant and to conclude that a moveable sarcoma is only a myoma.

Sometimes the operation may be commenced with the surgeon in doubt as to what will be found. I show you here a cast which illustrates this. This tumour was easily felt through the abdominal wall; it was hard, but elastic, and moved with the uterus. The uterine cavity was of normal length, and ran in front of the growth. There was haemorrhage and pelvic pain. One sign alone gave rise to suspicion; it was this—the tumour was freely movable when felt per vaginam, but it could not be moved about in the abdomen. The operation revealed a malignant growth of the uterus and left ovary adherent in the neighbourhood of the left kidney, on which anchorage it could be moved as on an axis. In making a diagnosis, the possibility of every other pelvic growth, as also of those in connexion with the kidneys and mesentery, has to be kept in remembrance; but I will not detain you by enumerating these, for rarely is the question any other than one of myoma *versus* malignant uterine growth.

Operations may be broadly divided into two kinds, either simple removal of the growths or removal of the whole uterus. For a time removal of the ovaries and tubes found much favour with surgeons, but prolonged experience has not borne out the early promise. The patient's haemorrhage was not stopped, and the bulk and growth of the tumour were not improved.

There is no doubt that the ideal operation is removal of the growth, [illegible] a normal uterus. This should be done whenever possible. The uterus is a peculiar organ; no other tissue in the body has the same [illegible]

The operation is as follows: The abdomen is opened in the middle line and it is a great help in subsequent manipulations to have the patient in the Trendelenburg position. The uterus is turned out of the abdomen and examined. Occasionally this turning out is a most troublesome process: the growth sticks to the pelvis like a boys' sucker to a stone. One or other of the screws invented by Tait or Grieg Smith make a most useful handle. If the growth or growths have good pedicles or lie so that they can be easily shelled out a rubber band is passed as a tourniquet round the uterus and each growth is removed either by forming flaps like amputation flaps or by a straight incision over the most prominent part and peeling the uterine tissue away from the myoma. It is very curious how considerably and rapidly the uterine tissue contracts. In a few minutes the divided surface may shrink to half its original size. The cavity is then securely sewn up and the tourniquet removed. The arrest of bleeding is tested by lowering the patient and waiting a few minutes. If bleeding still occurs, other and wider sutures may be passed, or the nearest vessel may be tied. The abdomen is then closed.

It may be found that the position of the growths is a mechanical bar to their removal, or that their separate removal would involve such damage to the uterus that it is better surgery to take away both uterus and growths together. I show an example in which a growth on each side of the uterine cavity made such a procedure an infinitely more simple and safe operation. There are many methods of doing this differing from each other in some slight details. But all that I need say to you is that ligature of the broad ligaments cutting across just above or just below the os and sewing up the peritoneum so as to make a closed linear wound right across the pelvis leaves little to be desired, and is attended by the minimum of risk. Some operators have spoken strongly in favour of vaginal amputation, but I certainly think it is better to see your field of work rather than to go groping in the dark.

In the 8 consecutive cases of which I show you casts 6 had haemorrhage, and 6 complained more or less of pain; while 4 had trouble from the bladder (1 retention, 3 irritability, and 3 simple inconvenience) from sheer bulk and weight of the growth. Of the 8 cases 6 recovered and 2 died. One of these was at a distance, and I did not see her after operation. The account which reached me was that she never rallied well from the operation and gradually sank the next day. The other case died from a singular cause—haemorrhage into the bowels, eight days after the operation. There was no obvious connexion between this and the operation. Of course, my cases are too few in number to justify any deduction as to mortality.

Five was the greatest number of growths removed from any one case, and the largest tumour measured 10 in. by 8 in. by 6 in. in its three principal diameters. In 7 of the cases the growths alone were removed, in 1 complete hysterectomy was performed. Many of the growths had distinct pedicles; others had to be dug out of the uterine tissue. None were intrauterine.

Of these 8 cases 1 only seems to call for individual mention. She was a lady of 35, married nearly seven months. Menstruation had ceased for seven weeks. Until this time she had been in perfect health. She then got retention of urine, and was seen on this account by Dr. Barnes, who subsequently asked me also to see her. We found a tumour low down in the pelvis displacing the uterus upwards and forwards so that the os uteri was resting on the symphysis pubis. The uterus was enlarged, the vagina violet coloured, and there was an areola round each nipple. The tumour blocked the pelvis against the passage of a child. We decided to wait over the time when the next period was due, and then as it did not occur, the patient's consent to operation was secured. I removed by enucleation the myoma (of which I show you a cast) from the posterior uterine wall. No tourniquet was used. The stump was laced up, she recovered, and was ultimately delivered of a full time child. She has since had another.

It does not appear to be generally known among medical men that there is at Mentone an institution known as the St. John's House of Rest which is specially intended for [illegible] the institution depends on the donations of those who are well-to-do.

FORCIBLE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ."

MORE ESPECIALLY BY MEANS OF THE BOSSI AND FROMMER DILATORS.

By J. M. MUNRO KERR, M.B., C.M.Glasg.,
Obstetric Physician, Maternity Hospital, Glasgow.

DILATATION of the cervix as a step in the operation of *accouchement forcé* may be carried out with the hands, rubber bags, or metal dilators. I shall briefly refer to each of these methods, and then devote the main part of this contribution to a consideration of the use of metal dilators in obtaining forced dilatation.

Manual Dilatation.—The obvious advantages of manual dilatation are that the operator requires no instruments, all the stretching being done with the fingers, and that he can tell what he is doing. The disadvantages are that the operation takes time, is sometimes impossible if the cervix is undilated and rigid, and is often very fatiguing. Before manual dilatation proper can be commenced one must be able to get at least two fingers through the canal. Sometimes the preliminary dilatation may be carried out with one finger pushed further and further in, but often even that is impossible, and recourse must be had to the graduated dilators of Hegar or Cameron. Having got the two fingers through the os, the rest of the operation may be carried out by forcing more and more of the hand through, or by employing the fingers of the two hands (Bonnaire's method). Could one always dilate the cervix quickly enough by this method it would without doubt be the best, for there is less chance of tearing it, especially if one moves the dilating fingers about, stretching sometimes antero-posteriorly and sometimes laterally, and one can tell better what is happening. Besides, there is another advantage, but one which I do not remember having seen mentioned, and that is that with finger manipulations the cervix often becomes softer.

Let me with extreme brevity give a few illustrative cases:

CASE I.—Mrs. [illegible], para, six months pregnant, was admitted to the Maternity Hospital for eclampsia, August, 1902. The os admitted finger with difficulty, and was extremely rigid. Manual dilatation, version and extraction. Duration of operation half an hour.

CASE II.—A 2-para seen in consultation with Dr. McMillan, June, 1902. Abortion at four on account of dyspnœa. Manual dilatation and extraction with forceps. Duration of operation fifty minutes.

CASE III.—A 2-para, six months pregnant, seen with Dr. [illegible], Hamilton, September, 1902. Eclampsia. Os admitted finger. Dilatation with bags and fingers, followed by version. Over an hour elapsed before the child was extracted.

CASE IV.—A primipara, about seven and a-half months pregnant, seen in consultation with Dr. Parker, Gartloch. Manual dilatation with fingers, followed by version and extraction. Duration of operation forty-five minutes.

These cases have purposely been picked out as amongst the most difficult cases of manual dilatation. In my experience the shortest time taken to dilate manually and deliver a woman not in labour has been fifteen minutes. It was a case of contracted pelvis in which I was going to induce labour, but after doing this I found the cervix so soft that I easily dilated and extracted the child. The longest time taken was about an hour and a-half (Case I).

Taking an average of my cases I would say that to dilate and deliver a multipara not in labour, and with the cervix not obliterated, forty minutes are required at least, and to do the same in a primipara about sixty to eighty minutes. I do not include, of course, cases of abortion when the os is slightly dilated and will admit only one finger; but I am sure that most persons will agree with me that a very considerable time indeed is often necessary to dilate the cervix in such cases manually, and indeed that it is sometimes impossible.

Dilatation with Hydrostatic Dilators.—Dilatation with rubber bags should hardly come into consideration in *accouchement forcé*. One cannot get sufficient dilatation with such bags alone, a more complete stretching with the hands being necessary after their removal. Other objections are that rubber bags can only be used after the cervix has been sufficiently dilated to allow of their being introduced, and dilatation with them takes some time. Undoubtedly the bag of Champetier de Ribes is the best, but one must always test it carefully as it is liable to burst if at all old. Only the other day one burst in my hands when I tested it prior to employing one for the induction of labour. The advantages of hydrostatic dilators of the type of Champetier de Ribes over those of Barnes are that a more extensive dilatation can be brought about by them. Barnes's bags, if the cervix is at all rigid, ball on up inside the uterus. This ballooning is doubtless due to the rubber being softened by the soaking in the antiseptic solution or by the heating; but that is unavoidable, for there are no other means of sterilizing such bags. I have seen it sometimes suggested that for more extensive dilatation two bags should be used simultaneously, but that is really not practicable.

Dilatation by Metal Dilators (Bossi, Frommer).—But of all methods of dilating the cervix none is so rapid as that carried out by means of metal dilators. This method was introduced by Bossi in 1850 when he described his instrument. At first it was not taken up very enthusiastically, but ample amends have been made him in that respect, for in the last few years so much has it been discussed that one can hardly open an obstetric journal without seeing some reference to it. Bossi's first instrument consisted of three prongs, but later a fourth was added. Quite recently Frommer introduced another instrument, which consists of eight prongs, and which is an improvement in this respect, that it allows the pressure being more equally distributed round the margin of the os. It has this disadvantage, however, that the prongs are sharper, and that the operator cannot so readily as with Bossi's dilator get the finger between the prongs and feel how the cervix is stretching.

The great advantage of the instruments of Bossi and Frommer is that with them the os can be dilated much more quickly and with less fatigue than with the hands. Roughly speaking, one takes about twenty-five minutes to dilate the cervix from the time it will admit the instrument. The operation is easiest in multiparæ where the cervix is already obliterated. Here are some recent cases:

A [illegible]-para, eclamptic at [illegible], seen with Dr. [illegible] with Dr. Watson Ferguson. She had had [illegible] I saw her os admitted [illegible] Delivered [illegible] child with forceps [illegible] minutes. No bearing-down pains. Child died following day.

A much more difficult case was the following: [illegible] seen July, [illegible], with Dr. [illegible] Patient [illegible] and [illegible] os just admitting finger, with cervix [illegible] Dilated with bags, then repeated dilatation [illegible] Delivery completed with forceps five minutes later. [illegible] dilatation of cervix, [illegible] of pregnancy. [illegible] and recovered.

The last case of forcible dilatation which I shall give was carried out with Frommer's eight-pronged dilator. It illustrates the danger of the instrument in cases where the cervix is not taken up and when pregnancy is not far advanced.

A primipara five months pregnant was admitted to the Maternity Hospital [illegible] It was a case of [illegible] I tried to arrest the [illegible] and sciatica, but profuse bleeding occurred two days after, and the patient became much depressed and showed signs of sepsis, the pulse and temperature becoming quite [illegible] I determined to empty the uterus. The cervix admitted a Hegar, after which I got the [illegible] dilator packed well in, steadying the cervix with a volsellum forceps while doing so. I went on dilating a little way and felt that the resistance suddenly became less. I withdrew the instrument and found that I had torn the cervix at the left side, not into the vaginal [illegible] at the cervix.

My explanation to the students was that the dilator had not gone quite through the os internum, and that was the reason why Gardner,[1] my house-surgeon at the time, entirely with my approval, said in his paper: "In cases where the cervix is not taken up there is a greater risk of doing damage owing, as already detailed, to the prongs not passing completely through the internal os. From reported cases I have not seen this danger referred to; it is the more liable to occur when the cervix is dragged upon and consequently lengthened by the vulsellum forceps being used to steady the organ." I am still of opinion that this is possible with Frommer's instrument; but thinking over the case described I doubt if it really occurred, for the internal os was considerably dilated when I removed the instrument. But to return to the case:

I [illegible] the dilatation very [illegible] completely through on both sides. I then [illegible] douched, and stitched the tears carefully. This patient died in three [illegible] of sepsis. She was [illegible] the operation.

Taking these three cases there are two deaths, and that may seem at first rather alarming, but let it be clearly understood that the dilators cannot in the slightest degree be blamed for such unfortunate terminations. In the first case the patient had had forty fits, and in the other the patient was septic before operative treatment was commenced. One must remember that as a rule Bossi's or Frommer's dilator is

resorted to only in very bad cases, in which a high mortality will be the rule no matter what treatment is adopted.

We must base our criticism on the extent of injury done to the cervix. Looking at the matter from that point of view, I find that in six cases in which the os was the size of a shilling or less I had one bad case of laceration and two of very slight laceration. In fourteen cases recently reported by Gardner from the practice of the Maternity Hospital, two had very bad lacerations, one being the case described already. Leopold, one of the strongest advocates of this treatment, has reported seventeen cases without a laceration of any account, although in Case 11 of his first series there was a laceration, for he had to apply stitches on account of the bleeding. Leopold's results are very satisfactory, but if you read over the cases you will find that only in one was the cervix not already dilated to some extent. In his second paper he says: "The os was in some 1 pfennig, in others 1, 3, or 5 markpiece in size."

Now, there are certain factors which influence the occurrence of lacerations, and of these I would mention the following:

1. The manner in which the dilatation is carried out.
2. The number of the pregnancy.
3. The degree to which the cervix has been taken up.
4. The age of the pregnancy.

The influence of the first two factors is obvious. It is perfectly clear that lacerations will be more common when dilatation is carried out rapidly than when it is done slowly, and in primiparae than in multiparae. There remain therefore only the other two to discuss, and they are really the most important. With comparatively few exceptions in the cases which have been reported by different writers, the cervix has been already taken up. Simpson and others, in this country, Germany, and America have, however, recorded cases where the cervix was not obliterated, and the os was not dilated. With time and caution doubtless these cases, if at or near term, can be safely dilated with Bossi or Frommer's instrument, as the recorded cases illustrate. Some of the worst tears, however, have been in such cases. But although the unobliterated cervix at or near term dilates wonderfully well, any one who has dilated to the full extent such a cervix and then tried to deliver with forceps or by version will bear me out when I say that the os externum invariably contracts round the head. One is always disappointed, the canal is never so well dilated as one expects.

I turn now to the last factor, the age of the pregnancy. In dilating the cervix in gynaecological work I have more than once found the cervix give way not externally but internally. I can also remember once having seen the same thing in dilating the cervix in a case of abortion. That this may occur has been pointed out by several writers. It is further borne out by Case 1 (at abortion at fourth month), which Gardner describes as follows: "Two days after delivery [illegible] while an intrauterine douche was being given examination showed that a clot had been washed away from a pit or depression within the cervix."

And this brings me to say that the cervix tears readily in the early months of pregnancy, and consequently Bossi's dilator should be used with great caution in such cases. Also, and this is of the very greatest importance, the tear may not always be external; by that I mean that to the finger from the vagina the vaginal portion of the cervix may appear intact, yet if one carefully examines the cervical canal one will find a tear there. Lacerations are commonest in this group, and the case of extensive laceration described was an illustration of this.

Finally, I would sum up my views as regards Bossi's or Frommer's dilator as follows:

1. When the cervix is obliterated and the os will admit the dilator without difficulty, dilatation can be carried out in about twenty-five minutes, and there will be little or no laceration.

2. In cases where the pregnancy has advanced to or near term even although the cervix is not obliterated, dilatation may be [illegible] with comparative safety to the cervix, provided care, time, and patience are expended in the operation.

3. In cases of early pregnancy with the cervix unobliterated there is a decided risk of extensive lacerations, even although the greatest care is taken.

[illegible]

[illegible]

OBSERVATIONS ON THE PATHOGENESIS OF GOUT.

By CHALMERS WATSON, M.B., F.R.C.P.E.,

Physician, Eye, Ear, and Throat Department, Marshall Street Dispensary, Edinburgh

PRIOR to Garrod's great discovery of the presence of uric acid in the blood in gout (1847), some authorities expressed the opinion that a derangement of the intestinal tract was the primary factor in the disease. This view was expressed by Van Swieten (1755 A.D.) in the following terms: "Indigestio viscerum pro origine proxima hujus morbi habetur." Since 1847 this theory has been abandoned, and in the writings of Garrod 1876, Duckworth 1889, Ewart 1896, Roberts 1897, and Luff 1898, the possibility of gout being due to an intestinal auto-intoxication or infection is never considered. In 1901 the writer revived this old-time theory in the following terms: "(*a*) There is ample evidence to prove that the uric acid in the blood is not the primary factor in gout, and (*b*) uric acid can be deposited in cartilages and other tissues even in considerable amount, without the association of any inflammatory phenomena. (1) The last-mentioned point clearly proves that uric acid is not the factor which causes the inflammatory phenomena characteristic of the acute attack: (2) What, then, are the toxic principles in the blood which possess the power of inducing the characteristic inflammation? and (3) what are the factors which determine the passage of these toxic substances from the blood into the tissues? In connexion with these queries we have to consider the all-important part played by the alimentary canal. Here we have doubtless one of the important keys to the solution of the problem."[1]

Evidence for or against this theory is difficult to obtain from the human subject, and it is therefore advisable to have recourse to the study of the comparative pathology of the disease. Gout is a rare occurrence in the lower animals. The literature of the subject contains references to isolated records of the occurrence of uratic deposits in the tissues of lower animals, mainly wild animals in captivity, but detailed histological records are wanting. As an indication of the rarity of the disease in poultry, I may say that some years ago the writer obtained the assistance of the editors of leading poultry journals in his quest for "gouty fowls."

A considerable amount of pathological material was forthcoming; this comprised fowls which had died from tuberculosis, fowls which had been affected with swollen joints, others with large chronic inflammatory swellings of the feet, and fowls that had succumbed to disease unaccompanied by any lesions in the limbs which were visible *post mortem*. In no single instance was there any indication of uratic deposit in or about the joints, or in any of the tissues of the dead animals. Three years ago, however, I was fortunate enough to secure one typical case of gout in a fowl (cock). The animal was a year old, and was bred on the farm from which it was sent to me. The clinical record shows that the fowl was observed to be out of sorts for a few days, its comb became dusky, and it was found dead.

The present paper is a record of the *post-mortem* appearances of the case. Particular attention is directed to the histological appearances of the kidneys, pancreas, intestine, and tissues generally, the lesions described being regarded as characteristic of the invasion of the tissues by bacteria or their products. The facts recorded have a bearing on present theories regarding the disease, more especially the well-known views of Ebstein, but the consideration of this point is beyond the scope of the present paper.

[illegible]

[illegible]

[illegible]

exudation being present at the base of the organ. Microscopic examination showed pronounced distension and a quantity of fibrin in the subepicardial veins.

4. Widespread thrombosis, notably in the vessels of the liver, lungs, kidneys, and some large abdominal veins. (The distension and thrombosis of veins in the liver is shown in Fig. 1. The appearances at the necropsy appeared to indicate that this thrombosis was the immediate cause of death.

Fig. 1.—Gout in fowl. Liver. (Note the distension and thrombosis of the veins and the congestion of the organ.)

Fig. 2.—Gout in fowl. Small intestine. The mucous membrane shows, *a*, diminution in the glandular elements; *b*, increased amount of lymphoid tissue; and *c*, catarrhal exudation on the free surface.

5. Marked congestion of the liver, lungs, and kidney. Microscopic examination of the liver showed some atrophy of the liver cells. The congestion of liver is indicated in Fig. 1.

6. Areas of necrosis in the kidneys. Scattered throughout the organ there were numerous areas of necrosis (see Fig. ... which varied in size from the head of a pin up to a small bean; these presented a white amorphous appearance quite distinct from the rest of the organ. The

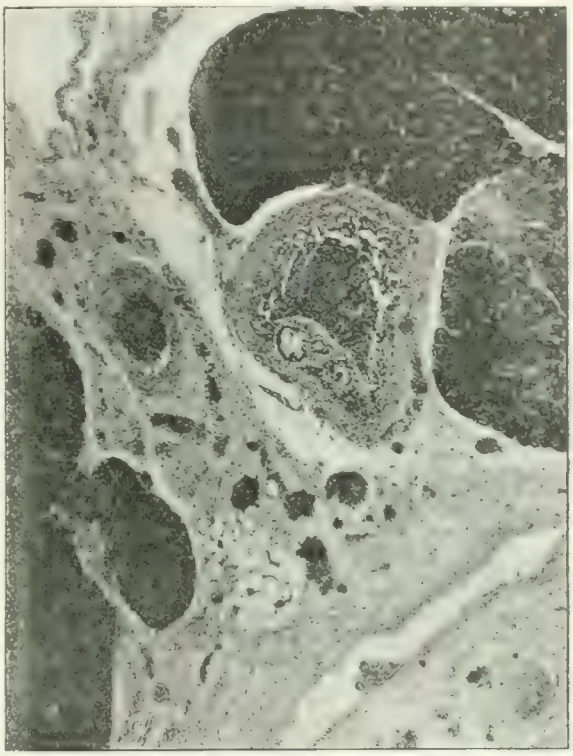


Fig. 3. Gout in fowl. Pancreas. Transverse section at the hilum. The lumen of the duct is filled by catarrhal cells derived from the inflamed mucous membrane; the vessels in the wall of the duct and around are congested.

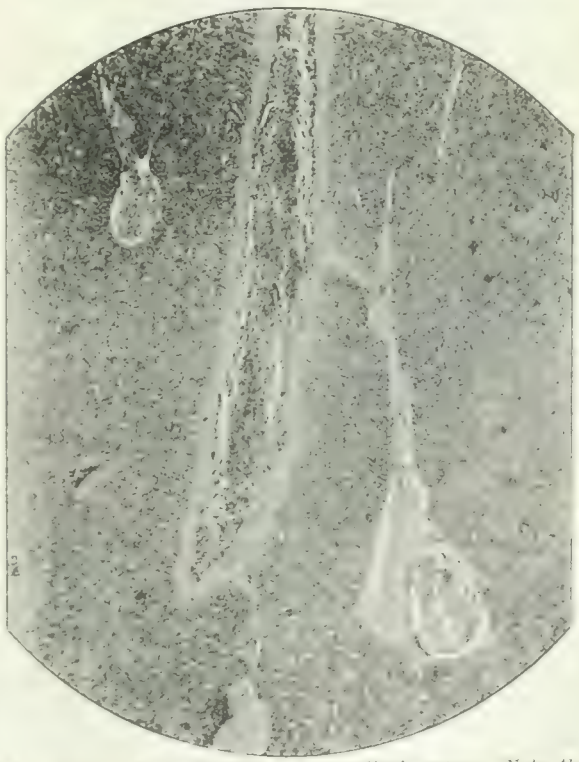


Fig. 4.—Gout in fowl. Pancreas. Longitudinal section. (Note the blocking of the lumen of the duct by catarrhal products.)

cortex was markedly accented (see Fig.). The histological characters of the kidney are described later.

A microscopic examination was made of the foregoing and other tissues—namely, intestinal tract, pancreas, lymphatic glands, spleen, sciatic arteries and nerves, skin, comb, and testicle, the tissues of a healthy fowl of the same age being used for comparisons. The bone marrow was not available for examination. The following morbid appearances were found:

. Catarrh of the intestine, especially in the ileum, duodenum, and large intestine. This was of a patchy nature in the upper part of the

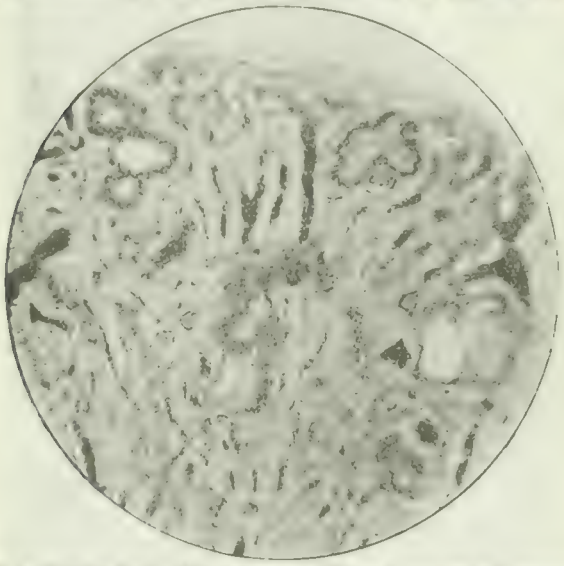


Fig. . Gout in fowl. Kidney cortex. (Observe the areas of necrosis (see text) and the congestion of the organ.)

tract, but was most marked and pronounced in the lower end of the ileum. The capillaries were markedly dilated, apparently due to a condition of stasis there. There was a great excess of lymphoid tissue in the ileum.

Fig. . Gout in fowl. Kidney cortex and medulla. The dark [illegible] leucocytes. The blood vessels are injected with [illegible]

Fig. shows a loose of granular structures with a separation of the granular elements by excess of interglandular tissue, and a catarrhal exudation lying on the free surface.

granular leucocytes in the capillaries and sinuses as compared with the control [illegible].

These features are the characteristic reaction of this organ to invasion by bacteria or their products.

. A hepatic gland showed a minute crystalline deposit of urate of soda surrounded by a few small round and epithelial cells.

This point is of interest in connexion with views previously held as to the involvement of lymphatic glands in cases of gout. In his well-known work Duckworth states that "the lymphatic system has been held to be free from any changes in gout. The glandular portion cannot be said to be involved, but there is clinical evidence of subacute gouty inflammation of lymph spaces in certain organs due to uratic deposit and influence. Dr. Buzzard has called attention to this."

. The kidneys. Fig. shows the appearance of the cortex of the kidneys under a magnification of diameters. Note four necrotic areas in the field. These present a whitish colour, and are surrounded by a dark ring which consists of small round cells of an inflammatory nature. The small dark points visible in the centre of the areas are granular leucocytes which have invaded the necrosed areas. In fowls these leucocytes are large and possess very coarse crystalline granules. The dark bands in the figure are congested blood vessels. Under a magnification of diameters with ordinary stains, for example, haematoxylin, eosin, and methyl blue, these necrotic areas presented a structureless homogeneous appearance. An examination of smaller and earlier nodules revealed at parts a considerable amount of crystalline deposit of sodium urate surrounded by inflammatory tissue. It was not possible for me to express a definite opinion as to whether their original starting point was in the tubules or in the intertubular tissue. The arrangement of these smaller areas around the interlobular arteries suggested an infection by the blood stream.

Fig. . Gout in fowl. Kidney at deep part of the cortex. (Note: the collecting tubules full of granular leucocytes, with atrophy of the epithelial lining, several crystallized areas with a zone of leucocytes around, and the blood vessels injected with [illegible] The blood vessels in the lower part of the section also appear white. See also Fig. .)

Mr. Rickard Muir, of the Pathological Department of the University, kindly made a bacteriological examination of the kidneys, the method employed being that of the ordinary tissue sections stained by Gram's method. He found that the tissues presented a structureless hyaline appearance, the latter portion of which decolorized. But the tissue in the necrosed areas was not decolorized by the ordinary staining methods. The [illegible] and the leucocytes of the area in question stained together in dense masses, the appearance suggesting that these cells were either degenerated products or an abnormal deposit [illegible].

An examination with a polarizing apparatus, kindly made for me by Dr. Moorhead in the Chemistry Department of the University, showed that they were not crystalline. We therefore concluded that the cells in question are either the products of degenerated cells or bacteria which had the property of taking basic stains, owing to [illegible] or other changes. The appearances generally are in favour of the latter view. It is, however, right to mention in connexion with the cells [illegible] to show any bacteria, and that an examination on a recessed section, by the methods of Gram-Weigert, did not reveal any [illegible].

In the deeper part of the cortex and in the medulla a very striking pathological condition was present in the collecting tubules. These were completely dilated and filled with granular leucocytes. This appearance is well shown in

Fig. 7, in which the dark bands are collecting tubules. For the sake of clearness the vessels have been omitted in this and the subsequent figure. These granular cells can be seen escaping from surrounding capillaries through the walls of the collecting tubules. The renal blood vessels contained a marked excess of these blood constituents. This condition of the collecting tubules is also evidenced in Fig. 7, which shows in addition the following features:

a. The presence of granular leucocytes lying free in the intertubular tissue.

b. An atrophy of the epithelial lining of the convoluted tubules, doubtless due to pressure of the leucocyte exudation.

c. Several convoluted tubules which appear perfectly normal.

A transverse section of the ureter in the same section from which Fig. 6 was taken shows that the leucocytes had undergone marked degeneration in the course of their downward journey, very few leucocytes being present as such in the ureter.

The gouty deposit in the tissues, the changes in the synovia, the widespread thromboses, and the areas of necroses in the kidney clearly indicate the nature of the disease. It is a typical case of gout. It is furthermore a case of acute gout which had proceeded to its natural termination. The fact that early indications of pericarditis were present might suggest the opinion that the animal, undoubtedly the subject of gout, succumbed to some terminal infection not immediately related to the gouty disorder. The clinical history and pathological appearances alike fail to substantiate this view. In this connexion reference may be made to the:

1. Absence of any alteration in the joint structures other than in the synovia, the nutritive fluid of the joint. There was no gouty arthritis nor other indication of chronic disease.

2. The absence of any cirrhotic changes in the kidney and fibrous overgrowth in relation to the deposits in the extra-articular tissues such as we would expect in chronic disease.

3. The blood vessels of the animal were singularly healthy, which in all probability would not have been in a case of chronic disease that had succumbed to what is commonly known as a terminal infection.

These negative facts fail to substantiate this hypothetical view as to the existence in this fowl of two or more diseases not etiologically related, and this failure is emphasized by reference to some of the other unusual features of this case, more especially to the condition of the pancreas and collecting tubules of the kidney, both of which present pronounced morbid appearances of a character extremely rare in the history of simple terminal infection. We are therefore driven to the conclusion that we have to deal with a case of pure gout in which the disease had run a natural course, in which an examination of the tissues shows that the *post-mortem* appearances generally are characteristic of an infection by bacteria or their products.

Particular interest centres in the condition of the intestinal tract, pancreas, and kidneys. The condition of the pancreatic duct is a very striking one; it appeared to be an extension from the duodenum. A reference to the figures shows that the lesion would be in its results analogous to the effect of a ligature of the duct. The interesting question is raised as to the existence of any relationship between these appearances and the occurrence of gouty glycosuria in the human subject. The changes in the tubules of the kidney are remarkable. I am not aware that these appearances have been previously described. The alterations in the leucocytes have a special interest in connexion with the changes in the blood in acute polyarticular gout recently described by the author[2] and confirmed by Bain.[3]

The main facts learned from this investigation emphasize the necessity of further examination into the comparative pathology of the disease. It is specially important to obtain material sufficiently fresh to allow of an adequate bacteriological investigation. A question that at once presents itself from the foregoing record is, How would the acceptance of the theory of a bacterial origin of the disease harmonize with the known clinical facts of the disorder? The consideration of this point is not relevant to this communication. It may, however, be stated that in my opinion the clinical features of gout—regular or irregular, acute or chronic—are more adequately explained by the light of our present knowledge of infections, relapses, and immunity than by any other theory. The distinctive feature of the infection in gout is that the toxin or toxins have the special property of disturbing nitrogenous metabolism in a manner favourable to the deposit of uric acid in certain tissues.

In conclusion, I would only add that the addition of a bacterial factor to our present conception of the disease would in no way minimize the importance of attention to dietetics in its treatment. It would correct the teaching of some writers whose standard of dietary has special reference to nuclein-holding foods, and would focus attention on the by-products of deranged digestion of carbohydrates and proteids arising from abnormal bacterial activity in the digestive tract and other tissues.

REFERENCES.

1 *Encyclopædia Medica*, vol. iv., article Gout. 2 BRITISH MEDICAL JOURNAL, January 9th, 1904. 3 Ibid., January 30th, 1904.

GLANDULAR FEVER.

BY JOHN W. BYERS, M.A., M.D.,

Professor of Midwifery and of Diseases of Women and Children, Queen's College, Belfast; Physician for Diseases of Women, Royal Victoria Hospital, Belfast; Physician, Belfast Maternity Hospital, and Consulting Physician, Belfast Hospital for Sick Children.

SINCE the middle of November an epidemic has been prevailing, chiefly among children, in Belfast and in parts of the North of Ireland of a kind which I have not seen before, either in private practice or during the years that I was physician to the Belfast Hospital for Sick Children, and which seems to me to correspond to the condition described in 1889 by Pfeiffer, and termed often by German writers Pfeiffer's *Drüsenfieber*. O. Heubner, Dawson Williams, Comby, Donkin, and J. P. West have also contributed largely to the literature of glandular fever. My knowledge is based on 33 cases, some of which occurred in two public institutions, while the others were seen in consultation.

Age.—The youngest child was 13 months, the oldest case was a female servant, aged 25, in a family where the children were attacked: but, with the exception of two cases (the one mentioned and another aged 21), all were in children or young people under 16 years.

Onset.—As a rule this was sudden.

Period of Incubation.—This was from five to seven days.

Symptoms.—In some of the cases the children went to bed in the evening complaining of slight sore throat. The next morning there was sharp fever (102° to 104° F.), pain on one side of the neck, which was tender on pressure and held stiffly; this was succeeded in another twelve hours by a distinct swelling of the glands under and in front of the sterno-mastoid. In the majority of the cases a similar enlargement appeared involving the deep glands of the corresponding and opposite sides of the neck. In the cases seen by me the right side was as a rule first affected. In another group of those attacked the children complained of nothing until the glands of the neck seemed suddenly to enlarge, and such cases when seen at first looked somewhat like aberrant forms of "mumps." In the severer cases headache was an initial symptom, and in a few sickness and vomiting were present and some abdominal pain, but I failed to detect any objective signs of involvement of the mesenteric glands. In none of the cases was the throat in any way affected beyond some slight congestion, and in the majority it was normal and showed no alteration to explain the slight dysphagia. The glands affected were as a rule the deep set under and in front of the sterno-mastoid, but in others those in the posterior triangles of the neck were involved; no suppuration occurred in any of the cases, and the swelling of the glands subsided in most of the cases within a week from the onset of the attack, but in one case the enlargement remained for a fortnight, the fever going up and down in an erratic manner most of that time. The majority of the children were convalescent in a week, but in some of the severe cases those attacked remained poorly and looked anaemic for three to four weeks, the glands continuing enlarged. When the disease entered a house nearly all the children were attacked, and in one place two of the female servants, both adults. No rash appeared in any of the cases, nor was there any kidney or other complication, and none suffered from depression except the very severe cases. There were no deaths.

Diagnosis.—When the first case appeared in a house, the adenitis naturally suggested some primary throat mischief, but nothing sufficient to cause the glandular swelling could be discovered on an examination of the throat, either on the tonsils or pharynx, and the presence of other cases in the same house showed that one had to deal with an epidemic fever.

Etiology.—In the BRITISH MEDICAL JOURNAL of December 5th, 1903, p. 1492, there is described an "epidemic sore throat and suppurative mammitis in cows," but in none of the cows seen by me were there any such conditions observed in the throat, and the cases were in groups, widely separated, and with no common milk supply. The mild type of cases, when

seen for the first time with a well-marked unilateral swelling of the neck, looked like a form of aberrant mumps, but careful examination showed that the parotid gland was not affected, and the children had no pain in closing the jaws or in eating; besides, some of the cases had previously suffered from mumps. It has been suggested that the disease might be a peculiar form of influenza; but as a rule in recent years, when abnormal types of that protean disorder occurred, we were able to diagnose them as due to the influenza poison from the fact that in the same house or locality other ordinary forms of that disease were detected. None of these usual forms of influenza occurred in the houses where the cases I have described were seen. I believe the cases were true examples of that acute epidemic infectious fever in which there is primary inflammation of the lymphatic glands. The poison of glandular fever is probably microbial, and the present extraordinary atmospheric conditions may present precisely those factors necessary for the growth of the infective germ which causes the disease. Some have suggested that infection is through the intestine; in the cases seen by me, it seems more likely that the invasion was by the throat.

Since writing this article I find that in a family where the children suffered from the ailment I have described, two of the adults developed a follicular tonsillitis, but in them although the glands of the neck were tender there was no palpable enlargement.

NOTES ON THE DISTRIBUTION OF CANCER IN THE FREEBRIDGE LYNN RURAL DISTRICT.*

By CHARLES B. PLOWRIGHT, M.D., F.R.C.S.,
Consulting Surgeon, West Norfolk and Lynn Hospital; Hon. Chairman of the District.

THE following notes are an epitome of a special report on the subject recently laid before the above district council.

The district in question consists partly of a chalk plateau covered in places by beds of boulder clay, glacial and post-glacial gravels and sand, and partly of the lower greensand; there is also a considerable area of alluvium. Each parish was visited, and the actual house, or its site if it had been pulled down, in which the patient lived, made out. During the forty-one years 308 deaths from cancer were registered; from these were eliminated those which were obviously due to sarcoma, and they were further corrected for immigration and emigration. As thus amended, 241 were found to have lived upon the various geological formations as given below, for a period of not less than three years preceding their death.

	Deaths.
Glacial and post-glacial gravel and sands	85
[illegible]	75
Boulder clay	27
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	17
Alluvium	[illegible]
	241

Of 265 deaths traced to their altitudes, one-half were found to have resided below 50 ft., and less than one-tenth between 100 and 300 ft. above sea level. The disease was more frequent in the western than in the eastern half of the district in the proportion of 21 to 18 per cent.

Some of the villages have suffered much more than others, and, furthermore, certain parts of some produced more cases than other parts. Especially was this the case in water-logged places where the water supply is derived from surface wells. There was evidence of the disease being more frequent amongst those who used certain wells. For example, in one village in which there were 20 deaths, 5 of them occurred in a small district of cottages around one shallow well from which they all drew their water supply; there were nineteen other wells in the parish. In another village there were 3 deaths all using the same surface well; in the parish there were twelve other wells. In another there were 3 cases amongst the users of one well out of a total of 5 cases; there were twenty-three other wells in this parish.

When the yearly deaths of each parish were "charted," in many cases a tendency to fall into groups was observable, a point quite hidden when the whole series of deaths in the district was treated in a similar way. This falling into little groups or miniature epidemics, when it occurred, was very striking. There were 5 instances of husbands and wives dying from cancer and 2 instances of the first and second wives of the same husband. In 13 instances 2 cancer cases occurred in the same house, in 10 of which both cases died in the house.

Woodland seems to have had no effect on increasing the number of cases, for the six parishes with the most woodland (2,635 acres) averaged 1.0 case per cent., while six other parishes without any woodland averaged 2.4 per cent. Neither had beer drinking any observable effect.

Respecting the geological formations most liable to cancer, it is interesting to note that they are the same in West Norfolk as those which produce most calculus,[1] namely, the gravels and sands, where the percolation of water is rapid, not upon the chalk, the deep wells of which yield water of great organic purity.

* Issued by the various Sanitary Authorities of the [illegible] Sanitary District of Freebridge Lynn.

REFERENCE.

[1] On the Distribution of Calculous Disease in Norfolk, by C. B. Plowright, BRITISH MEDICAL JOURNAL, November 10, 1900.

A NOTE ON DR. PRIMROSE'S PAPER ON FILARIASIS.

By SIR PATRICK MANSON, K.C.M.G.,
Medical Adviser, Colonial Office and Crown Agents of Colonies

IN his interesting article on filariasis,[1] Dr. Primrose, of Toronto University, gives the details of a case of lymph scrotum associated with embryo filariae in the blood. Two months after removal of the scrotum, in which an adult filaria and several fragments were found, the filarial embryos had disappeared from the circulation. Dr. Primrose concludes that the subsequent absence of embryos from the blood was attributable to the removal of the parent worm.

On January 29th, that is twenty-four days after the operation, embryos were still in great abundance in the blood, as many as 1,764 having been found in 1 c.c.m. at 9 p.m. Dr. Primrose's assumption, therefore, postulates that the life of an embryo filaria is at least twenty-four days. I take the liberty of dissenting from Dr. Primrose in his interpretation of the facts.

Dr. Primrose states that his patient, forty-six days after the operation, suffered from an attack of elephantoid fever, accompanied by much inflammatory swelling at the root of the neck: the swelling was incised, and a mass of sloughy broken-down tissue was removed. I attribute the disappearance of the filariae from the circulation, not to the operation on January 5th, but to the attack of lymphangitis on February 10th.

The infection in Dr. Primrose's case was so severe that it could not have been produced by two or three parental filariae. We do not know how many adult filariae it would take to produce a stock of embryos such as he describes, but I think if we regard a minimum infection (that is, the product of one pair of parental filariae) to be five to ten embryos in a drop of blood (and this I consider an over-estimate), such an infection as Dr. Primrose describes would require ten to twenty, or even more, female adult filariae to produce. The scrotum must therefore have contained more parent filariae than were found in it, or there must have been parent filariae in some other part or parts of the body. The latter is my view, and I conclude that the main body of parental worms was destroyed during the very severe attack of lymphangitis on February 10th.

In 1892 and for several years subsequently I frequently saw a gentleman the subject of filarial varicose glands in the groin. His blood contained large numbers of embryo filariae 300 to 400 per drop at 10 p.m. About this time I was endeavouring to find out what became of the embryo filariae during their daily absence from the blood, and what might be the duration of the life of the individual embryo filaria. To settle these points, or at all events to throw some light upon them, I had arranged with the gentleman I refer to to have some of his blood transfused into two monkeys, my idea being that the embryos would continue to live in the monkey pretty much as they lived in their human host, and that by periodical examination of the blood I could watch their disappearance, and so get a key to their life-span. I also hoped from this experiment, should the embryos exhibit their usual periodicity of appearing and disappearing in the general circulation, that by killing one of the monkeys during

[1] On the Distribution of Calculous Disease in Norfolk, by C. B. Plowright, BRITISH MEDICAL JOURNAL, November 10, 1900.

the day, and subsequently examining its tissues, I should be able to ascertain the place of their retreat.

At an examination of the patient's blood on October 22nd, 1903, the embryo filariae seemed to be fewer in number than formerly (thirty-nine to the slide at 9 p.m.). Three days subsequently he had a severe attack of lymphangitis, but by November 18th had recovered his usual health, and the transfusion agreed upon was arranged for, Sir Victor Horsley having kindly consented to operate. Before commencing, I thought it prudent to examine the patient's blood so as to get some idea of the number of embryos present in the blood we proposed to transfuse. I was astonished to find that the worms had practically disappeared, only one or two in a slide being met with. Of course the operation was not carried out, as it would have been hopeless to expect results with so small an infection.

Subsequently, from time to time until July 16th, 1894, examinations of this patient's blood were made at night. Up till that date filarial embryos could still always be found in small numbers—from one to eight at 10 p.m. On July 16th he came to me suffering from a feverish attack apparently associated with lymphangitis. I examined the blood, and found four filariae per drop; next day I found six at 10 p.m. I did not see him again till November, when I found no filaria. I examined his blood many times subsequently, and although the glands in the groin were still varicose there were no nematodes in his blood.

The disappearance of embryos was manifestly a sequel of the attacks of lymphangitis. This is not the only case in which I have seen permanent disappearance of embryos follow an attack of lymphangitis, but I have never before or since had a chance of watching a case so closely and completely. There can be little doubt that the death of the parental filaria produces lymphangitis or vice versa; the circumstances are associated.

I therefore consider that in Dr. Primrose's case, although some diminution in the stock of embryos doubtless resulted from the removal with the scrotal tissues of one or two females, the great bulk of the infection was got rid of at the time of the subsequent lymphangitis.

In discussing the subject of filarial infection, Dr. Primrose refers to Drs. Dutton, Annett, and Elliot's opinion as regards the specific identity or the reverse of filaria nocturna and filaria diurna. These gentlemen submit that the weight of evidence is on the side of identity of these two forms, and I see their views frequently quoted. I recommend the student to be careful in committing himself to such an opinion. The precise evidence I was at one time able to collect under very favourable circumstances leads me to the opposite conclusion. Recently I had an opportunity of examining the blood of one of the cases of sleeping sickness now in Paris. The examination was made about midday, and the blood was full of embryo filariae. Of course the circumstance that filariae were present in such great abundance during the day may be explained by the sleeping habit of the patient, but I was struck with certain features of the parasite in dry films which forcibly reminded me of observations on filaria diurna many years ago. These features were (1) the awkward position, so to apeak, assumed by the parasite, the body flexures being more in angles than curves, as is generally the case in dry specimens of filaria nocturna; (2) the tenuity of the extreme end of the tail; (3) the acute flexion of the tip of the tail on the body in a majority of the embryos. It is a dangerous thing to attempt to diagnose species from embryos, but there are slight differences which, taken together with the marked difference in periodicity, justify to my mind the conclusion that nocturna and diurna are specifically distinct, and that in this Paris case we were dealing with filaria diurna.

I notice in Drs. Stephens's and Christopher's newly-issued admirable work on *Malaria and other Blood Parasites* that they quote Dr. Christy and Professor Firket as holding that there are several species to which the name of filaria perstans has been applied. I do not know what Dr. Christy's evidence may be on this point, but I have had an opportunity of seeing Professor Firket's preparations, and from these it is evident how he comes to the conclusion that the name filaria perstans covers at least two pieces of small, non-sheathed, blunt-tailed blood worms. In any slide of blood unevenly spread and containing filarial embryos it is always possible to find marked differences in the size of the filariae. This depends on the thickness or thinness of the film of blood and the rate at which the different areas of blood film dried. Moreover, filaria perstans possesses in a remarkable degree the power of extension and contraction; an embryo which died when fully extended would present very different measurements and appearances from one which died when contracted.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1903, ii, p. 1292.

THE LIFE-SPAN OF THE GUINEA-WORM.

By ARTHUR POWELL, B.A., M.Ch.,

Surgeon, Police Hospital; Professor of Biology, Grant Medical College Bombay.

A PAPER on this subject, by Sir Patrick Manson, appeared in the BRITISH MEDICAL JOURNAL of July 4th, 1903, p. 10. In Sir Patrick Manson's cases the time of possible infection extended from February to June. In the cases under consideration the period of exposure in the endemic area was only two days. I am indebted for the particulars to Messrs. M. Cursetjee and Fazalbhoy Chinoy. A party of sixteen gentlemen, with five servants, all residents of Bombay—a city with a good artificial water supply, where guinea-worm is only seen in patients from the country, chiefly from the Deccan—left Bombay, and reached Mahad on April 20th, 1902. They all stopped there for two days, drinking unfiltered the water of a well. They returned to Bombay on April 22nd, 1902.

On April 2nd or 3rd, 1903, the first worm made its appearance in the leg of one of these gentlemen. Up to the first week in July worms to the number of nine continued to be discharged from his body. Doubtless owing to injection with mercury perchloride the exit of some of these worms was delayed, as they were killed and came away piecemeal, causing a good deal of suppurative cellulitis.

The next patient was delivered of a worm on May 1st, 1903, five other patients between that date and May 20th, 1903. Seven patients in all were attacked, six of the party of sixteen and one of the five servants. Nineteen worms in all were extracted. None have come out since the first week in July up to the present date, October 3rd, 1903. The shortest period in these cases was 345 days, the longest 435. The great majority of worms appeared a year and two or three weeks after the date of infection.

The estimation of the life-span of this worm in its human host is a matter of importance in prognosis in the case of persons exposed to infection. Thus I had no hesitation in informing the ten gentlemen who have not yet been infected that they have little reason to fear the appearance of worms, a matter of considerable concern to some of them.

Inquiries were made among the inhabitants of Mahad as to the prevalence of the worm in the district. The replies indicate that about half the population suffered from guinea-worm this year.

There is frequently considerable fever a few days before the worm becomes palpable. Two of these cases suffered from fever, with swelling of the face and hands. The sensation of swelling and tension to the patient is greater than the appearance to the surgeon seems to warrant. This swelling of the face and hands seems independent of the situation of the parasite, and I have frequently observed it when the worm was in the lower extremities.

The origin of this fever may be suspected from the absence of malarial parasites and an increase in the proportion of the eosinophile corpuscles in the blood. In a paper[1] recently read before the Bombay Medical and Physical Society I described six cases of guinea-worm infection in which examination of the blood showed 4.75, 5.5, 7.5, 7.5, 8, and 12.25 per cent. of eosinophile corpuscles respectively. The pus from one sinus contained 19 per cent. eosinophiles.

REFERENCE.

[1] Examination of the Blood in Cases of Fever. *Transactions of the Bombay Medical and Physical Society*, September, 1903.

BEQUESTS AND DONATIONS.—The Duke of Northumberland has given £1,000 for the building fund of the proposed new infirmary at Alnwick, and has offered the choice of two sites in the neighbourhood of the town.—Under the will of the late Mrs. Eliza Darling, of Phillimore Gardens, Kensington, £1,500 has been bequeathed to the Broadstairs Convalescent Home of the Victoria Hospital for Children at Chelsea; £2,000 to the Victoria Home for Invalid Children at Margate; £1,000 to the National Society for the Employment of Epileptics; and £500 each to the London Fever Hospital, the Brompton Hospital for Diseases of the Chest, King's College Hospital, and St. Thomas's Hospital.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

PRIMARY ECLAMPSIA IN A MULTIPARA.

THE proportion of eclamptics who enter their first pregnancies, escape further troubles in subsequent gestations is about 80 per cent., while proportion of women, develop eclampsia for the first time in a second or subsequent pregnancy I can find no records to show, but it must be rare indeed for a woman to become eclamptic for the first time in her tenth pregnancy. A brief record of such a case may be worth recording.

Mrs. N. M., aged 32, is the mother of nine children, the eldest 20, the second youngest 10, and the youngest 3. The first eight pregnancies were normal; in the ninth she suffered from what Herman calls the chronic renal disease of pregnancy—that is to say, she had oedema of the legs and slight general functional disturbance, but was delivered at full term and made a normal recovery.

The tenth pregnancy progressed normally till the sixth month, when slight oedema showed itself, as in the previous one; there were no other symptoms; the urine was not examined. Four weeks before term the patient had a convulsion; the urine contained 2 per cent. of albumen and was scanty; the convulsion was not severe, and there was no intermediate coma; a diuretic mixture was given. The first fit occurred at 5 p.m., at 7.30 p.m. there was another; next morning she had a third, during which the fetal membranes ruptured. On examination per vaginam the os uteri was found slightly dilated, and the head of the child presenting; there were no uterine pains, but three hours afterwards a well-grown living child was born. The same afternoon the patient had a fourth mild fit. Next day the urine contained no albumen, and from then onward the patient made an uneventful recovery.

In this case the determining cause of the eclampsia was probably the antenatal condition of the patient. She has now reached the menopause, and suffers periodically from severe menorrhagia, which is best controlled by the exhibition of iron in large doses.

HARRY GREW, M.D.

SEPTATE VAGINA CAUSING DELAY IN LABOUR.

ON June 24th, 1903, when examining a primipara, aged 22 years, lying in the left lateral position, the finger seemed unable to enter the vagina between the labia majora, but ran against a soft, fleshy mass close to the outlet. To the left, however, an opening was found, by which the finger entered. To the right was a strong, bandlike structure, behind which the finger passed into a narrow canal leading to an outlet at the top of the partition. On finding this, I passed a finger of the left hand through it, and could touch the right hand finger within the vagina beyond the mass. The left opening was the larger, and the left of the two divisions of the vagina seemed the weaker. As the head came in contact with the mass, labour was thus delayed, so I delivered with forceps by the left opening. The perineum was left intact, and there was little blood lost.

Upon subsequent examination, when sufficient time had passed for the parts to resume their natural form, it was found that the fleshy mass between during the confinement now consisted of a narrow band about ¼ in. in diameter, which ran across the vaginal canal from the base of the mental opening to the posterior wall, and thus divided the vagina into two parts. Eventually I sent the patient to hospital for removal of the band, when a satisfactory separation of septate vagina was made, with the result, as I thought, that the child had been born by the left aperture, which was the case. A rudimentary second vagina was removed from the right. After a subsequent confinement

[illegible] JAMES W. DUNCAN, M.A., M.B., Ch.B.

MULTIPLE VAGINAL SEPTA.

MRS. X., aged 35 years, married six years, was sent to me for operation for vaginal trouble. Sexual intercourse had been difficult and accompanied with extreme pain ever since her marriage. Her general condition was extremely good, there was no retroflexed tendency, and the menstruation had always been regular. The external genitals were normal in appearance, and remains of the hymen were present. There was marked extroversion of the mucous membrane of the urethra, and the urinary meatus was much enlarged. On vaginal examination the finger entered for about one inch, and here it was then intercepted by a tough, fibrous partition, with an aperture in the centre not large enough to admit the tip of my little finger. This was the evident cause of the incomplete coitus, and the attempts had produced the urethral condition.

Under chloroform this septum was divided almost down to the vaginal wall in two or three directions, and well dilated with the fingers. On further examination, I found a similar partition about one inch farther up the vaginal canal which had to be treated in the same manner, and finally a third septum, through which the external os and cervix uteri could just be felt. The vagina was tightly packed with iodoform gauze at the time, and repacked daily after antiseptic douching for about ten days, by which time the cut surfaces were healed, and two fingers passed readily up to the cervix. The first septum, as far as one could judge, was twice as thick as either the second or third, but all sufficiently dense to require incision before dilatation. In all the aperture was about the same size, and sufficient for the menstrual flow, which had always been regular. With reference to the first septum, of which cases have been recorded, the theory of Dr. Berry Hart is, I think, substantiated, namely:

That the upper two-thirds [illegible] the canal are developed from the [illegible] of Müller, and the lower third from the [illegible] of the upper portion of the urino-genital sinus into the lower ends of the Wolffian ducts.

Certainly this septum was formed at the junction of the middle and lower third, or approximately about one inch from the hymen. How can the second and third septa be accounted for? One thing is certain, they were congenital, for sexual penetration was impossible beyond the first.

In the *Edinburgh Obstetrical Transactions* for 1900-01, pp. 270, Dr. Berry Hart says:

The epithelial lining of the vagina is derived from the Wolffian bodies, which [illegible] epithelial prolongations of the Wolffian ducts, and as these, according to all recent embryological work, are supplied not by the cœlom, this layer is the connective tissue of the vagina. He also states that the epithelium of the vagina proper is derived from the Müllerian vagina, that is, the upper two-thirds, cropped out the fetal tissue, and passed into the lower third to meet the ingrowing tissue up, and rendering them lined by the true vagina and [illegible] well-marked. Further, the central cells, which exist in the Wolffian bodies and the Müllerian vagina are the [illegible] removed, soon began to degenerate, and in this way a central [illegible]

Might these septa, second and third, be due to a failure in desquamation?

W. H. GRAHAM ASELAND, M.D. Toronto, F.R.C.S. Edin., etc.
Harbour Grace, Newfoundland.

PLEUROPAGOUS TWINS: DIFFICULT LABOUR.

ON October 8th, 1903, I received an urgent summons to attend a case of labour in the country. The patient was a multipara, 26 years of age. On examination I found the head presenting in the vagina. During two hours there was not the slightest progress made, and accordingly I began to suspect that it was due to some abnormality. I then made a further and more exhaustive examination and discovered that I had to deal with a case of united twins. After several fruitless efforts to deliver them *per vias naturales* I was preparing to perform Caesarean section, but to this operation the friends objected. Finally, after I had almost given up hope, and was afraid of rupturing the uterus, I succeeded in effecting the delivery of two stillborn female babies. They were united not by a band alone, as were the Siamese twins, but were closely joined from the pelvis to the shoulder. Lying side by side the two bodies were as one. There was only one placenta and one cord connected with one umbilicus, which was situated midway between both bodies.

The mother had no rise of temperature or any unfavourable symptoms, and was sitting up by October 18th.

[illegible] THOS. GALLIVAN, M.D.

CASE OF PLACENTA PRAEVIA.

I was summoned at 4 a.m. on December 6th, 1903, to see Mrs. A., aged 32, multipara, a labourer's wife, by a midwife, who said there was "something wrong." On arrival I found the placenta lying in the bed attached by the cord to a fetus *in utero*. I removed the placenta and with a little trouble extracted a fetus of about the eighth month encased in

membranes, of course dead. The presentation was facial. The patient informed me that she had had two or three pains, and then with a gush of blood and amniotic fluid the placenta was expelled. Perhaps the case is worth recording as it seems to be the very easiest case of the obstetrician's bugbear, placenta praevia, of which I have ever heard. There were no complications whatever.

Shebbear, N. Devon. A. BLECKLY CLARKE, L.R.C.S., etc.

PLURAL PREGNANCY, TRIPLETS, PRESENTING SOME UNUSUAL FEATURES.

A HINDU (Tamil) woman, Rangamal by name, and a native of Madura, was admitted into the Municipal Lying-in Hospital at 4 a.m. on June 29th, 1903, with enormous distension of the abdomen and complete inertia. She gave the following history. Aged about 40. This was her eighth pregnancy. The former labours had been normal and single, but in her seventh instruments had been necessary, apparently from inertia. She stated that she had this time gone to full term, that her pains had started the previous evening about 7 p.m., and had ceased an hour or two prior to admission. She came to hospital because of the great distension of the abdomen, which rather scared her.

Condition on Admission.—Abdomen enormously distended, pains entirely absent, os fully dilated, and a foot and cord presenting. The feet of the presenting child were pulled down, and attempts made to get the cord out of the way; but it could not be kept up, and as there was some delay with the aftercoming head the child was stillborn. The second child gave no trouble, feet presented, and the child was speedily born, and alive. After the birth of the second there was still considerable distension, and on introducing my hand I was surprised to find that there was still another child, and this being small was removed with the placenta and membranes intact. This third was a fetus papyraceus, and the cause was at once apparent. The cord was very short, and near its placental origin much twisted on itself and constricted, causing the death of the fetus about the fifth month from malnutrition. All three cords had separate origin from a common placenta, which was very large, and all three children were males. The first-born weighed just over 6 lb., the second 4½ lb., and the third about 2 lb. The puerperium was uneventful, and the patient was discharged on the ninth day with the second-born child also doing well.

I do not know whether statistics have been collected in India as to the frequency of this condition. I have not been able to find any in any of the books of reference available here, but that it is rare is certain.

E. WATSON, M.B.Ed.
Captain I.M.S.

Madura, S. India.

HEREDITARY TENDENCY TO MULTIPLE BIRTHS.

IN view of the well-known hereditary tendency towards multiple births in certain families the following history may be of interest: I attended Mrs. M., aged 30, in her last two confinements, and on both occasions she has had twins. On inquiry I found the following remarkable history. Her mother had twins twice, her sister twins once, and her aunt had twins at 40. On the husband's side, I find he himself is a twin, whilst his first cousin had twins once and triplets once. As the tendency to multiple births increases with later pregnancies, I see no reason, in view of Mrs. M.'s age, why she should not easily eclipse the extraordinary recorded case of Curgenven quoted by Playfair.

Platt Bridge, Wigan. WM. RALPH DIX, M.D.

SUBOCCIPITAL PRESENTATION.

MRS. B., a multipara, had been previously attended by me in most of her confinements without anything noteworthy occurring. This time the presentation was at first occipito-anterior, but as the case proceeded the occiput began to retreat posteriorly, and as the pains got heavier the flexion became more and more extreme until the upper part of the neck presented, and then came an entire block, after which no progress was made. The treatment adopted was to put the patient thoroughly under chloroform, and, introducing my hand, to grasp the head, and pushing it up during the absence of pain, convert it by extension into a vertex presentation, rotating it into the nearest oblique diameter, and at the same time fixing it there with the forceps. The subsequent delivery was easy.

Sunderland. B. STRACHAN, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LONDON HOSPITAL.

A CASE OF BILATERAL EXTRAUTERINE PREGNANCY.

(By HENRY RUSSELL ANDREWS, M.D., B.S.Lond., M.R.C.P., Assistant Obstetric Physician to the Hospital.)

CASES of repeated tubal pregnancy are not very uncommon, nor are cases in which an extrauterine fetus has been carried for many years in the abdomen without causing trouble. There have also been recorded cases of uterine pregnancy occurring in women carrying a lithopaedion. The following case, however, in which a left-sided extrauterine pregnancy occurred while there was present in the abdomen a lithopaedion resulting from a full-time, right-sided, extrauterine pregnancy of eight years before, is, if not unique, at least of sufficient rarity to warrant its publication.

E. W., aged 37, was sent to me by Dr. Herman and Dr. O. R. M. Wood, to the latter of whom I am indebted for some of the following notes:

Previous History.—The patient had been married thirteen years, and had had no children and no miscarriages. The catamenia began at [illegible], and were quite regular until nine years ago, when she had nine months' amenorrhoea. During these nine months she had frequent attacks of abdominal pain, which used to double her up and make her vomit. The abdomen became as much enlarged as in an ordinary pregnancy, but the enlargement was more marked on the left side than on the right. Movements of the fetus were felt up to the end of the nine months, when pains like those of labour came on, lasting twenty-four hours, and accompanied by a "show." The fetus was found to be lying with its back in front and to the left, with the head in the brim of the pelvis. The fetal heart was heard. There was no result from these pains except that the patient became rather collapsed, and the cervical canal was slightly dilated. After this "spurious labour" the patient lost a small quantity of blood for a week or two. For the next eight years her health was excellent, and she was free from abdominal pain. The abdominal swelling became somewhat smaller. The catamenia were perfectly regular.

State on Admission.—When the patient was admitted into the London Hospital she had missed three periods, and had had a good deal of vomiting. She considered herself to be pregnant again. She was well nourished, and not anaemic. The breasts showed signs of activity. A very hard, irregularly-rounded tumour was found rising out of the pelvis to a point three finger-breadths above the umbilicus. It was situated much more on the left side than the right, reaching out almost to the left anterior superior iliac spine. Per vaginam the cervix, which was soft, was felt displaced to the right. To the left of the cervix was a soft swelling below and to the left of a rounded mass of almost stony hardness, which was filling up the brim of the pelvis. This soft swelling was quite fixed. Its size could not be estimated on account of the presence of the hard fixed swelling above it. It was thought to be the body of the uterus, three months pregnant, with a lithopaedion above it. As part of the lithopaedion was firmly fixed in the pelvis, it was obvious that pregnancy could not continue, so I decided to operate.

Operation.—On opening the abdomen a lithopaedion of almost half-term was found. The right side of the peritoneal cavity was comparatively free. The left half was obliterated by adhesions between the fetus and the omentum and the peritoneum of the abdominal wall. The head of the fetus was firmly fixed in the pelvis. The cornua of the uterus could just be seen below and in front of the head. The whole breadth of the great omentum was adherent to the breech and legs of the fetus, requiring numerous ligatures in its separation. When the legs and buttocks had been freed the adhesions between the back of the fetus and the anterior abdominal wall were cut and torn through. Some of these adhesions were tough and fibrous, others soft and filamentous. There was some difficulty in separating the head from its pelvic connexions on the pelvis. While this was being done a gush of blood came from the left side of the pelvis low down. The abdomen and arms of the fetus were practically non-adherent. As soon as the head was freed it was seen that there was another fetus, of about three and a half months, hanging out of a rent in the posterior layer of the left broad ligament, from which blood was pouring. The left Fallopian tube and the greater part of the left broad ligament, containing a placenta, were then removed. The small fetus was apparently living up to the time of the operation. The right tube was thick and tough, about 4 in. long, and firmly attached by its fimbriated extremity to the right shoulder of the lithopaedion. The right broad ligament was very thick, tough, and opaque. The right ovary was not identified with certainty. Removal of the left tube, and the greater part of the left broad ligament, left a cavity deep in the pelvis, with numerous oozing points. This cavity was lightly packed with iodoform gauze, which was brought out between the two lowest stitches in the abdominal wound.

Result.—The after-history of the case was uneventful. The gauze was

[illegible]

Presentation of the Specimen.—[illegible]

Remarks.—[illegible] the usual teaching that in [illegible] pregnancy the fetus is not free in the peritoneal cavity [illegible]. The absence of suppuration, and the freedom of the mother from any symptoms [illegible] caused by the weight of the fetus are probably due to the fact that the chorion was nowhere adherent to the intestines. From the absence of any disturbance in the [illegible] of the pelvic peritoneum, except that both [illegible] broad ligaments were increased in size, it is possible that secondary rupture into the abdominal cavity took place [illegible], and that the pregnancy was not long [illegible]. It is noteworthy that in neither pregnancy was there discharge of blood from the uterus or passage of a decidual cast.

The specimen was shown at the December, 1903, meeting of the Obstetrical Society of London.

LEEDS GENERAL INFIRMARY.

[illegible] IN THE OUT-DOOR [illegible] DEPARTMENT.*

(By [illegible] E. [illegible], M.D.Lond., Honorary Obstetric Physician to the Infirmary.)

THE Maternity and Gynaecological Departments of the General Infirmary at Leeds were inaugurated in November, [illegible] and to make a [illegible] of the benefits of the charity. The first [illegible], Dr. James Braithwaite, held office till [illegible] when he was appointed Consulting Obstetric Physician, and the present writer took his place. The staff of the [illegible] a qualified resident obstetric officer, the first [illegible] being Mr. [illegible] Dr. [illegible]. Two [illegible] appointed monthly, and each student of the [illegible] a maternity clerkship. No [illegible] maternity [illegible] have hitherto been employed. There are no lying-in beds in the infirmary, but [illegible]. The following report refers only to [illegible] with the [illegible] maternity department. [illegible] and [illegible] from 20 to 30 [illegible].

[illegible] in the [illegible] and [illegible] clothing trade. These Jewesses furnish a very considerable [illegible] maternity departments. [illegible] to the hospital. The "[illegible]" which they speak, when mixed with a smattering of the Yorkshire dialect, makes a most extraordinary patois.

Towards the end of 1902 the number of confinements attended reached 10,000, and I think the following report of work done in this city under the above-mentioned conditions may be of interest. I am not aware of any similar statistics relating to midwifery practice in this part of England that have been previously published.

[illegible] Department, [illegible]

Women delivered, [illegible]

[illegible] Males [illegible] females [illegible] total [illegible] Twins, [illegible] Triplets [illegible]

[illegible] males to [illegible]

Presentations. [illegible] per cent. [illegible]

Operations. Forceps, [illegible]

[illegible] placenta [illegible]

Perforation, embryotomy, [illegible]

Complications. [illegible]

The treatment of [illegible] placenta praevia [illegible] and the [illegible]

The maternal deaths [illegible] per [illegible] return from the department, and [illegible]

CAUSES OF MATERNAL DEATH

[illegible]	[illegible]
[illegible]	1
[illegible]	1
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	1
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	1
[illegible]	[illegible]

The [illegible] puerperal fever, [illegible] placenta praevia [illegible]. In [illegible]

Considering the [illegible] of our patients, and considering also that such maternity work is [illegible] the very nature of things the work of beginners, the above report is of its kind very satisfactory.

One cannot, however, insist too strongly on the fact that the percentage of mortality is not the only test of success in midwifery. Successful midwifery means parturition without pathological sequelae. The amount of chronic pelvic disease that is seen in all gynaecological wards points to the need of general improvement in the care and treatment of lying-in women in England. The suppression of incompetent midwives, the provision of more lying-in hospitals, and the better clinical instruction of students are the principal requirements for this end.

The present system of instruction in midwifery has obvious

[illegible]

defects. A student who presents himself for examination in medicine or surgery has had some three years or more of good and varied clinical experience in a hospital. He has seen examples of most of the diseases and injuries of which he has read, and has seen all the principal operations of surgery carried out under the best attainable conditions. But the average student who comes up for examination in midwifery has seen about twenty labours, most of them normal presentation and uncomplicated. His midwifery practice has been principally in a "slum" population where proper aseptic conditions are not attainable. He has almost no experience of operative midwifery, and the greater part of his knowledge of obstetrics is pure "book work." The ideal for the future is that every medical student should commence his practice of midwifery with clinical experience in a properly appointed lying-in hospital.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

RICKMAN J. GODLEE, F.R.C.S., Vice-President, in the Chair.

Tuesday, January 5th, 1904.

THE STAPHYLOCOCCUS AURIUS AND RHEUMATIC FEVER.

DR. F. J. POYNTON and Dr. W. V. SHAW brought forward a communication in continuation of recent investigations upon the pathogenesis of rheumatic fever. Many spoke of rheumatic fever in a vague way as an attenuated pyaemia, the result of any infection which might cause pyaemia. The authors were opposed to this contention, held that rheumatic fever had a definite clinical entity, and relied entirely on fatal cases for their arguments. If merely an attenuated pyaemia, the staphylococcus aureus, one of the most important causes of pyaemia in man, should also be a frequent cause of rheumatic fever. This, however, did not prove to be the case. In the research described it was demonstrated that the staphylococcus aureus and the diplococcus rheumaticus could be easily distinguished from one another. In the 25 fatal cases of rheumatic fever investigated the staphylococcus aureus could not be found. They had isolated it from human tissues, but not in rheumatic fever. Differential experiments with the staphylococcus aureus and the diplococcus rheumaticus produced different results. The staphylococcus produced septicaemia or pyaemia with multiple abscesses, or no result, and the diplococcus either the manifestations of rheumatic fever or no result. The effect of mixed infections with the two micro-organisms had also been studied, the injections being sometimes simultaneous and sometimes consecutive. When the injections were simultaneous death was rapid, and pyaemic abscesses containing the staphylococcus were found, and also arthritis and in some cases endocarditis. The staphylococcus was most easily found in the blood, the diplococcus in the joints. Both micro-organisms were demonstrated in the tissues and isolated after death. When the staphylococcus infection followed the rheumatic, the disease that developed was a pyaemia, or rapidly fatal septicaemia. So far as it was admissible to argue from these experiments to clinical medicine, the staphylococcus aureus, far from producing in mixed infection rheumatic fever, produced a pyaemia with multiple abscesses or a rapid septicaemia. A clinical case of mixed infection was described. The patient, a boy who was suffering from cellulitis of a leg, developed arthritis and pericarditis. In spite of the cellulitis the symptoms were so very similar to rheumatic fever as to raise this point in diagnosis. After death purulent pericarditis, arthritis, and multiple abscesses were found, and Dr. Paine isolated from the pus the staphylococcus aureus and a diplococcus. Their final conclusions were: (1) The staphylococcus aureus is not a cause of rheumatic fever either in simple or mixed infection; (2) rheumatic fever is not an attenuated pyaemia so far as the staphylococcus aureus is concerned. (The paper was illustrated by macroscopic and microscopic preparations, drawings, lantern slides, and cultures.)

Dr. BERTRAM ABRAHAMS thought that before concluding that rheumatism was not an attenuated pyaemia, experiments with attenuated cultures of staphylococcus aureus should be made. He was inclined, too, to regard the streptococcus rather than the staphylococcus as the organism to be investigated. Different organisms had been isolated in different examples of rheumatic fever, and it was hardly right at present to assume that any one was *the* cause of the disease; possibly the various organisms found were responsible only for the various complications that arose.

Dr. J. F. H. BROADBENT considered that the absence of suppuration in the lesions of rheumatic cases indicated that the staphylococcus pyogenes aureus was not the microbe causing the disease.

Dr. POYNTON replied that the theory that rheumatic fever is a reaction to several forms of microbic infection was one that needed proof. In the work by Dr. Shaw and himself the staphylococcus had been attenuated by growing it in acid media until it would produce no effect on animals. He thought that the streptococcus pyogenes was an organism which needed defining.

DERMOID TUMOURS OF BRAIN.

DR. H. M. STEWART exhibited the above. One of the cysts had grown in the site of the pituitary body, the other lay in the marginal convolution of the frontal lobe, in close proximity. The patient, a man, was subject to severe headache; there were no retinal changes, and no ocular or other paralysis. Death was preceded by severe vomiting.

Dr. F. BUZZARD described the case of a boy in whom, after death, a large dermoid tumour was found on the orbital surface of the frontal lobe. He was healthy until the age of 14 years, and the author thought the symptoms might have arisen from the filling of the cyst with sebaceous secretion, the glands having acquired activity at puberty. As to the relation between pial dermoid cysts and cholesteatoma, some writers had claimed that all gradations occurred between the two.

RACEMOSE ANEURYSM OF THE BRAIN.

Dr. J. H. DRYSDALE exhibited an example of this rare condition. On the anterior part of the right hemisphere was an extensive area of tortuous vessels, from which a wedge-shaped mass extended into the white matter. The lesion was not an angeioma, but a tortuous plexus of arteries, the supplying vessels being of remarkably large size. It corresponded with the cirsoid aneurysm in other situations, and its causation was in none definitely known. In some of the twelve cases to be found in literature the condition was congenital, in others it was associated with injury. The chief clinical feature in the case under consideration was the occurrence of typical epileptic fits. In answer to the CHAIRMAN, Dr. DRYSDALE stated that an examination of the brain in cases of cirsoid aneurysm of the scalp had not disclosed any similar condition in that organ.

PULSATING EXOPHTHALMOS.

Mr. H. L. BARNARD and Mr. H. M. RIGBY recorded a case of this condition in a man who attempted suicide by firing a pistol through his mouth. The diagnosis made was traumatic communication between the internal carotid and the cavernous sinus. The common carotid was ligatured and the condition disappeared. The bullet was not extracted for prudential reasons, and death occurred with cerebral abscess. At the necropsy no arterio-venous communication was found, but an aneurysmal condition of the internal carotid. This was responsible for the pulsating exophthalmos, though certain writers had maintained that in every such case of the latter an abnormal arterio-venous communication existed. The authors found it difficult to explain the occurrence of the exophthalmos under the circumstances.

EXAMINATION OF A CASE TREATED BY DR. OTTO SCHMIDT'S METHOD.

DR. R. N. SALAMAN exhibited the pelvic organs in a case of epithelioma of the cervix from a patient who had been treated by the so-called passive immunization therapy of Dr. Otto Schmidt of Cologne, a case referred to in the address to the Abernethian Society, November 5th, 1903, given by Dr Josse Johnson. In that address attention was drawn to the occurrence of intestinal obstruction during the course of the treatment, and this, together with the uraemic symptoms which ushered in death, were ascribed to an undue fibrous formation, and "inconvenient cicatrization" or overgrowth on the part of the diseased tissues under the curative stimulus of the serum. Microscopical preparations, both from the strictured colon and from the infiltrated anterior vaginal wall at the point where the ureter was constricted, showed clearly that not only was there no undue fibrosis, but that the constricting agent in each case was actively proliferating epithelioma tous growth, replacing the fibrous and muscular walls of both gut and ureter. The sections demonstrated also the absence of any evidence suggestive of atrophy, nor

were there any more marked retrogressive cellular changes than could be observed in any case of epithelioma. The section of the gland from the left iliac region showed an active inflammation as well as the hyperplasia of endothelium found in cases of chronic irritation. The following outlines of the treatment and clinical course of the illness were supplied by Dr. Kochman, the physician in whose charge the case was

Death took place on November 7th.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

J. Nigel Stark, M.D., President, in the Chair.

Wednesday, November 5th, 1903.

"Accouchement Forcé."

At this meeting the evening, after the exhibition of some specimens by Dr. Kerr, was given up to a discussion on the artificial dilatation of the cervix uteri, which was opened by Drs. Jardine and Munro Kerr.

Dr. Robert Jardine in his opening remarks referred to the definition of *accouchement forcé* given by Williams. The operation, he remarked, was done almost entirely in the interests of the mother, but in a few rare cases it might be done in the interests of the child, as, for instance, when the cord prolapsed very early in the course of labour, or when the membranes ruptured before labour began, with resultant pressure detrimental to the child. The operation was most frequently done in the interests of the mother for eclampsia. In pernicious vomiting, heart disease, chorea, and insanity it might also be necessary. In cases of complete occlusion of the os the speaker had occasion to perform it five or six times. The methods of performing the operation were then brought under review, attention being limited to the dilatation of the cervix. It was noted that when the cervix was not taken up, but retained its full length, it was more difficult to dilate than when fully taken up, as in those who had about reached term, and especially in those in whom labour had begun. The dilatation might be carried out forcibly or by the aid of instruments. Digital dilatation was mentioned as being the oldest method. If the cervix were soft and yielding, full dilatation could be obtained in fifteen or twenty minutes. The strictest aseptic precautions were necessary, and a continuous hot douche during the process was beneficial. Chloroform should be administered not only to prevent pain, but to assist the relaxation of the cervix. To get the patient in position was the more suitable for the method mentioned. After dilatation delivery might be completed in a variety of ways according to the nature of the case. As regarded dilatation by instruments, in cases of [illegible] the cervix were very soft hydrostatic bags might be used. Barnes's bags were not suitable and where time was of importance the method was not very suitable. Hegar's dilators were useful to begin the operation when a finger could not be inserted. Bayonetting dilators were the most useful, and of these Bossi's or a modification thereof was the best. The various varieties of the instrument were shown. The speaker's personal preference was for Bronsser's. He recommended the dilatation should be carried out gently and slowly, and from twenty to thirty minutes was required for full dilatation of the cervix. If cervical tear took place very little mattered. Dr. Jardine then related the histories of several cases in illustration. The incision method was next reviewed. The speaker had performed it on a considerable number of times in emergency cases. He had practised the making of incisions in the cervix. Further dilatation was obtained by the hand. In cases where the cervix had been accidentally stitched, which [illegible] there was no harm done, the cervix was left alone; the after-results in the latter had been quite as good as in the former. He had not practised vaginal Caesarean section. From his experience of the incision method he was convinced that it resulted in less shock than did forcible dilatation. In conclusion he stated his opinion that Bossi's dilator was a most useful instrument but that in a case where the cervix was extremely rigid he preferred the incision method.

Dr. J. M. Munro Kerr, like the first speaker, limited himself to the question of cervix dilatation. His observations on the matter will be found on p. 67 of this issue.

Dr. W. L. Reid had not used the dilator nor seen it used. He had employed the hand to dilate and incisions to enlarge the canal, and had met with few cases where manual dilatation had failed. He considered that the cutting method was free from danger even in the days when antiseptic precautions were lax.

Dr. Armstrong (Kirkintilloch) had used Bossi's instrument for some time and was satisfied with it. He did not think that even at the seventh month there was any difficulty in dilating the cervix with it without tearing.

Dr. Scott MacGregor, referring to the effect of the point of the instrument, thought dilatation ought to be slow, so as to give time for the tendency towards spasmodic contraction to cease.

Dr. A. MacLennan had had no experience of the Bossi instrument, but had performed Dührssen's operation upon a primipara at full term. Suture of the anterior incision had been effected speedily, and without assistance in a private house.

Dr. Gairdner, from his experience of Bossi's dilator, thought that the general practitioner would prefer it to vaginal Caesarean section. As regarded tearing, the dilatation should be carried out with the eye on the clock to ensure absence of haste, and the cervix examined from time to time with the finger.

Dr. J. Nigel Stark thought that there was a danger of midwifery becoming too meddlesome. In certain cases the Bossi dilator might be necessary, or in default incisions made. From what had been said it seemed to him that incisions were preferable, because although the cervix might not tear with the Bossi, it did during the extraction of the child.

Drs. Jardine and Kerr replied.

Epidemiological Society.—At a meeting held on December 11th, 1903, Dr. B. A. Whitelegge, C.B., President, in the chair, Dr. L. W. Sambon read a paper on sleeping sickness. He said that as soon as Castellani discovered a trypanosome in sleeping sickness the idea of a fly as the carrier of the infection came naturally to all who had any knowledge of trypanosome disease. The first to publish any definite opinion on the matter, not merely as a hypothesis, but as the outcome of the concurrence of well-established facts, were Brumpt and himself. He expressed his views in an article on sleeping sickness which was published in the *Journal of Tropical Medicine* on July 1st, 1903. Brumpt's observations were published on July 2nd. Dr. Sambon specified a West African species, and more especially *Glossina palpalis*; but he attached no great importance to this, because he had books and specimens at hand, while Brumpt was in the wilds of the Congo. At first Castellani's discovery met with little favour in this country. At the last meeting of the British Medical Association at Swansea Dr. Sambon was the only one to uphold a causal relationship between Castellani's trypanosome and sleeping sickness. He expressed the opinion that the *Glossina* did not merely carry the trypanosomes as suggested by Colonel Bruce, but played the part of an alternative host. Considering the very remarkable mode of development which obtained in tsetse flies he further suggested as a working hypothesis that nagana and sleeping sickness might be transmitted not directly by the fly that sucked the blood of infected animals but by its progeny as was known to be the case in tse-tse fly disease or tsetse fever by *Trypanosoma Evansi* and in the transmission of the malignant jaundice of dogs by *Herpetomonas Donovani*. After discussing the reports on sleeping sickness by Colonel Bruce and Dr. Nabarro, Dr. Sambon said the experiments made by them with tsetse flies collected at Entebbe and fed on susceptible monkeys after being fed on cases of sleeping sickness had been almost unanimously accepted as proving that the trypanosomes of sleeping sickness were transmitted from the sick to the healthy by the *Glossina palpalis* and that the fly carried the parasites much in the same way as the vaccinating needle carried the

infection of vaccinia from child to child. He did not doubt in the least that the *Glossina palpalis* was a carrier of sleeping sickness. But the experiments made by Colonel Bruce with *Glossina pallidipes* and nagana, those made by Rogers with various *Tabanidæ* and surra, and those made by Theiler with *Hippobosidæ* and gall-sickness, only proved that a fly disturbed while sucking the blood of a trypanosoma-infected animal might convey the disease to a healthy animal by means of its blood-soiled proboscis, just as malaria might be conveyed by a needle soiled with infected blood. This mode of transmission, however, did not seem to be the usual one. It did not explain why nagana was carried exclusively by a *Glossina*, and not by the many other blood-sucking animals which attacked horses and cattle outside the fly belts. It did not explain why sleeping sickness was likewise confined to the tsetse zone and not communicated by the blood-sucking insects and *Acaridæ* which swarmed in the huts of the natives. Further, Drs. Bruce and Nabarro did not rear their flies in the laboratory; they collected them at random, and they knew for certain that these flies were already infected because in the second set of experiments they also infected the monkeys they were made to bite soon after being caught and without being previously fed on cases of sleeping sickness. That the trypanosomes which they conveyed were those of sleeping sickness was not in any way proved: on the contrary, the Commissioners had examined some oxen at Entebbe and found in the blood of those animals a trypanosome which was neither trypanosoma brucei nor trypanosoma gambiense. Who could say how many other species of trypanosomes were to be found in the blood of the mammals, birds, batrachians, and fish of Uganda? Those experiments would have to be repeated in a thoroughly scientific way. Meanwhile he believed that the bond of association between Castellani's trypanosome and *Glossina palpalis* was a far more intimate one. Lastly, Dr. Sambon referred to Manson's case of trypanosoma fever in a white woman which terminated with the characteristic symptoms of sleeping sickness, thus proving that trypanosoma fever was only an early stage of sleeping sickness, and that a trypanosome was the cause of that deadly Africa scourge.—Sir PATRICK MANSON believed that sleeping sickness was caused by the trypanosoma gambiense, but he could not say that it had been proved. Until the thing was positively decided one way or another he thought that one incurred a certain amount of responsibility and danger in advising anything in the way of extensive public measures with a view of counteracting the influence of the trypanosoma gambiense in connexion with sleeping sickness.—Professor E. RAY LANKESTER thought Dr. Sambon seemed inclined to claim a kind of priority in suggesting that the *Glossina palpalis* was the carrier of the trypanosoma and that some change in the parasite occurred after its absorption by the *Glossina*. Priority as to the former was not worth discussing and the latter suggestion would occur to any one who had ever heard of the parasite. The real interest was that Colonel Bruce had looked for and found the *Glossina palpalis* on the shores of Lake Nyanza.—Dr. M. E. BRUMPT (Paris) expressed the belief, after his researches in Africa and those which he had carried out in Paris in collaboration with Dr. Wurtz, that there was an absolute coincidence between the appearance of the trypanosoma and the symptoms of sleeping sickness. (The discussion was adjourned to January 15th, 1904.)

SOCIETY FOR THE STUDY OF DISEASES IN CHILDREN.—At a meeting on December 11th, 1903, Mr. SYDNEY SMITH, F.R.C.S., in the chair, Dr. A. MONSON showed an abdominal case for diagnosis. The patient was a boy of 9 who had suffered from an attack of nephritis accompanied by general oedema, albuminuria, and tube casts. After recovery he was sent to a convalescent home, and there a hard [illegible] the left side of the abdomen, fixed below and movable above. The boy had been conscious of something [illegible] six months. The majority of the [illegible] to a dilating kidney above and a tuberculous swelling below.—Mr. ARNOLD LAWSON showed a well-marked case of exophthalmic goitre in a girl aged 12 years. No cause could be assigned for the onset of the disease; the child's health had been excellent previously and there was no family history of insanity or nervous disease. The constitutional effect of the illness on the child was very slight although the disease had been in progress for over twelve months. Drs. ROBERT HUTCHISON and SANSOM referred to cases seen by them in children of 8 and 12 years respectively. Dr. F. P. ARMAND showed a boy 7 years old suffering from [illegible] July he suffered from acute rheumatism complicated by endocarditis and pericarditis. In September pulmonary [illegible] face and ascites developed. There was found to be a large liver and an enlarged heart. The abdomen had been tapped several times, but the evacuation of the fluid made no difference in the venous dilatation of the neck. Examination by the rays threw no further light on the case. In view of the history and the clinical symptoms a diagnosis of adhesive mediastinitis had been made. The boy's general health was good.—Dr. GEORGE CARPENTER showed a girl aged 16 years with a tumour at the root of the tongue, which was accidentally discovered. The mass was probably a dermoid in connexion with the thyro-glossal duct. The thyroid gland could not be felt in the neck, and the possibility of the lingual swelling being a misplaced thyroid was suggested.—Dr. FRANK COLLIE said he had known the patient for four years; the swelling commenced shortly after menstruation became established. He inclined to the view that it was a misplaced thyroid.—Dr. LEONARD GUTHRIE showed a boy aged 12, who seven years previously had suffered from a severe attack of polyneuritis of uncertain origin. At the end of three months he had completely recovered save that the knee-jerks were absent and there was a tendency to contraction of the tendo Achillis on both sides. He had been admitted into hospital during 1903 suffering from a well-marked condition of talipes equino-varus, for which tenotomy had been performed with improvement of walking powers. When shown pes cavus was present, the knee-jerks absent, and the muscles of the extremities small; there was also mental deficiency. Dr. Guthrie concluded that the case illustrated the after-effects of polyneuritis.—Dr. GUTHRIE also showed a girl aged 11 with physical signs which he regarded as those of aortic valvular disease with stenosis. The maximum of the intensity of the murmur was in the second left intercostal space. The case was examined by members present and various diagnoses made, including mitral disease, aortic regurgitation with presystolic thrill and murmur (Flint's murmur), pulmonary valvular disease, and patent ductus arteriosus.—A paper on some cases of lymphangeiomata was read by Dr. ALBERT CARLESS, and pathological specimens shown by Mr. J. W. THOMSON WALKER, Mr. DOUGLAS DREW, and Dr. GEORGE CARPENTER.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Birmingham, December 10th, 1903.

Epilepsy following Mastoiditis and Cerebral Abscess.—Dr. F. SYDENHAM showed a man, aged 26, on whom he had performed Stacke's antrectomy on January 17th, 1903, for acute post-influenzal left mastoiditis.

[illegible] Dr. Sydenham invited opinions as to the treatment now to be adopted. Several members examined the patient with great interest, and advised that the treatment with bromides should be continued.

Sarcoma of Femur.—Dr. PEARSON showed a specimen of sarcoma of the lower end of the femur beginning to fungate through the cartilage of the knee-joint. The patient was a man aged 66, and the limb was removed by Furneaux Jordan's amputation through the hip-joint. Recovery was uninterrupted, the wound healing by first intention.

Enlarged Prostate.—Mr. G. [illegible] showed an enlarged prostate which he had removed by suprapubic [illegible] (Freyer's method) fourteen days previously [illegible]

gentleman [illegible], had suffered from prostatic troubles for many years. For the last six months he had been accustomed to pass water every half-hour during the day and fifteen to twenty times in the night. The residual urine was [illegible] pints. The passage of a catheter had become more and more difficult and latterly no urine had been passed naturally. The operation was comparatively easy, and the patient had made an uninterrupted recovery and was now out of bed. The organ weighed [illegible] oz.

[illegible] Prostatectomy.—Mr. GILBERT BARLING read a paper of which the following is a synopsis: "The inadequacy of the operative measures hitherto available in the treatment of enlarged prostate; the possibility of enucleating the prostate as suggested by Freyer; the injury inflicted on prostatic urethra and adjacent parts; a brief description of the operative procedure with details of [illegible] cases submitted to operation, and analysis of the results." Mr. Barling showed the specimens he had removed, and gave a lantern demonstration of a large series of slides illustrating the structure, relations, and morbid anatomy of the prostate. Remarks were made by the PRESIDENT, Mr. BENNETT MAY, and Mr. M. HALLWRIGHT. In his reply Mr. BARLING acknowledged the help rendered by Mr. H[illegible] in preparing and demonstrating the specimens.

[illegible] Mr. [illegible] showed the following specimens [illegible] removed by [illegible] nephrectomy [illegible] removed from a woman [illegible]. The [illegible]

REVIEWS

[illegible]NAL DISORDERS.

PROFESSOR SENATOR'S monograph on diseases of the kidney forms part of the nineteenth volume of the system of medicine edited by Professor Nothnagel, and constitutes one of the most [illegible] German contributions to the study of renal disease. Professor Senator's name has been known to the medical profession for many years, and his close study of the problems of renal disease entitle this volume to the serious consideration of the profession at large. In the first part, the kidney is [illegible] from a physiological and pathological point of view, and the several questions as to the nature of renal disease, albuminuria, uraemia, and the cardiac hypertrophy [illegible]ed with renal disease are treated exhaustively. [illegible] clinical, and is devoted to the study of [illegible] Bright's disease, albuminoid disease of [illegible] such as suppurative [illegible], cysts, etc. It is a matter [illegible] that [illegible] volume as this should not be [illegible] is lost in referring to [illegible] in several places. The [illegible] speaking, proteid[illegible] [illegible] continues to present many [illegible] that one finds [illegible] of the kidney [illegible] who, like [illegible] further [illegible]

[illegible]

in contracted kidney associated with extensive arterial disease albuminuria occurs, there still remains the large group of cases known as Bright's disease, the true explanation of which is to this day unknown; the prevailing fashion is to consider that the pathogenesis of Bright's disease is allied to a toxaemia, the poisonous bodies being of intracorporeal or extracorporeal origin, but until more efficient physical, chemical, and biological means for the separation and recognition of these substances have been introduced, we must remain content with our present rough clinical generalizations. Another subject which is most exhaustively treated is uraemia. The various views as to its causation are considered, and especially the more modern one which seeks to find a physical explanation of the phenomena of uraemia by establishing an enhanced molecular concentration of the blood as revealed by a lowering of the freezing point. Strauss, Koranyi and Lindemann have made investigations in this direction, but against the discovery that this increase of molecular concentration is so commonly found in uraemia there are many other conditions not at all associated with uraemia, in which the same physical condition of the blood has been found. Little advance, therefore, has been made in the theory that uraemia is closely associated with the presence of harmful nitrogenous material. With respect to the causation of hypertrophy of the heart in various renal diseases, we hardly think Professor Senator has so correctly interpreted Cohnheim's view as did the late Dr. Fagge. The classification of the various forms of Bright's disease is that usually adopted in this country, but the writer calls attention to a curious group of cases which has come under his own notice and was described as long ago as 18[illegible], by Besançon, and since then by Poillon, Lancereaux, and Moutard-Martin. In this group acute uraemia occurs in healthy young people, especially in chlorotic girls, who have hitherto been quite free from any symptoms suggestive of renal disease. In these cases, an apparent primary atrophy of the kidney has been found after death. The practical side of the subject is also fully treated, and it is interesting to note the swing of the pendulum in regard to the use of proteid diet in treatment; for example, eggs so long as they are cooked and not given in excess may be ordered for a patient with chronic parenchymatous nephritis; morphine too may be given for the relief of uraemic manifestations, and though it is not necessary to order tincture of cantharides, as Rayer recommended, in acute nephritis, stimulant diuretic drugs may be used in this condition.

Dr. PAUL BERGOUIGNAN has written a treatise to maintain the thesis that in a large proportion of cases of cardiac disorder, the heart's action is disturbed, even to the degree of permanent disease, as a result of vascular changes, and that to secure either permanent or temporary relief it is necessary to invoke the eliminative action of the kidneys. The author brings forward many valuable arguments and then concludes with observations made upon cases drawn from the practice of M. Huchard and his pupils, among whom the author is numbered. Huchard has divided all cases of organic cardiac disorder into two classes: (1) those in which the disturbance is primarily peripheral—the arterial form of cardiac disease, occurring in 70 per cent. of male cases and [illegible] per cent. amongst women, giving a rough average of 60 per cent., and (2) the so-called rheumatic or valvular cardiac cases forming [illegible] per cent. of male cases and [illegible] per cent. amongst women, with an average of about [illegible] per cent. From these figures it would appear that the arterial form of cardiac disease is much more common than the valvular, and [illegible] that M. Huchard's pupil [illegible] his treatise. In order to clear the way for [illegible] treatment of [illegible] cardiac disorder due to arterial [illegible], it has been found advisable to distinguish various phases in its development, and we find considerable guidance [illegible] in the recognition of [illegible] stage [illegible] stage, and [illegible] stage. [illegible] with [illegible] and the [illegible] syndrome [illegible] disorder of the peripheral vessels; in the third [illegible] left heart and [illegible], though the [illegible] we see [illegible] picture so often met with in hospital wards. The symptoms and signs, however, of the [illegible] are rather ill-defined and not yet fully

[illegible]

understood. The author takes considerable care to set out Huchard's researches. It will be admitted that once a vascular sclerosis has been established, little or nothing can be done to cure the lesion, successful or not as may be the efforts to combat the symptoms arising from it, so that if it is possible to, as it were, anticipate the establishment of this lesion and obviate its occurrence, we should really do our patients inestimable service. It is familiar knowledge that lead, alcoholism, strain, gout, and even heredity are apparently greatly concerned in the development of arterio-sclerosis, and it is possible in some of these cases to ward off the vascular change, but until we know more of the actual causes of occlusion of the vasa vasorum, we shall still have many cases in which prophylaxis is impossible, so that symptomatic treatment alone remains. The French school, however, is very much dominated by the idea that various alimentary toxins are responsible for much that is at present a mystery; the liver is a great neutralizing agent, nullifying the baneful influence of alimentary toxins arriving by the portal system, and the kidney is subservient to the process of excretion of toxins, neutralized or not. Dr. Bergouignan, following his master's teaching, has chosen to look upon the kidneys as the organs to be relied upon in treating the presclerotic stage of arterial cardiac disease, and support for this attitude is found in the facts that milk is an excellent diuretic and of very low toxicity [illegible]. As a diuretic treatment an exclusively milk dietary is recommended, and in addition theobromine is prescribed. Excellent results are recorded from this line of treatment; in some cases various other agents may be used, such as massage, mineral waters, etc. Digitalis, on the other hand, is relegated to the third and final stage of the disease, and even then is to be used in certain selected cases only; arrythmia alone, we are reminded, should not be the criterion for the use of this drug. For those who seek to secure better results in that large group of disorders probably due, so far as pathological evidence can guide us, to arterio-sclerosis, local or general, this volume will prove most suggestive and helpful.

MEMBRANOUS COLITIS.

A PAMPHLET on colica mucosa, which is the third of the series on the pathology and treatment of disorders of metabolism and nutrition, now being issued under the direction of Professor C. VON NOORDEN, is from the joint pens of the editor and Dr. CARL DAPPER, of Kissingen. The second part, which treated of nephritis, was reviewed in the BRITISH MEDICAL JOURNAL of March 22nd, 1902. "Colica mucosa" denotes the condition usually known in England as membranous colitis. The first sixteen pages are devoted to the symptoms and the vexed question of the pathology of the disease. The authors believe that inflammation is not an essential element, though mucous colic may be complicated by enteritis and vice versa. Thus *post mortem* the mucosa may be anatomically unchanged, although shreds of mucus may adhere to it with great tenacity. The condition, with the concomitant neurasthenia, cannot depend merely on chronic constipation, for at least forty cases of obstinate constipation, complicated by every known neurosis, may be treated before one of mucous colic is met with. The authors' view is that the abnormal secretion of mucus arises from nervous influences; in other words, that the disease is a "secretion neurosis." The attacks of colic are due to the efforts of the intestine to expel the adherent mucus. The most interesting section is that devoted to treatment. Till recently the diet generally advocated for membranous "colitis" was one which would irritate the hypothetically inflamed intestine as little as possible by undigested residue. Most practitioners who have treated cases on this principle will admit that the results are unsatisfactory unless the constipation can be relieved by constant recourse to enemata. The authors, recognizing that whatever may be the pathology of the condition, cure is attainable only by the relief of constipation, advocate an "undigestible" diet which leaves [illegible] furnishes a copious residue, and consists largely of coarse green vegetables, fruit, and wholemeal bread. Much fat, chiefly in the form of cream and butter, is also given. For the first three or four days of this treatment all the abdominal symptoms may be aggravated, and it may be necessary to administer morphine. The bowels should be relieved by large enemata of oil as long as necessary; but in a short time, usually a few days, the stools become soft, the mucus disappears, and with it all the abdominal pain and discomfort. The authors' views are justified by cases. Of [illegible] patients so treated, 80 per cent. were cured permanently, often within a few weeks, and only 3.2 per cent. were unbenefited. To all practitioners, and especially those who have cases of this refractory disorder under treatment, a careful perusal of this pamphlet is most cordially recommended.

We have received two works on *Muco-membranous Enterocolitis* written by medical men practising at Plombières, a health resort which has acquired some reputation in its treatment. The longer and more detailed account is given by Dr. DE LANGENHAGEN on the basis of more than [illegible] cases observed by him. The disease appears to be commoner in females; its three main characteristics are a glairy or pseudo-membranous rectal discharge, irregularity of the bowels, and abdominal pain. This pain may be either habitual or paroxysmal; in the latter event it usually follows a dietetic error, or prolonged constipation; it is then exceedingly intense and chiefly marked in the umbilical region. As a rule there is constipation; lientery is common, but true diarrhoea rare. Blood is often passed by the bowel; this is in some cases due to haemorrhoids. In all serious cases enteroptosis is present; this the author considers to be a secondary symptom. Pathologically there is a a superficial catarrh of the intestinal mucous membrane, which begins as the result of muscular atony. The disease, according to Dr. de Langenhagen, is increasing, and is mainly found in the inhabitants of towns; all the patients are arthritic, and the majority neurotic also. With regard to treatment diet is the first essential; no green vegetables or fruit should be allowed, and fat and alcohol should also be prohibited. Milk often disagrees and should therefore be given in moderation. Purgatives are virtually always required; of these castor oil is the most satisfactory, next the salines, and then the vegetable aperients. For the pain hot applications are best, but if very intense, codeine or morphine may be indicated. The author recommends systematic intestinal lavage with quite hot water (45° C. to 48° C.). Local massage is also of use, and a belt should be worn if there is enteroptosis. Dr. de Langenhagen's book is very clearly and systematically written, and offers an excellent account of the disease. Dr. [illegible]'s pamphlet on the same subject is on a much more modest scale. The principal points on which he lays stress are his belief that the disease is usually a manifestation of the rheumatic diathesis, that it is more commonly seen in the wealthy classes, and that the earliest symptoms sometimes follow severe emotion. He states that movable kidney, especially on the right side, is often present, and that [illegible] diseases of the reproductive organs often coexist. He lays stress on the frequency of dyspeptic symptoms. He distinguishes four forms of the disease [illegible]; in the first the symptoms are long latent, with very rare attacks; in the second they are continuous; in the third, which is [illegible] [illegible] they are paroxysmal, and in the fourth there is [illegible] [illegible] [illegible] the patient. Dr. [illegible] believes that the disease is caused by a functional disturbance of the intestinal nerves. He regards the [illegible] as always [illegible]. His views on treatment are similar to those of Dr. de Langenhagen.

BIOLOGY.

THE volume on *Evolution* [illegible] Dr. [illegible] [illegible] [illegible] [illegible] [illegible] the whole subject [illegible] [illegible] Nevertheless [illegible] [illegible] have been [illegible] [illegible] [illegible] have been remedied. For instance, [illegible]

[illegible]

[illegible]

United States." Had it been mentioned that this *typha* was merely a species of bulrush the non-botanical reader might have been helped. Dr. Vernon, although not directly admitting the inheritance of acquired characters, does not differ very materially in his conclusions from those who do. He recognizes adaptability as a fundamental property of protoplasm and works up to adaptive variation, and considers that

He considers that the effects of environment upon the germ plasm are much less than on the soma, and also that somatic variations,

He suggests that the agency through which the environment is enabled to act upon the germ plasm is a chemical one, and advances what he calls the theory of specific secretions. Every tissue of the body to some extent affects every other tissue. He explains the action of the environment thus:

The idea of specific secretions has been advanced before, as Mr. Vernon says, by Delage in 1895, but his idea was that the somatic variations influenced the germ plasm through the agency of the secretions. Galton, as long ago as 1872, suggested that the body cells can react upon the sex elements. It is therefore not easy to see how Mr. Vernon's modification of these older views advances matters. Although by no means dispensing with natural selection, Mr. Vernon gives that part of the theory of evolution less responsibility than Darwin did, and thus he is led at p. 392, when referring to Wallace's criticisms of Henslow's theory, to consider that Wallace, "by excluding other agencies, is inclined somewhat to exaggerate the importance of natural selection." He seems to us to obscure the meaning of the terms definite and indefinite variation when he endeavours to show at the beginning of Chapter XII that there is no fundamental difference between them. After giving Darwin's definition of definite variations and discussing its meaning, he says:

He then proceeds to consider the matter from the mathematical standpoint in connexion with the law of error, and, after leading the reader through something of a maze, he comes back to the simple meaning of "definite" variation as

Mr. Dendy in his *Text-book of Zoology* presents us with a

He considers that the effects of environment upon the germ plasm are much less than on the soma, and also that somatic variations,

He suggests that the agency through which the environment is enabled to act upon the germ plasm is a chemical one, and advances what he calls the theory of specific secretions. Every tissue of the body to some extent affects every other tissue. He explains the action of the environment thus:

The idea of specific secretions has been advanced before, as Mr. Vernon says, by Delage in 1895, but his idea was that the somatic variations influenced the germ plasm through the agency of the secretions. Galton, as long ago as 1872, suggested that the body cells can react upon the sex elements. It is therefore not easy to see how Mr. Vernon's modification of these older views advances matters. Although by no means dispensing with natural selection, Mr. Vernon gives that part of the theory of evolution less responsibility than Darwin did, and thus he is led at p. 392, when referring to Wallace's criticisms of Henslow's theory, to consider that Wallace, "by excluding other agencies, is inclined somewhat to exaggerate the importance of natural selection." He seems to us to obscure the meaning of the terms definite and indefinite variation when he endeavours to show at the beginning of Chapter XII that there is no fundamental difference between them. After giving Darwin's definition of definite variations and discussing its meaning, he says:

He then proceeds to consider the matter from the mathematical standpoint in connexion with the law of error, and, after leading the reader through something of a maze, he comes back to the simple meaning of "definite" variation as

Mr. Dendy in his *Text-book of Zoology* presents us with a

the substance of the plastids is indispensable to the elementary life which it manifests" (p. 150). Thus the author believes that the living cell consists of molecules composed each of a male demimolecule and a female demimolecule. The reproductive cells by some means get rid of the demimolecules of the opposite sex, and are therefore purely male, purely female. The centrosome is the male element in the cell, and the astral figure produced on the entrance of the male pronucleus into the ovum is due to the female elements being drawn towards the male. The chromosomes are mechanically divided in karyokinesis, they "represent a condition of equilibrium, and not a collection of special substances." Thus, from the author's standpoint, Weismann's theory of qualitative division is untenable. The theory of heredity as put forward is very simple. Heredity is simply the nature of the cell. Form is merely the outcome of environment acting during growth. "The active assimilating substances take at each instant during growth a form which is their equilibrium form at that particular moment, but at the same time they secrete a rigid skeleton which definitely fixes that form, so that in an adult animal the form is not in reality the equilibrium form of an active substance, but a skeletal form on which the human substance is moulded." We looked for some interesting statements in the chapter upon "la détermination du sexe somatique," but were disappointed. Altogether the book strikes us as very superficial, and, as far as facts of biology are concerned, could have been written by any student well up in modern textbooks. The author's interpretations of phenomena are certainly ingenious, but at times somewhat overpowering. All through the book there are very few references to work by other authors, and there is no bibliography.

Although Mr. Mudge and Mr. Masters, the joint authors of *A Class-book of Botany*, claim that it is based upon the "type" principle, and although chapters are headed by the names of types, yet some of these chapters deal with a great deal more than the type concerned, and, we think, with a great deal too much. A student who knows little or no botany will be apt to be confused by such a chapter as that upon the sunflower and bean-plant. The book is divided into four parts, the first dealing with the "types," the second with the flower and the classification of angiosperms, the third part is physiological, and the fourth is a glossary. The number of floral diagrams in Part II will be a useful aid to the student. The arrangement of the book is not one by which we think the student will profit. The morphology would have been better dealt with under such headings as Shoot, Leaf, Root, etc.; and after the student had been given a grounding in the subject the system of types might have been applied to better advantage.

St. Kilda and its Birds is a reprint from the *Transactions* of the Liverpool Biological Society, and is an interesting account, in the form of a lecture, of an expedition which Dr. Wigglesworth made to St. Kilda in the summer of 1902. The author, who is a member of the British Ornithologists' Union, is well fitted to give an account of the existing bird life of the isolated island group of which St. Kilda alone can boast any human inhabitants. From his own observation and the stories of the islanders he has collected a number of facts as to the habits of the different breeds which make the island their headquarters of a kind which is not to be found in more formal treatises on the same subject. Besides his account of the island from the ornithological point of view Dr. Wigglesworth gives some information on the habits, traditions, and folklore of the present population and of certain modifications which have been observed in the general fauna of the locality. The little book makes a visit to the island seem somewhat attractive, and it would form an excellent handbook to any one who deemed to follow the author's example of devoting part of a summer to it. He draws attention to the threatened extinction of certain breeds of birds owing to the number of egg-trading excursionists who have obtained a footing of late years, a matter which, in regard to the St. Kilda wren, has recently received comment in the general press.

Donations. Mr. Joseph Storer Ley, Chairman of the Bristol General Hospital, has made a Christmas gift of £1,000 to that hospital.

NOTES ON BOOKS.

FIRST AID.

DR. R. J. COLLIE, medical superintendent of the hygiene, ambulance, and home nursing classes of the School Board for London, and Mr. C. F. Wightman, F.R.C.S., late examiner and lecturer on ambulance to the School Board for London, have published a small book, entitled *First Aid in Accidents*. The volume has evidently been prepared for the large mass of people who, without the interest or ability to study the subject deeply, wish to obtain some practical knowledge which may be useful in an emergency. The necessary anatomical details are very shortly and simply explained, and instead of being collected in a preliminary chapter are distributed through the book. The arrangement of the matter in each chapter allows of the essentials being readily and clearly seen, and there is no unnecessary expenditure of words. At the end of each chapter are a few questions bearing upon the subject discussed in that chapter; these questions are good and practical, and the short answers given show at once the essential points raised in the question. Most of the illustrations seem to have been specially prepared for this book. Photography has been utilized to show the various bandages in position, and to illustrate the actual compression of arteries or the performance of artificial respiration. Three coloured plates, from diagrams prepared by Dr. Collie, showing the skeleton, the muscles and organs, and the scheme of circulation are excellent and effective. A curious mistake in the last of these makes the word "ventricle" refer to the whole right side of the heart, whilst the whole left side is named "auricle." There is another error in the plate showing the bones of the spinal column; in the text we are correctly informed that the spine comprises twenty-four separate small bones and *one* large bone (the sacrum), whilst in the plate this one bone is referred to as "*five* sacrum." The idea that the adult sacrum consists of five separate bones seems to belong specially to writers on first aid. We are not quite convinced as to the wisdom of the advice given in reference to compound fractures attended with bleeding—namely, to put the finger in the wound to press upon the bleeding point. This might be well if the cleanliness of the finger were assured, but there is a distinct possibility that in case of accident this desirable condition might be overlooked. The small price of the book should ensure a ready sale amongst the people for whom it is primarily intended, and it is so suitable for its purpose that we hope it may attain a wide circulation.

We have also received *Schemes of Instruction in First Aid, Home Nursing, and Hygiene*, prepared for the Evening Continuation Schools of the School Board for London by Dr. COLLIE. This pamphlet contains a syllabus for lessons to be delivered to classes in the subjects named; it is very good. It may be noted that there is nothing in these publications to shock the most fastidious; and, in regard to first aid, the primal instruction under the head of "treatment" in nearly all the accidents mentioned is "send for the doctor."

HANS SACHS, an assistant of Professor Ehrlich's in Frankfurt, has reprinted his article on investigations on *Haemolysis*[3] from Lubarsch-Ostertag's *Ergebnissen*. He discusses the bearing of haemolysis on the immunity doctrines of to-day, and deals briefly from time to time with its applications to pathology and serum-therapeutics. The booklet is naturally written in defence of Ehrlich's theories, which Sachs gives tritely and lucidly. On the other hand, those who are inclined to adopt the Buchner-Bordet teaching will probably be inclined to regard a great deal of it as dogmatic. However, the arguments used by Ehrlich and his co-workers are exceedingly strong, and in view of this fact one may excuse Sachs for somewhat belittling the objections raised by the opponents of the "plural complement" theory. Part of the work is written in the same somewhat involved manner which characterizes the works of Ehrlich on the same subject; but since it deals fully with the later developments of Ehrlich's haemolysin work, and especially with the complex subject of "partial complements," one must be prepared to study the work with care. Sachs's own contributions to the study of haemolysis are not thrust too prominently on the reader, but find a suitable place in the record of the processes of artificial and natural haemolysis.

[illegible] London: George Gill and Sons, Ltd. [illegible]
[illegible] London: Alexander and Shepheard. [illegible]
[illegible] Reprint from Lubarsch-Ostertag's *Ergebnissen*. Seventh Year. Wiesbaden: J. F. Bergmann. [illegible] (Net, 7s. 6d.)

The *Chemists' and Druggists' Diary* is supplied gratis to the subscribers to the *Chemist and Druggist*, and the volume for 1904 quite maintains the high level of usefulness which previous numbers have displayed. It is, perhaps, inevitable that the proportion of advertisements should so far exceed that of other matter as to make the volume somewhat unwieldy, but possibly on no other terms could it be supplied free of cost. We are glad to see that although the publishers have retained the alphabetical list of practitioners who hold appointments in metropolitan hospitals, the classification under specialities to which exception was taken by the Ethical Committee of the British Medical Association has been omitted. We have nothing but praise for the admirable way in which information of importance to the trade is collected and condensed in this *Diary*. A prominent feature is a list of some hundreds of formulae, apparently supplied by members of the trade, which are well worth the attention of young medical practitioners, as they will find there many hints of great use in private practice which are not learnt at a hospital.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Lamp for Rhino-Laryngoscopy.—Dr. WILFRID GILLIES (Assistant-Surgeon to the Ear and Throat Hospital, Birmingham), writes: Messrs. Walker Brothers, Electricians, Birmingham, have fitted up a lamp for me giving a light of about 100-candle power. It consists of one ampère Nernst electric lamp adapted to fit the ordinary Mackenzie lens holder. Behind the lens a circle of finely ground glass is fixed to diffuse the light. It has been in use for three months. The light is steady, white, and of an intensity resembling limelight, and does not require attention as the limelight does. Discoloration of the glass bulb, with decrease in the light as occurs in the ordinary electric lamp, is obviated, as the Nernst lamp burns in air. The interior of the trachea is well illuminated, and examination of the posterior part of the nasal passages is facilitated. As the lamp is only used for short periods, heat from it does not become unpleasant, and no cooling arrangement is required. The only disadvantage, in my opinion, is a relative slowness in lighting up, as the filament requires to attain a certain heat before it becomes incandescent. The half-ampère Nernst lamp can be used in similar fashion, and gives a better light than the ordinary 32 c.p. electric lamp. A practical point to note in the use of such an illuminant is that the lamp be turned away from the operator before switching it on, and then brought back after adjusting the head reflector until the light is concentrated on it, as shown by the illumination of the area under observation. In this way the observer may entirely guard his eyes from the direct rays, and he can also avoid looking at the light by always turning it aside after making an examination of a patient.

[illegible] Published [illegible] Price to non-subscribers [illegible]

MIDWIFERY TRAINING.—The Association for the Training and Supply of Midwives, which has its offices in Hanover Chambers, Buckingham Street, Strand, is a society formed to facilitate the carrying out of the Midwives Act, partly by acting as a general bureau of information to the public as to the regulations of the Act, and the requirements and means of training already in existence, partly by carrying on some cheap or possibly entirely free training for midwives on its own account, and partly, and more particularly, by developing itself into a general council or centre for the promotion of midwifery training, and assisting in the raising of funds for that purpose. Many of those who formed the Association were members of the now extinct Association for Promoting the Registration of Midwives.

AERATED PRESERVED MILK.

We have recently had the opportunity of observing a method of preserving milk by aeration and pasteurization which is being carried out on a small scale by the Aerated Cream and Dairy Company (52, Bedford Row, W.C.). As the results on inspection appeared to be good, and as the process presents several points of scientific and practical interest, it has seemed desirable to subject the products to careful examination by experts.

THE PROCESS.

The milk is first heated to [illegible] F., and then passed through a machine which is termed the "fixer." In this the milk is forced in fine jets against an agate piston, which is controlled by a strong spring; the force has to be sufficiently great to overcome the resistance of the piston in order that the milk may pass through the rest of the apparatus; the net result of this is to break up the fat globules into extremely small particles. It is then passed over coolers which bring the temperature down to about [illegible] F., next mixed with gas which consists of oxygen and carbon dioxide in the proportion of [illegible], at a pressure of [illegible] lb. to the square inch, and then corked with crown corks. The bottles in which the milk is received have previously been thoroughly cleaned and sterilized. The corked bottles are then heated to 150° F. for thirty minutes, then cooled, and finally subjected to a second heating to the same temperature for another thirty minutes.

The bottles used are of various sizes, from half-pints to quarts, and a number of these were marked and subsequently sent to a physiological laboratory. On November 2nd, 1903, we tasted some of the milk which it was stated had been bottled in July, [illegible], and it was still perfectly sweet.

Samples of cream and butter made at the same time were also submitted. In the making of the cream it is first separated in the usual way and then subjected to the same process as that just described for the milk. The samples submitted were [illegible] thick specimens of cream, and both it and the butter made from it were perfectly sweet and good.

No antiseptic or preservative is added at any part of the process, and this is a point of considerable importance. The [illegible] of the antiseptics and preservatives commonly added to milk cannot be doubted, and if some process can be discovered by which milk can be preserved without such additions, the boon to the public will be immense.

PHYSIOLOGICAL EXAMINATION.

[illegible]

[illegible] November [illegible] and various bottles have been opened at intervals since that time until the date of this report (December [illegible], 1903).

[illegible] uncorking them the [illegible] The larger bottles [illegible]

[illegible]

[illegible] curdled at the end of a fortnight [illegible] the equal to ten days. It has been proved by the researches of Professor [illegible] that high pressure of oxygen has an inhibitory action upon the higher animals. The gas may also be inimical to the activity of micro-organisms.

The action of the "fixer" also appears to be important in crushing the life out of any bacteria or micro-organisms that might have been originally present. Macfadyen and Rowland, of the Lister Institute of Preventive Medicine, have shown how bacteria can be pulverized by mechanical means, and though the force used in the preparation of this milk is not so great as that employed by those investigators, yet as the force employed is sufficient to pulverize the fat globules, it is probably sufficient also to act harmfully on micro-organisms.

The most remarkable fact in connexion with the milk seems to be the following: That after the bottle has been opened and exposed to the air the milk still remains sweet for several days; always in our experience for four days, and sometimes for as long as seven or even eight days; the temperature of the laboratory where the milk was kept was fairly cool, but not cold.

Taste.

The milk tastes perfectly sweet, and there is no taste of burnt or boiled milk, which renders pasteurized milk so unpleasant to many people. In ordinary pasteurization the temperature is raised to 180° F.; in the present process the temperature is not allowed to rise above 150° F. This no doubt accounts for the difference.

The taste, however, is not absolutely the same as that of perfectly fresh milk, and the difference is mainly in the after-taste. At first, when drinking the milk, it appears indistinguishable from fresh milk, but afterwards the milk clings about the mouth, and the after-taste appears to be mainly due to this circumstance. It is slight, but quite noticeable, and can be detected even when the milk is mixed with tea or coffee. There is also a suspicion of a taste like that produced by the presence of carbon-dioxide in ordinary aërated beverages. The clinging to the mouth just mentioned is due to the broken up state of the milk globules. One sees the same thing when the milk is poured out of a glass; it does not pour clean, and much remains adherent to the glass for a time.

Condition of the Fat.

The extraordinarily fine state of subdivision of the fat produced by the machine called the "fixer" becomes apparent on microscopic examination. Very few of the ordinary fat globules are seen, but the whole appearance is that of almost immeasurably tiny granules. It seems doubtful whether these are all composed of fat, and it is probable that some of them are proteid in nature. The researches of [illegible] have shown that mechanical agitation precipitates various proteids, and it is therefore probable that the "fixer" may throw the proteid matter, at any rate in part, out of complete solution. It may be that the force employed may also be sufficient to incorporate the fat and the proteid so intimately that the rising of the cream subsequently does not take place. This view is supported by the following consideration: If ordinary milk is treated with a little potash and then extracted with ether, the fat readily passes into the ether, and may be thus easily estimated. The solid residue then loses its milky appearance completely and is of a [illegible] consistency. If this procedure is followed with the aerated milk, much more prolonged contact with ether is necessary to extract the fat, and the residue is even then not entirely freed from fat [illegible] apparatus is employed [illegible] still contains a considerable quantity of fat incorporated with it. Determinations of the total fat by a [illegible] apparatus give a [illegible] of fat [illegible] higher than that of the [illegible] of pure milk employed.

Whatever be the explanation, the fact remains that the cream [illegible] and this in itself is one of the strongest [illegible] of this method of milk preservation. The [illegible] of the cream [illegible] in the neck of the bottle [illegible] in ordinary [illegible] milk and the [illegible] difficulty of diffusing it [illegible] through the milk [illegible] the extensive use of pasteurized milk.

[illegible] the [illegible] a [illegible] centrifugal machine, which caused a complete separation of the cream in a few minutes in control specimens of milk, no separation at all took place in the [illegible] the [illegible] few milk globules which had escaped rupture and subdivision after passing through

the "fixer" were seen, but the amount was negligible, and needed search to discover it at all.

Condition of the Sugar and Inorganic Constituents of the Milk.

There was no difference either in quantity or quality between the milk sugar and inorganic constituents of the aerated milk and those of specimens of fresh milk examined side by side with it.

Condition of the Proteids.

These have specially attracted attention, as upon them mainly depends the nutritive value of the milk.

The proteid or albuminous constituents of milk are two in number. (1) Caseinogen, the principal proteid, the most characteristic properties of which are its precipitability by acid, by saturation with certain neutral salts, and its convertibility into casein by the rennet ferment. (2) Lactalbumin, which is present in smaller quantities, and which remains in solution under the circumstances just mentioned which precipitate or change the caseinogen.

Both these proteids are present in the aerated milk in normal amount and show all their characteristic properties. The possibility has already been touched in a previous section of this report that the proteid matter may not be quite fully in solution as in ordinary milk. Whether this is the case or not, there is no detectable difference chemically between the proteids present and those in ordinary fresh milk. The behaviour of rennet is the most delicate of all tests for determining whether or not any change has occurred in the physical condition or chemical state of the more important of the two milk proteids. The curdling which occurs when rennet is added to the aërated milk differed in no particular from that ordinarily observed, except that it took place more rapidly than in some of the control specimens of fresh milk with which it was compared.

No experiments of an exhaustive nature on the digestibility of the milk *in vitro* have been made. A number of artificial digestion experiments have been performed and the results controlled with specimens of fresh milk. For comparative purposes such results are useful.

A measured quantity of milk was [illegible] and the amount of [illegible] determined. An equal quantity was then added to the solution of artificial gastric juice, kept at the body temperature. At the end of a given time, two hours, the latter was [illegible] and the [illegible] was added to the filtrate, and the proteids or [illegible] peptones and proteoses so precipitated were collected on a weighed filter, dried, and again weighed in the usual way. Specimens of aerated and fresh milk were in this way [illegible] and [illegible] two specimens of each were taken, [illegible] the figures given below represent the average of the results obtained.

In a second series of experiments [illegible] was employed instead of gastric juice. In this case the proteids [illegible] separated by boiling with an equal volume of saturated ammonium sulphate solution, the mixture was then boiled, the [illegible] small bulk, the small amount of remaining acid neutralized by soda, and the products of digestion precipitated by alcohol as before.

The following table gives the results obtained:

Percentage of	Aerated Milk	Fresh Milk.	Fresh Milk.
[illegible]			
[illegible]			
[illegible]			
[illegible]			

It will thus be seen that the preparation of pepsin used was the more powerful of the two, that the digestibility of the aerated milk was a little better than that of the specimens of fresh milk, and a little worse than that of the other specimens of fresh milk employed. The differences, however, are so slight that they come within ordinary experimental error. The main result is that the digestibility of the aërated milk is practically the same as that of fresh milk.

Aërated milk is, like fresh milk, amphoteric to litmus paper; and the specific gravity of the sample examined was [illegible].

Conclusions.

The main points as attained may be summarized in the following way:

1. In spite of the absence of preservatives, aërated milk prepared in the way described will keep perfectly sweet for at least six weeks.

2. When opened, it will remain sweet for several days.

3. It does not taste of boiled or burnt milk, as the temperature to which it is raised is never allowed to go above 150° F.

4. Owing to the breaking up the fat globules by the "fixer," there is no rising of the cream, even when centrifugal force is employed.

5. Its constituents are the same as those of ordinary milk.

6. The fine state of mechanical subdivision of the fat is the main physical difference between this milk and other milk.

7. The taste is somewhat different from that of fresh milk, but the difference is slight and difficult to define.

8. The digestibility of the milk, as tested by the action of gastric and pancreatic juices, is the same as that of ordinary milk.

9. The power of the milk to keep sweet so long is in part due to care in bottling in sterilized bottles and proper corking, and in part to the processes adopted. These processes are mainly three: (*a*) disintegration of the fat by the "fixer"; (*b*) aeration; (*c*) subsequent heating to 150° F.

All these processes appear to be essential to keep the milk sweet and to prevent the cream rising. These processes in combination appear to have the power of either excluding or killing or hindering the activity of the micro-organisms to which the souring of milk is due under ordinary circumstances.

REPORT ON THE BACTERIOSCOPIC ANALYSIS OF, AND ON EXPERIMENTS WITH SAMPLES OF, AERATED PRESERVED MILK.

The milk has been examined for the manufacturers by Dr. E. Klein, F.R.S., who has drawn up the following report:

First Series.—Four bottles, hermetically closed, were delivered at my laboratory on March 25th, 1903. They were labelled respectively:

1. Pure cream.
2. Whole milk treated.
3. Soda milch.
4. Soda milch with flavouring.

All four bottles were placed in the incubator and kept there at 37° C. On March 30th the contents of the bottle of "pure cream" contained a curdled material, whey at the lower layer with plenty of gas. Opening and examining the contents, it was found to emit a strong smell of butyric acid, and the fluid whey was found to contain numerous bacilli, being in fact those of bacillus butyricus. This particular sample of cream by chance contained the highly-resisting spores of the bacillus butyricus, which will survive the temperature of boiling water for several minutes, and for this reason it underwent the above change. But the ordinary non-sporing microbes—for instance, the bacteria lactis, which generally are the cause of the fermentation of cream, cannot survive the treatment. The other three bottles remained unaltered. Bottle No. 4 (soda-milch with flavouring) has been kept uncorked in the laboratory until June, that is for two months: at the end of this time it was quite unaltered. On April 1st both the whole milk and the soda-milch were carefully opened and plugged with sterile cotton-wool. During the opening a large amount of gas escaped, showing that the interior of the bottle had been kept under considerable pressure of the gas with which it had been originally charged, about 2 atmospheres. The charging consists in first exhausting the air and then charging with oxygen mixed with a small proportion of carbon dioxide. The two bottles, whole milk and soda-milch, plugged with cotton-wool, were [illegible] placed in the incubator at 37° C. Two days later, April 3rd, both bottles showed their contents curdled in the bottom, with turbid whey at the top. [illegible] development of sporing motile bacilli. These were [illegible] contents as spores, and owing to the great pressure within the spores could not germinate to produce the host of bacilli which causes the subsequent curdling of the milk. So long then, as the pressure within remains unaltered, the spores would not germinate, and so long as the contents, after opening, are not exposed to [illegible] the milk need be [illegible] by the above [illegible] did not set in till after [illegible] a temperature of 85° F. The [illegible] spores [illegible] harmless.

Second Series.—On April 8th three bottles [illegible] were charged with fresh milk of [illegible] for the treatment by the process. To [illegible] was added a turbid emulsion of bacillus diphtheriae, the amount of culture per litre each bottle [illegible] to half an agar-culture. The [illegible] had been [illegible] at 37° C. for forty-eight hours. The three bottles of milk were treated in the following manner:

Bottle (*a*) was plugged and kept in the laboratory as control.
Bottle (*b*) was charged with the gas according to the process and then plugged.
Bottle (*c*) was subjected to the whole process, that is, aeration and heating.

The next day the contents of the bottles were subjected to the culture test on agar and on serum, with the following result:

Control bottle (*a*) yielded numerous colonies of the bacillus diphtheriæ.
Bottle (*b*) numerous bacillus diphtheriæ, besides other microbes.
Bottle (*c*) no bacillus diphtheriæ, and free growth of any microbe.

From this we see that in the killing of the diphtheriæ bacillus the heating forms an essential part of the process.

Third Series.—On May 6th normal milk was infected with the tuberculous organs of a guinea-pig, the organs being the spleen and inguinal glands. The caseous matter of both organs contained abundance of tubercle bacilli. The milk was fresh milk brought to the laboratory. One bottle (*a*) was kept as control. Bottle (*b*) was subjected to the treatment, that is, gas and heating. With the sediment of the milk of bottle (*a*) a control guinea-pig (No. 1) was injected subcutaneously in the groin. With the sediment of the milk of bottle (*b*) two other guinea-pigs (Nos. 2 and 3) were injected subcutaneously in the groin. The control guinea-pig (No. 1) developed typical tubercle in the inguinal glands of the inoculated side. The guinea-pig (No. 1) was killed on the nineteenth day after injection. The necropsy showed swollen inguinal glands containing necrotic foci, with numerous tubercle bacilli in them; the spleen was slightly enlarged, and contained a few tubercles, the liver also showed a few tubercles. There can be no doubt that the tuberculous material which had been placed in the milk was of an active and virulent nature, since already in eighteen days distinct tuberculosis was produced in the control guinea-pig (No. 1).

The two guinea-pigs (Nos. 2 and 3), that is, those that were injected with the tuberculous milk previously treated by the process, remained without any change. After twenty-eight days there was no sign of enlargement of the inguinal glands, and the animals appeared perfectly normal. On necropsy the viscera were found quite unaffected. From this it appears that the treatment of the milk (aeration and heating) was successful in killing the tubercle bacilli with which the milk had been previously charged.

FURTHER BACTERIOLOGICAL EXAMINATION.

Samples of the milk bottled on November 2nd, 1903, as explained above, under the head Physiological Examination, have been subjected to bacteriological examination for us. The following is the report which we have received from the bacteriological expert:

"The bottles had been kept for a week in a dark cupboard without being unpacked. Two of them were labelled in pencil, 'No. 2' and 'No. 3,' which I was informed meant that the milk had not been saturated with oxygen and carbon dioxide. These two bottles had undergone decomposition, and had separated into a clear whey and a ragged curd riddled with gas-holes. They smelt sweet, and had evidently undergone the lactic acid fermentation. The whey teemed with motile [illegible]. Cultivations made and anaerobic yielded several different species of bacilli, all spore formers, some aerobic and some anaerobic. The most important was probably the bacillus B. butyricus Botkin. I did not attempt to identify the species other than they were unlike any of the known species commonly met with.

"The remaining bottles had, I was informed, been saturated with oxygen and carbon dioxide. These bottles had undergone no apparent change, but were sweet and good. They were not, however, sterile, as many motile bacteria could easily be found in the milk, and they grew readily on culture. When [illegible] the bottles had been opened they rapidly underwent the changes described above as having taken place in the bottles not exposed to the action of the gas. The remaining bottles [illegible] that the milks are [illegible] sterilized, that is, completely rendered free from living germs, but that they have been subjected to such a degree of the conditions as unsuitable for the cultivation with oxygen and CO_2 [illegible] to prevent the development of those germs which are left in the milk.

[illegible]

The [illegible] with the same precautions [illegible] of [illegible] bacilli and [illegible]. We are informed that since the samples examined as stated above were taken certain improvements have been introduced in the method of bottling. An examination of the gases showed that in certain bottles there must have been some defect either in the gases used or in the apparatus, as in some bottles the pressure was low and others contained a large proportion of nitrogen in place of oxygen. The evidence from the gas examinations tended to show that the presence of a large proportion of oxygen is essential. We are also informed that experiments for charging churns have been successful, so that it would appear that the milk thus treated can be dealt with in bulk.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

(*Continued from p. 57.*)

VII.—PHYSICAL CULTURE OF CHILDREN OF THE LABOURING CLASSES.

Games, Drill, Gymnastics, etc.

WE now come to the question of physical culture which has been exercising the minds of those concerned about the national physique as bearing on the question of recruits for the army and navy. The class from which these are drawn is chiefly that of labourers and artizans educated at public elementary schools.

Boys.

We will describe the system carried out in boys' schools in London under the general superintendence of Mr. Thomas Chesterton, organizing teacher of physical exercises for the London School Board. It was only in 1889, nineteen years after the establishment of the Board, that physical exercises were made a compulsory subject for boys and girls. All teachers in the service of the Board are expected to qualify in order that they may drill their own classes. This is considered desirable, for although their teaching may be inferior to that of experts, the personal influence of class teachers over their pupils and the knowledge they have of their physical strength are believed to compensate for the extra skill of the professional.

By way of introducing physical training into boys' schools, instructional classes for teachers were formed, and the Swedish and English systems were taught: but later, the English system, arranged by Mr. Chesterton, became so much more popular than the Swedish that the latter was allowed to drop. An assistant trained at one of the classes was appointed to assist Mr. Chesterton by superintending the instruction in the schools of North London.

While Mr. Chesterton does not claim to have originated this entire system, he may be credited with having himself classified and adapted a series of useful exercises after a careful and practical test of the different methods in use in other countries of Europe, a task in which he tells us he was guided by twenty years' practical experience in teaching physical culture.

The classification of the exercises is based on a study of anatomy and physiology, and is designed to encourage general development. Many foreign systems aim only at "setting-up" drill for military purposes, and this has invariably been found a failure when tried in this country. Since there is more often than not no space for games in London, physical exercises are of the first necessity, and in order that they may not become irksome they should be varied as much as possible. For this reason music is sometimes used, and it is quite remarkable how many of the children, often quite young, can play the piano, keeping excellent time and changing tunes to suit the exercises. Often the children of the poorer classes play quite as well as those of the rich, their parents having paid for a piano on the hire system. When we went from school to school inspecting the drill, these youngsters came forward to play with a graciousness and want of false shame which would have done credit to many a well-born child. We were told that in every class there were players, though generally the drill is taught without music, especially at first, until the pupils are quite sure of the exercises. The system aims at general or all-round development, and the exercises are adapted to the requirements of the average pupil. In a vast concourse of over half a million it is obvious that it would be impossible to give [illegible] movements for special cases, that is the reason why class teachers are selected to drill each their own class, as they are presumed to know the weakly ones, and to put them in the background where they follow as best they can. This is [illegible] especially in the weakly

ones are more often than not those who need the exercises most, and probably special ones. Perhaps, under the new educational authorities it may be easier to look into this matter and give more attention to the most physically unfit.

It is satisfactory to know that in the ordinary teaching nothing is introduced for show or display, but merely for its effect upon the principal muscles and articulations of the body. The exercises are progressive, according to the standard in which the child happens to be, and none are so complicated as not to be readily learnt. They are arranged as follows:

Commencing positions of the upper and lower limbs.
Head movements.
Arms raising and swinging.
Arms bending and stretching.
Trunk movements.
Trunk and arm movements.
Leg and hip movements.
Leg, hip, and arm movements.
Side lunging.
Direct lunging.
Side lunging with arm movements.
Direct lunging with arm movements.
Balance movements.
Shoulder movements.
Shoulder movements with direct lunging.
Exercises when on the march.
Marching in various formations and figure marching.

It is believed that these movements gradually bring into play every muscle and articulation in the body, and that the children, by learning to do the simple movements correctly, are laying the foundation for the performance of the more advanced. A teacher conversant with such a system can teach without constant reference to a textbook. Further, as the exercises are grouped in progressive order, the necessity for tables of exercises is obviated, the teachers being able to select movements suitable for their classes according to the circumstances under which the instruction is given, namely, time of day, weather, and whether indoors in a hall or corridor, in the open air, or under a shed.

Many of the Board schools have a hall in which drilling can take place, and where such a hall does not exist, and where class-rooms only are available for the purpose, the Board is gradually building special halls. These new rooms are spacious, with plenty of windows for ventilation, but we were glad to note that some headmasters preferred the drill to take place in the school yard in dry weather or under a shed, usually to be found in the yard, provided the weather was suitable. This excellent plan cannot be too highly praised and encouraged.

The exercises may be taught in several different ways: as free movements by word of command, they can be performed by the elder children with dumb-bells if desired, or the whole may be performed, with or without dumb-bells, to music, any tune in simple or common time being all that is necessary. It is curious to note that, when two or more classes occupy the same room, one class may perform the exercises as silent drill without in any way interrupting the work of the others.

Boys and girls dressed in ordinary clothes can perform the movements with equal readiness, though we cannot help thinking it a pity that there should not be a distinctive dress for the girls, and in particular special shoes. In one or two of the higher grade Board schools, such as Montem Street, Finsbury Park, to which we were taken by Miss Kingston, one of the instructresses for girls' departments, the girls wore dark blue frocks with smart red collars and sashes, and drilling shoes, and the difference in their appearance (of course they were better in other ways too) was quite marvellous. they looked so smart and business-like. Surely if one Board school can accomplish this miracle, others, perhaps all, might do the same. A little bit of coarse blue serge and another bit of red for facings would cost next to nothing, and the girls could make the gowns at their sewing classes. The School Board ought where necessary to provide flat shoes if it wants the drill to be successful. How can children in boots down at the heel and often sizes too large for them succeed in doing foot-and-leg movements perfectly?

The children are taught to assemble, to form classes, and to move from one point to another quietly and in an orderly manner by a sort of drill adapted from that in the Infantry Drill Book. This is useful as instilling into boys the elements of military drill; later when they leave school it encourages them to join boys' brigades, and eventually the army. For the sake of discipline, in schools where there is sufficient space in the playground, the children are made to assemble, marching from the class-room into the playground in a methodical manner. This is in a great measure to keep up discipline in case of a panic caused by fire or any other accident. Its usefulness has been demonstrated lately when, during fires, the children were marched out of the school-rooms in an orderly manner, no panic or accident occurring. It also assists obedience and orderliness, and makes the children punctual. This is another reason why it is thought desirable that each teacher should drill his or her own class. They are naturally supposed to maintain better discipline than a stranger could. Indeed the school discipline is striking, and a class seems to move like one person. Of course this must crush out individuality, but in a motley crew, where a large number of subjects have to be taught in an absurdly short space of time, nothing short of rigid discipline could accomplish a task so Herculean.

Instruction of Teachers.

Classes for male and female teachers are held after school hours; they last one hour and take place once a week for twenty-five weeks. At the classes for males all the exercises contained in the manual—a copy of which is supplied to each boy's school—are gone through. The essentials of physiology and hygiene, bearing on the theory of physical education, are included in the instruction given at the training classes, the instruction including muscular development; effects of exercises on heart, chest, lungs, and circulation; air and ventilation; food and clothing; skin and its functions; games and swimming; effects of respiratory movements; spinal curvature; injurious positions assumed during school life; and rules for conducting the lessons. At the termination of the course the teachers are called upon to undergo two distinct examinations, one in theory and the other in practice. The practical examination consists in each teacher performing exercises at the word of command from the instructor and in drilling a class of adults in presence of the examiners.

Until within the last few years the theoretical examination consisted in answering on paper a few questions connected with the physical education of school children. But now each teacher—male and female—in addition to the practical, must pass a theoretical examination, which involves a comprehensive knowledge of physiology and hygiene, far beyond what may be considered necessary, before he or she can obtain a certificate of competency to teach physical exercises in schools. A teacher possessing advanced certificates in physiology and hygiene may claim exemption from this examination, but the possession of both is indispensable in order to obtain this concession. When a teacher has passed the theoretical as well as the practical examination, he or she is granted the certificate. A teacher, male or female, does not obtain an increase of salary in accordance with the scale unless in possession of the above certificate. A pass in either part of the examination is credited to the teacher, but the certificate is granted only on a pass in both parts being obtained. Still, successful or not, the teacher who has passed the practical examination, but not the theoretical, has to teach his or her class physical exercises, although the annual increase of salary (£5 in the case of men, and £3 in the case of women) is not allowed.

The examiners of the practical and of the theoretical subjects are different men. It does not seem absolutely necessary for teachers of physical exercises in Board schools to be obliged to obtain the advanced certificates in physiology and hygiene of the Science and Art Department, or to undergo an examination equivalent to that held by that Department before being considered worthy of a certificate to teach physical exercises, although their practical knowledge—which is by far the most important—may be of the highest order. It is therefore curious that a Board school teacher who is permitted to instruct a class in physical exercises, and is presumably thought fit to do so, perhaps for several years—for teachers who have failed are allowed to go in for the theoretical examination year after year—should be deprived of extra salary the while.

Teachers do not learn why they have failed in the theoretical examination, for their papers are not returned to them nor their mistakes pointed out. The examiner is one of the Board's inspectors, and consequently has access to the office in which the register is kept containing the names of candidates alongside the numbers which they are given during the examination. Though of course we are persuaded that no man in a position of trust would open such a register, it is regrettable that he should be placed in a position where a

rejected and disappointed candidate, being human, might insinuate that there had been some unfairness. It is regrettable also that the examiner should both receive a fee for each candidate every year they come up for examination and that he should advise his committee. Great discouragement is produced among teachers who have failed and yet have to go on teaching the subject. It is no wonder if they do their work in a half-hearted manner, lose interest in the physical training of their class, and that the children in the class suffer. The examination should be confined to the theory of physical culture in connexion with practice, and nothing further, while outsiders, preferably medical men, should be the examiners, and not an official whose duties lie in other channels. Let hygiene and physiology be taken by all means, but as separate subjects, and not to act as dampers to the zeal of the unlucky men and women who may have the gift of teaching exercises, but are unable to grapple with scientific subjects learnt at the expense of their leisure and recreation at the evening continuation classes, when they are far too tired to take in what they are required to learn. This applies to male and female teachers.

The matter appears to be worthy of early and careful investigation in the interests of the teachers, and consequently of the physical training of the children. If the physical training is to be successful when undertaken by the teacher, which is the only way in which it can be conducted in the schools, it must be popular. The theoretical examination as now held is useless and unnecessary, and must consequently react on the interest of the teacher in the subject.

Girls.

The girls, who are taught solely the Swedish system, might with advantage have brisker exercises into which they would throw more energy. In some classes, especially, it is noticeable that they seem slack and listless. This depends greatly on the teacher, and among so vast a concourse the slack as well as the energetic are bound to be found. The Board's instructors visit both boys' and girls' schools periodically, in order to see that the classes are properly taught, and to advise teachers to wake up those who are phlegmatic, or to assist those who have to fight against difficulties such as the want of halls in which to drill their classes.

The teaching of the girls is progressive, the exercises gradually increasing in difficulty from Standard I to Standard VII. It is needless to give in detail the course taught, as the Swedish system is so well known. As a matter of fact, however, it is hardly correct to call the system we employ the Swedish system, as a most important part of it is left out. There, all school children are measured and weighed and are medically examined with their clothes off at the beginning and end of each term. Records are kept which are of the greatest value in noting the benefit or injury done to the children from physical exercises. Besides this the weakly and physically unfit are weeded out of each class and placed into a group where special suitable exercises are given.

As a rule in the higher classes no apparatus is used, the whole of the exercises being free movements, twenty of the years to the girls have followed the example set by the boys and the secondary schools are now using both dumb-bells and clubs. Skipping is taught as being a good exercise for the development of the lungs, and during the summer swimming is encouraged. Each class under the Board has [illegible] only ill drills three times a week for twenty minutes. It is to be hoped that it may soon be found possible to give these [illegible] minutes every day, or even more. Seeing that the exercises are so short and as long as they are kept up [illegible] there is no fear of their being harmful to them, unless they are suffering from any pulmonary deficiency or disease which might [illegible] to be benefited by exercise.

Defective Children.

Dealing with [illegible] it is necessary difficult to [illegible] the normal and the defective. But when these [illegible] of all the special [illegible] possible to [illegible] with good [illegible] the most [illegible] in the school could attend, the work being regulated to suit their strength.

Swimming Baths.

The teaching of swimming cannot be too highly commended. Apart from its utility in case of [illegible] emergency, it is invaluable in strengthening the lungs, and especially when done in cold water, in developing the limbs. If judiciously taught it gives courage and confidence. At first girls were timid, but now it is extremely popular with both girls and boys, and many of the former have become splendid swimmers. We are glad that a great number of teachers encourage outdoor games among the children attending Board schools. No doubt most of the playgrounds are small, and the space for such games as cricket and football cramped. But they play somehow, and on Saturdays the boys may be seen on commons and in fields and parks enjoying sports and games.

Mr. Chesterton has written a capital book entitled *Organized Playground Games* (suitable for elementary and secondary schools), in the preface to which he points out that games, physical exercises, and drill are all three essential to the all round development of children, no single form being sufficient for an ideal training. The author says:

> Drill is indispensable in securing discipline and a ready response to orders . . . systematic physical exercise provides the best training for all part of the body and aid in attaining that "set up" which is so essential to giving to children a smart carriage . . . while from games a great amount of physical and mental benefit is derived.

He rightly contends that a boy's real character is manifest while he is at play, and by watching him his master can form a good estimate as to whether he is likely to develop into an energetic and self-reliant man. The moral benefit of games is beyond all doubt. A boy who plays fairly will probably be honourable and fair all his life long, and he will turn out more manly and self-reliant than the boy who has never joins in sports. Open playgrounds and parks should be secured as often as possible for children condemned otherwise to play in slums and alleys as best they can.

Now that tramways and trains run so frequently into the suburbs every effort should be made by benevolent societies to assist schools to take cricket and football teams to play in green fields or commons. Small school funds might even be raised for the purpose. The physique of the children would be considerably benefited by the exercise and change of air, which would be good also for the teachers accompanying them. In Germany games are taught in schools. Generally a large playing field is secured, and twice a week the classes assemble and are taught by their teachers a great variety of games. We do not say that they are to be held up as models of their kind, and we can imagine, for instance, one of our boys having the megrims from horror at German football, but the idea is good. Teachers are paid extra for teaching and taking part in the games, and therefore enter into the fun with a light heart. It is a Herculean task to provide ideal education for about 1,500 school departments containing over half a million pupils; but when the Board schools are handed over to the County Council we must hope that the separate districts will have it in their power to work each batch of schools as perfectly as possible, and that in time emulation will enable us to have an ideal educational system.

Medical Sickness and Accident Society. The usual monthly meeting of the Medical Sickness Annuity and Life Assurance Society was held at 429, Strand, W.C., on December 18th, 1903, Dr. de Havilland Hall in the chair. It was reported that during the eleven months ending in November the number of new entrants was larger than in the whole twelve months of the year 1902, although this year showed a considerable increase over both 1901 and 1900. The valuation of the Society's business is now in progress. During the quinquennium just ended the sickness experienced has been very nearly equal to the expectation, and therefore only a small margin of profit has been made in this way. But in consequence of the very economical manner in which the business has been conducted a larger sum has been saved in the management branch and thus, with the interest earnings in excess of the low rate assumed in the valuation, produces a considerable surplus. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Leprosy in Germany. According to official statistics the total number of cases of leprosy in Germany at the end of 1901 was 37. They were distributed as follows: Prussia, 23; Hamburg, 7; Bavaria, 2; Mecklenburg-Schwerin, 1; Alsace, 1; in all the cases the disease had been contracted abroad.

Malaria in Algeria. An antimalaria league has been formed in Algeria. Its object is to promote the adoption of modern prophylactic measures, and to use every available means of combating the scourge. The conduct of the campaign will be under the direction of Professors Marcan and Soulié.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 9TH, 1904.

SANATORIA IN THE PREVENTION OF CONSUMPTION.

THE question whether the sanatorium plan of combating consumption is generally applicable or universally satisfactory when it is applied is now being asked in many quarters. There can be no doubt that the good accomplished by the method goes a long way in accounting for the marvellous change that has taken place in public opinion during recent years as to the curability of phthisis. Laënnec, who is generally recognized as the father of diagnostic methods in regard to consumption, held that it was no more curable than cancer. Now, by the profession, it is looked upon as one of the most curable of chronic diseases, and by the laity as very far indeed from hopeless. For all that there is growing up at the present time a body of expert opinion to the effect that, under certain conditions—in those of dire poverty, to wit—Laënnec's dictum was not very far wrong.

It is in Germany that the sanatorium system has been most fully developed, and it is to Germany that the inquirer naturally turns for an exposition of its advantages. Its limitations, on the other hand, are probably more freely discussed in France than elsewhere, but there are not wanting, even in Germany, vigorous exponents of a similar *thätige Skepsis*.

Among the more favourable statistics as to the curability of pulmonary tuberculosis in sanatoria, those of Penzoldt are perhaps the best known. These give a proportion of 70 per cent. of so-called economic cures—that is, the attainment of a degree of recovery sufficient to allow of return to work, either in a former position or in one less exacting. But by many this percentage is considered to be distinctly too high, unless, as it is suggested, cases of simple bronchitis are included in it; and they maintain that, in order to arrive at a truthful estimate of the position, the significance of the term "economic cure" must be analysed from the point of view of permanency of the improvement. Among the less favourable statistics are those of Dettweiler, derived from a sanatorium for the well-to-do, which show a proportion of actual cures, after an interval of three to nine years, of only 10 per cent. It is probable, however, that Dettweiler's statistics are as much too gloomy as Penzoldt's are too bright. For not only is there the well-known fallacy to take into account of the more severe of the early cases being selected for sanatorium treatment, and the fact that the urgency of the need for removing a patient from his unfavourable surroundings into a sanatorium is precisely equivalent to the disadvantage of sending him back after treatment to his former home life; but there is the great weight, on the brighter side, of the acknowledged frequency with which healed tubercle is found in the lungs of persons who die from non-tuberculous diseases.

A more accurate average statement of the position, as it would seem, was that outlined by Dr. Katz at a meeting of the Berlin Medical Society in January last when he asked if sanatoria could be advanced as the best possible means of combating tuberculosis seeing that after three or four years 56 per cent. of the so-called cures were either dead or incapable of work. The following fairly exact statistics may be taken as roughly indicating the after-progress of sanatorium cases. To an inquiry made by a German assurance society as to the state of consumptives who had been treated in sanatoria between 1893 and 1897, 1,336 replies were received which were classified as follows: 257 or 19.2 per cent. were dead, 120 or 9 per cent. were unable to work, and 959 were able to work, partially or completely. In these 959 economic cures capacity for work lasted from 8 months to 1 year in 36 or 3.7 per cent., from 1 to 2 years in 376 or 39.2 per cent., from 2 to 3 years in 345 or 35.9 per cent., from 3 to 4 years in 185 or 19.5 per cent., and for more than 4 years in 15 or 1.5 per cent. Correspondingly, of 2,248 patients treated at Goerbersdorf during 1895-6 one quarter continued to work after an interval of four years and one-half were dead. Still more recent statistics are those of Engelmann, who found that of 424 early cases subjected to sanatorium treatment 94.7 per cent. were able to work at the end of 6 months, 80.3 per cent. at the end of 2 years, 66.7 per cent. at the end of 3 years and 44 per cent. at the end of 4 years. In another series of economic cures he found, however, that after an interval of 4 years only 21 per cent. were still able to work, and what is remarkable 18 per cent. of those discharged as unfit to work were still following some employment at the end of that time.

What, then, are the lessons which the *quasi*-reactionary school read in such an analysis—and to prevent misconception it should be said that no bad significance should be attached to the term "reactionary," because their teaching may be leading to what on every count is most desirable, a just appreciation of conditions and a just estimate of possibilities? One lesson is that economic cure is a commercial expression which must not be held to cover the scientific idea of recovery. The natural process of recovery from definite phthisis probably requires three years rather than the regulation three months. For the well-to-do who can afford protracted treatment on sanatorium lines the method is an immense gain: while for the favoured few among the poor who can obtain the full treatment for a sufficient time the method is equally of priceless value. For the great majority, however, a three months' course of sanatorium treatment, if it be immediately followed by a return to ordinary life, cannot be relied on to afford lasting benefit; indeed the educational value of such a course is its chief value, and this might sufficiently well be bestowed by one month's residence, or even by less costly means still. The economic results, it is held, are not in fact proportionate to the benefit conferred, and at the best the sanatorium is only one arm of the great force waging war against tuberculosis. The watchword of the new crusade is that prevention and not cure is more certain, easier, and cheaper, and that the means of prevention, and in the last resort of cure, is the rendering of the soil of the individual living human organism unsuitable for the seed of tubercle. In other words, the thing to aim at is a high degree of bodily resistance throughout the community before the disease has been acquired.

THE BLONDLOT RAYS.

We published last week a preliminary note upon the so-called *n* rays discovered by M. Blondlot, of Nancy. As they are being applied to the study of vital phenomena, some further particulars will probably be found of interest. The earliest observations were made in the laboratories of the University of Nancy, where M. Blondlot is Professor of Physics, and the term *n* rays has been applied from the initial letter of the name of that city. An incandescent gas lamp emits *n* rays, and is the source most usually employed for their investigation. An ordinary circular gas-burner without glass funnels emits them, as also a plate of silver heated to redness, while a Bunsen burner scarcely emits any.

The rays pass through aluminium, are reflected by polished glass, and follow the same laws as regular reflection of light. They pass through lead (0.2 mm. thick), platinum (0.4 mm.), and saline water, and through cigarette paper if dry, but not when it is moistened with pure water. They also pass through tinfoil, lamina of copper (0.2 mm.), steel, silver (0.1 mm.), a book of paper containing twenty-one sheets of gold leaf, mica, glass, paraffin wax, and even sulphur. The rays are of relatively long wave length, occupying a position below the thermal rays, and in close proximity to the rays discovered by Professor Rubens, of Berlin, which, however, do not pass through certain metals. There seem to be four sets of rays included under the term *n* rays, and they all lie probably in the five octaves of the series of radiations which are still unexplored between the rays of Rubens and the electro-magnetic rays.

A small gas flame bluish in colour is rendered whitish when these rays are focussed on it by means of a quartz lens. They do not cause phosphorescence in bodies capable of being rendered phosphorescent by the action of light; but when such a body as calcium sulphide has previously been rendered phosphorescent by exposure to sunlight the phosphorescence is considerably augmented when the *n* rays are focussed on it. A certain time is required both for the production and the disappearance of the effect. In this respect they resemble the red and infra-red rays discovered by M. Edmond Becquerel. The *n* rays also affect incandescent bodies; for example, a platinum wire made red by an electric current. They also affect a small strip of black paper made feebly luminous with a small flame. More intense effects are obtained from a Nernst lamp of 200 volts. By it the effects upon a flame, phosphorescence, or electric spark can easily be made visible.

The rays are stored up by certain substances: for example, if passed through aluminium, and focussed on phosphorescent calcium sulphide it remains phosphorescent for over twenty minutes after the source is removed. The quartz lens itself also becomes a secondary source of *n* rays. Iceland spar, fluor spar, baryte, glass, and calcium sulphide behave in this respect like quartz. The filament of a Nernst lamp remains active several hours after the lamp is extinguished. Aluminium, wood and paper, dry or moist, are not capable of storing the rays.

The *n* rays possess the still more remarkable property of reinforcing the action of a ray of light on the eye. This effect can be shown by the following experiment: In a dark room an object as for instance, a small band of paper or the face of a clock, is feebly illuminated. a brick which, having been exposed to the sun, emits *n* rays is so placed that the rays fall not on the object looked at but on the eye; then the object looked at appears more brightly illuminated. The insolated brick produces this effect even when covered with black paper and placed far away from the object looked at. The *n* rays appear to enhance the effect of the ordinary rays of light on the eye, yet the smallest layer of water completely arrests the *n* rays, and, as the eye media contain about 98 per cent. of water, it seems all the more remarkable that the *n* rays should pass through the ocular media and affect the retina. The explanation appears to be that water containing a minute trace of salts—for instance, common salt—is quite transparent to the *n* rays; while moist paper arrests them, they pass without hindrance through 4 cm. of normal saline solution, which also stores up the rays; indeed, the brick of the previous experiment may be replaced by normal saline solution through which *n* rays have been passed. Sodium hyposulphite is a powerful accumulator of *n* rays, and sea water and stones exposed to sunlight also store the rays. The excised eye of the ox is transparent and itself becomes active by insolation. It is the storage of the *n* rays by the media of the eye itself which appears to cause the delay observed in the establishment and cessation of these phenomena.

These rays may be of importance in connexion with certain phenomena of vegetable and animal life. The *n* rays are emitted by certain bodies, such as wood, glass, and caoutchouc when forcibly compressed or twisted. Tempered steel, crystallized sulphur, and hammered metals are permanent and spontaneous stores of *n* rays. Even the blade of a pocket-knife augments the phosphorescent effect of calcium sulphide. Non-tempered steel is inactive. The emission of *n* rays seems to go on indefinitely; objects of the eighteenth century and a knife from the Merovingian period were equally active. The rays come exclusively from the blade, and in the case of the Merovingian knife they must have persisted for twelve centuries.

These remarkable rays in their spontaneity and indefinite duration recall the radiant properties of uranium discovered by H. Becquerel, and those of radium, polonium etc., since discovered by M. and Mme. Curie. The *n* rays are certainly spectral rays: they are emitted from the same source as those radiations, they can be reflected, refracted, polarized, and have a well-defined and long wave length.

TIDAL WATERS AND ENTERIC ENDEMICITY.

Mr. A. G. R. Foulerton, L.R.C.S., the County Medical Officer of Health for East Sussex, has presented to the county council an interesting report on the pollution by sewage of the tidal Ouse, with special reference to the prevalence of typhoid fever in the adjoining districts. The value of the report is increased by the fact that Mr. Foulerton has viewed the matter from the bacteriological point of view, and has thus been able to incorporate in his deductions facts which are of more than local importance. The inquiry is divided into three sections: (1) The degree to which the tidal Ouse is polluted by the discharge into it of the sewage of towns and villages on its banks, (2) the effect of such pollution on the public health, and (3) general results and remedial measures. It appears that whilst a part of the sewage of Lewes is still disposed of in cesspools, the greater portion is discharged in an unpurified condition into the tidal portion of the Ouse. Active progress is being made with the sewerage of the town, and in the future the crude sewage (amounting to 382,400 gallons) from the

total population will be discharged into the Ouse, a river incapable apparently of assimilating this mass of sewage or of purification between Lewes and the sea. Several villages likewise empty their sewage into the river. Hence it is not surprising to learn that chemically, bacteriologically, and even by inspection, the water of the Ouse shows marked contamination. Nor in a tidal river is the full advantage of deposition obtained as occurs in a non-tidal stream. Consequently, as Mr. Foulerton points out, such sewage is a menace to the inhabitants on the banks of the river, the exact degree of danger depending upon the previous treatment of the sewage (which in this case is *nil*) and the distance from the source of the pollution. But in the case of the Ouse "the seven or eight miles which the river runs between Lewes and the sea represent a stretch of water which is contaminated by sewage bacteria from end to end."

The towns of Lewes and Newhaven, the former the source of gross river pollution, the latter receiving this pollution some seven miles lower down, present an interesting field for the investigation of the prevalence of enteric fever in relation to this pollution; and they are the subjects of such investigation in Mr. Foulerton's report. During the years 1894-1902 the town of Newhaven had a mean case-rate of 15.5 cases of typhoid fever per 1,000 of population, while in Lewes the corresponding case-rate was 3.9, that in the watering-places of Eastbourne and Hove being 5.6 and 6.6 per 1,000 respectively.

Notwithstanding these remarkable differences between Lewes and Newhaven, Mr. Foulerton comes to the conclusion that the pollution of the Ouse, especially by the sewage discharged into it at Lewes, is the cause of the excessive prevalence of typhoid fever in Newhaven, and that this pollution operates in two ways—by polluting the rather extensive mussel layings in the Upper Harbour and by polluting the foreshore. The latter influence is regarded by Mr. Foulerton as more important than the former; and apparently flies are regarded as the means of conveying infection from the sewage sludge to human food.

The assumption being that the sewage-polluted condition of the banks of the harbour is the cause of Newhaven's excessive prevalence of enteric fever, it is important to note the condition of Lewes in relation to contamination of the river banks. Mr. Foulerton's exhaustive inquiries on this point go far to rebut his own conclusion. The Cliffe district of Lewes, situate on the Ouse alluvium, had only 4 cases of typhoid fever in nine years, and for five years had no cases, while during the same period the more healthy parts of Lewes—that is, the parts more remote from the river—had 38 cases of this disease. If flies or other agents associated with sewage mud are so operative in Newhaven, why not also in Lewes? The observations extend over nine years, and it is difficult therefore to accept Mr. Foulerton's suggested explanation that the relative immunity of Lewes is due to fortunate accident. It appears clear that some other factor not sufficiently recognized has been at work. Possibly this may be the mussels referred to in Mr. Foulerton's report; but it was clearly impracticable for him to obtain accurate data on this point respecting cases which had occurred some years previously, and in fact no attempt appears to have been made to investigate the prevalence of enteric fever from this standpoint. We do not suggest that the Lewes people should be permitted to continue to discharge crude sewage into the Ouse. But the Newhaven inhabitants must, judging by the evidence given in Mr. Foulerton's report, look nearer home for the explanation of the excessive amount of enteric fever from which they suffer.

We welcome also the appearance of a report which Mr. A. G. R. Foulerton has presented to the Local Fisheries Committee of the Sussex Sea Fisheries District on this subject, as we believe it is the first report on a sanitary survey of tidal waters which has been produced on the instruction of any of the District Fisheries Committees. The Sussex Committee deserves considerable credit for incurring the expenditure involved in such a survey and report; and we hope that they will live up to the reputation they have thus secured by taking any practical curative measures which lie within their power.

The facts with regard to the New Shoreham Harbour and the tidal Adur, and Chichester Harbour are all fully set out and the various sources of pollution clearly indicated. Although the facts are not new, having been previously given in reports by Drs. Bulstrode and Newsholme, it is most helpful to have them elaborated and restated and brought before the official notice of an authority which, although it has to deal with the welfare of fish and not of human beings, is by the irony of circumstances at present the only authority which can take effective measures to stop contamination of these streams by sewage. We look, therefore, anxiously to the summary of conclusions and recommendations made by Mr. Foulerton. The purification of the sewage of Emsworth by some such method as that now being carried out at Chichester is urged; the necessity for fresh legislation regulative of the condition of tidal waters used for oyster fishing is referred to; but there is no recommendation as to any practical issue from the present report. Mr. Foulerton's report cannot, however, be regarded as of mere academic interest. The evils set forth demand a local remedy. Can the Local Fisheries Committee be said to have discharged its duty until it has taken fully into consideration the facts for which it has asked, and used all its present powers for the removal of the insanitary conditions which now hamper and paralyse the shellfish trade as well as scatter disease among those consuming shellfish?

JAPANESE AND RUSSIAN MILITARY MEDICAL SYSTEMS.

THE marvellous way in which the Japanese during the last thirty years or so have in many directions adopted and often improved the most modern methods of European nations is a matter of common knowledge. It is not, however, so well known that, in spite of the brief time that has elapsed since their awakening, the Japanese have already produced some men of high distinction in medical science, men, that is, who are not only thoroughly versed in the knowledge common to most of their colleagues throughout the world, but who have been eminent in research and extended the scope of scientific knowledge. In view of this it is the less surprising that their military medical arrangements should be, to use the inevitable expression, so much up to date as to be scientifically comparable with those of any nation, while in point of generosity in the provision of medical officers, elasticity and adaptableness to varying conditions, the difference is perhaps in favour of Japan. Thus while base hospitals, field hospitals, dressing stations of three types, bearer companies and hospital ships, all find their place, each division of the army has a medical reserve, which is mobilized simultaneously with it, and serves in the base or reserve hospitals. The medical department also has its own independent transport, and every infantry regiment, cavalry, artillery, engineer, and general transport battalion has a [illegible]

attached to it of a very complete kind. The staff, for instance, for an infantry regiment consists of 2 surgeon-captains, 3 surgeon-lieutenants, 3 chief attendants, 12 ordinary attendants, and 48 bearers drawn from the regiment. Besides all these standing arrangements the regulations provide for an automatic addition to the *personnel* of the hospitals in accordance with the number of patients present, without reference to head quarters. Moreover, so long as a military medical officer remains in chief command additions may be made from the civilian population; everything, too, is done to facilitate the co-operation of the Japanese Red Cross Society. The Russian arrangements are also good upon paper, and Russian military surgeons have an advantage over the majority of their European colleagues inasmuch as that they habitually do the work of nearly all the civil hospitals. It is not to be forgotten, however, that the Russians will be working at an immense distance from their real base as far as medical matters are concerned. When all is said the amount of mortality and suffering to be anticipated is dreadful. Of what it is likely to be in a naval combat we have a glimpse in the report on the China-Japanese war by the Director-General of the Medical Department of the Japanese Navy. A single shell killed 2 medical officers and 12 men, besides wounding 28 others. On land, too, the casualty-rate seems likely to be abnormally high, since it is doubtful whether the mass of Russian soldiers are sufficiently intelligent to fight well in very open order, while as for the Japanese, the Gourkhas of the extreme East, though the rank and file are of high intelligence, they are credited with a love for close quarters, and with regarding death in such a way that even discipline, perhaps, will not induce them to take the precautions against it which are considered right and legitimate further West. The amount of sickness, on the other hand, may possibly be less than under corresponding circumstances elsewhere, for both nations are habitual tea drinkers, and in consequence rarely drink unboiled water.

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD.

We have already spoken of the Chair of the Regius Professor of Medicine at the University of Oxford is vacant during the resignation of Sir John Burdon Sanderson. The appointment is in the hands of the Crown, and we understand that a recommendation on the subject has been made to the Prime Minister by the Vice-Chancellor. We have reason to believe that the statement published in a contemporary to the effect that this appointment has been made without seeking an expression of opinion from the University is erroneous. The fact is that the question of the successor to the office of Regius Professor of Medicine held by Sir John Burdon Sanderson [illegible] Oxford. Among [illegible] interested in the appointment [illegible] understood, correct [illegible] University. All are agreed in the view that the Professorship should [illegible] and that duties should be [illegible] of real value to the Medical School. [illegible] the regius professor could teach with advantage to [illegible] for the other branches of medical science are provided for. The University now possesses [illegible] pathology. A perfectly equipped laboratory and [illegible] have their importance [illegible] of science-based [illegible] as an investigator, which [illegible] all modern methods of research, and [illegible] successful in communicating this knowledge to [illegible] which [illegible] by ascertaining the [illegible] a pathological [illegible] Unfortunately the endowment of the Professorship is [illegible] inadequate, and the present financial [illegible] the University make it impossible to increase the stipend. Under these circumstances the proposal to [illegible] the Regius Professorship with the office of Head [illegible] Pathology has been considered by the Vice-Chancellor and has received the unanimous support and approval not only of the teachers belonging to the Faculty of Medicine, but also of those of the Faculty of Science. The statement, therefore, that the opinion of the University has not been sought is misleading.

THE LONDON UNIVERSITY INSTITUTE OF MEDICAL SCIENCES.

We understand that towards the fund being raised by the Senate of the University of London for the proposed Institute of Medical Sciences, Mr. Butlin, the Dean of the Faculty of Medicine, has contributed £1000, and Sir William Church, Bart., K.C.B., President of the Royal College of Physicians, and Mr. Tweedy, President of the Royal College of Surgeons, £500 each.

THE CONSUMPTIVE POOR OF LONDON.

It is generally admitted that if consumption is to be prevented the provision of hospital or sanatorium accommodation for sufferers from the disease forms an essential factor in the scheme of prophylaxis. Sanatorium treatment offers the best expectation of cure for the early cases, and cure in the early stage of the disease removes a source of future danger to others. Hospital treatment of the more advanced cases of consumption not only furnishes relief to those whose circumstances make proper treatment and comfort at home impossible, but removes a potent centre of infection from amongst those whose mode of life and general surroundings cause them to be especially susceptible to infection. It is, of course, amongst the poorer members of the community that the danger of infection from cases of advanced consumption is greatest, and it is therefore for sufferers in this class that hospital accommodation is most urgently needed. The accommodation for the sanatorium and hospital treatment of the consumptive poor of London is lamentably deficient and inadequate. The general hospitals cannot take cases of consumption to the exclusion of more acute and urgent cases of illness, and the comparatively small number of beds in the special consumption hospitals in the metropolis have to accommodate patients from other parts as well as from London. Many advanced consumptives are received into the Poor-law infirmaries, but still the accommodation falls far short of the requirements. A conference of Poor-law authorities was held in October, 1901, to consider this matter, and it unanimously resolved that some provision for the sanatorium treatment of the consumptive poor of the metropolis was required. It was considered that the Metropolitan Asylums Board was the proper body to provide and administer the sanatorium or sanatoria, which should receive patients from all parts of the metropolis, and the matter was brought to the consideration of the President of the Local Government Board, with the view to the necessary steps being taken to carry out the proposal. The Asylums Board was also approached with a desire that the Board should provide accommodation for the isolation and treatment of persons suffering from consumption. The matter was referred in July, 1901, to the General Purposes Committee of the Board, and four months later this Committee reported in favour of deferring consideration of the matter for twelve months. That period having elapsed the matter came before the Board for further consideration last November, when it was resolved that the matter should [illegible] to call for some authoritative expression of opinion by the chief health authority of the country, the Local Government Board, before the Board took any definite action in the matter. It now rests, therefore, with the Local Government Board to express an opinion on the subject. Dr. J. Orme Bridgeman, M.O.H., Kensington, has pointed out, in his report to the Vestry, that the Asylums Board possesses certain hospitals provided for the accommodation of small-pox cases, which are fortunately not required for their original purpose and which might, he believes, easily and speedily be adapted for the reception of consumptives. The Long Term Hospitals near Dartford, for example, are, he says, from their situation and construction, eminently suitable for sanatoria, and would accommodate some 1,200 patients.

A BRIGHT EXEMPLAR OF ZOOPHILISM.

IT is stated in some of the daily papers that it is proposed to erect a monument to the dog which figured prominently in the action brought by Dr. Bayliss against the Hon. Stephen Coleridge. The monument is to take the form of a drinking fountain. The scheme is said to be promoted by the International Antivivisection Council and the World-wide Antivivisection League, bodies whose existence was previously unknown to us. According to the *Daily Express*, the National Antivivisection Society knows nothing of the proposal, and Mr. Coleridge is said to disapprove of an appeal which has been issued by the organizations above named. There is however nothing incredibly improbable in the statement, for there is no limit to the excesses of zoophilists. There is in Paris, we believe, a cemetery specially reserved for defunct dogs, which are buried there with appropriate rites, and commemorated by costly monuments. Many women spend on the dressing of their canine pets money that would not only clothe but feed a number of poor children. Only the other day Pierre Loti, the celebrated novelist, who in ordinary life is Captain Viaud, now in command of a French warship in the Bosphorus, had his cat solemnly baptized in the presence of a number of officers and representatives of several of the foreign embassies at Constantinople. So much love indeed do many zoophilists lavish on animals that they have none to spare for their fellow creatures. There is a well-known story of a mother going to one of the leaders in the Reign of Terror to plead for the life of her son condemned to the guillotine. Her prayer was brutally refused. On turning to go out, blinded with tears, she accidentally trod on the pet cur of the heartless monster whom she had tried to move to pity. "Madam," said the human brute with unconscious irony, "have you no humanity?" We commend this bright exemplar of zoophilism to the special veneration of the members of the National Canine Defence League.

PIRKIS *V.* COLERIDGE.

IN the BRITISH MEDICAL JOURNAL of January 2nd we mentioned that the Hon. Stephen Coleridge had been moved to deal faithfully with Mr. Fred. E. Pirkis, Chairman of the National Canine Defence League, on account of a number of serious misstatements made in an antivivisection leaflet issued with his authority. We treated this as a sign of grace in Mr. Coleridge. Mr. Pirkis, not unnaturally, appears to regard it as a sign of reprobation, and he asks us to publish a long reply to his critic's observations. The reply has appeared in the *Times* and other newspapers, and we have already expressed the opinion that it is futile, and not altogether ingenuous. Mr. Pirkis appeals to us to publish it in full on the ground that we published Mr. Coleridge's attack on him *in extenso*. We did no such thing. We merely gave a brief summary of the more important misstatements put forward by Mr. Pirkis, setting against them in each case Mr. Coleridge's corrections. We have already said that we are not concerned with the refutation of the errors of the Chairman of the Canine Defence League: we are content to leave that congenial task to the Honorary Secretary of the National Antivivisection Society. We have nothing to do with the quarrels of rival fanatics, each of whom appears to be chiefly eager to impress on the public mind the fact that "Codlin's the friend"—of the dogs—"not Short."

ANOTHER MEDICAL COMPANY.

WE have just received, a year after its publication, the first number of a new medical periodical entitled *La Médecine des Accidents du Travail*. It is ostensibly devoted to matters arising in connexion with the French —and other —laws corresponding to our own Employers' Liability Act, and is largely devoted to what is termed "Mécanotherapie." This may be described as the application by means of specially designed apparatus of the methods of the bone-setter—that is to say, it is a means of completing the cure after injury by a system of massage and exercise. Speculation as to the explanation of the belated arrival of a year-old periodical is set at rest by an enclosure contained in it which informs us that it is proposed to form a syndicate with a capital of £15,000, in order to purchase from Dr. Vermeulen, the author of the longest paper in the periodical, and from Dr. Courtault, the sole rights for their mechanisms in Great Britain and the British Colonies, and to start institutes for their employment. Thus we are threatened with yet another form of joint-stock medical enterprise, as little desirable as those others to which we have lately drawn attention. We are told that that these "institutes" have been very profitable on the Continent but we are not told why the knowledge and the appliances are not placed at the disposal of the profession, nor why the treatment cannot be carried out at hospitals and in private practice. Is it uncharitable to seek the explanation in the "great successes both medical and financial" which are said to have been obtained by the "institutes"?

DRINK AND CRIME.

TO those alone whose daily avocations bring them to courts of criminal jurisdiction is it given to understand the intimate relationship between drink and crime. Wholly apart from the large number of cases in which the prisoner vainly pleads intoxication as an excuse for his wrongful act, many offences can be traced to the remoter consequences of alcoholic indulgence. At the assizes recently held at Durham, 47 cases came before the court, of which no fewer than 39 were attributable directly or indirectly to drink. Roughly speaking, this means that 85 per cent. of the serious crime in the county of Durham during the last few months was due to drink. That the crime was serious may be gathered from the fact that no fewer than of the cases were charges of murder. Mr. Justice Grantham recently made some remarks from the bench, which have been resented by the Croydon Licensed Victuallers' and Beersellers' Protection Society. That body adopted a resolution of a somewhat personal character, which has drawn from Mr. Justice Grantham a retort, in the course of which he says: "I have lately been brought face to face for weeks with the conduct of publicans in the carrying on of their business, which has resulted in the most heartbreaking crimes that it is possible to imagine. Husbands murdering their wives, wives their husbands, fathers their sons, friends their own best friends—all through the maddening influence of excessive drinking. Twelve murders, eighteen attempts at murder, and woundings without number that were just as likely to have ended in murder as far as the conduct of the criminal was concerned, have been mine and my brother Judges' daily fare for the last four weeks on one circuit, and in almost every case, as appeared in evidence, drink was the cause—drink served by publicans and not at clubs, and drink proved to have been served in the public-house where the man was openly drunk. These are the men whose conduct I complained of, and these are the men who the Croydon publicans consider are carrying on a lawful and respectable trade, and on whose behalf they speak of my strictures as being 'vile aspersions.' The fact that intoxication affords no excuse for crime has been emphasized from the Bench from time immemorial. The only exception to the rule is in the case of murder, where it is possible to prove absence of "malice aforethought" by showing that the prisoner is intoxicated. Delirium tremens, however, is no excuse, and attempts have been made from time to time (but without avail) to argue that the existence of a form of insanity termed *amnia a potu* should be sufficient to excuse the prisoner. In a case which was heard at Leeds in 1902 a man was charged with shooting at his daughter with intent to murder her. Dr. Bevan Lewis, in giving evidence for the prisoner, stated that in his opinion at the time when the shot was fired the prisoner was suffering from *amnia a potu*, a disease of the mind which could be greatly aggravated by a little drink. In answer to a question by the Judge however, Dr. Lewis admitted that he was of opinion that all men who are very drunk are mad. The jury found the prisoner guilty. It is obvious that if drink were an excuse

for crime the safety of the public could never be guaranteed, inasmuch as an intending malefactor might always shelter himself behind the plea of intoxication.

A HEALTH CONSCIENCE.

The weekly bulletins issued by Dr. Reynolds, the Health Commissioner of Chicago, often embody matter of more than passing interest. Two letters published in a recent bulletin illustrate some American varieties of conscience in relation to matters of health. Incidentally they throw considerable light on differences of sanitary procedure on the two sides of the Atlantic. The first instance is a letter from the Chief Medical Inspector in the Health Department to a private practitioner. It sets out how on November 6th the latter had reported two cases of scarlet fever; how he had then "assumed the responsibility" of preventing the spread of infection from these cases; how the private practitioner had allowed one patient to leave the city at the end of only two weeks from the onset of illness, how this could only be justified by an error of diagnosis; how if an outbreak of scarlet fever occurred in the place to which the patient had gone, Dr. —— would have to bear the odium; and ended by enclosing a circular letter "with information upon the subject of contagious diseases." If the sanitary education of Dr. —— is not rapidly completed, it is not the fault of the chief medical inspector. The second instance is much more pleasing to contemplate. It is embodied in a letter from a lady living in one of the best residential districts of Chicago, and is addressed to Dr. Reynolds. It runs as follows: "Dear Sir, While I have every confidence in Dr. ——, who is attending my daughter afflicted with diphtheria, and in his ability to protect others from the spread of contagion, I still wish you would have your warning cards posted on my residence, both the 'diphtheria here' card and the warning to the milkman. I should never forgive myself if any one else were to contract diphtheria through any neglect on my part." No wonder that Dr. Reynolds in commenting on this letter states that ten years ago the card would have been resented and the physician would have neglected to report the case. This letter is striking evidence of the development of a "health conscience" among ladies, who can do far more in these matters than men. As we have often observed, domestic hygiene is largely a woman's question. In ninety-nine cases out of a hundred it is Mother Nature who regulates every domestic detail, and [illegible] the preservation of health, and the prevention of the spread of infectious disease ought to be numbered

GARDENING FOR WOMEN.

[illegible] must be looked upon by those interested in the national physique as a healthy and invigorating occupation for women. The Ladies' Branch of the Practical Gardening School of the Royal Botanic Society is interesting inasmuch as most of the pupils trained there are [illegible] from the London School Boards and are trained to adopt gardening as a profession. The pupils are nominated by the Technical Education Board of the London County Council. Among its [illegible] the Society numbers many members of the Council, and [illegible] a member of the Council. It is satisfactory to find that the [illegible] is more than [illegible] opening up a healthy, invigorating and [illegible] occupation for women. The advantage to girls over [illegible] particular training school is that the [illegible] certain to [illegible] they are [illegible] many miles away from their homes, and they can attend classes without living away from home. The students, under the superintendence of Mrs. Dewar, are allowed to work in a [illegible] and also learn practical botany both in the [illegible] lectures. The course is three years. The first year students are taught [illegible] and vegetable gardening, and everything connected with the operations. During the second year the subjects taught are outdoor work, indoor work, and theoretical work. The third year is devoted to pruning, mowing, care of conservatory, plant houses, frames and pits, etc., and to theoretical work, such as keeping accounts, elementary meteorology, landscape gardening, sprays and washes for insect pests, and to classes and laboratory work in botany and horticultural chemistry. A new laboratory has been built for the use of students, and theoretical lectures, followed by practical teaching, are given on botany, elementary and advanced general histology, morphology and physiology. Those students who wish to learn gardening as a pastime are allowed to attend on special days. The training extends over three years, and the fees are £2 the first year, £15 the second year, and £10 the third year. The course of study in the botanical and horticultural laboratory is under the direction of Professor E. J. Schwarz, M.A., B.Sc., and is similar to that of the Science and Art Department of South Kensington. Owing to the satisfactory report of the progress made by the scholars, the Board has doubled its grant to the Royal Botanic Society, and now offers twenty scholarships instead of ten. Students readily find situations, and it is interesting to note how many people now employ lady gardeners in preference to men.

FAMINE FOODS IN INDIA.

The India Office has just issued a brief account by Drs. Noel Paton and Dunlop upon the nutritive value of some uncultivated foods used by the Bhils during recent famines. These drought-resisting foods were collected by Mr. S. M. Barucha and Mr. F. B. Garda from the famine districts. Thirteen of the most important of these foods were analysed; of these seven were grains, five obtained from different species of panicum and two from eleusine Aegyptica. Of the remaining six, two were roots, three seeds, and the remaining one the pollen of a flower. The grains were gathered in two ways—at an early stage by plucking them from the plants, or later on by sweeping them up from the ground, and in the latter case they were mixed with much earth, which was often extremely difficult to remove, so that the nutritive value of a given weight was much less than if the food had been gathered by hand. Analysis divided these foods into three groups: (1) Those with proteid more or less in a proportion similar to that in ordinary cereal foods; (2) those with more proteid than ordinary cereal foods; and (3) those with less proteid than ordinary cereal foods. The first group contains seeds of the various species of panicum, the seeds of nymphoea lotus, known as ghitolas, the seeds of eleusine Aegyptica, and the pollen of the doda flower. The panicum seeds seem closely to resemble barley in composition, but contain less soluble carbohydrates and more fats, fibre, and ash; owing to the small proportion of carbohydrates the energy value of these foods is smaller than that of ordinary cereals. The second group contains two seeds known respectively as [illegible] and [illegible]; the former, as had been previously discovered by Professor Church, contains an exceptional quantity of proteid, while the latter, which was also investigated by him, is very rich both in proteids and fats, but has an extremely hard husk. The third group contains two roots which resemble in character dried bulbs; they are known as the ek root and bid root respectively. They contain very little proteid or fat, but a large amount of soluble carbohydrate. Bid root is used by some natives habitually for about six months in the year, but those who ate it for the first time during the recent famine suffered from swollen feet and hands, and in some cases died of the effects, which the authors consider to be due to proteid starvation. Grain is [illegible] a more definite basis on the [illegible] scale of values [illegible] the value of these [illegible] for daily rations are given. It is considered that the best proteid for daily food are cereal leguminous seeds [illegible] peas, and beans. Glutens such as [illegible] and gluten bread have a more limited use by reason of their [illegible] properties have been employed in them. But roots and the bulbous roots generally so prized, are not well adapted for use as staple foods. A daily ration of 1 lb. 13 oz. of the more

nutritious foods would, theoretically, be sufficient to maintain a man weighing 120 lb., doing light work and living in a warm climate; this ration may be reduced to [illegible] when doda flower, kodri, or kasaiya are the foods used.

FEES FOR INSURANCE WORK.

WE are indebted to Dr. J. C. Simpson of Cambridge and Dr. Girdlestone of Bournemouth for further examples of the inadequate fees offered by insurance companies. In the example furnished by Dr. Simpson the society in question is the Provident Association of London (Limited), which works in association with the Provident Free Home Assurance Company (Limited). By these companies two forms are now in use, the one pink and the other white. The former is intended for policies up to £100, and a fee of 5s. is paid in respect of it. Besides entailing the extraction from the proposer of answers to at least twenty questions, there are two certificates to be completed, and some eighteen other questions, the answers to which have to be found by the examiner from physical examination of the proposer. The white form is for policies for £100 and upwards: the fee paid for it is 10s. 6d. when the proposal is for a sum upwards of £100 but under £300, and 21s. for policies over the latter amount. It entails some seventy questions to the proposer, besides a very complete physical examination, including analysis of the urine and double measurements of the chest and height and other time-absorbing, if simple, details. Dr. Simpson has declined to have anything to do with the white paper for a smaller fee than 1 guinea. He believes that the company will get some one else to do the work at the fees named, and, as he very correctly remarks, there is no satisfactory way in which sweating of this character can be met until a definite stand is made by each Branch or Division of the British Medical Association or by the doctors of each town or each local medical society. In the meantime a better method of dealing with the matter can probably not be found than that detailed in the letter from Dr. Girdlestone. He coupled refusal to do any more work for half-guinea fees with a lively description of the extent of work which the company, the Scottish Temperance Life Assurance Company, expected him to do for that amount. At the same time he put in plain terms the point to which we recently drew attention. This is that there is a vast difference between looking after the sick either at very low fees or for nothing at all, and doing work of an equally conscientious character for purely commercial companies. The latter have no right to expect it, and in the long run they will not get it. Readers will also observe from the letter of Dr. Brown, chief medical officer of the Scottish Life Assurance Company, that while the principle of graded fees which we indicated as possibly the best solution of the question has been adopted by his company, it has only been adopted in truncated form. We are inclined to think that the principle, if adopted, should be adopted entirely, and fees steadily graded. This is a question of medical finance which is, perhaps, more completely in the hands of the medical profession than any other. If the latter makes a stand for proper fees, a certain number of companies may abandon medical examinations altogether, but the vast majority certainly will not, nor will the person known in other connexions as a blackleg be able to exercise his deleterious influence on the contest. Commercial companies have more respect for their pockets than the managers of sick clubs have for the well-being of their members.

MONARCHS AS MEDICAL ADVISERS.

KING EDWARD VII, as we are all proud to know, has been graciously pleased *intrare in nostro docto corpore*, and is a Fellow of both Royal Colleges in England. Though His Majesty is, as far as we are aware, the only monarch who has honoured the profession by consenting to be formally enrolled in its ranks, there is at least one precedent in the list of English sovereigns for the sympathetic interest which he has always shown in medicine. Froude says that Henry VIII was one of the best physicians of his time with regard to this, however, any one who knows what physicians in the sixteenth century were like would be justified in saying with Othello, "That's not much." Charles I took an intelligent interest in the discoveries of Harvey, and Charles II, although he played tricks on the Royal Society, found relief from the boredom of politics in scientific experiment. The frequently-repeated statement that the Queen of Portugal is the possessor of a medical diploma was officially contradicted in the BRITISH MEDICAL JOURNAL on Her Majesty's behalf some years ago, but at least two scions of royal houses at the present day have studied medicine and taken their degrees in the same manner as ordinary mortals. His Royal Highness Duke Theodore of Bavaria is an ophthalmologist of note, and although the vast and varied wardrobe of the German Emperor does not, we believe, include the robes of a Doctor of Medicine, it is understood that before he ascended the throne he made a special study of throat diseases under a very distinguished master, and he may therefore claim to speak with some authority as a laryngologist. The great Napoleon was fond of gibing at his physicians; but the fact that he himself on occasion gave medical advice seems to suggest that his contempt for them may not have been altogether free from professional jealousy. We are indebted to Dr. Comenge, of Barcelona, for the discovery of another royal unqualified practitioner in the person of Martin the Humane, King of Aragon. In our excellent Spanish contemporary, *Revista de Medicina y Cirugia Practicas*, he gives the text of a letter written by that monarch to his eldest son, the King of Sicily, under date January 28th, 1409, which is preserved in the archives of the crown of Aragon. The object of the letter is to impress on the King of Sicily the need of precautions for the preservation of his health. In particular he is enjoined to drink water only after it has been boiled and allowed to cool. He is also urged to take certain pills which his royal father sends him in a box; the pills are to be taken on such days and in such manner as Master Pere Soler, "our faithful leech," shall consider necessary according to the meteorological conditions prevailing in Sicily. The use of water sterilized by boiling for drinking purposes was recommended by Hippocrates and by other ancient writers. In the Middle Ages it was employed by surgeons, notably by Guy de Chauliac, in the washing of wounds with the view of preventing suppuration. The pills sent by King Martin to his son appear from another document discovered by Dr. Comenge in the Barcelona archives to have been those known at that day by the name of Rhases, the famous Arabian physician; they were purgative in character, and had a great reputation as preservatives against many diseases.

MUNICIPAL AID FOR HOSPITALS.

IT is announced that the Local Government Board has informed the Tottenham District Council that "it appears to be competent for that body to make a contribution to the funds of an established hospital." On the strength of this opinion, the Council is said to have decided to grant a sum of money from the rates towards the maintenance of the local hospital. It may confidently be predicted that this deliverance of the Local Government Board, whether it be, as is generally considered, the enunciation of a new principle, or, as the Board itself seems to hold, the first application of a provision implicitly contained in the Public Health Acts, will have far-reaching consequences. The direct pecuniary advantage to hospitals will obviously be very great if district and borough councils will exercise the powers which under the new reading are conferred on them by the Acts. There is a Bill before Parliament framed with the object of relieving hospitals from the payment of rates. To some extent that measure is anticipated by the letter of the Local Government Board, which practically declares that it is within the power of any local authority to relieve its hospital of the burden of the rates. The letter, however, goes further, for it [illegible] that municipal authorities can contribute to the support of hospitals out of the rates. Nevertheless, it is to be hoped

that the Bill will become law, for the relief from rates is a matter of the gravest importance to the hospitals to be left to the judgment or caprice of local authorities.

FOREIGN MEDICAL PRACTITIONERS IN ITALY.

The question of the legal status of holders of foreign degrees and diplomas who wish to practise in Italy came again before the Italian Parliament recently. Dr. Santini, the leading spirit in the recent agitation to preserve Italy for the Italians, asked a question on the subject. Signor Carnii, the Minister of the Interior, said the existing law allowed foreign doctors to practise their profession in Italy when they were called in to attend in special cases or when they exercised the charge of foreign patents sanitarily. If such practitioners attended Italian patients that was an abuse which the Government would do its best to suppress. With regard to reciprocity he proposed to adopt the usual way to enter into negotiations on the matter with such foreign countries as did not grant equivalent privileges to Italian practitioners. He added, however, that foreign practitioners were not sufficiently numerous in Italy to make their competition a serious matter for Italian graduates. Signor Orlando, Minister of Public Instruction, said that he would assent to the examinations of the Italian faculties only foreign practitioners who had pursued their studies in universities of good repute, recognized by the Medical Faculties and the Superior Council of Public Instruction.

HYPNOTISM IN ABYSSINIA.

M. Jean Bircher, as confidential adviser of His Majesty Menelek, Emperor of Abyssinia, appears to have confided to a French interviewer some curious facts as to the uses to which hypnotism is put in Abyssinia. From time to time a number of children under the age of 12 are selected for the position of *voyants* or detector of crime. They are believed to have the power, when hypnotized, of revealing to the proper authorities the identity of any criminal who may be "wanted" for a given crime. For instance, not long ago there was a case of arson at Adis-Ababa. A child was taken to the scene of the crime and there thrown into hypnotic sleep. The child forthwith set off in the direction of Harrar. He ran without stopping for seven hours, and his pursuers were sure that the [illegible] Where he got to Harrar he was suddenly and a pair of [illegible] to lead [illegible] a [illegible] was found guilty at Harrar. Upon this confession he was executed. Again, a robbery with violence was committed in the neighbourhood of Adis-Ababa. A child was procured, and after being hypnotized was taken to the scene of the crime and thrown into sleep. The child forthwith set off in the direction of Harrar. The owner on his return was arrested. He at first denied all knowledge of the crime, but on being confronted with the child he confessed his guilt.

THE CARNEGIE INSTITUTE.

On January 28 a meeting of the Board of Trustees of the Carnegie Institute was held at Washington to receive a report on the work performed. The Executive Committee, to whom the trustees had delegated the duties of administration, reported that the executive organization had been completed, all scientific posts, most of them to begin next autumn, filled, and the Institute formally opened. The Committee also reported that the expenditure of the year in grants for researches had been [illegible] the publications during the year. The following officers were elected: Chairman, Dr. S. Billings, New York; vice-chairman, Mr. Elihu Root; secretary of State for War; secretary, Charles D. Walcott, Director of the United States Geological Survey. Drs. S. Weir Mitchell and Carroll D. Wright were re-elected members of the Executive Committee for three years. It was decided that in future a yearbook should be printed by the Board of Trustees, giving in full the names of the recipients of Carnegie fellowships and the colleges at which they are studying.

THE CORONERSHIP FOR EAST MIDDLESEX.

THERE were thirty-five candidates for the office of coroner for East Middlesex; from this list three were selected, and eventually Mr. A. M. Forbes, solicitor, was elected by a large majority. None of the candidates who had had considerable experience as deputies, and were doubly qualified in medicine and law, were among the selected. It would thus appear that experience in the work and special qualifications had no weight in the election. It must, however, be remembered that Mr. Forbes had been for seven years previously a member of the Council and resigned his seat to become a candidate for the coronership. At the last election to the coronership for the Eastern Division the same thing occurred, but we trust that this method of election does not generally obtain in county and borough councils, otherwise intending candidates, however good their qualifications, will have very little chance of success unless they have served an apprenticeship in the council at whose bar they seek the appointment.

THE KAISER AND HIS DOCTORS.

IF certain foreign newspapers are to be believed, the German Emperor has been not only liberal, but commendably prompt in marking his sense of the value of the services rendered him by the medical men who had charge of him during his recent illness. On Surgeon-General von Leuthold he is said to have bestowed the Grand Cross of the Red Eagle with oak wreath and crown. His Physician in Ordinary, Dr. Ilberg, has received the decoration of the Red Eagle of the Second Class. To Professor Orth has been given the Order of the Crown, second class, and to Dr. Spiers, of Frankfort, under whose direction the Emperor has gone through a course of vocal gymnastics, the Cross of Commander of the Hohenzollern Order. As already stated in the BRITISH MEDICAL JOURNAL, the title of "Excellenz" has been conferred on Professor Moritz Schmidt, who removed the growth from the Kaiser's larynx.

RADIUM IN THE BATH WATERS.

AT a meeting of the Bath City Council on January 5th Councillor Cotterell recalled the fact that for some considerable time Professor Dewar had at the request of the Royal Society and with the concurrence of the Bath Committee, collected the gases that rise from the largest of their mineral springs, that of the King's Bath. An analysis of these gases revealed the presence of radium. Some weeks ago a quantity of the mud deposit collected in the taps and pipes of the Bath Hotel spring was obtained and sent to the Hon. R. J. Strutt, son of Lord Rayleigh, who made a careful investigation of the material. That gentleman reported that he had found that the gases contained radium in appreciable quantities, though not in such extraordinary proportions as he thought he might be able to extract from the bottom of Bath owed its origin to large quantities of radium at a great depth below the earth's surface. A little of this radium was carried up by the water and was present in the deposit. He added that his experiments proved [illegible] processes which would be brought to the notice of the Committee in due course. In reply to an inquiry by Mr. Cotterell, Mr. Strutt explained that by [illegible] radium in solution to such quantities that its presence might easily be detected, but the amount in solution in the deposit was very much less than that in the water at present used. The Council agreed to give Mr. Strutt every further facility for continuing his researches.

ST. BARTHOLOMEW'S HOSPITAL.

WE learn that at a small meeting of the Governors, held on January 7th, it was decided to make an appeal to the public, at the Mansion House meeting next Tuesday fortnight, for contributions to erect certain buildings on the present site, and not to make an appeal for a larger site, nor to bring forward any detailed plan. This is practically a reversal of the decision reached by the large meeting of the Governors on December 17th. It is to be hoped that the medical staff will adhere to the considered opinion which they have expressed. We make no doubt that they will be supported by public opinion.

DR. CHANTEMESSE has been appointed Inspector-General of Sanitation in Paris, in succession to the late Professor Proust. Dr. Chantemesse's name is well known to bacteriologists throughout the world, especially in connexion with researeh on cholera and typhoid fever.

THE New Year Honours are confined to the Indian military and civil services, some members of which receive decorations or promotions in orders already held. It is stated that the fact of the King's birthday coming so near the end of the year militates against the publication of a list of honours on New Year's Day, and that for the future Coronation Day honours will supersede New Year honours.

WITH regard to the Behring Institute which, as stated in the BRITISH MEDICAL JOURNAL a few weeks ago, it is proposed to establish in Germany, it is now announced that the Prussian Government will take over the institutions founded in the neighbourhood of Marburg by Professor Behring some time ago. The serum used by him in the treatment of diphtheria and tuberculosis will be prepared in those institutions.

THE patients supposed to be suffering from sleeping sickness, who, as stated in the last issue of the BRITISH MEDICAL JOURNAL, recently arrived in Liverpool for treatment in the School of Tropical Medicine of that city, are not, it now appears, affected with that disease but with trypanosomiasis. The mistake was due to the ambiguous wording of a telegram. Three natives were sent home by the Liverpool Expedition to the Congo, but only one of these was suffering from sleeping sickness and he died on the voyage.

Ireland.

HEALTH OF BELFAST.

AT the monthly meeting of the City Council held on January 1st, the Medical Superintendent Officer of Health reported that 235 cases of zymotic diseases had been notified during the last month, typhoid fever showed a marked decrease; but there had been a mild epidemic of scarlatina; the death-rate from all causes was 22.0 as compared with 24.1 for the corresponding period of last year. 831 births and 491 deaths were registered. Deaths from whooping cough largely increased; 9 cases of small pox were reported: two were imported, and the infection in the others was easily traced.

CONSUMPTION IN BELFAST.

Acting on the instructions of the Health Committee, the medical officer submitted a report in regard to the provision of a sanatorium for consumptives. The number of deaths from consumption in Belfast from 1893 to 1902, inclusive, were as follows:—1016, 977, 1083, 1008, 965, 1034, 1112, 1115, 1062, 1132, or about one-seventh of the deaths are due to consumption. This does not include any other form of tuberculous disease. The estimate of the total number of cases lies between 2,000 and 4,000; about 240 cases are actually in the union infirmary at one time. For mild cases of consumption the medical officer recommends covered open-air spaces, where the patients could walk about.

In fact, in the many generations we [illegible] and were provided with [illegible] the open air, and were protected [illegible] warm underclothing, tuberculosis would, I believe, gradually disappear, and all the efforts of sanitary science should be devoted to this end, and not with the almost impossible object of successfully treating cases when the disease is far advanced.

The usual recommendations as to site, soil, aspect, etc., are given, and attention is drawn to the fact, that although phthisis is increasing in other parts of Ireland, it is diminishing in Belfast; in 1891, 1 out of every 250 of the population was affected; in 1902, only 1 out of every 318. Since May, 1902, the medical officers of the several dispensary districts have voluntarily notified all cases of phthisis coming under their notice, a female sanitary inspector has visited the house and given advice and a paper of printed instructions; disinfection was also offered. The report recommends compulsory notification of phthisis.

PROPOSED SANATORIUM FOR THE BELFAST UNION INFIRMARY.

On December 28th Messrs. R. Agnew and E. Croey Bigger, M.D., Local Government Board Inspectors, held an inquiry as to the proposed establishment of a sanatorium for the workhouse infirmary consumptives. Mr. Wilson, master of the workhouse, gave statistics as to the number of patients, accommodation, and overcrowding, and also as to the facilities which would be afforded by the proposed auxiliary workhouse, which would take the form of a consumptive sanatorium at Whiteabbey. Dr. Hall, senior medical officer of the infirmary, said that the consumptives were specially classified, and, as far as possible, were isolated by themselves; their removal to open-air treatment would be beneficial to themselves, and give room for twice the number of inmates without disease. He had examined the proposed premises and site, and thought the property very suitable. With little alteration it would give accommodation at once to sixty patients and attendants, and by the erection of suitable huts, using the house as the administrative block, to 250 patients. The site was very convenient to Belfast, and close to a station. The objections against the site which were put forward by owners of property in the neighbourhood were that it was too low-lying, of a clayey nature, and too populated. The inquiry was adjourned till January 18th.

QUEEN'S COLLEGE, BELFAST: APPEAL FOR GOVERNMENT AID.

A series of resolutions have been framed by the Council and Corporate Body of the Queen's College, Belfast, and forwarded to His Excellency the Lord Lieutenant. These point out the necessity for largely increasing the equipment and staff of the College; insufficient accommodation in the laboratories of Natural Philosophy and of Natural History, and the incompleteness of the Chemical Section, the necessity for an increased number of assistants and tutors, the increased interest taken locally and the growing number of students, nearly £100,000 having been bestowed on the College by the public. These and other reasons are all put forward in detail to support the petition for Government aid.

THE MILK SUPPLY OF BELFAST.

Recently Dr. and Mrs. Henry O'Neill of Belfast offered to present £300 to the Public Health Committee of the City Corporation to encourage the establishment of an infants' milk depot. The Committee, at its meeting on January 1st, considered that it had no legal power to maintain such a depot, and therefore declined Dr. O'Neill's gift, which expressing a high appreciation of his motives. Though the immediate result of Dr. O'Neill's generous and public-spirited offer is thus disappointing, we make no doubt that by his action he has most effectually called the attention of the people of Belfast to the present condition of the milk supply of the city. The *Northern Whig* on January 4th published an editorial article on the subject, founded largely upon the articles on the Milk Supply of Large Towns published in the BRITISH MEDICAL JOURNAL early last year. The conditions which must be fulfilled in order to ensure that the milk supplied to the public is in good condition and free from infection are admirably set out, and we are glad to observe that our contemporary adopts the view advocated in these columns, that with reasonable precautions at the farm, and proper care in transit, it should be quite unnecessary to subject milk to the process of sterilization or pasteurization under ordinary circumstances. The *Northern Whig* concludes its article by drawing attention to the results obtained by Mr. Sorensen at York, as related by our Commissioner in the letter published last week.

Scotland.

RESUMPTION OF MEDICAL SESSION.

THE various classes in the University and Extra-Academical Medical School in Edinburgh resumed work after the Christmas recess on Tuesday, January 5th.

EXTENSION OF THE CHEMISTRY DEPARTMENT OF THE UNIVERSITY OF EDINBURGH.

Since the opening of the chemistry laboratories in 1885 there has been a steady increase in the number of students of chemistry, while of late years there has been a great increase. This no doubt is due to the growing importance of chemistry in so many other branches of science, and in the manufacturing industries of the country. Then, too, a considerable number of school teachers seek in the University chemical department to qualify themselves for giving elementary instruction in that subject. The result has been great pressure on the available laboratory accommodation. In the quinquennial periods between 1881 and 1903 the annual average number of students has risen from 27.0 to 83.5. Accordingly the existing laboratories have been altered and readjusted so as to give accommodation for 40 additional students. The department and the new laboratories were open for inspection on Monday last, January 4th, when Professor Crum Brown received a large number of visitors, who were conducted over the various rooms, and had the apparatus, etc., described to them.

EDINBURGH ROYAL INFIRMARY.

At the annual meeting of the contributors to the Royal Infirmary, Edinburgh, held on January 4th, Lord Provost Sir Robert Cranston in the chair, the report for the year ending October 1st, 1903, was submitted. The percentage of deaths to cases treated was 7.2, against 8.3 in the previous year. [illegible] cases were treated in the wards, and there were [illegible] out-patients. The ordinary income amounted to [illegible] 11s. 1d., being a slight increase of [illegible] 4s. 9d. over last year, but some contributions, such as church collections, showed a decrease. The ordinary expenditure was [illegible] 18s. 1d., and the cost of each occupied bed [illegible], a decrease of [illegible] 7d. The period of training for nurses had been increased to three years, a preliminary examination being obligatory. The new [illegible] for eye and throat and ear work, as well as the bath [illegible], had all been opened during the year, and [illegible]. It was also reported that a new rule had been introduced to the effect that professors in the University, who hold their chairs *ad vitam aut culpam*, should act as physicians and surgeons in the Royal Infirmary [illegible], but that in future others should retire at the [illegible], exception being [illegible] made in favour of those [illegible] serving their second or third term of five years in charge of wards.

[illegible]

[illegible] Mr. J. F. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

THE USHER [illegible]

[illegible]

[illegible]

[illegible] patient [illegible] It [illegible] the number of specimens reported [illegible], whereas [illegible] received so that the present [illegible] expense to the Corporation.

On December 28th, 1903, Sir Henry Littlejohn issued a circular letter in these terms:

I beg to [illegible] the Town Council have made arrangements with the [illegible] for the examination [illegible] food, etc., in connexion with infectious diseases. [illegible] by medical practitioners in the city to be examined [illegible] sent to the institute by post or otherwise with the [illegible] The result of the examination will be [illegible] without delay, together with a fresh apparatus for any future specimen.

SUDDEN DEATHS IN EDINBURGH.

From December 31st, 1903, till Tuesday, January 5th, 1904, no less than 24 cases of sudden death were reported to the police in Edinburgh. In at least two of the cases alcoholic poisoning was certified as the cause of death.

SMALL-POX.

There is no improvement to report in regard to the present outbreak of small-pox in Glasgow. The number of cases discovered from the beginning of the epidemic up to January 2nd was 315, of which total 92 had recovered and 25 had succumbed to the disease. The medical officer of health still complains of the apathy of the public in regard to revaccination. The house-to-house visitation of the eastern district organized by the Sanitary Department has little effect, except when the disease is actually present in particular tenements. An extreme case of carelessness on the part of the poor illustrates the difficulties under which the health authorities have to work. A visit was paid to a house of three apartments in the southern district on the receipt of an anonymous note, and three cases of small-pox were discovered. The house was occupied by nine persons, three of whom were under 10 years of age. The body of an elderly man covered with the eruption was found lying on the floor; apparently he had died a few hours previously. No doctor had been in attendance, and the other inmates were not aware that death had occurred until it was pointed out to them. Two of the other inmates subsequently sickened of the disease while under observation in a reception house.

In view of the probability of a further spread of the disease amongst the comparatively large number of inefficiently protected persons in the city, it has been thought advisable to restrict the admissions to the fever wards of Belvidere with the view of having them readily available for any overflow from the Small-pox Hospital. The present experience of Glasgow is illustrating again how expensive existing methods of dealing with small-pox may become. We may supervise contracts at considerable expense, and may urge revaccination, and yet the disease may spread. The Glasgow Corporation, with the experience of the 1900 outbreak fresh in its recollection, recorded its conviction of the importance of national compulsory vaccination. Possibly the recurrence and wide distribution of the disease at present in Scotland may help to promote the wider acceptance of that principle.

In the course of the week ending January 2nd, there were three fresh cases of small-pox in Edinburgh, all from common lodging-houses in the city. One had been placed in the observation ward of the Royal Infirmary, but when the disease was manifest he was removed to the temporary small-pox hospital at Colinton Mains. All three had been in contact with former cases, and as many as could be got to submit of those who had been in contact with these cases were revaccinated. There are now [illegible] cases, all of a mild type, at Colinton Mains.

PAISLEY BRANCH OF THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

At the annual meeting of this Branch, recently held in Paisley, it was reported that the Association had [illegible] members [illegible], and the balance in hand was [illegible]. A sub-committee had been endeavouring to secure a suitable site for a sanatorium which the Branch intended to erect in the neighbourhood. So far, however, their endeavours have been unsuccessful, as proprietors were found to be averse to selling ground for this purpose. A suggestion that at least in the meantime the [illegible] should [illegible] for the treatment of cases from the district at the Consumption Sanatorium at the [illegible] House, Bridge of Weir, was very favourably received and will be further considered by the executive. The Committee and officials were appointed, Dr. Ferguson being appointed Medical Secretary.

CANCER IN SPAIN.

From the official statistics published by the Government of the condition of the population of Spain in 1900,[1] much interesting information can be gathered as to the prevalence and distribution of cancer in that country. From this disease 7,294 deaths were registered in the year under consideration, comprising 3,172 males and 4,122 females, and were 1·3 per cent. of the total deaths from all causes. In a population reckoned at 18,600,000, this was equal to a ratio of 39 cancer deaths per 100,000 living. It seems, however, improbable that these low figures adequately represent the death-rate from cancer; some addition would have to be made for deaths really due to this disease, but not so described, while there is reason to believe that deaths from some forms of malignant growths are not included under the generic head of cancer.

The rate varied greatly in the different provinces, the highest being 68 per 100,000 in the province of Burgos and the lowest 21 in that of Oviedo.

Table I shows the cancer-rate in the 9 provinces out of a total of 49, having a cancer-rate of 50 and upwards, and in 11 others in which the rate was less than 30. A calculation has also been made of the proportion which the deaths from cancer bore to the total deaths from all causes of persons over 40.

TABLE I.—*Showing the Death-rate from Cancer in Certain Provinces in Spain.*

	Death-rate from Cancer per 100,000 Living at all Ages	Proportion of Deaths from Cancer to 100 Deaths from all Causes in Persons 40 Years of Age and Upwards.
Kingdom of Spain ..	39	3·4
Burgos	68	-
Madrid ...	65	5·4
Guadalajara ...	59	4·8
Soria	58	4·6
Palencia ..	55	4·4
Avila	51	4·4
Alava	50	4·2
Segovia	50	4·1
Sevilla	50	4·1
Alicante	24	1·7
Badajoz ...	24	2·5
Gerona ...	25	2·1
Valencia	26	2·7
Orense ...	27	2·2
Lerida	28	2·1
Almeria	28	-
Cuenca ...	22	2·0
Oviedo ...	21	2·0

It will be noticed that the rough correction which has been made for age-distribution makes little or no difference in the position of provinces highest on the list, and it may be stated that the same is the case in most of those having an intermediate mortality, and not here mentioned. On the other hand, it will be seen that in several provinces in which the uncorrected rate was well below the average, the proportion of deaths over 40 due to cancer was greater than the same figure for the whole kingdom.

In Spain, as elsewhere, there are apparent indications that malignant disease is not equally diffused over the country, but tends to attack particularly the inhabitants of a special and well-defined area. With the exception of that of Seville (in which the high mortality from cancer is due to a cause which will be presently explained) the provinces with a rate above 50 form a compact group, comprising those surrounding the capital, and forming the central plateau, while also including much of the country to the north as far as Burgos; all are contained in the old divisions of the kingdom known as Old and New Castille. These districts are mostly rocky and mountainous, and very arid, having the hottest and driest climate of any part of the Peninsula. The population is almost entirely pastoral, or engaged in agriculture. The mortality from cancer is exceptionally low among the manufacturing populations of Catalonia, and along the whole of the warm and moist Mediterranean coast. The coal and metal miners also seem to suffer from this disease to a less extent than the rest of the population, judging from the low rates in the mining provinces.

The great diversity in origin of the Spanish population would lead one to expect that this cause would have some influence in producing differences in the predisposition to malignant disease. The distribution of the malady seems to confirm this view, the susceptibility of the inhabitants of Castille being far greater than that of the Catalonians, Andalusians, or Basques.

Table II shows the death-rates in eight of the chief towns. These are, in all cases but one, higher than in the rural districts, a fact which is no doubt in great part to be explained by the uncertainty of diagnosis in many parts of rural Spain.

TABLE II.—*Showing the Death-rate from Cancer in Eight of the Chief Towns in Spain.*

	Death-rate from Cancer per 100,000 Living at all Ages	Proportion of Deaths from Cancer to 100 Deaths from all Causes in Persons 40 Years of Age and Upwards.
Seville	85	-
Madrid ...	79	5·4
Granada ..	74	-
Saragossa	72	-
Malaga	58	4·6
Barcelona	53	4·4
Burgos ...	50	-
Valencia	39	3·3

It will be observed that cancer is the cause of an exceptionally high mortality in the city of Seville, and here is probably to be found the cause of the much greater mortality from the disease in the province of Seville than in any other in the district of Andalusia.

The Committee which has been formed in Germany for cancer investigation has recently issued a special inquiry form on the subject to all Spanish medical men. Unfortunately the number of replies received was so small—less than 600 in response to a total issue of 20,000—that it is difficult to draw inferences of any great value from the results recorded. It appeared, however, from the information so obtained that in Spain, as in other countries, the stomach was the organ most often affected in men, while in women cancers of the breast and sexual organs were most commonly met with. In this respect the only exceptional fact noticed was the comparative frequency with which the eyes suffered from the disease in this country. Suggestions were received by the Committee referred to as to several conditions which were said to predispose to malignant disease; among these were residence in malarial districts and on soils containing large quantities of potash, also in generally unhygienic surroundings. No very valuable evidence seems, however, to have been adduced in proof of these opinions.

An interesting fact which in the opinion of the Committee has been clearly established is that the workers in lemon and apple orchards are especially predisposed to suffer from cancer. This is extremely noteworthy in view of the consideration that, as was shown in the BRITISH MEDICAL JOURNAL in May last, districts abounding in trees present a high mortality from cancer in every country which has been investigated. A separate inquiry into the relation of trees to the development of malignant disease would appear to be very desirable, and might produce valuable results.

[1] *Movimiento Anual de la Poblacion de España en el Año de 1900.* Madrid, 1902.

PREVENTION OF CONSUMPTION.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

In a paper read at the annual meeting of the Council of the Association on November 28th, 1903, Dr. Jane Walker gave an account of her early work in the treatment of poor consumptives. She began by treating them in a small farmhouse managed by the farmer's wife. The next step was to take a small house in a Suffolk village, from which the windows were taken out and a shelter erected in the garden. The staff consists of a matron, a probationer, and servant, and the sanatorium accommodates thirteen patients. At first men as well as women were admitted but this was found to be a mistake. The women pay 15s. a week and do most of the housework. The results are very satisfactory, and Dr. Walker suggests that similar institutions might be simply, inexpensively, and easily established by provident associations.

THE HOSPITAL SATURDAY FUND SANATORIUM COMMITTEE.

The Committee, which comprises representatives of various working men's clubs and Friendly Societies, will meet on

January 15th to elect officers and a sub-committee of nine members. The sub-committee will be asked to consider the following questions:

[illegible]

The Committee has received, through Dr. Hillier, Secretary of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, who is a member of the Committee, a donation of £100 from Mr. Phipps.

The Earliest American Sanatorium.

In 1877, when the annual meeting of the British Medical Association was held at Montreal, a good many members took the opportunity of visiting the sanatorium under the direction of Dr. E. L. Trudeau at Saranac Lake, among the Adirondack mountains, and were greatly impressed by what they saw there. Dr. Trudeau has recently given a history of it in a lecture delivered at the Henry Phipps Institute, New York. That lecture, it may be mentioned incidentally, was the first of a series of six to be given during the present winter as part of the programme of the crusade against tuberculosis in the United States. Three of those lectures are to be given by American physicians, Dr. Trudeau being followed by Professor Osler and Dr. Hermann Biggs, the remaining three will be given by European authorities. Professor Maragliano of Genoa and Dr. Pannwitz of Berlin have each promised one, the name of the third lecturer has not yet been made public. Like many of those who at the present day have taken on themselves the mission of treating tuberculosis in sanatoria, Dr. Trudeau began by being himself a patient.

The Beginning of the Institution.

Thirty years ago when he went into the Adirondack wilderness to seek for a respite from the sentence of death which he believed to be hanging over him, nothing would have seemed to him more improbable than that he should live to return on consumption in the early winter of 1873. In 1873 both the profession and the public looked upon the disease as practically incurable. The only chance of recovery was believed to lie in the choice of a suitable climate. Medical authorities, however, were very far from being agreed as to what constituted a suitable climate, and clear-sighted observers gradually came to recognize that the great majority of consumptives died wherever they were sent. There were special wards for consumptives in one or two of the large hospitals in New York, there were also a few homes for consumptives, but no institution was presumptuous enough to announce that its object was anything beyond affording the asylum where they might die. In 1873 the Adirondack region was a vast wilderness, visited only by a few sportsmen during the summer months. It was then that Dr. Trudeau sent Dr. Alfred Loomis, who, in spite of his critical condition, encouraged him in his determination to remain during the winter in a small summer hunting lodge in the Adirondacks. The place was forty-two miles from a railroad or a physician, and [illegible] cut off from the outer world for weeks at a time by deep snow. The spring found Dr. Trudeau much improved. The next twenty-one winters were spent at Saranac Lake, which in 1884 consisted of a sawmill and half a dozen settlers' houses, but which has since grown into a town of some importance and is known all over the world as a health resort. Under the influence of his own teaching as to the value of the open-air treatment, Dr. Trudeau determined to establish at Saranac Lake a sanatorium, for consumptives of the poorer classes. Little by little there came to him the vision of founding a similar institution for working men and women. He collected a few patients. At one time [illegible] were able to [illegible] a group of poor women in one of the half-built cottages. One end was boarded off for the room, [illegible] opened on to the verandah. It had a [illegible] It had a small stove, where the [illegible] and [illegible] could be prepared. He secured his first two patients [illegible] the first day of [illegible] Dr. Hillier, [illegible] was the first [illegible] [illegible] to apply for admission. He had room up to the beginning of [illegible] and it was [illegible]

Its Development.

From this humble beginning the institution developed until it has become a small village. The evolution of the cottage has continued, and the latest erections are substantial yellow brick and stone structures, costing about £1,000, and accommodating four patients. They are lighted by electricity, heated by hot water and open fires, and supplied with baths and running water; each room opens directly on a covered verandah, upon which the patients' beds are easily pushed when they are not allowed to get up and when they are directed to sleep out at night. As time passed the struggling institution needed in turn more land, an abundant water supply, good drainage, electric lighting, a crematory for the disposal of infectious material, an open-air recreation pavilion, many more cottages, a library, a chapel where religious services could be held, and an infirmary where the very sick could be properly nursed, and, as the cottages increased in number, a new administration building suited to the enlarged needs of the growing community. As these needs arose from year to year they were supplied, until to-day a small village consisting of twenty-two buildings entirely free from any financial encumbrance has grown up about the little one-room cottage which still stands as a reminder of the institution's humble beginning. During the early years of the sanatorium's existence no nurses were available and there was no resident physician. Gradually financial difficulties were overcome and these and other problems were solved. The price charged from the first has been £1 a week, but each patient costs the institution from 32s. to 36s. a week. There are no private patients and no graduated rates, all patients being on the same footing. No charge is made for medical attendance, and there are no extra charges except when patients are so ill as to be taken to the infirmary, thus requiring constantly the services of a nurse, special diet, etc.; in such cases an additional charge of £1 is made. There is a small Free Bed Fund, the income of which is applied to defray the expenses of patients who have come to the end of their resources. It took a long time to overcome the prejudice existing in the professional as well as the lay mind against hospitals for consumptives, a prejudice founded at first on the discouraging death-rate among patients in such institutions, and, later, on the fear of infection. The excellent results obtained at the sanatorium soon overcame the first objection. Dr. Hance's research, which proved that the dust taken from all the buildings at the institution, except in one instance, failed to infect guinea pigs, and the published fact that ever since the sanatorium was opened none of the employés or servants had been known to develop consumption soon proved that the measures adopted to guard against infection there were efficacious for the protection of all residing at the institution. At first it was very difficult to fill the few beds of the sanatorium, but for years past there has always been a long waiting list, and not one in twenty of the applicants for admission can be taken.

Results of Treatment.

Speaking of the results obtained, Dr. Trudeau said that the report for 1902 showed that of the really incipient cases, which were only 40 in number, 75 per cent. were discharged as apparently cured, 15 per cent. had their disease arrested, and 10 per cent. improved; while of the advanced cases, 60 in number, 12 per cent. were discharged as apparently cured, 37 per cent with disease arrested, 22 per cent. improved, 8 per cent. were not benefited, and 1 per cent. died in the institution. Of the far advanced cases none was apparently cured, in 33⅓ per cent. the disease was arrested, 33 per cent. improved, and 33⅓ per cent. failed while under treatment. Thus, for the 105 cases at whatever stage treated during that year, 30 per cent. were discharged as apparently cured, in 31 per cent. the disease was arrested, 19 per cent. improved, 7 per cent. failed, in 3 per cent. the diagnosis was doubtful, and 1 per cent. died in the institution. To test the permanency of the results an exhaustive inquiry was made by Dr. Lawrason Brown, the resident physician. The figures collected by him showed that of the 1,500 cases under consideration, which have been discharged from two to seventeen years, 534 could not be traced, leaving 1,016 which have been traced. Of these 39·7 per cent. are living. Of these 41 per cent. are known to be well at present, in 6·5 per cent. the disease is still arrested, 4 per cent. have relapsed, 10 per cent. are chronic invalids, and 33·3 per cent. are dead. As to the influence of the stage of the disease in the permanency of the results obtained, it was found 61 per cent. of the early incipient cases discharged are well at present. Of the 365 advanced cases, 28 per cent are well, and of the far advanced cases, 3·4 per cent. only remain cured. It appears, therefore, that 31 per cent. of all cases discharged from two to

seventeen years have remained well; and that 70 per cent. of the incipient cases discharged during the same period continue well up to the present.

Effects of Tuberculin.

The only specific treatment which has been carried on at the sanatorium has been Koch's tuberculin treatment. It has been used in a limited number of cases ever since Koch first proposed it, in order that some evidence might be obtained as to its specific influence when given under the most favourable conditions of environment, and where patients were constantly under medical supervision. Its use has been found inadmissible in the active types of the disease, and has been confined almost entirely to incipient cases and advanced cases of subacute types only. Of the patients selected for tuberculin treatment, 20 per cent. were classed as incipient, 53 per cent. as advanced, and 8 per cent. as far advanced. All the tuberculins prepared by Koch, as well as Hunter's modification of it, most of which were made in the Saranac laboratory, have been tested. At present Koch's emulsion of crushed bacilli is being employed in a few cases. From 1890 to 1901 143 cases were treated with tuberculin, and of these patients 58 per cent. are alive, 33 per cent. are dead, and 9 per cent. are untraced. Taking the 1,357 cases treated at the sanatorium without tuberculin during the same period of time, we find that 38.9 per cent. are alive, 39.6 per cent. are dead, and 21.4 per cent. are untraced. This leaves a considerable percentage of living, 20 per cent., in favour of the tuberculin-treated cases. The value of any deduction based on these figures is, however, impaired by the fact that the tuberculin cases were to a certain extent selected, and for this reason were possibly of a somewhat more favourable type than the general average of those treated at the institution during the same period which served for comparison. Dr. Trudeau has therefore procured from Dr. Brown the results in the incipient cases only, treated with and without tuberculin, which were discharged during the same period of time, 1890 to 1901. Of the incipient cases which received no tuberculin, 61 per cent. are alive at present, while of the tuberculin-treated incipient cases, 76.7 per cent. are now living. Dr. Trudeau therefore thinks there is still an appreciable, though not very pronounced, percentage in favour of the tuberculin-treated cases.

The Financial Question.

Touching on the question of finance, Dr. Trudeau says he at first experienced the greatest difficulty in obtaining the comparatively small sums required, because people then looked upon any attempt to cure tuberculosis with the greatest incredulity. The sanatorium has been throughout the whole course of its existence an Adirondack charity; it has been supported almost entirely by visitors who come to the St. Regis and Saranac Lake region in search of pleasure, recreation, or health. The two fairs held each year at Paul Smith's and the Saranac Inn have supplied a goodly share of the funds necessary to meet the yearly deficit in running expenses. Starting with no capital, the sanatorium now represents a plant worth about £70,000, which is paid for: a yearly deficit on running expenses of £1,400 to £4,000 has been met for twenty years entirely by subscriptions, and an endowment fund of £40,000 has been gradually put aside, the interest of which has been allowed to accumulate each year, as £80,000 will be needed before the deficit in the running expenses can be even approximately supplied by this fund and the work established on a permanent financial basis.

A co-operative scheme for obtaining employment for discharged patients will soon be ready to come into operation.

Research Work.

In addition to its function of healing the sick, the sanatorium has done good work in scientific investigation. The Saranac Laboratory was the first in the United States devoted to original research on tuberculosis. The opportunities of investigation afforded by it have always been placed freely at the disposal of any medical man desiring to make researches bearing on the etiology, bacteriology, or chemistry of tuberculosis, or to test experimentally any proposed specific methods of treatment. The original work accomplished in this way by Dr. Trudeau and his colleagues has been published from time to time during the past twelve or fifteen years in various medical journals, and comprises thirty-seven papers, twenty-one of them by Dr. Trudeau himself.

It has been said that a large part of the world's best work has been done by invalids. No more striking proof of the general truth of that proposition could be cited than the career of the man who went out into the wintry wilderness with the hand of death, as he believed, already on him, and who in thirty years has built, and by his untiring efforts to a large extent maintained, a sanatorium that has been the means of saving a great number of consumptives from an early grave, and has been a centre of light and leading in the matter of tuberculosis whose influence has radiated to almost every point in the circumference of the globe.

LITERARY NOTES.

DR. A. E. GARROD AND MR. MCADAM ECCLES have been appointed respectively medical and surgical editors of the *St. Bartholomew's Hospital Reports*. The next volume, which is the thirty-ninth, will be issued in the course of this month.

A work by Dr. R. R. Rentoul, of Liverpool, entitled *Proposed Sterilization of Certain Mental and Physical Degenerates*, has just been issued by the Walter Scott Publishing Company.

The *Index Medicus* has now some 450 subscribers, a number still inadequate to keep it alive. The New York *Medical News* says there is every reason to believe that, if 500 bona fide subscribers can be secured, the Carnegie Institute will continue its subvention, and place the *Index Medicus* on a permanent basis. It is earnestly to be hoped that this invaluable publication will not again be suffered to die for want of support by the medical profession for whose benefit it is carried on.

The first number of a new periodical, entitled *Illustrated Review of Physiologic Therapeutics*, has just appeared in America. Its nature and scope are indicated by the title. The editor is Dr. S. D. Morrell, the publisher E. R. Pelton of New York.

The *Gazette Médicale du Centre* (Tours) in its issue of January 1st commenced the publication of a new edition of the letters of Gui Patin, the famous Dean of the Paris Faculty of Medicine. The letters will appear month by month in a special number of the *Gazette*. The editor is Dr. Paul Triaire, who has spared no pains to gather together all Patin's letters. Those suppressed by former editors are to be restored, and a copious commentary is supplied. Two well-known scholars and members of the Institute of France, MM. de Montaiglon and Tamisey de la Roque, had undertaken the issue of a complete edition of Gui Patin's letters, but the fruit of their labours was destroyed by a fire in which the library of M. Tamisey de la Roque perished in 1895. The letters are invaluable to students of the history of medicine, and throw curious sidelights on the social and political life of France in the seventeenth century.

Le Scalpel, of Liège, in its issue of January 3rd declares its intention of publishing, from time to time, reports of medical cases in Esperanto, that curious hotchpotch of vocables which might make one think that the ingenious inventor had, as Moth says, been at a great feast of languages and stolen the scraps. The following announcement is made:

[illegible]

From which we gather that a new medical journal in Esperanto entitled the *International Medical Review* has recently appeared in Paris.

In *The Life and Letters of Charles Butler*, of New York, a book recently published by Charles Scribner's Sons, an amusing account is given of a consultation with Samuel Hahnemann, the founder of homœopathy. Mr. Butler, who was then a middle-aged man, took a journey to Europe in search of health, and being in Paris, where Hahnemann, at the age of 83, was still in active practice, he sought counsel of the oracle. In due time he was admitted to the presence. Hahnemann questioned him very minutely about his symptoms, all of which were recorded in an exact manner by his handsome French wife, who acted as his secretary. After a few sittings of this kind of examination Hahnemann intimated that the consultation was finished and told the patient to return on the next day. Mr. Butler, according to instructions, left a gold piece upon the mantelpiece and retired—we are not told if he did so backward. The next day exactly the same system of examination was conducted for the same time. Again Mr. Butler was told to come on the following day, and again he left his offering on the mantelpiece. This process was repeated for several days, when the American, not having been vouchsafed a word of advice or prognosis, began to be a little anxious as to his case. He intimated to Hahnemann that he could not stay very long

in Paris, and that he was very eager to get his opinion. Thereupon Hahnemann, who is described as a distinguished looking man, rose in wrath and closed his casebook with a slam, exclaiming, "If you care more for your business than your health, more for your money than your life, I will have nothing to do with you." With this [illegible] Mr. Bayley took his leave, and never knew what Hahnemann thought of his case. Most likely the physician knew just as little. In any case, we cannot think that the patient lost much by not learning his opinion.

In a recent number of the *Journal de Médecine* Dr. Paul [illegible] has published a letter from the Countess de Bizemont to the Count de Brac de [illegible] which gives the impressions of a lady of fashion on Mont Dore as it was in 1822. She describes the village as presenting "a frightful aspect." The houses were mere peasants' cottages, the church had no belfry, and no pavement, and showed in everything the simplicity of the first ages of the world. The accommodation for visitors was of the scantiest and [illegible]; one had to share a bedroom with people one had never seen; there was not the most elementary provision for natural necessities. Yet everything was frightfully dear and the visitors were treated by the natives as their natural prey. The Countess, however, makes no complaint of the food, which from her description seems to have been fairly good. Of the treatment and mode of life she gives the following account:

[illegible]

The physician who played the part of tutelary deity to the spring had plenty to do. When the Countess de Bizemont was at Mont Dore there were [illegible] patients, yet the doctor felt her pulse two or three times while she was in the bath. The [illegible] fee for the course was 40 fr. Some patients, however, gave [illegible]; others 200 or 300 fr. From the poor the doctor took nothing. The Countess estimates his total receipts during the season at 30,000 to [illegible] fr. [illegible] to [illegible]. The doctor's residence differed in nothing from the peasants' cottages. It may be inferred that the thermal establishment was fairly well equipped, for it is spoken of as being a heavy charge to the Government. It is clear that Mont Dore was already fashionable at the time of the Countess's visit, for she speaks of meeting several persons of distinction there, among them being the Prefect of the Seine, [illegible] to Constantinople, a colonel or two, a member of the Académie Française, a famous singer, and a well known [illegible].

[illegible] account of the awe with which, as a [illegible] the central walk [illegible] in defiance of the orders of the municipality. [illegible] had little respect for laws. [illegible] therefore, to learn that he even practised the art of healing, though, unlike our own [illegible] qualification. [illegible] published in the *Chronique Médicale* a letter from Napoleon to his brother [illegible], in which he gives him advice as to a troublesome complaint. The letter, which is dated [illegible] May, [illegible], is to the following effect:

[illegible]

[illegible] appears to [illegible] who was a fellow sufferer [illegible] of his *bonnes* [illegible] the way of physic.

[illegible] of the [illegible] of medical [illegible] that his great opponent also [illegible]. In the *Personal Reminiscences of the Duke of Wellington*, by the first Earl of Ellesmere, just published by John Murray, it is stated that at Walmer the Iron Duke "invented a very neat [illegible] and did not exhibit how he [illegible]." We should not be surprised to hear that Wellington [illegible] in the [illegible] of [illegible] surgical appliance than in having crushed [illegible] at Waterloo.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of January next, at 2 o'clock in the afternoon.

GUY ELLISTON, *General Secretary.*

COUNCIL.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

PERTH BRANCH.—A Council meeting will be held in the Literary and Antiquarian Museum, Perth, on Friday, January [illegible], at [illegible] p.m. Business: Election of members; Medical Acts Amendment Bill; arrangements for clinical meeting.—WILLIAM A. TAYLOR, [illegible], Marshall Place, Perth, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital at [illegible] p.m. on Tuesday, January [illegible]. A paper will be read by Dr. [illegible] [illegible]—[illegible], Honorary Secretary.

EAST ANGLIAN BRANCH: N[illegible] DIVISION.—A meeting of the [illegible] will be held at the Y.M.C.A., [illegible] [illegible] MEDICAL JOURNAL [illegible]—W[illegible], Honorary Secretary.

SOUTH WESTERN BRANCH.—The next meeting of the Branch will be [illegible] [illegible] Honorary Secretary, [illegible], Matlock Terrace, Torquay.

THE late Sir Robert Martin Craven, F.R.C.S., some time Sheriff of Hull and President of the Central Hull Conservative Association, has left property of the gross value of £40,492, including net personalty estimated at £[illegible],335.

A NEW Pasteur Institute has been established at New Orleans, where the antirabic treatment will be carried out without any expense to the patients.

SPECIAL CORRESPONDENCE.

BERLIN.

The Prevention and Treatment of Venereal Diseases. The Emperor and Empress Frederick Hospital.

THE keen and intelligent interest taken by the Prussian Government in medical questions—where they affect the public weal—is shown anew in a letter addressed to Professor von Bergmann, as President of the "Central Committee for the Organization of Post-graduate Medical Instruction in Germany," by the Prussian Cultus-Minister. "Among the weapons for combating infectious venereal diseases," so runs the letter, "a prominent position must be given to thorough and up-to-date training of doctors in the diagnosis and treatment of the various forms these diseases assume. It is a matter of regret that there should still be members of the profession who underrating the gravity of these diseases, and the side of their calling which makes them warners and advisers of the public—neglect not only timely and reiterated enlightenment, but also timely energetic therapeutic measures. To step in here with instruction and encouragement seems to me an object worthy of the Central Committee for Organizing Post-graduate Instruction, and I therefore request your Excellency"—v. Bergmann has that title—"to give your consideration to a scheme for making special courses and general addresses on the nature, prevention, and cure of infectious venereal diseases a permanent factor in the cycles of lectures arranged by the Committee in Berlin and in all towns where gratuitous post-graduate courses are held. I look forward to receiving the expression of your Excellency's opinion on the subject, together with an account of any measures you may have already thought fit to take in the direction here indicated."

The Special Committee of town councillors appointed to prepare the material for the forthcoming debate on the enlargement of the Emperor and Empress Frederick Children's Hospital, held an important meeting just before Christmas. The following resolutions were proposed:

To inquire of the Magistrates Committee whether it is in accordance with facts (a) that the demand for funds formulated by the Municipal Hospital Committee for carrying out the urgently necessary enlargement of the Emperor Frederick Hospital has been refused by the magistrates on financial grounds, and (b) that the demand for immediate erection of a venereal disease department of 100 beds in the Moabit Hospital under the direction of a specialist likewise formulated by the Hospital Committee has been similarly refused.

After a long and thorough discussion of the questions in all their bearings, the following resolutions were finally formulated:

(1) To request the magistrates to prepare plans for the further completion of the hospital as speedily as possible, the temporary pavilions to be replaced by permanent ones, without considerably increasing the number of beds; and (2) to request the magistrates to take steps for opening a syphilis department affiliated to one of the municipal hospitals and under the direction of a specialist, without thereby diminishing the number of beds available for other diseases in the hospital, the said syphilis department to be used until the opening of the syphilis department in the Rudolf Virchow Hospital.

MANCHESTER.

Against Spitting.—Compulsory Notification of Phthisis.

WE welcome the proposal that is about to be made to the Manchester City Council that a by-law should be passed providing that "No person shall spit on the floor, side, or wall of any public carriage, or of any public hall, public waiting room, or place of public entertainment, whether admission thereto be obtained upon payment or not." The penalty for a breach of the by-law would be a fine not exceeding £5.

The Manchester Medical Guild has addressed to the Manchester City Council a letter of protest against the proposal to seek Parliamentary powers for the compulsory notification of phthisis. The protest states that

The proposal is one to which there are serious objections. Medical men in close touch with cases of phthisis realize that public opinion is not ripe for such a drastic procedure, and believe the present system of voluntary notification, which gives the medical attendant discretionary power in his private practice, to be quite sufficient.

As an experiment in the compulsory notification of phthisis is now being tried at Sheffield, the Guild expresses the opinion that it would be well to await the results of that experimeht before committing Manchester to such a course.

CORRESPONDENCE.

SANITARY AUTHORITIES AND MILK SUPPLY.

SIR,—I have been interested in reading Dr. Hime's letter on the question of sanitary authorities obtaining increased powers of control over the milk supply. I think we medical officers of health are nearly all of one mind if it is intended that the sought-for control shall be given to all sanitary authorities and not merely to a few. In recent years the opposition offered to the authorities of many large towns in their claims for special powers of dairy and cowshed inspection outside their boundaries has been for the reason that we who have objected consider this question of the milk supply as one of primary concern to every sanitary authority. It is too often forgotten that some portion of the milk is sold where it is produced, and that any evil results likely to follow from its use must concern the authority of that district as well as that of the far-off town community.

I may claim to have had a long and practical acquaintance with this matter. My experience has been from inspections made of cowsheds and dairy premises alike in towns varying in population from 70,000 to smaller urban districts of 5,000 and less, and in a very wide rural area in Yorkshire. I have seen many cowsheds where serious defects existed, but I have never met with the equal of the conditions set forth by Dr. Hime, especially that unique concentration of wrongs described by him in the following sentence:

I happened to call at one farm, which I found supplied [ ] gallons of milk daily to one of the largest infirmaries in the district. Three empty milk cans were standing in the sinkstone, along with a well-filled chamber pot and unwashed dinner things.

Most incongruous collection! to say nothing of that same sinkstone having to serve as the family washstand and dressing table as well.

I note that Dr. Hime was led to begin his inquiries as to the condition of the farms outside the borough from what he first saw within the borough boundary. I think his graphic pen might have revealed to us some of the sights and conditions he first saw within the borough. However, he probably feels that he is now writing of conditions which existed years ago in Bradford, and I doubt very much if to-day he could find similar conditions as he has described anywhere in Yorkshire. My experience of the conditions under which the milk trade is carried on is that among the small cowkeepers, that is, those having only a few cows in town and country districts alike are to be found the sheds which are most wanting in every requirement for cows being kept in a healthy condition, and where there is the least regard for the need for the cleanliness of the milk vessels. Among those who make cowkeeping their main occupation, I have seen many and great improvements brought about in recent years, and it is absurd to imagine, as might be inferred from much that is now being written on this subject, that all rural or small urban sanitary authorities and their officials are asleep, or are either ignorant or wholly unmindful of their duties in the matter of looking after the cowsheds in their districts.

I doubt whether a large number of the readers of the BRITISH MEDICAL JOURNAL, who are not specially interested in the sanitary question, are aware of the very general and permissive character of the powers which sanitary authorities possess to regulate the conditions under which milch-cows are kept, and for securing cleanliness in the handling and distribution of the milk. Regulations *may* be adopted. The reasonable requirements of the district council are to be complied with regarding the sanitary condition of any newly occupied cowshed, while another standard is set up for premises previously occupied. Yet much has been done in spite of this want of statutory powers and of definite regulations, a great educational work has been going on, and the results are to be seen everywhere, I should imagine, by the animals being now better housed, that is, with more air space, better light, cleaner premises, better drainage; but I regret that so little has been accomplished in providing adequate ventilation, and I venture to think that there is generally more reasonable care taken to secure cleanliness in the dairy and freedom from infection in the distribution of the milk.

I must leave the medical officers of health for the districts near to Bradford to defend themselves against Dr. Hime's criticisms of their alleged indifference to this part of their work, but if every statement made was strictly accurate even to-day, the remedy does not appear to me to be in granting further piecemeal legislation, giving it first to this town and then to that, but rather that the whole matter should be

recognized as one of great concern to the whole community, and that the sanitary authorities must be required to deal adequately with it.

We have a very good model in the working of the Factory and Workshops Act, 1901, which requires the same authorities to examine and to require all workshops to be kept in good sanitary condition, and to protect the health of the workers, and every medical officer of health is required to report annually on this special work. In that particular case the powers are well defined, the requirements are precise, and a record of the work done has annually to be made. Something analogous must be provided if the residue of dirty and neglected cowsheds are to be compulsorily improved, and I fear that legislation by instalments, such as we have been recently accustomed to, will never accomplish even that which the sanitary authorities of our large towns desire, for it is physically impossible that their officials can inspect the premises of every one who supplies milk from a distance.

I am told that some of the milk supply for London is sent from Cheshire, and probably part of the supply for Bradford is sent from the Craven districts, or from farms in the North Riding. I can imagine that much irritation would be caused and that it would be a step backward in our sanitary aims if the local authorities and their officials were to be ignored and excused the work of controlling the milk supply in their own areas. Rather compel authorities to adopt a reasonable code of regulations, and to require a yearly return of the work of inspection.

Many medical officers of health might heartily welcome the assistance of veterinary surgeons in doing the work of inspecting the cows and the cowsheds, and I readily acknowledge that I have learnt much about cowkeeping and dairy work from farmers whose long acquaintance with the subject demands consideration, even if we cannot accept it always as our guide. I am, etc.,

[illegible] J. Mitchell Wilson.

THE WHISKY HABIT.

Sir, May I thank you for devoting a leader to this great subject, and for the reasoned terms in which, with evident sense of responsibility, you discuss what you call the whisky habit, but which might with equal accuracy be called the whisky delusion? It is a hopeful sign when the leaders of medical journalism devote editorial care to the medical bearings of the habit, and anxiously impress upon medical practitioners their responsibility in the matter. It is one thing to devote special articles to a chemical and scientific account of an alcoholic article, and another to tackle the physiological and clinical bearings of it in society and among the patients. I am constantly receiving advertisements in regard to such articles, with copious extracts from the medical press setting to abet and encourage the use of whisky as a harmless and even beneficial form of alcohol, substituted to medical men the young and wise. Let us hope that in the result of these advertisements we shall see some [illegible] warning bearer, so much in the line of the best medical and physiological teaching.

I have heard that the Swiss physiologists are becoming foolhardy in the strength of the more physiological evidence of the pathogenic effects of alcohol. I have never thought that that alone settled the question of its moderate use by human beings in complicated civilization like ours. But it is [illegible] to meet the combined evidence afforded by common observation and medical practice which goes to show that for young people it is altogether a dangerous superfluity, and for those who are advancing in years an unnecessary hindrance to the sanitizing processes of the body, in all but the most moderate quantities.

Again thanking you for your leader which I hope will be read by practically not only at home, but in India and the colonies, where, in the opinion of some careful observers, the whisky habit is the readiest to imperil the most vital problem on which the continuance of British supremacy depends, I am, etc.,

[illegible] James Cantlie, M.B.

THE NATIONAL PHYSIQUE.

Sir,—This country is beset at the present time with the fact that the physique of [illegible] is not as it ought to be. Apart from the question of race, the most important element affecting the physique is that of sanitary surroundings. In this connexion the [illegible] report on the "voluntary" schools of Carmarthenshire is of immense importance as showing under what conditions the children in the rural districts are brought up.

In the surveyor's summary of the report we find that many of the schools are old and in a very dilapidated condition. They are weakest in the roof, and in a few cases the roof has given way, necessitating the use of iron props. Owing to lack of proper ventilation to floors the joists, etc., have rotted and become unsafe. The arrangement of rooms is such as to necessitate passing through one room to reach another, and in case of fire would be terribly dangerous. The cloak rooms are small, and as they are without doors the children's clothes are exposed to the rain. The lighting is in many cases insufficient and liable to try the eyes to a serious extent.

With only one or two exceptions, out of fifty-six schools, there is a total absence of exhaust ventilation, so that the children have to breathe air of a very vitiated character. The warming is by means of stoves, which dry the already vitiated air, so that the resisting power is considerably lowered, and chest affections are prone to occur.

Drinking water in some cases is only obtainable three-quarters of a mile from the school. There is a general absence of lavatories. Most of the schools are fitted with privies, which can only be emptied with difficulty, and have remained uncleaned, in one or two cases, for ten years. At the Panteg school the privy is washed out by a stream, and after this pollution children have drunk of the water. The teacher's house at Abergwili, the village where the Bishop of St. Davids lives, is said to be without any conveniences!

Can we expect children who are brought up under such conditions to develop into healthy men and women, or such as are likely to bring up healthy children? Children at such schools, with such a poor example, are not likely to realize the value of healthy homes.

The Bishop of St. Davids is responsible for the state of these schools. Can it be true that within 200 yards of his "palace" his teacher's house is without any conveniences? A bishop of the National Church surely ought to take an interest in the national physique and welfare. I am, etc.,

Swansea, Jan. 3rd. G. Arbour Stephens, M.D.

A PUBLIC DANGER FROM SANATORIUM INMATES.

Sir, In reply to the letter under the above title by Dr. John Penny in your issue of January 2nd, the following quotation from the December number, 1903, of *Tuberculosis*, the monthly organ of the International Central Bureau for the Prevention of Consumption, seems appropriate:

"Tuberculosis is a house disease. Not in the open air, not even sunshine is to be feared, and even where otherwise such favourable conditions are given for infection as, for instance, in most street sweepers, not a single case has such an event hitherto been positively ascertained. It cannot be exaggerated and certainly not denied even to the contrary that it cannot be stated often enough, and not precisely enough. It is inside the house amongst families, in factories, workshops, and prisons, amongst people who live, work, and sleep in badly kept and overcrowded rooms that infection takes place. As soon, however, as once the bacilli are raised the threshold of the house it has lost its terrors and only in exceptional cases may find its way again into the human organism."

The author of the article in question is no less an authority than Professor C. Fraenkel, the well-known bacteriologist of Halle. I am, etc.,

[illegible] W. Jan. 4th. F.R.C.P.

THE TREATMENT OF PNEUMONIA.

Sir, The importance of the subject and the doubt left as to the real value of venesection in pneumonia after the very conflicting opinions recently expressed in your pages by such eminent authorities as Dr. Lees and Dr. Barr, must be my excuse for trespassing on your space.

As I understand Dr. Barr he unhesitatingly condemns venesection as a means of relieving the right side of the heart. He says "We cannot siphon the blood back from the right side of the heart to the arm"; quite true, but if, say, 8 oz. of blood are abstracted from the median basilic vein, we prevent that amount of blood reaching the already over-distended right auricle, and 8 oz. of blood mean a great deal when we consider that each ventricle at each contraction only ejects about 4 oz. into the circulation; there is therefore, I think, prima facie evidence that by preventing this amount of blood reaching the right auricle, that we must help that much distressed part of the heart in dealing with the excess of blood it contains, and so in relieving the impending paralytic overdistension of the right side of the heart which threatens our patient. I believe that venesection acts

upon both sides of the heart; upon the left side it allows the left ventricle to contract better, so that during diastole there is more suction action upon the left auricle, and hence upon the pulmonary veins, and upon the right side in the fact that by diminishing the amount of blood reaching the right auricle it allows that chamber to contract better and get rid of the excess of blood it contains. Personally, I believe I have seen great and immediate benefit follow venesection both in pneumonia and mitral stenosis.

With regard to the frequent examinations of the patient I quite agree with Dr. Barr; the panting and distress which follows an examination surely contraindicate its frequent repetition. I think we can learn all we want from the character of the pulse and from the area of cardiac dullness without turning our patient about to find fresh areas of consolidation.

I think a great deal of harm is done by giving stimulating expectorants early in this disease; I can see no good in them possibly before the stage of grey hepatization is reached.—I am, etc.,

Ludlow, Dec. 21st, 1903. EDWARD GREEN.

SIR,—If you apply, it may be four, icebags from day to day to an average healthy man's chest or abdomen for upwards of a week, and at the same time subject him to considerable periodical haemorrhages, you cause such a departure from his normal internal economy and external environment as must inevitably exercise a notable effect on his vital powers. It will probably be universally admitted that in such circumstances life would be maintained under greater difficulties than under those which normally obtain.

The question, however, is—and it is certainly one of the utmost importance—are these conditions, though admittedly unfavourable to life in a healthy man, helpful to a man with pneumonia in his struggle for life? It may be safely assumed, I take it, that such an alteration in his internal and external environment will either materially help him or materially handicap him.

To many medical men who, like myself, have felt it rather doubtful whether the ordinary methods of treatment could often, if ever, be truthfully said to be a determining factor in the issue of this disease, such proposals are extremely interesting. They seem to offer us an opportunity of taking a real part in the race for life which our patient is running. It has, however, yet to be settled whether we shall be helping or handicapping him. I must confess that dogmatic statements, however distinguished their source, and appeals to anatomy and physiology, however seemingly relevant, fail to carry conviction. What we really require for the solution of this fascinating problem are careful detailed clinical observations, supplemented and controlled by a series of comparisons of the death-rate under this radical method and the death-rate under expectant treatment. It is because I have a limited experience of bloodletting in pneumonia that I venture to make a contribution to this discussion. My experience is as follows:

CASE I (1901).—Man, aged [illegible]; history of asthma and bronchitis; fifth day of attack, consolidation left lower lobe, pulse 140, fluttering, low tension; extreme cyanosis, nails being black, large beads of perspiration; gasping respiration; apparently moribund. Injected venesection, left median basilic, without, it must be admitted, very clear physiological conceptions as to the probable result, about 12 [illegible] very dark looking blood taken; hypodermic of strychnine and brandy; considerable immediate improvement in patient's aspect and in the character of respiration; increase of arterial tension; continued very ill for three weeks, some cyanosis persisting; this was temporarily relieved by aspirating pus from localized empyema at left base; rapid recovery after free drainage.

CASE II (1903).—Man, aged [illegible]; sixth day, [illegible] lung, sputum almost pure blood, rhonchi and [illegible] delirium, drowsy and apathetic, could only [illegible] had had a very restless and sleepless night. Pulse [illegible] observations, occasional intermission, temperature [illegible] tions varying, 4[illegible] to [illegible], well-marked [illegible] strychnine, venesection left radial, about [illegible] noticed; while blood was flowing patient opened his eyes wide and said "I feel a lot better." Pulse [illegible] twenty minutes after venesection [illegible] day; slept well that night with [illegible] venesection about 6 oz.; not same obvious improvement as before, doubtful if any, crisis next day; convalescence [illegible].

Whether the good impression left on one's mind by these observations on the utility of venesection in some cases of pneumonia is based on credulity or on an important clinical phenomenon I must leave to Dr. Lees and Dr. Barr to decide; though it would be much more interesting to hear from the former whether the areas of consolidation which improved so quickly under his icebags were of the influenzal or "lobar" type. If the former, I might suggest, perhaps, that rapid changes in the physical signs are not uncommon where no ice has been used.

Though I have already trespassed too far on your space, perhaps you will permit me to refer to a somewhat delicate question which, in my opinion, might well have been left in abeyance. The parallel between perforated gastric ulcer and pneumonia seems a little bit far-fetched, and I submit with all due deference that whether consultations be held early or late, the pneumonia patient will in 99 cases out of 100 owe his life to the keenness and educated judgement of the man in hourly attendance if he owes it to anything except his own powers of resistance. Consultations are, however, of undoubted value in diminishing general nervous tension in such cases.—I am, etc.,

Manchester. J. STAVELEY DICK, M.B.(R.U.I.)

BALCONIES AT SANATORIA.

SIR,—The circumstance of the omission of balconies in Dr. Latham's prize essay and of their inclusion in the actual design of the King's Sanatorium draws attention to an important point in sanatorium architecture.

If we are to have sanatoria springing up all over the country, are the sanatoria to have balconies or not? I fancy we may arrive at the general favour in which they are held by the fact that in Swiss health and pleasure resorts they are introduced widely in all new hotels. Moreover, they are constructed of stone, with light iron balustrades, which do not cut off the sun's rays, and with sheet iron at ends to protect from wind and neighbours. They are made wide enough to admit large chairs and small tables, and long enough for one, or even two, reclining chairs.

The theoretical objection raised against balconies is that they cut off light and air from the room. My contention is that not only do they not do so, but they actually increase both the amount of light and air admitted to the room.

The increased amount of air is due in the first place to the fact that the window opens to the bottom, and, therefore, so long as the window remains open, the air ingress is greater. But nowadays the window always remains open, except when the wind is so boisterous as to necessitate its closure in order to prevent the furniture from being blown about the room. Under such circumstances the protection afforded by the balcony enables the occupant of the room to keep his window open when, in the absence of a balcony, he would be forced to close it. This is not a hypothesis, but the result of observations.

Again, with regard to light, the balcony door-window admits more direct light than an ordinary window, by virtue of its opening down to the floor; but it also admits a large flood of light reflected from the balcony itself, and from that portion of floor just within the room which, under an ordinary window, would remain in shadow. Hence I regard the properly-constructed balcony as a means of increasing in practice both the supply of air and of light to a room.

With regard to direct sunlight, the properly constructed balcony cuts off but a minimum quantity, corresponding to the thickness of the balustrades. The roof, if fixed, may cut off a certain amount of direct sunlight during the summer when the sun is at a high altitude, but it cuts off none during the winter months, when the sun's arc is low.

On these grounds I am in favour of the universal adoption of balconies in sanatorium architecture. The present barrack form, both of hotels and sanatoria, is merely a transition stage, which is doomed to disappear at no distant date in response to the demands of sanitary science.—I am, etc.,

Melton. STUART TILLEY.

CANCER AND ITS ORIGIN.

SIR,—I cannot help thinking that Mr. Henry Morris is right in directing the attention of the medical profession to the "tumour germ" theory, for the origin of malignant disease. Ribbert, we are told, indicated the possibility "during an inflammatory process," of a group of newly formed epithelial cells becoming completely detached from their natural parent tissue, and assuming a power of proliferation whereby tumour becomes developed. Apart from inflammatory processes, why not from simple cell proliferation by [illegible] and [illegible] growth?

A simple protoplasmic cell consists of protoplasm, nucleus and cell wall: the last most prominent in the older cells.

said to be due to a retrograde process taking place in the outer layers of the protoplasm. Increasing age, therefore, should tend to the formation of a capsule. But this cell actively by [illegible] In what is this [illegible] multiplication due? To toughness of the limiting cell wall, or to [illegible] quality of the cell. Let each of these two cells multiply *by simple division*, and let this multiplication be continued, the capsule getting firmer by age. Would not the resulting formation resemble [illegible] tissue?

But suppose each cell within the capsule to possess the same power of multiplication by endogenous growth as the mother cell, and let the process be further continued indefinitely. If the parent cell has this power, why not the daughter cells? Might not this [illegible] resemble the cells of [illegible] stasis [illegible] growth? Would not the high pressure of the tissues produced by the contained endogenous growth, limited by an increasingly resisting membranous wall, tend to the production of the simple or "embryonic" cells, such as exist in a malignant growth? Again, would not a growth consisting of cells [illegible] be expected to retain the characters of the parent cell?

Instead of the existence of an isolated matrix of embryonic cells, as we have stated, should we not rather expect that during mature life and advanced age, the cells becoming more [illegible] should lead to proliferation by [illegible]? It seems possible that cells undergoing growth, daughter cells confined under pressure, may take on their primitive characters from adaptation to environment.

I am, etc.,

HENRY TRIMEST DIXON.

[illegible]

Sir,—The two recent papers in the BRITISH MEDICAL JOURNAL by Mr. Morris and Mr. Plummer give most excellent summaries of the two conditions the rise which at present occupy the most prominent position in this field of research, and [illegible] some considerations derived from the study of vegetable tissues which might serve as indications for [illegible] future research.

The Director of the Cancer Research Laboratories has wisely [illegible] to keep an open mind, and to regard the solution of the problem as most likely to be found by wide biological conceptions. Vegetable tissues, when wounded in nature or by art, have provisions for complete healing, but under certain conditions the tissues undergo hypertrophy, and give rise to [illegible] structures as witches' broom, galls and [illegible] growths, sometimes produced by vegetable, sometimes by animal parasites. A good collection of galls, with their [illegible] growing sometimes from the [illegible] at various times from the buds and leaves, will furnish a satisfactory [illegible] with a subject [illegible] These structures, however, are produced by [illegible] fungi.

I will not further [illegible] to accept Tuttenham that [illegible] and Cecconi by Cornil, and Adami and Stephens [illegible] present suppose the point [illegible] the [illegible] of their production. If the gall producing [illegible] the gall causes to grow in which the gall is [illegible] the gall causes to grow so that the [illegible] formed by the [illegible] of the host and the [illegible]. In [illegible] structures teal reality we must assume that [illegible] by the activity of the parasite, and [illegible] to the conclusion that this activity is [illegible] the same feeding [illegible] by which [illegible] from the host or allied body [illegible] we grant this hypothesis we must suppose that there are substances in [illegible] which have this combined property [illegible] which we consider that in some [illegible] the larvae of some flies [illegible] the gall [illegible] from the [illegible] the parasite [illegible] only the [illegible] [illegible] yet [illegible] and the [illegible] of [illegible] with [illegible] of [illegible] [illegible] I have indicated, [illegible] action, it [illegible] [illegible] the pigment by [illegible] [illegible] [illegible] [illegible] [illegible] largely connected with glands or gland-bearing parts of the body? Or, to express this idea differently, should not research for the cause of cancer be conducted on the lines of biological chemistry, and the search for ferments or allied bodies take the place of morphological studies? The rhythm of development has been accounted for as due to chemical processes, including ferment action, and any interference with this action, such as the presence of anomalous ferments, may disturb this rhythm and alter the ultimate cell aggregate in its properties and behaviour. Orderly cell growth is organization; disorderly growth is disorganization, such as we see in malignant processes.

I have lately been much struck with the fact that these insect-produced hypertrophies do not always keep to their tissue place. In examining some of the soft growths produced on apple twigs by the aphis which causes canker, in microscopical sections it would seem that the hypertrophy of the cambium produced by the punctures of the insect does not only swell up and produce a meristematic tissue, but that this tissue can invade and modify the already formed woody tissue on which it rests in a manner very suggestive of malignant growth. It is to my mind difficult to believe that these punctures are by themselves the mechanical cause of the cambial hypertrophy unless we assume that some ferment is emitted at the same time which would account for the cell activity and power of invading formed tissue, for it must be remembered that these overgrowths are as a rule for the benefit of the parasite and not very injurious to the host. In some cases indeed they have been regarded as beneficial to the host. In conclusion let me recapitulate my main idea. It would seem that in Nature there are substances at present unknown which have a specific action on cell development and which may possibly be found in cancerous growths connected with glands, which would account for the local recklessness of growth and the formation of secondary deposits if these reckless cells found their way into the circulation of lymph or blood, or produce the well-known cachexia if only the substances themselves were absorbed.

I am, etc.,

JAMES E. BLOMFIELD, M.A., M.B. Oxon.

[illegible]

EPIGASTRIC OPERATION FOR DRAINAGE OF PERICARDIUM.

SIR,—May I occupy a little of your valuable space with a few remarks occasioned by the interesting case of purulent pericarditis recorded in the BRITISH MEDICAL JOURNAL of January 2nd by Dr. Coutts and Mr. R. P. Rowlands?

First, I should like to congratulate Mr. Rowlands upon his operation, which was obviously of great benefit, although unfortunately the complicated nature of the case and subsequent additional disease rendered a fatal issue eventually inevitable. Mr. Rowlands gives an excellent summary of the operations hitherto devised and performed for exposing and draining the pericardium. In his comments upon the operation which I proposed, he points out several theoretical objections. These Mr. Rowlands himself meets to a large extent in his further remarks. I propose now to go a little further in combating these objections, and I do so with the more confidence because since designing the operation I have performed it on three occasions with success, and another successful case has been recorded by my colleague, Mr. H. S. Pendlebury. My own cases were those of two children and one adult, and I hope to publish them in detail shortly. Mr. Rowlands's first objection, that in adults with firm uniform and rigid costal cartilage there is too little room, I have not yet found to hold good. Should it do so, however, the difficulty would probably be easily met in the same manner that Mr. Rowlands most appropriately met a similar difficulty in his own case, namely, by removing portions of the thoracic wall. The seventh costal cartilage in the case of an adult may thus have to be cut away.

His second objection, that the peritoneum may be opened through the operator being unfamiliar with the anatomy of the region, I can only say that an operation of this nature, which is required only in cases where the patient's condition is already extremely critical, should of course never be undertaken by a surgeon who is not perfectly at home in the region where he is operating. Mr. Rowlands further objects that the [illegible] cannot be [illegible] and cause trouble [illegible] of light. But proper arrangement of light and sufficient [illegible] to [illegible] that no portion of the [illegible] the wound is [illegible] sight. The injury may [illegible] [illegible] as has happened to myself.

[illegible]

Lastly, he thinks it possible that the pericardium might be separated by the finger from the parietes, and pus be thus allowed to leak into the loose connective tissue. In these cases, however, the very condition which occasions the operation negatives the chance of such an accident. For the pericardium is distended, and the finger has little difficulty in distinguishing it from other structures in such a way that it can be incised without risk of its contents escaping into undesirable situations. Even if it did so escape, harm is unlikely to result if effectual drainage has been established. At present one is speaking, of course, from a very limited experience; as far as it goes, however, that experience has been highly encouraging as to the efficiency of operations through the epigastrium for dealing with and draining a distended pericardium. I am, etc.,

London, W., Jan. 2nd. HERBERT W. ALLINGHAM.

ISOLATION HOSPITALS.

SIR,—I think I shall not be wrong at the present time in affirming that the majority of the medical profession who give any thought to the above subject are rapidly coming to the conclusion that the removal of scarlet fever cases to, and the congregating of them in, isolation hospitals is altogether a failure, whether from the point of view of stamping out an epidemic, or of benefit to the patients, or of cost to the ratepayers. Worse than a failure has been clearly proved during the present epidemic of a peculiarly mild form of scarlet fever in this district. The facts are: (1) The epidemic has existed for the past eighteen months, and is still with us notwithstanding that for the first nine months practically all the cases notified were immediately removed to hospital; (2) numerous cases returned from hospital started the disease afresh in their homes; (3) several cases (there is strong evidence to prove) originated from infection in the public trams which pass the hospital, often conveying friends of patients and the patients themselves (presumably disinfected and free from infection) direct from the hospital; (4) several very mild cases have undoubtedly been converted into more severe ones as a result of being confined in a concentrated atmosphere of the disease; (5) the cost to the ratepayers has been very great, averaging about £12 a case.

Our district council are in the very anomalous and unsatisfactory position (according to the ruling of the Local Government Board, as we have an arrangement with a neighbouring isolation hospital) of not having the power to spend small sums out of the rates for the purpose of—in some very special circumstances—boarding out a member or two of a family or supplementing the nursing. We have appealed to the Local Government Board to give us this power, and if the appeal had been granted a large number of the cases sent to hospital could have been economically dealt with at their homes at one-third or one-fourth of the cost to the ratepayers, and quite as effectively as regards the prevention of the spread of the disease, and more beneficially as regards the patients. Instances have occurred where the judicious expenditure of £5 would have saved £30 at least to the ratepayers.

I should be glad through your columns to have this important question ventilated.—I am, etc.,

W. MOORE,
Member of the British Medical Association, and of the
January 5th. Stourport Urban District Council.

LIFE INSURANCE EXAMINATIONS.

SIR,—In the number of the BRITISH MEDICAL JOURNAL for December 26th, 1903, I observe an editorial comment on the question of medical fees for insurance work, in which you refer to the low fees paid to medical men examining applicants for insurance when the proposal is for a small amount.

It may be of interest to point out that in the case of the Scottish Life Assurance Company, for which I act as Chief Medical Officer, the plan adopted—largely, I think, at my suggestion—seems to reach an equitable solution of the difficulty. The fee for examining proposers to this office, the amount of whose insurance does not exceed £100, is at the rate of half a guinea. From this point upwards until the insurance reaches the sum of £1,000 the fee is 1 guinea. In the case of insurances above £1,000 the fee is 2 guineas. In other words, the company has a sliding scale of fees.

I trouble you with this communication in the hope that some such scale as the above may meet the wishes of other medical officers, and that they will endeavour to get it adopted by their companies. In the case of my own office the circumstance that the chairman of the Board—Sir Arthur Mitchell, K.C.B., M.D.—is himself a medical man, facilitated the adoption of this very reasonable scheme. I am, etc.,

Edinburgh, Dec. 31st, 1903. J. J. GRAHAM BROWN, M.D.

THE MIDWIVES ACT.

SIR,—When the Local Government Board demanded that Section E of the Midwives Act should not apply to midwives under the Poor Law the Board could not have estimated the mischievous effect of this demand. The rules under Section E enforce disinfection, cleanliness, care of infant's eyes, case-taking—matters of extreme importance in the work of a midwife. Is the Local Government Board in a position to affirm that all the midwives in its employ are so well trained and so far above suspicion that these rules are unnecessary? or does it say in act if not in word that to enforce such attention to detail is of no importance in the case of the lying-in pauper mother? To those who are acquainted with the inside of the workhouse maternity department, this policy of the Local Government Board strikes a note of despair. Are all efforts to raise the standard of nursing, thus indirectly improving the condition of the pauper, to be nullified by retrograde action at head quarters?

One immediate result of this policy is that the Central Midwives' Board has resolved "to postpone for the present all applications for recognition as approved teachers under Section C from teachers in Poor-law institutions, in view of the fact that almost all midwives exercising their calling in such institutions are (at the express instance of the Local Government Board) specifically exempted from the operation of Section E of the rules."—I am, etc.,

January 4th. OBSERVER.

THE MEDICAL PROFESSION IN CAPETOWN.

SIR,—My attention has just been called to a paragraph in the BRITISH MEDICAL JOURNAL of September 12th, 1903, from your Capetown correspondent. He paints a gloomy picture of the medical men in Capetown being split up into what he calls "Burgher" and "Uitlander" camps, who are constantly warring with each other. On the whole, after twelve years' residence as a practitioner in Capetown, I am glad to be able to state that the feeling among the medical men is as good, or rather better, than in most other towns of its size. It is true there are here, as in many other parts of the world, a few atrabilious gentlemen (of whom one fears your correspondent may be one) who, having been unfortunate in life, go about believing the world to have deep designs upon their happiness.

I would not have troubled you with this letter, but many of us (old and newcomers) feel that your readers should take these somewhat dyspeptic views of your correspondent with a grain of salt.—I am, etc.,

Capetown, Dec. 7th, 1903. A CAPETOWN MEDICO.

DOCTORS IN PARLIAMENT.

SIR,—I have read with interest the letters published in the BRITISH MEDICAL JOURNAL of November 28th, 1903, p. 1437, of Mr. George Jackson and Dr. Horder, earnest medical reformers, and I am glad to see this subject of direct medical representation in Parliament advocated by them, although in no way a new idea.

At the annual meeting of the British Medical Association at Carlisle or Portsmouth some five or six years ago, I publicly mentioned this want, and even suggested the name of Sir Victor Horsley as one who would be a fitting medical representative capable of giving effect to his thoughts and enforcing his convictions with the power and strength of oratory.

The British Medical Association is certainly an Association of equal importance, as Mr. Jackson observes, to the National Union of Teachers, and has done equally useful work in the interests of the public. There are, too, many retired medical men who are fitted for Parliamentary life, and who could give their undivided attention to the duties of a medical member of Parliament.

Deaths are still registered without medical certification notwithstanding the crime and evil that results therefrom, as has been often shown, and the profession remains much overcrowded, and our medical interests, even those almost equally allied to the public interests, are uncared-for or forgotten, and will continue to be neglected till doctors have a voice of their own in the making of our laws.

The scientific side of the British Medical Association is a

great one, but the practical one by which we can live our life better and in greater usefulness and prosperity by wider fields of labour is not less important, and might even be more productive in results.—I am, etc.,

Bournemouth. FREDK. H. ALDERSON, M.D.

SIR,—Dr. Jepson's letter in the BRITISH MEDICAL JOURNAL of November 7th, 1903, p. 1245, re doctors in Parliament, confirms what ex-President Cleveland said to the Academy of Medicine in New York not long ago. He said that medical men should go more in for politics, as at present they had no position politically, and so represented "nothing and nobody," so that whenever any matter affecting the profession was brought forward it was nearly always defeated, as no one was present who had any interest in supporting it. The apparent weakness of the profession is explained by the letter alluded to.—I am, etc.,

Natal, [illegible] SPES.

MEDICAL WOMEN IN SWEDEN.

SIR,—I forward the following, which may be of interest; it is a translation of a paragraph from a Swedish newspaper—last Thursday's issue:

At the [illegible] lady [illegible] and [illegible] that unmarried [illegible] medical posts [illegible] town [illegible] others [illegible] and physician [illegible] woman [illegible] as having resigned the post to which she [illegible]

The Swedish State, therefore, excludes women from very important public appointments, covering a large sphere of activity, and from the highest posts in institutions. Whilst apparently leaving untouched the scope of medical women in private work, Sweden, an enlightened and educated country, finds itself able to formulate definite views as to their limitations in public work.—I am, etc.,

Ca[illegible] EDWIN GOODALL.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—I notice in the BRITISH MEDICAL JOURNAL of December 12th, 1903, p. 1564, a letter from Mr. H. Nelson Hardy re the dispute between the English Colleges and the General Medical Council. I fully agree with all he says, and sincerely hope that the profession will not rest until this matter is settled to the satisfaction of Sir Victor Horsley and his [illegible] on the Council. We diplomates of the Colleges [illegible] at a great disadvantage in practice as compared with the licentiates of any other colleges and [illegible] M.B., as we [illegible] to style ourselves "Dr." unless we hold a "M.D.," while such a restriction is imposed [illegible]. Now, by their action towards the General Medical Council, the Colleges are making our [illegible] for the general public will not consult a man whose [illegible] were considered "insufficient" by the General Medical Council. The final examination, as [illegible] and [illegible] foundation is obtained in the earlier subjects the public, wh[illegible] more daily, will feel that [illegible]

[illegible] was not fully qualified, being only "Mr." and not "Dr." [illegible] I am still "only Mr." I am, etc.,

[illegible] M.R.C.S., etc.

DIETETICS AND THE ELIXIR OF LIFE.

SIR,—[illegible] elixir of life" of the alchemists has not yet been found, and never will be found [illegible]

[illegible] Committee of the Association [illegible] longevity, which [illegible] BRITISH MEDICAL JOURNAL of December 12th [illegible] all point to the same direction.

We are beginning to learn that it is possible to live even beyond a hundred years of age without becoming disciples of Pythagoras, who taught that the secret of long life and happiness consisted in avoiding the use of animal food. Temperance in all things has long been recognized as tending to longevity, but it is gradually being proved that temperance in eating is of paramount importance. Alcohol and tea have both been blamed for shortening life, but now food itself is arraigned.

The drama and the daily press have taken up the question of dietetics, and "Little Mary" will probably do more than many learned books in calling the attention of the people to the necessity of knowing what, when, and how much to eat, that they may be healthy and happy.

Seeing that this subject is being brought so prominently before the people, it is well that we as an Association should take an interest in the subject and use what power and influence we can on the responsible authorities to have the subject of "dietetics" more fully taught in every medical school.

Sanitation, in which the profession was the pioneer, has done much to improve the health of the people, but a reform of their dietetic habits will do more, and to teach them how, when, and what to eat would be to them as the "elixir of life." I commend the consideration of the subject to the members and of the Committee of the Association which concerns itself with such questions.—I am, etc.,

Hawick. JOHN HADDON, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE SUPPLY OF ARTIFICIAL TEETH.

IN a recent case at the Blackburn County Court the question arose whether an unqualified dentist could recover the price of a set of false teeth supplied by him. A firm of unregistered dentists sued a patient for the price of teeth supplied, their claim including the operation of fitting the teeth. The learned county court judge came to the conclusion that he could separate the claim for the teeth, as being goods supplied, from that for work done in fitting, etc., and he assessed this work at a certain sum, giving judgement for the price claimed, less this amount. If this decision is allowed to stand it will [illegible] quack dentistry. As the law now stands there is nothing to prevent [illegible] of quack dentists forming themselves into a limited liability company in order to escape the penal clauses of the Dentists Act. If they can also claim the price of teeth as "goods supplied" to their patients, their position will be strengthened.

MAY A PRACTITIONER OFFER HIS SERVICES GRATUITOUSLY TO A PUBLIC BODY

J. G.—A practitioner may legitimately place his special knowledge and experience at the service of a public body without remuneration, if he chooses to do so, but his letter of application should be addressed in the ordinary course to the Clerk of the Board, and should not be sent to each individual member or to the press, as that would suggest a desire to advertise himself and to force the hands of the Board. In our opinion, this work (the examination of the refraction of school children), which is most laborious, should be paid for, but it is hardly reasonable to expect the ratepayers to pay for the examination by an ophthalmic surgeon of all the children attending elementary schools. If the ratepayers are to undertake to determine refraction defects, the next step will be a demand for spectacles to be supplied at the public expense, and if this is granted we do not see why we should stop there. [illegible] We cannot perceive that the offer if accepted, would stand in the way of our correspondent pursuing his [illegible] work or such fees as [illegible] but a medical practitioner may send a circular to his professional brethren [illegible] He should, however, take care to see that it does not reach persons for whom it is not intended.

PERSONAL CANVASSING BY MEDICAL PRACTITIONERS

C[illegible] writes [illegible] for [illegible] the weekly [illegible] Medical [illegible]

[illegible] General Medical Council [illegible]

[illegible] Medical Journal of January [illegible] Medical Etiquette [illegible]

OBITUARY.

JOHN KNOWSLEY THORNTON, M.B., C.M.EDIN., J.P.

THIS distinguished authority on abdominal surgery died on Sunday night last, January 3rd, at his residence, Hildersham Hall, Cambridge, in his 59th year, after much distress from prolonged ill-health.

Knowsley Thornton was the son of the Rev. John Thornton of All Saints', Northampton, in which town the subject of this notice was born on January 15th, 1845. His father was afterwards head master of Kimbolton School, and for thirty years Vicar of Aston Abbotts. Knowsley Thornton was educated at Rossall, and spent some years in teaching and clerical work. He was 22 years of age when he became a medical student, and in a speech delivered a few years ago at a dinner of the Medical Society, he expressed an opinion, based on his own experience, that there were advantages in entering the medical profession relatively late in life. He studied medicine entirely at Edinburgh, graduating in 1871. He then became House Surgeon to Lord Lister in the Royal Infirmary, Edinburgh. In consequence he was soon known as the most strenuous advocate of Listerian surgery, and retained the spray for a considerable period after it had been discarded by other authorities.

For under two years Knowsley Thornton was in general practice at Ford, in Northumberland, close to the Scottish border. In 1873 his friend, Dr. William Thomson, now of Algiers, determined to leave London and practise in the South, and, through his introduction, Thornton became Surgeon to the Samaritan Free Hospital, and assistant to Spencer Wells in his private practice.

Thornton's work at the Samaritan Free Hospital raised him to great distinction. His master had established ovariotomy, and was, becoming elderly, still excelling as an ovariotomist, yet growing a little suspicious of innovations. Thornton introduced the most rigorous antiseptic surgery into hospital practice. He had to admit that carbolic poisoning, from which he was himself a sufferer at least on one occasion, not rarely complicated convalescence, but still he insisted to the last that "antisepsis" was far superior to "asepsis," and contended vigorously in his writings in journals and his speeches at medical societies against colleagues and operators in other hospitals who rejected carbolic solutions and the spray.

His care about after-treatment was proverbial and probably, as in the case of the practice of other surgeons given to every conceivable variety of technique, accounted for those good results which he attributed to his particular line of treatment. Thornton was always an extremely careful operator, yet at the same time bold, for complications only seemed to stimulate him, and if there were a way out of a difficulty he was the man to find it. He insisted on ability in an assistant, and hence was an excellent trainer of junior colleagues, whilst remarks by bystanders specially irritated him, and he reproved more than one distinguished visitor for talking during an operation. His name on the roll of surgery will not, however, rest on his surgical discipline nor on his faith in the spray. He will, rather, be be remembered as one of the chief of those ovariotomists who developed their speciality into the general abdominal surgery of to-day. For fibroid disease of the uterus he did much; he was not too fond of hysterectomy as the panacea for that disease, yet he did not advance the technique of the operation very appreciably; he was, on the other hand, incontestably one of the leading pioneers in renal surgery. His Harveian Lectures on the Surgery of the Kidney, delivered in 1889, greatly increased his reputation. He demonstrated with great care the process by which the vessels in the hilum of the kidney should be secured, and dwelt at length on the management of the ureter, now mere matters of routine, but then considered feats of high surgical prowess. He was the apostle of the abdominal incision as opposed to the lumbar wound, which Morris and other British and foreign surgeons advocated. The discussions between these authorities on this subject led to the determination of the advantages of each incision according to circumstances.

Though fifteen years old, Thornton's *Surgery of the Kidneys* is still worth study. The deceased surgeon likewise played a great part in the establishment of the operative treatment of diseases of the gall bladder and liver, and his instructive series of papers on the subject are to be found in the *Transactions of the Medical Society*. His boldness was soon imitated, and, as in the case of renal surgery, what was once only dared by the few, such as himself, is now widely practised by general surgeons. In splenic surgery, again, Knowsley Thornton ranks as a pioneer.

Knowsley Thornton had the qualities which bring success in practice, and he prospered greatly; but that peace and comfort which he deserved, and had conferred on so many of his fellow-creatures, was not to be his portion in this world. Not only was there distressing sickness in his own home, but from the age of 18 upwards he was tormented with gout, which greatly interfered with his work. He admitted to a friend when he resigned his hospital appointment that though he had earned success it was quite unenjoyable to him, for he was often in pain and never well.

In 1891 he gave up hospital practice but for some years continued his private work, living until 1896 in Montagu Square, W. At the end of that period he fell very ill indeed, and was further much reduced in strength by repeated attacks of influenza complicated by gout. In 1898 he retired, and since then he lived at Hildersham Hall, near Cambridge. He worked hard in his garden and farmyard and his health grew better for a time, but of late years he

[illegible] much from peripheral neuritis which gradually [illegible] his strength.

[illegible] did much work for [illegible] and was President of the Medical Society [illegible] took part in many discussions at the annual meetings of the Association, and was a Vice-President of the Section of Obstetrics at the annual meeting [illegible]. He married, first, a Miss Patterson, by whom he had a son [illegible] appointment in South Africa, and two daughters. [illegible] with [illegible] Miss Windsor Clive, by whom he had one daughter; both survive him.

Boldness and [illegible] were the distinguishing features of [illegible], who was of a combative disposition, but [illegible] the cause of surgery which he loved so well. Of this [illegible] of his kind we may say what Carlyle said of a [illegible] of a [illegible] type: "No hollow formalist, deceptive and self-deceptive, ghastly to the natural sense, was this; but a very [illegible] from the great fire-bosom of Nature herself."

WILLIAM HENRY KEMPSTER, M.D.St.And.,

[illegible]

We regret to have to record the death last month of Dr. William Henry Kempster, of Clapham Common, at the age of [illegible]. Dr. Kempster was a distinguished pupil of the Westminster Hospital Medical School, where he gained the [illegible] Prize and Medal, and was a Prosector of the Royal College of Surgeons. He received his first qualification in [illegible], when he was admitted a Member of the Royal College of Surgeons and obtained the licence of the Society of Apothecaries. Six years later he went to Scotland and became L.R.C.P.Edin., and some fourteen years afterwards took the degree of M.D. at St. Andrews. In [illegible] he was elected a Member of the Society of Apothecaries. It was in Battersea that the greater part of his life's work was performed, as he was the Medical Officer of Health for upwards of thirty years and also Divisional Surgeon of Police, while other appointments held [illegible] were those of District Medical Officer for East Battersea and Public Vaccinator. He was a member of several scientific societies, but took most interest in that of the Medical Officers of Health, of which he was Treasurer and at one time President. Outside professional matters he took an active interest in Freemasonry, of which order he was a Past Grand Master, while he also acted as a Governor of the Masonic Boys' Institute. For several years, however, before his death he had given up all professional work, and had perhaps ceased to take an active interest in most of the matters which had previously engaged his attention, for the long and painful illness which eventually brought about his death almost entirely confined him to the house.

We regret to announce the death of Samuel Thomas [illegible], which occurred after a long illness at his residence at [illegible], on Monday, January 4th. He was [illegible] years of age, and had been a member of the medical profession for over fifty years, as he became M.R.C.S. and L.S.A. in [illegible]. His early medical education was pursued at St. [illegible] Hospital in London. He was a pupil of the late Dr. [illegible], and practised in Birmingham as a general practitioner from [illegible] until his retirement in [illegible]. Mr. [illegible] was very well known in Birmingham and was held in high esteem, not only by his professional brethren, but also by a large number of friends and acquaintances. He was a keen supporter of the Conservative party, but he never played any prominent part in politics. He took great interest in most of the philanthropic institutions in the city. He leaves a widow and three sons. One of [illegible] is a member of the medical profession, another is headmaster of King's School, [illegible], and the third, the Rev. [illegible], is vicar of Bishop [illegible] Church in Birmingham. The funeral took place at [illegible] on Thursday, January 7th.

We regret to announce the death of [illegible], Professor of Mental and Nervous Diseases in the University of [illegible] and one of the foremost specialists in that department of practice in the world. He was born at Heidelberg in [illegible] and was Professor successively at Würzburg and at Strassburg before he accepted a call to [illegible] in [illegible].

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

[illegible] Fleet Surgeon, April [illegible]

[illegible] C. M. [illegible] has been [illegible] Medical [illegible]

[illegible] M.B., B.A., Fleet Surgeon, to the [illegible]; [illegible] F. [illegible], Fleet Surgeon, to the [illegible]; William [illegible], M.B., M.A., Fleet Surgeon [illegible]; Albert L. [illegible], M.B., Surgeon, to [illegible]; [illegible] R. Thompson, Surgeon, to the [illegible], January 4th.

[illegible] LIFE GUARDS.

Surgeon-Lieutenant E. [illegible] is promoted to be Surgeon-Captain, November [illegible]. He entered the Department at [illegible], November [illegible], and since being [illegible] October [illegible].

ARMY MEDICAL STAFF.

Surgeon-General Sir W. D. Wilson, M.B., K.C.M.G., is placed on retired pay, January 1st. He entered the service as Assistant-Surgeon, October [illegible]; became Surgeon, March [illegible]; Surgeon-Major, October 1st, [illegible]; was granted the relative rank of Lieutenant-Colonel, May [illegible]; made Brigade Surgeon-Lieutenant-Colonel, October [illegible]; Surgeon-Colonel, [illegible]; and Surgeon-General, [illegible]. His war record [illegible] Afghan war [illegible] medal and Khedive's bronze star, [illegible] medal with clasps, and promoted to be Surgeon-Major [illegible] and South African war [illegible] as Principal Medical Officer [illegible], mentioned in despatches, awarded the Queen's medal with [illegible] clasps, and [illegible] Knight Commander of the Order of St. Michael and St. George).

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel W. J. R. Rainsford, C.I.E., is promoted to be Colonel, vice J. [illegible], C.B., retired, December [illegible]. Colonel Rainsford was appointed Surgeon, February 4th, [illegible]; Surgeon-Major, February 4th, [illegible]; was granted the rank of Lieutenant-Colonel, February 4th, [illegible], and made Brigade Surgeon-Lieutenant-Colonel, [illegible]. He has been recently appointed Principal Medical Officer, [illegible] and Woolwich District, vice Colonel G. D. W. [illegible], who has proceeded to India. His war services comprise: The Afghan war [illegible] with the Khyber Field Force (medal), the Egyptian war [illegible] (medal and Khedive's bronze star), the Soudan campaign [illegible] with the [illegible] Field Force, and the [illegible] expedition [illegible], for which he was mentioned in despatches and appointed a Companion of the Order of the Indian Empire.

Lieutenant-Colonel Edward Russell Cree died at [illegible] on December [illegible], aged [illegible], very suddenly of heart failure. He was a son of the late Inspector-General E. H. Cree, R.N., and entered the service as Surgeon, July [illegible], becoming Surgeon-Major, July 1st, [illegible], and Lieutenant-Colonel, July 1st, [illegible]. He was in the Soudan [illegible], and was present in the actions at Hasheen and [illegible], and at the destruction of Tamai (medal with two clasps and Khedive's bronze star). He was also in the South African war [illegible], and took part in the relief of Ladysmith, and was mentioned in despatches.

MILITARY LAW EXAMINATION.

The undermentioned Officers of the Royal Army Medical Corps have been recorded as having passed in Military Law at the recent examination, as [illegible] for promotion:

Lieutenant-Colonel H. J. W[illegible]	Major C. A. Lane, M.B.
Major R. J. Geddes, M.B., D.S.O.*	Major H. P. [illegible], M.B.
Major G. W[illegible], M.B.	Major H. Carr, M.D.
Major J. M. [illegible], M.D.	Major W. H. [illegible]
Major R. J. A. [illegible]	Major [illegible] Kempster, M.D.
Major J. C. [illegible]	Major F. [illegible], M.B.
Major H. M. [illegible]	Major [illegible]*
Major [illegible], M.B.	Major [illegible]
Major S. [illegible], M.B., C.M.G.	Major H. A. [illegible]
[illegible] Lieutenant-Colonel M. W. Russell	Major [illegible]
	Major [illegible], D.S.O.
Major M. [illegible]	Major [illegible], V.C.*
Major [illegible], M.D.	Major [illegible]
Major [illegible] C. [illegible]*	Surgeon-Major [illegible] N. [illegible] Sheldrake, Grenadier Guards.
Major [illegible] M. [illegible], M.B.	
Major [illegible] C. [illegible]	

* Signifies distinguished.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant T. [illegible], 4th Volunteer Battalion the Argyll and Sutherland Highlanders, to be Surgeon-Lieutenant, November [illegible].

Surgeon-Captain A. J. [illegible], to be Surgeon-Major, November [illegible].

The names of the undermentioned Surgeon-Lieutenant-Colonels are as now described, and not as stated in the Gazette of November [illegible]: W. [illegible]-Cowan, C. M. [illegible].

The notification regarding the promotion of Surgeon-Lieutenant [illegible] in the Gazette of November [illegible] is cancelled, [illegible] his death prior to that date having been received.

IMPERIAL YEOMANRY.

Surgeon-Captain J. [illegible], M.B., Westmorland and Cumberland, is promoted to be Surgeon-Major, January 2nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. ALLISON, M.D., Madras Establishment, is permitted to retire from the service, with effect from December [illegible]th, and has been appointed Assistant Surgeon, September [illegible]th, 1[illegible] and was made Brigade-Surgeon Lieutenant-Colonel, June 7th, 1[illegible].

Brigade-Surgeon WILLIAM SMYTH FOX, of 11, Westbourne Gardens, Bayswater, late of the Madras Establishment, died on December [illegible]th, 1903, aged [illegible]. He entered as Assistant-Surgeon, March [illegible]st, [illegible] and became Brigade-Surgeon, January 4th, 1882. He had no war record.

ROYAL ENGINEERS (VOLUNTEERS).

SURGEON-MAJOR G. B. FRASER, 1st Devonshire and Somerset [illegible], to be Surgeon-Lieutenant-Colonel, January 6th.

ROYAL ENGINEERS, SUBMARINE MINERS (VOLUNTEERS).

SURGEON-CAPTAIN W. L. EDWARDS, the Severn Division, to be Surgeon-Major, January 2nd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

MAJOR D. HEPBURN, M.D., the Edinburgh Company, resigns his commission, retaining his rank and uniform, November 28th.

Captain J. G. GRAHAM, M.B., the Glasgow Companies, resigns his commission, November 28th.

WILLIAM BRYCE, M.D., to be Lieutenant, Glasgow Companies, November 28th.

Captain J. W. SMITH, M.B., the Manchester Companies, resigns his commission, January 6th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

Lieutenant A. H. MCDOUGALL, Worcester and Warwick Company, resigns his commission, November 28th.

Surgeon-Captain (Hon. Captain in the army) E. V. ST. V. RYAN, from the 16th Middlesex Volunteer Rifle Corps, to be Surgeon-Captain in the East Surrey Company, January 2nd.

The announcement which appeared in the *London Gazette* of September 11th last regarding the transfer of Surgeon-Captain W. N. EVANS from the 1st London Volunteer Infantry Brigade Bearer Company to the 5th London Company is cancelled.

VOLUNTEER INFANTRY BRIGADE.

MAJOR W. J. WHITCOMBE, commanding Worcester and Warwick Brigade Bearer Company, to be Brigade-Surgeon-Lieutenant-Colonel while holding the appointment of Senior Medical Officer to the Brigade, January 2nd.

CAPE COLONIAL MEDICAL SERVICE.

COLONEL E. B. HARTLEY, V.C., C.M.G., P.M.O., Colonial Forces, has retired from the Cape Colonial Service on pension, on account of ill health, after twenty-six years' military and three years' civil service. The appointment of P.M.O. has been given to the next senior, Lieutenant-Colonel G. B. Faskally, who saw much service during the Anglo-Boer war.

LOST TIME AT NETLEY.

MAJOR, R.A.M.C., writes: With the example of the Admiralty in the Order in Council of October 9th promoting over 200 officers before their eyes, is there no hope of the War Office redressing a grievance affecting a small proportion of the Royal Army Medical Corps? I mean, cannot the four months we spent at Netley be given us? Those who went before and those who came after count these four months, but an unlucky few do not.

MEDICAL ATTENDANCE ON SOLDIERS ON SICK FURLOUGH.

A CORRESPONDENT submits a case in which he was called upon to attend on a non-commissioned officer on sick furlough suffering from synovitis. There was no military hospital near, and it was "impracticable" to remove him to one. Under such circumstances, and in accordance with regulations, he preferred a claim for medical attendance, which was technically repudiated by the man's regimental commanding officer. He asks what he should do.

***** The question seems to turn upon whether it was "impracticable" to remove the man to a military hospital: and so viewed, we think our our correspondent has a good claim. In any case, he should now prefer it, and submit the correspondence through the following channel: The Under Secretary of State for War, War Office, London, S.W., Medical Department. A letter and claim so addressed will doubtless be duly considered by the proper official authorities.**

PRECEDENCE.

R.A.M.C. writes: Referring to the regimental position in the monthly Army List of the Bandmaster, Royal Horse Guards, is it a fact that in future bandmasters when commissioned are to take regimental precedence of the medical officers in the regiments of Household Troops?

***** The medical officers of these regiments occupy the position they have hitherto held in regimental lists, beneath all—quartermasters and riding masters, but we are not aware that this involves any question of precedence. They are the last remnant of the regimental system, with compound titles, etc.; and in Article [illegible] of the Royal Warrant of March [illegible]th, 1[illegible] are declared to be, when not [illegible]otherwise provided, governed by the "general regulations for regimental officers."**

THE MEDICAL SERVICES OF THE NEW ESTATES.

[illegible] study with diligence.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT FOR 1903.

Number of Students.

DURING the past year the total number of matriculated students (including [illegible] women) was [illegible], the largest number recorded for ten years. Of this number, [illegible] (including [illegible] women) were enrolled in the Faculty of Science, [illegible] (including [illegible] women) in the Faculty of Medicine. Of the students of medicine, [illegible], or over [illegible] per cent., belonged to Scotland, [illegible], or nearly [illegible] per cent., were from England and Wales, [illegible] from Ireland, [illegible] from India, [illegible], or about [illegible] per cent., from British colonies, and [illegible] from foreign countries. The number of women attending extra-academical lectures, with a view to graduation in medicine in the University, was [illegible].

Degrees Conferred, &c.

The following degrees were conferred during [illegible]: Bachelor of Science (B.Sc.), [illegible]; Doctor of Science (D.Sc.), 4; Bachelor of Medicine and Master in Surgery (M.B., C.M.), [illegible] (including [illegible] women); Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), [illegible] (including [illegible] women); Doctor of Medicine (M.D.), 34 (including 1 woman). The General Council of the University now numbers [illegible]. The special University certificate in diseases of tropical climates was conferred on 41 candidates (including 9 women).

Fellowships, &c.

The total annual value of the University Fellowships, scholarships, bursaries, and prizes now amounts to about £[illegible]. In the Faculty of Science the amount is £1,500, and in the Faculty of Medicine £[illegible]. A number of bursaries are in the gift of private patrons, but the great majority are awarded by the Senatus after competitive examination. In addition a sum of upwards of £[illegible], being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

The Carnegie Foundation.

Although the Carnegie Foundation has not as yet had an appreciable influence in increasing the aggregate of students, the number of those availing themselves of that section of the scheme which provides for payment of class fees has during 1903 been higher than formerly, and it is noticeable that many of these students take out a larger number of classes than they would probably otherwise have done. Of those who have been appointed to Carnegie post-graduate fellowships and scholarships, and who have received grants in aid for research, a considerable proportion are graduates of the University of Edinburgh. In accordance with the scheme of allocation intimated in 1902, grants have been made in augmentation of the salaries of several of the University lecturers, and a sum of over £7,000 is available for improvements in the library, in addition to an annual grant of £1,000 for the purchase of books.

Appeal for Funds.

As the allocation made to the University from the Carnegie Trust is inadequate to satisfy all its present requirements, an appeal is being made to the public for subscriptions to a fund "for the further development and extension of the University in the direction more especially of a proper provision for the erection and maintenance of laboratories for physics and engineering, for a more extended training in modern languages and the subjects of commercial education, for facilities for research, for improved tutorial instruction, and for the library."

Resignations and Appointments of Principal and Professors.

At the beginning of the year Sir William Turner, K.C.B., D.C.L., LL.D., etc., after forty-nine years' service, first as demonstrator and afterwards as Professor of Anatomy, was elected Principal of the University, in succession to Sir William Muir, resigned. A vacancy was thus created in the Chair of Anatomy, and this was filled in February by the appointment of Professor Daniel John Cunningham, of Trinity College, Dublin. Three other Chairs were rendered vacant by resignation, and three widely-honoured names have been removed from the roll of the Professoriate.

Other Personal Changes

Several changes have taken place in the *personnel* of the University Court. As Assessors of the Senatus, Sir Thomas R. Fraser has succeeded Sir William Turner, and Professor Pringle Pattison fills the place vacated by Professor Laurie; while, as Assessors of General Council, Mr. D. F. Lowe, M.A., LL.D., has been appointed in room of Mr. F. Grant Ogilvie, and Dr. R. M'Kenzie Johnston succeeded Sir Patrick Heron Watson, whose term of office had extended to the long period of sixteen years. On the Board of Curators of Patronage Sir James Steel is succeeded by Treasurer Brown as one of the representatives of the Town Council. As Lecturer on Diseases of the Larynx, Ear, and Nose, Dr. R. M'Kenzie Johnston is successor to Dr. P. M'Bride; Dr. David Waterston succeeds Dr. David Hepburn as Lecturer on Regional Anatomy. A Lectureship in applied anatomy has recently been instituted by the University Court, and Dr. Harold J. Stiles has been appointed lecturer. Sanction has also been given for a special class in advanced experimental physiology, for women students, suitable for candidates for the B.Sc. degree, to be conducted by Dr. Andrew Hunter. The Lord Rector, the Right Honourable Sir Robert Bannatyne Finlay, K.C., LL.D., M.P., Attorney-General for England, will deliver his Rectorial address on January 21st current.

Benefactions.

As in former years, the University has to make grateful acknowledgement of a number of benefactions. Among these [illegible] by Principal Sir William Turner, K.C.B., etc., [illegible] anatomical diagrams, drawings, lectures, etc., [illegible] several microscopes and other instruments [illegible] by the Rev. T. J. Prout, Christ Church, Oxford, of a portrait [illegible] Charles William Prout, M.D., F.R.C.P., F.R.S., [illegible] Physician (1818), of Christ's College, [illegible] the microscope and [illegible] [illegible] [illegible].

[illegible]

The [illegible] of the

past year under the supervision of Dr. [illegible] [illegible] staff of cataloguers. By the end of September [illegible] had been dealt with [illegible] entries [illegible] covers the whole of the books in the general library [illegible] exception [illegible] The [illegible] have been [illegible] physiological and [illegible] the new University buildings. [illegible] number of incomplete books of a kind that ought to be completed and the want of other works [illegible] and it is hoped that these will be [illegible] The catalogue [illegible] present [illegible] The printing of the [illegible] catalogue [illegible] the librarians, but is now in the printer's hands.

[illegible]

In the [illegible] accommodation is at length [illegible] been secured, and [illegible] improved system [illegible] to cope with the increase [illegible] have also been made [illegible] laboratory accommodation sufficient for forty students has been obtained.

The Students' [illegible]

The extension of the students' [illegible] been energetically carried out during the year. The [illegible] and the construction of a new [illegible] dining hall, both already in [illegible] completion, are the outcome of the appeal made in [illegible] The [illegible] extension, which only awaits the [illegible] liberality of the public for its complete realization.

UNIVERSITY OF LONDON

UNIVERSITY COLLEGE, LONDON.

Dr. W. M. BAYLISS, F.R.S., will commence a course of ten lectures on Enzymes and Their Actions on Wednesday next at [illegible] p.m. The lectures are open to all internal students of the University without fee, as well as to qualified medical men.

CHARING CROSS HOSPITAL MEDICAL SCHOOL

THE T. HENRY GREEN PRIZE

A PRIZE in clinical medicine has recently been founded at Charing Cross Hospital by old students and friends to commemorate the long connexion of Dr. T. H. Green with the hospital and medical school ([illegible] years). The prize is open to all unqualified Charing Cross students who have finished their [illegible] work or have prosecuted their clinical studies for not less than one year at the hospital. It will be given for the best work done upon some special subject involving simple clinical observation in the wards or clinical laboratory and on the result of a practical examination on cases in the wards. The subjects of research may be chosen by the candidates themselves, but they must be submitted to the examiners for their approval.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE WEST RIDING OF YORKSHIRE.

The Medical Officer's Report.

THE area of the Administrative County of the West Riding of Yorkshire is [illegible] acres, the population is 1,4[illegible] persons, and it comprises 132 urban and [illegible] rural authorities. The report for [illegible] recently issued by Dr. Kaye, the Medical Officer to the County Council, shows a birth-rate of [illegible] and a death-rate of [illegible] The infant mortality rate for the year was [illegible] compared with [illegible] the average of the previous five years. The County Health Department has been engaged in assisting the various local authorities and in carrying out a good deal of sanitary work on its own account. During [illegible] the tenth instalment of the sanitary survey of the Riding was [illegible] There was an elaborate report on the sanitary circumstances of the [illegible] Union. Seventy-four of the authorities have petitioned the County Council to take action for the treatment of [illegible] The action the Council has taken in [illegible] declaration that pulmonary tuberculosis is an infectious disease [illegible] patients [illegible] literature regarding [illegible] the adoption of [illegible] public [illegible] A great deal of work has [illegible] in the matter of isolation hospital provision [illegible] to provision, in particular, for [illegible] were also delivered. As [illegible]

[illegible]

[illegible]

[illegible]

HEALTH OF ENGLISH TOWNS.

[illegible] which cannot fail in the course of years to be of great value. For instance, not only are careful records kept of each specimen examined bacteriologically, but a clinical history of the cases is also obtained.

Of the [illegible] specimens of blood tested for serum reaction, [illegible] gave a marked positive reaction, [illegible] gave a doubtful reaction, and [illegible] proved negative. Dr. Cammidge obtained the final clinical diagnosis of all these [illegible] except [illegible] He shows that in slightly over 4 per cent. the serum reaction was at fault, but that in [illegible] per cent. it turned out correctly. A number of particulars about the cases are added, with comments on the likely source of infection.

Of the [illegible] specimens of sputum, tubercle bacilli were found in [illegible] or [illegible] per cent., of which [illegible] had shown little or no physical signs of the disease. In only [illegible] of the cases in which the bacilli were not found out of the total of [illegible] did the disease develop. Of the [illegible] positive cases in which sex was known [illegible] were males and [illegible] were females. The average age of incidence was [illegible] years. Dr. Cammidge also reports on the relation of occupation to the disease, the mortality, the life of probable infection, and the utility of bacteriological examination.

The return of diphtheria examinations is also interesting. About half the whole number examined were positive. The Neisser stain is used as a provisional method in all cases, and has proved of much value. The source of infection was traced in many cases, and an interesting table is added respecting age and sex incidence. Twenty-nine cases of suspected typhoid urine were examined, and in thirteen of them the B. typhosus was found. Particulars are also given of the miscellaneous specimens.

The report is one calling for careful study, and we regret we have not space to deal with it more fully. It cannot fail to be of service to the advancement of bacteriology in relation to public-health work, and we congratulate Dr. Cammidge, and Dr. Kaye also, upon such an excellent record of scientific work.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, [illegible] births and 5,944 deaths were registered during the week ending Saturday last, January 2nd. The annual rate of mortality in these towns, which had been 19.2, 17.[illegible], and 15.4 per 1,000 in the three preceding weeks, rose again last week to [illegible] per 1,000. The rates in the several towns ranged from 10.[illegible] in Hornsey, 11.[illegible] in King's Norton, 11.9 in South Shields, 1[illegible].7 in Handsworth, 13.6 in Coventry, 13.[illegible] in Northampton, 14.1 in Leyton and in Derby, and 14.[illegible] in Walthamstow, to 24.1 in Stockton-on-Tees, 24.[illegible] in Ipswich, [illegible]4.5 in Newport (Mon.), [illegible]4.9 in Brighton, [illegible]8 in Liverpool, 33.1 in Merthyr Tydfil, 32.4 in Preston, [illegible] in Wigan, and [illegible] in York. In London the rate of mortality was 2[illegible].1 per 1,000, while it averaged [illegible] per 1,000 in the seventy-five other large towns. The mean death rate from the principal infectious diseases was 1.[illegible] per 1,000 in the seventy-six large towns; in London this death rate was equal to 1.[illegible] per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.1 in Birmingham, 3.2 in Blackburn, [illegible] in York, 3.4 in Bootle, 4.0 in Stockton-on-Tees, 5.[illegible] in Wigan, 5.[illegible] in Willesden, and [illegible] in Preston. Measles caused a death rate of 1.[illegible] in Leeds and in Cardiff, 1.4 in Birmingham, 2.[illegible] in Ipswich, [illegible].4 in Blackburn, [illegible].7 in Rotherham, 4.[illegible] in Willesden, and [illegible].4 in Preston; scarlet fever of 1.[illegible] in Wigan; diphtheria of 1.4 in Reading; whooping-cough of 1.1 in Portsmouth, 1.[illegible] in Leeds, 1.6 in Liverpool and in Swansea, 1.7 in Bootle, [illegible] in York, [illegible] in Walsall, and [illegible].5 in Wigan; "fever" of 1.7 in Bootle; and diarrhoea of 1.[illegible] in Rochdale, 1.4 in Southampton, and [illegible] in Stockton-on-Tees. One fatal case of small-pox was registered in Nottingham, one in Bolton, and one in Sunderland, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained [illegible] small-pox patients at the end of last week, against [illegible], [illegible], and [illegible] at the end of the three preceding weeks; 4 new cases were admitted during the week, against 2, [illegible], and 7 in the three preceding weeks. The number of scarlet fever patients, which had been 1,717, 1,[illegible]54, and 1,[illegible]1[illegible] on the three preceding Saturdays, had risen to 1,[illegible]2 on Saturday last, January 2nd; 1[illegible]4 new cases were admitted during the week, against 17[illegible], 1[illegible], and 142 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 2nd, [illegible] births and 7[illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, rose again to [illegible] per 1,000 last week, and was [illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death rates ranged from 13.[illegible] in Leith and [illegible].5 in Greenock to [illegible] in Glasgow and [illegible] in Perth. The death-rate from the principal infectious diseases averaged [illegible] per 1,000, the highest rates being recorded in Glasgow and Aberdeen. The [illegible] deaths registered in Glasgow included 5 which were referred to small-pox, [illegible] to measles, [illegible] to whooping-cough, [illegible] to "fever," and [illegible] to diarrhoea. Four fatal cases of whooping-cough and 4 of diarrhoea occurred in Edinburgh. Four deaths from whooping-cough and [illegible] from diarrhoea were recorded in Aberdeen; 4 from diarrhoea in Dundee, and [illegible] from measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 2nd, [illegible] births and [illegible] deaths were registered in six of the principal Irish towns, against [illegible] births and [illegible] deaths in the preceding period. The mean annual death-rate of these towns, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, rose abruptly to [illegible] per 1,000 in the week under notice, this figure being [illegible] per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from [illegible] in Londonderry to [illegible] in Limerick. The death-rates from the principal zymotic diseases during the same period averaged [illegible] per 1,000, against [illegible] in the preceding week, the highest point, [illegible], being reached in Limerick, while Waterford registered no death from zymotic disease at all. With the exception of 1 case each of measles, scarlet fever, diphtheria, and simple continued fever, [illegible] case of enteric, and [illegible] of diarrhoeal disease, whooping-cough was again responsible for practically the whole of the zymotic death-rate.

DEFECTIVE VISION IN SCHOOL CHILDREN.

ON December [illegible], at the monthly meeting of the [illegible] Area Education Subcommittee, which has jurisdiction over ten scattered townships, one of the lady members, Mrs. [illegible], introduced the question of the prevalence of astigmatism in school children, and suggested that

the committee should persuade a number of medical men to give their services gratuitously, in the same way that physicians give their services to the hospitals. It was also advisable that local dentists should be prevailed upon to give help.

Canon Blundell remarked that many children were supposed to be stupid when in reality they could not see.

Archdeacon Fletcher, the chairman, asked if the proposal was that a scheme should be worked from headquarters or the local school managers should represent their own district.

Mrs. Heard thought a scheme could be carried by the local authority, and each medical man who gave his services would work the schools in his district. In reply to the Chairman she reiterated the statement that her suggestions included gratuitous treatment. Mrs. Heard was another lady was asked to make inquiries. Archdeacon Fletcher, amid laughter, said they would leave the matter until the ladies got hold of the soft side of the medical practitioners.

INFECTIOUS CASES IN A SURGERY.

VARIOLA.—The only case, so far as we are aware, bearing on this point in which there has been an appeal to the High Court is that of the Tunbridge Wells Local Board *v.* Bisshopp (*L. R.*, 1 Q.B.D., 1892). In this case a medical practitioner was consulted at his surgery by a man whom he found to be suffering from scarlet fever. After warning him to walk in the middle of the street he sent him to the police office with instructions that the ambulance should be sent for to take him to the isolation hospital. After some delay both ambulance and admission to hospital were refused, and the man then went to his lodgings. Next day the doctor took the patient to the house of the chairman of the Board, and after some difficulty obtained an order for his admission to the isolation hospital. The doctor was summoned before the magistrates for exposing a patient when in his charge. The magistrates dismissed the summons partly on the ground that it was not proved that the doctor was in charge of the patient, partly because he had not wilfully exposed the patient without proper precautions, and he had made the best use of the means at his disposal to prevent the spread of infection. The High Court on appeal upheld this decision. We should regard it as the duty of the public health authority to give attention to the matter, and to instruct the medical officer of health to organize a system under which an ambulance should be immediately sent to remove an infectious patient who may call at a surgery.

PAYMENT FOR PAUPER PATIENTS IN AN ISOLATION HOSPITAL.

R. writes to ask (1) Whether the expense incurred for detention of a pauper patient in an isolation hospital, sent there by order of the medical officer of health, should be defrayed by the guardians or by the district council. (2) He also asks whether a medical practitioner has to take out a licence for his consulting.

*** (1) This must depend upon local arrangements. Such hospitals are free for all patients. If the managers of the hospital in question have entered into any engagement with the guardians to receive pauper patients these terms would probably apply to the case, but in the absence of any such agreement we do not think that the Hospital Board would have any claim on the guardians. (2) A licence is certainly required for a consultant.

VACCINATION REGULATIONS.

METOL asks for opinions on the following points in the Vaccination Act: (1) I vaccinated five or six girls from a Home, where they were employed at laundry work, at my surgery. Four of the cases were revaccinations, two were primary vaccinations, aged 16 and 18. The matron, having stated that it was inconvenient to bring the girls to my surgery on the following week for inspection, I offered to inspect at the Home. I did so, and entered them all in my register as vaccinated at my surgery, and inspected at their homes, and charged in each case 5s. 6d. under Article 5 of the contract. My fee was disallowed for the two primary cases by the clerk of the guardians, who referred me to Article 6. (2) In another case I vaccinated a baby at its home. The mother was a widow and went out washing. On visiting to inspect I found them out: a second visit with the same result, and then the 14 days allowed by the contract expired. About the sixteenth day the mother and child spontaneously turned up at my surgery with the vaccination certificate. She had walked nearly two miles. What could I do but inspect? I did so and entered the case in the register as vaccinated at the home and inspected at the surgery, charging 5s. under Article 5. My fee was disallowed on the two grounds the time and the place of inspection. I should be glad to hear if you think the clerk is legally in the right, and if so whether law comes before equity in such cases.

*** We believe that the law of the clerk to the guardians is wrong in each of these cases. (1) Primary vaccinations of persons over 14 years of age are governed by precisely the same regulations as apply to revaccinations. Even if this were not the case, "Metol" attended at his surgery for the purpose of inspecting if the cases had come, and he finally inspected the cases. The wording of Subsection 5 of the Vaccination Contract does not go so far as to say that he must inspect the cases at the place where the vaccination was performed, nor does it say that he must inspect within fourteen days. His statutory attendance at the prescribed place, whether home or surgery or elsewhere, and his inspection of the case, are not necessarily to be at the same time, if a reasonable explanation be given. (2) In the case of the child the same principle applies. The statutory visit was paid between the sixth and fourteenth days, and the child was subsequently inspected. This complied with the Vaccination Order, and we repeat the clerk's law, in our opinion, is wrong. If he persists in his view the case should go to the Local Government Board.

RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THEIR PROFESSIONAL COLLEAGUES.

W. W. complains that he notified a case of small pox, which was at once visited by the medical officer of health and removed to the hospital. Next day the sanitary inspector visited the house, examined the mother, and made a statement to the medical officer of health, which caused the latter to call upon our correspondent, and they visited the case together but arrived at no definite diagnosis. Our correspondent promised to examine the case again the following morning and to telegraph to the medical officer of health. This he did to the effect that there was no charge and that the patient was quite well. The next morning Wednesday he received a note from the medical officer of health, saying that he had removed this patient and another of her sons to the observation ward, but omitting to say that he had visited the house in company with another practitioner in our correspondent's absence and without his knowledge, and that they had examined his patients. On his complaining, the medical officer of health justified himself by saying that the other practitioner was chairman of the Sanitary Committee. Our correspondent informs us that the patient's house is a quarter of a mile from his, that the other practitioner resides about 100 yards from him, and that the medical officer of health is a general practitioner in the neighbourhood. He also complains that the patients declare that they did not go voluntarily but were coerced by threats of being taken before a magistrate. In reply the medical officer of health denies that he visited the house in company with another practitioner. He says that he went by himself, and on leaving met the other practitioner, who is the chairman of his Sanitary Committee, outside the house, and naturally spoke to him about the case. In consequence of their conversation they returned to the house and saw the patient together, but the medical officer of health expresses his regret that he did this on the spur of the moment, although he pleads that he was thinking only of the importance of isolating a dangerous case in the interests of the public health. He also points out that he had reason to believe that our correspondent was at the time away on his rounds, and he thought the matter of sufficient urgency to make it desirable to remove the cases at once to the observation ward. The medical officer of health denies that he used any threats but that he told our correspondent that he would be obliged to go he replied that he would have to have a magistrate upon the job."

Medical officers of health, especially when they are in general practice, cannot be too careful to avoid the display of anything like high-handedness, particularly when dealing with the patients of their colleagues. In this case the medical officer of health would, we think, have acted more prudently had he informed our correspondent of his intention to visit the case again, and if not satisfied to have her removed to the observation ward. We believe that he acted as he did in what he believed to be the interests of the public health, but as we are glad to hear that the house was a five-roomed tenement of which the patients were the sole occupiers, they do not seem to come under the provisions of the Public Health Act relating to the removal of infected persons, and the medical officer of health was not in our opinion wise in threatening the intervention of a magistrate, or in causing them to be removed with such precipitate haste that it was impossible to obtain the concurrence of their own medical attendant.

NOTIFICATION BY MEDICAL OFFICER OF HEALTH.

M.O.H. asks whether, if he is called into consultation with a general practitioner in an infectious case, it is his duty to notify the case in addition to the notification by the general practitioner; and whether he should receive a fee of 1s. for so doing.

*** The Act states that "every medical practitioner attending on or called in to visit the patient shall forthwith . . . send to the medical officer of health for the district a certificate," etc. This implies that it is the duty of a consultant as well as of the family practitioner to notify each case. The possible utility of this provision lies in the risk that otherwise each doctor might think that the other had notified the case. In practice the consultant scarcely ever notifies infectious cases, but leaves it to the family attendant. Any medical officer of health who recommended the prosecution of a consulting practitioner for not having notified a case which had been notified by the family attendant would, in our judgement, act unwisely. When the medical officer of health is himself the consultant, it is clearly an act of supererogation for him, to notify in his capacity of consultant to himself in his capacity of medical officer of health. He is, however, according to the letter of the law entitled to so, and to receive a fee. Whether this fee should be 1s. or 2s. 6d. would depend on whether the visit to the patient had been made in his public or private capacity. In our opinion, it would be impolitic for a medical officer of health to notify under such circumstances. He would lay himself open to the charge of taking advantage of a legal technicality to earn money at the expense of the local authority. If M.O.H. has scruples about refraining from a duty which is technically laid upon him, he might state the facts to his committee, and act in accordance with their wishes.

INDIA AND THE COLONIES.

QUEENSLAND.

Report of the Health Commissioner. The report of the Health Commissioner for Queensland for the year ending June, 1903, shows that considerable progress has been made in the work of this central authority which was called into existence by the Health Act of 1900. The objects of the new organization were twofold. First, it was to act as a bureau for the collection and dissemination of useful information relating to health and the prevention of disease; and, secondly, it was to control, stimulate, and, where necessary, supplement, the efforts of the local authorities. Dr. Burnett Hall's report affords evidence that, as far as the limited resources of the department allow, these objects are being in measure fulfilled. The services rendered to sanitary reform in the Colony by the consolidation of the statutes dealing with sanitary matters and the unification of authority have evidently been considerable. Sanitary inspection has been greatly increased, both in the Brisbane area and elsewhere. Cesspits are being abolished, and the duplicate pan arrange-

MEDICAL NEWS.

The Harveian Society's lecture will be delivered by Mr. Anthony Bowlby, C.M.G., on Wednesday next, at 8.30 p.m. The subject will be "Pain: its Clinical Significance and Importance in Diagnosis." All members of the medical profession are invited to attend.

The opening clinical lecture of the spring session at the North London Post Graduate College, Tottenham Hospital, will be given by Dr. T. Colbert Smith on January 14th at 4.30 p.m. The subject will be "Certain Points in the Diagnosis of Fluid in the Chest."

The course of lectures at the Hospital for Consumption and Diseases of the Chest for 1904 will be opened by Sir Richard Douglas Powell, Bart., M.D., who will give a lecture on foreign bodies in the bronchi, on January 27th, at four p.m. The lectures are free to qualified practitioners and to students of medicine.

At the meeting of the British Gynæcological Society, to be held at 20, Hanover Square, W., on January 14th, at 8 p.m., Dr. Mendes de Leon, Professor of Midwifery at the University of Amsterdam, will read a paper on a hitherto not sufficiently recognized source of infection during operations. Members of the profession are invited to be present.

International Congress of Otology. The International Congress of Otology will hold its seventh congress at Bordeaux, August 1st to 4th, 1904, under the patronage of the French Minister of Public Instruction. The following subjects are proposed for discussion: 1. The choice of a simple and practical acoumetric formula, to be introduced by Professors Politzer, Gradenigo and Delseaux; 2. The diagnosis and treatment of suppuration of the labyrinth, to be introduced by Drs. Brieger, von Stein and Dundas Grant; 3. Technique of the opening of brain abscess of aural origin, and after-treatment, to be introduced by Drs. Kapp, Schmiegelow and Botey. The Laval prize, given in recognition of the greatest progress achieved in the practical treatment of affections of the auditory apparatus during the interval between two sessions of the Congress, or to the inventor of an easily portable apparatus capable of markedly increasing the hearing of deaf persons, will be awarded during the Congress. The jury consists of Professor Politzer, of Vienna (President), Dr. Benni of Warsaw, Dr. Cozlé of Paris, Dr. Urban Pritchard of London, Professor St. John Roosa of New York, Professor Kircher of Würzburg, Professor Grazzi of Florence, and Professor E. J. Moure of Bordeaux. The prize consists of the interest on 3,000 francs, accumulated during the interval between two sessions of the Congress. Candidates must send in a statement of their claims to Dr. E. J. Moure, President of the Organizing Committee, Cours du Jardin Public, 25 bis, Bordeaux, before July 1st, 1904.

MEDICAL VACANCIES.

BIRMINGHAM GENERAL HOSPITAL.—Resident Medical Officer. Salary £100 per annum.—House Physician, resident. Salary £100 per annum.—Casualty Assistant Physician. Salary £50 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistants.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon, resident. Salary £75 per annum.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon, resident. Salary, £50 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon, resident. Salary £100 per annum.

LEEDS GENERAL INFIRMARY.—Obstetric and Casualty House-Surgeon, resident.

LIVERPOOL STANLEY HOSPITAL.—Second House Surgeon, resident. Salary £50 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Surgeon.

ROCHDALE INFIRMARY.—Resident Medical Officer. Salary, £150 per annum.

ST. MARK'S HOSPITAL FOR FISTULA, City Road, E.C.—Honorary Surgeon.—Honorary Assistant Surgeon.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Physiology. Salary £150 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistant.

STAMFORD, RUTLAND, AND GENERAL INFIRMARY.—House-Surgeon; resident. Salary £80 per annum.

SUNDERLAND INFIRMARY.—Junior Assistant House Surgeon, resident. Salary at the rate of £60 per annum.

TAUNTON AND SOMERSET INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Salary £80 per annum.

UNIVERSITY OF LONDON.—Two Examinerships, each in Medicine, Surgery, and Midwifery, and one each in Materia Medica and Pharmaceutical Chemistry and Medical Jurisprudence.

WEST HAM AND EAST LONDON HOSPITAL, Stratford.—Resident Medical Officer. Salary at the rate of £100 per annum.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.

WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

MEDICAL APPOINTMENTS.

[illegible], M.D.Edin., District Medical Officer of the Uxbridge Union.

[illegible], W. Victor, M.S., M.D.Lond., F.R.C.S., M.R.C.P., Joint Lecturer in Practical Medicine in the Middlesex Hospital Medical School.

BROWN, Thos., M.B., Ch.B.Vict., Resident Medical Officer to the Leeds Public Dispensary.

BUSH, J. Paul, C.M.G., M.R.C.S.Eng., Medical Officer to the Bristol Post Office.

CARYELL, John Maclean, M.R.C.S.Eng., L.S.A.Lond., Registrar to Out-Patients, Central London Throat and Ear Hospital.

DUPREY, George Percy, M.R.C.S., L.R.C.P., L.D.S., Dental Superintendent to the Royal Dental Hospital of London, Leicester Square, *vice* Tice F. Burden, M.D., L.D.S., retiring.

HOWE, G. B., M.R.C.S., L.S.A., J.P., Medical Officer No. 1 District, and Public Vaccinator Nos. 3 and 5 Districts of the Ashton-under-Lyne Union.

IRWIN, S. T., M.R., Ch.B., Junior House-Surgeon, St. Peter's Hospital for Stone, Henrietta Street, W.C.

JOHNSTON, L. A. W., M.R.C.S., L.R.C.P., District Medical Officer of the Birmingham Union.

MCMANUS, Hugh, M.B., Second Resident Medical Officer of the Nottingham Union Workhouse.

MAIN, D. W., M.B., Ch.B.Vict., Medical Officer of Health for the Bollington Urban District, and District Medical Officer of the Macclesfield Union.

MOORE, F. H., L.R.C.P. & S.Irel., District Medical Officer of the Dunmow Union.

PASSMORE, J. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Bassaleg Union.

PENNY, W. B., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Laverstock Union.

VAUGHAN, K. O., M.B.Lond., Superintendent, Victoria Dufferin Hospital, Calcutta.

VON BERGEN, C. W., M.B., B.S.Durh., Medical Officer for the Ashtead District of the Epsom Union, *vice* W. D. Smyth, L.R.C.S.Edin.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. The Use of Serum and other Inoculations in Pyogenic Infections.—I. Antistreptococcus Serum, Mr. W. G. Spencer; 2. Inoculation in Staphylococcus Infection, Dr. A. E. Wright.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m. Dr. H. E. Symes Thompson: Hypertrophic Pulmonary Osteo-arthropathy; illustrated by the epidiascope.

Society for the Study of Inebriety, 11, Chandos Street, Cavendish Square, W., 8 p.m. Dr. W. Ford Roberts on will open a discussion on the Pathology of Chronic Alcoholism. Dr. Robertson's paper will be illustrated by lantern slides.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Mr. A. Bowlby on Pain, its Clinical Significance and Importance in Diagnosis. Second Hunterian Society's Lecture.

South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Mr. J. H. Targett on the Causes of Uterine Haemorrhage.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Dr. Menges de Leon: A Hitherto not Sufficiently Recognized Source of Infection during Operations. The President will deliver his valedictory address.

North London Medical and Chirurgical Society, Great Northern Hospital, Holloway, N., 8 p.m. Discussion on Recent Methods of Inducing Anaesthesia, opened by Dr. J. F. Silk.

FRIDAY.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Adjourned discussion on Sleeping Sickness.

Society for the Study of Disease in Children, 11, Chandos Street, W., 5.30 p.m.—Cases will be shown by Dr. Eric Pritchard, Mr. Brecklake Hutson Hurst, and Dr. George Carpenter. Papers: Dr. Dan McKenzie: A Fatal Case of Streptococcus Mouth Infection following Measles in an Infant. Mr. J. Howard Evans: Cranial Haemorrhages in the Newborn. Dr. W. C. Chaffey: Sequel of a Case of Extreme Wasting. Cases will be shown at 5 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

London Temperance Hospital, Hampstead Road, N.W., Monday, 3 p.m. Demonstration of Surgical Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Lectures will be delivered at 4 p.m. as follows: Monday, Some Errors and Difficulties in the Treatment of Appendicitis. Tuesday, Normal and Abnormal States of the Blood. Wednesday, Infant Feeding. Thursday, Myopathies.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Pulmonary Cavities.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Friedreich's Ataxy. Friday, Muscular Atrophy.

North East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m. Lecture on Certain Points in the Diagnosis of Fraud in the Chest.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery. Tuesday, Wednesday and Thursday, Diagnosis of Common Affections of the Nasal Cavity. Friday, Plaster-of-paris Splints.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Cases from the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements in these columns is 6s. for Members and Associates of the British Medical Association, and 9s. 6d. for Non-Members, which sum should be forwarded to the Publishers with the notice not later than Wednesday morning, as the Journal is published on Friday, and the notice must appear in the current issue.

BIRTHS.

CHAMBERS.—At Maclean Town, Cape Colony, on December 23rd, 1903, the wife of T. Stewart Chambers, F.R.C.S.Edin., etc., of a son.

KENNEDY.—On Wednesday, January 6th, 1904, wife of Angus Kennedy, L.R.C.P., M.R.C.S., L.S.A., of a son, at Plaistow, E.

DEATHS.

HUNTER.—On December 24th, at his residence, 13, Lavender Hill, S.W., after a short illness, Frederick Hunter, M.R.C.S., L.R.C.P., etc., the beloved and much-loved husband of Caroline Ida Hunter. Deeply regretted. Sadly missed.

KEMPSTER.—On December 2nd, 1903, at Cross-street, North Side, Clapham Common, S.W., William Henry Kempster, M.D., M.R.C.S., L.R.C.P., M.M., late Medical Officer of Health for Metropolitan Borough of Battersea.

SUDDEN.—On December 31st, 1903, at Buckfastleigh, S. Devon, D'Arcy Sudden, M.R.C.S. Eng., L.R.C.P.Lond., third son of the late William Sudden, of Bath.

TURNER.—On December 29th, 1903, at 41, Clarendon Street, Bideford, Arthur Cromack Turner, M.R.C.S., L.R.C.P., aged 67 years, late of the Priory, St. Neots, Hunts.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS relating to Editorial matters should be addressed to the Editor, 429, Strand, London, W.C. All communications, letters, and remittances relative to the business of the BRITISH MEDICAL JOURNAL, etc., should be addressed to the Publishers at the Office of the Journal, 429, Strand, London, W.C.

ORIGINAL ARTICLES and LETTERS forwarded for publication are presumed to be offered to the BRITISH MEDICAL JOURNAL alone, unless the contrary be stated.

AUTHORS desiring REPRINTS of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Publishers, 429, Strand, London, W.C., before the type is distributed.

CORRESPONDENTS will kindly bear in mind that the Editorial Department is situated in Chandos Street, and the Publishing Department in the Strand, and that they will thus greatly facilitate the publication of their communications if they will address them accordingly.

COMMUNICATIONS and proofs are requested to be addressed to the Office of the Journal, 429, Strand, London, W.C.

MANUSCRIPTS intended for the Journal cannot be returned unless a request to that effect is forwarded with the manuscript.

ALL SUBSCRIPTIONS TO THE BRITISH MEDICAL JOURNAL should be paid in advance. Subscribers are requested to remit by Post Office Order or Cheque, crossed "London and County Bank, Strand Branch," and made payable to the MANAGER.

CHANGES OF ADDRESS.—Subscribers are requested to give immediate notice of any change of address, and to state whether the Journal is sent to their private or their business address.

ILLEGIBLE ADDRESS.—The telegraphic address of the EDITOR is "Editorial, Medlondon, London." The telegraphic address of the MANAGER is "Britmedia, London."

TELEPHONE No. 2621, Central. GENERAL SECRETARY AND MANAGER 2630, Central.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted, will be found under their respective headings.*

QUERIES.

PRACTICE IN AMERICA.

INQUIRER writes: Can British registered medical practitioners take out a licence to practise in the United States?

*** There is no national register in the United States. In most States it is possible for a qualified English medical man to obtain permission to practise upon comparatively easy terms. In one permission to practise is accorded upon production of proof of lawful possession of a degree or diploma granted after a minimum course of study. In others an examination before a State Board has to be passed as well. The regulations differ, but so much has been done recently towards regulating and assimilating the conditions of practice throughout the whole country that "Inquirer" should write for information as to present regulations to the secretary of the Medical Board of any state which he may have in his mind.

INCOME-TAX.

ASSISTANT asks what a qualified assistant can claim to be deducted from his salary for income-tax purposes. Can he deduct board, instruments he buys, instruments? Suppose he has £70 and board. How much ought he to be taxed on? Also, suppose he has £120 and board, how much ought he to be taxed on?

*** A qualified assistant is liable to pay income tax on the full amount of the salary receivable by him, less one of the statutory abatements if his total income does not exceed £700. In addition to his salary he is provided with rooms or board, or both, the value of such room or board is not taken into account, and he is not required to pay tax thereon. Thus, if he has £70 a year and rooms, he pays tax on £70; if he has £70 and board he pays tax on £70, less any abatement to which he may be entitled. He cannot deduct the cost of instruments or board, if he has to board himself, but he can claim an allowance for life insurance by filling up the space provided for the purpose on the form of income tax return and producing the premium receipts to the surveyor of taxes, if required.

DIET IN PHOSPHATURIA.

CALCULUS asks to be recommended a work on diet in phosphaturia or for suggestions for diet in the treatment of a patient who has undergone several operations for the removal of phosphatic stones in the course of six months.

*** More information is required about the kind of phosphates present and the state of the urine. Phosphatic calculi are frequently deposited upon a nucleus of some other substance, and treatment in that case must be directed rather to prevent the formation of the nucleus than to the subsequent deposit of phosphates. The precipitation of alkali-phosphates can be checked by the steady use of dilute hydrochloric acid in doses of m xv three times daily after food. Acid stellar phosphates are sometimes deposited in large quantities from acid urine and on account of the symptoms which attend the occurrence the condition has been described as phosphatic diabetes, in some instances these cases have passed into saccharine diabetes. The diet that checks the phosphaturia is a mild antidiabetic regimen, for example, all sugar and sugar containing articles of food and drink must be forbidden, and starchy food limited in quantity to something like half a pound daily. If the urine is alkaline, ammoniacal, and deposits triple phosphates, the phosphaturia is secondary to ammoniacal decomposition and treatment must take the form of disinfecting the bladder with such drugs as urotropine and boric acid, or by local antiseptic washes.

A CASE FOR DIAGNOSIS.

A YOUNG PRACTITIONER writes: A lady, aged [illegible], has suffered for over twelve months from pain after eating, which was relieved by taking bismuth and pepsine. She has also a white coated tongue, eczema for years, and has lost flesh considerably. About a week ago she had an attack of melaena which caused collapse. Two days afterwards, she recovered and had a hearty supper. Next morning [illegible] had a violent attack of hematemesis which again caused collapse. She was

[illegible] I suggest the [illegible] that the patient had [illegible]

[illegible]

A CASE OF JAUNDICE.

[illegible] of your readers [illegible]

ANSWERS.

[illegible]

MALINGERING.

[illegible] Hamilton and Godkin's [illegible] Co.).

LEPROSY IN THE BRITISH EMPIRE.

[illegible]

NOTES, LETTERS, Etc.

THE PARASITIC THEORY OF CANCER.

[illegible]

CHLOROMA.

[illegible] the name "chloroma"? If the disease is only a phase of lymphadenoma, it seems a pity that the student and practitioner should be [illegible] limited memory. [illegible] knowledge. I frankly admit that I do not attempt to [illegible] but refer to authors when I [illegible] Perhaps we shall learn why the term chloroma has been neglected by compilers. I pity the poor student who failed to know what chloroma is if his examiner had found a case.

SKIN GRAFTING.

A CASE of skin grafting which has excited considerable interest is reported from the Muhlenberg Hospital, Plainfield, New Jersey. We give the particulars on the authority of the *Boston Medical and Surgical Journal* of December [illegible]. The patient, who was recently discharged from the hospital, was chief clerk in the New York Office of the United States Express Company, and was one of the victims of a terrible smash which occurred on the New Jersey Central Railroad at Westfield last winter. He had been under treatment since January [illegible]. He was scalded so severely with steam that a third of the cuticle was destroyed. The case was at first regarded as hopeless, but after he had lingered for several days it was decided to try skin grafting. Thiersch's method was adopted, and over 4,000 grafts were used, the material being furnished by [illegible] Masonic brothers and employes of the company.

OUT-PATIENTS AT LONDON HOSPITALS.

IN the article published on p. [illegible] of the BRITISH MEDICAL JOURNAL of last week on Public Control of Hospital Administration there is an obvious slip. It should have been said, as is [illegible] stated at p. 44, that the gross number of out-patients had increased from six and a third hundred thousand to over seven hundred thousand.

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Anti-Sweater; Mr. F. Addiscott, London; Dr. F. P. Atkinson, Bexhill-on-Sea; Mr. H. W. Allingham, London; Assistant. **B** Bovril Limited, Manager of, London; Dr. M. Beverley, Norwich; A. H. Burgess, M.B., Manchester; Dr. J. J. G. Brown, Edinburgh; Barleycorn Co., Manager of, London; Mr. C. A. M. Barley, London; Mr. C. C. Burman, Alnwick; Mr. L. A. Bidwell, London; Dr. H. T. Bulstrode, London; Dr. G. B. Batten, London; Mr. A. W. Badger, London; Mr. A. Berry, London. **C** Curette; Coloma; Mr. W. R. E. Coles, London; Dr. I. Cadwan Jones, M.B., Ramsgate; Dr. J. A. Calantarients, Scarborough; Lieutenant-Colonel W. H. [illegible], A.M.S. [illegible], London; J. A. Craig, M.B., Belfast; Messrs. W. H. and L. Colingridge, London. **D** Messrs. Dean and Farrar, Halifax; Mr. H. T. Dufton, Stowmarket; Mr. G. W. B. Daniell, Edinburgh. **E** Mr. G. Y. Eales, Torquay; Mr. H. [illegible]-Blake, Bognor. **F** Mr. C. W. Fearne, London. **G** "Garden," Editor of the, London; Mr. G. Grazebrook, Sudbury; Mr. H. E. Girdlestone, Bournemouth; Dr. J. L. Gibson, Brisbane, Q.; Dr. J. Galloway, London; Mr. H. B. Gardner, London; Dr. J. G. Glover, London. **H** W. Haig, M.B., Crieff; Mr. W. M. Harting Rayner, Penryn; Dr. J. B. Hellier, Leeds; Dr. I. H. Houghton, Sherbrook; Dr. J. Highet, Workington; Mr. L. G. Hill, Cheltenham. **I** Inquirer. **J** Mr. H. Jones, London; Dr. A. C. Jordan, London. **K** Dr. T. N. Kelynack, London. **L** Mr. F. Leeder, Parkstone; A. R. Laing, M.B., Aberdeen; T. D. Luke, M.B., Edinburgh; Dr. T. G. Lyon, London. **M** Mr. P. Michelli, London; Mr. J. P. Milton, South Brent; Mr. G. H. Makins, C.B., London; J. M[illegible], M.B., Ballinasloe; Dr. S. Mac[illegible], Hyderabad; Mr. W. Moore, Stourbridge; Messrs. Mayer and Meltzer, London; Dr. S. G. Morris, Mardy; Dr. W. H. Masters, Parkstone. **N** Mr. J. D. S. Noles, Worthing; Mr. P. Newed, Bexhill-on-Sea. **P** Dr. H. F. Parker, Guildford; Messrs. H. S. Persse, Limited, Galway; Mr. P. Pfister, London. **R** Ret.; Dr. J. M. Rhodes, Didsbury; R. F. W.; Dr. A. Rosenau, Monte Carlo. **S** Messrs. Speirs and Co., Glasgow; Dr. J. C. Simpson, Cambridge; Mr. A. Sharp, Berlin; Messrs. G. Street and Co., London; Mr. A. H. Stive, London; Mr. N. Smith, London; Dr. L. F. Shaw, London; Dr. W. Sykes, Paignton; Dr. F. H. Snell, Coventry; Dr. G. A. Stephens, Swansea; Mr. G. Schel, London. **T** Mr. N. Thornton, London; Mr. J. Taylor, Glasgow; Mr. T. C. Tunstall, Southport; Messrs. Townsend and Mercer, London; R. Thomson, M.B., Uddingston; Mr. H. W. Thomas, Liverpool; W. Tyson, M.B., Lowestoft. **V** Mr. G. F. Vincent, Woking. **W** Dr. J. M. Wilson, Beverley; N. P. Watt, M.B., Edinburgh; Mr. W. L. Winterbotham, Bridgwater; Dr. F. Wilcocks, London; J. D. Wynne, M.B., Clonmel; W. H. N.; C. S. Wallace, M.B., London; Dr. E. F. Willoughby, London; D. J. G. Watkins, M.B., Lincoln. **X** X. Y. M. S., etc.

BOOKS, ETC., RECEIVED.

Disinfection and the Preservation of Food. By Samuel Rideal, D.Sc. Lond. London: Sanitary Publishing Co., and New York: John Wiley and Sons. 1903.

A Pocket Dictionary of Hygiene. By C. T. Kingzett, F.I.C., and D. Homfray, B.Sc. Second edition. London: Baillière, Tindall and Cox. 1904. 2s. 6d.

Educational Psychology. By Edward L. Thorndike. New York: Lemcke and Buechner. 1903.

A Record of Physiological Curiosity: Thirty-nine children of one father and mother, seven sons and thirty-two daughters, amply proved. By Geo. Grazebrook, F.S.A. London: Mitchell, Hughes and Clarke. [illegible]

Transactions of the Royal Academy of Medicine in Ireland. Vol. xxi. Edited by John B. Story, M.B., F.R.C.S.I., with Index [illegible] by E. J. McWeeney, M.D. Dublin: Browne and Nolan. 1903.

The Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P.Edin., and Alexis Thomson, M.D., F.R.C.S.Edin. New series. Vol. xiv. Edinburgh and London: Young J. Pentland. 1903.

The London Manual for 1904. Edited by Robert Donald. London: Edward Lloyd, Ltd. 1904. 1s. 6d.

Rudderless Ships. By Airam. London: Henry J. Drane. [illegible]

* * In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

[illegible] and under	[illegible]	[illegible]	4	0
[illegible] line	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible] addressed to the Manager at [illegible] the Wednesday morning preceding [illegible] should be accompanied [illegible]

[illegible] be made payable to the British Medical Association at the General Post Office, London. Small amounts may [illegible]

N.B.—It is against the rules of the Post Office to receive letters at Poste Restante addressed either in initials or numbers.

A Lecture

ON

LUMBAGO: ITS LESSONS AND ANALOGUES.

Delivered at the National Hospital for the Paralysed and Epileptic.

By Sir WILLIAM R. GOWERS, M.D., F.R.S.,
Physician to the Hospital; and Consulting Physician, University College Hospital.

Gentlemen, There are many ways of acquiring knowledge of disease. Perhaps the most effective although certainly the least agreeable—is personal experience. Symptoms that are felt, sufferings which have to be endured, are impressed upon the mind as they cannot otherwise be. I do not desire for you this effective way of gaining knowledge, but there are some maladies which you can scarcely hope to escape. You will be exceptionally fortunate if you do not have opportunities, if indeed they have not already come to you, for the subjective study of the disease which I take as my text to-day—lumbago.

What is lumbago? Our conception of its symptoms is sufficiently clear, precise, and perhaps vivid. But our conception of its nature is not at all precise or clear. We think of it as muscular rheumatism—and correctly. But if we are asked what muscular rheumatism is, I am afraid the reply which would be given is that "it is rheumatism of the muscles," an answer which, you will admit, does not carry us far. Nor does it conduce to better understanding to call the affection "myalgia," a term which is not much used at the present time, perhaps because its analogy with "neuralgia" suggests spontaneous pain, unexcited.

Consider the symptoms of lumbago. Its great characteristic is pain in the lumbar muscles, but felt only when they contract or are extended. In health we are conscious of no sensation in them. We may, indeed, by attention, become aware of a vague feeling in any muscles if we direct our attention to them—a feeling which varies if they are contracted or extended. Physiological considerations compel us to consider that these two influences are constantly determining afferent impulses from the muscles, which act on the spinal centres, although normally they scarcely affect consciousness. But we must all have been made aware of such afferent impulses when they are rendered intense by the excessive contraction we call "cramp." The intense stimulation causes severe pain. It also renders the muscles afterwards over-sensitive, and for many hours the influence of tension is demonstrated to us by pain from a degree of extension which in health would be unfelt. When the calf has been the seat of cramp, you must have noticed the pain produced when the muscle is afterwards extended, as in going up or down stairs. Moreover, if the muscle is pinched, it will then be found to have a sensitiveness far greater than normal. If these suggestive experiences induce you to test your muscles in health, you will find that, even under normal conditions, an unpleasant sensation may be produced by a strong compression of any muscle or by its strong extension. Thus we have ample evidence that the sensory nerves in muscles respond to those influences which in lumbago give rise to the characteristic pain.

The afferent nerves of muscles, which we can only call sensory by the widest use of the word, end or begin, as you know, in a manner quite different from the motor nerves. Instead of terminating on the muscular fibres, as do the latter, they end in the interstitial tissue between the fibres, and the only ending which has yet been generally found is in the remarkable bodies called "muscle spindles." As far as we know, all afferent impulses from the muscles arise in these, including the pain of cramp and the peculiar pains of lumbago and the allied affections I shall have presently to speak of. It is indeed strange that such acute pain should be produced through structures which normally give rise to no sensation, pain due either to excessive excitation or to an induced excessive susceptibility. But we are familiar elsewhere with the same fact—that acute pain may be produced by morbid action in structures which seem insensitive in health. We meet with it in the pleura, the peritoneum, and the intestinal wall. Indeed, the last is a pertinent example, because we are quite unconscious of intestinal contraction under normal conditions, and yet its increase, as by a simple purgative, may give rise to intense pain. These facts illustrate the constancy of afferent nerve impulses from all parts, whether we feel them or not, for pain can only be ascribed to the intensification of nerve impulses which are constant in less degree.

The muscle spindles through which contraction and tension of the muscles, in health, produce unperceived impulses, and when excessively stimulated, or rendered over-sensitive in lumbago, give rise to acute pain, are remarkable bodies. They are long structures lying between (or in) the bundles of muscular fibres, narrowed at each end, as their name implies. One or more narrow muscular fibres enter each, and two or more nerve fibres, usually one at the end, one in the middle.

The nerves divide and form a ramification around the muscular fibres, which also divide in the middle region, to reunite before they pass out at the other end. No special nerve endings have been detected. The muscle fibres do not seem to receive any motor nerve, according to the balance of evidence.* They seem to be small portions of the general muscular substance deflected into this meter-like structure. We must assume that they share the contraction of the whole muscle, and as it were, they register it by compressing the nerve fibrils within the capsule of the spindle. Thus they resemble the apparatus for the measurement of an electrical current, which uses a fraction of it as an index to the strength of the whole. If so we may regard the function of the muscle spindle as a muscle meter. But if the contraction of the fibres within the capsule of the spindle acts by compressing the nerves, we can also understand that an intense general contraction of the muscle, as in cramp, may compress them from without as well as from within, and thus give rise to acute pain, which only subsides when forced extension overcomes the contraction. We may expect that with such sensitiveness to lateral compression the nerves will also be responsive to external pressure, and we find that when a muscle is firmly pinched, pain is felt. Moreover, since a strong stimulation of any afferent nerves may cause pain (though normal impressions are unperceived), it is not surprising to find that induced electricity, as the faradic current, causes severe pain. This is probably due to its direct action on the nerves as well as to their compression by the muscular contraction that is excited. The peculiar intensity of pain caused by the serial current, compared with isolated shocks, seems to confirm this. It is an example of the effect of a summation of sensory stimuli, which is met with also in the skin.

Such a nerve ramification, sensitive to the mechanical influence of compression, can be readily conceived as sensitive also to the influence of tension. We cannot, indeed, discern any mechanism which can promote the influence of tension, but of its effect on the afferent nerves we have ample evidence. The same functional capacity may subserve both forms of sensitiveness, especially since the nerve fibrils surround the muscle fibre. The general sensitiveness of nerve fibres to mechanical influences makes it easier to understand the apparent absence of special end organs, and also the absence of the special spindles in some cases, as the eyeball muscles. A ramification of nerve fibrillæ between the muscular fibres may serve the purpose of afferent impressions as well as the more elaborate structures.

We are now concerned with these facts as they are related to the symptoms of lumbago. If these muscle spindles are the only sensory structures in the muscle, and as far as is known there are no others, it is through them that the symptoms of muscular rheumatism are produced. They are by some means brought into a state of extreme sensitiveness, and thus pain is produced by the moderate mechanical influences by which, as we have seen, their normal excitation is produced. We might thus conceive lumbago to be a pure affection of the muscle spindles, but we may easily fall into error by regarding the structures through which a disease is manifested as its sole seat. These peculiar bodies seem to belong to the fibrous tissue of the muscle, to that which sheathes and connects the muscular fibres, rather than to the latter. This, indeed, we should expect, for we find elsewhere such special structures related to the enclosing tissues, as in the bodies in which the nerves end in the fibrous sheaths of nerve trunks.

Fibrous tissue, or connective tissue, as it is termed in its looser form, is an element common to all structures and

* Such an ending by a plate on the muscle fibre has been described only by Ruffini.

organs; by it separation is effected and even seclusion provided, but also connexion as well as isolation. Yet this tissue, although so universal, presents variations in pathological liability in different parts, and it seems prone, beyond any other tissue, to be influenced by certain morbid states. In all parts it seems the most susceptible to the influence we call "rheumatism." I might call it an unknown influence; it is unknown so far as its nature is concerned, but known only too well by its effects. The relation of lumbago to rheumatism would alone make us expect to find it an affection of the fibrous tissue of the muscles, the tissue in which the spindles are situated, rather than of these alone.

But we have another important proof that the malady is an affection of the fibrous tissue; it may spread, and it spreads by continuity of this tissue. It spreads to the tendinous attachment of the muscles to the crest of the iliac bone and the back of the sacrum. Indeed it may begin there. In each case, pain in this position is produced by the contraction of the lumbar muscles, which causes tension on the tendinous structures that connect them with the bone. We know that these are continuous with the interstitial tissue of the muscle, and seem indeed to be a concentration of it. This tendinous tissue contains nerve endings, which resemble the muscle spindles in being peculiar bodies, and consisting of an interlacement of divided nerve fibres enclosed in a capsule. But they are not elongated as are the spindles, and contain no muscular fibre. We can understand this, since they have not to respond to muscular contract on except by the increased tension it involves. To tension, their sensitiveness is manifested by the pain felt in this form of "tendinous lumbago," and also by peculiarly intense pain caused by tension after they have been exposed to a severe strain. But they are also sensitive to compression, although this is not the usual mode of their excitation. You can easily convince yourselves that this is a fact by vigorously pinching your own tendo Achillis, one of the least sensitive structures of the kind. You cannot fail to notice the peculiar pain that is produced. It is indeed possible that tension, by elongation of the tendon, exerts some lateral pressure on these nerve endings. The tendon is composed of wavy, elastic tissue. I once examined microscopically a tendon which had been divided long before, and the contrast between the cicatrical tissue which connected the divided ends and the normal wavy fibres of the tendon was very striking. Any elastic structure, if elongated, necessarily exerts considerable lateral pressure on that which it contains. But the nerves within the end organs must share also the direct traction on the tissue. We can thus understand their stimulation by tension.

The extension of lumbago from the substance of the muscle to the tendinous structures just dies us in regarding, as its seat, the fibrous tissue of the muscle, in which the sensory nerve endings are situated, and with which they suffer. As I have said, the fact seems to preclude the idea that it is an affection of these endings alone. But the extension may go further, and in doing so presents us with additional and important information. Such morbid sensitiveness of the tendinous structures at the back of the sacrum "sacral lumbago" we may call it—whether secondary or primary, often spreads, apparently by the tissue, and reaches the sheath of the sciatic nerve. There, it may increase to definite sciatic neuritis. Some of the most severe cases I have seen have clearly manifested by their extension to the nerve from the sacral tissues. You know that sciatic neuritis is primarily an affection of the fibrous sheath of the nerve. It is a structure prone to inflammation from many causes, and we can understand that it may readily suffer by such extension. In some cases of sciatic neuritis clearly arising thus the inflammation has spread from the sheath to the interstitial tissue of the nerve, and has been attended with such a degree as to impair the conducting function of the nerve and to cause muscular wasting and diminished sensibility.

[illegible] this last indication. If morbid process, by extension, presently [illegible] manifest inflammation, it must be regarded inflammatory in nature. We are thus [illegible] in sacral lumbago in particular, and [illegible] rheumatism in general, as a form of inflammation of the fibrous tissue of the muscles. We are familiar with other forms of inflammation of such tissue. We know that the [illegible] especially from [illegible] as "fibrositis." But we must also recognise that we hyperpyrexia [illegible] the [illegible] inflammation. I think we must recognise [illegible] inflammation of the fibrous tissue which has not such results, and yet, we cannot doubt, is of this nature. We may conveniently follow the analogy of "cellulitis," and term it "fibrositis."

The conception of muscular rheumatism as a rheumatic inflammation is, I know, old enough, and the term "fibrositis" is so convenient that I cannot doubt that it has been used. But I have mentioned the evidences of the inflammatory nature of the process, and I desire to insist on them, because the features of the malady differ from those of ordinary inflammation. There is no indication of the formation of "inflammatory products," as we call them, but this is certainly not enough to justify a denial of its inflammatory nature. It has the acute course of an inflammation, and may result from a frequent cause of this in any part—exposure to cold. It presents another peculiarity in the extreme suddenness with which its symptoms seem to come on. You are familiar with this. But the suddenness is, I believe, often apparent, not real. The pain, which may transfix the sufferer in a moment, and make any movement impossible, usually occurs on the first movement after a period of rest. Often it is the first motion in the morning, or there has before been some slight definite discomfort in the muscles, and then some peculiar action causes an extreme stimulation of the structures which had been gradually becoming over-sensitive. Hence the morbid process may be much less sudden than is its manifestation; the production of the pain is sudden, but the condition on which it depends has been gradually developed. The fact that the pain is never spontaneous is a clear distinction from the nerve pains, especially neuralgia, with which we might be disposed to associate it. Hence I think the term "myalgia" is equivocal: it suggests spontaneous pain, and not that which is purely induced.

We must moreover remember that the process, compelled though we are to regard it as inflammation, varies a good deal according to its cause and seat. Apart from the muscles and tendons, the fibrous tissue of the joints is liable to a condition in which tension causes acute pain; although there is no effusion, we regard this state as inflammatory. In the compact fibrous stucture we can best observe—the sclerotic inflammation may have, as its chief result, tenderness and vascularity, but with spontaneous pain. There is no evidence of a hyperplastic process, no thickening of the sclerotic or suppuration within it, but vascularity is conspicuous. We cannot know the state of the vessels of the hidden tissue of the muscles and tendons, but they probably share the acute disturbance in the morbid condition we are considering, and which we must conceive as a rheumatic inflammation.

You may think that I am labouring too much to prove what is commonly accepted. If you do, I quite agree with you. But I have found that many students, and many who have ceased to be nominal students, have no definite conception of the nature of muscular rheumatism, and that those who would say that it is a rheumatic inflammation can go no further. I have also endeavoured to give you the evidence of the nature of lumbago because I wish to impress on you the features of a malady, similar in nature but different in seat—that which I would call muscular fibrositis in the arm. It may be called brachial myalgia, if you restrict the term to this class of affection. It is met with in every degree of severity, and when intense it is a very terrible malady, distressing and prolonged, for which the term "muscular rheumatism," as generally understood, is inadequate. Its great feature is pain in the muscles, not spontaneous, or only in slight degree spontaneous, but induced by their contraction, or by sudden tension, however slight. Any attempt at passive movement causes such pain from the tension that an involuntary muscular contraction occurs to prevent it, a contraction which itself causes even greater pain. Then it is very singular. The joints, shoulder, elbow, and even wrist, seem as if fixed. Every attempt to move them is prevented by secondary contraction in the muscles, secondary, but seeming simultaneous, which is so painful that it may make a strong man cry out. Yet, if the patient does not know what you are doing, and you proceed with such gentleness that the movement is really imperceptible, you will be surprised to find how much passive motion is possible. You may not be the only person who is surprised. I remember a severe case of this character, in which all the muscles of the left arm were affected, and the patient—indeed he [illegible] also believed the shoulder-joint to be fixed by adhesions. No passive movement of it seemed possible. But the [illegible] very gently the utmost and most painful [illegible] which ensued on every attempt. While questioning the patient's mother

symptom, I moved the arm very, very gradually, so that the movement could not be noticed until it had reached a considerable degree. Then the muscles passed into painful contraction. I desisted for a minute, keeping the arm in the position reached; the contraction passed off, and then I renewed the gentle movement until the arm was abducted to an extent that neither the patient nor his doctor had thought possible. In the same case any attempt at passive movement of the wrist caused extreme pain through the whole arm; but when I held the forearm, gently but firmly, above the wrist, I was able to extend or flex the wrist-joint slowly without causing any pain. Muscles far apart are linked together in function. Unless the forearm was thus held, the passive movement of the wrist excited supporting contractions in the muscles of the upper arm which were most painful. When the forearm was held no tension on the upper muscles occurred, and no contraction. The case was one of severe muscular fibrositis, so severe as to mimic a fixation of the joints.

In such a case the muscles are sensitive to pressure as well as to contraction. There may be some spontaneous aching in the severe degree, but this is trifling compared with the induced pain. It is, indeed, not easy for a patient thus suffering to avoid the induction of pain in any posture, sitting or lying. Even in bed it is almost impossible to prevent some tension on the muscles, or some compression, which causes pain, and thus the pain may seem to be spontaneous when it is not really so.

Such severe brachial fibrositis may spread, just as sometimes does the lumbo-sacral form. It may reach the nerve sheaths of the arm, and in them set up a secondary brachial neuritis with all its consequences, tenderness of the nerves, pain along their course and in their distribution, oedema of the hand, and even muscular wasting or impaired sensation. These two symptoms are, however, rare in this secondary neuritis. Sometimes the nerve sheaths seem to suffer simultaneously with the muscles; from the first, even when the affection is slight, we may have evidence that both are involved. Remember that in all forms of unilateral neuritis the affection is primarily of the nerve sheaths. Indeed, this form may be accurately termed nerve fibrositis. It is quite different from the bilateral, symmetrical, toxic forms. In these the nerve elements suffer first and chiefly, and the connective tissue hardly at all, far less than the symptoms would suggest.

In other cases extension to the capsules of the joints may occur, especially to the shoulder-joint, the tenderness of which, with local pain on movement, distinctly in it, is the most prominent symptom. The finger-joints seldom suffer unless there is neuritis, or there is an independent tendency to arthritis. All these rheumatic affections are closely allied, and slight variations on the causal blood state seem to determine the special predominance of muscular, articular, or nerve symptoms.

This brachial fibrositis is met with in various degrees of severity and in any part of the arm, in the muscles of the shoulder girdle, the upper arm, or forearm, but those moving the shoulder-joint seem most prone to suffer—the deltoid, scapular muscles, and pectoralis, sometimes the trapezius, the triceps, and the biceps. Usually one arm only is affected, but I have known the malady to be bilateral, even in severe degree. It is then absolutely disabling, even when limited to the muscles. The pain produced by movement has an absolutely inhibitory effect, such as to simulate paralysis. But it is only a simulation; when limited to the muscles their motor nerves seem not to suffer, and there is no marked change in electric irritability, faradic or voltaic.

I doubt not that much of what I have said is familiar to you, but my chief object is to impress on you the features of this brachial form, because its nature is often mistaken. It is regarded as neuritis, even when there is no indication that the nerves are involved. In some cases, just as in the lumbar region, the tendinous attachments of the muscles suffer especially, and the local character of the pain may then be puzzling. It may be limited, for instance, to the insertion of the deltoid. But it is still induced by tension, and felt only when the muscles contract.

You know full well how common elsewhere, in trifling degree, is this condition of the muscles. Many varieties you are familiar with. It constitutes the familiar stiff-neck, and a similar condition of the muscles of the [illegible] often results from cold. The act of swallowing is painful, from the muscles, not the mucous membrane. The well-known pleurodynia is, I believe, really intercostal fibrositis, and pain attends the contraction of these muscles, which is symmetrical and felt on both sides of the thorax. The same morbid state in the tendinous attachments of the diaphragm is a very distressing affection, each respiratory movement causing pain around the thorax at their level. In the leg such fibrositis is less common, except as the result of strain, to which I shall recur presently.

This rheumatic fibrositis is seldom strictly symmetrical. Even in the lumbar and sacral tissues, in which its tendency to affect both sides is greatest, it is generally more on one side than on the other, and manifests its predominance by spreading to the sciatic nerve only on the side on which it is more severe. In the arm it is rare for the muscles on both sides to suffer, and when they do it is very seldom in equal degree.

I need hardly remind you that muscular rheumatism is more common in the second half of life than in the first, while the opposite is true of the acute articular form. It is currently associated with gout, and the truth of the belief is soon impressed on the practitioner. But it is "gout with a difference." It may occur in those who are gouty in the common sense of the word, but some of the most severe cases I have seen, especially of the brachial form, have been in those who have inherited the tendency to gout but have not merited its development. The patients have been elderly ladies of blameless habits and elderly abstemious clergymen, members of conspicuously gouty families. You know the distinction that has been drawn by Mr. Hutchinson and others in the constitutional forms assumed by the diathesis. But all are connected. One notable link between these varied affections is that most cases of rheumatic fever in the young are in the children of gouty parents. If you have not already noted this you will be surprised to find how often it is true.

Another definite form of fibrositis is the traumatic, induced by sudden violent tension on tendinous and ligamentous structures, much less frequently by tension on the muscles. Examples of this are common in many situations. I lately saw a woman who had strained her back severely during the overturning of a tramcar three months before. Ever since the accident there had been extreme sensitiveness of the tendinous attachments of the dorsal muscles to the iliac bone. The slightest tension on these, especially that which was caused by contraction of the muscles in the effort to keep the spine erect, or even to steady the contraction of the opponents, as on sitting up in bed, or on an attempt to turn in bed, caused acute pain, limited to this situation and to such movements. Remember always that every muscular movement involves contraction of the opponents as well as of the muscles which cause the movement. Were it not so we should be indeed wobbly beings. No steady motion would be possible; every motion would be overdone, first in one direction and then in another. But the muscles which are oversensitive, or their tendons, may be those that act secondarily, and then we have pain in them on the action of their opponents. It is important to keep this fact in mind, in order to unravel these muscular and tendinous pains.

While any structure may suffer from overstrain, the fibrous attachments of the muscles to the back of the sacrum are especially prone to such traumatic derangement. Some sensitiveness to pressure usually coexists, but it is far less in degree than that to tension. We meet with a like condition also in ligaments. A violent strain on the spinal ligaments may be followed by enduring susceptibility to pain on any tension, a condition often met with after railway accidents and other injuries. Like other subjective symptoms, it is open to forensic depreciation, but its peculiar relation to tension clearly establishes its genuine character. Other mechanical causes besides sudden strain may cooperate in producing fibrositis. Habitual posture, or the constant slight strain of habitual exertion such as riding, seems often to induce fibrous pain in those who are otherwise disposed to it. The familiar contraction of the palmar [illegible] seems to be the result of a peculiar form of fibrositis. It is usually painless, and clearly due to habitual postural use of the hand. But it is seldom met with apart from a gouty diathesis, a fact that is instructive with regard to muscular subject.

To return to pain following strain. It may [illegible] before we can confidently assert its nature. These firm fibrous

structures consist of compact supporting tissue and of nerves and nerve endings. The enduring sensitiveness after injury is certain evidence of changes in the latter. We may safely assume that they are at first due to organic damage, with secondary inflammation, as all effects of injury seem to be. But the after-state which lasts so long may be a residual effect rather than a persistent active process. We have not such proof of activity as is afforded by the extension of rheumatic sacral fibrositis to the sciatic nerve, and we must therefore regard the condition which persists for long, for many months, as still uncertain. But the absence of spontaneous pain seems a definite distinction from that which we term "neuralgia."

While the slighter forms of muscular fibrositis, such as lumbago or "stiff neck," are usually brief in duration, that which involves the tendinous structures may last for many weeks, and when due to injury often continues for months. Indeed, the duration of muscular fibrositis seems proportioned to the slowness of its onset, perhaps in part because the slighter pain does not compel the needful rest, of which I shall speak in a moment. The affection of the arm is often prolonged; when it has become severe it generally lasts for months, and the pain produced by every movement of the arm, with the interference with sleep due to the difficulty of securing any easy posture, wears down the patient's strength, lessens the power of endurance, and induces a dreading expectation of pain which actually increases the degree of suffering. Pain which is both expected and feared is positively felt more than pain which is mentally resisted, and unhappily the power of resistance inevitably fails before constant suffering.

The general treatment of these forms of rheumatic fibrositis is, I doubt not, sufficiently familiar to you. But there are two measures the beneficial influence of which I am sure is not so generally recognized as they should be. One is diaphoresis, the other is rest. The value of free perspiration has some popular recognition. There is a strong impression that muscular rheumatism may be cut short at its onset by active exercise. The usual result of acting on the belief is a serious increase in the affection, but there are some cases in which it does good. They are cases in which the exercise does not involve much use of the affected muscles, and in which it causes copious perspiration. This seems to relieve the condition of the blood, and at the very onset may enable the morbid state quickly to pass away. If the pain of commencing lumbago is not felt on standing or walking, and if a long walk is taken in a thick overcoat, any chill being avoided, the lumbago may be gone next day. A Turkish bath is equally beneficial and safer. But it is only at the onset that the relief to the blood-state is effective. Even after two or three days the muscular fibrositis seems to become so established that it cannot be speedily influenced by diaphoresis.

Above all things, rest is that which these painful muscles need. However this sensitiveness is produced, it is certainly maintained by every influence which excites pain. We can understand that all irritation of the sensory nerves increases the vascular disturbance which we must assume in the early stage and the sensitiveness of the nerve endings is maintained by their stimulation. In the brachial form, adequate rest to the muscles is very seldom secured early, when its importance is not great. Slight movements may entail only a little pain, but doing so they inevitably increase the morbid state. In every case of this kind the arm should be carried in a sling and the clothes should be arranged to make dressing and undressing easy. Ladies should be sternly forbidden to "do up their back hair," a process which seems to involve perpetual pain on the slightest muscular effort which is kept up for some time as a habit to which they are accustomed. The use of a sling is often altogether overlooked. It has advantages beyond the direct rest to the muscles it helps to support, the upper arm which it affords in the frequent exchange of external heat which it permits. It saves the patient from many unbecoming movements. In the early stage it is not of first importance, but certainly useful, and in its commencement in a thin layer of cotton wool or lint over which a bandage is applied it is a somewhat impermeable material to proceed. It seems to do good by keeping the skin warm and moist. Gentle massage or rather gentle stroking should be used at the beginning, after a day or two, as a gentle upward stroking of the part, but it should never be such as to cause discomfort. In the later stages, if one can wear a sling, it may often be relieved by extremely gentle applications of electricity. A high-frequency current may be used, or, what answers even better and is much simpler, a rapidly-interrupted faradic current, so weak as to be felt only as a sensation of vibration, and not as pain or pricking. If it is strong enough to cause any muscular contraction, it does harm. Liniments are most suited to the later period, though at first a little may be sprinkled on the lint that is applied. Belladonna and chloroform liniments, mixed in equal parts, answer best. Not even passive movement should be employed until it causes no pain, and then it should be most gentle. The avoidance of pain should be made the standard for all local measures.

Aperients are of the first importance in all rheumatic and pseudo-gouty cases, and nothing is of so much value as salines. They free the system of bile far more than the so-called "cholagogues." Taken into an empty stomach, they seem not to be absorbed, but to pass on, into and through the intestine, augmented by the exosmosis they excite, and they carry away the bile they find in the bowel. This has done what digestive work it had to do, and much of it would simply pass back into the blood, through the liver, and increase the amount of harmful matter in the general circulation. At least, this is how I understand the fact that salines do remove bile abundantly, and improve the general state. But if a saline is taken when the stomach contains food, it seems simply to mix with this and to be absorbed, and its valuable "flushing out" action is not obtained. Moreover, it seems to pass through the stomach more readily, and to excite osmosis and peristalsis in the bowel more effectively, if concentrated than if dilute; and thus the stronger aperient waters act better than those that are dilute. I may add, parenthetically, that what I have said is quite consistent with the mild aperient influence obtained by some persons from a glass of plain water in the early morning. That which differs in any way from the normal character of the intestinal contents may have a similar effect: that which is more dilute may act like that which is less dilute, just as the bladder is irritated by watery urine as well as by that which is concentrated.

The medicinal agents which have most effect on articular rheumatism seem to have far less influence on rheumatic muscular fibrositis. The salicylates, for instance, seem to do little good, except in the most acute forms. In this it is very difficult to discern with precision the effect of any therapeutical measure. We cannot try experiments in severe suffering. We can very seldom secure the essential condition for observation, namely, that the agent to be tested shall be used with no other change in the influences to which the patient is exposed, that no other attempt to do good shall be made at the same time. Hence doubt must attach to many of our records of apparent good, and they need to be confirmed by subsequent observations before they possess weight. I mention this because this morbid state is one of those in which the opportunity for increasing and making sure our therapeutic knowledge comes chiefly to the general practitioner. But we may give the salicylates, or salicin, or aspirin. The salicylate of potash or lithia seems a more reasonable salt to use than the more common salicylate of soda. The salicylates have the disadvantage that we cannot obtain, in combination with them, the diuretic influence of nitrous ether. I think that most good is obtained in the early stage from nitrous ether, citrate of lithia, and colchicum, with which small doses of perchloride of mercury may be combined if the affection is of considerable intensity.

The developed brachial form is extremely obstinate, especially when the fibrositis has spread to the nerves or joints. It is often difficult to perceive that any treatment has a marked effect if the opportunity of the early stage has been allowed to pass. The malady lessens, and passes away in time, leaving only such lasting effects as neuritis or arthritis may have caused. Good is certainly done by superheated air, but the applications have to be continued for weeks, and the accessory incidental disturbance seems to lessen the benefit derived.

The traumatic form of tendinous fibrositis, when it settles down to a stationary condition, with pain on any tension, and often some tenderness on pressure, resists almost all treatment. It also passes away in time, but unfortunately the time is long before the tendency to subside manifests itself. It may constitutional condition seems to co-operate in perpetuating the effects of injury, this of course should be treated. It is chiefly to be discerned when fibrositis is set up by slight habitual strain. Rest is important, but is not easy to maintain for an adequate time.

Counter-irritation sometimes lessens the pain, and the actual cautery is certainly the most effective form. A local measure that often does good is the deep hypodermic injection of cocaine, repeated daily for two or three weeks. It unquestionably promotes the subsidence of the sensitiveness, provided the ease obtained is not abused by increased exertion. Probably eucaine would be equally effective.

At present we are without any direct evidence of the real nature of these affections, such as can only be furnished by the microscope and modern methods of discerning that which it reveals. We cannot wonder at our ignorance, still less complain of it, for it is only quite recently that the minute structure of the sensory elements of muscle and tendon has been clearly perceived, and much of the normal structure still remains obscure. It is one of the departments of pathology in which the recognition of the changes that attend disease has to come long after the full discernment of the normal structure. We must therefore be content to wait, and content also meanwhile to rely on the apparent meaning of the symptoms of disease, as far as that meaning can be made out. Opportunities for pathological research are rare. Possibly it would be more true to say that they are rarely seized. They are not uncommon, but need to be watched for to be found. These diseases have little gravity, so far as concerns the mechanisms by which life is ended. The processes that cause death absorb attention, and minor maladies which coexist are naturally disregarded. I shall be indeed glad if what I have said to-day should lead you to look for and to take advantage of opportunities which others may use, if you cannot do so yourselves.

NOTE.—The recent investigations of Cattaneo, Sherrington, Ruffini, Batten, Horsley, and others have added much to our knowledge of the structure of the muscle spindles, but leave their physiology still in the realm of conjecture. Still more is this true of what may be called their clinical pathology, the attempt to discern the part they play in disease. The suggestions made above are, I think, as much as is at present justified—that their normal function may be described as that of "muscle meters." One other remarkable fact may be referred to. It has been definitely ascertained that when all the fibres of a muscle perish in consequence of division of its nerve, or of atrophic disease due to changes in the spinal cord, those that are contained in the muscle spindle remain undegenerated. It is so, even when the nerves within the spindle perish in consequence of their separation from the posterior ganglia. The intrafusal muscle fibres (as those within the spindle are termed) clearly possess some independent vitality. We can only associate this with the remarkable mass of nuclei which occupy the fibres in the middle ("equatorial") region of the spindle. There, for a short space, they seem to replace the transverse striation, which reappears beyond them. Wherever we can trace the element on which vitality depends, it is a nucleus with protoplasm around it. The only reason we can conceive for the presence of these nuclei in the muscular protoplasm, is to secure independent vitality, and it is the only mechanism we can at present perceive by which their nutrition is maintained when all other muscular fibres perish. Far as the retina is removed from these structures, we seem to have in it a peripheral vital centre. Its ganglion cells are believed to control the nutrition of its elements and of the fibres of the optic nerve. But a ganglion cell is simply a nucleus surrounded by circumscribed protoplasm, and a vital influence may be equally exerted by nuclei whose individual protoplasm is not thus limited. The most important researches regarding the muscle spindles are contained in *Brain*, vol. xxvii, 1898, and to Dr. Batten's valuable paper, references to earlier writings are appended.

THE MEDICAL PROFESSION IN AUSTRIA.—According to the Austrian *Medizinalkalender* for 1904 the total number of medical practitioners in the Austrian Empire at present is 11,689. The number last year was 11,339. They are distributed in the several provinces as follows: Lower Austria, 3,454; Upper Austria, 396; Salzburg, 133; Styria, 692; Carinthia, 151; Carniola, 109; Coastland, 352; Tyrol and Vorarlberg, 598; Bohemia, 2,905; Moravia, 955; Silesia, 240; Galicia, 1,413; Bukowina, 146; Dalmatia, 145. In Bosnia and the Herzegovina there are 108 practitioners. In the principal cities they are distributed as follows: Vienna, 2 721; Linz, 63; Salzburg, 44; Graz, 274; Klagenfurt, 41; Laibach, 41; Trieste, 188; Innsbruck, 70; Prague, 580; Brünn, 186; Troppau, 39; Lemberg, 312; Czernowitz, 60; Zara, 20.

CHRONIC CYANOTIC POLYCYTHAEMIA WITH ENLARGED SPLEEN.

BY WILLIAM OSLER, M.D., F.R.S.,
Professor of Medicine, Johns Hopkins University, Baltimore.

At the meeting of the Association of American Physicians in May, 1903,[1] I called attention to a group of cases characterized by chronic cyanosis, polycythaemia, and enlargement of the spleen. The chief symptoms were constipation, headache, vertigo, and weakness; in some cases the patients were in very good health, in spite of an intense cyanosis. The 3 patients which I have seen present a fairly well-defined clinical entity. I was able to collect from the literature 6 additional cases: of the 9, 6 were males and 3 females. The youngest was 35 years of age. The cyanosis was the most remarkable feature, without, as a rule, any respiratory distress, and without any obvious cause. Advanced emphysema and chronic heart disease could be excluded in all the cases. The blood presented a greatly increased viscidity, an unusually dark colour, and in 8 of the cases the red blood corpuscles were above nine millions per cubic centimetre. The haemoglobin ranged from 120 to 150; the leucocytes showed no special changes.

In 7 of the 9 cases the spleen was enlarged, in 4 reaching nearly to the navel. Pigmentation of the skin was present in 5 cases. The symptoms were chiefly sensations of fullness in the head, headache, vertigo, weakness, and prostration. Constipation was present in 4 cases, attacks of nausea and vomiting in 2. There were necropsies in 3 of the cases. In Case IV (Stockton) the heart was normal. There was moderate emphysema of the lungs, with cyanosis and moderate enlargement of the spleen. In Case VI (Cabot) the patient died comatose, with cerebral haemorrhage. There was passive congestion of all the organs. In Case IX (Saundby and Russell) there was hypertrophy of the left ventricle and great enlargement of the spleen.

The following additional cases may be mentioned: Dr. J. N. Hall[2] of Denver, reports a very characteristic case in a woman with cyanosis of an extreme grade, dyspnoea, and a blood count of nearly ten millions of red blood corpuscles per cubic centimetre. Türk presented to the Medical Society in Vienna in January, 1902, a woman, aged 40, who had had enlargement of the spleen for about ten years with remarkable cyanosis, and a polycythaemia of nearly ten millions; haemoglobin, 180 per cent. Dr. Joseph Collins reports a case[3] of an Irish girl, aged 24, with an extreme degree of cyanosis of the face and extremities, marked constipation, pain in the side, and a blood count of 9,800,000. The spleen was greatly enlarged. In a recent number of the *Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie* (Bd. xi, Heft 4) Dr. Rosengart discusses the question of splenic tumour and hyperglobulism. His patient was a man, aged 41, who complained of stomach troubles, vertigo, and loss of weight. The skin of the face was mottled with yellowish and violet shades, but was lighter than in the ordinary cyanotic discoloration. The hands were of a purple-red colour. The mucous membranes were very dark. The patient had marked dyspnoea. The red blood corpuscles were ten millions, and the haemoglobin up to 190. The spleen was enlarged. There was slight albuminuria. The case is similar to those reported in my paper, but, not aware of this group, Rosengart leans to the belief, based on certain cases reported in the literature, that the condition is one of tuberculosis of the spleen.

Scharold[4] in 1883 reported a case of miliary tuberculosis of the spleen without infection of other organs. There was no blood count, but the colour of the face is reported to have been between red and deep blue. Rendu and Widal[5] report the case of a policeman who had an attack of vomiting without apparent cause, with dyspnoea. The temperature was normal. Red blood corpuscles, 6,200,000; leucocytes, 6,000. This count gradually diminished. On examination, skin subicteric, cyanosis of face and hands marked, to a less degree, all over the body. A tumour, evidently the spleen, reaching from diaphragm to iliac crest. Eventually ulcers developed on tongue, and the liver became enlarged. Necropsy: Spleen adherent to diaphragm, fibrous on section, filled with caseous masses.

Collet and Gallavardin[6] report a case of a man, aged 60, with an enlarged, not painful, spleen of two years' duration, without any cachexia and without any leukaemia or fever. There was also enlargement of the liver. The face was very congested (*très colorée*). The blood from the finger was deeply

coloured. There was [illegible]ment. At the necropsy the spleen was found greatly enlarged, 2 lbs. in weight, and had enormous caseous masses scattered through it. There were a few old granular tubercles in the lungs.

In D. D. Stewart's case of acute tuberculosis of the spleen the patient had an illness lasting in all a little over two months. Typhoid fever was suggested. There was no increase in the number of red blood corpuscles, which were at one count below four millions. The statement is made that there was a tendency to cyanosis and continued blueness of the extremities and "cold water was resorted to to reduce the temperature."

Cyanosis and polycythaemia are met with then in primary tuberculosis of the spleen, but it does not seem at all likely that the cases of chronic cyanotic polycythaemia are due to this cause. In the series which I have collected there were three necropsies, and no mention is made of caseous masses or miliary tubercles in the enlarged spleen, and, moreover, the chronic course—eight or ten years in some cases—is opposed to it.

In studying obscure cyanosis it is well to bear in mind the possibility of chronic poisoning with the coal-tar products. Dr. W. B. Platt sent me the report of a very interesting case of two years' duration without any enlargement of the spleen or hyperglobulism. The patient denied having taken any drugs, but Dr. Platt has recently found out that she had taken for nearly two years a quack medicine which contains acetanilide.

In a case of chronic acetanilide poisoning reported by Stengel and White the cyanosis was extreme and the spleen could be felt 2 in. below the ribs. The red blood corpuscles were only three millions per cubic centimetre, but the most remarkable feature was the extraordinary increase in the number of nucleated red blood corpuscles, which were on one occasion up to 71,400 per cubic centimetre.

I would suggest to those who meet with cases of chronic cyanosis with polycythaemia to study carefully the condition of the heart and lungs, and in the blood the specific gravity and the viscosity, as the cyanosis probably depends upon the latter and upon the increased difficulty in the flow of the blood through the capillaries.

REFERENCES

[illegible]

CHANGES IN THE SPINAL CORD IN DIABETES MELLITUS.

By R. T. WILLIAMSON, M.D.Lond., F.R.C.P.,

[illegible]

A number of cases are now on record in which degenerative changes have been found in the posterior columns of the spinal cord in diabetes mellitus. In 1894 I recorded two cases in which these changes were present.[2] Recently I have found similar changes in another case of diabetes mellitus of [illegible]

[illegible] developed [illegible] I tuber[illegible]

Specimens were embedded in celloidin, and sections stained with aniline blue-black, logwood and eosin, and according to the methods of Weigert, Pal, Van Gieson, Marchi, and Bielschowsky.

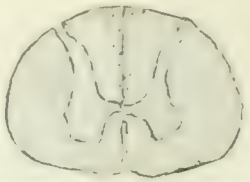


Fig. 1.—Diagram showing position of degeneration in section of cervical region of the cord, stained according to Marchi's method. Degenerated fibres represented by black dots.

Fig. 2.—In the centre of the figure, transverse section of Goll's columns of cervical region of spinal cord under high power of microscope, showing numerous degenerated fibres, stained black. Marchi's method. In Burdach's columns at each side very few degenerated black fibres are seen.

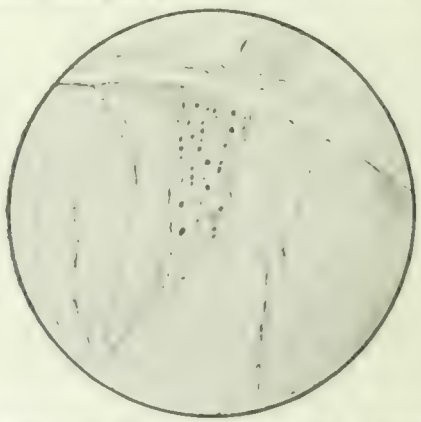


Fig. 3.—Degeneration of intramedullary fibres of posterior nerve roots between the surface of the cord and the posterior horn of grey matter. Degenerated fibres stained as black dots. Marchi's method. Lumbar region of cord. Extramedullary part of posterior nerve root (dorsal upper part of figure) is normal.

Microscopical examination of the spinal cord revealed a slight excess of neuroglia connective tissue in Goll's columns of the cervical region. This was best seen in sections stained with aniline blue-black, and according to Van Gieson's method. Even to the naked eye, in sections stained according to these two methods, Goll's columns appeared of a deeper colour than the rest of the white matter. The nerve fibres of Goll's columns were mostly diminished in size; the myelin sheaths and axis cylinders were usually smaller than in Burdach's columns or in other parts of the white matter. In some parts, chiefly at the posterior third of Goll's columns and close to the posterior median septum, a few nerve fibres with swollen axis cylinders were seen. Also in this region a few fibres with distended myelin sheaths were detected (these were best seen in sections stained according to Weigert's method).

In sections stained according to Marchi's method, degenerated fibres, stained black, were seen in Goll's columns in the cervical, dorsal, and lumbar regions; but they were most

numerous in the cervical region, scanty in the dorsal and lumbar regions (see Figs. 1 and 2). A very few scattered degenerated fibres were seen in Burdach's columns. Degenerated fibres (indicated by black dots) were also seen in the intramedullary course of the posterior nerve roots, between the posterior surface of the cord and the posterior horn of grey matter, and to the median side of the posterior horn (see Fig. 3). This degeneration of the intramedullary portion of the posterior root fibres was best seen in the lumbar and cervical regions. The posterior roots, external to the spinal cord, generally presented no degenerated fibres in sections stained according to Marchi's method. In a few sections, however, degenerated fibres (stained black) were seen in the posterior roots for a very short distance, just outside the pia mater; but this degeneration ended very abruptly close to the cord.

The spinal changes here described are probably secondary, and due to the altered blood condition in diabetes mellitus. At the region where the posterior root fibres pass through the pia mater, on the posterior surface of the cord, they lose their myelin sheaths for a very short distance; and it appears probable that at this point the fibres are specially liable to suffer from the action of toxic substances in the blood.[1] The changes in the intramedullary portion of the posterior root fibres could be traced to this point in the case here recorded.

Similar changes in the intramedullary fibres of the posterior root may be detected in tabes.

The knee-jerks and tendo-Achillis reflexes were absent in the case just recorded. These signs have been attributed to changes in the peripheral nerves, and no doubt this is the explanation in many cases. But I have found the peripheral nerves (in diabetes) of normal appearance on microscopical examination, when the knee-jerks have been absent. It is possible that the loss of knee-jerks and tendo-Achillis reflexes may sometimes be due to changes in the intramedullary fibres of the posterior nerve roots. In the case here recorded there were no symptoms of peripheral neuritis beyond the loss of the reflexes just mentioned, but the peripheral nerves were not examined pathologically. The changes in the intramedullary fibres of the posterior roots were, however, sufficient to account for the absence of the reflexes.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, February 24th, 1894. [2] References to other cases recorded are given in this article and in the writer's book on *Diabetes Mellitus and its Treatment* (London, 1899). [3] ORR, *Review of Neurology*, vol. i, No. 10, p. [illegible].

A NOTE ON THE TENDON REFLEXES IN URAEMIA.

BY W. MITCHELL STEVENS, M.D.LOND., M.R.C.P.LOND.,
Fellow of University College, London; Assistant Physician and Pathologist, Cardiff Infirmary

ALTHOUGH uraemia in its various clinical manifestations is so common, I am not aware that the condition of the reflexes in this affection has attracted particular attention, and on looking through the literature of the subject I find it noted that in acute uraemia there is an increase of muscular irritability with frequent exaggeration of the knee-jerks, but there is no reference to the diagnostic significance of the excess of tendon-reflex excitability which is undoubtedly present in some cases to a most remarkable degree.

Since uraemia may occur in persons apparently healthy and may reveal itself by such varied symptoms, it is of importance to recognize any sign which may prove of help in the differential diagnosis of this affection from others which it may more or less closely simulate.

When we consider that convulsions, twitchings, and restlessness are common symptoms in uraemia, it seems probable *a priori* that an exaggeration of reflex activity would frequently be present, and that such is the fact I have satisfied myself from the examination of a considerable number of cases; I find, too, that the condition may show itself not only by an exaggeration of the knee-jerks, but that in severe cases such phenomena as ankle-clonus, knee-clonus, wrist-jerk, and elbow-jerk may all be present and well marked.

My attention was first directed to this subject about a year ago by seeing a patient suffering from well-marked uraemic coma, in whom I was surprised to find that beside exaggerated knee-jerks, ankle-clonus, knee-clonus, wrist-jerk, and elbow-jerk were all present.

The next two cases of acute uraemia which came under my observation presented exactly similar phenomena, one being a case of coma due to cirrhotic kidneys and the other one of chronic parenchymatous nephritis with oedema, vomiting, and headache, ending a few hours afterwards in coma.

In addition to these cases I have noticed the same signs in other acute cases to a greater or less degree.

Although I do not wish to assert that the reflexes are constantly excessive in cases of uraemia, nevertheless, I hold that this symptom is common, and I will now point out some of the circumstances in which it may prove of diagnostic value.

(1) *In Comatose States.*

In many cases it is very difficult to come to a conclusion respecting the cause of coma, especially when nothing is known as to the previous history of the patient or mode of onset of this condition; specially is it of importance to decide whether the condition be due to a cerebral lesion such as haemorrhage, or to a toxic condition of the blood, such as uraemia.

In many cases, of course, the distinction is comparatively easy from a consideration of the history and accompanying symptoms, for frequently uraemic coma is of gradual onset, and accompanied or preceded by convulsions, twitchings, or restlessness, and is very rarely associated with hemiplegia.

Great difficulties, however, may sometimes arise, for cerebral haemorrhage may begin with a convulsion, it may not be very profound, and may be unassociated with any evident paralysis; and, on the other hand, uraemic coma may supervene suddenly in an apparently healthy subject: may be profound and unaccompanied by convulsions; and, in rare cases hemiplegic symptoms (not referable to an organic lesion) may be present.

In regard to the help in diagnosis given by the examination of the heart, pulse, and urine, it is to be remembered that cerebral haemorrhage is not infrequent in cases of granular kidney, in which affection uraemic symptoms are common, and that albuminuria is occasionally the result of cerebral haemorrhage; absence, however, of albuminuria does not of necessity disprove the existence of granular kidney, for in this affection the urine may be free from albumen for days together.

When all these possible pitfalls are taken into account, it would seem impossible in some cases to make a differential diagnosis between uraemic coma and cerebral haemorrhage, for very little stress can be laid upon the "hissing breathing" which sometimes characterizes the uraemic condition, nor on the state of the pupils, which is subject to wide variations, and indeed the difficulties may be so great that cases are quoted in hospital reports of patients being admitted in an unconscious state, and of death occurring before a definite diagnosis could be made.

It is in such cases as these that I think an examination of the deep reflexes might often prove of much assistance; for if one found exaggerated knee-jerks and ankle-clonus, with, perhaps, other signs of great myototic irritability, a diagnosis of uraemia might be made; though I am not prepared to assert the converse—namely, that the absence of such signs would negative that affection.

In this connexion reference may be made to the statement by Sir William Gowers, that in rare cases of cerebral haemorrhage there may be an exaggerated knee-jerk with ankle-clonus on one side even from the first. Being unilateral, however, this rare occurrence would not be misleading.

Obviously the diagnosis of uraemic coma from apoplexy is of the greatest importance, since the treatment in the former affection should be active, while in the other non-intervention is indicated.

(2) *In Convulsive Affections.*

The epileptiform convulsions of uraemia may closely simulate epilepsy and other conditions. Although in such cases the diagnosis of uraemia may be easy from the presence of other symptoms, nevertheless the exaggeration of the deep reflexes may be helpful.

It may here be noted that Beevor has pointed out that after epileptic fits the deep reflexes may be exaggerated and ankle-clonus be present, but that this condition only lasts for a few minutes.

(3) In other cases, especially those of granular kidney, where certain symptoms may be present without attracting attention to the state of the urine, such as vomiting, headache, *malaise*, dyspnoea, sleeplessness, etc., an exaggerated reflex excitability might lead us to suspect that uraemia was impending, and make us cautious in giving morphine for the relief of such symptoms.

It has been stated that the presence of true ankle-clonus shows almost invariably organic lesion (lateral sclerosis) of the spinal cord, but, as already mentioned, Buzzard has shown that it is not uncommon for a few minutes after an epileptic fit. Dudley Buxton has proved that it may be present from the administration of nitrous oxide gas, and Angelo Mosso has demonstrated its existence in some cases of nervous debility, and also, though rarely, in wasting illness such as cancer.

Since I am not aware that the presence of ankle-clonus and other signs of exaggerated reflex excitability have previously been noted in cases of uraemia my object is to draw attention to the fact and to point out its clinical significance from a diagnostic standpoint.

I may say that I do not wish to assert that the above-mentioned exaggeration of the reflexes is present in all, or even in most, cases of uraemia, for the investigations which I have made upon this point do not bear out such an assumption; indeed, when we consider how complex is the uraemic condition, and how variable are its manifestations, it would be surprising to find any symptom common to all cases. There is no doubt, however, that exaggerated reflex action is a symptom which is present in some cases, and that its "presence" may be of considerable diagnostic import. I will not dwell upon a theoretical explanation of the phenomena of increased reflex excitability in uraemia, for it is obvious that renal inactivity may lead to the presence in the system of some toxic material, whose effects are comparable to those of strychnine or the toxin of tetanus; indeed, all the symptoms of uraemia may be explained by the action of toxic substances on the nervous system, and the varied clinical phenomena observed may reasonably be referred to the preponderating influence of one or other of such toxins.

A NOTE ON "BRACHIAL NEURALGIA."

By HOWARD DISTIN, M.B.Lond.,
Enfield.

Dr. Simon's short article on the above subject in the British Medical Journal of July 11th last was of the greatest interest to me, as I have had two cases under my care quite recently which coincide in almost every particular with those quoted by him.

In each case the patient had always been most regular and abstemious in his habits. In both, strain, otherwise traumatism, was undoubtedly the exciting cause, although this only clearly followed upon a depressed condition of health in Case II. In neither case was muscular atrophy very marked. The distressing pain at night seemed to be quite characteristic. It was not brought on by the patient becoming heated, or by the limb being exposed. In each case it came on shortly after the first sleep (in other words, after the limb had been still for an hour or two). Consequently, after midnight very little further rest in bed was obtainable owing apparently to the impossibility of placing the limb in a comfortable posture. What to my mind is the most important point of all, and here I am sure I am echoing the opinions of the patients, is the fact that all forms of treatment were equally unsatisfactory with regard to the relief of pain.

In neither case did I employ morphine, as in my opinion its use causes the last state of the patient to be worse than the first.

In conclusion, any one who reads Dr. Simon's article in conjunction with the description of the above cases must be struck with the many points of similarity.

Since writing the above, there has been a very gradual improvement in the condition of Case II, effected by bathing the shoulder and upper arm with very hot water thrice daily, a remedy suggested by one of the consultants. But perhaps the result has been rather *post hoc* than *propter hoc*.

RESPIRATORY SPASM FOLLOWED BY CESSATION OF BREATHING IN A RECENTLY-BORN CHILD.

By ROBERT FULLERTON, M.D.,

Surgeon for Diseases of Throat and Nose, Out-door Department, Royal Infirmary, Glasgow; Lecturer on Diseases of Throat and Nose, St. Mungo's College.

In view of the difference of opinion held in regard to the production of infantile spasm or stridor, particulars of the following case that came under my notice may be of interest.

Late in the evening of March 2nd last I was called by Dr. J. Hamilton Campbell, of Partick, to see a child that suffered from difficulty in breathing. The history of the case was as follows:

about the end of that time another attack supervened which was ushered in by [illegible] inspiratory efforts. After the third respiratory effort the child threw its head backwards, its eyes got opened, its face got livid, its limbs became rigid, and it fell from them drop by its side. The child seemed, indeed, to make no further effort to cease breathing, and became rapidly cyanosed. There was no movement or struggle of any kind except an occasional feeble sobbing gasp. Artificial respiration with oxygen was resorted to, a little before, and after some time normal respiration returned without any special manifestation. There were no convulsions, and in the interval between the attacks the child showed no signs of exhaustion and looked surprisingly placid.

[illegible]. It was felt that something ought to be done to relieve or obviate the attacks, and Dr. Campbell was strongly of the opinion that the initial cause lay at the glottis. The crowing sounds at the onset of the seizure, and which seemed to be produced in the larynx, favoured this supposition, but the very feeble respiratory effort that was put forth led one to suspect complications in connexion with the respiratory centre. A view could not be obtained beyond the epiglottis, which was of the usual infantile type, and inspection and palpation with the forefinger negatived any idea of hypertrophy of the faucial or pharyngeal tonsil. It was decided to perform tracheotomy in preference to intubation, and during an interval between the attacks the trachea was opened, after having to draw slightly downward the isthmus of the thyroid. A small amount of chloroform was used, and there was no difficulty with the breathing during the operation. The result was satisfactory, for all the symptoms disappeared after the tracheotomy tube had been inserted.

Subsequent Progress. The further history of the case was quite uneventful. The morning following the operation he was found to have passed a good night, taken nourishment freely, his bowels had moved and his temperature was normal. On the 4th or 5th days afterwards, I removed the tube and placed a thick pad of gauze over the wound, but in a short time the patient seemed to experience difficulty in breathing, became excited, began to cry, and finally relapsed into an attack similar to those already described. At this time I spent about an hour in administering [illegible] by inhalation to the wound and expose by the larynx. An instrument was also made to get a view of the larynx as I suspected the presence of a loosely attached [illegible] papilloma. The tube was then reintroduced. The same plan as regards breathing was carried out on the 6th; on the 8th he seemed to have more confidence and to breathe better, so when the usual spasm took place the pad over the wound was retained and after a rather severe struggle the spasm appeared to relax and breathing became natural. A firm pad was put over the wound and retained with a bandage during the day. The tube was removed that evening and finally removed the following morning or six and-a-half days after operation. Five and a half months afterwards he was well and no recurrence of the symptoms.

Can a satisfactory explanation of this respiratory disturbance be given? In some respects it resembles laryngismus stridulus, while in others it offers points allied to the condition described by Thomson[1] under the title of "infantile respiratory spasm," and which is further discussed by Sutherland and Lack as "congenital laryngeal obstruction." But while possessing features in common with both of these affections it differs in certain particulars from either. The early age of onset and the absence of any known cause or complication correspond with what is noted in infantile respiratory spasms, but in other respects the general character of the attacks differs. It resembles more closely a severe attack of laryngismus, for there is in both a sudden onset with a few inspiratory struggles, which is followed by cessation of breathing. But in laryngismus, except in rare instances after the occurrence of cyanosis, the spasm relaxes and respiration is resumed. Moreover, the severe forms are usually accompanied by spasms of other muscles and general convulsions.

The attacks in the present case differ from these in being free from convulsions or facial spasms, in being prolonged in character, and in following each other in rapid succession without any apparent cause. Further, cessation of breathing, which showed little tendency to pass off, invariably occurred, and the symptoms were instantly relieved and ultimately entirely disappeared after tracheotomy. That the laryngeal spasm was the chief factor is shown by the natural breathing which followed opening of the trachea.

We have here to deal with a powerful stimulus, or a peculiarly hyper-sensitive nervous organization, or a combination of both. Accepting the statement that electrical stimulation of the central end of the superior laryngeal branch of the vagus nerve usually tends to inhibit inspiration, we can well believe that an irritant sufficiently powerful to cause glottic spasm would profoundly affect the highly sensitive respiratory centre, and so bring about such inhibition. It might further be argued, that the respiratory centre being largely automatic in action, this automatism having once been interfered with would not be sufficiently established in so young a child as to enable it to respond readily to the stimulus from the venous blood.

REFERENCES

1 *Edinburgh Medical Journal*, September, 1[illegible], p. [illegible]. 2 *Lancet*, September 1[illegible], p. [illegible].

HYSTERICAL PARAPLEGIA IN THE MALE.

By FREDERICK SMITH, D.S.O., L.R.C.P., L.R.C.S.I.,
Major, Royal Army Medical Corps.

HYSTERIA is not generally regarded as a military disorder, and in the advanced form above named it is probably rare in males, whether civilians or soldiers. Two marked cases, however, have come under my care in army practice.

CASE I. This was a negro soldier of the West India Regiment, aged [illegible], serving in West Africa. The patient was admitted for malarial fever. The fever subsided in the course of three days' treatment, and it was suggested to the patient that ear-sympathetic ointment would be no longer required after the morrow. A return to sterilized air treatment. The following morning he complained of a lump in his throat, there was also a pain there. In the evening the pain extended from the throat to the legs. Finally he was unable to move his legs at all. The case was terminated as hysteria throughout, the cure being the initial glosso-hysteresis. The difficulty was to bring it home to the man's mind. Corrigan's buttons applied along the sciatic nerves had no effect except to injure the patient's skin. There was not an electric battery available. For some three months the patient lay on his back, his legs extended, and bedsores developed on his heels. This last fact caused the diagnosis to be questioned. In the meantime, however, on two occasions when visiting the hospital in the evening I saw that the sleeping patient's legs were doubled up. The attendants most likely told him of this fact. Any way, he informed me one morning that he was much better, and would like to try and walk.

The next day, at my morning visit, the man was clothed and standing by his bed. He was discharged to duty. Two years later he was still soldiering, and displayed to me with some merriment a scar where the buttoning had been a little overdone.

CASE II. This was a European British soldier, aged [illegible], at home. His history is taken from the written records, as he came into my hands at a late period in the disorder. He was first admitted per infectious. After a couple of weeks' treatment he was discharged to go on active service in South Africa. The day after embarkation he reported sick, with weakness of the legs. Arrived at Capetown, he was transferred to hospital and at once invalided home. At this time he is said to have had weakness of limbs, exaggerated knee reflex, some incoordination, and great difficulty in walking. When I took over the case in England the man had been some six months in hospital altogether. He had been supplied with a bicycle wheeled chair to be worked by hand, and in this conveyance he moved about the hospital as quickly as the men on foot. He was allowed as much food and drink as he liked to ask for, being, so to speak, one of the war heroes.

His condition was as follows:—Lower Limbs: Absolute motor paralysis as far as patient's will was concerned. The limbs were invariably fully extended in front of him, but he could sit up in bed. Complete anaesthesia to touch, pinprick, etc., existed from the toes to about the junction of the upper third and middle third of the thigh. The knee reflexes were slightly exaggerated. The rest of the body was normal; the bladder and rectum unaffected; and no pain experienced along spine or anywhere else. There was no wasting of lower limbs; appetite was very good; sleep was normal.

The patient had gone on from bad to worse. At the Cape he could get about a bit. At home, though the picture of health in other respects, he was completely paraplegic, and daily massage caused no improvement. There being a suspicion that the case was one of functional disorder, a reliable nursing sister was asked to observe the man at night. She reported that on two occasions she had seen him move his legs when he was asleep, a definite movement, such as drawing up his knees. Her evidence was confirmed from other sources. A strong battery was then used. To this there was no anaesthesia; the muscles contracted quickly and powerfully, and the patient complained that the current was too strong. And the pain was very severe. There was no change in the symptoms during the next few days.

I then lost sight of the case for six weeks. On my return the patient appeared to be no better. He was invalided as unfit for further service, but remained in hospital. A few days after passing the Board for discharge the man was again examined carefully, and the battery was mentioned. On examination it was surprising to find that he could move the limbs a little. The battery had gone wrong, the current being scarcely perceptible, yet it was noticed that he contracted the extensors of the foot before the electrode touched him. He was inconsistent in some of his statements as to anaesthesia, and as regards perception of heat, etc. Anaesthesia seemed to be patchy, but on going over the ground several times patches were made [illegible] were anaesthetic one moment and five minutes later were not so. I should have said that the man was now aware that I thought he was not so helpless as he seemed to be.

Permission to carry out the Weir-Mitchell treatment with this case was refused, but his wheeled chair was taken away. He was given a walking machine, and told that he *had* to

walk. A week later he was walking fairly well with a stick, though there was still exaggerated knee-jerk. The case then passed out of my hands.

That these cases were both hysterical I have no doubt. As complete recovery of Case II had not taken place when I parted from him, I cannot say for certain that it was purely hysterical. It may be thought that there was a malingering element in both the cases, for both men expressed their wish to be invalided, thus revealing a sufficient motive; but that Case I, however, could have gone on to bedsores without self-mesmerizing agency is unlikely.

AN UNUSUAL EPILEPTIC CASE.

By W. HENRY LEWIS, M.B., B.Sc.Lond.,
Londesborough.

The following short note refers to a case of epilepsy of sufficiently unusual character to be worth recording: The patient, a young boy of seven years of age, a farmer's assistant, first came under my observation on December 20th, 1902, and on that day I had an opportunity of observing a form of fits which was new to me. The patient, when I entered the room was in the position of opisthotonos which was abruptly and violently exchanged for that of emprosthotonos, and then back again, the alternations occurring three, or four times varied with an occasional lateral movement. The subsidence of the fit was followed by a short interval of consciousness, after which I was able to watch the initiation and development of another fit. The first indication of the onset I noticed was a dulling of the intellectual faculties, a fixing of the gaze; then came complete suppression of consciousness, extreme extension of the right leg and right arm, with clenching of the right hand, followed by the alternations between opisthotonos and emprosthotonos, with occasional curious grand convulsion of the body to the right, which threw the patient, if not held, out of bed. A succession of such fits gave opportunity of observing their individual peculiarities. Unconsciousness apparently commenced with the fixed look, a decided and obvious fullness preceding it. The convulsions were tonic in character, and not of the ordinary tonic-clonic epileptiform type; there was, in fact, no element of clonic movements. They were entirely limited to the right side of the body; the left side during the fit being at rest, even while the opisthonotic and emprosthonotic positions were maintained, a lateral deviation to the right in these positions being noticeable. During the subsidence of the fit the tongue took an expression of agony, and the left hand, with a slow and deliberate movement, was passed up to the left side of the head; this was a regular sequence and almost immediately the consciousness and intellectual faculties returned, the patient would converse and answer questions, and even give information as to his history, which information was verified on later enquiry, but had no recollection or knowledge of the fit through which he had passed.

While still conversing he would lapse into a state of dullness, the eyes would be fixed, unconsciousness occur, and the details of the fit I have described then follow. This type of fit continued to occur for about four hours, then, after a period of restlessness and attempted to amuse himself by tearing of his handkerchief, and, when this was taken from him, by pulling pieces of his bedclothes. Being again interfered with by vigorously and with increasing irritability rubbing the left side of his head against the wall or the cover with which he had covered his bed.

When I saw him next morning I found that the type of fit had altered. It was much modified, and was of the ordinary epileptiform variety—tonic and clonic—slight in degree and limited to the right side. The convulsive movement began still preceded by the dulling, and disappeared with the unconsciousness of the fit. He would then at once resume and go on with whatever he was doing when his mind was suddenly overtaken. He seemed to think that all was up with him, that he would be of no good any more, and asked for a razor that he might kill himself. He complained of pain on the left side of his head and suddenly, with quick convulsive energy, would bang the side of his head against the wall with apparently suicidal intentions. The gravity of the symptoms on the third day had appreciably diminished, and on the fourth day the epileptic state was over, and he was practically well.

I have allowed time to elapse before reporting the case, so that I might be enabled to watch for any recurrence of the attacks, but I have only to record that he has been in every way perfectly well since. In character he is a man of singularly fearless disposition, careless of danger and peril, and most distinctly "non-nervous."

His previous history was as follows: About ten years ago he was waylaid by robbers, who knocked him on the head and left him lying unconscious. Since that time he has had occasional fits, the last series having occurred three years previously to the one I describe, but none had the severity of the case under notice.

The family history is good; father and mother are alive, and there are brothers and sisters who have nothing in their history, as far as I have ascertained, which affords any light on the case.

The treatment adopted consisted in large doses of bromides, which drug he still takes; blistering over the left side of the head, and the administration of croton oil, the brisk action of this drug being a determining factor apparently in his recovery from the epileptic state; the probable beneficial action of this oil being suggested by the possible influence of the generous feeding associated with the festal season in inducing the attack.

Certain interesting points in the case seem worth recapitulating: (1) The dullness of the intellect, which was quite obviously the first indication of the approach of a fit; (2) the curious and unusual clearing up of the intellect which at once followed the subsidence of the convulsions; (3) the violence of the fit; (4) the purely tonic character of the "grand contortions"; (5) the limitation to the right side; (6) the indication of pain on the left side of the head; (7) the prolonged period of the epileptic state; and (8) the long interval between successive periods.

Is this case one to be regarded as of the type described by Hughlings Jackson, or does it partake in any way of the hystero-epileptic form of Charcot's as occurring in the male? Probably the explanation is to be found in regarding it as of the Jacksonian or symptomatic type, the epileptic state being consequent to irritative disturbances in a cortical lesion somewhere in the left central convolutions.

SCLERODERMA ASSOCIATED WITH RAYNAUD'S DISEASE AND ADDISONIAN PIGMENTATION.

By GEORGE C. R. HARBINSON, M.B., B.Ch.,
Matlock.

On June 10th, 1902, I was consulted by a lady, aged 45, who complained of rheumatic pains flitting about the body, accompanied by some stiffness. Two and a half years before she had an attack of "influenza," followed by rheumatism, which lasted nine weeks. A year later the rheumatism reappeared, and had since troubled her. I noticed that the skin of the neck and parts of the face looked bronzed, and on inquiry found it had been gradually becoming more pronounced during the past four or five years. The pigmentation began, the patient thinks, on the abdomen and top of the thighs, and then affected the chest and arms, and recently the neck and face. The patient has not felt in good health for five or six years, owing to "worry and bother and trouble." Twelve months ago she noticed, when she stretched her hands and fingers out, or when she went out into the cold, that the fingers became white at the tips, numb, and icy cold, which condition disappeared on warming them thoroughly. Shortly afterwards they broke out at the tips, and continued in this condition all the summer, being treated as "whitlows" by the medical attendant. Now only tiny scars mark the place of ulceration.

During the past six months the condition of the hands has been becoming much worse. The fingers and hands and wrists feel swollen, and the skin has a drawn feeling. On exposure to the least cold the fingers become blue and icy cold and numb, and oftentimes painful, and the tips of the nose and ears become white and cold. There is a peculiar "numb" (not anæsthetic) and tight drawn feeling in the chin, lower lip, angles of mouth, cheeks, temples, forehead, and over the angles of the lower jaw, so that the patient has difficulty in opening the mouth sufficiently to take solid foods. The skin is dry, the hands and chest alone perspiring in the night. There are varicose veins of twenty years standing in both legs to the right of the thigh, and there has been œdema of legs for some years. Five weeks ago the patient was laid up with phlebitis of the right internal saphena vein from above the ankle to the middle of the thigh, and she is now suffering from a similar attack in the left leg. She has

lost half a stone in weight since the beginning of the year. She has no cough, has palpitation of the heart sometimes, dyspnœa only on going up hill, she has had occasional fainting attacks since girlhood, but these have not been worse lately. The appetite is pretty good; seldom any sickness; the bowels are rather constipated, and there are no piles. There is some bladder catarrh, menstruation is regular, and there is some leucorrhœa. She sleeps well.

On examination the hands and fingers are stiff and swollen-looking, covered with a thick, hard, shiny skin of slightly yellow tinge that cannot be pinched up. When kept warm the fingers are red and burning, on exposure they become affected with a local asphyxia. The nose has a pinched look and is cold. The cheeks are pale, glossy, and hard, and the skin is thick and cannot be pinched up; and that on the chin, forehead, temples, over the angles of the lower jaw, lower half of neck, over the manubrium sterni, and in the infraclavicular regions is of a similar character. Over the greater part of the body the skin presents bronzing, or a brown pigmentation, varying in intensity in various parts. There is decided bronzing of those parts of the face and neck not affected by the sclerodema, the parts so affected being much less pigmented and surrounded by a somewhat hyperaemic zone. The patient says her hair has darkened from brown to black during the past two or three years. The conjunctivæ are natural in colour. On the lower lip is a brown line where the upper meets it on closing the mouth, as well as one at the junction of the mucous membrane with the skin; and on the buccal mucous membrane inside the lip is a light brown irregular patch the size of a finger-nail. There are no patches on the tongue. The neck and upper part of the chest are markedly browned; the posterior triangles of the neck are very deeply pigmented, and below the left angle of the jaw is a collection of very dark "freckles" on the already pigmented area. The arms are uniformly lightly bronzed, with marked bronzing in the flexures of the elbows and over the olecranon. In the axillæ the brown colour is very marked, and especially on the anterior and posterior borders where the friction of the garments is most exercised. From the axillæ the deep pigmentation extends down both sides, over the lower part of chest, and the whole abdomen and buttocks and upper third of thighs. Below that the bronzing is light to a little below the knees, being marked in the popliteal spaces, and over the patellæ and ligamenta patellæ. The skin of the abdomen, sides, groins, and perineum is as dark as a mulatto's, and has the same soft, dry feel. A specially dark band circles the waist to the spine, due to pressure of waist bands. The back is but lightly discoloured, except over two or three of the lumbar vertebral spines, which are darkly pigmented from pressure of the corsets. The breasts are natural in colour, contrasting strangely with the surrounding dusky skin, but the nipples and areolæ are dark brown. On the right leg the whole course of the old phlebitis is mapped out by a dark brown broad line of pigment, which shades off gradually to the surrounding colour, and suggests the marking of a range of mountains on a map. This is evidently due to the deposit of pigment during the cutaneous hyperaemia accompanying the phlebitis. The skin of the feet and legs below the knees is not pigmented except for the geographical marking I have just described, and a few little brown areas over little knots of varicose veins. This omission is probably due to the existence of a chronic state of oedema in those parts. The feet go cold and blue easily, but there is no numb feeling or thickening of the skin. A deep scar of an old burn above the left elbow is quite white. The patient is anaemic: the heart asthenic, with some dilatation; and there is nothing abnormal to be found in the lungs or abdomen.

This case is remarkable in several respects: (1) There is scleroderma of the diffuse type affecting the hands, wrists, face, neck, and top of chest; (2) there is associated Raynaud's disease affecting hands, nose, and ears; there is deep bronzing of the skin, in distribution and characteristics typical of Addison's disease, without the typical constitutional symptoms, though there is undoubted debility.

Is this combination a rare clinical entity?

DISQUIETING reports having appeared in the press as to an outbreak of yellow fever in Jamaica, the Governor has telegraphed to the Colonial Secretary that, since the death of an officer from the disease reported on November 19th, 1903, no case has occurred, and that the state of health in the island is most satisfactory.

A MODIFIED OPERATION OF CASTRATION.*

BY WILLIAM THORBURN, F.R.C.S.,
Honorary Surgeon, Manchester Royal Infirmary.

I wish to call your attention briefly to modifications in the operation of castration which I have practised during the last twelve months, and which appear to me to constitute an improvement on the ordinary method. Whether, in so doing, I am following in the footsteps of others, I do not know, but I have not found any description of the operation which we now adopt.

You are aware that we encounter special difficulties in preventing septic sepsis in operations upon the scrotum, difficulties due to various causes of which the most important are the laxity of skin, the large sebaceous and sweat glands, the proximity to the anus and rectum with consequent risk of soiling dressings, and the absence of resistance to firm scrubbing—in fact, hardening.

You are also aware that the lax connective tissue of the scrotum tends to the ready production of oedema, and that its numerous veins are liable to cause oozing of blood into its substance, these factors rendering its tissue a most favourable pabulum for microbic organisms. It is for these reasons that we take somewhat exceptional precautions in incising through the scrotal skin. In the operation for varicocele we make the incision as high up as possible, and bring it over the pubic region, in the radical cure of hydrocele we do not close the wound completely, but insert a gauze drain to remove the blood and serum which form so exceptional a cultivating medium.

In the operation of castration the difficulty of aseptic technique is often still further increased by the presence of an open sinus or ulcer due to tuberculous or less commonly to fungating malignant disease. Under these unfavourable circumstances, suppuration after operation is difficult to avoid, and although the ultimate result is probably always, or nearly always, satisfactory, it is not unusual to have convalescence prolonged by the formation of sinuses leading to ligatures which have been placed upon the spermatic cord or by slowly-healing wounds of the scrotum itself.

To a certain extent these difficulties are overcome by making the incision as high as possible, and then dragging the testis upwards, and by this method we can avoid in many cases cutting through the skin of the lower part of the scrotum, but we still have a more or less extensive scrotal wound continuous with that which leads to the ligatured end of the cord. It is thus important to avoid if possible any connexion between the upper part of the cord with its ligatures and its communication with the pelvis on the one hand and the too frequently septic scrotal wound on the other.

It is also important in most cases of tuberculosis and malignant disease to divide the cord at as high a level as possible, and for this purpose the internal oblique muscle often requires to be partially divided, while we do not wish to leave a weakened area which may give exit to a hernia.

The operation which I now describe appears to meet most thoroughly these various indications—namely: (1) To give high access to the cord; (2) to close securely the abdominal wall; and 3, to avoid the danger of suppuration in the upper wound, with tedious convalescence and possible exacerbation of tuberculosis about the upper end of the cord and the vesiculæ seminales.

The pubic and scrotal regions having been prepared in the usual manner and the patient placed upon the table with his antiseptic compress *in situ*, the latter is turned off the pubic region only, the genital organs being still covered by it. An oblique incision is then made along the line of the inguinal canal as for the radical cure of hernia, but only about 1½in. in length, the external oblique aponeurosis and the internal oblique muscle are separately divided, and the spermatic cord is traced well down into the pelvis and clamped there with Spencer Wells's forceps. By means of an aneurysm needle the cord is then transfixed and securely tied with silk immediately above the clamp. A single ligature is next placed on the cord, about ½in. below the clamp, and the whole cord is cut across close to and on the distal side of the clamp, which is then removed. The spermatic cord is thus already ligatured, and is cut across at a high level. To close the abdominal wall the internal oblique muscle is then sutured to Poupart's ligament, the external oblique aponeurosis is sutured, and the skin wound is completely closed. [illegible]

* Lecture delivered [illegible]

[illegible] A fresh [illegible] is then applied to the [illegible]

We [illegible] and can complete the operation very quickly. The testis is held up [illegible] skin [illegible] hand, [illegible] curate [illegible]

[illegible] cially as suturing is so readily performed.

[illegible] dous disease [illegible] tuberculosis of the [illegible] simplicity and [illegible]

INTRAPERITONEAL ABSCESS DUE TO PNEUMOCOCCUS.

By STANLEY BOYD, M.B., F.R.C.S.,
[illegible]

Mrs. A. B. [illegible] at Charing Cross Hospital [illegible] of Belvedere. [illegible] years old; [illegible] quite regular, [illegible] when the [illegible] suddenly seized [illegible] pain in the [illegible] rapidly collapsed, [illegible] when Dr. [illegible] Hospital. He thought [illegible] ruptured or that some [illegible] when there has been marked [illegible]

[illegible]

the loins, where some resonance persisted. Respiratory movements of the abdomen were fair. Per vaginam a firm, tube-like body was felt in the right half of Douglas's pouch.

It seemed probable that some acute infection of the pelvic peritoneum had occurred at the onset of the illness, that after a week the inflammatory exudate became well shut off, but that in the fourth week fresh and pretty rapid increase of the exudate occurred, and the adherent intestines, etc., round about it were raised in the manner shown by the physical signs.

Accordingly, an opening was made above the pubes, the tissues deep to the recti being found oedematous, and about three pints of inoffensive pus, showing no sign of admixture with blood, escaped. Mr. Leathem, our bacteriologist, found it to contain the pneumococcus in pure culture. Counter-openings were made far back in the loins, and a large tube was introduced into each opening. Examination from the suprapubic wound showed that the pelvic viscera lay beneath a layer of lymph, and a body like the uterus was fixed in front of the left half of the sacrum. Just above the navel some loose intestinal adhesions were felt, limiting the cavity in this direction.

The patient improved rapidly, temperature and pulse reaching normal on the 5th. After that, however, the evening temperature not uncommonly was 100°, and the pulse quick, out of proportion to this, 132 being once recorded. The lumbar drainage was abandoned in a week, the suprapubic drainage in a month (when she got up), and all wounds were healed in six weeks.

On November 16th I found the uterus fixed with a rounded swelling behind and on either side of cervix, not tender, and fixed.

On October 20th, 1903, this patient was readmitted for operation upon a small ventral hernia, which had formed where the drainage tube had lain in the suprapubic scar. Except that the swellings by the uterus were larger and filled much of the pelvis, and that the left was now easily felt above the pubes, the pelvic contents were as on November 16th, 1902. Were these swellings tubes, and had the actual onset of illness been due to infection from them of the pelvic peritoneum?

At the operation for cure of the hernia I found the swellings to be due to a large left and smaller right collection of clear red serous fluid, apparently in the broad ligaments, and beneath the peritoneum of the left paracolic fossa. I could find neither ovary. The normal right Fallopian tube arched out and back over the right cyst. The left I could not find, but in removing as much as possible of the wall of the cyst I cut across a structure on its posterior aspect near the uterus, which was almost certainly the Fallopian tube undilated.

This further operation, therefore, threw no light upon the mode of infection of the peritoneum with the pneumococcus. The absence of all smell from the pus showed that no perforation of the appendix or other portion of the intestine had occurred. The absence of blood pigment negatived a haematocele as the starting point. I believe I may say that neither tube contained pus. The accumulation of serous fluid beneath the pelvic peritoneum was probably a by-result of an acute purulent peritonitis.

THE INVASION STAGE OF MEASLES.

By EUSTACE SMITH, M.D., F.R.C.P.,
[illegible] Consulting [illegible] City of London Hospital for Diseases of the Chest.

Dr. [illegible], in his remarks in the BRITISH MEDICAL JOURNAL of December [illegible], p. [illegible], upon the stage of invasion of measles deals with a subject of great interest. There must be few practitioners who at one time or another have not been puzzled by the freaks of the infectious fevers. A scarlatinous rash with a sore throat, but a normal temperature; or fever with sore throat, followed after an interval by peeling of the skin without previous eruption, are abnormalities to be met with from time to time.

As to measles, I have seen several cases in which the pre-eruptive stage has been absent or unrecognizable. Some years ago I saw a boy of [illegible] who had been exposed to the infection of measles on February 24th, 25th, and 26th. On March [illegible] and 7th he did not seem quite the thing, but had no sign of catarrh, and was not obviously feverish. On March [illegible] a few red spots were noticed on the face, behind the ears, and on the neck. His temperature then (in bed) was

99.6°. In the evening his temperature was 102°, and his eyes looked a little red. On March 9th the spots were more marked, he had begun to snuffle, his temperature was 103°, and the rash had spread to the chest and abdomen. On March 10th the rash was fully out and the catarrhal symptoms were fairly well marked. The temperature at 10 a.m. was 102.6°. The complaint ran a normal course. I have seen two other cases in which the bodily heat for the three days before the appearance of the rash was between 98° and 99° morning and evening, and even when the eruption came out did not rise above 101°. In these cases also the catarrhal symptoms developed very gradually.

Lately I have seen a young lady of 12, who became feverish on a Thursday with an evening temperature of 104.6°. Her face was flushed, but she seemed lively and looked well. She had had some headache over the eyes—she was subject to neuralgic headaches—but no cough or other catarrhal symptom. Her appetite was good and she said she was quite well. On the Friday her temperature in the morning was 103.2° and at 6 p.m. 104.5°, but there were no fresh symptoms and the child assured me that she felt quite well. On the Saturday the temperature in the morning was 100.2° and at 6 p.m. 104.8°; still there was no catarrh and a renewed examination of the patient could discover nothing abnormal. On the Sunday (the fourth day) the temperature in the morning was 100.2°; the eyes were a little weak and avoided the light but there was no cough or sore throat; the cheeks were flushed as before, but in addition a few red spots were noticed on the chin, and examination showed the chest, abdomen, and back to be covered with a well-marked measles rash. In the evening the temperature was 103° and there was more rash on the face. On the following day the temperature was normal; there were more spots on the face and the rash had spread to the legs. On the next day (the third of the rash, sixth of the illness) the temperature was still normal and the eruption had begun to fade.

I believe this to have been a true case of measles, although I had seen the patient in a normal attack of the disease only twelve months previously, and although, except for some weakness of the eyes, catarrhal symptoms were absent throughout and there was no feeling of illness. There was no tenderness or swelling of the superficial glands as in rubella. It is curious to note the contrast between the height of the temperature in the pre-eruptive stage, when the fever was the only symptom to be discovered, and the very mild and short course run by the complaint after the rash had appeared. It is possible that the first attack, which had occurred, as has been said, only twelve months previously, may have had something to do in moderating the intensity of the second.

Such abnormal cases are very perplexing. If they occurred during an epidemic one would, of course, bear the fact in mind when searching for the cause of the fever; but in the absence of other cases in the neighbourhood the nature of the attack must remain a mystery until revealed by the appearance of the eruption.

A CASE OF EXTREME HYPERPYREXIA.

By W. C. WATSON GLENNY, L.R.C.S., L.R.C.P.I.,
Omeath, co. Louth, Ireland.

A FEW notes on this case may be of interest, as a temperature of 113.6° is very rare:

History.—Miss C., aged 19 years, stout and [illegible], had enjoyed good health, until about eighteen months before the illness, when she had a fall on the back of her head. Shortly after this she began to have occasional headaches with vertigo, which were relieved when she had free haemorrhage from her ears and occasionally from the nose also. The headaches had lately been somewhat more frequently.

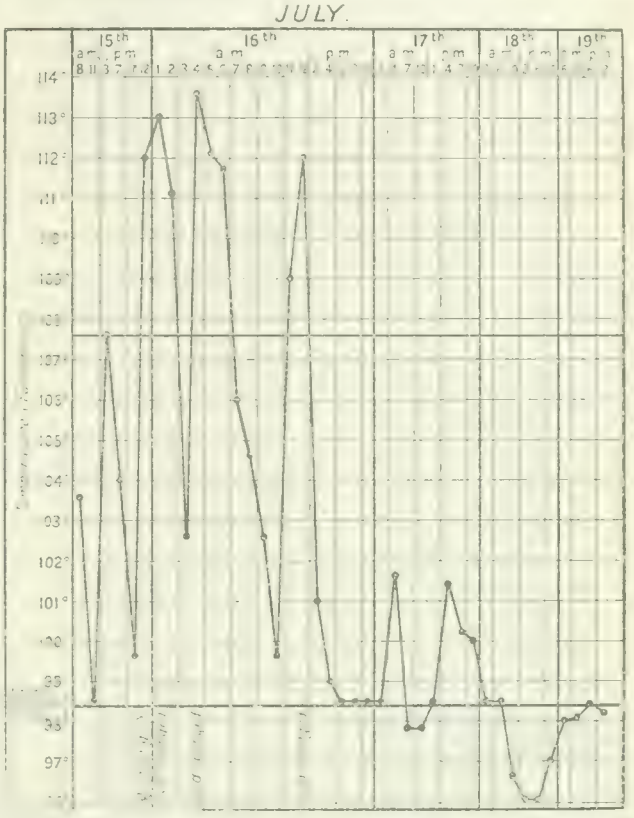
Seen in Consultation.—On June 14th, 1903, I was sent for. I found the patient in bed, lying with her head slightly retracted and with bogginess over the occiput. Her temperature was [illegible] and pulse 84. She said her head felt as if it would burst, and complained of severe pain over the occiput, giddiness whenever she moved her head, and vomiting.

Progress.—I had her head shaved and a blister put over the occiput, and her ears syringed out with very hot water to encourage haemorrhage as there had been none from the ears for [illegible] She was given nutrient suppositories, as nothing had remained on her stomach for three days. The vomiting was cerebral in character.

For the next few days the pain in her head seemed to increase and she became delirious and violent. Leeches were put to the nape of her neck and she was given hypodermic injections of hyoscine gr. 1/[illegible] with little or no benefit.

On June 20th as vomiting had ceased she was put on large doses of pot. iod. and pot. brom. which quietened her somewhat, and she also got injection of Hg. She now said everything looked black to her, and on the following day she could not distinguish between light and darkness.

On June 23rd she started having epileptiform seizures and these continued for four days, and after these she had in turn, dysphagia, right facial paralysis, paralysis of right side of tongue, paralysis of left arm, rigidity of left arm and attacks of angina pectoris. Each of these lasted for a few days and gradually wore off.



Up to July 15th her temperature was normal, pulse 80 to 90, and urine free from albumen. On the morning of July 16th at 8 a.m. on this date the temperature was 103.6°, at 10 a.m. normal, at 3 p.m. as she looked flushed, the temperature was taken when it was [illegible] although she said she had not felt so well since she had taken to her bed. When I saw her that night the temperature was 99.6°, she said her head felt very tight, but otherwise well. I left quinine gr. x to be given should her temperature go up much, and gave directions to have the temperature taken hourly.

It was on the morning following that she developed the extraordinary temperature of 113.6°, during which time the nurse informed me she had to give her hot drinks. When I saw her later she said she felt well, and she was [illegible]

Result.—After this she remained well for a week, when the pain in the occiput started again, with bogginess over occiput, then delirium, [illegible] and so, as it were, the cycle went on, temperature remaining normal or subnormal all the time till September 17th, when she developed pneumonia and [illegible] before she died, on September 21st. She remained blind all the time from the second week of her illness.

Unfortunately I could not obtain permission to make a necropsy. The course taken by the temperature during the hyperpyrexia in July is shown on the chart.

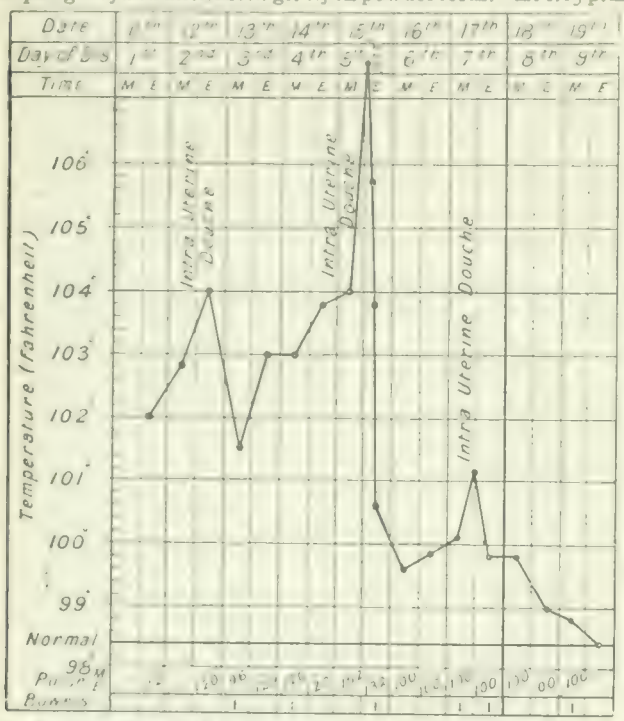
MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

EXTREME HYPERPYREXIA.

HAVING read the notes on extreme hyperpyrexia in the BRITISH MEDICAL JOURNAL of July 25th, 1903, p. 193, and of August 1st, p. 248, the following notes, with chart, on a case of puerperal fever registering a higher temperature, with recovery, than any mentioned by Dr. Watson, may be of interest.

Mrs. A., aged 37 years, housewife, multipara, always enjoyed good health. I attended her confinement on October 6th, which was natural, and until the evening of October 11th she progressed favourably. On that evening a rigor took place, and the temperature rose to 102° F. Lochia natural, and continued so for the following three days. On the morning of October 15th lochia became fetid, and the temperature rose to 104° F. At 3 p.m. I gave a recto-intrauterine douche, and at 4 p.m. a severe rigor occurred. At 5 p.m. the temperature registered 105.2° F. (twice taken to avoid error), and pulse was beating at the rate of 152 per minute. I administered quin. sulph. gr. vj and antifebrin gr. iij in powder form. At 6.15 p.m.



the temperature fell to 103.2°. Gave tr. aconit. mxj and tr. strophanthi. mij. Repeated the dose at 7.30 p.m., half the dose at 8.45 p.m., and the full dose at 10.40 p.m. At 8.45 p.m. the temperature had fallen to 100.6° F., and pulse to 132 per minute. At 11 p.m. gave quin. sulph. and antifeb. each gr. iij.

October 12th, 2 a.m. The patient passed a quiet night, morning temperature being 99.6° F., and pulse 100 per minute. For the seven days of acute illness brandy, milk, and eggs were administered from every fifteen to thirty minutes.

The patient made an uninterrupted recovery.

H. A. C. Downes, L.R.C.P. & S. Edin., L.F.P.S. Glasg.

Coggeshall, Essex.

I observed in the BRITISH MEDICAL JOURNAL of July 25th and August 1st two accounts of cases of hyperpyrexia, and I wish to record an instance which came under my observation a few days ago. It occurred in a boy of 15 years suffering from yellow fever. The course of the disease was abnormal. When first seen the patient had a temperature of 104.5° F. and the pupils were contracted with only slight response to the light reflex.

From the fifth to seventh days the temperature dropped considerably, reaching 101° F. on the seventh. There was however no diminution in the general condition.

On the eighth day the temperature began to rise again, and reached 107° F. Injections of cocoanut palm water were administered, and the diet of the patient was altered in order to try to reduce the temperature. At 4 p.m. on the ninth day the temperature was 107° F. It was slightly sponged with cold water. At 5 p.m. it had risen to 107.2° F., and as the patient was in a critical condition he was not disturbed.

At 9 p.m. (half an hour before the boy's death) the thermometer in the rectum registered 110.6° F. A second thermometer was used, and gave exactly the same reading.

Jean McDiarmid, M.B., C.M.

Medical Officer, [illegible]

I have been much interested in this subject, as I had a patient, aged 19, under me whilst house-surgeon at the District Hospital, West Bromwich, who frequently had very high temperatures. He suffered from spinal caries, but no suppuration. It was thought that the hyperpyrexia was caused by small haemorrhages into the cord. His temperature was always reduced by hypodermics of ergotinin. During the attacks he was quite conscious, but all his muscles were in a state of clonic spasm. He got quite well, and resumed his work as a joiner. The figures were repeatedly tested by visiting surgeons and other doctors in the district.

Date	Temperature		Date.	Temperature.
November [illegible]	[illegible]		December 11th ...	... M.
December 1st ...	1[illegible]	M.	... ...	... E.
... ...	98.5	E.	December 12th to 14th	
December 2nd ...	1[illegible]	M.	December 12th ...	... E.*
... ...	1[illegible]	E.	December 13th ...	... M.
December 3rd ...	1[illegible]4	M.	... ...	1[illegible] E.
... ...	[illegible]	E.	December 14th ...	1[illegible] to [illegible]
December 4th ...	11[illegible]4	M.	December 15th to 22nd	
... ...	[illegible]	E.	December 23rd ...	... M.
December 5th and 6th	[illegible]		... ...	1[illegible] E.*
December 7th ...	104	M.	December 24th to 25th	
... ...	1[illegible]	E.	December 26th ...	... M.
December 8th ...	1[illegible]	M.	... ...	1[illegible] E.
... ...	[illegible]	E.	December 28th	Normal

* For three hours.

Hurworth-on-Tees. A. PAGET STEAVENSON, M.D.

HYPERPYREXIA IN MEASLES.

In an epidemic of measles which occured here in the autumn of 1901 I was called one day at 7 a.m. to see a baby, aged 9 months. The child was suffering from measles, the rash being very copious and well developed. He was comatose, with stertorous breathing, and on taking the temperature the thermometer registered 110.4° F. There was no evidence of any complication. The parents had recognized the previous day that the child had measles, but he had not appeared ill enough to cause them any anxiety.

Every effort was made to reduce the temperature, but the child never recovered consciousness, dying about 2 p.m. the same day.

Exeter. C. E. STOKES.

We have recently had an extensive epidemic of measles in this Colony, attended by a very small mortality. This is remarkable in view of the hyperpyrexia which accompanied so many cases. Temperatures of 108° F. and 106.5° F. have been fairly common, whilst in two cases seen by me, the temperature reached 107° F. and 107.2° F. respectively. A large majority of such patients recovered without any treatment whatever beyond rest in the house and a light diet. In about twelve cases, however, including the cases that recorded temperatures of 107° F. and 107.2° F. respectively, phenacetin gr. x was administered, for experimental purposes, every two hours until gr. xxx had been given. The result was highly satisfactory, the temperature becoming normal and remaining so. Such cases seemed to have recovered much quicker than those left untreated.

Similar high temperatures were noted by various other observers in the Colony.

RAOUL DE BOISSIÈRE,
Provincial Medical Officer [illegible], Fiji.

A MENTAL CASE TREATED WITH OVARIAN EXTRACT: COMPLETE RECOVERY.

On May 12th, 1903, a lady, aged 60, was placed under my care suffering from delusions and other mental symptoms of a very decided character. Briefly her history was as follows:

She had been married thirty-one years, had had five children, and menstruation had ceased at the age of 48. She had been always extremely sensitive and highly emotional, and had had several attacks of hysteria. The summer of 1901 was spent in Switzerland, where she is said to have had an attack of cerebral haemorrhage, which was characterized by loss of consciousness, right hemiplegia, and paralysis of the left side of the face, which, however, all cleared up in a short time. From that time onwards the patient suffered from hallucinations and melancholia, which steadily got worse, and were developing into attacks of acute violent mania. At this stage the patient came under treatment, and presented the following symptoms in addition to the above: (1) Great sleeplessness, and hallucinations, seeing and talking with people who did not exist. (2) Imagination of much cruelty from those attending on her, and occasional fits

of violence and screaming, alternating with melancholia. At the same time the patient was totally unable to feed or do anything for herself, and spent most of her time in bed carrying on a rambling and disconnected conversation with those about her. Extreme constipation existed, and food, when administered, was frequently spat out after having remained in the mouth for some minutes. These symptoms continued for one month, during which time there was occasional slight improvement, which was not maintained. At the end of that time I decided to give ovarian extract a trial, and accordingly began treatment with a dose of 10 gr. three times a day. This dose was continued for four days, and was then increased to 15 gr. three times daily. After two days the dose was increased to 20 gr. Finally it was raised to 25 gr. three times daily, until, at the end of the tenth day, the improvement in the patient's condition was so marked that the administration of the extract was stopped. All the symptoms had entirely disappeared, leaving the patient in every respect a sane woman, able to dress herself, feed herself, converse rationally upon any subject, and write a good hand. She was still, of course, somewhat feeble after her long stay in bed, but this rapidly passed away, and by August 20th she was completely recovered in every way.

The special points that seem to be noteworthy are: (1) That no improvement in the patient's condition was noticeable until the administration of ovarian extract was commenced, after the patient had steadily gone from bad to worse for twelve months; (2) that the extract effected a cure, although the mental condition of the patient could not have been due in any way to menstruation, since that had ceased about twelve years before.

Kensington, W. R. N. Geach, M.R.C.S., L.R.C.P.

ADRENALIN IN ADDISON'S DISEASE.

About a year ago I was called to see a middle-aged lady who had been seized with severe and recurring epileptiform convulsions.

In 1893, after scarlet fever, she was noticed to have some undue pigmentation of the skin. During the next four years she began to be troubled by attacks of diarrhoea and vomiting, and soon afterwards had fainting attacks; pigmentation slowly increased. In 1901, while abroad, the syncopal attacks became so severe and frequent that the condition seemed hopeless, and it was with the greatest difficulty that she was brought home. She was now treated for the first time with suprarenal tabloids, and, though very weak and with occasional fainting attacks, she seemed better.

She had been comparatively well up to the time of the convulsions, which came on suddenly one morning. They became so frequent and severe that chloroform was administered, and this effectually arrested them; but the condition of the patient was critical in the extreme, the pulse very rapid (120 to 150), and so small as to be hardly perceptible. She lay in a comatose state for nearly a week, during which time she was fed with a nasal tube and stimulated freely with brandy and hypodermic injections of strychnine.

All the characteristic symptoms of Addison's disease were present, the pigmentation general, of a blue-bronze colour, and most marked on the abdomen, in the folds of the skin, and round scars: it was present also in the buccal and other mucous membranes; the emaciation was marked, the pulse tiny and thready, yet the heart sounds were normal, regular, and comparatively strong, and there was no cardiac dilatation.

On the fourth day after the convulsions she was given 5 minims of a 1 in 1,000 solution of adrenalin (Parke, Davis, and Co.) three times a day, and gradually as consciousness returned at the end of the week the circulation began to improve. There was no return of the convulsions, and in a fortnight the dose was increased to 10 minims; at the end of a month she had improved wonderfully, the pulse (80 to 90) was fuller and stronger, and there was distinct diminution in the amount of pigmentation. The dose was increased to 20 minims, and later to half a drachm three times a day, but it had to be reduced from time to time on account of the pulse becoming too small.

The patient has steadily improved in strength and weight, and the asthenia, which at first was extreme, is beginning to pass off, and to-day—eleven months from the commencement of the treatment—she is able to get about all day and play croquet. The pigmentation cleared off to a large extent during the first four or five months, but there has been little change in this respect lately. There has been no recurrence of the old symptoms, fainting fits, and gastro-intestinal disturbances, and it is to be hoped that she will continue to improve and keep well provided she continue the use of the adrenalin; at present she takes it in doses varying from 10 to 20 minims.

Broadstairs. Hugh M. Raven, M.R.C.S., L.R.C.P.

NEURITIS IN COAL MINERS.

The recent article on brachial neuritis by Dr. Simon, and the communications on the subject which have since appeared in the British Medical Journal, have induced me to call attention to the frequency with which this disease is met with in coal miners, a fact which, I think, is common knowledge to most practitioners whose work lies among them.

Several neuritis and "miners' back," which latter is often complicated with neuritis of one or more lumbar nerves, are affections to which the coal miner is well known to be specially subject, but neuritis of some of the nerves arising higher up in the cord is also with them a common and troublesome disease.

The cause is doubtless to be found in the circumstances attending the coalminer's work for example, exposure to cold air currents, to wet from the roof of his working place, and in the fact that, during work, the neck, shoulders, and back are very scantily protected by the short, loose, flannel shirt, the only garment, as a rule, worn at work on the upper part of the body. Another factor in the causation is doubtless the severe strain on the muscles of the shoulders, neck, and back incidental to his work, and the constrained postures he is obliged to assume therein.

The nerves most frequently affected are:

1. The brachial plexus and its component parts, particularly (in order of frequency) the circumflex, musculo-cutaneous, musculo-spiral, and supra-scapular nerves.

2. Upper cervical nerves (first, second, and third), especially the great and small occipital branches.

3. Lower dorsal nerves—the intercostal and anterior branches of the eighth and lower dorsal nerves distributed to the inferior portion of the chest wall, the part usually left uncovered by the short undershirt worn at work.

All the cardinal symptoms of neuritis are generally present, although it is not usual to find any decided atrophy of the muscles. In brachial neuritis the pain is so severe as a rule as to render the arm completely useless for long periods, a loss of work of from eight to twelve weeks being frequent. When the cervical or dorsal nerves are affected the disease is rarely of such long continuance, but in the former case the suffering is perhaps the greatest while it lasts.

In the treatment absolute and prolonged rest is a sine qua non. Small fly blisters repeatedly applied along the course of the affected nerves and over the "pain-fixed spots" gave the greatest relief to the pain, and, I believe, shorten the duration of the disease. In several intractable cases the actual cautery or a seton kept in for a month effected a cure when other means had failed.

Morphine hypodermically, galvanism, and the prolonged application of dry heat are all helpful in relieving the suffering, which is frequently severe. Antirheumatic remedies invariably fail to produce any appreciable effect on the disease, either in shortening its duration or in easing the pain.

Stanley [illegible]. J. Charles, M.D.Glasg.

SUCCESSFUL REPLACING OF A SEVERED FINGER.

In connexion with the recent transplanting of an ear it may be of interest to your readers to place on record the following case:

A man, J. M., aged 60, some years ago, during the killing of a pig, had his right index finger bitten completely off through the middle phalanx by the animal. He walked [illegible] a distance of six miles, with a friend. On my inquiring for the missing piece of finger the friend, after hunting in various pockets, produced it from one of them covered with tobacco dust, etc. Having cleansed the stump and [illegible] I joined the two ends by strapping and fixed a splint. In about fourteen days circulation was completely restored, union had taken place, and he has his finger to-day. The nerves did not unite, so that the part is insensitive. The finger had been off about two hours. The distal joint is stiff, but notwithstanding this he finds it extremely useful and is very proud of it.

Swindon. G. A. Bissill, M.D.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

FATAL CASE OF STATUS EPILEPTICUS.

(Communicated by FRANK E. TYLECOTE, M.B., Ch.B.Vict., late House Physician, Manchester Royal Infirmary; Resident Assistant Medical Officer, Manchester Southern Infirmary; Associate and Scholar of Owens College.)

History and State on Examination.—On January 13th, 1903, I was called about 10.30 a.m. to a warehouse to see an errand boy, aged 15, whom I found to all appearances in a typical epileptic fit: the fit passed off, and for half a minute the boy lay quiet; then another began, and they kept up in quick succession, lasting about three or four minutes, and with an interval of half a minute between each. I took the usual precautions to prevent his injuring himself, and, as I had no means with me of giving a rectal injection of chloral and bromide, and the administration of anything by the mouth was out of the question, I gave him a hypodermic of [illegible]. The fits, however, still continued, so a little later I sent for chloroform, and gave him one or two whiffs as each fresh fit commenced: the effect of even one inhalation was very marked, the particular fit aborted, and he lay still for several minutes. I examined the heart, which was normal, and there was no renal facies or oedema. Inhalation of amyl nitrite produced no evident beneficial effect. As he had now had about thirty fits altogether in rapid succession, and was becoming exhausted and had a feeble pulse, I sent him in the ambulance to the Royal Infirmary: he was admitted at 12 30 p.m. into one of Dr. Steell's beds, and to the latter I am indebted for permission to publish the case. The fits still continued, though they were not so severe as before. I drew off [illegible] of urine which contained a trace of albumen, but was otherwise normal, while it did not contain any aceto-acetic acid, as in some cases of acid intoxication. His pulse was 128, of moderate tension, and his temperature was [illegible]; his pupils were dilated and equal. He was now given another [illegible] gr. morphine hypodermically, and the chloroform inhalations were again occasionally [illegible], while the collapse was treated with brandy. At [illegible] p.m. he seemed to be under the influence of the morphine, the pupils were very small, and the fits had stopped. At [illegible] p.m. the pupils again dilated, and patient had another fit and then seemed very collapsed, and hot bottles were applied and strychnine and oxygen given. His temperature was [illegible]. His pulse improved somewhat, and he lay quiet till [illegible] p.m., when he had another fit, and I ordered him a rectal injection containing chloral hydrate [illegible] and pot. brom. [illegible]. The treatment of the collapse was continued. [illegible] the patient had Cheyne-Stokes breathing and again in the evening. Patient lay quiet, but [illegible] all day—till [illegible] p.m., when the fits began again, and he died [illegible] apparently from exhaustion, [illegible] hours after the onset of the first fit. I procured another sample of urine immediately after death, and it [illegible] a trace of albumen.

Previous History.—[illegible] they [illegible]

[illegible]

lymphatic glands, and the mesenteric glands were somewhat enlarged. The stomach contained a few ounces of fluid, and the large intestine some scybalous masses. The kidneys appeared normal.

Microscopical Examination.—I made sections of all the organs of the body to see if any microscopical changes could be detected, but with a negative result. The thymus, on section, showed well-marked concentric corpuscles; the kidney substance was normal on section, save for slight passive congestion and for the fact that in the lumen of some of the tubules was here and there a trace of coagulated albumen; there were no signs of old nephritis.

REMARKS.—In this case the diagnosis presumably lay between epilepsy and uraemia. The diagnosis of epilepsy was supported by the *post-mortem* and histological examinations, there being no evidence of any nephritis of scarlatinal or other origin, nor did the history suggest any renal trouble. Ohlmacher has stated that in cases of epilepsy the thymus may be found persisting, and the fact that in a boy of 15 we found a thymus fully an ounce in weight is of interest in this connexion, and supports in some measure the diagnosis, as also does the meningeal engorgement. There was no evidence of acid intoxication, and the absence of the $FeCl_3$ reaction in the urine is against this. Most authorities state that the temperature in status epilepticus is usually raised. Whether this was so earlier I cannot say, but after he was admitted to hospital he had a collapse temperature. The presence of a trace of albumen in the urine is recognised as a usual occurrence in status epilepticus. I cannot find another case recorded where the status epilepticus, at any rate a fatal one, has occurred where there have been no previous epileptic seizures, but in this case the history given by the parents of the absence of previous fits is definite, though the possibility of his having had slight nocturnal epilepsy, unknown to any one, must remain.

ROYAL VICTORIA HOSPITAL, BELFAST.

TETANUS FOLLOWING OPERATION FOR RADICAL CURE OF HERNIA.

(Under the care of ROBERT CAMPBELL, F.R.C.S.Eng.)

[Reported by S. T. IRWIN, B.A., M.B., House Surgeon.]

THE patient, a farm labourer, was admitted to the Royal Victoria Hospital on October 11th, 190[illegible], suffering from tetanus:

Previous History.—On September [illegible] the patient was operated upon [illegible]

[illegible]

The points of interest in the case are:

1. The patient was a farm labourer, a class specially exposed to tetanic infection.

2. He had a cutting operation, and infection may have occurred from (*a*) the patient's own skin and incomplete sterilization; (*b*) operator's hands; (*c*) catgut used for ligature (a piece from the same strand proved sterile).

3. The wound was reported as healed by first intention. Tetanic infection is supposed not to occur in such wounds.

4. Treatment by the serum; was the recovery *post hoc* or *propter hoc*?

5. Disappearance of the spasms without diminution of the rigidity.

6. The long period of incubation.

7. Failure of bacteriology to assist in the case.

WESTERN INFIRMARY, GLASGOW.

CHRONIC PARALYSIS OF THE FACIAL NERVE: OPERATION: RECOVERY.

(Reported by J. CRAWFORD RENTON, M.D., Surgeon and Lecturer on Clinical Surgery.)

A. B., a girl aged 14, was sent to me by Dr. A. MacLelland Alexandria, with a history of discharge from the right ear for three and a-half years and of paralysis of the right side of the face for three years.

State on Examination. On admission to the infirmary she had tenderness over the mastoid region with an increased pulse-rate and temperature and she was somewhat drowsy.

Operation and Treatment.—The mastoid antrum was opened with the electric burr and a quantity of pus evacuated. When the acute symptoms subsided the mastoid and tympanic cavities were converted into one according to the method recommended by Sir William Macewen and Mr. C. A. Ballance and an amount of unhealthy tissue removed. The cavity being covered by granulations at the end of a week skin grafts were applied to effect complete healing and cessation of discharge. The patient was sent to the country with directions to return in a month with a view to having the facial nerve joined to the spinal accessory in order to correct the paralysis. It was not thought likely that the nerves, having been so long subjected to pressure, would recover by themselves. When she returned in a month the paralysis had completely disappeared and she was using the muscles of the right side of her face normally.

REMARKS.—The above case illustrates the value of the operation which Sir William Macewen and Mr. Ballance have recommended and is also interesting as showing how quickly muscles which have been paralysed for three years recover. No electricity was employed to effect this so that the benefit must be entirely ascribed to the facial nerve being relieved from pressure caused by the chronic inflammation in the tympanum.

*** This report was accompanied by two photographs of the patient, one taken before and the other two months after her recovery. They show the extent of the paralysis and the great subsequent improvement in appearance very clearly but are not suitable for reproduction

WANGANUI HOSPITAL, NEW ZEALAND.

A CASE OF PELVIC PERITONITIS TREATED WITH ANTI-STREPTOCOCCUS INJECTIONS.

(Reported by Dr. A. J. CRAWFORD, House-Surgeon.)

M. W., aged 29, was admitted under the care of Dr. Clennell Fenwick on March 11th.

Previous History.—She had been married six years and had had no children. She stated that seven years earlier she had undergone an operation for "dilatation of the womb," and eighteen months ago ventrifixation. She had had constant attacks of pain in the lower abdomen lasting from one to three weeks. Menstruation was regular but profuse.

Condition on Admission.—She was a thin pale woman. The temperature was 102.4°, pulse 196, and respirations 24. The abdomen was distended and tympanitic, and breathing thoracic. Pain was felt on pressure in the left iliac fossa. The vagina was very hot and tender, and a tense cystic mass could be felt on the left side fixed to the uterus. A diagnosis of chronic salpingitis of probably tuberculous origin was made.

Treatment.—Three injections of antistreptococcus serum were given, one daily. The temperature fell after each injection. The abdomen became soft and pain subsided. The patient was convalescent in seven days.

Operation.—Three months later she returned and requested operation, stating that the constant attacks of pain were making life unbearable. On opening the abdomen the intestines were found adherent to the abdominal wall, and the whole of the lower abdomen was filled with densely adherent intestines. An hour was occupied in freeing the pelvic organs from adhesions to intestines. The right ovary and tube were normal. The left side of the pelvis was occupied by a large adherent mass, which proved on dissection to be the enormously thickened broad ligament covering a dilated tube. The ligament was divided between clamps, and the tube, the size of an orange, was dissected out and removed. Unfortunately, as it was being lifted out of the wound it burst, but it is believed that none of its very fetid contents reached the abdominal cavity. Many of the intestinal adhesions were calcareous or cheesy. The pelvis was drained with gauze strips.

Death.—The patient rallied well, but on the third day the heart failed, and she died suddenly. There was no haemorrhage nor were there any septic symptoms.

REMARKS. The rapid result of the antistreptococcus serum was most marked. The abdominal distension and tenderness disappeared on the third day, and the pulse lost its wiry feeling, becoming soft and quiet. It was evident that the constant attacks of which the patient complained had been recurrent pelvic peritonitis, and the success of the first treatment was very pleasing. The operation was undertaken with reluctance, as the case was most unpromising. It was only at the urgent request of both husband and wife that the surgeon consented to interfere.

GOVERNMENT CIVIL HOSPITAL, HONG KONG.

A CASE OF ALCOHOLISM, FOLLOWED BY HYPERPYREXIA: COMA: DEATH.

(Under the care of E. A. R. LAING, L.R.C.P. and S.Edin., Assistant Superintendent.)

F. G., aged [illegible] years, a Scotch marine engineer, was brought to this hospital at [illegible] p.m. on August 20th, 1903, suffering from alcoholism. The history given by the friends was that the patient had been drinking steadily for many years, and to excess during the previous week. A few hours before admission he tried to jump out of a second story window, hence the anxiety of his friends to put him under restraint.

When admitted he was in the usual maudlin, argumentative state of a chronic drinker who had taken too much, but not enough to send him to sleep. In appearance he was a short stout, thick-set man, with florid, flushed face and short neck. His talk was fairly rational and he knew where he was, but though disposed to be violent, was amenable to firmness and reason. He said he wanted a good sleep as he had not slept for many nights. Pulse [illegible] temperature [illegible] F. After a glass of milk and soda-water (as he was thirsty) and a draught containing pot. bromid. [illegible] bromid. [illegible] gr. xx, chloral hyd. gr. x, tinct. capsici myr. aq. chloroform. ad [illegible] patient went to sleep. He had a good night, slept six hours, and at [illegible] a.m. draught was repeated and he slept till [illegible] a.m. On awakening he said he felt quite well. Temperature [illegible] pulse [illegible]. A diaphoretic mixture was ordered every four hours, and milk, soda water, chicken broth etc., besides the ordinary "low" diet, which includes beef-tea.

At [illegible] p.m. temperature rose to [illegible] F. Notes read: "Patient comfortable, takes his food, talks quite rationally, and feels better, states his resolve to stay in hospital for at least a week, or until he is quite cured."

[illegible] p.m. Temperature [illegible]°. Phenacetin gr. iv and caffeine cit. gr. ij given in powder, icebag applied to head. Powder vomited.

10.10 p.m.—Temperature 105.6°, rising. Cold sponging started. Icebag to head continued. Iced milk and soda-water given at intervals to allay thirst. Patient grumbles at being cold sponged, talks rationally at times, but suffers from delusions.

10.40 p.m.—Temperature reduced to 103° F. Cold sponging stopped.

11 p.m.—A loose brown watery motion passed.

11.10 p.m. Temperature rose suddenly to [illegible] F. Pulse [illegible], thready, patient incoherent, Cold sponging restarted.

11.30 p.m. Temperature [illegible] F. Inj. strychninae hypo. mx given, brandy ℥ss in water given at intervals of ten minutes.

12.10 a.m.—Temperature 104.8°. Cold sponging restarted.

12.40 a.m.—Temperature 109° F. Bowels open; motion loose, offensive and brown in colour.

12.50 a.m.—Temperature 110° F. taken in axilla and rectum, and remained 110° F. in spite of every effort to reduce it.

Patient was wrapped in sheets wrung out of iced water and the sheets in position rubbed with lump ice. He remained quite unconscious from 1.[illegible] a.m. with noisy respiration, pulse [illegible], thready, racing till 1.[illegible] a.m. when he died. Temperature registered [illegible] F. in axilla and rectum just before death, and in rectum five minutes after death.

This case requires little or no comment. My excuse for publishing it is that hyperpyrexia from any cause is worth recording, and that sufficient stress is not laid in the various textbooks and reference works on medicine on the fact that hyperpyrexia is a danger in all cases of acute and chronic

alcoholism. All medical works warn the students as to the danger of [illegible] failure, exhaustion, secondary lung trouble, etc., and they [illegible] mention hyperpyrexia as a complication or as a cause of death. This fact is, however, well known to the majority of practitioners in tropical and semi-tropical countries. They are on the look-out for it, and treat with caution any rise of temperature in an alcoholic. In the above case the half-minute thermometers used were only graduated to [illegible]. It is more than probable that the temperature of the patient would have registered even higher than this before death, judging from the rapidity with which the [illegible] rose each time the temperature was taken.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALBERT WILLETT, F.R.C.S., President, in the Chair.

Tuesday, January 12th, 1904.

HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY.

Dr. H. G. SCOTT THOMSON read a paper on this subject, recording four cases of the disease, with two necropsies, that had come under his own observation. In one of these there was found secondary carcinoma of the lung and in the other spinal caries. The disease, it was emphasized, occurred in suppurative illness, usually, but not necessarily, in the thorax, in congenital heart disease, and in syphilis. Particulars of [illegible] previously published, were given with clinical details of 77 cases in addition to his own. In regard to the [illegible] of the disease, it was pointed out that the absence of suppuration or suppuration was in favour of toxins alone being present, as also was its symmetry. An analogy was indicated between it and waxy disease, syphilis and chronic suppuration being associated with each. As to its mode of production it was suggested that it depended on a retention in the blood of volatile toxins normally eliminated by the lungs, this elimination being prevented by any lung disease, such as fibrosis, or even congestion, that interfered with a normal respiratory interchange. The essential toxic factor might be in the lungs themselves, or might not: of others those associated with diarrhœa and psoas abscess were the most important. The first of the author's cases, one of associated bronchiectasis, afforded evidence in favour of the toxic theory, in that subsidence of the joint attacks coincided with the emptying of the bronchiectatic cavities.

Dr. THOMSON WILLIAMS alluded to the rarity of joint affections in bronchitis cases, also to the difficulty of understanding the [illegible] of new bone in joint attacks so transient.

Dr. PERCY KIDD gave details of four other cases. The changes were of the nature of an arthritis and a periarthritis. The explanation of a defective elimination of toxins hardly seemed to be adequate. There was something peculiar in bronchiectasis, as evidenced by the fetor. Analogy with the acute polyarticular form of rheumatoid arthritis was pointed out.

Dr. RUSSELL MARTINE thought the gland theory of the lung should be kept in mind, but there was the rival micro-organismal theory. Reference was made to improvement of a case associated with bronchiectasis following on intravenous injections of formaldehyde, and coinciding with a marked diminution in the amount of sputum.

Mr. W. G. SPENCER thought that as regards the thickening of the bones there was no sharp line of division between the pathological [illegible] and known septic conditions. No simple toxic theory of causation was, he thought, sufficient, and he suggested as an additional factor chronic venous congestion in the ends of the bones.

Dr. NORMAN FIRTH in criticizing the toxic theory, suggested that one of the possible factors in the thickening of the bones might be the [illegible] changes associated with protective processes against infection.

Dr. RUSSELL WELLS alluded to a possible chemical similarity in different structures attacked by the same microbic disease.

Dr. [illegible] replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor JOHN CHIENE, C.B., President, in the Chair.

Friday, January 8th, 1904.

LUPUS, TUBERCULAR AND CUTANEOUS DISEASE.

A special clinical meeting of this Society was held in the large theatre of the Royal Infirmary, when Dr. W. ALLAN JAMIESON read a paper on the treatment of various forms of cutaneous disease by the *x* rays and light. He observed that the epidermis, when structurally intact, offered an almost impermeable protection to the underlying structures, so that hitherto our means of dealing with affections of the underlying tissues had been most uncertain. Science, however, had lately placed in our hands agents such as the *x* rays, the Finsen light, radium, and the currents of high frequency, which had the power of influencing the deeper layers of the integument. His remarks only dealt with the two first of these. Until they had a mercury motor interruptor the results of the *x* rays had not been satisfactory. But working with that, using a moderately high voltage and amperage and soft tubes, excellent effects had been obtained. Careful supervision and adequate protection by lead masks had been observed in all cases, and these he considered as essential to success. The distance from the tube was from 4 to 6 in. as a rule, the duration of exposure five minutes, and the frequency four times a week. Burns of any severity were uncommon, and occurred chiefly in lupus, less often in sycosis and favus, not at all in rodent ulcer or mycosis fungoides. Weather exerted some influence in predisposing to reaction, as these seemed more frequent in cold, raw days. During the last eighteen months 133 cases of lupus vulgaris had been under treatment. All who had continued under treatment had improved, and many had been cured. In numerous instances the effect of the rays had been to check advance at the margins, though isolated nodules might persist in the centre. Crusting within the nose, so often seen in lupus, frequently wholly ceased under the rays. In one case tuberculous abscesses had appeared during the treatment, but as this was an instance standing quite by itself he did not think the rays had anything to do with the occurrence. The Marshall and Woods lamp had been used exclusively in a few cases, and in more as an adjunct to the *x* rays, for the purpose of getting rid of residual nodules. It was much slower, and not nearly of such universal applicability as the *x* rays. In rodent ulcer the *x* rays had proved most efficacious, but did not entirely obviate relapses. He recommended the simultaneous use of scraping and cauterization with fused chromic acid. Twenty-one cases were treated during the same period. Thirty cases of lupus had been under treatment by the rays. When attendance had been long enough for all the hairs to fall out, the disease had been cured. Twelve examples of sycosis had been treated. With the falling of the hair the disease had disappeared, but it had recurred more or less extensively with the regrowth of the hair, showing that the rays were not parasiticide. In mycosis fungoides the rays offered the sole means of cure. A case treated a year since remained free from any recurrence on all parts which were then exposed, but a few patches had shown themselves on situations then free, and which were not subjected to the rays. Another case in the erythrodermic stage at present in his wards might be said to be well. A large number of cases showing the results of treatment were exhibited.

Dr. NORMAN WALKER, Dr. DAWSON TURNER, and others discussed the paper; and Dr. ALLAN JAMIESON replied.

The meeting of the Society on January 20th will be given up to a discussion on the diagnosis of acute appendicitis, and the indications for operation.]

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, January 8th, 1904.

PNEUMOCOCCAL PERITONITIS.

SIR DYCE DUCKWORTH and Professor HOWARD MARSH contributed a case.

The patient, a woman aged 21, was seized with headache, generalized pains and [illegible] on January 7th. The temperature was 103°, the pulse 140, and peritonitis followed. Widal's reaction was negative, and a purulent [illegible] was present. On March 2nd Mr. Marsh and Mr. Bowlby saw the case, and a diagnosis of typhlitis with some general peritonitis was made. Mr. Marsh operated, and signs of inflammation were seen in the peritoneum and large intestine. The appendix was [illegible] at the base dilated and full of [illegible] abscess, which was opened and removed. There was some thin, turbid, and dark coloured fluid in the peritoneal cavity, and no adhesions or evidence of the perforation of a [illegible] were found. A culture of the fluid showed pure [illegible] of the pneumococcus, the presence of which was confirmed by agglutination test. Three days later bronchitis and abdominal pain supervened, and 120 c.c. of Novy and Pneumococcus serum were injected. On March 7th the incision was reopened. Signs of fluid at the left base appeared, and on March 10th, pus was found on explora-

tion, resection of part of the ninth rib being performed the next day, when 1½ oz. of sour-smelling pus were evacuated.

The further progress of the case, though slow, was uneventful. The sudden onset and rapid and grave development of the peritonitis closely corresponded with what is observed in pneumococcal inflammations elsewhere.

The PRESIDENT also communicated a case.

The patient was a girl, aged [illegible] years, who was admitted into [illegible]'s Hospital on November 13th, [illegible] On November 14th abdominal pain had set in, followed by a rigor, and two days later signs of pneumonia developed. On admission the abdomen was distended and tender, moving very little on respiration, while physical signs of consolidation at both bases [illegible] were present. Some herpetic vesicles were seen at the base of the nose. Mr. Lucas performed laparotomy, and a quantity of odourless pus, together with masses of lymph, was recovered. The cavity was irrigated with hot saline solution, and drained. The pneumonia on the right side cleared up, but on the left side physical signs of empyema manifested themselves, and on November [illegible] of pus were withdrawn, resection of a portion of rib being performed four days later, when more pus was evacuated. Cultivations taken by Dr. Eyre from the peritoneal pus gave a pure growth of the pneumococcus; those taken from a second collection in the left chest, which was incised on December 11th, gave a growth of pneumococci associated with the staphylococcus aureus. Cultivations from the pus aspirated from the chest were sterile, but under the microscope showed badly staining diplococci, empty capsules, characteristic of a pneumococcal empyema. The child was now making good progress.

Dr. Taylor discussed the question of the seat of primary infection, which he thought was shown by the sequence of events to be the lung, and the peritonitis and empyema he considered were secondary.

Mr. STANLEY BOYD described another case which will be found at length elsewhere in this issue.

Dr. J. H. BRYANT alluded to three cases of pneumococcal peritonitis which he had described,[1] in which the part primarily affected was the peritoneum. He thought there was probably no general channel of infection; and that in one of his cases the organism probably entered by the intestinal canal. It was constantly found in the throat, and although in health the gastric juices might be fatal to its vitality, yet in abnormal conditions the pneumococcus might possibly find entrance to the peritoneum. In some cases of pneumonia the onset was characterized by abdominal pain; and the adhesions sometimes found between the liver and diaphragm, and again between the diaphragm and the right lung, suggested a course which the pneumococcus might possibly traverse. He had not seen any benefit follow the use of antistreptococcus serum.

Dr. J. FAWCETT stated that during the last five years at Guy's Hospital in 182 fatal cases of pneumonia in which necropsies had been made, there were only 5 in which there was infection of the peritoneum, and this was very slight. He thought it might be inferred that the peritoneum was rarely infected from the lung.

Dr. W. LANGDON BROWN referred to the case of a girl, aged 10, who had pneumococcal empyema and effusion in the right knee-joint and in the abdomen. A rib was resected, and the knee-joint drained, but the abdomen recovered without being opened. As pneumococci were obtained from the empyema and the knee, they probably existed also in the abdomen, and, if so, they subsided without operation.

Mr. GOLDING-BIRD suggested that possibly Mr. Marsh's case was one of pneumococcal appendicitis, and that certain of the cases of appendicitis which failed to recover after operation might be of that nature.

Dr. J. W. H. EYRE said that probably the cases of pneumococcal peritonitis would be found to be less rare if bacteriological examinations were more frequently made. Pneumococcal pus, whencesoever aspirated, showed a tendency in 90 per cent. of the cases to the formation of a sediment, the upper layers soon becoming clear, and the pus cells subsiding. This simple test might be of value at the time of operation. He also thought that animal inoculation experiments were not enough resorted to for the determination of the character of the infecting organism.

Dr. HERBERT FRENCH described an acute case in a child, aged 12, under the care of Dr. Newton Pitt, in which death occurred in three days, acute peritonitis and consolidation of the base of one lung being found. He thought the cases might be divided into two groups—the less acute, in which the peritoneum was primarily infected, as in Sir Dyce Duckworth's and Dr. Taylor's cases, and the more acute in which the organisms entered the blood stream and thus disseminated themselves, attacking several organs at once.

[1] Paper published in the BRITISH MEDICAL JOURNAL, September 1st, 1901, p. 777.

Sir DYCE DUCKWORTH, in reply, said that the cases presented varying degrees of virulence, as an [illegible] had various times had varying degrees of resistance to infection. It was impossible to say whether peritonitis was of pneumococcal origin until the abdomen was opened; if, however, there was also a herpetic rash it might suggest the presence of the pneumococcus.

Professor MARSH and the PRESIDENT also replied. The latter said that there were no signs of appendicular trouble in his case.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., President, in the Chair.

Monday, January 11th, 1904.

SERUM AND OTHER INOCULATIONS IN PYOGENIC INFECTIONS. Mr. WALTER G. SPENCER, in opening the discussion, contributed a paper on the use of antistreptococcus serum, particularly in erysipelas, septic pharyngitis, malignant scarlet fever, puerperal fever, endocarditis, pericarditis, pneumonia, and pleurisy. The essential requirements for the successful use of the serum were general infection by streptococci, a standard antitoxin, a polyvalent serum for general use, and for special cases a univalent serum derived from the same variety of streptococcal infection, early administration after the inoculation and onset of the fever so as to neutralize the toxins before irrevocable lesions had been set up, subcutaneous, or, perhaps, in severe cases, intravenous injection, and the administration of full doses every three or four hours until relief. There was abundant reason for the proper use of antistreptococcus serum, and the causes of failure in the past could probably be eliminated. The need for a constantly available supply of active serum was therefore urgent.

Dr. A. E. WRIGHT read a paper on inoculation in staphylococcal infection, chronic or frequently recurrent, by which the life of the patient was not threatened, as in boils, sycosis, and acne, with the view of developing protective substances in the body of the patient. Twenty-one cases were quoted which had been treated with injections of dead cultures of staphylococci with excellent results. No untoward constitutional symptoms followed the inoculations. The injections were standardized by enumeration of the organisms. In some cases a vaccine was made from the patient's own staphylococcus. The phagocytic activity of the leucocytes was markedly increased by the injections. A great risk was that if the inoculations were given too rapidly before the system had had time to elaborate the protective substances its bactericidal power was lowered.

Sir FELIX SEMON pointed out that the septic infections referred to might be due not only to streptococci but to any of the pyogenic group. Yet in an emergency any streptococcus serum available should be employed.

Dr. E. GOODALL referred to the antistreptococcus serum treatment of scarlet fever, but he could not admit that the streptococcus conglomeratus was the cause of scarlet fever, although some of the complications were doubtless streptococcal. The direct benefit of such injections was doubtful.

Dr. CYRIL OGLE especially alluded to malignant endocarditis, and thought in a few cases recovery had resulted from antistreptococcal injections. He advocated its early use in this disease.

Dr. W. GOW, in reference to puerperal fever, had had an unfavourable experience of the use of serum injections. Pyrexia in the puerperal state was frequent apart from the serious disease.

Dr. F. J. POYNTON discussed the difficulty of preserving the serum, and pointed out that the antibactericidal property was easily lost. Cases were recorded in which harmful results had followed such injections.

The PRESIDENT had had good results from antistreptococcal injections in erysipelas, puerperal fever, and [illegible] Other precautions should not be neglected. He had never seen any ill-effects from the use of the serum.

Mr. SPENCER and Dr. WRIGHT replied.

LIVERPOOL MEDICAL INSTITUTION.

RUSHTON PARKER, B.S., F.R.C.S., President, in the Chair.

Thursday, January 7th, 1904.

Dr. A. S. GRÜNBAUM showed an experiment to demonstrate the haemolytic action of radium rays on red blood corpuscles.

DR. STENHOUSE WILLIAMS exhibited and described a new ethyl chloride inhaler. Given by his method the patient was under the influence in fifty seconds, the anæsthesia was maintained with ether. He had found it very useful in alcoholic subjects.

DR. F. W. BAILEY had noticed that patients frequently came out of the ethyl chloride anæsthesia before ether anæsthesia was induced.

SIR WILLIAM BANKS and the PRESIDENT also spoke.

CONGENITAL HYDRONEPHROSIS.

MR. R. C. DUNN read notes of a case of congenital hydronephrosis, due to stricture of the ureter at its junction with the renal pelvis. The chief point of interest lay in the fact that the abdominal tumour was principally on the left side, and was not palpable in the right loin. The diagnosis of left hydronephrosis was made. On performing nephrectomy through an incision on the left side, a normal left kidney and ureter were exposed. The tumour, which proved to be a hydronephrosis of the right kidney, lay in front of the left kidney, and was readily removed. Recovery was uneventful. A congenital displacement of the right kidney, either to the middle line, or into the loin of the opposite side, probably explained the abnormal position of the hydronephrosis.

DR. BLAIR BELL and the PRESIDENT commented upon the case.

X RAYS AND RENAL CALCULI.

DR. C. THURSTAN HOLLAND read a note on the *x*-ray diagnosis of renal calculi: he laid special stress on the necessity, in making a negative diagnosis, of taking the *x* ray whilst the breath was held: also the importance of obtaining a plate showing differentiation of the shadows of the soft structures lying between the iliac crest and the lower ribs. The note was illustrated by a series of lantern slides showing stones *in situ* and also the type of negative to be aimed at.

DRS. W. CARTER, CHAS. MACALISTER, and ALEXANDER spoke: and DR. HOLLAND replied.

CLINICAL LECTURES IN 1749.

DR. CASSELS BROWN exhibited an old notebook containing notes of Dr. John Rutherford's clinical medical lectures delivered in Edinburgh in 1749, and read a paper on the subject. After giving an account of Edinburgh, the Medical School, and Dr. Rutherford, he referred to the total absence of anything like scientific observation in medicine but pointed out that the rate of mortality in Dr. Rutherford's cases was, under the existing circumstances, not at all discreditable. Dr. Cassels Brown gave details of the treatment adopted in cases of anæmia, rheumatism, ague, phthisis, syphilis, cutaneous disease, and hydrophobia, and in conclusion remarked that while the medical profession had advanced scientifically to an enormous extent, it had not advanced equally in other directions. He suggested that attention should be given to the teaching of practical therapeutics, and advocated a modified return to the culture of the old-time physician. THE PRESIDENT, SIR WILLIAM BANKS, DR. CRICHTON, and DR. LEGAN spoke, and DR. CASSELS BROWN replied.

TRANSACTION OF SURGERY.

At a meeting on Tuesday December 22nd, DR. CHARLES CREESE, Master of the Apothecaries' Company, in the chair, DR. W. L. DUNN, of Cambridge, read a paper detailing the action of anæsthetics on the pulmonary vessels. He showed that these vessels had no nerve supply of their own, so that drugs which contracted ordinary systemic vessels did not affect those of the lungs. He found the exception to this general rule in Pilocarpine, which physiologists and digitalis would not produce pulmonary œdema, but which produced marked constriction in systemic vessels. Ether produced no contraction in pulmonary vessels, but caused dilatation of the systemic vessels. Chloroform, although directly a vasomotor depressant, in cases of long continuance produced contraction of the pulmonary vessels, and therefore these pseudo-anæsthetics not only do systemic harm, but also cause pulmonary œdema. Chloroform and ether dilatation of the systemic vessels, by causing a fall in the arterial pressure, lessened the amount of blood passing through the lungs, and therefore the pulmonary vessels, which were not affected by the anæsthetic, had a smaller amount of blood to deal with. In conclusion, DR. DUNN pointed out the importance of the above-described experiments in connection with the pathology of pulmonary œdema. DR. SAMPSON HANDLEY and DR. SAMUEL DE HAVILLAND HALL took part in the discussion. DR. HENRY MORRIS congratulated the author on the thoroughness of his experiments. He said that quick methods were now used very largely and accepted freely, and this was greatly due to the little attention now paid by medical students to therapeutics, which in examinations had not the same attention as pathology or bacteriology, hence young practitioners were often not well qualified to treat minor ailments and the patient often went to a chemist and obtaining relief, continued to consult him in more serious diseases. Unfortunately also medical practitioners had in many cases ceased to dispense their own medicines, and even the art of writing prescriptions was on the wane, as many medical men now depended on the wholesale druggist for the supply of remedies ready prepared for use. These the patient might afterwards obtain for himself from chemists in other ailments, whether similar or not, without consulting any medical man, thus running great risks. In conclusion, he suggested that (1) every medical student should dispense at a hospital for one hour daily during three months; (2) that there should be a Professor of Practical Pharmacy as well as of Therapeutics. The former to teach the art of compounding drugs in the most efficient manner, while the latter would teach their actions in health and disease; (3) that at the hospitals the use of stock mixtures and printed formulæ should be reduced to a minimum. A discussion followed, in which DRS. CRICHTON, F. DE HAVILLAND HALL, and INCE took part.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY. At a meeting on January 11th, the President, MR. A. E. MAYLARD, in the chair, DR. ROWAN showed an infant whom he had under observation. It suffered from a growth of the iris, which he believed to be a gumma; there was a distinct syphilitic history. PROFESSOR MUIR showed as a fresh specimen a haemorrhage into the pons Varolii and crura cerebri, and granular kidneys from the same case.—DR. A. N. MCGREGOR demonstrated a case of varicosity of both superficial epigastric veins. The condition commenced after an attack of enteric fever seven years ago and was regarded as due to thrombosis of the iliac veins on the left side. The varicosity acted as a relief channel, the blood flowing up the left epigastric and through a large anastomosis and down the right epigastric to the right femoral vein. The veins emptied when patient was in the recumbent position. DR. MCGREGOR was of the opinion that the lumen of the thrombosed vessels had been partly restored, and the practical question was, Would they now be capable of carrying on the circulation if the epigastric veins were excised? The case will be shown again at a later meeting. DR. JAMES CARSLAW and PROFESSOR MUIR described the clinical and pathological features of a case in which rupture of a hydronephrosis occurred. The illness set in with vomiting and pain, which suggested appendicitis. Operation revealed a swelling round the right kidney. The swelling was then incised and drained from behind. The patient died from suppression of urine, which set in immediately after the first vomiting. On necropsy bilateral hydronephrosis, with rupture of the pelvis of the right kidney, was discovered. The nature of the obstruction could not be made out. Kinking of the ureters appeared to be the most probable cause. MR. HENRY E. CLARK showed an eyeball which had been removed on account of tumour; the latter he believed was a secondary deposit resulting from carcinoma of the mamma. The tumour of the mamma had been removed four years ago. It recurred, and on this account double oophorectomy was performed followed later on by *x*-ray treatment. Secondary tumour in the eyeball was an extremely rare condition, and as the specimen had not yet been examined microscopically it was impossible to be sure that it was really of the nature supposed: it might be an independent new growth. The result will be reported later. MR. BYRNE also showed (1) a specimen of hydronephrosis (probably) due to kinking of the ureter by the renal vessels, and (2) a humerus, the seat of rapidly developing sarcoma in relation to an injury. Three weeks after a fall the patient was examined, but no evidence of fracture was found. Three days later fracture resulted from another fall, and a tumour then rapidly developed. The arm was amputated seven weeks after the first injury: the patient, a boy about 6 years old, died from shock.

BEQUESTS TO MEDICAL CHARITIES. Under the will of the late MR. John Pine, M.P., £2,000 has been bequeathed to the Miller Hospital and Royal Kent Dispensary. The late MR. Philip Hedgcock, of Brighton, has left £1,000 to the Sussex County Hospital and £500 each to the Brighton, Hove, and Preston Dispensary and to the Sussex Eye Hospital.

REVIEWS.

THE BACTERIOLOGY OF MILK AND THE CONTROL OF THE MILK SUPPLY.

A VALUABLE addition to existing works dealing with the milk question is *Bacteriology of Milk*,[1] by Mr. HAROLD SWITHINBANK and Dr. GEORGE NEWMAN, just published by John Murray. The volume contains 603 pages, 451 of which deal with the bacteriology of milk, while the remainder are devoted to the subject of the control of the milk supply.

The earlier chapters on bacteriological technique contain excellent descriptions of the way to obtain sterile milk direct from the cow's udder and of the methods of quantitatively estimating milk bacteria. Besides matters of special interest to the milk analyst, these chapters contain elementary instructions in technique suitable for a student who is commencing the study of bacteriology, a description of the general methods of preparing culture media, and an account of the bacteriological methods of examining water and air.

The chapter on the bacterial content of milk gives a useful record of milk analyses made in various countries, and also embodies the results of the author's own analyses. They incubated their samples at 5°, 15°, and 37° C., and found that the maximum number of bacteria occurred in seventy-two hours at the highest temperature, in six days at the intermediate temperature, and in ten days at 5°. The degree of acidity after incubation at these temperatures for various times was also estimated, and was found to compare closely with the results of the bacteriological experiments. The interpretation of the various data recorded is carefully discussed from the standpoint of the practical hygienist. Important sections in the earlier portion of the book are those written by Dr. Newman on the occurrence of pathogenic bacteria in milk. The chapter on tuberculous infection and the modes by which tubercle bacilli gain access to milk is particularly useful. In dealing with the controversy which Koch has originated concerning the relationship of human to bovine tubercle bacilli, Dr. Newman collects a considerable amount of recent experimental evidence, which on the whole tends to invalidate Koch's assertions; and therefore, though recognizing that certain points have not yet been finally settled, the opinion is expressed that the data at present available justify the view that

> whilst tuberculosis is not chiefly spread by means of milk, there is [illegible] mistakeable evidence, derived from pathological and clinical experience, proving that tuberculous milk can, and does, set up some form of tuberculosis—bovine or human—in the bodies of man and other animals consuming the milk.

The importance of differentiating the bacillus tuberculosis from other acid-fast bacilli liable to be found in dairy products is only gradually gaining recognition in public health work; we are therefore glad to see that this subject is dealt with here more fully than usual, and is freely illustrated. The chapters on milk in its relation to epidemic disease are chiefly valuable for their excellent abstracts of typical milkborne outbreaks of scarlatina, typhoid fever, and diphtheria. After a review of the evidence brought forward in favour of a bovine scarlatina and a bovine diphtheria, the authors wisely return verdicts of "not proven."

Considering the bacteriological part of the work as a whole, we are of opinion that the book is a useful summary of the important English, Continental, and American literature upon milk bacteriology, and that the authors have arranged and criticized the material available with impartiality and sound judgement. It would have been an advantage if they had confined themselves more strictly to their main object of writing a standard textbook on milk bacteriology, and if they had recognized that elementary bacteriological technique, general methods of preparing culture media, and the examination of air and water are all subjects to which special textbooks, many of them excellent, have already been devoted. The inclusion of these matters in the present volume has increased its bulk. Milk bacteriology, as the authors are aware, is a subject upon which a great deal of important research still remains to be done, and we hope that, having so thoroughly demonstrated their competence in technique and their wide acquaintance with the literature, their future investigations will help to clear up some of the obscurities concerning the important milk bacteria which are pathogenic to man.

That part of the book in which the control of the milk supply is discussed is divided into three chapters, the first of which deals with what has already been done by the State in controlling and protecting the milk supply; the second is devoted to the system of private enterprise: while the third deals with what can be done by the trade in respect to (*a*) milk herds, (*b*) the housing of milk herds, (*c*) milkers and milking, and (*d*) the after-treatment of the milk and the suitable conditions of its sale. The authors point out that the condition of the milk trade has been revolutionized, on account of the migration of the population from the country to towns. The milk trade is comparatively a modern growth and one which calls for totally new measures of control. Milk is now transported long distances, and is collected not from one farm and for one family, but from hundreds of farms and for thousands of families; therefore it is idle to suppose that the methods which answered the requirements of our forefathers will be found adequate by those who have followed the growth in our knowledge of milk and its relation to disease.

We cannot agree that the milk supply is not as important a matter as the water supply. On the contrary, considering how every infant, fed artificially, is, for the first years of its life, dependent on clean milk it is in our opinion vitally important that milk should be guarded as carefully as water.

As examples of what may be done to supply the public with milk produced under scientific management, the methods employed by the Aylesbury Dairy Company are described, and the Danish and American systems are given at length. There is a chapter touching on tuberculosis, and some sound information about the treatment of milk after milking. The question of milk dépôts is discussed, and we are glad to note that the writers point out, in connexion with it, the importance of "a naturally pure milk supply" as compared with the present system of sterilizing milk coming from an uncontrolled source. They write:

> Each mother must be separately advised, each infant inspected and weighed periodically, each home supervised, the condition of the [illegible] regularly tested, and the source of the milk kept under control, the cows and cowsheds from which the milk is derived being supervised by a veterinary surgeon and the medical officer of health. And here, in any event, the quality of the milk used must reach a high standard chemically and bacteriologically. If these conditions are not fulfilled, it would appear that a municipal sterilized milk supply can only be a palliative measure of transient usefulness. The desideratum is a naturally pure milk supply rather than an artificially purified and humanized supply. The latter question is one certainly requiring careful consideration, but of a different nature to the former. If undertaken by a local authority, it would appear desirable to do it wholesale, thoroughly, after the manner of Leubin's work in Paris, each case being under strict medical supervision.

With all this we heartily agree. The book has, the authors state, taken five years to write, and they observe that even so, chiefly owing to the extremely rapid growth of bacteriology, much of the work must be looked upon as provisional only. The practical and applied aspect of the bacteriology of milk also claims much fuller inquiry, while comparatively little is known of the relationship between disease in the cow and of its transmission to man by means of milk. The question of the control of the milk supply, although having no direct relation to the bacteriology of milk, is indirectly allied to it, inasmuch as a wise control depends entirely upon a knowledge of the bacteriology of milk.

The portion of the work dealing with the bacteriology of milk is profusely illustrated with photographs, photomicrographs, and water-colour drawings by Mr. Swithinbank, Mrs. George Newman, and others, reproduced by André and Sleigh of Bushey, Herts, most artistically, many of them being coloured. We wish this work all the success it so well deserves.

[1] *Bacteriology of Milk.* By Harold Swithinbank and George Newman, M.D., F.R.S.E., D.P.H. London: John Murray.

LARYNGOLOGY AND RHINOLOGY.

THE innervation of the laryngeal muscles is a subject of great interest to investigators as well as clinical practitioners, and likely to continue to be so for a long time to come. Professor ONODI, of Buda-Pesth, has been one of the most active researchers in this domain, and in a book issued recently he presents the results of his own original experiments and the conclusions to be derived from them, as well as from the various observations and experiments of others.

[illegible] *Physiologie des Kehlkopfnerven, mit [illegible] Berücksichtigung der Pathologie.* The Anatomy and Physiology of the Laryngeal Muscles with Supplementary Pathological Considerations. By Dr. ALEXANDER ONODI, Professor of Laryngology and Rhinology at the University of Buda-Pesth. Berlin: Oscar Coblentz. [illegible] Illustrations. M

In the [illegible] on the laryngeal muscles there is a valuable review of the various experimental researches bearing upon the [illegible] of the vocal cords present in partial degeneration of the [illegible] nerve. The author, while giving every [illegible] power exercised by the crico-thyroid [illegible] by Wagner, expresses himself as a strong [illegible] of [illegible]'s law, in view of the obvious and [illegible] fact of the early degeneration of the posterior [illegible] muscle. He concludes with the description of [illegible] in which he dissected the strands of [illegible] to the various muscles, [illegible] in which he could [illegible]

[illegible]

Among the [illegible] points of interest may be noted the share of the [illegible] nerve, examined both from the anatomical and the experimental standpoint. He quotes a curious [illegible] from a human subject, in which the [illegible] of the recurrent laryngeal were derived for the most part from that part of the sympathetic which extends from the [illegible] to the first dorsal ganglion (p. 79). Stimulation in the dog of the double nerve cord between the [illegible] first thoracic ganglia produced in [illegible] experiments a contraction of the muscles of the vocal cord on the corresponding side with rapid movement to the middle line. Stimulation of the neighbouring twigs of the sympathetic and vagus were without result (p. 150). The author leaves the inquiry as to the deeper physiological and pathological significance of these observations as an onerous duty for subsequent investigators. Unfortunately it is on the score of ill-health that Professor Onodi leaves this to others. It is to be hoped that he may be able to resume the [illegible] through to its conclusion with his own hand.

[illegible] on the pathology and treatment of inflammatory [illegible] of the accessory sinuses of the nose, being [illegible] anatomy and pathology, and being written [illegible] style, it is no wonder that the first [illegible] has been rapidly exhausted. The subject of [illegible] comparatively a new one, and students of the [illegible] to be startled, not unnaturally, by the [illegible] of the ultra-progressive rhinologist. A [illegible] of the importance of the subject [illegible] and for this we owe a good deal to the [illegible] the author of the work under consideration. In the first part of the book the pathogenesis, etiology, [illegible] in general are considered. Among other points [illegible] the distinction drawn between [illegible] and causes as influenza and [illegible] may be due to extension [illegible] or traumatic disturbances [illegible]

[illegible]

[illegible] Killian, Hart[illegible]

[illegible] apparently more to the attribute

"necrosing" than to the term "ethmoiditis" which Hajek considers the basis of most nasal polypi (p. 212). The section on diseases of the ethmoid cells forms a valuable clinical treatise full of such detailed information as the intending or even the experienced operator desires. The subject of the accessory sinuses in relation to ozena is dealt with in a peculiarly objective manner. The author is of the opinion that previous writers who had not noted the association between these two conditions had failed to do so owing to their having overlooked the disease of the sinuses—an error into which he confesses himself to have fallen from the same reason. Suppuration in the sinuses may be overlooked from its not being thought of, and, even when thought of, it is difficult to discover. He is, however, opposed to the views of those who think that in every case of ozena the origin is to be found in the suppuration of one or more of the accessory cavities. In support of his opinions he gives a careful analysis of 12 consecutive cases: the anterior ethmoidal cells were involved in 7, the maxillary antrum in 3, the posterior ethmoidal and sphenoidal cells in 1 each respectively; in 2 the "ozaena" arose from suppuration in the pharyngeal tonsils, and in 2 from diffuse suppurative catarrh of the nasal mucous membrane. The book has qualities which make it stand alone, and it well maintains its author's great reputation.

In our review of the first edition of the remarkable work on diseases of the nose and naso-pharynx, by Dr. ZARNIKO of Hamburg,[illegible] we indicated its striking features. A second, revised, and somewhat expanded edition is now being issued in two parts, of which only the first has been received. This is concerned with general subjects. Among the points which are new or treated more fully in this edition we may note the more recent anatomical researches of Zuckerkandl and Killian, the discussion on micro-organisms in the nose, a most interesting study of the sense of smell, the physiological and pathological relations of the nose in regard to voice and speech and intelligence, the organs of hearing and vision, the brain, and the general constitutional state. Killian's "rhinoscopia media" by means of a very long-beaked speculum, the direct inspection of the naso-pharynx, the value of trans-illumination, [illegible] of the Roentgen rays receive critical attention. A particularly valuable feature in the work is the section on accidents which exceptionally accompany or follow operations on the nose, classified under the four heads of infection, haemorrhage, and mechanical or nervous disturbances. To the observant this chapter with its numerous references will be of the greatest interest. The wisdom of avoiding tamponment, if by any means possible, is most strongly insisted on. The whole work is remarkable for its accuracy, exhaustiveness, moderate bulk, and readableness.

Professor GRADENIGO's monograph on hypertrophy of the pharyngeal tonsil[illegible] is an exhaustive and interesting account of all that is known with regard to the so-called adenoid vegetations, a term which he [illegible] rejects. The history of the development of the knowledge of the subject is carried back as far as Hippocrates. The embryology and the anatomy, both [illegible], are fully described [illegible] well established, but, with regard to the [illegible] cannot be said, [illegible] still presents [illegible] hypothesis. [illegible] with watery and glycerine extract of tonsils produced [illegible]

[illegible]

[illegible]

the association is much less frequent than some observers believe. The symptoms are carefully classified, and in relation to diagnosis are discussed under the headings "manifest" and "latent," the latter referring generally to those cases in which repeated catarrhs of the throat, ear, or nose occur without the physiognomical characteristics or persistent nasal symptoms which would draw attention to the pharyngeal tonsil, although palpation or rhinoscopy reveals the presence of a hypertrophy the removal of which alone leads to a disappearance of the symptoms. The methods of examination are described in detail with their various advantages and drawbacks. Anterior rhinoscopy is one of those least used by our practical fellow-countrymen, and it is one of the least value: its limited place is, however, duly accorded to it by Professor Gradenigo. Posterior rhinoscopy is apt to give a diminished image of the growth, but if allowance is made for this it is in suitable cases valuable proceeding. Direct autoscopy of the rhino-pharynx, involving the use of an instrument for retracting the soft palate is described, but with little approval; the other methods are all familiar. The section on prognosis deals with the question as to the results in cases in which the hyperplasia of the pharyngeal tonsil is left alone or insufficiently treated: he refuses to admit that the diminution which takes place as the child gets older can be looked upon as in any case a recovery: he believes that it is "a kind of cicatrization which leaves as its results a chronic catarrh of the pharynx with injurious effects upon the ear, nose, and oro-pharynx;" he mentions further the possibility of conversion into a malignant growth. The injurious influence upon the ear he considers most potent, and actually goes the length of saying that "the final changes in the nutrition of this mucous membrane which affects the periosteum may extend later to the wall of the labyrinth and the internal ear." This view is certainly difficult either to prove or disprove. Allowing due value for general and gymnastic treatment in slight cases, he admits of nothing short of surgical removal when the hypertrophy is considerable. The indications for the operation are those generally received, but the following remarks are somewhat striking—namely, that "the operative interference is generally necessary in cases of children with a marked hereditary tendency to otitis": also that "the rational treatment of adenoid hyperplasia is efficacious in preventing the development of progressive deafness in the children of people suffering from sclerosis of the middle ear: and, in general, it affords the best means of prophylaxis against this." As a rule, his preference is for Gottstein's ring knife or one of its modifications. He is strongly in favour of a general anæsthetic, and considers that, on the whole, "bromide of ethyl is, without possibility of contradiction, the anæsthetic agent which has the advantage over all others." His views with regard to the avoidance of nasal washes after the operation are very decided. His book is full of thought and suggestiveness, but lacks a table of contents and an index. The arrangement of subjects is, however, logical and intelligible enough, for the reader to find his way to any particular point without much difficulty.

Those who have attended the crowded clinical demonstrations by Professor Chiari which are among the most conspicuous features of medical teaching in Vienna have awaited with keen anticipation the appearance of his monograph upon diseases of the upper respiratory tract. The second volume, dealing with the pharynx,[1] has now appeared, and may fairly be said to be in every way worthy of its distinguished author. The first section is devoted to anatomy, the question of development receiving clear and adequate treatment. An account of the physiology of the [illegible], including that of deglutition: this is illustrated by numerous tracings of which those of the entrance to the Eustachian tubes in various conditions are particularly interesting. General pathology is next briefly discussed and is followed by chapters on methods of examination and on general medical therapeutics. The author is a staunch advocate of rhinoscopy, and finds that the evidence obtained by this means may often with advantage be extended by sounding the naso-pharynx under examination. For local anæsthetic he recommends painting with cocaine subsequent to vigorous swabbing with a 1 in 1,000 solution of adrenalin chloride. This results in a vascular contraction which lasts for quite two or three hours, so that the risk of haemorrhage is minimized. For tonsillotomy he prefers the instrument of Mathieu to that of Mackenzie. The account of the instruments which may be used in the treatment of adenoids is very complete, but the writer's preference is evidently for the ordinary Gottstein's knife. He states that recurrence is not very rare: it may perhaps be that in England the operation is not always completely carried out, but we think that experience here would generally be that Schmidt's figure of 3 per cent. is below the mark. In diphtheria Professor Chiari strongly recommends the use of inhalation and sprays in addition to the anti-toxin treatment: he is, however, much against the plan of painting the throat, which he considers obsolete. In addition to complaints of every-day occurrence, the author is able to describe from his vast experience many of extreme rarity and interest, such as scleroma of the larynx, lupus, and chronic tuberculosis of the hard and soft palates. These are illustrated with admirable skill and fidelity, and the engravings of instruments are equally to be commended.

[1] *Handbuch der Krankheiten des Rachens, Der Pharynx.* By Professor Dr. Ottokar Chiari, Director of the Clinic for Laryngeal and Nasal Diseases, University of Vienna. Leipzig and Vienna: Franz Deuticke. Royal 8vo, pp. 555. M.18.

INTESTINAL DISORDERS.

DR. LEFTWICH has been struck by the occurrence of the longitudinal bands of involuntary muscular tissue in the walls of the large intestine, and in his volume on *Syphonage and Hydraulic Pressure in the Large Intestines* endeavours to prove that besides peristaltic action, there are other agencies which drive on the contents of the alimentary tract. The caecal region, it is maintained acts somewhat as a Bramah's hydraulic press, so that the pressure exerted at the ileo-caecal valve is multiplied according as the sectional area of the ascending colon is greater than that of the ileo-caecal aperture. In order to increase the resistance of the walls of the colon, the latter is reduced in length by contraction of the longitudinal bands of muscle, thereby producing a greater infolding of the constrictions present between the sacculi, much as the walls of a concertina are more resistant when the instrument is collapsed. The writer then proceeds to argue that in man the assumption of the upright posture, though accompanied by a certain degree of hindrance to the passage of the contents of the bowel along the ascending colon against gravity, has the advantage of supplying him with a siphon-like action and the caecum may be looked upon as a reservoir of fluid, and the "pioid" arrangement of the rest of the large bowel as the siphon tube. The reader will be struck by the ingenuity with which Dr. Leftwich endeavours to prove his theories, and will certainly meet with novel opinions as to the treatment of typhoid fever, appendicitis, intestinal obstruction, etc., based upon the views for which the writer makes himself responsible. We wish that he had convinced us that the retraction of the cheeks in young adults is due to the tonic action of the muscular taenia which have become spread out in the walls of the rectum: the salivary fossa and levator ani probably play a much more important part.

It gives us much pleasure to notice another of the admirable cheap manuals issued by MM. Baillière of Paris, with which we have nothing that can compare in the English language. Dr. Broussaudier's book on constipation is quite equal to its predecessors; it is admirably clear and well arranged. He makes a decided advance upon most of the clinical descriptions met with in this country by insisting upon the importance of spasm as a cause of constipation, especially in neurasthenic patients. The details of treatment are given most carefully and convey a great deal of useful information; in general they may be followed with advantage by any practitioner, but in certain instances such as the preference for particular drugs or particular methods—it is possible that national taste or prejudice may interfere and that English patients would prefer the practice generally followed in this country. From our standpoint the author seems to have an exaggerated fear of the prolonged use of small doses of such aperients as aloes or mineral waters, and to ignore the dislike that most patients evince to castor-oil as a regular remedy. But these are, as already indicated, merely small details of practice. We can cordially commend the work as worthy of the attention of our readers.

[illegible] By R. W. Leftwich, M.D. [illegible] pp. [illegible]. Price, J. B. [illegible]. (Crown 8vo, pp. [illegible]. 7s. 6d.)

REPORTS AND ANALYSES

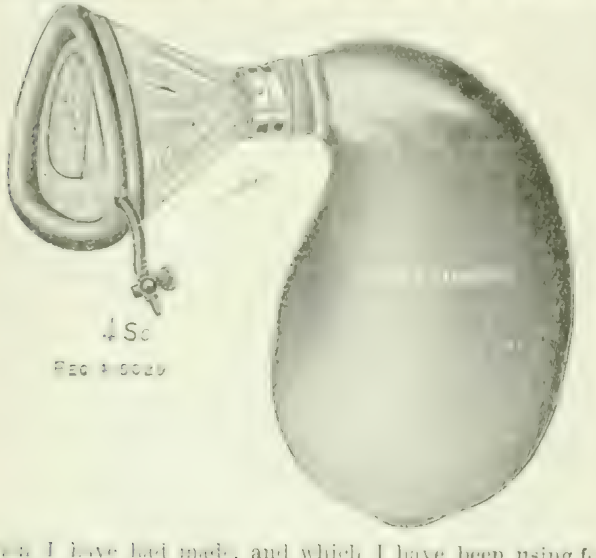
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Somnoform Inhaler.—Mr. H. E[illegible] G. BOYLE, M.R.C.S., L.R.C.P., Resident Anaesthetist, St. Bartholomew's Hospital, writes: The accompanying plate represents an apparatus



which I have had made, and which I have been using for some time for the administration of somnoform. It consists of a celluloid facepiece and a rubber pad connected to a rubber bag, while a piece of lint, easily changeable, about 4 in. by 8 in. can be adapted to the interior of the facepiece by means of a special spring. I have found that with this apparatus a dose of from 2.5 c.cm. to 3 c.cm. of somnoform is enough to produce within from 35 to 50 seconds an anaesthesia sufficient for use either as a brief general anaesthetic or as a precursor to ether. The advantages I claim for the apparatus are: (1) Simplicity of construction, there being no valves or anything else liable to get out of order; (2) that the lint does not require any special shape, a piece 4 in. by 8 in. being all that is necessary; (3) that the aperture leading to the bag has been made especially large to prevent any difficulty in respiration; (4) that the cost of the apparatus, fitted with one facepiece, is only [illegible], and is therefore relatively inexpensive. The apparatus has been made to my design by Messrs. Allen and Hanburys, from whom it can be obtained.

APPLIANCES.

A [illegible].—Mr. [illegible], of the Pathological [illegible] at the [illegible] Street Hospital for Sick Children, [illegible] a [illegible] which he has had [illegible] by Messrs. [illegible] and Tatlock. It consists of a [illegible] specially faced by [illegible] with very fine oxide of iron [illegible]. Ordinary [illegible], he says, are difficult to get [illegible], and [illegible] are very expensive and require skilled use. [illegible], however, it is claimed that any [illegible] edge on a [illegible] in a very few minutes. The [illegible] may be [illegible] a [illegible].

[illegible]

[illegible]

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

(Continued from p. [illegible])

VIII. SCHOOL CHILDREN OUT OF SCHOOL.

WHAT becomes of school children between the hour they leave school and bedtime is a question most vitally important to this inquiry; they are turned loose upon the streets when the school closes at 5, and not all of them have homes to go to. Among the poorest neither parent may reach home from work until 7 or 8; the home is locked up, and the children cannot get in till the parents return. Even if the mother hurries home and prepares a meal for her children, they may still have to put in two or three hours in the streets; others less fortunate have parents who turn into the public-house on their way home, and remain there perhaps until closing hour. To one not habituated to the sight it is an extraordinary experience to pass through the poorest districts of a large town at night, and to find that there are as many children as adults in the streets at a time when most children of the middle and upper classes have been in bed perhaps for hours. There are children of all ages, from infants in arms to growing-up girls. Not a dozen steps can be taken without passing as many children who cluster about the lighted shops or hang round the public-houses where presumably their parents are drinking. Others wander on at their own sweet will; nobody seems to be unkind to them, or, indeed, to take much notice of them; they gather in large groups about the hurdy-gurdies in side streets and dance in a most spirited manner. It is said that some of the stars are given an occasional penny by the piano-organ man to attract an audience, and when the organ moves on the crowd of children follow it to the next street. Gradually the children are claimed by their parents as they appear out of public-houses to steal away into the night like the Arabs of song, though whether silently or not is a matter which must depend upon the quantity of drink consumed. When the mother does not go out to work the children of course have a home to go to when the school gates shut upon them, but the parents may be tired and little inclined to put up with the noisy rompings, and are glad to let the children go out of doors where they have room to play. The love of the streets grows on them, so that they lose all love of home. Many a child has heard the chimes at midnight not once or twice but many times a week, and, like Justice Shallow, they get into mischief; a boy or girl too young and untrained to realize wrong in the act commits some fault which leads them to the reformatory or truant school, and no matter how good their conduct there, these children emerge with the smirch of a conviction before the magistrate, which they carry to the end of their days.

No one who has walked through the slums can fail to have been struck by the old wizened faces of many of the children, faces so careworn and pinched that if one did not see the tiny body it might be thought that they belonged to old men and women. The general belief is that the cause is misery and semi-starvation; doubtless this is true in some cases; far more often it may be traced to insufficient sleep. They have no fixed bedtime, and are often kept waiting until 12 or 1 before they can get to bed in rooms almost always ill-ventilated and sometimes underground, or parents may come home drunk and disturb the children when they have had the chance of getting to bed early. Again, many parents have to be up very early in the morning, and some children are sent out to do jobs, such as cleaning knives and boots, before they go to school. The number of beds, too, is often insufficient, so that several children must sleep in one shakedown, or even perhaps without undressing, on the floor, while the infant shares the parents' bed, and, as is mentioned elsewhere, many infants are suffocated or overlain. Dr. Wynn Westcott, the coroner, has suggested that a desirable form of charitable effort would be to provide cradles for the poor, but, failing this, it would be better to let the infant sleep in an empty drawer, in a hammock, or in the empty orange box as Dr. Dunford [illegible] has often recommended.

It is a disastrous [illegible] that, with the clanging of the school bell [illegible] freed from all control or influence of the teacher, usually the only refining influence ever en-

joyed by these unfortunate children should cease. To allow all responsibility to be thrown off at a moment when it might be most useful is a very serious flaw in the school system. The shutting of the school gates against wretched children can only be compared to the locking-up of churches against unhappy human beings, except during routine hours of service. Lessons according to the code are all very well, but more important is the moral influence that should be brought to bear by the refined and cultivated upon their less fortunate brothers and sisters.

The ready response which may be expected to any effort to supply the much-needed shelter from the streets after school hours has been shown in a striking way by the numbers of school children who voluntarily attend Mrs. Humphry Ward's summer vacation and evening recreation schools in connexion with the Passmore Edwards Settlement. Evening recreation classes have been carried on at the settlement for upwards of six years. They began with only about 300 children, while now there is a weekly attendance of 2,000. The classes are held from 5.30 to 6.30, and the same child is not allowed to attend oftener than three times a week, so that home ties may not be loosened.

The building consists of several airy class rooms, a gymnasium, and a large hall used as a play room. Rows of children may be seen waiting outside the gates, two and two in orderly fashion, and keen is the disappointment of those who have to be turned away because the "house is full." In every class room something different is going on, and it is good to see the excellent behaviour and the keen attention with which each subject is listened to. In one room rows upon rows of small children are hearing fairy stories, in the next perhaps a drawing class is going on; in others brush painting, singing, basket making is being taught to the boys and needlework to the girls: dramatic classes are held, drill is taught in the gymnasium, and games in the great play room. This room is most interesting; without any actual division it is separated into two parts, one side being occupied by studious quiet children, happy reading or looking at picture books, while the other camp consists of those preferring games. The curious feature of this latter class is that it consists chiefly of the real residuum of the slums, children who had to be tamed and civilized first in their own neighbourhood by getting them into the halls of their own schools to play, after which they were gradually drawn to the Passmore Edwards Recreation School. But even now they cannot be got beyond the play room to the more serious recreation; this will doubtless come gradually. Musical games are taught, and Saturday morning is devoted to play in the recreation room. One might imagine they would become unmanageable, but nothing of the kind. The room is divided into four squares by chairs; there are four lots of coloured badges for the children, and each lady in charge of a square has a corresponding coloured apron. A space just big enough for one child to pass through is left, and as it goes in its name is entered in a register by the lady in charge of that particular playground. Once in, they find plenty of toys and are taught games; at a given moment all the chairs are cleared and there are musical games. One cannot but be impressed by the moral effect which this gentle discipline—for they are expected to behave well and are made to understand that it is an honour to be admitted to the school—combined with the refining influence of ladies must mean to these children who would otherwise be outside playing in the gutter. There is nothing to compel the children to attend, and yet some of them turn up year after year and bring their brothers and sisters as soon as they grow old enough. The teachers visit the houses and put themselves in touch with the parents, for whom social evenings are provided in order that they may become interested and be glad to allow their boys and girls to attend. The classes are easy enough to interest without being a strain, and the same system is employed in the summer vacation school, when there is a simple religious service followed by singing, dancing, drawing, carpentry, "story-telling," cooking, musical drill, clay-modelling, and many other subjects.

A special room is provided for the sole use of boys wishing to study quietly. This is a great boon especially to those who are preparing for examinations.

The discipline in all the classes is excellent, owing to the fact that the children are always pleasantly occupied, and managed with kindness and understanding. It is noteworthy that no child has had to be expelled or even punished during the two years the summer recreation schools have been open. We quote from the report of the headmaster of the school in 1903:

"The school has for its object the giving of its pupils a good time. Had the children shown signs of weariness or dislike we should have at once deemed the venture a failure, but, as the opposite symptoms were those invariably displayed, we have naturally concluded the school was a success. The school aimed at giving the children something to do in place of roaming listlessly about in street or alley, with nothing to tempt them to action save the ever-present opportunity for mischief. Children such as we had cannot amuse themselves. They have little initiative and imagination, and, as a rule, unless acting under guidance, fail to give their desire for amusement and occupation suitable shape. They roam about suffering from a peculiar childish *ennui*, and actually long for the return of the normal schooldays and the cessation of the wearisome holidays. The purpose of the school is to change all this. It sought to satisfy the hunger for occupation by setting the children something to find out, or something to do. It sought to care for the physical well-being of the scholars by carefully-organised exercises. It sought to raise the children's ideals of morals and conduct by direct and indirect instruction. It sought to show the children that coming to know and learning to do are, in themselves, some of the truest of pleasures. It sought to afford pleasure chiefly to those children who were doomed from one cause or another to remain in London throughout the vacation and so go sea-less, fresh-air-less and joy-less." In order to get the children, application forms were placed in the hands of the teachers of some dozen neighbouring Board and voluntary schools. These forms were filled in and sent back to the settlement where the remainder of the printed forms, some 1,500 in all, were distributed to the applicants themselves. Altogether there were 1,681 applications for the 750 places, which it was calculated would give an average attendance of 600. The average number on the rolls was 751. Even in the wettest weather the attendance was never bad and the scholars were genuinely anxious to come, often standing outside for an hour before the opening of the doors.

Among the subjects taken at the summer vacation schools during the last two summers were: Manual training (woodwork for the older boys); housewifery and cooking (for the older girls, and once or twice for boys also); singing, gymnastics (including boxing for the older boys), and musical drill and physical exercises: story-telling (with which was carefully combined a spice of moral instruction); clay modelling, dancing, nature study (botany and zoology from life); brushwork and drawing; reading room (story books); dramatics (the pieces prepared were performed before the whole school on breaking-up day); needlework (chiefly doll-dressing); basket work and cane weaving, lantern story-telling; ambulance work and nursing (even to washing and dressing a baby); swimming (for both boys and girls); and last, but not least, sand-digging. Most of these subjects, it will be observed, permitted the students to be actually doing something—that is, they brought into play physical as well as mental activities. With the exception of woodwork, housewifery, needlework, and cane-weaving, each lesson lasted only thirty-five minutes, so as to avoid tiring the scholars. Moreover, the subjects were so arranged that a child as far as possible got one lesson in the building and one in the garden alternately. A few children displaying special aptitude and expressing a genuine desire to take up any one particular subject were allowed to spend as much time as they wished at it.

For the younger children story telling, building, games, paper folding, cutting, and pasting, Nature study, chalking, colouring, clay modelling, soap-bubble blowing, singing, skipping, ship sailing, and other recreative occupations were provided: this kindergarten was managed by a responsible mistress.

The Inter-Departmental Committee on the Employment of School Children, which reported in 1902, was struck by the need there was in London not merely for the organisation of school children, in order to prevent them being overworked as wage earners, and to remove them from the demoralizing influences of the streets. The following is an extract from the report:

"Consider the case of a boy of 12 or 13, who lives in a poor and crowded home in a town. He is at school five and a-half hours daily, on Saturdays and Sundays he is free, and he has from six to eight weeks' holiday in the year. After deducting time for sleep and meals there remains to him at least seven hours on weekdays and twelve on Saturdays, Sundays, and

holidays during which he has complete leisure. If the school-rooms were open to him, and he had sufficient incentive to study, if there were everywhere public playgrounds and organized games, he might conceivably lead a life approaching that of boys of public schools, which is, at least, a healthy life, even if, in the opinion of some, the vacant hours are too long, and the inducements to idleness too long. But the poor boy . . . has in most large towns only the alternative of playing or loafing in the streets, or of moping in dull rooms in a crowded tenement."

In summing up the Committee directs attention to "the absence in the large towns of adequate means of physical recreation for children. We have again and again put the question, 'What would these children do if they did not work?' and again and again found that the only other active mode of life open to them out of school is running the highways or playing weird games in back streets."

An association called the Children's Happy Evenings Association, of which Lady Jersey is President, has been carried on for fourteen years and has 113 branches in London. Its object is to make the early years of children happier, and to teach them to play and amuse themselves in a healthy and orderly manner. They attend voluntarily in clean, well-lighted schoolrooms which form a pleasant contrast to the streets. Toys are provided and games are played, but the Association does not aim at instructing children beyond teaching them to behave with courtesy and to play fair. It is sufficient that the children are out of the streets and under the influence of ladies, which must have a refining effect on them. Each child attends once a fortnight only.

The School Board has granted the use of schoolrooms for the evenings, and it is claimed that owing to the movement the day-school attendance has been very materially improved, as admission to these recreation classes is made dependent on the regularity of attendance at school.

It might not be easy to establish an ideal recreation school such as that of Mrs. Humphry Ward in every crowded neighbourhood, yet something ought to be done on those lines, and recreation schools, even if less perfect, established all over London and other large towns. It might have seemed hopeless to move a body like the London School Board, but here is an opportunity for the new educational authorities to accomplish this sorely-needed reform. At first sight the suggestion may appear Utopian, but when it is carefully considered it will be seen that the difficulties in the way are less formidable than they look. In places where schools in adjoining districts are under different authorities, if even one authority were to make up its mind to work the scheme thoroughly, it would be the pioneer of the remaining districts. In each school two or three at least of the smaller schools might be thrown open in the evening, and where a large hall exists it should be used, under judicious discipline, as a play-room, in which slum children, without an idea of how to amuse themselves could be taught interesting games. Part of the time should be devoted to physical exercises while there should be a quiet corner and well-chosen books for those disinclined to join the games. In the smaller rooms light occupations tending to cultivate the taste without irritating the brain could be encouraged. The occupations should be chosen with the view of allowing the children to stand or move about, for the many hours a day they have to remain sitting in schools should always be borne in mind. The evening would afford excellent opportunities for cooking classes, which do not necessitate any great outlay for simple useful object lessons. One small room could be reserved for the really serious work, where they might have absolute quiet and study without interruption. Here should be an inspector to help and give advice to those who intend to enter examinations and find it impossible to study at home.

In the report on Mrs. Humphry Ward's recreation classes it is stated that the object of the Board is to provide a good time. Provision has been made for the special happiness to be enjoyed, and none appreciate the delight of being interested and engaged in a hearty game more than those who have previously spent their evenings in the streets.

Though these evening recreation schools yield results of undoubtedly great value, they could not be started at small cost. There would be the lighting and heating of the rooms in winter and the salary of a few teachers in small numbers; and for the movement for even so limited a trial support. The Passmore Edwards Settlement in Tabernacle School, with its six hundred children on the daily attendance, is managed for a little over £200 a year, it is therefore not unreasonable to urge that to shirk this duty any longer will be a slur on any educational authority which does not wish to acknowledge itself unable to see every side of the education question. In those places where a system of evening recreation classes is not established it will perhaps be wiser to close the schools for the afternoon and to reopen them after tea from 5 to 8, care being taken to get through all the more difficult lessons in the morning, reserving the less fatiguing for the evening classes. Under this system the children would at least run less risk of danger to their health if they played about the streets by daylight instead of at night.

AUTOMOBILES FOR MEDICAL MEN.

We are constantly receiving applications for advice about motor cars, and mainly in three forms. First, as to whether the advantages of automobiles are so great as to make it desirable to give up horses for them; secondly, as to what the initial and permanent cost of a car is likely to be; and thirdly, as to what particular car or which of two or more mentioned it will be best to purchase.

All of these questions depend upon factors which are to some extent interdependent, and none of them are easy to answer in any individual case without the most specific information as to the nature of the practice, the extent of the work to be done, the character of the roads to be used, the proximity or otherwise of a large town, the amount of money which has hitherto been spent on getting about, the personal idiosyncracies of the prospective purchaser, and the amount of attention which he is prepared to, or can in any case, give to the care of his car himself.

The Considerations Involved.

Expert opinion of a really satisfactory kind is not easy to obtain, for nearly all the experience hitherto acquired has been from a different standpoint to that of the ordinary medical practitioner whose requirements are of a somewhat special nature. The latter does not want a racing car or a touring car or primarily a pleasure car of any description but a business machine upon which he can rely to take him about his work at any time of the day or night at the very least as well and surely as a horse-drawn carriage. Besides this it must have some other definite and certain advantages to make up for his loss in getting rid of his horses and carriages if he has any, and certainly for the fact that with a car he puts most of his eggs into one basket instead of spreading them over a couple of horses and a carriage. If, moreover, the use of a car is going to add anything to the annual expenses of his practice it must fully make up for it either by enabling him to make more money or at all events put him in a position to do more work if he can get it by getting through all he has already more rapidly.

The Advantages.

Can all these conditions be met by a car? Well, provided the car is a good car, they certainly can, for a car never gets tired; can be taken out a dozen times a day, and even if never driven faster at any one moment than the best pace of an average horse, it gets over the ground much quicker owing to the facility with which it threads its way, and to the fact that it does not slacken pace except over quite steep hills. Moreover, hasty calls can be answered much more quickly, for a car in good order can be got out of the stable and under way at five minutes notice. Work, therefore, can certainly be got through a deal quicker than in a carriage with the added advantage that, distance being no object, the day's round need not be organized more with a view to saving the horses than to the absolute needs of the practice, and cases at any distance can be visited as early and as often as desired. The time saved, of course, is of great importance, whether it be used for recreation or for other work which, otherwise, could not be done. There can be small doubt, therefore, that, given a reliable car, automobiles have a distinct advantage in a town practice or in a country one which covers a good deal of ground but not in a practice which is of such a nature that, if need were, it could either be done on foot or with a cheap pony and corresponding cart.

The Disadvantages.

As for corresponding disadvantages they are in the main such as will readily occur to any one who has had an opportunity of seeing cars at work. The proviso that the car shall be a good one, or, in other words, a reliable machine, has

already been made, and it is on this and on the driver's skill, the nature of the roads, and the attention which the car receives in its stable (garage work) that the liability to small accidents and awkward stops depends. Tyre troubles are perhaps the most to dread, for they cannot be entirely avoided even by care, and though for the most part capable of being very quickly remedied they are nevertheless very annoying. They can of course be practically abolished by the substitution of solid tyres for pneumatics, but in this case it is not advisable to drive more than twelve miles an hour, and except on the very best of roads much of the pleasure of car driving is gone. Apart from matters of this character in which reliability of the car, a point to be discussed later on, is involved it may also be fairly mentioned as a disadvantage that with a car there is much more money at risk than with any carriage. Hence a really big smash with the former is, apart from other contingencies, likely to be more disastrous financially than a similar smash with the latter, unless entirely satisfactory insurance arrangements have been made. Apart, too, from big smashes, some of those liable to occur with a car cannot be put right with the same facility and speed as accidents of corresponding importance to a horse and carriage. For instance, in most places a sick or injured horse can generally be easily replaced by a hired or borrowed one, and a broken shaft can be spliced or efficiently repaired. With the less expensive forms of cars, too, it is less easy to arrange for protection from the weather than in carriages, and even in fine weather travelling fast in the face of a wind is not pleasant or healthy if a man has a bit of a cold in the eyes or chest. The adoption of automobile costume, also, which is necessary in doubtful weather or fast work, in anything but a closed car entails a certain loss of smartness, but that is of little moment to the majority of men whose patients know them.

Initial Cost.

Then we come to the question of initial cost and current outlay. As regards the former, the tendency of late has been to lower the price of cars all round, and it is a question whether in the future it will be worth the while of manufacturers to build, unless under exceptional circumstances, the enormously expensive cars which have hitherto found ready purchasers at practically fancy prices. The real cost of a car depends, apart from very smart and luxurious fittings, upon its power, weight, the nature of its fittings, and the number and cost of the patents used in its construction. Manufacturers now know that the future of the industry depends, not upon the pleasure seeker to whom money is no object, but upon the business man who requires full value for his money, or will not spend it at all. They are endeavouring, therefore, to turn out cars at as low a price as is compatible with actual needs. The movement already has proceeded so far that, apart from the numbers of first-class cars which can upon occasion be obtained secondhand, practical machines can now be purchased straight from their makers at anything from £150 upwards. In the main, therefore, the initial cost of a car is, starting from that sum, really a question of how much capital the purchaser is prepared to put into this part of his business. A great many men will perforce satisfy themselves with the cheapest first-cost car they can get, but others will be prepared to pay any sum required if they are assured that they will ultimately receive advantages corresponding to it. Probably, however, no practitioner who is purchasing a purely business car need think of spending more than three or four hundred pounds at the outside, and, in considering whether it is worth while to strain resources to this extent, the main point to be kept in mind is the following: The power of a car should always be more than equal to the work that it has to do, for the wear and tear on a small car continually driven to the extent of its power is much greater than that on a machine which is always going well within itself. There is usually, too, more finish about the cars sold nearer the higher limits named, and less tendency, perhaps, to small defects.

In connexion, however, with initial cost, the question of annual depreciation must be borne in mind. Under any circumstances it should probably be put down as not less than 15 per cent. per annum, for, though the life of properly-used engines may be practically unlimited, many of the other parts will certainly be finished in six years, whilst the gears may go in two. Besides, the progress of improvement promises to be rapid, and before the six years were up most car owners would be wanting to try a newer model; for the mania for new cars seems as strong among car users as it used to be among bicycle riders. A final point that may be borne in mind is that it is easier and of course very much cheaper to gain the necessary experience of car driving and car keeping with a small car than with a large one.

Current Cost.

This, again, is almost impossible to estimate with precision, and in advance, in any given case, as it depends upon so many varying factors. A horse costs the same whether it is idling or at work, but, apart from differences of make in various cars, the greater part of the cost of using an automobile depends absolutely upon how much, how skilfully, and how carefully it is used; also, to a considerable extent, on the nature of the roads, smooth, rough, hilly, or flat, the weight of the car itself, the weight that it carries, and, finally, to some extent, on luck pure and simple. One man will get only fifteen miles out of a gallon of petrol: another will get twenty-five or thirty or more. An incompetent driver will be perpetually having small, easily-avoided accidents, slight and unimportant in themselves, but certain to bring in a big repairing bill by the end of the year, and such as no insurance company will cover. Another may be careless about ensuring that his car is really properly cleaned and daily oiled in unseen parts, and that small, easy adjustments are made with the promptness which makes both for efficiency and economy. Tyre troubles are another varying source of expense. Bad luck apart, they depend very much on the nature of the roads, but in the main chiefly upon the weight of the car. A heavy car necessarily wears out its tyres much quicker than a light one, and though, in a general way, a big car may suffer less from wear and tear, it absorbs a good deal more time and trouble in cleaning and keeping it in order than does a small one. Here comes in a personal factor. If a medical man leaves his interests entirely in the hands of his driver, as many men do their horses in the hands of their coachman, a car is not likely to prove a money-saving purchase. In fact, any practitioner who desires to drive a car at a moderate cost should be prepared to learn to understand it thoroughly himself, and even if he does not actually act as his own mechanic, he should at least see that all oilings, cleanings, and adjustments are carefully carried out by his man. It is not really a very exacting task, and in default of readiness or ability to undertake it the car owner must be prepared to employ a much more expensive kind of servant than he would otherwise require, and even then he will not be certain that his best interests are being looked after. Other varying factors are the proximity of a town and stabling. As for the former, if a practice is buried in the depths of the country, it may be difficult to get small repairs effected either cheaply or well, or occasionally even at all, and the practitioner who depends entirely on a single car, and can neither hire nor borrow another vehicle, might conceivably find himself upon occasion in a real difficulty, and an expensive one as well. As for stabling, a car simply requires standing room and a pit to facilitate cleaning of the underpart, but whether this means economy or not depends upon whether the practitioner lives in a town and has to pay heavily for stable room, or possesses stables which he has to pay for irrespective of their use. When all is said, however, it still remains possible to make a general estimate of current expense, and in terms of horses it may be said that in a practice which fully requires two horses the transport work could be done actually and relatively cheaper by a fair-sized car. In detail, and taking an average moderate-sized car, the things that have to be thought of are petrol, say ¼d. a mile, or about £20 a year on an average of from fifteen to twenty miles every day of the week; lubricating oil, say 1s. for every 250 miles; tyre repairs and a spare new pair every year, from £10 to £25, according to weight of the car and the roads; and, finally, valves, sparking plugs, and sundry repairs, £10 to £20. To these expenses, which may amount to £65 per annum, must be added the expense of a stable, which can safely be put down in most places as under £20, and finally the wages of a man or boy either to take complete charge of the car or merely act as assistant and look after the cleaning and oiling, etc. According to the amount of attention which the practitioner is prepared to give to matters himself, this item will vary from the wages paid to an ordinary stable help to those paid to a first-class coachman.

The question of the actual choice of a car and the light thrown upon it by the reliability trials in September will be discussed in a further article.

(To be continued.)

The annual meeting of the American Medical Association this year is to be held in Atlantic City from June 7th to 10th

PRELIMINARY GENERAL EDUCATION OF MEDICAL STUDENTS AND THE GENERAL MEDICAL COUNCIL.

By W. Gordon, M.D.,
Exeter.

At the beginning of a new year it will be well to review our position with respect to one of the most important questions in medical politics, the preliminary general education of medical students. This is all the more desirable as the question is entering upon a new phase.

It will be remembered that attention was drawn, nearly two years ago, to the scandalous condition of the preliminary general education requirements of the General Medical Council, and that on April 16th, 1902, the Council of the British Medical Association adopted the following four resolutions proposed by Dr. Deas, of Exeter:

1. That it is undesirable that any one should be registered as a medical student until he or she has attained the age of 17.

2. That the standard of the examination in preliminary general education required by the General Medical Council should be suitable for candidates of 17 years of age and not lower than that required at present for the Oxford or Cambridge senior local examinations.

3. That the examination should include a pass and an honours division, as in the University Local Examinations, the subjects for the pass to comprise at least Latin, mathematics (comprising arithmetic, algebra, and geometry), English grammar, literature and essay writing, history, geography, and either French or German; the honours division to include Greek and physical science as compulsory subjects.

4. That the present system of multiple examining Boards is most undesirable, and that it is essential, in order to secure uniformity of standard, that the Medical Acts should be amended, so that the General Medical Council should be empowered to appoint a single examining Board, which should hold its examinations, as often as necessary, at multiple centres simultaneously.

These resolutions were laid before the General Medical Council on May 31st, 1902, by a deputation from the Association, which was received, on behalf of the General Medical Council, by its Education Committee.

On November 20th, 1902, the reply of the General Medical Council was sent to the Council of the Association. It was to this effect:

1. That no definite answer could be given on the subject of the age limit until the General Medical Council had certain data before it. These data were to be ready "presently."

2. That it was inexpedient at present to further suddenly raise the standard of examination, because doing so might seriously deplete the profession.

3. The question of scope of examination was ignored.

4. That it was inexpedient at present to attempt to establish a single examination in lieu of the existent multitude of examinations, because powerful opposition would be met with and because certain proposals were already being considered by the educational authorities.

Now more than a year has elapsed and the answer as to the age limit has still not been given. That question may therefore fairly be regarded as shelved, since the General Medical Council has had more than ample time to look up the data concerning it—so that its whole reply amounts to a *non possumus*. Let us see where this leaves us.

1. The General Medical Council has taken the retrograde step—and the grave responsibility of approving of boys leaving school at 16, just when school discipline is most needed, and beginning a course of study for which they are unfit and which a little later on, it might for them, amidst the risks of a great town, where no proper supervision is exercised over them.

2. The standard of general education required by the General Medical Council from these boys of 16 is one adapted to boys of 14.

3. The scope of examination required by the General Medical Council differs little from what is now expected from students of veterinary surgery and pharmaceutical chemistry.

4. The multitude of existing examinations precludes the possibility of any certain uniformity of minimum standard. Sir John Tuke's letter of December, 1903, to the educational authorities proves that the Education Committee was then absolutely unaware of the disparities which existed amongst even the best known examinations on its list. There is now no guarantee that any one part of the United Kingdom may not be "dumping" on the rest medical students of greatly inferior general education.

In justification of this amazing state of affairs, the General Medical Council alleges the fear of unduly depleting the profession, although it is well known that the profession is at present greatly overcrowded, and highly probable that many clever boys are deterred from entering the profession because of this overcrowding. In short, the General Medical Council's policy is to increase numbers at the expense of efficiency, a policy most injurious to the public and to the profession, and only obviously advantageous to the qualifying bodies. Now what does this mean? It means something very sinister and serious. It means that proposals, absolutely necessary, strikingly moderate, carefully and laboriously elaborated, representing the views of the great majority of medical men throughout the country, backed by the recommendations given to the General Medical Council in 1899 by eminent educational authorities—proposals running on exactly similar lines to the recommendations independently made to Government with regard to army candidates by a very distinguished Government Committee—that these proposals have been rejected by the General Medical Council on a pretext which will not bear a moment's investigation: further, when this is considered and when it is seen how important and far-reaching are the consequences of this rejection, and when the amazing admission on the part of the General Medical Council is taken into account, that it has no real control over the age of student-registration or over the standard and scope of the examinations in preliminary general education, it then means this, that the question of reform in the general education requirements for medical students has merged into the wider question of the reform of the General Medical Council itself. On this I would say a few words.

I suppose that, in a "free country," there is no more surprising institution than the General Medical Council. *It is the government imposed on the profession, for the advantage of the public, supported by a tax levied on the profession, which has practically no voice in the government for which it pays.* How is that for a constitutional government? England lost America for a smaller irregularity. A very small sample of such irregularities meted out to our present colonies would for ever prevent the dream of an Imperial Zollverein from disturbing the rest of English statesmen. But the curiosity does not end here. The members of this Council of Medical Education need not be medical men! The educational bodies, whom this Council is designed to control, themselves constitute the Council! Further, they are required to control medical education, and are given no real powers to do so!

I imagine there is no other community besides the medical profession so supine and so senseless as to have borne with such a government so long, or indeed to have ever permitted it to come into existence.

When the proposals come to be considered for the reform of this extraordinary Council, I trust that consideration for the interests of the country, if not common self-respect, will move the profession to insist on a government at once equitable and rational.

But, in pressing for the greater need, we must not overlook the less. The subject of the general education of the medical student lies at the root of all true medical progress, and it is to be hoped that, in the year before us all, who are interested in the welfare of medicine will endeavour to acquaint themselves with the main facts of this weighty question. Shall I be pardoned if I add a list of references to past publications, some of them my own, which, taken together, give the main outlines of the subject?

References

Papers, British Medical Journal, ... Report of Committee, ... Report of Deputation, ... Papers read ... Address of General Medical Council, ... Leading Article, ... Letter, ... Editorial, ... Article, ... Letter, ... Address, ... Overpressure, ... Papers referred to ... Articles referred to ...

Council of Legal Education.—Dr. L. J. Waldo will give a course of six lectures on medical jurisprudence in the Old Hall, Lincoln's Inn, on Thursdays at 8 p.m. The first lecture, which dealt with the medical man as witness, was given on January 14th. Further particulars can be obtained on application to the office of the Council, 58, Old Square, Lincoln's Inn, W.C.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 16TH, 1904.

THE MORTALITY EXPERIENCE OF ABSTAINERS AND NON-ABSTAINERS.

ON several occasions the three or four insurance companies who separate the experience in their offices of abstainers and non-abstainers from alcoholic drinks have published results showing marked superiority in the former, and it is not surprising that these results have been received with considerable scepticism, and that various explanations other than the particular factor of alcoholic habits have been adduced in explanation of the lower mortality in the abstainers.

On page 155 of this issue is summarized an extremely valuable paper by Mr. R. Mackenzie Moore, which sets this question at rest, and confirms all that has been previously alleged as to the superior prospects of life of abstainers, though whether this superiority be due to abstinence from alcohol or to concomitant circumstances of life which are intimately associated with such abstinence may still be a subject for discussion.

Mr. Moore's paper is based on the experiences of the United Kingdom Temperance and General Provident Institution for over sixty years; in each section, abstainers and non-abstainers, it deals with about 30,000 life policies, and is concerned altogether with nearly 900,000 years of life among the persons thus insured. The data are therefore on a very large scale; they have been accurately kept throughout, abstainers having always been classed separately from non-abstainers, so that there is no difficulty in stating the mortality experience of each group separately. The salient feature is the fact that the abstainers' section shows an experience which is from 25 to 45 per cent. superior to that of the non-abstainers' section, between the ages of 25 and 65—that is, in the working, active, valuable years of life.

The results as to other ages are given in another column, and their significance is there discussed. The vast majority of the lives were at the ages 25 to 65, and the weight of the observations at these periods of life is therefore greater and more significant than that at earlier and later ages.

In explaining such an important discrepancy various possibilities suggest themselves. In the first instance, are the two groups, abstainers and non-abstainers, truly comparable? Mr. Moore states that the average amount insured in the two groups is about the same—namely, £300. We learn also that the transference between the two groups is insignificant, and that the two are rigidly treated on similar lines. There can therefore be no doubt as to the real significance of the facts. Here we have, as Mr. R. P. Hardy put it in the discussion on Mr. Moore's paper, "certain numerical results, unimpeachable in their origin, and marshalled in due scientific order." The differences shown by them are too great to be merely accidental. Either the abstainers have a better mortality experience because they are abstainers, or they are abstainers because they belong to a more vital type of humanity, or their abstinence is in close, it may be essential, connexion with certain other habits which make for longevity.

The fact that amongst the clergy of the Church of England, as shown in the experience of the Clergy Mutual Office from 1829 to 1887, the expectation of life was half a year longer than that shown by the abstainers' section of the United Kingdom Institution does not negative the conclusion that abstinence from alcohol is the determining cause of the superiority of experience of abstainers over non-abstainers in the institution. The clergy are a specially select group, and no more need be said about them until statistics are available showing their experience separated into abstainers and non-abstainers.

It may be urged, however, that the non-abstainers section consists in part of those who are intemperate, and that the comparison is not strictly between moderate drinkers and abstainers, but between the latter and an uncertain admixture of moderate drinkers and drunkards. Doubtless there is truth in this contention; but in assessing the value of this factor we must remember that inquiries are made as to alcoholic habits at the time the life is insured. It is probable also that an office like the United Kingdom Institution catering especially for teetotallers is likely to obtain a certain undetermined excess of non-teetotallers, who, though not strictly abstainers, are almost so. Mr. Whittaker, M.P., director of the institution, remarks on this point that "the abstainers and non-abstainers lived in the same towns, worked in the same occupations, had practically the same income, and were precisely the same kind of people." On the whole, therefore, it seems probable that in the main the results really represent the difference in mortality and experience of abstainers and moderate drinkers; and that the teetotallers had no greater initial vitality than the non-teetotallers. We are informed that the fact of a man being an abstainer would, when any doubt arose, be more likely to lead to his acceptance as a good life than if he were a non-abstainer.

A careful study of the statistics fail to reveal any other circumstance of life except abstinence from alcoholic drinks which is a likely cause of the remarkable superiority in life-prospects shown by the abstainers. It must be frankly admitted that steady persistent abstinence from alcoholic drinks, is, in the light of this experience, an important factor in securing a healthy and a long life. No other conclusion is consistent with the facts than that indulgence in alcoholic drinks to the extent in which they are drunk by the members of the non-abstainers' section of the United Kingdom Temperance Institution is the cause of their greater mortality.

The directors of this institution have done a public service in giving facilities for the publication of Mr. Moore's important paper. They would still further benefit the interests of public health were they to arrange for the publication of corresponding results classified according to causes of death.

THE PHYSIOLOGY OF FATIGUE.

THIS most important subject formed the topic of two valuable papers read by Professor Z. Treves, of the University of Turin, and Professor J. Demoor, of the University of

Brussels, at the International Congress of Hygiene and Demography. The first practical fact needing recognition in industrial centres is that only work done without fatigue is done physiologically. Beyond this point work is done less efficiently and with disproportionate expenditure of effort. The fatigue point is difficult to determine, the factors concerned in obtaining the "quotient of fatigue" being complex. In the past incorrect results have been obtained by the use of single tests. Thus by mathematical determinations an attempt has been made to show that the overworked children in Belgian brickfields are not the victims of protracted fatigue. By statistical investigations it has been attempted to be shown that certain unhealthy occupations are less unhealthy than they appear, forgetting the considerations that statistics only give average results and are not strictly applicable to individuals. The only rational method of investigation is, as pointed out by Dr. Demoor, the continuous medical observation of the workers. By this is meant not only that the sanitary conditions of workshops shall be improved, but that each workman must be the subject of regular medical supervision, to ensure that his health is maintained, that he is not unwittingly being exposed to unfavourable conditions, and that he is not being overworked.

Medical science will thus to a steadily increasing extent be diverted from the unsatisfactory work of attempting to ameliorate disease already established, to the work of entirely preventing its appearance. This is necessary in the interests of labour and of output of work, and its more general adoption would be followed by a great national saving of health and wealth.

In investigating the question of overwork, dogmatism based on insufficient data is to be specially avoided. At the Congress at Paris in 1900 Dr. Vaillant asserted, without bringing forward any facts justifying such a conclusion, that the eight-hours workday was too protracted and that a five-hours day was sufficiently long for work. Quality as well as quantity of work has to be considered, rapidity as well as total amount. Muscular fatigue does not correspond strictly with the amount of work. It is greater when a certain pace of work is exceeded. It appears to be generally admitted that the American works at a quicker rate and that his daily output is greater than that of the English workman and still greater than that of the German workman. The difference cannot be due to ethnological causes, for the German and the Englishman in the United States are quite equal to their fellow workmen. In modern industrial life not only strength is involved, but also agility, intelligence, decision, and promptitude; and it would appear that in some of these the American workman is pre-eminent. An important share in his superiority must be ascribed to his habits and more abundant food, and to his greater temperance in regard to alcoholic drinks.

Excessive monotony of work may cause the same sensation of fatigue as is produced by prolonged hours of labour; and it appears probable that we have on this account reached in many industries a degree of specialization which, by producing premature fatigue, does not secure the best results. Monotonous work is arranged, because the workman thus engaged can work at a higher pace than if his work were more varied. This policy may in some instances over-reach itself.

Another tendency of modern industry is to demand more intense work. Such work is more exhausting than less intense work, and produces a serious irritability and strain. It is true both physiologically and industrially that the best work and the most profitable work, giving a maximum production, from a permanent standpoint is that which is carried out under strictly physiological conditions.

If we were to classify the reforms necessary in connexion with factories and workshops in the order not only of importance but also of practicability, we should place first the sanitary improvement of workplaces. Much has already been done for these, though, with the exception of lead and other forms of metallic poisoning, the subject has been too little regarded as a problem in the prevention of disease. When phthisis in workplaces becomes a notifiable disease much more can be done. Next comes the prevention of accidents, and here factory inspectors are doing admirable work. There remain the problems of the limitation and rational distribution of the hours of labour. In our opinion the advocacy of a "day" of any particular duration would be a mistake. The conditions vary in different industries. Much more exact and detailed medical investigations in workplaces are needed before a positive conclusion can be arrived at. It is quite certain, however, that in many instances the working day might be shortened without risking production if work were more efficiently organized, and still more if the worker were better fed, and if his technical equipment were made more perfect. In connexion with efficiency of work the enormous waste of money on alcoholic drinks plays an important part in diminishing output, directly by the loss of health, indirectly by the fact that insufficient funds are left for an abundant supply of food.

It is alleged that work, whether physical or psychical, is less sure and less profitable when first begun, and it is therefore urged that intervals of rest during work are a mistake. We should like to see some proof of this. The maxim of Goethe adopted by the Swiss mountaineer, "Ohne Hast, aber ohne Rast" (without haste, but without rest), may embody the profoundest wisdom; but the Swiss guide is the last man to observe it. In large factories it is the usual practice to begin work at 6 a.m., an hour's interval being allowed later for breakfast. As we pointed out some years ago, better results are secured by beginning an hour later and no interval for breakfast.

What has been said with respect to intensity of work deserves serious consideration in relation to "piece-work." Every physician is familiar with the evils of "working against time." Unless carefully regulated, "piece work" involves this deleterious form of work. It may be urged that it is only thus that in many instances a satisfactory output can be secured. Other means can, however, be devised to secure this result; and, speaking generally, the interests of master and worker in the long run are identical, and can only be secured by insisting on work being carried on under strictly physiological conditions.

SCIATICA.

It is a matter of common observation among clinicians that the incidence of certain diseases changes in frequency as years pass on, while others are found to alter in type. Thus, for example, improved medical and hygienic conditions are rendering such affections as noma, stricture of the urethra, and the graver forms of syphilis progressively rarer; to a less extent, too, we see diarrhœal typhoid far less and lyst-pneumonia far more often even than was the case

ten years ago. Among these changes none is more definite and characteristic than the progressive increase in vulnerability of the nervous system, the greater facility of which to disease is by no means restricted to the central parts, but extends to the peripheral nerves as well. Among the affections of the latter which have become notably commoner of late sciatica occupies a prominent place; as English writers have not perhaps devoted sufficient attention to the systematic investigation of this subject, a brief account of an excellent little German monograph which has recently appeared[1] may not be out of place.

Dr. Feddersen divides sciatica into the genuine or primary, and the symptomatic or secondary, forms. The former may assume the neuralgic or the neuritic type, either of which may be acute or chronic; the latter may result from mechanical, toxic and infectious, or metabolic causes. In a simple case the typical pain is the predominant characteristic, and tends usually to assume a regular paroxysmal type. Tender spots are usually soon to be detected; they are arranged at intervals along the nerve, the most marked being that over its point of emergence from the great sciatic notch. In the neuritic form there may be superadded patches of cutaneous anaesthesia, loss of tendon reflexes, localised muscular atrophy, and various vasomotor and trophic changes—for example, herpes. A diminution in the cutaneous temperature of the affected extremity is held by some to be pathognomonic. After a time the pain and discomfort may lead to a postural suggestive scoliosis. Although the disease is typically unilateral, there may at the outset be some irradiation of the pain to the opposite limb. The neuritic form tends to be more chronic than the neuralgic, to exhibit less acutely paroxysms, and to lead early to atrophies and paresis. The presence of the reaction of degeneration would confirm the diagnosis of neuritis. It is of course of great practical importance to distinguish the primary from the secondary forms, to which end a thorough knowledge of the causes of the latter is necessary. Among these Dr. Feddersen lays especial stress upon the accumulation of hard faecal masses in the intestine and the presence of patches of myositis in the muscles of the buttock and the posterior part of the thigh. Intoxication with metallic poisons or those of infective diseases may also lead to sciatica: among those which Dr. Feddersen considers are insufficiently regarded in this respect are gonorrhoea, tuberculosis, malaria, and syphilis. Among metabolic disorders diabetes takes an important rank as a cause of sciatica. Anaemia and chlorosis are much rarer causes, but are apt to lead to very intractable attacks. The uric acid diathesis is a much more frequent etiological factor, as also is rheumatism. In the latter case patches of myositis are often to be found, and Dr. Feddersen thinks that it would almost be justifiable to speak of a myogenous sciatica. Among other predisposing causes, old age, especially if premature, and the granular contracted kidney must not be lost sight of.

By far the most common and important excitants are cold and over-exertion: the disease is most frequent between the ages of 20 and 60, and in the male sex. The diagnosis is, as a rule, not difficult. Affections of the spinal nerve roots in the sacral region may lead to confusion, but are usually bilateral, and the pain tends to involve the whole limb. The lightning pains of tabes and other central affections are to be distinguished by the absence of tender spots. Hip-joint disease may be excluded if the pain is not elicited by movements of the articulation or by pressure on the trochanters; in sciatica, on the other hand, violent agony results from putting the nerve on the stretch by lifting the limb with the knee flexed. The prognosis is generally good, though cases may be prolonged and there is a liability to relapse.

As to treatment Dr. Feddersen has much to say. Acute cases should be put to bed, and the affected limb wrapped up in wool, with the knee kept flexed by means of a small cushion. The diet should be of warm slops, alcohol and strong tea and coffee being avoided, and a mild diaphoresis being promoted by the use of warm demulcents. The bowels are to be well opened with castor oil. Dr. Feddersen's main medicament for this class of cases is sodium salicylate in large doses for four or five days; if this is ineffectual he uses one of the numerous substitutes, especially aspirin. He continues the drug, in smaller doses, for some time after the pain is over. Very intense pain calls for an injection of morphine over its acutest seat.

The subacute form tends to spontaneous cure; the most useful adjuvant drugs are potassium iodide, oil of turpentine, methylene blue, and arsenic; fly blisters may also be most valuable. For the neuritic form, galvanism commenced at the end of the second week is recommended, the cathode being placed over the sacrum on the affected side, and the anode over the most tender spot; a warm bath is stated great use. If the disease becomes chronic the general principles of treatment are to improve the arterial blood supply to the affected limb and to restore abnormal function by the systematic use of physical methods. The author is, not unnaturally, an advocate of the Weisbaden hot baths, he commences the simultaneous application of the hot douche to the sacrum, the hip, and the affected nerve. Passive movements should be employed at first, then successively active movements and resistance exercises. The passive movements may at first produce an increase of pain, but this is temporary and to be disregarded. Much good results from stretching the nerve by forcible flexion of the hip, the knee being kept extended. Muscular atrophy indicates the faradic current, which should be used strong enough to cause muscular contraction without painful irritation. Many other forms of mechanical and electrical treatment which have been much vaunted are of value simply by their "suggestive" use. As an adjunct to the foregoing measures Dr. Feddersen recommends the morning use of a tepid to cold sponge bath known in Germany as "the Leyden-jar sponge bath" as to the employment of which he gives explicit directions.

[1] [illegible] Berlin. Hirschwald. 1903.

ATTENDANCE ON MIDWIFERY CASES BY POOR-LAW MEDICAL OFFICERS.

Several communications have recently been received from Poor-law medical officers in the country complaining that the guardians are in the habit of issuing parish orders for confinements to non-pauper patients, many of whom can afford to pay the usual guinea fee. It would appear that a custom has grown up in certain parts of the country of granting such orders to applicants on the payment of half a guinea. As the guardians only pay the district medical officer 10s. for such attendance, no expense is put upon the rates by this practice; indeed a profit of 6d. is made on each case, but the injury done to the medical officer is obvious. That such gross maladministration of the Poor Laws should exist is almost incredible, and

we can only hope that our correspondents' representations are exaggerated. Under the orders of the Local Government Board the medical officer has no power to refuse to attend, on receipt of an order from the proper authority, whatever knowledge he may have of the social position of the patient. His only remedy is to bring the case before the guardians at their next meeting, and if their decision is against him, he can go no further, more beyond bringing the matter before the Local Government Board. Unless a prima-facie state of destitution is made out by the applicant, no order for medical relief ought to be made under any circumstances; and if our Poor-law machinery is being utilized as a means of providing cheap midwifery attendance for persons who have no right to Poor-law relief, this is a scandal that ought, without loss of time, to be brought to the notice of the Local Government Board. A short time ago attention was drawn in our columns to the necessity that exists for a reform in the arrangements for the treatment of the lying-in poor. At the present time it is impossible for any district medical officer to regard with satisfaction an order to attend a lying-in pauper. Under the General Order of July 24th, 1847, a fee of 10s. is allowed for attendance on all such cases, but a certain number of unions have been permitted to contract out of this order. In the case of many others, where the charge does really fall on the rates, so many impediments are put in the way of the district medical officer as, for instance, by refusing an order or by granting it after the event that many of the fees are lost by that official. Friction of this kind is most deplorable, and must necessarily sap the efficiency of the attendance on the poor during a critical period, and is therefore far from good for the national welfare. If, as proposed by the Poor-law Medical Officers' Association of England and Wales and by many of our correspondents, an all round fee of 20s. were paid for attendance on all pauper midwifery cases alike, no extras being allowed, as at present, for cases of special difficulty, the burden on the rates would be but little if at all increased and the gain to the poor would be very considerable. Then, such a scandal as that referred to above would not be likely to occur.

SCOTTISH POOR-LAW MEDICAL SERVICE.

In the matter of Dr. Mayara, of Durness, in Sutherlandshire, who was lately dismissed from his appointment as medical officer by his Board of Guardians, we are informed that the Medical Defence Union has taken action on his behalf and instructed Messrs. Hempson to take all necessary steps to preserve his legal rights. An interim interdict was obtained by the Medical Defence Union recently and served upon the Board to prevent the appointment of a successor to Dr. Mayara. The action of the Union will be watched with interest by all Poor-law medical officers in Scotland, whose duties are onerous in the extreme, and whose position is by no means as pleasant as that of their English colleagues.

THE STATE REGISTRATION OF NURSES.

Mention has already been in the British Medical Journal of a proposal that a state register of trained nurses should be established. In pursuance of this object a special general meeting of the Royal British Nurses Association was held on January 7th to discuss a report from the Parliamentary Council regarding the introduction of a Bill into the House of Commons. Mr. Pickering Pick was in the chair. A synopsis of the proposed Bill recommended by the Executive Committee was discussed and with certain amendments adopted. The chief provisions are the creation of a Central Board, to which ten medical practitioners are to be appointed for a period of four years and to be eligible for re-election; of these one is to be named by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the two Edinburgh colleges, one by the Irish colleges, one by the Society of Apothecaries, one by the Queen's British Nurses' Association, one by the Incorporated Midwives Institute, and a medical practitioner is to be appointed by the General Medical Council, while the British Medical Association, and the Asylum Workers' Association are to be represented respectively by one member. In addition to the medical members there are to be three lay members appointed by the Lord President of the Council; three nurses, one representing the army and navy, and two to be appointed by the Royal British Nurses Association and the Queen Victoria Jubilee Institute for Nurses respectively; ten matrons or lady superintendents of hospitals or infirmaries with training schools attached and six fully-trained nurses to be elected by the nurses on the State register. Within one year from the date of the Act coming in force a nurse may be registered on production of a certificate of two years' training in an institution recognized by the Board, or of satisfactory evidence that at the passing of the Act she has been at least five years in bona-fide practice as a trained nurse, and that she bears a good character. After the time of grace the period of training necessary for registration is to be extended to three years, and the minimum age is fixed at 24 years. The training must include invalid cookery and sanitation, as well as nursing. The powers which it is proposed to confer on the Board comprise, in addition to the regulation of the conditions of admission to the register, of the course of training and of the conduct of examinations, the regulation, supervision, and restriction within due limits of the duties of nurses; the determination of the conditions under which nurses may be suspended, and the removal of the names from the register for disobeying the rules and regulations laid down by the Board, or for other misconduct; the issuing and cancelling of certificates of registration, and the inspection and registration of private nursing homes. Lastly, there are penal clauses in regard to the procuring of certificates by fraudulent representation. On the motion of the Honorary Secretary, Dr. Comyns-Berkeley, the Executive Committee was instructed to draft a Bill based upon the synopsis submitted by it to the meeting. We refrain from commenting on these proposals at present, as the whole question is under the consideration of the Medico-Political Committee of the British Medical Association.

TRAINED NURSES FOR PASSENGER SHIPS.

On August 22nd last year reference was made in the British Medical Journal to a scheme which had been forwarded to us, with a request that we would further its objects. This scheme was one for the provision of a society or agency having for object the supply of trained nurses to work in passenger ships. While fully approving of the general idea, and recognizing what great advantages its realization might confer both on the travelling public and on shipowners, we pointed out that many difficulties would have to be adjusted if it was to be made a success. It appeared essential that the nurses should not only be trained women, but ladies capable and likely to hold their own among the trying conditions of shipboard life, and it did not appear to us that in the scheme as propounded adequate attention had been given either to this point or to the interests of the nurses as regarded salary and the provision made for their comfort on board. To the request, made in the course of the notice which we gave to the matter for further information on these points no response was made, and since then we have heard nothing more about the scheme. Meantime, however, a passenger ship company appears to have seen the advantages offered by carrying trained nurses, and advertised for lady nurses. Two ladies were engaged and the results of their experience will be found detailed in a letter published elsewhere. It is not a communication from the ladies themselves, but from a person who was in a position to be fully cognizant of everything concerning them and their work. It will be observed that the opinions as to probabilities expressed in the article to which reference has been made are fully justified by the facts revealed in this letter. The nurses were put under the steward and treated as and given the work practically of stewardesses and nothing else; they were treated, in fact, worse than ordinary stewardesses, for while the latter were provided with proper cabins, these

nurses were obliged to sleep for some part of the voyage in the anteroom to a ladies' lavatory, and to share even this undesirable accommodation with a negro servant. It will be observed, also, that occasions occurred which prove that nurses might be most useful on board ship; as, however, the accidents and illnesses mentioned took place amongst third-class passengers and the crew, it was only with difficulty that permission was obtained from the steward for the nurses to set aside their stewardess work and give the assistance to the sufferers which they required. Obviously, therefore, until the plan of employing nurses on board ship has been much more thoroughly worked out, any ladies attracted by the thought of a sea voyage and new countries should be dissuaded from going to sea in the position of ship nurses.

THE REGIUS PROFESSORSHIP OF MEDICINE AT OXFORD.

A MEETING of medical graduates of Oxford engaged in teaching in London was held on January 5th to consider the question of the Regius Professorship at Oxford, vacant by the resignation of Sir John Burdon Sanderson. The chair was taken by Sir William Church, President of the Royal College of Physicians, and over 40 medical graduates were present. The Chairman, in explaining the object of the meeting, stated that shortly after the resignation of Sir John Burdon Sanderson had been made public it had accidentally come to his knowledge that a movement was on foot to recommend Dr. Ritchie, the present Reader in Pathology, to the post. A letter had been written to the Vice-Chancellor, signed by the Professors of Anatomy and Physiology and by one of the lecturers on physiology, recommending that the emolument of the readership in Pathology should be increased by adding to it that of the Regius Professorship, in the interests of medical education, and that the two posts should be united in the present Reader in Pathology. The appointment to a Regius Professorship was made by the Crown on the advice of the Prime Minister. On learning what was going on he had himself written to the Vice-Chancellor stating his views, and had received an answer, which, however, he could not read to the meeting, as it was marked "private." The meeting had been called to give the Oxford graduates, and more particularly those engaged in teaching in London, an opportunity of expressing their opinion. After some discussion a statement was drawn up and signed by, it is stated, the great majority of those present, and it was decided that it should be sent to all medical graduates of Oxford for signature. In this statement a strong protest was made against the appointment of Dr. Ritchie to the Chair of Medicine on the ground that the Regius Professor is responsible for the organization, direction, and conduct of the final examinations in Oxford and should take part in them as the Regius Professor used to do. It was urged that for this and other reasons the Regius Professor ought to be a physician of great experience in clinical work and clinical teaching, and should be thoroughly conversant with all the details of the students' work, and with the requirements of the licensing bodies and the General Medical Council; he ought also to be a man of established reputation in medicine, and one who could worthily uphold the dignity of the University in the estimation of the profession and the public; further, he should be a man who could be accepted as the leader and representative in Oxford of the medical graduates, and one to whom they would all with confidence give their loyal support. The view was expressed that on these grounds it was desirable that the Regius Professor of Medicine should be an Oxford man. The following resolutions were passed:

That in the opinion of this meeting the Regius Professor of Medicine should be a physician who is representative of medicine in its widest sense.

That it would be detrimental to the best interests of medicine in Oxford if the Regius Professorship were converted into a Professorship of any one branch of medical study.

It was further agreed that a deputation should wait upon the Chancellor of the University to express the views of the medical graduates, and that the question of suggesting any name for the appointment should be left to the discretion of Sir William Church. We take the facts from a report of the meeting published in the *Times*, as those responsible for summoning the meeting did not extend an invitation to the BRITISH MEDICAL JOURNAL to send a representative.

ST. BARTHOLOMEW'S HOSPITAL.

FROM information we have since received it would appear that in the paragraph published under this head in the BRITISH MEDICAL JOURNAL of January 9th, too gloomy a view was taken of the prospects of the proposal for the reconstruction of St. Bartholomew's Hospital. We are given to understand that the Treasurer, the almoners and House Committee, at a preliminary meeting, accepted the proposal of the medical staff to acquire new land outside the present hospital site, and to remove to it the nursing home. At the subsequent Court of Governors, held on January 7th, in addition to deciding that the appeal should go forward as previously arranged, an agreement was come to as to the modifications to be made in the scheme upon which the appeal is to be based. These modifications were put forward by the medical staff of the hospital in combination with the House Committee, and are in effect the same as those which we suggested a few weeks ago as affording a possible and not undesirable alternative if the Christ's Hospital scheme eventually proved unfeasible. The scheme as now arranged is, we are told, practically a combination of the first two proposals put forward by the Medical Council in its memorandum to the Mansion House Committee last spring, and in some respects is superior to either of them. In addition to removing the church, the college, and eventually part of the medical school buildings, it is hoped to find a site in the immediate neighbourhood for the nursing home. The removal of the latter will have the advantage of taking away from the neighbourhood of the wards a resident population of about 300 persons. The present site of 6½ acres will, thus freed, eventually be entirely available for the hospital proper. The general situation has also improved in other respects, for it is understood that the Postmaster-General has promised to arrange his buildings on the Christ's Hospital site so as to meet, as far as possible, the medical requirements of St. Bartholomew's. It is regarded, indeed, as practically certain that a road will be placed so as to run between the boundary of the hospital and the boundaries of the Post Office, and that the blocks of the latter building will be placed at right angles to those of St. Bartholomew's on the opposite side of the road, so as to leave plenty of air space between them in addition to the road. Little Britain, the street to the east of the hospital site, is also, by a decision of the Court of Common Council, to be widened. Besides, therefore, having the open space of Smithfield in front, the hospital will be bounded by streets on all its other sides. The site thus cleared of superfluous buildings will, it is believed, lend itself particularly well to the construction of a completely new hospital on the modern ward unit system; three plans showing different ways in which this may be done without interruption of the ordinary medical work have already been prepared. It would appear, therefore, that the hospital authorities will be able to go to the meeting at the Mansion House on January 26th with a scheme more or less complete. Certain sums have already been received, and are ear-marked by their donors for certain purposes, and it is anticipated that the appeal will invite contributions either to the general fund or to one of three distinct purposes. These are, first, the immediate erection of new out-patient buildings, with eight special departments; secondly, the rebuilding of the general hospital; and, thirdly, the acquirement of a site outside the ring fence, and the erection thereon of a nursing home. An Appeal Committee, with Sir W. Treloar as Chairman and Sir Ernest Flower, M.P., as Honorary Secretary, has already been formed, and a Building Committee is in process of formation.

HEALTH OF LONDON IN 1902.

The annual report of the Medical Officer of Health to the London County Council for the year [illegible] was issued on January [illegible]. It is an elaborate document, which with its six appendices forms a bulky volume, and we shall hope to take the opportunity of dealing with some of the many points of interest contained in it in subsequent issues. Infantile mortality, which is perhaps the most sensitive test of sanitary administration, showed a satisfactory decline, the rate per [illegible] births was [illegible] as compared with [illegible] in 1901, [illegible] in [illegible] and [illegible] in [illegible]. In earlier years the returns showed certain fluctuations; it is therefore too [illegible] to assume that the low rate of [illegible] will continue. The birth-rate, which was 28.5, was the lowest on record; it was [illegible] lower than in [illegible] and [illegible] lower than in [illegible]3. Life tables based upon the mortality in the decennium [illegible], showing for the London population the expectation of life at each year of age was presented to the Council in July [illegible]. The present report contains [illegible] tables based on figures relating to two metropolitan boroughs, the one, Hampstead, rich, and the other, Southwark, poor. The comparison is, as might have been expected, very much in favour of Hampstead. [illegible] does the average individual in Southwark [illegible] under more adverse conditions than the average individual at Hampstead, but the conditions which adversely affect longevity in Southwark are operative at each age period up to [illegible]. Out of [illegible] boys born, in Southwark [illegible] and in Hampstead [illegible] died before reaching the age of 5 years. In later childhood the difference is also marked, for of [illegible] children aged 5 in Southwark [illegible] and in Hampstead [illegible] died before reaching the age of 15. Between the ages of 25 and 45, when the economical value of life to the community may be taken to be at its maximum, the difference is still greater; of [illegible] males aged 25 in Southwark [illegible] and in Hampstead 125 died before reaching the age of 45 years. The report contains particulars with regard to the occurrence of small-pox in London during the year, and Dr. [illegible]'s report on the efforts made to minimize the spread of the disease in common lodging-houses is [illegible].

THE EMISSION OF BLONDLOT RAYS BY NERVE CENTRES.

[illegible] A. Charpentier has continued his researches on the emission of n or Blondlot rays by active nerve [illegible]. [illegible] of the lower animals emit [illegible] than those of man. The frog [illegible]. Its temperature [illegible] lower than [illegible] the general laws of [illegible]. The n rays and [illegible] action act on [illegible] even the [illegible] and the bony [illegible] his arm, [illegible]

of radiation of n rays in the cervical enlargement of the cord. It increases also from the cord to the brain. If the muscles of one arm only are contracted the illumination is increased most on the same side of the cervical enlargement, and higher up the effect can be traced on the opposite side, where the nerve impulses cross. To study these radiations straight tubes of lead 5 to 10 cm. in length are used. One end is applied over the nerve centre; the other end contains a small piece of wood or card covered with a phosphorescent sulphide. M. Charpentier was able even to localize the so-called "motor centres" of the cerebrum by the rays emitted when they are called into action. Even the centre for speech in the region of the third left frontal convolution was found to emit more n rays when the person spoke either in a high or a low voice. In right-handed people there was no corresponding action of the right frontal convolution. It seems that even the act of attention or mental effort is attended by the emission of rays which increase the phosphorescence. Other centres, for writing, movements of arms, and sensory nerves behave similarly. Thus it would appear that all nerve centres in action give off more n rays than during repose.

THE RAINFALL OF 1903.

Although the rainfall of November and December was considerably below the average in almost all parts of England, amounting in November in London to 1.90 in. and in December to 1.38 in. only, yet the previous ten months had such an abundant rainfall that the whole year was at many observation stations the wettest on record. At Yarmouth, however, there was in the whole year a deficit of more than an inch, the actual proportion of the normal fall being only [illegible] per cent. The greatest excess was in the Thames valley and its immediate neighbourhood. In London (at Brixton) the total rainfall of [illegible] in. was [illegible] per cent. above the average. But over the British Islands generally last year was not nearly so wet as [illegible]; at many places in the West and North it was not so wet as [illegible], and in the Eastern and Midland Counties it was somewhat drier than in [illegible]. One feature of the rainfall of [illegible] in London was the excessive weight of many of the individual falls or their intensity rather than their duration; for, although the excess was (at Brixton) nearly [illegible] in. beyond the fall in [illegible], hitherto the wettest of the previous [illegible] years, yet the number of days with rain in [illegible] was smaller than in [illegible] of the past [illegible] years. In the [illegible] years ending [illegible] the number of days with rain was [illegible], and the average rainfall on each rainy day was [illegible] in. Last year there were [illegible] days with rain, and the average fall on each of these days was [illegible] in., or nearly half as much again as the average. Exceptionally heavy falls of rain (exceeding [illegible] in. in twenty-four hours) were nearly seven times as numerous as the average; heavy falls (exceeding ½ in.) were nearly twice as numerous; and moderately heavy falls (exceeding ¼ in.) were more than half as frequent again as the average. In London the highest rainfall was that recorded at the Victoria and Albert Museum, Kensington, [illegible]; the lowest that at East Ham, [illegible] in. The exceptionally wet months of the year were June, July, August, and October. February, November, and December were less wet than usual. In June three times the usual volume of rain for the whole month fell in ten days. Besides the Thames valley there were two other very wet areas, namely, South Wales and the West of Cheshire and Lancashire, and Scotland to the north of the Caledonian Canal. Some parts in the North and West of Ireland were also very wet. The driest areas were in Norfolk, and a narrow strip running from south of Leicester through Lincoln to Hull. Here the excess was under 10 per cent. Taking the whole of England [illegible] seems to have proved the wettest [illegible], [illegible] was second, and [illegible] third. But in the Thames valley, and especially in London, neither [illegible] nor [illegible] were nearly as wet as [illegible]. The highest rainfalls in [illegible] were recorded at Seathwaite in Borrowdale [illegible] at [illegible] in., and at [illegible], West [illegible] in. But, although the rainfall in London was excessive, the duration

of sunshine was 1,181 hours in the year against an annual average of 1,127 hours; and the public health was exceptionally good.

PROFESSIONAL JEALOUSY.

AN Italian philosopher, Signor Ferriani, who has made extensive inquiries into what may be called the psychology of occupation, has constructed a scale showing the varying degrees in which professional jealousy exists in different professions. The lowest place in this scale is assigned to architects; next above them come clergymen, advocates, and military officers; then follow in order from below upwards, professors of science and literature, journalists, authors, doctors, and actors. It will be seen that our profession holds a bad eminence in the scale of jealousy, being marked as only a little lower than actors. According to Ferriani doctors display that mean vice by affecting to regard each other as quacks. The old saying, *Invidia medicorum pessima*, shows that doctors have long had an evil reputation in this respect. How is this to be accounted for? Ferriani thinks that the comparatively slight tendency to jealousy which he notes in architects and advocates is to be explained by "the precision and truth of their studies." From this remarkable pronouncement we are inclined to think that our philosopher himself belongs to one or other of those favoured professions. It would certainly not occur to many people, in this country at any rate, that the study of the law was in any special way marked either by precision or by truth. It may be admitted that barristers are, as a rule, less jealous of each other than doctors. The reason of this, however, is to be found not so much in the nature of their studies as in the fact that their personal feelings are but little engaged in the collisions which occur between them. They have to conduct their wrangles through a neutral medium, the judge, as members of Parliament abuse each other circuitously through the speaker. They are not brought into intimate contact with their clients as medical practitioners are with their patients, and they have little opportunity, had they the wish to do so, of intriguing to supplant a rival. As counsel are, as a rule, selected by the solicitor, they can safely leave the vaunting of their merits to that useful third party. A doctor, however, must impress his patient directly: either legitimately by a manner that inspires confidence and by proofs of skill; or illegitimately by the vulgar arts of the charlatan, or by subtler methods of self-recommendation and depreciation of professional brethren which need not be described. As much may be conveyed by a slight shrug of the shoulders or even by silence as was believed to be expressed by Burleigh's nod. Quarrels as to priority for the most part about matters of no importance whatever—are more bitter among doctors than among discoverers and inventors in other fields. Doubtless this is in great measure due to the fierce struggle for life caused by the overcrowding of the profession. But it is to be feared that in a profession in which men are necessarily brought into such close personal rivalry as is the case in medicine, jealousy, with its unhappy and often degrading consequences, is inevitable. There is no reason, however, why it should be so rampant. The remedy is that each of us should, by self-discipline and the pursuit of a high ideal of life, as far as possible subdue sordid commercial instincts, and look to the cultivation of a noble science and the practice of a beneficent art as in themselves our best reward. A man who is devoted to his profession for its own sake, and whose first consideration is not his own profit but the good of his patient, is not likely to be jealous of any one, and cannot be hurt by the envy, hatred, and uncharitableness of others.

BLINDNESS ATTRIBUTED TO METHYL ALCOHOL.

IN a paper read before the Montreal Medico-Chirurgical Society, Dr. Buller, Ophthalmologist to the Royal Victoria Hospital, drew attention to the serious eye lesions produced by the ingestion of wood alcohol. He reported three cases of blindness due to this cause which had been under his care during the past year. In two of these a single dose of about 2 oz. within twenty-four hours produced complete blindness, which lasted about ten days, and was followed by but slight improvement. The third patient took a wineglassful on three successive days before the onset of eye symptoms, but the result was eventually the same as in the other two. Each of these cases has been under observation for more than three months, and at the last report there was distinct optic atrophy, central scotomata, and vision sufficient only to count fingers at 3 ft. or 4 ft. Owing to the immense increase in output and consumption of wood alcohol, Dr. Buller thought that the public should be warned of the great danger attending the absorption of this spirit. He used the word absorption advisedly, for he had learned that in at least one branch of hat-making the air of the room in which the process was carried on was absolutely saturated with alcohol of this kind, and that breathing this air produced the same effects in the end as swallowing the liquid. Another point mentioned was that the methyl alcohol in ordinary methylated spirits had been recently increased 35 per cent. by Government regulation, so that intoxication from methylated spirits was a much more serious thing than formerly. He suggested that each bottle should be furnished with a label stating that blindness would result from drinking the contents. An ordinary poison label would not be as good, for some unfortunate might be tempted to commit suicide by this cheap method, whereas he had yet to meet the individual, however despondent, who wished to become blind.

KALA-AZAR IN ASSAM.

ELSEWHERE will be found a letter from Major Ronald Ross stating that he has received a telegram from Dr. C. A. Bentley of Assam announcing that he has discovered Leishman's bodies in cases of kala-azar by puncture of the spleen during life. On January 11th Sir Patrick Manson received a telegram to the same effect from Dr. Bentley, who promises to send specimens by mail. It will be remembered by those of our readers who are interested in the subject that in the BRITISH MEDICAL JOURNAL of November 14th, 1903, we published a note by Major Ross on the bodies recently discovered by Leishman and Donovan. In that communication he said he was strongly inclined to think, from the description of the bodies given by those observers, that they had found an entirely new organism. He added that the chiefs of two of Dr. Donovan's cases recalled the chronic pyrexia with enlarged spleen so frequently observed in India, and seemed to him not a little suggestive of kala-azar. Dr. Bentley's discovery tends to confirm this sagacious surmise. We have in our hands a paper on kala-azar by Sir Patrick Manson, which was sent to us before he had recived Dr. Bentley's message, and which we hope to publish at an early date. The subject of kala-azar is a most important one from a practical as well as from a scientific point of view, as the disease is the cause of a vast amount of suffering and death among the natives in Assam. The prevention of this disease is a question of exact knowledge as to its causation. It is within the province of the Indian Government to promote and actively assist research on the subject by every means in its power, and it is to be hoped that public opinion will not allow it to neglect this clear duty.

TIDAL WATERS AND ENTERIC ENDEMICITY.

IN the article published under this head last week we drew attention to the valuable work which Mr. Foulerton had done with regard to this important subject. The references made to the tidal Adur, New Shoreham Harbour and Chichester Harbour may, however, have led to an incorrect impression. With regard to Chichester Harbour, Mr. Foulerton informs us that the conditions have changed since the date of Dr. Bulstrode's report, inasmuch as a new

system of sewage disposal for the city of Chichester has been introduced, and certain relatively unimportant modifications have been made in connexion with similar sources of nuisance. Mr. Foulerton has also made an examination of the chemical and bacteriological conditions of Chichester Harbour at various stages of the tide, which it would appear had not been done previously. Dr. Newsholme made reports on Shoreham Harbour some years ago, but not, so far as we are aware, on Chichester Harbour. Neither he nor Dr. Bulstrode dealt with the river Adur, which extends above New Shoreham Harbour for eight miles from Old Shoreham Bridge. The conditions in New Shoreham Harbour also have been changed since the date of Dr. Bulstrode's report by the introduction of a main drainage system for the large urban districts of Portslade-by-Sea and Southwick. Other matters dealt with by Mr. Foulerton and not touched upon by previous writers on these districts are the effect of the sewage pollution of the tidal waters on the fisheries there, apart from the contamination of the oyster layings, and the influence of different modes of sewage disposal on the conditions of the fisheries in the harbour. We need scarcely add that we had no intention of misrepresenting the extent of Mr. Foulerton's investigations or depreciating his work, of the value of which we expressed our opinion with no uncertain sound.

ILLEGIBLE PRESCRIPTIONS.

THE Austrian Minister of the Interior has recently called the attention of medical practitioners to the serious evils caused by illegible prescriptions. He insists that every prescription "must be clearly and legibly written in all its parts." If we may judge from "awful examples" from abroad which at one time or another have come under our notice, prescribers in this country do not, as a rule, cultivate the art of hieroglyphic writing with such success as many of their foreign brethren. But there are not a few among us who would seem to act on the popular theory that illegible handwriting is a proof of genius. Serious and even fatal accidents have been caused by the careless writing of symbols or the miscalling of the preparation of an active drug which the physician intended to order. The fact that such accidents are so rare is a gratifying proof of the efficiency with which, on the whole, dispensing is carried out. Moreover an undecipherable ingredient is not unlikely to be replaced by something which the pharmacist may judge to be a satisfactory substitute. The effect of this will often be bad, although occasionally it may be good. In the former case the art of healing is undeservedly discredited; in the latter rational science is to some extent attacked also. Both prescriber and dispenser have their own. An illegible prescription is a danger to the patient, a nuisance and perhaps a temptation to the pharmacist, and a disgrace to the physician.

FROM MEDICINE TO MUSIC.

The famous musician Berlioz, the centenary of whose birth was recently celebrated in France with much begarlanding of busts and effusive oration, was the son of a medical practitioner and was himself intended for the same profession. In early Berlioz who felt himself irresistibly drawn towards music, the thought of a medical career was utterly distasteful, but his father would have him to grapple with Medicus trophic, or seemingly by the promise of a medical degree persuaded him to the task. Berlioz has given an interesting account of his medical studies. He was set to work at the hospitals with the surgeon Dubois, who afterwards rose to eminence as a physician in Paris. Unfortunately for the career of the future Berlioz Dubois was a good violin player, the consequence being that the two little girls made more progress in music than in anatomy. Robert however continued to work fairly hard at anatomy, classes in Berlioz took singular exception to no interest. Nevertheless, in 1821, when he was 18, he was sent with Robert to Paris. His father wrote to the Director, recommending him to the care of Dubois, who was a friend of the family. It must be remembered that at the early part of the century practical anatomical work had to be done under very different conditions from those existing in medical schools of the present day. Berlioz's own description of his experiences may comfort fastidious modern students: "The aspect of that horrible human charnel house, of those scattered limbs, those grinning heads, those cleft skulls, the sewer of blood in which we walked, the revolting smell that came from it, the crowds of sparrows fighting with each other for shreds of lungs, the rats gnawing at bloody vertebrae in corners, filled me with such fear that, jumping through the window of the amphitheatre, I ran home with all the speed I could muster, as if Death and his frightful suite were at my heels." It was some days before he could summon up courage to pay a second visit to the chamber of horrors, but this time he was surprised to find that all his repugnance had vanished, and he set about the dissection of a thorax with the coolness of an old hand. He followed the anatomical course "with stoical resignation," greatly helped, as he confesses, by a secret admiration for his teacher Amussat, in whom he recognized an artist with a passion for anatomy equal to that which he himself felt for music. The lectures of Gay-Lussac on chemistry and those of Thénard on physics also interested him, and he was becoming "a student like so many others, destined to add an obscure unit to the disastrous number of bad doctors," when fate led him one evening to the opera. There he at once found his vocation. He could think of nothing else but of the massive harmonies which he had heard, and when Robert expostulated with him, pointing out that the subject which had cost them eighteen francs would be spoiled, he replied with a song from the opera he had heard. In obedience to his father he still struggled on through what was to him the dreary waste of anatomy, but nature, expelled for a time with the scalpel, inevitably came back, and with resistless force carried him away from medicine to his true sphere of music. He gave time that he ought to have given to lectures to the study of the works of Gluck in the library of the Conservatoire. He read the scores again and again, copied them, learnt them by heart. They kept him awake at night, and even made him forget his meals. The end of his medical career came when he had the opportunity of being present at a performance of the German composer's *Iphigenia in Tauris*. On leaving the opera-house he swore that "in spite of father, mother, uncles, aunts, grand-parents, and friends, he would be a musician. The remonstrances of his father, at first gentle, became sterner and sterner as the son showed himself more and more resolute to follow the guidance of his genius. One cannot help sympathizing with the father, anxious to do his duty by his son, and doubtful as fathers usually are—and with too much reason—of the lad's powers in a field which seemed to his practical mind to offer no prospect of a decent livelihood. It is a familiar tale. But genius must have its way and one must thankfully acknowledge the wisdom of the divinity that shapes our ends, which in giving the world a great musician saved a French village from an indifferent doctor.

THE TREATMENT OF THE WOUNDED IN NAVAL ACTIONS.

THE question is, we learn, now under the consideration of an Admiralty Committee under the Presidency of Rear-Admiral Charles James Barlow, D.S.O. It is an important but, owing to the complicated construction of modern battleships, cruisers, and other vessels of the Royal Navy, a most difficult subject. It engaged the attention of the Section of Navy, Army, and Ambulance at the annual meeting of the Association in 1901 at Cheltenham, and in 1902 at Manchester. On both occasions the late Fleet-Surgeon Gilbert Kirker, M.D., R.N., communicated papers on the subject and papers were read also by Surgeon F. H. A. Clayton, M.D., R.N., on the former and Staff Surgeon W. J. Colborne, R.N., on the latter occasion, as fully reported in the BRITISH MEDICAL JOURNAL of August 30th, 1902, and October 4th, 1902. These papers attracted much attention, and at the meeting in Manchester, a resolution was carried [illegible] to be a recommendation to the British

Medical Association to suggest to the naval authorities the desirability of improving the accommodation and arrangements for the treatment of wounded on board ship till they be transferred to a hospital ship or a suitable hospital on shore."

CANCER RESEARCH IN AMERICA.

THE fourth annual report of the Cancer Laboratory of the New York State Board of Health, containing the results of the work done in it during the past year, has recently been issued. The workers in the laboratory, which is under the direction of Dr. Roswell Park of Buffalo, have been engaged in cancer research for the last four years. Dr. Park points out that the work is now being conducted along three principal lines and in three laboratories. Pathological, chemical, and bacteriological investigations are being carried on in correlation with each other in the hope of reaching results which a single line of investigation has hitherto been unable to accomplish. Metabolism in the broadest sense is being studied in relation to cancerous disease. In regard to protozoa in relation to cancer, Dr. Park says that there is not a practising physician in the United States who has anything more than a rudimentary knowledge of the subject, and yet the question of cancer is becoming more and more a biological problem. Professor Gary Calkins, of Columbia University, has therefore been appointed consulting biologist. In a paper, entitled "Suggestions for the Biological Study of Cancer," Professor Calkins contends that we are justified in considering, as a working hypothesis, that the cell inclusions in carcinoma are phases of an organism. He thinks that "inclusions in carcinomatous tissues should be studied by specialists trained to the study of protozoa and not left exclusively to pathologists, many of whom regard all structures which are to them incomprehensible as some type of degeneration product of the cell. Such a study, made with the best methods and the best technique that the zoological side can afford, should lead to an independent point of view, and should give definite results, which, together with those of the pathologist, the chemist, the physiologist, and the surgeon, should give a clear conception, if not a solution, of the general problem of carcinoma." Professor Calkins also insists on the necessity of work from the physiological and chemical points of view, with reference especially to the possibility of a specific activity of toxins derived from micro-organisms. Finally, he expresses the belief that the experimental side of the question may ultimately give definite results. The work hitherto done, although far from complete, leads him to the provisional assumption that the cell inclusions are not secretions, as described by Greenough, or degeneration products of the cell, or modified centromoses and spheres, but phases of an organism belonging to the group protozoa.

SLEEPING SICKNESS IN LIVERPOOL.

THE truth as to the cases of supposed sleeping sickness sent to the Liverpool School of Tropical Medicine by the Congo Free State Expedition of the School seems, like the birth of Jeames de la Pluche, to be "wrop in mystery." It was first announced that there were three cases; then that there had been only one case among them, and, this one having died, then, as the nursery rhyme says about some other little niggers, there were none. Now, according to the newspapers, the situation has again changed. An official report is said to have been issued on January 12th, to the effect that in both the patients now under the charge of the School the parasites which have been associated with sleeping sickness are present in large numbers. They do not, indeed, show the full symptoms of the disease, but it is oracularly hinted that these "may appear in the cases under observation in spite of treatment." This would seem to imply that the development of the symptoms may sometimes be prevented by treatment, a therapeutic potentiality, as Dr. Johnson would have said, which is as yet beyond the dreams of observers elsewhere. The Liverpool School of Tropical Medicine has given many proofs that it is wide awake, but *adjacent to bonas est ire Horatius*, and in regard to this matter it would almost appear that, in the absence of the imported disease, a native form of sleeping sickness has manifested itself in Liverpool.

THE PENITENT'S PROGRESS.

MR. STEPHEN COLERIDGE is showing a most praiseworthy desire to make it clear to the world that he has not only seen the error of his ways, but is resolved to make amends for his misdeeds. Two or three weeks ago he came forward as the stern censor of inaccuracy and unfairness in controversy; now we learn that he has expressed a wish to contribute to the support of two of the very hospitals which he charged with diverting their funds to the support of vivisection. It is true that his offerings are not large, but allowance must be made for the fact that he has recently had to pay heavy costs, every penny of which we are assured came out of his own pocket. Viewed in the light of this fact, his proffered subscriptions must be looked upon as, like the widow's mite, more acceptable than many larger donations. Of course it is not for a moment to be supposed that in Mr. Coleridge's mind there lurks any *arrière pensée* in connexion with his benefactions. They are doubtless to be taken as marks of sincere penitence, and we rejoice over him accordingly as the angels are said to do over a sinner that repenteth.

THE Medical Faculty of the University of Würzburg has awarded to Professor C. Schleich of Berlin the Rinecker prize, consisting of a silver medal and the sum of £50, in recognition of his work on local anaesthesia.

THE Organizing Committee of the World's Congress of Medicine, which was to have been held at St. Louis in September, 1904, in connexion with the Universal Exposition, has intimated that the project has been abandoned. It appears that the principal reason for this decision is that a Congress of Arts and Science has been arranged, which is to have departments covering practically the whole field of medicine and surgery; it was feared, therefore, that the two bodies might have been brought into conflict.

Scotland.

EDINBURGH ROYAL INFIRMARY AND THE AGE-LIMIT.

THE recent decision by two votes to one of the Court of Contributors to the Royal Infirmary of Edinburgh, imposing an age-limit of 65 on professors in the University who, as a necessary adjunct to their Chairs, have charge of wards, is one of considerable importance. Some time ago it occurred to certain members of the Board of Management to impose an age-limit of 60 on the ordinary physicians and surgeons, excluding the University professors, of whom three have charge of medical wards, one of a gynæcological ward, and two of surgical wards. In deference to the strong remonstrances of the ordinary members of the staff the limit was raised to 65. There was, indeed, no need for such a rule if it was meant to apply only to the ordinary physicians and surgeons—in other words, to the extra-mural teachers—because on no occasion in the past had any such physician or surgeon continued in office beyond the age of 60. If the object of the managers was to prevent such an occurrence in the future they had already a sufficient check in their hands, since it has been their custom to appoint these members of the staff for three periods of five years each, or fifteen years in all. They had it in their power, therefore, as each period of office expired, not to re-elect any one who, at its close, should have exceeded a stated age. Further, in electing new assistant physicians and surgeons, it would have been possible to choose men of such an age that their period of service should have determined at any given time. Instead of this, the new rule exempted the

University Professors, but it might have been foreseen that the age limit assigned for the ordinary physicians and surgeons, must sooner or later, in common justice, be made applicable to the whole staff. This is precisely what has happened. When the annual report of the managers containing the new rule, was laid before the Court of Contributors for their approval, they at once decided by 90 votes to 23 that the rule must apply to the whole staff. The result is that needless mutilation has been caused both to the ordinary members of the staff and to the professors.

We do not say that the age limit is a bad thing in itself, but as yet there is no age limit in the University. That may come. It would have been better in the meantime, however, to let well alone, unless the managers were prepared to go the whole way and face the opposition of the University. The Royal Infirmary owes its prestige first (chronologically) to the Royal College of Physicians, next, to the Royal College of Surgeons (which together represent the ordinary staff); and then to the University. Prudence and courtesy might have suggested conference with those bodies on so thorny a question before action was taken. When one of the ordinary physicians or surgeons ceases to have wards in the Royal Infirmary it has been the custom in the past that he at the same time should cease to teach, and should retire into private or consulting practice. It may at no distant time happen that the Professor of Medicine or the Professor of Surgery will cease to have at his disposal wards in the Royal Infirmary in which he can give his students clinical instruction. He will not on that account cease to teach medicine or surgery, since the tenure of his chair has no relation to the infirmary. What then will happen? Will the foundation of new chairs be necessary, or will the University be compelled to establish a hospital for clinical teaching?

We have said enough to show that a somewhat critical situation has arisen, and all who are interested in the prosperity of one of our leading medical schools will watch its development with some anxiety.

The Morison Lectures.

The Morison Lectures of the Royal College of Physicians of Edinburgh will be given this year by Dr. John Macpherson, one of the Scottish Lunacy Commissioners. The subject announced is "Insanity in its Relation to the Origin of Insanity and the Allied Neuroses, and the dates of the three lectures are Monday, Wednesday, and Friday, January 25th, 27th, and 29th. They will as usual be delivered in the College Hall, [illegible] Street.

[illegible] in Scotland.

The [illegible] in the cases of small-pox in Scotland is shown by the statistics recently issued by the Scottish Local Government Board for the fortnight ending December 21st, 1901. The following cases [illegible] in all had been notified during that time:

[illegible]

The Glasgow Companies, R.A.M.C.

On the evening of the annual [illegible] and presentation of prizes of the Glasgow Companies (Volunteers) of the Royal Army Medical Corps (Volunteers). It is a gratifying record of the work of the past year, and contains many cleverly-written and well-illustrated articles, which show that the Glasgow Companies are going forward with their work even with increasing spirit. The lessons of the South African war are discussed in a long article, based on the Report of the Royal Commission. There is an interesting account of the unveiling of a tablet in Glasgow Cathedral by the Director General, Sir William Taylor, K.C.B., in memory of members of the corps who lost their lives in that campaign. The varied aspects of camp life at Netley and Aldershot are well described, and other instructive and humorous papers might be referred to did space permit. The editors are to be congratulated on the successful volume they have produced.

Ireland.

Lieutenant J. R. Welland, R.A.M.C.

Of the two officers killed in the recent battle in Somaliland, one was Lieutenant Joseph Rainsford Welland, of the Royal Army Medical Corps. He graduated in 1899 in the University of Dublin, and in the following year entered the Royal Army Medical Corps. Soon after he went to Somaliland, and was attached to the 6th Battalion of the Kings African Rifles. He served for some time with his regiment in the operations against the Mullah, but returned home last summer suffering from malaria. In October he returned to the seat of war, and it was in his first general action, while attending the wounded, that he was killed. Lieutenant Welland's father was a rector in the south of Ireland, and his death leaves his widowed mother childless. He was a well-known figure in Trinity College, Dublin. He was a clever and observant student, and had a wide knowledge of other sciences than medicine. He was an excellent naturalist. In athletics he was a leader, and when the American crew came to Ireland to try conclusions with an eight of the University Boat Club, it was Welland who was chosen as stroke in the contest on Killarney lake. His death is deeply deplored by his friends, who were numerous and devoted.

A Consumption Sanatorium for Cork.

The Cork Branch of the National Association for the Prevention of Consumption is still determined if possible to take advantage of the promised help of a site for a sanatorium in Cork. They are now trying to get the various urban and rural district councils of the City and County of Cork to form themselves into a united district for the purpose of providing for the use of the inhabitants of the united districts, under powers conferred by the Public Health (Ireland) Act, 1878, and Acts amending the same, a hospital or sanatorium for the purpose of treating curative cases of consumption. The Cork Rural District Council and the Cork Corporation have passed resolutions expressing a desire to be formed into this united district and asking the Local Government Board to make a provisional order forming such a district, and requesting that the rating powers of the Joint Board shall not exceed one penny in the pound for outlay on the annual salaries of the rateable hereditaments comprised in the united district. The amount already guaranteed by the Cork District Council and Cork Corporation is £150 per year, and each contributing council is to have representation on the Joint Board of Management, and will be entitled to send patients to the sanatorium in proportion to the amount of the rate levied. It is proposed to treat about 120 patients in the year in a building containing 30 beds, the average treatment in each case extending over three months.

Cheltenham Spa.

Dr. Darley Wynne, of Cheltenham, having had his attention directed to the matter by a passage in an old book, written about Waterford by a noted woman in the eighteenth century, he had a partial analysis made of the chalybeate spring in Cheltenham. Some 100 years ago Cheltenham spa had considerable repute and enjoyed the patronage of many fashionable invalids of the time. After that however it dropped out of favour, although the existence of the spring is not entirely forgotten nothing is now made of it. Dr. Wynne therefore, to the local press, he suggests that it would be worth while for the corporation to have a complete analysis made, because if the favourable estimate of its medicinal properties which his partial analysis has led him to make, should be confirmed, the spring is a wasting asset which could be made of considerable value to the town.

ALCOHOL AND THE DEATH-RATE.

MR. R. MACKENZIE MOORE, at a recent meeting of the Institute of Actuaries, read a paper on the Comparative Mortality of Abstainers and Non-Abstainers from Alcoholic Beverages,[1] based on the experience of the United Kingdom Temperance and General Provident Institution during the last 60 years.

This institution was founded in 1840 for total abstainers, non-abstainers being admitted from 1849 onwards. The records of the office have been kept in such a way that the two sections can be compared. The same premiums are charged for both abstainers and non-abstainers, the former receiving any advantage arising from their superior vitality in the form of additional bonus.

Persons are eligible for the abstainers' section who do not take alcohol as a beverage in any form; and the continued adherence of the assured to abstinence is checked by an annual declaration to that effect. If an abstainer cease to abstain he is transferred to the non-abstainers' section, and on the other hand assurers in the non-abstainers' section who become abstainers "are generally eligible for transfer" to the abstainers' section. Such transfers are not made if the assurers be known to be in bad health or of intemperate habits. Furthermore, an abstainer is allowed to take alcohol temporarily as a medicine bona fide. The abstainers' section is stated to have "never been favoured or nursed, with the view of securing more favourable mortality results, either by the admission of unexceptionable lives only in the first instance or by the removal or transfer of inferior or doubtful lives." In the tables which follow it is shown that the transfers are so small in number as to have an inappreciable effect on the total result.

The relative pecuniary positions of the persons assured in the two sections of the institution are almost identical, as indicated by the average sum insured, which is about £300 in both sections as compared with £575 in seven leading ordinary life offices.

The experience of the institution has been taken for the entire period of 61 years, 1841 to 1891 inclusive. The experience given throughout is that of "policies" and not "lives," every separate policy being regarded as a separate risk. A check on duplicate policies was made in the case of 28,383 policies, and it was found that the results stated as "lives" did not vary at any age-period from those stated as "policies,"—the latter being taken to equal 100—more than between 97.4 and 104.

Ages.	No. of Healthy Males exposed to Risk, Whole Life Policies, 1841-1901.		Taking Ordinary O Rate of Mortality at each Age Period as 100, the Corresponding Rate was among		Taking Non-Abstainers' Experience as 100, Abstainers' Experience is
	Non-Abstainers.	Abstainers.	Non-Abstainers.	Abstainers.	
15-19 ..	590	1,051	42.7	58.1	137.4
20-24 ..	2,161	4,491	127.0	177.[illegible]	141.9
25-29 ...	9,517	14,[illegible]79	154.9	107.[illegible]	69.9
30-34	27,099	32,740	111.9	77.8	70.1
35-39	42,[illegible]76	46,555	111.9	62.9	56.5
40-44	51,[illegible]07	54,037	101.0	55.2	54.8
45-49	47,423	53,604	95.6	54.6	57.[illegible]
50-54	65,931	51,377	100.0	58.7	58.5
55-59	56,341	44,178	99.4	61.[illegible]	62.4
60-64	47,879	34,974	101.[illegible]	71.[illegible]	70.6
65-69 ..	38,191	25,[illegible]73	97.[illegible]	76.[illegible]	78.5
70-74 ..	23,219	16,479	103.0	87.[illegible]	84.0
75-79 ..	12,[illegible]57	9,[illegible]	98.5	98.[illegible]	[illegible]
80-84 ..	5,780	4,[illegible]31	[illegible]	107.0	111.[illegible]
85-89 ..	1,860	1,[illegible]34	100.0	93.6	93.[illegible]
90-94 ..	358	322	94.[illegible]	85.8	90.[illegible]
95-99 ..	49	[illegible]	[illegible]	[illegible]	77.9
100 ...	1	[illegible]	207.0	[illegible]	[illegible]
All ages ..	466,943	[illegible],510			

A table is next given showing the mortality among the non-abstainers, healthy males, whole life policies. There were 31,776 of these passing through 466,942 years of life, of whom 8,947 died. This is followed by a table giving the mortality in connexion with 29,094 whole-life policies of abstainers, passing through 398,010 years of life, of whom 5,124 died. In the table printed above the experience of these two groups has been summarized. The number of lives at risk is also given.

[1] *Journal of the Institute of Actuaries*, vol. xxxviii., p. [illegible].

This by implication gives the reason why ages under 20, and over 85 are omitted from remark. The number at these ages is small, and comparisons of lives over 85, unless on a large scale, can possess no value. The death-rates for each group at each period are not given, as these would not greatly facilitate comparison, but in each instance the corresponding death-rate among the ordinary O_m tables of the Institute of Actuaries, based on the experience of a large number of insurance companies, is taken as 100 and the experience of abstainers and non-abstainers respectively is stated as a proportion on this basis. In the last column a similar comparison is made by Mr. Moore between abstainers and non-abstainers, the latter being taken at each age-period as 100.

It will be seen that the mortality among the non-abstainers in the institution during the ages up to 34 was in excess of the wider ordinary experience (O_m) compiled by the Institute of Actuaries, but that for all higher ages, and throughout the more important part of the mortality table, it shows a remarkable agreement with the ordinary rate. The expected deaths from age 35 upwards were according to the ordinary tables 8,414, the actual number of deaths 8,377, a difference of less than one half per cent.

The mortality of abstainers for ages 20-24 is distinctly higher than the ordinary mortality (O_m), though much lower than that among non-abstainers. For ages 25 and onwards up to age 74 the results are greatly in favour of the abstainers. "This advantage increases up to the group of ages 40-44, when it is at its maximum, being under 55 per cent. of the ordinary rate. After that age the rate very slowly approximates to the standard, being 71½ per cent. at ages 56-59, and 85 per cent. at the ages 70-74. For the group 75-79 the abstainers' rate is in excess of the ordinary, but for the remainder of life it is distinctly below. In general terms we may say that the feature of the abstainers' mortality is a great saving after early manhood throughout all the working years of life; which saving increases up to middle age, and gradually rises to the normal rate of healthy life as old age is reached at, say, ages 70 or 75."

With regard to the excessive mortality at ages 75-79 Mr. Moore shows that this occurs more or less in all classes of policies in the institution, and he regards it as "consistent with a general deferment of mortality consequent on a prolongation of the working years of life." In other words, under normal conditions—that is, if the ordinary mortality rate had prevailed throughout—they would have died earlier.

It may, however, be alleged, notwithstanding the assurances to the contrary of those responsible for the working of the institution, that there has been special selection of lives of abstainers. It is well known that during the first five years of assured life those insured compare very favourably with others. The special influence of insurance must wear itself down as time passes, and though even at the end of five years the assured may be "selected" as contrasted with non-assured, it cannot seriously be contended that any special selection holds good for abstainers when compared with non-abstainers in the institution. Mr. Moore has, therefore, prepared the following table setting out the relative experience of abstainers and non-abstainers after excluding the first five years of insured life. In the following table the results thus obtained by excluding the first five years of assurance are compared with corresponding results in the wider experience of the ordinary mortality tables (O_{m5})

Ages.	Taking Ordinary Mortality (O_{m5}) as 100 the corresponding Rate of Mortality at each Age Period for Males assured over 5 years was among		Taking Non-Abstainers' Experience as 100, Abstainers' Experience is
	Abstainers.	Non-Abstainers.	
15-19 ...	100.5	68.2	147.4
20-24 ...	68.9	150.[illegible]	45.8
25-29 ...	76.7	131.9	58.2
30-34 ...	89.0	114.0	78.[illegible]
35-39 ...	54.1	102.6	52.7
40-44 ...	55.0	98.7	55.8
45-49 ...	59.4	106.2	56.[illegible]
50-54 ..	61.5	101.3	60.7
55-59 ..	70.8	102.1	69.4
60-64 ...	76.2	100.2	76.1
65-69 ...	86.7	103.9	83.4
70-74 ...	85.9	99.5	86.4
75-79 .	107.0	97.7	109.5
80-84 ..	94.4	100.0	93.7
85-89 ...	85.4	91.[illegible]	93.[illegible]
90-94 .	73.2	93.5	78.[illegible]

Here again the abstainers shew as marked a superiority over the non-abstainers as in the complete experience.

Mr. Moore next considers the experience of "rated-up" lives. Without going into details, it may be stated that at all ages from 25 to 75 the abstainers have a superior experience. If the non-abstainers experience at any given age be taken as 100, the corresponding experience among abstainers varies from 48 to 92. The only exceptions to this rule among rated-up lives are at ages 25 to 29 and 75 to 79, when the mortality is higher among abstainers. The number of lives at risk on which these results are based is 48,859 abstainers and 56,321 non-abstainers.

Among endowment assurances, the number of abstainers exposed to risk was 21,434, of non-abstainers 157,162. Between the ages of 25 and 60 the non-abstainers were to the abstainers experience in the proportion of 100 to from 65 to 91, according to the age. At ages 15 to 25 and over 60 the abstainers had a less favourable experience than the non-abstainers.

Female Experience.

Coming next to whole-life policies for healthy females, and taking the H^M Table based on the experience of a large number of assurance offices as a standard, the experience of the institution shews that the difference between abstainers and non-abstainers is not so marked as among the males. Both female abstainers and non-abstainers are superior to the standard, though the latter to a less extent than the abstainers. Mr. Moore therefore infers that "the female non-abstainer of the assuring class is more temperate and careful in her habits, that is, more closely approaches the abstainer than does the corresponding male," and that this is the probable reason of her greater comparative vitality.

Effect of Transfers.

The possible influence of transfers from one section to another has already been considered. Apart from the rigid care which has been exercised, it is noteworthy that the transfers have been so few as to render their total effect insignificant. In the whole period from 1847 to 1901 the number of transfers to non-abstainers was 2,685, to abstainers 1,413. To ascertain the effects of these transfers (which were omitted from both sides in the previous tables and statements of results), special tables have been constructed by Mr. Moore. Although, as shewn by Table XVIII in his paper, the general rate of mortality of these transferred lives has exceeded what may be termed the normal rate of mortality of the non-abstainers, the effect of the association of these lives with the general body of the non-abstainers is inappreciable. The same remark applies to the transfers in the opposite direction. This is shewn in the following table, in which wholelife healthy male policies are dealt with. In this table the normal rate at each age (as among abstainers and non-abstainers respectively) is given as 100, and the number of deaths occurring after the transfers have been made is stated in proportion to this.

[redacted]

Mr. Moore claims that the above tables are a complete refutation of the suggestion that the mortality of the non-abstainers has been increased by the introduction into their ranks of unhealthy additions from the abstainers' section, and the claim is, I consider, completely substantiated.

It may, however, be urged that the non-abstainers are injured by the withdrawal of their select lives who become abstainers. It is necessary to remember here the tables in which it is shown that the results are not materially influenced by this means.

Mr. Moore sums up his facts and conclusions in the following words:

If it be granted—

(*a*) That the average pecuniary positions of the abstainers and non-abstainers assured in the institution are approximately equal; or in other words that they belong to the same social class:

(*b*) That the members of the two sections are admitted, and afterwards dealt with, in equal terms;

(*c*) That the methods used by me in this investigation are correct.

Then, bearing in mind that the point chiefly in view has been to compare the mortality of a body of abstainers with that of a similarly circumstanced body of non-abstainers, I submit that the data now put forward, and the results deduced therefrom, prove—

First. That the non-abstainers assured in the institution are good average lives, generally equal to the best accepted standard of assured life, namely, the ordinary table.

Secondly: That the abstainers show a marked superiority to the non-abstainers throughout the entire working years of life, for every class of policy, and for both sexes, however tested.

Thirdly: That this superiority has not been brought about by the operation of the "transfers" between the two sections.

Fourthly: That the financial working of the institution in the allotment of bonuses as between the abstainers' and non-abstainers' sections has not been influenced by such transfers.

LUNACY REFORM.

(From a Correspondent.)

It is well sometimes to see ourselves as others see us, and the following extract from the report of the French Senate is interesting when, as at the present time, there is some hope that the question of bringing the Lunacy Acts into real conformity with the needs of the present time is likely to be pressed seriously upon the attention of Parliament:

"This complication of successive detailed laws all dealing with one subject is sufficiently remarkable in itself, and is all the more astonishing when it is learnt that in Great Britain the laws made are rarely applicable to the whole country, and that in nearly every respect the legal requirements and regulations in England, Scotland, and Ireland all differ. This is notably the case with regard to lunatics, for the laws respecting them in the three divisions of the United Kingdom differ from one another to an even greater extent than is commonly the case with the laws of countries which are entirely foreign to one another."

The above paragraph does not overstate the case: there is no lunacy law for the United Kingdom; what law there is is a sort of home rule that demands revision—even the lunacy law applicable to England is a thing of shreds and patches. There has been far too much respect for "the traditions of the elders," too little realization of the fact that

> Newe occasions teache newe duties,
> Time makes ancient good uncouth.

A very good example of the absurdity of the present state of things is furnished by the fact that the Lunacy Commission, which is responsible for the inspection of 113,064 lunatics, cost in 1902 £13,[illegible], while the Masters in Lunacy and Visitors in Lunacy, who are merely responsible for the inspection of a thousand or so Chancery lunatics, costs £[illegible]. In other words, it costs at least £10 per head for the inspection of Chancery lunatics, while it only costs about 2s. 6d. for a case under the Commissioners.

There are corresponding discrepancies in the salaries and numbers of the two classes of inspectors, and it is difficult to understand why five Masters and Visitors, at £1,500 to £2,000 a year, should be required to look after some 1,200 Chancery lunatics, if six Commissioners at £1,500 each are good enough to inspect 100,000 other lunatics and supervise the administration of the law as well.

Another reform required is in the relations between the Commissioners and the asylum authorities, paid and unpaid. No doubt when the Commissioners were first appointed the state of affairs was totally different from what [illegible]

it is now. There were not only abuses to remedy, but medical men had little or no training in the treatment of mental disease. Literature was comparatively scarce, and difficulties of travel made experience of other asylums, at home and abroad, difficult to acquire; but now the superintendents and some of the members of the Asylum Committees, are quite as competent to express an opinion as are some of the Commissioners, and are quite as desirous that the treatment of those under their care should be conducted on the most humane and efficient plans.

It would also be much more to the interests of all concerned if the Commissioners meddled less with petty details and did more to help and encourage the authorities in providing for the increasing number of the certified insane adequate accommodation at a reasonable cost on commonsense lines. In this connexion it is worth noting that in a recent Blue Book a view was given of the new Winwick Asylum, but only, it is to be presumed, as an example of what an asylum ought not to be; because it would be difficult to find a more hideous mental hospital in England, and because not further back than 1900 the Commissioners in their annual report spoke of the acute hospital and working patients' villas at Wakefield as carrying

> The differentiation of asylum buildings to a point further than has been previously reached in asylum construction in England and Wales, and we welcome this new departure as an experiment which is distinctly evolutionary in its nature, and to which as such we wish success.

As the "experiment" was tried in America more than twenty years ago, and has since then been adopted in France, Germany, Austria, and Scotland, we should have thought the experimental stage was passed, especially as those countries which tried it have continued to carry it out. It would be of benefit alike to patients and ratepayers if the authorities could get rid of the idea that a large number of lunatics, acute or chronic, should not be located on one site, for the evil of the aggregation of large numbers of the insane lies not in the number but in the lack of classification and individualization that was too often typical of the barrack "madhouse" of past times. In the report which has just been made, the Commissioners express themselves in favour of a plan which provides:

> 1. A more or less separate hospital for the treatment of acute cases and cases of acute sickness, in which the hospital idea is primary and fundamental, and carries with it the full equipment necessary for its practical realization.
>
> 2. A central establishment of much simpler and cheaper construction, in which can be maintained the rank and file of mental and physical decrepitude interspersed with the subjects of troublesome propensities.
>
> 3. A series of simple cottage residences, in which the quiet and harmless, the industrious, and the convalescing may live under conditions more closely approximating to those of their previous and normal lives.

These recommendations are excellent, nor is there any reason why Nos. 2 and 3 should not at once be carried out. Excellent cottages indeed have in some places been provided for this class of cases at £120 per bed complete.

Another point calling for reform is the method of dealing with the insane pauper class. The number of this class in county and borough asylum has risen in the last thirty-seven years from 22,000 to 78,000, but the number in workhouses and residing with relatives has only risen from 16,553 to 22,623, including the number in the district asylums. If the number in the district asylums is deducted we should have 16,783 only in workhouses and living with relatives in spite of the fact that the population during that period has increased from 21,145,151 to 32,621,263. The cause of the increase in the numbers in the asylum is to a large extent the 4s. grant, and the result has been that in many cases there has been unnecessary expenditure upon asylum buildings when much cheaper buildings would have been adequate. The change in the class of cases now treated in asylums is shown by the fall in the percentage of cases of mania and those with suicidal propensities, and the large increase in the percentage of quiet cases over 65 years of age.

This question is one for inquiry, and the Local Government Board might appoint a small departmental committee to inquire into the best means of making provision for the insane in workhouses. It would probably conclude that the responsibility for providing accommodation for the insane should be placed upon the county councils, giving them power to make arrangements, if they think fit, with Boards of Guardians who have provided proper accommodation, and that this power should be so extended that the county councils would have authority to deal not only with the insane, but also with the epileptic and feeble minded.

THE VITAL STATISTICS OF IRELAND.

For several reasons the vital statistics of Ireland are interesting and important to all students of the social interests of the British empire, as will be seen from the following summary of the annual report of the Registrar-General for Ireland dealing with the statistics for the year 1902.

Birth-rates.

From a diagram opposite page 1 of the report it is plain that the marriage-rate has during the last twenty years slightly risen, while the birth-rate has remained almost stationary. Thus the marriage-rate in 1883 was 4.8, in 1902 was 5.2, while the birth-rate was 23.5 in 1883 and 23.0 in 1902.

Of the births, 2.6 per cent. were illegitimate, as compared with 3.9 per cent. in England and Wales in the preceding year. Of the marriages, 15,910 out of 22,049 were between Roman Catholics. These were equal to a rate of 4.84 per 1,000 of the estimated number of Roman Catholics, while the other marriages represent a rate of 6.15 per 1,000 of all persons other than Roman Catholics in the population. It is unfortunate that no statement of marriage-rates, birth-rates, and illegitimate birth-rates per 1,000 of population is given for each province of Ireland or for each county, and that it is impracticable, therefore, without the expenditure of great labour, to ascertain the relative birth-rates and the relative amount of illegitimacy in districts which are chiefly Protestant or chiefly Roman Catholic. It is, however, a well-known fact that illegitimacy is less common among Roman Catholic than among Protestant countries.

So far as the general birth-rate is concerned, the fact that it has remained practically stationary during the last twenty years is noteworthy. During the same period the English birth-rate has declined from 33.5 to 28.5 per 1,000 of population. A comparison of the English with the Irish birth-rate is a comparison of the incomparable, with only the data contained in this report, as the age-constitution of the Irish differs greatly from that of the English population, there being a much smaller proportion of married women of child-bearing ages in Ireland than in England. Assuming that the age-distribution of the Irish population has not changed very greatly during the last twenty years, it would follow that the causes producing a lowered birth-rate in England have not been operating to any appreciable extent in Ireland. This fact must also be connected in part at least with the fact that the greater part of the population of Ireland is Roman Catholic, though the lower general education of the Irish population may have contributed to the same result. It is well known that the Roman Catholic clergy have sternly forbidden those devices for preventing conception which are so generally employed in France and to a less extent in England.

Death-rates.

The death-rate in Ireland in 1902 was 17.5 per 1,000, as compared with an average of 18.2 in 1892-1901. The death-rate was 13.6 in Connaught, 16.5 in Munster, 18.1 in Ulster, and 19.5 in Leinster.

Causes of Death.

Turning next to causes of death, we find that only one death from small-pox occurred during the year. Measles caused a death-rate of 24.3 as compared with a decennial average of 18.3 per 100,000 of population. The death-rate from scarlet fever was 4.2, as compared with a decennial average of 9.5. The corresponding death-rates in England in 1902 were measles 27.6, scarlet fever 13.3.

Typhus still shows itself a cause of death in each province of Ireland, and it is noteworthy that in the ten years 1893-1902 there is not a single year in which deaths from this disease did not occur in every province of Ireland. The death-rate from this cause in 1901 was 1 per million of population in England and Wales, and 20 per million in Ireland in 1902. Ireland is still the source from which typhus in England is chiefly derived.

Whooping-cough caused a death-rate of 22.6 per 100,000 in 1902, as compared with 31.3 in 1901 in England and Wales.

Diphtheria caused a death-rate of 9.5 per 100,000 of population, as compared with 27.3 per 100,000 in England and Wales in 1901. The actual number of deaths from diphtheria registered in Ireland in 1902 was 421. Prior to this the

highest numbers were 505 in 1874 and 411 in 1893. The comparative exemption of Ireland from the diphtheria which has ravaged England is a striking fact which is worthy of further consideration by epidemiologists. It has been stated that "the small amount of diphtheria in rainy Ireland confirms the general induction that "the amount of diphtheria is greatest in the parts having the smallest rainfall."[1]

A different story has to be told for enteric fever. Although the death-rate from this disease was in 1902 only 138 per million of population as compared with 155 in England in 1901, it reached to 200 in Leinster and 280 in Ulster.

Diarrhœa caused a death-rate of 23·5 per million as compared with 12·2 in England in 1901, which again confirms the law of inverse relationship to rainfall.

Tuberculosis.

A most important part of this report is that dealing with the statistics as to tuberculosis. A diagram is given showing the relative death-rates of England, Scotland, and Ireland from all forms of tuberculosis from 1864 onwards. This diagram shows that up to and including 1879 the death-rate from tuberculosis was lower in Ireland than in England, and still lower than in Scotland. From 1810 to 1885 it was lower than in Scotland, but slightly higher than in England. From 1886 to the present time it is much higher than in England and considerably higher than in Scotland. Speaking broadly, the death-rate from tuberculosis in Ireland has remained stationary or perhaps slightly increased, while the death-rates from tuberculosis in England and in Scotland have greatly declined. In Table VIII the number of annual deaths from each of the chief forms of tuberculosis from 1871 to 1901 are given. The value of the table would have been greatly increased if the death-rates from each of these chief forms as well as from tuberculosis as a whole had been given.

In an appendix to the report are given a series of valuable meteorological tables by Sir J. W. Moore.

LITERARY NOTES.

The *Polyclinic*, which is the journal of the Medical Graduates College, London, after undergoing a period of occultation, once more settles in the journalistic heaven. Mr. Hutchinson has vacated the editorial chair, which is now occupied by Dr. C. O. Hawthorne. The journal, which appears in altered shape and with somewhat greater variety of contents, will, it is hoped, in future be issued regularly every month.

Messrs. Wright and Co. of Bristol have in the press a small work on the *Dispensing Made Easy*, by Dr. William G. Sutherland. The book contains numerous formulae, with practical hints by which simplicity, accuracy, and economy may be secured. It is designed specially for the medical practitioner who dispenses his own medicines, and is, we are informed, the result of observations made by Dr. Sutherland when assistant in over a hundred different practices in England and Wales.

Sir Herman Weber's lecture on the Means for the Prolongation of Life, delivered before the Royal College of Physicians of London in December last, and which was published in the British Medical Journal of December 26th, has been issued in pamphlet form (John Bale Sons and Danielsson, Limited, 8–9, Great Titchfield Street, W.).

Therapie der Gegenwart, a new German medical journal which came into existence with the New Year. It is edited by Dr. Alexander Lublinski and is published by W. S. Hillger of 37, Potsdamerstrasse. It has a literary department, which is under the editorship of Dr. S. Engländer of Berlin.

We have received the first number of *Acta Haematologica*, an international journal of hæmatology published in Basle and Munich. Dr. Immermann is editor-in-chief, and Dr. Fränkel and Dr. Arthur Edgecombe the editors, on the International Committee of the Journal. It is to be quarterly and a volume consists of approximately 400 pages. Articles may be written in English, French, German, Italian, or Spanish and should be sent to the editorial office, 37, Potsdamerstrasse, Berlin W. 62. The first number contains articles in English, French, and German. The subscription price is 20 marks per volume.

Ophthalmic Literature, published by the Rivington Publishing Corporation, 7, Paternoster Row, E.C., and edited by Mr. Arthur Ernest Maddox, M.R.C.S., L.R.C.P., is the latest addition to the literature of ophthalmology. The editor has had considerable experience in editing ophthalmic literature, and the first number of the new journal, which is published monthly, is promising enough. Messrs. Rivington, Percival and Co. are also the publishers of the *Journal of Tropical Medicine*, edited by Dr. Daniels, 37, Great Titchfield Street, London, W., to which we have already referred.

Ophthalmic Literature [illegible] monthly.

By permission of the directors of Murray's Royal Asylum, Perth, an open air performance of *As You Like It* was given last summer in the grounds of Kincarrathie House, in aid of the Bridgend Institute and the Perth Sick Poor Nursing Society. Dr. Urquhart was a member of the Committee. The play which was rendered by amateurs, was a great success, notwithstanding "the interruptions caused by the showers." We have received a pretty souvenir of the occasion, containing a number of excellent photographs, which show that a pastoral play could scarcely have been presented in more beautiful surroundings or in more artistic fashion. The costumes were appropriate, the stage grouping effective, and the acting, as may be gathered, was quite in keeping with the perfection of the setting. We congratulate all concerned on the result of their efforts.

In the *Pall Mall Magazine* for January, Mr. Ernest Rhys writes pleasantly of "a famous doctor and his friends." The famous doctor is the late Dr. George Bird, who among his friends and patients numbered several people of note. As his *cutis saver* says: "A London physician who had known and doctored Leigh Hunt, fenced with Captain Burton (before he was Sir Richard), and outlived younger friends like William Black and Grant Allen, might for their sakes ask to be remembered." Lady Burton, who was married from his house, then situated in Osnaburgh Street, called him "an unbaptized angel"; another acquaintance called him "the angelic doctor," on which phrase Mr. Rhys gives us the curious gloss that its author perhaps considered medicine a kind of divinity. It would seem that Mr. Rhys has never heard of the "Angel of the Schools," the *doctor angelicus*, a title which Dr. Bird's friend, with the permissible licence of friendship, transferred from Thomas of Aquinum to the kindly physician of Welbeck Street. Dr. Bird was the champion of Leigh Hunt, and drew up a statement, founded on intimate knowledge of the facts, which, it seems, completely clears the memory of that charming writer from the cruel misconception which Dickens impressed deeply on the public mind by the character of "Harold Skimpole." Dr. Bird was apprenticed to a worthy practitioner of Yoxford, then "a city of smugglers." He used to be sent by his master to Dunwich to visit mysterious patients, "from under whose bed there invariably emerged smuggled kegs of brandy." The Yoxford doctor was famous for a "gout cure," of which he possessed the secret, and which he was invited to test on the person of George IV. The composition of the "cure" is said to have been "colchicum digested in old cognac": it is probable, therefore, that the suffering monarch was an unconscious beneficiary in the profits of a fraud on his own revenue. Bird was a great believer in athletics, and had a gymnasium in his house to which he often took his patients, and made them try the foils or the parallel bars. Hengist Horne, the author of *Orion*, the "farthing epic," was one day found by two ladies who had called to see the doctor, sliding head first down the bannisters. In addition to those already mentioned, Dr. Bird numbered among his friends Mr. Swinburne, Sir William Crookes, Miss Ellen Terry, Sir Squire and Lady Bancroft, Mr. Cheld, and Mr. Justin McCarthy. With Richard Burton, the great traveller, he often heard the chimes at midnight as they sat discussing the philosophy and poetry of the East till far into the night. It is related that on such a night, when Burton had been telling of an Arab attack which ended fatally for his assailant, Bird asked the innocent question: "How do you feel, Captain, when you kill a man?" to which came at once the answer: "I don't know, Doctor. How do you?" The jest, which is said by Mr Rhys to be "one of the most perfect retorts ever made at a doctor's expense," is probably as old as the art of healing itself, but it must be admitted that in the circumstances it was particularly apt, and that the victim fairly brought it on himself. George Bird lived to an advanced age, and passed away, *multis bonis flebilis*, on May 4th, 1880.

Mr. Herbert Spencer, unlike Achilles, had more than one vulnerable part. One of these was medicine. Whenever the author of *Synthetic Philosophy* touched on medical matters he was apt not to put too fine a point on it to talk nonsense. In his last book, *Facts and Comments*, he displayed a bias against vaccination unworthy of a philosopher, and the thinness of the arguments by which he sought to justify his hostility proved only too clearly that he had not taken the trouble to make himself acquainted with the facts. His treatment of the subject recalls Huxley's criticism that if Spencer had written a play the catastrophe would have been an induction wrecked by a fact. There is no turning in the house of the "antivaccs" for the loss of one whom they

naturally regard as a main pillar of their cause. The *Vaccination Inquirer* complains that in none of the biographies of Spencer that have come under its notice has there been any reference to the fact that he approved and assisted the antivaccination movement. It states (and the information is interesting from a psychological point of view) that it was not only by Spencer's "kind permission but at his own suggestion that the essay ..... was made use of by the National Antivaccination League as part of their propagandist literature." To such base uses has come the philosopher who undertook to lay down laws *de omni scibili*, and, like another Canute, forbade the tide of human thought to rise beyond the limit which he had fixed for the Unknowable.

At the annual dinner of the Ulster Medical Society held at Belfast on November 19th, a song entitled "Goufin" was sung to the great delight of the audience by Dr. M'Harry. It is, we understand, the composition of Dr. R. J. Johnstone, Assistant Gynaecologist to the Royal Victoria Hospital, Belfast. The song, which purports to give "some account of the modern pestilence," begins with an invocation to Dr. Graham (described in a footnote as "a noted Belfast alienist," flor. circ. A.D. 1900) to the following effect:

Oh, Dr. Graham, this mental epidemic ye should see,
It's neither gastromania nor blood-coont insanity.
Nor yet the scalpel-frenzy; but just look both near and far.
They're all hittin' a ba' they chase and misca',
An' it's goufin' mad they are.
They've thrown away the stethoscope an' taken up the cleek,
An' if they're wanted for a "mid," ye've got the links to seek.
An' the patients sit in batches,
Waitin' till they finish matches,
Sin' the doctors hae ta'en up wi' goufin'.

The chorus bewails the madness which has seized them:

Goufin' a' the day,
Daein' nae work ava',
Rinnin' aboot wi' a bag fu' o' clubs,
Hittin' a wee bit ba'.

So utter is the demoralization caused by the "new pestilence" that—

If they saw a man wi' tabes they wad say, "He's lost his swing,
And murmur, "Very badly pulled," of an apex 'neath your wing.

Finally the bard is carried away by his indignation and suggests a drastic remedy:

A hear there's gaun tae be a cup tae crown the doctor's garse,
But A ken richt well the toddy that should brawly wet the same
We'll fill the challenge beaker
Wi' vin. ipecac. for liquor
'Twould maybe mak' the doctors throw up goufin'.

With the New Year the *British Journal of Children's Diseases* makes it first bow to the medical public of Great Britain—or such part of it as is specially interested in children's diseases. The editor is Dr. George Carpenter. Among the contents of the first number are a note of a case of hemicrania with third nerve paralysis, by Dr. James Taylor; a paper on congenital hypertrophic stenosis of the pylorus by Mr. Clinton Dent; one on intussusception and Henoch's purpura by Dr. G. A. Sutherland, and a report of a case of Henoch's purpura in which laparotomy was performed by Mr. Harold Burrows. Mr. George Pernet contributes an interesting note on the antiquity of achondroplasia based on a study of certain small Egyptian earthenware statuettes in the British Museum which represent the deformity. Our new contemporary seems to have a definite reason for existence, and if we may judge from the first number it will be a useful addition to the literature of the province which it takes for its own.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA

DURING the weeks ending December 5th and 12th, the [illegible] in India numbered [illegible] and [illegible] respectively [illegible] under the returns for the week ending November [illegible] of deaths from plague amounted to [illegible] There has been a slight abatement in the virulence of the disease during the weeks in question. During the corresponding weeks in [illegible] some 3,000 less. The principal returns during the week ending December 5th are: Bombay City, [illegible]; Bombay District, [illegible]; West Provinces and Oudh, 2,23[illegible]; Central Provinces, [illegible]; Punjab, 1,674; Central India, [illegible]; Bengal, [illegible]; Madras Districts, 42[illegible]; Mysore State, [illegible]; Hyderabad [illegible]; city of Srinagar (Kashmir) plague is [illegible] pneumonic type. On December 21st [illegible] cases and [illegible] were registered.

CAPE COLONY

During the weeks ending December 12th and 19th, [illegible] reports in the several towns of Cape Colony were as follows: [illegible] plague, a native male, was found dead on [illegible] No plague in any other town in Cape Colony. [illegible] tunate to be free in Port Elizabeth, Queenstown, East London, Cape Town, [illegible] Rats were examined during the two weeks ending December [illegible] 5th respectively, and no plague infected rats were found.

MAURITIUS

During the three weeks ending December 5th and 12th, January 9th, the fresh cases of plague in Mauritius numbered [illegible] respectively. During the same periods the deaths attributed [illegible] amounted to 42, [illegible], and 7 respectively.

JAPAN

A telegram dated Yokohama, December 9th, [illegible], states that "Owing to the spread of bubonic plague in this port the authorities have isolated [illegible] houses comprising the area infected with the disease."

STRAITS SETTLEMENTS

Beyond the [illegible] cases of plague reported from Kuala Lumpur, Ipoh, [illegible] plague have been met with since November 28th [illegible]

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday next, the 20th day of January, at 2 o'clock in the afternoon.

The following Committees will also meet:

Tuesday, January 19th, 1904. Premises and Library Committee, 2.30 p.m.—Medical Defence Committee, 3.0 p.m. Assistant Secretary Committee, 5.0 p.m. *Wednesday, January 20th, 1904.* Journal and Finance Committee, 10.0 a.m.

January 12th, 1904. GUY ELLISTON, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, January 20th, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital, at 4 p.m. on Tuesday, January 19th. A paper will be read by Dr. Wood Fowler on Malignant Growths and their Modern Methods of Treatment. Synopsis: Theories as to cause. Treatment: (a) Extirpation by early operation; (b) methods of dealing with inoperable cases, and some of the results of such treatment. Sedatives. Coley's fluid. Beatson's method oophorectomy. Thyroid. Chloride acid. Formalin. Caustics. Finsen Light. Other light treatment with demonstrations of apparatus. X rays. High frequency. Radium. Conclusions. L. H. SNELL, Knighton House, Coventry, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, January 28th, at 8 p.m. Business: To consider the Radical resolutions in order to reduce the expenses of the Branch; to apply for information asked for by the Parliamentary Committee, and will be present: Lieutenant-Colonel E. Markham, Member of Committee, Friendly Organization Society; and speaker [illegible] King's College Hospital Medical Committee. (2) Presentation to Mrs. Wilkes. (3) Special Committee. (4) Resolution re voluntary subscription to refund Representative's expenses at Oxford. (5) Other business. Any medical practitioner desirous of attending and taking part in the debate will be welcomed, and can obtain [illegible] applying to E. ROWLAND FOTHERGILL, Honorary Secretary, Town Hall, Southfields, S.W.

[illegible] BRANCH.—[illegible] The [illegible] will be held [illegible] M.B., F.R.C.S. [illegible] Secretary.

PERTH BRANCH.—A Council meeting will be held at the Literary and Antiquarian Museum, Perth, on Friday, January [illegible], at 4 p.m. Business: Election of [illegible], Medical Act Amendment Act, arrangements for Annual Meeting. WILLIAM A. TAYLOR, 11, Marshall Place, Perth, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE [illegible] Cardiff Infirmary. The next meeting of the Branch will be held at the Medical Institute, Park Place, Cardiff, on Thursday, January 21st, at 8 p.m., when Dr. W. J. Thomas, of Swansea, will read a paper on Mitchell Street, Cardiff, Honorary Secretary.

SOUTH WALES NEWPORT. The next meeting of the Branch will be held at the Museum, Newport, on Tuesday, January 19th, at 8 p.m., when Dr. W. J. Thomas, of Swansea, will read a paper on [illegible]. The following cases are already promised: Dr. J. L. Lee Gough, Mr. [illegible], Mr. Basil Swete, Lecturer on Anæsthetics, Dr. W. Gordon, Some Surgical Cases, Mr. C. [illegible], Whitehead, Anæsthetics. Dr. [illegible] Lecture in Lat. ation. Gentlemen wishing to [illegible] to communicate with the Honorary Secretary, M. G. YOUNG, Lalor, 1, Malpas Terrace, Newport.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Hospital Sunday. The Stanley Hospital. Co-operation of Clinical Hospitals. Preservatives in Food. A University Fellowship in Dermatology.

As has so frequently happened in former years, Hospital Sunday, which fell on January 10th, has been marked by very inclement weather, and there has been a terrible falling off in the returns from the various churches. The question of changing the date of this annual event has long been under consideration, but the difficulty in choosing a more suitable date has so far proved insurmountable. It seems that to secure the co-operation of neither weather the date would have to be postponed at least three months, and that if that were done the money would be out of pocket on the year the change was made to the extent of one fourth at least of the collection. Further, in the spring and summer a considerable proportion of the more wealthy owners of the land spend their Sundays away from Liverpool. On the whole, it is doubtful whether the hospitals would materially benefit from a change in the date even if the rainy months of autumn could be exchanged for the other Sundays in the year.

The Stanley Hospital, after a long and hard struggle in the face of [illegible] and consequent scarcity of funds, has [illegible] and looks for permanent support, and it is [illegible] to be recognised as a [illegible] medical [illegible] University of Liverpool and by other [illegible] bodies. The [illegible] who was [illegible] in 1895, owed the inception chiefly to the exertions of two medical practitioners whose friendship was almost proverbial, the late Dr. D. D. Costine and the late Mr. E. M. Sheldon, the staff of the institution has also taken a high position, and it is a matter for congratulation that the time-honoured [illegible] of the hospital [illegible] the [illegible] Hospital staff. The Royal Southern Hospital [illegible] from the same source. There is no reason to fear that clinical teaching in Liverpool will [illegible] as the result of the enlargement of medical schools.

The Royal Infirmary, the Northern, and the Stanley Hospitals are co-operating to [illegible] to provide [illegible] for special diseases among them. They all labour under the disadvantage of being at a considerable distance from the University, which, however, is [illegible] by the electric railway which [illegible] connects the [illegible] with the city.

For some years past the question of the employment of preservatives in decomposable foods exposed for sale has received much attention in Liverpool. The health authorities have endeavoured to prohibit their use altogether, and several prosecutions have taken place. The medical evidence called showed a marked difference of opinion on the subject, eminent practitioners called for the prosecution maintaining that preservatives, more particularly salicylic acid, were unnecessary and injurious even in small amounts, while the medical witnesses for the defence maintained that in the minute quantities in which they occurred in manufactured foods, such as temperance drinks, they could have no appreciable effect on the economy, and that unless some such means were employed the manufacture of such articles must cease. The last two summonses for selling fruit juices containing salicylic acid were dismissed. Quite recently a summons was taken out against a dealer for selling lime juice cordial containing 7 gr. of salicylic acid per pint, but before the case came to a hearing the prosecution was withdrawn. It is noteworthy that no prosecutions have been instituted against the use of sulphurous acid in the preservation of liquids such as lime juice, although its employment is pretty common.

Dr. Stopford Taylor has instituted a Fellowship in Dermatology in the University. The Fellow will be required to devote a stated amount of time to research in the Thompson-Yates Laboratories, and also to do clinical work in hospital.

CORRESPONDENCE.

LEISHMANIA DONOVANI FOUND IN KALA AZAR.

SIR,—With reference to my former articles on the newly-discovered parasite *Leishmania donovani*, those interested in tropical medicine will doubtless be very glad to hear that a telegram has been received from Dr. C. A. Bentley, of Assam, informing me that he has found the organisms in the spleen in kala-azar during life, thus verifying previous conjectures.

I may add that I have also heard from Captain Donovan to the effect that he remains unable to detect the organisms in the peripheral blood, where we should expect to find them if they were intracorpuscular. I am, etc.,

Liverpool School of Tropical Medicine, Jan. 13. R. ROSS.

THE REGIUS PROFESSORSHIP IN OXFORD.

SIR,—Those interested in the appointment of the Regius Professor in Oxford will learn with interest that the recommendation made to the Crown through the Vice-Chancellor was fully discussed in the University. It was unfortunate that the discussion should have taken place during the Christmas vacation and a pause sent in in the short space of time that elapsed between the end of term and the New Year. It was unfortunate, too, that none of the Oxford medical graduates attached to the London or provincial schools of medicine were not approached. I think they might reasonably have expected that their opinion should have been sought, for they, after all, have as much, if not more, to do with the education of students than the teachers or professors in Oxford.

The attitude, Sir, you take in the matter is evidently in agreement with the Oxford men who have circulated a letter recently in justification of their action, and in disagreement with those present at the meeting held in London on January 5th. May I point out, in answer to your leaderette, that there is no reason why the Regius Professor should do nothing, or, as you put it, be a merely administrative person. In fact, Messrs. Gotch, Haldane, and Dreschfeld clearly show in their letter that he has a great deal to do. This is not quite what these gentlemen meant us to understand from their letter, which reads more like an apology for the Professor doing nothing than a justification of their action in suggesting that he should give his attention solely to pathology. The University has not yet declared by statute that the Professor shall lecture on that particular subject. Those gentlemen quite ignore the important work the Regius Professor has to do for the profession of medicine generally. This is not the least important part of his duties, for the Chair is endowed it may be inadequately in order that the holder may be able to give his time to organization of medical education and the welfare of the profession generally. The climax of this letter, namely, that because he has so

[illegible] BRITISH MEDICAL JOURNAL, November 14th and 28th, 1903.

little to do and the statutes say he shall do something it is best for the Professor to lecture on pathology might raise the question whether it is not better to defer instruction in pathology till the student has some clinical knowledge of disease, when he could better understand and appreciate what he sees and hears at lectures on pathology. I am, etc.,

Caxton, Bristol, Jan. 10th. BENJAMIN M. H. ROBERTS.

MECHANO-THERAPEUTICS.

SIR,—The paragraph headed "Another Medical Company" appears to have been written without regard to the fact that institutions for mechano-therapeutics have now been in existence for many years on the Continent, and that in England we are without these very useful means for treating a considerable number of cases of chronic disease of muscles and joints. In the edition of 1896 of Dr. Hermann Weber's *Spas and Mineral Waters of Europe*, p. 33, I read: "Institutions for Swedish gymnastics have been established at many foreign spas, furnished with Dr. G. Zander's medico-mechanical appliances for passive movements and for voluntary muscular exercises with graduated resistance. Institutions of this kind are to be found at Aix-la-Chapelle, Wiesbaden, Baden Baden, Wildbad, Karlsbad, Ragatz, etc. Here graduated movements may be made in order to exercise particular joints and particular sets of muscles."

Since that time many other places might be added to this list, and in particular I saw a very excellent establishment last year at Vichy. I think it is much to be desired that we should have places of this kind in England, and, as they require very costly plant, I do not see how they are to be provided except by the intervention of the capitalist, nor can I see that the raising of capital for this purpose by a limited liability company is in itself objectionable. Such institutions are comparable with sanatoria for phthisis, hydropathic institutions, and private hospitals; and, although there may be features in some of these to which we take exception, I think we may say that we cannot expect to get along without them in the present day. It seems to me that if the medical profession cordially welcomes the establishment of mechano-therapeutic institutions it will be able to influence their management, and that they will be more likely to be conducted in accordance with our ideas if we treat them from the first as affording valuable assistance in practice and do not class them with "bone-setters" or try to exclude them from the pale of respectable medical practice. When the Zander Institute was started in London some years ago its utility was generally recognized, and it is a matter for regret that it fell into the hands of a proprietor who worked it in such a way that the method has been grievously damaged in the eyes of the medical profession in this country; but abroad no one doubts its usefulness.—I am, etc.,

[illegible] ROBERT SAUNDBY.

LIFE INSURANCE EXAMINATIONS.

SIR,—You have had letters lately in the BRITISH MEDICAL JOURNAL in reference to inadequate payment for examination for life insurance, but none of them can touch a request made to me a few weeks back. A man called and asked to appoint me examiner for a company, informing me, apparently reluctantly, on my request, that the fees paid were from 1s. 6d. upwards, each rise being an additional sixpence until 21s. was reached. I objected to such sweating of the profession, and he stated that I was the first doctor who had raised any objection. He further stated that the "cream of the profession" in Cambridge had accepted the post, and mentioned their names. If it is correct, as he stated, that the two men mentioned hold such posts, there are other positions they hold that they have no right to. On leaving he expressed regret at paying me a visit, and volunteered the information that his candidates would have their fares paid to Cambridge where they would go for examination.—I am, etc.,

Fulbourn, near Cambridge, Jan. 11th. F. L. [illegible].

SIR,—The adoption of a sliding scale of fees for medical examinations for insurance companies as advocated by the BRITISH MEDICAL JOURNAL and by Dr. Graham Brown is open to two serious objections.

According to Dr. Brown, the Scottish Life Assurance Company fix £100 as the minimum value of a policy for which one guinea is given for the medical examination, but other companies fix different sums. As we pointed out in the JOURNAL for December 26th, 1903, it is the great variation in the amount of this minimum that constitutes an injustice to the medical examiner. Some companies give half a guinea when the policy is below £500, yet the work required from the medical examiner is just the same as in the case of the Scottish Life Assurance Company.

Surely the principle for which the medical profession should contend is that the fee should be proportionate to the work done. Another objection to the sliding scale of the Scottish Life Assurance Company is that its range is so very limited; it apparently only slides as far as the two guinea mark. The majority of candidates examined in the provinces take out small policies, and, from a pecuniary point of view, the sliding scale would have a doubtful value, but even if a fee of 10 guineas were given for an examination for a £10,000 policy, it would seem to us to be a less desirable way of remunerating justly the medical officer than by assuring him of a fixed sum for a definite report. The taking out of an insurance policy is a commercial transaction between a candidate and a company, and the medical officer should have no financial interest in the bargain beyond that of being paid for what he does.

As we stated in our previous letter, this matter is being investigated by a Committee of the Norwich Division of the Association, and we hope soon to publish our report. From the facts which we have ascertained, however, the adoption of a sliding scale of fees, except it be proportionate to the work done, does not seem to us to supply a satisfactory answer to the many objections of the present systems.—We are, etc.,

MICHAEL BEVERLEY,
Chairman of the Division.
ARTHUR J. CLEVELAND,
Honorary Secretary of the
Norwich, Jan. 11th. Committee.

* The only thing we intended to advocate was that this important question should be considered by Divisions of the Association and other medical bodies, in order that in each locality a scale of fees for insurance work may be determined, so that the companies may find themselves faced in each locality by a united profession. A decision will be greatly aided by the results of the inquiry which the writers of this letter have undertaken. As a possible working plan we threw out the suggestion of a sliding scale starting from 10s. 6d. for a £100 policy, and thence steadily rising. There is reason to believe that the average value of a policy is £575, so that if a rise of 5s. were made for every £100 from the initial fee of 10s. 6d., the average fee would be, say, £1 13s. 6d.

THE PATHOGENESIS OF GOUT.

SIR,—I have read with much interest Dr. Chalmers Watson's Observations on the Pathogenesis of Gout, published in the BRITISH MEDICAL JOURNAL of January 9th. Dr. Watson endeavours to support his view that there is a bacterial factor in the causation of acute gout by referring to a fowl, dead of some acute disease which he believes was gout, in the body of which large quantities of bacteria were discovered after death.

That numerous joints, not to mention lymphatic glands, showed the presence of urate of soda, and that there was intense inflammation in various parts of the body, is obvious, but are we justified in concluding from this that the animal was the subject of the disease we call gout in the human subject? It is very unusual for a first attack of gout to select numerous joints and to be attended with various visceral inflammations and almost unknown for it to prove fatal. In fact, apart altogether from the improbability of this disease, characteristic of a high civilization, being found in birds at all, I submit that the clinical history and the pathological findings in this case go to prove that it is not one of gout.

I venture to offer another explanation, which is that the bird was the subject of an acute nephritis, and that the accumulation of the salts of uric acid in various parts of the body was analogous to the state of uraemia in the human subject. That the inflammation of the kidneys was more severe than that of other organs is apparent from the necrotic areas found in them, and it may well have been the primary lesion. Since the kidneys of birds excrete the waste nitrogen in the form of uric acid, it is clear that the latter must accumulate in the body when the kidneys are thrown out of action from any cause. In fact this has actually been observed to take place when the kidneys of birds have been excised experimentally. That the primary disease in this case arose in the kidneys is further supported by the finding of micro-organisms in these organs alone.

In this interpretation of Dr. Watson's observations on the fowl he could, we have here a very interesting illustration of the manner in which an acute and fatal intoxication will arise when the excretion of an eliminating organ is suspended. [illegible] hesitate before we apply these observations during the elimination of [illegible] which arises in animals of an entirely different species, and which arises under conditions totally different from those likely to occur with [illegible]

I am, etc.,

[illegible] R. BRAITHWAITE, M.D.

Sir,—Dr. Chapman Watson has wisely turned to the natural kingdom for some light to be thrown on the pathology of gout; but the microscopic section depicted of the [illegible] with the faithful pencil of Dr. Heal was [illegible] from a case that he mistakes the usual [illegible] that occur in the digestive mucous membrane in [illegible] disease. The living condition of the digestive tract must be fixed within ten minutes after death or be useless. His statements as regards [illegible] in the synovial fluid and of the numerous [illegible] would seem to point to a general toxic process in the nature of pyæmia rather than to a [illegible] living being, as this cockerel should be the subject of gout.

[illegible] and horses fattened with sugar and apples will supply him with much more likely subjects of gout. We can only [illegible] the existing causes of gout, there can be no question [illegible] chiefly in the nature of excesses of diet, [illegible] predisposing cause of gout. I am, etc.,

J. KINGSTON BARTON, M.R.C.P.Lond.

ISOLATION HOSPITALS.

SIR,—In this rural district of Upton-on-Severn, like the [illegible] we have been passing through an epidemic of [illegible] fever. If my friend Dr. Moore is correct in the [illegible] as to the futility of isolation in scarlet fever, it is, indeed, an important subject for consideration. Very large sums have been and are now being spent in the construction of isolation hospitals, mainly for the treatment of scarlet fever. If, therefore, these large buildings are unnecessary, it is an extravagance which will appeal to the present [illegible] of the ratepayers. The following points strike me [illegible] a brief examination of the subject: (1) In the adoption of the Notification Act of 1889 it would be manifestly unjust to tradesmen and others, who would seriously suffer pecuniarily, if there was no opportunity of removing the disease from the premises. The ratepayers would not be free from the expenses attending the precautions necessary for the [illegible] in their homes and the compensation [illegible] for loss of employment. (2) Is it not well to remember that every case treated at home subjects those premises, and [illegible] "infected" for infection for an indefinite time afterwards? Many subsequent outbreaks can be traced. I feel sure [illegible] precautions and fresh subscription to this. (3) It may be somewhat difficult to determine when an outbreak is likely to assume epidemic dimensions and when the expense of isolation should interfere with the principle. (4) As regards the beneficial effect on the patients. The atmosphere of the hospital with efficient ventilation ought not to be worse than the small and often badly ventilated room in cottages. The divided attention of the mother or head of family, [illegible] to a hospital, should [illegible] in comparison to the care and [illegible] given by skilled nursing [illegible] and which should go very far to prevent the disastrous [illegible] which I have often witnessed in the treatment of even mild cases at home. I am, etc.,

[illegible] SELWYN CLARKE,
Medical Officer of Health to the [illegible] Rural [illegible] Council.

CANCER AND ITS ORIGIN.

SIR,—We were greatly interested to learn, from the letter appearing in the *British Medical Journal* of January 2nd, that Dr. Beatson had so long ago put forward the view "that the active principle seen in cancerous tumour [illegible] is furnished by the epithelium of the part as having taken on the properties and powers of germinal epithelium."

I [illegible] with much interest to know the term "germinal epithelium" can be [illegible] to cells which are destined immediately to undergo, or have undergone a reduction division, to which we have applied the terms "gametogenic" and "gametoid"—the former to those occurring normally, the latter to those whose presence is abnormal—it would have been difficult at the time he wrote for Dr. Beatson to have come nearer to the facts since demonstrated by us. There are, however, a few points with regard to our paper to the Royal Society which this letter leads us to believe would be elucidated by a brief explanation.

While there is a vague similarity in many respects between the general idea suggested by Dr. Beatson and those conclusions which we have drawn from our definite cytological investigations of malignant growths, we must state that we differ from him in many important details which space will not at present allow us to discuss. We would, however, draw attention to the following points. The chief conclusion drawn by Dr. Beatson from his clinical observations was, as far as we are able to make out from a careful perusal of his original paper, that the ovaries and testicles exercise "a control in the human body over local proliferations of epithelium" and that "the removal of the tubes and ovaries has an effect upon the local proliferation of epithelium which occurs in carcinoma of the mamma." To these conclusions he was led by his clinical observations of several cases, particularly of one of carcinoma of the breast where he removed the ovaries and tubes of the patient. In this case the carcinoma was apparently cured, Dr. Beatson attributing the cure to the removal of the ovaries.

Our observations upon malignant growths have, on the other hand, been entirely microscopical, and we have simply described what we have seen and are able to demonstrate. We express no opinion, one way or the other, as to the possible influence of the ovary or testicle upon the production or growth of malignant tumours.

We would lay particular stress upon the fact that we have shown that cells which have been for a long time carrying out specialized somatic functions may, under certain conditions, become gametogenic, and go through a reduction division. In certain plants this occurs normally. In mammalia certain cells in the genital organs are set apart at some period during the life of the organism to produce sexual germ cells, and in these at the proper time reduction takes place normally. When, however, reduction division takes place in other somatic cells abnormally, the growth possesses not only a parasitic character, but is also malignant. This reduction division may apparently take place anywhere and in any kind of tissue, and the presence of such cells enables us to differentiate between benign and malignant growths.

With regard to Dr. Beatson not being sure about our statement as to the exact mode of development of normal gametogenic cells, we would merely point out that the features of this particular metamorphosis are matters of common knowledge among cytologists.—We are, etc.,

J. B. FARMER.
J. E. S. MOORE.
CHARLES WALKER.

Royal College of Science, London, JAN. 13th, 1904.

SIR,—It has been said that "imitation is the sincerest form of flattery." This may be so, but it is not always agreeable. For example, in the BRITISH MEDICAL JOURNAL of January 2nd, Dr. George Thomas Beatson states that "cancer bodies" may be derived from the ovary. This fact I demonstrated at the Egyptian Medical Congress, held at Cairo in December, 1902. The subject has also been fully commented upon in my book on *Cancer*, published early last year. Dr. Beatson, likewise in 1896, some weeks after I had read a paper before the British Gynæcological Society upon the value of thyroid in the treatment of cancer, and which I had verified by numerous successful results, came forward advocating the same therapeutic measures, without even acknowledging my priority.

He now states that oophorectomy has been the only means which has proved of any avail in arresting cancer. Now this is an assumption he has no right to make. Moreover, it is not true. In my own experience I have had ample evidence that cancer is curable without oöphorectomy. Several of my cases are over 5 years old and yet there is no recurrence. These comprise cases of both uterine and mammary cancer. Indeed it would be strange if oophorectomy would prove of any avail when the author of the treatment acknowledges the disease as being due to the presence of ovarian tissue in the mamma. Would the operation not then amount to shutting the door after the steed had been stolen? I am, etc.,

[illegible] ROBERT BELL.

BALCONIES AT SANATORIA.

SIR,—Dr. Stuart Tidey's arguments in favour of balconies at sanatoria are too sweeping; and a little practical experience of their working in this comparatively sunless climate would soon convince him of the fact. In dull weather, when light is most needed in the room, very little is reflected from the floor of the balcony. Less of the sky can be seen from a room with a balcony than from one without. For protection against rain the roof of the balcony must either be low at its outer edge or deep; and in either case cuts off much light and air. A glass roof would no doubt let in more light, but in summer would be unbearably hot. At Hohenhonnef they have to cool their balcony roofs with a stream of water. Even an awning is apt to make rooms stuffy at times. A flat-roofed balcony no doubt admits air as freely as a large window; but the bed is further from the fresh air, and a patient who was used to wide-open windows would want his bed moved nearer the balcony, so that there would be no practical advantage. If in boisterous weather the balcony cuts off wind, in still weather it will cut off needful air. There is no difficulty in making the window open to the ground without a balcony; bars will render it safe; but a low sill, 9 inches high, is useful to protect the feet against cold.

Dr. Tidey quite loses sight of the effect of a balcony on the room below, which is necessarily darkened in proportion to the depth of balcony. Such structures should in my opinion be placed not over bedrooms but over such places as entrance halls and between blocks of bedrooms, where their darkening influence will not matter.

Dr. Tidey is quite right in objecting to the "barrack form" of hotels and sanatoria; but there are even now some sanatoria which are not like barracks; and it is to be hoped that new ones will be beautiful as well as useful.

Montreux is not in England; and I am sure that conclusions will be misleading which do not take into account the climate and situation of the sanatorium, and which apply to this country the experience derived from a different one.—I am, etc.,

Crooksbury Sanatorium, Jan. 11th. F. RUFENACHT WALTERS.

THE TREATMENT OF PNEUMONIA.

SIR, Dr. James Barr's letter, which appeared in the BRITISH MEDICAL JOURNAL of December 19th, 1903, prompts me to solicit an opportunity to reply to some of the points which it raises.

With regard to blood-letting, my experience points to its beneficial effect both early in sthenic cases when the blood-pressure is high, and later, when the venous system is gorged and asphyxia is threatening.

It is all very well to say that you may reduce the intake of liquids, but the liquids may have been taken already and the immediate condition be critical.

Blood-letting by venesection may under such circumstances tide the patient over a period of imminent peril, and the resulting relief may then be maintained by a strict limitation of the intake of liquids.

My experience of the use of oxygen leads me to regard it as a decided cardiac stimulant. I have repeatedly felt a failing pulse regain force under the influence of oxygen inhalation. It is easy to argue that it cannot be of use, but the humble practitioner must be guided by facts and not deny potency to agents the action of which he cannot explain.

Dr. Lees and Dr. Barr both advocate the use of icebags, but on different grounds—Dr. Lees to inhibit pneumococcal growth, Dr. Barr to reduce the temperature. But Dr. Barr does not explain in what way reduction of the temperature benefits the patient. I think we shall all admit that it does so, provided that it is effected by suitable means, of which none is better than the ice compress. My own theory is that one of its most important effects is due to its decreasing the volume of gases contained in the practically closed cavities of the body. My attention was drawn to this point by observing the increase and decrease of abdominal distension in cases of typhoid fever, occurring *pari passu* with the rise and fall of the temperature.

The expansion of gases under the influence of increasing temperature is a fixed physical law, and must take place in the body as well as out of the body. With the expansion of gases in the bowel there is increased abdominal tension, and the abdomen is distended in all available directions. Among others it is distended upwards, encroaches on the thoracic cavity, and impedes the action of the heart and lungs. In elderly people with chronic flatulence you can relieve symptoms of weak cardiac action most surely and permanently by reducing the abdominal tension; in febrile conditions you can effect a similar result by different means, chief among which is the application of ice to the abdomen. Thereby the temperature is reduced, the volume of abdominal gases is reduced, and the pressure exerted by abdominal distension on the thoracic organs is reduced.

I have dwelt at some length on the last point, as I have never heard it mentioned, nor have I met with it in literature, though doubtless it is to be found.—I am, etc.,

Montreux, Dec. STUART TIDEY.

PUBLIC HEALTH ADMINISTRATION IN ENGLAND.

SIR, I am glad to see in the BRITISH MEDICAL JOURNAL of January 2nd that the question of a Minister of Public Health and a great department attached is beginning at last to receive practical attention. It is now nearly ten years since I advocated this in a lecture which I delivered before the Wordsworth Institute at Cockermouth entitled State Obligations in Matters of Public Health, and later in a condensed form I made it the subject of my Presidential address to the Border Counties Branch of the British Medical Association. Reference to it will show how I proposed this great public health department should be created, how it should act, and what its work and duties ought to be. In the light of the memorandum which you publish, and taking the matters seriatim, I wish with regard to the observations which you offer for consideration to say:

1. I should not interfere with the sanitary administration of either the army or navy.

2. I would take the Province of Scotland and Ireland alone. If you care to put it so, the proposal is by the creation of a State Board of Health to relieve the Local Government Board of much of its work.

3. The Minister of Public Health, in my opinion, ought to have Cabinet rank, but not to be affected by the rise or fall of parties.

4. As to the line of cleavage, I have briefly sketched this in my lecture, but with regard to the queries under this head would say:

I see no reason to assign the engineering and agricultural departments to the new Ministry, though in all matters of sanitation connected with these the Local Government Board should not hesitate to utilize the department; and

In Poor-law administration the same.

Certainly all matters and all expenditures incurred in connexion with hospitals, water supply, drainage, and other works of a sanitary nature should be transferred to the new Ministry.

Although all the powers still left to the Local Government Board.

5. This is the most difficult part of the whole business, as I have pointed out in my lecture, the object being to remove as much possible the medical officer of health from local control, and to place him under security of tenure by the Minister of Public Health.

Before the Factory Department of the Home Office as it is for the present, but in all matters affecting the health of workpeople, etc., let them have every assistance from the new Ministry.

All medical and public health matters to be transferred to the new department, the Minister of Public Health to be its President.

8. Relieve the Foreign Office of its present duties with regard to sanitary regulations, quarantine and transfer to new Ministry.

It is not proposed to abolish the Local Government Board or even to merge it, but to create a new department which shall not be a paper Board.

These briefly are the lines on which it appears to me this new reform might operate, but of course much detail requires to be worked out. This may take time, but it ought not to be an impossible task, and I think that now the matter has been taken up it will not be allowed to drop, but that in the near future a Minister of Public Health and a great Public Health Department will be *un fait accompli*.—I am, etc.,

Workington, Jan. 7th. JOHN HIGHET, M.D., M.O.H.

A SANITARY MILK SUPPLY.

SIR,—The weekly medical inspection of dairy farms I have advocated for years both in the medical and lay press. The abominable insanitary condition of many is not mere fancy, or what our friends the dairy farmers call the latest "medical fashionable craze." It is, if I may be allowed to use the expression, solid insanitary dirt conditions which many dairy farms are conducted under and which carry disease and even death in their train. But I have frequently pointed out that most of the medical inspectors employed do not possess sufficient knowledge for the work. A medical inspector, to be of any practical worth, should have a sound practical knowledge of farming, be a good judge of cattle and the feeding of cattle, should possess some knowledge of veterinary surgery, besides being an expert hygienist, and, I may add, be up to "the tricks of the trade."

I was once inspecting a dairy farm with a very scientific

medical man who had showed me nearly all the latest improvements in milking, etc. He asked me if I was not satisfied. I said not at all. He seemed very surprised. I told him I wanted to see the cows. I am afraid this gentleman had not often seen them himself, for he certainly did not appear to know their whereabouts.

Farmers, as your correspondent "D. M." states, are conservative in the worst sense of the word, but they will generally lend an ear to a man who knows their trade as well as his own, but certainly not to the mere scientist; him they make a laughing stock of. I am, etc.,

[illegible], W. THOMAS DUTTON.

ST. BARTHOLOMEW'S HOSPITAL.

SIR,—The paragraph on p. 97 of the BRITISH MEDICAL JOURNAL of January 9th, is somewhat misleading. It represents that the governors came to a conclusion to which the Medical Council could not assent. This is not by any means the case.

We originally urged the governors to purchase more land from Christ's Hospital. To this they agreed. But unfortunately Christ's Hospital had in the meantime sold the remainder of their site to the Post Office. Nothing, therefore, was left but to obtain more room by removing the Nurses' Home and College from the hospital area. This alternative had been already suggested by us to the Lord Mayor's Committee. We told that Committee, and we lately told our governors, that the removal of these buildings would leave sufficient room to build a thoroughly satisfactory hospital of the best pattern, containing at least as many beds as the present.

The Court of Governors, confirming the resolution of the House Committee, decided to follow our recommendations. This conclusion virtually enlarges the hospital area by about one acre, and, bearing in mind that we have five acres of open ground on our northern frontier, I have no hesitation in saying that in point of space and air we shall compare favourably with any hospital in London.

You further say that the Governors decided not to bring forward any detailed plan. This is quite a mistake. No such decision was made. On the contrary, fresh block plans for the whole area now rendered available have been at once submitted to the Medical Council.

It may be—for such matters require careful and prolonged discussion—that we shall not be able before January 26th to determine the site of each separate block. We have to see how each can be made a component part of a single comprehensive scheme, and how each can be erected with the least possible interference with our daily work. We hope gradually to replace the old buildings, and bit by bit to form a completely new hospital. It is a matter of great difficulty to arrange a plan on which this idea can, as money comes in, be carried out without crippling our usefulness.

But the numbers of the blocks, the purpose for which each is required, and the estimated cost of each have long been settled, and will be distinctly laid before the public at the Mansion House meeting. The public need not for a moment doubt that our scheme is perfectly definite, and will, I feel sure, be quite content to leave architectural details in the hands of the governors and the Medical Council, who are acting at twenty-fold full speed. I am, etc.,

[illegible], W. W. P. HERRINGHAM.

THE MIDWIVES ACT.

SIR,—As was to have been expected, the Midwives Act begins to prove unworkable and the lay governors and advocates of the Act at last recognise the decided difference between the work of midwifery and mere midwives' work. Amongst other needful questions before the Act passed, payment of general fees, supervision, and real efficiency provided the points emphasised by my own writings, so that at least the best absence from the Act of the essential and pathological was clearly foreseen.

As it is, the doctor can go begging for his fees under the present arrangement, but they cannot be put down as expenses under the Act. The [illegible] Council's finances have to be audited and passed, and many of the illegal charges are submitted they will be rejected on complaint, disallowed by the Local Government Board. Possibly an Amendment Bill may be required; at any rate supervision, fees, and the advisability or the option of more training should be put in. With approved attention to political bearings, Law, dealing with "an artificial state," and the Church, with its "philosophical state," take good care to establish and exact very large emoluments and allowances for their public work; but Medicine, concerned with the equally important "public health state," is left or expected to forego or tolerate much niggardly remuneration, because of our ineptitude and carelessness in attending more than we do to political questions, or in safeguarding legitimate rights as in a Bill like this one. Dr. Snell's municipalization of medical practice extends beyond the issues of this century, excepting hospital administration, and his fear as to providing the necessary medical attendance under this Act appears to me to reach too far. Obviously, the Act will not now be allowed to remain in abeyance. It was purposely intended, in most part, for the poorer classes, but not the paupers, so that abuse by those otherwise well able to pay the proposed consulting fees would have to be guarded against. Of course medical midwifery will always be regarded as superior to that of the midwives and command corresponding preference; besides, the fact presents itself that complications with the practice of the midwives must arise at a later and more inopportune time than if the doctor attended from the first. I am, etc.,

Bognor. H. ELLIOT-BLAKE.

THE SWEATING OF MEDICAL MEN.

SIR,—Seventy-five per cent. of medical men to-day know that their condition is deplorable. By means of union and co-operation much of this wretchedness can be done away with. To qualify we spend £1,500 to £2,000. Most of us are 2[illegible] years of age before we have earned a penny. We largely ourselves adopt the cut-throat system. Hundreds of men in this place never pay one penny to a doctor. If such men are taken ill or have an accident the local practitioner attends them for four to twelve weeks, generally for nothing. If you put them into court you lose all round—you lose time, sleep, you get anxiety, the sneers of the crowd, the gibes of an unsympathetic judge, and you have spent 20s. to try to secure 15s. I have been through the mill. So bitter is my experience that, unless paid there and then, I never make a note of such items, and I am happier and better off.

Our pay is bad, but the respect paid us is worse. Educated people respect us, but the working classes, which are far more numerous, simply give us an ignorant nod, and call us "Jones" or "Smith."

No educated man dies at a younger age than a medical man. We are a poverty-stricken profession. Not one medical man in this locality can afford even a horse. I can never leave my practice for six hours. I can never go to a theatre. I cannot afford to go to see my parents once in twelve months. A *locum tenens* I cannot afford. Here we never trust one another to manage our respective surgeries for even half a day.

The charity work we do is simply enormous. We do more charity work a thousand times than any other class. To be respectable so as not to offend, and to be equal to my poor neighbour Dr. Sneand-So, the amount of money I give away is almost incredible. The amount of medical and surgical work I have to do for nothing is appalling. The other day I put a fractured humerus into a splint for a youth. The father who was with him, never thanked me, nor offered a penny pay. Before and after we were utter strangers.

Air your grievance to the working man, and at once you become a monster in his sight. Some of them pay me 1s. a month. For that I must attend everybody, often for months, that may be connected with them.

Recently I had to go four miles at 9 p.m. to see an injured man not in any way connected with me. Another medical man was sent for, and he was there before me. I have no hope to get a copper for this. I asked who sent for me and was insulted—my only reward. I had to leave the room in which the patient was as if I were guilty of gross misconduct.

When we try to save life people are suspicious of us, and would like to kick us out of their houses. I can easily prove what I say. How can we remove this cruelty and abomination? It can be done largely through union and co-operation. The most ignorant of working men have such things. Let towns and large centres which medical men are numerous take the lead and the general practitioner will follow. We are a thousand times too educated for the average working man. The good money, the easy and spare time, the privileges, the voting power, the gaming about, the spending of valuable time and money in betting, gambling, and public houses, the eating and stuffing, the gaudy and expensive

dressing, together with throwing wholesome food to the rubbish heap, belongs to the working man.—I am, etc.,

December 23rd, 1903. ONE OF THE CRUSHED DOCTORS.

A WINTER HOLIDAY.

SIR, Your article on Winter Holidays in the BRITISH MEDICAL JOURNAL of January 2nd, p. 29, is refreshing reading, especially to one who, like myself, has enjoyed the trips suggested, and has found Algiers, Monte Carlo, Constantinople, Greece, Madeira, and the Canaries all—and more than all—you describe them to be. Your correspondent, however, put aside in a sentence the attractions of the snow mountains for a busy doctor needing a fortnight's holiday. He writes: "In winter to get a warm climate seems indispensable, and to reach a warm climate means time spent in travelling."

For "warm climate" I would venture to substitute "sunshine," and would put in a claim for the "Alpine Winter Health Resorts," and would recommend Adelboden, Grindelwald, Davos, Arosa, and St. Moritz.

May I describe in a few words the ten days' trip I have just taken? Leaving London at 2 p.m. you reach Frutigen (via Boulogne, Paris, Basle, and Thun) in twenty hours. A three hours' drive up a beautiful valley brings you to Adelboden at 4 p.m. A week of unbroken sunshine, spent in skating, skiing, tobogganing, curling, and—best of all—in mountaineering, renovates and refreshes as completely as two or three weeks spent in the Riviera. The return journey is made in twenty-four hours—need not be fatiguing. The sun is so warm that a great coat is quite *de trop*. Mountain ascents are supposed to be less attractive and more fatiguing in winter than in summer. Yet, though the snow may be deep it is dry, and the delight of seeing the familiar mountains in winter garb is great.

From the hills around Adelboden the Jungfrau and its neighbours, and the whole range from Pilatus, overhanging Lucerne, to the mountains that conceal the Geneva Lake are open to our view; a cheering memory to bring back to the grey skies and fogs of London.—I am, etc.,

London, W., Jan. 5th. E. SYMES-THOMPSON.

WARNING: NURSES ON PASSENGER BOATS.

SIR,—Nurses cannot be too strongly warned against going in passenger boats unless their position be defined in writing beforehand. One of the large south-going Mail lines advertised lately in the *Hospital*, and two women were selected, signing on the articles as stewardesses the only females recognized by Board of Trade Regulations as part of a crew. They were put under the purser's orders, and told off as stewardesses (£3 per month) to attend certain ladies' cabins. They were to eat at the children's table to have their meals, but if there was no children's table they had to go to the pantry for their own meals, which they could take and eat as best they could. They were allowed to go on the saloon deck when saloon passengers were off it at meals. Should their particular ladies require meals in their cabins, these had to be fetched from pantry or saloon by the nurses, in which case they were unable to avail themselves of the saloon deck for fresh air at that meal hour. For three nights they had a good cabin, which they had to keep clean, etc., and had to make their own beds. Friction arising with the purser, under pretext of the ship being full, the nurses were turned out of their cabin and told to sleep in the waiting-room attached to the female baths and waterclosets. Access to baths and waterclosets could be had only through this room, and there the nurses had to sleep, dress and undress, and keep their boxes, with no privacy, merely a curtain screening them off from the public corridor, and always liable to have lady passengers passing to inset or bath. They had to be up and out by 6 a.m., when the room was used by ladies waiting their turn at bath, and were not supposed to prepare for sleeping till after 11 p.m. From 6 a.m. to 11 p.m. they had nowhere to go. In addition a black woman servant (head swarming) was put along with them—the three on absolute equality. On speaking to the captain they were told the Board of Trade could not compel keeping accommodation to be found for servants.

In a fortnight's time on request being again made for a cabin, several passengers having left and several cabins being vacant and no steps having been taken to better their position, they were given a good cabin for three nights, when they were then allotted an inside cabin with no port-hole. The two stewardesses proper had a cabin each throughout the voyage. Through the kindness of the bedroom steward one nurse got a separate cabin (ship now one-sixth full) where she painted, read, etc., and ultimately used to sleep in. The purser, hearing of this, ordered all the keys of the vacant rooms to be brought to him, baggage to be cleared out, and the night watchman to post himself by the cabin door to see that no admittance was gained. They were thus again together in the cabin with no porthole.

No mention was made to the surgeon that trained hospital nurses were to be carried. A fracture of base of skull in one of the crew raised the question as to their being available, but at first the purser declined to let their services be available. Ultimately one was allowed to attend the case. Next day a third-class woman aborted, and septic poisoning set in. A nurse was twice denied—they were stewardesses on the articles. The seriousness of declining to allow professional aid to the case was referred to the captain, and a nurse given, and the footing established that in spare time not used in stewardess work they might be allowed to volunteer for work with the surgeon. Both were delighted to volunteer for nursing, and in spite of the indignities and difficulties did some most trying and difficult work (inguinal hernia operation, measles, etc.) involving attendance both night and day.

To advertise for ladies and then put gentlewomen in the position of black servants, give them no sleeping quarters, and put them beside waterclosets in the tropics in a public waiting room is somewhat misleading. The idea of the company is to replace the old stewardess by a hospital-trained one, and women of that class may be found, but women of education and refinement had better inquire fully what their status is to be.

Nurses should be taken as such, given the rating of a saloon officer, and badged as officers, with the status of a first saloon passenger, and put in the medical department. On such a footing alone will the movement be successful.—I am, etc.,

January 1st. X.Y.Z.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—Your correspondent "M.R.C.S. etc.," in his letter published in the BRITISH MEDICAL JOURNAL of January 9th, states, referring to the English Colleges: "The final examination, as reported by the Council's Visitor and Inspector, are (*sic*) 'excellent' and 'as good as could be desired.'"

In the report of the third or final examination of the Royal College of Physicians of London and the Royal College of Surgeons of England, held in January, 1903—the report itself being dated November, 1903—the opinion of the Visitor and Inspector on the examination is expressed in the following words in the

"*Conclusion.*

"We are of opinion that the Final Examinations in Medicine, Surgery, and in Midwifery by the Conjoint Examining Board in England are sufficient."—I am, etc.,

January 12th. A LICENTIATE.

OBITUARY.

CHARLES EDWARD SAUNDERS,

M.D.Aberd., M.R.C.P.Lond., D.P.H.Camb.

WE regret to have to record the death of Dr. C. E. Saunders, of The Cottage, Edenbridge, Kent, which took place in the south of France on January 3rd. Dr. Saunders, a cadet of a Devonshire family, was born in 1843, and was a younger brother of the late Dr. Sedgwick Saunders, Medical Officer of Health for the City of London. After completing his general education at Cheltenham College, he proceeded to St. Thomas's Hospital, then situate in the Borough, in 1861, and took the M.D.Aberdeen with honours five years later. He engaged in practice for a short time at Cuckfield, Sussex, and then obtained the post of Surgical Registrar at his old hospital, and commenced practice in Lower Seymour Street. Later on he obtained the appointment of Medical Officer of Health for certain combined districts of Hertfordshire and Middlesex, and held it until he was elected Superintendent of the Sussex County Asylum at Haywards Heath. This appointment he continued to hold until the close of last century, and he fulfilled its duties with the greatest credit to himself until his health broke down. The early symptoms from which he suffered were those of recurrent attacks of gall stone; later on complications set in and eventually caused his death, which occurred while he was residing at Nice. In accordance with his previously expressed

wishes his remains were cremated at Paris. Dr. Saunders was a man of fine presence, with a manner full of tact and charm, and a *persona grata* to all the patients and officials with whom he had to deal. In private life Dr. Saunders, upright and courteous in all his dealings, greatly endeared himself to a large circle of friends, and hence will long be mourned. Mentally he was a man of much activity, and besides contributing various papers on sanitary matters to the medical journals, he was the author of a pamphlet entitled the Essential Conditions of a Healthy House. Dr. Saunders was married, and leaves a widow and three children.

DEATHS IN THE PROFESSION ABROAD. Among the members of the medical profession in foreign countries who have recently died are Dr. Julius J. Chisholm, Emeritus Professor of Diseases of the Eye and Ear in the University of Maryland, aged 73; Dr. William Ingalls, a distinguished Surgeon of Boston, U.S.A., aged 90; Dr. Edward Fridenberg, of New York, a well-known Specialist on Diseases of the Eye and Ear, aged 48; Dr. K. F. Emmert, Professor of Forensic Medicine in the University of Berne, aged 92; Dr. William Begrens, of Göttingen, editor of the *Zeitschrift für wissenschaftlichen Mikroskopie und mikroskopische Technik*, and author of works on botany and on methods of microscopical research; Dr. Cornelius O'Leary, a prominent medical practitioner of New York, and Inspector in the Health Department of that city, and also professor of philosophy and classics in Manhattan College, and a writer of some note, especially on evolution and allied subjects, aged 64; Baron George von Liebig, a son of the famous chemist, for some years a surgeon in the service of "John Company" and for a time Professor of Natural History in the Hindu College, Calcutta, afterwards official doctor at Reichenhall and lecturer on climatology and baths in the University of Munich and author of works on the physiological and therapeutic effects of atmospheric pressure, "mountain sickness," etc., aged 76; Frances E. White, M.D., for many years Professor of Physiology in the Woman's Medical College of Pennsylvania; and Dr. Sam Werekundoff, Lecturer on the History of Medicine in the Medico-Military Academy of St. Petersburg.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: ALEXANDER J. J. JOHNSTON, Fleet Surgeon, to Haslar Hospital, January 23rd; WILLIAM [illegible], Fleet Surgeon, to the *President*, for three months' course of hospital study, January [illegible]; JONATHAN SHAND, M.B., Fleet Surgeon, lent to the *President* for three months' course of hospital study, January 12th; WILLIAM [illegible] MARSHALL, Staff Surgeon, to the [illegible], January 12th; JOHNSON [illegible], M.B., Staff Surgeon, to the [illegible], undated; [illegible], Surgeon, to the [illegible], January [illegible]; WILLIAM JACKSON, M.B., Surgeon, to the [illegible], January 12th, and to the [illegible] on recommissioning; [illegible] C. ROSS, Surgeon, to the [illegible]; [illegible] JENKINS, Fleet Surgeon, to the [illegible], January [illegible]; [illegible] A. BALLS, Surgeon, to the [illegible], temporary [illegible].

DEPARTMENT OF THE MEDICAL DIRECTOR-GENERAL OF THE NAVY.

WE note that the department of the Admiralty has been strengthened by the addition of a [illegible] Medical Officer, Staff Surgeon Edward F. [illegible], M.B. The [illegible] the [illegible] has largely added to [illegible] of the Navy [illegible] the Lords of the Admiralty [illegible] as a further extension of the appointment of Medical Director-General of the Navy.

SCOTS GUARDS.

SURGEON-MAJOR W. C. BEEVOR, M.B., C.M.G., Scots Guards, on vacating his appointment [illegible] Majesty's Secretary to the Governor [illegible] to England and report himself to the War Office.

ROYAL ARMY MEDICAL CORPS.

COLONEL W. [illegible] [illegible]

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT-COLONEL [illegible] M.D., and E. T. CÆSAR, having attained the prescribed limit of age, are removed from the Army Medical Reserve, January [illegible].

Surgeon-Lieutenant-Colonel F. E. FENTON and Surgeon-Captain F. [illegible] KEMP, having resigned their Volunteer appointments, cease to belong to the Army Medical Reserve.

Surgeon-Captain [illegible] M. MELLEN, M.B., having been retired from the Volunteers, ceases to belong to the Army Medical Reserve.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL W. P. CARSON, M.B., Bengal Establishment, is permitted to retire from the service from January [illegible]. He was appointed Assistant Surgeon September [illegible] Colonel September [illegible]. He was in the Afghan war [illegible] and in the [illegible] campaign in [illegible] (medal, with clasp).

VOLUNTEER RIFLES.

BRIGADE-SURGEON-LIEUTENANT-COLONEL [illegible] 2nd (the Weald of Kent) Volunteer Battalion the Royal West Kent Regiment, Senior Medical Officer, Sussex and Kent Volunteer Infantry Brigade, resigns his commission, and is granted the honorary rank of Surgeon-Colonel, retaining his uniform, December [illegible].

Mr. ALEXANDER K. TRAILL to be Surgeon-Lieutenant in the 3rd (Dundee Highland) Volunteer Battalion the Black Watch (Royal Highlanders), December [illegible].

Surgeon-Lieutenant-Colonel W. G. LOWE, M.D., 2nd Volunteer Battalion the Prince of Wales's (North Staffordshire Regiment), resigns his commission and is granted the honorary rank of Surgeon-Colonel, December 5th, [illegible]; he retains his uniform.

Supernumerary-Surgeon-Lieutenant J. J. R. MACLEOD, M.B., 19th Middlesex (Bloomsbury), [illegible] London Volunteer Infantry Brigade Bearer Company, resigns his commission, December [illegible].

The undermentioned officers resign their commissions, November [illegible]: Surgeon-Lieutenant A. FOSTER, M.D., [illegible] Volunteer Battalion the East Lancashire Regiment; Surgeon-Lieutenant G. E. E. PAINE, 2nd Volunteer Battalion the Royal Sussex Regiment; Surgeon-Captain J. SHAW, M.D., 1st Bucks.

Captain E. P. SHEARER, 1st Nottinghamshire (Robin Hood), resigns his commission and is appointed Surgeon-Lieutenant, November [illegible].

Surgeon-Lieutenant J. F. F. PARR, 1st Tower Hamlets, to be Surgeon-Captain, November [illegible].

Surgeon-Captain [illegible] HARVEY, 2nd Volunteer Battalion Alexandra Princess of Wales's Own (Yorkshire Regiment), to be Surgeon-Major, January 2nd.

Surgeon-Captain J. O. WILSON, M.D., 4th (Donside Highland) Volunteer Battalion the Gordon Highlanders, to be Surgeon-Major, January 2nd.

Surgeon-Lieutenant-Colonel (Lieutenant-Colonel (retired) Indian Medical Service) T. R. MACDONALD, M.B., 1st (Inverness-shire Highland) Volunteer Battalion the Queen's Own Cameron Highlanders, resigns his commission, January 2nd.

Mr. WILLIAM G. MACFEE to be Surgeon-Lieutenant in the 19th Middlesex (Bloomsbury), and to be borne as supernumerary while doing duty with the Bearer Company of the 5th London Volunteer Infantry Brigade, December 4th, [illegible].

Surgeon-Captain R. FIELDING-OULD, M.D., 4th Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, January [illegible].

Supernumerary Surgeon-Captain W. P. PEAKE, 1st Volunteer Battalion the Leicestershire Regiment, also commanding the Leicester and Lincoln Volunteer Infantry Brigade Bearer Company, resigns his commission, January [illegible].

HENRY G. SMEETH, M.D., to be Surgeon-Lieutenant in the 4th Volunteer Battalion the Cheshire Regiment, January [illegible].

Surgeon-Lieutenant E. J. W. CARRUTHERS, M.D., 5th Volunteer Battalion the Cheshire Regiment, to be Surgeon-Captain, January [illegible].

Captain J. E. H. DAVIES, 1st Volunteer Battalion the Royal Welsh Fusiliers, resigns his commission and is reappointed Surgeon-Captain, January 2nd.

Surgeon-Lieutenant G. F. MORLEY, 3rd (Duke of Connaught's Own) Volunteer Battalion Hampshire Regiment, to be Surgeon-Captain, January [illegible].

Surgeon-Captain W. N. EVANS, from the 1st Volunteer Battalion the Middlesex Regiment, to be Surgeon-Captain in the 19th Middlesex (Bloomsbury), and to be borne as supernumerary while commanding the Bearer Company of the [illegible] London Volunteer Infantry Brigade, January [illegible].

Supernumerary Surgeon-Captain J. G. FRASER, M.B., 19th Middlesex (Bloomsbury), commanding the [illegible] London Volunteer Infantry Brigade Bearer Company, resigns his commission, January [illegible].

Surgeon-Lieutenant F. W. KENDLE, 4th Volunteer Battalion the Devonshire Regiment, is promoted to be Surgeon-Captain, January [illegible].

Captain H. DOBINSON, 3rd Cumberland Volunteer Battalion the Border Regiment, resigns his commission and is appointed Surgeon-Lieutenant, January [illegible].

Surgeon-Lieutenant C. H. NEWBY, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment, to be Surgeon-Captain, January [illegible]; he resigns his commission from the same date, retaining his rank and uniform.

TITLES OF UNITED STATES NAVY SURGEONS.

REAR-ADMIRAL P. M. RIXEY, the Surgeon-General of the United States Navy, [illegible] that the titles of officers of the medical corps should be [illegible] part of [illegible] [illegible] the different grades of the corps [illegible] to be surgeon-lieutenant, and assistant surgeon to be [illegible] grade.

BILLETS FOR MILITIA MEDICAL OFFICERS.

MAJOR R.A.M.C. writes: I read in the BRITISH MEDICAL JOURNAL of November 28th, 1903, an account of the Irish Medical Schools' and Graduates' Association dinner. Surgeon-Major Moyle Grimshaw is there reported to have said in his speech that many officers were refused billets during the recent tour of the R.A.M.C. Militia. In order to obviate the difficulty he urged that officers of this branch of the service should be permanently attached to the militia, in that way the R.A.M.C. officers would be available for service when in their full strength.

Now this would no doubt be a very satisfactory method of providing militia medical officers with billets, and as far as they are concerned it would probably be very popular, but the reverse of the picture would not, I think, give equal satisfaction to those affected by it. The home tours of R.A.M.C. officers already bear such a small and unfair ratio to their foreign tours, that any step likely to still further curtail them would be looked upon with an unwilling eye by the officers of that corps. To instance my own case: I am due home for trooping season, by which time I shall have completed fourteen years' service. Out of this period I have had three years and one month at home, of which one year and eight months was in first joining, so that out of my last twelve years and four months' service I shall have had just one year and five months at home stations. This has been without any exchanges.

Personally I should be very sorry to see the introduction of any system which would be likely to still further diminish the above proportion of home service, which cannot be considered excessive. Let not Peter be robbed in order to pay Paul.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROSECUTION UNDER THE MEDICAL ACTS.

AT the West London Police Court on Thursday, January 7th, James Charles Ady, a coloured man, carrying on medical practice at Fulham, was summoned on four summonses for that he not being upon the *Medical Register* did wilfully and falsely pretend to be and take and use the name, style, title, addition and description of "Doctor" "L.R.C.P. and L.R.C.S.Edin.," contrary to the provisions of the Medical Act, 1858.

Mr. A. H. Bodkin, instructed by Messrs. Hempson, prosecuted for the Medical Defence Union, and described the case to be one of the worst of the kind that could be imagined. It appeared that Mr. Ady held in 1898 the qualifications of L.R.C.P. and L.R.C.S.Edin., and his name appeared upon the *Medical Register* until 1899. At that time, owing to certain matters which came out in connexion with a criminal libel action which Ady brought against a newspaper, and which action was dismissed, a report was made to the General Medical Council and an inquiry held by that authority, which resulted in his name and qualifications being erased from the *Register* for "infamous conduct in a professional respect." Since 1899, therefore, his name did not appear upon the *Medical Register*. In January, 1898, Ady was convicted at the Central Criminal Court of procuring abortion, and was sentenced to seven years' penal servitude. In April, 1903, he was released on ticket of leave, permission being given him to make the usual monthly report to the police by letter instead of in person. Recently it came, however, to the knowledge of the Scotland Yard authorities that the defendant was acting as a medical practitioner at Fulham, and the matter was at once reported to the Medical Defence Union. Messrs. Hempson, acting upon the instructions of the Union, sent down two of their clerks to Fulham, and in consequence of what happened a prosecution was directed by the Council of the Union.

The clerks in question gave evidence that Ady prescribed for and dispensed medicine for them, declaring them both to be ill and giving them certificates to the effect that rest was necessary; these certificates were signed by Ady with the letters L.R.C.P. and L.R.C.S.Ed., 1878, appended to his signature. The clerk Tyrrell deposed that outside the house were two brass plates with the defendant's name and qualifications thereon. In addition there was a card in one of the windows bearing the words "Institute of Eclectic Medicine, Medical Superintendent Dr. Ady, L.R.C.P. and L.R.C.S.Ed., ex med. reg.;" these three last mentioned words being in smaller type.

Mr. Overend, counsel for the defence, endeavoured to obtain from Mr. Tyrrell a statement that upon one of the brass plates the words "ex. med. reg." appeared. This Mr. Tyrrell absolutely denied, and, being shown a photograph of the plate with these words, he stated that if they were on the plate now they were not on it when he attended the surgery on dates named. For the defence, it was urged that by putting the words "ex. med. reg." upon card and plate the defendant clearly indicated to the public that he was not a registered practitioner.

The magistrate, in convicting the defendant, observed that no one seeing the small letters written in that way after the much larger letters, would be satisfied that the defendant had ceased to be a duly-qualified practitioner on the *Register*. The Medical Act was a most useful one, and should be rigidly enforced. He imposed a penalty of £20 and 20 guineas costs, or two months' imprisonment.

The result of this prosecution is most satisfactory, as it has clearly proved that disregistered practitioners cannot avoid the penalties under the Medical Act by using the words "ex Med. Reg." after their names. We may note that the qualifications of L.R.C.P. and L.R.C.S.Edin. were removed by the respective Colleges from Mr. Ady after the erasure of his name from the *Register* by the General Medical Council. We learn from the Secretary of the Medical Defence Union that the penalty being unpaid, a distress warrant was obtained, but the levy thereunder proving insufficient to satisfy the penalty and costs the defendant was arrested and conveyed to prison.

ACTION FOR WRONGFUL DISMISSAL IN SCOTLAND.

THE Medical Defence Union has successfully raised an action in the Sheriff's Court, Glasgow, on behalf of a Scotch member, Dr. Lithgow, of Cleland; the points at issue were of much importance. The action was brought against Messrs. Thomas Gibb and Sons, Limited, to whose workmen at Auchinlee Quarry, Shotts, Dr. Lithgow had been appointed and acted as medical officer, for wrongful dismissal and for balance of salary due. It appeared that the medical officer had been appointed both to the workmen at Messrs. Gibb's and Messrs. King's quarries, and Messrs. Barr and Biggar's colliery by a joint committee representing the masters and these employed, and under contract it was agreed between Dr. Lithgow and the contract fee that the latter should be a permanent committee to consider complaints on either side, and by this joint committee only could he be dismissed.

On February 4th, one of the defendants, Messrs. Gibb, wrote to Dr. Lithgow, stating that their workmen had elected a fresh medical officer, and intimated that the services of Dr. Lithgow would therefore not be required after February 7th. It was contended on behalf of Dr. Lithgow that the notice was insufficient and bad, that as only one of the parties to the original contract had dismissed him such an act was *ultra vires*, and that he was still the medical officer to the joint committee, and that his salary should be paid for the remainder of the quarter. The Learned Sheriff found that Dr. Lithgow had not been competently removed from the position of medical officer of defendants' workmen, and directed an account to be taken of the amount due to him.

We are informed by Messrs. Hempson, the solicitors to the Medical Defence Union, that an appeal against the decision of Sheriff Boyde has been entered. As such is the case we cannot comment upon the action at present, but will reserve such until after the hearing of the appeal.

THE WEIDHAAS HYGIENIC INSTITUTE.

We have received various letters complaining of the way in which the Weidhaas Hygienic Institute, which is carried on by unqualified persons for the treatment of disease, seeks to attract the attention of sick persons by addressing letters directly to them. The letter we have seen was accompanied by a copy of a pamphlet entitled *Dein Spezo Sparo*, which is made up mainly of the usual testimonials, but contains also a sort of outline of the physiology of various organs taken from medical works. The pamphlet is beneath contempt, and differs in no way from the ordinary productions of the advertising quack, but the method adopted of finding out persons who are suffering from chronic diseases and writing directly to them is a novelty. Some light on the method by which such information is obtained is gained from a letter sent to us by Messrs. Colby and Co., pharmaceutical chemists, of Brighton, who enclose a postcard received from the Diabetes Flour Company, of 17 St. Dunstan's Hill, London, E.C., which offers us for the name of any patient suffering from diabetes and points out that "it is money easily earned." Messrs. Colby and Co. express their indignation at the attempt to bribe them to commit a breach of confidence, but we fear that in many other cases it is by means such as these that the quack obtains the information he needs.

MEDICAL ETIQUETTE.

J. T.—If our correspondent sent a letter with his patient explaining that he only desired an opinion, and that he was prepared to perform the operation himself, the London surgeon's conduct was clearly unfair, but if he did not make his intentions plain, the London surgeon cannot be blamed if he supposed the case was sent to him for treatment and acted accordingly. (2) we cannot approve of giving or sending papers or pamphlets upon the treatment of disease to lay patients.

E. H. H.—If, as we understand, the boy should not have been sent to M. at all, H. was quite justified in taking over the treatment. There may have been circumstances in the relations between H. and M. which would have made an explanation from H. desirable, but the omission cannot be qualified as unprofessional conduct or as unbecoming a gentleman.

DEATH OF PATIENT BEFORE ARRIVAL.

L.—It is a well-understood principle that if a consultant is summoned on a country journey and obeys the summons he is entitled to his full fee, even though the patient may have died before his arrival. So far as we are aware there is no established rule upon the point whether the fee should be paid to the consultant through the family practitioner or directly; it is a debt from the patient's friends or executors to the consultant. The consultant is obviously under no obligation to visit the patient's house; in fact, such a visit would, under the circumstances, be an intrusion.

MEDICAL TESTIMONIALS TO "BILE BEANS."

A CORRESPONDENT draws our attention to the continued advertisement of testimonials from "eminent physicians" in favour of this nostrum. The matter has received the attention of the Ethical Committee, and we are informed that one of the persons is not a medical practitioner; another was, but his name has been removed from the *Medical Register*, while the third has been reported to the licensing body whose diploma he holds.

CIRCULARS IN CONNEXION WITH PARTNERSHIP ARRANGEMENTS.

I. H. STAT.—Our correspondent encloses a circular issued by a medical practitioner to announce that he has taken his late assistant into partnership. He says that the circular is being sent to the patients of other medical men in the neighbourhood.

*** Such a circular is permissible if sent only to bona-fide patients of the practice, but if sent beyond these limits it is unquestionably a form of advertising. If our correspondent can prove that these circulars have been sent to any extent to persons who are patients of other practitioners, he should bring the matter before the local Division of the British Medical Association.

MEDICAL TESTIMONIALS AS TRADE ADVERTISEMENTS.

I. J. B.—Our correspondent says that a dairyman has asked him to examine a sample of milk on a fortnight, and to give him a written certificate, which he desires to hang in a frame in a prominent position in his shop the report, of course, to bear our correspondent's name and address. He wishes to know whether from an ethical point of view it would be wrong to give the certificate asked for this purpose?

*** This would unquestionably be giving a testimonial for the purpose of trade advertisement. Consequently it should not be done.

THE CONDITIONS UNDER WHICH LOCAL ACTION MAY OBTAIN THE SUPPORT OF THE ENTIRE PROFESSION.

J. D. W. [illegible] medical [illegible] agreement [illegible] to accept the [illegible] the present holder, [illegible] We are asked to say whether [illegible] is involved [illegible] of these appointments.

*** We think [illegible] of the local practitioners can be held to be [illegible] who have [illegible] themselves, the [illegible] submitted to an independent body such as a [illegible] of the British Medical Association, where the proceedings are governed by carefully considered rules. If [illegible] had decided that under [illegible] it would be ethically [illegible] but in the absence of such a [illegible] there can be no ethical offence. No [illegible] group can dictate to the rest of the profession; it must ask for support and show the grounds upon which this is claimed.

MEN OF THE DAY.

SUSSEX.—We answered a similar question on July [illegible] last year to the [illegible] to the proposal in principle. The fashion [illegible] publications will bid for support by widening the circle of persons included.

A COMPLAINT AGAINST A DUBLIN HOSPITAL.

W. H. [illegible] was refused admission to a Dublin hospital [illegible] was suffering from [illegible] To a letter of complaint [illegible] the hospital no answer was [illegible] the Dublin hospitals generally [illegible] to receive "poor" people as these do not bring [illegible] and he calls them "frauds on the charitable public."

*** [illegible] out of this complaint. It is understood [illegible] to receive pauper patients, as [illegible] by rate-supported institutions; [illegible] are almost entirely supported by the [illegible] with the "charitable public." If they fail in their duty a letter addressed to the Dublin newspapers [illegible] of drawing public attention to the matter [illegible] remember that his position [illegible] letter with any case he may [illegible] It is quite possible that the [illegible] of its real gravity.

IS IT CANVASSING?

J. A. W. [illegible] the medical officers [illegible] the year [illegible] new members. This [illegible] when several com[illegible] the prize. He asks whether [illegible]

*** [illegible] it is canvassing.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

The following candidates have passed the M.D. Examination as under: [illegible]

[illegible] H. E. Beale, St. Thomas's [illegible] E. S., [illegible] E. S., [illegible] Hospital, G. [illegible] E. S. [illegible]

[illegible]

The [illegible] as under stated.

First Class.—W. F. Annand, University College; F. M. Heath, University College; M. H. P[illegible] (scholarship and gold medal), London Hospital and University College, Bristol; H. Watts (gold medal), Guy's and St. George's Hospitals.

Second Class.—J. L. Jennings, St. Bartholomew's Hospital; C. H. Robertson, Guy's Hospital.

Third Class.—F. Bayley, Charing Cross and London Hospitals; C. N. Seale, St. Thomas's Hospital.

The following candidates have passed the M.S. Examination:

W. Billington, University of Birmingham and Queen's Hospital; A. Edmunds, B.S., King's College; H. A. T. [illegible], Charing Cross Hospital; R. J. Howard (gold medal), London Hospital; Mary Hannah F. Ivens, London (Royal Free Hospital) School of Medicine for Women; G. E. Manning, M.D., Guy's Hospital; C. A. S. Ridout, St. Bartholomew's Hospital; *R. P. Rowlands, Guy's Hospital.

* Obtained the number of marks qualifying for the gold medal.

These lists, published for the convenience of candidates, are issued subject to their approval by the Senate.

ADVANCED BOTANY.

A course of ten lectures on the Morphology and Affinities of the Non-Filicineous Families of Vascular Cryptogams will be given at University College by Mr. D. H. Scott, Honorary Keeper of the Jodrell Laboratory, Royal Botanic Gardens, Kew, on Tuesdays, beginning January [illegible]th.

PROPOSED INSTITUTE OF MEDICAL SCIENCES.

The *University Gazette* of January [illegible]th contains the appeal by the Senate for funds to build and endow an Institute of Medical Sciences under the control of the University. The appeal, as issued to the press, was published in the BRITISH MEDICAL JOURNAL of December [illegible], but as printed in the *Gazette* it contains some additional particulars. The Senate reports that it referred to the Faculty of Medicine, a body consisting of [illegible] members, all recognized teachers of the University, to consider and report how the duty devolving upon the Senate under Statute [illegible] could best be carried out. This statute directed the Senate to use its best endeavour whenever practicable to secure such [illegible] for internal medical students in the preliminary and intermediate portions of their studies under appointed or recognized teachers at one or more centres; the preliminary subjects are chemistry, biology, and physics, the intermediate subjects are anatomy, physiology, and pharmacology.

At a meeting of the Senate, held on October [illegible], it was resolved:

"That steps should be taken to secure a site and funds to enable the Senate to establish an Institute of Medical Sciences in the near neighbourhood of the University."

Negotiations for such a site are now in progress, and it is hoped that it may shortly be possible to make [illegible] as to the [illegible] completion. The scheme as set out in the report of the Faculty, and approved by the Senate, is as follows:

The Adopted Scheme.

The Faculty state in their report to the Senate that

"The Faculty of Medicine would desire to see ample accommodation of every description at the proposed Institute of Medical Sciences, not only in regard to space and equipment, but also to the teaching staff, together with the best possible arrangements and [illegible] research in the various branches of study. The Faculty believes that the funds could be disposed to the most advantage [illegible] according to the following scheme, and that [illegible] would provide for a teaching and research institute worthy of what it is hoped and believed will become one of the greatest of modern universities."

It is proposed that [illegible] should be provided in connexion with the teaching of anatomy, physiology (including pharmacology), biology (zoology and botany), chemistry, and physics.

The cost of building and annual expenditure on staff and service are estimated as follows:

	Cost of Building.	Annual Expenditure on Staff and Service.
	£	£
Anatomy	[illegible]	5,500
Physiology (including Pharmacology)	[illegible]	7,000
Biology (Zoology and Botany)	[illegible]	[illegible]
Chemistry	[illegible]	[illegible]
Physics		1,700

NOTE.—With regard to the remuneration of teachers it is desired [illegible] a fixed stipend [illegible] a fixed proportion of [illegible] the departmental expenditure [illegible] An attempt should be made to [illegible] the [illegible] fixed stipends, which should be about three-quarters of the total [illegible]

A [illegible] laboratory for advanced students has already been [illegible] and is well attended. The [illegible] of the University [illegible] The University has [illegible] by Mr. Wal[illegible] M.P. [illegible] to be tried for two years. Mr. W. [illegible] M.P. [illegible] towards [illegible] of the laboratory which it is hoped [illegible] of the [illegible] Department of [illegible] A further [illegible] has been received from Mr. Al[illegible] upon the establishment of the laboratory [illegible]

Donations [illegible] sent to the Honorary Treasurers, addressed to [illegible] Street, W.

For the convenience of donors the payment of a donation may be [illegible]

Cheques should be made payable to "Medical Sciences Institute [illegible]" and crossed "London and Westminster Bank, South Kensington Branch."

A [illegible] meeting of Convocation will be held at the University, [illegible], on Monday next, at [illegible]. Messrs. W. [illegible] and R. M. Walmsley, [illegible], will present the report of the [illegible] Committee and move its reception. The report describes the [illegible] state of the University Library, and the efforts now being made to improve its condition, and states the result of an interview between a [illegible] of the Standing Committee of Convocation and the Library Committee of the Senate, which took place on December [illegible]. Arrangements are being made whereby the books of the Library will be available for the use of graduates, and [illegible] readers. The [illegible] Hall of the University in which Convocation meets is for the future to be at the disposal of the University on [illegible] days, Wednesdays, and Fridays. It will therefore be proposed that for the future the [illegible] meeting of Convocation take place on the Friday before the third Monday in January.

UNIVERSITY OF GLASGOW.

ANNUAL REPORT.

Statistics.—The report of statistics of the University of Glasgow for the year ending September [illegible] last has just been issued by the University Court. Amongst the information given is a list of members of the Court, the salaries of the various professors, lecturers, [illegible], examiners, etc., and the pensions paid to the retired professors. The only addition to the lecturing staff was a lecturer on Italian language and literature. The number of matriculated students was [illegible] women, in all [illegible]. The students were distributed in the different faculties as follows: Arts [illegible], medicine [illegible], science [illegible], law [illegible], and divinity [illegible]. [illegible] degrees were granted, of which [illegible] were [illegible] and [illegible] were with honours. There are now [illegible] members of the General Council.

[illegible] and Bequests.—Reference is made to the annual grant of [illegible] for five years which the University is receiving from the Carnegie Trustees for buildings and equipment, for teaching, and for the library. It is further stated that a sum of [illegible] has been left to be applied to the endowment of a Chair of Mercantile Law; that the [illegible] Trustees have granted [illegible] towards the Library, the Natural Philosophy Chair, and the Chemistry Chair; and that during the year [illegible] had been [illegible] to the special fund for the extension and better equipment of the University, the total sum for this purpose now standing at over [illegible]. During the year [illegible] volumes had been added to the library by purchase, [illegible] of these being periodicals, while about [illegible] volumes and [illegible] parts of volumes and pamphlets had been presented.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Lord Lieutenant will be present at the annual charter dinner of the Royal College of Surgeons in Ireland to be held at the College on [illegible], February [illegible]. As the accommodation will be limited, Fellows desirous of being present are requested to send their names and those of any guests to the Registrar.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have passed the Primary Examination, Part II, in the subjects indicated:

[illegible].—A. J. K. Brayton, Liverpool; F. H. W. Brewer, St. Bartholomew's Hospital; F. M. Cunningham, Royal Free Hospital; H. J. Duke, St. Mary's Hospital; R. C. T. Evans, University College Hospital; [illegible] C. F[illegible], Royal Free Hospital; M. S. Jevons, Royal Free Hospital; E. W. [illegible], St. Bartholomew's Hospital; J. M. Lynch, Cork; W. J. [illegible], London Hospital.

Physiology.—F. H. W. Brewer, St. Bartholomew's Hospital; H. J. Duke, St. Mary's Hospital; R. C. T. Evans, University College Hospital; M. S. Jevons, Royal Free Hospital; J. M. Lynch, Cork; H. W. Phillips, Manchester.

The following candidates have passed the Primary Examination, Part I, as undermentioned:

[illegible].—E. [illegible] Owen, Cardiff; A. Samuel, Cardiff; M. V. [illegible], Royal Free Hospital.

Chemistry.—C. J. W[illegible], Edinburgh.

Materia Medica and Pharmacy.—J. M. Lynch, Cork; M. [illegible], Royal Free Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, [illegible] births and [illegible] deaths were registered during the week ending Saturday last, January [illegible]. The annual rate of mortality in these towns, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, declined again last week to [illegible] per 1,000. The rates in the several towns ranged from [illegible] in Barrow-in-Furness, [illegible] in [illegible], [illegible] in Hastings, [illegible] in [illegible], [illegible] in Halifax, [illegible] in Walthamstow and in Burton-on-Trent, to [illegible] in [illegible], [illegible] in Manchester, [illegible] in Stockport, [illegible] in [illegible], [illegible] in Liverpool, [illegible] in Bury, [illegible] in Wallasey, [illegible] in Merthyr Tydfil, and [illegible] in Preston. In London the rate of mortality was [illegible] per 1,000, while it averaged [illegible] per 1,000 in the seventy-five large provincial towns. The death-rate from the principal infectious diseases averaged [illegible] per 1,000 in the seventy-six large towns; in London this death-rate was equal to [illegible] per 1,000, while in the seventy-five other large towns the rates ranged upwards to [illegible] in Willesden, [illegible] in [illegible], [illegible] in Newport (Mon.), [illegible] in Merthyr Tydfil, [illegible] in West Hartlepool, [illegible] in [illegible], [illegible] in Bury, and [illegible] in Preston. Measles caused a death-rate of [illegible] in Blackburn, [illegible] in West Hartlepool, [illegible] in Bury, [illegible] in Willesden, and [illegible] in Preston; scarlet fever of [illegible] in [illegible], [illegible] in Northampton, [illegible] in East Ham, [illegible] in [illegible], and [illegible] in Bury; whooping-cough of [illegible] in [illegible], [illegible] in [illegible] Manor, [illegible] in Leyton and in Devonport, [illegible] in [illegible] and West Hartlepool, [illegible] in Rhondda, [illegible] in [illegible]; and diarrhoea of [illegible] in Merthyr Tydfil. [illegible] marked excess in any of the large towns. Of the [illegible] small-pox registered in these towns last week, [illegible] occurred in Warrington, [illegible] in Halifax, [illegible] in York, [illegible] in Sunderland, [illegible]. The Metropolitan Asylums Hospitals contained [illegible] small-pox patients at the end of last week, against [illegible], [illegible], and [illegible] at the end of the three preceding weeks; [illegible] new cases were admitted during the week, against [illegible], [illegible], and [illegible] in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been [illegible], [illegible], and [illegible] on the three preceding Saturdays, had [illegible] on Saturday last, January [illegible]; [illegible] new cases were admitted during the week, against [illegible], [illegible], and [illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January [illegible], [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, further rose last week to [illegible] per 1,000, and was [illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from [illegible] in Leith and [illegible] in Paisley, to [illegible] in Glasgow and [illegible] in Perth. The death-rate from the principal infectious diseases averaged [illegible] per 1,000, the highest rates being recorded in Glasgow and Perth. The [illegible] deaths registered in Glasgow included [illegible] which were referred to small-pox, [illegible] to measles, [illegible] to diphtheria, [illegible] to whooping-cough, and [illegible] to diarrhoea. Three fatal cases of whooping-cough were recorded in Dundee, [illegible] of whooping-cough and [illegible] of diarrhoea in Aberdeen, and [illegible] of whooping-cough both in Paisley and in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January [illegible], [illegible] births and [illegible] deaths were registered in six of the principal Irish towns, against [illegible] births and [illegible] deaths in the preceding period. The mean annual death-rate of these towns, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, fell to [illegible] per 1,000 in the week under notice, this figure being [illegible] per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from [illegible] in Londonderry and [illegible] in Waterford to [illegible] in Limerick and [illegible] in Cork. The death-rates from the principal zymotic diseases during the same period averaged in the [illegible] six towns [illegible] per 1,000, against [illegible] in the preceding week, the highest rates, [illegible] and [illegible], being recorded in Belfast and Cork respectively, while Londonderry and Waterford recorded no death from these causes at all. Whooping-cough was again the principal cause of death from zymotic disease, while measles caused [illegible] deaths in Belfast and [illegible] in [illegible]. In the latter there were also [illegible] deaths from [illegible] and [illegible] from scarlet fever.

SMALL-POX EPIDEMIC [illegible] IN LONDON.

WE [illegible] Dr. [illegible] Wal[illegible] the late small-pox epidemic in London [illegible]

[illegible]

MAGISTERIAL ACTION IN REFERENCE TO LUNATICS.

A CORRESPONDENT [illegible] British Medical Journal [illegible]

[illegible]

** This is certainly [illegible] of the

Act, which is as follows: "Neither of the persons signing the medical certificates in support of a petition for a reception order shall be the father or mother-in-law, brother or brother-in-law, sister or sister-in-law, son or son-in-law, daughter or daughter-in-law, partner or brother of the other of them. We apprehend that with this strict prohibition no justice would think fit to call to his assistance two partners to certify the mental condition of any patient for detention as a lunatic, but even if he should do so the case would not be influenced by any such assistance, and the subsequent detention as a lunatic on such certification would not, we think, be illegal, and would not subject all parties concerned in the certificates to more or less serious consequences for not having strictly complied with the provisions of the Act in question."

RATE AID FOR HOSPITALS

THE following is the text of the letter addressed by the Local Government Board to the Tottenham Urban District Council, to which attention was called in these columns last week.

Local Government Board,
Whitehall, S.W.,
November 26th, 1903.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 17th inst., with reference to a proposal of the Tottenham Urban District Council to contribute to the funds of a general hospital situated in the district, and, in reply, I am to state that it appears to the Board to be competent to the District Council to make a contribution to the funds of an established hospital in pursuance of an agreement with a view to obtaining the benefits indicated in Section 131 (xxxi) of the Public Health Act, 1875.

I am, Sir, your obedient servant,
(Signed) JOHN LITHBY,
Assistant Secretary.

The Clerk to the Urban District Council, Tottenham.

CUBIC SPACE IN HOSPITALS

ENQUIRER asks: (1) Whether in an isolation hospital for diphtheria and scarlet fever we should consider a cubic space per patient (child or adult) of 1,141 cubic feet sufficient. (2) He also asks whether, if in a hospital having only 1,141 cubic feet per patient the results were apparently as good as in other isolation hospitals, this would constitute sufficient ground for not increasing the cubic space.

*** We must refer our correspondent to the memorandum of the Local Government Board on Hospitals, which states that "ward space for each patient should approach, as nearly as circumstances allow, to 2,000 cubic feet and 144 square feet of floor space." No distinction is made in this memorandum between children and adults, and none ought, in our opinion, to be made. It would not be necessary to take into account the space occupied by the bedstead and furniture if the above standard were adopted. We should wish to investigate "results apparently as good" before crediting them. It is conceivable, however, that even better results might be obtained in such a hospital well administered than in a hospital badly administered with double the cubic space per patient. But attendant cubic space favours good administration and proper distribution of patients, and should be had. If necessary, we would write to the governing bodies of each of the hospitals named for particulars as to their cubic space.

THE THAMES SMALL-POX SHIPS

THE two permanent ships, the hospital ship Landon at Joyce Green, Dartford, will be opened for the reception of patients; but as the hospital ship will no longer be required, they are to be sold. Some members of the Board suggested that they should be retained in view of the possibility of epidemics; but Sir Charles Cameron and Dr. Robert Hedley said that on all occasions when a small-pox ship was used for disinfection of the medical officer of health of the City of London, it broke up without a single case of small-pox occurring in consequence.

INDIA AND THE COLONIES.

LAGOS

[illegible] The Board of Health of the Colony of Lagos has recently been considering a memorandum drawn up by the Principal Medical Officer, Dr. M. D. Welsh, with reference to the [illegible] which is the established opposite the Island of Lagos, and the [illegible] of the Colony. It was pointed out that the native towns of the district [illegible] was proposed to which it was suggested that [illegible] should be removed. The Board [illegible] the proposal, but [illegible] the Principal Medical Officer [illegible] with the [illegible] of the Colony, and [illegible] the Board [illegible] to the Secretary of State [illegible] will be [illegible] expenditure [illegible]

CAPE COLONY

[illegible] The annual [illegible] Cape Colony [illegible] the death-rate among the Europeans was [illegible] and among the coloured population [illegible]. The infant death-rate among European births, which among the coloured people [illegible] figure of [illegible]. Measles, [illegible], and enteric appear to have been the chief causes of those [illegible]. There also appears to be in Cape Town a large amount of [illegible] and land [illegible], and the medical officer [illegible] has [illegible] legislation for the protection of [illegible]. He also advocated the notification of measles. The [illegible] death-rate among the Kaffir [illegible] was [illegible] higher than prevails in certain sanitary districts in England, but among the coloured population the rate is [illegible] per [illegible]. Notwithstanding this, Dr. Anderson makes it clear to the importance of persons already suffering from the disease. Out of [illegible] deaths investigated, only [illegible] had been in Cape Town less than a year, 34 had been there more than five years, and [illegible] were born there. These figures, adopted the idea which has been somewhat widely quoted that the high consumption death-rate in Cape Town is due to imported cases. Compulsory notification has not been adopted. Happily the city has been free from plague [illegible] owing to its occurrence in the South African Colonies and the precautions taken the disease may be introduced at any time. One case came to the port in March, but the infection did not spread. Enteric fever has been prevalent on more than one occasion, and appears to have been spread by consumption of specifically infected food (milk, ice-cream, and aerated waters).

MEDICAL NEWS.

The Food Test Commission, appointed by the United States Government, has reported that the use of salicylic acid in food is seriously injurious to health.

DR. ALICE N. V. JOHNSON has been selected by the Lambeth Guardians from among fifty-five applicants for the post of medical officer to the Board Schools at West Norwood. The schools accommodate 500 children.

THERE is a vacancy for a medical officer under the Sanitary, Maritime and Quarantine Board of Egypt. The salary is Fr.8,000 rising to Fr.12,000. Further particulars can be obtained on application to Dr. Armand Ruffer, Chairman of the Board, Alexandria.

HAMPSHIRE HOME FOR EPILEPTICS. The county of Hampshire has recently been provided, through the munificence of Mr. J. Martineau, with a home for its epileptics. The National Society for the Employment of Epileptics has received from Mr. Martineau the sum of £4,000, being the estimated cost of erecting and fully equipping a home for 24 patients at the Chalfont Colony for Epileptics, the legal documents having been transferred to the Hampshire Quarter Sessions. The home, which is to be known as Hampshire House, is to be reserved in perpetuity for the benefit of Hampshire patients.

FRENCH CONGRESS OF CLIMATOTHERAPY. The first meeting of the French Congress of Climatotherapy will be held at Nice, during the Easter vacation, from April 4th to 9th, 1904, under the presidency of Professor Chantemesse. The vice-presidents are: Professor Renaut (Lyons), Professor Grasset (Montpellier), Professor Calmette (Lille), Dr. Balestre (Nice). The members of the executive committee for England are: Dr. G. H. Brandt, Nice; Dr. Johnston Lavis, Beaulieu; Dr. MacDougall, Cannes; Dr. Price Mitchell, Monte Carlo; Dr. Stanley Rendall, Mentone. The following subjects are proposed for discussion: (1) The climate of the French Mediterranean coast; (2) the adaptation of the individual to climate; (3) the influence of the French Mediterranean coast climate on tuberculosis and tuberculous patients; (4) the influence of climate on the French Mediterranean coast on rheumatism and on those subject to rheumatism; (5) the disinfection of towns. Travelling facilities in France and abroad will be granted to members of the Congress and their families. The hotel prices at Nice will be reduced in their favour. Full particulars may be obtained from the General Secretary, Dr. Herard de Besse, Beaulieu-sur-Mer.

MALARIA IN CORSICA. At a recent meeting of the Paris Academy of Medicine Professor Laveran presented a report by Dr. Battesti, of Bastia, on the work of the Corsican Anti-malaria League, of which he is President, during 1903. The campaign was carried on with great activity. The new doctrine as to the causation of malaria was sedulously diffused among the people with the help of the teachers in the public schools, and suitable prophylactic measures were employed in a large number of places where malaria had hitherto been prevalent. The use of mechanical means for the exclusion of mosquitos from dwellings had given very satisfactory results. Whereas, in houses not thus protected, malarial fever claimed victims in from 57 to 60 per cent. of the inhabitants, in those in which the safeguards were properly used, not a single person previously free from the disease was attacked. In dwellings only partially protected, the proportion of persons attacked was 12·5 per cent.

HOSPITALS IN THE UNITED STATES.—A recent issue of the American *National Hospital Record* contains an article showing the increase in the number of hospitals in the United States since 1878. Twenty-five years ago there were but 442 institutions of this kind in the United States; now, according to the figures given by the periodical quoted, there are 2,500 hospitals, or, if all institutions providing hospital care are included, about 4,000. The 2,500 hospitals have a total bed capacity of over 300,000, or about one bed to 350 inhabitants. Both in the total number and in the number relative to population New York heads the list with 350 institutions, having a bed capacity of 75,000, or one bed to every 100 inhabitants. California stands next with 125 institutions, and 12,000 beds, or one bed to every 125. Next comes Massachusetts, with one bed to every 150; then follows Washington, with one bed to every 175 persons. Lowest on the list is Georgia, with 35 small hospitals and one bed to every 1,500 people. North Carolina, South Carolina, Arkansas, Alabama, Tennessee, and the other Southern States are poor in hospital facilities; the Western States are generally well supplied. Illinois, with 200 institutions and one bed for every 200 people, is an average State—better provided for than Pennsylvania and Missouri, and not quite the equal of Ohio and Maryland.

PRESENTATION.—On December 22nd, 1903, on the occasion of his leaving Nantgaredig, Carmarthenshire, to take up a post in another county, Dr. S. Glanville Morris, Honorary Secretary of the West Wales Division of the South Wales Branch of the British Medical Association, was presented, at an enthusiastic meeting of the inhabitants of a widely-spread district, with an illuminated address testifying to the high appreciation and admiration which his nine years' work among them had excited, not only as the family doctor but also as medical officer of health, Poor-law medical officer, public vaccinator, and ambulance lecturer under the County Council, and to the affection he had inspired by his social qualities. At the same time Dr. Morris was presented with a marble clock and gold watch, Mrs. Morris with a silver afternoon tea set and a silver tray and Miss Morris with a gold watch. Colonel Gwynne Hughes, chairman of the meeting, in making the presentation said that it had often been remarked that presentations and addresses were sometimes given on too slight grounds—the simple performance of duty being the pretext, but the country parish doctors who in all weathers, in pelting rain and driven snow and often with their lives in their hands ably and conscientiously discharged their duty deserved not only substantial thanks but often admiration.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this list, advertisements must be received not later than the first post on Wednesday morning.

AYLESBURY: ROYAL BUCKINGHAMSHIRE HOSPITAL.—House Surgeon, resident. Salary, £80, rising to £120 per annum.
BETHNAL GREEN INFIRMARY.—Assistant Medical Officer, resident. Salary at the rate of £100 per annum.
BRADFORD POOR-LAW UNION.—Assistant Medical Officer for Hospital and Workhouse, resident. Salary, £125 per annum.
CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.
CHELTENHAM GENERAL HOSPITAL.—House-Surgeon, resident. Salary, £50 per annum.
DUBLIN: DR. STEEVENS'S HOSPITAL.—1, Assistant Physician. 2, Assistant Surgeon. 3, Anæsthetist.
EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary £50 for six months.
HULL ROYAL INFIRMARY.—Fourth House-Surgeon, resident. Salary, £60 per annum.
LEEDS GENERAL INFIRMARY.—Ophthalmic and Aural House-Surgeon, resident.
LEICESTER INFIRMARY.—Assistant House-Surgeon, resident. Salary £50 per annum.
LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon, resident. Salary £70 per annum.
LIVERPOOL DISPENSARIES.—Head Surgeon, resident. Salary, £100 per annum.
METROPOLITAN ASYLUMS BOARD.—Medical Superintendent of the Training School and Industrial Colony at Darenth, Asylum. Salary £500 per annum, rising to £600.
NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Registrar. Honorarium £50 per annum.
NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent.—Assistant House Surgeon, resident. Honorarium £50 for six months.
ROCHDALE INFIRMARY.—Resident Medical Officer. Salary, £150 per annum.
WESTMINSTER GENERAL DISPENSARY, Gerrard Street, W.—Honorary Surgeon.
VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon, resident. Honorarium £50 for six months.
WOLVERHAMPTON EYE INFIRMARY.—House-Surgeon; resident. Salary £70 per annum.
YORK COUNTY HOSPITAL.—House Physician, resident. Salary £60 per annum.

MEDICAL APPOINTMENTS.

ARMSTRONG, W. G., M.B., Ch.M.Syd., Inspector in Public Health of the University of Sydney, vice W. H. Goode, M.D., deceased.
BARKER, F. J., M.B., C.M., Clinical Assistant to the Electrical Department of the Hospital for Consumption and Diseases of the Chest, Brompton.
BARWELL, Harold, M.B., B.S., Lond., F.R.C.S., Assistant Surgeon to the Metropolitan Ear, Nose and Throat Hospital, Great Portland Street.
BENNETT, N., M.D. Dub., District Medical Officer of the Newmarket Union.
DAVIES, W. L., M.R.C.S., L.R.C.P., Assistant Medical Officer, Grafton Road Workhouse of the Camberwell Parish.
EMANUEL, T. G., M.D., B.Sc. Lond., M.B., C.M. Edin., M.R.C.P. Lond., Physician to Out-Patients at the Birmingham and Midland Free Hospital for Sick Children.
FOGGE, R. H., M.R.C.S., L.R.C.P., District Medical Officer of the Melton Mowbray Union.
GARRETT, R. H. O., L.R.C.P. & S. Edin., District Medical Officer of the Weardale Union.
HUNGERFORD, L. M. T., M.R.C.S., District Medical Officer at Perth, West Australia, vice A. J. H. Saw, M.D. Camb., resigned.
HOOD, A. J., M.B., Ch.M. Glasg., Visiting Medical Officer to the New South Wales Lunatic Asylums, vice W. H. Goode, M.D.D.P., deceased.
JOHNS, C. P., M.R.C.S., L.R.C.P., Senior Medical Officer of the St. Pancras Parish Workhouse.
JOHNSON, Alice Vowe, F.R.C.S.I., D.P.H. Camb., Medical Officer to the Lambeth Poor-law Schools.
LEE-HAMGREEN, Charles, M.B., F.R.C.S., Honorary Surgeon to the Birmingham Children's Hospital.
MCDONALD, H. C., M.R.C.S. Eng., L.R.C.P. Lond., Acting Medical Superintendent of the Hospital for Insane, Cobar, Parkes, Sydney, New South Wales.
MACKENZIE, G. E., M.B. Toronto, Clinical Assistant to the Chelsea Hospital for Women.
MACMILLAN, J. G., M.B., Ch.M. Edin., Health Officer to the Kingussie and Newtonmore District Board of Health.
MUIR, R. F., M.B., C.M. Edin., Certifying Factory Surgeon for the Ladybank District, County Fife.
NORMAN, R. H., M.D. Lond., B.S., M.R.C.S., L.R.C.P., Assistant Anæsthetist, Great Northern Central Hospital.
PRICE, D., M.B. Lond., Certifying Factory Surgeon for the Works of Messrs. Boyd and Co., Castle Cary, Somerset.
STAMM, L. E., M.D., B.A., B.Sc., Medical Officer to the British Home and Hospital for Incurables, Streatham Common, S.W.
THOMPSON, W. F., M.D. Edin., Medical Officer and Public Vaccinator for the North District of the Faun Street Union.
WESTCOTT, Wynn Mathers, M.R.C.S. Eng., L.R.C.P. Lond., Resident Assistant Medical Officer, Hellesdon Hall Asylum, Norwich.
WOODWARD, E. A., M.B., C.M. Edin., Government Medical Officer and Vaccinator at Wyalong, New South Wales.
YOUNG, H. C. Taylor, C.M., M.D. Glasg., Honorary Assistant Gynæcological Surgeon to the Royal Prince Alfred Hospital, Sydney, New South Wales.

DIARY FOR NEXT WEEK.

TUESDAY.

Therapeutical Society, Apothecaries' Hall, Water Lane, Blackfriars, 4 p.m.—Agenda.—Professor Farmer: some Recent Investigations on Cancer. Dr. F. A. Kelynack: On Some Points in the Hygienic Treatment of Pulmonary Tuberculosis. Dr. Gray Dickinson: On the Therapeutic Value of Supra-renal Gland Products.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Eyre: Nitrose Agar. Dr. K. W. Monarrat: On the Microscopy of Carcinoma, in association with Carcinoma Mammæ and its Relationship to the Etiology of the Disease. Dr. Leonard Dobbin: A Case of Empyæmathis Gangrenosa. Professor Hewlett: Note on a Method of Examining Water for Bacteriological Purposes.

WEDNESDAY.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 p.m.—Dr. W. S. Hedley: On Physical Therapeutics.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8 p.m.—Exhibition of Clinical Cases: 11, by the Assistants. Patients will be in attendance from 4 p.m. to 5 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstrations of Gynæcological Cases.
Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Diphtheritic Paralysis and its After-Effects.
London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stoma.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5 p.m. as follows: Monday, Mediastinal Tumours; Tuesday, Some Common Errors in the Diagnosis and Treatment of Ear Diseases; Wednesday, Infant Feeding; Thursday, Errors of Refraction, their Diagnosis and Treatment.
Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Pulmonary Cavities.
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 5.30 p.m. as follows: Tuesday, Hemiplegia; Friday, Family and Hereditary Disease.
North East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Abdominal Surgery.
Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Diseases of the Kidneys. Tuesday, General Remarks on Inoculations and Sprains. Wednesday, Fractures. Thursday, Diseases of the Kidneys. Friday, Some Surgical Cases.
Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Extra-uterine Fœtation.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements in these columns is 6s. 6d., which sum should be forwarded with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CHAMBERS.—At Maclean Town, Cape Colony, on December 3rd, 1903, the wife of T. Stewart Chambers, F.R.C.S. Edin., etc., of a son.
CHIENE.—At 2, Alva Street, Edinburgh, on January 2nd, the wife of George I. Chiene, F.R.C.S. Edin., of a son.
COPEMAN.—On January 9th, 1904, at Redcliffe Gardens, S.W., the wife of S. Monckton Copeman, M.D., F.R.S., of a daughter.
HANLEY.—At Nawa, Perak, Federated Malay States, on December 11th, 1903, the wife of Major E. G. Hanley, R.A.M.C., of a son.

MARRIAGES.

PLAYFAIR—LEIGHTON.—On January 7th, at St. Andrews, N.B., by the Rev. Canon Walter Ernest Leighton, M.A., Vicar of Wellington, Salop, assisted by the Rev. Archibald Playfair, M.B., M.R.C.P., son of Sir Lyon Playfair, K.C.M.G., F.R.S., of Harperley Hall, Durham, and Meadowside, St. Andrews, to Mary Isabella, eldest daughter of the late John Hall Maxwell, C.B., of Dalbeattie.

DEATHS.

HUNTER.—On December 26th, at 15, Inverness Terrace, Bayswater, W., after a short illness, Frederick Hunter, M.R.C.S., L.R.C.P., late Surgeon-Major, Bengal Staff Corps, and Surgeon-Major, Indian Medical Service, aged 74.
SUTHERLAND.—On January 4th, at Nos. 6 and 8, Grafton Place, Euston Road, W., Mary Ann, widow of the late Alexander Sutherland, M.D., M.R.C.P., D.P.H., late Medical Superintendent of the Asylum, Hanwell, Middlesex, aged 74.
WALKER.—On January 4th, at 1, Bedford Square, W.C., Anthony Walker, Barrister-at-Law, aged 77.
WILSON.—At Wimbledon, on January 6th, Mary Isabella, widow of the late Alexander Wilson, M.D., and daughter of Mark Pattison, Rector of Lincoln College, Oxford, aged 77.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS [illegible]

ORIGINAL ARTICLES and LETTERS [illegible]

AUTHORS [illegible]

CORRESPONDENTS [illegible]

CORRESPONDENTS [illegible]

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES [illegible]

IN [illegible]

[illegible] EDITOR of the BRITISH MEDICAL [illegible] MANAGER [illegible] JOURNAL [illegible]

[illegible] GENERAL SECRETARY AND MANAGER. EDITOR, [illegible]

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this [illegible] the use of such signatures as "A Member," "A Member B.M.A.," [illegible] and so on. By attention to this request [illegible] would be avoided. Correspondents are asked to write upon one side of the paper only.

[illegible] asks what would be the usual capitation fees for attendance and medi[illegible] school five miles distant, the average number of boys being about sixty-five.

THE CAUSES OF FAECAL BALL FORMATION.

[illegible] some cases of constipation the faeces assume [illegible] balls.

*** [illegible] is believed to be due to (1) prolonged retention of [illegible] in the large intestine, causing (2) absorption of liquid and [illegible] the faecal contents; and (3) moulding of the [illegible] in the sacculi of the large bowel. It is often associated with the spasmodic form of constipation and the discharge of mucus.

THE TREATMENT OF PNEUMONIA.

DR. F. PORTER (Edinburgh) writes: I have read with interest the discussion on [illegible] the BRITISH MEDICAL JOURNAL, and as the treatment [illegible] importance I should be pleased to hear from Dr. Lees or Dr. [illegible] the ice treatment has superseded the treatment by hot [illegible] poultices, and if the former mode of treatment has [illegible] the death-rate from the disease, as to my mind the latter [illegible] the more physiological one. I should be also [illegible] state his reasons for applying an icebag to the [illegible] chest, and if he would apply an icebag to the chest in a case of peritonitis?

SALIVATION IN PARALYSIS AGITANS.

[illegible] for the treatment of continual running at the [illegible] in a case of paralysis agitans.

*** The treatment which is likely to be effective is that which on the [illegible] better results than any other in the treatment [illegible] namely, the administration of bella[illegible] the former is, perhaps, best given in the form of the [illegible] doses of [illegible] three times a day, and the [illegible] in doses of [illegible] gr. three times a day, which [illegible]

TREATMENT OF OBSTINATE SCABIES.

[illegible]

ANSWERS.

[illegible]

C. A. [illegible] treatment, we [illegible] under the designation of "a person of unsound mind," that is, a person whose [illegible] would probably [illegible] about the payment [illegible] ed; failing this, application might be made to St. Luke's Hospital, [illegible]

W. D. G. [illegible] horse-chestnut, yields [illegible] but we have no knowledge [illegible] The fact that quinine hydrochloride and [illegible] be noted. The bitterness of quinine may be imitated by means of [illegible]

NOTES, LETTERS, Etc.

HORSE DUNG IN THE STREETS.

DR. PERCY NEWELL (Bexhill), while expressing his admiration of the ingenuity that [illegible] has displayed in designing his automatic dung-trap, writes to express the opinion that not one horse in fifty would permit such an apparatus to be attached to the britchen strap and that the system is impracticable.

ERRATUM.—In the paper by Professor Byers on Glandular Fever, in the BRITISH MEDICAL JOURNAL of January [illegible], p. [illegible], line 4 from bottom, for "none of the cows" read "none of the [illegible]."

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Messrs. Adlard and Son, London; Dr. S. J. Aarons, London; Ainsworth; Mr. C. Abbott, Birmingham; Dr. J. Abercrombie, London; A. B.; Mr. P. Angelo, Hatampura; A. M. T.; Mr. W. A. Aldred, Peterborough. **B** Dr. F. E. B. Brown, C.I.E., London; Dr. W. Bulloch, London; Dr. F. Bagshawe, St. Leonards-on-Sea; Dr. J. W. Byers, Belfast; Mr. E. F. Beur, Mauritius; Dr. A. T. Brand, Driffield; Dr. J. W. Barrett, Melbourne; Mr. L. A. Bidwell, London; J. H. Bailey, M.B., Port Erin, Isle of Man; Dr. R. Bell, Glasgow; Mr. J. K. Barton, London; Mr. C. A. P. Bryan, Leicester. **C** C. A.; Mr. W. A. Colmer, London; Messrs. C. J. Clay and Sons, London; Mr. W. McE. Clendinnen, Crosby; Dr. C. H. Cattle, Nottingham; Mr. M. J. Cleverts, Huddersfield; Country Surgeon; Dr. J. E. G. Calverley, C.M.G., Folkestone; Miss L. B. Chapman, M.B., London; Mr. J. S. Cowley, Upton-on-Severn; Dr. A. K. Chalmers, Glasgow; Mr. L. Cox, Worcester; Dr. A. J. Cleveland, Norwich. **D** J. W. Duncan, M.B., Birmingham; Dr. T. O. Dudfield, London; Distemper; Dr. A. Duke, London; Mr. W. H. Date, Culmstock; Dr. W. F. Dearden, Manchester; Messrs. Davis and Ornstein, London. **E** Enquirer; Mr. H. [illegible]-Blake, Bognor; Dr. W. A. Evans, Huddersfield. **F** M. N. Fish, M.B., Colombo; E. R. Fothergill, M.B., London; F. S. Fletcher, M.B., Manchester. **G** Dr. J. Grimshaw, Birkenhead; A. H. Gregson, M.B., Blackburn; Dr. G. T. Gifford, Parwen; Dr. J. G. Garson, London; D. B. Guns, M.B., Kirby-Moorside; Mr. H. M. Guest, Dorrington; J. Gardner, M.B., Burscough Bridge. **H** F. G. Haworth, M.B., Darwen; Mr. J. H[illegible], London; Mr. F. Hayden, London; Dr. R. G. Hebb, London; Dr. J. Hussey, Farnham; Dr. W. W. Hall, London; Mr. A. Hope, London. **J** Dr. F. H. Jacob, Nottingham; J. B.; Mr. T. Jacobs, London; Mr. J. R. Johnson, Richmond, Surrey. **K** Dr. W. H. Kelson, London; Mr. H. S. Kingsford, London. **L** Dr. J. M. Lawrie, Weymouth; Messrs. L[illegible] and Co., London; Dr. R. Lomer, Hamburg; L. J. B.; Liverpool Medical Institution, Secretary of, Liverpool. **M** J. D. Malcolm, M.B., London; Mr. W. J. Morton, London; Miss L. E. Maitland, London; K. W. Monsarrat, M.B., Liverpool; Dr. S. Mallanah, Hyderabad; Dr. E. Major, R.A.M.C.; Dr. J. A. Menzies, Rochdale; Dr. W. H. Masters, Parkstone; Dr. E. J. Maclean, Cardiff; Messrs. Mayer and Meltzer, London; Dr. D. W. K. Moody, London. **N** Mr. F. L. Nicholls, Fulbourn. **P** Mr. H. Paterson, London; Mr. F. F. Parkin, Nutfield; Dr. C. B. Plowright, King's Lynn; Dr. E. R. Peaton, New York; D'A. Power, M.B., London; Mr. E. J. Parry, London; F. Porter, M.B., Edinburgh. **Q** Q. P. **R** Dr. J. C. Renton, Glasgow; Dr. R. J. Reece, London; Dr. J. Reid, Baildon; Dr. W. Reeve, London; Rex. **S** Sussex; Dr. L. F. Shaw, London; Mr. E. N. Smith, London; Dr. A. J. Sharp, Whitney; G. W. R. Skane, M.B., London; Mr. G. Sichel, London; Mr. K. Snowden, London; Dr. F. H. Snell, Coventry; J. B. Story, M.B., [illegible]; Dr. E. Symes-Thompson, London; Dr. J. H. Scott, Camberley; South African [illegible]; W. G. Sutherland, M.B., London; Dr. G. Stuart, Leeds; Messrs. G. Street and Co., London; Mr. B. Saul, Manchester; Dr. [illegible] C. Simpson, Cambridge; F. Selly, M.B., Harrogate. **T** Mr. H. W. Thomas, London; Mr. W. Tibbles, Nottingham; Mr. A. Tisdell, London; Dr. [illegible] F. Trevelyan, Leeds. **U** Unsettled. **V** Mr. S. Vines, Manchester. **W** Dr. R. T. Williamson, Manchester; Dr. J. M. Wilson, Beverley; Mr. H. S. Wellcome, London; Dr. [illegible] J. Wade, London; Dr. J. A. Wilson, Glasgow; Dr. F. Willcocks, London; Dr. E. F. Willoughby, London; W. W. Wagstaffe, M.B., Sevenoaks. **Y** Y.; etc.

BOOKS, ETC., RECEIVED.

New Conceptions in Science. By Carl Snyder. London and New York: Harper and Bros. 19[illegible]. [illegible]

The [illegible] Solution of the Sewage Problem. By W. D. Scott-Moncrieff. London: Sanitary Publishing Company, Limited. [illegible]

Permanent Cure for Stuttering. By Theodore Jacobs. London: The [illegible] Agency, Limited.

The Value of [illegible] in the [illegible] Diseases of the Kidney. By [illegible] Harry Fenwick. London: J. and A. Churchill. 1903. [illegible]

A Manual of General or Experimental Pathology for Students and Practitioners. By [illegible] Sydney Lazarus-Barlow, B.A., [illegible] M.D., F.R.C.P. Second edition. London: J. and A. Churchill. [illegible]

[illegible] By [illegible] M.D., D.P.H. [illegible]

The [illegible] By [illegible] M.D. Philadelphia: F. A. Davis [illegible]

The [illegible] Factory [illegible] By [illegible] B.A., LL.B. London: [illegible]

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

[illegible]

[illegible] should be addressed to the Manager [illegible]

[illegible] payable to the British Medical [illegible] Small amounts may [illegible]

N.B.—[illegible] the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

SCIENTIFIC GRANTS COMMITTEE

OF THE

British Medical Association.

REPORT LXXIX.

ON THE ETIOLOGY OF CARCINOMA.

RESEARCHES ON THE MORPHOLOGY OF AN ORGANISM ASSOCIATED WITH CARCINOMA MAMMAE, AND ON THE ETIOLOGICAL SIGNIFICANCE OF THIS ASSOCIATION.

(With Special Plate.)

BY KEITH W. MONSARRAT, C.M., F.R.C.S.E.
Surgeon, Northern Hospital, Liverpool.

IN a paper read before the Royal Society in 1899[1] I described the morphological characters of an organism isolated from carcinomata. During the last four years these researches have been continued, but have been confined to one clinical type of carcinoma—that affecting the female breast. These further researches have provided material out of which I have been able to construct the life-history of the organism, and have also afforded evidence of interest and importance relating to the question whether the organism is etiologically connected with the disease.

THE ISOLATION OF THE ORGANISM.

All the material which has been used in the attempts to isolate the organism has consisted of specimens of unulcerated carcinoma mammae removed by operation. These have been examined in the laboratory at periods varying from half an hour to four hours after removal, and with one exception I have been present at each operation, and have been personally responsible for the precautions taken to prevent contamination. These precautions I have described in a recent paper,[2] so that I need not here refer to them in detail.

The specimens thus treated have been twelve in number. From seven of these I have isolated the organism I am about to describe, one was contaminated with staphylococcus epidermidis albus, the remaining four yielded no cultures. A large variety of nutrient media have been tried, but the positive results have been obtained with ordinary nutrient broth in one case, with glucose broth (4 per cent.) and glucose agar (1 per cent.) in the other six. In all cases the method of cultivation has been that of immersing small pieces of the growth in the fluid media, and rubbing pieces over the surface of the solid medium, or leaving small slices on the surface of the medium. All tubes have been incubated at 37° C., and all the positive results have been obtained under aërobic conditions.

THE MORPHOLOGY AND LIFE CYCLE OF THE ORGANISM.

The organism is remarkably polymorphic. It exhibits two chief types, which differ to a marked degree (*a*) in morphology, (*b*) in behaviour in culture media, and (*c*) in the effects which they produce in the animal body. These two types I shall describe as Type A and Type C. I have been able to observe the changes which the organism undergoes in passing from one type to another, but not, hitherto, to determine exactly the conditions which govern and control these changes.

Type A is that form of the organism which is found in the primary cultures derived from the carcinomata; in one of the seven cases which I am here reporting, Type C was associated with Type A in these primary cultures, but, with this exception, Type A alone was present in these cultures.

In the form of Type A the organism is spherical; its size varies from that of a minute spherical granule to a diameter of 2 μ to 3 μ.

In the fluid media it is seen partly suspended, but for the most part as a sediment; on the solid medium it occurred as a scanty, greyish-white, very viscid and translucent streak. The viscosity is a marked characteristic. The amount of growth obtained has been very small in all cases; in no case was I able to obtain more than one generation of subcultures, and in most instances no subcultures at all developed.

The inoculation experiments also showed that the vitality of this type of the organism was of a very low order on the media employed.

In this form the organism is liable to be mistaken for a coccus; the pronounced disparity in size of the different specimens is the chief peculiarity which distinguishes it from this class of organism.

In no case have I observed a development of this Type A into Type C *in vitro*. After injection into the animal body Type A may either (1) show no marked morphological change, or (2) exhibit changes in the course of which specimens develop of somewhat larger size than those in the culture, along with oval and club-shaped forms; or (3) pass on in development to what I shall now describe as Type C.

Type C is a spherical form, of a diameter varying from 5 μ to 10 μ. It possesses a capsule, a cell network, and one, a few, or many refractile granules in the interior. Romanowski's stain shows the presence of nuclear bodies, which may be single or multiple; as many as eight of these nuclear bodies have been observed within a single cell, each usually surrounded by a clear "halo," but this is not constant.

Type C multiplies readily on media; in particular on glucose-containing media, by budding. The details of this process, and the full description of the morphology of this type have been described by me in a recent paper.[3]

Type C has been found in the course of my observations (*a*) in the lesions in animals which have followed inoculation with Type A, and (*b*) in one case (excluding those reported in 1899) associated with Type A in the primary cultures obtained from the carcinomata.

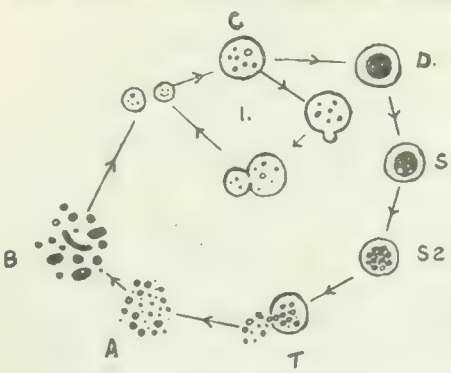
The development of Type C from Type A has been followed in a considerable number of animals inoculated with the latter. In all these animals with one exception the number of organisms which showed the characteristic structure of Type C was small, and none showed the budding process peculiar to this type. In the one exception the number of specimens of Type C was large, and they showed active budding.

From these lesions which resulted from the inoculation of Type A, either no cultures at all were recovered, or cultures of Type A similar to that injected. The exceptional case just mentioned was also exceptional in this respect in that cultures of Type C were recovered from the lesions.

It has already been stated that Type A grew on media to a very slight degree only, and this difficulty of cultivation was further shown in that many of the animals, the lesions in which showed microscopically the presence of Type A, yielded no cultures. On the other hand, by direct inoculation from animal to animal by breaking up the nodules which had been experimentally produced, in normal saline, and injecting the material thus obtained, I was able to produce a series of lesions in which the organism showed no diminution of activity.

From these observations it follows that the organism in the form of Type A must be described as a facultative parasite, whereas in the form of Type C, which grows luxuriantly on different kinds of media and also shows a capacity for developing in the animal body, it must be described as a facultative saprophyte.

By combining the observations it is possible to construct a scheme of the life-history of the organism as follows:



Scheme of the life-history of the organism: I. Vegetative cycle. A Type A, the form in which the organism occurs in primary cultures from carcinomata (mammae (facultative parasite). B. Intermediate (involution) forms of A. C The vegetative type facultative saprophyte. D Form of C with interior taking dense chromatin stain. S_1, S_2 Stages in the process of sporulation. T. Sporulation process showing extrusion. All specimens stained wet with methyl violet.

In addition to the method of reproduction by budding

which Type C exhibits, I have ascertained that this form of the organism proceeds to the development of a sporulating process. In spite of a large number of observations designed to discover the occurrence of this process *in vitro* I have not been able to produce it under these circumstances. The process was observed in animals which had been inoculated with cultures of the Type C form: it was also discovered in the one case of which I have made mention above in which the primary cultures from the carcinoma showed organisms of both types. In these cultures a few specimens of the C type showed the sporulation process in a very distinct manner.

The process consists in the separation of the interior protoplasm of the cell into small spherical bodies and the extrusion of these through a dehiscence in the capsule, which is denser than that of the ordinary specimen of Type C. These small spherical bodies when extruded give the staining reactions and present the same general appearances as the organisms which have been described as Type A.

To recapitulate the characters of the two main types. Type A is that form which is to be found in primary cultures from the carcinomata in all the cases here recorded, with one exception, this was the only type present in these cultures: in the one exception it was associated with Type C, the latter being in part in a sporulating condition. Type A grows on ordinary media either not at all or to a very scanty extent only; after injection into animals it usually remains unchanged, but may show certain morphological alterations in the course of which a few specimens similar in all respects to Type C are produced. In a single animal the specimens of Type C were present in large numbers in the lesions following inoculation with Type A.

Type C was cultivated from the animal just mentioned, and in one case direct from a carcinoma. In this form the organism grows abundantly on ordinary media. On injection into animals it may remain unchanged or may develop a process of sporulation which results in the production of organisms which resemble Type A; this sporulation process was also observed in the single case in which Type C was found in the primary cultures from a carcinoma.

THE APPEARANCES PRESENTED BY THE ORGANISM AFTER INOCULATION INTO ANIMALS.

Both forms of the organism are readily demonstrated in the tissues after inoculation, by Gram's method. Both give rise to a certain degree of proliferation on the part of certain of the cells of the tissues with which they are brought in contact, but Type A presents an important difference from Type C in regard to its relation to these proliferating cells. While Type C is met with in cells but between them and not in the cells in connective tissue, Type A is found characteristically as an intracellular parasite, usually extracellular, occasionally intranuclear. Type A is demonstrable as an intracellular parasite by Gram's method (Fig. 4). Usually single specimens were seen within the cells, but from two to five have been observed in a single cell. Single specimens lie in a clear space in the cell which appears as a clear space round the organism, and is well seen in specimens stained by Gram's method (Fig. 4). If more than one specimen is present in a cell each may be in a separate vacuole, or the vacuole may be common. The organisms within the cells show the same marked variations in size as are to be seen in the cultures *in vitro*. They were seen within endothelial (peritoneal) and epithelial cells and in these cells only. They were not numerous in any of the lesions, from one to three being usually visible in each microscopic field (Zeiss $\frac{1}{12}$ in. objective; eyepiece iv). The organism *in the form of Type A* is therefore capable of infecting and entering epithelial and endothelial cells.

THE LESIONS PRODUCED IN ANIMALS BY INOCULATION OF THE ORGANISM.

Before describing the lesions which are produced by the inoculation of the organism in the form of Type A, which description is the second of the two chief objects of this paper, I shall first briefly refer to the effects which are produced by inoculation of the actively vegetating Type C. These I described at length in the paper to which reference has been made above, and the observations there recorded have been confirmed by later experiments, particularly by the examination of lesions in animals at varying periods after inoction. When a culture of this type is inoculated intraperitoneally the early effect is the local stimulation of the endothelial cells of the peritoneum to proliferation, so that small nodules are formed composed of masses of these endothelial cells, with numbers of the organisms between them. The organism in this type does not show a capacity for entering and inhabiting the endothelial cells; it continues its active multiplication by budding, with the result that the new-formed endothelial cells become compressed, and the nodules are vacuolated. Ultimately these nodules consist of masses of the organism, with a network of connective tissue-like appearance around and between them. Analogous processes have been observed in other organs and tissues.

The effect which the organism produces when injected into the animal body in the form of Type A is of a quite different character.

The effects have been uniform with the exception of a certain number of negative results, which were apparently due to the rapid loss of vitality which this type displays *in vitro* in the media which I employed.

In stating that the results were uniform I do not intend to convey that the extent of the lesions produced has been equally great in all the animals used, but that the general character of the lesions was the same in the different animals.

A total of 23 guinea-pigs have been inoculated, and lesions were produced in 13 of these: 2 were inoculated subcutaneously without result; the rest were inoculated into the peritoneal cavity. Three dogs have been inoculated, 1 into the peritoneal cavity, 2 into the mammary gland; in all 3 cases lesions were produced. These numbers are of course exclusive of those animals which are still under observation. In illustration of the characters of the lesions, I shall describe those in 2 guinea-pigs and 2 dogs.

DESCRIPTION OF FIGURES.

Fig. 1. Branching columns of perithelial cells in a connective tissue stroma, from an experimental new formation in the omentum of the dog. $\frac{1}{12}$ in. obj.

Fig. 2. New-formed tissue, consisting of cells arranged in alveolar-like groups, occupying a dilated lymphatic channel and extending beyond this. From the guinea-pig. $\frac{1}{12}$ in. obj.

Fig. 3. Carcinoma mammæ, the human subject. Shows two specimens of the organism within epithelial cells. Stained carbolic and Gram's method. $\frac{1}{12}$ in. oil immersion.

Fig. 4. Section from a nodule of new connective tissue in the omentum of the guinea-pig. Shows two specimens of the organism occupying vacuoles in the cells. Stained carbolic and Gram's method. $\frac{1}{12}$ in. oil immersion.

Fig. 5. From the liver of the guinea-pig occupied by nodules of new-formed tissue. Shows the invasion of the new-formed tissue by proliferation of the epithelium of biliary ducts, and its extrusion from these. $\frac{1}{12}$ in.

Fig. 6. Section from a nodule of new-formed tissue in the peritoneum of the guinea-pig. Shows a specimen of the organism occupying vacuoles in the peritoneal endothelium supported by the fine connective tissue reticulum.

GUINEA-PIG 1.—Inoculated into the peritoneal cavity, killed twenty-four days later. Nodules were found in the peritoneum, the abdominal glands, the liver, the lungs, and the spleen.

The peritoneal nodules consisted of masses of large oval, spherical, and polygonal cells arranged in part in parallel columns but also in part in an alveolar manner, in groups in the interstices of a stroma. The masses of cell growth were not defined at their margins, and in this situation the typical parenchyma cells were seen within perivascular lymphatic spaces; these cells could be definitely traced to have arisen by proliferation of the endothelium of the peritoneum.

The glands show areas which stand out when stained from the normal gland tissue and the differentiation can be seen with the naked eye. These areas are found to possess a structure which shows a definite resemblance to that of the peritoneal nodules both in the character of the cells and their arrangement.

The liver nodules are all situated in the portal canal regions; they consist of oval and spherical cells arranged in columns and masses bordered by connective tissue. It is seen (Fig. 5) that these columns and masses have originated by proliferation of the epithelium of the small bile ducts; they extend directly from these into the surrounding tissue in the portal canals and form masses of considerable size which separate and compress the hepatic lobules.

In the lung the nodules stand out as whitish patches of irregular shape, the majority can be traced to a connexion with small bronchioles, and from the epithelium of these they have arisen; in one or two instances the new-formed cell masses can be seen (Fig. 2) infiltrating along the lumina of bronchioles, but for the most part the direction of growth has been into the surrounding tissue; the cells of this new-formed tissue are arranged in an alveolar manner. In all the

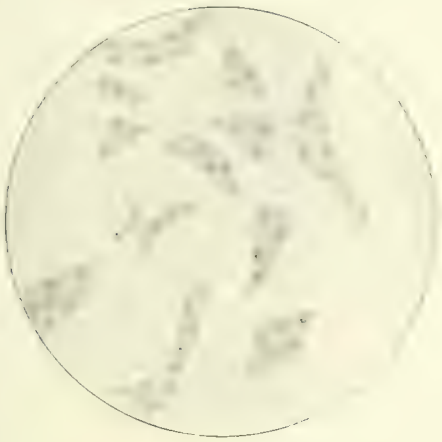


FIG. 1.

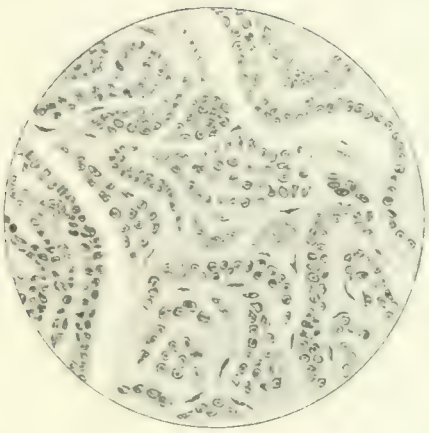


FIG. 2.

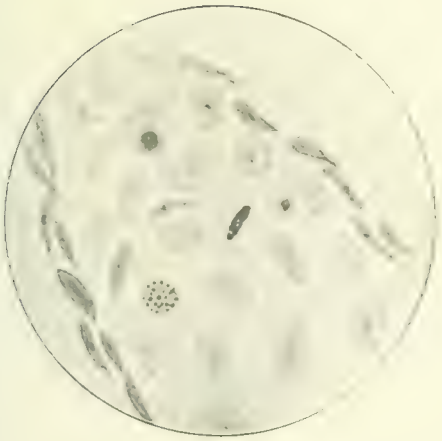


FIG. 3.

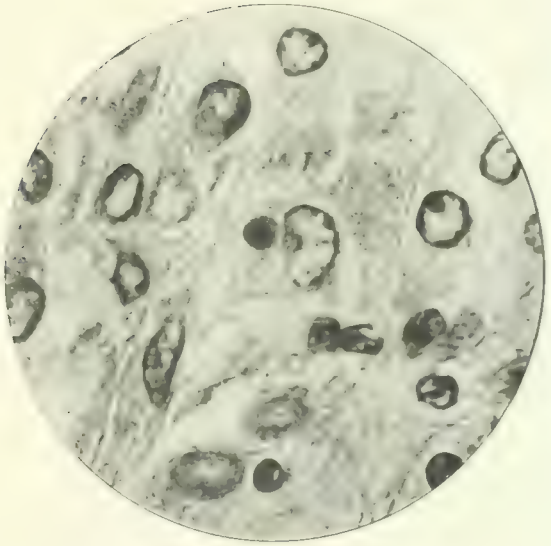


FIG. 4.

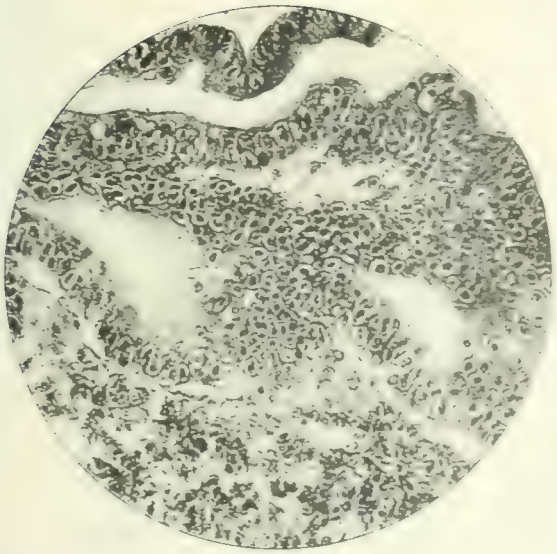


FIG. 5.

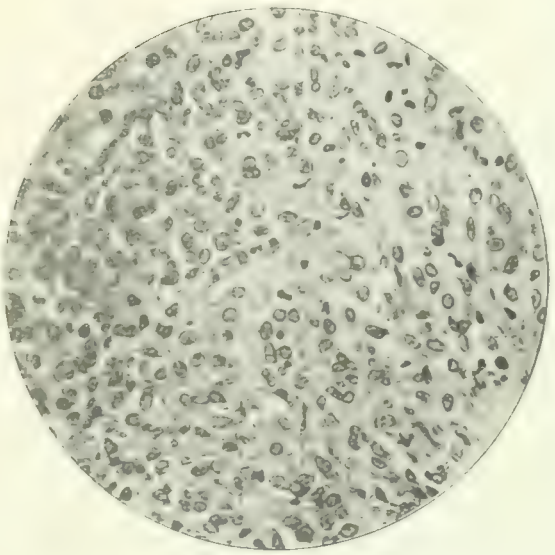


FIG. 6.

nodules—peritoneal, glandular, hepatic, and pulmonary—organisms were demonstrated by Gram's method within the new-formed cells.

GUINEA-PIG II. Inoculated into the peritoneal cavity; killed thirty-seven days later. The nodules in the peritoneum consist of oval and polygonal cells with a large cell body and large spherical and oval nuclei (Fig. 2). Lymphocytes are present throughout the nodule in fair numbers. The arrangement of the cells is similar to that described in Guinea-pig I. The mesenteric glands are occupied by masses of cell growth, which reproduces in the character of the cells and their arrangement the characteristics of the nodules in the peritoneum.

The liver nodules are numerous; the type of the cells composing these nodules and their arrangement are exactly similar to those of the peritoneal nodules. The new cell growth cannot, as in Guinea-pig I, be traced to the small bile ducts, and its structure is different from that found in Guinea-pig I.

I have recently had the opportunity of examining sections of a peritoneal carcinoma in the human subject kindly placed at my disposal by Dr. A. S. Grünbaum, and I find that the structure of this shows a marked resemblance to that of the nodules I have described in these guinea-pigs.

DOG I.—Killed forty-two days after intraperitoneal inoculation. Nodules were seen with the naked eye in the omentum, mesenteric glands, liver, and spleen. The omental nodules consist of a parenchyma and a stroma. The parenchyma consists of branched columns of epithelium-like cells irregularly arranged (Fig. 1). They can be traced from the surface endothelium, where their arrangement is in masses, downwards to the deeper parts, where they become a dense stroma. The mesenteric glands appear to be infiltrated with new tissue which can be seen with the naked eye. This is similar in structure to the omental nodules in regard to both the character and arrangement of the cells. Nodules in the liver are situated in relation to the portal canals, and between them the liver parenchyma is compressed; they consist of branching columns of cells and of fine tubules in a connective-tissue stroma; the cells composing the columns and tubules show characters which are identical with those of the epithelium of the bile ducts, but there are appearances also which seem to connect these cells with the parenchyma of the liver lobules, and the exact histogenesis of the nodules is somewhat uncertain. The spleen is studded with nodules; the structure of these is somewhat indistinct, but their general characters resemble those of nodules in the peritoneum.

DOG II.—Killed eighty-two days after inoculation into the mammary gland. A single nodule the size of a large hazelnut was present in the mamma, and there were numerous nodules in the spleen. The mammary nodule was composed of cells with large body and spherical or oval nuclei, supported by a fine connective tissue; lymphocytes were scattered throughout. The large cells are arranged for the most part in parallel columns within the stroma interstices, but the arrangement cannot be said to be regular or to have assumed a definite type. The nodules in the spleen are fibrocellular; they are not marked off from the splenic pulp by any fibrous boundary; the cells are arranged in groups within the connective-tissue stroma, but their histogenesis is uncertain. The stroma is denser than in the mammary nodule, and the nodule on the whole does not reproduce the characters of the latter, although it bears some resemblance to it.

These four examples illustrate the character of the new tissue formation which follows inoculation with the organism; in one animal alone were there nodules in the kidney; these consisted of groups of cells arranged in a distinctly alveolar manner in a fine stroma, and derived by proliferation from the epithelial cells of the renal tubules.

In all the lesions examined the characteristic organisms were demonstrated as intracellular parasites; occasionally intercellular specimens were seen.

SUMMARY OF THE INOCULATION RESULTS.

The organism showed a capacity for initiating active proliferation of endothelial and epithelial cells. The new-formed tissue resulting from this showed a parenchyma and a stroma, and at its edges a progressive growth without encapsulation. In neighbouring glands there was found in some instances a formation of new tissue whose structure resembled that of the primary nodules. The nodules in viscera appeared as a rule to arise from epithelium *in loco*, and showed a capacity for active growth and infiltration similar to that observed in the nodules arising from endothelium. In one instance, at least, new-formed tissue in the liver reproduced exactly the characters of nodules in peritoneum and mesenteric glands, and, assuming that the observation that it did not arise from cells *in loco* was correct, must be considered a true visceral metastasis.

DEMONSTRATION OF THE ORGANISM IN HUMAN CARCINOMA.

Having found that the organism was demonstrated by Gram's method within the cells of the experimentally-produced nodules, the application of this method to carcinoma mammae naturally followed.

My observations on this point have up to the present been few in number and relate to three cases only. In these three carcinomata Gram's method shows the presence within the parenchyma cells of bodies which give the same staining reaction (Fig. 3) and have the same general appearance as the parasites in the cells of the experimentally-produced nodules; in the latter they were few in number in most cases, and in the carcinomata also they were not numerous. In the nodules they have been described as occupying vacuoles in the cells outside the nucleus, in the carcinomata they occupy the same position; in both cases they were also seen within nuclei forms which presented the same appearances, but this was an exceptional occurrence.

SUMMARY OF RESEARCHES.

1. From a considerable proportion (58.3 per cent.) of specimens of carcinoma mammae an organism presenting characteristic features was isolated.

2. This organism presents a life history in which two cycles were traced, the one a vegetative budding cycle, the other a sporulating cycle.

3. The organism when injected into animals is capable of infecting and inhabiting endothelial and epithelial cells.

4. The organism initiates in endothelium and epithelium a process of proliferation, as a result of which masses of new-formed tissue are built up which consist of a parenchyma and a stroma, and grow and extend actively from their centres of origin.

5. This new cell-mass formation may be associated with growth of a similar character in neighbouring glands, and some evidence was also provided that visceral metastases occur.

6. Intracellular bodies are demonstrable in carcinomata mammae, which present the same features as the intracellular parasites of the experimentally produced nodules.

7. The evidence derived from these researches points to the conclusion that the organism described is an etiological factor in the morbid process known as carcinoma mammae.

The expenses of these researches were in part defrayed by a grant from the British Medical Association.

REFERENCES

[illegible]

CARCINOMA OF THE COLON AND ITS TREATMENT BY COLECTOMY.*

WITH ABSTRACTS OF SEVEN SUCCESSFUL CASES.

BY BILTON POLLARD, B.S., F.R.C.S.,

Surgeon, University College Hospital.

GENTLEMEN,—When your President invited me to read a paper before this Society I was engaged in collecting and following up my cases of colectomy for carcinoma of the colon. I was going to publish a bare record of the cases, but, when your President assured me that it would be difficult to find a subject which, at the present time, would be of more interest to you than that of colectomy for malignant disease of the colon, I determined to recast my paper and give it a somewhat more general character in order to fit it for an address to this Society.

The subject of carcinoma of the colon is, I think, worthy of close attention, for it presents a very hopeful field for surgery if only the cases can be dealt with in an early stage. Given early cases, with the patients in good condition, not only should the immediate results be good, but a large percentage of permanent cures should be possible. [illegible]

* A paper read at a meeting of the [illegible] on November 24th, 1903.

carcinoma, as it occurs in the intestines, is apparently the least malignant of the carcinomata. Carcinoma of the rectum is well known to persist for a long time without greatly impairing the health, unless it gives rise to obstruction of the bowels, or leads, by local extension, to some grave complication. The same is true of carcinoma of the colon. Its tendency to implicate the neighbouring lymphatic glands, and to reproduce itself in distant organs is slight, and only noticed in late stages of the disease. It has often happened that a carcinoma of the bowel has proved fatal by causing intestinal obstruction, and that no evidence of secondary growths could be detected at the necropsy.

From this it follows that if cases of carcinoma of the colon are diagnosed whilst they are still in an early stage and are submitted to operation at once, and that if all visible and palpable disease is removed, there are good grounds for expecting prolonged immunity, even if a permanent cure is too much to be hoped for. But before it is possible to advise a patient to submit to an operation of such apparent gravity as colectomy for a disease which is one of slow progress, and which, at the time the decision has to be taken, may give no indications for an immediately fatal ending, it is necessary to be able to assure him that his chances of recovery from the operation are good. It is not possible to gauge those chances at all accurately at present, more experience is necessary; but it is well known that in comparison with other operations of the first magnitude, the results, both immediate and remote, of colectomy for carcinoma of the colon when unattended with intestinal obstruction, are good. I have myself performed colectomy in seven cases of carcinoma of the colon, and in all the operations were immediately successful, and with the exception of one patient who died from heart disease four years after the operation, they are all alive and well at the present time—at periods ranging from two months to over four years from the time of their operations.

These results would certainly justify us in recommending operation in the early stages of carcinoma of the colon, if only the disease could be diagnosed early. But *there* is the difficulty. The disease begins so insidiously that in the majority of cases its presence is not suspected until it is already far advanced, and in not a few it is unsuspected until a tumour is accidentally discovered, or until an attack of acute intestinal obstruction occurs.

It cannot be too strongly insisted upon that in cases of chronic illness, however slight, associated with dyspeptic symptoms, a systematic physical examination of the abdomen should be made. A tumour in connexion either with the stomach or the intestine, or some other organ, may be detected when least suspected.

Let us first of all consider the symptoms which are most commonly found in connexion with carcinoma of the colon. They are just such symptoms as might be expected to be caused by a growth which offered some impediment to the passage of the intestinal contents. Indigestion, in which flatulence is a marked feature, is one of the commonest symptoms. Sometimes patients are troubled with nausea and sickness, but flatulence is an almost constant symptom. It is doubtless due to the partial retention and decomposition of intestinal contents. The retention may be more complete and may result in marked constipation with the accumulation of scybalous masses of faeces on the proximal side of the growth. The scybala cause irritation of the mucous membrane and, by causing effusion of fluid into the bowel, set up a sort of spurious diarrhoea. This symptom has been a characteristic one in several of the cases which have come under my notice. Alternating constipation and diarrhoea is, as is well known, a frequent symptom of chronic obstruction of the large intestine. In most cases pain occurs sooner or later. It may be slight and not very distinctly localized, or it may be constantly referred to some particular spot. It may, at first, be no more than a feeling of discomfort, which may be relieved or aggravated by some particular movement. But in many cases, without any definite obstruction occurring, the pain is very severe. It comes on in attacks and is evidently due to intestinal colic. This symptom was very marked in my third and fifth cases. In Case III it was associated with much flatulence. The growth was situated in the splenic flexure, and the patient described the attacks of pain as beginning in the right iliac fossa and travelling along the course of the colon to the left hypochondrium. The attacks of pain got more and more severe until he felt a gurgling and the passage of flatus down the left loin, when he obtained relief. In Case V the pain was greatly aggravated by meals, particularly of solid food; and in consequence of this symptom the patient had, for some months before his operation, restricted himself to liquid food. It is not surprising that patients who have been troubled with these symptoms should have lost flesh; and in all my cases loss of flesh had been a marked feature, but they had all reached a fairly advanced stage when they came under my notice.

When most of the symptoms already mentioned occur together, we get a fairly characteristic clinical picture, and when there is added to them another symptom, the evidence of a growth in the bowel is nearly complete. The symptom I refer to is haemorrhage from the bowel. The bleeding may be only sufficient to cause melaena, or it may be profuse enough for unaltered blood to be passed from the bowel. In two of my cases—Cases III and V—a quantity of bright blood was passed per rectum.

In the presence of some or all of these symptoms a careful physical examination should be made, and very probably an abdominal tumour will be readily detected. If the surgeon is in doubt, it is much wiser to insist on the necessity of making an examination under an anaesthetic, with relaxed abdominal walls, than to run the risk of missing the tumour.

In some cases the symptoms are slight and do not trouble the patients much; and, indeed, the tumour itself may be the first thing to definitely arrest their attention. This was so in my second, sixth, and seventh cases.

So long as there is no obstruction of the bowels, with consequent abdominal distension, the detection of a large tumour of the colon is generally easy. Sometimes, however, the growth is quite small although it constricts the bowel considerably. A growth of this kind would be very difficult, and perhaps impossible, to feel, especially if it occupied the splenic flexure and was hidden in the left hypochondrium, or if it occupied the sigmoid flexure and, owing to the presence of a long meso-colon, hung down into the pelvis.

In an ordinary case there is a tumour to be felt somewhere in the course of the colon by abdominal palpation. The seven cases which I am at present chiefly considering were located as follows—two in the ascending colon, two about the splenic flexure, one in the descending colon, one about the middle of the sigmoid flexure, and one at about the junction of the latter with the rectum. I have also met with cases of carcinoma of the caecum and of the hepatic flexure of the colon, but I do not recollect a case in which the transverse colon was primarily involved at a distance from the hepatic and splenic flexures. Such cases have been recorded, however, and I have met with a case in which the middle of the transverse colon was involved by extension of a carcinoma which was primarily situated in the small intestine at the beginning of the jejunum. It follows, therefore, that the tumours of the colon are generally situated in the lateral parts of the abdomen—in the hypochondriac, lumbar, and iliac regions.

In the early stages, before the growths have become adherent to the abdominal wall, they are very movable, and then, in the absence of localizing symptoms, the question of diagnosis from movable kidney has often arisen. This question actually did arise in two of my cases. In Case III the growth occupied the lower part of the left hypochondriac and the upper part of the lumbar regions. It was so movable that it could be displaced upwards entirely beneath the ribs on the left side as well as quite over to the opposite side of the abdomen. This tumour was thought by another surgeon to be a movable kidney, and the symptoms and signs—flatulence, severe attacks of colicky pains and haemorrhage from the bowel—were attributed to other causes. Now, in my experience, it has generally proved to be true, when there were well-marked symptoms and a well-marked physical condition which could quite reasonably be the cause of these symptoms, that the physical condition was really the cause of the symptoms. Relying on this general principle, I was strongly of opinion that in this case, although the patient was only 29 years of age, we had to do with a tumour of the large intestine. This view gained support from the superficial position of the tumour and the irregularity of its outline, and especially from the fact that a swelling, which I took to be the normal kidney, could be felt behind the tumour, and unconnected with it, in the proper position for the kidney. In another case (No VII) the possibility of the tumour being a displaced kidney was raised with more justification, for the tumour had somewhat the shape of the kidney, and had a smooth surface, and the patient complained of frequency of micturition, and made no other complaint until he was questioned. He then said that he had been troubled with diar-

rhoea on and off during the last two months, and that he had not passed a formed stool during the last three weeks, that he had been subject to slight attacks of pain in his left side, and that he had latterly been losing flesh. In this case the tumour had not much mobility. It could be moved a little lateraliy and a little downwards, but hardly at all upwards. Now, in my experience, a displaced kidney can always be returned by manual pressure to the normal position of a kidney, and I am inclined to rely absolutely on this sign.

It is, of course, obviously possible for a displaced kidney to get fixed by perinephritis, but then there would be evidences of kidney disease in the state of the urine. I have drawn attention to the fact that carcinoma of the colon gives rise, to begin with, to a movable tumour, and that it is owing to secondary adhesions that the mobility is lost later on. This was so in Cases IV and V, and to a less extent in Case VII, in all of which the bowel had become adherent to the parietal peritoneum.

Carcinoma of the colon may become adherent to another organ, and thus acquire the physical signs of that other organ. This possibility is well illustrated by my second case, in which a carcinomatous tumour of the splenic flexure of the colon had extended into the left kidney, and the two together formed a tumour which I thought was a renal tumour. Its physical signs were exactly like those of a renal tumour, and although there were no urinary signs of renal disease, the symptoms were not inconsistent with a renal source.

A carcinoma situated at about the hepatic flexure of the colon might, so far as its physical signs were concerned, resemble an enlarged gall bladder or a growth of the pyloric portion of the stomach. I had such a case a few months ago, but it proved to be inoperable. The patient had been ailing and losing flesh for two years. He complained of discomfort in the abdomen just below the ribs on the right side. Under an anaesthetic a lump could be felt there. The only localizing symptoms were occasional sickness and diarrhoea. The vomit had only consisted of partially digested food; it had never been very voluminous, and had never contained blood. The tumour was a big one, and, if it had been situated in the pyloric portion of the stomach, I should have expected more evidence of pyloric obstruction. In these circumstances the tumour was correctly diagnosed as carcinoma of the hepatic flexure of the colon.

It must not be forgotten that a tumour of the splenic flexure or the neighbouring part of the transverse colon may invade the stomach, and that then stomach symptoms may overhadow those due to the original disease in the colon.

There were special difficulties in diagnosis in Case V owing to the position of the growth. The symptoms, however, were of themselves almost conclusive. Attacks of griping pains had been of daily occurrence for nine months before the operation; they were much worse after food, and particularly after solid food. Loss of appetite and loss of flesh had been marked for seven months. Aperients had been required regularly during the previous half-year and on many occasions the motions had contained blood. Malignant disease of the large intestine was of course suspected to be the cause of these symptoms, but, at first, no tumour could be detected either by abdominal or rectal examination. Another surgeon had examined the patient with the assistance of an anaesthetic and had failed to detect the growth. The patient was brought to me on the advice of Dr. Sidney Martin by Dr. Dill Russell, of Fortis Green, who had been able to throw much light on the case. He had found a piece of new growth in the motion and he had succeeded in feeling the tumour by rectal examination. When I saw the patient first, neither Dr. Russell nor I could feel the tumour, but I was satisfied that it was there, and I arranged to operate. Dr. Russell, however, felt it again a few days later, and on the day before the operation I succeeded without an anaesthetic in feeling the tumour quite distinctly by rectal examination. The mucous membrane of the rectum was normal, and the growth, which could be felt to be outside the rectum, was evidently connected with the bowel higher up. At the operation it was found to be situated at the junction of the sigmoid flexure with the rectum. In this case the evidence pointing to the presence of a tumour of the colon was very strong, and I determined to operate although I could not at that time feel the tumour. But I think it would be right to do an exploratory operation in cases in which the symptoms were less definite than they were in this case, provided that they were characteristic and persistent; for it must not be forgotten that some carcinomatous growths of the colon, although they cause a good deal of constriction of its lumen, are so small that they cannot be felt through the abdominal wall.

Now I come to the subject of treatment, and, in regard to that, there are two classes of cases to be considered—those in which there is acute obstruction of the bowels and those in which there is no material obstruction. It is mainly with the latter class of cases that I am at present concerned, but with regard to the former a few words will not be out of place, particularly as one of my cases belonged to that class.

In cases of acute obstruction due to carcinoma of the colon it will rarely be possible to feel the growth, and the exact site of the obstruction will be incapable of determination. No reliance can be placed on statistics of relative frequency. It would, undoubtedly, be a mistake to do typhlotomy with the idea that the obstruction would certainly be relieved by opening the caecum. A better procedure would be to explore the abdomen through a median incision below the umbilicus, as I did in Case I, and possibly the surgeon may be fortunate enough to find, as I was in that case, that the growth is situated in a portion of bowel sufficiently mobile to allow of its being brought up to the surface. If the piece of bowel containing the tumour can be withdrawn from the abdomen, the obstruction may be relieved by opening the bowel on the proximal side of the growth and tying in a Paul's tube. Later on the piece of bowel containing the growth may be excised, and still later the continuity of the intestinal canal may be re-established. If the growth cannot be readily brought out of the wound I think it best not to meddle with it at all at that time, but to relieve the obstruction by making a temporary artificial anus higher up, and at a later date, on the subsidence of all acute symptoms, to remove the growth through an incision made directly over it.

And now let me turn to the consideration of the other class of cases: those in which there is no material obstruction of the bowels, but in which the symptoms and physical signs have led to the diagnosis of carcinoma of the colon—cases in which a tumour can be felt. As a general rule the incision should be made directly over the tumour, and it should be made long enough to allow of the necessary manipulations being readily carried out. Want of room uselessly hampers manipulation and adds to the risks of the operation in several ways. If the growth is at the upper end of the rectum and cannot be felt through the abdominal wall, as in Case V, the incision may be most conveniently made in the lower part of the left linea semilunaris.

Having opened the abdomen, the surgeon must, first of all, decide whether the operation of colectomy is justifiable, and, if so, whether it seems possible to carry it through successfully. He must make a thorough examination of the tumour and its connexions, and search for secondary growths both in the lymphatic glands and in the liver. If there are secondary growths in the liver, or if the lymphatic glands are the seats of undoubted and widespread secondary growths, it would not be justifiable to expose the patient to the risks of colectomy. But in this connexion it should be borne in mind that mere enlargement of the lymphatic glands does not of necessity imply carcinomatous infection. Both clinical and pathological experience has shown that the glands may be considerably enlarged without their being carcinomatous. In Cases IV and VI the lymphatic glands were much enlarged, but not carcinomatous, I think. It is now over two years since Case IV was operated upon, and there is no evidence of recurrence. It is only six months since Case VI was operated upon and so the clinical evidence is not so conclusive, but in that case I removed a few of the largest glands, and the Surgical Registrar at University College Hospital examined them carefully, but failed to detect any evidence of carcinomatous infection. Mere enlargement of lymphatic glands then should not, I think, contraindicate colectomy.

But before commencing to separate the bowel the surgeon should carefully examine the relations of the growth and satisfy himself that it is removable. It may have involved the abdominal wall too extensively for removal or it may have invaded some neighbouring organ of importance which it is not feasible to remove, or, on the other hand, which could be removed, if only the patient were strong enough to bear the operation. If the growth had involved a coil of jejunum or ileum its removal would still be possible if the patient's condition was good enough to warrant the surgeon's subjecting him to a double enterectomy. I have removed the sigmoid flexure of the colon together with three feet of small intestine myself in a case which at the time of the operation I thought was one of carcinoma of the sigmoid flexure to which some coils of ileum had become firmly connected by

inflammatory adhesions. The patient made a normal recovery, and the case has been already reported.' It is not, however, included in this series of cases, abstracts of which are in your hands, because subsequent examination showed the tumour and the adhesions to be of a simple inflammatory nature. I have had two other cases in which both the large and small intestine were involved by undoubted carcinomatous tumours; but in neither of these cases was complete removal of the diseased structures possible.

In one the primary growth was in the hepatic flexure of the colon, and it had spread back into the second part of the duodenum and had implicated the anterior and inner parts of its circumference. Had it been possible to perform the double enterorrhaphy satisfactorily there would still have been the common bile duct and the pancreatic duct to deal with, and they would have presented insuperable difficulties, I think. In the other case the tumour involved the jejunum just at its commencement and the colon in the transverse portion. The latter could have been dealt with readily enough, but in order to remove the growth in the jejunum it would have been necessary to divide the bowel close to the termination of the third part of the duodenum. Owing to the immobility of this portion of the duodenum the reunion of the divided small intestine seemed impossible. And, further, it seemed likely that removal of the growth would have involved injury to the superior mesenteric artery—a necessarily fatal accident. In this case a short-circuiting operation was done and it afforded great relief to the patient.

Carcinoma of the transverse colon is also liable to invade the stomach, but that is not a complication which would present insuperable difficulties to the surgeon unless the extent of stomach involved was too great for removal. Solid viscera may be implicated also, as happened in my second case, in which the growth, primarily situated in the splenic flexure of the colon, had extended into the kidney and the tail of the pancreas, and necessitated the removal of the kidney and a portion of the pancreas, together with the splenic flexure and neighbouring parts of the colon.

In those cases in which the radical operation of colectomy is impossible, owing to the infiltration of the growth into irremovable structures, or in which it is not justifiable to expose the patient to the risks of colectomy, because of the presence of secondary growths incapable of removal, relief may be afforded by the less serious operation of short-circuiting.

Before commencing to isolate the piece of bowel containing the growth, the surgeon should try to determine what length of bowel will need removal. Now this will primarily depend on the extent of bowel involved in the growth, but it will also depend upon what is called for in order to make a satisfactory union of the divided ends. In cases of carcinoma of the ascending colon, the surgeon will have to determine whether the caecum will have to be removed or not. This decision will depend on the extent of healthy bowel which intervenes between the growth and the caecum. In Case IV it was unnecessary to remove the caecum because, after division of the colon at a sufficient distance from the growth, there was still enough bowel above the ilio-caecal valve to suffice for its union with the distal segment. In Case VI it was not possible to preserve the caecum, because the mere removal of the growth would have necessitated division of the colon just above the ileo-caecal valve.

Again, in order to perform the operation with the least risk of septic infection it is necessary that both the divided ends should be sufficiently mobile to allow of their being manipulated outside the abdomen. In both the cases just referred to it was necessary to remove the whole of the upper part of the ascending colon because it was involved in the growth. Consequently, the distal section lay in the transverse colon, which, owing to its long mesocolon, was mobile enough to be brought into contact with the proximal end. But sometimes the needs of the enterorrhaphy call for the removal of more bowel than would have been required if the mere eradication of the growth had been all that needed consideration. This point is illustrated by Case VII, in which the growth occupied the lower end of the descending colon, and in which adequately wide removal of the growth could have been effected by division of the bowel below the splenic flexure. But section at that spot would not have provided two segments of sufficient mobility to allow of their being brought together without causing great tension, and still less to permit of their being brought outside the abdomen during the performance of the operation. As is well known, the splenic flexure of the colon is held firmly up by the pleurocolic fold and the other peritoneal folds, and, in the case under consideration, it was only after these folds, together with the blood vessels contained in them, had been divided and the transverse colon reached that a sufficiently mobile piece of gut was obtained. At the lower end, also, it was necessary, with the same object, to divide the bowel well within the sigmoid flexure. Cases of colectomy in the course of the ascending and descending portions of the colon have been recorded in which, owing to want of attention to this point, sloughing of the bowel, which was attributed to strain on the mesocolon, had occurred. And, again, in considering this same question the length of bowel which should be removed—it is all-important to consider the vascular supply of the pieces of bowel to be united. If there is any suspicion of the adequacy of the vascular supply, a little more of the bowel should be removed. For instance, in Case VI, in separating the attachments of the caecum, it appeared that the blood supply of the lower end of the ileum had been interfered with; and so, in order to avoid any risk of sloughing, 5 in. of the ileum were removed as well.

Having decided to proceed with the colectomy, and having settled upon the length of bowel to be removed, the surgeon should carefully isolate the field of operation from the rest of the abdomen by packing in large folds of sterile gauze. He may then begin to free the bowel. The growth, together with the whole piece of bowel to be removed, should be loosened from all its attachments by ligaturing and dividing the meso colon and other peritoneal folds connected with it. In doing this the greatest care must be taken of important structures in relation with it, such as the ureter and the renal vessels. Of course, if those or other removable structures were involved in the growth they would have to be sacrificed. In Case II the growth had invaded the kidney, and the renal pelvis, and in consequence the kidney was taken away along with the tumour. The same treatment would in all probability be required if the ureter was involved.

In separating the parts to be removed it is necessary to be constantly on the look-out in order to avoid injuring blood vessels supplying other tissues, and particularly the stomach and portion of intestine which are not going to be removed. The piece of bowel being separated, it should be withdrawn from the abdomen and emptied by passing it through the fingers. It should then be clamped two or three inches beyond the places at which the bowel is to be divided, and another pair of clamps should be put on the bowel to be removed close to the points of section. After trying various kinds of clamps I have come to the conclusion that there is nothing better for the purpose than Doyen's forceps.

At this stage the gauze packing, which has been used to isolate the field of the operation from the rest of the abdomen, should be changed, and additional strips of gauze should be packed into the wound beneath the separated loop of bowel and particularly about the lines of section, in order to mop up anything which escapes from the bowel when it is cut across. The section of the gut must be made close up to the unseparated mesentery or mesocolon, and it is well to make the sections rather obliquely, more bowel being removed on the side opposite the mesenteric attachment, so that they may lie within an area of as good vascular supply as possible. In removing the piece of bowel the greatest care should be taken to avoid contamination of anything remaining in the field of operation. If at this time, or at any time, any of the gauze packing gets contaminated, it should be removed at once and replaced by fresh. The interior of the pieces of bowel about to be stitched together is a constant source of contamination of the fingers, and, through them, of the exterior of the bowel and even of the abdominal wall. In order to reduce this risk to a minimum the open ends of bowel beyond the clamps should be thoroughly wiped out with little swabs of dry gauze held on forceps, and finally the mucous membrane of these portions of the bowel should, so far as this is possible, be disinfected by mopping it over several times with swabs of gauze moistened with some antiseptic—such, for instance, as a 1 in 1000 solution of perchloride of mercury.

Everything is now ready for the union of the bowel. In my opinion simple stitching is preferable to any form of mechanical contrivance with which I am acquainted, and I have used it exclusively during the last four years in all my operations on the stomach and intestines. In Case II of this series I used a Murphy button, but not because at that time I preferred it to simple suture, but because the operation had been a severe one and had caused so much shock that it was thought advisable to complete it as quickly as pos-

No.	Age.	Sex.	Nature & Situation of Growth	Duration & Nature of Symptoms	Physical Signs at Operation.	Nature of Operation	Immediate Result.	Result at Date of Report	Remarks.
4	58	M.	Cylindrical carcinoma of the sigmoid flexure. The tumour was about the size of a hen's egg. There was a large mass of lymphatic glands. Not enlarged.	An attack of severe abdominal pain followed by constipation, vomiting, and bile before acute symptoms supervened. Bowels constipated since, but no other signs. Acute symptoms 3 days.	Acute intestinal obstruction. No tumour could be felt.	Median laparotomy on March 1st, 1902. The growth in sigmoid flexure fast. Insertion of right index finger and the growth together with the whole of the sigmoid flexure drawn out of the wound. A Pean's tube was tied in the colon above the growth. On about the fourteenth day the growth together with the neighbouring part of the colon was excised.	The patient made a slow but perfect recovery. He left the hospital on September 1st, 1902.	He remained well for a year without any evidence of recurrence. He then enjoyed very good health and died suddenly, while at stool, after the onset of severe pain in the chest.	Mr. Spencer Wells's clinical notes were present at the operation. The patient was a gentleman in the diplomatic service, and was under the care of Dr. Herbert Spencer, to whom the writer is indebted for the notes of the case.
5	55	M.	Cancerous ulceration of the sigmoid flexure, which had invaded the left kidney, the passage of the bowel and urine being established. The tumour was movable. No enlarged glands.	Vague stomachic symptoms for two years. Then two severe attacks of colic, accompanied by diarrhœa, 4 months and 1 month before operation, otherwise no trouble with bowels. Dragging and aching pain in left loin and thigh.	There was a tumour on the left side, having the character of a renal tumour. Urine normal.	Left kidney exposed by the usual oblique lumbar incision on September 14th, 1892. The ureter of the case being determined, the renal vessels and the ureter were tied and divided, the patient was inverted, and through healthy tissue. Peritoneum opened freely to left and divided. The intestines was brought out of the wound by transverse colotomy and descending colon separated from the growth. Left end of bowel united by two rows of continuous silk sutures. Wound in loin closed by deep sutures of silkworm gut. Part of the wound was plugged with iodoform gauze.	The Murphy button obstructed the bowel and on the 3rd day the wound opened. The patient died from exhaustion on September 19th, 1892.	On October 1st, 1892, rather over a year after the operation, the patient was in very good health. [illegible] Her general condition was excellent. No evidence of recurrence of the growth.	The patient was sent to me by Dr. Herbert Spencer and was operated upon at University College Hospital. The specimen is preserved in the museum of the College.
6	57	M.	Cylindrical carcinoma of the descending colon. The growth was about the size of a hen's egg. It was covered by adherent omentum. At the point of adhesion there was a small abscess. Lymphatic glands not enlarged.	Had suffered for several years. Attacks of vomiting and loss of weight 18 months. Severe attacks of colicky pain at intervals of about a week for about 12 months. At these periods the bowels were usually relieved and towards the termination of an attack a quantity of bright blood was often passed.	In the left iliac region there was a well-defined, tender, elongated tumour. It could be pushed to the left side of the abdomen, where it was dull on percussion. The left kidney could not be felt.	On April 12th, 1894, the tumour was exposed through an incision in the left linea semilunaris, and drawn out of the abdomen. The peritoneal connections were tied and divided, and the tumour, with about 6 inches of healthy bowel on either side of it, was removed. End to end union of the bowel was effected by two rows of continuous silk sutures. The wound in the abdominal wall was closed in layers.	The patient made a good recovery.	[illegible]	[illegible]
7	44	F.	Cylindrical carcinoma of the ascending colon, extending from the [illegible] to the hepatic flexure. The growth was the size of a hen's egg. The [illegible] and the [illegible] were adherent to the [illegible]. The [illegible] were enlarged.	Menstruation ceased for 3 years. Then the right side of the abdomen began to swell. Constipation for 3 months. Vomiting for 2 months.	There was a firm, tender swelling about the size of an orange in the lower part of the right loin and the upper part of the iliac fossa. It was not movable.	On August 2nd, 1894, an incision was carried through the right linea semilunaris. The peritoneum and the [illegible] were divided. The [illegible] were tied and divided. The [illegible] were tied and divided. The patient was then turned on the left side. The [illegible] were united by two rows of continuous silk sutures. The abdominal wound was completely closed.	The patient made a good recovery.	On October 1st, 1894, the patient was in excellent health. [illegible]	[illegible]
8	54	M.	Cylindrical carcinoma of the lower end of the sigmoid flexure and the upper end of the rectum. The growth hung down into the pelvis and had apparently started and length ended the rectum. Lymphatic glands not enlarged.	Attacks of paroxysmal pain in the left iliac region 2 months before operation. They recurred daily. They were much worse after food and particularly after solid food. Motions often contained blood. Poor appetite and loss of flesh for 3 months. Constipation requiring aperients for 6 months.	No tumour to be felt by abdominal palpation. No growth could be felt in the rectum but on their examination a mass could be felt through the rectum occupying the upper part of the pelvis on the left side.	The operation was performed on January 25th, 1895. The incision was placed as shown in the left linea semilunaris. The sigmoid flexure, mesocolon and the mesorectum were tied and divided and the growth brought outside the abdomen. The growth together with 2 inches of healthy bowel on each side was removed. End to end union was effected by means of two rows of continuous silk stitches. The abdominal wound was completely closed.	The patient made an excellent recovery.	On October 1st, 1895, [illegible] after the operation the patient was quite well and had put on flesh. He lived actual naturally and went to the Riviera and Italy in the winter. He returned to London in the autumn of 1896, and was then in excellent health, having resumed work, owing to his good health.	My friend Mr. [illegible] the operation. Mr. [illegible] Dr. Dent Brocklebank [illegible] to me. Mr. Dent Brocklebank [illegible] of all who [illegible] to be present at the operation. [illegible] to the [illegible] Museum.
9	42	F.	Columnar cell carcinoma of ascending colon which was much shortened and diseased from just above the cæcum to near the hepatic flexure. The growth was adherent to the parietal peritoneum for 1½ in. The lymphatic glands were hard, but the microscope showed no signs of secondary growth in them.	The patient noticed the lump 9½ months before the operation. She had a dull aching pain in it, but had no other symptoms. She had lost a stone in weight in 9 months.	There was a well-defined mass, oval in shape measuring 4 inches by 2 inches, situated in the right iliac fossa immediately internal to the anterior superior spine and the outer third of Poupart's ligament. It had an irregular surface and a hard consistence and appeared to be fixed to the abdominal wall near the anterior superior iliac spine.	The abdomen was opened by an oblique incision over the growth on April 1st, 1901. Although the growth did not indicate the cæcum it reached so near to it that it had to be removed. The adherent peritoneum was stripped off and removed with the growth. The lower end of the mesentery, the ascending mesocolon and a portion of the transverse mesocolon were tied and divided, and the bowel brought outside the abdomen. The small intestine was divided 5 inches from the ileo-cæcal valve, and the large intestine just beyond the hepatic flexure. The ends of the two pieces of bowel were closed by two rows of continuous silk sutures, and then the small intestine was united to the large by lateral anastomosis, the approximation being secured by two rows of continuous silk sutures. The abdominal wound was completely closed.	The patient made an uneventful recovery so far as the operation was concerned, but her convalescence was delayed by phlebitis of the left internal saphenous vein.	On October 1st, 1901, 6 months after the operation, the patient was very well in health. She had lost the ache in the [illegible]. Her bowels acted quite normally. She had gained 1 stone in weight.	The [illegible] Dr. Herbert Spencer [illegible] Dr. [illegible] Museum.
10	46	M.	Columnar cell carcinoma of the descending colon. The growth was 2½ inches long. Its extra-peritoneal surface was covered by a [illegible] that in [illegible] inflammation and [illegible] was adherent to the parietal peritoneum and [illegible]. The [illegible] were [illegible].	Diarrhœa off and on for 2 months and no [illegible] passed for 5 weeks. Slight intermittent pain in left side. Had frequency of micturition for which he consulted his [illegible] a month before.	Deep seated in left loin was a [illegible] about 2½ inches across. Its lower margin was 2 inches above the anterior superior iliac spine. The tumour was smooth in the surface and rather [illegible]. Mobility was very limited, [illegible] to an oblique [illegible].	The operation was performed on August 1st, 1902. In order to mobilise the bowel sufficiently to bring the tumour out of the wound its mesenteric attachments had to be [illegible] as far as the sigmoid mesocolon and owing to the fixation of the splenic flexure by the [illegible] had the upward separation of the bowel [illegible] to extend to the [illegible] before the two divided [illegible] the bowel could be brought out [illegible]. The lower wound [illegible] of [illegible] and [illegible]. The abdominal wound was [illegible].	So far as the bowel was concerned recovery was normal, but convalescence was delayed by some superficial infection of the wound.	At the end of October, 1902, [illegible] months after the operation the patient was quite well. He had gained 21 lbs. in weight.	[illegible] Dr. [illegible] was present at the operation. Dr. [illegible] says: "The specimen [illegible] Museum."

sible. I used the largest size button, and the patient finally did well and she is still alive and well, but the button was very nearly the cause of her death. In the small intestine the Murphy button may possibly be used safely, but in the large bowel its use is attended with an additional risk, which is well illustrated by this case. The lumen of the bowel evidently got blocked with faeces. No flatus was passed per rectum after the third day after the operation, and on the fifth day I found the patient in a very collapsed state, with a very rapid and feeble pulse; faecal vomiting, too, had come on, and there was great abdominal distension. Without delay and under local anaesthesia I made a little opening into the caecum and tied in a small glass tube and gave vent to a huge quantity of gas. The alarming symptoms then quickly subsided. But if simple stitching is adopted there is still ample choice of methods. It is at present a vexed question whether end-to-end union or lateral union is the better. It is possible to find arguments in favour of each method, and these were well stated by Mr. Makins at the last meeting of the British Medical Association, but experience will alone decide which plan is really the better one. Personally, I must confess to a preference for end-to-end union whenever it is possible. I have only had occasion to perform the operation of enterorrhaphy eight times in cases of chronic intestinal obstruction. In seven of the cases end-to-end union was established, and in the remaining case lateral union was effected. All the cases recovered, and they are all still alive, and so no comparative conclusion can be drawn from the results of my experience. In the case in which I reunited the bowel by lateral anastomosis I selected this method on account of the inequality of the lumina of the two pieces of bowel. It was in Case VI of this series in which the ileum had to be united to the transverse colon.

In this paper I shall only refer to the way in which I perform end-to-end union, because I think that method is the one which is most generally applicable to enterorrhaphy after resection of portions of large intestine for carcinoma. The description of the operation has been already carried to the point where the two ends are ready to be united. The pieces of bowel are first of all linked together by an interrupted stitch at the mesocolic attachment, and then the first row of continuous stitches are inserted from the mucous surface through all the coats of the bowel. I commence the suture at a point well removed from the attachment of the mesocolon at a place where the bowel has a good peritoneal covering. An experienced assistant is a great help at this stage of the operation, for he is practised in holding the two segments of bowel in apposition, first with his fingers and then with forceps, in such a way that the stitches can be inserted from the mucous surface for fully five-sixths of the circumference. The final sixth of the circumference is obliged to be stitched from the outside—a method which is both slower and less efficient than stitching from the mucous surface. Owing to foresight in commencing the continuous suture at the spot mentioned the weak part of the first row of stitches—the final sixth—will fall at a part of the bowel where the peritoneal covering is complete, and therefore at a part most favourably situated for being securely controlled by the second row of continuous sutures, which will be inserted from the peritoneal surface according to Lembert's method, and will penetrate all the coats except the mucous. The first row of sutures serves a double purpose. First of all it controls bleeding, and, with this object, the loops of the suture should be drawn tight. If each loop is tightened before the next is inserted there will be no tendency to constrict the bowel by the running together of the loops in the way the loops of a purse-string suture run together. In the second place, it serves as a first line of defence against leakage, and in order that it may fulfil this function as thoroughly as possible great care should be taken to bring peritoneum to peritoneum, and, where there is no peritoneum, muscular coat to muscular coat. Accurate apposition can be assured so long as the stitches can be inserted from the mucous surface; but just at the last, when the sutures have to be put in from the peritoneal surface, it is, I think, impossible to prevent a little mucous membrane showing outside here and there between the loops of the suture. The most difficult part to stitch satisfactorily is that in the neighbourhood of the mesocolic attachment, and it is in order to reduce this difficulty to a minimum that the suture is planned in such a way that the mesocolic portion comes where the stitches can be easily inserted from the mucous surface. The outside suture—the continuous Lembert suture—is the chief defence against leakage. This row of sutures should get as secure a hold of the coats of the bowel as is possible without penetrating the lumen. It should involve the serous, muscular, and submucous coats, but on no account should it implicate the mucous coat. The surgeon's muscular sense soon learns to gauge the amount of resistance offered to the needle. This is distinctly greater when the needle punctures the mucous coat than when it avoids it. If the surgeon is in doubt whether he has passed the needle too deeply or not he had better withdraw it and reinsert it more superficially. The clamps may be removed after the first line of sutures has been inserted. The gap left in the mesocolon should be closed, if possible, by suturing the two sides together, but if this cannot be done, the cut edges of the mesocolon should be stitched down to some surface, so as to close any opening through which small intestine might pass. The bowel in the neighbourhood of the suture line should be dabbed with a 1 to 1,000 solution of perchloride of mercury and then washed over with sterile salt solution. After the removal of the gauze packing the sutured bowel may be returned to the abdomen. Finally, the wound in the abdominal wall may be completely closed. That is the course I have adopted in all my cases except one. The exception was Case II of this series. The oozing surface left by the removal of the kidney and a portion of the pancreas was so large that it seemed imperative to provide some drainage. This was supplied by a piece of gauze. In an ordinary case there is not likely to be much oozing, and consequently there is no need for drainage.

I have entered with what may be thought to be rather tedious detail into the method of operating which I employed in these cases, and my excuse is that I consider success in the field of intestinal surgery can only be obtained by attention to the minutest details of technique.

The treatment of the cases after operation was conducted on essentially the same lines in all. A rectal injection of normal saline solution was given a few hours after the operation in order to relieve thirst. Four hours later rectal feeding was begun. The feeds were given every four hours, and consisted generally of a suppository of beef peptone alternated with a nutrient enema containing 2 oz. of Gerrard's peptones, an ounce of water, and the yolk of an egg. The rectal feeding was continued for four to seven days, according to the tolerance of the rectum. By mouth sips of hot water were allowed from the first, and on the day after the operation some nourishment was given by mouth hourly or every two hours. This consisted, as a rule, of one or other of the following: Half an ounce of albumen water, two teaspoonfuls of liquid peptones diluted with an equal quantity of water, two teaspoonfuls of peptonized milk with an equal quantity of barley-water, or a teaspoonful of raw meat juice in half an ounce of water. The amounts were gradually increased, so that by the end of a week 2 oz. were given every hour. Food was now only given every second or third hour, and the quantity given at a time was correspondingly increased. The patient was at this time allowed to masticate the lean part of an underdone chop and to swallow the juice, but not the solid. A little bread and butter was given once a day, and some Benger's food two or three times a day. By the end of a fortnight after the operation the patient was usually taking light solid food.

In the early days after the operation, whilst the nutrient enemata were used, the rectum was washed out every morning and then half a pint of normal saline solution was injected into the bowel and left in. A rectal tube was frequently passed in order to give vent to flatus, and thus to prevent, as far as possible, strain on the line of sutures. The patients were instructed not to strain in their endeavours to pass flatus, but to ask the nurse to introduce the rectal tube whenever they felt the presence of flatus in the bowel. As a rule the bowels acted as the result of an oil enema, followed by a simple enema on the tenth to fourteenth day after the operation. If necessary a dose of castor oil was given about a fortnight after the operation.

I now come to a consideration of the results, and it is very satisfactory to be able to report that all my cases made good recoveries. Convalescence was delayed, however, in some of the cases by the occurrence of phlebitis of the superficial veins of the leg. It is curious how often phlebitis complicates operations on the bowels. It occurred in three of these cases—the fourth, fifth, and sixth, and in each case it was on the side opposite to that on which the operation had been performed that the phlebitis developed. I have noticed the same complication in cases of appendectomy. I do not see how to explain this complication. Doubtless one factor is

some slight septic contamination of the blood, owing to the operation involving a naturally septic region like the bowel; but there must be some other factors, the nature of which is not obvious. The only other complication was, in one case, septic infection of the abdominal wound, which led to separation of some of the buried silk sutures. The deep part of the wound was not involved, and the bowel healed normally.

Immediately successful results are very gratifying to the surgeon as showing the perfection of his operative technique, but, unless the remote results were good also, there would not be much encouragement to perform operations which are attended by so many grave risks. I have already stated that with the exception of the first patient on the list, who lived in complete comfort for four years and then died suddenly from heart disease, all the patients are alive and in good health at the present time, and they have all put on flesh. All the patients have been examined recently, and no evidences of recurrence can be detected either from the presence of symptoms or by physical examination of the abdomen. In three cases sufficient time has elapsed to give good grounds for hoping that the cure in them will be permanent. One case was operated upon over four years ago, another two and a-half years ago, and the third two years and two months ago. The remaining three cases were operated upon too recently—nine, six, and two months ago—to warrant any prediction regarding ultimate prognosis.

There is but little more for me to say. It is unnecessary for me to describe the parts removed, for the specimens are here, ready for your inspection; and, as they will be preserved in the museum of University College, they will be open to the inspection of any one else who is interested in the subject. I need only state that in five cases the growths were columnar-celled carcinomata, and that in one, Case III, the growth, which was a very large one, was a colloid carcinoma.

RADIUM BROMIDE:

NOTES ON SOME CASES IN WHICH IT HAS BEEN TRIED.

By JAS. MACKENZIE DAVIDSON, M.B., C.M.,

Medical Officer in charge of Roentgen ray Department, Royal London Ophthalmic Hospital, and Charing Cross Hospital.

It seemed highly probable that the radiations from radium bromide, considering their nature and properties, would prove serviceable in the treatment of cases which were benefited by *x* and ultra-violet rays (Finsen treatment). In the early part of May, 1903, I obtained 5 milligrams of radium bromide in a sealed glass tube.* The exact strength of the radium bromide I use I am unable to state in figures. Mr. Soddy, who has done such excellent work on radium, kindly examined it for me, and it is said to be of the finest quality.

It may be well to preface the notes of cases in which I have used it by stating briefly some of the physical properties of this remarkable substance which concern us. In the solid state it gives off three kinds of rays;

1. *Alpha Rays.*—These are minute material particles propelled at an enormous velocity, and which, if they impinge on a suitable fluorescent screen, cause brilliant scintillations. This was first noticed by Sir William Crookes, who has called the little instrument devised to show the phenomena the "spintharoscope." The glass tube in which the radium is enclosed entirely cuts off all these α rays, so that their action in the cases presently to be described was *nil*.

2. *Beta Rays.*—These rays are similar to the cathodal rays inside a Crookes's tube, but have a much higher velocity and consequently have the power of penetrating the glass tube and our tissues to some considerable depth. It seems pretty certain that it is these rays which cause the burning and destructive action on the skin.

3. *Gamma Rays.* These resemble in some respects *x* rays of extraordinary penetrating power, somewhat similar to the rays produced by an extremely high Crookes's tube. The glow on a barium platino-cyanide screen can be seen from one of my 5-mg. tubes through half an inch of copper.

The many other extraordinary properties of radium, such as its power of producing heat and its emanations when in solution, etc., have no bearing upon the method employed in the following cases, and so nothing need be said about them here. The action upon a photographic plate is rapid and intense. If the salt be shaken down to one end of the tube, and this then used to write upon a photographic plate enclosed in the usual opaque envelopes for *x*-ray work, it will be found on development to show the writing extremely black.

CASE I.—*Rodent Ulcer.*

Mrs. F., aged 69, was sent to me at the *x* ray department, Charing Cross Hospital, by my colleague, Dr. Macleod, for *x* ray treatment.

There was a typical rodent ulcer on the right side of the nose, the upper border being close to the inner canthus. It was 1 in. in length by ½ in. in breadth, and had resisted both Finsen and *x* ray treatment.

I was glad to have this opportunity of trying radium bromide, and, having no data to guide me in its application, it was tried tentatively at first, and the following are extracts from my casebook.

On May 21st, 1903, a tube containing of radium bromide was placed on the upper part of the ulcer for fifteen minutes, and again on May 22nd as before, only further down.

The salt was always shaken down to one end of the tube, so that the point of application was definite. The tube was held in position by a strap of rubber plaster put across the upper part of the tube which fixed it to the skin.

On May 26th there was apparently slight reaction. Two tubes now applied for a short time (exact time not recorded). On May 29th the ulcer was apparently greatly improved, its edges were levelling. The tubes were applied for twelve minutes. On June 11th the ulcer was practically healed, but some thickening could be felt at the upper border. Two tubes were applied for eighteen minutes, and on June 26th they were applied for eight minutes over a slightly thickened part.

On July 10th a slight tendency to breaking down was noticed in the centre, and one tube applied (time not stated). Treatment was now stopped.

This patient was carefully examined on December 7th, and there was no trace of recurrence; the skin was quite natural over the part and freely movable, and it was only on very careful inspection that any difference could be detected between the two sides of the nose. Thus for five months there has been no recurrence.

CASE II.—*Tuberculosis Verrucosa Cutis.*

P. V., aged 10. Sent to me by Dr. Macleod. The patch, about the size of a sixpence, was situated on the skin of the palm of the right hand, between thumb and forefinger. It had been under treatment for three years.

June 12th. Two tubes of radium applied for twenty-five minutes.
June 15th. Two tubes for twenty-two minutes.
June 28th. Two tubes for twenty minutes.
July 13th. Two tubes for thirty-five minutes.
July 16th. Greatly improved; two tubes applied for thirty-five minutes.
July 20th. Two tubes for half an hour.
July 22nd. Two tubes applied for twenty minutes. The patient went to the country for six weeks, on return he was nearly well. I sent him to Dr. Macleod, who tells me that there was a small spot, to which he applied a radium tube, and this effected a complete cure.

CASE III.—*Rodent Cancer.*

Miss S., suffering from rodent cancer of the nose, was sent to me by Mr. Rickman Godlee.

July 22nd, 23rd, 24th, 25th. Two tubes applied for thirty minutes. The tubes were placed on different parts of the ulcer on each occasion. There was no reaction.

July 28th. Greatly improved. Two tubes applied for forty minutes in one position and for twenty minutes in another.

August 5th. A blush round the border, but thickening all gone. Yellow crusts in centre.

August 20th. Greatly improved. The crust came away. Put single tube in the centre for half an hour.

August 30th. Put single tube in lower border, where there is a slight thickening left.

September 24th. Quite cured, apparently. Placed a single tube at lower part, where there are a few dry scales, for fifteen minutes.

October 15th. Cured.

CASE IV.—*Rodent Ulcer of Face.*

Miss H. presented what appears to be an extensive rodent ulcer of right side of the face.

This case was brought to me by Dr. Powell. It seemed hopeless. Three operations had been performed, recurrence following; *x* rays had been tried with a slight improvement at first, only to be followed by what appeared to be increased destructive activity. The case was considered to be in the early stages of epithelioma.

The condition when I first saw her was as follows: The whole of the right cheek had been destroyed, the tongue and soft palate were involved, the upper and lower lips were destroyed, and the mouth was a mere slit; the patient could not speak. The tongue was foul, and there was a very offensive discharge from the whole surface; the hard palate and part of the soft palate were invaded.

It was agreed that radium should be tried on the lips, where any improvement could be readily noted. If arrest of the process occurred,

* Sir William Crookes gave me the address of a firm in Germany likely to supply what I wanted, and this address I handed to Mr. Macfadden, 10, New Cavendish Street, W., who obtained it for me, and through him I have from time to time obtained further supplies.

then it would be reasonable to hope that we might be able to arrest the progress of the whole.

July 26th. Two tubes were applied to the upper lip for fifty minutes, on July 31st for forty minutes, and on August 1st for forty minutes. In addition I gave her some thorium nitrate enclosed in "oil silk" and guttapercha outside it, to be worn as a pad in the cavity; a piece of lint was interposed between this pad and the parts.

August 3rd. Two tubes applied for forty and forty-five minutes to different parts. Several applications were made subsequently, and on August 9th, having obtained some more tubes, but not of such good quality as the first, these were also used, so that on this date four tubes were applied for an hour and a half; thorium hydroxide given for the patient to wear. The hydroxide is more powerful than the nitrate, and is not deliquescent.

As Dr. Powell is joining me in publishing this case with more details later on it will suffice at present to state the progress made.

On September 1st three tubes were applied for one hour in the forenoon and two and a quarter hours in the afternoon.

On September 2nd an erysipelatous blush was observed round the parts. A severe attack of what appeared to be erysipelas ensued, the temperature went up to 105°; there was sickness, with vomiting, etc.; some of the parts that had sloughed over broke down; but, on the whole, when the attack subsided the parts looked better.

Applications began again on September 17th, and these have been continued ever since. Sometimes as many as eleven tubes were applied at the same time.

All went on slowly improving till after a longer exposure than usual, when another attack of what appeared like erysipelas occurred. The temperature did not during this attack go higher than 101·4°, and it subsided more quickly. Serum, blood, and some of the discharge were placed in sterilized tubes for cultivation, and Dr. Bulloch, of the London Hospital, reports that they remained entirely sterile.

There is a steady gain, the discharge is much less and not at all offensive, the tongue clean, and the patient can now speak distinctly, cicatrization going on slowly and steadily. That the disease has been arrested is obvious, and it seems reasonable to look for a complete cure.

When the palates, hard and soft, were treated, the nurse had to hold a narrow strip of thick lead upon which two or three tubes were fastened with a rubber plaster. In this manner the radium tubes could be held up against the diseased parts, while the thick lead screened the normal tongue, etc., from the radiations.

It seems fairly clear that the radium radiations produce profound changes in rodent cancer, and that absorption of the altered products leads to the blush that so often follows the application of radium in this disease; and, if the exposure has been too long, then the blush may be succeeded by a severe inflammation resembling erysipelas. There seems a possibility that the products absorbed may act as antitoxins. There is no evidence, meantime, that this is so. It is obvious that with a large surface care must be taken not to overexpose the parts to radium, otherwise serious constitutional disturbances may be produced.

CASE V.—*Malignant Degeneration in Mole.*

Miss D., aged 40, had a mole on her left cheek, which took on a malignant character, and excision had been advised. After several applications of a single tube of radium it disappeared, leaving only a slightly pigmented area which is gradually fading.

During the treatment of this case, after a long exposure a relapse appeared to occur, but it turned out to be only the reaction from over exposure, for on stopping the radium the inflammation subsided and a cure effected. It is therefore a matter of consequence to give a correct exposure, and what this should be can only be ascertained by tentative trials in each particular case.

The results in the above cases justify the hope that radium will prove to be a very valuable therapeutic agent. It now remains to find out in what diseases it is potent and what may be the best method of using it. In sealed glass tubes it can be applied readily to any part; can be introduced into cavities, and by means of easily devised flexible tubes it can be applied to the throat and other regions quite inaccessible to either x rays or Finsen treatment. It is quite painless in its application, and need not prevent the patient from reading, etc., while the treatment is going on.

CASE VI.

Radium has been tried in several cases with no good results. In one patient two small nodules had prolonged exposures; ulceration resulted and they shrivelled up, but a thickening remained which showed no tendency to disappear. In this same case a mass on the breast the size of an egg had such long exposures that ulceration and sloughs were produced and yet no appreciable good was done. The conclusion forced upon us is that radium, with the present method of application, is no use whatever in carcinoma.

Thorium gives off emanations and rays the same as radium, but about 1,000 times weaker. The hydroxide of thorium can be obtained in any quantity and at a moderate price. A large quantity can be enclosed in a rubber bag and applied to the part. The duration of this application must depend on the reaction produced. It would be well to try thorium in this way in septic ulcers, and it can be used with advantage in cases in which radium is being also applied at intervals.

A CASE OF RODENT ULCER TREATED WITH RADIUM.

By GERALD SICHEL, F.R.C.S.,
Surgeon in Charge of the Actino-Therapeutic Department, Guy's Hospital.

G. T., aged 65, presented a rodent ulcer of the lower part of right cheek of six months' duration. Four years earlier another had begun higher up on the same cheek, which was operated upon twelve months back.

The active ulcer was treated by applications of 5 mg. of radium bromide, each sitting usually lasting fifteen minutes. There were forty-two sittings in all, spread over a period from October 14th, 1903, to December 31st, 1903. The radium bromide was contained in a small sealed glass tube.

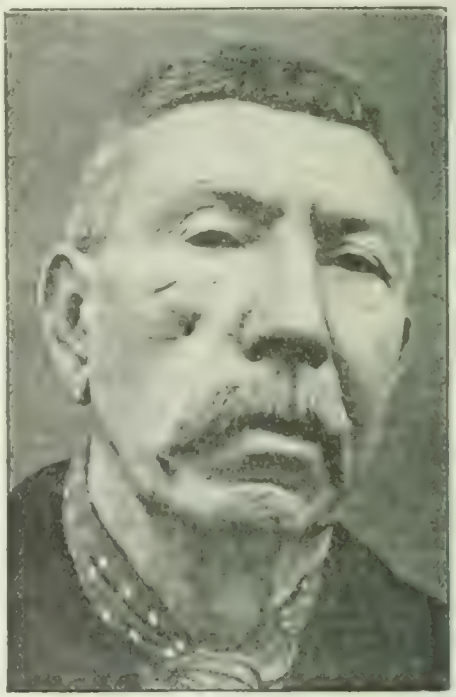


Fig. 1.—October 14th, 1903.

After the first application the patient stated that the pain was easier, and that he slept better. After five sittings there was no bleeding and no pain or tenderness. At first the ulcer had bled readily on touching. After seven sittings the granulations had become pale and smoother.

The ulcer was rather a deep one compared with its extent, and it took a long time to fill up. Eventually a depressed, slightly reddened, indurated circular scar was left, which latterly remained unaffected by treatment. The condition of things at the beginning and the end of treatment are shown in the accompanying photographs.

It is interesting to note that the radium salt was held in a glass tube, which, of course, must stop some of the rays from passing through the glass, which was at first ordinary white glass, has been changed to a violet colour. Experiments in Radio-activity and the Production of Helium from Radium, by Sir William Ramsay and Frederick Soddy, abstracted in the *Journal of the Chemical Society*, November, 1903. In the same journal is the abstract of another paper by William B. Hardy and Miss E. G. Willcock, in which the authors conclude that the physiological action of radium rays is some process of oxidation; also, they found experimentally on a solution of iodoform in chloroform that decomposition is accelerated by certain substances, of which sodium chloride

is one, so latterly I have been bathing rodent ulcers treated with radium with a strong solution of common salt before the radium is applied. In the present case I do not think this made any difference, but I am not certain it has not been of some help in two other cases now under treatment. The patient used to hold the radium in position himself.

Fig. 2. January 4th, 1904.

It was by the direction of Sir Cooper Perry, who sent the case to the electrical department from his out-patients, that the radium treatment was adopted.

THE LEISHMAN-DONOVAN BODY AND TROPICAL SPLENOMEGALY.

BY

SIR PATRICK MANSON, K.C.M.G., M.D., F.R.S., and GEORGE C. LOW, M.B., C.M.,

London School of Tropical Medicine.

THE great majority of the cases of splenic enlargement which every year return to Europe from India, Africa, and other tropical countries are undoubtedly of malarial origin. Their histories, their liability to intercurrent acute malarial phenomena, the presence in the blood during these acute attacks of the malarial parasite, and their response to quinine prove this. But over and above these malarial cases and those of leucocythaemia, cirrhosis of the liver and other well-recognized pathological conditions associated with enlargement of the spleen, there is a considerable residuum of cases of tropical disease in which enlargement of the spleen is a prominent feature, and which hitherto have not been adequately recognized or explained.

Clinically, the cases we refer to seem to fall into two categories—the subacute and the chronic. In the more acute forms there is a history at first of a malaria-like condition with recurring attacks of high fever, which, after some months, and in spite of liberal dosing with quinine, leads to the development of a very definite cachexia. This cachexia is characterized by quotidian fever—afternoon chill followed by high temperature and profuse sweating, and terminating by the following morning in a subnormal temperature and anaemia. Although in some instances there may be intervals of apyrexia of several weeks' duration, in others there is little variation in the quotidian recurrence of fever, which is absolutely uninfluenced by quinine. In time the spleen enlarges, the anaemia becoming intense. According to our experience the patients die in a few months. The fatal event is brought about sometimes by pure asthenia, sometimes by cerebral thrombosis, sometimes by diarrhoea, sometimes by other intercurrent disease.

The second type of febrile splenic enlargement to which we refer resembles the foregoing, only the fever is much milder, rarely exceeding 101° F., the splenic tumour and the anaemia being less pronounced. There is, however, always a malaria-like initial stage; and, just as in the other type, this and the subsequent course of the disease are unaffected by quinine. What the ultimate fate of these more chronic cases may be we cannot say, but it seems probable that they drift along as valetudinarians until they are ultimately cut off by some other affection, to which their persistently enfeebled state renders them specially liable.

In both types of the disease the tongue is clean, the appetite good, and, but for weakness, the patient feels fairly well. Occasionally, as might be expected in persons coming from malarial localities, attacks of genuine malarial fever may be interpolated. In this event there may be considerable gastric derangement, and quinine may be of temporary service.

In certain instances the skin becomes deeply and fairly uniformly pigmented. Owing to this latter circumstance, and because most of the cases which have passed under our observation have come from Assam and the Indian Terai, we have arrived at the conclusion that the disease is none other than what is known by the natives in Assam and India as kala-azar or kala-dunkh.[1] We have seen an exactly similar condition in a patient from South Africa, but whether his case and the Indian disease are identical we are not prepared to say.

On the discovery of the trypanosoma as a factor in human pathology it occurred to us that possibly in this or a similar organism the obscure cases we have attempted to outline might receive their explanation. Accordingly in two instances of non-malarial febrile splenomegaly—one from India, one from Africa—we made careful examination of the peripheral and splenic blood, but without finding any parasite. It may be that in the Indian case our failure was attributable to the fact that the puncture in the spleen was made into sloughy and gangrenous tissue.* Notwithstanding these failures, and encouraged by Leishman's and Donovan's discovery of what appears to be a new protozoal organism in cases of the type we have described, when some time ago such a patient from the Darjeeling district consulted one of us, we persuaded him to enter the tropical wards of the Seamen's Hospital and submit to splenic puncture. This little operation was performed on two occasions—December 18th and 28th, 1903. The first tapping was followed by a slight rise of temperature, which quickly subsided to normal; the second tapping was also followed by fever and some perisplenitis.

At the first tapping we got very little blood, barely enough to fill the needle of the exploring syringe; at the second tapping quite a drachm of blood was obtained. In both specimens, on submitting them to microscopical examination, we found Leishman-Donovan bodies in great profusion. They were especially numerous in the first specimen, many fields of the microscope showing dozens of them.

Although Leishman and Donovan, and latterly, working with Donovan slides, Laveran and Ross, have described them, our observations on these bodies may be of some interest and value, inasmuch as they confirm and perhaps supplement the descriptions of the earlier observers, but more especially as they completely disprove Laveran's contention that the parasites are parasites of the red blood corpuscles, and a species of piroplasma. We may at once state that although parasites were frequently encountered superposed on or underlying a red corpuscle, we have not once seen anything that would lead us to believe that they were inside the corpuscle.

Our examinations were made in ordinary wet blood preparations, in hanging-drop preparations, and in dried and stained films. The stains employed were the Leishman-Romanowsky carbol-fuchsin and carbol-thionin; fuchsin was a failure. The Romanowsky stain gave by far the best results.

In the stained films we recognized the following:

1. Oat-shaped, oval, and circular bodies, clearly defined in outline, stained a faint blue, and having a rather large and deeply-stained usually spherical nucleus lying against the capsule about the middle of the parasite, and a still more deeply-stained, short, bacillus-like body on the opposite side

* This case died. Smears of blood from bone marrow and spleen showed many Leishman-Donovan bodies.

of the capsule, but directed as a rule, but not invariably, towards the nucleus at various angles. In a few instances this bacillus-like centrosome, if so we may call it, is represented by a point. The centrosome is stained even more darkly than the nucleus, which, when large, is distinctly less deeply coloured. (Fig. 1.)

2. Similar and generally rather larger bodies with the nucleus (*a*) larger and less deeply stained, or (*b*) with the nucleus spread out as a deeply-stained layer on the inside of the capsule, and in the usual position this is *vis-a-vis* to the centrosome. In the latter type of parasite, with the exception of nucleus and centrosome, the contents of the capsule are very faintly stained. (Fig. 2.)

3. The foregoing bodies in association with a faintly-staining and slightly granular substance, which may be either regularly disposed around them or attached to one side of them as a roundish or flocculent irregular mass. (Fig. 3.)

4. Two of the oval bodies closely applied to each other, one of the bodies being usually smaller than the other. Occasionally in these twin bodies their respective nuclei and centrosomes are disposed symmetrically. (Fig. 4.)

5. Two or more up to fifty of these bodies arranged as an almost perfectly circular sharply-defined rosette, the matrix of the zoogloea mass being evidently of the same nature as the faintly-staining material already referred to as being sometimes attached to the single isolated parasites. These rosette-like bodies, when made up of eight or ten elements, but for the presence of the centrosomes could easily be mistaken for a sporulating quartan fever rosette. The parasites composing the smaller rosettes are usually larger than those in the bigger groups. (Fig. 5.)

6. The same zoogloea masses broken up evidently in making the preparation, the parasites and matrix being scattered about irregularly but still keeping more or less in association (Fig. 6).

7. Circular masses of the zoogloea matrix with ill-defined outline and varying in diameter, but containing no parasites (Fig. 7).

8. Similar and generally larger masses with more definite outline, and containing one or more parasites, and exhibiting unstained spaces which may have formerly been occupied by parasites (Fig. 8).

9. Sharply-defined capsule-like bodies containing one or two parasites or quite empty, but with a zoogloea mass of parasites in its neighbourhood, the proximity and appearances suggesting that the capsule had contained the zoogloea mass (Fig. 9).

From an examination of the parasite in wet preparations, especially in the hanging drop, it is apparent that the zoogloea masses have a spherical mulberry-like arrangement. In such preparations the individual parasites can be made out as very minute oval bodies, each of which possesses a highly refractile point, presumably the nucleus. Neither in ordinary wet films, nor in the hanging drop, whether on the ordinary or on the warm stage, could we make out any movement or indication of growth or development.

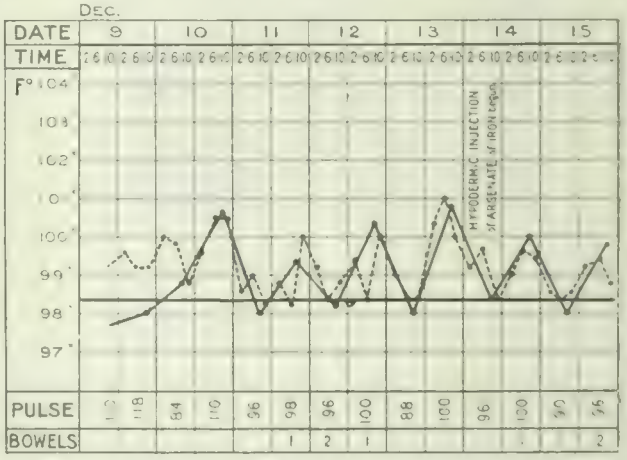
The evidence of phagocytosis is difficult to assess, seeing that it is always possible that in preparations in which the parasites are very abundant the appearance of inclusion of a parasite by a white blood corpuscle may be owing to superposition. However, in the case of the macrophage represented in Fig. 10 there can be no question of superposition; the parasites in this phagocyte were too numerous to admit of such an explanation.

There can be little doubt, from the frequency with which Donovan has found it in India, and of the occurrence of chronic febrile splenomegaly in Europeans from India and possibly elsewhere, that this new parasite is one to be reckoned with in tropical pathology. It would be important therefore to follow out its life history, and more especially to be able to determine how it obtains entrance into the human body.

Judging from the appearances met with in our preparations, it seems fairly safe to assume that once in the spleen it multiplies by simple division. Certain of the parasites, after being liberated from the zoogloea masses, are destined for passage into another phase outside the body, others for endogenous multiplication. The latter on becoming free in the splenic pulp probably conjugate, and throw out a material which ultimately forms the matrix of the zoogloea masses within which the parasites divide for some five or six generations. This goes on indefinitely apparently.

Thinking that the blood might be the medium by which the parasite travels towards its exogenous phase, we made repeated and prolonged examinations of peripheral blood obtained from the patient at regular intervals of two hours during the day and night. Although two expert assistants worked at these films for several days no Leishman-Donovan body, with one doubtful exception, was ever found by them or by ourselves. Neither in these examinations of the peripheral blood nor in those of splenic or hepatic blood did we ever encounter malarial parasites or malarial melanin.

It is evident that the parasite must get out of the body somehow, and that the blood is the most probable channel. We thought that possibly the parasite was filtered out from the splenic blood as the latter passes through the liver in the portal circulation. Accordingly we tapped our patient's liver, and found in the small quantity of blood so obtained numerous single or double parasites but no zoogloea masses. This discovery seemed to point to the biliary ducts as the channel through which the parasites escaped to gain subsequent freedom by passing out of the body with the faeces, but repeated examinations of the faeces were negative. Similarly, centrifuged urine also yielded no parasites. A curious feature about the parasites from the liver was that in quite 90 per cent. of them the nucleus was either extruded and swollen, or was in process of extrusion (Fig. 11). Possibly this phenomenon was owing to the blood having been diluted with normal salt solution. An attempt to cultivate the parasites in blood agar failed.



The following are the leading facts of the case:

C. O., aged [illegible], a tea-planter, when 10 years of age had Pott's disease of the lower dorsal vertebrae, which has eventuated in permanent kyphosis. He is delicate looking, but had good health till 1892. From 1893 to 1897 he was in Assam, in the latter year he went to Sylhet, where he got severe bilious remittent fever. He was in the Dooars from 1898 to 1899, and did not have much fever, again in Sylhet, in 1900, but this time he had little fever. He came home in 1901. From January, 1902, to June, 1903, he was in the Terai, near Dargeeling, and had at first good health, but in June last he began to get low fever, and in July had two sharp attacks, for which he was sent to the hills. He improved a little, but, returning to work in August, he became subject to regular tertian (as he calls them) attacks. Getting steadily worse, he was sent to the hills again on August 16th; there he got double pneumonia. On October 5th he was invalided, arriving in London on November 13th. During the first part of the voyage he felt better, but later he got fever every afternoon, followed by profuse night sweats. Since his arrival in England he has had fever every third day, with occasional but milder intervening attacks. He has been taking quinine steadily for months without apparent benefit. On November 30th, 1903, it was found that his spleen came [illegible] in below the costal border, was smooth and firm. His liver was also enlarged, the free edge coming well below the costal border. The urine had about a sixth of albumen. Lungs and heart were normal. Blood contained no malarial parasites, and the red corpuscles were regular in size, [illegible] per c.mm. He was admitted into the tropical wards of the Seamen's Hospital, Albert Docks, on December 6th, and has been there ever since. For a few days at a time his temperature has been normal. Most days there has been an evening rise to 99° or 100°. On the day on which the spleen was first tapped it stood at [illegible] after the second tapping the temperature got as high as [illegible], but in three days, with the decrease of the perisplenic [illegible] fell to normal. His health has been excellent throughout, and his appetite fair. The urine is now free from albumen.

The blood count was as follows:

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

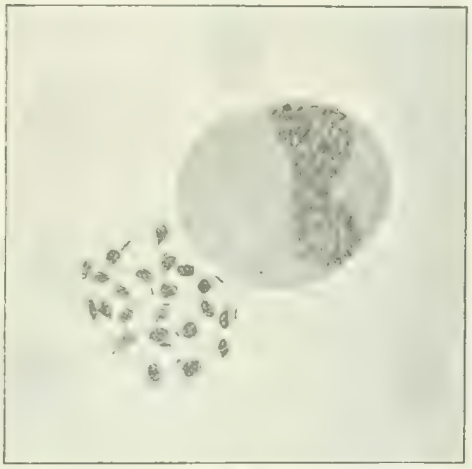


Fig. [illegible]

Fig. 5.

Fig. 8.

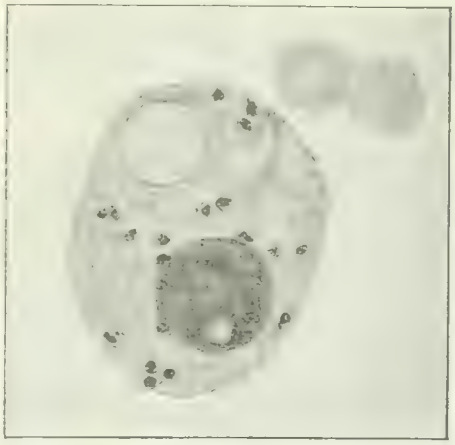


Fig. 10.

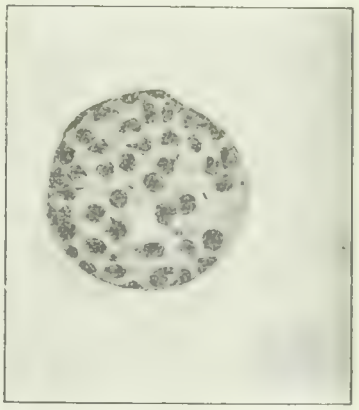


Fig. [illegible].

Fig. 6.

Fig 7.

Fig. 11.

Fig.

Magnification circa [illegible] co.

Blood Counts.

	December 12th.	December 15th.*	December 1...
Red cells	3,[illegible],000	3,050,000	3,[illegible],000
White cells	500	3,[illegible]	[illegible]
Haemoglobin	[illegible]%	[illegible]	[illegible]%
Polymorphonuclear	[illegible]%	4[illegible]%	4[illegible]%
Large mononuclear ...	[illegible]%	11%	10 [illegible]%
Lymphocytes	44%	41%	4[illegible]%
Eosinophiles ...	[illegible]%	2%	1.1 [illegible]%
Transitional ...	[illegible]%	1	2 [illegible]%
Mast cells	1%	1%	[illegible]%
Malaria parasites	Nil	Nil	Nil

* Spleen punctured. † Spleen and liver punctured.

We are very much indebted to Dr. T. S. Kerr for the extremely accurate drawings which illustrate this paper.

REFERENCE

[1] *Tropical Diseases*, 2nd edition, p. 271.

HUMAN TRYPANOSOMIASIS ON THE CONGO.

BEING THE FIRST PROGRESS REPORT OF THE EXPEDITION OF THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE TO THE CONGO, 1903.

BY

J. EVERETT DUTTON, M.B.Vict.; Walter Myers Fellow, University of Liverpool.

J. L. TODD, B.A., M.D., C.M.McGill.

AND

CUTHBERT CHRISTY, M.B.Edin.

At the request of His Majesty King Leopold II, King of the Belgians, this expedition was sent in September last to the Congo Free State to report upon the sanitation of the larger towns and to continue the School's work on human trypanosomiasis. Through the kindness of the Governor-General of the Congo and of Drs. Vourloud and Nerlseng, Government physicians at Boma, the hospital for natives at Boma was opened to us. It contained about sixty-five patients, and we saw there eighteen patients who had been admitted as cases of sleeping sickness.

Whether admitted to hospital by the medical officers, or pointed out to us by the missionaries as cases of sleeping sickness, with three or four exceptions the cases which we have as yet seen have been in our opinion very unlike what has hitherto been described as sleeping sickness. Continued sleep or even abnormal sleep has been almost absent from many of the cases. It has been absent even in those who were believed to be in an advanced stage of the disease and who ultimately died. In only three or four of the cases observed by us has somnolence been a marked feature, and only in these few cases have the symptoms in any way resembled with those observed by one of us during the Uganda epidemic of sleeping sickness.[1]

From November 4th to November 20th two of us were occupied in travelling through the cataract region in order to ascertain for ourselves the exact conditions existing there. Reports sent to the Congo Free State officials and handed on to us, as well as correspondence received by ourselves, led us to believe that in this district we should find, not only an epidemic of sleeping sickness, but that the whole population was being "decimated" by the disease. Although in the course of our journey we visited many villages and made tiresome expeditions to visit those especially mentioned to us, not a single case of illness did we see in which sleep was a marked feature.

We stayed for some time at the Baptist Missionary Society's station at Wathen, in the Lutete district, where we received hospitality and assistance at the hands of those in charge of the mission. From here excursions were made into the surrounding district, and a large number of persons brought to us as cases of sleeping sickness were examined.

These consisted of a heterogeneous collection of men, women, and children, many of whom were found to be suffering from heart, lung, and other more or less common ailments. Amongst the boys it seemed that a diagnosis of "worms" was sufficient in many cases to account for the symptoms. Cases of apparent starvation and neglect were also common, and it appeared from what we were told that, owing to there being a general belief in the contagiousness of "maniumba"—the native name for what is believed to be sleeping sickness—children and even adults were, as soon as the slightest symptoms developed, liable to be isolated and shunned by every one, causing eventually a state of emaciation and filth which ended sooner or later in death. Apart from these, however, and eliminating the many common ailments, there still remains in the cataract region a class of cases which undoubtedly terminate fatally within a year or two. These cases, of which most villages visited by us contained one to three examples, have few very evident symptoms of illness beyond emaciation, and in some cases weakness, headache, enlargement of lymphatic glands, and dirty, dry, scurfy skin. In a proportion of these cases trypanosomes were found in the peripheral blood, and we think it probable that if a systematic examination were possible the parasites would be found in a much larger number.

Trypanosomes have been found in the finger blood both of those cases in which the diagnosis of sleeping sickness was certain and of those in which the case picture was atypical. In addition, trypanosomes have been frequently seen in the peripheral blood of apparently healthy individuals. The routine method adopted for the detection of the parasites in the peripheral blood of unsuspected cases was the simple examination of a rather thick, freshly-made, cover-slip preparation. All of the following persons were examined in this way.

Place and Class of Native.	Number Examined	Number Infected with Trypanosomes in Peripheral Blood.	Number of Cases Admitted to Hospital or shown to us as Cases of Sleeping Sickness.	
			With Trypanosomes.	Without Trypanosomes.
Boma.				
1. Hospital at Boma. Native soldiers coming from all parts of the Congo	7[illegible]	11	4	7*
2. Prisoners in Boma gaol, coming from all parts of the Congo	181	17	0	0
3. Children of native soldiers at Boma	14	0	0	0
4. Colony school. Native boys from all parts of the Congo ..	30	1	0	0
5. Native labourers and children from native quarter	34	0	0	0
Matadi.				
1. Natives collected for examination by Dr. Sims ..	72	1	0	0
2. Children of native soldiers, up to 7 years of age	16	0	0	0
3. Patients at the native hospital	11	5	2	3
4. Children at the Sansel native quarters, up to 7 years of age	28	0	0	0
Cataract Region.				
1. Carriers collected from Tumbar District ..	20	2	0	0
2. Carriers from Lutete District ..	21	0	0	0
3. Boys at Wathen Mission, ages up to [illegible] ..	15	1	0	0†
4. Natives examined indiscriminately at two small villages near Lutete	42	2	0	2
5. Natives coming to the mission for "treatment," or sick native seen in village when [illegible] Cases collected for us as showing sickness cases by Chefs de Poste at Kasai from surrounding villages	74	11	11	47
	14	—	0	14

[illegible] were diagnosed as sleeping sickness cases. In 4 [illegible] were seen in the cervical peripheral blood. One of the 4 never [illegible] in the peripheral blood.

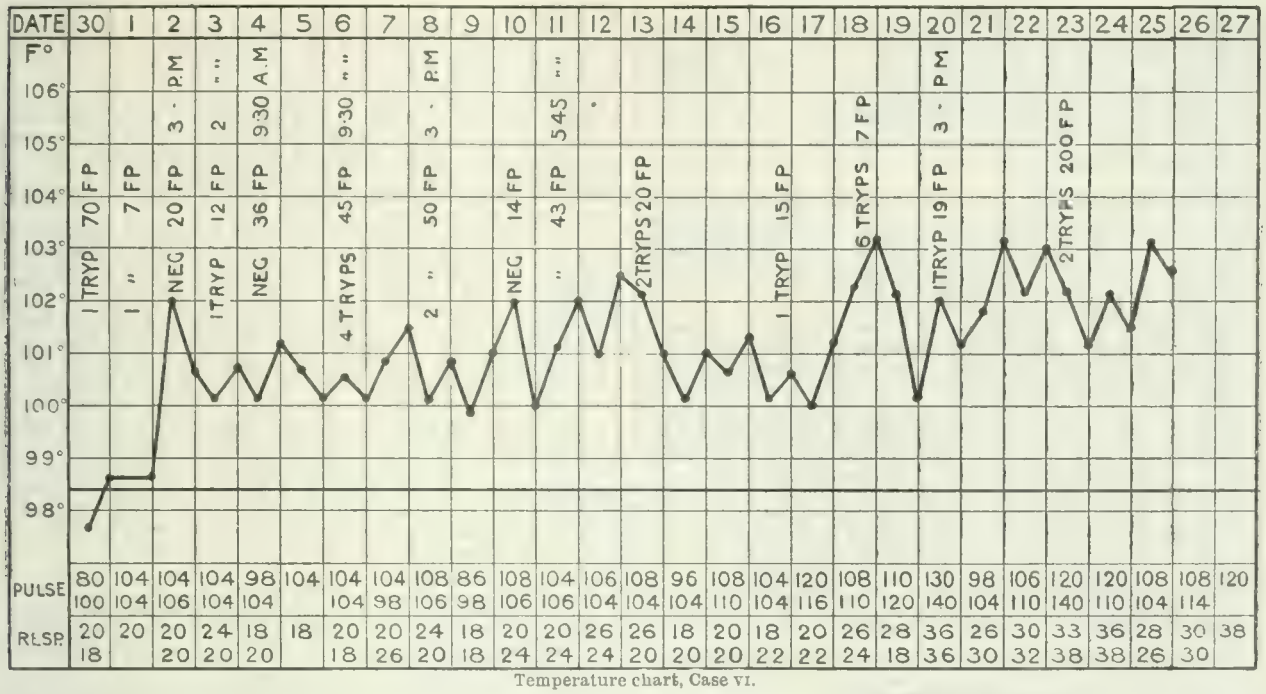
[illegible] lasting for twenty-four days previous to our [illegible] which was thought to be quotidian.

CASE VI.

[illegible] September 14th, 1903, at Boma, native, aged 24, [illegible]. Married. Has always lived at Boma. Has never seen sleeping sickness. Has been working in Boma. Had blood in [illegible] nearly three years. First noticed [illegible] this year. Admitted to hospital August 1st, 1903.

When the patient was seen (September 14th) somnolence was already a marked feature of his condition. He sometimes slept for [illegible] hours at a time. When we left Boma (October 9th) the patient was comatose, and death had been expected at any time during the preceding week.

[illegible] Patient is quiet and very weak. Questions are answered rationally, but only after a long interval. He displays a



Temperature chart, Case VI.

somnolent indifference to everything about him, and only by constant shaking can drowsiness be dispelled for a period long enough to permit him to speak.

Physical Examination.—Nervous system; co-ordination imperfect. Sense of weight good. Knee-jerks and superficial reflexes were obtainable, and showed no abnormality. Eyes reacted to light and to accommodation. Thoracic and abdominal examination showed nothing worthy of note. Lymphatic glands were all enlarged, hard, and freely movable. There was no haemorrhage into mucous membranes. Slight icterus of the conjunctiva was seen.

The accompanying chart indicates the course of the temperature in this case, and shows the results of the examinations for parasites. Trypanosomes were seen in both cerebro-spinal fluid and peripheral blood.

On October 9th, 35 c.cm. of slightly clouded, colourless cerebro-spinal fluid were taken by lumbar puncture. No red cells were seen in the fairly profuse deposit formed by centrifuging. This precipitate contained a fair number of trypanosomes, many mononuclear cells of large size, and numerous polymorphonuclear leucocytes.

Experimental Inoculation.

The following animals have been inoculated from this case. The material inoculated was in each case demonstrated to contain living trypanosomes.

Animals Inoculated from Case VI.

October 7th. White mouse (Experiment 19) inoculated subcutaneously with 1 c.cm. cerebro-spinal fluid; infected October 15th.

October 7th. White mouse (Experiment 17) inoculated subcutaneously with 1 c.cm. cerebro-spinal fluid; never infected.

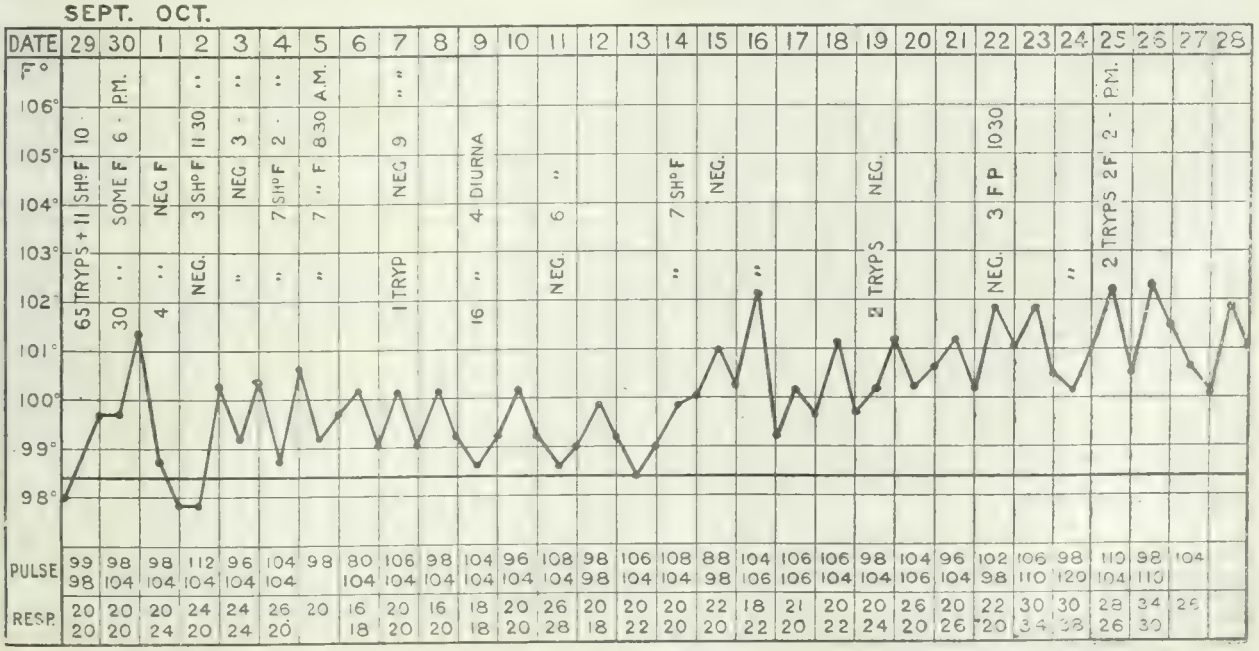
September 30th. White rat (Experiment 5) inoculated subcutaneously with 5 c.cm. blood; never infected.

September 30th. White rat (Experiment 6) inoculated intraperitoneally with 1 c.cm. blood; never infected.

October 9th. White rat (Experiment 21) inoculated intraperitoneally with 4 c.cm. blood; never infected.

October 9th. White rat (Experiment 22) inoculated subcutaneously with 5 c.cm. blood; infected October 23rd.

October 4th. White rat (Experiment 23) inoculated intraperitoneally with 5 c.cm. blood; infected October 23rd.



Temperature chart, Case IV.

CASE IV.

Simple Trypanosomiasis. "*Mort de Dutton*." September 22nd. J. P., male, aged 28, native of Sierra Leone, where sleeping sickness is not endemic. Came to Boma six years ago as a Free State soldier. Has always been in lower river districts. Entered hospital September 1, with gunshot wound. Had gonorrhœa in 1902, otherwise has not been ill during his stay in the Congo.

Patient is a strong, healthy man, well nourished, skin moist and clean, slight œdema over both shins; patient does not complain of feeling ill.

Glands are easily palpable, but are not markedly enlarged or hard. He is a bright, intelligent man, slightly deaf, but answers questions quickly and well. He is alert and interested in his surroundings. Mucous membranes are anæmic. There is a complete cataract of right eye. Heart and lungs are normal. Liver normal in size, but slightly tender. Spleen normal. Appetite good. Bowels constipated. Nervous system is normal.

Urine passed in twenty four hours, 760 c.cm.; specific gravity 1002, light straw colour, cloudy precipitate, acid, small amount of albumen present, no sugar; urea, 0·41 gram to 100 c.cm. of urine. Microscopically a few pus cells, probably due to a chronic gonorrhœa, were seen.

On October 27th 10 c.cm. of limpid cerebro-spinal fluid, as clear as distilled water, were withdrawn with some difficulty by lumbar puncture. The patient almost fainted before 8 c.cm. had been withdrawn. A very slight precipitate was obtained after long centrifuging. On examination it was found to contain a very few red cells, and still fewer small mononuclear white cells. No trypanosomes were seen during a long and careful search of the whole of the precipitate.

The cerebro-spinal fluid from this case presented a very different appearance, both macroscopically and microscopically, from that obtained from sleeping sickness cases. The fluid was clear, not clouded. None of the large mononuclear or smaller mononuclear and polymorphonuclear leucocytes seen in sleeping sickness cases were present.

The accompanying chart (p. 187) shows the course of the temperature in this case, and indicates the occasions on which trypanosomes were seen in the peripheral blood.

Experimental Inoculations.

The following animals were inoculated from this case:

Animals inoculated from Case 4.

September 26th. White rat (Experiment 50) inoculated subcutaneously with 5 c.cm. blood; never infected.

September 30th. White rat (Experiment 49) inoculated subcutaneously with 1 c.cm. blood, infected October 8th.

October 27th. Guinea pig (Experiment 22) inoculated subcutaneously with 4 c.cm. blood, infected November 7th.

October 27th. Guinea pig (Experiment 23) inoculated subcutaneously with 4 c.cm. blood, infected November 13th.

October 27th. Rabbit (Experiment 24) inoculated subcutaneously with 8 c.cm. blood, never infected.

Necropsies were done at Boma on four cases which were admitted to the hospital for sleeping sickness. Two of these died before their blood or cerebro-spinal fluid could be examined. Repeated examinations of the blood (centrifuge used) of the third failed to demonstrate trypanosomes. Lumbar puncture was not done on this case. In spite of repeated and very careful examinations of the blood and cerebro-spinal fluid of the fourth case, trypanosomes were never seen.

A necropsy was also done on the body of a native admitted to the hospital as a case of encephalitis. This patient never showed the usual signs of sleeping sickness, and finally died of dysentery. Many trypanosomes were seen in his finger blood. Lumbar puncture was not done.

The *post mortem* appearances in each of these cases were very similar to those described as occurring in sleeping sickness.[1] The usual increase of subarachnoid fluid which had become cloudy, or occasionally almost purulent, was observed. The superficial and substantial vessels of the brain and spinal cord were turgid, and in two cases small subependymal hæmorrhages were noted.

In addition to these changes in each case, lymphatic glands were enlarged, several were congested or injected, not infrequently members of the various groups of glands were to the eye either partially or especially the smallest glands totally hæmorrhagic. The naked eye appearances of these glands were particularly interesting to us since we have observed very similar changes in animals infected by us with Trypanosoma gambiense.

Experimental Inoculations.

The following experimental inoculations were made in white rats, white mice, rabbits, and guinea pigs, with the results indicated.

Twenty white rats were inoculated with cerebro-spinal fluid or blood taken either during life or *post mortem* from patients admitted to hospital as cases of sleeping sickness and from cases of trypanosomiasis. Living trypanosomes in 11 instances were seen in the material inoculated. In 7 of these the material inoculated was from cases of "sleeping sickness," in 4 from cases of simple trypanosomiasis. Of the former, 3 became infected, of the latter 2. None of the rats inoculated with material taken *post mortem* in which no living trypanosomes were seen have ever become infected.

Four white mice were inoculated with cerebro-spinal fluid taken from 2 cases of sleeping sickness. Trypanosomes had been found in both cerebro-spinal fluid and blood of the first case, in the second trypanosomes were never seen. Two mice were inoculated with fluid containing many trypanosomes from the first case. One has become infected. Neither of the mice inoculated from the second case has ever shown parasites.

Two rabbits were inoculated with blood containing trypanosomes. The blood for one experiment came from a case of sleeping sickness, for the other from a case of simple trypanosomiasis. Neither animal has become infected. Four guinea pigs were inoculated with blood containing trypanosomes, 2 from a case of sleeping sickness and 2 from a case of trypanosomiasis. Both of the latter have become infected.

The very slight susceptibility of laboratory animals to infection with the trypanosomes found in man in the Congo, the great chronicity of the infection produced when inoculation has been successful, and the periodicity with which the parasite has appeared in the peripheral blood of the experimental animals, are points which greatly resemble the animal reactions of Trypanosoma gambiense.' The number of experiments done is not yet sufficiently large to permit the mention of incubation periods. During the eight or nine weeks which the infected animals have been under observation none of them have ever shown any gross sign of disease.

CONCLUSIONS.

The examination of trypanosomes seen in stained specimens of blood from cases of trypanosomiasis, from cases of sleeping-sickness (typical or doubtful), in the specimens of cerebro-spinal fluid of the latter cases, and in the blood of experimental animals, infected with either of three above-mentioned fluids, has led us to the following conclusions:

1. **The trypanosomes seen in the blood of man, whether symptoms of sleeping sickness were present or not, have always been the same. The number of cases in which trypanosomes from the spinal fluid have been examined is at present too small to permit of a definite description of morphologic characteristics. We have seen forms in the cerebro-spinal fluid similar to those described by Bruce[2] and Castellani,[4 5] and also longer forms similar to those seen in the finger blood of the same cases.**

2. **None of the human trypanosomes seen, whatever their source, have presented any morphologic appearance incompatible with Trypanosoma gambiense.**

3. **The parasites seen in rats inoculated with the cerebro-spinal fluid of cases admitted to the hospital for sleeping sickness are the same as those seen in rats inoculated with the blood of cases of either sleeping sickness or simple trypanosomiasis.**

4. **The organisms seen in the blood of rats inoculated with trypanosomes from any of the three indicated sources have up to the present shown no differences from those observed in animals infected with Trypanosoma gambiense.**

We have observed the extraordinarily long forms with prolonged flagella and the stumpy forms with short flagella described as occurring in animals inoculated with the gambian parasite.'

We have therefore no reason to suppose that the organisms seen by us in the Congo are other than Trypanosoma gambiense.

REFERENCES.

[1] Christie, The Epidemiology and Pathology of Sleeping Sickness in Equatorial East Africa with Clinical Observations, Royal Society Sleeping Sickness Commission, Report III, November, 1903. [2] Laveran and Mesnil, Des Maladies à Trypanosomes leur Répartition à la Surface du Globe, *Annales de l'Institut Pasteur*, 1903. [3] Bruce, Royal Society Sleeping Sickness Commission Report I, August, 1903. [4] Castellani, Royal Society Sleeping Sickness Commission, Report I, August, 1903. [5] Krause, Ueber die Trypanosomen Castellani's beim Menschen und der Schlafkrankheit, *Münchener Medicinische Wochenschrift*, 1903, No. 1. [6] Dutton, and J. L. Todd, First Report of the Trypanosomiasis Expedition to Senegambia, Liverpool School of Tropical Medicine, *Memoir* XI.

COLONIAL NURSING ASSOCIATION. The Goldsmiths' Company has, according to the *Daily Chronicle*, forwarded £50 and the Mercers' Company 50 guineas, while other contributors have given smaller sums to the Colonial Nursing Association, Imperial Institute, S.W., in response to a letter of appeal recently issued by the Committee. The Association, of which Lord Grey is President, has since its foundation in 1896 supplied nearly 200 nurses for work in the Crown Colonies and in other British communities abroad. At the present time 105 nurses are at work in various parts of the Empire.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

SOME CLINICAL FEATURES ASSOCIATED WITH GUINEA-WORM.

A MAN comes to hospital with urticaria over his limbs and perhaps all over his body. He has a "puffy" face and frequently a rash—papular or only erythematous—and sometimes oedema of the eyelids. Simultaneously epigastric pain accompanied by vomiting comes on spasmodically. The only preceding symptom has been itching and tingling; the bowels have been acting well; no food of an indigestible character has been partaken of, and the vomit does not contain evidence of such; in short, there is no apparent cause for the urticaria.

The temperature is at this stage normal first, but very soon becomes about a degree subnormal, and is then accompanied by marked dyspnoea, irregular feeble pulse, and "muffled" heart sounds at both apex and base. Presently the vomiting ceases and at the same time the urticarial weals become less apparent and the acute symptome generally diminish, but the "puffiness" of the face remains; the heart sounds are still "muffled." Within a few hours the temperature has risen to nearly three degrees above normal. Either at this period or from the very onset there is frequently noticed oedema over the front of both tibiae, or of only one, perhaps.

There is no anaesthesia, nor are there are paretic symptoms anywhere. The heart sounds are normal now, the pulse normal, urine normal, and no feeling of *malaise* or headache as a rule (in spite of the pyrexia). The skin is generally desquamating on the upper and lower extremities.

A guinea-worm is very soon evident locally (perhaps at the onset it had been already noticed as a small localized "firmness" in the tissues of the leg).

All symptoms disappear in a few days from now, except the oedema of the legs and the abnormal temperature—the former persisting indefinitely (now in one leg, now in the other), and the latter (which had generally reached its maximum at about midnight) subsiding gradually with the oedema.

As the oedema subsides, the temperature tends to become subnormal, so that with the disappearance of the oedema the temperature may be as low as 96° at midnight, and about normal during the daytime (morning and afternoon).

The oedema and the abnormal temperatures persist even after the guinea-worm—if one has been present—has been completely got rid of.

Faizabad Oudh. D. C. KEMP, I.M.S.

A CASE OF LAND SCURVY.

THE following case seems worthy of notice as land scurvy is so rare in this country.

Some weeks ago I was called to see a well-to-do old lady of 78, who was said to have sprained her left ankle six weeks before. There was no clear history of a twist, but it was supposed that the condition could be accounted for in no other way. The ankle was swollen, and there was a good deal of recent subcutaneous haemorrhage about the joint. On the outer side of the leg, just below the head of the fibula, were three blotches of greenish-yellow discoloration, resembling bruises made by finger tips. The patient remarked that during the last few days the right ankle had become swollen and discoloured, and on examination a similar condition was seen, though not so extensive as on the left ankle. Her temperature and pulse-rate were normal; her complexion though pale was apparently natural; the tongue was clean but her breath was very offensive; the urine was normal and the bowels said to be regular. The gums were normal and edentulous except in five scattered places, where some yellow senile teeth remained. Around these teeth the gums were swollen, dark red, and spongy. This state of affairs in the mouth had existed for some months. There was no history of haemorrhages from any mucous membranes. Her diet for the last nine months, owing to a fright caused by an accident in deglutition, had been almost purely liquid and devoid of fresh vegetables. Breakfast was composed of cocoa made with a little milk, said to be fresh and unboiled. A dry plain biscuit was nibbled at the same meal. Dinner consisted of clear soup made with meat and strained. Tea was similar to breakfast and supper to dinner; no vegetables had been used for many months.

She was ordered an antiscorbutic diet, namely, fresh vegetables and various fruits, and at my next visit, a week later, I found her improving. Unfortunately, no thorough examination of her body could be made, as she was an old maid with prejudices against a *locum*, so it cannot be stated whether there were other haemorrhages about her body, and for the same reason the subsequent history of the case cannot be given.

Starbeck, Yorkshire. J. W. MALIM.

HAEMOPHILIA IN A FEMALE CHILD.

HAEMOPHILIA, as a general rule, is transmitted through the female members of a family to their male descendants, though the mothers themselves may never have shown any exceptional tendency to bleeding. The opposite condition of affairs was the interesting feature in the following case, and hence my excuse for putting it on record.

F. H., a female child, aged 11 months, was admitted into the East London Hospital for Children, Shadwell, E., on September 7th, 1901. About four weeks previous to admission she had measles, from which she had completely recovered, and about three weeks later bruises developed on the right wrist, the lower part of her back, and on both legs. Three days before admission the patient fell off a chair, and cut her gum, and since then she has been continuously bleeding from the wound. There had been no diarrhoea, but the stools were quite black. She vomited blood several times. Nothing peculiar was noticed about the urine. The patient was a breast-fed child. There was no history of any other previous illness, and she never had bruises before.

Family History.—The father and mother were quite healthy; there was one other child in the family who was quite healthy. The mother had had three miscarriages. The grandmother and two aunts on the father's side had been "bleeders;" the grandfather had died of phthisis. Both parents on the mother's side had been perfectly healthy.

Condition on Admission.—The patient was well nourished, but she was very pale and bloodless; she was very restless. Respirations were short and 44 to the minute; pulse soft and 144. The tongue was rather dry. Blood was continuously oozing from the gum opposite the right upper central incisor tooth; there was a slight wound of the mucous membrane at this point. The throat was healthy. The heart and lungs were natural. The abdomen was rather distended. There was no blood in the urine. On the outer side of the right leg there were several bruises, as also on both arms. For about thirty-six hours after admission the haemorrhage continued in spite of various local applications—ice, tinct. ferri perchlor., and a solution of suprarenal extract. The patient's condition became extremely serious, the pulse was scarcely perceptible at the wrist, the temperature went up to 102°, and the restlessness became more marked, so that the patient had had no sleep since admission. Several stools were passed containing dark altered blood. Eventually the bleeding ceased, the patient made a good recovery, and was discharged on the 22nd of the same month.

I am indebted to Dr. J. A. Coutts, under whose care the patient was, for kind permission to publish this case.

P. STANLEY BLAKER, M.R.C.S., L.R.C.P.Lond.,
Late Resident Medical Officer, Children's Hospital, Shadwell, E.

CASE OF POISONING FROM ATROPINE EYE DROPS.

ABOUT 9 p.m., on October 14th, 1903, I was called to see S. C., a boy 7 years old, who was said to be delirious. I found him in bed, talking rapidly and incessantly, frequently smiling to himself and now and then laughing outright. He was continually tossing about in the bed, occasionally sitting up and looking round the room as if frightened at something he saw. His face was flushed and his eyes were unusually bright. Every now and then he picked at the bedclothes with his hands as if gathering something. But he seemed to know me, and answered my questions, explaining that he was gathering strawberries which were growing on the bedclothes. His temperature was 100.2°, and his pulse 96. There was no rash or sore throat. His pupils were moderately dilated and insensitive to light.

I was told that he had been well until that afternoon, when he had complained of giddiness and dryness of the throat, and had seemed strange in his talk. In the evening these symptoms had increased, and he was unable to swallow except with difficulty, and was very unsteady on his feet. He began to talk of seeing things—in fact, had visual hallucinations—such as the strawberries already mentioned, strange men in the room, birds about the ceiling, and railway signal posts in the corners. He had occasional severe convulsive jerkings of his arms and legs.

The symptoms suggested poisoning by belladonna, and I found he had had drops for the eyes prescribed by an ophthalmic surgeon for refraction purposes, consisting of 1 gr. of atropine sulphate in 2 drachms of water. One drop was to be dropped into the eyes three times a day, and had been begun the day before I saw him. The symptoms began to show them-

selves after the fifth instillation, and after the sixth assumed the characters that had alarmed the parents. I made careful experiments with the dropper which had been used (and used, I was assured, with great carefulness), and I found that it dropped a minim with very fair accuracy, so that, seeing both eyes were treated, a total of 12 minims of the drops had been used, equivalent to ¼ gr. of atropine, and this was spread over a period of two days.

The symptoms became somewhat worse during the night, and persisted with but little alteration during the next day. There was no sleep, but the convulsions did not increase. During October 16th the symptoms gradually subsided, and on the 17th the patient was substantially well, although the pupils were still, perhaps even more, fully dilated.

The case seems unusual enough to be recorded, as I find there are not many published, and one does not expect such an apparently alarming condition to supervene on such a simple and usual procedure as the paralysis of accommodation in a child by an ordinary solution of atropine. Must there not have been some idiosyncratic susceptibility? One frequently meets with an intolerance of belladonna as an external application in the shape of plaster or liniment, but one does not see in such idiosyncrasy anything more than severe dermatitis of varying form, never in my experience typical constitutional symptoms, even though a raw absorbent surface has resulted from the applications.

Wallasey. C. H. WISE, M.D.

A RAPID METHOD OF PREPARING DRIGALSKI AND CONRADI'S MEDIUM FOR THE DIFFERENTIATION OF B. TYPHOSUS AND B. COLI COMMUNIS.

IN the original account of the preparation of this medium the details are so lengthy that it is impossible to complete the process within the compass of a working day, and often two, or even three, days are required. On casting about for a short cut to the desired result I find that the following modification answers admirably:

To make a litre of the medium

Take 1 grams [illegible] extract of meat (Lemco) and dissolve in 1 litre of water, heat to [illegible]

And to grams Witte's peptone,

[illegible]

[illegible] grams NaCl

[illegible] grams agar

Steam [illegible] hour, and filter hot through wool.

Neutralise with pure Na$_2$CO$_3$.

Put [illegible] and sterilise the [illegible] minutes at 115° C.

Let [illegible] Filtration requires on an average forty-five minutes.

[illegible] litmus-lactose-agar (Kubel and Tiemann's) which has been recently boiled and mixed with 15 grams lactose.

Neutralise with Na$_2$CO$_3$.

Add [illegible] per cent. Na$_2$CO$_3$.

[illegible] per litre of crystal violet

[illegible] (fifteen minutes).

Pour [illegible] centimetres to depth of 4 mm.

The entire process is completed in three to four hours, and the volume turned out is just about a litre.

DAVID SOMMERVILLE, B.A., M.D., D.P.H.

[illegible], King's College, London.

CONGENITAL DISLOCATION OF THE KNEE WITH TALIPES CALCANEUS.

ON April 24th, 1903, I attended the confinement of a woman who was [illegible] female child. The presentation was the second [illegible] one, the labour was tedious and was [illegible] with forceps. The child's left knee was found to be in a position of extreme hyperextension, displaced backwards, and at present [illegible] the features of the condition known as genu recurvatum. The presence of the patella was made out [illegible] difficulty on account of the looseness of the skin over the knee. The deformity was easily corrected, but when the support was withdrawn the knee assumed its former position. The right knee was normal; there was also present double talipes calcaneus.

There was no record of [illegible] in the family history of the parents, but it appeared a somewhat remarkable circumstance that the father, when at the age of 17 had received a severe injury to his right knee in a machinery accident, resulting in a [illegible] which requires the continuous use of mechanical appliances to enable him to use the right limb.

The treatment adopted was to keep the limb in a position of flexion by a suitable splint, and now, after the lapse of eight months, the knee appears normal, and extension can be made without producing backward displacement.

In conclusion, it may be remarked that the term "dislocation" is not strictly applicable to a congenital condition like the one described; that it is rather a subluxation or backward displacement of the knee, due to contraction of the extensor muscles and to defect in the formation of the joint, and that this is probably brought about by the position of the child in utero, the limbs being packed in a position of extension along the ventral surface of the body instead of being flexed.

Glasgow GEORGE JUBB, M.D.

A FAMILY TREE.

THE accompanying table shows the causes of death in the family of a female patient I am now attending. My patient suffers from cancer of the rectum of the usual type, just within the reach of the finger, and also from ordinary internal haemorrhoids.

	Grandfather died old age		Grandmother, died old age.	
Uncle died when old from obstruction of bowels; operation.	Father died from fistula-in-ano and piles	Uncle died from piles and disease of rectum.		Aunt died from stony cancer of breast.
Sister died; cancer of [illegible].	Sister died; multiple cancers of breast also	Brother died from disease of rectum, 75.	Brother died from cancer of rectum, 80.	*Self (female), cancer of rectum, 71 (alive).
Niece died from tumour in body.	Nephew alive; incurable ulcer of leg	Niece alive; in bed with sciatica, writing	Niece alive severe piles	Daughter alive; uterine troubles, retroversion, piles.

The relationships all refer to the patient marked with the asterisk, and the information [illegible] as supplied by her and is in many cases [illegible] not sufficiently definite, but even in the indefinite cases the cause of death is at least suggestive of malignancy.

The family history is, I think, remarkable both from the number of cases of malignant disease, and also from the large number in whom the rectum seemed to be the seat of some disease or other. It is also, of course, interesting as bearing upon the question of the inheritance of cancer.

Lincoln. D. J. G. WATKINS.

CASE OF LABOUR IMPEDED BY FETAL BLADDER CYST.

THE following case is of interest on account of its rarity:

On January 12th, 1903, I was called to see Mrs. H. F., aged 31, who was in labour. She had had one child previously, now 1 year 7 months old, whose birth gave no trouble. The membranes had ruptured, and the presentation was vertex, second position, the os fully dilated. The head was very slow in coming down, yet there seemed to be plenty of room. Eventually about seven o'clock the head was delivered, but traction on it during pains failed to bring the rest of the child. Thinking the shoulders were possibly the cause of the difficulty I brought down the arms, the left one towards the maternal pubes. Considerable force now effected no delivery, and the abdomen was palpated to discover if possible the cause of delay. By this time the fetus was apparently dead. No second child could be made out, no other fetal heart heard, but the abdomen still remained very large. Nourishment was administered, and hot bottles, etc., applied. I sent to my partner, Mr. Eades, when chloroform was given and the hand introduced into the uterus discovered the abdomen of the fetus to be of enormous proportions.

Dr. Herbert Brown was then sent for. On his arrival chloroform was again administered. He made an incision with a scalpel in the left side of the fetus through the diaphragm into the abdominal cavity, but not much fluid escaped and extraction was still impossible. Simpson's perforator was then introduced into the wound and the opening enlarged. The hand was introduced into the abdominal cavity of the fetus, and a large cyst was felt occupying the greater part of the abdomen. It appeared to be about the size of a football. This was torn through with the finger, and a large quantity of clear fluid was violently discharged. The fetus was then easily removed. There was no trouble with the placenta and membranes, and the uterus contracted firmly. An intrauterine douche of 1 in 4,000 perchloride was given.

The patient bore the manipulation exceedingly well, and maintained a good pulse and colour. On regaining consciousness she said she felt comfortable. The subsequent progress was perfectly normal.

An examination of the fetus was kindly made for me by Dr. Brown, from whom I have obtained the following notes:

"The cystic tumour referred to above was found to be an enormously dilated urinary bladder. The external genitals were imperfectly developed. The penis was very small, and buried in the subcutaneous tissue, only a small preputial fold being visible externally. Both testes were retained in the abdomen. There was no anus, the colon terminating blindly at the level of the sacral promontory. The vesical orifice of the urethra was found, and admitted a fine bristle; this could be passed along the very minute urethral canal as far as the glans, but the canal terminated here, and the glans was imperforate. The large quantity of fluid which distended the bladder evidently represented the entire urinary secretion of the fetus, and none had passed into the liquor amnii. No exact measurement of the amniotic fluid present could be obtained, as the membranes had ruptured before the patient was visited, but very little fluid escaped after extraction of the fetus. This appears to be of interest as indicating that most, at any rate, of this fluid is derived from the urinary secretion of the fetus."

Ipswich. A. W. PATERSON, M.B., C.M.

ESTIMATION OF THE SPECIFIC GRAVITY OF URINE

IF the quantity of urine is too small to float a urinometer, it is generally diluted with one, two, three, four, six or more volumes of water as required and the specific gravity taken in the usual way. The actual specific gravity of undiluted urine is obtained by multiplying the last two figures of the specific gravity of diluted urine by the number which represents dilution. This rule which is given in textbooks, no doubt answers very well when equal parts of urine and water are taken, but it does not hold good for other dilutions. In such cases it is necessary to multiply the last two figures of the specific gravity of diluted urine by the number which represents dilution and then add the number representing dilution to the product obtained. For example, if one part of urine be diluted with three parts of water and the specific gravity of the diluted urine be 1004, then the specific gravity of undiluted urine will be 1020 as shown:

$$(04 \times 4) + 4 = 20.$$

According to the old method the specific gravity in this case would come to 1016 which is less approximate than the former and this can be easily verified by taking a sample of urine of a known specific gravity and making dilutions at will and noting the specific gravities obtained.

J. MALLANNAH, M.D., D.P.H.,
Lecturer, School of Medicine, Hyderabad.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

I NOTE that Graeser, as quoted in the EPITOME of the BRITISH MEDICAL JOURNAL of November 14th, 1903, has had good results with adrenalin in the treatment of haemorrhage in enteric fever and reports a case. I have been fortunate a few weeks ago with a case of haemoptysis in pulmonary tubercle: A young lady, aged 26, with a family history of phthisis had been under my care and undergoing the open-air treatment since January, 1903. Tubercle bacilli were found in the sputum in considerable numbers at first, and her right apex was affected and the usual physical signs were apparent. Her weight then was 9 st. 8 lb. She never had any haemoptysis. She did well, and on July 7th no tubercle bacilli could be found in the sputum. No active mischief was discovered at the right apex, and her weight had increased to 11 st. ½ lb. At the end of July she went away for change of air and came back again here early in September, and appeared to have benefited by the change.

On September 12th the patient went up to her bedroom at night, when she suddenly coughed up about three-quarters of a wineglassful of frothy blood. I gave her two 5-gr. tabloids of suprarenal gland (B. W. and Co.'s) and of course ordered the horizontal position with the head on a level with the body, and the usual iced drinks, etc.

Next morning she had considerable tickling in her throat and a good deal of coughing, and complained that she kept on tasting blood. On my arrival she had a bout of coughing, and brought up about a teaspoonful of blood. I then gave her 25 drops of solution adrenalin chloride 1 in 1,000 (Parke, Davis, and Co.) with two teaspoonfuls of water, and repeated the dose again in the evening. My patient had no more haemoptysis, and is continuing to do well, although the cavity at the right apex from which the blood came is of course larger. There is now no active mischief going on. I may add that I examined the larynx, and found no ulceration that would have accounted for the bleeding, although during the first month of her illness (January, 1903) there was a slight ulceration, which, however, rather quickly answered to treatment locally and the open-air cure.

ARTHUR C. BIRD, M.R.C.S.Eng., L.R.C.P.Lond.

Sidmouth.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

44TH GURKHA RIFLES REGIMENTAL HOSPITAL, SHILLONG, ASSAM.

EXCEPTIONAL CASE OF ENTERIC FEVER.

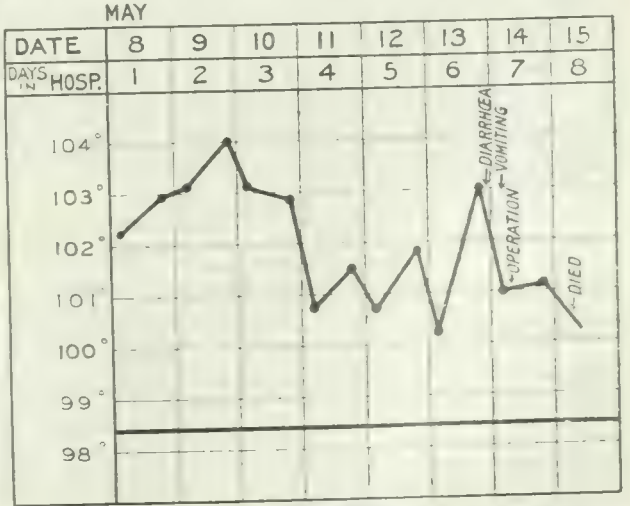
(By G. DENNE FRANKLIN, B.A., M.B., B.C.Cantab., Lieutenant I.M.S.)

History. Musician Badha Sing Pun, aged 20, with nine months' service, was admitted into hospital on May 8th, 1903. He had been in previously for two days in the middle of April of the same year. He was then suffering from a mild attack of dysentery. The stools at that time were few, but were typical of the disease, which is a common one among the Gurkhas here. With two full doses of ipecacuanha the stools became formed and normal in every way, and the man was sent back to duty.

State on Admission.—His temperature was 102°. His pulse was over 100, and of good tension and volume. His tongue was clean. There was no rash. His heart and lungs were normal. The abdomen was not distended, nor was it tender. The liver could not be felt. The spleen extended to 1 in. below the costal margin. It was moderately hard. The urine was normal. A stool passed shortly after admission was formed and normal. There was no headache or any cough.

Diagnosis and Treatment.—The case was considered to be one of chronic malarial fever, from bouts of which during the present rains Gurkhas are very prone to suffer, owing to the fact that they practically without exception are malarious when enlisted in Nepal. The slight enlargement of the spleen also added strength to this diagnosis. The patient was sent to bed and placed on a milk diet, quinine being administered.

Progress.—For the next five days the patient continued to suffer from fever, but apart from that there were no other abnormal symptoms. His stools were normal, and he was free from pain of any kind. The temperature remained fairly high, as can be seen from the accompanying chart; but the possibility of enteric fever was negatived by the absence of



any other symptoms, and the general condition of the patient, which was excellent. The case was, however, considered a peculiar one, and the patient was kept in bed, and on a rigid milk diet. On the evening of May 13th the patient passed an ordinary loose watery stool. He still complained of no pain, and the abdomen was normal with the exception of the splenic enlargement. He passed two similar stools during the night. On waking up on the morning of the 14th he complained of intense pain in the abdomen. The patient's face had a pinched appearance, and was covered with sweat. The tongue was clean. The pulse was 120, and thin and wiry—in fact, typical of peritonitis. The extremities were cold. The abdomen moved but slightly on respiration, and looked slightly full. The liver dullness was absent, and there was dullness in both flanks. The abdominal wall was rigid and exquisitely tender, in fact the pressure of the blanket could hardly be borne. Vomiting occurred on two occasions, and the vomit consisted of partially-digested milk.

Operation.—Laparotomy was performed the same day. The abdomen was opened in the middle line below the umbilicus. There was an immediate gush of purulent liquid faecal matter. The gut which presented was congested and covered with plastic lymph. The caecal region was first examined and the appendix found to be normal. On tracing the small intestine upwards a perforation was found 9 in. from the caecum. This was closed in the ordinary manner, and the peritoneum was thoroughly cleansed with a hot, weak antiseptic solution. The abdominal wound was then closed with the exception of its lower end, through which a drainage tube was inserted. The patient improved during the operation, and took chloroform very well. He rallied towards the evening, but later became collapsed, and died at 3 a.m. the following morning.

Necropsy.—This was made the same afternoon. The spleen was enlarged and congested, but not as soft as in cases of enteric fever at home. The peritoneum was dry, but showed the usual other signs of recent peritonitis. The intestine, with the exception of the last 14 in. of the small intestine, was healthy; 9 in. from the ileo-caecal valve there was the perforated ulcer which had been closed the previous day. It was oval and its edges were cleanly cut. It was situated opposite to the mesenteric attachment. There were two other ulcers nearer the valve; they also had clean edges, and their floor was formed by the muscular coat. In addition to these ulcers there were a large number of greyish-white swollen follicles, extending from the ileo-caecal valve up for 14 in. The mesenteric glands were swollen slightly; two or three contained pus. The remaining organs were macroscopically healthy.

REMARKS.—In reviewing this case of ambulatory typhoid fever, it appears probable that the dysentery of the previous month was not dysentery but enteric fever. If it was so, then in enteric fever it is possible to get a stool differing in no way from the ordinary dysenteric stool, as this man's stools when he was admitted in April differed in no way from the stools of the men, 40 or 50 of whom were admitted in May for dysentery, and were completely cured by a few doses of ipecacuanha and milk diet. The absence of any symptoms save the fever during the first five days of this patient's admission was remarkable, as also were the absolutely normal stools and the absence of abdominal tenderness. The rapid onset of the peritonitis, or at any rate of the symptoms of peritonitis, is also remarkable. The case is, moreover, interesting, as enteric fever is not common among the Gurkhas up here, whereas every variety of chronic malarial fever, which this case at first strongly resembled, may be observed daily.

ST. MARYLEBONE INFIRMARY, W.

SPINAL CARIES IN A MAN AGED 60, WITH ABSCESSES POINTING IN THE EPIGASTRIUM.

[Under the care of J. R. LUNN, F.R.C.S.Edin., Medical Superintendent to the Infirmary.]

(Reported by W. SIDNEY PAGE, M.B.Lond., M.R.C.S., Assistant Medical Officer to the Infirmary.)

History.—W. H., aged 60, a tailor by trade, was admitted to the infirmary on July 17th, 1902, complaining of pain in the abdomen and general weakness. He had been at his work up to within a week of his admission, and he had to give it up on account of constant abdominal pain and loss of strength. The onset of symptoms was slow, and he had experienced this pain for about a month and began to lose his appetite about the same time. There was no history of injury.

State on Examination.—In appearance he was a man of small stature, and in a very emaciated condition. His abdomen was extremely hard, almost like a board, and there was slight tenderness in the epigastric angle. It was impossible to palpate the abdomen without an anaesthetic owing to the immediate contraction of his abdominal muscles. The percussion note was fairly resonant over the whole abdomen. On asking the patient to sit up he did so with difficulty and very slowly. He kept his spine very rigid, and there was slight prominence of the third, fourth, fifth, and sixth dorsal spines. There was no tenderness over these vertebrae, nor was any pain elicited on tapping him on the head or heels. He had a slight cough of some three months' duration. On examining his chest both lungs were found diseased, the left apex being more advanced than the right. His weight on admission was 6 st. 7¼ lb.

Progress.—He was kept in bed and allowed a very liberal diet. He seemed to improve a little, and certainly took his food better. He remained lying flat in his bed for months; his temperature was never up; his cough was extremely slight, and he never had any haemoptysis. His only and constant complaint was the fixed pain just below the xiphisternum, and his difficulty in sitting up. During these months the dorsal curvature of the spine slightly increased, but it never became in any degree angular. In January, 1903, there was noticed for the first time a cystic tumour appearing over the costal cartilages of the seventh and eighth ribs about 1½ in. to 2 in. from their junction with the sternum. It was small, painless, tense, fluctuating; there was no sign of inflammation around it. It increased in size till it was about 1 in. long and ½ in. wide, and slightly raised above the surface of the abdomen. I personally did not connect this swelling with his spinal mischief, as I had never seen or read of it. This did not increase in size, and during the next two months it remained much the same. The patient gradually sank and died after being in the infirmary about nine months.

Necropsy.—The apex of the right lung was consolidated, and there were were scattered foci of tubercle in the middle lobe. There was a small cavity in the apex of the left lung and the lower lobe was also affected. The cyst was found to be a cold abscess, and there was another one forming in a corresponding situation in the other side of the epigastric angle, but this had not quite reached the surface. Both of these abscesses we traced back along the wall of the chest to a large abscess situated over the third, fourth, fifth, and sixth dorsal vertebrae. The bodies of the fourth and fifth dorsal vertebrae were almost completely eroded. As far as could be made out the pus seemed to follow the course of the intercostal nerves, and thus made its appearance at the epigastrium. There were no signs of pressure on the cord during life.

ST. LEONARD'S HOSPITAL, SUDBURY, SUFFOLK.

STRANGULATED FEMORAL HERNIA: OPERATION UNDER COCAINE.

(By EDGAR HUNTLEY, M.B., B.S.Lond., Surgeon to the Hospital.)

DURING the temporary indisposition of Dr. Mason, I was called in early in the morning on November 13th, 1903, to a married woman, aged 57, who was said to be suffering from "inflammation of the body." From 5 o'clock the previous evening she had been in pain in the lower part of the abdomen, had had frequent attacks of vomiting, and had noticed the lump in the right groin, to which she was accustomed, get larger and more tender. On examining this mass there was no impulse on coughing. She was sent into hospital without delay, and given hypodermic injection of morphine (⅓ gr.) at once.

Operation.—The region of the lump having been thoroughly cleansed three hypodermic injections of cocaine hydrochlor. (4 per cent. solution) were given, each of 4 minims, one at the top, one at the bottom, and one over the middle of the lump. The ordinary operation for strangulated hernia was then performed, and absolutely no pain complained of until dividing the constriction at the neck of the sac, and even this pain was not severe enough to make the patient move her leg. No pain was evinced on ligaturing and freeing several masses of omentum, nor on twisting, ligaturing, or removing the sac. The stitches were felt being put in, but in a very mild manner. On being carried on the stretcher back to bed she remarked, "That's a nice ride." The after-progress was uneventful.

REMARKS.—This case is reported in order once more to call attention to the benefits of cocaine or eucaine for such cases over general anaesthetics, namely, (*a*) the absence of

general upset and vomiting; (*b*) the freedom from the risk attached to general anaesthetics, especially where eucaine is used. Beyond these there is the probability of being able to save valuable time when called long distances in the country, and not having to send miles for a second pair of hands.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

N. T. BREWIS, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, January 13th, 1904.

VAGINAL CAESAREAN SECTION.

DR. MUNRO KERR (Glasgow) read a paper on this subject. Duhrssen's name was specially associated with this operation, as he had since 1895 strongly recommended it. Criticism had been rather adverse to the operation, although Bumm and a few others had expressed themselves strongly in its favour. The speaker thought it most unfortunate that this method of treatment should be pitted against dilatation by Bossi's or Frommer's dilators, as each had its place. The operation was a much more extensive one than the making of deep incisions into a cervix already obliterated, for it consisted in stripping the bladder off the anterior uterine wall and possibly the peritoneum from the posterior wall, and splitting the cervix anteriorly, and, if necessary, posteriorly right into the uterine cavity. He then described a case. The patient, the subject of hyperemesis gravidarum, became suddenly and extremely collapsed, at the end of the fifth month; dilatation was attempted, but the cervix was so extremely rigid that only a No. 10 Hegar could be introduced. He stripped the bladder off the uterine wall, made a median incision right through the internal os, and readily removed the fetus and placenta, then stitched up the uterine wound with catgut and brought the bladder down into its place. The stitching was not difficult and there was no bleeding. The patient made an excellent recovery and the wound healed perfectly. The following arguments in favour of Duhrssen's operation had been advanced: (1) It was sometimes the only method by which rapid emptying of the uterus was possible—for example, in cases of extreme rigidity of the cervix; (2) it was the most rapid method of emptying the uterus; (3) there was little shock, and the wound obtained had clean-cut edges. The disadvantages were that it required some surgical skill, good light, and competent assistants. The speaker thought that it was an operation less suited to general practice than dilatation with Bossi's instrument. It was not often required, but in certain cases it was the best operation to practise. It was specially indicated in cases of extreme cervical rigidity, and also in accidental haemorrhage, for which hysterectomy was at present more often advocated.

BOSSI'S DILATOR.

Dr. J. W. BALLANTYNE gave an account of his experience with the Bossi dilator in eight cases of complicated labour. He referred to the effect of the introduction of a new method of treatment, to the consequent disturbance and readjustment of medical opinion, and to the value of case records in establishing such a readjustment. He then narrated his 8 cases, of which 3 were accompanied by eclampsia and 1 by albuminuria; 2 had narrow pelvis, 1 hydramnios and placenta praevia, and 1 accidental haemorrhage. None of the cases were normal labours. Three infants survived birth, but 1 only for a few hours. The more dangerous cases were those where the cervix was not taken up. The risks were severe laceration of the cervix and consequent haemorrhage, and that of septic trouble. Asepsis was not always possible, and it was necessary to fall back on antiseptics. The other dangers were those associated with all rapid methods of delivery. Bossi's dilator was an instrument to be worked with the head rather than the hand.

The two papers were discussed together by Professor A. R. SIMPSON, Dr. HAULTAIN, the PRESIDENT, and others; and Drs. KERR and BALLANTYNE replied.

Specimens were shown by Professor SIMPSON.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society on January 13th, Mr. J. PAUL BUSH, C.M.G., in the chair, Dr. H. ELWIN HARRIS showed a case of congenital absence of the left auricle and external auditory canal, with facial paralysis. Dr. FIRTH remarked on the case.—Mr. H. F. MOLE showed (1) patients on whom the radical mastoid operation, or ossiculectomy, had been performed for the cure of chronic suppuration in the middle ear; (2) a case of choledochotomy with the stones removed; (3) a tumour growing from the cartilaginous portion of the nasal septum; (4) a skiagraph of an unusual dislocation of the ankle.—Dr. J. M. FORTESCUE-BRICKDALE showed a cyst from below the liver, apparently an accessory gall bladder, and the brain of a child showing simple meningitis and considerable dilatation of the ventricles. Mr. JAMES TAYLOR showed a skiagraph from a case of scurvy rickets. Dr. E. W. HEY GROVES read notes and showed the specimen of a case of tubal gestation producing severe internal haemorrhage without rupture.—Dr. W. KENNETH WILLS read a paper on the present position of radiography in therapeutics, and Dr. THEODORE FISHER one on haematemesis associated with small white kidneys.—The various papers, cases, and specimens were discussed by the members present.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. KLEIN, F.R.S., Vice-President, in the Chair.

Tuesday, January 19th, 1904.

ON THE PATHOGENESIS OF CARCINOMA.

A COMMUNICATION upon this subject by Mr. K. W. MONSARRAT will be found on p. 173. In the discussion which followed upon this paper,

Dr. LAZARUS-BARLOW observed that if the organism isolated by the speaker from carcinoma of the human breast were capable of reproducing the disease in the lower animals, grafts of recently-removed carcinomata should be capable of doing the same; yet the latter was not the case. The cultures of the organism isolated by Mr. Monsarrat probably arose, in the speaker's opinion, as an external contamination. The inoculation results, nevertheless, were important in that tumour-like formations ensued, but of an inflammatory or an endotheliomatous type rather than a carcinomatous.

Mr. S. G. SHATTOCK did not share in the view taken by Dr. Lazarus-Barlow with respect to external contamination. There was no great difficulty in accepting the first and second of Koch's postulates; one had at present to view the presence of micro-organisms in the tissues as a symbiosis, and the blastomyces isolated from mammary carcinoma might be really in the tissue. Possibly, indeed, it was one of the causes of the mastitis so commonly the antecedent of carcinoma, and Mr. Monsarrat had perhaps isolated the pathogenic factor of the mastitis, and not that of the accompanying carcinoma. Check experiments in this direction were needed. Everything turned upon the growths produced by the experimental injection. Mr. Shattock did not think it certain that a true carcinoma had been induced. In two cases the injections had been made into the mammary gland, but it was impossible to say without a study of the sections whether a proliferous mastitis only had been set up or a true carcinoma. The most suggestive result was that in which Mr. Monsarrat obtained a growth in the liver which appeared to start from the bile ducts. He moved that the author should submit his preparations to the Council of the Society.

The CHAIRMAN pointed out that examples of sporulation in certain blastomyces had been described resembling those referred to by Mr. Monsarrat.

NUTROSE AGAR.

Dr. J. W. H. EYRE described in detail methods for preparing this medium, the chief use of which was in connexion with the differentation of the typhoid and colon bacillus.

The CHAIRMAN observed that although the medium gave a reliable colour reaction with pure cultures, when faeces were used as the inoculating medium, the result was very unsatisfactory, and in only a few instances of typhoid stools was the bacillus recognized in cases where he had himself tried it.

Dr. W. BULLOCH spoke to the same effect.

Dr. EYRE, in reply, admitted that for success much preliminary technique was requisite, especially in order to diffuse the faeces in fluid with the object of disentangling the various organisms from one another.

A NEW PATHOGENIC BACILLUS (B. CARNIS).

The CHAIRMAN described an anaërobic bacillus of the malignant oedema class isolated from putrefying beef-tea, and pathogenic to animals.

A METHOD OF ISOLATING B. ENTERITIDIS SPOROGENES.

Professor R. T. HEWLETT demonstrated the above, which

consisted in using largely-diluted instead of pure milk. When a small quantity of milk was added to the water to be tested and the fluid incubated anaërobically, the usual clotting ensued and rendered the diagnosis easy.

COLON BACILLUS FROM A CASE OF EMPHYSEMATOUS GANGRENE.

Mr. L. S. DUDGEON recounted the bacteriological examination of the above case. The organism on injection into the tissues of animals did not produce emphysema unless mixed with staphylococcus aureus. In filtrates of its own culture the organism would not grow, whereas others of the colon group did so without difficulty.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. RICHARDSON, M.R.C.S.Eng., President, in the Chair.

Friday, January 8th, 1904.

BERANECK'S TUBERCULIN.

DR. CHRISTY WILSON read a paper on the subject of Beraneck's tuberculin. It was founded partly on his personal acquaintance with Professor Beraneck and his work from visits to Neuchatel, and partly on the paper read in November, 1903, before the Académie des Sciences at Paris, in which Professor Beraneck gave his first public account of the results of his nine years' work.

DR. TREVELYAN observed that Beraneck's tuberculin appeared to be prepared on much the same line as Koch's old tuberculin and tuberculin R.; he doubted whether an active immunization by the toxins was likely to provide a really efficient means of treating tuberculosis. After some actual experience of sanatorium treatment he was quite prepared to admit that something more was wanted, no doubt in the shape of a bacteriological treatment, especially in cases with persistent pyrexia. If, however, Beraneck's tuberculin was as harmless as Dr. Christy Wilson maintained, it was only right to try it.

DR. CHURTON also took part in the discussion; and DR. WILSON replied.

TYPHOID PERFORATION.

DR. BARRS and MR. THOMPSON described the case of a young woman in whom an operation was performed with success for intestinal perforation due to typhoid. Dr. Barrs gave a clinical outline of the case, and emphasized the importance of early diagnosis. Operation was performed on October 5th at 11 p.m., two hours after the occurrence of perforation. The patient was suffering severely from shock, and was therefore infused with saline solution; 5 minims of strychnine were also injected. Under ether an incision about 4 in. long was made in the right linea semilunaris. On opening the abdomen, some 4 or 5 oz. of turbid fluid was found. There was no fæcal odour or escape of fæces, and the intestines were small and empty. A small cleanly-punched-out perforation was found about 4 in. from the ileo-cæcal valve. The perforation was the size of a hilform bougie; it was so small that it was missed at the first examination. The whole ulcer and perforation were inverted with a single continuous suture of Pagenstecher's thread. Two other ulcers which had roughened the peritoneum were treated in the same manner. The abdomen was cleaned and drained with gauze. The greater part of the wound was closed. For the next four days it was impossible to say whether she had general peritonitis or not. The wound suppurated and healed slowly, but she was now quite well.

DR. C. M. CHADWICK, DR. T. CHURTON, MR. H. LITTLEWOOD, MR. B. G. A. MOYNIHAN, and the PRESIDENT took part in the discussion; and DR. BARRS and MR. THOMPSON replied.

SPECIMENS.

DR. C. CHEETHAM (A specimen of (a) fatal fibroma molle, (b) a case of pyosalpinx. DR. LEONARD WILSON. A case of splenic enlargement. MR. H. LITTLEWOOD (a) Supposed blood-cyst removed by abdominal section, 1898; portion of cyst wall removed from the right bladder. (b) Specimen of chronic cystitis associated with pyosalpinx. DR. T. CHURTON. Three cases of recovery from tuberculous meningitis. DR. J. E. HOLMES. Specimens of labial and ovarian disease. DR. GORDON SHARP. A case of pyosalpinx. Three specimens of tuberculosis of right upper extremity. DR. EDWARD WARD. (a) Rat bite case. (b) Case of tuberculous cystitis. MR. B. G. A. MOYNIHAN. A specimen from a case of carcinoma of the stomach. DR. C. M. CHADWICK. A case of aneurysm. MR. A. L. WHITEHEAD. A case of empyema of the right frontal sinus, right sphenoidal sinus, both antra of Highmore, and of the ethmoidal cells on both sides. MR. CONSTABLE HAYES. Skiagraph and specimen of a piece of steel removed from the eye by Mr. Secker Walker with the electro-magnet. DR. CHRISTY WILSON. A case of pyloroplasty and gastro-jejunostomy five years after operation for perforating gastric ulcer.

HUNTERIAN SOCIETY. The second Hunterian lecture was delivered on January 13th by MR. ANTHONY BOWLBY, the subject being Pain: its Importance in Diagnosis and Tendency to Mislead. Mr. Bowlby first pointed out the great utility of pain, and what an essential part it played in the preservation not only of the organism, but of every tissue. He went on to point out that nevertheless the value of pain as a symptom varied materially in different cases. In children pain was nearly always an important and valuable sign, especially in tuberculous joints, rheumatism, and all the many conditions included under the popular name "growing pains." In old age pain was often very slight considering the severity of the condition which excited it, as in strangulated hernia and stone in the bladder. Mr. Bowlby then gave illustrative cases in which dull, stolid people complained of no pain, whilst nervous, highly-cultured people stated that they were suffering agony, although the conditions were precisely similar. Neurasthenic pain might be produced in previously strong men by illness, accident, excessive mental strain, or indulgence in drugs. This Mr. Bowlby illustrated from his South African experience. He then passed on to the localization of pain, and particularly to what is known as "referred pain." He specially warned his hearers in reference to the diagnosis of sciatica, and gave cases in which such a diagnosis had respectively obscured a sarcoma of the ilium, a secondary deposit of cancer in the femur, and a large tuberculous abscess in the gluteal region. The lecturer then passed on to the reference of intestinal pain to the umbilicus, and pointed out that in the earlier cases of appendicitis the pain was often not located in the right iliac fossa, but was either general or was referred to the umbilicus. The appendix hung free in the peritoneum in these cases, but when it contracted adhesions to neighbouring parts the pain was localized. DR. GLOVER LYON referred to the sensibility to pain observed among Hebrews, and to the possibility of curing it by suggestion.—DR. ADAMS contrasted the sensibility of Hebrews and Indian fanatics, and spoke of the absence of pain in some cases of cancer and appendicitis.—DR. DAVIES narrated a case of aneurysm which was painless, although it eroded vertebræ. He thought doctors should guard against suggesting pains to their patients. DR. GOODALL believed the power to bear pain had greatly decreased since the introduction of anæsthetics. He pointed out that the abdominal pain in some cases of acute pneumonia often led to errors in diagnosis. DR. HOSFORD referred to multiple aneurysms without pain. DR. LANGDON-BROWN spoke of a case of extreme pain in the head which was never accounted for. He referred to Mr. Barnard's published opinion that where abdominal pain occurred in chest cases the diaphragm was as a rule involved.—MR. BOWLBY, in reply, said that Semitics bewildered surgeons by unaccountable rises of temperature, as well as by pain. He agreed that the appreciation of pain increased with the development of the intellectual faculties.

At the same meeting a case of apparent chronic and diffuse meningitis was shown by Dr. A. V. HICKMAN in which a hard cord extended to the umbilicus. It was examined, and the opinion expressed that it was probably a case of early scirrhus.

FEMALE PRACTITIONERS IN PARIS. According to the *Annuaire* for 1903 the number of women practising medicine in Paris is 65. Of these 25 are Frenchwomen who for the most part hold appointments in lycées, the Post Office, the Telegraph department, normal schools, and training colleges. The remainder are in private practice in which they are fairly successful. Of the foreign medical women 10 are married to Frenchmen, mostly doctors; the rest are single women mostly Jewesses of Russian and Polish nationality. It may be mentioned that women are not admitted to compete for appointments on the visiting staff of hospitals or for the position of *professeur agrégé*: with these exceptions, there is, we believe, no medical post in France for which duly qualified women are not eligible. Two women competed successfully for the coveted appointment of *externe* of the Paris hospitals in 1903. There are a few female medical practitioners at Lyons, Bordeaux, Rouen, Havre, Montpelier, Vichy, Nice and Marseilles, all of whom are said to be doing well in their profession.

REVIEWS.

OBSTETRICS.

PROFESSOR CLARENCE WEBSTER, of Chicago, is an able histologist and embryologist. He has studied frozen sections, and is learned in recent German literature. His *Textbook of Obstetrics*[1] is written clearly and dogmatically. The chief thing lacking in his equipment is a knowledge of practical midwifery. He says in his preface that "emphasis is given to methods of treatment that have been tested by experience." This may be so: but we find methods described that we think cannot have been tested by any large experience. We will particularize some. In his directions for treatment of prolapse of the cord, Professor Webster rightly gives the first place to postural treatment. Like many others he speaks of the "genu-pectoral" position. What is meant is the knee-elbow position. He goes on to say, "In hospitals it is perhaps more convenient (?) to employ the extreme Trendelenburg position instead of the genu-pectoral." We cannot see the great convenience of propping the patient up on a special table with her head downwards, over putting her on her knees and elbows. Nor can we understand the obstetric advantage. When the patient lies on her back, the long axis of the uterus is inclined roughly, about 45 degrees to the horizon, the os uteri being the lowest part. When she is on her knees and elbows, the long axis of the uterus is vertical, the fundus being the lowest part. The advantage of this position is obvious. But in the Trendelenburg position, supposing the trunk to be at an angle of 45 degrees to the horizon, the long axis of the uterus will be horizontal. This condition, if thought desirable, can be attained by putting the patient on her side: an attitude more convenient to everybody than the Trendelenburg position. We think the author cannot have had practical experience of treating prolapse of the cord by the Trendelenburg position, or he would have found out its unsuitability. The paragraphs on the treatment of placenta praevia lead us to infer lack of practical experience as well of acquaintance with the best English obstetrical literature. The learner is given no definite guidance. He is told that many authorities employ the tampon; that Barnes's bag may be used, but that Champetier's is of greater service; that bipolar version is much practised; that rupture of the membranes is advised by some; that Barnes advocated separation of the lower part of the placenta, and Simpson of the whole placenta; and that Caesarean section has been done, and severely criticized by several authorities. The reader may take his choice among these different methods: Professor Webster does not tell him which is the best. The vaginal tampon is no new treatment. It was introduced by Leroux, in 1776, and advocated by Baudelocque, Bernstein, Wigand, Dewees, Ritgen, Burns, Busch, and Rigby. We mention all these names to show that the tampon has been abundantly tried. Professor Webster says an objection to it is the "delay and worry." We turn to the man who, together with Lord Lister, brought the mortality of placenta praevia from 20 per cent. down to 5 per cent., and with whose writings Professor Webster seems unacquainted; we mean Braxton Hicks. This is Hicks's judgement on the tampon: "The general consensus of British midwifery is against its use, and with this I am in accord—partly because, unless perfectly done, and this is difficult, it is of no use, and if perfectly done it is very distressing to the patient." Now, we think an author who recommends the tampon ought to tell the student this. We cannot think that any one who has Champetier's bag would ever plug the vagina. We know not why Barnes's bag should be mentioned if Champetier's is better—and we agree with Professor Webster that it is. Professor Webster mixes up together the diametrically opposite conditions of uterine inertia and tonic contraction of the uterus. It is unsound teaching on a most important practical point. He cannot have read Braxton Hicks's essay on the condition of the uterus in obstructed labour, although this is a paper which every accoucheur should regard as a classic. His want of acquaintance with this subject appears also in his chapter on the forceps. In the chapter on "version, or turning," the author first describes external version, which, he says, is "rarely easily performed," then internal version, lastly, bipolar version. This seems to us the wrong order. It should have been external version, then bipolar version, then internal version, and the reader should have been told that internal version ought only to be done when bipolar version is impracticable, and bipolar version only when external version cannot be done. This is not a mere matter of arrangement; it may lead the student to bad practice. In describing internal version, the author says: "If the cervix needs to be somewhat dilated, the membranes should be preserved if intact." In these conditions we submit internal version ought not to be done; bipolar version is here indicated. This is a practical error of a grave kind. In the chapter on the forceps the author says, "whenever the forceps is applied to the head compression is undoubtedly produced. With the axis-traction forceps this is slight; with the short or long forceps this is greater, because the hands, in exerting traction, are used to keep the handles together, and can scarcely fail to compress the head unduly." We think it exactly the reverse. The main objection to the axis-traction forceps is that the handles have to be screwed together, and thus the head is continuously compressed. With the ordinary forceps it is not necessary to compress the head with the forceps at all, as was pointed out by Robert Barnes; all that is wanted is to pull; the pelvis will do all the compression that is needed and no more than is needed, and the pelvis will keep the blades applied to the head. The indications for forceps are badly given. The author says, "uterine inertia, manifested by weak or irregular pains." There is no hint of the vital difference between absence of pains and weak pains. Weakness of the pains is *the* indication for forceps; but, if pains are absent, forceps delivery is the worst possible practice. In the next paragraph we read, "when there is abnormal resistance on the part of the vagina or vulva, from conditions inherent to the walls or due to causes external to them." What the "conditions inherent to the walls" of a healthy vagina which produce "abnormal resistance" may be we cannot think. The instances known to us supposed to be of this kind resolved themselves on investigation into weakness of pains. The "causes external to them" we suppose mean tumours or disease of some kind in the pelvis; and we must protest against this indiscriminate recommendation of forceps delivery in such cases. When incarceration of the gravid uterus is present the author recommends passing a catheter and pulling back the cervix with a volsella while doing it. Has he ever tried this? He says "sometimes these methods may fail, and it is necessary to perform suprapubic puncture of the distended bladder." He goes on to recommend abortion through the cervical canal, puncture of the uterine body through the posterior fornix, and abdominal section. We have ourselves never known a competent man, with the use of his eyes and a good light, fail to pass a catheter in these cases. Professor Webster omits to mention that if the bladder is kept empty and the patient recumbent, in the large majority of cases, the uterus will rise spontaneously within forty-eight hours, and that if the uterus does not rise, if the retention is relieved, the pregnancy will probably go to term, the anterior uterine wall gradually rising in the abdomen to accommodate the fetus; and that, if this takes place, when labour comes on, the uterine contractions will pull up the posterior wall, pull the cervix down to its proper place, and effect natural delivery. These are well authenicated facts, very important to know before deciding on abdominal section. Nor does he mention that if the uterus does not right itself within 48 hours it may yet be pushed up; and therefore it is needless to say that he does not tell the student the best way to push it up. He describes the reposition of a retroverted uterus which is not incarcerated; a condition which he seems to think generally due to adhesions, although pelvic peritonitis commonly closes the tubes and thus causes sterility. He says it may be pushed up per rectum or per vaginam, but does not mention which is the better way nor the importance of pressing it towards one side, so as to avoid the sacral promontory, a point emphasized by Robert Barnes. He says that "gangrene of the uterine wall is very fatal." Is there any case recorded in such a way as to satisfy a critical reader that it was not ectopic pregnancy? Professor Webster is eclectic in his operations. Caesarean section, laparo-elytrotomy, symphysiotomy are described. Directions for the open and subcutaneous methods of symphysiotomy are given, but the author knows not what subcutaneous symphysiotomy is: the operation he describes under that heading is not subcutaneous. He describes further on another method which, if he had tried it, he would know was impracticable. From his remarks on cephalotripsy we

[1] *A Textbook of Obstetrics.* By J. Clarence Webster, M.D. (Edin.), F.R.C.P.E., F.R.S.E., Professor of Obstetrics and Gynæcology in Rush Medical College, University of Chicago, etc. London: W. B. Saunders and Co. Demy 8vo, pp. 707, 293 illustrations. 21s.

infer that he has never used Braxton Hicks's cephalotribe, nor has he used Ramsbotham's decapitating hook; he recommends the comparatively inefficient decollator of Braun. In conclusion, we may say that while we gladly commend this work for its anatomy, histology, and embryology, we cannot recommend it as a guide to midwifery either to the practitioner or the student. We hope Professor Webster will keep up the anatomical and histological studies which he has pursued with such distinction, but we hope he may be induced also to read and assimilate the works of Burns, Denman, the two Ramsbothams, Matthews Duncan, and Braxton Hicks, not to mention the writings of living British obstetricians.

We reviewed the second edition of this excellent book[2] in our issue for March 4th, 1899, p. 540. In that notice we gave instances of the cautious, critical, and conservative attitude of Dr. AHLFELD towards novel proposals in practice. One of the principal points in which Dr. Ahlfeld's teaching differs from that commonly given is in the management of the third stage of labour. He advises what he calls the "waiting" (*abwartende*) method. This is his advice: After the birth of the child the umbilical cord is to be tied; then the genitals of the mother are to be washed, her perineum examined and stitched if necessary. Wet linen is then to be removed and replaced by dry. The patient is on her back, warmly covered, with her knees slightly separated. From time to time the doctor feels her pulse, and the midwife if necessary changes the pad in contact with the vulva. In 80 per cent. of cases it requires no changing for an hour and a-half. Then the bladder is emptied, and the placenta pressed out of the vagina by the hand applied over the fundus uteri. Ahlfeld advises that the placenta should be expressed slowly, and that when it has passed outside the vulva it should not be allowed to drop, lest the membranes should thereby be torn. Only in cases of haemorrhage should earlier expression of the placenta be attempted. Ahlfeld is as emphatic against too early interference with the process of delivery, and too rapid extraction of the child, as he is against too early expression of the placenta. We need not say anything further, except to repeat that as the work of a learned and experienced teacher and practitioner of midwifery the book should be read by all who teach midwifery, and will be found interesting by all whose linguistic powers enable them to read it easily.

Dr. STEINBÜCHEL'S little book[3] begins with a historical sketch of the use of anaesthesia in childbirth. Next he sets forth the advantages and disadvantages of the different anaesthetics at present in use. Then he comes to that which is the special object of the book, namely, the combination of skopolamine with morphine. (Perhaps not every reader knows that skopolamine is another name for hyoscine.) Skopolamine is, in some ways even more than atropine, antagonistic to morphine. Morphine slackens the pulse and lowers the blood pressure; skopolamine quickens the pulse and raises the blood pressure. Morphine makes the breathing slow and shallow; skopolamine makes it quicker and deeper. Morphine contracts the pupil, skopolamine dilates it. Morphine produces perspiration, skopolamine stops it. Morphine restricts intestinal peristalsis, skopolamine provokes it. The one point in which the action of the two drugs is identical is that they are both narcotics. Hence, by combining them we get the narcotic effect of both drugs, while as to their other effects they neutralize one another. The author administers hypodermically a freshly-made solution containing in 1 gram of distilled or boiled water 0.0003 gram of skopolamine and 0.01 gram of morphine. This usually so far annuls the pain that the patient ceases to cry out. If in an hour and a-half or two hours the effect is not sufficient, the dose may be repeated. If chloroform is then thought desirable, very little is enough to anæsthetise the patient. No bad effect on the child has been observed. Dr. Steinbuchel has worked out his subject carefully and well.

As in our issue of April 12th, 1902, we noticed the previous edition of Dr. JELLETT'S *Short Practice of Midwifery*,[4] we need not say much about it now. It is a clearly and pleasantly written work by one who knows much of practical midwifery. There are some few things in which the author is in error, mainly from copying statements from other books instead of looking into the matter for himself. Thus at p. 240, after describing the way in which, with retroversion of the uterus, pregnancy may go on to term with the posterior uterine wall in the hollow of the sacrum, and the cervix high up in front, he says: "When labour comes on the child's head is driven down into this *cul-de-sac*, instead of against the internal os. The cervix consequently does not dilate, and the uterus may rupture." Then follow directions as to dilating the cervix. If Dr. Jellett will look into the cases on record he will find that the cervix has dilated and natural delivery has taken place in every case in which it has been allowed to do so. The mortality of this condition has arisen from attempts to effect artificially what it was wrongly assumed the uterus would not do. In the chapter on uterine inertia we find "metritis" given as a cause. What does this mean? We take it to be a survival of a time when men's ideas as to inflammation were hazy. Inflammation of the uterus in pregnancy is a thing so rare, if it even occurs, that we know nothing as to its effect upon uterine action. We should have liked to have found in this chapter a clearer and sharper distinction between weak pains and absence of pains. We should also have liked at p. 426, instead of the statement that in puerperal insanity the patient is "usually sleepless," prominence given to the fact that sleeplessness is the precursor and first symptom of the disease. We have no doubt that this edition will retain the popularity of the work.

Philips's Anatomical Model of the Female Human Body[5] is a series of diagrams rather than a model. The diagrams are coloured, and the drawings illustrating the different stages of dissection of an adult female body are superimposed upon one another and attached so that they can be lifted up, displaying what lies underneath. Each structure is marked by a number, by which the student can identify it. The coloured drawings are accompanied by a short description of the parts, written in popular language. This "model" may be useful for those who have to instruct nurses; and possibly it may help the memory of a medical student. It can never take the place of dissection; and teachers of anatomy may hesitate to recommend it, lest the student should think it can. Considered as a set of diagrams it is very well done.

We had the pleasure of noticing the first edition of Dr. JARDINE'S *Practical Textbook of Midwifery for Nurses*[6] in the BRITISH MEDICAL JOURNAL for March 31st, 1900. The second edition is materially improved by the addition of a chapter on the accidents to the child during delivery and the abnormalities and diseases of the newborn child. The work is one which may safely be recommended to monthly nurses.

THE PREVENTION OF CONSUMPTION.

THE appreciative remarks of Professor KOCH with which Dr. HILLIER'S work on *The Prevention of Consumption*[7] are prefaced, and the fact that the work has been revised by this eminent authority on tuberculosis, are in themselves evidence that the author has carried out the task he set himself most satisfactorily, and will commend the book to all who wish to study the subject. The book is evidently intended for the intelligent public, whose interest must be stimulated, since their co-operation is necessary for preventive measures. For this purpose it is admirably adapted, whilst at the same time it will be most useful to professional readers.

The historical sketch which forms the first chapter is interesting, and shows that the communicability of consumption is no new idea. Chapter II treats of infection—the transmission of the disease from man to man, and Dr. Hillier wisely emphasizes the difference in the degree of infectivity

[2] *Lehrbuch der Geburtshülfe.* [Textbook of Midwifery.] Von F. Ahlfeld. Dritte Auflage. Leipzig: F. Wilh. Grunow. 1899. (Demy 8vo, pp. 720, 427 ill.)

[3] *Schmerzbetäubung und Narkose in der Geburtshülfe mit spezieller Berücksichtigung der Kombination von Morphium und Skopolamin.* Von Dr. Steinbüchel, Privatdozent für Geburtshülfe und Gynäkologie [Pain and Narcosis in Midwifery with special reference to the combined Skopolamine and Morphine Anæsthesia. By Dr. Richard von Steinbüchel, Docent for Obstetrics and Gynæcology in the University of Würzburg.] Leipzig: Georg Thieme. 1903. (Demy 8vo, pp. 111. M. 4.)

[4] *A Short Practice of Midwifery*, embodying the treatment adopted in the Rotunda Hospital, Dublin. By Henry Jellett, B.A., M.D., ex-Assistant Master, Rotunda Hospital, etc. Fourth Edition. London: J. and A. Churchill. 1903. (Crown 8vo, pp. 552, 191 illustrations. 8s. 6d.)

[5] *Philips's Anatomical Model of the Female Human Body.* Edited by W. S. Furneaux. London: George Philip and Son. (Demy 8vo, pp. 17. 4s.)

[6] *Practical Textbook of Midwifery for Nurses.* By Robert Jardine, M.D. Edin., M.R.C.S. Eng., etc., Professor of Midwifery in St. Mungo's College, Glasgow, Physician to the Glasgow Maternity Hospital, etc. Second edition. Edinburgh: William F. Clay. 1903. (Cr. 8vo, pp. 268, 59 illustrations. 6s.)

[7] *The Prevention of Consumption.* By Alfred Hillier, M.D., C.M., B.S. Revised by Professor R. Koch. London: Longmans, Green, and Co. 1903. (Crown 8vo, pp. [illegible]. 5s.)

between such acute infectious diseases as scarlet fever or small-pox and the more chronic tuberculous disease. The relation of bovine to human tuberculosis is treated judicially and judiciously, both sides of the question being fairly stated.

The precautions—personal and public—necessary for prevention are next considered. The subjects of sanatoria, homes for advanced consumptives and open-air colonies (Chapter VI), are very fully discussed, and illustrations of sanatoria and shelters for patients are given. The appendix is rather large (60 pages), but it contains much valuable information which could not well have been incorporated in the body of the book. It includes reprints of the various leaflets issued by the National Association for the Prevention of Consumption, of which Dr. Hillier is Secretary; a paper on the Notification of Tuberculosis in Boston, U.S.A., and various articles by the author and others bearing upon the prevention of consumption, which have been already published in transactions or journals. Amongst these is a very interesting article by the author upon State Insurance for Workmen in Germany.

Dr. Hillier has done his work well, and the book cannot fail to prove most useful.

NOTES ON BOOKS.

Wild Nature's Ways,[1] by R. KEARTON, F.Z.S., is in the author's words "An attempt to show something of the most intimate relationships of wild creatures at home, amidst their natural surroundings, and entirely unaware of the fact that they are under observation of any kind whatsoever. It throws some new light upon the habits, instincts, and intelligence of the feathered inhabitants of our woods and fields." The descriptions are admirable, and the illustrations must fulfil the highest aspirations of the author. It is a capital book and will encourage the rising generation to pursue the study of Nature's wild ways. Though devoted chiefly to birds it contains one chapter on insects. The following extract is one of the many interesting descriptions of the author's methods of photographing wild birds at home. He narrates that having carefully concealed himself and his photographic apparatus in a stuffed sheep in front of a sandpiper's nest, she was returning to her eggs, when perceiving the camera's eye staring at her from the sheep's chest, she jumped up as if shot at, and flying down the moorland beckside, stayed away hours. When she reappeared she zigzagged to and fro near her nest, gradually growing bolder, till she finally ventured home. The author was anxious to do nothing to destroy her growing confidence in the three-eyed sheep, but after a long time made a movement necessary for photographing her, and the sandpiper hastily leaving her nest, ran agitatedly about the bare rock-strewn ground on the photographer's right, protesting in plaintive notes against something not to her liking. He being obliged to reveal himself to fix the mechanism, not before two hours could she be persuaded by her confidential mate to return to her nest. One can imagine the patient discomfort which must have been endured to obtain photographs under such circumstances. The results, however, are well worth all they cost.

[1] *Wild Nature's Ways*. By R. Kearton, F.Z.S. London: Cassell and Co. 1903. (Demy 8vo, pp. 308, 10s. 6d.)

CONTRACT MEDICAL PRACTICE.

HOW ELECTIONS TO CLUB APPOINTMENTS ARE SOMETIMES CONDUCTED.

A SCOTCHMAN writes:

In a country district in England the post of surgeon to a large club became vacant owing to the resignation of my predecessor. There are three of us in practice in the district, and we all applied for the post. The following are a few of the steps taken by the oldest doctor, who holds several appointments, including a Government one, to obtain the post. For several weeks preceding the voting he personally canvassed all the members and impressed upon them, amongst other things, that he had a large family and wished to get the post. The night before the voting he sent printed circulars to many of the members, and he had a footnote stating that he would send a conveyance to take them to the voting, and after it was over to take them home. He hired conveyances, and on the night of the voting cabs and 'buses were running all over the district bringing the members to the hotel where the club is held, and when the voting took place he was at the hotel receiving them as they arrived and treated them to whisky, wine, and beer, in fact, was a waiter for the time being. After the voting I was at the top of the poll and got the post, and all I did was to send in my application. I should be pleased to have a comment on the old doctor's conduct, not only towards myself, but as a member of the medical profession.

The story illustrates the undesirability of permitting these elections to be in the hands of the entire body of members. Proceedings like those related by our correspondent are of course little short of a scandal and highly discreditable to the profession. We congratulate our correspondent upon being at the top of the poll, in spite of his opponent's proceedings.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

IX.—THE EVIL EFFECTS OF DRINK.

THE report of the Commissioners in Lunacy issued last July stated that one person in every 293 of the population was insane in January, 1903. Alcoholic excess was assigned as the cause of 23.1 per cent. of the male and 9.6 per cent. of the female cases. Inebriety in men and women, but particularly in the latter, is one of the chief causes which tend to the degeneration of the British race. Alcoholism has its share in the decreasing birth-rate and in the abnormally high infantile death-rate; and in causing the dearth of young men of strong enough physique for the requirements of the navy, the army, the police, and other public services.

Drinking among Women.

The increase of drinkers may be ascribed to town life, with its overcrowding, machine-done work tending to rush, and its accompanying strain on the nervous system; while the increased employment of women at daily work is a cause of the neglect of infants. It is a common practice for expectant and nursing mothers to take stimulants, and in either case the children suffer. It has been stated that alcohol consumed by the mother passes, as such, into the circulation of the unborn child, and so directly produces injurious results. A child born in gaol, where it is impossible for the mother to obtain drink, often turns out better than its brothers and sisters. Hereditary drunkenness may cause epilepsy, imbecility, and, finally, extinction of the family. It is believed that a drunken father has a much less injurious effect upon the physique of his offspring.

The death-rate among Jewish is lower than among Christian infants, and one reason is to be found in the more sober habits of Jewish women.

Dr. Claye Shaw has said that the children of drunken women are born with all sorts of deformities, mental and physical; they fill Broadmoor; of their offspring 56 per cent. die at birth or before the age of 2 years. In the case of sober women the percentage is only 26. The survivors lack self-control and are neurotic, impulsive, and hasty.

Statistics of drunkenness among women in London appear to prove that it is increasing rapidly. The number of drunken women apprehended in 1901 was nearly double the number for 1892. Convictions of women are on the increase also in other large cities. In Liverpool recently one woman was found lying in the open street intoxicated with her 14-day old baby by her side, another, also drunk, was carrying her child by one leg head downwards, while a third had flung hers at a policeman several yards away.

Dr. Wynn Westcott, Coroner for North East London, has stated recently that England excels all other countries in Europe in the proportion of deaths of infants under 1 year of age from suffocation in bed with their parents or nurses. His paper was published in the BRITISH MEDICAL JOURNAL of November 7th, 1903, p. 1208. He pointed out that the number of inquests on such cases is higher in proportion to the poverty of the inhabitants of the district, and adds that "it cannot be doubted that a considerable number of infants are overlain by parents who, habitually sleeping with a baby in bed with them, yet follow the same practice when they go to bed well knowing that they are intoxicated with alcoholic drink and recklessness of consequences. It is likely also that if a drunken mother give her infant the breast milk before going to sleep the baby may become more or less stupefied by the alcohol in the milk, and so fall an easy prey to gradual suffocation." In Germany, where drunkenness among women is rare, such deaths are almost unknown.

Among the reasons likely to have caused increase of drink among women is the example the girl has had since she first saw out of her eyes with understanding, for if her parents are steady there are the neighbours; the running backwards and forwards to the public-house for jugs of beer, and the recollection of what she had seen going on there.

The changes in a woman's position have much to say to it also. Whereas in the olden days she was a domestic drudge, now she is often a worker and a breadwinner, a comrade to the man she has married, and a person of independent means.

Further, whereas it used to be considered a slur for a woman to be seen in a public-house, now it is the fashionable thing for a young man to take his girl there openly and treat her to drinks. Few young women drink to any extent before they are married, but after this what they call their "worries" begin. Their homes are often comfortless, and if they go out to work they come home too tired to care to cook food. They feel the pangs of hunger, and to satisfy them drink instead of eating. Others suffer from being left alone day after day while their husbands are out at work, and drown poverty and *ennui* in drink. Even if able to sew well their poverty must often prevent the purchase of material, and their literature consists probably of a weekly paper filled with police news and crimes, sensational and unwholesome from the first to the last line. They have no ideals, no imagination; they grope through a life of dull routine in cheerless homes. Outside they meet friends with whom they can gossip, and who teach them that drink dulls their real and imaginary worries, and beginning with small quantities, they gradually go on and on until they lose all self-respect.

The men usually drink beer, and must take a great deal to become drunk; the women drink gin if they have plenty of money, and can afford the luxury of gradual stupefaction. But if they have only a penny to spend they take beer and gin mixed, which is considered an ideal mixture with which to become "fuddled." Then it is that they see everything in a rosy light, and forget hunger, cold, and alas! even their own children, who are the chief sufferers; for a woman who yields to drink generally neglects her home and her children. They have bad food at uncertain hours, and are often left locked into or locked out of the house until their mother chooses to come home to bed. An unsteady woman is often the cause of a drinking husband. It may be taken for granted that where a man has a steady wife and a comfortable home the temptation to go out again after his hard day's work is small. But when he has not it is great.

Licensing Law.

It has been urged that to the enormous numbers of public-houses is due much of the drinking which goes on. It may be assumed that the larger public-houses are the most respectably conducted, and that as they go down in size and smartness they are less well managed and less reputable, until lowest in the scale come beer-houses. It has been suggested that the bad public houses and beer-houses should be weeded out, while the most respectable should be enlarged and licences only granted to better-class managers, required to put their foot down and refuse to allow excessive drinking and rowdy conduct. As the accommodation in these houses would be larger, the actual numbers able to get drink might possibly not be much diminished, but they would have to drink in moderation and behave respectably, so that by degrees drinking excesses would be put down, and a higher standard of morals attained. The law provides that the publican shall refuse to serve a drunken man. But even if it be admitted for the sake of argument that a publican is really anxious to carry out the law, he has so many conditions of drunkenness to distinguish that he may often break the law unknowingly. Different men present different symptoms, so that it may be difficult to diagnose the psychological moment when the fatal stage is reached. There are the maudlin, the unsteady, the talkative, the quarrelsome stages, there is the man who seems all right until he gets out into the open air and then becomes hopelessly unsteady. In an ever-changing crowded assembly it is hard for a conscientious manager to be quite certain, and easy for an unscrupulous one to keep his eyes shut. It is said, too, that the police wink at drunkenness as much as they can. The confirmed drunkard will always manage to get drink; drunkards are unfortunately "cute"; but were the number of public-houses reduced the temptation to the ordinary man or woman who does not necessarily drink hard would be diminished.

The excesses of teetotal advocates have done much to repel reasonable people who might have been disposed to accept more moderate measures. There are irreclaimables, but there are also those who under the force of wise guidance might gradually reach a higher level.

The Public-house Trust Association.

Earl Grey is President of the Central Public-house Trust Association, which seeks to promote temperance and to secure that all new licences, with their enormous monopoly values, shall be held as trusts for the community and not be given to private individuals for private gain. In most counties and in many towns a local trust company has been established, whose aim it is to acquire existing licensed houses or to offer to manage them for their owners, and also, whenever the magistrates think it desirable to create a new licence, to ask on public grounds that it shall be granted to the company. The dividend is limited to 5 per cent. so that the shareholders may have only a nominal monetary interest in the trade. The council is empowered to employ all surplus profits to promote objects of public benefit other than those properly chargeable to the rates, the chief consideration being the provision of counter-attractions to public-houses. Should a trust company be wound up, the assets, after repayment of the shareholders' capital at par, must be handed over to the council for public objects.

The main idea of the scheme is to conduct public-houses rather as refreshment houses than as mere drinking bars, non-intoxicating drinks, tea, coffee, and cocoa, and also food are provided if customers care to ask for them instead of liquor, and the food and drink supplied are of the best quality. The managers are paid a fixed salary and have no interest in profits from the sale of intoxicants. Thus they are not tempted to push their sale, while they are encouraged to promote the sale of food and non-intoxicants. Earl Grey believes that the widespread acceptance of the trust principle is due to the fact that it is recognized that the public-house is a public necessity, and that therefore it is desirable to convert it from a mere drinking bar into something resembling as much as possible a well-conducted club. At present it is to the publican's interest to force his drink on the public: the customer has to drink liquors good or bad, manufactured by the brewery or distillery company to whom the house belongs, and thus privileged individuals get the high profits resulting from monopoly rights which should belong to the community.

It has been objected by some that the Public-house Trust, although calculated to diminish excessive individual drinking, may, on the other hand, tend to increase the national consumption of drink. The many instances quoted by Earl Grey of the results of the movement serve to allay apprehension on this score.

The Automatic Reduction of Licences.

Sir Edward Clarke in his recent address before the Constitutional Club proposed that new legislation should provide that no new on-licence shall be granted for either a public house or a beer-house. The increase in the number of licences would be checked, whereas the population would go on growing. On the other hand, he argues that no renewal or transfer of an existing licence should be refused on the ground that the house is not required for the convenience of the neighbourhood, but that misconduct of the owner should be the only ground for cancelling a licence. Justices, in view of licences not being evenly distributed over a given area in proportion to the population, should be given the power to transfer any existing licence from one spot to another within their jurisdiction, subject to the law respecting notice, opposition, and confirmation, now in force with regard to application for new licences. These transfers should be made subject to the approval of the justices for the division as causing no inconvenience to the locality. The drawbacks to this scheme are the uneven distribution of the population and the constant changes in it, and the varying proportion to the population of public-houses in various districts. A periodical rearrangement of licences on the lines of a census would be necessary. Failing this some districts would possess a plethora of licences while a new population would be unable to obtain any beyond those already existing.

Sir Edward Clarke said that in 1872 there were 70,000 public-houses and 53,000 beershops; in 1896 there were less than 67,000 public-houses and only 35,000 beershops, thus, taking both classes of licences together, there had been a reduction of 21,000 in twenty four years. Assuming the same process to continue until thirty years had passed, he said that

The population would then be 4[illegible], the number of licences 3[illegible]. This would give a proportion of licences to population very little differing from that indicated in the minority report of Lord Peel's commission, and now accepted by temperance reformers as the proportion which they were content to accept. To these reformers thirty

years might seem a long period of delay. But the last thirty years had been spent in agitation and political strife. Would it not be better now to let the conflict cease and secure a gradual but a certain improvement?

Sir Edward Clarke objected to the plan of surrendering one licence for another, and he considered that it was not legal for magistrates to make it a condition of granting a new licence that two other licences should be surrendered.

There is nothing in Sir Edward Clarke's scheme which clashes with Lord Grey's, and if the reduction in numbers which Sir Edward Clarke works out were to take place, and the civilizing influence of Lord Grey's Public-house Trust movement to go on, these two reforms worked simultaneously might bring us nearer to a solution of this vexing problem.

School Teaching.

Any such schemes must be supplemented by conscientious teaching of all children in schools as to the evils of drink, and if necessary, as has been said before, the removal by degrees of all schools to the country, where the children would remain as boarders the whole of their school life, away from the evil influences of the slums. These are drastic measures, but does a wise surgeon seek to delay a necessary operation by opiates? Nothing short of drastic measures will cure the evil, and the sooner this is realized the better.

[In this connexion the reader is referred to the article on Hygiene and Temperance published at page 212. A petition pointing out the need of elementary scientific instruction in health subjects, including temperance, in schools, which is about to be circulated to members of the medical profession, is there set out. As will be seen, the proposal was approved by the Council of the British Medical Association at its meeting on January 20th.]

LITERARY NOTES.

A VOLUME of lectures by Sir William Gowers will shortly be published by Messrs. J. and A. Churchill. The lectures, which have been carefully revised by the author, deal with the following subjects: Subjective Visual Sensations; Subjective Sensations of Sound; Abiotrophy; Diseases from Defect of Life; Myopathy and a Distal Form; Metallic Poisoning; Syphilitic Diseases of the Nervous System; Inevitable Failure; Syringal Haemorrhage into the Spinal Cord; Myasthenia and Ophthalmoplegia, and the Use of Drugs.

The *House Beautiful* is the title of a new journal, edited by Mrs. Ernest Hart, intended, as its subtitle imports, for the guidance of "those who design, beautify, furnish, and inhabit houses." As Mrs. Hart points out in a graceful "Introduction," there is no existing English journal in which the house and the home are considered from every point of view—structural, decorative, artistic, ethical, hygienic. The first number presents an attractive appearance; the literary contents are varied and interesting, and the illustrations are numerous and admirably executed. There was a distinct place for such a periodical in English journalism, and we congratulate Mrs. Hart on having filled it so successfully.

Dr. Reginald A. Farrar, Medical Inspector of the Local Government Board, has written a life of his father, the late Dean of Canterbury, which is to be published in the course of the present month by Messrs. Nisbet and Co.

Dr. David B. Lees has collected his Harveian Lectures on Some Acute Visceral Inflammations, which appeared in the BRITISH MEDICAL JOURNAL of November 21st and 28th and December 5th, 1903, with some other papers, two or three of which also appeared in the JOURNAL, into a small volume which will shortly be issued by Mr. John Murray.

The *Journal des Médecins* is a medical review of reviews, published monthly, which constitutes an abstract and brief chronicle of all the work in medical science done in France. The editor is Dr. Roger Hyvert, and his staff is composed of former *internes* of the Paris hospitals. The journal is published by Maloine, 25-27, Rue de l'Ecole de Médecine, Paris.

Medical Electrology and Radiology, the official organ of the British Electro-therapeutic Society, will in future be published monthly. The January number contains a forecast for the coming year by the editor, Dr. W. S. Hedley, with original papers, reports of proceedings, etc.

The *Daily Chronicle* of January 11th quotes from an unnamed source the following advice as to the risk of "catching cold" after a visit to the theatre, given by an anxious parent to his son at Oxford in 1686:

Child.—I heard that the players are gon down to Oxford, but I am unwilling that you should go to see them act, for fear on your coming out of the hot play house in the cold ayer, you should catch harm, for as I did once coming out of the theatre at a publick Act when it was very full and steaming hot, and walkin a Broad in the cold, and gawe me sutch a cold that it had Likt to a cost me my Life. Your best way in sutch a cold is to go hom to your one chamber directly from the play house, and drink a glass of Sack, therefor Be sure you send your servant At your hand for a bottle of the Best Canary and keep it in your chamber for that purpose. . . . Harken thou unto the voyce and Advise of me Thy Father, Loving Thee Better then himselfe.

This advice, in principle, is largely acted on at the present day. Many, however, substitute whisky in the form of hot grog for the cup of sack, in the virtues of which Sir John Falstaff had so firm a belief. In the light of modern research as to the etiology of coryza and the composition of whisky, the treatment is doubtless unscientific.

AUTOMOBILES FOR MEDICAL MEN.

(Continued from p. 1,3.)

THE CHOICE OF A CAR.

FINALLY, we arrive at a choice of a car. On this point it is to be remembered that it is only comparatively recently that cars of any make or by any manufacturer have been put upon the market at prices within the reach of most general practitioners, and that, therefore, the total accumulated experience, even of experts, is less than in the case of larger cars; and that as for the verdicts of amateurs, private owners are, like owners of bicycles and all other machines, very liable, unless of unusual experience, to be very enthusiastic over the merits of the particular car which they happen to possess, and therefore understand best. But, fortunately, in the reliability trials of last September we have an excellent guide. These elaborate, costly, and carefully-organized trials were got up by the Automobile Club of Great Britain and Ireland, with the co-operation of a committee of manufacturers. They were designed especially with a view, on the one hand, to provide the purchasing public with data which would enable them to determine what class of car was best suited to their special requirements; and, on the other, to give manufacturers an opportunity of seeing what their productions really could do in competition with those of other makers, and hence see where improvements were required, and at the same time obtain certificates from a public body as to what they actually achieved.

Some reference to these trials has been made before in these columns, and it has been objected by certain correspondents that they are useless as a guide to the medical profession inasmuch as that they were carried out under special conditions. This fact, however, so far from decreasing their utility, increases it; for the conditions, though special, were only so in the sense that they were of an unusually exacting character. Thus though the cars were driven naturally by good drivers, weak points in faulty cars were brought out which would have escaped notice in any ordinary trial of a car, and which even might not have revealed themselves to a purchaser until they had been some time at work under the ordinary conditions of work in a medical practice.

Correspondingly, the cars which came out well are justly entitled to great credit, and any of them could be purchased with full assurance that they would be reliable in practice in the points in which they have won high marks in the trials. Thus, during the eight days which the trials lasted each car had to travel in company a distance of over 1,000 miles, and during all that time they were under constant observation and might neither be cleaned nor receive any of those attentions upon the importance of which we have laid such stress without the penalty of loss of marks. The six judges were all experts in car work, well known as such, and some of them—such as Mr. Cozens Hardy and Colonel Crompton—well known in other directions as well, and any prospective purchaser might well be recommended to peruse their final report but for the fact that it covers sixty pages of printed matter. Its extreme length is due to the fact that it gives details of the performance of all cars entered, 140 in number, and the points in which marks were lost. It is also, perhaps, of somewhat too technical a nature to be usefully studied by those not fairly acquainted with the subject.

A juster criticism of the results than that to which we have referred is one which has been made by those who organized them themselves, and which is of a nature easily comprehended by medical men accustomed as they are to competitive examinations. There were seventeen different points in

which marks could be won or lost, and in the allotment of maximum marks to each point before the trials commenced the greatest number of marks were naturally allotted to the points considered of most importance—such as reliability in road work, the garage work they required, and the condition in which they were found at the termination of the eight days' running under trying conditions. In the result, however, it was found that some of the cars which obtained the highest aggregate marks and were therefore entitled to the medals awarded in each of the classes into which the cars were divided according to selling price, were not the cars which proved the best on these particular points, but owed their position rather to excellence in an aggregation of qualities of which some were of comparatively minor importance.

In order, therefore, to remedy to some extent this drawback and enable the net result to be more properly appreciated, we have prepared the following tables in which the aggregate marks obtained by the first five cars in classes A, B, C, D, are given, and also the marks obtained by each of the first five cars in classes on the points which are relatively of the greatest importance to medical purchasers—that is to say, reliability in work on the road, the garage work required, and the condition after the trials were completed. Only the results in four out of the seven classes into which the competition was divided will be given, as this article is intended mainly for the use of medical practitioners who it is imagined will not as a rule care to give more than £550 for a car, even if nearly so much were at all necessary. The conditions of trial, it should be noted, were precisely the same in all classes, and the marks divided among the following points, all cars being obliged to travel throughout the competition carrying either their full number of passengers or an equivalent weight calculated for each passenger at not less than 11 st.: Reliability on the road; cleaning and replenishing; power of restarting after stopping on a hill; brakes, horse-power (that is, nearness of proved to declared horse power) speed; consumption of fuel; absence of dust raising; absence of noise; absence of vapour; absence of vibration; cheapness; general finish, and, finally, condition after trial. For absence of dust, as also for speed and consumption of fuel, 500 were the maximum marks, while 125 were obtainable for cleanliness in use for the other points, with the exception of those given below; 250 marks were the maximum on each point, while the marks for cheapness were 7 for every £1 under the maximum price in the class.

In Table I the cars are placed in order of merit judged by the aggregate of marks obtained in all the different tests. It should be examined and compared with Table II.

Table I. Cars in Order of Merit Judged by Aggregate Marks.

Class A.—Vehicles Declared at a Selling Price of £200 or less.

Name.	Weight.	Passengers.	Price.	Marks.
1. 5 h.p. Oldsmobile	7 cwt.	2	£150	8,650
2. 6 h.p. Oldsmobile	7 ,,	2	£168	8,460
3. 5 h.p. Baby Peugeot	7 ,,	2	£175	8,370
4. 6½ h.p. Cadillac	11 ,,	3	£900	8,217
5. 6 h.p. de Dion Bouton ...	8 ,,	2	£200	8,129

Class B.—Vehicles Declared at a Selling Price of more than £200 and not more than £300.

1. 8 h.p. M. M. C.	11½ cwt.	4	£270	8,785
2. 6 h.p. Swift	10 ,,	2	£220	8,763
3. 9 h.p. Argyll	12 ,,	4	£275	8,727
4. 7½ h.p. Beaufort	13 ,,	4	£295	7,491
5. 9 h.p. Darracq	12½ ,,	4	£270	7,477

Class C.—Vehicles Declared at a Selling Price of more than £300 and not more than £400.

1. 10 h.p. Gladiator	14 cwt.	4	£305	9,102
2. 7½ h.p. Wolseley	11 ,,	4	£325	9,010
3. 12 h.p. Wolseley	13 ,,	4	£400	9,002
4. 10 h.p. Wolseley	12 ,,	4	£380	8,885
5. 19 h.p. Argyll	13 ,,	4	£335	8,553

Class D. Vehicles Declared at a Selling Price of more than £400 and not more than £550.

1. 12 h.p. New Orleans ...	17 cwt.	4	£500	9,483
2. 12 h.p. De Dion Bouton ...	14 ,,	4	£420	9,189
3. 16 h.p. Renard	13 ,,	4	£437	9,039
4. 10 h.p. White Steam Car ...	15 ,,	4	£420	8,988
5. 12 h.p. Gladiator	15½ ,,	4	£525	8,913

Table II. Cars in Order of Merit Judged by Certain Tests.

Class A.—Fourteen Competitors, all Different Makes. Highest Price £200.

Road Work. Maximum 3,000.		Garage. Maximum 1,500.		Condition. Maximum 1,000.		Hill Climbing. Maximum 1,000.	
Cadillac ...	2,970	De Dion ...	1,454	De Dion ...	981	Peugeot ...	532
Baby Peugeot	2,973	Oldsmobile .	1,423	Oldsmobile ...	959	Oldsmobile.	485
Oldsmobile .	2,957	Oldsmobile .	1,415	Clyde... ...	898	Cadillac ...	467
Clyde ...	2,957	Peugeot ...	1,408	Peugeot ...	837	Achilles ...	459
Oldsmobile .	2,945	Cadillac ...	1,387	Cadillac ...	796	De Dion ...	458

Class B.—Eleven Competitors. Highest Price £300.

M.M.C. ...	2,999	Darracq ...	1,452	M.M.C. ...	1,000	Mohawk ...	536
Argyll ...	2,984	M.M.C. ...	1,443	Argyll ...	980	Eagle ...	520
Swift ...	2,974	Eagle ...	1,438	Swift ...	965	M.M.C. ...	519
Mohawk ...	2,940	Argyll ...	1,432	Darracq ...	690	Argyll ...	514
Darracq ...	2,937	Beaufort ...	1,414	Beaufort ...	645	Beaufort ...	506

Class C.—Eighteen Competitors, all Different Makes. Highest Price £400.

Argyll ...	3,000	Wolseley ...	1,464	Albion ...	1,000	Wolseley ...	751
Wolseley ...	3,000	Wolseley ...	1,453	Wolseley ...	1,000	Gladiator ...	742
Wolseley ...	2,995	Wolseley ...	1,449	Richard ...	1,000	Wolseley ...	700
Richard ...	2,992	Richard ...	1,442	Wolseley ...	1,000	Wolseley ...	605
Wolseley ...	2,980	Darracq ...	1,440	Hortick ...	930	Darracq ...	552

Class D.—Twenty-two Competitors. Highest Price £550.

Lanchester	2,998	Renault ...	1,468	Sunbeam ...	1,000	De Dion ...	880
Star ...	2,997	Sunbeam ...	1,458	White Steam	1,000	New Orleans	819
Renault ...	2,996	De Dion ...	1,453	De Dion ...	1,000	Gladiator .	810
De Dion ...	2,996	New Orleans	1,452	Brooke ...	978	White ...	670
White	2,980	Star	1,443	Renault ...	942	Star	650
				New Orleans	942		

In regard to these tables, it should be noted that the highest total theoretically obtainable was 10,375, but that practically it was impossible for any car to obtain this number, inasmuch as the fuel necessarily had to be replenished in the course of a series of runs aggregating over 1,000 miles, and marks were deducted for every minute occupied in so doing. It will also be seen that in both tables the marks obtained are, in some cases, so exceedingly close, that the positions obtained by certain cars might have been seriously affected owing to marks won by relative cheapness and those lost by accidental tyre puncturing.

These are facts which possibly might give cause for grumbling among competitors but which do not materially detract from the value of the trials to would-be purchasers. Any car which attained a place in Table I and also figures well in Table II might probably be acquired with considerable assurance on that datum alone that it would prove a satisfactory purchase. In any given case in which a purchaser is seriously thinking of buying a car which has competed in the trials, a full official record of its performances throughout all the tests should be examined with care, especially with a view to observing in what tests the car lost many marks, and to deciding how far such tests were of importance from his point of view. It will be seen that the total aggregates tend to be rather higher in the classes for higher-priced cars, and that in Classes A and B high marks for hill climbing were in no case obtained. It is to be remembered, however, that the hills were very steep, and that the cars had to go up fully laden. Finally, it may be noted that not all the cars in the trial were bran new. One of those on which our representative travelled had already completed some thousands of miles and yet took a good place.

Bequests to Hospitals. The late Mr. George Harwood of Maida Vale, has left £500 each to the London Hospital, the City of London Hospital for Diseases of the Chest, the North Eastern Hospital for Children, and the Metropolitan Hospital.

Mrs. Maria Sneath, of Sutton Coldfield, in addition to bequests of £500 to the Queen's Hospital and £50 to the Royal Orthopaedic and Spinal Hospital, Birmingham, has bequeathed, subject to a life interest, £500 to the Birmingham General Hospital, £300 each to the Birmingham and Midland Eye Hospital, the Moseley Convalescent Hospital for Children, and the Birmingham Ear and Throat Hospital; also £200 to the Royal Orthopaedic and Spinal Hospital, Birmingham. Under the will of the late Miss Adelaide Bernard, of Clifton, Bristol, £200 has been bequeathed to the Bristol Royal Infirmary and £150 to the Bristol Eye Dispensary.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 23RD, 1904.

INSTRUCTION IN HYGIENE AND TEMPERANCE.

THE Council of the British Medical Association, at its meeting on Wednesday last, January 20th, resolved unanimously to represent to the Board of Education that it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all primary schools by the local educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood, and as far as possible prevented.

The matter came before the Council in the form of a recommendation from the Public Health Committee of the Association, and we know that for some time past the conviction has been growing among the officers of the Public Health service throughout the country that ignorance of the laws of hygiene, and of the evil effects of alcoholic indulgence are among the prime causes of the squalor and disease by which the poorer quarters of our large towns are disgraced; that in fact ignorance and intemperance are the causes of much of the poverty which makes slums possible.

Our Commissioner, in the series of articles on national physical deterioration now being published, has laid stress upon the fact that instruction should be given to every child attending elementary schools in such subjects as personal cleanliness, pure air, food and cookery, and the evil effects of intemperance; it is therefore very satisfactory to find that the matter is being seriously taken up by the medical profession.

As will be seen by reference to page 212 a committee of medical men has been formed to draw up and distribute to the profession a petition to the central educational authorities of the United Kingdom, which is at the same time a valuable declaration of opinion. This petition will, we understand, reach members of the profession before the end of the month. It may safely be assumed that the terms of the petition will commend themselves to all medical practitioners; it is therefore reasonable to hope that the document will be signed by all, and as the Committee of Distribution has been at the pains to enclose an envelope addressed and stamped, it is not unreasonable to appeal to all our readers to take the small pains involved in posting it.

The petition sets out some facts with regard to what is being done in our colonies and in other countries. Hygiene, and scientific instruction on the effects of alcohol are compulsory subjects in the public elementary schools throughout nearly the whole of the Dominion of Canada. In Victoria, in South Australia, and in Natal, the laws of health and the nature and effects of alcohol are among the subjects regulary taught in elementary schools. In the United States of America 22 millions of children are being educated to understand the practical importance of these subjects. The fact that such teaching is commonly given in our colonies and in the other great English-speaking nation should make the people of Great Britain feel that to remain any longer behindhand will be a slur on their intelligence.

Already, indeed, in the army schools of this country and of all our foreign stations west of Aden, teaching in elementary hygiene is compulsory, and special attention is drawn to the bad effects of alcohol. Instruction is also given in the subject in some schools in Ireland by means of reading primers, moral instruction, and talks, and also through the medium of temperance lessons provided in certain schools by voluntary organizations; but under a system which is not universal a large number of pupils must remain without instruction.

What is to be dreaded most when considering the effect alcohol may have upon children is the fear that the constant sight of drunkenness will cause heavy drinking to be looked upon as an everyday occurrence. Children used to seeing parents or neighbours drunk, after a time are not disgusted by the sight. Part of the education of Spartan children consisted in bringing before them a drunken slave in the expectation that the sight of such degradation would horrify them and produce a disgust for drink. But children who are sent two or three times a day to the public-house for bottles of beer or flasks of gin will be very apt, when their time comes, to look upon beer or gin as an indispensable thing; the sight of reeling drunkards in or near the public-house will not frighten or disgust them.

When the Act to prevent the sale of intoxicating liquors to children was under discussion in 1901, some curious arguments were advanced. It was urged that to send the youngsters to get drink for their parents was the lesser evil that if the parents went to fetch it themselves they would be tempted to remain on, talking and drinking in the public-house. The situation was well hit off in one of the late Phil May's cartoons, which represented a slatternly woman justifying her visit to the public-house on the ground that if she sent the boy he would not be served, and that if she sent her "old man" he would not come back till morning. The critics of the Bill alleged that the child would probably regard the errand as a matter of business, and that, if tempted to taste the liquor in the jug, would only sip it for fear of punishment if the bulk of the liquid were too obviously reduced. Yet it was admitted that such sips might engender a craving in the child for more, and it was acknowledged that those of tender years when on these errands often heard disgusting language; nevertheless, it was urged that for fear the parents should be tempted to drink worse if they went themselves to beer-houses or public-houses, the children had better be allowed to go. This is a suicidal policy, for as Sir Thomas Barlow has pointed out, once a woman drinks to excess she will want watching and advice all her life long, and can never be trusted not to break down again under temptation. Yet it was proposed to attempt to save incurable mothers, vile in their example to their children, and for their sake to sacrifice innocent young children who, under careful guidance and isolation from the sights and examples around them, might probably turn out steady men and women.

In these days, when drunkenness is of such frequent occurrence as to make Spartan methods useless, the question will have to be carefully considered how best a horror

and disgust of drink may be instilled into young hearts already beyond feeling natural horror and disgust at the sight of almost any depth of degradation.

A great deal could be accomplished to check drinking and drunkenness if in all primary schools the elementary chemistry of food, in which would be included the injurious effects of alcoholic liquors, were taught as a part of the ordinary course. As has been fully pointed out by our Commissioner, the inferior quality of food and the worse manner of cooking it drives many to drink who might otherwise never feel the temptation. Let us by all means teach hygiene and personal cleanliness in schools in as complete a manner as possible; but in dealing with young children that portion of the instruction which deals with alcohol should be entrusted to the wisest and most tactful. That there is a certain risk of doing harm if the teaching is not judicious was present to the minds of those who drew up the petition which the profession is now asked to sign; in the second clause it is recommended that the teaching should be such as shall not develop any tendency to dwell on what is unwholesome. To forbid a child or youth to read certain books commonly arouses a longing to read them; in the same way lessons on alcoholism might, if not wisely framed, lead a child to ponder too much upon the subject and arouse a morbid interest. It is therefore very desirable that temperance reformers should give attention to the question of the best method of giving this instruction; the textbooks should be carefully prepared, and, as has been already observed, the subject should be taught by the most experienced and judicious of the teachers.

As has been said, the matter is one which must interest all who are engaged in public-health work, and we are glad to learn that the Society of Medical Officers of Health also proposes to represent to the Board of Education that it is desirable that all children in elementary schools should be taught the elements of personal and domestic hygiene, including the effects of alcohol, and receive physical training, and that all teachers in such schools should be instructed in these subjects.

There is good reason to believe that the representations about to be made to the Board of Education will be received by it in a sympathetic spirit. At present domestic hygiene is a voluntary subject, and Education Committees may place what interpretation they choose upon the term. If the petition is widely signed by the medical profession the hands of the Board will be greatly strengthened, and it will be encouraged to insist that personal and domestic hygiene shall be taught in all schools and that instruction about alcoholism shall invariably be included.

THE PROFESSORSHIP OF MEDICINE AT OXFORD.

THE turbid water of controversy about the Regius Professorship of Medicine at Oxford, stirred up by the resignation of Sir John Burdon Sanderson, has now, as a former Rector of Lincoln would have said, been "defecated to a pure translucency." Setting aside questions of personality and emolument, a clear issue is presented to the advisers of the Crown. Is the Professorship to be continued as a Chair of Medicine, or is it to be transformed into a Chair of Pathology? We have already stated that there is a strong feeling among the members of the teaching staff of the Medical Faculty in Oxford that the latter of these plans would be the better in the interest of the Oxford Medical School. But there is an equally strong feeling against it which found expression at a largely attended meeting of medical graduates of Oxford, the result of whose deliberations was announced in the BRITISH MEDICAL JOURNAL of January 16th. It is evident that the opinion of a meeting so representative in character cannot be simply ignored. We frankly admit that the question is somewhat more difficult than we were at first led to believe. We still hold that the proposal to merge the Regius Professorship of Medicine into a Chair of Pathology would in existing circumstances be the preferable plan. The plea that the Professor should be a practical physician, though specious, is not, we venture to think, entirely sound. Clinical medicine cannot be taught in a small city like Oxford, and it would probably be difficult to find a man in the front rank of medical practice, who would be willing to give up his professional career in London and subside into the dignified leisure of a Chair, the duties of which offer little scope for the intellectual energies of a first rate clinician. The following passage from Lord Macaulay's diary[1] appears to be so apt to the present situation that we venture to quote it. Writing under date January 14th, 1851, Macaulay says: "I had a few words with the Prince about the Regius Professorship of Medicine at Cambridge, now vacant by Haviland's death. I remarked that it was impossible to make either Oxford or Cambridge a great medical school. He said, truly enough, that Oxford and Cambridge are larger towns than Heidelberg, and yet that Heidelberg is eminent as a place of medical education. He added, however, something which explained why this was. There was hardly, he said, a physician in Germany, even at Berlin, even at Vienna, who made £1,000 a year by his profession. In that case a professorship at Heidelberg may well be worth as much as the best practice in the great cities. Here, where Brodie and Bright make more than £10,000 a year, and where, if settled at Cambridge or Oxford, they probably could not make £1,500, there is no chance that the academic chairs will be filled by the heads of the profession."

We fully recognize the force of the arguments put forward by the Oxford graduates, especially in view of the criticism recently passed on some of the medical examinations of the University by the Visitors of the General Medical Council. But we submit that a knowledge of the system of instruction at the large medical schools, and of the requirements of the licensing and examining bodies and of the General Medical Council, is not of so abstruse a character that it can be acquired only by a man of established reputation in medicine. We think that in a school like that of Oxford, where only the sciences which used to be collectively designated as the "institutes of medicine" can be efficiently taught, pathology, which is the groundwork of scientific medicine, must necessarily take precedence of the clinical study of disease. If nothing had yet been done for pathological teaching in the University, the practicability of the suggestion that has been made might be questioned. But when it is considered that at Oxford there is a completely organized course of instruction in all branches of the subject; that there is an admirable laboratory fitted with every appliance for teaching and research, and above all, that there is a man at the head of it of acknowledged ability as a teacher and organizer, and of considerable reputation as an investigator, it is scarcely

[1] *Macaulay: Life and Letters.* By George Otto Trevelyan. Vol. II. p. 245.

surprising that his colleagues are unanimous in desiring that the present opportunity should be used for placing this essential branch of scientific teaching in a satisfactory position.

The aim of the Oxford teachers of medical science, as we understand it, is to concentrate the limited financial resources at their disposal on the scientific training of the medical student, leaving his instruction in the practice of his profession to the hospital school to which he attaches himself after having passed the first examination for the medical degree. Without reference to the question whether this is the only right principle, it seems to us that they are justified in doing their utmost to make every department of scientific teaching, and particularly the essential ones of anatomy, physiology, and pathology, as perfect as possible. For the last mentioned subject, their resources have been taxed to the uttermost, and are still insufficient. The proposal to transform the Regius Professorship of Medicine into a Chair of Pathology, offers a way out of this financial difficulty. A still better way would be to create a Chair of Pathology with an adequate stipend attached, leaving the Regius Professorship of Medicine for occupation by an Oxford graduate of sufficient academic distinction to make him a worthy representative of the dignity of the profession in the eyes of the University and of the world. But if the choice lies between ornament and practical usefulness, there can be surely no question which should be preferred if Oxford is to be a centre of progressive science instead of a "lost medical school."

HOSPITAL SHIPS IN WAR TIME.

IN view of the fact that if war breaks out between Russia and Japan the earliest hostilities are likely to be carried on at sea, it will be interesting to refer to the International Convention relating to hospital ships which was signed at the Hague on July 29th, 1899, by, among other nations, Russia, Japan, and England. It was provided that military hospital ships, that is to say, ships constructed or assigned by States specially and solely for the purpose of assisting the wounded, sick, or shipwrecked, and the names of which shall have been communicated to the belligerent Powers at the commencement of or during the course of hostilities, and, in any case, before they are employed, cannot be captured while hostilities last. Hospital ships equipped wholly or in part at the cost of private individuals or recognized relief societies are also privileged.

The treaty provides that no hospital ship must in any way hamper the movements of the combatants, and during and after an engagement they must act at their own risk and peril. All military hospital ships are to be distinguished by being painted white outside with a horizontal band of green about a metre and a-half in breadth.

With regard to other vessels whose owners assist the wounded, it is provided that neutral merchantmen, yachts, or vessels having or taking on board sick, wounded, or shipwrecked of the belligerents cannot be captured for so doing.

The religious, medical, or hospital staff of any captured ship is inviolable, and its members cannot be made prisoners of war. On leaving the ship they may take with them the objects and surgical instruments which are their own private property. These staffs may continue to discharge their duties so long as may be necessary, and can afterwards leave when the Commander-in-Chief considers it possible. Further, the belligerents must guarantee to the staff that has fallen into their hands the enjoyment of their salaries intact.

The position of the wounded also is somewhat ameliorated by the treaty, which provides that sailors and soldiers who are taken on board when sick or wounded, to whatever nation they belong, shall be protected and looked after by the captors. The shipwrecked, wounded, or sick of one of the belligerents who fall into the hands of the other are prisoners of war. The captor must decide, according to circumstances, if it is best to keep them or send them to a port of his own country, to a neutral port, or even to a hostile port. In the last case prisoners thus repatriated cannot serve as long as the war lasts.

OPTICIANS AND EYE-TESTING.

THE pretensions of opticians to pose as "eyesight specialists" and the proposal of the Spectacle Makers' Company to include sight testing in the subjects of the examination for its certificate have on several occasions been the subjects of adverse comments in the BRITISH MEDICAL JOURNAL, and we are therefore glad to recognize that there is amongst the better class of opticians a very widespread feeling against these proposals, which has found expression in a letter addressed by Mr. W. A. Dixey to the leading optical trade journals. Dealing with the argument that the optician has practised sight-testing for 300 years, Mr. Dixey admits the fact, but points out that it is owing to the great advances made in ophthalmic science during the last 40 years that sight-testing has acquired new meaning, and that what was formerly a simple matter within the competence of the tradesman is now a highly complicated procedure, requiring all the knowledge that only a medical education can afford. He admits, too, that there must always be a certain amount of eyesight testing by opticians, just as there will always be some counter prescribing by chemists, but he asks "what would be thought if a Worshipful Company of Alchemists of the City of London were to invite chemists and their assistants to an examination and offer them a certificate of proficiency, limiting their practice perhaps to cases of sore throats, headache, and indigestion?" He argues with considerable force that while much good has been done by the establishment of technical classes for opticians and by the examinations of the Spectacle Makers' Company, there is an ample field for such trained workers in the intelligent management and direction of the wholesale and manufacturing side of the trade, as well as in shops where there is a dearth of efficient assistants, and that from lack of technical knowledge and a want of enterprise the country is inundated with foreign goods which could just as well, nay better, have been made in England; he thinks it will be greatly to be regretted if by the addition of sight-testing to the technical examination young men who are being trained for the trade should be tempted towards what "at best can only be a half-educated profession, and at worst may develop into a system of licensed quackery."

THE BALLACHULISH QUARRIERS AND THEIR MEDICAL OFFICER.

THE long dispute between the Slate Quarries Company at Ballachulish and the men in its employ, which had its origin in an attempt on the part of the directors to deprive the quarriers of their right to choose their own medical officer, will be fresh in the recollection of most of our readers. We recently stated that the company had, after an exhibition of obstinacy and folly which must have cost them very dear, come to their senses, and held out the olive branch, which was accepted by the men. We now have the pleasure of announcing that the men have celebrated their victory in a most appropriate fashion by re-

appointing Dr. Lachlan Grant as their medical officer. At a meeting held on January 6th, Dr. Grant delivered an address admirable alike in tone and in matter. He said the company by its policy at the beginning of the trouble gave them no option but to fight. They had to vindicate their independence as citizens, while he had to vindicate his character and the principles and rights of the profession to which he had the honour to belong. Who would have believed that in this great country the law could have been invoked to prevent a doctor giving his services to people anxious to have him, especially by a company that was not interested to the extent of paying one copper towards his salary? He would always remain at heart a Ballachulish man with a deep and lasting interest in their welfare. He was only sorry that he was not in the position of a modern millionaire so that he might put into practice some of the ideas which he entertained to make life brighter and better for them all. They heard a good deal nowadays about "garden cities," and there was no doubt room for improvement everywhere. In Ballachulish, thanks to the munificence of the late Lady Beresford Drummond, they already had a public park. By-and-by they would perhaps be able to have a library and recreation rooms. All that would be of great usefulness, especially during the winter months, and to the younger generation. They would also like to see a cottage hospital or home. As they were now about to return to their respective duties, he said that for his part he entertained no feelings of bitterness to any one. Knowing them as he did, he thought he might speak for them and say that they had buried the past. They would go back to their work with the intention of doing their very best, and that nothing would be done on their part to recall any spirit of recrimination. Dr. Grant concluded by thanking them for their loyal support. Dr. Dingwall Kennedy, who had attended the quarriers during Dr. Grant's enforced absence, said that they had every reason to be proud of the stand they had made on Dr. Grant's behalf, and, in asserting their own rights, they had vindicated those of the profession which Dr. Grant represented. It had given him the greatest pleasure to assist them and Dr. Grant even in a small way. The attempt to foist upon them unknown medical men was an experiment which had ended in dismal failure. No self-respecting member of the medical profession with any knowledge of the circumstances would have stooped to play the part of usurper. For his own part, he hoped to be with them for some time yet while Dr. Grant enjoyed a well-earned rest. The strain of last year had been very severe, and the wonder was that Dr. Grant stood it so bravely. It would have been impossible for him to do it had he not felt assured of the sympathy and co-operation of his patients and friends. Now that it was all over he sincerely hoped that in the future all would be perfect peace and harmony. In this hope we most heartily join. We congratulate Dr. Lachlan Grant on his successful vindication of the rights of the medical profession, and we also congratulate the Ballachulish quarriers on a victory over injustice and tyranny which has resulted in their retention of the services of a very capable medical officer.

ATTENDANCE ON MIDWIFERY CASES BY POOR-LAW MEDICAL OFFICERS.

A MEDICAL correspondent, who is also a guardian, objects to the charge made against Boards of Guardians of "selling midwifery orders." He admits that in doubtful cases such orders are granted on "loan," and where possible the fees are recovered from the applicants, but that, as a matter of fact, little is found to be recoverable. No doubt this is the foundation of the above charge; but it must not be forgotten that such a practice, unless carried out with the greatest caution, would practically amount to "selling midwifery orders." The legality of the "loan" system rests on S. 58 of the Poor-law Amendment Act of 1834, and it is referred to in connexion with this subject in the Note to Art. 215, No. 3 of the Gen. Ord. of July 24th, 1847, in Glen's *Poor-Law M. Orders*. We there read (p. 446 of the latest edition) that the guardians or relieving officers "will not properly discharge their duties if, by fear of incurring responsibility, they are deterred from withholding relief when the position, station, and circumstances of the applicants have satisfied them that it ought not to be allowed; but the safest course in such cases is for the guardians to give notice that whenever the circumstances of the applicant render him a fit object, the medical aid would be granted by way of 'loan.'" From this it would appear that in most poor districts the relieving officer might safely grant "loan" midwifery orders to many, if not to most, of the poorer patients of the medical men practising there, and it is difficult to see what check could be put on abuse of this system. Probably nothing but the dislike of English people generally to apply for Poor-law relief has any power to control it. The fact that the guardians are seldom able to recover these so-called "loans" is not conclusive. Few Boards would be willing to push the law against poor people, nearly always living from hand to mouth. But it might be difficult to show any real difference in the financial position of the labourer, who paid his doctor a fee of from 15s. to a guinea, and that of his less thrifty neighbour, who, putting pride in his pocket, seeks and obtains a "loan" order from the relieving officer.

PATENT MEDICINES.

WE have received from the Secretary of the Workmen's League, Rotherhithe, a copy of a leaflet which the League is causing to be circulated amongst the working classes, and which is of a very useful nature. It is headed "A Warning," and deals with the subject of quacks and patent medicine vendors, pointing out in very trenchant style the harm which they do to the working and other classes. "These gentry claim to cure every disease which flesh and blood is heir to. By means of booklets and circulars which are offered broadcast at the doors of all classes, and which are drawn up in such a cunning style that they make the most healthy persons believe that they suffer from some disease, they extract millions of money from the pockets of all classes of the community." This is a statement the truth of which no one can deny. The leaflet then goes on to say that "these humbugs prey upon the credulity of the British race," and "are greatly assisted in their quackery by a section of the press which a certain well-known King's Counsel described as 'ghouls that revel in the flesh and blood of their fellow-creatures.' A certain number of so-called Sunday papers also, we regret to state, publish the advertisements of these humbugs, thus acting contrary to the teaching of their professed Master, Jesus Christ, in that, for personal gain they help to ruin the bodies and minds of their fellow-creatures." A further point is brought out in the following sentence: "We find that the usual method of these gentry is to obtain a testimonial from some high-placed and well-known personage by some means best known to themselves, and then employ it in their advertisements to catch the public at large. If you take the trouble to look at the aforementioned gutter rags and so-called religious papers, you will see that 95 per cent. of their so-called testimonials are supposed to be written by people residing in the provinces. This, in our opinion, is significant of their worth." Finally, the leaflet refers briefly to the fiscal aspect of the question, and states that the League intends to try to effect an alteration in the attitude of Government towards the matter. It is interesting, but not surprising, to find that this evil is judged of sufficient importance to call for action by bodies such as the Workmen's League, and we can but congratulate those who are responsible for the issue of this leaflet on the strong common sense which they display, and wish them good luck in their effort. Unfortunately, credulity in medical matters is not limited to the working and comparatively uneducated classes. The higher in the social scale one goes, the more intense does the belief seem to be in anything mystic, including occasionally any form of medicine other than the orthodox and legalized. Dr. Hutchison's lecture (a summary of which was published in the BRITISH MEDICAL JOURNAL on December 26th, 1903, page 1654) throws a

strong light upon the whole question, and it would be well worth the while of medical men to study the analyses which he gave of a large number of the more popular patent remedies.

THE PATHS OF INFECTION IN TUBERCULOSIS.

IN a previous issue of the BRITISH MEDICAL JOURNAL we gave the salient points in the first lecture in the course established by the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, Philadelphia, which was delivered by Dr. Trudeau. The second was given by Professor Osler, of Baltimore, who dealt with the home treatment of tuberculosis. He said that as 90 per cent. of tuberculous patients are treated in their homes, the general practitioner was, after all, the man behind the gun. Upon him must be impressed two things: (1) the early recognition of the disease by better attention to the principles of practice and more care in diagnosis; (2) more masterful management of early cases. Home treatment by modern means must be carried out not only in cities, but in suburbs, in small towns, and in the country. The third lecture was delivered on December 29th by Professor G. Sims Woodhead, of Cambridge, who dwelt upon the conditions favouring the deposition and the manifestation of the activity of the tubercle bacillus which might be present on the surface of healthy tissues without doing harm or giving rise to symptoms. To enable it to manifest its activity special conditions must first be present in the host. He showed how the disease developed and spread, particularly in those portions of the lungs that were little expanded, whether normally from anatomical conditions or pathologically as a result of adhesions or other disease. A catarrhal process of the pulmonary alveoli was the common precedent of invasion. Extension took place through the lymphatics or the blood stream. The tuberculous nodule might undergo softening and break down, leaving a cavity, or it might undergo fibrosis or cicatrization, and eventually, perhaps, calcification. Involvement of the bronchial lymphatic glands had an important influence on the nutrition of the lungs. In the early stages there might be slight haemorrhage, from the congestion due to the morbid process, while the bleeding in the latter stages resulted from the erosion of arteries of considerable size. The tendency to the formation of fibrous tissue was the indication of Nature's attempt at cure, and was to be encouraged by the physician as far as lay in his power. This process was observed in a large number of cases in which death occurred from other causes, demonstrating the curability of the disease. Not infrequently it took place spontaneously. The physician, however, could contribute largely to the same end by improvement of the general nutrition of the patient, and by properly stimulating the functional activities of the respiratory apparatus.

QUACKERY AND BALDNESS.

BALD heads have long been happy hunting grounds for quacks; there is no kind of advertisement with which readers of newspapers and magazines are more familiar than those vaunting the virtues of "hair restorers" of one kind or another, and inviting the public, as Hamlet did his mother, "to look upon this picture, and on this." In the one is shown an individual whose pate is a "bare ruined choir"; while in the other, his head is covered with a fell of hair which, if roused and stirred by a dismal treatise, would look like Birnam Forest on its way to Dunsinane. It would be unwise to accept those pictorial representations with too easy a faith. Advertisers use many dainty devices to push their wares, and the use of faces as well as names can be bought for a price. Sometimes, indeed, your advertiser will, like Molière, take his property where he happens to find it. Only the other day an enterprising vendor of a specific for obesity had to stand, figuratively, in a white sheet for having, with more ingenuity than righteousness, used the portrait of a lady of a certain age to illustrate the condition of a patient before the use of his nostrums, and the portrait of the same lady when a young girl to show the effect of the treatment. The incurability of what may be called essential baldness in the present stage of knowledge is admitted by all scientific practitioners. Sabouraud says, uncompromisingly, that we cannot cure baldness nor restore hair to denuded scalps. Our helplessness in the matter is due to our ignorance of the etiology of the disease. Among the causes that have been assigned are time the subtle thief of youth, which steals the hair with other juvenile adornments; brain work an etiology which commends itself chiefly to bald-headed men; the "arthritic" diathesis; dissipation; a sedentary life; cutting the hair too short or wearing it too long; a too carnivorous diet; the use of heavy, unventilated hats; that universal scapegoat alcohol; and the inevitable microbe. We remember hearing of the fungus theory at least thirty years ago, and M. Sabouraud has given it a new lease of life by his discovery of the micro-bacillus, which, however, has not yet acquired the freedom of the city of science, and as to which he himself, it would appear, has some doubt. A few years ago an American physician proved to his own satisfaction that baldness was due to a special poison manufactured in the lungs, which he called by the question-begging name "trichotoxicon." M. Sabouraud, though he admits that the problem is at present unsolved, does not, it may be gathered, regard it as insoluble, inasmuch as with the detection of the cause would doubtless come the discovery of a cure. There is therefore still a dim ray of hope for the bald. In the meantime they will do well to accept the situation with fortitude, and waste no money on any of the multifarious remedies that are advertised. It would need a fresh act of creation to restore a dead hair bulb to active life, and no remedy has yet been found that can prevent its becoming blighted: nor, if such a thing were known, is there any means available of applying it so as to act directly on the seat of the mischief. We do not, of course, say that no form of alopecia is influenced by treatment. At the present time the fact that one of the most prominent of American multi-millionaires is suffering from alopecia areata is being thrust, with indecent insistence, on the attention of the public of the United States by advertisers of "specifics" for the cure of baldness. Doubtless in due course, when a fresh crop of vegetation has appeared, the new-thatched head will be exhibited in the newspapers as a miracle wrought by somebody's lotion or pomade. A distinguished French dermatologist, Dr. Brocq, has recently pointed out that in most people the hair is subject to seasonal variations, falling out more or less abundantly in May and again in September, and recovering its normal luxuriance in the intervals. This would explain the apparent effect that sometimes seems to be produced by a remedy. If its use coincides with the period of new growth, it is credited with what is really a natural process. On the other hand, the vendors of hair restorers may plead in explanation of the failure of their remedies that they were applied at the wrong time.

DRUNKARDS AND DRINK CURES.

AT a recent meeting of the Chelsea Clinical Society Dr. J. Foster Palmer read a paper on the *rationale* of certain so-called drink cures. He began by stating that drink cures as such do not exist. It was the moral control which was lacking, and an artificial removal of the craving would only leave the drunkard a prey to worse evils. The bane of medicine was the exaggerated belief in drugs, and the prevalent faith in quack nostrums recalled a state of the medical art in the seventeenth century when Charles II, on his deathbed, was drugged with *spiritus cranii humani*, and an extract from some disease in goats. The belief in drink cures was a type of modern credulity. There was no substitute for patience, conscientious perseverance, and the cultivation of the will. Roughly speaking, there were three classes of drunkards: those with an uncontrollable physical craving, those who had cultivated an existing tendency, and those who had become drunkards from sheer lack of will power. It was only in the first class that drink

cures were of service, for they alone really desired to be cured. Such cures were not miraculous or specific, but therapeutic. A very ancient drink cure was bitter almonds, largely used in the sixteenth century, its action being, no doubt, due to the sedative effect of hydrocyanic acid. Liquor ammoniae was much extolled a century ago, and would act as a substitute for alcohol, or in large doses as an emetic. Oxide of zinc had been used with greater reason as a nerve tonic, and cinchona bark both as an antiperiodic and a local astringent. Arsenic was a still more hopeful form of treatment, as its action on the skin suggested a similar action on the mucous membranes. Strychnine was a very obvious remedy, acting as a nerve tonic. The numerous sedative remedies, including picrotoxin, might allay the alcoholic craving, but were attended by the risk of establishing a worse one. Calomel might, besides its purgative action, allay fermentation by its germicide effects. Capsicum, too, had been found useful, but only when given with the patient's co-operation. The so-called "gold cure" was a secret remedy, and in the "Keeley" treatment was probably combined with some of the drugs already referred to. The high-flown language, too, of most of those who professed to be cured suggested that they were subjects not altogether insusceptible to hypnotic influence. This, of all drink cures, Dr. Palmer thought the most dangerous and the most fallacious.

MEDICAL ADVERTISING IN FORMER DAYS.

COMPLAINTS of unprofessional advertising are still too common, as our letter-bag bears witness. But the growth of a healthy public opinion among us, powerfully reinforced by the fear of the General Medical Council, has made direct advertisement practically impossible to any who wish to remain within the fold of the true Church of Medicine. This is one of the greatest medical reforms ever achieved. To appreciate it one has only to look at the manner in which our predecessors of the seventeenth and eighteenth centuries proclaimed *urbi et orbi* their skill in healing diseases. As examples we may cite two old advertisements sent to us by correspondents. Dr. R. Newenham Lyon, of Lucan, co. Dublin, has extracted the following from an old book printed by John Dunton, at the Raven, in the Poultry, in 1691:

In [illegible] yard, the 3rd door in Grays Inn lane lives Dr. Thomas [illegible], a Collegiate Physician, and Sworn Physician in Ordinary to King Charles the Second, until his death: who with Drink and Pill [illegible] undertakes to Cure any Ulcer, Sores, Swellings of the Nose, Face, or other parts. Scabs, Itch, Scruis, Leprosies, and Venereal Diseases, expecting nothing until the Cure be finished. Of the last he has cured many hundreds in this City, many of them after flowing, which carries the evil from the Lower Parts to the Head, and [illegible] desires many. The Drink is 5s. the quart, the Pill is a Box with Directions, a better Purger than which was never given, for they [illegible] the Body of all Impurities, which are the causes of Dropsies, [illegible] Scurvies, Stone or Gravel, Pains in the Head, and other parts. With [illegible] Dr. [illegible] gives all Decoys and hot Decoctions [illegible] Bleeding, except in few Bodies. He gives his opinion [illegible] for nothing.

To the courtesy of Dr. J. F. Keenan of Edgworthstown we are indebted for the following, copied from *Saunder's News Letter*, a well-known Dublin newspaper of the day of Saturday, October 24th, 1706:

Doctor [illegible] removed to his house, No. [illegible], Mark Street, Dublin, [illegible] in the world that he undertakes to cure the dropsy, [illegible] all sorts of [illegible] sores, [illegible] rheumatic, [illegible] all sorts of [illegible] and [illegible] agues and fevers, kills worms to admiration, etc. He likewise cures the venereal disease, in half the time it is usually done, and in a most manner without confinement or [illegible] and expects payment on reasonable terms. The [illegible] he undertakes to cure, if it be not [illegible] he can cure. He likewise [illegible] that [illegible] was an [illegible] of [illegible] person that [illegible] to the [illegible] of [illegible] complaint that [illegible] he did not receive a safe, speedy, and perfect cure.

Attendance [illegible] from [illegible] in the morning to [illegible] in the evening.

N.B. [illegible] may be attended at their own houses [illegible] reasonable rates to be agreed on. Proper medicines for [illegible].

All is not yet for the best in the best of all possible medical worlds. But we may at least be thankful that nowadays doctors do not beat the big drum in front of their booths with the breadth of style displayed in the announcements that have been quoted.

THE OESTROUS CYCLE IN THE SHEEP.[1]

SOME time ago we commented in these pages[2] upon Mr. Heape's work in connexion with the comparative physiology of menstruation. This work Mr. F. H. A. Marshall has recently been supplementing, and he has specially increased our knowledge of the processes in the sheep which correspond with menstruation in the human female. His observations and experiments have been made in Professor Ewart's laboratory in Edinburgh and at the "Biological Farm" at Penycuik, Midlothian; the varieties of sheep used were the Scotch black-faced and half-breeds between these and Cheviots and Leicesters. Mr. Marshall has carefully described the changes in the uterus during the pro-oestrum (the period which corresponds to menstruation in the human subject), during oestrus (the period of desire), and in the resting periods (met-oestrum and an-oestrum), which follow. In the sheep oestrus succeeds the pro-oestrum very closely. In the resting periods the blood vessels of the uterine mucosa are small and comparatively scarce: during the pro-oestrum there is growth of stroma and increase of vessels followed by breaking down of vessels and extravasation of blood, and these changes may be found also in the period of oestrus; and, then, during the met-oestrum there is recuperation and pigment-formation. Bleeding into the uterine cavity and from the external genitals does not necessarily occur in the sheep. Since impregnation often follows upon the pro-oestrum and oestrus we must regard the processes of denudation and degeneration not as of the nature of an undoing of preparations already made for the reception of the ovum, but rather as being themselves acts of preparation. Mr. Marshall also has made interesting observations upon the corpus luteum in the sheep, which, in view of recent work in Germany upon the nature and functions of the corpora lutea, are of some importance. He has found that the lutein cells are the much hypertrophied epithelial cells of the undischarged follicle, and are not derived in the main from connective tissue as some have suggested. These cells may, therefore, possibly, have some at least of the physiological activities which have been recently ascribed to them. If lutein can be shown to have the therapeutic properties of ovarian extract, something will have been done to establish its position as an agent capable of influencing both menstruation and pregnancy. With regard to the vexed question of the relation of menstruation to ovulation, Marshall thinks that they are connected but not interdependent; they are neither effect and cause nor cause and effect; but they may both be due to the same causes; and they may react upon each other or not, behaving in this respect differently in different mammals. It is possible that it may be the formation (and glandular activity) of the corpus luteum rather than the bursting of the follicle that has an effect upon menstruation. "*Felix qui potuit rerum cognoscere causas*" wrote a poet long ago; so far at any rate as the causes of menstruation are concerned we must all be prepared as yet to be satisfied with the partial happiness which comes from the search after truth, and not with the perfect felicity of its attainment.

THE TREATMENT OF PNEUMONIA.

IN view of the recent discussion in our columns on the treatment of pneumonia to which the publication of Dr. Lees's Harveian lectures gave origin, a critical review of the same subject by Dr. David Finlay, Professor of Medicine at Aberdeen, which appeared in *International Clinics*, is of interest. It is true that it does not deal with some of the theoretical issues which have been raised, but it gives his considered views upon the special points of treatment which alone make these issues of any interest published before the discussion arose. After running over and commenting upon the treatments which have been in vogue in the past, Dr. Finlay points out that they were all based upon the now abandoned idea that pneumonia can either be cured or cut short. To-day the physician recognizes

[1] M. [illegible] A. The Oestrous Cycle and the Formation of the Corpus [illegible] in the Sheep. *Phil. Trans.* B. vol. [illegible] pp. 413–470.

[2] BRITISH MEDICAL JOURNAL, March 5th, 1904, p. [illegible].

that he is for the most part simply a pilot waiting to give a useful turn to the wheel if any opportunity presents itself. The object of his chief solicitude should be the heart and the evil effects both of high temperature, and of that, whatever it be, which causes high temperature upon the heart muscles must not be overlooked even though it is recognized that fatal cases do occur without any high temperature. Of drugs, the most useful are ammonia, ether, quinine, and strychnine; because whether to be regarded as stimulants or as tonics, they are at any rate not depressants. Antipyretic drugs are worse than useless and if the temperature is deemed dangerously high, the icebag, cold pack, or, in extreme cases the cold bath, will generally meet the needs of the situation. The same sort of hydrotherapeutic measures are also the best in calming delirium. Of digitalis he disapproves: it causes nausea and this interferes with the all-important point, nutrition. Apart from this practical observation the result of the inquiry by Lauder Brunton and Cash is not to be forgotten. They showed that in pyrexia digitalis loses its power over the vagus, and hence, being cumulative, may readily be pushed to such extent as to be dangerous should the temperature fall. Opium Professor Finlay would never give under any circumstances, and the pleuritic pain, which may seem to indicate it, is best met by leeching followed by either hot or cold applications. Sleep is of high importance, and neither for food nor medicine should it ever be disturbed. Cold or tepid sponging favours it, but if the administration of some drug is inevitable to procure it chloralamide may be tried. He has never been able to satisfy himself that the icebag, as has been claimed, really checks the inflammatory process in the lung or acts in any other way than as a local refrigerator, the local effect necessarily assisting to reduce general pyrexia; even with this limitation, however, it may often be very useful. From oxygen he has never obtained any permanent assistance, but possibly this is because it is only in the worst cases and as a last resort that it is thought of. Alcohol should never be given as a matter of routine, but when clearly indicated by a consideration of pulse, temperature, and tongue it is invaluable. As regards general blood-letting, in the case of vigorous subjects and when engorgement of the right side of the heart is obvious it may be practised with advantage. Finally, he recalls Osler's warning: "How natural, when on the third or fourth day the crisis occurs and convalescence sets in, to attribute the happy result to some special medication! How easy to forget that the same early unexpected recoveries occur under other conditions!"

SYMPATHETIC NERVE DEAFNESS.

AN inquiry received lately from a correspondent raised a question of no little practical importance. Is there in the case of the ears any process analogous to sympathetic ophthalmia? Apparently the answer must be in the negative, although it is not at all uncommon to observe cases of long-standing suppurative or even non-suppurative inflammatory disease of one ear in which at a later stage the auditory nerve power in the opposite ear becomes defective, this defect being diminished if treatment of the first affected ear is carried out. This may be effected by such methods as the instillation of antiseptics, the removal of polypi, granulations, the ossicles, the outer wall of the attic or the radical mastoid operation, in suppurative cases; the re-establishment of a healthy condition of the Eustachian tubes and tympanic membrane, the tightening up of relaxed portions of the membrana tympani, etc., in non-suppurative cases. This induced auditory nerve weakness in the second ear is by some termed "sympathetic nerve deafness." The mechanism of its production is not very obvious. It may perhaps be induced by a disturbance in the synergic action of the accommodative mechanisms of the two ears. In any case the fact has been noted by many writers, and more particularly by Urbantschitsch of Vienna, and if the pathology suggested be correct the term sympathetic may be applied to it more correctly than to sympathetic ophthalmia, which is apparently due to an infective process, though the primary lesion even in this case may be nervous irritation. In deciding whether a surgical operation should be carried out in the case of any individual patient suffering from disease of one ear, the fact that the hearing of the opposite ear is becoming weaker, presumably from sympathetic nerve deafness, would be an additional argument in favour of operation.

THE VALUE OF THE BACTERIOLOGICAL EXAMINATION OF WATER.

THE inquiry which Dr. Timbrell Bulstrode has made on behalf of the Local Government Board into the water supply of Bridgend, in Glamorganshire, and upon its relation to the prevalence of enteric fever in that town is one which emphasizes the importance of adequate examination of water supplies. Bridgend, the population of which is a little more than 6,000, is supplied with water by the local gas and water company. The water is derived from the Schwyll springs, which issue from the carboniferous limestone near to the Schwyll pool on the banks of a millrace, immediately before it rejoins the river Ewenny and near its junction with the Ogmore, which flows through Bridgend. Dr. Bulstrode found that the water of the spring was discoloured after heavy rain in circumstances which did not allow of much surface washings from the vicinity of the spring itself, and that the rocks over a wide area in the neighbourhood of the spring were fissured. There was evidence that certain spring tides accompanied by a west wind exerted an influence so that the springs might become flooded with water of the Ewenny river and the millrace. Actual pollution of the water with infected matter was not demonstrable, though the wide distribution of the disease, its appearance in all kinds of houses, its occurrence in a neighbouring district supplied with the suspected water, all pointed in the direction of its being waterborne. The water company, having accepted this view, are now engaged in laying down a filtration plant. Up to December, 1901, the water analyses, chemical and bacteriological, had yielded satisfactory results, but at that date Dr. Savage, Bacteriologist at the County Laboratory at Cardiff, condemned the water on the following grounds: (*a*) the undue number of bacteria present; (*b*) the presence of B. coli in unusual amount; and (*c*) the presence of the B. enteritidis sporogenes. The first examination made by Dr. Savage in November, 1901, showed "no evidence of contamination." Subsequently he found, as above recorded, evidence of contamination by bacteriological examination, but satisfactory results by chemical analysis. He therefore suggested faulty collection. Hereafter until May, 1902, the chemical examination continued satisfactory, the bacteriological unsatisfactory. In May, however, Dr. Savage found the chemical analysis also unsatisfactory. Other examinations, chemical and bacteriological, were made by other persons, some of whom even found the water satisfactory. Ultimately, Drs. Klein and Houston examined the water bacteriologically, and found B. coli and the spores of B. enteritidis sporogenes to be present. Had the water company relied upon chemical analyses alone it seems evident that the bad condition of the water would not have been detected. The whole report and the appendix of chemical and bacteriological records serves in quite an exceptional degree to emphasize the absolute importance of bacteriological and chemical analyses of public water supplies, coupled with careful local examination and sustained supervision of the topographical conditions under which water supplies are yielded and collected.

THE LATE DR. TREND, OF SOUTHAMPTON.

OF the losses which the British Medical Association incurred through death last year, none probably will be more greatly felt than that of Dr. Trend, of Southampton, of whom a short obituary notice was published in the BRITISH MEDICAL JOURNAL of December 26th, 1903. He had ever

been a warm supporter of the Association, and a discreet but enthusiastic advocate of its objects and principles; and the Southern Branch in particular has much cause to remember him with gratitude and regret. That Branch, indeed, is perhaps more indebted to the deceased for its popularity and success than to any other person, with the exception of its founder, Dr. J. Ward Cousins. For twenty years he acted as Secretary of the Southampton Division, and was its moving spirit, and for twenty years also he was regularly appointed by the members of the Branch to represent them on the General Council of the Association in conjunction with Dr. Ward Cousins. During all this long period the annual meetings of the Branch Council were held at his residence, and no one of those who were privileged to attend those meetings can fail to recall with pleasure the genial kindliness and generous hospitality of their host. Even after his retirement from practice his interest in the affairs of the Association never waned, and he continued to be to the last a prominent member of the Branch Council and a regular attendant at annual meetings of the Branch itself. It is men of this type of enduring energy and unswerving loyalty that the Association has to thank for its immense growth and present power; and the only consolation for the loss of one of them is the knowledge that there are not a few others of whom the same tale will one day have to be told.

SLEEPING SICKNESS.

With the object of obtaining exact data as to the geographical distribution of sleeping sickness in the French possessions on the West Coast of Africa—which for administrative purposes are classed together in a group comprising Senegambia, the old territory of the Soudan, Guinea, the Ivory Coast, Dahomey, and their respective hinterlands—the French Colonial Minister in April, 1903, sent to all officials in these colonies a circular letter asking for information on the subject. The answers, of which up to the present time 111 had been received, go to show that the following parts of the French territories are seriously affected: Casamance, the greater part of Upper Guinea, the hinterland of Liberia and of the Ivory Coast, and Lobi. There are besides some very limited foci of secondary infection, such as Baol, Sine-Saloum, Cayor in Senegambia, Baoule on the Ivory Coast, and the country of the Bobos. Imported cases have also been found in places along the routes of traffic and travel; from none of these did infection spread. It is in wooded districts with deep valleys, at the sources of rivers or at the upper part of their course, that the chief centres are for the most part found.

SIR FRANCIS LOVELL'S MISSION.

In the British Medical Journal of December 19th, 1903, it was stated that Sir Francis Lovell, C.M.G., Dean of the London School of Tropical Medicine, was about to start on an expedition to the tropics with the object of arousing interest in the work of the School and enlisting public support on its behalf. It is with deep regret that we have to announce that Sir Francis is for the present prevented by illness from carrying out the plan which he had arranged. Although barely recovered from an attack of influenza he started on his journey at the appointed time, but on reaching Marseilles he became so ill that he had to come home. His medical adviser has ordered him a prolonged period of rest. Sir Francis Lovell hopes to be able to proceed on his self imposed mission in the autumn. The course proposed has the full approval of the Board of the Seamen's Hospital Society. We are sure that all well-wishers to the cause in furtherance of which Sir Francis Lovell has undertaken a task which to a man of his age must be irksome, and by no means free from risk, will join in the hope that he may soon recover his health.

THE MEDICAL TEACHING OF WOMEN.

At the last meeting of the Glasgow University Court an interesting discussion took place on the medical teaching of the women students. The women's department of the University is at present carried on at Queen Margaret's College and at the Royal Infirmary of Glasgow. Several years ago a sum of money was left by a Glasgow gentleman to be used for some department of women's education in an institution to be called the Muirhead College, but up till now nothing definite has been arranged as to the best method of carrying out this bequest. The governors of the Muirhead College now propose to set up an extramural medical school for women in the vicinity of the Victoria Infirmary to take up certain portions of the medical curriculum, the earlier portions of the course being taken as now at Queen Margaret's College. In this matter they sought the co-operation of the University Court, but a committee of the Court reported that, in their opinion, the scheme was impracticable. However, the Muirhead College scheme found a warm advocate in Dr. McVail, who urged the Court to agree generally with the plan of the governors and appoint a committee to work with the governors in drawing up the details of a scheme for the consideration of the Court. The governors had £40,000 which they proposed to use in this way, and it would be folly of the University Court to throw away this money, and might prejudice the public against entrusting further funds to them. A lively discussion followed, after which Dr. McVail's proposal was carried.

ST. BARTHOLOMEW'S HOSPITAL.

As will be seen from a letter from Sir Trevor Lawrence, which appears elsewhere in this issue, the meeting to launch the appeal of St. Bartholomew's Hospital will be held at the Mansion House on Tuesday next at 3 p.m. Dr. Herringham has stated in a letter published in our last issue that the numbers of the blocks, the purpose for which each is required, and the estimated cost of each, have been settled, and that all that remains to be determined is the position which each block shall occupy. The prospects of a successful appeal, therefore, appear now considerably more promising than they did. We wish the appeal early success, and a quick response will be the best thing in the long run for all hospitals in London. Now that the medical staff and the lay authorities of the hospital are in full accord it appears certain that the plan of rebuilding *in situ* will be eventually carried out, whether the appeal prove successful or the reverse. In the latter case the hospital would have to spend its capital, and, as a consequence, would enter into permanent competition for support with other hospitals.

PHYSICAL DETERIORATION COMMITTEE.

The sittings of the Physical Deterioration Committee were resumed on January 18th at the Privy Council Office, Whitehall. Mr. Almeric FitzRoy was in the chair, and all the members were present. Evidence was given by Mr. Charles Booth, Mrs. Watt Smyth, and Miss A. M. Anderson (His Majesty's Principal Lady Inspector of Factories). The Committtee intends to sit, as far as possible, continuously until the evidence is exhausted.

The *Journal Officiel* of January 14th announced that Professor Debove, Dean of the Medical Faculty of the University of Paris, has been appointed President of the French Consultative Committee of Hygiene, in the room of Professor Brouardel, who has been named Honorary President. Dr. Roux, Sub-director of the Pasteur Institute, has been re-elected Vice-President of the Committee.

Society for Relief of Widows and Orphans of Medical Men. A quarterly Court of the Directors of the Society was held on Wednesday, January 13th, Mr. Christopher Heath, the President, being in the chair. Three new members were elected and the death of a member reported. There were no fresh applications for grants. It was resolved to distribute £1,513 among the 53 widows, 15 orphans, and 4 recipients from the Copeland Fund, now in receipt of grants. A sum of £580 was given at Christmas as a present £10 each to 53 widows, £3 each to 12 orphans, and £5 each to the 4 orphans on the Copeland Fund. The expenses of the quarter were £77 12s. 6d.

Ireland.

Irish Midwives and the English Act.

At a meeting of the Obstetric Section of the Royal Academy of Ireland at the end of November, a discussion on the effect of the Midwives Act of 1902 on Irish training institutions and nurses was introduced by the President of the Obstetric Section, Dr. A. Smith. In the course of the speech of the President, and of those which followed from Drs. Tweedy, Kidd, Jellett, Smyly, Horne, Stevens, and Barry, the fact was brought out that the present regulations of the Central Midwives Board will, if unaltered, eventually disbar the nurses trained in the chartered Irish maternity hospitals altogether. Until the year 1905, they are practically put on a par with the ordinary handy woman of an English village, but after that they will have to pass the prescribed State examination. This, however, it will be impossible for them to do, however highly they may be trained, unless they put in three months' training in England in addition to their work in Ireland. It should be remembered that before any prospective midwife can be admitted to examination she will have to supply certain certificates; one of these is to the effect that the candidate has personally conducted not less than 20 labours, and the other that she has nursed such patients for not less than ten days after their confinements. These certificates it would be impossible for Irish midwives to obtain, unless, as one speaker suggested, it were possible to double the size of the Irish lying-in hospitals, or, as another speaker said, the birth-rate were doubled as well. Under the system of training in Ireland it is impossible to allocate to each nurse 20 cases to be conducted solely by herself. The regulation as to ten days' nursing creates an even greater difficulty, for it is the practice in Irish maternity hospitals for the patients to leave before the expiration of ten days, and it is not in the power of the authorities to compel them to remain longer than they choose.

A comparison was made between the methods of instruction laid down by the regulations of the Central Midwives Board and those practised in the Irish maternity schools. It was shown that women who desire to become midwives in Ireland have to spend six months in the hospital, furnish testimonials of exemplary character, see hundreds of labours, conduct some of them personally themselves, look after the lying-in women from the time they arrive in hospital until they leave, take care of the children, etc., and, finally, that they receive a thorough training in antiseptics and do not receive their certificates until they have passed a difficult examination. This, it was pointed out, was an infinitely superior training to that which was described as merely muddling through 20 conductions of labours and attending the patients for ten days after in each case.

After it had been pointed out that the Privy Council was competent to amend the regulations for the Central Board, this part of the discussion ended by the following resolution being moved and passed unanimously:

> That in the opinion of the Obstetric Section of the Royal Academy of Medicine in Ireland any woman holding a nursing certificate of the Irish Chartered Maternity Hospital shall be deemed to have complied with the rules of the Central Midwives Board regulating the course of training of "pupil midwives," and shall be eligible to present herself for the examination of the Central Midwives Board.

A further discussion arose as to the desirability of the extension of the Midwives Act to Ireland. It was pointed out that it was due to the Act not extending to Ireland that the Irish training schools found themselves in their present position, and that but for a certain amount of opposition from some persons, and inertia on the part of others, the Act might have been made to apply from the first to Ireland as well as England. The opinion was expressed that the Act would be useful in Ireland from several points of view, one of which was that in spite of the number of training institutions a good many women were confined by untrained persons in certain parts of Ireland.

Finally, the opinion of the meeting was expressed in a motion which favoured the extension of the Act to Ireland; and by a further resolution it was resolved to send a copy of this opinion for the consideration of the Irish Medical Association and other bodies. By a final resolution it was resolved that a copy of the first resolution passed should be sent both to the Central Midwives Board and the Privy Council, and that the results should be awaited before further action was taken.

Irish Medical Association.

A meeting of the County Roscommon Branch of the Irish Medical Association was recently held, Dr. P. C. Walsh, Castlerea, in the chair. The following resolutions were passed unanimously:

1. That we see with regret that the superannuation question has latterly assumed a rather backward place in the programme of the Irish Medical Association, and we are of opinion that a matter so vital and so long delayed should be pressed to a successful issue with all the energy and influence which the Association can command.

2. That as we consider that a Superannuation Bill upon any other basis than that of contributions from the officials as embodied in Bill propounded by the Poor law Association of Ireland is not feasible at present, we call upon our Central Executive to assist in every possible way the Poor law Association in having its Bill passed into law during next session of Parliament.

3. That we call upon all members in their own best interests and in the interest of the profession to which they belong to act faithfully by and honourably observe the rules of the Association, and in view of vacancies occurring in the neighbourhood we trust that no member of this county branch or of branches of adjoining counties will be found to offer for such vacancies at less than the minimum fees as laid down by the Association.

4. That we hereby declare we are not in agreement with any movement tending to take the appointment of Poor-law medical officers out of the hands of the popular representative Boards of the country.

In the course of the discussion it was pointed out that it was almost impossible to get a large number of the doctors of the county to attend a meeting no matter where it was held. The question of turning the Poor-law medical service into a Civil Service Department was discussed and condemned.

Irish Poor-law Commission.

On January 14th the Irish Poor-law Commission sat in Newry. Dr. S. Edgar Martin, Medical Officer of the Newry Workhouse, said that if the insane and the children were removed from the workhouse, there would be accommodation for the sick, aged, and infirm of some of the adjoining unions; the Kilkeel and Banbridge unions could be dissolved. He was in favour of placing children in a central institution, in preference to boarding them out. Lunatics should be sent to asylums, and the guardians should have the power of charging people of means admitted to the fever hospital. The workhouse was not the proper place to treat consumptives.

Dr. Elizabeth Bell said that it would be better if the guardians would extend the outdoor relief of old people. She would keep all children out of the workhouse.

Dr. Beamish gave evidence regarding the working of the Newry General Hospital, which receives a grant from the Down County Council.

Royal Victoria Hospital, Belfast.

The Misses Riddel, Beechmount House, Belfast, have given £10,000 to this institution to name a ward after their late brother, Mr. Samuel Riddel, Belfast. Of this sum £2,000 is to be devoted to building a residence in the grounds for the superintendent. It is very gratifying to the Board of Management and the Construction Committee to obtain at this early date such a substantial approval of their endeavours in the building and conduct of the hospital. It will advance also considerably the project of opening one of the three units that have been kept closed owing to lack of funds. Although the number of beds now open exceed the total number in the old hospital, yet patients, very suitable from a medical and social aspect, are either turned away or kept waiting for days before admission is possible. The new electric and photographic department is now equipped. Faradization, galvanization, Roentgen rays, the high frequency current, the Finsen light, and massage by an electric motor are all in full working order, and already it is felt that the amount of accommodation is insufficient.

Queen's College, Galway.

On January 9th an ordinary triennial visitation was held by the Board of Visitors at Galway Queen's College, Lord Clonbrock presiding. The other visitors present were Lord Westmeath, the Bishop of Tuam, Sir A. V. Macan (President of the Royal College of Physicians, Ireland), and Sir Lambert Ormsby (President of the Royal College of Surgeons, Ireland). After some formal business President Anderson gave a review of the work of the college last session. The visitors afterwards inspected the laboratories, museums, and other departments of the College. They then returned to the examination hall, and Lord Clonbrock, the chairman, said that the visitors unanimously were of opinion that everything was in extremely good working order in all the departments considering the limited space available. The chair-

man also stated that it was the unanimous opinion of the visitors that as there was no chair of pathology in the College the council should make arrangements for the appointment of a suitable lecturer in pathology, who should devote the whole of his time to the subject.

DERBY LUNATIC ASYLUM.

At the monthly meeting of the Committee of Management of the Londonderry District Lunatic Asylum the report of Sir George P. O'Farrell was considered. The report stated that the asylum population had decreased by 5, but that this decrease was due to an excessive death-rate. The medical officers were most zealous in the discharge of their duties, but the serious overcrowding had undoubtedly acted unfavourably on the health of the inmates. In the short time under review one death took place among every six or seven patients; the death-rate was higher among the females, where the overcrowding was most accentuated.

ALDERMAN DR. GRAHAM OF BELFAST.

At the meeting of the Health Committee of the Belfast Council held on January 14th Dr. James Graham took the chair for the last time. Dr. Graham has been a member of the City Council and of the Health Committee for seventeen years, and has been Chairman of the Committee since January, 1891. His geniality, tact, and skill as chairman have made him one of the most popular members of the Council, and general accordance is felt with the resolution passed by the Committee, when Dr. Graham was asked to leave the chair and Alderman Dr. King was moved into it.

That this Committee desires to place on record its sense of the loss the Committee, the Council, and the city sustain by the retirement of Alderman James Graham, M.D., from the Corporation. The time and attention which Alderman Graham gave to, as well as the skill which he brought to bear upon, the discharge of the duties of his office have been of incalculable advantage to the city, and the Committee feels that Alderman Graham is entitled to the grateful thanks of the citizens; while the members of the Council regret the official separation from one of the most genial and friendly of their number. They sincerely wish him continued health, happiness, and prosperity, and count upon having his sympathetic support in their efforts for the betterment of the conditions under which the working population of this city exist.

Scotland.

EDINBURGH ROYAL INFIRMARY.

IT has already been stated in the BRITISH MEDICAL JOURNAL that at a meeting of the Court of Contributors to the Edinburgh Infirmary, held on January 4th, a new rule was submitted by the Board of Managers, to the effect that the ordinary physicians and surgeons should in future retire at the age of 65. The rule specifically exempted the Professors. The contributors at their meeting, by a considerable majority, adopted a resolution to the effect that the rule should apply to Professors.

At the adjourned meeting on January 18th, the feeling was expressed by the meeting that the whole matter had been dealt with somewhat hastily, and Mr. Haldane, the Convener of the Contributors' Committee, rightly said that the matter required to be handled with very great caution, as it was one of vast importance both to the infirmary and to the Medical School of Edinburgh, as well as to the University. He therefore moved:

That the meeting in the meantime defer approval of the new rules, and remit to a committee to consider the question and report.

Sir John Batty Tuke seconded. Mr. J. T. McLennan, Advocate, proposed as an amendment:

That this meeting approve of the new rule with this exception that the words "not to the professorships" be deleted.

Dr. Alexander James seconded. The motion was carried by 91 votes to 52, and a committee of five was selected to represent the contributors, it being understood that the managers should choose a similar number to represent their Board. One result of the above resolutions is to reopen the whole matter of the age-limit. The Committee was instructed to obtain information from all persons interested.

SMALL-POX.

The epidemic of small-pox in Glasgow continues to spread, and on January 18th there still remained 210 cases under treatment in the Fever Hospital. Though most of the cases occur in the eastern district of the city, some cases are admitted from all the districts, and fresh cases continue to appear in the surrounding burghs, particularly in the shipbuilding burgh of Govan. In his last fortnightly report Dr. Chalmers comments on the fact that three of the new cases had occurred in members of the Small-pox Hospital staff, a fact that was rather disappointing considering the remarkably clean bill of health that had always been maintained by those so much exposed to infection. Two of these patients had only recently joined as cleaners, while the third was an assistant van driver had been in the service of the Fever Hospital from March last, and was transferred to the Small-pox Hospital on December 23rd. The condition as to vaccination of each of these patients is as follows:

1. M. H., van driver, was vaccinated in March with lymph which gave a typical reaction up to the end of the papular stage and then aborted. This being considered at the time unsatisfactory and several others having presented similar appearances, it was intended that they should all be redone, and this was carried out in the majority of cases, but this patient was missed. He was transferred to the small-pox hospital staff on December 23rd and sickened fourteen days later. The eruption is discrete and much modified.

2. E. M., joined the staff on December 23rd and was vaccinated on the same evening. As the result was unsatisfactory the patient was vaccinated again a week thereafter, although this proved too late to prevent attack, as the eruption of small-pox appeared on the night of January 4th.

3. A. C., joined the staff along with E. M., and was vaccinated with similar results, being also revaccinated a week later. She sickened on January 6th.

In each of these cases the unsatisfactory nature of the vaccination attracted the notice of the medical staff before the symptoms of small-pox became manifest. They are not illustrations of failure of vaccination to protect from small-pox, but rather of the necessity to ensure adequate protection before exposure to infection.

At a meeting of the Edinburgh Town Council on January 19th Mr. Lang Todd, the Convener of the Public Health Committee, reported that during the last eight days 20 cases of small-pox were removed to the hospital. With the exception of 2 cases, all the cases were directly traceable to the Guthrie Street lodging house, either directly or indirectly from the case in which the disease was introduced from the Talla at the end of December. There were only 2 severe cases, the one of the Christian Scientist, who had died, and the other which came from the Glasgow "model" on January 11th, and arrived in Edinburgh when already suffering from the disease. All the cases in Guthrie Street, 10 in number, were in direct contact with persons who had the disease, and the others were indirectly in contact with them. The case of the Christian Scientist was undoubtedly very unfortunate. Whatever the man may have believed there can be no doubt whatever that he refused to call in a doctor. While suffering from the disease he visited Glasgow, Alexandria, and elsewhere. He had already come in contact with 1 case in hospital in Glasgow. The unfortunate man had paid the last penalty, and while under treatment had been so ill that it was impossible to get information from him as to where he had been. This was 1 imported case. The other case was that of a man who came from a Glasgow lodging-house with the disease on him. The others had been in direct or indirect contact with people suffering from the disease.

GLASGOW HOSPITAL SUNDAY COLLECTIONS.

The first list of the Hospital Sunday collections has been published, and shows that the gratifying sum of rather over £5,000 has been raised in this way for the three great infirmaries of the city. As there are still a number of collections to be handed in to the treasurer, the books are to be kept open till February 12th, and it is hoped that the above sum may be yet considerably augmented.

A TUBERCULOSIS CAMP. An experimental tuberculosis-camp has been established at the Pensacola (Florida) Navy Yard. There are at present six patients in the camp, and the reports of the first month's results are said to be very gratifying. The patients live out of doors day and night, being sheltered in tents. It has been decided to establish a naval resort for such patients, and Surgeon-General Rixey intends to investigate other localities, besides Pensacola, one of these being on the Pacific Coast and another in the East, further north. When the experts decide on the best site for the camp, Congress will be asked to make an appropriation for the establishment and maintenance of an open-air hospital.

UNDER the will of Surgeon-Major Hamilton de Tatham, of Duke Street, St. James's, Westminster, £250 has been bequeathed to Epsom College, and £100 to the British Medical Benevolent Fund.

Queensland.

REDUCTION OF THE GOVERNMENT SUBSIDY TO QUEENSLAND HOSPITALS.

NEED for economy has induced the Government to reduce its subsidy to Queensland hospitals for the past year. Instead of two pounds for every pound of voluntary subscription the Government now gives thirty shillings—a substantial subsidy, even though a quarter less than before.

Two circumstances militate specially against maintenance of hospitals in Queensland by voluntary subscription: First, an unwillingness on the part of the public to subscribe except through the channel of a bazaar, a ball, or a fete, and, secondly, the only half-realized knowledge that their subscriptions enable many no poorer than themselves to obtain medical comfort and relief gratis, or by paying hospital fees become what they proudly call "pay patients." While the hospitals remain charitable institutions, the abolition of any payment by patients would do more good than harm, even to the finances. At present much of this payment comes from the really poor, for whom hospitals are meant, and from whom no payments should be exacted. They would rather stint themselves of necessaries than be pauper patients when others pay. Those who have no real right to receive hospital treatment and advice are careful to make the lowest possible patients' payments. They are careful also to call themselves "paying patients," and, curiously enough, often loudly belittle the advantages they had no right to use, while the really poor evince as a rule only gratitude.

Two other circumstances doubtless influence voluntary subscriptions: one of these is hard times, and the other the belief that hard times are at least partly due to the want of intelligence displayed by the Labour Party in the choice of a Parliamentary platform. The withdrawal of capital from the State, with diminished confidence in its immediate future, is with some justice attributed to the behaviour of the Labour Party. The hospitals are maintained by employers of labour for their employés, and while the Parliamentary representatives of labour fail to grasp the fact that without capitalists there can be no employment for labour, employers cannot be expected to take the same interest in the class from which the hospitals should draw their patients.

In a country so large as Queensland, where many outlying districts depend entirely upon the district hospital doctor for medical attendance, it would be to the advantage of all concerned if the local hospitals combined the usefulness of public and private hospitals. Those able to pay should be charged for board and lodging by the hospital, and medical fees by the hospital doctor. At present the private practice allowed to up-country hospital doctors in addition to their small salaries is much curtailed by many of their most serious cases, especially surgical ones, becoming hospital patients, not only for economy's sake. In the larger towns where private hospitals exist there can be no excuse for combining public and private hospitals in one institution.

VOLUNTARY SUBSCRIPTIONS TO HOSPITALS.

Subscriptions to hospitals in Queensland are obtained through voluntary subscriptions, Hospital Saturday and Hospital Sunday collections, and by means of bazaars, balls, and fetes.

In Brisbane the "Hospital Saturday" street collections are combined with the "Hospital Sunday" church collections, and proportioned amongst the different metropolitan hospitals—the General Hospital, the Hospital for Sick Children, the Lady Bowen Maternity Hospital, the Lady Lamington Hospital for Women.

Each hospital's committee takes personal charge of special efforts on behalf of its own hospital. This year an effort is being made by the establishment of a "Brisbane Hospitals' Aid Association" to centralize all the efforts on behalf of the hospitals in the hands of one capable committee. This committee takes up the position that the whole area contributing patients to the metropolitan hospitals is debtor to these institutions and should be canvassed for contributions. For this purpose the committee is to have added to its members the representatives in the State Parliament and the presiding officers and clerks of every local government authority within the territory to be canvassed. A general meeting of this association will be held each year, at which will be determined the participants in the benefits during the next ensuing year, and at which the executive council will be elected. This council will direct all affairs and will have the appointment of the general secretary, who will be a paid officer and expected to do good work. Five members of this council will form a nucleus for the Saturday Collections' Committee, and a like number will form a nucleus of the Sunday Collections' Committee. Committees will be expected to organize collections from wage-earners throughout the year, and by special endeavour. The council is preparing for a huge district fair to take place at the beginning of next cool season, partly for the purpose of initiating the public to the new system: those unable to contribute money being expected to send gifts "in kind."

A rather important objection to centralizing effort for the hospitals in this way will be the danger that those who for special reasons take an interest in one of the hospitals and not in all may not receive sufficient inducement to either collect for, or subscribe to, the institution of their choice.

Until this year the only hospital in Brisbane managed by men only has been the General Hospital, all the others are managed by committees of women, and have remained practically free from debt. The General Hospital has always been in debt. Doubtless for this reason chiefly, four women have this year been added to its committee. How a combined committee will work remains to be seen, and the wisdom of the change has yet to be proved.

The ladies forming each of the committees of the other hospitals have shown their wisdom, by, in medical matters, consulting the honorary medical staff of the hospital, and have almost invariably been guided by their advice.

THE NEW DENTAL ACT.

A Queensland Dental Bill, passed last December, came into operation this year, and will doubtless do much needed work in restricting dentistry to those who have some training for it. Four of the members of the Board, not less than two of whom "shall be medical practitioners and the remainder of whom shall be dentists, shall be appointed by the Governor in Council and shall remain in office for a period of six years." Three of the members of the Board, all or any of whom may be medical practitioners or dentists, shall be elected by the dentists of Queensland . . . . and shall remain in office for a period of three years.

The first Board consists of two medical men and five dentists. At their first meeting each year the members of the Board elect a member to be president of the Board. Dr. G. Herbert Hopkins is this year's President; he has also been President of the British Medical Association Branch for the past year.

INFECTIOUS DISEASES IN QUEENSLAND.

A single case of plague crops up every month or two, to show that it has not entirely left our coast, and infected rats are sometimes found. Epidemics of measles and of scarlet fever occurred during the winter months. The cases, except for an unusual proportion of nephritis cases amongst the scarlet fever patients, were mostly of a mild type. Some cases of nephritis following measles were also observed.

VENTILATION OF FACTORIES AND WORKSHOPS.

THE report of a Special Committee of the Association of Certifying Factory Surgeons on the ventilation of factories and workshops has recently been issued. The report recalls the fact that at the 1902 meeting of the British Medical Association a resolution was brought forward, in the Section of Industrial Hygiene, arising out of the discussion on the relationship of the factory and workshop to the spread of phthisis, to emphasize the need for better ventilation in these workplaces. This was withdrawn on the understanding that the subject would be taken up by this Association.

Provisions of the Factories and Workshops Act, 1901, re Ventilation.

The report recites the provisions of the Factories and Workshops Act, 1901, with respect to ventilation, and gives the following epitome of the recommendations of the Departmental Committee, consisting of Dr. John Scott Haldane, F.R.S., and Mr. E. H. Osborne, which reported in August, 1902:

1. That the Home Secretary should utilize the power possessed under section 1 (1) of the Act to fix such a standard that the proportion of carbonic acid at breathing level shall not be greater than twelve volumes to 10,000 of air during daylight or where electric light is used, and that after dark, or before the first hour after daylight, where gas or oil is used for illuminating purposes, this proportion should not exceed 20 per 10,000.

2 That cotton cloth factories be allowed the option of accepting this regulation or keeping to the present one.

3 That where these proportions are exceeded notice for amendment be served, but that no legal action be taken until after a reasonable interval, and then only when the average of two or more carefully-taken analyses shows these proportions to have been exceeded by at least one volume.

4 That duly qualified persons be appointed to analyse samples of air collected by inspectors, prosecutions to be based on the results of such analyses only.

5. That inspectors should have the use of a portable apparatus for the purpose of making analyses on the spot.

Sufficiency of a Carbonic Acid Standard in all Cases.

The report of the Association of Certifying Factory Surgeons then proceeds to consider the question whether a carbonic acid standard is sufficient in all cases. While agreeing, in samples taken under the conditions laid down by the Committee, that a proportion of carbonic acid in excess of that mentioned in paragraph 1 (above) would be sufficient evidence of defective ventilation, it is pointed out that, if this is to constitute in itself the sole "standard" on which legal proceedings are to be based, great difficulty will be experienced in obtaining a badly-needed reform in many urgent cases.

If the analyses of samples show the proportion of carbonic acid gas to be below the limit, it does not follow that the place is properly ventilated, because the windows may have been opened immediately before the visit of the factory inspector. The opinion is expressed that the only way to surmount the difficulty is to insist upon proper regard being given to the relationship between ventilation and temperature. Since Section VI insists upon the maintenance of a reasonable temperature without interference with the purity of the air in the room, no ventilation can be regarded as "sufficient" in a true sense, if the plan adopted is calculated to bring down the temperature to too low a limit whenever it is called upon to clear the atmosphere.

It is also proposed that the order should provide that the means for ventilation should be of such a nature as to ensure, during any season of the year, within the room, a minimum temperature of 60° F. where the occupation is of a sedentary character, or 50° F. where the occupation is of an active kind. A further suggestion made is that the order should specify that all fresh-air inlets should be of such a nature or design and placed in such positions that no appreciable draught be directed against any of the workpeople.

Proposed Standard during Daylight.

With regard to the proposed standard during daylight it is pointed out that as it is recommended that no proceedings should be taken until the limit of twelve volumes is exceeded by at least one volume, it appears that for all practical purposes that the limit is fixed at thirteen volumes of carbonic acid in every 10,000 volumes of air. Not only is the wisdom of allowing this comparatively large margin doubted, but the utility of any order passed on such a standard is questioned. In all probability the adoption of such a standard would almost mean an actual continuance of the present admittedly bad conditions.

Proposed Standard during Gaslight.

While agreeing that the standard should be lowered when gas or oil is burning, inasmuch as the proportion of deleterious matters given off to the amount of CO_2 is much smaller than in the case with respiratory impurities, the Association of Certifying Factory Surgeons does not accept the Committee's actual limit of 20 per 10,000 as at all justified by the tables published. The opinion is expressed that the proportion of carbonic acid over that of the outside air which might reasonably be allowed during gaslight would be double the amount allowed in excess of outside air during daylight.

Fixing the Standard at the Gross Amount of CO_2.

The fixation of the standard at the gross amount of CO_2 estimated in the sample is considered to be somewhat unscientific in principle, and unfair to the occupier or factory inspector, as the case might be, in practice. It is urged that the standard should be stated in terms of carbonic acid in excess of that found in a sample of outside air taken at the same time.

Results published by Mr. F. Jones, F.R.S.E., of Manchester Grammar School, show a difference of one volume of CO_2 per 10,000 between the atmosphere of Manchester proper and the immediate outskirts—a difference not due to respiratory impurities, but to smoke troubles and stagnation of air. An employer in the outskirts, with better natural facilities for ventilation, should not be allowed an extra volume of respiratory impurity over and above the employer in the town.

Conclusions.

The Committee's report, which is signed by Dr. T. F. Young (President), Dr. Thomas Fort, and Dr. W. F. Dearden (Honorary Secretary), concludes as follows:

After acknowledging the proper regard which must be given to unnecessary draught, and the undoubted relationship which exists between ventilation and temperature, we have come to the conclusion that an equivalent of impurity to the extent of an additional five volumes of CO_2 per 10,000 in excess of that found outside would be a fair proportion to allow during daylight, and that double this amount could reasonably be allowed during gaslight. We are also of opinion that the basis for legal proceedings should be one volume in excess of that named for a daylight sample, and two volumes in excess in the case of samples taken during gaslight. The carbonic acid limit suggested should also be made to apply to cotton-cloth factories.

HYGIENE AND TEMPERANCE.

THE NEED OF ELEMENTARY SCIENTIFIC INSTRUCTION IN HEALTH SUBJECTS, INCLUDING TEMPERANCE, IN SCHOOLS.

AN influential committee has been formed with the object of inviting members of the medical profession to call the attention of the central educational authorities of the United Kingdom to the urgent importance of providing that elementary scientific instruction in health subjects, including temperance, should be given in all the primary schools by the educational authorities, and of considering whether steps cannot be taken to encourage in the secondary schools such teaching as to lead the pupils in all schools to appreciate the value of healthful bodily conditions in regard to cleanliness, pure air, food, and drink.

The matter was brought to the notice of the Public Health Committee of the British Medical Association at its meeting on January 14th, when a resolution approving of the objects of the petition was adopted on the motion of the Chairman, Dr. J. Groves, seconded by Dr. Manley. A further resolution was adopted recommending the Council to forward a copy of the resolution to the Board of Education, together with a covering letter, to be prepared by the Chairman, setting out the facts. At the meeting of the Council, on January 20th, the resolution was adopted in the following terms:

That in the opinion of this Council it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented.

The General Committee which has undertaken to distribute the petition consists of the following members:

Committee of Distribution.

Elizabeth Garrett Anderson, M.D.
Sir Thomas Barlow, Bart., K.C.V.O., M.D.
Byrom Bramwell, M.D., F.R.C.P., F.R.S.E.
Sir William Broadbent, Bart., K.C.V.O., F.R.S.
Sir Lauder Brunton, M.D., F.R.S.
William Carter, M.D., F.R.C.P.
Professor John Chiene, C.B., LL.D., F.R.S.E.
Mr. Andrew Clark, F.R.C.S., Chairman of Council B.M.A.
T. S. Clouston, M.D., President Roy. Coll. Phys. Edin.
Professor D. J. Cunningham, M.D., F.R.S.
Julius Dreschfeld, M.D., F.R.C.P.
Professor Finlay, M.D., F.R.C.P.
Mr. A. Pearce Gould, F.R.C.S.
T. Drysdwyn Griffiths, M.D., President B.M.A.
Sir Victor Horsley, F.R.S., F.R.C.S.
Sir Henry Littlejohn, M.D., F.R.S.E.
Mr. Jordan Lloyd, M.S., F.R.C.S.
Sir William Macewen, M.D., F.R.S.
Sir John William Moore, M.D., President Roy. Coll. Phys. Irel.
Mr. A. W. Mayo Robson, F.R.C.S., Vice-President Roy. Coll. Surg.
Robert Saundby, M.D., F.R.C.P.
Professor C. Hunter Stewart, M.D., F.R.S.E.
Sir Henry Thompson, Bart., F.R.C.S.
Sir William Thomson, C.B., F.R.C.S.
Mr. Charles S. Tomes, F.R.C.S., F.R.S.
Sir William Turner, K.C.B., F.R.S., President Gen. Med. Council.
Mr. John Tweedy, F.R.C.S., President Roy. Coll. Surg.
Sir Samuel Wilks, Bart., M.D., F.R.S.
Dawson Williams, M.D., F.R.C.P.
Professor Windle, M.D., F.R.S.
Professor Sims Woodhead, M.A., M.D., F.R.S.E.

This Committee has approved the following letter and form of petition, and we understand that a copy of the petition will be distributed immediately and will reach all members of the medical profession between January 23rd and the end of the month.

To the Registered Medical Practitioners of England and Wales, Scotland, and Ireland.

London, W., January, 1904.

Dear Sir or Madam, The undersigned Committee of Distribution beg your kindly perusal of the petition printed on the next leaf, and venture to express the hope that you will append your signature thereto.

The object of the petition is to endeavour to secure that every child in our national schools shall obtain some instruction in the rudiments of the simpler rules of health and temperance.

The Committee hopes that an expression of opinion by the medical profession on this pressing need of modern life and education may thus be obtained, and it is proposed, when the signatures are collected, to lay the petition, with the special support thus gained, before the Central Educational Authorities of the United Kingdom.

On behalf of the Committee of Distribution, I have the honour to remain, yours faithfully,

E. CLAUDE TAYLOR, M.D., Hon. Acting Sec.

After signing the petition kindly forward it in the accompanying addressed envelope, after closing the same.

Petition.

We, THE UNDERSIGNED MEMBERS OF THE MEDICAL PROFESSION, having constantly before us the serious physical and moral conditions of degeneracy and disease resulting from the neglect and infraction of the elementary laws of Hygiene, venture to urge the CENTRAL EDUCATIONAL AUTHORITIES OF THE UNITED KINGDOM (the Board of Education of England and Wales, the Scotch Education Department, the Commissioners of National Education in Ireland and the Intermediate Education Board of Ireland)

TO CONSIDER WHETHER

it would not be possible to include in the curricula of the Public Elementary Schools, and to encourage in the Secondary Schools, such teaching as may, without developing any tendency to dwell on what is unwholesome, lead all the children to appreciate at their true value healthful bodily conditions as regards Cleanliness, Pure Air, Food, Drink, etc.

In making this request we are well aware that at the present time pupils may receive teaching on the laws of Health, by means of subjects almost invariably placed upon the Optional Code. By this method effective instruction is given to a small proportion of the pupils only. This does not appear to us to be adequate. We believe that it should be *Compulsory*, and be given at a much earlier age than at present.

It may, perhaps, be useful to call attention to what is being achieved in this direction by English Speaking Nations. In reviewing the steps taken it will be noted that one of the most prominent subjects with which the various countries have found it necessary to deal, is the question of the nature and effects of Alcohol.

In the ARMY SCHOOLS of this country and of all our foreign stations west of Aden, teaching in Elementary Hygiene is Compulsory; such teaching including Temperance, Health and Sanitation, special attention being drawn to the deleterious effects of Alcohol.

In CANADA, with the exception of two Provinces, Hygiene and scientific instruction on the effects of Alcohol are compulsory subjects in all Public Elementary Schools thoughout the Dominion. In the two excepted Provinces (Quebec and Prince Edward's Island) teaching on Temperance is given. In the Protestant Primary Schools of the Province of Quebec lessons upon Temperance and Health are compulsory, while in the Catholic Schools instruction in Hygiene is compulsory, beginning with the fifth year of school work. In the books on Hygiene authorized in the Catholic Schools the ill-effect of the excessive use of Alcohol is mentioned, but no special prominence is given to Temperance instruction.

In VICTORIA (AUSTRALIA) teaching on Health and on the nature and effects of Alcohol is placed on the list of compulsory subjects taught in all the Public Elementary Schools.

In SOUTH AUSTRALIA teaching of Temperance is regularly carried out.

In NATAL instruction is given in the Primary Schools on the laws of Health and Temperance, these being included in the list of Optional Subjects.

The whole question is dealt with still more completely in the UNITED STATES OF AMERICA. There the teaching of Physiological Hygiene, with special reference to the effects of Alcohol and other narcotics, is compulsory in all Schools under State or Federal control. About twenty-two million children are being educated under this system.

Thus we have shown that in many English Speaking Countries definite attempts are being made to train the rising generation to appreciate from childhood the nature of those influences which injure physical and mental health.

Having regard to the fact that much of the degeneracy, disease, and accident with which medical men are called upon to deal is directly or indirectly due to the use of Alcohol, and that a widespread ignorance prevails concerning not only the nature and properties of this substance but also its effects on the body and the mind, we would urge the Board of Education of England and Wales, the Scotch Education Department, and the Irish Education Authorities to include in the simple hygienic teaching which we desire, elementary instruction at an early age on the nature and effects of Alcohol.

We gladly recognize (1) the value of the teaching on this subject given in some Schools in Ireland and in a proportion of the Schools of Great Britain, by means of reading primers, moral instruction talks, etc.; and (2) the excellence of the occasional Temperance lessons provided in certain Schools by voluntary organizations: but until the four Central Education Authorities of the United Kingdom include this subject as part of the system of National Education, it appears to us that the mass of the pupils must fail as at present to receive that systematic teaching of hygiene and of the nature and effects of Alcohol, which alone we consider adequate to meet the national need.

Finally, we would venture to urge the necessity of ensuring that the training of all teachers shall include adequate instruction in these subjects.

Signature.....

It need scarcely be said that the active sympathies of the members of the British Medical Association have always been extended to movements of this important character. It is confidently hoped by the Distribution Committee that the large majority of practitioners, however busy, will forthwith on receipt of the petition sign it and post it in the stamped and addressed envelope sent with the petition.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The extraordinary meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 2nd. The chair will be taken by Dr. Milner Moore at [illegible] p.m. Agenda: Mr. Faulder White will read a paper on Suppurative Disease of the Ear, with a description of a new treatment. The paper will be illustrated by some clinical cases. Dr. Bankes-Price will show some appendices which have been recently operated, and will make some observations thereon.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BATH AND BRISTOL BRANCH.—A meeting of this Branch will be held at the Medical Library, University College, Bristol, on Wednesday, January 27th, at 8 p.m., Dr. Barrow J. Baron, President, in the chair. The following communications are expected: Annual Reports from the Bath, Bristol, and Trowbridge Divisions. Dr. J. O. Symes and Dr. Theodore Fisher: An analysis of ... Necropsies of Cases of Tuberculosis. Mr. J. Carwardine: A Case of Double Ovarian Hydrocele. Mr. E. W. H. Groves: Specimen from Case of Acute Gastric Dilatation. Dr. J. Michell Clarke: Case, with specimen, of Porencephaly, with Haemorrhage into Brain. J. MICHELL CLARKE, Clifton, W. M. BEAUMONT, Bath, Honorary Secretaries.

EDINBURGH BRANCH.—The annual clinical meeting of this Branch will be held in the Royal Infirmary on February 10th. Members of all the Scottish Branches will be welcome. The annual dinner will be held in the evening. Intimation of cases to be shown should be made to the Secretaries.—NORMAN WALKER, 5, Manor Place; A. LOGAN TURNER, 176, Walker Street, Edinburgh, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, January 28th, at 8.15 p.m. Business: (1) Resolutions suggesting medical certificates in order to reduce the abuse of hospital funds, so rapidly increasing; information asked for from 200 hospitals is tabulated, and will be given; Lieutenant-Colonel E. Montefiore, Secretary, Medical Committee, Charity Organization Society, will speak. (2) Letter from King's College Hospital Medical Committee. (3) Resolution as to the expediency of holding the Annual Meeting of 1905 in Ireland. (4) Resolution with regard to voluntary subscription to refund Representative's expenses at Oxford. (5) Resolution from Midwives Act, 1902, Special Committee. (6) Report from Medical Acts Amendment Bill Committee. (7) Ethical Rules. (8) Other business. Any medical practitioner desirous of attending and taking part in the debate will be welcomed, and can obtain a detailed agenda on applying to E. ROWLAND FOTHERGILL, Honorary Secretary, Torquay House, Southfields, S.W.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The next meeting of the above Division will be held on Wednesday, January 27th, in the Sun Hotel, Kingston, at 8.45 p.m., when Mr. D'Arcy Power, M.A., M.B., F.R.C.S., will read a paper, Notes on an Ineffectual Treatment of Cancer, being a record of cases treated by the injection of Dr. Otto Schmidt's serum.—J. R. JOHNSON, M.R.C.S., Honorary Secretary, 3, Ellerker Gate, Richmond.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 4th, as one of Sir Oliver Lodge's lectures occurs on the latter date. E. PEIGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

Ankylostomiasis in Miners.—Popular Lectures on Tuberculosis. Quackery in Germany. Disease Notification and Death Registration.

ALMOST two entire sittings of the German Reichstag on January 12th and 13th were taken up with a debate on the Social-Democratic interpellation as to ankylostomiasis in miners. Undoubtedly the disease has gained ground of late years, and it cannot be denied that the prophylactic measures officially recommended and carried out by different mining companies have failed to stamp it out. On the other hand, to accuse the Prussian Government of slackness in the matter as the Social Democrats do is unfair, and the sympathies of the House were decidedly with the Minister of Commerce, Herr Moeller, as he explained the peculiar difficulties met with at every step in the struggle against the disease. That mistakes had been made he acknowledged freely; prophylactic measures, excellent in theory, had failed in practice from the carelessness of the workmen, or other reasons; the disease itself was not generally known or closely studied until of late. But he affirmed that since the time when the nature of the disease and the mode of infection were cleared up, no efforts had been spared by the official authorities to devise and carry out with energy really practical methods of prevention and cure. This energy had already met with its reward, for in a period of between seven and eight months, of 1,720 miners attacked, 60 per cent. were now well. Immense sums had been spent on sanitary arrangements and on medical treatment and supervision—almost one and a half million marks (£75,000) in all.

Public and gratuitous evening lectures on tuberculosis and its remedies—illustrated by photographs thrown on the screen—have been arranged by the German Central Committee for the Erection of Lung Sanatoria. Among the speakers are Professor Fraenkel and Professor Pannwitz, the well-known authorities on tuberculosis.

The German Society for the Repression of Quackery held its first annual meeting in the large hall of the Langenbeck House. A letter from the Prussian Cultus Minister, Herr Studt, was read, which expressed full sympathy with the aims of the Society, and the hope that the Society might be able to assist the Government in laying down principles for action. The annual report was read by Dr. Sachtl. It contained the astounding statement that in Berlin alone quackery had increased by 1,600 per cent. (in round numbers) since the year 1870, that is, in little more than thirty years.

Hospital reports, and the notification of deaths and of infectious diseases in Prussia and the other Federal States of Germany, are to be reorganized in accordance with the progress of modern medicine. This much-needed reform has long been projected, but before it could be carried out a new table or list of diseases and causes of death had to be made out, to serve as a basis for a uniform system of medical statistics. This has now been accomplished, and several preliminary discussions having likewise been got through, a final conference of representatives of the Federal States of Germany is to take place under President Kohler's direction in the Imperial Board of Health in Berlin.

BUENOS AIRES.

International (South America) Congress of Medicine and Hygiene at Buenos Aires: The Sections: The General Arrangements: Subjects for Discussion.

THE second Latin American Medical Congress will take place at Buenos Aires in April, 1904, from the 3rd to the 10th, while concurrently a hygienic exhibition will be opened and continue till May 30th. This Congress, while of primary importance to South America, will also interest medical science in general, as many observers from tropical and semi-tropical countries will be present and have promised communications. The following countries will be officially represented by prominent scientific men: Argentine Republic, Uruguay, Brazil, Paraguay, Chili, Bolivia, Peru, Ecuador, Columbia, Venezuela, Mexico, Cuba, Salvador, Guatemala, Nicaragua, Costa Rica, Honduras.

The Congress will meet in eight Sections, including Sections on Veterinary Science and Dentistry, and at the same time conferences will be held in connexion with the Hygienic Exhibition.

The different passenger steamer lines from Europe will make reductions of 20 to 25 per cent. in return fares, and intending visitors will find order and arrangement, and there will be no such muddle as has occurred at some international congresses.

The following are the subjects chosen for open discussion: (1) Causes of deaf-mutism in the Argentine; (2) prevention of blindness in the Argentine; (3) etiology of goitre in the Argentine; (4) *x* rays in surgery; (5) dystocia in the Argentine; (6) haematology in surgery; (7) strictures of the urethra; (8) surgical treatment of exophthalmic goitre; (9) the treatment of cancer; (10) treatment of laryngeal tuberculosis; (11) treatment of ocular tuberculosis; (12) biliary lithiasis and its complications. Important communications will be made on yellow fever, plague, cholera, malaria, leprosy, syphilis, alcoholism, framboesia and yaws, cancer in the Argentine, hydatid cysts in the Argentine, cremation in the Argentine, infantile tuberculosis and infant feeding and mortality in the Argentine, etc., while instructive papers on sanitary progress in South American States will be read in the Hygiene Section.

MANCHESTER.

Lectures on Public Health. Free Dinners for Poor School Children. Memorial to Jacks.

THE course of lectures on various subjects connected with public health was successfully inaugurated on January 13th by a lecture on industrial diseases due to poisonous fumes or gases, by Professor T. Oliver, of Newcastle-on-Tyne. The lectures will be delivered in the Public Health Laboratory of the University of Manchester in Stanley Grove. From statistics quoted by Dr. Oliver it appeared that the total number of cases of phosphorus poisoning notified under the Factory Acts in Britain during the last twenty-three years was 113, of which 20 were fatal. No cases were reported last year. So long as the ordinary white phosphorus was used in matchworks absolute freedom from risk could not be guaranteed to the workers. It had been proved in France that matches possessing all the qualities claimed for the ordinary "strike anywhere" could be made from the comparatively harmless sesqui-sulphide of phosphorus. Nearly six years had elapsed since then, and not only had

phosphorus necrosis disappeared from France, but in consequence of the substitution of this form of phosphorus for the deadly white phosphorus by our largest manufacturers industrial phosphorus poisoning in our own country had very materially diminished. In addition there had been a marked diminution in the number of cases of suicide from phosphorus poisoning in the Newcastle district. Dr. Oliver also dealt with cases of poisoning due to the inhalation of sulphuretted hydrogen in sewers. On the subject of carbon monoxide poisoning, Dr. Oliver said that illuminating gas was a frequent source of poisoning owing to its escape into a sleeping room. Injurious effects from breathing carbon monoxide were sometimes observed in limestone burners and cement workers, distillers of coal tar, lamp-black makers, labourers employed in iron smelting works, laundresses who use irons heated by gas, and brickmakers.

The Education Act has brought with it an extension of the work of giving free meals to destitute school children. Under the new Act all the schools of the city are brought under the Committee. Many of the voluntary schools and Jewish schools are placed in the poorest parts of the city. Last year 139,000 free dinners were given at a cost of £400. This winter both the cost and number of dinners will be nearly doubled. Free meals have no legal sanction, and therefore no money is obtainable from the rates. Every care is taken in Manchester to guard the free meals from abuse. The custom is for the teachers in all the poorer schools to send in to the offices of the Education Authority lists of the children in their schools whose circumstances seem to warrant their receiving free meals. The house of each child is then visited by a school inspector, who examines closely into the position of the parents. If the inspector's report is satisfactory the child is allowed to "stay dinner," but not otherwise. Every care is taken that no child should receive a free dinner who could get a decent meal at home.

The name of James Prescott Joule is one of the brightest on the roll of Lancashire worthies. The classic statue by Chantrey in the Town Hall shows the great philosopher and experimentalist, but it is now proposed to erect in Sale Park a tower to his memory, the tower to be fitted with certain recording meteorological instruments. A fund has been for the purpose raised in Sale, where Joule lived for many years before death in 1889.

CORRESPONDENCE.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

SIR,—I desire to call attention to a grave defect in the law controlling the sale of dangerous drugs. As this law now stands, there is apparently nothing to prevent any person who obtains possession of a prescription from procuring by its aid enough poison to kill a community.

There has just come into my possession an undated copy of a prescription given by a firm of chemists to a patient, with which the patient in a short period has obtained no less than 17½ oz. of a 20 per cent. solution of cocaine hydrochlorate. This quantity of solution contains 1,680 gr. of this highly poisonous alkaloid, of which according to the *British Pharmacopœia* the maximum dose is ½ gr.

This large amount of poison had been procured by taking this copy of a prescription to one firm of chemists after another (nine different firms have stamped it with their names) and obtaining 1 oz. at a time from each, and on one occasion ½ oz., although only ½ oz., was ordered on the prescription. With this exception, everything seems to have been done to meet the requirements of the law. The original prescription had been apparently given to the patient by a high authority.

Anything more serious to the welfare of the public cannot well be imagined. By this means drug habits go unchecked, and deadly poisons can be procured wholesale. Chemists cannot well hesitate to make up the prescriptions of well-known medical men, especially when the prescriptions bear upon the face of them the stamped names of some of the best firms in the trade certifying that they have already been dispensed by them.

The remedy which suggests itself to me, and which possibly might be adopted, not only in connexion with the prescribing of lethal doses of dangerous drugs, but also with regard to many prescriptions for disorders requiring but a short course of treatment, is one which I am assured by a highly respectable firm of pharmaceutical chemists they would gladly welcome. It is that in all cases where medical men prescribe such drugs as morphine, opium, cocaine, etc., which have known to induce a habit, the words "not to be repeated" should be written across the prescription, which should be signed by the prescriber in full, and not merely initialled. By this means the prescriber would be able to control the quantity of the drug taken or used, and prescriptions would not be handed about from one person to another *ad libitum*, especially if the words "not transferable" were added.

We know but too well how many valuable lives are lost and reputations ruined under the working of the present system, which loudly calls for amendment.

I may add that I fortunately obtained possession of the poison and the prescription from the patient, and was thus enabled to save a valuable life.—I am, etc.,

London, W., Jan. 15th. T. OUTTERSON WOOD.

MECHANO-THERAPEUTICS.

SIR, In the BRITISH MEDICAL JOURNAL of January 16th appeared a letter from Dr. Saundby, in which he to a certain extent defends the establishment of gymnastic (in the widest sense) institutes under joint-stock auspices. As to the actual degree of their utility I am not in a good position to speak, and on that point I willingly defer to Dr. Saundby's authority.

But for some time past I have watched attentively the operation of limited liability companies which carry on practice of one sort or another, and there is a very important aspect of the question upon which he has not touched. In this relation it is especially significant that the institutes to which he gives approval are all upon the Continent, and that in the only instance cited of a similar institution in this country he admits that abuses crept in "in such a way that the method has been grievously damaged in the eyes of the medical profession." Now, I would point out that on the Continent safeguards against abuse exist which we do not possess in this country. This arises out of the unique peculiarities of our medical legislation in that it merely prohibits the unauthorized use of titles and leaves untouched the act of practice.

Some years ago in an appeal case carried to the House of Lords it was decided that the word "person" in such Acts as decreed a course of education and the passing of examinations prior to the assumption of titles implying qualification did not apply to companies (the Interpretation Act notwithstanding); and a more recent decision in an Irish appeal case carried this ruling yet further in that it laid down that not only was the company not amenable to the law, but that individuals working under its aegis could not be touched. Thus it becomes possible for an individual to use his own name, defined by his own initials, and to append to it a title to which he has no right whatever, merely appending to his name the word "limited": this is actually being done at the present moment. These decisions relate, the one to a pharmaceutical and the other to a dental case, no medical case having been yet taken to an appeal court, but the terms of the judgements are such as to cover the whole principle of the use of protected titles, and so are fully applicable to purely medical cases. Thus the object avowed in the preamble of the Medical Act, 1858, of enabling the public to distinguish between the qualified and unqualified is defeated by the incorporation of a company, which collectively and individually can assume titles with impunity.

Only a fortnight ago the formation of yet another lay company was noticed in your columns, the objects of which are declared to be the establishment of medical and surgical homes, and "to carry on the business of physicians and surgeons." Inquests may be held, coroners and coroners' juries may express censure, and yet no one is brought within the reach of the law.

On the other hand, it is well to recall that the protection afforded to wrongdoers by company incorporation is not absolute, and that under particular circumstances police-court convictions have been obtained against offenders; still the state of the law is very unsatisfactory and uncertain.

In France, Germany, Italy, and Switzerland, however, the prohibitory clauses of the Medical Acts are directed, not merely against the unauthorized assumption of titles implying qualification, but against the act of practice itself by unauthorized persons. These laws are enforced with considerable stringency, and, so far as I know, the company form of evasion has not arisen. Hence the conditions are different in an essential respect, and the likelihood of abuse,

so evident in this country, can hardly be said to exist elsewhere. I would not contend that such a company as those under discussion might not be conducted with perfect propriety. But the question of its desirability turns upon the balance between the advantages it may offer, and the disadvantages to which it opens the door. Experience, so far, though it is but of limited extent, has not, on Dr. Saundby's own showing, been favourable as to the manner in which such work has, in fact, been carried out. It is perfectly true that for the acquisition of expensive plant and the like, the aid of the capitalist may be called for, and it is probable that professional feeling in this country would not look with approval upon medical men embarking in a commercial venture of this kind, and becoming themselves the proprietors. It is equally true that although, speaking generally, the personal professional relation between practitioner and patient must be weakened where a commercial company intervenes, and the medical man is not directly employed by the patient, yet there are conditions under which his employment by a company is inevitable and indeed unobjectionable; such are the cases of steamship companies, well-conducted hydropathic institutions, and sanatoria.

In the absence of any legal check upon companies exceeding their proper province, and giving rise to abuses of an obvious and sometimes extreme character, the only safeguard which occurs to me is that the articles of association (within which the company is compelled to act) should be so framed as to guard against abuse by securing adequate supervision by registered practitioners. But, unfortunately, the articles of association are apt to be drawn up by the persons providing the original capital, and the opportunity for bringing them into accord with professional feeling would often not arise.—I am, etc.,

London, Jan. 18th. CHARLES S. TOMES.

VACCINATION AND POLITICS.

SIR,—It has been suggested that members of the Association might be interested to see the opinions expressed upon the subject of vaccination by the parliamentary candidates at the recent by-election in Norwich. The resolutions submitted to the candidates corresponded in the main with those referred by the Central Council to the Divisions for their consideration, but the original wording had been somewhat modified at a meeting of the Norwich Division. Of the resolutions referred by the Central Council, the one dealing with the proposal to insert in a certificate of successful vaccination a statement of the number and area of the vesicles produced was not submitted to the candidates, because it was thought to be of too technical a nature; nor was the one proposing that any practitioner furnishing the vaccination authority with a certificate of successful vaccination, satisfying a standard fixed by the Local Government Board, should be the recipient of a suitable fee, as it would have given rise undoubtedly to much misconstruction during the heat of a by-election.—I am, etc.,

H. A. BALLANCE,
Honorary Secretary, Norwich Division of the
Norwich, Jan. 18th. British Medical Association.

The following is a copy of the correspondence:

40 Prince of Wales Road, Norwich,
January 9th, 1904.

DEAR SIR,—In view of the approaching introduction into Parliament of a Bill relating to vaccination, by reason of the expiration of the Vaccination Act of 1898 during the present year, I am instructed by the Norwich Division of the British Medical Association, which comprises forty-five members of the medical profession in this city, to request replies to the following proposals which have been considered and approved by the Norwich Division, and which are calculated to promote efficient vaccination and revaccination throughout the country, and to obtain direct administration of the Act by a Government Department.

Are you in favour of the following:

1. That revaccination be made compulsory by law, and that it be performed between the ages of 10 and 12 years.

2. That both primary vaccination and revaccination be subject to the same provisions for conscientious objectors to obtain exemption, as in the present Vaccination Act, but that the procedure be defined more strictly in any future legislation.

3. That the Vaccination Act be administered directly by a Department of the Local Government Board.

4. That all lymph be supplied by the Government, or by private establishments under Government supervision and guarantee.

5. That in any future legislation relating to vaccination power be obtained to control the movement of variolous matter which have been in contact with small-pox cases. I am, sirs, your obedient servant,

H. A. BALLANCE,
Hon. Sec. Norwich Division of the
British Medical Association.

ANSWERS OF CANDIDATES.

Mr. Wild (Conservative).

To Q. 1 and 2. I am in favour of compulsory vaccination subject to the rights of the conscientious objector, and convinced of the advantages of revaccination. But until the public mind is further educated as to the necessity for primary vaccination I am of opinion that legislation directed to making revaccination compulsory would be more likely to prejudice the public against primary vaccination than to produce the beneficial results aimed at by such legislation.

3. Yes.
4. Yes.
5. Yes.

Mr. Tillett (Liberal).

1. No.
2. No.
3. If this suggestion means administration wholly apart from local control, I am decidedly against. I prefer keeping control locally.
4. Yes.
5. Yes.

Mr. Roberts (Labour).

1. No.
2. I do not believe that people should be put to the inconvenience and often insult from the Bench of having to state their conscientious objection to a practice which, I hope and believe, enlightened medical opinion will soon universally reprobate.
3. —
4. If the practice of vaccination is continued, I certainly believe that lymph should only be supplied under Government supervision of the strictest kind.
5. —

LUMBAGO.

SIR,—Your readers are all deeply indebted to Sir W. Gowers for his learned lecture on lumbago. We hear too little of what might be called "The Pathology of Common Life," and are proportionately delighted when a Nestor like himself takes the trouble to enlighten his more ignorant *confrères*. An account of the minute bodies "muscle spindles" so curiously hybrid in their structure, and which he so happily describes as "muscle meters," although discovered some years ago, must be new to most practitioners. But while granting most fully the ingenuity and ability of the lecturer, may we be excused for saying that the whole narrative reads, to us, like a romance? Is everything to be explained by calling it inflammatory? to be labelled and finally disposed of, by adding *itis* to the end of its name?

We are pleased, however, to see that he doubts if dubbing a disease "neuralgia" takes us any "forrader," and that he shakes his head over so convenient a term as "neuritis." Where is there any benefit the very slightest ground—in morbid anatomy for burthening pathology with such an outlandish term as "fibrositis"?

I would not, however, have troubled you, Sir, by feeble attempts at criticizing such a weighty authority, and one whose opinions as a rule we humbly and with deference listen to, as sound and sufficient, unless I felt that some one should protest against abandoning old explanations for new-fangled hypotheses.

Garrod long ago showed that gout was invariably associated with uric acid in the blood, and almost as constantly with the deposition of urate of soda in and about the joints of the body. More particularly do such deposits take place in the cartilaginous structures, producing a decided roughening of their articulatory surfaces. Assuming these statements to be correct, and taking the everyday explanation of a piece o grit getting "into the eye," or more properly, of "a foreign body coming into contact with the conjunctiva," and causing not only pain, but violent contraction of the muscles of the eyelids, and applying this analogy to the rough deposits we have described as occurring in and about the shoulder-joint for example, have we not sufficient cause for the pain and the "contracture" of the muscles connected with this articulation, and also of the local muscular wasting, without the necessity of inventing a new disease, so to speak?

May I, in this connexion, refer to the bottom of page 118 in your issue of the 16th inst., where Sir William Gowers describes a severe case of "brachial" myalgia, with suffused adhesions and fixation of the joint, and ask your readers to note that when Sir William held the forearm firmly the patient could flex or extend the wrist without pain, whereas, if unsupported, any attempt at passive movement at the wrist caused excessive pain in the limb? Why should this prove not only that there was "muscular fibrositis," with "mimicry of fixation"—whatever that may mean? The simple explanation, to our mind, is that firm support of the wrist relieved the tension on the shoulder joint, and with that relief the muscles surrounding that articulation were

allowed the rest the lecturer so ably advocates, and the extreme pains through all the movements of the wrist disappeared.

I venture to add a word or two on "sciatica," of which you give, in the same issue, an interesting and learned account from a recent German writer on that subject. Perhaps I may be pardoned for referring in this connexion to my experience, deduced from a record of nearly 500 cases of sciatica, that such a combination is so frequent as to be present in something like 1 in 6 of all cases of sciatica. Is there any real anatomical relation between the fibrous structures of the sacral region and those emerging from the pelvis in connexion with the sciatic nerve? I humbly hold that just as I have said brachial neuralgia takes its origin from the deposition of sodium urate in and about the shoulder-joint, so does sciatica start from similar deposits in and about the hip-joint. Further, so also most probably does lumbago owe its symptoms, recurrence, and too frequent persistence to the pathological deposition, temporary or otherwise, of minute particles of urates on the opposed surfaces and in the sheaths of the tendons connected with the articulations of certain of lumbar vertebrae.—I am, etc.,

Strathpeffer Spa, Jan. 17th. WILLIAM BRUCE.

P.S.—May I add a word or two on one point referred to by Sir W. Gowers—namely, the sudden onset and sometimes the almost equally rapid disappearance of these pains? Reference to Garrod (p. 191, edition 1876) will show the possibility of washing away the deposit of urates from an affected joint *post mortem*. May not this help to explain the complete cure by absorption of the deposits of urates—"digestion" he very happily names it—in many of these cases? Another and more probable explanation is the alteration produced in the relative position of the deposits, just as takes place in floating loose cartilages in the knee, by movements of the articulations, and the effect of taking the recalcitrant muscles by surprise, as is well known occurs in dislocations, fractures, and in cases of long-standing "hysterical" joints by bonesetters and other more legitimate practitioners.

SIR,—In reading the lecture on lumbago delivered by Sir William Gowers, in the BRITISH MEDICAL JOURNAL of January 16th, I was very much surprised to find that he made no mention of a symptom of true lumbago which is always present, namely, the passage of a small amount of urine containing a large quantity of lithates. Neither did he refer to the well-recognized treatment of the complaint by full doses of belladonna and potassium bicarbonate, which I think I may say never fails to relieve the pain in the back and "clear" the urine at the same time. It is an interesting fact in connexion with lumbago, which I suppose every one has observed, that the pain in the back does not disappear until the urine becomes normal,—I am, etc.,

Minster, Ramsgate, Jan. 18th. A. M. WATTS, M.D.

SIR,—I read Sir William Gowers's lecture on lumbago with great interest. I am not sure, however, that I did not misunderstand him when he wrote that in inflammations of the fibrous tissue of a muscle there is no indication of the formation of inflammatory products or indurations.

I think that on careful palpation of the affected muscle it is possible in almost all cases to discover distinct alterations in its structure. In acute cases the muscle feels less elastic, and has a "doughy" consistence as if infiltrated with serous exudation. In the more chronic forms one often feels distinct hardenings in the muscle, extremely tender to the touch. In lumbago these are somewhat difficult to diagnose, as the most frequently-affected muscles—erector spinae and sacro-lumbalis—are covered by the thick lumbar aponeurosis. But in cases of sciatica it is very common to find circumscribed hardenings scattered over the glutei. Other muscles frequently affected by "fibrositis" are the neck muscles and trapezius, and this is often the pathological condition found in occipital headache.

As a student I was not taught to palpate the muscles in rheumatic affections. This I have since learnt in Sweden. It requires a good deal of practice, as the condition in the muscles may easily be confounded with a very common affection of the subcutaneous tissue under the skin (the cellulites of Swedish authors). These are small tender indurations often found under the skin of the arm and abdomen, and must be distinguished from the physiological lobulation of the adipose tissue. "Cellulites" of the abdomen have not infrequently been mistaken for diseases of the visceral organs. The easiest way to discover pathological alterations in a muscle is by having the skin over it well lubricated, and then passing the tips of the three middle fingers deeply along the muscle both longitudinally and transversely. Some superficial muscles can be grasped and kneaded between the fingers. Some Swedish authors believe that these cases of muscle inflammation caused by excessive muscular exertion are due to imperfect absorption of the "fatigue stuffs," which, remaining, act as irritants and produce the inflammation. The majority of chronic muscle indurations can be cured by deep friction-massage over the affected areas, but this treatment can of course only be given by a person capable of diagnosing the condition. In Sweden it is, therefore, frequently undertaken by medical men.—I am, etc.,

London, W., Jan. 18th. G. B. JACOBI.

SIR,—Sir William Gowers's lecture on the nature of lumbago and its analogues cannot fail to interest many of his professional brethren, for personal reasons. Common diseases which present such obstacles to thorough pathological research demand all the more a careful study of their symptoms, a study which is more likely to bear fruit when a personal interest is added to the scientific.

Muscular "rheumatism" appears to be a good name to embrace lumbago, stiff-neck, and kindred disorders, if one regards the original meaning of the word and its reference to a humoral pathology; but a bad one if it is taken to mean any near kinship with acute rheumatism, which is probably, or certainly, a disease of microbic origin. Sir William lays stress on its connexion with the gouty diathesis—its prevalence among those whose metabolic processes are easily disordered, people who pass habitually a highly-concentrated urine which on fatigue or the use of certain articles of diet becomes loaded with lithates. We see here a link between muscular "rheumatism" and the semi-physiological stiffness following on unaccustomed exertion.

My personal experience has not extended to lumbago, but has been confined chiefly to the variety of "stiff neck" due to involvement of the upper section of the trapezius and the pre-vertebral muscles (? longus colli); and here it appeared to me that one of the symptoms pointed to a neuritis or neuralgia of the sympathetic system as the essential lesion. I refer to the dull, vague, aching pain extending down the arm of the corresponding side in the distribution of the ulnar nerve.

This recalls the shooting pain produced by thoracic aneurysm and some cardiac affections, which is generally considered to be due to mechanical or other interference with the sympathetic fibres, and is evidently of a referred character. Sir William Gowers finds the sensory nerves of the muscles at fault. Is it not possible that all the afferent nerves of normally insensitive structures—for example aponeuroses, intestine—belong to the sympathetic system? In the case of the trapezius affection the cerebro-spinal nerve supply evidently fails to furnish the clue to the wide distribution of the pain. And can we be certain that the stiffness of the affected part is really the result of a massive lesion? Is it not rather the indication of involuntary hypertonicity, such as can be observed in the abdominal wall in internal inflammations?

In the treatment of these conditions, rest is assigned the place of honour by the lecturer. It is quite certain that perfect immobility and perfect relaxation in the dorsal position will remove the pain of "stiff neck," and indeed rest has always appeared to me a much more efficient remedy for general muscular stiffness than "walking it off." This is negative treatment, of course; of positive measures, counter-irritation has proved of little use, and we have no right to expect much from salicylates in a complaint simply because we choose to call it by the same name, as one totally different.

The simplest and most satisfactory treatment I have found to be sipping a good quantity of cold water—distilled for preference—and this on the theory that the first thing to be done is removal of a toxin. The object of taking it cold and slowly is to flush the kidney without acting on the skin. Bouchard has shown that the kidney is vastly the more efficient emunctory for the majority of toxic substances.

I may just add that in those predisposed the position in bed may have something to do with determining an attack, which, as Sir William points out, is felt so frequently after a night's sleep. From the relief experienced in the dorsal position I continued to sleep with only a single pillow, and since then I have had practically no recurrence. This may be a *post hoc* rather than a *propter hoc*, but Sir William's remark on the

time of incidence lead one to think that imperfect muscular relaxation, or tension during sleep, may be sufficient to determine an attack.—I am, etc.,

Cheltenham, Jan. 18th. ERNEST CHRISTISON CARTER.

CANCER AND ITS ORIGIN.

SIR,—In the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1664, there is an abstract of some observations by Messrs. Farmer, Moore, and Walker. They have been investigating karyokinetic processes in malignant tumours, a field of investigation in which I, too, worked extensively some years ago. Since my observations do not seem to be familiar to the authors, who are, I believe, botanists by profession, I should be glad if you would give me space in the JOURNAL for the following remarks.

These authors have found that in the cell development of malignant tumours the mitotic figures exhibit certain definite differences from those occurring in normal tissues. The essential alteration lies in the fact that the cells undergo a reductive division similar to that occurring in the formation of sexual cells, whereby germinal tissue is formed. The authors state explicitly that the cells do not become embryonic—in fact, differ from these through the small number of their chromosomes. In addition, the chromosomes are also changed in shape. These are all observations coinciding more or less with those described some time ago by me in various publications—for example, Virchow's *Archiv*, vol. cxix, 1890, p. 299; *Archiv f. mikroskop. Anatomie*, vol. xliii; the *Festschrift für Virchow* in 1891; and in the *Verhandlungen der anatomischen Gesellschaft*, 1891, p. 255; and elsewhere. I have given a connected account of these processes in my monograph entitled *Studien über die Spezifizität, den Altruismus u. die Anaplasie der Zellen* (Berlin, 1893), and reverted to the subject in my book on *Die mikroskopische Diagnose der bösartigen Geschwülste* (2nd edition, Berlin, 1902), pp. 91 *et seq.*

According to my investigations, it is not a question of a reduction to exactly one-half the normal number of chromosomes, nor does the reductive division occur in the manner seen in the maturation of ova and spermatozoa. According to my observations, the reduction is effected in a twofold manner: either by asymmetrical nuclear division, or by a destruction of individual chromosomes without destruction of all the nuclear substance. The first result by either of these two processes is cells with a smaller number of chromosomes than normal. I have called these cells hypochromatic. In the further stages of development these chromosomes may be doubled, quadrupled, sextupled, and so on, so that from hypochromatic hyperchromatic cells may arise, but always with a smaller than the normal number of chromosomes of human cells.

I have sought to correlate with these observations the peculiar characters which the cells of malignant growths possess, especially their greater power of independent existence and their loss of differentiation as compared with the normal tissue cells. The combination of these two properties I have termed "anaplasia," an expression now very generally employed in the scientific world, even by those investigators who do not altogether agree with the details of my observations on the cell processes.

I have also given a detailed account of the change of form of the chromosomes, and have shown how extraordinarily manifold their form may be in malignant tumours, which in nearly all cases differ not only from normal tissues, but also amongst each other, so that not only in different cancers, but in one and the same the most varied forms of chromosomes may be found.

Since these investigations are perhaps but little known in England, I am naturally anxious, in reference to investigations of Messrs. Farmer, Moore, and Walker, to guard my priority of observation in this field.—I am, etc.,

Berlin, Jan. 14th. Professor D. v. HANSEMANN.

THE TREATMENT OF PNEUMONIA.

SIR,—Since reading Dr. Lees's articles on the treatment of pneumonia, I have had practical experience of their great value. I have recently had under my care two children aged about 3 years. They were suffering from bad broncho-pneumonia after measles. They were deeply cyanosed; the pulse was very rapid and very weak, and the right auricle extended two fingerbreadths to the right of the sternum. These children were living in the vitiated atmosphere of small, overcrowded rooms, and I have never before seen children similarly circumstanced recover from the condition in which I found them. To relieve the gorged, distended right heart I applied four leeches over the right lower ribs. When the leeches had fallen off I ordered hot water to be applied for some hours to the leech bites. In this way we got away a considerable quantity of dark venous blood. The result was to me a revelation. The children, who had been sleepless, slept all that night and late into the next morning. When at last they awoke the cyanosis was gone, the pulse was good, and the distended heart had contracted to its normal size. The children were, in fact, convalescent and recovered.

Dr. Barr, in criticising Dr. Lees, makes some remarkable statements which I can only explain by supposing that he has forgotten his anatomy. He says, "Leeches abstract blood in the course of circulation from the capillaries, and possibly in some cases from a small vein, but, from whichever source, the blood comes immediately from the left side of the heart, and not from the right. In venesection from the median basilic the bleeding is directly from the arterial tree."

Surely any medical student could tell him that the blood in the capillaries and small veins between the ribs passes into the right auricle through the intercostal veins, the azygos, and the vena cava. So also the blood in the median basilic is hurrying on towards the right auricle, and to extract 6 oz. or 8 oz. of blood from these veins is to prevent 6 oz. or 8 oz. from entering the over-distended right auricle and thus give it an opportunity to recover itself.

Dr. Lees refers to the value of belladonna, but I do not think that he lays sufficient emphasis on the great value of large doses of this drug in certain cases of bronchitis and broncho-pneumonia. The cases to which I refer are those in which there is a dangerous excess of mucus in the bronchial tubes. These patients die drowned in their own secretion. In large doses of belladonna we have a life-buoy that will save many of them. Patients taking belladonna often complain of dryness in the throat. It is this dryness, not only in the throat, but in the bronchial tubes, that we want to produce, and large doses of belladonna will do it. Of this I have ample experience. My last serious case was an old gentleman 80 years of age. He had bad bronchitis. His bronchial tubes were swamped with mucus. He was cyanosed, pulseless, and apparently sinking into stupor and death. I gave him 20 minims of the tincture of belladonna in one dose. This made him delirious, but after a little delirium the mucus disappeared, and he rapidly recovered.

I may add that alcohol, which is generally given in these cases, does nothing but mischief. Professor Sims Woodhead has proved that alcohol causes congestion and engorgement of the mucous and submucous membranes of the bronchial tubes. This effect of alcohol is the very opposite of that which is produced by belladonna, and explains why so many alcoholic subjects are also the subjects of chronic bronchitis.

I will conclude by referring again to the articles of Dr. Lees and expressing my conviction that they are the most valuable contribution ever made to the therapeutics of pneumonia.

I am, etc.,

London, W., Jan. 18th. J. MCNAMARA, M.D.

SIPHONAGE AND HYDRAULIC PRESSURE IN THE LARGE INTESTINE.

SIR,—While thanking your reviewer for the able manner in which he has condensed a considerable portion of my views on this subject, I should like to traverse his opinion that retraction of the anus in the young adult is due in large measure to the action of the pelvic fascia and the levator ani. There are three conditions in which retraction of the anus is emphatically absent—early infancy, the typhoid state, and death. Now, since none of these conditions can affect either the muscle or the fascia, why should retraction be absent? On the other hand, tonic contraction explains its absence perfectly. In early infancy the taeniae, like the sphincter ani, have not yet acquired tonicity; in the typhoid state there is paralysis of the musculature of the intestine, including its longitudinal fibres; in death, tonicity is of course lost. After all, retraction is only one of the many arguments in favour of tonicity. It is difficult, for instance, to explain otherwise the fact that when the abdomen is opened *post mortem* the transverse colon, averaging 20 in. in length, is found reposing peacefully and without undulations on a bed measuring 10 in. or less. The subject of my book is by no means one of pure academic interest; on the contrary, it is of the highest importance not only to our patients but to ourselves. I am, etc.,

London, Jan. 18th. RALPH W. LEFTWICH, M.D.

THE PREVENTION OF SYPHILIS.

SIR, Is it not high time that some serious attempt were made to attack this disease as we do others less far-reaching in their evil effects?

The Act which was in force for a short time some years ago failed, despite good intentions, because it was built upon an insecure foundation. "The State regulation of vice" was a term which started off public opinion (and the whole work in connexion with the scheme) upon a wrong basis. The question became one of morals and caused great misunderstanding. If the State took in hand the "suppression of disease" with a view to its elimination no one could complain, especially as syphilis is so insidious and far-reaching in its ill-effects. Such an Act should deal not with the question of morals, but with means of eradicating, as thoroughly as possible, a disease which is day by day being reproduced. Morals must be treated separately, although, as regards syphilis, very many suffer through no immoral act of their own.

If a man contract small-pox by contagion when picking the pocket of an infected person, we do not ignore his disease, however great a criminal he be, but require that he be treated medically as a source of public danger; when he doubtless reflects upon the immorality of the act through which he contracted disease!

My desire is to raise the question whether great good might not be achieved by a carefully-prepared Act of Parliament giving the State power, by all possible means, to suppress and if possible eliminate syphilis. The difficulties to be faced in framing such an Act are many and great, but not insuperable. Indirectly moral conditions would improve with the physical improvement and the education of the people in this matter.

Sufferers in the upper classes, who already understand to a great extent what syphilis means, generally receive for themselves a proper course of treatment; but this cannot be said of the lower classes: and it must be remembered that it is in the upper orders only that the birth-rate has been artificially lowered, and that, therefore, the upkeep of the population of the country is very largely left to the lower rank so widely tainted with syphilis.

Is it not time that the State ceased to ignore this one of the many contagious diseases which is at present left to be propagated by a callous and ignorant people?—I am, etc.,

Church Crookham, Hants. R. JOHNSTONE STIRLING.

HUMAN SERUMTHERAPY.

SIR,—According to accepted views, specific immunity is due to the presence in the blood of a definite antitoxin, developed in reaction to the introduction of a definite pathogenic organism. It follows that the rational treatment of those diseases which confer this immunity should be the injection of the serum of a person who has successfully fought through the same disease. If antidiphtherial serum obtained from the horse is effectual, so probably would be human serum from a patient recovered from diphtheria, with the additional advantages of freedom from undesirable by-effects, and of longer action. The acute eruptive fevers, especially small-pox and scarlet fever, which confer a marked specific immunity, might on this theory be combated from the outset by injections of serum drawn from patients whose health is re-established after passing through the same disease. Experiment alone could determine the immunizing therapeutic value of serum taken, say, from a patient recovered from small-pox, and the quantity and frequency of the injections required to influence the clinical course of the disease.

The practical difficulty would be to obtain a sufficient supply of the serum, but when it is remembered how readily a past generation submitted to bleeding for trivial maladies it cannot be doubted that many patients would be found altruistic enough to allow themselves to be bled on behalf of fellow-sufferers. If the comparative immunity of infants at the breast from acute infectious diseases is correctly explained by the fact of their taking in with the milk the protective antitoxin which is the result of the mother having passed through the same disease in childhood, there is a presumption that the injection of the mother's serum would have the same effect on older children. Many a mother would unhesitatingly be bled for the benefit of her child, endangered, say, by scarlet fever.

I am not aware whether the same idea has occurred to others, or whether the experiment has been tried, but I venture to send the suggestion for publication in the hope that those in charge of fever hospitals, or others having the opportunity, may deem it worthy of trial.—I am, etc.,

THEORY.

THE PATHOGENESIS OF GOUT.

SIR, I have read with interest the letters appearing in the BRITISH MEDICAL JOURNAL of January 16th, dealing with my article on the above subject. I appreciate the criticisms of your correspondents and feel it incumbent upon me to deal with certain points they raise.

Dr. Kingston Barton is in error in suggesting that an imperfect acquaintance with the usual *post-mortem* changes in the digestive tract has led to a misinterpretation on my part of the appearances shown in the section. If Dr. Barton will do me the honour of referring to a paper published by me in the *Journal of Mental Sciences* in July, 1903, he will see that I have studied the normal intestinal tract in the human subject and have there given clear illustrations of the unavoidable *post-mortem* changes. I have similarly studied the digestive tract in fowls and other animals in a number of cases in which the tissues were fixed at periods ranging from a few minutes to several days after death, with results confirmatory of those illustrated in the foregoing paper. This experience has taught me to attach no significance to an apparent loss or destruction of tissue provided the number and arrangement of the glandular elements in the deepest part of the mucous membrane are fairly normal. But if, as in the section in question, the number and arrangement of these glands is far removed from the normal, and if this change is associated with a great excess of lymphoid tissue such as is referred to in my paper, we have conclusive evidence of an *ante-mortem* condition. These appearances are indicative of formative changes of the nature of a vital reaction to an irritant. For the rest I note with satisfaction that Dr. Barton is in perfect agreement with me in regarding the changes throughout the tissues as characteristic of a general infective process. It would be premature at this stage with the insufficient data at our disposal to attempt to define the precise nature of this infective process, but if the theory is correct and is adopted as the basis of future investigations, it will have the effect of still further concentrating attention on dietetics and especially on the interaction of particular forms of food and the bacteria normally existing in the digestive tract.

Dr. Bradshaw disagrees with the *post-mortem* diagnosis of gout on the following grounds. It is very unusual for a first attack (1) to affect numerous joints; (2) to be attended with various visceral inflammations; (3) it is almost unknown for a first attack to prove fatal; and (4) as gout is characteristic of a high civilization, it is unlikely to be found in birds at all. How far are these statements justified? In Garrod's classical work on gout there is a record of 516 cases (Scudamore) drawn up for the purpose of showing the seat or seats of the first invasion of the disease, and in 202 of these cases more than one joint was involved. His first statement, so far as it can traverse the actual record in my paper, is therefore inaccurate. With regard to his second ground, it would be interesting to learn the foundation of his statement. So far as I am aware, no opportunity has ever arisen of ascertaining the actual condition of the viscera in the acute phase of gout. This information is one of the chief desiderata for a true knowledge of the disease, and the notorious difficulty in obtaining it in the human subject is one of the cardinal reasons for turning to comparative pathology if the necessary conditions for obtaining it either exist in animals, or can, like other diseases, be induced in them. His second statement, therefore, is a pure assumption. It is quite accurate to say that it is almost unknown for a first attack of gout to prove fatal in the case of human subjects under treatment, but this can form no basis for the conclusion that a fatal result is unlikely in the adverse conditions that obtain in the animal kingdom. On the last point, which Dr. Bradshaw mentions incidentally, I may mention that a disease presenting the clinical and pathological features of gout has been successfully induced in fowls (Kionka), and I submit that this proved susceptibility to the disease is sufficient reason for anticipating its occasional existence where a faulty system of dietary coexists with a diminished power of resistance to the toxic influences at work.

Accordingly, the negative considerations put forward by your correspondent appear to have little weight, and in the absence of an adequate alternative diagnosis that of gout must be accepted. This diagnosis was based upon the

generally-accepted definition of that disease that "gout" is a constitutional disorder characterized by paroxysmal attacks of inflammation of the joints associated with formation of chalk-like concretions (urates) in and about the joints (Roberts). Dr. Bradshaw suggests that the case was one of acute nephritis, and that the deposits in the tissues were the result of the suspension of the functions of the secreting elements of the kidney, whereby uric acid accumulated in the tissues producing a condition analogous to uraemia in the human subject. A weak point in this analogy is the fact that uraemia is now generally believed to be not simply dependent on the retention of urea in the system. Apart from that, his theory of the kidneys being thrown out of action, and the function of an eliminating organ being suspended, is not supported by the pointed statement of fact (Fig. 7) that the secreting elements of the kidneys—the convoluted tubules were singularly healthy, notwithstanding the existence of marked disease in adjacent structures.

I would point out that Dr. Bradshaw does not indicate a single respect in which the histological features illustrated differ from the type of gout as above defined, and I am pleased to observe that we are in substantial accord in believing that the case was one of an "acute and fatal intoxication." On the question of labelling the disease, his criticism reminds one of the Shakespearean humourist who, in dealing with the Baconian theory, admitted that the plays were not written by Shakespeare but by another man of the same name.—I am, etc.,

Edinburgh, Jan. 15th. CHALMER WATSON.

"DOCTORS IN PARLIAMENT."

SIR,—In view of a probably approaching general election, I am glad to see letters in the BRITISH MEDICAL JOURNAL urging the necessity for more doctors in Parliament. More medical men are certainly required in the House of Commons for the sake of the profession, but there are even better reasons for wishing to see them there—they are greatly needed for the sake of the country. Medical measures, amongst which I class measures dealing with the feeding and with the housing of the people, are engrossing more and more the attention of the Legislature, and must be dealt with by an assembly which fully understands them.

For more than twelve years I have had ample opportunity of watching the control of medical institutions by lay and by mixed medical and lay committees and, without entering into undesirable detail, I would state my clear conviction that no merely lay body, however intelligent, however empowered to consult medical men outside itself, can safely administer public medical affairs. For safe administration of public medical affairs, I am convinced that medical men in reasonable numbers must be actually members of the governing body. I believe further that this is as true in national matters as in local matters, and that consequently there is a great need at the present time of adequate medical representation on all bodies dealing largely with medical public questions. This is particularly the case in both Houses of Parliament, on the Privy Council, and on the County Councils.

The medical profession is by no means a wealthy one, and the number of its members with sufficient means and leisure to represent a constituency in Parliament is necessarily limited. But I fancy that, if the national need for medical members of Parliament were once grasped by the profession, more medical candidates would be forthcoming for election. It is a great pity that we possess no fund which could be used for defraying in part the expenses of medical members of Parliament. The fact that their presence in the Commons would be a clear gain to the whole profession constitutes, it seems to me, an obvious claim upon the whole profession to share the burden of expense.—I am, etc.,

Exeter, Jan. 5th. W. GORDON.

SCHOOL CHILDREN OUT OF SCHOOL.

SIR,—I have read with much interest the articles by your Commissioner on Physical Degeneration, and especially that in the BRITISH MEDICAL JOURNAL of January 16th, which gave such an admirable account of the Passmore Edwards Recreation School, and the work of the Children's Happy Evening Association.

Some of your readers may be interested in a further effort which is being made by the Women's Industrial Council in this direction. The Council lately, and on the lines proposed by your Commissioner, appealed for funds to enable it to start "recreation classes" for school children whose mothers have to go out to work, and who therefore miss home life and parental care until perhaps the late evening.

APPEAL

The Women's Industrial Council is anxious to [illegible] in London the example set by the [illegible] of Germany. The aim is to keep [illegible] and happily occupied [illegible] of school hours certain evenings [illegible] when [illegible] by poverty or family or [illegible] to properly care for their children. Such [illegible] instances are [illegible] who have lost one parent [illegible] parent has to be at work all day. It is desired to [illegible] of the [illegible] departments of certain elementary schools from 4 to 7.30 or 8 p.m. on five days a week, and in these schools to have games, [illegible] classes in various handicrafts such as [illegible] basket making, etc., [illegible] sewing, and in drawing. Home lessons would thus be left for [illegible] the rooms at the close of the afternoon session. A light meal at very low prices might be provided. Extra paid supervision would be required for each school, the rest of the work would be carried on by voluntary helpers, while the school premises it is hoped would be lent free of charge. It is proposed to set two such schools going immediately as an experiment, and voluntary helpers are forthcoming for both. The expenses of each are estimated at about £1 a week. A sum of £100 [illegible] will carry on the two recreation schools for about a year. For this sum we now appeal to the public. The neglected children of to-day are the criminals, the wastrels, and the paupers of to-morrow. Every little one who can be taken from that dangerous and demoralizing playground, the street, and can be taught to find pleasure in healthy games, physical exercise, and intelligent occupations, will become not only a happier and healthier, but also a more productive and less burdensome member of society. To preserve children from evil ways is alike the truest philanthropy and the truest economy; and the children for whom we plead are those who are least able to help themselves.

ISABEL ABERDEEN, President
CLEMENTINA BLACK, Vice President
NETTIE ADLER, Chairman, Executive Committee
EUSIE M. CADBURY, Vice President
MARGARET E. MACDONALD, Secretary, Education Committee
L. WYATT PAYWORTH, General Secretary

19, Buckingham Street, Strand, W.C., Dec. 8th, 1903.

Any of your readers who may be interested in work of this nature will obtain full information about it from the offices of the Council, 19, Buckingham Street, Strand, W.C.—I am, etc.,

ALICE R. JOSEPH,
Honorary Secretary, Recreation School Committee, Women's Industrial Council.

19, Buckingham Street, Strand, Jan. 19th.

ST. BARTHOLOMEW'S HOSPITAL.

SIR, With the sanction and sympathy of His Royal Highness the Prince of Wales, President of this hospital, who has graciously associated himself with the appeal, a public meeting will be held, under the auspices of the Right Hon. the Lord Mayor, at the Mansion House, at 3 p.m. on the 26th inst., to promote the appeal of this hospital for funds to enable it to undertake the works which are absolutely necessary to bring it up to modern requirements.

May I earnestly beg you to give the hospital your valuable help and support at this meeting?

St. Bartholomew's is the only hospital for the sick within the City limits. It is of great antiquity, and has carried on a vast work of mercy and charity on the same site for nearly 800 years. The value of this work will be realized when it is known that in the last fifty years of the nineteenth century the hospital gave relief to more than 7,000,000 of the sick poor. For many generations it has been a prominent centre of medical education, and its pupils are found in every part of the empire.

St. Bartholomew's has not asked the public for help for more than 130 years, but now help is urgently required to meet the demands made by the unceasing advance of medical science. These demands, with the requisite addition to the hospital site, will cost not less than £300,000.—I am, etc.,

London, E.C., Jan. 14th. TREVOR LAWRENCE, Treasurer.

THE POOR-LAW SERVICE IN SCOTLAND.

SIR, The Poor Law medical officers of Scotland owe you a debt of gratitude for the zeal with which you from time to time champion their cause in the BRITISH MEDICAL JOURNAL. Dr. Macara's case is but a sample of the spirit which in many parts of this country is manifested towards parochial medical officers, and unless such treatment be rendered impossible by legislation the time is not distant when the services of qualified medical men will be absolutely unattainable in the remote Highlands of Scotland. In this connexion let us sim-

cerely hope that the gentleman at the head of the Scottish office may not be found to be so unsympathetic as his predecessor.—I am, etc.,

Jan. 17th. ALPHA.

THE MIDWIVES ACT.

SIR,—In the BRITISH MEDICAL JOURNAL of January 9th, p. 107, there is a letter from "Observer" criticizing the Local Government Board *re* the Midwives Act. I think your correspondent, like the Central Board, has entirely overlooked the fact that the exemption from operation of Section E is not limited to Poor-law institutions, but includes hospitals of every kind, and over those, of course, the Local Government Board has no control. Another point that should be noted is that Section E is evidently drawn on the assumption that there will usually be no supervising medical attendant to see that the midwife does her duty.

What we ought to have—and I have little doubt we shall get—is a special Local Government Board order that will probably combine all that is good in the rules of the Central Committee with any modifications that may be suitable to Poor-law institutions.

May I point out to your correspondent that the Local Government Board does not "employ" midwives; that they are appointed by the guardians; and I can assure him that in the vast majority of workhouse maternity wards he will find that at the present time "disinfection, cleanliness, care of infants' eyes, case taking," are enforced, and in the exceptional cases that may exist where it is not so I am afraid that it is not the fault of the Local Government Board, but that of the union medical officer.—I am, etc.,

Didsbury, Jan. 17th. JNO. MILSON RHODES.

OBITUARY.

SIR WILLIAM RAYMOND KYNSEY, C.M.G., J.P.

WE regret to announce that Sir William Raymond Kynsey, late Principal Civil Medical Officer and Inspector-General of Hospitals in Ceylon, died at his residence at Horsham, in the 64th year of his age. He was a son of the late Dr. Thomas Brett Kynsey, J.P., of Athy, co. Kildare, and the grandson of an officer in one of the old Royal Fencible Regiments. He was born in 1840, and received his professional education at Trinity College, Dublin. He obtained the licence of the Royal College of Surgeons, Ireland, in 1861, and that of the Royal College of Physicians, Ireland, in the following year. He joined the Medical Service of the army as an Assistant Surgeon in September, 1863. He served mostly with the Royal Artillery in Bombay and Poonah, in Ceylon, and in Guernsey. He served in the Ashantee war of 1873-4, when he was present at the capture of Coomassie, for which he had the medal. In 1875 he was placed on half-pay on appointment as Principal Civil Medical Officer in Ceylon, and in 1886, after having been admitted a Member in 1880, was elected a Fellow of the Royal College of Physicians, Ireland. While resident in Ceylon, he filled various other offices, including that of a member of the Legislative Council, a magistrate, a visitor of the gaols of the island, and a municipal councillor of Colombo. He was for some time President of the Ceylon Branch of the British Medical Association, an office which he filled with great dignity and efficiency. While at home in 1888 he represented the Ceylon Branch on the Council of the Association. He was decorated with the C.M.G. in 1888, and was knighted in 1897. In 1899, on the completion of twenty-eight years' service, he retired and returned home. He was a member of the several medical societies, and spent the last years of his life in attending different clinics and special hospitals, always taking the greatest interest in the advance of medicine and in everything relating to the profession. Sir William Kynsey married, in 1866, Isobel Keith, daughter of the late Captain J. K. Jolly, of the East India Company's Service, of Farieland, Kandy, Ceylon.

Sir William Kynsey was the author of a work on Parangi (framboesia tropica) with atlas, and of one on Ankylostomiasis.

GEORGE THIN, M.D.,

London.

BY the death of Dr. George Thin, which took place at Nice on December 27th, 1903, the profession has lost a most able and conscientious physician. For the past year his health had been so unsatisfactory that he was obliged to relinquish all work, and it was hoped that a stay in the South would enable him to enjoy a measure of health in his retirement. But the cardiac disease from which he suffered became aggravated soon after his arrival at Nice, and he succumbed to its effects.

George Thin was educated at Aberdeen University. He took the diploma of L.R.C.S.Edin. in 1858, and graduated M.D. at his University in 1860. He engaged for a time in practice in Scotland, but soon gave this up to proceed to Shanghai, where he worked for some seven years. It was there that he laid the foundation of his wide knowledge of tropical disease, a study which occupied much of his after-life. In the early Seventies he returned to England and settled in London, devoting himself to medicine. At this time he made a special study of dermatology, and in order to acquire a more intimate knowledge of this subject he spent some time in Vienna and Paris. He soon obtained recognition, and was a frequent contributor to the journals on this subject. Among the more important of his papers may be mentioned Cancerous Affections of the Skin, published in book form, and papers in the *Proceedings* of the Royal Society, and in this and other journals on ringworm.

As time passed his interest in dermatology was to some extent diverted by increasing demands made upon him in connexion with tropical disease. In this subject he was an indefatigable worker, and his experience gained in China was continually being added to from his practice amongst those returning from the East who sought his advice. All tropical conditions were carefully studied by Dr. Thin, but that to which he devoted most attention was sprue. The results of his investigations and wide experience in this disease were embodied in a book entitled *Psilosis, or Sprue*, which ran through more than one edition, and is still a standard work on the subject. In this book he sought to assign a distinctive entity to the disease as opposed to other forms of tropical diarrhoea. Dr. Thin was a strong advocate of the value of an exclusive milk diet in sprue, and the great success he had was largely due to minute care in all matters of detail. All through his life the microscope was his constant companion, and at different times the histology of one system after another was taken up and carefully worked through.

In addition to private practice Dr. Thin held the post of medical adviser to many corporations doing business in the East, and not the least valuable part of his work was the careful selection he made of candidates going abroad. His large experience in this capacity enabled him to tell with almost unerring precision the kind of man likely to stand Eastern climates, and it was his pride to think that he had recommended for duty in far-off lands only the very best.

Dr. Thin was for many years a member of the British Medical Association, and took great interest in the scientific side of its work. He was a regular attendant at the annual meetings, and was a vice-president of the Section of Dermatology in 1893, and president of the Section of Tropical Diseases in 1899.

As a man he had a wholesome dislike of all shams and formulas, and honesty of purpose characterized all his work. Naturally reserved in manner, he had few intimate friends, but those who did gain his confidence had in him a firm friend. Patient and careful, always striving after the truth, his mind had a strong scientific bent, and these characteristics were observed in all that he undertook. His death will be sincerely regretted by many.

WILLIAM MORRISON,

M.D.Edin., B.Sc.(Nat. Sc.), B.Sc.(Pub. Health); Special Plague Officer.

DR. WILLIAM MORRISON, who died in India some months ago, was born in Comrie, Perthshire, in 1842, and received his early education there. When still quite young he showed a leaning towards natural science, but for family reasons had to turn aside to commerce, and was employed first in Glasgow, and afterwards in some engineering works in Dundee. He occupied his spare time, however, with scientific pursuits, and was Secretary of the Dundee Naturalists' Society, as also of a similar association in connexion with his native Strathearn. It was not until 1877 that he found it possible to turn to the study of medicine, and the first degrees he obtained were those of M.B., C.M.Edin. in 1882. During his career as a medical student his taste for natural science secured him three medals, two in botany and one in natural history.

Soon after graduating he received an appointment as medical officer to the Chinese Customs and British Consulate at Newchang, China. While there he found time to pursue his botanical studies, a paper by him on the flora of Man-

churia being published in the Consular reports. Ultimately he found that the climate was trying his health too much, and, giving up his post in 1893, he returned home by way of America, where he remained some time making a study of the flora of the Rocky Mountains. After his return home he commenced work in London, and in 1895 took the degree of B.Sc. in Natural Science at Edinburgh. This he followed up a year later by presenting himself for and obtaining the corresponding degree in Public Health, and also graduated M.D., his thesis on the climates and flora of North China being commended by the examiners.

About three years later he went out to India as one of the special plague officers, being allotted for duty to the Government of Bombay. In this position he continued up to the time of his death, and his work while in charge of the Famine-Camp Hospital at Dohad was specially commended by the Viceroy, Lord Curzon.

Dr. Morrison was one of those quiet, retiring men who are not known to many, but are, nevertheless, greatly beloved by a small circle of intimate friends. His death, which was due to an accident during sleep-walking, was a cause of great regret to the small Scots community at Bombay, and his kindly and genial presence will be specially missed by his native colleagues, with whom, as with his native patients, he was very distinctly a *persona grata*.

GEORGE EDMUND LEGGE PEARSE, F.R.C.S.,

Formerly Surgeon, Westminster Hospital.

We regret to have to record the death of Mr. George Edmund Legge Pearse, F.R.C.S., which took place on January 13th at Homefield, Merton, Surrey. The late Mr. Pearse, born in 1843, received his general education at Westminster School, and subsequently proceeded to Westminster Hospital Medical School, where he gained the silver medal for anatomy and chemistry in 1862, and was awarded the Chadwick prize two years later; he was also a Prosector of the Royal College of Surgeons. After obtaining the diplomas of L.S.A., M.R.C.S., in 1864, he remained two more years at the hospital, occupying consecutively the positions of House-Surgeon and House-Physician. Subsequently he became Senior House-Surgeon at the Royal Infirmary, Manchester, and later Resident Superintendent of the Ardwick and Ancoats Hospital. Upon receiving an appointment as Demonstrator of Anatomy at his old medical school he returned to London, and in 1868 he became a Fellow of the Royal College of Surgeons of England. In the years which followed he held at his school the Chairs of Anatomy and Surgery, and finally became one of the Surgeons to Westminster Hospital.

During this time he lived at Queen's Mansions, Victoria Street, where he remained until about four years ago. His health then failed, and in consequence he relinquished all work and settled down at Merton. Outside surgery Mr. Pearse took considerable interest in microscopy, and was a Fellow of the Royal Microscopical Society and also of the Zoological Society. Though not a profuse writer, he from time to time contributed papers to the medical journals. His funeral took place on January 18th at Norwood Cemetery.

R. VICARS FLETCHER, F.R.C.S.I.,

Late Medical Superintendent, Ballinasloe Asylum.

We regret to record the death of the late Dr. Robert Vicars Fletcher, Medical Superintendent of Ballinasloe Asylum, which occurred on December 17th. Dr. Fletcher was a Dublin student, and did most of his early work at Steevens's Hospital, Dublin, but took his first qualifications—the L.R.C.P. and L.R.C.S.Edin. in 1865 in Scotland. Later he received the diploma of the Irish College of Surgeons, and in 1879 became one of its Fellows. He turned quite early in his career to psychology, and in 1870 obtained the appointment of First Assistant in the Downpatrick Asylum, County Down. From this he was promoted two years afterwards to the superintendentship of the County Waterford Asylum, and finally was transferred to a similar institution at Ballinasloe. This asylum, upon his arrival, he found in a very backward condition, and for many years he was busily occupied in introducing reforms. Finally, twelve years after his arrival, he was successful in persuading the governing body to create special provision both for cases in an acute stage of mental disease and for the physically sick. As an asylum superintendent he was exceedingly successful, and he continued to occupy this post at Ballinasloe until his death, which was not entirely unexpected; for many months, and indeed ever since last winter, when he had a bad attack of influenza, he had been in frail health. The greater part of his work, however, during this time was taken off his shoulders by his senior assistant, Dr. J. Mills. Personally Dr. Fletcher was a very popular man, and his funeral was attended by a large number of representatives of all classes. Amongst the asylum superintendents of Ireland he was a decided personality.

We regret to announce the death of Dr. Peter Dettweiler, founder of the well-known sanatorium at Falkenstein, and one of the pioneers of the modern treatment of consumption. Dr. Dettweiler was in his 67th year.

Deaths in the Profession Abroad. Among the members of the medical profession in foreign countries who have died recently are Dr. Josef Seegen, for many years one of the official physicians of Carlsbad, since 1859 professor of balneology in the University of Vienna, and author of numerous works on diabetes, etc., aged 81; Dr. Konrad Clar, extraordinary professor of balneology at Vienna, and author of works on health resorts, on the treatment of consumption, etc.; Dr. Ziem, of Danzig, a well-known specialist in diseases of the throat and nose; Dr. H. E. Turgis, Member of the French Senate for the Calvados Department, and Senior Physician to the Hospital of Falaise, aged 75; and Professor Gebhard, of Berlin, well known by his contributions to the literature of gynaecology, aged 42.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Arthur W. May, Fleet Surgeon, to the *Ocean*, for Gibraltar Hospital, January 27th; Thomas C. James, Fleet Surgeon, to the *Britannia*, for Cadets' Sick Quarters, January 29th; Herbert A. Penny, Staff Surgeon, to the *Juno*, February 5th; Robert H. Atkins, Surgeon, to the *Juno*, January 26th; Michael J. Lalfan, M.B., B.A., Surgeon, to the *Clio*, on commissioning; William E. Rutledge, Surgeon, to the *Bedford*, January 19th.

Civil Practitioner John D. Wynne, M.D., has been appointed Surgeon and Agent at Clonmel, January 15th.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

		From.	To.
Lt.-Col.	J. B. Emerson...	Madras	Portsmouth.
,,	O. Todd, M.B.	Cork	Egypt.
,,	W. Dugdale	Bombay ...	Netley.
,,	T. P. Woodhouse	Dover	Punjab.
,,	G. J. Coates, M.D.	Templemore ...	Hong Kong.
,,	M. W. O'Keeffe, M.D. ...	Punjab... ...	Woolwich
,,	C. W. Thiele, M.B.	Chester ...	Warrington.
,,	F. J. Lambkin...	Hong Kong ...	Bombay.
,,	A. A. Pechell, M.B.	Bengal... ...	Dublin.
,,	W. G. Macpherson, M.B., C.M.G.	Home District	N. China.
,,	R. J. S. Simpson, M.B., C.M.G. ...	,,	London.
Major	R. J. A. Durant...	Warrington ...	Bengal.
,,	J. J. C. Donnet...	Gosport ...	Bombay.
,,	G. B. Russell, M.B.	Cork	Templemore.
,,	A. E. Morris, M.D.	Bombay ...	Woolwich.
,,	R. J. Power	Dublin... ...	Waterford
,,	M. L. Hearn	Belfast ...	Holywood
,,	L. T. M. Nash	Punjab ...	Portsmouth.
,,	M. J. Sexton, M.D.	Dublin ...	Bengal.
,,	J. B. Wilson, M.D.	Woolwich ...	Egypt.
,,	J. Donaldson	Tipperary ...	Bengal
,,	R. J. Windle, M.B.	Bombay ...	Home District
,,	C. H. Hale, D.S.O.	Curragh ...	Newport.
,,	H. S. Peeke	Canada ...	Aldershot.
,,	J. W. Hardy, M.B.	Netley	Egypt.
,,	C. J. Healy, M.B.	Dublin	Ceylon.
Captain	L. A. Mitchell, M.B.	Aldershot ...	Bengal.
,,	H. S. Thurston	Portsmouth ...	N. China.
,,	H. W. K. Read	Dublin	Belfast
,,	G. F. K. Maurice	Salisbury Plain	Bulford.
,,	D. E. Carine	Devonport ...	Madras.
,,	C. H. Carr, M.D.	Edinburgh ...	Bombay
,,	J. J. Johnston, M.D.	Bulford ...	Hong Kong.
,,	W. L. Steele	,, ...	Bengal
,,	H. A. Davidson, M.B.	... ...	Madras.
Lieutenant	J. M'Kenzie, M.B.	Portsmouth ...	Bengal
,,	N. D. Walker, M.B.	Aldershot ...	Bombay
,,	R. B. Ainsworth	Portsmouth ...	Madras
,,	C. A. J. A. Balck, M.B. ...	Woolwich ...	Punjab.
,,	E. Storrs	,, ...	,,
,,	G. A. K. H. Read	,, ...	Bengal.
,,	D. S. Skelton	Aldershot ...	Ceylon

Lieutenants J. M. M. Crawford, C. Bramhall, T. E. Harty, H. H. Swaney, J. F. Skey, and H. F. Slack, M.B., recently appointed on probation, are stationed at Woolwich.

ARMY MEDICAL STAFF.

The appointment of Surgeon General W. J. Gubbins, M.B., M.V.O., as Principal Medical Officer Bombay Command is gazetted, to date from December 12th.

ROYAL ARMY MEDICAL CORPS

LIEUTENANT-COLONEL J. HICKMAN retires on retired pay, January 23rd. He was appointed Surgeon, July 28th, 1882; Surgeon-Major, July 28th, 1894; and Lieutenant-Colonel, July 28th, 1900. He was in the Burmese campaign in 1885-87 (medal with clasp), with the expedition to the Gambia in 1892, including the capture of Tomataba (medal with clasp), with the Ashantee expedition in 1895-96 (star), in the operations in Sierra Leone in 1898-99 (clasp), and in the South African war in 1901-02 (Queen's medal with two clasps).

Captain JAMES M. BUIST, from the seconded list, to be Captain, December 1st, 1903. Captain Buist was seconded for service with the South African Constabulary, August 2nd, 1902.

Lieutenant-Colonel W. G. MACPHERSON, M.D., C.M.G., has been appointed Principal Medical Officer to the forces in Canada.

Brigade-Surgeon THOMAS WILLIAM WRIGHT died at November 7th, 1903. He joined as Assistant-Surgeon, September 28th, 1854; was made Surgeon, March 1st, 1865, and Surgeon-Major, August 2nd, 1875. He retired from the service, with the honorary rank of Brigade-Surgeon, June 17th, 1881. He was in the Ashanti war in 1873-4, receiving a medal.

INDIAN MEDICAL SERVICE.

COLONEL B. O'BRIEN, M.D., Bengal Establishment, is appointed to officiate as Inspector-General of Civil Hospitals, United Provinces.

Captain F. S. C. THOMPSON, M.B., and Lieutenant L. P. FARRELL, Indian Medical Service, are appointed for duty with the hospital ship *Harding*, for the Somaliland Field Force.

VOLUNTEER RIFLES.

RICHARD L. FITZ GERALD to be Surgeon-Lieutenant in the 2nd Volunteer Battalion the East Lancashire Regiment, January 16th.

Surgeon-Lieutenant-Colonel J. KNOX, 2nd Volunteer Battalion the Nottinghamshire and Derbyshire Regiment (Sherwood Foresters), resigns his commission, retaining his rank and uniform, January 16th.

Surgeon-Major G. H. DARWIN, M.D., 2nd Volunteer Battalion the Manchester Regiment, resigns his commission, January 16th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SCOTTISH POOR-LAW MEDICAL SERVICE AND DR MACARA.

IN relation to this matter, which was noted in the BRITISH MEDICAL JOURNAL of January 16th, p. 143, we observe from a report in the *Scotsman* of January 13th, that Lord Pearson, in the Bill Chamber Court of session, Edinburgh, disposed of a note of suspension and interdict for Dr Macara against the Parish Council of Durness. The note was brought for the purpose of preventing the respondents carrying out a resolution passed by them on November 25th, 1903, to the effect of dismissing the complainer from his post of medical officer for the parish. It appeared that on March 31st and April 1st Dr Macara attended a pauper child suffering from chicken-pox, advising isolation, and directing that the sister of the child should not attend school for two or three weeks. In disregard of his advice the sister was sent to school, was taken ill, and had to remain at home until April 25th. Dr Macara was not, however, called on to attend her, but was directed by the council to certify the cause of her absence from school. He declined to do so on the ground that while he was bound and willing to give certificates to the parish council and to the Local Government Board he was not bound to give such either to the teachers or to the school board.

At a meeting of the parish council on November 25th two members were disqualified, and thereafter Dr Macara's complaint, the resolution on which he complains was passed by a majority of three to two, and the resolution was confirmed at a later meeting. The decision passed was that Dr Macara refused to supply their clerk with the certificate required, and that in so doing he acted in breach of his duty and, further, that the disqualification of the two members of council was illegal and dependent of the matter at issue between the council and Dr Macara. Lord Pearson passed the note, and continued the interim interdict previously granted. The case for Dr. Macara was in the hands of the Medical Defence Union, Messrs. Hempson, solicitors.

LECTURES ON MEDICAL JURISPRUDENCE.

ON Thursday, January 14th, Dr F. J. Waldo, coroner for the City of London, delivered the first of a series of six lectures on Medical Jurisprudence at the Old Hall, Lincoln's Inn, under the auspices of the Council of Legal Education. The subject of the first lecture was the Medical Man as Witness. At the outset the duties and disabilities attached to the registration of medical men were dealt with. A medical man may give evidence either as a common witness to facts or as an expert to matters of deduction and experience. The why and wherefore of conflicting medical evidence was next discussed at some length, and reasons given to show how [illegible] other in court with or sacrificing honesty. [illegible] was taken from "railway spine," cases in which there may be the widest difference of opinion often [illegible] often attended by a speedy recovery in the [illegible] as great, or greater differences exist [illegible] reversal of decisions, time after time [illegible] House of Lords is reached. The [illegible] discussed, and the illustrations [illegible] head constable to the Lord Mayor [illegible] the offender in a case of [illegible] answer fully in the witness-box, [illegible] where by so doing he would [illegible] ever, any violation of professional [illegible] The unwritten law of [illegible] no obligation to reveal [illegible] murder, or the very gravest [illegible] dates from the earliest [illegible] substance of which is still [illegible] medical graduate. The [illegible] kinds of medical evidence [illegible] medical examination of prisoners.

MEDICAL SECRECY.

PERPLEXED.—We can quite [illegible] wish to offend his vicar, and [illegible] would be even more disadvantageous to his patients [illegible] give the information desired, but occasions [illegible] not be able to answer truthfully without misusing [illegible] and therefore he had better explain to [illegible] medical profession regards as sacred all [illegible] medical examination, whatever the position [illegible] future he must adhere to the rule of silence [illegible]

MEDICAL ADVERTISING.

A. B. writes from a Continental city to complain of the persistent way in which the name of one of the medical practitioners [illegible] practising in the city is introduced into the pages of the local English newspaper.

*** We find these references to be purely social, and we do not think any notice can be taken of them. In two out of the three they refer not to the practitioner himself but to his wife, and in the other case to his connexion with a local charity. If such notices appear similar to the other resident practitioners they might address a remonstrance to the editor of the newspaper in question.

THE ASSISTANT'S BICYCLE.

AN assistant who possesses a bicycle, and uses it chiefly to visit his principal's patients, wishes to know whether the latter ought not to pay the cost of any necessary repair to his machine, as he is not provided with any other means of locomotion.

*** If a bicycle is required to do the principal's work, the expense thereof should devolve on the latter. But if an assistant has his own purposes desires to keep a bicycle, the principal is not bound to keep it in repair.

DELAY IN PAYMENT OF FEES.

VIATOR asks, as regards etiquette, how long after the last professional visit a practitioner should wait before sending in his account, also whether the interval should be longer where the patient has died.

*** Accounts are usually sent in half-yearly by medical practitioners, but it may often be wise not to wait so long. There is no reason why a patient's death need make any difference, but our correspondent must bear in mind that executors are allowed twelve months to administer the estate of the deceased. A recent work dealing with the subject of medical etiquette is *Medical Ethics: a Guide to Professional Conduct*, by Robert Saundby, M.D. Bristol: John Wright and Co. [illegible]

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

INSTITUTE OF MEDICAL SCIENCES.

THE following letter has been addressed to the Earl of Rosebery, Chancellor of the University of London:

My Lord,

We have observed with satisfaction that the Senate of the University of London have lately issued an appeal for funds to build and endow an institute of medical sciences under the control of the University.

The positions which we severally hold in connexion with the general hospitals of London and their medical schools have compelled us, especially of late, to give the proposal that the University should undertake the teaching of the preliminary scientific subjects of the medical curriculum the most serious consideration.

We are convinced that the adoption of the recommendation of the Royal Commission in favour of the concentration of the teaching of these subjects in one or more centres has become a matter of urgent necessity, in the interests alike of medical education, of the hospitals and the medical schools.

We are,

My Lord,

Yours faithfully,

SANDHURST,
Chairman of the Weekly Board, Middlesex Hospital.
TREVOR LAWRENCE,
Treasurer, St. Bartholomew's Hospital.
H. COSMO BONSOR,
Treasurer, Guy's Hospital.
SYDNEY HOLLAND,
Chairman, London Hospital.
J. G. WAINWRIGHT,
Treasurer, St. Thomas's Hospital.
TIMOTHY HOLMES,
Treasurer, St. George's Hospital.
H. A. HARBEN,
Chairman of Managing Committee, Mary's Hospital.
THOS. PERCY BORRETT,
Chairman, Charing Cross Hospital.
J. WOLFE-BARRY,
Chairman, Westminster Hospital.

A large sum is required to carry out the scheme. The Honorary Treasurers of the Appeal Fund are:

Dr. J. K. Fowler,
Member of the Senate.

Mr. H. T. Butlin,
Dean of the Faculty of Medicine.

Communications should be addressed to 35, Clarges Street, W.

The following donations, in addition to those previously announced, have been promised to the Institute of Medical Sciences Fund:

	£	s.	d.
Alfred Beit, Esq.	5,000	0	0
Messrs. Rothschild and Sons	500	0	0
J. K. Fowler, M.A., M.D.	250	0	0
H. J. Chinnery, Esq.	100	0	0
Sir Charles Metcalfe, K.C.M.G.	25	0	0
Sir Henry Roscoe, F.R.S.	100	0	0
Sir E. Cooper Perry, M.D.	100	0	0
E. Lauriston Shaw, M.D.	100	0	0
Sir R. Douglas Powell, Bart., M.D.	50	0	0
C. B. Lockwood, F.R.C.S.	50	0	0

Meeting of Convocation

A general meeting of Convocation was held at the University, South Kensington, on January 15th. After a lapse of more than twenty minutes a quorum was obtained and the Chairman, Sir Edward Busk, took the chair. The report of the Standing Committee, the nature of which was detailed in the British Medical Journal of January 16th, page 109, was presented and its reception moved and carried. The Chairman also reported that the Library Committee had recommended to the Senate the appointment of a person to arrange the books on proper shelves, and that there was reason to hope that when the Senate next met the necessary vote would be passed. A motion was proposed and passed conveying the thanks of the House to the Worshipful Company of Goldsmiths for its gift to the University of the Foxwell Library.

UNIVERSITY OF CAMBRIDGE.

Degrees.—On January 14th the following were admitted to medical and surgical degrees:

M.B.—T. Guthrie, King's.

B.C.—N. C. Carver, King's; H. H. Clarke, H. D. Hoffmann, Trinity; J. E. Pellow, St. John's; C. M. Murray, Pembroke; G. E. Davidson, J. H. Donnell, E. Gardner, Caius; P. Hardy, Trinity Hall; E. Higson, Magdalene.

Addenbrooke's Hospital.—On January 18th Mr. G. E. Wherry was re-elected Surgeon and Mr. A. Cooke was elected Assistant Surgeon to the hospital. A further donation of £1,000 from Dr. A. Peckover, Lord Lieutenant of Cambridgeshire, was announced.

UNIVERSITY OF BIRMINGHAM.

Physics and Therapeutics.

At the request of the Dean of the Faculty of Medicine, Sir Oliver Lodge, Principal of the University, has consented to deliver a course of four lectures on those parts of physics which are of special interest at present in connexion with medicine. The lectures, which will be delivered on Thursdays at 4 p.m. in the Medical Theatre of the University, will deal with the following subjects: On February 4th, the production and properties of cathode rays; on February 11th, production and properties of Roentgen rays; on February 18th, production and properties of ultra-violet light; on February 25th, production and properties of high-frequency alternating currents.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Quarterly Council.

A Council meeting was held on January 14th, Mr. John Tweedy, President, in the chair.

Library.

The thanks of the Council were given to Dr. G. V. Poore for presenting from the library of the late Mr. Marcus Beck, notes of the late Mr. John Marshall's lectures taken by Mr. Cluff.

Physical Disability of Army Recruits.

The following report, dated December 16th, 1903, from the Committee of the Council appointed to further consider this subject, was adopted by the Council:

"The Committee beg to report that the further memorandum and four additional tables of figures prepared by the Director-General of the Army Medical Service have received their careful consideration, and that, in reply to Mr. FitzRoy's letter stating that the 'Physical Deterioration Committee' will be glad to be favoured with any observations upon these documents which the Royal College of Surgeons may desire to make, and especially desire to be informed whether the perusal of the supplementary matter now furnished suggests the modification in any degree of the opinions previously expressed upon the subject," the following letter was drawn up and approved by the Committee, namely

"Sir,—With reference to your letter of the 1st instant forwarding a copy of a further memorandum prepared by the Director-General of the Army Medical Service, together with four tables of figures giving more detailed statistics as to the percentage of rejection of those who have offered themselves as recruits and as to the causes of the rejections, the Council of the Royal College of Surgeons beg to make the following observations.

"The Council note that the Director-General thinks 'that the idea of "progressive physical deterioration" has occupied a much too prominent position in the minds of those who have had to consider and report as to the advisability of inquiry being necessary,' and they also note the statement that the intention of his original memorandum was to call attention to 'the most distressing fact that more than 40 per cent. of the men who present themselves for enlistment are physically unfit for the military service.' And the Council [illegible] that a large proportion of [illegible] rejections are due to [illegible] which there are [illegible] Medical Officer [illegible]

"With reference to these remarks of the Director-General, the Council desire to point out that in their report to the Home Office they did not use the phrase 'progressive physical deterioration,' though some of their criticisms did assume that the first memorandum of the Director-General seemed to suggest the idea of progressive physical deterioration among certain classes of the community.

"While, therefore, the Council may not in every respect have interpreted quite accurately all the meaning and import of the Director-General's first memorandum, their opinion was in no sense based upon a misunderstanding as to the main question at issue, and they are entirely in accord with the Director-General in believing that the two principal matters now to be considered are, first, an inquiry into the causes and present extent of the physical unfitness for military service that exists in a large degree among certain classes of the population; and, secondly, the institution of measures which may bring about an improvement of the physique of the classes from which most of the recruits are at present drawn.

"The Council believe that, in addition to any other means which may commend themselves to your Committee, the adoption of the precautions and supervisions indicated in the Council's previous report would contribute not a little to the physical and moral improvement and well being of the classes concerned.

"In conclusion, the Council beg to state that, after a careful perusal of the supplementary information now supplied, they see no ground to modify the opinions which they have previously expressed upon the subject of the physical disability of many of those who offer themselves as recruits.

"I am, Sir, your obedient servant,

"John Tweedy,
President.

"A. W. FitzRoy, Esq.,"
"Privy Council Office."

Under the authority given by the Council on December 16th, 1903, this letter will be signed and forwarded by the President to Mr. FitzRoy as the reply of the Council.

Sir Henry G. Howse, as Chairman of the Committee on the Physical Disability of Recruits for the Army, reported that since the meeting of that Committee a letter had been received from the Physical Deterioration Committee asking the College "to recommend the names of two surgeons who would give evidence, representing the views of the profession in general, on the condition of the eyes and on the prevalence of syphilis respectively among the poorer classes of the population."

Mr. John Tweedy (President) and Sir Alfred Cooper (Vice-President) were selected by the Council.

Hunterian Orator.

Mr. John Tweedy was appointed Hunterian Orator for 1905.

President's Badge.

The thanks of the Council were given to Mr. John Tweedy for his gift of a President's badge.

Ventilation of Factories and Workshops.

The following recommendations from the Examiners for Part I of the Examination in Public Health (Dr. A. P. Luff and Mr. A. G. R. Foulerton) were adopted:

Concerning the question of the lowness of the ventilation standards for factories and workshops recommended in the report referred to by the Incorporated Society of Medical Officers of Health, and concerning whose letter we have been requested by the Council of the Royal College of Surgeons to advise, we are of opinion:

(1) That, in the interest of factory and workshop workers, the amount of carbonic acid in the air of such places should not exceed 9 volumes in 10,000.

(2) That carbonic acid produced by the combustion of gas or oil used for lighting purposes should be made to pass directly to the outside air, and should not be allowed to contaminate the air of the factory or workshop.

It was resolved that a copy of the resolutions be forwarded to the Secretary of State for the Home Department.

Society of Members.

A meeting of the Council of this Society was held at 20, Brunswick Square, on January 12th, Mr. Joseph Smith, J.P., M.R.C.S., in the chair.

The following resolutions were unanimously agreed to, and ordered to be sent to the College:

"1. That this Council considers the reply of the College Council to the resolutions passed at the last annual meeting of Fellows and Members to be most unsatisfactory. Having regard to the repeated refusal to accede to the wishes of the Members as expressed in meetings to which they have been specially summoned, this Council emphatically repudiates the claim of the College Council to represent the Members, and further declares its determination not to abate its efforts to obtain adequate representation for the great majority of the body corporate.

"2. That this Council desires to call attention to the inexpediency of appointing a committee to deal with the relations of the medical profession to the coroners' courts, composed entirely of those who are seldom brought into contact with those courts, and would suggest the addition to the Committee of some Members or Fellows outside the College Council having special knowledge of the matter."

We are informed that it is the intention of the Society to hold meetings of Members in various provincial centres during the year, in order to protest against their continued exclusion from all collegiate rights.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1903.

In the accompanying table will be found [illegible] vital statistics of the metropolitan [illegible] of the City of London, based upon the Registrar-General's returns for the fourth quarter of last year. The mortality figures in the table relate to the deaths of persons actually

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1903.

BOROUGHS.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,613,812	31,511	18,514	27·4	16·1	1·43	1,707	3	375	89	187	208	—	163	—	682	1,890	152
Paddington	146,032	762	501	20·9	13·8	1·30	47	—	15	4	2	2	—	1	—	23	40	138
Kensington	178,409	891	661	20·0	14·9	1·19	53	—	24	4	3	2	—	3	—	17	51	167
Hammersmith ...	115,803	693	470	24·0	16·3	1·06	48	—	20	3	6	2	—	4	—	13	44	167
Fulham	147,780	1,186	599	32·2	16·3	2·69	99	—	48	1	8	4	—	5	—	30	68	128
Chelsea	74,169	376	279	20·3	15·1	1·12	21	—	8	—	1	1	—	3	—	8	24	152
City of Westminster ...	179,052	732	031	16·4	14·1	1·13	51	2	21	1	6	4	—	6	—	11	76	131
St. Marylebone ...	131,234	992	590	30·3	18·0	1·85	61	—	23	4	8	3	—	8	—	15	55	116
Hampstead	85,197	335	252	15·8	10·9	0·19	4	—	1	1	2	—	—	—	—	—	20	125
St Pancras	235,716	1,559	1,002	26·5	17·1	1·04	91	—	5	0	10	13	—	4	—	23	112	153
Islington	339,137	2,221	1,108	26·3	14·2	0·68	57	—	3	5	6	7	—	10	—	26	135	136
Stoke Newington ...	52,069	251	170	19·3	13·1	1·38	18	—	—	—	1	6	—	2	—	9	14	135
Hackney	224,082	1,425	846	25·5	15·1	1·40	78	—	16	5	11	13	—	14	—	19	84	143
Holborn	57,845	360	282	25·0	19·6	1·46	21	—	3	—	2	1	—	4	—	11	40	136
Finsbury	99,717	914	597	30·6	20·4	1·80	45	—	8	6	2	3	—	4	—	22	56	150
City of London ...	24,539	80	89	13·1	14·5	0·81	5	—	—	1	—	—	—	1	—	3	10	213
Shoreditch	117,513	923	602	31·5	20·5	2·22	65	—	20	4	4	10	—	6	—	21	71	192
Bethnal Green ...	130,028	1,092	646	33·7	19·3	1·93	64	—	3	5	6	10	—	10	—	30	63	193
Stepney	302,153	2,673	1,446	35·5	19·2	2·00	155	1	17	5	19	16	—	12	—	85	168	175
Poplar	169,550	1,379	830	32·6	19·6	2·37	100	—	5	10	19	12	—	7	—	47	81	186
Southwark	207,369	1,664	952	32·2	19·4	1·59	82	—	6	1	4	9	—	14	—	48	120	165
Bermondsey	129,801	954	650	30·4	20·1	1·41	46	—	1	2	3	9	—	6	—	25	77	191
Lambeth	307,711	2,153	1,229	28·1	16·0	1·72	131	—	33	6	11	19	—	9	—	48	110	131
Battersea	173,422	1,245	649	28·8	15·0	1·56	68	—	14	1	11	13	—	9	—	20	62	139
Wandsworth	249,078	1,685	896	27·1	14·4	2·09	130	—	57	5	11	9	—	7	—	41	71	133
Camberwell	265,562	1,770	963	26·8	14·5	1·08	71	—	18	3	3	9	—	4	—	34	89	146
Deptford	112,537	757	430	27·0	15·3	1·33	37	—	—	3	10	12	—	2	—	10	44	168
Greenwich	99,824	657	373	26·4	15·0	1·52	38	—	—	1	9	14	—	—	—	14	33	166
Lewisham	136,405	866	383	25·5	11·3	0·56	19	—	1	2	4	—	—	2	—	10	31	117
Woolwich	121,478	880	428	29·1	14·1	1·07	32	—	—	—	5	5	—	3	—	19	41	153

belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 31,511 births registered in London during the three months under notice were equal to an annual rate of 27·4 per 1,000 of the population, estimated at 4,613,812 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 27·8, 27·0, and 27·8 per 1,000, the average rate for the fourth quarters of the ten years 1893-1902 being 28·9 per 1,000. The birth rates last quarter ranged from 13·1 in the City of London, 15·8 in Hampstead, 16·4 in the City of Westminster, 19·3 in Stoke Newington, 20·0 in Kensington, and 20·3 in Chelsea, to 32·2 in Fulham and in Southwark, 32·6 in Poplar, 33·7 in Bethnal Green, 35·5 in Stepney, and 36·5 in Finsbury.

The 18,514 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 16·1 per 1,000, against 17·3, 17·0, and 17·2 per 1,000 in the fourth quarters of the three preceding years; the mean rate in the corresponding quarters of the ten preceding years was 18·3 per 1,000. The death-rates last quarter in the various metropolitan boroughs ranged from 10·9 in Hampstead, 11·3 in Lewisham, 11·6 in Stoke Newington, 12·8 in Paddington, and 14·1 in the City of Westminster and in Woolwich, to 19·2 in Bethnal Green, 19·6 in Holborn and in Poplar, 20·1 in Bermondsey, 20·4 in Finsbury, and 20·5 in Shoreditch.

During last quarter 1,707 deaths were referred to the principal infectious diseases: of these, 3 resulted from small-pox, 375 from measles, 89 from scarlet fever, 187 from diphtheria, 208 from whooping-cough, 163 from enteric fever, and 682 from diarrhoea, but not any from typhus or from ill-defined forms of continued fever. These 1,767 deaths were equal to an annual rate of 1·48 per 1,000, against an average rate of 2·05 per 1,000 in the corresponding quarters of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0·19 in Hampstead, 0·56 in Lewisham, 0·65 in Islington, 0·81 in the City of London, and 1·04 in St. Pancras; the highest rates were 2·66 in Stepney, 2·69 in Wandsworth, 2·22 in Shoreditch, 2·37 in Poplar, and 2·69 in Fulham. Measles showed the greatest proportional fatality in Kensington, Hammersmith, Fulham, St. Marylebone, Shoreditch, and Wandsworth; scarlet fever in St. Marylebone, Finsbury, the City of London, Shoreditch, Bethnal Green, and Poplar; diphtheria in St. Marylebone, Stepney, Poplar, Battersea, Deptford, and Greenwich; whooping-cough in Stoke Newington, Shoreditch, Bethnal Green, Battersea, Deptford, and Greenwich; enteric fever in Fulham, St. Marylebone, Hackney, Holborn, Bethnal Green, and Southwark; and diarrhoea in Fulham, Finsbury, Bethnal Green, Stepney, Poplar, and Southwark. Of the 3 fatal cases of small-pox, 2 belonged to the City of Westminster, and 1 to Stepney.

During the last quarter of the year, 1,890 deaths from phthisis were registered, equal to an annual rate of 1·74 per 1,000, against 1·55, 1·57, and 1·64 per 1,000 in the corresponding quarters of the three preceding years. Among the various metropolitan boroughs the lowest death-rates from phthisis last quarter were registered in Paddington, Kensington, Hampstead, Stoke Newington, Wandsworth, and Lewisham, and the highest rates in Holborn, Finsbury, Shoreditch, Stepney, Southwark, and Bermondsey.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 152 per 1,000 last quarter, against 154, 152, and 155 in the corresponding quarters of the three preceding years. The rates of infant mortality during the quarter under notice were lowest in Fulham, City of Westminster, St. Marylebone, Hampstead, Lambeth, and Lewisham; while the highest rates were recorded in the City of London, Shoreditch, Bethnal Green, Stepney, Poplar, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,668 births and 5,087 deaths were registered during the week ending Saturday last, January 16th. The annual rate of mortality in these towns, which had been 15·4, 20·0 and 20·3 per 1,000, in the three preceding weeks, declined again last week to 19·0 per 1,000. Among these large towns the death-rates ranged from 8·5 in Coventry, 9·7 in Hornsey, 10·3 in Walthamstow, 11·8 in Leyton, 11·1 in Devonport, 12·2 in Handsworth, 12·5 in King's Norton, and 12·6 in Derby, to 24·7 in Gateshead, 25·6 in Rochdale, 27·5 in Tynemouth, 28·7 in Warrington, 29·0 in Preston, 31·1 in West Hartlepool, 32·0 in Merthyr Tydfil, and 35·2 in Wigan. In London the death-rate was 17·3 per 1,000, while it averaged 19·1 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·5 per 1,000 in the seventy-six large towns, and corresponded exactly with the rate in London, among the seventy-five large provincial towns the rates ranged upwards to 3·3 in Walthamstow and in Wigan, 4·1 in Salford, 3·7 in Handsworth, 4·4 in Gateshead, 4·4 in Warrington, and 7·3 in Preston. Measles caused a death-rate of 1·3 in East Ham, 1·4 in Salford and in Sunderland, 1·8 in West Ham and in Rotherham, 2·0 in Willesden, 3·1 in Warrington, and 5·4 in Preston; scarlet fever of 1·4 in Merthyr Tydfil, whooping-cough of 1·3 in Portsmouth, 1·4 in Birkenhead, 1·5 in West Hartlepool and in Newport (Mon.), 1·7 in Handsworth, 2·1 in Wigan, and 2·6 in Gateshead, and diarrhoea of 1·4 in Walthamstow. The mortality from diphtheria and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham and 1 in Sunderland, but not one in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 26 small-pox cases at the end of last week, this being also the number remaining under treatment at the end of each of the two preceding weeks; 4 new cases were admitted during the week, against 7, 4, and 6 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,617, 1,632, and 1,659 on the three preceding Saturdays, had further increased to 1,660 on Saturday last, January 16th; 195 new cases were admitted during the week, against 142, 194, and 201 in the three preceding weeks.

MEDICAL NEWS.

ROYAL BRITISH NURSES' ASSOCIATION.—A special general meeting of this Association will be held at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, W., on Tuesday, February 2nd, 1904, at 4 p.m., for the purpose of considering the draft of a Bill upon the State registration of trained nurses, which will be submitted to the meeting; and any amendments that may be proposed thereon. The following resolution will be proposed: "That the draft Bill, as amended, be approved; and that the Executive Committee be directed to take such steps as they may think necessary to have it submitted to Parliament."

London School of Tropical Medicine.—Twenty-eight students have entered at the London School of Tropical Medicine for the session of three months which commenced on January 15th. In addition to these four students entered for a shorter course. Of the total number four are ladies.

Laryngological Society of London.—At the twelfth annual meeting of the Laryngological Society of London, which took place on January 15th, the following officers were elected for the ensuing year: *President:* Dr. P. McBride. *Vice-Presidents:* Mr. Anthony Bowlby, Dr. Percy Kidd, Mr. Charters Symonds, and Dr. W. Milligan. *Honorary Treasurer:* Mr. W. R. H. Stewart. *Honorary Secretaries:* Dr. Furniss Potter and Mr. P. de Santi. Six members of Council were also elected. The same evening the annual dinner of the Society was held at Prince's Rooms, Piccadilly. There was a large attendance and several distinguished guests were present.

Royal London Ophthalmic Hospital. This year is the centenary of the Royal London Ophthalmic Hospital, an institution which is widely known to medical men as the Moorfields Eye Hospital. By the sale of its old site in Moorfields it was enabled to rebuild and equip itself in the City Road a year or two ago, and it is now in every way what a modern ophthalmic hospital should be. Although, however, it has thus been able to make an excellent start in its quarters, it is found difficult to keep all the beds open, owing, amongst other things, to the heavy rates imposed upon the institution by the local authorities. In ground rent and rates it has to pay out over £2,000 a year: an appeal therefore is made for more support in this the hundredth year of its existence. The institution is too well known to most medical men to need much commendation, but we should wish to endorse the statement made about it by the Distribution Committee of the King's Hospital Fund in its report at the end of last year, to the effect that it is an institution which should receive all the support required.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

AYLESBURY ROYAL BUCKINGHAMSHIRE HOSPITAL.—House Surgeon, resident. Salary, £80, rising to £120 per annum.

BOURNEMOUTH. NATIONAL SANATORIUM FOR CONSUMPTION.—Resident Medical Officer. Salary, £100 to February 18th to June 30th.

BOURNEMOUTH ROYAL VICTORIA HOSPITAL.—House Surgeon, resident. Salary £80 per annum.

BRADFORD POOR-LAW UNION.—Assistant Medical Officer for Hospital and Workhouse, resident. Salary, £125 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians, resident. Salary at the rate of £30 per annum.

EXETER ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon resident. Salary, £40 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary £60 for six months.

LIVERPOOL DAVID LEWIS NORTHERN HOSPITAL.—Assistant House-Surgeon resident. Salary, £25 per annum.

LONDON HOSPITAL, Whitechapel Road, E.—Two Senior Clinical Assistants. Aural.

MANCHESTER CORPORATION. Fourth Medical Assistant at the Monsall Fever Hospital, resident. Salary £100 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Registrar. Honorarium, £50 per annum.

NORTH RIDING INFIRMARY, Middlesbrough.—Assistant House-Surgeon; resident. Salary, £— per annum.

ROYAL EAR HOSPITAL, Leigh Street, W.—Honorary Assistant Anæsthetist.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer, resident. Salary £70 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Honorary Surgeon.

WINCHESTER ROYAL HANTS COUNTY INFIRMARY.—Honorary Surgeon-in-Charge.

YORK COUNTY HOSPITAL.—House Physician, resident. Salary, £100 per annum.

MEDICAL APPOINTMENTS.

Bracey, H. W., M.R.C.S., L.R.C.P., Medical Officer of Health to the Yarmouth Town Council.

Bruce, Alexander, M.B., M.Ch. Edin., Assistant Surgeon to the Metropolitan Ear, Nose, and Throat Hospital.

Colbeck, A., M.R.C.S., L.R.C.P., Senior Resident Medical Officer at the Mount Vernon Consumption Hospital, Hampstead, N.W.

Connell, A. F., M.D., M.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

Donald, C. W., M.R.C.S., L.R.C.P., Assistant Honorary Physician to the Cumberland Infirmary, Carlisle.

Eddy, Sherlock, M.D., F.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Eng., Central Board, Rangoon, Burma, Medical Officer, H.M. Prison, Insein.

Fenwick, Samuel, M.A., M.B., M.Ch., F.R.C.S., Registrar to the Chelsea Hospital for Women.

Fletcher, C. W., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Workhouse of the South Shields Union.

Goldsmith, Robert, M.D., C.M. Manch., Clinical Assistant to the Chelsea Hospital for Women.

Grant, Duncan, M.D., C.M. Edin., Medical Officer to the Ballachulish Quarries Medical Club, vice A. Dingwall Kennedy, M.B., C.M., resigned.

Griffith, Edward, H., M.D., M.Ch. Dub., Honorary Ophthalmic Surgeon to the Carnarvonshire and Anglesey Infirmary, Bangor.

Hine, H., M.B., F.R.C.S., Medical Officer of the Infirmary and the Newark District of the Newark Union.

Jamieson, Sydney, M.B., Ch.M. Edin., Lecturer on Medical Jurisprudence at the University of Sydney, vice W. H. Gaunt, M.D. Durh., deceased.

Jenkins, A. W., M.B. Lond., M.R.C.S., District Medical Officer of the Hinckley Union.

Jones, R. B., M.B., Ch.M. Melb., Honorary Assistant Ophthalmic Surgeon at the Sydney Hospital.

Lister, W. T., B.A., M.B., B.C., F.R.C.S., Assistant Surgeon to the Royal London Ophthalmic Hospital, City Road, E.C.

Miller, A. C., M.D. Edin., Medical Officer to the Post Office for the Portwilliam District.

Nix, R. E., M.B. B.C. Cantab., Medical Officer of Health to the Chatteris Urban District Council.

Price, E. O., M.D. Edin., Honorary Medical Officer to the Carnarvonshire and Anglesey Infirmary, Bangor.

Rose, Thomas, M.R.C.S., L.R.C.P., Resident Medical Officer to the Chelsea Hospital for Women.

Waugh, Alec, M.B., C.M. Glasg., Medical Officer and Public Vaccinator, Skipton District, Skipton Union, vice C. E. Fisher, L.R.C.P.I., L.M. & L.R.C.S.I., resigned.

Weir, G. W., M.D., M.Ch., B.U.I., D.P.H. Camb., Medical Officer of the Workhouse of the South Shields Union.

Derbyshire Royal Infirmary.—The following appointments have been made:
House-Surgeon.—Basil M. Watson, M.B. Durh., vice Ernest Wetherell, M.B.
House-Physician.—Rupert Butterworth, M.B. Cantab., vice F. Bryan, M.B. Cantab.
House-Surgeon No. 2.—Ernest Bennett, M.B. Glasg., vice C. M. Hope, M.B. Glasg.
Assistant House-Surgeon.—Percy Hardy, M.R.C.S., L.R.C.P., vice Rupert Butterworth, M.B. Cantab.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Dr. M. Handfield-Jones will open a discussion on Pelvic Lesions in Relation to Abdominal Diagnosis.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Casual communications by Mr. Sefton Sewill. Paper by Mr. F. J. Bennett.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. R. G. A. Moynihan: Hour-Glass Stomach. With Demonstrations on the Epidiascope.

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Pathological Evening. Exhibition of Specimens.

THURSDAY.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, W., 8 p.m.—Cases, etc., by Messrs. G. W. Thomlinson, E. J. Collins, G. W. Rich, S. J. Taylor, and Drs. L. Werner and D. McWatt. 8.30 p.m.—Papers: Mr. W. H. Jessop: Cases of Ptosis. Mr. G. Brockbank-James: A Panel of Treatment in some Cases of Asthenopia. Mr. W. M. Beaumont: The Eye Symptoms of Rheumatoid Arthritis, with a Special Reference to the Field of Vision. Major Maynard and Dr. Leonard Rogers: Pulsating Exophthalmos due to Dilatation and Dropsy of the Optic Nerve Accompanying Internal Hydrocephalus. Mr. J. R. Lunn: Notes of a case of Tuberculosis of the Choroid.

FRIDAY.

British Laryngological, Rhinological and Otological Association, 11, Chandos Street, Cavendish Square, W., 4 p.m.—Mr. Mayo Collier will read a Communication and show Cases. Cases will also be shown by Mr. Kelson, Dr. Wyatt Wingrave, Dr. A. Wylie, and Mr. Stuart-Low. The President will deliver his Annual Address.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Foreign Bodies in the Bronchi.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on the Significance of some Common Symptoms in Diseases of Children.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 8 p.m. as follows: Monday, Chronic Intestinal Obstruction; Tuesday, Coronary Arteries; Wednesday, Infant Feeding; Thursday, Operations for Cancer of the Tongue and Neighbouring Regions.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Fibrosis of the Lungs.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Family and Hereditary Diseases; Friday, Epilepsy.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Abdominal Surgery.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Plaster of paris Splints; Wednesday, Practical Medicine; Thursday, Dental Caries its Etiology and Treatment; Friday, Plaster of paris Splints.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Metrorrhagia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in postal order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Byers.—On January 17th, 1904, at Wilmslow, Cheshire, the wife of Alfred Byers, M.D., of a son.

Gale.—On January 11th, 1904, at "Manorgate," Kingston Hill, Surrey, to Arthur Gale, M.R.C.S., L.R.C.P., and Ursula Gale, a son.

Newton.—On January 15th, at Brookhill, Sheffield, the wife of Duncan Gray Newton, M.B., C.M., of a daughter.

Williams.—On January 14th, at Bryn Derw, Penarth, the wife of W. Williams, M.A., M.D., County Medical Officer, of a son.

MARRIAGES.

Swales—Pentin.—On January 20th, at St. James's Church, West Derby, Liverpool, by the Rev. G. Eric White, Vicar of Up Holland, near Wigan, Edward Swales, M.R.C.S., L.R.C.P. Lond., to Florence Booth, third daughter of the late F. J. Pentin, of Liverpool.

White—Howden.—At Readers, Falkirk, on January 14th, by the Rev. Alex. Pollock, M.A., Dr. Charles A. White, to Mary Ritchie, daughter of James Howden, Falkirk, Notaries.

Wilson—Twiss.—At St. James's Church, Barkdale, Lancashire, on January 18th, by the Rev. R. Stockdale, M.A., Vicar, Roger Parker, Captain, Indian Medical Service, Hardsough, Oswestry, son of William Wilson, of Walton Priory, Liverpool, and of Mrs. Wilson, Birkdale, to Esme Dora, youngest daughter of the late Walter Twiss, of Walton House, Warrington, Manchester, and of Mrs. Twiss, Southport.

DEATH.

Hunter.—On December 28th, at his residence, 126, Lavender Hill, S.W., after a short illness, Frederick Hunter, M.R.C.S., L.R.C.P., etc., the loving and dearly-beloved husband of Caroline Ida Hunter. Deeply regretted. Sadly missed.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS relating to the Editorial business of the Journal should be addressed to the EDITOR, 429, Strand, W.C.

ORIGINAL ARTICLES and LETTERS intended for publication in the BRITISH MEDICAL JOURNAL should be written on one side of the paper only, and authors should keep a copy, as MSS. cannot be returned.

ALL BOOKS, etc., intended for review should be addressed to the EDITOR, 429, Strand, W.C.

COMMUNICATIONS with regard to the Supply of Copies of the Journal should be addressed to the MANAGER, 429, Strand, W.C.

CORRESPONDENTS requiring a letter to be forwarded to a Correspondent whose address is unknown should send it open to the Editor, with the name and address written outside.

MANUSCRIPTS forwarded to the Office of the JOURNAL cannot be returned, UNLESS A SPECIAL REQUEST TO THAT EFFECT IS MADE.

IN ORDER TO SECURE THE INSERTION OF ANNOUNCEMENTS OF MEETINGS, ETC., IN THE JOURNAL, ALL NOTICES SHOULD BE SENT TO THE OFFICE NOT LATER THAN FIRST POST ON TUESDAY MORNING.

TELEGRAMS: "ARTERIES, LONDON." TELEPHONE: "GERRARD, 3150." [illegible] MEDICAL JOURNAL, LONDON. [illegible] BRITISH MEDICAL JOURNAL, LONDON.

TELEPHONE NUMBERS: GENERAL SECRETARY AND MANAGER, 3150 GERRARD. EDITOR, 3151 GERRARD.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A MEMBER would be glad of information as to the prevalence of phthisis among the Jewish population in East London.

W. L. P. asks to be referred to records of recovery from, or arrest of, tuberculosis of the kidney.

TWEED asks for information as to Montana, U.S.A., as a residence for a man of 50 who has suffered from malaria.

THE PAROXYSMAL COUGH OF INFLUENZA.

RUSHDEN asks for advice as to the treatment of the paroxysmal hacking cough of influenza, with scanty mucous secretion. The cough is quite out of proportion to the pathological condition. The temperature is not elevated, and there are only a few rales present. Expectorants and sedatives have been tried in vain.

TREATMENT OF COCCYODYNIA.

M.D. asks for suggestions for the treatment of coccydynia in an officer who has been home from India for six months and has had no relief in the coccyx, varying in intensity continuously. The slightest active exercise beyond walking is impossible. He is a [illegible] abstainer, and has always lived [illegible] traumatic history, and he is perfectly healthy except for this "neuralgia."

THE CLIMATE OF JAVA.

LEX asks for particulars as to the climate of Java. Would a young English lady be likely to reside there for three years without suffering in health? Has the land active volcanoes?

*** The climate of Java on the coast is hot and damp, and in many places highly malarious. The interior, especially in the highlands, possesses an excellent climate, where an Englishwoman would with ordinary care be as healthy as in her own country. [illegible] and has several active volcanoes.

ANASTOMOSIS OF NERVES IN FACIAL PALSIES.

NORTH writes to ask if anything [illegible] improve the condition of facial paralysis of a girl aged 7, which was first noticed soon after an operation for mastoid disease [illegible] old.

*** After this interval of time it is probable [illegible] of any value, could be accomplished. But if there is [illegible] reaction to galvanism in the muscles on the paralysed side the question of the anastomosis of nerves might be considered [illegible] the anastomosis of the peripheral end of the divided facial nerve with the central end of the divided spinal accessory or hypoglossal nerve. At the best the movement restored would be only [illegible] movement of other muscles, but there might be gained an improvement in the symmetry of the face while at rest. A paper [illegible] in the BRITISH MEDICAL JOURNAL of May [illegible] by Mr. C. A. Ballance, Mr. H. A. Ballance, and Dr. J. P. Stewart, might be consulted.

HOUSE DUTY ON STABLES.

V. V. V. writes: For the past five years I have occupied a house with rental of £95 per annum; on this I have paid house duty. I have also a stable situated [illegible] in a different parish. On this stable during these five years I have not been required to pay house duty. For the present year [illegible] per annum. Now this year I have received a demand [illegible] paper stating that this "in future is liable." Now I would like to know what figure is arrived at. For my private house [illegible] would be glad to be informed, leaving us [illegible] of £95 on the £95 rent or stable. The [illegible] for an explanation states that "in the case of stables [illegible] assessment, the house and stable were [illegible] This may explain why the duty [illegible] £95, but I would like to know [illegible] at a rate higher than that [illegible] (i.e. whether a stable not [illegible] connexion with a dwelling [illegible] duty; and if it should be so charged [illegible] scale per £1 rental than the duty on a dwelling-house.

*** By the House Tax Act, 1851, Schedule B, Rule 1, "every ..... stable ..... belonging to and occupied with any dwelling-house shall be charged [illegible] Whether the stable [illegible] is a question to which a definite answer cannot be given without [illegible] knowledge of the facts of the case. It may, however, be said that while the duty [illegible] the house tends to show what the annual value of the stable [illegible] within the meaning of the Act, [illegible] conclusive for the purpose of [illegible] and used in the ordinary way as an appendage to the house, it may be within the charging section. Our correspondent should write to the surveyor, lay the facts before him, and ask him to [illegible] premises inspected. With regard to the second point raised, V. V. V. is clearly under a misapprehension. The rates of duty [illegible] are not cumulative, but are respectively [illegible] the annual value of the premises liable. Between £60 and £100 [illegible] case the Commissioners have [illegible] £100 as the annual value of the stable [illegible] and have charged duty at 6d. in the pound on that value. If the rent is £95 for the house and £10 for the stable, V. V. V. is entitled to a refund, not having been charged duty on £10 of the rent paid by him, namely, £2 at 1s. 6d.

ANSWERS.

A CORRESPONDENT. An obituary notice of the late Dr. R. J. Coffey, Lame Brae, was published in the BRITISH MEDICAL JOURNAL of January 2nd, p. [illegible].

A CASE FOR DIAGNOSIS.

DR. G. A. FERRABY (Nottingham) writes in reply to "A Young Practitioner," to suggest that more probably there was chronic renal disease with its accompanying passive haemorrhages from the gastro-intestinal mucous membrane and uraemic convulsions as the final scene.

BRESLAU'S TEST.

P. N. [illegible] Breslau's test" is another name for the "stopped bowel" test [illegible] article [illegible] and [illegible] water, [illegible] not only born alive, but also that it did not die immediately after birth.

DIET IN PHOSPHATURIA.

W. H. in response to the reply published under this head in the BRITISH MEDICAL JOURNAL of January 9th, p. [illegible], asks for [illegible] particulars, and asks for suggestions as to suitable foodstuffs. Has the additional information required as to the [illegible] of water, etc., been passed during the last week? [illegible] and eat [illegible] with a coating of [illegible] the [illegible] a large amount of [illegible] Phosphates. Nothing is said about the presence of [illegible] crystals, etc., in the deposit, so we are left to infer that there are none. We should interpret this report to mean that there is still a considerable [illegible] phosphates in the urine, but that the latter is [illegible] Has there been any improvement in the [illegible] since the change? A tablespoonful of bran [illegible] cases of Constipation. Bavaloo water, of which not less than a bottle should be taken daily.

TREATMENT OF OBSTINATE SCABIES.

DR. ARTHUR THOMSON (Medical Adviser) in reply to "F. Q." writes: Probably two years' active treatment has induced severe dermatitis, and [illegible] treatment. If this is the case, should be [illegible] the skin inflammation primarily. Lotions and vaseline, or [illegible] and a decoction of [illegible] to be constantly applied to the [illegible] with [illegible] sulphide pills in full doses might be of service if [illegible] on a month. No soap to be used, and oatmeal water alone to be employed for cleansing purposes. The difficulty in such a case would probably be to succeed in carrying out any one line of action for a lengthy period.

LIEUT.-COLONEL T. ROBINSON, M.B. (Clonakilty), writes: I think "F. Q.'s patient would derive benefit from the following. In Cuxhaven they [illegible] sulphurous water. Obtain [illegible] Put the sulphur in a [illegible] Put the lime in a clean saucepan with the water, and the sulphur, and let it simmer, not boil, until it becomes of a deep gold colour. Strain off into bottles when cool, keep well corked. Apply a good coating from head to foot, let it dry. Put patient to bed and give him in this case hot [illegible] next morning a piece of plain soap and plenty of hot water.

NOTES, LETTERS, ETC.

MEDICAL MISSIONARIES.

WE have received from "Temperantia in Omnibus Rebus" who is in a very distant part of the world, a letter on this subject, which is too long for publication. It is in answer to the criticisms which his first letter (September 19th) have evoked, especially to those which were conveyed in a letter from Belfast. The following [illegible] upon his own personal experiences, which he believes were exceptional, that [illegible] was so unsupported as not to offer himself for work [illegible] society as soon as he arrived home. He was certainly not, however, [illegible] for he was forbidden to do evangelistic work, and [illegible] himself with practice. What he desired [illegible] attention to certain points in which [illegible] Amongst these is that more use should be made of the opportunities afforded by the mission hospitals for evangelizing work. The medical [illegible] first duty is his professional work, [illegible] to use as necessary opportunities to the [illegible] his efforts should be supplemented by the regular [illegible] and [illegible] of the people elsewhere, who [illegible] attracted by the hospitals skilful. The [illegible] should of course not be indifferent to [illegible] work, as [illegible] sympathy with it as are others, but anxious to [illegible] itself; however, [illegible] work should always [illegible] of the other. For pioneer work [illegible] every should

[illegible] missionary [illegible] work of the mission [illegible]. In [illegible] native patients he should be allowed to [illegible] natives he should also be allowed [illegible] the salary [illegible] the writer did not intend it to [illegible] his last letter. At present some [illegible] are [illegible] while others live in poverty, and neither condition is compatible with effective work. The proper way would be [illegible] although there are some differ[illegible] in different places, probably an all round [illegible] would enable all to live in that con[illegible] neither of poverty nor of luxury, would best [illegible]. Finally, he suggests that members of the British Medical Association should form among themselves a society for sending out medical missionaries.

FORCIBLE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ."

DR. ALEXANDER [illegible] writes: Having read the interesting paper on this subject by Dr. Munro Kerr in the BRITISH MEDICAL JOURNAL of January [illegible], I could not help thinking that surely something could be done by way of some local application to the os and cervix, [illegible] Bossi's dilator, which at first sight would appear more like a veterinary surgeon's instrument. Belladonna locally applied has been found useful in cases of rigid os, and of late [illegible] has given good results in such cases, pro[illegible] in a marked manner dilatation of the os. [illegible] help be tried in cases of eclampsia before using the [illegible] dilator, which by its too rapid action some[illegible] than the disease, and is certainly very dif[illegible] dilatation? A [illegible] per cent. solution of cocaine applied [illegible] os and cervix for five minutes would, I should think, be found of value in these anxious cases, and, if it fail, the patient is no worse off, as the sedative effect alone on the parts concerned should [illegible] introduction, more especially if the uterus were [illegible] not held down forcibly with volsellum, allowing no "play" for that organ during the introduction and expansion of the blades.

DOCTORS V. BARRISTERS AND SOLICITORS.

DR. ROBERT R. RENTOUL (Liverpool) writes: I have often wondered why medical men are such fools in giving so much service for nothing, and in accepting as a working basis the idea that it is better "to throw a sprat to catch a mackerel" than to act in an honest business like way. The above views are revived by studying the Midwives Act, in which no provision whatsoever has been made for paying medicals called in, and by looking into the Poor Prisoners' Defence Act, [illegible], in which Parliament [illegible] as follows: Section 1 (1) "When it appears, having regard to the nature of the defence set up by any poor prisoner ... that it is desirable in the interests of justice that he should have legal aid in the preparation and conduct of his defence, and that his means are insufficient to enable him to obtain such aid," the justices or the judge or the chairman of quarter sessions "may certify that the prisoner ought to have such legal aid, and thereupon the prisoner shall be entitled to have solicitor and counsel assigned to him." Under the above Act the Secretary of State has issued the following rules: Solicitor's fee from [illegible] to [illegible], travelling expenses (for self and clerk), [illegible].

Now, sir, we must [illegible] our legal brethren for having such an Act passed. Each year the legal profession is making itself more and more [illegible], while the doctors—well, they can sue persons [illegible] certain medical "titles" and allow a Medical Act to pass without a single proviso such as in the Poor Prisoners' Defence Act. It [illegible] that about [illegible] per annum will be required to [illegible] the fees under this Act. The Act and the rules made under it can [illegible] Messrs. Eyre and Spottiswoode, East Harding Street, [illegible] E.C., price [illegible]. Let every medical obtain a copy and make a [illegible]. Then perhaps—I use the word perhaps—they will lay [illegible] in tongue and backbiting, and work as men [illegible] for services. Doctors evidently prefer "to take [illegible] lying down."

CANCER IN IRELAND: AN ECONOMICAL QUESTION.

WE have [illegible] a letter from Lieutenant-Colonel Hill Climo as to a [illegible] article on this subject in the *Empire Review*, which [illegible] BRITISH MEDICAL JOURNAL of December [illegible]th, [illegible]. In [illegible] a "trade-union attempt to prevent [illegible] public interest, because it is medical, in a [illegible]. If Dr. Hill Climo will do us the honour to read again what we [illegible] that he has missed the point. We pointed out [illegible] important medical propositions in [illegible] they could not conveniently be subjected to [illegible] advancing [illegible] supplying substantial facts in their favour. We [illegible] for modifying this criticism, and as Dr. Hill [illegible] with a bare protest, without giving any reasons, the matter [illegible].

THE [illegible] OF INVASION OF MEASLES.

DR. [illegible] P. ATKINSON [illegible] writes: I cannot say my experience [illegible] with that of Dr. Marsden (BRITISH MEDICAL JOURNAL, [illegible]). During an epidemic which occurred in [illegible] spread of the disease in one family [illegible]. At the same time the [illegible] were [illegible] daily observation, and I found that for [illegible] at least [illegible] the appearance of the catarrhal symptoms, although they seemed perfectly well and had good appetites, the temperature [illegible]. It, however, at once began to rise when the running of the eyes and nose commenced.

A WARNING TO MEDICAL MEN APPLYING FOR SHIPS' SURGEONCIES.

LATE [illegible] writes: I was engaged at the nominal salary of [illegible] through an agent who introduced me to a [illegible] firm's [illegible] and they both stated that the voyage would be for six months. I unfortunately signed the ship's articles without putting in a [illegible] clause, trusting to the statements made to me at the time of engagement. I was kept at sea nearly a year, and I might possibly have been detained two years, but luckily the steamer was ordered back to England. I was refused permission to leave at the end of six months by the captain on any other condition than that I found a substitute, which was impossible. I was told by the shipping firm when I returned that they entirely ignored any responsibility in the matter.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Messrs. Arnold and Sons, London; Dr. W. E. Anderson, Newcastle-on-Tyne; Alpha; Mr. J. Allison, Glasgow; Angry but not Crushed. **B** Dr. W. [illegible], London; H. Burrows, M.B., London; Dr. C. E. Beevor, London; Messrs. Burroughs, Wellcome and Co., London; Mr. E. J. Bland, London; Sir H. C. Burdett, London; Dr. C. R. Box, London; Mr. F. N. Baker, Coventry; C. Berkeley, M.B., London; Dr. H. A. Ballance, Norwich; Mr. L. A. Bidwell, London; Mr. J. B. Blackett, London; Miss E. Bailey, London; Dr. W. Bruce, Strathpeffer Spa; Mr. F. A. Baldwin, McCarthy Island, W.A. **C** Dr. G. Carpenter, London; Mr. A. Crook, Norwich; Mr. J. Coleman, London; Dr. J. S. Cameron, Leeds; Mr. F. W. Collingwood, London; Dr. C. Christy, Leopoldville; Dr. E. C. Carter, Cheltenham; C. J. Caddick, M.B., Sutton Coldfield. **D** Mr. W. A. Dixey, London; Dr. R. S. Duncan, London; Mr. F. E. Daniel, Barrow-in-Furness; Dr. D. Drew, London; Dr. W. G. Dickinson, London; Dr. T. G. Duffield, London; Messrs. F. Darton and Co., London. **E** Messrs. T. F. Edgeworth, Bristol; Enquirer; E. F.; Ex-Civil Surgeon. **F** Messrs. Fannin and Co., Dublin; Mr. A. G. R. Foulerton, London; F.R.C.S.Edin.; Dr. T. Fraser, Clifton; Mr. G. A. Ferraby, Nottingham; A. G. Faulds, M.B., Glasgow; Dr. H. Fraser, Aberdeen. **G** Mr. P. G. Gaskell, London; Messrs. W. Green and Sons, Edinburgh; Mr. F. Gould, London; Dr. L. Grant, Ballachulish. **H** Mr. O. Hodges, Cleobury North; G. C. R. Harbinson, M.B., Matlock; Dr. E. Hill, Durham; Dr. J. Hussey, Farnham; Mr. J. Houston, London; Mr. W. H. Harland, East Cowes; Mr. P. H. Hacquoil, Penarth; Dr. A. Haig, London; Mr. H. D. Hey, Faringdon; Hunterian Society, Secretary of, London; Mr. W. H. Hall, Tunbridge Wells; Dr. R. S. Hubbersty, Sunderland; Dr. J. Haddon, Hawick. **I** Indianus; Inquirens; Ittai. **J** C. Johnson, M.B., London; Miss G. B. Jacob, London; Mr. R. S. Jaynes, London; Dr. G. P. Johnson, Stoke-on-Trent; Dr. E. Jepson, Durham; J. A. H. **L** Licentiate; Mr. R. M. Littler, Southport; Sir Trevor Lawrence, London; Dr. H. C. Lawrence, Cheltenham; Dr. D. B. Lees, London; Dr. R. W. Leftwich, London. **M** S. G. Moore, M.B., Huddersfield; Mr. W. E. Meads, Bexhill-on-Sea; Dr. J. J. Macan, Cheam; Mr. J. H. Mummery, London; Mr. W. J. Morton, London; Mr. W. J. Midelton, Bournemouth; Mr. J. F. Macfarlane, Stornoway; Mr. E. D. Marriott, Nottingham; Medical Fiscal Reformer; Mr. J. Murphy, Dartmouth; Dr. J. McNamara, London; Mr. H. F. Mole, Clifton; Mr. H. May, Birmingham. **N** Mr. P. Newell, Bexhill-on-Sea; Mr. E. E. Naggiar, London; North. **O** Obstetrical Society, Secretary of, London; Dr. J. Oliver, London. **P** Mr. W. S. Penwell, London; Dr. G. N. Pitt, London; Mr. T. D. Patmore, London; Dr. E. F. Porter, London; Perplexed; Dr. W. L. Pethybridge, Plymouth; Mr. F. J. Pearse, London. **R** Radium; Recruit; Rusticus; Dr. W. Reeve, London; Messrs. Reynolds and Branson, Leeds; Dr. J. Reid, London; Dr. R. R. Rentoul, Liverpool; Mr. R. E. Roth, D.S.O., Sydney; Dr. J. M. Rhodes, Didsbury; Messrs. Reinheimer and Co., Surbiton; R. W. M. **S** Dr. S. Sunderland, London; Dr. D. Somerville, London; Dr. A. J. Sharp, Whitby; Dr. E. I. Spriggs, London; Mr. P. R. W. de Santi, London; C. W. Saleeby, M.B., London; Dr. F. H. Snell, Coventry; Mr. G. Sichel, London; E. S. Stokes, M.B., Sydney; Sir T. Stoker, Dublin. **T** Dr. J. H. Teacher, Glasgow; Dr. W. E. Thomson, Glasgow; Dr. L. T. Thorne, London; Mr. B. Thornton, Margate; Dr. E. F. Trevelyan, Leeds; G. Turner, M.B., Pretoria; Tweed; A. Thomson, M.B., Stratford-on-Avon. **V** Viator; V. V. V. **W** Dr. E. R. Walters, Farnham; Dr. W. G. Walford, London; Dr. F. J. Wade, London; Mr. S. W. Wilson, Bath; Mr. W. R. Williams, Clifton; Mr. S. White, Sheffield; Dr. F. Wiblecks, London; Dr. E. F. Willoughby, London; Dr. A. M. Watts, Minster; D. C. Watson, M.B., Edinburgh; Dr. H. J. Walker, Estacion Molles.

BOOKS, ETC., RECEIVED.

Hygiene und Seuchenbekämpfung. Gesammelte Abhandlungen von Dr. Martin Kirchner. Berlin: Richard Schoetz. 1904. M. 15.

How to Keep Well. By Floyd M. Crandall, M.D. London: Grant Richards. 1904. 6s.

A Non-surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall, A.B., M.D. Chicago: Rowe Publishing Co. 2 dol.

Elementary Dispensing Practice. By Joseph Ince, F.C.S., F.L.S., F.R.M.S. London: "Chemist and Druggist" Offices. 1903. [illegible]

Tuberculose-Arbeiten aus dem kaiserlichen Gesundheitsamte. Heft 1. Berlin: Julius Springer. 1904.

Moderne ärztliche Bibliothek. Heft 1. Die wissenschaftlichen Grundlagen der Kryoskopie in ihrer klinischen Anwendung. Von Professor Dr. A. von Koranyi. Berlin: Leonhard Simion Nf. 1904. M. 1.

Energetik und Medizin. Von Professor Dr. O. Rosenbach. Berlin: August Hirschwald. 1904. M. 2.80.

Die chirurgischen Untersuchungsarten. Einführende Vorlesungen über allgemeine chirurgische Diagnostik. Von Dr. Otto Manz. I. Teil. Jena: Gustav Fischer. 1904. M. 6.

Hazell's Annual for 1904. Edited by W. Palmer, B.A.Lond. London: Hazell, Watson and Viney, Limited. 1904. 3s. 6d.

Transactions of the Association of American Physicians. Eighteenth session held at Washington, D.C., May 12th, 13th, and 14th, 1903. Vol. xviii. Philadelphia: Association of American Physicians. 1903.

Transactions of the Southern Surgical and Gynecological Association. Vol. xv. Fifteenth session, held at Cincinnati, Ohio, November 11th, 12th, and 13th, 1902. Edited by W. D. Haggard, M.D. Philadelphia: Southern Surgical and Gynecological Association. 1903.

Aids to Surgery. By Joseph Cunning, M.B., B.S., F.R.C.S.Eng. London: Baillière, Tindall and Cox. 1904. [illegible]

The Englishwoman's Year Book and Directory, 1904. Edited by Emily Janes. Twenty-fourth year. London: Adam and Charles Black. 1904. 2s. 6d.

On Movable or Dropped Kidney: its relation to Diseases of the Nervous System. Second paper. By C. W. Suckling, M.D.Lond., M.R.C.P. London: H. K. Lewis. 1903. 1s.

Manuel Pratique d'Hygiène. Par le Dr. Guiraud. Troisième édition. Paris: G. Steinheil. 1904. Fr. 12.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	0	0
A page	5	5	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Observations
ON
SUPRAPUBIC PROSTATECTOMY.

By Sir THORNLEY STOKER, M.D., F.R.C.S.I.,
President of the Royal Academy of Medicine in Ireland; Surgeon, Richmond Hospital, Dublin.

The performance of suprapubic prostatectomy is of such comparatively recent origin, and is as yet so much in course of development, that I have an apology for recording the small number of three cases. I do so because every example of an operation of such magnitude is an item of some value. Besides, although I have done but three prostatectomies by this route, I have performed a large number of suprapubic cystotomies for other diseases, and the treatment of the bladder after every suprapubic opening is a matter of importance, and one in which so much is learned by experience, that I wish to describe not only the method I have followed in dealing with the prostate gland itself, but also the points of interest in the treatment of the wound and the bladder during and subsequent to operation. The mere removal of the gland is usually a more easy and simple matter than the after-treatment of the case. I have had the advantage of assisting Sir William Thomson at most of his prostatectomies and have added to my experience in that way. The description of his technique by a surgeon may be interesting to his colleagues, and I offer mine with every respect, knowing how in my own surgical work I have been helped by a practical account of details.

When the bladder and the urine are alkaline and when delay in operating is permissible it is of great advantage to get them into a better condition by the use of a white diet, by washing, and by the use of such other measures or drugs as may appeal to individual surgeons.

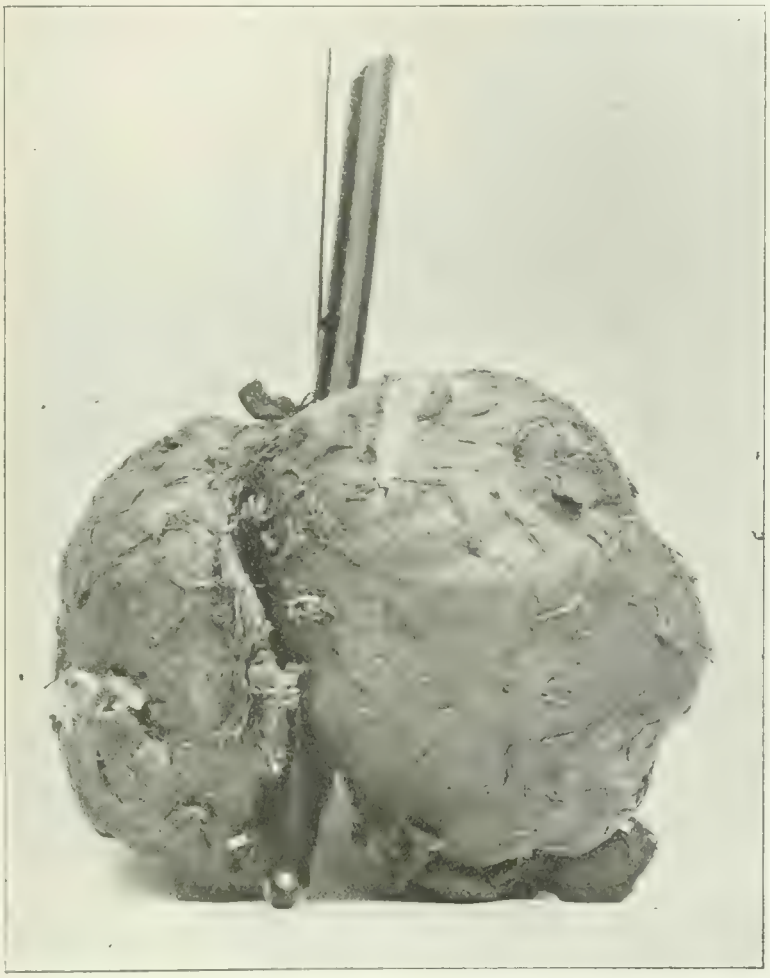


Fig. 1.

I propose to speak first of the removal of the prostate when the bladder has been opened, and afterwards of the method of opening the bladder and the treatment of the parts subsequently. The two latter matters are common to all suprapubic cystotomies and hang naturally together.

When the bladder has been opened, the operator standing on the left of the patient, the prostate should be thoroughly examined with the index finger of the right hand in the bladder, assisted by the left index or the left index and middle fingers if necessary in the rectum; great care should previously have been given to the cleansing of the rectum. Owing to the necessity of having at least one finger in it during most of the time occupied in enucleating the prostate ideal cleanness cannot be achieved without the use of a rubber glove for the rectum, and this lessens the delicacy of manipulation.

During this examination the surgeon must determine whether one or both sides of the gland require removal, and whether some myomatous outgrowth may not have been the cause of obstruction and its removal suffice to open the passage for urine. If the prostate itself is essentially enlarged, or if a nodular condition of the gland due to separate capsulated tumours of an adenomatous or a myomatous nature exist, the entire gland should be removed. If any partial operation be done in such cases, a fresh development of some of these tumours is likely to occur later on and produce fresh obstruction. In one of my cases the obstruction to the urine, which was complete and acute, was not due to the general enlargement of the gland but to a projecting nodule not much larger than a pea; the gland itself was full of such small tumours, and had it been left behind there is no doubt that sooner or later a fresh obstruction would have taken place either from the growth of such a nodule or from the general gland hypertrophy. When this latter condition exists, I believe it always produces obstruction by lateral approximation of the lobes of the gland towards the middle line so as to press one against the other. The so-called middle lobe I do not believe in, and I think that the outgrowth of a separate adenoma or myoma is what has been so christened.

When the prostate has been thoroughly examined the left index, washed after its removal from the rectum, is placed in the bladder and used as a guide for a pair of blunt-ended scissors, which should be used to snip through the floor of the bladder and capsules of the gland, on one side of the middle line in an antero-posterior direction. This incision should be made over the most projecting part of the larger of the two lobes. It may be found that the whole gland can be delivered through one incision, but if the lobe first incised comes away without its fellow, a second and similar cut can be made on the other side and the remaining lobe disencapsuled. I think it is of the utmost importance to make the incision of sufficient depth, not merely seeking to divide the bladder wall and fascial capsule of the prostate, but to cut for a short distance through its proper capsule into the gland substance. If it be merely sought to expose the gland without injury to its substance, the operator cannot be certain whether he has thoroughly divided its coverings so as to render its enucleation easy. I hold strongly—and have formed the opinion as the result of anatomical as well as surgical observation—that the safest and most easy way to be sure that you are within the capsule of pelvic fascia, and in a region where enucleation can be safely and rapidly effected, is to snip with your scissors into the substance of the prostate.

The incision I have been speaking of need not be more

than 1 in. in length, enough to admit the end of a finger easily; any increase of its size can be effected by tearing with the point of the finger. It will be found after the removal of a large prostate has been effected that the incision or rent in the bladder wall has contracted to a very small size. The scissors are then withdrawn, the left index, with the middle finger if required, again placed in the rectum, and the right in the bladder. The process of enucleation is effected as rapidly as possible, the left fingers being used for counter-pressure and for the protection of the rectal wall from perforation or other injury. In one case I enucleated a prostate weighing 4 oz. in ten minutes. I have seen much difficulty experienced in enucleating a sclerosed prostate, but in most cases ten to twenty minutes suffice for this stage of the operation.

The question of attempting to conserve the prostatic urethra generally settles itself. The urethra may be so glued to the gland that it separates with it, and comes away attached to the prostatic substance. The prostatic urethra may come away with a soft and easily disencapsuled prostate, and, on the other hand, may remain intact in a case of old and hard hypertrophy. Records seem to show that cases do just as well in which the prostatic urethra has been removed as those in which it has been preserved. Inasmuch as the chief source of haemorrhage in this operation is from veins between the bladder and fascial capsule or between the fascial capsule and the true capsule of the gland, we find another reason for getting well into the gland so as to avoid extensive injury to them.

When the prostate has been removed, the bladder should be irrigated with hot water to remove clots and check any oozing which may be present. As a rule haemorrhage gives no trouble, but if it should occur subsequently to a grave extent a repetition of the irrigating process will usually stop it, and it is in view of this being necessary that one reason is found for leaving the bladder and abdominal wound as open as possible. In this context it may be remarked that the bladder generally contains a good deal of clotted blood for two or three days subsequent to operation, and it is by no means desirable to be too diligent in removing it. Its presence aids the large veins about the prostatic area, and limits both the tendency to bleeding and to septic absorption, so that it is not well to make much effort to remove clots. The urine has a rapid disintegrating effect on them, and they are soon got rid of without effort. I seldom use more than the most gentle syringing of the bladder through the wound for some days after a suprapubic operation. When more energetic washing is called for, it is best effected by injecting boric lotion through a catheter introduced by the urethra, and allowing it to discharge through the abdominal wound.

I now pass to the method of opening the bladder above the pubes. The viscus should be thoroughly washed out, and about 4 to 8 oz. of warm boric lotion allowed, if possible, to remain in it. But even if its contracted state forbids this moderate distension, there should be no difficulty in finding it when the parietal incision has been made. For many years I have abandoned the use of Peterson's bag, as it is both unnecessary and a source of danger by the strain it puts on an unhealthy bladder. The parietal incision requires to be from 3 to 4 in. long, according to the thickness of the abdominal wall, and should extend to within ½ in. of the symphysis. Once the skin and the musculo-tendinous structures are divided, no more use need be made of the scalpel except to pierce the bladder wall; all the tissues may be got out of the field and the bladder exposed by scratching with a half-blunt instrument, such as the point of Greig Smith's scissors. The peritoneal pouch seldom gives trouble, even when the bladder is contracted, and can readily be held up by the finger of the assistant or by a small retractor. The bladder is best opened by puncturing with a small scalpel, and passing into the opening the blades of Greig Smith's scissors. If these blades are then separated in a vertical direction, they may be used to tear the opening in the bladder to any necessary size, and while doing so to lift it to the surface, so as to enable the operator to insert his finger. If the opening requires further enlargement, or is difficult to tear, owing to hypertrophy of the bladder coats, it can be increased in size by snipping with scissors.

I then take a piece of thick silk which at each end is threaded into the eye of a large fully-curved needle: the point of one needle is passed into the bladder and, guided by the left index, is made to pass forward through the bladder wall on one side of the incision, at its upper end and about ½ in. from its edge, and then through all the tissues of the abdominal wall anterior to the peritoneum except the skin. This proceeding is then repeated with the second needle on the opposite side; no further use of this suture is made until the intravesical portion of the operation has been completed.

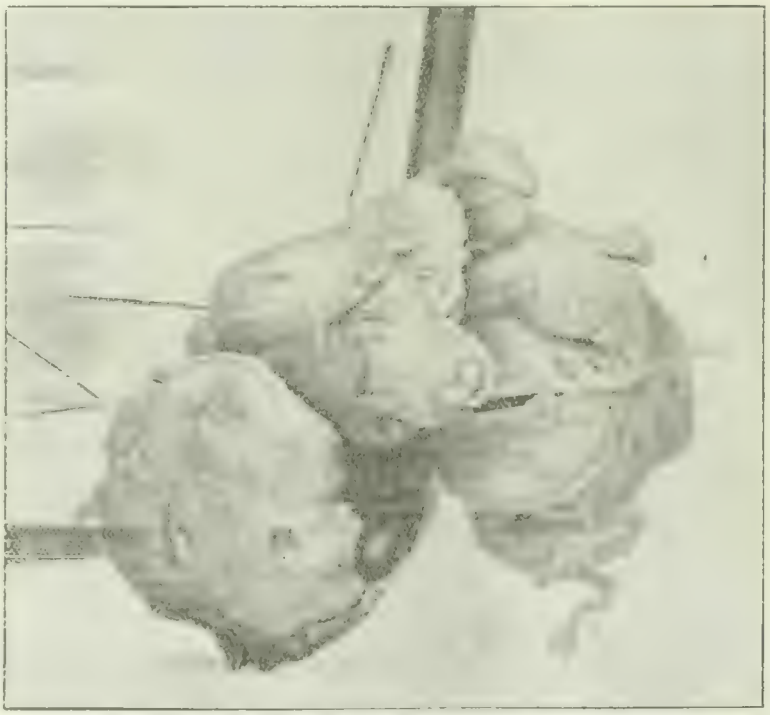


Fig 2.

When the operation is ended and the bladder has been irrigated the suture should be tied, not tightly but with just enough force to approximate the opposed surfaces of the subcutaneous portions of the tissues at the upper end of the wound. It should be tied with a bow and the ends left long so that it may be loosened if necessary. As it does not include the skin it causes no pain. The uses of this suture are as follows:

1. By drawing the bladder and sides of the parietal incision together it effectually prevents any prolapse of the peritoneal sac.

2. It keeps the opening in the bladder accessible, so that a tube can readily be introduced and washing easily and safely performed if called for.

3. It prevents undue contraction of the bladder towards its floor, and provides space for the collection of a small amount of urine, so helping to limit the overflow, which at times wets the patient and causes trouble.

4. By fixing the bladder to the upper end of the wound, and keeping the peritoneal pouch above the area, it prevents any chance of the cicatrix being afterwards subjected to bowel pressure and becoming hernial; and it leaves a cicatrix in such a position and under such conditions that it may, if necessary at any time in future, be safely incised for access to the bladder.

The suture may be removed on the fourth or fifth day, when lymph exudation will have cemented the parts, and made the treatment of the wound a comparatively simple matter.

In performing a suprapubic cystotomy the endeavour should be to form a wound with its apex at the bladder and its base at the skin surface. It ought not, as a rule, be closed or sutured in any way, except by the solitary suture I have described. In cases where, owing to the presence of a large amount of fat, the incision through the superficial tissues has been extended much upwards, a single suture of silkworm gut may be introduced towards the superior end of the wound. Attempt to suture the bladder or parietal incision is not only useless but is injurious, and helps to cause infiltration of urine.

Since I have adopted this method I have had entire freedom from the infiltration of urine, which so often gives trouble in the tissues of the abdominal wall or pelvis, producing suppuration and sloughing. Nor have I seen any trouble from the phosphatic concretions which may cause so much suffering and delay in the process of healing.

When the operation of cystotomy has been completed a rubber drainage tube of large size is introduced: it should extend from the surface level into the bladder, but not touch its floor, as if it does it will cause pain resembling that produced by vesical calculus. It should be attached at the surface by a rectangular glass bend to a lighter tube, which is passed over the side of the bed into a receptacle for urine. The wound may be loosely packed with gauze, not for the purpose of occluding it, but in order to act as a conductor of urine and prevent infiltration.

A covering of cellulose wadding and a binder loosely applied, will, after the bladder clots have come away, suffice to keep the patient and the bed dry and prevent much suffering.

The wound when treated in this way heals in from three to four weeks, leaving a narrow cicatrix.

CASE I.

B. O'B., aged 60, a farmer, of medium stature, in spare muscular condition, was admitted to the Richmond Hospital on the recommendation of Dr Robert Creighton, of Ballyshannon, on October 6th, 1902.

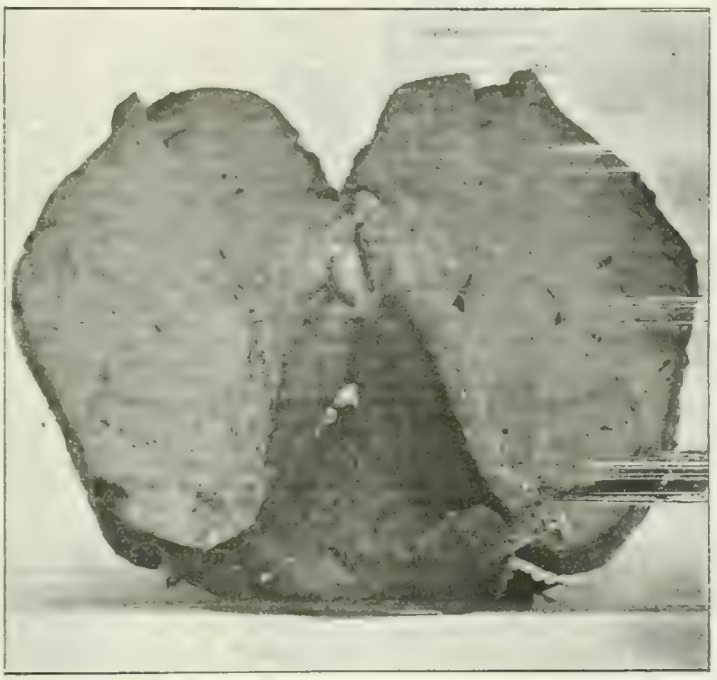
Two years previously he had suffered from frequency of urination for a few weeks. The attack passed off without any stoppage of water, and he remained in good health until five weeks before his admission to hospital, when he was suddenly seized with complete retention, and up to the date of operation was unable to empty his bladder except with a catheter. When he came under observation his urine was slightly alkaline, contained a little pus and some mucus, had a specific gravity of 1020. His prostate examined by the rectum revealed a moderate general enlargement of the gland, most marked on the left side; a No. 11 E catheter was readily introduced.

Treatment by systematic catheterization, by sodium benzoate, and a white diet was used, and, his urine having become acid, the prostate was removed on October 13th.

The details of the operation and subsequent treatment were in this and the following cases essentially those already detailed.

Recovery was uneventful. A little vesical bleeding took place some sixteen hours after operation, and was checked by the introduction of adrenalin solution. The temperature was never very high, and was practically normal after the ninth day. On November 2nd—the nineteenth day—water was passed per urethram, and from this on the drainage tube was only used at night.

On November 12th (the twenty-eighth day) the man was allowed out of bed into an armchair, and from this the tube was altogether removed. The wound was quite healed when he left hospital on December 12th, 1902.



FIG

Examination of the parts in this case, both before and after their removal, showed that the general hypertrophy of the prostate had not as yet caused the complete obstruction to the outlet in which it ended, but that it was due to a small pedunculated outgrowth, about the size and shape of a little finger, which projected into the prostatic urethra. Dr Earl reports it as being a myoma, and weighing 1 oz. This rather unusual exhibits the unusual circumstance of the sudden complete stoppage of urine in a case where a large catheter was easily passed.

The following is Dr Earl's report on the parts removed:

"Right lobe, weight 210 gr.; length, 1 in.; small round mass, 12 gr.; circumference, 4 in. Two masses of left lobe one weighs 210 gr., length, 1 in.; circumference, 4 in. second weighs 142 gr., length, 1 in.; circumference, 4 in.

"The total weight, therefore, is 11 gr. less than 2 oz. The small round mass is a myoma. There is no glandular tissue contained in it, and only a very small quantity of fibrous connective tissue. The other portions of tissue all show a similar structure. On section they exhibit a number of rounded areas, which are separated from each other by a small quantity of tissue which has not the yellowish tinge the rounded areas have. These rounded areas, on microscopic examination, are found to be composed mainly of tubular glands lined by columnar epithelium with a small quantity of fibrous and muscular tissue lying between them, that is, are adenomata. The tissue lying between the adenomata has the appearance of normal prostate."

Finally, as regards this case, Dr. Creighton, writing on October 20th, 1903, reports the man in his former vigorous health, retaining his urine for normally long periods, passing it in a large stream, and having full control of his bladder.

CASE II.

A. B., a gentleman aged 68 years, sent to me by Dr Cook, of Dromore, suffering from prostatic obstruction and stone in the bladder, came under my observation in May, 1902. I then removed by lithotrity a few calculi weighing about 90 gr. I hoped that the prostatic enlargement, which seemed to have been provoked by the presence of a stone and which had come on synchronously with the first attack of pain of its presence, would, as we sometimes see, disappear when the cause of irritation had been removed. But it was not so, and eventually worn out by the torment of his existence, the patient submitted to operation on September 1st, 1903. He was in a very hæmophlegmatic condition, his health being lowered by constant urinary distress. There was always a large quantity of residual urine, and the secretion could only be kept neutral or slightly acid by the use of drugs and by washing the bladder.

The operation was done on September 1st, 1903. It was typical and easy, not more than ten minutes being occupied in enucleating the prostate. A little urine was passed by the natural channel on the third day, and gradually increased until the twenty-first day, when the tube was withdrawn during the day and only used on occasions. On the twenty-seventh day the patient was allowed up for a short time. From this on he only passed water every four hours, and left the private hospital on October 20th, forty-nine days after the operation, the wound being healed and his urinary functions in a perfectly normal condition. The convalescence was delayed by a severe intercurrent attack of pneumonia. I saw Mr. A. B. on January 3rd, 1904, when he visited me at my house in perfect and vigorous health.

Dr. Earl reports: "The right lobe weighs 210 gr., and measures 1¾ in. in length; the left lobe weighs 631 gr., and measures 2¾ in. in length. The total weight, therefore, is 2 oz., less 21 gr.; the total circumference a little more than 9 in. Sections were made from each lobe, and portions adhering to their surface were also examined. The lobes have the general structure of the prostate. The glandular tissue is more abundant than normal. Some small cysts on the surface of the lobes are composed of glands very much dilated. The tissue adhering to the surface of the lobes is fibrous. It contains no glands: one of the pieces examined contains some of the lining

membrane of the urethra." With reference to the urethral membrane, I was not aware either during the operation or from the subsequent progress of the case, that it had been injured.

Case III.

C. D., a gentleman aged about 55, was sent to me in January, 1904, by Dr. M. O'Malley Knott of Castlebar, and Dr. Allman of Westport. He had suffered for four or five years from gradually increasing prostatic irritation, which assumed the form of urethral obstruction about two years ago, and has since been increasing in degree. The urine was faintly acid, and contained a little pus and albumen, but no tube casts. The amount of residual urine was never less than 24 oz. The prostate examined by the rectum did not seem to be much increased in size, but was distinctly larger on the left than on the right side. A No. 12 (E) catheter passed without any resistance. The catheter had not been previously used except on one occasion about a year ago for the purpose of examination. The patient could not pass any urine except when lying down on either side; it then dribbled slowly away. From these conditions I expressed the opinion that a pedunculated growth was present without much hypertrophy, and this was found to be the case.

I operated on January 16th, 1904, feeling some anxiety owing to the low condition of the patient and the shabby state of a somewhat exhausted heart, and found a prostate slightly enlarged on the left side, not at all hypertrophied on the right, and with a small flabby growth ¾ in. long, with a broad pedicle, growing from the prostate gland at the right side of the neck of the bladder, and movable in such a way that it effected the maximum of obstruction when the patient was erect, and the minimum when lying down; in the former position its action was valvular. I incised, enucleated, and removed this growth, finding, owing to its small size and flabby consistence, more difficulty in doing so than if the whole of an ordinary enlarged prostate were in question. No necessity existed for attempting to remove the gland itself. It was not the seat of any essential enlargement, and was not nodular. Indeed, I doubt if it would be possible, without inflicting grave injury, to enucleate a prostate in a normal or nearly normal condition as regards size and attachment, and which had not by growth freed itself to some extent from its connexions.

The patient is now (on the eighth day), doing well, and has given no cause for anxiety, except for the twenty-four hours following operation, when the weak state of his heart caused some alarm.

Dr. Earl reports that "the part removed weighs 105 gr., and is an adenoma mainly composed of glands lined by columnar epithelium lying close together, and similar to those forming the prostate."

As the nature of prostatic enlargements seems still to be a moot point, I may be allowed to express my views, founded on an extended observation of cases and specimens. There seem to be three conditions of senile enlargement:

1. A true hypertrophy of the gland without any interstitial growths.

2. The existence upon and within the substance of the prostate of one or more encapsuled tumours, distinct from the substance of the gland proper, and either myomatous or adenomatous in structure. Both forms of neoplasm or one only of them may be present.

3. A mixed condition of true hypertrophy and interstitial growths of the second class. This condition is much the most common. The tumours may eventually reduce the prostate to a state of pressure atrophy, or cause it to become a mere capsule for adventitious growths. It is the latter condition which in all probability has given rise to so much dispute and uncertainty as to the true pathology of enlarged prostate. The third of the figures represents a section of one of the lobes seen in Fig. 2, and shows the appearance of the prostate studded with these growths, which are nearly always of a spherical form, and only depart to more irregular outlines when they become of large size or approach the surface of the prostate.

Adulteration of Honey. The Laboratory of the Inland Revenue Department of Canada has issued two brief reports by Mr. Thomas Macfarlane, Chief Analyst, on the results of analysis of honey and of flavouring extracts. Ninety-nine samples of honey were examined: eighty-one were genuine, five were doubtful, and thirteen were adulterated (six with glucose sugar and five with cane sugar). Honey may contain cane sugar either owing to artificial addition or because the bees are fed exclusively on it. Invert sugar may also be added and is less easy of detection. This sort of adulteration is known in Europe, where the product is sold as "Turkey honey" or "table honey." Its manufacture has increased greatly during the last decade. Water may also be added to honey above the amount (20 per cent.) normally present. Only eight samples were found to contain water in excess of 25 per cent. No injurious ingredients were met with in this series of analyses. The same may be said for the flavouring agents, many of which however are artificially coloured.

PROSTATIC ENLARGEMENT AND ITS TREATMENT BY FREYER'S METHOD.*

By GILBERT BARLING M.B., F.R.C.S.,
Professor of Surgery, University of Birmingham; Surgeon, General Hospital, Birmingham.

Enlargement of the prostate is a subject of perennial interest from the frequency with which it occurs, the difficulties it offers to the practitioner, the dangers to life which it brings in its train, and last, but by no means least, from the misery and degradation with which it surrounds the later period of life.

The various operative measures for the relief of this condition hitherto at our disposal have on the whole been either disappointing or surrounded with too great risks, hence the readiness with which new proposals are welcomed. The latest of these, namely, the possibility of complete removal of the prostate by the perineal or the suprapubic route with reasonable safety, and with complete relief to the patients' symptoms, is now earnestly receiving the attention of the surgical world. Numerous observations in man and animals show conclusively that the prostate fails to develop if the testicles are removed in early life, further, that the healthy prostate shrinks if the testicles are removed when adult life is attained. We are familiar with the ingenious arguments of White, of Philadelphia, based on these facts, which led him to advocate castration to relieve the symptoms attendant on the enlargement of the prostate associated with advancing age. The proposal was welcomed with enthusiasm, and often indiscreetly practised, but we are now in a position to estimate fairly the true value of the proceeding. As far as my own experience goes, and I believe I am in accord with most other surgeons, the final results have been disappointing, and castration is now rarely done for prostatic enlargement. It was not without risk to life and to the patients' mental condition, but these drawbacks might have been faced if the relief had been thorough and persistent. Unfortunately this has not been realized, and *a priori* argument falls to the ground in the face of clinical experience which is opposed to it. The adenomatous, fibroid, or myomatous overgrowth does not yield to removal of the testicles as does normal prostatic tissue. The lesser operation of vasectomy has given even more disappointing results, and has equally fallen into disrepute.

Ligature of the internal iliac arteries with the purpose of cutting off the prostatic blood supply and inducing atrophy has been resorted to in a few cases, but the results have been disappointing and not commensurate to the severity of the operative proceedings.

Partial removal of the prostate, in this country so honourably associated with the name of McGill of Leeds, has, on the whole, given the best results attained, but its mortality has not been small; whilst in some cases the relief has not been adequate to the risk run, and in others continued growth of the prostate has eventually nullified the advantage at first obtained.

These are the reasons which induce nay, which require surgeons to give a fair trial to methods which promise better results, for unless some more satisfactory method is forthcoming than those briefly alluded to the catheter, with all its drawbacks, will still remain, in the large majority of cases, the main remedy by which relief is given.

Complete removal of the prostate, either via the perineum or by the suprapubic route, is now on its trial; each method has its ardent advocates, and if one listened uncritically to either side it would seem as though the question were sure and settled, the risk to life very small, the recovery after operation uneventful, the final results irreproachable; the conclusion is like that of a child's story book, in which the characters "all lived happily ever after."

In bringing the subject before you to-day I do not intend to contrast the two operations, the high and the low, but to place before you the main facts with reference to cases in which I have removed the prostate by the suprapubic route.

It is necessary to make a few preliminary observations on the parts concerned. Without going minutely into the anatomy of the prostate, there are some essential points to which I wish to call attention as bearing directly upon the question before us. We have to deal with an organ which in healthy adult life weighs about 6 drachms, embraces and is intimately connected with that portion of the urethra next to

* Read at a meeting of the Birmingham Branch of the British Medical Association.

the bladder, and is composed partly of glandular and partly of involuntary muscle and fibrous tissue. It has its own proper capsule, just as the kidney or testicle has: it is surrounded by a plexus of veins, and these veins, together with the prostate, are enclosed in a sheath derived from the deep perineal fascia. When the prostate becomes so altered as to interfere with the function of micturition we have always, so far as my own observation goes, an increase in its weight, but this may vary in an extreme degree from little more than 1 oz. to as much as 10 oz., the increase in bulk being due to an overgrowth of any or of all the elements of which it is composed, sometimes the stroma only showing an increase, so that we have a body produced which may be compared to the familiar fibromyoma of the uterus, but more commonly the gland element is chiefly in excess, and the term "adenomatous prostate" is fairly descriptive of the result. The varying conditions produced are well seen in the microscopic sections I shall presently show on the screen, taken from cases upon which I have operated.

The enlarged prostate varies greatly in consistence, so that we find in some cases a tough, hard body difficult to enucleate or to remove piecemeal, and clinging closely to the prostatic urethra, from which it cannot possibly be separated, the urethra coming away with the prostatic tissues; or we have an elastic—almost succulent—body, generally of considerable size, enucleated with comparative ease, perhaps separable from the urethra and leaving it behind, but this I believe to be an uncommon event. Between these two extremes we have various graduations, but the variations in size and in consistence do not correspond to particular types in microscopic structure. The prostate in health is of pyramidal shape, with the apex forward, but as it enlarges the shape alters until we have a body produced still pyramidal in shape, but with the base forward, tightly pressed against the triangular ligament, and the apical portion facing backwards, and encroaching on the bladder. The changes in the prostatic urethra are in the direction of elongating and of flattening it, thus increasing its length and vertical measurement; at the same time its walls become atrophied until practically nothing may remain but the epithelial layers. The changes in the bladder, the ureters, and kidneys, are too well known to justify me in occupying your time by describing them here, but I would like just to emphasize the importance of the latter. The dilatation of the kidney pelvis, the atrophy of part of the renal substance, the interstitial nephritis which damages what part of the kidney remains; these are the conditions to be dreaded, and they are mainly responsible for the mortality which follows removal of the prostate by producing uraemia, and constitute a strong argument for early operative intervention. An argument sometimes advanced against operative interference in enlarged prostate is the presence of a general arterio-sclerosis, of which the enlarged prostate is only a part. I found this in one of my cases, and though the patient died after operation, the death was not due to this change, but to an entirely different disease, which I shall allude to when describing the case, but as I shall point out later there is some evidence that this arterio-sclerosis is not merely coincident with, but may actually be induced by the prostatic overgrowth. Another objection urged against removal of the prostate is the probable inability of the bladder muscle to contract and expel the urine when the patient has been for some time dependent on the catheter, it being inferred that the muscle has become feeble and atonic, but here again experience of the final results attained shows the objection to be groundless in, at all events, the very large majority of cases.

Before describing the operation of suprapubic prostatectomy, it is only just to acknowledge the obligation, which I at all events feel under to Mr. Freyer for introducing, and, as far as I know, originally working out the method associated with his name, an acknowledgement which has I think in some quarters been rather churlishly withheld. The diagnosis having been made by rectal examination, the patient's symptoms, and often by the use of the cystoscope, the usual preparations are made for suprapubic section of the bladder. the organ is distended with fluid, and the patient is placed in the Trendelenburg position, this last being, I believe, a useful assistance in the diminution of haemorrhage, which is mainly venous.

When the bladder is open I generally introduce a Fergusson's speculum and inspect the prostatic region; in this way a clear idea is obtained of the amount and shape of the outgrowth into the bladder. This may be massive or quite small, sessile or almost polypoid, regular or irregular in outline, but it is interesting to note that in two of my cases in which the overgrowth was quite moderate in size, a small lobe not bigger than a bean situated at the very margin of the internal meatus appeared to play a large part in the obstruction to the outflow of the urine. By examination with the speculum we often find also enormous venous dilatation in the mucous membrane over and around the prostate, a condition which is very suggestive when we recall how large a part chill, or other causes of venous engorgement, plays in the production of retention of urine. Having made this inspection, which may be omitted if there is reason for haste in the operation, I pass a metal bougie of good size, introduce my left finger into the bladder, and, with a pair of blunt pointed scissors in the right hand, divide the mucous membrane over the most prominent part of the prostate close to the floor of the bladder. This division is only large enough to admit the end of the finger, and it must be made only through the mucous membrane. The scissors are then entirely discarded and the right index finger, entering the small wound in the mucous membrane, proceeds to strip underneath the prostate, but clinging close to it all the time. The stripping may be quite easily accomplished, especially when the enlargement is considerable and elastic, but in the firmer and tougher prostate it may be necessary to use all the force of which the fingers are capable. The left index passed into the rectum protects that cavity and at the same time pushes up and steadies the prostate. When the organ has been freed underneath the finger strips it on each side and then above so that at last the digit can sweep round it. Beginning then at the front of the prostate, close to the triangular ligament, an attempt is now made to peel it off the urethra stripping backwards towards the bladder, and here the metal bougie is of assistance, steadying the part and acting as a guide to the enucleating finger.

Occasionally the prostatic urethra may be left behind, but in the large majority of cases it comes away with the organ, and in a few cases part, or even all, the membranous urethra may be torn away also. As the process of enucleation proceeds it will in some cases be found that the prostate separates in two halves, or it may be into three or more portions, but often it comes away in one connected mass. These points, as to the condition of the urethra, the subdivision or otherwise of the prostate, and that it is possible to remove the whole of it I shall hope to demonstrate presently with specimens and with the aid of the lantern screen. When I say the whole of the prostate I do so with this reserve, that there may be some outlying acini left behind in the outer layers of the split sheath, but these are microscopic objects and, I believe, quite unimportant. During the enucleation there will be a continuous, but as a rule very moderate, loss of blood, which I think one may estimate as a rule at not more than 4 oz. to 6 oz. This loss should be entirely disregarded and no attempt at this time made to stop it. The fingers should go quickly and persistently on with the stripping process, and when the prostate is once completely freed most of the oozing stops spontaneously, the rest is easily controlled by sponge pressure or by hot douching. The enucleation is generally completed in a few minutes, and indeed, from the commencement of the operation until the dressing is applied, not more than from twenty to thirty minutes is occupied. The after-treatment is simple, the bladder is washed out through the wound daily as long as the latter is patent enough; the drain is removed on the fourth day, and the patient may be allowed out of bed as a rule in the third week, and in some cases earlier, with advantage. If the passage of the urine by the urethra has been delayed I have thought it useful to pass once or twice a No. 12 metal bougie to see that no granulation tissue or similar obstacle is obstructing the outflow. I have in two or three cases washed out the bladder with a soft catheter passed down the urethra, thinking that it would be more effective than the washing from above. On the whole, however, I doubt if this method has any advantage and in one case (No. 7) I came to the conclusion that it was a positive disadvantage and danger and I no longer resort to it.

Before describing the cases and showing the preparations, macroscopic and microscopic, which illustrate them, I will briefly give you the results attained and the conclusions I have arrived at.

Of the ten patients operated on, three died, one of malignant disease in the colon during the process of recovery and when he was practically convalescent; his death cannot therefore be in any way ascribed to the prostatectomy. The other two

deaths are in a different category, one patient died of uraemia in the third week after operation the ureters and kidney pelves being dilated and the renal tissue atrophied and cirrhotic: the other patient died of angina pectoris in the sixth week. Both of these patients were bad subjects for any operation, and their lives, if no operation had been performed, would probably have been comparatively brief, but I certainly do not wish to suggest that the prostatectomy must therefore be acquitted of bringing about the deaths probably earlier than they would otherwise have occurred. As to the safety then of the operation I will only say that at all events it is as great as can reasonably be expected under the circumstances and for the conditions for which it is performed.

The final result in those who have recovered has generally been most admirable, far beyond what has been attained by the operations previously in vogue a complete restoration of the function of micturition, freedom from pain, from broken rest, from haemorrhage, and so on. Whether the prostatic urethra has been removed or not, so far no ill-result such as stricture from cicatrization has followed, and pretty certainly now will not, seeing what time has elapsed since operation.

In the past I have made little selection of my cases. Once I refused to operate on a hospital patient as his kidneys were evidently insufficient, and he justified my refusal by dying of uraemia three weeks afterwards: and here is his bladder, prostate, and kidneys. In another case, a private patient, the prostate is very large and elastic, the catheter is required three or four times daily, and there is much inconvenience from incontinence when only a very moderate amount of urine has accumulated in the bladder; but there are granular and fatty casts in the urine, an insufficient excretion of urea, and a feeble failing heart. Prostatectomy would, I feel satisfied, be a highly dangerous operation in this case, and I have refused to undertake it. (This patient has just died.)

I hesitate yet to commit myself to any dogmatic statement as to which cases should be selected for operation and which rejected, but my inclination is to reserve it for cases in which the prostate conforms to the large elastic and succulent type. It goes almost without saying that patients should not be allowed to fall into a worn-out and poisoned condition from pain and cystitis without prostatectomy being considered. It is one thing to remove the prostate of a fairly hale old man at the commencement of catheter life, but quite another to do so when disturbed rest, pain, and sepsis have broken him physically and mentally. One limited class of sufferers from this distressing condition will obtain immense benefit from Freyer's operation: I allude to the young prostatic subjects, one of which is included in my cases. Whilst about 55 is the usual age at which prostatic overgrowth occurs, there are a few patients in whom symptoms exist in the early 40's, and catheter life is reached by 45 or even earlier. To such the boon offered by prostatectomy is enormous, and I feel justified in urging them to seek relief in this way.

In yet another group of cases very great benefit is to be expected—namely, in patients where vesical stone is complicated with enlarged prostate. Unlike the last, this group is a considerable one in point of numbers. Such patients, if submitted to lithotrity, are apt to get recurrence of stone, in some cases, no doubt, because a fragment is left behind to form a nucleus for a phosphatic deposit in the presence of a cystitis, in others because the enlarged prostate prevents the expulsion of small stones formed in the kidneys and passed into the bladder. If instead of crushing the stone suprapubic section is resorted to, the wound is a long time in healing in the presence of an enlarged prostate, and the function of micturition does not resume its normal course but remains too frequent and often painful as well, whilst residual urine may call for the assistance of the catheter. In the future, when vesical calculus and enlarged prostate coexist it will, I believe, become the routine practice to remove both by high section of the bladder.

CASE I.

W. M., aged [illegible], was admitted into the General Hospital on May [illegible]th, [illegible], with pain and frequent micturition and cystitis.

[illegible] two years, when he noticed that he had occasional difficulty in passing water, and that the stream was suddenly arrested, and at times he had to [illegible] micturition. [illegible] pain, [illegible] especially at night, when he [illegible] and [illegible] pain in the penis. [illegible] weeks before admission [illegible] pain in the hypogastrium, became acute, and he was in bed three days, and has doctor passed the use of a catheter.

X-ray examination the patient was sounded for stone but none was found. The prostate was much enlarged as felt per rectum, was firm, but not densely hard; residual urine amounted to nearly a pint, containing a good deal of pus. Cystoscopy revealed a good deal of enlargement of the prostate and a collection of what appeared to be pus and mucus in a pouch beneath the prostate.

Operation.—June 2nd, 1903. The prostate was enucleated in two portions of nearly equal size. Bleeding was very moderate and the enucleation easy. The bladder itself and the tissues in front of it showed evidences of severe recent inflammation, and there was much oedema. The cavity of the bladder was hour-glass in shape, the upper portion well up in the abdominal cavity being separated from the lower cavity by a marked constriction.

A good recovery followed the operation, and the patient was discharged quite healed on July 4th, but still with some cystitis and with residual urine generally amounting to ½ oz. or 1 oz., but with his symptoms very much relieved. The tissue removed consisted of two encapsulated and nearly equal portions, weighing together 4½ grams about 1½ oz., but this was after hardening in spirit and not in the fresh state. The prostatic urethra and a little of the membranous were removed with the prostate. The enlargement was mainly an adenomatous one.

Present Condition.—Dr. Berkeley Murray, the patient's medical attendant at Tenbury, wrote me on November 28th, 1903: "I think his case may be considered a decided success. The condition compared with what it was before operation must be one of absolute bliss, and he is now able to do his ordinary work." I saw the patient at hospital December 3rd, 1903, and found that he completely empties his bladder, and that there is no stricture of the urethra. The only point in the case which is not entirely satisfactory, eighteen months after the operation, is that there is occasionally a little incontinence of urine at night, about a teaspoonful escaping at times. On examining per rectum a soft cavity is felt in the prostatic region, suggesting just an outline of the organ without its central filling up. Taking this into consideration with the parts removed, it is probable that a thin layer of prostatic tissue was left when the bulk of the organ and almost the whole of it was stripped out.

CASE II.

E. F., aged 69, was admitted to hospital on March 18th, 1903, for difficult, painful, and frequent micturition. Two years ago he first noticed difficulty in passing water, later pain also troubled him. These symptoms increased in intensity, and six months ago the patient found he had to get up ten or a dozen times at night to pass his water, and he felt much broken in consequence.

On admission it was found he only passed a very little urine, and his bladder was constantly overfull. Per rectum the prostate was found to be considerably enlarged and of dense consistence, the urine contained pus, blood, and phosphates; its quantity varied from 2 to 4 oz., specific gravity from 1005 to 1015, and the urea was under 2 per cent. As the patient was unable to manage a catheter himself, and the condition of his bladder and his general condition were growing worse, prostatectomy was determined upon.

Operation.—March 19th. A speculum introduced into the bladder through the incision showed a small projecting lobe on the posterior lip, which appeared to play a large part in the obstruction to the outflow of the urine. Enucleation was performed, but with great difficulty owing to the extreme toughness of parts, and the line of cleavage was nothing like as definite as it generally is. Operation was well borne, but at the end of a few days the patient became dull and apathetic, the escape of urine into the dressings became less and less, and he died of uraemia on the twentieth day. The post-mortem showed that the right kidney weighed 7 oz., the left 5 oz. The cortex was diminished, the capsule stripped badly, the pelves were dilated, encroaching on the kidney substance, and causing some atrophy of the pyramids; the ureters were dilated, their diameter averaging about one third inch. The prostate was removed entire, and with a fairly complete capsular envelopment, but the surface of this indicated that the line of cleavage was irregular; the specimen weighed 3 grams, a little over 1 oz. after immersion in preservatives. The whole of the prostate and part of the membranous urethra came away with the prostate.

CASE III.

In June, 1902, I was asked by Dr. Short to see, in consultation with him a gentleman, aged 74, who was suffering from a distended bladder. He had consulted Dr. Short three years previously as to his general health, at which time there was no complaint of bladder symptoms and the urine was of specific gravity 1020 and free from albumen and sugar. The apex beat was in the normal position, but the arteries were somewhat thickened and tension was increased.

At the time of our consultation the patient looked very ill. The symptoms complained of were extreme lassitude, inability to concentrate thought, broken rest from frequent micturition, dizziness, and dry skin, duration of the weeks. The heart was hypertrophied, the apex beat [illegible] outside the nipple line, the arteries were hard and the tension high. The bladder reached nearly to the umbilicus and the prostate from the rectum was found to be much enlarged, uniformly so, the surface [illegible] specific gravity 1015, but free from albumen, was excessive in quantity. There was considerable loss of weight.

We arranged that the bladder should be emptied three times in twenty-four hours with a rubber catheter, speed in the operation to the symptoms relieved, and by the end of five days the quantity of urine passed through the catheter had accumulated to [illegible] in twenty-four hours.

August 1st. Dr. Short's note is: apex beat [illegible] internal to the nipple line, pulse much less hard, urine, specific gravity 1010, amount 70 oz. in twenty-four hours.

In March, 1903, I was asked to see this patient again, because he was suffering from haematuria set up by the passage of a metal instrument

Fig. 1.—Case VI. Weight [illegible] posterior aspect, showing cystic cavities above; removed [illegible] with the prostatic urethra.

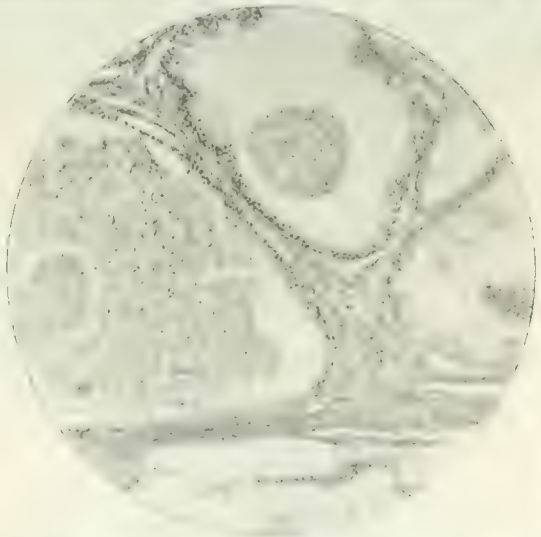


Fig. 2.—Case II. Showing enormously dilated [illegible] partially lined by flattened cuboidal epithelium, and filled with [illegible] The tissue is supported by dense fibrous bands of [illegible]

Fig. 3.—Case IX. Weight [illegible] Middle lobe [illegible] projecting into the bladder. [illegible]

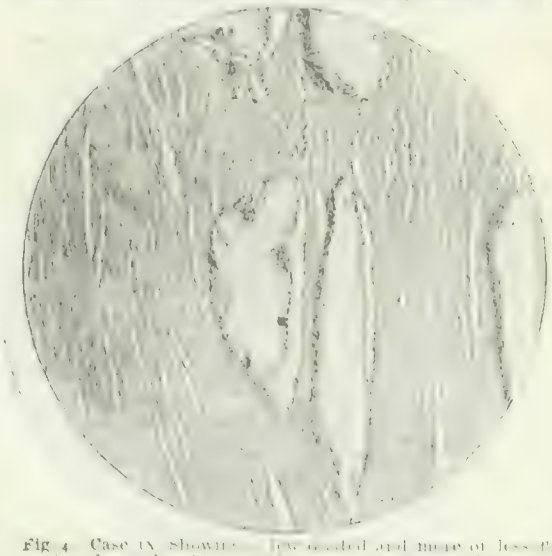


Fig. 4.—Case IX. Showing [illegible] dilated and more or less flattened acini lined by low cuboidal epithelium, and supported by a dense fibrous [illegible] stroma.

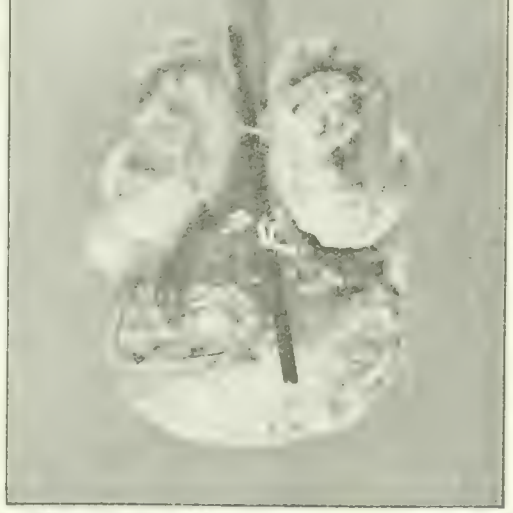


Fig. [illegible] Case III. Weight [illegible] posterior prostatic portion, showing cystic part below, three separate nodules above; but little intercystic tissue. Prostatic urethra not removed.

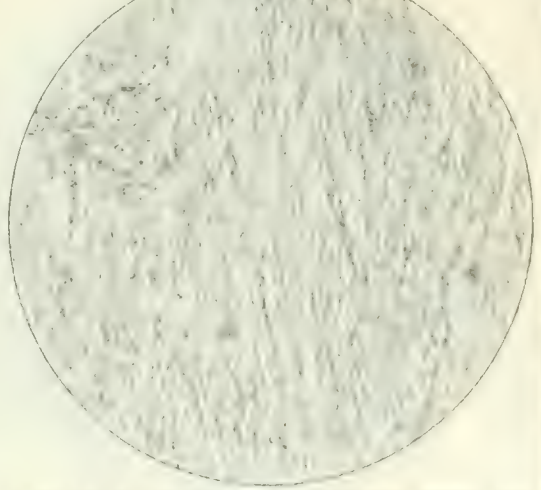


Fig. 5.—Case III. Showing [illegible] lined by flattened epithelium, and filled with [illegible] Prostatic urethra removed.

To Illustrate the Relation of the Prostatic Tissue to its Capsule, to its Sheath, and to the Levator Ani, showing also that, however Complete Enucleation Appears to be, some of the Outlying Acini may be Left Behind though Junctionless.

Fig. 1.—The terminations of the prostatic acini to the prostatic capsule are well seen in this specimen. The levator ani is seen on the extreme right, passing towards the left we see a loose layer of areolar tissue, then fibro-muscular bundles running perpendicularly. In this layer are the large blood vessels, and on the extreme left prostatic acini are just showing themselves.

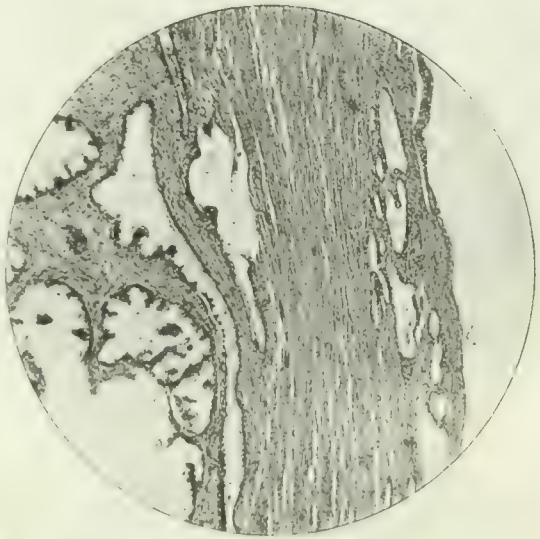


Fig. 4. Capsule of Case VII. A general enlargement showing dilated acini below, flattened acini in the circular capsule, going quite to the surface.

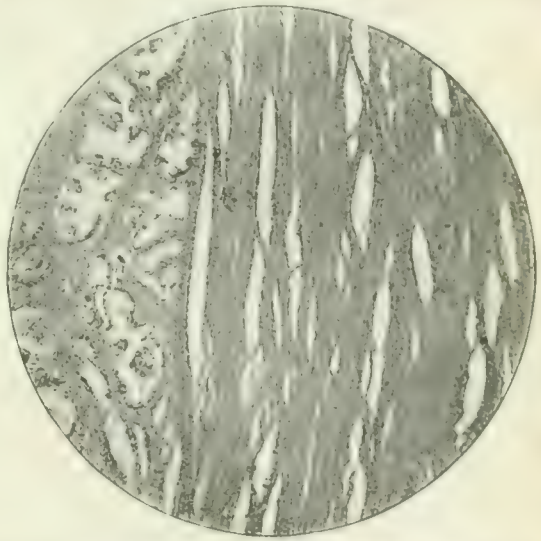


Fig. 5. Shows prostatic acini to the left, then a very thick fibro-muscular tissue which extends to the levator ani; the elliptical spaces are flattened prostatic acini, and can be seen quite close to the levator ani.

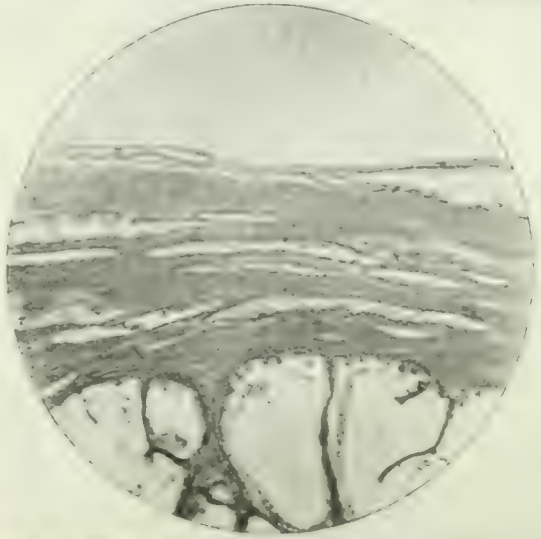


Fig. 10.—Case VIII. Showing a section of a smooth adenoma which shelled out readily. Outside the dilated acini of the tumour is a capsule of fibro-muscular tissue in whose meshes are flattened acini which are seen even at the extreme margin.

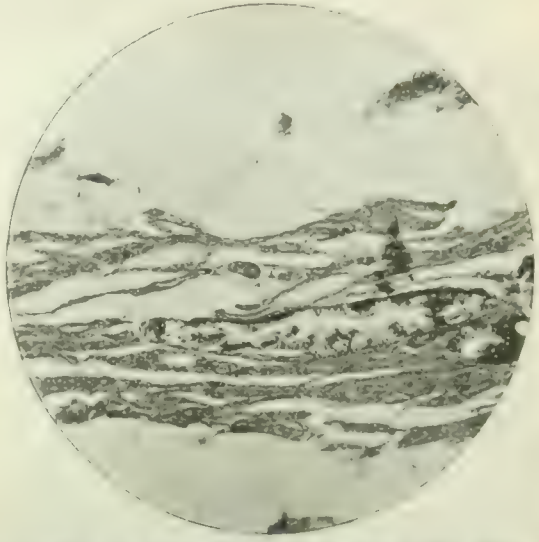


Fig. 11. Case VII. A section through a piece of loose capsule which was all but detached from the surface of the tumour, showing a large acinus with one or two bundles of striped muscle.

as stone in the bladder was suspected. Before this accident the patient had for some time been entirely dependent on the catheter, no urine being voided without it; but, by the aid of elaborate precautions as to cleanliness, cystitis had so far been avoided. His general condition had greatly improved with the complete emptying of the bladder, the apex-beat had come back considerably, the condition of the arteries was also much more satisfactory, and the urine, about 4 oz. in the twenty-four hours, was of specific gravity 1 [illegible].

Despite treatment the haematuria persisted for eleven days, and was so severe as to cause faintness at times. The patient was therefore advised to submit to operation for control of the bleeding and for enucleation of the prostate, if that was feasible. This was done on April 1st, and when the bladder was opened a Fergusson's speculum clearly demonstrated the source of the bleeding, which was a small vein partly divided lying on a lobe of the enlarged prostate; there was a calculus the size of a hazel nut. Enucleation was speedily performed, the prostate coming away in three portions with moderate difficulty, and apparently leaving the urethra behind.

A very good recovery followed the operation. The urine was slow in coming by the urethra, but by the end of the fifth week the patient was able to undertake a little professional work, and was quite healed in about six weeks. Since that time he has been and is well. He passes his urine four times in twenty-four hours, never rises at night for that purpose, and has a full and forcible stream such as he had in early adult life. He is free from headaches, his arterial condition is fairly good, the urine, specific gravity about 1 [illegible], averages about 40 oz. in twenty-four hours, and has no abnormal constituent.

The case I have just related, apart from the successful operative result, is a singularly interesting one, from the evidence it gives of the strain thrown on the kidneys and, owing to their imperfect excretion, on the heart and arterial system by unrelieved distension of the bladder due to prostatic enlargement. When I first saw the patient with Dr. Short we both took a most anxious view of his condition. It would hardly be an exaggeration to say that he was on the verge of uraemia. The regular emptying of the bladder with the catheter speedily improved matters and relieved us of our fears, bringing about a rapid improvement, which has continued. In view of this case it is not unreasonable to say that, at all events in some cases where a marked arterial sclerosis and hypertrophied heart coexist with prostatic enlargement, the last-mentioned is the cause of the before-mentioned changes and not merely coincident with them.

The prostate was removed in three masses, well defined but only in part showing a capsule; the weight was 51 grams (nearly $1\frac{3}{4}$ oz.) after immersion in preservatives. No trace of urethra can be found in the specimen. The enlargement is due almost entirely to an overgrowth of the connective tissue of the gland, and the specimen may fairly be described as a fibromyoma.

To Illustrate the Relation of the Urethra to the Prostatic Tissue, and the Difficulty of Separating the Two and Leaving the Urethra when Removing the Whole Prostate.

Fig. 12.—Section through normal prostatic urethra, showing how closely adherent is the epithelium of the [illegible] to the fibromuscular tissue of the prostate [illegible] and prostatic acini seen in section also.

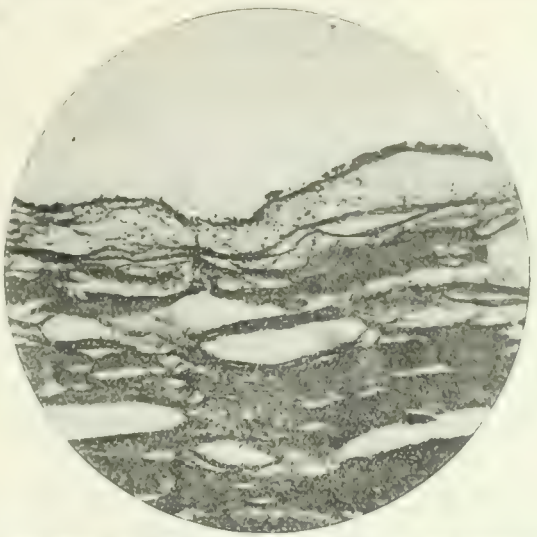


Fig. 13.—Case VI. Section through the prostatic urethra, showing the epithelium represented by a single layer of cells, and occasionally several layers, below which is a loose areolar tissue, infiltrated here and there by small round cells; subjacent to this is the fibro-muscular tissue of the prostatic enlargement, containing oedematous lymph-spaces and flattened blood vessels.

Fig. 14.—Epithelium of urethra of Case VII, areolar layer, stroma with vessels.

CASE IV.

H. T., aged [illegible], was admitted to the General Hospital on April 16th, [illegible], with retention of urine, which was relieved by a silver catheter, and a soft catheter could not be introduced into the bladder. The prostate was felt to be moderately enlarged by the rectum and extremely dense and hard. At the end of sixteen days the patient was still unable to pass his urine and it was considered undesirable to provide him with a metal catheter for his own use. Operation was determined upon, especially in view of the fact that his urine was normal in quantity and specific gravity and contained [illegible] to 4 [illegible] of urea in the twenty-four hours.

[illegible] April 3rd. When the bladder was opened a speculum showed a small button-like nodule from the upper [illegible] of the urethral orifice, which probably played a large part in producing retention. Enucleation was impossible, the tissues were dense to a degree [illegible] with considerable [illegible] almost all the prostatic tissue was dug out with the fingers. The bleeding was moderate and the operation was borne.

On the fourteenth day some urine was passed by the urethra, and the patient was discharged on May 2nd with his wound practically healed and passing the whole of his urine with ease and [illegible] catheter, a [illegible] to six hours, there being no residuum.

The tissue removed consisted of two masses and [illegible] on the surface and devoid of any definite capsule, weighed 52 grams after [illegible]. No part of the urethra is contained in the prostate. The overgrowth consists partly very dense fibrous tissue and partly glandular.

CASE V.

H. G., aged 71, was admitted to the General Hospital, April 29th, [illegible], for persistent haematuria, frequent and painful micturition. When in hospital there was constantly a good deal of blood in the urine.

Micturition took place every hour and a half with pain and there were several ounces of residual urine. The use of the catheter by his doctor at home and treatment by medical measures failed to give relief. Cystoscopy was difficult owing to the presence of blood, but in addition to enlargement of the prostate it was discovered that a dark mass lay behind the prostate which it was feared might be growth. This proved at the time of operation to be partly decolorized blood clot which had escaped from a vein over the enlarged prostate.

Operation.—On May 4th the prostate was enucleated entire, and the bleeding was very moderate indeed. Steady convalescence followed but it was five weeks before much of the urine passed by the urethra. At the end of the sixth week when the patient left the hospital all the urine came by the natural channel.

Present Condition.—The patient still has a little blood in the urine at times, but the bladder is emptied and the frequency of micturition is much less, the urine being retained about three hours, except when blood is present, at which times there is more frequent call but probably this is due to nervousness, as the patient very much dreads the occurrence of bleeding.

The prostate was removed entire and was enclosed in a well-defined capsule, the weight was 4 grains, about ⅛ oz. after immersion in preservatives. The whole of the prostatic and some, if not all, of the membranous urethra came away with the prostate.

CASE VI.

Mr. Y., aged —, was referred to me by Dr. Saundby May 5th, 1903, for bladder symptoms. These appeared to have originated about four years before, at which time the patient states that he had an attack of cystitis. This recurred about two years later, when he was laid up in bed for three months, and subsequent to this time practically all his urine was drawn off with the catheter.

When I saw the patient his condition was most deplorable, his rest was constantly broken, the catheter was constantly required, was passed with increasing difficulty and did not give complete relief, the pulse was quick, the temperature considerably raised, and the mental condition was very unstable. Per rectum the prostate was found to be a good deal enlarged, but the finger could reach its posterior boundary, to touch it was elastic, and appeared possible of enucleation.

May 7th. The prostate, which proved to be ¼ oz. in weight, the largest I have removed, was enucleated entire, and the operation in so feeble a man was well borne.

The few following days the patient was fairly well, though the pulse continued to be rapid. A little later he became restless and excited, did not know where he was, and became altogether like a patient with senile dementia. Still, he took nourishment well and healing went slowly on. In the third week the patient left my private hospital to go home in the hope that more familiar surroundings would assist in restoring his mental condition. He then came under the care of Dr. Hadow, who looked after him assiduously. The wound healed at the end of several weeks, the mental condition slowly improved, and the bladder resumed its functions. In October, when I last saw him, he held his water three to four hours, had good nights, was quite free from pain, and had no residual urine. Mentally he was clear and alert, had lost a habit of very stuttering speech, and was, as regards his mind, much better than before his operation, in fact the general contrast of before and after operation was eminently satisfactory.

The prostate was removed in one piece with a well defined thick capsule; the weight immediately after removal was 6½ oz. The prostatic urethra came away with it entire. The enlargement was mainly due to glandular overgrowth and dilatation, though there is also in parts excess of the connective tissues.

CASE VII.

C. L., aged —, was admitted to the General Hospital on June 6th, 1903, with retention of urine. It was found impossible to introduce a catheter of any description into the bladder, so aspiration above the pubis was resorted to. The day after admission it was found possible to pass a silver catheter, and later in the day a rubber one could be introduced.

History.—The illness dated back fourteen years, with symptoms of frequency of micturition, especially at night, and difficulty in the act, it being generally some time before the stream would flow. Six months ago he had his first attack of retention, which was relieved by catheterisation. Since then he had had three or four such attacks, which have had to be relieved on each occasion.

Operation.—On June 11 the prostate was enucleated in one piece with considerable difficulty. During the whole operation the patient did not lose more than [illegible] ounces of blood, and was well borne.

Progress.—The patient developed bedsores on the right side, probably due to the use of the catheter daily for washing out the bladder. He was [illegible] from acute attack of gout in the [illegible] and [illegible] of [illegible] great toes were cleared up under the influence of [illegible]. On June 18 [illegible] reduced to the size of a florin to [illegible] about the right side. On [illegible] the wound [illegible] instead of [illegible] in the left axillary [illegible] during the evening had a [illegible] of severe pain in the [illegible]. [illegible] temperature, 104°, there [illegible] although [illegible] of [illegible] death occurring [illegible] during [illegible] [illegible] late in the evening. The patient [illegible] [illegible] [illegible] after the operation, on July 11th of the beginning of the 5th week. Necropsy was refused.

The prostate was removed in one piece, surrounded by a capsule complete everywhere, except over a portion of the anterior surface. It weighed when fresh [illegible] oz., but only [illegible] grains after being in preservatives. The whole of the prostatic urethra appears to have been removed with the specimen. The overgrowth is mainly glandular, and there is some prostatitis.

CASE VIII.

Mr. K., aged 63, was sent me by Dr. Craig of Bridgnorth in June, 1903, complaining of very frequent micturition, especially at night, of pain in the act and afterwards, and of haematuria. The symptoms dated back five or six years, and had steadily increased in intensity until the patient, who was a very nervous man, was driven by broken nights to seek relief. Sounding for stone was most unsatisfactory owing to the patient's extreme sensitiveness, and no stone was detected, but I thought it extremely probable that calculus existed in the bladder. Examination per rectum revealed a much enlarged prostate, quite elastic to the touch, and there were some ounces of residual urine. I advised sounding under an anæsthetic, and, if stone were detected, its removal by suprapubic section and the enucleation of the prostate at the same time. This was effected on June 12th. Five calculi of some size were removed from a large prostatic pouch, and the prostate was enucleated in two portions. Recovery was uneventful. Most of the urine was passed by the urethra at the end of three weeks, and the whole of it in the sixth week. On November 5th Dr. Craig kindly wrote to me saying that the patient was well and completely free from all bladder symptoms, being able to hold his urine a normal period and going through the night without wanting to micturate. The prostate was removed in three masses, which were well defined, and in the main encapsuled. The weight was 2 drachms, about ¼ oz. after immersion in preservative. The prostatic urethra was also removed. The enlargement was mainly a glandular overgrowth and distension.

CASE IX.

R. T., aged —, was admitted to the General Hospital on July 4th, 1903, with overflow of urine following retention during back five to six weeks, during which time he had been catheterized by his doctor at home, but he was still unable to pass his urine, and there was a severe cystitis. This was preceded by frequency of micturition and some difficulty in starting the stream. Per rectum moderate enlargement of the prostate could be felt, and it was densely hard.

Operation.—July 25th cystoscopy was first performed, but the enlarged gland could only very indistinctly be seen owing to the turbid condition of the fluid in the bladder. The bladder was opened by the suprapubic incision, and the prostate enucleated by the fingers with very great difficulty, owing to it being so very firmly adherent to adjacent parts. It was noticed that the walls of the bladder were much hypertrophied and in a very friable condition. Only about ½ to ¾ oz. of blood were lost during the whole procedure. Shock was considerable, but after the first two days steady progress was made, and on the tenth day after the operation some urine was passed per urethram for the first time. About this time the patient complained of slight escape from the rectum at times which he could not control. Per rectum nothing abnormal could be made out except some thickening in the region of the prostate and great laxity of the sphincters. The suprapubic wound closed by August 18th, all urine being passed by the natural channel, but it broke down and opened again by September 2nd, and about this time the patient lapsed into a very weak and cachectic, drowsy condition with very loose green involuntary stools, and it was now discovered that he had a hard lump to be felt on palpation of the abdomen on the right side just external to the anterior superior iliac spine. Patient gradually became more cachectic and weak and died on September 14th. Necropsy showed a large malignant growth involving the cæcum with secondary growths in the liver and enlarged retroperitoneal glands. The cavity left by removal of the prostate was almost obliterated, but its walls were covered with sloughy particles. The coats of the bladder were greatly thickened and very friable. The kidneys were fairly healthy. The prostate was removed complete and in a well defined capsule, the surface of which was ragged, showing that the [illegible] cleavage was irregular and difficult. The weight was [illegible] grains, but after [illegible] preservative fluid. The whole of the prostate and some of the membranous urethra came away with the prostate.

CASE X.

Mr. L., a stout man, aged —, was brought to me on September 14th, 1903, by Dr. Hendley, with the following history. Five or six years ago he had difficulty in passing water, having to strain when doing so; this difficulty was followed by attacks of the misery of retention. Both these symptoms became more marked as time went on, until at last [illegible] which now at times was [illegible], was relieved as a rule every [illegible] hours, and was most frequently [illegible] owing to broken rest. When Dr. Hendley's advice was first sought he was suffering from the bladder to its fullest [illegible] catheter life was intensely distasteful to the patient, he [illegible] [illegible] to me.

I found the [illegible] within 2 in. of the umbilicus, the prostate was much enlarged when palpated from the [illegible] and was [illegible] to the touch. The [illegible] was passed [illegible] without difficulty, [illegible] was found to contain [illegible] ounces of residual urine, but was evidently very excessive. The patient was prepared in the [illegible] by [illegible] of [illegible] pro[illegible] and a [illegible] purge. After [illegible] with the [illegible] of an [illegible] [illegible] that the bowel [illegible] to be [illegible] [illegible] there were [illegible] symptoms [illegible] of [illegible].

Practically [illegible] [illegible] by the patient without hesitation as an alternative to the persistent use of a catheter. On one occasion I did pass a rubber catheter, but it produced such intense pain and

spasm that an injection of morphine had to be given, and the experience was one the patient declined to repeat.

Operation.—September ...th was devoid of unusual features, but inspection of the intravesical portion of the prostate showed an enormous venous dilatation, and the oozing of blood during enucleation was freer than usual. On the ninth day there was a good deal of blood coming from the wound; this continued free for a week, and the temperature, generally averaging about ... at night, rose on the fourteenth day after a rigor to 104°, and again after a rigor on the seventeenth day to ...°. In view of the patient's chronic heart trouble I left anxious about him, but the oozing and the fever both came to an end when on the twentieth day I washed a large slough out of the bladder, probably some of the detached mucous membrane stripped off the prostate. At the end of the third week some urine was passed per urethram, and when the patient went home at the end of the fifth week practically the whole of his urine was passed naturally. By this time the thirst and dryness of the mouth, which had proved so troublesome, had quite disappeared.

At the present time the patient holds his urine for three to four hours in the day time, and is not disturbed at all in the night; the specific gravity of the urine has risen to 1030.

The prostate came away in one mass, and I was surrounded by a complete capsule; the weight was 60 grams nearly 2oz. after having been in preservatives. The whole of the prostatic urethra came away with the organ. The enlargement was almost entirely due to overgrowth and distension of the acini, and there was a considerable amount of prostatitis.

Conclusions.

Briefly, my conclusions are that:

1. It is possible to enucleate the prostate.
2. **The prostatic urethra is then almost invariably, if not always, removed with the organ.**
3. If the prostatic urethra were left it would necrose from want of blood supply.
4. Stricture does not follow the damage to the urethra.
5. The operation gives excellent results, often restoring the functions of the bladder to an absolutely normal condition.

I should like to express my great indebtedness to my friend, Dr. Hewetson, for the assistance he has given me in preparing the material I exhibit.

AN ANATOMICAL CRITICISM OF THE PROCEDURE KNOWN AS TOTAL PROSTATECTOMY.*

By CUTHBERT S. WALLACE, B.S., F.R.C.S.,

Assistant Surgeon, St. Thomas's Hospital and the East London Hospital for Children.

The Normal Prostate.

A short description of the normal prostate is necessary in order to make one or two points of comparison with the organ in its diseased state.

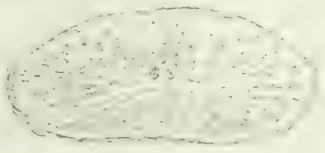


Fig. 1.

Fig. 1 shows the appearances of a section of an adult prostate taken at right angles to the urethra. There is no indication of any division into lobes. The fibro-muscular tissue is most marked in the following situations: (1) At the circumferential portion of the gland where there is an absence of gland tissue; (2) behind the urethra from which place it radiates in all directions to join the outer non-glandular area; (3) in front of the urethra, where it forms the so-called anterior commissure.

The gland tissue is fairly evenly distributed in the posterior part of the gland, both at the sides of and behind the urethra. The amount of gland tissue behind the urethra varies very much in different specimens, as has been pointed out by Griffiths. This variation has an influence on the type of enlargement, as will be pointed out later in this paper.

Outside the non-glandular area is the fibrous covering of the organ, which is derived from the recto-vesical fascia. This covering is not a dense definite structure, as is the fascia lata of the thigh or the arm, but consists of a series of areolar planes in which on the lateral and anterior aspects are embedded the prostatic plexus of veins. It is a structure in which extravasation of fluid could take place, and would form the wall of the cavity left if a prostate were completely ablated.

In speaking of prostatectomy and of the presence or absence of a "capsule" it is very necessary to define the terms used.

The term "sheath" as used by Sir H. Thompson is the fibrous covering derived from the recto-vesical fascia, and contains the venous plexus. The term "capsule" as used by the same observer is the thin outer non-glandular portion of the organ, and is really only the outer portion of the stroma of the organ; it contains both muscular and fibrous tissue.

In *Quain's Anatomy* the term "fibrous capsule" is used to express the fibrous sheath derived from the recto-vesical fascia. There is no "capsule" in the sense of a separable membrane such as invests the kidney, nor can the prostate be shelled out from its surroundings like a lymphatic gland or the thyroid body.

Mr. Shattock has suggested that the outer non-glandular portion of the organ be termed the cortex, which title seems to represent the facts adequately.

I propose, then, that the investment from the recto-vesical fascia be called the "sheath," and that the outer part of the gland proper be called the "cortex."

Let us now study the organ in its pathological state:

Fig. 2.

Fig. 2 represents a specimen that I removed by the so-called operation of total prostatectomy. It was taken from a man, J. M., aged 77, who had suffered from complete retention for six years. The intravesical projection was circular, and of a character that I ventured to compare with the projection of the uterus into the vagina, and to which I shall refer hereafter as the "os uteri" type of projection. The

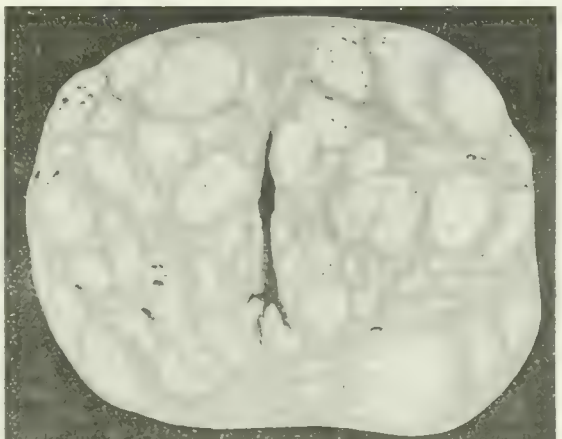


Fig. ...

weight of the specimen was 152 grams (5⅓ oz.). The so-called "capsule" is seen to be composed of transversely-coursing bundles. The upper or vesical part of the specimen is smooth

* A previous paper on this subject by the author was read before the Section of Surgery at the recent Annual Meeting of the British Medical Association, and published in the British Medical Journal of March 26th, 1904, p. ...

and rounded. Connected with the inferior part of the gland is a torn portion of the membranous urethra, which projects 13 mm. and partially surrounds the catheter which has been passed through the canal. The prostatic urethra is intact within the tumour.

Fig. 3 is a cross section of the same made through the middle of the organ at right angles to the axis of the urethra. It shows that the adenomatous tissue has practically surrounded the slit like urethra, the wall of which is very thin and could not be separated from the adenomatous mass without rupture. At the circumference of the specimen and completely surrounding it can be seen the thin so-called "capsule." This may be considered a typical example of the parts removed by the so-called total prostatectomy.

With this specimen compare the following obtained after death:

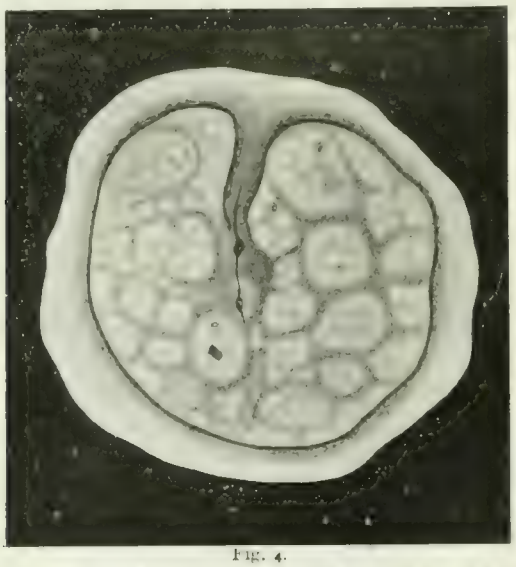


Fig. 4.

Fig. 4 represents a section at right angles to the urethra of the prostate of a man, H. H., aged 60, who was admitted for the impaction of a stone at the junction of the prostatic and membranous urethra. The stone was removed by suprapubic lithotomy. The patient died suddenly on the fourth day after operation. After death the prostate and bladder were removed from the body, hardened in alcohol, and examined by means of sections cut at right angles to the urethra.

The projection of the prostate into the bladder was of the "os uteri" type. The "posterior lip" was more prominent than the anterior. The whole organ viewed from the outside forms a globular swelling without any indications of division into lobes. The greatest transverse diameter measures 6 cm.; the urethra along its length also measures 6 cm. The cut surfaces show a distinct envelope and within this a glandular mass. The average thickness of the envelope is 0.3 cm. It is an exceedingly definite structure, and is distinctly laminated to such a marked degree that it admits of artificial cleavage for considerable distances along its lamellae.

In the section taken through the centre of the enlargement the urethra is a vertical slit measuring 1.5 cm., and lies 2 cm. from the posterior and 1.5 cm. from the anterior border of the organ. The glandular substance is arranged in somewhat ill-defined lobules, absent on the anterior aspect of the urethra. In the last-named situation there is a septum of fibrous or fibromuscular tissue surrounding the urethra, and continuous above or in front with the "envelope." Towards the inferior or distal end of the organ this fibrous septum is less distinct, being broken up by processes of gland tissue.

The median projection behind the urethral orifice is shown on a transverse section, carried through this part, to be inseparably continuous with the lateral portions.

Fig. 5 shows the separation between the envelope and the glandular portion. The central mass containing the urethra has been shelled out from the "envelope." This can be repeated in every section of the organ, so that ultimately the organ is divided into two parts, namely, the "envelope" and a contained glandular mass, in which lies the urethra, the only line of continuity between the two being the thick anterior fibrous septum, which is continued in from the "envelope" to join the peri-urethral tissue.

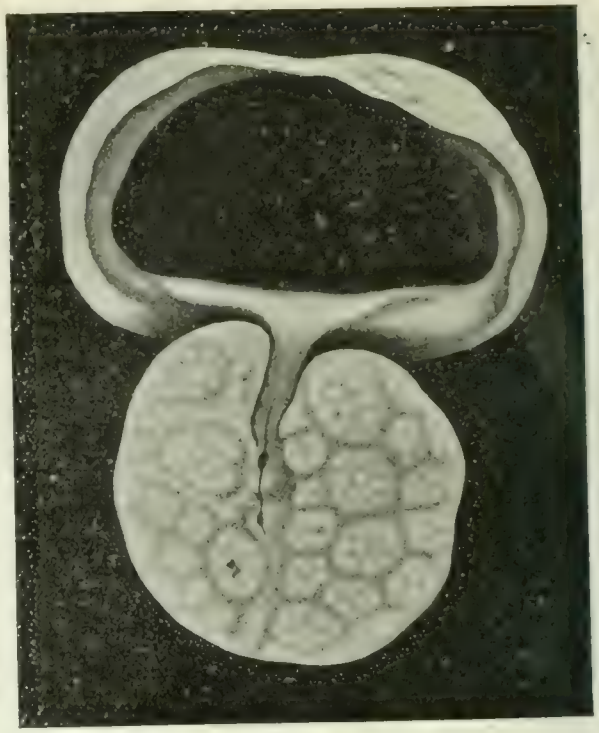


Fig. 5.

Fig.

I think that no one can fail to be struck with the similarity of these two specimens (Figs. 2-3, 4-5), the first obtained as the result of a surgical procedure, the other in the *post-mortem* room. The only difference is the thickness of the surrounding envelope; the central portions are identical; in fact, they appear to represent the same pathological change in different individuals.

In the specimen removed in the *post-mortem* room the nature of the envelope can be studied. Now, this contains gland matter as shown by the lenticular mass seen in Fig. 5, and by the fact that a microscopic section taken at a point which is entirely fibro-muscular to the naked eye, reveals the presence of flattened gland spaces. (A figure illustrating this will be found in the BRITISH MEDICAL JOURNAL, loc. cit., numbered Fig. 7). This envelope therefore represents more than the outer non-glandular part of the organ.

It can be studied further in the specimen on p. 240 (Fig. 6). This represents the bladder and enlarged prostate taken after death from a man, F. H., aged 83, who died of uraemia. The front of the bladder and of the prostate has been removed by a coronal section.

The two lateral adenomatous masses have been removed by digital separation, which was accomplished without any difficulty. The left of these masses has been replaced, but the line of its separation is indicated in the drawing. The lateral wall of the urethra was closely adherent and removed with it. It will be seen that there is a median ridge left after the removal of the lateral masses; this is the posterior wall of the urethra, and is still covered with mucous membrane. At the summit of the ridge and projecting into the bladder in the position of the uvula vesicae is a small rounded eminence formed by a small adenoma. The walls of the bilocular cavity left after the removal of the lateral adenomatous masses have a very considerable thickness. This is especially the case behind the urethra on both sides, as seen in the lowest portion of the drawing.

On the left side behind will be seen a portion of the prostatic plexus of veins. A further examination of the specimen showed that the walls left after the ablation of the lateral masses were capable of a further division. With the finger and a blunt dissector the division was carried out until the part of the envelope immediately surrounding the lateral masses was completely isolated. The result of this isolation is shown in Figs. 7 and 8.

Fig. 7.

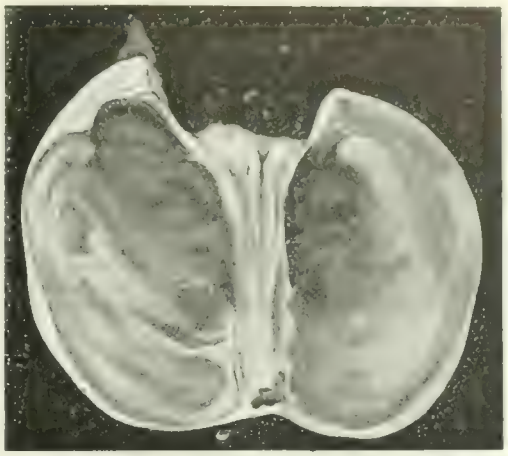


Fig. 8.

With this portion of the envelope has come away the posterior wall of the urethra, and with it, of necessity, the terminal portions of the ejaculatory ducts. This shell or envelope shows naked-eye evidences of gland tissue, for it contains the adenoma at the uvula vesicae, and a microscopic section of the envelope taken from the right side, where only fibrous tissue is visible to the naked eye, reveals the presence of flattened gland spaces lined with columnar epithelium (Fig. 9).

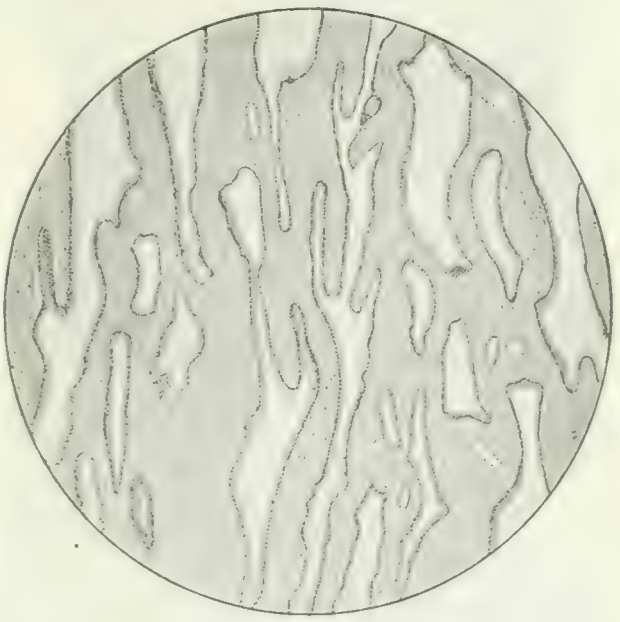


Fig. 9.

The outer surface of the envelope shows circularly coursing bundles of fibres. A drawing of these fibres has not been made, but a reverse of the outer surface can be seen in Fig. 8, which represents the parts after the removal of the envelope described. The wall of the now unilocular cavity left by the removal of the adenomata and of the envelope is still a definite structure, and has an appreciable thickness even at its thinnest part, while behind it measures 0.6 cm. in plan of section. The texture at this spot is spongy, and a microscopic section shows the presence of a considerable amount of flattened gland tissue which is not much altered from the normal (Fig. 10).

Still more externally can be seen the prostatic plexus. If the two adenomatous masses were replaced in their envelope, it will be seen that the whole would resemble the parts that are often removed in the so-called total prostatectomy, namely, two lateral adenomatous masses encompassed by an envelope that is most strongly marked at the equator of the mass, and presenting transversely coursing fibres.

Fig. 10.

The two specimens removed after death show that the enlargement of the prostate consisted of adenomatous masses enclosed in an envelope, the urethra being so closely adherent to the adenomata that its separation for any extent was impossible without laceration. The development of the adenomata and envelope will now be traced.

THE GROWTH OF THE ADENOMATA AND THE FORMATION OF THE "CAPSULE."

The first indication of a change in the prostate in the process of enlargement is seen in the altered relations between the fibromuscular and glandular portions. Small white areas become visible, and tend to assume a rounded outline. These areas may be single or arranged in groups. At the same time the arrangement of the fibrous tissue is altered. It no longer runs out in straight lines from behind the urethra, but the strands take a wavy course, and arrange themselves round the growing glandular masses (Fig. 11).

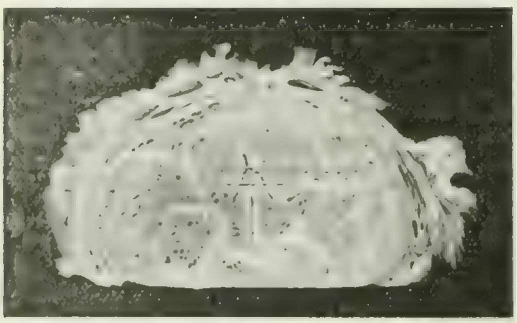


Fig. 11.

There can often be seen in the same specimen normal prostatic tissue areas showing whitish spots, ill-defined lobulated masses.

As the time goes on the normal gland tissues becomes less and less obvious, disappears from the centre of the organ, and is only seen at the periphery of the organ. The whitish areas increase in size and become recognizable as adenomatous masses (see Figs. 4 and 6, loc. cit.).

The more rapidly growing areas increase at the expense of the more slowly growing ones, which are compressed and stretched over the surface of their more quickly growing neighbours. The tissue between the adenomata, composed partly of the fibromuscular septa of the normal organ and partly of the stretched prostatic tissue, becomes circularly disposed round the gland masses (Fig. 12).

The adenomata may be either single or compound, that is to say, they may be composed of several adenomata bound together by one common envelope or one adenoma may contain two or more smaller ones.

By the time that the adenomatous changes have become well marked the external form of the organ has undergone a change. The antero-posterior measurement approaches the [illegible], so that the organ not infrequently becomes globular in outline, and its cross section circular instead of being transversely elongated.

There does not appear to be any definite relation between the size of the organ and the progress of the adenomatous change.

This is well shown if Figs. 2 and 3, representing a specimen weighing [illegible] grams and having an antero-posterior measurement [illegible] cm., are compared with Figs. 13 and 14, representing a specimen weighing 20 grams (5 drachms) with an antero-posterior measurement of 3.5 cm. In fact, the second specimen is a miniature of the first.

Fig. 12.

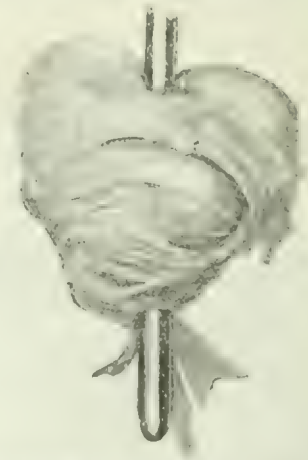


Fig. 13.—The specimen was removed by the author from a man, L. C., [illegible], who was admitted to St. Thomas's Hospital in August, [illegible], with a [illegible] retention. Its weight was [illegible] grams ([illegible] drachms). It is [illegible] larger than the normal organ. The appearances are those usually presented by the specimens removed by the so-called total prostatectomy. The view is that of the anterior surface, and shows the transversely coursing bundles of fibromuscular tissue. Above and projecting beyond the transverse fibres are seen the smooth rounded envelopes of the lateral glandular masses. Below are the portions of the tumour [illegible], the longest of which measures [illegible]. The catheter is placed in the urethra, the wall of which has been removed with the tumour.

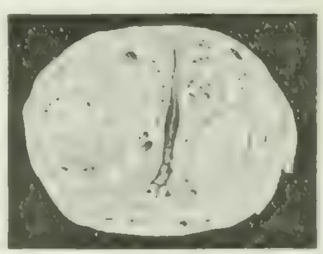


Fig. 14.—A transverse section of [illegible] growth [illegible]. No part of the [illegible] has been removed.

From the disposition of the gland tissue in the normal prostate it follows that the adenomata can develop in any situation round the urethra except immediately in front of the canal where lies the anterior commissure. If the adenomatous change starts in either side of the urethra it will form lateral masses of adenomatous tissue. On the other hand should the change affect all the glandular portion of the organ alike the growth will surround the urethra everywhere except the front and even here by its growth eventually displace the fibromuscular anterior commissure. The projection of the gland into the bladder will in this case be equal round the whole circumference of the urethra, or in other words the projection will be of the "os uteri" type.

Should the adenomata, however, develop more rapidly in the portion of the gland behind the urethra and above the ejaculatory ducts there will be formed what has been called a median lobe, but this is as a matter of fact always continuous with one lateral mass as shown in Fig. 15 or with both as in Fig. 9, loc. cit.

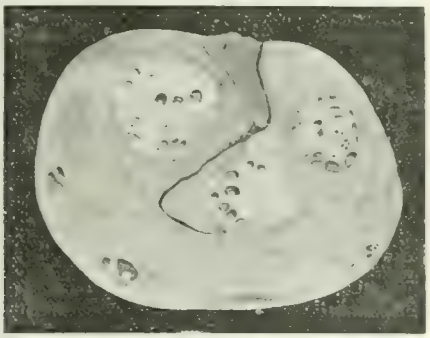


FIG. 15.

If situated near a free surface the adenomata grow in the direction of least resistance, and form the nodular masses so often met with on the vesical surface of the prostate or in the interior of the prostatic urethra. This can be seen in specimens Nos. 4.331 and 4.340A in the Museum of the Royal College of Surgeons; a short account of these specimens is inserted here.

Specimen 4.331, *Royal College of Surgeons*.—"The prostate is generally enlarged, and the parts that project into the bladder and urethra are irregularly knobbed. Part of the right lobe projects as a short, thick nipple-like process into the neck of the bladder in front of the enlarged middle lobe, Part of the left lobe projects as a broad, but rather flattened, process into the urethra directly over the caput gallinaginis, so as to be in contact with the opposite wall. The middle lobe forms a deep and broad transverse and trilobed ridge across the neck of the bladder." The patient was aged - years. A vertical, almost transverse, section along the course of the urethra shows the following points: On the urethral aspect it presents three rounded eminences which correspond with the same number of imperfectly circumscribed adenomata. External to these there lies a thin layer of more or less normal spongy prostatic tissue, and beyond this, without any line of separation, lies the prostatic plexus. The section of the right lateral lobe shows the nipple-like process to be separated from the main mass by a fibrous septum. The rest of the mass presents two adenomatous foci, but elsewhere it is spongy, but for the most part less so than the normal gland. The outer surface of the lateral lobe can be separated from the muscular and fibrous tissue enveloping it: the surface of the envelope thus raised is transversely striated from the presence of muscular fibre.

Specimen 4.340A, *Royal College of Surgeons*, shows a similar condition in which the adenomatous enlargement occupies a median position behind the urethral orifice. Microscopic sections taken from these adenomatous areas show, besides a fibromuscular stroma, a large proportion of gland tissue.

To recapitulate, it may be said that the increase in the organ is due in the first instance to an increase in the glandular elements. This growth usually affects the greater part of the organ, but often leaves small portions almost unaltered. Within the changed area the alteration of the glandular element may be of very varying degree, consisting in some cases of small discrete points, while in others well-marked adenomatous nodules occur. These adenomata are often, indeed, usually compound, and may occupy the whole space within the "envelope" (Figs. 3 and 4).

The overgrowth of the prostate in these cases is therefore best described as an adenomatous hypertrophy, and is comparable to the adenomatous form of goitre.

In order to ascertain the changes that occurred in enlargement of the prostate many specimens have been examined, and in nearly every instance the changes described above have been seen. There are, however, other forms such as the fibroid and carcinomatous, with which this paper does not deal.

The formation of the so-called "capsule" goes on pari passu with growth of the adenomata. The rapidly growing gland tissue stretches and expands the circumjacent tissue over and around itself. The radiating fibromuscular bands lose their original disposition and run in a wavy course between the adenomata. The normally diffuse spongy nature of the gland is lost. As the adenomata grow the circumferential part of the organ comes to be laminated, the fibres being driven to take a more or less circular course when seen in a cross section of the organ (Fig. 5, loc. cit.). In this specimen, which is in the museum of the Royal College of Surgeons and which was taken from the body after death, the centre of the lateral mass of the prostate is occupied by an adenoma: around it can be seen the remnants of normal gland tissue, the stroma being concentrically arranged. Outside again can be seen the plexus of veins imbedded in the recto-vesical fascia. This is a fairly early stage, but it can be seen that with the growth of the adenoma the circumferential tissue would be more and more thinned and come to resemble the envelope seen in Figs. 3 and 4.

The urethra as seen in cross section is at first crescent shaped. It next becomes triradiate (Fig. 4, loc. cit.), the radii being placed one anteriorly and two laterally. The next change is the disappearance of the lateral radii and the elongation of the anterior until the urethra is a simple slit. If both lobes develop at the same rate the urethra in cross section will be linear, but if one lateral lobe increases disproportionately to the other, the canal will be correspondingly curved.

Not only is the prostatic urethra increased as measured along the catheter, but it is considerably increased in the antero-posterior plane, as can be well seen in Figs. 3 and 4. Even if the adenomata first show themselves towards the middle of the lateral masses, they soon come into close relation with the urethra, and lie immediately alongside the walls of the canal.

The increase in dimensions of the urethra both in length and in the antero-posterior plane caused by the growth of the adenomata leads to a thinning and stretching of the urethral wall, so that in most specimens examined the urethra is represented by a mucous membrane so thin and delicate that it cannot be raised for any distance from the surface of the adenomata without rupture. This necessarily leads to a removal of the urethra on the adenomata. Whether the adenomata are removed singly or as one mass in a surgical "envelope," the mucous membrane is demonstrable on their inner surfaces, though its thinned condition makes this a matter of some difficulty unless a microscopic section is cut.

The tags of urethra that are seen to project from the inferior extremity of the specimens (Figs. 2 and 13) obtained by the so-called total prostatectomy are really derived from the membranous portion of the canal, and their continuity with the prostatic urethra within the tumour can be traced.

ENUCLEATION OF THE ADENOMATA AND THE SO-CALLED TOTAL PROSTATECTOMY.

I think that it can easily be shown that the nature and appearance of the parts removed depends on two factors:

1. The situation and extent of the adenomatous change.

2. The point at which the finger enters and cleaves the envelope.

It has been shown that the glandular portion of the prostate represented in Fig. 4 could be shelled out from the envelope. If the separation were carried out throughout the organ as it had been done in Fig. 5, there would have been removed a glandular mass containing the urethra, the surface of which would have been smooth and somewhat nodular, in other words it would have resembled the surface of the adenoma. Now the envelope is laminated, and can be split in any part of its thickness. If the finger had entered in the middle of the cut surface of the envelope, as shown in the section, the adenomatous mass would have come out surrounded with an envelope, the fibres of which would have formed circularly-disposed bundles, and the surface would have resembled that seen in the specimen represented in Figs. 2 and 3.

The amount of capsule removed with such a tumour will then simply depend on the thickness of the envelope and depth to which the finger happens to have been penetrated in the process of enucleation. Figs. 7 and 8 demonstrate that in such an enlarged prostate as this, each adenoma could have been removed separately, provided that the finger had

reached to the surface of the adenomatous masses. If the finger penetrated less deeply, and entered the envelope, the parts removed would have consisted of two lateral adenomatous masses bound together by the innermost layers of the envelope.

By the help of specimens removed from the dead body, the growth of the adenomata, the formation of a definite laminated envelope, and the alteration in the shape and environment of the urethra have been traced. It has been shown that the glandular masses surrounded by the innermost layers of the envelope enucleated from the parts removed after death correspond accurately to those removed by the so-called total prostatectomy in the living subject. It must be concluded, therefore, that the parts left behind in these two procedures correspond.

Now, in the case of the parts removed after death, after a removal such as that just described, there is left behind a definite envelope. This envelope has been shown to contain glandular tissue, and therefore to have been formed by the periphery of the organ, and to represent more than the outer non-glandular cortex of the prostate. External to this envelope the prostatic plexus has been shown to lie. It therefore follows that after the so-called total prostatectomy an envelope formed of expanded prostatic tissue is doubtless left behind, and bounds the cavity formed by the removal of the tumour. From a study of these facts corroborated by others not referred to for want of space, the following conclusions may, I think, be drawn.

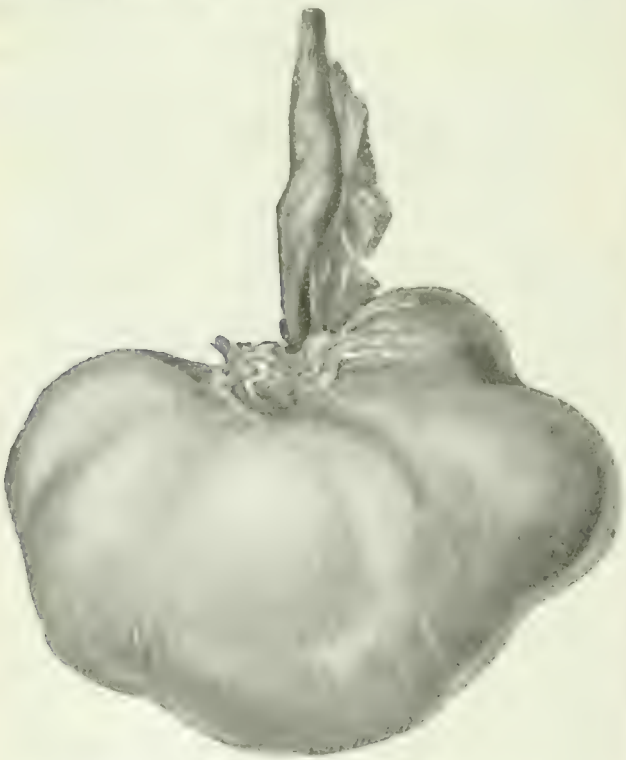


Fig. 1 (slightly reduced).

Fig. 1 represents the [illegible] enucleated [illegible] transverse diameter [illegible] vertical direction. The surface is [illegible] two [illegible] transversely [illegible] envelope. The [illegible] within the mass. A [illegible] the urethra is exposed [illegible] two lateral [illegible] and behind the urethra. The [illegible] the [illegible] of the vesical [illegible] bladder.

Conclusions.

1. That the usual form of prostatic enlargement is an adenomatous one.

2. That the adenomatous tissue may surround the urethra or form masses in the lateral parts of the organ, behind the urethra, or in all three parts.

3. That the parts removed may consist of adenomatous masses from the lateral parts, or of an adenomatous formation completely surrounding the urethra.

4. That there is always left behind a definite laminated envelope containing glandular tissue, derived from the expanded outer portion of the organ.

5. That the amount of envelope left on the surface of the tumour after removal depends on the depth at which the enucleating finger cleaves the envelope.

6. That the recto-vesicular fascia is not opened nor the prostatic plexus of veins injured.

7. That though it is possible to remove a small adenoma from the centre of the lateral part of the prostate without extensively injuring the urethra, yet this canal is removed *in toto* when the adenomatous growths are extirpated in their envelope, and the lateral walls come away adhering to the adenomata when these are of any considerable size.

Fig. 2 (slightly reduced).

Fig. 2 [illegible] the bladder and the surgical capsule left after the removal [illegible] adenomatous mass. The capsule is a very definite structure [illegible] the front wall of the [illegible] has been removed and through the opening [illegible] the prostate over the situation of the [illegible]. Above [illegible] the cavity communicates with the bladder by an opening [illegible] of the [illegible] shown in the drawing [illegible] the opening [illegible] part of the capsule traversed by the section exposing the interior [illegible] the [illegible] of the drawing. A [illegible] section of the [illegible] mass [illegible] prostatic tissue. [illegible] recesses [illegible] outside the [illegible] between the layers of areolar tissue forming the [illegible] between the planes are the vessels [illegible] plexus.

I would, in conclusion, suggest that the term "surgical capsule" should be applied to the envelope formed from the prostate by the expansion of the adenomata. It is a pathological [illegible], and represents more than the outer non-

glandular portion, to which Mr. Shattock has given the name "cortex." To its presence is due the small amount of bleeding and the absence of urinary extravasation. Indeed, in the so-called total prostatectomy, the enucleating finger never passes outside the limits of the prostate, and, therefore, cannot enter the recto-vesical fascia or tear the prostatic plexus of veins.

ADDENDUM.

Since the above was written, the specimen (see Figs. 16 and 17, p. 244) has come to hand.

It was obtained from R. O., a male, aged 81, who was admitted to St Thomas's Hospital in November, 1903, suffering from retention of urine. The bladder had been twice opened for retention. The patient was extremely ill, and beyond giving relief by a third suprapubic opening nothing was done. Death followed in a few hours.

At the necropsy there was found intense haemorrhagic cystitis, double hydronephrosis, and dilatation of the left ureter. The bladder with its enlarged prostate was removed from the body, the membranous urethra being cut across at its commencement. The bladder was then opened on its anterior surface. The intravesical projection of the prostate was of the "os uteri" type. The operation of so-called total prostatectomy was then performed on the parts in an exactly similar way to that adopted in the living subject. The process of enucleation was very easy.

This specimen fully bears out the contention that a definite envelope formed of expanded prostatic tissue is left behind after the so-called total prostatectomy.

NOTES ON MYIASIS.

BY CAPTAIN P. S. LELEAN, R.A.M.C., F.R.C.S.ENG.

THERE would seem to have been a somewhat strong prejudice against flies as remotely as the time of the fourth plague of Moses, 1491 B.C., and it is interesting to follow the development of that prejudice into the definite knowledge of the present day, when the researches of the entomologist and the pathologist have shown how important a part is played by winged insects in the etiology of human disease.

Since the geographical distribution of the larvae which cause myiasis is almost coexistent with that of the order *Diptera*, extending as it does from the Shetlands to the equator, the study is obviously not of merely tropical interest; nor can it be said to concern only the biologist when it is observed that a series of 38 cases, recently collected by Maillard, of *Compsomyia* larvae showed a mortality of 55 per cent.

Auchmeromyia luteola, Fabr.

Referring to ancient records we find that in 1582, Ambrose Paré described a maggot passed per urethram which he calls "oniscus." This is the first of a series of 30 such recorded cases, the second being in 1641, and the last—published by Dr. Foster Palmer recently—being a larva of *Homalomyia scalaris* (house-fly).

A definite attempt was made by Baier in 1740 to place the subject on a more scientific basis in an article entitled "De generatione insectorum in corpore humano."

In 1787, we read of a case of "Violent pains from worms under the skin," which worms were "near an inch long, all in joints in the back, with hard scales," and the theory of infection by insects is only tentatively advanced as a mere speculative explanation of a pathological novelty.

Clarke in a brilliantly illustrated and able contribution to the transactions of the Linnean Society in 1797 establishes the relation between larvae and oestridae, elucidates the confusion involving the classification of the latter, and incidentally combats some suggestive fallacies of his day: one *re* the ovulation of *Oestrus hæmorrhoidalis* suggested by the quotation "Mire per anum intrans" showing the need for an illuminating contribution to the literature of his day.

In 1824, a really interesting case was reported from the sister isle. A lady, after a prolonged geophagism, became subject to constant vomiting, and produced quite a remarkable biological collection, in which, among many strange beasts, dipterous larvae "literally teemed," larvae, pupae, and imagines being curiously ejected together. One realizes the paucity of accurate knowledge in the last century when one reads that it inspired "a feeling of horror to see them (the larvae) frisking along, occasionally expanding their jaws and extending their talons," and although the doctor himself witnessed the extrusion of these forms, it is impossible not to be a little sceptical of the patient's bona fides, when one reads that she invariably concluded by "chanting the Litany at full length in a clear and beautiful voice."

In 1842, an eminent London physician writes: "I saw hundreds of worms escaping from the skin of her body, the carpet was covered with them where she stood while dressing.....they had a power of ejecting themselves to a distance of from 12 in. to 20 in."—a startling fact, but confirmed in 1899 by Lieutenant-Colonel J. Smith, who saw dipterous larvae spring a distance of 3 ft.

Coquerel, writing in 1858 *Des Larves des Diptères développés dans les Sinus Frontaux*, makes this lament: "Ces faits sont peu précis et laissent beaucoup à désirer sous le rapport scientifique;" and twenty years later Cobbold responds in his "Entozoa," giving a list of species of reputed dipterous parasites under no less than fifteen headings.

1880 brings the record by Biaudet of a case of spontaneous cure of *Homalomyia scalaris* by a surfeit of sorrel. The growing interest in myiasis is shown by the reading of a paper on this subject before the International Congress of 1881 by Dr. Smith of Dublin. In this he gave a brief summary of the progress in the classification of parasitic diptera from the time of Humboldt, who describes the *Oestrus humanus*. Smith contended that there is no *Oestrus hominis* peculiar to man, that human larval parasites are all muscidae, and quoted the extraction from Dr. Livingstone's leg of a muscid larva in Central Africa.

In 1882 two cases of migrating larvae appeared, on specu-lated segmented specimen, 13 mm. long, being removed from the back of the neck after a three months' journey from the right ankle, leaving an indurated track.

Of more recent years, perhaps the most curious biological contribution is that of Dr. Folker of Guatemala on the gusano worm. The ovulation of this mosquito-like fly was observed to be effected as follows: The proboscis is inserted in the skin; the long body is arched until the "tail" (? ovipositor) is passed along it as along a director; then, erecting itself on its hind legs to a convenient angle, a full charge of ova is passed deeply into the cavity, a boil ensuing in three days.

From a pathological standpoint Colonel David Bruce's recent demonstration of the rôle of *Glossina palpalis* in sleeping sickness stands alone in importance.

While on service recently with the Anglo-French boundary Commission in Northern Nigeria my attention was drawn to this subject by the occurrence of ecto-parasitic larvae on natives near the Sokoto Arc (7.18 N., 13.29 E.). I secured two larvae and hatched the flies. On submitting these to

Mr. Austen, the dipterologist of the British Museum, he identified them as specimens of *Auchmeromyia scalaris*, Fabr., and I am indebted to him for the scientific description of fly and puparium accompanying the figure. Of this accurately-defined species no larva has previously been described as a human ecto-parasite. The larva is of the usual muscid type, twelve-segmented with hooked mouth-armature.

DESCRIPTION OF THE FLY.

Mr. Ernest E. Austen, of the Zoological Department, British Museum, has been good enough to supply the following brief description of the fly:

Family, MUSCIDAE.

Auchmeromyia luteola, Fabr.

Musca luteola, Fabricius. *Systema Anthatorum*, p. 286 (1805).

♂, ♀. Length, 11 mm. to 12 mm.; length of wing, 10½ mm.; width of head, 3½ mm. in ♂, 4 mm. in ♀.

A rather stoutly-built fly, orange-buff in general colour, but with the distal half of the abdomen blackish.

Head, orange buff, with the eyes wide apart in both sexes; *thorax* somewhat darker than the base of the abdomen, with a faint greyish bloom, and marked with two indistinct blackish longitudinal stripes, which do not extend to the hind margin of the thorax; *abdomen* in the ♂ with the hind margin of the first segment very narrowly, the hind margin of the second segment more broadly, a more or less complete forwardly tapering medium stripe, the whole of the third segment except the extreme base, and two large lateral blotches on the fourth segment, meeting, or nearly so, in the median line blackish. In the ♀ the blackish area on the abdomen is greater, since it includes in addition the whole of the second segment, except a more or less narrow band at the base. A striking sexual difference is to be seen in the second abdominal segment, which in the ♀ is twice the length of the same segment in the ♂. *Legs* orange-buff. *Wings* faintly brownish but entirely devoid of blotches or other markings, so that the veins are plainly visible.

The chitinous pupa-case of this species is of the usual reddish-brown colour and barrel-like shape common to the Muscidae; it measures about 11 mm. in length, by 4⅝ mm. in greatest width.

The two specimens *bred* at Maradi by Captain Lelean are both females, and exhibit a divergence from the normal type in that their abdomens are almost entirely orange-buff in colour and show but little trace of the blackish apical half as described above. Two other specimens *caught* by Captain Lelean's boy at the same place are, however, perfectly normal, so that I am inclined to think that the pallor of the bred specimens is probably due to immaturity.

TREATMENT.

To conclude with a few notes on treatment:

In gusano worm the natives (1) occlude the orifice of the cavity in which the larva is contained by a piece of stamp paper, the air-breathing parasite, being thus asphyxiated, can be expressed; (2) cover the aperture with a tobacco-leaf, the nicotine poisoning the grub.

Dr. Folker uses a hypodermic of chloroform which so paralyses the larvae that he has by this means expressed as many as fourteen in less than two minutes, a velocity which commands respect. The *Dermatobia noxialis* (screw worm) is killed in the frontal sinus by carbolic injections of a 2 per cent. solution.

In the auditory meatus the larvae often cause so much tenderness as to render mechanical extraction impossible. A little calomel blown into the meatus is said to cause their death and spontaneous extrusion.

Lieutenant Colonel J. Smith, writing of Indian experience, found maggots ingested in mangoes most difficult to dislodge, a fact not to be wondered at when they survived five minutes' immersion in pure carbolic acid. One patient passed from fifty to a hundred larvae daily for twelve months, and intensely feared their crawling through the intestine. One case was cured by enemata to helminthiasis; another was on bufera fruit-diet, and in a third purgatives having no effect, seventy were produced by opium, and the embedded maggots came away by subsequent use of purgatives and enemata.

Finally, in huts infested by diptera, if cones of dried pyrethrum powder be burnt, the flies fall stupefied to the floor, whence they can be collected and burnt.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

VASECTOMY FOR ENLARGED PROSTATE.

Is the operation of vasectomy abandoned? Having regard to the much more serious one of prostatectomy now being advocated, I think the following case is worthy of being placed on record, the patient having been continuously under my observation from 1896 to the present time. I must premise that I was an absolute sceptic as to the utility of excision of the vas deferens, and only did it at the express solicitation of my patient, and I plainly told him previously that I did not expect it to be of any good.

A gentleman of fat and flabby physique, aged 58, married no family, of very regular habits, abstemious in all respects, came under my observation in May, 1896, for symptoms of enlarged prostate, frequent micturition both night and day, urgent need to respond quickly to the call to do so, occasional difficulty in passing urine even to almost absolute retention, urine only being voided by drops and with extreme pain and violent strain. The prostate was felt to be uniformly enlarged like a medium-sized apple. The urine was fairly clear, only clouded with mucus; no pus or albumen. These symptoms continued with more or less severity until the operation. On seven occasions he came to what he describes as a complete stoppage; these were always gradually relieved by free purgation with salines (I may here remark that of all treatment of retention from enlarged prostate, that of active purgation is the best). His less urgent symptoms in the intervals were kept in abeyance by rendering the urine alkaline, frequent hot baths; yet, notwithstanding every care and leading a most judicious life, his condition was one of chronic invalidism, and anxiety as to recurrent retention of urine. No catheter could ever be passed, even under chloroform, though there was no stricture of urethra or spasm, or pain on attempting to do so.

On July 17th, 1901, I excised about 1 in. from the right vas deferens. He experienced no discomfort, and was up and about in six days. From this time he has had no difficulty in micturition or occasion to seek medical aid. I have written to him at intervals asking particularly as to his condition, and have always had replies expressing his perfect satisfaction with the results of the operation, and that he was quite well. His last letter, dated August 17th, 1903, is as follows:—

> In reply to your enquiry, I am very glad to say that I have no difficulty with passing water, and have had none since the operation, neither have I had a stoppage since the operation, and I am most certainly convinced that the operation has been beneficial to me.

On August 20th, 1903, I personally examined him, when the only criticism I could make was the right testis felt more flabby than the left. He is now 60 years of age. He was for six years under my care, suffering more or less continuously before the operation, and for over two years since the operation I have never heard of him excepting when I wrote to inquire.

Reade. THOS. ALEN. BUCK, M.B.Lond.

CASE OF FACIAL PARALYSIS FOLLOWING FORCEPS DELIVERY.

MRS. G., aged 23, primipara, was confined on March 13th, 1903. The pelvis was narrow, and forceps had to be applied to extract the child, a good deal of force being exerted both by traction and compression.

When she was visited next day the child was crying, and it was quite evident that he had paralysis of the left side of his face. The mouth was drawn to the right side, which was puckered, the left being full and the right eye was closed, while the left was open. When the child slept both eyes were closed. In addition the head was deviated to the left side, and there was a convergent squint, the left eye looking directly forwards, but the right cornea being right under the inner canthus. There were rhythmic twitchings of the left arm and leg, and when crying became more violent, the right arm and leg became affected similarly, but to a less extent.

Next day (13th) the twitchings of the left side were still present on crying, but not so marked as before. On the 15th these had quite gone, as had also the deviation of the head to the left; and the squint was less marked. The child rapidly improved. For the first week he had to be

fed by spoon, but by March 20th could take the breast by means of a glass shield with indiarubber teat, and by April 3rd without anything intervening whatever.

By April 10th the squint had gone, and the paralysis was much improved, both eyes being closed when he cried.

On April 25th there was only a slight difference between the two sides of the face, which had quite disappeared by May 21st. The child was then healthy, well-nourished, and had grown considerably since birth.

The presentation was occipital, with the head in the first position. The right blade of the forceps had marked the scalp over the right half of the frontal bone, but there was no depression of the skull. The left blade left no mark, but must have been applied just over or behind the left ear.

Ealing, W. GEORGE ARTHUR, M.B.

HAEMOGLOBINURIC FEVER.

MOOTHIAL, aged 37, a native of Hyderabad and a butler in the service of Mrs. F., residing at Malakpeth, had been suffering from ague for a couple of months, but on November 15th, 1903, he was astonished to find that during the fit of shivering the urine voided was dark in colour; this frightened him a good deal. The attacks of ague came on every morning, lasted for a couple of hours, and left him extremely weak. Bilious vomiting occurred only once at the commencement of the disease. He had jaundice, constipation, pain in the loins, uneasiness in the belly, which was relieved on voiding urine or on passing wind. The conjunctivae were pigmented at the inner canthi as a result of malaria. Liver and spleen were not enlarged. The urine during the ague period used to become dark in colour, and later in the day it became quite clear gradually.

The dark, port-wine coloured urine was faintly acid in reaction; its specific gravity was 1020, and it contained albumen. When submitted to centrifuge a greenish deposit was obtained, which under the microscope revealed a number of peculiar bodies resembling cylindroids tinged yellowish green, having circular knot-like structures, placed at varying intervals, and from the circumference of which a number of fine wavy fibres of similar colour radiated in various directions. The deposit also contained haemoglobin, casts mostly granular, and a few epithelial, oxalate of lime crystals, and half a dozen spherical bodies having central nuclei resembling spores of quartan parasites, but somewhat larger. Not a single red blood cell could be seen under the microscope.

Haemoglobin was detected by means of chemical tests: (1) Guaiacum test; (2) production of haemoglobin crystals.

Blood was examined on two occasions, but no parasite of any description could be found.

I was informed that the patient had quinine administered to him before he noticed the dark-coloured urine. The disease lasted about three weeks, and ended in recovery.

S. MALLANNAH, M.D.Edin., D.P.H.Camb.,
Lecturer, Medical School, Hyderabad.

INFECTION IN ACUTE RHEUMATISM.

DR. TURNER'S note in the BRITISH MEDICAL JOURNAL of August 8th, 1903, p. 311, on the infection of acute rheumatism reminds me of several similar cases that I have had in Cape Colony. I have unfortunately no access at present to my notebooks, but the one most impressed on my memory was that of a guard on the Cape Government Railways (W. H.), who was every year subject to periodical attacks of acute rheumatism.

From force of circumstances he was obliged to move out of his married quarters and share a single room (about 9 ft. by 6 ft.) with a fellow-guard. Here he had one of his attacks in knees and ankles, the maximum temperature being 101° F., and the attack lasting about ten days. He had scarcely recovered, when his room mate was for the first time in his life similarly attacked. In the case of the latter there was no trace in personal or family history of any rheumatic taint, neither was there anything in the position or neighbourhood of the guards' quarters to suggest a cause for the attack. He had used the same bed alternately with W. H., and the room was both small and deficient in ventilation.

Another case which suggested infection to my mind was that of a mother who came up to nurse her married daughter during an attack, and suffered similarly after about a week's interval.

I have noted two or three similar cases, and, like Dr. Turner, was impressed with the unlikelihood of a series of such cases being due to mere coincidence. Sometimes the second attacks have been subacute.

Another point which recalls to my mind the emphatic opinion expressed by Dr. Pye Smith in the clinical wards of Guy's some fifteen years ago is that one soon learns to dissociate rheumatism either acute or chronic from "damp." Few climates in the world are drier than the Karroo, where twelve months may elapse without a shower of rain, and yet rheumatism is one of the commonest affections met with. The fact is doubtless due to the extremes of heat and cold met with during the 24 hours. In winter we continually have hoar frost in the early morning, and a temperature of 70° F. or more in the afternoon of the same day.

W. P. LEFEUVRE, M.R.C.S., L.R.C.P.,
Late Railway Medical Officer, Touws River, Cape Colony.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROORKEE CIVIL DISPENSARY.

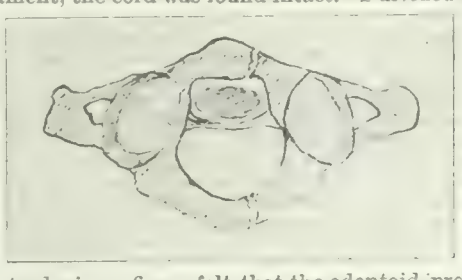
DETACHMENT OF THE ODONTOID PROCESS OF THE AXIS WITH FRACTURE OF THE ATLAS; CONTINUED LIFE WITHOUT SYMPTOMS OF INJURY TO THE SPINAL CORD.

(By L. B. SCOTT, B.A., M B.Cantab., Lieutenant I.M.S., Officiating Civil Surgeon.)

History. U. U., aged 23, was brought in from the country by the police on February 14th, 1903, to the civil dispensary at Roorkee, U P., India, for treatment and medical report on his injuries. Two days before, while cutting leaves for goats' food, he was attacked by some men who hit him across the back of the neck with a heavy stick. He put up his hands to protect himself and both his arms were broken by the same blow. The fractures had been put up at a village dispensary.

State on Examination. There was some pain and stiffness of the neck, but no bruising, a typical Colles's fracture in each arm, the left compound, and some rise of temperature. Chloroform was given and both fractures readjusted. The compound one was aseptically opened up, some loose fragments of bone removed, the wound thoroughly irrigated with perchloride solution, and antiseptically dressed. While he was under the anaesthetic I further examined the neck and rotated it fairly forcibly. Nothing was to be felt. Two days afterwards the arm was much swollen and the wound suppurating. The splint was removed. The arm was lightly fixed on a plain bit of wood and soaked in a perchloride bath. The arm improved slightly, but there was much pus coming from the wound. A week after admission and nine days after the accident, he began to develop signs of tetanus in the jaw muscles. This advanced very rapidly, and he died within seventeen hours of the first signs of tetanus appearing in a state of opisthotonos. Unfortunately I was not sent for and amputation was not done. During this week, he had walked about hospital most days, but complained of much pain in the neck and insisted that his neck was broken.

Necropsy. Both fractures were perfectly typical Colles's, the styloid processes of both ulnae being detached. I was not intending to open up the neck, but on rotating the head once again I though I felt crepitus. I therefore cut down from behind upon the vertebrae and found the posterior arch of the atlas broken. On opening up the posterior atlanto-axial ligament, the cord was found intact. I divided the cord



and on introducing a finger felt that the odontoid process was loose. I then made an opening in front and extracted the

two vertebrae together. I found all the joints and ligaments intact and no displacement of any kind; but the atlas was broken in two places (see Fig.), and the odontoid process was snapped off at its base from the axis and was lying loose but undisplaced within the intact transverse ligament.

Remarks. The case is not only interesting as a curiosity but also medico-legally. On admission, owing to the typical Colles's fractures and absence of bruising on the neck I refused to believe the man's story of having been hit with a stick, and reported his injuries as being due to a fall, probably from a height out of a tree, as might well happen to an Indian goatherd. After the necropsy I changed my mind. The cervical injuries, I think, could only have been caused by direct violence. Indirect force could hardly have produced such fractures without also causing dislocation. I therefore reported that the man had probably been knocked down by a blow on the neck, and had landed so forcibly on his hands as to produce the Colles's fractures. He probably imagined that the stick had caused them. It was most fortunate that during the examination under chloroform I did not dislocate the bones. In all probability the man would have completely recovered from his broken neck if he had not died of something else. The ligaments had withstood the forces of ordinary movements of daily life for ten days and also fairly forcible movements on the *post-mortem* table when unassisted by muscles.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH: COVENTRY DIVISION.

Milner Moore, M.D., in the Chair.

Coventry, Tuesday January 5th, 1904.

Registration of Births and Deaths. Dr. Milner Moore introduced a discussion on the law regulating the registration of births and deaths. As its outcome the following alterations in the law as it at present stands were suggested, and it was resolved to communicate these suggestions to the Council of the Association. Death certification: (1) No burial shall take place until the fact and the cause of death have been certified by a registered medical practitioner. (2) The practitioner in attendance, when informed that death has taken place shall, within 24 hours, see the body, satisfy himself that death has taken place, and certify to the fact and cause of death. (3) The two certificates shall be embodied in one form, and the forms shall be supplied by the registrars. (4) The certificate of the cause of death shall be sent under cover to the registrar by the certifying medical practitioner. The registrar shall then give an order for the burial, unless for any reason he considers it necessary to refer the case to the coroner. This shall not exonerate the nearest relative of the deceased from duly registering the death. (5) If the practitioner in attendance is unable, through illness or other unavoidable cause, to certify the fact of death, he shall authorize another medical practitioner to see the body and certify. This must be stated in the certificate, and the fee is to be paid to the practitioner who authorizes. Stillbirths: (1) No stillborn child shall be registered without a medical certificate. (2) The registered medical practitioner in attendance at the stillbirth shall specify on a special form the fact of stillbirth, and shall give such certificate to the father or other competent person who shall forthwith take it to the registrar of the district. (3) If no medical practitioner is in attendance, then the midwife or person in attendance shall, as soon as the stillbirth has occurred, notify a registered medical practitioner, who shall within 24 hours see the body and give the necessary certificate, stating who was in attendance. In cases where the practitioner does not feel justified in giving a certificate he must forthwith notify the registrar. (4) By the term "stillborn" is meant a child that is born at a sufficiently advanced period of pregnancy to be viable but which does not breathe or show any sign of life after it is completely born. Fees. (1) For every certificate of the fact and cause of any death occurring in an urban district the fee shall be 5s. (2) For every certificate of the fact and cause of any death occurring outside an urban district the fee shall be 5s., where the distance travelled does not exceed two miles from the nearest residence or surgery of the medical practitioner, by the nearest roadway to the place where the body is lying, and for every half mile or portion thereof, beyond the two miles, 6d. extra. (3) For every certificate of the fact and cause of death in any public institution the fee shall be 2s. 6d. (4) For every certificate of the fact of stillbirth, 5s.

Cases and Specimens. Dr. F. Oliver showed a patient with an unusual abdominal hernia, where the hernia was of long standing and had followed the track which an enterolith had taken on escaping from the abdominal cavity. Mr. W. E. Bennett showed a patient from whom he had removed, in December last, several large renal calculi; these were exhibited. Mr. Bennett also showed a pig's kidney with calculi *in situ*; and also a calculus impacted in a ureter.—Dr. Oliver exhibited an acardiac monster about 14 in. in length which consisted only of the lower extremities and pelvis; it had been born with a fully developed six months fetus. Dr. Snell exhibited a specimen of excessive desquamation after scarlet fever. Dr. Fenton read a note on a case of bilharzia haematobia which was under his care, and exhibited specimens of the parasite met with in the urine.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY

Alfred Willett, F.R.C.S., President, in the Chair.

Tuesday, January 26th, 1904.

Hourglass Stomach.

Mr. B. G. A. Moynihan communicated a paper on this subject. So far as he was aware, there was not a single specimen or an accurate record in existence which could be accepted as evidence of the congenital origin of this disease. The causes of acquired hourglass stomach were perigastric adhesion, chronic ulcer, and malignant disease. In addition to the ordinarily accepted causes of the condition, constantly recurring spasm was one. This could be seen during operation, and must lead to hypertrophy of the circular muscular fibres. The symptoms and the signs which enabled a positive diagnosis to be made in the great majority of cases were if a tube were passed and the stomach washed out with a known quantity of fluid, the loss of a certain quantity would be observed when the return fluid was measured (Wolfler's "first sign"); if the stomach were washed out until the fluid returned clear, a sudden rush of foul, evil-smelling fluid might occur; or if the stomach were washed clean, the tube withdrawn and passed again, in a few minutes several ounces of dirty, offensive fluid might escape (Wolfler's "second sign"); if the stomach were palpated and a succussion splash obtained, the tube passed, and the stomach apparently emptied, palpation would still elicit a distinct splashing sound; on distending the stomach a bulging of the left side of the epigastrium was produced, after a few moments this gradually subsided, and concomitantly there was a gradual filling up and bulging of the right side (von Eiselsberg); a bubbling, forcing "sizzling" sound might be heard when the stethoscope was applied over the stomach, after distension (von Eiselsberg); if the stomach resonance were percussed, and the stomach distended with gas and again percussed after about 20 or 30 seconds, an enormous increase in the resonance of its upper part would be found, while the lower part remained unaltered (Moynihan). In view of the fact that in many cases there was a narrowing, not only in the body of the stomach, but also at the pylorus, no single operation would suffice in every case to fulfil all the requirements. Mr. Moynihan had performed gastroplasty alone in 5 cases; gastro-enterostomy alone in 4 cases; gastroplasty and gastro enterostomy in 2, gastro gastrostomy alone in 1 case, and both gastro-gastrostomy and gastro enterostomy in 2 cases.

Mr. Stephen Paget asked if, in performing gastro-enterostomy, any form of bobbin or appliance were used.

The President referred to the exclusion of the congenital origin of hourglass stomach as a point of value. It was noticeable that there was a preponderance in the cases of women over men. The mortality of 4 per cent. was low, and yet it was high as compared with that from simple gastro-enterostomy, but the most severe operation of gastro-gastrostomy it was not to say had a favourable issue. There were nothing like the number of cases of this condition in London as in the neighbourhood in which the cases recorded in the paper occurred and it was a question whether anything in habits or surroundings predisposed.

Dr. G. B. Ferguson asked whether the technique was antiseptic or aseptic.

Dr. H. J. Paterson asked where the first incision was made in the operations. As regards mortality, the operation pro-

bably saved a patient from subsequent gastric ulcer, which had to be taken into account. A case in point was quoted.

Mr. MOYNIHAN, in reply, said the greater prevalence of the disease in the north seemed without explanation. The mortality was higher than it ought to be, partly because the patient was reduced by years of gastric disorder, both from the ulcer and the impossibility of cleansing the distal pouch. No appliance of any kind was used. The operations were purely aseptic.

CLINICAL SOCIETY OF LONDON.

CLINICAL EVENING.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, January 22nd, 1904.

DIFFUSE LIPOMATOSIS.

DR. F. PARKES WEBER showed two patients. One was a single woman, aged 34.

She had always enjoyed good health, and the disease appeared two years ago. There had never been any associated pain. The other patient was a man, aged 52, in whom the disease appeared thirty-four years ago. He had slight wasting, with possibly cirrhosis of the liver.

TUMOUR OF THE LIVER.

Dr. A. E. GARROD exhibited a boy, aged 10 years.

He had had enlarged liver for upwards of six months, possibly of a gummatous nature, though a diagnosis of hydatid had also been advanced. He had taken potassium iodide almost continuously since that date, and the liver generally had decreased; but certain hard, non-fluctuating swellings in the right lobe had grown larger. There had never been any fever.

In reply to different suggestions, Dr. Garrod stated that he intended to put the patient upon a course of mercury together with the iodide.

TOTAL PARAPLEGIA DUE TO VERTEBRAL CARIES.

Dr. W. H. B. BROOK (Lincoln) showed a male aged 18.

He had had incontinence of urine and faeces with bedsores, and total loss of power in the legs. Dr. Brook performed the operation of right costo-transversectomy (eighth dorsal vertebra), giving exit to a quantity of thick pus; and in three months the patient was able to walk, and had recovered control over the bladder and rectum.

UNUNITED FRACTURE OF RADIUS AND ULNA.

Dr. J. R. LUNN showed a man, aged 74.

For thirty-eight years he had been working constantly. The fracture had been compound, and amputation advised; but the patient refused. The mobility at the line of fracture was excessive.

ENLARGEMENT OF BOTH TESTICLES.

Mr. W. G. SPENCER showed a boy, aged 10.

His testicles were swollen to the adult size, and elastic, but not tender. There was a sinus in front of each testis, which was healing. The patient presented no further sign of past or present disease. The diagnosis rested apparently between tubercle and syphilis. Under three weeks' treatment with mercury internally and locally, and with a little iodide, the oedema of the scrotum and cord had diminished, and the testicles were not larger.

Mr. BOWLBY and Mr. RAYMOND JOHNSON debated the question, and concluded that the case was one of tubercle.

COMPLETE OPHTHALMOPLEGIA EXTERNA WITH BLINDNESS OF ACUTE ONSET.

Dr. F. E. BATTEN showed a girl, aged 5 years, in whom the foregoing symptoms had occurred after whooping-cough of moderate severity.

She had had no loss of consciousness, convulsions, or pain. The case was probably one of polio-encephalitis inferior, affecting the oculo-motor nuclei and the lower visual centres. The movements of the eyes had returned, but there was no return of vision.

TRANSLUCENT CYSTIC SWELLING OF ROOT OF NOSE.

Mr. RAYMOND JOHNSON exhibited a man, aged 28.

For three years he had had a swelling at the root of the nose; it was painless. The diagnosis lay between hydatid meningocele and a mucous cyst.

Dr. DOUGLAS DREW suggested that the cyst should be punctured and the fluid examined.

In reply, Mr. JOHNSON thought it was a dermoid cyst, produced (as explained by Mr. Bland-Sutton) by the union of the two nasal bones nipping in a portion of the skin, which became deep-seated. He proposed to incise it in the middle line and remove the cyst.

MULTIPLE ANEURYSMS.

Mr. R. JOHNSON also showed a wheelwright, aged 47.

He had an aneurysm removed by operation from the upper part of the right brachial artery in July, 1902. He then had three other small aneurysms—on the left brachial artery, at the bend of the elbow, and in the left popliteal artery respectively; and these had not since increased to any extent, although he had meanwhile worked hard as a wheelwright.

POST-DIPHTHERIAL BULBAR PARALYSIS.

Dr. WILFRID HARRIS showed a woman, aged 25, in whom this condition had existed for four years. Many facial and other muscles were affected. In another case the symptoms lasted four years, and then the muscles perfectly regained their power.

FRACTURES OF THE SPINE, WITHOUT SYMPTOMS.

A patient, a potman, aged 56, was exhibited by Mr. BATTLE. The neck was held stiffly, and a skiagraph showed a fracture of the axis vertebra.

Mr. E. M. CORNER showed two cases (1) fracture of both pedicles of the axis; (2) fracture of the body of the fifth cervical vertebra. He thought that if cases of severely sprained neck were generally skiagraphed, it would be found that many of them were cases of fracture. In the cases exhibited by him a considerable interval elapsed before the patients came to the hospital, and in neither were there any paralytic or sensory symptoms.

CASES.

The following cases were also exhibited:—Mr. L. MCGAVIN: Congenital absence of the phalanges of the left hand. Dr. J. R. LUNN: Chronic periostitis (syphilitic), with skiagraph; symmetrical swellings of the lower jaw (probably dentigerous cysts).—Mr. C. R. KEYSER: Congenital elevation of the shoulder; congenital absence of the fibulae. Mr. C. GORDON WATSON: Two cases of osteitis deformans, one male and one female.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., President, in the Chair.

Monday, January 25th, 1904.

DISCUSSION ON PELVIC LESIONS IN RELATION TO ABDOMINAL DIAGNOSIS.

DR. M. HANDFIELD-JONES, in opening the discussion, referred to the gastric irritability associated with metritis and endometritis. He then discussed the question whether certain symptoms pointed to a ruptured gastric ulcer or to peritonitis due to rupture of a gravid tube. In the latter menstrual history was of little value, pelvic examination might give little help, as no definite tumour might be palpable, and the position of the pain was also but little guide; there were indeed no clear abdominal signs. Exploratory laparotomy was the only satisfactory course, making in the first place a small incision above the pubes. The difficulties in the diagnosis of such conditions as suppurating dermoid cysts of the ovary and appendicular abscess were set forth. The difficulty arising from the conjunction of an abdominal and a pelvic lesion in the same case with symptoms due to both was illustrated by cases. The influence of pelvic adhesions in producing evidence of abdominal complications was discussed, and suggestions given as to the mechanism by which adhesions produced symptoms.

Mr. ALBAN DORAN alluded to so-called uterine vomiting, to nausea and fainting at menstrual epochs, and to menopause symptoms after removal of the ovaries. In reference to intra-peritoneal haemorrhage from extrauterine gestation, slight attacks of nausea and vomiting might be due to an early arrest of a tubal pregnancy. Pelvic tumours of non-pelvic origin were misleading; for example, pelvic kidney. Lumbar tumours or cysts in women were sometimes ovarian cysts with twisted pedicle. Secondary operations for adhesions were very unsatisfactory. The symptoms produced by adhesions were probably often directly due to irritation of the sympathetic nerves.

Dr. HEYWOOD SMITH thought that in a primipara the mammary symptoms were of help in the diagnosis of early extrauterine gestation; a bidigital examination was also of importance. A zone of want of tenderness between the inflamed appendix and the pelvis might sometimes be made out.

Dr. VINCENT BELL described a case of apparent intestinal obstruction due to a parovarian cyst.

Mr. EDMUND OWEN referred to the frequency of recovery from distressing symptoms after the abdomen had been opened, although nothing had been found. He alluded to the importance of the passage of dark blood by the vagina as a sign of tubal pregnancy.

The President described a case supposed to be one of appendicitis which proved to be one of strangulated ovarian cyst.

Dr. Handfield Jones replied.

MIDLAND MEDICAL SOCIETY.

Wednesday, January 20th, 1904.

J. W. Taylor, F.R.C.S., in the Chair.

Double Empyema.

Mr. Leedham-Green showed a man on whom he had operated for a double empyema.

The patient had double pneumonia in 1901, and subsequently fluid appeared in each side of the chest. On this being found to be of a purulent character, both pleural cavities were opened and drained. The patient did not seem to suffer from any respiratory difficulty, made a good recovery, and at the present time showed only some thickening of the pleura.

Attention was drawn to the paucity of references to such cases in medical literature.

Mr. Gaskell referred to a corresponding case. In this one pleural cavity was opened and the other aspirated; a few days later the latter was also opened, and the patient made an excellent recovery. He was of opinion that in such cases aspiration of the second side offered some advantages. The prognosis, he believed, was better in the case of children.

Dr. Douglas Shenley had an opportunity of seeing Mr. Leedham Green's case in Queen's Hospital. The lungs re-expanded in a satisfactory manner. He agreed that in the event of both pleurae containing pus it was safer to aspirate one side before draining the other.

Cerebral Tumour.

Dr. A. S. Eccles showed a cerebral tumour from a man aged 55, who had been admitted into Queen's Hospital under Dr. Carter's care.

The patient had received a blow on the head two months previous to admission, and headache had been constantly present ever since. A fortnight before admission he was noticed to do silly things, and [illegible] mental symptoms increased; there was [illegible] for some days before admission he used to [illegible] hands, and when seen there was left-sided [illegible] was found. The patient continued in a [illegible] with after his admission to Queen's Hospital, [illegible] was found in the substance of the [illegible] had what from the region of the motor [illegible]

The absence of optic neuritis in cases of cerebral tumour occurring in the latter half of life received comment.

Dr. Douglas Shenley thought the fact of optic neuritis being absent in such cases was not sufficiently recognized, and errors in diagnosis thus occurred. He referred to other cases in which he had noted negative appearances in the fundus oculi.

Subphrenic Abscess.

Mr. Leedham-Green read a paper on this subject, and showed a specimen. He reviewed the anatomy of the subject, and described the causation and topography of collections of pus under the diaphragm, basing his remarks on a series of fifty cases under his care at Queen's Hospital. Among these were instances of the principal causes of abscess. Chronic appendicitis, perforating gastric ulcer, sinus after previous operation for gastric perforation, and suppurative hepatitis. The first condition mentioned was the most frequent cause. The ordinary methods of physical examination, [illegible] of great service, often failed to guide the surgeon to the location of collections of pus. Leucocytosis was of [illegible] diagnosis. Exploratory punctures might have to be made [illegible] in various directions before pus was found. The prognosis was very unsatisfactory, chiefly owing to the difficulty of free drainage.

Mr. Gaskell's experience of subphrenic abscess was also unfortunate. He thought that if its occurrence were better known [illegible] in cases of appendicitis an earlier diagnosis might be made, and better results obtained in a greater number of cases.

Dr. Abercrombie recorded a case of the same condition which illustrated the difficulty of diagnosing even large collections of pus.

Mr. Taylor said he would have thought gastric ulcer a more frequent cause of subphrenic abscess. He was, therefore, interested in hearing Mr. Leedham Green's statistics.

Pathological Society of Manchester. At a meeting on January 20th, Dr. Reynolds in the chair, Mr. Collier exhibited specimens of (*a*) chondro-sarcoma of os calcis, (*b*) pancreatic cysts. Dr. Eugene Yonge made a communication on the recurrence of nasal polypi, with special reference to the theory of bone disease. He discussed a number of suggestions which have been advanced to account for the occurrence and recurrence of nasal polypi. The theory of sinus suppuration and the theory of bone disease were, he thought, tenable under some particular conditions. Dr. Yonge also mentioned the excellent results, as regarded the prevention of recurrence, of treatment based on the hypothesis that the bony areas in the regions from which polypi grew were, in obstinate cases, frequently at fault. Mr. Smith mentioned a case of non-traumatic rupture of the bladder, and showed the specimen. Mr. John B. Wolstenholme exhibited the cervical vertebrae of an old male horse affected with osteomalacia associated with periostitis, in which spontaneous fracture of a process of the sixth and of the seventh had occurred. He also exhibited mounted specimens of the sarcoptes scabiei var. equi, together with a section of skin showing galleries with acari, etc., therein.

Clinical Society of Manchester. The monthly meeting was held on January 19th at the Palatine Hotel, Dr. Milligan, President, in the chair. Dr. Eugene Yonge showed new self-retaining basins for nasal and aural work, also a new apparatus for demonstrating the laryngeal image and intralaryngeal manipulations. By this apparatus (invented by Professor Meyer of Berlin) a beautiful image of the larynx could be obtained by five observers at a time, including, of course, the examiner. Intralaryngeal manipulations were also as clearly observed by the bystanders as by the operator. It appeared, so far as the exhibitor knew, to be the best apparatus extant for the purposes indicated.—Dr. G. H. Lancashire read a paper on "Some Specific and Tuberculous Affections of the Face." The various syphilitic manifestations commonly met with in this region were discussed, and clinical features were described which served to differentiate them from other skin diseases. Tertiary syphilitic disease was dealt with at greater length, and especial mention was made of those cases simulating lupus vulgaris, and *vice versâ*. In all doubtful cases the adoption of a preliminary antisyphilitic treatment was urged, and the danger of immediate surgical procedures in these cases was emphasized. Finally, attention was drawn to that small group of cases in which both syphilis and lupus were combined in the same lesions. Photographs, plates, and cases were shown illustrating the paper.

Epidemiological Society. At a meeting held on January 15th, Dr. E. A. Whitehead, C.B., in the chair, the adjourned discussion on sleeping sickness was resumed. Dr. L. Sambon, in reference to the experiments of Colonel Bruce and Dr. Nabarro, expressed the opinion that it was not yet proved that the flies conveyed the trypanosomes of sleeping sickness from the patients on which they were fed to the healthy monkeys. He considered that Colonel Bruce and Dr. Nabarro had only proved that the flies were carrying trypanosomes, and that the monkeys were susceptible to these, but who, he asked, could tell whether these trypanosomes were those of sleeping sickness. The study of the economics of tsetse flies was important; the habitat of the *Glossina* was near water, and they disappeared within a few miles of water. The essential conditions of a tsetse station were the presence of water, a thickly wooded district, and a loose fragmentary soil. The idea was that the fly waited near water to feed on the animals that came down to drink. Their distribution might be connected with that of the air-breathing fishes of Africa, or the fly might prey, not on the fish, but on some fish-eating mammal.—Dr. Nabarro said that Colonel Bruce and he were told on their arrival in Entebbe that Castellani had found trypanosoma in cerebro-spinal fluid in 5 out of 15 cases, and that Dr. Baker had found the trypanosoma in the blood of one native of Uganda. Subsequent investigations, conducted while Dr. Castellani was still at Entebbe, raised the number to 19 in 34 cases, which worked out at 56 per cent., and not at 70 per cent., as had been stated. He himself and Colonel Bruce thought that the tsetse fly was an important agent in the disease, and made experiments with the flies on animals, but these were not very satisfactory, and no true sleeping sickness was caused in monkeys. The feeding experiments to which ob-

jection had been raised were with the same class of fly. As suggested by Dr. Sambon it would have been certainly desirable to rear the flies for the experiments, but the process of rearing them was very protracted, as each female had one larva, and the latter took six weeks to hatch and become a fly. They had found trypanosoma in other animals, but they were different trypanosomes. They had never found trypanosoma in a healthy monkey straight from the fields, so it was certain the trypanosoma was not a normal parasite of monkeys in Entebbe. The disease was spreading along both shores of Lake Nyanza. Dr. F. W. MOTT said that at present there were two theories in regard to the etiology of the disease the trypanosoma theory and the diplococcus theory. Castellani had latterly adopted both regarding the micro-organisms as in the nature of a secondary infection. The brains which had been sent him for examination showed three facts: (1) excess of lymphocytes in the blood contained in the vessels of the brain: (2) accumulation of lymphocytes in the perivascular lymphatics and the subarachnoid space: (3) enlarged lymphatic glands. The diplococcus probably acted as an important subsidiary cause in a secondary infectious process. The distribution of sleeping sickness and its correlation with the existence of the fly and the presence of trypanosoma in the blood of the natives were, he thought, strong arguments in favour of the trypanosoma being a cause of the disease.—Dr. C. F. HARFORD said that in the regions of the Upper Niger the disease presented itself in a sporadic form. The natives thought that by removing the enlarged lymphatic glands they could cure the disease. It was probable, however, that they regarded all cases of enlarged lymphatic glands as cases of sleeping sickness, and thought after removal of the glands they had cured the disease it sleeping sickness did not develop. Sir PATRICK MANSON said that sporadic cases occurred on the West Coast of Africa, and it would be interesting to know what relation they bore to the presence of the trypanosoma in the general population of the districts concerned. It was quite possible that the disease might prevail in many places, but had not been recognized. It had been suggested that the entrance of the trypanosoma into the cerebro-spinal fluid was the determining cause of the symptoms of sleeping sickness. That view did not recommend itself to him. Trypanosoma might be the cause of the sleeping sickness, but to particularize as to the precise way in which it was caused was going beyond facts as at present ascertained. He did not think the profession had sufficiently recognized the work of Drs. Low, Castellani, and Christy.—Mr. CANTLIE, Colonel MCCULLOCH, and Dr. BULSTRODE also contributed to the discussion, which Dr. SAMBON brought to a conclusion by repeating his opinion that there was no longer room for doubt as to the cause of sleeping sickness.

LARYNGOLOGICAL SOCIETY OF LONDON. At a meeting on January 15th, Dr. P. MCBRIDE, President, in the chair, the following cases were shown: Dr. W. H. KELSON: A case of deformity of the fauces in a woman, and one of epithelioma in the cricoid plate region in a woman aged 30.—Dr. A. LOGAN TURNER: A case of affection of the palate and larynx in a man. Mr. ATWOOD THORNE: A case of malignant disease of the nose in a man aged 70.—Mr. H. B. ROBINSON: A case of syphilitic necrosis of the sphenoid bone; one of left abductor paralysis in a male aged 31; also a case of syphilis of the posterior part of the tongue and posterior pharyngeal wall.—Dr. L. H. PEGLER: A case of crumpled septum in which he had excised the hard structures four years before, and in which the intact muco-perichondrium remained unstiffened.—Mr. P. DE SANTI: (1) A case of laryngeal vertigo; (2) a man with tertiary syphilis of the larynx causing stenosis, on whom thyrotomy had been performed four years ago with satisfactory results.—Dr. STCLAIR THOMSON: A case of complete paralysis of the left vocal cord in a woman aged 36, and two cases of bleeding polypus of the septum.—Mr. H. T. BUTLIN: A specimen of epithelioma of the cricoid plate and of the oesophagus removed by operation.—Mr. F. C. SHRUBSALL showed (for Dr. P. KIDD) a patient suffering from a tuberculous outgrowth from the anterior end of the left vocal cord.—Dr. DUNDAS GRANT: A case of sessile fibromata at the anterior extremity of the left vocal cord partially removed by forceps, and completely extirpated by the galvano-cautery; and one of atrophy and collapse of the alae nasi treated by means of a subcutaneous injection of paraffin: also photographs of a case of flat and sunken nose treated by paraffin injections.—Mr. HUNTER TOD: A case of soft fibroma of the left vocal cord in a woman aged 31; and one of sarcoma of the post-nasal space with enlargement of the cervical glands on the right side in a man aged 51. Dr. WATSON WILLIAMS showed a man 42 years of age with an interlaryngeal new growth.

REVIEWS.

THE INFLUENCE OF ALCOHOL UPON MUSCULAR ACTION.

IN 1895 Dr. HERMANN FREY published a work on this subject, which, although conceived in an impartial spirit, has according to him evoked a storm of hostile personal criticism, chiefly on the part of the advocates of total abstinence. To these he has replied in a small volume[1]; of this a good many pages are occupied by somewhat cumbrous sarcasms, from which the main arguments are often only to be disinterred with some difficulty. The author's original experiments were conducted with Mosso's ergograph. The normal curve of the person observed having been recorded, two such were taken at an interval of an hour, which the author found sufficient for muscular recovery; after another hour a small quantity of alcohol was administered and a third curve taken, the change in which was held to indicate the effect of the drug. A second method was to administer the alcohol during the course of a series of voluntary muscular contractions, between each pair of which there was an interval of ten seconds. Frey's conclusions were that the action of alcohol in respect of its effect upon muscular effort differed materially according as whether the muscles investigated were tired or untired. When tired, he concluded that alcohol abolished the sense of fatigue, and thereby increased the maximal contractions; but when untired, he found that alcohol exercised a harmful influence and caused a marked diminution in lifting power. The correctness of these conclusions has been denied by a number of other observers, such as Professor Destree of Brussels, Kraepelin and his pupil Oseretzowsky of Heidelberg, Scheffer of Utrecht, and Schnyder of Berne, who have either repeated Frey's experiments as detailed by him, or carried out independent investigations on their own account. For the most part these observers unite in either totally disagreeing with Frey, or, while admitting a temporary stimulation, state that it is immediately followed by a paralysing action, which more than outweighs the effect of the primary stimulation. In this book Dr. Frey sets to work to demolish his critics, and adds certain fresh observations of his own by which he is confirmed in his previous views, and led to conclude that alcohol has a nutrient action and a more favourable and lasting influence on tired muscle than either sugar, coffee, caffeine, or tea. His criticism of his opponents consists largely in detailing points which he considers justify him in denying the accuracy of their observations or the soundness of their methods, or in accusing them of bias. As, however, so far as this book is concerned, we depend for our knowledge of his opponents' work upon Dr. Frey's version of it in each case, the details of the combat between them cannot be given in a review with fairness to either side, so those who set store by laboratory assessments of the effect of alcohol should read the book, and the papers which it seeks to answer, for themselves.

VENEREAL DISEASES.

THE third edition of Dr. HAYDEN'S book on *Venereal Diseases*[2] is a useful epitome, which on the whole may be said to justify its author's description of it as giving "a practical working knowledge of gonorrhoea, stricture, chancroid, and syphilis." Gonorrhoea is clearly and judiciously dealt with. Dr. Hayden, it may be remarked, condemns Janet's method of irrigation by hydraulic pressure, and he also states that he cannot see any advantage from the use of argonin, protargol, and other similar preparations of silver during the acute stage of gonorrhoea. For the treatment of syphilis Dr. Hayden considers inunction to be "the most efficacious and rational" mode of administering mercury, and, though not applicable to all cases, there can be no doubt that it is an excellent way of introducing mercury when properly carried out. But we cannot at all agree with Dr. Hayden when he advises that mercurial treatment should be postponed until the appearance

---

1 *Alcohol and Muscular Work.* Alcohol and Muscular Exercise. By Dr. H. Frey. Leipzig and Vienna: Deuticke. 1902. (Demy 8vo, pp. 116. 2 tables. M. 2.)

2 *Venereal Diseases.* By James R. Hayden, M.D. New York. Third edition. London: H. Kimpton. 1903. (Demy 8vo, pp. 371. 21 illustrations. 7s. 6d.

secondary symptoms. The earlier and the more superficial effects of syphilis are well described, but the affections of some of the viscera are only scantily treated; and in the section on syphilis of the nervous system the important question of diagnosis might well have received some sort of consideration.

Dr. VOUZELLE'S small book on syphilis[3] is one of the volumes of the *Encyclopédie Scientifique des Aide-Mémoire*, and, as its title indicates, it deals only with a part of the subject, namely, the primary and secondary stages of syphilis. The various phenomena of these two stages of the disease are well and clearly described, and the names (by no means always correctly spelt) of various French and other authors are duly cited. The book gives one the impression that the author has worked hard at his subject, and that in a more complete form it might have been of considerable value. But it is difficult to understand what useful purpose can be served by the publication of the present fragment.

Dr. NARIO[4] reports the results obtained in the treatment of acquired and inherited syphilis by the intramuscular injection of a solution of mercury biniodide (1 part) and potassium iodide (2 parts) in 100 parts of distilled water. The doses have to be regulated according to the weight of the patient—that is, 3 milligrammes of the biniodide per kilogram, and half the quantity in children. In adults the injection may be repeated every ten days, while in infants an interval of from fifteen to thirty days, according to the state of the general health, must be left. As a rule, the acute symptoms disappear after the first application. The operation is followed by intense pain in the part chosen for injection, but this subsides soon. No local complications have been observed. A preliminary injection of morphine will alleviate but not totally prevent the pain. In children the injection may be followed by considerable loss of weight and diminution of the red blood corpuscles, but return to the former state is speedy. The full histories of twelve cases are given. In some of them there has been no relapse for three years.

THE TONGUE.

DR. CARL ROSENTHAL'S volume on the tongue[5] is written for physicians and surgeons. The surgical disorders of the tongue are comparatively speaking well known, though it must be admitted that as in all questions referring to cancer of this or any other organ, we are ignorant of the cause of the malady. The same may be said with regard to leucoplakia, and we are entirely ignorant of the laws underlying the process controlling the development of carcinoma of the tongue from a gummatous ulcer; then, again, the question of the nature and origin of endotheliomata is far from settled, and criticism must be made of the author's wisdom is classifying endotheliomata of the tongue as benign tumours. Dr. Rosenthal does not seek to explain away the difficulties of etiology; he acknowledges them and is content to group together all the known disorders of the tongue, whether primary or secondary to disease situated elsewhere in the body; in discussing treatment, he merely hints at the surgical methods, but gives a very full account of what may be done by medical means. Scattered through the book, we find a rich store of facts, some valuable in a negative sense, others offering real help in the recognition of the more rare conditions and in the estimation of the clinical significance of the many and varied changes met with in the tongue. The association of furred tongue with gastro-intestinal disorder is well-known, but Dr. Rosenthal is able to assure us that it is much more diagnostic in acute than in the non-chronic gastric disorders, the tongue may be quite clean in chronic gastric disease, and in disorders affecting the lower part of the intestinal tract, and even in typhoid fever. Herpes of the tongue may be met with in facial or labial herpes, in cases of gastro-intestinal catarrh, in diseases of the lung, in malaria, and rarely in typhoid fever; it is also met with in hard smokers, or after the use of tuberculin or antipyrin, though the author has not apparently seen it after the administration of arsenic. Another common affection of the tongue which is but little understood, is the occurrence of haemorrhages in Werlhoff's disease, in scurvy and in purpura haemorrhagica, but there is another curious form of submucous haemorrhages occurring in the tongue, especially in aged people, which, according to Dr. Rosenthal, does not indicate any special pathological condition but is of venous origin. It forms submucous haematomata, which may measure a centimetre across; from a diagnostic point of view the recognition is important, because we are thus supplied with another possible source of blood in cases of so-called spurious haemoptysis and haematemesis. Chronic superficial glossitis or bald tongue is a common disorder, and its true etiological relationships are ill-known; Virchow, Lewin and Heller attribute it entirely to syphilis, Seifert and Mracek have, however, found it closely associated with wasting diseases, such as carcinoma and tuberculosis; Goldschmidt has also seen it in cases of general degeneration, and Lublinski in various anaemic conditions including chlorosis. Readers of this volume will find information on all the rarer disorders of the tongue and references to the literature are abundantly supplied. The general practitioner, too, will find a full account given of the diagnosis of each condition from those allied to it, and a satisfactory account of the medical treatment accompanies the description of each disorder.

[3] *La Syphilis*. Par le Dr Vouzelle. Paris: Masson et Cie. 1903. (Pp. 128. Fr. 2.)

[4] *Le Médicament de la Syphilis*. Par Francesco Nario. Rome: Ermanno Loescher & Co. 1903. (Pp. 30.)

[5] *Die Zunge und ihre bei den Krankheiten*. The Tongue and its Manifestations in Disease. Von Dr. Carl Rosenthal. Berlin: August Hirschwald. 1903. (Pp. 344. Mk.)

THE DETERMINATION OF SEX.

ALTHOUGH Dr. GUIARD entitled his work a critical review of the laws of the determination of sex,[6] it is hardly critical with regard to one of the theories which are considered in it. Dr. Guiard dismisses somewhat summarily all the theories which venture to advance such notions as the relative vigour of the parents, the testicle or ovary from which the spermatozoon or ovum comes, nutrition, age, etc., and accepts freely the hypothesis of Professor Thury, of Geneva, with all the difficulties which accompany it. According to Thury it is the more or less complete maturity which the ovum has reached at the moment of impregnation which determines the sex of the new being; the offspring will be feminine when this maturity has not yet arrived at a certain degree, and masculine when it has passed it. In other words early impregnation of the ovum will produce a female, and late impregnation a male. There may, therefore, be said to be an early feminine phase in the life-history of each ovum and a later masculine one. It is considered that the feminine phase begins with the beginning of the menstrual flow, while the masculine will not commence till a varying period after it. It need hardly be pointed out that it is taken for granted that ovulation and menstruation coincide, a somewhat gratuitous assumption. The practical conclusion follows, if we can accept the foregoing hypotheses, that in order to procreate a female child impregnation ought to take place just before or immediately after menstruation, while to produce a male the correct period for coitus will be several days after menstruation and on into the middle of the intermenstrual period. Experiments upon animals have given varying results. Guiard thinks that those carried out on cows support Thury's theory; but he admits that rabbits, fowls, and pigeons do not appear to obey the law. Recent experiments on cows would also appear to be unsatisfactory. Further, in thirty-five observations upon the human subject made under the directions of Dr. Guiard there were four failures. It is claimed that these were only apparent failures. It is suggested that the conditions necessary for success were not scrupulously observed (which we can very well imagine), and that when they were, then the result was what was desired, as in 31 out of the 35 cases reported. When it is remembered that for success there must be only one occasion on which coitus is practised, and that must be three or four days before the menstrual flow for a girl, and three or four days after it for a boy, it will be obvious that many fallacies may interfere with a proper test being obtained. In order to explain the commonly observed fact that daughters most often resemble the father, and sons the mother, Dr. Guiard points out that for females the ovum must be impregnated at an earlier date than for males; in other words the ovum must come under the influence of the paternal sexual cell (the spermatozoon) for a longer time. This prolonged influence, he thinks, will impress the paternal peculiarities more markedly upon the females than upon the males. Of course this is simply an assumption. In order to explain away some of the difficulties which sur-

[6] *Essai critique sur les lois de la détermination du Sexe*. Par le Dr F. P. Guiard. [Critical Review of the Laws of the Determination of Sex.] Paris: Octave Doin. 1903. (Pp. 272.)

round the subject, Guiard has to have recourse to the hypothesis that there may be supernumerary ova, and that in fact there may be anomalies in ovulation, which is more than likely. It must be remembered, also, as was pointed out by Dr. Robin in the discussion which followed the reading of Dr. Guiard's paper, that we do not know whether the maturation of the ovum (expulsion of polar cells, etc.) always occurs at a set time in reference to the escape of the ovum from the ovary. It is to be feared that Thury's law may be an uncertain guide to the anxious parents who are hoping for a son; but it can at least be tested with little trouble, for it has the merit of simplicity. It is simple, but is it sure?

THE PUBLIC HEALTH REPORT FOR THE COUNTY OF LONDON IN 1902.

MR. SHIRLEY MURPHY'S annual report is, without exception, the most important official report published yearly, not only for medical officers of health, but for all who require to consult statistics on a large number of matters affecting public health and sanitary administration. The full-page illustrations to the report enable the reader to ascertain the main vital facts with a minimum of trouble.

POPULATION.

The administrative county of London had an estimated population at the middle of 1902 of 4,579,110.

OVERCROWDING.

A very valuable comparison of the percentage of total population, living in tenements of 1, 2, 3 or 4 rooms, and of the amount of overcrowding in each of these is given, the census results of 1891 being compared with those for 1901. These figures give encouraging evidence of social improvement. Thus in London as a whole, the percentage of the population occupying tenements of one room has declined from 9.2 to 6.7, and the percentage has declined in every sanitary area. The proportion of the population occupying tenements of two rooms has declined in 23 districts and increased in 15 districts. In the whole of London the proportion of the total population living in two-roomed tenements has declined from 16.4 to 15.3 per cent. The proportion of the population living in tenements of three rooms has increased from 15.8 to 16.5, and in four rooms from 14.1 to 15.2 per cent. during the ten years. As the percentage of the total population living in tenements of not more than four rooms has declined from 55.5 in 1891 to 53.7 in 1901, the general result of the above comparison is that there is less misery as indicated by one-roomed and two-roomed dwellings.

Next, the same districts are classified in accordance with the method of the Registrar-General according as the tenements contain on an average two or more persons per room; if more than two they are regarded as overcrowded. Here again improvement is manifested. In London, as a whole, the proportion of the population living in "overcrowded" tenements declined from 19.70 to 15.97 per cent. in the ten years; and although the decline was shared by the populations of each class of tenement, it was greatest in those occupying one and two rooms. Only in three sanitary areas —those of Whitechapel, Mile-End Old Town, and St. George-in-the-East—which have been specially affected by alien immigration has there been an increase in the proportion of the total population occupying overcrowded tenements of less than five rooms, and even in these areas the proportion overcrowded in one room has declined.

MARRIAGES AND BIRTHS.

Diagrams I and II opposite p. 11 show very clearly that the curve of the birth-rate is ceasing to follow that of the marriage-rate, some recovery in the latter being associated with a steady decline in the former. We note that birth-rates are now given for each metropolitan borough in terms of the number of married women aged 15-45. This, we believe for the first time, enables the exact relative fecundity of the populations of the different boroughs to be compared. The lowest is the City of London with a birth-rate of 14.6, next come the City of Westminster, 16.6; Hampstead, 17.8; Stoke Newington, 18.7; and Kensington, 18.7; while at the other end of the scale we have Greenwich, 24.1; Bermondsey, 26.2; Bethnal Green, 27.5; and Poplar, 27.6 per 1,000 married women aged 15-45.

CORRECTED DEATH-RATES.

It is interesting to compare these birth-rates with the death-rates, corrected for age-distribution and sex-distribution of the corresponding metropolitan boroughs. The lowest death-rates were 12.1 per 1,000 in Hampstead, 14.0 Lewisham and Stoke Newington, 14.2 Wandsworth; the highest 22.4 City of London, 23.6 Holborn, and 23.9 in Finsbury. Although low birth-rates are commonly associated with low death-rates there is no causative relationship between the two.

LOWERED DEATH-RATE.

The death-rate for males was 10.1 per cent., and for females 12.0 per cent. lower than the corresponding mean death-rates in 1881-90. This implies a saving of 9,363 lives during 1902, representing a gain to the community of 385,756 years of life capital.

"LIFE EXPECTATION" IN TWO SELECTED DISTRICTS.

The preceding may be regarded as the results for the average Londoner. But variations of social conditions and all that this implies are related to variations in the death-rate and life-expectation. This is shown by Mr. Shirley Murphy by a comparison of a short life table for Hampstead and Southwark. Confining ourselves to the statistics for males, which are probably more trustworthy than those for females, it is significant that the average male of Southwark at birth has 14.28 years less of expectation of life than the corresponding male of Hampstead. At age 20 the Southwark male has an expectation of life of 36.41 years, the Hampstead male of 44.23 years; at age 45 the corresponding figures are 18.93 and 23.81 years; and so on. From these and other figures it is clear that the conditions adversely affecting longevity in Southwark are operative to a greater or less extent throughout the whole of life. If the Hampstead figures be taken as the standard, Southwark males lose 13.0 per cent. of the period of infancy (0-5), 17.7 per cent. of the school-age period (5-15), 28.0 per cent. of the working period (15-65), and 59.1 per cent. of the period of decline (65 and upwards). It is interesting to note that the figures of the present day relating to Southwark are somewhat similar to those calculated by Dr. Farr, for St. George, Hanover Square, some sixty years ago. This, as Mr. Murphy points out, is "distinctly encouraging to further efforts in the direction of improving the standard of public health."

The significance of the comparative life-expectations for Hampstead and Southwark would be missed, were we not to note that over 70 per cent. of the Southwark population are housed in tenements of less than five rooms, as compared with less than 30 per cent. of the Hampstead population thus housed; while nearly 10 per cent. of the Southwark population live in one-roomed tenements as compared with a little over 2 per cent. in Hampstead. It is significant, also, that 22.35 per cent. of the population of Southwark were occupying tenements of less than five rooms which were overcrowded (more than two per room); while only 6.37 per cent. of the population of Hampstead occupied overcrowded tenements.

INFANTILE MORTALITY.

The deaths under 1 year of age per 1,000 births were 139 in London, varying from 87 in Hampstead and 117 in Marylebone to 149 in Kensington, 154 in Finsbury, 155 in Bethnal Green, 166 in Southwark, and 174 in Shoreditch.

SMALL-POX.

In 1902 a considerable epidemic of small-pox occurred in London, causing a death-rate of 0.28 per 1,000—higher than that of any other town except West Ham, which was 0.54. It is unnecessary to follow the steps of the history of the spread of this disease as narrated in Mr. Murphy's report, but a few remarks on the account of the administrative measures taken to minimize its spread are desirable. The failure to diagnose the disease, and particularly its confusion with chicken-pox, were a frequent cause of spread. The supervision of persons exposed to small-pox was one of the main difficulties. Apart from economic difficulties, the impracticability of the wholesale quarantining of all persons exposed to infection when small-pox is widely distributed is obvious. Thus in four boroughs there were 1,093 cases of small-pox and 13,259 contacts. The Local Government Board takes the view that in most instances it meets the requirements of the case if dwellings and personal apparel are properly disinfected, if the contacts are so far as practicable vaccinated, and in any case examined carefully day by day towards the end of the second week from their exposure to infection. The system of paying for quarantine of contacts seems to have been adopted

largely in Poplar, where 660 cases of small-pox occurred and £1,080 was expended on the supply of food to persons kept in their homes. Statistics are given of the effect of vaccination in diminishing the incidence of small-pox on contacts; the effect varying in accordance with the promptitude of the vaccination. It is noteworthy that the source of infection could not be discovered in more than one-third of the total cases of small-pox, and that in a large number of other instances cases of small-pox were not recognized until after immediate vaccination was unavailable as a means of preventing infection. Attention has previously been drawn in these columns to the excessive prevalence of small-pox among sanitary inspectors and disinfectors. In this report the evidence as to these and as to the experience of nurses in the metropolitan small-pox hospitals is summarized with the usual result, that neglect of revaccination is shown to be the cause of such cases of small-pox as occurred.

CHICKEN-POX.

From February, 1902, to January, 1903, this disease was added to the schedule of notifiable diseases in London. During this time the cases notified numbered 5·9 per 1,000 of the population per annum. The seasonal curve of this disease appears closely to resemble that of measles, there being a maximum in June and a second maximum at the end of November. More male than female cases occurred at all ages together. The greatest incidence of attack, as in scarlet fever and diphtheria, was upon the age of 4-5. The high case-rate at the age 0-1 distinguishes it from other notifiable diseases.

MEASLES.

The death-rate from this disease was 0.51 per 1,000, and a diagram representing the incidence of mortality from this disease since 1841 shows no indication that the disease is becoming less fatal. Out of corresponding statistics for 10 foreign capitals, 3 had in 1902 a higher death-rate from measles, namely, at St. Petersburg 0.52, Amsterdam 0.88, and Rome 0.94. In London the highest death-rates from measles were 1.16 in Fulham and 1.17 in Bermondsey; the lowest 0.20 in Lewisham and 0.10 in Stoke Newington.

SCARLET FEVER.

The death-rate from this disease was only 0.12 per 1,000, and the case rate varied from 2·1 in Kensington and in Shoreditch to 5.1 in St. Pancras and Battersea.

DIPHTHERIA

caused a death-rate of 0.25 per 1,000, having steadily declined since the maximum year, 1893. In New York the corresponding death-rate was 0.56, in St. Petersburg 0.68, in Brussels it was only 0.11. In London the case-rate from diphtheria varied from 1.0 per 1,000 in Kensington, 1.2 in Hampstead to 3.1 in Wandsworth, 3.5 in St. Pancras, and 3.7 in the City of London. Reference is made to the importance of the action taken by Dr Kerr, the Medical Officer of the London School Board, in securing co operation between local medical officers of health and himself in the examination of school children both at home and at the school, and of the free use of the laboratory in the diagnosis of atypical cases of this disease.

WHOOPING-COUGH.

Whooping-cough, unlike measles, shows signs of a declining mortality, the death-rate from this disease in 1902 having been only 0·30 per 1,000 as compared with a mean death-rate of 0·60 in 1881-90. Whooping-cough is still much more fatal than in any of the chief European capitals or in New York.

ENTERIC FEVER.

Enteric fever caused a death-rate of 0.12 per 1,000 in 1902. The case-rate from this disease varied from 0.4 in Lewisham, Hammersmith, and Stoke Newington to 1.2 in Poplar and 1·3 in Shoreditch. The connexion of polluted shellfish with the causation of enteric fever receives considerable attention in this report, and it is satisfactory to find that the investigation of this vehicle of infection is becoming increasingly practised.

PHTHISIS.

It is unnecessary to summarize statistics as to other diseases except phthisis, which happily is receiving each year more attention as a disease concerning which active preventive measures are applicable. The death-rate from this disease was 1.60 per 1,000, varying from 0·85 in Hampstead, 0·90 in Wandsworth, and 1·05 in Paddington, to 2·28 in Finsbury, 2.62 in Southwark, and 3·01 in Holborn. Corrected for age and sex distribution of population, Hampstead is the lowest, 0.84, Wandsworth comes next, 0.91, then Paddington, 1·01, while at the opposite extreme are Finsbury, 2.30, Southwark, 2·62, Holborn, 2·65.

Although a system of voluntary notification of phthisis has been established in thirteen metropolitan boroughs, only 1,191 cases were actually notified in London in 1902. In some of these boroughs the machinery of notification only came into operation late in the year.

SANITARY ADMINISTRATION.

Part II of the report consists of a very full summary of every branch of sanitary administration in the metropolitan boroughs, which, although it does not lend itself to convenient comment, will none the less be extremely valuable to all engaged or interested in sanitary work.

A special report of Dr. Hamer is appended, giving a very full account of small pox in London common lodging-houses, 1901-2; in another appendix by Dr. Hamer the occupation of persons attacked by small-pox is discussed; exemption clauses in by-laws as to houses let in lodgings form the subject of a third appendix; accommodation for women in common lodging-houses of a fourth; in a fifth appendix Dr. Young gives a detailed account of the sanitary administration of Hammersmith; and the sanitary staffing of each London borough is the important subject of a final appendix.

CONTRACT MEDICAL PRACTICE.

CONTRACT WORK AT ASHTON-IN-MAKERFIELD.

A CORRESPONDENT writes: The four resident practitioners at Ashton-in-Makerfield, through the Secretary of the Wigan Medical Guild, some time ago intimated to the various secretaries of the sick clubs in their district that after December 31st, 1903, unless the rates of pay of 2s. 6d. and 3s., which have been the standard rates for the last thirty years, were increased to 4s. they would not accept re-election.

Several conferences were held between the representatives of the various Lodges and the medical men, at which some minor points were agreed upon, but the rate of 4s. was insisted upon by the medical men. This the clubs definitely refused to pay, with the result that they amalgamated and advertised in the lay press for a qualified man to work for them at the old rate of 2s. 6d. per member. Numerous applications were received and a selection made, with the result that an outsider is now brought into the district with a guaranteed salary of £150 per annum for attendance upon 1,200 members.

The Wigan Medical Guild has given all the support it could in the matter, but the weakness lies in the fact that in Wigan, which is only five miles distant, the old rates prevail. Had the movement originated in Wigan, as the centre (and the change is equally desired there) the Ashton practitioners would have experienced no difficulty in obtaining the advanced rate; it is to the credit, however, of Ashton that it has been the pioneer in the movement.

It is very much to be regretted that a registered medical man should be found willing to offer his services under such conditions. One important fact which has been made clear during this incident is that the most enthusiastic of workingmen lodge-stors are the prime movers in preventing others from obtaining what they themselves advocate so eagerly.

PRESENTATION.—The recent marriage of Dr. Ronald Polson, of Worcester, was made the occasion, early this month, of one of those ceremonies which it is always pleasing to record, in as much as they show that the self-denying efforts of medical men do not always pass unappreciated. Dr. Polson has been resident in St. John's, Worcester, since 1887, and was presented at a large gathering of his patients and friends with a congratulatory address, and a silver tray. Several speeches were made, by Canon Carr and others, in which attention was drawn to the beneficent character of the work which Dr. Polson had done. The plate was inscribed, "I was sick and ye visited me."

A LEPROSY SCARE IN AMERICA.—A rumour gained currency not long ago that 28 cases of leprosy had been discovered in the Russian colony near Lincoln, Nebraska. Some uneasiness was felt, but the Health Commissioner, who made a thorough examination of the suspected persons and found them to be suffering from a perfectly benign skin disease, issued a report which dispelled the alarm. How often must sufferers from harmless cutaneous affections have been cut off from communion with their kind and condemned to the living death which was the leper's portion in the Middle Ages?

The King's Gift to the Nation.

THE CONVALESCENT HOME AT OSBORNE HOUSE.

THE name of Osborne became very familiar to all the subjects of Queen Victoria owing to Her late Majesty's marked preference for Osborne House as a place of residence at certain seasons of the year. She generally spent several of the winter months there, after leaving Balmoral, and usually returned in the early summer.

Her Majesty's liking for Osborne may probably be attributed partly to its beautiful situation overlooking the Solent—one of the most frequented pieces of water in the narrow seas—partly to its mild yet bracing climate, and partly to the way in which the garden and park lent themselves to a quiet outdoor life for many hours of the day during several months of the year—a rather rare combination of attractions in this country.

The Osborne estate, which comprises about 2,000 acres, was acquired in 1845 by purchase from Lady Isabella Blachford. It occupies both sides of a gently-sloping hill falling towards the north to the seashore, where a sea wall has been built to protect the park, and to the south to the River Medina. To the west the park gates open on to a broad road, which leads, in about a quarter of a mile by a rather steep incline, to East Cowes, while to the east of the estate is open cultivated country. The grassy slope between the house and the sea is picturesquely planted with trees, while further to the east the park includes a considerable extent of woodland. Immediately in front of the house are terraced gardens, while on the south side the pleasure grounds contain many beautiful trees and shrubs. Trees of all kinds, indeed, do remarkably well at Osborne, and varieties of the arbutus, and a grove of cork oak, not often seen in this country, grow vigorously. That the camellia flowers out-of-doors, and that there is a palm some 30 ft. high on the terrace are evidences of a mild and equable climate. From the East Cowes entrance the house is approached through a dense avenue of well-grown ilex and cedar, planted under the direction of the late Prince Consort. There are ranges of hothouses and a walled garden, well open to the sun, and protected from the north and east. The offices are to the east, so that the house has, if an explanatory bull may be pardoned, two fronts—to the north-east and south-west respectively—the one to be preferred for out-of-door life in summer and the other in spring.

In the park golf links have been laid out, and there is a small building originally erected for a summer tea-room which will serve as a club-house.

The general aspect of the house is shown in the view here reproduced (Fig. 1). Its two square towers are well seen from many parts of the Isle of Wight and from the coast in the neighbourhood of Portsmouth. It is an irregular building, consisting of the private apartments of Her late Majesty, of a main and a south wing connected with each other and with the pavilion by an open loggia and cross passage, and of the Durbar wing. The whole, with the exception of the Durbar wing, which was added in 1890, was built in the five years following the purchase of the estate in 1845.

Queen Victoria bequeathed this fine property to her eldest son, and His present Majesty presented the whole—the park, the house and all its appurtenances, and the farms comprised in the rest of the estate—as a free gift to the nation as a memorial to Her late Majesty. It was a kingly gift and is to be devoted to a noble purpose. The house, with the exception of the private rooms used by the late Queen, which will be kept unaltered as she left them, will be devoted to public purposes. The Durbar hall and some other ceremonial rooms with their connecting corridors will be open to the public on certain days, and will doubtless attract many visitors, for they contain a large number of interesting portraits and other mementoes of Queen Victoria's long and eventful reign. The park also will be open to the public on the same days. With these exceptions the grounds and house will be given up to the purposes of a convalescent home for officers of the navy and army.

Fig. 1.—Osborne House, General View.

The Osborne Estate Act, 1902 (2 Edw. VII, c. 37), recited that the Osborne Estate was, under the will of the late Queen Victoria, vested in His Majesty for life, with certain remainders, and that His Majesty had, with the concurrence of the Prince of Wales, signified his pleasure that on the occasion of his coronation the Osborne Estate should be handed over so as to become part of the public property of the Sovereign, and that provision should be made for the use of the house and grounds as a memorial to Queen Victoria. The Act accordingly gave effect to this declaration, certain parts of the estate—consisting of ground adjacent to Osborne Cottage—being reserved for the private use of members of the Royal Family. Osborne House and the grounds adjacent thereto were placed under the management of the Commissioners of Works, the rest of the estate falling to the charge of the Commissioners of Woods. The Act further directed that:

"As a memorial to Her late Majesty the Commissioners of Works

"... shall, during His Majesty's pleasure, preserve, so

Fig. 2.—Plan of First Floor.

far as may be in its present condition, and keep open to the public in such manner and on such terms as the Commissioners, with the approval of His Majesty, may determine, such part of Osborne House as appears to have been in the personal occupation of Her late Majesty; and

"(2) shall devote the rest of Osborne House and the grounds under their management to be used for the benefit of officers of His Majesty's naval and military forces, or their wives, widows, or family."

A Committee appointed by the King to consider the disposition of the estate had reported on December 5th, 1902, in favour of the above arrangements, recommending especially that the park and woods adjoining the sea front should not be treated as land bearing revenue; that the house, except that portion reserved by His Majesty—that is, the private apartments of the late Queen Victoria—should be appropriated to the uses of the army and navy as a convalescent home for officers, and that the stables and cricket ground should be utilized for the naval cadets of a training ship to be stationed off the Isle of Wight.

The scheme as originally devised has, with the approval of His Majesty, undergone certain modifications, a Naval College with accommodation for 196 cadets having been already built, and further buildings to accommodate 168 more being in the course of erection. Eventually accommodation will be provided for 500 cadets. The arrangements with regard to the naval cadets are under the control of the Admiralty. Dormitories, a recreation room, etc., for the cadets are being constructed, and the buildings occupied by them are at present maintained by the Office of Works at the expense of the Admiralty.

Osborne House has been altered and adapted for use as a convalescent home, and, as regards the State Rooms, for exhibition to the public. There will be accommodation for about fifty patients.

The selection of the convalescent patients will be referred to the Navy and Army Medical Boards. The Office of Works will be advised as to the arrangements for their accommodation by a committee consisting of Viscount Esher, K.C.B., K.C.V.O. (Chairman); Sir Francis Mowatt, G.C.B.; Sir George Murray, K.C.B.; Sir Frederick Treves, Bart., K.C.V.O., C.B.; Sir Francis H. Laking, Bart., G.C.V.O., the Hon. Sir Schomberg K. McDonnell, K.C.B., C.V.O., Colonel Sir Edward W. D. Ward, K.C.B.; and Captain the Hon. Hugh Tyrwhitt, R.N.; and Secretary, Mr. A. J. Durrant.

It may be said at once that the plan of the house has been found to lend itself singularly well to the purpose to which it is henceforth to be devoted. The structural alterations have been comparatively few, and are now complete; the internal sanitary arrangements have been reconstructed on modern principles, the decorations are now nearly finished, and the furniture will soon be in place.

We recently had the opportunity of inspecting the accommodation for convalescent patients under the guidance of the officials of His Majesty's Office of Works, who on many matters of detail have had the advantage of the advice of Sir Frederick Treves, of Miss McCaul, and of Miss Haines, who has already taken over duty as matron.

The parts of the house in which the convalescents will be accommodated are the main wing, the south wing, and the cross passage. There are here three stories and a basement. Most of the bedrooms are on the two upper floors; the dining room, sitting rooms, and recreation rooms on the ground floor; and the kitchens, pantries, and servants' mess rooms in the basement.

The uppermost floor of the two wings and the cross passage will provide bedrooms, one patient in each. The walls are painted a cool light green with a white dado, the floors are covered with linoleum, and every room is well lighted by lofty sash windows. Each patient has a telephone at his bedside and an electric emergency bell for use at night. Both the telephone and the night bell communicate with a telephone exchange on the first floor.

The furniture has been specially designed by Mr. R. Bailey, M.V.O., Controller of Stores, Office of Works, in accordance with valuable suggestions furnished by Miss McCaul. We are familiar, in the construction of hospital wards, with the idea of avoiding all angles and corners where dust and dirt can collect and into which the duster or scrubbing brush cannot easily penetrate; this has been the governing idea in the design of the Osborne furniture, and as it has been admirably carried out and as the cost has not been increased it is probable that the new furniture will set a standard of excellence for the future, not for hospitals only but for the bedrooms of private houses. It has been made by Maple and Co.

Fig. 3.—View showing Cross Passage with Loggia.

The larger rooms at Osborne contain a dressing-table, wardrobe, washstand, writing table, chairs, of which one is a deck chair with a washing cretonne cover, bedside cupboard, and screen. In some of the smaller rooms the number of separate pieces has been reduced by various ingenious combinations. All the furniture is painted white with a hard enamel surface, and is so designed that each part can be easily and thoroughly cleaned. The wardrobes, for instance, take into four pieces: cornice which has a flat flush top, hanging cupboard, drawers, and underpiece. The drawers in all the furniture have rounded internal corners; there is no useless underboarding, and by taking the drawer out the housemaid can quickly pass her duster round every part of the table or cupboard, both above and below. All doors can be lifted off, all shelves pull out easily for cleaning, and the back of the bed-cupboard is of slats with air spaces between. The screen is washable, and each article of furniture is mounted on practicable rollers so that it can be easily pulled away from the wall. The floors are covered with linoleum. Each room has a drop and standard electric light, and whether by day or night is a model of lightness and comfort.

The general plan and arrangements of the first floor are similar to those of the second, except that there are ten married quarters, each consisting of a bedroom and dressing room, as shown in the block plan (Fig. 2) of this floor, which we are enabled to reproduce by the courtesy of the architect, Mr. H. N. Hawks. The plan shows very well the general arrangement of the two wings and the cross passage; it shows also the loggia, which we foresee will in summer be of the greatest use for giving the air to those patients who may be well enough to leave their rooms, though not sufficiently recovered to take outdoor exercise. An external view of the loggia is given in Fig. 3. As, however, there is a lift from the ground floor to the top of the house, large enough to admit a couch, it will be easy to take patients unable to walk into the terrace garden on fine days. The decorations of the rooms on this floor are pink and white. There are two ward kitchens on the first and second floors, and there is also ample bathroom and lavatory accommodation on both floors. The linen room is on the first floor.

On the ground floor where the rooms are decorated in blue, there is a large dining-room with two fireplaces, a dinner lift, and hot-plate. Adjoining this is a smaller dining-room which can be used when the house is full. Near by, on the other side of the corridor, is the Sisters' dining-room. Writing and billiard rooms, as well as a cloak and locker room, are provided on this floor. The Victoria Hall, which is approached by a long corridor and a flight of stairs, will be used as a library and music room for the convalescents, and will also be fitted with writing tables. A room has been converted into a small dispensary for stock medicines, and has been furnished with bench, sink, and testing apparatus for the use of the medical attendant, Dr. H. E. W. Hoffmeister, of Cowes. The nursing staff will consist of the matron, Miss Haines, and four Sisters; three, one for each floor, for day duty, and one for night duty. The general attendance on the patients will be provided by commissionaires, in the proportion of one to every six officers.

Accommodation for the nurses is provided on the upper story of the Durbar Wing, where the matron and each sister will have a large and airy bed-sitting-room. They will also have a common sitting-room, and two bedrooms have been set apart for extra nurses, should their services be required. The nursing quarters communicate with the ground floor of the convalescent home by a

corridor, and also directly with the first floor, by way of the loggia.

The servants' rooms, in two semi detached buildings to the east, have been remodelled, and contain quarters for the male and female staff respectively.

All the internal sanitary fittings have been very carefully considered, and the apparatus throughout is of the newest and best patterns; the lavatories are tiled; there are altogether eleven bath rooms, seventeen w.c.'s, five bedpan sinks, and an infected linen tank on each floor. The sewage is disposed of in a septic tank, special arrangements being made for dealing with storm water. The high ground on which Osborne stands is covered with plateau gravel. Water is supplied from the Carisbrooke Waterworks, the source being a deep well in the chalk about four miles south of Newport. It is of a high standard of purity, though, like all the waters of the district, rather hard.

An external emergency iron staircase has been built at the east end of the convalescent wings.

All the rooms and corridors are fitted with the electric light, and heated by hot water. In the sitting rooms and bedrooms there are open fireplaces.

Taking them altogether it may be said that the alterations have converted the wings of Osborne House into an ideal convalescent home.

The King has throughout displayed the greatest interest in the work, and has on several occasions generously sanctioned alterations in the original plans which it was shown would increase the amenity and convenience of the house when used as a convalescent home.

To many an officer wounded on active service, or recovering from the hardships of war or the debilitating effect of a tropical climate, Osborne in the future will be a veritable haven of rest and recuperation, where he may recover the health of body and peace of mind lost in the service of his country.

In conclusion, we may be permitted to express to His Majesty the gratitude which every one of his subjects must feel for the thought which inspired him to devote Osborne to this purpose, and to offer at the same time our respectful congratulations on the admirable manner in which his wishes have been carried out.

LITERARY NOTES.

Mr. Alban Doran has resigned the editorship of the *Journal of Obstetrics and Gynæcology of the British Empire*. Journalistic enterprises of great pith and moment not infrequently turn their currents awry owing to the want of expert direction. Mr. Doran fortunately brought to the arduous task which he undertook a ripe experience in the practical details of journalism which enabled him to guide the young periodical safely through the obstacles that lie about the beginnings of such undertakings. He is succeeded by Dr. T. W. Eden, whose appointment gives assurance of a career of unimpaired usefulness for the *Journal of Obstetrics*.

A book entitled *Behind the Footlights*, by Mrs. Alec-Tweedie, a daughter of the late Dr. George Harley, is now in the press. The volume is described as a *pot pourri* of first nights, theatrical parties on the stage, with peeps into green-rooms and dressing-rooms. The publishers are Messrs. Hutchinson and Co.

The *Scottish Medical and Surgical Journal* for December contains an interesting article on Scottish toxicology in the sixteenth century as illustrated by the inquest of the Earl of Atholl in 1579. The writer, Mr. A. Francis Stewart, points out that the history of Scotland is "singularly free from even the suspicion of" poisoning. This, we suggest, may be explained, not by any particular squeamishness as to taking human life characterizing mediæval Scots, but by their preference for more rough and ready methods. One of the most celebrated cases of alleged poisoning occurred in 1579, when John Stewart, fourth Earl of Atholl, fell a victim, it was supposed, to the jealousy of the Regent, James Douglas, Earl of Morton. Atholl, a near kinsman of the King, was a Catholic; Morton was a "licentious man, but a fervent Protestant." In 1578, during the minority of James VI., Atholl was made Chancellor at a time when Morton was under a cloud. They were formally reconciled, and Morton gave a feast in honour of the event at Stirling on April 26th. Atholl died suddenly on April 25th. It was taken for granted by every one at the time that the Earl had been poisoned. An inquest was held in Stirling Castle on June 16th. The medical evidence is chiefly remarkable as showing the dense ignorance of the witnesses on the subject which they were called to elucidate. James Owhegarty (?) "Irelandman borne, leiche that ministratis medicine in the month and curis outward be herbis," gave it as his opinion that death had been caused by "rank venom" introduced by the mouth. Alexander Prestoun, "Doctour in Medicine," and George Boswell, "Medicinar and Chirurgiane in Perth," also testified that the Earl had died of poison. Gilbert Moncrief, though he found the humour in the stomach to be venomous, could not say whether it was exterior or interior grown within the body. David Rattray, "Chirurgiane in Coupare," said that death was caused by "ane extraordinare poyson, and that ane spune (silver?) put in the humour changeit the cullour in the cullour of brass." R. Craig, "Burgess of Edinburgh, Chirurgiane," cautiously said the Earl had "to all appearance" died of poison. Mr. John Hammill, Minister of Aberuthven, saw "strange and unnatural tokens in the stomach, black and red, as it were the dregs of bread and wine mixed," and further stated that he had heard the dead man say "that he had got offence and God forgive them that had done it." The Spanish Envoy Bernardino de Mendoza sent the following account of the inquest to the King of Spain:

> They had opened the body in the presence of five doctors, three of whom said he had been poisoned, and two that he had not. One of the latter, to assure them that he was right by proof, took some of the contents of the stomach on his finger and put it into his mouth. The effect was that in a few hours he was thought to be dying. It is not known whether the order to poison him came from Morton or some private person.

In the end the physicians declared on oath that Lord Atholl's death "was not caused by any extraordinary mean." Still suspicion was not allayed, and Morton made the following dying declaration on the scaffold on June 2nd, 1581:

> I would not for the Earldom of Atholl have either ministered poison unto him or caused it to be ministered unto him: yea, if I had been a hundred and he himself alone, I would not have stirred a hair of his head.

The question whether Atholl was poisoned must remain one of the numberless riddles of history. Of the medical evidence, however, it may safely be said that it threw no light on the problem. Indeed, the subject of Scottish toxicology in 1579 might be dealt with in the summary fashion adopted by the writer of the famous chapter on Snakes in Iceland.

In the January number of the *Journal of Anatomy and Physiology*, Mr. William Wright, Lecturer on Osteology and Chief Demonstrator of Anatomy in the University of Birmingham, gives a description of some skulls obtained from a group of barrows closely aggregated together a mile or so from Garton-on-the-Wolds, in the East Riding of Yorkshire. Iron has never been found in these barrows; bronze has been occasionally and sparsely met with in a few of them. The chief relics found in the barrows have been made of flint or bone. On this ground Mr. Wright thinks himself justified in assigning the burials to the early Bronze Age, some of them possibly to the late Stone Age. Of sixteen skulls described, eight were those of females, seven of males, and one of a child aged about 8 years. The shapes of the skulls were of very diverse character; there were among them examples of such types as ellipsoides pelasgicus longissimus, ellipsoides africus rotundus, sphenoides latus, and two resembling in general shape the chancelade skull. Mr. Wright, who is engaged in the examination of a considerably larger number of Yorkshire prehistoric skulls, reserves detailed conclusions for a future paper. In the meantime he contents himself with saying that even in times so remote as the early Bronze Age, there was a marked diversity in skull shapes, although all the skulls were taken from the same neighbourhood. "Further," he says, "there is not the least vestige of evidence that Dr. Thurnam's dictum 'round barrow, round skull' is even approximately accurate as far as the round barrows of East Yorkshire are concerned."

In a recently published volume of Selections from the Correspondence of the late Mr. A. B. North Peat, who was accidentally killed during the siege of Paris, the following example of a printer's error is given as having recently occurred in an evening paper, and as having given rise to much merriment at the expense of a medical man of real talent: "Dr. X. has been appointed head physician to the Hopital de la Charite. Orders have been issued by the authorities for the immediate extension of the cemetery of Mont Parnasse. The works are being executed with the utmost dispatch."

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JANUARY 30TH, 1904.

RECENT CANCER RESEARCH.

WE publish elsewhere an important communication by Dr. E. F. Bashford and Mr. J. A. Murray, which was presented to the Royal Society on January 21st. In that paper are embodied some of the results of the investigations pursued during the past year in the laboratories of the Cancer Research Fund.

It will be seen that Dr. Bashford and Mr. Murray have confirmed and extended the results arrived at by Professor Farmer, Mr. Moore, and Mr. C. E. Walker, an account of which was given in the BRITISH MEDICAL JOURNAL of December 26th, 1903. The confirmation is all the stronger since the two groups of investigators started from wholly different standpoints. While, on the one hand, Messrs. Farmer, Moore, and Walker were led by a long comparative study of the general phenomena of cell division and reproduction to investigate cell division as it occurs in cancer in the human subject; on the other, Dr. Bashford and Mr. Murray approached the same question as the result of comparative study of the incidence of cancer throughout the whole animal kingdom.

In the first report of the Cancer Research Fund published last summer it was pointed out that cancer must be regarded as part of a general biological problem, and a method of inquiry based on this principle was outlined by Dr. Bashford in a paper entitled the Problems of Cancer which appeared in the JOURNAL of July 18th, 1903. In following out the lines of inquiry there indicated Dr. Bashford has had the support of the Executive Committee of the Cancer Research Fund, and the willing co-operation of many workers both in this country and abroad. During the past year specimens of malignant growths in the horse, the sheep, the pig, the mouse, the cat, the hen, the Indian parakeet, the salamander, the cod, the gurnard, and the trout have been examined at the laboratories on the Embankment, and it has been proved that in their clinical, pathological, anatomical, and microscopic characters the growths in these animals are in all essential features identical with those found in man. The wide diversity in the habitat, food, and mode of life of the animals suggests that such external conditions play only a secondary part in determining the occurrence of malignant growths, and appears to indicate that the cause of cancer must be sought in a disturbance of the phenomena of reproduction and cell life common to all the forms of animal life in which it occurs. Hence purely cytological investigations must evidently have a most important bearing on the solution of problems connected with the unrestricted growth of cancer. It was, we suppose, the appreciation of this fact that influenced the Executive Committee to appoint Mr. J. A. Murray, who has had special experience in cytological investigations, to assist the Superintendent in the research proceeding under their immediate direction.

In the paper which we publish this week the facts proving the occurrence of a reducing division in cancer cells, as first recorded by Farmer, Moore, and Walker in man, are described as they occur in various animals; Dr. Bashford and Mr. Murray do not, however, commit themselves to any definite statement in support of the deductions drawn by these investigators as to the malignancy of cancer being due to tissues which have undergone a reducing division. Nor do they express any opinion as to the diagnostic value which has been claimed for the recognition of heterotype divisions in cancer cells, as contrasted with its absence in benign tumours.

To prevent misconception it is necessary to emphasize the fact that the discoveries of Messrs. Farmer, Moore, and Walker, important as they are, have not dispelled the mystery in which the origin of cancer is enshrouded. As Dr. Bashford and Mr. Murray point out, although the phenomena of cell division, indicating a similarity to the normal reproductive tissues, may be held to explain the proliferative activity of new growth under favourable conditions, they leave the problem of the genesis of cancer practically untouched. They do, indeed, supply important indications of the character of the processes on the elucidation of which depends the solution of the problem. As far as the researches have gone, however, the results seem to us scarcely to warrant the statement made in certain quarters as to the "wide field of possibilities" in regard to cure that have been opened up by these discoveries.

The Cancer Research Fund of the Royal Colleges may claim in the short period of its existence to have contributed materially to the advancement of our knowledge of the nature of cancer. Since the publication of Virchow's work on cellular pathology investigators have devoted all their energies to the study of the processes of growth and extension of cancer without recognizing that the question of origin is entirely distinct. The two problems were differentiated from one another at the outset of the investigations of the Cancer Research Fund, and it must be repeated that the researches which have been published have been directed solely to the solution of the former. An important step forward has been made, but the goal is not yet in sight. It is to be hoped that the contributions to our knowledge of the nature of the scourge which levies so terrible a tribute of human lives are but the firstfruits of an investigation that will place in our hands the means of preventing, or at least greatly mitigating, its ravages.

THE VITAL STATISTICS AND SANITARY ADMINISTRATION OF THE METROPOLIS.

AN immense urban community, having a population of four and a-half millions, and deserving the name of a province rather than that of the "County of London," cannot fail to present problems of the greatest interest and of the utmost complexity. This is particularly the case when public health matters are concerned, and if the Medical Officer of Health of the County of London performed no other duty than the preparation of the important annual report which is summarized on page 253, he would be conferring on the entire metropolis, as well as on everybody everywhere who is interested in vital statistics and in sanitary administration, a benefit the magnitude of which it would be difficult to exaggerate.

The twenty-nine boroughs into which the administrative county of London is now divided, and the still larger number of district Boards and vestries into which it was formerly cut up, furnish sanitary problems of greater complexity and difficulty than those provided by any provincial borough. The latter, especially if they be county boroughs, are self-contained and self-governed. The metropolitan boroughs are larger than most of the provincial county boroughs, and, by the circumstances of their relation to each other, they are inevitably so closely interwoven that independent sanitary administration or control of disease is impossible. Independent sewerage would be impossible; it would be equally impracticable for each borough to have its own small-pox and fever hospitals; the areas of water supply have no regard for borough boundaries; the chief food inspection of the metropolis is carried on in two or three districts, and so on. A very large proportion of Londoners work in one borough and sleep in another; infection is thus difficult to trace and consequently difficult to stop. We need not state the difficulties in further detail; but it cannot be surprising if a sense of half-despair occasionally seizes the mind of the medical officer of health of a metropolitan borough, when he finds the limits of his investigations in the interests of the health of those whom it is his duty to protect, cribbed, cabined and confined by limitations through which it is difficult to break. Of course there is free intercommunication between the responsible officials of different boroughs; but this is not quite so efficacious as free opportunity for personal investigation of a problem from start to finish.

The difficulties which we have sketched would be enormously greater were it not for the co-ordinating action of the London County Council, and particularly for Mr. Shirley Murphy's work and reports. Each borough is compared with every other borough by statistics which are carefully compiled, accurately corrected for age and sex distribution, and set forth in such a way that their teaching is fully displayed. And so for sanitary administration. The details for each borough are accurately contrasted with those for every other borough, and the general effect in levelling up sanitary administration and in securing general efficiency must be very great.

Although in certain respects the sanitary administration of such a vast congeries of houses as London may tend to partial disheartening, the mental depression is greatly relieved when the present is viewed in the light of the past. Mr. Shirley Murphy gives a very interesting contrast between the life prospects at the present time of the inhabitants of Hampstead and Southwark respectively. This contrast brings out the appalling fact that a male child born in Southwark and continuing to live under its present conditions may be expected to have a life fourteen and a-quarter years less than a male child born and living under the conditions at present holding good for Hampstead.

Compare this difference, however, with the experience of a life-table calculated by Dr. Farr for the fashionable parish of St. George Hanover Square some sixty years ago. A male child born then and there had a prospect of 13.4 years less of life than the male child of the present day in Hampstead. If in fashionable districts so much improvement has already occurred, it is not unreasonable to hope that similar, though slower, improvement will occur in the poorest districts. It is because they are "poor" that the improvement is delayed. Over 70 per cent of the Southwark population live in tenements of less than five rooms; less than 30 per cent. of the Hampstead population are thus housed. The manner of housing is but an index of other things beyond mere dense aggregation. It implies worse and less abundant food, uncleanliness, deficient light and air, greater strain of effort in life, more alcoholism, and a long string of social ills.

Even in such a district as Southwark there are signs that improvement has occurred. Taking conditions of housing again as an index, we find that between 1891 and 1901 the percentage of population occupying one-roomed tenements had declined from 18.1 to 14.7 per cent., while the number of those that were occupied by more than two persons had declined from 10.4 to 7.2 per cent.

Such facts as these must serve to draw attention to existing evils, to stimulate efforts for their removal, and to call into active co-operation the efforts of the sanitary authorities of every metropolitan borough.

PROSTATECTOMY.

THE interest which the more recent operations upon the prostate have aroused is evident in the communications which have from time to time appeared in the BRITISH MEDICAL JOURNAL during the past two years, since the publication of the first series of cases of prostatectomy recorded by Mr. P. J. Freyer.[1] Into the development or evolution of the operation we do not propose to enter, but from the first there has been considerable difference of opinion in regard to certain anatomical questions involved. The chief points at issue, the fate of the prostatic portion of the urethra, and the completeness or otherwise of the prostatectomy, may be considered as now cleared up. It is certain that the preservation of the prostatic portion of the urethra, as an intact tube, is not possible when the enlarged prostate itself is removed. Nor is this to be wondered at when the extreme tenuity of the prostatic mucosa, and the wide extension of its area in this disease are remembered. As regards the parts actually removed, very diverse statements have been made. It has been held that the prostate is removed with its fibromuscular "capsule," together with a portion of the recto-vesical fascia, and even the pubo-prostatic ligaments, etc.; and, on the other hand, that the parts removed are merely tumours enucleated from the enlarged gland.

It has, of course, long been known that tumours may be enucleated from the prostate; but the procedure now termed "prostatectomy" involves something more, and, though the enlargement is as a rule of an adenomatous type, a fasciculated "capsule" is found in many of the specimens surrounding the adenomatous mass.

A critical examination of what is removed in successful cases shows that this "capsule" consists of unstriated muscle, and that embedded in this may be recognized the flattened recesses of gland tissue.[2] It became, therefore, very doubtful if the whole of the prostate, histologically speaking, was removed, however complete the operation might appear from a surgical standpoint. Such observations, in short, have to be supplemented by a study of what is left behind. This does not appear as yet to have been minutely carried out in cases of operation, the success of which is so striking a feature. But from an examination, both macroscopic and microscopic, of the parts remaining when prostatectomy is carried out after the removal of the bladder, etc., from the body after death, it is plain that a peripheral layer of expanded prostatic tissue is left *in situ*.

[1] BRITISH MEDICAL JOURNAL, July 25th, 1901.

[2] S. G. Shattock, BRITISH MEDICAL JOURNAL, October 24th, 1903, p. 1071.

The evidence of this will be found set forth in the paper by Mr. C. S. Wallace published in the present issue, a paper which embodies observations made since the date of a previous communication by the same author.*

It is perhaps the anatomical fact so demonstrated that largely explains the success of the procedure, since this thin yet dense peripheral remnant of prostatic tissue acts as an efficient barrier in preventing the escape of urine into the pelvis—an event which would be fraught with grave results, seeing that in not a few cases (where the result has been quite successful) the urine has been in a high degree foul or septic.

The term "total prostatectomy," then, is not absolutely correct, notwithstanding that the procedure now commonly adopted does not consist in the mere enucleation of adenomatous or other tumours; it is prostatectomy, since a portion of the gland beyond the growths is taken away; but it is not total prostatectomy, since remnants (histological only though they may be) are left behind.

HYGIENE AND TEMPERANCE.

WE ventured last week to express the confident hope that the petition to the Central Educational Authorities in the United Kingdom circulated for signature to all members of the medical professon would receive general support, and that individual members would sign and return it to the Secretary of the Distribution Committee at an early date. We are glad to learn that this expectation is being fulfilled. The petition was only posted on Saturday last, January 23rd, and on the first four days of this week a very large number of petition forms were returned duly signed —a number estimated at 14,000. We venture to repeat the appeal to all members of the profession that they should give attention to the petition, and if, as we cannot help thinking will be the case, they approve of its terms, that they should sign it and return it in the stamped envelope addressed to Dr. E. Claude Taylor, at 20, Hanover Square, London, W.

We understand that many of those who have signed the petition have accompanied it by letters in which they express in the strongest terms their approval of the action that has been taken. It will be remembered that the petition asks the Central Educational Authorities of the United Kingdom to consider whether it would not be possible to include in the curricula of the public elementary schools, and to encourage in the secondary schools, such teaching as may, without developing any tendency to dwell on what is unwholesome, lead all the children to appreciate at their true value healthful bodily conditions as regards cleanliness, pure air, food, drink, etc. The Committee of Distribution hoped thus to obtain an expression of opinion by the medical profession with regard to a need of modern life and education which is year by year becoming more evident to those whose work, whether medical or educational, brings them into contact with the people who live in the poorer quarters of towns. While it may be true that there is no conclusive proof of the existence of progressive physical deterioration, that is to say, of inherited unfitness, there can be none that there is a most disquieting amount of individual unfitness. This is proved, *inter alia*, by the army recruiting statistics, to which so much attention has ben directed during the last year. In his report for the first nine months of the year, just issued, the Inspector-General of Recruiting, Major-General Sir Francis Howard, states that there has been a further increase in the percentage of recruits rejected 24.77 as against 22.40. A slight decrease in the percentage rejected for want of physical development—3.06 as compared with 9.76—is attributed mainly to the greater care exercised by recruiters, but partly to the new standard of chest measurement.

This prevalence of physical unfitness among the youth of certain classes of the population is associated with, and there can be little doubt is in large part due to, the fact that an ever-increasing proportion of the population are being subjected to the injurious influences of life in crowded quarters of large towns, where the death-rate and infant mortality are higher, and where ignorance of the laws of health is gross, and intemperance rampant. The facts are well known to the medical profession, which is under a moral obligation to guide public opinion on the subject.

The wide response to the invitation of the Committee which has distributed the petition already makes it certain that it will go forward to the Central Educational Authorities with the strong support of the medical profession. It is, however, desirable that this expression of medical opinion should be as nearly unanimous as possible. As we have said, medical men must generally approve the terms of the petition, and it is therefore sincerely to be hoped that all will be at the small trouble required to express their opinion by their signature. There is good reason to believe that the view expressed in the petition will have the sympathy of the Central Educational Authorities; but of even greater importance must be the effect which a petition signed by the great majority of the medical profession in the country will have on the public. It is, of course, difficult for the central departments to be much in advance of public opinion; the independence of local authorities must be respected, and an emphatic expression of medical opinion cannot fail to have the effect of convincing members of local authorities that the central authority will be fully justified in the action which it may be expected to take to encourage the teaching of domestic and personal hygiene—including in that the subject of temperance—in elementary schools.

VITAL STATISTICS OF ENGLAND AND WALES.

WE publish elsewhere the main facts with regard to the vital statistics of England and Wales for the year 1903. We owe them to the courtesy of the Registrar-General, and we shall be very glad to receive similar statistics for Scotland and Ireland. The birth-rate for England and Wales was 28.4, and was almost identical with the rates for the last two years, though a fraction lower than either, 28.5 in 1901, 28.6 in 1902. These rates compare with a decennial average-rate of 29.9; in 1895 the birth-rate stood at 30.3; since that year the decrease has been almost continuous. The death-rate for England and Wales in 1903 was 15.4, as compared with 16.3 in 1902 and 16.9 in 1901. The proportion averaged 18.2 per 1,000 in the decennium 1891-1900 and 21.0 for the period 1838-1901. From an analysis made by Dr. T. Orme Dudfield, Medical Officer of Health for Kensington, it appears that the birth-rate of London in 1903 was 28.4 and the death-rate 15.6, both the lowest on record. The coincidence between these rates and the general rate for England and Wales is striking. The close approximation of the figures for rural England and Wales and for the 103 smaller towns with regard to birth-rate and death-rate is also remarkable; it is evidence, so far as it goes, that the condition in the smaller towns approximates to

* BRITISH MEDICAL JOURNAL, March 19th, 1904.

that of rural districts, although when we come to the death-rate due to the seven chief epidemic diseases and more especially to the infantile mortality, there is a conspicuous difference. The rate of infantile mortality for the whole country was 132, while that for rural districts was only 118, in the 76 great towns it was 144, in the 105 smaller towns 135; in London it was 131, a fact which would be held to reflect great credit on the sanitary administration of the metropolis were it not that we must anticipate that when the full returns for the several boroughs are published very conspicuous differences will appear. Thus Dr. Dudfield tells us that in Kensington, which, as is well known, includes some very poor districts, the infantile mortality was 143 per 1,000 births. Dr. Dudfield's figures further confirm this conclusion by showing that the rate in North Kensington was 158 per 1,000 and in South Kensington only 103 per 1,000. The statistics for 1903 therefore, so far as they are at present available, afford evidence of the continuation of tendencies noted during the last eight or nine years a declining birth-rate, a declining death-rate, and a relatively slight decline in the infantile mortality.

THE PROFESSORSHIP OF MEDICINE AT OXFORD.

In the British Medical Journal of January 16th we gave a summary of a statement adopted at a meeting of Oxford graduates holding teaching appointments in medical schools which took place on January 5th. We have since received a copy of a circular letter, which is said to have been "agreed to and ordered to be circulated." This letter, which is substantially identical with the statement above referred to, has attached to it the signatures of 134 Oxford graduates. A document which represents the views and the feeling of so large a number of medical teachers must be regarded with the greatest respect. Many of the names appended to it are representative of all that is best and noblest in British medicine. The loyalty to the University and the zeal for its interests which have prompted the deliverance are in the highest degree praiseworthy. But looking at the matter objectively, we confess we find the arguments not altogether convincing. We need not again go over the ground covered in the article on the subject which was published in the Journal of January 23rd. It may be worth while, however, to call attention to one or two small points in which the revised text differs from that published in the *Times* of January 6th. In the latter, after rehearsing the qualities which a Regius Professor should possess, the graduates said: "On these grounds we think it desirable that the Regius Professor should, if possible, be an Oxford man." In the revised version the words "personally familiar with the University curriculum and traditions" are added, apparently for the purpose of more absolutely excluding persons who, though graduates of the University, have not had the advantage of being cast, in an academic sense, in the Oxford mould. It is a trifling matter, but it is not without significance. It is natural enough that a highly select body like the Oxford graduates should think that no one not nursed at the breast of Alma Mater could "worthily uphold the dignity of the University in the estimation of the profession and the public." We venture to remind them, however, that at no time has the reputation of Oxford as a medical school stood so high as during the last score or so of years when the teaching has been almost wholly in the hands of "outsiders" adopted for the purpose. There are among the Oxford medical graduates men of world-wide fame who would add lustre even to that ancient seat of learning. But, as far as we can gather, they do not want a Regius Professor to teach. They object to the proposal to convert the Regius Professorship of Medicine into a professorship of "any single branch of medical study"; or, rather, according to the revised version, they do not think this desirable "at the present time." We do not care to discuss the precise meaning of this qualifying clause, but we may be allowed to call attention to the remarkable conception of the functions of a Professor which seems to exist in the minds of the Oxford graduates. If the Professor is not to teach any single branch of medical study, is he to be a Professor of Things in General, like Teufelsdröckh at the famous University of Weissnichtwo? Or is he simply to "exist beautifully," sitting in an Olympian repose untroubled by dreams of the lecture-room? But, it is urged, the Regius Professor has important practical duties to perform; among them, however, we find no mention of teaching. The question, we repeat, seems to us to be: Is the Professor to teach, or is he to profess without performing? If he is to be a teacher, what is he to teach? The answer is, we think, obvious. He cannot teach clinical medicine at Oxford, but he can teach the great fundamental truths which constitute the basis of scientific medicine. As a teacher of pathology the Regius Professor will more worthily uphold the dignity of the University in the estimation of the profession and the public than by doing the work of a mere official. The discoverer of radium has complained bitterly of the drudgery of examinations and other routine work "which any school teacher could do as well" thrown upon him by his appointment to a Chair at the Sorbonne. It is to be hoped that a more enlightened view of the duties of a scientific professor will guide the advisers of the Crown in filling the vacant Chair at Oxford.

PROTECTION OF THE NOTIFYING PRACTITIONER.

The case of Salisbury *v.* Gould, heard in the King's Bench Division on January 20th and 21st before Mr. Justice Grantham and a special jury, is one of considerable importance to the medical profession. A report of the hearing is published in another column. Briefly the allegation was that Dr. Gould had shown negligence in notifying as small-pox a case which, after removal by the sanitary authority, was pronounced to be chicken-pox by the officers of the Metropolitan Asylums Board. The result of the case establishes the important principle that, in the opinion of the judge, the members of the medical profession in the discharge of public duties have protection afforded to them being within the provision of the Public Authorities Protection Act. It was pointed out on behalf of the defendant that every medical practitioner attending on a patient when he became aware that the patient was suffering from an infectious disease was bound to notify to the medical officer of health, and to state what was in his opinion the disease from which the patient suffered. Mr. Justice Grantham said he had no doubt that the case came within the Public Authorities Protection Act, and only allowed it to go to the jury on the ground that matters had gone so far, and that it would be better to take the verdict of the jury so as to save the possibility of another trial hereafter. The jury stopped the case and found a verdict for the defendant, and Mr. Justice Grantham said that the finding of the jury amounted to a finding that the case was a proper one for notification under the circumstances. The result of this action is most satisfactory, and we congratulate Dr. Gould and the Medical Defence Union upon it. No other verdict could possibly have been given, as it was quite clear that from the first the defendant had not only not been in the least degree negligent, but had gone beyond his absolute duty in obtaining an expert opinion from the medical officer of health so as to prevent any possible doubt being cast upon the accuracy of his diagnosis. We need not comment upon the difficulties of diagnosis between some cases of small pox and chicken-pox; these are too well known to our readers, and it will be remembered that the London County Council scheduled chicken pox as a notifiable disease in order to prevent the chance of a possible case of small pox being neglected through error of diagnosis. This case proves once again (if proof be now needed) the absolute necessity of every medical man in active practice insuring against the risk of having personally to defend actions brought against him by impecunious litigants. Dr. Gould, owing to his being a member of the Medical Defence Union, had the advantages of membership brought forcibly home to him. His defence was assumed by the Union, and no expense was spared to ensure a satisfactory result; the relief to him of all anxiety and trouble, and costs can therefore be well appreciated by all.

THE LIFE-INSURANCE ASPECTS OF PHTHISIS.

DR. T. D. LISTER has contributed a thoughtful and suggestive paper on this subject to a recent number of the *Practitioner*. The modern attitude of hope in regard to this disease is bound to influence the way in which life-insurance officers will deal with it. It is inevitable, for instance, that the infectivity of phthisis should be called into the argument by intelligent would-be insurers, who desire to discount the value of a family history of phthisis. It is important to study the age-incidence of phthisis in estimating risks; and the main fact in connexion with this is that almost as many deaths from phthisis occur in the later years of life as in the earlier years, per 1,000 lives at that age. True, the proportion appears to fall off in the last few years of life; but probably this is owing to the fact that tuberculosis in the aged is frequently unrecognized on account of the previous condition of the lungs, as in chronic bronchitis and emphysema. The risk of death from phthisis being fairly constant from 30 to 60 years of age, Dr. Lister employs an ingenious assumption to explain the probably complex constitution of this uniform result. He assumes that it consists of three parts an increasing part, a decreasing part, and a constant part; and considers this possibility in connexion with the customary clinical diagnosis of the three dangers which give rise to tuberculosis—namely, hereditary vulnerability, acquired vulnerability, and the constantly present danger of infection. If the assumption is correct, then it is possible that the total risk is constant "because a certain number of people inherit vulnerability, a certain number acquire it, and the risk of infection is always about the same." The inherited vulnerability tends to die down under favourable conditions; unfavourable circumstances lower the resistance of those who were formerly less vulnerable; while infection is always possible. On this supposition a more accurate weighing of the risk in a proposer's life can be made. If, for instance, he is a draper with a family history of phthisis, the life prospects are clearly worse than if he is a clergyman, and so on. It is to be noted that family infection does not necessarily imply inherited vulnerability. It may mean excessive and cumulative dosage of infection. Conversely, a robust proposer in good circumstances, who has not for a long period lived in the same house as his infected family, may be accepted at a normal rate. In short, a more complete history will need to be obtained of opportunities of infection and of their duration than has hitherto been considered necessary in insuring a proposer who has a phthisical family history. In dealing with true hereditary predisposition resemblance to the parent may furnish some slight guidance. A family history of phthisis when the proposer is under the average weight for height and age is also an important fact. It would appear, therefore, from Dr. Lister's summary that the normal danger to an insurance office arising from phthisis may be regarded as made up of three factors—inherited vulnerability, largely diminished after middle life, that is, decreasing with age; acquired vulnerability, increasing with age; and infection, equally likely, assuming exposure to infection, at all ages. It is necessary in assessing a given life to ascertain as fully as possible the facts under each of these heads.

FEES FOR INSURANCE WORK.

DR. G. A. PHILLIPS, of Walsall, and Dr. L. G. Davies, of Pelsall, have both forwarded to us a copy of communications which they have respectively received from the Law Union and Crown Insurance Company, one of those companies to which reference has recently been made in these columns. In these documents the company, stating the case for the defence, says that it quite recognizes that the services rendered to it by the examining medical officer would be the same whether the insurance were for a large amount or for a small one; it excuses, however, its proposed reduction of fees from one guinea to 10s. 6d. for proposals under and up to £200 upon the ground that a fee of one guinea taken in connexion with other necessary expenses leaves no balance from the first year's premium to cover the risk undertaken. However that may be it does not alter the fact that, owing to the services of the medical man and the work which he does for the company, the latter is put in a position to receive an annual premium for succeeding years.

PRACTICAL METEOROLOGY.

AT the annual general meeting of the Royal Meteorological Society nothing of very general interest was revealed except, perhaps, the fact that out of thirteen members whom the Society lost last year through death, four were upwards of 92 years of age. To those who are fond of *post hoc propter hoc* reasoning this fact may furnish a convenient hook on which to hang the theory that the study of meteorology is conducive to long life. In one sense it certainly may be, for an intelligent anticipation at 9 o'clock in the morning of what the weather is likely to be at 4 o'clock in the afternoon might lead to the avoidance of a good many chills and other discomforts. Meteorology, unfortunately, however, is still so far from being an exact science that we cannot endorse the recommendation made in a speech at the meeting that the study of meteorology should be crammed into the already overcrowded curriculum of the unfortunate latter-day schoolboy. The year 1903 is not yet too far away for any of us to have forgotten what we suffered from the vagaries of the weather, of which, so far as we are aware, meteorologists have not yet supplied us with any consoling explanation. Those, however, who like to see their sufferings depicted in concrete form, and their numerous disappointments with respect to the weather reduced to inches of rain, may be interested by the statistics which Mr. W. W. Wagstaffe has compiled with regard to the weather last year at a place no further from London than Sevenoaks. He says that the year was quite the wettest known within our times, and that the total amount of 41.92 in. was only approached by the year 1852. In January, February, November, December the rain was less than the average; in March, April, and May it was more than it should have been; and in June, July, and August, when the most cautious of us go about without umbrellas quite light-heartedly, the surplusage of rain was enormous. In July, indeed, 6.17 in. of rain fell, an amount little short of that which fell in all the four winter months put together. Altogether it rained 187 days out of the 365, and this in the meteorological sense only, for meteorologists do not consider it a rainy day unless it rains one-hundredth of an inch, a good deal more, it may be noted, than is sufficient to spoil a new hat or soak a summer dress. Two-thirds of the rain seems to have fallen at night. Statements, it may be noted, as to the hour of the day at which the greatest amount of rain may be expected to fall are rather various. Some authorities say the early morning, and some authorities say the afternoon, others daybreak. The fact is, a sufficient number of exact observations on the point are wanting. Besides, however, being the wettest year, 1903 was also the coldest. This must seem particularly absurd to those who remember Professor Haughton's teaching, that the amount of heat set free by the condensation of vapour into a gallon of rain was enough to melt 45 lb. of cast iron. A man of science will of course tell us that the condensation takes place at a distance from the earth of from 200 or 300 yards to 2 or 3 miles, and that therefore the effects of the warmth given out are not invariably felt. That, however, is no consolation. If the meteorologists cannot supply us with dry weather in summer, they ought at least to arrange that the air be reasonably warm.

URGENCY CASES AND NO BEDS.

A GOOD deal of prominence was given by the press last week to a discussion which took place at a meeting of the Southwark guardians. Briefly the circumstances which led to it were that on December 28th, 1903, a man sought relief at Guy's Hospital for stricture, accompanied, it would appear, by retention of urine. The house-surgeon did all that was possible in a "surgery" case, but as there was no bed vacant he was unable to admit the man; consequently he was sent away in a

cab and was taken to St. George's Workhouse. At that place there is no resident medical officer; but the Poor-law medical officer was summoned, saw the patient, and eventually had him removed to the infirmary. The guardians, having had the circumstance reported to them, sent a letter to the superintendent of Guy's Hospital, containing a strongly-worded complaint, and making, it would appear, sundry accusations against the house-surgeon. The medical superintendent of the hospital, in his reply, stated that the House Committee had inquired into the matter and fully exonerated the house-surgeon. There were no beds, and consequently no choice open but to send the case away. A good many foolish remarks were made at the guardians' meeting, such as that patients were only refused admission when their cases were not interesting, and that the hospital, receiving as it did support from the public, ought at all times to provide beds for patients, whether it were full or whether it were not. Finally, it was resolved to send a statement of the case, with details of a number of others said to have occurred, to the Council of King Edward's Hospital Fund. We believe that the practice at Guy's Hospital is to keep two beds vacant, one for a woman the other for a man, and very properly to reserve them absolutely for cases imperatively demanding admission, such as strangulated hernia and the like; also, that in the event of a case presenting itself which appears to require indoor treatment, at a time when there is no ordinary bed vacant, the custom is to hand the patient a recommendation to the relieving officer that he or she should be admitted to the workhouse infirmary. Guy's Hospital, therefore, appears to have paid a considerable amount of attention to the matter. It is, of course, absurd to expect hospitals to provide beds for an unlimited number of patients, and it must inevitably occur that admission must from time to time be refused on account of lack of beds. The system adopted at Guy's is probably as good as any that could be suggested so far as the actual necessities of patients go; but, to protect their own interest, it might be well for all general hospitals to go a step further, and lay down for the guidance of their resident staff some such rule as the following. Whenever a case presents itself which medically is deemed a proper one for immediate admission, but which cannot be admitted on account of lack of beds, it should be sent in a conveyance, accompanied by a representative of the hospital, straight to the nearest infirmary, with a note explaining the circumstances, or to his or her own home in the case of one of those well-to-do persons who occasionally apply to hospitals. Such a course would naturally entail some expense, as well as a good deal of trouble, but it would be well worth while. The rule, moreover, could be extended to those cases in which the desirability of keeping the case under skilled observation is recognized, but the propriety of admitting it doubted for some other reason than that of having absolutely no bed whatever. Young resident officers would thus be relieved of an undue amount of responsibility.

THE HEALTH OF THE COLONY OF NATAL.

The first annual report of the Health Officer of Natal, Dr. Ernest Hill, for the year 1902, states that the average death rate of Europeans throughout the Colony is 14·4 per 1,000, but this and the return of deaths among the native population are unreliable, as there has been no recent census, although it is understood that one will be taken shortly. Further, a number of deaths of Indians and natives are not registered. The first Public Health Act was passed in 1901, and became law in that year, and in the following year the Public Health Department came into existence. But its operations have been hindered by the negligence of the public concerning all matters of sanitation. The laws are sufficient; the by-laws are, in most cases adequate, but advantage is not taken of the former, and the latter are not enforced. Several cottage hospitals have been built, and water supply is being laid on in many villages. Plague, as is well known, existed during the year at Durban; 15 cases occurred in December; and enteric fever has become endemic in certain places where, previous to the war, it was unknown. The mortality is exceptionally low, and Dr. Hill thinks some of the anomalous forms of the disease ought perhaps to be classified separately. The disease is endemic in the towns, and though it is increasingly prevalent among natives in their own kraals, cases usually originate in the towns. Measles, scarlet fever, and beri-beri have occurred in outbreaks in several places, the scarlet fever being comparatively mild and the measles more severe. An inquiry has been instituted into the incidence of leprosy. It seems to be slowly on the increase among the natives. The incidence of disease on members of a family show that it is communicated with difficulty, and probably not directly, but through some intermediary, such, possibly, as community of utensils. The disease is of a mild type, and not nearly so destructive as that occurring in Oriental countries. Close association over an extended period seems to be necessary. Rigid and absolute segregation of all infected houses would theoretically result in an ultimate suppression of the disease, but the long incubation period, and the obscurity of early symptoms, together with administrative difficulties in the way of securing all affected persons, render this impracticable; therefore Dr. Hill thinks that the course most likely to produce satisfactory results would be a modified segregation in selected areas in different parts of the Colony. To meet plague at Durban, a bacteriological laboratory, energetic inspection of ships, and disinfecting apparatuswere established.

IMMUNIZATION AGAINST ANTHRAX.

The New Zealand correspondent of the *Times* has recently sent a description of some experiments upon anthrax bacilli made in the Auckland district, where the disease is prevalent, by Mr. J. A. Gilruth, Pathologist to the Public Health Department. It appears that he has produced some degree of immunity in rabbits by inoculating them with a mixture of anthrax bacilli and certain other organisms which are not pathogenic. The first of these organisms used was "an accidental short bacillus varying from almost a coccus to almost the length of B. typhosus." The *Times* correspondent appears to be under the impression that an important pathological discovery has been made. Whether that is the case or not we cannot say until we have seen more exact scientific details of the work which has been done. We observe, however, that the correspondent exhibits entire ignorance of the fact that the principle of the antagonistic action of bacteria is by no means new. It is, as all bacteriologists are aware, quite ancient history. The antagonistic action of various bacteria upon anthrax has been tested many years ago and by many observers. Bouchard, for example, employed as the antagonistic organism the bacillus pyocyaneus, a method which was criticized as being equivalent to "driving out the devil by means of Beelzebub." Fortunately a like stricture does not seem applicable to the "accidental short bacillus," as we are told that it is innocuous. We only hope that its efficacy will prove proportionate to its innocence.

AN INSANITARY TEMPLE OF HYGEIA.

We remember in a foreign church coming across a table which was covered to the depth of an inch by a veritable dust drift; on this some sarcastic visitor had written with his finger, *Domine dilexi decorem domus tuæ*. Even at home churches do not always illustrate the saying that cleanliness is next to godliness. But one might reasonably expect to find better things in the Temple of Hygeia itself. It is with sorrow, therefore, that we have to record that discoveries made in the buildings in the Rue des Saints-Pères, vacated some time ago by the Paris Academy of Medicine, show that the holy fathers of medical science, while fulminating *urbi et orbi* against transgressions of the sanitary law, had for many years been—we hope unconsciously—providing in their own official dwelling a striking object-lesson of the very evils which they were in the habit of solemnly anathematizing in places on which the sacred light of hygiene had never shone. The sanctuary of the Temple—the room in which the

Council of the Academy used to hold its meetings—was found to be a kind of museum containing specimens of Paris dirt, collected in the course of many years. When the Academy gave up possession it must in a literal sense have shaken the dust of its ancient home off its feet. As a first step in the process of purification the carpet, worn and heavy with the dust of ages, was taken up, when to the wonderment of the beholders, another carpet, still more ragged and grimy, came into view; under this was another, below that again a fourth and so on till some ten layers of mouldering carpet had been removed. The work must have resembled the excavations which reveal several ancient cities lying on the top of each other. Imagination shudders at the thought of the myriad tribes of bacilli, streptococci, and other invisible enemies of the human race which so long found an undisturbed shelter within the four walls where the prophets and leaders of medicine were taking counsel how to compass their destruction. Like the astronomer of the fable, who fell into a ditch while looking at the stars, they laid down laws of health for the world, but took no heed of the nests of disease at their feet. The situation recalls a story of Pasteur, who, after holding a dinner table spellbound by his vivid description of the countless brood of microbes in the midst of which we live and move, and have our being, concluded by swallowing the contents of the bowl in which he had been washing his fingers!

THE SANITARY IMPROVEMENT OF THE GOLD COAST.

Under the auspices of the African Trade Scetion of the Liverpool Chamber of Commerce, Dr. C. S. Patterson, (late medical officer of survey. Gold Coast Government Railways) delivered an address on January 18th on "The Gold Coast Colony and Ashanti in 1903." Sir Alfred Jones, K.C.M.G., who presided, said they were endeavouring in every way they could to improve the British settlements by making them healthier for the British people. The Liverpool School of Tropical Medicine had done a good deal in setting the example to the whole word in that respect, and when history came to be written Liverpool would come out very well as having commenced the effort to make all places healthier. Nevertheless, a great deal remained yet to be done. He wished to acknowledge the very liberal treatment which the Liverpool School of Tropical Medicine had received from Liverpool merchants generally, and particularly the African Section. Dr. C. S. Patterson said that prior to 1901 practically little was done to open up the interior of the Gold Coast Colony, but during the past six months tremendous progress had been made in that direction. There was no reason why any man should suffer from blackwater fever if he lived in proper white quarters, away from the hospital and native children, with properly fitted mosquito curtains tucked in round his mattress before nightfall. A white man in good health at the start should be able to put in eight to ten months without fever. Frequent and long leave was necessary, however, if a skilled man was to be retained for railway, mining, or cotton growing. At Sekondi there was a unique opportunity for making a healthy port on the West Coast if immediate action were taken, but such action was full of difficulties. Those in authority on the spot did not believe in mosquito-born malaria, and any "faddists" amongst the medical officers were at once sent up country. The right man to send out was a medical officer of health with a mind of his own and powers to act. If such a man were sent to the municipality of Sekondi, and in six months he did not reduce the fever cases one-half, his experience would be at variance with every other medical practitioner in the world. The mosquito theory was a fact, and should be properly carried through to a legitimate conclusion.

THE COOKING OF SHELLFISH.

We have received from Mr. J. Wrench Towse some particulars of experiments recently carried out for the Fishmongers' Company in the cooking of the smaller shellfish. It has been clearly shown by Dr. Klein, and unintended experiments on human beings in many towns have even more conclusively proved the same thing, that the usual method of cooking by scalding cannot be trusted to destroy pathogenic micro-organisms, while further cooking in boiling water spoils the shellfish for food. A suggestion was then made by Dr. Klein that cooking by steam might be found to be an efficient sterilizer without spoiling the fish as food. In pursuance of this suggestion, two batches of cockles and mussels were cooked in a steamer, one for ten minutes and one for five minutes. The steamer used was a fixed vessel some 2 ft. deep, into which steam was introduced near the bottom. A layer of cockles was placed at the bottom and two other layers on trays above it. In the top tray mussels were also placed. Some of the shellfish were heaped up, others spread out. So far as edibility was concerned, at the end of ten minutes the mussels were found to be spoiled and the cockles in the upper layers "all right;" those near the bottom of the steamer were overcooked. At the end of five minutes the mussels were "all right," the cockles in the upper layers good, those below overcooked. Dr. Klein found that in every instance the cockles were sterile; the mussels were also sterile except those heaped up on the top layer and steamed for only five minutes. From these experiments Dr. Klein is induced to recommend that if steaming is to be relied on as a means of sterilizing shellfish for food at least five minutes must be recommended. There can be no doubt that if the retailers of cooked shellfish can be induced to substitute steaming for boiling—or rather for scalding—in the cooking of shellfish for sale there will be a distinct gain to public safety. The majority of mussels and cockles, however, which are cooked after being purchased by the general public are not likely to be treated by the same method. Furthermore, both the retail vendor of mussels and cockles and the housewife who has purchased them uncooked will be influenced chiefly by the desire to do nothing to interfere with the palatability or digestibility of the shellfish. This difficulty is likely to stand in the way of the general adoption of a system of sterilization by steam. If, however, the Fishmongers' Company will draw general attention to the necessity of such sterilization they will have done a considerable public service.

MOSQUITOS AND MALARIA: A CHALLENGE.

The formation of an Algerian League for the Prevention of Malaria has moved some ardent unbelievers in the mosquito theory of the origin of that disease to issue a challenge to the promoters of the movement. Dr. Emile Legrain, editor of the *Revue Médicale de l'Afrique du Nord*, and Dr. Alcide Treille, Physician to the Civil Hospital of Constantine, and Professor of the Diseases of Hot Countries, both retired medical officers of the French army, offer themselves as the subjects of experiment. They will submit to be bitten by mosquitos fed on a patient suffering from quartan ague, "the only type of fever on which one can count for an accurate and protracted observation." They undertake to use no preventive treatment beforehand, to take no bark or quinine in any form, and to use no antipyretic therapy. They will, in a word, allow the fever to pursue its course in them uncontrolled, "with all the haematozoa it may please to develop, as long as it may please, and in any manner that it may please." They consider Manson's experiments unscientific and inconclusive, and are anxious that the question may be tested on their persons before a campaign, "as useless as it is likely to be costly," is entered upon in Algeria.

AMERICAN SOCIETY OF TROPICAL MEDICINE.

The American Society of Tropical Medicine, we learn from the New York *Medical Record*, held its first formal meeting in the buildings of the University of Pennsylvania on January 9th. Dr. James Carroll, of the United States army, delivered an address, entitled "The Etiology of Yellow Fever." Dr. Carroll, it may be remembered was a member of the Army Medical Commission sent to Cuba a few years ago to study the causes and the mode

of transmission of yellow fever, and as a result of these investigations it was established that the disease is conveyed solely by the mosquito, *Stegomyia fasciata*. This Commission was composed of Dr. Walter Reed (surgeon U.S.A.), Dr. Jesse W. Lazear, Dr. James Carroll and Dr. Aristides Agramonte (contract surgeon). Of these the last alone was to remain. Dr. Carroll and Dr. Lazear submitted to inoculation and both had attack of yellow fever, to which, unhappily, Dr. Lazear succumbed. It was definitely determined that the bacillus icteroides of Sanarelli has no etiological relation to yellow fever, being merely a variety of the hog cholera bacillus. In like manner, the micro-organism found by Finlay is an accidental and indifferent parasite. It was demonstrated that the disease is not conveyed by fomites, the only demonstrable medium of communication being the *Stegomyia* that has sucked the blood of an infected person within the first few days of the disease, though only after an interval of twelve days, and from that time so long as the mosquito may live. The period of incubation in man is about twelve days. The disease may be transmitted by means of the blood of infected persons directly, even after passage through a porcelain filter, but if the blood be heated to 55° C. it loses its infectivity. The evidence seemed to show that the blood serum of convalescents from the disease has both prophylactic and curative value. As a result of the work of the Commission, of which Dr. Carroll was a member, yellow fever has been practically exterminated in Cuba. The part played by the mosquito in the transmission of the disease had been previously suggested by others, but it remained for the Commission to furnish the conclusive demonstration of the fact. The identity of the hypothetical micro-organism has yet to be established. The officers of the American Society of Tropical Medicine are as follows: President, Dr. Thomas H. Fenton; Vice Presidents, Drs. James C. Wilson and James M. Anders; Secretary, Dr. Jos. McFarland; Treasurer, Dr. E. Baldwin Gleason.

ST. BARTHOLOMEW'S HOSPITAL.

As will be seen from a report published on p. 273, the much-discussed St. Bartholomew's appeal was launched last Tuesday. The meeting, which was held in the large Egyptian Hall of the Mansion House, was very largely attended. The authorities have determined to carry out the plan of rebuilding on the present enlarged site, and now that the appeal in support of it is formally and finally launched it is to be hoped that all opposition to it will be allowed to drop, and that the appeal may meet with a generous response. The recognition generally accorded to the great importance of facilities for medical education and of the schools attached to the great general hospitals marks decided progress. For the rest, we hope to have no further occasion to refer to the question of St. Bartholomew's Hospital until some date—not, we hope, too far off—when we can announce that the appeal being fully met no longer requires support. The sooner this comes the better, not for St. Bartholomew's alone, but for all hospitals in London.

JOINT CLINICAL MEETING OF SCOTTISH BRANCHES.

The annual clinical meeting of the Edinburgh Branch of the British Medical Association, in conjunction with other Scottish Branches, will be held at the Royal Infirmary, Edinburgh on February 12th, at 3 p.m. The pathological museum and the new pavilions will be visited, and in addition to the exhibition of clinical cases, demonstrations of x rays, radium, and high frequency currents will be given. A dinner will take place at the North British Station Hotel at 6.30 p.m.

Dr. D. C. Lloyd Owen, Consulting Surgeon to the Birmingham and Midland Eye Hospital, and Honorary Ophthalmic Surgeon to the General Hospital, Birmingham, has resigned his membership of the Spectacle Makers' Company in consequence of the action of the company in instituting an examination and issuing a certificate in sight testing, an action of which Dr. Lloyd Owen entirely disapproves.

Scotland.

University of Edinburgh.

Lord Rector's Address.

The Lord Rector of Edinburgh University, the Right Hon. Sir Robert B. Finlay, K.C., M.P., LL.D., Attorney-General for England, gave his rectorial address on January 21st, in the M'Ewan Hall, when the Chancellor of the University (the Right Hon. A. J. Balfour) was in the chair. The subject of the address was international arbitration. The proceedings were marred by the behaviour of a section of the students. To such an extent was this carried that very few of the audience heard anything of the address. At the close of the address two students, clad in dirty fancy women's costume, walked up the central passage to the rostrum, and presented to the Chancellor and Lord Rector two little black dolls. The Senior President of the Students' Representative Council, who was to have proposed, and the President of the Union who was to have seconded, a vote of thanks was unable to get a hearing. The Students' Representative Council held a special meeting on January 29th to consider the matter. Resolutions were passed expressing regret at the uproar, the disgraceful treatment of the distinguished guests, the insulting incident at the close of the address, making various suggestions for future Rectorial addresses, and finally calling on one of the members of the Council to resign on account of his unseemly conduct towards the Lord Rector. The resignation of the student in question has been received. A letter was submitted from the Principal and Deans Committee calling the attention of the Council to the conduct of a section of the students at the Rector's meeting, and asking for a public disclaimer of sympathy with conduct so disgraceful.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Variation, in its Relation to the Origin of Insanity and the Allied Neuroses.

The first of the present course of Morison lectures was delivered on Monday afternoon, January 25th, before the Royal College of Physicians, Edinburgh, by Dr. John Macpherson, one of the Commissioners in Lunacy for Scotland. The subject of the course is Variation in its Relation to the Origin of Insanity and the Allied Neuroses. The first lecture was almost entirely devoted to a consideration of the laws of heredity, the extent of variation in Nature, and to the phenomena of genetic selection, regression, correlation, and the normal distribution of mental characters. On the subject of heredity the lecturer argued in favour of the view that descent is not through the parental body, but through the sexual cells. From the idea that the body of the parent is in some way remodelled into that of the child a host of errors has arisen, which has resulted in confusion of thought on this subject. He pointed out that the recent researches of Beard, especially those which demonstrate the existence of a larval stage in the embryology of the vertebrates, have confirmed in a remarkable manner the more theoretical assumption of Weismann that descent is through the germ cells alone, and also the theory of the immortality of the germ plasm. By means of the use of the normal curve of probability, the lecturer showed the normal distribution of physical characters in plants and animals, and the distribution of stature in man, also the fixed necessity which exists for the largest number and the most normal members of a race to group themselves around the mode or mean, and the consequent paucity of the individuals who occupy either extremity of the curve. The paucity of the more exceptional members of a race was accounted for by the laws of regression and genetic selection.

Following the lines of Professor Karl Pearson's methods it was next shown that there were sufficient proofs, numerical and otherwise, for asserting that psychical characters were transmitted in precisely the same manner as were physical characters, and that they obeyed the same laws of distribution. On this basis tables and curves were exhibited with the object of demonstrating the distribution of mental ability among 107,740 Glasgow school children of whom, last year, 235 were returned as mentally defective. Commencing with the latter figure, it was estimated that 1,745 were very dull intellectually, 5,300 slow dull, 13,985 slow, 32,430 slow but intelligent, 37,921 intelligent, and 15,940 quick intelligent. The mean mental ability of the population would on this assumption lie between "slow intelligent" and

"intelligent." Further, if the curve represented at all nearly the normal distribution of mental ability among these children, there must be between 200 and 300 children who were quite exceptional in their mental ability. A similar process was applied to the population of Scotland based upon the amount of mental defect in the last census returns. Although, it was pointed out, these figures were greatly underestimated, they helped to show the method of distribution of any abnormal character in a population, its decrease in intensity as the mean was approached, and its increase in intensity but decrease in frequency the greater its distance from the mean. In the next lecture the distribution and causes of congenital mental defect will be taken up.

PROPOSED COMMEMORATION DAY AT GLASGOW UNIVERSITY.

A proposal has been for some time under the consideration of the authorities of Glasgow University to have a commemoration day, similar to those held in the English universities, a ceremony which would help to keep alive the interest of former graduates in the affairs of the University. The idea has now taken definite form, and it is intended that the meeting should take place in June, and that one feature might be the delivery of an oration on some distinguished graduate of the University or another subject of special interest. The proceedings would probably extend over two days, the first being set apart for the oration, and the second for a banquet in the Bute Hall. We understand that Sir William Ramsay, of University College, has undertaken to deliver an address on the life and work of Professor Joseph Black, the distinguished chemist, who held the Chair of Chemistry in Glasgow University from 1756 to 1766, and who during that period evolved the theory of latent heat on which his scientific fame chiefly rests.

SMALL-POX.

On January 25th the number of cases of small-pox in Glasgow Fever Hospital was 228, and in the surrounding burghs cases continue to make their appearance. Fortunately the majority of the cases are mild, and this is shown by the fact that while there have already been 482 cases in the city, the deaths have so far only numbered 35. The cases reported in Scotland during the first fortnight of the year numbered 190 and were distributed as follows:

County of Ayr	2	cases
County of Dunbarton	3	,,
County of Edinburgh	11	,,
County of Elgin	1	,,
County of Fife	1	,,
County of Lanark—Lower Ward	2	,,
Middle Ward	7	,,
Upper Ward		
Burgh of Airdrie	1	,,
,, Coatbridge	2	,,
,, Glasgow	120	,,
,, Govan	35	,,
,, Hamilton	3	,,
,, Kinning Park	2	,,
,, Motherwell	1	,,
,, Partick	4	,,
County of Peebles	1	,,
County of Perth	3	,,
County of Renfrew	11	,,
County of Stirling	1	,,

Thirteen fresh cases were reported in Edinburgh in the week ending mid-day, January 23rd. Since then up to Tuesday evening 3 further cases had occurred. A third death has occurred, that of a labourer removed about eight days ago from the Guthrie Street lodging-house. There remain 27 cases in the temporary small-pox hospital at Colinton Mains.

Ireland.

DEATH OF THE PROVOST OF TRINITY COLLEGE, DUBLIN.

THE graduates of Dublin University everywhere will have learnt with sorrow that the distinguished man who since 1888 presided over the fortunes of Trinity College, Dublin, as its Provost, is dead. Although the Rev. Dr. Salmon was not a member of our profession, he was associated with it as an educationalist, and he had a large share in the development of the medical school which has attracted to it so many pupils and has maintained its eminence as a place of instruction. For two generations Dr. Salmon had been a prominent figure in Trinity, but long before that he had given evidence of the high intellectual qualities which in the years to come were to make him a great power in the world of science and his name familiar to thinkers everywhere. Born so far back as 1819, he became scholar in 1837, in a brilliant year. Two years later he was first gold medallist in mathematics, and in 1841 he gained a Fellowship in open competition. Entering the Divinity school he was in due course ordained, but while he soon became prominent as a theologian, his post-graduate work was pre-eminent in the subject of mathematics. He published his famous treatise on *Conic Sections*, followed by the *Geometry of Three Dimensions*, the *Higher Plane Curves*, and the *Modern Higher Algebra*. In 1863 he was elected a Fellow of the Royal Society; and was awarded the Gold and Copley Medals by that body. He was also awarded the honorary degrees of D.C.L.Oxford, LL.D.Cambridge, the Fellowship of the Royal Society of Edinburgh, and was elected a corresponding member of the Institute of France, and of the Royal Academies of Science of Göttingen, Berlin, and Copenhagen. In 1878 he was President of the Mathematical Section of the British Association at its meeting in Dublin, and when in 1892 Trinity celebrated its tercentenary the Corporation conferred upon him the freedom of the city. But his genius showed itself in other fields also. His position as a theologian was early recognized, and he was selected to fill the position of Regius Professor of Divinity in 1866. Thereafter there came from his pen the famous *Historical Introduction to the Study of the New Testament*, and volumes of sermons in which he dealt with many great problems, attracting the reader by the clearness, simplicity, and force of his writing, and making for many the rough places smooth. In one of these, "On Pain and Disease," he said:

> Nothing impresses me more with a sense of the goodness of the Creator than to observe how the very pains and sorrows of life seem unable to resist the universal tendency to turn themselves into sources of happiness. What could seem more destructive of happiness than sickness? A strong man delighting in the vigorous exercise of his faculties is suddenly reduced to helplessness; he is not only rendered incapable of carrying on his ordinary work, but he becomes dependent on others for common services, and has the distress of feeling that he is not only useless, but is a cause of trouble and anxiety to those about him: pain is added it may be life imperilled, and yet any of you who have known it can tell whether that has been a time of unmixed misery. Far from it, I have no doubt you will say. The causes of pain bring into operation reacting causes of happiness, and these far more powerful. What bodily pain can be set against the happiness of loving and being loved? and seldom is that happiness felt so keenly as when, on the one hand, love is called on to show how it delights in sacrifice, and, on the other hand, that love is appreciated and returned as it never might have been but for those tender ministrations which soothe the hours of Nature's weakness.

As the head of the great college to which he belonged he ruled with great sagacity and strength. His simplicity and geniality made him a favourite with all classes. He had a playful wit, and many good stories will serve to keep in mind the lighter side of the Provost's life. He was indeed a great Irishman in the best sense, and the country of which he was so proud truly mourns to-day for a loss that seems to be almost irreparable.

THE MIDWIVES ACT, 1902, AND IRISH TRAINING INSTITUTIONS.

At a meeting of the medical staff of the Incorporated Belfast Maternity Hospital on January 19th, 1904, the following resolution was unanimously passed:

> That the Central Midwives Board be requested to so alter their rules that any woman attending "The Incorporated Belfast Maternity Hospital" shall be deemed to have complied with their regulations in reference to the training of hospital midwives, and shall be eligible to present herself for the examination of the Central Midwives Board.

Professor Byers was requested to forward this resolution to Dr. Champneys, Chairman of the Central Midwives Board. The Incorporated Belfast Maternity Hospital finds itself in exactly the same position as the Rotunda, the Coombe, and the National Lying-in Hospital, Dublin.[1] So far as two of the principal requirements of the Central Midwives Board, namely, those in reference to the training of candidates—that they must have attended and watched the progress of not fewer than twenty labours, and have nursed twenty lying-in women during the ten days following labour—patients leave the Belfast Hospital on the eighth or ninth day (as in the Dublin hospitals) after delivery, and it would be as impossible in the Lying-in Hospital in Belfast as in those in Dublin to allow each nurse to have twenty cases for personal conduction. While anxious that the training of the midwives of the future should be thorough, practical, and based on personal experience, those connected with the Belfast Hospital believe that a hard-and-fast rule may in the end not conduce to what is desired. In the Incorporated Belfast

[1] BRITISH MEDICAL JOURNAL, January 23rd, 1904, p. 206.

Maternity Hospital, where last year in the intern and extern departments 563 deliveries took place, and where the nurses' training extends over six months, with theoretical teaching and a final examination, it is contended that the practical experience gained there would be quite as good as if the nurses had fulfilled to the letter of our law the regulations of the Central Midwives Board. It is therefore hoped that to meet the case of the Irish maternity hospitals the Central Midwives Board will make a change in its demands as to the certificates required from those nurses trained in Ireland who may wish to be admitted to the examination so as to work in England. It is also hoped the Midwives Act will be made to extend eventually to Ireland.

Proposed Belfast Workhouse Sanatorium for Consumptives.

Local Opposition.

A large and influential meeting of the inhabitants of the Whiteabbey district was held on January 16th in the Courthouse, to protest against the establishment of a consumptive sanatorium by the Belfast Board of Guardians in the district.

The objections raised were that the site was much too low-lying, the highest points being only 140 ft.; that the ground was an un trainable, heavy, wet clay; that the grounds were much too small, only 33 acres for 250 patients; that it was in close proximity to the village of Whiteabbey, and to the smoke from the railway and to two not very distant mills; and that it was exposed to north and east winds, and afforded little view.

Resolutions to oppose the scheme to the utmost were passed.

Local Government Board Inquiry.

The Local Government Board inquiry was resumed before Mr. Robert Agnew and Dr. E. Coey Bigger, inspectors in the workhouse board room, on January 18th and 20th.

Dr. R. J. Purdon, physician to the Foster Green Consumptive Hospital, said that he had examined the place; the air was pure and bracing and free from any deleterious gases; the railway cutting on the one side and the stream on the other would contribute materially to the efficient drainage of the ground. There was good shelter from the northern and eastern winds; the view was varied, extensive, and beautiful; the country around was sparsely populated; the subsoil was a light pliable gravelly clay; although it was a wet day, he had found little water in the borings; he considered the mansion eminently suitable for the purpose intended. The witness was cross-examined at considerable length, as to the borings, as to a specimen of clay produced, as to whether he had ever sent patients to the district, as to why the Foster Green Hospital had gone to the opposite quarter of the town in the Castlereagh Hills, and as to the number of patients the proposed site should accommodate.

Dr. Moore, of the Royal City of Dublin Hospital, said that he had visited Abbeylands and believed it was not suitable for a sanatorium; it was too near the railway line; it had a road on each side, there were fields on which the grass was rank and had rushes growing in them; it was a very short way to the sea, and there was a large foreshore which would act like a marsh; there was an increasing population; the house was not suitable; there was little protection; even if the soil could be drained, the damp from the adjacent fields would be deleterious. The house was not an acquisition. Alterations would cost more than to build a new hospital; he strongly disapproved of 255 patients being penned in a space of three-quarters of an acre, surrounded by buildings.

Dr. McLeish, one of the visiting medical officers of the infirmary, said that the union was much overcrowded, and there was no room for extension. He thought the proposed site excellent. The paths were dry, even after heavy rain; he did not think a town of 2,000 inhabitants at a distance of a quarter of a mile would affect the patients; the sanatorium would not have the least evil effect on the neighbourhood generally.

Dr. H. L. McKisack, Physician to the Royal Victoria Hospital, said that he had examined the site. He saw rushes on the lawn; when he stepped from the elevated avenue to the ground below he found he was walking on surface water; he made some excavations, and found a retentive clay below 6 in. or 10 in. of dark loam; in the field beyond the tennis-court there were a great many rushes. Having regard to the soil, he was of opinion that the site was most unsuitable and unhealthy for consumptives; no portion of the ground would be suitable for huts; it would be an advantage to have the sanatorium more elevated; he believed there were a great many parts of the surrounding country more suited to the purpose. He would prefer a site as far removed from a village as possible; he thought the air at the Abbey was damp.

Several architects and civil engineers, guardians, and residents were also examined both for and against the proposed site; their evidence was very contradictory. There is a general feeling in support of the guardians' effort to procure a sanatorium, but perhaps more than a doubt whether they have chosen the best place.

Small-Pox in Belfast.

At the meeting of the Health Committee on January 21st, the Medical Superintendent Officer of Health referred to the steps taken to deal with the cases of small pox, and drew attention to the apparent indifference of the people as to the necessity for revaccination. Over 20 cases of small-pox had been discovered. Authority was given by the Committee to supply the principal of every school in the city with a copy of Section cxlvi of the Public Health Act (Ireland) 1878, showing the penalty for sending children to school from a house where a dangerously infectious disease was being, or had lately been, treated. The clause is as follows:

"Any person who shall knowingly or negligently send a child to school who, within the space of three months, has been suffering from any dangerous infectious disorder, or who has been resident in any house in which such dangerous infectious disorder shall have existed within the space of six weeks, without a certificate from some duly qualified medical practitioner that such child is free from disease and infection, and unless his or her clothes have been properly disinfected, shall be liable to a penalty not exceeding forty shillings.

The Sweets of Dispensary Practice.

A man named Lennon, of Moira, co. Down, wrote to the Local Government Board stating that a fever epidemic had broken out in the family of a shopkeeper and milkseller in the village; and although the patients had been attended by Dr. Brownrigg, J.P., Medical Officer of the Moira Dispensary District, the shop was kept open for the sale of groceries and milk; that consequently his sister caught the contagion and subsequently died. The writer added: "I am only a poor labouring man and a Roman Catholic, and I suppose I was not considered of any consequence." Dr. Brownrigg, in reply to the charge, proved that the milk trade and grocery had been promptly stopped by his direction, and all communication with the affected house cut off; that Mary Ann Lennon had been smitten with the disease before the shopkeeper's family had sickened; and that he had notified the Local Government Board and the Council when the outbreak took place, and repeated disinfection had been carried out. In answer to the insinuation touching Lennon's religion, Dr. Brownrigg enclosed a letter from the parish priest of Maralin, saying, "I am happy to bear testimony to your invariable kindness and liberality to all my people." Such a charge in a district where sectarian strife might easily be aroused might have had most serious consequences, and it was fortunate that the circumstances were such that it could be so completely refuted. Dr. Brownrigg is to be congratulated on the issue.

Richmond Lunatic Asylum.

At the last meeting of the Board of this asylum, the report of the finance committee on the estimates for the ensuing year, was submitted. The sum of £99,120 will be required to meet all charges, including the new asylum at Portrane, near Dublin. This also provides for an estimated increase of 150 patients during the next twelve months. The alarming statement is made that since 1804, the number of lunatics to be provided for in the asylums of the Dublin district has increased by 1,000. The committee bear testimony to the admirable management of Dr. Conolly Norman, the superintendent.

An Insanitary Infirmary.

At a recent meeting of the Board of Guardians Dr. T. H. Moorhead made strong representations as to the insanitary state of the Cootehill Infirmary, co. Cavan, not for the first time. He was unfortunately able to support it by showing that, despite the most stringent antiseptic precautions invariably taken by himself and all his assistants at operations, an epidemic of blood poisoning had occurred. One man operated on for cancer of the lip developed erysipelas two days later and died, whilst of two women operated on on one day one developed septic pneumonia and the other hospital gangrene. Cases of septic sore throat had also occurred. He demanded that the reforms, which he had long advocated, should be taken in hand at once as a matter of urgency.

THE SIGNIFICANCE OF THE ZOOLOGICAL DISTRIBUTION, THE NATURE OF THE MITOSES, AND THE TRANSMISSIBILITY OF CANCER.[1]

BY

E. F. BASHFORD, M.D., and J. A. MURRAY, M.B., B.Sc.
(Laboratories of the Cancer Research Fund.)

THE object of this communication is to relate some results of the work conducted under the immediate direction of the Executive Committee of the Cancer Research Fund during the past year. We believe that these results will convince others of the important practical assistance which biologists generally can give in the further elucidation of certain problems of cancer which must be settled before scientific preventive and curative measures can be devised. It will also be made evident that the elucidation of cancer is something more than a problem of human pathology only.

We shall adduce evidence tending to show that the wide zoological distribution and the character of the mitoses, and the transmissibility of cancer, are nearly-related phenomena with a common basis.

The fundamental significance of ascertaining the extent of the zoological distribution of cancer was recognized by the Cancer Research Fund from the first, and determined the prosecution of definite lines of inquiry with all the means at the disposal of the organization, not only with the object of eliciting new facts in regard to the zoological distribution itself, but also with the object of discovering cancer in animals well adapted to cytological and experimental observations.

Zoological Distribution.

Within the past year specimens of malignant new growths have accumulated from all the domesticated animals and from many other vertebrates. The appended list shows the abundance of the material which has thus been examined. The list includes also specimens which we have been privileged to examine through the courtesy of investigators abroad, who, subsequently to the inauguration of the Cancer Research Fund, have published descriptions of malignant tumours in the lower vertebrates. It is noteworthy that such growths have been obtained, not only in domestic animals, but also in animals living in a state of nature—wild mouse, codfish, gurnard.

The clinical, pathological, anatomical, and microscopical characters of these new growths are identical with those found in man in all essential features, although the animals themselves are drawn from the different classes of the vertebrate phylum. A detailed histological description of the various tumours examined will not be attempted here. Only the general significance of the observations in relation to the incidence of cancer in man will be emphasized.

The great diversity of the habitat, food, and conditions of life generally of the forms in which malignant new growths occur relegates such external conditions to a subsidiary rôle in determining the incidence of the disease, and shows that the essential factors must be sought in the potentialities which reside in the cells constituting the living body.

The list of specimens, while giving no safe basis of deduction as to the relative incidence of cancer in the different classes of vertebrates, or of the comparative susceptibility of the different sites of the body, is extremely suggestive.

The large number of epitheliomata obtained in the horse and dog indicates very clearly that malignant new growths are recognized according to the ease with which animals can be examined, and the length of time they are kept under observation. The larger ratio of malignant new growths occurring in the internal organs of cows have been discovered during meat inspection at abattoirs, and form a welcome corollary to the other observations.

Stated generally, it may be said that malignant new growths are frequent according as animals are carefully examined, and are unrecorded in forms which are difficult to examine or do not reach old age in considerable numbers.

The figures are not sufficiently extensive to determine accurately the age incidence of the various types of new growths in different animals, but a relatively higher incidence in old age is apparent.

[1] Communicated to the Royal Society by Professor J. Rose Bradford, F.R.S. Received January 12th, read January 21st.

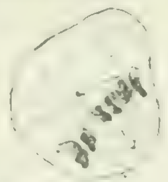
List of Specimens of Malignant New Growths examined by the Cancer Research Fund during the year 1903.

Animal.	Age.	Primary Site.	Microscopic Character
Cow ...	Aged	Orbit	Carcinoma, large polygonal cells.
,,	,,	Rumen	Carcinoma, spheroidal cell.
,,	,,	,,	,, squamous cell.
,,	,,	,,	,, ,, ,,
,,	,,	Liver	,, cubical cell.
,,	,,	,,	,, ,, ,,
,,	,,	(?) Pleura (secondary)	,, squamous cell.
,,	,,	(?) Gastric gland (secondary)	,, ,, ,,
Heifer .	1	Perineum	Melanotic sarcoma.
Cow ...	Aged	Ovary	Sarcoma.
,,		Suprarenal	,,
,,	Aged	Ovary	Carcinoma.
,,		Jaw	Osteo-sarcoma.
,,		Adrenal	Sarcoma.
,,	Aged	Liver	Carcinoma, cubical cell.
,,		Bowel	Sarcoma, spindle cell.
,, ...	—	Neck	,, ,, ,,
,, ...	Aged	Face and neck	Carcinoma, squamous cell.
Heifer	2	Side of thigh	Melanotic sarcoma.
Dog	14	Mammae	Carcinoma (scirrhus).
,, ...	10-11	Upper lip	Epithelioma.
,, ...	—	Testis	Sarcoma, mixed cell.
,, ...	—	Upper lip	Fibro-sarcoma.
,, ...	10-11	,,	Carcinoma, squamous cell.
,, ...		Abdominal gland	Sarcoma, round cell.
,, ...	—	Sympathetic glands	Fibro-sarcoma.
,, ...	10	Liver	Carcinoma, columnar cell.
,, ...		Mouth	,, squamous cell.
,, ...		Anus	,, ,, ,,
,, ...	12 ½	Leg(subcutaneous	Sarcoma, round cell.
,, ...	—	Superior maxillary, orbit, gland lower jaw	,, spindle cell.
,, ...	10	Anal tumour	Carcinoma (sebaceous adenoma).
,, ...	11	Spleen, liver, stomach	Sarcoma, spindle cell.
,, ..	12	Leg	,, small round cell.
,,	10	Palate, cervical gland	Carcinoma, squamous cell.
,, .. .		Mammae	Osteo-sarcoma.
,, ...	10 12	Axilla	Carcinoma, squamous cell.
Horse, gelding	10	Penis	Epithelioma
,, ,,	7	,,	Carcinoma, squamous cell.
,, stallion	15	,,	,, ,, ,,
Mare	10	Vulva	,, ,, ,,
Horse ...	Aged	Lung	,, columnar cell
,,	10	Penis	,, squamous cell.
Mare . .	14	Vaginal growth	,, ,, ,,
Horse ...	-	Parotid	Medullary carcinoma.
Sheep	2	Mandible	Osteo-sarcoma.
,, ...		Liver	Carcinoma, cubical cell.
Pig ...	-	Submaxillary glands	Sarcoma, mixed cell.
White mouse		Inguinal mammae	Adeno-carcinoma (localized keratinization).
Yellow mouse		Axillary tumour	Adeno-carcinoma
Wild mouse		Mammary glands	Carcinoma, spheroidal cell.
Mouse (Jensen) .		Leg(subcutaneous	Epithelioma
,, (Borrel) .	--	Axilla ,,	Adeno-carcinoma.
,, ,, .	—	Groin ,,	,,
,, ,, .	-	,, ,,	,,
,, ,, .		Jaw ,,	Epithelioma.
Mouse (Pick) ..		Back ,,	Adeno-carcinoma (sweat glands).
Cat	10	Tongue	Carcinoma, squamous cell.
Hen (Pick)		Floor of mouth	Squamous cell epithelioma.
Indian parakeet ..		Pectoral muscle	Myxo sarcoma.
Giant salamander (Pick)	—	Testis	Cystic adenoma, malignant.
Cod		Air bladder	Sarcoma, spindle cell.
Gurnard ...	—	Abdominal tumour	Adenoma, malignant.
Trout (Gilruth)		Floor of mouth	Carcinoma, columnar cell.
,, (Plehn)	—	,, ,,	,, ,, ,,
,, ,, ..		,, ,,	,, ,, ,,

The Phenomena of Cell-division in Malignant New Growths.

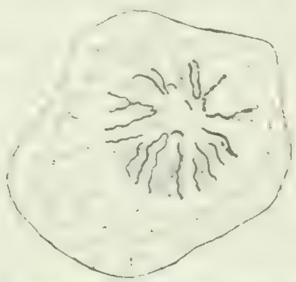
The progressive increase in size of malignant tumours is due to the division and increase in size of their constituent cells. The process of cell-division is usually indirect, mitotic division of the nuclei preceding the division of the protoplasm. The protoplasm division is frequently omitted, and multinucleated cells are formed, and these may subsequently enter on mitosis, giving rise to pluripolar figures. Amitosis or direct nuclear division also occurs, but its full significance has not yet been determined. It is, however, evident that the occurrence of amitosis does not signify degeneration. The amount of chromatin entering into the equatorial plate of the mitoses of malignant new growths has long been recognized as subject to variation (hyperchromatosis, hypochroma-

tosis of von Hansemann, 1893), but a new light has been thrown on this phenomenon by a paper communicated to the Royal Society on December 10th, 1903, by J. B. Farmer, F.R.S., J. E. S. Moore, F.L.S., and C. E. Walker, entitled Resemblances Exhibited between the Cells of Malignant Growths in Man and those of Normal Reproductive Tissues.



Homotype mitosis seen from side. The chromosomes are in reduced number, but present the same character as in the somatic mitosis.

These observers found that while the growing margin of carcinomata and sarcomata presented mitoses similar to those found in other tissues in repair and inflammation, certain cells in the deeper layers, after a slight increase in size, entered on mitosis with ring chromosomes similar to those found in the heterotype division of spore-mother cells of plants and spermatocytes of animals, and like these, in

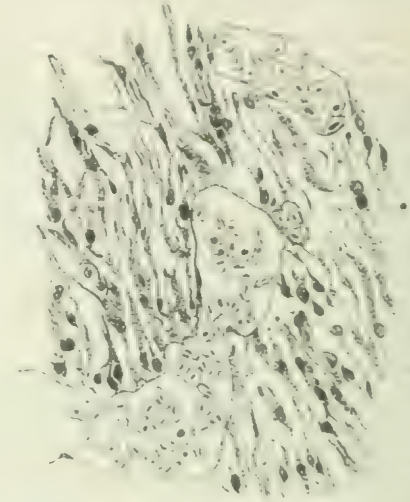


Somatic mitosis in cell of parenchyma (columnar cell carcinoma in trout). Somatic equatorial plate in margin of tumour seen from the pole; slender V shaped chromosomes arranged transversely on spindle, and showing longitudinal splitting.

number only half that characteristic of the mitoses of somatic cells. Mitoses similar in character to the somatic divisions, but with reduced number of chromosomes, were also seen (homotype), corresponding to the divisions in the sexual generation of plants and the second ripening divisions of animals. From these observations the authors concluded that malignant new growths were virtually reproductive tissue arising in abnormal situations and possessed of an independence and power of growth like that of the testis in the mammalian body.

[illegible] cell carcinoma [illegible] chromosomes in reduced number [illegible]

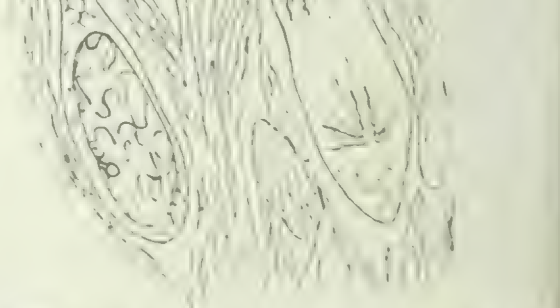
This striking sequence of characteristic mitoses had been found in all [illegible] examined, and was absent in those of benign character. We at once determined to communicate with the authors, who with great courtesy afforded us an early opportunity to examine their preparations. It was then decided to determine how far similar phenomena were characteristic of the malignant new growths occurring in animals. The result has been a complete confirmation of the observations of Farmer, Moore, and Walker in tumours from the trout (Mr. [illegible] and Miss Plehn's cases of adeno-carcinoma), the mouse (two cases of adeno carcinoma, Jensen's epithelioma), and the dog (mixed cell sarcoma, round cell sarcoma, squamous cell carcinoma). In the columnar cell carcinoma of the trout the phenomena were especially distinct, the small number of chromosomes (24, 12), the striking contrast between the long slender chromosomes of the somatic mitoses, and the rings of the heterotype division, being of diagrammatic clearness. Homotype mitoses occurred,



Spindle cell sarcoma in codfish (high power).

but were few in number. Mitoses in the stroma are relatively scanty in the tumours at our disposal, but such as have been seen are somatic in character. Farmer, Moore, and Walker record a similar result. In the mouse it has been possible to compare the mitoses in the testis, and those occurring in the irritation produced by iodine, with the result that the significance of the mitoses in cancer has been further confirmed.

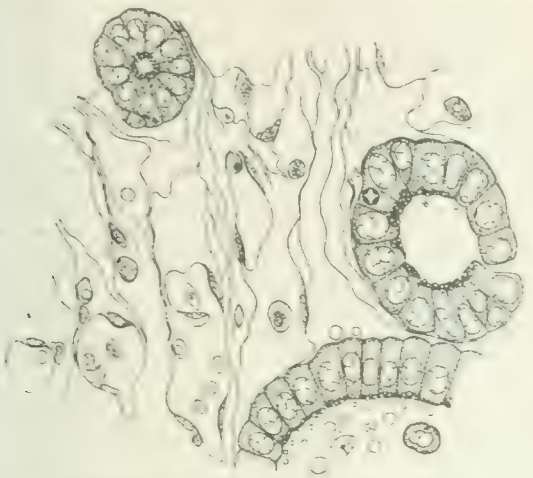
The following points are of great importance in these observations: A complicated sequence of cell changes has been found to be characteristic of carcinoma and sarcoma alike. This sequence is the same as that which initiates the origin of the sexual generation in plants from the asexual, and is terminal in the history of the sexual cells in animals. It



[illegible] stroma mito[illegible] slender V shaped [illegible]

[illegible] always been [illegible] [illegible] has been [illegible]

must be noted, also, that all the cells of the malignant new growths do not undergo the reducing division; a certain number differentiate in the direction of the tissue among which they have arisen, and in the secondary growths when present, somatic mitoses occur in the growing margin, which it will subsequently be shown is also a feature in the growth of cancer when transferred to a new host.



Malignant adenoma in gumard (high power

The Transmissibility of Malignant New Growths from One Animal to Another.

The transmission of cancer from man to animals or from one animal to another of different species has never been successfully performed. Successful transplantation experiments have been made, however, from animals suffering from malignant new growths to others of the same species. The most exhaustive observations in this connexion have been made by Jensen and Borrel on mice. Professor C. O. Jensen, of Copenhagen, most generously placed at the disposal of the Cancer Research Fund a portion of one of his experimental tumours,[3] and with this and another tumour occurring naturally in a tame mouse similar experiments have been performed. We have thus been able to confirm Jensen's observations by microscopical examination of the tissues at the site of inoculation at short intervals, and have found that the new tumours which develop arise from the actual cells introduced. While many of these degenerate, a few remain of normal appearance, and these gradually increase in number. In the earliest transplantations mitotic division is absent, and it is not till later, when a considerable mass has arisen, that mitoses appear. The earliest mitoses we have been able to observe have been of the somatic type.

Transplantation is, in fact, identical with the process of metastasis as it occurs in the individual providing the tumour. It is remarkable, however, that the tumour of Jensen's experiments does not produce metastases naturally, and its malignancy is only evidenced by its progressive growth and the undifferentiated character of the cells. The process is in no sense an infection, the tissues of the new host not participating in the formation of the new parenchyma. In this interpretation we are in agreement with Jensen and differ from Borrel, who conceives the results to be due to the agency of a *virus cancéreuse*.

The origin of the stroma has not been accurately determined. The power of growth of this tumour is remarkable. In every mouse in which the transplantation succeeds, the new growth may attain a weight equal to that of the animal itself, and over 400 such transmissions have been effected by Jensen in Copenhagen and the Cancer Research Fund in London. A mass of tumour, 16 lb. in weight, has thus actually arisen from the original one, and that without participation of the cells of the various hosts and without manifest change in structure. This great power of growth is a phenomenon unparalleled in the mammalia, and indicates the potentialities in cases in which widespread dissemination has occurred before death in a human patient.

[3] Sent by post under such precautions as to preserve sterility. The transplantations were effected by the Cancer Research Fund five days after the tumour was posted in Copenhagen.

The experimental transmission of carcinoma shows that we must distinguish between the problem of the genesis of a malignant new growth and that of the conditions which permit of its continued existence. While the conditions leading to the initiation of malignant tumours are relatively infrequent, we have examined upwards of 1,000 tame mice, and have discovered two with cancer; once begun, this proliferative activity can persist, given favourable conditions, for a long time unaltered, and can give rise to masses of tissue of great size, having no relation to the restrictions which limit the growth of adult organisms in a large proportion of healthy animals.

The phenomena of cell division, indicating a similarity to the normal reproductive tissues, may help to explain the nature of this great power of multiplication, but leave the problem of cancer genesis practically untouched. They give, however, important indications of the character of the processes on whose elucidation the solution of the question depends. The wide zoological distribution of malignant new growths its limits are not yet determined indicates that the cause of cancer is to be sought in a disturbance of those phenomena of reproduction and cell-life which are common to the forms in which it occurs.

Our observations on animals show that malignant new growths are always local in origin and of themselves produce no evident constitutional symptoms whatsoever. These facts are in full accord with accumulated clinical experience in man. In connexion with diagnosis and statistics, we have already emphasized the importance of the absence of specific symptoms. The evidence we have advanced that cancer is an irregular and localized manifestation of a process, otherwise natural to the life-cycle of all organisms, probably explains why it is that malignant new growths and their extensive secondary deposits, *quâ* cancer, are devoid of a specific symptomatology.

We cannot here make full acknowledgement to those who have assisted our inquiry in this country, but our indebtedness may be expressed to those observers abroad who have recorded isolated instances of cancer in animals, and have so generously furthered our investigations by placing material or specimens at our disposal.

In particular, we desire to thank Professor Borrel, of the Pasteur Institute; Professor C. O. Jensen, of Copenhagen; Mr. J. A. Gilruth, Chief of the Veterinary Department, New Zealand; Professor Landau and Dr. L. Pick, of Berlin; and Dr. Marianne Plehn, Munich.

Without the generous co-operation of these and many others it would not have been possible within so short a time to have covered the extensive ground indicated in this paper.

[We find that the guarded terms in which the points of importance are emphasized may lead to a misconception of our interpretation of the facts. The cells which have undergone the reducing division are not responsible for the active invasion of surrounding tissues, nor for the production of metastases; the cells dividing somatically are responsible for both. The number of heterotype mitoses may not stand in any relation to the degree of malignancy, and their absence is only presumptive evidence of the benign character of the tumour. We postulate nothing as to the future of the cells which have undergone the reducing division, though we believe the latter to be a terminal phase in the life-cycle of cancer cells as it is in the history of sexual cells in animals. The local origin, and the expansive and infiltrating growth of cancer in its relation to surrounding tissues, while respecting its own proper elements, is the criterion of its malignancy. This stamps it as belonging to a new cycle comparable in its entirety to the whole organism which it is invading, rather than to any one of its tissues, reproductive or otherwise.

We intentionally restricted our original statement to recording the facts, and only such general conclusions as could be irrefutably drawn from them. (Note added January 25th, 1904.)]

OYSTERS AND TYPHOID FEVER.—The health authorities of Orange, New Jersey, as a result of an inquiry as to a recent outbreak of typhoid fever, have come to the conclusion that the epidemic was due, not, as was at first supposed, to a contamination of the water supply, but to the consumption by the persons affected of oysters procured from infected beds.

DR. ELLEN L. LOWELL, a graduate of the Johns Hopkins University, Baltimore, has been appointed chief bacteriologist to the Graves Pathological Laboratory of the Orange Memorial Hospital, New Jersey.

PHYSICAL DEGENERATION.

[BY OUR COMMISSIONER.]

(Concluded from p. 244.)

X. RURAL CONDITIONS.

SPEAKING generally, the conditions of life in rural districts, even in the poorest, contrast favourably with those of towns.

The cottage of the agricultural labourer is a more healthy habitation than the tenement of the town labourer, and absorbs no larger a proportion of his weekly earnings. It is true that the cottage is probably not ideal, that the bedrooms are small with sloping roofs and miniature windows, that the water is from a surface well, and that the other sanitary arrangements are of the most primitive kind. But the pure fresh air when door or window is open, the open space back and front even if the cottage be one of a row, and the greater freedom and simplicity of the country life, are compensating advantages so important to the young that the physical development of the average country child contrasts most favourably with that of his town cousin of the same class. It is, however, undoubtedly true that the health of children, especially the younger children, suffers during winter, owing to the unfortunate prejudice which impels the agricultural labourer to crowd his family into a single bedroom and to keep the window shut from night to morning. On the other hand, the elder children spend much of their time out-of-doors, and even when at home are constantly running in and out of the house. The other great essential for the growing child, food, is also of better quality and generally more ample. As a rule even if the cottage has not a garden, the labourer can rent an allotment. In either case he grows potatoes or cabbages, and other coarse vegetables, which form a regular part of the diet of his family. It would appear from the following table that the agricultural labourer's family in the northern counties spends nearly as much on bread and flour and meat as the family of a town labourer whose wages are under 25s. a week; while the former has the produce of his garden to add variety and many health-giving qualities to his diet.

The information collected by Mr. Wilson Fox for the Board of Trade shows that the total earnings of all classes of agricultural labourers in England ranged, in the year 1902, from 15s. to 22s. a week, the average being probably about 18s. 6d. In explanation of the following table, showing the average weekly cost of (1) bread and flour, and (2) of meat, including bacon, consumed by an agricultural labourer in several groups of counties, it should be pointed out that the lowest earnings are in the Eastern counties and the highest in the Northern.

Average Cost of (1) Bread and Flour and (2) Meat Consumed Weekly by Agricultural Labourers' Families in 1902.

Articles.	High-wage Counties		Low-wage Counties		General Average for England
	Northern Counties	Midland Counties	Eastern Counties.	Southern and South Western Counties	
Bread and flour	4s. 1½d.	4s. 0½d.	3s. 10d.	3s. 11½d.	3s. 11d.
Meat (including beef, mutton, pork and bacon)	4s. 2½d.	4s. 1½d.	3s. 2d.	3s. 3½d.	4s. 2d.
Total ..	8s. 3½d.	8s. 1½d.	7s. 0d.	7s. 3½d.	8s. 1d.
Per cent. of total value of food consumed	51	50	45	46	50

It will be observed that more bread and less meat is eaten in the low-wage than in the high-wage counties. Indeed in the former beef or mutton is frequently purchased only once a week, pork and bacon being eaten instead. In the Eastern counties only 1 lb. 12 oz. of beef and mutton are consumed in a week, while pork and bacon amount together to 4 lbs. 1 oz.

The estimated value (13s. 6d.) of the principal articles of diet come to about 73 per cent. of the average weekly earnings (18s. 6d.). But this does not include money which a labourer may make by the produce of his garden, or allotment or the keeping of pigs and poultry, nor have the extra earnings of wife and children been taken into consideration. It is said that it is often impossible for mothers in the country to buy milk for their infants, owing to the fact that it is all sent to towns or used for making butter. The figures in the above table seem rather to confirm this supposition, for, judging from the expenditure, it must be assumed that the greater part of the milk is skimmed. Even supposing the milk to be whole, a pint a day would not go very far in a family that includes a baby requiring artificial feeding.

It is sometimes said that country children, owing to the long distances they have to walk to school, arrive fatigued and unfit to benefit by the teaching. This may be true of very young children, but it will be admitted that in most respects the life of children in the country is healthier than in towns. For example, they escape late hours and get more sleep; as a rule the whole household goes to bed early, and though the father may rise early also the children generally have a good night's rest. This is not a trivial matter, for not only does it favour healthy growth of body but is good for the mind, for thus the child comes to its school tasks fresh and alert. For the young child sufficient sleep is only second in importance to good food. The more regular hours also give them a sense of order which remains with them through life, and they escape the moral contamination of the streets. There is much less drinking among women in the country, and most cottagers' wives take a pride in keeping their rooms clean and even pretty and in sending their children tidily dressed to school.

The cultivation of the garden and the tending of the flowers have a refining influence, and bring the child early into contact with Nature. Another influence for good is the life of the farm on which the father works, where the child gets to know every animal, and learns to take an interest in the farm work proper to each season of the year. All this tends insensibly to educate them for the calling to which they appear destined. Why then do so many of the most intelligent and strongest seek an uncertain fortune in towns?

Many young men and women are attracted to town by the desire "to see life" as they call it. They think the town will be livelier and more amusing, and they contrast the music-halls, and even the brightly-lighted streets, with the quiet homes and muddy roads of the country. It is, however, probably easy to attach too much importance to such inducements. The two main causes of the desire for change are, first, that the agricultural labourer has little or no prospect of improving his position and making some provision for old age, and secondly, the failure of the elementary schools to give the kind of education which reconciles him to remain in the country.

The want of any reasonable prospect of bettering himself undoubtedly induces many a young man to leave the country. To the young farm labourer who is earning perhaps 15s. a week, with no prospect of ever getting much more, however hard he may work, and who sees about him old men past their prime earning less, 25s. a week seems riches. He forgets that he must pay more for a tenement in a crowded slum than for a country cottage, and that the vegetables and the small perquisites from the farm will have to be purchased in the market. He does not realize how depression of trade may throw him out of work for weeks or months, and how difficult it is for the old workman to find regular employment in towns, where he is constantly being elbowed out by the new comers.

The desire to seek higher wages in towns is strongest with the most intelligent and robust, and if, as is probably the case, it is they who migrate in greatest numbers to towns, it follows that the intelligence and physique of those who remain must be inferior to the average. It would seem that it is the best of the rural population, the most vigorous, and therefore the most likely to be the parents of vigorous children, who suffer in greatest number the individual deterioration produced by towns. No nation can go on indefinitely withstanding this drain upon its fountains of vitality. The process is, in fact, one not of survival of the fittest but of the least fit.

If landlords who lament the depopulation of their villages would seriously consider whether they could not hold out to the more ambitious, industrious, and intelligent of the young villagers some hope that they might eventually become proprietors of small holdings, it would go a long way towards checking the flow of population from the country, and even reversing its direction. Experience proves that where small holdings exist the exodus is comparatively small; labour.

[1] In London the average rent paid by a working-class family is estimated to be [illegible] a week, in provincial manufacturing towns it is about the same, in Manchester and Liverpool it appears to be lower about 4[illegible]

that bugbear of the large farmer, is more plentiful since the small holders are generally ready to work for others in their spare time, and the production from the land is larger. Moreover, the families are larger; children are an advantage to the small farmer, and it may be said of him as of the patriarchs "blessed is the man who hath his quiver full." The experiments of Sir Richard Edgcumbe in Dorsetshire and of Major Poore in Wiltshire prove conclusively that when reasonable opportunities are afforded, farm labourers will come forward in sufficient numbers and eventually become the owners of as many small holdings as are available. Mr. Tomkinson, M.P., Professor Long, Mr. Spear, M.P., and others, are working out a scheme for bringing back labourers to the land. They purchased 365 acres of fine old pasture land at Newdigate at £15 an acre with tithes. They advertised that they were prepared to sell lots, from the historical three acres of Mr. Jesse Collings, to twenty acres, and to meet individual requirements would advance part of the purchase money. There were some 1,200 applicants and the 25 who seemed most desirable were selected. These are to pay the purchase money in 10 years, 10 per cent. being paid on entering, and 5 per cent. on the outstanding balance. The promoters of the scheme are erecting cottages for certain of the tenants, who are mostly people having made a little money in other callings. Considering the fertility of the land, they should make their venture pay.

In Denmark, Luxembourg, and elsewhere, State aid has been wisely distributed, and agricultural societies have given supervision and help to individual small farmers as regards quality and uniformity of production. The result has been that exports have largely increased, and the rural population in these countries has secured a large share in the markets of Great Britain. A similar policy might be expected to yield similar results in this country. The pressure on the rates and the present condition of the rural population make it impracticable to expect that these improvements will be provided by the action of local authorities. It would be an advantage to the whole country, as well as to the districts directly concerned, if loans from Imperial sources were obtainable by landowners and others on favourable terms for the equipment of small holdings and the provision of cottages; and further, if the Board of Agriculture, both directly and through agricultural societies, would carry out a policy of encouraging and organizing special branches. Among these dairy and poultry farming, market gardening, agriculture, and fruit growing should be included.

The Board has recently appointed a Departmental Committee to report upon the present condition of fruit culture in Great Britain, and to take measures to advance and encourage this industry. It is to be hoped that the labours of this Committee will have important practical results. In most parts of England suitable to fruit growing, markets are close at hand, and it is interesting to remember that the exodus from the country has been greatest from those districts where there were fewest industrial towns and villages, increasing in proportion to the distance from railways and manufacturing centres. This has seriously affected many formerly prosperous market towns in the agricultural districts.

In order to obtain the best results co-operation is essential, both in the provision of capital, and for marketing and selling the produce. In dairy farming, poultry farming, or fruit growing, very little can be accomplished by isolated individuals with small capital in the teeth of organized foreign competition. But when farmers combine, co-operative farming becomes possible. This is proved by the experience of the Irish Agricultural Organization Society, as well as by the German land banks. In the matter of co-operative production, also, Ireland affords an example England would do well to imitate. Although the movement is still young, there is hardly a county in Ireland which does not contain several co-operative creameries. Small farmers, keeping, perhaps, one or two cows, are enabled by this system to find a regular market for their milk all the year round. At the creamery the butter is made by skilled dairymaids, and shipped in bulk to large towns, while the separated milk is returned to the farmer for his pigs. A similar principle is applied with equal success to the collection and sale of eggs, and it is obvious that it could also be applied to fruit farming.

The smaller branches easily followed by women include poultry farming on a small scale, agriculture, and flower culture, lace making and other cottage industries. County councils are now authorized to include the teaching of the principles and practice of agricultural co-operation among the subjects for which grants may be made. It does not appear, however, that advantage has generally been taken of this permission, yet it is most important that the system should be explained to the small farmer and agricultural labourer, and it would be well if all county councils would follow the example of the Buckingham County Council and appoint a county organizer at an adequate salary.

The belief that the kind of education given in the elementary schools is one reason why young people will not settle down in the country like their forefathers, is very widespread, and the question arises whether some part of the impetus causing the flow from country to town may not be due to wrong educational ideals. Very slowly is the modern scientific idea of education spreading that it should be such a training as will best develop the intelligence of the boy or the girl to do well that work which the man or the woman will have to do.

People lament that young lads and girls waste their time on unwholesome literature. But though the notion will be repudiated by the men responsible for its dissemination, these young people have been taught that reading is an end in itself. The boy who is to be a farmer or a farm hand, the girl who is to be the mistress of a farmstead or a cottage, should be taught to recognize the dignity of labour, and to regard books as a means to an end, or a recreation. They should be trained up to observe the processes of Nature, and should be given some inkling of the principles of the sciences on which agriculture and horticulture rest. It would be very good for the young rustic to know something about the pressure of the atmosphere; the process of the germination of seeds would certainly arouse his interest, and the simple elements of the chemistry of artificial manures would explain to him facts within his observation.

Country life, we are told, is found dull and uninteresting by the lads taught according to the Codes. If the assertion be true, does not the conclusion follow that the Codes must be badly drawn? The aim of compulsory education is to fit the boy for the calling he is to follow as a man. If the system ends in unfitting the country boy to be a country worker, obviously the system must be at fault. Similar causes are producing similar results in other countries. In France the exodus from the villages causes much anxiety, and educational authorities appear to admit that the character of the teaching in the primary school may be in part responsible. The late M. Felix Pécaut, in his *Quinze Ans d'Education*, published in 1902, after his death, suggested that a change in the subjects taught has been proved to be necessary. He wrote:

> First of all teach the children to take an interest, not only in books, but in the life of the fields. Teach them gardening, and how to keep bees, the making of cheese and the management of a dairy. Show them the reason of these things, their cause, and the possible improvements. Above all, in educating your little rustics, do not impose an ideal from without, work your reform from within. Make your scheme of education deliberately rural, be sober, just, teach them courage, and the contempt of mere ease and well-being; give them a wholesome ample way of looking at things; instil the taste for an active life, the delight in physical energy. Try and turn out, not a mandarin, but a man of the fields.

ST. BARTHOLOMEW'S HOSPITAL.

REBUILDING APPEAL.

THE LORD MAYOR OF LONDON took the chair at a meeting held at the Mansion House on January 26th in furtherance of the appeal on behalf of St. Bartholomew's Hospital for funds for the erection of new buildings.

Sir TREVOR LAWRENCE, Treasurer of the hospital, said that though he thought some one more able to speak to the great meeting before him should have been entrusted with the duty of pleading for the hospital, he nevertheless had some claim because his father was a member of the staff for 65 years. He himself had been Treasurer of the hospital for nearly twelve years. The rebuilding appeal was made with the sanction and sympathy of the Prince of Wales. A certain daily journal had devoted a great deal of its space in endeavouring to impress on the public the necessity for the removal of St. Bartholomew's Hospital from its present site. That question had been dealt with by the Mansion House Committee. That Committee was composed of independent and competent men, and they decided in favour of the retention of the hospital on its present site with one exception, and that exception was a gentleman known by every one to have

settled convictions in the opposite direction. The chief of the London police gave evidence before the Committee that 65 per cent. of the accidents and cases of sudden illness in the City were sent to St. Bartholomew's Hospital. The midwifery work of the hospital was enormous, and that work was the best criterion of the need of a hospital in any special locality, since it could only be conducted in poor homes close at hand. The only alternative suggestion to rebuilding the hospital on its present site put forward by any responsible person was that of splitting the hospital into two parts, one for urgency cases on the present site, and the other in the suburbs for after-treatment. Such a scheme, besides having most of the drawbacks of total removal, was medically impracticable, while financially it would add at least one-third to the cost of annual upkeep, and thus quickly outweigh any problematic saving on the site and initial outlay. The Medical School also would of course be destroyed, because students could not spare the time to be continually going from one hospital to the other. He considered that the value of the site of the hospital had been very seriously and largely exaggerated. They had all heard the opinion of a gentleman who writes in the newspapers, but he would like to inform the meeting that in the opinion of experienced valuers the prices talked about were much beyond the real value. The hospital would be in the disadvantageous position of compulsory sellers and compulsory buyers. He thought that the mere question of the value of the site was not by any means the only question for consideration, because it put money considerations above their regard for a great work of mercy and charity. It would be admitted by all fair-minded people that the hospital was required where it stood, and no more serious evil to the sick poor of the City of London could be done than by moving the hospital elsewhere. The present hospital buildings were erected 150 years ago, and the total cost of rebuilding according to modern necessities would be £438,000. That sum would provide an absolutely new hospital.

The BISHOP OF LONDON then moved the following resolution:

That this meeting, having heard the statement of the Treasurer of St. Bartholomew's Hospital, cordially approves of the decision of the governors to reconstruct the hospital on its ancient City site, extended as it has recently been by the addition of one acre and a-half.

He said that the hospital was founded by a Prebendary of St. Paul's Cathedral, and that the land on which it was built was obtained from King Henry I, through the influence of a Bishop of London.

Sir WILLIAM CHURCH, Bart., President of the Royal College of Physicians, in seconding the resolution, said he was justified in coming forward because of his long connexion with St. Bartholomew's Hospital. He had spent upwards of forty years in the hospital, and he ought to know about the work and the present needs of the institution. Important improvements had been made by the governing body in the wards and in the service of the hospital, but, from want of space, no structural changes could be made to facilitate the ever increasing work that had to be done, especially in the casualty, in the out-patients, and in other departments. The hospital had had an opportunity of extending its borders, and now could appeal for help to remove the difficulties under which it had so long laboured. Certain objections had been raised to an appeal being made before producing detailed plans for rebuilding the hospital, but he could not believe that those objections would be upheld, because surely the governors of the hospital and the medical staff could be trusted in the matter. In regard to the need of the hospital in the centre of London, he pointed out that there was an enormous influx of workers during the day into the City and the hospital, and, in addition to those who came into immediate proximity to the hospital, there were many commercial undertakings employing thousands of hands. They had heard the percentage of the accidents brought to St. Bartholomew's Hospital, and that could increase in consequence of the removal of King's College Hospital. There was an impression abroad that the present wards were out of date, that the patients might suffer, but that impression might be dismissed from their minds entirely, because there was no danger of contradiction when he said that the wards visited by the medical staff of St. Bartholomew's Hospital were as comfortable as could be found in the most modern hospitals elsewhere. He concluded that the usefulness of the hospital was one of the important arguments for its retention in its present site. Certain hospital governors thought, or wished to think, that the sick poor always went to the nearest hospital, but, as a matter of fact, the sick poor were very like the sick rich, they like to have a freedom of choice in regard to medical attendance. The sick poor did not always go to the nearest hospital, nor was it desirable that their freedom of choice should be interfered with. It was necessary for large hospitals to have medical schools attached, because otherwise the expense of the treatment of the patients was enormously increased. There was also the beneficial effect that was exerted on the medical staff by the active criticism of a large number of inquiring and earnest students, constituting an important safeguard for the proper management of the great hospitals. To remove St. Bartholomew's Hospital to another site would destroy the medical school. The Treasurer of St. Bartholomew's Hospital said before the Mansion House Committee that even now the school of St. Thomas's Hospital had not quite recovered from the check that it had received from its removal, and that removal was to a more central and more convenient site than it occupied before. Sir William Church concluded by saying they all hoped that the hospital in the future would be, as in the past, one of the great centres for the relief of pain, for the acquirement of medical knowledge, and for the advancement of medicine and surgery.

Mr. JOHN TWEEDY, President of the Royal College of Surgeons, in supporting the resolution said that he was willing to admit that at the first blush he was disposed to think that it would be an advantage to remove the site of St. Bartholomew's Hospital, but having read with an open mind the very careful report of the Mansion House Committee, and having carefully considered the conclusions at which they had arrived, he had no hesitation in saying that in his opinion to remove the hospital from its present site would be almost a calamity and certainly a disgrace. He asked if there was nothing to be said for the historical traditions of the hospital. What would New York give to have within its confines an institution that for nearly 800 consecutive years had been doing one of the noblest works of charity throughout the whole world, nursing the sick, helping the poor, and dispensing as far as it could comfort and consolation to the sick and the dying? What would any city in any part of the civilized world not give to possess in its midst an institution like Bartholomew's Hospital, standing on a site which he might say had been hallowed by association with the great Harvey. John Hunter received his surgical education there, and Harvey and Hunter were venerated throughout the whole civilized world. Was the City of London not responsive to the appeals of sentiment and tradition? He was certain that the City would come forward and freely discharge all its obligation in regard to St. Bartholomew's Hospital.

Dr. SAMUEL GEE, Senior Physician to the hospital, said that the institution was never more vigorous than at the present moment. It was growing so fast that it had outgrown the buildings provided in the eighteenth century. He thought that the removal of the hospital would end in the disintegration of the institution.

The resolution was then put and carried unanimously.

Mr. ALBAN GIBBS, M.P., then moved the following resolution:

That this meeting pledges itself to support the governors of St. Bartholomew's Hospital in their appeal for the funds necessary for the proper rebuilding of the hospital, and earnestly commends to the generosity of the public this the first appeal which the hospital has made for many years.

He asked in what position would those people be who do not depend on the hospitals for medical advice if their own doctors had not acquired experience and knowledge in the medical schools attached to the great hospitals.

The MASTER OF THE MERCERS COMPANY seconded the resolution, and it was supported by the CHIEF RABBI in a most eloquent speech.

Sir W. H. DYKE, M.P., also spoke, and he was followed by Mr. A. BOWLBY, who said that he was there to emphasize the fact that the staff of the hospital were entirely unanimous in supporting the present proposal, and were absolutely unanimous as to the need of new buildings.

The resolution was carried with two dissentients.

Sir W. TREVOR announced subscriptions amounting to £70,000, and the meeting concluded with a vote of thanks to the Lord Mayor, which was moved by the MASTER OF THE MERCHANT TAYLORS' COMPANY, seconded by the Reverend R.J. CAMPBELL, and supported by Mr. J. LANGTON.

A REGULAR service of medical officers has been established on all the larger railway systems of Russia.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

ANNUAL MEETING.

THE annual meeting of the Scottish Poor-law Medical Officers' Association was held in Glasgow on January 22nd.

REPORT OF COMMITTEE.

The report presented contained the following passages:

PARLIAMENTARY.

The Bill promoted by our Association was again introduced by Mr. J. Cathcart Wason, M.P., who also presented our petition in favour of the same, signed by nearly 300 medical officers from all parts of the country. As usual, it was blocked, and never reached a second reading. The Bill, which was promoted by the Lord Advocate in session 1901-2, contrary to our expectation, was not reintroduced last session. Whether it is the intention of the Lord Advocate to reintroduce the Bill this session, your Committee have no information; but the usual means will be taken to carefully watch for its appearance in Parliament. The Blue Book containing the evidence on Poor-law medical relief, taken by the Local Government Board, has not, as far as your Committee are aware, been yet presented to Parliament. Your Secretary attended the meeting of the British Medical Association at Swansea, and has pleasure in reporting that the Business Committee of that Association pledged itself to assist us in every way possible. At the desire of your Committee, Mr. J. Cathcart Wason, M.P., asked for a return of the number of vacancies which had taken place during the past seven years in the post of medical officer in the crofting parishes in the Highlands and islands. In all, there are 60 parishes included in the return, and 130 vacancies occurred. A considerable number of those parishes changed their medical officer on several occasions—a few as often as five or six times. This return emphasizes our contention that the petty interferences, on the part of parish councils, with the social and professional duties of medical officers are such that no man with an atom of respect for himself, or for the profession he belongs to, could submit to; and, therefore, he resigns in disgust. In fact, in the language of one of our correspondents, medical officers in the Highlands and islands come and go with the regularity of slides in a magic lantern. Such constant changes must be detrimental to the welfare of the sick poor, and the Local Government Board ought to possess such powers as would enable medical officers to do their work, without fear of interference or dismissal by their parish councils, so long as they performed their professional duties in a satisfactory manner.

CONTRA-ADVERTISING.

Your Committee have regularly continued their advertisements in the *Lancet* and BRITISH MEDICAL JOURNAL, with gratifying results. A great many applicants for vacant Highland and island appointments have applied to your secretary for information; and, when the facts in each case were brought before them, nearly every one ceased to be applicants for the vacant posts. A number of parish council appointments were thus kept vacant during the greater part of the year; and, we believe, several are still without medical officers. Your Committee would like to extend this course of action to the *Scotsman* and *Glasgow Herald* newspapers, as it is found that some parish councils find themselves driven to avoid the medical journals, and advertise only in the daily newspapers where, as yet, we have not followed them. Our action appears to be creating a better *esprit de corps* amongst the profession; and the feeling of loyalty, one to the other, appears to be increasing. It is, however, with regret we have to remark this does not appear to be the case so far as the lady medicals are concerned, and their want of professional loyalty is a distinct element of difficulty in our fight.

VACANT APPOINTMENTS.

Your Committee have pleasure in submitting an outline of a few of the more important, which came under their notice during the year:

Barra, Uist, and Harris.—These parish appointments have been vacant during the greater part of the year. In the excel resolves of the vacancies your Committee have to intimation, but in the Parliamentary Return issued in [illegible] these parishes appear as defaulters in having dismissed their medical officers without reason being given. In regard to Barra, the terms of appointment submitted to candidates were such as your Committee considered illegal in so far as they interfered with the private practice of the medical officer. Your Secretary brought this before the Local Government Board, but the Board refused to interfere.

Strath.—The medical officer of this parish was threatened with dismissal owing apparently to some personal pleasantry at any rate it was not due to professional fault. Your Secretary appealed to the Local Government Board to use some moral suasion to prevent the injustice, but we regret that that Board declined to interfere. Your Secretary then communicated with several members of the parish council, calling their attention to the great injustice which was contemplated, and sincerely trusting, for the welfare of the parish, that a different course of action would be taken. It is highly gratifying to state that our appeal was successful, and the injustice was not carried out.

Durness.—The medical officer of the parish has been dismissed, not for professional fault, but because he would not agree to visit at regular intervals a hamlet a number of miles from his house, whether his professional services were required or not. As this would have entailed a considerable expense, he offered to do as requested, provided the parish council paid the cost of hires. This the parish council refused to do. Your Secretary brought this case before the Local Government Board, who, however, refused to interfere. Your Secretary also appealed to the parish council against the injustice unfortunately, without effect. This parish council in [illegible] also dismissed its then medical officer without cause being given. It has just come to our knowledge that the medical officer has raised an action in the Law Courts for interdict, and concluding for a reversal of his dismissal, with damages against the parish council. Need we say we all wish him success.

Papa Westray.—This parish council has again been seeking a medical officer. We understand the reason for the very frequent changes is the fact that a decent income cannot be made in the island. We believe the parish council has always treated its medical officers in a courteous manner; therefore your Secretary communicated with the chairman of the parish council offering, on our part, to assist in getting a competent and permanent medical officer for the island, provided the parish council would agree to offer some such terms as the following, namely: That a salary of £[illegible] a year be guaranteed; that a suitable house be provided free of rent; that extra fees be paid for midwifery, lunacy, vaccination, fractures, etc.; that drugs and surgical appliances be paid for by the patients; that a moderate holiday be granted each year at the expense of the parish council; and that the medical officer be not dismissed unless for grave professional fault. No answer was got to this offer.

Ramsay, Kildonan, Eriskay, and *Bernera* have also been in the market, but whether they have succeeded in getting medical officers your Committee are not aware. In the Parliamentary list these parishes appear as defaulters, in having dismissed their medical officers without cause being given.

A number of vacancies and complaints have been lodged with your Secretary in regard to some parish councils in other parts of Scotland. In two cases the medical officers were advised to threaten an action at law against members of their parish councils for persistently traducing their professional character. This course of action resulted in a cessation of the annoyance.

The report further stated that the Association numbers 350 members, but that there were 850 Poor-law medical officers in Scotland. An appeal is therefore made to those medical officers who had not yet joined the Association to do so, and there is also a further appeal to those who are nominally members to pay their subscriptions. The financial statement showed a balance in favour of the Association. The report was adopted.

The Secretary of the Society is Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending December [illegible]th, and [illegible]st, [illegible], the number of deaths from plague in India were [illegible], [illegible], and [illegible] respectively. The principal places [illegible] during the weeks ending December [illegible]th and [illegible]th were Bombay [illegible] and [illegible], Bengal [illegible], [illegible] and [illegible], Calcutta, [illegible] the suburban districts, [illegible] and [illegible], North West Provinces and Oudh, [illegible], Central Provinces, [illegible] and [illegible] the Punjab [illegible], Central Provinces [illegible] and [illegible] Kashmir during the week ending December [illegible]th. The latest reports point to an increase in the Bombay [illegible], but in all other parts of India the mortality from plague [illegible] materially unchanged. Of the deaths from plague reported [illegible] during the last week of the year [illegible] occurred in the Bombay Presidency. During the month of December, [illegible], the cases [illegible] and deaths [illegible], but [illegible] and the deaths from [illegible] the Bombay districts there were 41,621 cases and 31,646 deaths. [illegible] During the four weeks ending January [illegible] [illegible] regards cases and deaths were, in the Sou[illegible] [illegible] Mysore State [illegible] cases and [illegible] deaths, Madras Presidency, [illegible] and [illegible] deaths.

CAPE COLONY.

East London.—During the weeks ending [illegible] of plague was discovered in East London, [illegible] [illegible] January

and, 1904, 1 case. At the end of the latter week 2 cases were under treatment at the plague hospital.

From no other part of Cape Colony were any cases of plague reported. At Port Elizabeth, East London, and at Lady Grey Bridge plague-infected rats continue to be found, but in no other towns was plague in man or animals discovered.

MAURITIUS.

During the week ending January 14th, 44 fresh cases of plague were notified, and 26 deaths from the disease.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next ordinary meeting of this Division will be held at the Coventry and Warwickshire Hospital, on Tuesday, February 2nd. The chair will be taken by Dr. Milner Moore at 8.30 p.m. Agenda: Mr. Faulder White will read a paper on Suppurative Disease of the Ear, with a description of a new treatment. The paper will be illustrated by some clinical cases. Dr. Bankes-Price will show some appendices which have been removed by operation, and will make some observations thereon.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

EDINBURGH BRANCH. The annual clinical meeting of the Edinburgh Branch in conjunction with other Scottish Branches will be held in the Royal Infirmary, Edinburgh, on February 12th. Pathological Museum 4 p.m. Inspection of New Pavilions and Demonstration of Eye, Ear, and Throat Cases 3.30 p.m. Clinical Demonstration 4 p.m. Demonstrations of X Rays, Radium, and High Frequency 5.30 p.m. Dinner in the North British Station Hotel at 6.30 p.m. Morning dress. Dinner ticket 8s. Those who have patients or specimens to show should communicate with one of the Secretaries. NORMAN WALKER, 7, Manor Place. A. LOGAN TURNER, 27, Walker Street, Edinburgh, Honorary Secretaries.

STAFFORDSHIRE BRANCH. The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date. E. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Trypanosomiasis Cases in Liverpool. Annual Meeting of the Royal Infirmary. Proposed Municipal Grant to the University. Recognition of the Ladies' Charity and Lying-in Hospital by the Midwives Board.

SEVERAL notices have lately appeared in the columns of the daily papers with regard to certain negroes, said to be affected with sleeping sickness, who had been sent to Liverpool in order that their symptoms might be fully investigated. Since the accounts have been to some extent contradictory, it is desirable that the facts should be stated. The negroes in question, three in all, natives of the Congo State, were found to have trypanosomes in their blood, and were sent by H.M. the King of the Belgians to the Liverpool School of Tropical Medicine, in order that their cases, and through them the whole subject of sleeping sickness, might be thoroughly studied. One of them was a man aged 29, another was his wife, and the third was a man aged 21. At the time of embarkation the woman had the symptoms of sleeping sickness well developed and she died on the voyage; the younger man at first manifested similar symptoms in a less degree; but he improved greatly when he reached a cooler latitude and is now practically well except that the trypanosomes are still found in his blood. The elder of the two men has not shown any symptoms of sleeping sickness although the trypanosomes are still present. The two men are at present residing near the School of Tropical Medicine and are under the daily observation of Professor Ronald Ross and his assistants.

The annual meeting of the Trustees of the Royal Infirmary took place on January 20th. It was announced that the fourth operating theatre was almost completed, and would be equipped in the most modern and approved style. Mr. E. R. Bickersteth, the Senior Consulting Surgeon, was appointed President for the ensuing year. In his remarks on accepting the office, he related some very interesting recollections of the conditions under which the practice of the Infirmary was carried on in the year 1856, when he first became a member of the staff, and he also stated his intention of endowing a bed with the sum of £1,000 in memory of his father, Mr. Robert Bickersteth, who was Surgeon to the Infirmary from 1811 to 1853.

Under the Liverpool Corporation Act of 1902 the City Council is empowered to contribute to the Liverpool University such annual or other sums as it may deem expedient, and such contribution may be made out of the city fund and general rate, or either of them, provided that the amount in any one year shall not exceed the amount which would be produced by a rate of one penny in the pound on the property assessable to the city rate or general rate. In consequence of this provision the University recently sent a deputation to the Finance Committee of the Council to present a memorial praying for a grant. The Committee unanimously decided to recommend the Council to grant to the University the sum of £10,000 during the year 1904, such sum to be paid out of the city rate.

The Central Midwives Board has intimated to the Board of Management of the Liverpool Ladies' Charity and Lying-in Hospital that it has placed that institution upon the list of institutions approved by it for the purpose of training pupils for qualification as midwives under the Midwives Act.

MANCHESTER.

Hygiene in the Slums. Improvements in Work of Coroner.—Abandonment of Proposal for the Compulsory Notification of Phthisis.—Home for Nurses. Gratitude for Benefit received at a Hospital. Manchester Milk Supply and Precautions for its Purity.

THE Ladies' Public Health Society are doing excellent work in the social regeneration, or at least improvement, of Manchester, more especially in the homes of people in the crowded districts. At the annual meeting the report of the Committee stated that there are twenty-three paid visitors whose duty it is to go into the homes of the poor to instruct them in the matter of hygiene. This is the right and practical way. Actual visitation and personal instruction are the only means of reaching and convincing the ignorant. The object aimed at—clean houses and cleanly personal habits—is peculiarly one for women to engage in. The paid visitors are charged with the following duties:

1. The systematic visitation of babies and the instruction of the women in the matter of feeding and care of them.
2. Instruction in cases of infectious diseases (special attention being given to consumption cases), coupled with seeing that the necessary precautions are taken.
3. The systematic visitation of the houses in the districts.
4. The distribution of leaflets on sanitary and other matters, and the supply to the people of the districts of lime, whitewash brushes, sanitary powder, and also of carbolic soap.

Owing to the intelligent efforts of the visitors in instructing young mothers in the management of their children infant mortality had perceptibly decreased. In the third quarter of last year there were 2,518 deaths in Manchester, and of these no fewer than 361, or 1 in 8, arose from tuberculosis in some form, 261 were children who succumbed to dysentery and diarrhœa, 158 before they had reached the age of 1 year.

Under the régime of the new coroner for the city a new system of administration most favourably affecting all who come into contact with the court—jurymen, witnesses, and medical men—has been introduced. Generally jurors are able to finish soon after noon; formerly the business went on for most of the day. The new coroner has enlisted the assistance of medical men, with the result that there is less work for the jurymen and a saving to the rates. Last year,

by judicious inquiry and with the aid of the medical men, 247 cases were passed over, thus reducing the total number of inquests in twelve months to 799. In 1902, 865 inquiries were held and 165 cases passed over; in 1901, 1,021 conducted and 142 passed over.

It is understood that, in deference to the representations made by the Medico-Ethical Society, the City Council will not include in its omnibus Bill a clause to render the notification of phthisis compulsory.

The new home erected for the accommodation of the nurses at the Hope Hospital at Eccles has just been opened. The home is situated close to the Hope Hospital. It gives accommodation for 72 persons, and the estimated cost was £12,000. The sisters and nurses, of whom there are at present 60, have each a separate bedroom, and there is besides a matron's sitting-room, a separate sitting-room for the sisters, and one for the probationers. There are also a receiving-room and dining-room.

At the nineteenth annual meeting of the Manchester Royal Eye Hospital, it was stated that 13,036 patients were treated at Oxford Road and about the same number at St. John Street. The in-patients numbered 1,407, and the accident cases averaged 18 a day, reaching a total of 5,776. It is not often that so striking an instance is recorded of gratitude as at this meeting. It appears that a former patient, who earns her living as a charwoman and by letting lodgings, sent £10 in recognition of the benefits that she had received.

Ever since Manchester, under its Act of 1899, possessed the power to collect samples of milk coming in from the country with a view to examine it for the presence of germs of tubercle, intermittent struggles between the milk producers and the milk consumers as represented by the central authority have been in progress. Recently the bitter cry of the oppressed farmer is again heard in the land, and some strong statements were made by the champion of the producers. It appears that the Manchester authority enforces within the city boundaries the following rules: (1) That the cowsheds be kept in a perfect state of cleanliness; (2) that the cows, and particularly the cows' udders, be kept perfectly clean; (3) that the milkers' hands be well washed before milking. The farmers' strong point is the liability of contamination of the milk in transit on the railway, in dirty shops, and dirty houses, after it has reached the city and the consumer. Last year not a single cow in the Manchester sheds was found to be suffering from tuberculous udder. But out of 345 "outside" farmers whose milk was tested, more than 10 per cent. were found to be supplying diseased milk.

CAPE OF GOOD HOPE.

The South African Medical Congress.—Difficulties of Attendances.—Papers Read. Scurvy or Beri-beri.—Pneumococcal Septicaemia.—Rapid Spread of Tuberculosis.—Sanitary Slackness of Governments. Proposed Medical Guild.—Reciprocity in Diplomas.—Medical Candidates for Parliament.

THE South African Medical Congress has just concluded its meeting at Capetown. This is the sixth Congress, but a long interval has elapsed since the last, which was held in 1898, when the meeting took place at Johannesburg. Of course, the war was answerable for the intermission.

Dr. E. Sinclair Stevenson, a well-known Capetown practitioner, and a former President of the Medical Council, presided. There was only a moderate attendance, some thirty-five in all, besides local practitioners, and these were mostly from the Western Districts of the Cape Colony, that is, the parts from which Capetown is most easily accessible. There were three representatives from Natal, two from Johannesburg, three from the Eastern Province of the Cape, and one from Kimberley. Neither the Orange River Colony nor Rhodesia was represented. Considering the enormous distances that separate towns in this big country, and the expense and difficulty of travelling, the paucity of attendance is not to be wondered at, although perhaps it is difficult for people on your side, accustomed to European networks of railways and trains at fifty or sixty miles an hour, to understand that for a large number of practitioners in South Africa it is a much greater undertaking to attend our Capetown Congress than it is for one of your Aberdeen readers, for instance, to journey to Moscow.

The papers were, however, of better calibre than has been the run at any previous Congress, some of them giving evidence of much original research on points distinctly local, and, therefore, all the more interesting. Amongst these may specially be mentioned one on So-called Scurvy, by Dr. Gregory, Government M.O.H. for the Cape Colony; one by Dr. A. J. Anderson, M.O.H. for Capetown, on Tuberculosis; one on Epidemic Pneumonia, with special reference to its infectious nature in native compounds, by Dr. Waldron, Medical Officer to the De Beers Dynamite Factory; and one by Dr. F. Napier, of Johannesburg, on Affections of the Eye in Pneumococcal Septicaemia. A paper by Dr. Darley-Hartley on Enteric Fever also brought out some interesting points of difference between that disease as seen in South Africa and in Europe.

Dr. Gregory's paper was a very exhaustive review of a number of cases which have from time to time occurred, apparently in an epidemic form, amongst natives, mostly in compounds and public institutions, generally put down to surgery, but in which many of the special features of that affection are absent, while they present many features of beri-beri, notably the liability to heart failure so characteristic of that disease. Although some of the speakers disputed the point, it appeared from Dr. Gregory's case reports that the affection is by no means traceable to the dietetic treatment which so easily cures scurvy. Dr. Gregory seems inclined to regard the disease as a distinct entity.

Dr. Napier's paper, although written by an ophthalmologist, gave a good deal of interesting information about that peculiar affection which, for want of a better name, must be called "pneumococcal septicaemia," and which is so fatal amongst the natives in the Johannesburg mines. It has been investigated by Drs. Davies and Hamilton, and others. It is evidently acutely infectious, beginning with rhinitis, and then leading to basal meningitis, pneumonia, and general septicaemic symptoms. The pneumococcus is found everywhere in the morbid parts *post mortem*. In a considerable number of cases Dr. Napier found that optic neuritis resulted, apparently as a direct extension of the infective basal meningitis.

The paper of Dr. Jasper Anderson on tuberculosis, and the discussion which followed upon it, and a paper on the same subject by Dr. Guillemard, in which Dr. Gregory took part, drew attention to the remarkable and rapid increase in tuberculous affections in the Cape. There was an absolute consensus of opinion that this disease, one which well within the memory of even middle-aged practitioners present was almost unknown except when imported, is now advancing by leaps and bounds, not only in the large towns but all over the country, and making great ravages amongst the Kaffir and coloured population. It may here be explained that, in Colonial parlance, "coloured" means the brown-skinned races of all shades and of all sorts of mixed strains who constitute the bulk of the working population of the western parts of the Cape. The colour element in them is mostly Hottentot. The Kaffirs, on the other hand, are an aboriginal and pure race. They appear to suffer less than the mixed coloured people, but they are coming under the scourge whenever they adopt civilized habits. Dr. Gregory gave it as his opinion that, so rapidly is the disease taking hold, that in a few years it will be the greatest scourge from which the country suffers; and he roundly accused the people of South Africa, white as well as black, of being "an essentially filthy nation," their lack of public and personal hygiene and their dislike of fresh air being the reasons why, in an ideal climate and a scantily-populated country, the disease is making such progress.

The address of Dr. George Turner, M.O.H. Transvaal, as President of the Public Health Section, was an interesting summary of sanitary changes within his professional memory, and contained a sledge-hammer indictment of the various Governments for their refusal to pass efficient sanitary laws, and their lack of backbone in enforcing what little law they had.

Besides the sectional papers, three important general subjects were discussed. A comprehensive scheme for the formation of a Medical Guild for South Africa, prepared by Dr. Darley-Hartley, was approved, and a strong committee appointed to put it into shape. Dr. Fuller read a paper advocating the creation of a complete medical school for South Africa; it led to a good deal of discussion and much difference of opinion, a tentative resolution being eventually agreed to affirming the immediate advisability of preliminary teaching, and the full curriculum "when practicable." Lastly, Dr. Kitching read a paper on the question of reciprocity with regard to foreign diplomas. This was intended to test the feeling of Congress on the point as to whether the present restrictions, which, as you know, operate in favour of British diplomas, should be

maintained. A vigorous discussion followed, but Dr. Beck, late a member of the Legislative Assembly, was the sole champion of free trade in diplomas, a cause which he defended in a very able speech. When it came to the vote he stood alone. This resolution will strengthen the hands of the Medical Council against the political attempts which are being made by the Bond to make the Cape a "dumping" ground, as your fiscal politicians would phrase it. The next Congress is to be held in Natal, but probably not for about eighteen months, as that colony is too hot for comfortable gatherings in December. The work of Congress was agreeably diversified by a large number of social functions, for which the attractions of this charmingly-situated city afford every opportunity. Besides several old members, Drs. Hewat, R. A. St. Leger, and Whyte are aspirants for Parliamentary honours. The second, however, some time ago abandoned medicine for the post of assistant general manager of the *Cape Times*, Limited, but still takes a lively interest in medical matters.

CORRESPONDENCE.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

SIR, I have read with much interest Dr. Outterson Wood's letter in the BRITISH MEDICAL JOURNAL of January 23rd, p. 215, and I can confirm all he says about the irregular and dangerous use of prescriptions. Cases of suicide, and deaths by misadventure, are frequently investigated by me in the coroners' courts, where the deceased persons have procured the fatal doses of poison by getting a prescription repeated at various chemists' until a sufficiency of the poisonous drug is obtained, as in Dr. Outterson Wood's case of 1.680 gr. of cocaine. In other cases the patient has procured a hypodermic syringe, and having learnt how to use it, presumably from instructions from either doctor or nurse, has continued its use long after the occasion for which the narcotic was first prescribed, and thus acquired a habit which unless checked terminates life either by accident or design. Dr. Wood calls special attention to the facility with which poisonous drugs and repetitions of prescriptions containing them can be obtained, and points to the fact that the writer of the prescription rarely gives any instructions on the face of it for how long the medicine is to be continued, thus enabling the patient to obtain it in any quantities. With regard to so-called patent and proprietary medicines containing poisons which many of them do, these may be obtained in any quantity without prescriptions at all. The law regarding the sale of poisons does not prevent a person purchasing many of them, or the chemist selling them so long as the label contains his name and address, the name of the drug and the word "poison."

Dr. Outterson Wood has suggested with regard to prescriptions, that the writer might add the words "not to be repeated" or "not transferable," and sign with his name in full and address instead of the usual hieroglyphics, so that the chemist may be enabled to refer to the medical attendant if desirable.

I venture to suggest that this subject might be discussed at one of your committees and the results made public in the JOURNAL. I am, etc.,

London, W.C., Jan. 26th. GEORGE DANFORD THOMAS.

SIR, Dr. Outterson Wood's letter emphasizes the existence of a grave evil in the present system of prescribing dangerous drugs which may be procured from the same prescription for an indefinite time.

His suggestion that the words "not to be repeated" should be written across such prescriptions is one good method of meeting the evil which should commend itself to most physicians. I have been in the habit of carrying out this plan for several years, and since I attended a lady whose nervous system had been completely shattered by the habit she had acquired of taking every night for twenty years a dose of chloral which had been prescribed after an accouchement by a celebrated physician in the West of England.

The abuse of such prescribing may be widespread, as the following account shows. The wife of a J.P. of the Middlesex Hospital once told me that she had had a lady who informed her that he had prescribed for her on one occasion some years previously for neuralgia, which had been completely cured by the prescription. She ended her profuse thanks with the following remark "I can never be grateful enough to you, Dr. Ellis, for that wonderful prescription; I have given a copy of it to at least a hundred people.

In addition to deadly and dangerous drugs there are others often prescribed which, if taken for months and years by the same patient as they frequently are may produce disastrous effects on the consumer. But the remedy for this is difficult to find, for the prescribers may never see their patients more than once, and may be unable to control their greed for drugs. Within the past few years the introduction of compressed drugs, which may be procured without prescription from any pharmacy or store, has increased the evil to an enormous extent.

The profession and the public should feel grateful to Dr. Outterson Wood for his warning. I cordially endorse his remarks as to the necessity of avoiding the loose prescription of dangerous drugs.—I am, etc.,

London, W., Jan. 28th. SEPTIMUS SUNDERLAND.

CANCER AND ITS ORIGIN.

SIR, The letter of Professor D. v. Hansemann contains misleading statements that invite comment, and contradictions that are difficult to reconcile. His impression that more than one of us is a botanist is incorrect. We do not understand why Professor v. Hansemann should imagine that we are ignorant of his work because we do not agree with his conclusions. We are perfectly familiar not only with his own investigations but also with those of others who have similarly described irregular mitoses as of frequent occurrence in malignant growths. But it is obvious from Professor v. Hansemann's account of hypochromatosis and hyperchromatosis that his conception of the whole phenomena of these nuclear divisions is radically different from that formed by ourselves.

The main point in the abstract of our paper, to which Professor v. Hansemann refers, lies in the recognition and description of the occurrence of a heterotype mitosis in an abnormal position. In normal cases the heterotype division is strictly confined to reproductive cells, and of these it is characteristic. We found it appearing also in malignant growths. Since then Professor v. Hansemann neither mentions the existence of the heterotype mitosis nor accepts the consequences of our statement as to its occurrence in malignant growths, we are at a loss to determine what are those precise points in our own investigations in connexion with which Professor v. Hansemann is so anxious to guard his priority.—We are, etc.,

J. BRETLAND FARMER,
J. E. S. MOORE,
CHARLES WALKER.

Royal College of Science, South Kensington, S.W., Jan. 23rd.

SIR, In reply to the letter of Professor Farmer and his colleagues in the BRITISH MEDICAL JOURNAL of January 16th, I wish to say that I did not mean to call in question the correctness of their description of the changes in normal gametogenic or reproductive cells. As they say, these changes are matters of common knowledge. I see, however, that I have unintentionally reversed their terms, and that I should have employed the term "gametoid" and not "ametogenic." What I wished to convey was that I could not quite agree with their views as to the mode of development or source of these "gametoid cells" in malignant disease. Apparently from their work in the vegetable kingdom it is clear that "gametogenic tissue may be reproduced upon the somatic tissue of certain plants by appropriate stimuli." I think the same thing happens in carcinoma, but to allow of its occurrence the cell or cells that become "gametoid" or germinal must have lost their functional power, whatever that may have been, and reverted to what we call (perhaps erroneously) "an embryonic condition." What has perhaps impressed this view so strongly on my mind is the fact that the most common seats of carcinoma in the human subject are those where cells have been subjected to physiological atrophy or to traumatic irritation. While then believing that somatic cells may become germinal and be the starting point of a carcinomatous growth, I am of opinion that they cannot do so as long as they are normal. They must first revert towards what we term an embryonic type, and from that, when the conditions are favourable, they pass into the germinal form. On this point, apparently, I am not in agreement with Professor Farmer and his colleagues.

Again, these gentlemen do not, I consider, quite correctly describe the position of matters when they say that there is "a vague similarity" between the idea suggested by me as the result of my clinical observations in oophorectomy in mammary cancer and the conclusions drawn by them from their microscopic work. Any one reading the respective papers will see that the opinion arrived at by both of us is identically the same. They hold that their investigations point strongly to the malignancy of tumours "being intimately connected with the reduction of the normal somatic cells of the body into reproductive or germinal tissue," while I, in consequence of what I have observed of the behaviour of cancerous tissue under oophorectomy, stated as far back as May, 1896, "that the active processes seen in a cancerous tumour are best explained by regarding the epithelium of the part as having taken on the properties and powers of the germinal epithelium," and that the special germinal cells may be represented by the so-called "cancer-bodies." Further proof of this being my view is furnished by the experiments I undertook in 1898, and published in the BRITISH MEDICAL JOURNAL of February 18th, 1899, to ascertain whether the germinal cells were of local origin or might arise from migratory ovarian or testicular cells.

I need hardly say that I regard the work done by Professor Farmer and his colleagues as most valuable and original, but at the same time it is only confirmatory of a view of the etiology of cancer that I put forward six years ago, based on the results of clinical work.—I am, etc.,

Glasgow, Jan. 24th. GEORGE THOS. BEATSON.

LUMBAGO.

SIR,—In my experience there are clinically two varieties of lumbago—one in which the pain is experienced only on movement, and the other in which it is constantly present though made worse by movement. These two varieties have further distinctions: in the former there is no tenderness on pressure, and sciatic neuritis rarely occurs as a complication; in the latter, though the lumbar muscles are not tender on pressure, yet there is often tenderness on pressure at spots just outside the erector spinae, and sciatic neuritis is a frequent complication. The first affection appears to be a rheumatic inflammation of the connective tissues, the latter one in which this extends to lumbar and sometimes to sciatic nerves. These distinctions are not absolute, but may I think be generally observed.

In the first variety counter-irritation has, I think, a greater value than Sir William Gowers is inclined to admit. A very convenient method is to apply a capsicum lotion (made by mixing 1 oz. of tincture of capsicum with 5 oz. of water) on a piece of lint or folded pocket-handkerchief. It is frequently found that shortly after this begins to sting the patient can move quite freely. The pain on movement returns, however, in an hour or so after removal of the pad, though to a less degree. This disappearance of the pain on counter-irritation is a most curious and hitherto unexplained phenomenon.

In regard to drugs, I think that salicylates to do good must be given in large doses, say 20 gr. every three hours. It is rarely that they give relief until salicylism is produced. Another drug often most useful is chloride of ammonium given in 30-gr. doses with a little spt. chlorof. and plenty of syrup; it often cures, and that rapidly, when salicylates have failed.

I should like, in conclusion, to say that in view of the fact, according to most authorities the muscle fibres within the muscle spindles do not receive any motor fibres, it is a little difficult to understand how "they share the contraction of the whole muscle," as Sir William Gowers states. Is it possible that we have here another instance of "antidromic" impulses?—I am, etc.,

Clifton, Jan. 26th. F. H. EDGEWORTH.

SIR,—Dr. William Bruce, in his criticisms of Sir William Gowers's lecture on Lumbago, says that "the whole narrative reads like a romance." Much, however, of what Sir William Gowers states is based on anatomical fact and physiological experiment. He has given a simple anatomical explanation of the production of pain and spasm of the muscles in lumbago. The "muscle spindle" is no romance. It is quite an easy matter to tease these spindle-shaped bodies out from the surrounding muscle fibres, and see them with the naked eye, for they often measure nearly $\frac{1}{2}$ in. in length.

The nerves passing from these spindles are very numerous, and have been shown to pass into the posterior roots of the spinal cord, and certainly do not belong to the sympathetic system, as suggested by Dr. Carter.

The irritation of these sensory structures would give rise to pain and reflex muscular contraction in exactly the same way as in the illustration given by Dr. Bruce of the foreign body in the eye, causing violent contraction of the orbicularis.

Dr. Bruce seems to forget to how great an extent muscular contraction depends upon the integrity of the sensory nerve fibres. I am, etc.,

London, W., Jan. —th. FREDERICK E. BATTEN.

SIR,—With reference to a letter by Dr. Watts in the BRITISH MEDICAL JOURNAL of January 23rd on the treatment of lumbago, I am reminded of a remark by my late lamented brother, Dr. Hilton Fagge. He said in pains of the back (lumbago) he always suspected the action of the kidneys, and with that idea ordered alkalies. I have found potassium bicarbonate with tinct. hyoscyam. very efficient remedies in these cases. I am, etc.,

Llanfairfechan, Jan. 25th. FREDERICK T. FAGGE.

THE PHYSIOLOGY OF FATIGUE.

SIR,—In your leading article on the Physiology of Fatigue you call attention to a most important subject. You state that the "fatigue-point" is difficult to determine, the factors concerned being so complex; but is it not possible to ascertain the primary cause of fatigue? There are no doubt many other causes, but, from my own personal experience, I believe it will be found that the primary cause depends upon auto-intoxication, which promises in the near future to surpass even the ubiquitous microbe as a cause of disease. I was very much impressed by the observation of a member of the House of Commons which I met with in an old book, to a fellow-member who was complaining of the ill-effects upon him of the atmosphere of the House: "I can stand it if I don't eat too much." What truth there is in that observation, and how wide is its application! Formerly I was in what may be called a state of chronic fatigue. My digestion failed, and I had to change my diet, avoiding flesh food. To my astonishment, the sense of fatigue was gone, and I did not know what it was to be tired. I never seemed to wish even to sit down, let alone lie on the couch, as I had been in the habit of doing. I became sleepy at bedtime, but I was not really what one would call fatigued or tired when I went to bed. Such a marked change astonished me, and helped me to an explanation of the observation of the member of the House of Commons. When he ate little he had little waste in his system to consume, and even the polluted air of the House was sufficient to supply him with all the oxygen he required: whereas his friend, who ate too much, was as it were poisoned by his inability to consume the waste products in his system. So is it with regard to fatigue; he who eats too much is easily fatigued.

A single meal may produce fatigue if it is unusually large or rich. Workmen are easily fatigued on Monday, compared with any other day of the week, owing to having more food and less work on the Sunday. Thus I have come to regard fatigue as a product of over-eating and the result of auto-intoxication. That I believe to be the true "Physiology of Fatigue," and any one can test its truth who has sufficient self-denial to put himself on a very restricted diet for a sufficient length of time. It may take a month or two to effect any great change, unless the change of diet is preceded by fasting, or a diet of fruit alone, for some days. My experience, I find, is not uncommon among those who have given up eating animal food, and it may be found that such food is the chief cause of the fatigue, which is so common. This is rendered highly probable by the fact that the staying power of those who are called vegetarians is so much greater than that of those who eat the flesh of animals in walking matches over long distances. It is a subject well worthy of the attention of every one, but more especially of physiologists. I am, etc.,

Hawick, Jan. 18th. JOHN HADDON, M.D.

LOCAL ORGANIZATION OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—Although no letters referring to mine which appeared in the BRITISH MEDICAL JOURNAL of January 2nd have been published, perhaps I may be allowed to reply to some which I have received privately.

Objection has been taken to placing any extra burdens upon Branch Secretaries with respect to Divisions. This I fall in

with, and am glad it has been made, as it gives me the opportunity of advancing what had previously occurred to me, namely, to obviate the inconvenience, and in order to push organization, as I certainly think it ought to be, in every Division in every Branch, that an organizing Secretary, either paid or unpaid, should be appointed in each Branch, and that his special duty should be to further organization in his Branch, as such, and in each Division of it; that he should be in touch, say, at least monthly, either with the General Organizing Secretary or with the Central Organization Committee, or both.

Intercommunication between Branch organizing secretaries also ought to be encouraged. Each of them ought to be in a position to visit two or three Divisions in each month when required, and to visit each Division at least once annually.

I am quite satisfied that such an appointment made in each Branch would be one of the most important levers for moving the general organization of the Association. Of course much would depend upon the choice of the best men. I would throw it open to competition, and encourage all those at all suited by special talents or inclinations to send in their names to the Council of the Branch. A payment of £20, £50, or even £100 per year would be a great inducement for many energetic and capable young practitioners to compete for it. It would be money well invested, and I say that if we are to have organization at all let us have it thorough, and we shall soon reap the fruits. It would encourage the subject to be studied and developed as a science. Those holding such appointments might make capable and well-informed representatives or delegates for the annual meeting of the Association, and I would allow them to attend, *ex officio*, all meetings of the Council of their Branch.

The formation of Divisions must have already unearthed many capable young practitioners who have good business and organizing abilities which had previously been unknown. I can with pleasure testify that some instances have come under my own observation.—I am, etc.,

Manchester, Jan. 16th. G. H. BROADBENT.

PRELIMINARY GENERAL EDUCATION OF MEDICAL STUDENTS.

SIR,—Kindly let me, in reference to Dr. Gordon's statement in the BRITISH MEDICAL JOURNAL of January 16th on the above subject, point out that the effect of any serious effort by the General Medical Council to raise the standard of preliminary examinations would be to dig the graves of nine licensing corporations: that is, seven Royal Colleges and two Apothecaries' Halls.

These institutions are supported mainly by non-university students, or such matriculated university students as are unwilling to pass any further Arts examination that their university may require of medical students.

In these days the standard of passing in professional subjects is much the same at universities as at colleges; hence if the standard of preliminary education were the same for degrees as for licenses, there would be no inducement for students to seek other than university qualifications. Many of your readers will say "and a good thing too."

It is hardly to be expected, however, that the representatives of the colleges or halls on the General Medical Council would sanction any scheme of primary education tending to jeopardize the existence of the Boards they represent. As it is, the Irish Colleges are already feeling the punch caused by the popularity of the Royal University Arts examinations.

The meaning of the Dublin Apothecaries' Hall wishing to revive its preliminary examination is that it seeks a base of supply for pupils, and legally it has as much right to acquire such base of supply as the Irish Conjoint Board. I am, etc.,

Dublin, Jan. 17th. S. WESLEY WILSON.

DOCTORS IN PARLIAMENT.

SIR,—I trust this question will not be allowed to die down before some definite result is attained. Dr. Gordon mentions that the profession possesses no fund which could be devoted to the purpose of defraying the expenses of medical members of Parliament, but surely this difficulty could be surmounted easily by collective action. I should deprecate most strongly any separate little fund being raised for this purpose. It is the multiplicity of little subscriptions that is so irritating to the busy practitioner, and the thought of it often prevents men joining medical societies and organizations of various kinds with which they are otherwise in entire sympathy.

It is, however, a well-known fact that the present subscription to the British Medical Association is inadequate for the dual purpose of maintaining the Branches in their pristine vigour, and at the same time of giving effect to the work that has been allotted to the Divisions. The subscription must be raised, and if it be raised to 30s. per annum from the present 25s. there would then, in my opinion, be an ample surplus which could be devoted to the purpose of maintaining one or two representatives of the profession in Parliament.

Of course, if the Association wants medical defence it must pay for it, as well as for any other luxuries; but my point is this—and I can speak with some experience of organization work and secretarial work—that medical men will much rather pay a subscription, say, of £1 per annum than four of 5s.

Let us then, as far as possible, consolidate our subscriptions, and if 30s. is not sufficient for all the objects we desire, let it be £2. I am, etc.,

E. D. KIRBY,
Hon. Secretary, Central Division, Birmingham Branch.

January 18th.

ST. BARTHOLOMEW'S HOSPITAL.

SIR,—Since our former letter was published in the BRITISH MEDICAL JOURNAL of December 19th, 1903, several events have occurred which are of importance to those interested in this institution; we are therefore again asking you to give publicity to our views on the present situation.

We wish to emphasize the fact that the recent decision of the governors to extend our site, either by acquiring more land or by utilizing adjacent land, already in our possession, on which to erect the Nurses' Home and the Residential College for students meets with our unanimous approval and support.

It has been alleged that the plans for rebuilding are not sufficiently advanced to enable any accurate estimates to be made, and we should like therefore to say publicly that this is certainly not the case. The needs of the hospital for additional buildings were placed by us before our governors more than two years ago, and the fullest details of even the floor space required by individual departments were also given. This has enabled the hospital architects to supply estimates of the cost of the required buildings, and the precise positions of the new blocks in a completed plan will not affect their conclusions.

It has always been the opinion of the Medical Council that all such additional buildings as they have asked for should be planned so as not to interfere with the rebuilding of the wards; and plans have now been submitted to us which support our views, and show that a completely new hospital can be satisfactorily erected on our site of six and a-half acres. It will thus be seen that, instead of St. Bartholomew's Hospital having no sufficiently settled plans or estimates, the latter are in an advanced state. We are indeed quite convinced that more than enough time has been already spent in preliminary considerations, and we most heartily support the decision of the Governors to issue an appeal at once, for we know better than others can possibly know how urgent is the need for prompt action.

There is another matter that has also attracted attention to which we desire to allude, namely, the situation of St. Bartholomew's. Its great accessibility is a matter of the very highest importance to the poor of London. So long as the City is the heart of London and of the empire, so long will access to it, and consequently to St. Bartholomew's, be cheap and easy, and so long will this charity remain a great consulting centre for the sick poor. The fact that its out-patients number about 150,000 in a year is a sufficient proof in itself of the usefulness of the hospital on its present site. There is no other district in any part of this city or in its suburbs where the hospital could be more advantageously placed, and none where a more healthy site could be found.

But the situation of St. Bartholomew's is further of importance to its medical school, and we may be pardoned for thinking that this is also a matter of material public interest. For many years past St. Bartholomew's has been not only one of the most important hospitals in England, but also the largest school of medicine. In this way the benefits of the hospital are not restricted to its numerous patients, but are spread over Great Britain and its Colonies. For the past twenty years an annual average of 600 students have studied at St. Bartholomew's, and nearly one in every eight medical men in England can lay claim to the distinction of having learnt medicine and surgery there. The interests of the hospital

and of its school are one, and removal to some remote district would not only destroy the school, but would also by so doing completely alter the whole character of the institution itself.

Many other reasons might very easily be adduced in support of the appeal for sufficient funds both to maintain St. Bartholomew's in its present position and also to make it one of the most complete and modern of English hospitals of which the City of London might well be proud. But we have said enough to show the public that the present appeal is made in the best interests of the poor of London, and we know that many thousands of our fellow-citizens will now, and in after-years, reap the benefits of those buildings which money alone can supply.—We are, etc.,

SAMUEL GEE,	A. E. GARROD,
DYCE DUCKWORTH,	J. CALVERT,
T. LAUDER BRUNTON,	F. H. CHAMPNEYS,
NORMAN MOORE,	W. S. A. GRIFFITH,
SAMUEL WEST,	D'ARCY POWER,
JOHN LANGTON,	H. J. WARING,
HARRISON CRIPPS,	W. MCADAM ECCLES,
W. BRUCE CLARKE,	R. C. BAILEY,
ANTHONY BOWLBY,	W. D. HARMER,
C. B. LOCKWOOD,	W. H. H. JESSOP,
J. A. ORMEROD,	T. HOLMES SPICER,
W. P. HERRINGHAM,	A. E. CUMBERBATCH.
H. H. TOOTH,	

St. Bartholomew's Hospital, Jan. 20th.

THE SWEATING OF MEDICAL MEN.

SIR,—Whilst agreeing with "One of the Crushed Doctors" that by means of union and co-operation many of the troubles of medical men can be relieved—and I have no doubt in time will be relieved—I would like to point out that there is no help like self-help. I believe he would best help himself by asserting his mental superiority over these ignorant people by showing a bold front. Surely the fact of his being a medical man is no reason why he should sacrifice his British grit and pluck, and, when attacked, turn his hinder part to the enemy in order that he may be kicked. I feel confident that if he will be more courageous, at the same time cultivating the friendship of his medical neighbours and his faith in them, he will become a happier and more prosperous man.—I am, etc.,

January 21st. AN UNCRUSHED COUNTRY DOCTOR.

SIR,—"One of the Crushed Doctors" throws out a suggestion which I think is a reasonable one. He says, "let places where medical men are numerous take the lead in co-operating." There are thousands of "crushed doctors," so crushed that they have not time even to complain, and this, I believe, is why your columns are not every week inundated with bitter complaints. In the BRITISH MEDICAL JOURNAL of October 24th, 1903, I gave an account of how the medical men in my district are sweated by the guardians, and yet we have no remedy, because with only two men in the place we cannot afford to risk the competition of a third, introduced with the subsidy of an "appointment." In larger towns, however, with seven or eight practitioners the advent of another is not so serious, and if the existing ones made a united stand in refusing all ill-paid or non-paid work, the newcomer would have his hands so full that he would be unable, through sheer lack of time, to touch their paying patients.

One often hears of the profession being overcrowded; that is certainly not true if one paraphrases it into saying that there is not enough work for the present number of medical men. There is, perhaps, not enough money for them to live on, but there is work, and more work than can be conscientiously overtaken by all the practitioners in the country.

Take my own case—typical of hundreds of country districts. I have a fair income, but for it I do a very large practice in the busy time, twelve or thirteen hours a day for seven days in the week. A few details of such work: I attend at the cottage hospital throughout the year and see four or five patients daily; my work there should bring me in about £150 a year, it is taken for nothing, and not even vouchsafed an expression of thanks in the annual report of the institution. My pauper work comes to an average of £240 a year: the guardians give me £70 for it. My clubs: well, at 3s. 6d. and 4s. a head, you will know what that means. Then there are the bad payers and the non-payers, and even when we arrive at the ordinary client, he thinks he is doing the doctor pretty well when he pays him 7s. 6d. for a four-mile journey and a bottle of medicine: raise the fee just a little, a sixpence or shilling perhaps, and the talk of "exorbitant charges" so takes the heart out of one, that one is glad to slip back on that vague notion of laying by for a rainy day. And not only is one done out of an old-age pension, but the public itself suffers ultimately by this overworking of the doctors. How many interesting cases pass through our hands every year, if we had only time to read up the subjects and record them much valuable information is thus lost to science, and many first-class men never manage to emerge from the mediocrity to which their slavery condemns them.—I am, etc.,

January 16th. A MEDICAL FISCAL REFORMER.

THE GENERAL MEDICAL COUNCIL AND THE ENGLISH COLLEGES.

SIR,—As some of the letters under this heading have the tendency to undermine the good name of the Colleges' diploma, I would revert to the statistics brought forward by Mr. Bryant when the General Medical Council were in session last May:—Whereas only 8.84 per cent. of London Conjoint men were rejected for the competitive service examinations, 36.23 per cent. Scottish Conjoint men, 30 per cent. Irish Conjoint men, 22 per cent. from Dublin University, 14.28 per cent. from Aberdeen University, 14.28 per cent. from Edinburgh University, and 16 per cent. from the Apothecaries Society of London were rejected respectively.

These figures show, I submit, the undoubted high standard maintained by the London Colleges. So, also, does a fuller analysis of the five more recent examinations.—I am, etc.,

London, W., Jan. 18th. F. W. COLLINGWOOD.

MEDICAL DEFENCE.

Salisbury v. Gould.

SIR,—Doubtless your readers will have seen the report of the case Salisbury v. Gould, tried before Mr. Justice Grantham and a special jury in the London Courts on January 21st and 22nd, and will have appreciated the position in which I was placed. It was, however, my good fortune to be enrolled as a member of the Medical Defence Union, of 4, Trafalgar Square, W.C., by whom my defence was undertaken and conducted throughout, immediately on my applying to them for assistance. I cannot overestimate the care and attention which was bestowed upon the case and the zeal which was exhibited in its conduct, securing for me by its means the satisfactory result which was obtained, whilst I was relieved not only of all trouble and anxiety but of very great expense, having only to go in the witness box and give my evidence. I cannot conceive how any registered medical practitioner can be so foolish as not to avail himself of the insurance afforded to all members by the Medical Defence Union.

I can never be sufficiently thankful to my friend, Dr. Danford Thomas, for inducing me years ago to belong to this excellent association, also to Mr. W. E. Hempson, the solicitor to the Union, for the skilful and most able manner in which he conducted my case and for the great courtesy and kindness which he and his staff exhibited on every occasion on which I had to consult him during the two years and four months of the various proceedings of the case.—I am, etc.,

London, W.C., Jan. 26th. W. R. GOULD.

CORRECTION.—Dr. D. Sommerville (London, W.C.) writes: In my note of last week on the Drigalski and Conradi medium, 2.75 grams agar should read 27.5 grams.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

COURSES OF ADVANCED STUDY AND RESEARCH.

THE amended regulations for persons who have taken a first degree in the University of London for graduates of other universities, and for other persons desirous of prosecuting a course of advanced study or research, or of proceeding to a higher degree were adopted by the Senate at its meeting on December 18th, 1903. In so far as they affect internal graduates these regulations have reference only to those who desire to study for a higher degree in a faculty other than that in which they have graduated. The regulations have regard to the degrees of M.A., D.Litt., D.D., D.Sc., LL.D., and D.Mus.

PRELIMINARY SCIENTIFIC EXAMINATION.

The Senate has determined that in the Preliminary Scientific Examination there shall be a practical examination of three hours in botany and a practical examination of three hours in zoology.

OBITUARY.

DUNCAN CAMPBELL LONGDEN, M.B., M.R.C.S.Eng., D.P.H.Ed., F.R.C.S.Ed.

The numerous friends and old pupils of Dr. D. C. Longden will learn with deep sorrow of his untimely death, which took place in London at the house of his brother, Dr. W. Longden, on January 18th, 1904, at the early age of 37.

Dr. Longden began his medical studies in the University of Edinburgh in 1884, and was recognized throughout his medical curriculum by teachers and fellow students alike, as a most earnest and thoughtful worker. Besides other prizes and honours he obtained in 1886 the Gold Medal Scholarship in Anatomy at the Royal College of Surgeons and thereafter acted as a Junior Demonstrator of Anatomy. He graduated M.B., C.M. in 1887 and was appointed by Dr. Macdonald Brown as Senior Demonstrator of Anatomy at Surgeons' Hall. Henceforward he devoted his entire energies to anatomy, and his labours at Surgeons' Hall not only won for him the esteem of his colleagues but the admiration of the numerous students who during the succeeding three years passed through his hands. In 1890, owing to ill-health, he was reluctantly compelled to resign his position and abandon teaching for some time. His resignation was the signal for an outburst of student enthusiasm, and at a smoking concert given in his honour he was presented by them with an address and a handsome gold watch.

During the period of enforced repose which followed he yet found time to take the D.P.H.Edin. and the M.R.C.S.Eng., and in 1891 he obtained the F.R.C.S.Edin. (by examination). Having recovered from his indisposition he accepted the appointment of Lecturer of Anatomy in the School of Medicine for Women in Edinburgh. He performed the important duties of this post with marked success for the period of two years, until he was obliged by a recrudescence of chest symptoms finally to abandon teaching and go abroad. In 1894 he proceeded to St. Helena, where for six months he resided with his brother, a lieutenant in the 84th Regiment garrisoned there. During the next five or six years he acted as a Surgeon in the British India Steamship Company's service, and in that capacity he made frequent passages to India and the Cape. In 1900, while at the Cape, he obtained permission to leave his ship, and was appointed Medical Officer for the Boer Refugee Camp at Barberton, Transvaal. He remained there until March, 1903, when he returned to England. Since that time he had lived principally at Norwood with his father and sisters, and it was, alas! too noticeable that he was getting weaker and weaker. He was, however, able to appear at Buckingham Palace in November last, when he received the Transport Service medal at the hands of the King. The end came unexpectedly while on a visit to his brother last week. He had a severe haemoptysis, from which he never rallied. He was interred at Kensal Green Cemetery, and, in addition to immediate relatives, there were present his old teacher and friends, Dr. Macdonald Brown, Dr. Whitlock, and Dr. O'Connor.

Dr. Longden was a man of most unassuming nature and singular gentleness of disposition. During his days in Edinburgh he was essentially a "student's man." A brilliant teacher and a sound anatomist, he won by these qualities the admiration of his pupils; still further, by his uprightness and kindly manners, he made himself beloved by all. He was a man whom the Edinburgh School could ill afford to spare, and his memory will live long amongst his old students as that of a true friend and a just and upright man.

W. [illegible] CONEYS, L.R.C.P. AND S.I.,

Car[illegible]

Yet another victim to typhus fever has been claimed in the person of Dr. W. [illegible] Coneys, the Dispensary Medical Officer of the [illegible] District. He had been infected by one of his poor patients. Dr. [illegible] removed him at once to Clifden [illegible] Hospital, and he was seen in consultation by Professor [illegible] of Galway. But he gradually sank, and died on January 16th, in his [illegible] year. He was a very popular and energetic officer, and was beloved by the people of his district. The Clifden Union Board of Guardians passed the following resolution by a unanimous vote:

[illegible] and we beg to tender our respectful sympathy to his friends and relatives in their sad bereavement."

Dr. Coneys was educated at the School of the Royal College of Surgeons, Ireland, and Richmond Hospital, D[illegible]

MEDICO-LEGAL AND MEDICO-ETHICAL.

PROTECTION OF MEDICAL PRACTITIONERS NOTIFYING INFECTIOUS CASES.

[illegible] v. GOULD.

The action brought by Mr. [illegible], a [illegible]maker, of [illegible] Street, W., against Dr. W. R. Gould, [illegible] away her [illegible]

The plaintiff was represented by Mr. [illegible] and Mr. [illegible]. Dr. Blake Odgers, K.C., and Mr. R. F. [illegible] appeared for Dr. Gould, instructed by Messrs. [illegible], the solicitors of the Medical Defence Union, of which [illegible] Dr. Gould was a member.

The [illegible] September, [illegible] passed and [illegible]

The Medical Defence Union on Dr. Gould's behalf contended that under the Public Authorities Act the delay was fatal to the action, and on application in chambers obtained an order [illegible] from the Master dismissing it, and on appeal to the judge in chambers the order of the Master was upheld. The plaintiff, however, took the matter to the Court of Appeal, by which tribunal it was decided that the special point of the Public Authorities Act must be pleaded in the action, and ordered it to proceed to trial.

Mrs. [illegible] and the child gave evidence to the effect that the latter was taken ill on September [illegible], that Dr. Gould was sent for on the following day, made but a [illegible] and superficial examination, and declared the case to be one of small-pox. That the next day he came again, together with Dr. Bond, the Medical Officer of Health, [illegible], and in consultation with him made an [illegible] examination without asking any questions or taking pulse or temperature, [illegible] the child was [illegible] and then returned as suffering from chicken-pox only.

For the defence it was contended that Dr. Gould acted as he did bona fide, and [illegible] under the provisions of the [illegible] Health Acts [illegible] he was performing [illegible] was under [illegible] and that he was [illegible] the Public Authorities Protection Act [illegible] It was [illegible] over twelve [illegible] statute [illegible] that there was [illegible]

After [illegible] the arguments of counsel on both sides, Mr. Justice [illegible] that he had no doubt [illegible] Public Authorities Act [illegible] to take [illegible]

Dr. Gould [illegible] gave evidence that [illegible] examination [illegible] case of small-pox, and [illegible] Medical Officer of Health [illegible] removal of [illegible]

Dr. Bond was called, and his evidence [illegible] of Dr. Gould. [illegible] the observations [illegible] The jury [illegible] verdict for the defendant, for whom judgement was entered, with costs.

The learned Judge, in answer to Dr. Blake Odgers, stated that Dr. Gould had acted [illegible] certificate, and that the [illegible]

THE RESPONSIBILITIES OF A NURSING HOME.

In a recent case at the Manchester Assizes [illegible] was tried by Mr. [illegible] was brought against the [illegible] damages alleged to have been [illegible] to the negligence of [illegible] only used when the patient was [illegible]

For the defence it was argued that [illegible] patients that were [illegible] Medical evidence [illegible] necessary [illegible] with the [illegible]

It may be [illegible] to be placed in a bath [illegible] and injured. It was proved [illegible] the [illegible] administered [illegible] for the defendant [illegible]

In the course of his summing up to the jury, Cockburn, C.J., said that the defendants would not be liable for the negligence of the nurses unless near enough to be aware of it, and to prevent it.

THE MEDICAL PROFESSION AND TRADE ADVERTISEMENTS.

THE following correspondence illustrates the manner in which professional writings may be abused for trade purposes:

COPY

87, Harley Street, Cavendish Square, W.
January 15th, 1904.

Dear Sir, My attention has been drawn to day for the first time to a leaflet signed by your firm, and apparently issued by you as an advertisement of an "Injection Adrenal-Eucaine" (Hewlett's). This begins by giving my name in full, and goes on to quote freely from a paper of mine published in the *Lancet* of July 25th, 1903.

I shall feel greatly obliged to you if you will kindly stop the circulation of this leaflet altogether, or so alter it that my name does not appear anywhere in it, or any clue to the paper on which you have drawn so largely. The circulation of such an advertisement is calculated to do me harm, and cannot but be distasteful to every right-minded member of our profession.

I am, faithfully yours,
ARTHUR E. BARKER, F.R.C.S.

C. J. Hewlett and Son
The following is the leaflet (omitting prices):

INJECTION ADRENAL-EUCAINE.
(HEWLETT'S)

Prof. ARTHUR E. J. BARKER, F.R.C.S. Eng., has recommended "Lancet," July 25th, 1903, C. J. Hewlett's Solution of Beta-Eucaine and Adrenalin, in preference to any of the other solutions of cocaine and eucaine.

He found that when injected into the arm, after a lapse of about 20 minutes, the part was quite blanched and wholly insensitive to pain, and that this anæsthesia lasted on an average for about two hours. An extensive operation can be done with 50 or 60 centimetres (about 2 fl. ozs.) He employs an ordinary glass and metal Hypodermic Syringe, holding 1 C.c., which can be boiled in plain water, and fitted with Priestley's Needles. The fluid is injected at blood heat.

In the radical cure of Inguinal Hernia, Professor Barker first reduces the Hernia, and the index finger is thrust with the skin into the external ring as far as possible. Along this finger the needle is entered and the tunnel canal filled with 10 C.c. of the injection. Three or four injections in the adjoining area are made with a view of infiltrating the field and rendering all the nerves. It is necessary, now, to wait 25 minutes to allow the full effects to develop. The whole field of operation ought to be blanched, and if the skin is not white and bloodless the solution is bad. The part to be operated upon can be tested with the point of a needle, and will usually be found to be insensitive to pricks though not cutting. If not quite insensitive, a few minutes longer may be allowed to elapse. When the incision is made, the absence of oozing of blood is remarkable; only the larger vessels bleed at all. When necessary, the cord should be dissected cleanly without any dragging. Prof. Barker reports the use of the injection in the case of a man whose varicose veins were tied whilst he patient smoked a pipe during the operation and also enjoyed a cup of tea. The operations should be aseptic throughout, and the solution can be boiled, if required, without decomposition. Obviously the injection should prove most useful in numerous operations where a general anæsthetic is undesirable, and Prof. Barker reports a case of skin-grafting for chronic ulcers of the leg. Psoas abscess treated by four operations and Cystic Adenoma were also operated on by this method with success.

Inject. Adrenal-Eucaine Hewlett's

"I have used the above in my practice [illegible] and I am very well satisfied with the results. I prefer it to [illegible] for the sake of the cord, and would recommend it to others."

ED. KING HOPKINS, L.R.C.P.Ed., L.M., L.R.C.S., etc.,
August 29th, 1903. *Dep. Coroner, East London.*

C. J. HEWLETT and SON, *Wholesale and Export Druggists*,
25 to 42, Charlotte Street, London, E.C.

COPY

37, 38, 41 and 42, Charlotte Street,
Great Eastern Street, London, E.C.
January 15th, 1904.

Professor Arthur E. J. Barker, F.R.C.S. Eng., etc.,
87, Harley Street, Cavendish Square, W.

Dear Sir,—We are duly in receipt of your letter of the 15th and regret to note that you object to our using your name in connexion with the suggested use of a combination of beta-eucaine and adrenalin.

We are rather surprised at the objection as it is perfectly obvious that in the leaflet referred to only a quotation from the *Lancet* is made use of and no suggestion that you have recommended our injection is inferred even.

Still we are most anxious to meet your wishes and propose omitting your name altogether from the leaflet, merely stating the source of the paper namely, the *Lancet* which we think you will agree we have a perfect right to do.

We may add that we have published Therapeutical Notes on various new remedies for many years and quoted extensively from papers and suggestions by Sir T. Lauder Brunton, Dr. Murrell, Dr. Alfred Eddowes, etc., and never received any complaints.

With compliments,
We are, dear Sir, yours faithfully,
C. J. HEWLETT AND SON.

*** The ground of Mr. Barker's complaint is that he did not recommend or mention Messrs. Hewlett's preparation, but even had he done so, he might still reasonably object to the use made of his name and article. We cannot agree with Messrs. Hewlett that "the suggestion that he has "recommended their injection is inferred even." If the leaflet does not explicitly state this, it nevertheless quotes Mr. Barker's name and published opinions as a warrant for its claims, and suggests the inference if it does not "infer the suggestion" that the preparation advertised is identical with that which he has used. We are glad that Messrs. Hewlett have consented to withdraw Mr. Barker's name, but we regret that they attempt to excuse themselves by contending that the use of the names of members of the medical profession in trade advertisements is not generally considered to be objectionable. Cases may pass unobserved, but the Censors of the Royal College of Physicians have repeatedly taken exception to such use of the names of Fellows or Members of the College, and we should have thought that this would have been known to a firm of the standing of the Messrs. Hewlett.

ACTION FOR ALLEGED NEGLIGENCE.

ACCORDING to a report in the *Daily Telegraph* of January 15th, an action was tried at the County Court, Greenwich, before Judge Addison, K.C., to recover damages from Dr. George John O'Reilly of Hither Green. The damages were said to have been sustained by the unskilful attendance of Dr. O'Reilly during the confinement of a Mrs. Johnston. It was alleged that the defendant, although frequently visiting the plaintiff between the date of the birth of the child and November 1st, 1903, neglected to make a proper examination, that he appeared on one occasion to be in an excited state, and was unable to appreciate the condition of the patient. The damages claimed were for extra nourishment, nursing, and medical expenses. Evidence in support of the case was given by Drs. Park and Wood, two nurses, and the plaintiff and her husband.

An absolute denial was given by Dr. O'Reilly, whose defence was conducted by the London and Counties Medical Protection Society. Dr. O'Reilly said that everything possible was done for the patient, and the medical witnesses called on his behalf included Dr. Herman of the London Hospital, and Dr. Wellesley Harris. The jury awarded a verdict of £5 5s. and to the plaintiff, and allowed a small counter claim to the defendant. Judgement was entered accordingly with costs.

LECTURES ON MEDICAL JURISPRUDENCE.

IN the second of a course of lectures on medical jurisprudence, delivered by Dr. F. J. Waldo, Coroner for the City of London, at the Old Hall, Lincoln's Inn, the subject dealt with was Live Birth in relation to Civil and Criminal Law, a subject of great importance to lawyers. The consideration of live birth is naturally divided into two classes—namely, those that affect either civil cases of inheritance or criminal cases of infanticide. In both the evidence that establishes the fact of live birth is identical. The medical view of live birth differs from the legal. The medical man demands proof of the establishment of circulation and of respiration, even when the child has not been born into the world. In this way, crying is one of the most satisfactory proofs of respiration, and hence, to the medical mind, of live birth. The law, on the other hand, is content with the faintest sign of vitality, provided the child is fully born into the world, as establishing the fact of live birth. The tremor of a muscle or the quiver of an eyelid may be sufficient evidence of live birth from the legal point of view. The positive signs of live birth, as laid down by Casper, were next discussed. Infanticide was systematically treated as affecting, first, the mother, and secondly, the child. The crucial test of viability, or the capacity of a child to survive birth, was treated at some length. The period of gestation mentioned by Taylor and other authorities as the earliest at which a child might possibly be born alive is four months. The capacity to survive, however, is not attained until the seventh calendar month of gestation. The questions of legitimacy and illegitimacy are also involved in the question of birth in relation to civil law. The celebrated Poulett peerage case hinged on a question of legitimacy. The lecture was closely followed by a legal audience. The remaining lectures of the course will be delivered on subsequent Thursdays. They deal with death in its medico-legal relations, insanity; and poisons.

LEGS FOR THE LAME.

R. S. H.—We have referred the matter to the Ethical Committee.

PURCHASING A PRACTICE.

L. N. P. In the case submitted to us the law would turn upon (1) whether the purchaser, having had four months' introduction, would not be held to have had sufficient opportunity to make himself acquainted with the circumstances now complained of; and (2) the construction of the arbitration clause in the agreement. It seems to be a case in which it would be better to consult a solicitor.

ASSISTANTS AND CONTRACTS NOT TO PRACTISE.

ITTAI.—If the assistant has signed no bond he is under no legal obligation of any kind as to where he may practise.

ROYAL NAVY AND ARMY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: DONALD P. CHAPMAN, Surgeon, to the *Empress*, February 2nd; ALGERNON C. BEAN, Surgeon, to the *Crescent*, February 2nd; GEORGE R. MACMAHON, Surgeon, to the *Lancaster*, January 1st; RICHARD A. ROSS, M.B., Surgeon to the *Royal Arthur*, February 14th.

ROYAL NAVY VOLUNTEER RESERVE.

CHARLES O.B. HARDING, M.R.C.S., L.R.C.P., has been appointed an Honorary Surgeon, January 15th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT O. CHALLIS, from temporary half pay, to be Lieutenant, December 14th, 1903. He is also promoted to be Captain from the same date. Captain Challis was appointed Lieutenant, July 28th, 1899, and was placed on temporary half-pay on account of ill-health, July 23rd, 1902.

SURGEON-MAJOR REGINALD SLEMAN (the Volunteer Ambulance School Instructor, London) writes: An "Extract from the Manual for the R.A.M.C." has recently been published, giving important alterations in the drill. The movements are much simplified, and are mostly in accordance with the changes adopted in infantry training. The words of command are more practical. The following movements have been abolished: extending at the halt, moving to a flank with slope, stretchers, and changing front. The bearer company and field hospital camps are altered: in the former the tents are reduced to nine, two

the officers' tents and the guard tent being omitted, and in the latter two tents for general stores has been added, whilst the tents for the Army Service Corps have been reduced by two. A combined camp for a bearer company and a field hospital is authorized; perhaps we shall soon see the *personnel* also combined to form a "brigade medical unit."

INDIAN MEDICAL SERVICE.

THE following were the successful candidates at the Indian Medical Service examination held on January 19th and the four following days:

	Marks.		Marks.
H. B. Drake	3,515	I. D. Jones	2,834
E. E. Hodgson	3,167	H. Watts	2,810
W. S. McGillivray	3,046	J. Anderson	2,800
W. Gillitt	2,991	W. T. Finlayson	2,799
W. F. Brayne	2,978	H. E. Stranger-Leathes	2,792
M. S. Irani	2,899	E. A. Roberts	2,789
S. W. Jones	2,882	G. G. Hirst	2,777
W. Tarr	2,874	M. J. Quirke	2,75[illegible]
C. H. Barbar	2,867	J. M. Holmes	2,684
W. T. McCowen	2,859	M. F. White	2,666

Forty-two candidates (of whom 26 had university degrees) competed for 20 vacancies.

CAPTAIN B. G. SETON, Bengal Establishment, is appointed Personal Assistant to the Principal Medical Officer, Bengal Command.

The *Pioneer*, an Indian paper, says it is understood that Sir Frederick Treves will furnish a report to the home authorities regarding the position and work of the Royal Army Medical Corps officers in India. It is anticipated that the Indian Medical Service will also be commented on.

Captain WILLIAM HENVEY, Bengal Establishment, died on January 11th, aged [illegible]. He joined the department as Surgeon-Captain, July 28th, 1891, and was transferred to temporary half-pay, March 4th, 1902. He was with the Isazai Expedition in 1892.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANT Honorary Lieutenant in the army) W. V. SINCLAIR to be Captain, December [illegible]th, 19[illegible].

WEARING OF MEDALS.

EX-CIVIL SURGEON, LATE BOER WAR, asks: On what occasions can I, with good taste, wear my South African medal? Can it be worn when in evening dress, at public dinners, functions, etc.? Should the medal or only the ribbon be worn?

*** H.R.H. the Duke of Cambridge, when Commander-in-Chief, ruled, a good many years ago, to the following effect, regarding the wearing of *miniature medals* (not ribbons) and other decorations, when in evening dress: Such medals *may* be worn, according to taste, at any public dinner, or function, and *will* always be worn when representatives of *Royalty* are present on such occasions. Observe the words in italics; these rules are now generally followed by holders of medals.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS FOR ENGLAND AND WALES.

WE are indebted to the Registrar-General for the following statistics, compiled for the convenience of medical officers of health who are now required to complete their annual reports to the Local Government Board by the middle of February in each year. The figures are provisional.

ENGLAND AND WALES, 1903.

Annual Birth-rate and Death-rates from the Seven Chief Epidemic Diseases.

	Annual Rates per 1,000 Living.			Infant Mortality Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births	Deaths from all Causes	Deaths from Seven Chief Epidemic Diseases	
England and Wales	[illegible]	1[illegible].4	1.4[illegible]	1[illegible]
Rural England and Wales	[illegible]	[illegible]	1.0[illegible]	11[illegible]
[illegible] great towns	[illegible]	[illegible]	1.[illegible]	144
[illegible] smaller towns	[illegible]	14.[illegible]	1.41	1[illegible]

THE RURAL MIDWIVES ASSOCIATIONS.

THE Executive Committee of the Rural Midwives Association held a conference, under the chairmanship of Lord BELPER, at 3, Grosvenor Place on January 27th. The conference was well attended by representatives of county councils and others interested in nursing and maternity work. After hearing speeches from Dr. Handfield-Jones, Dr. Holman, Dr. Cassidi (Derby), Dr. W. S. A. Griffith, Dr. R. Boxall, and many other speakers, the following resolutions were unanimously agreed to:

(*a*) That the requirements of the Midwives Act may be usefully met by adding midwives to the staff of the local nursing associations, and by training local women to work under a small committee, provided that in both cases their work is kept distinct from cases dangerous to their calling.

(*b*) That where localities are unable to meet the initial expense of training, recourse must be had to grants from county councils and others, but some payment by the patient should always be made to meet the current expenses.

(*c*) That respectable women of the cottage class, carefully trained, and working under supervision, will meet the requirements of the Act in rural districts.

(*d*) That the supervision of a local committee is advisable in every case, who should be in communication with the local supervising authorities under the Act.

VACCINATION.

THE following correspondence has been forwarded to us for publication:

Newark Union,
December 31st, 1903.

Vaccination.

Dear Sir,—The guardians of this union have decided to pay only the minimum fees sanctioned by the Local Government Board from and after February 1st next. They have therefore instructed me to give you notice that they will terminate on the 31st proximo the contract which was entered into with you on February 1[illegible]th, 19[illegible]. I shall be glad if you will inform me on or before the 9th proximo whether you are desirous of being reappointed public vaccinator on the conditions mentioned.

I am, yours faithfully,
M. H. COLTON, Clerk.

To the Chairman and Members of the Board of Guardians.
January [illegible]th, 1904.

Gentlemen,—At a meeting of the public vaccinators of the Newark Union held on January [illegible]th the question of the reduction of the vaccination fees was considered, and it was decided to ask the Board of Guardians to grant the public vaccinators an interview. This courtesy was extended to them four years ago when the present fees were arranged, and they trust the same courtesy will be extended to them on this occasion.

Your obedient servant,
FRANK BROADBENT, Hon. Sec.

Newark Union,
January 12th, 1904.

Dear Sir,—Your letter of the 6th instant was laid before the guardians, and I am instructed to inform you that they would be prepared to meet the public vaccinators as desired, but they would not for one moment discuss the question of fees again or depart from the resolution passed at the last meeting.

Yours faithfully,
M. H. COLTON.

To the Chairman and Members of the Newark Board of Guardians.
January 23rd, 1904.

Gentlemen,—I regret the guardians have declined to discuss the question of fees with the public vaccinators. I must remind them that they have inflicted *a great hardship and injustice* on the county vaccinators in that they expect them to drive many miles to do efficient vaccination for the same fee as those whose vaccination cases are close to their residences.

Yours truly,
FRANK BROADBENT, Hon. Sec.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1903.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending December last, [illegible] births were registered in these towns, equal to an annual rate of 2[illegible] per 1,000 of their aggregate population, estimated at [illegible] persons in the middle of the year; this rate was [illegible]4 per 1,000 below the birth-rate in the corresponding period of the preceding year. In London the birth-rate was [illegible]4 per 1,000, while it averaged [illegible] in the seventy-five large provincial towns, among which the rates ranged from [illegible] in Hastings, [illegible] in Bournemouth, [illegible] in Hornsey, [illegible] in Halifax, [illegible] in Rochdale, [illegible] in Bury, and [illegible] in Northampton to [illegible] in Hanley, [illegible] in Warrington and in Gateshead, [illegible] in Wigan, [illegible] in Smethwick, [illegible] in Merthyr Tydfil, [illegible] in Rhondda, and [illegible] in St. Helens.

During the quarter under notice [illegible] deaths were registered in these seventy-six towns, corresponding to an annual rate of [illegible] per 1,000, which was [illegible] per 1,000 below the rate in the corresponding quarter of the preceding year. In London the rate of mortality was [illegible] per 1,000, while it averaged [illegible] per 1,000 in the seventy-five large provincial towns, among which the rates ranged from [illegible] in Hornsey, [illegible] in King's Norton, [illegible] in [illegible], [illegible] in [illegible], [illegible] in Walthamstow, and [illegible] in Handsworth, [illegible] in Merthyr Tydfil, [illegible] in Warrington and in [illegible], [illegible] in York, [illegible] in Wigan, and [illegible] in Preston.

The [illegible] deaths from all causes in these towns last quarter included [illegible] which were referred to the principal infectious diseases [illegible]

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the Fourth Quarter of 1903.

Towns.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15,075,011	107,452	64,031	28.6	17.3	1.66	6,245	32	1,201	471	717	973	572	2,279	167	1.2
75 Provincial Towns	10,461,199	75,941	45,849	29.1	17.6	1.73	4,524	20	825	361	528	704	403	1,594	173	1.5
London	4,613,812	31,511	19,082	27.4	16.6	1.50	1,721	3	376	90	189	209	169	685	154	0.3
Croydon	141,157	921	449	26.2	12.8	0.54	19	—	—	—	7	1	1	10	101	—
Willesden	127,077	970	504	30.6	15.9	3.50	113	—	78	2	3	10	3	17	157	0.2
Hornsey	78,386	361	147	18.5	7.5	0.05	1	—	—	—	—	—	—	1	102	—
Tottenham	109,749	864	363	31.0	13.3	0.62	17	—	2	—	5	2	4	4	148	0.3
West Ham	281,894	2,366	1,205	32.8	17.1	2.66	187	—	40	2	12	25	17	91	183	0.2
East Ham	110,451	895	320	32.5	11.6	1.23	34	—	—	2	5	3	2	22	139	1.3
Leyton	107,153	789	276	29.5	10.3	1.68	45	—	5	3	6	14	5	12	100	0.4
Walthamstow	106,290	859	309	32.4	11.7	1.43	38	—	2	—	2	5	10	19	134	0.3
Hastings	66,194	290	212	17.0	12.8	0.60	10	—	—	—	—	4	—	6	128	1.4
Brighton	125,405	735	459	23.5	14.7	0.74	25	—	—	—	10	6	2	7	133	0.2
Portsmouth	194,960	1,379	815	28.4	16.8	1.39	68	—	—	7	21	10	4	26	131	1.1
Bournemouth	63,132	266	166	16.9	13.1	0.50	8	—	—	—	3	1	1	3	108	—
Southampton	110,120	745	363	27.1	13.2	1.31	36	—	—	2	7	1	8	18	119	—
Reading	75,082	470	239	25.4	12.8	0.64	12	—	—	—	3	—	1	8	132	0.8
Northampton	89,863	436	358	22.1	16.0	1.00	36	—	—	8	7	1	2	18	194	3.1
Ipswich	68,818	484	294	28.2	17.1	1.51	26	—	15	—	2	1	3	5	174	1.7
Great Yarmouth	51,851	332	229	25.7	17.7	2.56	33	—	12	—	12	1	1	7	169	—
Norwich	114,351	778	480	27.3	16.8	0.53	15	—	—	2	2	—	2	9	170	1.2
Plymouth	112,022	687	504	24.6	18.0	1.33	37	—	—	5	3	6	3	20	191	0.2
Devonport	73,815	538	300	29.2	16.3	0.71	13	—	—	4	3	2	—	4	147	—
Bristol	338,895	2,249	1,298	26.6	15.4	0.96	81	—	1	6	27	11	8	28	146	0.4
Hanley	63,205	538	324	34.1	20.6	2.66	42	—		2	12	1	3	14	223	2.2
Burton-on-Trent	51,450	349	174	27.2	13.6	0.40	5	—	—	2	1	—	—	2	112	0.6
Wolverhampton	96,947	711	405	29.4	16.8	1.57	38	—	3	7	2	4	5	17	205	0.7
Walsall	89,878	750	400	33.5	17.9	1.06	44	—	—	5	3	26	4	12	168	1.0
Handsworth	57,557	350	177	24.4	12.3	0.91	13	—	1	1	1	2	—	8	129	2.3
West Bromwich	66,558	530	296	31.9	17.5	2.04	34	—	10	3	4	—	1	16	204	1.7
Birmingham	533,039	4,078	2,550	30.7	19.2	2.46	324	1	46	18	46	24	18	171	193	2.5
Kings Norton	63,717	408	157	25.7	9.9	1.01	16	1	—	7	2	—	—	6	96	3.8
Smethwick	58,787	524	214	35.7	14.6	0.96	14	—	2	2	2	—	3	5	151	2.3
Aston Manor	79,417	520	275	26.3	13.9	1.76	35	—	4	2	2	7	3	17	154	1.1
Coventry	72,684	519	278	28.6	15.3	0.89	16	1	—	—	4	—	—	11	123	1.4
Leicester	220,272	1,474	849	26.8	15.5	1.04	57	1	5	1	10	15	3	22	185	0.7
Grimsby	65,772	439	214	26.8	13.0	0.78	13	—	—	1	5	1	4	2	137	2.0
Nottingham	245,985	1,709	1,005	27.9	17.4	1.65	101	2	4	11	15	25	11	35	193	0.9
Derby	118,707	759	425	25.6	14.5	0.88	26	—	3	—	2	8		13	153	—
Stockport	95,709	674	475	28.2	19.9	1.46	35	1	10	4	2	2	6	10	212	0.2
Birkenhead	113,598	814	459	28.7	16.2	1.24	35	—	—	3	4	15	2	11	136	0.4
Wallasey	58,258	388	266	26.7	14.2	1.11	16	—	—	3	—	3	3	7	103	1.5
Liverpool	716,810	5,799	3,783	32.4	21.2	2.00	356	—	7	39	38	148	37	87	171	3.8
Bootle	60,761	471	292	31.1	19.3	1.64	25	—	—	4	3	9	2	7	174	5.5
St Helens	87,259	868	421	39.9	19.4	1.47	32	—	—	4	6	7	7	8	164	7.4
Wigan	62,165	539	361	34.8	23.3	2.46	38	—	—	8	1	16	2	11	215	0.2
Warrington	66,370	573	378	34.6	22.8	6.58	109	4	79	2	1	15	1	7	173	2.6
Bolton	173,401	1,152	757	27.6	17.5	1.22	53	1	4	4	6	5	11	22	156	0.4
Bury	58,313	370	262	22.6	18.0	2.48	36	—	21	—	2	3	2	8	187	1.9
Manchester	553,486	4,154	2,700	30.1	19.6	1.91	262	1	31	33	27	27	34	109	183	2.0
Salford	220,430	1,746	1,188	31.8	21.0	2.59	146	1	28	21	17	20	19	40	178	0.8
Oldham	138,786	813	687	23.5	19.9	1.47	51	—	14	3	11	6	3	14	216	—
Rochdale	84,824	462	385	21.8	16.2	1.52	32	—	—	—	5	18		9	232	1.3
Burnley	99,469	644	517	25.9	20.8	2.86	71	—	4	4	3	17	4	39	240	0.8
Blackburn	131,218	736	564	22.5	17.3	4.01	66	—	24	3	7	—	4	25	193	1.8
Preston	114,404	796	670	27.9	23.5	5.60	165	—	94	5	6	—	15	45	251	2.1
Barrow-in-Furness	59,009	498	198	33.8	13.5	1.02	15	—	1	—	1	1	3	9	145	7.1
Huddersfield	94,063	582	397	24.6	16.6	0.85	20	—	—	1	7	—	4	8	127	0.3
Halifax	100,754	512	444	19.2	15.6	0.78	21	—	4	3	4	4	3	5	176	2.4
Bradford	283,412	1,555	1,011	22	15.7	1.22	86	—	13	11	11	6	16	26	171	0.7
Leeds	443,559	3,121	2,097	27.8	18.6	1.80	200	—	50	24	12	47	19	48	189	0.0
Sheffield	425,328	3,483	1,872	32.0	17.6	1.64	173	—	38	23	7	38	16	53	169	2.5
Rotherham	57,212	472	281	33.1	19.7	3.09	57	—	27	3	2	4	4	17	225	2.8
York	80,196	570	436	27.6	21.0	4.00	62	1	38	6	3	27	1	17	221	
Hull	240,089	1,573	1,114	30.1	21	6.71	44	—	2	1	1	2	1	25	151	1.4
Middlesbrough	93,023	770	541	32.7	22.8	2.15	51	—	2	1	3	6	3	36	218	1.7
Stockton-on-Tees	51,075	391	248	30.4	19.1	1.61	21	—	—	1	1	7	4	6	230	0.4
West Hartlepool	62,261	515	291	31.5	17.5	1.02	17	—	2	1	6	7	1		215	0.7
Sunderland	144,572	1,124	502	33	21	5.40	127	1	79		6	5	8	25	156	1.7
South Shields	108,525	801	437	29.6	17.4	0.66	23	—	—	6	2	1		14	120	3.3
Gateshead	115,581	697	526	24	18.4	2.61	61	9	—	11	3	26	—	31	264	5.1
Newcastle-on-Tyne	222,241	1,524	1,113	28.9	21.1	1.08	60	1	3	3	8	11	1	11	135	
Tynemouth	54,531	412	255	31.5	20.1	1.15	15	3	—	2	5		1	4	150	1.2
Newport (Mon.)	70,217	546	295	41.1	17.2	1.31	23	—	1	4	2	10	2	4	156	1.1
Cardiff	172,568	1,448	668	27	15.4	1.45	62	—	9	11	11	5	6	15	156	0.2
Rhondda	113,562	1,143	502	35.7	17.7	2.16	65	—	5	3	12	11	6	25	157	1.1
Merthyr Tydfil	72,621	656	302	36.7	21.4	3.76	77	—	—	12	1	3	14	21	202	
Swansea	95,479	784	453	40.6	24.7	1.54	44	—	—	7	1	11	4	11	211	3.2

"fever" [illegible] [illegible] from diarrhoea. The death-rate from these [illegible] [illegible] in the seventy-six towns, and was [illegible] per [illegible] below the rate in the fourth quarter of 1902. In London these diseases caused a death-rate of [illegible] per 1,000, while the rate averaged [illegible] in the seventy-five large provincial towns, and ranged from [illegible] in Hornsey, [illegible] [illegible] in Bournemouth, [illegible] in Norwich, [illegible] in Croydon, [illegible] Hastings, [illegible] in Tottenham, and [illegible] in Reading, to [illegible] in [illegible], [illegible] in Sunderland, [illegible] in Willesden, [illegible] in Merthyr Tydfil, [illegible] in Rotherham, [illegible] in York, [illegible] in Preston, and [illegible] in Warrington. The [illegible] fatal cases of small-pox registered in the large towns last quarter included [illegible], which belonged to Gateshead, 4 to Warrington, [illegible] to London, and [illegible] to Tynemouth. The death-rate from measles was equal to [illegible] per 1,000, against [illegible] in the corresponding period of the preceding year. In London the death-rate from this disease was [illegible] per [illegible], while it averaged [illegible] in the seventy-five provincial towns, and was highest in Willesden, Ipswich, Great Yarmouth, Warrington, Bury, Preston, Rotherham, York, and Sunderland. The mortality from scarlet fever was equal to an annual rate of 0.12 per 1,000, being [illegible] per 1,000 below the rate in the fourth quarter of the preceding year. In London the rate last quarter was [illegible] per 1,000, while it averaged [illegible] in the seventy-five large provincial towns, among which this disease was proportionally most fatal in Northampton, King's Norton, Wigan, Salford, York, Gateshead, Merthyr Tydfil, and Swansea. The mean death-rate from diphtheria in the seventy-six towns was 0.16 per 1,000, against [illegible] in the corresponding period of 1902. In London this death-rate was equal to [illegible] per 1,000, while it averaged [illegible] in the seventy-five other large towns, among which the highest death-rates from this disease were recorded in Portsmouth, Great Yarmouth, Hanley, Birmingham, West Hartlepool, Tynemouth, Rhondda, and Merthyr Tydfil. The fatal cases of whooping-cough were equal to an annual rate of 0.26 per 1,000, which was also the rate during the fourth quarter of the preceding year. In London the death-rate from this disease was [illegible] per 1,000, while it averaged [illegible] in the seventy-five other large towns, among which whooping-cough was proportionally most fatal in Walsall, Liverpool, Wigan, Warrington, Rochdale, Burnley, York, Gateshead, and Swansea. The death-rate from "fever" averaged 0.15 per 1,000 in these towns last quarter, against [illegible] in the corresponding period of the preceding year; in London also this death-rate was 0.15 per 1,000, while among the seventy-five large provincial towns "fever" showed the greatest proportional fatality in Walthamstow, Southampton, St. Helens, Salford, Preston, Rotherham, Stockton-on-Tees, and Merthyr Tydfil. The mortality from diarrhoea was equal to [illegible] per 1,000, being slightly in excess of the rate in the corresponding quarter of the preceding year. In London the rate was [illegible] per 1,000, while it averaged [illegible] in the seventy-five other large towns, among which the highest death-rates from this disease were recorded in West Ham, Hanley, Birmingham, Burnley, Preston, Rotherham, Middlesbrough, and Merthyr Tydfil.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to [illegible] last quarter, against [illegible] in the corresponding period of the preceding year. In London the proportion, during the quarter under notice, was [illegible] per 1,000, while it averaged [illegible] in the seventy-five large provincial towns and ranged from [illegible] in King's Norton, [illegible] in Croydon, 102 in Hornsey, [illegible] in Wallasey, [illegible] in Leyton, [illegible] in Bournemouth, [illegible] in Burton-on-Trent, and [illegible] in Southampton, to [illegible] in York, [illegible] in Hanley, [illegible] in Rotherham, [illegible] in Stockton-on-Tees, [illegible] in Rochdale, 236 in Middlesbrough, [illegible] in Burnley, and [illegible] in Preston.

The causes of [illegible] of the [illegible] per cent. of the deaths registered in the seventy-six towns last quarter were not certified; in London the proportion was [illegible] per cent., among the seventy-five large provincial towns all the causes of death were duly certified in Croydon, Hornsey, Bournemouth, Southampton, Great Yarmouth, Devonport, Derby, Oldham, and York, while the highest proportions of uncertified deaths were registered in Northampton, King's Norton, Liverpool, Bootle, St. Helens, Barrow-in-Furness, South Shields, and Gateshead.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,718 births and [illegible] deaths were registered during the week ending Saturday last, January [illegible]rd. The annual rate of mortality in these towns, which had been [illegible], [illegible], and [illegible] per 1,000, in the three preceding weeks, further declined last week to 18.1 per 1,000. The rates in the several towns ranged from [illegible] in King's Norton, 7.1 in Hornsey, 8.7 in Barrow-in-Furness, [illegible] in East Ham, 11.3 in Bournemouth, and 11.8 in Leyton and in Hastings, to [illegible] in West Ham, 22.8 in Liverpool, 23.[illegible] in Wigan, [illegible] in Tynemouth, [illegible] in Stockton-on-Tees, 25.0 in Great Yarmouth, [illegible] in Preston, and [illegible] in Merthyr Tydfil. In London the death-rate was [illegible] per 1,000, while it averaged [illegible] per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was [illegible] per 1,000 in the seventy-six large towns; in London this death-rate was equal to [illegible] per 1,000, while in the seventy-five large provincial towns the rates ranged upwards to [illegible] in Gateshead, [illegible] in Burnley, [illegible] in Swansea, [illegible] in West Bromwich, [illegible] in Rhondda and in Merthyr Tydfil, and [illegible] in Preston. Measles caused a death-rate of [illegible] in West Ham, [illegible] in Rotherham, [illegible] in Warrington, and [illegible] in Preston; diphtheria [illegible] in [illegible], [illegible] in St. Helens; whooping-cough [illegible] in Rochdale, [illegible] in [illegible], [illegible] in Newport (Mon.), [illegible] in Swansea, [illegible] in Gateshead, [illegible] in West Hartlepool, and 4[illegible] in Merthyr Tydfil, [illegible] [illegible]. The mortality both from scarlet fever and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Gateshead, but not one in any other of the seventy-six large towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been [illegible] at the end of each of the three preceding weeks, had [illegible] to [illegible] at the end of last week; [illegible] new cases were admitted during the week, against [illegible] in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, [illegible], was [illegible], against [illegible], [illegible], and [illegible] on the three preceding Saturdays; [illegible] new cases were admitted during the week, against [illegible], [illegible], and [illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January [illegible], [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks in these towns, declined again to [illegible] per 1,000, but was [illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from [illegible] in Edinburgh and [illegible] in Leith, [illegible] in Dundee and [illegible] in Perth. The death-rate from the principal infectious diseases averaged 1.9 per 1,000, the highest rates being recorded in Aberdeen and Paisley. The [illegible] deaths registered in Glasgow included 4 which were referred to small-pox, [illegible] to measles, [illegible] to whooping-cough, [illegible] to "fever," and 4 to diarrhoea. Two fatal cases of whooping-cough and [illegible] of diarrhoea were recorded in Edinburgh. Two deaths from whooping-cough and 2 from diarrhoea occurred in Dundee, [illegible] from whooping-cough in Aberdeen, [illegible] from measles and [illegible] from diphtheria in Paisley, and [illegible] from small-pox and 2 from whooping-cough in Leith.

During the week ending Saturday last, January 23rd, [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been [illegible], [illegible], and 20.2 per 1,000 in the three preceding weeks, further declined last week to 19.8 per 1,000, but was 1.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.0 in Greenock and 14.[illegible] in Paisley to 25.2 in Dundee and 27.2 in Perth. The death-rate from the principal infectious diseases averaged [illegible] per 1,000 in these towns, the highest rates being recorded in Dundee and Perth. The [illegible] deaths registered in Glasgow included 2 which were referred to small-pox, 13 to measles, 3 to diphtheria, 2 to whooping-cough, [illegible] to "fever," and [illegible] to diarrhoea. Four deaths from whooping-cough and 4 from diarrhoea were recorded in Edinburgh. Five fatal cases of measles and [illegible] of diarrhoea were recorded in Dundee, 3 of diarrhoea in Aberdeen, and 2 of whooping-cough in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 16th, 569 births and 4[illegible] deaths were registered in six of the principal Irish towns, against [illegible] births and 425 deaths in the preceding period. The mean annual death-rate of these towns, which had been [illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, fell to 24.7 in the week under notice, this figure being [illegible].7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 15.6 in Waterford, and [illegible] in Cork to [illegible] in Belfast and [illegible].4 in Limerick. The death-rates from the principal zymotic diseases during the same period averaged in the same six towns [illegible] per 1,000, against [illegible] in the preceding week, the highest point, [illegible], being registered in Londonderry, while Cork and Waterford recorded no deaths under this heading at all. Whooping-cough still held the premier place in all the towns, while from scarlet fever, small-pox, and diphtheria no deaths were registered in any of these towns. Belfast had 1 death from measles, and Londonderry 1 from typhus.

During the week ending Saturday, January 23rd, the births and deaths respectively in the same towns were [illegible] and 4[illegible]. The mean annual death-rate rose slightly to [illegible].9, against 24.7, [illegible], and 24.[illegible] in the three preceding weeks, and was thus [illegible] per 1,000 over the mean annual rate in the seventy-six English towns during the same period. The figures ranged from 17.[illegible] in Londonderry to [illegible].4 in Waterford. The death-rates from the principal zymotic diseases during the same period averaged in the same towns 1.[illegible] per 1,000, Waterford again registering no deaths under this heading. No further deaths from typhus occurred, nor any from small-pox or measles. One death from scarlet fever occurred in Cork and [illegible] from diphtheria in Belfast; but whooping-cough still remained the principal though diminished cause of death from zymotic disease.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

WORKHOUSE MEDICAL OFFICER writes: Occasionally inmates of a workhouse become insane, and unable to be cared for under existing conditions. The procedure then is to send a form to the relieving officer of the district to which that inmate belongs. He then arranges for the removal to the asylum. It is his custom to call in the medical officer of that district to sign the certificate. This procedure leads to delay, during which time the patient has to be watched night and day, usually by another pauper. Is there any legal or other objection to the medical officer of the workhouse signing the certificate?

*** It would appear that in the union to which our correspondent refers the justices accept the nominee of the relieving officer as medical examiner, and there is no legal reason why they should not do so. But the justice called upon, and acting in such a case as that described, can call in any medical man he prefers, and may call in the medical officer of the workhouse where the alleged lunatic is.

MEDICAL NEWS.

AT a recent meeting of the Zoological Society of London Mr. Macleod Yearsley exhibited and made remarks upon an aneurysm of the abdominal aorta from a jaguar, and photographs of one from a turtle. At the same meeting Dr. Walter Kidd proposed the use of two additional characters which he considered to be of some importance in the description of genera and species of certain mammals. These were the arrangement of the hair on the naso-frontal region and the distribution of hair-whorls.

PRESENTATION.—On Christmas Day Dr. George Philip Rugg, of Streatham, was the recipient of a very handsome silver bowl from the patients and nursing staff of the British Home and Hospital for Incurables. Dr. Rugg has been Medical Officer of the Home for twenty-four years, and Mr. Teesdale, a member of the Board, who made the presentation on behalf of the patients and staff, spoke in eloquent terms of the kindness and sympathy which had always been received at Dr. Rugg's hands, by patients and staff alike.

MEDICATED PUBLIC BATHS Some little time ago our attention was attracted by a report in a provincial paper of a meeting of the Corporation of Bradford, at which a recommendation, founded on a report from the medical officer of health, was adopted. This was to the effect that baths should be established in Bradford upon the same principle as those at Huddersfield, with certain exceptions as to the treatment of patients for skin disease and syphilis. On inquiry we find that the baths at Huddersfield do not belong to the Corporation but to the infirmary, to which they were presented by Mr. Brook. The bath establishment consists of Turkish baths and Russian vapour baths of the ordinary character, and, in addition, a number of medicated slipper and vapour baths, together with arrangements for the application of electricity. The compounds used to medicate the slipper baths are various salts, alkalies, and acids, in addition to sulphur, ammonia, resorcin, mustard, etc., while corresponding arrangements are made in the vapour baths. Medical practitioners in Huddersfield are supplied with a list of the baths and a book of recommendation forms in which they are requested to enter the nature of the bath required, the charge that should be made for the same, and the number of baths to be given. But during certain hours of the day the medicated baths can be used on a payment of 1s. 6d. without a doctor's recommendation. The electric, vapour, and medicated baths are all so arranged that no trained attendant is supposed to be able to attend to the administration of all of them. At Bradford the medical officer of health recommended that the Corporation should exclude from use of the baths persons suffering from skin diseases and syphilis; and, while favouring the adoption of electric bath treatment, discountenanced the idea of the introduction of Roentgen rays or allied treatment. The medicated baths, he thought, should be reserved for persons suffering from lumbago, sciatica, and gouty or rheumatic joint affections. Whether baths under the system and of the nature described are really likely to be of great utility is possibly open to question; but, perhaps, if they are used at all, it is better that the institution which provides them should be run, so to speak, rather as a public than as a private speculation, provided always that the ratepayers do not object to their money being used in this somewhat unusual fashion.

MEDICAL VACANCIES.

The list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, announcements must be received not later than the first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £125 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST Victoria Park, E.—Two House Physicians, resident. Salary at the rate of £100 per annum.

DERBY: KING'S MILL DISTRICT ASYLUM.—Two Clinical Assistants resident. Salary, £80 per annum.

GLOUCESTER BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer resident. Salary £100 per annum.

HARDON HOSPITAL FOR FISTULA, Vauxhall Bridge Road, S.W.—House Surgeon resident. Honorarium, £25 for six months or £50 for twelve months.

HAMPSTEAD GENERAL HOSPITAL.—Resident Medical Officer. Salary at the rate of £125 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon, resident. Salary, £50 for six months.

IVERNESS DISTRICT ASYLUM.—Medical Superintendent. Salary, £700 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon resident. Salary, £100 per annum.

LONDON HOSPITAL, Whitechapel Road, E.—Two Senior Clinical Assistants (Aural).

MANCHESTER: ANCOATS HOSPITAL.—Resident House Physician. Salary, £50 per annum.

MANCHESTER COUNTY ASYLUM, Prestwich.—Junior Assistant Medical Officer resident. Salary, £150 per annum, increasing to £170.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House-Physician, resident. Salary £50 per annum. Also Senior House Surgeon. Honorarium £25 per annum.

NORTH RIDING INFIRMARY, Middlesbrough.—Assistant House-Surgeon, resident. Salary, £80 per annum.

NORTHAMPTONSHIRE GENERAL INFIRMARY Assistant House-Surgeon resident. Honorarium £30 per annum.

NORTH WEST LONDON HOSPITAL, Kingsland Road, E.—Senior House-Surgeon resident. Salary, £75 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon resident salary £80 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

MEDICAL APPOINTMENTS.

BUTTON, A. J. H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Watlington District (County Oxford).

DAVIES, H., M.D.Vict., D.P.H., Medical Officer of Health and Medical Superintendent of the Isolation Hospital, if the Highway Board so elect. [See H. Crozier, M.D.Lond.

DAVIES, H. R. Lloyd, M.D.Edin., District Medical Officer of the Chepstow Union.

DAVIES, D. E., L.R.C.P., & S.Edin., Anæsthetist to the Swansea Hospital.

EVANS, D. E., M.B., B.S.Lond., Medical Officer of Health to Parkmount Swansea Hospital.

HOWELLS, W., L.S.A., D.P.H., District Medical Officer of the Swansea Union.

JONES, G. R., L.R.C.P.Edin., M.R.C.S., District Medical Officer of the Bala Union.

KAY, John, M.D., Ch.B.Vict., M.R.C.S.Eng., M.R.C.P.Lond., Physician to the Liverpool Stanley Hospital.

KERN, George, L.R.C.P., L.R.C.S., L.D.S.Eng., Dental Surgeon to the Royal London Hospital (London Dental Hospital, L.D.S.).

HOLLAND, John, M.D., D.P.H., Medical Officer of Health for Parkgate District of Lanarkshire.

HOLLMAN, A. H., M.D.St. And., M.R.C.S., District Medical Officer for the Penrhyndeudraeth Union.

MARTIN, R. H., M.B., Ch.B.Edin., First Assistant Medical Officer to the Cumberland Asylum, Carlisle (Counties Asylums Association).

MILNE, J., M.B., District Medical Officer for the Union.

MILNARD, Lawrence, B.A., M.B., B.C.Cantab., F.R.C.S.Eng., Surgical Registrar to the Birmingham and Midland Eye Hospital.

MUMMERY, J. P. Lockhart, M.B., B.C.Cantab., F.R.C.S.Eng., Assistant Surgeon to St. Mark's Hospital for Fistula and Other Diseases of the Rectum.

NEATH, W. P. R., L.S.A., District Medical Officer of the Union.

PERRY, Sidney Herbert, M.D.Lond., M.R.C.P.Lond., Medical Registrar and Pathologist to the Birmingham and Midland Eye Hospital.

PHILLIPS, James, F.R.C.S.Edin., Honorary Surgeon to the Bristol Royal Infirmary, Bristol General Hospital, and Bristol Eye Hospital.

RUSSELL, J. Scott, C.M.G., M.D., Ad.E., Lord Provost of Edinburgh, Professor of Clinical Surgery, Edinburgh University.

SAUNDERS, H. M., M.B., Ch.B.Edin., Medical Officer of Health for the Aston Valley District.

DIARY FOR NEXT WEEK.

MONDAY.

Anatomical Society of Great Britain and Ireland, London School of Medicine for Women, Hunter Street, W.C., 8 p.m.—Specimens will be shown by Mr. R. H. Elliott, Professor J. Symington, F.R.S., the Officers, and others.—Communications will be made by Dr. Thomas Scott, Edinburgh, on the Development of the Lateral Processes of the Mammalian Sacrum; and by Professor Arthur Keith, on the Development of Pouches in the Living Subject, Parts of the Accessory Canal, and Certain Vestigial Structures in the Abdomen.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice (Lettsomian Lecture I.

TUESDAY.

Pathological Society of London, Lister Institute, Chelsea Gardens, S.W., 8.30 p.m.—Exhibitors: Mr. H. G. Plimmer, Dr. A. Paine, Mr. S. Rowland, Mr. J. A. Craw, Mr. C. J. Martin, and others.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Annual Meeting. Specimens will be shown by Mrs. Scharlieb, Dr. Blacker, and Dr. Briggs. The President, Dr. Malins of Birmingham, will deliver the annual address.

THURSDAY.

Neurological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Annual General Meeting. Presidential Address by Dr. S. J. Soares.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Discussion on the Production of Photographic Reversal through the Action of Various Radiations.

FRIDAY.

Laryngological Society of London 20, Hanover Square, W., 4 p.m.—Cases and Specimens will be shown by Dr. E. S. Yeo, Mr. A. H. Pegler, and others.

Society of Anæsthetists, 20, Hanover Square, W., 8 p.m.—Clinical Evening, arranged by the President (Dr. Dudley W. Buxton).

West End Medico-Chirurgical Society, Royal Sanitary Institute, Margaret Street, Regent Street, W., 8.30 p.m.—Mr. C. A. Ballance, Dr. Ormerod, and Dr. Theodore Thompson.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith, W., 9 p.m.—Dr. Samuel West: Some Points in Bronchial Affections.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Dermatological Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on The Treatment of Incipient Abdominal Consumption.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Affections at and above the Umbilicus.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear; Saturday, Throat. Lectures at 5 p.m. as follows: Monday, On the Treatment of the Ambulant Patient in Cardiac Disease; Tuesday, Massage Movements; Wednesday, Abdominal Tumours; Thursday, The Treatment of Pneumonia; Thursday, Errors of Refraction and their Diagnosis and Treatment.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Filtration of the Lungs.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Myasthenia Gravis; Friday, Cerebral Tumours.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Examination of the Stomach and Gastric Contents, Tuesday, X Rays, Illustrated by Lantern Slides, Wednesday, Pneumonia, Thursday, Tubercular Disease of the Bladder, Friday, Skin Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Cases from the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders, etc., with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CRAWLEY.—On January 22nd, to Herbert E. and Agatha Crawley, a son.

MAY.—On January 24th, at Leamington, Arrowe Road, Stratford-on-Avon, the wife of Harry May, M.B., B.C.Cantab., of a daughter.

PROTHEROE-SMITH.—On January 23rd, 1904, at Richmond House, Redhill, the wife of Mr. [illegible] Protheroe Smith, L.R.C.P., of a son and heir.

YELD.—On January 22nd, at 2, Cumberland Terrace, Regent's Park, the wife of Walter H. Yeld, M.B.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGE.

DA COSTA—DA CUNHA.—On 16th inst., at St. James's, Spanish Place, by the Rev. Herbert Langston, Francis Xavier da Costa, F.R.C.S.Eng., to Isabella Jane, daughter of the late Dr. Gerson da Cunha and Mrs. da Cunha, of Bombay.

DEATHS.

BARNARD.—On December 7th 1903, at Wanganui, New Zealand, after a short illness, Richard Barnard, B.A., B.C.King's College, Cambridge, late of Norwich, N.Z., eldest son of the late William Barnard, of Harlow, Essex, and brother of Dr. Barnard, of Norwich Road, Reigate, aged 36 years.

MILLIGAN.—Died, at Arnside, Westmorland, on 23rd inst., George Christie, M.A., M.B., eldest son of the late Rev. P. Milligan, Minister of Guthrie, Forfarshire.

SOMERS.—On January 23rd, at 1, Leaf Square, Pendleton, Salford, Christina Stoddart, widow of the late Alexander Somers, Surgeon, of Salford.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

QUERIES.

LANES would be glad of information as to the action, or failure of action, of apomorphine in cases of alcoholic poisoning.

Y asks for information as to the best method for getting rid of permanently dilated and quite superficial capillaries in the cheeks of a young lady. Solution of sodium ethylate and the acid nitrate of mercury have been suggested. Is it safe to use these and lotted?

TRAVELLER writes: I should be much obliged if any member who has visited Lisbon, Bayonne and Cannes will give me some information as to the climate, temperature, and the best time of the year to visit these places. Would it be warm enough in April or May?

ALSERSTRASSE asks for hints as to the diagnosis and treatment of the following case: X., a gentleman between 50 and 60 years of age, in good general health and of active habits, with neither heart disease, albuminuria nor diabetes, has lately been troubled, especially in the evenings, with fits of yawning, or rather attempts at yawning, as the yawn seems to be arrested at the end of a long inspiration. These abortive yawns cause him great distress, and frequently he is unable to get sleep for hours at night owing to the attacks. Ordinary remedies, such as pot. brom., stomachics of various kinds, are of no service.

THE TEACHING OF SPEECHLESS CHILDREN.

W. L. W. asks for the titles of treatises on the instruction of infants and young children in whom, although there is no apparent malformation of hard or soft palate, there is a inclination to, nor power of, speech.

. We have referred this question to Dr. Shuttleworth, who has replied as follows:

"I do not know of any book quite meeting 'W. L. W.'s' requirements. All depends upon the cause of the speechlessness, for example, deafness, want of intelligence, or some aphasic brain condition. 'W. L. W.' might get some hints from Van Praagh's *Lessons for Deaf and Dumb Children* (Trubner), or Elliott's *Articulation and Lip Reading*, to be had from the Secretary of the Education of the Deaf and Dumb, 70, Cannon Street, E.C., but after all, a tactful teacher, rather than a treatise, is what is wanted. For myself, I think that the old nursery rhymes set to catchy airs such as are found in Elliott's *National Nursery Rhymes* (Novello, Ewer, and Co.) often form the best speaking lessons for backward infants."

ANSWERS.

ENQUIRER.—Our correspondent must write to the Commanding Officer of the R.N. Volunteer Reserve Division to which he wishes to belong, who will give him all the necessary information.

TREATMENT OF COCCYDYNIA.

DR. J. STENSON HOOKER (London) writes: I would suggest that "M.D.'s" patient should be treated with high frequency current for his coccydynia. I have obtained good results in somewhat similar cases.

THE PAROXYSMAL COUGH OF INFLUENZA.

DR. PERCY B. SPURGIN (Wimbledon) writes in reply to "Rusticus": In such cases I have found some treatment of the very greatest use. I generally prescribe a mixture as follows for an adult: R. Liq. strychninae hydrochlor. dil. mxv; tinct. aurantii et tr. belladonnae aa mv; ad [illegible] Misce. Ft. haust. S. 3 ter die horis.

KOUMISS AND KEPHIR.

R. N.—These beverages can only be prepared with mare's milk, which lends itself partly to alcoholic and lactic fermentation owing to its low ratio of fat and casein and the high proportion of sugar. The corresponding preparation from cow's milk, however, more properly known as kephir, seems to have identical physiological properties, and is perhaps even more nourishing. It may be prepared as follows: Boil fresh milk and when nearly cold put it into quart bottles, leaving plenty of room for shaking. Add to each crushed lumpsugar and ½ oz. of Vienna yeast. Cork the bottles with new corks, tie them down carefully and coat. Put the bottles in a horizontal position in a cool cupboard. Shake them well, and at least twice daily. As a rule fermentation will proceed sufficiently rapidly for the koumiss to be ready to drink about the fifth day, the time required being longer in cold weather and shorter in hot. It can be made thinner by using skim milk instead of whole milk, and when thus made approximates, perhaps, more nearly to kephir.

TREATMENT OF SYPHILIS DURING PREGNANCY.

RADIUM.—In the case of a married woman suffering from syphilis and three months pregnant it would not be advisable to produce abortion. The patient should be treated with mercury throughout the pregnancy. A course of [illegible] injections of Hutchinson's pill, of which Mr. Hutchinson now holds the secret, always allows "Hydrargyrum cum creta" to be perhaps the most constant and least variable of all preparations. It can be given in pills of 2 gr. in combination with gr. ¼ of Dover's powder, or in a mixture of which the patient may take one every four hours, or less frequently according to circumstances. Usually one pill or mixture every night will be sufficient. A warm or tepid sponge bath every night and complete change of clothing should be insisted on. It may be necessary to send the patient away from the door than to advise the employment of [illegible] treatment, but the latter, if the patient can afford it, is the better plan.

NOTES, LETTERS, ETC.

AUTOMOBILES FOR MEDICAL MEN.

WE have received a long letter dealing at length with this subject. The following extract contains the gist of it:

He says that there seems to be a very great amount of medical men to give a preference now at their expenditure with automobiles. As an example he mentions a letter which appeared recently in the *Lancet*, the writer of which, a [illegible], has increased his expenditure with a 9 h.p. car at £130 a year, stated that he had had only one puncture since January, 1903, and had been stopped only six times during the same period from small troubles on the road.

This experience he considered thanks. Must be uniquely happy. It does not correspond with his own, either in respect of stoppages or expenses. His own car of the same size has cost him at least £200, although he includes nothing for stables or petrol in this. A boy may be able to do all ordinary running repairs, but there are many things which require skilled assistance. In respect of such repairs the person to be avoided he thinks is the "side-gent," and a sharp eye should be kept on the item of "time employed." Often it is difficult to check this, because there necessarily may be little to show for the work done, and it is impossible to say that a man is wasting his time when he spends it looking for an imaginary waste of current. He does not agree with the writer whom he cites that the cycle wheels with solid tyres are satisfactory, as the latter are always getting loose and the process of replacing them sooner or later necessitates rebuilding the wheel at a expense of £10 or £15.

The *Lancet* correspondent has also allowed nothing for the cost of carriage hire when his car has been incapacitated, which in "dissatisfied" case has been a serious item. It is true that "dissatisfied" uses a belt, and that he may be told that this is out of date. But this is itself a "motor" disadvantage, since with a horse and trap a man is not expected to renew the outfit every two or three years in order to keep up to date. He does not agree, also, that it is possible, at night at any rate, to be out on the road in three minutes. The discrepancy, moreover, between declared and actual horse power, as a critical test at the recent reliability trials, is of importance, and explains the loss of speed which he himself has experienced when the roads have been heavy. Using solid tyres he has found that in bad weather he can run away from high powered cars with pneumatic tyres, because the latter skid, and although makers as a rule are opposed to them, he does not think automobiles will prove an ideal vehicle for medical men until cars can be made to run on solid tyres. He would like to hear the experiences of others who have tried the latter on any car.

MESSRS. BURGOYNE, BURBIDGES AND CO. (6, Coleman Street, London, E.C.) desire to state that they are not the Messrs. Burgoyne and Co. against whom proceedings were taken recently under the Merchandise Marks Act in respect of adulterated soda crystals.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Alsterstrasse, A. T.; Auxiliary; Dr. F. H. Alderson, Bournemouth. **B** Mr. G. H. Broadbent, Manchester; Mr. W. F. Brook, Swansea; Mr. O. V. Brandford, London; Dr. J. W. Byers, Belfast; British Druggists Limited, Manager of, London; Dr. C. Buttar, London; Mr. E. Berry, Leyland; Mr. S. Bibby, Lancaster; Mr. O. Bowen, Liverpool; Mr. A. E. Barker, London; Mr. F. Broadbent, Newark; Mr. L. A. Bidwell, London; Mr. J. F. Briscoe, Alton; Dr. F. Bushnell, Plymouth. **C** Messrs. J. and A. Churchill, London; Dr. J. M. Clarke, Clifton; Colonial; Miss R. N. Cohen, M.B., Rangoon; Dr. J. B. Coombs, Newport, Mon; Dr. W. A. Caskie, Glasgow; Mr. J. M. Corpen, Ascot; Dr. R. H. Cock, Enfield. **D** Mr. J. T. Dodd, Oxford; D.M.; Mr. G. W. B. Daniell, Edinburgh; Miss M. P. Durnford, London; Dr. J. G. Dunceanson, London. **E** Hon. Mrs. Eliot, London; Dr. W. H. Evans, Cardiff; Mr. A. Emlyn, Brage; F. H. Edgeworth, M.B., Clifton. **F** Dr. J. K. Fowler, London; E. R. Fothergill, M.B., London; Dr. P. C. Franze, Bad Nauheim; Mrs. B. Fenwick, London; Mr. F. T. Fagge, Llanfairfechan. **G** Mr. F. Gould, London; T. H. Godfrey, M.B., London; Dr. S. Geo, London. **H** S. Hughes, M.B., Southampton; H.; Mr. A. J. Hobbs, London; Mr. A. Hope, London; Mr. C. H. Hibbert, Marple Bridge; Dr. T. W. Hime, Bradford; Dr. J. Highet, Workington; W. W. H.; Hygiene; Mr. W. W. Hornsby, London; Dr. J. W. Hamill, Manchester; J. A. B. Hammond, M.B., Shanklin; Dr. J. P. Henry, London; Dr. J. Haddon, Hawick; Dr. J. T. B. Hayes, Rathkeale, House-Surgeon; Dr. E. B. Hulbert, London; M. Henry, M.B., Belfast. **J** Miss A. R. Joseph, London; Mr. F. P. Joscelyne, Redhill.; Mr. R. Jones, Eaglewark, Queensland. **K** Messrs. Kemp and Co., Bombay; Dr. E. D. Kirby, Birmingham. **L** Dr. T. G. Lyon, London; Mr. W. Latham, Ashton-in-Makerfield; Mr. F. C. Larkin, Liverpool; Laryngological Society, Secretary of, London; Mr. C. B. Lockwood, London; Liverpool Medical Institution, Secretary of, Liverpool; Dr. A. G. Levy, London. **M** Dr. E. J. McWeeney, Dublin, M.D.; Mr. P. Mitchell, London; Dr. C. M. Moullin, London; Mr. W. J. Morton, London; R. G. A. Moynihan, M.B., Leeds, M.R.C.S.; Mr. W. L. Muir, Glasgow; Midland Medical Society, Secretary of, Birmingham; W. J. McCardie, M.B., Birmingham; A. A. McNab, M.B., Leeds; R. M. Murray, M.B., Gullane; Dr. A. W. Mackintosh, Aberdeen; Dr. F. C. Moore, Manchester. **N** Dr. J. F. C. Nash, Southend-on-Sea. **O** Dr. J. Oliver, London; Dr. D. C. L. Owen, Birmingham; Dr. E. H. L. Oliphant, Glasgow. **P** Mr. E. J. Parry, London; Dr. T. H. S. Pullin, Sidmouth; Mr. G. A. Phillips, Walsall; Mr. S. Paget, London; E. N. Pridmore, M.B., Beckenham; Miss K. Pearce, London. **R** Mr. F. C. Rogers, Belvedere; T. Robinson, M.B., Clonakilty; Dr. M. Randell, London. **S** Messrs. Southall Brothers and Barclay, Birmingham; S. Stephenson, M.B., London; Sir J. B. Sanderson, Bart., Oxford; Mr. W. Stuart Low, London; Sir T. Stoker, Dublin; Dr. J. D. Stanley, Birmingham; F. H. E. Starey, M.B., Bristol; Messrs. C. Street and Co., London; Mr. N. Smith, London; Dr. R. M. Simon, Birmingham; Dr. G. G. S. Taylor, Liverpool; Mr. R. R. Sleman, London; Dr. W. H. B. Stoddart, London; J. E. B. Snell, M.B., Nottingham; Dr. A. Sellers, Manchester; Dr. S. Sunderland, London. **T** Mr. C. W. Thiss, London; Dr. T. H. Thomson, Cambridge. **U** Unrushed Country Doctor. **W** West London Medical and Chirurgical Society, Secretary of, London; Dr. T. Outterton Wood, London; Workhouse Medical Officer, J. F. L. Whittingdale, Sherborne; Dr. J. P. Weber, London; Mr. C. Walker, London; Dr. A. J. Wadsley, Liverpool; W. B. C.; Mr. W. Whitehouse, London; F. Wyatt Smith, M.B., Woking; Dr. P. Williamson, London; A. Westlake, M.B., Great Grimsby; W. D. C.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	...	...	...	£0 4 0
Each additional line ...	...	...	...	0 0 6
A whole column	...	...	...	2 2 0
A page	...	...	...	5 5 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication, and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Poste Restante* addressed either in initials or numbers.

Inaugural Address
ON
THE PROGRESS OF SURGERY.

By HOWARD MARSH, F.R.C.S.,

DELIVERED BEFORE THE VICE-CHANCELLOR AND MEMBERS OF THE UNIVERSITY ON HIS APPOINTMENT AS HOLLESIAN PROFESSOR OF SURGERY IN THE UNIVERSITY OF CAMBRIDGE

MR. VICE-CHANCELLOR,—I must begin by assuring you that I am fully conscious of the honour of the position I occupy as Professor of Surgery in your University. I am conscious, also, that as the honour is great, so likewise is the responsibility. This responsibility, which to-day weighs heavily upon me, I shall henceforth at all times bear in mind, and endeavour to meet it to the full.

Having now joined your medical school, and having in the future to take part in its work, I am able to reflect with more complacency than was possible when I was attached to, in a sense, a rival institution that this department of the University of Cambridge occupies a position which you may well contemplate with genuine satisfaction. The number of students shows that your medical school is highly successful, and this success depends on the fact that the various departments are presided over and personally conducted by great masters who have themselves, in their generation, considerably advanced the sciences which they severally represent. Anatomy is taught—in Professor Macalister by no mere human-anatomist, but by one who is deeply versed in many other fields of research, and able to expand and enrich his particular subject by making the neighbouring sciences largely contribute to it. In your late Professor of Physiology, Sir Michael Foster, you had one who has long and easily held the first place, whose name is known and revered wherever physiology is taught, and whose position in the world of science outside and in the public eye is one of the highest importance and distinction. As you yourself, Sir, have said, "It is not easy to express the greatness of the debt which the study of biological science among us owes to Sir Michael Foster, both before and after his election to the Chair" in 1883. To follow him and to adequately continue the work which he has so long carried out, must be indeed a difficult task, but every one concerned feels that in Dr. Langley at first his pupil and subsequently his most able and accomplished fellow-worker, a worthy successor has been found. For your Professor of Pathology you have secured in Dr. Sims Woodhead a man whose departure from London was regarded as a very heavy loss. This, I am able to state from personal knowledge, was especially felt to be the case by the Royal Colleges of Physicians and Surgeons, where his services in the Conjoint science laboratories were much valued and appreciated.

Your Regius Professor of Physic, Dr. Clifford Allbutt, has for many years been my intimate friend. As a man of wide scientific culture, as a learned physician of unusually wide experience, as a teacher, and, as I may be permitted to add, in his whole personality, he occupies a foremost place, and it must be gratifying to him to observe that his *System of Medicine* has been an unqualified success. The constant and earnest work of Dr. Bradbury, Downing Professor of Medicine, is well known to all. There are many others among you whose names are household words. Of these I cannot refrain from mentioning Dr. Donald MacAlister and Mr. Shipley, whose co-operation and unstinted labour and devotion are conspicuous factors in your success. Indeed, Cambridge occupies a position as a medical school which has excited the envy (always however mixed with admiration—of us all, whether in London or elsewhere. And for two principal reasons. First, because as I have said, the staff is so distinguished: and, secondly, because as if by magic, there has sprung up a mass of new buildings allotted to your various departments which, for convenience and fitness, are unsurpassed, and I might even, I believe, truly say, unrivalled in this country.

Now, any one who has studied the subject of education, not necessarily in detail but in its broader lines, must be struck by recent events in this renowned University. The closing half of the last century must always remain a landmark in the intellectual progress of our race, for during these years there was a new departure, which was to issue in what was scarcely less than a transformation. Until that time intellectual activity here and elsewhere had been largely expended in the field of literature and in the cultivation of general learning. The leaders were poets, pure mathematicians, historians, and great novelists. Then we had our great ecclesiastics, our renowned Parliamentary orators, and our illustrious judges, all as examples of the strength which culture adds to mere intellectual powers; while in the imperishable literature of Greece and Rome was a field which offered ample opportunities for the acquirement of culture in its highest forms, and which afforded also welcome relief and refreshment to many a one who was wearied by the anxieties and worries of life.

But in the years to which I have referred another world was more and more distinctly disclosed, and as it gradually emerged from the nebulous stage and took specific form, every observer felt that a new order of things was being established. The new power which now assumed its sway, which was so profoundly to modify human progress, and under whose beneficent influence events as yet undreamt of and inconceivable, till they stood revealed and established as matters of fact, broke in upon us on every side. And here was the advent of modern science, which like light itself was to be all-pervading and vivifying, promoting, and controlling. It touched everything with creative power; nothing was left unaffected by it.

Now, these two departments of intellectual activity to which I have referred, the *literae humaniores* on the one hand, and modern science on the other, are no natural foes whose interests are opposed, but influences which are intimately related, and destined to travel side by side, yet with a gradual approach, until, blending in closest assimilation and interaction, they shall at length embody the highest developments of human achievement, They are in fact but

> parts of one stupendous whole
> Whose body Nature is, and God the soul

Now, of all human institutions, it was clear that those most closely concerned in these events were the universities, among the foremost of which stood the University of Cambridge; and here, obviously, the new order demanded early recognition and a fostering home. By the new order, I mean the intimate association of modern science with the culture and elevation of the human mind and character which naturally spring from the pursuit of the *literae humaniores*. It is in the just balance between these two departments that true progress lies.

If we glance at this University to-day we cannot fail to see and, seeing, to be unfeignedly satisfied, that this consummation has been safely and in good time achieved. The renown of this great University as, in the words of your statutes, "a place of education, religious learning, and research" is not only as splendid as it has ever been, but it constantly increases.

I have been among you all for so short a time that there are many things of which it would be presumptuous of me to speak. But this much I will say without fear of contradiction. I am perfectly certain that no one who has not looked into the matter for himself can have any idea of the amount of work that is being at present done at Cambridge, or of the activity, the vigour, and the success with which your numerous departments are being developed and maintained. Some may, and I believe do, ignorantly think that the older universities are half asleep: that they are living on their reputation and droning away their time.

A short residence here has completely demonstrated the fact to me—of which I must own I was not previously quite fully aware—that the amount of work which is done in many of your departments is constantly so heavy and exacting as to tax the endurance of strong and determined men. Idlers no doubt there are, but they are few in number and opposed to the spirit which pervades your university life. On the scientific side we find that almost every department is assiduously followed, from astronomy—in which your distinguished Professor and delightful exponent, Sir Robert Ball, is confronted with distances which even he cannot always quite accurately measure, and with periods of time in which millions of years appear more brief than fly ephemeral which has its day, down to those sections of pathology which are concerned with a study of objects so minute that their presence is revealed only by the most elaborate methods of research. These two blood relations—learning, which is power and comeliness; and science, which in the keen competition of our daily life will with many henceforth mean daily bread—must work heartily together for mutual support and progress.

Now the development on the science side of the University—of your medical school was largely due in its inception and

early progress to my predecessor in this Chair, Sir George Humphry. Later on several of his colleagues who shared his views, and notably among these was Sir Michael Foster, worked heartily with him. Sir George Humphry was well suited for this new departure, which was to reach such important developments. He was a man whose cast of mind was essentially scientific. He constantly worked as if he wanted to know; and with this natural mental attitude he combined sleepless perseverance and quite remarkable shrewdness. He would take nothing for granted, especially statements made by other people. Discussion, even controversy, he dearly loved. He was the best I have ever known at holding his own, and that not only with the keenest tenacity, but with an ingenuity of resource which must in some cases have provoked his opponent to protest

> As I thought he had been so entirely in the
> Let me consider a little and I dare say I can.

Now here are the elements of which men who achieve great results are made. Imagination, or in other words the power of conception, as, for example, the power by which Cecil Rhodes conceived great imperial ideas, the mental endowments necessary for the work in hand, and the abiding tenacity which ignores all opposition and goes on steadily, even, I had almost said, stealthily, upon its way. We used to watch Humphry not only with interest, but with amusement, and think that his biography was summed up in the words of a popular advertisement, "He won't be happy till he gets it." For my own part, I felt that had he been a soldier instead of a professor he would have left his mark on the history of his country. As a teacher, I have never met his superior, and in teaching I have myself constantly tried to copy him. As to his personality, two separate estimates were formed. Those who did not know him did not like him. They did not understand his attitude of caution. They could not get him out of his shell. They were conscious that they did not know what he was at, or what he would do next. Those, however, who were his intimates, and who knew him well, found him friendly, warm-hearted, and genial, and as an intellectual companion in a quite rare degree interesting and entertaining. Yet he was always Humphry, and at his best when he was discussing some question in surgery or pathology with some one who he thought might throw some light upon it, but in whose harness he was determined, if possible, to find a weak spot. You will not, I think, Mr. Vice-Chancellor, be surprised that I have availed myself of this opportunity of alluding to him as one whose memory will long be kept green amongst us. To follow such a man, who grounded his claims to be remembered not only on the character of his work, but on the long period during which he was a conspicuous figure amongst you, is so difficult that any success that is possible to me can only be very limited. It can be only *longo intervallo*. But it shall be as far from failure as my most strenuous efforts can remove it.

As I have but recently come among you as the representative of a not unimportant department in the field alike of science and of art, for in both surgery now holds an established place, you may expect me, speaking to an audience which includes a considerable lay element, to say something of surgery not as surgeons study it, but as a subject in which the public must feel a keen and increasing interest, seeing that every advance which is achieved is an event which in case of illness or accident, which, however, may Heaven avert, might by any one be found a valuable personal asset. I will venture to say that the changes which have taken place in surgery in recent years are as great as those which have revolutionized so many other departments of human energy. Views which were but lately universally held have been completely and for all time swept away, and discoveries have been made which have fundamentally altered our conceptions and enabled us to establish new principles and to elaborate new methods of practice. These results have been mainly due to the work of Pasteur and Lister, work which must last as long as the discovery of the circulation of the blood by Harvey, or of the principle of the steam engine by Watts.

Before Lister's time the surgeon was met at every turn by blood poisoning in the various expressions of its phases, and these complications were so rotten to attack even small wounds that there were many operations which, warned by bitter experience, no one ventured to perform. And there were many parts of the body (for instance, the organs within the abdominal cavity) which it was believed were so intolerant of interference that any operation would be attended by almost necessarily fatal results. Thus, while many operations were never attempted, even minor operations were frequently followed by the death of the patient.

The new startling point consisted in the discovery by Pasteur that many diseases in the vegetable and animal kingdoms are due to the action of minute organisms or *bacteria*. The next step was the application of Pasteur's discovery to surgery by Lister, who commenced investigations into the use of substances by which these harmful micro-organisms, these bacteria, might be excluded or destroyed. I have heard him describe his first experiences. He found that when he used carbolic acid in a case in which he had opened a large abscess, the behaviour of the wound and the subsequent progress of the patient were absolutely different from what had hitherto been observed. He found also that wounds which before had taken six weeks to heal now healed soundly within a week, or, as the technical expression is, by first intention; and that whereas previously inflammation had occurred and a large discharge of matter had taken place, attended with fever, or with some dangerous form of erysipelas, or even mortification, now there was no inflammation, no matter was formed, no fever was developed, and recovery was rapid and entirely without complication. Can we not all understand Lister's astonishment and the delight with which these results were contemplated? Of course he was at first regarded as a visionary, some even thought him scarcely honest, so great was the difficulty of believing what he declared his experience to have been. Surgeons who pinned their faith to established authority, and whose minds had passed their plastic stage, would have none of it. Men, however, who were younger, and whose minds were receptive and untrammelled by stereotyped impressions, hailed Lister's announcement with enthusiasm, and at once set to work to enlarge his observations and improve upon his first attempts. But his glory must always be that he set this great stone rolling. He demonstrated the main fact as to the part played in surgical cases by micro-organisms in the production of disease. Following his lead, his disciples soon spread themselves over the whole field of surgery, and constantly established new records of success. To paraphrase Goldsmith, one may say

> And still they worked, and still the wonder grew
> Lister was right, and everything was new.

The thirty years that have elapsed have been years of revelation and advance in every direction. While the fundamental principle is the same, methods of procedure have undergone rapid development. Many agents have been ascertained to be efficient in dealing with these micro-organisms. First there is cleanliness secured by soap and water, while carbolic acid and mercury in dilute solutions are the substances most commonly, but by no means exclusively, employed in their destruction. These are used for the patient's skin and for the hands of the surgeon and his assistants and the nurses, while all instruments are prepared by so simple a method as boiling. Thus the patient, the surgeon, and his instruments are all protected, and the operation is rendered, as the term is, aseptic. The general results have far transcended the most sanguine expectations. It has been gradually disclosed to us that there is no organ anywhere in the body which is not amenable to operation, no part which is so constituted or endowed that it cannot, under the aseptic method, be treated by surgical interference. Whereas in the olden times no surgeon dreamt of operating on the abdominal organs, every one of them is now operated upon with a degree of success which steadily increases as experience accumulates and methods of procedure are perfected. Whereas to operate on a nerve was supposed to produce lockjaw, nerves are now, if they have been divided and the parts they supply are paralysed, sewn together as a sailor would join a rope. If a part of a principal nerve has been destroyed, the lost piece can be replaced by the spinal cord of a rabbit with the result that complete recovery may take place. Perhaps the most astonishing thing of all is that there have been several cases in which patients have recovered from wounds of the heart which have been sewn up.

The study of anatomy has now reached so advanced a stage that those who are to be operating surgeons are able to prepare for their future work by making themselves intimately acquainted not only with the structures of the body and with minute particulars concerning their component parts in their usual formation and relations, but with the deviations from the normal which, when complicated operations have to be

performed, might, if unknown, lead to failure or serious difficulty.

The safety with which surgical operations can now be performed has added greatly to our resources in another direction. There are numerous cases the exact nature of which it is impossible to ascertain by mere external examination. To make sure of the precise condition nothing less than direct investigation will suffice. As matters at present stand, the required information can be obtained by what is called an exploratory operation, during which the part concerned can be fully examined, so that the surgeon may know not only what can be done, but the exact manner in which it should be carried out.

A very important result of this development of surgery has been to produce a kind of secondary revolution in the practice of medicine, for the only remedy in numerous cases which are termed medical consists in mechanical interference in other words, in a surgical operation. In many forms of that grave condition, peritonitis, in many forms of malignant disease of the stomach and intestines, in gall stones and stones of the kidney, in some diseases of the brain, in paralysis depending on growths which press upon the spinal cord, in perforation of ulcers of the small intestine in the course of enteric fever, and in numerous other instances, the surgeon can render the physician indispensable assistance.

Again, it has been found that many of the most dangerous or fatal diseases met with in surgery are in their simpler forms comparatively mild and easily treated. It is only when they are complicated by the action of bacteria, that is, when infection occurs, that they assume a grave character. Thus there are forms of mortification which, if the part attacked can be kept free from the influence of bacteria, in other words, if the aseptic condition can be maintained, remain confined almost entirely to the part originally involved, and they do not disturb the general health. But should bacteria be allowed to enter upon the scene the whole aspect of the case is forthwith changed. The process of mortification becomes active and rapidly extends; the life of all the blood is touched corruptibly, fever is developed, and frequently in a few days a fatal result is reached.

Furthermore, the revealing light which was thrown on the field of pathology by the discovery of Pasteur has enabled observers to discern the fact that many dread diseases—for instance, tetanus or lockjaw—are due entirely to infection by a particular micro-organism. Let such infection be prevented and these diseases disappear from among men.

A very remarkable event in the chain of progress was the discovery of anaesthetics or of those agents by which consciousness can be completely and safely suspended while operations are being performed. Here was the realization of a dream which poets and philosophers had dreamt for centuries. It took place in 1846, and was the work of an American dentist of the name of Morton. The agent he employed was ether. Shortly afterwards, Simpson of Edinburgh discovered chloroform. Since those early days the subject has, of course, been carefully investigated, and at the present time several agents are regularly employed, either alone or in combination, in such a way that the peculiarities and susceptibilities of different patients may be met with the least amount of danger and subsequent discomfort. These agents are in so much demand, for example, at St. Bartholomew's Hospital whence I have lately emigrated—that no less than four anaesthetists are occupied exclusively in giving them. Last year upwards of 8,000 administrations took place in that institution. Under the system which has now been established and in skilful hands, the administration of these various agents is so free from risk that accidents scarcely ever occur. And to provide as far as possible for the safety of the public every student at the hospital attends compulsory lectures and classes on the subject, and himself, of course under the most careful supervision, gives anaesthetics to from thirty to eighty cases. Similar arrangements are in vogue at all the other hospitals. At the present time every surgical operation which entails more than slight and momentary suffering, whether it be the removal of a firm tooth or one of the most formidable and critical operations, anaesthetics are given as a matter of course, as they are also in the numerous examinations that are called for, especially in those in which it is necessary that the muscles should be all relaxed. Surely this discovery of anaesthetics was one of the most priceless gifts that have ever been conferred on the human race, particularly as it was made before the dawn of the new surgery, for without it obviously surgery in its recent developments would have remained an impossibility.

And now, Mr. Vice-Chancellor, while heartily thanking you for having spared time to pay me the honour of your presence to-day, and for many acts of courtesy and kindness which I have already received at your hands since I assumed my office under your jurisdiction, I will conclude by quoting words which were recently used by the Master of Trinity, and which appear to me to embody grand and exalted conceptions, and to be instinct with noble eloquence:

"Let us all, if we can, agree in this, that the noblest function of this ancient Mother of all is to be a source of light, to cherish and diffuse what has been revealed already; to believe and hope that there is always more on its way; to search the heavens for it before it has shone; to hail it with joy when at last it dawns; to diffuse it also without reserve to all; and, finally, to own with humblest reverence at each glorious discovery,

"Not unto us, O Lord, not unto us, but to Thy Name give the praise."

An Address

ON

THE WORK AND PURPOSE OF THE ROYAL ARMY MEDICAL COLLEGE.

Delivered at the Opening of its Eighty-eighth Session.

By Sir WILLIAM TAYLOR, K.C.B.,
Director-General, Army Medical Staff.

Gentlemen,—It is a great pleasure to me to welcome you here to-day on the threshold of your life as army medical officers. My welcome is sincere and honest, for I feel assured that, in the selection you have made of a career, you have chosen wisely.

It is fitting, too, that your career in the army should begin in this College, for here, I believe, you will find that, though qualified to practise medicine, your education is not yet complete, but you have yet to be instructed in certain special branches of professional knowledge with a view to your being the better equipped for your military medical career, and which you might never have found it necessary to take up had you remained in civil life. Though you are now, each one of you, legally qualified to practise your profession in civil life—are fully equipped for such practice—there are still subjects you must master before you can be considered, or can consider yourselves, able to take up the varied and multifarious responsibilities of an officer of the Royal Army Medical Corps.

You are further to be congratulated on the fact that you are now enabled to study these other subjects here, in London, one of the greatest centres of instruction in matters bearing on medicine, surgery, and hygiene.

The History of the Royal Army Medical School.

The recommendations of Mr. Brodrick's Reorganization Committee have, through the labours of the officers of the headquarters of the Army Medical Service and of the Advisory Board, been brought to a successful issue. You should know that a special subcommittee of the Reorganization Committee dealt, in a somewhat exhaustive manner, with the details of a college scheme; and further experience of the methods which have been in operation for the early and advanced courses of study for army medical officers has enabled the Advisory Board to put forward proposals of a comprehensive nature.

The course of post-commission study, now happily provided for and established, renders the establishment of a military-medical teaching institution in the metropolis essential, and the location of the College in London entails the attendance of junior officers there.

It is unnecessary to enter fully into a consideration of all the conditions which the College is designed to meet, but it appears plain that the effects upon the efficiency of the medical services of the country should be valuable. It goes without saying that the closer the union between the civil and military members of the medical profession (and in the latter I include the auxiliary medical services) the better for the State and for the Royal Army Medical Corps. For it is not the least of the objects sought to be gained by the College that it should become a centre towards which, for imperial purposes, the

medical profession at home and in the Colonies, the regular and auxiliary military medical services, should converge. It is not now a question as to how far the Royal Army Medical Corps is alone prepared to undertake the responsible duties which devolve upon its officers in time of war. If the military efficiency of the country is held to depend largely upon the military education and training of the civil population, it is assuredly true that the medical profession is equally deeply concerned with military medical problems. While, therefore, the primary object of the foundation of this College is to provide for the more efficient training, elementary and advanced, of the military medical officer, it will be possible to adapt the school to the requirements of the profession generally, and of the auxiliary forces, by means of lectures, exhibits, etc.; in other words, by the formation of a Military Medical Institute. This College, then, should have far-reaching results, beneficial alike to the civil and military medical professions.

Time will not permit me to give a complete history of army medical education. The earliest official recognition of specialized study for military medical officers on any important scale is associated with the revered name of Lord Herbert of Lea, who instituted the Army Medical School in connexion with the Royal Victoria Hospital at Netley.

The records of the Senate of the Army Medical School at Fort Pitt, Chatham, show unquestionably that the contemplated removal of the school so far from London as Southampton, was received with regret. The professors and the senate appear to have recognized the difficulties, inconveniences, and hindrances likely to arise from a position of isolation, and favoured the alternative proposal of setting up the school in connexion with the then recently-established Herbert Hospital at Woolwich. In support of this they urged

As to facility to London and the offices of army administration, particularly that of the head of the department, of the great hospitals, medical schools, and learned societies, and the facilities its nearness to these give for keeping up medical knowledge, and for profitable intercourse as well as interchange of professional foreigners of distinction, who have already evinced a desire to reciprocate benefits to practical ward the professors have to show and to add them in return.

We may be certain that Professor Parkes, who signed a document in which these words occur, exerted a potent influence in the expression of views which have now been independently adopted by the Secretary of State.

Since the days of Lord Herbert, the organization of the medical department of the army has undergone remarkable changes. It may be maintained that the efforts of its officers have been mainly directed to improvement in the military position; but it should always be remembered that the principle of autonomy has been a fundamental one in the minds of those who have been responsible for the direction of events. It is quite clear that Mr. Sidney Herbert was impressed with the importance of the development of the military medical service in both the military and professional senses. It is, at any rate, certain that when the history of the Medical Corps comes to be written it will be abundantly clear that at least one of the professional advisers of the Secretary of State of the day held views regarding administration in war which must have profoundly impressed that statesman. Some of the letters of Mr. (afterwards Sir Thomas) Longmore, written from the Crimea, clearly indicate the position which powerfully influenced all the subsequent events. The enthusiasm which, under the influence of Parkes, Longmore, and Maclean, became the predominant feature of the early years of the school of Sidney Herbert, cannot be said to have been extinguished in the struggle for autonomy which followed. But it was hidden. Meanwhile the influence of the professors was enormous. Charged with the success of the first attempt at education in hygiene and tropical medicine ever made in this country, their energies imbibed something of the esprit. The school came subsequently to be described by American army surgeons as "the Mecca to which the thoughts of army surgeons all over the world were directed."

Hygiene in the Army.

That we may clearly understand the gradual development of the importance of preventive medicine, hygiene, in the army, let us go back to a much earlier period than that of the Crimean war.

Sir James McGrigor, shortly after his appointment as Director General of the Army Medical Department in 1814, organized a system of returns and reports, which may be regarded as the foundation of the first systematic attempt to control the sickness and mortality prevailing in the army. In 1835 Mr. H. Marshall, Deputy Inspector General of Hospitals, and Lieutenant Tulloch, 40th Regiment (afterwards Major-General Sir A. M. Tulloch, K.C.B.), were associated in preparing a report on the sickness and mortality of the troops serving in the West Indies. In the following year Dr. T. Graham Balfour, M.D., F.R.S., replaced Mr. Marshall, and the inquiry was extended to other Colonies. The reports prepared by these officers were published in four volumes, and to these reports may be given the credit of first seriously attracting the attention of the military authorities to the fact that many of the agencies which exercised an adverse effect on the health of the soldier were under control and could be removed or ameliorated. In 1848 a second series of reports was prepared by the same officers, embracing a further period of ten years. As the result of the Crimean war, a Royal Commission was appointed in 1857 to inquire into the regulations affecting the sanitary condition of the army, of which Commission the Right Honourable Sidney Herbert was president and Dr. Graham Balfour secretary, and two of the practical outcomes of the Commission were the establishment of the Army Medical School and of the Statistical Branch of the Army Medical Department.

Since then the subject of preventive medicine has always occupied a foremost position in schemes of military medical education, and in this regard it is of interest to note that the Herbert Commission gave expression to the following views:

The medical officer should, therefore, not only be thoroughly conversant with sanitary science, but with the mode of application to the preservation of health under every possible variety of circumstances and character.

It may be fairly claimed that the foundation of the Army Medical School was the very beginning of systematic teaching of sanitary science in this country. The Army Medical School may well be proud of the world-wide fame which its first Professor of Military Hygiene earned for himself. Among the many reputations as hygienists which have since been earned there is no name so illustrious as that of Professor Parkes. The history of sanitation in England is the history of army sanitation, and Parkes has justly been called the "Father of Hygiene." To him belongs the credit of having laid the foundation of that rapid advancement of the knowledge of the laws of health which has placed this country in the forefront of the nations of the world as regards sanitary progress. Parkes's *Practical Hygiene* for years remained the standard textbook, and while, to keep progress with the times, it has had to be added to and to a large extent rewritten, the book, though no longer bearing the well known name, is still one of the leading treatises on the subject. Apart from its influence upon the spread of sanitary knowledge throughout the world, the teaching of Parkes bore excellent fruit among the many army medical officers who had the great privilege of being his students, and it has in that way contributed in an immeasurable degree to the enormous improvement which has taken place in the sanitary surroundings of the soldier since the days of the Crimean war.

Professor Parkes was succeeded in the Chair of Military Hygiene by the late Surgeon-Major F. S. F. de Chaumont, F.R.S., a man who also did much to advance the progress of sanitary knowledge. Professor de Chaumont was a leading authority on hygiene, and perhaps his best known original work is that connected with the ventilation of barracks and his dietetic researches. He was a man of wide culture, a capable linguist, and an able mathematician. He edited several editions of Parkes's classical work, and was the author of many papers on sanitary and scientific subjects.

The next incumbent of the Chair was Colonel Lane Notter, also well known in the world of hygiene, and a frequent contributor to the literature of his special subject. The present Professor of Military Hygiene, Lieutenant-Colonel R. H. Firth, has already made a name for himself in sanitary science. He has written much and well on sanitary and medical subjects. His best recent original researches have been a study of the pathology of dysentery, and an inquiry into the influence of soil, fabrics, and flies in the dissemination of enteric infection, a valuable piece of work done in association with Major Horrocks, who was at the time Assistant Professor of Military Hygiene. Major Horrocks is also well known as an authority on the bacteriological examination of water, and is the author of the most complete monograph on that subject which has as yet appeared. In Lieutenant-Colonel A. M. Davies we have another able authority on hygiene questions. He was Assistant Professor in the Army Medical School in Professor de Chaumont's time, and for a year discharged the duties of professor.

Afterwards, as sanitary adviser at army headquarters in India, he did most excellent service in furtherance of sanitary progress in that country. Improved sanitary conditions in many Indian cantonments have resulted from his labours, but perhaps his best work in India was in connexion with the provision of pure water supplies to many stations. He is the author of a most excellent book on hygiene, and he now holds the appointment of sanitary expert on the Advisory Board at headquarters.

Amongst men who have had no connexion with the teaching staff of the school, but who have taken a leading share in the advancement of military hygiene, many names might be mentioned: Massy, Home, Marston, Ker Innes, Welch, and Martin are perhaps the best known. Of the recent men, Macpherson, keen, enthusiastic and thorough, should receive special notice. He was sent on special duty to South Africa to report and advise on sanitary matters connected with the South African garrisons.

Since the institution of the medical school every medical officer entering the Army Medical Service has had a careful training in hygiene to fit him to deal with the numerous sanitary questions which he is sure to encounter in the performance of his ordinary duties, under very varying conditions.

Prevention of disease is a most important part of his daily work—I had almost said the most important part. The result is that a very large amount of quiet unostentatious sanitary work is being done by army medical officers in all parts of the world, and there can be no doubt that the greater part of the amelioration in health conditions, in stations which were formerly unhealthy; and the improvements which have resulted in connexion with the housing, clothing, and feeding of soldiers, and the removal of causes of preventable diseases, have been due to well-directed efforts, born of the knowledge imparted to every officer of the service during his course at the Army Medical School. The good work which has been done has well sustained the great reputation of the school, and that is the best augury for the future. With well-equipped laboratories in the new Royal Army Medical College we need never fear that we are likely to be outstripped in the race of progress, and we look forward confidently to the army medical officer being kept abreast of the times, nay, leading them as far as sanitary knowledge is concerned.

I have learnt to look upon a low sick-rate as the sign that the officer in medical charge of the troops has been doing his duty to them and to the State; that he has been spending his time with intelligent observation in the lines, that he has been seeing to the soldiers' surroundings, has been interesting himself in their personal habits, and so by tact and sympathy gaining the confidence of the men, the sure, the only way of acquiring that influence with them which will enable him to give advice which will be listened to and acted upon.

You will sometimes hear it said that the army doctor has little to do. Let not that disturb you; you will find from experience that it is otherwise. Work on unceasingly, work earnestly with might and main at prevention, which is better than cure; strive unremittingly to teach every soldier under your care how to avoid the little ailments of daily life, as well as how to safeguard himself, as far as it is possible to do so, against those more serious and more dangerous diseases to which he is specially exposed. It is also said that his practical experience is confined to treating the diseases of early manhood, and that this limitation of practice leads to stagnation of effort and to blunting of mental acuteness and judgement. Believe me, there is nothing further from the truth. No army medical officer need let his knowledge rust; his opportunities for keeping himself abreast of the knowledge of the times are as good, and I think even better, than those of the doctor in civil practice. There is abundance and variety of clinical work to be found in our army hospitals. The field of the army surgeon is world-wide, and in the domain of tropical medicine he will find a field for observation and research that affords opportunities for practice and progress that no other section of our profession possesses.

Pathological Work in the Army.

Results not less important than those which have resulted from the teaching of hygiene have followed the pathological teaching at Netley. Consider the history of that interesting and most important disease, Malta or Mediterranean fever, interesting and important from a military and naval as well as a civil point of view.

The true nature of this fever was unknown until the year 1886. Up to that time it was thought by some to be enteric fever, by others to be remittent fever, and by others still to be a combination of these two fevers, and called by them typho-malarial.

In September, 1887, one of our officers—now Colonel Bruce, F.R.S.—wrote a paper announcing his discovery of the micrococcus melitensis, showing that this bacterium is the specific cause of the disease, and he separated Malta fever definitely from enteric and malarial fevers. The next point in its history was to overcome the difficulty of diagnosing the disease during life. That difficulty was overcome by Professor A. E. Wright and his assistants in the Army Medical School, who discovered the blood test for the fever. The incubation period was also made out there, once by Professor Wright, who knowingly inoculated himself, and on other occasions through the accidental inoculation of other members of the staff. Our knowledge of its geographical distribution was much extended by officers of the Royal Army Medical Corps; and here I may quote from a paper by the late Professor of Pathology in the Army Medical School:

> By the application of the blood test to patients invalided from abroad it was determined that Malta fever existed in certain stations in Northern India. These results were confirmed and extended by other observers abroad and in India, with the result that the disease is now known to occur all over the Mediterranean basin, in Northern, Central, and Southern India, and in Hong Kong and South Africa.
>
> Quite recently the medical officers of the American army have described the occurrence of the disease in Puerto Rico, in the Philippines, and in certain other of the Pacific Islands.

There is still much to be done in the elucidation of this fever, and we are looking anxiously to our officers stationed at Gibraltar and Malta to tell us how the disease is conveyed from the sick to the healthy; whether by water, food, inhalation, inoculation, or by means of an insect carrier; how the micrococcus leaves the body, how it behaves outside the body, and many other points of great interest and utility in framing measures of prevention.

It would appear then that officers of the Royal Army Medical Corps have done their share in the investigation of this disease, and in this alone the establishment of this school appears to be justified.

Let us now turn to another most important army disease enteric fever. The principal work done in the Army Medical School during the past few years in relation to this disease has been the attempt to modify its ravages by antityphoid inoculation. The prevention of enteric is one of the most momentous questions of the day in army sanitation. War would lose half its terrors if this disease could be kept within bounds. We know what an immense amount of work has been done by Royal Army Medical Corps officers under the guidance of Professor Wright, and, if the results are still under discussion, many are of opinion that it is on the lines pointed out by him that final success will be attained. For the careful consideration of the subject a subcommittee of the Advisory Board has been formed, and Lieutenant Smallman, R.A.M.C., is devoting himself to experimental research on this subject at the Lister Institute.

Time will not permit me to take up the closely allied disease, dysentery; but much of the recent work on this disease has been done by our officers, among whom I may mention Birt, Bruce, Firth, and Horrocks.

Leaving the bacterial diseases, the history of a disease which is much in evidence at present, trypanosomiasis, is of interest in connexion with this subject.

This branch of tropical medicine has its origin in the discovery by Surgeon-Major T. Lewis, F.R.S., of a flagellate in the blood of rats, which was afterwards named "trypanosoma lewisi." That officer, trained at Netley, was one of the best types of scientific men. At the time of his death it was written of him that "he was gradually becoming a very centre of scientific influence and a source of inspiration for earnest work as a teacher and of genuine research in the Army Medical School in his position as Assistant Professor of Pathology. He was, indeed, one of those men "who go on working for Truth's sake," and he imbued the minds of those he taught with the same keen love of work. The life-history of such a man and the work he did is worthy of more than a passing notice for the example it teaches, as pursuing a lofty ideal. He died at the early age of 44, almost before the scientific medical world knew what it possessed in his life.

> Sunk like an Argosy scarce left the shore,
> And the boundless depths of ocean hold
> Pearl, and diamond and gleaming gold,
> Lost to the use of man for evermore.

The next step in the trypanosome problem was made by

Evans, who found similar flagellate organisms in the blood of horses suffering from surra.

The third step was the discovery, also made by one of our officers, Colonel Bruce, that tsetse fly disease was due to the presence in the blood of a trypanosoma, and that the fly merely acted as a carrier of the parasite from the affected to the healthy animals.

And, finally, the last addition to our knowledge of this class of diseases has been again made by the same R.A.M.C. officer, who within the last few months has discovered that the sleeping sickness of Western and Central Africa is nothing more or less than a human tsetse fly disease.

In another great group of diseases, namely, filariasis, the pioneer work was again done by Surgeon-Major Lewis, who discovered and described the filaria sanguinis hominis, from which discovery most of our work on this group of diseases has dated, and there can be no doubt that his papers are the most masterly disquisitions on the subject of filariasis that have appeared in this or any other language.

To come to the present day, one of the most interesting discoveries of recent times in the etiology of human disease was made a few months ago by your Professor of Pathology, Major Leishman. As the result of the examination of microscopical preparations of a spleen from a case of what has been known locally as Dum-Dum fever, he came to the conclusion that the disease was not malaria, but was caused by another kind of protozoal parasite. When we think of the difficulty of differentiating the various appearances seen in the splenic pulp, we must heartily congratulate Major Leishman on the keen observation and acumen which enabled him to detect these infinitely minute bodies. He wrote an excellent paper describing what are now known as Leishman's bodies, and this has led to work being done on the subject by Donovan, Laveran, and Ross, which goes to show that the discovery is a notable one. The generic name *Leishmania* has been proposed for the parasite, and Major Leishman has every reason to feel satisfied in having done such a fine bit of observation.

To recapitulate the work done by medical officers trained in this school would almost be to write the history of tropical medicine, and so I will close this cursory account of their attainments by mentioning to you the name of Major Ronald Ross, F.R.S., the discoverer of the etiology of malaria, who received his training in hygiene and pathology in our school.

CONCLUSION.

Gentlemen, the Army Medical Service has every reason to be proud of the work done by such of its officers as those I have named, and it holds them in honour, not only for the work they have done, but also for the bright example they have given and are still giving to all who would do well.

If the record of the army medical officer in the domains of general medicine and surgery are not so brilliant it is partly because the isolation of the school hitherto from the great civil schools rendered any plan of advanced teaching in these subjects impossible, and perhaps more because he had no chance enough which to let his work be known. It is now recognized that the closest connexion between the leading institutions and the College must be maintained to ensure effective education. We in the army have held that this connexion will have effects upon the medical profession of Imperial importance, and we cannot doubt that far reaching consequences will follow that long-desired combination of the civil and military medical professions, not only for teaching purposes, but for the serious study of the adaptation of the science and art of medicine to the science and art of war.

[illegible] Life to those of us who want do well, who would succeed, and who would leave Thailand as footprints in the sands of time, means work, constant work for our own happiness and for the general good.

[illegible]

Believe me, gentlemen, you will find the greatest happiness in constant, earnest work for the benefit of your fellow-men, and will sooner or later realize—

> That he is bravest, happiest, best,
> Who from the task within his span
> Turns not, nor looks elsewhere for rest,
> And on increase of good is bent.

The Lettsomian Lectures
ON
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered before the Medical Society of London

BY CHARLES BARRETT LOCKWOOD, F.R.C.S.ENG.,
Surgeon, St. Bartholomew's Hospital.

LECTURE I.—INTRODUCTORY.

I THANK the President and Council of the Medical Society of London for the honour they have done me in inviting me to deliver the Lettsomian Lectures. I propose to try and justify this choice by lecturing upon a subject which must be of interest to every one of the Fellows, whatever line of practice he may pursue.

And, at the outset, it is desirable to say how I intend to proceed. As a matter of fact these lectures will be on the same lines, and a continuation of, the reports on aseptic surgery which I have published at intervals since 1890. It might be thought that little was left to be said upon such a well-worn topic. But every one knows that although all surgeons aim at asepsis, they endeavour to attain that end by many different and ever-changing methods. Some of these methods I have tested, and you will hear the results. I shall also try to tell you what has been the result of my own methods of treating wounds. To render this of value it will be necessary to lay emphasis upon the unsuccessful cases, and especially upon the circumstances which led to failure. I will not insult your intelligence by talking as though I operate upon the immortals, who die not, nor suppurate. All operators must have a certain percentage of sepsis. When sepsis occurs the cause is to be sought for in the patient, in the environments, in the methods, in the application of the methods. It is instructive to the philosophical mind to contemplate the relative importance which is attached to one or other of these sources of failure. I have heard a surgeon vehemently maintain that, when a wound suppurated, the patient was at fault. I have heard another ask whether there was not a deal of suppuration about, as though it were a kind of epidemic. The surgical egotist never admits the possibility of failure either in his methods or in their application. As a matter of fact the fault may lie in the patient, in the environments, in the methods, or in their application. If we possessed definite scientific information, there could be no room for differences of opinion, and it is singular that better scientific information is not forthcoming. The research is difficult and surrounded with fallacies. But what an advantage it would be if, when sepsis occurred, we knew the exact state of the patient, the bacteriological conditions of the wound, of the atmosphere of the operating theatres; the cubic capacity of the ward, and the condition of the air in it; the purity of the materials and appliances, and, lastly, the methods of the operator. Most of our great hospitals now possess well equipped bacteriological laboratories and skilled bacteriologists, so that some at least of the difficulties have vanished. In a very humble and inadequate way I will endeavour to deal with some of these questions using, as I proceed, the clinical and bacteriological material which is at my disposal, though I am fully conscious of the crudeness of the attempt.

It is strange that we should be obliged to begin with a definition of the term "aseptic." But whoever reads the medical papers with reasonable diligence will agree that the need exists. Of course I am aware that there can be no agreement in the definition of general terms. But on this question the disputants are divided into two camps. In one are those who would apply the term aseptic to the *methods* they employ, and in the other are those who apply it to the *end* they achieve. Let us consider the position of those who apply the term aseptic to the methods. They begin by assuming that chemicals are harmful and therefore endeavour to go without their help. Everything brought in

contact with the wound is sterilized by heat; heat-sterilized salt solution is used as a lotion; heat-sterilized cotton swabs are used for sponges; and a heat-sterilized cotton dressing is applied to the wound. I am at a loss to know how this type of surgeon sterilizes his hands, or the patient's skin, because if he uses the harmful chemical he ceases to be consistent, and becomes what I suppose would be called an antiseptic surgeon. One who writes somewhat vauntingly about his so-called aseptic surgery nevertheless uses strong chemicals for his ligatures: and, furthermore, transfers the ligatures straight from the chemical into the wound.

The other school is consistent, for it applies the word aseptic to the end and not to the means. To gain the end both heat and chemicals are utilized. Perhaps in the future science may provide some method of sterilization as yet undreamed of. This school, to which I belong, will apply it to the end in view—sterility—and continue to speak of aseptic surgery. Should the other school use the new discovery they will have to invent some new name for their new method. We are, perhaps, living too near the great revolution in surgery to be able to take a dispassionate view of the question. The voices of those who threw doubt upon the teaching of Lord Lister may still be ringing in our ears. But, assuredly, in the future it will be assumed, as a matter of course, that all surgery is aseptic: and then surgeons will cease to speak of "aseptic surgery" or of "antiseptic surgery" as though wishing to imply that they alone dealt in a special brand of superior excellence. But even in that golden age it may be that, after suitable tests, the ultimate result will be called septic or aseptic. For even then sepsis will sometimes occur. All the bacteria will not have died of senile decay.

It may be readily granted that ideal perfection would be reached if asepsis could be attained without the use of chemicals. Nay, I will go further and say, as I have often said before, that the more efficaciously heat is used to sterilize instruments, lotions, materials, and dressings so much the more can we dispense with the use of chemicals. It is, however, difficult to conceive how they can ever be dispensed with in the disinfection of the skin. To sterilize on a large scale the lotions, sponges, materials, and dressings entails an elaborate equipment and organization. A special scheme of architecture and system of ventilation are required merely to improve the atmosphere. A reasonable outlay is justifiable to attain these ends. Asepsis must be easier to attain under such conditions, and the proportion of sepsis ought theoretically to be less.

In this country several elaborate and expensive installations have been started with these ends in view. It will be most instructive to have detailed reports of the results. These reports should not be based upon opinion, but should tell us exactly what proportion of sterility was obtained.

The atmosphere with its swarms of bacteria must of necessity vitiate the results of the consistent aseptician. Reluctant to bring chemicals into contact with wounds, he is compelled to strive for a germless air. If it were found that the attempt was successful, then the elaborate and expensive precautions would be fully justified. But what if the air showers bacteria into wounds unprotected by either antiseptic or disinfectant? Are we now to put our trust in the assumed harmlessness of atmospheric bacteria, or are we to confide in the germ-killing powers of the tissues and fluids of the body? Obviously no combination of glass, brass, and marble can ensure a germless atmosphere. So what provision does the consistent aseptician make for the destruction of atmospheric germs? Surely his aim is to keep out all bacteria, or does he pretend to separate the harmful from the harmless, allowing the latter to enter and keeping the former outside? It is impossible for me to conceive that an open wound is germless. When it is closed some bacteria must be imprisoned in its depths, unless some steps be taken to wash them out or compass their destruction. One would imagine that it were easy to be sure whether a wound was septic or aseptic. But even such a straightforward question is difficult to answer. One observer[3] has tested cases of laparotomy at various stages of the operation. Culture media were inoculated from the wound and from the peritoneum at the beginning, the middle, and the end of the aseptic operation. Bacteria were constantly present. They were most numerous in long operations involving much manipulation. Döderlein opines that most of the bacteria come from the hands and person of the operator, some entering by contact, and some through the air.

It seems to me irrational to make no attempt to get rid of these bacteria, especially when there is a reasonable possibility of washing them out or of killing or attenuating them with dilute chemical solutions. It is true that the wounds which Doederlein tested healed by first intention. But laparotomy wounds are not the most stringent test. The fate of a breast wound in which a haematoma had formed might have been very different. Buried silk sutures, too, might reappear in a mysterious way from these microbe haunted wounds. To my mind such observations as these are arguments in favour of the rational and moderate use of chemicals.

Pray do not suppose that I wish you to infer that by any use of chemicals all the evils of an infected atmosphere can be overcome. In our cities a large expenditure is justifiable to improve the quality of the air supplied to the wards and operating theatres of our hospitals.

It is so well known that the air of ordinary operating theatres contains bacteria that it is unnecessary to recapitulate the evidence. I should now like to hear what is the condition of the air in those new theatres into which purified air is driven. Perhaps an elaborate bacteriological report has been issued, but, if so, I regret that I have not seen it yet. Such a report would be of great value to those who contemplate the adoption of this system rather than that which relies upon extraction, aided by the occasional introduction of steam.

I wish the results of bacteriological tests could be laid before you in every case, but it has only been practicable to carry them out in hospital practice. Therefore the success or failure of the methods has had to be judged by the way the wound healed. But it will be observed that the slightest amount of suppuration, even of a minute part of a wound or of a stitch, suffices to place it in the septic class. It may be that the sepsis was too slight to injure the result, but that is not the point: the patient ran an unnecessary risk. Some fatal cases of sepsis have very small beginnings.

What constitutes an aseptic case? Our ideal is one in which all the sponges, towels, materials, instruments, skin of the hands, skin of the patient, and the wound itself are all sterile when tested with culture media. This stringent ordeal entirely puts aside the personal idiosyncrasies of the operator. If it were in common use we should not hear of a septic discharge called a little turbid serum, or of such an absurdity as non-purulent pus.

It is our endeavour to have the wound tested with culture media when the dressing is removed. Except when a drain is left in to provide for the oozing of blood, the first dressing is done on the eighth or tenth day. As a rule a piece of one of the skin sutures is dropped into the broth. Hitherto a very minute proportion of wounds have withstood this stringent ordeal. Theoretical perfection is exceedingly hard to attain; but the effort to attain it has a most excellent disciplinary effect. When house-surgeons, dressers, and nurses know that their towels, sponges, dressings, silk, catgut, and skin may at any time undergo the stringent test of culture media, they apply themselves with great earnestness to carry out with exactitude the directions of the surgeon. The surgeon, too, does his best to sterilize his own hands when he knows that their state of sepsis or of asepsis will be accurately revealed. I need hardly add that he will avoid introducing infection into the wound with as much care and accuracy as if he were dealing with culture media; in fact, he ought to remember that he is performing a delicate bacteriological experiment.

To my mind this experiment is rendered fallacious by two things: first, the uncertain disinfection of the skin of the patient, of the surgeon, and of his assistants; and secondly, by the condition of the atmosphere in which he works. It has become too much the fashion to ignore the dangers of aërial infection. Perhaps we shall arrive at an explanation of some of our contradictory results when we have accumulated enough scientific information regarding all the conditions under which operations are performed.

A culture tube of nutrient broth is a very delicate test. If we were working without chemicals it might be absolutely relied upon. No chemical need be introduced with silk, towel, or silkworm gut, for they can be conveyed straight from the sterilizer into the broth. But a certain quantity of antiseptic clings to the bits of skin removed from the fingers of the surgeon and of his assistant and from the margins of the wound, and some clings to the sponge. The catgut probably contains a relatively large quantity. The presence of a minute trace of a diluted chemical does not render the tests absolutely valueless. In spite of its presence a percentage of test objects infects the broth. Being very dilute, and in exceedingly minute quantities, it probably cannot

exert more than a retarding influence upon bacterial growth. Inasmuch as the tubes are incubated for a week at body temperature, there is time for the bacteria to grow in spite of the presence of the minute trace of chemical. For some time we tried to neutralize the bichloride of mercury upon the test object by dipping the bits of skin or of sponge into a solution of ammonium sulphide. There was no increase in the proportion of infected broth, and therefore the unpleasant sulphide was discontinued. I think most will concede that although our present tests may not be perfect, nevertheless they are infinitely better than none at all. At all events, since they have been instituted there has been a marked improvement in results. I am endeavouring to get our bacteriological department to undertake independent and stringent tests of their own. Further, may we not reason thus? If the chemical which clings to the skin prevents the skin from infecting culture media, may it not also prevent the skin from infecting the wound? Surely it is reasonable to suppose that skin saturated with the antiseptic is less likely to infect than skin which is not. Chemicals will kill spores or bacteria in time, but in surgical practice they are used under the most disadvantageous conditions. Sublimate, for instance, is rendered inert by the albumen and salts with which it comes in contact. I am quite sceptical as to the possibility of disinfecting an infected wound. Indeed, it is hard to imagine any one more helpless than a surgeon confronted with a septic wound. He cannot cure, and his best efforts may not alleviate. If the septic wound could with certainty be made aseptic, surgery would have made another vast advance. On the other hand, although we cannot disinfect with chemicals, yet we possess several which, even in extreme dilution, act as antiseptics, and can be relied upon to protect the hands, the wound, the instruments, and materials from aërial infection. I cannot myself observe that the dilute antiseptic solutions have the slightest appreciable malign influence upon the tissues. Therefore it seems to me irrational to leave bacteria within a wound when there is a possibility of washing them out with a weak and harmless chemical solution.

The search for the ideal chemical antiseptic and disinfectant is as arduous as the quest of the Holy Grail. It is easy, as I have said, to find a chemical which, in weak and harmless solutions, acts as an antiseptic, but it is quite another matter to find a chemical disinfectant. The task would be easier if our knowledge of the action of chemicals upon bacteria was more scientific. It is useless to beg the question by saying that the bacteria are poisoned. I confess a deep ignorance as to how a chemical like sublimate kills bacteria. It may, and probably does, enter into chemical combination with the micro-protein. But this cannot be the whole truth, because the quantity of the chemical varies according to the species of bacterium and not according to the quantity. Some species of micrococci are more quickly killed by a given quantity of sublimate than others, and even the age and vigour of the growth may make a difference. We began to know something about the antiseptic and disinfectant properties of chemicals. Quite a romance might be written about the vicissitudes of some. The experiments of Koch placed sublimate upon the highest pedestal only to be laid low by the experiments of Geppert. Kanthack and Drysdale gave the palm to bimiodide of mercury, and said it was twice as strong as sublimate. Andrewes,[1] and Krönig and Paul[2] throw doubt on this and exalt sublimate; but, as a matter of fact, a chemical which is the best in the laboratory is not necessarily the best in surgical practice.

The other day a friend showed me his hands covered with an angry rash. He had been trying a skin disinfectant on the recommendation of a bacteriologist. The disinfectant had, I believe, given wonderful results in the laboratory, but evidently it did not agree with that particular skin. Nevertheless another individual might have found it non-irritating. So much depends upon personal idiosyncrasy. Whilst working with a colleague who used sublimate my own hands were in a continual state of irritation and yet his seemed always to be smooth and comfortable. Now the bimiodide of mercury which I habitually use never causes me discomfort and seldom reaches the skin of my hands. Others, owing to some peculiarity, may not have had such a fortunate experience. Again, a chemical which gives bad results in the laboratory may give good ones in surgical practice. Iodoform is one of these. It cannot be called a disinfectant and its antiseptic properties are exceedingly feeble; nevertheless it is of great value in the treatment of wounds about the rectum and for some forms of tuberculous ulceration.

The truth is that different kinds of infection have to be fought with different kinds of chemicals used in different ways. Experience has a great part to play in the choice, and doubtless we have all much to learn. Here are a few examples, selected because they illustrate some sources of infection which are sometimes overlooked.

The importance of using the right chemical disinfectant in the right way is, I think, well shown in the treatment of chronic sepsis of the bladder and urethra. These dangerous forms of sepsis are often overlooked and the strange symptoms they produce are attributed to wrong causes. For instance, an officer was afflicted with a series of abscesses in the subcutaneous tissues of the face, neck, buttocks, and thighs. The abscesses left discharging sinuses which did not heal. Although the tubercle bacillus was not seen or its presence demonstrated by inoculations the abscesses were attributed to tuberculosis. Whenever a patient has mysterious suppuration the source of infection should be looked for though it may be very difficult to find. In this instance it was discovered by making the patient pass urine into a glass, when numerous flakes of lymph were seen. The bladder could not be disinfected until a stricture of the urethra, about which nothing had hitherto been said, had been divided. Recovery was rapid, complete, and permanent.

When bladder sepsis is overlooked its effects may be attributed to mere abstractions, such as "rheumatism." A gentleman who was supposed to have "gouty arthritis of the ankle" was speedily cured by disinfecting the infected bladder and urethra with nitrate of silver. A lady with "rheumatic arthritis of the knee" was cured and remarkably improved in health after a gynaecological colleague had curetted and disinfected the septic interior of the uterus. Some chemicals can hardly be used on conscious patients because they are so painful even in extreme dilution. This is especially noticeable when they are applied to some of the mucous membranes. For instance, a gentleman's bladder was being disinfected with a solution of nitrate of silver, the strength of which had been gradually increased until it had reached 1 gr. in 1 oz. of distilled water. This could be retained in the bladder for five minutes without much discomfort. One day no nitrate of silver was available, so 4 oz. of 1 in 10,000 solution of sublimate was introduced. The patient immediately complained of intense pain, and was obliged to eject the lotion as quickly as possible.

I have found solutions of hydrogen peroxide far more efficacious than mercurials in the treatment of those horribly fetid appendicular abscesses, and for similar ones about the middle ear. The effects of about three applications of a 5 per cent. solution of hydrogen peroxide were most striking in the case of an elderly lady. A large localized appendicular abscess was opened, with relief of pain and a diminution in the height of the temperature and in the rapidity of the pulse. Two days afterwards the abscess cavity became abominably fetid, with gangrene of the edges of the abdominal wound. The gangrene attacked the muscles more than the skin and fat. The patient became critically ill, with a rapid pulse and heightened temperature. The gangrene was arrested and the feted removed by two or three applications of a 10 per cent. solution of hydrogen peroxide, and the patient got well. The usual mercurial disinfectant had been used, but without any result.

It is not without interest to note how iodoform has fallen from its high repute. Less than five years ago many of us thought a dusting of iodoform an indispensable part of the dressing of a wound. I myself have quite given iodoform up, and seldom use it except in the form of 10 per cent. iodoform gauze for septic wounds, such as those about the rectum, fetid appendicular abscesses, or those in connexion with middle ear disease. In such cases as these it seems to be of value but in what way I know not. It is also useful in the treatment of tuberculous ulcers of the skin or mucous membranes.

It is sometimes asserted that the iodoform is decomposed in septic wounds and gives off free iodine, a powerful disinfectant. But I have tested mixtures of putrid pus and iodoform, and also septic wounds, with the delicate starch reaction without seeing a trace of blue discoloration, so that that explanation seems open to doubt. Perhaps iodoform does neutralize ptomaines, but we are still groping in the dark, and obviously must continue to do so until provided with scientific information. There are other reasons for relinquishing the use of iodoform. Some patients object strongly to its peculiar odour, others are very susceptible to its poisonous effects, and speedily begin to smell and taste

it. Occasionally iodoform causes acute local inflammation. A lady had several operations performed upon her face after a severe horse accident. A little finely-powdered iodoform was dusted upon the wound, and produced an acute dermatitis with abundant vesication. Had this occurred but once I might not have thought much about it, but it happened after a second operation, and not after others in which iodoform was omitted. It is only fair to say that iodoform has not infrequently been blamed for the effects of septic infection. Doubtless the layer of iodoform dusted upon a wound served a good purpose by excluding the air, but a layer of silver foil is more efficacious and perfectly harmless.

We all devote much time and attention to methods of operating, but I am inclined to think that all do not give the same thought to what may be called "the organization of operations." I should imagine that the organization of an operation bears the same relation to methods of operating as strategy in war bears to tactics. In an aseptic operation every detail must be perfect and all engaged in it consistent. Not least amongst the details should be included an exhaustive diagnosis and a complete knowledge of human anatomy and pathology. To get the very best results in hospital practice each surgeon ought to have his own wards, theatres, instruments, nurses, and assistants. It is most undesirable for septic cases to be introduced into the wards or theatres used for the aseptic, and separate septic wards and theatres ought to be provided. It is necessary to make provision so that septic cases arising in the wards can be removed. Obviously to carry out these requirements necessitates a much larger provision of isolation wards for septic cases as well as a theatre for septic operations. Moreover, the theatres at present used for aseptic operations often leave much to be desired, especially as regards the intrusion of the audience into the area of operation. The present organization, buildings, and equipment of our old hospitals cannot be made to meet such requirements as these; but I do not doubt that evolution will continue and that our ancient hospitals will be replaced by modern. Hospitals built on modern lines require for their construction a spacious area of land. Imagine for a moment a spacious ward containing twenty-five beds, all in view of the night nurse. Then project from one end the sanitary towers cut off by cross-ventilation, and perhaps a balcony too; at the other end put the sisters' room, kitchen, day room for convalescents, clinical room, four separation rooms, linen rooms, clothes room, and such like conveniences. Lastly, remember that in proximity must be operating theatres with anaesthetic rooms, recovery rooms, instrument rooms, and dressing rooms. What a space all these require, without mentioning the accommodation of the resident medical and surgical staff, or of the medical school, or of the sterilizing rooms, or machinery for heating and ventilating. A medical school is a great aid to efficiency and to that perfection of organization which aseptic surgery demands. Further, it is to be remarked that all this tends to the humane and considerate treatment of those who are so helpless from disease or injury. To my mind it is barbarous to compel those who are convalescent to sit about in wards surrounded by those who are undergoing the painful ordeals from which they themselves have just emerged, and to pass their time

'Mongst horrid shapes, and shrieks, and sights unholy

Day rooms should be provided for them, and separate rooms for those who are maimed, and whose lives are ebbing away. As a profession we are far too callous about these things.

It is also probable that the system of assistants will require modification. It is of importance that the surgeon should be assisted by one who is a convinced aseptician, and who is thoroughly conversant with his methods. In nearly all our hospitals the house-surgeons and dressers are appointed for limited periods. Those gentlemen do their work remarkably well, and with great devotion, but unfortunately their period of office comes to an end just as they are beginning to be efficient.

Obviously our present system must increase the percentage of sepsis even among the cases of the most consistent aseptic surgeon; but the system is of great educational value, and it is difficult to say which is best—a system which sends out into the world numbers of men well educated in the requirements of aseptic surgery, or one which helps one surgeon to obtain a minimum percentage of suppuration. I myself have no doubt as to the right answer; the greatest good of the greatest number ought to prevail. I believe that the inhabitants of the British Isles, even in remote parts, have at their disposal one of the best medical services that exists.

I have pointed out many details in which my own organization may be imperfect. The disinfection of the skin of the patient and of the operator's hands leaves much to be desired, and much of my work has to be done amidst surroundings which are out of date. But one who is alive to deficiencies is more likely to supply them than one who is wrapt in complacent optimism. I am an advocate for simplicity and uniformity in the organization of operations. It has been well and truly remarked by the celebrated Desault "that the simplicity of an operation is the measure of its perfection." In organizing the operation it would be hard to improve upon these words of Desault, quoted with approval by one of his peers. Now that we are so alive to the dangers of infection simplicity is more needed than ever before. The elimination of each unnecessary pair of hands lessens the dangers of infection. Therefore the surgeon alone handles the instruments, ligatures, sutures, and dressings. The single assistant has little to do and his fingers ought to be kept out of the wound. A garrulous assistant is particularly objectionable. A passage of infective particles from the nose and mouth ought to be a well-recognized danger. Simplicity should govern the choice of instruments and of materials. Instruments should be few and simple, materials uniform and simple. Thus it would be safer to use a single reel of silk throughout than several sizes, with perhaps some fishing gut or catgut and kangaroo tendon in addition. Obviously diversity of materials multiplies the chances of infection. The same applies to dressings. The chances of error must be less when one kind of dressing is chosen and adhered to. As our hospital organization is at present I find it difficult to adhere to one dressing and those who watched my practice might naturally suppose that I was extremely inconsistent.

References.

[1] British Medical Journal, October [illegible]th, 1901; May 25th, 1901; January 25th, 1902; July 12th, 1902; September 13th, 1902; February 14th, 1903. [2] Correspondence in British Medical Journal, August 6th, 1898; February, March, May, and June, 1899; also Watson Cheyne, Asepsis and Aseptic Surgery, 1898. February 25th, 1899, p. 547. [3] Lindenheim, Münch. med. Woch. (Abst., British Medical Journal, June 28th, 1902, p. 1). [4] Lessons in Disinfection and Sterilization, by P. W. Andrewes, London, 1899, p. 21. [5] Die chirurgischen Grundregeln der Lehre von der Wundbehandlung und Desinfection, Zeitschr. f. Hygiene, Leipzig, 1899, p. 111. [6] Robert Liston, Practical Surgery, 3rd edition, London, 1840, p. 1.

SOME PRACTICAL POINTS ASSOCIATED WITH APPENDICITIS.

By W. D. SPANTON, F.R.C.S.Eng.,

Consulting Surgeon, North Staffordshire Infirmary.

Quite recently it has fallen to my lot to see several cases of appendicitis which present tempting material for a few remarks, for almost every case, and certainly every group of cases, presents some features of interest and value.

Somewhere about twenty-five years ago I excised the appendix, long before it had become a fashionable procedure. No doubt, like many other affections, appendicitis had been long known and recorded, but its full clinical significance was not appreciated until more recently; now, as one comic paper cynically observes, those are most subject to it who can afford to pay for an operation. There may be some truth in this, although it is by no means the rule.

The early symptoms are often not only obscure but positively misleading, and the typical signs the books describe so mathematically are often represented by a cipher. Statistics on the subject have been denounced by one surgeon as belonging to the third category of lies, so I will refrain from alluding to them. The remarks I have to make are based entirely on my own observation and experience, which date back to a period long before McBurney's point was ever heard of.

Case I.

The first case of nine quite recent ones was a young gentleman aged [illegible], whom I was asked to see by Dr. [illegible] Bridgwell. When I saw him he looked very ill. There was distinct tension and fulness over the right iliac region, he did not complain of pain and only slight tenderness over the swelling. The temperature, which had been [illegible] F. at 9 a.m. was at 4 p.m. [illegible] F. [illegible] beats. As he was reluctant to the slightest [illegible] I at once operated by lateral incision, and found considerable [illegible] the excum round the caecum, the appendix [illegible] inscribed easily containing some [illegible] removed the appendix [illegible]

[illegible]

CASE II.

A healthy [illegible] when I saw with Dr. [illegible] Had the usual [illegible] There was [illegible] tenderness over it, but little pain. He had, however, [illegible] As the mass was [illegible] the general peritoneal cavity, I [illegible] recovery was rapid and complete.

CASE III.

A [illegible] symptoms had developed [illegible] and very acute [illegible] When I saw [illegible] there was extreme distension of the abdomen, [illegible] but no defined tumour. Chloroform was [illegible] there was fluid in the peritoneum [illegible] the next morning. I opened the abdomen in right side, found intestines more or less matted, with [illegible] There were numerous adhesions about [illegible] It had clearly [illegible] which had to be [illegible] There was no sickness after operation.

CASE IV.

A gentleman [illegible] seen with Dr. Candler. This was the third attack [illegible] abroad. When I saw him the attack [illegible] days, and then operated. I made [illegible] removed the appendix, which was very long [illegible] of the bladder. The patient was [illegible] large, thickened, and [illegible] no tubercle. No drainage. Rapid recovery without untoward symptoms, except some temporary [illegible]

CASE V.

[illegible] constipation, followed by [illegible] There was a distinct hard swelling over [illegible] the appendix [illegible]

CASE VI.

A [illegible] years of age, whom I saw with Dr. [illegible] for two days, constipation, very [illegible] and acute abdominal pain [illegible]

CASE VII.

[illegible]

CASE VIII.

[illegible] marked [illegible] There was a [illegible] getting weaker, [illegible] when the [illegible]

CASE IX.

A young groom [illegible] years of age [illegible] Dr. [illegible] sent an urgent message [illegible] began after a [illegible] previously, and developed rapidly into those of general peritonitis. I operated in less than two hours after. The abdomen was swollen, very tense, [illegible] tender to touch over the right side, which was more [illegible] than the left. Temperature [illegible] with rapid pulse [illegible] he looked extremely ill and weak. A right lateral [illegible] a large quantity of foul [illegible] There were [illegible] the pelvis, where the [illegible] was firmly attached to the ileum. No attempt was made to remove the appendix, as I wanted to be as expeditious as possible. He rallied well, and was [illegible] until the evening of the second day, when he [illegible] suddenly [illegible] Dr. [illegible] sent me the following account of the necropsy: [illegible] was very firmly bound down to the posterior abdominal wall, the appendix firmly adherent to the [illegible] The appendix [illegible] the adhesions mentioned the whole contents of the abdomen were bound together by [illegible] and easily broken down adhesions, extending as far as we could [illegible] through the wound.

CASE X.

More recently I have seen a very similar case to the last. A lad [illegible] November [illegible] third day sent for his doctor. He was then very sick, [illegible] finding the [illegible] and we found [illegible] appendix [illegible] catarrhal appendicitis [illegible] rapidly to acute septic peritonitis. [illegible] the patient [illegible]

Of these 10 cases 6 were operated upon during one week, with one death.

If we take these as typical instances of some of the conditions associated with appendicitis, we find simple catarrhal inflammation, recurrent appendicitis leading to recent adhesions, entirely local; a more acute inflammation with or without matting of all the adjacent parts, with general peritonitis, causing abundance of serous effusion. Again, in Case III we have a far more acute form coming on suddenly, with rapidly developing symptoms, ending in acute septic peritonitis and a sloughing appendix.

A further variety we find in Case [illegible], where the ordinary indications of appendicitis were present, and steadily improved under [illegible] treatment for three or four days, when sudden collapse occurred with acute pain [illegible] and rupture had taken place, [illegible] pus [illegible] being found in the pelvis.

In Case [illegible] symptoms developing slowly, leading to a large collection of pus and a general matting of the omentum to the anterior abdominal wall.

Case [illegible] was of a very acute type, without the graver symptoms, but [illegible] rapidly [illegible] a very septic peritonitis, with only very recent and slight adhesions. The septic condition began before the [illegible] had time to do any protective work. Then there is lastly, the [illegible] type [illegible] with alarmingly high temperature and rapid collapse (Case [illegible]). Such cases are, humanly speaking, lives entirely saved by operation, for without it none recover.

The ordinary symptoms of simple appendicitis are sufficiently familiar and I will not detail them, but there are some to which I think undue importance is attached, while there are others which may [illegible] be mistaken for those of other morbid conditions. Pain, for example, is relied upon by some as essential. I have seen several cases in which the pain has been so slight as to be hardly mentioned by the patient. The locality of the pain, too, is very misleading. In a large proportion of the worst cases the pain is referred to

the epigastrium or along the course of the colon. Epigastric pain is almost invariably associated with peritonitis, and is one of the most valuable indications of its presence and the need for operation in these cases. Tenderness on pressure and referred pain should be kept distinct. Tenderness is usually over the seat of the appendix, but it must be borne in mind that the appendix may be fixed in one of the hernial openings (I found it in the obturator foramen in one of my patients), or, on the other hand, it may be free and move its position considerably, hence the locality of the tenderness may vary greatly. In women it is liable to be confounded with ovarian tenderness, and it is not an uncommon thing for the appendix and ovary to be adherent both inflamed. I have before pointed out the comparative frequency of appendicitis in young women occurring at the catamenial periods. The presence of a lump again is very misleading. A good proportion of the cases where a localized swelling appears without very marked constitutional symptoms do well, and recover without operation. The absence of such a swelling indicates little, for the appendix may be gangrenous, may be hidden away down in the pelvis, or may be doubled down behind the ileum, and no lump be perceptible at all.

But when we come to abdominal tension, especially with rigidity of the right abdominal muscles, we have an indication of a more definite character, almost always denoting formation of pus or circumscribed peritonitis. This, in conjunction with constitutional symptoms, especially persistent sickness, is almost pathognomonic. In such cases operation is demanded. Constipation is no doubt usually present, but, on the other hand, spurious diarrhoea is not uncommon. There is frequently a history of more or less habitual constipation, with some unusual meal followed by sickness and diarrhoea, which may persist even as the graver symptoms increase. Temperature counts for little, except when a sudden rise gives indication of grave mischief, which is ordinarily apparent enough already. The same as to pulse; it is often quiet, and even slow, when the necessity for operation is clear enough (Case x).

Then as to the grounds on which we ought to operate in acute cases. Each case must be considered on its merits; but one safe rule may be laid down—that with any definite indication of general peritonitis or of increasing prostration denoting septic trouble no time should be lost; where the temperature rises and falls irregularly, with some weakening of pulse and increase of abdominal tension, operation is demanded. Persistent sickness, obstinate constipation, with typhoid symptoms, likewise. Localized swelling, painful and tender to touch, with steady rise and fall of temperature, denotes pus, and ought to be evacuated before bursting into the general cavity. Many such cases are extracaecal, and can be safely opened and drained from outside the peritoneum. Nearly all these do well.

The more I see of appendicitis the more am I convinced that it is far safer to operate too soon than defer it a minute too long. It is true the graver ones come most under my observation, and I frequently am not asked to see them until all doubt as to the wisdom of operation has passed; still even where we deem it wise to wait in hope, we too often find that hope deferred maketh the patient's heart sick, and sudden symptoms of the worst character arise while we are hoping for the best. One case in this list especially emphasizes this, for Dr. Russell and I were both agreed in the case of Miss L. that we might safely wait, as the symptoms were apparently (I say "apparently" advisedly) improving, and the girl herself was cheerful and comfortable. Yet you have heard what happened. Sudden collapse, with acute peritonitis, and fortunately for her she was operated on in less than two hours after and her life saved. If she had lived far away from the surgeon and the telephone, or he had acted less promptly, that girl would certainly have died. We ought to have done it the day before, apparent improvement notwithstanding. I hope you will not misunderstand me; a certain proportion of patients will get well with ordinary care and treatment, especially strict recumbency: but in all cases of doubt it is far safer for the patient, and more to the credit of surgery, to act soon, and make practically certain of saving the patient's life. Friends have something to account for in some cases, for the pleadings for delay serve just to tip the balance of doubt in the doctor's own mind, and lead him to consent to delay, even sometimes where his unfettered judgement would decide otherwise.

As to the nature of the operation, that can only be decided after it is begun. When the appendix can be safely removed, I always remove it; but this is sometimes impossible, and the condition of the patient often requires as rapid and as simple a procedure as can be. In all instances free drainage may stave off imminent death, and prove the first step towards complete recovery, even were it is not possible to do more. No one ought to be allowed to die unopened, unless actually moribund. Some most desperate cases do get well.

NOTES ON AN INEFFECTUAL TREATMENT OF CANCER:

BEING A RECORD OF THREE CASES INJECTED WITH DR. OTTO SCHMIDT'S SERUM.*

By D'ARCY POWER, F.R.C.S.Eng.,

Senior Surgeon, Victoria Hospital for Children, Chelsea; Senior Assistant Surgeon, St. Bartholomew's Hospital.

So much has been written lately about cancer that when your able secretary—Mr. J. R. Johnson—asked me to read a paper before you, taking malignant disease as my text, I was more than half inclined to excuse myself on the ground that I had nothing of importance to communicate; but just about the same time my friend, Dr. Harold Johnson, came with a glowing account of a new method of treatment introduced by Dr. Otto Schmidt, of Köln, and I told him that if he would procure the serum I would provide the patients, and would afterwards give, as far as possible, an unbiassed account of the results obtained by its use. The notes of these cases, and the conclusions which I draw from them I now propose to bring before you, for I know that, like the Athenians of old, the members of the Richmond Division of the Metropolitan Counties Branch of the British Medical Association, love "to spend their time in nothing else but either to tell or to hear some new thing." Besides, I think in so important a subject as cancer, with its apparently increasing mortality, that a fair trial ought to be given to every method of treatment which promises to give relief, provided that method can be adopted without ill-consequences to the patient. Such trials are most fittingly carried out by those who, like myself, are working in the wards of a large general hospital, for the test can then be conducted upon lines which will at least ensure an accurate record of results. The patient can be watched with a scientific accuracy which is impossible in private, for one has the assistance of the house-surgeon and dresser, the ward sister and the nurses. The observations, too, are checked and counterchecked, so that there can be no question as to their accuracy and as to entire absence of bias attending their record. I take this opportunity, therefore, of thanking Mr. Waterfield and Mr. Gurley, as well as Sister Lucas, Sister Henry, and their nurses, for the assistance they have given me in obtaining the detailed information which I shall presently submit to you.

Dr. Harold Johnson's account of Dr. Otto Schmidt's work appeared in the *Lancet* for November 14th, 1903, p. 1374, under the title "Dr. Otto Schmidt's Specific Treatment of Cancer," and his paper gained a somewhat wider circulation than was intended, as a long abstract appeared in the *Daily Mail*. The points upon which special stress is laid appear to be three in number. First, a specific reaction indicated by a general rise of temperature; secondly, local manifestations connected with the new growth; thirdly, alterations taking place in the new growth in the direction of its conversion into scar tissue. I quote a few passages from Dr. Johnson's paper on each of these heads:

[illegible]

Read at a Meeting of the Richmond Division of the Metropolitan Counties Branch of the British Medical Association.

...perature. The constant symptoms are, first, swelling of the tumour and of any metastatic deposits or secondary glands; secondly, pain in the parts or increase of pain which were previously present; and thirdly, tenderness of all affected parts. The enlarging lymphatic glands felt by the patient and metastatic glands and deposits which the most careful examination failed to detect previously. The activity of the reaction varies very much in individuals and diminishes as the patient becomes more cachectic. As far as can be told at present most carcinomata react more violently than those which are free or consist of breaking down cells. Cachectic patients hardly react at all, and while I can collect patients I mean those who are sufficiently free from cancerous cachexia properly to react, those who on account of oesophageal or gastric cancer are suffering from starvation or cachexia.

The reaction is of an inflammatory nature confined to the cancerous parts, more or less according to the slowness of the growth and the condition of the patient. It is of short duration, a few days only. A chronic state of inflammation can be induced by setting up reactions at short intervals or by raising the injections gradually but without pause.

Dr. Johnson then proceeds to argue that the inflammatory process arrests the growth of the cancer, which very soon afterwards begins to degenerate, and eventually becomes converted into cicatricial tissue.

Now here are definite statements capable of proof or disproof. Dr. Otto Schmidt, in a manner worthy of all commendation, was willing to allow his serum to be used by independent observers without imposing any conditions in order that its utility might be tested. Dr. Johnson, who is the chief medical officer to the Gresham Life Assurance Co., with no object to serve but that of truth, visited Köln, watched Dr. Schmidt's methods, brought back the serum, and made a series of injections in my presence. It is only by such plain dealing that we can hope to obtain conclusive results, and if the conclusions at which I have arrived do not bear out the optimism of Dr. Otto Schmidt, as voiced by Dr. Johnson, we still owe him a debt of gratitude for the work done, whilst we wish him the success he deserves.

The cases I selected for trial of the serum were (1) a woman from whom I had recently removed a part of the breast for a scirrhous carcinoma; (2) a man, the half of whose tongue I had removed for epithelioma; (3) a patient from whose neck I had removed a malignant growth the origin of which was not clear.

CASE I.

E. B. (St. Bartholomew's Hospital Female Surgical Register, vol. i, ..., No. ...), aged 4..., and single, came under my care on August 21st, ... complaining of a tumour in the left breast which she had only ... for six months, though she had felt pain in the breast for more than twelve months. She said too that her left arm often felt numb. On admission to the hospital the left breast contained a hard nodule ... in diameter, adherent to the skin and situated at the upper and outer quadrant of the gland. No enlarged lymphatic ... could be felt in the axilla, and the tumour was freely movable ... I removed the growth with the pectoral ... of the pectoral muscle in August 1903, but not the ..., and the patient left the hospital a week later. The pathologist reported that the growth was ... carcinoma.

The patient came to the hospital on November 3rd complaining of pain ... She looked ill, and on this day the notes state that "there is a ... nodule in the cicatricial tissue just internal to the upper ... The skin is not adherent to the ... No enlarged lymphatic glands can be felt in the left axilla or ..."

The injections of 1 c.c. of the culture and the respirations ... of Schmidt's killed culture were ... the right pectoral muscle, the ... were as follows:—

...	...	...	...	...	...
...	...	97.2° F.	...	66	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...
...	...	...	...	...	...

... the temperature ... the left axilla is larger and ... than on the previous day. The left breast still remains painful and a small tender lump can be felt just below the nipple. The axillary glands are no tenderer than before. A blood count showed the number of white blood corpuscles to be ..., so there is no suppuration. No medicine was given on this day.

November 4th. The ... injections of Schmidt's culture ... was injected at 4 p.m., the temperature being ... F., the pulse ..., respirations 24.

At ... p.m.	the temperature was ... F.	pulse ...	respirations	24
At 10 p.m.	...	...	...	24
At 12 midnight	...	...	...	24
At 4 a.m.	...	...	...	24
At 8 a.m.	...	...	...	24

November 5th. The enlarged lymphatic gland in the left axilla is still tender and painful on pressure, but it has not increased in size. No other enlarged glands can be felt in either axilla or in the groin or in the neck. At 4 p.m. the fifth injection of Schmidt's culture (0.5 c.c.) was made, the temperature at the time being ..., the pulse 84, respirations 24.

At 4 p.m.	the temperature was ... F.	pulse 84	respirations	24
At 8 p.m.	...	...	...	24
At 10 p.m.	...	...	...	24
At 12 midnight	...	...	...	24
At 4 a.m.	...	...	...	24
At 8 a.m.	...	...	...	24

November 6th. The ... of Schmidt's culture the fifth injection was made at 1 p.m., the temperature being ... F. and the pulse ...

At 1 p.m.	the temperature was ... F.	pulse ...	respirations	24
At 5 p.m.	...	...	...	...
At 9 p.m.	...	...	...	...
At 12 midnight	...	...	...	...
At 4 a.m.	...	...	...	...
At 8 a.m.	...	...	...	24

November 7th. The patient was not injected to-day, as she appeared to be rather feverish. Her maximum temperature during the day was ... F., and the highest pulse rate was ... At 8 a.m. the temperature then fell gradually until it reached 97.6° F., and the pulse 64 at ... o'clock midnight.

November 8th. The ... of Schmidt's culture was injected at 4 p.m., the sixth injection, the temperature at the time of the injection being ... F., the pulse ..., and the respirations ... At 1 p.m. the temperature was ..., pulse ..., respirations 24. At midnight the temperature was ..., pulse ..., respirations 24.

December 1st. The patient complained of a good deal of pain. The left breast was still tender, and the lump below the nipple was larger but not hard. A second enlarged lymphatic gland could be felt in the left axilla. It was situated below the one originally felt. The first gland was still tender, but had not increased in size. One and a half ... of Schmidt's culture, the seventh injection, were injected at 4 p.m. The temperature being ... F., the pulse 84, and the respirations ... At 9 p.m. the temperature was ..., pulse ..., respirations ... at 4 a.m. the temperature was ..., pulse 84, respirations 24.

December 2nd. The patient had suffered a good deal of pain, and an enlarged axillary gland could now be felt in the right axilla. There was also a distinct line of induration in the breast tissue on either side of the scar. I did not feel hardness, therefore, in the tissue forming a continuation of the lymphatics, as in the following case. December 3rd. I removed the left breast, the pectoral muscles, and a part of the serratus muscle together with the enlarged axillary glands in the left axilla and the enlarged glands from the right axilla. The wound healed by first intention and the patient left the hospital on December 16th. Dr. J. W. Arkwright (Lecturer on Pathology) and Mr. G. E. Gask (Demonstrator of Surgical Pathology) were present at the time of the operation, and ... of the suspected portions of the breast and the lymphatic glands ... before ... the theatre. In due course the following report was ... the pathological laboratory ... by Mr. Gask and ... to be ... Adenocarcinoma ... breast showed ... and ... small amount of ... new ... cells ... the previous operation ... There was ... of the lymphatic glands ... any trace ...

I think that this case was a satisfactory test of Schmidt's culture. The patient was a woman in good condition, who had undoubtedly suffered from cancer quite recently. She reacted to the injections in the manner predicted, and her lymphatic glands became enlarged first on the side connected with the breast which had been affected, and afterwards on the side where the injections were made. The breast tissue in the immediate neighbourhood of the scar became indurated and tender. It appeared therefore, as if the serum might be valuable as a diagnostic agent. But this hope was dispelled when microscopic examination showed that the swelling was merely inflammatory and that neither the breast nor the lymphatic glands were cancerous. The explanation of the reaction therefore appears to be that the serum intensifies any chronic inflammatory process which is going on in the body and has itself some power of setting up inflammation.

CASE II.

The next patient upon whom I operated was a man aged ... a porter to a coal-factor, who first came under observation in March, ..., saying that he had noticed a pimple on his tongue since December

1, 2. The pimple increased rapidly in size in spite of full doses of potassium iodide and on June 17th I removed the left half of the tongue. The patient left the hospital on June 18th, and microscopic examination showed that the tongue was the seat of a squamous-celled carcinoma.

On November 13th the patient was readmitted to the hospital on account of a secondary deposit of cancer in the neck. The deposit was in the form of an irregular mass projecting slightly by it situated just below the angle of the jaw on the left side of the neck. The mass was painless, but it was fixed that I considered it to be incapable of removal without undue risk.

At 4 p.m. on November 18th, 10 minims of sodium cinnamate were injected subcutaneously over the tumour, and at 11 p.m. on November 20th the same quantity was injected into the tumour itself. In neither case was there any evidence of reaction, as shown by the temperature, pulse, or respiration.

On November 21st an injection of one-tenth of a milligram of Schmidt's serum was made at 4 p.m., the temperature at the time of injection being 98.4° F., the pulse 84, and the respirations 22.

At 4 p.m.	the temperature was	98.4° F.	pulse 84,	respirations 22	
At 8 p.m.	..	98.4°	.. 84,	..	24
At 7 p.m.	..	98.4°	.. 84,	..	24
At 9 p.m.	..	98.4°	.. 84,	..	24
At 11 p.m.	..	98.4°	.. 84,	..	24
At 1 a.m.	..	98.4°	.. 84,	..	24
At 3 a.m.	..	98.6°	.. 84,	..	24
At 7 a.m.	..	98.6°	.. 84,	..	24
At 11 a.m.	..	98.6°	.. 84,	..	24

November 22nd. The patient complained of a good deal of pain during the night, the pain being felt over the whole of the left side of the head and neck. The cervical lymphatic glands are not enlarged.

November 23rd. 1 mg. of Schmidt's culture was injected at 4 p.m., the temperature being 98° F. and the pulse 84. There was a sudden rise of temperature to 99.2° at 11 p.m., and the patient complained that the tumour was very tender. An enlarged gland could be felt in the left supraclavicular triangle.

December 1st. An injection of 1 mg., the temperature being 98° and the pulse 84. This was followed by a maximum temperature of 99.2° at 8 p.m. but with no local change.

December 2nd. An injection of 1 mg. at 4 p.m., and on the following day the tumour was thought to be a little larger and more tense. A second enlarged lymphatic gland could be felt in the posterior triangle on the left side of the neck.

December 3rd. The injection of 1 mg. was followed by a slight rise of temperature, the maximum being 99° F., and the pulse 84. The swelling was more tense and a little larger, while another small and hard gland could be felt in the posterior triangle on the left side of the neck.

December 4th. A centigram of Schmidt's culture was injected, and this amount was gradually increased until 5 cg. were injected into the upper part of the pectoral region on December 8th. On this day a small oval ulcer with a raised and everted edge developed on the left side of the tongue opposite the last molar tooth.

Injections of one centigram were made on December 9th and 10th without any marked effect. The tumour in the neck was then becoming softened and separated from the deeper tissues, but when I [illegible] under an anæsthetic, I found an [illegible] deposit.

soon became an ulcer, which presented the ordinary characters of a [illegible] deposit.

The condition of this patient did not appear to me to be in any way modified by the injections of the culture. He was beyond operation when I admitted him to the hospital, as he was suffering from extensive secondary deposits of epithelioma in the glands of his neck. The affection ran the course which might have been expected had he undergone no treatment, the glands suppurating as a result of infection carried by the lymphatics from the cancerous ulcer in his mouth. He received sixteen injections of the culture and two injections of sodium cinnamate.

Case III.

D. G., aged [illegible], a passenger, was [illegible] Hospital under my care in August [illegible] growth of the [illegible] in his neck. He [illegible] jaw, whilst the third was situated in the middle third of the neck on the left side. The [illegible] over them was movable, but the growths themselves were fixed to the [illegible].

On August [illegible] I [illegible] difficulty, cut the [illegible] the larynx and [illegible] removed. The patient left the hospital on September 18th, and the [illegible] nature of the malignancy is not clear, but on the whole it resembles a carcinoma rather than a sarcoma.

The patient was [illegible] November [illegible] He then had a hard and [illegible] neck, extending from just below the ear to the clavicle, and filling up the space between the [illegible] border of the [illegible] and the vessels. The tumour [illegible] the deep structures, but the skin over it [illegible] and not adherent. There was [illegible] paintul, the pain being of a neuralgic character, and extending up the side of the face and on to the face.

November 24th. Twenty minims of a 1 per cent solution of sodium cinnamate were injected at 12 noon, the temperature being 98.4° F., pulse 84, and respirations 24. In the evening the temperature rose to 99°, and the pulse was 84, on the following day the pulse was subnormal.

November 23rd. One-tenth of a milligram of Schmidt's culture was injected beneath the skin over the lower part of the right scapula. The injection was made at 4 p.m., the temperature being 98° F., the pulse 84, and the respirations 24.

At 4 p.m.	the temperature was	98.4° F.	pulse 84,	respirations 22	
At 8 p.m.	..	98.4°	.. 84,	..	24
At 11 p.m.	..	98.4°	.. 84,	..	24
At 1 a.m.	..	98.4°	.. 84,	..	24
At 3 a.m.	..	98.6°	.. 84,	..	24
At 7 a.m.	..	98.6°	.. 84,	..	24
At 11 a.m.	..	98.6°	.. 84,	..	24

November 24th. The patient has not complained of any increase of pain during the night. The skin over the tumour is unaltered, and the neighbouring lymphatic glands are not enlarged.

November 25th. The tumour appears to be more tender and painful. The patient had a little sore throat, so a further injection was deferred until the next day.

November 26th. An injection of 1 mg. was made at 4 p.m., the temperature being 98° F. and the pulse 84.

At 4 p.m.	the temperature was	98.4° F.	pulse 84,	respirations 24	
At 8 p.m.	..	98.4°	.. 84,	..	24
At midnight	..	98.4°	.. 84,	..	24
At 2 a.m.	..	97.8°	.. 80,	..	24
At 4 a.m.	..	98.4°	.. 84,	..	24
At 7 a.m.	..	98.4°	.. 84,	..	24
At 9 a.m.	..	98.4°	.. 84,	..	24
At 11 a.m.	..	98.4°	.. 84,	..	24

November 27th. The patient complained of a good deal of pain during the night. The tumour is tender but has not increased in size. There is some superficial redness and a small hard lymphatic gland can be felt in the posterior part of the left axilla. An injection of 1 mg. of Schmidt's serum was made at 4 p.m., was followed by a rise of temperature which reached its maximum, 99.6° F., at 11 p.m. The temperature had fallen to normal on the following morning.

November 28th. A further injection of Schmidt's serum was made at 4 p.m., the temperature being 98.4°, the pulse 84, and the respirations 24.

At 4 p.m.	the temperature was	98.4° F.	pulse 84,	respirations 24	
At 8 p.m.	..	98.4°	.. 84,	..	24
At 7 p.m.	..	98.4°	.. 84,	..	24
At 9 p.m.	..	98.4°	.. 84,	..	24
At 11 p.m.	..	98.4°	.. 84,	..	24
At 1 a.m.	..	98.4°	.. 84,	..	24
At 4 a.m.	..	98.4°	.. 84,	..	24
At 7 a.m.	..	98.4°	.. 84,	..	24
At 9 a.m.	..	98.4°	.. 84,	..	24
At 11 a.m.	..	98.4°	.. 96,	..	24
At 1 p.m.	..	98.4°	.. 84,	..	24

There was here a short but sharp rise of temperature, lasting less than two hours, but without a corresponding increase in the pulse-rate.

November 29th. An injection of [illegible] Schmidt's serum was made at 6 p.m., the temperature being 98° F., and the pulse 76. There was a [illegible] rise of temperature to a maximum of 99° F. at 12 o'clock midnight when the pulse was [illegible].

The [illegible] of serum was slowly increased until 5 cg. were injected on December 7th, and pain on December 8th but without producing more than a slight rise of temperature. The note states that on December 9th there was increased redness, but that it [illegible] very much. The patient complained [illegible] pain, which [illegible] the [illegible] culture injected was reduced to 1 cg., but with [illegible] was injected [illegible] the [illegible] the temperature of the time being [illegible] the night there was a sudden [illegible] The pulse [illegible] next morning was [illegible] The [illegible] fever was put [illegible] by [illegible] pain, but in the next day the patient had an [illegible] and nineteen days with [illegible].

Now, as to the conclusions to be derived from these cases. Dr. Johnson says, "You will have noticed that I have been very careful to speak always of the treatment of the cancerous process, and that I have never in connexion with Dr. Schmidt's name, or what I have described, referred to this treatment as a cure of cancer." He merely claims that the "treatment is to be employed as a prophylactic immunization immediately after the surgical operations for the removal of malignant growths." For this reason the three cases submitted to treatment had already been operated upon within a recent period. The tumour removed had been submitted to microscopical examination and was known to have been cancerous. To avoid any complication none of the cases selected showed any sign of suppuration.

1. In regard to the reaction. There is no doubt that a reaction takes place after the injection of Schmidt's serum.

The temperature rises and with it the pulse, but the respirations as a rule are not affected. In this rise of temperature I see nothing peculiar, for it follows the injection of serum which admittedly contains toxins, and in all probability any similar serum would produce a similar result if it were active. It cannot therefore be said with accuracy that the reaction is specific, and this is proved by the fact that Case I showed the most typical reaction, yet subsequent examination of her tissues failed to detect any malignant disease.

2. The local effect upon the tumour was shown in each case, for the breast in the first case and the malignant masses in the other two cases became inflamed and reddened as the result of the injection. Yet here, again, I could not satisfy myself that the serum acted by selection upon malignant tissues only. It seemed to me to intensify any pre-existing inflammation. This was effectually shown in Case I, where the lymphatic glands in the right axilla became enlarged in addition to those in the left armpit, the original seat of cancer being the left breast. For here, again, subsequent examination showed that none of the glands which had thus become enlarged after the injections of the culture were affected with cancer.

3. The treatment is certainly painful apart from the succession of hypodermic injections.

Lastly, malignant disease progresses, even to a fatal issue, whilst the injections are being given, as is shown by Case II. I fear, therefore, that as my experience goes the method is of no service at present either from a prophylactic, diagnostic, or curative standpoint. But it may fairly be argued that the trial I have given is insufficient, and that further observations are desirable, for Case I was not suffering from cancer and Case III remained very much in statu quo ante.

ACUTE SEPTIC COLITIS DUE TO MILK POISONING.

By G. F. VINCENT, F.R.C.S.Edin.,
Wokingham.

The following case appears worthy of record:

On October 30th I was called to see E. L., aged 32. He complained of aching pains in his neck and over his left shoulder. Some of the cervical glands were swollen and tender, his tongue furred, temperature 99°, pulse 100. He stated he had been ill the previous week with "influenza," and an attack of "jaundice." It was further elicited that during the last eighteen months he had had several slight attacks of jaundice. The left apex of the lung indicated tuberculous lesion probably old. No other physical signs were evident.

[illegible] 1.8°.

[illegible] curtail [illegible] and were very obscure. [illegible] constant and the [illegible] were rapid and [illegible] water could not be retained. He suffered [illegible] pain [illegible] relieved [illegible] but most marked on the right [illegible] epigastrium. The [illegible] became feeble and [illegible] He rallied [illegible] and [illegible] on November 1st, obtaining [illegible] nourishment to the end.

[illegible] November 1st [illegible] fifteen hours after death, [illegible] well-marked [illegible] peritonitis, but [illegible] of future [illegible] examined and suspect. The [illegible] as regards colon and [illegible] that [illegible] were [illegible] and [illegible] reddened colon. [illegible] and [illegible] the [illegible] and upper parts the descending colon were [illegible] and distended, but the lower part of the descending [illegible] of flexure was collapsed and deeply congested. The [illegible] was [illegible] by [illegible] which were observed on the surface of the caecum. The largest, on [illegible], was found to [illegible] Part [illegible] in large quantity. The patches above noted were found [illegible] and [illegible] by [illegible] antiseptics. The [illegible] were [illegible] and [illegible] patches were visible on the [illegible], which proved to be [illegible] and [illegible] bubbles beneath the mucous membrane. [illegible] the intestinal wall between the finger and thumb [illegible] could be both [illegible] and heard. The [illegible] and the appendix vermiformis were perfectly normal. The liver was enlarged, the lower edge reaching about [illegible] Engelmann's below the costal arch. The portal [illegible] and [illegible] blood. On section the surface of the liver appeared normal, but here and there were yellowish white patches which proved to be [illegible] and in one spot a recently [illegible] vessel was divided. The other abdominal organs were [illegible]. Apex of the lung fixed to the chest wall by old pleural adhesions. The apex [illegible] and contracted by [illegible]. Other lungs elsewhere normal. Heart normal.

[illegible] by Dr. Spott of St. George's Hospital. Macroscopically, the [illegible] and [illegible] [illegible] peritoneal, the appearances presented are those of an [illegible] and in many respects [illegible] were yellow [illegible]. There is, however, a very marked [illegible] of the intestinal blood vessels and [illegible] compared with the [illegible] of the intestine, point to the [illegible] being the [illegible] [illegible] The intestine, [illegible] [illegible], and [illegible] spongy, whilst the [illegible] and [illegible] [illegible] the result of [illegible] [illegible] and [illegible] There is [illegible] and no [illegible]. The [illegible] [illegible] either absent or [illegible] [illegible] [illegible] present [illegible] [illegible] capillary thrombosis, [illegible] [illegible] [illegible] [illegible] The [illegible] [illegible] is slightly [illegible]. In [illegible] these [illegible] changes are due to a [illegible] in the [illegible] [illegible]

The pathological examination having established the septic nature of this case, it is quite clear it was also due to the contaminated milk supply, which the medical officer of health (Dr. Pierce) found to be the cause of the then prevailing epidemic of septic sore throats. The patient was supplied with milk from one of the two dairies condemned, and to within a few days of his death he drank of the milk freely. The case was most puzzling until a few days before death, and without the *post mortem* and pathological examinations much would have remained obscure. In the first place, acute colitis is very rare, and there were few symptoms in the early stage of the disease to indicate its nature. In fact, pain was the only thing complained of, and that was misleading owing to its paroxysmal and shifting nature, leading me at one time to suspect biliary colic, which was soon dispelled for biliary colic, and the history of repeated attacks of jaundice seemed to confirm this latter diagnosis. Yet the gall bladder and the ducts were found normal and healthy at the necropsy. There was no trace of albumen in the urine, and the faeces gave no clue until three days before death, the bowels, however, were somewhat confined. The absence of high temperature, with increasing rapidity of the pulse, enlargement of the liver and spleen, should have been, in retrospect, the means of pointing to toxaemic absorption had I then any reason to suspect such. The medical officer of health's report concerning the epidemic appeared later. The septic nature of this epidemic manifested itself in various ways. Commencing, as a rule, with acute lacunar tonsillitis, many cases were followed by enlarged and suppurating cervical and anti-submaxillary glands, others were attended by acute rhinitis, pharyngitis, laryngitis with acute oedema of the glottis, parotitis, arthritis, erysipelas of the face, and a case of acute glossitis with Ludwig's angina. The last was treated with the antistreptococcus serum with excellent results, and most likely had the serum been used in these other cases the result would have been very beneficial.

NOTE ON THE NATURE OF THE PARASITIC BODIES FOUND IN TROPICAL SPLENOMEGALY.

By Major W. B. LEISHMAN, M.B., R.A.M.C.,
Professor of Pathology, Royal Army Medical College

Since the publication of my description of the small parasitic bodies, found in the spleen of a soldier dying from one of the anomalous types of Indian fever, a considerable number of cases have been reported in which these bodies have been found, and the questions as to their true nature and etiological relationship to tropical splenomegaly are becoming more important. The subject is rendered still more urgent by the interesting news, telegraphed by Bentley from Assam, that he had found the parasites in cases of kala azar, as I suggested might prove to be the case, by spleno puncture during life.

Excluding Bentley's cases, of which no particulars have yet been received, Donovan[1] has found the parasites in 10 cases, Manson and Low[2] in 2 cases, and Marchand and Leedingham report their occurrence in a German soldier, recently returned from Pekin. (In this case it is interesting to note that there is a history of a fly bite on the foot.) In addition to these I have, within the last few days, detected these parasitic bodies in films made from the spleen and liver of two soldiers who died, one at Newport and one at Netley. One of these cases came from Dum Dum and the other from Barrackpore, which is within a few miles of Dum Dum, and in each case the parasites were present in both liver and spleen. Particulars of these cases will, I hope, be published shortly.

My main object, however, is to point out the close resemblance of these parasitic bodies to some that have recently been described by Dr. J. H. Wright in an article entitled Protozoa in a Case of Tropical Ulcer (Delhi Sore). In this case, which presented all the features of the Delhi sore, so well known to those who have served in the East, Wright found in the cells of the tissue—removed by curetting the ulcer—large numbers of small parasitic bodies which, from his careful description and the very excellent photomicrographs which accompany the article, leave no doubt in my mind that they are very closely analogous with the parasitic bodies now being found in tropical splenomegaly. Wright himself has no doubt as to the parasitic nature of these bodies, and proposes for them a new genus and species as *Helcosoma tropicum*.

In connexion with these parasites an interesting possibility has been suggested to me by Major Ross, who informs me that he has frequently found in the pus of Delhi sores large numbers of a flagellated organism, the *Cercomonas hominis*, and that it is just possible that these parasites of Wright's may prove to be altered *Cercomonads*.

The frequency with which these sores occur in India and their superficial nature should facilitate the confirmation of Wright's work, and, if the parasites he describes are found to be constantly associated with this disease, I think it not improbable that investigations into their life-history and the mode of their introduction into the human host may throw further light upon the corresponding problems in connexion with the parasitic bodies found in the spleen.

With regard to the nature of the spleen parasites three different opinions have been advanced. Laveran and Ross,[3] each working with films supplied by Donovan, come to different conclusions, Ross seeing in them parasites of an altogether new genus, while Laveran, in his most recent note[4] on the subject, adheres to his original view that they represent a new species of the genus *Piroplasma*. Lastly, to my own view, that these bodies represent an involuted stage of a flagellate organism, I may now add the support of Marchand and Leedingham, who subscribe to this theory. Manson and Low,[4] while expressing no decided opinion on their nature, strongly dissent from Laveran's views as to their intra-corpuscular nature. Certainly the failure in all cases to detect the parasites in the peripheral blood is a strong argument against their being intra-corpuscular, and it appears probable that Laveran's conception of their being *Piroplasmata* may have to be abandoned.

REFERENCES

[1] British Medical Journal, May 2nd, p. 1 [illegible] November 1st, p. [illegible]. [2] Ibid., January 16th, p. [illegible]; and November 28th, p. [illegible]. [3] Comptes Rendus de l'Acad. des Sciences, January 18th, p. [illegible]; and Académie de Médecine, November 3rd, p. [illegible]. [4] British Medical Journal, November 14th, p. [illegible]; and November 28th, 1903, p. 14[illegible]. [5] Comptes Rendus de l'Acad. des Sciences, December 7th, p. [illegible].

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

LEAKING ANEURYSMS.

The following cases seem sufficiently interesting to be recorded:

R.A., aged 42, while at work about 4 p.m. on May 3rd in a coal mine, slipped and putting out his hand prevented himself from falling. When he regained his equilibrium he felt as though he had strained a muscle in his right arm. He continued at his work, but had to desist an hour later, owing to a large swelling having formed on the inner side of the arm at the lower boundary of the axilla. He was seen about two hours after the occurrence by Dr. Dickson, of Lochgelly, who detected slight pulsation in the swelling but the radial pulse was not appreciably affected. The arteries were noted to be atheromatous. The patient was removed by ambulance the same evening to the hospital at Dunfermline. When seen by me at 9 p.m. the swelling was the size of a Jaffa orange, was tense and tender, and pulsation in it had entirely ceased; no difference could be noted between the right and the left radial pulses. On inquiry the patient stated he had never noticed any swelling in his arm previous to the accident, but had felt pain in the region of his shoulder-joint for some eight days past and on that account had used an embrocation. The heart was hypertrophied, the apex being felt in the sixth interspace ½ in. outside the nipple line, and a systolic murmur could be heard over the cardiac area and also posteriorly. There was no history of rheumatism or syphilis.

The following morning, as traces of extravasated blood could be detected in the forearm, I cut down upon the swelling in the upper arm, expecting to find a branch of the brachial artery ruptured. A large quantity of blood clot was turned out, but after a most careful search I could detect no bleeding point. I therefore came to the conclusion that the artery must have become occluded; the incision was accordingly closed, and a drainage tube inserted. Six hours later I was called to see the patient; the forearm, arm, and shoulder were greatly distended with extravasated blood, and the patient was in great pain. It seemed evident there must be an aneurysm, probably of the axillary artery, which was leaking, notwithstanding the absence of previous history pointing to this condition. I decided to tie the subclavian artery, and as there seemed little likelihood of the arm recovering its vitality after ligature of the artery owing to the amount of blood clot in the tissues, and as the patient's condition was grave, and he would not likely be able to stand a second operation for amputation of the arm were gangrene to set in, I deemed it wiser policy at once to amputate the arm after ligaturing the subclavian. I therefore ligatured the third part of the artery, and at once performed Spence's amputation through the shoulder-joint, Dr. Tuke very kindly assisting at the operation. On account of the serious condition of the patient the operation had to be performed as speedily as possible, and no investigation of the condition could therefore be made. The after-history of the case was uneventful, both wounds healing by primary union.

The second case was of an Arab whom I met while in Bagdad, Turkish Arabia. He had tuberculous caries of the metatarsal bones of the left foot. I thoroughly scraped the carious bones, and the patient left hospital with the wounds nearly healed. I saw him some six months later; he was then very anaemic owing to the leaking of blood from a small aneurysm of the communicating branch of the dorsalis pedis with the external plantar artery. The aneurysm was the size of a hazel-nut. The condition of the foot was far from satisfactory owing to the extension of the tuberculous trouble. I therefore performed Lisfranc's amputation of the foot.

On dissection of the removed portion there was caries around the aneurysm but no spicule of bone was found to have pierced the artery; no atheroma was present. The condition had apparently arisen from tuberculous or traumatic arteritis, the latter being possibly caused at the time of the first operation.

P. S. Spurgeon, B.A. Oxon., B.A., M.B., B.C. Cantab.
Late [illegible] F.R.C.

ACUTE HAEMORRHAGIC PANCREATITIS: OPERATION: RECOVERY.

C. S., a cook, who gave her age as 49, but appeared a good deal older, was admitted into the Royal Victoria Hospital, Bournemouth, on December 3rd, 1902, in a condition of considerable collapse, complaining of great abdominal pain and tenderness, chiefly in the epigastric region.

She stated that her health had not been very good for about twelve years, during which time she had suffered a good deal from indigestion; she occasionally had pains in the abdomen with sickness, but never brought up blood. A year previously, when in the service of a medical man, she was kept on lime water and milk, raw eggs and Benger's food for three months. For nearly a month before admission she had had almost constant pain in the epigastrium, and had had several attacks of epistaxis; during this time she had been dieting herself on bread and butter and tea, with an occasional glass of porter. At her menstrual periods, which were regular, she took gin and water. Her bowels were fairly regular and acted on the night of December 2nd, two or three days previously to which there had been some diarrhœa. On December 2nd she did her work as usual but had a slight headache. At 4.30 p.m. she had tea with bread and butter. At 7.30 she went out and after walking about two miles was suddenly seized with very severe pain across the upper part of the abdomen, so that she could not stand upright. She vomited, bringing up her tea. She drove home in a cab and was put to bed. The pain continued all night and all the next day till the operation. She was frequently sick, bringing up bile-stained fluid. A little brandy and water was given her when the pain came on, but besides this she took no food after her tea on the 2nd. On admission at 3 p.m. she was, as above stated, a good deal collapsed, but was quite clear in her mind. The abdomen was not distended and nothing abnormal could be made out by palpation or percussion. She had been sent in as a possible case of appendicitis, and the diagnosis seemed to rest between this and a perforated gastric ulcer. An anæsthetic was given at once and the abdomen was opened through the right rectus muscle above the umbilicus. The omentum over the pancreas and the bowel in its neighbourhood were found deeply blood stained, with numerous small elevated white spots, resembling small grains of rice or sago scattered about them. The pancreas itself was almost purple and extremely tense. Considering the apparently invariably fatal termination of these cases, we decided to try the result of relieving the tension. An incision was therefore made into the head of the pancreas where the tension seemed greatest. This was followed by haemorrhage, which for some time was distinctly alarming. It could, however, be controlled by pressure, and was eventually completely arrested by artery forceps and a ligature. The abdominal wound was partly closed by sutures, a gauze drain being left in. The patient made an uninterrupted recovery, her temperature never rising above 100. She is now in service again. The success of the case is chiefly due to my colleague, Dr. Ramsay, who helped me throughout with his advice and assistance.

CHARLES D. MURRAYE, M.D., F.R.C.S.

RAISED SCARS AFTER VACCINATION.

I wish to call attention through the BRITISH MEDICAL JOURNAL to a condition which sometimes follows vaccination. Previous to last year I have not seen it, and I do not think it is figured in any of the books of illustrations relating to vaccination. The question suggests itself, Is the scar condition due to the use of calf lymph? The scar is usually of a size corresponding to the vaccination, and is either arranged in rather corresponding to the scratchings made when vaccinating, or is of a more circular appearance. It may rise to ¼ in. in height. It is usually either white or raw in appearance, and patients complain of a feeling of itching most. In four cases, I have treated the keloid condition with tincture of iodine, and with fair results.

Liverpool. ROBERT R. RENTOUL.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LIVERPOOL ROYAL INFIRMARY.

CIRSOID ANEURYSM OF FOREHEAD TREATED BY FREE INCISION AND EXTIRPATION.

(Under the care of Mr. BUSHTON PARKER.)

J. B., aged 12, a groom from Workington, was admitted into hospital on January 1st, 1901, suffering from a pulsating swelling the size of half a small orange in the skin of the left frontal region. It appears that when less than 5 years old he fell down a flight of eighteen steps, striking his head on a flagged floor at the bottom, and being rendered unconscious for two hours. About a month later a lump the size of a pea showed under the skin at the upper part of his left forehead, and it gradually grew ever since.

Up to about a year before admission the skin over the swelling was unaltered in colour, but after that it became purplish red. There had never been pain. Free bleeding broke out in it eleven days, and again five days, before admission. This was controlled by a dressing, applied with pressure by Dr. J. H. Eadgeon, of Workington, and the bleeding on the weekly basis.

On admission the left frontal region was the seat of a pulsating swelling irregular in shape, 3 in. in greatest length and 2 in. in greatest width (Fig. 1). Pulsation was not very strong in the main part of the tumour, measuring over 3 in. in diameter. But towards the middle line, where the impulse faded into a dilated and tortuous vessel, expansile pulsation was marked, and towards the temple where it similarly faded off into a dilated and tortuous temporal vessel, there was strong expansile pulsation and a loud systolic *bruit*. At the back of the growth was another varicose vessel, apparently a vein. The vessels of the left side of the face were engorged, but not those of the right. The swelling was superficial to the bone, against which it could be compressed, while the skin over it was hot, of a deep port-wine colour in places, and greatly free from hair.

Operation, January 14th, 1901. After tying the temporal branch of artery, Mr. Parker laid the growth quickly open down to the pericranium by triple incision, forming three flaps,

each of which was immediately compressed under a sponge pending the application of compression-forceps to the wide spaces opened on its under-surface. The undilated vessels were then picked up and tied, and the cavernous dilatations cut away, along with spongy naevoid tissue. The flaps being redundant were freely trimmed so as nearly to fit, and only met closely when slightly stretched by the stitches. The dressings were applied with a little pressure under a capeline bandage. Union occurred by first intention, the stitches being removed and dressings abandoned after ten days. The lines of union are accentuated by pencil mark in Fig. 2.

Remarks by Mr. Rushton Parker. The treatment here adopted was based upon a paper by Mr. Furneaux Jordan of Birmingham, which appeared in the British Medical Journal of 1899, vol. i, p. 490 and which impressed me favourably at the time. In it he advises the free incision of naevi when practicable, followed by piecemeal excision of the interior. Puncture of cavernous naevi, as is well known, results commonly in free bleeding, difficult to control; but their free incision is followed immediately by collapse of the swelling, which can then be excised at leisure. Attempts to excise cirsoid aneurysm by ordinary dissection, or by endeavouring to isolate and tie the feeding arteries, have been

Fig. 2.—Eighteen days after operation.

described to me as attended by most troublesome haemorrhage and great difficulty. It seemed to me that the application of Mr. Furneaux Jordan's method must be the only certain way of reaching and securing the vessels of this purely local disease, by attacking them on the under-side of the skin, after freely opening and removing the cavernous and varicose spaces; and I had proved for myself the efficiency of his plan on soft erectile tumours devoid of pulsation. For all that I was induced to cut down on and tie the more manifest branches of artery, enlarged and tortuous, which fed the growth. But after doing this to a single artery on the temple, without any effect but the loss of time involved, the original plan was proceeded with. Two assistants were ready with a sponge in each hand, and I with one in my left, in case the bleeding should be at all troublesome. But no difficulty was encountered, and the free momentary bleeding was readily controlled. The flaps were easily secured, when quickly severed, and the buried cavernous mass easily clamped. The patient came to see me in September, 1902 being entirely free from his disease.

International Congress of Physiology. The sixth International Congress of Physiology will be held at Brussels from August 30th to September 3rd, 1904. All communications on the subject should be addressed to Dr. Slosse, Institut Solvay, Parc Leopold, Brussels.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Barclay J. Baron, M.D., President, in the Chair.

Bristol, Wednesday, January 27th, 1904.

Tuberculosis.—Dr. T. Fisher and Dr. J. O. Symes read a paper on an analysis of 500 necropsies of cases of tuberculosis. They dealt with the question of the point of entry of the tubercle bacillus, taking the oldest lesion present as the primary one. It was shown that abdominal tuberculosis may arise from caseous bronchial glands, and, on the other hand, that very occasionally the lungs might be affected in infection by the mouth. In children invasion of the lungs took place by direct infection from the bronchial glands. Either lobe might be invaded in this way. Bronchitis might be excited by the tubercle bacillus; in such a case infection of the abdominal glands was apt to be extensive. Of 96 cases under 12 years of age 50 per cent. suffered from thoracic, 12.5 per cent. from abdominal tuberculosis, and 4 per cent. from affections of bones and joints. General adhesions in the abdominal cavity were rare as a result of healed abdominal tuberculosis; localized lesions with caseation were not uncommon. The number of cases of abdominal tuberculosis was relatively greater under 12 years of age. Drs. Roger Williams, Eliza Dunbar, Michell Clarke, Newman Neild, W. Swayne, Tubb Thomas, and Fortescue-Brickdale discussed the paper; and Drs. Fisher and Symes replied.

Double Ovarian Hydrocele.—Mr. T. Carwardine read a paper on a case of double ovarian hydrocele. He remarked on the extreme rarity of the condition, and explained its pathology. The operation done in this case was completely successful. Mr. Hey Groves suggested that there might be another explanation for the case in perimetritis with much effusion and inflammatory adhesions over the uterus. Drs. E. W. Dunbar and W. Swayne also discussed the case, and Mr. Carwardine in reply said that the normal condition of the parts anterior to the Fallopian tube negatived the theory of an inflammatory origin of the condition.

Acute Gastric Dilatation. Mr. Hey Groves read a paper on a case of acute gastric dilatation with fatal termination. He considered the case was one of hypertrophy of the pylorus with spasm; there were no symptoms of the condition in the period antecedent to the fatal attack. Drs. Parker, Newman Neild, Stack, T. Fisher, and Mr. Paul Bush discussed the case.

Specimens.

Dr. Michell Clarke showed (1) a specimen of congenital porencephaly of the left cerebral hemisphere, the part of the brain mantle overlying the island of Reil was absent; the patient died from haemorrhage from the cerebellum during an attack of infective endocarditis. (2) A brain showing a patch of softening in Broca's convolution producing motor aphasia, and another in the region of the arm centre.

BORDER COUNTIES BRANCH.

A meeting of this Branch was held at Dumfries on December 11th, 1903, Dr. Maxwell Ross, President, in the chair. The staff of the Dumfries and Galloway Royal Infirmary, Dumfries, where the meeting was held, had kindly made arrangements to make the meeting a clinical one.

Dr. Clark read the histories of a series of cases of alcoholic neuritis:

1. A butcher, aged [illegible], had been in the hospital before for a previous attack. He had consumed a large amount of whisky and beer, and showed paralysis of extensors, particularly along course of post tibial nerve, [illegible] pain. He had massage.

A plumber, aged [illegible], was admitted suffering from loss of power and shooting pains in legs. He had anaesthesia in the lower and inner aspects of both legs, and the sense of heat and cold was very defective. There was marked tenderness along course of tibial and post tibial nerves. He had worked [illegible] under [illegible]. He was a plumber but there were no special symptoms to indicate lead poisoning.

3. Ashmonger, aged [illegible], had [illegible] pains in legs and great hyperthesia of sole.

These cases were shown in the wards.

Two cases were presented for diagnosis:

1. [illegible] to be new [illegible]

2. [illegible] on the front [illegible] and [illegible] Excision [illegible] and [illegible] expressed by [illegible]

In addition to these cases, the following were shown:

1. A man with a cyst [illegible] of the tongue was [illegible]. He had a double aortic murmur, with a greatly hypertrophied heart.

A specimen of [illegible] was demonstrated. The case had been diagnosed as [illegible] of the lung.

Dr. KERR showed a series of abdominal cases:

1. A girl, aged [illegible], had an abdominal swelling in the epigastric region. On opening the abdomen a large cyst was found containing [illegible] of a dark blood-like fluid, resembling bile.

2. A girl, aged [illegible], was found to have an ovarian cystoma. On opening the abdomen, a cyst was removed containing [illegible] oz. of fluid.

3. A girl, aged [illegible], had a gastric ulcer which perforated one afternoon, and she was operated on four hours after. On opening the abdomen, gastric contents were found in the peritoneal cavity, and were seen exuding from the perforation. The ulcer was stitched up, and the wound healed by first intention.

Dr. Kerr also showed a woman, aged 35, who had been operated on for a myeloid sarcoma of the upper jaw.

Dr. LIVINGSTON showed a case of Raynaud's disease, the condition dating from an attack of diphtheria. A feature of special interest in the case was the presence of cerebral symptoms. On three occasions the patient, a well-developed and in other respects healthy young woman, lost the power of the whole of her left side. These attacks lasted about five minutes and the patient did not lose consciousness. On several occasions she had temporary loss of memory. Dr. Livingston indicated the treatment adopted—namely, general tonics, avoidance of sudden changes in temperature to which she had been previously exposed, high-frequency currents ten minutes daily from March 24th to May 1st while in Professor Stockman's wards, Glasgow Western Infirmary. Dr. Livingston also showed an extreme case of hypospadias. The midwife in attendance at the confinement pronounced the child to be a female. On examination about twenty-four hours afterwards Dr. Livingston found a cleft empty, scrotum resembling the labia of the female, the diminutive penis resembling a large clitoris, the orifice of the urethra in the perineum being mistaken for a minute vagina.

Messrs. Gardner and Son, of Edinburgh, gave a demonstration of surgical instruments, and the members of the Branch afterwards dined together at the Station Hotel.

SOUTH-WESTERN BRANCH.

THE winter intermediate meeting of this Branch was held at the Museum, Torquay, on January 19th, 1904, Dr. W. F. THOMPSON, President, in the chair.

The minutes of the last meeting having been read and confirmed, the PRESIDENT spoke in feeling terms of the recent death of Mr. D'Arcy Sugden of Bucklastleigh, a member of the Branch Council. He pointed out that Mr. Sugden took a very active interest in the affairs of the Branch, and that his death was a distinct loss to the Branch. He proposed that a vote of sympathy should be sent to the relatives, which, on being put to the vote, was carried unanimously.

Cases. Mr. PERCY SWAIN read notes of the case of a maiden lady, aged 64, who had had symptoms of obstruction of the ascending colon for some months. On December 18th, 1903, he opened the abdomen over the ascending colon, and with a little difficulty was able to draw the bowels containing the cancerous mass into the wound. The intestine was then divided through the ileum, 3 in. from the ileo-cæcal valve, and lower down through the colon at the hepatic flexure. A large-sized Murphy's button was inserted. The operation was prolonged by the extensive mesenteric attachments which had to be divided. This was accomplished by clamping bit by bit on the [illegible] side, and tying all the vessels divided. The operation lasted one hour and three-quarters. The patient rallied well from shock, and had no pain or vomiting. Urine was passed on the second day. On the fifth the bowels acted. On the [illegible] there was a discharge of pus and faecal matter, the bowels acting freely. On the twenty-first the button was passed per rectum. The patient made after this a rapid recovery. The excised portion of the colon was then shown to the members. Dr. GIBSON read a paper on the Use of Axis-traction Forceps in Midwifery. He briefly described the history of the [illegible] axis-traction forceps, and specially recommended Milne-Murray's forceps (old pattern); having used them for some eighteen years in all kinds of cases where forceps were indicated. He also pointed out how to use the instrument in the case of Milne-Murray's forceps designed for use in certain cases of deformed pelves, where the traction handle has to be fitted [illegible] to the blades, springing from the traction rod, that it could be used either behind or in front of the head at the option of the user. Dr. GIBSON read a paper on Some Notes on Cases of Interest. Mr. HEMMEON WHITEFORD read a paper on Anæsthetics. Mr. GARDNER showed the following cases: (1) Compound fracture of the skull with extensive brain injury; (2) recovery after operation on perforated gastric ulcer; (3) a case of hip-joint disease successfully treated by operation; (4) a case of genu valgum successfully treated by operation.—Dr. HORTON showed a phosphatic calculus weighing 4½ oz. passed per urethram by a woman aged 41. Mr. ARNOLD showed a case in which he had successfully sutured the popliteal nerve many months after it had been severed; also he showed a case of extroversion of bladder.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of this Branch was held on December 11th, 1903, at the Royal Society's Room, Sydney, Dr. A. J. BRADY, President, in the chair. There were forty-two members present.

Confirmation of Minutes. The minutes of the previous meeting were read and confirmed.

New Member. The PRESIDENT announced the election of Dr. H. H. Lee, of Wollongong.

Communications. Dr. WORRALL exhibited: (1) Degeneration of uterine myomata; (2) concurrent uterine and tubal gestation; (3) the situation of the corpus luteum in four cases of ectopic gestation. Dr. Worrall read notes of the cases. Drs. MAITLAND and PERKINS asked questions on the cases, and Dr. WORRALL replied.—Dr. FOURNESS BARRINGTON read a paper on the first series of 100 coeliotomies for pelvic-abdominal disease. The paper was discussed by Drs. WORRALL, GEORGE ARMSTRONG, CRAGO, BOWKER, and TAYLOR YOUNG. Dr. BARRINGTON replied.

Resolutions. Dr. WILKINSON proposed the following resolutions:

1. That in the interests of public health neither boracic acid nor borax should be used as a preservative in ordinary or concentrated milk or even in milk products.

2. That this resolution should be communicated to the state Government and the City Council through the proper channels.

3. That a deputation from the Association should wait upon the Premier to place the views of the medical profession on this question before him.

ULSTER BRANCH. At a meeting held on January 27th, Dr. T. MCLAUGHLIN, President, in the chair, Dr. DARLING (Lurgan) read notes of a successful case of Cæsarean section on a patient whose mother had undergone a similar operation.

Mr. FULLERTON (Belfast) read notes of a case of gunshot wound of the abdomen involving the cæcum, which was successfully treated by laparotomy, and showed the patient.

The discussion on the training and education of children mentally deficient was opened by Dr. BERNARD (Derry), who read a paper entitled The Evolution of Successive Phases of Infant and Adolescent Life. Dr. Bernard laid especial emphasis on the necessity of training in the pre-scholastic period. The discussion was continued by Dr. WILLIAM GRAHAM (Belfast), Professor LINDSAY (Belfast), Dr. LESLIE (Strandtown), Dr. LAWLESS (Armagh), Dr. ALLEN (Armagh), Dr. O'NEILL (Belfast), and Dr. CALWELL. Finally it was proposed by Dr. O'NEILL, seconded by Dr. CALWELL, and passed

That the question be referred to the Council with instructions to approach the Local Medical Society [illegible] with a view to [illegible] the Legislature to [illegible] the Feeble-minded Act, 1902, [illegible] the Local Authority with [illegible] and that the Council be requested to [illegible] the Local Authority with [illegible] and to make recommendations as to the best means of [illegible].

Dr. JOHN MACCORMAC (Belfast) read a paper entitled Heredity in its Relation to the Nervous System.

THE UNIVERSITY OF CINCINNATI. Dr. Charles Whitney Dabney has been elected President of the University of Cincinnati with a salary of £1,000 a year. A handsome residence will be immediately built for him on the University campus. Dr. Dabney will, as President, also be the Head of the Medical College of Ohio and the Cincinnati Law School, these being respectively the medical and law departments of the University. The University has an annual income of £30,000.

THE [illegible] SANATORIUM has recently been converted by the [illegible] Dr. Bechmer the founder, into a company. Among the directors are Professor Rudolf Virchow, formerly head of the sanitary, and Professor Ehrlich, formerly head of the [illegible]. The present medical superintendent is Staff Surgeon-Major von Hahn.

REPORTS OF SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, January 21st, 1904.

Cerebral Tumour: Cerebral Thrombosis.

Dr. Warrington read a note on a case of cerebral thrombosis clinically characterized by total aphasia but with retention of consciousness. The necropsy showed that the softening had occurred in the region of distribution of the middle cerebral artery, and that it was in great part limited to the lower frontal convolution, temporo-sphenoidal and angular gyrus on the left side. He also gave an account of a case of cerebral tumour. An exploratory operation was performed by Mr. Rushton Parker. The Rolandic area was exposed revealing oedema of the subarachnoid tissue and softness of the brain, but no tumour or even marked tension of the brain. The operation afforded marked though temporary relief to the patient, who died four months later. At the necropsy a tumour was found occupying the basal ganglia and hippocampus major.

Mr. Rushton Parker said that the operation was done chiefly with the view to relieve tension supposed to be the cause of the optic neuritis. The piece of bone removed was replaced in fragments. The wound healed by first intention, and the patient's eyesight was restored and preserved. The patient lived nearly four months after the operation, and undoubtedly his life was prolonged, and the progress of the tumour found after death was greatly diminished.

The Modern Surgery of the Prostate.

Sir William Banks read a paper on the modern surgery of the prostate by way of introduction to a general discussion on the subject. He described a typical case of acute prostatic retention, with its generally disastrous termination as the result of the treatment in vogue when he began practice, and highly eulogized the work of Sir Henry Thompson, which had completely revolutionized the whole conduct of urinary surgery. Passing over Bottini's treatment by the electric cautery, as one of which they had no practical experience in this country, he recalled the work of McGill of Leeds. Had not death cut short the labours of this very admirable surgeon, he would almost certainly have still further advanced the surgery of the prostate. His method of attacking the gland from above by means of suprapubic cystotomy showed a fine combination of courage and originality. The mortality from haemorrhage and sepsis was, however, severe, and the operation did not gain ground. When Freyer made public his operation it was so novel in its character and so opposed in appearance to anatomical possibilities that many persons would not believe that it could be done and he himself was one. But he ventured frankly to say that this would not have occurred if at the outset it had been clearly pointed out that there was no comparison between the normal anatomical prostate and the pathological, adenomatous prostate. The attempt made to deprive him of the credit due to him by saying that his operation was simply that of McGill was very paltry. He (Sir W. Banks) saw McGill's specimens and patients some fourteen years ago, and it was plain that his attack was mere nibbling in the effort to get away as much as possible of the gland and that by means of instruments, Freyer's operation was done with the avowed object of removing the whole gland bodily by enucleating it with the finger, even if the urethra had to go too. He referred to the magnificent specimens exhibited that night by Mr. Freyer and to his mortality of 10 per cent., a low mortality considering what was done and the age and condition of the patients to whom it was done. Allusion was made to the operation of Parker Sims by which the gland was removed by the perineal route—an operation which doubtless promised a better drainage than that by the suprapubic, but which, although apparently making great way in America, had so far not been extensively used in this country. Coming to the question of double castration, while admitting the direct effect of the removal of the testes in diminishing the prostate, he never could bring himself to do it, and he was glad to think that its own inherent defects and Freyer's operation would eventually render it a thing of the past. He regretted very much that Mr. Reginald Harrison's excellent attempt to accomplish, by the safe and easy operation of vasectomy, any good that had been done by castration had not proved as successful as he could have wished. His own experience in this department of surgery all went to show that early treatment was the real line upon which efforts should be made. As soon as a man showed any symptoms of enlarged prostate, and as soon as his surgeon found that he did not completely empty his bladder, so soon ought that man to draw off his water at night with the biggest soft catheter he could pass. A silly phrase—"entering upon catheter life"—had done a great deal of mischief by inducing many to believe that this was entering a kind of hell upon earth, the tortures of which were brought on by the use of the catheter. The second point was the prompt use of prostatotomy in certain cases. When a man having symptoms of big prostate suddenly got retention, and when it was clear that instruments of any kind could only be passed with difficulty and suffering and that the retention of a catheter could not be tolerated, the following proceeding had been promptly adopted by him with the greatest success in obtaining not only a relief from the immediate danger, but a complete and permanent cure. With the patient in the lithotomy position the membranous urethra was opened. Then the floor of the prostatic urethra was deeply incised, and the cut carried right up into the bladder so as to split any valve-like third lobe or a cervix-like protrusion. Next the prostatic urethra should be dilated to the utmost with the finger and the biggest possible glass tube inserted and worn for at least a month. It might be said that every surgeon in an urgent case did a urethrotomy and drained the bladder. So he did, but he did not split the lower lobe of the prostate, as described, nor did he forcibly dilate the prostatic urethra and keep it dilated afterwards.

Mr. Freyer briefly referred to the various operative procedures which had from time to time been advocated in dealing with an enlarged prostate. He particularly mentioned castration, and as illustrating the uselessness of such a procedure exhibited a prostate which he had removed from a patient upon whom castration had been performed five years previously. After describing the anatomy of the prostate, he laid great stress upon the importance of ascertaining as far as possible the condition of the kidneys before attempting enucleation, for in long-standing prostatic trouble there was always a danger of suppression of urine, quite apart from the result of operative interference. If cases were more carefully selected and better prepared for operation the mortality in future would be less. Mr. Freyer finally described in detail the various steps of his operation.

Mr. Reginald Harrison said he would confine his remarks to the influence that suprapubic prostatectomy, as illustrated by Mr. Freyer's cases, would be likely to have on the operative treatment of stone in the bladder complicated with such a degree of prostatic enlargement as to render the patient incapable of fully emptying his bladder or of doing so with a catheter. In such cases the expectancy of a recurrence of stone after its removal either by crushing or by suprapubic cystotomy was very great. In fact, under these conditions, the obstructing prostate might be regarded as the principal factor in the formation or re-formation of stone. He cited examples where, after litholapaxy had been repeatedly performed for recurrence of bladder stone, the concurrent removal of both stone and prostate had been followed by the complete and permanent recovery of the patient in the fullest sense of the term. He exhibited a stone and prostate which he had removed the previous day from a patient who had undergone suprapubic lithotomy six months previously. He thought there were many cases where the stone and prostate should be removed as a primary operation. In fact, he had done so in several instances with excellent results. He said this without any prejudice to litholapaxy, which he regarded as the best and safest operation in uncomplicated cases of stone, or where coexisting prostatic symptoms were not pressing. He did not think the combined operation increased the risk.

After remarks from Mr. Robert Bickersteth, Mr. Newbolt, and Mr. Douglas Crawford,

Mr. Rushton Parker said he could confirm Mr. Freyer's description of the so-called third lobe as being an integral part of one of the lateral lobes.

Mr. Thelwall Thomas spoke in favour of the perineal route, and said when the enlargement was not very great the prostate could, after free division of the capsule, be as readily enucleated as by the suprapubic method.

Mr. [illegible] said his experience of complete enucleation of the prostate was limited to one case, [illegible] 70 years of age; the power of urinating had subsequently been normal. He was a firm believer in the value of catheterism in prostatic

retention. In many cases nothing more was required, but in some a period came when operative interference was necessary. In his experience the advantages claimed for castration and for vasectomy had not been fulfilled.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., President, in the Chair.

Wednesday, January 6th, 1904.

Fibromyoma of the Round Ligament.

Dr. Herbert Spencer read a paper on Fibromyoma of the Intra-abdominal Portion of the Round Ligament of the Uterus. From an examination of fourteen cases, including one of his own, he concluded that fibroids in this situation usually occurred in women over 40. The youngest patient was 24, and the eldest 70. They were commoner on the right side than on the left, might occur in virgins, did not tend to prevent pregnancy or to cause abortion, did not influence menstruation, and when menorrhagia or dysmenorrhoea were present these symptoms were due to associated uterine fibroids. The tumours were subject to lymphangiectasis and to myxomatous and calcareous degeneration, and might cause trouble after the menopause. They varied in size, and might be pedunculated or sessile, intraperitoneal or subperitoneal. The pedicle might be the ligament itself, which was hypertrophied, or there might be a separate pedicle attaching the tumour to the ligament. Torsion of the pedicle might occur. Special symptoms due to the tumour were often not marked: abdominal pain and stiffness, pain on walking, sacral pains, intestinal pains, and pressure on the bladder had been met with. The tumours, which varied in consistence, closely simulated ovarian, uterine, and broad-ligament growths. They should be removed as soon as they caused symptoms or attained a considerable size. The pedicle should be carefully tied, and, when possible, the ends of the ligament should be united. If a sac were left after enucleation, it should be closed by suture or drained.

Mr. Alban Doran was not surprised to find that more than half the cases were associated with fibroids in the uterus. It was significant that, as in the case of fibroid of the broad ligament, the same kind of tumour was found both in the intraperitoneal and extra-peritoneal portion of the round ligament with relative frequency in young subjects, one patient being only 4 years old. Fibroid disease was also relatively common in the band representing arrested development of a uterine cornu, and in that case the corresponding round ligament was usually very large. Josephson and Falk believed that the rapid development of that ligament in fetal life was the cause of malformation of the uterus. Hence fibroid of the round ligament might in one sense represent a teratological condition. Quite recently Mr. Doran had removed a uterus bicornis for a large fibroid developed in the septum—another half-teratological condition, not very rare.

Mr. Sampson Handley suggested that possibly fibromyoma of the broad and of the round ligaments were genetically identical, and that both varieties of growth might originate from accessory Fallopian tubes. Koumann had shown how frequently these accessory tubes were present, and it was now known that certain broad ligament cysts arose from them. He had himself proved the presence of plicae in such cysts. Since fibromyoma was known occasionally to arise from the muscle of the normal Fallopian tube, it seemed probable that accessory tubes might give rise not only to broad ligament cysts, but to fibromyoma of the broad and round ligaments.

Dr. Herbert Spencer, in reply, thought there was much to be said for the teratological origin of these tumours, especially as they sometimes contained adenomatous tissue, as in Cullen's and Bluhm's cases. Of the enlargement of the round ligament in unicornuate uterus, mentioned by Mr. Alban Doran, he had not previously been aware. With regard to Mr. Handley's suggestion, it was not yet proved that accessory Fallopian tubes existed, and even if they did there did not seem to be any reason why they should be brought in to explain a simple fibromyoma occurring in a fibromyomatous structure like the round ligament.

Pyometra.

Dr. Victor Bonney read a communication on a case of pyometra in one-half of a subseptate uterus. The history and symptoms of the case had been such as to lead to the diagnosis of a pregnancy in a uterus bound down in every direction by old adhesions, and the condition of the patient being serious it was decided to operate. On incising the uterus, with a view to removing the supposed gestation sac, a quantity of pus escaped from a cavity, which on further exploration, proved to be the left half of a subseptate uterus; the median septum having become adherent to the left uterine wall about the level of the internal os. The uterine sac was stitched to the abdominal wound and drained, and the patient made a good recovery.

Uterine Abscess.

Dr. Arnold W. W. Lea related a case of abscess in the wall of the uterus, in a patient who suffered from gonorrhoea at the time of delivery, which developed during the puerperium and ruptured into the peritoneal cavity. After one or two earlier attacks of recurrent pain the patient six weeks after delivery was suddenly seized with intense abdominal pain, followed by symptoms of acute peritonitis. Abdominal section was performed, and an abscess in the posterior wall of the fundus uteri was found to have ruptured into the peritoneal cavity. The patient, though very ill for a few days, made a perfect recovery. Dr. Lea remarked that uterine abscess was rare, and in many cases perforation took place into the peritoneal cavity unless operation were performed. The diagnosis was difficult, but pain, associated with great sensitiveness and enlargement of the uterus, should lead to a suspicion of its presence; it was often difficult to distinguish it from an infected myoma of the uterine wall. If perforation occurred, immediate abdominal section afforded the best chance of success.

Pregnancy in a Fixed Uterus.

Dr. Amand Routh, after alluding to the great rarity of pregnancy in a fixed uterus, related a case of pregnancy occurring in a uterus entirely fixed by parametric exudation, and resembling, therefore, in its essential aspects the case of Dr. Victor Bonney as first diagnosed by him. Haemorrhage occurred at about the twelfth week, and the temperature rose to 102°. It was impossible to draw down the cervix, but after rapid dilatation he was able to empty the uterus by means of his finger and a ring forceps.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Charles Higgens, F.R.C.S., Vice-President, in the Chair.

Thursday, January 28th, 1904.

Proptosis.

Mr. W. H. H. Jessop read a paper on this subject describing 2 cases.

The first one was of syphilitic origin, the patient being a man who suffered from intense headache with swelling in the right temporal region and protrusion of the eyeball. He was treated with iodide, etc., but without much relief. The vision was reduced to fingers at 1 m., there was slight ptosis, pupil 4 mm. inactive, optic disc pale and a discharge from the nostril. An incision was made into the swelling and dead bone was discovered. This gave slight relief but the pain soon returned and Mr. Waring then undertook a very extensive operation and removed a great deal of necrosed bone including a portion of the great wing of the sphenoid.

The patient recovered and was much benefited.

The second case was that of a lady who had normal acuteness of vision when first seen but subsequently developed retrobulbar neuritis and supraorbital neuralgia. The symptoms increased with proptosis and tumour of the optic nerve was diagnosed. Sir Victor Horsley operated and a growth was found which proved to be an endothelioma. The patient was much relieved.

Mr. Jessop referred to other cases and emphasized the great relief afforded by the operations.

Asthenopia.

Mr. C. Brookshank James read a paper detailing a plan of treating some cases of asthenopia. He had noticed how rare it was to see myopia develop in watchmakers and those who used a single eyeglass for magnifying their work; applying the same principle to other cases he had come to the conclusion that the development of myopia might be arrested by similar means. He mentioned the case of a patient who had 1·5 D myopia, and for this he ordered a glass of 2·1·5 to be used for one eye only, so that convergence might be prevented. The myopia did not increase during many months while using this method, though it increased 0·5 when ordinary glasses were used.

Mr. C. Worth thought that, in cases in which pain and fatigue were prominent symptoms, hyperphoria was present.

Mr. Bishop Harman did not consider that the mere closing of one eye would prevent convergence when looking at a near

object; and thought it would much interfere with education if this plan were adopted.

Rheumatoid Arthritis.

Mr. Beaumont read a paper on the eye symptoms of rheumatoid arthritis, with especial reference to the fields of of vision. In spite of recent research by Bannatyne and Wohlmann there was much that was obscure in rheumatoid arthritis, and he desired to call attention to the contraction of the fields of vision which frequently occurred. He compared the compound charts of male and female patients and found them similar. They were obtained by a novel method. The number of degrees from fixation point outwards was noted in each case. These were added together and divided by the number of patients examined, and so an average field was constructed. The uniformity of the fields in males and females excluded, he thought, hysteria but not necessarily neurasthenia. There was no central scotoma in rheumatoid arthritis, and no evidence of optic atrophy, and, as a rule, not more than a proportionate contraction of the colour fields. He remarked upon the Raynaud-like symptoms that were sometimes present, and said that Dr. Samuel Lodge had noticed contracted fields in this disease. Possibly the contraction was due to the syncopal conditions of the terminal vessels of the retina. Diagrams were shown in which expansion of the fields occurred when amyl nitrite was inhaled, whereas in a healthy person no enlargement was noticed.

Tuberculosis of the Choroid.

Mr. J. R. Lunn described a case of tuberculosis of the choroid. The child was 6 years of age, and was suffering from symptoms of general tuberculosis, and was in a typhoid condition. There was discharge from the left ear. Optic neuritis was present and a swelling in the choroid. In spite of the disease the child got quite well, but the oval area in the choroid was still present, though the optic neuritis had subsided. He thought the case was doubtless tuberculous.

Mr. Jessop mentioned a case of allied character.

Specimens.

The following card specimens were shown:—Mr. Johnson Taylor: A swelling of unusual size, probably inflammatory, in the ciliary region.—Mr. Treacher Collins: An unusual superficial circumferential opacity of the cornea, symmetrical in the two eyes.—Mr. G. W. Thompson: An unusual form of central choroiditis in a young man.—Mr. G. W. Roll: Unusual changes in the macular region.—Dr. D. Mowat: Paralysis of inferior recti muscles.—Dr. Rayner Batten: Subretinal haemorrhages.

British Laryngological, Rhinological, and Otological Association.—At a meeting on January 29th, Mr. Bark (Liverpool), President, in the chair, a case of intermittent nasal obstruction and others illustrating stages of progressive deafness were shown by Mr. Mayo Collier.—Dr. Kelson showed a case of laryngitis in a girl, and in answer to observations from Dr. Dundas Grant and Mr. M. Dougall (Liverpool) said that he intended removing the tonsils, and that he had not noticed any nervous tendencies.—Mr. Stuart-Low showed a series of cases in which aural sepsis had been obtained by means of kelvolin vapour and the local application of pure kelvolin. The cases and treatment were favourably discussed by the President, Dr. Dundas Grant, and others, and Mr. Stuart-Low, in reply to questions, said that all the cases shown had been treated by the usual methods, some for years before coming under this special treatment. Two of the cases shown were Dr. Jakins's patients, and both were instances of intractable discharge. Cultures were always taken before using the vapour, and then it was pushed until the culture was negative. There was no doubt about the germicidal power of kelvolin vapour, even the staphylococcus succumbed to its influence. There had been no failures, but when many granulations were present shielding the seat of the mischief, the treatment was necessarily more prolonged.—Mr. Stuart-Low also showed a case of nasal polypi in a boy aged 7 years. The extreme youth of the patient had led Professor Hajek of Vienna to suggest that it might be a sarcoma.—Dr. Wylie showed a case of primary hard sore on the lip of a woman. The President had not seen one before, but Dr. Jobson Horne, though such cases were uncommon, had seen three in five years. Remarks on the difficulty sometimes of tracing the primary infection were made by Mr. C. Nourse and Dr. Dundas Grant.—Dr. Wylie showed a case of neoplasm of the oesophagus, probably malignant, and causing paralysis of both vocal cords. Dr. Lodge (Bradford) had had a similar case, in which death ensued from septic pneumonia after perforation of the trachea. Dr. Wyatt Wingrave showed a case of laryngeal disease in a man aged 30 years. In answer to Mr. Barwell he said he could get no syphilitic history, but intended to try antisyphilitic treatment. Dr. Kelson showed a case of eruption on the fauces which had at first looked like malignant disease. Hypodermic injection of arsenic and iron was suggested by Mr. Wright, but the President and Dr. McDougall threw out a diagnosis of syphilis. Mr. Barwell showed a case of syphilitic laryngitis. Dr. Dundas Grant, who had a somewhat similar case under treatment, thought it looked like a solid oedema. In his own case potassium iodide failed, but mercurial inunctions did good. In reply to suggestions, Mr. Barwell said that he was already giving 75 gr. of potassium iodide a day, but intended to increase the amount. He did not think it was oedema.—A case of growth in the anterior commissure above the vocal cords was shown by the President, and its nature discussed by Drs. Wyatt Wingrave, Vinrace, Horne, and Lodge. The President, in reply, said there was a good deal of dyspnoea occasionally. His experience was that fibromata were always single, while papillomata were often multiple. Mr. Mayo Collier then read a paper on latent or intermittent nasal obstruction, discussion of which was adjourned to the next meeting.

Pathological Society of London. At a meeting of this Society, held at the Lister Institute on Tuesday, February 2nd, Sir John Burdon Sanderson, Bart., President, in the chair, the following communications were made: Mr. H. G. Plimmer, the Organisms of Monkey Malaria and Sleeping Sickness; Dr. A. Paine, a New Method of Staining with Iron Haemotoxylin; Dr. J. A. Craw, Agglutination.

Therapeutical Society.—At a meeting on January 19th, Sir W. Thiselton Dyer, President, in the chair, Professor Farmer read a paper on some new discoveries respecting cancer. The causation of cancer by parasites or by stray cells was not proved, but he, with Messrs. Moore and Walker, had found that the development of cancer cells differed from that of the cells of other tumours, and closely resembled that of reproductive cells. In both animals and plants the nuclei of the somatic cells divided longitudinally into rods or chromosomes, but reproductive cells divided transversely into oval or ring-like chromosomes, forming only half the number of those four somatic nuclei. Cancer cells divided just like reproductive cells, and had the power of destroying any somatic cells in contact with them, just as in the embryo sac of plants. This mode of division occurred in some cells of every malignant growth, but not in any benign tumour. The somatic cells of plants sometimes changed into reproductive cells by this heterotypal division: the causes of this were still being investigated. The frequent anomalies observed in the malignant growths, while they obscured it, did not affect the existence of the characteristic heterotype mycosis; they were probably due to nutritional and other disturbances that were known to affect similarly the nuclei of ordinary tissues.—Dr. Kelynack spoke of the hygienic treatment of pulmonary tuberculosis based on inspection of many establishments. He indicated how pioneers like Parrish, Bodington, and Richardson had anticipated hygienic measures in the treatment of phthisis, and also the need for a systematized "after-cure" of consumptives. He showed that wide differences existed in clinical methods and therapeutical practice in sanatoria, and urged that efforts should be made to secure scientific uniformity in clinical procedure and combination in investigation, and a system of recording returns which would allow a comparison of results.—Dr. Gray Duncanson discussed the suprarenal gland products and described the medicinal preparations from it. Dry powders were best for internal administration and liquid extracts for hypodermic use. The active principle, adrenalin, first isolated by Takanine, a Japanese chemist, had the empirical formula $C_{15}H_{15}NO_3$. He described their use in ecchymosis and other affections of the eye, their haemostatic qualities when applied to bleeding surfaces directly or indirectly. He warned against their administration in haemoptysis and diabetes, citing cases which became worse under their use, and concluded with an appeal for the recognition of suprarenal gland products as therapeutic agents. Sir W. Thiselton Dyer, Sir H. Beevor, Dr. Rolleston, and Dr. Wild also spoke.

Hunterian Society. At a meeting on Wednesday, January 27th, Dr. Appleford, the President, in the chair, the following specimens were shown and discussed: Dr. E. W. Goodall: The intestines, with a drawing and photograph from a case of dysentery in a girl, aged 17 years. The question of acute ulcerative colitis to asylum dysentery and tropical dysentery was discussed. Dr. Langdon-Brown stated that Dr. Washbourn had failed to find the amœba coli in any of a very large number of cases of dysentery examined by him in South Africa. Dr. Goodall also showed a case of ulceration of the tongue and pharynx after measles. Dr. W. H. Kelson: A large mucous polypus removed from a man whose post nasal space it had completely filled. Dr. Henry Russell Andrews showed a specimen of a lithopædion of six years' duration which he had removed from the abdomen with an ectopic gestation of the other tube. He drew attention to the curious fact that the patient had only conceived twice, and that each gestation had been tubal, the first producing a lithopædion. Dr. Lewis Smith: An acute gastric ulcer which had ulcerated through the coronary artery of a young woman and caused her death by profuse haemorrhage. He discussed the importance of recognizing whether the ulcer was (1) chronic and indurated, (2) round ulcer eroding a large artery, (3) a mere erosion. The second of these was alone suitable for immediate surgical interference as far as the ulcer was concerned. Dr. Lewis Smith also showed a specimen of the leather-bottle form of carcinoma of the stomach. He pointed out the insidious character of the symptoms and the fact that the mucous membrane was not ulcerated in these cases. Mr. Targett suggested that this form of carcinoma found its homologue in atrophic scirrhus of the breast. Dr. Kershaw (introduced by Dr. F. J. Smith) and Mr. Hugh M. Rigby showed a specimen of diaphragmatic hernia of the transverse colon and omentum into the left pleura. The aperture resulted from a stab wound two years before.—Mr. Harold L. Barnard: A specimen of a hernia into a duodeno-jejunal fossa. It was remarkable for the reason that the aperture was to the right of the root of the mesentery, but the sac passed below the superior mesenteric artery into the left side of the abdomen, and, secondly, because the lower jejunum was the gut strangulated in the sac.

North of England Obstetrical and Gynæcological Society. The annual meeting was held at Owens College, Manchester, on January 15th 1904, when Dr. W. J. Sinclair was unanimously elected President for 1904. At the conclusion of the annual business, Dr. A. Stookes (Liverpool) read notes of a case of eclampsia with fatal result. A discussion followed, in which the President, Drs. H. Briggs, Martin, Croft, Nesfield, and J. Garner took part. Dr. A. Donald (Manchester) read a paper on Chronic Endometritis and Chronic Metritis in Virgins. He dealt with affections of the endometrium and mesometrium occurring apart from the usual infective causes (sepsis, gonorrhœa, etc.). The paper was based on a series of 40 cases which had been carefully observed. Attention was specially directed to one group of cases, which were characterized by the association of these three conditions: (1) Small or infantile cervix; (2) acute flexion, forwards or backwards; (3) enlargement of the uterine body. The symptoms in these cases were, in the order of frequency, (1) pain or dragging sensation in one or both iliac regions or pain generally in the lower zone of the abdomen (in 37 out of 40 cases); (2) dysmenorrhœa (in 33 out of 40 cases); (3) leucorrhœa (in 31 out of 40 cases); (4) menorrhagia or metrorrhagia (in 16 out of 40 cases), and (5) remote or reflex symptoms. In a large proportion of the cases the uterine mucosa was much thickened. The uterine cavity showed an increase in length of from ½ in. to 1½ in., and the mesometrium was sometimes considerably thickened. Microscopic examination of the mucous membrane removed showed great increase in glands or in interglandular stroma or both. Remarks were made as to the etiology and treatment of the condition. The paper was discussed by Drs. Lloyd Roberts, Arnold Lea, W. E. Fothergill, Stookes, Richardson, and the President. Dr. Donald replied.

German Orthopædic Congress. The third congress of the German Society of Orthopædic Surgery will be held at Berlin in Easter week. The principal question on the programme is the pathology and treatment of joint contractions. The discussion will be opened by Professors von Mikulicz and Dr. Lorenz of Breslau, and Dr. Codivilla of Halle.

REVIEWS.

DISEASES OF CHILDREN.

So favourable a reception was accorded the first edition of Dr. Emmett Holt's *Diseases of Infancy and Childhood* that the fact of a second edition being so soon called for will cause no surprise. The author states that nearly every chapter has been subjected to careful revision and that many have been rewritten. He may be congratulated on the result of his labour, for the book is one of the best dealing with its special subject. In many instances his descriptions of children's diseases are equal to or better than any others we are acquainted with. The reader feels that these descriptions are drawn from the personal experience of a careful and accurate observer. Dr. Holt makes large use of statistics in many of his chapters, and statistics are often of value, especially in prognosis; but we cannot help feeling that he has overdone the statistical method. To record the fact that in a disease this symptom appeared so many times and that symptom so many other times often only adds to the difficulty of reading and serves no useful purpose. He would appear, again, to be too prone to make minute subdivisions in many complaints, and this is more apt to confuse the reader than to render any assistance in either diagnosis or treatment. As an example, he makes a separate section under the heading of pleuro-pneumonia of cases of both lobar and catarrhal pneumonias where the pleurisy is judged to be in excess, a grouping for which there would seem to be little justification or utility. It would have been much better to have described such cases as mere varieties of their common types than to have grouped them as a separate disorder. In the midst of much excellent matter it is disappointing and indeed exasperating to come across such a paragraph as the following:

> The results of sucking may be serious. Deformities of the thumb or finger, of the lips and teeth, and even of the jaws, are sometimes produced. Probably the most pernicious result of sucking is its tendency to develop the habit of masturbation. Habitual sucking of one hand or finger may lead to spina bifida.

Now the connexion between the habit of "sucking" and that of a subsequent masturbation is manifestly incapable of direct proof, and in its absence statements like the foregoing are uncalled for, and verge on the absurd. Much has been written and said against the "comforter," but it has been left to Dr. Holt to make the severest indictment of all of that usually unsavoury-looking article of infantile furniture. In two or three other instances, too, the text is spoilt by the interpolation of statements as dogmatic and equally as incapable of proof as that quoted. Still, the faults discoverable are wondrous few and the merits many and conspicuous. Very few points of importance would seem to have been missed, and the work can be warmly recommended.

The first edition of Dr. Jacobi's book on the *Therapeutics of Infancy and Childhood*[2] was published in 1896, and that a third edition has been called for in 1903 is sufficient testimony as to the extent to which its merits have been appreciated. The work is so well known that a lengthy notice of it is now uncalled for. In this new edition the whole has been revised, but no material changes have been made. As in former editions, we understand Dr. Jacobi to plead in this that the main mistakes will be found to be those in diction and not in the more important consideration of matter. Truth to tell, the frequent shortcomings in the way of diction are not to be gainsaid, and the innumerable and constant interpolations in the text are somewhat disconcerting, and render the work far from easy to read. Nevertheless, they serve the purpose, if of no other more useful, of recalling the personality of the author himself to those who may have had the pleasure of meeting him. Dr. Jacobi is confessedly a believer in medicines, and asserts: "What the knife is to the surgeon, drugs are to the physician." His work is founded on this belief, and, indeed the list of drugs he advises in most complaints is bewildering both in number and variety. On the subject of infant feeding Dr. Jacobi is not a follower of Dr. Rotch, although he accords that physician all the praise he is entitled to for his endeavours to place the subject on an accurate and scientific basis. But, as Dr. Jacobi says, the needs of infantile

---

[illegible] By T. Forrest Hill, M.D., LL.D. [illegible] Diseases of Children in the College of Physicians and Surgeons, Columbia University, New York, etc. Second edition. [illegible] By A. [illegible] M.D. LL.D. Third Edition. [illegible] Co. [illegible] pp. [illegible] 1904.

individualities are not necessarily controlled by considerations of physiological chemistry, and "fortunately digestion and assimilation are not regulated by mathematics."

Dr. Jacobi is not only a firm believer in drugs, but he is an advocate in numerous instances for giving them in large doses after short intervals, until some direct physiological result is obtained. He urges that much of the unsatisfactory results from their use in the practice of others is due to their being given in the ordinary doses, which are often too small. Writing of alcohol, for instance, he says:

Its most beneficial action is exhibited in sepsis of all forms, mainly, also, in the septic varieties of erysipelas, no matter whether there are brain symptoms or not, and of diphtheria. Here it is almost impossible to give too much. The doses must be watched so as to be *sufficiently large*. Whoever is not afraid to give, in diphtheria, 6 oz. of whisky daily to a child when one or two fail, or ten or twelve when six fail, will soon convince himself of its power for good.

After this, it is not surprising to read "alcohol is having a hard time between temperance women and sensational medical writers." Many of the theories advanced and the lines of treatment advocated are novel and surprising. According to Dr. Jacobi:

In rachitis the heart is of average size, but the arteries are abnormally large. Great width of arteries lowers the blood pressure. That is why the muscles and bones suffer from insufficient nutrition, and why the circulation in the respiratory organs is slow and sluggish, with a tendency to produce congestion and catarrh.

On the treatment of the same complaint, he writes:

The sluggish circulation, depending on general debility and the large size of the arteries, demands the administration of heart tonics—digitalis, strophanthus, sparteine, caffeine, or coffee—from the very beginning, and besides, small doses of alcoholic stimulants at an early stage, or the use of stimulant expectorants, such as ammonium carbonate or camphor.

High authority may be quoted for this enlargement of the arteries in rickets, yet it may safely be said that much more conclusive evidence of its reality as a factor of importance in the complaint will have to be forthcoming before the method of giving alcohol and heart tonics to infants will commend itself to any large section of the profession. In fact, we would enter a most emphatic protest against such heroic doses of alcohol. Even if the theory on which their use is well founded were proved up to the hilt, we should still be prepared to maintain that the remedy was worse than the disease. The quotations given will testify to the originality of Dr. Jacobi's views and methods. On every page, and in almost every sentence, new ideas may be gathered which are at least suggestive, even if they frequently fail to carry conviction. The author possesses the courage of his opinions, and his book carries evidence of great erudition and wide experience.

In the preface to his recent work on *Diseases of Infancy and Childhood*[3] Dr. Koplik states that it is "not in any sense a compilation," but an "endeavour to gather and unify the world's best practice" in paediatrics. While basing his teaching on "individual experience," he has exercised a "careful judgement regarding the work of others in America, England, France, Germany, and Italy. With conscientious regularity the name of each authority for individual statements is quoted in the text, while at the end of every chapter the author adds a valuable list of authorities referred to. The diverse national opinions respecting disease, sifted as they have been by Dr. Koplik, will prove an incentive to a reconsideration of moot points; and while promoting further discrimination between essentials and accidentals, will tend incidentally towards greater international uniformity in theory and practice. Special interest attaches to the author's views on Koplik's "spots" as a pathognomic sign of measles. In 1896 he pointed out that "the exanthema on the hard and soft palate" described by Rehn "was not peculiar to measles," being found also in "rotheln, scarlet fever, and ..... simple angina." Dr. Koplik originates the statement, not universally admitted, that "the eruption on the *buccal mucous membrane* alone, however, preceding the appearance of the exanthema on the skin by a period of from three to five days is characteristic of the invasion of measles." A lucid and graphic description of the spots is given, illustrated by four excellent chromo-lithographs.

OPERATIVE SURGERY.

Although some of the subjects usually discussed in a complete treatise have been omitted by Dr. Bickham from his book on *Operative Surgery*,[1] it is one of formidable dimensions and, it must be confessed, considering its purpose, of rather inconvenient form. If this objection be disregarded it will be found a very useful as well as a trustworthy guide to operative surgery on both the living and the dead subject. The author has evidently had much experience in the teaching of this important branch of surgical work, and knows well how to point out the best ways of overcoming the difficulties met with by both practitioner and student in operative practice. The book is fairly comprehensive, and, although so bulky and closely printed, includes very few descriptions of such operations as a hospital surgeon might not be called upon to perform in a life time. The clinical aspect, quite absent in some and unduly prominent in other books of this kind, is not fully dealt with by Dr. Bickham, and mainly in general considerations of groups of operations. Much attention is paid to surgical anatomy, the author laying stress on the necessity of applying a good knowledge of anatomical facts during the progress of surgical manipulations. Another important and very useful feature of this work is the abundance and excellence of its illustrations, the large majority being original, for which the author, with very good reason, expresses deep gratitude to Miss E. Fry. The drawings, especially those of intestinal operations, are exceptionally clear and distinct, and seem likely to prove very helpful.

The guide to operative surgery prepared by Professor Bennecke[5] is intended to assist those attending the courses given by Professor König and the author. It seems to be well adapted by its full and clear teaching, and also by its excellent illustrations, to meet the requirements of a much wider circle of German students. As it deals only with operative surgery on the dead subject, it is free from clinical and statistical details which in so many works of this kind form rather a disturbing element to those engaged in working for strictly technical instruction and for examination. The operations here described, though well selected, do not include, as might be expected in a complete course, any of those performed on the contents of the abdominal cavity.

PHYSIOLOGY.

It is not much more than a year since we had to chronicle the appearance of the third edition of Professor Max Verworn's work on general physiology.[6] It is, therefore, unnecessary to add to what we said then in reference to its interest and importance. Although the time is so short since the last, the new edition contains considerable alterations and additions in the present volume. Indeed, so much new material is rapidly accumulating in the domain of general physiology that Professor Verworn has found it necessary to establish a journal (*Zeitschrift für allgemeine Physiologie*) to deal with the researches in this branch of biological science, which he has himself done so much to stimulate. The actual bulk of the present edition is not much increased, and we note with satisfaction the incorporation of nearly a hundred new illustrations. These add greatly to the interest of the book, and throughout they are of a high standard of excellence. In order to make the volume as perfect as possible Professor Verworn has secured the services of eminent specialists to rewrite or revise certain sections: for instance, Professor von Baeyer of Munich and Dr. Cohn of Göttingen are responsible for the chemical and physico-chemical sections; and the part which describes cell division has been rewritten by Professor Rhumbler in accordance with most recent views. Verworn's book is still unique of its kind among physiological text-books, and we congratulate its author on its continued popularity.

A manual of *Practical Physiological Chemistry*[7] has been compiled by Professor T. H. and Dr. J. A. Milroy. The book is designed as a guide to students attending a three

[3] *The Diseases of Infancy and Childhood*. By Henry Koplik, M.D. London: Henry Kimpton. 1903. Demy 8vo. pp. [illegible] and 30 plates in colour and monochrome. 21s.)

[1] *[illegible] Anatomy, and Operative Technic*. By Warren Stone Bickham, Phar.M., M.D., Assistant Professor of Operative Surgery, College of Physicians and Surgeons, New York. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. Demy 8vo. pp. 954, [illegible].

[5] *[illegible] Exercises in Operative Surgery on the Cadaver*. By Professor Bennecke, with a Preface by Professor Dr. F. König. Translated and Edited by H. Harting, M.D. Chicago: 1903. Crown 8vo. pp. [illegible].

[6] *Physiologie Allgemeine*. By Max Verworn, Professor of Physiology in the University of Göttingen. Fourth edition. Jena: Gustav Fischer. Royal 8vo. pp. [illegible]. Ill.

[7] *Practical Physiological Chemistry*. By J. A. Milroy, M.A., M.D., and T. H. Milroy, M.D., B.Sc., F.R.S.L. Edinburgh: W. Green and Sons. 1903. Demy 8vo. pp. [illegible].

months' laboratory course, and is interleaved with blank pages so that the student can record his own notes and observations. Only that amount of theoretical explanation is given which is essential to the proper understanding of the practical processes. The book is well designed and only the most instructive tests and methods are properly selected by the authors. Excellent tables are given to guide the student in the detection of unknown substances of physiological importance, also useful tables of reagents, weights and measures, solubilities of salts, etc. The illustrations of spectra and crystals are likewise good.

The *Studies in Physiology, Anatomy and Hygiene*, by J. E. Peabody, the Instructor in Biology in the Morris High School, New York, consists of lessons in elementary anatomy and physiology, while simple rules of hygiene are discussed in a separate section at the end of the study of each system. The early chapters are devoted to the simple principles of chemistry, atmospheric pressure, etc. Many of the physiological functions are treated from a comparative standpoint and illustrated by the study of some of the common animals and plants. In the United States instruction regarding the effects of alcohol and narcotics is prescribed, and the author has devoted twenty pages to this subject. The book is sensibly written, and well illustrated, and seems suitable for high schools.

Mr. Peyton Beall has founded his *Aids to Physiology* upon the volume written many years ago by Professor B. T. Lowne. It is designed as an aid to the student who is presenting himself for examination—in other words, it is a cram book. It is carefully compiled and clearly written, but should not be allowed to take the place of the student's lecture notebook. The use of such books is, we consider, harmful to the education of the student, as it leads him to be negligent of his proper course of teaching, and to depend on cramming just before his examination.

CHEMICAL TEXTBOOKS.

Professor J. Loeb has rendered us a great service in encouraging Dr. Fischer to translate Cohen's *Physical Chemistry*.[1] The book consists of a series of masterly lectures and serves not only as an introduction to physical chemistry, but also indicates how the physician and biologist has and may study the application of this science to medical and biological problems. Such subjects are dealt with as the relation of catalysis to ferment action; the influence of temperature on reaction velocity and its application to growth of metabolism of living organisms, and to the action of poisons on protoplasm, etc.; osmotic pressure and the theory of electrolytic dissociation with the application of this theory to the principles of disinfection and to pharmacology. One of the principles upon which the maximal dosage table of the *German Pharmacopœia* is based is that the therapeutic action of the substances named therein is proportional to their weight. "This assumption," says Cohen, "is in itself certainly incorrect, and we know, moreover, that the action of a dissolved substance depends to a great extent upon the medium in which it is dissolved." Thus carbolic acid loses from one fifth to one half its effect when 20 to 30 per cent. glycerine is added to it, and while the addition of sodium chloride to carbolic acid solution increases its germicidal action, it increases the activity of corrosive sublimate. It is evident from this extensive reforms in the field of pharmacology will be brought about by the study of physical chemistry. The book ends with the consideration of electromotive force. In this the theory of concentration cells is explained, a theory which has recently being used by Professor MacDonald to explain the phenomena of animal electricity.

The fact that an eighteenth edition of Dr. John Attfield's *Manual of Chemistry*[2] has been demanded speaks volumes for the high position it has held in the estimation of those for whom it was primarily intended. The advance of years has driven the author, for the first time, to seek the collaboration of an editor, and he has been fortunate in securing the services of Dr. Leonard Dobbin, whose knowledge of the subject, both in theory and in its application to medicine and pharmacy, well fit him for the task. The distinguishing features of the manual have been preserved, and we note with pleasure that the principle of teaching inorganic chemistry by synthetical and analytical exercises, instead of exclusively by the latter, is continued. For the student working alone, in particular, these synthetical exercises are of the utmost value, and lead to the acquisition of a knowledge of the general properties of chemical substances, which is never so thoroughly learnt by purely analytical work. The section on organic chemistry, hitherto the weak spot of the work, has been largely remodelled, and will be now found quite up to the standard of the other matter. That part dealing with the general principles of chemical philosophy has also been much improved, and its perusal will give the student a good grasp of modern chemical theories. The ionic theory is, however, treated very cursorily in a single page, and more space should have been allotted to this now generally-accepted hypothesis which is so necessary for the rational explanation of many chemical and physical phenomena. We can recommend the manual as a textbook for medical or pharmaceutical students, and as a work of reference for all interested in medicine or pharmacy.

The publication of a ninth edition of Dr. John Muter's *Short Manual of Analytical Chemistry*[3] bears evidence of the continued favour in which this textbook is held. The general scope of the work remains unaltered, only such minor changes and improvements having been made as increased experience has suggested. Containing, as it does in a concise and convenient form, the information on analytical methods likely to be required by the medical student and the pharmacist, we have no doubt that this edition will be as successful as its predecessors.

In his treatise on quantitative chemical analysis[4] Dr. Blais has specially considered the needs of pharmacists. To this end he has described methods which can be quickly carried out without elaborate apparatus, and which nevertheless give sufficiently accurate results for most practical purposes. Special stress is laid on the value of volumetric methods, and all the more recent processes are pressed into service. Besides treating of the quantitative determination of ordinary chemical substances, the author enters fully into the analysis of urine, milk, wines, vinegar, cider, beer, soils, and manures.

M. J. Tarbouriech's volume on the technique of chemical analyses[5] is a manual written expressly for the use of pharmacists. Theoretical considerations are absent, and instead of confusing the reader by giving various methods of procedure for each operation, that one which the author considers best is alone detailed. The qualitative analysis of chemical substances in general is treated of, and also the quantitative analyses required in manufacturing processes, as well as those necessary in the examination of foods, urines, calculi, crude drugs, and galenical preparations. In this country it will be found specially useful to those undertaking the examination of substances under the Food and Drugs Act.

The late Dr. Alder Wright's work on *Oils, Fats, Waxes, and their Manufactured Products*[6] is too well known to need any extended comment. It has long been considered a standard work of reference, and the second edition, which has been edited and partly rewritten by Mr. C. Ainsworth Mitchell, should prove still more useful to those interested in the class of substances of which it treats. In the first edition minute details of the various tests employed in practical examination of oils, etc., for adulterations were omitted, as were also detailed descriptions of individual oils and fats

[1] A System of Physical Chemistry. By W. D. Bancroft, Ph.D. Edited by J. Loeb, M.D. and H. Fischer, Ph.D. Translated by R. E. Tweedy, A.M. London: Macmillan and Co., Limited. 1903. Pp. 200. 6s. net.

[2] A Manual of Chemistry. By Dr. Attfield, F.R.S. Eighteenth edition. Revised by Leonard Dobbin, Ph.D., F.I.C., etc. London: Gurney and Jackson. 1903. Pp. 464. With illustrations.

[3] A Short Manual of Analytical Chemistry. By John Muter, Ph.D., F.R.S.E., F.I.C., F.C.S. London: Bailliere, Tindall and Cox. 1903. Pp. 200. 3s. 6d.

[4] Traité d'Analyse Chimique Quantitative. Par le Dr. Blais. Paris: A. Maloine. 1903. Pp. 400. With illustrations. 12 francs.

[5] Technique des Analyses Chimiques. Par J. Tarbouriech. Paris: A. Maloine. 1903. Pp. 400. With illustrations. 12 francs.

[6] Oils, Fats, Waxes, and their Manufactured Products. By C. R. Alder Wright, D.Sc. Lond., F.R.S. Second edition, edited and partly rewritten by C. Ainsworth Mitchell, B.A. Oxon., F.I.C. London: Charles Griffin and Co., Limited. 1904. Pp. 500. With illustrations.

except in a few typical cases. Although such an arrangement enabled the ordinary reader to obtain a comprehensive view of the subject more readily, the specialist was obliged to supplement the information given by reference to other text-books on the subject. The scope of the book has now been extended: this has necessitated the rewriting of many chapters, and that which deals with adulterations consists almost entirely of new matter. The whole book has also been brought into line with the large amount of original work published during the decade which has elapsed since the appearance of the first edition. To the specialist it will remain indispensable, and we can cordially recommend it to the analyst and pharmacist as a valuable work of reference.

NOTES ON BOOKS.

The *Year Book of New South Wales*, of which a new edition for 1904 has recently been published, contains an immense amount of information as to that colony, together with an excellent map. The whole of the broader geographical, climatic, administrative, and executive facts appear to be covered by the various sections into which the work is divided, and a summary of the principle sanitary and other laws affecting medical men included. The more notable medical institutions such as hospitals and the Australian Branch of the British Medical Association also receive due notice. Copies may be obtained from the Agent-General, Victoria Street, S.W.

Tropical Diseases.

The hygienic condition of many tropical Colonies is a very important question, and medical officers in such situations would do well to study carefully a work on the hygiene of Colonial establishments,[1] recently published by Dr. Gustave Reynaud. The book covers much ground, descriptions being given of malaria and other diseases specially found in the tropics. One or two of these are not quite up to date, but on the whole they give a synopsis of the main features necessary for identification. The part dealing with sanitation is full; vaccination, disinfection, hospitals and sanatoria are all dealt with; and an appendix with useful instructions for the prevention of the propagation of transmissible diseases closes the book. The subject of the prophylaxis of malaria is divided into general and individual, and under the latter, suitable houses, protection from mosquito bites, and the administration of quinine every three days are advocated. Many excellent photographs of tropical towns and hospitals and many other illustrations are inserted in the text.

The Symptoms and Pathology of Plague,[2] a small manual by Captain Gordon Tucker, of the Indian Medical Service, will be found useful by those commencing the study of this important disease. The description of the six clinical types is full and good, and special emphasis is laid on the difficulty of diagnosing the rarer varieties, such as the cerebral and intestinal. The importance of those obscure types cannot be overestimated, as they are often the source of the infection of other cases, which in turn may originate a real epidemic. In the differential diagnosis "climatic buboes" are mentioned, and they are properly described as having no connexion with plague at all. The contention, however, that these buboes are caused by skin streptococci, which have become unusually virulent as a result of climatic conditions, will not hold good, as in several cases of this nature, where thorough bacteriological examinations have been made, no such organisms have been found. The discussion of the treatment of patients and the management of an epidemic of plague is full, and will repay careful study.

[1] *Hygiène Coloniale: Hygiène des Races*; *Colonisation*. Par Gustave Reynaud, Médecin en Chef du Corps de Santé des Colonies, en Retraite, Chargé du Cours à l'École de Médecine de Marseille, Professeur d'Hygiène à l'Institut Colonial de Marseille, Lauréat de l'Académie de Médecine. Préface de M. A. Kermorgant. Paris: J. B. Baillière et Fils. 1903. (Crown 8vo, pp. 412; 54 illustrations. Fr. 5.)

[2] *The Symptoms and Pathology of Plague* (with a note on the management of a plague epidemic). By E. F. Gordon Tucker, Captain, Indian Medical Service; Acting Professor of Pathology, Grant Medical College, etc. Bombay: Education Society's Press. 1903. (Demy 8vo, pp. 85. Rs. 2.)

Medical Students in the United States. The number of students of medicine enrolled in the medical colleges of the United States in 1903 was 27,615. Of these, the regular schools had 24,930; the homoeopathic, 1,498; the "eclectic," 848; the "physio-medical" and other schools, 339.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Self-Retaining Ear-Douche Basin. Dr. E. S. Yonge, Assistant Physician, Manchester Hospital for Consumption and Diseases of the Throat, writes to describe a self-retaining ear-douche basin. It is made of indiarubber, and kept in place by a metal band, which passes over the head and secures itself round the opposite ear by means of a large loop. The metal band is adjustable, so that it can be adapted to any head. The apparatus fits securely under the ear which is to be syringed, the lobule projecting into the basin. In order to prevent liquid in the bowl from spilling a narrow rim is fitted along the inner edge. For cases which require syringing with large quantities of lotion, the makers supply a special basin, with a waste pipe attached provided with a clip. The advantages claimed for the apparatus are that the necessity of holding a basin to the ear when syringing that organ is dispensed with; that no fluid as it runs from the ear can trickle down the neck; and, in the case of an unruly child or a patient who may move suddenly, that no water is spilt, as the basin moves with the patient, and the rim prevents fluid from overflowing. The apparatus has been made for Dr. Yonge by Messrs. Mottershead and Co., Exchange Street, Manchester.

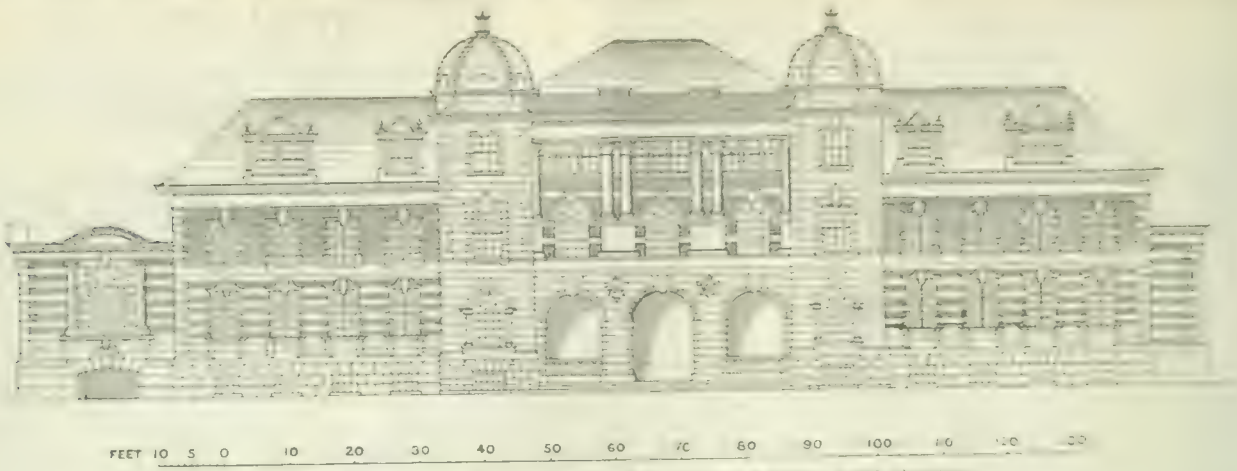
An Ethyl Chloride Inhaler.—Mr. E. H. E. Stack, M.B., B.C., F.R.C.S., House Surgeon, Bristol Royal Infirmary, writes: Several forms of inhaler have been invented for ethyl chloride or somnoform, the best of which seems to be Mr. Boyle's, figured in the British Medical Journal, of January 16th, p. 140. We have been using here for some time, and with great success, practically the same thing, only that it requires no apparatus other than that which every anaesthetist already has. The facepiece of a Clover's inhaler is taken off the ether chamber, and the bag, which just fits, is put on to it; a piece of lint is put in the facepiece and the anaesthetic sprayed on the lint. This serves every purpose and involves no addition to the already fairly large armamentarium which an anaesthetist nowadays requires.

CONTRACT MEDICAL PRACTICE.

Miners.

According to the *Western Mail*, the miners in the upper part of the Aberdare district are considering a new scheme, for ensuring for themselves medical attendance, in lieu of the plan at present in force. Under the present arrangements the medical men who attend the miners share the good and evil fortune of their patients, being paid for their attendance 3d. for every pound of wages received by each miner. The leaders of the men now propose to put an end to this plan, and to substitute one under which the entire services of six medical men are to be engaged, one at £500 a year, an assistant at £300 a year, three others at £200 a year, and a sixth at £150 a year. The estimate also includes £500 for drugs and instruments, £150 for saddlery and stables, £200 for rent, coals, water, and gas, £100 for sundries, and £50 for management expenses. This comes to a total of £2,500, and the promoters claim that it will mean an aggregate saving to the men of £835 when wages are at their minimum, and of £1,585 when the pay of the men is as high as at present.

In connexion with the Wemyss Coal Company a contest appears to be foreshadowed in Fife not very dissimilar to that which so lately terminated happily at Ballachulish. The managers of this company, according to the *Edinburgh Evening News*, desire to dispense with the services of the present medical officer, and have ceased to collect the 8d. a fortnight, which, by agreement with the men, has hitherto been deducted from each man's wage on pay days as his contribution toward the medical officer's salary. The men, however, are averse to any change of medical attendant, and have given a clear indication of their intention to retain the medical man of their choice by making the customary payments independently of the company. It is understood that a conference will shortly be held between all the parties interested in the matter.



The Royal Army Medical College, London. Laboratory Building: North Elevation.

THE ROYAL ARMY MEDICAL COLLEGE.

The transfer of the Royal Army Medical College from Netley to London was, in view of the educational opportunities afforded by the metropolis, considered to be a matter of such urgent necessity that it was carried out as soon as sanctioned. Laboratories were obtained on lease in the Examination Hall on the Victoria Embankment, and residential quarters in a hotel in Victoria Street.

These expedients were, however, recognized to be merely temporary, and the plans for a new Royal Army Medical College on part of the Government site provided by the clearing away of Millbank Prison have now been approved. The work will, it is understood, shortly be taken in hand.

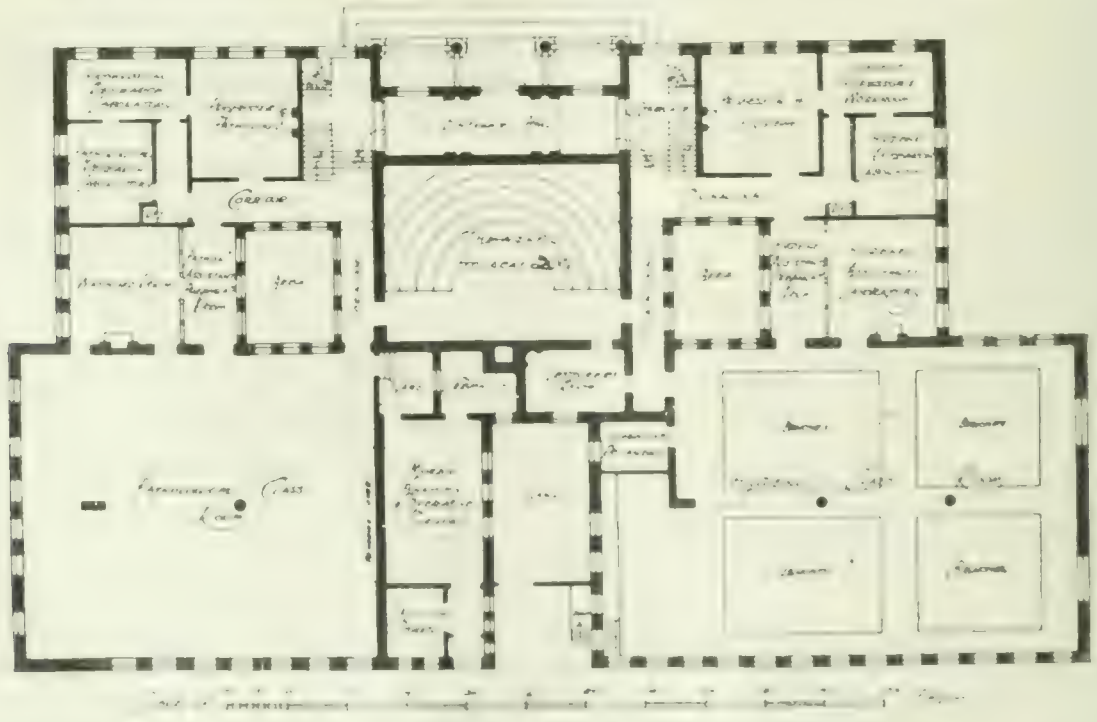
The College will occupy the remainder of the site to the south (up-river) side of the Tate Gallery.

The College will consist of a laboratory block, a mess and officers' quarters, and a house for the Commandant.

The building will be of red brick with stone facing, of the kind of Georgian-Victorian which finds favour with the moribund War Office, as exemplified in the squat military hospital on the other side of the Tate Gallery. It is deplorable that three such opportunities of adorning the Thames bank with graceful or noble buildings have been thrown away, but the quarters for laboratories are excellent.

The Laboratories.

The two blocks together will cover a more or less triangular space of about 300 by 200 ft. The elevation of the laboratory



Ground Floor plan.

The Thames here runs nearly north and south. The Tate Gallery now occupies the central portion of the site facing the river; behind this are the Army Service Corps barracks, while to the north (down-river) side is the new Military Station Hospital for London, which is just complete, and will serve as the clinical hospital for the Royal Army Medical College.

The laboratory block is shown in the drawing. It will occupy the part of the site nearest from the river. It will measure 185 by 105 ft., and the plan shows a quadrilateral building. It comprises a basement, ground floor, and first and second floors.

In the basement will be a furnace and boiler room for the heating of the buildings; a covered yard for experiments in

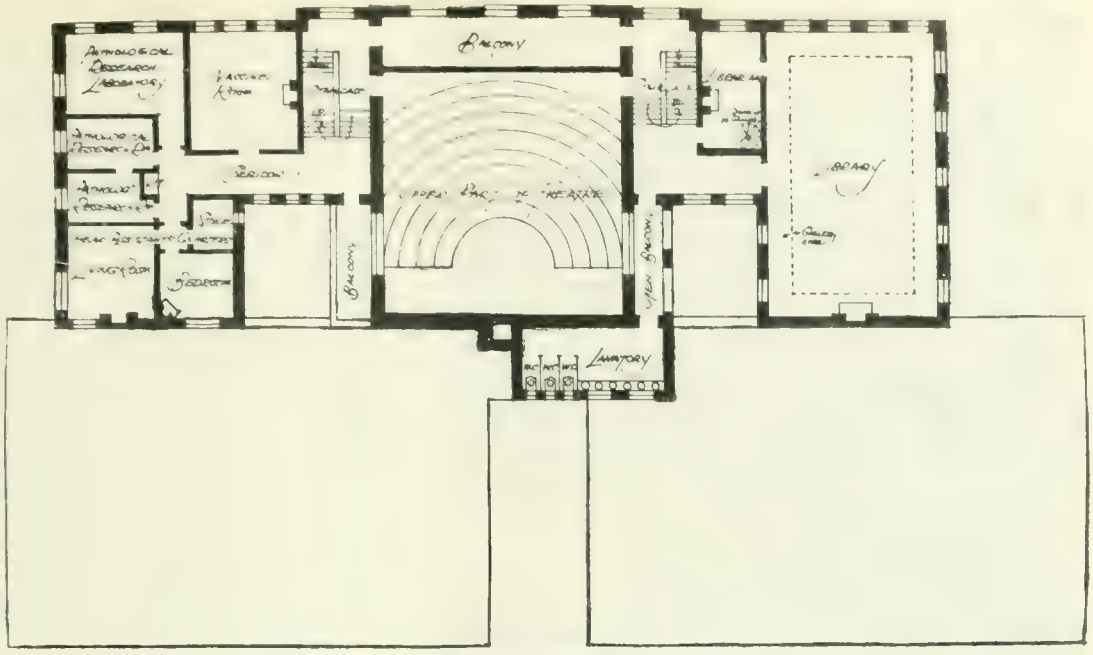
small projectiles; a room for hygiene experimental apparatus; workshops; a cloak room, lockers, and cycle stable for the officers; a photomicrographic room; rooms for distillation, for disinfection, and for sterilization; and storerooms.

On the ground floor, which has a central portion and two wings, a lecture theatre to seat 200 is provided in the centre. There is an entrance hall, and hygiene and pathology class rooms of 80 by 50 ft. each with their annexes, and laboratories connected with each department.

On the first floor, through whose height the theatre and class rooms rise, will be a library and reading room 30 by 60 ft., pathological research rooms, and lavatories.

On the second floor will be provided a museum and a model room, each of 40 ft. by 25 ft., with top light.

A squash-ball racket court will be constructed on the southern aspect of this building.



First floor plan.

Mess.

The block containing the mess and officers' quarters is separated from the laboratory block by a passage about 12 ft. wide. The ground it covers is a right-angled triangle with the two acute angles truncated, the side subtending the right angle looking to the south-west.

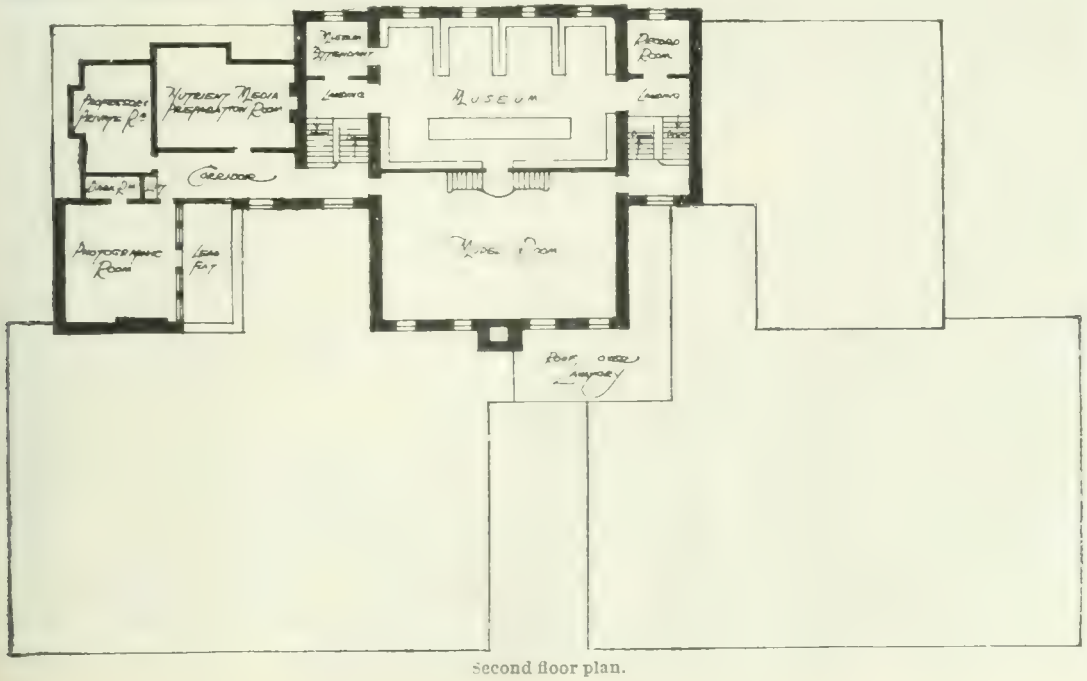
The largest part of the block is parallel to the laboratory block, and from its centre a narrower limb extends towards the river frontage with a projection from its south centre, and from the north side of its eastern extremity is a limb jutting out towards the Tate Gallery, flush with the north end of the main and laboratory blocks. The space enclosed on three sides by the last-mentioned projection, the long limb, and the main block will be laid out in grass, and possibly planted.

This block will have a basement, and the basement is taken up by cellarage, furnaces, boilers, and hot-water pipe subways.

The lower ground floor in the main block has in its centre the kitchen and scullery flanked by a yard on each side, with coal stores to the west.

The basement of the Commandant's house will extend to its north, while to its south will be store rooms, larders, wash-up rooms and other offices. A lift will be provided from the kitchen to the mess room on the floor above.

The long limb to the east of the main block will contain a pantry, there will be a plate room jutting out to the south, from its centre; safes; a dormitory for mess waiters, and at its easternmost extremity a billiard room for two tables.



Second floor plan.

The short north-easterly limb will contain the entrance hall, and beyond this a visitors' room, mess, secretary's office and lavatories.

On the upper ground floor in the main block, at its southern extremity, will be the mess-men's quarters, and, separated from them by a corridor which will run the whole length of the block, two officers' quarters. There will be two more officers' quarters in the central part of the block, and the Commandant's house will continue through this story.

The long limb will contain a serving room, the mess dining-room, 50 ft.

by 40 ft. and of fine dimensions, which it will be possible to throw into the anteroom by the opening of folding doors, beyond this will be the anteroom 48 ft. by 28 ft., with windows to the east looking over the river.

To its north, over the entrance hall, will be a landing, and beyond this the smoking room (38 ft. by 26 ft.) with a bay window at its north-east angle. Between the anteroom and smoking room there will be a balcony.

The first floor of the main block will be entirely occupied by officers' quarters, with the exception of the north end, through which the Commandant's house will continue. In the long limb will be the upper part of the mess room, with a band alcove, and the upper part of the anteroom of these rooms are two floors in height. Over the balcony will be a card room, and the smoking room wall will rise through this floor.

The second and third floors will be devoted to officers' quarters, to which access will be given by corridors running through the long axes of the blocks. The quarters will be of two types—those for the senior officers measuring about 21 ft. by 14 ft., and those for juniors 16 ft. by 12 ft. The plans make provision for quarters for 20 senior and 50 junior officers.

Bath rooms will be provided in the proportion of one to every six officers, and there will be w.c.'s on each floor.

The buildings as a whole are warmed by hot water, but each officer's quarter has a fireplace.

The lighting will be by electricity.

The entrance to the officers' mess will be from the river side on the east, the tradesmen's entrance on the north side. A passage between the laboratories and the mess will give access to the two divisions.

The laboratory accommodation will be of the first order, and the whole conception is one which reflects credit on its authors, and its realization should go far towards promoting the object for which it was designed—namely, the education of the army medical officer.

It is to be hoped that every officer on returning from a foreign tour will find his sojourning place there for the purpose of refreshing his knowledge, and that the army will be greatly advantaged by the facilities which will in future be afforded to its medical officers to make themselves thoroughly efficient. The demand for such facilities made repeatedly, in fact unceasingly, during the last twenty years or more, has always excited the keenest sympathy of the civil profession. We have seen within that period more than one post-graduate college attain more or less success in London; we have seen the Tropical School spring up, and the civil profession recognizes that what is a necessity for them is not less necessary for their military brethren.

The country has made, or sanctioned the making of, this provision of time and opportunities for study for medical officers of the army at the public expense. In this respect they are more fortunate than any other section of the medical profession. Let us hope that they will appreciate their good fortune, and will be serious and eager students in the fine college which is about to arise.

"CURES" FOR ALCOHOLISM.

ANTIDIPSO.

In addition to the account of a series of "cures" for alcoholism published in the BRITISH MEDICAL JOURNAL of February 1st, 1902, p. 291, we are enabled to give particulars of another cure which is being put forward by the Ward Chemical Company, 205, Regent Street, London, W. The remedy is called Antidipso.

The history of the remedy and the methods of the proprietors in obtaining it are very much the same as those we have previously described, the moral pointed by the methods employed being perhaps even of a more weighty character from the point of view of the physician than in the case of the other cures. The inquirer is in the first instance furnished by the company with a pamphlet entitled *Bright Hours of Happiness*. Publishers Sayed. Antidipso the Indian Herb Remedy infallible cure for drunkenness." The pamphlet opens with an emphatic assertion that drunkenness is a disease, and a terribly descriptive of the effects of alcohol on most of the bodily organs is given. Sundry objections to most types of treatment are enumerated, and the public are warned against other cures. Very much in the manner followed by the vendors of other secret remedies, many of whom display an anxiety to have their remedy considered the genuine and only cure. Thus

There are also on the market [illegible] which [illegible] in most cases [illegible] a positive [illegible] and [illegible] are [illegible] to be [illegible] a reliable remedy [illegible] to [illegible] cure the [illegible].

The opinions of three medical men on the evils of drunkenness, but not, it may be noted, on its cure, are somewhat prominently set out. The pamphlet then goes on, with an engaging simplicity and frankness to tell the story of the discovery of the drug, and to account for the company's possession of the secret, which, as presently will be seen would seem to depend on geographical considerations.

We learn that "neither chemistry nor pharmacy, though inspired by medical learning, has given to the world anything that could meet the trouble." But "an obscure tropical plant was yielding the very remedy that acts as an antidote and expels the alcoholic poison." The plant "was discovered in the southern part of the South American continent."

We are reminded at once of the discovery of the Tacquaru specific in a "hitherto unexplored country" in the interior of the Argentine. Both secrets were communicated to Europeans by Indian medicine men. Antidipso was obtained in 1895, the Tacquaru specific in 1894. While the Tacquaru was discovered by a "meer dog-wood. Antidipso was discovered by a "successful English physician," who, after trying its effects on alcoholic subjects, narrated his remarkable experiences to the Ward Chemical Company. But, not satisfied with the communications of this physician, the company "at once sent out an agent to make more accurate investigations. This gentleman succeeded in penetrating to the Indian tribe that held the coveted secret." A year of experiment followed "which was the triumph of Antidipso." All cases on which it was tried were "speedily and triumphantly cured." Antidipso is said to have cured cases so severe "that a physician might well shudder at the thought of taking them in hand.

It would appear that the public who buy secret medicines have some preference for vegetable cures, for the Tacquaru, Hutton Dixon, Tyson and Antidipso all claim to be purely vegetable substances. The Antidipso pamphlet asserts:

The medicine is entirely of a vegetable nature, no [illegible] mineral will ever enter its composition. In this respect it is different to any other remedy which has hitherto been discovered for the cure of the craving for strong drink.

It is especially suggested that the remedy contains no mercury. Nothing of importance is stated about the action of the drug, except that it is "the greatest nerve tonic known. It is also said to cause a "repugnance to the taste and odour of liquor." Like all the remedies of its kind it is all-powerful and quite harmless. This is the company's view of it, but they also publish a showy and somewhat disquieting certificate from a Dr. A. B. Griffiths, Principal of the Brixton School of Pharmacy, which maintains that it possesses "marked therapeutic action."

The letters from purchasers and patients published by the company are some of the least convincing of their kind that it has been our lot to examine. Many are written while the patient is actually under treatment—a large proportion vouch for themselves, a very small proportion so much as allude to abstinence from intoxicating drink. We have examined a series of 63 such letters, in only 8 of which is the time that has elapsed since cure was completed mentioned. One case is said to have remained cured for 10 months, no other case longer than 4 months; two had been cured 14 days.

In reply to the inquiry of a correspondent, the Ward Chemical Company sent a type-written letter beginning "Dear Friend," and urging the immediate treatment of the patient. The inquiry went no further, but some days later another letter was sent enclosing a "form for ordering" with a "reference number." On the form is printed and underlined, "N.B.—If you desire there shall be no further correspondence return this form." A third letter runs as follows:

[illegible] have been coming in so thick and fast lately that we have [illegible] with [illegible] to [illegible] ourselves with [illegible] to [illegible] a complete [illegible] Antidipso [illegible] to [illegible] the [illegible] to [illegible] the [illegible] and [illegible] we [illegible] all that is claimed [illegible] You will [illegible] [illegible] we [illegible] Antidipso [illegible] that we [illegible] would be required. We are [illegible] that we [illegible] obtain [illegible] you can [illegible] package.

In confirmation of this statement a book of testimonials of cures cured by one package was enclosed. The letters in this

book are all dated 1800, so that the discovery is at least four years old, and the company's disinterested rejoicing perhaps a trifle tardy. The proprietors of three other cures stated that changes in their results were due to their having "improved" or "perfected" their remedies, but the Ward Chemical Company gives us no reason for their improved results according to "recent reports."

The third typewritten letter further invited the intending patient to secure his own treatment free of charge by becoming an agent for the company, in which case they would sell him three packets of the medicine for 20s., or he may buy any quantity of six dozen packets, costing him 4s. each. It is pointed out that he can sell them again for what is justly called "a handsome profit."

A fourth letter runs thus:

Now seeing that we have given you all evidence as to the certain cure which Antidipso will effect, the only reason we can assign for not having received your order is the matter of expense. We have therefore decided to assist you in this direction, feeling confident that the further treatment we shall put out through your recommendation will remunerate us. We therefore make the offer providing your order is received within twenty-one days from this date to supply you with Antidipso at half price, namely, a 1os. packet for 5s. This low price should be an inducement to you to send your order at once. . . .

A noteworthy feature of the company's method to which special attention may be drawn is their advice to purchasers to administer the medicine without the patient's knowledge. To this end they especially address themselves to women who control the preparation of the patient's meals and ordinary drinks, and the suggestion as to secret administration is a prevailing note in their advertisements. They appear, however, to find it necessary to justify the advice to the more scrupulous among their clients. For instance:

The poor drunkard is less able to take care of himself than an innocent prattling child. To do good by stealth is enjoined on us by the highest authorities.

. . . to save him administer Antidipso surreptitiously.

Directions are given with reference to the secret reception of the drug and secret administration in the food of the patient. It would, perhaps, be folly to expect that persons who in their blind belief in drugs and urgent desire for relief from misery will follow this advice, should realize either the indifferent ethical position or additional peril to the patient involved in the proceeding. The moral results are, however, not difficult to gauge.

A low standard of responsibility and feeble recognition of the rights of others is an inevitable result of the whole system of dealing in secret drugs, whether on the part of seller or buyer, but perhaps only the imagination of the physician can comprehend the reality and magnitude of the physical dangers or can understand to what lengths the principles advocated might be pushed. A man may suffer from disease and may be in dire need of treatment, but so long as the law regards him as a sane and responsible being he should surely be entitled to protection against ignorant and indiscriminate drugging without his knowledge or consent at the hands of any other person whatever.

The Turvey Treatment Company (Limited).

Although the evolution of secret remedies is of much interest to the student of their history and methods, considerable agility of mind is necessary in order to follow up the quick changes of places, names, and titles which seem to occur at intervals in connexion with many of them. For instance, since last year various things have happened to the various "cures" for alcoholism. We understand that the home in which the Hutton-Dixon treatment was carried on is closed, and Mr. Hutton Dixon now sells his medicine to the public at a higher price than formerly. Dr. Tyson's modest advertisement has not of late met our eye, but a very casual scrutiny of the advertisements in sundry magazines and daily papers have made us aware that our old friend the Tacquaru Company is dead, and that the Turvey Treatment Company reigns in its stead. The Turvey Treatment Company was registered as a company in May, 1903. Though the company is new the treatment is old, being the same which was applied to a series of test cases in 1893 under the auspices of Mr. Stead. It has now reappeared, after an interval, during which the Tacquaru Company flourished, and is now carried on in the late Tacquaru Company's premises by the same secretary, with duly-adapted pamphlets, and on more or less the same plan as before. The letter of testimony from Mr. Thomas Holmes, which was withdrawn for a time from the Tacquaru Company's advertisements last year, is again published in full as referring to the Turvey treatment.

The cost of the treatment is from 6 to 12 guineas. The remedy is secret, though it is said by the company in its pamphlet that "the treatment is specially prescribed and prepared by a highly-qualified English physician." Another pamphlet published by the company states that there is "a mass of medical evidence of the value of the Turvey treatment. This is a unique instance in which medical men have been glad to acknowledge the value of our method. Personal references can be given to medical men of the highest standing." Four of the shareholders are medical men, one is a dentist, one a nurse. The company (started in 1903) publishes an Annual Medical Report for the year ending December 31st, 1902. In it we read: "The past year has been great in results. There has been a large increase in the number of patients taking advantage of our treatment, and the high percentage of satisfactory results has been more than maintained. A gratifying feature of the year's work has been the great and increasing support given us by medical men in all parts of the United Kingdom. In hundreds of cases medical men have been glad to avail themselves of the advantages of the Turvey treatment on behalf of their patients. In official quarters we regret recognition is more tardy ....." A series of testimonials from medical men are published by the company bearing the letters of their qualifications but no names.

LITERARY NOTES.

We understand that Professor Mayo Robson has rewritten his work on *The Gall Bladder and Bile Ducts*, which has been out of print for many months past, bringing the subject up to present-day knowledge. The third edition, containing much new matter and several new plates, will be published next week by Messrs. Baillière, Tindall and Cox. The same publishers will also shortly issue a new and revised edition of *The Surgical Diseases of the Stomach*, by Messrs. Mayo Robson and B. G. A. Moynihan.

Reference is made elsewhere to the new feature introduced by Mr. Shattock into the *Transactions of the Pathological Society of London* in the form of Latin summaries prefixed to certain papers. In order to give our readers an opportunity of forming a judgement as to the feasibility of his proposal we give his own account of the reasons which led him to make the attempt. It is prefixed to a Latin summary of a paper by himself on the fatty infiltration ("vacuolation") of the nucleus in fat cells (*De vacuolatione nuclei in cellulâ adiposâ*).

Commentato diligenter mihi visum est eos maxime errasse qui non multo ante nostram aetatem linguam latinam adhibere noluerunt ut medium quo ii qui in scientia naturali versantur inter se communicare possent.

Quorum quantus sit error omnes nunc vident quum numerus linguarum quibus utuntur ii qui de rebus naturalibus scribunt, maxime multiplicatur.

Ex quo fit ut nemo omnia de re qualibet scripta cognoscere possit quamvis accurate in catalogis sint descripta. Ad cujus rei remedium, nihil valet, ut mihi videtur, introducere aliam novam et non ante cognitam linguam quae sit omnibus communis, quia omnes qui litteris humanioribus (ut dicuntur) operam dant, jam lingua latina utuntur; quinetiam ut pars disciplinae superioris fere necessaria habetur.

Quae si in eundem locum qua antea restitueretur, nullum eveniet detrimentum alicujus linguae recentioris progressioni; in libris enim qui nonnisi de rebus purae scientiae tractant, nec expectatur talis progressio nec tentatur. Nam in re scientiae modo postulatur expositio accurata rerum et legum quibus gubernantur, sine litterarum floribus aut ornamentis.

His igitur persuasus sententiis ausus sum hujus tractatus in linguam latinum redditum brevissimum proferre summarium, ut alii judicent quanta facilitate lingua illa ad res scientiae naturalis exponendas etiam nunc accomodari possit, et ut concitentur animi eorum qui cognoscere cupiunt ea quae alii scripserunt de iisdem rebus quibus ipsi student.

Attamen si, forsan, minus conveniens videatur totum opus latine vertere, summarium saltem ejus utilissime edi posset ut ab hominibus cujusvis nationis intelligatur.

[Having given careful consideration to the matter, it has seemed to me that a most serious mistake was made by those who not long before our day decided not to retain the Latin tongue as the medium of communication for those who devote themselves to the study of natural science. How grievous the mistake was is evident to all now when the number of languages employed by those who write on matters of natural science has increased to an excessive degree. Hence it comes about that no one can have knowledge of everything written on any subject, however accurately the references thereto may be set forth in the leagues. As a remedy for this state of things it is unnecessary, in my opinion, to introduce another new and as yet unknown tongue as a language common to all, since all who cultivate humane letters, as they are called, already use the Latin language, which, indeed, is regarded as an almost necessary part of a liberal education.

If Latin were restored to the place which it formerly held, no injury would be done to the expansion of any more recent language, for in works which deal only with purely scientific subjects such expansion is neither looked for nor attempted. In matters of science an accurate exposition of facts and of the laws governing them is all that is required, without literary flourishes or ornaments.

Inspired by these views, I have ventured to offer a very brief summary of this paper rendered into Latin to enable others to judge with what facility that language can, even at the present day, be applied to the exposition of matters of natural science, and to arouse the attention of those who wish to know what others have written about the things at which they themselves are working.

If perchance, however, it may seem inconvenient to turn a whole work into Latin, at least a summary of it might with great advantage be furnished, so that it may be understood by men of any nationality.

The other two papers of which Latin summaries are given are one on a specimen of mammary carcinoma which had been treated by *x*-rays (*De penitiori structura carcinomatis mammae radiis "X" subjecti*) by Mr. Shattock; and one on fibromatosis of the nerves of the head and neck (*De macroglossia neurofibromatosa*) by Mr. F. C. Abbott and Mr. Shattock. We cannot refrain from adding a word of congratulation to the Pathological Society and the editor of its *Transactions* on the admirable execution of the plates and the artistic effectiveness of the cover.

Dr. Trudeau, an account of whose work in founding and developing the well-known sanatorium at Saranac Lake was given in the British Medical Journal of January 9th, had among his patients there Robert Louis Stevenson. A cottage in the outskirts of the village, where the author of *Catriona* spent the autumn and winter of 1889, has become an object of historical interest. In his little sitting-room Stevenson received the visits of many prominent men who went to Saranac Lake for the express purpose of seeing him, and it was in that room, on a cold winter night, by the light of the wood fire in the big fireplace, while Stevenson sat on a chair placed on the table which had been moved into a corner, that Richard Mansfield delighted the great author with his weird and gruesome impersonation of "Dr. Jekyll" and "Mr. Hyde." To a temperament like that of Stevenson who lived in an ideal world and craved sunshine, blue skies, and tropical seas and verdure, Saranac Lake in winter, with its ice and snow, its grey skies, and its ever-present problem of human suffering and sorrow, did not especially appeal, but he acknowledged to Dr. Trudeau, as he did in his writings, that his health was much benefited by his stay there. He was repelled by the exact and uncompromising methods of scientific research and animal experimentation, and he had many heated arguments on this subject with his physician. Dr. Trudeau finally persuaded him one day to visit the little room in the cottage which was then the physician's only laboratory. He had just written for *Scribner's* a short essay entitled "The Lantern Bearers," which had as its *leitmotif* a game played by him and others which consisted of walking along the beach on a dark night, hiding under their coats a lantern, which they flashed at each other as a signal as they passed. Dr. Trudeau showed him his animals and culture tubes, and the ravages caused by the tubercle bacillus in their organs, and was trying to impress upon him the vast possibilities for the good of the human race which lay in these experiments, when suddenly he noticed that Stevenson looked pale, was not listening, and was edging towards the door as fast as possible. As soon as he got outside he turned and said, "Trudeau, your lantern may be very bright to you, but to me it smells of oil like the mischief." "It was evident," says the physician, "that neither of us could fully appreciate the brightness of each other's lantern, though we both tried."

Dr. Robert A. Reed, of Newton, editor of the *Massachusetts Medical Journal*, completed his twenty-second year of editorial service on December 19th, 1903. His colleagues on the staff of the journal took advantage of the occasion to present him with a handsome dining-room chair.

It is well known that the [illegible] out the scanty livelihood which is earned by the pavers at Lyons by the [illegible] at Lyons. The *Gazette Médicale de Paris* calls attention to the fact that in this connection of medicine with [illegible] were anticipated by Jehan de Lespine, who was an [illegible] as well as a physician. His [illegible] was published in 1547. It consists of thirty-two pages, printed in Gothic [illegible] Prophylactic University of Paris. It is [illegible] Latin. The days on which [illegible] are carefully indicated.

The birth of triplets is not a common thing; and is probably less common among the higher classes than among the lower. Still less common is it for the birth of the successive children to follow the one that preceded it after exactly a week's interval in each case, and for all three to survive. An old manuscript has just been printed, entitled *Heliotropes, or New Posies for Sundials*, said to have been written by John Parmenter in 1625, and edited by Perceval Landon in 1904. In it he refers to an occurrence recorded in the Palmer family papers at Dorney Court. Alice, daughter of Sir Richard Clement of Ightham Mote, and wife of Sir Edward Palmer of Wingham, gave birth to three sons on Whitsun Day and the two following Sundays in 1488. The eldest, Sir John, lived to a great age at Angmering, in Sussex. The second lived to become Sir Henry Palmer. The youngest, Sir Thomas, was executed in 1553, on the same scaffold as the Duke of Northumberland, for aiding Lady Jane Grey. The baby clothes of the triplets are still preserved at St. Audries, the Somersetshire seat of Sir Alexander Acland Hood, M.P., Sir Henry's present representative. We are not told about the delivery of the placentae, but obviously each placenta must have quickly followed the baby it belonged to; nor who was the medical attendant. He or she deserved great credit for judicious non-interference. Mr. Perceval Landon, who has edited the reprint which is published by Methuen, observes in his preface that Parmenter gives involuntary evidence that he was partially colour blind. In commenting on the posy ("*Ante Arcum Arka*") Parmenter gives the following mystical interpretation of the colours of the rainbow:

> The Collours of the Bowe are thus: Blew-Purpure to shewe foorth the Majestie of God. Greene to put us in minde of the Resurrection, as the Earthe rose againe from under the Floodes. Yelowe, a small peece that is for the Unconstancie and Lewdenesse of Men, wherefor the Earthe was Drown'd. There be manie who pretend that there is also Red in the Bowe. But it is manifestly an Idle tale. Red is a verie dim collour, moost unfit to be vsed, for it hath much Blacke in it.

It seems clear that a man who would call red a very dim colour with much black in it must have had imperfect colour vision.

The *Journal of Infectious Diseases* published at Chicago is, as far as we know, the only endowed medical journal in existence. It has been established in connexion with the Memorial Institute for Infectious Diseases, Chicago, by the munificence of Mr. and Mrs. Harold F. McCormick, and will, it is authoritatively stated, "be conducted under conditions that ensure its permanence as well as the adequate presentation of the material submitted for publication." It is edited by Drs. Ludvig Hektoen and Edwin O. Jordan, in conjunction with Drs. Frank Billings, F. G. Novy, and W. T. Sedgwick. The first number, which bears date January 2nd, contains among other important articles a communication by Drs. Novy and Ward J. McNeal on the cultivation of trypanosoma brucei; a report on two cases of a peculiar form of hand infection due to an organism resembling the Koch-Weeks bacillus by Drs. John R. McDill and William B. Wherry, and a paper on the pathological anatomy of "paratyphoid fever" by Drs. H. Gideon Wells and Lee O. Scott. The *Journal of Infectious Diseases*, which is beautifully printed and excellently illustrated, promises to be a most useful addition to the periodical literature of medical science.

We have received the first number of the *Calcutta Practitioner*, which is described on its title page simply as "a medical journal." In the editorial introduction it is said that the "venture is not at all intended to be an ambitious one. What is primarily sought is to have a medium of circulation of the records of the valuable experiences of the isolated units of the medical profession of Bengal." This, we are told, has been totally neglected in the past. We fully agree that "there is no reason why the myriads of important professional events that are happening at the present day should be allowed to slip out of our grasp and thereby our successors." We applaud the enterprise of our new Indian contemporary, but we fear that it will find a difficulty in compressing the myriads of important professional events into the compass of some thirty pages. The first number contains a paper on Aneurism of the Coeliac, by Kanta Chandra Bose, I.M.S., C.I.E., and one on the Eleventh Case of Pernicious Cases by Chunilal Bose, M.B.

Professor Kraepelin, Chief of the Psychiatric Clinic of the University of Munich, has obtained a leave of absence with the object of visiting the Dutch Indies in order to study the prevalence of mental diseases among the natives.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 6TH, 1904.

PHYSICAL DETERIORATION.

Last week was concluded a series of articles in which an endeavour was made to set forth some of the causes of physical deterioration, together with some practical remedies.

After a brief historical account of the way in which serious notice was drawn to the state of recruiting for the army, it seemed desirable to make a special inquiry into that portion of the population from which the majority of recruits are drawn. The fact, pointed out by Sir Frederick Maurice, that 60 per cent. of the men willing to serve their country had within two years to be rejected as unfit, naturally led to the desire to ascertain the cause of this unfitness, not only on account of the army, but because of the larger question, If men are unfit to serve as soldiers what can become of them? When the large numbers enlisting in the army is realized, and when it is remembered how few men having any marked talent for any trade at which they can command large wages will, for the honour and glory of serving their country, enter the army, then will be seen the horror of this human mass thrust back upon the slums unfit and discouraged.

Among the questions that have to be faced in an inquiry such as this are those of overcrowding, diet, the evil effects of drink, and so on. These are the points usually seized upon by well-meaning social reformers, regardless of the fact that these influences, though in themselves very weighty, come into operation only after the evils caused by neglect of such matters as the care of mothers, the proper feeding of infants, and the wise control of education.

It follows that in most stages the task of finding a cure for the ill is in a large measure a medical obligation. Who but the doctor should tell the mothers to look after their health during pregnancy and afterwards, and teach them the importance of suckling their infants? Supposing this to be impossible through such causes as physical weakness, or the necessity of going out to work, whose duty is it to see that infants unfortunately deprived of their natural food should be provided with a suitable substitute in the form of wholesome cow's milk?

Medical officers of health are entrusted with the supervision of farms and dairies; with medical practitioners lies the responsibility of prescribing milk for the infants. How do they carry out their trust? Is it by conscientiously seeing regulations carried out in the country farms, and by prescribing nothing as to the quality of which they are not sure, or is it by shutting their eyes and trusting to Providence? Providence has provided milk upon which—if not contaminated through human handling—children may be fed in all confidence. But, unfortunately, in creating rural sanitary authorities the Legislature overlooked the necessity for stimulating the still small voice of conscience, and until means can be devised to awaken it the sacrifice of human life must take its course, and the sediment of the unfit become deeper and deeper. Passing over the period of earliest childhood—and it can be affirmed that a child wisely fed under medical supervision for the first two or three years of its life has every chance of turning out a strong and healthy man or woman, while a false start can never be made up for—the question of compulsory education has next to be considered. Here it is generally imagined that the moment has come for the medical profession to pass its cases on to the educational authority waiting with outstretched arms to add mental accomplishment to the physical perfection of the child.

Like the horse who shakes himself free of the halter, we may picture the doctor who has worked so hard for the health of the infant shaking himself free of all further responsibility. But here again is it not the province of the medical profession to order the whole portioning-out of a child's education? What is to be said of the desks full of weary, stooping children, cramped for long hours in badly-ventilated and overcrowded schoolrooms, many—and in some districts the majority—hungry, unwisely-clothed, and suffering from affections of the eyes, ears, nose, or throat? Then, too, those who are fit or unfit are often made to go through unsuitable physical exercises, the delicate and the robust doing exactly the same for the same length of time. Masses of children, the hope of our nation, are raked into school to plod year in and year out at subjects which will in all probability be of no practical use to them when they have to begin the work of life.

For all this the medical profession is partly responsible. But it is surely a great reproach to the educational authorities that in this moment of national disquiet and anxiety as to the question whether there is or is not progressive deterioration there are absolutely no figures or records by which this point can be satisfactorily determined.

That there is unfitness is beyond all doubt, but progressive deterioration cannot be proved in the absence of data. Simple methods for the weighing and measuring of school children have now been pointed out, costing no money and little time; in the short space of two or three years figures could be got together by which a fair estimate might speedily be arrived at of the real state of the physique of children in elementary schools. By means of the fresh figures thus easily attainable a reliable opinion could be formed of the effect of compulsory education on the physique of the masses, and serve as a guide in modifying certain matters.

School children should be periodically examined medically with a view of checking such diseases as spinal curvature, narrow chests, and diseases of the ears, eyes, nose, and throat before they become chronic, and with a view to collecting the weakly ones of each school in order that they may have special classes and suitable physical exercises.

The provision of intelligent medical supervision in all schools will not only furnish reliable data as to the state of the children who are compulsorily educated but will check the evil, at present amounting to positive cruelty, of subjecting boys and girls, physically and mentally unfit

to benefit by their lessons to a strain owing to which they will in all probability be launched into life mentally and physically blemished.

Class teachers, with whom at present rests the responsibility of duties purely medical, cannot be blamed for not possessing the judgement which can be gained only by special education and long experience. But they also have a duty to perform in giving their whole hearts to the task of educating the future fathers and mothers of the nation in subjects which will later on be of vital importance to them; with the girls especially there lies a vast field for education in useful subjects, such as hygiene (including personal cleanliness, the value of fresh air, and the dangers of alcohol), simple cookery, together with lessons on the management and feeding of a baby. No town child is too young to understand and enjoy thoroughly these lessons, and it is well known that many are temporary mothers to their infant brothers and sisters long before the time has come for them to be real mothers. It should not be a question of these subjects being taught in some schools; they should be compulsory, and a proper amount of time devoted to them.

Every effort should be made to compel farmers to manage their dairy farms sanitarily, and we have shown that this is to their own advantage; for the purpose of enforcing the rules framed to that effect power should be given to county councils, subject to reference to the Local Government Board, to compel the rural authority to take action. The most impressive conclusion arrived at, after carefully considering all the different sides of this inquiry into the question of the national physique is that at the root of the unfitness which undoubtedly exists in the ranks from which our soldiers are drawn, is the question of proper infant feeding. It cannot too often be repeated that a child wisely fed for the first two or three years of its life has every chance of growing up into a strong man or woman; a child rendered rickety and puny by ignorant feeding will in all probability never make up the ground it has lost. A great number of infants, especially in towns, have from one cause or another to be fed artificially. The natural substitute for the mother's milk is cow's milk. At present cow's milk is too often, when it reaches the houses of the poor, in a state which renders it dangerous to life. Can any reasonable mind be surprised at the great infant mortality and at the unfitness of the majority of the survivors? Without clean milk there will be continued death and unfitness; without statistics there will be no certain data to prove physical deterioration; the moral is that every effort should be made to get clean milk, and to obtain the weighing, measuring, and medical supervision of school children. Then, and then only, will this great national problem be satisfactorily solved.

AN INTERNATIONAL LANGUAGE OF MEDICINE.

It is one of the commonplaces of medical oratory that the art of healing has no political boundaries and knows no distinction of race. The commonwealth of medicine, we are told, forms one nation bound together by a common aim, and holding all scientific goods in common for the equal advantage of all. There is no trade in medical discoveries. Whatever a member of the profession in any country finds that he deems likely to be useful for the treatment or prevention of disease he forthwith makes freely known, so that it becomes the public property of his brethren throughout the world. This intellectual Socialism is doubtless very beautiful; the pity of it is that it exists only in theory. It is true that no honourable practitioner of medicine would for his own profit keep secret any knowledge that should be added to the common stock. But, unluckily, there are at present practical difficulties in the way of his making his new light to shine upon the darkness of other countries. An account of a discovery written in Russian, for instance, might as well, as far as the medical profession of the rest of the world is concerned, be conveyed in hieroglyphics. To how many foreigners are Hungarian, Japanese, Swedish, Bohemian, Greek, Roumanian, nay even Italian, Spanish, and Portuguese intelligible? At each of the three or four last meetings of the International Medical Congresses the confusion of tongues has made serious discussion difficult, and in some cases has reduced the proceedings to an unedifying farce. It is not at all likely that things will in this respect be any better at Lisbon than they were at Madrid and at Rome. The curse of Babel is on the International Medical Congress, and must inevitably bring it to ruin unless means can be found of preventing its being treated by the natives of the country in which it happens to be held as their own particular preserve.

The linguistic difficulty has become one of the greatest hindrances to scientific progress, and the steadily increasing number of workers throughout the world, while tending to make research more fruitful, at the same time limits more and more the diffusion of knowledge of its results. The cause of the evil being the multiplicity of tongues, the remedy is clearly to be found in the use of a common language. This as an abstract proposition will be admitted by all. But when we come to the point of choosing a language for the purpose we are met by a sea of troubles. Naturally none of the great nations of the earth is willing to submit to the yoke of another in the matter of speech. This makes the choice of a living language, unless it be that of a people too insignificant to excite jealousy, practically impossible.

A learned German, Professor Schröer, has, indeed, advocated the choice of English as an international language, on the ground that already, "by its extension over the whole globe and by the ease with which it can be learnt, it has obtained such a foothold that nothing can prevent its becoming in the near future the great means of international communication." Another German, the late Dr. Semeleder of Cordoba, in Mexico, writing in the *Wiener Presse* in 1896, estimated that of 1,181 medical journals then in existence, 363 were in English, 262 in French, 214 in German, and 101 in Spanish and Portuguese. A hundred years ago Schiller wrote of German, "Our language shall the world command;" but this prophecy has not been fulfilled, nor do we think that it is in the least likely to be so. The choice of French as the sole official language was strongly urged upon the organizers of the International Medical Congress at Moscow by Dr. Kartchagunne and Dr. Steinberg. French has many claims, but we fear that it would be vain to expect that Germany, where it has been carefully eliminated even from bills of fare, could be brought to adopt the language of its hereditary enemy. Billroth thought English would be the best international language of medicine, but as a concession to the Latin races, which he said have no aptitude for learning foreign tongues, he suggested Spanish for the purpose. Virchow, too, if we remember aright, thought Spanish might be

the common language of science. Dr. Achilles Rose of New York is a strenuous advocate of modern Greek. Setting aside, however, the question of the fitness of that language for the purpose—a matter as to which some doubt may be permitted—it is certain that until Greek is taught in schools in a very different manner from that which at present prevails, the proposal is impracticable.

Attempts have been made to meet the difficulty by the invention of artificial languages. Some years ago Volapük was fashionable for a brief period, and then died a natural death: of Spokil and one or two others, it can scarcely be said that they ever lived. Now there is Esperanto, which doubtless will in time follow its predecessors to the grave. We may admire the ingenuity with which those "universal languages" are constructed; but at best they are like the man made by Frankenstein—bodies without a soul. They are as hard to learn as as a real language, and, when learnt, one has acquired nothing but a *lingua franca* without a history and without a literature.

In our opinion, the only solution of the problem is to be found in a return to Latin, which for many centuries was the language of science and learning, and which is excellently fitted to be the international language of medicine. Up to the end of the eighteenth century, the great medical classics were written in Latin; in the early years of the nineteenth century medical lectures were delivered in Latin at Dublin, and at Edinburgh students were examined for their degrees in the same tongue. In London about the same period candidates for the licence of the College of Physicians were questioned in Latin. Latin orations were delivered at the College till near the middle of last century. Latin is still the official language of the Church of Rome and is written and spoken as a living tongue by the students in her seminaries. For all the purposes of scientific intercourse it could be learnt just as easily as French. Its fixed forms have the great advantage that a man must clearly understand his own meaning before he attempts to express an opinion. The use of Latin at Congresses would be a check on verbosity. In Mr. Morley's *Life of Gladstone* there is an account by the future leader of a meeting of Convocation at Oxford in 1829 where Catholic Emancipation was the subject of discussion. Writing to his father he says: "All the ordinary business there is transacted in Latin; I mean such things as putting the question, speaking, etc., and this rule, I assure you, stops many a mouth, and saves the Roman Catholics many a hard word." A similar rule enforced at gatherings of the medical tribes would doubtless save not only hard words but much loss of time. The proposal is not new. A petition, signed by a number of representative members of the medical profession in India was presented to the International Medical Congress held in Rome in 1894; but, as far as we are aware, nothing was done in the matter.

An interesting proof of the adaptability of Latin to the needs of the most modern science is afforded in the new volume of the *Transactions of the Pathological Society of London*. The editor, Mr. Shattock, there makes a strong plea for the use of Latin as the common language of science. He has not been content with preaching the faith that is in him, but has exemplified it in practice. To three papers wholly or partly by himself, which are contained in the volume, he has prefixed a brief summary in Latin that will enable educated men of science throughout the world to gather their purport. The Latinity is clear, without affectation of Ciceronian elegance or impossible purism; the summaries are admirably succinct, and the experiment seems to us to be in every way successful. It will, we are assured, be a very decided help to scientific progress if the example set by Mr. Shattock is widely followed by scientific workers throughout the world. The Linnean Society, we believe, insists that every new plant brought to its notice shall be described in Latin, and the symptoms and pathology of a disease can be described with equal ease and accuracy in the same language.

CORONERS AND MEDICAL EVIDENCE.

"Crowner's-quest law" is still something of an anomaly from the purely legal point of view; from the medical standpoint it is saved from being a farce only by the practical good sense of the majority of those in whose hands its administration lies. The eligibility of medical men for the office of coroner was established by Thomas Wakley, and it may truly be described as one of the most important of the many reforms which we owe to his sagacity, courage, and perseverance. If the medical coroners have not yet had time to leaven the whole lump, at least their influence has been felt by their non-scientific colleagues. They have taught not only lawyers but the public—even those lower strata of it from which coroners' juries are mostly drawn—to appreciate, at least to some extent, the value of medical evidence.

Unfortunately the state of the law still makes it possible for a coroner to use what he may be pleased to call his judgement in dispensing with medical evidence, or in choosing the source from which it is to be procured. To a man of ordinary understanding it would appear to be a self-evident truth that in any given case of sudden death the evidence most likely to throw light on the cause of the event would be that of a medical practitioner who had attended the deceased person during life. Failing that, the evidence of the doctor who first saw the body after death would seem to be of some importance. If a necropsy is considered necessary it would probably occur to most men of average intelligence that the proper person to make it is the medical practitioner who has first-hand knowledge of the facts. If, owing to any points of exceptional difficulty in the case, an examination by an expert pathologist appears necessary, it would seem unquestionable that the presence of a practitioner who had seen the deceased person during life or soon after death is highly desirable.

These are truisms which it would be absurd to insist upon, were it not that they are systematically disregarded by a London coroner who apparently considers medical evidence a superfluity unless it can be given in the form of a *post-mortem* report. This at any rate is the impression left on our mind by a study of the numerous cases in which Mr. John Troutbeck has dispensed with the evidence of medical practitioners who had been in attendance during life or had first seen the body after death, and who were in possession of material information. In many cases the only medical evidence submitted to the jury has been that furnished by a necropsy made by a medical man who had no direct knowledge of the facts of the case. Practitioners who could have supplemented that evidence from first-hand knowledge have been ignored; they have not been invited to be present at the necropsy, nor have they even been informed of the fact that such an examination was to be made.

A glaring example of this official discourtesy towards the medical profession is given in a letter from Mr. Oliver Atkey, acting House Physician at King's College Hospital, which we publish elsewhere. Mr. Atkey was called in to attend Mr. Whitaker Wright in his last moments, and not unnaturally expected to receive an intimation as to the time and place of the necropsy. He heard nothing of the matter, however, till, in reply to a telephonic communication addressed to the coroner, he received a message referring him to Dr. Freyberger, and at the same time informing him that the examination was completed or actually being made. These facts alone suffice to show that Mr. Troutbeck's conception of his duties as coroner is sufficiently remarkable to deserve the attention of all who are interested in the detection and prevention of crime. He pins his faith on the knowledge of a practitioner as to whose special fitness for the difficult task with which he is entrusted the profession in this country has had no adequate means of judging. We do not wish even to seem to suggest that Dr. Freyberger is incompetent, but it can scarcely be claimed for him that he has achieved any such distinction either in pathology or toxicology as can entitle him to be regarded as an authority in these highly-specialized branches of medical science.

We do not here call in question the regularity of Mr. Troutbeck's procedure; the matter is not one of law but of the best means of arriving at a correct solution of problems which are often extremely complex and are always matters of importance to the public welfare. As the law stands, the calling of medical evidence is largely left to the discretion of the coroner. Naturally, if he has no discretion, it cannot be imputed to him as a fault that he fails to exercise that quality. But it is a danger to the public safety that the shortsighted economy, or overweening self-confidence or bias of a coroner should lead him to exclude evidence that may throw light on the problems with which he has to deal in inquests. And, as courtesy costs nothing, a coroner may surely use it, at least in moderation, without fear of the County Council.

Mr. Troutbeck's studied discourtesy to the medical profession would, however, be unworthy of notice did it not tend to interpose needless difficulties in arriving at the truth in those inquiries. It would be preposterous to imagine that the failure to notify practitioners interested of the time and place of necropsies is due to any unwillingness on the part of Mr. Troutbeck's trusted expert that any brother of the craft should be present at his investigations. But, as Sir Peter Teazle says, it is a wicked world; and it is by no means unthinkable that in the case of men of less unquestioned uprightness such misplaced secretiveness might be so interpreted. From every point of view the practice is a bad one, and opens the way to the possibility of gross abuses.

The attention of the Lord Chancellor has already been called to the conduct of Mr. Troutbeck in the matter of medical evidence. The reception given by Lord Halsbury to the deputation which waited upon him to represent the views of the medical profession was not particularly sympathetic. We have reason to believe that since then the case put before him has been considerably strengthened, and that further representations will be made to him. The existing state of things is a scandal which urgently calls for a remedy, as it may at any time give rise to serious difficulty in the detection of crime.

THE ASSOCIATION *YEAR BOOK*.

THE *British Medical Association Year Book for 1904*,[1] which has just been issued will, it is hoped, supply a want felt by active members of the Association and especially by Honorary Secretaries of Branches and Divisions. Within a brief compass it supplies full and accurate information as to the organization, the scientific, professional and political work and the general financial position of the Association. It contains a calendar which is a synopsis of the whole duty of man in relation to membership of the Association. In it are indicated the dates of meetings of Committees and of the Council; the latest days for sending in notices of motion to the Council, and returns of various kinds; the dates of elections of representatives, of the expiry of scholarships; the date when subscriptions become due and the last day for notifying resignation of membership. There follow lists of the members of Council and of the Standing Committee for 1903-4. The story of the birth and development of the Association is briefly told, the principal changes it has undergone in the process of evolution being noted, and the work done in the first five years of its existence summarized. The historical sketch is completed by a list of annual meetings, the number of members who attended being given in each case. It is interesting to trace the growth of the Association from the 140 members with which it started in 1832 to the 19,181 of 1903. The present Constitution is set forth at length, and a clear summary of the work done by the Association during 1902-3 is given. A note on the Library shows its value to members, who through it have access to the best standard and periodical literature in every province of medical science. The balance sheet for 1902 proves that the financial condition of the Association is absolutely sound, while the record of financial progress shows that its prosperity is stable. An even better assurance of the vigorous life of the Association is afforded by the list of its Branches and Divisions, which are spread over the whole United Kingdom and extend to the remotest parts of the Empire. The British Medical Association, in fact, is a striking object-lesson—which may be commended to the notice of statesmen—of the feasibility of applying the federal principle to a world-wide organization. Short articles are devoted to the BRITISH MEDICAL JOURNAL, and to the scientific grants made and the scholarships and prizes awarded by the Association. Lists of officers and of honorary members of the Association, and a programme of the forthcoming annual meeting serve to give completeness to a compact volume which, in the compass of 142 pages, contains an outline of practically all there is to be known about the British Medical Association. It is unnecessary to lay stress on the great utility of such a manual to members, but we may be allowed to point out how excellently adapted it is for the purpose of making known the advantages of membership to young doctors on the threshold of professional life, and inspiring in older practitioners who have hitherto remained outside the wish to join the largest and most powerful medical organization in the world.

[1] Published by the British Medical Association, 429, Strand, London. Price 1s.

THE REMOVAL OF KING'S COLLEGE HOSPITAL.

WHEN, last November, it was announced that it had been finally decided that King's College Hospital should be removed from the site near Lincoln's Inn Fields to a plot of ground at the foot of Denmark Hill close to Camberwell Green, the attention of medical practitioners in the south of London was immediately called by Dr. Rowland Fothergill, the energetic Secretary of the Wandsworth Division of the British Medical Association, to the risk of pauperization and the extension of hospital abuse to that district of the south of London which would inevitably attach to the establishment of a large hospital there unless carefully-considered means were taken to prevent such abuse. We are glad to learn that the views expressed in our columns on

behalf of the Association in London have received the attention of the Medical Board Committee of the hospital, and that the Honorary Secretary of the Wandsworth Division has received from the Secretary of the Committee a letter stating that the authorities of the hospital desire to place themselves in communication with the local charities and medical societies of South London in order to ascertain their views as to the best methods of safeguarding their interest in framing rules for the out-patient department, for the admission of in-patients, and with regard to the question of paying patients. Similar communications have, we understand, been addressed to the Norwood and Lambeth Divisions of the British Medical Association, and these Divisions are now appointing representatives to serve on a joint Committee to meet representatives of King's College Hospital. The Wandsworth Division has appointed Dr. M. G. Biggs Chairman and Branch Representative; Dr. C. R. C. Lyster, late medical officer for eighteen years to Bolingbroke Hospital; and Dr. E. Rowland Fothergill, Secretary of the Division. The Lambeth Division has appointed Dr. R. Capes, Dr. Herbert Taylor, and the Divisional Secretary, Dr. W. H. B. Stoddart, of Bethlem Royal Hospital. The Norwood Division has not, so far as we are aware, taken steps to nominate its representatives, but it is hoped that the importance of the matter may lead this Division to hold, if necessary, a special meeting in order to complete the Committee representing the Divisions. We are glad to learn that action has been thus early taken, because it is in the highest degree desirable that questions of this order should be thoroughly discussed and a solution reached which, it may be hoped, will be satisfactory to all parties. The attitude taken by King's College Hospital is also satisfactory, and gives reasonable hope that such a solution may be found. While recognizing fully that the question of hospital administration, more particularly the regulations which should be adopted for the management of out-patient departments, is one which affects the profession in all great centres throughout the country, it yet appears to us plain that the question is one of greater acuteness at the present time in London than elsewhere, owing mainly to the circumstance that the whole matter of the distribution, maintenance, and management of hospitals is at the present time under revision in the metropolis. There can be no doubt that the result of the consultations and discussions which must take place in London during the next few months or years will have a large share in establishing general principles of universal application.

THE NEW SCHOOLS AND LABORATORIES AT CAMBRIDGE.

The King has graciously notified that it is his intention to visit Cambridge on March 1st to open certain new schools and laboratories which have been recently completed or are now rapidly approaching completion. The geological museum and the botanical institute are complete, and the work of arranging the collections in these is now nearly finished. The new medical buildings, comprising laboratories and lecture rooms for the departments of medicine, surgery, pharmacology, and pathology are finished, though not fully furnished, and the Humphry museum of anatomy and pathology, a building of three stories, is nearing completion. The law library and class-rooms on the other side of Downing Street are not so far forward, but are sufficiently advanced to make it plain that they will form a noble pile of buildings, containing a spacious library of fine proportions. It is anticipated that the King, after opening the medical and botanical schools and passing through the hall of the law library, will visit the geological museum and there unveil a memorial to the late Professor Sedgwick, a life-size bronze statue by Onslow Ford.

THE RECONSTRUCTION OF THE WAR OFFICE.

The first report of the War Office Reconstitution Committee, consisting of Viscount Esher (Chairman), Admiral Sir John Fisher, and Colonel Sir George Clarke, which was issued on February 1st, has been received with very general approval; but we feel bound at once to call attention to an omission of serious importance. The main recommendation of the report is the constitution of a supreme Board to be called the Army Council, following the general principles which obtain at the Admiralty. This Council, which the Government is resolved to constitute at once by patent, will consist of seven members, four military and three civil, with the Permanent Under-Secretary as Secretary. The Secretary of State, the Minister responsible to the Crown and to Parliament, will be its President. The duties of the various members will be allotted as follows: First military member, operations of war; second military member, *personnel*; third military member, supply; fourth military member, armament; first civil member, civil business; second civil member, finance. It will be observed that there is no mention here of the medical department of the army, which is responsible for its health in peace and war, its first duty being the prevention of disease. Nor is there any reference to this matter in the first section of the report, which recommends the formation of what is rather oddly termed "the permanent nucleus of the Defence Committee." In addition to a Permanent Secretary appointed for five years, renewable at pleasure, this Committee will consist of two naval officers selected by the Admiralty, two military officers chosen by the War Office, and two Indian officers, nominated by the Viceroy, with, if possible, one or more representatives of the Colonies. It is recommended that these officers should not be of high rank, and that the duration of their appointment should be limited to two years. Shortly stated, the duties of this permanent nucleus will be to act as an intelligence department, and here again we note with regret that there is no reference to medical matters. We need not insist upon the importance of remedying the omission to which we call attention because we have received, by the courtesy of Lord Esher, an intimation from the Secretary of the Committee that the position of the medical service under the War Office Reconstitution scheme is receiving the serious attention of Lord Esher and his colleagues.

DENTAL DEGREES.

By a majority of two to one, at a meeting specially convened to discuss the question, and largely attended, the British Dental Association has declared that it does not desire that the Universities should institute dental degrees. This conclusion perhaps calls for some explanation, as the issues thought to be involved were too complex to be expressed in the terms of resolutions, and it is more than possible that of those who voted on the one side or the other all were not influenced by precisely the same considerations. Although the University of London and the Victoria University have both had the matter under consideration, the only dental degree as yet instituted is that of Birmingham, which is peculiar in that it does not confer a right to admission to the *Register*. Candidates for it must have completed an additional year of study after qualification and registration. It is thus purely an additional or "higher" qualification. But if the speakers at the meeting were well informed, it is not in the least likely that the other Universities would follow the lead of Birmingham in this important respect; on the contrary, it is obvious that qualifying diplomas were intended, and so a further departure from a one-portal system would be established. At present there is no great multiplicity of dental diplomas—although in Scotland, rather unnecessarily, two bodies do grant them—so that there is some approach to a one-portal system. As regards the question of higher degrees than the qualifying licentiateship, it was urged with irresistible force that the ambitious student cannot do better than pursue his studies in the direction of a complete medical education, and gratify his aspirations by taking a medical qualification, as many have done in the past. This was by no means the view of many of the advocates of fresh University degrees in dentistry; they desire to extend study in quite other direc-

tions, and almost openly avowed a desire to dissociate dentistry from medicine an attitude which probably induced many to vote against them. So far as the question of higher degrees was involved, it was felt that a multiplication of qualifying examinations was little calculated to effect or maintain an improvement in standard. Moreover, a feeling of loyalty to the Royal College of Surgeons of England, which came to the rescue of dental education so long ago as 1858, by instituting its licentiateship long before there was any thought of a Dentists Act, operated to induce many to vote against any multiplication of qualifications. Thus the vote was rather to be regarded as adverse to the proposition in its present form and with its possible consequences, particularly in regard to its tendency towards dissociation from medicine, than adverse to the abstract proposition. It may, indeed, be doubtful if the mover of the motion in favour of the institution of university degrees, who himself holds a medical qualification, was in the least in sympathy with the most prominent speakers in favour of his motion. It remains to be seen what the effect of this decided expression of opinion may be, and how far it will influence the bodies concerned, who, of course, are in no way bound by it.

CURES FOR ALCOHOLISM.

THE *Daily Express* states that it has received a letter from Lady Henry Somerset in which she gives an interesting account of her investigations into a drink cure which has been tried in several large cities of America. Instances are narrated in which confirmed drunkards have under its beneficent effects been quite restored in a few weeks while in one instance the recovery was almost complete in ten days. The name of the inventor and the address in London at which information can be obtained are given. This latest American notion has arrived opportunely and just in time to be introduced to some of its relatives of which we give an account on p. 316 of this issue. We are quite sure that Lady Henry Somerset has been influenced by the best motives, but we could wish that she had refrained from giving any "cure" the support of her name. We should have thought it might have occurred to her that, in the case of so intermittent a disease as alcoholism, it is foolish to talk of recovery in ten days or even a few weeks. The majority of drunkards cure themselves for such periods from time to time. We venture to think that Lady Henry Somerset might usefully peruse sundry articles upon the subject which have appeared in these columns during the last year or two. A reference to one will be found in the special article in this issue, and others will be found at page 385, vol. i, 1903, and page 429, vol. ii, of the same year.

AN M.P. ON CONTRACT MEDICAL PRACTICE.

AT a recent meeting of a large Friendly Society at Hulme, Manchester, Mr. W. J. Galloway, M.P. for the South-West District of Manchester, gave an address in the course of which he made remarks of some interest to medical men. He regretted that there should be even a whisper of disagreement between Friendly Societies and medical men, because the interests of both were so interwoven that it was essential that harmonious relations should exist between them. He sympathized with the view of the societies that if a doctor entered into a contract to visit its members for a certain sum of money, it was absurd for him to say he would only visit such as earned only a certain wage. The question of wages had nothing to do with belonging to a Friendly Society, and, indeed, the latter welcomed all who would agree to pay the stipulated rate of subscription. Further on in the same speech he referred to the existence of certain doctors who formed societies and ran them as kinds of unlimited companies. They caught a certain number of people who would agree to pay a certain sum a week, and for that they undertook to treat them wherever they were ill. They appeared to be more common in the North than in the South of England, and it was not in the interest of members of Friendly Societies that their existence should be perpetuated. Those who were responsible for the general management of the medical profession should keep such undesirable persons out of their ranks if they wished the profession to preserve the high position it had attained. Finally he called upon the medical profession to deal with the question which had arisen between it and the Friendly Societies if it desired to get accepted a Bill which he understood was to be submitted to Parliament for the better regulation of the profession. This address deserves attention, for members of Parliament, and indeed all level-headed persons who have influence with the working classes might do a good deal towards clearing away conditions by which the interests of medical men and those of certain sections of society are brought into apparent collision. But in order to effect this desirable object they must give sufficient study to the matter really to grasp the principles which underlie them. This unfortunately, as far as Mr. Galloway is concerned, does not appear to be at present the case. It is mainly the Friendly Societies the medical profession has to thank for the presence in its midst of the undesirable persons to whom Mr. Galloway made reference, and the power of abolishing them rests largely with the societies themselves, who can at once render them harmless—as far as they at least are concerned—by making equitable arrangements with medical men. Moreover, even if it be granted for the sake of argument that it is to the interest of medical men to do most of their working-class practice through the medium of societies, this at once ceases to be the case if an endeavour is made to force them to extend the benefits of the arrangements to others than persons of limited means. There is, of course, no desire whatever on the part of the medical men concerned to lay down the law as to who should or should not be admitted to the Friendly Societies, but they have a perfect right to exact that the benefits of contracts to which they are active parties shall be extended only to those in whose interests the societies were originally founded and are still kept up. The difficulty is one in itself easily capable of adjustment, but unfortunately there has hitherto been a tendency to sacrifice the interests of the general body to those of a few members whose success in life has at once removed them from the true category of the working classes, and at the same time put them into a position in which they can lead the latter blindfold.

SIR WILLIAM MACEWEN AT CARDIFF.

SIR WILLIAM MACEWEN visited Cardiff on January 20th to deliver the annual address to the members of the Cardiff Medical Society. Dr. Stewart, the President of the Society, was in the chair, and a large number of members were present. The subject chosen by the distinguished Glasgow surgeon was Appendicitis. He said he did not regard appendicitis as a new disease. In his student days he remembered a number of cases which were then described as acute peritonitis, and he was now inclined to think that many of them were really due to appendicitis. He pointed out that in some forms there was no sign by which the physician could tell whether the patient suffered from an early or an advanced stage without an operation; in a great many instances he did not know when appendicitis commenced, and often the first thing which arrested the attention of the patient was the symptoms of the last stage. The difficulty of diagnosis made appendicitis a very dangerous disease, but he added instances where an operation had saved the patient, even in most advanced cases. In the evening Sir William Macewen was entertained at dinner at the Royal Hotel, Dr. Prichard (ex President of the Society) being in the chair. After the loyal toasts had been duly honoured the Chairman proposed the health of Sir William Macewen, who, in responding, said although he had been in Cardiff only a short time he had seen something of the town. They had got capital fresh air, which was one thing, and they had got a fresh medical school; and if they wanted to complete its curriculum why did they not do so? They had the material. They had an infirmary with 100 beds, and they had men who were proved surgeons and physicians, pathologists and bacteriologists. Why were they waiting? He could not tell. For money? That was not

difficult. There was no place in Britain where they could not get money if they would bestir themselves to get it. He did not think there was any difficulty in regard to the school. If they wished to increase the number of students, surely they would be increased if they completed the school. Once they could show that they could send men to take the diplomas of the Royal College of Surgeons, the charter would come by-and-bye. He hoped they would still send up men to Glasgow; they had always had a considerable number of Welshmen, and Welshmen were represented on the professorial staff. They had Professor Henry Jones in the Chair of Moral Philosophy. He did not know whether the successor of Lord Kelvin was a Welshman, but he had been in a Welsh college. Dr. W. Sheen hoped the time would not be long in coming before the medical school would be completed. He did not think the conversation between Principal Griffiths and Sir William Macewen that day would be without result.

THE PERILS OF UTERINE VENTRIFIXATION.

There is an impression gaining ground that abdominal hysteropexy, hysterorrhaphy, or ventrifixation is too freely performed, without any due consideration of consequences, whilst after-histories are, to say the least, much neglected. Two bad results were reported at a recent meeting of the Berlin Obstetrical Society;[1] the proportion of cases of the same kind which escape notice or publication is difficult to compute. Bröse spoke of a case of removal of a tumour of the left ovary in June, 1902. As the serous coat of the back of the uterus was much damaged during the separation of adhesions in Douglas's pouch, the uterus was sutured to the anterior abdominal walls by two catgut threads passed through the round ligaments. On November 5th, 1903, it was necessary to induce premature labour on account of general anasarca, dyspnoea, and albuminuria, whilst the abdomen was extremely distended. The cervix lay abnormally high, the introduction of bougies proved very difficult, and the presentation could not be defined. The labour lingered on for 48 hours, though the pains were strong, Porro-Caesarean section was therefore performed. The fundus uteri was found at the level of the umbilicus, whilst the posterior wall of the uterus rose up behind the normal upper limits of that organ as high as the ribs. The uterine contents were removed, consisting of a pair of living one-yolk male twins, which, together with the single placenta and liquor amnii, weighed 16½ lb. This great heavy mass lay in what was, accurately speaking, a diverticulum in the posterior uterine wall. The uterus itself was much distorted by a thick cord over 3 inches long, which ran from immediately below the left round ligament to the anterior parietes, representing the former operation. The traction of this cord had prevented the evolution of the anterior wall of the uterus. No trace of the fixation could be discovered on the right side, a fact to be remembered, as it shows that when the degree of adhesion after ventrifixation is unsymmetrical a very dangerous rotation of the uterus on its long axis towards the side where the adhesion is strongest may occur, and the adhesion on the opposite side will be torn through, or will atrophy so that the uterus will at the best be much displaced, an evil in itself, independently of the dangers of a subsequent pregnancy. The patient died. Advanced parenchymatous nephritis, and right hydronephrosis with dilated ureter were detected. In discussing this case Henkel reasonably observed that the left adhesion partly represented the pedicle of the ovarian tumour, and Opitz spoke in the same sense. Odebrecht referred to 18 cases of ventrifixation where in 17 the uterus rose during a subsequent pregnancy without any trouble up to the epigastrium. In one, however, he had to perform Caesarean section six years after he had fixed the fundus by three silkworm-gut sutures to the parietes: in these days, he added, he only inserted one suture. The patient died on the third day. In this instance there was no rotation of the uterus, but the bands of adhesion drew down the anterior aspect of the cornua to within a hand's breadth of the symphysis whilst the uterus reached to the liver, in other words the evolution of the anterior uterine wall had been greatly interfered with. Mackenrodt objected both to abdominal and to vaginal fixation. He preferred to perform a "vesico-fixation," simply suturing the serous coat of the uterus to the peritoneum on the contiguous surface of the bladder; that procedure was, he thought, quite sufficient. Strassmann confessed to some bad results in cases of pregnancy and labour after ventrifixation under his own observation, but "only very few" and he added a case of dystocia from this cause reported by Milaender, of Dorpat. Several gynaecologists of repute confess to "a few" cases of difficult labour after uterine ventrifixation. What must be the truth about the results of the practice of less experienced operators, especially in countries like our own, where it is not nearly so easy to trace hospital patients after discharge as is the case in Germany? Lastly, no case which has simply recovered from the operation should be reported as "cured." It may, as experience has proved, prove highly beneficial or, as above demonstrated, it may not. A long after-history is therefore essential.

[1] [illegible] No. [illegible], p. [illegible].

ANTIPYRIN AND PURPURA.

An instance of sudden death during pregnancy where the patient had taken a large dose of antipyrin and had a purpuric rash is reported by Dr. Rudaux.[1] Unfortunately the patient's decease occurred quite unexpectedly within a few hours after her admission into a hospital, so that the blood was not examined. She was a needlewoman, aged 22, in the sixth month of her first pregnancy. Six days before admission she had a bad chill and lumbar pains after getting her feet wet. On the next day the midwife prescribed four cachets of antipyrin, which the patient, through a misunderstanding, swallowed all at once. She took six more at intervals on the third day. As little urine passed triticum repens was prescribed. On the fourth day a doctor was called in; he found the patient suffering from intense sacral pains, and gave salophen and Dover's powder. On the morning of the fifth day the patient seemed better, lactophenine and exalgine were prescribed, with plenty of milk; but in the evening she was much worse, an ecchymosis was noted in the right conjunctiva, and there was slight delirium. On the sixth day, as the patient was very ill, she was admitted into the Hôpital Beaujon at 10 p.m. She was in full possession of her faculties. The body was covered with a rash such as is seen in certain subjects after strong doses of antipyrin. Subconjunctival haemorrhages, bright red and elevated, were noted in both eyes on the inner side of the cornea. The abdomen and back, as well as the thorax below the mammae, were covered with purpuric spots of different sizes. The tongue and teeth were black, the gums injected, the pulse 120, the temperature 99°. The pregnancy seemed progressing normally. A careful examination of the blood was to be made on the following morning, but the patient after free dry-cupping to relieve the anuria, which was complete, died suddenly at 3 a.m. Both layers of the pericardium, the peritoneum, and the mucous membrane of the stomach and upper part of the duodenum showed abundant ecchymoses. The uterus, fetus, and placenta were quite normal and free from bleeding points, though there was a very large subserous haemorrhage in Douglas's pouch. In the kidneys the haemorrhages were limited to the connective tissue under the capsule. Rudaux is doubtful about the precise interpretation of the purpura. It was not purpura simplex, as there were marked visceral haemorrhages, nor infective purpura haemorrhagica, as there was no fever. Werlhoff's disease, rejected as a special variety by Dieulafoy, is never so severe as was this case, which might have been an instance of Hayem's medicinal or toxic type classed under deuteropathic purpuras. As for the cause, antipyrin poisoning seemed

[1] [illegible] October, [illegible].

very likely, as there was a characteristic rash, and haemorrhages have been observed in undoubted cases. Auto-infection of pregnancy suggested itself, as the pains preceded the administration of the drug. Rudaux puts forward a hypothesis that the heavy dose of antipyrin produced toxic effects in a woman whose liver acted badly owing to the biliary stasis due to pregnancy. The case is of much importance to the toxicologist: many ladies take quantities of antipyrin without medical advice, whilst the causes of sudden death during pregnancy are often subtle and may lead to judicial inquiries.

PRE-ANAESTHETIC SURGERY.

Among the "human documents" concerning the discovery of anaesthesia there is none of more thrilling interest than a letter in which Dr. George Wilson gives Sir James Simpson an account of his sufferings when undergoing amputation of a limb in the days before chloroform or ether. Speaking of the operation, he says: "Of the agony it occasioned I will say nothing. Suffering so great as I underwent cannot be expressed in words.... The particular pangs are now forgotten; but the black whirlwind of emotion, the horror of great darkness, and the sense of desertion by God and man, bordering close upon despair, which swept through my mind and overwhelmed my heart, I can never forget." Worse than the operation itself was the period of waiting for it, when Dr. Wilson says the patient felt like a condemned criminal preparing for execution. The full text of the letter may be read in the *Practitioner* for October, 1896. With it may be compared the following description of an amputation before the days of anaesthesia, unearthed by a writer in the *New York Medical Journal* from a book by Dr. W. Beach of New York, which was published in the early Forties. It should be stated that the description is quoted by Beach from a newspaper (bearing date July 21st, 1841), but evidently he did not think it overdrawn: "The next case was an interesting one of white swelling, for which the thigh was to be amputated. The patient was a youth about 15, pale, thin, but calm and firm. One professor felt for the femoral artery, had the leg held up for a few moments to ensure the saving of blood, the compress part of the tourniquet was placed upon the artery, and the leg held by an assistant; the white swelling was frightful. A little wine was given to the lad; he was pale, but resolute; his father supported his head and left hand; a second professor took the long, glittering knife, felt for the bone, thrust in the knife carefully but rapidly: the boy screamed terribly: the tears ran down the father's cheeks. The first cut from the inside was completed, and the bloody blade of the knife issued from the quivering wound; the blood gushed by the pint; the sight was sickening, the screams were terrific; the operator calm. Again the knife was thrust in under the bone: the terrific screaming was renewed; one or two picked up their hats to leave; scream on scream, and again the bloody blade of the knife issued from the wound, and was laid aside. The flesh quivered, and the boy cried agonizedly, 'Oh, father! father! father! Oh, mercy! mercy!' The flesh was thrust back with a small piece of wet linen, the divided ends of the quivering muscles were stopped from blood with a sponge, the saw glistened in the hands of the operator: the father turned as pale as death: the boy's eyes fastened on the instrument with glazed agony: grate[illegible] once, twice, and the useless limb, from the toe to the centre of the thigh, was quickly dropped into the tub under the table. At this moment the father's eyes closed, his child's hand dropped from his grasp, and he reeled from the table, and fell senseless on the floor. The arteries were taken up, cold compresses only were applied: one or two stitches in the flesh, one or two more screams, and the boy was taken into an adjoining room and laid on a bed. The whole took less time than the details have occupied in writing." Beach, who, it must be remembered, held a brief against operation for white swelling, says that such displays of surgical art are fraught with alarming consequences, and by way of proof calls an unnamed poet as witness to the fact that

> [illegible] of blood the human feelings seal

It may be admitted that, although pre-anaesthetic surgery did not necessarily harden the hearts of surgeons, it could hardly have tended to soften their manners. The sight of an operation nearly made Simpson himself abandon the profession. Among the incalculable gains which anaesthesia has brought to surgery, not the least is that it has made the practice of the art possible to men of delicate sympathy who could not brace their nerves to the infliction even of salutary suffering on a sentient fellow creature.

HISTOLOGICAL STUDIES ON CEREBRAL LOCALIZATION.

The results of an investigation by Dr. A. W. Campbell on the relation of structure to function in the cerebral cortex has been communicated by Professor Sherrington to the Royal Society. The groundwork of the research was the form of the nerve cells and the arrangement of the myelinated fibres in a series of normal brains, human and anthropoid, but confirmatory evidence was obtained from pathological material. Five distinct cortical fields were described in the paper, one area immediately in front of the Rolandic fissure and another immediately behind it, with the occipital, temporal, and limbic lobes. The first, named the precentral area, consisting of the ascending frontal convolution and a small adjacent part of the paracentral lobule, was quite clearly distinguished, both from the so-called post-central area, and from the rest of the brain by a very great wealth of nerve fibres and by the presence of the "giant cells" of Betz or "ganglionic cells" of Bevan Lewis. This area, it was to be believed, is purely motor. An area similar to the pre-central area in the human brain was found in two chimpanzees and one orang, which moreover precisely coincided with the motor field delimited in these animals by Sherrington and Grünbaum with the method of unipolar faradization. In two cases of amyotrophic lateral sclerosis, moreover, in which the pathological changes are limited to the motor side, these giant cells had quite disappeared from the pre-central area while the post-central showed no recognizable change. In six cases of amputation of a limb, chromolytic changes were found in the pre-central areas closely corresponding with those mapped out in the ape by faradization. The histological characters of the post-central area differed markedly from the motor type, and corresponded with the sensory type, as seen in the visual and auditory areas, suggesting the sensory function of this area. This suggestion was borne out not only by the previously-known observations that the area is silent under faradization, and partial ablation produces no interference with movement, and that its fibres, like the spinal sensory fibres, myelinate early, but also by Dr Campbell's observation that in three cases of tabes (a sensory disease) cell changes were found concentrated in this region, while similar post-amputation changes were found in corresponding parts of the post and pre-central areas. These observations certainly seem to crystallize the hitherto somewhat formless views of the sensory function of the Rolandic cortex and the suggestion made in the paper that the fibres connected with the convolutions on each side of the fissure of Rolando run so closely together in the subcortex that a lesion of one would almost of necessity affect the other might be held to fairly well satisfy the clinical facts at least, bearing on this point. Similar histological evidence was advanced tending to negative the idea that the gyrus fornicatus is concerned with common sensation, to show that vision was represented solely in the occipital lobe (not at all in the angular gyrus), hearing in the temporal and smell in the limbic lobe. An attempt was made to differentiate the visual area into a visuo-sensory part near the calcarine fissure and a surrounding visuo-psychic part, the latter corresponding in its function to that previously ascribed to the angular

gyrus. In the temporal lobe a lower audito-sensory centre was located in the small transverse temporal gyri and a higher audito-psycho area in the posterior part of the first temporal gyrus, corresponding indeed with the well-recognized centre for word-hearing, but it was found that this centre had a precise counterpart in each hemisphere of the brain. In regard to the latter fact, a case was quoted (one of the two on record, as it was said) of complete, uncomplicated, and lasting word-deafness, verified by necropsy, in which the lesion was bilateral. It will doubtless appear to many that the new evidence in relation to the special senses is less weighty than that advanced on the cortical representation of motion and sensation, but in any case the method promises to make much more precise, and therefore more practically useful, our knowledge of the function of the most complex organ of the body.

THE EXTERMINATION OF THE MOSQUITO.

Reference has already been made in the British Medical Journal to the general Convention on Mosquito Extermination, held in New York on December 16th, 1903. Further particulars of the meeting have since been published in the New York *Medical News*. Professor John B. Smith, State Entomologist of New Jersey, read a paper, entitled How a State Appropriation may be Used. In it he described the work done during the past season by the aid of the first State appropriation for mosquito work ever made in the United States. During the summer of 1903 seven men were kept in the field, distributed well over the State. A total of thirty-three species of mosquitos were collected, and thirty-one of these were bred. Professor Smith considers it legitimate for a State to make mosquito surveys and to give general advice, leaving the work of extermination to local communities. Money should first of all be spent in study, so as to avoid the loss of public confidence which would follow mistaken executive measures. Mr. Walter C. Kerr gave an interesting account of What a Rural Community Can Do. The community was on Staten Island, and included an area of some two square miles, embracing both marsh land and upland. In 1898 subscriptions were secured, and twenty-five ponds were covered with petroleum oil Later the ponds were drained. The oiling was temporarily effective and the drainage permanently so. The greatest difficulty met was in dealing with such marsh lands as could not be drained. Plans to keep out sea water from these by tide gates were under consideration when annexation to New York City checked the proposed municipal undertaking. Dr. E. Porter Felt, State Entomologist, Albany, New York, discussed the question "What New York State Ought to Do." He deemed it essential that practical work, particularly where undertaken on a large scale and when requiring to be extended over a long time, should be based on scientific principles. He said the needs in the neighbourhood of New York were the greatest, for within a radius of 25 miles there were some 200 square miles of marsh land, about equally divided between New York and New Jersey. A biological survey of swamp and marsh areas, particularly near the large cities, was needed. The problem could, perhaps, be studied sufficiently if there were available for four or five years an annual appropriation of 3,000 to 5,000 dollars. Mr. Weeks said mosquito extermination was essentially an engineering problem; the engineer might best determine and carry out plans to get rid of the breeding places, often involving the redemption of thousands of acres of marsh or saturated acres of vast value. Hitherto engineering had been for and not against the mosquito. Breeding places had almost universally been caused by engineering works. This statement, he said, applied to highway, railroad and landscape engineers. The result had often been the depopulation of valuable sections by malaria and its carrier, the *Anopheles*. He thinks "economic engineering" is a better term, for the work covers a wide range besides simple extermination —the utilization of large areas for agriculture and even for habitation, and the improvement in living conditions of a vast population. In the course of the conference a resolution was adopted providing for a committee of ten, to be named by the chair, to consider and report on permanent organization, such committee to have power to promote legislation, to arrange for the publication of the proceedings of the conference and to call another conference whenever it should see fit.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

We are glad to see that the need of a better ambulance service for street accidents and casualties in London, to which we have frequently directed attention in the British Medical Journal, is again receiving the consideration of the public and the press. If progress is to be made, and the metropolis to obtain the same facilities in the prompt handling of street casualties which are already provided in large provincial towns, some steps must be taken to focus public attention and to bring pressure to bear upon the authorities concerned. It is pretty clear that the question is of such magnitude that private organizations, however admirable, cannot adequately cope with it. Moreover, the police, with whom rests the first dealing with street accidents in London, have shown a lack of initiative, and a want of sense of proportion and of the extent and nature of modern requirements. That only three horsed ambulances should exist under their supervision in the metropolis, and these not readily available, and sometimes not available at all, indicates that the police are either unwilling or unequal to undertake the provision required. The Metropolitan Asylums Board has dealt in an admirable way with ambulance arrangements in the case of infectious diseases, and has wisely agreed to utilize its conveyances for transport of persons so affected from and to places other than the Asylums Board's hospitals. But the Asylums Board have, we understand, decided not to deal with similar accommodation for the purposes of non-infectious cases, street accidents, casualties, etc. It will be remembered that in December, 1902, the question of a complete ambulance service for London was brought before the London County Council by Sir W. J. Collins, and he presented a report dealing fully with the existing system and its deficiencies. As will be seen by a letter published on another page, it is proposed to utilize the approaching County Council election to be held next month for ventilating the question, and candidates will be invited to say whether they will, if elected, use their influence with the Council to secure that London shall no longer be deprived of these safeguards against unnecessary suffering and injury arising from street casualties which are already in daily operation in other large towns.

URGENCY CASES AND NO BEDS.

The ill-judged attack by the Southwark guardians upon Guy's Hospital, with which we dealt last week, has drawn forth a very crushing retort in the columns of the *Guy's Hospital Gazette*. It is pointed out that the hospital is a voluntary institution, not built upon the concertina principle, but with a definite number of beds, and that, though it exists in Southwark, it does not exist, as the guardians seem to think, for Southwark alone. Such as it is, it is doing its best with intelligence and to the utmost limits of its resources. Out of these resources it cares for some 8,000 in-patients, of whom two-fifths come from the immediate neighbourhood of the hospital, while the proportion of the out-patient work done for Southwark is equally great. In return for this Southwark charges it some £3,000 a year in local rates, while only £277 was received in subscriptions from Southwark last year towards the £90,000 odd which the hospital required for its upkeep, and less than £1,500 from all South London, including Southwark. Further than this, the Southwark guardians do not even pay the 2s. a day for Poor-law patients which by law the hospital is entitled to receive. The balance of debt against Southwark is therefore heavy, but instead of being grateful the guardians launch an unjust charge with such noise and violence as to deceive a large section of the press into accepting it as true. The duty of providing for the sick and necessitous is laid by law upon the guardians, and the particular case which has

given rise to so much talk was a simple one with which they should have been able to deal perfectly easily, and as a matter of fact they found they could do so when they found they must. The hospital will continue to send to the workhouse cases which the hospital cannot accommodate, and which need shelter and medical attention, and if the guardians neglect to deal properly with them it will rest with the hospital to refer their dereliction of duty to the Local Government Board.

SMALL-POX AT WORK.

In a recent issue the *Yorkshire Herald* gives one or two examples of the doings of small-pox in York—examples which can be abundantly paralleled wherever small-pox prevails. A case occurred in a house in Tower Street, and the patient was removed to hospital. Nine inhabitants remained, of whom 6 were revaccinated and 3 were not—a grandmother, her daughter, and a grandchild. The daughter was removed to hospital eighteen days later suffering from small-pox, and the child a week afterwards. The latter died. At the commencement of the outbreak at York Workhouse 3 men were removed to the Small-pox Hospital and 21 remained. Twenty of these accepted revaccination, but the twenty-first refused. In fifteen days he was found to be suffering from small-pox, and was taken to hospital, where, after two days, he died. From a lodging-house in Skeldergate 3 cases of small-pox were removed to hospital in October. Seventeen inmates were revaccinated and 7 refused. The 17 have remained free from infection, but nearly all the 7 have been attacked. To every one acquainted with the doings of small-pox these occurrences are the mere commonplaces of experience, but to people who have to take their information second-hand, and who, from the amount of noisy vituperation that they hear against vaccination may have loosely come to the conclusion that there are two sides to the question, such illustrations of how small-pox differentiates between the unvaccinated, the once vaccinated, and the revaccinated must be very striking, and it is not surprising to hear that in York many parents have discarded their conscientious objections, and have submitted their children to vaccination. As has often been said before, there is no schoolmaster like small-pox, but the education so provided has to be paid for at a terrible price.

HORSEFLESH FOR CONSUMPTIVES.

THE Director of the General Administration of the Assistance Publique in Paris has recently appointed a Committee to investigate the use of horseflesh in the form of raw minced meat in the treatment of tuberculosis and other diseases. Among the members of the Committee are Professor Debove, Dean of the Paris Faculty of Medicine; Dr. Faisaus, Member of the Supervising Council of the Administration; Dr. Letulle, Physician to the Boucicault Hospital; and Professor Barrier of the Veterinary School, Alfort. The reasons given for the appointment of the Committee are that raw minced meat is more and more frequently prescribed in certain Paris hospitals for patients suffering from tuberculosis and other diseases; that inasmuch as the meat for this purpose has to be taken from the prime parts, the other patients and the hospital staff have necessarily to be content with inferior portions, and that horseflesh is cheaper than beef or mutton, and seems in the raw state to have advantages in regard to the medication referred to which have induced several hospital physicians to suggest that it should be used for the purpose. The report of the Committee will be awaited with interest.

THE QUAIN SOCIETY.

THE Quain Society of University College, London, has for its object to promote interest in the study of anatomy, its history, progress, and recent advances. It was, we learn, founded by Mr. Donald Armour, who, from five years' experience as senior demonstrator of anatomy at University College, was impressed with the lack of interest and knowledge of the subject, beyond the amount required in the class-room and for examinations ordinarily displayed by students. The Society was started two years ago, and its title was no doubt chosen in memory of the late eminent professor of anatomy whose name is still so well known as the foundation author of that much-edited book, *Quain's Anatomy*. The Society began in a small way, but so much interest was taken in it by the students that last October the membership was thrown open to every student in the Medical Faculty of University College. It has for its officers a President (Mr. Armour), a Treasurer-Secretary, and a Council of seven members. Its members are honorary and ordinary, the former being persons who have distinguished themselves in the study of anatomy. Meetings are held every second week, at which papers are read and discussed, and at the meeting on Monday next, February 8th, at 8 p.m., in the Anatomical Theatre at the College, Sir Victor Horsley, F.R.S., will read a paper, illustrated with photographs and lantern slides, on the termination of the fillet in the optic thalamus. Visitors are invited to attend this meeting. Mr. Donald Armour is very much to be congratulated on the success which has attended his scheme. Human anatomy does not make the same strong appeal to the student of to-day that it did to the best of his predecessors of a century ago. To most thoughtful students the problems it presents seem less interesting than those which its daughter, physiology, is seeking with so much energy and enthusiasm to solve. All the more credit, therefore, to a teacher who can so stimulate the interest of students as to make them anxious to join a society for their discussion.

MEDICAL WOMEN IN THE UNITED STATES.

THE New York *Medical Record* says there is little or no prejudice against female medical practitioners in the United States. Some of them are prosperous members of the community. Our contemporary quotes from a newspaper article concerning the Women's Medical College of Pennsylvania. In order to ascertain what becomes of its graduates, an inquiry was instituted, and an effort was made to trace the careers of 244 of them. Seventy-six women gave information as to their professional earnings. Twenty-four stated that they made from £200 to £400 a year: 20 from £400 to £600, 10 from £600 to £800, 5 from £800 to £1,000; 3 as much as £1,600, and less than £3,000; while 4 gave their income at £3,000 to £4,000 a year. On the other hand, 12 stated that they made less than £200 a year. The average income was found to be about £380.

MEDICAL PRACTICE BY FOREIGNERS IN SPAIN.

THE question of medical practice in Spain by holders of foreign diplomas has recently formed the subject of animated debates in the Spanish senates. The discussion has so far led to no definite conclusion, but from the reports that have been published it may be gathered that a foreign doctor can at present practise his profession in Spain without the necessity of submitting to any further examination.

DR. HENRY KENWOOD has been appointed Professor of Hygiene at University College, London, in succession to the late Professor W. H. Corfield. Dr. Kenwood has been actively engaged in the teaching of hygiene and public health for the past twelve and a-half years, and six and a-half years ago was appointed Assistant Professor.

DR. D. J. CUNNINGHAM, Professor of Anatomy at the University of Edinburgh, and Chairman of the Anthropometric Committee of the British Association, and Sir Lauder Brunton, M.D., F.R.S., gave evidence before the Physical Deterioration Committee on January 25th. At the meeting of the Committee on January 28th the witnesses who gave evidence were Mrs. H. G. Close, Mr. J. B. Atkins (London editor of the *Manchester Guardian*), and Dr. Edward Malins (President of the Obstetrical Society). On February 1st Mr. J. Gray, Secretary of the Anthropometric Committee of the British Association, gave evidence.

The Hunterian Oration before the Hunterian Society will be delivered by Dr. J. F. Woods at the London Institution, Finsbury Circus, at 8.30 p.m. on Wednesday next, February 10th. The subject of the oration, which is open to members of the medical profession, is the psychic side of therapeutics.

Dr. Horace Dobell, of Parkstone Heights, Dorset, formerly of Harley Street, London, has presented £500 in Consols to the Royal College of Physicians, London, for the promotion of original research into the ultimate origin, evolution, and life-history of bacilli and other pathogenic micro-organisms. The conditions are that the President and Censors of the College shall select a lecturer once in every two years, who shall give a lecture recording original researches on the above subject, made by himself and others, and that he shall receive a fee of £50 for so doing. These lectures are to be continued biennially so long as a sufficient amount of the £500 and its accumulated interest remains. The first lecture will be delivered in November, 1904, by Dr. Klein.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

The Opening of Parliament.—It is many years since a new session of the two Houses of Parliament has excited so much interest as this session of 1904. Members began to arrive at midnight on Monday so as to secure their seats for Tuesday's proceedings. Mr. Macdona, who arrived on the stroke of twelve, secured the somewhat questionable distinction of first place, as he has in previous years. Several others arrived soon after, and must have passed the night in the precincts of the House, as the rule is that after taking a place the member should not leave till the House opens. Many arrived between 7 and 8 in the morning, and by midday the green benches were well covered with cards bearing the names of members. The Speaker took his seat in full State robes at a quarter to two, and was soon after summoned to hear the King's Speech in the House of Lords. Followed by the occupants of the two front benches Mr. Speaker proceeded in State to the Bar of the Upper House, while the faithful Commons found places near him or in the north gallery of the gilded chamber. The red benches of the peers' chamber, filled with peers in their robes and peeresses in court dress brilliant with diamonds and gems, made a splendid spectacle. The throne occupied by the King and Queen was surrounded by the chief officers of state, while the diplomatic corps and the judges grouped on the woolsack made a varied-coloured foreground. The King and Queen looked remarkably well, and the speech was delivered with great dignity and distinctness. Their Majesties then bowed and withdrew, the faithful Commons found their way back to their own chamber, and the bright-coloured assemblage rapidly dispersed.

The Speech from the Throne.—This year the King's Speech was longer than usual, but the most noteworthy feature and the one which gave rise to most comment was that two-thirds of it was devoted to foreign affairs. Only a slight reference was made to the financial position and the possibility of lessening the burden imposed on the resources of the country. It was hinted that a diminution might be possible in connexion with the army and navy problem. The list of promised legislation was very short and to those interested in social reforms disappointing. First came the question of destitute aliens, then licensing reform, third the promised reform of the system of valuation for local and Imperial taxation, and then Scotch education and a Labourers and Housing Bill for Ireland. These are to constitute the principal measures for the session. In the secondary proposals, however, were mentioned measures for the amendment of the law relating to public health and for dealing with the hours of employment in shops. These will necessarily be of medical interest, and the first named, it is hoped, may turn out to be a comprehensive measure. Besides the amendment of the Public Health Acts in many important particulars, the opportunity arises in a session not overburdened with legislative proposals to attempt some codification of the law. It is felt in many quarters that the time is ripe for such action, and that the position of all health officials should be satisfactorily determined as to tenure of office and qualifications. The almost universal uncertainty which prevails as to how long this Parliament is to last, makes the enactment of any of the measures mentioned in the gracious speech very problematical. The much-regretted absence of the Prime Minister at the opening of the session added greatly to the feeling of uncertainty, and parties as a whole as well as members individually seemed to have more eyes for the constituencies than for the prospects of legislation.

Private Members' Legislation is always much talked of in the opening days of the session, and this year, in spite of doubtful prospects as to a general election, members are as active as ever in seeking places for their pet measures. Between 100 and 200 names were put down for the ballot on Tuesday, and by Wednesday night, when the list was closed, no less than 362 names were down to ballot for Bills or motions. The first dozen names drawn will practically secure all the chances of getting any discussion, to say nothing of passing their measures. There was much talk in the Lobby of two measures of medical interest—one a Bill for the Registration of Nurses and the other a Bill for Compulsory Revaccination. If either gets a good place a most interesting and important debate will be certain on the second reading; and if the second Bill comes on, the Government would be forced to define its position as regards vaccination generally. The Revaccination Bill is introduced by Sir J. Batty Tuke. It provides for the revaccination of all children between the ages of 12 and 13, except those who obtain certificates of exemption in the way prescribed by the Act of 1898 and those who may be excused on medical grounds. It leaves the Local Government Board to decide all administrative details. The Bill is backed, in addition, by Sir Michael Foster, K.C.B., the Right. Hon. R. B. Haldane, K.C., Dr. Farquharson, Captain Jessel, Mr. Ian Malcolm, Mr. Heywood Johnstone, Mr. B. L. Cohen, Mr. Edward R. P. Moon, Sir Charles Dalrymple, Bart., Sir John E. Dorington, Bart., Sir Andrew N. Agnew, Bart., Sir Richard C. Jebb, LL.D., Mr. E. C. Thompson, and Mr. T. P. O'Connor. The text of the Bill will be published in a subsequent issue. There is a group of members also pushing a Bill for paying compensation to owners of animals slaughtered on account of tuberculosis by public authority. But the great groups of members balloting are those connected with the Miners Eight Hours Bill, the Deceased Wife's Sister Bill, the Rating of Machinery Bill, and Bills to enable women to serve on local authorities. This last question has received great impetus from the recent Education Acts, and is sure in some form or other to be brought before the House.

The Deterioration of National Physique which has been so fully discussed in the British Medical Journal, and brought so prominently before the public by the action of Dr. Farquharson, excited much interest in the lobbies. It cannot well be treated by way of any Bill, but a day may be obtained for a discussion in the House, and Sir John Gorst intends to move for a Select Committee to consider and report on the best methods of ascertaining and recording the health and physical condition of children in public elementary schools.

The Course of Business.—At the commencement of the session the first business is to vote the Address in reply to the Royal Speech. In these days this occupies ten days to a fortnight, and is the opportunity for criticizing the general conduct of the Government in home and foreign affairs. This year there are some twenty-six amendments to the Address, and consequently a fortnight at least is likely to be occupied in the discussion. Mr. Balfour's absence has necessarily postponed amendments which require his presence for their consideration, and on this account Mr. John Morley's amendment on the trade policy of the country has been postponed till next week, when the Prime Minister is expected to be in his place. Mr. Robson will proceed this week with his amendment on the conduct of the war, and this will no doubt call forth some remarks on the army medical service and the loss of life from preventable disease. There will later on be a full-dress debate on the Education Acts, and so altogether it looks as if the third week of the session would be occupied with the Address, and then will come the introduction of Government Bills and the consideration of Estimates.

Scotland.

Education and Medicine.

At a meeting of the Association of Teachers in the Secondary Schools of Scotland held at Aberdeen on January 22nd, Professor Ogston delivered an address on Education and Medicine. After referring to the fact that he had taken a share in the labours of the recent Royal Commission on Physical Training in the Schools of Scotland, he said that in his early days the ventilation of class rooms, soundness of constitution and strength of physique were little thought of in regard to education. Happily for the children of the present day such times were past in Scotland. The Education Act of 1872 had created a body of teachers with enlightened views, guided by an Education Department with wise and able men at its head. It was now recognized that mental culture was, in the great majority of instances, incompatible with an unsound body, and that bodily deficiency, to a greater or less degree, existed in considerable numbers of school children. In addition to those defects and deformities that struck the eye, it had been observed that, among the poorer classes and in the larger towns, conditions of disease existed in latent forms, and especially that a state of malnutrition, approaching to semi-starvation, had to be dealt with as a factor adverse to proper education.

Deterioration of Physique among the Young.

Among the points which were brought under the notice of the Royal Commission was the deterioration of the physique of the young, particularly in the large towns. Nearly every witness had observed it and could testify to its reality, though with very few exceptions only in general terms. They failed to obtain anything like conclusive evidence that a general racial deterioration was going on in these islands, although such evidence was exhaustively sought for in all possible quarters. All that could be concluded with anything approaching to certainty was that in the poorest and lowest strata of the population of the larger towns a certain amount of degeneration was taking place among the children owing to insufficient and defective feeding, disease, intemperance of parents, unhealthy occupations and dwellings, inadequate clothing, and unwholesome environment generally. It became apparent that, at any rate as regards Scotland, there were actually no data in existence to enable them to draw any satisfactory conclusions. Under those circumstances, he suggested to the Commissioners that a health census of the school children of Scotland should be taken to such an extent as to furnish a basis, however limited, of incontrovertible facts. A census taken by Professor Hay and Dr. Leith Mackenzie showed that there was an amount of ill-health vastly in excess of what had been anticipated among young people attending school, and that a sensible proportion of these urgently required the supervision of skilful medical advisers co-operating with the teachers. Equally striking was the proof which it furnished that there was a vast amount of underfeeding, amounting almost to semi-starvation, among the young, conjoined with inadequate clothing and unhealthy homes.

A Universal Health Census Required for Schools.

The report of the Commissioners proved the urgent need for the institution of a census of the health of school children being taken supplemented at intervals by a renewed inspection into their fitness for study and exercise. In all educational institutions a properly-conducted health census would throw much light upon what was now a subject little known or thought of—namely, What amount of study is each child by itself, and children as a whole, capable of undergoing with benefit to its mind and without damage to its health? Overpressure of individuals and classes existed at present, and could be recognized by the expert. In the universities he could speak as to [illegible] with some knowledge. In the medical schools, for instance, they were forced on by pressure from the General Medical Council who had the power, and did not fail to exercise it, of keeping them up to opprobrium unless the exigencies of their examinations satisfied them. Most of their candidates [illegible] as a rule, men of exceptional ability, who remained [illegible] very excellent prize lodges of which the average student ought to be expected to undertake; and the result was that the more intense the [illegible] required at their exams, the more hopelessly were their examination papers, the more efficient as [illegible] were considered themselves, and were esteemed to be by others. Forty years ago numbers varying from three to ten of Aberdeen medical graduates annually used to obtain highest honours on taking their degrees, and their after-careers showed their worthiness of them: but now in the last ten years only six graduates in all had obtained this distinction. The blame lay not with the student but with his teachers. He had long observed, and often said, though never till that day in public, that it was impossible nowadays for a medical student of average ability and physique to pass through his curriculum and obtain his degree in the average time without either, on the one hand, being rejected in some of his examinations, or, on the other, over-studying so as seriously to risk his health and overtax his constitution. Once a systematic health census was introduced into schools it would enable a standard of capacity to be approximately fixed, and over-pressure would be unmistakeably recorded in the deteriorating health of the pupils. When aided by the co-operation of the teacher, medical inspection constituted the most promising method of enlisting attention to defective or injurious feeding of the young. The malnutrition of school children which existed was a subject of of high importance to the race, and one to which the Commissioners devoted much of their attention.

Sugar-Gluttony.

Professor Ogston then referred to sugar-gluttony, which was a growing evil among the children in towns. He had had many years of medical experience among children, who, though not actually delicate, were not of the strongest constitution, and he was persuaded that to such children the present-day gluttony of sugar was a real and spreading evil. There were some children in whom the tendency to sugar-gluttony had become so strong that their infatuation for it resembled the craving of the drunkard for his dram. Such saccharomaniacs showed early disappearance of the teeth from decay. Edentulous subjects were to be found in large numbers among adolescents, particularly in towns where, in contrast to what was the case a generation ago, there had sprung up a gigantic trade in all kinds of sweet-stuffs, so cheap as to be within the means of all, and of a nature to constitute a serious danger to the rising generation: and he would not be surprised if future observers were to place the evils of sugar-gluttony on a pedestal as conspicuous as the drink question, in causing deterioration of individuals and races. It would be of no small benefit if measures could be devised to mitigate this danger to school children.

The Medical Examination of School Children.

Speaking of the physical training of school children, he said they had arrived at a juncture when the co-operation of teaching and medicine could no longer be delayed without very obvious disadvantages to all engaged in the former of these professions. Education could not be bestowed with full effect upon those who were physically unfitted to receive its benefits; and many young people in the school period of their lives were so unfitted. The detection and removal of these impediments could be attained only by a medical examination. This ought to be carried out with great care and minuteness at the commencement of each child's school career, so as to ensure a recognition of actual disease that might be present and unfit it for study, or physical training, or both. Besides evident deformities, it would reveal certain defects of sight or the like which prevented its keeping pace with its fellows in receiving mental instruction, and which might be at once corrected or gradually remedied. It would also reveal the existence of any condition of malnutrition or diseases of debility such as glandular or throat affections, defective or decayed teeth, poverty of blood, etc., which might require prolonged medical observation, or the attention of the parents being drawn to their existence and to the proper means of rectifying them. Lastly, it could be utilized to direct the attention of the parents, or of benevolent organizations, to insufficient or unsuitable clothing, want of cleanliness, and the like. For the due management of the last two classes of hindrances to education, it would be of inestimable benefit that the medical examiner should be aided by lady inspectors. These officials would collect what neither teachers nor doctors could ensure. After the initial inspection of the scholar had secured a full and full record of their capabilities, it should be repeated once a year during the whole period of education. The earliest medical inspection would constitute the surest means of lessening or eradicating the neglected minor ailment that a better children's education, and which often

obstructed both mental and bodily growth and development, besides leading to the production of a stunted and imperfect adult.

A health census of school children begun and continued on such lines, and extended to every school and educational institution in the country, would, in a very few years, prove a record exceeding in value even anything that could be claimed for the existing decennial Government census of the population, or in its bearing on the health of the community any other statistical record that now existed, with the sole exception of the registration of causes of death and of zymotic disease.

Systems of Physical Training.

Professor Ogston proceeded to deal with the various systems of physical training—military drill, the Swedish system introduced by Ling, and others in which it was attempted to combine what was best in all. In regard to this matter the conviction was forced on his mind that they were as yet far from having reached perfection and finality as to what might constitute a good national system of physical education for Scotland. The military system was unsuitable for young children, though some degree of drill was beneficial and even necessary. The Swedish system, which scientifically was perfection, was also found in practice to be unsuited to the weakness and failings of humanity, and must be modified if it were to be beneficially employed in schools. Modifications and combinations of the existing systems which left room for future alteration and improvement were what was required. The little child, the growing maiden, the robust boy, had to be variously provided for. The recreative element, the sense of pleasure, must not be lost sight of in any system of physical training. Even when a good national system had been worked out the teachers had still to be taught. A better initial instruction in anatomy and physiology as bearing on physical training, and machinery for tactfully helping and correcting the teachers and affording them well-considered guidance among the chaos of rival systems must be provided. No inspector of schools was capable of doing this. It was a task for the specialist, and only the best educated, wisest, and most tactful of specialists could do it so as to counsel and help and mould the body of willing teachers whom the country possessed, in order that they might carry out physical training in such a manner as to make it a really beneficial part of school work.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Variation in its relation to Insanity.

The second lecture was delivered on January 27th by Dr. John Macpherson. Mental defect was defined as a congenital variation, characterized by the partial or complete absence of one or more of the faculties or subfaculties which are recognized as normal in the average human being, and was shown to be commonly correlated with imperfect physical development of some kind. Mental defect was held to depend (1) on an inherent incapacity for perfect development latent in the embryo or germ cells; and (2) upon mental development having been arrested by extraneous causes acting *in utero* or at the time of birth or in early childhood. The first cause was the commoner, and descriptions of conditions illustrative of both were given. Only three things were certainly known regarding anomalous germinal variations: (1) They were capable of being experimentally produced; (2) they were innate in the germ cells, otherwise they could not be regularly transmitted; and (3) they occurred in races with numerical regularity, and generally limited themselves to certain stocks in which they tended to be transmitted.

In the concluding lecture the subject of the various neuroses considered as variations from the normal was brought under review; epilepsy, hysteria, and alcoholism being included therein. The former affected all nationalities without respect to climate or soil or habits, and the probable proportion of the disease in Europe was 1.5 per 1,000 inhabitants. The epileptigenous tendency latent in the population was, however, probably much greater. Hysteria, the most common of all the neuroses, had, like epilepsy, neither geographical or racial limitations; and among the higher species of domestic animals and among primitive races it was probably as common as among civilized mankind. Alcoholism was defined as a variation from the normal, characterized by an abnormal craving for artificial mental states produced by drugs, chief among which was alcohol. In concluding the lecture it was pointed out that the whole theory of variation fell under the mathematical theory of chance, and from that standpoint three questions required to be answered with regard to the affections treated in this and the preceding lectures: (1) Were these diseases constant variations? (2) Did they show a universal distribution throughout the various races of mankind and the higher animals? (3) Were they hereditary? The lecturer claimed that he had answered all these questions satisfactorily in the affirmative. That being so, there remained three alternative explanations of their occurrence. Either (1) their occurrence was fortuitous and due to mere coincidence; or (2) it depended upon the action of the environment; or (3) it was due to genetic variation. It was held that the theory of genetic variation discussed in the first lecture was the only tenable explanation.

Dr. Argyll Robertson.

Dr. Argyll Robertson, the Senior Oculist of the City of Edinburgh, and Surgeon-Oculist to the King for Scotland, who is about to leave Edinburgh to reside in the island of Jersey, was the guest of the Cap and Gown Club at a farewell dinner held in the Royal Hotel on January 30th. Mr. G. W. W. Barclay, F.R.S.E., presided, and nearly 100 were present, including many members of the medical profession. The Chairman referred to Dr. Argyll Robertson's long career and work in Edinburgh, and wished him and his wife long life and happiness. The guest replied.

Edinburgh University Rectorial Disturbance.

A special meeting of the Senatus Academicus of the University of Edinburgh was held on January 30th for the purpose of considering the questions raised by the recent disorderly proceedings at the delivery of the Rectorial Address in the McEwan Hall. The general subject of students' rowdyism and their conduct in the class-rooms was, it is understood, considered, as was also the tone of the language used in the Students' Magazine. It is also understood that the question was actually discussed whether in future there should be a formal address delivered at all by the Lord Rector, and a remit was made to the Principal and Deans to have a full consideration of the subject. The two students who, in dirty fancy costume, made an insulting presentation to the Chancellor and Lord Rector at the close of the latter's address have been rusticated for two years by the Principal and Deans' Committee.

Small-pox in Edinburgh.

In the week ending Saturday (mid-day), January 30th, 9 new cases of small-pox were notified. At a meeting of the Public Health Committee on the afternoon of Tuesday, February 2nd, the Medical Officer of Health reported that since the beginning of the present outbreak of small-pox in December last 43 persons had been removed to the hospital. Of this number, 1 case, after being under observation for a week, was discharged as not suffering from the disease. Three deaths had occurred, so that on the morning of the day named there remained 39 persons under treatment. Of these 34 are males and 5 females. Of the latter, one is an infant of 14 months.

The Glasgow Royal Infirmary.

A fresh effort is being made in Glasgow, the Lord Provost taking a leading part in the movement, to raise the large sum of money required for the complete reconstruction of the Royal Infirmary. It is now 106 years since the Royal Infirmary was opened, and although much of the present building is more modern than that, it is generally admitted to be wise that the present opportunity should be taken to build an entirely new infirmary. Some years ago a fund was raised for the purpose of rebuilding the front block as a Queen Victoria Jubilee Memorial. For that purpose there is in hand a sum of £86,500, but to complete the building £200,000 is wanted in addition. Last week a public meeting was held in the City Chambers at which the Lord Provost presided and commended the scheme to the generosity of the city and neighbourhood. The building of the infirmary originally was a much greater effort than its reconstruction would be now, and he had the greatest confidence that the present scheme would be carried to a successful issue. Appropriate resolutions were passed and a committee appointed to promote the special building fund, towards which the Lord Provost had the pleasure of announcing that a few individual citizens had already contributed the handsome sum of £79,400.

Bequests to Hospitals.—The late Miss Georgina Pearson, of Cambridge Terrace, Regent's Park, has left £2,000 to Guy's Hospital and the Middlesex Hospital, and £500 to St. Mark's Hospital.

Ireland.

CENTRAL MIDWIVES BOARD.

THE Master of the Rotunda Hospital, Dublin, and Professor Byers, of Belfast, who wrote to the Central Midwives Board asking that certain alterations should be made in their regulations which require from candidates going into their examination that they should have attended and watched not fewer than twenty labours and have nursed twenty lying in women during the ten days following labour, seem not to disqualify Irish women, have received replies that a resolution was passed at a meeting of the Central Midwives Board on January 28th, 1904, to the effect that "the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as having been now approved by that body it is impossible for the Board to alter them." This is regarded as a remarkable reply, and it is asked, How could the heads of the obstetric profession in Ireland have made suggestions when they were not asked? The members of the Central Midwives Board must have been aware that the amount of training of midwives was a very debatable one, and their duty was to consult their colleagues in Ireland and Scotland. It is surely absurd to say that no change can be made if the Central Midwives Board has made a mistake. It would probably be wiser for the Board to represent to the Privy Council that an alteration was desirable, rather than raise an agitation in which obstetricians, anxious as they are to keep up the standard of the midwives, must oppose them. It is argued that the Board is demanding from midwives more than is required from medical students, and that the profession will take alarm on realizing that a body of female obstetricians is being trained who will really not act with them, but oppose them. We hear that the question will be brought up in the coming session of Parliament.

AN ISOLATION HOSPITAL.

Last year the Vice-Chancellor of Ireland granted an injunction to restrain the Rathmines and Pembroke Commissioners from erecting an isolation hospital for the reception of infectious cases at Clonskeagh. The defendants brought the case to the Court of Appeal and judgement has just been delivered. The court unanimously dismissed the action. Lord Justice Fitzgibbon, in giving the decision, reviewed the evidence for the plaintiff, the theory put forward being that the germs of small-pox were airborne. As against that evidence there was the testimony of Dr. Hope, Medical Officer of Health of Liverpool; Dr. Marsden, Medical Officer of Health of the Borough of Birkenhead; and of Dr. Pers, of Wolverhampton, whose experience has been that, although the hospitals under their superintendence in each of these towns were closely surrounded by residences, no instances had come under their notice of small pox infection which could be said to support the theory of aërial convexion. Dr. Hope, in answer to a question as to whether he believed the Clonskeagh hospital would be a source of danger to the inhabitants of the neighbourhood, said "None whatever." The Lord Justice proceeded to say that the sanitary condition of both districts, Pembroke and Rathmines, favoured the view that there never would be any great demand upon the hospital. There was no evidence that the value of property in the vicinity of the proposed hospital had been depreciated. On the contrary, there was evidence that the portion of the ground which formed part of the hospital site had realized its full value at a public sale, the facts as to the contiguity of the hospital being plainly stated in the particulars. On the whole he had come to the conclusion that there was no evidence of danger, and that the action must be dismissed. He confidently hoped that experience might justify him in declining to accept the theory of aërial convexion as against actual experience, an opinion based only upon theory, as the result had justified the decision of Mr. Justice Romer, who declined to grant an injunction in a somewhat similar case in Ossett, Yorkshire.

DISPENSARY DOCTORS AND THEIR SUBSTITUTES.

A deputation from the South Down Branch of the Irish Medical Association, consisting of Dr. S. Edgar Maffin, Dr. E. A. Pilkington, J.P., Dr. H. V. Sinnett, and Dr. James McAvoy, appeared before the Newry Board of Guardians on January 23rd, in regard to the remuneration of temporary substitutes for medical officers in the Union. Dr. S. Edgar Maffin, who acted as spokesman, said the Branch was composed of practically all the medical men in the Newry and other unions in that district. The parent society had laid down a rule that fair and reasonable remuneration for a temporary substitute for a dispensary medical officer during the latter's absence on holidays or sick leave would be 4 guineas a week, and in the case of workhouses 3 guineas a week. They as members of that Association were in honour bound to observe that rule. Latterly, however, with the Newry Board of Guardians the remuneration for such services was only £3 a week. They were, therefore, in an awkward position, and they wished the guardians to relieve them by increasing to 3 guineas a week in the case of workhouses and 4 guineas a week in the case of dispensaries. If any of the medical men in the union refused to undertake temporary medical work in a dispensary for less than 4 guineas a week the guardians might not be able to procure a substitute, and hence a difficulty would arise. In reply to a guardian, Dr. Martin said that it was difficult to get other men to undertake the work at the fee heretofore paid by the guardians. The Chairman said that the application of the medical officers could not be entertained except on fourteen days' notice. Mr. M'Quaid gave notice of his intention to move in the matter.

ORTHOPAEDIC HOSPITAL OF IRELAND.

At the annual meeting of this hospital held in Dublin, Lord Justice Walker occupied the chair. It was mentioned that the governors were about to increase the beds from 90 to 100: 101 cases had been treated during the year. Of these, 88 were cured and 6 were relieved, 3 died, and 67 remained under treatment. The report was adopted. Mr. Justice Ross, Colonel Dobbs, and Mr. R. L. Swan (Senior Surgeon) were among the speakers.

BELFAST HOSPITAL FOR CONSUMPTION.

The annual meeting of the Forster Green Hospital for Consumption was held in Belfast on January 28th. The medical report submitted by Dr. Howard Sinclair showed that 153 cases had been admitted and 655 new out-patients seen, with a total of 1,734 attendances. Much stress was laid upon early recognition of the disease, the open air treatment is carried out fully, but many cases have had to be refused as being too far advanced to offer any reasonable hope for cure. Resolutions and expressions of sympathy on the death of Mr. Forster Green were passed. Mr. Green had left a large legacy to the hospital. A deficiency of £235 was shown in the Treasurer's statement.

THE FORESHORE NUISANCE IN BELFAST LOUGH.

Local Government Board Inquiry.

Mr. Cowan, Engineering Inspector of the Local Government Board, held an inquiry into a petition of the Castlereagh Rural Council, asking for a provisional order to form the Castlereagh Rural and the Holywood Urban District into a united urban district for the purpose of abating a nuisance on the foreshore of Belfast Lough.

Evidence was submitted that some years ago the nuisance was small, but that from about 1880 it increased to a very objectionable extent. Towards 1898 an agitation was set on foot, which culminated in a public meeting, and a deputation appointed to wait on the Belfast Corporation. The nuisance spread down the southern side of the Lough, and the development of land for building was injured. It was worse after the completion of the main drainage scheme for Belfast. The essence of the complaint is that huge masses of seaweed collect on the foreshore, lie rotting in the summer and autumn suns, and poison the air with their effluvia.

Dr. Dowman, medical officer of health for District No. 2 of the Castlereagh Rural District, said that in summer the nuisance was both objectionable and injurious to health; it was due to sulphuretted hydrogen, which at times was sufficient to blacken silver. A certain amount of disease was probably caused or predisposed to by the nuisance.

Dr. Charles O'Neill, superintendent officer of health of the Castlereagh District, said the nuisance was serious in summer.

Dr. Greenfield (Holywood) said he had found cases of sore throat and typhoid on the land between the railway and the foreshore.

Dr. Letts, F.R.S., Professor of Chemistry, Queen's College, Belfast, said he had carried on investigations as to the best means for the purification of the sewage of Belfast, and had presented reports to the Corporation. The sewer was the best outfall, and its present use due to the fortunate circumstances of the locality. His chief recommendations were [illegible]. Treatment of the sewage by the septic tank as a preliminary

step before passing it to the contact beds: this method removed mostly the free ammonia but led to the production of nitrates, which encouraged the growth of the *Ulva latissima* and other seaweed. Finally, the use of the seaweed as a fertilizing agent might be tried. As a simple and little costly remedy, he thought that a few men engaged each year in carting the seaweed away would enormously diminish the nuisance.

BELFAST HOSPITAL FOR SICK CHILDREN: ANNUAL MEETING.

The annual meeting was held on January 28th, when the annual report showed that 821 cases had been admitted: the average number of beds occupied was 44: 328 operations were performed, and 46 deaths occurred: 5,377 new cases were treated in the extern. Although the institution is relieved of the immediate pressure of debt, still the deficit of the annual income continues; the annual cost per bed is £40 18s.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.

The quarterly meeting of the Belfast Branch was held on January 25th, in the Medical Institute, Belfast. The President, Dr. Kevin, occupied the chair, when Dr. Howard Sinclair read a paper entitled, Does Alcohol Predispose to Tuberculosis? Seventy per cent. of tubercle in those over 40 years of age occurred in alcoholics, and Dr. Sinclair expressed the general opinion that undoubtedly alcoholism did predispose to tubercle. He illustrated the great difference in the practice of medical men now in respect of alcohol and the treatment of consumptives.

Canada.

THE QUEBEC COLLEGE OF PHYSICIANS AND SURGEONS AND BRITISH DIPLOMAS.

IT is stated that the College of Physicians and Surgeons of the Province of Quebec recently decided to lengthen the medical curriculum. It was further decided that British diplomas should no longer be recognized in the province. A more complete preliminary education as represented by a B.A. degree was also advocated for students of medicine.

ENTERIC FEVER AT MONTREAL.

The western suburbs of Montreal have been visited by a rather severe epidemic of typhoid fever. It is estimated that there are at present 250 cases in St. Henri, 80 in Ste. Cunegonde, and 40 in Westmount. In the city itself the number of cases is not above the average. The wards of the hospitals are taxed to the utmost to provide accommodation for the patients. In the Royal Victoria Hospital there are 11, in the General Hospital 30, in the Hotel Dieu 20, and in the Notre Dame 12 cases of enteric fever. Of those in the Royal Victoria Hospital, 11 came from the city proper, and 33 from the suburbs, as compared with 10 from the city and 3 from the suburbs during a similar period last year. The cases are for the most part of moderate severity. The outbreak started about December 22nd, when there was a sudden change of 35° in the temperature. An examination of the Westmount water supply undertaken by the city analyst revealed a condition of things which demands investigation. At times the culture plates were loaded with colonies of bacilli, and at others none could be detected. Dr. Starkey found numerous bacilli of the colon group in the water furnished to houses in St. Henri, in which there had been cases of typhoid fever. The engineers also examined the intake of the Westmount water supply, and found that at low water there was danger of contamination from the sewer draining the town of Verdun, and they advised its removal. At the same time the attention of the Hygiene Committee was drawn to the ice cut in the St. Lawrence river, near enough to the Verdun sewer to be considered suspicious. The whole crop was condemned, and harvesting the ice within certain limits prohibited.

ANEURYSM OF ABDOMINAL AORTA.

Dr. Osler, of Baltimore, read a paper recently before the Montreal Medico-Chirurgical Society on aneurysm of the abdominal aorta. After expressing his pleasure at being back in his old society among friends, he reviewed the cases reported by Bryant at St. Bartholomew's Hospital, and then proceeded to speak of the series he had collected at Johns Hopkins Hospital. In regard to diagnosis he considered that unless one could grasp the tumour and feel the definite expansile pulsation, a diagnosis of aneurysm of the abdominal aorta could not be definitely made, as there were many conditions in which a pulsating abdominal aorta resembled aneurysm in almost every detail. Syphilis and strain were the most factors in the causation. Pain was the main symptom, and to this might be joined any or all of the other conditions arising from pressure. Vomiting was frequently an early sign, and intermittent claudication was not uncommon. The prognosis was bad, and rupture was the usual termination. Treatment was unsatisfactory, although gelatine injections with rest in bed, were useful; however, he considered that on the whole the introduction of wire into the sac produced the best results. The operation was simple, could be done under local anæsthesia, and was as a rule harmless. In conclusion, he considered that the future treatment of aneurysm would be largely surgical.

RADIUM.

A second very interesting lecture before the Montreal Medico-Chirurgical Society was delivered by Professor Rutherford, of McGill University, on radium. The physical properties of the substance were discussed and numerous experiments and lantern slides illustrating its action were shown. The lecturer felt somewhat diffident in speaking of its application to medical work, but suggested that as the emanations restrained bacterial growth and could be disseminated like a gas they might be used as an inhalation in cases of phthisis.

CONGRESS OF FRENCH SPEAKING PHYSICIANS.

A meeting of the Committee of the Congress of the French speaking Physicians of North America was held at Laval University, Montreal, in order to appoint committees and arrange for the second congress, which is to be held in 1905, at the same time as the twenty-fifth anniversary of the foundation of Laval University in Montreal. The first congress, which was held in Quebec in 1902, was very successful, and the second will undoubtedly surpass it both in numbers and in interest. The Committee has drawn up a scheme which has proved helpful in similar organizations, and in order to save time for discussion the following rules will be enforced:

1. Each section is to furnish a lengthy work on a subject of actual interest.

Members intending to read a paper are to prepare it as soon as possible.

All such papers are to be printed previously to the meeting.

4. At the meeting the speaker is to give but a concise summary of the conclusions of his communication.

CENTRAL MIDWIVES BOARD.

WE have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Board Room, 6, Suffolk Street, S.W., on January 28th, 1904, the following business was transacted:

1. On the recommendation of the Standing Committee, the Board adopted three sets of questions to be addressed respectively to those applying for approval or recognition in the following capacities:

Institutions applying for approval of their certificates or for recognition as approved institutions under Section C 1 of the rules.

Registered medical practitioners seeking recognition as teachers under Section C 1.

Certified midwives applying to be approved for the purpose of [illegible] and IV under Section C 1.

2. The following applications for recognition as approved institutions under Section C 1 of the rules were granted:

National Maternity Hospital, Dublin.

Edinburgh Royal Maternity and Simpson Memorial Hospital.

City of London Lying-in Hospital.

3. The following application for recognition as a teacher under Section C 1 (3) of the rules was granted:

John S. Fordham, Jun., M.R.C.S.

4. A letter was read from Dr. E. Hastings Tweedy, the Master of the Rotunda Hospital, Dublin, calling the attention of the Board to the practical impossibility of pupil midwives trained in the Rotunda complying with the requirements of Section C rule 1 Subsection (1) (personal conduction of 20 cases) and Subsection (2) (ten days' puerperium). It was hoped that the curriculum of the Rotunda might be accepted as an equivalent to the course of training prescribed by the rules, or that such exception or modification might be made as would enable the Rotunda nurses to qualify for the Board's examination.

After consideration of the subject it was unanimously resolved:

[illegible] the letter addressed to them by the Master [illegible], the Board regret that the suggested alterations [illegible] brought to their notice before the rules were sent to the [illegible] been approved by that body [illegible] impossible [illegible].

[illegible] A letter of similar purport was read from Professor [illegible], Physician to the Incorporated Belfast Maternity Hospital, and a copy of the foregoing resolution was ordered to be sent in reply.

[illegible] After consideration of applications for certificates the names of 1,050 women were passed under Section II of the Act, and ordered for entry on the roll. Of this total 250 claimed as holding the certificate of the Obstetrical Society of London, [illegible] that of the Rotunda Hospital, 26 that of Queen Charlotte's Lying-in Hospital, 14 that of the Glasgow Maternity Hospital, 14 that of St. Mary's Hospital, Manchester, 2 that of the Liverpool Lying-in Hospital, 1 that of the Edinburgh [illegible] Maternity Hospital, 1 that of the City of London Lying-in Hospital, and [illegible] were admitted as having been in [illegible] practice for one year prior to July 31st, 1902.

ASSOCIATION NOTICES.

PROCEEDINGS OF COUNCIL.

In connexion with the Proceedings of Council published last [illegible] in the SUPPLEMENT, p. 2, it was inadvertently reported that the Chairman had received a communication from the British Dental Association petitioning for a Dental Section to be held in connexion with the Annual Meetings of the Association. The report should have read as it was actually stated by the Chairman at the time—that he had received a copy of a resolution passed at a well-attended meeting of members of the British Medical Association who practise dental surgery to the effect "That this meeting is of opinion that a Section in Dental Surgery should be formed in connexion with the Annual Meetings of the Association, and that the President and Council be asked to grant such a Section."

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than [illegible]-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of [illegible] commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. [illegible] p.m. [illegible] have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

[illegible]

[illegible]

[illegible] nevertheless, be incumbent upon any medical practitioner so pra[illegible]

[illegible]

[illegible] y House, Southfields, S.W., Honorary Secretary.

[illegible] tendent, has [illegible] Honorary Secretary.

[illegible]

[illegible]

[illegible]

INTERNATIONAL CONGRESS OF DERMATOLOGY.—The fifth International Congress of Dermatology will be held at Berlin from September 12th to 17th, 1904, under the presidency of Professor [illegible]. The following questions are proposed for discussion: [illegible]; (3) epithelioma and its treatment; (4) [illegible] as to the distribution of leprosy and its [illegible] since the first Leprosy Conference held in 1897; (5) the present state of knowledge as to [illegible] leprosy. All communications should be addressed to the General Secretary, Sanitätsrat Dr. O. Rosenthal, Potsdamerstrasse, 121 g, Berlin.

SPECIAL CORRESPONDENCE.

SYDNEY.

The Use of Preservatives in Food. The Sydney Abattoirs. The Queen Victoria Homes for Consumptives. Prince Alfred Hospital Appointments.

As I mentioned in a former letter, a Select Committee was appointed by the Legislative Assembly to inquire into and report upon the use of preservatives and coloring matters in foods. This Committee took a considerable amount of evidence, chiefly upon the use of boracic acid in food, and they have confined their progress report to this substance. Dr. Ashburton Thompson, the President of the Board of Health, Dr. Tidswell, the Microbiologist to the Board of Health, Dr. W. G. Armstrong, the City Health Officer, and Mr. Hamlet, the Government Analyst, all gave evidence against the use of boracic acid as a preservative in milk, butter, etc., and in support of the regulations recently adopted by the Board of Health. This evidence was based partly upon scientific reasoning, partly upon practical experience, and partly upon the information on the subject derived from a study of the writings of experts. The Committee also called as witnesses four medical men in practice in the city, who were emphatic upon the innocuousness of the use of boracic acid in the quantities commonly used for preservative purposes. This evidence was based, it was stated, upon their practical experience. The Committee, composed entirely of laymen, considered the latter evidence of much more weight than that of the health officials, and without calling any medical evidence in support of the opinions of the health officers, proceeded to draw up the following conclusions:

1. That, as regards butter, there can be no question as to the necessity or the harmlessness of the use of up to 10 gr. of boracic acid to the pound, since this amount is recommended by the English Departmental Committee, and is the amount fixed as permissible by the regulations of the Boards of Health both in New South Wales and Queensland.

2. That as regards milk, if there is sufficient care in handling and rapidity in distribution, chemical preservative is unnecessary.

3. That, as regards condensed milk, of which there are two varieties, sweetened and unsweetened, the use of sugar in the former and the sterilization of the latter, combined with hermetically sealing in air-tight tins, render the use of a chemical preservative unnecessary.

4. That as regards concentrated milk, which your Committee recognize as a trade name applied to a further description of condensed milk, the use of 10 gr. of boracic acid to the pound is necessary.

5. That as regards cream for consumption as such, for the proper maintenance, expansion, and development of the trade, and to bring this wholesome article of food within the reach of every household at a reasonable price, the use of 10 gr. of boracic acid to the pound is necessary.

6. That the use of 10 gr. of boracic acid to the pound of butter and 10 gr. of boracic acid to the pound of concentrated milk and 10 gr. of boracic acid to the pound of table cream with cause no injury to health, and should be permitted.

7. That, having in view the right of people to know what any food stuff consists of, vendors of these articles containing preservatives should include on the label on the package, tin, or containing vessel, and in conformity with the rest of the label, a statement setting forth the nature and quantity of the preservative contained therein; and, in cases where a label is not ordinarily used, then a special label to that effect should be affixed. The Committee also recommend that the regulations made under the Public Health Act should be amended, and brought into conformity with the above conclusions.

It is hoped that the Board of Health will do nothing of the kind, and that in the interests of the public health they will adhere to the regulations adopted after the most careful consideration of the whole subject.

There has just been laid upon the table of the Legislative Assembly a report from another Select Committee appointed last July, "to report upon all matters appertaining to the inspection of meat at Glebe Island, and the general conduct and management of the affairs at the abattoir." This report is highly condemnatory, specially of the present buildings, and the present antiquated system of sending part of the offal out to sea. The system of inspection of the meat is also said to be very defective.

The Committee recommend [illegible] that a new abattoir, complete and modern in arrangement, be erected; that it be placed under the control of a [illegible] as a business concern; that no slaughtering be allowed within a radius of [illegible] miles of the City of Sydney, except a small number that the whole of the by-products be treated in the [illegible]; that the present system of inspection and management be improved so as to eliminate the defects pointed out in this report, and continue to the public of the city and suburbs that the meat [illegible] is dealt with under the very best possible conditions.

The Queen Victoria Homes for Consumptives, founded as a memorial of the Diamond Jubilee of Her Late Majesty Queen Victoria, have not received the amount of financial support needed to enable the Committee to deal effectually with the number of pressing claims for admission to these institutions. Apart from the necessity which exists for additional accommodation, especially for female cases at Thirlmere, the ordinary income is not sufficient to meet the annual expenditure in maintenance. A meeting was recently held at the State Government House, under the presidency of His Excellency Sir Harry Rawson, to consider what steps should be taken to increase the annual income, and to extend the interest of the general public in the movement. It was eventually decided to hold a ball early next season, and in the meantime the mayoresses of the suburbs are to endeavour to enlist the sympathies of the ladies in their respective districts. Mr. T. A. Dibbs generously offered £1,000 to endow a bed in one of the homes. While these institutions are doing what they can for the early and curable cases of this disease the Government are "still considering" the question of making some provision for the advanced cases, for whom there exists at present no suitable accommodation.

Miss McGahey, the Matron of Prince Alfred Hospital, has resigned her appointment after twelve years' service, during which she has worked very hard and done an inestimable amount of good for the hospital and the training of nurses generally. The Committee has placed on record its sense of the value of Miss McGahey's services and its regret at the severance of her connexion with the hospital. Applications are being invited from persons suitable to fill this position in Great Britain and America, but it is generally recognized that it will be a matter of extreme difficulty to fill the vacant post. When the new pavilions are completed and furnished there will be accommodation for nearly 500 patients. Dr. C. B. Blackburn has resigned his appointment as Medical Superintendent and Dr. A. H. Macintosh has been appointed his successor. Drs. Blackburn and E. W. Fairfax have been appointed additional assistant physicians, Dr. H. C. Taylor Young assistant gynaecologist, and Dr. Russell Nolan assistant surgeon in the department for the diseases of the ear, nose, and throat at this hospital.

MANCHESTER.

Deaths from Burning. Flannelette: New Act for Fireproofing It. Causes of Enteric Fever in South Africa. Aberdeen University Club Dinner.

SEVERAL inquests lately have directed fresh attention to the dangers of clothing children in cheap and inflammable flannelette. A non-inflammable variety has been on the market for four years, but the manufacture has not extended to the cheap 3d. a yard flannelette in favour with the poorer classes. The process of rendering the material uninflammable adds to the cost one eighth or a penny a yard as royalty, and one halfpenny for the extra finish required.

In this connexion may be mentioned some recent observations on the application of titanium compounds. It is now possible to manufacture titanium compounds for commercial purposes. They are used as mordants for silk and vegetable fibres, and as a dye in conjunction with tannic acid. It has also, however, been found that titanic acid renders woollen materials uninflammable, and that they remain so even after dyeing and boiling.

Colonel J. Lane Notter delivered on January 28th the second of the course of public health lectures at the University on "The Spread of Typhoid Fever, Dysentery, and Allied Diseases among Large Communities, with special reference to Military Life in Tropical and Subtropical Countries." Enteric fever was a disease, he said, which took a leading position in mortality statistics all over the world, and its spread was limited neither by degrees of heat nor by atmospheric states. Reviewing matters in the light thrown on them by occurrences during the South African war, Colonel Notter said that it was probable that both dysentery and enteric fever were essentially filth diseases. Only the complete removal and destruction of filth could lead to fewer deaths and less sickness in an army in the field. In the lecturer's opinion, the water supply played a comparatively insignificant part in the spread of enteric fever in South Africa. Notwithstanding the greatest care, it was practically impossible to prevent completely the occurrence of these diseases in any army, hastily mobilized, operating in a country in which water was scarce, and whose ranks were

largely filled with young men at an age notoriously liable to be affected by diseases of this nature.

The annual dinner of the Aberdeen University Club was held on Friday, January 29th. Dr. Angus Fraser of Aberdeen was the guest of the evening.

In the paragraph upon the subject of the proposal for the compulsory notification of phthisis in our Manchester letter published last week, it should have been stated that the proposal was abandoned in deference to the representations made by the Council of the Medical Guild.

NEWCASTLE-UPON-TYNE.

The Housing Question.—Newcastle-upon-Tyne Lying-in Hospital. Hospital for Diseases of Women. Dinner of Past and Present Students of the College of Medicine. Proposed Laboratory Extension of the College of Medicine. Royal Victoria Infirmary.

At a recent public meeting in Newcastle the housing of the working classes formed the subject of addresses by the Lord Bishop of the diocese, Councillor Adams, and Professor T. Oliver. The Bishop dealt with the subject from the Christian Social point of view; Mr. Adams showed the desirability of municipal interference, and of making provision for the 33 per cent. of the population living in unsuitable homes; while Dr. Oliver pointed to the necessity of rebuilding houses for the displaced working classes, especially the casual labourers, not too far away from the sphere of their labour, to the need for open spaces in the town, and to how overcrowding and its attendant dangers were often a consequence of the high rents charged from the poorer working classes. Dwellings are at present being built on the Walker Estate of the Newcastle Corporation for the working classes ejected in consequence of improvements in the city. A few days ago these were inspected by members of the City Council. The visit was on the whole satisfactory. In one block of dwellings the rent will be from 2s. 3d. to 2s. 6d. for single rooms and 4s. 6d. for two rooms. Other houses in Walker Road are being built in flats and for these the rents will be 3s. 6d. to 6s. 6d. per week. Only the better paid artisan can live in the houses with the higher rental, for to the cost of rent must be added the train or tramway fare. The excellent tramway system is no doubt doing much to take the people away from the centre of the town, thereby relieving congested areas, but this circumstance alone will not solve the problem of the housing of the working classes.

At the annual meeting of the Lying-in Hospital, Alderman Sheldon in the chair, it was reported that the number of patients treated inside the institution for 1903 was 144, and at their own homes 530, making a total of 674 as against 380 for 1902. A staff nurse has been appointed to assist the matron. The hospital, which is recognized by the Central Midwives' Board as a training school for midwives, affords excellent opportunities to students of acquiring an extensive and varied knowledge of practical midwifery.

At the annual meeting of the Hospital for Diseases of Women on January 25th, Lord Armstrong, in proposing from the chair the adoption of the annual report, alluded to the excellent work done by the hospital, and of the urgent need for beds. The number of patients has increased from 561 in 1901 and 901 in 1902, to 1,003 in 1903. Dr. T. M. Allison, has been promoted to the full staff in succession to Dr. Coltman, who has left Newcastle, and to the vacancy thus created on the junior staff Dr. H. J. Mathews has been appointed.

The annual dinner of the past and present students of the College of Medicine took place on Friday, January 29th, at the County Hotel, Professor Page in the chair. Among those present in addition to some of the lecturers were the Warden of the University of Durham (Dean Kitchin), the Earl of Durham, Sir George H. Philipson, President of the College of Medicine, etc. One of the pleasing circumstances connected with the banquet was that a great part of the speaking was done by students at present unpublished and by recent graduates. To Mr. Lloyd Snape was entrusted the toast of "The University of Durham," which was responded to by the Warden of the University and by Sir George H. Philipson. Dr. Parkin, Senior House Physician at the Royal Infirmary, in felicitous terms proposed "Our County," a toast which drew from the Earl of Durham one of those humorous speeches for which his lordship is so well known. "The one thing," he told his audience, "they all desired and welcomed was free trade in brains. He did not care how many bales or how much raw material was dumped down into the College of Medicine. He hoped it would be turned out a thoroughly and a highly finished article, and that they would be able to hold their own with any other college or any other institution similar to this, and that in the course of life they would be able to do honour to their old College." "The Honorary Staff of the Infirmary" was proposed by Mr. T. H. Openshaw and replied to by Mr. Hume; "The Past and Present Students" by Dr. James Smith, and responded to by Mr. Wilkie Ridley. The Chairman's health was proposed by Mr. Sewell.

The legal difficulties having been overcome in regard to the utilization of one of the bequests to the College of Medicine by the late Professor Heath, plans are about to be prepared for the new wing, in which will be housed the physiological laboratories and those connected with bacteriology and comparative pathology.

The new buildings of the Royal Victoria Infirmary are now progressing rapidly. Three of the large pavilions are roofed over, the exterior of the nurses' home is all but finished while the central and administrative block is nearing completion externally. At present from 300 to 500 men are daily employed on the grounds and in the buildings. It is proposed to place pictures of nursery tales and rhymes in coloured tiles in panels on the walls of the four children's wards. The expense of panelling one of the wards is being undertaken by the present honorary staff of the Royal Infirmary. The working men governors have agreed to contribute the money for similarly decorating another of the wards, while the expenses of thus furnishing the other two wards are being generously undertaken by the Misses Stephenson, daughters of Sir W. H. Stephenson, the ex-Mayor, and by Mrs. Albert Lord, daughter-in-law of Sir Riley Lord, who, during his mayoralty of Newcastle, was instrumental in raising £100,000 for the new Royal Victoria Hospital.

CORRESPONDENCE.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS POISONS.

SIR,—In reference to letters appearing in the BRITISH MEDICAL JOURNAL as to repetition of prescriptions and the easy way in which poisons can now be obtained to any amount by the public I think I may be allowed to say that in drawing up a sessional programme for the Wandsworth Division during the past summer, the committee arranged for a debate on the whole matter to be held at Clapham on Thursday, March 24th; any resolutions then passed going on to the agenda of the Representative Meeting at Oxford. I am sure we shall welcome Dr. Danford Thomas, Dr. Sutherland, and any others who would like to attend, and I will see they get due notice if they will communicate with me.—I am, etc.,

E. RANDAS LOMBRAIL,
Hon. Sec. Wandsworth Division.

SIR,—May we, on behalf of pharmacists, fully endorse the remarks of Drs. Outterson Wood, Danford Thomas, and Sunderland? We are constantly requested to give copies of prescriptions but invariably politely refuse by asking the patient to give us the written permission of the prescriber, a course followed by all pharmacists of whom we have personal knowledge.

We should be only too glad to co-operate with the prescriber by not dispensing a prescription more than a specified number of times; this could easily be regulated if on the prescription the desired number of repetitions and dates were given. At present there is nothing to note we pharmacists feel compelled to dispense any properly-written prescription that may be presented, no matter how old.

The ease with which patients read prescriptions containing compressed drugs and other proprietary medicines, especially when the name of the maker is given, is an important point to the medical profession. It occurs almost daily that patients reading from a prescription, ask for Sanatogen, Nutrose, etc., often ordering three or six times the quantity prescribed frequently of most powerful drugs or chemicals.

Far more stringent measures are needed for the protection of the public. At present most deadly poisons can be obtained from photographic suppliers and drug stores without question. We trust this matter will be noted by the General Medical Council, who can greatly help the Bill to be pre-

sented in the next session of Parliament, and which aims at making more rigorous the present Pharmacy Act, and which if passed will have great bearing on the loose sale of potent and poisonous preparations, benefiting the public and medical profession alike.—I am, etc.,

CROYDEN AND CO.
(John D. Marshall, Directing Manager.)

London, W., Jan. 25th.

SIR,—Dr. Outterson Wood's letter in the BRITISH MEDICAL JOURNAL of January 23rd cannot be too actively endorsed by the medical profession and commended to the careful consideration of every pharmaceutical chemist. It is a matter in which the reputation of the medical profession is at stake and in which its responsibility is very great. Few of us, I suppose, pass many days without seeing the harmful effects of the drug-taking which is so prevalent among the better class of the community, and no one can deny that the facility with which many potent drugs can be obtained by the public is the root of the evil. Phenacetin, sulphonal, calomel, Dover powder, and many other highly active drugs can be obtained in compressed form for a small sum and to any extent without a prescription from many drug stores, and the patient who receives a prescription for such drugs often considers he has got very little for his money, inasmuch as he already has them in his possession and uses them as he pleases.

As to the repetition by the chemist of prescriptions without the expressed directions of the prescriber or other medical man, no one will deny that such a practice is highly deplorable in the case of drugs which are known to induce a drug habit. But few will, I suppose, go so far as to say that, as in hospital out-patient practice so in private practice: no prescription shall be lawfully dispensed on more than one occasion unless a dated and signed repetition appear on it. I for one think that such a practice would be to the great advantage of the patient, and lest the medical man run the risk of appearing desirous of a frequent visit he should add to the direction the number of days during which he wished the prescription to be used from the date of each repetition.

So many issues are involved in the question that it would be well if a joint committee of representative medical men and chemists could be appointed. Their report might then be submitted to the proper authorities and made the basis of a legislative Act.—I am, etc.,

London, W., Jan 25th. S. HENNING BELFRAGE.

SIR,—The suggestion that prescriptions given to patients should be marked "Not to be repeated" only, in my opinion, overcomes part of the difficulty. Having served a four years' apprenticeship at a pharmaceutical chemist's, I know to what an extent the evil of repetition and copying of prescriptions is carried, and I can think of a particular instance where six copies of a prescription were made at one time.

Surely the following would be better than the instruction suggested:

The dispenser to keep this prescription.
This prescription is not to be repeated.
A copy is not to be given to the patient.

If one or all of these is likely to give offence to the patient, some scholar might be found to translate them into easily translateable Latin. This raises the question of ownership of a prescription, but I think this is settled by telling the patient that the chemist will keep the prescription.—I am, etc.,

February 1st. HOUSE SURGEON.

SIR,—The letter from Dr. Outterson Wood is of considerable importance, as those of us can testify who have much experience of the treatment of morphine *habitués*. In a large percentage of these unfortunate cases the patients have in the first place had morphine prescribed for them for the relief of pain and have continued to obtain a supply of the drug by means of the original prescription. In one instance a lady who came under my care for the cure of this habit was at the time of her admission obtaining morphine with a prescription dated fifteen years previously; and it is therefore obvious that chemists do not hesitate to supply members of the public with morphine, etc., even when the antiquity of the prescription must clearly show them that it is being used for a purpose other than that for which it was originally given.

The prevention of this abuse may be brought about in a very much simpler way than by an alteration of the law as suggested by Dr. Outterson Wood, namely, by medical men being careful never to allow their prescriptions containing this class of drug to fall into the patient's hands. In so important a matter as this, it is surely not too much trouble for the medical man personally to order the supply of the drug from the chemist, and direct him not to repeat it without his personal sanction. This is a very much safer plan than to give a patient the prescription with "Not to be repeated" written across it, as it is comparatively easy for any one to copy the prescription, omitting the prohibition as to repetition, and get it redispensed by a chemist who is not familiar with the doctor's signature. So long as doctors, for the sake of saving themselves a little time and trouble, continue to place in the hands of patients prescriptions for drugs which may induce a habit, so long will it be practically impossible to prevent the victims from obtaining a regular supply of their poison.—I am, etc.,

London, W., Jan. 27th. J. HENRY CHALDECOTT.

SIR,—The profession should be grateful to Dr. Outterson Wood for calling attention to this important subject; but I venture to suggest that the remedy he proposes would scarcely be effective, as a person determined to obtain a large supply of a poisonous drug would not be deterred by anything written across the face of the original prescription. He would simply make as many copies of it as he required for his purpose. This is amusingly illustrated by Dr. Sunderland's story of Dr. Edis's prescription. If that patient could make one hundred copies for friends she could make them for herself.

But apart from the danger to their patients, I have often wondered that the profession has not taken some precaution against the well-known evil of repeated and copied prescriptions in their own interests. I would suggest as a remedy for both the evils that no prescription of any kind should be given to a patient. It would be a very simple matter to give prescriptions from a perforated double voucher book. On one slip the prescription should be written and, after obtaining the name of the patient's druggist, it should be posted to him direct, while the patient would receive the counterfoil voucher authorizing him to have the prescription dispensed, which would be indicated by a duplicate number. I believe if this precaution were adopted the profession at one stroke would save their patients from a serious danger and very considerably benefit themselves.—I am, etc.,

January 30th. M.

LIFE INSURANCE EXAMINATIONS.

SIR,—In view of the letters and articles that have recently been appearing in the BRITISH MEDICAL JOURNAL with reference to the habit certain insurance companies have of expecting medical examinations to be performed for a reduced fee when the insurance is for sums under a certain amount, it may be of interest to record the fact that all the medical men in this city formed themselves some few years ago into a local association for the purpose of determining upon united action in several matters touching the interests of the profession generally. Among other things, they unanimously agreed that in all cases where a fully detailed examination (including an examination of the urine, etc.) was required by such companies, that they would not accept a less fee than one guinea, and in practically every instance where any insurance company has been written to upon the subject a modified and superficial examination has been accepted, or the full fee has been paid. Where arguments have been required to enforce our position, it has been pointed out that—

1. It is immaterial to the practitioner what the sum assured may be, as the full examination is just as lengthy and exhaustive in any case, while a reduced fee means that the practitioner is making the insurance company a present of the difference.

2. It is unfair that the medical profession should be "sweated" in order that these companies may make a substantial profit upon their first year's premium.

3. If a proposer insures for a small figure, there is nothing to prevent his increasing this after the examination provided that it is done within the next few days, and in such cases a further examination is not required nor a full fee paid.

It may be further of interest to record that we have unanimously agreed upon the Scotch oath as a sanitary measure; that we have agreed not to accept less than one guinea for examination of lunatics, whether under Poor Law or otherwise; and that we have adopted a uniform tariff of fees

based upon that drawn up by the Shropshire Branch. I am, etc.

F. M. ROWLAND,
Honorary Secretary, Local Medical and Panel Committee Association.

Lichfield, [illegible].

THE CAUSES OF HIGH INFANT MORTALITY.

SIR,—A short time ago you inserted a letter on this subject in which I suggested that one of the causes of high infant mortality among poor people was the want of proper medical help in the early stages of illness. The tables which I now forward certainly show that as a general rule in these town unions which give very little out-relief—which, it should be understood, includes all medical relief outside the workhouse, etc.—the infant mortality is higher than in those which give a fair amount of out-relief. I possess some other evidence tending in the same direction. Of course high infant mortality arises from a great variety of causes, but I think the facts here stated make it well worth while for the sanitary authorities in every district where a high death rate for children prevails to inquire whether the poorest class have sufficient facilities for obtaining medical relief for them.

London.

Name of Union.	Infantile Mortality.	Policy of Administration as to Poor Law Relief.
1. Strand	[illegible]	Strongly indoor.
2. Stepney	[illegible]	Very strongly indoor.
St. George-in-the-East	[illegible]	[illegible]
4. Whitechapel	[illegible]	[illegible]
London City	171	Neutral.
5. Shoreditch	[illegible]	Very slightly indoor.
6. St. Saviour's Southwark	[illegible]	Strongly indoor.
7. Holborn	163	Strongly [illegible]
8. Westminster ...	163	Strongly [illegible]
[illegible]	[illegible]	[illegible]
10. Chelsea	[illegible]	[illegible]
11. Bethnal Green ...	[illegible]	Indoor.
St. George Southwark ...	[illegible]	Outdoor.
13. St. Giles	[illegible]	Indoor.
14. Kensington ...	[illegible]	Strongly indoor.
15. St. George Hanover Square ...	[illegible]	[illegible]
16. St. Pancras	[illegible]	Indoor.
17. Marylebone ...	[illegible]	Strongly [illegible]
18. Poplar...	146	Very slightly indoor.
19. Greenwich	147	Outdoor.
20. Mile End Old Town ...	[illegible]	Slightly indoor.
21. Lambeth ...	145	Outdoor.
22. Hackney ...	144	[illegible]
23. Bermondsey	[illegible]	Very slightly indoor.
24. Camberwell	115	Outdoor.
25. Wandsworth	[illegible]	[illegible]
26. Fulham	[illegible]	[illegible]
27. Kensington	[illegible]	[illegible]
28. Islington	111	[illegible]
[illegible]	210	Indoor.

The Six Large Towns.

Liverpool	219	Indoor.
Manchester	[illegible]	Very strongly indoor.
Salford	[illegible]	Strongly indoor.
Birmingham ...	[illegible]	Indoor.
Leeds ...	[illegible]	Strongly indoor.
Bradford	[illegible]	[illegible]

In the table I have called a union "indoor" which treated more than half its sick poor by means of indoor relief, and the other unions I have called "outdoor." Under the heading "infantile mortality" are given the number per 1,000 births who died under 1 year of age, taken from the Registrar-General's Returns for the ten years 1893-1902. The proportions of indoor and outdoor relief are estimated from the figures given in the Local Government Board Returns for 1902.

I am, etc.,

J. THEODORE DODD.

[illegible]

AXIS-TRACTION FORCEPS.

SIR,—I have read with interest the review of Dr. Clarence Webster's [illegible] which appears in the BRITISH MEDICAL JOURNAL of January 23rd. Apart from some lines devoted to the consideration of Dr. Webster's attainments as an anatomist, a physiologist, and an embryologist the review is occupied by an adverse criticism of the practical teaching of the book. The reviewer attributes this defective teaching partly to a want of practical experience on the part of the author and partly to his ignorance of the writings of certain British obstetricians, from Evers to Braxton Hicks. While I venture to think that more than one of your reviewer's statements are open to further review, I ask leave to traverse only one of them. The statement I refer to is one which, although entirely in the teeth of demonstrable fact, is unfortunately held by others besides your reviewer.

After quoting Dr. Webster's statement that compression of the fetal head by axis-traction forceps is less than that produced by the ordinary long or short forceps, the reviewer proceeds:

[illegible]

Of course, we all know "the dangerous compression of the head caused by the fixation screw" is the perennial objection to the axis-traction forceps which is brought forth every time it is discussed and compared with the older instruments. But it has been shown to be absolutely fallacious many times, and I am safe in saying that it is never now referred to except by one who belongs to one of three classes:

1. Those who have neither used the instrument nor have taken the trouble to grasp its principles an intelligent study.
2. Those who may have used the instrument in a way it would never have been meant to be used.
3. Those who have never seen one of the instruments of which they construct.

I do not presume to suggest to which class your reviewer belongs.

Now, on the other hand, I do not hesitate to assert that the fixation screw of a properly constructed and properly applied axis-traction forceps not only exerts no injurious compression of the fetal head, but it exerts no appreciable compression on the head whatever.

A brief consideration of the action and use of the fixation screw will make that evident. The purpose of this screw is simply to keep the handles from falling out of position.

Its application is as follows. When the blades have been applied and locked, and the upper traction rod brought back to its proper position, the handles are held, preferably between the finger and thumb of the left hand, while the fixation screw is brought into position with the right. The nut is turned on the screw, so that when the latter is placed in the fork projecting from the upper handle the bearing surface of the nut just rests on the upper surface of the fork. After this it is only necessary to give the nut one half turn to prevent it falling out of its place. This at the same time keeps the handles in position and prevents them becoming unlocked. Now consider what has happened. When the nut is placed in the fork the handles are held in such a way as to keep the blades in contact with the head. There is not the smallest amount of compression applied to the head. After the nut receives the one-half turn, which is all that is required to fix it, what has happened? The screw has a quick thread, about ten turns to the inch, so that the half turn of the nut brings the handles nearer each other by one-twentieth of an inch. Will anyone assert that the approximation of the handles to this extent will exert an injurious compression of the child's head? The suggestion is ridiculous.

It is apparently assumed by those who do not realize the purpose of the fixation screw that its object is to clamp the blades rigidly on the child's head, and so secure a rigid grip of it. As I have stated, it is simply to keep the two halves of the instrument from falling apart. The compressing force necessary to keep the instrument in position is provided by the walls of the canal which, during the passage of the head and forceps downwards, keep the blades firmly applied to the head. This is further supplemented by the slight inward pull of the traction rods, if properly constructed. Any one who doubts this can be shown that when the head is fairly high and the blades are entirely inside the genital canal, the fixation screw can be removed altogether during traction the forceps being prevented from slipping on the head or unlocking by the forces I have indicated. As the head reaches the floor and the lower end of the blade escapes, the screw must be put into position in the way described above.

It must, at the same time, be kept in mind that these statements apply only to forceps correctly constructed and properly used. They do not apply to instruments in the construction of which every principle of axis traction is ignored. I regret to say that many instruments are being "dumped" on the market in this country and have secured a [illegible]

and Australia, the incorrect construction of which makes them nothing else than "lethal weapons."

But the proper construction of axis-traction forceps has been determined long ago, and no one has any excuse in not verifying any instrument before applying it.

Those of us who have been using and teaching the use of axis-traction forceps are quite willing to discuss their virtues and vices with any one who has taken the trouble to discover the principles of their construction and their proper use. But most of us are tired of discussing and disproving that outrage on common sense—the dangerous compression produced by having to "screw the handles together."—I am, etc.,

Edinburgh, Jan. —. R. Milne Murray.

REACTION WITH PERCHLORIDE OF IRON IN THE URINE OF GRAVE CASES OF HEPATIC CIRRHOSIS.

Sir,—In regard to the reaction to which I referred in the British Medical Journal for January 2nd, 1904 (p. 13), I have to admit I did not take into account that all the patients at one time or another received a drug containing salicylic acid, namely, diuretin, which is a sodio-salicylic compound of theobromine. Yet, in the urine of one of the cases, by the addition of perchloride of iron, I have certainly repeatedly obtained a well-marked tawny, brown-red colour reaction, when the urine was concentrated and highly coloured, and when the patient was neither taking any salicylic compound, nor yet citrophen. The nature of this reaction, which I think will be found more or less distinct in many concentrated and highly-coloured urines, not necessarily from cases of hepatic cirrhosis, requires further investigation. It is not due to the presence of aceto-acetic acid in the urine. I may here mention that in patients taking citrophen a colour reaction can be obtained by adding perchloride of iron to the urine, practically identical to that obtained in the case of patients taking diuretin or other salicylic compounds, excepting that the colour develops much more slowly after the addition of the reagent. I would here, likewise, express my opinion that for some reason or other, at all events when comparatively small doses are being taken, it is not always possible to distinguish any of these reactions (merely by the resulting colour) from that due to the presence of diacetic acid (Gerhardt's reaction) in the urine of diabetic patients.—I am, etc.,

London, W., Jan. 21st. F. Parkes Weber.

DOCTORS IN PARLIAMENT.

Sir,—The suggestion that the medical profession should support medical members for Parliament by subsidising them from a general fund is excellent in theory, but, in my opinion, incapable of being carried out practically as far as ordinary constituencies are concerned. Every candidate for Parliamentary honours must appeal to his would-be constituents either as a Conservative or Radical, a Protectionist or a Free Trader, and would stand no chance of election if he merely appealed for votes as a medical candidate. In no ordinary constituency are there sufficient medical voters to carry a purely professional candidate to the head of the poll. The general run of voters, whether belonging to the Government party or the Opposition are not sufficiently interested in medical politics to waste their votes upon a medical candidate *qua* medical practitioner, and unless we can educate the public to a sufficient interest in medical affairs this will always be the case. No amount of medical party funds would enable us to carry a single seat. I fear, at any [illegible] in the United Kingdom. Where a candidate, himself a medical man, has succeeded in gaining election, the result has been obtained from the fact of his belonging to one or other of the great factions in politics. It is true that the National Union of Teachers has carried at least two of its candidates into Parliament; but in such cases the candidates have been successful on the broad issues of Radicalism or Conservatism *plus* the question which appeals to all voters, namely, education. It appears to me, therefore, that it would be a waste of time, strength, and money to attempt to place medical men as such in Parliament through the ordinary electorates. What I would venture to suggest, however, as the best course to adopt in order to gain medical members would be to work through our medical graduates of the various universities which carry seats in Parliament, and to contest every such seat by putting forward candidates from our profession who will, when elected, work in our interests, and not sink the medical practitioner when elected as M.P. I do not wish to reflect harshly upon the representatives of the universities in Parliament at present existing, but I would venture to ask what assistance as a profession have we gained by their election? It is possible that before long we may find an opportunity of voting in a Parliamentary general election, and I would suggest that suitable candidates be selected for the university seats, and that all medical graduates should vote only for those chosen who will look after our best interests.—I am, etc.,

London, W., Feb. 1st. A. G. Bateman.

Sir,—The majority of us agree, I believe, with the views of Dr. W. Gordon and others as to the need that exists for more doctors in Parliament and on other governing bodies. It would be a twofold gain to the country, strengthening the influence (for good) of the profession, and directly increasing the weight of trained and well-considered opinion behind public health progress.

The combination of a highly scientific education with the exceptional insight into human nature afforded by a medical life must in the course of time increase the prestige of our profession, but our brethren in the colonies and on the Continent are ahead of us in this one respect at least. They mix more in public affairs, and numberless instances of a nation's gain could be named by such activity.

On no account does this detract from the enormous value of strictly scientific work, which will always attract some minds to the exclusion of all else. Yet such public activity must surely help such stores of knowledge to become common property.

In the provinces we learn that medical men are incompetent to join in public affairs: as if, forsooth, commerce, law, or what-not were the "chosen" occupations; or, again, we hear that secretaries of medical institutions must be "business" men, the training of the medical man having unsuited him for such posts, etc. This is a relic of the past and is mere superstition. As to the possible influence on the national physical welfare that the profession could bring to bear, the circular letter on "the need of elementary scientific instruction in health subjects, including temperance, in schools," that we are now receiving is a case in point.

May I reiterate the opinion that, in order to translate our several pious sentiments into lasting action, we should crown our present State Department and Service with a Minister of Health?—I am, etc.,

Plymouth, Jan. —. F. Bushnell.

Sir,—I also am glad that your correspondents (for the correspondence columns of the British Medical Journal are a useful and interesting portion of our journal) do not intend the topic of doctors in Parliament to prematurely drop; and, as Dr. Gordon observes, "more medical men are certainly required in the House of Commons for the sake of our country; they are greatly needed as well as for the profession."

That they are needed your recent articles on our "physical degeneration" convincingly prove. Not only "the housing of the people," but the alcohol question and its abuse, and effects upon our soldiers, sailors, police, and others in official life, ask a solution to a query that only the experienced medicos able to give [illegible] justly.

Such public bodies as have doctors on their corporations or Boards know how useful they are and how much they are needed in sanitary capacities, and how often and readily they are appealed to for various special information in their every-day guide and influence discussion; as a guardian I have felt and not infrequently observed the respectful attention that is generally given to a medical speaker, and this will become more [illegible] with the development of [illegible].

I opine with your correspondent ("Observer," January 9th, p. 107) that the Local Government Board did not act wisely in demanding that Section E of the Midwives Act should not apply to midwives under the Poor Law, and too many midwives are appointed by our guardians.

I remember many years ago when I attended the practice of the South London Ophthalmic Hospital and also a still more distant time when I was House-Surgeon at the West London Hospital, the frequency of infantile ophthalmia and its dire results, and I learn that this serious infantile disease is responsible for one-third if not half of our many blind poor. Ergo, I think the Section E is of importance in the case of the lying-in poor mother, and should have been retained, and

my private practice of forty years confirms this belief. Who can doubt among those who encourage in their cultured leisure the habit of reflection, that more doctors are needed to help to make our laws, so that they may be more useful, more health-giving, and more disease and poverty-preventing. The crux is, as our direct representative on the General Medical Council, Mr. George Jackson, writes to me in a recent letter, "How can we get candidates? Sir Victor Horsley says he is too busy, and perhaps is not a *persona grata* to every one."

I would like to suggest that the British Medical Association and the *Journal* should invite the names of those medical men who would be willing, if elected, to accept the honourable dignity of a legislator, and to state whether able to pay a part or any of the expenses of election; the names need not be made public of those who for various reasons would prefer for a time to consider their chances of success and the time that would be occupied by Parliamentary duties.

We do not wish to copy the practice of France and to pay our members, yet it has been mooted that a certain number of skilled professional stipendiary members might with advantage be elected, and I am inclined to believe that if a dozen or a score of medical men were elected members of Parliament and paid, it would not be a useless expenditure of public funds. I submit this proposition with much reserve; so please accept it *pro tanto*.

Medical men are wanted in Parliament and would prove valuable, and until we have them we shall never obtain increased direct representation on the General Medical Council, With an election in view, now is perhaps a fitting time to ventilate the subject. Apologizing for length of letter, I am, etc.,

[illegible] FREDERICK H. ALDERSON, M.D.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

SIR,—May I be allowed to bring the above Association, of which Mr. Reginald Harrison, F.R.C.S., is President, to the notice of those London medical men who have not yet joined, and to ask them to do so soon, as we wish the Society to become as representative and as powerful as possible in order that success may be assured?

As no more funds are required no subscription is necessary, and no member need do more than give his passive support unless he wish.

The Association is composed entirely of medical men, and was formed with the view of getting an efficient street ambulance system adopted for London. The urgent need for such a system, although so well recognized by our profession, is not sufficiently understood by many of those outside it.

The forthcoming London County Council elections will afford an excellent opportunity for bringing the question before the public, who must necessarily be both the providers of, and gainers by, such a scheme. All candidates for election, irrespective of party, will be asked whether they will forward the adoption of an efficient system of street ambulances for London, and whether they will bring the matter forward at their meetings. In the event of any of them not wishing to do so, the Association will endeavour to interest the electorate of the particular district in the matter. I am, etc.,

Arthur James, M.D., D.P.H.,
[illegible] Honorary Secretary.

THE INQUEST ON MR. WHITAKER WRIGHT.

SIR,—On Thursday last I was asked to attend Mr. Whitaker Wright at the time of his death and I naturally expected to receive an intimation as to the time and place of the necropsy. On Wednesday at 4 P.M., as I had received no such information, I telephoned to Mr. Troutbeck, who referred me to Dr. Freyberger, adding that the necropsy was already completed, or at any rate well in progress. I can quite understand that the interests on the coroner's time are very great, but at the same time, I cannot but feel that it is in the interest of the public as well as the profession that this courtesy should be extended to us. I am, etc.,

[illegible] W.C., Jan. 21st. OLIVER ATKEY.

MEDICAL APPLIANCES FOR ALPINE CLIMBERS.—It is announced that during the coming Alpine season all the mountain huts will contain a new article of kit. According to the *Daily Chronicle* three deaths occurred last season while the doctor, who was waiting at home with instruments to relieve him the valley, was hoping by the patient whose life was ebbing away.

OBITUARY.

MAJOR A. E. GRANT, I.M.S.

MANY friends will hear with great regret of the death of Major Ewan Grant, which took place at Bournemouth on December 13th, at the early age of 41 years. His health began to fail at the Malaria Conference held at Nagpore two years ago when he discovered he had glycosuria. Shortly afterwards he came home to England and did not again return to India. Though he put himself through the very strictest course of dieting and studied in his own person with his usual scientific accuracy the various other resources of therapeutics for his disorder, he gradually lost weight and strength, but he kept to his work till the end of November, when he was compelled to take to bed, after which the end came quickly. One more has been added to the long roll of medical men who have fought to the last and continued to minister day after day to those very often in a much less parlous condition than themselves.

Major Grant was born on August 17th, 1862, in India, his father, James Murray Grant, afterwards Major-General, being at that time Major in the Indian army in Madras. He belonged to the Glenmoriston branch of the clan. His mother was a Cameron. His early associations were thus with the army in India, in which he afterwards found his career. He was educated at various schools but chiefly at Tonbridge, from which he proceeded to Edinburgh University, where he took his degree in 1885. Characteristically as a student he struck a more or less independent line, adhering to routine to the minimum degree possible, but reading widely in many directions. He was then, in the days of the old high bicycle, an enthusiastic cyclist, and the members of the University Bicycle Club from 1882-6 will remember many a good race he rode. This interest in cycling and in all athletic and outdoor exercises he retained all his life. From Edinburgh he entered the Indian Medical Service in 1888 and from old associations chose Madras as his presidency. After doing rather less than the usual two years in military duty partly in India but chiefly in Burma, at the base of the Chin Lushai expedition, he was appointed to act as Second Physician at the General Hospital, Madras, and Professor of Hygiene at the Medical College. This post, in which he was afterwards confirmed, he held for ten years, and it was there that he established his reputation as an erudite and accomplished physician and a scientific and active hygienist. In his lectures at the College he devoted the greatest care, and his clinical teaching in the wards was most systematic.

Incidentally, whilst learning medicine, his students learnt also from him the high standard of ethics in relation to their patients and each other up to which he himself always acted, because he was essentially a gentleman in the best use of the term. It was whilst lecturing on hygiene that he set himself to revise King's *Madras Manual of Hygiene* the first volume of which he published in his own name as the *Indian Manual of Hygiene*: the second volume, a large part of which exists in manuscript, he unfortunately did not live to complete. He wrote much besides in the form of articles for journals, for societies, etc., and amongst other things published, as songs set to music, some of the music he himself composed, music being one of the favourite relaxations of his versatile mind.

For some time before he finally left India on sick leave he was Acting-Deputy Sanitary Commissioner and when he left, Acting Sanitary Commissioner with the Government of Madras. Skilled as he was as a physician his tastes were strongly in the direction of hygiene and it was his wish gradually to disencumber himself of the practice of physic so that he might be free to devote his whole time and thoughts to hygiene. He was an ardent advocate of original research and was watching with the deepest interest the development of the Tata scheme in India.

The independence of character displayed in his student days he retained throughout his life. A man of strong character it was inevitable that his pithy sayings should sometimes sting opposition. Such opposition was only a spur to him to set out for what he thought right. But his utterances were always made in such a way that the sting left but little rankle in the wound, and many are the patients who will long remember the sympathy, kindness, and help he quietly exhibited to the sick he sought to lead upon their way.

We have pleasure in saying that he possibly gained both the trust and respect. He had also in a very marked degree that quality which has come to be expressed by

the medical services, and has done so much to strengthen our administration in India—the quality of readily obtaining the confidence of his native patients. His life's work has furthered the cause of medicine, of hygiene, and of British rule in India, and all are the poorer by his loss.

He is survived by a widow and four children.

HENRY ROBINSON, L.R.C.P., L.R.C.S.Edin.

By the death of Mr. Robinson the medical profession in Chesterfield loses its oldest member, and an interesting link between the past and the present is broken.

Mr. Robinson was essentially a "son of the soil." Of Chesterfield he came, in it he lived, in it he died. He was a member of a family well known and highly respected, which has made its mark beyond the limits of his native place. He was predestined to succeed in whatever career he should happen to choose. He chose medicine; and as in those days it was still the custom to enter it by way of apprenticeship, he was bound accordingly to an old practitioner, Dr. Holland, and after his death to his successor, Dr. Charles Booth, who subsequently became his brother-in-law.

From this apprenticeship Mr. Robinson passed to the University of Edinburgh. Of his teachers there Mr. Robinson always had much to relate. Of Spence and Simpson, of Christison and Hughes Bennett, of Syme and Lister, he had many an anecdote to tell. Scarcely less interesting were his tales of his contemporaries and fellow-students, notably of Lawson Tait and Milner Fothergill, his intimate associates.

Domestic causes, unfortunately, deprived Mr. Robinson of the chance of graduating in his university. Taking instead the diplomas of L.R.C.P. and S.Edin., he returned to his native town, where his professional ability, his gentle and pleasing personality, and his family connexions speedily secured to him a busy and lucrative practice. Despite the cares this incurred, he yet found time for occasional contributions to medical literature. Notably, he was one of the first to call attention to Laburnum Poisoning in a communication to the British Medical Journal in 1883.

As for local medical records he was a perfect mine, and his recollections were always at the service of his younger brethren, in spite of the fact that, during his later years, his impaired health enforced on him an almost complete retirement.

Deaths in the Profession Abroad. Among the members of the medical profession in foreign countries who have recently died are Dr. Vassili Afanasieff, Professor of Pathological Anatomy in St. Petersburg, aged 55; Dr. Peypers of Amsterdam, founder and editor of *Janus*, aged 48; and Dr. A. Laumonier, a general practitioner, of Vernoil-le-Fourrier, well known as a botanist, and author of a work entitled *Le Lys dans ses rapports avec l'art heraldique*, aged 64.

ROYAL NAVY AND ARMY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE.

The notice which appeared in the *London Gazette* of December 11th, 1903, relative to the restoration to Mr. George Mogridge of his commission as Surgeon is cancelled.

The following appointments have been made at the Admiralty: Alastair F. Mackay, Surgeon, to the *Hecla*, January 28th; Sydney Cronyn, Surgeon, to the *Excellent*, for the *Hecla*, January 28th; William A. Whitelegge, M.D., B.A., Fleet Surgeon, and Alfred W. Iredell, Surgeon, to the *Crescent*, February 4th; Edward Cooper, Staff Surgeon to the *Victoria*, for the *Narcissus*, February 11th; James Mowat, M.B., Surgeon, to the Hong Kong Hospital, February 20th; Cecil E. C. Child, Surgeon, to the *Ocean*, February 24th; Thomas F. O'Kelly, M.B., Surgeon, to the *Terrible*, February 25th; Malcolm T. Male, M.B., Surgeon, to the *Doris*, February 25th; William N. L. Chrisp, Surgeon, to the *Isis*, February 29th; Frederick C. Robinson, Surgeon, to the *Hood*, February 29th.

Civil Practitioner Joseph P. Falls has been appointed Surgeon and Agent at Tolia Head and Mahimere, January 25th.

ROYAL NAVY VOLUNTEER RESERVE.

Charles D. Marshall, F.R.C.S., has been appointed Sub-Lieutenant, January 23th.

ROYAL ARMY MEDICAL CORPS.

Major J. Will has been appointed Principal Medical Officer in the East African and Uganda Protectorates.

Captain H. E. Thurston has been appointed Deputy Assistant-Director-General, Army Medical Service, at head quarters.

Captain Robert Dalkeith Jerson died from an accident at Rawal Pindi on January 9th, aged [illegible]. He had gone out in the morning shooting, and later in the day was found shot through the head. It is not known how the accident happened. He joined the department as Surgeon-Lieutenant, July 28th, 1897, and became Captain, July 28th, 1900. He was in the Soudan campaign in 1898, and was at the battle of Khartoum, receiving the British medal and the Khedive's medal with clasp. He was also in the South African war in 1900-1902.

The following gentlemen were successful at the recent examination in London for commissions in the Royal Army Medical Corps, and for which fifty-eight candidates entered:

	Marks.		Marks.
G. F. Rugg ...	[illegible]	W. Wiley	[illegible]
D. S. B. Thomson ...	[illegible]	R. B. Hole	[illegible]
A. S. Arthur	[illegible]	A. L. Otway ...	[illegible]
J. Fairbairn	[illegible]	W. F. H. Vaughan ...	[illegible]
R. G. Anderson	542	M. F. Grant	[illegible]
L. Bousfield	542	H. Harding	[illegible]
J. H. Douglass	540	D. P. Johnstone	495
D. Le Bas	537	E. H. M. Moore	489
R. R. Lewis	532	T. J. Garland	479
C. H. Turner	527	M. D. Ahern	472
F. H. Noke	[illegible]	H. B. Connell	471
G. E. Cathcart	520	G. S. C. Hayes	[illegible]
E. C. Whitehead	519	S. C. Bowle	472
T. C. Lucas	518	A. A. Meaden	461
J. A. Turnbull	[illegible]	R. J. Cahill	457

ARMY MEDICAL RESERVE.

Surgeon Major G. H. Darwin, M.D., and Surgeon Captain W. P. Peake, having resigned their Volunteer appointments, cease to belong to the Army Medical Reserve.

INDIAN MEDICAL SERVICE.

Lieutenant Colonel W. A. Sykes, D.S.O., Bengal Establishment, Administrative Medical Officer North-West Frontier Provinces, is appointed to officiate as Administrative Medical Officer in Beloochistan.

Lieutenant-Colonel P. A. Weir, M.B., Bengal Establishment, Agency Surgeon in Bhopal and Administrative Medical Officer in Central India, is appointed to officiate as Administrative Medical Officer, North West Frontier Provinces.

Major J. R. Roberts, M.B., Bengal Establishment, Residency Surgeon at Indore, is appointed to officiate as Administrative Medical Officer in Central India.

Memorandum.—Colonel A. M. Branfoot, C.I.E., M.B., retired pay, India Medical Service, is granted the temporary rank of Surgeon General, January 15th.

VOLUNTEER RIFLES.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated January 2nd: C. K. Bowes, M.D., 1st Volunteer Battalion the East Kent Regiment (the Buffs); B. Addenbrooke, M.D., 1st Volunteer Battalion the Worcestershire Regiment; D. L. Thomson, 1st Volunteer Battalion the Hampshire Regiment.

The undermentioned officers have resigned their commissions, from February 3rd: Surgeon-Captain W. G. Gallehly, M.B., 4th Volunteer Battalion the Norfolk Regiment; Surgeon Captain F. Ward, M.D., 1st Volunteer Battalion the Suffolk Regiment; Surgeon Lieutenant E. H. Woodyatt, 3rd Volunteer Battalion the Cheshire Regiment.

Surgeon-Lieutenant J. G. Andrew, M.B., 1st Lanarkshire, to be Surgeon-Captain, February 3rd.

Mr. Ernest R. Hunt to be Surgeon-Lieutenant, February 3rd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant D. Watherston, M.D., is appointed to command the Edinburgh Company, under para. 55A, Volunteer Regulations, January 2nd.

Lieutenant A. H. Lister, M.B., the Aberdeen Company, to be Captain, February 3rd.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES.

The following is substituted for that which appeared in the *London Gazette* of January 1st under the heading "East Surrey Company": Surgeon-Captain (Honorary Captain in the army) E. W. St. V. Ryan, from the 16th Middlesex Volunteer Rifle Corps, to be Captain, East Surrey Company, January 2nd. [The announcement cancelled was to the effect that Surgeon-Captain Ryan was appointed "Surgeon-Captain" to the company cited.]

Captain H. G. Mallam, Sussex and Kent Company, resigns his commission, January 2nd.

Captain C. J. Jacomb Hood is appointed to command the Sussex and Kent Company, under para. 55A, Volunteer Regulations, February 3rd.

THE "PRIOR CLAIM" TO EMPLOYMENT.

A correspondent propounds the following question: A. is in civil practice, and held appointment as recruiting medical officer. B., also in civil practice, having succeeded to a death vacancy in a neighbouring village about three miles away, is a Captain R.A.M.C. (Vol.) Army Medical Reserve. On December 30th A. received official letter from principal medical officer of the district saying that "as B. had volunteered for service," he would take up duty as recruiting medical officer on the 1st of the following month, vice A., whose appointment was thus to terminate at forty-eight hours' notice. A. has had official assurance that this action was in accordance with War Office regulations, and was not due to any complaint as to his ability, or to the strict performance of his duties. Apart from War Office regulations, is B., a civil practitioner, justified in volunteering for duty well knowing that A. was holding the appointment, and that his offer of service will deprive A. of the same?

*** This question of supersession is not new or isolated, but is happily rare. It cannot well be viewed apart from War Office regulations. "B." in volunteering was strictly within his rights, as an officer of the Army Medical Reserve, in accordance with Instructions of the Royal Warrant, February 18th, 1898, constituting that Reserve (see British Medical Journal, March 12th, 1898), which gives him a "prior claim" to War Office employment in the district in which he resides, to the over other medical officers of the auxiliary forces and civil medical practitioners. Both the constitution and ethics of this Warrant were very trenchantly and adversely criticized in the Journal at the time of its

[illegible] surely have been possible to have given him a month's or even a quarter's notice of the change contemplated.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LECTURES ON MEDICAL JURISPRUDENCE.

THE third of the series of lectures under the auspices of the Council of Legal Education was delivered on January [illegible] at the Old Hall, Lincoln's Inn, by Dr Walter [illegible], Coroner of the City of London, the subject being "Death and its Medico-legal Relations." [illegible] the scrutiny [illegible] civil and in criminal cases, to determine the exact moment of death [illegible] that had been taken up in the process [illegible] whether a given body was that of a person who had been dead one or six months. Putrefaction might be considerably delayed in the case of persons who had been [illegible] or who had been poisoned with anti[illegible] The lecturer con[illegible] One of the [illegible] was the [illegible] children by a unqualified medical practi[illegible] should be buried only [illegible] to the cases that should be investigated by the coroner.

BREACH OF A COLLIERY CONTRACT

ON January [illegible] character was heard at the [illegible] County Court, the parties represented in the proceedings being Dr [illegible] of Mold on the one side, and Dr T. Forster Williams and the [illegible] on the other, with the owner of the colliery as [illegible] The particulars of the case as derived [illegible] Dr Lunt [illegible] Mold after a pre[illegible] as Surgeon of the Phoenix [illegible] the late Dr Roberts [illegible] asked for the signature of a definite contract, of which one clause stipulated for six months' notice on either side. At a meeting of the men this proposition was accepted, and the underground manager was authorized to sign such a contract with Dr Lunt on behalf of the men. This he did. Meanwhile, however, the men seem to have altered their mind [illegible] a ballot was taken, which resulted in Dr T. Forster Williams being elected [illegible] of Dr. Lunt. Thereon the men's committee sent Dr Lunt a [illegible] notice, which he refused to accept. Eventually he claimed from the [illegible] which the latter had in his hand [illegible] the men's sick fund payments. This sum Dr Lunt claimed to be due to him in lieu of the stipulated notice. On the other hand Dr. Forster Williams claimed it on the ground that he was the only [illegible] of the colliery. The colliery owner paid the money into court [illegible] the judge ordered it to be paid over to Dr Lunt [illegible] to the colliery owner for whom he said he was sorry [illegible] but he returned them to Dr. Forster Williams.

CORONERS AND MEDICAL WITNESSES.

M[illegible] the [illegible] *Standard* with [illegible] concerning the sudden death of a [illegible] on the evening of his death he was in excellent spirits, talking and [illegible] He had his supper and afterwards [illegible] bleeding [illegible]

[illegible]

[illegible]

[illegible] I, A.M.C. writes [illegible]

[illegible] ence to himself, he having been [illegible]

* It is within the power [illegible] to give the necessary medical evidence [illegible] deceased [illegible] to death.

QUALIFIED MEDICAL PRACTITIONERS AS DENTISTS.

L. D. S. [illegible]

** Medical practitioners always [illegible] under certain conditions [illegible] very exceptional [illegible] Birmingham or elsewhere [illegible] extraction [illegible] or elsewhere [illegible] practitioner [illegible] expressly excepts qualified medical practitioners.

OPTICIANS AND EYE TESTING.

A CORRESPONDENT sends [illegible] account of the Livery [illegible] of the Spectacle Makers' Company [illegible] regret to see that the Master, Mr [illegible] that in future there will be two [illegible] sight testing [illegible] by the Spectacle Makers' Company, or assist at an examination upon any terms.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

F. G. P.—The general rule is against [illegible] testimonials to be used for purposes of trade advertisement [illegible] medical practitioners only in the immediate neighbourhood, but our correspondent must take care that this limit is not exceeded.

A QUESTION OF FEES.

DR. JAMES MURPHY (Sunderland) writes: [illegible] brought me her son to have my opinion as to the advisability of an operation on him [illegible] present.

THE KEELEY INSTITUTE.

DR. JAMES EDMUNDS [illegible] writes [illegible] next issue of [illegible] the BRITISH MEDICAL JOURNAL.

RELATIONS OF MEDICAL OFFICERS OF HEALTH TO THEIR PROFESSIONAL COLLEAGUES.

W. W. H.—[illegible] without the knowledge of the [illegible] in charge.

** As the medical officer of health had already expressed [illegible] have [illegible] we did not think [illegible]

THE TITLE OF [illegible]

W. D. C.—A [illegible] of the University of Cambridge [illegible]

PRIVATE HOSPITAL FOR OUT-PATIENTS.

A CORRESPONDENT [illegible] Central Ethical Committee.

MEDICAL ETIQUETTE

A DAN.—As a general rule a practitioner who has attended a case as ... for a medical neighbour is not free to supersede him. If the present case the patient had left the town, and so ceased to be a patient of ... for original medical attendance. Something would depend upon the duration of the interval, which our correspondent does not state. If this has been more than a year we think he would be free to take the case.

NORMANS asks if it is unprofessional, and whether the General Medical Council has power to prevent a medical man writing a medical book for the laity. He refers to the advertisements of the *Daily Mail* and of the ... in the *Daily Mail* for January 9th.

* It is desirable that the public should be better informed upon many questions relating to individual and public health, and yet there are many pitfalls to be avoided in the writing of such works if the author is to escape being charged with a desire to advertise himself rather than to benefit the public. If such books are written in such a way as to avoid these grounds of complaint they may be advertised in non-professional newspapers, but the practice of advertising gratuitously medical books in lay newspapers has been formally condemned by the Royal College of Physicians in a resolution passed on June 4th, 1903.

W. states that he was called in to a patient during the absence of the regularly attending medical man, and was asked to meet him in consultation on his return. It was then arranged that our correspondent was to see the patient in consultation two or three times a week, but he complains that he had no further communication about the case. He heard after some weeks that the patient was convalescent, and wrote to the patient's medical attendant to protest against the way in which he had been treated, and to say that he should send in his account to the patient instead of allowing his previous attendance to count as work done as a substitute. He asks whether he has acted rightly in the matter.

* Our correspondent has a perfect right to charge for his services which were not rendered at the request of the regular medical attendant. It very frequently happens that arrangements as to future consultations come to nothing, although they may be made at the express wish of the patient and are concurred in at the time by the medical attendant. We may suspect the cause, but it is obviously impossible to complain, as the patient can, if he pleases, insist upon the arrangement being carried out.

COST OF SANITARY ALTERATIONS IN A HOUSE

Whether the owner or the leaseholder is responsible for the expense incurred by sanitary requirements entirely depends on the terms of the lease. The owner can, we believe, recover from the leaseholder if the latter has a lease similar to the majority of leases, stating that "all expenses and outgoings are to be paid by the tenant." It is improbable that there is any special clause exempting the drainage of the house from the conditions of the lease.

EN.—We cannot say what view the General Medical Council would take were the case brought before them; everything would depend on the surrounding circumstances.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD

Term Dates.—HILARY Term: Thursday, May 7th, to Easter Term. Thursday, April 28th. Thursday, May 12th, ... Trinity Term. Thursday, June 9th: Tuesday, June 21st, Saturday, July 2nd.

Doctorates.—*D.M.* *Bart.*: H. W. Kaye, Magdalen College. *D.Sc.*: F. P. Nunneley, Brasenose College. *B.Litt.*: ... Magdalen College. C. M. H. Howell, Trinity College. *M.A.*: F. N. B. ... Oriel College. A. G. ..., Christ Church.

Rhodes Trust.—As announced in the BRITISH MEDICAL JOURNAL of December 26th, 1903, p. 1811, the Rhodes Trust Scholarships will be open for competition on Tuesday, March 1st. Nominations of candidates must be sent in to the Rhodes Trustees' Secretary, University Museum, Oxford, on or before Tuesday, February 9th.

UNIVERSITY OF CAMBRIDGE

Royal Visit.—His Majesty the King has graciously intimated his intention of visiting the University on May 13th, for the purpose of opening the new buildings for the Medical School, which will include the Botanical Laboratory and the Balfour Library. Dr. H. K. Anderson, Caius College, has been appointed Lecturer in Physiology, and ... Lecturer in Pharmacology, in the Medical School.

Tropical Medicine.—The regulations for the ... examination and diploma in Tropical Medicine have been approved by the Senate, January 27th.

Degrees.—The following degrees were conferred by the Chancellor on January 27th: *M.D.*—J. ... Clarke, C. J. K. Murphy, Caius. *M.B.*—... Medical Testimonial, Emmanuel. *B.C.*—C. F. ..., Pembroke. *M.B.*—... Fitzwilliam. J. Steward, Downing.

UNIVERSITY OF BIRMINGHAM

Convocation.

The fourth yearly meeting of the Convocation of the University of Birmingham was held on January 30th, the Chancellor the Right Hon. Joseph Chamberlain) presiding.

Annual Report.—In moving the adoption of the report, the Pro-Chancellor (Alderman F. C. Clayton) referred to the work of the past year. He mentioned that a professor of ... and ... physiology had been appointed, and that there had been instituted a Honours course in the Faculty of Science.

tures would be given by Sir Michael Foster in the Town Hall on March 8th. He also referred to the new buildings of the University, and said that great progress had been made in them during the year, and that there was hope that there would be some regular work done there as early as October next. The income of the University, as compared with the previous year, showed an increase of £4,000, most of which was due to grants of money from local authorities. The expenditure, on the other hand, had increased by about £3,000. The gifts to the endowment fund up to the end of last September, exclusive of land promised, amounted to £70,000, of which about £40,000 was still outstanding. Already £50,000 had been spent on the new buildings, and a sum of £20,000 was invested in properties and other securities.

The Principal, Sir Oliver Lodge, in seconding the adoption of the report, said that it had been contemplated that a large and influential deputation, which should represent all the universities of the United Kingdom, should wait on the Chancellor of the Exchequer for the purpose of getting a sum voted every year to be devoted to higher education. He thought that possibly one to two millions would be required. He explained that the duties of the new chair of education were not to be confined to the ordinary educational work which was carried on in the University, but the education of a much wider district. He commended the idea of Bishop Knox, who suggested that the country should be divided into a sort of educational heptarchy, each province being presided over by its own university. The establishment of a system of inspection and examination of secondary schools seemed to him to be necessary.

The Chancellor of the University said that it would be a great pity if, in any application which was made to the Government, any idea that would disperse individuals from their personal duty in the matter should arise. He pointed out that if any attempt were made to throw the whole charge upon the Government, they would thereby lose for themselves all that they gained by the local patriotism which was being evoked, by the local self-denial and earnest interest which followed upon it.

Both the Chancellor and the Principal in their speeches made reference to the desirability of providing residential hostels for the students and of obtaining more land for athletic purposes.

VICTORIA UNIVERSITY.

MESSRS. E. M. ASHCROFT AND H. THORP obtained the Diploma in Public Health at the Examination held in January, 1904. In future two examinations will be held annually instead of one as heretofore.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

THE ordinary quarterly comitia was held at the College on Thursday, January 28th, the President, SIR W. S. Church, Bart., in the chair.

The Horace Dobell Lecture.

The President announced that Dr. Klein, F.R.S., would give the first Horace Dobell Research Lecture on November 22nd, 1904, and that Dr. Payne had been reappointed Fitzpatrick lecturer for the ensuing year.

The College Seal was set to a "Declaration of Trust" accepting on the part of the College a sum of £3,000 Consols in trust to endow, for a term of years, a lectureship at the College, to be called "The Dr. Horace Dobell Research Lectureship" the conditions having been already agreed upon.

Members.

The following gentlemen were admitted as Members: S. J. Aarons, M.D.Edin., D. Forsyth, M.D.Lond., L.R.C.P., A. E. Jones, M.D.Lond., L.R.C.P., L. M. Scott, M.A., M.D.Aberd.

Licentiateships.

The Licentiateship of the College was granted to 112 gentlemen.

In connection with the Royal College of Surgeons the diploma in public health was awarded to the following gentlemen: J. F. E. Bridger, L.R.C.P., M.R.C.S., A. Cadby, M.D., B.S.Lond., L.R.C.P., M.R.C.S., A. G. Caldwell, M.D., B.Ch., R.U.I., J. W. E. Cole, B.C.Cantab., L.R.C.P., M.R.C.S., F. H. Comerford, L.R.C.P., M.R.C.S., A. S. Davis, L.R.C.P., M.R.C.S., A. S. Downham, L.R.C.P., M.R.C.S., L. W. Dryland, L.R.C.P., M.R.C.S., G. Elliott, L.R.C.P., M.R.C.S., A. R. Falconer, M.B., B.Ch., New Zeal., F. C. Freeman, Major R.A.M.C., L.R.C.P., M.R.C.S., G. D. Freer, M.B.Lond., L.R.C.P., M.R.C.S., D. A. Hughes, L.R.C.P., M.R.C.S., M. A. Kor Major I.M.S., M.B., C.M.Edin., J. E. Lunnell, M.B., B.C.Cantab., B. R. Lloyd, L.R.C.P., M.R.C.S., S. I. Pratchett, L.R.C.P., M.R.C.S., C. Ryley, L.R.C.P., M.R.C.S., A. F. Smithson, Major R.A.M.C., M.B., B.C.Cantab., L.R.C.P., M.R.C.S., P. T. H. Stoney, M.B.Lond., L.R.C.P., M.R.C.S., A. H. Tubbs, L.S.A., G. S. Wallace, M.B., Ch.B.Glasg., E. C. Watts, M.D., C.M.Edin., F.R.C.S.Edin.

Licentiateship Foundation.

Dr. George Oliver offered to present £2,000 to the College in trust to endow a fellowship or fellowships, with a view to encourage the application of physiological knowledge to the prevention and cure of disease and the prolongation of life.

The offer was accepted, and a vote of thanks to Dr. Oliver for his generous gift was passed with acclamation.

Physical Deterioration Report.

A communication was received from the Home Secretary asking the opinion of the College as to the question whether experiments on living animals by the classes ... necessary for the adequate teaching of pharmacology.

A committee was appointed to consider the question and to report further to the College.

Physical Deterioration Committee.

In response to a request from the Secretary of the Physical Deterioration Committee of the Privy Council asking the College to nominate a physician to give evidence, Drs. Edmund Shaw Aveling and Robert Hutchison were nominated to give evidence on the questions of the nutrition of children amongst the poor and the deleterious effects arising from the use of artificial foods. It was left to the President to further nominate a physician to give evidence as to lunacy amongst the poorer classes.

A ballot for ... elected December 3rd, 1903, was moved from the Committee appointed July 2nd, 1903, "On the Physical Deterioration of the Adult Race."

After some correspondence respecting the surgical matter to be discussed at the meeting of the Royal Colleges of Physicians and Surgeons of England to be held in the College of Physicians, it was decided to leave the reply to be sent to Mr. Fitzroy's communication in the hands of ...

"The Committee of the Royal College of Physicians appointed by the College July, [illegible] having taken into consideration the further documents submitted to them, are of opinion that an inquiry into the present state of health of the [illegible] extent and causes of the alleged [illegible] debility for military service of certain classes [illegible]

"In their [illegible] report the Committee considered that sufficient data were not available for forming a [illegible] on the extremely complex question of the [illegible] or [illegible] progressive degeneration in the classes from which recruits are mainly drawn, and the supplementary matter now brought [illegible] them does not suggest any modification of their former [illegible]

"(Signed) W. S. CHURCH, President

The General Medical Council.

A letter was read from the President of the General Medical Council asking the opinion of the College on certain questions raised by the report of the Visitors on the whole series of first examinations of the licensing corporations inspected.

The matter was referred to the Committee of Management to consider and report to the College.

Reports.

The following reports were received and adopted:

1. From the Council recommending as Councillors Drs. E. Markham Skerritt, Samuel H. West, Abercrombie, J. Kingston Fowler in the places of Sir George Philipson and Drs. Goodhart, Hall, and William Ewart, who retire by rotation, and that Dr. Pye-Smith should remain on the Council for a second period of two years. The Council intimated also that they had appointed Dr. Thomas Morison Legge, D.P.H., one of H.M. Inspectors of Factories, to be the Milroy Lecturer for 1905, and that the subject of his lectures would be Industrial Anthrax.

2. From the Committee appointed October 27th, 1903, to consider a Norwegian Report on Beri-beri, occurring on board ships, submitted by the Board of Trade. General agreement was expressed with the conclusions of the Norwegian report.

From the representative of the College on the General Medical Council on the proceedings of the Council affecting the College at their session in November last.

4. The quarterly report of the College Finance Committee.

From the Committee of Management, dated December 7th, 1903, recommending that the Municipal schools, Gloucester, be added to the list of institutions recognized by the Examining Board in England for instruction in Chemistry, Physics, and Practical Chemistry.

From the Laboratories Committee, reporting that during the three months ending December 4th, [illegible] doses of diphtheria antitoxin, each containing [illegible] units, have been supplied to the hospitals of the Metropolitan Asylums Board, making a total of [illegible] units.

That during the quarter further batches of antitoxin supplied by Messrs. Parke, Davis, and Co., have been tested in the Laboratory, and a certificate granted showing its strength, sterility, and freedom from excess of antiseptic.

Library.

Books and other publications presented to the Library during the past quarter were received and thanks returned to the donors.

Examinations.

The annual return by the examiners of the results of the examinations for the Licence in the year 1903 was received.

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed section A of the Final Examination:

G. MacG. Millar, H. English, C. R. Morris, B. Johnson, G. E. Nesbitt, M. D. Bergin, W. R. Galwey, W. G. Harnett, H. J. Knox.

The following candidates have passed the previous Medical Examination in the subjects noted:

Anatomy and Physiology.—Medicine: W. G. Harnett, W. C. Mac Fetridge, J. H. Ellis, R. E. Dunn.

Physiology and Chemistry.—W. F. Casey, W. F. Samuels, H. J. Knox.

Biology and Zoology.—J. C. C. Hogan, R. Magill, R. L. Lee, D. J. Stokes, A. K. Cosgrave, J. H. Morton, J. A. L. Hann, W. T. Casey.

CONJOINT BOARD IN SCOTLAND.

THE quarterly examinations of the above Board, held in Edinburgh, were concluded on January 23rd, with the following results:

First Examination (Pass).—Marguerite Alice Christian Douglas, A. M. Aitken, W. Taylor, G. L. Nash, A. E. James, H. P. E. Tait, C. A. Peterson, F. Thompson, W. Riddell, A. M. Davis, J. W. M. Hunter, and W. C. Malone.

Second Professional Examination (Pass).—Anatomy and Chemistry: R. H. Bland and I. K. Lindsay.

Second Professional Examination (Honours).—J. Clarke with distinction.

Third Professional Examination (Pass).—Medicine, Surgery, and Midwifery: W. G. S. Mercer, A. J. Cornwall, Nora Beatrice Ievers, J. S. K. Weir, T. F. Hall, C. C. Littlewood, H. Stokes, and G. H. Powell.

Third Professional Examination (Honours).—Pathology: A. Longley, J. Murphy, R. H. Cheshire, C. H. A. Vallet, Ida Margaret G. Hulme, D. C. McNeil, P. Ida Mellon, J. Robert, R. E. Wardle, E. Wearing, J. S. De Souza, W. M. MacGregor, and M. M. Fitzgerald.

Final Examination (Medicine, Surgery, and Midwifery).—W. A. Dorrian, J. S. Cooper, A. E. H. B. Pearce, H. L. Davy, E. E. Anderson, E. A. C. Rigby, I. D. Nesbitt, I. F. Andrews, L. A. Mayo, Cecil Lacroix, L. F. Barnett, W. J. Pearce, H. M. Atkinson, A. Anderson, J. Stark, W. B. Hendry, I. MacLeod, H. M. Mottley, S. A. M. Lewson, J. Campbell, H. R. Leonard, P. Snow, F. J. Anthony Pilsky, S. Nesmond Dru, E. E. Lange, R. S. Vernon, A. M. Weeks, J. H. Yearsley, J. M. Huey, D. C. W. Allt, T. S. Peirce, Euthalia Ley Richards, C. H. A. Alderton, W. L. Hodge, J. Watson, H. S. Casarin, K. D. Chambatta, and S. P. Joseph.

Eleven passed in Medicine and Therapeutics, Surgery and Surgical Anatomy, and Midwifery, and in Medical Jurisprudence.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, JANUARY, 1904.—The following candidates passed in

Surgery.—R. S. Dowland, Royal College of Surgeons in Ireland and West Londoner Hospital; P. Lee, Sections I and II., Amsterdam; B. C. Ghosh (Section II., Cambridge); J. W. Hughes (Sections I and II., St. George's Hospital); W. G. Kinton (Section II., Manchester); J. W. Watson (Section II., Manchester).

Medicine.—W. V. Braddon, Sections I and II., Cambridge and Manchester; F. H. Hand (Section II., St. Mary's Hospital); J. D. Kerr (Section II., St. Mary's Hospital); W. G. Kinton (Section I., Manchester); E. H. Price (Sections I and II., Birmingham); A. Rogers (Section II., Cardiff and St. Mary's Hospital); A. Turner (Sections I and II., Charing Cross Hospital); S. Zweiback (Section I., Königsberg).

Forensic Medicine.—F. H. Hand, St. Mary's Hospital; W. G. Kinton, Manchester; A. Turner, Charing Cross Hospital.

Midwifery.—H. Arcedeckne, Leeds; C. H. J. Fagan, St. George's Hospital; W. S. Lewis, Birmingham; P. B. Worthington, London Hospital.

The diploma of the Society was granted to W. V. Braddon, F. S. Dollard, P. Dhas, B. C. Ghosh, J. D. Kerr, W. S. Lewis, and A. Turner.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.

THE Registrar-General has just issued his return relating to the births and deaths during the fourth quarter of 1903, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to 17·1 per 1,000, and was 0·1 per 1,000 in excess of the mean rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending December last numbered [illegible], and were equal to an annual rate of [illegible] per 1,000 of the population, estimated by the Registrar-General at [illegible] persons in the middle of last year. This rate was 1·1 per 1,000 below the average rate in the fourth quarters of the ten preceding years. The birth rates in the several counties ranged from 24·5 in Sussex and Rutlandshire, 21·0 in Westmorland, 21·1 in Cornwall, 21·2 in Bedfordshire, 21·3 in Herefordshire, to [illegible] in Northumberland, 25·2 in South Wales, [illegible] in Staffordshire, 31·1 in Nottinghamshire, [illegible] in Monmouthshire and [illegible] in Durham. In seventy-six of the largest English towns, including London, the birth-rate last quarter averaged [illegible] per 1,000, being slightly in excess of the general English birth-rate. In London the rate was 27·4 per 1,000, while it averaged 28·1 per 1,000 in the seventy-five large provincial towns, among which the birth-rates ranged from 17·3 in Hastings, [illegible] in Bournemouth, 19·5 in Hornsey, and 19·6 in Halifax, to [illegible] in Smethwick, [illegible] in Merthyr Tydfil, 35·3 in Rhondda, and [illegible] in St. Helens.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 94,[illegible], this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 54,[illegible] emigrants embarked during the three months for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these [illegible] emigrants [illegible] were English, 5,[illegible] were Scottish, and [illegible] were Irish, while 2,[illegible] others were of foreign or colonial nationality. Compared with the average numbers in the corresponding quarters of the three preceding years the emigration of the correspondingly increased population showed an increase of 11·6 per cent. in England, of [illegible] per cent. in Scotland, and of 1·4 per cent. in Ireland.

During the fourth quarter of last year the deaths of [illegible] persons were registered, equal to an annual rate of [illegible] per 1,000 persons living. This rate was 1·1 per 1,000 below the average in the ten preceding corresponding quarters. The lowest county death-rates last quarter were 11·8 in Sussex, 12·0 in Rutlandshire, 12·[illegible] in Herefordshire, 13·[illegible] in Surrey, and 13·[illegible] in Hertfordshire, while the highest rates were 19·0 in the West Riding of Yorkshire, 19·[illegible] in Northumberland, and [illegible] in Durham. In seventy-six of the largest towns with an aggregate population of more than fifteen millions, the death-rate averaged [illegible] per 1,000, while in the smaller towns, containing in the aggregate upwards of eleven and a half millions, the death-rate was [illegible] per 1,000, while in the remaining districts of England and Wales the death-rate was [illegible] per 1,000. In London the rate was [illegible] per 1,000, while among the seventy-five large provincial towns the rates ranged from 13·[illegible] in Hastings, [illegible] in Leicester, [illegible] in East Ham, 15·[illegible] in Walthamstow and [illegible] in Huddersfield, to [illegible] in Merthyr Tydfil, [illegible] in Warrington, and in Middlesbrough, [illegible] in York, [illegible] in Wigan, and [illegible] in Preston.

The [illegible] deaths from all causes registered in England and Wales last quarter included [illegible] which were referred to the principal zymotic diseases, of these [illegible] were attributed to diarrhœa, [illegible] to fever, [illegible] to whooping-cough, [illegible] to diphtheria, [illegible] to "fever (specified)," [illegible] to enteric, [illegible] to scarlet fever, and [illegible] to small-pox. The mortality from small-pox corresponded with the average that from diarrhœa was slightly in excess, while the rate from each of the other principal zymotic diseases showed a decline. Of the fatal cases of small-pox registered last quarter, [illegible] belonged to Gateshead, 4 to Morpeth, 4 to Warrington, 5 to London, 5 to Tynemouth, and 10 to Carlisle.

The rate of infant mortality in England and Wales last quarter, as measured by the proportion of deaths among children under one year of age to registered births, was 154 per 1,000, against an average rate of [illegible] per 1,000 in the corresponding quarters of the ten preceding years. In the several counties the rate of infant mortality ranged from [illegible] in Oxfordshire and Huntingdonshire, [illegible] in Westmorland, [illegible] in Staffordshire, and [illegible] in Sussex and in Bedfordshire, to [illegible] in Surrey, [illegible] in the West Riding of Yorkshire, 194 in the North Riding of Yorkshire, [illegible] in Northumberland, and [illegible] in Durham. In seventy-six of the largest English towns the mean rate was [illegible] per 1,000. In London the proportion was equal to 174 per 1,000, while in the seventy-five large provincial towns it averaged [illegible] per 1,000. The lowest rates ranged from [illegible] in Bournemouth, [illegible] in Hastings, [illegible] in Leyton and [illegible] in Leamington, to [illegible] in Wednesbury, [illegible] in Dewsbury, [illegible] in Middlesbrough, 204 in Burnley, and [illegible] in Stockton-on-Tees, [illegible] in Middlesbrough, 204 in Burnley, and [illegible] in Preston.

The mortality in England and Wales during the three months under notice among persons aged between 1 and 5 years was equal to an annual rate of [illegible] per 1,000 of the population, estimated to be living at this group of ages, and was [illegible] per 1,000 below the mean rate in the ten preceding

fourth quarters. In the seventy-six large towns the deaths [illegible] group of causes averaged [illegible] per [illegible] in London the rate was [illegible] per 1,000, while among the seventy-five provincial towns the rates ranged from [illegible] in Burnley, [illegible] in Kings Norton, [illegible] in Hornsey, [illegible] in Hastings, [illegible] in Hampstead, [illegible] in Walthamstow, [illegible] in Middlesbrough, [illegible] in Bootle, [illegible] in Preston, [illegible] in York, [illegible] in Wallasey.

Among persons [illegible] years of age the death-rate was equal to [illegible] per 1,000 living at all ages, being [illegible] per 1,000 in London, and ranging from [illegible] in Hornsey, [illegible] in Hastings, [illegible] in Kings Norton, [illegible] in Tottenham, [illegible] in Walthamstow, [illegible] in Bootle, [illegible] in Blackpool, and [illegible] in Barrow.

The most favourable [illegible] was observed in the [illegible] in the provinces of England, except the North-Western [illegible], where the [illegible] was [illegible] per 1,000. The [illegible] measured in London was [illegible] per 1,000, being [illegible] per cent. below the average. The duration of bright sunshine in London during the quarter was [illegible] hours, being [illegible] per cent. [illegible] and [illegible] hours less than the average.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns [illegible] births and [illegible] deaths were registered during the week ending Saturday last, January [illegible]. The annual rate of mortality in these towns, which had been [illegible] and [illegible] per 1,000 in the three preceding weeks, declined last week to [illegible] per 1,000, and was [illegible] per 1,000 below the mean rate during the same period in the seventy-six large English towns. Among these [illegible] towns the death-rates ranged from [illegible] in Greenock and [illegible] in Aberdeen, to [illegible] in Leith and [illegible] in Dundee. The death-rate from the principal infectious diseases in these towns averaged [illegible] per 1,000, the highest rates being recorded in Dundee and Leith. The 272 deaths registered in Glasgow included 3 which were referred to small-pox, 6 to measles, 3 to scarlet fever, 5 to diphtheria, and [illegible] to diarrhœa. Seven fatal cases of diarrhœa, [illegible] of measles, and [illegible] of whooping-cough were recorded in Dundee; [illegible] of whooping-cough in Aberdeen; [illegible] were registered in Edinburgh; [illegible] of whooping-cough in Leith, and [illegible] of measles in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, January [illegible], [illegible] births and [illegible] deaths were registered in the six principal Irish towns. The [illegible] rate in these towns, which had been [illegible] and 22·4 deaths in the preceding period, was [illegible] per 1,000, which [illegible] was [illegible] per 1,000 above the mean annual rate in the seventy-six English towns during the same period. The [illegible] rates ranged from [illegible] per 1,000 in Londonderry to [illegible] in Limerick. The deaths from the principal infectious diseases during the same period [illegible] were equal to [illegible] per 1,000, the highest rates being recorded in [illegible], [illegible] being registered in Limerick, and [illegible] in Londonderry. Waterford registered no deaths from these diseases. No deaths from any of these towns occurred from small-pox, typhus, or typhoid fever, or simple continued fever. Four [illegible] deaths occurred in London, and [illegible] in Belfast. [illegible] death each from measles and enteric fever were registered.

VACCINATION REGULATIONS.

R. J. R. Subsection [illegible] of the Vaccination Consolidation Act reads: "In every case in which he has performed vaccination he will, [illegible] less than six days nor more than fourteen days after the operation, [illegible] at the place where the vaccination was performed, or, in the case of a re-vaccination at such other place as may be arranged, [illegible] and will thereafter do [illegible] and otherwise treat the case as may be necessary."

In view of the possible occurrence of cases where inspection was impossible within the period specified, owing to absence of the person vaccinated when the attendance for inspection was made, a question was addressed to the Local Government Board and elicited a reply, which is printed in Greenwood's [illegible] Medical Officer [illegible] page [illegible]. It runs as follows: "A public vaccinator is not entitled to the fee payable under Article [illegible] unless the vaccination has been inspected by him on the day appointed for the purpose or [illegible] from the date of vaccination. If, however, a visit has been made for the purpose of inspection within that period and the person vaccinated cannot be found to see the child, the Board are not prepared to say that the public vaccinator would not be entitled to the fee if the actual inspection is made after the end of fourteen days."

The ultimate responsibility for the interpretation of this clause is therefore thrown upon the court. As the Local Government Board has admitted the possibility of the interpretation we put upon the clause in the BRITISH MEDICAL JOURNAL of January 9th, "The subsection taken in its ordinary sense would imply that actual inspection must be within fourteen days; but attendance for the purpose of inspection is to be within fourteen days, but in the absence of a definite legal decision on the question, we feel that "Mott" is entitled to the benefit of the doubt.

THE LOCAL GOVERNMENT BOARD AND VACCINATION FEES.

The Local Government Board recently applied to the clerks to the guardians throughout the country for a return giving statistics as to vaccination fees and expenses in each vaccination district or union respectively in 1902 and also particulars as to the remuneration of the district or work done by such public vaccinators as were district medical officers or their pauper practice. The return has caused much friction in various districts, as in some cases medical men have refused to supply the information to the clerks to the guardians on the ground that they were not personally responsible for the duty, nor had any communication been made to them by the Local Government Board; but that the clerk to the guardians in each case was the person charged with the duty of obtaining and forwarding the required information. We regret that such a double duty should have arisen. It is the duty of a district medical officer to give reasonable information in regard to his work to the guardians, and the vaccination contract says that the public vaccinator "will perform any other duties in regard to vaccination which may be imposed on him by the Vaccination Acts for the time being or by any order of the Local Government Board under those Acts." The return demanded by the Local Government Board is not really affected by either of these provisions, and yet some of the information required could be obtained only by application to the medical man, and involved in some cases considerable expenditure of time, and perhaps temper, to collect. We feel that in such cases the medical man should do everything in his power to help the clerk of the guardians, but would suggest that when the Local Government Board desires information on a large scale within a short time, and thus at high pressure, it would be well to provide for a definite money payment for the information thus supplied. Certainly some of the irritation and ill-feeling would be removed by such a course.

SANITARY INSPECTION OF SCHOOLS.

Dr. BUTLER-HOGAN, the Medical Officer of Health for Tottenham, applied to a Hackney magistrate for a justices' order to inspect the Drapers' Schools in his district, to which the sanitary officials had been refused admission, in the first place by Miss Beggs, the head mistress, and afterwards by Mr. Isler, the surveyor to the company. The medical officer explained that the application was made under Section 116 of the Public Health Act, 1875, the wording of which was, in his opinion absolutely clear upon this point, the words being: "The local authority or any of their officers shall be admitted into any premises for the purpose of examining as to the existence of any nuisance thereon." It was most important that there should be the same right of entry and inspection with regard to the most lordly premises as the law was to the poorest hovel in the district, this was even of still greater importance when the premises were schools. One-sixth of the population of Tottenham, and probably the most important sixth, consisted of school children. Did the company's lawyer seriously contend that any firm or company, fraternity or guild, who chose to appoint a private surveyor, should thus be relieved from all sanitary inspection? If that was so there would be a good number of private surveyors appointed. The survey of a private surveyor might be very tender, or it might be the reverse. Were the sanitary conditions, including measures for the prevention of infectious diseases, to be left in the hands of any layman whom the company might choose to appoint, and the schools to enjoy freedom from all sanitary supervision? He thought not, otherwise the Public Health Acts and the Local Government Board orders were dead letters. This company, which rejoiced in the rather long and attenuated history rather deceptive title of "The Masters and Wardens and Brethren and Sisters of the Guild or Fraternity of the Blessed Mary the Virgin of the Mystery of Drapers of the City of London," had been treated with every courtesy by him. He had ordered it to have its premises made during the Christmas holidays so as not to [illegible] in the slightest with the work of the school, but the officials of the company had practically stated that he must be too lazy or too cowardly to carry this matter through the Law Courts, or else they felt that there was something to conceal. He hoped the Bench and the press would take particular notice of this case as a bad example, which proved that those who ought to know better deserved the severest reprobation by their neglect of the public. In no other school in the district had there been the slightest opposition to the sanitary officials in the discharge of their duties.

Mr. Isler, on behalf of the company, opposed the application on the grounds that the Medical Officer of Health had arbitrarily refused to specify any particular grounds of complaint, and had claimed a general right of inspection at any time. He deprecated the Medical Officer's remarks regarding the company, who were quite satisfied that their surveyor, Mr. Riley, took every possible care of these [illegible] institutions. The drainage had been seen to some six months ago, and he believed it was right now. He thought the Medical Officer should be called upon to particularize any complaint he had received, and, if [illegible] were done the Justices were not entitled to grant an order, and he quoted the case of Vyse, under the Public Health (London) Act, 1891, as being on a similar footing.

Dr. Butler-Hogan, in reply, said that he did not wish now to discuss any Act which did not apply to Local districts, and that under the circumstances would be disclose information received in confidence from the pupils of the Section were again reminded the Bench, for the purpose of examining as to the existence of any nuisance" [illegible] the purpose of verifying or correcting the existence of such.

In the result the Bench granted the Medical Officer the order applied for.

THE APPEAL TO THE COW.

[illegible]

OYSTERS AND TYPHOID FEVER.

[illegible] ... the active agitators for immediate re- [illegible]

THE EYES AND TEETH OF SCHOOL CHILDREN.

[illegible]

VACCINATION WITHIN DISTRICT.

[illegible]

[illegible]

[illegible]

to call and vaccinate a child before it is 4 months old, and may then send a notice as to the time of his visit, but, with this exception, he should issue no notice of his intention to call and vaccinate the child until he receives information from the vaccination officer that the child has reached the age of 4 months and 7 days and is not yet vaccinated. This information he gets on his H [illegible]. Our correspondent does not state what kind of notice is being periodically issued in his district. We shall be glad if he will forward one to us. The action, while not illegal, may yet be open to adverse criticism in a professional respect.

ANTITOXIN AND CLUB PATIENTS.

W. M. C. [illegible] member of a [illegible] medical officer [illegible] decided that the authority should provide antitoxin for [illegible] poor cases; that this was equivalent to [illegible] the case of a club patient, to asking the rate-payer to provide that which presumably the club doctor had agreed to find, namely, necessary medicine. The authority in question does not isolate diphtheria.

** There can be no doubt in our opinion that the Local Authority is justified in expending money in supplying diphtheria antitoxin for the treatment of diphtheria among the "poorer inhabitants of their district." This is clearly set out in Section CXXXIII of the Public Health Act, 1875:

"Any Local Authority may, with the sanction of the Local Government Board, themselves provide or contract with any person to provide a temporary supply of medicine and medical assistance for the poorer inhabitants of their district."

The use of antitoxin as a prophylactic is justified as an ordinary expenditure on the prevention of the spread of infection. We think that expenditure in its use as a curative agent, particularly when, as above, there is no isolation hospital, is equally justified, but the matter could at once be set right by an appeal to the Local Government Board.

THE PHTHISIS DEATH-RATE OF ENGLAND AND WALES, 1902.

P. L. B.—The phthisis death-rate in England and Wales in 1902 was [illegible] per [illegible].

MEDICAL NEWS.

PUBLIC HEALTH IN ITALY.—Statistics recently published by the Italian Minister of Public Health show that the general death-rate of Italy, which in 1887 was 28 per mille, had fallen in 1902 to 22 per mille. The diminution in the death-rate from contagious diseases was particularly striking.

OPENING OF A NURSING SCHOOL AT BORDEAUX.—On January 25th the Prefect of the Gironde Department, accompanied by the Mayor of Bordeaux and the members of the Administrative Committee of Hospitals, formally opened a school for nurses in connexion with the Hôpital Saint André in that city.

DR. GEORGE THIN, of Harley Street, who died at Nice on December 27th, leaving estate of £20,705, has bequeathed to the Royal Society of London and the Royal Medical and Chirurgical Society £100 each, and, on the death of Mrs. Thin, £100 each to the Middlesex Hospital and the Edinburgh Royal Infirmary.

THE ACCIDENT IN THE RECENT WRESTLING MATCH.—Mr. T. G. Lloyd, L.R.C.P., M.R.C.S., has sent us the following account of the injury suffered by Madrali in the recent wrestling match: I was present at Olympia on Saturday evening when the championship wrestling match took place between Hackenschmidt and Madrali. After the first bout, lasting in all forty-four seconds, it was evident that Madrali, the Turk, had met with an accident to his right elbow, as his arm bore evidence of injury and his face bore signs of pain. I examined his arm both on the platform and also in his dressing room, and I formed the opinion that he was suffering from a severe sprain and incomplete partial dislocation of the right elbow joint, in which the radius was dislocated somewhat forwards and the ulna slightly backwards, with a severe straining and slight rupture of the ligaments of the elbow-joint. I could detect no crepitus in or about the joint. The dislocation and sprain appeared to me to be the result of a sudden and heavy "throw" on the left shoulder, in which the right wrist and arm were brought to the ground with great force, and [illegible] sustained the weight of both wrestlers, accompanied by severe rotatory movements. It is of course very difficult to say exactly how long an injury of this nature will take to heal perfectly, but I am of opinion that, if his arm progresses favourably, Madrali will be quite well in six weeks and fit to wrestle in two months time. It is unnecessary to state that the accident, occurring as it did in so short a time (under forty seconds), was most unfortunate, as it prevented the wrestlers giving an exhibition of their skill. Madrali bore both the pain and the disappointment with great fortitude, and, one might add, with true Oriental reserve.

AT a meeting of the Pharmaceutical Society on Tuesday next at 8 p.m., Messrs. E. H. Farr and R. Wright will read papers on the distribution of the alkaloids in *Cinchona succirubra*, and a note on the disputed presence of a mydriatic alkaloid in *Lactuca virosa*. The new oils of eucalyptus recently described by Messrs. Baker and Smith, together with herbarium specimens of the plants and specimens of the wood and bark of the trees yielding such oil, will be exhibited.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—A general quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will take place at the Warneford Asylum, Oxford, on Friday next, February 12th, at 3 p.m., under the presidency of Dr. Ernest W. White. Dr. James Neil has invited members to luncheon at 1.30. Dr. Lloyd Andriezen will read a paper and give a lantern demonstration on the problem of heredity, with special reference to pre-embryonic life. Dr. Robert Jones will read a paper, if time permits, on the psychology of Jane Cakebread: and microscopic specimens of the trypanosoma of sleeping sickness will be shown, by the courtesy of Sir Patrick Manson. Members will dine together at the Randolph Hotel at 6.45.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received by first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary, £150 per annum.

BIRMINGHAM QUEEN'S HOSPITAL.—Two House-Surgeons, 2 House-Physicians, salary £70 per annum. Obstetric and Ophthalmic House-Surgeon, salary £50 per annum.

BRISTOL ROYAL INFIRMARY.—1 Resident Junior House-Surgeon and Anæsthetist. 2 Resident Casualty Officers. Both resident. Salaries at the rate of £60 per annum.

CAMBERWELL HOUSE ASYLUM.—Assistant Medical Officer resident. Salary commencing at £100 per annum.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium £25 per annum.

CARMARTHEN JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £80 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon.

CHARING CROSS HOSPITAL.—1 Medical Officer for the Electrical Department. 2 Assistant Physicians to the Dermatological Department.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

DUDLEY GUEST HOSPITAL.—Senior Resident Medical Officer. Salary £120 per annum, with board, lodging, and attendance.

GLOUCESTER BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer, resident. Salary, £85, rising to £105.

GLOUCESTER GENERAL INFIRMARY.—Assistant House-Surgeon; resident. Salary at the rate of £50 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary £80 per annum.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon, resident. Salary, £80 per annum.

MANCHESTER ANCOATS HOSPITAL.—Resident House-Physician. Salary £40 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—2 Honorary Physicians. 1 Honorary Assistant Physician.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Surgeon.

MIDDLESBROUGH AND LOFTUS (CLEVELAND URBAN DISTRICT COUNCIL).—Medical Officer of Health. Salary £500 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House-Physician, resident. Salary £50 per annum.

NORTH RIDING INFIRMARY, McHester.—Assistant House-Surgeon, resident. Salary, £70 per annum.

OXFORD RADCLIFFE INFIRMARY.—1 House-Physician. Salary, £50 per annum. 1 Junior House-Surgeon. Salary, £40 per annum.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—Surgical Registrar.

TOTTENHAM HOSPITAL.—House-Physician resident. Salary £50 per annum.

WALWORTH, ROBERT BROWNING SETTLEMENT.—Honorary Assistant Tutor's Assistant Medical Superintendent.

WIGAN ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House-Surgeon, resident. Salary, £50 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £70 per annum.

MEDICAL APPOINTMENTS.

BONNEY, W. Lucas, M.S., M.D. Lond., F.R.C.S., M.R.C.S., Lecturer on Practical Midwifery in the Middlesex Hospital Medical School.

COBBS, Ethel M., M.B., B.C. Cantab., F.R.C.S., Assistant Surgeon to St. Thomas's Hospital.

DYER, Sidney R., M.D. Brux., L.R.C.P., M.R.C.S., Principal Medical Officer of Dartmouth Cottage Establishment.

EDIS, H. L., M.D., M.S. Lond., Dean of Guy's Hospital Medical School, vice John Fawcett, M.D., F.R.C.P., resigned.

HAMMER, W. D., M.C. Cantab., F.R.C.S. Edin., Surgeon to the Metropolitan Hospital, Kingsland Road.

HELLIWELL, W. E., M.B., B.C. Cantab., Honorary Assistant Medical Officer to the Bradford Children's Hospital.

HOLLAND, Percy, M.B., B.S. Durh., Medical Officer to the Tynemouth Township of the Tynemouth Union, vice Dr. H. Bamber, resigned.

JOWERS, L. E., F.R.C.S. Edin., L.R.C.P. Lond., Assistant Surgeon to the Hastings, St. Leonards, and East Sussex Hospital.

MARNER, Percy R., M.D. Durh., M.R.C.S. Eng., Medical Officer to H.M. Prison Stafford.

MEADE, Norman G., M.R.C.S., L.R.C.P. Lond., Honorary Assistant Medical Officer to the Bradford Children's Hospital.

PATTULLO, W., L.R.C.P. and S. Edin., L.F.P.S. Glasg., District Medical Officer of the Durham Union.

PHILLIPS, James, F.R.C.S. Edin., L.R.C.P. Lond., Honorary Medical Officer to the Bradford Children's Hospital.

FORTER, W. George, M.D., M.R.C.S., F.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

FRAZI, J. Dallas, M.D. Dub., B.Ch., F.R.C.S.I., Certifying Factory Surgeon for the Dublin District.

ROWE, R. Wells, M.R.C.S., L.D.S., L.R.C.P. Lond., Dental Surgeon and Lecturer in Dental Surgery at Guy's Hospital.

ROWE, Joseph Hanbury, M.B., C.M., Anæsthetist to the Bristol Children's Hospital.

SMITH, Sydney, B.S. Lond., F.R.C.S. Eng., Honorary Surgeon to the Woolwich Dispensary, London.

SMITH, William Robert, M.D., B.S. Lond., F.R.C.S. Eng., Assistant Surgeon to the Hospital for Women, Nottingham.

WARING, H. J., M.S. Lond., F.R.C.S. Eng., Consulting Surgeon to the Metropolitan Hospital, Kingsland Road.

WATSON, C. Gordon, F.R.C.S. Eng., Assistant Surgeon to the Metropolitan Hospital, Kingsland Road.

WILLIAMS, E. Lloyd, M.B., C.M. Edin., Medical Officer and Public Vaccinator for the Ludlow Union, and Workhouse, Ludlow.

DIARY FOR NEXT WEEK.

MONDAY.

Quain Society. Anatomical Theatre, University College, W.C., 8 p.m.—Dr. Sir [illegible] Horsley: On the Determination of the Function of the Optic Ganglia. Illustrated by lantern slides and lantern slides.

Medical Society of London. 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical Cases.

TUESDAY.

Medico-Legal Society. 20, Hanover Square, W., 8 p.m.—Mr. J. H. Target: Some Points in Connection with Forensic Medicine. Dr. A. Eddowes: Some Points in Forensic Medicine. Dr. F. J. Smith: Notes on Epilepsy. Dr. A. Cole: Some Points in Epilepsy. Dr. Stanley Atkinson: Legal Points in Epilepsy and Insanity.

Royal Medical and Chirurgical Society. 20, Hanover Square, W., 8.30 p.m.—Drs. J. H. Drysdale and Hugh Thursfield: On Anaemia Pseudo-leucaemica Infantum.

WEDNESDAY.

Dermatological Society of London. 11, Chandos Street, Cavendish Square, W., 8 p.m.—Demonstration of Cases of Interest.

Hunterian Society. London Institution, Finsbury Circus, E.C., 8.30 p.m.—Dr. J. Wilson: The Hunterian Oration, with Especial Reference to Inflammation.

South-West London Medical Society. Belmont Hospital, Wandsworth Common, S.W., 8.30 p.m.—Sir Felix Semon: Some Post-operative Remarks on Topics of Professional Interest.

THURSDAY.

Harveian Society of London. Stafford Rooms, Stafford Street, Piccadilly, W., 8 p.m.—Mr. Eugene Owen: On Appendicular Abscess in the Right Iliac Region. Mr. E. W. Hey Groves: On a Case of Intestinal Obstruction with Gangrene of the Caecum—Recovery.

British Gynaecological Society. 20, Hanover Square, W., 8 p.m. The President, Professor Dan Lavrin, will deliver the Inaugural Address. Papers will be read, and specimens shown, by Dr. Comyns Berkeley, Dr. William Fiddes, Mr. Dougall Heddle, Dr. Shaw, and Mr. Stansfield.

Ophthalmological Society of the United Kingdom. 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Cases by Messrs. A. Ogston, Stephenson, etc. Papers: Dr. A. Bronner: Notes on a Case of Congenital Cataract in a Child Treated with Peroxide of Hydrogen. Mr. J. H. Parsons: On Cataract After Staphyloma. Major H. Smith, I.M.S.: (1) Night Blindness, (2) Leucoma Corneae.

FRIDAY.

Incorporated Society of Medical Officers of Health. 9, Adelphi Terrace, Strand, W.C., 8 p.m.—Dr. Lankester Stephens: On Physical Deterioration in Elementary School Children.

Clinical Society of London. 20, Hanover Square, W., 8.30 p.m.—Dr. Sidney Phillips: Cases of Rare Diseases of the Pancreas with Cysts. Dr. Norman Moore: Two Cases of Malignant Anaemia. Mr. J. Jackson Clarke: Notes on a Case of Anaplasia of Bone. Temporary Ankylosis of Both Temporo-maxillary Joints. Mr. Lionel M. Corner: Cases of Primary and Secondary Tubercle in Some of the Synovial Membranes.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Affections of Brain in Relation to Chest Disease.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Specific Diseases in Connection with Heart.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5 p.m. as follows: Monday, On the Treatment of the Haemorrhagic Neuroses; Tuesday, Cardiac Failure; Wednesday, Intermittent and Secondary Albuminuria; Thursday, The Treatment of Congenital Cataract; Thursday, The Pathology of Uraemia.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Hanover Square, W., Thursday, 3 p.m.—Lecture on The Relation of Pulmonary Tuberculosis to Chronic Diseases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 4 p.m. as follows: Tuesday, Remarks on Mental Symptoms in Diseases of the Nervous System. Friday, Surgery of the Nervous System.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Gynaecological Examination.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Examination of Throat and Nose Cases; Tuesday, Post-mortem Demonstrations; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Electrical Class.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Pruritus Pain.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in payment with the notice, which must reach us not later than Wednesday morning, as we publish on Saturday the current issue.

BIRTH.

JACKSON.—On January 1st, at The Lodge, Ridgmont, Beds, the wife of Arthur M. Jackson, M.D. Edin., of a son.

MARRIAGE.

MCGINN—VAUGHAN.—On January 6th, at St. Mary's Church, Newport, Mon., by the Rev. Father Boucher, Patrick J. McGinn, L.R.C.P. and S.I., L.F.P.S. Glasg., Newport, Mon., second son of Mr. Patrick McGinn, Medical Superintendent of Asylum, Dundee, N.B., to Margaret M., eldest daughter of Alderman David Vaughan, J.P., Lord Provost of Dundee, Newport, Mon.

DEATHS.

CLARKE.—The wife of Fielding Clarke, M.R.C.S. Eng., L.R.C.P. Lond., at Llandrindod Wells, Radnorshire, on January 26th.

WILSON.—On January 27th, at his residence, Mount Pleasant, Lancaster, Thomas Wilson, M.D. Edin., aged 72 years. Deeply regretted. No flowers.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to subjects to which special departments of the BRITISH MEDICAL JOURNAL *are devoted will be found under those respective headings.*

QUERIES.

POST-SCARLATINAL RHEUMATISM.

S. WILLIAMS asks: Could any member suggest treatment for a case of post-scarlatinal muscular rheumatism. The patient had an attack in November, and during convalescence the knees and legs have been painful, getting worse. There is no effusion, but subacute synovitis and phosphates. The patient is otherwise in good health and looking well. He would also be glad to hear of any recent works referring to the condition.

PRACTICE IN CANADA AND NEW ZEALAND.

QUERENTE would like to hear from any readers who can give him correct and general information in Canada and New Zealand as to the facilities there are for taking the degrees of M.D., B.S., and B.Sc. in Medicine of the University of London by graduates of a British university.

*** In New Zealand degrees or licenses may be obtained upon proof of identity with a person admitted to the Medical Register in England, Scotland, or Ireland. In Canada the law and regulations are various and at the present moment in a state of transition. At present the regulations in force in the provinces are similar to those in New Zealand. In others the local authorities have a certain limited discretion in refusing or accepting certificates to an applicant on the strength of registration in England, Scotland, or Ireland. Ontario, Canada probably offers the best chance for new comers as immigration is going on rapidly and new towns are springing up. The fact of being a graduate of a British university would be no disadvantage provided the candidate possessed the qualifications.

INQUIRER asks: (1) The condition of practice in Canada; (2) in what part it is best to settle; (3) the fee received by a *locum tenens*; (4) if there are any difficulties or objections in the way of a graduation in medicine and surgery at Edinburgh; (5) the best time of the year to commence work; (6) the value of the Canadian medical journals to Canada.

*** (1, 2, 3) See the answer to "Colonial" as to the back lands now being opened up. (4) No information. (5) Certainly not, except in the case of a man of experience in general practice added to experience of Canada. (6) Second hand. (7) No information on the Canada not being a health resort it can hardly be a point of importance. (8) There are several excellent Canadian medical journals, such as the *Montreal Medical Journal*, Montreal; the *Canadian Practitioner and Review*, Toronto, the *Canada Lancet*, Toronto, the *Montreal Medical Journal*, Toronto, the *Canada Lancet*, Toronto.

ANSWERS.

DR G. STUART PERKINS (London) writes in answer to "Y." to recommend the "Spa" as the best way of getting rid of permanently dilated capillaries.

L. M. F. could, we believe, obtain the instruction in x-ray, Finsen light, and high frequency current work by joining the post-graduate classes at the West London Hospital, Hammersmith. Further information can be obtained from the Dean of the Post-graduate College at the hospital.

SPUTUM FLASKS.

M. O. H. writes: A wide-mouthed bottle is a suitable and efficacious dish. Instead of putting in the pocket spittoon flask. Plain water is, however, unsuitable, the contents of the flask are diluted or mixed with disinfectant before being emptied down the drains. The flask should be cleansed with boiling water.

CASE OF MICROCEPHALIC CHILD.

J. O. D. writes: (1) It is certainly unusual to find a microcephalic child that is, of abnormally small head, born of parents who have had children of normal size. (2) The case is under the care of the Medical Committee of the Metropolitan Asylums Board, Kennington Road, S.E. (3) Applications for admission should be addressed to the Clerk to the Board, Spring Grove, Isleworth, Middlesex. (4) There is no private school where children of this kind would be received.

THE MIDDLE-EAR TEST OF DEAFNESS.

W. E. C. writes: We should be glad to know whether the gelatinous cone which is described in the test is to be boiled or otherwise prepared before it is placed in the ear. Should the cone be placed in the ear and then boiled, or should it be boiled before it is placed in the ear? Should the cone be placed in the ear and then boiled, or should it be boiled before it is placed in the ear? Should the cone be placed in the ear and then boiled, or should it be boiled before it is placed in the ear?

LEPROSY AND LEPROSARIA.

With reference to the report of Mr. George Piggott, Assistant to the Sligo Dispensary District, Co. Sligo, Hospital and Infirmary, on the question as to leprosy to be laid before the International Dermatological Congress, Berlin, we are asked to state that the following information is required:

I. Statistics.

II. Medical report of cases.

III. Medical men employed to examine with reference to the Race, etc., and are of Italian Type of disease.

IV. Medical men employed to examine with reference to the Race, etc., and are of Italian Type of disease.

V. Government laws as to leprosy.

VI. Measures taken by Government, municipalities, parishes, private societies, etc., for the suppression of leprosy.

VII. Number of cases in the hospital.

VIII. Number of beds.

IX. Number of cases of leprosy.

X. Number of cases of leprosy.

XI. Number of cases of leprosy.

XII. Number of cases of leprosy.

XIII. Number of cases of leprosy.

XIV. Number of cases of leprosy.

XV. Number of cases of leprosy.

XVI. Number of cases of leprosy.

XVII. Number of cases of leprosy.

XVIII. Number of cases of leprosy.

XIX. Number of cases of leprosy.

XX. Number of cases of leprosy.

XXI. Number of cases of leprosy.

XXII. Number of cases of leprosy.

XXIII. Number of cases of leprosy.

XXIV. Number of cases of leprosy.

XXV. Number of cases of leprosy.

XXVI. Number of cases of leprosy.

XXVII. Number of cases of leprosy.

XXVIII. Number of cases of leprosy.

XXIX. Number of cases of leprosy.

XXX. Number of cases of leprosy.

XXXI. Number of cases of leprosy.

XXXII. Number of cases of leprosy.

XXXIII. Number of cases of leprosy.

XXXIV. Number of cases of leprosy.

XXXV. Number of cases of leprosy.

XXXVI. Number of cases of leprosy.

XXXVII. Number of cases of leprosy.

XXXVIII. Number of cases of leprosy.

XXXIX. Number of cases of leprosy.

XL. Number of cases of leprosy.

XLI. Number of cases of leprosy.

XLII. Number of cases of leprosy.

XLIII. Number of cases of leprosy.

XLIV. Number of cases of leprosy.

XLV. Number of cases of leprosy.

XLVI. Number of cases of leprosy.

XLVII. Number of cases of leprosy.

XLVIII. Number of cases of leprosy.

XLIX. Number of cases of leprosy.

L. Number of cases of leprosy.

LI. Number of cases of leprosy.

LII. Number of cases of leprosy.

LIII. Number of cases of leprosy.

LIV. Number of cases of leprosy.

LV. Number of cases of leprosy.

LVI. Number of cases of leprosy.

LVII. Number of cases of leprosy.

LVIII. Number of cases of leprosy.

LIX. Number of cases of leprosy.

LX. Number of cases of leprosy.

LXI. Number of cases of leprosy.

LXII. Number of cases of leprosy.

LXIII. Number of cases of leprosy.

LXIV. Number of cases of leprosy.

LXV. Number of cases of leprosy.

LXVI. Number of cases of leprosy.

LXVII. Number of cases of leprosy.

LXVIII. Number of cases of leprosy.

LXIX. Number of cases of leprosy.

LXX. Number of cases of leprosy.

LXXI. Number of cases of leprosy.

LXXII. Number of cases of leprosy.

LXXIII. Number of cases of leprosy.

LXXIV. Number of cases of leprosy.

LXXV. Number of cases of leprosy.

LXXVI. Number of cases of leprosy.

LXXVII. Number of cases of leprosy.

LXXVIII. Number of cases of leprosy.

LXXIX. Number of cases of leprosy.

LXXX. Number of cases of leprosy.

LXXXI. Number of cases of leprosy.

LXXXII. Number of cases of leprosy.

LXXXIII. Number of cases of leprosy.

LXXXIV. Number of cases of leprosy.

LXXXV. Number of cases of leprosy.

LXXXVI. Number of cases of leprosy.

LXXXVII. Number of cases of leprosy.

LXXXVIII. Number of cases of leprosy.

LXXXIX. Number of cases of leprosy.

XC. Number of cases of leprosy.

XCI. Number of cases of leprosy.

XCII. Number of cases of leprosy.

XCIII. Number of cases of leprosy.

XCIV. Number of cases of leprosy.

XCV. Number of cases of leprosy.

XCVI. Number of cases of leprosy.

XCVII. Number of cases of leprosy.

XCVIII. Number of cases of leprosy.

XCIX. Number of cases of leprosy.

C. Number of cases of leprosy.

CI. Number of cases of leprosy.

CII. Number of cases of leprosy.

CIII. Number of cases of leprosy.

CIV. Number of cases of leprosy.

CV. Number of cases of leprosy.

CVI. Number of cases of leprosy.

CVII. Number of cases of leprosy.

CVIII. Number of cases of leprosy.

CIX. Number of cases of leprosy.

CX. Number of cases of leprosy.

CXI. Number of cases of leprosy.

CXII. Number of cases of leprosy.

CXIII. Number of cases of leprosy.

CXIV. Number of cases of leprosy.

CXV. Number of cases of leprosy.

CXVI. Number of cases of leprosy.

CXVII. Number of cases of leprosy.

CXVIII. Number of cases of leprosy.

CXIX. Number of cases of leprosy.

CXX. Number of cases of leprosy.

CXXI. Number of cases of leprosy.

CXXII. Number of cases of leprosy.

CXXIII. Number of cases of leprosy.

CXXIV. Number of cases of leprosy.

CXXV. Number of cases of leprosy.

CXXVI. Number of cases of leprosy.

CXXVII. Number of cases of leprosy.

CXXVIII. Number of cases of leprosy.

CXXIX. Number of cases of leprosy.

CXXX. Number of cases of leprosy.

CXXXI. Number of cases of leprosy.

CXXXII. Number of cases of leprosy.

CXXXIII. Number of cases of leprosy.

CXXXIV. Number of cases of leprosy.

CXXXV. Number of cases of leprosy.

CXXXVI. Number of cases of leprosy.

CXXXVII. Number of cases of leprosy.

CXXXVIII. Number of cases of leprosy.

CXXXIX. Number of cases of leprosy.

CXL. Number of cases of leprosy.

CXLI. Number of cases of leprosy.

CXLII. Number of cases of leprosy.

CXLIII. Number of cases of leprosy.

CXLIV. Number of cases of leprosy.

CXLV. Number of cases of leprosy.

CXLVI. Number of cases of leprosy.

CXLVII. Number of cases of leprosy.

CXLVIII. Number of cases of leprosy.

CXLIX. Number of cases of leprosy.

CL. Number of cases of leprosy.

CLI. Number of cases of leprosy.

CLII. Number of cases of leprosy.

CLIII. Number of cases of leprosy.

CLIV. Number of cases of leprosy.

CLV. Number of cases of leprosy.

CLVI. Number of cases of leprosy.

CLVII. Number of cases of leprosy.

CLVIII. Number of cases of leprosy.

CLIX. Number of cases of leprosy.

CLX. Number of cases of leprosy.

CLXI. Number of cases of leprosy.

CLXII. Number of cases of leprosy.

CLXIII. Number of cases of leprosy.

CLXIV. Number of cases of leprosy.

CLXV. Number of cases of leprosy.

CLXVI. Number of cases of leprosy.

CLXVII. Number of cases of leprosy.

CLXVIII. Number of cases of leprosy.

CLXIX. Number of cases of leprosy.

CLXX. Number of cases of leprosy.

CLXXI. Number of cases of leprosy.

CLXXII. Number of cases of leprosy.

CLXXIII. Number of cases of leprosy.

CLXXIV. Number of cases of leprosy.

CLXXV. Number of cases of leprosy.

CLXXVI. Number of cases of leprosy.

CLXXVII. Number of cases of leprosy.

CLXXVIII. Number of cases of leprosy.

CLXXIX. Number of cases of leprosy.

CLXXX. Number of cases of leprosy.

CLXXXI. Number of cases of leprosy.

CLXXXII. Number of cases of leprosy.

CLXXXIII. Number of cases of leprosy.

CLXXXIV. Number of cases of leprosy.

CLXXXV. Number of cases of leprosy.

CLXXXVI. Number of cases of leprosy.

CLXXXVII. Number of cases of leprosy.

CLXXXVIII. Number of cases of leprosy.

CLXXXIX. Number of cases of leprosy.

CXC. Number of cases of leprosy.

CXCI. Number of cases of leprosy.

CXCII. Number of cases of leprosy.

CXCIII. Number of cases of leprosy.

CXCIV. Number of cases of leprosy.

CXCV. Number of cases of leprosy.

CXCVI. Number of cases of leprosy.

CXCVII. Number of cases of leprosy.

CXCVIII. Number of cases of leprosy.

CXCIX. Number of cases of leprosy.

CC. Number of cases of leprosy.

CCI. Number of cases of leprosy.

CCII. Number of cases of leprosy.

CCIII. Number of cases of leprosy.

CCIV. Number of cases of leprosy.

CCV. Number of cases of leprosy.

CCVI. Number of cases of leprosy.

CCVII. Number of cases of leprosy.

CCVIII. Number of cases of leprosy.

CCIX. Number of cases of leprosy.

CCX. Number of cases of leprosy.

CCXI. Number of cases of leprosy.

CCXII. Number of cases of leprosy.

CCXIII. Number of cases of leprosy.

CCXIV. Number of cases of leprosy.

CCXV. Number of cases of leprosy.

CCXVI. Number of cases of leprosy.

CCXVII. Number of cases of leprosy.

CCXVIII. Number of cases of leprosy.

CCXIX. Number of cases of leprosy.

CCXX. Number of cases of leprosy.

CCXXI. Number of cases of leprosy.

CCXXII. Number of cases of leprosy.

CCXXIII. Number of cases of leprosy.

CCXXIV. Number of cases of leprosy.

CCXXV. Number of cases of leprosy.

CCXXVI. Number of cases of leprosy.

CCXXVII. Number of cases of leprosy.

CCXXVIII. Number of cases of leprosy.

CCXXIX. Number of cases of leprosy.

CCXXX. Number of cases of leprosy.

CCXXXI. Number of cases of leprosy.

CCXXXII. Number of cases of leprosy.

CCXXXIII. Number of cases of leprosy.

CCXXXIV. Number of cases of leprosy.

CCXXXV. Number of cases of leprosy.

CCXXXVI. Number of cases of leprosy.

CCXXXVII. Number of cases of leprosy.

CCXXXVIII. Number of cases of leprosy.

CCXXXIX. Number of cases of leprosy.

CCXL. Number of cases of leprosy.

CCXLI. Number of cases of leprosy.

CCXLII. Number of cases of leprosy.

CCXLIII. Number of cases of leprosy.

CCXLIV. Number of cases of leprosy.

CCXLV. Number of cases of leprosy.

CCXLVI. Number of cases of leprosy.

CCXLVII. Number of cases of leprosy.

CCXLVIII. Number of cases of leprosy.

CCXLIX. Number of cases of leprosy.

CCL. Number of cases of leprosy.

CCLI. Number of cases of leprosy.

CCLII. Number of cases of leprosy.

CCLIII. Number of cases of leprosy.

CCLIV. Number of cases of leprosy.

CCLV. Number of cases of leprosy.

CCLVI. Number of cases of leprosy.

CCLVII. Number of cases of leprosy.

CCLVIII. Number of cases of leprosy.

CCLIX. Number of cases of leprosy.

CCLX. Number of cases of leprosy.

CCLXI. Number of cases of leprosy.

CCLXII. Number of cases of leprosy.

CCLXIII. Number of cases of leprosy.

CCLXIV. Number of cases of leprosy.

CCLXV. Number of cases of leprosy.

CCLXVI. Number of cases of leprosy.

CCLXVII. Number of cases of leprosy.

CCLXVIII. Number of cases of leprosy.

CCLXIX. Number of cases of leprosy.

CCLXX. Number of cases of leprosy.

CCLXXI. Number of cases of leprosy.

CCLXXII. Number of cases of leprosy.

CCLXXIII. Number of cases of leprosy.

CCLXXIV. Number of cases of leprosy.

CCLXXV. Number of cases of leprosy.

CCLXXVI. Number of cases of leprosy.

CCLXXVII. Number of cases of leprosy.

CCLXXVIII. Number of cases of leprosy.

CCLXXIX. Number of cases of leprosy.

CCLXXX. Number of cases of leprosy.

CCLXXXI. Number of cases of leprosy.

CCLXXXII. Number of cases of leprosy.

CCLXXXIII. Number of cases of leprosy.

CCLXXXIV. Number of cases of leprosy.

CCLXXXV. Number of cases of leprosy.

CCLXXXVI. Number of cases of leprosy.

CCLXXXVII. Number of cases of leprosy.

CCLXXXVIII. Number of cases of leprosy.

CCLXXXIX. Number of cases of leprosy.

CCXC. Number of cases of leprosy.

CCXCI. Number of cases of leprosy.

CCXCII. Number of cases of leprosy.

CCXCIII. Number of cases of leprosy.

CCXCIV. Number of cases of leprosy.

CCXCV. Number of cases of leprosy.

CCXCVI. Number of cases of leprosy.

CCXCVII. Number of cases of leprosy.

CCXCVIII. Number of cases of leprosy.

CCXCIX. Number of cases of leprosy.

CCC. Number of cases of leprosy.

CCCI. Number of cases of leprosy.

CCCII. Number of cases of leprosy.

CCCIII. Number of cases of leprosy.

CCCIV. Number of cases of leprosy.

CCCV. Number of cases of leprosy.

CCCVI. Number of cases of leprosy.

CCCVII. Number of cases of leprosy.

CCCVIII. Number of cases of leprosy.

CCCIX. Number of cases of leprosy.

CCCX. Number of cases of leprosy.

CCCXI. Number of cases of leprosy.

CCCXII. Number of cases of leprosy.

CCCXIII. Number of cases of leprosy.

CCCXIV. Number of cases of leprosy.

CCCXV. Number of cases of leprosy.

CCCXVI. Number of cases of leprosy.

CCCXVII. Number of cases of leprosy.

CCCXVIII. Number of cases of leprosy.

CCCXIX. Number of cases of leprosy.

CCCXX. Number of cases of leprosy.

CCCXXI. Number of cases of leprosy.

CCCXXII. Number of cases of leprosy.

CCCXXIII. Number of cases of leprosy.

CCCXXIV. Number of cases of leprosy.

CCCXXV. Number of cases of leprosy.

CCCXXVI. Number of cases of leprosy.

CCCXXVII. Number of cases of leprosy.

CCCXXVIII. Number of cases of leprosy.

CCCXXIX. Number of cases of leprosy.

CCCXXX. Number of cases of leprosy.

CCCXXXI. Number of cases of leprosy.

CCCXXXII. Number of cases of leprosy.

CCCXXXIII. Number of cases of leprosy.

CCCXXXIV. Number of cases of leprosy.

CCCXXXV. Number of cases of leprosy.

CCCXXXVI. Number of cases of leprosy.

CCCXXXVII. Number of cases of leprosy.

CCCXXXVIII. Number of cases of leprosy.

CCCXXXIX. Number of cases of leprosy.

CCCXL. Number of cases of leprosy.

CCCXLI. Number of cases of leprosy.

CCCXLII. Number of cases of leprosy.

CCCXLIII. Number of cases of leprosy.

CCCXLIV. Number of cases of leprosy.

CCCXLV. Number of cases of leprosy.

CCCXLVI. Number of cases of leprosy.

CCCXLVII. Number of cases of leprosy.

CCCXLVIII. Number of cases of leprosy.

CCCXLIX. Number of cases of leprosy.

CCCL. Number of cases of leprosy.

CCCLI. Number of cases of leprosy.

CCCLII. Number of cases of leprosy.

CCCLIII. Number of cases of leprosy.

CCCLIV. Number of cases of leprosy.

CCCLV. Number of cases of leprosy.

CCCLVI. Number of cases of leprosy.

CCCLVII. Number of cases of leprosy.

CCCLVIII. Number of cases of leprosy.

CCCLIX. Number of cases of leprosy.

CCCLX. Number of cases of leprosy.

CCCLXI. Number of cases of leprosy.

CCCLXII. Number of cases of leprosy.

CCCLXIII. Number of cases of leprosy.

CCCLXIV. Number of cases of leprosy.

CCCLXV. Number of cases of leprosy.

CCCLXVI. Number of cases of leprosy.

CCCLXVII. Number of cases of leprosy.

CCCLXVIII. Number of cases of leprosy.

CCCLXIX. Number of cases of leprosy.

CCCLXX. Number of cases of leprosy.

CCCLXXI. Number of cases of leprosy.

CCCLXXII. Number of cases of leprosy.

CCCLXXIII. Number of cases of leprosy.

CCCLXXIV. Number of cases of leprosy.

CCCLXXV. Number of cases of leprosy.

CCCLXXVI. Number of cases of leprosy.

CCCLXXVII. Number of cases of leprosy.

CCCLXXVIII. Number of cases of leprosy.

CCCLXXIX. Number of cases of leprosy.

CCCLXXX. Number of cases of leprosy.

CCCLXXXI. Number of cases of leprosy.

CCCLXXXII. Number of cases of leprosy.

CCCLXXXIII. Number of cases of leprosy.

CCCLXXXIV. Number of cases of leprosy.

CCCLXXXV. Number of cases of leprosy.

CCCLXXXVI. Number of cases of leprosy.

CCCLXXXVII. Number of cases of leprosy.

CCCLXXXVIII. Number of cases of leprosy.

CCCLXXXIX. Number of cases of leprosy.

CCCXC. Number of cases of leprosy.

CCCXCI. Number of cases of leprosy.

CCCXCII. Number of cases of leprosy.

CCCXCIII. Number of cases of leprosy.

CCCXCIV. Number of cases of leprosy.

CCCXCV. Number of cases of leprosy.

CCCXCVI. Number of cases of leprosy.

CCCXCVII. Number of cases of leprosy.

CCCXCVIII. Number of cases of leprosy.

CCCXCIX. Number of cases of leprosy.

CD. Number of cases of leprosy.

CDI. Number of cases of leprosy.

CDII. Number of cases of leprosy.

CDIII. Number of cases of leprosy.

CDIV. Number of cases of leprosy.

CDV. Number of cases of leprosy.

CDVI. Number of cases of leprosy.

CDVII. Number of cases of leprosy.

CDVIII. Number of cases of leprosy.

CDIX. Number of cases of leprosy.

CDX. Number of cases of leprosy.

CDXI. Number of cases of leprosy.

CDXII. Number of cases of leprosy.

CDXIII. Number of cases of leprosy.

CDXIV. Number of cases of leprosy.

CDXV. Number of cases of leprosy.

CDXVI. Number of cases of leprosy.

CDXVII. Number of cases of leprosy.

CDXVIII. Number of cases of leprosy.

CDXIX. Number of cases of leprosy.

CDXX. Number of cases of leprosy.

CDXXI. Number of cases of leprosy.

CDXXII. Number of cases of leprosy.

CDXXIII. Number of cases of leprosy.

CDXXIV. Number of cases of leprosy.

CDXXV. Number of cases of leprosy.

CDXXVI. Number of cases of leprosy.

CDXXVII. Number of cases of leprosy.

CDXXVIII. Number of cases of leprosy.

CDXXIX. Number of cases of leprosy.

CDXXX. Number of cases of leprosy.

CDXXXI. Number of cases of leprosy.

CDXXXII. Number of cases of leprosy.

CDXXXIII. Number of cases of leprosy.

CDXXXIV. Number of cases of leprosy.

CDXXXV. Number of cases of leprosy.

CDXXXVI. Number of cases of leprosy.

CDXXXVII. Number of cases of leprosy.

CDXXXVIII. Number of cases of leprosy.

CDXXXIX. Number of cases of leprosy.

CDXL. Number of cases of leprosy.

CDXLI. Number of cases of leprosy.

CDXLII. Number of cases of leprosy.

CDXLIII. Number of cases of leprosy.

CDXLIV. Number of cases of leprosy.

CDXLV. Number of cases of leprosy.

CDXLVI. Number of cases of leprosy.

CDXLVII. Number of cases of leprosy.

CDXLVIII. Number of cases of leprosy.

CDXLIX. Number of cases of leprosy.

CDL. Number of cases of leprosy.

CDLI. Number of cases of leprosy.

CDLII. Number of cases of leprosy.

CDLIII. Number of cases of leprosy.

CDLIV. Number of cases of leprosy.

CDLV. Number of cases of leprosy.

CDLVI. Number of cases of leprosy.

CDLVII. Number of cases of leprosy.

CDLVIII. Number of cases of leprosy.

CDLIX. Number of cases of leprosy.

CDLX. Number of cases of leprosy.

CDLXI. Number of cases of leprosy.

CDLXII. Number of cases of leprosy.

CDLXIII. Number of cases of leprosy.

CDLXIV. Number of cases of leprosy.

CDLXV. Number of cases of leprosy.

CDLXVI. Number of cases of leprosy.

CDLXVII. Number of cases of leprosy.

CDLXVIII. Number of cases of leprosy.

CDLXIX. Number of cases of leprosy.

CDLXX. Number of cases of leprosy.

CDLXXI. Number of cases of leprosy.

CDLXXII. Number of cases of leprosy.

CDLXXIII. Number of cases of leprosy.

CDLXXIV. Number of cases of leprosy.

CDLXXV. Number of cases of leprosy.

CDLXXVI. Number of cases of leprosy.

CDLXXVII. Number of cases of leprosy.

CDLXXVIII. Number of cases of leprosy.

CDLXXIX. Number of cases of leprosy.

CDLXXX. Number of cases of leprosy.

CDLXXXI. Number of cases of leprosy.

CDLXXXII. Number of cases of leprosy.

CDLXXXIII. Number of cases of leprosy.

CDLXXXIV. Number of cases of leprosy.

CDLXXXV. Number of cases of leprosy.

CDLXXXVI. Number of cases of leprosy.

CDLXXXVII. Number of cases of leprosy.

CDLXXXVIII. Number of cases of leprosy.

CDLXXXIX. Number of cases of leprosy.

CDXC. Number of cases of leprosy.

CDXCI. Number of cases of leprosy.

CDXCII. Number of cases of leprosy.

CDXCIII. Number of cases of leprosy.

CDXCIV. Number of cases of leprosy.

CDXCV. Number of cases of leprosy.

CDXCVI. Number of cases of leprosy.

CDXCVII. Number of cases of leprosy.

CDXCVIII. Number of cases of leprosy.

CDXCIX. Number of cases of leprosy.

CM. Number of cases of leprosy.

CMI. Number of cases of leprosy.

CMII. Number of cases of leprosy.

CMIII. Number of cases of leprosy.

CMIV. Number of cases of leprosy.

CMV. Number of cases of leprosy.

CMVI. Number of cases of leprosy.

CMVII. Number of cases of leprosy.

CMVIII. Number of cases of leprosy.

CMIX. Number of cases of leprosy.

CMX. Number of cases of leprosy.

CMXI. Number of cases of leprosy.

CMXII. Number of cases of leprosy.

CMXIII. Number of cases of leprosy.

CMXIV. Number of cases of leprosy.

CMXV. Number of cases of leprosy.

CMXVI. Number of cases of leprosy.

CMXVII. Number of cases of leprosy.

CMXVIII. Number of cases of leprosy.

CMXIX. Number of cases of leprosy.

CMXX. Number of cases of leprosy.

CMXXI. Number of cases of leprosy.

CMXXII. Number of cases of leprosy.

CMXXIII. Number of cases of leprosy.

CMXXIV. Number of cases of leprosy.

CMXXV. Number of cases of leprosy.

CMXXVI. Number of cases of leprosy.

CMXXVII. Number of cases of leprosy.

CMXXVIII. Number of cases of leprosy.

CMXXIX. Number of cases of leprosy.

CMXXX. Number of cases of leprosy.

CMXXXI. Number of cases of leprosy.

CMXXXII. Number of cases of leprosy.

CMXXXIII. Number of cases of leprosy.

CMXXXIV. Number of cases of leprosy.

CMXXXV. Number of cases of leprosy.

CMXXXVI. Number of cases of leprosy.

CMXXXVII. Number of cases of leprosy.

CMXXXVIII. Number of cases of leprosy.

CMXXXIX. Number of cases of leprosy.

CMXL. Number of cases of leprosy.

CMXLI. Number of cases of leprosy.

CMXLII. Number of cases of leprosy.

CMXLIII. Number of cases of leprosy.

CMXLIV. Number of cases of leprosy.

CMXLV. Number of cases of leprosy.

CMXLVI. Number of cases of leprosy.

CMXLVII. Number of cases of leprosy.

CMXLVIII. Number of cases of leprosy.

CMXLIX. Number of cases of leprosy.

CML. Number of cases of leprosy.

CMLI. Number of cases of leprosy.

CMLII. Number of cases of leprosy.

CMLIII. Number of cases of leprosy.

CMLIV. Number of cases of leprosy.

CMLV. Number of cases of leprosy.

CMLVI. Number of cases of leprosy.

CMLVII. Number of cases of leprosy.

CMLVIII. Number of cases of leprosy.

CMLIX. Number of cases of leprosy.

CMLX. Number of cases of leprosy.

CMLXI. Number of cases of leprosy.

CMLXII. Number of cases of leprosy.

CMLXIII. Number of cases of leprosy.

CMLXIV. Number of cases of leprosy.

CMLXV. Number of cases of leprosy.

CMLXVI. Number of cases of leprosy.

CMLXVII. Number of cases of leprosy.

CMLXVIII. Number of cases of leprosy.

CMLXIX. Number of cases of leprosy.

CMLXX. Number of cases of leprosy.

CMLXXI. Number of cases of leprosy.

CMLXXII. Number of cases of leprosy.

CMLXXIII. Number of cases of leprosy.

CMLXXIV. Number of cases of leprosy.

CMLXXV. Number of cases of leprosy.

CMLXXVI. Number of cases of leprosy.

CMLXXVII. Number of cases of leprosy.

CMLXXVIII. Number of cases of leprosy.

CMLXXIX. Number of cases of leprosy.

CMLXXX. Number of cases of leprosy.

CMLXXXI. Number of cases of leprosy.

CMLXXXII. Number of cases of leprosy.

CMLXXXIII. Number of cases of leprosy.

CMLXXXIV. Number of cases of leprosy.

CMLXXXV. Number of cases of leprosy.

CMLXXXVI. Number of cases of leprosy.

CMLXXXVII. Number of cases of leprosy.

CMLXXXVIII. Number of cases of leprosy.

CMLXXXIX. Number of cases of leprosy.

CMXC. Number of cases of leprosy.

CMXCI. Number of cases of leprosy.

CMXCII. Number of cases of leprosy.

CMXCIII. Number of cases of leprosy.

CMXCIV. Number of cases of leprosy.

CMXCV. Number of cases of leprosy.

CMXCVI. Number of cases of leprosy.

CMXCVII. Number of cases of leprosy.

CMXCVIII. Number of cases of leprosy.

CMXCIX. Number of cases of leprosy.

CM. Number of cases of leprosy.

CMI. Number of cases of leprosy.

CMII. Number of cases of leprosy.

CMIII. Number of cases of leprosy.

CMIV. Number of cases of leprosy.

CMV. Number of cases of leprosy.

CMVI. Number of cases of leprosy.

CMVII. Number of cases of leprosy.

CMVIII. Number of cases of leprosy.

CMIX. Number of cases of leprosy.

CMX. Number of cases of leprosy.

CMXI. Number of cases of leprosy.

CMXII. Number of cases of leprosy.

CMXIII. Number of cases of leprosy.

CMXIV. Number of cases of leprosy.

CMXV. Number of cases of leprosy.

CMXVI. Number of cases of leprosy.

CMXVII. Number of cases of leprosy.

CMXVIII. Number of cases of leprosy.

CMXIX. Number of cases of leprosy.

CMXX. Number of cases of leprosy.

CMXXI. Number of cases of leprosy.

CMXXII. Number of cases of leprosy.

CMXXIII. Number of cases of leprosy.

CMXXIV. Number of cases of leprosy.

CMXXV. Number of cases of leprosy.

CMXXVI. Number of cases of leprosy.

CMXXVII. Number of cases of leprosy.

CMXXVIII. Number of cases of leprosy.

CMXXIX. Number of cases of leprosy.

CMXXX. Number of cases of leprosy.

CMXXXI. Number of cases of leprosy.

CMXXXII. Number of cases of leprosy.

CMXXXIII. Number of cases of leprosy.

CMXXXIV. Number of cases of leprosy.

CMXXXV. Number of cases of leprosy.

CMXXXVI. Number of cases of leprosy.

CMXXXVII. Number of cases of leprosy.

CMXXXVIII. Number of cases of leprosy.

CMXXXIX. Number of cases of leprosy.

CMXL. Number of cases of leprosy.

CMXLI. Number of cases of leprosy.

CMXLII. Number of cases of leprosy.

CMXLIII. Number of cases of leprosy.

CMXLIV. Number of cases of leprosy.

CMXLV. Number of cases of leprosy.

CMXLVI. Number of cases of leprosy.

CMXLVII. Number of cases of leprosy.

CMXLVIII. Number of cases of leprosy.

CMXLIX. Number of cases of leprosy.

CML. Number of cases of leprosy.

CMLI. Number of cases of leprosy.

CMLII. Number of cases of leprosy.

CMLIII. Number of cases of leprosy.

CMLIV. Number of cases of leprosy.

CMLV. Number of cases of leprosy.

CMLVI. Number of cases of leprosy.

CMLVII. Number of cases of leprosy.

CMLVIII. Number of cases of leprosy.

CMLIX. Number of cases of leprosy.

CMLX. Number of cases of leprosy.

CMLXI. Number of cases of leprosy.

CMLXII. Number of cases of leprosy.

CMLXIII. Number of cases of leprosy.

CMLXIV. Number of cases of leprosy.

CMLXV. Number of cases of leprosy.

CMLXVI. Number of cases of leprosy.

CMLXVII. Number of cases of leprosy.

CMLXVIII. Number of cases of leprosy.

CMLXIX. Number of cases of leprosy.

CMLXX. Number of cases of leprosy.

CMLXXI. Number of cases of leprosy.

CMLXXII. Number of cases of leprosy.

CMLXXIII. Number of cases of leprosy.

CMLXXIV. Number of cases of leprosy.

CMLXXV. Number of cases of leprosy.

CMLXXVI. Number of cases of leprosy.

CMLXXVII. Number of cases of leprosy.

CMLXXVIII. Number of cases of leprosy.

CMLXXIX. Number of cases of leprosy.

CMLXXX. Number of cases of leprosy.

CMLXXXI. Number of cases of leprosy.

CMLXXXII. Number of cases of leprosy.

CMLXXXIII. Number of cases of leprosy.

CMLXXXIV. Number of cases of leprosy.

CMLXXXV. Number of cases of leprosy.

CMLXXXVI. Number of cases of leprosy.

CMLXXXVII. Number of cases of leprosy.

CMLXXXVIII. Number of cases of leprosy.

CMLXXXIX. Number of cases of leprosy.

CMXC. Number of cases of leprosy.

CMXCI. Number of cases of leprosy.

CMXCII. Number of cases of leprosy.

CMXCIII. Number of cases of leprosy.

CMXCIV. Number of cases of leprosy.

CMXCV. Number of cases of leprosy.

CMXCVI. Number of cases of leprosy.

CMXCVII. Number of cases of leprosy.

CMXCVIII. Number of cases of leprosy.

CMXCIX. Number of cases of leprosy.

CM. Number of cases of leprosy.

CMI. Number of cases of leprosy.

CMII. Number of cases of leprosy.

CMIII. Number of cases of leprosy.

CMIV. Number of cases of leprosy.

CMV. Number of cases of leprosy.

CMVI. Number of cases of leprosy.

CMVII. Number of cases of leprosy.

CMVIII. Number of cases of leprosy.

CMIX. Number of cases of leprosy.

CMX. Number of cases of leprosy.

CMXI. Number of cases of leprosy.

CMXII. Number of cases of leprosy.

CMXIII. Number of cases of leprosy.

CMXIV. Number of cases of leprosy.

CMXV. Number of cases of leprosy.

CMXVI. Number of cases of leprosy.

CMXVII. Number of cases of leprosy.

CMXVIII. Number of cases of leprosy.

CMXIX. Number of cases of leprosy.

CMXX. Number of cases of leprosy.

CMXXI. Number of cases of leprosy.

CMXXII. Number of cases of leprosy.

CMXXIII. Number of cases of leprosy.

CMXXIV. Number of cases of leprosy.

CMXXV. Number of cases of leprosy.

CMXXVI. Number of cases of leprosy.

CMXXVII. Number of cases of leprosy.

CMXXVIII. Number of cases of leprosy.

CMXXIX. Number of cases of leprosy.

CMXXX. Number of cases of leprosy.

CMXXXI. Number of cases of leprosy.

CMXXXII. Number of cases of leprosy.

CMXXXIII. Number of cases of leprosy.

CMXXXIV. Number of cases of leprosy.

CMXXXV. Number of cases of leprosy.

CMXXXVI. Number of cases of leprosy.

CMXXXVII. Number of cases of leprosy.

CMXXXVIII. Number of cases of leprosy.

CMXXXIX. Number of cases of leprosy.

CMXL. Number of cases of leprosy.

CMXLI. Number of cases of leprosy.

CMXLII. Number of cases of leprosy.

CMXLIII. Number of cases of leprosy.

CMXLIV. Number of cases of leprosy.

CMXLV. Number of cases of leprosy.

CMXLVI. Number of cases of leprosy.

CMXLVII. Number of cases of leprosy.

CMXLVIII. Number of cases of leprosy.

CMXLIX. Number of cases of leprosy.

CML. Number of cases of leprosy.

CMLI. Number of cases of leprosy.

CMLII. Number of cases of leprosy.

CMLIII. Number of cases of leprosy.

CMLIV. Number of cases of leprosy.

CMLV. Number of cases of leprosy.

CMLVI. Number of cases of leprosy.

CMLVII. Number of cases of leprosy.

CMLVIII. Number of cases of leprosy.

CMLIX. Number of cases of leprosy.

CMLX. Number of cases of leprosy.

CMLXI. Number of cases of leprosy.

CMLXII. Number of cases of leprosy.

CMLXIII. Number of cases of leprosy.

CMLXIV. Number of cases of leprosy.

CMLXV. Number of cases of leprosy.

CMLXVI. Number of cases of leprosy.

CMLXVII. Number of cases of leprosy.

CMLXVIII. Number of cases of leprosy.

CMLXIX. Number of cases of leprosy.

CMLXX. Number of cases of leprosy.

CMLXXI. Number of cases of leprosy.

CMLXXII. Number of cases of leprosy.

CMLXXIII. Number

An Address
ON
PUERPERAL SEPSIS.

Delivered before the Oldham Medical Society.

By PETER HORROCKS, M.D., F.R.C.P.,
Senior Obstetric Physician and Lecturer on Midwifery and Diseases of Women, Guy's Hospital.

No excuse is necessary for selecting the subject of puerperal sepsis, because it is one of ever-present interest to the practitioners of medicine. In spite of all the advances made in our knowledge of disease, and in our knowledge of how to prevent it and how to treat it, every accoucheur is still glad when the third day of the puerperium is over without any rise of temperature.

Looking back in order to see how we compare to-day with the past, no one can read the records without being convinced that there has been a vast improvement, and that this improvement has followed upon the application of modern antiseptic and aseptic principles.

But as I hope to prove to you, we have by no means arrived at a perfect method, and much has to be done, and much can be done, by further minute and conscientious investigation.

A hundred years ago parturition was so often followed by fever of some kind that Nisbet defined pregnancy "as a certain inflammatory disposition of the body, or nearly approaching to it." In those days it was quite the exception for a woman to have a child without some amount of pyrexia during the puerperium. It was looked upon as unavoidable, and due to the great increase in the inflammatory tendency, into which the blood was supposed to get during pregnancy.

In 1676 Willis grouped the different kinds of pyrexia under the term "puerperal fever" a term which is still largely used, although it has been abandoned officially in the *Nomenclature of Diseases* by the Royal College of Physicians. They adopted the term "puerperal septicaemia" and no doubt every case of puerperal fever is due to sepsis of some kind in the blood. But the term puerperal septicaemia embraces several different kinds of fever just as the term puerperal fever did, and yet inasmuch as the Royal College of Physicians made a distinction between puerperal septicaemia and puerperal sapraemia, I thought it best to call my paper puerperal sepsis so as to embrace both kinds. I notice in the latest published work on obstetrics (Webster, 1903) he calls it puerperal infection.

Now, as you know, a woman may become feverish after she has had a child from any cause that will produce fever in a non-puerperal or a non-pregnant woman. Thus she may get any of the ordinary continued fevers such as small-pox, scarlatina, typhoid and the like. She may get influenza, pneumonia, pleurisy, acute tuberculosis and the other well known diseases which cause pyrexia, none of which are included under the term puerperal sepsis. Hence in any given case of fever in childbed it is necessary in the first place to eliminate all possible causes other than those peculiar to that state; in fact to distinguish between fever of the puerperium and fever in the puerperium.

If I am asked what is included under the term puerperal sepsis I should reply that strictly speaking it included the following:

Puerperal fever, or puerperal septicaemia of the worst and generally fatal type.

Puerperal sapraemia which is usually accompanied by an offensive discharge and which is generally recovered from.

Puerperal pelvic cellulitis, also generally recovered from.

Puerperal pelvic peritonitis, non-fatal usually.

Puerperal pyaemia, often a late stage of any of the preceding. Fatality depending on virulence of sepsis.

Phlegmasia dolens. This is now believed by most to be due to sepsis.

Milk fever. Inflammatory; often transient, probably septic; non-fatal.

It would take me beyond the limits of this paper if I were to go into the diagnosis between the different forms of pyrexia of the puerperium, that is, which are peculiar to it, and the forms of pyrexia in the puerperium, that is, which might occur in a non-puerperal or even non-pregnant woman. Nevertheless it is most important to distinguish carefully between the two classes, and it is only human nature to be biassed in favour of calling a puerperal septic case by some such name as influenza, which implies no blame, which involves no necessity for notification, and hence no trouble in the necessary disinfection. I shall tell you later that it is my own practice, and one which I teach and recommend, to notify any doubtful case as one of puerperal sepsis simply for the protection of others.

If it be not a case no harm is done by notification, whereas great risk of doing harm, and spreading the disease to others, is run by not notifying a doubtful case which proves subsequently to be septic.

About milk fever, phlegmasia dolens, pelvic peritonitis, and cellulitis I shall have very little to say. They are not any of them fatal as a rule, and much of their interest lies in the fact that they may be mistaken for the remaining two, namely, puerperal sapraemia and puerperal septicaemia. The latter is very often, and the former very seldom, fatal. They may occur together, and this mixed form is still more frequently fatal, and is very disappointing to all concerned, inasmuch as it is generally looked upon as a simple sapraemic case, which will get better, but the prognosis unfortunately proves in too many cases quite erroneous.

With your permission, therefore, I shall devote my remarks to these two forms of puerperal sepsis, which include practically what is commonly understood by the term "puerperal fever."

Pathology.

The study of the history of puerperal sepsis leads you to recognize that in the past it has been attributed to many different causes, and though our predecessors knew nothing about bacteriology they knew a great many clinical facts, and God knows they had plenty of clinical material.

One of the most striking things was the contagiousness of the disease from one woman to another. If a doctor had one case he was very liable to have another or several more. If the woman got the disease in a lying-in institution others in the same institution were almost sure to get it, and sometimes the mortality was so high that the place was decimated and they were obliged to close it.

They thought this dreadful result was caused by vitiation of the atmosphere, hospitalism, and the like, whereas we know now that it was due to actual contagion, the virulent material being conveyed from one woman to another by the hands of the nurse or doctor. In other words, it is not infectious but only contagious.

Numerous examples could be given if it were necessary to prove this never-to-be-forgotten contagiousness of puerperal sepsis. The following case will not only illustrate the contagiousness of puerperal sepsis but will also emphasize the necessity of notification:

I saw a lady in consultation with her doctor, many years ago, and she was suffering from puerperal fever of some sort. At first she was not so very ill, but the signs and symptoms all pointed to the fatal septicaemic type. I advised notification, but the doctor was greatly opposed to it, on the ground that he thought the diagnosis was still doubtful; that perhaps it might be some other form of pyrexia that did not require notification; that, maybe, the patient would get better; that it was such an upset in the house to have everything disinfected, etc.; and that, finally, he was sure the blame would be attached to him of having caused it. Hence he suggested calling it metritis. I did not agree, although no doubt the poor lady had plenty of metritis. I persuaded the doctor to notify the disease as puerperal septicaemia. The lady died about the tenth day of the puerperium. Some three weeks later I met the doctor again in consultation, but not in a puerperal case, and he said, "I feel under a very deep obligation to you for the advice you gave me in that case of puerperal fever," and then he proceeded to tell me the following story.

The nurse who was in attendance was told by the doctor, after I had persuaded him to notify it, that it was a case of puerperal fever, and that he had notified it, and that she herself must when she left the case get thoroughly disinfected before she went to another. As a fact she did nothing of the kind, but went straight to another case with another doctor. This lady developed puerperal fever and died, and the doctor asked the nurse if her last case had done well, and she replied in the affirmative. Inquiring where the last case was she give him the name and address of the last but one of her cases, which as a fact had done well. He went to this address, and found that the nurse had attended this lady, but he was informed that she had gone from there to attend another patient with Dr. N., giving the name of the doctor who was telling me the story. He came straight on to this doctor and found out the whole truth; the nurse was confronted with this, and was obliged to admit it. I do not know if she was ever punished, but the first doctor said to me

that supposing he had not notified his case of course the nurse would have said she had gone to the other case not knowing that there was any danger, considering that the doctor in attendance had not considered it to be necessary to notify it.

Another well-recognized cause of sepsis of the severe type is erysipelas, and as this disease is now known to be due to a certain microbe, namely, the streptococcus, which is believed to be the cause also of puerperal fever, pathology explains what clinical experience has proved for a long time, namely, that erysipelas is an undoubted cause of puerperal sepsis.

Certain purulent discharges will cause it if the genital organs become contaminated. I do not suppose all purulent discharges are pathogenic, though I do not know of any that would be perfectly safe if they got into the parturient passages of a woman during or just after labour. But I will relate to you the story of one of our externs at Guy's, who, wishing to finish certain appointments in a short time, obtained the post of "dresser in the surgery" at the same time that he was holding the appointment of "extern" in the lying-in department. This latter appointment was for a month, but he was suspended from further attendance upon women in labour, because one of his cases developed puerperal fever. Unfortunately he had already attended a few more cases before the first one became ill, and so before he was suspended. The first case and two others died from puerperal septicaemia. He had been dressing some suppurating wounds in the surgery.

Details of this occurrence will be found in the sixth report of the Guy's Hospital Lying-in Charity which I wrote, and which is published in the *Guy's Hospital Reports* (vol. xlv, 1888). My colleague, Dr. Frederick Taylor, was then Dean of the School, and it was at once decided that in future no extern should hold any other appointment during his term of office.

Of course, as I hope to show in my remarks on prophylactic treatment, it is quite possible for a doctor so long as he takes the proper measures to attend surgical cases and to dress suppurating wounds, and to go on successfully with his midwifery practice, but just now I am merely affording evidence that purulent discharges are a cause of puerperal sepsis.

In connexion with this point is the very important relation which vaginitis (gonorrhoeal or other) in a parturient woman bears to puerperal sepsis. As a fact vulvitis, vaginitis, and urethritis are dangerous conditions for a woman in labour. Every one has seen cases do well in spite of their presence, but in the light that bacteriology has thrown upon all kinds of inflammation and upon the actual cause of puerperal sepsis, the presence of this condition ought to be regarded as dangerous.

The handling of dead bodies is another undoubted cause, whether by the conveyance of ptomaines or of microbes I will not stop to inquire, but the classical story of Semelweiss and the medical students in Vienna must come into all your minds. It has been my experience to see many cases of puerperal sepsis in butchers' wives when confined in some room not far from the shop where the dead meat is. With regard to bad smells, bad drains, and bad sanitary conditions generally, I do not think the evidence is quite so good. I am not prepared to say they might not cause puerperal sepsis, but I confess that in most cases of puerperal fever which it is alleged have been caused by a bad drain I find, as a rule, insufficient evidence of a bad drain, and hence I go on investigating, to try and find some other and better recognized cause.

The [illegible] has long been said to be a cause of puerperal sepsis. A parturient woman may become infected by some [illegible] but it has been shown conclusively that when the [illegible] puerperal sepsis is eliminated the [illegible] true, and so [illegible] as [illegible] which are [illegible] from those of puerperal fever.

Nursing [illegible] will also cause puerperal sepsis.

Now all these causes produce the severe, generally fatal, form of puerperal septicaemia which the Royal College of Physicians [illegible] the [illegible] of puerperal septicaemia. The condition called puerperal septicaemia is due to the invasion of the [illegible] circulation.

If a pus-producing [illegible] in the uterine cavity, it generally decomposes and a stinking discharge is the result. The patient is ill, but if the offending parts be removed and the uterus be washed out with some antiseptic lotion, improvement and recovery rapidly follow. The same thing happens if the decomposing stuff is made up of clots, or of bruised tissues and the same good result is generally observed when proper steps are taken to remove them and to cleanse the parts with antiseptic douches. Hence a stinking discharge is an indication of a tractable form of puerperal sepsis. Sometimes, however, these patients will die in spite of complete clearance of all offending particles and then it becomes a question whether the case is not a mixed form of infection, there being pyrexia due not only to the absorption of products of decomposition (sapraemia) but also pyrexia due to infection by other and more virulent poisons (septicaemia).

According to some, you may have sapraemia in cases even where there is no stinking discharge. In other words that you may have products of decomposition that have no odour offensive to the nostrils. I cannot vouch for this myself though I can quite believe it. At the same time where the lochia are not offensive but scanty, the prognosis is much worse than where they are abundant and offensive.

At all events, I think we may say that puerperal sapraemia is quite a different and distinguishable disease from puerperal septicaemia. Puerperal sapraemia produces pyrexia commensurate with the amount of poison absorbed. The bacteria of decomposition are said not to multiply in living tissues. Puerperal septicaemia is said not to be a specific zymotic disease. I am not sure that it ought not to be included under the same heading as other specific zymotic disease. It is true it has no specific rash, but I think it has a fairly definite incubation of two or three days, and continuous pyrexia averaging seven days.

The microbes that have been found and which are said to be the actual cause of the septicaemia are the streptococcus pyogenes, the staphylococci pyogenes, aureus, albus, and citreus, the bacillus coli communis, which may act by penetrating the bowel wall, particularly during distension, and so infect the peritoneum. The gonococcus and pneumococcus are said to be virulent under certain conditions.

Streptococci have been found in the tissues in so many cases of death from puerperal septicaemia that they are looked upon as by far the most dangerous form of microbe in a puerperal woman. May be many of these differently named microbes are mere varieties of the same germ, and hence it is of no great moment trying to fix upon one particular coccus as being the only cause of puerperal septicaemia.

What I wish to draw your attention to most particularly is the fact that the streptococcus is looked upon as the most usual originator of puerperal sepsis, and that it is one of the most abundantly distributed microbes known. It exists on the hands and indeed on skin everywhere, and can be cultivated from almost any article of clothing, bedding, etc., so that it is extremely difficult to get rid of.

Contrast this with the fact that Krönig in 1894 by very careful investigation found that the vagina was aseptic in all cases of pregnant women not contaminated by digital or instrumental examinations nor by coitus.

Later Krönig introduced germs into the vagina and found that they were speedily killed in two or three days, and that antiseptic douches weakened or destroyed this natural antiseptic action.

Menge confirmed Krönig. These conclusions of Krönig have been disputed, but I think clinical experience shows that the parturient canal (cervix uteri and vagina) are in the vast majority of women either aseptic or at all events without pathogenic germs, so long as the patient is not examined digitally or with instruments.

Treatment.

From what has been already stated you will doubtless have gleaned that one of the very best methods of treating a woman in labour in order to prevent puerperal fever is to let her alone.

When you fully realize the causes at work in producing this disease you are not in the least degree surprised that nearly every woman who has a child in olden times had pyrexia of some sort. Indeed any surprise that one has is that the mortality was not much higher. How women escaped from fatal puerperal sepsis can only be explained on some hypothesis such as that even in these days some accoucheurs were unconsciously aseptic, and that others used not to examine their cases much, if at all. At any rate even they were struck by the fact that women delivered in the gutter, by which was meant, of course, in any out of the way place where no help could be obtained, generally did well. It was not because a gutter, or a ditch, or a barn, were better places for a woman in which to be delivered, but simply because she was alone with nothing but her own natural forces to work

out the labour. There was no examination and consequently no introduction of microbes of any description. Doubtless you have all known of cases where a wretched girl, with absolutely no experience, has crept into some hiding place, such as a barn, to conceal her shame, where, in the dark, without help, without any previous instruction, she has delivered herself of a living child and of the placenta, and has done it so safely that she has been able to get up and leave the child alive and well, and go back to her work in order to try and prevent any one from suspecting that she has had a child at all. Such cases are not so very uncommon, and the point I wish to draw your especial attention to is that they almost invariably do well, they very rarely suffer from pyrexia, and this is, I fully believe, because they are never examined or syringed.

Parturition is a physiological act like respiration, defaecation, and micturition, and it requires no assistance whatsoever in the vast majority of cases—namely, in considerably over 90 per cent. So that more than 90 women out of every 100 would deliver themselves safely if they had no assistance whatsoever.

I see cases not infrequently with medical men who tell me they cannot understand how it is that the patient has developed puerperal fever, because everything was perfectly straightforward and they used every antiseptic precaution. And yet the patient is ill, and she is ill with a fever that has been caused by a poison which got into her genital tract at the time of her confinement, and the question arises, where did it come from and how did it get there? The doctor assures me that he is not attending any other puerperal septic case nor any case which could be reasonably supposed would be contagious, and to clinch the matter he may say he has attended one or more other cases since this unfortunate patient was confined and that they are progressing perfectly satisfactorily.

Well in such cases as these it is often difficult to place one's finger on the exact spot and say here is the fault. But I feel strongly that there is a fault, whether one finds it or not, and that it is avoidable. I am convinced that there are cases of puerperal sepsis; both of the non-fatal sapraemic kind, and of the fatal septicaemic kind, that arise from no fault of the doctor, or of the nurse, or indeed of anybody. A woman might suffer from these conditions who had never been examined, or assisted at all by anybody, but who had delivered herself naturally; and in such a case of course the doctor could not be held responsible.

But why is it that in spite of all our increased knowledge of sepsis, of antiseptics, and of the attainment of asepsis, how is it that the mortality from puerperal sepsis is still so high?

My answer to this question is that there is too much interference with the natural course of labour, too much douching and examination of the parturient woman, and that even yet the majority of medical men have not fully realized that on the one hand, in making a vaginal examination of a woman in labour, or just after labour, or doing any manipulative work that may be needful, the process of hand sterilization should be as elaborate as if they were about do an abdominal section, and on the other that unless they take the greatest care after such hand sterilization they will get the examining finger soiled by germs from their own clothes, the bedclothes, or from the patient herself.

During the evolution of asepsis an effort was made to prevent puerperal fever by the intrauterine douching of every woman as soon as the third stage of labour was over. A solution of perchloride of mercury was used, and it was done so thoroughly that in some cases the patients showed signs of mercurial poisoning. But the results, so far as the prime object was concerned, were grand. For puerperal fever was practically eliminated, and it was believed—and, indeed, it is still so believed even now by some—that it is the proper practice to pursue. It seemed to be a splendid achievement for these lying-in institutions to go from one extreme of such a high mortality that they occasionally had to be closed altogether to the other extreme, when they practically never lost a single case from puerperal sepsis. It was a very natural conclusion to arrive at—namely, that the result was due to this routine uterine syringing immediately after labour. But during the time this experience was being acquired scientific investigations were slowly but surely proving that puerperal septicaemia was caused by microbes introduced into the parturient canal by the hands of those in attendance. The accoucheurs and nurses were therefore beginning to pay especial attention to the surgical cleanliness of themselves and to make vaginal examinations in the cleanest possible way then known to them. The good results obtained in these lying-in hospitals might therefore be attributed, in part at least, to this increased cleanliness and not solely to the intrauterine douching with germicides. At that time asepsis could not be attained as perfectly as it can be to-day, and no doubt some germs were introduced by the examining finger, and so the perchloride of mercury solution would do good in killing these germs. But obviously, if this be the case, it would be unnecessary to give this intrauterine douche if no germs were introduced, at all events in healthy women. The advocates of intrauterine douching went further, for they syringed the vagina with a lotion before labour, and this I believe is still carried out by some.

Now, when you come to consider, does it not strike you as very odd that this physiological act of parturition should require the washing out of the womb by an antiseptic lotion as soon as the work is done? It certainly would be unique in the whole history of physiology in either the vegetable or animal world so far as I am acquainted with it. As I hope to prove to you, however, this syringing is quite unnecessary, and not only so but is itself fraught with some risk.[2]

In my own lying-in ward at Guy's Hospital I allow no syringing of the vagina nor of the uterus either before or after labour in ordinary natural cases, which, of course, include the great majority. Unfortunately the reports of all the cases have not been kept, but the obstetric tutor at Guy's Hospital, Mr. Hicks, has kindly taken out of the records for the purpose of this paper notes of all the cases that he could find detailed that were not douched. A small percentage had a slight but transient rise of temperature, only two of them being douched during the pyrexia, but the great majority had a normal puerperium, and the mortality has been *nil*.

I do not think the advocates of routine douching can give better results than these.

Would it, then, not be as well to give up all routine examinations of patients in labour? For the purpose of avoiding puerperal sepsis, I should answer decidedly in the affirmative. An ideal labour is one which is managed entirely by natural efforts. Any puerperal sepsis occurring in such a case could obviously not be due to the introduction of germs from without by the accoucheur or the nurse. It might be due to the introduction of germs from without by the patient herself, for it occasionally happens that a woman during or after labour will for some reason or other introduce her own finger into the vagina, and so carry in, not merely the germs on her finger, but those that lie in and upon the vulva itself.

The custom of examining the patient to find out if everything is going on all right is so universal that it is now done not only by the doctor but sometimes also by the nurse. The advantage of doing it is, of course, that any abnormal condition is at once discovered, and sometimes the failure to find it early in labour would be dangerous to both mother and child. If, however, you will seriously ask yourselves how often such a condition arises without some indication which would lead you to suspect that something was wrong showing the necessity of examination, you must admit that it would be very rare indeed. There is scarcely a single condition requiring help that is not accompanied by some sign or symptom indicating that labour is not normal. Considerably more than 90 per cent. of cases are quite normal. Of the remainder the majority give good evidence of the presence of something that wants seeing to, leaving a very small proportion, where at first there is no sign and no symptom, and yet which could be found out by digital examination.

When you consider the highly absorbent surface of the raw placental site after the third stage of labour, the numerous lacerations in the cervix uteri, vagina, and perineum that are inevitably caused by the delivery of an averaged-sized child, particularly amongst primiparae, in whom puerperal sepsis, probably for this very reason, is commonest, you ought to consider it just as dangerous to put your finger or an instrument into the vagina or uterus as into the peritoneal cavity.

Hence, if you think it wiser to make a vaginal examination when you are called to a woman in labour to find out that everything is progressing satisfactorily, let your examination be undertaken with the same careful precautions as if you were about to put your finger into the peritoneal cavity during an abdominal section. And when you have satisfied yourself that everything is normal, leave it then to Nature and make no further examinations. To make a vaginal examination

during labour or just after requires elaborate preparations. The hands should be thoroughly scrubbed with soap and an aseptic nailbrush for example, a nailbrush boiled and kept in a solution of lysol in hot water, paying particular attention to the finger nails; they should then be scrubbed with an aseptic nailbrush in a 2 per cent. lysol solution or some similar antiseptic; and, finally, should be placed and kept immersed for not less than two minutes in a solution of perchloride of mercury (1 in 1,000) or of formalin (also 1 in 1,000), or in some equally potent germicidal liquid. Of course there are other ways of attaining a fairly perfect asepsis, but after doing the above I have had my fingers tested on several occasions by our bacteriologist at Guy's Hospital, and he has never been able to discover any streptococci, though he has always by scraping the nail been able to cultivate non-pathogenic staphylococci.

Stich[3] says the very best way is not only to disinfect the hand as thoroughly as possible but also to wear an india-rubber glove which can be boiled and made absolutely aseptic. The objection to it is, of course, that it impairs the sense of touch, though I believe now they are made of such thin material that this impairment is very slight. On the other hand when the material is very thin there would be the risk of germs passing through the substance of the glove. Certainly such gloves by being boiled ten minutes can be rendered aseptic, and they might be used for the ordinary routine examination of a woman in labour to find out if all is normal, and if later any operation be required that demand perfect tactile sensibility, then trust may be put in hand sterilization alone without gloves.

The question of trying as far as possible to disinfect the vulva before examination is one of great importance. It is because this is not done at all or done imperfectly that cases arise sometimes where the doctor cannot see how his patient has fallen ill after the care he has taken in all his examinations. Probably he has been as aseptic as was necessary or possible and yet his finger had become contaminated with germs from the vulva just in the act of introducing it into the vagina. In the same way a nurse may be otherwise quite clean surgically and yet in using a syringe she may contaminate the vagina from the vulva. At all events it is a difficult thing to sterilize the vulva, indeed it is practically impossible. But if the nurse is reliable she may be allowed to wash the vulva with soap and water and with some antiseptic lotion.

In making an ordinary examination to find out if labour is going on normally the patient should be on her left side, with the breech at the edge of the bed; then after hand sterilization, with the left one, the right labium majus can be raised, and the wall of the vagina can be seen and its condition noted, particularly the presence of any vaginitis. The right hand can now be taken out of the basin of perchloride of mercury or other antiseptic, and, without allowing it to touch anything *en route*, the right forefinger can be passed into the vagina (held open by the left hand), without even touching any part of the vulva.

If everything is found to be normal, no further examination will be required in nearly all cases. Should anything arise during the course of labour necessitating further examinations then exactly the same precautions should be repeated.

Some advocate shaving the vulva, but I think this would be resented by most patients in an ordinary confinement, and by adopting the above method it is unnecessary; but if things are found to be abnormal and an operation becomes necessary, then I recommend shaving the vulva entirely, or, at all events, the posterior half or as much as comes into the field of operation.

If a nurse or midwife is allowed to examine a case she ought to adopt just the same stringent measures. If I were attending a case I should tell the nurse she must not examine at all. I know some doctors get the nurse to examine and not to send for them until the labour has reached a certain stage, so as to save their time. Such practice is fraught with risk to the patient.

Again, after the child is born, some men always make a vaginal examination to see if there is another child or any lacerations. It is far better not to do so. You can tell by her appearance and by the pulse whether she is losing too much blood. You can even see the red stream flowing over the left thigh, and you know if it is only the usual quantity. You can place your hand on the abdomen and feel by the size of the uterus whether there is another child or not. You need not rub up the uterus to try and get it to contract, even if it be relaxed, so long as there is no undue haemorrhage. I have shown elsewhere[4] that this is not only unnecessary but that it interferes with complete retraction. If you adopt the method of expressing the placenta, let it be done entirely from without: and if you twist the membranes into a rope do not pass the finger into the vagina to break this rope off at the os uteri or within the uterus. They will come away clean without much help with a little patience, and, even if some break off, they usually give rise to no trouble, but come away in the lochia. When uncontaminated by pathogenic germs, such bits of membrane are practically innocuous.

The perineum should be carefully examined to see if it be much lacerated, and this can be done by raising the right buttock and the right labium majus with the left hand, and, if need be, drawing the left labium towards the left side with the right hand. Should it be found necessary or advisable to put in sutures, this should be done with just as great aseptic and antiseptic precautions as sewing up the incision after an abdominal operation.

Personally I have not used or recommended a binder for many years. A clean aseptic warm diaper, prepared with some antiseptic or simply sterilized, may be applied to the vulva. No syringing of any kind should be allowed, neither into the uterus nor into the vagina, neither directly after labour, nor soon after, nor during the puerperium at all so long as everything is going on satisfactorily. I find it difficult in practice to prevent nurses syringing: they have been so thoroughly imbued during their training with the necessity for syringing in a routine way that they have come to the conclusion that a woman must have puerperal fever unless she is syringed. I am glad to say, however, that this difficulty is less than it was owing to the spread of further knowledge on the subject.

You will, of course, examine the placenta and membranes to see that all is there, and if you are satisfied there is no need at all to explore the uterine cavity to feel if there be anything left. Placentae succenturiatae are rare, and when they occur you can successfully deal with them later on, and there is nothing else likely to be left if you find the placenta and membranes all right.

So far, I have been discussing the management of normal labour with a view to the prevention of puerperal sepsis. In abnormal labour, where it becomes necessary not merely to make examinations but also to perform operations, manually or instrumentally, or both, everything should be done with as strict aseptic and antiseptic precautions as if it were an intraperitoneal operation. The vulva itself must be as thoroughly disinfected as possible, but for practical purposes the vagina and uterus may be looked upon as already aseptic unless, of course, there be any disease present such as vaginitis. After such operations, if they are carried out aseptically, it is not necessary to douche, though considering that there is no known method of attaining perfect asepsis of one's hands nor of the vulva, it may be justifiable then to use an antiseptic intrauterine vaginal douche immediately after the labour is over with the object of killing any possibly introduced germs.

Again, where it is known that a woman is suffering from a vulvitis, or urethritis, or vaginitis, gonorrhoeal or simple, active measures should be taken to cure this before labour begins: and if labour is already in process when the doctor is called in, and he finds out the inflammatory condition, he should do his best by copious syringing before the child is born to wash away as much as possible. Some say syringing the vagina is very little use, but that it should be wiped all over with swabs, aseptic, and wrung out in some antiseptic lotion. Perfect asepsis of the vaginal walls in such cases cannot be expected, but, at all events, a very large number of the microbes will be removed or rendered *hors de combat*. Syringing in such cases after the labour is over is dangerous owing to the probability of washing the germs into the uterine cavity. Probably swabbing out the vagina through a Sims's speculum would be more efficient and less dangerous, and the vagina even may be packed with iodoform gauze wrung out in formalin 1 in 750, only, owing to the lochial discharge, the gauze must be removed and fresh gauze inserted twice a day during the first day or two, and then once a day until no further required.

When a case of puerperal sepsis arises, the question of how to treat it is of course, of the highest importance. The first question arises is, Is it a case of sapraemia or of septicaemia? If with pyrexia there be plenty of milk, plenty of lochia, and if the latter be offensive, it is probably sapraemic.

In such a case it is much the best practice to give an anaes-

thetic, and to feel all over the interior of the uterus with the disinfected finger, and to remove any piece of placenta, membrane, clot, or other decomposing matter, and to follow this up by a copious intrauterine douche of some antiseptic, such as perchloride of mercury solution 1 in 1,000, formalin solution 1 in 1,000, or tr. iodi. ℥ij ad Oj, in any case using at least a quart, and finally washing out this strong lotion with some milder antiseptic, such as boracic acid lotion or salt and water (℥ij ad Oj). This washing out of the uterus should be repeated if the discharge is still foul the next day, or if the temperature remains high.

Some practitioners are content, in a sapraemic case, just to wash out the uterus, without this digital exploration, under an anaesthetic, and no doubt many cases rapidly improve and get quite all right with such simple treatment. But I have seen cases which after all required the uterine exploration, and in which a removable mass of decomposing material was found in the uterus, and in some instances unfortunately it was only discovered *post mortem*.

If the milk is getting scanty or suppressed, if the lochia, too, are diminishing or suppressed, and not offensive, but quite sweet, and the temperature is high, it is probably a grave case of puerperal septicaemia.

In such a case, again, if seen early enough, and of course the doctor knows of the rigor and fever probably soon after they begin, the patient should be put under an anaesthetic and the interior of the uterus should be explored digitally to find out if there be any decomposing mass. Probably nothing will be found. The uterine cavity can be thoroughly syringed with the same lotion as before-mentioned, though unfortunately, as a rule, without the same good result following. In such cases where there is no good effect on the temperature it is often found to be very exhausting to the patient to continue to syringe her, and so it should not be done. Some use glycerine solution, with or without antiseptics like formalin.

I am not at all sure that curetting the uterus is not a good plan, especially if done early, say about the fourth or fifth day of the puerperium. I have done this in several cases with good results, and recommended it as far back as 1890.[5] Of course one gives the patient various antipyretics, such as quinine, antifebrin, antipyrin, and the like, but not one of them is a specific. Some authorities recommend packing the uterine cavity with gauze wrung out in some such strongly germicidal solution as formalin 1 in 500. Webster[6] recommends crenasol as the best antiseptic to use. It consists of pure creolin *minus* soda, and is of oily consistence, and is said to kill pathogenic organisms in two minutes.

Of antistreptococcus serum, I have had a large experience, and in some cases it seems to act wonderfully well, but it so often fails that I fear at present one must admit that it is unsatisfactory. Possibly before long a really reliable serum will be obtained which will enable us to snatch these unfortunate patients from the grave danger into which they have got.

In using the serum we give 20 c.cm. at a time injected subcutaneously on the anterior surface of the body, generally the abdomen, with, of course, every aseptic precaution. This should be repeated so that she gets 60 c.cm. within the first 24 hours and then give 20 c.cm. twice a day afterwards. Any wounds in the parturient canal, ruptured perineum, lacerations of the vaginal wall or of the cervix uteri should be made out and carefully washed with antiseptic lotions. Iodoform powder may be dusted on them.

With regard to the removal of the uterus by hysterectomy, vaginal or abdominal, for these cases I have no experience; such a procedure would only be successful, I imagine, when done quite early, and it is precisely in these cases that we cannot tell whether they will be fatal or not. Hence I do not think it is likely to become a recognized practice. The same remarks apply to opening the peritoneum and washing it out and draining it, I have only done it once, but the patient died.

There are two other questions which commonly arise and which have been frequently asked me.

The first one is Should a doctor who gets a case of puerperal septicaemia continue his midwifery practice?

The answer is decidedly in the negative. So long as he is in active attendance on a septic case so long is he dangerous to a woman in labour. Sometimes I am told, Oh, but I am engaged to attend Mrs. B. and she would be greatly annoyed if at the last moment I failed to attend. My advice is to write to her husband and tell him you have a case of blood poisoning on hand, and that it would be highly dangerous for you to attend his wife, and that he had better have your assistant, or *locum tenens*, or your partner if you have one, or some other doctor. If you do this I am sure you will get no discredit but just the opposite; you will be known as a careful and conscientious doctor.

Think of your own feelings if the case of puerperal septicaemia you were attending died, and the other case developed it and died too. How could you say that you had not conveyed the disease?

There is, however, another alternative and that is to give up attendance on the septic case and place it in other hands and get aseptic in order to go on with midwifery practice.

And this leads me to the second question, namely, How soon after ceasing to attend upon a puerperal septic case is it possible to resume practice? The reply is, in about fifteen to twenty minutes. In other words just as long as it takes to get your hands aseptic. The clothes can be covered over by means of a sterilized overall and the hands can be made aseptic by the method already mentioned.

I have myself digitally explored the uterus of a woman moribund from the most virulent type of puerperal septicaemia and within an hour or two done a Caesarean section, mother and child doing perfectly well.

Of course as a rule a medical man would take longer than this, but please let me say that however long he takes, he must go through the same process with regard to his hands in rendering them aseptic. He must not think that a week or two away from practice will render him aseptic unless he uses the other measures also.

His clothing can be rendered aseptic by sterilization with superheated steam, but in all cases when examining or delivering a woman in labour, he should have his coat off and his shirt sleeves rolled up, and if possible should wear a sterilized overall, certainly in operations; and at other times, when he cannot obtain one, he can cover his clothes with a clean towel, and avoid touching even that.

And now I have done. May be I have spoken somewhat strongly, but, if so, it is because I feel strongly on what I believe to be a prolific cause of puerperal sepsis.

My message to you is to avoid examination as much as ever you can. Whenever you have occasion to examine during or just after labour do it as if it were a peritoneal operation. I know this takes time—not less than fifteen or twenty minutes—to prepare the hands and the patient, and many a time a doctor is too busy. In such a case it is better not to examine at all. Patience is a greater virtue than usual in midwifery practice. Moreover, if you spare this fifteen or twenty minutes to make one satisfactory examination you can if you find everything normal go away quite happy about the result, and you probably will not have to examine again.

Do not allow the nurse to examine. If she has already done so syringe the vagina with a germicidal lotion. Do not allow any syringing before or after labour in ordinary cases. If sepsis occurs attack it with all the weapons at your disposal.

May be you will not agree with all I have said, but I feel sure you will, at all events, allow that I am animated by the same desire as yourself to find out the truth, and to discover if possible a surer way of avoiding puerperal sepsis, and a more certain cure in case it should arise.

REFERENCES.

1 Boxall, *Obstet. Trans.*, vol. xxx. 2 Hoorweeks, On Routine Syringing after Labour, *Practitioner*, 1902. 3 *Zeitschr. f. Geburtsh. u. Gynäk.*, Band xlv. 4 No. 1 of the *Journal of Obstetrics and Gynaecology of the British Empire*. 5 Hunterian Society's *Transactions* for 1891. 6 Op. cit.

A MEMORIAL has been placed in Glasgow Cathedral to a medical worthy, Dr. Thomas Menzies, who died from an accident some seventy-two years age. A Highlander from Perthshire, Dr. Menzies studied medicine in Glasgow, and in due course was appointed Lecturer on Surgery at the University of that city. At the same time he carried on a very large practice, having "doctor's shops" as they were then called, in various parts of the city and suburbs, wrote for the *Glasgow Chronicle*, practised hydropathy, began a book on botany, and assisted Chalmers of Free Church fame. His was a strenuous life, and worth recording, for it was full of hard work and constant endeavour; one, too, which ended in somewhat typical fashion, for, though stricken with typhus, he insisted on trying to answer the summons of a poor patient suffering like himself, and in his effort fell down stairs, with results that proved fatal.

A Clinical Lecture
ON
FIFTY CONSECUTIVE INTRA-ABDOMINAL OPERATIONS ON THE OVARIES, FALLOPIAN TUBES, AND BROAD LIGAMENTS.

Delivered at the Bristol Royal Infirmary.

By JAMES SWAIN, M.S., M.D Lond., F.R.C.S.,
Professor of Surgery, University College Bristol; Surgeon Bristol Royal Infirmary.

I propose to speak to you to-day about some operations which you have frequently seen me perform on the uterine adnexa, and for this purpose I have looked up the notes of the last fifty intra-abdominal operations in this region, because by so doing you will be better able to appreciate the general results of such procedures and obtain some idea of the nature of the diseases met with and the methods of dealing with them.

In the period covered by these cases I find I have performed about 500 abdominal sections, so that the importance of the present topic is shown by the fact that the cases under discussion form about one-tenth of the abdominal operations which have come under my care.

The material from which these cases is derived comprises 22 ovarian adeno-cystomata, 2 parovarian cysts, 2 extra-uterine pregnancies, 2 dermoid tumours, 4 malignant growths of the ovary, 7 broad ligament tumours, 10 tubo-ovarian inflammations or abscesses and 1 fibroma of the ovary. Only 2 deaths occurred in the whole series.

Ovarian Adeno-cystomata.

Of the ovarian adeno-cystomata 16 were on the left side and 4 on the right, and in 2 cases both ovaries were similarly affected. In 5 cases the opposite ovary was sufficiently diseased to demand its removal by salpingo-oophorectomy. In 1 case there was a parovarian tumour shelled out from the opposite side, and in another case a dermoid tumour was removed from the affected side. In 1 case the patient returned a year later for the removal of an adeno-cystoma of the apparently healthy ovary left at the first operation.

Of the parovarian tumours one was on the right side, and in the other the cyst was universally adherent, and its position could not be determined. This case occurred in an old lady of 75 years, and it was considered better to treat it by drainage, this being the only example of an "incomplete ovariotomy" in the series.

Both dermoid tumours occurred on the left side. Of the malignant growths 3 occurred on the left side and 1 on the right; 3 were adeno-carcinomata, and 1 was a papilloma which infiltrated the deeper tissues. This last was associated with a superficial ulcer which was treated by myomectomy, and with a cystic condition of the opposite ovary necessitating salpingo-oophorectomy. Two of the cases subsequently recurred.

All the above cases may be classed together, as the treatment by ovariotomy was the same in all. There was only one death which occurred in a simple case of ovarian adeno-cystoma from the continuation of a peritonitis which commenced before operation.

The case in which a dermoid tumour was found in association with an ovarian adeno-cystoma of the same side is worth recording, for such a condition must be of great rarity, and it occurred in a girl 13 years of age who was sister to a patient of 20 years of age from whom I had previously removed an ovarian cyst, which is the earliest age at which I have [illegible] upon the occurrence of these conditions.

[illegible]

[illegible] generally [illegible] a good deal of long light hair [illegible] the same colour as that of the patient's head, and a large piece about 4 in. long and 1½ in. broad bearing some teeth and what appeared to be tooth-sockets attached by pedicle. The parovarium was unaffected. The tumour and the left ovary [illegible] after tying with strong catgut. The [illegible] right ovary were stapled and sutured to the [illegible] and the wound closed.

One of the most common and serious complications of ovarian tumours is produced by rotation of the pedicle. This occurrence is signalized by pain, collapse, and vomiting and such symptoms should make us operate without delay. If the case is left it may end in complete stoppage of the circulation in the pedicle, resulting in sloughing of the cyst wall and death from peritonitis. Even in the less acute cases peritonitis generally follows and the subsequent operation is rendered more difficult by the presence of resulting adhesions. Strangulation from torsion is more likely to occur in tumours possessing a long pedicle; the twisting is probably produced by peristaltic movements of the intestine or by the alternate contraction and relaxation of the abdominal muscles acting on the part of the cyst nearest to the median line. As an example of this condition we may take the following:

CASE II.

The patient had had two attacks of violent pain in the right side of the abdomen, accompanied by vomiting. When first seen she was pale, rather collapsed, and constantly complaining of pain in the right iliac fossa and shooting down the leg. The temperature was [illegible]°. A tumour about the size of the closed fist was found below and to the right of the umbilicus, and it was scarcely movable that it could be placed in almost any part of the abdomen below the line joining the cartilages of the ninth ribs. It could also be pressed down into the pelvis to the right side of the uterus, which was not enlarged. Operation showed the tumour to be a right-sided ovarian dermoid cyst with a long pedicle which was twisted [illegible] one complete turn. Some of the cysts contained clear yellow fluid, but here and there the contents were blood. The cyst wall contained dark scattered patches from haemorrhage.

In another case with similar symptoms a peculiar friction rub could be felt and heard on the right side of the abdomen during respiration, and this corresponded to a patch as large as the open hand in the cyst wall, of a dull white colour, devoid of vessels, and with a slightly roughened surface—the commencement of sloughing of the cyst wall.

Ovariotomy, as soon as the diagnosis is made, is the only rational treatment of the various tumours of the ovary which we are now discussing. Malignant disease is much more common than is usually supposed, and by early operation we not only give the patients the best chance of freedom from recurrence if the tumour should prove malignant, but we also save them from many risks and much anxiety.

In the performance of ovariotomy a median incision is made between the umbilicus and pubes, rather nearer to the former than the latter, and sufficiently long to admit two fingers. In malignant cases, and those in which the contents of the cyst are not easily evacuated, it is necessary to have a larger incision.

The evacuation and delivery of the cyst are accomplished by pushing a large trocar into a part of the cyst wall which is free from vessels, and as the fluid escapes the wall is caught in successive pairs of forceps and drawn to one side out of the abdominal wound. As soon as it has been delivered a large sponge is placed in the abdomen to protect the intestines and to collect any fluid or blood that may escape. If there are several large bands the trocar may be pushed into them in turn to help the delivery of the cyst. In malignant cases which bleed freely, the cyst should be dragged out as speedily as possible and a large pair of forceps placed on the broad ligament forming the pedicle in order to control the haemorrhage. In these and other cases where evacuation is difficult it may be necessary to make a large incision in the cyst wall and to empty it rapidly by withdrawing its contents by handfuls as rapidly as possible.

Adhesions should always be dealt with after the evacuation of the cyst. In some cases they are so extensive as to prevent the delivery of the cyst. In dealing with anterior adhesions it is important to recognize the plane between the cyst wall and the parietal peritoneum, or the latter may be inadvertently torn away from the sub-peritoneal tissue. Where the adhesions are particularly dense a portion of the cyst wall should be left behind rather than that the peritoneum should be lacerated. The same remark applies to the denser form of adhesions to intestines where particular care must be taken lest the bowel be torn. The omentum when adherent may be freely cut away.

After the complete delivery of the cyst it is wrapped up in

a sterilized towel while the ligation of the pedicle is proceeded with. This procedure is carried out by passing two or more threads through spaces which can be seen to be clear of vessels as the pedicle is held up. I generally use No. 4 silk and tie with what is known as a Pantock's knot, supplementing this with a further ligature after the cyst has been cut away. The particular form of ligature is perhaps unimportant, but there is often so much shrinkage after the cyst has been cut away that I never rely upon a single ligature. The ligature should be placed sufficiently far from the tumour to allow of from ⅛in. to ¼in. of tissue being left beyond the ligature after the cyst has been removed.

The opposite ovary should then be inspected, and if markedly diseased it should be removed; but, whenever possible, a portion of the ovary should always be conserved, and you may often have seen me do this by snipping out a portion of the walls of the smaller oophoritic cysts which are so frequently present.

Any fluid which may have escaped into the pelvis is then sponged out and the abdomen closed. Before this is done all sponges and forceps should be counted so as to avoid the possibility of leaving any of them in the abdomen.

Tumours of the Broad Ligament.

In the next class, that of tumours of the broad ligament, the treatment is essentially different, and has been greatly improved during the past few years. It is, unfortunately, still customary with many operators in dealing with tumours of the broad ligament to regard salpingo-oophorectomy as necessary for the removal of these conditions, with the result that normal tubes and ovaries are frequently and quite needlessly sacrificed.

In these conditions it is nearly always possible to conserve the ovaries and Fallopian tubes, and we thus avoid the distressing phenomena which so frequently accompany a menopause artificially induced, and allow of a possible future conception. It is in the manner of dealing with these growths that there is so much need of further knowledge and improvement, for their encapsulation has not been fully appreciated, and we should have a smaller number of "incomplete ovariotomies," and of hysterectomies for "fibroma" of the broad ligament if the existence of a definite capsule was rightly understood.

It is desirable to consider exactly what is meant by the "capsule" which exists in these cases, but to prevent confusion reference must first be made to a "false capsule" which is not uncommonly found associated with ovarian tumours. This latter consists of adherent mesentery or omentum, or of inflammatory deposit. It is simply treated as an adhesion, and requires no further mention. The real capsules are provided primarily by the broad ligament, and to grasp their anatomical arrangement accurately we must understand the structure of the uterine appendages.

Above the level of the ovary the two layers of the broad ligament form a mesentery for the Fallopian tube (which is situated at the top of this portion of the broad ligament), and is known as the mesosalpinx. It is in this portion that cysts are found, whether they originate primarily in the broad ligament or burrow into it secondarily from the ovary. It contains the parovarium and cysts arising in this structure from the commonest tumours enclosed in a capsule derived from the mesosalpinx.

Below the level of the ovary the two layers of the broad ligament are more widely separated, and here constitute the mesometrium. It is in this part of the broad ligament that fibromata or myofibromata will be found, whether they have developed *in situ* or represent a part of a myofibroma spreading out from the uterus. It is from the mesometrium that the capsule is derived in tumours of the lower part of the broad ligament.

The cellular tissue of the mesometrium is continuous with the retroperitoneal connective tissue, so that large tumours can burrow extensively behind the peritoneum, which then constitutes a part of the containing capsule. Cysts originating in the mesosalpinx may invade the mesometrium and then burrow widely in the retroperitoneal tissue, as in one of the cases cited below.

In the process of expansion tumours of the mesosalpinx will be found with the Fallopian tube stretched across the top of the capsule, as in the ordinary parovarian cyst, whereas in tumours originating in the mesometrium the layers of the mesosalpinx will be found to be unaffected on the top of the tumour.

In the right understanding of the various anatomical forms of capsule lies the secret of conservative surgery of the uterine appendages. The capsule is opened and the tumour is shelled out of its connective tissue bed, and thus ovary and Fallopian tube can be preserved intact. In the larger cysts a preliminary tapping is necessary.

After the enucleation of the tumour the treatment of the capsule is sufficiently simple; if healthy it may be dropped back into the pelvis with or without sewing up the cut edges of the capsule. There is nothing to fear from the exudation of fluid or blood into the resulting cavity provided all vessels have been properly secured, and there is no need to cut away redundant parts of the capsule, which soon contracts. On the other hand, if the capsule is infiltrated with inflammatory deposits in association with a tumour which has suppurated, it will be wiser in some cases to attach the cut edges of the capsule to the abdominal incision and to drain the cavity. The need for this latter course is, however, extremely infrequent.

Broad ligament tumours are more or less fixed and closely applied to the side of the uterus, and they are sessile because of their being enclosed between the layers of the broad ligament.

These remarks are well illustrated by the following series of cases:

CASE III.

[illegible]. The patient, aged — years, had complained of pelvic pain for the past eighteen months, and during the past five weeks it had been so severe as to necessitate the daily use of opium. The abdominal muscles were tense, and the patient indicated the left ovarian region as the site of greatest pain and tenderness. The uterus was normal in size and position. In the left broad ligament was a smooth globular swelling the size of an orange. The tumour allowed of a certain amount of movement but it always retained the same relation to the uterus, and could not be moved out of the pelvis. On opening the abdomen in the mid-line the swelling was found to be a smooth walled, whitish cyst encapsuled in the upper part of the left broad ligament, with the Fallopian tube running over the top of it. The ovary was free. The mesosalpinx was incised over the tumour, which was cut into to allow of the escape of a clear, transparent fluid. The cyst wall was then completely enucleated from the capsule formed by the mesosalpinx, and the hole in the broad ligament was closed with a few silk sutures. No vessels were tied, and the ovary and Fallopian tube were preserved intact, except that a few small oophoritic cysts were incised.

CASE IV.

[illegible]. The patient, aged 34, had suffered from vaginal tenesmus and a sense of "weakness" for six years. For the past eighteen months sickness and pain had occurred at the menstrual periods. Three months ago there had been a very severe attack of hypogastric pain, and she had never been well since. To the left of the uterus, and independent of it, a firm nodular swelling could be felt running out to the pelvic wall and more or less fixed. The tumour was the size of an egg, and a portion of it projected into Douglas's pouch. Some pain was produced when the tumour was firmly pressed upon. The uterus was normal in size and position. The right ovary was normal, but the left ovary could not be distinguished. On opening the abdomen in the mid-line the tumour was found to be a myofibroma encapsuled in the layers of the mesometrium. The Fallopian tube, supported by an intact mesosalpinx, ran across the top of the tumour. After incising the broad ligament the tumour was easily enucleated, and the hole in the mesometrium was closed with three silk sutures. The ovary and Fallopian tube were preserved.

CASE V.

[illegible]. Three weeks before I saw her the patient, aged [illegible] years, had noticed a small tumour on the right side of the abdomen. A week later she went to a cycle ride, and afterwards felt very uneasy. Two days after this she was seized with great abdominal pain, faintness and retching, and the temperature was [illegible]. In about five days the pain had ceased and the temperature had come down to normal but the tumour rapidly increased in size, and she frequently complained of faintness. The abdomen was distended, more on the right side than the left, by a smooth walled, globular, fluctuating tumour which reached from the pelvis to half way between the [illegible] and ensiform cartilage. The uterus was rather fixed and several [illegible] nodules were felt in the cervix. A [illegible] was made in the mid-line between the umbilicus and pubes, and [illegible] opening a good many omental adhesions a cyst with [illegible] walls was disclosed. The tumour involved the right broad ligament and reached up nearly to the liver by traversing behind and between the [illegible] and [illegible], so that the intestines were [illegible] on the right and central part and could not be seen on tapping the cyst. [illegible] gall-bladder [illegible] were bound together with [illegible] by which [illegible] and [illegible] the wall of the cyst. At last it appeared [illegible] to separate the cyst wall but the lower part was [illegible] to the [illegible] and [illegible] in the broad ligament. The [illegible] tumour and upper part of broad ligament were [illegible] and the tumour and the cyst wall were then completely [illegible] from the [illegible]. In closing [illegible] necessary to [illegible] the [illegible]

adhesions, but the ovary and tube were preserved intact. The cyst wall was very hard and thick, and contained a small cavity filled with pus. The pus was completely encysted.

This last was an extremely complicated case, and well illustrates the extensive retro-peritoneal burrowing of which many of these tumours are capable. Like the simple cyst in Case III, it probably originated in the parovarium, but other cases appeared to be of inflammatory or lymphatic origin, and were multiple and bilateral.

In another case of double multiple broad ligament cysts the walls of the cysts contained a large quantity of unstriped muscle, and the inner surface was lined with columnar epithelium, forming papillomata in one instance. Their situation in the broad ligament, and the absence of ovarian tissue in the wall which contained so much muscular fibre, suggest that the cysts probably arose in some tubular structure, such as Gaertner's duct.

In this group five of the tumours were unilateral and two were bilateral. One case was associated with appendicectomy and one with myomectomy. There were no deaths.

Cases treated by Salpingo-oöphorectomy.

I shall now speak of a third division of our cases—namely, those treated by salpingo-oöphorectomy. This group includes chronic inflammatory conditions of the tube and ovary, abscess of tube and ovary or both, and fibroma of the ovary. Five of the cases were bilateral and six were unilateral. One was associated with hysterectomy, and four with appendicectomy. The only death in this series occurred a month after operation in a case of double tuberculous ovarian abscess.

The performance of salpingo-oophorectomy in cases of chronic tubal and ovarian inflammation, pyosalpinx, and other allied conditions is often one of great difficulty from the complexity of the adhesions, and there are few abdominal operations requiring greater judgement in deciding on the need for operation and in dealing with the difficulties of its performance than those associated with tubo-ovarian inflammation.

Many cases of pus formation in tubes and ovaries are due to gonorrhoeal infection or to a streptococcal infection after parturition or abortion, but the baneful effect of appendicitis upon the female generative organs is perhaps not so fully recognized as its importance deserves. From the appendix the bacillus coli communis may easily travel to the ovary and tube and produce abscesses or chronic inflammatory mischief in these structures, or give rise to inflammatory cysts in the broad ligament. Fortunately the pus in many cases of abscess of the tube and ovary is sterile, or we should get less favourable results than we commonly do in these cases.

The enucleation of these abscesses after abdominal incision is best carried out in the Trendelenburg posture, but should there be any rupture of a large abscess during the necessary manipulations, the patient should at once be let down to the horizontal position.

At first it is often quite impossible to distinguish the uterus, which is overlapped by the inflammatory condition on either side. Enucleation is best effected, as a rule, by commencing behind and below the ovary, and thus with the tube can be gradually brought to the surface and freed off. These cases should be aspirated before the enucleation is commenced, if a soft spot can be found, and the aspiration point closed with a pair of sutures.

In some acute cases of tubal and ovarian abscess the abscess may burst into the vagina, rectum, or bladder, and the patient may spontaneously recover. In other cases it may burst into the general abdominal cavity and is then best treated by abdomino-vaginal drainage.

Abdomino-vaginal drainage has a wide field of application in pelvic abscess, no matter whether the abscess is a result of a [illegible] abscess, appendicitis, or other cause; and in cases of acute abdominal section disclosing the existence of a large [illegible] but pus among the pelvic viscera I would [illegible] the use of this line.

Whether abdomino-vaginal drainage is employed or not, the head of the bed should be raised in all cases associated with a widespread septic peritonitis, for by this means there is a tendency for the inflammation to be confined to the pelvis, where its effects are less serious than when the upper part of the peritoneal cavity is affected.

I do not wish you to suppose that every case of abscess of the tube and ovary is treated by abdominal section and enucleation; some, perhaps, are better treated by vaginal incision, but of these I need not now speak, nor do I wish you to suppose that every case of chronic inflammation of ovary and tube requires the operation of salpingo-oöphorectomy. We must in the more chronic cases be guided by the severity and frequency of the attacks of pelvic inflammation which the condition causes, for though it is not desirable to perform salpingo-oophorectomy in every case of chronic inflammation of the tubes, we must remember that, as in appendicitis, the attacks tend to recur as long as the focus of mischief remains in the abdomen.

As an exemplification of some of the operative difficulties to which I have referred the following may be quoted:

CASE VI.

Double Pyosalpinx: Appendicitis. For the past ten months the patient had had recurrent attacks of inflammation in the right lower abdomen, which were supposed to be due to appendicitis. Three weeks before I saw her she had an attack of pain in the right iliac fossa with a temperature of 101°, but for the past week the temperature had been normal. Menstruation had been regular and painless. At the time of examination a swelling was felt in the right iliac region, spreading out half way along Poupart's ligament from the middle line, and reaching upwards to a point about two inches (5 cm.) the distance from the middle of Poupart's ligament to the umbilicus. Pressure over McBurney's point did not elicit tenderness. The uterus was fixed, and its fundus apparently reached to 1½ in. above the pubes. The right vaginal fornix was depressed by a swelling which appeared to be in the broad ligament, close to the uterus, and cystic in nature. The left broad ligament was densely infiltrated, but no fluctuation could be detected. The patient was put in the Trendelenburg posture and a median incision 4 in. long was made between the umbilicus and pubes. All the structures in the pelvis were found to be densely matted. On the right of the uterus (which could not be defined at this stage because of adhesions) was a fluctuating swelling occupying the right broad ligament. Above and to the inner side of this were the caecum and appendix densely adherent, and the latter bent on itself. In attempting to enucleate the fluctuating swelling on the right, the abscess sac burst, and a fetid pus escaped. The patient was at once put down from the Trendelenburg posture, and the intestines walled off with iodoform gauze. As pus was escaping the enucleation was proceeded with as rapidly as possible, and a mass the size of an orange was delivered and easily removed by a pedicle composed of part of the broad ligament and the Fallopian tube had been tied off. The caecum and appendix were freed from their remaining adhesions and then, for the first time, the uterus was detectable. The left ovary and tube, containing an abscess cavity, were then enucleated from the mass of dense adhesions in which they were embedded and salpingo-oophorectomy performed as on the right side. In doing this the peritoneal covering of the bladder was torn over an area of about 2 in. by 1 in. This was sewn up and the appendix which was thickened and inflamed and contained faecal matter was then removed in the usual manner. The pelvis was sponged out and gauze and tube drainage placed behind the uterus. The rest of the parietal wound was closed, and the head of the bed raised to encourage the exudate to the pelvis. The gauze and tube were removed on the second day, recovery was rapid and complete, and the patient was able to travel within four weeks of the operation.

Extrauterine Pregnancy.

The last operations we have to deal with are those for ruptured tubal pregnancy. Of these there were two, and both of them were successful.

Extrauterine gestation is almost always primarily tubal, and when diagnosed in the earlier months prompt surgical treatment is called for; and should rupture occur which generally takes place between the fourth and twelfth weeks any needless delay adds greatly to the danger of the mother.

Diagnosis before rupture is by no means easy, but when rupture has occurred the existence of attacks of abdominal pain and collapse in association with irregular vaginal haemorrhages warns us of the probable nature of the case and the demand for operative interference. The following example is sufficiently typical of the symptoms and necessary treatment.

CASE VII.

Extrauterine Tubal Pregnancy. The patient had been married two years, but had not been pregnant. The last menstruation occurred on September 11th, and the antagonistic period [illegible] was noted with more than usual regularity. [illegible] on October 2nd, when she was seized with severe pain in the hypogastrium. [illegible] Early next morning she was seized with a severe attack of pain and [illegible] swelling of the lower abdomen. The temperature was [illegible] normal. When I saw her on October 5th she [illegible] pain in the lower abdomen and [illegible] vomiting. The temperature was 101°, [illegible] and pulse 120. The abdomen was very [illegible] distended, showing dilated [illegible] and a swelling [illegible] above the pubes [illegible] dullness [illegible] the right side [illegible] the left [illegible] dullness [illegible] the uterus [illegible] was an ill-defined swelling [illegible] one third of the [illegible] the umbilicus. Per vaginam the [illegible] to the right and [illegible] the uterus [illegible] towards

in Douglas's pouch and extending across the pelvis, but more to the left than the right, was a doughy swelling, the abdominal limits of which have been described. A median incision was made between the umbilicus and pubes. On opening the peritoneum a bloody fluid escaped. Occupying the left side of the pelvis and lower abdomen was a soft swelling shut off by adherent intestines and bleeding on pushing the fingers into this swelling, there was a gush of liquid blood and blood clot. A fetus and placenta were rapidly brought to the surface from the centre of this blood-containing cavity, together with a dilated and ruptured left Fallopian tube, which had formed the sac of the products of conception. Large spencer Wells forceps were placed on the left uterine appendages to control the haemorrhage, and the pelvis thoroughly cleared of blood clot by pouring in normal saline solution. The left broad ligament was then tied off, and the distal portion, with the fetus, placenta, and ruptured tube, cut away. After a final washing of the pelvis with saline solution, the abdomen was closed without drainage.

It is not always necessary, as in this case, to sacrifice the tube. Provided the tube is patent into the uterus, the rent may be sewn up, if it is not irreparably damaged. It is exceedingly difficult to get rid of the blood clot in these cases, and nothing is so expeditious and efficacious for this purpose as the pouring in of saline solution, as was done in the above case.

General Remarks and After-treatment.

In the performance of abdominal sections you may have noticed that I do not allow any sponge or swab to be passed directly from an antiseptic solution into the abdomen. Antiseptic solutions are irritating, and by damaging the peritoneal epithelium they hinder the absorptive power upon which we depend for the removal of the exudation which necessarily follows upon operation. On the other hand, I consider it safer not to dispense with antiseptics altogether, and therefore it is my custom to pass all sponges and swabs through a solution of 1 in 5,000 of biniodide of mercury, and then to have them washed in a normal saline solution before being used in the wound.

A word may be said in conclusion as to the after-treatment of these cases. If there is pain, which usually is not great, hypodermic injections of morphine may be given for the first twenty-four hours. After that no morphine is allowed. Unless the case is going wrong, pain at this period is nearly always due to flatulence, and the best remedy for this is a turpentine enema. The relief from pain and distension is so marked after the administration of a turpentine enema that it may well be regarded as the "sheet-anchor" of the after-treatment of abdominal operations. It may be repeated night and morning if necessary. In any case, it is desirable to give an enema on the second morning and a purgative by the mouth on the third day after operation if the bowels have not previously acted.

Should there be any signs of the onset of peritonitis, a dose of calomel may be given, followed by the administration of drachm doses of sulphate of soda every two hours as long as may be necessary to keep the bowels acting about twice a day.

Hot water may be given by the mouth whether there is vomiting or not. It relieves the thirst which nearly always occurs after abdominal section and helps to stop vomiting better than any other remedy. It should be given very hot, and in tablespoonful doses, three or four times an hour, if necessary. In cases of extreme thirst half a pint of warm water may be given once or twice a day by the rectum, and retained.

If there is vomiting nothing but hot water should be allowed by the mouth, but in prolonged cases this may sometimes be advantageously supplemented by small quantities of dry champagne. Under these circumstances the strength should be supported by the administration of nutrient enemata consisting of half an ounce of brandy, a teaspoonful of some beef essence, and made up to four ounces with peptonized milk. These should be given every four hours, and before each enema is injected the rectal tube should be worn for a quarter of an hour to allow of the expulsion of flatus. One of the best signs of recovery from shock is the power of expelling flatus voluntarily, and where this has been gained, cases practically always do well.

If the anaesthetic vomiting passes off quickly, water gruel followed by Benger's food or peptonized cocoa may be given during the first twenty-four hours. No raw milk should be allowed; it forms a coagulated mass which upsets the majority of patients. On the second day tea, bread and butter, toast, custard pudding, junket, and grapes may be allowed, but the quantities should be limited. On the third day a little fish may be given, and thereafter the diet may be gradually improved in quantity and quality. The patient's feelings serve as an excellent guide to the amount and quality of the food taken, and in the early days it is unwise to force food upon an unwilling patient.

REMARKS ON FIVE SUCCESSFUL HYSTERECTOMIES FOR FIBROID DISEASE IN ONE FAMILY.

By J. MACPHERSON LAWRIE, M.D.,
Senior Physician, Princess Christian Hospital, Weymouth

I PURPOSE calling attention in this paper to a series of cases characterized, I venture to think, by facts of sufficient interest to warrant them being placed on record. Although the success attending surgical intervention in these cases may afford legitimate ground for gratification, let me say that it is not upon their surgical aspect that I wish to dwell.

I have here drawn up in tabular form a list of nine sisters and their respective diseases, who in their organic morbid propensities betray a similarity that is really remarkable, if not unique.

Name	Age.	M. or S.	Children.	Disease	
J. S.	52	M.	5	Cataracts	
E. T.	50	M.	3		
E. D.	47	S.		Cataracts	
A. D.	45	S.		Cataracts; fibroid tumour	Hysterectomy (in London)
S. D.	43	S.		Fibroid tumour	Hysterectomy.*
R. C.	41	M.	4		
B. D.	39	M.	0	Cataracts; fibroid tumour	Hysterectomy.*
M. C.	37	M.	2	Cataracts; fibroid tumour	Hysterectomy.*
A. B.	35	M.	0	Fibroid tumour	Hysterectomy.*

* Author's cases.

For a family of nine sisters to furnish five examples of fibroid disease and five of cataract is a morbid consensus sufficiently suggestive to invite further investigation. Referring to my brief notes of these cases:

CASE I.

Mrs. D., aged 52, consulted me on September 12th, 1899, for a gradually increasing abdominal swelling. Periods regular, no children. On examination I found a large, more or less globular swelling reaching to the level of the umbilicus. Sound passed 5½ in. She was advised to delay any operative measures.

On January 7th, 1902, the patient returned; she was four months pregnant, and suffering great discomfort. Subsequently she was seriously ill with a miscarriage, and was strongly advised to submit to operation. On June 5th, 1902, subperitoneal hysterectomy was performed. Uninterrupted recovery.

CASE II.

Mrs. C., aged 37, consulted me on February 11th, 1902, complaining of her periods being very excessive and lasting too long (seven days), and that she passed large clots, also of "bearing down." She had had two children, the youngest 7 years old. Examination revealed a large fibroid tumour; sound passed 7 in. On September 14th, 1902, the tumour was removed by subperitoneal hysterectomy. Uninterrupted recovery.

CASE III.

Mrs. B., aged 34, consulted me on October 24th, 1902, for a very large abdominal swelling, much haemorrhage and pressure symptoms—pain, backache, "bearing down," bladder troubles, etc. She was weak and anaemic. No children. On examination, a large tumour was found occupying the whole of the abdominal cavity. Its upper limit was the costal margin. Operation was advised. On April 14th, 1903, subperitoneal hysterectomy was performed. Extensive adhesions made the operation difficult and prolonged; it occupied 3 hours. Patient collapsed at end of operation; elevation of bed, strychnine hypodermically, rectal injections of brandy, and transfusion were employed. The patient did well, and left the hospital in a month.

CASE IV.

Miss D., aged 44, consulted me on February 25th, 1903, for an abdominal swelling and "flooding." Pressure symptoms—irritability of bladder, "bearing down," etc. Her symptoms dated back eight or nine years. On examination, a large irregular tumour was found, reaching to the costal margin. On the right side there was extreme tenderness. The sound passed nearly to the limit. On June 15th, 1903, I found the tumour had been getting steadily larger. Metrorrhagia and pain very severe. The patient had great trouble in passing water, and was extremely anaemic. On June 23rd, 1903, she underwent operation. On opening the abdomen, a large fibroid tumour was exposed occupying the greater portion of the abdomen, and complicated by an ovarian tumour on the left side. The pedicle was secured by subperi-

[illegible] and the [illegible] were [illegible] days. [illegible] temperature [illegible] [illegible] per [illegible] the temperature then dropped, and the patient made an excellent recovery.

CASE V.

Miss A. [illegible] was [illegible] by the operation [illegible] [illegible] by [illegible] Hospital. Patient by [illegible] known.

Returning to my list of nine sisters and their maladies, and looking at this family group of pathological portraits, the question arises, What is the explanation of the peculiar predominance of the two common features—uterine fibroids and cataract? The pathogeny of fibromyomata of the uterus, as well as of tumours in general, is a subject about which little is known. With regard to cataract, we know that impairment of nutrition of the lens increases with advancing age, and that these nutritive defects are apt to manifest themselves earlier in some families than in others. In other words, there is an inherited predisposition to that failure of repair which leads to the formation of opacities in the lens, that is, idiopathic or so-called senile cataract, this form of cataract, however, not being necessarily an expression of senility. Is hereditary influence a factor in the causation of uterine fibroids? Are the two apparently dissimilar diseases in this family the co-effect of one cause? Are they the expression of two well-defined and independent morbid tendencies manifesting themselves in the members of the same family? Is the association a purely accidental one?

Is there any relation, even a remote one, between the uterus and the lens of the eye that might have any bearing on the pathological changes in these organs? The only connexion I know of is a developmental or embryonic one: the capsule of the lens (not the body) is developed from the same layers of the blastoderm as the uterus. The lens is mainly the offspring of mesoblastic elements, and is therefore in direct histogenic relation with muscular, fibrous, vascular tissues, etc. I just mention this point as one of interest, although hardly, I think, of such practical importance.

I am inclined to think that the frequent occurrence of cataract and fibroids in this family is not due to any association other than an accidental one. I am not acquainted, at any rate, with any clinical records drawing attention to the fact that these two diseases are commonly met with in the same person. In the consideration of pathological problems of this kind, I think, as a rule, we are too apt to spring to hasty conclusions, and to attach special significance to what on mature reflection would prove to be merely chance associations. My series of cases furnishes *prima facie* evidence which justifies the suspicion that hereditary influence may be a causative factor in the pathogenesis of uterine fibroid tumours. With the object of strengthening or dispelling this suspicion, the literature of the subject has been looked into for clinical records bearing upon this question. The theory of "heredity" does not receive much support from the majority of authorities and writers on the subject. Moreover, considering the extent of the researches into the records of fibroid disease of the uterus, the evidence in favour of hereditary influence (of evidence there be) is by no means of an overwhelming or convincing character.

Dr. F. de Rinse,[1] dealing with the subject of heredity in the etiology of uterine fibroids, mentions two sisters (one married, with two children) who both had fibroids. Although the local disease in the married sister called for operation, her general condition was too bad to risk it. Eighteen years later, after the menopause, her uterine tumour underwent slow shrinkage and atrophy, as was also the case with her elder sister. Her daughter, aged 37, single, had a fibroid on the right side of the uterus, of three or four years' duration. This author remarks that most writers ignore "heredity" as a factor in the causation of these uterine tumours.

Dr. C. H. Bixby[2] recording a case of uterine fibroid treated by electrolysis, states that a sister of his patient died of an operation for this disease, and her mother of cancer of the breast. Otto Engelmann[3] has observed 230 cases of uterine fibroids, and among them were thirteen families in which two or three sisters were the subjects of this disease. He thinks this cannot be merely an accidental one.

Dr. Kidd[4] relates an example of fibroid tumours in two sisters. He operated on both of them several times. Dr. F. W. Hamblin in his article on Benign Growths of the Uterus, in Allbutt and Playfair's *System of Gynæcology*, says, "The uterus is undoubtedly the most common seat of new growths in the human body." This writer quotes the statistics compiled from the Vienna *Hospital Reports* by von Curlt, who found that in 13,500 cases of tumours females exceeded males in the proportion of 7 to 3; of this large majority in the former, uterine growths accounted for 25 per cent. He also refers to the variety of its tissues, its periodic engorgements, and the enormous hypertrophy during pregnancy. Many circumstances seem especially to be associated with the development and growth of uterine fibromyomata, in contradistinction to the preponderance of uterine cancer in the poor and badly nourished. Among the cases recorded by I. S. Reath. Cases 9 and 10 each had a sister affected with uterine fibroids.

Engelmann[5] again calls attention to the fact that heredity seems to play some part in the etiology of fibrous growths of the uterus, as shown by an analysis of the histories of his cases, and as had been previously pointed out by Winckel, Carl Braun, and Gusserow, a fact which seemed to prove Cohnheim's theory of their embryonal development. Dr. H. D. Beyea has recorded the occurrence of fibroid tumours in four sisters, mother, grandmother, and aunt.

In illustrating the different ways in which uterine myoma kills, Lawson Tait[6] speaks of two sisters (38 and 30) who succumbed to this disease, the elder by exhaustive bleedings, the other by the rapid growth of a malignant tumour.

Albin Doran[7] has removed the uterus of two sisters for fibroid disease; in a third sister the tumour, originally the largest, remained quite stationary for four years. The same writer, in his Harveian Lectures on "Fibroids of the Uterus and its Ligaments," when dealing with the family history of fibroids, remarks: "According to my own experience, a family history of fibroids is more interesting than important. I find, like others, that a strong history is to be detected on inquiry in some families. In one remarkable instance the mother underwent hysterectomy for a fibroid, while three daughters are subject to fibroid disease. In two it has remained stationary for several years, while in the third the tumour suddenly increased, and I recently removed it. The mother's sister died of uterine cancer, and so did a fourth daughter, whilst there remains a fifth from whom a fibroid polypus was removed; there is at present a small growth in the cervix."

J. Knowsley Thornton[8] records a case of removal of the uterus for fibromyoma. Her sister was known to have a similar tumour. A patient of Dr. Shaw Mackenzie,[13] with a fibroid tumour of the uterus, had a mother and two sisters who were stated to have suffered from fibroids.

Dr. A. J. Giles has kindly given me permission to make use of the following cases, which will afterwards be published, and which relate to three sisters.

[illegible] J. C., aged 41, single, operated on at Chelsea Hospital for Women on September 7th, 1903. Increasing disability and increasing size of the tumour called for radical treatment. She had been under observation for three years.

[illegible] J. C., aged 43, single, operated upon on August 6th, 1901, at the Tottenham Hospital. Leading symptoms, menorrhagia and retention of urine.

[illegible] J. C., aged 44, single, operated upon on November 20th, 1901, at the Tottenham Hospital. Pain and [illegible] menorrhagia, also ovarian right cyst.

All three fibroid tumours were of the hard solitary type; the patients made excellent recoveries. No other sisters in the family; no history of any other growths.

In adding my series of cases to the published records just briefly surveyed, I am inclined to regard it as furnishing the most remarkable family history of uterine fibromyomata hitherto noted. Before we can gauge the importance of this family history, however, we must ask ourselves a very important question, What is the frequency of this disease in women? This is differently estimated by different authorities. According to Bayle's figures, 20 per cent. of all women over 35 are the subjects of fibroid disease; whilst Klob[9] places the percentage of women of 50 so affected as high as 50 per cent.

Now if Klob's computation (that four women in every ten have fibroids) is more or less roughly accurate the occurrence of five in nine (allowing for the law of averages) ceases to cause us any astonishment. The reply to the question whether 50 per cent. is not rather too high an estimate must be left to the decision of pathologists constantly engaged in *post mortem* work.

A very large percentage of uterine fibromyomata unquestionably cause no symptoms, and consequently are unsuspected during life. In my cases it is not merely the frequency of this uterine affection that is worthy of note but the character of the tumour, which caused symptoms such as rendered operation imperative in each of my patients. In publishing these five hysterectomies for fibroid disease in

five sisters I am, I believe, establishing a record from an operative point of view.

I am much indebted to Dr. E. B. Hulbert for helping me with the literature of this subject.

LITERATURE.

T. de Ranse, De l'Hérédité dans l'Ectopie ou Cystocèle Pelvienne de l'Utérus, *Gazette Médicale de Paris*, 1844, pp. 81 et seq. [Cited in A Case of Subacromial Uterine Fibroid treated by Laparotomy and Excision. *Edinburgh Medical Journal*, December, 1862, p. 498.] *Boston Medical and Surgical Journal*, vol. lxxvi, 3rd series, July-December, 1867, p. 25. [W. Hamilton, Some Observations, Mechanical and Physiological.] *Boston Medical and Surgical Journal*, 1868, pp. [illegible]. [Lloyd Kiser, Cases in Surgical Practice.] *Medical Record*, 1872, pp. [illegible]. [The Abdominal Section, Part II, pp. [illegible].] *Medical Record*, 1878, pp. [illegible]. [G. August, [illegible] De Bezoar, The Operative Treatment of Fibroid Tumours in Four Sisters, Mother, Grandmother and Aunt.] *Transactions of the Obstetrical Society of London*, Vol. xiii, p. [illegible]. [Lawson Tait, British Medical Journal, vol. ii, 1885, p. [illegible]. Alban Doran, Recent Improvements in Ovariotomy, p. [illegible]. Alban Doran, Recent Improvements in Ovariotomy, Fibroids of the Uterus and its Ligaments, Lecture II. *Lancet*, [illegible]. [Edmund Knowsley Thornton, *Lancet*, November 6th, 1886, p. [illegible]. A. Shaw Mackenzie, ibid., April 9th, 1892, pp. [illegible], etc. [illegible] *Gynæcology*, p. 173.

OVARO-HYSTERECTOMY (PORRO).

NOTES ON TWELVE CASES PERFORMED DURING THE LAST SEVEN YEARS IN THE ESLAMABAD MILITARY HOSPITAL, BENARES.

By Lieutenant-Colonel T. H. SWEENY, I.M.S., F.R.C.S.I., Civil Surgeon.

"The east is east, and the west is west," and to those who have experience of both peoples this saying summarizes a vast amount of divergent habits, customs, thoughts and feelings, but in nothing is this divergency more marked than in connexion with marriage and childbirth. To the general practitioner at home it would be impossible to realise the very large proportion of women who out here lose their lives in childbirth, largely from the liberal way in which oriental customs provide facility for sepsis, and in a lesser degree from the various contractions of the pelvic bones which make natural labour impossible. My notes, however, having reference solely to pelvic contraction, I will say nothing about the weird and awful customs practised by the native midwife or dhai when attending even an ordinary case of midwifery.

I think I considerably underestimate when I assert that 1 in every 1,000 pregnant women in India dies as a consequence of contracted pelvis. This contraction in more than half the cases is the result of osteomalacia, and in the remainder is caused by rachitis.

In order to realize how this large percentage of distorted pelves comes about, one must understand the fundamental principles relating to marriage in India as regards Hindus, that, first, every girl must be married before she menstruates or else disgrace attaches to her family, and various religious pains and penalties are believed to ensue, not only to her parents, but even to her ancestors for several generations back; secondly, such girl must be sent to begin sexual relations with her husband as soon as menstruation first takes place.

Among Mohammedans, if a girl be not married about her 15th or 16th year, her parents are believed by their fellow Mohammedans to be guilty of a serious social crime.

With such ideas the alternative is, where weakly or deformed girls exist in a family, to assign a more than usually large marriage portion to such, and a husband invariably comes forward. To the parents the girl's death in childbirth weighs not a shadow compared with the disgrace attendant on celibate life. To the husband the wife's death can be easily corrected by another marriage; in neither case does affection weigh much. Hence we have girls becoming mothers before they are themselves mature, and the offspring must necessarily be more liable to rickets than those of parents who are fully developed.

The injury to the pelvis in the young mother from frequent confinements, coupled with the weakening influences of rapidly-recurring pregnancies and of prolonged lactation, together with, in many cases, poor and deficient food and bad sanitary surroundings, generate the changes producing osteomalacia, while the offspring growing up rachitic will, if a female, provide in herself another subject of deformed pelvis.

In the twelve cases noted below, the deformity was so extreme that no question as to the operation necessary arose. It was at once apparent that nothing but Caesarean section could save both mother and child. I selected ovaro-hysterectomy rather than simple Caesarean section with removal of portion of the Fallopian tubes for the following reasons, namely, first, as most of the cases were caused by osteomalacia, the supposed curative effect on the disease of the removal of both uterus and ovaries was taken into consideration; secondly, and chiefly, as all the cases had been a long time in labour before arrival at the hospital, and as such cases had been considerably handled by the native dhais, the risk of sepsis was very great. The native midwife or dhai, always a woman of the lowest caste and filthiest habits, is accustomed in cases of prolonged labour to place filthy rags steeped in irritant oils, etc., into the vagina, and also dilates and handles the mouth of the womb with considerable violence, so that I considered it safer to remove the uterus and keep the stump outside the abdominal cavity.

The operations were performed as follows under strict aseptic precautions: A 6-in. incision was made in the abdominal walls and peritoneum, which incision was subsequently prolonged up and down sufficiently to allow the uterus, when tilted on its side, to be lifted out. The incision was then protected by sterilized muslin sponges, which were also packed round the neck of the uterus; a piece of thick drainage tubing was also placed round the neck of the uterus to be tightened in case of much haemorrhage; but it is astonishing how little bleeding occurs even when the uterine incision goes right through the placenta. A free longitudinal incision was then made through the uterine wall and the child extracted. After removing the placenta and membranes, two knitting needles were passed at right angles through the neck of the uterus, care being taken to leave the stump sufficiently long, as it retracts a good deal during the process of involution. In the first ten cases I then merely tied a strong whipcord ligature below the needles; but after my experience with Case x I have since used the *serre-noeud*; the uterus was then cut off above the needles. The peritoneum covering the neck of the uterus just below the ligature was carefully stitched to the parietal layer by four stitches which included the abdominal muscles; the remaining portion of the incision being closed in the usual way by silkworm-gut sutures. The stump generally dropped off on the fourteenth or fifteenth day.

The result of the 12 operations was that 6 mothers and 11 children were saved, which, considering the condition of most of them on arrival at the hospital, may be deemed satisfactory. In the tenth case only do I consider that greater care could have saved the mother: in the other fatal cases—namely, I and IV—no blame can be attached to the operation. I have frequently seen many of the women since and they assert that they enjoy excellent health in every way. An interesting point is that many were able to suckle their infants for considerable periods, in some cases even up to twelve months. To economize space I merely give very brief notes on each case:

CASE I.

M——, aged 22 years.

History.—A blind [illegible] dwarf; first pregnancy; extreme distortion. Operated on March 7th, 1901, and a living child removed. Mother died suddenly next day when talking to the lady doctor in charge, but whether from syncope or embolism I cannot say, as no examination was allowed after death.

CASE II.

M. B., aged [illegible] years.

History.—First child removed by embryotomy nine years ago when 1 years of age. No other pregnancy until now. Pelvic distortion so extreme that even embryotomy would not now be sufficient. Operated on [illegible], and a [illegible] child removed. Discharged cured on [illegible].

CASE III.

M——, aged [illegible] years.

History.—Two children born naturally ten and [illegible] years ago. Was brought in labour to hospital on [illegible] in a [illegible] condition. Operated on [illegible], and a living child removed. Discharged cured on March [illegible].

CASE IV.

M. L., aged 24 years.

History.—First and second children destroyed by craniotomy and were delivered by [illegible]. Pelvis done again pregnant. Came to hospital [illegible] and commenced, after an accession to extreme pelvic contraction. Thick cartilaginous band had formed right across the vagina above, completely closing the passage. While preparations for the operation were being made violent uterine pains set in, and the membranes ruptured. The operation was at once commenced, and the child delivered, but owing to her collapsed state the operation could not be satisfactorily completed. After removal of the uterus and [illegible] the abdominal cavity and [illegible], was wrapped [illegible] and the rent, which [illegible] right down at the [illegible] was sewn up as far as possible, but could not be [illegible] completed owing to her

collapsed state we had to attempt ourselves with plugging the vagina with sterilized gauze. As might be expected, peritonitis set in, and he died on April 7th.

CASE V.

M. R., aged [illegible] years.

History.—[illegible] thirty-three years ago, when five months pregnant, [illegible] done at that time, as fast [illegible]. M. R. was [illegible] came to hospital when near her [illegible] Caesarean section on May 16th, 1901, and a living child was delivered. Discharged cured on June [illegible].

CASE VI.

M. B., aged [illegible].

History.—[illegible] had been naturally 15 years previously, [illegible] subsequent conception [illegible] represent. Had been in labour six [illegible] hours when [illegible] to hospital. Operated on May [illegible], 1901, and a living child delivered. Discharged cured on July 1st.

CASE VII.

M. W., aged [illegible] years.

History.—Bore first child born naturally; fifth and sixth born dead at full term; seventh born dead at seven months; eighth [illegible] Caesarean section at full term; ninth born dead at full term. Her present confinement she was brought to hospital after [illegible] eight hours in labour. In addition to extreme pelvic distortion her tissues were [illegible] on the abdomen and above pubis at the pelvic brim and considerable difficulty was experienced in performing the operation, so close were the lines of the fractures. However a living child was extracted, and both mother and child left hospital in perfect health on July 1st. The operation was performed on [illegible] 1901.

CASE VIII.

M. B., aged [illegible] years.

History.—A typical rachitic dwarf, with a conjugate of under 2 in. Operated on December 7th, 1901. The incision in the uterine wall went right through the placenta. Mother and child left hospital in January, 1902, in excellent health.

CASE IX.

M. B., aged 17 years.

History.—A typical rachitic dwarf with extreme pelvic distortion [illegible] in labour for [illegible] hours before arrival at hospital extremely collapsed, but [illegible] heart [illegible], though sound, very weak. Operated on February [illegible] 1902. Discharged cured on March 8th.

CASE X.

M. I., aged [illegible] years.

History.—Two children eleven and nine years previously. For last five years had constant pain in back and hips, evidently osteomalacia, was [illegible] hospital. Admitted on December 9th, 1901. Operation performed on [illegible] night. The ligature being applied not sufficiently tight, the stump was found to [illegible] and bleeding next morning. A second ligature was applied, but this must have interfered with the circulation, as the stump sloughed, and opened the door to septic material, and she died of peritonitis on the 18th day. The child only just breathed, so [illegible] the only one of the twelve children whom was born, one may say, dead. In all subsequent cases the silver wire was used, and this life would have been saved had it been used.

CASE XI.

M. S., aged [illegible] years.

History.—[illegible] osteomalacic pelvis. Operated on May [illegible] and a [illegible] child born. Discharged cured [illegible].

CASE XII.

M. M., aged [illegible] years.

History.—[illegible] extreme contraction of outlet barely admitting [illegible] finger. [illegible] August 22nd. Child [illegible], but [illegible] in utero. Discharged cured [illegible].

It will be noticed that in the cases of the nine women who recovered the period spent in hospital averaged only thirty days.

A NOTE ON PORRO'S OPERATION AND A SUGGESTED MODIFICATION.

By WILLIAM H. HORROCKS, F.R.C.S. Eng.,

[illegible] Surgeon to and Lecturer on [illegible] Infirmary.

Porro's operation is fortunately a rare occurrence, but it is an undertaking which may fall to the lot of any surgeon, so that any method which simplifies the procedure is of interest to the profession. The lines of the operation carried out in this method were suggested by the treatment of uterine fibroids, and in the case which is now recorded gave most satisfactory results.

Porro's operation was first undertaken in 1876, and is thus described:

"After the uterus has been emptied as in [illegible] Caesarean section [illegible] out of the abdominal wound and [illegible] as a wire at its [illegible]. The uterus was [illegible] and then cut away."

In 1878 Müller modified the operation by tilting the unopened uterus out of the wound, and then surrounding the neck of the uterus near the internal os with a loop of wire, or, still better, with an elastic tube. Only after this had been done was the uterus incised. The evacuation of the uterine contents was completed as quickly as possible, and the elastic tube was not taken off until the uterine wound was completely closed by sutures.

With some slight modifications this has been made the method of operation until the present time. In considering the choice of operation between Caesarean section and the modification proposed by Porro there are certain points which are greatly in favour of Porro's operation. Broadly it may be said that one or other of these operations is indicated when the deformity of the pelvis is so great as to render delivery without craniotomy impossible, where some tumour growing from the cervix uteri or the sacrum blocks the pelvic cavity. In the choice between the two operations the question of leaving the uterus as in Caesarean section has always seemed a doubtful point, although cases are recorded by French surgeons in which several operations have been performed on the same woman. Of late it has been the custom in the Caesarean section to sterilize the patient by dividing the Fallopian tubes. Another drawback to Caesarean section is the suture of the uterine wall. The sutures necessarily passing through tissues undergoing rapid disintegration, in close proximity to a part very liable to septic infection.

The time of operation for Porro's modification may be selected at any time when the child is viable without allowing the onset of uterine pains to exhaust a patient who has to undergo a formidable operation. The length of incision in the raiddle line should be such as to allow the uterus, with its contents, to be drawn outside the abdomen, as in this way it is more satisfactorily handled, and it may be packed round so as to prevent the uterine contents soiling the general peritoneal cavity.

Before drawing out the uterus it may be necessary to ligature in two places the broad ligaments on each side and divide between the ligatures. The uterus is then drawn out and the peritoneum stripped from its two sides until the neck of the uterus is reached with the finger. The uterine artery is felt for on each side, and a Macewen's needle armed with silk is passed through the tissues so as to command the artery. On one side this ligature is tied; on the other side it is left loose, but can be easily tied, if necessary, to control haemorrhage. The anterior wall of the uterus is now examined, and its peritoneal covering divided, avoiding as far as possible visible uterine sinuses. The muscular tissue is torn through with a blunt director until the outer surface of the membranes is exposed. The membranes are now opened and the opening enlarged so as easily to draw out the child. As soon as natural respiration is established the cord is clamped between two Spencer Wells's forceps and divided and the child handed over to the care of the bystander. The uterine cavity is now emptied of fluid, the cord with the forceps is returned into the uterine cavity but no attempt is made to remove the placenta or membranes. A flat sponge is packed into the uterine cavity and the opening drawn together. A second ligature is now tightened round the uterine artery and the uterus drawn well up and divided as low down as possible. Any oozing points in the stump are thus ligatured and the two flaps of uterine tissue brought together with burned catgut sutures through the uterine walls and silk stitches through its peritoneal covering. Before forming the uterine stump care should be taken to define the extent of the bladder by passing the sound into the bladder. The stump should be so shaped that the flaps are capable of a good broad adhesive surface, one flap fitting the other as far as possible. Any loose membrane inside the cavity of the neck may be scraped away and the raised mucous membrane touched with strong carbolic solution. All clots are now cleared away, and the pelvis carefully dried. The question of drainage is one on which operators will differ. On the whole it seems safer to place a Keith's tube in Douglas's pouch, as there may be some oozing from the uterine tissues, and the possibility of soiling the pelvis by some oozing from the remaining segment of the uterus must be considered. The abdominal wall is thus brought together with deep and through stitches, supported with strips of aseptic strapping and a firm bandage applied over a large dressing of antiseptic wool. The case on which this method of operation was practised is as follows:

A. B., a weaver, aged 4[illegible], was sent to the Preston Royal Infirmary

on June 24th, 1903, by Dr Gray, who was of opinion that she had a pelvic tumour which would prevent the passage of a child by the natural way. She was in fairly good health, and had no symptoms of haemorrhage or pressure from the pelvic tumour. The examination of the abdomen showed the top of the uterus well above the umbilicus. The uterine walls showed prominent nodules at the top and upper part, and parts of the fetus could be felt in utero. The pelvic examination showed a rounded mass in Douglas's pouch which was firmly wedged and extended to the pelvic wall, displacing the uterus forwards.

Operation.—On June 22nd chloroform was administered and the abdominal wall divided by a long median incision extending from above the umbilicus almost to the pubes. On exposing the uterus a large fibroid tumour was found on its anterior wall, which was pedunculated and bled somewhat freely on attempting to bring out the uterus. A thick band of omentum was adherent to the upper part of the uterus. The omentum was first divided between ligatures, the broad ligaments on each side were tied in two places and divided between the ligatures. The loose tissue on each side of the uterus was then separated with the finger, and the uterine arteries felt low down on each side. Macewen's needle threaded with thick silk was passed round the arteries, and on the right side this ligature was tied, but the left ligature was not tightened. The uterus was then drawn out at the abdominal cavity and packed round with flat sponges and towels. An incision was made in its anterior wall about 5 in. in depth, and the muscular wall torn through to the same extent. The membrane was then carefully opened and the finger passed in, to find the position of the placenta.

The opening in the membranes was then enlarged, and the child readily withdrawn. Respiration set in at once, and the cord was cut between two pressure forceps.

The liquor amnii was drained over the side to avoid soiling the peritoneum. The cord with the forceps was returned, and a flat sponge placed in the uterine cavity, while the margins in the opening of the uterus were pressed together. The uterus was then drawn forwards, and with some difficulty the fibroid tumour was drawn out of the pelvis. Both uterine arteries were now tied securely, and the uterus cut through low down, so as to make two flaps of uterine tissue. There was very little haemorrhage from this stump, which was brought together with buried catgut sutures and silk sutures through the peritoneum. The pelvis was then cleared of clots, etc., and a Keith's drainage tube inserted in the pelvis, with its upper end projecting from the lower part of the wound. The abdominal wall was brought together with silkworm-gut sutures, the separate layers being united with buried catgut sutures. The operation lasted one hour, and at its termination the pulse was 80 and good in character.

After-history.—The patient made a good recovery, the only incident to be noted was a small collection of pus in the pelvis which necessitated the reintroduction of a drainage tube for some days.

The special point in the operation was the small amount of shock which the patient suffered, in fact, the pulse was better than after the termination of an ordinary labour. This was due chiefly to the small amount of haemorrhage which was easily controlled by the ligatures. The question of tightening the second ligatures on the uterine artery before extracting the child is one for future consideration.

A CASE OF VESICULAR MOLE OF UNUSUAL SIZE.

BY THOMAS SLATER JONES, L.R.C.P.LOND., M.R.C.S.ENG

MRS. C., aged 48 years, had had eight children. Five years ago she passed a similar mole, but much smaller. Two years ago she had a child at full term. This child is distinctly syphilitic. She had an attack of rheumatic fever about eighteen months ago. Menstruation had ceased for seven months. The patient told me that for a month she had a more or less bloody discharge, with uterine pains off and on.

On August 15th, 1903, when I saw her, she had strong labour pains, a copious, weak sanguinous discharge in which could be seen an occasional cyst of the hydatidiform mole. On external palpation the uterus was felt to be very much distended; it extended up to the ensiform cartilage. No fetus could be felt (as she was thin this would have been an easy matter to make out). The os was fairly dilated, and masses of the cysts, which felt soft and peculiar to the finger not like the feel of placenta praevia at all—but with a sensation to the finger quite characteristic of the condition, presented.

After the patient had been put under chloroform, I introduced my hand into the uterus, and got the whole of the masses of cysts away without much difficulty. This was fortunate, as frequently in these cases there are considerable adhesions to the interior of the uterus, whose wall may be very much thinned in places. Haemorrhage, too, is often excessive, but by keeping one's hand well over the uterus and by injecting ergotine hypodermically, this anxious complication did not occur. Subsequently the patient made an uneventful recovery.

The mass of cysts weighed 5 lb. 4 oz. The cysts presented somewhat the appearance of grapes: the largest measured about 1½ in. longitudinally, the smallest being smaller than a pin's head. They contained a gelatinous material slightly

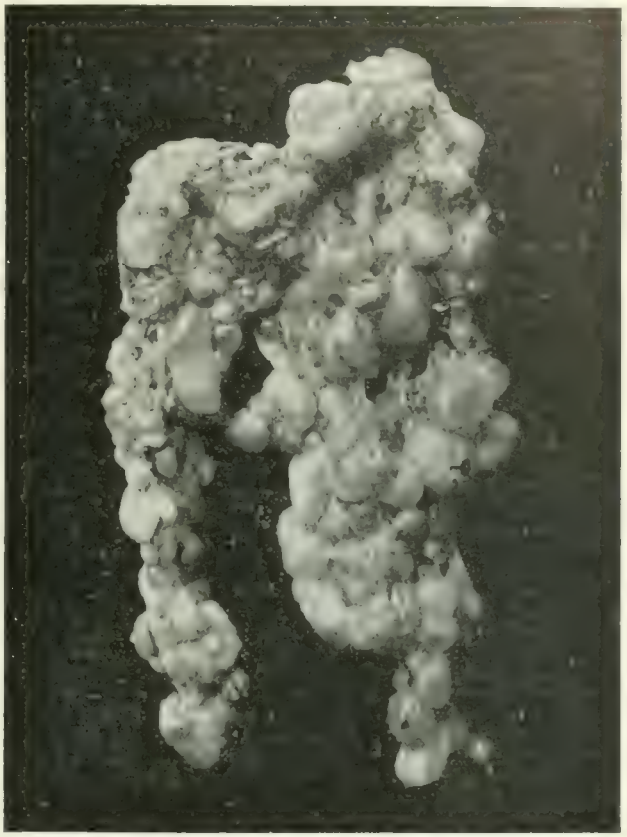


Fig. 1.—Photograph of a very small portion of the mole.

tinged with red enclosed in a translucent, glistening, ovoid envelope. Each cyst was attached by an independent peduncle, which did not arise from a common stalk as in grapes, but apparently one from another.

Report from Clinical Research Association.

This section exhibits chorionic villi in various stages of mucoid degeneration. Masses of epithelium have resulted from proliferation of the syncytium covering the villi, and some of these are also degenerating. There is no definite growth like "deciduoma malignum."

SOME DECEPTIVE ABDOMINAL CONDITIONS AND THE QUESTION OF OPERATION.*

BY A. H. TUBBY, M.S., F.R.C.S.,
Surgeon, Westminster and Evelina Hospitals.

WHEN I was honoured by being asked to read a paper before this Branch of the Association, it appeared to me that I could not enlist your interest better than by choosing this subject, because it is common ground to all of us, and the questions of operation and of no operation are constantly arising. The maze of symptoms in these abdominal cases is sometimes so tangled that we welcome any clue, however slight, to guide us in our difficulties. It must be admitted that the method of settling the diagnosis by making an exploratory operation in all doubtful cases is one which is certainly not feasible in private practice, and it cannot be justly said to be in the best interests of any patient if constantly employed. It is indeed strongly to be deprecated, because it savours merely of the art of surgery, and not of the science. He is a poor surgeon who finds himself compelled to cut the Gordian knot of his difficulties by acting on the formula: "Let us open the abdomen and look inside." The risks of a simple section are, it is true, small, but they are appreciable, and no patient

* Read at a meeting of the East Surrey District of the South Eastern Branch of the British Medical Association.

should without the most careful investigation be advised to undergo what may still be considered a capital operation. In private practice we are called upon to give our opinion before we operate, and thanks to the large amount of medical literature found in the lay press, patients and their friends are becoming more and more insistent in knowing the reasons for an operation; they wish to hear the pros and cons, and not infrequently prefer to judge for themselves as to its advisability.

The subject that has been chosen is a large one, but I propose to deal with it under three headings:

I. [illegible]
II. Perforative conditions.
III. Suppurative conditions.

Giving illustrative cases, and the reasons why operation was or was not performed, and then to briefly discuss the value of the various leading symptoms.

I. Abdominal Conditions without Injury.

I will first quote the following cases.

Case I.

[illegible]

G. M., aged [illegible], was admitted under my care into Westminster Hospital on January [illegible]. At [illegible] he was crossing the roadway, when he was knocked down and run over by a cab. One wheel went over the abdomen passing from the left side to the right, and the whole weight of the vehicle must have passed over the body. He was pale and suffering from shock, and was sick in the cab, but there was no unconsciousness. When seen in the ward he lay in bed with his knees drawn up, and he objected to any change in this position. His pulse was [illegible] and his lips white. His pulse-rate was [illegible] per minute, regular, very easily compressible, and small. The respirations were [illegible] to the minute and shallow. He complained of stabbing pain on the left side when he breathed. The abdomen moved in respiration, and was slightly distended and there was tender spot in the left lumbar region, and the muscles there were rigid.

My colleague, Mr. Arthur Evans, was sent for to see him with a view to operation, it being feared that he was bleeding internally, but it was decided, on the following grounds, to await events: (*a*) The absence of any blood in the vomit, thus excluding stomach injury; and the fact that the accident occurred at [illegible] a.m., some hours after he had taken breakfast, made it less likely that rupture had occurred either by direct violence or by a thrust from a fractured rib; (*b*) the absence of blood in the urine, and of effusion into the flanks negatived injury to the kidneys; and (*c*) careful and repeated percussion of the abdomen negatived the existence of hæmorrhage from a rupture of the spleen or liver.

On these grounds we waited, and the case finally resolved itself into one of hæmorrhage into the left pleural cavity, associated with fracture of the eleventh rib on the left side.

Case II.

[illegible]

In this case a careful observer might readily have underestimated its gravity. In the absence of early illness, signs of contusion, and tenderness, the [illegible] might well have been deemed to warrant delay. But a careful examination of the case showed rapidly entire absence of peristalsis, with rigidity and vomiting, and these were sufficient signs, taken with the history of the accident, to make Dr. Buchanan feel that exploration was necessary—a proceeding amply justified.

Case III.

[illegible]

This case occurred when I was a house-surgeon to [illegible], and I remember [illegible]

[illegible] sloughing.

This is one of those cases in which even the ablest surgeon might well be at fault, and, considering the severe nature of the injury, it is remarkable that no very serious symptoms were present from the first. It is true that an abdominal section and very careful examination might have revealed the embolus of some of the vessels in the great omentum, but, considering the patient was a very fat man, this is improbable.

Case IV.

[illegible]

[illegible] upon this structure by the [illegible]

The criticism, which appears to be a fair one in this case is that repeated examinations of the blood as to its specific gravity would have shown that on account of the drawing away of the fluid from the systemic vessels into the peritoneal cavity, the specific gravity of the blood was raised, and on this fact, taken with the scantiness of the urine and the rapid pulse, an abdominal exploration should have been made.

II. Perforative Conditions.

A good example is furnished by a case of perforating gastric ulcer which I was asked to see by our friend Dr. Dalton.

Case V.

[illegible] seen by Dr. [illegible] opinion, and agreed in recommending immediate operation. [illegible]

extremely like those of perforation except for signs showing the presence of free gas in the abdominal cavity.

CASE VI.

Perforation of the Intestine.

This case is recorded by Dr. A. B. Johnson. A man, aged 28 years, was admitted to the Roosevelt Hospital with a history that four days before admission he was seized with colicky pains about the umbilicus, but there was no vomiting. His pains were not severe, and his bowels moved daily, and he remained at his work. At 1 a.m. on the day of his admission he was seized with severe abdominal pains, followed by a chill. On admission the abdomen was not distended, it was markedly tender, and was rigid throughout. Eight hours after admission the abdomen was opened and a good deal of cloudy, bile-stained fluid, with flakes of coagulated lymph, escaped. The vermiform appendix was examined, but was found to be healthy, and ultimately upon the anterior surface of the descending portion of the duodenum a small perforation was found, forming the floor of an ulcer. The perforation was closed, and the patient recovered, and six weeks afterwards he was in the best of health.

This is a striking instance of what I have previously described in the *Lancet* of May, 1902, as an instance of that deceptive condition which is found in many abdominal cases, and is called the "latent condition" or "the quiescent period."

III.—SUPPURATIVE CONDITIONS.

In acute gastric ulcer the complication is more often perforation, whereas in the chronic form of ulcer it is not unusual to find suppuration occurring, which tracks about and gives rise to subdiaphragmatic abscess. Such a case is the following:

CASE VII.

Chronic Gastric Ulcer with Subphrenic Abscess.

In 1895, when clinical assistant to the late Dr. Moxon, a girl, aged about 20, came under care. She was anæmic, and looked extremely ill, and had an intermittent temperature. There had been no previous history of dyspepsia. Beyond the fact that there was some dullness of the base of the left lung, and some crepitus, no definite symptoms could be elicited, and various diagnoses, including that of phthisis, were made. She died eventually, and at the necropsy a chronic gastric ulcer of the posterior surface of the stomach was found, with pus lying between the stomach, spleen, and diaphragm.

This case occurred many years previously to the routine examination of the blood in obscure clinical states. But now the existence of leucocytosis and an excessive percentage of polynuclear cells would at once have led to an exploratory operation.

CASE VIII.

Double Pyosalpinx.

This case is quoted in the *Practitioner* for March, 1903, page 304, by Dr. Herbert French, and I give it together with the remarks on it. E. A., aged 22, having been ill ten days with headache, feverishness, anorexia, and obscure abdominal pain, was sent to Guy's Hospital as suffering from typhoid fever, and admitted under the care of Dr. Hale White. Her temperature was 102° F., her pulse 120, and her respirations 40 per minute. At the same time that blood was taken for a Durham-Widal test, a blood count was made, and 24,000 leucocytes per c.mm. were found. The differential count showed:

Polymorpho-nuclear cells	90 per cent.
Small lymphocytes	9·0 ,,
Transitional forms	1·5 ,,
Large lymphocytes	·5 ,,
Coarsely granular eosinophile cells	·5 ,,

The conclusion, therefore, was that the condition was not one of enterica, but rather of deep-seated suppuration. There were no pelvic symptoms, and the patient was unmarried, but there was considerable abdominal pain, and, following the leucocytosis the total and differential leucocyte counts, laparotomy was performed in the middle line. Double pyosalpinx was found, and the patient made a complete recovery after removal of the tubes.

CASE IX.

Pyosalpinx Occurring in Pregnancy.

Mrs. C., aged 22, was seen by me in consultation with Dr. Mack, of Canonbury, with pain in the left loin, thickening about the left kidney. Four months previously she had been confined, and had a difficult confinement. Since then she had had an occasional rise of temperature to 101°, and no thickening or fullness could be felt in the pelvis but there were some in the loin. She was admitted into Westminster Hospital, and the question arose as to the presence or absence of pus. The leucocyte count was 22,000, and it was decided to operate. After an extensive search to my disappointment no pus was found, so a drain was left in the wound. But one week afterwards there was a sudden and copious discharge of pus, and with this the leucocyte count fell to 15,625.

In no form of abdominal inflammation is there so much difficulty as in appendicitis, and, as a surgeon, one approaches the subject with awe, because experience has made me look upon the disease as absolutely protean in its possibilities. In an acute attack it is impossible to fortell what will be the outcome. For example, a patient commencing his illness in a quiet way and apparently doing perfectly well may suddenly develop acute symptoms and die in a few hours. Or an attack may begin in a most violent manner and then subside and the case run a perfectly controllable course. Or, again, and these are the distressing cases, an attack commences acutely, and then there is a rapid subsidence of symptoms and the patient appears to be fairly well; but a violent lighting up follows and nothing more can be done. Some cases are moribund from the first as to preclude all hope of successful treatment. An example of this recently came to my knowledge. A middle-aged man, hitherto perfectly well, woke up one night with acute pain and collapse, the pain being localized to the right iliac fossa. A physician was called in and gave a guarded opinion. But the acute distension and collapse with which the illness commenced persisted and a surgeon was sent for, who, twelve hours after the onset of illness, found the appendix gangrenous and general peritonitis setting in, for which nothing could be done. The subtlety of the disease is extraordinary, and it is recorded that septic peritonitis from appendicitis has run its course with a flaccid abdomen and scarcely any tenderness, and in one instance a man spent some hours applying massage to his own abdomen. In another case a patient drew attention to the absence of tenderness by slapping the abdominal wall.[1]

When a case of appendicitis commences with symptoms of intense collapse, which are comparable to those present in a case of deadly poisoning by a mineral, such as arsenic, it is quite certain that the proper thing to do is to operate immediately and to remove the appendix, which is undoubtedly the focus of septic infection. It is absolutely futile to wait for limiting adhesions, because the patient is dead before they have time to form, poisoned throughout by an ulcerated or gangrenous appendix. The difficulty, however, comes in more frequently when we have to decide the question of operation in a case, for example from the fourth to eighth day, where the general symptoms doubtfully point to pus being present, and we are not quite certain whether we are justified in a long search for pus or not. In these instances the leucocyte count, and more particularly the proportion of polynuclear cells, is decisive, and I may instance the case of male patient who was admitted under my care to Westminster Hospital in 1901 suffering from appendicitis. His temperature was 99·4°, his pulse 104, and he was in severe pain, with a large mass in the right iliac fossa. This was the fourth day of illness. The leucocyte count was 11,562 per c.mm., very little above the normal, and on this ground operation was deferred. This case subsided without suppuration and did well. But in patients in whom the general symptoms are severe, the local abdominal condition of appendicitis is persistent, and the leucocyte count is over 12,000 or 14,000, I should not hesitate to operate. The significance of a persistently high leucocyte count cannot be disregarded, although it should be taken in conjunction with the general symptoms. It is of such importance that in doubtful cases it is the determining factor as to operation or otherwise, and it may decide the question in the following class of case which has come under my notice. A patient with appendicular abscess has been operated upon. For a time he does well, and then his general symptoms return. We therefore suspect that there is a secondary abscess, probably deep seated in the pelvis, or, what is still more formidable, a subdiaphragmatic abscess. If the patient is to be saved, pus must be found and evacuated. But, to justify a prolonged search, some data more certain than general symptoms are required, and these will probably be found in the examination of the blood. I can recall one such case in which, after I had opened an intra-abdominal abscess, the patient did well for a time. But afterwards the symptoms returned, and a secondary abscess formed deep in the pelvis, and burst into the peritoneum with a fatal result. If during the accession of the second attack of fever the blood had been carefully examined, I do not doubt that ample reason would have been shown for another and severe operation.

In the instances I have quoted we are confronted with these difficulties: (1) The fact that many abdominal lesions are latent in their symptoms for a time, and then suddenly become acute: (2) that cases, commencing acutely, subside, and are apparently going on well, and then break out with increased virulence and end fatally, the favourable opportunity of the "latent" period not having been grasped: (3) that when the general symptoms of suppuration are present it is sometimes impossible to say with which organ it is connected, and we have no data on which to commence our exploration, which may be of a very severe character; and

(4) the fear that, if we do find the focus of suppuration, we may not, in evacuating it be able to limit and prevent its spread to the general peritoneal cavity. However, once it is clear to the surgeon that pus is present it is his duty, by a careful discrimination of symptoms, to attempt to localize it and to evacuate it.

The great safeguard and the guide in all these cases is a thorough and careful examination from day to day, and even from hour to hour, in an individual case, and I am disposed to say that one positive sign, such as altered relation of pulse-rate and temperature, rigidity, absence of peristalsis, persistent tenderness, or excessive leucocytosis, must outweigh the absence of all other unfavourable symptoms. There are certain symptoms which we cannot neglect, even in obscure cases. These I may briefly discuss under the following headings in their order of importance, and I place above all:

1. The ratio of the pulse and temperature. Then follow
2. Leucocytosis.
3. Rigidity.
4. Vomiting.
5. Distension
6. Diarrhoea and constipation.
7. Local tenderness
8. Haematemesis and melaena.
9. Increasing abdominal dullness.
10. Effusion of blood beneath the abdominal walls.
11. Chest symptoms, such as dullness, signs of consolidation, etc.

1. *The Pulse and Temperature.*—These may rise together in due proportion, or there may be a slightly elevated temperature with an entirely disproportionate pulse-rate; or the temperature may be subnormal when taken on the surface, while the pulse may be greatly accelerated. But be it noted, if the temperature is taken in the rectum it is almost invariably above normal. The conditions of gravity are two: First, a normal temperature with a pulse-rate of 100 or over; and, secondly, a condition of still greater gravity, a subnormal temperature with a rising pulse. In all abdominal cases the pulse and temperature should be frequently taken, at least every three hours, although the disease appears to be quieting down. If the case is to have a successful issue, this inverse relationship of temperature and pulse should be observed at the earliest possible moment. If the abnormal ratio has been established for a day or longer the prospects of surgical interference are extremely unfavourable, because the altered ratio is significant of the absorption of septic products.

2. *Leucocytosis.*—I may venture to remind you that the number of leucocytes per c.mm. present in the blood is normally 5,000 to 7,000, the count rising to 12,000 at the height of digestion after a good meal. In purulent appendicitis the number of leucocytes varies from 14,000 to 58,000, the average being 17,000 to 20,000. In perforative appendicitis there is a very rapid rise in the number of leucocytes, and counts of over 20,000 indicate either pus, gangrene, or peritonitis; but, as showing that even this sign is not absolutely to be relied upon, the gravest kinds of appendicitis, attended with the acutest form of poisoning, do not show an increase of leucocytosis. Thus it is not advisable to divorce the leucocyte count from the clinical condition of the patient. Leucocytosis is absent in enteric fever but it is present in ovarian abscess and other forms of intra-abdominal suppuration. It is absent also in uncomplicated gastric ulcer, but if perforation occurs the number rises. It is important not only to ascertain the number of leucocytes but the ratio of polymorpho nuclear cells. If these are increased from the normal rate of 65 per cent. to over 70-75 per cent. then pus formation is certainly present.

3. *Rigidity*, which is almost always associated with some tenderness, is a symptom to be carefully watched, particularly if it be persistent. Even in the absence of other abdominal signs, such as vomiting and severe pain, rigidity, with some tenderness, as in Case VI of perforating duodenal ulcer, was sufficient ground for operation, although the patient was apparently well and had remained at his work for four days. The operation was, as I have said, abundantly justified.

4. *Vomiting* is a very variable sign; most acute abdominal conditions commence with it. It often ceases after the administration of sedatives, or if the stomach has been emptied of its contents by the initial sickness, and it is frequently absent in the latent period. But if it recurs, in spite of careful feeding and after the administration of sedatives, it is not to be underestimated.

5. *Distension.*—This is often absent in the early stages, even in so serious an illness as a perforating gastric ulcer. But in the later stages of abdominal disease the fatal significance is only too well known. Distension which persists for longer than twenty-four to thirty-six hours, and is unrelieved by treatment, such as a turpentine enema, is of grave moment. Before any marked degree of distension has taken place it is possible to ascertain the existence of normal liver dullness. But, when distension is well marked, the coils of intestine may override the edge of the liver, and so mask it.

6. *Constipation and Diarrhoea.*—The former may be due either to obstruction or to the administration of sedatives, but diarrhoea, occurring in the course of acute appendicitis, is generally significant of septic absorption from a non-evacuated abscess.

7. *Local tenderness* is always of value as a guiding point to the site of the lesion. Its persistence at the upper part of the rectus may determine the site of incision in a suspected case of perforation in gastric ulcer, and localized tenderness at McBurney's spot is one of the determining signs of the presence of appendicitis.

8. *Haematemesis and Melaena.*—The persistence of these after an injury, or in association with a suspected gastric or duodenal ulcer, may be such as to determine the question of operation or otherwise.

9. *Increasing Abdominal Dullness.*—The presence or absence of this is an important factor in those doubtful cases of injury where it may be that a solid viscus has been ruptured and blood is being poured out into the peritoneal cavity, or the dullness may be due to effusion of pus or fluid, or to matted intestine with adhesion, as in appendicitis.

10. *Effusion of Blood Beneath the Abdominal Walls.*—This in itself is not a symptom to be relied upon, and should only be taken into consideration with other symptoms, such as shock, collapse, and haematemesis, as indicating the possible extent of laceration of the parts beneath.

11. *Chest Symptoms.*—In a patient who begins an illness with symptoms referable to the abdomen and remains ill although the symptoms in that region have apparently subsided, a careful examination of his chest, and the detection of either a pleuritic rub or the presence of fluid in either of the pleural cavities, may serve as an indication that mischief is going on in the abdominal cavity, and that an exploratory operation is called for. The association of pleurisy and perigastric abscess is well known, and so, too, is the existence of subdiaphragmatic abscess secondary to appendicitis, and the presence of fluid at the right base. The point lies in the persistence of chest symptoms preceded by a history of abdominal trouble.

References

[1] *Annals of Surgery*, vol. xxxii, p. [illegible]. [2] Ibid., March, 1902. [3] Ibid., vol. xxx, p. [illegible]. [4] Treves, Perityphlitis.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DRUG RASH COMPLICATING ENTERIC FEVER AND SIMULATING SCARLET FEVER.

T. G., male, 17 years of age, consulted me on September 27th, 1903, about an extensive erythematous rash very closely resembling scarlatinal erythema. The rash covered his face, body, arms, and legs. He gave a history of not feeling very well for a week or so, backache interfering with his work in the stable; the rash had been out two days. He now had a sore throat, and felt very weak. His pulse was 100, his temperature 103.2 F. The pharynx was inflamed, the tonsils enlarged and angry, and the tongue furred with enlarged papillae and red edges. He had vomited once or twice, and felt sick. Here was a clinical picture resembling scarlatina. The throat symptoms did not seem severe enough, or pulse quick enough, however, and the tongue not quite typical. I told him that but for his temperature I should say it was a drug rash. He then told me that he had taken several Doan's pills for the backache, and previous to them some opening medicine, which had worked freely. He said his bowels were loose, but it was due to a seidlitz powder. He had no abdominal pain or tenderness. Thinking he had caught a chill, and ascribing the rash to the pills, I ordered him to bed and gave him a saline mixture.

On September 28th his temperature was 104 and pulse between 110 and 115. He had not vomited, his bowels had not acted, there was no abdominal pain or tenderness.

On September 29th the temperature was 103.5°, the pulse as on the previous day; one motion described as light in

colour had been passed. I now gave him quinine sulphate (3 gr.) every four hours, and left instructions to preserve any motion. Had I had the facility I should have tried the blood reaction.

On September 30th the morning temperature was 103°, pulse 110; the evening temperature 104°. The bowels had not acted. There was no abdominal tenderness; there was some gurgling in the right iliac fossa and slight tympany. No typhoid rash was to be observed.

On October 1st the temperature was 103.5°, and the pulse 110. Three motions of typical pea-soup character had been passed. All this time he complained of nothing but weakness.

I reported the case as enteric, and he was removed to the fever hospital. He was evidently in the second week of the disease.

Here was a beautiful example of the uselessness of the public treating symptoms with patent medicines, even granting there be virtue in the latter.

A fortnight later a young man 20 years of age came to see me in a very depressed state, thinking he had fever. He presented a similar rash to the above. His temperature and pulse were normal; urine, specific gravity 1025, showed no albumen. His tongue was flabby and pale, and he complained of backache. At first he said he had taken no medicine, but on asking him to think again his sister, who was with him, said, "Yes, doctor; his sister gave him two pills." On asking what pills, "Doan's" was the reply. I ordered seidlitz powder and gave a hepatic stimulant; he was soon himself again.

London, N. G. W. R. Skene, M.B., Ch.B.Edin.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

The note by Dr. A. C. Bird on this subject is particularly interesting to me, as I have quite recently had a parallel case to his.

My patient, a young clergyman, was sent to this district about two years ago, suffering from pulmonary phthisis. In September of last year he had a rather severe attack of haemoptysis, which, however, readily subsided under the ordinary treatment—absolute rest in bed, application of ice, etc. On December 6th he had a second attack a very severe one and in spite of ergot and opium (both internally and hypodermically), sulphuric acid, hazeline, terebene, ice locally and in the mouth, and absolute rest of body and voice, the copious coughing up of blood continued until the patient's pulse began to show signs of collapse.

On December 19th I prescribed a teaspoonful of 1 in 5,000 solution of suprarenalin (Armour) three times daily, and from the giving of the first dose the condition of the expectoration changed, the bright red gave place to a "foxy" colour, and after the third dose of suprarenalin all trace of blood in the sputum had gone and has not reappeared as yet.

I have still more recently used suprarenalin in a second case of haemoptysis with equally rapid result, and also in a case of fairly severe *post-partum* haemorrhage again, so far as one can tell, with excellent effect.

Rothbury. Arthur S. Hedley, M.B.

BLEEDING IN PNEUMONIA.

The report of the following case may interest those who have read Dr. Lees's paper and Dr. Barr's comments thereon.

O. P., a boy aged 14 years, who had had bronchitis in childhood; had left-sided empyema two years ago. This was drained and part of rib resected. The scar and physical signs of thickened pleura remain. His present illness began with typical signs and symptoms of acute pneumonia at the right base. On the third day the temperature reached 107° F. for a short time. On the fifth day the temperature was 105°, the pulse feeble (about 180), respirations 65; there was marked cyanosis and much distress from feeling of suffocation. Four leeches were applied over the region of the right auricle, and withdrew some 2 oz. of blood; for two hours longer the bites were encouraged to bleed freely, so that I am sure not less than 4 oz. in all were abstracted. At the end of the two hours the patient was comfortable, the cyanosis was gone, the temperature was 103°, the pulse 125, and the respirations 60. For two more days the temperature continued between 103° and 105°, but the pulse never exceeded 130, nor was cyanosis again marked. The case terminated favourably by lysis.

During the last twenty years I have occasionally bled in certain cases of pneumonia (twice in one alcoholic patient), but I have never before seen such marked evidence of the value of this procedure.

Southampton. S. Hughes, M.B., etc.

THE TREATMENT OF MYIASIS.

With reference to the very interesting "Notes on Myiasis" by Captain P. S. Lelean, F.R.C.S.Eng., R.A.M.C., in the British Medical Journal of January 30th, may I point out that larvae can be at once got rid of by the following method? The tip of an ordinary probe is lightly smeared with vaseline and pressed on to a little calomel so as to take up about 1 gr. of the drug. It is then passed into the cavity containing the larvae and gently moved round it. The calomel kills the larvae in a few minutes. They can then be removed by gentle pressure, or, better still, by syringing the cavity which contains them with a little warm boracic lotion.

The other drugs, such as turpentine, which have been recommended for destroying maggots, are uncertain, irritating, and very painful. On the other hand, calomel acts rapidly, certainly, and without causing the slightest pain or discomfort. It also seems to destroy or neutralize the excretory products of the larvae, which are often sufficiently irritating to excite considerable local inflammation and high fever.

Calomel is also fatal to most of the lower forms of life, and I have used it successfully to get rid of a leech which had accidentally entered the nasal fossa.

G. H. Younge, F.R.C.S.I.,
Lieutenant-Colonel R.A.M.C. (retired pay).

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SOUTH WIMBLEDON AND MERTON COTTAGE HOSPITAL.

SPONTANEOUS RUPTURE OF THE UTERUS: LAPAROTOMY: RECOVERY.

(By Martin Randall, M.D.Lond., F.R.C.S.)

Cases of spontaneous rupture of the uterus occurring early in labour are so uncommon that this one may be thought worthy of record:

History.—E. S., aged 36, at full term in her tenth pregnancy. Her previous confinements, save the first, second, and ninth, have all been normal. In the first she was confined of twins prematurely at five months. The second was a transverse presentation, and the ninth child was born deformed, at eight months, and lived eight days. She is a healthy woman, but works hard and is somewhat ill-nourished. On October 19th, 1903, she went to bed as usual and slept. She woke at 2 a.m. on October 20th, and found she was losing a little blood. An hour later pains came on. She voluntarily states that they were only six or eight in number, and that she experienced something different from what she had suffered in her previous confinements. The pains ceased altogether. She was not sick, and no history of shock or collapse could be obtained. She was seen by a midwife, who told her to send again. There was no history of a fall, blow, or strain.

State on Examination.—She was seen in the morning of October 20th by Dr. Arthur Edgelow, who asked me to see her with him later in the day. She still had slight loss. She was sitting with her buttocks on the edge of the bed and her feet resting on the floor. She complained that she could not lie down, because the attempt to do so took her breath away. She also complained of cramp in her back and sides, passing down the thighs, and made worse on movement. There were no uterine pains. Colour was good, facial aspect anxious. Respiration short and gasping, as in pneumonia. Pulse 120, regular, of fair quality. Temperature normal. After much persuasion she was induced to lie on her side, with shoulders and thorax propped up by pillows. Her movements were like those of a person suffering severely from lumbago. On vaginal examination a ring-like space was felt, in which lay part of the placenta. No part of the fetus was palpable. A loss of 2 or 3 oz. of dark blood followed the examination. Dr. Edgelow then gave chloroform, and after external cleansing I introduced my hand with a view to clearing the uterus. It entered the abdominal cavity through a tear in the posterior and left part of the uterus, and thus the nature of the case became clear.

Operation.—She was removed as soon as possible to the Cottage Hospital, the abdomen cleansed, and the vagina douched. Dr. Brice Poole administered chloroform, and Drs. Edgelow and Gerrard kindly assisted at the operation, at 9 p.m. Under chloroform the child could be felt lying transversely above the uterus, with its head on the left. On opening the abdomen the first thing seen was a bulging, yellowish, bladder-like object. This was the intact amnion. The child was seized by the buttock, which presented, and removed, head last, care being taken to exclude the liquor amnii from the abdomen as far as possible. The amnion did not appear to be unusually tough or thick. The child, a fully-developed male, of quite average size, was dead.

[illegible] having been [illegible] was [illegible] to the placenta, which was [illegible] the [illegible]. It was removed, the [illegible] the [illegible] and the [illegible] the [illegible] was little [illegible]. The rent was [illegible] and [illegible] to the [illegible] of the left [illegible]. It was [illegible] and [illegible]. It was closed by [illegible] still [illegible]. [illegible] could not be [illegible] over the [illegible] two [illegible]. A [illegible] tube was passed [illegible] the [illegible] the [illegible] away [illegible] the peritoneum [illegible] very little. The wound was then closed [illegible] the [illegible] and dressed in the usual way. The operation was well borne.

[illegible] Progress was good for the first [illegible] the tube being [illegible] the [illegible]. The temperature [illegible] at [illegible] fourteenth [illegible] could be felt [illegible]. No sign of effusion in the [illegible] could be detected per [illegible] on the sixteenth day [illegible] through the [illegible] one or two small [illegible] wound. After this [illegible] was steadily [illegible] soundly healed by [illegible] normal menstrual period. [illegible]

REMARKS.—The special features of interest are, the early period of labour at which rupture occurred, the absence of serious shock and haemorrhage, and, most noteworthy of all, the fact that the amnion was not ruptured. The mode of treatment to be adopted was obvious. The history of the onset of [illegible], followed by "six or eight" pains was most definite, and there can be little doubt that the rupture occurred at this time—about 4 a.m. on October 20th. The operation was performed about seventeen hours later, and during this period there were no uterine pains. Cases occurring this early in labour are exceedingly rare. A very good example is recorded by Dr. Milne Murray.[1] In his case rupture apparently took place between four and five hours after labour began. Operation revealed a tear almost identical with the one found in my case, but the amnion was ruptured. Convalescence was complicated by the formation of a pelvic abscess which discharged per vaginam. Dr. Murray refers to records of three somewhat similar cases, and gives references to them. The complaint that she could not lie [illegible] was very puzzling. The first [illegible] was that she had pneumonia, which the breathing suggested, and when this was excluded, that she had lumbago. The symptom was fully explained by the position of the fetus, which evidently embarrassed the thoracic organs less in the erect than in the recumbent position. The absence of severe shock I attribute to the small amount of haemorrhage, probably due to the placenta [illegible] the rent, and to the fact that the amnion was intact. That the placenta may thus act in arresting haemorrhage is [illegible] by a case recorded by Dr. Dakin,[2] in which after delivery of the child per vias naturales, the uterus was found ruptured, with the placenta in the tear. Its removal was followed by [illegible] haemorrhage that the patient died in [illegible]. As regards the condition of the amnion, it has been said that the uterus cannot rupture without the membranes being ruptured. Dr. Murdoch Cameron, in a [illegible] case that he records, points out that this is a fallacy. In [illegible] reference is made to two cases of [illegible] intact. One died [illegible] the uterus must [illegible] by undue pressure on a certain spot [illegible] gives way at its [illegible] resistance, just as an overdistended [illegible] yields where weakest. Whether in [illegible] presentation or a placenta [illegible] uncertain. Nothing in the previous [illegible] to the [illegible], but I cannot too much regret [illegible] from this point of view. The [illegible] was annoying but not [illegible] where she was when first [illegible] requisite and necessarily [illegible]. There was [illegible] which was [illegible] the uterus should have been [illegible] greatly to the [illegible] have been a favourable [illegible]. The general opinion [illegible] should not be [illegible] with [illegible]. But it might have been a better [illegible] to leave the [illegible] of the tear, which was in the vaginal fornix, unsutured: to have used a gauze drain passed into Douglas's pouch through this opening, and to have completely closed the abdominal incision.

REFERENCES.

[1] [illegible] vol. [illegible] p. [illegible] vol. [illegible] BRITISH MEDICAL JOURNAL [illegible] BRITISH MEDICAL JOURNAL, January [illegible]

MANCHESTER UNION HOSPITAL.

A CASE OF PANCREATIC CYST: LAPAROTOMY AND DRAINAGE.

(Reported by ARTHUR H. BURGESS, F.R.C.S.Eng., M.B., M.Sc.Vict., Visiting Surgeon.)

J. W., aged 45 years, was admitted to the hospital on May 20th, 1903, complaining of severe diarrhoea of about ten days' duration. He appeared extremely emaciated, and stated that he had been getting steadily thinner for the previous six months. On examination of the abdomen a smooth, elastic swelling was discovered, deeply placed in the epigastric region, exhibiting no tenderness to pressure, uninfluenced by the respiratory movements, and not capable of being moved in a lateral direction. Indistinct fluctuation was obtainable, percussion yielded a dull tympanitic resonance, auscultation revealed no *bruit*, nor was the swelling pulsatile. On inflating the colon with air the tumour was noticed to be well above the transverse colon, and on distending the stomach with carbonic acid gas that viscus lay across the front of the swelling, completely obscuring it. There was no excess of fat or undigested muscle fibre in the stools, and on one occasion only was the presence of a small quantity of a Fehling-reducing substance noted in the urine. A diagnosis of probable pancreatic cyst being made, laparotomy was performed on June 25th, 1903, through a median incision in the epigastrium, to which at a later stage was added a transverse cut partly through the right rectus. On tearing through the layers of the small omentum a tense thin-walled cyst was exposed, firmly connected with the head of the pancreas, the remains of which were spread out over its lower portion, the tail of the organ not being involved. The cyst was aspirated, and 27 oz. of fluid withdrawn. Owing to the thinness of its wall and its close incorporation with structures around, enucleation of the cyst was out of the question, and from the depth of its situation it was impossible to bring it up to the abdominal wound. A glass tube was therefore introduced through an enlargement of the trocar aperture, the margins of which were tied closely round the tube with a stout silk ligature, the tube itself being surrounded with sterilized gauze. The rest of the incision was sutured.

The fluid withdrawn was of a reddish-brown colour, glistening with crystals of cholesterine, specific gravity 1036, alkaline, contained albumen but not sugar, and gave the guaiacum reaction for blood pigment. By some error, the fluid was unfortunately thrown away before it could be specially investigated for the presence of ferments.

After the operation the general state of the patient markedly improved and a rapid increase in weight was noted. The glass tube was removed on the sixth day, the discharge, never very profuse, gradually diminished, and the fistula finally closed on November 4th, 1903. The man is now in excellent condition.

MEDICAL WILLS.—The estate of the late Dr. Samuel Woodcock, J.P., has been valued by his executors at £8,[illegible] gross and £[illegible] net. The will of the late Dr. Theophilus W. Trend of Southampton has been proved at £[illegible]. Colonel Sir [illegible] Thompson, K.C.B., I.M.S., who served in Afghanistan in 187[illegible] and with the Chitral Relief Force in 1895, has left £[illegible].

MORTALITY AMONG AMERICAN PRACTITIONERS.—From statistics compiled by the *Journal of the American Medical Association* it appears that the number of medical practitioners who died in the United States and Canada during 1903, was 1,[illegible]. This is probably within 5 per cent. of the total mortality in the medical profession in North America, the number of which is estimated at about 120,000. The time the deceased doctors had been in practice varied from one to seventy-five years. The greatest number of deaths occurred in the twenty-fifth year of practice, in which 51 were recorded. Of the entire number [illegible] had practised more than fifty years and two had been in practice seventy-five years at the time of death.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Jordan Lloyd, F.R.C.S., President, in the Chair.

Birmingham, Thursday, January 14th, 1904.

Traumatic Neurosis. Dr. Jameson Evans showed a woman, aged 23, with symptoms of the hystero-neurasthenic type following a blow on the right eye in 1900. There had been persistent conjunctivitis, with reduction of vision and contraction of the field in both eyes, but more so in the right eye than in the left. She had had globus, aphonia, joint pains, blepharospasm, and a right-sided roseolar rash at intervals during the last three years. At present vision was R.V. = $\frac{6}{9}$, L.V. = $\frac{6}{6}$. Right field contracted to about 10°; left field to about 40°. She suffered from dysmenorrhœa and sleeplessness, and her patellar reflexes were exaggerated. She still had conjunctivitis, blepharospasm, and a roseolar rash on the right side of the face.

Congenital Deficiency of Pigmentation in Negroes.—Mr. Morrison showed photographs of three negro sisters, the youngest of whom, aged 13, was under his care in the Queen's Hospital for tuberculous peritonitis. On each of the three there were areas of skin devoid of black pigment, and giving a strangely piebald appearance. The condition, which was congenital, tended to be symmetrical, and occurred on the trunk, head, and limbs. The patches were not quite white, as seen in ordinary leucoderma, but resembled in tint the skin of a blonde European. The mother was similarly marked and so were six other children out of her family of fifteen; but no other example had been heard of amongst the coloured people known to them at their home in Louisiana, U.S.

Enlarged Prostate.—The President showed a prostate successfully removed by Freyer's operation from a man aged 79 years, who was suffering from retention of urine with haematuria of two months' duration.

Decapitation in Impacted Shoulder-presentations.—Dr. C. E. Purslow read a paper, of which the following is a synopsis: Indications: operation seldom required, not once necessary in over 5,000 cases under writer's care in Queen's Hospital Maternity; methods of separating and extracting head—which should be preferred? Notes of three cases; in each case all signs of life in the child had ceased for some time before operation was commenced. Dr. Thomas Wilson, Dr. Potts, Mr. A. Freer, Dr. Birt, and the President took part in the discussion; and Dr. Purslow replied.

Medico-legal Aspect of Injuries to the Eye.—Dr. Jameson Evans read a paper on this subject under the following headings: The object of the Workmen's Compensation Act; factors upon which the wage-earning capacity of the workman depends; the estimation of the wage-earning capacity after injuries to the eye; binocular *v.* monocular vision; factors which decide the degree of recovery after loss of one eye; comparative value of remaining eye; attitude of employers and insurance companies towards one-eyed workmen; simulation and its detection.—The paper was discussed by Mr. Priestley Smith, Dr. Wood White, Dr. Stephen, Mr. Morrison, and the President; and Dr. Jameson Evans replied.

Pathological and Clinical Section.

Frank Marsh, F.R.C.S., President, in the Chair.

Birmingham, Friday, January 29th, 1904.

Sarcoma.—Mr. E. N. Nason showed specimens of sarcoma of the toe and enlarged inguinal glands.

The patient, a male, aged 44, was admitted into the Nuneaton Hospital in November with a history that six years previously the toenail had split down the centre while he was cutting it. A deformed and soft nail displaced the split one, and a discharge continued to come from its base for two years. Eighteen months before the toe began to enlarge after a "blood blister" had appeared spontaneously. Since then the toe had already expanded. Eight months ago the inguinal glands began to enlarge, and on admission to hospital had reached the size of an orange. The toe and glands were removed, the former had a melanotic appearance, and in it the bone of the first phalanx had apparently been entirely replaced by growth. The glands were cystic and slightly pigmented.

A discussion followed as to the exact nature of the growth. The specimens were referred to the Microscopic Investigation Subcommittee of the Section.

Hemiplegia. Dr. Short showed the brain from a case in which there was a history of right hemiplegia five years ago practically recovered from, and a recent left hemiplegia of two months' duration followed by coarse tremulous movements somewhat resembling the tremors of disseminated sclerosis, which affected not only the arm and leg on the left side, but also the arm on the right side. Thrombosis of the longitudinal sinus preceded death, and at the necropsy a small patch of haemorrhagic softening was found in the middle of the right optic thalamus. No obvious lesion could be seen with the naked eye in the left half of the brain to account for the past hemiplegic condition of the right arm.

Hydatid Mole. Dr. Smallwood Savage showed a specimen of hydatid mole with microscopical sections.

It was removed from a patient aged 50, who had had eight children, the last seven years before. Menstruation had been irregular and scanty until nine weeks ago, when for six weeks she had had a continuous loss. Three weeks ago there was a profuse loss. She did not regard herself as pregnant. The breasts were enlarged but contained no fluid. The uterus reached nearly up to the umbilicus. A *souffle* was heard all over it.

Under an anaesthetic the uterus was emptied, about four or five pints being removed. She had improved considerably since the operation. The microscopical sections showed the typical conditions met with in such cases.

Joint Disease. Dr. Douglas Stanley showed a knee-joint and elbow-joint taken from a child admitted under his care with congenital syphilis. There was swelling and disorganization of the joints from extension from the epiphyseal line; the articular surfaces were unaffected. The lungs showed lesions suggestive of syphilitic pneumonia, and there was a gumma in the mediastinum. In the discussion which followed it was suggested that the joint lesion was tuberculous. Dr. Stanley believed that the whole process was syphilitic.

Septicaemia.—Dr. Foxwell showed specimens taken from the body of a man, aged 24, who died from septicaemia following ear disease.

Two years before his death the patient had suffered from influenza; ever since he had been subject to attacks or pain in, and discharge from, both ears on exposure to cold. Three weeks before death one of these attacks began with discharge from both ears. In a week he had to give up work on account of the headache; abdominal pains also arose and he took to bed. On the morning of January 18th a rigor occurred. He was sent into hospital as a case of enteric on January 21st, the temperature during the interim varying between 101° and 103°. At that time he was drowsy but quite intelligent; his liver and spleen were large, and both very tender; he had rhonchi throughout both lungs, and in patches slight dullness with sub bronchial breath sounds. The right membrana tympani was perforated, the left not; secretion taken from the right ear showed streptococci and staphylococci. That from the left was not examined. No paresis or other localizing symptom. On January 24th another rigour; there had been delirium, and he was more drowsy; pupils contracted and inactive; definite optic neuritis; tenderness and rigidity of neck muscles; Kernig's sign well marked, with ankle clonus on both sides, right plantar slightly extensor, left slightly flexor; knee-jerks absent; definite double pneumonia. Lumbar puncture showed considerable pressure; fluid almost clear, containing a very few small uncapsuled diplococci. No leucocytosis (count on 20 degrees —7,100 on 25 degrees C.). In the evening the mastoid was cleared out; the bone was much thickened, but its roof gave no sign of meningeal involvement. Death on 27th. *Post mortem* there was enormous congestion of brain and meninges, but no general meningitis. On the right lower surface of the cerebellum near the flocculus was a small patch of purulent meningitis, three-quarters of an inch by half an inch in area; here the dura was adherent to the arachnoid directly over a part of the sigmoid sinus, which contained purulent clot and had a softened and greenish wall, which was contiguous to a spongy and pus-containing portion of the petrous bone. The lungs had many small abscesses. The liver and kidneys were large and intensely fatty. The spleen weighed 13 oz., and was extremely soft. Cultivations of staphylococci were freely obtained from the spot of local meningitis, from an abscess of the lung, and from the general lung tissue, from an indifferent point of the brain (R. Sylvian fissure), and from the blood in the left ventricle, two or three colonies were grown, none could be obtained from the spleen.

When seen on the 22nd it was evident that the diagnosis of enteric fever could no longer be maintained. Indeed, the man's fate appeared already sealed, as septic pneumonia had arisen. But even then the absence of any localizing sign and the presence of both pain and ear disease on both sides made treatment difficult. Later the existence of optic neuritis without leucocytosis, of Kernig's sign in both legs, and of neck rigidity, suggested the possibility of a cerebro-spinal meningitis quite apart from ear disease. However, the fact that the ear disease was more marked on the right side indicated exploration in that locality; but, on finding the roof of the mastoid quite healthy, the existence of brain infection was thought to be not sufficiently probable to justify opening the meninges in a man in the patient's desperate condition.

[illegible] Mr. Thomas Kiles Kilner [illegible] Mr. Thomas Wilson [illegible] A specimen [illegible] ovarian tumour with pedunculated cysts, [illegible] specimens [illegible] fibroid [illegible] of the uterus.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.

Tuesday, January 1st, 1904.

WM. WYNN WESTCOTT, M.B., in the Chair.

Consumption and Sanatoria. Dr. SYKES opened a discussion on this subject. Pathologically pulmonary tuberculosis was dependent upon the access of a specific microbe to the human subject in a suitable bodily condition, due to predisposition, partly innate but mainly acquired by deficient quality of air supply, insufficient nourishment, or exhaustive work. The specific microbe might be expelled with the sputum in expectorating or with droplets or spray in coughing and forcible expiration, and either pass directly from a suffering person to a predisposed person or else find a temporary and intermediate nidus in the interior of an inhabited building and ultimately gain access again to a permanent or temporary inhabitant of the building. In France stress was laid upon the difference between the communicability of *la tuberculose ouverte* and *la tuberculose fermée* and preventive treatment in France aimed at converting the *ouverte* into the *fermée* condition. In other words, it was recognized that in the non-expectorating types of tuberculosis there was little risk of communicability. This differentiation simplified the position, as then one had to deal only with pulmonary tuberculosis accompanied by expectoration, to which four injunctions were applicable, namely, (1) do not breathe forcibly into the face of another person, but when sighing, yawning, hawking, or coughing do not fail to hold the hand before the mouth; (2) do not swallow the sputum, and do not spit upon the surfaces of an enclosed or covered place; (3) if consumptive, spit only into a proper receptacle specially reserved and prepared for the purpose, and, (4) if consumptive, do not sleep with another person. Passing on one had to consider the question of diagnosis, notification, disinfection, and sanatoria. Diagnosis. The first desideratum was the earliest recognition of the disease, and this must depend upon the highly-trained skill of the medical attendant, but it was evident that if expectoration were present it became a matter for the protection of the public that he should be assisted in making a correct diagnosis, and so the first conclusion was arrived at (1) that every sanatary authority should provide facilities for the bacteriological examination of sputum for tubercle bacilli. The discovery of the tubercle bacillus would practically amount to the voluntary notification of expectorating pulmonary tuberculosis for those cases in which the sputum was examined at public expense. Notification. To voluntary notification the objection raised was the infringement of professional confidence between patient and medical attendant, but in the interests of the patient and the family and friends that could not be advanced against a second proposition (2) that the expectoration of a person suffering from a pulmonary disorder suspected to be tuberculous should be examined bacteriologically at public or at private expense. To obligatory notification the objection made was that the intervention of the sanitary authority was likely to be of a kind to raise the opposition of both patient and medical attendant. On the other hand, the objection concerned the medical attendant from exceeding his duty, and must be so framed as to avoid interfering between the patient and the medical attendant. (3) That in every disposable tenement which tubercle bacilli were found in the sputum upon bacteriological examination by public analyst notification should be obligatory and the precautions required should be prescribed by the registered medical practitioner in attendance. Disinfection. Upon the foregoing followed (4) with regard to sanitation, that after removal on account of change of residence or of entry into a sanitorium, hospital, or home, or at death the medical attendant should report the sanitary authority to enable the room previously occupied by expectorating patient to be disinfected. (5) With regard to the treatment of expectorating pulmonary tuberculosis in any town or home, there were three classes of cases to be provided for—incipient, confirmed, and advanced cases. This meant (a) for the incipient cases sanatoria proper, (b) for the confirmed cases consumption hospitals, and (c) for the advanced cases hopeless incurable consumptives or homes for the dying. The provision might be made either in separate institutions or within the precincts of the same institution as separate structures as was now being done in connexion with some workhouse infirmaries. In the homes of the poorest the advanced cases were by far the most dangerous, the confirmed were intermediate, and for the incipient cases sanatoria afforded the most promising and permanent results. In addition, it would also be desirable, in connexion with sanatoria, to enlist the co-operation of local dispensaries and medical institutions in discovering cases of threatening consumption in order that the benefits of existing charities and convalescent homes might be extended to them so to render the sickly more resistant to the disease, and to re-establish their health. Whilst this was relieving the pressure upon sanatoria at one end, at the other end it would be necessary to organize a system of directing those discharged from sanatoria and convalescent homes to such forms of occupation in the open air as would prevent recurrence of the disease and conduce to the maintenance of bodily health. The last-mentioned—namely, the organization of the provision of suitable occupations for patients on leaving—was yet to be realized, but might best be undertaken in conjunction with sanatoria as well as the co-operation of dispensaries and other medical institutions in selecting patients most fit for admission. At present the only resort for advanced cases of incurable consumption amongst the poorest was the workhouse infirmary, and no doubt special separate provision would, sooner or later, be provided for them in all these institutions, as they would not willingly be admitted to sanatoria, where the period of residence would doubtless be restricted. The sanatorium was being regarded more and more as a place where for a limited period the consumptive might be cared for with a view to isolation, regimen, and education. The isolation would be temporary until the education was complete as to the necessary methods of personal hygiene requisite to prevent communicating the disease to others, and the regimen would be devised to endow the individual with greater resistance and to teach him how to maintain that resistance. On these views of the value of sanatorium treatment in its possibilities of reducing the incidence of pulmonary tuberculosis, Dr. Sykes moved the following resolution:

That the St. Pancras Division [illegible] the Metropolitan Counties Branch and the British Medical Association to urge the Metropolitan Asylums Board to make [illegible] hospitals at Darenth as sanatoria for the consumptives of the metropolis, and that this Division also recommends the Council of the British Medical Association to make a similar representation to local authorities with regard to [illegible] other parts of the kingdom.

The resolution was carried unanimously.

Specimens. Dr. CLARK: Specimens of cerebellar tumour. Mrs. SCHARLIEB: Specimens of extrauterine fetation and blood clot.—Mr. EVANS: Cases of pityriasis rubra.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, February 9th, 1904.

ANATOMY OF SCLERODERMA INFANTUM.

Dr. J. H. DRYSDALE and Dr. H. FAIRBANK communicated a paper on this subject. The chief interest in connexion with this disease, known on the Continent as sclerema, pseudoleukaemia infantum or von Jaksch, was whether it was to be regarded as a disease [illegible], as was maintained in the paper, or as a mere complication occurring in any severe anaemia occurring in infancy. A summary of the clinical features of the disease was followed by a detailed account of the symptoms, which appeared to be characteristic of the complaint. The principal of these were a profound anaemia of gradual onset and chronic duration, an enlargement of the spleen, such as was not met with in other forms of anaemia of infancy, except in the rare cases of true myelogenic leukaemia, a tendency to petechial haemorrhages, and a constant and peculiar change in the condition of the blood. The process changes in the blood were explained and summarized on the basis of a considerable number of examinations made in cases of this type, and the results contrasted with those obtained from infants suffering from severe anaemias of other types. The relations of the disease with some of the other anaemias commonly met with in infancy were considered, and stress was laid on the fact that this type had never under observation developed from any of the other varieties.

Dr. Robert Hutchison could not feel at all sure that the condition was *sui generis*. The blood was a doubtful criterion on which to classify diseases, and he was not in any case certain that the blood picture was characteristic. In severe rickets and congenital syphilis it approximated very closely to pseudo-leukaemia infantum. The anaemia was certainly not secondary to rickets, both were probably due to bad hygiene and insufficient feeding. There was no constant morbid anatomy. It was probably a secondary anaemia due to an unknown specific cause, but its exact classification was uncertain.

Dr. Baumann in the main agreed that the disease formed an entity. The average of 21,400 leucocytes was large; an absence of leucocytosis he had considered one of the features of the condition. The polymorphous appearance of the blood in this disease was in itself a distinctive character. In his cases congenital syphilis was much more frequent.

Dr. G. Newton Pitt was not convinced that the process should not be looked on as a stage of reaction to a poison rather than a distinct entity. The degree of leucocytosis being so variable rather supported this view.

Dr. Norman Moore referred to the possible connexion between the rickety condition and this anaemia. A large spleen occurred sometimes in rickets, and it was possible that in such cases the condition was an early stage of anaemia splenica infantum, both being due to some dietetic or other cause.

Drs. Drysdale and Thursfield replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Anatomy and Physiology.

Friday, January 29th, 1904.

E. H. Taylor, M.D., F.R.C.S., President, in the Chair.

The Pelvic Fascia.

Dr. R. Atkinson Stoney read a paper entitled The Anatomy of the Pelvic Fascia, with Special Reference to its Surgical Importance. He described a new method of demonstrating the connexions of the visceral pelvic fascia, by hardening the subject in formalin, and then having made a mesial section of the pelvis, dissecting the prostate and bladder out of their fascial envelopes. By means of specimens dissected in this way, and drawings and diagrams made from them, he showed that the visceral layer of pelvic fascia, instead of dividing into three layers as usually described, really gave off three complete sheaths, two in a downward direction surrounding the prostate and rectum, and one in an upward direction surrounding the bladder; and that each of these was complete in itself, and in no place did one layer of fascia enter into the formation of more than one of these three sheaths. He also pointed out that the visceral layer of pelvic fascia met the urogenital apparatus at the vesico-prostatic junction and the alimentary canal at the junction of the rectum and anal canal.

Sir Thomas Myles, the President, Professor Fraser, and Professor Dixon spoke.

A Confirmation of Pawlow.

Dr. Harold Pringle exhibited a dog on which he had performed Pawlow's "gastric fistula" operation. Some lantern slides were shown illustrating the operation, and others giving the results of experiments, which showed that the juice secreted by the stomach pouch varied in amount and rate of secretion, corresponding with the results already published by Pawlow.

The President and Professor Thompson spoke.

Blood Films.

Dr. Henry M. Johnston gave a demonstration on the making of blood films by a new method and with a new apparatus, a complete account of which will shortly be published.

Pathological Section.

This Section met on January 15th, its President, Dr. Earl, being in the chair.

Paraffin Method of Embedding.

Professor McWeeney showed an adaptation of the paraffin method of embedding tissues suitable for class purposes. The sections were cut in chains, floated off in convenient lengths as usual, and taken up on thin sheets of mica, to which they were caused to adhere by capillary attraction. The mica sheets were cut up, and the divisions, each bearing a section given out to the class. After removal of the paraffin as usual the students stained and mounted the sections, which adhered throughout to the mica and were mounted in balsam along with it. The exhibitor owed his acquaintance with this useful method to his friend, Professor Coffey, who had acquired it in Held's laboratory.

Ringworm.

Sections of ringworm hairs prepared in the above way were shown. The microsporon spores in the Irish cases which Professor McWeeney had studied gave notably larger measurements than those usually recorded 4 to 6 mikra instead of 2 to 3 mikra as generally given. He also showed young microsporon plants grown from single spores on "French proof agar," as well as in epidermic scales. The acladium form of branching and ectospore formation were well seen in the hanging drop cultures. For staining he had found Heidenhain's iron-haematoxylene after formol-vapour fixation, most useful. The nuclei of the young mycelium were well seen under high powers. He had it in contemplation to undertake a comparative study of Irish skin fungi by the methods he now outlined—namely, isolation of individual spores and culture on French proof agar.

Exhibits.

The President and Dr. Travers Smith. Tuberculous suprarenal bodies and a horseshoe kidney from a case of Addison's disease.—The President. A liver with a deformity ascribed to tight lacing, a portion of the right lobe was turned up so as to come in contact with the upper surface of the liver.—Dr. Neville. Photographs made by Dr. Wickham of various varieties of endometritis, also macroscopic and microscopic sections of cancer of the ovary.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., President, in the Chair.

Wednesday, February 3rd, 1904.

Unruptured Tubal Gestation.

Mrs. Scharlieb showed a specimen of unruptured tubal gestation. It had been removed from a 6-para, aged 30, who was quite well and regular up to July, 1903.

The patient at that time, during what appeared to be a normal period, had an attack of severe pain which lasted three or four hours. During the next three days the patient felt ill and vomited frequently. From July to October there was constant but not profuse haemorrhage, unaccompanied by pain. On examination, a smooth, globular tumour about the size of a billiard ball was found close to the uterus, but separate from it. Diagnosis lay between a tubal gestation and a small ovarian cyst. The patient underwent operation on October 26th, 1903. A spherical dilatation of the inner third of the right Fallopian tube was found. The bladder was adherent to its anterior surface, and coils of intestine to the posterior. There was no paratubal haemorrhage. The specimen consisted of the right Fallopian tube and ovary. The outer two-thirds of the tube were normal with a patent ostium abdominale. A probe could be passed through it down the tube, but did not enter the swelling. The globular portion consisted of the dilated tube, containing blood clot permeated by degenerated chorionic villi. In the centre was a smooth cavity lined by the amnion, and containing a perfect embryo of twenty-four to twenty-eight days development. The umbilical vesicle was a prominent object. No decidua were expelled from the uterus before or after operation. Mrs. Scharlieb thought it probable that the haemorrhage occurred when the patient experienced the severe pain in July.

Dr. Cullingworth said that the number of cases of tubal gestation operated upon before rupture, though increasing, was still so small that it was most desirable that every case should be placed on record. Mrs. Scharlieb's specimen was very beautifully preserved and mounted. The diagnosis of unruptured tubal pregnancy was always attended with difficulty, but that difficulty was much increased when, as in the present case, the gestation was too early for there to be a history of missed menstruation. Under such circumstances, a certain diagnosis must be almost impossible. He understood Mrs. Scharlieb to describe an outer peritoneal covering of the affected portion of the tube, and, beneath that, the muscular layer of the tube wall, covering a quantity of blood clot, with which damaged chorionic villi were irregularly mixed up. Was there any evidence of the chorionic villi having invaded the muscular coat, and did Mrs. Scharlieb's examination of the specimen throw any light upon the question of whether the ovum in tubal gestation was or was not outside the coat of the tube?

Mr. Alban Doran believed that as a large number of tubal abortions were known to occur at the second month it was highly probable that a still larger proportion of tubal

pregnancies terminated even earlier and without symptoms. Perhaps, however, this was not the case, the tube being competent to bear an ovum until it attained a certain size. Much was known about the early stages of tubal gestation, but its clinical features required more study. The discharge of dark blood known to older writers, but not accurately interpreted by them, had been correctly indicated as a cardinal symptom by Dr. Cullingworth. Pain, associated with a pelvic swelling and disturbance of the catamenia, was sometimes absent, haemorrhages probably never.

Dr. Ethel Vaughan also discussed the case.

Specimens.

Dr. Blacker showed a specimen of deciduoma malignum, and Dr. Briggs one of primary carcinoma of the Fallopian tube. The latter specimen was discussed by Mr. Alban Doran and Dr. Heywood Smith.

President's Address.

After the reports of the Treasurer, the Honorary Librarian, and the Chairman of the Board for the Examination of Midwives had been read and adopted, the President (Dr. Edward Malins) delivered the annual address.

Honorary Fellows.

Dr. Pozzi and Sir John Williams were elected Honorary Fellows of the Society.

Officers and Council.

The following list of officers for the ensuing year was announced:—*President:* Edward Malins, M.D. *Vice-Presidents:* A. H. Freeland Barbour, M.D. (Edinburgh); Amand Routh, M.D., B.S.; William Japp Sinclair, M.D. (Manchester); and Herbert R. Spencer, M.D. *Treasurer*; George Ernest Herman, M.D. *Chairman of the Board for the Examination of Midwives:* W. R. Dakin, M.D. *Editor of the "Transactions":* Herbert R. Spencer, M.D. *Honorary Secretaries:* Montagu Handfield-Jones, M.D., and Robert Boxall, M.D. *Honorary Librarian:* Arthur H. N. Lewers, M.D. Eighteen members of Council were also elected.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

J. Nigel Stark, M.D.Edin., President, in the Chair.

Wednesday, February 3rd, 1904.

The X-ray Treatment of Cancer.

Dr. Samuel Sloan read a note on the *x*-ray treatment of three cases of cancer. (1) Vaginal cancer. Bleeding ceased, and pain was diminished, but the size of the growth was not influenced. (2) Cancer of the right breast with destruction of the breast tissue; involvement of the axillary glands and swelling of the arm. Under the influence of the *x* rays the ulcerated surface healed over, but the malignant tissue in the breast and the axillary glands remained as before treatment. When treatment was stopped ulceration began again. (3) Cancer of the caecum. Three applications were made, and each was followed by great pain.

Some Conditions of the Fallopian Tubes.

Dr. A. Louise McIlroy read a paper on some pathological conditions of the Fallopian tubes. Dr. McIlroy grouped the cases into three classes: (1) Hydrosalpinx; (2) haematosalpinx; (3) tubal gestation. (1) Hydrosalpinx was defined as a distension of the tube by watery fluid, caused in every case by an inflammation of the walls of the tube—that was, a salpingitis. It was rarely the result of a pyosalpinx, as most of the cases contained no evidence of pus formation and no micro-organisms had been found. It might be secondary to haemorrhage from a tubal pregnancy or the result of peritonitis sealing a healthy tube, and causing retention of normal secretion. In illustration Dr. McIlroy showed a hydrosalpinx of the left tube. The dilated outer end of the tube formed a cyst the size of an orange. The cyst contained blood-stained fluid. The portion of the tube between the cyst and the uterus had twice undergone rotation. It was separated from the cyst by necrotic tissue, and in its middle third was filled with blood-clot. Dr. McIlroy was of opinion that a hydrosalpinx had formed at the outer end of the tube, and that at a later stage torsion of the inner portion of the tube had taken place. The parovarium and ovary were distinct from the other structures. (2) Haematosalpinx: The causation of this condition was discussed and the following specimens shown by Dr. McIlroy: (*a*) A tube containing blood, there was nothing to suggest pregnancy; the blood was probably the result of an acute inflammation of the tube. (*b*) Two tubes from the same patient; there was no evidence of pregnancy in either of them; the uterus was myomatous; the haemorrhagic condition was believed to be the result of pressure from the enlarged uterus. (3) Tubal gestation: In illustration the following cases were shown: (*a*) Incomplete tubal abortion with haematocele. (*b*) Incomplete tubal abortion; the non-pregnant tube of the opposite side was distended with blood. (*c*) Tube enclosing fetus; rupture had taken place into the broad ligament. (*d*) Unruptured tubal pregnancy.

MIDLAND MEDICAL SOCIETY.

Professor Saundby, M.D., President, in the Chair.

Wednesday, February 3rd, 1904.

Otitis Media.

Mr. Billington showed a case of recovery after operation for cerebral abscess following upon prolonged otitis media.

The patient was a man, aged 25, who for many years had had a chronic purulent discharge from both ears. Three weeks before operation he began to suffer from pains in the head. He then had a "fit" while at work, became drowsy and stupid, and presented evidences of intracranial pressure. These increased, and at the time of operation patient was deeply comatose with Cheyne-Stokes respiration. The skull was trephined without anaesthesia, and a large abscess containing 2 oz. of fetid pus discovered in the left tempero-sphenoidal lobe. This was opened and drained. A week later Stack's operation was performed on the left side. The patient made an uneventful recovery, and two months later was quite well and back at work. His hearing was distinctly good, a watch being heard at a distance of 6 in. from the left ear, he suffered from no mental of physical disablement.

Obstructive Suppression of Urine.

Mr. George Heaton showed a man who had recovered after complete suppression of urine from impacted calculi for a period of 8½ days. He was a blacksmith, aged 40, who had had occasional attacks of obscure lumbar pain for fifteen years.

Three months previously he had a severe attack of renal colic, with haematuria. This was followed by the passage of 20 small calculi. Urinary suppression took place quite suddenly four days before his admission to hospital. It was ushered in with severe abdominal pain, which soon passed off. During 8½ days while he was under observation absolutely no urine was passed or was found in his bladder. During this period he showed no uraemic symptoms whatever until the seventh day, when he began to suffer from muscular tremors, and became slightly delirious. There was no vomiting, no perspiration, no pain, and no loss of consciousness. An exploratory operation was performed in the left loin, but owing to the patient's great size the kidney could only just be reached, with great difficulty, and appeared to be atrophied. On the eighth day the urinary flow suddenly returned. He passed during the next ten days a very large quantity of urine, 173, 175, 145, 127 oz. being passed on successive days. The urine was pale, clear, sp. gr. 1005, and it contained only a trace of albumen. A few weeks afterwards he passed three small calculi. At the present time he was back at work, and was in his usual health.

Mr. Heaton was disposed to think that the left kidney—the one explored—had been rendered functionless by old disease, and that the obstruction had taken place in the ureter of the right kidney. The man was enormously stout, and it was quite impossible to feel any tumour through the parietes.

Cases, etc.

Other cases shown were as follows: Dr. Duncan Lawrie: A boy with paralysis of both lower limbs due to acute anterior polio-myelitis. The point of interest was the ingenious method the patient had of interlocking his legs and moving about with a swinging motion supported on his hands. He could in this way mount and descend from a chair.

Dr. Douglas Stanley (for Dr. Perry): A case of favus in a boy 8 years old. The disease had been present for six years. It was pointed out that favus was rare in Birmingham.

Dr. Kauffmann read a paper on a series of cases of cerebral degeneration in children in which he pointed out the relationship between diseases such as Friedreich's ataxia, cerebellar ataxia, and Little's disease.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Monday, February 1st, 1904.

Thomas Barr, M.D., President, in the Chair.

Introductory Address.

The President, reviewing the work of last session, remarked that a very large proportion of the communications

had dealt with suppurative diseases of the ear and their complications, and suggested that the Society might well devote a part of its time to a study of chronic non-suppurative diseases which did not endanger life but made it almost unbearable. It would be of great advantage to otologists to have authoritative guidance as to the comparative utility of the various methods of treatment in vogue.

Atresia Auris Congenita.

A specimen taken from a stillborn child was shown by Mr. C. H. Fagge in which there was bilateral absence of the tympanic membrane, ossicles, mastoid antrum and osseous meatus.

Dr Tilley remarked on the possible absence of the antrum in adult ears which were otherwise anatomically normal.

Labyrinthine Suppuration.

Dr. Milligan read a paper on this subject. The invasion of the labyrinth from the middle ear and antrum generally took place through the foramina ovale and rotundum and the external semicircular canal. Extensions from the labyrinth were most frequent to the cerebellar fossa by way of the internal auditory meatus and the cochlear and vestibular canals, but might reach the middle cerebral fossa by erosion of the anterior wall of the superior semicircular canal. Facial paresis, vertigo, loss of hearing by bone conduction, and deep-seated pain occurring in a case of middle-ear suppuration would arouse suspicion of labyrinthine suppuration. Mixed cases of labyrinthine and intracranial disease (especially extradural abscess, cerebellar abscess, and suppurative meningitis) were not uncommon. The differential diagnosis would depend largely upon examination of the external labyrinthine walls. Mere brain pressure symptoms might be caused by simple meningeal exudation excited by the labyrinthine disease; on the other hand, the presence of optic neuritis and focal symptoms would favour intracranial complications. The paper was illustrated by cases and by lantern slides of the temporal bone.

Discussion of it was adjourned to the next meeting.

Cicatrized External Meatus.

Dr. W. H. Kelson showed a case of cicatrized external meatus resulting from prolonged suppuration of the middle ear. The ear being free from suppuration and the other ear normal, several members advised leaving it alone.

Exhibits.

Mr. Hugh E. Jones: A portable surgical hand motor.—Mr. W. C. Bull: Temporal bone from a case of cerebellar abscess; purulent otorrhœa twenty years; no intracranial symptoms; facial paralysis fourteen days; complete postaural operation; opening into Fallopian canal discovered; death third day after operation.—Mr. Hunter Tod: A sarcoma of the external meatus removed from a woman of 27.

Medical Society of London.—At a clinical meeting on February 8th, Dr. C. E. Beevor, Vice-President, in the chair, Mr. W. G. Spencer showed, on behalf of Dr. de Havilland Hall, President, a case of ascites, presumably due to chronic peritonitis following puerperal fever, treated by abdominal incision and drainage.—Mr. V. Warren Low showed a case of extreme atrophy of the testicles due to syphilis; Dr. F. Parkes Weber one of neurotic alopecia of the scalp and face attributed to shock; and Mr. R. Lake, a case with Ménière's symptom complex.—Dr. F. Care Coombs showed a case of cerebellar disease of rather sudden onset with gradual improvement. There was ataxy, reeling gait, tremor, nystagmus, slight weakness of the left face, excessive knee-jerks, and extensor plantar reflexes, with little or no headache or vomiting, and no optic neuritis; the condition was thought to be probably due to thrombosis.—Mr. G. Gask showed a case of ossification of tendons of the leg; Mr. J. K. Murphy a case of parietal meningocele, and one of congenital deformity of the extremities in an infant; Mr. H. J. Waring, a patient with a deficiency in the skull 2 in. in diameter, due to a gunshot wound, through which projected an arachnoid cyst, which was excised, and the aperture closed by a gold plate fixed with gold nails; Mr. Edmund Owen, a case of ischaemic palsy in a man aged 38, due to the treatment of a fracture of the ulna with a too tight plaster-of-paris bandage. In addition to muscular wasting, paralysis, and sclerosis there was adhesion in the joints and impaired sensibility of the hand, the pathology being probably a myositis with implication of the nerves of the forearm.

Ophthalmological Society.—The Colour Vision Committee handed in its report at the meeting on January 28th. The Committee were of opinion that Holmgren's test was sufficient for the detection of a large number of colour-blind cases; but they agreed with Dr. Edridge-Green that some cases of colour-blindness could not be detected by Holmgren's test however skilfully and fully used; and that other cases which satisfied Holmgren's first test (pale green), and would therefore be passed as normal in most ordinary routine examinations, were exposed by the careful use of Holmgren's second test (rose test colour). They further agreed that some cases were only to be detected by the use of the lantern. The discovery of the defect could, as a rule, be made with certainty by Dr. Edridge-Green's modification of the wool test. They also drew attention to the importance of the shortening of the red end of the spectrum in some patients and to the necessity of having a test that would detect such cases. Shortening of the violet end was also important when violet or purple lights were used.

Society of Anaesthetists.—At a meeting on February 5th, Mr. C. Carter Braine, President, in the chair.—The President read a paper on "Waterlogging" of the Lung, and reported a fatal case. Waterlogging was barely mentioned in the textbooks on anaesthetics and was generally due to the injudicious administration of ether when there were obvious signs that chloroform or a mixture should be substituted. The causes were (1) inhalation of fluid vomit, (2) inability to get rid of bronchial secretion, (3) a combination of (1) and (2). Washing out the stomach was not a reliable remedy for the first cause as regurgitation still continued. The condition occurred in feeble people of advanced age with bronchitis and emphysema and was slow in its onset; the term should be confined to those cases in which there was inability to get rid of bronchial secretion. The case reported was an old lady of the type just mentioned who had suffered from strangulation of the intestine for three days. Chloroform was administered and the operation performed while the patient lay in the lateral position. Free vomiting occurred during the first thirty minutes, then the helix of the ear was noticed to become very blue, the pulse became feeble, respiration, wheezing and cyanosis increased, and the patient gradually died. The chest appeared "waterlogged" as no air could be driven out or inhaled. There was no necropsy, but in Mr. Braine's opinion death was due to the choking of the tubes by gradual accumulation of bronchitic secretions and not to inhaled vomit, which always escaped freely.—The Junior Secretary read (for Dr. Luke of Edinburgh) notes of a Case of Great Danger during administration of nitrous oxide; Dr. McCardie reported one in which death occurred. In both cases the anaesthetic was administered for extraction of teeth.

Erratum. In the report of the proceedings of the British Laryngological, Rhinological, and Otological Association, which appeared in the British Medical Journal of January 30th, the word "sepsis" was printed instead of "asepsis." The meaning of the passage, however, was clear from the immediate context as well as from the account given of the methods adopted by Mr. Stuart Low to check his results and his description of the bactericidal properties of kelvolin vapour.

REVIEWS.

GYNAECOLOGY.

Diagnosis can only be learnt by careful clinical study, but there are other essentials besides the patient. A fair knowledge of anatomy, physiology, and pathology is recognized as needful for the learner—that is to say, for the dresser, clinical clerk, and assistant in an out-patient department. As a rule the student is fairly educated in these sciences. A modicum of general and systematic medicine and surgery is likewise needful, and the teachers in our medical schools are rarely behindhand in instructing their classes in the elements of those branches of their professional studies. Granted that the learner is fairly educated in the sense just explained, there remains much difference of opinion as to what is understood by the direct teaching of diagnosis. In Mr. Bishop and Dr. Melland's *Essentials of Pelvic Diagnosis* a specified form of diagnosis is taught directly. Some authorities

Essentials of Pelvic Diagnosis. By [illegible] Bishop, F.R.C.S.Eng., Author [illegible] Diseases and Fractures, Honorary Surgeon, [illegible] Hospital for Women and Children, and [illegible] Lecturer on Elementary Anatomy [illegible] M.R.C.P., Honorary Physician [illegible] and Co. 1903. (Demy 8vo. Pp. [illegible]

may hold that with a basis of general education all that the student of diagnosis requires is that which Mr. Bishop rightly indicates when speaking of bimanual palpation in the female. "The secrets of success in bimanual examination," he says, "are a warm hand, a gentle touch, and patience. Any hurry is fatal. It is well to distract the patient's attention if possible by questions the answers to which require some thought, or by directing her to count aloud." Excellent advice, without doubt. For diagnosis, however, certain instruments are requisite. The authors' pages on their use are of value, but a little more caution about gaining dexterity, and making sure about a correct interpretation of appearances revealed by such appliances would have been advisable. The learner is warned about the dangers of the uterine sound. "It is not wise to use a sound except with the patient in bed, where she can lie quiet for the remainder of the day." Unfortunately this precaution is often disregarded. Again, Mr. Bishop, in treating of Mr. Hurry Fenwick's urethroscope, quite properly reminds his readers that the dilating of the urethra with air requires certain precautions lest very ugly accidents should follow. But cystoscopes and urethroscopes demand a considerable amount of practice before their bare application can be learned, and a great deal more before the beginner can make a sound diagnosis with their assistance. Such an acquirement can only be learned by attending the practice of an expert. The special system of this work remains to be considered. Dr. Melland's appendix is easily judged; his directions for the examination of the blood, tubercle bacilli, and gonococci are clear, and quite suited to their purpose. Mr. Bishop's method is less easy to explain and criticize. He divides the main part of his treatise into "Lines of Diagnosis" and "Diagnostic Tables." In the former certain general symptoms under a heading—abdominal walls, prostate, bladder, etc.—are printed in italics, and under them are paragraphs explaining the special symptoms of each special disorder which lies in the limits of the heading. All these paragraphs are numbered. The tables are arranged in paragraphs, in which the subdivision of symptoms is carried out more minutely than under "Lines of Diagnosis." Lastly, there is an index of names of diseases, each disorder bearing numbers referring the reader both to the "Lines" and the "Tables." "Illustrative Cases" are appended, some of which were accurately traced by the "Lines" and others by aid of the "Tables." Altogether this manual, though hardly suitable for the student, is likely to aid the clinical teacher, while it will prove of value to the practitioner.

A formidable array of short papers, monographs, and clinical notes on the hot-steam treatment of uterine disease has been placed at the disposal of the profession during the past few years, and now at last we have a textbook. Dr. PINCUS has prepared his *Atmokausis and Zestokausis*[1] with all the care and thoroughness familiar to the reader of German works of this type. The references are, as usual, very complete and carefully entered. When we speak of this work as a "textbook" we do not mean to employ that word in an educational sense, as when it is applied to a publication on general pathology or anatomy. It is only to the experienced who were much in need of such a manual that it can serve as a textbook, but they will find it of the highest value, and it deserves a place in every medical library. The author has for some years been known as the apostle of atmokausis. Its pioneer and establisher, Snegirev of Moscow, first employed it systematically as a haemostatic in the eighties, and first made public his results in 1894. But as Dr. Blacker, whose labours are duly recognized in this work has pointed out, Ludwig Pincus has done more than any one else to establish vaporization of the uterus on a firm and scientific basis. Dr. Blacker's views on the advantages of this treatment, which he holds to be definite but limited, will be found in the papers published respectively in the first and third volumes of the *Journal of Obstetrics and Gynaecology of the British Empire*. It is to be regretted that the second, entitled "The Effects of Vaporization, as shown by 4 Uteri removed by Vaginal Hysterectomy fourteen days after the operation of Curetting and Steaming had been performed," did not appear until Dr. Pincus's work was about to be issued. The subject is too complicated for review in detail. Moreover, those of our readers who take an interest in atmokausis are well acquainted with the author's views and methods. To them this work will be very grateful. Needless to say, Dr. Pincus defends vaporization with great vigour. He, as might be expected, stoutly opposes Dr. John Campbell's opinion that atmokausis is an unnecessarily severe and dangerous proceeding (words spoken at the discussion on metritis and malignant disease at the Cheltenham meeting of the Association, and quoted by Dr. Pincus from the BRITISH MEDICAL JOURNAL, vol. ii, 1901, p. 966). Quite as naturally our author approves of Dr. Blacker's opinion that if in any one case total extirpation of the uterus were avoided by the use of atmokausis, that alone would be sufficient to justify our retaining the operation as an approved surgical measure. Will the general surgeon adopt it extensively? That is what remains to be seen, but now he has the advantage of this work to guide him.

In *Arteria Uterina Ovarica*,[2] Dr. BYRON ROBINSON writes out the working of his problem in full, perhaps almost more minutely than was absolutely required for its clear demonstration, but he will thereby convince the professional anatomist all the more thoroughly. "Byron Robinson's circle" must be well known to all who study contemporary anatomical literature. The author is correct when he insists that the uterine and ovarian arteries of textbooks are properly one vessel derived from the abdominal aorta ("ovarian") the internal iliac ("uterine") and deep epigastric (artery of the round ligament). Fig. 3 shows this threefold origin very clearly. The anastomoses around the cervix, well-known to operators, are partly derived from the utero-ovarian arteries, partly direct from the internal iliacs. Hence a double circle exists for the benefit of the internal genital organs: one is the author's "straight segment" consisting of the aorta, common and internal iliacs and their cervical anastomoses, whilst Dr. Robinson terms the other the "spiral segment." The latter is formed by the utero-ovarian arteries and their cervical anastomoses. The "spiral" character of this circle represents the necessity for a very varied amount of blood supply during childhood, menstruation, pregnancy, parturition, the menopause, and senility. The author summarizes very well the anatomy of the cervical loop and of the "oviducal segment" of the utero-ovarian artery. For clinical and surgical purposes a knowledge of the cervical anastomoses and the relations of vessels around the cervix to the ureters is of the highest importance. Dr. Robinson analyses this subject thoroughly. We are glad to find that the author makes use of the old process of injection and corrosion so serviceable in the investigation and demonstration of the course of vessels. He employs paraffin or celloidin with an acid for this purpose. The drawings are of varying merit though on the whole clear. Their multiplicity is an advantage when it is borne in mind that they serve for demonstrative purposes. The terminology is open to criticism, transatlantic Anglo-Saxon being as ill suited for the assimilation of Graeco-Latin words as is "the dialect of English still spoken in Europe." The English of the text is, we must note, excellent both for style and for clearness, but we cannot understand why "puerilas" and "senescence" should be employed. Again, "oviducal" as an adjective for the Fallopian tube is bad, *ducal* being from *dux, ducis*, not from *ductus, ductus*: it is also superfluous, as tubal has long been mentioned and adopted, so that "ducal pregnancy" would sound very unfamiliar to us. We therefore suggest to the author a little simplification of many of the terms which he employs. For his extreme painstaking, already familiar to us in his standard work, *The Peritoneum*, Dr. Byron Robinson deserves the highest praise, which should be extended to his assistants, whose services he gracefully acknowledges in his preface.

The value of Dr. GALABIN'S *Diseases of Women*[3] is self-evident, its author being a teacher who has gained wide

[1] *Atmokausis and Zestokausis: The Steam Treatment of Uterine Disease*. By Ludwig Pincus, M.D. Berlin. With Appendix on Atmokausis in Obstetrics and Surgical Intervention. By Byron Robinson, B.S., M.D. Chicago. Author of *Practical Surgery*. Edited for the Profession in Great Britain and Ireland by F. H. Cocks, M.D. Lond. Demy 8vo, pp. [illegible] illustrations. [illegible]

[2] *Arteria Uterina Ovarica: The Blood-Supply of the Uterus, Ovary, and Tube*. By Byron Robinson, B.S., M.D. Chicago. Author of *Practical Surgery*, etc. Edited for the Profession in Great Britain and Ireland by F. H. Cocks, M.D. Lond. Demy 8vo, pp. [illegible] illustrations. [illegible]

[3] *A Manual of the Diseases of Women*. By Alfred Lewis Galabin, M.A., M.D., F.R.C.P., Consulting Physician to Guy's Hospital, etc. Sixth edition. London: [illegible]. Demy 8vo, pp. [illegible], 252 illustrations. 16s.)

experience in a great medical school. That experience applies to knowledge of the morbid physiology of the female genital tract as well as to the imparting of instruction to others. The third edition has not only been extended to double its original size, but 149 new figures have been added, including 23 photomicrographs. Many gynaecologists may think that more of the other drawings with the corresponding letterpress might well have been rejected: thus, certain antiquated microtomes for the division of the intestines are still represented. And though the author strongly warns the reader of the dangers attending their use, it would, we believe, have been better to have omitted them entirely. On the other hand, some of the new dilators represented in this edition are, speaking plainly, formidable things to teach, but the treatise is meant for the qualified as well as for the student. Two or three needless of instruments might advantageously have been withdrawn in favour of a few sketches illustrating the repair of a damaged ureter during operation, described in print only, at p. 97. The newly added drawings are very good. Dr. Worrall's photomicrographs are superior to the average of such productions in modern textbooks, and it is satisfactory to find several drawings from Dr. Hubert Roper's standard work included in Dr. Galabin's new edition, since for demonstrating morbid anatomy and "coarse" appearances, they are up to the present unequalled, except perhaps by Howard Kelly's publications. We look with interest for the verdict of so well recognized an authority as Dr. Galabin on several stock subjects. We need not dwell on the after-treatment of abdominal cases, since with careful surgery and nursing patients do well under very different methods and lines of treatment. Dr. Galabin is cautious about morphine, whilst many experienced operators reject it even as a subcutaneous injection. It is satisfactory to find that early opening of the bowels is recommended. Dr. Galabin declares after due consideration of the subject, that there are no statistics available indicating the real mortality of fibroid tumours. He rather favours operative treatment.

Any patient who has a fibroid tumour which renders her anæmic, or produces anæmia, or who has a growth [illegible] size and is not very near the menopause, will be wise to choose the alternative of operation if she is prepared to run the slight [illegible] risk instead of the more serious dangers [illegible]

Dr. Galabin, as before, teaches the intelligent use of the pessary. The abuse of that instrument before the days of gynaecological surgery is familiar to us; one bad result is the excessive practice of plastic operations of doubtful permanent benefit among specialists; and another is an underrating of the evils, and above all of the discomforts, caused by displacements, among practitioners and general physicians and surgeons. Every medical man should know how to introduce Hodge's pessary, which is justly rated by Dr. Galabin as practically of far more value than all other pessaries put together. The judicious treatment of displacements, based on a truly scientific knowledge of their nature, is well understood by Dr. Galabin, and those who learn from him will avoid losing the confidence of their patients by speaking of a prolapse as "nothing" on the one hand, and will not on the other hand be over-eager to do a hysteropexy whenever they detect a symptomless flexion. Turning to the subject of ruptured perineum, the author, we find, distinctly gives preference to the old operation over flap-splitting, and there can be little doubt that the former is the better to teach, although dexterous experts may make as good a new perineum when they practise Tait's procedure. Dr. Galabin's later views on deciduoma malignum—a subject which should always be kept before the attention of the general practitioner—are explained in this new edition. He shows that there are clinical grounds for the theory of a causal relation between vesicular mole and this newly-discovered, terribly malignant malady. The substance of the author's opinion on this question was summarized in his remarks during the discussion on Dr. Teacher's paper on Chorio-epithelioma, which took place in June, 1903, before the Obstetrical Society.

The popularity of the *Practical Textbook of the Diseases of Women*[1] has long been recognized, and Dr. Lewers as a gynaecologist of repute rightly keeps his new editions up to date. It is an excellent manual for the practitioner and for young medical officers of hospitals, as well as for experts too busy to read up the original records of new methods of treatment. For that purpose the clinical reports and the argumentative passages about operative treatment are of definite value. The chapter on carcinoma of the cervix will be read with interest and profit, as the author is on his own ground. Such a chapter is not by any means so suited to the student. In the preface to this edition the author decries ventrofixation as a practice which is getting out of favour with authorities in abdominal surgery. This question is very serious: the observations at page 446 are perhaps a little too meagre, considering the importance of the subject; but Dr. Lewers is right in preferring gauze to glass tubes.

Dr. Pryor's *Gynaecology*[2] is written in an interesting manner, and his method of printing all distant topics such as small capitals is commendable as a book meant to be educational. He declares in the preface that his manual is chiefly notable for the absence of casterology and minute anatomy, and for the prominence given to non-operative as well as operative treatment. No doubt a smattering of knowledge about germs is worse than useless to the beginner, while the principle about treatment is excellent; but, as in nearly all current literature on the same subject, the student glancing through the pages of this work will naturally conclude that gynaecology largely means major surgery. The author admits, however, that "by no means does the discovery of a myoma indicate a surgical operation," and this opinion is printed in small capitals. Dr. Pryor, it must further be noted, is not over-sanguine about the results of hysterectomy for cancer, and takes care to remind his readers that both the reported low mortality and the alleged immunity from recurrence, never very high at the best, are confined to the published records of operators who are thorough masters of technique. He prefers abdominal hysterectomy to the vaginal operation, and when the former appears to be dangerous, he prefers high amputation of the cervix, for reasons already advanced by Sir J. Williams and others. In inoperable cancer he advocates ligature, through an abdominal incision, of the ovarian iliac, and obturator arteries, in order to reduce the nutrition of the malignant growth, a procedure too bold and too uncertain as to its results to be taught dogmatically. Dr. Pryor in the preface deprecates leafing the pages of a work on diseases of women with general surgical questions, but he is right in waiving this rule when he treats of haemostasis. The question of ligatures is most serious, not only as regards slipping and fatal haemorrhage, which is not very common, and oozing with the development of big clots on pedicles, sources of dangerous adhesions, but also in respect to distant infection from the bowel and migration of the ligature into the cavities of hollow viscera. Hence his tables of the relative virtues of catgut, chromic kangaroo tendon, silk, silkworm gut, and wire are worth the reader's consideration. The illustrations are good, and those which show operative measures—a very large proportion—are fairly clear.

Dr. Norström's *Manual Treatment of Diseases of Women*[3] is described as a supplement, in English, to a book in French published in Paris in 1892, and reviewed in our columns of June 4th, 1892, p. 1168. The author has been applying the methods of Thure-Brandt for the last twenty-five years. The cases upon which this work is based have been mostly observed in the St. Louis Hospital in Paris, in the service of Dr. Péan, and comprise those which that eminent operator did not wish to treat surgically. Those who know anything of Dr. Péan and his work will be well aware that in any case for which anything surgical was to be done Dr. Péan was not the man to be content to undone. The cases that remain, with which Dr. Norstrom has mainly dealt, are cases of chronic pelvic pain, adhesive perimetritis without appreciable enlargement of tubes or ovaries, parametritis, chronic metritis, chronic oöphoritis, and ovarian pain. Now these are the cases the symptoms and prognosis of which depend largely upon the patient's idiosyncrasy and general health. Perimetritis and parametritis, when there is no encysted collection of pus, tend naturally to recovery. In chronic metritis, ovarian pain, menstrual irregularities, etc., strong women after undergoing some intellectual treatment often make up their

[1] *A Practical Textbook of the Diseases of Women*. By Arthur H. N. Lewers, M.D.Lond., F.R.C.P.Lond., Surgeon to Out-patients at the London Hospital, etc. Sixth Edition. London: H. K. Lewis. 1904. Pp. 588. 12s. 6d.

[2] [illegible] By William H. Pryor, M.D. [illegible] Medical School, New York City, etc. [illegible] Pp. [illegible]

minds to take no notice of their local pain. Weakly, anaemic, neurasthenic women drift from doctor to doctor, and undergo cure after cure; and with each fresh treatment the excuse their amiability often leads them to give for discontinuing the previous one is that they feel so much better. For these reasons it is not a scientific inference to conclude that because such a patient improved, or said she improved, under a particular treatment, therefore the treatment was the cause of the improvement. Now, this elementary caution is not present to Dr. Norström's mind. All the improvement that he has seen accompany massage he attributes to it. He says he has tried to ascertain the after-history of his cases, but has only been able to do so in a small proportion. We gather that pelvic massage is no trifling matter. The author "defies the physical strength of midwives to reach pelvic exudates that are high up." "When a strong muscular man practises pelvic massage a number of times in an afternoon he becomes tired, and his tactile sense is blunted." Dr. Norstrom is an enthusiast and, we believe, an honest enthusiast—but we have not gathered from his book a conception of any class of case that can be cured by massage, in which the same benefit cannot be attained in any other way. Till such cases have been defined the position of pelvic massage must remain doubtful.

Dr. SCHENK'S book on sterility in women[1] is one which we cannot commend. To say that it has been written and published for the sake of advertising the writer is to impute a motive; we will, therefore, only say that we know not why it has been written. It adds nothing to our stock of knowledge, for the author has nothing new to bring forward. It is a compilation from the writings of other people. It is not a good compilation, for it gives a very incorrect view of the condition it professes to describe. The greatest of all causes of sterility, age, is not alluded to. Nor, on turning to the index, do we find anything about incompatibility. The consequence is that the book gives a greatly exaggerated idea of the frequency with which sterility can be cured by treatment. Many conditions are dragged in as causes of sterility without there being the least evidence of their effect, such, for instance, as vaginal cysts, inflammation of Bartholin's gland, ovarian cysts. Of scientific investigation of the subject we find not a trace. Such influence as the book may have upon practice—fortunately, we think, not much—will be bad.

INDIAN REPORTS.

BOMBAY HOSPITALS AND DISPENSARIES.

THE report for the year 1901 submitted by Surgeon-General G. Bainbridge, M.D., represents the detailed statistics of that year, and takes cognizance also of the transactions of the two preceding years. It includes both metropolitan and provincial institutions. It is very properly prefaced by a brief summary of the climatic features and state of public health of the triennium. The period was emphatically unhealthy. The provincial death-rates of 1899, 1900, and 1901 were 35.7, 70.1, and 37.1, against a preceding decennial mean of 30.8. Cholera, small-pox, and bowel complaints were very deadly in the famine year 1900. Dr. Bainbridge's report is concise and interesting, but too arithmetical. Administrative questions relating for example to construction, fittings, and appliances, separate accommodation for women, infectious, and moribund cases, attendance, nursing, etc., which might be looked for in a triennial review, are conspicuous by their absence. On December 31st there were 627 institutions open, of which 60 were state-supported, 188 State-aided, 65 supported by municipal and local funds, and 314 private. The statistics of all these are shown severally, but those of the first two classes in greater detail. These underwent an increase of 16 during the three years, and the municipal and local-fund institutions of 30. The total number of patients treated [illegible] a total 1899 year's decided increase as compared with preceding years. There was some decrease in indoor patients owing to a healthier year, and the death-rate per cent. among these treated was 10.6 as compared with 15.1 and 13.3 in the two preceding years. There was an increased number of cases of recoveries by out-door treatment, but a great decrease in small-pox, cholera, and bowel complaints. Although 153,685 cases of plague occurred in the Presidency, only 104 were treated in dispensaries. The record of surgical operations is satisfactory; it includes 709 extractions of lens, 370 lithotomies with 32 deaths, 64 [illegible]tomies with 5 deaths, and 773 litholapaxies with 32 deaths, 34 operations for radical cure of hernia with [illegible] and 11 ovariotomies with 3 deaths. The total income of the year was Rs. 10,95,528 and expenditure Rs. 10,85,038; Government contributes 62 per cent. of outlay. Subscriptions and donations are decreasing. There are four State-aided leper asylums and seven hospitals and 11 dispensaries for females supported in part or whole by Government.

CHARITABLE HOSPITALS AND DISPENSARIES IN ASSAM.

Colonel C. W. Carr-Calthorp's triennial report prefixed to the returns of 1901 shows an increase of institutions from 108 to 131: the latter figure including 18 State and State-aided, 106 municipal and 6 private dispensaries. The attendance of both indoor and outdoor patients increased during the same period by 18 per cent., the figures for 1901 being 734,682. The death-rate among indoor patients was 12.11, or, excluding paupers and destitute coolies, a large proportion of whom are received in a moribund state, 9.87. These rates are a great improvement on preceding years and it is noted with satisfaction that the gardens are making better hospital arrangements for coolies: 947 "waifs and strays" were admitted into charitable dispensaries in 1901 of whom 240 died or 25.4 per cent. Malarial fevers as usual were most numerous. The disease known as kala-azar is said to be on the wane. Worms, skin diseases, and bowel complaints give large totals. The admissions from cholera and small-pox during the triennium were comparatively few. The number of important operations performed shows a tendency to rise. The total of 15,089 includes 16 cases of lithotomy, 3 of litholapaxy and 20 of extraction of lens—very small numbers as compared with other provinces. The financial condition of these dispensaries is sound. The income has increased during the triennium. Government pays about 40 per cent. of the whole cost and local funds most of the balance. Subscriptions are declining in amount. The statistics of the year 1902 indicate further progress in every respect. The Principal Medical Officer writes regarding the provision of separate accommodation for females as follows: "Our measures for providing separate consulting rooms, with separate entrances for females have not altogether proved a success. In some of the hill districts the women object to enter them and will not even sleep in the wards set apart for them. They do not mind in the very least the proximity of men of their own race, but they are sure they won't sleep apart in rooms by themselves.

CHARITABLE DISPENSARIES IN THE HYDERABAD ASSIGNED DISTRICTS.

The details of these institutions undergo little variation from year to year. There are 47 dispensaries in the six districts, and the important civil hospital at Secunderabad is included in the report, but its statistics are given separately. We have received a triennial report for the years 1899, 1900, and 1901 and some brief notes on the statistics of 1902, both prepared by the Inspector-General of Dispensaries, Lieutenant-Colonel C. L. Swaine, M.D. The report and notes are very bald, and do little else than summarize the appended tables. The attendance of 1900 was depressed by the famine, and of 1902 by the prevalence of plague. The subject of the kind of diseases treated is passed thus: "Of the 30 groups of diseases treated, 20 show an increase and 10 a decrease compared with the previous year." This sort of thing is a veritable *reductio ad absurdum* of the arithmetical method. The record of surgical operations is satisfactory. There were 29 extractions of lens done in 1902 and 38 removals of vesical calculi, 34 by cutting and 4 by crushing. The absence of litholapaxy indicates backwardness. The financial condition of these dispensaries is satisfactory from the point of view that they save money yearly. Rs. 7,300 were invested in 1901, and 4,000 in 1902. Government contributes about 60 per cent. of income, and local and municipal funds about 20 per cent. Subscriptions in 1902 amounted to Rs. 1,752. The sale of opinions by post-office and [illegible] cheques is a feature. The Lady Dufferin Hospital for females at Aurungabad is reported to be doing good work. There is a Lady Curzon Maternity Ward attached to the Secunderabad Hospital, which was built by Sir Ram Gopal at a cost of Rs. [illegible].

LEWIS LEWIS, M.D. Dunelm, formerly in practice in Plymouth and in Buxton, was called to the Bar at the Middle Temple on January 20th, 1904.

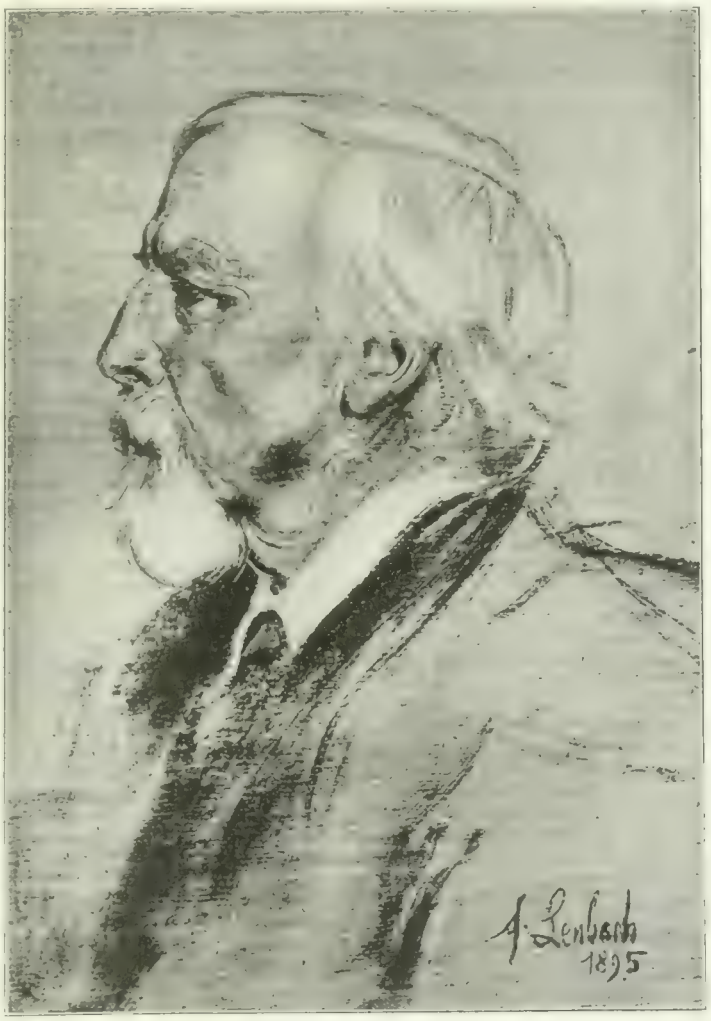
[1] *Die Prognose und Therapie der Sterilität des Weibes* (Pathology and Treatment of Sterility in Women). By Ferdinand Schenk. Assistant at the Royal Obstetrical Clinic and Gynæcological Polyclinic, Berlin. Vienna and Leipzig: Urban and Schwarzenberg. [Demy 8vo, pp. 238. M. 5.]

NOVA ET VETERA.

PROFESSOR KUSSMAUL'S REMINISCENCES.

During the last quarter of the nineteenth century there was hardly a physician on the Continent with a higher clinical reputation than Professor Kussmaul. He was equally distinguished by his shrewd power of observation and by his genial good nature. When he had brought his fruitful professional career to a close, he employed his leisure in stringing together the random reminiscences of his early years, and recounting them in popular form. The book[1] is written in an easy, unaffected style, and enlivened by many passages of genuine if somewhat ponderous humour.

Adolph Kussmaul was born in 1822, the eldest son of a country practitioner, a career which he himself desired at first to follow. The name Kussmaul signifies Kiss snout, and afforded much amusement to its owner's fellow students and teachers. One of the latter, however, the great Naegele, came out with the suggestion that this must be derived from Oribasius, the famous physician of Julian the Apostate. Unfortunately a more learned philologist pointed out that Oribasius was derived not from Os, the mouth, and basium, a kiss; but from the Greek ὄρος, mountain; and βαίνω, I walk; so that the Germanized form would have been Bergmann. As a matter of fact, though Kussmaul does not refer to this, the Swabian aborigines when conquered by the Germans had no names at all (the same is the case in Bosnia to this day), and had to put up with the sobriquets conferred upon them by their victors. Hence medical science has been enabled to rank among its greatest exponents the bearers of such distinctive appellations as Rindfleisch, Nothnagel, Gussenbauer, and a host of others.



Professor Adolph Kussmaul.

Kussmaul's grandfather was officially entitled Chirurgus, although he had received no medical training. He had most of the practice in his native village; the real doctor only came two or three times a year, and then the folk used to gather together and inquire who was going to die, for it was only in such circumstances that his aid was sought.

Adolph Kussmaul's father spent some time after he had qualified in Schoenlein's clinic in Würzburg. His son has transcribed some of the notes taken from the lips of the great professor. Here is one:

> Liver and spleen are two opposite poles, as also are iron and mercury. Iron is the hardest and purest, mercury the softest metal. Iron is as valuable in diseases of the spleen as mercury in those of the liver.

These words were uttered hardly more than eighty years ago by a clinician far in advance of his time.

Adolph Kussmaul's first schoolmaster was an old soldier, whose qualifications were service in the dragoons, together with a knowledge of reading, writing, and the first four rules of arithmetic, in addition to which he possessed a hearty hatred of the peasantry, which eventually led him to murder his son-in-law, and so end his own days in prison. Kussmaul's next experience, and a much more pleasant one, was in the home of a kindly country parson, who not only taught him some book learning, but encouraged him to devote himself to the study of natural history, especially botany. Later on he went to various schools, where he does not appear to have been specially distinguished in any way. He assisted in plaguing his French master and spent much time in learning to mend quill pens.

In 1838, he went to the Heidelberg Lyceum, which was much inferior to those he had previously attended. Such little learning as was imparted, and some of the professors seem to have been almost phenomenally ignorant, was not to the liking of Kussmaul's younger brother, who ran away and enlisted as a soldier. Many years afterwards he took part in the war between the United States and Mexico and had his arm shattered by a bullet. After a prolonged illness he recovered, and on returning to Germany was at once asked by the medical member of his family what he had done with the splinters.

> "Oh," he replied, "they are in all sorts of places, in the lake by Mexico City, in the Gulf of Mexico, in the Mississippi and Ohio, some in the Atlantic Ocean and North Sea, and the last in the Rhine and Neckar." "Why have you scattered them so?" "Well you see," he replied, "When the last trump sounds we have all to appear whole; now I have been a big sinner, so I want them to take as long as possible collecting me."

In 1840 Kussmaul went to the University of Heidelberg, of which the medical faculty was just beginning to acquire distinction. Ackermann had been Professor of Anatomy, Physiology, Medicine, and Surgery until his death in 1815. In the following year Tiedemann was appointed Professor of Anatomy and Physiology, and Chelius of Surgery and Ophthalmology. Tiedemann was a distinguished anatomist, but a remarkably dull teacher, reading all his lectures in a monotone, as indeed did most of his colleagues. It is recorded of him that one of his colleagues showed him some verses he had composed, in which among other things he remarked that "his heart was full to the brim," to which Tiedemann replied, "My dear fellow, the heart is not shaped like a washhand basin." Among Kussmaul's fellow-students at this time almost the only one to acquire subsequent distinction was Moritz Schiff, the physiologist, who was even at this day possessed by the insatiable thirst for knowledge which retained its hold upon him to the last.

Tiedemann had two assistants, both of whom have left names memorable in anatomical science. The one, Kobelt, was an excitable little man; the other, Bischoff, afterwards the famous embryologist, was of massive build and calm disposition. Their characters were as incompatible as their appearance, and they quarrelled so persistently that eventu-

[1] *Jugenderinnerungen eines alten Arztes* [Youthful Reminiscences of an Old Physician]. By Adolf Kussmaul. Second edition. Stuttgart. 1899. (Pp. 425, with portrait.)

ally both had to leave Heidelberg. The teacher to whom Kussmaul owed his first introduction to clinical medicine was Puchelt, to whom he always referred in terms of the highest esteem. Puchelt was a man of exceptional industry, learned in his profession and a keen enthusiast into the bargain: he was one of the first to employ anatomical data in the establishment of his diagnoses. He devoted considerable time to the study of cadaveric alterations in the right iliac fossa, and was the actual inventor of the word perityphlitis. Unfortunately, like most of his colleagues, he was a dry lecturer, and was thrown completely into the shade when Pfeufer came from Zurich in 1829 to assist him in the charge of the medical clinic. Pfeufer appears to have fully imbibed the newest doctrines of that time, but except in the matter of perspicacity to have been inferior to Puchelt as a physician. He went to the great stress on the cultivation of the senses as aids to clinical investigation. He laid particular stress upon that of taste; it is hinted that it was owing to his resolute practice in this direction that he became a martyr to gout, although he was always upholding the example of Sydenham in his class in proof that this was a disease of intellectual people.

The Heidelberg professor of surgery was Chelius, a fine operator, but somewhat lucky in his results, considering that many of his operations were performed immediately after he had given his demonstrations of operative surgery upon the cadaver. The most distinguished member of the Heidelberg medical faculty, however, was the obstetrician, Naegele, who was not alone a brilliant teacher, but a genial, courteous, and witty gentleman. His personal influence over Kussmaul was always very great, and he took the warmest interest in his distinguished pupil, who records that in his day the science of gynæcology was entirely unknown in Heidelberg. Naegele, though extremely successful in private practice, did not shine so much therein as in hospital work, being, it appears, somewhat over-anxious.

Next to Naegele the greatest ornament of the faculty was Henle, who does not, however, appear to have excited the same feelings of reverence in Kussmaul. Of his brilliancy no question is made; he was, however, of an imaginative disposition, prone to theorize and to defend his views with vigour, if not violence. He quarrelled especially with Tiedemann, and indeed had no patience with most of the old professors, whom he described as a pack of antiquated bores. Coming as he did fresh from the influence of the great Johannes Müller, he was perhaps inclined to underrate the work of sound if less brilliant men of science and of clinicians, but at the same time it must be confessed that he was far greater than any of his colleagues; the result was that he selected his friends, not from them, but from the distinguished professors of other faculties, among whom Jolly and Gervinus were perhaps the most famous. Both Henle and Pfeufer had to leave Heidelberg owing to their political opinions in 1852, and Jolly was soon afterwards compelled to follow. This expulsion of professors was by no means unusual in those days, it happened, as every one will remember, to Virchow, and had previously occurred to Schoenlein.

Kussmaul's fellow students appear to have been a singularly undistinguished set, only Schaal and Moleschott among them have left names which will be remembered for scientific work. Some of them, however, distinguished themselves in other ways. One of them, whom from his appearance his fellow students dubbed Abd el-kadr, excelled in lightning diagnosis. One day a dull peasant came into the clinic with a swollen jaw; sat down, and said nothing. Chelius asked what was the matter. Quick as thought Abd-el-kadr after one glance pronounced molar abscess and prescribed immediate incision. The patient was alarmed, spat out a plug of tobacco whereupon the swelling in his cheek disappeared, and explained that he had come not on his own behalf but to get relief for his sick boy. Of another fellow student Kussmaul tells a story which seems almost too good to be true. Soon after this youth commenced practice he was one day seen to start setting forth on his rounds by meeting two funerals. Stopping one of the followers of the second, he asked whom they were. "Oh, don't you know, doctor?" was the reply. "These are your two patients." "Ah!" was the answer, "But I came later."

Having finished his course Kussmaul presented a thesis for the medical degree. This did not set out an investigation of the various colours seen by the pupil apart from those due to changes in the media. He only won the prize, and, in connexion with the normal [illegible] which was awarded [illegible] the attempt to forestall the ophthalmoscope had only one object, so the author asserts—namely, that nothing could be seen with it. Many years afterwards he told his experiences to Helmholtz, who had in the meantime perfected his own apparatus, and who consoled him with a catalogue of authors who had stood upon the same ladder, and had also failed in this respect.

In 1845 Kussmaul left the University of Heidelberg with the highest honours which the Medical Faculty could bestow. As he had not yet passed the State examination he was not qualified to practise, and he had yet to pass through many experiences before he resumed university life.

THE POLLUTION OF TIDAL WATERS.

WITH SPECIAL REFERENCE TO THE CONTAMINATION OF SHELLFISH.

This important question forms the subject of an interim report (the fourth) of the Royal Commission on Sewage Disposal. The report sets out that the investigations on which the report is based were inaugurated in consequence of the representations of various local authorities and of the importance which has recently been attached to the question of the discharge of sewage into tidal waters.

The Law as to Pollution of Tidal Waters.

The report first sets out the chief statutory provisions bearing on the question. Section xvii of the Public Health Act, 1875, declining to permit any local authority to discharge sewage into any watercourse, has unfortunately not been interpreted as applying to tidal waters. For some reason or other the Local Government Board does not appear to have acted widely on the power which it possesses to extend the operation of the Rivers Pollution Prevention Act, 1876, to such portions of tidal waters as it may on sanitary grounds deem necessary.

Section ii of the Sea Fisheries Regulations Act, 1888, authorizes Sea Fisheries Committees to make by-laws "for prohibiting or regulating the deposit or discharge of any solid or liquid substance detrimental to sea fish or sea fishing." By the definition in the Act "sea fish" includes "shellfish." It is, however, provided in section xiii of this Act that "nothing in this Act shall authorize a local Fisheries Committee to make any by-law.....affecting any power a sanitary or other local authority may possess to discharge sewage in pursuance of any power given by a general or local Act of Parliament, or by a Provisional Order confirmed by Parliament." By-laws under this Act require confirmation by the Board of Trade, and the Board has taken the view that "the proviso of Section xiii renders such by-laws inapplicable to the discharge of sewage by local authorities, on the ground that the authorities are acting under the Public Health Act." The report of the Royal Commission goes on to say that although the interpretation adopted by the Board of Trade as to the scope of these by-laws is possibly the right one, the point has not been decided by the Courts, and as there does not appear to be any section in any general Act of Parliament giving power to local authorities to discharge unpurified sewage into tidal waters, "we are not entirely satisfied that the proviso has the effect which has been attributed to it." It further points out that although the Rivers Pollution Prevention Acts do not prohibit the discharge of sewage into tidal waters, "the absence of a prohibition would scarcely seem to be equivalent to the giving of a power."

The matter would appear to stand thus. There is discharge of sewage into tidal waters which admittedly causes contamination of shellfish and much disease among the consumers of the shellfish. The Local Government Board has power to remove the exemption of tidal waters from the operation of the Rivers Pollution Act, but it has not exercised this power. Another Government Department, the Board of Trade, interprets a doubtful clause of the Sea Fisheries Regulation Act in such a manner that, owing to the inaction which is the natural consequence of this interpretation, injury is caused to an important industry and to the public health. It is true that the remedies capable of being adopted in these two directions are shown in the report of the present Commission to be but partial and incomplete, but they would, if they had been adopted, at least have improved matters. And no one seems to have the power to compel these two Government Boards to test the points in doubt in the interest of health and trade. Meanwhile a Royal Commission sits on the subject and, as we shall shortly see,

formulates a scheme for a new Government Department and new local authorities to administer the law on the matter.

The Royal Commissioners report that sewage and trade effluents from towns in tidal rivers and on the coast are usually discharged in an unpurified condition into tidal waters, and have satisfied themselves that "injuries to health and to fisheries may be caused by the discharge of unpurified sewage into tidal waters, and that some alteration of the law is required. A change of the law is especially needed in the case of tidal waters in which shellfish are laid, but there are other evils besides the contamination of shellfish to be guarded against, amongst which may be mentioned the following:

1. Offensive putrefaction.
2. Reduction of oxygen to such an extent as to render the water incapable of supporting fish life.
3. Destruction of fish by poisons or the clogging of their gills by suspended matters.
4. Washing up of faecal matter on the shores.
5. Formation of sludge banks.
6. Objectionable contamination of bathing places.

Possibility of Disease from Shellfish.

It is pointed out that not only is there cumulative evidence of the causation of enteric fever, etc., by contaminated shellfish, but that the representatives of the shellfish industry do not now seriously contend that this view is unsound. The following expression by the late Professor Huxley is worthy of requotation in this connexion. It is a very clear as well as an early statement of the conditions of the case:

> I do not see how it can be doubted that oysters taken from a bed irrigated with dilute sewage and eaten uncooked would be dangerous articles of diet. Does anybody pretend that it would be safe to take drinking water unfiltered and otherwise unpurified from a body of fresh water, of similar dimensions to any estuary which may be under consideration, at a point equally near a sewage discharge? If such a proceeding is safe, our sanitary authorities are taking a great deal of trouble in vain; if it is not safe, neither is it desirable to eat oysters, the juices of which are impregnated with sewage, in however dilute a condition.

After having heard the evidence of different medical officers of health the Commission "are satisfied that a considerable number of cases of enteric fever and other illness are caused by the consumption of shellfish which have been exposed to sewage contamination; but in the present state of knowledge, we do not think it possible to make an accurate numerical statement, at any rate as regards the whole country." They add "there can be no doubt that the evil is sufficiently grave to demand a remedy."

In thus stating the case, we think the Commission has distinctly under-assessed the risk. Were the matter one merely of academic interest this would not signify, but as it is one in which action is imperatively required, there is a possibility of less pressure being brought to bear in favour of reform, owing to an understatement of the case arising from personal unfamiliarity with the great extent of the evil.

Need of Further Measures.

But, as is pointed out in the report, the Government by their Bill of 1899 has already admitted the necessity for reform. The remedies recommended come under three general classes: (*a*) Purification of the sewage before its discharge into tidal waters; (*b*) seizure and destruction of unwholesome shellfish exposed for sale; (*c*) the setting up of a competent authority to deal with all tidal waters, with power to control foreshores, to close dangerous beds, pits, ponds, and layings, and in certain circumstances to require treatment of sewage.

Purification of Sewage.

Of these remedies the purification of sewage before discharge is shown to be an inefficient remedy. In a previous interim report of the Commission (July 12th, 1901) it was pointed out that effluents from sewage farms as well as from artificial purification processes usually contain large numbers of micro-organisms, many of them apparently of intestinal derivation. Their further investigations have not altered their opinion as to the dangerous character of such effluents. Dr. Houston has found that B. pyocyaneus when added to sewage in large numbers passed freely through sewage purification works, consisting of (*a*) septic tank and contact bed; (*b*) continuous filter, about 10 ft. in depth. The Commission concludes that, although there may be hope for the future, at present the treatment of sewage "cannot be relied on so to alter its character as to allow of its discharge in the immediate neighbourhood of shellfish layings without incurring appreciable risk of disease being communicated by the consumption of shellfish taken from such layings. In such cases either the sewage outfall must be removed or the layings closed." They add that in other cases, as where the layings are at a considerable distance from the outfall and the sewage would be largely diluted before it reached them, treatment of the sewage might be of value in diminishing risk.

Seizure of Unwholesome Shellfish.

The second suggested remedy is that of seizure of unwholesome shellfish under Section cxxi of the Public Health Act. On this point the report states: "We are bound to say we agree with Dr. Newsholme in thinking that the provisions are practically useless for preventing the sale of contaminated shellfish."

Control of Waters, Pits, etc.

The remedy recommended by the Commission is the setting up of a special authority to control waters, pits, ponds, layings, and beds. They consider that the power of this authority should be elastic, the case of each river and estuary constituting a problem by itself.

In the Oyster Bill of 1899 the Local Government Board was proposed as the central authority and the councils of every county and of every borough as the local authorities. The Commission cannot recommend that the local authorities should be these, as they "would not command the confidence alike of sewage authorities and of the fishery trade"; nor can it recommend the authority recommended by the House of Lords Committee—namely, the Sea Fisheries Committees—as these are in no sense sanitary bodies, and their interests are in the main bound up with the fishing industry.

River Boards.

The Commission recommends the formation of large river Boards and a central authority. The latter would in essence be a department of the Local Government Board, and would be part of the new supreme rivers authority which has already been recommended by the Commission. The local river Boards would be joint Committees of county councils, "possessing for the combined areas the same powers which the individual councils might have exercised in their respective districts." They would, however, in the opinion of the Commission, be of much greater value for the protection of rivers and streams than the separate councils acting independently, inasmuch as they would be expressly created to enforce the provisions of the Rivers Pollution Prevention Act, and would have jurisdiction over practically the whole of a watershed. They would furthermore have a sufficiently large area to secure the appointment of skilled officers.

Duties of Proposed Controlling Authority.

The report of the Royal Commission then proceeds to indicate the main duties of the officers of the proposed Rivers Boards. First would come a careful survey of all tidal waters within their jurisdiction. It is recommended that the Act giving effect to the recommendations of the Commission should provide for the registration of all beds, etc., from which shellfish are taken, the registration being subject to revocation or suspension. It is pointed out that such registration would not be suitable for places not owned by private persons from which shellfish—for example, mussels—are taken. In these instances it is recommended that the Rivers Board should define areas from or within which shellfish may, in its opinion, be safely taken for food. Such an arrangement would not be effective, unless it were made a punishable offence to gather shellfish from other places than those defined by the Rivers Board. It is further recommended that the sale of shellfish for human food from unregistered places or from prohibited areas of foreshore or waters should be illegal.

It is proposed that the admission of oyster layings, beds, etc., to the register should depend on the report of the inspecting officer of the Rivers Board. A copy of this report, if unfavourable, should be sent to the owner or occupier, who then has a right of appeal to the Board, who would then appoint a committee to hear the appellant. The Commission also considers it desirable that any local authority having reason to consider any registered bed or unprohibited area subject to contamination should be empowered to represent the matter to the Rivers Board, and this representation should be dealt with by the Rivers Board in a similar manner to that recommended in the case of applications for registration. It is also recommended that provision should be made for the

temporary closing of foreshores, etc., in the event of special dangers arising, and that it should be the duty of the medical officer of health of any district to report outbreaks of infectious disease, failure or alterations of sewage works or other causes increasing the danger of contamination of shellfish. Similar powers to report should also be conferred on the Fisheries Committee; but all the same "the responsibility for securing that shellfish are not taken for human consumption from any dangerous place would rest" still with the Rivers Boards.

In all the preceding cases it is proposed that provision should be made for appeal to the Central Authority, whose decision should be final. In cases of temporary closing, the closing should be effective pending the result of the appeal. In certain cases the Rivers Board should have the power to require treatment of sewage before it is discharged into tidal waters; and the consent of the Rivers Board should be required to the construction of any new sewage outfall or drain into tidal waters.

The Closing of Oyster Layings, etc.

Attention is drawn to a number of instances in which bacillus coli was not detected in the interior of oysters which had been exposed in high degree to sewage contamination; and the conclusion is drawn that the closing of a foreshore laying or pond should not depend, as a matter of routine, on the results of a bacteriological examination. On the other hand, the evidence before the Commission made it clear that in the majority of instances topographical evidence of pollution by sewage would have sufficed alone to condemn oyster layings of which complaints had been received. And the Commission concludes that if the oyster layings, etc., which are obviously liable to pollution, "were closed, or else freed from chance of pollution, the greater number of cases of disease due to the consumption of contaminated shellfish would be eliminated."

On the other hand, bacillus coli has been found in 10 c.cm. and sometimes in 1 c.cm. of samples of the purest waters in which native oysters are fattened; and the same is true of the oysters themselves. But such oysters have not been shown to have caused outbreaks of disease. Hence in the opinion of the Commission, the foreshores having obvious pollution should be first dealt with, action in regard to the more doubtful cases being "deferred until more complete and exact knowledge has been obtained." This is the very essence of common sense.

Bacteriology as Applied to the Examination of Shellfish, etc.

Dr. Klein stated in evidence before the Commission that he had not found that the normal oyster harboured within its shell or within its body the B. coli communis or other B. coli closely allied to it, and that he regarded the presence of the B. coli as indicating sewage contamination when found "in considerable numbers of oysters in a series of samples from a particular locality." The Commission instructed Dr. Houston to investigate the premiss on which Dr. Klein's method was based. Dr. Houston examined over 1,000 oysters, some from the purest waters in which oysters are grown or fattened in this country, and some from layings, etc., obviously liable to pollution. The results show that nearly all the oysters so examined, from whatever laying they were taken, contained B. coli communis or other B. coli closely allied to it. The results as to deep-sea oysters are not quite decisive, but "point strongly to the conclusion that not only typical B. coli, but even coli-like microbes, are absent from them." In view of what has previously been said in regard to cases in which the B. coli failed to be found, no great stress can be laid on this result.

The Commission expresses its opinion that notwithstanding the doubts which the above observations raise, "we are led without expectation that further inquiry may show that a quantitative test by aid of these or other micro-organisms may prove of considerable value." Dr. Houston found that in oysters taken from different layings the number of B. coli varied in an oyster from 10 to 10,000. As a rule, taking the whole oyster, a very much smaller number of B. coli are found in oysters stored in pure than in oysters stored in polluted waters. The Commissioners express the opinion that the mere presence of B. coli in an oyster does not constitute a justification for the wholesale condemnation of oysters, and that, furthermore, a single examination of a large sample of oysters may be most misleading. Generally speaking, comparative examination of samples of water from the different layings gave results similar to those furnished by the oysters from the same layings, except that generally the water was generally purer than the oysters themselves, the oysters seeming to collect and retain within their shells these micro-organisms.

Observations were also undertaken to determine whether B. coli and B. enteritidis sporogenes, the first of which was commonly, and the second occasionally, present in estuary waters in which oysters are grown, were always present in pure sea water. Samples of deep-sea water were collected at various points on the north-west coast of Scotland within sight of land, but remote from possible contamination. None of these contained B. enteritidis sporogenes in 10 c.cm., and none B. coli in 100 c.cm. of water. It is well ascertained that B. coli rapidly disappears in pure water, whether salt or fresh.

It is interesting to note that, as judged by the B. coli test, the River Thames at Mucking, about 20 miles below the Barking and Crossness Outfall Works, is at times as pure as the river near Sunbury and Hampton, above the intakes of some of the London waterworks companies.

The whole matter is summed up by the Royal Commission as follows:

"We accept the view that, for the present, results of bacteriological examinations must be interpreted in the light of topographical observations. As a corollary it would seem that the bacteriologist can at present do little more than urge that results he is obtaining point to the need of a further and more careful examination of the local conditions of the shellfish or water samples submitted to him; that for the present topographical observations must determine whether any laying or pond is or is not to be considered as free from risk of objectionable contamination."

It follows from the above that, in the opinion of the Commission, attempts to condemn shellfish, by the aid of bacteriological evidence as regards B. coli alone, must be useless. Further bacteriological researches are needed on the subject of a quantitative character. The opinion is further expressed that, while appreciating their efforts in doing bacteriological work, the efforts of the Fishmongers' Company would have been of greater service had more weight been attached to topographical examination of foreshore, etc.

Foreign Shellfish.

It appears that in this country no outbreaks of enteric fever or other illness have been clearly traced to the consumption of directly-imported foreign shellfish. The Royal Commission recommends that a guarantee should be required in regard to all foreign shellfish from each Government concerned, to the effect that all oysters or other shellfish imported into this country for human consumption had been procured from localities where they were not liable to be contaminated by sewage or other objectionable filth.

THE PRUSSIAN VACCINATION LAW OF 1835.

Mr. Arnold Lupton of Leeds recently wrote thus to the *Yorkshire Daily Observer*:

Now, the facts are that Germany has been vaccinated and revaccinated since the year 1874; that about the year 1901 Dr. Seaton, of the English Local Government Board, said to the Committee on Vaccination: "I know Prussia is well vaccinated;" and that almost immediately after these words were uttered there began the terrible small-pox epidemic of 1901-2, in which the Prussian death-rate was double that of England, notwithstanding its thorough system of vaccination. Since that time the Prussian authorities, recognising the inadequacy of vaccination, have gone in for a very vigorous system of sanitation, good drainage, good water supply, and for the isolation of all small-pox cases, with the result that the amount of small-pox in Prussia is now comparatively small.

The letter goes on to contrast Berlin during the seven years ending 1901 with twenty-two large towns of England as regards small-pox. The towns are not named.

To this letter Mrs. Garrett Anderson replied that

there was no "compulsory" vaccination as a political question in the year 1874. In Prussia there was no law enforcing vaccination. Revaccination was introduced in the army [illegible] since 1834. The [illegible] small-pox mortality per million in the Prussian [illegible] in the army was more than double that in England in the epidemic of 1871-2. A consideration of the value of infant vaccination in England led [illegible] to a compulsory vaccination law, though it was not perfectly worked until [illegible]. The small-pox mortality in the Prussian [illegible] consisting of the army, from 1841 to the end of 1874, averaged only [illegible] per million, after the law had been in force for [illegible] years. [illegible] at an average [illegible] per million yearly for the next ten years was [illegible].

Mr. Lupton then asserted again that

[illegible] was a vaccination law passed [illegible] Regulations, relating to the law on part of the [illegible] every one who had to be exempt of the [illegible] In the Prussian [illegible] was compulsory. The law was passed in [illegible] every male citizen had to serve in the army, and thus Prussia was compulsorily vaccinated throughout and its male citizens were [illegible] vaccinated.

General Phelps wrote in the same strain.

We think it will interest Mr. Lupton, General Phelps, and our readers if we give a literal translation of the Prussian Sanitary Regulations of 1835 so far as they relate to vaccination, together with a translation of some of the comments on these regulations by the Imperial Health Office. These comments are taken from the official handbook entitled, *Blattern und Schutzpockenimpfung* [Small-pox and Vaccination], third edition, 1900.

The Prussian Vaccination Law, 1835.

The first six sections of the law, which are §§ 44-49 of the "Regulations," relate to notification; the affixing a tablet on invaded houses; disinfection; burial, and the inclusion of "varioloid" under "variola."

§ 50. Experience has proved that vaccination is the most certain means of protection against small-pox. Every one is therefore strongly recommended not to deprive himself, his children, and those under his care, of vaccination, without sufficient reasons—as recognised by those who understand the subject; on the contrary, the active participation of all sensible people is expected in furthering this general measure by example and precept.

Officials, and especially district councillors and district surgeons, as also all sanitary officials, must consider it their duty, on every occasion, to procure the further extension and general adoption of this so certain and so harmless protective measure.

§ 51. ordains that only medical men may vaccinate).

§ 52. provides for public vaccinations yearly

§ 53. certificate of vaccination to be given, after inspection.

§ 54. If, notwithstanding this, children remain unvaccinated without satisfactory reason to the end of the first year of life, and in consequence become attacked by natural small-pox, their parents or sponsors shall be punished for the neglect of vaccination, in view of the danger of infection caused thereby.

Schoolmasters and manufacturers and other employers will do well to satisfy themselves that those under their teaching or in their service are vaccinated. Persons who seek admission for their children or wards into public State institutions, or stipends, or other benefices shall be refused unless proof of vaccination is produced.

§ 55. If small-pox breaks out in any house, careful examination must be made as to whether any susceptible individuals reside there, and if so, they must be vaccinated as soon as possible.

If the disease spread all the remaining inhabitants (Einwohner) must be warned of the threatening danger, and are required to have vaccinated at once all susceptible persons belonging to them, to which end the medical police will adopt the necessary arrangements, and if necessary compulsory vaccinations must be effected.

§ 56. Also generally, and especially under the aforesaid circumstances, the revaccination of individuals who have been vaccinated a long time previous, even though successfully, is to be recommended, on account of the greater security thereby effected.

§ 58. Reception into boarding-houses connected with public schools or colleges shall not take place before the pupil has shown that vaccination, or revaccination, has been done within the previous two years.

§ 59. As regards the army, the soldiers of the standing army as well of those belonging to the Landwehr and the Reserve must be carefully examined as to their vaccination at the time of entrance; those who belong to the standing army and are not vaccinated and require vaccination, shall be vaccinated at once, in accordance with the Cabinet order of May 5th, 1834; those of the Landwehr and Reserve are referred to the civil authorities, so that their vaccination shall be done without delay, and if the individual refuses, by the use of compulsory means. At their next call the same must present a certificate that vaccination has been really performed.

Those recruits in whom unmistakable cicatrices from a previous small-pox attack are not present and those who, though vaccinated, cannot show by certificate that their vaccination occurred not more than two years before entry, shall be revaccinated within six months of their entry into the army, in accordance with the Cabinet Order of June 27th, 1834, confirming Order of April 8th, 1834.

§ 61. The inoculation of human small-pox is forbidden, under penalty of three months' imprisonment.

The Imperial Board of Health, Berlin, in the handbook officially published on small-pox and vaccination (third edition, 1900), comment on the above law, as follows:

"By these regulations no one was legally bound to be vaccinated or to have his children vaccinated. . . . In non-epidemic times there was no legal or police punishment provided for the neglect of vaccination, such punishment being only over those parents whose children contracted small-pox while unvaccinated, without an evident reason."

The sections 54 and 56 did not apply to schools in general, because we find, from the comments of the official *Handbuch* that schoolmasters were only recommended to see that their pupils were vaccinated. This was extended first in 1871 to all schools attendance at which was not obligatory, after which a vaccination certificate was required on entering into such schools. Compulsory measures could only be adopted, in Prussia, when an outbreak of small-pox occurred. Previous to 1874, the date of the Imperial Vaccination Law, revaccination was not obligatory in school age in the nine old provinces of Prussia.

Lastly, a Ministerial Order issued on May 28th, 1841, contains the words "because there exists no legal compulsion to vaccinate." It is therefore plain that the Sanitary Regulation of 1835 did not make vaccination compulsory, and that Dr. Seaton was mistaken when he said in 1871 "that he knew Prussia was well vaccinated." No doubt Prussia contained more once-vaccinated persons than Austria or Russia, but that is all that could have been said with accuracy. We hope, therefore, that Mr. Arnold Lupton, General Phelps, and other opponents of vaccination will at last give up asserting that Prussia has had a compulsory vaccination law since 1835.

LITERARY NOTES.

The Hungarian Minister of the Interior offers a prize of 2,000 crowns for the best essay on the pathology or treatment of trachoma. The prize, which will be awarded by a jury appointed by the Minister, will be given only for an original work, constituting a real advance of the question. Competitors may use their native language. Essays must be sent in on or before December 31st, 1904.

On January 15th a one-act play in verse, by Dr. Gabriel Montoya, entitled *Le Frisson de la Gloire*, was played with success at the Odéon Theatre, Paris.

The *Vaccination Enquirer* hears "with great pleasure" that "an important statistical work" by Dr. Alfred R. Wallace, entitled *A Summary of the Proofs that Vaccination does not Prevent Small-pox, but really Increases it*, is, or will shortly be, in the press.

La Gazzetta Medica is the title of a monthly Italian journal published in New York. The first number was issued in December, 1903. It contains eight large double-columned pages of reading matter, and is edited by Dr. Giuseppe Lapenta.

We learn from the *Gazette Médicale de Paris* that M. Salomon Reinach recently informed the Académie des Sciences that Professor Hertzog of Göttingen, in the course of excavations at the side of the Asklepeion of Cos, has discovered an inscription of great historical importance and a number of letters from cities of Crete thanking the authorities of Cos for sending them physicians. This would seem to prove that the School of Medicine founded on the island of Cos by Hippocrates continued for a long time to enjoy the reputation of a scientific centre from which physicians were sent to various parts of Greece.

On February 15th Messrs. Kegan Paul and Co. will issue a new monthly journal, entitled *Our Hospitals and Charities Illustrated*, which will endeavour, "by real and living illustrations, combined with bright and telling reading matter, to awaken and stimulate interest in the work of our hospitals and charities, particularly amongst men and women of moderate income." It will be essentially a journal for the public, and all matters of controversy and technicality will be studiously avoided.

We are reminded by our excellent contemporary, *American Medicine*, that the work of Dr. Robert Fletcher, the editor of the lately revived *Index Medicus*, is entirely a work of love, and has been so for many years. Dr. Fletcher has not received one dollar of compensation for all his editorial work, which involves the personal reading of the proof three times over, a labour which only those who have dealt with the unusual foreign languages represented in the *Index Medicus* can appreciate. We are pleased therefore to learn that a number of his friends and admirers have combined to have his portrait presented to the library of the Surgeon-General's office, where, in the scene of his labours it will always remind later generations of his splendid work. A committee has been appointed, which is actively engaged in collecting funds for this purpose.

It is well known that the famous French playwright, M. Victorien Sardou, began life as a student of medicine. He recently recalled the fact in an interview with a representative of the *Figaro*, to whom he revealed the unsuspected fact that he was the discoverer of hypnotism. He said, "When I was a medical student I paid, in conjunction with fellow students

who long before Charcot had had a glimpse of that unknown country, hypnotism, much attention to suggestion, and to what has since been called *la grande névrose*. These phenomena are sufficient to explain what the Middle Ages called sorcery. I was passionately drawn to the study of those things, and I took as much interest to the persons accused of sorcery as in those who condemned them. Both were mad. The idea came to me of showing that everything before attributed to the devil belonged to the domain of hypnotism and was one of the phenomena of *la grande névrose*. There never were sorcerers or sorcery; there never was anything but people accused of sorcery. This is absolutely scientific, and from that idea came *La Sorcière* which is now being played in Sarah Bernhardt's theatre."

The first recorded specimen of primitive trephining found in America was (according to *American Medicine*) taken from the Yucay cemetery, in the Valley of Yucay, Peru. American experts pronounced the specimen to be of (at least) precolumbian date. The skull was afterwards forwarded to M. Broca. The result of his examination was that one is "authorized to conclude that there existed in Peru before the European epoch an advanced form of surgery." Dr. Robert Fletcher, in discussing the subject, observes that "the numerous specimens which have been found in Michigan suggest several inquiries. Many more prehistorically trephined skulls have been found in Michigan than in any other State of the Union." Illinois and Ohio come next in order in the number of such discoveries. The conclusion arrived at is that either these States have made more explorations than the others, or that the valley of the Great Lakes contained a race of people who practised trephining, as the Kabyles of Northern Africa do at the present day, while the surrounding tribes did not. Michigan appears to have fewer mounds than the other States of the Union. But although the mounds have been everywhere examined, there have been very few trephined skulls found outside this region. The artificial openings in all the American skulls have been found near the vertex. "They have rarely shown any evidence of cicatrization, and for those reasons are generally believed to have been trephined for religious rather than for surgical purposes." The result of the investigations hitherto made has been to lead to the conclusion "that the valley of the Great Lakes once contained a people who practised surgical trephining." It has been critically observed that the incisions found in the wall of the "Inca skull" from Peru appear to have been made with some cutting instrument "something like an engraver's burin, and not with a saw." In a discussion which recently took place on this subject in London, Sir Victor Horsley showed photographs of three American specimens of skulls so treated. He regarded the traces as those of saw-cuts. They were all in the frontal region; and the conditions, taken in connexion with the other evidence now available, gave, according to this observer, "reasonable ground for believing that the Peruvian operation was probably done for headache." The fact that trephining practices, such as appear to have been used in prehistoric times, are at present commonly carried out in far-off Pacific and South Sea islands, has recently been demonstrated before the Anthropological Institute of Great Britain and Ireland. In New Britain, the instrument is formed from a piece of shell or a flake of obsidian, and the operator is the wizard or "tena pepot" of the tribe or district. A blow of a sling stone is the usual cause of the fracture which calls for the operation, the sling being the most formidable weapon used by the natives in their tribal fights, and "a smooth stone as large as a pullet's egg being thrown with moderate accuracy but considerable force." Death almost invariably ensues in cases which are not promptly treated. Injury caused by the stone-headed club is almost instantly fatal, but the flat two-edged club is not so deadly, and permits of an operation. The following is the procedure: A V-shaped or Y-shaped incision is made over the seat of fracture and while assistants hold back the scalp, any loose fragments are picked out with the finger-nail. The other portions involved in the fracture are then scraped, cut, and picked away, leaving the brain exposed to the size of half a crown, then, all loose pieces having been removed, the scalp is carefully laid down and the wound bandaged with strips of banana stalk about 4 in. wide. These strips are, when dry, of a spongy nature, the water which formerly filled the cells being replaced by air; moreover the inner surface is silky to the touch, and forms an admirable dressing for tender surfaces. It is [illegible] and [illegible] all discharge escaping below the bandage. Sometimes a few bruised leaves are applied before bandaging. The patient is generally insensible from the time of the injury, and if consciousness returns during the operation, soon faints away again. In five or six days the bandages are renewed, and in two or three weeks a complete recovery is the result. The number of deaths is about 20 per cent., most of these resulting from the first injury, and not from any complication after the operation. Nearly all the deaths take place during or immediately after the operation, and if a patient once becomes conscious he is said never to fail to make a good recovery. In New Ireland the operation is also performed in cases of epilepsy, and for some cases of insanity which are attributed to pressure on the brain. On Gerrit Demp Zealand, and in the central part of New Zealand, the usual form of operation often performed for throbbing headaches consists of cutting two or three channels, in a vertical direction, on the frontal bone, each 3 in. or 4 in. in length.

Dr. C. W. Saleeby (London) writes: In your Literary Notes of January 10th, you cite Herbert Spencer's last book, *Facts and Comments*, in order to demonstrate his hostility to vaccination. It seems the antivaccinators are doing likewise. But surely you, Sir, can make some allowance for arteriosclerosis if they cannot. In his *Study of Sociology* (1873) Spencer imagines a future historian of this people, who says, in sufficiently pregnant words:

> Their distribution of monumental honours was, indeed, in all respects remarkable. To a physician named Jenner, who, by a mode of mitigating the ravages of a horrible disease, was said to have rescued many thousands from death, they erected a memorial statue in one of their chief public places. After some years, however, repenting them of giving to this statue so conspicuous a position, they banished it to a far corner of one of their suburban gardens, frequented chiefly by children and nursemaids, and in its place they erected a statue to a great leader of their fighters—one Napier, etc. The reporter does not tell us whether this last had been instrumental in destroying as many lives as the first had saved.

[1]Arterio-sclerosis may cover a multitude of intellectual sins, though we hardly think that Spencer would have felt grateful to our correspondent for the suggestion. But we cannot honestly say that we find any evidence of arterio-sclerosis in the other essays gathered together in *Facts and Comments*. Nor does the passage quoted by Dr. Saleeby from the *Study of Sociology* by any means convince us that Herbert Spencer was a believer in vaccination in 1873 any more than he was in 1902. The point made is rhetorical rather than logical; it is an *argumentum ad hominem* which is not necessarily to be taken as expressing the opinion of him that uses it. That Spencer was not, in fact, uttering his own belief seems to be shown by the words "was *said* to have rescued," etc. Spencer, like ordinary men of mould, had his limitations. This truth he appears to have found it difficult to admit; hence he sometimes talked nonsense. He was also constitutionally disposed to be "agin the Government," and the fact that vaccination was compulsory was sufficient to make him regard it with the dislike that he showed to every kind of interference with the free play of individualism. This attitude of mind is not philosophic; but does not Cicero say that there is no kind of absurdity which has not been taught or defended by some philosopher?

PREVENTION OF CONSUMPTION.

SUSSEX.

With the view of preventing the spread of consumption, the Uckfield Urban Council on February 5th authorized the inspector to disinfect all houses in which consumptive people had died when application was made for this to be done. This decision followed a report of the inspector, who had declined to disinfect a house at the cost of the ratepayers, because consumption was not scheduled as an infectious disease.

SOUTH AFRICA.

According to the *South African Medical Record*, Durban has the distinction of being the first town in South Africa to found a branch of the National Association for the Prevention of Consumption and other Tuberculous Diseases. This has been largely due to the enthusiasm of Dr. Murray Grey of that town. The branch consists of both lay and medical members. The experience of medical practitioners, as well as the evidence of statistics, tends to show that consumption and other tuberculous diseases are on the increase in most towns in South Africa. Our contemporary therefore expresses the hope that the good example of Durban will be followed generally.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 13TH, 1904.

THE MEDICAL SERVICE OF THE ARMY.

In the last issue of the British Medical Journal reference was made to the absence of any mention of the medical service of the army in the scheme for the reconstitution of the War Office proposed by Lord Esher's Committee. On Lord Esher's attention being called to what seemed an inexplicable omission, he replied that the position of the medical service under the new scheme was receiving the serious attention of the Committee. The matter is indeed one that demands the most serious attention, and this makes it all the more remarkable that the members of the Committee should have approached its consideration apparently as an afterthought. With the immense loss of life from preventable causes during the South African war fresh in the public memory, it might have been supposed that in any scheme of reform of army administration the medical service would have occupied a prominent place. So vitally important to the efficiency of the army and the safety of the nation is the matter felt to be that the British Medical Association, as representing the medical profession, lost no time in placing its views before the Secretary of State for War. The scheme for the reconstitution of the War Office was carefully considered at a special meeting of the Royal Naval and Military Committee held on February 8th, and as the result certain recommendations, the text of which will be found at p. 395, were forwarded to Mr. Arnold-Forster. Regret was expressed at the absence of any provision for the direct representation of the Medical Service on the proposed Army Council, and it was strongly urged that steps should be taken to repair this omission. The reply of the Secretary of State for War was to the effect that the new Army Council is in no way a representative body, and that in these circumstances it is not considered necessary that the Army Medical Service should be directly represented.

It is necessary to speak plainly on this matter, and we say at once that we cannot accept Mr. Arnold-Forster's description of the proposed Army Council as "in no way a representative body" as being accurate in any but a non-natural sense. As the Schoolman would have said, the Council, though it may not be representative *formaliter* is so *materialiter*. It is to consist of seven members, each of whom, with the exception of the Secretary of State, represents a definite group of army duties and requirements. These are summarized in the report of Lord Esher's Committee under the heads of "Operations of War," "Personnel," "Supply," "Armament," "Civil Business," and "Finance." Under which of those heads is the medical service to be placed? We confess we cannot guess, unless it be under the conveniently elastic head of "Civil Business."

We may be allowed to recall to the mind of the Secretary for War that it was as the outcome of the bitter experience of the South African war that Mr. Brodrick's Committee gave the medical service direct representation on the Army Board. The Director-General was thus placed on a footing of equality with other chiefs of departments. This change was far more than a matter of mere rank and dignity; the greater official position given to the head of the medical service made it impossible for the military authorities to treat his recommendations and demands as the utterances of a Greek chorus to which no regard need be paid. It is beyond question that the spirit of military pedantry and jealousy which found characteristic expression in Lord Wolseley's remark in the *Soldier's Pocket Book*, that "medical advice is a good thing—when it is asked for," has been responsible for a vast amount of preventable disease and great and needless loss of life in our recent wars. Experience has abundantly shown that medical advice, if it is really to be useful in a campaign, must be given whether it is asked for or not, and that commanding officers who refuse to take it must be held responsible for the consequences. The reforms introduced by Mr. Brodrick gave the Director-General not only the right to advise, but the authority to enforce. It would seem that Mr. Arnold-Forster intends to undo the good work of his predecessor.

We gather from his letter that he thinks the system of administration of the medical department of the navy applicable to the corresponding service of the army. Yet it requires no long experience or particular insight to see that the practical problems with which the latter has to deal are vastly more complex than those which the former has to face. The difficulties of transport and supply, field hospitals, sanitation of moving columns, and distribution of officers over a vast area are for the most part non-existent in naval warfare.

It is pretty clear, too, that Mr. Arnold-Forster has not taken the trouble to make himself acquainted with the history of the relations between the War Office and the medical service. A little time spent in the study of the long struggle for the recognition of the very important part which it plays in the organization of the army would be well bestowed, for it could scarcely fail to teach him that, in matters which touch the medical arrangements, military reformers must always reckon with the medical profession.

It is disappointing to find that the lessons of an experience so dearly bought are to be thrown away with a lightness of heart like that with which M. Ollivier entered on the fateful war of 1870. We warn Mr Arnold-Forster that the medical profession will not tolerate a reversion to the bad old system which has been the cause of so many misfortunes to the army and such terrible cost—not in money only but in lives—to the country. Without direct representation on the Army Council the medical service is relegated to a subordinate position which checks initiative, paralyses intelligent activity and tends to make the service shunned by the very men most fitted to make good officers. All this makes for inefficiency; and without an efficient medical service the army is doomed sooner or later to disaster.

VACCINATION, ISOLATION, AND SMALL-POX IN GERMANY.

In a recent issue[1] attention was called to the curious change of front of antivaccinists regarding small-pox in

[1] British Medical Journal, October [illegible]

Germany. For many years the attitude was that German, or Prussian, experience proved revaccination to have been valueless as a preventive of small-pox. It was alleged that revaccination had been compulsory in Prussia since 1835, and the large share which that country bore of the small-pox epidemic of 1870-3 was pointed to as demonstrating the failure of thirty or forty years of national revaccination. Like ordinary antivaccinist argumentation, this contention was quite independent of fact. Revaccination, except in the army, which remained correspondingly free from small-pox, had not been compulsory since 1835, but only from 1874, since which time Germany has been the envy of every European country in respect of its wonderful immunity from epidemics of variola. Lately, as we showed in the article just referred to, a new view has been developed. It may be the case that history is often an effort of the imagination, but the year 1835 is too recent, and Prussian Government records are too precise, to enable imagination to take the place of fact with regard to so definite a question as whether there was or was not a law of compulsory revaccination there from 1835 onwards. We do not for a moment deny that an imaginative story might be quite acceptable to leading professors of the antivaccination cult. If we may be allowed to parody Tertullian's famous saying, *Credo quia incredibile* may indeed be taken as the motto of their faith and practice; and the nonsense concerning the year 1835 has made excellent material for their newspaper letter-writing ring. But since we took the trouble to translate and publish the exact terms of the Prussian Regulations of 1835,[2] antivaccinists in the innermost circle have begun to see that even a very gullible public can no longer be taken in by fables which any medical man possessed of a copy of the British Medical Journal translation could straightway refute. And so, the bubble being burst, a new one had to be blown. The leaguers felt convinced that they had plenty of gas left to fill another hundred, and so one of the editors of the *Vaccination Inquirer* became responsible for a new effort to prove that absence of small-pox in Germany is not due to prevalence of vaccination and revaccination there. He is, however, an angry man to-day. His bubble has been pricked just as his predecessor's was, but more quickly, and once more we are regarded as the wicked spoil-sport. Instead of holding that revaccination had been made compulsory in Prussia in 1835, he advanced the new and original view that isolation had been the subject there dealt with. But as isolation-without-vaccination is the latest quackery advocated by the Antivaccination League, we felt compelled to call attention to what he had carefully hidden out of sight, though it had bulked so large in the previous legend Prussia's terrible experience of small-pox in the early seventies. It surely does not say much for police measures of isolation to which antivaccination now appeals if, after thirty years' experience of how to work them in Prussia, there came a small-pox epidemic in which the mortality was double that of England, trusting only to infantile vaccination. Thus once more the bubble has collapsed.

But the *Inquirer* has got into a third difficulty. Mr. Arnold Lupton, of Leeds, is an antivaccinist who is also to be a Parliamentary candidate when a general election comes, and so is a man whom the organ of the League naturally desires to propitiate, not only by publishing a beautiful picture of him, but also by helping to haul him out of a nasty bog into which he has unfortunately tumbled.

[2] British Medical Journal, November 16th, 1901, p. 1274.

Mr. Lupton, being filled more with zeal than with knowledge, lately opened his mouth on the subject of vaccination, and straightway put his foot right into it. He somehow got on to the subject of German small-pox, and, being merely a child in such deep matters, he seems to have foolishly accepted as gospel truth the old antivaccination myth about a compulsory revaccination law of 1835, and so was led to declare "the facts are that Germany has been vaccinated and revaccinated since the year 1834." It was in the columns of the *Yorkshire Daily Observer* that he perpetrated this *faux pas*, and he still further blundered by failing to distinguish between Germany and Prussia, assuming that regulations or laws made by the latter were applicable to the former. Mrs. Garrett Anderson was unkind enough to reply and to point out that there was not even a really compulsory law of infantile vaccination in Prussia until 1874, there being previously a penalty only in the event of an unvaccinated child's attack by small-pox. It thus appeared, in effect, that Mr. Lupton knew nothing at all about the subject into which he had so lightheartedly plunged.

Then at once in antivaccination headquarters there was a rushing to the rescue. A possible M.P. must not be shown up in the public press because he had been foolish enough to believe that old antivaccination myth. So not only did Mr. Lupton get some illumination as to the true inwardness of things, to help him in his own apologetics, but the President of the League, and the author of the new German theory, also came to the aid of their protégé. Now the whole thing has been mixed and messed into an extraordinary hotchpotch which is served up to the readers of the *Vaccination Inquirer*. In defence of Mr. Lupton the *Inquirer* is evidently strongly tempted to go back to the old romance about a revaccination law of 1835. But it just saves itself. It declares that it was rash on Mrs. Garrett Anderson's part to challenge Mr. Arnold Lupton's statement, and as there can be no rashness in denying an easily demonstrable untruth, the unwary reader is left to assume for the nonce what the *Inquirer* does not venture specifically to declare, namely, that vaccination and revaccination have been compulsory in Germany since 1834. Seeing that the old legend seems to be considered not yet quite dead and buried, or at least not incapable of being taken out of its coffin for an emergency like Mr. Lupton's, we once more give in the course of another article in this issue, a translation of the Prussian Vaccination Regulations of 1835, and we ask our readers to note the article for reference should they chance to meet in newspaper letters, or elsewhere, with any further attempts to "resurrect" the corpse.

THE ACTION OF RADIUM RAYS ON TISSUES, EGGS, AND ANIMALS.

The action of the Becquerel rays emitted by radio-active bodies has, owing to their effect on the skin, attracted the attention of the medical world. Walkhoff, in 1900, showed that those who worked with radio-active substances were liable to suffer from a form of dermatitis like that produced by the Roentgen rays. Becquerel describes how he suffered from carrying in his vest pocket for two hours a very active preparation of radium. Fourteen days afterwards the skin corresponding to the position of the radium showed signs of inflammation; the area gradually increased, and ultimately a large and deep ulcer formed, and did not heal for many months.

Danysz found that the action of radium on the skin is never immediate. At first nothing is felt, but on the eighth, fifteenth, or even twentieth day there is some congestion. This long latent period is one of the most interesting and mysterious facts about the action of Becquerel rays on living tissues. A sample of barium chloride containing about 50 per cent. of pure radium is, according to M. Curie, 500,000 times more powerful than metallic uranium, and produces an appreciable congestion of the skin in a few minutes. If placed in contact with the skin of a guinea-pig for twenty-four hours, it causes complete destruction of the epidermis and dermis. Contact for forty-eight hours does not produce any deeper ulceration. The deeper connective and muscular tissues are little affected. If the radium be placed under the skin a relatively feeble effect is produced on the epidermis, and even less on the connective tissues and muscles. The epidermic tissues seem to absorb the rays that produce the pathological effects. The skin of the guinea-pig is much more sensitive than that of the rabbit; indeed an exposure that produces alopecia in the guinea-pig may cause a growth of hair in the rabbit. A tube of radium placed for one to four months in the peritoneal cavity produced no lesions comparable to those on the skin, and the intestines and serous membranes seem to be very slightly sensible to these radiations.

The nervous system is much more sensitive than the epidermis. A tube of active radium placed under the skin over the vertebral column and part of the cranium of a young mouse 1 month old caused at the end of three hours paresis and ataxia after seven to eight hours, tetaniform convulsions and death in twelve to eighteen hours. Mice, 3 to 4 months old, died with the same symptoms in three to four days, and those 1 year old in six to ten days. Guinea-pigs, 8 to 12 days old, similarly treated for twenty-four to forty-eight hours, but with the tube applied to the lumbar region, suffered in one to three days from complete paralysis of the hind-quarters and tetaniform convulsions. Death ensued in six to eight days. Adult guinea-pigs and rabbits treated in the same way did not show any nervous troubles immediately, but died with skin lesions some weeks or months afterwards. An adult rabbit in which a tube was placed under the dura mater for eight hours showed nothing abnormal for two days, but on the third it had hemiplegia. It would seem, therefore, that the nerve centres sensible to these rays are very effectively protected by the bone in adults, while the cartilaginous tissues of young animals do not afford much resistance to the passage of the rays.

The larvae of insects kept in a tube with radium for twenty-four hours died in two or three days; in them, too, the nervous system was most affected. When soluble salts of radium are dissolved in distilled water the emanations are dissolved by the water, and act on insect larvae much like the substance itself. They also make the cuticle brown on its dorsal surface.

Becquerel's rays affect microbes in varying degrees. In all development is interfered with, but some—and notably those that produce proteolytic autodigestion—are killed under certain conditions. The bacilli of anthrax fail to develop if they are placed for twenty-four hours in contact with these emanations.

The effects on animals so far described were produced at close range, but the rays emitted by radium can also kill at a distance. London has found that if 30 mg. of radium be placed over a cage of mice for one to three days the animals become ill on the third day, and die on the fourth or fifth. The first effects are redness of the ears and blinking of the eyelids; then follow drowsiness, refusal of food, slowness of movement, and feeble response to mechanical stimuli. At the fourth day there is coma with paralysis of the hind legs. In deepest coma the spinal reflexes may be exaggerated and the respirations slow and even scarcely appreciable. There is thus marked depression of the cerebral nervous system and exalted excitability of part of the cord. The respirations finally cease, and death occurs. After death the hairs on the back could be pulled out in masses, and often the epidermis came with them. The subcutaneous tissue was greatly congested. The chief histological changes were produced in the skin and cortex cerebri.

The effects of radium on the blind are interesting. Blind persons slightly susceptible to light get a sensation of light when radium is placed over one or other eye. Persons who can just distinguish light from shade, but cannot distinguish form, when placed in a dark room, can distinguish the outlines of an object projected on or placed in a screen illuminated by radium.

Radium rays exert a marked influence on the eggs of sea-urchins, which in the course of development pass through the three stages—ciliated blastula, the hollow gastrula, and the pluteus larval stage. If blastulae are exposed to radium rays for forty minutes the gastrula is not formed, though the ciliary movements become more intense. If gastrulae are exposed, the pluteus is small and atrophied. Spermatozoa are rapidly enfeebled and killed by these rays, while ova may be more readily fertilized. Ova exposed to radium rays may develop irregular embryos by parthenogenesis without the action of a spermatozoon. These results may be due to the action of the rays on the chromatin of the nuclei, augmenting its activity or destroying it according to the length of exposure—that is, the rays kill the spermatozoid, a mass of chromatin, but excite the ovum protected by its protoplasm, and cause parthenogenesis.

They do not seem to have a specific action on definite tissues. They act on the ectoderm of tadpoles and on the endoderm of gastrulae of sea-urchins, probably because the cells are in a state of evolution and differentiation. In man the skin, which is always being renewed, is attacked, not the muscle.

The causes of these remarkable changes in normal and pathological tissues are not fully ascertained. Whether they be caused by ultra-violet light rays, by Roentgen or Becquerel rays, there is always a primary cell degeneration, followed by secondary inflammatory reaction. Professor O. Giesel states that paper in which radium preparations have been preserved for a long time becomes brown and brittle, the celluloid loses its solidity, and it is obvious that radium rays cause molecular disturbance. This may explain the results in animal and vegetable tissues.

G. Schwarz has made some experiments which show that the rays have a special effect on lecithin. He fixed a capsule containing 2. cg. radium on the shell of a fresh egg of a fowl for 144 hours in a dark protected place. The surface of the shell became brown in colour, but there was neither coagulation nor gelatinization of the egg white. The yolk, however, became greenish grey in a limited area, and more rigid, and had a peculiar taste and odour; the embryo did not develop. The rays seemed to decolorize

the organic body lutein both in the absence and presence of oxygen. The odour and taste of the altered and putrefied yolk was due to the decomposition of lecithin setting free trimethylamin. The importance of this action on lecithin is wide-reaching, for this substance is found in all rapidly-growing tissues, normal and pathological.

THE WAR IN THE FAR EAST.

IN anticipation of the outbreak of war we gave some weeks ago a brief sketch of the general medical arrangements for the care of the sick and wounded in the Japanese and Russian contending forces in the Far East, together with a slight forecast of the occurrences that might be expected. We have since learnt that it is the intention of His Majesty's Government to appoint a medical attaché to each belligerent in order that full information on the medical aspects of the struggle may be obtained. One of these officers is already close to the scene of action, and the other may possibly have started before this number of the BRITISH MEDICAL JOURNAL is published. The observations made on the Japanese side are most likely to be of special interest; for whereas in the combatant departments of their land forces the Japanese have followed the system of the German army in their medical arrangements, they have taken as a model the British Army Medical Department. The present war, therefore, will be an object lesson to us in the probable working of our own arrangements in the event of a war with a Continental Power; it will also show how they are likely to compare in practice and results with the corresponding arrangements of other nations. Nowhere during the past thirty years have the medical arrangements of two highly-organized forces been subjected to the test of actual trial under the very circumstances they were primarily designed to meet. Although there have been wars in plenty the conditions have either been very special as in South Africa or one side has had an immeasurable advantage over the other, as in the Spanish-American war. Now, however, we have two armies not very dissimilar in numbers meeting upon practically equal terms, for though the Russians will be fighting at a much greater distance from their final base, they have had plenty of time to accumulate vast masses of medical stores in the Far East. To that extent they are in a better position than the Japanese, who, though their base is much closer, have necessarily not yet landed a single dressing in the country in which they will fight. Nevertheless, we anticipate that the Japanese arrangements will work well, judging from what they did in the war with China. The medical attaché upon that occasion, Sir William Taylor, now Director-General of the Army Medical Service, gave a very favourable account of the way in which the Japanese army medical officers carried out on active service what they had practised in peace. A few quotations from his report may be interesting. He says: "I saw nine wounded men brought into one dressing station in ten minutes, and in turn all properly attended to and sent ....Everything in the way of equipment....for antiseptic surgery after the most approved methods was there. The tallies were always examined first in one or two instances they told of good work having been done in the fighting line and lives saved by. There was no confusion or hurry in short there was evidence of that efficiency which can only be the result of the most careful and complete training. As for the way in which the medical department is likely to behave, the following instance may be quoted. A regiment suddenly and unexpectedly found itself exposed to fire from some Chinese ships at a distance of 4,000 or 5,000 yards, and was quickly mown down. The remainder crowded for shelter into a ravine. "Before the men had reached the shelter the medical officers one by one, at a distance from one another, accompanied each by two or more stretchers and some attendants, were seen to walk across the beach in the face of an incessant hail of bullets... and in twenty minutes, walking coolly and quietly away, had removed every dead and wounded officer and man from the beach, the Chinese ships having kept up a continuous and terrific fire upon them all the time. It was done as a matter of course and we who saw it, and could not resist shouting 'Bravo,' have never heard it referred to or spoken of...."

THE PRELIMINARY GENERAL EDUCATION OF MEDICAL STUDENTS.

ALL who recognize the great importance to the profession of an adequate standard of preliminary general education for medical students will rejoice to see that the Council of the British Medical Association has decided to memorialize the Board of Education on the subject. The Board of Education is at present considering the possibility of substituting in England a single school-leaving examination in general education for the various preliminary examinations now existing for entrance to the different professions. The Council of the Association has decided to send to the Board of Education a memorial embodying the views which the Association has arrived at with regard to the minimum requirements for medical students. It will be remembered that these include an age-limit of 17, a standard suitable to that age and not lower than that of the senior Oxford or Cambridge local examinations, and a scope more in conformity with what may be called a good education than that which is at present most unhappily admitted. This proposed scope would make a decent knowledge of English, of history, and geography compulsory, and would limit the choice of "modern languages" to "French or German." It is sincerely to be hoped that the requirements in general knowledge of all the professions will not be brought down to the lamentably low level now accepted by the General Medical Council.

THE ARCHIVES OF THE MIDDLESEX HOSPITAL.[1]

THE staff of the Middlesex Hospital is to be congratulated on the sustained excellence of the first number of their new publication, the *Archives of the Middlesex Hospital*, which has just made its appearance. The *Archives* are published with the object of recording work done in the wards, laboratories, and special departments of the hospital, and will deal with clinical medicine and surgery, cancer investigation, clinical and pathological research, and the work of the special departments. No fewer than four volumes will be issued annually at a nominal subscription of half a guinea per annum. The present number opens with a paper by Drs. J. K. Fowler and A. G. R. Foulerton on two cases of haemorrhagic typhoid fever. Both cases were markedly haemorrhagic, bleeding occurring from the mouth, nose, urethra, bowel, and under the skin. Both terminated fatally about the fourth week, and in neither case was a definite Widal reaction obtained. In one case B. typhosus was the only organism found, thus showing that the mixed infection observed in other cases of haemorrhagic typhoid is not an essential feature. The authors think that the haemorrhages are probably due to changes in the blood and vessels, produced either by the infective or the toxic activity of B. typhosus or both combined, and are not invariably due to changes in the blood resulting from secondary infection. If no Widal reaction can be obtained, it will prove, the authors maintain, that the case is either not typhoid or else typhoid of exceptional severity in which a fatal result is probable. As to the treatment of such cases, the administration of a "curative" antityphoid serum is recommended when complete or partial failure of the specific agglutinative reaction indicates an incomplete reaction to the stimulus of infection. Mr. Bland Sutton contributes an interesting paper on dermoids of the testis and scrotum, and Dr. R. J. Gladstone writes upon two cases of spina bifida, its etiology and its association in these cases with a pathological condition of the spinal cord. The author believes that this latter is a much more frequent complica-

[1] Vol. I. London: Macmillan. Pp. 114.

tion than is customarily recognized, thus accounting for the occurrence of trophic changes and other nerve lesions in these cases. This is a point of importance, as the presence of cavernous tissue necessarily affects the prognosis in operation. A case of excision of the Gasserian ganglion is described by Mr. Andrew Clark, and Mr. N. Bishop Harman discusses the relative frequency of knee-jerk phenomena in interstitial keratitis, the result of inherited syphilis. Drs. Lang and Casey Wood stated as the result of their investigations that in about 30 per cent. of all cases of interstitial keratitis the knee-jerk is decidedly subnormal, and that in about 10 per cent. of all cases it is entirely absent. Mr. Harman, on the other hand, finds as the result of the careful examination of 100 cases "no noticeable difference between the condition of this phenomenon in the subjects of congenital syphilis and in healthy folk." It is plain that an important question of this kind requires extended investigation. Notes on 4 cases of duodenal ulcer by Dr. Essex Wynter, the comparative histology of the urethra by Dr. J. S. Goodall, an account of radiotherapy by Dr. C. R. C. Lyster, cancer of the liver and pancreas by Mr. W. T. Hillier, and a communication on the relation of the size and shape of the head to mental ability by Dr. R. J. Gladstone, which will find more extended mention in another column, complete this excellent number.

THE PREVENTION OF MALARIA.

At a recent meeting of the Liverpool Chamber of Commerce it was announced that letters had been received from the Lord Mayor of Liverpool, the Lord Mayor of Manchester, the Town Clerk of Liverpool, the Glasgow Corporation, and the Glasgow Chamber of Commerce, signifying their agreement to co-operate in pressing upon the Government the necessity of taking concerted measures for the prevention of malarial fever in our tropical colonies. It was stated that the Liverpool School of Tropical Medicine had also been communicated with, and that the school had drawn up recommendations which they thought, if carried out, would meet the case. The school suggested that a conference of all parties interested would take place at Liverpool, and that the school, if desired, should prepare a practical programme to lay before the conference. It further suggested that the matter should be deferred for a month or two until the results of the recent scientific expeditions were made known. The Chamber adopted this suggestion, and postponed the matter for two months. A letter received by the Honorary Secretary of the Liverpool School of Tropical Medicine from the Booth Steamship Company states that its steamers trading to Iquitos have been for several years regularly provided with mosquito nets for the use of the crew, with the most satisfactory results. Formerly cases of malaria were frequent, sometimes resulting fatally; but since the general adoption of mosquito nets by all members of the crews, these steamers have enjoyed a wonderful immunity from sickness. In view of this, the company has latterly provided mosquito nets for the crews of all of its steamers in the Para and Manaos trade, and there is reason to suppose that it will be equally satisfactory, as it is some months since they heard of the last case of yellow fever; and, so far as they know, not one has occurred on any steamer after the introduction of the mosquito nets.

THE SPITTING NUISANCE.

The by-law of the London County Council forbidding spitting on their tramcars and making the offence punishable by a fine of forty shillings, has not, as far as we have observed, had much practical effect. If the penalty were enforced a few times the nuisance would soon be stopped. Conductors, however, do not treat the matter seriously, and it is probable that in this attitude of *laissez faire* they are tacitly supported by their official superiors. It is this indifference on the part of those charged with the carrying into effect of reforms in matters concerning the public health that so often makes laws and ordinances mere dead letters. What can be expected from conductors when they see the police committing the offence which they are instructed to check? A writer in the *Daily Chronicle* states that the other day he watched a policeman at Piccadilly Circus, standing in a crowd of ladies and regulating the omnibus traffic, spit a dozen times in the course of five minutes with the most unpleasant results. We invite the serious attention of the London County Council and the police authorities to this matter. We commend to them as a wholesome example the action taken by some of the leading cities of the United States. The Health Department of Baltimore has recently had 50,000 cards printed calling attention to the law prohibiting spitting on the floors of street cars and in public buildings. These cards will be distributed among car conductors and custodians of public buildings for proper display. The Health Commissioner, Dr. Bosley, is determined that the public should know that there is an anti-spitting law. Dr. Darlington, the new Commissioner of Public Health of New York, on his appointment communicated with the Commissioner of Police, requesting him to aid the Board of Health in enforcing the ordinance against spitting on the pavements. The result was that on January 12th the police arrested ten persons for spitting in violation of the sanitary regulations. Of the defendants, seven were fined 1 dollar each, and three were discharged. We are glad to see that legal enactment is to be supplemented by private effort. A Progressive Health Club has recently been founded in New York, which, among other objects, aims at the imposition of increased fines and penalties for people who expectorate on sidewalks and in public conveyances. All the society's energies will, it is stated, be directed toward the abolition of a habit which, in its opinion, has spread more disease and discomfort in centres of population than any one other. The club proposes that special officers be stationed in street cars and on the main thoroughfares to arrest spitters. A few examples of the punishment of offenders would, it is thought, suffice to bring about a general cessation of the habit, for people would be shamed or frightened into desisting from a revolting practice which constitutes an offence against social decency and a danger to the public health.

THE SAMARITAN HOSPITAL FOR WOMEN.

We are asked to publish as an "item of fashionable intelligence" the fact that the Committee of Management of the Samaritan Hospital for Women has decided to hold a "Leap Year" festival dinner at Prince's on Thursday, May 5th, in aid of the building fund for the new out-patient department and accommodation for nurses which is so urgently needed. A "novel scheme" for the dinner which we suppose is thought likely to appeal to the fashionable public has been devised. The tables are to be classified as follows, and a "distinguished lady hostess" will preside at each: (1) Peeresses; (2) House of Commons; (3) Army; (4) Navy; (5) Auxiliary Forces; (6) Drama; (7) Press; (8) American; (9) India; (10) Colonies; (11) Art and Music; (12) Stock Exchange; (13) Lloyd's; (14) Legal Profession; (15) Hospital Committee; (16) Sport. *Quidquid agunt homines* is represented in the scheme—with one trifling exception: the medical profession is conspicuous by its absence. It would seem that the Committee of Management thinks, as is the way of such bodies, that the medical profession is sufficiently honoured in having conceded to it the privilege of doing the real work of the hospital. With this it must fain be content without seeing its image in the glass of fashion by the side of the social luminaries of the Press and the Stock Exchange.

INSANITY IN THE UNITED STATES.

Dr. William A. White, Superintendent of the Government Hospital for the Insane at Washington, has recently made a statistical study of the distribution of mental disorders in the United States. His figures show that New England has more insanity in proportion to population than any other part of the country, and that the proportion grows steadily less as one goes either South or West, with the one exception that the Pacific Coast States show a pro-

portion almost as high as that of New England. Leaving out of account this exception, Dr. White finds that the cause of the greater prevalence of insanity is to be sought in density of population and in the stress of the struggle for subsistence, together with the predominance of mental work in the more populous regions. The people of the West are, as a rule, hardy, and commonly free from the exciting causes of mental disorders, and in the South the negroes are relatively exempt from such affections. To explain the apparent exception in California to the general rule, Dr. White suggests that the Pacific Coast has not yet fully recovered from the gold fever of '49; that it also suffers from the effects of immigration, and that the effects of intemperance and vice are particularly conspicuous in that part of the country. Dr. White believes that the subtle causes of mental disorder are so far below the surface that it is not easy in the present state of knowledge to arrive at definite conclusions on the subject.

THE CARE OF THE FEEBLE-MINDED.

A MEETING of the Oxford branch of the National Association for Promoting the Welfare of the Feeble-Minded was held at Oxford on February 6th, the Rev. L. R. Phelps, Fellow of Oriel College, in the chair. Lady Frederick Cavendish read a letter from the Queen, in which it was stated that Her Majesty has been much interested in reading the report of the Oxford Branch of the National Association for Promoting the Welfare of the Feeble-minded and of the work done. Lady F. Cavendish, in speaking of the work carried on by the Association, said she thought the State ought to deal with the feeble-minded as it did with lunatics and prisoners. Dr. Francis Warner pointed out that the feeble-minded were not confined to any social class. There was not the slightest evidence that they were more frequent amongst the poor than among the wealthy classes. Miss Dendy of Manchester gave an interesting account of the work that was being carried on in that city and Liverpool.

THE CONTROL OF CONTAGIOUS DISEASES OF ANIMALS.

THE statistics relating to outbreaks of contagious diseases of animals in Great Britain during recent years demonstrate the fact that whilst some diseases are being eradicated, others remain stationary and a few are even increasing; and it further appears that where the Board of Agriculture has had control success has been achieved, but where the local authorities have held sway little or no progress has resulted. The following facts are adduced by the *Times* as proving this statement: In 1890 legislation conferred upon the Board of Agriculture increased powers with regard to pleuro-pneumonia, and in 1891 a sum exceeding £113,000 was expended by the Board in operations against the disease. In 1889 the cattle attacked had numbered 1,646; but since 1898 no case has been notified. In regard to foot-and-mouth disease the decrease is also most marked. The local authorities formerly administered the law, and during the great epidemic of 1883-84 some 330,000 cattle, 370,000 sheep, and 37,000 swine contracted the disease. Subsequently, under that Board, when strong measures were taken to suppress the epidemics, they became much less serious. Thus, the outbreak of 1892-94 affected only 5,000 animals, and the cost of its suppression was less than £[illegible], while in 1900 a still better result was achieved. The decline of rabies is equally encouraging. In 1875, when the Board undertook its supervision, there were 721 cases in Great Britain: but now no case has been reported for a year past. The result as to swine-fever is less decisive, but still satisfactory. In 1894, when the Board started its operations, there were 5,052 outbreaks, and 6,305 occurred in 1895; also the cost of the Board's operations was £166,000 in the former year and £[illegible] in the latter. In 1902 and 1903 the outbreaks were reduced to 1,688 and 1,478 respectively, and the total expenditure of the two years was only £45,500. But other diseases—glanders, anthrax, and sheep-scab left in the control of local authorities (county councils and town councils of boroughs with a population exceeding 10,000) show no diminution. In 1869 glanders was made the subject of legislation, since when the number of horses attacked in any single year has rarely exceeded the figures recorded in 1902, namely, 2,040; whilst in 1903 the number was still higher, namely, 2,[illegible]. Anthrax shows a worse record: in 1902 there were 678 outbreaks, the highest number then recorded, but exceeded in 1903, when the reported outbreaks were 761. Of sheep scab it is reported that although the 1,833 outbreaks recorded in 1903 were higher than the figures in the two preceding years, yet the disease "is now more prevalent than it was as far back as 1888." These several facts render it evident that the single control over the diseases in question possessed by the Board is far more efficient than the divided control of the 300 local authorities.

PREMATURE BURIAL.

A CERTAIN portion of the press is agitating itself once more upon the time-worn subject of premature burial. The majority of alleged occurrences by which such fears are bolstered up prove upon examination to be either old wives' fables, or stories from dubious American sources, and in both cases to be evidence of a character which would scarcely be quoted in support of any serious proposition. The majority of the public, therefore, is not greatly impressed, and probably even as regards the minority the point which lends the idea its most acute interest is the conception that a person may not only be unintentionally buried alive but become conscious of the fact and struggle for release. Such notions, so far as they do not depend upon mere supposition, rest upon alleged cases in which coffins have for some reason been opened and the contained body found to have altered in attitude. If there really be any well-authenticated instance of such an occurrence, it is a far-fetched idea to explain it by a supposition of a struggle; in fact, the latter is almost inconceivable. A person enclosed in a coffin would die almost as quickly and just as surely as one thrown, bound hand and foot, into the depths of the sea. Nor would the process of death be such as to produce struggles. Rather would it be one in which the apparent passed rapidly into the real sleep of death much as an animal dies when placed in a lethal chamber, or a miner caught by choke-damp in a mine. For the rest the subject divides itself into one of probabilities and possibilities. As for the former, even if it be granted that no single one of the early phenomena of death is in itself an absolute proof of the cessation of life, a sufficient number of them are usually present to make death readily distinguishable from life even by an unskilled and inexperienced person; while in this country at any rate bodies are almost always left unburied sufficiently long for the development of that which is a certain proof of death, namely, decomposition. As for possibility, that is another question. It is, of course, possible for an unconscious person to be put into a coffin and buried, and however improbable it may be that this ever takes place, the possibility will always remain until a reform of the law with regard to death certification has been effected. It is a reform for which medical men have been calling for many years past, but one of which, like so many others initiated by the medical profession, the public has been slow to appreciate the importance. Hence it has neglected hitherto to direct its representatives to force it upon the consideration of the Legislature and the authorities.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

REFERENCE was made last week (page 327), to the formation of the Metropolitan Street Ambulance Association, which is seeking, in the first place, to interest candidates at the approaching election for the London County Council in the need for an organized system of street ambulances in London. The great progress already made by the Ambu-

lance Association proves clearly that most members of the medical profession take a keen interest in the project. The local secretaries of the Association in various parts of London send in very satisfactory reports of the work done, and the staffs of most hospitals are already well represented, though the Association is only a fortnight old. Many candidates at the approaching election have promised to do all they can to forward the scheme if they are successful at the elections. The Ambulance Association hopes to induce every medical man in London to study the question himself, and to interest his friends and patients, and also the candidates in the matter, and to point out what is really needed. It is most important that members of this Ambulance Association should be careful to distinguish the suggested extension of the excellent work by the Metropolitan Asylums Board to include the removal of non-infectious as well as infectious cases of illness occurring in houses from the Ambulance Association's proposal to deal only with street casualties, which that Board has definitely decided is beyond their province. The metropolitan police have decided that they cannot do more than they do at present; they would gladly be relieved of the necessity of having to take accidents, sometimes several miles, to the nearest hospital. They would of course continue their excellent services in "first aid" as now. The work done by the Bischoffsheim service, the St. John Ambulance Association, and the police is deserving of all praise, when the little they have at their disposal for dealing with the 12,000 to 15,000 street casualties requiring removal in the metropolis each year is remembered. The Bischoffsheim service consists of about 56 ambulances placed in various parts of London ready to be used by anyone who will fetch them. More than 2,000 cases, or about 15 per cent. of the whole are thus dealt with. The St. John Ambulance Association has about 25 stations where stretchers or litters are available for any one who knows where to find them, besides their three stations where officials are on duty. The police keep at each station one or more ambulances or litters to be used by them, when fetched, for drunken people or for casualties. They also have three horse ambulances, but these are not available at a moment's notice. With such arrangements, not even aided by telephone communication, it is not surprising to learn that in nearly 70 per cent. of the accidents in London the sufferers have to be conveyed to hospitals or to their homes in cabs or carts, usually without the policeman on duty having any idea of the nature of the injury. No doubt in many cases loss of life or further injury is caused in this way. What is wanted is first of all one recognized and responsible public body to collect evidence and establish a thoroughly efficient service for the whole of London, so that police and public may be able to procure an ambulance in the shortest possible time whenever necessary. It would not be difficult to arrange a scheme which would have plenty of room for such philanthropic work as has been done so generously by Mr. H. L. Bischoffsheim. The cost would be less than is usually supposed, as all that is good in the existing arrangements could be retained; the Post Office could no doubt be induced to give the use of the telephones free, and the Fire Brigade could be supplemented and utilized as it is at Birkenhead. It is said that Mr. H. L. Bischoffsheim "is prepared, as he has always been, to supply every requisite, even horse or motor ambulances, and indeed to do anything in reason to secure to London a properly-equipped and perfectly-organized ambulance service." Hitherto he has had the greatest difficulty in inducing the public to allow him to have stands for his existing ambulances, as there is no recognized authority to give the necessary sanction and consideration.

LEPROSY IN THE UNITED STATES.

According to the *Journal of Cutaneous Diseases* the centres of leprosy in the United States are, in the order of their numerical importance, as follows: Lousiana, New York, California, Florida, Minnesota, North Dakota, Texas, Mississippi, Illinois, Missouri, Wisconsin, Massachusetts, Alabama, Pennsylvania, Georgia, Ohio, Iowa, Maryland, Montana, Nevada, Oregon, and South Dakota, making twenty-two known foci of possible infection. Louisiana alone has a leper home, and, excepting in California, New Jersey, North and South Dakota, no attempt is made to provide for the care of the sufferers. A Bill aimed at the control of leprosy was introduced at the last Congress by Senator Platt, of New York, but it has so far been buried in Committee. The important features of this Bill are the following: A leprosy commission; one or more national asylums; the appropriation of 50,000 dollars for buildings for the habitation of lepers, not including the Hawaiian Islands, Porto Rico, Anam, or the Philippines; provisions for the transportation of lepers; the injunction against the importation of lepers; supervision of suspected immigrants of leprous families. The Public Health and Marine Hospital Service is to have full charge of such homes if established.

LEPROSY FROM A SANITARY STANDPOINT.

At the fifty-fourth annual meeting of the American Medical Association[1] Dr. Isadore Dyer, of New Orleans, dealt with the subject of leprosy from a sanitary standpoint. He is a contagionist, and has ample opportunities of seeing the disease in Louisiana, where it is endemic. His statements as to finding the bacillus in the earth of the graves of lepers and in rooms where lepers have lived requires corroboration. He discusses prophylaxis from the points of view of individual private isolation in the family home, and of public segregation. He holds also that nerve cases should be kept apart from the nodular or skin type, as he sees no reason why a patient suffering from the former should not acquire fresh bacillary infection from cases of the latter. This is a point worth investigation by those situated in favourable positions for observation, and will appeal also to those having tuberculous patients under their care in institutions. In the discussion Dr. Swarts, of Providence, referred to an unsuspected case of leprosy which found its way into the chief hospital of that city. An intelligent resident physician thought of leprosy, and confirmed his suspicion by discovering the bacillus in the nasal secretion. The patient, getting wind of his true condition, asked for his clothes and disappeared. He has not been traced since. Such a case tends to throw doubt on the contention that, because there is no history of contact with a leper, leprosy arises *de novo*. How many people in Providence, where this man lived, would admit such a history, before the nature of the malady of this man became known? Dr. Bracken of Minneapolis stated that there was no record of any American-born leper in Minnesota until within the past two years, but he now knew of three, all of Scandinavian parentage. This is another point which will have to be considered by the upholders of the fish and *de novo* theories, as will also Dr. Traill Skae's revelations as to the Orkney Islands.

LEPROSY IN RUSSIA.

Since April, 1902, we learn from Dr. Isadore Dyer,[2] Russia has defined the status of the leper in his relation to the public. Commissions composed of a medical inspector and not less than two medical men, having special knowledge of leprosy, are appointed to investigate the patient, both as to his physical and social conditions. Domestic segregation is allowed under Government inspection and regulations. Full powers are given to the Commission to determine the contagiousness of each case. A patient detained in a leper asylum, believed to be no longer infectious, may return to his home after examination and discharge by the Commissioners. For the purpose of explaining the present state of things, Professor Dehio, of Dorpat, in a recent number of *Lepra*, relates the work done in the leprous centres of Russia by Muench, von Wahl, Wellburg, Paulson, Hellat, and von Bergmann. Von Bergmann carefully demonstrated about 60 per cent. of

[1] *Journal of the American Medical Association*, November 7th, 1903, p. 1122.
[2] *Journal of Cutaneous Diseases*, February, 1904.

recorded cases as having lived or intimately associated with lepers. V. Riessen related that 19 cases had originated in an almshouse at Riga from 4 who were admitted as lepers. At Oesel, Lohk ascertained the restriction of leprosy to centres more densely populated. A very interesting point is brought out by Dehio, who relates that of 42 cases of nodular leprosy, in 38 probable contagion could be traced, from which other cases had spread; in 13 cases, 2 mixed and 11 anaesthetic, not a single case of infection could be traced. Hansen and Looft were quite explicit in declaring that the maculo-anaesthetic forms have less bacilli than the nodular, and that they carry no bacilli in the secretions, while in the nodular form the bacilli are nearly always present in the secretions. On this point Professor Dehio states his position very clearly: "Nodular leprosy," he says, "is an infectious disease, whereas maculo-anaesthetic leprosy is caused by infection through the bacillus leprae or the leprosy virus, but is not itself, or only in slight degree, contagious." He goes on to say: "The higher a nation stands in intellectual and material respects, the sooner it will be possible to leave the lepers to home supervision and nursing; the dirtier and less civilized a nation is, the oftener will it be necessary to remove lepers from among their fellows and to segregate them in leper asylums to check the spread of infection among the masses."

HYPERTROPHY OF THE BREAST AND PREGNANCY

An instructive discussion recently took place at a meeting of a French society after the reading of a paper by M. Routier[1] on a case of unilateral mammary hypertrophy and pregnancy. His patient was 22, and in the fourth month of her first pregnancy. Puberty had set in very rapidly, the first period appearing at the age of 14, and within a month the breasts and the fat over the nates developed in a most conspicuous manner. A little swelling then appeared in the right nipple, it grew together with the breast slowly, steadily, and painlessly, so that eight years later, when she married, the right breast was double the size of its fellow. After conception it began to enlarge with great rapidity. This change was associated with marked anaemia. Morphine was given subcutaneously for two days, then the breast was amputated. It weighed nearly 15 lb., and microscopically showed the characters of an adeno-fibroma. Pregnancy was continuing uninterrupted a month after the operation. Pinard, discussing this case, agreed with Routier as to the advisability of administering morphine before operation to avoid the excitation of contractions of the pregnant uterus by the necessary manipulations of the operation. Monod noted that this was another case which showed that removal of the breast could be practised during gestation like abdominal sections, without causing premature labour. Pinard replied that operations on the breast were much more likely to excite uterine contractions. The association of the innervation of the uterus and of the breasts has long been recognized. We may add that a valuable monograph on this subject by Temesvary of Buda-Pesth was published last year.[2] He dwelt on the probable main object of this physiological phenomenon, the excitation of uterine contraction after labour by the first attempts at suckling, which Pfister has carefully studied. He also pointed out that on the death of a fetus during pregnancy without its expulsion from the uterus, symptoms appear on the breast such as are seen after normal delivery, the glands becoming more full and hard and secrete true milk instead of colostrum. Legueu in the discussion on Routier's case reported an ovariotomy where the tumour had developed in the right ovary. The right breast at once underwent atrophy, so that when pregnancy occurred the left gland seemed as though the seat of a tumour. The atrophied right gland did not return to its former bulk till after delivery. Amputation of a breast undergoing acute hypertrophy during pregnancy is probably of urgent necessity, as it appears to exercise a prejudicial influence on gestation. Statistics on the results of removal of the breast during pregnancy, based on a large series of cases, are much needed. Hypertrophy of the breast also calls for the attention of pathologists and clinicians, as it is a most disfiguring condition, especially in youth, and tends to impair the health. At present there seems to be no known remedy but amputation, involving another repulsive kind of disfigurement. Perhaps uterine medication might check the hypertrophy.

A MEDICAL MAN AS DELEGATE OF THE AUSTRALIAN COMMONWEALTH.

Many of our readers will doubtless learn with interest that the Australian Commonwealth selected a member of the medical profession to represent it at the jubilee celebrations of the foundation of the French colony of New Caledonia. Major Reuter Emmerich Roth, D.S.O., Principal Medical Officer of the Commonwealth Military Forces of New South Wales, was received by the French authorities with the greatest marks of distinction. He was provided with an official residence a staff of servants and carriages, and an escort of mounted gendarmerie. The Governor, M. Picanon, received Major Roth officially, surrounded by his staff and officials in full dress, and many functions were given in his honour. He inaugurated the first railway in New Caledonia. A special reception was given him by the Military Club; a dinner and ball by the Municipality of Noumea. The Military Hospital which contains 200 beds was specially decorated when Major Roth visited it. Everywhere the French and Australian flags were draped together. This is the first occasion on which Australia has sent a delegate to a foreign nation. It is therefore peculiarly interesting that the Commonwealth should have chosen a medical man as its representative. Major Roth was accompanied by Dr. Rougier, the representative of the Pasteur Institute in Australia, who went on behalf of the French colonists in Australia.

PRACTICE IN THE UNITED STATES.

We have been favoured by Dr. George H. Simmons, editor of the *Journal of the American Medical Association*, with a pamphlet containing a reprint of a number of articles which appeared in its columns on the "Laws Regulating the Practice of Medicine in the States and Territories of the United States." The number of different codes thus dealt with is forty-two, and a short readable extract or summary of each is given so far as they affect the conditions under which medicine may be practised. With the exception of two or three States, the passing of an examination after a definite course of study is a necessary preliminary to practice, and any one who is qualified to practise in any part of the United Kingdom or its colonies is eligible to present himself for such examination. In their general effect it may be said that the laws throughout the different States tend to be at once more stringent and more lenient than those in force on this side of the water; more stringent than in Great Britain because the laws are so worded as to make practice by an unqualified or unregistered person very much more difficult and more dangerous and more lenient than in Great Britain because the gate into the fold of qualified persons is a very wide one. Provided they have pursued the prescribed courses of study, "eclectics" of all varieties are free to enter it by examinations specially arranged to meet their various views of what the art of medicine should be.

UTERINE AFFECTION AND CONSTITUTIONAL DISEASE.

Four years ago much was heard about the abuse of "uterine therapeutics," a term often used in no other sense than contempt. The "stick and speculum" era of gynaecology involved one profound error, the assumption that any affection of the uterus necessarily meant primary uterine disease. Some of the appearances taken for signs of a local malady were not even morbid, whilst the misinterpretation of erosion of the cervix (taken as ulcer

tion, led to grave abuses. At the present day the gynaecologist is more of a surgeon than a physician, and owing to the perfection of abdominal and vaginal surgery he can at least see what he is about. The most satisfactory way of treating chronic inflammatory disease of the uterine appendages and interrupted ectopic gestation remains unsettled; still operative surgery has thrown much light on salpingitis and tubal pregnancy where the vaginal speculum is useless. Yet, though operative gynaecology has made prodigious strides in relieving very urgent diseases, the same cannot be said of minor, but distinct, uterine affections. What does chronic metritis precisely signify? What is the best way of treating it? What is endometritis? May not both be local signs of general ill-health rather than purely local diseases? Gottschalk[1] recently read a most instructive report of a case of endometritis exfoliativa at a meeting of the Obstetrical and Gynaecological Society of Berlin. He exhibited sections from the uterus of a woman who had suffered during life from endometritis exfoliativa. She had at the same time distinct cardiac weakness, and there was oedema of the lower extremities without albuminuria. The report does not state the actual cause of death. Two conditions were clearly demonstrated by the sections of the diseased uterus. Free haemorrhages were to be seen under the membrane, evidently the immediate cause of its detachment. Numerous thrombi were noted in the veins of the endometrium. They were due to greatly diminished force of the blood current, which also caused the walls of the veins to yield, accounting for the haemorrhage. Hence in that, and probably in many other forms of endometritis, constitutional treatment is indicated rather than intra-uterine medication. Good diet and digitalis may do more service than the curette.

HYDATID CYSTS IN ABDOMEN AND PELVIS.

Hydatid disease of the liver has for long been a well-known affection, and abdominal surgery has thrown light on hydatids developing lower in the abdomen and in the pelvis. Franta's important treatise on *Hydatid Cysts in Pregnancy, Labour, and the Puerperium*, reviewed in our pages two years ago,[2] showed that the disease in question was important to the obstetrician. We take the opportunity, now that the decease of Mr. Knowsley Thornton has brought the name of that distinguished surgeon forward, to recall his remarkable case of Removal of Hydatids of the Omentum, published over twenty-five years ago,[3] where the patient was in the sixth month of pregnancy when the operation was undertaken. Premature delivery occurred on the eighth day, the abdominal wound had given way on the seventh, and opened once more on the thirteenth; nevertheless, the patient recovered, and lived for nearly two years, succumbing at length to the effects of the parasite in the lungs. In those days, now ancient in the history of abdominal surgery, such an operation was considered a great feat of skill. Since 1878 many operations for abdominal hydatids have been recorded, and Franta collected a series. Quite recently Savariaud and Reboul[4] have added cases of some interest. The former relates an instance where the parasite had invaded the great omentum as in Knowsley Thornton's patient. Savariaud operated upon a woman, aged 30, for a tense cystic tumour which rose a little above the pubes; as usual, the operation proved to be much harder than expected, the tumour, full of daughter cysts, lay mainly in the right broad ligament. The uterus, closely associated with the cyst, had to be removed; in detaching the lower part of the cyst wall, which was as clear as glass, the right ureter could be seen through it; 4 in. of that duct had to be dissected off the cyst. A few months later another tense cyst had developed entirely above the pelvis. It contained over a pint of the usual crystalline fluid, and was taken away with two smaller cysts, all from the great omentum. The patient was convalescent when the report was published. Reboul of Nimes records a case of interest for obstetrical reasons. A girl aged 17 was delivered normally at term. At the age of 10 she had an attack of abdominal pain and a tumour was detected; at 16 another attack occurred. After delivery the abdomen remained large, and there was a rise of temperature on the fifteenth day, followed a week later by violent pelvic and abdominal pains. At the end of three months Reboul detected a multilocular cyst which filled the entire right side of the pelvis and extended a little to the left of the umbilicus. It reached inferiorly into the right side of the pelvic cavity, which was remarkable under the circumstances. Reboul operated, removing hydatid cysts from the right broad ligament (one held six pints and a-half of crystalline fluid) and pelvis. Daughter cysts came away in abundance, and the main wall of the largest cyst could not be removed entire, though its fertile inner membrane was detached and the remainder touched with camphorated naphthol. Not a single cyst had suppurated. Thus delivery may occur at term in a woman the subject of an abdomino-pelvic hydatid tumour without rupture of the walls of any of its cysts, and without subsequent inflammation, although there may be puerperal rise of temperature. The danger of attempting to push up a pelvic tumour of uncertain nature in a pregnant subject is evident when we remember the physical characters of a tense hydatid cyst. It was, perhaps, fortunate that in Reboul's case the tumour was overlooked until after delivery.

[1] *Zeitschr. f. Geb.*, No. 19, p. 1477.
[2] British Medical Journal, vol. i., 1902, p. 962.
[3] *Medical Times and Gazette*, November 17th, 1877. The specimen is preserved in the Museum of the Royal College of Surgeons of England. Pathological Series, 1021.
[4] Savariaud, Kystes Hydatiques du Ligament Large et du Grand Epiploon. *Rev. de Gynéc. et de Chir. Abdom.*, November-December, 1903, p. 905. Reboul, ibid., p. 1045.

ACCIDENTS TO WORKMEN.

The Association Médicale des Accidents du Travail is the name of a Society founded in Belgium on December 19th, 1903. The objects of the Association are (1) to study all questions relating to accidents occurring to workmen; (2) to supply answers to general questions submitted for its consideration; (3) to make known to its members the laws, royal ordinances and regulations concerning accidents to workmen; (4) to centralize the work of compiling statistics in the different towns of Belgium; (5) to propose for discussion among the members questions of an exclusively scientific character; and (6) to publish periodically a Bulletin containing (*a*) original communications, (*b*) a review of periodicals, (*c*) official documents, (*d*) bibliographical notes, (*e*) materials for statistics, and (*f*) legal points relating to accidents to workmen. The head quarters of the Association are at Brussels.

INSTRUCTION IN CHARITY ADMINISTRATION.

An institute of social science has been established in Chicago, for the purpose of supplying instruction in methods of philanthropic work. The institute will supply the need of an opportunity for systematic training in charity administration. The institute is organized as a branch of the extension division of the University of Chicago. The administrative work will be in the hands of the staff division, and the instructors may have university standing.

A MUSEUM OF SECURITY.

There is a museum of security at Charlottenburg, near Berlin, which owes its existence to the joint efforts of public authorities and private citizens. The State provides the building and funds necessary for maintenance, while private enterprise has collected the exhibits. The museum grew out of an exposition, held in 1889, of the various devices for the prevention of accidents in manufacture, a subject important in Germany to every manufacturer, as the system of joint State and employers' insurance renders the owner liable to a pension for those who are injured in his works. The general interest in this subject has led to an appropriation in Germany of £28,400 in 1900, with appropriations of £23,600 in the two following years. The

maintenance of the museum costs £1,500 to £2,000 a year. The museum supplies examples, representations, models, drawings, and information in regard to every possible appliance by which life is protected and accident less likely in all forms of manufacture. A museum of security on the same lines is being planned by the Philadelphia Institute of Social Science.

THE CARE OF THE INSANE IN THE PHILIPPINE ISLANDS.

According to the Manila correspondent of the New York *Medical Record*, a Board has been appointed to investigate the question of the care of the insane in the Philippine Islands, and submit plans and estimates for that purpose. Under the Spanish rule, a single asylum in Manila, with accommodation for 270 patients, was the only institution for the care of lunatics throughout the islands. Ordinarily, the insane were cared for by friends or relatives, but dangerous lunatics have generally been incarcerated with prisoners in the provincial gaols, where they received little attention, and were placed under conditions far from conducive to recovery. The Board, which has the matter in hand, is making a census of the insane in the islands, with the object of obtaining definite information as to the number of patients for whom hospital accommodation is required. It is conducting its work with the dual object of arranging for the necessary number of permanent institutions, to be modern in every respect, and at the same time to make temporary accommodation to relieve present necessities. The establishment of such temporary institutions in convents near Manila is now being considered.

A Bill providing for State registration of nurses has been prepared by the Maryland State Society of Graduate Nurses. It is to be introduced during the course of the present meeting of the State Legislature.

The Senatus Academicus of the University of Edinburgh has awarded the Cameron Prize in Practical Therapeutics to Professor Niels R. Finsen, M.D., of Copenhagen, in recognition of his pioneer work in connexion with the application of light rays to the treatment of disease.

Sir Patrick Manson will read a paper on Tropical Diseases at the West India Committee Rooms on Tuesday, March 8th, at 3.45 p.m. The paper will be illustrated by limelight lantern slides. The Duke of Marlborough will occupy the chair. The lecture will be the second of a series to be given under the auspices of the West India Committee.

We may remind readers, who have not yet signed the petition calling attention to the need of elementary scientific instruction in health subjects, including temperance, in schools, which was published in the British Medical Journal of January 23rd, that the list will shortly be closed. We venture again to express the hope that every member of the medical profession will without delay sign the petition.

The Milroy lectures before the Royal College of Physicians will be given by Dr. W. Williams on February 25th and March 1st and 3rd. The subject will be "Deaths in Childbed: A Preventable Mortality." The subject of the Goulstonian lectures, which are to be given by Dr. R. Hutchison on March 8th, 10th and 15th, is, "Some Disorders of the Blood and Blood-forming Organs in Early Life." The Lumleian lectures, on "Some Disorders of the Spleen," will be given on March 17th, 22nd, and 24th by Dr. F. Taylor.

We are indebted to the courtesy of the Registrar of the General Medical Council for a copy of the completed and indexed minutes of its proceedings during the year 1903, together with those of its various Special Committees and Branch Councils. Twenty-seven appendices are bound with the work, the majority of which are reports submitted to the Council by the Examination Committee. These, it should be noted, contain the replies made by the various bodies interested to the comments of the Council's Visitors upon the fashion in which their duties are performed.

The paper on Prostatectomy, by Sir William Thornley Stoker, published in the British Medical Journal of January 30th, was read before the Surgical Section of the Royal Academy of Medicine in Ireland on January 2nd. We are asked to say that Fig. 2 should be referred to Case I, and Figs. 1 and 3 to Case II. The subject of the third case died on the fifteenth day from the failure of a weak heart, his progress in regard to the bladder symptoms up to that time having been perfect.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

The Ballot and Private Members' Bills.—The chances of the ballot did not this year favour members interested in medical Bills. Sir John Tuke had the best luck, and he only came out eighteenth on the list. The Revaccination Bill, of which he was in charge, was consequently unable to get a better place than Monday, April 25th, which, under ordinary conditions, does not promise much progress, as Monday is not a private members' day. Music this year won the first place, and so Mr. Mount, the lucky drawer, put down his Bill to amend the law of musical copyright for Friday, February 26th. The Bill to provide compensation to the owners of animals slaughtered by order of a magistrate on account of tuberculosis was put down by Mr. Price for Friday, April 15th, and will have a good chance of getting a second reading. Sir Francis Powell was lucky enough to secure the following Friday, April 22nd, for his Bill to Prevent the Pollution of Rivers. The Bill is supported by Sir Wilson Todd, Mr. Henry Hobhouse, Sir John Dorington, Dr. Farquharson, Mr. Brigg, Sir John Brunner, and Sir Walter Foster. The Medical Act (1886) Amendment Bill was again brought in by General Laurie, and has been put down for February 19th, but as the Deceased Wife's Sister Bill stands before it on that day the probabilities are that it will not be reached. The Bill seeks to facilitate the admission of Colonially-trained registered medical men to practise in Great Britain and to hold appointments in the imperial service, and is backed by Sir Walter Foster, Sir John Tuke, Mr. Rothschild, Sir Howard Vincent, and Sir M. Bhownaggree. Two other Bills have some medical interest, namely, the Coroners Inquests (Railway Fatalities) Bill and the Shops Bill, but neither are placed favourably for obtaining adequate discussion. There were over forty private members' Bills on the paper at the end of last week, but only some half-dozen have any chance of a second reading.

Government Bills.—Mr. Graham Murray, as Secretary for Scotland, has given notice to introduce the Scotch Education Bill at an early date. The President of the Local Government Board has given notice to introduce a Bill to amend the Law with respect to valuation authorities, and the effect of, and procedure for making, valuation lists. Mr. Long has also given notice of his Bill to amend the Public Health Acts which will include general and special amendments of the law of public health. The Board of Agriculture will introduce at an early date the Sale of Butter Bill which was only dropped at its last stage at the close of last session.

The Physical Condition of Children. Sir John Gorst has placed a notice of motion on the paper as follows: To move that a select committee be appointed to inquire and report as to the best method of keeping a record of the physical condition of children attending schools which are aided by Parliamentary grants. The discussion on this motion will necessarily raise the grave question of the deterioration of national physique, but the terms of it unless modified will not enable the committee, if appointed, to inquire into this larger question. A date for the discussion will have to be secured in the ballot taken weekly for Tuesday evenings.

The Constitution of the Local Government Board.—On Monday last Mr. D. A. Thomas asked the Chancellor of the Exchequer if he could state what progress had been made by the Committee appointed to consider the position and duties of the Board of Trade and Local Government Board, and to report on the desirability of alterations in the constitution and status of these offices, and of a rearrangement of duties between these departments and other Government departments; and when such report was likely to be in the hands of members. The Chancellor of the Exchequer, in reply, after referring to the constitution of the Committee appointed on July 18th last year, said that the Committee met very shortly after its appointment, and adjourned to give time for information to be supplied by the two Boards concerned. The necessary reports had only recently been obtained, and consequently the Committee had been unable to complete their inquiry and report. He named the Local Government Board as being the last to supply the information required by the Committee, and said he was not in a position to name a date for the presentation of the report.

The Sanitary Condition of the House of Commons.—On February 5th Mr. Wylie asked the honourable member for Chorley, as representing the First Commissioner of Works, what had been done during the recess for improving the ventilation and sanitary arrangements of the House of Commons, and also if it was intended to do anything further. Lord Balcarres replied that during the recess the improvement of the Committee rooms and of the lavatories had been continued. The fittings of the lavatories over the members' cloak rooms, in the library corridor, and the lower waiting hall and elsewhere had been renewed. Sums would be taken in the Estimates for 1904-5 for carrying on these improvements to completion. Immediately after the report of last year's Committee on Ventilation, experiments were instituted for the purpose of determining details incidental to power of fans, velocities of air passing through washing screens, etc., and the result of these experiments had only recently been recorded. The improvements decided upon could now be carried out, and would be provided for in the Estimates. The various works would be proceeded with during this year, but there was difficulty in doing much while the House was in session.

Pure Beer.—Sir Cuthbert Quilter asked the President of the Local Government Board last week whether his attention had been called to the confirmation by the Royal Commission on Arsenical Poisoning of the opinions expressed in the Minority Report of the Beer Materials Committee issued five years ago, prior to the outbreak of the beer-poisoning epidemic, that legislation or other provision was necessary to prevent the use of deleterious substances in the manufacture of beer, and that a court of reference, as recommended by the Committee on the Adulteration of Food Products (a recommendation since endorsed also by the Food Preservatives Committee), should be established for fixing standards of purity for the purposes of the Sale of Food and Drugs Acts; and, if so, would he say what action it was proposed to take to give effect to the recommendations of the Royal Commission, more especially as regards the protection of the public against the use of injurious ingredients in beer, and the fixing of a standard of purity. Mr. Long answered that he had, before the issue of the report of the Royal Commission on Arsenical Poisoning, had under consideration the expediency of promoting legislation with a view to the constitution of a court of reference for the decision of certain scientific questions in relation to food of the kind referred to in the question, and he had been in communication with the Board of Trade and the Board of Agriculture on the subject. He was continuing to give attention to the matter, but having regard to the large and important recommendations of the Arsenical Commission, he thought it would be necessary that a conference should be held of representatives of the Government Departments concerned before a decision as to the course to be adopted could be arrived at.

The Registration of Nurses.—There is some activity on the part of the promoters of a Bill for the Registration of Nurses and Nursing Homes. Dr. Farquharson has undertaken to introduce the measure, and Mr. Claude Hay, Lord Cecil Manners and Mr. Halsey are mentioned as supporters. The Bill is to provide for the registration of nurses and to prevent any one practising as a registered nurse unless registered, under a penalty of £10. Existing nurses are to be registered on production of evidence of training, and so are Colonial nurses under certain conditions. It is proposed to constitute a Central Board consisting of medical practitioners and nurses to control and regulate the nursing profession and publish the Register. The Board will also have power to register and inspect private nursing homes. The promoters do not expect to carry their Bill this session, but will seek to get a Select Committee appointed to consider the whole question.

Street Accidents and Covered Vehicles.—Sir Thomas Dewar asked the Home Secretary on Monday if he would state the number of accidents caused by covered vehicles in the streets of the metropolis during the year 1903, which had resulted in personal injuries, and how many had proved fatal. Mr. Secretary Akers-Douglas replied that during 1903, 1,425 accidents resulting in personal injuries had been caused by covered vans in the streets of the metropolis, of which 29 were fatal.

Factory Inspection in the Potteries.—Sir Charles Dilke asked the Secretary of State for the Home Department on Monday whether he could inform the House at what date it was his intention to establish in the Potteries one of His Majesty's Inspectors of Factories from the women's department, in pursuance of the strong recommendation made by the umpire at the arbitration last year. Mr. Secretary Akers-Douglas answered that he had already taken the steps best calculated in his opinion to meet the demands of this case. As he had informed the right honourable baronet last year, he had arranged for special attention to be paid to the Potteries by the lady inspectors; and now one of them had been selected and given instructions to make the Potteries the centre of her duties for some time, and she was at present stationed there.

At the examination for sanitary inspectors under the Public Health (London) Act held in January, 26 candidates were successful. Of these 11 received instruction from the National Health Society, 8 from the Sanitary Institute, 6 from King's College, and 1 from the Bedford College (for Women).

Folkestone Medical Society.—The annual meeting of this Society was held on January 8th, when the following officers were elected for 1904:—*President:* Dr. Tyson. *Vice-Presidents:* Dr. T. Eastes, Dr. J. Hackney, Dr. C. Perry. *Committee of Management:* Mr. Thornton-Gilbert, Mr. J. R. Phillips, Mr. H. A. Powell, Dr. E. Sworder, Dr. L. Wainwright. *Library Committee:* Mr. A. Randall-Davis, Mr. J. Keay, Mr. F. B. Madden. *Honorary Secretary and Treasurer:* Dr. J. E. G. Calverley. It was decided to make the following donations from the Society's funds:—The Epsom College, £2 2s.; Kent Benevolent Society, £1 1s.; the Folkestone District Nurse, £1 1s.

The Birth-rate in Germany.—According to the Berlin correspondent of the *Standard* there has been a steady decrease in the number of births in Germany during the last few decades. From 1870 to 1880 the number of births was 40.7 for every thousand inhabitants; during the following decade it fell to 38.2 per mille; and from 1890 to 1900 it was not more than 37.4 per mille, or about as much as during the Fifties. This decrease, however, has hitherto been compensated by the decrease in mortality. From 1890 to 1900, for instance, the death-rate decreased by more than 2 per mille. In Berlin the decrease in the birth-rate has been especially marked; the total number of births in the capital being 1,700 less in 1903 than two years ago. The actual number of births in Berlin was 49,000 in 1903, 52,259 in 1901.

Medical Sickness and Accident Society.—The monthly meeting of the Executive Committee of the Medical Sickness Annuity and Life Assurance Society took place on January 29th, at 429, Strand, W.C., Dr. de Havilland Hall in the chair. This being the first meeting of the year the Committee had presented to it special reports on all the claims of the apparently permanently incapacitated members, to the number of twenty-four. Their contents left little hope that any permanent improvement can be expected in the great majority of the cases. The Society pays these members an allowance—usually 100 guineas a year—until the age of 65. The accounts for the year 1903 showed that the Society had increased both in numbers and in financial strength. Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Ireland.

A Vicereгal Slight.

The Lord-Lieutenant of Ireland, the Earl of Dudley, has informed the Presidents of the Royal Colleges of Physicians and of Surgeons respectively that the privilege of the private entrée to the levées and drawing-rooms at present enjoyed by them *ex-officio* will not be extended to their successors. The Colleges have replied, expressing their surprise and regret at the unmerited slight, but His Excellency remains firm. The reason assigned for this proceeding is that it is not possible otherwise to find accommodation for the many heads of Government departments. The reason is entirely inadequate. The Presidents of two great Colleges, representing a large body of educated gentlemen, are certainly as much entitled to enjoy this convenience and privilege as the numerous chiefs of small so-called "departments." Indeed, they have a greater claim than a number of the well-salaried gentlemen who rejoice in large incomes and easy duties. We assume that the same rule is to be applied to the future Provost of Trinity College, the Presidents of Queen's Colleges and of various professional corporations. Of course they will resent such a breaking of old custom, but His Excellency is not inclined to alter his decision, and there is no appeal. There can be no doubt that a grave mistake has been made, which will not help towards popularity.

The Irish University Question.

On February 6th, at a public meeting representing the Roman Catholic residents of the city and county of Cork, held for the purpose of urging on the Government the claims of higher education for Roman Catholics, Mr. Maurice Healy, solicitor, proposed:

That, while pressing for the settlement of the Irish University question, we wish also to represent that Cork has now been for over half a century the seat of a university college, that the existing college is already provided with splendid collegiate buildings and an ample enclosure, and in its general equipment is well fitted for the highest educational purpose, that we desire to strongly urge the claims of the city of Cork that in any settlement which may be arrived at the continuance of a local university college shall be secured to the city; that it is of the greatest importance, not merely to the city and county of Cork, but to nearly the whole province of Munster, affecting a population of over a million of persons, that local facilities for university education entailing no sacrifice of conscience should be provided; that we are satisfied that the existing institution could be reconstituted on a basis which would enable Catholics to avail of it, while doing no injustice to our Protestant fellow countrymen, thereby securing equality for all; and that we trust the Government and the Irish members of Parliament will take care that in this matter the special claims of Cork shall not be overlooked.

Dr. Cotter, in supporting the resolution, said he hoped there would be no such settlement of the university question as would deprive the south of Ireland of the college which they had in the city of Cork. Mr. Stanley Harrington, M.A., also supported the resolution, and pointed out they were not asking for a separate university or any great expenditure of money, but for a university college. What they wanted was that when the proper time came the existing college should be remodelled in such a way as would enable Catholics as well as their countrymen of other persuasions to avail of it without any violation of conscience, and that the various faculties which are essential to a proper university course should be suitably provided for.

A New Branch of the Irish Medical Association.

A meeting of the medical practitioners of the South Riding of Tipperary was held recently at Clonmel for the purpose of forming a Branch of the Irish Medical Association. Dr. O'Connell, of Fethard, in the absence of Dr. O'Brien owing to illness, was unanimously elected chairman. Among the resolutions passed were the following:—Proposed by Dr. Laffan, seconded by Dr. Hennessy, and resolved unanimously:

That we adopt the Articles and By-laws of the Wexford Branch of the Irish Medical Association, [illegible] the question of salaries and fees of Workhouse medical officers be postponed to another meeting.

It was further unanimously resolved

[illegible]

The meeting also tendered its best thanks to Mr. Tobin, of St. Vincent's Hospital, and to Sir Lawrence Ormsby, President of the Royal College of Surgeons, for their fearless advocacy of the claims of the Irish medical service.

Irish Medical Association.

The following resolution was passed at a meeting of the Council of this Association on February 3rd:

That we are of opinion that the conversion of the Irish Poor-law Medical Service into a civil service would be most injurious to the interests of Poor-law medical officers, and give rise to far more grievous abuses than those at present oppressing such Poor law medical officers.

It was unanimously agreed to assist the Kildare Branch of the Irish Medical Association in subsidizing Dr. Barry to the amount of £52 10s. a year so long as the Branch considers itself justified in retaining him in Ballymore.

A Roentgen-ray Burn.

Mr. Justice Gibson and a special jury have been engaged for a week in Dublin in trying a case in which the plaintiff, suing by his father, seeks to recover damages for a burn inflicted by Roentgen rays. The defendants are the president and professors of Queen's College, Galway. The plaintiff was supposed to have a needle in his knee-joint, and his medical attendant sent him to the College to have a skiagraph taken. The professor (Professor Anderson), in whose charge the apparatus is, has been in the habit of allowing his assistant, a man named Haire, to take skiagraphs for the convenience of practitioners, but the calls became so frequent that it was suggested that Haire should receive some small fee for the cost of materials and his services. The allegation was that on the first occasion the tube was held close to the knee for twenty minutes, that a burn was in consequence produced, and that later on there was a second application. The resulting ulcer took a long time to heal, but it ultimately cicatrized, and the plaintiff sought damages for the injuries inflicted.

The defence was a denial of the acceptance of any employment as to the treatment of the plaintiff, or that there was any negligence. Counsel further stated that Haire was only a servant whose duty it was to keep the instruments clean, and argued that the plaintiff was not entitled to expect the same amount of skill from him as if the child had been treated by a specialist. As to the best means of using the rays, people were only groping in the dark at present, and out of fifty experiments by this particular apparatus no evil results had occurred to any one.

Dr. W. Haughton and Dr. Lane Joynt were examined for the plaintiff. For the defendants Dr. H. L. Jones, Bartholomew's Hospital, Dr. Hall-Edwards, Birmingham, Sir C. Ball, and Sir Thornley Stoker were examined. Dr. Jones and Dr. Hall-Edwards, as experts, swore that they had examined the apparatus. The minimum distance from tube to skin would be 8 in., and the exposure 10 minutes. To obtain the skiagraphs produced the distance must have been more than 2 in.

The National Association for Prevention of Consumption.

The Cork Branch of this Association is still actively pursuing its object of trying to avail itself of the free site offered for a sanatorium by Mr. Barter. During the past week deputations from the Association, consisting of medical and lay members, have been busy at work visiting the various district councils, laying before them the advisability of establishing the proposed sanatorium, and urging upon them the necessity of levying a rate for the upkeep of the institution, where it is proposed to treat 100 patients in the year, the average treatment of each case to extend over three months. Before the Midleton Board Dr. Ashley Cummins, Professor of Medicine, Queen's College, Cork, expressed the feelings of the deputation, and pointed out the absolute necessity which existed for the construction of the proposed sanatorium, and thus to check the terrible and increasing mortality from consumption in Ireland. Other countries, he said, had been fully alive to the necessity of such hospitals, and it was high time that in this country, where consumption was increasingly rampant and where people were so largely emigrants, vigorous and practical measures should be taken to stem the regrettable mortality arising from consumption. The Board unanimously agreed with the resolution passed by the Cork Rural District Council in favour of the formation of a united district, embodying the various urban and rural districts in the country, and that the Midleton Rural District Council should be included as a contributory area, they agreeing to levy a tax not to exceed 1d. in the pound. Drs. Atkins (Cork), Woodroofe, and Williams (Lismore) appeared before the Lismore District Council. Dr. Atkins gave a full and detailed explanation of the urgent necessity of grappling with the appalling death-rate in the province, of which people were ignorant, and which, while from all other [illegible]

fectious diseases only 10 per 10,000 died in the same year. The Council agreed to be taken into the united district, and also to levy the necessary tax of 1d. in the pound. The Bandon District Council was next approached by Drs. Cremen (Cork), Welply and Reid (Bandon). The deputation advocated the necessity of the situation, and the Board agreed to join the United District and levy the rate of 1d. in the pound. At Queenstown Drs. O'Connor (Cork), H. R. Townsend, Hodges, and Keane appeared as the deputation, and the Council unanimously agreed to fall in line with the other bodies. Clonakilty District Council has also been approached, and agreed to join the Union, and there now only remains Skibbereen and Castletownsend to follow the example set by the other districts. It is thought that altogether the income derived from this united district will be between £5,000 and £5,500 a year.

Queen's College, Belfast.

At a general meeting of the Ulster Medical Society on February 4th a motion was proposed and carried in support of the resolution of the Council of Queen's College, Belfast, which was sent to His Majesty's Government and advocated a larger endowment and better equipment of the College.

A Gift of Radium.

The Lord Mayor of Belfast, Sir Otto Jaffé, has promised to present a 60 mgr. tube of radium to the Queen's College Equipment Fund, with the stipulation that the tube should be available for use in the Royal Victoria Hospital. Much interest has naturally been aroused by the prospect of being able to study directly the effects of the wonderful drug in cancer.

The Isle of Arranmore.

At a meeting of the Glenties Rural Council, held on February 6th, Dr. McCarthy, Medical Inspector of the Local Government Board, again brought under the notice of the Council the condition of many of the houses in the island of Arranmore. The island lies a few miles off the Donegal coast and has a population of about 2,000. Some severe epidemics of typhus have broken out in the last few years; in one of which, it will be remembered, the late Dr. William Smyth, of Burtonport, lost his life. The Congested District Board now owns the island, and has made most generous offers to the inhabitants to improve their dwellings: Free sites for decent houses, slates, corrugated-iron doors, and windows free, a bonus of £10 to those who erect a thatched house, and of £15 if a slated house. The sanitary officer of the district council was instructed to visit the island and report. After long delay the report was submitted to the effect that all the houses were in a perfectly sanitary condition; yet Dr. McCarthy said that ten minutes on the island would reveal the fact that many houses were dirty and insanitary in every way. One house was only 9 ft. square, and contained a mother, three sons, and a donkey; there was no outhouse. The next house was approached through a quagmire of filth, and inside was the filth of the inhabitants and of the animals kept there. In another house a family of nine lived in a single room 12 ft. by 10 ft. Other houses had no windows. Dr. Eardley, medical officer of the district, also reported in a similar strain on some of the houses. Finally it was decided to serve notices on the cases reported to have their houses placed in proper condition, and if they failed to do so to prosecute. It was also decided to urge the inhabitants to avail themselves of the offer of the Congested District Board.

Health of Belfast.

The Belfast medical officer of health has reported that 86 cases of scarlet fever, 58 of erysipelas, 27 of typhoid, and 14 of small-pox have been notified during the last month; 1,034 births and 869 deaths were registered, and the death-rate was 25.3. Since the outbreak of small-pox 35 cases have been treated, with so far only 1 death—that of a little girl aged 5, who had never been vaccinated. Owing to the prevalence of measles and whooping-cough an arrangement has been made with the medical officers of health to notify cases of these diseases as well as phthisis voluntarily, and to give the necessary school certificates in the case of the poor. These officers will receive an increase of salary. By this means not only will valuable information be given to the public health officers so that houses could be disinfected, but no child would be allowed to go to school until it was quite free from infection. The city analyst, in a lengthy report to the Health Committee, drew attention to the increasing number of cases where milk was found of so poor a quality as to render the vendors liable to prosecution. One city councillor said it was due to the apathy of those magistrates who would not convict or would only inflict a very ineffectual fine.

Scotland.

Honorary Degrees.

The Senatus Academicus of Edinburgh University has resolved to confer the honorary degree of LL.D., at the Spring examination in April next, on Professor Alexander Macalister, F.R.S., Cambridge; and on Dr. Hannis Taylor, Alabama, U.S.A.

The Senatus Academicus of St. Andrews University has resolved to confer the honorary degree of LL.D. on Sir Charles Gage Brown, M.D., K.C.M.G., London; Professor A. H. Keane, late of University College, London; Dr. John Newport Langley, M.A., D.Sc., F.R.S., Professor of Physiology in the University of Cambridge.

Carnegie Trust Endowment Scheme.

The Executive Committee of the Carnegie Trust has framed for this year its scheme of endowment of post-graduate study and research. The details are understood to be similar to those of last year.

The New Superintendent of Statistics for Scotland.

Dr. James Crauford Dunlop has been appointed Superintendent of Statistics in the office of the Registrar-General for Scotland, in place of the late Dr. Blair Cunyngham.

Small-Pox in Edinburgh.

At a meeting of the Town Council held on Tuesday, February 9th, Mr. Lang Todd, the Convener of the Public Health Committee, reported that they had up to that day 55 cases of small-pox in the hospital. About twelve patients were just ready to be discharged. During the week ending mid-day, Saturday, February 6th, 17 new cases of small-pox were reported to the authorities, and there was one death. Almost all the cases received during the last fortnight were reported by Mr. Lang Todd to have been of a mild type. It was found impossible to get the inmates of the lodging-houses to be vaccinated, so he proposed that they should follow the example of some other municipalities, and offer 2s. 6d. to induce these people to be vaccinated or revaccinated. This was started on Saturday night, and the rush for vaccination was quite remarkable. Supposing they were to vaccinate all these people he thought it would cost £300 or a little more. He believed it would be more economical and cheaper in the end, for the simple reason that these were the people who were moving about the country, and in that way coming in contact with many people. He would like also to impress on the general public the need for properly protecting themselves by revaccination where that was necessary. As a matter of urgency Mr. Lang Todd asked for power to the Committee to erect on the site to be ultimately occupied two pavilions slightly larger than those at present in use. This was granted.

THE CONSUMPTIVE POOR OF LONDON.

The problem of the prevention of consumption is no longer one for mere academic discussion; it has reached the stage of practical measures. That the disease is preventable is no longer doubted even by the majority of the public, and for some years practical measures for its prevention have been adopted in many parts of the country. Amongst these measures the sanatorium treatment of the early cases of the disease holds a prominent place. In London, which certainly cannot boast any immunity from the disease, we are still asking why no general organized attempt at prevention is made. Various local authorities in the metropolis have, indeed, organized prophylactic measures, but little headway can be made without some general scheme embracing the whole of London.

Means of Prevention.

The general consensus of opinion points to the following as essential:

1. The education of the public.
2. The recognition of cases of the disease as early as possible, so as (*a*) to instruct the patient and his friends how to prevent infection and (*b*) to cure the patient.

3. The isolation of advanced and dangerous cases.
4. The disinfection of infected materials and houses.

These objects are in part carried out by the distribution of leaflets, by lectures, by public notices (on the dangers of spitting), by the examination of suspected cases, and by the provision of sanatorium and hospital accommodation.

It is evident that the above requirements, with the exception of the first, cannot be fulfilled until the existence of cases of the disease is known, but a comprehensive scheme is needed, for notification without hospital and sanatorium accommodation is of little value, and this without notification would be insufficient. Let us take the requirements in order:

1. *Education of the Public.*

This is already proceeding rapidly. The National Association for the Prevention of Consumption, etc., distributes leaflets and notices. In railway stations, trains, 'buses, and trams notices against spitting are prominently displayed, not only by the Association but by the Corporation of London and by various local authorities. The prevention of consumption forms a prominent subject of instruction in the health lectures of the School Board Evening Continuation Schools. The printed and verbal instructions given to out-patients at the various chest hospitals and the practical experience of the precautions observed in a chest hospital which the in-patients take away with them have a wide-reaching educational value.

2. *The Early Recognition of Cases of Consumption.*

This is chiefly a medical concern; but the patient must be examined before his condition can be determined, and many early cases, especially amongst the poor, do not seek advice. At hospitals and public dispensaries many patients coming for anaemia or "debility" are found to have early tuberculosis of the lung, but where can they be sent for proper treatment? These cases, however, form an undetermined proportion of the early cases in London, and some further means of finding cases is required. Those who are constantly exposed to infection, whether at home or in the workshop, should be examined from time to time. Notification is of advantage, not only in finding sources of infection and giving the opportunity of advising those exposed to this infection to be examined, but in bringing the early cases to the notice of those who can offer sanatorium accommodation for their treatment. The notification of an advanced case may bring to light several early cases, who could then be removed to a sanatorium whilst their disease was still curable.

3. *Isolation of Advanced and Dangerous Cases.*

This is to some extent carried out by their admission to the Poor-law infirmary. The very poor consumptive, when his disease has advanced so far that he is past work, must almost of necessity gravitate to the workhouse infirmary. It is, however, desirable that power should exist to remove an advanced case from surroundings which make him a danger to others.

4. *The Disinfection of Infected Materials and Houses.*

This is now carried out to some extent. It is undoubtedly valuable, but its full value can only be obtained where all cases are notified to the sanitary authority.

SANATORIUM AND HOSPITAL ACCOMMODATION.

The treatment of early cases and the isolation of dangerous cases imply the provision of accommodation for these patients. In this respect there is a great deficiency in London. The existing consumption hospitals do not provide nearly enough accommodation, even were they to limit admission to patients from London. At one at least of these institutions patients have had to wait six months between acceptance and admission, and the disease will not remain stationary because the hospital is full.

Sanatoria for the poorer classes of the community hardly exist within easy reach of London. The Poor law infirmaries are doing their best for the pauper, but the early cases rarely seek admission. The clerk and the artizan require accommodation as well as the pauper, and where can they find it? More accommodation is urgently needed both for the treatment of early cases and for the isolation of advanced cases. The requirements for the early and for the advanced cases are not identical. The early case needs removal from the impure air and unhygienic surroundings of the town to some place where he can spend most of his time in the open. His absence from home is temporary, and he can therefore do without the frequent visits of friends. The advanced case probably leaves home for good, and as his time is short he will want to see his friends frequently; at any time the friends may be summoned urgently to take farewell. For these reasons it would be undesirable to remove the advanced consumptive out of reach of his friends, who cannot afford the expense of frequent railway journeys to visit him. The advanced case also requires a greater amount of nursing than the early case.

It would seem, then, that for the advanced consumptive, whose circumstances make preventive precautions at home uncertain, the infirmary is the most suitable haven; here he can be medically treated, well nursed, and within reach of his friends. For the early cases, on the other hand, accommodation out of London is desirable.

It has been suggested—and there are obvious reasons for the suggestion—that if sanatoria for consumptives are to be provided for London as a whole, the Metropolitan Asylums Board is the proper body to provide and control such institutions. It has also been pointed out that the Asylums Board possesses hospital accommodation for small-pox cases largely in excess of what is at present required, and that one of the unused small-pox hospitals might be utilized for consumptives if suitable for their treatment.

Two hospitals in particular have been named, notably by Dr. Orme Dudfield, the Orchard Temporary Hospital at Joyce Green, and Gore Farm Hospital. The former is, however, out of the question, for not only has it been definitely included by the Board in its scheme for small-pox provision, but its situation on low-lying ground surrounded by marsh lands is altogether unsuitable.

A recent visit to the hospital enables us to give the following details:

Gore Farm Hospital, which is at present practically unoccupied, is from its situation well suited for the treatment of consumption, and could with comparatively little expenditure be adapted to the requirements. It is placed on the slope of a hill on a dry soil, in undulating country about two miles from Dartford, facing south and south-east. The grounds cover an area of 160 acres, and include woods as well as farm land. It is sheltered by trees on the north. The upper hospital consists of brick buildings, comprising twenty blocks to accommodate 1,000 patients, and all necessary provision for the medical and nursing staff—laundry, destructor, and offices. There are six isolation blocks to accommodate 40 patients, and the staff accommodation is sufficient for 350 persons. The patients' wards have windows on both sides, and would make excellent "fresh-air" wards. The lower hospital, almost invisible from the upper, consists of huts with accommodation for over 800 patients. The water supply is good and ample, and is drawn from the adjacent Darenth Asylum wells, whilst as a reserve the hospital is attached to the Kent mains. The drainage on to the sewage farm is satisfactory. There are recreation grounds for the patients, and walks could easily be made in the woods where also shelters could be erected. Verandahs and covered courts could be provided for wet weather. The cost of these additions has been estimated at about £10,000, and, when it is borne in mind that the lowest cost of erecting a sanatorium is from £250 to £300 a bed, the advantage of utilizing an existing hospital is evident. The 50 acres of farm land could be used to train a certain number of the patients in agricultural work, and enable them on leaving the sanatorium to seek a healthy occupation, and thus prevent the necessity of returning to their old dangerous trade in town. It might be desirable to have male nurses for the male patients.

There is, then, at Gore Farm suitable accommodation for some 2,000 patients; for since the early consumptive does not require the same amount of nursing as the small-pox patient, fewer nurses would be needed, and more accommodation would be available for patients.

The Metropolitan Asylums Board, if it undertook this addition to its present responsibilities, may safely be entrusted to work out details as to the terms of admission, and the allocation of beds to various classes of the community and different kinds of cases. Some blocks might even be available for paying patients. If the Metropolitan Asylums Board should undertake the provision of sanatorium accommodation for the consumptive poor of London, it rests with the Board to decide upon the most suitable means of carrying out these requirements. The Board might prefer to utilize some other of their existing hospitals for the accommodation of consumptives, or even consider it desirable to erect a special sanatorium, but whatever details may be arranged by

the Asylums Board, we have in the Gore Farm Hospital a means of at once supplying one serious deficiency in our provision for combating consumption in the metropolis. The gain to the public health would be considerable the economic advantage to the community in the cure of the early consumptive worker could hardly be over-estimated, whilst the poor consumptive himself would have the possibility of cure brought within his reach.

IRISH MIDWIFERY NURSES AND THE CENTRAL MIDWIVES BOARD.

SIR,—Will you kindly insert the following correspondence, which has taken place in reference to the examination of midwifery nurses to be held under the direction of the Central Midwives Board?—I am, etc.,

E. HASTINGS TWEEDY, F.R.C.P.I.

Rotunda Hospital, Dublin, Feb. 8th.

[Copy.]

Rotunda Hospital, Dublin, January 26th, 1904.

DEAR SIR,—I shall feel much obliged if you will bring the following matter before your Board, as it is of such importance that a definite pronouncement should be obtained as to the position our trained midwifery nurses trained in the Rotunda Hospital occupy in respect to the State examination to be held under the direction of the Central Midwives Board.

The training of our midwives is strict and full, including everything that is requisite for making good midwives. They have a period of six months in the hospital; they watch over one hundred and twenty cases, of these they personally conduct at least twenty; they have to make not less than ten vaginal examinations; they participate in many scenes of abdominal pain; they attend the lying-in women from the time of their admission to the hospital to their discharge, on the eighth day, each nurse takes entire charge of three lying-in women only with their respective children during the puerperium. They take the records of the temperatures and pulses, under the supervision of the master of the hospital, and the assistant masters; they receive instruction in the art of midwifery, are systematically trained in aseptic and antiseptic methods; they pass all tests given to them, and are fully able to distinguish between normal and abnormal labours, and, finally, do not receive our certificate until a stringent examination has been passed.

The rules that at present seem to prevent them from qualifying are as follows:

Rule III.—"A woman must have attended and watched the progress of not fewer than twenty labours, making abdominal and vaginal examinations during the course of labour, and personally delivering the patient."

Rule IV.—"A woman has to have satisfactorily conducted twenty lying-in women during the ten days following labour."

It would be impossible for our resident nurses to follow the course of the puerperium for ten days, as Irish women will not remain in hospital for more than eight days. It is to be mentioned that the Scottish universities and Conjoint Boards require a student to produce evidence that he has personally conducted twenty cases of labour, or that he has taken out a certificate to that effect, and in which case the practical examination is omitted. Durham University requires a student to have personally conducted twenty cases of labour, or to have attended the indoor practice of a lying-in hospital for twenty weeks. London University, and the Royal College of Surgeons, require a student to take a six months' course in a lying-in hospital. They do not specify any necessary number of personal conductions, and they refuse altogether to recognize instruction received or labours attended elsewhere than in a lying-in hospital.

I may summarize by saying that the Licensing bodies and Universities regard a six months' course in a recognized lying-in hospital as the ideal training in midwifery for a student, that some of them accept in lieu thereof a certificate of the attendance of a small specified number of cases, and that only those who do not require even a medical student to personally conduct as many as twenty labours.

It will thus be seen that a course of instruction in the internal department of a lying-in hospital is the ideal training for the medical student, and as being much preferable to a larger course of instruction in a general hospital, but that the reasons which render this impracticable in the case of the medical student are not applicable to the midwife, who undoubtedly is best trained where she will see most.

Taking all these facts into consideration, I have regard to the undoubted spirit of the Rotunda Hospital midwifery training, I trust I shall be able to recommend your Board to accept the training in the Rotunda Hospital as an equivalent to that in the Central Midwives Board, in the present rule as will enable our nurses to qualify for the State examination in midwifery.

I remain, yours faithfully,

E. HASTINGS TWEEDY,

Master Rotunda Hospital.

To the Secretary,
Central Midwives Board.

Central Midwives Board,
6, Suffolk Street, Pall Mall, London, S.W.

February 5th, 1904.

DEAR SIR,—Referring to your letter of January 26th, I have to inform you that the subject was fully considered by the Central Midwives Board at their meeting on January 28th. It was pointed out that the rules were approved by the Privy Council after full consideration, and that it is impossible for the Board to alter them, particularly without having regard to that fact, but I will place the matter before the Board.

I remain, yours faithfully,

G. W. DUNCAN,
Secretary.

The Master of the Rotunda Hospital,
Dublin.

Copy of a resolution moved and carried at the meeting of the Central Midwives Board, held on January 28th, 1904:

That having considered the letter addressed to the Board by the Master of the Rotunda Hospital, the Board regret that the suggested alteration cannot be made, inasmuch as the rules were submitted to the Privy Council, as having been now approved by that body, it is impossible for the Board to alter them.

THE RECONSTITUTION OF THE WAR OFFICE.

A MEETING of the Royal Naval and Military Committee of the British Medical Association called for the purpose of considering the report of the War Office (Reconstitution) Committee, published in the *Times* of February 1st, was held on February 8th, Mr. ANDREW CLARK, Chairman of Council, in the chair.

The following resolution was passed:

That this Committee, having carefully considered the new scheme of War Office reform as published in the *Times* of February 1st, is of opinion that the following recommendations should be forwarded to His Majesty's Secretary of State for War:

That the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the Empire, such as it outlined in the new scheme of War Office reform, it regrets to observe that notwithstanding the experience gained in the South African war, after which Mr. Brodrick's committee gave to the Army Medical Service direct representation on the Army Board no such similar provision appears to have been made for the direct representation of the Medical Service of the army on the now proposed Army Council.

The British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would, therefore, respectfully urge on His Majesty's Government that some such steps as will insure the direct representation of the Army Medical Service on the Army Council, or whatever the central governing body of the War Office may be designated.

In pursuance of this resolution the recommendations were forwarded to the Secretary of State for War by the General Secretary of the Association. The following reply has been received from Mr. Arnold-Forster:

War Office,
February 9th, 1904.

DEAR SIR,—I am desired by Mr. Arnold-Forster to acknowledge receipt of your letter of the 8th inst. forwarding certain recommendations of the British Medical Association, and to say that the new Army Council is in no way a representative body, but is constituted in the same manner as the Admiralty. Under these circumstances it is not considered necessary that the Army Medical Service should be directly represented.—Believe me, yours faithfully,

H. SHUTE.

Guy Elliston, Esq.

CONTRACT MEDICAL PRACTICE.

MINERS.

DR. WILLIAM GOSSE (Sittingbourne) writes: It was with deep regret I saw in the BRITISH MEDICAL JOURNAL of February 6th that the miners in the Aberdare district were considering a new scheme for the remuneration of their medical officers, for of all contract practice the system in vogue in South Wales has worked longest without friction, first, because to a liberal profession the principle of payment by a percentage of earnings is most fair. Under the new scheme what provision is there for the time when the colliers are out of employment and their earnings are nil and their food supply short, and therefore sickness increased, and no doctor to relieve their sufferings? The new scheme cuts both ways, for if the doctor is not allowed to share their prosperity he cannot be expected to share their adversity.

Again, the principle of fixing the responsibility on one man is the most conducive to the efficiency of the medical service; and, moreover, it is of great advantage nowadays to have a professional expert to select suitable assistants, especially as I note the new scheme does not offer increased salaries. I made special inquiries into the system when at the annual

meeting at Swansea last year, for I have the honour of being on the Committee appointed by this district to investigate the conditions of contract practice, and it does not seem much when a man is earning £100 a year that he should pay 25s. for medical and surgical attendance on himself and family. This includes everything from a major operation to a dose of castor-oil, for there are usually no chemists in the colliery districts.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending January 7th and 14th the deaths from plague in India numbered 15,744 and 21,[illegible] respectively. The high mortality is due to a marked increase of the disease in the Bombay Districts, in Bengal, and the Punjab. In 1903 the death-rate from plague corresponding to the latter week was 15,[illegible], so that the annual recrudescence seems to be slightly earlier this year. During the week ending January 9th the principal returns were: Bombay city, 1,[illegible]; Bombay districts, 5,600; Calcutta, 125; Bengal districts, [illegible]; North West Provinces and Oudh, 2,581; Punjab, 1,254; Central Provinces, 1,[illegible]; Kashmir, 21; Hyderabad State, 972; Central India, [illegible]; Madras districts, 24.

At Cawnpore, on January 11th, Nurse Walden, of St. Katherine's Hospital, died of plague after two days' illness. Miss Marvel, a girl compounder at the same hospital, also died of the disease. The hospital has been temporarily evacuated.

CAPE COLONY.

Port Elizabeth. During the week ending Jan. 9th, no fresh cases of plague were found during the week ending Jan. 16th, 2 fresh cases of plague were discovered, both died.

East London. During the weeks ending Jan 9th and 16th, the fresh cases numbered 1 and 3, and the deaths from the disease, 1 and 0 respectively, 2 cases remained under treatment.

In no other town in South Africa was plague reported in man. At Port Elizabeth, East London, and Kynsa plague-infected rats continue to be found, but at no other town are rats infected.

MAURITIUS.

During the weeks ending Jan. 21st, 28th, and Feb. 4th, the fresh cases of plague in Mauritius numbered 16, 28, and 17 respectively; during the same period the deaths from the disease numbered 12, 18, and 14 respectively.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—A meeting of this Division will be held at Workington on Tuesday, March 1st. The Secretary will be glad to receive communications from any member who intends to read notes on cases or to exhibit specimens, etc. T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CENTRAL DIVISION.—The adjourned special general meeting of this Division will be held at the rooms of the Medical Society of London, 11, Chandos Street, W., on Wednesday, February 24th, at 8 p.m. Agenda: (1) Minutes of the last meeting; (2) Dr. Heron's addition to the Draft Medical Acts Amendment Bill. After Clause 1 (new) as follows, and number all Clauses accordingly: "No person registered under this Act, excepting only a licentiate registered solely by virtue of any diploma or other medical qualification to any one or more of the Medical Colleges of His Majesty's Navy and engaged in private practice in the United Kingdom, or registered practitioners while in attending on cases of emergency, or requested to do so by a brother practitioner, or who may have used a drug or other medicament, (2) registered persons practising their profession in country districts in which the inhabitants are so few that they cannot support at the same time both a medical practitioner and a pharmaceutical chemist, it shall, nevertheless, be incumbent upon any medical practitioner so practising in such a country district to satisfy the General Medical Council, when called upon by that body so to do, that the people of the country district in which the practitioner is engaged in medical practice and as to the dispensing of drugs [illegible] are in fact too few in number to support both a medical practitioner and a pharmaceutical chemist. (3) medical practitioners employed on board of vessels other than His Majesty's ships, or any other person registered under this Act, the peculiar circumstances of whose professional work render it, in the opinion of the General Medical Council, desirable that the facts should be brought, special consideration with a view to the exemption of such person from the action of this clause. Penalties for infringements of this clause. Any person found guilty of an offence under this Clause of the Act shall for a first offence pay a fine of not less than £5, and for each later offence the offender's name shall be erased from the *Medical Register* for such time as the General Medical Council shall fix. No practitioner registered before the passing of this Act shall be liable to the application of this clause until three years from the date of the Act coming become law. Dr. Berkeley Rotherham will move the following amendment to Dr. Heron's addition: "That the subject be adjourned to January 27th, 1905." (3) Further consideration of the Medical Acts Amendment Bill. Dr. Hugh Woods will move the following alterations and additions: Clause 25. That the words at the end of Clause [illegible], that is, "prescribed in Section XXIV of this Act," be altered to "prescribed in Clause [illegible] of this Act." Clause 34. That in the sentence "who does not sufficiently publish to public view," the words "within three months from the date of commencing so to practise" be inserted so as to read thus: "who does not, within three months of commencing so to practise, sufficiently publish to public view." Clause 35. That the word of Clause 35, that is, "Nothing in this Act shall apply to midwives," be altered to "Midwives registered under the Midwives Act, 1902, shall not be liable to penalties under this Act for practising midwifery in accordance with the provisions of the Midwives Act, 1902." The full text of the Medical Acts Amendment Bill will be found in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, August 22nd, 1903, (4) To consider other business if necessary. COLLINS BERKELEY, M.B., B.S.Cantab., M.R.C.P.Lond., 53, Wimpole Street, W., Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A dinner will be held at the Wimpole Hall, Wimbledon, on Thursday, February 25th at 7.15 p.m. Tickets 6s. each (wines extra). Dr. Still will read a paper at 9 p.m. on the Diagnostic Significance of some Signs and Symptoms in Diseases of Children. Members are entitled to bring guests, and are asked to book places for the dinner by February 17th if possible, as a certain number have to be guaranteed.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of this Branch will be held at Barlow in Furness on Wednesday, February 24th, at 3 p.m.—A. S. BARLING, High Street, Lancaster, Honorary Secretary.

PERTHSHIRE BRANCH.—A clinical meeting of this Branch will be held in the Station Hotel, Perth, on Friday, February 26th, at 4 p.m. Business: (1) Minutes; (2) appointment of Joint Secretary; (3) report of Council on the Medical Acts Amendment Bill; (4) cases, etc.—Dr. Stirling: Abdominal Cases; Dr. Taylor: Antitoxin in Diphtheria. Dinner after the meeting in the hotel, at which a presentation will be made to Dr. Urquhart. The Honorary Secretary will be obliged by members informing him of their intention to be present.—WILLIAM A. TAYLOR, 16, Marshall Place, Perth, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—E. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The quarterly meeting of this Division will be held in the County Asylum, Abergavenny, on Friday, February 26th, at 3 o'clock. Members wishing to read papers or show cases are asked to notify the Honorary Secretary on or before February 20th.—W. J. GREER, Newport, Honorary Secretary.

At the annual general meeting of the Liverpool Medical Institution, the following officers were elected for the ensuing year: *President:* Dr. J. Barr. *Vice-Presidents:* Drs. H. Briggs, G. W. Steeves, J. R. Logan, and J. Wiglesworth. *Treasurer:* Dr. T. H. Bickerton. The following Secretaries were also elected: *General Secretary:* Dr. F. C. Larkin. *Secretary to Ordinary Meetings:* Dr. R. W. Murray. *Pathological Secretary:* Dr. W. P. Warrington. *Editor of the Journal:* Dr. F. H. Barendt. *Librarian:* Dr. A. S. Grünbaum. Twelve members of Council were also elected. With the exception of Drs. Briggs, Steeves, and Mr. Bickerton, none of the gentlemen named held the same position last year.

We learn from the *Dumfries and Galloway Standard* that the life-sized portrait which the patients of Dr. John Smith determined to present to him on his retirement last year has now been finished, and is considered to be excellent. It was forwarded to him in London on New Year's Day this year, and the letter which accompanied it contains repeated expressions of the regret which is felt by his patients that they can no longer receive at his hands the skilful kindness to which he had accustomed them. Dr. Smith was a Vice-President of the Border Counties Branch of the British Medical Association, and at one time its very active Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

The "Light" Treatment in Skin Diseases.—The Merging of Owens.

At the annual meeting of the Manchester and Salford Hospital for Skin Diseases it was stated that the total number of attendances of patients was 64,130 of whom 29,948 were patients for the "light" treatment. There was a deficit of £37 in the year's work. The sum available for building the new hospital is now £25,271, leaving £10,000 yet to be obtained. The report stated that—

In the "Light" department the results have been most satisfactory. A number of cases of lupus and other tuberculous affections of the skin, which have hitherto defied treatment, have been discharged cured: but in no condition is the success more marked than in the treatment of rodent ulcer—a slow growing form of superficial cancer, which was previously, in many cases, inoperable and beyond medical relief. In addition to the new and very effective Finsen-Reyn lamp (a smaller modification of the original Finsen lamp), we have recently begun to work with radium, which has been found to influence some of those varieties of cancer which have been but slightly affected by the Rontgen rays.

On February 4th a special meeting of the Court of Governors of Owens College and a special meeting of the Victoria University of Manchester were held to obtain the consent of both the College Court and the University Court to a Bill which is being promoted in Parliament for the purpose of merging the Corporation of Owens College in the Victoria University of Manchester. The officials of the Victoria University remain in office in the Manchester University. Lord Spencer will remain Chancellor. The President of the College, the Duke of Devonshire, will become President of the University if His Grace is willing to accept office. The Faculty of Medicine was constituted by the following, in addition to the professors of the subjects taught in the Medical School and the assistant lecturers (Mr. J. Grier, Dr. I. Walker Hall, Mr. J. E. Platt, Mr. E. J. Sidebotham, and Dr. R. T. Williamson): (1) Professors Dixon, Hickson, Perkin, Schuster, and Weiss; (2) Dr. H. Ashby, Mr. G. W. Mould, Mr. J. Collier, Mr. W. Thorburn, Dr. C. E. Glascott, Dr. Lloyd Roberts, Dr. J. Niven, Dr. H. A. G. Brooke, Dr. A. Hodgkinson, Dr. W. Milligan, Dr. E. S. Reynolds, Dr. A. K. Gordon, Dr. T. Harris, Dr. Graham Steell, Dr. J. S. Bury, Mr. W. P. Montgomery, Dr. J. Scott, and two members to be nominated by the Dental Committee; (3) Dr. F. C. Moore, Dr. A. W. W. Lea, Dr. W. E. Fothergill. The Vice-Chancellor said it had been arranged that the public meetings of the University should now conclude with a Latin formula, which would show that the business was over. The words suggested by the new Professor of Latin were: "Salva sit Universitas nostra Mancuniensis: hoc precantes consurgamus."

CORRESPONDENCE.

"DOCTORS IN PARLIAMENT."

Sir,—May I point out in reply to Dr. Bateman's letter on this subject in the British Medical Journal of February 6th, that the suggestion of a fund for defraying wholly or in part the election expenses of medical members of Parliament in no way entails the idea of their being returned as medical men by their constituencies. Members of other professions are returned as members of Parliament to the advantage of their professions, but not as soldiers, sailors, lawyers, or country gentlemen. There is nothing, except poverty, to prevent medical men from coming forward in larger numbers as candidates for election to Parliament. There is nothing to prevent their being returned to Parliament by any constituency if their politics happen to be those of the majority of the electors. Also, there is nothing to prevent any body of persons sufficiently interested from defraying their expenses in whole or in part.

To give definiteness to the suggestion which I made in your issue of January 23rd, may I further propose:

1. That a central committee representative of the best brains in our profession be formed—if possible—to collect funds to defray in whole or in part the election expenses of medical candidates for Parliament.

2. That no fixed subscription be asked for, but that each medical man be asked to help, so far as he is able, an undertaking which it is obviously his interest to help.

3. That to this committee be entrusted the task of approaching those members of the profession most likely to undertake parliamentary duties and the responsibility of deciding on the sum to be devoted to any individual election.—I am, etc.,

Exeter, Feb. 8th. W. Gordon.

THE FALLACY OF PROSTATECTOMY.

Sir,—Whenever I have listened to a discussion on the treatment of enlarged prostate, I have been struck with the almost unanimous opinion on certain points:

1. That the symptoms which render prostatectomy necessary are almost invariably due to sepsis and infection.

2. That operation is not necessary or advisable when catheterization is satisfactorily performed.

3. The firm belief of all in the impossibility of a practical method of sterile catheterization.

4. The unconscious misrepresentation of the mode of origin of the symptoms so often accompanying enlarged prostate.

If the acknowledged cause of the symptoms calling for operation is sepsis, how does it originate? The common answer given is that it is a direct sequence of enlarged prostate which produces first retention of urine, and then decomposition (or septic contamination of the retained urine). But how do the germs which must necessarily be present gain access? This is the crux of the question. They are, as is freely acknowledged, almost invariably introduced by a bacteriologically dirty catheter, and from thence do the symptoms of sepsis arise, the symptoms in brief of cystitis, not of enlarged prostate.

Careful inquiry and close examination of the history of some of the cases recorded plainly indicate that only since a catheter was passed have the symptoms of sepsis (that is, the symptoms which usually call for prostatectomy) appeared. Not, perhaps, in their full force to begin with, but increasing with each act of catheterization, or, in bacteriological terms, increasing with each added dose of micro-organisms. Logically, under these circumstances, the demand for instrumentation increases rapidly, not necessarily because of the prostatic enlargement, but because the cystitis increases in virulence and effect.

Granted this, when the catheter is wanted for the first time, what is to be done? The answer is simple. Pass a sterile catheter! But one is told it is impossible. This is not a fact. From my experience and that of others, with a sound reliable method of sterilizing both catheter and lubricant by boiling, there is ample evidence that it is possible; and, if possible, then, I maintain, all the symptoms due to enlarged prostate, *per se*, may be relieved by catheterization—a method of treatment acknowledged by all to be efficient in the absence of sepsis. Prevent cystitis and those symptoms now attributed to enlarged prostate disappear, and with their disappearance also the operation of prostatectomy in a large majority of cases. It is also urged that a patient cannot keep himself clean. I say, without hesitation, give him a suitable, simple sterilizing apparatus, teach him the method and how to be clean, and he will then keep himself free from sepsis, and with that freedom he will, with properly regulated catheterization, remain well and comfortable without surgical interference.

The next point is in regard to patients who have already developed symptoms of infection; people who are worn out by fever, the incessant use of the catheter, or have, perhaps, indications of renal trouble. Is not prostatectomy imperatively called for then? I would earnestly suggest a trial should be given to sterile catheterization—thereby cutting off the constant dosage of micro-organisms—associated with suitable means for cleansing the bladder, before resorting to more serious measures. There is abundant proof of the satisfactory results of this line of treatment. Again, it is said that the symptoms of a prostatic patient are always progressive. Certainly they are if he is constantly dosed with micro-organisms, but not otherwise, any more than the symptoms increase in those cases of enlarged prostate which do not require instrumentation.

Although sepsis and infection are recognized as the chief cause of symptoms, I do not think their effects are sufficiently appreciated. Leaving out of the question the part they play in producing increased retention of urine by swelling of the mucous membrane, the irregular contraction and distortion of the bladder by cicatricial tissue, the formation of sacs and pockets, there remains an important point—namely, the effect they have on the prostate gland itself. At

present it has not been determined whether prostatic enlargement is true hypertrophy (prostatitis) or the result of benign new growth, which is an unknown occurrence in other organs at the time of life prostatic enlargement occurs. In either case inflammation, the result of infection or sepsis in and about the gland, must act as a strong stimulus to its rapid increase in size. Moreover, this suggestion is borne out "to some extent" by the fact that a very large gland has not yet been observed when the organs have been free from infection.

The conclusions I draw from the foregoing are, that on account of the present technique employed in passing urethral instruments, treatment by catheter is not only aborted and rendered inefficient as a method of relieving the few symptoms attributable to prostatic enlargement, but it is actually the means of introducing into the bladder micro-organisms which set up most urgent symptoms and induce a condition of the utmost gravity for which the prostate is unjustly blamed; and further, that prostatectomy, the acknowledged mortality of 10 per cent., is too frequently undertaken, and should be reserved for exceptional cases.—I am, etc.,

London, Feb. 8th. HERBERT T. HERRING.

TOTAL EXTIRPATION OF THE PROSTATE.

SIR,—It has been increasingly evident to most surgeons, as it must have been long a matter of definite knowledge to anatomists, that the claims put forward by Mr. Freyer and his friends regarding the so-called total extirpation of the prostate could neither be scientifically supported nor demonstrated in fact.

Much credit is therefore due to Mr. Cuthbert S. Wallace, B.S., F.R.C.S., for his altogether convincing and lucid demonstration of the real facts of the case in the admirable paper published in the issue of the BRITISH MEDICAL JOURNAL for January 30th, 1904.

In the November number of the *Glasgow Medical Journal*, 1902, I took the opportunity to abstract, from an able and elaborate paper by Albarran and Motz (de la Clinique de M. le Professeur Guyon à l'Hôpital Necker) contributed to the July issue of the *Annales des Maladies des Organes Génito-Urinaires*, the following, amongst other points of interest, with regard to the relations of "true" and "false" capsules.

Very probably the paper referred to may have come under the notice of Mr. Wallace, but the demonstration these authors give of the erroneous nature of many of the views so loosely put forward is so convincing and their statements so well borne out by the numerous plates which illustrate their paper, that I feel I am abundantly warranted in drawing attention thus publicly to their work.

The extract I specially desire to draw attention to is as follows:

"This 'false' capsule, which is apt to deceive the inexperienced operator [illegible] as follows. When practically the whole prostate is made [illegible] as it does the glandular tissue interposed between [illegible] and [illegible] and compressed and flattened [illegible] and have produced distinct [illegible]. The peripheral part of the gland is [illegible] compressed externally, and flattened [illegible] the same [illegible] and the appearance [illegible] an artificial capsule was produced by these means. It is in such a case the capsule [illegible] and will at the same time, the [illegible] tissue peripheral, and will be best taken [illegible] very [illegible] a sensation however, of what [illegible] and [illegible] in the centre and under pressed [illegible] which will [illegible] an [illegible] operation, bearing that [illegible] the operation will [illegible] a more [illegible] the actual gland substance of the prostate."

This is, it seems to me, a clear and definite statement of the case. Mr. Wallace admirably corroborates it. From my own observations [illegible] and macroscopical, of a now fairly [illegible] specimens I agree most emphatically with MM. Albarran and Motz, and can fully bear out the conclusions of Mr. Wallace. To the latter, it seems to me, [illegible] due for his interesting and convincing paper.—I am, etc.,

ARCH. YOUNG.

MEDICAL DEFENCE.

SIR,—I was [illegible] interested in reading in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 30th an account of the meeting of the Medical Defence Committee held on November 13th [illegible]. I fail quite to see that sufficient benefits are to be enjoyed by going to the expense and trouble of absorbing the Medical Defence Union and the Counties Protection Society into the British Medical Association unless it can be done on a cheaper scale to make it worth while doing.

The two first-mentioned societies have already and amply proved their usefulness to all thinking members of the medical profession and have gained the respect of the legal profession, so much so that sometimes when patients wish to prosecute a medical man, solicitors, on hearing that the medical man belongs to one of the defence societies, advise their clients not to proceed further with the case.

The British Medical Association, we learn, has had during the last five years a balance of £5,000 a year. Of course it is obvious a representative society of a learned profession to be influential must be wealthy, and I suppose all members of the British Medical Association wish it to be influential, and they take pride in seeing their society gradually raising itself to the high position that the British Medical Association is attaining; but surely the society has now sufficient capital, together with their income of £35,000 per annum, not to wish to have such a large balance at the end of each year.

Again if the British Medical Association takes up medical defence I should think it would do the work more cheaply than the smaller societies: for instance over a period of fourteen years the legal expenses of the Medical Defence Union worked out at 4s. 10d. a head, and general expenditure including all office and working expenses of 4s. 3d., total 9s. 1d., but the British Medical Association already has offices and staff of clerks, and although it would be necessary to get, perhaps, some extra clerks, and an office set apart for medical defence work, the general expenses would probably be considerably less than the Medical Defence Union. Again the British Medical Association, being a larger and more influential body even than the Medical Defence Union, probably the legal profession will soon gain so much respect for the society that they will only occasionally take actions against members belonging to this great defence society, and so the legal expenses would have a tendency to become less per capita.

It is impossible to spend the money belonging to a society on a definite object unless all members of the society benefit by that object, but if every member has an opportunity of receiving that benefit, but some refuse to take advantage of it, surely then it is quite justifiable to spend the money. For the above reasons I should have thought it possible for the British Medical Association to have taken up defence if it charged an annual subscription of 5s. I believe that most members would pay it. The great difficulty I see in the way is how to arrange for our brothers across the sea, so as to treat them with absolute fairness.—I am, etc.,

Peterborough, Feb. 8th. ARTHUR PAIS.

SIR,—In the SUPPLEMENT of January 30th is published a scheme for a medical defence fund. I think it time the Association took up the matter, and I was glad to see that some headway was being made towards this end. One point, I think, in the published scheme could be improved upon, to the advantage of the fund as well as the members joining. I refer to the proposal for a guarantee fund. I see no great difficulty in making this a "cash" guarantee, instead of a "paper" guarantee fund, if the members on joining were asked to pay 20s., half as a yearly contribution and half to the "guarantee fund." This sum would be returnable to the member, without interest, on his ceasing, by resignation or otherwise, to be entitled to the advantages of defence, provided he is clear on the books at the time of resignation, and that the guarantee fund has not been called upon during that year, and that he has not derived any benefit from the defence fund during the two preceding years. In case the guarantee fund is called upon, the member resigning should be entitled to the portion of his contribution remaining.

Should the guarantee fund be called upon, the sum so borrowed should be returned out of the contributions for the next year, and if this proves inadequate the amount could be made up out of a "levy" on the members.

Let me briefly point out the advantage of this over the proposed scheme of a "paper" guarantee fund. Members would be in no worse position financially, as on ceasing to be members the sum of 10s. is returned to them, less such sum as may have been "called up" out of the guarantee fund during the previous financial year. The defence fund can borrow and repay any sum it may temporarily require from the guarantee fund without the expense that would otherwise be incurred. The guarantee fund, in the bank at interest, would be a source of income to the defence fund, no interest being payable to

the members for the "loan" on the same being returnable. I have suggested 20s. in cash, as that would mean as many £1,000 as members joining, half of which would form the defence fund and half the guarantee fund.

I think the above proposition worthy of the consideration of the members of the Association that are likely to become members of the defence section.—I am, etc.,

Ruabon, Feb. 2nd. A. F. MEREDITH POWELL, M.B.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

SIR,—Referring to the article headed "An Efficient Ambulance Service for London," which appeared in the BRITISH MEDICAL JOURNAL of February 6th, I beg to point out that you have erroneously stated that the Asylums Board have decided not to utilize its ambulances for the transport of persons suffering from non-infectious diseases. On the contrary, the Board, on November 28th last, passed the following resolution on the subject:

That in the opinion of the managers it is desirable and practicable to extend the operations of their ambulance services so as to include the transport of medical, surgical, and mental cases, for which application may from time to time be made by any authority or person within the metropolis, provided that such extension of the ambulance service shall not be held to include the removal of cases of street accident, nor of patients to and from the several lunatic asylums under the control of the London County Council unless by special sanction of the Ambulance Committee, or in emergency, of the Chairman of that Committee, or the Clerk to the Board.

That, upon the necessary legal authority being obtained for the managers by the Local Government Board, the work be immediately undertaken, and a charge of 5s. 6d. made in respect of each removal, and in addition a mileage of 1s. 6d. beyond the boundary of the metropolis.

The question of granting the Asylums Board the power it asks for is still under the consideration of the Local Government Board.

For your information I enclose a copy of the Ambulance Committee's report to the Board on the subject. I am, etc.,

T. DUNCOMBE MANN,
Clerk to the Board.

Metropolitan Asylums Board, Embankment, London, E.C., February 10th.

AXIS TRACTION FORCEPS.

SIR,—Will you allow your reviewer to point out, in reply to the long and interesting letter of Dr. Milne Murray, that the review from which he quotes said nothing about *dangerous* compression of the head? The words used were "*continuously* compressed." Whether such continuous compression is injurious or not is fair matter for discussion. Dr. Milne Murray admits that under certain conditions it may be. But Dr. Murray's contention is beside the point. Professor Webster asserts that the head is more compressed with the ordinary forceps than with the axis traction forceps. Your reviewer says that with the ordinary forceps, properly used, the compression is done by the pelvis, not by the forceps, and is therefore no more than is necessary and no longer than is necessary, whereas with the axis traction forceps the compression is continuous. In this he still thinks he is right.

I am, etc.,

February 8th. THE WRITER OF THE REVIEW.

PROHIBITION OF DISPENSING BY DOCTORS.

SIR,—I bought a practice in a poor neighbourhood, the private receipts from which are about £150 per annum. In addition to this I have in contract or Friendly Society work four clubs; they are my mainstay, they pay £300 per annum, give little trouble; some members pay 4s., some 5s. yearly. This makes my practice worth about £450 per annum. It took me four years to work this up, and competition is keen. Now, if I were not allowed to dispense I should be hopelessly ruined, for very few of my private patients could afford to pay medical man and chemist; and, as regards contract work, I discussed the above question with the secretaries of the clubs. I offered medical attendance on the members at a reduced rate conditionally that they would obtain from and pay the chemist for medicines. The answer I got was they would rather get medicines and attendance from me as hitherto: if not possible, they would unite with three large clubs belonging to my neighbourhood and form a Friendly Societies' Medical Institute, put all their families in, and get a surgeon to give his whole time to the work. This means that the population of the place would be well depleted by the institute, and four of us would be swamped.

This is only one instance in which a general practitioner like myself (I am three by the practitioners would be hardly hit or else ruined. I hope and pray that the advocates of this cruel and absurd idea will be frustrated in their attempt to legalize a scheme which would mean the absolute ruin of hundreds of hard working conscientious medical men who attend the poorer section of the community—I mean those able and willing to pay a small fee and who would otherwise go to the hospital, central or branch provident dispensary which exists now in every provincial town; or worse perhaps, still go to their dispensing chemist for his advice and bottle of medicine.

To the rank and file of the general practitioners, I say "wake up" and strenuously oppose the Bill for prohibition of dispensing by doctors.—I am, etc.,

February 7th. L.R.C.P.

THE INFLUENCE OF SKIN GRAFTING ON THE RECURRENCE OF MORBID GROWTHS.

SIR,—The influence of skin grafting on the recurrence of morbid growths is a subject of great interest. I have found in cases of lupus that if the affected skin be excised, and skin grafting of the raw surface be employed, there is no tendency for the disease to recur; whereas, if the wound be stitched up there is a marked tendency to the formation of tuberculous nodules in the stitch-holes and scar. The same observation applies to keloid scars. I have also reason to believe that skin grafting exercises an inhibitory influence on the recurrence of sarcomata of the skin. I have not yet been able to satisfy myself that carcinomata are affected in the same way. I think the question is one which is worthy of investigation.

I am, etc.,

Belfast, Feb. 6th. ROBERT CAMPBELL.

MEDICAL UNIONS AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—In the BRITISH MEDICAL JOURNAL of November 21st, 1903, you publish some interesting correspondence by Dr. Jepson, of the County of Durham Medical Union, and Mr. J. S. Whitaker, regarding the action that should be taken by the existing medical unions in the matter of amalgamating with the British Medical Association. It may be of interest to your readers to know the steps which have been taken in this direction by the Fifeshire Colliery Surgeons' Association and the Fifeshire Branch of the British Medical Association.

The Colliery Surgeons' Association was formed in November, 1899, with the main object of securing a uniform fee of 6d. a fortnight (exclusive of medicines) throughout the collieries in Fife. Before the formation of the Association the fee in many districts stood at 4d. a fortnight, and in some of the small collieries this even included medicine. As this fee had been fixed over half a century ago, when the wages of the miners could not stand comparison with those enjoyed at present, it was natural that the medical men, handicapped as many were by increased salaries for assistants, and the much greater expenditure for instruments, etc., should feel that they were not asking too much in making the demand for a minimum fee of 6d. a fortnight.

A deputation of the Colliery Surgeons' Association met the executive of the Fife and Kinross Miners' Association, and, after they had expressed their views and met with a most courteous reception from the men's representatives, the latter unanimously agreed that the doctor's proposal was a fair one. Later on, in one district where there was some wobbling on the part of a practitioner of recent local standing, a public meeting of the colliers was held and addressed by representatives of the medical combination, and the matter was satisfactorily settled. The Colliery Surgeons' Association was also active in various other directions, constantly keeping an eye on the special interests of its members.

At the last meeting of the Fifeshire Branch of the British Medical Association it was agreed to form a Colliery Surgeons' Committee of the Branch, and the existing Committee of the Colliery Surgeons' Association were nominated for the duty. This Committee will exercise the same vigilance as hitherto in the special interests of members, and, where concerted action on the part of the profession may be required, will report to the Branch Council, and have the additional benefit of their backing and advice—practically the full weight of responsible professional opinion in the county. Naturally, in the case of any attempted "blackleging" in a colliery district this opinion would be of no small value.

Now, Sir, could a similar process not be carried out in the English and Welsh colliery districts, and in the other colliery districts of Scotland? At the annual meeting, representatives of such special committees could meet and discuss matters peculiar to their work, and perhaps in time (as the conditions of colliery work vary little in different districts), a uniform scale of fees might be arranged for colliery practice all over the kingdom. The collier is freely migratory, and when he comes into a district where a higher fee prevails than he is accustomed to, his voice is heard at the street corners and in his favourite public-house denouncing the latest pressure put on the downtrodden son of toil.—I am, etc.,

D. ELLIOT DICKSON,
Honorary Secretary of the late Fifeshire Colliery Surgeons' Association

Lochgelly.

LIFE INSURANCE EXAMINATIONS.

SIR,—Dr. Rowland's interesting letter in the BRITISH MEDICAL JOURNAL of February 6th shows the excellent businesslike and commonsense view taken, and acted upon, by the medical practitioners in Lichfield.

Why cannot the same action be taken universally in various town and country districts, and thereby bring certain life insurance companies and other sweaters of the medical profession to reason? Doctors are always objecting to sweating, but they will only rarely take any joint action to check it. How different from the legal profession which has admirable laws to protect its members!

It is a curious coincidence that only yesterday did I try to persuade the members of the local medical society here to so amend a rule (twenty-four years old) as to permit such an important subject being discussed and joint action being taken for our mutual benefit and support. The result was a majority against such a reasonable proposition, notwithstanding statements published in the JOURNAL to the effect that two of the "cream of the profession" in this important town with a large medical school accept fees of 1s. 6d. or 2s. 6d. from one insurance company, and another company pays only 10s. 6d. for a full medical examination and answers to about 70 questions!

No wonder benevolent institutions for necessitous widows and orphan children of medical men are required when the husbands and fathers neglect the protection afforded them by simply combining to insist on adequate remuneration for such services rendered.—I am, etc.,

Cambridge, Feb. 7th. J. CHRISTIAN SIMPSON, M.D.

UTERINE VENTRIFIXATION.

SIR,—In reference to your leader on uterine ventrifixation in the BRITISH MEDICAL JOURNAL of February 6th I should like to state my experience.

I have had 17 cases in private practice, and of these I have been able to keep in touch with 9. Of the 9, 5 were operated on seven years ago and 4 five years ago. Of those done seven years ago, 2 patients have been twice pregnant. They each went to full term, and delivery was accomplished without the aid of chloroform or forceps. The children are still alive and healthy. Of the other 4 patients, 3 have been once pregnant and gone to term. Two required chloroform and forceps, by reason of the want of expulsive pains. This, in my opinion, was not consequent on the operation, as the uterus in each case had expanded and enlarged in the usual direction during pregnancy, and contracted firmly after the birth of the child. These 2 patients made a speedy recovery, and were able for their ordinary duties at the end of a fortnight.

I think the after-history of these cases is long enough to show that they may fairly claim to be "cured," and that the operation, in competent hands, is not, as a rule, followed by bad results.—I am, etc.,

Glasgow, Feb. 7th. JAS. W. WALLACE.

BALCONIES AT SANATORIA.

SIR,—I am much pleased to see that my old friend, Dr. Rufenacht Walters, has entered the lists as champion of the sanatorium without balconies.

Dr. Walters thanks my arguments in favour of balconies are too sweeping, but it is a question of balconies or no balconies, and the arguments I used are based on personal observation in countries where there are hotels with and hotels without balconies, and where the balcony is becoming steadily more generalized, and in the most modern first-class hotels is furnished to every room.

If Dr. Walters admits that the floor of the balcony reflects light at all, I do not see why it should reflect a less proportion in dull weather than in bright.

That less of the sky can be seen from a room with a balcony above is obvious, but how much less depends on many factors, and as you do not want to see the sky within a few degrees of the zenith, it is of little consequence that you cannot do so.

As a protection against rain the balcony unquestionably protects the face of the house. The room in which I am sitting has a balcony one metre wide, and the balcony above is at least 12 ft. away, and somewhat narrower, yet I can leave furniture on my balcony and it remains dry even in wet weather, unless the rain is driving straight towards the house.

I do not suggest that patients should sit on their balconies and get wet, but in driving rain the protection afforded by a balcony enables them to keep windows open which, in the absence of a balcony, would have to be shut.

I have no experience of glass roofs to balconies. The dining room at the Grand Hotel at Territet is cooled in summer by a revolving water-jet on the roof, but I have never heard this quoted as a drawback to the room. An awning may be rolled up when desirable.

I do not see why a bed should be regarded as a fixture. I should suggest that beds be supplied with large rollers so that they might be wheeled not only close to the windows, but actually out on to the balcony at suitable times.

I do not think that Dr. Rufenacht Walters's contention that a balcony which cuts off boisterous wind must deprive the patient of needful air in still weather is tenable, for, apart from the facilities for sitting out on the balcony, exchange of air in a room takes place by diffusion as well as by convection, and the balcony would not interfere with the former process.

I am quite alive to the hypothetical objection to balconies as cutting off light from the room below, but as this is not an actual objection in my experience of balconies as constructed here, I did not allude to it.

With regard to the "barrack" form of hotels and sanatoria, I did not perhaps fully express my meaning. I was not thinking of the question from an aesthetic, but from a sanitary point of view. The crowding of a large number of people into a single building is, in my opinion, most insanitary on account of infection of all kinds, and I foresee the generalization of hotel and sanatorium villages with properly-ventilated public rooms.

As Dr. Walters says, "Montreux is not England," but I have spent some thirty years in my native land, and do not consider its climate, in comparison with others, so bad as it is sometimes painted. On the whole, however, I consider that in the majority of cases of phthisis the best results are obtained at high altitudes, which provide dry, dust-free air, plentiful sunshine, and, in the majority of cases, balconies.—I am, etc.,

Montreux, Jan. 24th. STUART TIDEY.

LUMBAGO.

SIR,—The correspondence on lumbago must be of interest to many members of the profession from the fact that they know it by personal experience; and if some who have had it would give the conclusions they have reached as to its cause, or even the course it runs, from their own personal observation, progress might be made in its prevention or treatment. As to my experience, the first attack occurred when over 30 years of age. I expect I must have been in my usual health, for I had been cutting a terrace with the lawn mower on a warm day in Whitweek. Having finished, I was washing just before dinner, about 1 p.m., and as I raised my head from the basin I was seized with a sudden pain in the back. I walked downstairs and sat through dinner, eating as usual, still the back did not feel right, and I lay down on the couch to rest it. After lying an hour or two I could not rise, and had to be helped on to my feet, my legs feeling as if they were paralysed, and to move even a big toe was almost impossible. Three days in bed enabled me to get about again. That is a type of all the attacks I have had, and they have been many. Almost always they begin when making some effort that tries the back. The pain is over a spot that the point of the thumb can cover, on the joint between the sacrum and left ilium. I have found that when I wish to move, if I rub the gluteal regions (where there is always more or less tenderness to touch), I can do so with less, or even no pain, and I have come to regard such an attack, which I believe to be true lumbago, or what ought to be called so, as

a cross between a sprain and a neuralgia. It runs in families, it is very apt to recur, and there can be little doubt it is dependent on the same cause which produces gout or rheumatism. From my own personal observation I believe that it arises from autointoxication. A cold east wind, checking the action of the skin, upsets the system, and on the slightest provocation on the third day from the initial upset, if not sooner, the lumbago will begin. I have had cases to treat which were struck down as suddenly one day, get quite well the next by some simple means; but that has never been my personal experience, and I am inclined to think they must be of an entirely different nature, probably muscular rheumatism, which true lumbago is not. Those who once have had this true lumbago are almost sure to have it repeatedly, unless they change their mode of living, and by abstinence in eating, more especially in cold weather, prevent that autointoxication which is its cause.—I am, etc.,

Hawick. JOHN HADDON, M.D.

CERTIFICATES FOR SCHOOL CHILDREN.

SIR,—When children are absent from school it is the custom in this district for the school attendance officer to leave a blank certificate form at the homes of the absentees with instructions to take the same to their medical attendant to be filled up, but the members of the local medical society have declined to fill up the same unless paid for by the Education Committee, who do not sanction any payment. Medical men here do not care to charge the parents for certificates which they do not want, nor are they inclined to give them for nothing.

Although the onus of proof rests with the parents that a child is unfit to attend school, yet that does not necessarily imply that such must be supported by professional evidence which might reasonably be reserved in the event of a prosecution, the cost of which would fall on the losing side. The medical officer of health has been appointed medical officer to the Education Committee, and the children are requested to attend at his office for examination. It is considered that such a condition is a liberty taken with the patients of general medical practitioners, and it has been decided to ask the Education Committee to pay the practitioners 2s. 6d. for private cases, and 1s. for hospital and Poor-law cases, like the fees under the Infectious Disease Notification Act.

I should be greatly obliged if the secretaries of medical societies would inform me of fees paid in their districts for school certificates.—I am, etc.,

JOHN W. WELLS, M.D.,

Blackburn, Feb. 5th. Prov. Sec., Blackburn Medical Society.

YERBA MATE.

SIR,—In the BRITISH MEDICAL JOURNAL of October 24th, 1903, your article under the heading of "An apparently harmless stimulant" was exceedingly interesting to me, and considering I have had something like fourteen years' experience in observing the therapeutical effects of Paraguayan tea or yerba, I think the few remarks I have to make may be interesting.

I can fully endorse all your correspondent has written with regard to the beneficial results of maté drinking. There is not the slightest doubt that to get the full benefit of Paraguayan tea it is necessary to suck it through the metal tube or "bombilla" according to South American custom, and if not taken to excess it is one of the most sustaining and stimulating of beverages.

As your correspondent says, it is the *sine qua non* of all South American workmen; and it is astonishing the amount of hard work a "gaucho" can stand if he is allowed to have an occasional suck at his maté pot. Many years ago I was struck by the effect Paraguayan yerba had on the bowels; and I now consider it is one of the very best aperients existent. I have records of many cases of chronic constipation in which cascara sagrada and all the well known laxatives were tried without effecting any permanent relief: maté, I may say, has been my sheet anchor in such conditions, and it is something to be able to affirm that I have never so far seen it fail in its action in producing a normal evacuation of the bowels. Again, in cases of bilious dyspepsia with vomiting, with all its concomitant symptoms of headache, lassitude and chronic constipation, Paraguayan tea has simply worked wonders, and I am almost convinced, after prolonged observation, that Paraguayan yerba, apart from increasing intestinal secretion and peristalsis, has a decidedly powerful action on the liver. For Paraguayan tea to have its full effect, it is necessary that it should be taken in the early morning on an empty stomach and as hot as possible.

My directions to my patients are to rise every morning about sunrise and suck some dozen matés, after which I advise a glass of warm milk to be drunk, on the top of which another dozen matés are consumed, in the meantime the patient takes walking exercise, and I cannot remember a single case which has not benefited.

Of course it is absolutely essential that the patient should continue his maté drinking for some two months or more, but it is hardly ever necessary to urge this, as the beneficial results become so self-evident.

Paraguayan tea, like everything else in this world, does more harm than good when taken in excess, and the custom amongst the camp population of Uruguay of yerba drinking the whole livelong day is one of the most fruitful causes of chronic flatulent dyspepsia; nay, I firmly believe that the abnormally frequent occurrence of cancerous stricture of the oesophagus in this Republic may be laid at the door of the pernicious habit many people acquire of continually pouring boiling hot fluid down the oesophageal tube.

But I think I have said enough to prove that Paraguayan tea, taken as I have pointed out, is of inestimable benefit to that large class of patients whose lives become an actual burden to them on account of the sluggish action of their bowels; and I feel convinced that if English doctors will only give Paraguayan yerba a trial, they will become as enthusiastic in their belief of its beneficial action as yours, etc.,

HERBERT J. WALKER, M.B.Edin., M.D.Uruguay,
Surgeon, Aguas Buenos Hospital, Durazno, Uruguay

HONOURS FOR MEDICAL OFFICERS OF COLONIAL CONTINGENTS IN SOUTH AFRICA.

SIR,—None of the colonies can complain of the Mother Country's want of appreciation of the services of the combatant officers of the various Colonial contingents; in fact, the wholesale—and almost, it might be said, indiscriminate—bestowal of C.B.'s, etc., on this branch of the Colonial military services only serves to emphasize the astonishing way in which the services of the medical officers of the contingents have been passed over. I think I am not far wrong in saying that, with the exception of New South Wales, the other States of the Australian Commonwealth have received nothing, and New Zealand has been entirely ignored. When it is remembered that the majority of these officers—who were every one of them carefully selected men—mostly doing large practices, cheerfully exchanged the same for, to say the least, the discomforts of active service, the way in which they have been overlooked by those in authority is the more difficult to understand. The only conceivable reason appears to be that the Colonial troops, being mostly mounted, were continually on trek, and consequently were hardly ever under the eyes of the staff authorities. The good work done, however, by these officers is well known in the Colonies, and the troops themselves will not soon forget it.

It seems somewhat unjust that there should be no official recognition of the work done and the sacrifices made by these officers, simply because the purely military tactics did not always turn out as successfully as might have been desired.—I am, etc.,

COLONIAL.

PHYSICAL DEGENERATION.

SIR,—My attention has recently been drawn to an article on physical degeneration by your Commissioner in the BRITISH MEDICAL JOURNAL of November 28th, 1903, in which I am stated to have said "that statistics for 1901 showed that, where 25 women suckled their children, 200 fed them on the bottle," etc.

Unfortunately, at the Conference referred to, I was very badly reported, and had to write next day to the paper and have the statement corrected.

What I did say was that, out of 317 children under 6 months who died of summer diarrhoea in 1901, 25 were fed at the breast only, while 292 were fed on cow's milk and other prepared foods.

I urged the teaching of hygiene and instruction in the feeding of infants to girls in the elementary schools as one means of combating the ignorance which prevails on such matters.

It may interest you to know that out of 535 visits recently paid to houses of the working class within a week after the registration of a birth, 423 infants or 79 per cent. were found

...ied on the breast only, 76 or 14.2 per cent. were having the breast and other food, while only 7 or 1.7 per cent. were being fed with a bottle.

This proves that the number of married women who work out of their homes in Sheffield is very small indeed, and yet there is an exceptionally high infantile mortality; the mischief is clearly when all sorts of improper food are given to the infants coupled with other very insanitary conditions.

I am, etc.,

(Mrs.) Frances J. Greenwood.

Sheffield, Feb. 3rd. Sanitary Inspector.

CANCER AND ITS ORIGIN.

Sir,—Although not a medical man, I have for a long time taken a great interest in the question of the possible cause or causes of malignant growths. For various reasons it occurred to me some time ago that possibly such growths might in some way have relation to abnormal conditions of the essentially reproductive glands. The remarkable papers on the subject recently published by Messrs. Farmer, Moore, and Walker, and also by Drs. Bashford and Murray, seem, to a certain extent, to point in the same direction. These observers have discovered that the earliest phenomenon that can be seen in incipient malignant growths is the replacement of the normal division characteristic of the body cells by that which occurs normally in the case of reproductive cells. In order that this may take place either some influence leading to such mode of division must have come into play, or on the other hand, some inhibitory influence must have been withdrawn. It is, I believe, very generally admitted that the testes and ovaries, in addition to the formation of the sexual cells, produce some internal secretion or secretions which have a considerable influence on the constitution generally. This being so it appears to me just possible that either excess or deficiency of some such secretion may lead, if not actually to cancerous growths, at least to such a condition of the somatic cells that when they are subjected to some adverse circumstances (as, for example, continued irritation) such growths may be started. I merely venture to suggest that possibly it may be worth while for those working on this most important question to make some investigation along the lines indicated. The remarkable results attained by the use of thyroid extract in cases of myxoedema show at any rate the great importance of internal secretions, and a detailed study of the secretions of the sexual glands would no doubt be of great value even if it were found that they are without effect in the particular manner referred to.

I am, etc.,

Feb. 5th. C. W. Andrews, D.Sc.Lond.

Sir,—In the recent Bradshaw lecture on this subject, Mr. Henry Morris makes the following statement: "From nothing that is known up to the present time of the action of micro-organisms could the microbe theory throw the least light upon the causes of alleged direct inoculation of cancer from one person to another" followed by the question, "How can we, on the microbe theory, explain a glandular-celled carcinoma producing in another person a spinous-celled carcinoma, or a spinous-celled carcinoma of the tongue giving rise to a spheroidal-celled carcinoma of the mamma, or to a columnar-celled carcinoma of the stomach or rectum?"

As I have not seen any reply made to these statements, and as it must not be supposed that the believers in the microbe theory are either wanting in courtesy or unable to answer them, I have ventured to reply, in the absence of a more able exponent.

Briefly, the progress of cancer naturally involves the belief in the existence of an infective agent, a micro-organism either a microphyte or microzoon (which for convenience may be called a microbe), which exists either free or attached primarily the germ being encysted in a dead portion of connective tissue cell, or which is encysted in a living cell.

In itself the organism may be considered innocuous, it is the infective agent; but when a condition per... [illegible] by continuous irritation, inanition, chronic disease, degeneration of tissue from any cause, instability or [illegible] by congenital susceptibility (the susceptibility is inherited)

[illegible] the microbe consists in originating malignant [illegible] of the [illegible] primarily [illegible] of the [illegible] invaded connective tissue, [illegible] by this [illegible] also by metastasis [illegible] and [illegible] manner.

The pathognomonic feature of cancerous metastases is their formation by deportation of the proliferated infective cells themselves, and not of the infective microbes only, as occurs in other diseases such as tubercle, the new colonies increasing by further proliferation of these immigrant cells and not of the cells of the invaded structures. This accounts for a columnar-celled cancer of the rectum, for example, having a metastasis in the liver composed of columnar rectal epithelium and not of hepatic tissue.

This peculiar feature of cancerous metastases is quoted as an argument against the microbe theory on the ground of absence of analogy to other microbic diseases disseminated by metastasis; but, apart from the absurdity of presuming that pathogenesis can be fettered by analogy, it must be remembered that analogy is entirely worthless for the purposes of proof, since at the best it can afford only probability.

The variety of cancerous tumours is certainly very considerable, but this variety wholly and solely depends on the tissue of origin and the accident of environment. Whatever the variety and wherever situated, malignant neoplasms one and all behave exactly alike, tending to ulcerate, forming metastases, constitutionally infecting the organism, and ultimately destroying it. One micro-organism only, therefore, is necessary to originate malignant action in any situation, the tissue attacked determining the variety of tumour.

If the microbe is in a free state or encapsuled in a dead cell, which amounts to the same thing, the resulting cancerous growth will consist of the proliferated elements of the tissue attacked. Thus the free microbe from a glandular-celled carcinoma will originate a squamous-celled carcinoma in another individual if it attacks such tissue; or the free microbe from a squamous-celled carcinoma of the tongue, for example, will give rise to a columnar-celled carcinoma of the stomach or rectum, or to a spheroidal-celled carcinoma of the mamma, or to any other variety of carcinoma according to the tissue attacked. Such infection is of course mediate or fortuitous.

If, on the other hand, the microbe is encapsuled in a living cell the tumour resulting from its malignant influence will be of the same nature as the invading cell itself, for it will be formed by the proliferation of the invading cell in its new situation, and not of the cells of the invaded tissue. Thus the microbe-laden living cell from, for example, a columnar-celled carcinoma will originate another columnar-celled neoplasm by the proliferation of the immigrant cell, quite irrespective of the structure of the tissue attacked. Such infection is immediate, and corresponds to autoinoculation by metastasis.

Doubtless the great majority of malignant neoplasms are due to mediate or fortuitous infection, but others also arise from immediate transmission, of which the following, recorded by Behla, is a notable example. A man presented himself at Tross's clinic suffering from cancer of the glans penis. This neoplasm was removed, examined microscopically, and found to consist, not of penile tissue, but of uterine cervical elements, and it was further discovered that the man's wife was suffering from an ulcerated uterine cervical carcinoma. The long arm of coincidence cannot be successfully invoked here, and the only logical deduction to be drawn is that this was a case of undoubted direct transmission of cancer from one individual to another, and as such it must be accepted as proof of the transmissibility and external origin of cancer. Nor is this a solitary example, for Behla has the records of many exactly similar cases.

So great are the activity and vitality of malignant germ-bearing cells that even one single cell, left behind after an operation for the excision of a malignant neoplasm, will reproduce it. Thus the infection of invaded tissue by a microbe encysted in a living cell with subsequent proliferation of the latter, corresponds to what occurs after an unsuccessful operation.

As yet the infective agent of cancer has not been isolated, but neither have those of many other diseases admittedly microbic, so that this must not be used as an argument against the theory of the exogenesis of cancer as so many are fond of doing. Non-discovery and non-existence are not synonymous.

In concluding his lecture Mr. Morris deprecates the pessimism of Katz who deplored the acceptance of Cohnheim's theory, asserting as the fatalism underlying it would result in a standstill; and I must say that I consider Katz to be amply justified in his belief.

Mr. Morris, however, sees no occasion for such a pessimistic view, because, he assures us, the "mutation-germ" theory at least convinces us of the local origin of cancer, and its positive curability if removed completely and sufficiently early. Now no fact is, or can be, proved by a theory: indeed, it is the other way about: and that cancer is at the outset a purely local disease is an established fact which no theory can affect one way or the other.

Nor is there any comfort to the unfortunate individual who is the subject of internal and inaccessible disease, however localized, in the fact that early and complete removal will cure local cancer: and absolute pessimism is inevitable, on Cohnheim's theory, in cases where the disease has spread by metastasis and a state exists of general carcinomatosis.

It is a truism that no theory can be established or disproved simply by opinion: but were it possible that optimism could establish one, it would be that of the exogenesis of cancer, for while any other theory of the origin of cancer, if established, must undoubtedly induce the most profound pessimistic fatalism, the establishment of the exogenesis of cancer would, on the contrary, be a source of joy and relief to all mankind; for it alone of all theories promulgated suggests the possibility of thoroughly scientific and successful treatment of all forms of cancer, internal as well as external, and even of advanced constitutional intoxication, and also, which is even more important, it would afford a perfect system of prophylaxis.

For my own part I believe that before very long the exogenesis of cancer will be proved to the satisfaction of all, not because the wish is father to the thought, but because the clinical evidence in its favour is becoming daily more and more abundant and convincing.—I am, etc.,

Driffield, East Yorks, Feb. 8th. A. T. Brand, M.D., C.M.

THE ANGLO-AMERICAN MEDICAL ASSOCIATION OF BERLIN.

Sir,—The Anglo-American Medical Association of Berlin desires you to inform the profession of its organization and purposes. Realizing the difficulties which beset the path of the stranger, the Association places its services at the disposal of physicians who intend to study in Berlin. They are cordially invited to attend the meetings which are held weekly, and any information concerning the work to be had here will be gladly given to any member of the profession who will communicate, on his arrival in Berlin, with Dr. J. H. Honan, President, Lützowstrasse, 78, or with the undersigned committee.—We are, etc.,

Albert G. Mayer, M.D.,
Secretary.
David Shannon, M.D.Glasg.,
Wm. W. Graves, M.D.

22, Albrechtstrasse, Berlin, Feb. 3rd.

ISOLATION HOSPITALS.

Sir,—Dr. Moore's letter in the British Medical Journal of January 9th on this subject has not drawn many correspondents, but I venture to say it is not for want of agreement with his charges and conclusions.

We all recognize the value of small-pox isolation hospitals, but scarlet-fever hospitals as instruments for suppressing the latter complaint must be acknowledged to be failures. They are no doubt useful, like general hospitals, for housing awkward cases, or as conveniences for the poor, but they do not, as far as my observation goes, tend to check the disease, but rather the contrary.

It would be interesting to know how often a scarlet-fever isolation hospital, after once being established in a district to cope with an epidemic, is able to close its doors and rest from its labours. I am afraid the rule is for it to feed itself with patients in the way pointed out by Dr. Moore and thus convert an epidemic disease into an endemic one. In my opinion the carting away, like social lepers, of patients discovered to be "skinning," and with no other signs, is, in the light of results, an official mistake. Dr. Moore's letter was worthy of much more response.—I am, etc.,

Birmingham, Feb. 2nd. Buckley Pobson.

A New Sanatorium at Davos. A meeting was held at Davos on January 18th, under the presidency of Dr. W. R. Huggard, British Vice-Consul, in furtherance of a scheme for the erection of a sanatorium in that place, to be known as the Queen Alexandra Sanatorium for Consumption. The chairman reported on the acquirement of a site and other matters. After several speakers had pleaded in favour of the project a sum of about 6,000 francs was collected in aid of the funds.

OBITUARY.

EDMUND ANDREWS, M.D.,

Professor of Surgery, Northwestern University, Chicago.

We regret to announce the death of Dr. Edmund Andrews, the distinguished surgeon of Chicago, which took place on January 22nd. On January 17th he underwent an operation for stone in the bladder, and himself well, but five days later symptoms of paralysis of the heart became manifest, and he speedily expired.

For forty-eight years Dr. Andrews had been engaged in the practice of surgery in Chicago; he retired from active work only two or three years ago. He was born at Putney, Vermont, in 1824, and received his literary education in the University of Michigan. He then studied medicine, and in 1852 took his doctor's degree at the same University. He then migrated to Chicago, where in 1857 he was appointed Professor in Rush Medical College. He occupied that chair three years. At that time only a two years' curriculum was required for graduation in medicine.

Dr. Andrews, who was strongly in favour of a longer course of training, in conjunction with five other men who held similar views, founded Lind University. That University was the first in the United States to require a four years' course. In 1860 it was absorbed by the North-Western University, and Dr. Andrews was appointed Professor of Surgery in the Medical School of that University.

Dr. Andrews served as a surgeon in the Civil War. In 1857 he founded the Chicago Academy of Sciences, of which he was for many years one of the most active supporters.

DAVID THOMSON PLAYFAIR, M.D.Edin.,

Bromley.

The news of the sudden death of Dr. David Playfair, of Bromley, Kent, which occurred on the 1st instant, will be heard with great regret by many members of the profession, and be deplored by the large circle of friends who knew and valued his sterling qualities of heart and mind. He was only 48 years of age—"dead ere his prime"—and gone in the midst of a busy and useful life. He had been in bad health since August, and during his holiday in Scotland in September alarming heart symptoms developed, and terminated in his sudden death when at Burntisland.

Dr. Playfair was the eldest son of the Rev. David Playfair of Abercorn, N.B. The Playfair family has been a distinguished one in science and medicine for generations. His great-grandfather was Professor of Mathematics in the University of Edinburgh in 1785, and later occupied the Chair of Natural Philosophy. His cousin, the late Lord Playfair, was Professor of Chemistry in the same University, and the late Dr. W. S. Playfair—brother of Lord Playfair—was the well-known Professor of Obstetric Medicine at King's College.

David Playfair was educated at Blair Lodge, N.B., and went to Edinburgh University in 1870. He first attended some of the arts classes, and then matriculated as a medical student. He distinguished himself in botany, and gained the gold medal for the best herbarium. In medicine and surgery he took first-class honours. After graduating in 1877 he went to Paris, Tubingen, and Leipzig. On his return he became assistant to Dr. Hunter of Linlithgow, and then Assistant Medical Officer to the Royal Albert Asylum, Lancaster. At the end of 1880 he settled down in practice in Bromley, Kent. His practice rapidly increased, and he was made Honorary Medical Officer to the Bromley Cottage Hospital.

He was an excellent surgeon, skilful and dexterous in manipulation. In medicine his knowledge was sound, and he endeared himself to his patients by his tact and kindliness. His contributions to medical literature were few but valuable, both in matter and style. He was a man of many talents, being an enthusiastic botanist, and his collection of British sedges was practically complete. He was a Fellow of the Linnaean Society, and of the Royal Botanical Society of Edinburgh. As well as being an excellent amateur photographer, he was a first-rate wood carver and carpenter, also a cultured musician, and a Member of the Bromley Musical Society, of which he was one of the original founders. His prowess with gun and rod is evident from the numerous carefully-set-up specimens to be seen in his house. He was a genial and true friend, and his death has left a blank in many hearts.

During Dr. Playfair's illness he was under the skilful and

ssiduous care of his friend and colleague Dr. Scott, and was devotedly nursed by his wife, with whom much sympathy is felt.

JOHN WHITE KEYWORTH, M.D.Lond., M.R.C.S., L.S.A., Adelaide.

We regret to record the death of Dr. John White Keyworth, formerly of Birmingham, which occurred at Adelaide in South Australia on December 24th, 1903, at the age of 77. He commenced his professional studies in London at St. Thomas's Hospital in 1847. He distinguished himself as a medical student by the very large number of prizes he won, carrying off practically every honour that was possible. When he was a student he also showed considerable literary gifts, as he obtained three prizes at St. Thomas's for essays, two prizes for the Physical Society's Essay, and the Newman Smith Prize, for which he presented an essay on neuralgia. He became M.R.C.S. and L.S.A. in 1850, and took the degree of M.B. of the University of London in 1851 and the M.D. in 1857. He was Resident Surgical Officer to the Marylebone Infirmary for a short time, and then went to Birmingham. He was Lecturer on Physiology at the old Sydenham College in that city, and District Medical Officer and Public Vaccinator to the Aston Union.

Dr. Keyworth will be well remembered by the older generation of practitioners in Birmingham, where he enjoyed a large general and club practice in one of the poorer districts of the city for many years. Scholarly in his attainments, with a reserved manner of the old school, he was long an active member of the local medical societies, in which he took a leading part in the discussion of matters affecting the professional care of the industrial and poorer classes.

He went to Australia about twenty-three years ago, when advancing age and infirmities prevented him from fulfilling his hopes as to better health and extended work.

We regret to record the death of Dr. William Donald, of Hazledean, Banff, who died recently after a long illness accompanied by much pain, which was only partly relieved about two months ago by an operation. Dr. Donald was the eldest son of Dr. William Donald, of Bogside of Eden, King Edward and graduated M.B., C.M. at Aberdeen University in 1873. He then became Resident Surgeon at Chalmers Hospital, and subsequently accepted a Civil Service appointment at Colombo, Ceylon. This post he held for some years, but, having married a daughter of the late Captain H. Deane, of Banff, he returned home and settled at Banff. There he very quickly acquired an extensive practice, and eventually occupied a variety of municipal and other official appointments, in addition to being Visiting Surgeon of the Chalmers Hospital. At one time he took a large part in the public affairs of the locality, and was a Justice of the Peace, a Member of the School Board, and an Elder of Banff Parish Church. More recently, owing to the increasing claims of his professional work, he found it necessary to give up active participation in the administrative affairs of the town, and for the same reason was led to take into partnership Dr. J. Hector Stephen. He was a member of the Aberdeen Branch of the British Medical Association, and in the district round Banff he was as highly respected as he was widely known. He will be greatly regretted by many people, and not the least by the poor of Banff, to whom he was ever a ready friend in time of trouble. He leaves behind him a widow and several children. His eldest son—a young medical man of much promise—died some four years ago in Cairo.

We regret to have to record the death on January 29th of Dr. John George Nevitt, of Brunswick Place, Leeds, and at the time of Chapel Allerton, a suburb of the same town. Dr. Nevitt was a student of the Leeds Medical School and after taking the diploma of M.R.C.S. England in 1867 he started practice in the same town and remained there all his life. He threw much energy into all that he did and as a practitioner met so much success as to be enabled to enjoy life in many ways outside of purely professional limits. At one time he used to put in a regular appearance in the hunting field and he continued to the last to take a keen interest in cricket. Cycling also had an attraction for him and he was an excellent and enthusiastic rider. He belonged to the British Medical Association and was also a very popular member of the Leeds and County Conservative Club. He [illegible] wife, two sons and four daughters.

We regret to have to record the death, on January 23rd, of Dr. William Hutchison of Brightlingsea. Dr. Hutchison received his professional education at Glasgow, where he took the qualification of L.F.P.S. and L.M.Glasg. in 1854. Early in his career Dr. Hutchison volunteered for medical service with the army in the Crimea, where he saw much fighting, being present during the siege of Sebastopol and at the battles of Alma, Inkerman, and Balaclava; while on his return home and before finally settling down he went for a long cruise round the world. Finally, he took the degree of M.D St. Andrews, and settled in practice at Loughboro', in which town he remained until some thirteen years ago, when he disposed of his practice, and for a time lived at Folkestone. Subsequently, however, he gave up practice altogether, and retired to Brightlingsea, where he spent the rest of his life. While at Loughboro' he was honorary surgeon of the Loughboro' Infirmary and Dispensary, and at the time of the Franco-Prussian war, he, with the assistance of Mrs. Hutchison, was instrumental in interesting the district in the work of the Red Cross Society, and in furnishing it with clothing, blankets, and money for dispatch to the seat of war. His death took place at his own residence at Brightlingsea, but his remains were removed to the house of one of his sons at Loughboro', and thence to their final resting place in the family vault in the cemetery of that town. Dr. Hutchison left a widow, two daughters, and two sons, one of the latter being a medical man.

A well-known and much respected medical practitioner in Salford has passed away in the person of Mr. William Crosby, who was born 78 years ago. He studied at King's College and obtained the diploma of M.R.C.S. in 1847. Few knew more of the life of the borough for the last half-century. He took a great interest in music, and indeed officiated as an honorary organist in one of the local chapels.

ROYAL NAVY AND ARMY MEDICAL SERVICES

ROYAL NAVY MEDICAL SERVICE

Penrose J. Barcroft, formerly in His Majesty's Navy, having been placed on the list of Volunteers for Service in the event of War or Emergency, is restored to the rank of Staff Surgeon, dated September 24th, 1888.

The following appointments have been made at the Admiralty: William R. D. Breton, Surgeon, to the *St. Vincent*, lent, February 5th; Robert D. Jameson, Surgeon, to the *Revenge*, lent, February 15th; Henry B. Beatty, Fleet Surgeon, to the *Pembroke*, for three months course of hospital study, February 15th; Alfred N. Lavertine, Surgeon, to the *Katoomba*, February 8th; Albert O. Edwards, M.D., to the *Isis*, for the Boscawen, and for the medical depôt at Sydney, February 8th.

Civil Practitioner Conrad T. Green has been appointed Surgeon and Agent at Barkerhead, February 4th, and Ernest L. Elliot to the same position at Dover, February 4th.

ROYAL NAVY VOLUNTEER RESERVE

Alfred C. E. Hallos, M.B., has been appointed Staff Surgeon, February 3rd.

The undermentioned gentlemen have been appointed Surgeons, namely John N. D'Esterre, Lanarks. 5th; Charles S. Brewer, L.R.C.S., John E. Gemmell, M.B., and Arthur J. Evans, M.R.C.S., February 3rd.

SCOTS GUARDS

Surgeon Major W. C. Beevor, M.B., C.M.G., from the seconded list, to be Surgeon Major, January 14th.

ROYAL ARMY MEDICAL CORPS

Lieutenant-Colonel T. A. Beer, M.D., retires on retired pay, February 4th. He was appointed Surgeon, February 7th, 1881; Surgeon Major, February 7th, 1889; and Lieutenant-Colonel, February 7th, 1897. He was in the Soudan campaign in 1885, receiving the British and Egyptian medals, and in the South African war in 1900.

The undermentioned Captains are promoted to be Majors, dated January 29th: H. D. Mason, E. M. Pilcher, M.B., D.S.O., H. F. Johnson, W. G. Reyes, H. A. Stalkartt, M.B., H. N. Dunn, M.B., S. H. Withers, M.B., I. M. Mollison, E. C. Anderson, D.S.O., N. Tracey, L. A. Mitchell, M.B., C. C. Fleming, M.B., D.S.O., J. Hennessy, M.B., C. B. Martin, M.B., G. J. Buchanan, M.B., C. B. Lawson, M.B., J. P. M. Kelly, M.B., G. S. Crawford, J. D. Alexander, M.B. Of these officers Major Martin is on the Departmental Staff. Captain January, who, at the time was appointed Surgeon Lieutenants January 29th, 1900, and made Surgeon Captains January 29th, 1903. Their war records are as follow: H. D. Mason, South African war, 1900-2; E. M. Pilcher, North-West Frontier of India, 1897-98, with the Tirah Expeditionary Force, mentioned twice, despatches, D.S.O.; H. F. Johnston, North-West Frontier of India, 1897-98, with the Tochi Field Force, mentioned twice, despatches; W. G. Reyes, North-West Frontier of India, 1897-98, with the Kohat Pass Force, Khyber Valley Force, Tirah Expeditionary Force, mentioned twice, despatches, medal with two clasps; H. N. Dunn, Bengal Lancers, Umbeyla Campaign, 1863, medal and clasp; Perak and operations in Malay Peninsula, 1875-76, medal and clasp; Hazara, 1888, medal with two clasps; and with the expedition to relieve the garrison of the Malakand, mentioned in despatches; and

Khartoum mentioned in dispatches, 4th Class of the Medjidie, two clasps; and in operations in 1[illegible] clasps S. H. Withers, North-West Frontier of India in 1[illegible] with the Tirah Expeditionary Force medal with two clasps; South African war, 1[illegible] E. M. Morphew, North-West Frontier of India in 1[illegible] with the Tirah Expeditionary Force medal with two clasps; South African war, 1[illegible], including relief of Ladysmith (mentioned in dispatches). E. C. Anderson, South African war, 1[illegible] mentioned in dispatches. D.S.O. N. Tyacke, North-West Frontier of India in 1[illegible] medal with clasp; South African war, 1[illegible], including relief of Ladysmith, actions at Spion Kop and Vaal Krantz, and numerous subsequent operations (mentioned in dispatches, Queen's medal, with five clasps). L. A. Mitchell, North-West Frontier of India in 1[illegible], including operations on the Samana Range, and afterwards with the Tirah Expeditionary Force (medal with three clasps). China Expedition, 1900 (medal). C. C. Fleming, campaign in the Soudan in 1[illegible] as senior Medical Officer during the operations on the Upper Atbara and in the engagement at Gadaref; afterwards in the defence of Gadaref and subsequent operations in the neighbourhood (mentioned in dispatches, D.S.O., British medal, Khedive's medal with clasp); South African war, 1[illegible] J. Hennessy, South African war, 1[illegible] C. B. Martin, Chitral Relief Force in 1[illegible] (medal with clasp). South African war, 1899-1901, including relief of Ladysmith (mentioned in dispatches). G. J. Buchanan, North-West Frontier of India in 1897-8 (medal with clasp). C. B. Lawson, South African war, 1899-1900. J. F. M. Kelly, Chitral Relief Force in 1[illegible] (medal with clasp); North-West Frontier of India in 1[illegible] with the Malakand Field Force (clasp); South African war, 1899-1900, including relief of Ladysmith and actions at Spion Kop, Vaal Krantz, etc. G. S. Crawford, North-West Frontier of India, 1897-8, with the Tirah Expeditionary Force (medal with two clasps); South African war, 1[illegible] J. D. Alexander, North-West Frontier of India in 1[illegible] with Tirah Expeditionary Force (medal with two clasps); South African war, 1[illegible], including relief of Ladysmith, action at Colenso, relief of Mafeking, and subsequent operations in the Transvaal (mentioned in dispatches).

Lieutenant R. McK. Skinner, to be Captain, January 2nd. His first commission dates from January 2nd, 1901.

INDIAN MEDICAL SERVICE.

THE following are appointed Lieutenants: FRANK P. O'CONNOR and GEORGE H. L. WHALE, September 1st, 1903. ROBERT KELSALL, M.B., JOHN H. BURGESS, M.B., JOHN McC. A. MACMILLAN, M.B., CLIFFORD A. GILL, WILLIAM E. J. TWOHY, TERENCE F. OWENS, RICHARD P. STEEL, M.B., GEORGE F. I. HARKNESS, ARTHUR C. INGRAM, M.B., GORDON W. MACONACHIE, M.B., ERNEST W. C. BRADFIELD, M.B., ALEXANDER W. M. HARVEY, M.B., CHARLES I. BRIERLY, JOHN B. D. HUNTER, M.B., and EDWARD T. HARRIS, August 1st, 1[illegible].

The retirement from the service of Lieutenant-Colonel H. ALLISON, M.D., Madras Establishment, which has been already announced in the BRITISH MEDICAL JOURNAL, has received the approval of the King.

Major I. P. Doyle, D.S.O., Madras Establishment, has also retired from the service from December 31st, 1903. He was appointed Assistant-Surgeon, September 28th, 1[illegible], and became Major, September 28th, 1[illegible]. He was with the Burmese Expedition in 1[illegible], was mentioned in dispatches, and awarded the Distinguished Service Order; he was also in the operations in Burma in 1[illegible].

Lieutenant-Colonel H. K. McKay, C.I.E., Bengal Establishment, is granted the temporary rank of Colonel, from December 22nd, 1903, while officiating as Principal Medical Officer Presidency District.

ROYAL ENGINEERS, SUBMARINE MINERS (VOLUNTEERS).

SURGEON-LIEUTENANT J. E. WILSON, M.B., the Clyde Division, resigns his commission, February 7th.

VOLUNTEER RIFLES.

THE resignation of Supernumerary Surgeon-Captain W. P. PEAKE, 1st Volunteer Battalion the Leicestershire Regiment, which appeared in the *London Gazette* of January 5th, is cancelled.

Surgeon-Lieutenant W. CURTIS, 1st Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment), is promoted to be **Surgeon-Captain**, February 6th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

HENRY WADE, M.B., to be Lieutenant in the Edinburgh Company, February 6th.

Mr. Arthur E. Jerman, to be Lieutenant in the Woolwich Companies, February 7th.

R.A.M.C.(VOLS.) LONDON COMPANIES.

PRESENTATION OF PRIZES.

THE COUNTESS HOWE presented the prizes won by the corps at the Head Quarters, Calthorpe Street, on Saturday, February 6th. On the platform to support Lady Howe were Mrs. Squire, Sir Wm. Church, K.C.B., etc., President of the College of Physicians; Surgeon-General Evatt, C.B.; Colonel Sloggett, C.M.G., Principal Medical Officer Home District; Lieutenant-Colonel Wilson, C.B., C.M.G., D.S.O., Assistant Director-General, A.M.S.; Major V. Matthews, and Major Gibbard, R.A.M.C., Adjutant.

Colonel J. E. Squire, in presenting the report of the corps during the year, referred to the diminution in numbers which the corps had suffered, in common with many other volunteer corps. [illegible] the last prize-giving [illegible] the corps was stated to be the [illegible] attendance at camp. The work of the R.A.M.C. [illegible] gence and education, and men who were in permanent employment, like the class of men from which [illegible] their holidays exactly when they wished, as they [illegible] weekly wages generally could do. The recruits joining during the year numbered 57, the total number being [illegible] now sitting would presently reduce. The [illegible] ished, the efficiency of the corps was as good as ever it had been, and in some respects better than at any previous time.

Colonel Squire referred to his impending retirement from the command of the corps, with the formation of which he was actively concerned, and in which he had served since its [illegible].

The prizes having been presented, Colonel Squire asked Lady Howe to unveil a memorial tablet recording the names of 86 officers, non-commissioned officers and men of the corps who had served in the war in South Africa. The tablet is of oak, the names being incised in five panels, above which are the title and arms of the corps, and the words "Active Service Roll, Boer War, South Africa, 1[illegible]." On the flags which had hidden the tablet being withdrawn, the buglers sounded the Corps' Call and the Advance.

A vote of thanks to Lady Howe was proposed by Major Matthews, seconded by the Chaplain (Sir Borrodaile Savory), and carried by acclamation.

Lady Howe, in a few well-chosen words, expressed her pleasure in coming to give prizes to a corps which had furnished a unit to the Imperial Yeomanry Hospitals and Bearer Company. It was the men who worked in the Yeomanry hospitals who had made them so successful, and those who had come from the R.A.M.C. Volunteers had been most highly spoken of by the officers under whom they had served. In conclusion, Lady Howe asked to be allowed to present to the corps a cup as a prize for efficiency in hospital duties, the conditions of the competition to be decided by Colonel Squire.

The evening concluded with dancing, Lady Howe taking part in the opening set of lancers.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANIES

SUBSEQUENT MEDICAL STAFF.—CAPTAIN W. P. PEAKE, from the 1st Volunteer Battalion the Leicestershire Regiment, to be Captain, and to command the Leicester and Lincoln Company, January 6th.

THE "PRIOR CLAIM" TO EMPLOYMENT.

BRIGADE-SURGEON-LIEUTENANT-COLONEL P. B. GILES (Bletchley) writes: However sore A. may feel by being superseded by B., B. is strictly within his rights when he applied for what he had been promised. Under a Royal Warrant, the emolument derived from local recruiting is one of the inducements to join the Army Medical Reserve. When I gave evidence before the Duke of Norfolk's Commission, I tried very hard to drive home the fact that the general dissatisfaction throughout the Volunteer Medical Service was attributable to so many promises made to the service being ignored. I also tried to point out the only absolute justice of giving priority of appointment to surgeonships to gaols, post office, police, and recruiting to those who are volunteer medical officers as a recognition of the duties they perform gratuitously for a public service, and as an inducement for young practitioners to join a service that requires them not only to devote quite a considerable amount of time, but also to spend money at a period of their career when patients are scarce. *Res angusta domi*, from my experience as Senior Medical Officer of the Volunteer Ambulance School of Instruction alone prevents many most desirable aspirants from joining the service. Make the Volunteer Medical Service a reality, and you have a body sufficient and efficient enough to supply any national emergency.

SURGEON-MAJOR REGINALD SLEMAN, A.M.R. (London, W.), writes: I write with reference to your remarks on p. 341 of the BRITISH MEDICAL JOURNAL for February 6th. As you say, the notice given to A. for terminating his engagement was very short, on the other hand, it may be asked why he did not take steps to obtain a commission in the Army Medical Reserve of Officers and so qualify for the appointment? The regulations are very clear on the subject. Para. 159 of the Royal Warrant says that these engagements of civilian practitioners are of a temporary nature, and for however long a period they may have been held are terminable according to the exigencies of the service and without any previous notice. As to B., all volunteer medical officers will recognize his prior claim to employment in accordance with Para. 54, Army Medical Regulations, and considering the amount of gratuitous professional work which these officers do, and their expenses in attending camps, corps subscriptions, etc., surely it is only fair that when a chance occurs they should be selected for employment in charge of the King's troops. Some people sneer at "contract rates". I consider them generally reasonable, and any special duties outside the range of ordinary medical attendance are, by a recent Army Order, to be considered for higher remuneration.

THE VICTORIA CROSS.

M.D. draws attention to some statistics of the Victoria Cross which lately appeared in the *Daily Express*. The number of awards since the institution of the coveted decoration in 1[illegible] is given at 1[illegible], but these analyses [illegible] of the various branches of the services in which it has been conferred, the total is 1[illegible], including three Indian civilians. The curious part of these statistics, however, is that under "Medical Corps" the number "26" is given, with an explanation in brackets thus ("26 doctors altogether"). Our correspondent naturally asks: What does the supplement mean? We cannot say, unless the "doctors" are also supposed to be included in the various branches of the service in which they chanced to be serving when they were awarded the decoration. As the total is incorrect, there are probably some of the latter. We have compiled a list of the officers of the Army Medical Corps who have received the decoration, and we cannot say whether that should be added to or subtracted from the "26 doctors." At page [illegible] of the present volume, 1[illegible], the names of all the officers and men of the medical services who wear the Victoria Cross are given.

MEDICAL OFFICERS OF THE AUXILIARY FORCES.

THE annual dinner of the medical officers of the auxiliary forces will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 1st, at 7 p.m. The chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G., Officer Commanding King's Royal Rifle Corps. Tickets, which may be had from Lieutenant Montagu Smith, 39, Abbey Road, N.W.

THE RED CROSS SOCIETY IN AMERICA.

MR. DANIEL, of Virginia, has introduced a resolution in the United States Senate directing the Secretary of State to inform the Senate whether or not the Department of State has made the following or similar inquiries of foreign Governments respecting the Red Cross Society, and, if so, what replies, if any, have been received. Whether application has been made by the Government to the Red Cross Society. Does the Government appoint any of the officials or directors of the Red Cross Society. How

work?

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE PLEA OF INSANITY

position which he occupied until he retired

attacks

tificate in such a case.

MEDICAL WITNESSES' FEES IN CRIMINAL CASES.

PROFESSIONAL CONDUCT

CLUB PRACTICE

by the club subscription, and if the patient in question was quite able to pay the moderate fee asked. A [illegible] was untrue and contrary to the interests of the medical profession.

QUALIFIED MEDICAL PRACTITIONERS AS DENTISTS.

L.D.S.—That the exercise of [illegible] can constitute a breach of professional ethics is an idea not to be entertained. Medical men are usually very chary of undertaking the treatment of cases in those departments of practice to which [illegible] that special knowledge and special aptitude are [illegible] possible to lay down [illegible] any medical man [illegible] undertake ophthalmic cases, or aural cases, or abdominal operations unless he has more or less become a specialist in those directions. The propriety of his doing so must be left to his own feeling as to his competence, and cannot be made subject to any ruling as to ethics or etiquette.

THE ADVERTISEMENT OF MEDICAL WORKS IN THE DAILY PRESS.

C. J.—The case has been referred to the Ethical Committee.

NEWSPAPER NOTICES OF MEDICAL PRACTITIONERS.

FAIRPLAY.—It is already recognised [illegible] paper's account of complimentary banquet with the usual accompaniment of flattering speeches.

CLUB COLLECTORS.

GLAN NEATH.—While there may be no objection to the employment of a collector to receive club subscriptions, yet where such men are paid a commission on the amount they collect they are apt, in their own interests, to become canvassers and thereby [illegible] clinical rules.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE PHILIP WALKER STUDENTSHIP IN PATHOLOGY.

A STUDENTSHIP in Pathology has been founded in the University by Mr. Philip Francis Walker, for the furtherance of original research in pathology. The studentship is to be of the annual value of £[illegible], and may be increased, if at any time the income of the fund warrants, and exceeds £[illegible] to any sum not exceeding £[illegible]. Prizes or grants may also be made from the fund under similar circumstances to persons engaged in pathological research. The studentship is not confined to members of the University and is open without limitation of age or sex. It is to be awarded by the managers of the fund upon the report of the Professor of Pathology and the respective candidates shall be eligible for three years from the date of their appointment, and subject to the confirmation of the Board for a further period of two years.

During his tenure of the studentship the student is prohibited from [illegible] any business or profession, or engaging in [illegible] or other work which, in the opinion of the Board, would interfere with his original researches. The place of the studentship shall be held at the Oxford School of Pathology, or at such other place as shall be approved by the Board, in the University during at least three terms of this tenure of the studentship, unless this requirement be dispensed with for special reasons. The full details of the Regulations [illegible] regarding the student's duties are published in the University Calendar for [illegible] February and (University Press, 116, High Street, Oxford. Price [illegible]).

RESEARCH FELLOWSHIP.

St. John's College will shortly proceed to elect [illegible] Ordinary Fellow to [illegible] Fellowships, [illegible] their endowment [illegible] to be a Fellow, and [illegible] required to perform some definite literary, scientific, or educational work in the College, or in the University, or under the auspices of the College or the University, or elsewhere.

Applications together with any evidence of [illegible] the candidate may desire to submit, may be sent to the President before February [illegible], and may include a statement of the work which the candidate proposes to perform, if required.

UNIVERSITY OF CAMBRIDGE.

Boards of Electors.—The following have been appointed electors to the professorships indicated: [illegible] Professor [illegible] Sir M. Foster, [illegible] Professor Clifford Allbutt, Sir W. H. Broadbent, Dr. [illegible] Mr. W. Clark; *Physics*, Professor R. B. Clifton; *Physiology*, Professor Clifford Allbutt; *Surgery*, Sir Frederick Treves, Bart.; *Pathology*, Professor R. Muir.

UNIVERSITY OF LONDON.

The [illegible]

The physiological laboratory [illegible] University of London has been [illegible] the list of [illegible] granted by the Royal Commissioners for the Exhibition [illegible].

[illegible] Fees.

The fees for the Preliminary Scientific Examination for the external students have been revised [illegible] entering for the Preliminary Scientific Examination [illegible] to the External Registrar. This fee covers the whole examination, whether taken altogether or in sections. [illegible] who have failed to the last day of entry the fee shall be returned [illegible]. He withdraws between the last day of entry and the [illegible] end of the examination, he shall be admitted to the next examination [illegible] for half the amount of the fee paid for the first entry. If he fails to pass the examination, or either section of it, he shall be admitted [illegible] payment of £5 for the whole examination, or £3 for [illegible] in which he failed.

[illegible] of Teachers.

Dr. C. S. Myers has been [illegible] teacher of psychology at King's College. Dr. R. G. Hebb [illegible] pathology at the Westminster Hospital Medical School, and Mr. J. B. Fisher, Dr. Percy Flemming, Dr. Arnold Lawson, and Mr. C. Devereux Marshall as teachers of ophthalmology at the Royal London Ophthalmic Hospital.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, February 2nd, Dr. Clouston, President, in the Chair.

Induction of Fellows.

James Taylor Grant, M.B., C.M., F.R.C.P.Edin.; Charles Cromhall Easterbrook, M.D., F.R.C.P.Edin.; Edwin Bramwell, M.B., C.M., F.R.C.P.Edin.; and John Malcolm Farquharson, M.B., C.M., F.R.C.P.Edin., were introduced and took their seats as Fellows of the College.

Admission of Licentiate.

Stuart M'Donald, M.B., C.M.Edin., M.R.C.P.Edin., Edinburgh, was admitted by ballot to the Fellowship of the College.

Admission of Members.

On a ballot the following candidates were admitted to the Membership of the College after examination on Written, Clinical, and Oral subjects: Leslie Mackenzie, M.D.Aberd., Edinburgh; Clarence Brian Dobell, M.B., C.M.Edin., Edinburgh; and Francis Lionel Provis, L.R.C.P.Lond., M.R.C.S.Eng., F.R.C.S.Edin., London.

Admission of Licentiates.

The Registrar reported that since the last quarterly meeting thirty-nine persons had obtained the Licence of the College by examination.

Parkin Prize.

It was announced that the Council had resolved to offer the Parkin Prize for competition during the current year, the subject to be, in terms of the deed, "On the curative effects of cantharides ointment or other forms of cantharis, in cholera, the different forms of fever and other diseases." Essays to be received by the Secretary up to December 31st, 1904.

Money Donation for Research.

It was announced that Mr. J. Francis Mason, Woodstock, Oxfordshire, had intimated the continuance of his donation of £50 to the laboratory for the purposes of research on the ductless glands.

Appointment of Representative on the Royal College of Surgeons on the Laboratory Committee.

The Secretary announced that Dr. James William Beeman Hodsdon had been appointed as Representative of the Royal College of Surgeons on the Laboratory Committee.

Sanitary Institute Congress.

It was remitted to the Council to nominate delegates to the Congress of the Sanitary Institute, to be held in Glasgow in July, 1904.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

At a meeting of the College on February 2nd the diploma of Licentiate of the College held by Mr. Thomas Richard Atkinson, of 42 Spanish Place, Manchester Square, London W., was formally recalled and declared void, whereupon he ceased to be a Licentiate of the College.

TRINITY COLLEGE, DUBLIN.

CANDIDATES have passed examinations as under:

Final Medical.—C. J. Cullinger, R. C. Hallowes, R. C. Hallowes, H. M. Crawford, W. M. Wade, Rev. R. B. Bryan, C. J. Wyatt, D. C. Pearson, O. J. Perry Edwards, M. FitzFibbon, H. T. Marrable, T. Wilson, H. Stewart.

Section B.—J. Cunningham, R. Magill, J. A. Sibthorpe, J. H. C. Thompson, W. L. Myles.

Final in Surgery.—W. M. Wade, T. C. A. Sweetnam, R. Bailey, C. E. Moore, W. S. S. Berry, W. P. Tate, J. C. Hall, H. Stone.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT the monthly business meeting of the College on February 4th the thirteen successful candidates at the Final Examination of the Conjoint Board in Ireland (see below) were admitted to Licences in Medicine and Midwifery.

CONJOINT BOARD IN IRELAND.

CANDIDATES have passed examinations at this Board as undernoted:

Second Professional Examination.—First Trial: E. F. Gilligan, H. M. Hallowes, R. Mayne, H. S. Moorehead, S. McCausland. Second or Subsequent Trial: C. J. A. Corby, J. B. Kelly, J. J. Murphy, O'C. J. O'Reilly, R. J. Smallman, J. Smith, E. C. Wallace.

Third Professional Examination.—M. Symes, M. Campbell, C. L. Browne, G. Thomason, C. H. Twells. Completing: A. C. Adams, M. Antony, F. L. Bradish, W. C. Carson, E. Duffy, J. C. Heelan, Miss Lardner, J. Roberts, P. P. Ryan, R. H. Smythe, W. Tobin.

Final Examination.—All Subjects: C. L. Browne, G. Thomason, C. H. Twells. Completing: R. G. Allen, F. W. Brunker, J. Cuffe, M. W. Kelly, T. Kelly, J. Quirke, J. W. Rutherford, M. C. Sage, W. W. Stuart, Miss A. Tayler.

Diploma in Public Health.—J. P. Dee, M.B., R. J. George, M.B., C. A. Johns, M.B., J. M. Symes, L.R.C.P.&S.I., Holders: T. J. Nicholl, L.R.C.P.&S.I., E. M. J. O'Farrell, F.R.C.S.I., T. Rhind, M.R.C.S., L.R.C.P., A. W. Simpson, L.R.C.P.&S.I., Lieutenant R.A.M.C. (Honours), E. J. Tynan, F.R.C.S.I.

SOCIETY OF APOTHECARIES OF LONDON.

THE Gillson Scholarship in Pathology of the annual value of £[illegible] has been awarded to Mr. Leonard Stanley Dudgeon, M.R.C.P.Lond.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.—It has been arranged to hold a last kitchen concert in the kitchen of the old infirmary (the late City Hospital) on Friday, March 11th, at 8.30 p.m. As the accommodation is very limited those who wish to be present should make early application to Dr. Claude B. Ker, the City Hospital, Colinton Road, Edinburgh.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases in London during the fourth, or autumn, quarter of 1903. The fluctuations of each disease, and its relative fatality as compared with that in the corresponding periods of recent years, can thus be readily seen.

Small-pox.—Three fatal cases of small-pox were registered in London last quarter, against 5, 2, and 3 in the three preceding quarters. Of these 3 fatal cases, 2 belonged to the City of Westminster and 1 to Stepney. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the quarter was 94, against 75, 161, and 121 in the three preceding quarters; 57 cases remained under treatment at the end of the quarter, against 13, 57, and 21 at the end of the three preceding quarters.

Measles.—The deaths from measles, which had been 671, 759, and 247 in the three preceding quarters, rose again to 337 during the three months ending December last, but were 162 below the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs, measles showed the highest proportional fatality in Kensington, Hammersmith, Fulham, St. Marylebone, Shoreditch, and Wandsworth.

Scarlet Fever.—The fatal cases of this disease, which had been 109, 82, and 91 in the three preceding quarters, declined again last quarter to 90, and were less than one half of the corrected average number. This disease was proportionally most fatal in St Marylebone, Finsbury, the City of London, Shoreditch, Bethnal Green, and Poplar. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,704, 1,614, and 1,549 at the end of the three preceding quarters, had declined again to 1,600 at the end of last quarter; 2,410 new cases were admitted during the quarter, against 2,775, 2,681, and 3,010 during the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 241, 175, and 147 in the three preceding quarters, rose again to 189 during the three months under notice, the average number in the fourth quarters of the ten preceding years being 661. Among the various metropolitan boroughs the greatest proportional mortality from this disease was recorded in St. Marylebone, Stepney, Poplar, Battersea, Deptford, and Greenwich. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 668, 781, and 771 at the end of the three preceding quarters, had risen again to 734 at the end of last quarter; the number of new cases admitted during the quarter was 1,431, against 1,761, 1,475, and 1,474 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 580, 445, and 217 in the three preceding quarters, further declined to 209 during the quarter ending December last, and were 102 below the corrected average number. Among the various metropolitan boroughs whooping-cough was proportionally most fatal in Stoke Newington, Shoreditch, Bethnal Green, Battersea, Deptford, and Greenwich.

"Fever."—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 61, 45, and 87 in the three preceding quarters, further rose last quarter to 107, but were 7 below the average number in the corresponding periods of the ten preceding years. No death from typhus or from ill-defined pyrexia was recorded during the quarter under notice. Enteric fever mortality was highest in Fulham, St Marylebone, Hackney, Holborn, Bethnal Green, and Southwark. The Metropolitan Asylums Hospitals contained 241 enteric fever patients at the end of last quarter, against 221, 251, and 245 at the end of the three preceding quarters; 626 new cases were admitted during the quarter, against 215, 149, and 367 in the three preceding quarters.

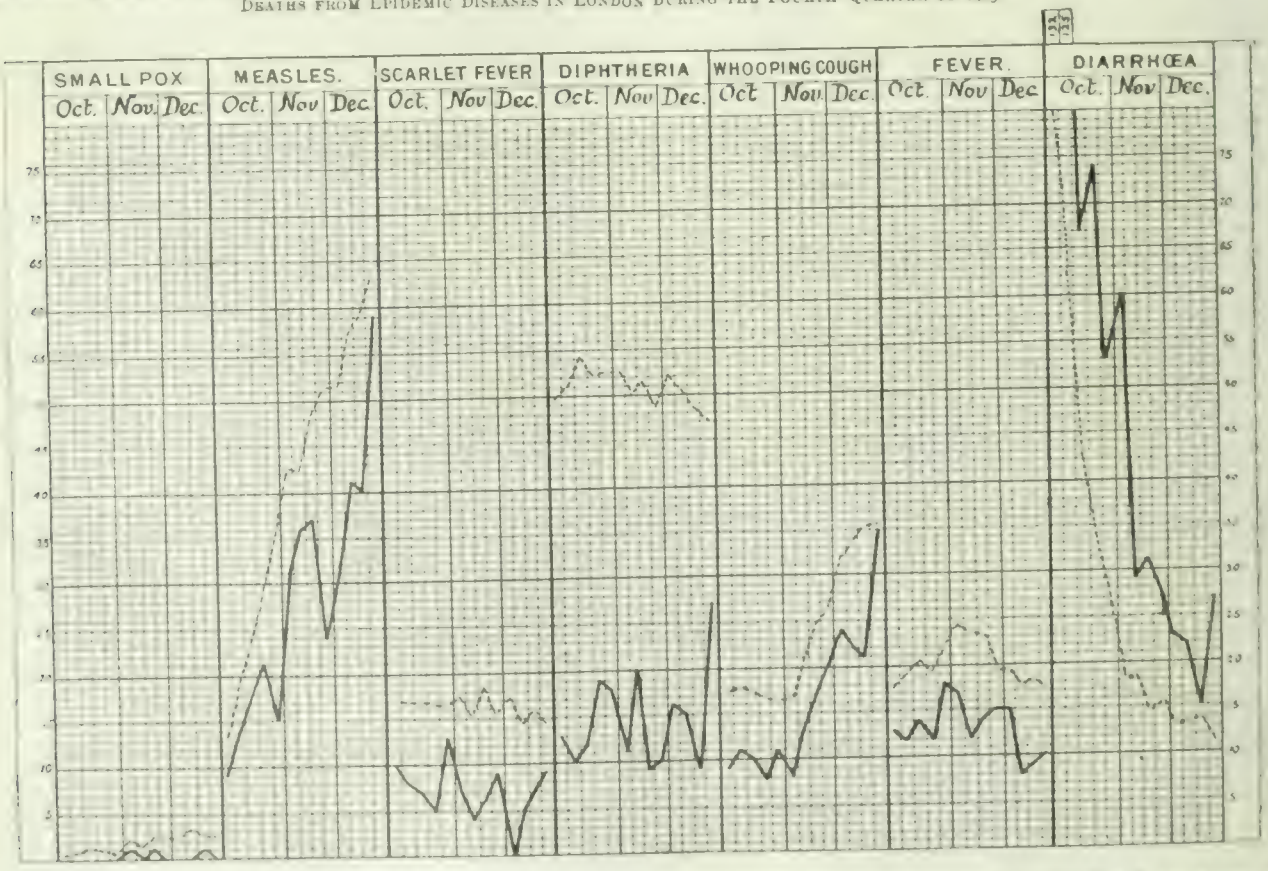
Diarrhœa.—The 755 deaths from diarrhœa in London last quarter were 321 in excess of the average number in the fourth quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, Finsbury, Bethnal Green, Stepney, Poplar, and Southwark.

In conclusion, it may be stated that the 1,721 deaths in London attributed to these principal epidemic diseases during the quarter ending December last were more than 25 per cent below the corrected average number in the corresponding quarters of the 10 preceding years. The lowest death-rates from these diseases last quarter were recorded in Hampstead, St Pancras, Islington, the City of London, Lewisham, and Woolwich, and the highest rates in Fulham, Shoreditch, Bethnal Green, Stepney, Poplar, and Wandsworth.

HEALTH OF ENGLISH TOWNS.

IN seventy six of the largest English towns, including London, 8,772 births and 5,049 deaths were registered during the week ending Saturday last, February 6th. The annual rate of mortality in these towns, which had been 19.0, 18.1, and 17.4 per 1,000 in the three preceding weeks, declined again last week to 17.2 per 1,000. The rates in the several towns ranged from 6.0 in Aston Manor, 7.4 in Hornsey, 7.4 in Tottenham, 7.5 in Walthamstow, 10.5 in Barrow-in-Furness, 10.7 in East Ham, 11.0 in Leyton, and 11.0 in King's Norton, to 21.8 in Wolverhampton and 22.0 in Burnley, 22.2 in Rhondda, 22.7 in Newport (Mon.), 22.9 in Merthyr Tydfil, 23.1 in Liverpool, 24.1 in Bury, and 27.2 in Wigan. In London the death-rate was 17.4 per 1,000, while it averaged 17.2 per 1,000 in the seventy five other large towns. The death rate from the principal infectious disease averaged 1.4 per 1,000 in the seventy-six large towns. [illegible]

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1903.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years 1893-1902.

London this death-rate was equal to 1·5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2·0 in Leeds and in West Hartlepool, 2·1 in Handsworth (Staffs.), 2·2 in Swansea, 2·3 in Gateshead, 2·4 in Bury, 2·6 in Warrington, and 3·1 in Merthyr Tydfil. Measles caused a death-rate of 1·2 in Willesden, 1·5 in Cardiff, and 1·7 in Preston and in Rotherham; scarlet fever of 1·1 in Oldham, 1·4 in Merthyr Tydfil, and 1·5 in Warrington; diphtheria of 1·1 in Merthyr Tydfil; whooping-cough of 2·1 in Bolton, 2·2 in Warrington, 2·4 in Rochdale, 2·5 in Bootle, 2·6 in West Hartlepool, 3·1 in Swansea, and 4·0 in Gateshead; and diarrhœa of 1·6 in West Bromwich. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered last week in Newcastle-on-Tyne, but none in any one of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 2,585 small-pox patients at the end of last week against 2,624 and 2,581 at the end of the three preceding weeks; 1,584 new cases were admitted during the week, against 1,411, 1,488, and 1,581 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,866, 1,867, and 1,851 on the three preceding Saturdays, had increased again to 1,657 on Saturday last. Four hundred and fifty-six new cases were admitted during the week, against 396, 436, and 423 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 6th, 800 births and 611 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.2, 19.8, and 18.4 per 1,000 in the three preceding weeks, rose again last week to 18.5 per 1,000, and was 1.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15·0 in Edinburgh and 17·5 in Glasgow and in Leith to 20·1 in Perth and 23·2 in Dundee. The death-rate from the principal infectious diseases averaged 1·0 per 1,000 in these towns, the highest rates being recorded in Aberdeen and Greenock. The 267 deaths registered in Glasgow included 2 which were referred to small-pox, 10 to measles, 2 to scarlet fever, 6 to diphtheria, 6 to whooping-cough, and 10 to diarrhœa. Nine deaths from whooping-cough and 4 from diarrhœa were recorded in Aberdeen; 3 from diarrhœa in Edinburgh; 2 from whooping-cough in Leith, and 1 from small-pox in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 13th, 386 births and 461 deaths were registered in six of the principal Irish towns, against 445 births and 399 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.7, 26.9, and 20.5 per 1,000 in the three preceding weeks, rose to 25·8 in the week under notice, this high rate being 3·0 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 11·3 in Londonderry to 32·1 in Dublin and 33·1 in Waterford. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2·1 per 1,000, or 0·4 per 1,000 above those during the preceding week, the highest rate, 2.2, being registered in Belfast, while Londonderry and Waterford registered no deaths under this heading at all. There were no deaths in any part of Ireland from either small-pox, measles, scarlet fever, typhus, or simple continued fever, and with the exception of 3 deaths from enteric at Belfast, 1 at Dublin from the same disease, and 1 death each at the same towns from diphtheria, almost the whole zymotic death-rate throughout Ireland was due to whooping-cough.

THE NOTIFICATION OF DISEASES IN AMERICA.

THE Philadelphia Department of Public Health and Charities has under consideration the enlargement of the group of diseases notifiable by medical practitioners. As a result of conferences with committees of the Philadelphia County Medical Society and the College of Physicians of Philadelphia, it is proposed to add pneumonia, chicken-pox, whooping-cough, tuberculosis, and measles to the list of such diseases. In New York pneumonia has recently been added to the list of diseases which must be reported to the Bureau of Contagious Diseases as communicable. This step has been taken in consequence of the marked increase in the mortality from that disease which has taken place of late years.

MEAT CASE AT KING'S LYNN.

WE have received particulars of the recent meat case at King's Lynn in which a conviction was obtained by the sanitary authority against John Hemeter, a naturalized German, carrying on business in the town as a sausage skin manufacturer. It appears that this person obtains inferior meat, cuts it up into small pieces, adds preservatives, and transmits it in barrels to the London market. The medical officer, Dr. Plowright, was able to furnish facts to the court which reflect great discredit upon this trade, and clear evidence as to the diseased condition of the meat. The defendant was sentenced to six weeks' imprisonment and ordered to pay the costs. On appeal, which was heard in January, the imprisonment was changed to the maximum fine of £20, as it was shown that defendant was suffering from illness which would be greatly aggravated by imprisonment.

SEWAGE-TESTING APPARATUS.

MR. SCOTT-MONCRIEFF'S sewage-testing apparatus can now be seen in the Parkes Museum of the Sanitary Institute. The apparatus has been designed for the purpose of obtaining exact information upon which to base bacterial sewage disposal schemes, particularly as to (1) the depth of filter required to produce the necessary standard of purity in the effluent; (2) the quality of air necessary for the life of the organisms in the filter; (3) the correct rate of flow per unit of filter-bed surface in order to obtain the best results, and (4) the most perfect of rest between each discharge to prevent gelatinous growths in the filtering material.

ACTION OF SANITARY AUTHORITY ON RECEIVING NOTIFICATION.

R. L.—The medical practitioner is required to notify "forthwith, on becoming aware that the patient is suffering from an infectious disease" to which the Act applies. His responsibility towards the sanitary authority under the Infectious Disease Notification Act ends there. If the sanitary authority and its officers do not comply with the notification the responsibility for the consequences is theirs.

APPOINTMENT OF CERTIFYING SURGEON.

VICTORIA.—Our correspondent should write to H.M. Chief Inspector of Factories, Whitehall, S.W., for a form of application, at the same time giving the name of the district where the vacancy is expected and his qualifications for the appointment. He need not wait for the actual occurrence of the vacancy, which we are informed will not be advertised. Though the Chief Inspector makes the appointment, it is as well to obtain as much Parliamentary influence with the Home Secretary as possible.

INDIA AND THE COLONIES.

THE STRAITS SETTLEMENTS.

Annual Report of Medical Department.—The Report of the Medical Department of the Government of the Straits Settlements, which was issued last autumn, deals with the occurrences of the year 1902. Owing to the fact that the colony is made up of three distinct and very widely separated settlements, it is perhaps natural that the report should consist chiefly of a large number of appendices drawn up by different officers doing Government work of various kinds and in various places, but this fact makes it impossible to extract many important facts of general application to the whole colony. The only points which stand out clearly are that the birth-rates and death-rates are remarkably low and high respectively. That the death-rate on a total population of 681,210 persons should equal 42·2 per 1,000 is not, perhaps, very notable, considering that the Straits Settlements lie almost on the equator and that the population is of a very mixed character, though chiefly Asiatic. But it is remarkable that under the same conditions the total birth-rate should be lower in some places even than in France, and throughout the Colony almost 4 per 1,000 less than in England. As it would appear that this remarkable excess of the death-rate over the birth-rate has been going on for a long time, it is difficult to understand how the Colony keeps up its numbers. Very free immigration may, of course, explain it, but on this point no information is supplied. It is true that the death-rate in Singapore and Dindings was greater in 1902 than usual, but though means of precise comparison are lacking, it is obvious from various figures given that the increase cannot be sufficient to lessen the force of the foregoing remarks. Steady attempts are made to carry out vaccination, and the ratio of success of operations is high, but the extent of the vaccinations performed only appear to equal about one-half the births in each of the three settlements. In Singapore itself cholera appears to have been, in the year under notice, somewhat heavy and severe in character, since out of 542 known cases, 359 deaths occurred. Perhaps the most notable point of all brought out in the report is that, in spite of the proximity of the settlements to India, only four cases of plague occurred, and although the patients resided in different parts of the town the disease does not appear to have spread. The quarantine work in each of the different Settlements throws a very heavy burden upon the medical officers, but it is probably thanks to the care which they exercise in dealing with all suspicious cases that the freedom of the Colony from epidemic plague is chiefly due.

MEDICAL NEWS.

DR. HENRY CORBY has been appointed by the Lord Lieutenant a High Sheriff for the City of Cork.

A GENERAL meeting of the London Licentiates' and Members' Society will be held at the Wimpole Hotel, 63, Wimpole Street, W., on February 23rd, when the chair will be taken by Dr. Frederick J. Smith, at 4 p.m.

A WARD in the Clapham Maternity Hospital has been named the "Frances" Ward, in remembrance of the late Miss Hickman, who was house-surgeon at that institution for nine months.

THE EDUCATION OF DEFECTIVE CHILDREN.—The annual report on the special schools in which the education and training of mentally and physically defective children under the direction of the London School Board has just been published. The Hon. Maude Lawrence (Chairman of the Schools Committee) points out that the training of defective children must be comparatively costly. She expresses the belief, however, that apart from fitting the subnormal child to grow up as far as may be a self-supporting member of the community, the majority of people would agree that money spent on making the life of the afflicted child more endurable had not been wasted.

A SCHISM AMONG THE PECULIAR PEOPLE.—Something in the nature of a schism has lately, we learn from the *Essex Weekly News*, taken place among the Peculiar People of the Stanford-le-Hope district. For some time past a certain number of the members have felt that in cases of sickness amongst the children of Peculiar parents a medical man should be called in, thus obeying the law and avoiding the prosecutions which follow non-compliance with it. Such views have been strongly resented by the strict members, and the more advanced party, which is said to have the larger following, has severed its connexion with them.

SOUTHPORT MEDICAL SOCIETY. The following officers were elected at the annual meeting: *President*: Dr. J. C. Russell. *Vice Presidents*: Dr. Rambaut Anderson. *President-elect*: Dr. G. C. Walker. *Committee*: Drs. Baildon, Barwise, Stanley Gill, E. Harris, A. W. Popert, and J. J. Weaver. *Honorary Treasurer*: Dr. Mewburn Brown. *Honorary Secretary*: Dr. R. M. Littler.

Dr. JOHN ROBERTSON, who was until recently medical officer of health of Sheffield, and who now holds a similar appointment at Birmingham, was entertained recently at dinner by members of the medical profession of Sheffield and by his late colleagues on the staff of University College in that city. On the termination of the dinner, Professor Pye-Smith presented him with a silver James I tea tray on behalf of the Council and staff of University College, and spoke in enthusiastic terms of Dr. Robertson's services to that institution while holding the posts of Professor of Public Health and Lecturer on Bacteriology. A corresponding presentation of a silver rose bowl was made on behalf of the medical profession in recognition of Dr. Robertson's services as medical officer of health. In making the presentation, Councillor Dr. E. Hargreaves alluded to the high esteem in which Dr. Robertson's work had been held by the City Council, and also to the cordial relationships which had always existed between him and the medical profession throughout the city and district.

PRIZE ESSAYS ON TROPICAL DISEASES. The prizes in the gift of the *Journal of Tropical Medicine* for essays on subjects connected with tropical diseases have been awarded as follows. The Belilios Prize of £10, presented by the Hon. E. R. Belilios, C.M.G., for the best essay on "The System of Drainage and Sewerage (Domestic and Municipal) best suited for Tropical Climates," has been awarded to Major F. Smith, D.S.O., R.A.M.C., and Captain J. W. Cornwall, I.M.S., who divide the prize between them, the papers being adjudged of equal merit. The Lady MacGregor Prize of £10, presented by Lady Macgregor for the best article on "A Critical Examination of the Practical Value of Antityphoid Inoculation," has been awarded to Major F. Smith, D.S.O., R.A.M.C. The Sivewright Prize, presented by the Hon. Sir James Sivewright, K.C.M.G., LL.D., for the best essay on "Intestinal Affections in Warm Climates," was not awarded. The judges were Sir W. Roe Hooper, K.C.S.I., Colonel Kenneth MacLeod, LL.D., Sir Patrick Manson, K.C.M.G., F.R.S., LL.D.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer for the Infirmary, Workhouse, and Sanatorium. Salary £70 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £ per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Assistant Honorary Physician. £ per annum.

BIRMINGHAM GENERAL HOSPITAL.—House-Physician resident. Casualty Officer. Salary £ per annum each.

IRMINGHAM QUEEN'S HOSPITAL.—Two House-Surgeons, £2 House-Physicians, salary £ per annum. Obstetric and Ophthalmic House Surgeon, salary £ per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon, resident. Salary, £ per annum.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary £ per annum.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium, £ per annum.

CARMARTHEN JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer. Resident. Salary £ per annum.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £ per annum.

CHARING CROSS HOSPITAL.—Assistant Physician to the Dermatological Department.

CHELTENHAM GENERAL HOSPITAL.—Junior House-Surgeon resident. Salary, £ per annum.

CROYDON GENERAL HOSPITAL.—Senior House-Surgeon, £ Junior House-Surgeon, £ per annum, board &c.

DUDLEY GUEST HOSPITAL.—Senior Resident Medical Officer. Salary £ per annum.

GLOUCESTER ROYAL SHIRE COUNTY HOSPITAL.—Resident House-Surgeon. Salary £ per annum.

HOLLOWAY AND NORTH LONDON DISPENSARY.—Honorary Medical Officer.

HOSPITAL FOR WOMEN, Soho Square.—Assistant Surgical Officer. Salary £ per annum.

ISLE OF SKYE.—SKYE HOSPITAL.—Resident Medical Officer. Salary, £ per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary £ per annum.

LANCASHIRE COUNTY ASYLUM, Whalley.—Assistant Medical Officer resident. Salary, £ per annum.

LIVERPOOL CHILDREN'S INFIRMARY.—Assistant House-Surgeon resident. Salary £ per annum.

NEWCASTLE GENERAL INFIRMARY.—Junior House-Surgeon, resident. Salary, £ per annum.

SHEFFIELD CORPORATION.—Second Assistant Medical Officer at the City Hospitals. Salary £ per annum.

WAKEFIELD DISPENSARY.—HOSPITAL AND DISPENSARY.—GENERAL DISPENSARY.—Junior House-Surgeon. Salary £ per annum.

WIGAN ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House-Surgeon, resident. Salary £ per annum.

CORRECTION.—For Dr. [illegible] Infirmary, Wrexham, read Junior House-Surgeon.

MEDICAL APPOINTMENTS.

ATKINS, S. F., L.R.C.S.I., L.S.A., Certifying Factory Surgeon for the [illegible] District, Devonshire.

BLACKBURN, C. R., M.D., Ch.M.Syd., Assistant Physician to the Royal Prince Alfred Hospital, New South Wales.

BLETCHLY, George T., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer of Health [illegible] Sanitary Authorities of the Sir Lowthian Bell Ward, Stockton-on-Tees, and Norton-on-Tees.

CANTLIE, J., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the [illegible] Union.

DAVIES, F. A., M.B., Senior Medical Officer of the [illegible] Prison.

FALKINER, F. W., M.D., Ch.M.Syd., Assistant Physician to the Royal Prince Alfred Hospital, New South Wales.

GOLLSMITH, A. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the [illegible] Union.

HEADLAM, Thos., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Physician to the Royal Infirmary and West End Hospital.

JOHNSON, L. Capper, M.B.Lond., M.R., Ch.B.Vict., M.R.C.S., L.R.C.P., Medical Officer [illegible] Hospital, Leeds.

LANCASTER, Ismay Le Cocq, B.A., M.B., B.C.Oxon., M.R.C.S.Eng., Physician to the Swansea General and Eye Hospital, vice F. Knight, Woodbine Cottage, Swansea.

MACLEOD, J., M.B., Ch.M.Syd., Medical Superintendent to the Royal Prince Alfred Hospital, New South Wales.

MILWARD, J. A., M.B., B.C.Cantab., F.R.C.S.Eng., Medical Referee to the Wesleyan [illegible] Society, vice Dr. Isaac Spencer, Bolton, and Dr. Thomas Southcott.

NUTHALL, A. W., F.R.C.S., Surgeon to Out-patients to the Birmingham and Midland Eye Hospital, vice F. S. Cooper, resigned.

PALMER, C. A., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the New Zealand Government Steamer Stella.

PEARSON, T. J., M.R.C.S., L.R.C.P., District Medical Officer of the Gainsborough Union.

PEYTON, E. J., M.B., B.Ch.Oxon., District Medical Officer of the Congleton Union.

PRINGLE, J., M.D., F.C.L.D.Dub., Certifying Factory Surgeon for the Westminster S.W. District.

WATSON, J. F., M.B., M.Ch., M.D., Assistant Medical Superintendent of Hospitals for Infectious Diseases and Port Medical Officer, Brisbane, Queensland, vice A. Cantlie, F.R.C.S., resigned.

WILSON, H. M., M.B., B.C.Cantab., Assistant Medical Officer to Wellington Hospital, New Zealand.

WILSON, J. Clark, M.D., C.M.Edin., D.P.H.Camb., Pathologist to Frusterlee Hospital, Upper Avenue Road, N.W.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. Crisp English: On the Alterations of Head in Idiots. Hunterian Lecture I.

Medical Society of London, 11 Chandos Street, Cavendish Square, W., 8.30 p.m.—Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice. Lettsomian Lecture II.

TUESDAY.

Pathological Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. T. D. Savill will open a discussion on Atheromatous Arteries, and Professor J. Clifford Allbutt, Mr. C. A. Ballance, Sir Wm. Broadbent, Dr. J. H. Broadbent, Dr. Hertz, Dr. Mott, Dr. G. Oliver, Dr. W. Russell, Dr. Percy Smith, Dr. Bezly Thorne, and Dr. Parkes Weber will take part in the discussion. Card specimens by Dr. J. H. F. Broadbent and Dr. J. R. Lunn.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. Crisp English: On the Alterations of Head in Idiots. Hunterian Lecture II.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor T. Crisp English: On the Alterations of Head in Idiots. Hunterian Lecture III.

Epidemiological Society, 11, Chandos Street, Cavendish Square, 8.30 p.m.—Dr. Myer Coplans: On the Etiology of Scarlet.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstrations of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Non-Tuberculous Apical Diseases of Lungs.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Cretinism.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Post-mortems. Will be delivered at 5 p.m. as follows: Monday and Tuesday, Advanced Clinical Lectures and Demonstrations; Wednesday, Diseases of the Nose; Thursday, Diseases of the Throat, Ear, Larynx, and Nasal Cavities; Friday, Diseases of Infancy and Childhood.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Pitzroy Square, W., Thursday, 4 p.m.—Lecture on Principles and Practice of the Sanatorium Treatment of Consumption.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 5.30 p.m. as follows: Tuesday, Cases in the Wards; Friday, Tumours of the Brain.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Interpretation of Symptoms.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Diseases of Infancy; Tuesday, Medical Diagnosis; Wednesday, Practical Medicine; Thursday, Clinical Lecture on Cases in the Wards; Friday, Skin Cases.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Lecture on Movable Kidney.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for [illegible] announcements of Births, Marriages, and Deaths is 6d., which sum should be remitted in postage stamps or otherwise with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BRIMACOMBE.—On the 31st inst., at Colebrook Lodge, Forest Hill, the wife of Richard Wilson Brimacombe, M.D., of a son.

COOKE.—On February 3rd, at 31, Lansdowne Street, Hove, the wife of Martin A. Cooke, M.R.C.S., L.R.C.P., of a daughter.

CROSS.—On February 3rd, at St. Leonard's, Upper Park, Leytonstone, the wife of Lewis W. Cross, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

GALLOWAY.—On the 30th inst., at 31, Harley Street, London, W., the wife of Thomas Galloway, M.D., of a son.

HEY.—On the 2nd inst., at 9, Princess Terrace, Ripon, the wife of Samuel Hey, M.R.C.S., L.R.C.P., of a son.

DEATHS.

O'SULLIVAN.—On February 6th, at [illegible] West Kensington, Natal, Commandant Timothy O'Sullivan, Imperial Yeomanry, aged [illegible], and Mrs. [illegible].

SUTTON.—On January 9th, at 113, Caldew Road, Stoke, Hamilton, Bermuda, Frederick [illegible], M.B., C.M., eldest surviving son of the late Rev. Henry Sutton, Vicar of [illegible].

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS [illegible]

ORIGINAL ARTICLES and LETTERS [illegible]

ALL COMMUNICATIONS [illegible]

CORRESPONDENTS [illegible]

MANUSCRIPTS [illegible]

IN CORRESPONDENCE [illegible]

TELEGRAMS: Address [illegible] MANAGER of the British Medical Journal.

TELEPHONE No. [illegible] GENERAL SECRETARY AND MANAGER [illegible]

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

K. asks to be referred to books which discuss the question of free will from the biological standpoint.

E. W. R. wishes to hear of a home or institution where he would take an able-bodied youth of weak intellect. He is chiefly a habitué. £1 per week is all that can be paid.

MEDICAL OFFICER would be greatly obliged for information as to furnishing and lighting a small pauper hospital, with wooden partitions, furniture of most inexpensive yet sanitary type, lighting to exclude gas, electricity, and acetylene.

E. W. R. W. wishes to know whether there is any institution where a child, aged 11, suffering from fits, and at present an inmate of a union infirmary, would be educated at the expense of the Board. She has been under treatment for [illegible] with very little improvement.

X RAYS writes: Can you or any of your readers give me any information as to the general efficiency of motor apparatus worked from accumulators? I have not got the electric light in my house, but there is a charging station in the town. I should be much obliged if any one could tell me the approximate cost of working, apart from the initial outlay.

*** The efficiency of a coil for giving work is greatest when worked from accumulators. Twenty-four volts should be used in the primary of the coil and a "mercury break" employed, which will require another battery of twelve volts, or the "break" can be worked from a shunt. The above and a [illegible] will enable the best class of [illegible] to be done [illegible] the fluorescent screen and photographic plates [illegible] the cost of maintenance could be [illegible].

TWEED asks to be referred to [illegible] information as to the suitability of County Washington, U.S.A., and also Vancouver, B.C., as a residence for a [illegible] suffering from malaria.

*** We are not aware of any work which would precisely meet our correspondent's requirements, and his best course would perhaps be to write to the secretary [illegible] Philadelphia. A good [illegible] will be found in the [illegible] Rebellion. In the State of Washington [illegible] divided into two by the Cascade Mountains, with [illegible] distinct climates. The western half has a climate much like that of the [illegible] prairie land, with light rainfall [illegible] be much drier and colder [illegible] western half. It would be [illegible] and possibly they would be ready to give the desired information.

NEURASTHENIA [illegible]

GENERAL PRACTITIONER [illegible] possible to have a [illegible] tion in a case of nervous breakdown, the result of a recent accident? [illegible] In a case of [illegible] pulse and [illegible] heart action and respiration compatible with nervous breakdown?

SALES-LE-BAINS [illegible]

SEPTICÆMIA would be given [illegible] Salies-les-Bains as a [illegible] sinus following excision of the hip; general condition good.

*** Salies-les-Bains [illegible] useful for many children suffering from tuberculous bone affections; but if the climate of any [illegible] tion, one can hardly, as far as the patient is concerned, [illegible] from England.

THE INDIAN MEDICAL SERVICE.

A. H. asks (1) for advice as to the best books to read for the Indian Medical Service examination, particularly in chemistry and biology; and (2) whether it is possible for a [illegible] pay without the assistance of private means.

*** (1) In chemistry and biology the examination is not of a very severe nature, and only a sound knowledge of general principles and some material facts is required. "A. H." should read [illegible] tage, [illegible] Blaxall, and [illegible] Biology, by J. A. Thomson, [illegible] ject. In the other branches of the examination the knowledge required is greater, and the best book to read [illegible] will probably be a recent edition of any good textbook with which the inquirer may well be acquainted. (2) It is believed that [illegible] live upon his pay.

CHOLERA AND ANÆSTHETICS.

X. Y. Z. writes: A man, aged [illegible], is suffering from abdominal pain, with [illegible] value and granular casts [illegible], with [illegible] solution, specific gravity [illegible]. He has [illegible] tumour on [illegible]. Is there any special risk for him in an anæsthetic, and which [illegible] preferable, ether or chloroform?

*** There is an increased risk, but it is so slight as to be practically negligible. From the point of view of the renal trouble chloroform is slightly to be preferred, but if the operation to be done can be completed within a few minutes as seems probable, gas followed by ether would answer well. If the patient is fat and plethoric, with a short neck, or if bronchitic or "wheezy," the A.C.E. or chloroform should be selected.

TREATMENT OF CHRONIC RHEUMATISM.

DR. GEORGE CRICHTON (London) writes: I should like to know if urosine said to be a [illegible] has received an extensive trial. In a few cases which I could [illegible] I have found it appear to be most useful. The characteristic of the complaint is stiffness and want of power of the muscles, or at least of alertness. It is reasonable to suppose that the intestinal muscles are similarly affected, with, of course, constipation. A [illegible] under treatment the pains begin to disappear the bowels act well and the muscles respond freely to the mental impulses. In the treatment of acute rheumatism thirty years ago, after a full purge the bowels and the [illegible] movements of the voluntary muscles were kept in good by small doses of [illegible], while alkalis and perhaps colchicum were given as eliminants. Anti-dotes were as yet unknown. This plan of treatment was not bad, but the tools were not just what the [illegible] former. The advance in therapeutics in these few years, though remarkable, mainly seems to show what is to be [illegible] and the lines along which there will be progress.

PHARMACOLOGY AT LONDON [illegible] INTERMEDIATE M.B.

PHARMACOLOGY writes: Can you inform me whether there is at present published a book which just covers the ground in materia medica and pharmacology that [illegible] required for the Intermediate to M.B.Lond. Univ., or on pharmacology alone, giving the results of the work done in this science.

*** The textbooks by Hale White and by Mitchell Bruce are usually employed. Cushny's *Textbook of Pharmacology* gives more detailed information. In all three [illegible] therapeutics is considered in separate paragraphs.

ANSWERS.

EQUITY (1) We are unable to [illegible] information asked for as to the proprietary [illegible] (2) We [illegible] guineas would be reasonable [illegible] for such an income would depend on the presumed income of the patient's husband.

GLYN-NEATH AND W. C. B.—Either of the following works might meet the requirements of our correspondents. *H* [illegible] *Physician*, [illegible] By J. Mitchell Bruce, M.B., C.M. Lond. [illegible] *Materia Medica*, by O. [illegible] Wells Strand Lauder [illegible] Pharmacology and Therapeutics.

H. We are informed, by the courtesy of the Secretary of the Royal College [illegible] the Council of the College [illegible] the Court of Assistants [illegible] any [illegible] distinction it once had.

R. D. B. [illegible]

SALIVATION.

C. [illegible]

NOTES, LETTERS, Etc.

THE TREATMENT OF PNEUMONIA.

DR. A. HERBERT STYLE (London) writes: May I add my testimony to that of Dr. White with reference to the use of oxygen inhalations? After

ago I had a bad attack of double pneumonia. Oxygen was administered to me when there was an increasing cyanosis apparent, and when the respiration was becoming difficult. The relief and comfort derived from the inhalation was so striking and so immediate that I should be very sorry to follow Dr. [illegible] advice during the treatment of my patients [illegible]. The only remark I have to make on its use in pneumonia is that it is postponed too long and looked on as a last resort.

THE REPETITION OF PRESCRIPTIONS CONTAINING DANGEROUS DRUGS.

DR. T. D. NEWTON (Airdrie?), Lanarkshire, writes: In reference to letters appearing in the BRITISH MEDICAL JOURNAL re repetition of prescriptions, the great question is how to avoid this. I would say, let every medical man dispense his own drugs; that would cure the evil. It would give the doctor more interest in his patient and free the whole profession from the tyranny of pharmacists. I believe it is proposed to so amend the Pharmacy Acts as to prevent medical men dispensing their own drugs. This is indeed pharmaceutical tyranny. Prevent the chemist from the doctor dispensing what he knows is best for that patient, but let the prescribing chemist alone. It is very funny, and where will it end? Shall I be prevented from using my hypodermic [illegible] I wonder (after the Act is "amended") for a chemist when I find myself [illegible] of child [illegible] and [illegible] The nearest chemist is two miles away. And [illegible] the General Medical Council, who can greatly help [illegible] letter of Mr. [illegible] Marshall to take note of the matter [illegible] I cannot help repeating the words of the [illegible] in Dickens's story of that name: "I [illegible] I have, I [illegible]." [illegible] the General Medical Council [illegible] its own profession. After the [illegible] I shall look for one from the [illegible] to prevent [illegible] dangerous [illegible].

THE STATUS OF MEDICAL MEN.

A SUFFERER writes: The letter on the above subject in the BRITISH MEDICAL JOURNAL of January [illegible] by [illegible] the Crested [illegible] appeals [illegible] to me and to [illegible] but he [illegible] and the [illegible].

Thank God, there are [illegible] in our profession [illegible] yet our position is deplorable.

[illegible] get a gentleman to [illegible] I called to [illegible] I was [illegible] I was [illegible] I [illegible] would [illegible] have [illegible] of his opinion he would have [illegible] view to his mates.

One way to a person's confidence is to appear to fall in with his view of the case and shift your responsibility. If a case recovers it is because "the patient is strong," or "he has been [illegible]," but if the [illegible] they wish they had called in some one else.

After a hard day's work, and the much longed-for rest is being indulged in, a messenger is sent to call us to a case which has been bad for several days; if the call is not responded to at once we are met with the reproach, insolent in its tone, "I thought you were never coming." For what return? One shilling a month, less [illegible] per cent. for collection.

My boy is at a public school. Is it for this he is being educated [illegible] results.

In my [illegible] capacity I flatter myself that I have been the means of stopping an epidemic of [illegible] disease, but I did not receive a [illegible] in a good [illegible] towards the expense of a [illegible] to take charge of the hospital. A town [illegible] whilst the medical officer of health will be [illegible] we have a larger [illegible] to serve [illegible] and heavier expenditure to secure the [illegible]. A [illegible] is paid more than we are and [illegible] "noble profession." We are told it is only the ignorant [illegible] our profession. [illegible] the [illegible] higher grade is just as [illegible] in this respect. [illegible] I was called in to report on the sanitary arrangements of a [illegible] and a few days after a [illegible] with a sanitary science certificate was sent to the same house for a similar purpose, this on the instruction of the "Lady [illegible]" of the place.

Two things are lacking in our lives—more recognition socially and pecuniarily. Instead of this we are sinking lower and lower; eventually we shall be compelled to keep open shops and have certain hours for seeing our patients at their homes, during which patent medicines are [illegible], and the inventor of a cure for baldness is created a baronet.

THE LATE DR. THIN.

WE are requested to [illegible] that the late Dr. George Thin received his medical education at [illegible] at Aberdeen, and that he received his degree of M.D. from the University of St. Andrews.

RABIES [illegible] VACCINATION.

DR. JAMES C. [illegible], D.P.H., [illegible] Health Officer, Rangoon, Burmah, writes: A [illegible] of the [illegible] from [illegible] is extremely common among [illegible]. I have seen hundreds of cases [illegible] in Rangoon, where [illegible] has been used extensively for many years. My impression is that there have been [illegible] fewer since the lymph has been prepared with glycerine. It must be remembered that [illegible] are very prone to dress [illegible] sores with all sorts of irritating applications, and that [illegible] in tropical countries. I do not remember a case occurring among Europeans. It would be interesting to know if the [illegible] condition is as common in Burmah as it was, say, eight or ten years ago.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. F. Allwood, [illegible]; Mr. A. H. Allen, [illegible]; Dr. J. L. Atkinson, London. B Dr. J. W. Byers, Belfast; Dr. C. E. Beevor, London; W. Billington, M.B., [illegible]; [illegible]; Miss M. B. Brune, Rome; Dr. W. Broadbent, Brighton; Dr. J. Barr, Liverpool; Dr. T. F. B. Brown, C.I.E., London; W. C. Barns, M.B., Bury; Mr. B. Bird, Cefn; Mr. G. H. Broadbent, Manchester; S. T. Beggs, M.B., Belfast; Mr. F. B. Bent, Jersey; Mr. A. W. Bodger, London; Mr. [illegible] Boswell, London; Bore; Mrs. Boyd, London; B. P. H. C Dr. W. Coggridge, London; Dr. W. T. Cocking, Sheffield; Mr. E. Clay, London; M. Coller, M.B., London; Mr. W. R. F. Coles, London; Mr. C. Castle, Glasgow; Dr. L. [illegible], Beckenham; Mr. A. Campbell, Derby; J. H. Clayton, M.B., Birmingham; R. Campbell, M.B., Belfast; Country Doctor; Colliery Surgeon. D Director-General, A.M.S., London; Mr. G. W. Duncan, London; Mr. W. F. Dearden, Manchester; Mr. H. Dawson, [illegible]. E [illegible], Eastbourne; Mr. G. Evans, [illegible]; F. W. R. F F. E. Fothergill, M.B., London; Messrs. Findlay, Durham, and [illegible], London; Mr. T. Fraser, Garstang; Dr. T. Fenton, Bakewell; Mr. J. M. Fry, [illegible]; Dr. H. Fraser, Aberdeen. G Dr. W. W. Graves, Berlin; Mr. E. Gordon, Manchester; Mr. C. A. Gill, London; Mr. P. B. Giles, Birkenhead; Mr. W. J. Greer, Newport; [illegible] Obstetrical and Gynaecological Society, Secretary of, Glasgow. H Dr. T. J. Horder, London; Mr. W. Hutchinson, [illegible]; Dr. J. Hill, Renfrew; Mr. A. J. Hobbs, London; J. C. Hoyle, M.B., [illegible] Waltham; F. G. Haworth, M.B., Darwen; Dr. M. Handfield-Jones, London; A. C. Hewetson, M.B., London; N. C. Haring, M.B., Manchester; Dr. W. W. Hall, London; Messrs. Hobson, Ward, and Co., London; H. T. Herring, M.B., London; Mr. W. Hammond, [illegible]. I F. W. Inman, M.B., [illegible]; Dr. A. Ingle, Maybole. J Mr. W. Jackson, Northampton; Mr. H. Jones, Liverpool; Mr. G. J. C. Jenson, London. K Dr. E. Klein, London; Kidderminster Medical Society, Secretary of, Kidderminster; Mr. W. A. G. Kay, Edinburgh. L Dr. T. G. Lyon, London; Mr. J. S. Lloyd, Sheffield; Lecturer; Mr. E. Lewis, Ashby-de-la-Zouch; L.R.C.S., L.R.C.P.; Mr. C. B. Lockwood, London; Liverpool Medical Institution, Secretary of, Liverpool. M Mr. W. J. Martin, London; Mr. J. MacMunn, London; Mr. J. W. MacAlister, London; M.D.; Dr. R. Martin, London; J. E. Mercer, M.B., Newcastle-on-Tyne; Mr. W. L. Muir, Glasgow; Mr. N. Macleod, London; Dr. A. J. Mayer, Berlin; Messrs. S. Maw, Son and Sons, London; M.R.C.S.; Mr. E. D. Marriott, Nottingham; Dr. D. W. K. Moody, London; F. C. Madden, M.B., Cairo; Dr. F. J. MacWeeney, Dublin; Dr. E. J. Maclean, Cardiff; Midland Medical Society, Secretary of, Birmingham; Dr. T. G. Mathews, [illegible]; W. J. Macfarlane, M.B., Birmingham. N J. Nixon, M.B., Manchester. O Mr. [illegible] Oliver, Manchester; [illegible] Obstetrical Society, Secretary of, London. P A. E. M. P.; Mr. [illegible] M.B., Manchester; Dr. B. Pearse, Birmingham; Dr. T. H. S. [illegible]; Mr. A. [illegible], Peterborough; Dr. W. B. Parker, [illegible]; Mr. S. H. Potter, [illegible]. R Mr. R. [illegible], Leeds; Mr. J. Rayner, [illegible]; Mr. J. Ross, [illegible]; Dr. A. Rankin, Glasgow; Mr. J. W. [illegible], Leeds; Dr. H. C. Ross, London; Dr. R. E. Renton, Liverpool. S Sufferer; S. Stephenson, M.B., London; Messrs. G. Street and Co., London; Dr. G. A. Sutherland, London; Miss M. Stacey, London; Mr. W. Stoker, [illegible]; Sanitary [illegible] Co., Manager of, London; Sir J. Sawyer, Birmingham; Dr. J. Shaw, London; Dr. E. H. Snell, Coventry; [illegible]; Dr. J. C. Simpson, Cambridge; Mr. F. P. Stephenson, [illegible]; P. Smith, M.B., Birmingham; S.; Mr. E. R. Sowman, London; Dr. G. E. Still, London; A. Stanley, M.B., London; Stanley. T Mr. T. C. Thresh, Stockport; Two of [illegible]; Dr. C. C. Thomson, London; W. A. Taylor, M.B., Perth; Dr. W. S. Tebb, London; Mrs. G. Thomas, [illegible]; Dr. H. Tilley, London; Mr. E. H. Tweedy, London. V Victoria. W W. H. J. Warre, M.B., London; Messrs. Willis, Limited, London; Messrs. F. Williams and Co., London; Dr. A. G. Ward, London; Dr. J. W. Ward, Blackburn; Mr. E. D. White, London; Dr. F. W. [illegible], London; Dr. J. W. Watson, Glasgow. Y A. Young, M.B., Glasgow.

BOOKS, ETC., RECEIVED.

Textbook of Diseases of the Eye. By Howard F. Hansell, A.M., M.D., and William Sweet, M.D. London: Rebman, Limited. 1903. 15s.

Studies in Heterogenesis. By H. Charlton Bastian, M.A., M.D.Lond., F.R.S. London: Williams and Norgate. 1903. [illegible]

The Food of the Gods. A Popular Account of Cocoa. By Brandon Head. London: Bradbury, Agnew and Co. [illegible]

The Principles and Practice of Hydrotherapy. By Simon Baruch, M.D. Second edition. London: Baillière, Tindall and Cox. 1903. [illegible]

Introduction à l'Étude de la Médecine. Par G. H. Roger. Deuxième édition. Paris: C. Naud. 1904.

Das Röntgenverfahren [illegible]. Von Dr. [illegible] Beckmann. London: Williams and Norgate. 1904. 1s.

The Local Government Annual and Official Directory, 1904. Edited by S. Edgecombe Rogers. London: "Local Government Journal" Office. 1904. [illegible]

A Scheme for the Provision of Nursing Homes at Moderate Prices for the Middle Classes. By J. R. Brown, F.R.C.S.Eng. London: The Scientific Press, Limited. 1904.

Manual of Surgery. By Alexis Thomson, M.D., F.R.C.S.Edin., and Alexander Miles, M.D., F.R.C.S.Edin. Vol. I. General Surgery. Edinburgh and London: Young J. Pentland. 1904.

A Study of British Genius. By Havelock Ellis. London: Hurst and Blackett. 1904. [illegible]

A Revision of the Anopheline [illegible]. First supplement to the second edition of "A Handbook of the Gnats or Mosquitoes." By Lieutenant-Colonel G. M. Giles, M.B., F.R.C.S., I.M.S. Ret. London: John Bale, Sons, and Danielsson, Limited. 1904. [illegible]

Technique du Massage. Par Le Professeur J. [illegible]. Traduit sur la deuxième édition [illegible] par A. Zaaijer. Paris: G. Steinheil. 1904. Fr. [illegible]

[illegible] Par H. [illegible]. Paris: J. B. Baillière et Fils. 1904. Fr. [illegible]

La Massage. Traitement par le Massage. Par le Dr. G. Norström. Paris: J. B. Baillière et Fils. 1904. Fr. 2.

Les Rayons de Röntgen et le Diagnostic des Maladies Internes. Par A. Béclère. Paris: J. B. Baillière et Fils. 1904. Fr. [illegible]

The Life History of British Lizards. By Gerald R. Leighton, M.D., F.R.S.E. Edinburgh: G. A. Morton. 1903. 5s.

Atlas-Myome des Uterus. Von Thomas S. Cullen. Berlin: August Hirschwald. 1904.

Hope in Sanatorium. By T. J. Bass. Birmingham and Leicester: Midland Educational Co. 1s.

The Management of Lateral Curvature of the Spine, Stooping, and the Development of the Chest in Children. By E. Noble Smith, F.R.C.S.Edin., etc. London: Smith, Elder and Co. 1904. [illegible]

A Manual of General Pathology. By Sidney Martin, M.D., F.R.S., F.R.C.P. London: John Murray. 1904. 15s.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	[illegible]	[illegible]
A page	[illegible]	[illegible]	[illegible]

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Remarks
ON
HOUR-GLASS STOMACH.

By BERKELEY G. A. MOYNIHAN, M.S., F.R.C.S.,
Assistant Surgeon, Leeds General Infirmary.

By hour-glass stomach ("hour-glass contraction of the stomach," "bilocular stomach," "*Sanduhrmagen*," "*l'estomac biloculaire*") is understood that condition in which the stomach is divided into two portions by a constriction at any point between the cardiac and pyloric orifices. In one rare, in fact unique, case under my care the stomach was trilocular as the result of a narrowing, due to old ulceration and cicatricial healing, at two separate points, distant about 3 in. from one another. In another, also unique, there were three points of narrowing, one in the body of the stomach, one at or near the pylorus, and one about 1½ in. beyond the pylorus, in the duodenum. In this case they were four sacs. As a rule the cardiac complement is larger and has thicker walls than the pyloric. It dilates and becomes hypertrophied by reason of the great obstruction met with at the scarred and narrow isthmus, which connects it with the distal portion of the stomach.

The forms of hour-glass stomach are many. As a rule the constriction is near the middle of the organ, or near the pyloric end. The isthmus may be very much indurated, or it may be tubular with very little or no induration, but with some thickening. In most instances the greater curvature seems to be pulled upwards to the lesser, but in one case I have seen the lesser tucked down to the greater.

Etiology.

Hour-glass stomach is usually described as being "congenital" and "acquired." Of these forms the congenital is said to be more frequent. Thus Fenwick, in his work, writes: "In about 45 per cent. of the cases which have been recorded neither ulcer nor scar could be detected in the stomach, while in the great majority of cases where an ulcer was present it was obviously of more recent formation than the stricture." And again, "That the deformity is a rare result of ulceration is proved by the fact that only one case of the kind is mentioned in the records of the London hospital for forty years, whereas several instances of the congenital form of the disease were encountered during the same period of time."

Meckel considered that a congenital hour-glass stomach might result from an imperfection of development, and Cruveilhier and others have suggested that the sacculation is an instance of atavism, and that there is an analogy between such a deformity and the normal bifid stomach of certain rodents and the pouched stomachs of ruminants.

On examination of specimens of hour-glass stomach there can occasionally be seen two crossing bundles of muscular fibres on each surface of the organ. These were first noticed by Mariotti, but were more fully described by Saake. The bundles are generally half an inch or more in width, and cross at the point of narrowing in the stomach. Traced from the upper side of the cardiac complement, a bundle is seen to pass to the lower side of the pyloric, and from the lower side of the cardiac complement to the upper part of the pyloric, the fibres crossing like the widely opened blades of a pair of scissors. It has been suggested that these outstanding bands of muscle by their contraction determine the hour-glass form of the stomach, and their existence is held to be proof of the "congenital" origin of the deformity. In the only example I have seen of this muscular arrangement the hour-glass stomach was clearly the result of an ulcer whose edges were immensely thickened and whose base had perforated. In this case the bundles of fibres followed the lines of puckering produced by the contraction of the ulcer, and were therefore clearly the result, and not the cause, of the deformity.

Cumston and other writers have said that in congenital hour-glass stomach the two pouches are connected by a tube or cylinder showing no scar or ulceration, and free externally from all adhesions. One such case I have dealt with by operation. I slit up the channel connecting the two sacs, and found a perfect example of "bridle" stricture, the result of healing in an ulcer which, from the mucous surface, was easily seen and felt.

An example of congenital hour-glass stomach is said to have been recorded by Sandifort; the specimen was obtained from a fetus. This case is referred to by every writer as being a well-marked example of congenital hour-glass stomach. I have read Sandifort's description, and have seen the figure drawn from his specimen. I should certainly decline to admit that there is any warrant for considering this an hour-glass stomach: the very slight contraction seen near the middle of the stomach is nothing more than the result of a slight irregular muscular contraction. The appearance of hour-glass deformity may be mimicked with remarkable accuracy by a condition of dilatation of the stomach and of the upper part of the duodenum as the result of a congenital narrowing of the duodenum at or near the bile papilla. Such a case is recorded by Wyss.

In all the recorded examples of hour-glass stomach where a full examination of the viscus has been made, ulceration has been found. For those who believe that the deformity is congenital, the theory that the ulcer is secondary is sufficient. Thus Cumston writes: "These ulcers are secondary, and are probably produced by the pressure of the food passing through the strictured part of the organ."

Roger Williams in 1883 described ten examples of "congenital" contraction of the stomach. The account of one of the cases is based on the examination of a wax model; of another, on the inspection of an "inflated dried" specimen; and of a third, on the appearance of a dried stuffed specimen. It is doubtful whether one of the examples can be accepted as an hour-glass stomach. In all the others pathological conditions, ulceration, puckering, thickening, or adhesions were found.

Hochenegg, Carrington, Maier, Saake, and many other writers who describe their examples as "congenital" mention thickening, old ulceration, adhesion to the pancreas or to the abdominal wall, localized perforation, and other conditions which are indubitably the result of chronic ulcer of the stomach. Doyen, in his work on the diseases of the stomach and duodenum, refers to a case in which at the isthmus of the stomach an adhesion to the anterior abdominal wall was found; on breaking through this a gastric fistula was exposed, showing unmistakably that an ulcer had been present, which had been prevented from perforating into the peritoneal cavity only by the anchoring of the organ to the anterior abdominal wall. This is said to be "congenital."

Mazotti relates a case of "congenital" hour-glass stomach in a woman of 50; he believes the deformity to be due to "an unusual development of the transverse muscular fibres in a certain part of the wall of the viscus."

An examination of several specimens and an earnest search through the literature of this subject has convinced me that there is no proof whatever of the existence of an hour-glass stomach due to a congenital deformity. The absence of any observation of hour-glass stomachs in the fetus or the young child is very striking. When those who have been describing their specimens use the word "congenital" they seem to do so without thought or hesitation, accepting, it would appear, the mere existence of the deformity as unquestioned evidence of its congenital origin. So far as I am aware, there is not a single specimen or an accurate record in existence which can be accepted as evidence of the congenital origin of this disease.

The causes of acquired hour-glass stomach are:

1. Perigastric adhesion.
2. Chronic ulcer,
3. Malignant disease.

1. Perigastric adhesions may arise from many causes. Most commonly they are due either to ulcer of the stomach or to gall-stone disease.

2. Chronic ulcer may cause hour-glass stomach in one of two ways. In the first there is a gradual deepening of the ulcer. As the ulcer approaches the serous coat of the stomach a few adhesions form, binding the viscus to the anterior abdominal wall, preventing the bursting of the ulcer into the general peritoneal cavity. If the ulcer be on the posterior surface, a soldering to the pancreas may result, as in one case I have recently seen. When the stomach is anchored in its middle, the pouches on each side, but more especially on the cardiac side, show a tendency to sagging, and this, with the cicatricial contraction taking place in the ulcer, results in hour-glass form of the stomach. In one of my cases a malignant mass in the anterior wall had formed an extensive adhesion to the body wall. Doyen, Steffan, and Finney have recorded similar examples.

In four recorded cases (Siewers, Brown, Thomsen, Leonard Bidwell), and in one of my own, an ulcer at the isthmus of an hour-glass stomach has perforated into the general peritoneal

cavity. In the second form the chronic ulcer in its healing has caused much contraction and induration. The stomach at the point of ulceration becomes markedly puckered and its lumen narrowed. But there is, I believe, in addition to the cicatricial contraction, another factor of chief importance in determining the narrowing of the organ. I refer to spasm. On several occasions during the last few years when operating for chronic ulcer, I have watched the stomach intently for several minutes, and have seen the onset, the acme, and the gradual relaxation of a spasmodic muscular contraction in its walls. Quite gradually the stomach narrows, and the wall becomes thicker and almost white in colour; when taken between the fingers the contracted area feels like a solid tumour. The spasm may be so marked as to prevent a finger being invaginated through the segment affected. The appearance presented is very striking. I have seen it in the body of the stomach and at the pylorus, but never at the fundus. As slowly as it comes on the spasm quietly relaxes, and the stomach assumes its usual form. In one patient I watched four such spasmodic seizures at the pylorus in a few minutes, and the tumour formed by the tightly-contracted muscle was so large that in a very thin subject it should have been felt on palpation of the abdomen. Such constantly recurring attacks of spasm must lead to hypertrophy of the circular muscular fibres, and this thickening, together with the cicatricial contraction and the induration of the cavity, will amply account for the extreme narrowing of the stomach, with the dense thickening of the walls, met with in many of the examples recorded.

The extent to which spasmodic contraction, invoked by ulceration, is responsible for the narrowing found in hour-glass stomach is not capable of being measured, but my observation of the cases I have seen during the last few years makes me ready to believe that it is not inconsiderable.

The occurrence of rings of contraction in the stomach was first observed by Sir Everard Home in 1807. He refers to an observation of Perrault, published in 1676, in which a narrowing in the middle of the stomach was observed in a lion. The condition, found only on one occasion in the examination of four stomachs—two from lions, two from lionesses—is illustrated by a drawing. Sir Everard Home considered that the contractions found by him were entirely due to muscular action.

SYMPTOMS.

The symptoms and the signs of hour-glass stomach enable a positive diagnosis to be made in the great majority of cases. In my first 6 cases only one was diagnosed, in my last 9, 7 were diagnosed with certainty. The following are the signs:

1. If the stomach tube be passed and the stomach washed out with a known quantity of fluid, the loss of a certain quantity will be observed when the return fluid is measured. Thus, if 30 oz. be used, only 24 oz. can be made to return. Woeltler, who called attention to this sign, said that some fluid seemed to disappear "as though it had flowed through a large hole" as, indeed, it has, in passing from the cardiac to the pyloric pouch (Woeltler's "first sign").

2. If the stomach be washed out until the fluid returns clear, a sudden rush of foul, evil-smelling fluid may occur; or if the stomach be washed clean, the tube withdrawn and passed again in a few minutes, several ounces of dirty, offensive fluid may escape. The fluid has regurgitated through the connecting channel between the pyloric and cardiac pouches (Woeltler's "second sign.")

3. Paradoxical dilatation. If the stomach be palpated and a succussion splash obtained, the stomach tube passed, and the stomach apparently emptied, palpation will still elicit a distinct splashing sound. This is due to the fact that only the cardiac pouch is drained; the contents of the pyloric remain undisturbed and cause the splashing sound on palpation. For this phenomenon Jaworski has suggested the appropriate name of "paradoxical dilatation." Jaboulay has pointed out that if the cardiac loculus be filled with water, a splashing sound can still be obtained by palpation over the pyloric pouch. The sign of paradoxical dilatation is best elicited after washing out the stomach in the ordinary manner. When the abdomen is examined at the completion of the washing, and when the stomach has been apparently drained quite dry, a splashing sound is readily obtained, for some of the fluid used has escaped into the pyloric pouch through the connecting channel.

4. Von Eiselsberg observed in one of his cases that on distending the stomach a bulging of the left side of the epigastrium was produced; after a few moments this gradually subsided, and concomitantly there was a gradual filling up and bulging of the right side.

5. Von Eiselsberg also called attention to the bubbling, forcing, "sizzling" sound which can be heard when the stethoscope is applied over the stomach after distension with CO_2. If the two halves of a seidlitz powder are separately given and the stomach be normal or dilated, no loud sound is heard anywhere except at the pylorus; if a constriction is present in the stomach, a loud, forcible, gushing sound can be easily distinguished at a point 2 in. or 3 in. to the left of the middle line.

6. I first called attention, two years ago, to a sign which I have since found of great service in establishing a diagnosis of hour-glass stomach. The abdomen is carefully examined and the stomach resonance is percussed. A seidlitz powder, in two halves, is then administered. On percussing, after about twenty or thirty seconds, an enormous increase in the resonance of the upper part of the stomach can be found, while the lower part remains unaltered. If the pyloric pouch can be felt, or seen to be clearly demarcated, the diagnosis is inevitable, for the increase in resonance must be in a distended cardiac segment. If the abdomen be watched for a few minutes the pyloric pouch may sometimes be seen gradually to fill and become prominent.

7. Schmidt-Monard and Eichhorst have both seen a distinct sulcus between the two pouches inflated with CO_2. In Case X in my list the two pouches, with a hard mass I thought malignant—mass between them, could readily be seen. When both pouches were distended with CO_2, alternate pressure upon them showed unmistakably that they communicated through a very narrow orifice, for the one could be emptied slowly into the other, and the fluid could be felt to ripple gently through. The diagnosis in such a case is simplicity itself. In Case VIII a distinct notch was seen at the lower border of the inflated stomach.

8. Ewald has called attention to two signs which he considers of value in establishing a diagnosis. When the stomach is filled with water and examined by gastro-diaphany, the transillumination is seen only in the cardiac pouch; the pyloric pouch remains dark.

9. The deglutable indiarubber bag of Turck and Hemmeter is passed and distended. The bulging caused thereby is limited to the cardiac pouch, which lies to the left of the middle line.

The two aids to diagnosis of greatest value are, it will be seen, the washing out of the stomach and its inflation with gas by the administration of a seidlitz powder in two portions. The fluid used for the washing must be carefully measured before use; the tube is then passed and the stomach emptied, the contents set aside in a separate dish, and the washing commenced. All the fluid now returning is collected in a separate vessel and carefully measured. The two signs of Ewald are of little importance; a correct diagnosis can always be made without them.

CASE I. August, 1[illegible] female, aged [illegible]. Ten years ago the patient had an illness characterized by profound anæmia. Seven months ago there were clear symptoms of ulcer of the stomach, but neither then nor at any time any acute illness suggestive of perforation. Now vomited after all ordinary food, and more often than not even after small quantities of fluid food. Pain after food was exceedingly severe. On examination of abdomen a dilated stomach could be felt. At one point a little to the left of the middle line, and slightly below the ensiform cartilage, was an area 2 in. in diameter, which was markedly tender, and offered increased resistance on palpation. This area was found by operation to correspond precisely with the area of stomach [illegible]. The patient had lost weight and latterly vomited repeatedly, [illegible] during the last few months. At the operation an hour-glass stomach was found. The narrow constriction was near the pyloric end of the stomach, and adherent to the anterior and [illegible] wall over an area equal to a crown piece. On each side of this the stomach dilated and seemed to be anchored by the adhesion. On separating the stomach from the abdominal wall an opening into the viscera was exposed and the stomach contents escaped. The opening was enlarged [illegible] and the wound and [illegible] were closed separately. A [illegible] gastrojejunostomy was performed in the [illegible] area. [illegible] posterior suturing. The patient recovered [illegible] operation there was pain at times and loss of appetite. Since then she has been free from pain and in excellent health. Appetite and digestion are good. The patient was seen with Mr. Bailey in March [illegible] February, [illegible], her condition was still perfectly satisfactory. In October [illegible] the patient was reported to be in perfectly good health "in excellent condition."

CASE II. April [illegible] female, aged [illegible]. There was no history of gastric ulcer. The patient had complained of irregular attacks of pain in the epigastric region for eleven months, always associated with the taking of food and coming on about one hour after a meal. Vomiting was occasional and [illegible], but rather large quantities; there was no

blood. On examination, the stomach was distended and splashy contractions were seen when distended. Medical treatment had proved unavailing. At the operation an hour-glass stomach was found. The constriction was about 4 in. from the pylorus; the passage between the two sacs equalled a No. 12 catheter in diameter. There were marked induration and puckering, but no adhesion to the abdominal wall or elsewhere. The strictured neck was divided by an incision about 2½ in. long in the transverse direction and stitched up vertically, the mucous membrane with a continuous catgut suture and the serous with a continuous silk suture. Two additional interrupted sutures were applied at each end of the wound. The patient recovered. There was vomiting for five days after the operation, blood stained. Since then perfectly well. The patient was seen with Dr. Waugh, Skipton. In March, 1903, she was reported to be in complete health.

Case III.—January 24th, 1901, male, aged 45. Had been ailing for three years. Pain in the epigastrium, radiating to the left chest. Was worse after food, coming on "within half an hour," and lasting for from two to four hours, unless relieved by vomiting. Frequently vomiting about an hour after food, never any blood. Lately the pain had been almost constant, aggravated by food, and eased by vomiting. Had lost 2 st. 12 lb. Dilated stomach. On distending with CO_2, a notch was noticed at the upper border of the stomach and a tentative diagnosis of hour-glass stomach was made. Free HCl. A trace of lactic acid and a few rod-shaped bacilli. At the operation an hour-glass stomach was found. The scar of the ulcer was equal in size to a florin, was situated close to the lesser curvature and nearer the cardiac orifice than the pyloric. There were much puckering and induration of the surface. There were no adhesions. The index finger entered but could not pass the stricture. An incision 3½ in. long was made transversely, and stitched longitudinally in two layers. A slender adhesion of gall bladder to the pylorus was divided (gastroplasty, gastrolysis). The patient recovered. Before leaving hospital he could take ordinary diet without any discomfort. Weight before operation was 7 st. 6 lb.; has gained 1 st. 5 lb. The patient was seen with Dr. Trevor Pritchard, Retford. In March, 1903, he was reported to be quite well.

Case IV.—March 6th, 1901, female, aged 28. Symptoms of gastric ulcer for more than five years. Was under treatment at the beginning of her illness at the infirmary. Had been gradually getting worse. Vomited now after every meal; pain and vomiting came on from about half an hour to one hour after food; vomit was very "sour." On examination, hour-glass stomach. On distending with CO_2, the cardiac half increased considerably, forming a very large lymphatic area. The pyloric half was distended but little; the division was clearly seen. On auscultation, a forcing, gurgling sound was distinctly heard. On operation, an hour-glass stomach was found. The cardiac side of the constriction was much dilated and larger than a normal stomach. Rather beyond the middle of the organ was a constriction that would just admit the forefinger; round the constriction were much induration and many adhesions; especially noticeable was one thick cord-like one coming from the liver. This was divided between ligatures. The liver was slightly torn on separating widespread adhesions along the lesser curvature. Below it on each side the stomach sagged, and between the cavities an anastomosis was made which readily admitted three fingers (gastro-gastrostomy, gastrolysis). The patient recovered. March, 1902, perfect result. He eats well and heartily and has no discomfort. The patient was seen with Dr. Waugh, Skipton.

Case V.—March 9th, 1901, male, aged 22. Stomach troubles for sixteen years. At first pain after food and occasional vomiting. Five years ago an acute attack of haematemesis, melaena, and general swelling of the body, which it was feared might prove fatal (perforation). No ease in the stomach since then, constant vomiting, pain after every meal, and great wasting. Now looked thin, pinched, and shrivelled. For three weeks had had no food, only sips of water and nutrient enemata. On examination, dilated stomach. Free HCl. At the operation an hour-glass stomach was found. At first it was thought to be a dilated stomach. On tracing the stomach towards the pylorus, an extremely narrowed isthmus (barely as thick as the little finger) was come to which was supposed to be narrowed pylorus, but on tracing beyond it stomach was still found. On invaginating a finger from each side of constriction no opening could be felt. Many adhesions were separated until all was clear and free. Then incision into stomach on cardiac side of the isthmus, and a probe-directed was passed through constriction, which it fitted snugly, the opening being no bigger than a No. 4 or No. 5 catheter. Gastroplasty was performed. On the pyloric side of the stricture was a column of mucous membrane forming a bridle stricture. This was ligated, divided at both ends, and removed. The patient recovered. The patient was in the infirmary under Mr. Littlewood, and was operated upon by me in his absence.

Case VI.—April 6th, 1901, male, aged 40. Symptoms for twelve months: pain, heaviness, discomfort after meals, loss of weight and general deterioration in health. At Christmas had an attack of acute pain and haematemesis, and was ill in bed for several days; since then has never taken any food without pain. Has noticed on several occasions that the stools were "black as ink." Vomits now every day. At the operation two ulcers were found near the pylorus, one on gastric, one on duodenal side. A mass equal in size to a walnut was found at the pylorus. Pylorus was very narrow, adherent to liver and gall bladder by dense bands. At the middle of a hugely dilated stomach was a constriction that would admit four fingers. Posterior gastro-enterostomy to pyloric pouch. At the necropsy two ulcers, duodenal and gastric, were found, the former very adherent to the gall bladder, the latter had perforated into a mass of adhesions, its base being partly formed by the pancreas. The patient died. The patient was sent by Dr. Crawford Watson, Harrogate. All went well for three days, then a large prolapse of rectum (from which he had previously suffered) came down during the night, and was not discovered for four hours. When I saw him the prolapse was livid and oedematous, and could not be reduced until ether had been administered. From this time patient became gradually worse; the temperature ran up up to 104 and 105°, and he died four days later. The following is an abstract from the necropsy record, written by Dr. Maxwell, Telling: "The stitches are quite sound, the opening good, and surgical technique perfect. No peritonitis. The haemorrhoidal and inferior mesenteric veins are full of disintegrating clot (septicaemia)."

Case VII.—May 24th, 1901; male, aged 43. For many years has vomited after food, and is eased by vomiting. In November, 1899, and May, 1900, had severe haematemesis. Three years ago was in the infirmary, and a diagnosis of "cancer" was made. On examination, an irregular dilated stomach. On inflation a distinct notch was seen in the lower border; just above this a very loud, forcing, gushing sound heard. Hour-glass stomach diagnosed. Signs 1, 3, 5, and 6 present. At the operation an hour-glass stomach was found. The cardiac pouch was much dilated, pyloric small and not dilated. The constriction was about 3 in. from the pylorus. At the upper border of the isthmus a hard mass, equal to a walnut in size, with puckering of stomach, and lesser omentum (posterior gastro-enterostomy). The patient recovered. The patient was sent by Dr. Isaac Taylor. His weight before operation was 8 st. 2 lb.; weight on January 15th, 1903, was 10 st.

Case VIII.—May, 1901; female, aged 50. Ailing many years; the symptoms dating from an illness in which "gastric ulcer" was diagnosed. A diagnosis of "hour-glass stomach" was made by Dr. McGregor Young. Signs 1, 3, and 6 present. At the operation an hour-glass stomach was found, the isthmus being about 2½ in. from the pylorus. The stomach and all the intestines were thin and translucent and seemed almost devoid of muscle. On exposing the posterior wall of the cardiac pouch a second ulcer was seen. Posterior gastro-enterostomy was performed. After the operation regurgitant vomiting of such severity and persistence that a second operation was undertaken, and the proximal and distal segments of the jejunal loop were united (jejuno-jejunostomy). The patient recovered. The patient was seen with Dr. McGregor Young. The result of the operations has been most satisfactory; the patient is much better than she has been for many years.

Case IX.—June, 1901: male, aged 30. Has had stomach troubles for nine or ten years. Then began quite suddenly to have great pain after food and to vomit two or three times a day; no haematemesis. The pain usually came on about an hour and a half after food. Seen four years ago by a consulting physician, who diagnosed dilated stomach, and advised lavage, which has been done ever since. Relief at first very great, but lately, a serious relapse and no relief from washing. Hour-glass stomach diagnosed. Signs 1, 2, 3, and 6 were present. At the operation an hour-glass stomach was found. The constriction just admitted the end of the forefinger; and was situated about 3 in. from the pylorus, and a point where loud gushing sounds were heard before operation. The cardiac complement was enormous, the pylorus a little dilated (posterior gastro-enterostomy; pylorodiosis). The patient died. The patient was sent by Dr. Ellis, of Halifax. After the operation the patient had suppression of urine; in four days secreted only 11½ oz., tinged with blood. Pulse became very rapid and of poor volume. Five pints of saline solution infused. Urine was secreted almost at once. Gradual improvement then for nine days; then suppression for forty-eight hours, and death. Both kidneys diseased; the left small and granular and cirrhotic, the right granular. Operation area normal. The urine before operation had been frequently examined, and nothing abnormal discovered.

Case X.—June, 1901: female, aged 25. For three years has suffered from vomiting, pain after food, inability to take ordinary diet. Has never vomited blood, but has seen vomit which "resembled tea." Vomiting now almost continuous. Has lost 2 st. in weight. On examination a hard mass above and to the left of the umbilicus. On distending the stomach with CO_2, a distinct swelling on each side of tumour. Hour-glass stomach clearly seen. At the operation an hour-glass stomach was found. A large mass, 4 in. in diameter, was found at the junction of the two pouches, densely hard, immovable, and adherent firmly to the pancreas. Several enlarged glands. Supposed to be malignant. Stricture between the two pouches dilated freely. The patient recovered. The patient was sent by Dr. Crawford Watson, Harrogate. Her weight before operation was 6 st. Vomiting ceased at once, and food was freely—almost greedily—taken. The tumour quickly disappeared. Patient looks ruddy and well. Her weight is now 7 st. 7 lb. In October, 1903, she was reported to be over 8 st. in weight, and quite well.

Case XI.—April, 1901; male, aged 42. About six months ago was suddenly seized with acute, intolerable pain in the upper part of the abdomen. Constant stomach troubles since; pain, weight, "dragging sensations." Has lost flesh quickly. On examination, a smooth globular swelling between mid-line above umbilicus and left costal margin, soft and fluctuating. At the operation, the stomach was found to be of hour-glass shape; the constriction was adherent to the anterior abdominal wall. On separating the adhesion, the stomach was opened and gastroplasty was performed. The tumour pushed the stomach forward. The great omentum below the stomach was torn through and the finger passed into the lesser sac. A smooth globular cyst was found projecting into the cavity and springing from the pancreas. The patient recovered. The patient was sent by Dr. J. Bailey, Wattle. A

pancreatic fistula remained for several months. Health and weight fully regained. In October, 1903, reported to be quite well.

CASE XII.—July, 1901, female, aged 28. Had six years' history of increasing indigestion, dating from an illness described by the doctor as "ulcerated stomach." Pain comes on one hour after food, worse when lying on the right side. Vomits after nearly every meal. Is getting steadily thinner. Signs 1, 2, 3, 4, 5, 6, and 7 all present. At the operation an hour-glass stomach was found and very tight pyloric obstruction. Gastroplasty and posterior gastro-enterostomy into the distal pouch. The patient died. The patient was seen by Dr. Baxter-Tyrie of Keighley. Death from pneumonia on the fifth day. The anæsthetic was badly taken, lividity and rigidity of abdominal muscles being present throughout.

CASE XIII.—April 2nd, 1902; female, aged 42. Has had chronic indigestion. The symptoms came on gradually—pain after food, vomiting, and constipation. Eighteen months ago had hæmatemesis, and since then the symptoms have been greatly increased. Signs 1, 2, 3, 5, and 6 present, and a diagnosis of hour-glass stomach made. At the operation an hour-glass stomach (a perfect example) was found. The constriction in the body admitted the little finger snugly. In the narrowed isthmus, on the posterior surface, a densely hard indurated area, at least ½ in. in thickness, the lesser and greater omenta both puckered up. Gastroplasty—a scar of the ulcer seen on mucous surface of posterior part. A very tight stricture found at the pylorus, the pyloric pouch being dilated also. Posterior gastro-enterostomy from pyloric pouch. The patient recovered. The patient was sent by Dr. H. H. Greenwood. A very rapid pulse for four days after operation. Report in October, 1903:—"Quite well; six months pregnant."

CASE XIV.—November 29th, 1902; female, aged 27. Nine years' history. Pain after food and vomiting were the symptoms first noticed. Soon all solid food caused pain, and was rejected. The food became "sour," and the gas belched up smelt putrid. On several occasions blood has been vomited. The signs and symptoms of hour-glass stomach were elicited, and a confident diagnosis made. The two pouches of an hour-glass could be distinctly seen on inflation. Signs 1, 2, 3, 5, and 6 present, and an hour-glass stomach diagnosed. At the operation an hour-glass stomach was at once exposed, but on tracing the stomach up to the cardiac orifice another stricture and another pouch were found. There were thus two annular constrictions in the stomach and three pouches. The first pouch was the largest, the pyloric the smallest, being only of the size of a lemon. Gastro-gastrostomy and gastro-enterostomy were performed. The stomach was scarred almost universally. The patient recovered. The patient was sent by Dr. Knowles, Newstead, Halifax. She made a most excellent recovery. In October, 1903, she had gained 1½ st. and was taking food well.

CASE XV.—January 20th, 1903; female, aged 34. Nine and a-half years ago vomited a "great deal" of blood. Dr. Mackenzie then diagnosed ulceration of the stomach. Since then has always been ailing, especially after a moderate meal. Five years ago was very ill; had acute abdominal pain, severe vomiting, and hæmatemesis. Was in Manchester Royal Infirmary with "ulcer of the stomach." One year and a-half ago had hæmatemesis. For several years has taken no solid food, and has never had an ordinary meal. Has lived on milk, custards, porridge. On examination an hour-glass stomach was diagnosed. Woelfler's two signs; paradoxical dilatation; increase in subcostal tympany; gurgling sound at left end of stomach, all well-marked. At the operation an hour-glass stomach and an hour-glass duodenum were found. There were two large stomach pouches, united by a narrow isthmus, at the lesser curvature. Tight constriction at the pylorus; the first portion of the duodenum was dilated to form a sac the size of a lemon; beyond this another constriction. The pyloric pouch of the stomach was more densely scarred than any stomach I have seen: its texture was almost wholly fibrous. On its posterior surface also many scars were seen. Gastro-gastrostomy and posterior gastro-enterostomy to the pyloric pouch. The patient recovered. The patient was sent by Dr. Mackenzie, Barnsley. Within three weeks of the operation she ate solid food heartily and had taken all the vegetables in season.

CASE XVI.—July 14th, 1902, female, aged 35. For the last six years has had abdominal pain, to the left side of the epigastrium chiefly, especially after food. Has vomited every week during this time, and six years ago, three years ago, and in February, 1902, had hæmatemesis. Since February has had constant pain and vomiting, is unable to take any solid or semi-solid food, and but little fluid. Is wasting rapidly, and looks thin, haggard, and very wasted. At the operation an hour-glass stomach was found. A deep pucker on the anterior wall and upper surface, pulling the lesser curvature down to the greater. From the centre of the dense infiltrated stenosing ulcer, a thick band and a web of adhesions passed up to the liver. The posterior surface of the stomach also was very adherent, so that a posterior gastro-enterostomy was performed with great difficulty. The patient recovered. The patient was sent by Mr. Jessop and operated upon in his absence. Her recovery was in all satisfactory.

Malignant Cases.

CASE XVII.—March 3rd, 1902, male, aged 54. Vomiting of fluid if taken in quantities exceeding an ounce. At the operation an hour-glass stomach was found, narrowing close to cardia due to malignant disease which had involved the stomach everywhere (jejunostomy). The patient recovered. The patient was seen with Dr. Sykes, Cleckheaton. Died April 5th.

CASE XVIII.—July, 1901, female, aged 50. At the age of 17 had a gastric ulcer, vomiting and hæmatemesis for several weeks. Since then has always had gastric uneasiness. Ten years ago "an ulcer burst" after a heavy meal. She suddenly experienced acute pain in epigastrium and fainted; during the subsequent night she vomited a "chamber utensilful" of blood, and latter coffee grounds material. Since this attack has never enjoyed a hearty meal. For last few months has lost flesh rapidly; for the last three years she has been in bed, and has not been able to take anything but milk and water, and has returned most of that. Gastric tetany in limbs. Free HCl present. At the operation an hour-glass stomach, nearer the cardiac than the pyloric end, was found. The stomach was adherent over an area about 2½ in. in diameter to the anterior abdominal wall and liver. On detaching, the stomach was opened. The opening was about 1¼ in. in diameter, the edges over ½ in. thick, and the mucous membrane greatly thickened and pouting. At the point of adhesion the stomach was markedly narrowed. The ulcer and a surrounding mass of stomach were excised and gastroplasty performed. Pylorus would only admit the passage of a director, and pyloroplasty was therefore performed. The patient died. The patient was sent by Dr. Cheetham, Guiseley. She seemed to be going on well until the fourth day when the pulse rapidly failed. The examination of the excised mass showed malignant disease to be present. The lower margin of the ulcer was greatly thickened by heaped-up granulation tissue, which, on microscopic examination, proved to be carcinomatous.

TREATMENT.

In many cases of hour-glass stomach there is a narrowing, not only in the body of the stomach, but also at the pylorus. This illustrates the undoubted fact that gastric ulcer is often multiple. The result, so far as the treatment of the condition is concerned, is that in many of the cases no single operation will suffice to fulfil all the requirements. If gastro-enterostomy is performed from the cardiac pouch, the pyloric pouch remains undrained. Symptoms of stasis are then observed, as in a case recorded by Terrier, and a second operation is necessary. An anastomosis from the second pouch is obviously futile. A gastroplasty which relieves the obstruction in the body of the stomach does not deal with the pyloric narrowing. In many cases it will be necessary to perform a double operation, gastro-enterostomy from both pouches, gastroplasty combined with gastro-enterostomy from the pyloric pouch, gastro-gastrostomy with gastro-enterostomy, or gastroplasty and pyloroplasty.

Thus I performed—

Gastroplasty alone in Cases, I, II, III, V, XI.
Gastro-enterostomy alone in Cases VI, VII, VIII, IX.
Gastroplasty and gastro-enterostomy, XII, XIII.
Gastro-gastrostomy alone in Case IV.
Gastro-gastrostomy and gastro-enterostomy in XIV, XV.

CONGENITAL NARROWNESS OF THE PYLORIC ORIFICE A CAUSE OF CHRONIC GASTRIC DISEASE IN THE ADULT,

ILLUSTRATED BY SEVEN CASES SUCCESSFULLY TREATED BY OPERATION.

BY A. ERNEST MAYLARD, M.B., B.S.LOND.,
Surgeon, Victoria Infirmary, Glasgow; President, Pathological and Clinical Society of Glasgow.

IN operating upon various cases of chronic gastric derangement I have met with a condition of the pyloric orifice that seemed to me not only sufficient to explain the symptoms which existed, but to suggest that the condition itself was probably of congenital origin.

I shall possibly best introduce the subject by first narrating the history of the cases upon which the subsequent observations are based. It might be reasonably contended that the fullest details of every case should be given in order to eliminate all causes that might be considered, were they present to offer an explanation other than that which I shall venture to give. But I am compelled, in order to bring my contribution within reasonable limits, to introduce only such salient features in each case as appear to me fairly to support the views I hold.

CASE I.

MRS. A. B., aged 31 years. Gastric symptoms commenced when 24 years old; were of a simple dyspeptic character. Later the symptoms were those of chronic gastric catarrh; much mucus present both in vomit and in motions; much emaciation and relief only obtained by lavage. Food generally caused pain. Dilatation occasionally present. No history of hæmorrhage. Patient in good station of life and unable to account for the early appearance of her symptoms.

Operation.—On May 14th, 1902, in private home. Direct external examination of stomach negative. Internal examination: mucous membrane livid and coated with much mucus. Pyloric orifice with rather tight ring admitting index finger with difficulty. Posterior gastro-jejunostomy performed. Eighteen months after patient in excellent health, in every way a different woman.

CASE II.

Miss B. C., aged 40 years. Gastric symptoms as long as she can remember, chief symptom being occasional attacks of vomiting after food not accompanied with pain, but food causes a sense of weight in the epigastrium. Dilatation takes place if careful attention is not paid to diet and lavage practised. Patient much emaciated and in general feeble health. No history of haemorrhage, nor can any reason be assigned for the commencement of her early symptoms. In a comfortable position in life.

Operation.—On June 5th, 1902, in private home. Direct external examination of stomach and pylorus negative; internally a uniform ring-like constriction of pylorus admitting about a No. 12 urethral catheter. Posterior gastro-jejunostomy. Fifteen months after considerable and continued improvement.

CASE III.

Miss C. D., aged 20 years, one of a very healthy family. Gastric symptoms commenced when 14 years old in the way of ill defined indigestion—the tolerance of certain foods and not of others. Latterly pained by food and relieved by lavage. Any indiscretion in diet brought on symptoms and caused gastric dilatation. No history of haemorrhage, or any other cause to explain why she should differ from other members of the family, who were all healthy. She lived in a good station of life.

Operation.—On October 26th, 1902, in private home. Direct external examination of stomach negative, internal examination, pyloric orifice contracted by a uniform ring-like constriction which would only admit the apex of the index finger. Posterior gastro-jejunostomy. Twelve months after in good health.

CASE IV.

Miss D. E., aged 27 years, one of a healthy family. Gastric symptoms as long as she can remember; a feeling of weight and general discomfort after food; no pain or vomiting, but attention to diet and occasional lavage always gave relief. The food took, as she said, about six hours to pass out of her stomach. Dilatation marked. No history of haemorrhage, or other cause to account for the onset of her symptoms. In very good position in life.

Operation.—On October 30th, 1902, in private home. Direct external examination of stomach and pylorus negative; internal examination pyloric orifice a uniform narrow tense ring which only admitted tip of index finger. Gastro-jejunostomy performed. Twelve months after, improvement continuing but so far not so marked as the other cases.

CASE V.

M. R., aged 21 years. Gastric symptoms commenced when 16 years old, and consisted of pain and vomiting an hour after food. Dieting improved her condition, but return to ordinary food brought on the attacks. Treatment never produced more than temporary improvement. No history of haemorrhage, or other cause to account for onset of symptoms. A dressmaker by occupation.

Operation.—On November 7th, 1902, in Victoria Infirmary. Direct external examination of stomach and pylorus negative; internal examination pyloric orifice uniformly contracted, admitting only the apex of the index finger. Posterior gastro-jejunostomy performed. Twelve months after never better in her life, and back to her work.

CASE VI.

Miss E. F., aged 27 years; gastric symptoms commenced a year and a-half ago, mostly with pain after food. She found that by limiting herself to milk and fluid diet she was freed from any discomfort, but any attempt at a return to ordinary solid diet caused a recrudescence of her symptoms. She always noticed that small quantities agreed with her much better than large. Dilatation was occasionally present. No history of haemorrhage or of other cause to explain onset of symptoms. Was of good complexion and fairly well nourished. In good social position.

Operation.—On November 27th, 1902, in private home. Direct external examination of stomach and pylorus negative, internal examination, pyloric orifice uniformly contracted to a narrow ring which hardly admitted the apex of the index finger. Posterior gastro-jejunostomy performed. Twelve months after, in excellent health.

CASE VII.

S. K., aged 27 years. Gastric symptoms commenced nine years ago, and were mostly of a simple dyspeptic character. Pain and vomiting sometimes present. Can only take milk and soups; solids, as butcher's meat, etc., caused pain and were vomited. Test breakfast showed free hydrochloric acid, and inflation marked distension. She is of a fresh colour, and fairly well nourished. No history of haemorrhage, or other cause to account for onset. Is a shop assistant by trade.

Operation.—On September 15th, 1903, in Victoria Infirmary. Direct external examination of stomach and pylorus negative, internal examination revealed a tight and uniformly ring-like constriction of the pyloric orifice which the index finger could not enter without force. No thickening or irregularity present to suggest old ulceration. Posterior gastro-jejunostomy performed. Two months after was in a convalescent home showing marked signs of improvement.

In operating upon these, and in most of my other gastric cases, I have to acknowledge the kind and valued assistance of my friend, Dr. J. Grant Andrew, Assistant Surgeon to the Victoria Infirmary.

The first point to which I should like to draw attention is the particular character of the constricted orifice met with in these cases; and before doing so I ought perhaps to state what may be considered the normal condition of the orifice as met with by the surgeon on the operating table. Under complete anaesthesia the gastric parietes are more or less flaccid; the pylorus externally presents a line of somewhat deeper colour than the neighbouring parts; only the faintest constriction is visible, the duodenum often passing so imperceptibly into the stomach that it is only by the tactile sensation offered by the sphincter that the exact seat of the pylorus is detected.

There is no constancy in the amount of induration—if I may so express it—which the pylorus presents; a fact which seems to suggest that though the patency of the canal may be quite normal, there may be great differences in the developmental condition of the sphincter—differences possibly dependent upon the same physical causes which may naturally affect other parts of the body. I have little doubt that this variation has led to the difficulty experienced by some of determining whether the greater thickness met with in one case as compared with another was or was not due to some undue hypertrophic or inflammatory cause. I am, however, convinced that this variation is quite normal and may exist within considerable limits. Regarding the calibre of the pyloric orifice I have always found that, while the index finger passes easily, it has conveyed to it the sense of a uniform narrow elastic ring which feebly embraces and seems to roll over the finger as it is gently pushed onwards. I should consider from 12 to 15 mm. as the normal calibre of the canal during life and under relaxation (see Fig. 1). If one looks at a section of the pylorus, such for instance as is given in Quain's *Anatomy* by Allen Thomson, a sensation such as that above described is what might be reasonably expected. A uniform ring-like projection of mucous membrane is seen containing within its folds of reduplication circular bands of muscle fibre.

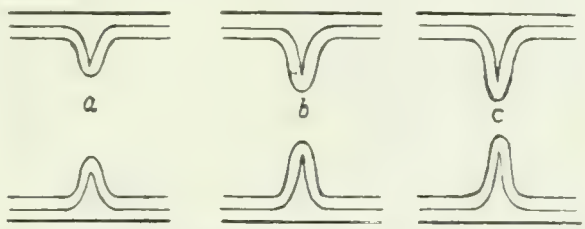


Fig. 1.—Diagrammatic longitudinal section of pylorus (natural size). *a* Normal diameter of pyloric orifice—12 to 15 mm. *b* and *c*. Abnormal diameters—7 and 3 mm.

When in my earlier cases I first met with the abnormally narrowed condition of the canal I was inclined to believe that, if not due to chronic spasm, it was the direct result of the introduction of the finger into the pylorus; that such a solid substance as the finger within the stomach cavity was certainly likely to stimulate contraction of the pylorus, whose very function is to resist the passage of such indigestible objects as my finger presented. However, I had on one occasion when operating a very striking illustration of what both the stomach and pylorus is like under contraction. I had the stomach partly withdrawn from the abdomen with the pylorus in view; the patient seemed suddenly to come out of the anaesthetic when an almost violent contraction of the gastric parietes took place, causing a little of the clear fluid within the stomach to be forcibly spurted out. Immediately there followed contraction of the pylorus, which assumed the appearance of a rigid structure about 2 in. in length and about the circumference of the ring-finger. Pressing the anaesthetic soon relaxed the parts, and it was under this relaxed state that I felt a narrow uniform ring-like constriction at the pyloric orifice incapable of admitting the apex of the index finger.

It was the information gained in the observation of this particular case that led me first to doubt that these narrowed orifices were spasmodic in character; rather that they owed their existence more to some abnormality in development than to any acquired cause.

As to the nature of this abnormality, I am inclined to regard it as due to an excess of reduplication of the pyloric fold, whereby the valve width is increased but the orifice correspondingly diminished; that it is, therefore, purely anatomical and congenital in its origin. Such a definition entirely fits in with the facts revealed in the various cases above narrated; for the obstruction was always perfectly uniform and simply gave the impression that it was abnormally small, and the smaller it was the greater the resistance

it offered to the introduction and passage of the finger. Further, it may be noted that resistance was in no sense like that of non-giving cicatricial tissue. That, as is well known, rarely gives way except with laceration, while in most of these cases—with the exception possibly of the most extreme—the ring gradually gives like an elastic band over the advancing finger. If I have been right in the construction which I have ventured to put forward regarding the nature of this obstruction, then it is possible to conceive how we may have solely as the result of development any calibre of the pyloric orifice between that which we consider as normal and that which will admit only a small-sized say No. 6 ordinary urethral catheter.

Before passing on to the more clinical aspect of the subject, I ought perhaps to indicate that these cases of pyloric obstruction in the adult in no way come under the category of that form of obstruction occasionally met with in earliest infancy. The so-called "congenital hypertrophic stenosis" of that period is of the nature of a very definite thickening of the pyloric region, and so quite distinct from the condition at present under discussion. While much has been written about this form of obstruction at the earliest period of life, very little appears to be mentioned of the particular kind specially referred to here. That this "hypertrophic" form may in some modified degree exist in the adult and be the cause of chronic gastric trouble I have very little doubt. Indeed, its existence has, I think, been fully established by Maier, whose cases I shall refer to later.

I should say, before proceeding further, that although ignorant of the fact when I first met with the condition that I have just described, subsequent investigation into the subject has brought to my notice the description of this same appearance of the parts by others. Landerer, quoted by Maier,[1] seems to have been the first to draw attention to this simple narrowing of the pylorus unassociated with any marked thickening or other changes connected with the part. Maier discusses this same congenital abnormality, and also indicates very clearly other appearances equally of a congenital origin. Maier's cases numbered 21, and were necropsies upon patients who had died mostly from other causes than those connected with the gastric condition. In some a definite history of stomach trouble was known to exist during life. While Maier's paper deals essentially with the anatomical and pathological conditions, it is also intended to indicate the clinical symptoms which may be present during life, and to suggest that due regard be had to their possible significance in this particular connexion. For some years, therefore, the possibility of chronic gastric disturbance in the adult dependent upon an abnormal narrowing of the pylorus has been recognized; but it is only comparatively recently since surgery has attacked the stomach during life that the cause and its effect have come to be more exactly noted and still further treated. The subject is briefly referred to by Mayo Robson and Moynihan in their work on *Diseases of the Stomach*, a very typical case illustrative of the condition being described. The patient was a male, aged 24 years, who had suffered from indigestion for five years, which had commenced gradually and painlessly. When operated upon, his symptoms were typically those of obstruction at the pylorus, and it was for this that he was treated. But the peculiarly simple and uniform nature of the obstruction, admitting only with difficulty the little finger, seems to have led the authors to regard this case as one of congenital narrowing of the pyloric orifice.

The simplest way, it seems to me, of considering the clinical aspect of the subject is to view the matter from the point of view of an obstruction at the pylorus; for the symptoms which arise from this must depend not only upon the calibre of this orifice—whether it is only slightly contracted or very markedly so—but upon the very build and constitution of the patient. Given the same amount of abnormal development of the pyloric valve in two persons, there may be the utmost difference as to the time of appearance of the earliest symptoms and their special character and severity. The stomach of a well developed constitutionally healthy patient would probably overcome the obstruction and be free from symptoms to a much later period in life than one not so physically robust, and then, when symptoms did appear, in each case they might be totally distinct. I merely mention these matters in a general sort of way to show how extremely difficult must be the question of

Diagnosis.

In reviewing the cases I have briefly narrated there are not two that can be said to have presented symptoms of any marked similarity either in the initial or the later stages of the disease. It is no doubt due to this variableness of the symptoms that has served to mask the true cause of them. As an illustration of this I may instance the first of my cases, that of Mrs. A. B. She was a patient of Dr Alexander Shiels, of Glasgow, who asked me to see her with him in consultation. Her symptoms were solely those of chronic gastric catarrh from what cause it was not possible to ascertain. The amount of mucus discharged from the stomach was at times so large that it clogged the tube used for gastric lavage. Nothing but the very simplest and most meagre diet could the stomach stand. As seen at this time she was in a wretched state of health, and although in a position to have all that means could supply, no permanent improvement had ever been attained by treatment.

We discussed the case very fully and I must own to a sense of reluctance at the time either to propose or accede to operation. Would the performance of a gastro-jejunostomy give the stomach rest sufficient to enable it to recover from its chronically inflamed condition? Dr. Shiels seemed settled in his own mind that it was the right thing to do; his opinion being based on the success which he had seen follow operative treatment of a similar condition. Strange, therefore, as it may appear to some, the physician and not the surgeon was the one who advised operation. I accordingly performed a gastro-jejunostomy. Improvement was not immediate, but at the end of about six months progress, which had been slow, became rapid: and, without going further into details, this lady at the end of eighteen months was almost in what one might term robust health. The chronic catarrh in this case was evidently the result of many years of irritation, dependent upon the detention of food in the stomach by the narrowed pylorus.

The symptom of dilatation is a very variable one, sometimes present, sometimes not. What is usually found is that so long as the stomach is systematically washed out and only fluids and easily-digested substances taken no dilatation takes place; but any liberty in diet or relaxation in treatment, dilatation becomes manifest.

A sense of weight in the epigastrium is often a striking symptom after food, and in some instances no relief was obtained until the contents of the stomach was either artificially or naturally removed. In one case the patient said her food usually took about six hours to digest.

There is nothing really pathognomonic about these symptoms, but the most suggestive I would consider the following:

1. The existence of obstinate gastric symptoms during young adult life, not to be accounted for by any of the usually recognized causes, functional or organic. Often the patients are in a fairly good social position, where neither excess nor deficiency in the necessities of life exist; and often, too, the sufferer is one only of a family otherwise healthy in all its branches.

2. The patients are mostly women under the normal standard both in stature and build. It is only somewhat natural to suppose that this is likely to be so, because an amount of development of the fold, which in a viscus of naturally large size might not be sufficient to produce obstruction, would certainly do so in one of less dimensions. My cases were all women of comparatively small build, and, on account of the usually smaller stature of the female as compared with the male, we may reasonably suppose that the former are more likely to suffer from any undue narrowing of the pyloric orifice than the latter.

3. Another feature of diagnostic significance is the great improvement it is always possible to effect by dieting, but the certainty with which any return to a normal state of living will call forth a renewal of the symptoms. This was most strikingly borne out in my cases.

Treatment.

As has just been stated, it is possible to greatly improve the patient by attention to all those means usually employed for the same symptoms arising from other causes. I think it must be that owing to the improvement it is thus possible to effect many men have been led into the erroneous belief that a cure has been attained where really nothing more than temporary relief has resulted. Dissatisfied after a time in not being permanently cured, the patient seeks advice elsewhere, and so leaves his or her original attendant in the erroneous position of believing he has effected a cure. Certain it is that some of my patients had seen as many as half-a-dozen separate medical men; and, as I personally know, some of these

gentlemen have been indignant at hearing the patient has been operated upon for symptoms which they considered perfectly curable by the ordinary medicinal measures.

Operation is, of course, the only means of cure. It is not absolutely necessary in all cases, as a patient may, by careful attention to diet, doubtlessly live for years, and eventually die as they did in some of Mayer's recorded cases of diseases quite unconnected with the stomach trouble. In nearly every case, however, it must be more or less an invalid existence.

Of the three operations which may be performed—pyloroplasty, pylorodiosis, and gastro-jejunostomy—I have little hesitation in saying that the last is the proper one to adopt. It was successfully employed in my 7 cases. Relief may be more or less immediate, but often it takes months to effect a cure. Where the stomach has been deranged for years careful treatment must be carried out for some time after the operation. So important and so frequently executed in this operation, that I should like just to add a few remarks with regard to it. What is frequently and quite properly asked is—"You may perform your operation quite successfully and relieve the symptons, but what about the new relationships established? Are they of themselves ever likely to cause trouble?" I say that it is quite a proper question to ask because, unless we can honestly feel that the artificial and unnatural connexions we are establishing can, of themselves, in no way interfere with the future welfare of our patients, we ought probably to limit our practice to cases of necessity and not employ it where the question is one merely of expediency. It would take far too much time to discuss the many points in connexion with the performance of this operation; but after trying many methods and variations in detail, all aimed at procuring the most perfect, immediate and remote ends, I regard the following as the best. It is based solely on the attempt to leave the parts after operation as much as possible in their normal anatomical relation.

An oblique incision is made through the skin commencing about 1 in. below the right costal margin and 1 in. to the right of the middle line, and extending for from 3 to 4 in. across the middle line downwards and outwards at a distance of about 1 in. from the left costal margin (see Fig. 2). By this incision the right rectus is divided for about

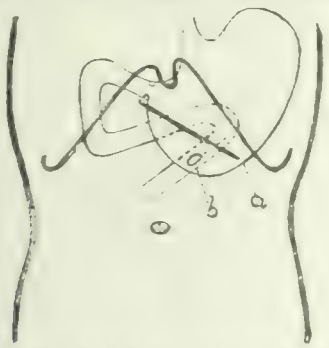


Fig. 2.—Position of the parts after the performance of posterior gastro-jejunostomy. *a*, Skin incision. *b*, Opening in transverse mesocolon for fistula, with union of gut above to under surface of stomach.

¾ in. and the left for 2 in. or 3 in. The pylorus is exposed and an easy examination of the stomach afforded. The division of the rectus muscle I consider of no importance. What, however, I do think necessary towards the attainment of a perfect cicatrix is the union of the anterior and posterior layers of the rectus sheath by separate lines of suture. I have not failed once in obtaining a perfectly sound and non-giving cicatrix by this method.

The posterior operation by simple suture is the one, with few exceptions, practised. After withdrawing and turning upwards the stomach and transverse colon, the mesocolon is teazed through and its edges secured by three or four stitches to the posterior wall of the stomach, which is made to present. The jejunum is picked up, closed to the duodeno-jejunal bend, applied to the stomach, and stitched to it for about 3 in., the direction being such that when the stomach is replaced it and the united bowel still occupy much the same relation as before union (Fig. 2). The opening of communication about 1½ in. long is made close to the great curvature, so that it comes to occupy the most dependent part of the viscus, and has also an inch or two of stitched surfaces above it. Thus it will be seen that no "angulation" of the gut is possible; there is no long loop of proximal bowel to become "waterlogged," and possibly cause trouble in the remote future; there is no need for an entero-enterostomy; and as the bile and pancreatic juices very soon mix with the gastric juice, there is little fear of the formation of peptic ulcers in the distal limb. The ejection of bile into the stomach never takes place, because the method of attachment adopted causes it and the pancreatic juice to be shot past the opening into the more readily accessible channel below. The method, practised now for more than a year, has been followed by an entire absence of all untoward symptoms, and I believe ensures against any complications in the future.

In conclusion, let me sum up my remarks by saying:

1. That there exists a considerable class of patients in young adult life who owe their chronic gastric trouble to a congenital narrowness of the pyloric orifice.

2. That this "narrowness" is due in many cases to an undue development of the pyloric valve lessening the calibre of the orifice to anything between the normal of 12 to 15 mm., and 2 or 3 mm.

3. That the proper treatment is gastro-jejunostomy performed with due regard to the normal disposition of the parts after operation.

REFERENCE.
1 *Virchow's Archiv*, Band cii, p. 413.

THE SUBSEQUENT HISTORY OF EIGHTEEN PATIENTS UPON WHOM GASTRIC OPERATIONS HAD BEEN PERFORMED.

By C. MANSELL MOULLIN, M.D., Oxon., F.R.C.S.,
Senior Surgeon and Lecturer on Surgery, London Hospital, Examiner in Surgery, University of Cambridge.

One of the most important points in connexion with the surgery of the stomach upon which definite information is lacking is the ultimate condition of cases in which it has been considered advisable to perform gastro-enterostomy or some similar operation. The immediate results are well known, and are excellent. What is wanted is the after-history—what happened later, after the patients returned to work and to their ordinary diet and mode of life; whether they were permanently relieved, or whether the improvement that immediately followed the operation may not have been only of a temporary character, due perhaps quite as much to the rest in bed, the quiet and good feeding, as to the operation itself. In the hope of obtaining some information upon this point, I asked Mr. Hugh Lett, the Surgical Registrar at the London Hospital, kindly to collect for me a few particulars with regard to all the cases upon which I had operated before the end of 1902, excluding cases of perforated ulcer (in which operation is compulsory, no matter what may be the ultimate result) and cases of carcinoma. The result, as usual in such inquiry, cannot be called satisfactory. Many of the patients could not be traced—a larger proportion, in fact, than is usual, because the majority of them were young women; but still I have been able to obtain a record of 18 altogether.

The questions asked were the same in all alike. Have you any pain after meals? If you have, is it severe? Are you often sick? Have you ever brought up blood since the operation? Is your general health better than it was?

The number of these cases is, of course, far too small to justify the formation of any general conclusions; but they illustrate a few points which appear to me to be worthy of attention. One of these is concerned with the haemorrhage from what are often called erosive ulcers of the stomach, but which for reasons I have already given elsewhere I cannot help thinking would be better described as recurrent. There is no difficulty in arresting the bleeding. The base of the ulcer may be ligatured or it may be excised (in one or two instances in which there was a considerable number of bleeding points simple exposure to the air seemed to be sufficient); and in cases in which the amount of blood lost is becoming dangerous, such an operation may be, and in some of these cases I believe has been, the means of saving the patient's life; but it must always be borne in mind that the operation deals merely with one of the consequences of the ulceration, not with the cause, and that it cannot in any way prevent other ulcers forming subsequently, or bleeding taking place from them if they do form. And this no less true of gastro-enterostomy; I have known recurrent ulceration follow this operation in just the same way, in spite of the fact that the artificial communication was acting in a perfectly satisfactory manner. In two of my cases (Nos. 2 and 13), in each of

No.	Name.	Sex and Age.	Date	Condition, etc.	Remarks.
1	A. H.	F., 42	Nov., 1899	Numerous erosive ulcers on posterior wall, ligatured. Haematemesis for six years. Recently very severe	Free from pain. Has been sick twice since discharge, and on each occasion brought up small amount of blood. General condition much better.
2	A. A.	F., 34	March, 1900	One erosive ulcer on posterior wall, near lesser curvature, ligatured. Haematemesis eight times in five days, very anaemic	No pain, bleeding, or sickness since operation. General state about same
3	J. C.	M., 42	May, 1900	Chronic ulcer 1 in. in diameter near cardiac end of lesser curve. Ligatured en masse. Haematemesis, pain, and vomiting five years; recently much more severe	No pain or haematemesis. Two attacks of vomiting since operation, each following exposure to wet and great cold. General health much better.
4	J. M.	M., 56	June, 1900	Tight annular stricture at pylorus, with dilated stomach. Pain, vomiting, and haematemesis six years before. Pyloroplasty	No pain or sickness since. General health "first-rate"
5	G. S.	M., 17	March, 1901	Tight annular stricture at pylorus. Pain and vomiting for four years. Very ill-developed, only weighs 5 st. 6 lb. Pyloroplasty	No pain or vomiting. Has more than doubled weight.
6	E. B.	M., 23	April, 1901	Pericholecystic adhesions around pylorus. Pyloroplasty. Pain and vomiting off and on for seven years. Haematemesis once recently	Still has occasional attacks of pain at night time; no relation to food. Not often sick. Never brings up food. No haematemesis. General condition good when not in pain.
7	G. B.	M., 14	June, 1901.	Pain and vomiting after food. Gastrotomy. No cause found	Condition much the same. Apparently atonic dyspepsia.
8	A. G.	M., 37	Sept., 1901.	Pain and vomiting beginning three years before. Four attacks of haematemesis, last two very severe. Haemoglobin 45 per cent. Gastrotomy. Nothing found	Has had no pain, vomiting, or haematemesis since. General condition better, but still anaemic. Has improved his business position considerably
9	H. A.	F., 20	April, 1902.	History of haematemesis. Persistent vomiting, one small erosion ligatured	Relieved for some months; vomiting returned and continued. General condition excellent. Red blood corpuscles 4,500,000. Hysteria?
10	A. M.	F., 21	April, 1902.	Pyloric obstruction due to swallowing corrosive acid. Gastro-enterostomy	Married since. In perfect health. Absolutely no digestive trouble.
11	E. A.	F., 25	May, 1902.	Very severe pain for last two years. Perigastric abscess opened. Blood and pus vomited	No trouble of any kind. Never felt better.
12	S. P.	F., 26	May, 1902.	Very severe pain for years. Haematemesis four months before, and also seven times in last five days. Chronic ulcer on lesser curvature exercised	No pain or sickness since. General health much better.
13	C. A.	F., 31	May, 1902.	Indigestion twelve years. Severe haematemesis many times in last few days. Seriously anaemic. One erosive ulcer found and ligatured	Occasional indigestion, but not severe. Never sick. Has never brought up any more blood. General health about the same
14	H. S.	F., 54	June, 1902	Indigestion all her life. Haematemesis once. Pain extreme. Old ulcer on anterior wall near lesser curvature. Anterior Gastro-jejunostomy	No pain or sickness since operation. General health very much better.
15	F. G.	F., 30	June, 1902	Haematemesis on many occasions in last three years. Severe pain after meals. Pylorus rather tight; no ulcer found. Mucous membrane deeply congested. Anterior gastro-jejunostomy	Haematemesis once since. Was in hospital at the end of 1902. Noted that there was nothing abnormal; she took food well, and there was no vomiting.
16	H. M.	F., 27	July, 1902	Very severe haematemesis two years ago and again recently. Collapsed. Chronic gastric ulcer on posterior surface ligatured en masse	No pain or vomiting since. General health very much better.
17	M. C.	F., 25	July, 1902	Haematemesis, vomiting and pain at intervals for last two years. Numerous erosive ulcers and also blackened patches found. Ulcers ligatured	Immediate recovery perfect, but since has suffered from attacks of haematemesis as frequently as before operation.
18	J. A. F.	M., 48	Sept., 1902	Epigastric pain and vomiting for 17 years. Many attacks of haematemesis. Very anaemic. Anterior gastro-jejunostomy. Chronic ulcer near pylorus	No pain. Never sick. General condition very much improved.

which only one of these erosive ulcers was found, no further trouble has followed; and as one of them is of nearly four years' duration, the patient may reasonably be considered to have been cured; but in several others, after an interval of apparently perfect recovery, the haematemesis occurred again. Whatever may be the exact pathological condition underlying this particular affection, it is most essential that patients who are suffering from it should be carefully distinguished from those in whom the ulceration is chronic and persistent. In the one case operation is only required when the bleeding is so profuse as to place life in danger; in the other haemorrhage is an indication that the ulcer is extending either in depth or breadth or both, and therefore requires a different method of treatment from that which it has hitherto been receiving. As a rule, the two can be distinguished from each other without any difficulty by the fact that a patient, who is suffering from recurrent ulceration, is perfectly well and free from pain in the intervals between the formation of these erosions; while, though not altogether unknown, an interval of perfect ease, lasting for any length of time, is certainly exceptional in those who are suffering from chronic ulceration.

Another point is connected with the presence of adhesions. If these are left, whether gastro-enterostomy is performed, or the ulcer is excised or ligatured, the patient will always be liable to suffer more or less from pain after taking food, owing to the stomach in its movements dragging upon the parietal peritoneum which is so abundantly supplied with sensory nerves. It seems reasonable to think that this would be less liable to occur after gastro-jejunostomy than after excision of the ulcer. The artificial communication has no sphincter, and consequently the stomach can empty itself with greater speed and against less resistance; but I am unable to form an opinion as to the relative merits of these two methods in this respect from the present series of cases, as unfortunately all the early ones of gastro-enterostomy, those in which there had been sufficient time to judge, failed to answer my letters and cannot be traced.

Simple division of gastric adhesions in the majority of instances is of little or no use. They nearly always form again. The only way in which it is possible to avoid recurrence of pain arising from this cause with anything like certainty is to excise that portion of the stomach wall to which these adhesions are attached, and bring the cut edges together carefully by means of sutures. The sero-muscular coat alone is concerned, and there is no need to touch the mucous membrane or lay the stomach cavity open; but it is evident that such a proceeding can only be carried out thoroughly so long as the area to which the adhesions are attached is limited; and therefore it is imperative, if the patient is really to obtain relief, that exploration should be undertaken before a condition that is incurable has been reached.

In three of my cases no cause could be found that was sufficient to account for the symptoms. One of these (No. 9), I think there can be no doubt from the subsequent history of the patient, must be classed among what are called, for want of a better term, hysterical cases. The patient was relieved for a time, but has been in hospital on several occasions since. She nearly always gives a history of haematemesis while out of the hospital. In the hospital there has never been any bleeding, but there have been pain and vomiting, and the latter is of a very peculiar character, very small quantities of food being brought up at intervals of a few minutes, without any apparent effort or nausea, just as with animals when they are ruminating. Meanwhile the patient keeps in excellent condition, with rather a high colour; and a blood count gives 4,500,000 red corpuscles to the millimetre.

Of the other two, one was in all probability an instance of atonic dyspepsia with some dilatation of the stomach, and would most likely have derived relief if gastro-enterostomy had been performed. The other (No. 8) is very perplexing. The patient was a man 39 years of age who had had four attacks of haematemesis with melaena in the last two years. The two last attacks, the second of which occurred about six months before admission, had been very severe. The stomach was opened by an incision parallel to the curvatures, but

nothing was found to account for the symptoms. He recovered rapidly from the operation, and since then (September, 1901) has been free from pain, is never sick, has never brought up any more blood, and though still anaemic (as he was before the operation) has been able to do his work and improve his position in his business as clerk of the works in a building firm. I fully expected in this case to find a chronic ulcer of the stomach, and there may have been one which I overlooked, or there may have been an ulcer in the duodenum just beyond the pylorus; but the result, whether there was or was not an ulcer, is equally difficult of explanation. The cessation of the symptoms after the operation (the pain for the six months previous, since the latest attack of haematemesis, had been very severe and continuous, though made worse by food) may have been simply a coincidence, but, if so, it must be admitted that it was a singularly happy one. The explanation which has been advanced to account for the undoubted fact that the haemorrhage from erosive ulcers not uncommonly ceases as soon as the stomach has been opened and the mucous membrane exposed to the air—namely, that the effect is due to the influence that such a proceeding must have upon the vasomotor nerves of the stomach—will hardly hold good here. The cessation of the pain cannot be accounted for in this way. With greater probability, it seems to me that improvement was due to the free division of the circular muscular fibres of the stomach near the pylorus which such an incision involves; for the opening made was free, sufficient to introduce a large vaginal speculum. This would ensure that that portion of the stomach at least was kept at rest for some considerable time, long enough, perhaps, to enable it to recover and regain the power of performing its functions in a normal manner.

FIVE CONSECUTIVE CASES OF PERFORATED GASTRIC ULCER TREATED BY EXCISION.

By SINCLAIR WHITE, M.Ch., F.R.C.S.,
Senior Surgeon, Sheffield Royal Infirmary; Lecturer on Surgery, University College, Sheffield.

Four of the five cases were young anaemic women, and the fifth was a delicate, tuberculous-looking man. All had suffered from symptoms of gastric ulcer for a year or upwards, and in each the evidences of perforation were unmistakeable. In each case the rupture occurred in the anterior wall of the stomach, and the opening was in the centre of a patch of thickened, inelastic, and friable stomach tissue. In three instances the walls of the stomach immediately surrounding the perforation were at least ½ in. in thickness. In all there was extensive fouling of the peritoneum, the stomach contents having in each case reached the pelvis. Although gas was found in the peritoneal space in every case, in three only was the normal hepatic percussion note absent.

Case I.—E. B., a woman, aged 24 years, operated on in the Sheffield Royal Infirmary on May 9th, 1902, ten hours after perforation had taken place. Appeared to progress favourably for three weeks, then began to have rigors, irregular pyrexia and sweating attacks. Died at the end of six weeks from multiple hepatic abscess secondary to a small collection of pus behind the stomach.

Case II.—A. H., a girl, aged 18 years, operated on in the Sheffield Royal Infirmary on December 12th, 1902, twenty eight hours after perforation. Made an excellent recovery.

Case III.—F. D., a girl, aged 19 years, operated on in the Sheffield Royal Infirmary on January 6th, 1903, twenty hours after perforation. Made an excellent recovery.

Case IV.—W. F., a man, aged 31 years, operated on in a surgical home on January 15th, 1903, thirteen hours after perforation. Appeared to do well for twelve days, then had repeated attacks of profuse haematemesis, from which he died on the fifteenth day. A few hours before death gastro-enterostomy was performed under cocaine anaesthesia.

Case V.—H. L., a woman, aged 29 years, operated on in the Sheffield Royal Infirmary on May 22nd, 1903, seven hours after perforation. Made a slow but satisfactory recovery.

Excision of the ulcer was practised in each of these cases. The resulting wound in the stomach was closed by two rows of continuous sutures, an inner of fine catgut through the mucous membrane only, and an outer of silk through the musculo-peritoneal coats. The line of suture was strengthened by stitching over it a strip of adjacent omentum. Vigorous and prolonged flushing with warm salt solution followed, beginning in the spaces between the liver and diaphragm, and working down towards the pelvis. The period occupied in flushing varied from ten minutes to half an hour, and the entire peritoneal surface was systematically gone over at least twice. Towards the end of the process the shoulders of the patient were raised so as to allow the fluid to gravitate into the pelvis. While the flushing was proceeding, an assistant, with the aid of pieces of gauze, detached flakes of lymph from the surfaces of the stomach and intestines, but in no case was anything like a complete removal of the lymph accomplished. The final flushing concerned the pelvis, and was kept up until all the stitches had been inserted. A glass drain tube was passed through a small suprapubic wound down into the pelvis, and retained for two or three days Fluid collecting in the pelvis was aspirated through it every six hours. Severe shock existed at the end of the operation in every case, and was combatted by hypodermic injections of strychnine, warmth to the skin, and rectal injections of hot water and brandy. The amount of strychnine exhibited varied with the gravity of the shock, but was always much in excess of the pharmacopoeial dose. Nothing whatever was permitted by mouth for the first four days. Every four hours half a pint of warm salt solution was slowly injected into the rectum, and half an hour later 4 oz. of a nutrient enema were administered.

The fact that two of the five cases died long after recovery from the immediate effects of the perforation and subsequent operation is disappointing, and is evidence of how formidable the sequelae to the condition may be.

In both cases the fatal result was the outcome of ulceration of the mucous membrane along the line of suture. In Case I quite 2 in. of the silk suture that had been used for joining the musculo-peritoneal coats was found hanging free in the stomach cavity.

Where the ulcer is easily accessible its excision, together with the surrounding indurated and thickened tissue, secures a far better closure of the perforation than merely bringing together the peritoneal surfaces, and with the use of the continuous suture takes up very little additional time.

Much discussion has taken place respecting the relative merits of flushing and mopping for cleansing the peritoneum in cases of perforated gastric ulcer, and experience has shown that success may follow either method. If the fouling is strictly limited to the immediate neighbourhood of the perforation mopping alone is sufficient; indeed, flushing in these cases might be injurious by disseminating the escaped stomach contents. In many cases, however, the contents of the stomach will be found to have spread over a large area of the peritoneum, and in these flushing, if not absolutely necessary, is at least expedient. Speaking generally, it may be said that flushing is required in cases where the perforation has taken place in a full stomach, and in those in which a long interval has elapsed between perforation and operation. On the other hand, mopping should suffice in cases operated on very soon after perforation, especially in those whose stomachs at the time of perforation were not distended. Many surgeons insist on the supreme importance of operating at the patient's home regardless of environment. They very properly contend that all movements of the patient after perforation has taken place tend to increase the area of peritoneal fouling. It would be foolish, however, to adopt this course in every case, as the houses of many of the poor are utterly unsuitable places for performing a laparotomy; and where this obtains it is better, I think, to remove the patient to a hospital, and to operate immediately on his arrival.

Various causes have contributed to the gratifying improvement in the recovery-rate after operation within recent years, but by far the most important of these has been the more widely-spread recognition that early diagnosis followed by immediate operation robs the catastrophe of most of its dangers to life.

A Cancer Hospital in Moscow.—A clinical hospital for cancer cases has recently been established in connexion with the University of Moscow. The buildings are said to have cost 400,000 roubles.

The Oldest American University. — Dr. Charles W. Dulles, a graduate of the University of Pennsylvania, claims to have established the fact that his Alma Mater is the oldest university in America. The University is not the oldest college, though it was established in 1740, but it was the first to take steps towards the enlargement of the curriculum by the addition of a separate department for graduate study, the school of medicine having been founded in 1765. This was the first actual realization of the university idea in the Colonies, but the idea of a university was in the minds of the founders as early as 1755, when the College of Philadelphia was given the power to grant "the usual university degree."

The Lettsomian Lectures
ON
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered on February 15th, 1904.

BY CHARLES BARRETT LOCKWOOD, F.R.C.S.ENG.,
Surgeon, St. Bartholomew's Hospital

LECTURE II.

DISINFECTION OF THE SKIN.

THE literature of skin disinfection has already reached large proportions. One author has published an excellent volume of two hundred and odd pages upon the subject.[1] So far as can be judged no one can yet claim that his method is perfect. Much depends upon the stringency of the test applied. It seems clear that the use of soap and mechanical means cannot disinfect the skin.[2] It merely diminishes the amount of infection.[3] This is an important point, because some surgeons seem to rely solely upon mechanical methods and soap and water for the disinfection of their hands. There is no room for doubt that when the mechanical scrubbing with brushes and pumice stone and abundant soap and water is followed by absolute alcohol or rectified spirit the chances of sterility are greatly increased. Next when, as in Fürbringer's method, these are followed by immersion in sublimate lotion, 1 in 500, a still further improvement ensues. However, both of these are forbidden to the consistent aseptician.

Fürbringer's method consists in:

1. Cleansing the nails
2. One minute, scrubbing with soap
3. One minute, alcohol
4. One minute, 1 in 500 sublimate lotion.

I find, personally, that sublimate makes the hands rough and inflamed. Alcohol is undoubtedly one of the most valuable aids to disinfecting the skin. After the work of Fürbringer, Ahlfeld, Schaefer, Leedham-Green,[4] and of many others, its most valuable qualities, when used as an adjunct, are fully established. Alcohol has the great virtue of overcoming the fatty matter which impermeates the skin. The alcohol may be used by itself, or in a solution with soap, or in conjunction with chemical disinfectants.

In order to simplify the process and render disinfection easier, I have for some years used a mixture of alcohol, water, and biniodide of mercury for disinfecting the skin: presently the results will be given. I have always been accustomed to test the disinfection of the hands by snipping off a scrap of skin down to the dermis and placing the scrap in broth. Several other methods can be used such as (1) scraping with bits of wood, bone, or toothpick; (2) rubbing upon sterilized material such as silk; (3) dabbling upon culture media. My own way seems quickest and easiest. A small quantity disinfectant clings to the skin, and this I hope in the future to be able to get neutralized.

I have tried to get this done with the help of Mr. Rose, and so far our attempts at neutralization have not revealed any serious error in the past.

We assume at present that skin which does not infect culture media will not infect wounds. But as asepsis is our aim we ought some day to learn how to disinfect the skin with absolute certainty. Sometimes the question is asked whether, when a scrap of the skin of the hand is sterile, the whole hand is sterile. Here we are face to face with a much debated point, the possibility of a perfect inhibition. Personally I can not conceive a perfect inhibition when bacteriological problems are concerned, and it is to be doubted whether any one will be so self sacrificing as to offer the whole of the skin of the whole of both of his hands for bacteriological examination. Fürbringer's is perhaps the most stringent test. He scrapes the backs and palms of the hands, the fingers, and about the nails with pieces of sterilized wood. These are then put into the culture media. I myself could not afford the time which this method demands. Thus absolute certainty being out of the question, we must content ourselves with relative certainty. The method of hand disinfection by the spirit and biniodide of mercury method has of late given a proportion of 3 septic tests in a total of 111.[5]

It is interesting to note that in each case it was the surgeon's own skin which was septic. Once it was some form of micrococcus, once staphylococcus pyogenes albus, once the exact nature of the growth was unknown. This marks an advance upon previous results. In 1898 the skin of the hands was septic 7 times in 70. In 1900 it was septic twice in 30.[6] So that there has been a continuous and marked improvement from 1 in 10 to 1 in 15, and then to 1 in 37. I attributed this improvement to the efficiency of the spirit and biniodide of mercury lotion, and also to the additional care and precision with which it is applied. This continuous improvement in results may also be advanced as evidence in favour of the method of testing. It is most difficult to get any human being to keep looking at the clock, but, nevertheless, the hands must be soaked in the lotion for not less than two minutes by the clock. Also, it is not at all easy to get the hands properly prepared for disinfection. Some are reluctant to trim their nails quite close. Hot soap and water and a soft scrubbing brush should be used for at least three minutes before the spirit and biniodide.

There seems to be some misconception abroad as to the composition of spirit lotion. For instance, my colleague, Dr. F. W. Andrewes, says:[7] "It is a common practice to use the perchloride or biniodide of mercury dissolved in spirit instead of in water, as, for example, in the sterilization of the skin, or of ligatures." But at his own hospital the lotion consists of biniodide of mercury in methylated spirit (1 part in 500, 75 per cent; and water 25 per cent.' The latter has to be added because, as we all know and have known for years, disinfectants are inert in solution in pure alcohol. Some of the methods of hand disinfection are so elaborate and take so long that they are impracticable for ordinary surgical work. If the short and simple spirit and biniodide method proves the best, after extended trials, surgical work will be simplified.

During the course of an operation the hands are frequently rinsed with biniodide of mercury lotion to free them from blood and atmospheric germs. The usual strength of the lotion is now 1 in 4,000. For operations about the face and eyes the strength is usually 1 in 10 000 for if it were stronger the eyes might suffer, and I am inclined to think that keloid is likelier to grow after strong lotions have been used. Doubtless in the near future an isosmotic antiseptic lotion will be found to take the place of biniodide. In addition, the hands of the surgeon and of his assistant are continually bathed in lotion whilst the sponges are being rinsed out. For no one is allowed to touch them except the surgeon or his assistant.

It is probable that these measures are efficacious because the skin of the hands was tested eight times at the end of the operation, and was sterile on each occasion. I am anxious to use sterilized salt solution instead of the dilute antiseptic solution, but I am doubtful whether the experiment is justifiable amidst the present surroundings and organization.

GLOVES.

Those who are distrustful of the disinfection of the hands advocate the use of cotton, leather, or indiarubber gloves. I suppose we may dismiss cotton and leather gloves from the question, of leather gloves I have no experience. Whilst assisting I have had experience of sterilized cotton gloves. It seems very difficult to see how they can be expected to protect the wound from contaminated hands; but thin rubber gloves come in a different category and I have given them a fair trial, and, to begin with, found, as might have been expected, that rubber gloves are easily sterilized with heat. They were tested on seven occasions and were always sterile. Novel enneals were used before this test. But, like Mr. Lynn Thomas[8] and others, I have found it practically impossible to complete an operation without tearing or puncturing the fingers of the gloves. This, of course, entirely vitiates the experiment, but in our case it did not matter much so far as any danger to the wound was concerned. Before the gloves were put on the hands were sterilized with the usual precautions, and on five occasions the skin was sterile when the gloves were taken off at the end of the operation in spite of numerous holes in the thin rubber. But, in addition to their vulnerability, the gloves seriously impair the sense of touch. Indeed this, to my mind, is one of the chief objections to their use. Probably we all place a varying degree of reliance upon our sense of touch, but I myself am accustomed to place great reliance upon the sense of touch, especially in the

performance of abdominal operations, such as those for the removal of the vermiform appendix or uterine appendages. These I could not do to my own satisfaction if the sense of touch were hampered with gloves. For radical cure of hernia, or removal of the breast, and such like, they can be worn without any real inconvenience, but for operations upon septic cases gloves ought to be worn, especially if other operations are impending. I have seen very severe cellulitis follow an operation when a few hours before the surgeon had had to operate upon a very septic case. He did not wear gloves but took every precaution to disinfect his hands. There were other circumstances in the case which suggested that the cellulitis might have been a coincidence, as before the operation the patient had had an occasional rise of temperature. Had the operator worn gloves at the septic operation he could, at all events, have claimed to have taken every possible precaution. If some one could invent gloves which (1) could be sterilized by heat, (2) which did not tear, and (3) which did not impair the sense of touch, the objections to their use would fall to the ground.

The Disinfection of the Patient's Skin.

During the operation a piece of the skin of the patient is snipped off and dropped into broth. The piece includes the whole depth of the skin, and in most regions has in it many hair follicles and also sudoriferous and sebaceous glands. These, together with the epidermis, as is now well known, harbour all sorts of bacteria, and in considerable numbers. Some of these bacteria have very peculiar characters and give rise to pigments and bodies with strange and penetrating odours. I ascertained some years ago that they had lethal effects on mice and rabbits,[11] and without any doubt some of them are the cause of the slighter forms of sepsis and suppuration, not always of the kind to make the patient ill, but almost certain to lead to the extrusion of buried sutures. Now, it is to be imagined that the skin bacteria must be most difficult to dislodge from their hiding places in the ducts of the sweat glands, in the sebaceous glands, and in the hair follicles. But their removal and destruction are rendered still more difficult by the presence of the cutaneous grease and oil. Any method of skin disinfection must aim at the removal and penetration of the cutaneous grease. We have attempted to accomplish this by mechanical efforts, aided by soap, turpentine, ether, and alcohol, and by using spirit and biniodide of mercury lotion. I wish to say at once that I am exceedingly dissatisfied with the result of our efforts. The skin was tested 55 times, and infected the broth on 14 occasions. But two of the infections were due to bacillus subtilis, and may have been accidental. In one of these tests the skin was from the abdomen, in the other from the pubes.

The degree of certainty with which the skin of the patient can be disinfected depends upon the region. I would put them in the following order, beginning with that which is most certain: (1) Limbs, (2) abdomen, (3) breast, (4) neck, (5) the back, (6) the groin and axilla, (7) scrotum, and (8) scalp.

The patient's skin is much more difficult to disinfect than the hands of the surgeon or of his assistants. Many of the regions upon which we have to operate are furnished with sebaceous and sweat glands both large and numerous. Moreover, the piece of skin which is cut off the patient and put into the broth is larger than that from the hand, and includes the whole depth of the skin. It affords, therefore, a more stringent test. In previous years the skin of the limbs has shown very high proportion of sterility. Recently we have only tested it twice, and found it sterile both times. The skin of the abdomen was tested twenty-one times, and was septic thrice; the skin of the breast six times, and was septic once; the skin of the groin twenty-two times, and was septic eight times; the skin of the neck and of the axilla were each sterile when tested once; and the skin of the pubes and of the scrotum were each septic when tested once.

Perhaps when more stringent tests are tried the proportion of sepsis may be greater, but the results of skin testing throughout all these years have been so uniform and consistent that I do not think the above order will need revision. Certainly wounds made in the extremities heal remarkably well, and better at a distance from the groin and axilla than near to those localities. The high proportion of sterile abdominal skin is also reassuring. Working with sterile skin and upon peritoneum which fraternizes with silk the abdominal surgeon ought to get good results.

Now, taking these results as a whole, they show that the methods of skin disinfection are still far from perfect. Probably, as much depends upon the application of the methods as upon the methods themselves. This is clearly shown by the records of the different house-surgeons by whom the skin was prepared. One gentleman had five septic out of eight; another five septic out of fourteen; whilst another had only one septic in ten.

In hospital practice, the skin of the patient is usually prepared the night before the operation. This is now mainly done for convenience, and the spirit and biniodide of mercury methods probably give the same results when efficiently applied immediately before the operation. This is a great advantage, especially when children and nervous women are concerned. We tested the patient's skin after it had been prepared on the table on three occasions and on each it was sterile. The skin was taken twice from the groin and once from the abdomen. It seems reasonable to suppose that if one can disinfect the skin of the hands one hundred and eight times out of one hundred and eleven, the same methods ought to give good results with the skin of other regions. Outside the hospital I always prepare the skin myself after the patient has been anaesthetised and, judged from a clinical point of view, the results are better than in hospital practice.

Silk.

On the whole there is no better material than twisted silk for buried sutures and ligatures. Twisted silk is very tough and does not break at the knot. Formerly it was used too thick, but most of us have now learned that oo is sufficient for ordinary ligatures, and that No. 3 or 4 is seldom necessary.

The boldness with which a surgeon buries silk is a very good indication of his proficiency in asepsis. Those who are distrustful fall back on catgut and kangaroo tendon, both of which are most difficult to sterilize and do not hold long enough for the security of some wounds. For instance, when laparotomy has to be done upon a very stout person the wound is nearly always extensive. Owing to the thick layer of subcutaneous fat it is almost impossible to close the abdomen with a single row of sutures, and absorbent ones might disappear prematurely. In such a case buried silk is an invaluable aid, and is, in my experience, tolerated exceedingly well by the tissues of the very stout. And here I would interject that the very stout do not always get such prompt and satisfactory surgical aid as the spare. Although healthy stout patients bear operations well, and recover quickly, some surgeons seem rather afraid of operating upon them. Provided that diabetes is not present the stoutness adds to the difficulties, but not to the immediate dangers. But even the difficulties disappear when the incision is a large one. A large incision is made without hesitation when it can be securely closed again with rows of buried silk. Fine silk, too, is the best material I know for peritoneal sutures. Indeed, the peritoneum tolerates silk in a remarkable way. The behaviour of the different tissues to suture materials, such as silk, is almost an unwritten page in surgical literature. Judged from the clinical standpoint, I should say that the peritoneum tolerates silk sutures better than any other tisue; that tendon, aponeurosis, ligament, and the fibrous tissues come next in tolerance, but with nerve as good, if not better; whilst muscle is most intolerant.

The tolerance of the peritoneum for silk is shown by the behaviour of the omentum. For in 25 consecutive cases of inguinal and femoral epiplocele[12] the omentum was ligatured with from one to nine silk ligatures. None of them had the slightest trouble from the presence of the silk, and I cannot recall any instance, out of a very large number, in which there has ever been the slightest trouble. In the earlier days of antiseptic surgery the possibility of sepsis about omental ligatures had to be taken into consideration.[13] Minute precautions are necessary in both the preparation and the application of the silk. To begin with, it is to be wished that manufacturers would wind their silk upon plain, uncoloured bobbins. They are addicted to the use of black bobbins, which impart their colour to the silk after a few hours' soaking in lotion.

The processes of manufacture tend to render the silk sterile, but, before use, the reel is boiled in water for half an hour. After this it is either used forthwith or preserved in 2.5 per cent. carbolic acid lotion. Now, I have noticed that this carbolic-acid silk has a very irritating effect upon the skin. When it is used for skin sutures, each needle hole is surrounded by a ring of inflammation, and it is to be supposed that, when used for buried sutures, it has the same effect upon deeper structures. This effect is explained by the experiments of von Zeignek,[14] who discovered that when

silk was kept in sublimate solution it attracted to itself nearly all the chemical, so that at last the lotion contained nothing but a faint trace of mercury. Rubber drainage tube and catgut had similar effects upon sublimate solution. But I have found that after immersion in carbolic acid lotion the sterile silk must be boiled in water for not less than fifteen minutes, otherwise it still inflames the skin. Generally it is easy to have the silk boiled just before use, and I carry about with me for this purpose a small metal vessel and spirit lamp.

My own attempts to bury silk in the abdominal wall are not without instruction. The last time that I gave the results[15] ten appendectomy wounds had been closed with silk, and three of these had suppurated with extrusion of some if not all of the buried sutures. Rather disconcerted by 30 per cent. of failure, I ceased for a time to use buried silk. But to my mind there is something thoroughly unsatisfactory in the closure of the oblique appendectomy wound with a single row of silkworm-gut sutures. Inasmuch as the muscles are all split in the direction of their fibres a single row cannot bring them properly together. The only accurate way is by a row of sutures in the peritoneum, another in the internal oblique and transversalis, another in the external oblique, and another in the skin.

A great deal depends upon the way in which the silk is tied. I can remember being taught to tie sutures with enough tightness to bring the cut together without strangulating the tissues. This was in the early days of antisepsis. Now we oftentimes see sutures pulled very tight, without harm of any kind. Theoretically one would suppose that the tightness of the ligature could not matter in an aseptic wound. But when we consider the atmosphere of rooms and operating theatres and the ever-present risk of skin infection, it is difficult to believe that no bacteria enter; and, if this be conceded, one cannot imagine that all that enter are killed by the antiseptics. So that the tightly-tied suture and the tissues which it strangulates are a suitable soil for the germs to grow in. But this is not all. As I have already said, the different tissues behave differently to silk sutures. However tightly a sterile silk suture is tied in the peritoneum, it will be tolerated; but this is not the case with muscular tissues. I am quite sure that my ill-results in my early cases of buried silk suture after appendectomy were mainly attributable to the tightness with which I pulled the sutures that held together the muscular fibres of the internal oblique and transversalis. It is probable that these tight sutures not only strangulated and killed some of the muscle, but were also constantly pulled upon by the contracting fibres.

Now in the operation of appendectomy, by selecting the cases and by rejecting those in which pus was seen or in which septic appendix contents came in contact with the wound, 52 consecutive cases healed by first intention. But one of these, which was tuberculous, afterwards had suppuration and parted with some sutures; and another subsequently parted with some sutures weeks after a small hæmatoma had subsided. In this case the wound was, as I suspected at the time, probably infected by appendicular contents. Each of these 52 wounds was closed with four sets of silk sutures: in (1) the peritoneum, 2) the internal oblique and transversalis, (3) the aponeurosis of the external oblique, (4) the skin. The skin suture was continuous, and sometimes was that in the peritoneum; the rest were interrupted.

A great deal of silk is buried in the radical cure of hernia. In fact, the repair of the abdominal wall in the radical cure of hernia is guided by the same principle as in other abdominal wounds—namely the closure of the wound in layers. That is the peritoneal sac is first tied, then the arching fibres of the internal oblique and transversalis are fastened to Poupart's ligament, then the aponeurosis of the external oblique is sewn together; and lastly the skin. Out of 89 cases of inguinal hernia, inguinal varicocele or similar procedure, and of femoral hernia, 84 healed by first intention and 5 had suppuration. In 4 cases the suppuration was of the most mild type, and only led to the extrusion of one or two pieces of silk. One (for case see Lecture III) the suppuration extended widely, but sadly enough none of the silk sutures were ever seen in the pus. I propose hereafter to refer to these cases again when the question of environment is discussed.

Now it will be conceded that about 5 per cent of mild suppuration is not very high, but it ought to be less. The septicity of the silk, of the hands, of the skin, of the sponges, and the germ-laden atmosphere are more than enough to account for it. It is quite clear to my mind in what direction improvement can be looked for.

In my own very limited experience silk ligatures and buried silk sutures are well tolerated by the thyroid body. In 9 cases the cavity left by the enucleation of an adeno-cystoma was closed with from three to six buried silk sutures, and all healed by first intention. Another was closed with catgut and healed in the same way, as did also 2 cases of excision of parenchymatous goître in which a very large number of silk ligatures were applied. The tissues of the mammary glands likewise tolerate buried sutures of fine silk, for I habitually use them for the obliteration of the cavity left after the removal of cysts and adenomata, and have never seen them reappear.

The tests of the silk can hardly be said to be vitiated by the presence of chemicals. The silk is boiled in water for at least half an hour and then a bit is cut off and put into nutrient broth. At times the silk may have been immersed for a few minutes in carbolic lotion 1 part in 60. On a previous occasion the silk was sterile eighteen times before and ten times after use. I have now to report that it was sterile forty-four times out of fifty. Three out of the six septic pieces of silk had been prepared by the same house-surgeon. Some of the tests I know not exactly how many were made at the end of the operation. Once the infection was due to moulds and cocci, and probably came from the air. In the others some variety of white staphylococcus grew in subcultures, some of these cocci without doubt came from the skin of the surgeons or of the patient. I am not here to throw a gloss over our results and therefore confess that these are extremely bad.

CATGUT AND SILKWORM GUT.

In spite of the efforts of numerous investigators and inventors catgut still remains an object of suspicion. This is to be deplored, because it is an admirable substance for a variety of surgical purposes. I invariably use catgut for septic wounds. To my mind it is invaluable for operations about the rectum and perineum. Likewise it is best to use catgut when there is reason to suppose that the wound is tuberculous. When tuberculous pus or caseous material escapes into the wound silk ligatures are apt to become infected and keep open the wound until withdrawn or extruded. In operations for the removal of growths from the urinary bladder catgut can be safely applied to bleeding vessels and for the closure of wounds in the mucous coat. I habitually use it in cases of appendectomy when pus is met with or the wound is obviously septic. For certain wounds in infants and children—such as circumcision—it makes excellent material for ligatures and sutures. The removal of cutaneous sutures from a nervous frightened child is a troublesome business.

Speaking generally it is advisable to use catgut for the control of haemorrhage in all septic wounds in preference to materials which do not speedily soften and disappear. Who has not seen a sinus persist for months because it had a septic silk ligature in its depths? A scrap of silk has not infrequently formed the nucleus of a vesical calculus. One would hardly think it necessary to lay any stress upon the propriety of using catgut for septic wounds and silk for aseptic if one did not occasionally see the reverse put into practice.

But there are probably other reasons why catgut is looked at askance. Although some specimens may contain no infective organisms, they may contain ptomaines which set up a local red suppuration. Besides, catgut is not particularly good material to work with. It may have irregularities upon it which render it difficult to thread through the eyes of small needles; next, it is sometimes rather brittle; and, lastly, when tied upon a bleeding point is apt to slip off. This last difficulty can be overcome by the usual simple device of encircling the bleeding vessel with a stitch, or by transfixing the pedicle if there be one, the others can probably be overcome in the process of preparation. Mr Scott kindly made xylol catgut for me to use. Our tests showed that it did not infect culture media, but it was decidedly brittle, and the strong odour of the xylol was most unpleasant.

We have a simple method of preparing raw catgut. First, it is well scrubbed with soap and water; next, it is soaked for forty-eight hours in methylated ether; and, lastly, it is put into a solution of bichloride of mercury in water 1 part in 2000. It may remain for months in this solution without any apparent alteration, but it is not used until it has soaked for seventy-two hours. The methylated ether removes quite a quantity of oil and fat from the catgut. Pieces of the cat-

gut were put into broth on fourteen occasions, and did not infect. Obviously this catgut was full of a potent antiseptic when it was placed in the broth; but are we to assume that catgut which does not infect the broth does not infect the wound? It is possible that spores or bacteria do actually pass from the catgut into the broth, but are unable to grow in the presence of the minute trace of biniodide which the catgut has given up to the broth. But, if this be so, the same process must go on in wounds with possibly this difference, that the antiseptic which escapes from the catgut does not stop in its vicinity but passes away into the lymph spaces and vessels. All this is quite speculative, but, judged from the clinical standpoint, this biniodide catgut is excellent and reliable material for ligatures and for some kinds of sutures. I should doubt whether ordinary raw catgut can be relied upon to hold much longer than five days; at all events, that is about the time when skin sutures begin to loosen, therefore, it has to be used with circumspection in places where the strain of sudden and violent muscular contraction has to be met. I sometimes insert catgut sutures after laparotomies in which pus is encountered, but care is taken to put in reinforcing sutures of silkworm gut.

Mr. Moullin has recently published the results of a brilliant series of operations upon the stomach. His remarkably low mortality would have been lower had not the xylol catgut failed to hold one of the abdominal incisions.[16] I also used xylol catgut for a case of appendectomy which was done during the acute stage. The appendix and the omentum which enveloped it were acutely inflamed and septic. There was slight suppuration of the wound. This case is omitted from the St. Bartholomew's statistics because it was known to be septic at the operation, and because it was being used as a test for xylol catgut.

The more frequent use of buried silk sutures has led to the partial abandonment of silkworm gut. This smooth, supple, strong material has very great advantages for abdominal wounds which have to be brought together with a single row of removable sutures. I have occasionally seen silkworm gut used for buried sutures. For this purpose it has certain disadvantages; owing to its thinness it probably cuts through the tissues in its grasp; next, the ends of the suture stick out, and being rather bristly can be felt by the patient who complains that they prick; and lastly, silkworm gut is not very easy material to sterilize, in spite of the fact that it bears boiling well. On more than one occasion I have been called upon to remove buried fishing-gut sutures because they were painful. Some time ago[17] silkworm gut which had been boiled for over twenty minutes was sterile thirty-five times out of thirty-seven. This is rather a high proportion of sepsis for a material which bears boiling so well. Latterly nineteen pieces which had been boiled for not less than half an hour were all sterile. It is obviously very important to recognize that silkworm gut is difficult to sterilize, and ought to be boiled for at least half an hour.

Silver Wire.

Allured by the account given by Dr. Jos. C. Bloodgood[18] of the use of silver wire and silver foil in the radical cure of hernia, I tried those substances in 15 cases. Metallic substances had already been tried by others and found wanting, but they had not been tried in quite the same way. The following is Dr. Bloodgood's succinct statement.[19]

> Clinically, the results in the healing of the wounds have been much better since the introduction of silver wire and silver foil. Before the introduction of silver wire 112 cases of hernia had been closed with silk; in 28 of these cases (25 per cent.) there was more or less suppuration. Since silver wire was first used (June 2nd, 1894, Case LXXIV. Group 1) there have been 330 operations, with 14 suppurations (4.2 per cent.).
>
> Since the wearing of rubber gloves in hernia operations by both operator and assistants, in February, 1897, over two years there have been 226 cases of hernia including recent cases, with only 4 suppurations (1.8 per cent.).

Clearly methods which gave these results were worth a trial.

I myself could hardly look for such a striking alteration because, although working with silk, I had had about 4 per cent. of suppuration.[20] The 15 cases which I did with silver wire and silver foil were in no sense considered a test of any particular kind of operation, but only of the materials. Thin rubber gloves were worn throughout the operations by both surgeon and assistant. The inguinal canal was opened, and the neck of the sac secured with a piece of twisted wire; then the back of the inguinal canal was restored by fastening the arciform fibres of the internal oblique and transversalis to the inner edge of Poupart's ligament, after the manner of Bassini; and, next, the aponeurosis of the external oblique was sewn together again, so as to close the canal, leaving the external abdominal ring the right size. By this time about nine pieces of silver wire had been buried. The skin was closed by a silver suture, which began at one end and then ran subcutaneously from one side of the wound to the other. This suture gave a great deal of trouble. If the two ends were left exposed, we found the pain was considerable when it had to be pulled out. Then we buried the wire altogether, to see whether or not the tissues would retain it. The silver leaf or foil is the kind which is used for gilding things like picture frames. It is put into a flat metal box and sterilized with dry heat until the thin paper between the leaves is slightly charred. We ceased the use of silver wire after fifteen cases of inguinal hernia had been done with it, because it proved to be troublesome and inconvenient. Whatever pains we took to cut the ends of the wire short, and turn them down, nevertheless they altered their position and hurt the patient.

The first case was that of a youth who had an inguinal hernia of the right side, complicated with retention of the testis in the inguinal canal. Two pairs of rubber gloves were spoilt over the operation by the wire and needles piercing the fingers. This was a real aseptic operation, for our tests showed that every thing brought in contact with the wound was sterile, and likewise the wound itself when dressed on the ninth day. Close upon a year afterwards the youth returned with a small superficial abscess, and the house-surgeon opened it, and pulled out the skin suture. In four others the wire is known to have caused trouble, and had to be removed.

The results as regards immediate union were fair, but one youth had slight suppuration, which was caused by necrosis of the skin edge. The suppuration, however, was slight, for my note says that the wound was healed on the fourteenth day.

The trouble taken to make this essay with silver was not thrown away. I was much impressed with the character of the wounds, which were singularly devoid of any trace of inflammation, and their course was with difficulty traced. It seemed clear that this was attributable to the layer of silver foil. According to Bloodgood the silver foil has germicidal properties, although not to the same degree as copper or brass. But however this may be it seemed an ideal substance for the exclusion of air, and for protecting the wound from the layers of dry antiseptic gauze which I was then in the habit of using. Hence I have continued to use the silver foil in conjunction with silk and have been most gratified with the dryness of the wounds and the entire absence of any trace of redness or of oedema.

The Sponge Question.

Ought we to continue to use sponges? Many have already answered this question in the negative, and resort to sterilized swabs of cotton wool. But swabs are not very satisfactory for cleansing the wound of blood. Besides one hears of cases in which they have been left in the abdomen. Clearly there is more danger of losing one swab out of many, than one sponge out of three or four. No one seems to dispute the superiority of marine sponges in all respects save that of asepticity. This is a fundamental objection, and if marine sponges cannot be sterilized they must be discarded.

I have hitherto thought that because our sponges did not seem to infect broth that therefore they could be relied upon. But here again what Lord Bacon would have called the "idol of the chemical" has to be reckoned with. It is probable that in each test enough chemical is conveyed into the broth to render it antiseptic; but when we treated sponge with sulphide of ammonium we still saw nothing grow. I am by no means convinced that sponges prepared by the sulphurous acid method[21] are infective.

Our last series of fifty sponges treated in this way were all sterile with the exception of one which grew some moulds and bacilli, supposed to have originated from the atmosphere. A sponge tested at the end of an operation was infected with skin bacteria. These results are the same as those which have gone before. We greatly need a thorough investigation of disinfected sponges by the most rigorous and recent bacteriological methods. The sponges which we use are either new ones recently prepared or sponges which have been used for aseptic cases. A sponge which has touched anything in-

fective is at once destroyed. Attempts have been made to obtain artificial sponges which could be sterilized by heat. But those which have been tried have been hard and harsh and deficient in absorptive properties.

NOTES AND REFERENCES

[1] Carl S. Haegler, Basel, 1902. *Handbuch der Hygiene und Gewerbekrankheiten*, Leipzig, 1902, gives a complete bibliography up to date. See Haeger, p. 27. Also a valuable essay by Krönig and Blumberg, *Beiträge zur Hygiene der Haut*, Leipzig, 1900. Also Poten, *Die Desinfektion der Haut*, Berlin, 1897. [2] Sarwey and Paul, *Arch. f. klin. Chir.*, 1902, p. 436 etc. [3] This excellent paper is in the BRITISH MEDICAL JOURNAL, October 17th, 1903, p. 1003. See also LANCET (1), *Medical and Weekly*, July 29th, 1899. Abst. EPITOME of BRITISH MEDICAL JOURNAL, October 28th, 1899, par. 2[illegible]. [4] See SAWEY, p. 475. [5] The house surgeons were Messrs. Jennings, Parker, Scott, Farncombe, Rose, and Wenham. I am much indebted to these gentlemen for their help. [6] See reports in BRITISH MEDICAL JOURNAL, "Lessons in Dressing and Sterilization," p. 18. [7] "An Address on Aseptic Surgery," 2nd ed., p. 177. [8] J. Lynn Thomas, On the Value of Gloves in Operative Work, BRITISH MEDICAL JOURNAL, January 23rd, 1897, p. 149. [9] BRITISH MEDICAL JOURNAL, May 27th, 1899, p. 1342. [10] From March, 1900, to December, 1903. [11] Leçons Cliniques de Clinique Chirurgicale, *Clin. Rodet-Lallemand-Hartmann*, Paris, 1897. [12] *Med. Rec.*, October 24th, 1903. Abst., see EPITOME of BRITISH MEDICAL JOURNAL, December 26th, 1903, par. 1[illegible]. [13] An Address on the Origin and Growth of Aseptic Operations and some of the Causes of Failure, BRITISH MEDICAL JOURNAL, February 24th, 1900, p. 429. [14] *Lancet*, January 9th, 1904, Case V., p. 96. [15] BRITISH MEDICAL JOURNAL, September 26th, 1903, p. 802. [16] *Johns Hopkins Hospital Reports*, vol. viii., Nos. 5-9, Baltimore, 1900. [17] LANCET, p. 225. [18] *The Rational Care of Hernia*, Hodder & Stoughton, 1903. [19] Lancet, p. 1[illegible], 1903. [20] "New Sponges are to be shaken and beaten to get rid of sand, [illegible] taken in solution of hydrochloric acid, and water to remove shell and coral (1 drachm of strong hydrochloric acid to 1 pint of water), (3) washed out in alkaline water, and subsequently in sterile warm water (1 drachm of washing soda to 1 pint of water; 24 twelve hours in cold solution of sulphurous acid (1 in 5), which is washed out with sterile water.

THE TREATMENT OF APPENDIX-ABSCESS IN THE RECTO-VESICAL POUCH.

By EDMUND OWEN, F.R.C.S.,

Consulting Surgeon, St. Mary's Hospital and Hospital for Sick Children, Great Ormond Street, London.

In the autumn of last year some interesting and valuable lectures were published upon inflammatory disease of the appendix, in the course of which special reference was made to the treatment of those cases which were complicated with intra-pelvic suppuration.

It was affirmed in one of the lectures that it was always better to drain a localized pelvic abscess from the rectum or vagina. That by either of these methods the patients were well in a fortnight, and never in the hospital more than three weeks; and, moreover, that they thus ran no risk of ventral hernia. But that if, on the other hand, the abscess were drained by a suprapubic incision the wound took six weeks at least to heal, and often much longer.

The object of this paper is to call into question the propriety of this teaching, and to affirm that the safest way of dealing with an intrapelvic appendicular abscess is by abdominal section. I will briefly cite an illustrative case which was lately under my care:

A gentleman, aged 44 years, was sent to me on August 17th, 1903, with a history of intermittent trouble with defaecation and of a feeling of fullness and weight about the neck of the bladder. His doctor, who is a most competent practitioner, wrote that last May the patient had been treated by some one else he did not say where, or by what for obscure abdominal pains which were centred in the hypogastric region. At that time he said, no rectal examination had been made, but when the practitioner had introduced a finger into the rectum he had found a tender swelling, not like an enormously enlarged prostate gland. The patient told me that he had constant pain in micturition and defaecation, and that occasionally there was a "discharge" from the urethra. He denied all possibility of venereal infection. For several years he had had chronic abdominal pains, and he had been dyspeptic to such an extent that he was afraid to eat meat. Three months previously he had had a severe pain in the hypogastric region, for which he was kept in bed. He had a consultation who was attending him that he thought he might have a[illegible] so great was his distress. But the doctor decided that there was neither swelling nor tenderness in the right iliac fossa, and ascribed the attack to the after effects of influenza. He applied [illegible] over the hypogastric region. In due course the acute [illegible] passed off, and the patient was able to resume work. But he was very nervous and depressed, and was steadily losing weight. He also had the feeling that he had a constant ball near the rectum, and had been unable to obtain a proper rectal examination.

The finger introduced into the bowel at once came upon a hard, tender swelling at the fundus of the bladder. It was about the size of a small hen's egg. It was not [illegible] but it was close to the prostate gland, and so intimately attached to it that there was little doubt that it had recently been likened to an enlarged prostate. No malignant glandular invasion was anywhere discoverable, but I was afraid lest the tumour might prove to be malignant. In the course of a consultation a surgeon hazarded the speculation that the tumour might be hydatid, but we agreed that it was impossible to be sure of its nature without operation, and that the case must certainly needed operation.

I therefore opened the abdomen in the middle line, and, working cautiously amongst coils of closely adherent intestine, found at the very bottom of the recto-vesical pouch a tightly filled abscess, the walls of which were composed of the rectum behind, the prostate below and the bladder in front, whilst a kinked piece of the colon formed its roof. To the right side of the abscess, and firmly glued to the base of the bladder, was the end of the appendix, inflamed and ulcerated. Having removed the appendix, and having thoroughly wiped out the abscess cavity with dry swabs of absorbent wool, I passed a very large drainage tube down into the recto-vesical pouch and brought the other end out a little below the umbilicus. Though the peritoneum showed itself prone against infection by the bacillus coli, the surface wound became infected about a fortnight after the operation, and so severe was the attack of cellulitis caused thereby that some large branches of artery in the epigastric region burst out bleeding on two occasions, and the patient was near dying from secondary haemorrhage. As it is, however, he is now in the North of Africa completing his convalescence.

He was fully apprised of the fact that we had been throughout in uncertainty as to the diagnosis, and was entirely in agreement with us that he had better be operated on. After the operation, when we told him that the outlook was quite cheerful as the tumour had proved to be an abscess in connexion with a diseased appendix, which we had also removed, he said, "Ah, when I was so bad I told the doctor that I believed I had appendicitis"! But, inasmuch at the present time everybody—lay and professional—talks familiarly about "appendicitis," I am afraid that I cannot award this patient full credit for the correctness of his diagnosis. Nor would I blame his doctor who apparently had declined to accept it, for, so far as I can ascertain, the pain and tenderness had never been in the right iliac fossa, but always in the pelvic and hypogastric region. My explanation of the case is that, some indefinite time ago, he had probably had a milk attack of inflammation, which fixed the tip of a long and wandering appendix in the depths of the pelvis, and that a few months ago there was recrudescence of the inflammation with severe hypogastric pains, and with the formation of the abscess. Had he been operated on just after his first attack (whenever that was), he would, I feel sure, have been spared a large amount of suffering, and would have avoided the very serious risks which were inseparable from the more serious operation.

In the case of suppuration in connexion with an inflamed appendix there is no telling in what direction the exigencies of the operation may not lead the surgeon. He may explore the iliac fossa and be disappointed at finding that it contains neither appendix nor caecum and it may take him some time to discover any part of the large intestine. Eventually, maybe, he comes across a piece of large intestine which he takes to be the right colon, and, guided by one of its muscular bands, he looks onwards for the appendix, which he may discover in due course but after much delay. Sometimes he finds the appendix as in this case—in the depths of the pelvis. Not infrequently he has to continue the abdominal wound up to the costal region, and may then discover it hidden away behind the liver with which it had formed an illicit connexion. There is no organ in the body which is so regardless of anatomical proprieties as the appendix. Man ought to be for ever grateful that it is not one of a pair!

There are two grave objections to opening an appendicular abscess through the vagina or rectum. The first is that the operator cannot tell exactly what he is doing. He is operating in the dark, as it were, and for aught he knows the instrument which he is using in his attempt to reach the pus may be traversing a piece of small intestine which has been emptied by pressure, softened by inflammation, and glued by adhesions in a faulty position. The second objection is that his operation may be followed by a faecal fistula which absolutely refuses to close. It would be a real calamity if by chance a wounded piece of small intestine persisted in draining its contents off into the rectum or vagina, or if, the large intestine being implicated, faecal evacuations continued to take place through the vagina. Of course there is a risk of faecal fistula following a straightforward suprapubic operation of a pelvic abscess. But in this case the surgeon would probably see exactly what was amiss when he had the abdomen open and the piece of bowel between his fingers, and he could deal with the condition then or later on. Supposing that he thought it advisable to defer attempting to close the intestinal perforation, he could at least bring it up to the abdominal wound and fix it in a position where it would at any time be readily accessible.

Another strong argument in favour of the abdominal route

is that, by adopting it, the surgeon may be able not only to clear out the abscess, but to remove the diseased appendix. It would by no means follow that because an abscess had been evacuated by a blind, vaginal puncture there would be no further suppuration; and it would be quite easy to believe in the probability of the existence of oft-recurring suppuration in connexion with the continued presence of the diseased appendix; and no operator, I should imagine, would propose resection of the appendix by the vaginal route. Then if, as often happens, the chief purulent focus is associated with secondary abscesses amongst the adherent coils of intestines they can all be thoroughly dealt with by abdominal section, whilst a rectal or vaginal operation would leave them untouched. The question of the length of stay in hospital as an argument in favour of the vaginal or rectal operation is not worthy of consideration by the side of the great questions of thoroughness and safety. Indeed, it appears to me that the recommendation to treat an appendicular intrapelvic abscess by the rectal or vaginal route is as unsound as it would be to advise that a pyosalpinx should be dealt with in that manner.

Having thus made a very definite recommendation in connexion with the treatment of appendicular intrapelvic abscess, I now venture to proceed to draw a moral in connexion with the subject of inflamed appendix, which certainly is not foreign to the subject of this paper. It is this: that if an individual has had one unmistakable attack of appendicular inflammation the appendix had better be resected as soon as the inflammation has quieted down. This recommendation comes under the head of the prophylactic treatment of intrapelvic abscess. If the appendix had not been in the pelvis there would have been no abscess there. The appendix was not there originally. It was probably dragged there by the adhesions which formed about it at the time of its first inflammatory attack, and, if it had been resected as soon as that attack had passed off, there would have been no intrapelvic abscess, and the man would have been saved an enormous amount of risk and worry.

I am quite prepared to find that a good many surgeons are ready to maintain that it is rather precipitate to operate after a first attack, which may have been only a transient catarrhal affair. If one could but look into the abdomen and ascertain the exact state of the appendix, it would be an easy matter to say that one should not advise operation after a first attack. This is, of course, equally desirable and impossible; without making an opening into the abdomen, it is absolutely impossible to know in what condition the attack of inflammation has left the appendix. It may have left it none the worse, all pain, tenderness, and swelling having passed entirely away, in which case its removal would, of course, be superfluous. But, in my experience, this happy state of things is not of frequent occurrence, one attack being generally the precursor of other attacks.

One definite result of the inflammation may be that when the attack passes off it leaves the appendix permanently glued to adjacent or neighbouring viscera—the caecum, colon, bladder, or ovary. This may, by chance, give rise to no inconvenience whatever, but if the tip of the appendix happen to be fixed whilst the rest of it up to the base is free, it is apt at any moment to occasion an acute intestinal strangulation. The presence of an appendix which is fixed only at the extremities is a most dangerous object in the abdomen, and it needs but a slight attack of inflammation to cause the tip of it to acquire firm adhesions. If the appendix contracts adhesions in its entire length this element of danger does not arise. Constantly, when operating in the abdomen for conditions other than those which are due to an inflamed appendix, one has come across the results of an antecedent, and perhaps long-forgotten, attack of inflammation, the appendix being closely adherent to some serous surface. But as this is doing no harm the surgeon passes by it without further heed. But neither is this, in my experience, the way in which the clinical history of an attack of inflammation of the appendix ends. As I have said, one attack is generally the precursor of other attacks, and if only the appendix could have been taken away after the first of them how much suffering and risk would have been saved the patient and how much anxiety the friends.

Supposing that a first attack of inflammation quiets down, and the appendix is not then resected, there may be no further trouble from it whatever, and the individual may be as useful and vigorous a member of society as he was before. Or, after a certain time, there may be a recrudescence of the disease, on the happy subsidence of which, few surgeons, I should think, would willingly fall in with the desire expressed by the patient or his friends that operation should be still further postponed. If, however, the resection is not only deferred but altogether declined, attack may follow attack; and if, by good fortune, the patient is not carried off by some unlooked for complication, at least he may have his activity and comfort materially interfered with. Then, at last, when there is obviously no chance of further escape from operation, the surgeon's work is possibly rendered extremely difficult, whilst the risks of the operation, the length of time needed for convalescence from it, and the chance of a weakened abdominal wall in the future are all increased.

Many of us, I suppose, have had friends, patients, or acquaintances whose lives have been sacrificed, or whose happiness has been clouded, or whose prospects in life have been seriously damaged, by the dyspepsia, symptoms, by the aches and pains, or by the downright distress which have been caused by the continued presence of an appendix which has been the subject of recurring attacks of inflammation.

The more that I see of appendicular disease, of the danger of delay in operating, of the comparative slight amount of risk which the early operation involves, and of the great sense of relief and freedom from anxiety which it affords, the more fully am I convinced that the patient had best take his courage in both hands and submit to a prompt resection even after a first attack.

THE DIMINISHING BIRTH-RATE AND WHAT IS INVOLVED BY IT,

BEING AN ABSTRACT OF THE INAUGURAL ADDRESS DELIVERED BEFORE THE BRITISH GYNAECOLOGICAL SOCIETY.

By J. W. TAYLOR, F.R.C.S.Eng.,

Professor of Gynaecology, University of Birmingham; President of the Society.

The address was divided into four parts.

I.

The first was devoted to a critical study of the statistics of the subject during the last twenty-five years. The birth-rate of the United Kingdom was compared with that of other countries both east and west, and it was shown that during the last twenty years no other nation had sustained so great a loss as we have in this definite period of time.

The marriage-rate in the United Kingdom was then considered, and found to be slowly rising, so that the birth-loss must be due to causes operating in the married life of our population.

The value of the population of to-day was then compared with that of twenty years ago, and it was found that in juvenile criminality, in mental disease and brain weakness and in alcoholism, the restricted population of the present day compared unfavourably with the freer population of a former generation.

A tentative effort (over a limited field) was then made to compare the general culture of the more intellectual classes of the two generations, and this (so far as it went) was found to work out disadvantageously to the present generation.

The work of Professor Karl Pearson on heredity was then considered, and found to point to a similar conclusion.

All this, it was urged, tended to show that the marriages of to-day were not only relatively infertile, but either:

1. That the children born of such marriages were weak, neurotic, specially liable to alcoholism, criminality, and insanity, and so far unfit for the battle of life; or

2. That marriages of the middle and better classes were now so sterile that quite an undue and dangerous proportion of the rising generation was recruited from the lower, the more ignorant, the more vicious, and semi-criminal population.

II.

The second part dealt with the cause and life-history of these relatively sterile marriages. The cause was traced to the deliberate prevention of conception, and reasons were brought forward supporting the view that this was not only destructive of the future life of the nation, but seriously injurious to those who practised it, and to such children as were "arranged" for and produced. The prevalence of neurasthenia was increased by the practice, and the absence of sexual restraint encouraged by it had an evil effect on the moral character which was liable to be transmitted to the children. In addition to this, the child of the relatively sterile marriage suffered from a debased and stunted educa-

cation. Reared in greater comfort or comparative luxury, with no brothers or sisters of similar age to rub off its angles and selfishness, it was ill prepared for every step of the succeeding battle of life, and it was very generally the child of the larger family and poorer parents who pushed his way in front of him, and elbowed him to the wall.

III.

The third part dealt with the prognosis of "prevention." Attention was drawn to the present condition and statistics of France, where for 50 years the birth-rate had been falling, until the population has become stationary, or even less than stationary.

During the last 50 years criminality had trebled itself in France, that of children and young people being specially remarkable, and particularly so regarding crimes of lust and prostitution. During the last 20 years the consumption of alcoholic drinks had trebled, and France had passed from the seventh place in order of consumption of alcohol to the first. Insanity was steadily increasing, and the ratio of suicides had risen from 112 per million in 1880 to 205 (or nearly double) in 1885.

It was pointed out that after half a century of trial, with an increasingly limited population, France showed more and more a lowered and still-falling moral average, a lessening virtue or strength, and an increasing natural neurasthenia, which seemed to crave and to need the help of constant stimulation in order to face the ordinary routine of life. The future danger of this under a democratic form of government was considered and insisted on. So long as the race progressed the people could be trusted with the powers of government, but when decadence had been going on for years, or even for ages, what could be the final outcome of such democracy but anarchy and confusion?

IV.

The fourth part dealt with the treatment of this national evil, apportioning to the Church, the State, and the profession of medicine, their proper share in the re-creation of a healthier moral standard and practice. The birth loss in the United Kingdom must be due to causes operating in the married life of its inhabitants. Therefore there was no reason to fear any high ideal of chastity or continence, and especially when this was associated with the care of those forces which go for the defence of the nation and that child life which was its future hope.

On the other hand, there was every reason to fear that debased ideal of married life which was secretly and insidiously working for the ruin of the nation's power and the destruction of its hope.

National decay or degeneration was by no means the inevitable consequence of age. The history of Japan was one evidence of this, and it was worthy of notice that the present power of Japan was directly associated in the mind of the Japanese with the knowledge of their own racial strength and increase; indeed it was that which gave them youth. Insisting on the necessity of arousing the public conscience and of aiming at a truer and braver conception of life, Mr. Taylor concluded his address as follows:

I must confess, when I hear of thoughtful men among the Boers in South Africa, military authorities in St. Petersburg, and Japanese in far Japan noticing and counting on their own racial increase, and comparing this (kindly or unkindly) with our own comparative stagnation, I would like, if I could, to sting my fellow-countrymen into some proportionate sense of shame and duty. My voice is weak, but in the responsible position in which you have so generously placed me, as the temporary head of a great British society which may well claim to be the greatest British authority on such questions, I am surely not overstepping my province if I ask for the grave interest of every Doctor in this important subject—if I ask, not so much for any following of my leadership as for the fullest independent investigation into all the facts, figures and arguments I have brought before you. For with us lies a great responsibility, and ours will be to a very large extent the blame if in after years the lamp of the Anglo-Saxon is found to be burning dimly.

Cancer Research in Portugal.—By a decree dated January 21st the Portuguese Government has appointed a Commission to investigate cancerous diseases. The members of the Commission are Dr. Ferraz de Macedo (President), Drs. Curry Cabral, Oliveira Feijao, Custodio Cabeca, and Azevedo Neves (Secretary).

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF PERFORATED GASTRIC (OR DUODENAL) ULCER; RECOVERY WITHOUT OPERATION.

The patient, an anaemic nursemaid, was seen by me, in consultation with Mr. J. J. Blagden of Horrabridge, on July 10th, 1903.

Previous History.—Fourteen months previously she had symptoms of gastric perforation. Coeliotomy was at once performed in the South Devon Hospital, the only abnormality found being an oedema of the posterior peritoneum, which was attributed to a retroperitoneal leak from the duodenum. Recovery ensued after three days' coffee-ground vomiting.

Present Illness.—For the past three days she had been confined to bed by epigastric pain and vomiting after food. At 8 a.m. on the fourth day, July 10th, she was seized with intense epigastric pain, and was seen by Mr. Blagden, who found her in acute pain, with pulse 120. She was given morphine (¼ gr., subcutaneously). On account of her semi-collapsed condition Mr. Blagden declined to sanction her removal to hospital, a distance of twelve miles. I saw her with Mr. Blagden at 1 p.m., with a view to immediate operation. She was then much easier: pulse, 104; temperature, 99°, with tender spots in the epigastrium, right hypochondrium and left iliac region. The abdominal walls moved fairly with respiration. There was slight rigidity of the upper portions of the recti. We decided that operation was not immediately called for, although it might become necessary later; that she was suffering from a leak from the stomach (or duodenum), and had recovered sufficiently to stand the journey by road to the South Devon Hospital. Prior to starting a quarter of a grain of morphine was injected hypodermically. She stood the journey well. Her history after arrival at the hospital—for the account of which, and also of her previous illness, I am indebted to Mr. R. H. Lucy—was that of uneventful recovery, except that for the first week after admission her temperature fluctuated between 98.4° and 100°.

Remarks. The well-marked peritonism decided the diagnosis of perforation of either the stomach or duodenum, the latter being suggested by the condition found at the operation fourteen months previously. The uncomplicated recovery indicates that the leak was small and localized. Moynihan,[1] in quoting two cases illustrating recovery from perforation without operation, says: "There can be no doubt that recovery by medicinal treatment alone is possible both in the acute and subacute forms of perforation." It is not sufficiently recognized that immediate operation, although usually imperative, is not invariably called for in the case of a viscus which has leaked. In the above case if the attacks of pain recur an operation such as gastro-jejunostomy, to give the ulcer a chance of healing, will probably be necessary.

Plymouth. C. Hamilton Whiteford, M.R.C.S., L.R.C.P.

A SIMPLE METHOD FOR THE ADMINISTRATION OF ETHYL CHLORIDE.

In the British Medical Journal of December 26th, 1903, Dr. E. H. Kitchin describes under the above heading a device for utilizing a Clover's ether inhaler for the administration of ethyl chloride either alone or as an antecedent to ether by spraying the liquid through a perforated cork into the ether chamber.

This method, though admirable for the administration of ethyl chloride alone, seems to me to have one drawback if it is intended to follow up the ethyl chloride by ether, namely, that it is necessary to suspend the administration for a short time whilst ether is poured into the chamber, and with a fleeting anaesthetic like ethyl chloride this is a matter of importance.

A simple and satisfactory method that I have used for some time past is the following: The ether chamber being filled with ether, a little cotton wool or gauze is put into the aperture at the top of the Clover's apparatus. The face-piece being then adjusted and the patient being instructed to breathe, some 2 c.cm. to 3 c.cm. of ethyl chloride are gradually sprayed on to the gauze. After a few breaths the bag may be put on, and the warm expired air rapidly volatilizes the frozen liquid. As consciousness is lost, the ether

(see Advt. p. 6)

chamber is gradually rotated, the pointer hitherto having been opposite the zero mark. In this way there is no break at all in the administration. It is not essential to put on the bag at all in an early stage of the anaesthesia; but in doing so there is a saving of time and of the amount of ethyl chloride used. If this is done, however, it should be remembered that one is administering a very volatile and rapidly-acting anaesthetic by a closed method, and therefore due care must be observed.

Bradford. H. F. PARKER, M.D.Cantab., M.R.C.S.

ASCITES DUE TO PRESSURE ON THE PORTAL VEIN BY ENLARGED SPLEEN.

CASES of ascites due to enlargement of the spleen are so rare that I think the following may be of interest:

J. L., a man aged 41, came under my care about the beginning of September last. He had been ill for about eighteen months. He complained of loss of appetite, feeling of a load in the stomach after eating, gradually increasing distension of the abdomen—a distension which never subsided completely but which was always worse after taking food.

His previous health had not been good. There was a history of a cough especially in the mornings—for several years. He had pleurisy about three years before the onset of the present illness, and he also had had three or four attacks of haemoptysis.

When I examined him first the temperature was normal; the tongue was clean but raw-looking; the pulse was good; the heart was normal; dullness and fine crepitant *râles* could be heard at the apices of both lungs. The abdomen was distended, and percussion elicited a tympanitic note all over, except in the left hypochondrium, where there was dullness. This dullness extended beyond the margin of the costal arch, and the anterior border and notch of the spleen could be felt quite distinctly. The liver dullness was normal. There was no albuminuria, and there was no oedema.

The spleen continued to enlarge until the dullness extended as far down as the umbilicus, and across towards the middle line until it became continuous with the hepatic dullness. Towards the end of October symptoms of obstruction of the portal circulation became evident. Hitherto there had been obstinate constipation, and now uncontrollable diarrhoea developed; haemorrhoids also became very troublesome, and gradually fluid accumulated in the abdominal cavity. The fluid increased very rapidly, and in a few days was so great, and the breathing embarrassed so much, that the patient could not lie down. The abdomen was tapped on November 4th, and 180 oz. of serous fluid drawn off—much to the relief of the patient. The breathing became better, the haemorrhoids almost disappeared, and the diarrhoea was not so troublesome. However, the fluid rapidly accumulated again, and the patient died suddenly on November 7th.

Post-mortem Examination.

With the assistance of a neighbouring practitioner I made a necropsy about ten hours after death. The body was very emaciated.

On opening the thorax, extensive adhesions were found in both pleural cavities. So firm were the adhesions at both apices that it was difficult to separate them without tearing the lung substance. There were cavities in both apices. The heart was normal.

The abdomen contained about 70 oz. of serous fluid. The omentum was adhering to the intestines, but was easily separated. The coils of the small intestine were matted together by adhesions, evidently of very recent date as they were very easily broken up. The omentum and the intestines were studded with numerous miliary tubercles, apparently not very old as they did not penetrate deeply, but were all superficial, just under the peritoneal covering. The spleen was found to occupy the whole of the upper part of the left side of the abdominal cavity. From the left side it extended in front of the stomach, under the left lobe of the liver and under the edge of the right lobe. The portal vein was pressed between the spleen in front and the posterior part of the liver behind. The spleen had practically retained its normal shape. It measured 13 in. in length and 8 in. in breadth at its broadest part. Its weight was 5 lb. 13½ oz. There was no evidence of tubercle or any new growth except simple hypertrophy. A section was examined microscopically, and was found to resemble normal spleen in structure. The liver, kidneys, and other abdominal organs were normal.

The chief interest of this case seems to me to consist in the fact that although the case was undoubtedly of a tuberculous nature, yet the more urgent symptoms in the later stages of the illness, and death itself, were due not directly to tuberculosis, but to the enlargement of the spleen.

Renfrew. JAMES HILL, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL ROYAL INFIRMARY.

A CASE OF PRIMARY QUADRUPLE AMPUTATION: RECOVERY.

(Under the care of E. HARRISON, M.A., M.D.Cantab., F.R.C.S.Eng., Honorary Surgeon to the Infirmary.)

P. B., aged 29, a fisherman, was admitted into the Hull Royal Infirmary at 3 a.m. on May 28th. He had been found lying on the railway near the Albert Dock with all four limbs terribly mangled. He must have fallen across the metals in such a way that the wheels of one side of the train passed over his wrists, while those of the opposite side cut the lower extremities.

State on Admission.—He was almost pulseless and was naturally suffering greatly from shock though not perhaps to the extent which might have been anticipated considering the magnitude of the injury. When seen by the house-surgeon (Mr. Carter) his injuries were as follows. The right leg from 6 in. below the knee downwards to the toes the limb was actually reduced to ribands and presented a most sickening appearance. The left thigh was hopelessly crushed at the junction of the middle and lower thirds, while both forearms were terribly mangled at the level of the wrist joints.

Operation.—A subcutaneous injection of $\frac{1}{10}$ gr. of strychnine was administered and a telephone message sent to Dr. Harrison. When he arrived the patient was in the operating theatre being anaesthetised and an intravenous infusion of normal saline fluid was being given by Dr. Eve (house-physician). This was continued during the operation. Four pints were infused in which was ♏x of adrenalin. The preliminary cleansing of the limbs and the operations were performed as rapidly as possible, Dr. Harrison amputating the lower extremities while Mr. Carter simultaneously operated on the forearms. The right leg was amputated about 4 in. below the knee; the left thigh about the junction of upper and middle third, while both forearms were amputated about 2 in. above the wrists. There was but little bleeding and only the main vessels required ligature. The four amputations were completed in twenty-five minutes and in a little over the half an hour the patient was in his bed. The pulse at the conclusion of the operation was much better than at the commencement.

After-progress.—The subsequent treatment consisted of hot bottles, elevation of the foot of the bed; ♏v adrenalin every half hour for twelve hours. At 5 a.m. he was given $\frac{1}{3}$ gr. of morphine subcutaneously, which was repeated at 10 a.m. Later in the day phenalgin gr.x was administered to relieve pain with a satisfactory result. The reaction from the shock was vigorous and sustained. He had a flushed face, a full bounding pulse, and a temperature of 101°. Calomel and mist. alba were prescribed. On May 30th the right arm was dressed; the dressings when removed were quite dry, and union by first intention was taking place. On the 31st the right leg was dressed, and found to be suppurating; it was irrigated with izal and dressed with aristol, and made a good recovery, healing by granulation. The left arm and left thigh were dressed on the eighth day, and were found healed by first intention.

REMARKS BY DR. HARRISON.—This is as far as I have been able to ascertain the only successful case of primary amputation of the four extremities which has been published. A case is recorded in the *Lancet*, 1870, ii, p. 397, where the four limbs were amputated for gangrene in a woman, the legs at one operation, and the arms three weeks later. The case is narrated in Mr. Heather Bigg's book on artificial limbs. He fitted her with limbs by means of which she was able to earn her living by knitting. The patient is now dead, and her artificial limbs are in the Royal College of Surgeons Museum. Allen of Grimsby reports a case in *Lancet*, 1889, i, p. 730 of triple primary amputation which was successful. It was a railway injury in a boy aged 8. Right leg amputated below knee, left leg a Syme; left arm through elbow joint. Another triple amputation is reported by Ashurst,[1] in which amputation through left leg, right thigh, and

[1] *Med. Surg. Reports*, January, 1872.

right forearm was successful. At the Hull Royal Infirmary during the past few years we have had several cases of double amputation of lower extremities. I have heard, however, privately of a case in which Dr. J. T. Williams, of Barrow-in-Furness, operated successfully on a similar case due to railway injury in 1898. Both arms were amputated 3½ in. above the elbow-joints and the lower extremities by Syme's and Chopart's operations respectively.

For the accompanying photograph I am indebted to my colleague, Dr. Pigeon. The case has excited considerable public interest. The Surgical Aid Society is now engaged in fitting him with artificial limbs free of cost, and some £230 has been subscribed, by means of which the committee responsible for it intends to set the patient up in some business. The man could give no account of the accident, and no one actually witnessed it. His ship was to sail at 5 a.m. He had been

twice during the night warned off the dock by a policeman owing to his intoxicated state. He must have attempted to crawl between the trucks of the train, which was possibly moving slowly, or, if at rest, must have started while he was between the trucks. This is proved by the fact that the engine and first truck had no blood marks on the wheels; further, the space between the firebox and the ground was not sufficient to allow of the engine clearing him. Eighteen trucks must have passed over his limbs. The infusion with saline fluid and administration of adrenalin, together with rapidity in operating, were doubtless important factors contributing to a successful result, and Mr. Carter suggests that his inebriated condition also assisted by minimizing the shock due the injury.

TUBERCULOSIS IN GERMANY. Statistics recently published by the German Central Committee on Consumption show that the number of male patients treated for tuberculosis in 1902 at the expense of German district insurance societies was 12,197, and of female patients 4,350. Seventy-eight per cent. of the total number were temporarily restored to health. Excluding those discharged at the end of a fortnight, the proportion of recoveries is given as 81 per cent. Taking the two half-decades from 1894 to 1903 and from 1898 to 1903, 31 per cent. of all patients treated were found to be permanently cured in the second half decade, against 27 per cent. in the first half decade. The decreasing mortality from tuberculosis is confirmed by statistics from other sources.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

HONG KONG AND CHINA BRANCH.

Hong Kong, January 6th, 1904.

Colonel W. E. WEBB, R.A.M.C., in the Chair.

Adrenalin Chloride.—Dr. F. O. STEDMAN read a paper on the use of adrenalin chloride. Having sketched the method of preparation, formula, and dosage of this drug, he explained the difficulty of understanding how it acted in the arrest of internal haemorrhage, unless it was brought in contact with the bleeding points, because if given internally it constricted the vasomotor system all over the body, and thereby raised the blood pressure, a result which was undesirable in a case of haemoptysis, for example. He referred to its use in Addison's disease, gastric, intestinal, and renal haemorrhages. For operations on the eye, a few drops of 1 in 2,000 might be instilled previous to an operation on the lids, or for cataract. In operations on the nose—for example, for polypi—a weak solution was effective in stopping any haemorrhage and clearing the field of operation. He (Dr. Stedman) had found the drug of use in both eyes, nose, and tongue operations. In one of the latter he removed a small epitheliomatous growth from the anterior half of the tongue, having first injected 3 minims into the tongue, where his incision was going to be. Having tied the lingual, any oozing was quickly checked by cotton wool soaked in adrenalin chloride solution.—The PRESIDENT (Colonel Webb) had no experience of this drug, but thought it would be useful in in some cases of splenic anaemia, also in cases of Mediterranean fever.—Dr. HALL WRIGHT found the drug of benefit in two cases of haemorrhage following dental extraction.—Dr. O. MARRIOTT stated he used adrenalin chloride in a case of haematemesis with good result.—Dr. ROCH used the drug with benefit in the following cases: Haemoptysis, punctured wound of the kidney, chronic nasal catarrh, conjunctival congestion, and found it of excellent use in collapse during the administration of chloroform by placing a few drops on the tongue.—Dr. E. A. R. LAING had tried adrenalin chloride in a case of haemorrhage in enteric fever, also in a case of purpura haemorrhagica with good results. In the latter case the patient passed fifteen stools of pure blood in one night, and this after all the usual astringents had been tried. A hypodermic injection of adrenalin chloride ♏ iij of 1 in 1,000 solution stopped the haemorrhage in a few hours.—Dr. F. O. STEDMAN replied.

BIRMINGHAM BRANCH: COVENTRY DIVISION.

Coventry, Tuesday, February 2nd, 1904.

JOHN ORTON, M.D., in the Chair.

Suppurative Diseases of the Ear. Mr. FAULDER WHITE read a paper on this subject. He began by stating that after a laborious study of these diseases for nearly twenty years he was not in entire agreement with the teaching of some otologists with regard to treatment. The causes of the admitted failure of otologists to cure chronic suppurative otitis by intrameatal treatment were discussed. Inefficient lotions and the use of dry dressings or absolute alcohol before the ear had been disinfected were condemned. Frequent irrigations by means of a Higginson's syringe with hot solutions of the silico-fluorides were efficacious in many cases of otorrhoea when there was a large perforation. Mr. White then described the operation of "otectomy" by which he cleared a way for irrigation. This consisted of the complete removal of the membrane, the malleus, and incus, with any granulations and polypi that might be present. Drawings of the middle ear and attic were shown illustrating the difficulty of disinfecting these cavities without such removal. The operation was well borne, and was not usually followed by pain or other disturbance. By its means many cases had been cured that had previously been under skilled treatment without relief. In nearly all the cases improvement in hearing had accompanied the cure. One case of temporary facial paresis was reported. The author read notes of a case that had been under treatment for nine months at a special hospital and for four months at a general hospital. She was deaf and in a very anaemic and debilitated condition, ears very offensive. Double otectomy was performed, and the ears irrigated twice daily. A month later the ears had quite recovered, and she

could hear conversation well. She gradually regained perfect health. The condensed notes were then read of all the cases then in the Coventry Hospital in which this operation had recently been performed (16 otectomies). Some of these patients were shown. These cases showed general improvement in hearing, and the temperature charts witnessed to an absence of any serious disturbance after operation. Allusion was next made to the radical operation, which owed its rise in specialist favour to the failure of the faulty methods so often adopted for the cure of otorrhoea. Every variety of a radical operation might be said to involve danger to life and to hearing, and too often failed to cure. It was a severe ordeal for the patient. Broca's work was quoted in support of these contentions; for instance:

The lateral sinus is often wounded by the surgeon; and when the facial nerve is cut in its descending portion it is rare to see any amelioration.

Even in cases of undoubted extension of disease to the bone, partial operations were to be preferred combined with otectomy and irrigation. Four cases were then shown: (1) A case of recovery after otectomy, in which the hearing was above the normal; (2) a case of complete recovery after a partial operation on the bone; (3) a case of recurring otorrhoea with severe pain, six months after Stacke's operation had been performed at St. Bartholomew's Hospital; (4) a case of double otorrhoea with intracranial suppuration that recovered after a partial operation and otectomy. A special form of attic cannula with probe was exhibited. By means of this cannula Mr. White directly irrigated the attic cavity. The probe was introduced into the attic cavity through the cannula. The lecturer concluded by saying that he had received little support at the Otological Congress of 1899 in his protest against unnecessary resort to the radical operation so-called, but in 1904 he claimed to have shown and proved by results that chronic suppurative otitis was curable by intrameatal treatment—by antiseptic irrigation with or without otectomy—and that such drastic interference as a radical operation should rarely be required.—A discussion followed, in which Messrs. Iliffe, Callaghan, W. E. Bennett, G. Heaton, and Drs. Hawley, Orton, Phillips, and Snell joined; and Mr. Faulder White replied.

Specimens.

Mr. Bankes-Price showed several appendices, and made observations on the differences of the symptoms in the several cases, and the peculiarities met with in the several operations.

REPORTS OF SOCIETIES.

ÆDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, February 3rd, 1904.

The Glycogen Reaction of the Blood.

Dr. G. Lovell Gulland read a paper on the subject of the glycogen reaction in the blood and its application in diagnosis, which will be published in full.

Streptothrix Infection.

Dr. Stuart McDonald read a paper on a case of general streptothrix infection, which occurred in Sir Thomas Fraser's wards. He gave a brief note of the clinical history of the case; the *post-mortem* report, with description of the histology of the lesions; a description of the particular species of streptothrix concerned, with results of the experimental inoculations in rabbits, guinea-pigs, rats, and mice; and finally made observations on the similarity of the condition to tuberculosis, and on the importance of more careful bacteriological examination of the sputum in doubtful cases.

Glaucoma.

Dr. James V. Paterson read a paper on glaucoma and glaucoma theories, with lantern demonstrations. Slides were shown to illustrate the paths by which fluid was eliminated from the eyeball, and the experimental results obtained by Thiel and other recent observers in this field were described and commented upon. In the monkey's eye (freshly enucleated) Dr. Paterson found that Chinese ink injected into the anterior chamber penetrated freely into the tissue of the iris as well as into Schleman's canal, and the veins at the filtration angle. For estimating the amount of fluid which can flow through the eyeball under different conditions of pressure, etc., he had employed an apparatus somewhat modified from that used by Priestley Smith, the graduated tube carrying the air bubble being of finer calibre, so that the readings could be taken every minute. The question of intraocular tension was then discussed, and its intimate relations to the blood pressure, arterial and venous, emphasized. In discussing the various theories of glaucoma, Dr. Paterson was inclined to favour the view of a retention theory with blocking of the filtration angle as best explaining the acuter forms of the disease. The more chronic forms of glaucoma he thought probably depended on local and general vascular changes which might influence the blood pressure and intraocular secretion. As regarded Priestley Smith's theory, Dr. Paterson had never seen any pathological evidence that the circumlental space had been blocked in any of a series of glaucomatous eyes examined by him.

All three papers were illustrated by microscopical demonstrations, and the two latter by lantern demonstrations also.

Patients were shown by Mr. Dowden, Mr. Alexis Thomson, and specimens by Mr. Scot Skirving.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, February 12th, 1904.

Disease of the Pancreas.

Dr. Sidney Phillips reported this case. The patient, a married woman, aged 26, at Christmas, 1901, began to suffer with epigastric pain. In February, 1902, jaundice appeared with absence of bile from the stools. There was no history of biliary colic. An exploratory operation was performed at St. Mary's Hospital by Mr. Edmund Owen on April 3rd, when a great enlargement of the pancreas, judged to be non-cancerous, was found. On June 14th 8 per cent. of sugar was present in the urine, and six months later the jaundice disappeared, but the diabetic symptoms progressed. On January 26th, 1903, she died at her home from diabetic coma. A partial necropsy was obtained. The pancreas was much enlarged, and presented considerable fibroid change throughout, with numerous small calculi, so that the organ cut grittily. Microscopically, there was almost complete replacement of pancreatic tissue by fibrosis, and destruction of the islands of Langerhans. The occurrence of the jaundice was explained by obstruction of the common opening into the duodenum of the pancreatic and bile ducts. The glycosuria was of the type usual in "pancreatic diabetes."

Dr. N. Dalton remarked that such a pancreas might diminish in size, as did a cirrhotic liver.

Mr. L. A. Bidwell said that in chronic pancreatitis the gall bladder was usually distended. In none of 4 cases upon which he had operated was glycosuria present after the operation. In Dr. Phillips's case the parts were simply explored at the operation; he thought it preferable to drain the gall bladder for two or three weeks after the operation.

Dr. W. Pasteur remarked that obstruction of the pancreatic duct led ordinarily to cirrhosis of the pancreas, but referred to a case of the kind under his care in which, although obstruction had lasted a considerable time, no cirrhosis of that organ was found after death.

Dr. S. Phillips, in reply, said that there was no trace of a gall stone. It did not seem necessary in all cases to drain the gall bladder, as some recovered without any operation at all, and pancreatic calculi were capable of producing jaundice.

Malignant Anaemia.

Dr. Norman Dalton narrated two cases, due, apparently, to defective formation of red corpuscles, and associated with caries of teeth and suppuration of upper jaw.

The first case was that of a man, aged 21, suffering from debility, pallor, anaemic *bruits*, epistaxis and other haemorrhages, and vomiting. The disease lasted only eight months, and there was no necropsy. There was no enlargement of the spleen or lymphatic glands. The interest centred in the urine, in the suppurative lesions, and in the blood. The urine was never high-coloured. The teeth were carious, and there was an alveolar abscess, which, after incision, left a sinus in the hard palate. Otorrhoea was also present. The blood showed progressive oligocythaemia, the red discs falling from 1,200,000 per c.mm. on admission to 393,720 per c.mm. three months later. The haemoglobin was also diminished, and there was marked leucopenia, the lymphocytes being in excess of the polynuclear cells. The second case was that of a girl, aged 17, who had lived in extreme poverty. She had been ailing for some time, but the illness only became acute three weeks before she was admitted to King's College Hospital, where she died five days later. The urine was pale, the teeth were carious, and there was an abscess in the upper jaw from which pus was constantly oozing. The blood only contained 816,000 red cells per c.mm., and 17 per cent. of haemoglobin. The leucocytes numbered 3,500. At the necropsy there were subserous and submucous haemor-

rhages. There was no free iron in the liver, and the red marrow was fatty. In neither case could surgical treatment be undertaken on account of the tendency to haemorrhage. Dr. Pasteur had described an exactly similar case, but there was no suppurative lesion.

Dr. W. HUNTER remarked that the cases resembled those which he had styled "septic anaemia," and were distinguishable from cases of pernicious anaemia by the intense degree of anaemia present, and occasional presence of megaloblasts, associated gastric or intestinal disturbances, the absence of haemolytic changes in the urine, the presence of a low type of pyrexia, deep-seated infection of the tongue, absence of the bone-marrow changes found in true Addisonian anaemia, and by the grave prognosis attached thereto, unless the cause of the sepsis could be removed. There seemed, in fact, to be an absence rather than an excess of blood formation. Sepsis alone would not produce haemolytic changes.

Dr. W. PASTEUR referred to a case reported by him to the Society in November last, in which haemolysis was excessive but there was no suppurative lesion. He concluded, therefore, that for the present his case must stand alone. The cases quoted by Dr. Dalton seemed to be instances of septic anaemia.

Dr. PARKES WEBER thought that something more than sepsis was necessary to change mere ill-health into profound anaemia.

Dr. DALTON said that persons with carious teeth ran great danger because the intervention of a factor (at present unknown) might produce a rapidly fatal anaemia.

ANKYLOSIS OF THE JAW.

Mr. JACKSON CLARKE described the case of a woman, aged 35, in whom ankylosis of the jaw followed an infection, probably gonorrhoeal. Four years ago he had excised the neck of the lower jaw on each side; and she could now separate the edges of the incisor teeth ¾ in., and masticate with comfort.

Mr. T. H. OPENSHAW described a case in which, after the failure of milder measures, he had eight years ago excised both condyles with good results.

TUBERCULOSIS OF THE THYROID.

Mr. E. M. CORNER read notes of two cases of tuberculosis of the thyroid gland; and stated that localized tuberculous deposits in the gland were extremely rare.

EXHIBITS.

Mr. T. H. OPENSHAW showed two patients with severe fractures of the lower limbs, both of whom had been able to walk on the ninth day after treatment by Hoeftcke's apparatus and a modified Hessing's splint case respectively.

PATHOLOGICAL SOCIETY OF LONDON.

W. PAVY, M.D., F.R.S., Vice-President, in the Chair.

Tuesday, February 16th, 1904.

ARTERIO-SCLEROSIS.

A DISCUSSION on this subject was opened by Dr. T. D. SAVILL, who stated that three forms might be recognized - intimal, medial, and adventitial. Atheroma—a patchy fibro-cellular infiltration of the intima—must be regarded as quite distinct from these. He dealt almost exclusively with the changes in the muscular coat; these were of chief interest, and the other forms were of no serious importance provided that the media were relatively intact. The morbid changes which might be met with in the media were atrophy, cloudy swelling, granular degeneration, necrosis, calcification, and lastly hypertrophy. It was with the last-named lesion that the paper particularly dealt. This arterial hypermyotrophy, as it was designated by the speaker, was to be regarded as primarily a true overgrowth. The fact of degeneration having commenced by the time a case reached the *post mortem* room did not negative the existence of hypertrophy. It was very often antecedent to medial degeneration. Clinically, arterial hypermyotrophy constituted a distinct pathological condition of prolonged course, capable of recognition during life by careful investigation, sometimes, but not necessarily, associated with chronic renal disease, and constituting in itself one of the main pathological conditions on which cerebral and other haemorrhages depended. The 30 cases which formed the chief basis of this communication were divided into two groups. In Group A (17 cases) arterial hypermyotrophy was relatively uncomplicated by other arterial disease, and these represented some of the earlier phases of the disorder. Group B (13 cases) were more or less complicated with intimal and adventitial sclerosis and degenerations; these probably represented the final stage. Microscopic sections of the arteries and arterioles were examined, measured, and compared with normal specimens. Typical cases were described. One case was met with while searching for a normal standard. Another was that of a man aged 56, who exhibited numerous circulatory symptoms during life, and who died of cerebral haemorrhage: the urine, kidneys and other organs were normal, but the heart and arteries presented hypermyotrophy. The average increase of the tunica media amounted to $\frac{5.7}{2.5}$ of normal in the lower extremities, $\frac{4.1}{2.5}$ of normal in the abdomen and upper extremities, and $\frac{2.6}{2.5}$ of normal in the cerebral arteries: the tunica intima was practically normal; the tunica adventitia was very slightly increased. In the 17 cases in Group A, measurements showed an average increase in the media amounting to about 50 per cent., the greatest being ... and the smallest ... Among the causes of arterial hypermyotrophy, its relationship to chronic renal disease was discussed. That it resulted from chronic renal disease was admitted. But that it might also occur independently of renal disease was evidenced by the fact that of 30 cases submitted, chronic renal disease existed in only 4 of Group A, and in 5 of Group B, the remaining 21 presented no urinary changes during life nor evidence of renal disease after death. Objection was taken to the term "chronic Bright's disease" being applied to a general arterial condition, consisting of high tension and various circulatory and nutritional defects with fibrosis of organs, unless there were definite evidences of chronic renal disease during life and after death. It was suggested that such a generalized condition was in reality a condition described clinically as senile hyperpyesis by Professor Clifford Allbutt, or anatomically as arterial hypermyotrophy, with their concomitant circulatory and nutritional defects. Hypertrophy of the heart existed in all of the 17 cases in Group A and in all but 2 (Cases 62 66) of the 13 cases in Group B. The average weight in Group A was 13.9 oz., in Group B 12.5 oz. It might be regarded either as a cause or as a result of arterial hypermyotrophy, or as a product of a cause common to both. High blood pressure was observed in all cases of arterial hypermyotrophy seen during life before a final stage supervened. The causes of high arterial tension could generally be revealed in their history and evidently played a leading rôle in the causation of arterial hypermyotrophy. Heredity, age, and other causes were also discussed. The consequences of arterial hypermyotrophy somewhat resembled those of high tension. Among the most serious was cerebral haemorrhage, which occurred in 4 out of 17 cases in Group A.

The following members took part in the discussion: Professor CLIFFORD ALLBUTT, Dr. J. H. F. BROADBENT, Dr. F. PARKES WEBER, and the CHAIRMAN.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, F.R.C.S., President, in the Chair.

Thursday, February 11th, 1904.

GONORRHOEAL CONJUNCTIVITIS AND HYDROGEN PEROXIDE.

MR. BRONNER read notes of a case in which a woman aged 32 had had her eye inflamed for two days before being seen. The lids were swollen, and a profuse discharge was present in which gonococci were found. Perchloride of mercury was used as a lotion, as well as protargol (5 per cent.) to the lids, and drops of 3 per cent. hydrogen peroxide instilled every four hours. On leaving off the peroxide the cornea rapidly became ulcerated, but on recommencing it the ulcer at once ceased spreading and healed, leaving remarkably little scar behind. Excellent vision was obtained, and Mr. Bronner had never seen so bad a case make so remarkably good a recovery. This he attributed to the peroxide.

The PRESIDENT had used hydrogen peroxide in cases of hypopyon ulcer, but had not tried it for purulent ophthalmia. The ulcer cases did very well indeed.

Mr. HARTRIDGE said that years ago all cases of purulent ophthalmia at Moorfields were treated with peroxide, but that for some reason or other it had been given up. He thought protargol of weaker strength than 20 per cent. was of very little use.

Mr. HOLMES SPICER said that some years ago he published

a large number of cases of purulent ophthalmia treated at Moorfields, and he found that those treated with silver did much better than when treated only with peroxide.

Mr. Bronner, in reply, said that he did not at all advocate its use to the exclusion of silver and other remedies, but in combination with them he was much impressed with its utility.

Congenital Anterior Staphyloma.

Mr. J. Herbert Parsons read a paper on the case of a girl, aged 3 days, admitted at Moorfields under the care of Mr. Fisher, with an anterior staphyloma of the left eye.

The condition was noticed at birth. The mother was healthy and the confinement was normal; the child was born immediately after rupture of the membranes. There was no other deformity. There was a very slight mucous discharge and a complete anterior staphyloma with no anterior chamber. The iris was adherent to the pseudo-cornea which was very thin and almost transparent. Pathological examination showed the usual features of an anterior staphyloma, the lens being absent, and the whole eye in an early stage of panophthalmitis. The posterior chamber was filled with polymorphonuclear leucocytes, which were also present in the vitreous. The true cornea at the sides showed dense infiltration, the epithelium and Descemet's membrane were present here only. The anterior capsule of the lens was ruptured; the lens was cataractous, but there was no anterior capsular cataract.

Nine previous cases of congenital anterior staphyloma with pathological examinations had been reported. All the cases showed exactly the same features which were found when the condition developed in the usual manner after birth. It was probable that the intrauterine cases were due to the same cause—namely, perforation of the cornea. Traumatic perforation of the cornea under these circumstances was very improbable. Could intrauterine ulceration of the cornea occur? Endogenous infection was improbable, owing to the absence of blood vessels in the fetal cornea; at the same time it might be brought about by toxins. Exogenous infection through the amniotic fluid was more probable, and accounted for the frequency of bilateral disease. There was no doubt that intrauterine transmission of infection—for example, anthrax, tubercle, etc.—could occur. Infection per vaginam at birth could be definitely eliminated in some cases—for example, Hirschberg and Birnbacher's, and Runte's, in which the children were seen half an hour and half a day respectively, after perfectly natural confinements. It was improbable in the case cited, seen on the third day. It was almost impossible to explain the cases on the theory of mal-development, and even then the inflammatory condition would require explanation.

Mr. Treacher Collins, who had seen the specimens, thought failure in the development of the anterior chamber was the original cause of the condition. The inflammatory changes might easily have occurred in the three days following birth; and, as there was a gap in the anterior capsule, he thought that there had been a perforating lesion caused most probably by the finger of the accoucheur.

Mr. Nettleship referred to two cases that he had seen; and Mr. Parsons replied.

Card Specimens.

Messrs. A. Ogilvy and Sydney Stephenson: Specimens of epithelioma of the ocular conjunctiva.—Mr. Arnold Lawson: Traumatic aniridia.—Mr. Bishop Harman: Nose-blinking movements.—Mr. Harbridge: Unusual opacity of posterior part of lens and capsule.—Mr. G. W. Thompson: (1) Double kerato-iritis in an infant. (2) peculiar changes of and around the disc.—Mr. Mayou: Two cases of cerebral degeneration in the same family associated with macular changes.—Mr. Jessop: Epibulbar tumour.—Mr. L. Williams: Lymphoma of the conjunctiva. (2) congenital defect in the ocular movements, combined with peculiar associated movements of the eyes.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, February 4th, 1904.

Hot-air Cautery.

Dr. Grossmann gave an account of the hot-air cautery introduced into surgery by Dr. Hollander, of Berlin, a modification of which he had employed with satisfactory results in angioma of the eyelid and in corneal ulcers and similar affections. He considered it particularly valuable in cases of conical cornea. The different degrees of heat could be easily regulated, and he had found the results superior to those obtained by the actual cautery.

Chronic Antimony Poisoning.

Dr. Leslie Roberts exhibited a patient, a compositor by occupation, suffering from chronic poisoning by antimony and lead.

The symptoms were sweating, tenderness of the palms and soles, and pains in the muscles of the arms and back. The patient had been forced to give up work on account of the tenderness of the fingers. The palms were of a pinkish-red colour and drenched with perspiration. Scattered all over the palms were small flat smooth papules. Microscopic examination showed the rete to be hypertrophied, the sweat ducts much dilated, and the capillaries congested. The condition of the palms was not to be distinguished from that seen in some forms of arsenical poisoning.

The urine was free from albumen, but contained lead. The tremors and muscular weakness might be attributed to this latter metal. The man had not suffered from colic. The plumbism seemed to have been modified by the presence of antimony.

Intravesical Separation of the Urine.

Mr. Robert Bickersteth read a note on the separation of the urine coming from the right and left ureters. After giving a history of the previous attempts made, and contrasting the method with its only alternative—namely, catheterization of the ureters—he showed the "separator" introduced by Dr. George Luys of Paris. He had used this instrument for the last six months, and proved the method to be of the greatest utility. The shape of the instrument rendered its introduction into the bladder somewhat difficult, but after a little practice this difficulty was overcome. The bladder was washed out and emptied before passing the "separator." In from fifteen to twenty minutes sufficient urine could be collected from each ureter to estimate the relative efficiency of the kidneys. During the examination it was not necessary or advisable to administer a general anaesthetic, for after the introduction of the instrument the patient should be placed in the sitting posture.

Mr. Paul related several cases under his care in which Mr. Bickersteth had by means of the "separator" furnished him with most valuable information. In one case in particular he had decided to operate upon the right kidney, but fortunately the "separator" clearly demonstrated that this was the better kidney of the two, and so a possible surgical disaster was avoided.

Mr. George Hamilton thought that in certain cases, owing to the blood clotting, the utility of the instrument might be limited.

Puerperal Septicaemia.

Dr. Nathan Raw read a paper on the Pathology, Bacteriology, and Treatment of Puerperal Septicaemia, with special reference to the value of antistreptococcus serum, based on an observation of 61 cases. He characterized the disease as in no way differing, either in origin or symptoms, from any other infective and septic process, and said that it was not peculiar to the lying-in state. The micro-organisms found in his series were as follows:

Streptococcus pyogenes in	27 cases
Staphylococcus aureus in	2 ,,
Mixed infections in	13 ,,
B. coli communis in	11 ,,
B. diphtheriae in	1 ,,
No growth of organisms in	3 ,,
	61

Before antistreptococcus serum was employed it should be demonstrated beyond doubt that the infection was streptococcal. The serum was of the greatest possible value in pure streptococcal infections if employed early in the disease. The dose he employed was 20 c.cm. twice or thrice daily and continued for several days. He had never known any harm or bad symptom arise from its use if obtained from a reliable manufacturer and with a guarantee of its purity. Of the 61 cases reported, 32 recovered, 29 died, giving a death-rate of 48 per cent. Of the 37 treated with serum, 24 recovered, 13 died, giving a death-rate of 36 per cent. Of 24 treated without serum, 8 recovered, 16 died, giving a death-rate of 60 per cent. Several patients of the third class were admitted in an advanced stage of the disease, when obviously no treatment would be of avail.

Dr. Gemmell had not felt confidence in the serum treatment mainly because of the difficulty of being sure that the germ it was intended to kill was present in the blood.

Dr. Briggs had frequently used the serum but had grave doubts as to its real utility.

Dr. Llewellyn Morgan thought that as no harm had come to any patient through the use of the serum, and as in many cases undoubted good had followed its use, every case of septicaemia should be given the chance of the possible benefit.

Dr. Grünbaum thought that, in spite of the relative feebleness of antistreptococcus serum, it should always be given when the clinical symptoms pointed to puerperal septicaemia,

whether streptococci were found or not. Recent improvements in the manufacture of the serum made its use much more hopeful.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At a meeting on February 8th, A. E. MAYLARD, M.B., B.S.Lond., President, in the chair, Dr. MUNRO KERR showed as a fresh specimen a uterus which he had removed on account of malignant disease complicating a pregnancy of about eight months. The tumour was excised per vaginam, to avoid possibility of septic infection of the peritoneum, the uterine arteries secured, and then Cæsarean section was performed, delivering a living child: finally the whole uterus was extirpated through the abdominal wound.—Mr. GRANT ANDREW showed a large single hydronephrotic kidney which during life gave rise to symptoms simulating those of appendicitis. The illness started somewhat suddenly with pain in the right iliac region and constipation. Fullness and tenderness in that region and the occurrence of rigor suggested abscess. At the operation (after about three weeks) it was discovered that the swelling was a large hydronephrotic kidney, the contents of which were somewhat purulent; it was simply drained. Acute suppression of urine followed, and the patient died two days later. *Post mortem* it was found that there was only one kidney of large size and of shape which suggested fusion of the two kidneys. The patient had contracted gonorrhœa a week before the onset of the illness; this was regarded as the source of infection which converted a hydronephrosis, previously giving rise to no symptoms, into a pyonephrosis simulating an appendical abscess. Gonococci were not found in the contents of the kidney. Dr. JOHN ANDERSON demonstrated naked eye and microscopical specimens of the prostate gland extirpated by Dr. R. H. Parry by Freyer's method. In three specimens which were received entire a portion of the membraneous urethra was present, and right out to the surface of the removed masses prostatic tissue could be recognized.—Dr. NAPIER showed a patient suffering from cerebral tubercle who improved greatly after treatment by repeated lumbar puncture, and read notes of other cases treated in a similar way.—Dr. JOHN ANDERSON showed microscopical sections of the colon from Dr. Parry's case of faecal concretion in the ascending colon reported at the December meeting. The specimens demonstrated the absence of malignant disease.

LARYNGOLOGICAL SOCIETY OF LONDON. At a meeting on February 5th, Mr. J. CHARTERS SYMONDS, Vice-President, in the chair, Dr. E. S. YONGE showed Professor Meyer's apparatus for demonstrating the laryngeal image and intralaryngeal manipulations. The apparatus was examined by those present and considered to be suitable for the purposes mentioned. He also showed microscopical sections from a case of early polypus, which showed that the subjacent bone was perfectly healthy, and that there were no signs of either caries or necrosis. The following cases were shown: Mr. A. H. BURT, a man, aged 40, with possible mild glanders. Dr. H. L. LACK, (1) a case of malignant disease of the tonsils in which he had operated with good results; (2) a microscopical section of endothelioma of the maxillary antrum; (3) a microscopical section of endothelioma of the larynx and the patient; (4) an osteoma of the ethmoid with nasal polypi. Dr. F. POTTER, a case of recurrent papilloma of the larynx. Mr. A. THORNE, (1) a case of immobile left vocal cord in a man aged 35; (2) a man aged 35 with severe paroxysmal pain starting from the larynx; (3) a tumour of the right side of larynx in a woman of 45. This latter case gave rise to discussion, the general opinion of those present being that the tumour was of tuberculous origin.—Mr. H. W. CARSON, a case of laryngeal ulceration in a phthisical patient for diagnosis. Mr. R. LAKE, a case of subglottic thickening. Dr. J. DONELAN, a youth with fractured septum and a depressed nose improved by operation and paraffin injection. Dr. D. GRANT: (1) A woman, aged 41, with fixation of the vocal cord and extreme pain on swallowing. The question was raised as to whether it was a case of tuberculous perichondritis. (2) a case of chronic oedema of the larynx (shown previously) in a middle-aged woman, greatly improved under mercurial inunction; (3) a case of ulceration of the pharynx after cervical fistula and œdema of the right half of the larynx in a middle-aged woman. The question of specific perichondritis of the arytenoids was raised. Dr. W. HILL showed a skiagraph from a male, aged 45, showing a pin which had been in the larynx for four and a-half years, and which had been removed subsequently by lateral laryngotomy.

BRISTOL MEDICO-CHIRURGICAL SOCIETY. At a meeting on February 10th, Mr. J. PAUL BUSH, C.M.G., in the chair, the following cases and specimens were shown: Dr. WALDO: A recent specimen of a lung from a boy who had died of haemoptysis, a caseating gland having ulcerated into both trachea and oesophagus. Dr. J. MICHELL CLARKE: A patient with a lesion of the cauda equina, and another with a lesion of the lumbar cord.—Dr. F. H. EDGEWORTH: A case of cretinism improving under thyroid treatment.—Dr. WALTER SWAYNE: A calcareous mass removed from the broad ligament. Mr. G. MUNRO SMITH: A specimen of a scrotal tumour with microscopic section; also a skiagraph showing numerous foreign bodies in the hand.—Mr. A. W. PRICHARD read notes of three cases of vesical calculus that he had had within as many weeks, and showed the stones removed.—Mr. J. DACRE related two unusual cases of pneumothorax.—The cases, specimens, and papers were discussed by the members present.

REVIEWS.

ANATOMY.

MR. CECIL H. LEAF'S translation of the volume on *The Lymphatics*,[1] which constitutes a portion of the *Treatise of Human Anatomy* published under the editorship of Professors Poirier and Charpey, leaves but little to be desired, and this was almost to be expected, for the subject is one upon which Mr. Leaf has himself done excellent work. The volume would have been more readable had the translator dealt more freely with the original text, and had he avoided expressions such as "We will now consider," "We will now study," and "We find," which, whilst not altogether objectable in a lecture, become extremely tedious if often repeated in the pages of a book. The first 110 pages are devoted to the general anatomy of the lymphatic system—and in this section, written by Dr. Gabriel Delamere, are included short historical surveys of previous work, accounts of methods, a detailed consideration both of the fluid and the corpuscular portions of the lymph, descriptions of the structure both of the lymphatic vessels and the lymphatic glands, accounts of the phylogenetic and ontogenetic development of the lymphatic system, and a very complete bibliography of the subjects dealt with. The various corpuscles of lymph are fully described, opinions concerning them are discussed, the number of each kind usually met with in the blood is given, and the conditions under which they are increased are mentioned. Taken as a whole this section is an excellent summary of the present knowledge of the general anatomy of the lymphatic system, and cannot but be a great help to any one who wishes to make further investigations. In the second, and larger, part of the volume Professor Poirier and Professor Cuneo describe the lymphatic vessels and glands in the human body, and their descriptions include the results of their own investigations. This portion of the volume fully sustains the high reputation previously gained by the other volumes of Poirier's *Anatomy*. Very full accounts are given of all the vessels and glands, but more especially so of those which are particularly important to the physician and surgeon. The figures are numerous, elaborate, and excellent, and they illustrate not only the results obtained by the old methods of mercury injection, but also those gained by the utilization of Gerota's method. The lymphatics of the tongue, pharynx, nose mamma, liver, and generative organs are particularly well described, and the whole section is worthy of the highest praise. There is, however, no detailed index, a deficiency which should certainly be remedied in subsequent editions.

Just as in the case of vol. i, the third edition of vol. ii of Professor CUNNINGHAM'S *Manual of Practical Anatomy*[2] is a great advance upon its predecessor the second edition, for, although the number of pages has been reduced, the number of figures has been considerably increased, and many of the old figures have been replaced by new and more satisfactory successors. Colours have been freely introduced into the figures, and the facility of reference to the various parts has

[1] [illegible] By Cecil H. Leaf. Special study of the Lymphatic System in different parts of the body by P. Poirier and B. Cuneo. English edition translated and edited by Cecil H. Leaf, M.A., M.B. (Oxon.), F.R.C.S. London: A. Constable and Co. 1904. (Demy 8vo, pp. [illegible].)

[2] [illegible] By D. J. Cunningham. London and Edinburgh: Young J. Pentland. 1904. Demy 8vo, pp. [illegible], illustrations [illegible].)

therefore been greatly increased. The reduction of the pages of the text has not been gained by the sacrifice of completeness, but by condensation of statement, and a somewhat closer packing of the portion of the text dealing with the methods to be adopted for the display of the various organs and parts. Of the two sections dealt with in this volume, the thorax, and the head and neck, the former has been most improved by the addition and substitution of figures, and we are glad to see that, at last, a figure of the relations of the parts in the roots of the lungs has been given which is an accurate representation of the facts, although it will not adapt itself to the requirements of the crammer. The positions of the structures in the upper and back part of the pericardium are also beautifully shown in Fig. 14, in which the relation of the right branch of the pulmonary artery to the serous layer of the sac is clearly demonstrated. Indeed, no exception can be taken to the figures which represent organs as seen in the body, or organs which have been removed from their original situations after having been hardened *in situ*, but improvements are still possible in some of the diagrams which have been retained. Thus, in the diagram on p. 218 the subclavian artery appears to be springing from the innominate in front of the common carotid instead of behind it; in Fig. 83, on page 233, the course of the facial artery in the neck is misrepresented; and Fig. 106, on page 307, gives an erroneous notion of the relation of the external to the internal carotid artery. It is true that the figures noted are only inserted as diagrams, but it cannot be forgotten that it is figures of simple and striking outline frequently make the most permanent impressions on the eyes and minds of the student, and the value of more complicated figures, which accurately represent the true relationships of the various parts, is seriously discounted, if they are, to a greater or even less extent, contradicted by more simple but more rapidly impressive figures. We are particularly sorry to miss from this edition the plate showing the relations of the fissures and convolutions of the brain to the skull wall, for we cannot but think that anything which conduces to the application of anatomical knowledge to clinical purposes is to be looked upon as of great value.

The *Handbook of Surgical Anatomy*,[3] which Professor Wright and Dr. Preston have produced, differs from similar works in one important respect, for it contains an excellent account of the formation and development of the teeth, which cannot but be extremely useful to the medical student, who does not usually receive much satisfactory information on this important subject. Beyond this the book contains, as the authors themselves state in the preface, nothing original. The contents are, however, well arranged, and the marginal headings which have been adopted are a decided convenience. It is no doubt difficult in a book of small dimensions to know what to include, but unless the statement that the book is intended for junior students means that it is intended for those who have not been through the course which ought to precede attendance at a hospital, it seems a pity that so much space should be given to the repetition of incomplete, and in some cases misleading, if not incorrect accounts of such elementary anatomical knowledge as the position and relations of the brachial artery, etc., to the exclusion of what must be considered more valuable surgical information.

Almost eight years have elapsed since the appearance of the first section of Professor Spalteholz's *Hand-Atlas*[4] of human anatomy, and now, the last section of the last volume, with the exception of a supplement dealing with the lymphatic vessels, is before us. It contains figures of the spinal cord, the brain, the nerves, and the sense organs, and fully maintains the high standard of illustration, and the conciseness of text which characterized the earlier volumes. The more elaborate figures, which depict the exact conditions, are accompanied by excellent outline diagrams which obviate any obscurity that might arise from a lengthy description, and the precise positions and planes of the sections which show the internal appearances of the various parts of the brain are indicated on the surface views. There are, in addition, several semi-diagrammatic figures which demonstrate, most clearly, the courses of the fibres of the cranial nerves before they leave or after they enter the brain. It is unfortunate, however, that the sensorimotor area of the cortex is represented as extending over the ascending parietal as well as over the ascending frontal convolution, and that the terminal fibrils of the pyramidal fibres of the cord are shown terminating round the motor cells of the anterior cornua. Possibly these figures were prepared some time ago and it has not been possible to alter them. At the most this is a comparatively small drawback, and Professor Spalteholz is to be heartily congratulated on the completion of a most excellent piece of work.

The thirteenth volume of the *International Catalogue of Scientific Literature*[5] deals with human anatomy, and includes general histology and embryology. It contains a catalogue of the literature published in 1901, together with a part of that published in 1902, with the exception of the literature published in Austria, for which the material will not be available till a later date. The volume is divided into three parts: (1) Schedules and indices in four languages—English, French, German, and Italian; (2) an authors' catalogue; (3) a subject catalogue; the latter is divided into sections which deal with (*a*) general subjects, such as philosophy, history, biography, periodicals, reports of institutions, etc., general treatises, etc., addresses and lectures, pedagogy, institutions, museums, collections, etc., economics, and nomenclature; (*b*) methods and instruments of research, preservation, and preparation, both for macroscopic and microscopic purposes; (*c*) cytology and histology; (*d*) development in general, including general works, and papers dealing with the theory of descent, heredity, degeneration and regeneration, experimental embryology, growth and senescence, and malformations; (*e*) systematic anatomy, subdivided into sections dealing with the literature of different systems; (*f*) topographical anatomy. The work has been well done, little or nothing has been omitted, and the volume includes a vast amount of information arranged in a most easily accessible form. It will certainly greatly facilitate the work of those who wish to consult the literature on any anatomical subject which was published during the period covered by the catalogue.

NEUROLOGY.

Another instalment of a useful series of medical monographs is a small book on smell and its disorders.[6] M. Collet, Professeur Agrégé in the Lyon Medical Faculty, has given, in less than a hundred pages, a valuable sketch, likely to be useful to a busy man, of this perhaps the least specialized of the special senses, even if it be not, in a measure, undergoing in man a process of a devolution. He describes in a clear, succinct way the nerve apparatus of smell, tracing it with as much definiteness as the present state of knowledge admits from the nasal mucous membrane to the limbic lobe. He then gives a classification of odours, and describes the conditions of normal smell, distinguishing very clearly, for example, between that nasal olfaction which is inspiratory and that gustative olfaction which is popularly called taste in regard to flavours, and is expiratory. An interesting section follows on the rapidity and rate of fatigue of the smell mechanism. After the physiological side of the subject has been dealt with anosmia in general is discussed, and then its various etiological varieties—senile, traumatic, post-operative, toxic, functional, and other—are described in order. The concluding chapter on treatment is as hopeful as a rather depressing subject from the therapeutical side can probably be made. The book is not in any sense exhaustive or profound; it is not, indeed, a work of reference so much as a good starting-point for detailed study. It tells something about the more important matters connected with the olfactory sense, but in reference to some matters it is, and, as we think, in good proportion, distinctly curt. For example, all it gives bearing on the subject of "colour smell" is a statement that it may occur, that Mendoza collected 20 cases, a few facts of a case recorded by Halbert, and an allusion to the production of colour sensations by mechanical stimulation of the nasal mucous membrane.

After a two years' interval a fourth edition of *Nervous and*

---

[3] *Handbook of Surgical Anatomy*. By G. A. Wright, B.A., M.B.Oxon., F.R.C.S., and C. H. Preston, M.D., B.S.Lond., F.R.C.S., L.D.S.Eng. London and Manchester: Sherratt and Hughes. 1903. Crown 8vo, pp. 220, 48 fig.

[4] *Hand-Atlas der Anatomie des Menschen*. Mit besonderer Berücksichtigung der Bedürfnisse der Künstler. Von Werner Spalteholz. Dritte Auflage. Leipzig: Hirzel. 1903. Band III. pp. [illegible]. M. [illegible]

[5] *International Catalogue of Scientific Literature*. Vol. XIII. Anatomy, Human and Comparative; Physiology; Anthropology. London: Published by the Royal Society of London. 1903. Cr. 4to, pp. [illegible]. [illegible]

[6] *Les Troubles de l'Olfaction*. Par le Dr. J. Collet, Professeur Agrégé à la Faculté de Médecine de Lyon. Paris: Masson et [illegible]. 1903. Pp. [illegible]. [illegible]

Mental Diseases" by Dr. CHURCH and Dr. PETERSON has been called for which is evidence of the value of the work recognized in respect of the third edition in the BRITISH MEDICAL JOURNAL of April 12th, 1902, p. 906. The illustrations have been increased by 16 and the pages by 53. The most valuable addition is a critical review, extending to 37 pages, of recent problems of psychiatry with especial reference to such workers of the German school as Kraepelin, Ziehen, and Wernicke. Important neurological additions include matter on the healing of nerves, intermittent limping, herpes zoster, and recently recognized clinical signs of nervous disease. As an up-to-date and sound work the new edition may be cordially recommended.

In a little book entitled *Polyphase Currents in Electrotherapy*, Dr. GEORGE HERSCHELL has described the apparatus, technique, and therapeutical employment of the alternating dynamo current, the currents having a threefold relationship and being carried by three conductors in definite time sequence. Such a three-phase relationship is said to be the most advantageous in treatment, and the physiological effects of the application of such triphase currents to the human body are said to be an increase in the tension and amplitude of the pulse tracing, an increase in the excretion of urea, and a contraction effect on the muscular wall of the gastro-intestinal tract. On these grounds the triphase current is recommended in cases of neurasthenia with low blood tension, in cases of muscular atony of the stomach, and in the treatment of constipation. It is also recommended by Dr. Herschell for "loss of memory and the power of concentration," for "morbid fears," for headache, nervous indigestion, and neuroses of sensation. For obstinate constipation it is said to be necessary to give five or six sittings a week for six weeks. The dynamo current has been in regular therapeutic use in at least one London hospital for several years, and as far as we are aware it has not manifested any appreciable advantages over other electrical methods. If, however, the involuntary muscular mechanisms of the internal viscera can be powerfully stimulated by the polyphase currents, it is obvious that the method may have a wide sphere of usefulness; it is, however, equally obvious that it must be employed with caution and common sense.

The book on *Electro-Diagnosis*,[3] by Dr. J. M. MOSHER, of the Albany Medical College, New York, includes a scheme for the differential testing of nerves and muscles. It is short, and contains the root of the matter. On both counts it is to be warmly recommended. The book contains a classification of the different nerves and muscle groups and the charts of the motor points for each. It must, of course, always be borne in mind that the representation of motor points can be nothing more than a composite picture, but we are inclined to think that Dr. Mosher's charts approach nearer the average positions than many of their predecessors. The individual motor points for the nerves are marked by coloured stars, and of the muscles by circles in corresponding colours. The section on the technique of electrical testing is thoroughly good, and the variations in electrical excitability—from simple quantitative variations to such as the myotonic, myasthenic, and neurotonic reactions—are well brought out. The book deserves to be widely known.

ACID AUTOINTOXICATIONS.

DR. MORAWITZ'S monograph on *Diabetic and Non Diabetic Autointoxications* which has been translated into English by Dr. A. C. CROFTAN and published in New York, forms the fourth part of the Treatise on the Pathology and Treatment of Disorders of Metabolism and Nutrition issued under the supervision of Professor von Noorden. It deals with certain aspects of the interesting subject of acid autointoxications, that is to say, of such morbid states as are associated with

[3] By Archibald Church, M.D., and Frederick Peterson, M.D. London: W. B. Saunders and Co. [illegible]

[4] By Clarence Herschell, M.D. [illegible] with special reference to the Treatment of Diseases of the Stomach and Constipation. By George Herschell, M.D. London: H. K. Lewis. 1903. [illegible]

[5] By Dr. J. M. Mosher, A.M., M.D., Professor of Neurology, Albany Medical College, Albany, N.Y. Brandow Printing Co. [illegible] dollar.)

[6] Die Acetonurie und Diabetes mellitus. Von Carl Noorden. [illegible] Deutsch von Dr. L. Mohr. Berlin: A. Hirschwald. 1903. [illegible] Translated from the German by L. J. Moorhead, M.D. [illegible] Percy No. IV. [illegible] Price 6s. net.

the production in the organism of beta-oxybutyric acid and its derivatives aceto-acetic acid and acetone. The occurrence of these three closely related substances, the "acetone bodies" of Geelmuyden, in the urine, has long been recognized as characteristic of certain types of diabetes mellitus and further as being the chief, if not the sole, manifestation of perverted metabolism in some other morbid states either of manifest or recondite origin. The precise significance and the genesis of these substances in the organism have been the subjects of numerous investigations, to an excellent summary of which the first portion of the work is devoted. The writers accept at once the view that many clinical phenomena associated with the excessive production of beta-oxybutyric acid are manifestations of a dealkalization of the blood and tissue fluids, resulting from the excessive excretion of the basic constituents in combination with the acid metabolites. The possibility suggested by Kraus that the whole complex of such conditions may depend on some ulterior intoxication is dismissed readily, too readily in our opinion. The vexed question of the genesis of beta-oxybutyric acid and its derivatives is dealt with at once concisely and clearly, the varied significance of the experimental work of this direction is critically discussed, and the conclusion drawn in favour of the synthetic origin of beta-oxybutyric acid from products of fat katabolism. In seeking for the cause of this anomalous metabolism, the writers on the basis of Hirschfeld's work consider that the essential and only factor is defective carbohydrate assimilation. The appearance of "acetone bodies" in the urine of healthy subjects deprived of carbohydrates, in inanition, in the various morbid states classed by von Jaksch as "acetonurias" and in severe types of diabetes mellitus, is in one and all merely the expression of defective carbohydrate assimilation. On the basis of this view they recommend in a final section devoted to therapeutic indications, first the administration of carbohydrates in an easily assimilable form with the idea of preventing the further production of beta-oxybutyric acid, and, secondly, the exhibition of alkalies by the mouth and intravenously to neutralize the acid already formed, and to conserve and add to the diminishing store of alkali in the blood and tissue fluids. Of the two parts into which the work is divided, the first, dealing with beta-oxybutyric acid autointoxication from the pathological standpoint, is by far the more complete and interesting. The second part, in which the condition is considered from the clinical standpoint, is somewhat disappointing; the various types are hurriedly dismissed when their relation to carbohydrate disassimilation has been pointed out. In fact, it constitutes merely a running exemplification of the view of the genesis of beta-oxybutyric acid to which the writers have become attached; and its permanency is accordingly dependent on the maintenance of this particular hypothesis. The work is none the less a welcome addition to a subject pregnant with interest and importance, the modern literature of which is scattered and difficult of access. The American translation, also before us, needs no further comment than in respect of its manner of presenting the sense of the original. We may say at once that it might have been better; it strikes one as being hurried; in places we note exact transposition of the original sense, and typographical errors are more numerous than admissible.

PATHOLOGY.

IN the review of the last edition of Dr. COATS'S *Manual of Pathology* (BRITISH MEDICAL JOURNAL, vol. ii., 1899, p. 220) it was pointed out that the section on bacteriology was not up to date and that bacteriology was far too large a subject to be dealt with adequately in a volume devoted mainly to morbid anatomy and histology. The omission, in the new edition, of the chapter on bacteriology is a wise step on the part of the present editor, Dr. SUTHERLAND. The illustrations, which have been largely increased in number, will all be found useful in fulfilling the main purpose of the book, which is to give to the medical student a sound and comprehensive instruction in pathological histology and to bring the knowledge he gains by the aid of the microscope into correlation with what he sees in the museum and the *post-mortem* room. Attention is called to the revision of the section on the female generative organs. Whilst finding in this chapter much that is useful for the student, we think that it might with advantage have

[7] By [illegible] Coats, M.D. Fifth Edition, revised by L. [illegible] M.D. [illegible] Price 10s. 6d.

paid more attention to histological detail. Cancer of the uterus, for example, is one of the most important subjects with which the clinical pathologist has to deal; the description found in the present volume is far from sufficient to differentiate the more important types of cancer of the cervix and of the uterine body, nor is it sufficient to enable the student to understand how the expert arrives at a histological diagnosis of cancer from the fragments of cervix or uterine curettings usually submitted to him. We are glad to see that the pathology of the blood is treated very fully and that some excellent illustrations are given.

The German volume on the chemical pathology of tuberculosis,[12] edited by Dr. Ott, is a joint production by several authors, each of whom summarizes and reviews the work which has been done in special departments of the subject. The chemistry of disease is still in its infancy, and a great deal more work will have to be done before the data of chemical analyses can enable us to understand the essential nature of the processes at work in producing the tissue changes peculiar to tuberculosis. Dr. Ott's book is a step in the right direction. By collecting the somewhat meagre results which have already been attained, the gaps in our present knowledge are clearly indicated, and a stimulus is provided for future research in the direction in which it is most needed. In his chapters on tubercle bacilli and tuberculin Dr. Jolles does not appear to think that chemical analyses as yet justify any very positive conclusions as to the exact composition of tuberculous toxin or its relationship to the bacilli themselves on the one hand and to the products of their metabolism on the other. He thinks the very high percentage of phosphorus found in the ash of tubercle bacilli is a point of some importance, and associates this affinity of the bacilli for phosphorus containing compounds with the frequent presence of bacilli within the calcareous deposits found in healed tuberculous lesions. Dr. Moraczewski's chapter on the chemistry of the blood is particularly interesting. Dividing tuberculosis into three stages, he finds in the first a diminution in blood pigment, a concurrent diminution in iron, a loss of serum albumen, an increase of potassium salts, an increase of fibrin, and the appearance of cellulose. In the second stage the amount of fibrin is still further increased, and the blood becomes more concentrated. In the third stage the amount of fibrin diminishes. As the disease nears its termination we have a steady diminution in iron, potassium salts, and phosphates, and a steady increase in sodium salts. In Dr. Ott's very brief chapter on milk we find that a very marked diminution has been observed in the percentage of milk sugar secreted by tuberculous udders. But the number of chemical analyses which have been made of tuberculous milk appears to be extremely small, and the subject would probably repay fuller investigation. The chemistry of the urine in tuberculosis, so far as it is known, is dealt with fully by Dr. Clemens, who has brought together in a very useful article a good deal of the extensive and scattered literature on urinary chemistry. Upon the extremely complicated subject of metabolism in tuberculosis there is a lengthy contribution by Dr. May.

It may be inferred from the number of pages over which M. Letulle's description of the *Performance of Post-mortem Examinations*[13] is spread that the subject is dealt with in a very detailed manner, and this is indeed the case. The volume probably contains the most complete account, which has yet been published, of the best methods of making a satisfactory examination of the dead body and its various organs. M. Letulle commences with an account of the instruments suitable for the work to be done: this is followed by a chapter on general rules, and then comes a series of tables of measurements and weights, which would be a valuable addition to the contents of any *post-mortem* room if they were printed in large type and conspicuously displayed on its walls. In the next three chapters the points to be noted by external examination and the methods of procedure to be followed to accomplish the proper removal of all the thoracic and abdominal viscera, including the pharynx and soft palate, are dealt with in a very lucid manner. The remainder of the book, and by far the greater part, is devoted to the consideration of the methods of examination to be employed in the investigation of special organs and parts, particular attention being paid to the best methods of removing the various portions of the nervous system, and to the removal and examination of the organs of the special senses. In addition, attention is directed to the points to be more particularly observed in the performance of *post-mortem* examinations on the newly-born child, and on the bodies of puerperal females. The book is illustrated by a large number of original drawings, which represent the appearances met with in the *post-mortem* room, under ordinary circumstances, in a very vigorous and extremely accurate manner. Many of the illustrations are accompanied by very useful outline maps indicating the relative positions of the more important vessels and ducts in the removed masses of viscera. The book will undoubtedly prove of great service, especially to the practitioner who has only occasionally to make a *post-mortem* examination.

The valuable *Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh*[14] is now complete as far as the pathological series in the Edinburgh Museum is concerned. Dr. Theodore Shennan has concluded the work begun by Dr. C. W. Cathcart, who introduced into the earlier volumes a new method for the arrangement of pathological specimens explained in the *Edinburgh Medical Journal*, 1896; Dr. Shennan has adhered to his predecessor's method as much as possible. He has also had access to some valuable manuscript catalogues, including a description of specimens collected by Dr. Robert Knox. Another descriptive list, conveniently styled the "Biliary Catalogue," has proved of high value, as the collection of specimens of diseased liver and gall bladder is rich and—what is better still—well selected. Dr. Shennan himself has presented some valuable specimens to this series. The non-hydatid cyst, No. 38 in this series, recalls a recent discussion on this rare type of cystic tumour before the Royal Medical and Chirurgical Society, but the relations of the cyst wall are not shown, and the compiler suspects that the growth may have been associated with the gall bladder. Hepatic surgery has made such strides of late years that instructive preparations will be of great service to future students. The series illustrating disease of the genital tract includes many preparations of interest; the same may be said of the collection of diseases of the circulatory and respiratory organs, specially suitable for the student. The *Catalogue*, as a whole, is first-rate of its kind, and on that account indefinitely increases the value of the fine collection which it describes.

NOTES ON BOOKS.

A little pamphlet has reached us called the "*B.N.*" *Guide to Motor Cycling*.[15] It is primarily intended for motor cycle riders, and designed to instruct them in the management and care of the machine upon which their progress depends. It should prove, however, almost equally useful to any user of a motor who has not yet acquired a thorough knowledge of its parts, and still more, perhaps, to those who dislike being puzzled by terms which are now growing quite common even in ordinary society: of these, sparking plug, carburetters, petrol, are all fair examples. All such things, together with the general principles upon which motors work, are clearly explained both in the letterpress and by diagrams, in addition to the hints given on the diagnosis of the causes of breakdowns.

International Antituberculosis League. The Council of the International Antituberculosis League will meet in Copenhagen on May 27th and 28th, under the presidency of Professor Brouardel. The Council consists of 200 members in all, English, French, German, and Scandinavian, and many of them are expected to be present. The existing Danish antituberculosis sanatoria will be visited, and amongst other features on the programme is a lecture by Dr. Hillier, of London, on the danger arising from the practice of expectoration in streets and other public places.

12 *Die chemische Pathologie der Tuberculose.* Herausgegeben von Dr. A. Ott. Berlin: August Hirschwald. 1903. 8vo, pp. 511. M. 12.

13 *La Pratique des Autopsies.* By M. Letulle. Paris: C. Naud. 1903. Demy 8vo, pp. 546, 198 illustrations. Fr. 10.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Thermometer for the Tropics.—We have received from Messrs. F. Darton and Co., manufacturing opticians, John Street, Clerkenwell, a specimen of a clinical thermometer which they have made to meet the views of Mr. F. A. Baldwin, Protectorate Surgeon, McCarthy Island, Gambia. He found a difficulty in taking the temperatures of patients when the atmospheric temperature was above that of the human body, and consequently gave instructions for the manufacture of this special thermometer. Its points are that, being 6 in. long, non-prismatic, and with an open scale, it can be read in either mouth or axilla without removal and without twisting it round. It is of wide calibre, without constriction or bend, and hence the mercury readily drops from the atmospheric temperature to that of the patient if the former is above the latter, while all the mercury if desired can be easily made to return to the bulb without the loss of time required for shaking down an ordinary thermometer. At the distal end it also has a vacuum expansion capable of taking up four or five degrees of heat, so that there is no risk of the tube being burst by a high degree of either bodily or atmospheric temperature.

NOVA ET VETERA.

AN INDIAN "SNAKE-STONE."

In Buckland's *Curiosities of Natural History* an account is given of the apparently successful application of a mysterious local remedy to a native of India who had been bitten by a cobra. The remedy consisted of certain talismans and comprised two small round balls and a "small piece of wood-like material." These objects having come into Buckland's possession were examined for him by Mr. Quekett who could not, however, come to any conclusion as to their real nature. The small piece of wood-like material was most probably one of the objects which have been long known as "snake-stones."

The Indian snake-stone has for generations formed the centre of quasi-superstitious credulity and even now, from time to time, stories of its wonderful properties appear in the lay press, the article usually finishing up with the pious though somewhat exhausted reflection that there are more things in heaven and earth than are dreamt of in the philosophy of the modern medical man.

Indian snake-stone (natural size).

In India these snake-stones are highly prized and devoutly believed in. An enlightened native gentleman of Hyderabad recently gave several hundred rupees for one. Many years ago Sir J. E. Tennent acquired one and submitted it to Faraday for an analysis. Faraday reported that it was a fragment of calcined bone which after calcining had been filled with blood and again charred.

One of these Indian snake-stones has lately been submitted to us in order that its alleged properties might be put to the test with South African snakes. The owner obtained the specimen in India where he had it for some years. He stated that he had witnessed the application of these talismans to natives who had been bitten, and that he was in consequence of what he saw firmly believe in their miraculous powers. When handing the stone to this laboratory he gave the following interesting account of the origin of these curious stones and of the manner in which they should be applied in case of need. He said:

> I have had a snake-stone in my possession for many years. I got it from a Mohammedan fakir, who lives in the heart of the jungle in the Nizam's dominions, and who gives himself up entirely to religious exercises. He is a Mohammedan of the Sunni sect, and is known throughout the country round as a holy man. He lives entirely on charity, and is supported by the villagers in the neighbourhood of the jungle in which he has his abode. I was out shooting in the jungle when I came upon his encampment. I was attracted to it by the sight of a fire burning in front of a tent, and on approaching I found the fakir sitting by the fire. I entered into conversation with him, and he told me that he had formerly been a soldier in the Nizam's army, but that he had left the service and had become a fakir. He showed me a snake-stone, and told me that he had had it in his possession for many years. He said that he had received it from a fakir who lived in the jungle, and that he had given it to him in return for some service which he had rendered him. He said that he had used the stone frequently, and that it had always proved effective in curing snake-bites. He said that he had never known it to fail. He said that he had used it on himself, and that it had saved his life. He said that he had also used it on his wife, and that it had saved her life. He said that he had also used it on his children, and that it had saved their lives. He said that he had also used it on his cattle, and that it had saved their lives. He said that he had also used it on his horses, and that it had saved their lives. He said that he had also used it on his dogs, and that it had saved their lives. He said that he had also used it on his cats, and that it had saved their lives. He said that he had also used it on his goats, and that it had saved their lives. He said that he had also used it on his sheep, and that it had saved their lives. He said that he had also used it on his pigs, and that it had saved their lives. He said that he had also used it on his chickens, and that it had saved their lives. He said that he had also used it on his ducks, and that it had saved their lives. He said that he had also used it on his geese, and that it had saved their lives. He said that he had also used it on his turkeys, and that it had saved their lives. He said that he had also used it on his peacocks, and that it had saved their lives. He said that he had also used it on his parrots, and that it had saved their lives. He said that he had also used it on his monkeys, and that it had saved their lives. He said that he had also used it on his elephants, and that it had saved their lives. He said that he had also used it on his camels, and that it had saved their lives. He said that he had also used it on his horses, and that it had saved their lives. He said that he had also used it on his dogs, and that it had saved their lives. He said that he had also used it on his cats, and that it had saved their lives. He said that he had also used it on his goats, and that it had saved their lives. He said that he had also used it on his sheep, and that it had saved their lives. He said that he had also used it on his pigs, and that it had saved their lives. He said that he had also used it on his chickens, and that it had saved their lives. He said that he had also used it on his ducks, and that it had saved their lives. He said that he had also used it on his geese, and that it had saved their lives. He said that he had also used it on his turkeys, and that it had saved their lives. He said that he had also used it on his peacocks, and that it had saved their lives. He said that he had also used it on his parrots, and that it had saved their lives. He said that he had also used it on his monkeys, and that it had saved their lives. He said that he had also used it on his elephants, and that it had saved their lives. He said that he had also used it on his camels, and that it had saved their lives.

> The part bitten should be slightly moistened with water and the stone applied, the stone will adhere very firmly to the spot and after a time will drop off having absorbed all the venom. If the stone be now quickly immersed in a small quantity of milk the poison absorbed by it will exude and the milk will turn blue. (*Indian Mercury*, May 2nd, 1903.)

The snake-stone sent to us was a small object of trapezoid shape, and measured 22×15×5 mm. The upper surface was regular and slightly convex, the lower somewhat irregular and slightly concave. A fragment of the shaft of an adult femur would have a similar shape and curvature. The colour was jet black, and all the surfaces were highly polished. After remaining forty-eight hours in a dry atmosphere, the stone weighed 1.02 gram, and had a specific gravity of 1850. When applied to the previously damped skin of the back of the hand it adhered to the surface, and this adherence increased from minute to minute. This power of the snake-stone to affix itself to the skin has doubtless been an important factor in establishing the popular belief in its supposed powers; the owners of these stones have, however, carefully concealed the fact that these objects adhere to the skin of a person who has not been bitten by a snake just as strongly as to that of one who has been bitten. The smooth fragment of a long bone taken from the remains of a horse which had been cremated was found to possess a similar property of adhering to the damped skin. This fragment of horse bone, although of a more compact structure than the snake-stone, had a specific gravity of 2700; a piece of a long bone from some boiled mutton had a specific gravity of 2000.

The snake-stone was brittle, and showed a clean, smooth fracture; the interior was of a uniform, dull-black colour. A small fragment effervesced with a mineral acid, leaving a combustible organic residue. It seems reasonable to suppose that this snake-stone consists of a fragment of cremated bone, possibly a sacred memento from a burning *ghât*, which has absorbed sufficient fatty material to reduce its specific gravity below 2000; the practice of placing the stone in milk after it has fallen from the patient doubtless leads to an accumulation of fat in its interior, thus lowering its specific gravity, and giving a greasy polish to its surface.

The efficacy of the snake-stone was tested in the following manner: A rabbit, weighing 1.838 grams, was injected subcutaneously with 0.00060 of a gram of the venom of the black mamba, dissolved in two or three drops of water. This snake is reputedly the most deadly of the South African colubrines. Injected directly into a vein, this quantity of black mamba venom would have produced death in a rabbit of this weight in less than five minutes; given subcutaneously, however, it would not be quite sufficient, as a rule, to prove fatal.

Previous to making the injection the surface for a few inches round had been shaved. After withdrawing the needle, which in these experiments was inserted at right angles and to a depth only just sufficient to traverse the integument, the skin was moistened and the snake-stone applied over the puncture. The stone became fixed to the skin and remained adherent for two hours and forty-five minutes, when it fell off during a movement of the animal. Death occurred three hours and forty-nine minutes after the injection, the symptoms of black mamba bite having been developed without any modification. A control animal weighing 1.015 grams was similarly shaved and injected with 0.00060 of a gram of the same venom, that is, with a proportionately equivalent dose, no snake-stone or other reputed remedy was applied. The usual symptoms were developed, but in two hours they had passed off and the animal recovered.

A rabbit weighing 1.101 grams was shaved over the flank and injected subcutaneously with 0.00078 of a gram of puff-adder venom. This quantity of puff-adder venom injected directly into the circulation should kill a rabbit of this weight in about two hours, when injected subcutaneously, however, it is considerably less than a fatal dose. The snake-stone was applied, and at once adhered to the puncture. Death occurred only a few minutes after the operation, and on examining the body the stone was found to be still firmly fixed in its original position and to require some force to remove it, the

superficial layer of the cuticle becoming detached with the stone. The symptoms and *post-mortem* appearances in this animal were those of puff-adder bite; in addition to the usual symptoms, however, it was noticed that the thigh over which the stone was fixed was maintained immovably flexed under the abdomen, passive extension could, however, be made quite easily and did not cause any pain. The suggestion was made that the presence of the stone clinging to the flank produced a mental effect upon the animal. The rabbit used as a control to this last experiment weighed 1,540 grams and having been shaved received similarly 0.0023 of a gram of the same venom; in six hours' time it had completely recovered without developing any very severe symptom.

Upon both the occasions on which the snake-stone was used and immediately it left the skin it was placed, in obedience to the ritual, "in a small quantity of milk." No visible changes occurred in the milk, and the only change noticed in the stone was an increase in weight. Before use, in the first experiment, the stone weighed 1.0235 gram; after it had been removed from the milk and carefully wiped dry it weighed 0.11 gram heavier that is, it had absorbed about one-ninth of its own weight of moisture.

The slight power of absorbing fluids possessed by the snake-stone is doubtless due to its porous consistence and to the fact that it consists in part of animal charcoal. This property, feeble though it be, can be the only useful physical quality inherent in these objects. To apply suction instantly by the lips to a snake-bite would probably remove more venom in a few seconds than a piece of charred bone could absorb in as many hours. It is more than probable, however, that the exhibition of one of these mysterious objects produces in the patient a mental attitude of "belief" in recovery," and this psychical state greatly improves his chance. In rabbits it appears probable that the mere presence of the clinging stone inspires fear rather than faith, and may thus prevent rather than assist recovery.

H. Watkins-Pitchford, F.R.C.V.S.,
Government Bacteriologist.
W. Watkins-Pitchford, M.D., F.R.C.S.Eng.,
Assistant Bacteriologist.
The Laboratory, Pietermaritzburg, Natal.

LITERARY NOTES.

We are asked to state that the fifteenth annual issue of *Burdett's Hospitals and Charities, the Yearbook of Philanthropy and Hospital Annual*, will shortly be published by the Scientific Press, Limited, Southampton Street, Strand.

We gather from an article published in a recent number of the *Journal of the American Medical Association* that some county medical societies in the United States have a "public press committee," the function of which is to contribute to newspapers articles bearing on current medical and sanitary topics likely to be of interest to the general public. The Newcastle County (Delaware) Medical Society has for some months had such a committee, which is doing excellent service to the profession and to the public. Our contemporary goes on to say that one needs only to glance at the average newspaper or popular journal to realize that there is a demand for this sort of information. "Papers have columns headed 'Talks with the Doctor,' 'Medical Items,' 'Department of Hygiene,' etc., and it is certainly to be deplored that newspapers, in their inability to secure this information from reliable sources, have opened their columns to the advertising quack and to the man who is not only a little 'off colour,' but who is unwisely ready to furnish a medical article over his own signature." It is urged that instead of the antagonism, which so often exists, between the medical practitioners of a community and its newspapers, there ought to be harmony and co-operation. The *Journal of the American Medical Association* adds: "As rapidly as societies can arrange the matter, certain ones should be designated to perform this office, and it certainly will tend toward a greater harmony between physicians who shun publicity and newspapers whose business is publicity." Attention has often been called in the British Medical Journal to the incalculable mischief wrought by the recklessness with which newspapers, especially those of the cheaper class, publish absurd or positively mendacious statements as to "cures" of terrible diseases and new medical "discoveries." But we do not think that the remedy proposed by our American contemporary is either sound or practical. It is one thing for a county medical society to have articles written; it is quite another thing for it to get them published. Newspapers want sensational matter, and the sober truth must necessarily be dull. Besides, the work is hard and requires special skill, and the question must needs arise, Who is to pay? The newspapers will doubtless prefer to buy the wares which they require in the open market. Is the profession to pay for the privilege of instructing the public?

To the February number of the *Journal of the Royal Army Medical Corps*, Lieutenant J. A. Balck contributes an interesting note on a book which presents a vivid picture of the life of the army surgeon of the eighteenth century. The author is Dr. Hamilton, who in his *Duties of a Regimental Surgeon*—as to the date and place of which unfortunately Lieutenant Balck vouchsafes no information—gives the following account of the service "little more than a hundred years ago":

Each regiment, as well Militia as Regulars, is allowed a surgeon and surgeon's mate. Their business is to attend to the diseases of the men at all times, whenever it is judged necessary. For this service the surgeon is allowed 4s. a day, the mate 3s. 6d. But out of this are levied from them considerable duties; to pay these, daily stoppages are made—for such is the custom of the army, from the surgeon 1s. and from the mate 6d. This makes their subsistence equal, so that each is limited to a guinea a week; and on this they may subsist as well as they can. . . . . The surgeon and mate are exempted from all duty, as it is called in the army—such as mounting guard, attending courts-martial, and such like, their charge alone being confined to the sick. They rank as regimental staff officers, and are considered as an appendage to the corps. In the line of actual subordination the surgeon ranks not only below the youngest ensign, but the quartermaster and adjutant; and the mate again below the surgeon. The surgeon receives a commission signed by the Secretary of War, or, if abroad, by the Commander-in-Chief there, who has authority to grant it; the mate only a warrant signed by the colonel of the regiment into which he is about to enter. This subjects him to some inconvenience . . . . in that he is liable to confinement in the same ignominious manner as a private, and this even at the pleasure and caprice of the youngest ensign of the corps. . . . . The surgeon or the mate must be present at all regimental punishments—that is, at all times when any of the privates are for certain misdemeanours sentenced to be flogged. Their business is to watch the suffering delinquent attentively, and to order him halberts whenever he is thought in danger, whether the sentence of the court-martial be altogether executed on him or not. In this the commanding officer has it not in his power to control him if he thinks it expedient to assert this right of opinion and authority. . . . . The surgeon and mate are obliged to attend field days; their business in the field is to give assistance should any accident take place . . . . . Each regiment has a hospital for its sick, provided a house for that purpose can be procured in the place where they are quartered. To defray the expense of this, Government allows about £30 sterling per annum in some regiments. I believe, indeed, this is the allowance in most. If there be any overplus it is applied to the purchase of wine for the sick, utensils for the house—such as dishes, spoons, etc. Out of this, sixpence a day is also paid to a nurse in some regiments—an indispensably necessary servant for an hospital. . . . . To supply medicines, each private pays 1d. a month, each non-commissioned officer 1½d. The non-commissioned officers I call the drummers, corporals, and sergeants. Besides this, when the regiment is encamped, Government sends him a chest of medicines as an addition to the medicine money.

Naturally the army surgeons had their grievances. There was the question of status, as to which it is sufficient to say that a surgeon could not be presented, and the surgeon's mate was liable to be flogged like a common soldier. There were also difficulties with the combatant officers. One case is quoted in which a man was taken out of hospital and sent back to his regiment by the commanding officer, the result being that he died. Many surgeons of a more recent day will agree with the author when he says that he always found young officers who knew but little about their own duty from their short service most troublesome in this respect. He candidly adds, however, that "such are the regimental practitioners of physic that a spur, not a curb, is often wanted."

The following letter, which is translated from the original text published in *La France Médicale*, is interesting in more ways than one. It shows the position of electricity as a therapeutic agent in the early part of the nineteenth century. Moreover, it proves that Corvisart, a man of the strictest integrity, who dared to be frank with so formidable a patient as Napoleon, thought it justifiable in desperate cases to deceive sufferers under his care. Nowadays his conduct would doubtless be described as utilizing the influence of auto-suggestion. The letter is undated, but Professor Raphael Blanchard thinks the date must be later than 1810, by which time the use of electricity was fairly common in medical practice. The letter is addressed to Monsieur Le Dru fils:

I am extremely gratified at the promptitude with which you have sought to repair a wrong of which M. Philip and I believed you to have been guilty. We recommended electricity to the parents whom we have under treatment, as we prescribe every day remedies in the efficacy of which we have no belief. In desperate cases, however, it is

our duty to practise imposition on patients *cura dentur quare desint*. [illegible] is based on the principles of humanity these are the only [illegible] in which I have ever deceived those who place their [illegible] We thought, therefore of electricity, not with the intent [illegible] to disrepute, but because we knew nothing better [illegible] remedies do not lose their real usefulness because they have [illegible] purpose.

The rest of the letter is of a personal character.

In a note on the discovery and first use of the stomach tube by an American physician published in the *Johns Hopkins Bulletin* for September, 1903, Dr. Julius Friedenwald states that it is generally believed that two English surgeons, Jukes and Bush, are the inventors of the stomach tube. This claim, he says, is based on an article published by Jukes in the *London Medical Repository* of 1822, giving a description of "an apparatus for removing poisons from the stomach." In Jukes's experiments, first on dogs and then on himself and others, the apparatus was proved fully to answer the intended purpose. In these experiments Jukes swallowed, first, two drachms of laudanum; he afterwards gradually increased the quantity until it reached 10 drachms: after this he administered to several individuals (one of them a female) 1 oz. of laudanum with an equally successful result. Dr. Friedenwald, however, holds that the credit of the discovery is due to Physick, who published a paper in October, 1812, in the *Eclectic Repertory* (vol. iii, page 111) under the title of "Account of a New Mode of extracting Poisonous Substances from the Stomach." It appears that Alexander Monro, jun., in his inaugural thesis, published 1797, suggested the use of a tube and syringe as a suitable means of extracting poison from the stomach: it does not appear, however, that he ever employed them. There is evidence that Physick used the tube as early as 1800, and that he recommended it for many years in his lectures to his students; that by his advice his nephew Dorsey had stomach tubes made in Paris as early as 1803, and employed the tube unsuccessfully in a poisoning case in 1809; and that in 1812 Physick published the report of successful results with its use in cases of poisoning.

Dr. Toulouse, author of a physio-psychological study of Emile Zola and other works of a kindred character, has been appointed editor of the *Revue Scientifique* in succession to Professor Charles Richet.

After January 31st the Primrose Press, conducted at 168, Fleet Street, will be known as the Orient Press. The work of the firm will be mainly devoted to placing before the public a shilling series of small, attractive versions of the great Oriental religions and literatures under the title of *The Wisdom of the East*. The first volume is on *The Duties of the Heart*, translated from the Arabic of Rabbi Bachye, with an introduction by Edwin Collins. No English version of this work has yet appeared. It will be followed at short intervals by *The Sayings of Confucius*, *The Odes of Confucius*, and *The Sayings of the Brothers of Sincerity*. The latter will contain an abstract of the teachings of this interesting sect, which flourished in Persia and Arabia in the ninth and tenth centuries, and will be edited, with an introduction, by Dr. Paul Bronnle. The Indian religions and literatures will be generally edited by Dr. S. A. Kapadia, Secretary of the Northbrook Society.

The *Manchester Medical Students' Gazette* for January contains some interesting reminiscences of the days of his youth by Dr. G. W. Mould, Medical Superintendent of the Manchester Royal Lunatic Hospital, Cheadle, and Lecturer on Mental Diseases in Owens College. When dresser to Mr. Sands Cox at the Queen's Hospital, Birmingham, he had the good fortune to be sent by his chief to Leamington, to apply the continued galvanic current to a private patient. At Leamington he came across the celebrated Dr. Jephson. The patient handed a fee to the young dresser who, in his modesty wished to return it. Jephson interposed, however, and gave him the following advice: "Now, Mr. Mould, you are a young man and I am an old one; never refuse a fee. Take it and if your patient cannot afford it give it him back again, but let him feel you have earned it." Jephson kept Dr. Mould for several days with him. His house was full of beautiful and valuable pictures, and works of art. He told his young visitor how he had risen from the position of a surgery boy to that of a physician whose fame was in the mouths of all leading wateringplaces, and who for several years made a practice of £25,000. He also told Dr. Mould a story of how he had discovered the efficiency of the acid treatment of dysentery in patients from tropical climates. Happening to have in charge of an Indian officer suffering from chronic dysentery and some sore throat, he made up a chalk mixture for the dysentery, and a mineral acid gargle for the throat. By mistake he put the wrong labels on the bottles, and the patient gargled his throat with the chalk mixture, and swallowed the mineral acid gargle with the result that the dysentery was cured! Jephson was too diplomatic to tell the patient how the cure had been wrought, but he had the wit to profit by the mistake in dealing with subsequent cases.

THE FEEDING OF INFANTS.

At a recent meeting of the Académie de Médecine, Professor P. Budin presented an interesting report, drawn up in collaboration with M. Pierre Planchon, on infant feeding. Professor Budin's *Consultation de Nourissons* at the Clinique Tarnier, in Paris, was described in the series of articles on the milk supply of large towns published last spring, but the latest views of so high an authority on the subject will be found valuable.

The report deals with the feeding of the infants brought up under the supervision of the hospital during the first two years of life. In authorizing the *Consultations de Nourissons* the Administration de l'Assistance Publique made the condition that children born in the hospital should alone be subjected to the hospital supervision.

In every case an inquiry is made to ascertain that the mother is really poor, and each mother is expected to bring her baby every Friday morning to have it weighed and examined. The results are entered in a register and noted on a chart, so that the infant's progress can be followed. Professor Budin lays great stress upon the importance of women suckling their infants: but in case of insufficiency the mother's milk is supplemented by a varying quantity of sterilized milk, which the mother fetches or sends for at the hospital every day. This is called mixed feeding. If the woman is absolutely unable to nurse her child, sterilized milk alone is prescribed. This is termed artificial feeding.

Since March, 1898, 712 children have attended the consultations of the Clinique Tarnier for two years or less, the shortest period, as shown in the following table, being one month:

Children	who	attended	for	1	month	21
,,	,,	,,	,,	2	,,	92
,,	,,	,,	,,	3	,,	76
,,	,,	,,	,,	4	,,	52
,,	,,	,,	,,	5	,,	44
,,	,,	,,	,,	6	,,	33
,,	,,	,,	,,	7	,,	31
,,	,,	,,	,,	8	,,	24
,,	,,	,,	,,	9	,,	21
,,	,,	,,	,,	10	,,	18
,,	,,	,,	,,	11	,,	17
,,	,,	,,	,,	12	,,	27
,,	,,	,,	,,	13	,,	17
,,	,,	,,	,,	14	,,	17
,,	,,	,,	,,	15	,,	11
,,	,,	,,	,,	16	,,	9
,,	,,	,,	,,	17	,,	10
,,	,,	,,	,,	18	,,	10
,,	,,	,,	,,	19	,,	10
,,	,,	,,	,,	20	,,	9
,,	,,	,,	,,	21	,,	8
,,	,,	,,	,,	22	,,	8
,,	,,	,,	,,	[illegible]	,,	3
,,	,,	,,	,,	24	,,	1
Total						712

The average attendance was nine months.

So many attended that it was found necessary after March, 1903, to organize a second consultation day weekly. The statistics show that about 95 per cent. of the infants were suckled or received mixed feeding, or began by being suckled and went on to cow's milk. In short, 95 per cent. have taken as much of their mothers' milk as it was possible for them to have. This fact proves that Professor Budin takes pains to encourage suckling. In fact, only 5 per cent. of the infants have been fed artificially. In these cases the quantity is carefully prescribed and the milk is analysed every day. In passing, Professor Budin and M. Planchon remark that if overfeeding is more dangerous in artificial feeding, it causes, nevertheless, serious consequences in breast feeding. They point out that in judging the effect of mixed feeding the scales are the best guide. If an infant has not gained sufficient weight or has not gained at all, supposing at the same time that there are no pathological symptoms, supposing its digestion good and its bowels in order, if the child wakes up often during the night, and if, after weighing it before and after each meal, it seems to have taken too little milk because the breasts contain little, then it is extremely probable that it is insufficiently nourished.

Sometimes though the quantity is sufficient, analysis shows that the milk contains too little fat. In cases of this kind the mother's milk should be supplemented by sterilized cow's milk.

Great stress is laid upon the danger of overfeeding. It is less injurious to underfeed than to overfeed, for although the child's growth may be checked digestive troubles are avoided, and when the quantity later on is augmented it will rapidly pick up lost weight.

In supplementing the mother's milk by cow's milk care must be taken not to give too large quantities. As the infant can take in artificial food so easily it is apt to lose the power of proper suction, and this tends to dry up the mother's breasts. Particular attention is drawn to the fact that mother's milk and sterilized cow's milk do not clash; on the contrary, the former aids the digestion of the latter. It is wiser to give the surplus sterilized milk after the mother has suckled the infant—supposing her milk is not sufficient—rather than to give it intermediately as a separate meal, for suction increases the secretion of milk.

If, for example, 120 grams of milk are necessary during the twenty-four hours, instead of giving two bottles containing 60 grams, it would be preferable to give four bottles of 30 grams. The authors consider that there are great risks in feeding infants during the first weeks artificially. Later on after the first three or four months it is less dangerous, especially if the infant has not suffered from digestive troubles.

When artificial feeding is a necessity Professor Budin employs milk supplied by the Assistance Publique containing on an average 3.8 per cent. of fat. This is sterilized in a water bath in bottles each containing one meal and is given pure and unsweetened.

For infants of 3 or 4 months (weighing from 5 to 6 kilogrammes) the infant is given about the tenth part of its weight of milk—that is to say 100 grams per kilogramme.

During the later months a little flour is recommended to be added to the milk to make light pap. This, as is proved by chart records, is quite sufficient. During the summer heats children are saved from those attacks of diarrhoea commonly attributed to microbes, but, according to the investigations of Dr. Maurel (of Toulouse), due, likewise, to the administration of too large quantities of milk.

Care should be taken that the milk should be neither skimmed nor watered, or the quantities indicated of 100 grams per kilog., and containing 38 grams of fat, will no longer be reliable.

It is very important, also, to watch children during the second year of life, when the teeth are being cut, and when weaning takes place. Mortality may be less during the second year, but much delicacy and ill-health is engendered by ignorance. Weaning should take place as late as possible, the child receiving, in addition to its mother's milk, food made with flour.

The same principle applies to artificial feeding, which should be progressive; at the end of the first year a little flour, about 5 grams (one or two teaspoonfuls) is added; that is to say, a teaspoonful to 25 grams of pure milk.

The following table shows the results obtained at the Clinique Tarnier:

Name.	Quantity of Milk.	Weight in Kilograms.	Final Age.
L. ...	1,500 gr. in 3 meals	[illegible]	2 years.
L.	1,500 ,, ,, 3 ,,	[illegible]	2 ,,
L.	1,400 ,, ,, ,,	[illegible]	2 ,,
D. ...	1,350 ,, ,, 5 ,,	[illegible]	2 ,,
G.	1,500 ,, ,, 5 ,,	[illegible]	2 ,,
D.	1,450 ,, ,, ,,	[illegible]	2 ,,
V.	1,350 ,, ,, 3 ,,	[illegible]	2 ,,
P.	1,200 ,, ,, 3 ,,	[illegible]	2 ,,
N.	1,200 ,, ,, 5 ,,	[illegible]	2 ,,
L.	1,350 ,, ,, 5 ,,	[illegible]	2 ,,
L.	1,250 ,, ,, 3 ,,	8.50	1 year.
L.	1,000 ,, ,, 2 ,,	[illegible]	9 months
L.	1,000 ,, ,, 2 ,,	[illegible]	9 ,,
C.	1,000 ,, ,, ,,	[illegible]	2 years.
D.	1,125 ,, ,, 3 ,,	10.09	2 ,,
D.	1,200 ,, ,, 5 ,,	[illegible]	21 months.
N.	1,350 ,, ,, ,,	12.79	2 years.
N.	1,200 ,, ,, 3 ,,	10.50	2 ,,
C.	1,005 ,, ,, 3 ,,	[illegible]	2 ,,

At first the inclination was to overfeed the infants, but experience showed that the best guide was the infant itself. In 55 observations the quantities of milk taken corresponded to about a tenth part of the body weight, 100 grams per kilog. So long as children are under the supervision of the hospital—that is, up to the age of 2 years—they are only given milk and food made by adding flour to milk. Meat soup is not nourishing; 1,000 grams of it are only equivalent to 100 grams of milk. It has also the disadvantage of making babies take a dislike to milk. Eggs are not given and not recommended, as in towns they are often stale, especially in winter. The average weight of the infants under the supervision of the Clinique Tarnier is at 2 years 11,500 grams. Digestive troubles and gastro-enteritis have almost totally disappeared; even during the heats of summer not one child dies of diarrhoea. Troubles due to overfeeding, such as distended abdomen, dyspepsia, obesity, rickets, eczema, etc., are not seen, and down to the present not one case of scurvy has been observed.

Since March, 1898, 712 infants have been medically supervized at the Clinique Tarnier; of these 26 have died, a proportion of 36.5 per 1,000. The general statistics for Paris are for a period of twelve months; the children have remained at the Clinique Tarnier on an average of nine and a-half months, so that the mortality-rate for the year may be estimated at 46 per 1,000. In Paris during the years 1891, 1899, and 1900, deducting from the births those infants sent to nurse outside the capital, there were 20,282 deaths under 1 year in 113,805 infants, or a proportion of 178 per 1,000. The mortality in Paris generally from affections of the digestive system was 69 per 1,000 among infants brought up by the breast and artificially; at the Tarnier Hospital the deaths were zero.

Professor Budin refutes the idea that infants attending the consultation are subjected to cold and contagious diseases, and the benefit derived is clearly proved by the fact that not one child has died of diarrhoea.

THE IMPERIAL YEOMANRY HOSPITALS.

The following letters have passed between Lady Howe as Chairman of the Editing Committee of the Imperial Yeomanry Hospitals' Report and Sir Alfred Fripp, relative to his evidence before the Commission on the War in South Africa:

February 11th, 1904.

Dear Lady Howe,—In the course of the correspondence which has passed between us you take exception to certain views relative to the book on the yeomanry hospitals expressed by me in the evidence I gave before the Committee on the War in South Africa. The statements in which these views were expressed were "that I did not think that the contents of the book should be regarded or trusted as the great authority on the management of hospitals in the field," that "it contained many misleading statements," that "the statistics in it were in many points inaccurate, and might be called, if it was a money matter and was done in the City, 'cooked' so as to make an impressive number of figures," that I knew that "a whole lot of statements as to services rendered and that sort of thing were simply and absolutely untrue," and that there was "no other word to adequately describe some of the statements and many of the inferences led up to."

From yourself and others I now know that not only was much pain caused by these statements but that my views of the facts on which they were founded has been strenuously challenged. While I must ask you to accept my assurance that I gave this evidence in perfect good faith and as the expression of opinions which I had honestly formed I also now ask you to let me say that on reflection I think my conclusions were hastily come to, and that even if they had been expressed in less sweeping language they are liable to a construction which goes beyond what was justifiable. The questions put to me were unusual, came unexpectedly, and took me by surprise. I was under the impression that I was answering a scientific question as to whether the scheme of organization of the Yeomanry Hospitals was such as I considered scientifically perfect and as such adequately described in the book. I replied hastily and I see, on looking at the words I used, that my language went beyond a mere expression of a simple opinion, and I wish as handsomely and completely as I can to express my regret for what has been construed as allegations against the good faith of some of those with whom I was associated. To begin with, my observations upon the Yeomanry Hospitals were meant to be confined to the only one of which, as the opening statement in my evidence indicated I had practical experience, namely, that at Deelfontein. Of the working of the Imperial Yeomanry Hospitals in the Transvaal and of the Yeomanry Field Hospital and Bearer Company I had no practical experience; I expressly stated in my evidence that I did not go north of Kronstadt, and I had and have formed no opinion about them. As regards Deelfontein, I wish in justice to myself to say that I had in my possession written returns made on the spot which led me to doubt the accuracy of the figures upon the point of the entries as to patients and the occupation of beds. It was these returns which I had in my mind when I expressed myself in answer to an unexpected question. I now find, however, that these returns have been challenged by people whose integrity I did not and do not for a moment intend to question, and for whom as individuals I have much respect. It is possible that I may have been right, and that they and not I have been misled, for in such

a scene of hurry as prevailed in the early days of the hospital at Deelfontein it may well be that one or other of us was misinformed. What I hope is that my assurance will be accepted that I spoke under an impression which may have been erroneous, but which was formed on what I considered to be good grounds. I still think that, judged by purely scientific standards, the statistics used in the book would require more sifting before the whole of them could be accepted as the basis of a fully tested scheme for an army hospital system in the time of war. With this qualification I unreservedly express my regret for statements which have given pain. If I have used language about the services they rendered which has given pain to those with whom it has been my privilege to be associated in a memorable patriotic endeavour, I trust that they will accept this explanation, and believe that what I intend is to convey to them a full expression of regret.

Yours sincerely,

Alfred D. Fripp.

11th Feby., 1904.

Dear Sir Alfred Fripp, On behalf of myself and the Editing Committee of the Imperial Yeomanry Hospitals Report, I have pleasure in accepting the explanation and expression of regret contained in your letter in the spirit in which they are offered.

Yours sincerely,

Georgiana Howe.

The following is the evidence referred to in the correspondence between Sir Alfred Fripp and Lady Howe as given in the minutes of evidence of the Royal Commission on the War in South Africa (vol. i, p. 508). The questions were asked by the Chairman, the Earl of Elgin:

I suppose that book of Lady Howe's on the Yeomanry Hospitals really contains all the information on the subject; I suppose it is the great authority upon the management of hospitals in the field?—It is a curious thing that you should have asked me that question. It is just because I do not think that its contents should be so regarded or trusted that I have refused to have anything at all to do with the production of the book.

I have not seen it. I only saw it mentioned yesterday in the papers, and wondered whether it contained any valuable information. You think not?—I know that it contains many misleading statements.

Is it merely an advertisement?—I think it contains. I really do not know exactly how to put it, but I regard it as a perpetuation in print of a great deal of the spirit that should never have been evoked at all in the last war, and that one would have imagined would at least have been excluded from having any weight in the management of a large hospital financed by public voluntary subscriptions. I know for a certainty that a whole lot of the statistics are not right.

I think it is very important that you should say so, because they will all be accepted?—I shall not rush into print and say it; but I know for a certainty that a lot of the statistics are simply what would be called, if it was a money matter and was done in the City, "cooked," so as to make an impressive number of figures, and I know that a whole lot of statements as to services rendered, and that kind of thing, are simply and absolutely untrue. There is no other word to adequately describe some of the statements and many of the inferences led up to.

And were you asked to verify the statements?—Yes.

And you said that you would not?—I said I would not. I went out as chief civilian medical officer and senior surgeon of this big hospital. I was responsible for its being increased from 100 to 520 beds, and I had the choosing of the medical staff, including the Royal Army Medical Corps commandant and nurses. I had in addition the responsibility of choosing, or of ratifying the choice of all the equipment, which involved an expenditure of nearly £100,000. Further, I had to plan the establishment and the working of the institution, and I was responsible for all the features in which it differed from the military hospitals, and broke new ground, and after eight months of such work I did not feel inclined to simply write my article in this book without seeing what other people who went as my juniors chose to say.

And that condition was not satisfied?—That condition was not satisfied.

THE ARMY COUNCIL AND MILITARY MEDICAL ADMINISTRATION.

The following letter from the Chairman of Council of the British Medical Association has been published in several of the leading newspapers of the United Kingdom:

Sir, I desire, on behalf of the British Medical Association, to point out a serious defect in the constitution of the Army Council recommended by the War Office (Reconstitution) Committee and formally appointed by Letters Patent published on February 8th, and the Royal Warrant of February 12th, 1904. Among the most welcomed Army reforms carried out under Mr Brodrick's administration was the appointment of the Director-General of the Army Medical Service to a seat on the Army Board. The constitution of the new Army Council without any medical representative is a retrograde step.

The outcome of the War Office Committee report is the formation (1) of a *Defence Department* working directly under the Prime Minister of the day; (2) an *Army Council* like the Board of Admiralty; and (3) an *Inspector-General* and staff to do Army Inspections. I have no remarks to make as to the first and third, but in reference to the formation of an Army Council on the same lines as the Board of Admiralty, the British Medical Association feels considerable anxiety. All the branches of the Army are to be subordinated to this Army Council, and it forms the "*supreme administering body*" of the Army. On this supreme administering body of the Army there is no direct representative skilled in the technical work of the Army Medical Service able to advise the Army Council on medical and sanitary requirements. In the various duties assigned to the Army Council, no mention is made of sanitation, the prevention of disease, or of the care of the sick and wounded. All reference to medical and sanitary matters is thus entirely absent. In the opinion of the British Medical Association this is unsatisfactory, and it views with grave anxiety the injurious effect on military medical efficiency that must result.

Although the Army Council may from its composition deal efficiently with Army matters in general, and arrive at sound conclusions, it seems difficult to imagine how, in matters so highly technical as medical and sanitary work, the Army Council, without any trained expert member, can efficiently discharge the work of administration in these directions. The British Medical Association therefore feels that it would fail in its duty if it did not bring this condition of affairs to public notice, and strongly urge that the Army Medical Service should be represented on the Army Council by an officer of that service who would personally represent the sanitary requirements and general medical needs of the Army.

The proper method of dealing with the Medical Service of the Army is to give it responsibility and power. To secure these essentials the British Medical Association considers that direct representation on the Army Council is of vital importance to the Army and to the Nation.

I am, your obedient Servant,

Andrew Clark,
Chairman of Council,
British Medical Association.

429, Strand, London, W.C.,
February 10th, 1904.

INDIAN REPORTS.

Hospitals and Dispensaries in Burmah.

Burmah is a growing Province. The census of 1901 revealed an increase of 21.2 per cent. as compared with that of 1891. Colonel C. C. Little's triennial report gives evidence of corresponding progress in charitable medical relief. The number of institutions increased from 105 in 1899 to 115 in 1901, and indications are given that through Colonel Little's active administration a considerable addition will be made in the early future to that number. A difficulty exists in obtaining the services of satisfactory medical subordinates to take charge of outlying dispensaries. The Province ought to remedy this in time by educating Burmans for the purpose. The attendance of patients amounted to 2,576,913 in the three years as compared with 2,296,570 in the preceding triennium. The proportion of treated to the population of the Province is 10 per cent., which is held to be inadequate. The provision of hospital accommodation is more than sufficient to meet the demand. "Indian beggars" are said to use dispensaries as poor houses. The death rate among indoor patients was 7·3 in 1901. Colonel Little reports that improvements are being carried out in connexion with the increase of the comfort and convenience of patients. The surgical practice of the hospitals and dispensaries is active and successful. Some interesting notes are recorded regarding the operation of omento-ventral fixation for cirrhotic ascites and spleen performed by Captains Duer and Rost. Malarious fevers constitute the principal item in diseases treated. Venereal cases and injuries are more numerous than in other provinces. The income of these hospitals amounts to about eight lakhs of rupees, of which Government contribute about 19 per cent., most of the remainder being derived from municipal and local funds. The report includes statistics of private, police and railway hospitals, which also afford much charitable medical and surgical relief to the population of the province. Altogether this review of three years' work indicates success and promise, and it is disappointing to find the comment made upon it by the provincial administration so casual and perfunctory.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 20TH, 1904.

THE ASSOCIATION AND MEDICAL DEFENCE.

For some twenty years the British Medical Association has had before it, in one shape or another, the question of undertaking, in addition to its work in other directions, the duties and responsibilities of medical defence. At one time dropped because the oracles of the law declared that the proposal was *ultra vires* without an alteration in the Memorandum of Association, at another because the result of a referendum on the subject was not sufficiently decisive, the project had never been definitively abandoned. The adoption of the new Constitution smoothed the way for the removal of the legal difficulties, and the question has now, as Mr. Gladstone would have said, come within the sphere of practical politics.

It is needless to recite the different phases through which the discussion of the question has passed. It is sufficient here to say that within the last two or three months it has been fully considered in all its bearings by a Special Committee, consisting of Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. J. H. Hunter, Dr. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris, and Dr. D. Walshe, together with the President and Chairman of Council *ex officio*. A summary of the deliberations of this Committee was published in the Supplement to the British Medical Journal of January 30th, 1904. The proposal that the Association should undertake medical defence was adopted in principle by the Committee on November 12th, 1903. Sir Victor Horsley and Dr. Heron undertook to prepare a draft scheme, and at a meeting of the Committee on January 19th this scheme was considered, amended, and finally adopted.

The chief provisions of the scheme may be summarized as follows. It is proposed that the Medical Defence Union, the London and Counties Medical Protection Society, the Medical and Dental Defence Union of Scotland, and other like societies should be invited to merge themselves in the British Medical Association so that one organization for medical defence may be formed. The carrying on of the work would be entrusted to a Central Medical Defence Committee, 6 members of which would be elected by the Council and 7 by the Representative Meeting. In addition to its functions as a Central Committee, this Committee would also act for England and Wales. Scotland and Ireland would have local Committees, consisting of 10 and 8 members respectively. These Committees would each elect one representative on the Central Committee, making the total number of that body 15. The Central Committee would establish a register of the names of members of the Association who wished to share the benefits of medical defence, and who for that purpose were willing to pay an annual subscription of 10s. in advance, in addition to the annual subscription to the Association of 25s. The Council would appoint a Medical Defence Secretary of the Association and the Scottish and Irish Medical Defence Committees would each appoint a Secretary. Of these officers, the first, if necessary, would be a whole-timed salaried officer of the Association. The final decision whether the Association should take up the defence in any given case would rest entirely with the Central Defence Committee. All disputes arising between members of the Medical Defence Department of the Association and referred to the Defence Department would be decided, if necessary, by arbitration, the arbitrators to be selected by the disputants, subject to the approval of the Central Defence Committee. The Central Defence Committee would have absolute control of the funds allotted for the purposes of medical defence, and would allow the Scottish and Irish Defence Committee respectively to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association in each country. Every member of the Association subscribing for Medical Defence would become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; the sum total of the amount thus guaranteed would be entitled "The Medical Defence Guarantee Fund," and be subject to the call of the Medical Defence Committee. In case of emergency, the Treasurer of the Association would have power to advance money on certain conditions to the Medical Defence Committee out of the funds of the Association. Until the income of the defence department made it possible for the Representative Meeting to direct any other course, the Central Defence Committee would confine its expenditure to the purposes of the defence of individual members.

At a meeting of the Council held on January 20th it was resolved that the scheme, together with an explanatory memorandum, should be referred to the Divisions for their consideration and decision. In that memorandum it is pointed out that on commencing its deliberations the Committee found that the Association was unable under its Memorandum of Association, and on the basis of the present subscription, at once to establish a department of medical defence open to all members. It was further found that the Association is already carrying on, to a large extent through its Standing Committees, the work of general and collective defence, and that through its ethical organizations it is in part fulfilling the requirements of individual defence. The chief need to be provided for is therefore the individual defence of members, and it is with the specific purpose of meeting this need that the scheme is designed. The fact is recalled that a decision to have the necessary alteration made in the Memorandum of Association was arrived at by the Association in general meeting specially summoned, and held at Birmingham on July 13th, 1896. This decision was confirmed at Carlisle on July 28th, 1896, and registered at Somerset House on August 11th following. It is proposed that the resolutions adopted at these meetings, with such necessary modifications as may be determined upon, shall, in view of the long time they have been allowed to remain in abeyance, be again submitted to the Representative Meeting for further affirmation by the Association. If they are adopted, the permission of the High Court must be obtained for the alterations to be made in the Memorandum of Association. When this has been done the Association will have the

necessary power under the Companies Act to carry out the purposes of Medical Defence.

In regard to the proposed merging of the existing defence societies in the Association, it is pointed out that the unification of interests thus secured will obviate the disadvantages arising from the present distribution of the work of medical defence among several competing societies.

With reference to the proposed subscription, it is stated that in fixing the amount the experience of the existing societies has been taken as a guide. Tables of income and expenditure of the Medical Defence Union, with figures showing the revenues of the Association and their various sources, are published in the SUPPLEMENT to which reference has already been made. The proposals as to the taking up of cases for defence, as to disputes between members of the Medical Defence Department and as to the control of funds, are based on the experience of twenty years in the working of medical defence.

The proposals for the establishment of a Medical Defence Guarantee Fund and for the advance of money from the general funds of the Association in case of emergency are made with the object of securing for the Medical Defence Department the advantage of the support and prestige of the Association and strength from its financial stability. It is pointed out that the establishment of a guarantee fund is the system existing at present amongst Defence Societies, that no call has ever been made upon such funds, and that if the Central Committee exercises the same judgement in administration as has marked the work of existing societies it is not likely that the necessity for a call will ever arise.

In conclusion, it is pointed out that the scheme is purely an optional one, and it is for every member of the Association to decide for himself whether or not he will avail himself of the advantages of this plan of medical defence.

At a meeting of the Medical Defence Committee on February 11th, Mr. M. A. Messiter, who voted against the scheme, and Dr. Michael Beverley, who was unable to be present at the meeting when it was adopted, presented a minority report stating the grounds of their disagreement with the majority. They point out that the original intention of those who formulated a scheme at Swansea was that there should be only one society for medical defence and that this should be the British Medical Association, and they say that the proposed scheme simply originates a new body which will compete with the existing defence societies. To justify it in entering into such competition the British Medical Association must provide a better organization than those societies, and must undertake to do the work with greater efficiency, greater promptness, and at less cost. Time alone, they say, can show whether the two former conditions will be fulfilled, but in the meantime the cheapness is not apparent. They point out that whereas members of the Medical Defence Union have to pay £1 the first year and afterwards only 10s. per annum, a member of the British Medical Association must under the proposed scheme pay a subscription of 25s. a year and [illegible] per annum in addition, besides subscribing to the guarantee fund, if he wishes to obtain the benefits of medical defence. Moreover, they conclude, the Committee will be merely an outside body, having only a nominal connexion with the Association, whose funds are not to be touched for the purpose of the Committee, except by way of loan. The Council and the general body of members will, unless they are individual subscribers to the Medical Defence, have no control at all over the Committee.

The scheme, with the explanations of the members of the Committee who drafted it, and the criticisms of the members who opposed its adoption, are now before the Divisions. It is hoped that they will consider and report the result of their deliberations without delay. It is unnecessary for us to dwell on the importance of the issue which the members of the Association have to decide. Nor need we bespeak their serious attention to the considerations on both sides that have been laid before them. It is for them to say whether they are ready to give effect to the proposal that the Association shall undertake medical defence. We may be allowed to remind them further that, if this is agreed to, it will then remain for every member to decide for himself whether he will avail himself of the advantages offered.

It cannot be too clearly understood that the Council is not attempting to force a new policy on the general body of the Association. The decision rests entirely with the members. In regard to the proposal that medical defence should be included in the scope of the work of the Association, the Council simply awaits a mandate, one way or the other, from its constituencies.

A DIPLOMA IN TROPICAL MEDICINE.

OWING to the fact that the British Medical Association comprises many members resident in hot climates, matters affecting the practice of medicine in the tropics must always be of great interest to it. As our readers are well aware, great progress has been made recently in the study of tropical diseases, and pathological discoveries have placed in our hands the means of preventing some of the most deadly, or of greatly diminishing their ravages. Many, if not most, of the most important of these discoveries have first been given to the world in our columns, and it is satisfactory to find that the University of Cambridge has given evidence of its appreciation of the importance of the new studies.

Last November[1] we were able to publish the report of the special Board for Medicine recommending the University to establish an examination and diploma in tropical medicine and hygiene. This report has now been approved by the Senate, and the first examination will be held next August. The reasons for the creation of this new diploma were fully stated in the report of the Special Board, in which it was pointed out that at the present time candidates possessing a diploma in public health are preferred for appointment under the Colonial Office, and that efforts were being made by the army authorities to ensure that military medical officers might be able to acquire special knowledge and skill in the prevention and treatment of tropical diseases. The Colonial Office now recommends that all medical men whose fees are paid by the Governments of tropical Colonies should, before proceeding to their appointments, be required to pass an examination or to obtain a certificate of proficiency in tropical medicine, and Mr. Chamberlain, who at the time was Colonial Secretary, stated that he gladly concurred in the suggestion that a special examination in tropical medicine and hygiene, open to all duly qualified medical practitioners, should be instituted by the University of Cambridge, with a view of granting a diploma to those candidates who passed the

[1] BRITISH MEDICAL JOURNAL, 1903, vol. ii., p. [illegible].

examination satisfactorily. Mr. Brodrick, then Secretary of State for War, replied after the characteristic manner of the War Office that "no obstacle" would be placed in the way of officers desirous of obtaining the new diploma. The Board believed that the diploma would also be sought by medical men who desire to engage in missionary work or to accompany exploring expeditions.

The examination for the diploma will be conducted by the State Medicine Syndicate of the University, and the regulations for candidates and for the conduct of the examination are printed at page 463. The candidate must be a registered medical practitioner, and he must have obtained a registrable qualification not less than twelve months before his admission to the examination. This will include the methods of pathological and bacteriological investigation in relation to the blood, to animal and vegetable parasites, to the examination of poisonous or contaminated foods and waters, and to the origin, pathology, propagation, distribution, prevention, symptoms, diagnosis, and treatment of the principal epidemic, endemic, and other diseases of tropical climates, including affections caused by poisonous plants and animals, and by poisoned weapons. Candidates will also be examined with regard to the general effects on health of the climate of the tropics, on personal hygiene and acclimatization, on the general hygiene and sanitation of native quarters and camps, and pilgrim and coolie ships, and on the principles and methods of disinfection.

The examination, therefore, will be comprehensive, and the syllabus appears to be sufficiently specific. We could have wished that the regulations with regard to the curriculum had been equally specific. A candidate will be required to produce evidence that he has diligently studied pathology in relation to tropical diseases, clinical medicine and surgery at a hospital for tropical disease, and hygiene and methods of sanitation applicable to tropical climates. As the original report of the Special Board for Medicine contained a paragraph to the effect that the University already provides facilities for the study of various branches of the subject, and that these facilities could without much difficulty be extended, we had hoped, on first reading the clause laying down the curriculum, that it was intended that all candidates should have passed through a course of laboratory and clinical instruction; but there is a rider which will permit a candidate to produce as evidence of study and attainments either a dissertation, memoir, or other record of work carried out by himself on a subject connected with tropical medicine or hygiene, or a certificate or diploma in public health or sanitary science obtained from a recognized examining body. In the absence of any distinct statement that even from such candidates certificates of special instruction will be required it appears to us that there is a risk that too much dependence may eventually be placed, in the case of certain candidates, on examination alone.

There are already in this country two fully-equipped schools of tropical medicine in London and Liverpool respectively, and, leaving aside the question whether it is desirable that a third school should be established in Cambridge, we cannot help thinking that the University would have been well advised to have required from every candidate distinct evidence of attendance on a laboratory course in some school of tropical medicine. On the first creation of such a diploma, and having regard also to the short time during which the schools of tropical medicine have existed, it was no doubt advisable to make provision for men who have already been practising in the tropics, and who wish to take the diploma while on leave. It might be well to excuse such men from attendance on clinical medicine and surgery, but we venture to think that it will be a mistake to excuse them from attendance on laboratory classes in practical pathology, bacteriology and parasitology.

Nevertheless, the University of Cambridge is to be congratulated on having taken the lead in this matter; we have no doubt that this diploma will be eagerly sought, and the fact that the examination will be conducted under the direction of the State Medicine Syndicate is a guarantee that it will be of a thorough and impartial character.

THE MEDICAL SERVICE OF THE ARMY.

On Tuesday last the Secretary of State for War informed the House of Commons that the patent constituting the new authority of the army was sealed on February 8th, and that the Army Council held its first meeting on February 15th. The reconstitution of the War Office is therefore an accomplished fact as far as concerns the great departments of military administration. But nothing is yet known as to the fate of the medical service beyond the fact intimated in the letter from Mr. Arnold-Forster, which was published in our last issue, that it is not intended that it shall be directly represented on the new Council. Lord Esher and his colleagues are still, we suppose, giving their serious attention to the future of the medical service, but in the meantime its actual position presents a problem of some speculative interest. The Director-General is no longer a member of the Army Board, for it has ceased to exist, and he has no place on the new Army Council. What is his position? Looking at the seven members who are, as it were, the nerve centres controlling the several functions of the complex organism of the army, he might well ask, Under which King, Bezonian? At present, as we understand the situation, he is like Mahomet's coffin, suspended between the heaven of administrative autonomy and the earth of official subordination. The anomaly is all the more striking since the official announcement made in a special issue of the *London Gazette* dated Saturday, February 13th, that in the case of the Military Members of the Council the old titles of Adjutant-General, Quartermaster-General, etc., are to be retained.

The omission in a drastic scheme of reform of any reference to a matter of vital importance to the efficiency of the army is sufficient to inspire the most serious misgivings as to the competence of Lord Esher's Committee to deal with the question. It is of ominous significance that in the chorus of acclamation which greeted the publication of the scheme no note of disapproval, or even of question, as to so serious an omission made itself heard in the lay press. It is to be feared that the terrible lessons of the South African war have been thrown away not only on the military authorities, but on those who profess to enlighten public opinion and direct popular feeling.

The British Medical Association would fail in its duty to the country and to the profession which it represents if it did not use every effort to arouse in the Secretary of State for War and in the members of the Committee on whose recommendations he has begun to act, a clearer understanding of the urgent need for an efficient medical service and a more wholesome sense of their responsi-

bilities in the matter. In our last issue we published the recommendations made by the Royal Naval and Military Committee of the Association on the subject, and Mr. Arnold-Forster's unsatisfactory reply. On February 15th the Committee held a further meeting to consider the draft of a memorandum which it proposed to circulate among members of both Houses of Parliament. The substance of that memorandum has been embodied in a letter addressed by Mr. Andrew Clark, Chairman of Council, to leading newspapers in all parts of the kingdom. This letter, the text of which will be found at p. 442, has been given wide publicity, and will, it is to be hoped, be the means of directing general attention to the impolicy of reducing the medical service to the position of crippling inferiority which it formerly held, while there is yet time to avert the evil effects of so retrograde a step.

It is now an axiom in the science of warfare that bacilli are far more deadly than bullets, and to the non-military mind it would seem to be a self-evident corollary that the protection of troops on campaign against attacks of disease is a most important element in the efficiency of an army as a fighting machine. The new Council is now the "supreme administering body" in the army. But how can the Council adequately carry out its comprehensive duties if it does not include among its members a representative who can speak as one having authority on the highly technical matters with which the Army Medical Service has to deal? They may get advice, of course; but will they care to ask for it? Or, indeed, will they know when they ought to ask for it? And what guarantee has the nation that having got proper advice they will act upon it? It was the conviction—forced upon him by the experience of the South African war—that the head of the medical service must be in a position to make his voice heard in the highest council of the army that induced Mr. Brodrick to give the Director-General a place on the now defunct Board. That reform alone went far towards soothing the discontent among medical officers which not long ago made the service so unpopular with the medical profession that the supply of candidates almost ceased. Mr. Arnold-Forster will do well to bear in mind the truth which we have had frequent occasion to impress on Secretaries of State of War, that although the medical profession can do without the army, the army cannot do without the profession.

Mr. Arnold-Forster considers it unnecessary that the medical service should be directly represented on the Army Council, because that body "is in no way a representative body, but is constituted in the same manner as the Admiralty." The fallacy underlying the first part of this contention was sufficiently exposed in the British Medical Journal of February 13th. Of the theory that the constitution of the Admiralty must in all points be taken as a model for the army, we can only say with Count Smoltork that it is "surprise by himself." It is, indeed, one of the most serious defects of the medical service of the navy that the Director-General has only a shadow of authority within his own department, being subject in all things to one of the Naval Lords of the Admiralty. In regard to the medical service therefore, the Admiralty is an *exemplar vitiis imitabile*, and the fact that Mr. Arnold-Forster can find no better defence for his action is a proof that he has very imperfectly studied a question of which he apparently fails to realize the importance.

THE VISIT OF THE KING AND QUEEN TO CAMBRIDGE.

As already announced, the King and Queen, who will be accompanied by Princess Victoria, will visit Cambridge University on Tuesday, March 1st, in order to open the new buildings of the medical and law schools, the new botanical laboratory, and the Sedgwick Museum of Geology. The Queen and Princess will proceed direct to the Senate House, the King going first to the University Library, where he will join the Chancellor's procession to the Senate House. A congregation will be held, after which their Majesties and Princess Victoria, accompanied by the Chancellor, will lunch at the Fitzwilliam Museum. After lunch they will drive to the medical schools, where they will be received by the Regius Professor of Physic, the Professor of Surgery, the Downing Professor of Medicine, and the Professor of Pathology, and conducted over part of the building. Their Majesties will then pass through the law school and cross the court to the new botanical laboratory, where they will be received by the Professor of Botany and the Reader in Botany, and conducted over part of the building. From the botanical laboratory their Majesties will proceed to the Sedgwick Museum, where they will be received by the Professor of Geology, and the King will unveil the statue of Professor Sedgwick. Their Majesties will then leave and drive to the railway station.

PATHOLOGY AT OXFORD.

As already announced in the British Medical Journal, a Studentship in Pathology has been founded in the University of Oxford by Mr. Philip Francis Walker for the furtherance of original research in pathology. The studentship is to be of the annual value of £200, but this may be increased, if at any time the income of the endowment fund exceeds £200, to any sum not exceeding £300. Prizes or grants may also be made from the fund under similar circumstances to persons engaged in pathological research. We call particular attention to the fact that the studentship is not confined to members of the University; it is absolutely open, without limitation of age or sex. The award will be made by the managers of the fund upon the report of the Reader in Pathology as to the merits of candidates. The studentship is tenable for three years from election. An extension may be granted on the recommendation of the Reader for a further period of two years. During his tenure of the studentship the holder is prohibited from following any business or profession, or engaging in any educational or other work which in the opinion of the managers of the fund would interfere with original investigation. The place and nature of the student's work are to be subject to the approval of the Reader in Pathology, but the student will be bound to pursue his studies within the University during at least three terms of his tenure of the studentship, unless this requirement is dispensed with for special reasons. Mr. Philip Walker is, we understand, a brother of Mr. John Lucas Walker, the founder of the Studentship in Pathology at Cambridge which bears his name. We congratulate the University of Oxford on this important addition to the not too abundant endowments in its possession which are applicable for purposes of scientific research.

PROHIBITION OF DISPENSING BY DOCTORS.

A number of letters under this heading will be found in our correspondence columns this week protesting against the proposal to introduce into the Medical Acts Amendment Bill which has been prepared by the Medico-Political Committee for the consideration of the Divisions and Branches a clause providing that no registered practitioner, with certain exceptions specified, shall dispense or supply drugs or other medicaments. We have received other letters to the same effect and employing the same arguments. The proposal, which stood in the name of Dr. Heron, came up for consideration at an adjourned meeting of the Central Division

of the Metropolitan Counties Branch on February 17th. Dr. Heron defended his proposal, resting his case largely upon experience gained some years ago in general practice. The proposal was seconded *pro formâ* by the Honorary Secretary of the Division, but after discussion the motion was lost by a large majority, only one person voting for it. This being so, it appears hardly necessary to continue the discussion in the JOURNAL, as we may take it that the proposal is dead. It was indeed, as may be seen by reference to the notice of meeting published in the JOURNAL last week, page 396, guarded by so many exemptions that it would probably, even if carried, have been practically inoperative. It was proposed to exempt, among others, practitioners attending on cases of emergency, those practising in country districts in which the inhabitants were so few that they could not support both a medical practitioner and a pharmaceutical chemist, and other registered persons whose professional work was of such a character as in the judgement of the General Medical Council rendered it necessary to grant them exemption. Whatever may happen in the future it appears to be abundantly clear that the profession is at the present time by no means ready to support such a clause. On the contrary, we believe it would be most strenuously opposed by the great majority. It is hardly necessary to point out that it would have entailed the repeal of the clauses dealing with this matter in the Medical Acts, the Apothecaries Act, and the Pharmacy Acts.

MR. TIMOTHY HOLMES.

ON Mr. Holmes's recent resignation of the treasurership of St. George's Hospital, after a nine years' tenure of that office, it was arranged by some of his friends that he should be entertained at a complimentary dinner, as an acknowledgement of the eminent services he has rendered both to the hospital and the school during the past fifty years. The dinner took place on February 13th, at the Whitehall Rooms of the Hôtel Métropole. The Earl of Cork and Orrery presided, and was supported by an influential and representative company, consisting of Governors of the hospital, members of the medical staff, past St. George's men, and many distinguished members of the medical profession from other schools who had assembled to do honour to the guest of the evening. The Chairman, in proposing the health of Mr. Holmes, referred in felicitous terms to his long and distinguished career, and to the esteem with which he was regarded by the present Board of Governors and the large number of past St. George's men who had formerly been pupils under him. The present Treasurer of the Hospital, Mr. A. William West, Dr. Howship Dickinson, and Mr. Warrington Haward followed in similar strain. Of Mr. Holmes's career and the services he has rendered to the surgical profession, much could be written did space avail. After taking a brilliant degree at Cambridge, he entered St. George's as long ago as the year 1848. As Surgeon to St. George's he has been, probably, a more conspicuous figure in the medical world than any other member of that institution since the days of Brodie. In addition to holding that office, he was formerly Surgeon to the Hospital for Sick Children, Great Ormond Street, and for many years Chief Surgeon to the Metropolitan Police. His contributions to surgical literature are many and valuable, and too well known to need any but the barest mention. His book on the *Surgical Diseases of Childhood* was a pioneer work on that subject in this country and achieved a well-deserved success. He edited several editions of Gray's *Anatomy* and a *System of Surgery* to which most of the best-known surgeons of the day contributed. The work, however, by which he is best known is one almost entirely from his own pen on the *Theory and Practice of Surgery*. Written in a pleasant, clear, and logical style, it was for many years a formidable rival to the more voluminous work by Erichsen for favour with students for examination purposes. Only a few years back he published a *Life of Sir Benjamin Brodie*, a work as meritorious for its literary style as for the interest of the matter it contained. Mr. Holmes is also an excellent linguist and a Shakespearean scholar of no mean order. At the dinner, too, whilst all the speakers dilated on his scholarship and accomplishments, more than one laid stress upon a still more unmistakable characteristic, his unswerving honesty and total disregard of self. Outspoken to a degree, and an ardent reformer of abuses, he could not fail to meet with opponents in many of the schemes he advanced. Mr. Holmes's services to St. George's have been many and invaluable. After he had been Consulting Surgeon for several years, and at a time of life when he might fairly have claimed a rest from responsibility, he accepted the post of Treasurer to the hospital, and filled that position with the greatest ability and success. He is one of the foremost advocates for hospital reform, and he still takes an active part in charitable work as President of the Children's Aid Society. To many successive generations of St. George's men he has been the "guide, philosopher, and friend," one to whom they could always turn for ever-ready advice and assistance in all cases of difficulty. To the younger members of that hospital he is possibly little more than the bearer of a distinguished name, and they must often wonder at the enthusiasm evoked in their elders by any recollections of "Tim" and his sayings and doings. At the dinner the wish of the chairman that Mr. Holmes might be spared for many more years was shared by every one present, and will be echoed by a wider audience out-of-doors.

ILLNESS OF SIR SAMUEL WILKS.

SIR SAMUEL WILKS has recently suffered from an attack of acute appendicitis, from which we are glad to learn he is now recovering. He was taken ill on February 5th, the early symptoms resembling those of renal colic and double sciatica. The pain soon became limited to the region of the caecum, where a swelling gradually developed. Dr. Boulting, his friend and neighbour, was first called, and Dr. Pye-Smith was subsequently in attendance. The general condition, notwithstanding his advanced age—he will be 80 in a couple of months—remained fairly good, the pulse and temperature being low. The local swelling, however, increased rapidly, and Mr. Charters Symonds who, like Dr. Pye-Smith, is one of his former colleagues at Guy's, was therefore asked to see Sir Samuel with a view to operation. On February 11th (the sixth day of the illness) a small but very foul abscess was opened, and the appendix—gangrenous for its terminal inch, and containing a large concretion—was removed. For the two days following the operation the condition of the patient gave rise to a good deal of anxiety. On the third day he was stronger, and on Monday last the improvement in his general condition was most satisfactory, and this has been maintained. There is now every reason to think that all danger is over. Sir Samuel has retained almost throughout his clear mental condition, and his humour at times, even the day after the operation, has been most remarkable. He has been much gratified by the many kind inquiries made concerning his condition.

THE REVACCINATION BILL, 1904.

THE Revaccination Bill promoted by the Imperial Vaccination League has been put down for second reading in the House of Commons on April 26th. Although, as our Lobby Correspondent points out, the chances are against its coming on, it is desirable that all who wish to see small-pox epidemics done away with in this country should at this moment do their utmost to promote a sound public opinion in favour of systematic revaccination at school age. A manifesto is being circulated in support of revaccination, and it is hoped that a large number of persons of influence and of employers of labour will sign it. It is in the power of all medical practitioners to render most valuable assistance by asking persons known to them—for example, the municipal authorities in their own locality, the leading clergy of all denominations, merchants, shippers, manufacturers, hotel-keepers, and tradesmen to sign the manifesto, which runs as follows: "Believing that in vaccination and revaccination we possess the best pro-

tection against epidemic small-pox, I should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors or those who may be for a time excused on the ground of ill-health." The enormous cost of small-pox epidemics presses upon every section of society, and all also suffer from the interruption to social life and the dislocation of trade which every such epidemic involves. Copies of the manifesto can be obtained (gratis) from the Secretary, Imperial Vaccination League, 53, Berners Street, London, W.

PROFESSIONAL SECRECY.

A POLICE inspector called recently upon Dr. Parsons, the medical superintendent of the Fulham Infirmary, and told him that the body of a recently-born child had been found amongst some house refuse, and that he had reason to believe that a certain woman, a patient in the infirmary, was the mother of the child. He asked Dr. Parsons whether he had examined the woman and at what conclusions he had arrived, but Dr. Parsons quite properly declined to give him any information without the consent of the patient, and this consent the patient refused to give. Later Dr. Parsons was subpoenaed to give evidence at the inquest on the child, and, by the coroner's direction, gave in the witness-box the conditions he had found on examining the woman. At the subsequent police-court proceedings, where the magistrate discharged the prisoner on the ground that he thought the evidence of identity was very weak, and that no jury would convict her, the prosecuting solicitor complained of the attitude of Dr. Parsons, on the ground that "the officials of a public rate-supported institution should afford every facility for the investigation of a suspected crime." The magistrate, Mr. Marsham, also expressed surprise, and thought that a doctor would do what he could to assist the course of justice, but admitted that "there was something to be said on both sides." Anything more feeble than the magisterial comment one could hardly conceive. It was laid down by Mr. Justice Hawkins in the case Kitson *v.* Playfair that no medical practitioner may state facts which have come to his knowledge in the course of medical examination without the consent of the patient, except in a Court of Justice and under the direction of the judge. For departing from this rule the defendant in that action was made to pay probably the largest damages that have ever been exacted for a professional indiscretion. Medical practitioners have much reason to complain of the law which imposes upon them many highly responsible duties and yet is shy of affording them proper statutory protection even where it professes to do so.

CORONERS AND MEDICAL EVIDENCE.

WE publish at p. 467 a letter from a country doctor, in which he relates some recent experiences of the manner in which the coroner in his district thinks it proper to discharge the duties of that office. As the question contained in the last paragraph of our correspondent's letter is one of very general application, it may be interesting to state here the view of the mutual obligations between the coroner and the medical practitioner which appears to us to be reasonable. In the Coroners Act, 1887, it is specially stated that the coroner shall hold inquests in all cases of death in which there is reasonable cause to suspect that such person has died either a violent or an unnatural death, or has died a sudden death, of which the cause is unknown. In cases of sudden death, where the cause is known, it is open to a coroner to exercise a discretion as to whether he will hold an inquest or not, and to judge of this he must necessarily have before him all the details in connexion with the death. The general facts of the case are contained in a report in answer to a series of questions sent in by one of his officers, who calls at the house of the deceased, views the body, and gets his information from the relatives, friends, and others who may have been present at the death, and have knowledge of the history and habits of the deceased and the circumstances attending the death. It is not unusual for some medical man in the neighbourhood to be called in at the time of the death, and he may arrive before or soon after the death. He may have some knowledge of the deceased from previous attendance, or he may never have seen the deceased before. The friends supply to the officer the name and address of the medical practitioner called in, and the officer usually interviews him and as far as possible ascertains the probable cause of death, and this completes his report to the coroner. Sometimes the medical practitioner writes to the coroner, giving him his opinion regarding the case, and then the coroner decides as to the holding of an inquest or otherwise. We know of no legal obligation resting upon the medical attendant either to communicate with the coroner or enter into conversation with his officer beyond informing him that he is unable to give the usual certificate as to the cause of death. The opinion expressed may be either correct or not, and a necropsy in such circumstances as those related by our correspondent may reveal a very different cause of death from that suspected. If it is contrary to the Registration Acts for a medical man to issue his certificate as prescribed by law unless he has attended the deceased person during his last illness, it is questionable whether he is justified in expressing opinions which are founded on conjecture only and may enable the coroner to dispense with an inquiry which, if properly conducted with necropsy, would proved the true cause of death, and thus prevent the registration of such a death as "uncertified." We may add that it is the custom for the medical practitioner to make some communication to the coroner to assist him in deciding as to the necessity of a necropsy, and the coroner as an officer of the Crown is entitled, we think, to receive every assistance to enable him to discharge the duties of his office. There is a reciprocal obligation on the coroner to treat the members of the medical profession with courtesy and consideration.

PHYSICAL TRAINING FOR A CITIZEN ARMY.

IN the series of articles on physical degeneration published recently in our columns special attention was directed to the fact that, in view of the very high proportion of physical unfitness among town-bred lads, it was urgently necessary that the system of physical training in public elementary schools should be thoroughly organized. The need for giving to the majority of the youths of the country some training in arms has also been recognized by many, and led in the first place to the volunteer movement and more recently to the formation of boys' brigades. In a pamphlet entitled National Physique and an Ideal Army reprinted from the *Army and Navy Gazette* of February 13th, Dr. Arthur H. Rideal has sought to combine these two conceptions. He argues that the standing army is unnecessarily large and costly on a peace footing, while for war purposes it is unequal to the armies of the great European Powers. He suggests that from a given date every boy of 12 or 13 should be compelled (unless physically unfit or destined for the navy) to commence a five years' course of drill and instruction to fit him for the army, and maintains that an attendance of two or three hours a week would be sufficient to turn out efficiently-trained young men. He proposes that instruction should be given by non-commissioned officers at all schools. In the first year, while the boys are still at school, exercises and the rudiments of drill should be taught, while later shooting would be the chief subject. In the last year the youth should spend two or more weeks in camp. At the end of his five years' training the boy would be encouraged to attach himself to a volunteer corps for a few years more. The volunteers would be thus augmented, the cost of the further training of those joining the regular forces would be diminished, while the expenditure entailed by the present system of recruiting would cease. He would make the training free of cost to the boys, but as a large number could be trained by each man the country need not be put to much expense, the only things required being rifles, belts, and ammunition. The classes could be held in existing drill halls or in schools and playgrounds. Deducting 40 per cent. for the physically unfit, he calculates that there are 250,000

boys each year to deal with, that in eight years we should have over a million well-trained young men in case of need, and that in time every able-bodied man would be competent to take up arms at a moment's notice in defence of the empire. He contends that the training would benefit the youths physically, and calculates that a saving of three millions would result from bringing down the standing army to a size sufficient for all purposes except a European war; that a million a year would be saved by the abolition of a paid Reserve Force, and that yet another million would be economized as recruits would only require a comparative short period of drill to become efficient. He proposes that the short-service system should be abolished, and that in its place every recruit to the regular army should enter it as a profession, and that every man in receipt of a pension should be liable to be recalled for service up to the age of 45 or 50. Under the scheme the three branches of the army would be: (1) A small standing army thoroughly equipped and competent to embrace (2) the volunteer forces, which would become more than ever popular, and (3) the unpaid civilian reserve of which there would be practically an unlimited supply. No doubt the present is a very opportune moment for putting forward any scheme of army reform while yet the omnipotent triumvirate has not completed its policy of the clean sweep, and while the Secretary of State for War is pledged to retrenchments: but we fear that Dr. Rideal's plan is open to rather serious objections. In the first place he proposes that the trainings should be compulsory; this would be all very well while the boys were still at school, but by what machinery could they be forced into drill halls and camps after they had left school and obtained employment? An elaborate organization of inspectors with power to prosecute defaulters would be required, only less onerous than conscription. Again, is it quite certain that military drill is the best form of physical training for boys and lads? The experience of France seems rather to point in the opposite direction. After the war of 1870 physical education in that country took the form of gymnastic exercises; gymnastics with apparatus were everywhere rendered obligatory, and the movements in favour of military drill culminated in the creation of military cadet corps in the schools, both primary and secondary. We learn, however, from the report of the Royal Commission on Physical Training in Scotland that these cadet corps, known by the name of *bataillons scolaires*, after a brilliant beginning, fell into discredit, and the last of them was suppressed in 1890. The causes of failure seem to have been (*a*) the cost, which was out of all proportion to the results obtained; (*b*) many of the results were unsatisfactory—for instance, the children affected the manners and language of the drill-sergeants, and imported into the playground the phraseology of the barracks, until the deterioration in the manners of the children set the teachers against the system; (*c*) the regular officers also became hostile, for they found that the too early specialization for the child was a bad preparation for the recruit.

AFTER-CARE ASSOCIATION.

The Bishop of London, who presided on February 11th at the annual meeting of the After-Care Association, held at London House, St. James's Square, said, in opening the proceedings, that he was pleased, so far as he represented the Church, to show its sympathy with the benevolent objects of the Association. While recognizing the vast improvements that had taken place in the scientific and humane treatment of the insane, he was of opinion that there was still much scope for the after-care of those who had recovered. What poor people just discharged from an asylum wanted to enable them to battle with the outside world was a friendly arm to support them, and this was what the After-Care Association set itself to do. He could wish that the sinews of war had been more liberally supplied by the benevolent public, for with an income of less than £700 last year, all the work that was desirable could not be overtaken. The annual report for 1903 was presented by the Secretary, Mr. Thornhill Roxby. It stated that though the income for the year had been less than in 1902 -£648 as compared with £772—the number of cases helped had been greater than in any previous year. To help such cases effectually much judicious personal service was required, and the expense of boarding-out mental convalescents in country homes was necessarily large, as experience had shown it was not desirable that more than three cases should be together in one house. The finding of suitable situations was a matter requiring much tact and judgement, and involving much labour upon the officials of the Association. No less than 250 applications for aid had been investigated by the Council during 1903. The adoption of the report was moved by Dr. Nicolson, C.B., and seconded by Sir John Batty Tuke, M.P., who, in the course of his remarks, related a pathetic story of an ex-patient of his which illustrated the need of after-care, and foreshadowed his intention of moving for a Royal Commission and so bringing the whole subject of English lunacy administration before the criticism of Parliament with a view of getting rid of what he considered two great blots—one, the obstacles to early care of incipient cases of insanity; the other, the absence of assistance for those discharged after treatment in asylums with a view of preventing relapses. Professor Ernest White, as President of the Medico-Psychological Association; Dr. Savage, and Dr. Mould, late Superintendent of Cheadle Asylum, supported the motion, which was carried unanimously. On the motion of Dr. Marriott Cooke, seconded by the Bishop of Barking, the Council and officers of the Association were re-elected, and the meeting closed with a cordial vote of thanks to the Bishop of London, moved by Dr. Rayner, and seconded by the Rev. H. Hawkins. The offices of this useful society are at Church House, Westminster.

THE DENTAL ACT OF JERSEY.

The States of Jersey have just passed an Act, introduced by Dr. Duret-Aubin, to regulate the practice of dentistry in the island. We venture to think that its brevity and directness may not improbably be due to the fact that it was brought in by a medical man who is familiar with the inefficiency of our own more roundabout medical legislation. It does not play with any question of titles, but categorically forbids the practice of dentistry save by those who have the permit of the Royal Court, which is not to be granted except to persons in possession of a diploma recognized by the General Medical Council, or to persons actually in practice in the island on January 1st, 1904. A list is to be prepared each year of those persons who have this permit, and is to be constantly suspended in the vestibule of the Royal Court. A clause forbids dentists to make use of general anaesthesia, except with the assistance of a qualified medical man, and the penalty for a breach of these provisions is a fine not exceeding £25, or, in default, three months' imprisonment. There is a further provision that persons not possessed of the licence to practise cannot recover fees for attendance, for drugs, nor for any appliances supplied. No part of the Act applies to registered medical men. Dr. Duret-Aubin may be congratulated upon having carried an Act which, so far as it is possible to foresee, will be eminently workable.

RESTAURANT KITCHENS.

Dr. Collingridge, Medical Officer of Health to the City of London, has presented a special report dealing with the question of granting voluntary certificates as to the sanitary condition of kitchens of restaurants and above-ground bakehouses. The suggestion is that all owners of such premises should be informed that a standard of requirements has been drawn up by the Corporation, and that upon complying with them a certificate would be granted to the effect that the premises had been inspected and found in a satisfactory condition. The inspections, it is suggested, may be repeated from time to time, and fresh certificates issued. Dr. Collingridge claims that if such a certificate were granted owners would be more willing to carry out requirements and suggestions of the authority, with the result that great benefit would accrue to the public from the consequent raising of the standard of

sanitation." The standard proposed for above-ground bakehouses and restaurant kitchens does not differ materially from that laid down for underground bakehouses under the Factory and Workshop Act, 1901, Section 61, except that in the case of restaurants the proper storage of almost every class of perishable food has to be dealt with, and it is therefore desirable that a separate storeroom should be provided for the purpose. It is also a great advantage to have a separate room as a scullery. The standards suggested by Dr. Collingridge seem to be eminently reasonable, but we are not quite satisfied that the principle of voluntary certificates is, in the long run, expedient or advisable, though perhaps it is permissible pending legislation to enforce such requirements.

THE AIR OF RAILWAY TUBES.

The investigation and report on the condition of the air of the City and South London Railway recently furnished to the Metropolitan Borough of Southwark by Dr. Scott Tebb, the Public Analyst, is an interesting contribution to the subject, which is not an unimportant one considering the rapid multiplication of tubes. The Southwark portion of the railway consists of two iron tubes for the most part parallel, about 10 ft. to 11½ ft. in diameter, and running a varying depth from the surface of from 47 ft. to 100 ft. The tube at intervals widens out into stations. There is no artificial system of ventilation, but there is a constant interchange between the air of the tube and the external air, effected partly by air currents produced by the moving trains and partly by differences of temperature. The examinations were carried out between January 26th and February 10th, and include: (1) Estimations of carbonic acid gas; (2) bacteriological examinations. In addition, records were taken of the temperature (the average was 61° F. on the platforms and 43° F. in the street), the relative humidity (84 per cent. in comparison with 76 per cent. in the open air), and the air currents produced by the moving trains (which varied from 1 to 8 miles an hour, being greatest when the train was just about to enter the station). Dr. Scott Tebb adopted the ordinary gravity-plate method, using plates (9½ sq. in.) of nutrient agar for thirty minutes. For comparative purposes in the same series of experiments this method is a good one. It was found that the air of the street contained a larger number of bacteria than the air in the stations of the tube, in the proportion of 459 to 114. Dr. Tebb further found that the number of organisms in the street increased from 2 a.m. to 10 p.m., being at its maximum between 6 and 10 p.m. This did not hold good in the tube, where higher numbers were obtained at times of increased traffic. As the number of organisms depends most largely upon the presence of dust this is to be expected. But on the whole it is evident that the number found is not such as to be significant. The report contains no facts as to the species of bacteria isolated, or as to how far the species found in the tube were the same as those occurring in the air of the streets. The carbonic acid gas was estimated by Pettenkofer's method, with bottles of about 8 litres capacity. The air of the streets ranged from 3.1 to 4.3 parts of CO_2 per 1,000 of air. On the platforms of the tube the CO_2 reached 6.9 parts, and in the railway carriages 11.6 parts per 1,000. The amount increased from 7 a.m. to 11 p.m., being at its maximum between the hours of 6 and 11 p.m. While these amounts are not in excess of those usually found where numbers of persons are congregated, they are higher than should be permitted, and Dr. Tebb recommends that means should be taken by the Company to reduce the CO_2 in the tube to 6 volumes per 1,000, which is De Chaumont's well known limit of permissible impurity. Tables of analysis are appended to the report.

A WINDFALL FOR LONDON HOSPITALS.

Under the will of the late Mr. Leonard Dresden, of Curzon Street, Mayfair, a sum of £125,000 is to be distributed among six London hospitals. The great Consumption Hospital for Sick Children, in addition to a number of portraits and pictures, is to receive £25,000 for the maintenance of a number of Dresden cots—if possible, in one ward—and the Middlesex Hospital, St. Mary's, the Royal Free, Queen Charlotte's Lying-in Hospital, and the Brompton Hospital for Consumption are each to receive £5,000 for the purpose of patients' maintenance as apart from structural upkeep; while the London Hospital, the Middlesex, and the Brompton Cancer Hospitals are to share in equal parts the reversionary interest of the deceased in the settlement of his sister for the maintenance of "Dresden beds." In addition to this, however, the hospitals which are to receive £5,000 each are also to receive each one-fifth share of the residuary estate. The latter is estimated to be worth well over £200,000, so in other words each of these hospitals, it would appear, will eventually receive from this source upwards of £40,000, a magnificent addition to the funds of any hospital. It is not usual to look a gift horse in the mouth, but the Treasurers of the hospitals benefited may be pardoned if they should be inclined to do so upon this occasion, for the conditions attached to this residual inheritance are such as to deprive it of much of its value to the institutions. At each hospital a Dresden Assistance Fund "is to be formed and the income thereof is to be applied for the benefit of needy and deserving in-patients of the hospital on their being discharged." Funds of a corresponding character already exist practically at every hospital under the term of Samaritan Funds and though there are many reasons why they should be maintained the work done under them does not really form an intrinsic part of the duty of a hospital. In effect, therefore, these five hospitals—who prima facie are to be congratulated on a huge addition to their funds—are really saddled with the administration of a large sum of money which they can use only for a purpose outside their direct and principal object. Any criticism of so princely a benefaction may appear to be invidious, but it is right to draw attention to the point. To leave £5,000 for ordinary hospital work and five times that sum for a Samaritan Fund—the functions of which, however good in themselves, are merely supplementary thereto—is to put the cart before the horse. In effect it may be said generally that it is a mistake for testators to earmark their bequests, except perhaps in the way of establishing and endowing cots or wards; for the managers of the hospitals best know where the shoe most pinches at the time such bequests fall in, and can be trusted to put any money that comes to them to the best use.

PERILS OF SUBLIMATE SOLUTIONS.

In midwifery and operative surgery antiseptic solutions and soloids are so freely used that it is important to bear in mind that their use requires caution. Hence it is advisable that all cases where toxic effects are observed should be published. MM. Boissard and Coudert[1] recently reported before the Société d'Obstétrique de Paris a bad case where anuria and sore mouth followed the administration of a weak solution of perchloride of mercury in the puerperium. On the tenth day after a normal labour at term there was a rise of temperature, so 6 pints of a 1 in 8,000 solution of sublimate were injected into the uterus, the same amount of pure water being thrown up immediately afterwards. Haemorrhage following, the uterine cavity was swabbed and the intrauterine injection repeated, just as before, a few hours later, except that over 5 pints of pure water were injected after the sublimate solution. The flooding continued, and caffeine and artificial serum injections were administered. Vomiting and diarrhoea with tenesmus and bloody stools followed. For five days the patient was very ill, complete suppression of urine existing throughout that space of time, excepting when a few drachms of highly albuminous urine were drawn off on the third day. On the

[1] [illegible]

sixth the gums and buccal mucous membrane appeared ulcerated, but the vomiting which had been severe until that date ceased after free washing out of the stomach. Under appropriate treatment the patient recovered, but it was not until the tenth day that she could pass urine without the catheter and the soreness of the mouth increased, the breath growing foul. The diarrhœa did not cease until the thirteenth day, and it was not until the end of a fortnight that the patient began to rally from the severe debility caused by the poisoning. MM. Boissard and Coudert attribute the very rapid toxic effects of the weak sublimate solution to direct entrance of the fluid into the venous sinuses patulous on account of detachments of fragments of placenta. They believe that with stronger solutions accidents of this kind are rather frequent. The evidence in this case is not very conclusive, but the danger is one which certainly exists when perchloride solutions are imperfectly prepared. This is especially likely to be the case when compressed drugs are hurriedly dissolved in boiling water, the nurse occasionally hastening the process by crushing the soloid with the handle of a toothbrush or some other appliance at hand. When an imperfect solution thus prepared is thrown into the uterine cavity minute solid particles of perchloride of mercury may enter the circulation, with disastrous results. The anuria in the above case was significant.

A meeting of the Faculty of Medicine of the University of London will be held at the University Buildings, South Kensington, at 5 p.m. this day (Friday, February 19th), for the purpose of receiving a communication from His Majesty the King concerning the proposed Institute of Medical Sciences.

The annual meeting of subscribers to the British Medical Benevolent Fund was held on February 16th. On the same day £203 was voted to 19 applicants in sums varying from £5 to £18: one case was postponed for further inquiry.

The King of the Belgians has conferred upon Dr. Alfred S. Gubb, now of Algiers, the Croix Civique de la Première Classe, in recognition of services rendered by him as Honorary Medical Officer of the Belgian Benevolent Society in London.

The Chancellor of the Exchequer received a deputation from University Colleges on February 17th to ask for increased aid from the treasury. Mr. Austen Chamberlain said that he was prepared to ask Parliament to double the grant for the present year, and hoped that next year it might be possible to increase it by £100,000.

To commemorate his work in ophthalmic surgery a gold medal has been established by the friends and pupils of Mr. Nettleship, to be awarded periodically for work done in ophthalmology. At the last meeting the medal was handed over to the custody of the Ophthalmological Society of the United Kingdom by Sir Thomas Barlow, representing the subscribers to the fund.

The annual dinner of the medical officers of the auxiliary forces will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, at 7.30 p.m. The chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G., Officer Commanding the Fourth Army Corps. Tickets (10s. 6d. each) may be had from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

We learn with great regret that Dr. R. Milne Murray of Edinburgh died suddenly and unexpectedly on Sunday last, February 14th, after an operation on the chest. Dr. Murray had been in ill-health for some time. He was Physician to the Royal Maternity and Simpson Memorial Hospital, Assistant Gynaecologist to the Royal Infirmary, and Lecturer of Midwifery and Diseases of Women in the Edinburgh School of Medicine. A letter from his pen, written from the country where he had gone on sick leave, appeared in the British Medical Journal so recently as February 6th.

We are glad to learn that the dispute which arose a few weeks ago between the medical men practising in the district and the Oldbury Alkali Works Provident Society (Dispensary Branch) has been adjusted to the satisfaction of the medical men. An alteration in the system of payment for medical attendance upon the workmen and their families asked for by the medical men has been arranged; among other points it has been settled that in future males over 16 years and females over 18 years, earning wages, would not be included in the families entitled to medical treatment. The medical men have consented to accept a special confinement fee of half a guinea, if it be paid during the lying-in period of fourteen days. The amicable termination of the dispute is very satisfactory, and we are glad to learn that Mr. A. M. Chance, the head of the firm upon whose conduct we found it necessary to animadvert in an article published on January 2nd, has, since the facts have been more fully brought to his notice, shown every disposition to meet the views of the medical officers and to place the rates on a just footing.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.

The Prospects of Private Members' Bills can now be fairly estimated from the Order Book of the House of Commons. To have any chance of its becoming law a private member must carry his Bill through the second-reading stage before Whitsuntide. The only days open to him are Fridays and the off-chances of Tuesday evenings after motions are discussed, or after midnight on any other day. This year there are only ten available Fridays before Whitsuntide, for the debate on the Address will most probably run into next week. The Musical Copyright Bill comes first for February 26th, and the Mines Eight Hours Bill is second on that day. The Town Tenants (Ireland) Bill will take up March 4th, and the Land Values, Assessment, and Rating Bill March 11th. The Railway Sidings Bill and the Hall-marking of Foreign Plate Bill have secured March 18th; while, on March 25th, the Private Legislation Procedure (Wales) Bill has first place, and the Shops Bill is second. On April 15th, after the Easter holidays, the Weights and Measures Bill has the first place, and the Tuberculosis Animals (Compensation) Bill is second. On April 22nd the Trades Unions and Trades Disputes Bill will occupy all the afternoon; but if not, the Rivers Pollution Bill may secure a second reading on that date. The three remaining Fridays are appropriated to Irish Bills connected with Local Government and the Registration of Clubs, and to a Merchant Shipping (Lighthouses) Bill, with measures dealing with Local Veto, Old Age Pensions, and Local Taxation ready to occupy any time left over. The Revaccination Bill is down on a Tuesday, April 26th, and has, consequently, only a remote chance of being discussed on that day; while the Medical Act Amendment Bill of General Laurie, which stands third to the Deceased Wife's Sister Bill for Friday, February 19th, is pretty sure to be crowded out by the debate on the Address.

The Record of Cancer Cases in Indian Hospitals. Mr. Weir asked the Secretary of State for India last week whether the Government of India had yet arranged to have cases of cancer recorded separately in dispensary and hospital returns. Mr. Brodrick replied that the revised returns provided a separate column for cancer cases, but he could not say if they had actually been brought into operation. The Government of India had the matter in hand.

Reforms in Irish Lunatic Asylums. Mr. Field asked the Chief Secretary to the Lord Lieutenant of Ireland last week whether he had received a copy of resolutions adopted by the Conference of Asylum Committees at a meeting held in Richmond Asylum on November 25th and 26th last;[1] and, if

[1] British Medical Journal, 1903, vol. ii, p. 1966.

so, would he state whether he proposed to deal with the points raised. Mr. Wyndham answered that the resolutions proposed (1) an increase of the present capitation grant of 4s. per week in respect of the maintenance of each pauper lunatic; (2) an extension of the period for, and alteration of the conditions upon, which loans were made for asylum purposes; (3) the establishment of a central laboratory in connexion with asylums; (4) the introduction of a system of boarding out of persons of unsound mind; (5) the assimilation of the capitation grant payable in the case of patients maintained in auxiliary asylums established under Section LXXVI of the Local Government Act, 1898, to that payable for patients in district asylums. In respect to (1) the amount of the grant in Ireland is the same as that payable in England and Scotland, and a proposal to increase it could only be considered in its application to the United Kingdom as a whole. Legislation would be necessary to give effect to the recommendations at (2), (4), and (5), and he was unable to undertake that such would be introduced during the present session. There were no funds available at present for the establishment of a central laboratory (3). Mr. J. P. Farrell also asked the Chief Secretary on the same day whether his attention had been called to proposals in favour of the system of taking family care of persons of unsound mind which is practised on the Continent and in Scotland, and if he proposed to legislate on the subject. Mr. Wyndham said that the resolution had been received, but that he could not give an undertaking that the Government would introduce legislation during the present session.

The Sanitary Condition of Telegraph Rooms.—Mr. Claude Hay asked the Postmaster-General last week whether the room containing the A and B Divisions Central Telegraphs had been reported as being in a sanitary condition, with good lighting arrangements, and free from overcrowding; and whether, as the officers of the Post Office Medical Department were responsible to the Postmaster-General for the safeguarding of the health of the staff, he would state when the last inspection of this instrument room took place. Lord Stanley answered that the Chief Medical Officer to the Post Office, who had visited the room in question that day, reported that it was in a sanitary condition and not overcrowded. Owing to the lofty building opposite the electric light had to be used in some parts of the room, but the arrangements made for this purpose were all that could be desired. He had received no complaints from the staff regarding the room. The last previous inspection was made a few months ago.

The Sanitary Inspectors Examination Board.—Sir Walter Foster asked the President of the Local Government Board if he could state the number of persons seeking certificates of competency as sanitary inspectors who had been examined in each year by the Board of Examination constituted by the Local Government Board under Section CVIII of The Public Health (London) Act, 1891, and the number to whom certificates of competency had been granted in each year. Mr. Long replied that he was informed that the numbers were as follows: 1899 18 applicants for certificates, 10 certificates granted; 1900 21 applicants, 12 certified; 1901 27 applicants, 24 certified; 1902 70 applicants, 57 certified; 1903 69, applicants, 46 certified.

The Cost of Vaccination. Mr. Crooks asked the Secretary to the Treasury on Monday whether he would furnish the House with the total time lost and the cost incurred through the enforcement of vaccination in all the Government departments in England. Mr. Victor Cavendish, said, in reply, that he regretted that it was impossible to give the information, without the expenditure of an amount of time and trouble which could hardly be justified by the result.

Lunacy and the Use of Immature Spirits. Mr. MacVeagh asked the Chancellor of the Exchequer whether his attention had been called to the resolution adopted by the Portsmouth Town Council on February 9th, and whether, in view of the increase in lunacy and crime in England consequent on the consumption of immature potable spirits, he would consider the advisability of prohibiting the clearing from bond of whisky, rum, or brandy until it had matured for three years. The Chancellor of the Exchequer replied that the subject referred to had been carefully considered by a Select Committee in 1892. It reported that it was not desirable to pass any compulsory law with regard to age. Any attempt to deal with the subject by legislation would be a matter of much difficulty, and he was not prepared to make proposals as suggested.

The Medical Officer of the Female Prison, Limerick.—On Monday last Mr. Joyce asked the Chief Secretary if he would explain why the services of Dr. John Holmes, medical officer to the Female Prison Limerick, had been dispensed with; what number of years Dr. Holmes had been in charge of the prison, and what pension or compensation in lieu of pension, if any, had been offered to him. Mr. Wyndham replied that Dr. Holmes had held the position of temporary medical officer of the Limerick Prison for 13 years. His services had been dispensed with upon the amalgamation of the medical officerships of the male and female prisons. He was not entitled to any pension or compensation.

The Treatment of the Blind in Ireland.—Mr. Nannetti asked the Chief Secretary to the Lord Lieutenant of Ireland whether it was the intention of the Government to deal with the condition of the blind in Ireland during the present session, in accordance with the finding of the Royal Commission of 1889, which recommended special treatment for them. Mr. Wyndham answered that he could not give a pledge to deal during the present session with the condition of the blind in Ireland in accordance with the recommendations of the Royal Commission of 1889.

The Constitution of the Local Government Board.—The organization, duties, and pay of the Local Government Board and the Board of Trade are being considered by an Interdepartmental Committee, and Mr. Claude Hay asked on Monday a question as to the number of meetings held and when the report might be expected. The Chancellor of the Exchequer said that there had been four meetings of the Committee and a meeting would be held this week. He referred the questioner to a reply given last week, in which he said he could not fix a date for the report.

The Nurses Registration Bill, promoted by the Society for the State Registration of Nurses, was introduced by Dr. Farquharson, and read a first time on Monday last. It is backed by Mr. Haldane, Sir Thomas Wrightson, Sir James Joicey, Sir John Tuke, Mr. H. C. Smith, Mr. Munro Ferguson, Mr. Tennant, Mr. Black, Mr. Colston, Mr. Eve, and Dr. Thompson, and the second reading was put down formally for Monday next.

The New Lady Inspector in the Potteries. In answer to Mr. Coghill, the Home Secretary said on Tuesday that the new lady inspector had been detailed from the existing staff to spend some time in the Potteries, with the object of securing the observance so far as regards the employment of women and girls, of the provisions of the Factory and Truck Acts generally, and in particular of the special rules now in force in the industry. The lady inspector would act in concert with the district inspector.

Lead Poisoning.—Mr. Coghill also put a question as to the relative number of deaths from lead poisoning in the china and earthenware trade, and in the trade of house painters and plumbers. The Home Secretary said the number of deaths from lead poisoning in the pottery trades in 1903 was 3. The trade of house painters and plumbers was not under the Factory Acts, and so returns of deaths were not required to be made to the Home Office. It appeared, however, from returns supplied by the registrars of deaths, that there were in 1903 in the whole of the United Kingdom, 30 deaths of persons employed in these trades attributed directly or indirectly to lead poisoning. He did not propose to introduce legislation this session with regard to these trades.

Donations and Bequests.—The Norfolk and Norwich Hospital has received the sum of £1,000 from Mr. Eustace Gurney on the occasion of his wedding and in memory of his brother, Mr. J. Nigel Gurney, for the purpose of fitting out and equipping an electrical department at the hospital. The late Mr. John Snelgrove, of Kensington Palace Gardens, has bequeathed £500 each to the Middlesex Hospital and the London Fever Hospital. Mr. Theophilus Marke, of Staplehay, Pitminster, Somerset, has left £500 to the Taunton and Somerset Hospital.

Scotland.

Conjoint Meeting of Scottish Branches.

The winter meeting of the Edinburgh and other Scottish Branches was held in the Royal Infirmary, Edinburgh, on Friday, February 12th, under the presidency of Dr. Ballantyne (Eskbank). Representatives were present from all the Scottish Branches, and the result was that a very large number of members took part in the interesting and varied programme which had been drawn up by the local secretaries, Drs. Norman Walker and Logan Turner.

Pathological Specimens.

A collection of pathological specimens had been brought together in Ward 22 of the Royal Infirmary: this was open to the inspection of the members at 3 p.m. The arrangements here were admirably carried out, and the specimens were shown in a manner which enabled the members to examine them with comfort. Dr. Bruce exhibited several sections of brains, some of which were from cases of haemorrhage, and others of gliomas. With Dr. McFie Campbell he gave a microscopical demonstration of the result of lumbar puncture in various diseases of the central nervous system. Another specimen shown by Dr. Bruce was an exophthalmic goitre where a large thymus gland had persisted. Dr. James Beattie showed cultures of the diplococcus rheumaticus from the knee-joint in a case of acute rheumatism. Amongst other specimens of his was a liver and spleen from a case of haemochromatosis with diabetes, and is the first case recorded in Great Britain. Mr. Caird's collection of preparations illustrative of gastric and intestinal surgery attracted a great deal of admiration both on account of their pathological interest and also by the method employed in mounting them. Many of his specimens were from cases of stricture of the pylorus and intestines due to malignant or tuberculous disease. Mr. Dowden exhibited a femoral hernia where portion of the bowel had been ruptured by taxis. Amongst Dr. Fleming's preparations were several microscopical slides of changes in the optic nerve in various pathological conditions such as neuralgia changes in optic neuritis and in heteronymous hemianopsia. Dr. Gibson showed specimens of mediastinal pericarditis; in one case the heart was enormously enlarged. Dr. Gulland confined himself to a microscopical demonstration of the blood in several diseases. Dr. Haultain was represented by a large collection of fibroid and other pelvic tumours, many of which were of great pathological interest. Dr. James and Dr. Lawson were represented by a series of *x*-ray photographs. Dr. Stuart McDonald, amongst other specimens, showed cultures, photographs, and some of the viscera of a case of streptothrix infection. The particular streptothrix differs from any yet described in some important respects, and has been demonstrated by Dr. Stuart McDonald at a recent meeting of the Edinburgh Medical Chirurgical Society. Mr. Miles and Mr. Struthers showed a large and interesting series of specimens, radiographs, and photographs illustrating Bennett's fracture. Dr. Munro Moir, of Inverness, showed a diaphragmatic hernia in a case where fracture of three ribs had occurred as the result of an accident two years ago. Sir Thomas Fraser contributed a case of complete transposition of the thoracic and abdominal viscera. Dr. Shennan's series contained examples of Zenker's degeneration of muscle, and a pretty specimen which showed rupture of the chordae tendinae of the mitral valve in ulcerative endocarditis. Amongst the tumours sent to the museum by Professor Simpson was an enormous fibroid tumour of the uterus which weighed 52 lb. Mr. Alexis Thomson and Mr. David Wallace were represented by a large number of specimens illustrative of renal surgery. Mr. Stiles showed a case where Meckel's diverticulum was present, had become adherent by its tip to a loop of small intestine, and caused acute obstruction; also an appendix which lay in the sac of an inguinal hernia and had become adherent to the testicle.

Visit to the Royal Infirmary.

The members also visited the new pavilions of the Royal Infirmary which have been recently erected for the treatment of diseases of the eye, ear, and nose. Drs. Berry and George Mackay conducted the members of the Association over the pavilion devoted to diseases of the eye. Dr. M'Kenzie Johnston had charge of those who visited the ear and throat department. At 4 p.m. the clinical meeting was held in the University Clinical Medicine Theatre, Dr. Ballantyne in the chair. About 200 members were present at the demonstration of cases. Mr. Stiles showed four, including a girl aged 7 years, who twenty-one months since had been operated on for congenital dislocation of the hip by Lorenz's method. The result had been excellent, but during the treatment the healthy leg had become adducted, and had to be abducted subsequently under an anaesthetic and splints employed to keep it in place.

Dr. Webster's two cases illustrated the benefit of physical treatment by resistance exercises and baths in angina pectoris. Mr. Wallace confined himself to the exhibition of patients after oesophagostomy. One case can now swallow food with ease, on whom previous to the operation the smallest bougie could not be passed. In Dr. Gibson's absence Dr. Boyd demonstrated his cases. Mr. Caird showed a case where owing to inoperable carcinoma complicated by adhesions he had to perform gastro-jejunostomy and also colo-colostomy, and another where he had removed the rectum under spinal anaesthesia. The operation, which lasted an hour, was quite painless, the patient demanded food immediately after the operation; the anaesthesia persisted for some hours. Dr. James showed a pulmonary case which resembled actinomycosis, and Mr. Dowden a compound depressed fracture of the skull, the result of a kick from a horse; though brain matter exuded through the wound in the frontal bones the patient recovered. Dr. Caverhill's cases illustrated the beneficial result of the open-air treatment of phthisis. Dr. Allan Jamieson exhibited two cases of lupus after *x*-ray treatment. Mr. Cathcart presented four patients, on one of whom he is obtaining good results by Bier's treatment; the patient suffered from osteomyelitis, a large abscess developed in the head of the tibia; this was opened and scraped, and the cavity is now rapidly filling up under the congestive treatment which is applied for six hours each day. Dr. Norman Walker showed two cases of lupus, a case of purpura rheumatica, and one of urticaria pigmentosa which is due to the development of mast cells, and is a rare condition and not very amenable to treatment. Mr. Alexis Thomson presented a patient on whom he had operated five and a-half years ago and removed a portion of the stomach.

After the clinical meeting the members adjourned to the electrical department of the Royal Infirmary, where Dr. Dawson Turner gave a demonstration of the properties of radium, and also of the *x*-ray and high-frequency apparatus. Dr. Bruce in another room had a large audience to witness his demonstration of the Blondlot rays. Dr. Bruce is of opinion that these rays will be of great value in locating obscure tumours of the brain.

Dinner.

The dinner was held in the evening at the North British Station Hotel. About a hundred members sat down to table. The manager of the hotel provided for the comfort of the members in every way possible. After dinner the health of "The King" was proposed by the Chairman (Dr. Ballantyne), the toast of "The City of Edinburgh," by Dr. James Ritchie, who paid a warm tribute to the ability of the Convener of the Public Health Committee of the Corporation. The Convener (Councillor Laing Tod) responded, and emphasized the importance of the co-operation of the medical profession in all matters pertaining to the public health. "The British Medical Association" was proposed by Dr. Somerville (Galashiels), and Professor Waymouth Reid (Dundee), in a very humorous speech, replied. The toast of "The Guests" was responded to by Dr. Munro Moir (Inverness). The praises of "The Secretaries" were sung by Mr. Alexis Thomson; Dr. Norman Walker replied. The musical programme was excellent; Dr. Thompson was in splendid form, and the same must be said of Dr. McDonald. Dr. Fordyce sang "McNamara's Band" in a way which highly amused the members, and Dr. James's "Tubercle Bacillus" was inimitable. Dr. Frost contributed a piano solo.

The meeting may with truth be described as the most successful ever held in Edinburgh, and this is entirely attributable to the work of the Secretaries, Drs. Norman Walker and Logan Turner. Any work undertaken by those gentlemen is characterized by thoroughness, and no better example of this could be shown than the arrangements made by them for the conjoint meeting held on February 12th. To the managers and medical superintendent (Colonel Warburton) of the Royal Infirmary the best thanks of the members of the Association are also due. They placed Ward 22 at the disposal of the meeting; they also threw open the new pavilions for diseases of the eye, ear, and throat

to the inspection of the members; and, in addition, the electrical department was opened by them for purposes of demonstration.

Small-pox.

The small-pox epidemic at Glasgow shows some signs of abating, although it would be rash to expect any very rapid reduction in the number of cases at this particular season. Only 30 new cases were admitted last week, as against 47 during the previous week. The number of dismissals has been so large that on February 14th the number of cases in hospital was only 176. During the last two or three weeks the numbers have always been above 200. The mildness of the illness is still a feature of the epidemic, and this is illustrated by the fact that there have been only 41 deaths among over 600 cases. The disease still retains some hold in several of the surrounding towns and burghs. This is notably the case at present at Greenock, where within the last week or so quite a large number of cases have occurred no fewer than 49 last week. In fact, the outbreak has been so serious that it has more than taxed the hospital and isolation accommodation of the town, and for a few days a certain number of patients and contacts had to be kept at their own homes until further accommodation could be provided. One of the Roman Catholic schools has already been closed, and there is some talk of shutting all the schools in the town, and also some of the public institutions.

In the week ending midday Saturday, February 13th, 19 fresh cases of small-pox were notified to the public health authorities in Edinburgh, and 1 death was registered.

Ireland.

Royal College of Surgeons, Ireland.

The annual charter dinner of the Royal College of Surgeons was held on February 13th, the chair being occupied by Sir Lambert Ormsby, the President. His Excellency the Earl of Dudley was present, and there were many guests. In reply to the toast of his health and prosperity to Ireland, his Excellency made a speech which dealt entirely with the working of the new Land Act and the future of the country. The toast of "The Navy, the Army, and the Auxiliary Forces" was proposed by Sir T. Myles and responded to by Captain Gamble, R.N., and Major-General Vetch; that of "The College of Physicians" by Sir C. Cameron, responded to by Sir A. Macan; and that of "The Guests" by Mr. Chance, Vice-President, responded to by Sir Antony MacDonnell, G.C.S.I., and Mr. Justice Ross. The Lord Chancellor proposed "The President," who replied.

The Roentgen-ray Case.

This trial, after a hearing of seven days in Dublin, came to an end on February 12th. The judge, Mr. Justice Gibson, said that there were three things to consider on the question of negligence: First, what was the rule, the standard, of danger? Secondly, was that standard overpassed? And, thirdly, was the overpassing of the standard the result of negligence? The jury found that the College was not employed for reward to do the photograph, but that Haire was; that the sore was caused by the rays; that they were not negligently used by either Haire or Dr. Colohan; and the verdict was accordingly entered for the defendants.

The result is one that will be accepted as the common-sense conclusion. But the case again illustrates the scandalous costliness of law, and the mysterious way in which the machinery is sometimes put in motion. A child received a burn as a result of the application of *x* rays. The ulcer appears to have been about 2½ in. by 1½ in., involving the whole thickness of the skin. It healed slowly, as such ulcers do; but no deeper damage was inflicted, and it was sworn by competent witnesses that the child was not permanently injured. Now in order to settle the responsibility in this case, it took a judge and jury and no fewer than ten King's counsel and four juniors seven days. The plaintiff appears to have been not very affluent, for he was sent to the hospital in Galway, and afterwards to a hospital in Dublin. Yet he was able to face a very expensive fight. He had three King's counsel and a junior all to himself; the others were engaged in resisting his assault. Then there were seven experts, and a crowd of other witnesses. And now that the case has gone against him, he has to face a bill of costs which includes his own and the defendant's expenses. It will be big enough to take even a wealthy man's breath away. But this is one of the mysteries of the law, and the question to which one would like an answer is, "How is it done?" The lawyers will get, or have got, their fees somewhere. They are usually more careful than the doctors, and they take care not to do anything for nothing. But here surely is a case in which they might depart from usage. The unhappy plaintiff must go down under such a monstrous burden of costs, unless his mute appeal for mercy can reach the tender corner which is said to be somewhere in a lawyer's heart.

Patent Medicines.

In the British Medical Journal of January 23rd an account was given of a warning issued by the Rotherhithe Workmen's League in a leaflet about patent medicines and the harm that accrues by their sale to the working classes. This leaflet mentioned that a section of the religious press was particularly active in advertising such things, and as an illustration thereof a medical man at Belfast has forwarded us a copy of the *Missionary Herald of the Presbyterian Church in Ireland*. Some time ago he endeavoured to get its managers to drop this kind of advertisement, but the only definite reply he could get was to the effect that "the printers would naturally cry out were I to veto every advertisement which I might not thoroughly approve; this payment is partly secured by advertisements." The printers, it would appear, are *The Witness*, the official organ of the Presbyterian Church of Ireland.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

Meetings of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Guy Elliston, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Bath and Bristol Branch.—A meeting of this Branch will be held at the Royal United Hospital, Bath, on Wednesday, February 24th. Specimens will be shown at 7.45, and the meeting will begin at 8 o'clock. Dr. Barclay Baron, President, The following communications are expected: Dr. Carey Coombs: A Case of Anthrax. Mr. T. D. Rainsford: Ovarian Cyst, complicated with Appendicitis. Dr. C. C. Tayler: Two Contrivances for Use after Colotomy (a patient to be shown). Dr. Preston King: The Condition of our Streets.—W. M. Beaumont, Bath, J. Michell Clarke, Bristol, Honorary Secretaries.

Birmingham Branch: Coventry Division.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, March 1st. Mr. Milner Moore will take the chair at 8.30 p.m. Agenda: Dr. Rawlev will show Two Cases of Epithelioma of the Forehead under X-ray Treatment; Dr. Harman Brown will give the Notes of Four Cases of Cancer treated by Thyroid Extract; Dr. Phillips will read a Paper on Old Age, with some Methods of Treating its Ailments. The Committee will recommend the formation of a book section of the Division. The Holborn Surgical Instrument Company will exhibit a collection of new instruments in the out-patient room of the hospital from 7 to 9 p.m.—E. H. Snell, Knighton House, Coventry, Honorary Secretary.

Border Counties Branch.—The next meeting of this Branch will take place at Maryport on Thursday, March 10th. Members desiring to make communications are requested to inform the Secretary of the Branch at the earliest convenience. Further details will be notified by circular shortly before the meeting.—Francis R. Hill, 62, Warwick Road, Carlisle, Honorary Secretary.

Border Counties Branch: West Cumberland Division.—A meeting of this Division will be held at Workington, on Tuesday, March 1st. The Secretary will be glad to receive communications from any member who intends to read notes of cases or to exhibit specimens, etc.—T. G. Matthews, 3, Senhouse Street, Maryport, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A dinner will be held at the Worple Hall, Wimbledon, on Thursday, February 25th, at 7.15 p.m. Tickets 6s. each (wines extra). Dr. Still will read a paper at 9 p.m. on the Diagnostic Significance of some Signs and Symptoms in Diseases of Children. Members are entitled to bring guests, and are asked to book places for the dinner by February 18th if possible, as a certain number have to be guaranteed. E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—A meeting of this Branch will be held at Barrow-in-Furness on Wednesday, February 24th, at 3.30 p.m.—A. S. BARLING, High Street, Lancaster, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—The next quarterly meeting of this Division will be held at Berwick-upon-Tweed, at the residence of Dr. Mackay, on Tuesday, February 23rd, at 2.30 p.m. Dr. Burman will open a discussion on Pneumonia.—R. B. ROBSON, 20, Bondgate, Alnwick, Honorary Secretary.

PERTHSHIRE BRANCH.—A clinical meeting of this Branch will be held in the Station Hotel, Perth, on Friday, February 26th, at 4 p.m. Business: (1) Minutes; (2) appointment of Joint Secretary; (3) report of Council on the Medical Acts Amendment Bill; (4) cases, etc.—Dr. Stirling: Abdominal Cases; Dr. Taylor: Antitoxin in Diphtheria. Dinner after the meeting in the hotel, at which a presentation will be made to Dr. Urquhart. The Honorary Secretary will be obliged by members informing him of their intention to be present.—WILLIAM A. TAYLOR, 10, Marshall Place, Perth, Honorary Secretary.

SOUTH-EASTERN BRANCH: EASTBOURNE DIVISION.—A meeting of this Division will take place on Thursday, February 25th, at 8.30 p.m., in the Mayor's Parlour, Town Hall, Eastbourne. Agenda: Minutes of the last meeting. Dr. E. Staines, Physician to the Skin Department, St. Thomas's Hospital, will read a Paper on the Results of Treating New Growths, etc., by application of Roentgen Rays, Radium, etc. All members of the South-Eastern Branch are entitled to be present and to introduce professional friends.—W. J. C. MERRY, 2, Chiswick Place, Eastbourne, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 10th, at 4 p.m.; Mr. J. Sidney Turner in the chair. Agenda: Minutes of last meeting. To arrange the number, dates, and places of meetings to take place annually, and to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Communication from the Medical Secretary as to alteration of boundary of Division. Communications concerning the transfer of King's College Hospital to Denmark Hill. To consider the following questions referred by the Representative Meeting and Council of the Association to the Divisions: (*a*) Six resolutions as to the reforms required in the Vaccination Laws. (*b*) Proposed Medical Acts Amendment Bill. (N.B.—The text of the resolutions above referred to and of the Medical Acts Amendment Bill will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for August 1st, 1903, and members are advised to bring their copies of this SUPPLEMENT to the meeting.) (*c*) The advisability of petitioning the Privy Council in favour of direct representation of the British Medical Association on the General Medical Council. The following papers will be read: Mr. W. Arbuthnot Lane: On Certain Abdominal Conditions. Mr. H. G. Plimmer: Diseases in Men and Animals caused by Trypanosomata. Exhibition of instruments by Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.: charge 5s., exclusive of wine. The Honorary Secretary would be much obliged if members would kindly inform him by the first post on the Tuesday before the meeting whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANGLEY, Tudor House, Alderley, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The quarterly meeting of this Division will be held in the Asylum, Abergavenny, on Friday, February 26th, at 3 p.m. Chairman, Dr. J. W. Mulligan. Business: Minutes of last meeting at Newport. Correspondence. Annual Report of Division to Branch Council. Report from the Medical Secretary, giving the opinion of the Solicitor to the Association on the Regulations. Dr. W. D. Steel will move: That the members of this Division approve of the Association taking up the defence of its members for such additional subscription as the Defence Committee may decide; that steps be taken to amalgamate such Defence Union with the existing Medical Defence Unions and Societies. Papers: Dr. W. F. Nehs: Patients suffering from Paralysis of the Insane, illustrating the various stages of the disease. Mr. R. J. Coulter: The Orthoptic Treatment of Concomitant Squint. Mr. W. J. Greer: Surgical Analgesia by Spinal Cocainization, at the Beaujon Hospital, Paris.—W. J. GREER, Newport, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurs on the latter date.—E. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

AMBIDEXTERITY.—"The Ambidextral Culture Society for the Promotion of Symmetrical, Physical, and Mental Development" has arranged a course of lectures, to be given in the rooms of the Medical Society of London at 5 p.m. during the next four months. The subjects will vary from ambidexterity in fly-fishing to the same accomplishment in the infants' school. Further particulars can be obtained from the Honorary Secretary, St. Dunstan's House, Fetter Lane, London, E.C.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Annual Report of the Royal Infirmary.—Feeding of Poor Children.—Joseph Priestley Memorial.—Infant Mortality.—City Grant to the Victoria University.

AT the annual meeting of the Trustees of the Royal Infirmary on February 11th the report of the Board of Management was submitted and approved. It stated that arrangements for the sale of the present infirmary site had been made with the Manchester Corporation for the sum of £400,000, and that the first instalment of £100,000 had been received. The formal conveyance of the Stanley Grove site from the Owens College to the infirmary would shortly be completed. The new site had been enlarged by the acquisition of three houses adjoining the Royal Eye Hospital in Nelson Street, the cost of which (irrespective of chief rents) was £8,000. The Manchester Southern Hospital had agreed to relinquish, upon the payment of the sum of £18,500, the land adjoining Union Chapel, which had been conveyed to that hospital by the Owens College as a site for their new hospital. A sum of £6,000 was to be paid to the Owens College in compensation for the expense involved in the removal of the Bacteriological Laboratory from Stanley Grove, and towards the acquisition of a suitable adjacent site. Arrangements had been made with the Committee of the Christie (Cancer) Hospital to provide suitable access to their buildings. The requirements for a new infirmary, containing 500 beds, with provision for 600 beds if and when required, had been carefully prepared in concert with the medical staff. Applications from fifty-six architects desiring to compete for the erection of the new buildings were received; from these a selection of twelve had been made, upon the advice of Mr. J. J. Burnet, F.R.I.B.A. The question as to whether any and, if so, what provision should be made in the centre of the city for accident and urgent cases and for out-patients would receive the consideration of the Board as soon as the plans of the new infirmary had been decided upon. The report also stated that an inquiry instituted into the circumstances of all the home and out patients showed that only 4.33 per cent. of them were unsuitable for free medical relief. The Chairman of the meeting, in reply to observations, stated that the importance of the question of provision in the city for accidents and urgent cases was duly recognized, but that it would be unwise to commit the Board at present to its future policy in the matter.

The third of the public-health lectures at the University was given on February 11th by Dr. Niven, the Medical Officer of Health, on the feeding of poor children. Where the combined earnings of a family exceeded 35s. a week children, he thought, generally received sufficient food, but much waste was due to drink and want of knowledge on the part of mothers as to how economically to select and prepare food. This knowledge should be imparted in the schools, and remedies were mainly to be looked for from improvement and extension of the machinery now in the hands of the education authorities. Girls at school should be taught the elements of domestic economy and hygiene, special attention being given to the care and feeding of infants. In this way only could there be reform in the feeding of infants. Physical exercises were admirable for well-fed children, but they were most deleterious to ill-fed or ailing children. Teachers, therefore, should be trained carefully to detect signs of illness or weakness, and to assign them to their true cause, whether disease or privation. This knowledge should be obtained by instruction given to teachers by medical experts while examining classes of children. Legislation was required enabling the education authority to enforce the provision of sufficient food and the maintenance of cleanliness in school children by the parents. The children in all the schools should be weighed, and their height measured once a term, and a record kept of their age, height, and weight. By this means it would be possible to gauge the condition of the children both collectively and individually.

On February 6th, the anniversary of his death, Warrington played its part in the celebration of the Priestley Centenary. In Warrington is the "academy" in which Joseph Priestley spent six quiet years of his life as a tutor before he went to Leeds to be minister of the Mill Hill Chapel. Upon the front of the old building of the academy, now given over to the purposes of trade, the Warrington Society has placed a bronze tablet, which was unveiled by Dr. T. E. Thorpe, C.B.,

F.R.S., Director of the Government Laboratories in London. It bears this inscription: "Joseph Priestley, Natural Philosopher, resided here from 1761 to 1767 as a tutor of the Warrington Academy. This tablet was erected by the Warrington Society on the centenary of his death, 6th February, 1904." It will be observed that the words "discoverer of oxygen" are left out. As a matter of fact, it is now known that although Priestley was an independent discoverer of oxygen, and for many years was supposed to be the sole discoverer, the actual merit of being the first person to isolate that gas was in reality the Swedish apothecary Scheele. Indeed this distinguished Swedish chemist isolated this gas, not by one method, but by three or four methods. These facts have only comparatively recently come to light.

Dr. Ashby, on Saturday evening, February 13th, addressed a large working-class audience on the subject of infant mortality. He showed what had been done elsewhere to lessen the mortality, and urged that it behoved all present to support the Corporation in its endeavours to prevent the sale of impure and dirty milk by the inspection of milk-shops and dairies and cowsheds in the town, insisting on a high standard of cleanliness in the cows and in the handling of the milk, sampling it as it arrived at the stations, and stopping the supply of impure milk or that from diseased cows. He also pointed out that a factor quite as important to a child as its surroundings and the exact character of the milk obtained for it was intelligent care on the part of its mother. This included cleanliness as regarded the storing of the milk in the house, clean bottles and victuals, the quality of the food and regularity in feeding, the cleanliness of the child, suitable clothing, fresh air, and the application for skilled advice if slight ailments occurred. He commended breast-feeding whenever possible, and urged mothers to make themselves fit for it by attention to their own health and abstention from alcohol.

The Education Committee of the Manchester City Council has unanimously resolved to recommend that a grant of £4,000 be given from the City rates in aid of the University of Manchester. Hitherto the City has given a comparatively small sum to Owens College.

LIVERPOOL.

Medical Institution: President's Badge.—Liverpool University: City Council Grant.—Royal Infirmary: Enlargement of Medical Board. Qualifying Medical Examinations in the University. The Infirmary for Children.—Report on Summer Diarrhœa in Bootle.

At a recent meeting of the Medical Institution an interesting ceremony took place, when the President, Dr. James Barr, was invested with the newly instituted insignia of the office, consisting of a medallion suspended by a blue ribbon. The medallion is of 18 carat gold, 2½ in. in diameter displaying a finely modelled "liver," the bird which appears on the arms of Liverpool. On the obverse side are the arms of the institution, beautifully enamelled in colours, encircled by its motto, the first three aphorisms of Hippocrates in Greek characters. Around the arms there are spaces in which it is hoped that jewels will be inserted. The reverse side bears the following inscription: "Liverpool Medical Institution, President, January, 1904." The work, which has been executed by Messrs. Oldfields, is a beautiful example of modern art jewellery, and is greatly admired. It will be worn by the President at the meetings of the Institution, and also on public occasions when he appears in his official capacity.

The Liverpool City Council, acting on the authority of a recent Act of Parliament, has unanimously voted the sum of £5,000 to the University for the present year. It is understood that about £1,000 will be spent on scholarships. Although the grant is only for one year, it is almost certain to be renewed from year to year so long as it is used in such a manner as commends itself to the City Council.

During the twelve years that have elapsed since the opening of the new Royal Infirmary the staff has been nearly doubled by the creation of posts for assistant physicians and assistant surgeons, and for officers to special departments. The constitution of the Medical Board, however, which is determined by the laws of the infirmary, has remained precisely as it was in 1892, except that three years ago the surgeon to the Lock Hospital was given a seat upon it. For several years proposals have been made from time to time to admit the assistant physicians and surgeons and the officers of the special departments to the Board, but until recently without any result. At the last annual meeting of the trustees it was, however, unanimously resolved that the assistant physicians and surgeons and the officers to the special departments shall become members of the Medical Board when they have been in office for seven years. The immediate effect of this change of law is to admit to the Board two out of the three assistant surgeons and all the officers of the special departments.

The first qualifying medical examination in the University of Liverpool will take place next month. Candidates for the M.B. degree are at liberty to present themselves either in Liverpool or in Manchester, according as they wish, to graduate in the University of Liverpool or the Victoria University. All the candidates from Liverpool have signified their intention of entering for the Liverpool degree.

At the annual meeting of the Infirmary for Children a highly favourable report on the site was received from the medical officer of health. It appears that the foundations of the old building rested on solid sandstone rock, which is quite undisturbed and free from contamination. The old building has now been entirely removed, but a considerable sum of money is still required before the new building can be completed.

Dr. W. N. Barlow, medical officer of health for Bootle, acting on the instructions of the Health Committee, has issued a report on the prevalence of diarrhœa in that borough during the past summer. The number of cases of fatal summer diarrhœa in children has considerably diminished during the last few years. In 1897 it stood at 153, in 1902 it was 53, and last summer it was 85. The male population largely consists of casual labourers at the docks and of marine firemen and others whose employment is uncertain and whose conditions of work and existence tend to improvidence and intemperance, conditions which inevitably result in more or less neglect of the children. In some cases the mortality among the children is appalling. Thus, in one family of 14 in which a death took place in 1903 no fewer than 12 children altogether have died, all from diarrhœa. In many cases the parents are intemperate, a circumstance which, as Dr. Barlow points out, has the two-fold effect of depriving the child of the attention it should receive and also of diminishing the money available for the purchase of nourishing food. The influence of the method of feeding is illustrated by the statement that of children fed from the breast alone only 7 died, of those fed from the breast and by hand 14 died, while of those fed entirely by hand 53 died. The kind of bottle employed in hand-feeding, as might be expected, seems to have had a considerable influence, boat-shaped bottles having been used in 17 instances and the pernicious long-tube bottles in 40. Dr. Barlow states that the sanitary arrangements seemed seldom to have been responsible and that overcrowding had not much influence, and he has no doubt that by far the most potent cause is improper feeding, including in this term cases where the food is both improper and insufficient. The causes which lead to improper feeding are ignorance, indifference, and poverty. Efforts have been made to educate the poor by means of printed circulars and domiciliary visits by the lady sanitary inspector, and Dr. Barlow advises that steps should be taken to educate mothers, both present and future, in the proper feeding and rearing of infants, especially by instruction in the public schools; careful supervision of the dwellings of the poor by qualified lady sanitary inspectors, and notification of cases of diarrhœa by the medical men in the borough. He suggests that legal proceedings should be taken against parents who have exhibited gross carelessness in the feeding of their children, that the practice of insuring young children should be restricted or prohibited, and that the scope of the Sale of Food and Drugs Act might be extended so as to bring within its provisions all patent foods so as to insure their reaching a certain standard of nutritive value.

SOUTH WALES.

Infectious Diseases. Tuberculosis.

The current year, as far as Glamorgan is concerned, up to the present has been more than usually free from infectious diseases, especially typhoid fever, and there has been no severe epidemic of any sort. Measles, scarlet fever, and whooping-cough have, however, been present in certain districts, necessitating the closure of several schools. The county has been free from small-pox for many months.

The Executive Committee of the South Wales and Monmouthshire Branch of the National Association for the

Prevention of Consumption have issued their second annual report. During the past year the work of the branch has been largely of an educational character. Early in the year a circular was addressed to various bodies in the district, offering to deliver addresses on the work of the Association. As a result, lectures, illustrated by lantern slides, were given under the auspices of the branch at several places. The University College Sub-branch has been active in carrying out the objects of the Association, and the College *Magazine* has periodically devoted space to short articles on tuberculosis, the means of its prevention; a considerable amount of literature has been distributed by the students of the College. An interesting event was a lecture on the Value of Fresh Air by an old student of the College. The question of a sanatorium for the poorer classes is now under consideration by the Glamorgan County Council, whose medical officer of health (Dr. W. Williams) has recently presented to his Sanitary Committee a very interesting report on the subject. It is hoped that the Council will be able to help local authorities to establish an institution which would do much to cure or alleviate a great deal of suffering and misery. The membership of the branch is 118. During the year the sub-branch established in West Wales was resolved into a separate branch, and is doing good work in carrying on the aims of the Association.

CORRESPONDENCE.

PUERPERAL SEPSIS.

Sir,—All who read Dr. Peter Horrocks's address on puerperal sepsis as published in the British Medical Journal of February 13th, p. 349, will, I am sure, feel grateful to him for his very practical and outspoken remarks on this most important subject. On one or two minor matters these remarks may give rise to differences of opinion, but on the main issue, the prevention of puerperal sepsis, there should be universal agreement with his teaching—that if we interfere even so much as by introducing the finger for purposes of examination, we must take the most stringent antiseptic precautions, quite as much as if we were going to introduce the finger into the peritoneal cavity.

Dr. Horrocks, however, is of opinion that in the great majority of cases of "natural labour" no interference whatever is called for, examination being, therefore, both unnecessary and dangerous. With all respect to so eminent an authority, I would venture to suggest that in assuming any particular case which comes before us to be absolutely natural and aseptic, we are to a certain extent leaving matters to chance, and may find, too late, that our assumption has been unfounded. Prevention is certainly better than cure in these cases, and personally I feel very strongly that we have no right in any case merely to assume asepticity when we have in our power, if we will only use them, the means "to make assurance doubly sure" by a thorough and logical application of aseptic and antiseptic principles in all our midwifery work. Apart from the fact that the vagina and vulva are frequently septic even before the accoucheur arrives, in not a few cases soiling with faeces, etc., occurs at or soon after labour. A certain amount of abrasion or laceration of the soft parts is almost inseparable from any labour, especially in primiparae, and these open wounds are equally, if not more, liable to septic contamination than wounds elsewhere. Why, then, should we hesitate to treat wounds of the perineal region like, say, wounds of the thigh or foot—that is, by efficient antiseptic dressings?

In a paper which will be shortly appearing in the *Practitioner* I have outlined the actual details of aseptic or antiseptic technique which I have for some time adopted in my own midwifery practice with, I am pleased to say, the most satisfactory results. If some such plan were adopted by all medical men in their attendance upon childbirth, I feel sure the present high mortality from puerperal sepsis in general practice, not to mention the large amount of morbidity, which now provides work for the gynaecologists, would be very materially reduced.—I am, etc.,

P. R. Cooper, M.D., B.Sc.Lond., F.R.C.S.Eng.

Bowdon, Feb. 15th.

Sir,—I have read Dr. Horrocks's paper on puerperal sepsis in the British Medical Journal of February 13th with unusual interest, and on the whole I think every one will agree with its general tenour. But towards the close of his paper Dr. Horrocks gives answers to two self-imposed questions which entirely, to my mind, contradict one another.

Question 1. Should a doctor who gets a case of puerperal septicaemia continue his midwifery practice?—A. The answer is decidedly in the negative.

Question 2. How soon after ceasing to attend upon a puerperal septic case is it possible to resume practice?—A. In about 15 to 20 minutes, or just as long as it takes to get your hands aseptic.

If this procedure be allowed in answer to Question 2 it becomes only a matter of equally careful disinfection after each visit to a patient with puerperal septicaemia in order to attend another confinement without risk to the patient; and consequently according to this method of reasoning the necessity of giving up one's midwifery practice as stated in answer to Question 1 does not exist.—I am, etc.,

February 14th. J. M. K.

THE TREATMENT OF PNEUMONIA.

Sir,—My letter in the British Medical Journal of December 19th, 1903, commenting on Dr. Lees's lectures on the above subject has evoked a considerable amount of criticism, and the critics seem all to agree with Dr. Lees and to differ from me. My first impression was to retire from the arena, and leave the ring in the undisputed possession of Dr. Lees and his admirers; but really, the letters have afforded me such a fund of amusement that I do not like to keep it all to myself, so, just for the fun of the thing, I have the temerity to venture back to the field of controversy and there await the final knock-out blow from some of the doughty champions who appear to think that they have already pulverized me.

I may first premise that I am an advocate of blood-letting, occasionally even in pneumonia, and I hope that I employ it intelligently. I bled an old lady aged 80, when she was in the status epilepticus from a cortical haemorrhage, to the amount of 17 fluid oz. She lived till she was 95. I have seen as much oxygen in cylinders administered as cost some hundreds of pounds, and I still continue to prescribe it. Recently a young gentleman dying from phthisis used about twenty shillings' worth a day, and he averred that it gave him great relief, and the nurses asserted the same thing: his intercostal muscles were not sufficient to draw in air, and hence the advantage of oxygen driven in under pressure. Compressed air would have served the same purpose, but here expense was a matter of no concern. In analogous cases I have occasionally ordered a foot-bellows, and here the driven air can be filtered through cotton wool. None of us can get on without oxygen, and my objection is not to its use even when supplied in cylinders, but to the blind, unreasoning faith with which some men assert their "belief" in oxygen, much in the same way as they would repeat a creed. A friend of mine says that "if inhaled suddenly in large quantities the gas is excessively stimulating, and may be followed by, if it does not produce, quite a tetanic condition of muscles." This looks like a strychnine effect. Paul Bert said that animals exposed to the pressure of oxygen above six atmospheres died in violent convulsions. Recently some experimenters have shown that if in the atmosphere inhaled the oxygen tension be over 80 per cent., equivalent to about four atmospheres pressure, a condition of apnoea is engendered; here the oxidation of the blood would take place by the ordinary diffusion of gases, and the respiratory pump would be thrown out of action. Surely this would be a very undesirable thing in pneumonia, but fortunately economic laws rather prevent such free administration. There is plenty of oxygen in the atmosphere to saturate, or almost saturate, all the haemoglobin with which it comes in contact. My critics are so satisfied with their own clinical observations that I suppose it is useless to refer them on this point to the writings of Paul Bert, or to the admirable work of Dr. W. Ernest Thomson on The True Position of Oxygen as a Restorative in Carbonic-acid Poisoning, published in the *Glasgow Medical Journal*, 1893-94. I am inclined to think that the study of such good work might improve the accuracy of their observations and the value of their deductions.

In pneumonia the difficulty is usually not in finding oxygen, but in securing a sufficient aerating surface in the lungs. Zuntz calculated the alveolar surface of healthy human lungs at 90 square metres, and if this oxidation surface be reduced to a half or a third it is easy to see how impossible it is to sufficiently oxidate the blood. Here, again, men who are constantly vaunting their so-called clinical experience are not content with the reduction

effected by disease, but still further reduce it by setting up a catarrhal condition in the sound portions of the lungs by the use of drugs and bronchitis kettle, prescribed with the object of "loosening the phlegm." Clinical observations should have taught that, *ceteris paribus*, the less the expectoration the more favourable the prognosis. The maintenance of as large an aerating surface as possible is of much more importance than the oxygen tension.

Some time ago I saw a severe case of pneumonia in consultation. I found the youth lying on the sound lung: he was too ill to turn himself or to care how he lay: extremely livid, almost asphyxiated, and loud mucous rales in his trachea. I simply rolled him over on his back: his colour and breathing improved immediately. I also prescribed a mixture of chloride of calcium and strychnine to dry up the phlegm. He recovered. There may be an advantage in keeping the oxygen tension as high as possible in the healthy alveoli, but any hyperexcitation of the local circulation in the steatosed must be very slight, and the quantity that can be absorbed by the blood apart from the haemoglobin is much less than what would be absorbed by the same volume of water. Any advantage that there may be in a cylinder of oxygen can be equally obtained from compressed air. In order that I may not omit anything in favour of cylinders of oxygen, I must refer to the valuable investigations of Dr. Haldane on the effects of carbon monoxide on mice and men. He uses the mouse as an indicator of the presence of poisonous proportions of carbon monoxide in the atmosphere of coal mines, as it is much more quickly affected than the human being. At a tension of two atmospheres of oxygen the poisonous action of carbon monoxide is abolished in the case of the mouse as at high tension it can obtain sufficient oxygen from the gas dissolved in the plasma of the blood. However, the oxygen does not displace the carbon monoxide from the haemoglobin, and in man the quantity of oxygen that can be absorbed by the plasma is not of much account. I have entered fully into the subject, as I do not wish to minimize any advantage which a cylinder of oxygen may possess, but I merely wish to point out, first, that it has no greater chemical affinity than the oxygen of the atmosphere; secondly, in pneumonia aerating surface is of very much greater importance than oxygen tension; thirdly, any slight benefit which may be gained by increased oxygen tension may be equally obtained from compressed air.

My preceding remarks may serve for the special delectation of Dr. Whitby, but regarding his argument about "young children eagerly and repeatedly" demanding oxygen "when the advent of air hunger and cyanosis has rendered them indifferent to all other considerations but the craving for immediate relief," without calling in question the accuracy of his description, I may remind him that a very important cause of death in pneumonia in young children is failure of the respiratory pump: they fail to draw air in, but the supply of oxygen from a cylinder must prove a poor substitute so far as the right side of the heart is concerned.

Next with regard to blood-letting. I may say that I quite agree with Dr. Lees that it requires no supernatural wisdom to understand that if you remove 3 oz. or 4 oz. of blood from the circulation the quantity abstracted will not reach the right side of the heart, but I may remind him of a fact of which he is no doubt aware, but which he seems to have forgotten, that physically the right side of the heart lies at the bottom of the stream, a stream which in pneumonia contains more than half the blood in the body—say 6 lb. to 8 lb.: how then will the removal of a few ounces from a rivulet at the top of the stream affect the repletion of the reservoir at its bottom? If he had carefully read my letter he would have found that I had anticipated and answered his argument.

These remarks will also apply to Dr. Green, but as he refers to paralytic overdistension of the right side of the heart, I may refer to a case which recently came under my observation.

While I was away on my holidays a youth was admitted to my ward with tachycardia, the result of a kick or blow on his epigastrium at football. His pulse was over 250, and continued so for about a week. His abdomen then was much swollen, and an exploratory operation was decided on. It was not considered safe to give him an anaesthetic, so he had a large dose of brandy and a hypodermic injection of cocaine. Before the operation was commenced his pulse had fallen to 80. A large amount of fluid was evacuated, but nothing else was found. On my return I found him quite well, and in reply to an inquiry from my house-physician I refused to express an opinion on a case which I had not seen, except that I thought the brandy caused the drop in the pulse.

On January 13th he was sent in under the care of my colleague, Mr. Hamilton, supposed to be suffering from rupture of the stomach, the result of another injury to his epigastrium in the football field. I was asked to see him on the 16th, and found him in a very distressed condition: heart beats over 300 per minute, a small thready running pulse, not countable. With Oliver's haemadynamometer I found that the mean arterial pressure was 160, and obliterating pressure 190 mm. of mercury. The blood pressure was therefore very high, though the very small pulse from peripheral resistance felt compressible. The right auricle extended nearly to the right nipple, and the left ventricle was contracted: the second pulmonic sound was accentuated. Over the right ventricle the cardiac contraction looked like a quiver rather than a systole. His liver was large and tender. My diagnosis was that the injury had stimulated the inhibitory action of the vagus, and this led to paralytic distension of the right side of the heart, and consequent tachycardia. As very little blood reached the left side the arteries contracted down rather more than was necessary, and consequently the arterial blood pressure rose: the high tension extended back through the lungs, as shown by the accentuated second pulmonic sound, and the right side did not get a chance of relieving itself. My house-physician suggested that I should adopt the remedy which I advocated, namely, bleeding from the liver; but my reply was that the patient was not now under my care, and, moreover, I thought simpler means would succeed. He got 5 gr. of calomel; nitrite of amyl inhalations; a hypodermic injection of ⅓ gr. of atropine; and ⅓ gr. of nitro-glycerine every two hours. In twenty four hours he was practically all right, the pulse being 84, regular, full, and strong. On January 23rd he was discharged quite well with a level pulse-rate of 60.

Dr. Staveley Dick says: "If you apply, it may be four, icebags from day to day to an average healthy man's chest or abdomen for upwards of a week, and at the same time subject him to considerable periodical haemorrhages, you cause such a departure from his internal economy and external environment as must inevitably exercise a notable effect on his vital powers." This is a very novel experiment; it has certainly not been recommended by Dr. Lees or myself. I hope Dr. Dick will first try it on himself. His blood-letting seems to have raised the arterial blood pressure, and this extraordinary effect makes me rather sceptical about the value of his observations. He puts a very limited estimate on the value of consultations, and thinks more depends on "the keenness and educated judgement of the man in hourly attendance." There may be, and probably is, a little prejudice on my part; but, if I were suffering from pneumonia, I should not care for an hourly visit from a man whose armamentarium included a lancet, a hypodermic syringe, a bottle of brandy, and other odds and ends. I would probably ask him to come the day after to-morrow, or, if he did not mind, he might stay away till after the crisis.

Dr. Stuart Tidey's explanation of the use of the icebag to the abdomen is simplicity itself. He says: "My own theory is that one of its most important effects is due to its decreasing the volume of gases contained in the practically closed cavities of the body." He does not tell us whether the intra-abdominal pressure is correspondingly diminished, which is essential for any value which his views may possess, but, while he is considering this matter, we will examine his theory a little more closely. Gases expand and contract ¹/₂₇₃ of their volume for every degree Centigrade which the temperature is raised or diminished. Now suppose the icebag lowered the temperature 5° C., or 5 4° F., a very liberal estimate, the volume of the gas would be reduced ¹/₅₅ of its bulk: I don't know how much gas he supposes to be in the abdomen, but I do know that a reduction of ¹/₅₅ of the volume is a mere bagatelle. Moreover, I can say from personal observation that the intra-abdominal pressure is not correspondingly diminished. After this Dr. Tidey must excuse me refusing to discuss with him the value of his experience of either blood-letting or oxygen.

I do not share Dr. McNamara's contemptuous opinion of the medical student: we have got many in Liverpool who could teach him not only anatomy but also physics, if I may judge from the theory he propounds. The 6 oz. or 8 oz. abstracted by leeches or venesection are only a small amount of the blood rushing to the reservoir at the bottom of the

tream. If it were merely a question of keeping a certain mount of blood from reaching the right side of the heart ntil it had time to right itself, then a ligature round one or oth thighs would serve the purpose more effectually. The hole of the venous blood is in direct communication with ne right side of the heart, and the low resistance in the rterioles enables any depletion to be quickly replaced from ne arteries, so blood abtracted in these cases can only act by iminishing the total amount in circulation.

So much for Dr. McNamara's references to anatomy. egarding the children who "were living in the vitiated tmosphere of small, overcrowded rooms," these two reoveries must have afforded him a great amount of moral atisfaction, seeing that he had "never before seen children imilarly circumstanced recover from the condition in which found them." But in future I would advise him to put uch cases in the best room in the house or send them to ospital.

Anent this subject, I have recently had a long letter from ny friend and teacher, Sir W. T. Gairdner, to whose very autious and historic article on the Treatment of Pneumonia, ublished in the *Practitioner* of January, 1900, I have now nuch pleasure in drawing attention. Sir William says in is letter: "I am, however, still of opinion that there is a egitimate field for blood-letting in pneumonia, could one enture to disregard the conventional and too negative aspect f modern treatment."

I can cordially endorse this statement, but I think the ield is a very narrow one and in this I believe I am echoing ir William Gairdner's views—and should be limited to the irst forty-eight hours from the onset of the disease in those xceptionally sthenic cases where there is high arterial ension. Of course great caution should be exercised to void any serious loss of blood, especially where there may e a feeble or fatty right ventricle, as such conditions are apt o lead to pulmonary oedema.—I am, etc.,

Liverpool, Feb. 1st. JAMES BARR.

LUMBAGO.

SIR,—In the interesting letters which have appeared on his subject, only one calls for a remark from me. Dr. Edgeworth, in the BRITISH MEDICAL JOURNAL for January 30th, expresses a difficulty in conceiving that the muscle-fibres within the spindle share the general contraction of the muscle, because they seem to receive no motor nerve. But in every fibre the contraction proceeds along the nerveless part of it from the nerve ending. The upper part of the sartorius of the frog is said to be devoid of nerves but contracts with the rest, the contraction of the fibres passing along them. In the fibre within the muscle spindle the contraction may pass into it from both above and below. Thus the absence of motor nerves is not the difficulty it at first seems to be.

I may add that the second of the cases of "brachial neuralgia" recorded by Dr. Distin, in the number of the JOURNAL in which my lecture appeared, is instructive. It is, I think, an illustration of the aid to discernment afforded by the conception of "fibrositis" as the pathological basis of such a condition as is described.—I am, etc.,

London, W., Feb. 16th. WILLIAM R. GOWERS.

PROHIBITION OF DISPENSING BY DOCTORS.

SIR,—In the present condition of the medical profession, the general practitioner will commit moral suicide unless he most vigorously organizes to resist any and all legislation to limit or prohibit his power to dispense.

I cannot say I was ever a needy practitioner, as unfortunately I know many of my medical friends to have been, and in some cases still are, but I honestly admit that had I been prohibited from dispensing my own medicines I should quickly have become one. My practice, which I held from 1871 to 1896, and which my father had worked from 1841, was a very wide one, and ten miles from any town or chemist. Not only would the inconvenience to patients have been insurmountable had they by law been debarred from obtaining their medicines from us, but our pecuniary loss would have been very considerable. We calculated the profits on our dispensing paid the cost of all drugs, a dispenser, and all the expenses of a stable which was as well known in the hunting field as at our patients' doors. If such was the importance of dispensing in a really first-class practice, what will be the loss of it to the struggling practitioner? It would mean absolute ruin.

It is all very well for a certain class of consultant to preach of the dignity of the profession, but does that class practise what it preaches? Talking with men in general practice, I so often am told: "Things have altered since your day. In your day, as you tell us, you could trust your consultant; nowadays we generally cannot. Patients now so often steal away and see a consultant without our knowledge, and the consultant, having the excuse of their not having been sent by a medical man, annexes them and treats them as if he were the family attendant, and often at reduced fees. If we do send them for an opinion we often only get an acknowledgement, and our patients are seized bodily and sent into 'homes,' and that now not limited to cases for operation, but in many instances the medical cases are similarly confiscated, and so we lose what we justly should have—the general care of the case."

Now, this means one of two things: either those consultants' ideas of ethics are absolutely dishonest, or, if on the staff of a teaching hospital, they admit their teaching is so bad that they cannot trust those they profess to teach and in attempting which they have risen to the position of consultants.

I am an idle man, and will gladly receive the names of any general practitioners who think as I do, and get up meetings in London, Liverpool, Birmingham, Bristol, etc., to organize locally in order that pressure may be put on members of Parliament to prevent so scandalous an injustice.—I am, etc.,

Holne Chase, Bletchley, Bucks, Feb. 14th. P. B. GILES.

SIR,—"L.R.C.P." is well within the mark when he asserts that the prohibition of dispensing by doctors would mean "the absolute ruin of hundreds of hard-working, conscientious medical men who attend the poorer section of the community." Such men already have hard work to keep their heads above water in the competition with medical institutions, prescribing chemists, etc., and the immediate result of such a change would be the transference of about 50 per cent. of their practice to such competitors. Let the so-called "leaders of the profession," who, we are told, are introducing this tyrannical measure on the grounds that it is beneath the dignity of the profession to dispense medicine, be warned betimes, lest they discover too late that they have played the part of traitors and betrayers of their less fortunate, but perhaps not less deserving, fellows.

For my part, I consider it an open question whether a man whose only relation to drugs is the writing of prescriptions is as likely to prove successful in his treatment of disease as one who is in daily touch with the remedies themselves. There are many who share my opinion. Still, the trend of evolution in these matters seems to be in the direction of a division of labour, and accordingly the time will perhaps come when doctors will have ceased to dispense and chemists to prescribe. But there is nothing to be gained and very much to be lost by an attempt to crudely forestall this result by legislation. In fact, the contemplated injustice—confiscation would be a more suitable word—is so flagrant that in my opinion the Medical Defence Union should intervene to protect the interests of the majority now menaced by the fanatical interference of a few officious busybodies.—I am, etc.,

February 13th. SUBSCRIBER TO THE M.D.U.

SIR,—I have followed with interest the discussion on the suggested prohibition of dispensing on the part of medical practitioners. I frankly admit that I do not see how a prohibitory measure can be carried into effect at the present stage. A reasonable time should at least be allowed for the evolution of opinion and in order to allow medical men who dispense to set their practices in order before they can be expected to concur in the new arrangement.

Nevertheless the object which prohibition has in view is, I believe, in the best interests alike of the public and of the medical profession. The question is not a purely financial one, but it is noteworthy that the opponents of the proposed reform have discussed it almost exclusively from this standpoint. They express fear that patients will be unwilling to pay both practitioner and chemist, that they will be driven to have recourse to hospitals, dispensaries, and prescribing chemists, and that the last mentioned class will flourish more than it ever has. I confess that to me these objections appear to have little value. In particular as to the first my experience in prescribing has been almost entirely to the contrary effect.

Another point of more practical importance has been raised, that, namely, which concerns the profit or loss to the practitioner under either system. If he have acquired, whether by purchase or otherwise, a dispensing practice and betakes himself to prescribing, he parts with his surgery and its fittings, and he sees less of some patients who consult him than previously. On the other hand, he pays no rent for a surgery, he has no drug bill to meet, no dispenser or medicine boy to pay; if he visits patients at home his fees are not lessened by a deduction for medicines, many of which in the present day are expensive; bad debts imply loss of time and of work but not of monetary outlay.

In view of these facts and of the evident unreadiness of many practitioners to discontinue the old system, I would suggest that some form of commission should be appointed by members of our profession to inquire into this disputed point of profit or loss, and to ascertain as nearly as possible what is its real significance. If the British Medical Association, or a section of it, will undertake this work, it will help materially to bring about the systematic and deliberate consideration of this whole question by reducing the present financial nebula to a more concrete form.—I am, etc.,

Highbury, N., Feb. 17th. B. G. MORISON.

SIR,—It has been proposed by a member of one of the Divisions of the Metropolitan Counties Branch to insert a clause in the draft Medical Acts Amendment Bill to prevent doctors dispensing their own drugs to their own patients.

Such an obviously absurd suggestion, if carried out, would reduce to paupers 50 per cent., if not more, of general practitioners, many thousands of whom in our ranks are only in a position to keep themselves and their families, pay rent, etc., and one or two premiums for life assurances.

For men so situated the clause would spell "ruin," as they could neither afford to keep a dispenser or to give up their surgery practice, which, with the big Friendly Society work and contract practice, and the consequent dispensing which they entail, forms the greater part of their income.

Placed in such a situation there would be no other course that we could in any way take but to ignore that particular clause, and as so many of us would be forced by stress of circumstances "into the same boat," in my opinion, the clause would almost at once become a "dead letter."

Again, how could we give relief to our patients in sudden emergencies, in the middle of the night, on Sundays and Bank Holidays?

To propose the insertion of a clause in the draft prohibiting newly qualified practitioners from making up their own medicines for their own patients, say after January 1st, 1905, would be a little less absurd than the clause proposed, which, as it is such a drastic measure, would be found to be quite unworkable and totally uncalled-for, and as ridiculous as sending for a workman to do a job and then depriving him of his tools, but it would at any rate not beggar the present generation of general practitioners, who have invested all their capital in practices which are essentially dispensing ones. I am, etc.,

February 17th. FAIR PLAY.

SIR,—I read that a member of one of the Branches of the Association wishes to make a motion to prevent practitioners from dispensing except in certain specifically stated circumstances.

The most appropriate quotation to meet such a motion may be taken from a surgeon created by George Eliot in *Middlemarch*:

"But what I contend against is the way medical men are feeling their [illegible] about the country as if a general practitioner could not be a gentleman. I throw back the imputation with scorn. I say the man is unmanly who can be [illegible] to cease to be the friend of his patient with immediately [illegible] honoured practice. That is my opinion, and I [illegible] contradicts me."

Small wonder, too, but times are even worse for the general practitioner nowadays than they were seventy odd years ago. Some men rather plume themselves upon being prescribing practitioners only, but is it not far better to make up for any patient a mixture containing a combination of drugs with the effect of which the practitioner is thoroughly conversant, rather than to prescribe incompatibles or the ready-made products of enterprising wholesale chemists, or, worse still, to have a prescription handed about amongst the many friends of a patient who may have honoured one with but a single interview. I am, etc.,

February 17th. LIVE AND LET LIVE.

SIR,—May I suggest that those who are in favour of prohibiting doctors from dispensing should do a little *locum tenens* work in or, better still, purchase, a working-class practice, and thus gain some practical knowledge of the subject? I venture to think that at present they cannot have the slightest idea as to what the bulk of medical practices are like. If they have any knowledge of the facts, then they must be anxious to exterminate this branch of the profession.

As a village practitioner in a district where there is a chemist, I maintain that it is absolutely absurd to suggest such a law. Gladly would we all throw away our drugs and never dispense another bottle of medicine. Gladly would we all sit in "the seats of the mighty" and write prescriptions at 2 guineas a-piece. The one is as impossible as the other.

It is really difficult to believe that any such law has been seriously proposed.—I am, etc.,

February 14th. COMMON SENSE.

MEDICAL UNIONS AND THE BRITISH MEDICAL ASSOCIATION.

SIR,—I was very pleased to read Dr. Dickson's letter in the BRITISH MEDICAL JOURNAL of February 13th, p. 399, on the above subject, and to notice how harmoniously the Colliery Surgeons Committee propose to work with the Fifeshire Branch of the British Medical Association.

At Hartlepool I proposed the formation of a conjoint committee to bring together this Union and the Association, but this was rejected. Lately, however, better counsels promise a friendly arrangement which may be ultimately arrived at; so that the Unions of this part of England may probably work hand-in-hand with the North of England Branch of the British Medical Association.

We want a liberal policy as well as a progressive movement; we want to draw all men into the Association, and study the wants of all doctors whether in the Association or not.

As Dr. Dickson proposes, we should have a conference at the Oxford meeting of representatives of unions of all sorts, and compare notes and exchange views: great good and encouragement would come from it.

I understand that Mr. Whitaker is studying the question of contract practice in some parts, but if he is going to study it all over these British Isles, I think that many of our heads will be mouldy by the time he has completed his report.

Special commissioners should be appointed for this work, and allotted to large areas, to get the thing well done and without delay.—I am, etc.,

Durham, Feb. 14th. EDWARD JEPSON,
President, County of Durham Medical Union;
Member of the Council, North of England Branch.

THE SWEATING OF MEDICAL MEN.

SIR,—I think the remedy of your correspondents' grievances is a great deal in their own hands. If the medical profession would combine to accept no contract practice under a sum per head per annum which would pay them for giving proper attention and medicine, we should hear no more of the "sweating" grievance. If a medical man undertakes to do underpaid work he should do it without grumbling, as he has only himself to blame.

As regards social position, judging from observation and experience, I find that if a practitioner is a gentleman he will be treated as such by all classes; but if he is not, the holding of a degree or a diploma will not make him one.

I am, etc.,

ERNEST W. WADE, M.D., T.C.D.

Harleston, Norfolk, Feb. 14th.

CANCER AND ITS ORIGIN.

SIR,—Two most interesting letters on the above subject appear in the BRITISH MEDICAL JOURNAL of February 13th, p. 402, the one, however, being quite opposed to the other in its line of thought. It is refreshing to have a layman's view of the subject, and that so ably expressed, more especially as it so closely harmonizes with that which I think will eventually prove to be correct. That one form of cancer at all events—namely, scirrhus of the mamma—is closely connected with the migration of ovarian cells to that organ, is from my point of view beyond doubt. That these will be enabled to assume a malignant tendency, however, will largely depend upon the inhibition of that physiological action of those organs which control healthy cell metabolism. As I have pointed out elsewhere, it is quite possible for these ovarian cells to remain quiescent for an indefinite period, so long as

the part retains its normal condition. On the other hand, if it be weakened by injury, then the opportunity arises for the foreign element to assert itself when in process of time its malignant tendency is developed.

That the thyroid gland not only controls healthy cell metabolism, but also inhibits the evil effects of blood contamination due to faecal absorption, which otherwise would act injuriously upon cell metabolism, is, I aver, beyond all question. Hence we observe that malignant disease is usually associated with serious changes in, and not infrequently atrophy of, this gland. Cancer—or rather the possibility of the development of cancer—therefore is largely dependent upon a deficient physiological activity of the thyroid. Moreover, I am convinced this condition of the gland is consequent upon its having been for a lengthened period overtaxed in its endeavour to overcome the evil effects of over-eating, especially when this has been associated with constipation. Malignant disease is thus enabled to assert itself and continue its ravages. These conclusions I have arrived at after a most careful study of the question extending over a period of twelve years, and after having verified what I have stated by numerous cases of scirrhus and epithelioma which have quite recovered under treatment by thyroid extract or thyroid, supplemented by dietetic and local measures.

As to the microbic or parasitic theory of the origin of cancer, there seems to be no evidence to support either.—I am, etc.,

Glasgow, Feb. 13th. ROBERT BELL, M.D., F.F.P.S.

THE MIDWIVES ACT.

SIR,—Dr. Milson Rhodes is technically correct in saying that the exemption from operation under Section E of the Rules of the Central Midwives Board is not limited to Poor-law institutions. The exact wording is:—"Nothing in this Section (E) shall apply to certified midwives, exercising their calling in hospitals, workhouses, or Poor-law infirmaries under the supervision of a duly-appointed medical officer." Taken, however, with the context, it is clear that the actual meaning of Rule 21 was that the exemption should extend to Poor-law institutions only. Any other supposition would be misleading, as the fact has been published that the exemption clause was inserted at the express wish of the Local Government Board. Further, I believe no hospital has claimed exemption under this clause for the following reason—that managers are aware that if their institutions refuse to conform to the rules of the Board, pupil midwives will seek their training elsewhere. It should be noted that the Central Midwives Board need only accept for examination those candidates who have been trained "under supervision satisfactory to the Board."

Dr. Rhodes states his satisfaction that it is only in exceptional cases "that the disinfection, cleanliness, care of infants' eyes, case taking" are not enforced, and he says that where such a routine is not the rule the medical officer is at fault. On this admission from an experienced guardian I should like to say a few words, for on it hangs the serious aspect of the case, as it affects many of the most wretched and helpless of our mothers and infants, and many half-witted delicate girls requiring special care. I may add, the "equipment" of some union lying-in wards is, I know, inadequate to encourage efficiency.

The exemption was made subject to the fact that there might be a duly appointed medical officer, not, be it noted, a resident medical officer, a provision which would have confined the exemption to the larger workhouses. As, however, every small country union has a medical officer, the exemption applies to all, and the question remains, What amount of time and attention does the medical officer devote to the workhouse patients, and more especially to the lying-in cases? Till this is satisfactorily answered, I am sorry to say I am unable to share in Dr. Rhodes's optimistic spirit as to our standard of workhouse midwifery.

We are not concerned with the larger workhouses and infirmaries where modern methods are taught as a rule, but with the small unions. In any case, if Dr. Rhodes's suggested plan is carried out that is, the issue of an order from the Local Government Board, may we hope that, before such an order is issued, the authorities at Whitehall may consult the Central Midwives Board as to what "modifications" are desirable? After all, the latter is an expert body and may be expected to deal wisely with a question which is largely technical.

May I add one word. The more numerous the "exceptions" made under any Act, the greater the danger that the good effects of legislation will be seriously diminished.—I am, etc.,

February 2nd. "ANOTHER OBSERVER."

"DOCTORS IN PARLIAMENT."

SIR,—I agree with Dr. Gordon's suggestions. I would, however, like to point out that the British Medical Association has a Committee (the Medico-Political) which might very well be asked to undertake the preliminary arrangements—that is to say, to discuss the following points:

1. The number of medical men who should be asked to become candidates.
2. To determine how the funds should be raised to pay their election expenses, either in full or in part.
3. To determine, after investigation, which constituencies would be the most likely to offer success.

I honestly believe myself that the members of the profession are now fully convinced of the necessity of having their interests properly looked after in Parliament, and are, moreover, prepared to subscribe towards the accomplishment of that desirable object.—I am, etc.,

Cardiff, Feb. 13th. T. GARRETT HORDER.

IS MYOMA OF THE UTERUS OFTEN A FATAL DISEASE?

SIR,—Some time ago I ventured to answer this question in the negative, and my reply met with a certain amount of dissent. I was then unable to make any direct appeal to the national statistics in support of my contention, because myoma was not discriminated from other utero-vaginal diseases in the Registrar-General's annual reports. In the lately issued Sixty-fourth Report, however, this discrimination is now for the first time made, so that in the future there can be no doubt as to the kind of answer that should be given to my question.

When approaching this subject, in the absence of the precise details, I adduced reasons for believing that 20 per cent. of all women over 35 years of age are subject to uterine myomata. I then went on to say:[1]

> On this basis there would be about one million myomatous women in our present population. According to the reports of the Registrar-General, about [illegible] women die annually of "Diseases of the uterus and vagina," under which heading myomata are included, probably furnishing most of the cases over 35 years of age, for puerperal and malignant diseases are excluded. The report for 1897 shows 745 deaths under the above-mentioned heading; 229, being under 35 years of age, may be disregarded for our purpose, very few deaths being due to myomata until later in life. Thus a balance of 516 remains, most of which may probably be ascribed to myoma. Reckoning the deaths from myomata at 500 per annum, the mortality from this cause among all the myomatous women in the community over 35 years of age would be 1 in 2,000. In the absence of more exact information, I accept this as an approximately correct estimate; at any rate, the mortality from myoma is certainly not higher than this, although it may be considerably lower.

The Registrar-General's recently published statistics afford confirmation as to the correctness of this forecast. Thus, for the year 1901, comprising a population of over 32½ millions, of whom about 17 millions were females, the deaths caused by uterine myomata numbered only 339; so that the case-mortality, on the foregoing basis, would only amount to about 1 in 3,000.

Curiously enough, the mortality from this disease in our country is almost exactly paralleled by that experienced in the United States. Thus the Twelfth United States Census Report for the year 1900 shows that in a population of nearly 76 millions, comprising over 37 million females, only 657 died of uterine myomata.—I am, etc.,

Clifton, Bristol, Jan. 16th. W. ROGER WILLIAMS.

THE CURE OF FILARIASIS BY REMOVAL OF THE ADULT WORMS.

SIR,—In a paper published by me in the BRITISH MEDICAL JOURNAL of November 4th, 1903, I narrated the case of a man suffering from filariasis on whom I had operated for lymph scrotum, and in the excised scrotal tissues were found an adult filaria and several fragments. Forty-six days after the operation he had an attack of lymphangitis in the neck, and ten days after the onset of the attack I incised the cervical swelling, and removed a mass of sloughy-looking material, in which careful search failed to detect any adult worms. Sixty-seven days after the first operation it was discovered that the embryos had disappeared from the blood. The exact date of their disappearance is unfortunately not known, as no sys-

[1] *Uterine Tumours*, 1901, p. 121.

tematic examination was made of the blood for some weeks prior to the date when their absence was first noted. We have, however, a record of the numbers present twenty-four days after the first operation, and we find that at that date they were present in large numbers in the blood. In my paper I ascribed the cure thus effected in my patient to the removal of the adult worms in the scrotal tissue excised.

Sir Patrick Manson, in a paper published in the Journal of January 9th,[1] states that in his opinion the cure of my patient resulted from the attack of lymphangitis forty-six days after the operation on the scrotum, and not to the removal of the adult worms in the scrotal tissue. He comes to this conclusion because he considers the number of adult worms found in the scrotal tissue was not enough to account for the disappearance of such a large number of embryos from the blood, and suggests, also, that the embryos were present in the blood after the operation for a period longer than would have been the case had all the parent filariae been removed from the man's body with the scrotal tissue.

I would not venture to combat Sir Patrick Manson's view of the case, and in fact the arguments he puts forward in favour of the conjecture that my patient was cured at the time of the attack of lymphangitis are very convincing. My object in referring again to the case is to suggest that possibly the sequence of events in the clinical history of my patient would afford an argument in favour of operation in cases of lymphangitis where the affected tissues are accessible for operation, this procedure probably having been a factor in my case, along with the operation on the scrotum, in effecting a cure. I find on reference to my notes that I removed a mass of tissue from the neck "as large as a hen's egg," and although I failed to find parent worms there I am convinced that they were present. I have found it is by no means easy to discover and isolate parent worms from the tissues, and I was not at all sure that we had secured all the worms even from the scrotal tissue in the first operation.

In this connexion I may refer to the cases which have been recorded by Lieutenant-Colonel Maitland of the Indian Medical Service, Madras. In a paper in the Journal of January 25th, 1902,[2] he records several successful operations in which he had operated for lymphangiectasis, and succeeded in curing his patients by removal of the parent worms. He recorded a case in which he had removed a number of adult filariae from the arm as early as 1894. Other papers recording similar experiences are published by the same author in the *Indian Medical Gazette*.[3] I have recently received a letter from Lieutenant-Colonel Maitland, in which he states that the discovery of the adult worm in the tissues of the scrotum is a very rare occurrence. In this respect the case I have recorded will therefore be of interest.

Let me express my appreciation of the interest manifested by both Sir Patrick Manson and Dr. Maitland in my paper. One does not often get an opportunity for the study of tropical disease in this country, and it is a matter of satisfaction to know that the clinical record of my case has proved of sufficient value to attract the attention of men of such wide experience in this interesting sphere of work. I am, etc.,

Toronto, Jan. 28th. A. Primrose.

ABERDEEN ANATOMICAL AND ANTHROPOLOGICAL SOCIETY.

Sir,—A propos of your notice in the British Medical Journal of February 6th of the Quain Society at University College, London, it may be of interest to mention that a similar Society has been in active existence for some years at Aberdeen—the Anatomical and Anthropological Society of Aberdeen University, a society of undergraduates for the purpose of promoting the higher study of anatomy and anthropology quite apart from the ordinary work of the medical curriculum. Started in 1899 at the instigation of Professor R. W. Reid and conducted under his presidency, the Society has had much success and has shown gratifying evidence of interest in the subjects recorded, apart from the demands of examinations; about one-fourth of the members have already concluded the study of anatomy for the medical degrees. A volume of *Proceedings* is published biennially; the first appeared in 1900, the second in 1902, and the third will be issued shortly. The work has not been confined to a few but has been widely shared amongst the members. The present membership is 65.—I am, etc.,

J. A. MacWilliam.

Physiological Laboratory, University of Aberdeen, Feb. 9th.

[1] A Note on [illegible] Sir Patrick Manson. British Medical Journal, January 9th, 1904.

[2] The Operative Treatment of [illegible] Lieutenant-Colonel Maitland. British Medical Journal, January 25th, 1902.

[3] A case of [illegible] of Adult [illegible] Lieutenant-Colonel Maitland, British Medical Journal, April [illegible]

[4] Filarial Disease. [illegible] Medical Congress; clinical lecture on Filarial [illegible] Medical Journal, [illegible] common [illegible] 1898—all by Lieutenant-Colonel Maitland, Madras.

CERTIFICATES FOR SCHOOL CHILDREN.

Sir,—I am pleased to see Dr. Wells's letter with reference to the above important question. The Education Act, like many other Acts, requires amendment in the direction of payment for the services rendered by medical men. I have told the Educational Committee here that as soon as they decide to grant me a reasonable fee for each certificate I shall be pleased to serve them. Meantime, open war has been declared, and I am determined to be the winner. I am, etc.,

John Wishart, M.D., B.Sc.

Dudley, R.S.O., Northumberland, Feb. 15th.

LEPROSY IN TRAVANCORE.

Sir,—With reference to Dr. H. Traill Skae's letter in the British Medical Journal of November 28th, 1903, regarding the controversy on the connexion of leprosy and putrid fish, and in contradistinction to the facts stated in his letter, I write to certify that in the Travancore State putrid fish is much indulged in as a diet by the peasantry here, but leprosy is quite common in the State, so much so that there is a special leper asylum here with 120 odd inmates. I do not mean to assert from this statement that this is cause and effect, as I have not completed my inquiry into the subject locally, but such are the bare facts that exist here. I hope to send a further communication on this subject at a later date.—I am, etc.,

Chas. A. Johnston, M.B., etc., Major I.M.S.

Travancore, India, Jan. 25th.

THE SAMARITAN FREE HOSPITAL FOR WOMEN.

Sir,—Many thanks for your notice of our dinner. If you have fallen into error in your remarks about the conspicuous absence of the medical profession, it is entirely my fault.

I should have explained to you that the designation "Hospital Committee" includes the whole of the executive interests of the institution. It was considered best to amalgamate them rather than differentiate them. As a matter of fact there will be six "hospital" tables, at three of which the hostesses will be distinguished ladies—wives of distinguished medical men connected with the hospital. The Medical Committee are individually and collectively giving me most generous support.—I am, etc.,

London, Feb. 14th. E. Douglas White,

Secretary, Samaritan Free Hospital for Women. Special Appeal Building Fund.

OBITUARY.

GEORGE NIVEN, M.A., M.B.

On Sunday, February 7th, at the early age of 45, Dr. George Niven succumbed to pneumonia. He was born at Peterhead, and of a family several members of which have achieved distinction. One brother is Sir William Niven, formerly Director of the Royal Naval College, Greenwich; another, Mr. Charles Niven, is Professor of Natural Philosophy in Aberdeen University, while a third is the Medical Officer of Health of Manchester. Dr. George Niven had a very distinguished career as a student at Aberdeen, where he took his M.A. degree in 1877, and at Cambridge, where he took the degrees of B.A. in 1882, and M.B. in 1886, obtaining also in the latter year the diploma of M.R.C.S. On the completion of his university studies he entered upon professional work at Didsbury, Manchester, where he built up a large practice, and was greatly respected by the community among which his labours lay. He leaves a widow and three young children.

Deaths in the Profession Abroad. Among the members of the medical profession in foreign countries who have recently died are Dr. J. A. Teyskens, of Brussels, for many years Treasurer of the Belgian Medical Federation; Dr. A. Schmidt Mommard, of Halle, well known as a specialist in diseases of children, and as a writer on matters concerning the hygiene of infancy; Dr. Isidor Rosenthal, Professor of

Physiology in the University of Erlangen, author of well-known textbooks on medical electricity, the physiology of the muscles and nerves, the regulation of heat in warm-blooded animals, etc.; and of a German translation of Huxley's *Elementary Physiology* and Dr. A. Pluminau, Assistant Professor of Anatomy and Physiology in the Preparatory School of Bordeaux, and Deputy Mayor of that city, in which capacity he had taken a prominent part in the enactment of measures for the protection of infant life and the promotion of vaccination.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE

Royal Visit.—On the occasion of the opening of the new Medical school on March 1st, their Majesties [illegible] received the Princess Victoria will be conducted over the [illegible] Professor of Physic, the Professor of Surgery, the Downing Professor of Medicine, and the Professor of Pathology.

Medical Syndicate.—It is proposed to enlarge the Syndicate in view of the new duties respecting [illegible] proposed to it, by the addition of the Professors of Surgery and Pathology, and of three other members of the Senate [illegible] to be elected by the Faculty of Medicine from non-professorial members of the Senate [illegible] with tropical medicine and pathology, or who are specially interested with hospitals for tropical diseases.

Medical and Surgical Examinations.—The third M.B. Examination, Part II., begins on April 26th, and lasts till May 28th. The M.C. Examination begins on April 26th. Names of candidates must be sent to the Registrary by April 14th.

Degrees.—At the Congregation on February 11th the following medical and surgical degrees were conferred: *M.D.*: C. S. Roberts, Trinity. *M.B.*: G. T. Birks, King's. *B.C.*: A. Wynne, Pembroke, E. Bigg, Caius.

Diploma in Tropical Medicine.

The following regulations for the examination in tropical medicine and hygiene, conducted by the State Medicine Syndicate of the University of Cambridge, have just been issued:

"An examination in Tropical Medicine and Hygiene will be held in Cambridge during the year 1904. The examination will begin on August 4th, and extend over three days.

Any person whose name is on the *Medical Register* is admissible as a candidate to this examination, provided

1. That a period of not less than twelve months have elapsed between his attainment of a registrable qualification and his admission to the examination;

2. That he produce evidence, satisfactory to the Syndicate, that he has diligently studied pathology (including parasitology and bacteriology in relation to tropical medicine), tropical medicine and surgery at a hospital for tropical diseases and hygiene and methods of sanitation applicable to tropical climates.

*** As evidence of study [illegible] may present to the syndicate (1) any dissertation, memoir, or other record of work carried out by him [illegible] connected with tropical medicine or hygiene, or (2) any certificate of proficiency in public health or sanitary science [illegible] obtained from a recognized examining body. Such evidence will be considered by the syndicate in determining whether the candidate is or is not admission to the examination, and by the examiners in determining whether, if admitted, he shall be included in the list of successful candidates.

The examination will have reference to the nature, incidence, prevention, and treatment of the epidemic and other diseases prevalent in tropical countries. It will comprise the following subjects:

1. The methods of [illegible] and bacteriological investigation. The examination of the blood [illegible] the life-history of animal and vegetable parasites. The examination, chemical and microscopic, of poisonous or contaminated foods and waters.

2. The origin, pathology, propagation, distribution, prevention, symptoms, diagnosis, and treatment of the [illegible] malaria, blackwater fever, trypanosomiasis, [illegible] relapsing fever, cholera, the dysenteries, tetanus, beri-beri, [illegible] yellow fever, plague, the various forms of fever, Malta fever, and specific [illegible] diseases due to cestode and other worms, filariasis, bilharzial disease, [illegible] hook-worm disease.

3. The general effects of [illegible] ophthalmic affections of the tropics, affections caused by poisonous plants and animals, [illegible] and injuries.

4. The general effects of heat [illegible] climate, soil, water, [illegible] Principles of general hygiene [illegible] water supplies, [illegible] and the disposal of refuse. The sanitation [illegible] factories, hospitals, [illegible] Principles and methods [illegible]

"The examination will be partly written, partly oral and partly practical and clinical. The clinical part will be held at a hospital for tropical diseases, at which cases will be submitted for diagnosis and comment.

"Every candidate will be required to pay a fee of 3 guineas before admission or readmission to the examination. A candidate who, after being approved by the examiners, [illegible] examination, will not have the fee returned, but will be entitled to present himself without further fee at [illegible]

"Every candidate who passes the examination to the satisfaction of the examiners will receive a certificate to that effect, testifying to his knowledge and skill in tropical medicine and hygiene.

"All applications for information respecting the examination should be addressed to Mr. G. H. F. Nuttall, Pathological Laboratory, Cambridge.

"Candidates who desire to present themselves for the examination must send in their applications on forms supplied for the purpose and transmit them, together with the required evidence of study, and the fee of 3 guineas, to The Registrary of the University, Registry, Cambridge, not later than July 1st. Cheques should be crossed 'Barclay and Co., Ltd.'"

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary Council was held on February 11th.

Diplomas.

Diplomas were issued to 124 candidates in regard to the Membership of the College, of whom 12 passed in regard to the Licence in Dental Surgery, and to 2, in regard to Public Health, conjointly with the College of Physicians.

Report of the Central Midwives Board.

The following report was received and ordered to be entered on the minutes:

Mr. President and Gentlemen,—I have the honour to present to you a short statement of the work of the Central Midwives Board during the past year. Twenty-two meetings have been held, and also many other meetings of Committees which were duly appointed by the Board. The first meeting of the Board was held on December 11th, 1902, and the last meeting took place on February 11th, 1904.

The preliminary business consisted in framing rules in accordance with Section 11 of the Midwives Act of 1902, and this important work occupied many meetings and caused much careful consideration. As soon as the report of the Privy Council Committee was completed it was forwarded to the Privy Council, together with another report prepared by a minority of the Board.

The present rules sanctioned by the Privy Council are the outcome of these two reports, and they are arranged in the following sections. (1) Rules respecting the proceedings of the Central Midwives Board. (2) The conditions of admission to the roll of midwives and the issue of certificates. (3) The course of training and the conduct of examinations. (4) The admission to the roll of women already in practice as midwives at the passing of the Act. (5) The supervision and restriction within due limits of the practice of midwives. (6) The conditions under which midwives may be suspended from practice.

The attention of the Board was next directed to the preparation of other important details, the suggestions to county and county borough councils in reference to the duties assigned to them under the Midwives Act, the Special Rules of procedure for the removal of a name from the roll and the cancelling of a certificate, the other rules of procedure respecting the restoration to the roll of a name previously removed.

The first roll of midwives was opened in November, 1903, and it records the names of the midwives who have been accepted by the Board under section 11 of the Midwives Act. The following table indicates the number of midwives certified up to date.

Women holding certificates from Institutions specified in Section II of the Midwives Act.	London Obstetrical Society	468
	Rotunda	27
	Coombe	1
Women holding certificates from Bodies not specified in Section II, but approved by the Board.	Queen Charlotte's Hospital	26
	St. Mary's Hospital, Manchester	22
	Glasgow Maternity Hospital	19
	Liverpool Lying-in Hospital	3
	City of London Lying-in Hospital	1
	Edinburgh Royal Maternity	1
	Salvation Army Maternity	2
	Manchester Southern and Maternity Hospital	—
	British Lying-in Hospital	—
Women certified as having been in bona fide practice at least one year before July 1st, 1902.		1,079
	Total certified	1,649

The regulations respecting the course of training and the conduct of examinations have not yet been completed. The following training institutions have been already accepted by the Board under Section C of the Rules.

Queen Charlotte's Lying-in Hospital, Liverpool Ladies' Charity and Lying-in Hospital; Manchester Southern and Maternity Hospital; British Lying-in Hospital; Newcastle-on-Tyne Lying-in Hospital; General Lying-in Hospital, Lambeth; Glasgow Maternity Hospital; Dundee Maternity Hospital; District Nursing Association, Cheltenham; Maternity Charity and District Nurses' Home, Plymouth; National Maternity Hospital, Dublin; Edinburgh Royal Maternity Hospital; City of London Lying-in Hospital.

A question of difficulty has recently arisen between the Irish Training Institutions and the Central Midwives Board respecting the certificates which must be produced before a candidate can be admitted to the Board Examinations. The rules under Section C make it compulsory that every woman shall have previously attended twenty labours and also nursed twenty lying-in women during sixty days, all within six months.

On behalf of the hospitals of the Rotunda and the Coombe, in Dublin, it is stated that the clinical staff of these institutions are unable to arrange that every midwifery pupil should previously attend twenty cases of labour, as this would be in excess of the accommodation of the hospitals, having regard to the number of patients. It is also equally impossible in many cases for the pupil to nurse twenty patients for ten days each, as nearly every midwife pupil is required to nurse twenty patients for ten days following labour, as nearly all the women leave the hospital on the eighth day and refuse to remain longer, even when the medical officers are anxious to detain them.

While these regulations are scarcely fair to the Irish midwifery institutions, and a solution of the difficulty could easily be secured (1) by a modification of the regulations of admission to the examination; or (2) by accepting the six months' training in the wards of the hospitals, and the lectures of instruction conducted by the staff, as equivalent to the three months' midwifery tuition required by the Central Midwives Board.

At a recent meeting of the Board two important and conciliatory communications were read from the Irish hospitals, but the majority of the Board declined to consider any alteration of the existing rules, and, therefore, it is probable the matter will be referred for the decision of the Privy Council.

The appointment throughout the country of local bodies for carrying out the Midwives Act is a very important and practical method, but up to

the present time very little has been reported to the Central Midwives Board to indicate the progress of the work. The supervision of midwives is everywhere in the hands of local supervising authorities, but it is quite certain that effectual supervision and the successful operation of this Act must in a great measure depend upon the co-operation and assistance of the medical men practising within the area.

I am,
Mr. President and Gentlemen,
Yours very faithfully,
JOHN WARD COUSINS.

College Triennial Prize Committee.

A Special Committee was nominated for the above prize adjudication in place of the Committee appointed in regard to the Jacksonian Essay.

Report of the Committee on Physical Disabilities.

The following report, dated February 1st, 1904, was adopted by the Council:

In pursuance of the request of the Council the Committee have taken into consideration the letter of December 6th, 1903, from the Rev. Benjamin Waugh, Director of the National Society for the Prevention of Cruelty to Children, and the tables of average heights and weights of school children compiled on behalf of the Society by Mr. C. T. W. Hirsch, M.R.C.S.

Two tables have been prepared by Mr. Hirsch, one compiled from the weights of 2,000 children at two church schools and two Board schools in Woolwich, and the other compiled from the weights and heights of 3,000 children at Church schools in Bow, Poplar, Stepney, Peckham, Bermondsey, and Camberwell.

The ages of the children range from 2 to 16, and the Committee observe that, with three exceptions, the average weights at the different ages are rather lower in the Woolwich table than in the other.

The investigation appears to have been carried out in a careful and methodical manner, but, while the Committee regard the results obtained as most valuable, they could not recommend that the Royal College of Surgeons should assume responsibility for statistics compiled from an investigation undertaken without the supervision or authority of the Council of the College.

The Committee have, however, been able to make use of Mr. Hirsch's tables for the purpose of testing the assertion, which Mr. Waugh states is often made, that the standard weights given in Tidy's *Legal Medicine*, 1882, are not a fair standard for to-day, as the race has deteriorated both in height and weight. Dr. Tidy states that his figures are deduced from the French weights and measures given in Quetelet's *Anthropométrie* (Brussels 1870), and that they are the averages of a large number of observations on Belgians, and are probably a little under the mark as regards the English.

The Committee have compared Mr. Hirsch's tables with the tables given by Dr. Tidy, and after the consideration of this comparison and of other tables to which they have referred, they are of opinion that there is no reason to regard the standard given in Dr. Tidy's tables as too high for the present time.

The Committee would add that Mr. Waugh might be advised that, if it be the object of the National Society for the Prevention of Cruelty to Children to show that Dr. Tidy's tables are not an unfair test under present conditions, it appears to them that enough has been done in the way of investigation.

It was arranged that a copy of this report be sent to the Rev. Benjamin Waugh.

Bradshaw Lecture.

Mr. A. W. Mayo Robson was chosen lecturer for the ensuing collegiate year.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the First Examination of the Board in the subjects indicated:

Chemistry.—[illegible] H. [illegible], Owens College, Manchester, and Technical [illegible]; L. H. Burdett, St. Mary's Hospital; W. Burton, [illegible] University and Technical School, Liverpool; H. Carter, [illegible]; H. R. Cotton and A. Dowles, St. Bartholomew's Hospital; C. H. [illegible], Guy's Hospital; A. E. Forster and [illegible], St. George's Hospital; C. L. Gardiner, Westminster Hospital; [illegible]; H. Meers, St. Mary's Hospital; [illegible] University College, Sheffield; [illegible] M. Miller, St. Bartholomew's Hospital; C. M. [illegible] and A. H. V. St. John, Guy's Hospital; [illegible] and [illegible], St. Thomas's Hospital; [illegible] Hospital; T. F. Skinner, University College, Sheffield; [illegible], St. George's Hospital; H. S. [illegible], London Hospital; A. K. Wise, Birkbeck Institution.

P[illegible]—[illegible], Westminster Hospital; A. R. Beau[illegible]; [illegible] and G. H. Cheyney, Guy's Hospital; [illegible] University [illegible]; W. F. Clarke, [illegible], London and Guy's Hospitals; [illegible]; J. Dermott, [illegible] University College, [illegible] Hospital; [illegible], St. Mary's Hospital; [illegible] Yorkshire College, [illegible] London Hospital, [illegible] Hospital; M. [illegible], Owens College, [illegible]; [illegible] M. Spoh[illegible]; [illegible] University [illegible]; [illegible] St. Thomas's Hospital.

P[illegible]—[illegible]; H. G. Balls, [illegible]; [illegible] St. Mary's Hospital; [illegible], St. George's Hospital; H. W. Gabe, Middlesex Hospital; H. W. Hessman, [illegible]; [illegible] and M. D. [illegible], Middlesex Hospital; [illegible] University College, Sheffield; [illegible].

R. A. Morrell, St. Thomas's Hospital; S. Mozumber, St. Bartholomew's Hospital; H. R. Mullins, Guy's Hospital; P. C. Raiment, London Hospital; R. E. N. Reade, St. Mary's Hospital; J. Richards, and A. D. Rope, Middlesex Hospital; A. Samuel, University College, Cardiff.

The following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—J. Birch, Owens College, Manchester; W. F. Blandford, B.A.Camb., Cambridge University and St. George's Hospital; W. R. Bristow and G. W. M. Custance, St. Thomas's Hospital; B. M. Collard, London Hospital; J. F. Cutler, Guy's Hospital; F. C. Doble, King's College Hospital; H. J. Duske, St. Mary's Hospital; L. Edwards and C. A. Ellis, London Hospital; J. S. Fairfield, L.D.S.Eng., Guy's Hospital; R. Farrant, Westminster Hospital; J. R. Foster, University College Hospital; P. J. Franklin, University of Heidelberg and King's College Hospital; E. S. Goss, Middlesex Hospital; P. H. G. Gosse and H. M. Grey, St. Bartholomew's Hospital; W. R. Greening, Guy's Hospital; R. E. V. Hale, B.A.Camb., Cambridge University and St. Andrews University; A. W. Hayward, B.A.Camb., and C. C. Hickey, Westminster Hospital; R. B. Heygate, Middlesex Hospital; C. J. R. Hofmeister, Cambridge University and Middlesex Hospital; G. Holroyde, Yorkshire College, Leeds; R. de V. King and J. J. Louwrens, St. Mary's Hospital; H. H. Leeson, St. George's Hospital; T. F. Lumb, Middlesex Hospital; J. F. McQueen, King's College Hospital; W. E. Martin, Owens College, Manchester; V. L. Matthews, London Hospital; O. le F. Milburn, University College Hospital; W. A. Owen, St. Mary's Hospital; G. D. Perry, University of Birmingham and London Hospital; G. R. Phillips, S. A. Piper, and J. L. Rankine, Guy's Hospital; H. J. D'A. G. Price and T. E. St. Johnston, Birmingham University; F. Rawsthorne, Owens College, Manchester; N. V. H. Riches, University College, Cardiff; H. T. Rossiter, F. O. Spensley, and R. W. Stocks, St. Thomas's Hospital; W. F. Skinner, University College, Sheffield; S. Slade, Middlesex Hospital; F. H. Stephens, St. Mary's Hospital; E. Stratford, Cambridge University; H. F. Webb-Bowen, St. Bartholomew's Hospital; N. H. Vakeel and M. D. Wadia, Grant Medical College, Bombay, and St. Bartholomew's Hospital; H. W. B. Wallings, J. A. Von W. Wiece, and R. Willan, Guy's Hospital.

Anatomy only.—J. W. Heckes, Charing Cross Hospital.

TRINITY COLLEGE, DUBLIN.

CANDIDATES have passed examinations as under:

Final in Medicine.—H. St. M. Carter, A. W. Goldsmith, W. Mitchell, O. J. Parry-Edwards, H. M. Crawford, J. C. Hall, W. Thunder, W. J. M'Iver, D. C. Pearson.

M.B.—R. Moore.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SMALL-POX HOSPITALS AND AËRIAL CONVECTION.

THE case of the Attorney-General and Others *v.* the Mayor, Aldermen, and Citizens of the City of Nottingham, was heard before Mr. Justice Farwell in the Chancery Division on February 10th and following days. Judgement was given on February 17th, dismissing the action with costs as between solicitor and client. The case raised the question of the aërial convection of small-pox.

Mr. Upjohn, K.C., opened the case for the plaintiffs.

Dr. J. C. Thresh, M.O.H. Essex County Council, gave evidence with regard to the occurrence of small-pox in the Orsett district, where he said that with the small-pox hospital ships in the Thames there were constant dropping cases, whereas in other districts not in the neighbourhood of the hospital ships small outbreaks might occur, but were promptly stamped out. He had been unable to trace any personal communication between the ships and the shore. When cases were admitted to the small-pox ships on the Thames in numbers, the people in the Orsett district expected small-pox to occur in the district, and made preparation for it; what was expected happened, and when the number of the cases on the ships rose to [illegible] or [illegible] the disease broke out at Purfleet, continued there all the time numerous cases were on the ships, and spread to the adjoining districts of West Thurrock and Grays, and, to a less extent, to parishes round about. In cross-examination by Mr. Asquith, K.C., M.P., the witness said that the distance from a small-pox hospital at which a person would be safe from the danger of aërial infection depended on the size of the hospital and on other factors, such as weather, wind, and [illegible], concerning which nothing was known. He thought that even with a hospital used for not more than 40 patients there would be a certain amount of danger, especially near the highway. In his opinion, the [illegible] danger, with 40 patients in the hospital, would on occasion extend beyond the radius of a quarter of a mile if the cases were [illegible] and if the weather and wind were favourable; if the wind were favourable, a man working within a distance of half a mile might be infected. He thought the stipulation of the Local Government Board that the site of a small-pox hospital must not be within a quarter of a mile of a population of as many as 200 persons [illegible], in [illegible] as it [illegible] to take account of the number of patients, so with regard to the stipulation that the site must not be within half a mile of the population of as many as [illegible] it would be right for a small hospital, but it would be absurd for a hospital for a large town. The aggregation of [illegible] in a hospital constituted the real source of the danger. The risk of infection was less great during a period of wind than in the period of calm, perhaps because the wind scattered the organisms.

Dr. G. L. Wise, M.O.H. [illegible] district of Basford, said that from his experience he believed that if cases, with a normal proportion of acute cases, were placed in the Nottingham Hospital they would be a source of danger to persons living in the neighbourhood. Mr. Macmorran in cross-examination suggested that the defence would prove that all the cases attributed to the hospital referred to by the witness could be accounted for

otherwise than by the hospital, and asked on what ground the witness founded his opinion that the hospital was dangerous. Dr. Wray replied that he relied on the circumstance that the cases occurred on the same day fifteen days after he believed the hospital began to be a source of danger to the neighbourhood.

Dr. A. K. Chalmers, M.O.H. Glasgow, was examined as to the incidence of small pox in Glasgow, and said that in his opinion a small pox hospital at a distance of 50 ft. from a road on which there was a fair amount of traffic was a source of danger to the public using that road, and to the population living near it. The risk to persons passing along the road was less definite than to those living in the area. In Glasgow he considered that the infective influence was felt for a mile or a mile and a quarter. In cross-examination by Mr. Asquith, he said that while the mode in which small pox spread from a hospital was a matter of speculation, he thought the fact that it did spread in connexion with a hospital was well ascertained. While there was less risk on the whole to the public health in having a small pox hospital than in dealing with people in their own homes, he thought the small pox hospital must be regarded as a source of risk anywhere.

Dr. W. Arnold Evans, M.O.H. Bradford, said that he thought the small-pox hospital ought not to be placed within 50 ft. of a public road as at Nottingham. Judging from experience at Bradford he considered that there was a substantial risk to persons residing within 235 yards, and that the risk was greater to those who spent the whole day and night in the neighbourhood. In cross examination he said that his experience was that the greater the number of patients in the hospital and the greater number of acute cases the greater the danger. He thought that 4 cases, including 15 or 20 acute cases, would be a source of appreciable danger to persons residing within a quarter of a mile, but that the risk would be much less beyond that distance. In re-examination by Mr. Upjohn, he said he agreed with Dr. Chalmers that the fluctuations in the number of cases arising in the area around the hospital corresponded not so much with the accumulation of numbers under treatment as with the fluctuations in the number of admissions.

Dr. Joseph Priestley, M.O.H. Lambeth, gave evidence with regard to his experience when holding a similar office in Leicester. He said that he had been forced to the conclusion that a small-pox hospital was undoubtedly a source of danger to the surrounding district. He thought that the hospital at Nottingham containing 40 patients would undoubtedly be a real danger to the people within a quarter of a mile, and also to those who worked within the district. In cross-examination by Mr. Asquith, he expressed the opinion that the regulations of the Local Government Board were good working, practical rules. He agreed that the evidence showed that the infection was carried down the wind, and was disposed to think that it might possibly be carried by flies.

Dr. J. C. McVail, who had visited the site at Nottingham, said that he was of opinion that small-pox hospitals were very dangerous in disseminating the infection of small-pox to the surrounding population; the degree of danger depended on the number of acute cases, not on the convalescents. He was of opinion that the Nottingham Hospital with 40 patients would be a source of serious and substantial danger to the highway and neighbourhood. Small-pox had always been more prevalent in London than in the provinces, the excess used to be as 2 to 1, but after the small-pox hospitals of the Metropolitan Asylums Board were in working order in London, the rate mounted to six and seven-fold, and when the hospitals were cleared out of London the rate fell again. Small-pox hospitals should be separated from populous parts by wide intervals of open ground, and it was equally important that they should not be close to traffic routes. He had acted as commissioner for the Local Government Board for Scotland in connexion with the new Glasgow Hospital site; there the nearest ward to the road would be 900 ft. distant. Assuming a hospital of forty beds, he considered that there was really serious danger to persons within a quarter of a mile, and some danger beyond that. In the present vaccinal condition of the country small-pox hospitals were necessary evils, but much could be done to minimize the risk. He considered that in selecting the site and erecting the present building upon it, the Corporation of Nottingham had been very far from doing all that could be done to minimize the risk. In cross-examination, he said that medical opinion was unanimous that a small-pox hospital might be a source of danger to the neighbourhood, although there was serious difference of opinion as to the way in which hospitals were thus dangerous. In his view the danger from a hospital was due partly to aërial convection and partly to personal intercourse. With regard to risk to persons passing upon the high road, he said that the infection might be derived from material that had been related to the hospital at one time—dust and so forth—which found its way on to the high road.

Mr. Asquith opened the case on behalf of the defendants, and called Dr. Boobbyer, M.O.H. Nottingham. He gave the history of the accommodation provided for small-pox patients in Nottingham, and said that in his experience no case of small-pox had arisen through the presence of the hospital. He considered the site a reasonable one, the hospital had been in use in August and September and since November last year. If the hospital was properly conducted there was not, in his opinion, any particular danger to the inmates, or persons in the neighbourhood nor to those passing along the highway. The Nottingham Corporation hospital was surrounded by an unclimbable fence and the gate was kept locked. In cross-examination the witness said that if a small-pox hospital was badly managed it would act as a centre from which infection was disseminated, that the proper administration of a small-pox hospital included the maintenance and absolute isolation of the inmates from others.

Dr. E. W. Hope, M.O.H. Liverpool, said there were three hospital establishments in Liverpool for the reception of cases of small-pox, and one on the Cheshire side of the Mersey which could be used if expedient. The hospitals were strictly administered, and he had not been able to trace a single case of small-pox as attributable to them, at one time he had believed in the aërial convection of small-pox, but by very careful investigation, systematic inquiry, the following up of every individual case, and frequent visits to the house day after day, he had been led to the opposite conclusion.

Dr. A. Newsholme, M.O.H. Brighton, said that until last year small pox cases discovered in Brighton were isolated on the same site as other infectious diseases; no difficulty had been found in so administering the hospital as to prevent the spread of disease from one set of patients to the other. He had visited the hospital at Nottingham and in his opinion there was no risk to persons passing along the road, nor to residents and to workers in the neighbourhood within a quarter of a mile limit. As editor of *Public Health* it had been his duty to receive and consider the annual reports of medical officers of health from nearly every district of the kingdom, and he found that the preponderating opinion was that the danger from a small-pox hospital properly administered was practically nil; in the case of most hospitals there was no evidence of spread. Cases in which spread had been alleged to have occurred could be counted on the fingers of one hand. Asked in cross-examination with regard to the requirements of the Local Government Board he said that they were the natural results of the Board's views on aërial convection, but he thought that rules of the kind were desirable, because the fact that the population around the hospital was sparse minimized the difficulty of administration.

Dr. George Reid, M.O.H. Staffordshire County Council, said that there were seventeen small-pox hospitals in the county, and that only one of them complied with the requirements of the Local Government Board. The only instance of a small pox hospital acting as a centre or nucleus of infection in the neighbourhood was the one hospital which complied with the regulations; it was a temporary building, and the four cases which resulted were traced to contact. In cross examination Dr. Reid said that while it would not be justifiable for a sanitary authority to overlook the view as to the atmospheric dissemination of infection, yet the difference of opinion was so great, the preponderance in his opinion being the other way that it ought not to weigh very heavily or involve an authority in large expenditure for that reason only.

Colonel J. J. Notter, R.A.M.C., and Dr. H. R. Kenwood also gave evidence, and stated that they had examined the site of the Nottingham Hospital, and believed that it was quite free from danger to the surrounding population.

Dr. William Collingridge was called, and stated that when medical officer for the Port of London he was well acquainted with the hospital ships in the Thames. He had observed cases of small-pox directly connected with the ships, but only on vessels which had called and been in immediate contact with the ships, not on any vessels passing up or down. In cross-examination he said that though the regulations made by the Metropolitan Asylums Board when the epidemic of 1891 broke out were very ample, they were not strict enough to prevent intercommunication.

Mr. Justice Farwell on February 17th delivered a considered judgement. He said that the action was by the Attorney-General on the relation of several owners and occupiers of land and collieries in the parish of Bestwood, and by the same owners and occupiers as plaintiffs against the Mayor and Corporation of Nottingham to restrain them from using a building lately erected and for the last six months used as a small-pox hospital from so using it, on the ground that it was a nuisance, necessarily causing serious danger to the public health and causing special damage to the plaintiffs. No actual case of injury had arisen, and the action was *quia timet*. The learned judge said, as reported in the *Times*, that in order to succeed in such an action the plaintiffs must show a strong case of probability that the apprehended mischief would in fact arise, or, to quote Lord Justice FitzGibbon in Attorney-General *v.* Rathmines, etc. (unreported), "to sustain the injunction the law requires proof by the plaintiffs of a well-founded apprehension of injury—proof of actual and real danger—a strong probability, almost amounting to moral certainty, that if the hospital be established it will be an actionable nuisance. A sentiment of danger and dislike, however natural and justified, certainty that the hospital will be disagreeable or inconvenient, proof that it will abridge a man's pleasure or make him anxious, the inability of the Court to say that no danger will arise, none of these, accompanied by depreciation of property, will discharge the burden of proof which rests on the plaintiffs to justify a merely precautionary injunction restraining an owner's use of his own land upon the ground of apprehended nuisance to his neighbours." Further, the defendants are entitled, in my opinion, to ask the Court to assume that the hospital will be properly managed and that all the precautions that scientific skill and knowledge usually require will be taken, and they are entitled in the present case to the benefit of the observation that the hospital has been open and has received patients for the last six months, during the last half of which it has been full, and that no mischief has at present arisen therefrom. The hospital stands on a piece of ground 4¼ acres in extent, roughly triangular in shape, the base of the triangle being about 350 yards long and abutting on the high road. It is enclosed on all sides except one with a close wooden fence 6ft. 6in. high, with barbed wire on the top, and there is an inside fence of barbed wire 20ft. distant. The hospital building is 51ft. from the high road. On the side where there is no fence there is a stream nearly 2 ft. wide with a steep bank 15ft. or 20ft. high sloping abruptly from the hospital grounds down to the river. There are 24 residents within a quarter-mile radius from the building and 510 within the half-mile radius. There are 230 men employed on the Bestwood ironworks, part of which is within the quarter mile radius, and 1,200 on the colliery, which is without the quarter-mile radius but within the half-mile radius, but the majority of the latter work inside ground, and some 45 men work at the bleach works outside the quarter-mile radius and within the half-mile radius. The hospital is some miles from the populous parts of Nottingham, and has access to the city by means of a road which has few houses on either side, and is not much used in general traffic. The nearest residence is Barrow's cottage, with five inmates, 400 yards distant, and the next nearest are six cottages, with twenty-three inmates, 157 yards distant. The plaintiffs' allegation that the hospital is a nuisance rests on the establishment as a general affirmation of the proposition that all small-pox hospitals necessarily constitute a serious danger to the health of persons resident, working, or passing by within a radius of at any rate 511 ft. This is obviously a very serious assertion. Having regard to the impossibility of stamping out small-pox under the existing laws and to the practical impossibility of isolating an outbreak in crowded areas, the Court ought not to come to any conclusion that would result in closing the majority of the small-pox hospitals in the kingdom unless the expert testimony is really conclusive. Now it is clear from the evidence that I have heard in this case that the medical profession are divided into two camps on this question, each containing persons of eminence and experience. The first point of difference is on the theory of aërial convection for any considerable distance, say for more than 50ft. This is a purely scientific question, and I gratefully adopt Lord Bowen's statement in Fleet *v.* Metropolitan Asylums Board, that "it would be most dangerous to form an independent opinion on a scientific question from the smattering of science that any one of us picked up during the hearing of a case." The plaintiffs' counsel stand at first on a consensus of expert opinion on the point, and it is enough for me to say that it is therefore not proven, and that I am not competent to form an opinion of my own on the question. If the plaintiffs could have esta-

blished aerial convection for the requisite distance, they would have had a strong case [illegible] should [illegible] of the [illegible] and the Court [illegible] onus is on [illegible] the facts [illegible] opinion [illegible] rules [illegible] and [illegible] not [illegible] Thresh [illegible] examination [illegible] based [illegible] pox [illegible] science [illegible] on cases [illegible] tion fails [illegible] not necessarily [illegible] in other words [illegible] is a mere [illegible] *inductive* [illegible] of a general truth to all [illegible] hospitals [illegible] the fact [illegible] are [illegible] application [illegible] evidence [illegible] the conclusions alone [illegible] as [illegible] other [illegible] break [illegible] rule [illegible] the [illegible] being [illegible] trustworthy, and asking that [illegible] to outweigh these [illegible] the exception to [illegible] hedral [illegible] but the conclusion [illegible] a negative instance [illegible] however, not [illegible] purpose for [illegible] with regard to [illegible] they have [illegible] Irish Court of Appeal [illegible] [illegible] Dr. [illegible] Bradford [illegible] It [illegible] especially Dr. [illegible] sufficient [illegible] Dr. McVail [illegible] Mr. Justice Chitty [illegible] danger to the public health. [illegible]

[illegible] reduces the risk of [illegible]

[illegible] and though the individual must be protected the public [illegible] the danger and [illegible] In the present case I find as the result [illegible] of the evidence that [illegible] the defendants' hospital [illegible] property. As [illegible] House of Lords [illegible] in the hope of obtaining [illegible] Both parties [illegible] hospitals, and [illegible] expressed [illegible] and also because the same evidence of the same cases (with the same result) appears to have been admitted in the other [illegible] hospitals. The result is that the case [illegible] and I venture to suggest that the admission of [illegible] evidence in chief is wrong in principle, as [illegible] the Court to [illegible] adjudicate without [illegible] other parties [illegible] on the case of the [illegible] present case with out [illegible] In this case, Pollock, B., rejected the evidence as to the facts of the [illegible] and Homerton hospitals, and Lord Justice Bramwell said he was wrong in so doing, and Lord Justice Cotton agreed with him. (It is not easy to see how the point arose, as the plaintiffs [illegible] succeeded [illegible] tendered the rejected evidence.) [illegible] Lord Justice Cotton's judgement were correct in fact, the evidence would be valuable; he says: "They might have shown what in fact was the effect in the neighbourhood of the [illegible] other hospital under the same conditions." But now there [illegible] and their conditions are [illegible] and the extent and value of such differences are exceedingly difficult to estimate. In the House of Lords Lord Selborne [illegible] agree with Lord Justice Cotton; Lord O'Hagan dissents [illegible] reasons with which I respectfully agree. Lord Blackburn [illegible] Lord Watson's opinion is stated at page [illegible] to decide the point [illegible] would certainly rule out all the history that I have heard in the present case. As Lord Bowen has pointed out in the First case, it is no part of the functions of the Court to qualify itself as an expert in science. The Court acts on the opinion of experts whose qualifications can be tested by cross-examination, and weighs the evidence so given and tested. The result is that the action fails and is dismissed with costs.

PROTECTION OF MEDICAL PRACTITIONERS NOTIFYING INFECTIOUS CASES.

SALISBURY v. GOULD.

It will be remembered that a report of the action before Mr. Justice Grantham in which a verdict for Dr. Gould was given by the special jury on January 21st and judgement entered was published in the BRITISH MEDICAL JOURNAL of January [illegible] An appeal was made by the plaintiff for a new trial, and this should have been entered within eight days, but for some reason was not set down within that period. The plaintiff applied to the Court of Appeal for an extension of time, and was directed to give notice to the defendant's solicitors. [illegible] the application was not opposed on behalf of the defendant it was stated that the application for leave was to be granted. Mr. Colam, instructed by Messrs. Hempson for the defendant (he being a member of the Medical Defence Union), appeared on February [illegible] that leave should not be granted, contending that a new trial could but result in a similar verdict, and that there was no substance in the allegation that the verdict was against the weight of evidence, or that there had not been a fair trial.

The Master of the Rolls, after hearing arguments on both sides, said the application made by Mr. Colam [illegible] must succeed. The Court would never [illegible] have granted the plaintiff's application for extension of time to appeal had it been in full possession of the facts. It was quite clear now, after what Mr. Colam had said, that by refusing the application for time no injustice would be done to the plaintiff, and the indulgence she sought must therefore be refused.

The Lords Justices agreed, and the application of the plaintiff was dismissed.

LECTURES ON MEDICAL JURISPRUDENCE.

DR. F. J. WALDO, Coroner of the City of London, on February 11th, at the Old Hall, Lincoln's Inn, delivered a lecture on poisoning in its medico-legal aspects.

The lecturer pointed out that neither lawyers nor medical men had any universally accepted definition of the term "poison." It would be obviously [illegible] a person when thrown into a person's face [illegible] On the other hand, if administered internally the [illegible] would be considered a poison both by lawyers and by medical men. Powdered glass, again, formed an extremely ancient method of causing death by mixing it with food. For all that it was not a poison, although it killed after internal administration. The [illegible] need not only be taken internally, but must exert some kind of chemical action upon the tissues. The Sale of Poisons and Pharmacy Act [illegible] was discussed at length by the lecturer [illegible] The chemical evidence of poisoning as produced in court was [illegible] moral evidence were often available [illegible]

[illegible] a large audience. The final [illegible] will deal with the [illegible]

PRIVATE HOSPITAL FOR OUT-PATIENTS.

[illegible] the manner in which [illegible] have simply referred the communication to the Ethical Committee.

CORONERS AND MEDICAL EVIDENCE.

A COUNTRY DOCTOR writes: During the past two years I have been called to some three or four people who had been taken ill, and on my arrival found death had taken place. In more of these cases had I attended professionally previous to death. In the first case in the series, an elderly woman had fallen out of her chair dead upon the floor in a house where she had gone to spend an hour or two with a friend. I was informed she had been recently under medical treatment and stated this fact, giving the name of the doctor to the coroner. I wrote to the latter, telling him the facts, expecting he would refer to the medical man who knew something of the deceased, and I did not give any opinion as to the cause of death. I received a somewhat abusive letter from the coroner saying "My letter was an absolute blank as regards any information which enabled him to decide whether an inquest was necessary or not." He said I should have examined the body, and told him in my letter whether there were marks of violence anywhere, etc. He held no inquest on the case.

My next case was one of sudden death in his chair of an elderly man, who had consulted a doctor recently. In this case I wrote to the coroner saying I had reason to believe that death was due to angina pectoris. I was not found fault with this time. I sent the name of the doctor who had been consulted by the deceased but no inquest was held. Neither had the coroner the politeness to acknowledge in any way whatever my letter to him.

A case that happened the other night was this. At midnight I was called to an elderly woman who I was told had been vomiting all day and part of the previous day. Within three-quarters of an hour she arrived 1½ mile away. I saw her, and she was dead. The body was cold, except the abdomen. All vomit had been thrown away, but I was informed it smelt like "stuff out of the bowels." I examined the body, and found a small lump in the right femoral region. I wrote to the coroner saying what I had found, and in the absence of a post-mortem, expressed the opinion that death was due to exhaustion following vomiting and pain from a strangulated femoral hernia. There is to be no inquest, and again I have had absolutely no acknowledgement of my report. The policeman came to-day to ask what the cause of death was so that he could fill in his report. This was after his return from the coroner's office with an order for burial.

I wish to know, sir, if it is any part of my duty to do all this for any coroner, discourteous or not discourteous. I am rather tired of it, and would be very much indebted if you could set me right. I do not wish to do anything but my duty in these matters. If a medical man can state his opinion of the cause of death in all such cases to a coroner and that gentleman is satisfied with that alone, then I think the occasions where an inquiry is necessary must be very rare indeed.

*** See page 448.

MEDICAL CONTRIBUTIONS TO THE LAY PRESS.

M.R.C.S.—We have received a page of the *Morning Advertiser* dated December 26th, 1903, which contains three columns of an interview with a medical practitioner who claims to treat his cases of typhoid fever by giving them merely an allowance of sterilised water without any food. We are asked to express an opinion as to the utility of the treatment, and, secondly, as to the propriety of the publication.

*** We have no experience of the treatment in question and therefore cannot speak as to its utility, but the success claimed for the treatment of this fever by albumen water or whey makes the result not altogether incredible. We regret that such a subject should be discussed in the lay press. In our opinion medical practitioners cannot be too careful in allowing themselves to be interviewed, for the modern cheap press shows no consideration for professional sentiment.

DR. H. COOPER ROSE.—The cutting from the pages of the *Morning Post* in all probability refers to a Swedish masseur.

MEDICAL ETIQUETTE.

J. P.—We are asked to express an opinion upon the following statement of facts. A. has been attending a private patient, the wife of a gamekeeper on a large estate, for two months. The owner of the estate sends B., a medical practitioner in a neighbouring town, to see her. B., without any communication with A., examines the patient. A. calls as before and is told of this, and the following day a message is sent to A. by the patient's husband that he need not call any more as B. has taken up the case. No communication from B. in any way has been received by A.

*** B. had no right to see the case except with A.'s permission, and the only justification of his conduct would be ignorance of the fact that A. was in attendance.

THE TITLE OF "DR."

M.B.: S.—We must refer our correspondents to the pronouncement of the Ethical Committee in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, October 31st, 1903, p. 1. Our correspondents will find the point discussed *ad nauseam* in the medical journals for the last twenty years.

REPUDIATION OF DEBTS BY HUSBAND.

E. writes: A patient, who is undergoing treatment, has left her husband to reside with her parents. Her husband wishes her to return, and, on her refusal, has sent a letter, stating he will not be liable for any debts she may incur while away from his home. The practitioner in attendance on the wife wishes to know whether he could claim his fees from her husband under the circumstances.

*** It is the duty of the wife to return to her husband, and a practitioner having knowledge that her husband has intimated that he will not be responsible for any debts she may incur while away from him would most likely be unable to enforce payment for medical attendance—that is, for attendance after the husband's intimation had been brought to his knowledge.

MEDICAL ADVERTISING.

H. C. W.—We have referred the letter sent us to the Ethical Committee.

MEDICAL TESTIMONIALS AS TRADE ADVERTISEMENTS.

J. M. F.—The report on the bread as an article of diet may be asked for in order to be utilized for advertising purposes and therefore should not be given without a very definite and clear understanding that it will not be so abused.

PURCHASE OF REMAINING SHARE.

PARTNER, who has bought a half share of a practice, wishes to know what price he would have to pay for the other half on the death or resignation of his partner.

*** This ought to be settled in the deed of partnership. If not so arranged, he should pay the market value, which would probably average from one to one and a-half year's purchase, according to the character of the practice.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Colonel J. J. Morris, M.D.	Bengal	Southern Dist.
" W. J. R. Ramsford, C.I.E.	Alton	Thames Dist.
Lt.-Col. P. Mulvany	Punjab	Alton.
" J. M. Jones	Bombay	Devonport.
" C. R. Woods, M.D.	Egypt	Cork.
" C. G. D. Morse	Portsmouth	Southampton.
" F. J. Jenkens, M.B.	Longmoor	Aldershot.
" C. R. Tyrrell	Punjab	Dover.
" J. R. Stuart, M.B.	Edinburgh	Fort George.
" E. H. L. Lynden-Bell, M.B.	Aldershot	Longmoor.
Major J. Maher	Punjab	Jersey.
" J. H. Greenway	Chatham	South Africa.
" C. S. Sparkes	Aldershot	Hong Kong.
" H. Cooks, M.B.	Madras	Dublin.
" J. Fayrer, M.D.	Bengal	Home District.
" D. Hennessy, M.D.	"	Athlone.
" D. M. O'Callaghan	Malta	Colchester.
" R. J. Windle, M.B.	Home District	Dublin.
" A. L. Borradaile, M.B.	Punjab	Bedford.
Captain F. R. Buswell	R.A.M.Coll.	Bombay.
" F. A. Symons, M.B.	"	Bengal.
" C. G. Spencer, M.B.	"	Curragh.
" T. H. J. C. Goodwin, D.S.O.	"	R. M. Acad.
" D. J. Collins, M.B.	"	Dublin.
" J. B. Anderson	"	Dover.
" A. E. Master, M.B.	"	Devonport.
" G. Parsey Browning	"	Alton.
" E. S. Clark, M.B.	"	Home District.
" K. M. Cameron, M.B.	"	Punjab.
" A. E. Mither	"	Madras.
" C. K. Morgan, M.B.	"	Edinburgh.
" J. P. Silver, M.B.	"	Devonport.
" John M. Buist, M.B.	"	Woolwich.
" H. A. L. Howell	"	Chatham.
" D. Lawson	"	Portsmouth.
" E. B. Steel, M.B.	"	D. York's Sch.
" H. E. Staddon	"	Bulford.
" S. J. C. P. Perry	"	Dublin.
" S. H. Farrie, M.B.	Dover	R.A.M.Coll.
" G. T. K. Maurice	Bulford	"
" J. V. Forrest, M.B.	Bengal	"
" H. W. Grattan	Punjab	"
" J. H. Campbell, D.S.O.	Madras	"
" E. W. Bliss	Bengal	"
" J. C. B. Statham	Woolwich	"
" E. C. Hayes	Bengal	"
" A. H. Waring	Madras	"
" E. W. W. Cochrane, M.B.	Bombay	"
" A. H. Morris	"	"
" G. B. Riddick	Punjab	"
" V. J. MacDougall, M.B.	Bombay	"
" R. W. Clements, M.B.	Madras	"
" M. Swabey	"	"
" C. F. Wardhill	R.A.M. Coll.	Netley.
" L. Addams-Williams	"	Devonport.
" M. MacG. Rattray, M.B.	"	Dover.
" T. H. M. Clarke, M.B., C.M.G., D.S.O.	Crete	R.A.M. Coll.
" E. W. P. V. Marriott	Bombay	"
" C. H. Hopkins	Madras	"
" J. G. Burke	R.A.M. Coll.	Aldershot
" E. A. Burke	Bengal	R.A.M. Coll.
" A. C. Lapidge, M.B.	Home District	"
" J. S. Gallie	R.A.M. Coll.	Dublin.
" F. J. C. Heffernan	"	York.
" H. M. Nicholls, M.B.	Bermuda	Cork.
Lieutenant J. Courtney	Dublin	Bengal

Lieutenant J. Riordan, M.B., retired, has been placed in medical charge of troops at Clonmel.

Lieutenant-Colonels E. L. Maunsell and W. Heffernan have been selected for increased pay under Article 192 of the Royal Warrant.

ROYAL NAVY MEDICAL SERVICE.

THE notice which appeared in the *Gazette* of December 11th last relative to the resignation of his Commission by Surgeon JAMES H. DAWE, M.B., R.N., on his being placed on the list of emergency officers, is hereby cancelled.

The appointment of Staff Surgeon EDWARD COOPER to the *Nelson* has been cancelled.

The following appointments have been made at the Admiralty: JAMES BRADLEY, M.D., Fleet Surgeon, and CHARLES A. G. PHIPPS, Surgeon, to the *Lion*, attached; EDWARD COOPER, Staff Surgeon, and

EDGAR S. WILKINSON, M.B., Surgeon, to the *Astræa*, February 25th. PAUL H. M. STAR, Staff Surgeon, to the *Fire Queen*, for the *Nelson*, February 11th. RICHARD MILLER, M.B., Fleet Surgeon, to the *Andromache*, February 11th. LLEWELLYN A. BAISS, Surgeon, to the *Hearty*, February 11th. ARTHUR R. THOMAS, Surgeon, to the *Rambler*, additional, February 11th, and on recommissioning.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN R. M. LE H. COOPER, M.D., retires on a gratuity, February 13th. He was appointed Surgeon Lieutenant, January 25th, 1892, and Captain three years thereafter.

The undermentioned gentlemen to be Lieutenants on probation, dated January 25th: GODFREY F. EVORS, DOUGLAS S. B. THOMSON, M.B., ARTHUR S. ARTHURS, M.B., JOHN FAIRBAIRN, M.B., ROBERT G. ANDERSON, LEONARD BOUSFIELD, M.B., JAMES H. DOUGLASS, M.D., DUMARESQ LE BAS, ROBERT R. LEWIS, CHARLES H. TURNER, FRANK H. NOKE, GEORGE E. CATHCART, EUGENE C. WHITEHEAD, M.B., TRAVIS C. LUCAS, JOHN A. TURNBULL, WILLIAM WILEY, M.B., RICHARD B. HOLE, M.B., ALEXANDER L. OTWAY, M.B., WALTER F. H. VAUGHAN MONTAGUE F. GRANT, HOWARD HARLING, M.B., DAVID P. JOHNSTONE, EDWARD H. M. MOORE, FREDERICK J. GARLAND, M.B., MICHAEL D. AHERN, HARRY B. CONNELL, GEORGE S. C. HAYES, SIDNEY C. BOWLE, ALBAN A. MEADEN, ROBERT J. CAHILL, M.B.

Lieutenants R. G. ANDERSON, S. C. BOWLE, and F. H. NOKE are seconded under the provisions of Article 49 of the Pay Warrant, January 25th.

Colonel W. E. SAUNDERS, C.B., Principal Medical Officer Poona District, has been appointed Principal Medical Officer Meerut and Bundelkhund Districts.

Colonel G. D. N. LEAKE has assumed charge as Principal Medical Officer Bombay and Nagpore Districts.

Surgeon-General FITZGERALD EDWARD SCANLAN died in London on January 9th. He was appointed Assistant Surgeon, April 30th, 1858; Surgeon, March 1st, 1870; Surgeon-Major, April 1st, 1875; Brigade Surgeon, May 23rd, 1884; and retired from the service with the honorary rank of Deputy Surgeon-General, September 24th, 1884.

Brigade-Surgeon JAMES BOWYER BAKER died in London on January 4th. He entered as Assistant Surgeon, May 28th, 1857; became Surgeon, August 2nd, 1871; Surgeon-Major, March 1st, 1877; and retired with the honorary rank of Brigade Surgeon, May 28th, 1882. He served with the force in the north of China in 1860 (medal).

Captain P. S. LELEAN, from the Seconded List, to be Captain, December 14th, 1903.

INDIAN MEDICAL SERVICE.

MAJOR R. BIRD, M.D., Bengal Establishment, has been appointed Surgeon to the Viceroy of India, from January 1st.

Major P. CARE WHITE, Madras Establishment, is posted as Residency Surgeon, and Captain [illegible] Assistant Resident in Nepaul.

Lieutenant-Colonel GEORGE DUNCAN, M.B., Bengal Establishment, died at Dera Ismail Khan, Punjab, on February 3rd, of pneumonia. He entered the service as Surgeon, April 1st, 1882, and was made Lieutenant-Colonel, April 1st, 1902. His war record comprises: the Hazara Expedition, 1888 (medal with clasp), the Hazara Expedition, 1891 (clasp); the Waziristan Expedition, 1894-5, including the action at Wana (clasp); and the Chitral Relief Force in 1895 (medal with clasp).

Major ALLAN EWEN GRANT, M.B., Madras Establishment, died on December 11th last. He joined the department as Assistant-Surgeon, March 31st, 1881, and became Major, March 31st, 1899. He was with the Chin Lushai Expeditionary Force in 1889-90, receiving a medal with clasp.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN J. C. MACALISTER, M.D., 8th (Scottish) Volunteer Battalion the King's (Liverpool Regiment) is promoted to be Surgeon-Major, February 12th.

Surgeon-Lieutenants A. G. GILLAN, M.D., and W. S. HENDERSON, M.B., 9th (Queen's Westminster) Volunteer Battalion the King's (Liverpool Regiment), to be Surgeon-Captains, February 12th.

Surgeon-Captain W. A. GRIFFITHS, 1st Volunteer Battalion the Hampshire Regiment, resigns his commission, February 13th.

With reference to the *London Gazette* of January 15th, the resignation of Surgeon-Major G. H. DARWIN, M.D., 2nd Volunteer Battalion the Manchester Regiment, should be that he retains his rank and uniform.

The transfer of Surgeon-Captain W. N. EVANS from the 1st Volunteer Battalion the Middlesex Regiment to the 4th Middlesex (Bloomsbury), which was announced in the *London Gazette* of January 5th, bears date September 14th, 1901, and not as therein stated.

THE NEW army COUNCIL AND THE ARMY MEDICAL SERVICE

[illegible] GENERAL CLIFFORD'S article. It is to be hoped that good will result from the protest taken by the British Medical Association to ensure a suitable position for the Director General, A.M.S., on the new Army Council. It is to be hoped his position will be more satisfactory than it has been on the former central body. There he could only attend meetings when military matters were being considered, but [illegible] it was possible to state beforehand how far any matter discussed, such as the soldier's training, [illegible] had an important bearing on the health of the troops, so as to enable the Director General to be present. Further than this, we understand the Director General, as a Military Member, [illegible] the whole weight of his influence and knowledge to bear upon the [illegible] and such persons, [illegible] and the War Office [illegible] understood to exist to [illegible] this [illegible] the practice that sanitary [illegible] are [illegible] before the Council. The Director General [illegible] by the Council on general questions by the War Office Council and he could thus [illegible] his presence [illegible] It is to be hoped the new War Minister will not [illegible] as formerly.

THE Quarantine Board of Egypt are about to appoint five medical officers at monthly salaries ranging from £22 11s. to £28 14s. Candidates, who must be duly qualified either by a European faculty or by the State, can obtain further particulars on application to Dr. M. A. Ruffer, President of the Quarantine Board, Alexandria.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,684 births and 5,396 deaths were registered during the week ending Saturday last, February 13th. The annual rate of mortality in these towns, which had been 18·1, 19·4, and 17·2 per 1,000 in the three preceding weeks, rose again last week to 19·4 per 1,000. The rates in the several towns ranged from 6·0 in Smethwick, 6·3 in Northampton, 8·4 in Aston Manor, 9·0 in Hornsey, 10·7 in East Ham, 10·9 in York, 11·0 in Hastings, and 11·2 in Walthamstow and in Wallasey, to 23·6 in Birkenhead, 26·2 in Bootle, 26·5 in Gateshead, 27·7 in Rhondda, 27·9 in Warrington, 28·5 in Bury, 28·8 in Swansea, and 29·2 in Newport (Mon.). In London the rate of mortality was 17·7 per 1,000, while it averaged 18·8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·5 per 1,000; in London this death-rate was equal to 1·4 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3·2 in Preston, 3·3 in Leyton, 3·7 in Ipswich, 4·0 in Great Yarmouth, 4·2 in Bootle, 5·3 in Gateshead, 7·0 in Warrington, and 8·5 in Bury. Measles caused a death-rate of 1·2 in Blackburn, 1·4 in Sunderland, 1·6 in Willesden, and 3·9 in Warrington; scarlet fever of 3·1 in Warrington; diphtheria of 1·8 in Bury and 2·0 in Great Yarmouth; whooping-cough of 1·6 in Swansea, 1·7 in Wallasey, 1·8 in Liverpool, 1·9 in Leyton, 2·2 in Newport (Mon.), 2·3 in West Hartlepool, 3·0 in Stockton-on-Tees, 3·1 in Gateshead, 3·4 in Bootle, and 6·2 in Bury and "fever" of 1·4 in Preston. Four fatal cases of small-pox were registered last week in Gateshead, and one each in Nottingham, Hull, and South Shields, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 24 small-pox patients at the end of last week, against 24, 21, and 25 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 3, 4, and 8 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,679, 1,651, and 1,657 on the three preceding Saturdays, had declined again to 1,644 on Saturday last, February 13th; 162 new cases were admitted during the week, against 180, 168, and 109 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 13th, 942 births and 636 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19·8, 18·4, and 18·5 per 1,000 in the three preceding weeks, further rose last week to 19·2 per 1,000, and was 0·8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 6·2 in Perth and 14·3 in Leith to 23·0 in Paisley and 24·6 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2·2 per 1,000, the highest rates being recorded in Aberdeen and Paisley. The 305 deaths registered in Glasgow included 1 from small-pox, 11 from measles, 2 from scarlet fever, 6 from whooping-cough, and 9 from diarrhœa. Nine fatal cases of whooping-cough and 4 of diarrhœa were recorded in Aberdeen: 5 of measles, 2 of whooping-cough, and 2 of diarrhœa in Dundee; 4 of measles and 3 of whooping-cough in Paisley; 2 of whooping-cough in Leith; and 2 of diarrhœa in Edinburgh and in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 13th, 457 births and 487 deaths were registered in six of the principal Irish towns, against 527 births and 461 deaths in the preceding period. The mean annual death-rate of these towns, which had been 26·9, 20·5, and 25·8 per 1,000 in the three preceding weeks, rose to 27·6 per 1,000 in the week under notice, this figure being 9·6 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 13·7 in Londonderry to 34·2 in Limerick. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2·4 per 1,000, or 1·3 per 1,000 higher than during the preceding week, the highest rate, 6·5, being registered in Limerick, while Waterford registered no deaths under this heading at all. Except for one death from measles at Belfast, no deaths were registered in any part of Ireland from measles, small-pox, scarlet fever, typhus, or simple continued fever. Diphtheria caused 1 death at Dublin and another at Londonderry, and the only death from enteric was at Dublin. The whole zymotic death-rate in short, was practically made up by whooping-cough again.

HEALTH OF LEEDS.

DR SCOTTISWOODE CAMERON presented a preliminary report for 1903 to the Sanitary Committee of the Leeds Corporation in the middle of January, from which it appears that the death-rate of Leeds for last year (16·6 per 1,000) was the lowest on record. The decline is attributed to the lessened death-rate from lung disease, including phthisis, and to the diminution in the number of deaths from the seven commoner zymotic diseases, exclusive of membranous croup. Small-pox caused 5 deaths in 1903 of the population. The year 1903 was a year of low death-rates, the metropolis rate being only 15·5, and therefore the return for Leeds is not so exceptional as might at first appear, though it stands near the top of the list of the seventy-six great towns.

THE VISION OF SCHOOL CHILDREN.

MR. J. T. T. RAMSAY, Medical Officer to the Education Committee of the County Borough of Blackburn, undertook last year an examination of the vision of all the children in the public schools of the borough. In his report he gives an account of the vision of 8,855 children in Standards III., IV., V., VI., and VII. Some 600 other children in Standard II. were examined, but the results are not included because many of them seemed to have forgotten many letters altogether, and others, though they apparently could read the letters, could not write them down. The results obtained at some 42 schools are given, and the average of normal vision appears to be 70·2. The highest figure for any school is 86·9 per cent., and the lowest 56·2. The wideness of the variation [illegible] shown is very possibly to some extent to be referable to [illegible] the members of the child

ren at the various schools; but, upon the whole, it would seem rather to suggest that the conditions under which the children are taught at some of them are unfavourable to the preservation of normal vision. The report includes many useful recommendations with regard to the care of the children's eyes suggested to Mr. Ramsay by his investigations, and also in respect of the classes of eye complaints which should lead to children being excused from attendance, whether in their own interest or in those of their companions. In addition to other things Mr. Ramsay has prepared a register of some 2,000 children whose place in the class should be on the front benches if they are to benefit properly by their attendance at school, and he recommends that the fact of the inequality of children's vision should be taken into consideration by all teachers as a matter of habitual routine. Recommendations are also made as to the use of adjustable desks and an increase in the allowance of towels and washing apparatus.

THE BACTERIAL TEST OF POLLUTION.

DR. E. KLEIN (London, E.C.) writes: It will be in your recollection that February 21st, 1903, in a paper by myself, the Bacterioscopic Diagnosis of Sewage Pollution of Shellfish, I stated from a large number of observations: (1) That the B coli communis, or the typical B. coli, is not a natural inhabitant of oysters. (2) The nearer to sewage outfalls, that is, the more exposed oysters and cockles are to sewage pollution, the greater the percentage of these shellfish polluted with B coli communis. (3) The further away from sewage outfalls, or the smaller the amount of sewage accessible to the oysters or cockles, the smaller the number of these shellfish that are found to contain in the interior of their shells the B. coli communis.

Professor Hewlett, Dr. Buchanan, of Glasgow, and others have since arrived at similar conclusions. Quite recently I received from the Massachusetts State Board of Health a paper by Messrs. H. W Clark and Stephen De M. Gage, which in respect of clearness leaves nothing to be desired on this point, and I beg leave to enclose the essential portions of their paper bearing on the point. It no doubt will be of interest to your readers.[1]

"EXAMINATION OF SHELLFISH

"During the past three years considerable work has been done at the experiment station in examining shellfish, such as clams, oysters and quahaugs, for evidence of pollution. In this work tests for B coli and for the sewage streptococcus in the shellfish itself and in the water in its shell have been made. Many samples of the sea water, taken at the localities in which the shellfish have been gathered, have also been examined.

"Enough study has been made by many investigators to show clearly that B. coli is not a normal inhabitant of the intestines of clams or oysters, and that its presence in the intestines or juice in the shell must be due to contamination either by drainage and sewage flowing over the clam and oyster beds, or by careless and uncleanly handling of the shellfish between the time of digging and placing upon the market. In this work, therefore, the ability to demonstrate clearly the presence of a specific sewage organism, such as B coli, is an invaluable aid in determining the question of purity or pollution."

TABLE No. 9.—*Showing Results of Tests for B. Coli in Shellfish and Sea Water from Polluted and Non-polluted Sources.*

Character of Source.	Number of Sources.		Number of Samples.		Per cent. of Samples Positive Sewage B. Coli.*		
					Shellfish.		
	Shellfish.	Sea Water.	Shellfish.	Sea Water.	Shellfish Water.	Intestine.	Sea Water.
Not polluted ...	15	10	44	37	0	0	0
Doubtful	22	19	114	80	8	6	17
Polluted	6	4	49	48	41	35	44

* I have reproduced in this table only the sewage or typical B. coli.. Coli-like and other doubtful microbes not peculiar to sewage have been omitted, since also in my own communication (February 21st, 1903) I have discarded these as not bearing on the sewage question.

REMOVAL OF INFECTIOUS CASES IN IRELAND.

QUERIST.—Section CXLI of the Public Health (Ireland) Act is that which gives the medical officer of health—that is, the dispensary doctor or his *locum tenens*—power to have persons suffering from infectious disease, whose surroundings may be unsuitable, forcibly removed to hospital on a magistrate's order. It is a power rarely exercised in Ireland and much resented. On the facts stated by our correspondent we must agree with the Local Government Board and the Board of Guardians that Section CXLI does not apply to this case. "Querist" does not state that the habitation of these patients was unsuitable or that he obtained a magistrate's order, without which he would have no power to remove them. He states that they were private patients, presumably willing to pay for medical attendance, and if he informed them that he would have them removed to an Irish workhouse fever hospital we are not surprised they called in another practitioner; when they did so our correspondent's responsibility ceased, even had they been dispensary cases. Having reported the outbreak to the sanitary authority and the Local Government Board he had, in our opinion, fully discharged his duty until further directed by either of these authorities. The District Council is the sanitary authority in Ireland, and the master of the workhouse is not their servant but that of the same body when sitting as a Board of Guardians. To inform the sanitary authority that the patients should be removed and to ask the Board of Guardians if it had room for them has a refreshing touch of Gilbertian humour. We do not think our correspondent need feel hurt at the strictures of the Board of Guardians. It would probably have been equally ready to censure him if he had removed the patients against its will or if it had to employ extra nurses to attend to them.

[1] The Thirty-fourth Annual Report of the State Board of Health of Massachuetts on the Value of Tests for Bacteria of Specific Types as an Index of Pollution. By H. W. Clark and Stephen De M. Gage.

DURATION OF INFECTIVITY OF SCARLET FEVER.

SCARLET asks whether a patient in whom desquamation is complete in three or four weeks, who has no albuminuria, and no discharge from ears, needs to be isolated until six weeks have elapsed.

"*" No special virtue attaches to the period of six weeks. The increasing opinion of those competent to judge is that the late desquamation of scarlet fever is little, if at all, infectious, and that the chief risk lies in nasal discharges or eczematous eruptions. If the patient is free on these points he might be released from isolation, though it would be discreet to prescribe (after disinfection) an intervening period of a fortnight before he is allowed to mix with others, especially children.

QUARANTINE AFTER WHOOPING-COUGH.

AMICUS. *The Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, issued by the Medical Officers of Schools Association (London: J. and A. Churchill, 1899, 1s. 6d.), states that the period of quarantine which should be insisted upon when a pupil has been exposed to an infectious disease depends chiefly upon whether the clothes have been efficiently disinfected at the beginning of the quarantine. The period mentioned for whooping-cough is twenty days. It is added that home disinfection should be supplemented by personal disinfection of the pupil, and of the clothes, books, and everything brought back by him immediately on his return to school.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE GRAHAMSTOWN ASYLUM, CAPE OF GOOD HOPE.

A REPORT recently issued by the Government of the Cape of Good Hope covers the working during the year 1902 of the Grahamstown Asylum, Institute for Children, and Chronic Sick Hospital. It is excellently put together, and contains ample evidence of careful work on the part of the medical superintendent of all three institutions, Dr. Duncan Greenlees. The statistics are kept in the same form as that in use in allied institutions in England.

The average number of residents in the asylum had risen from 11.47 in the year 1875, to 340.49 in the year under notice. The number, in the same years, of the population from whom the patients are derived is not stated, so that it is impossible to say whether the increase indicates an increase in insanity, or is the natural outcome of the growth of population. The percentage of deaths to the average number in residence in 1902 was 8.81, that for the whole period mentioned being 10.74. Similarly, the percentage of recoveries to admissions throughout the whole period covered by the statistics is 30.7%; higher figures being obtained in the later years, which may be taken to indicate that cases are brought earlier under treatment. Other points of interest noted are that cases of melancholia and acute mania are believed to be respectively increasing and decreasing among natives. It is stated also that dipsomania, which greatly decreased during the war, is again beginning to figure largely in the returns, and that alcohol is likely to form a grave cause of native insanity unless steps are taken to prevent drinking among the coloured population. A remonstrance is made against the current practice of keeping insane persons in gaols for observation by the district surgeon and a call made for a provision for white lunatics apart from those of the coloured races. Besides persons of British extraction, and in addition to representatives of Fingoes, Kaffirs, Hottentots, and other native tribes, the list of patients includes 26 Dutch, 12 Germans, 9 Russians, 3 French, 3 Swiss, and 1 Spaniard. This motley collection must materially increase the difficulties of treatment and administration.

The Institute for Imbecile Children, the only one of its kind in South Africa is very small. Twenty-two patients comprise the list, and complaint is made that the children are not sent in until, as a rule, nothing can be done for them.

The Hospital for Chronic Sick accommodates at present some 122 persons of various nationalities. Its administration is gradually being reorganized on the lines of an ordinary hospital, and there seems to be some intention of enlarging it sufficiently to accommodate the chronic sick of the whole colony, and to relieve Dr. Greenlees of its charge.

JOINT COUNTIES ASYLUM, CARMARTHEN.

THERE were admitted into the asylum during the year 1902 122 patients, and 57 were discharged and 63 died. The average number daily resident was 646, and the total number under treatment was 770. The recovery rate was 27.58, calculated upon the number admitted, and the death-rate was 9.79.

The asylum is full; some of the patients, however, belong to other counties, but without these there would only be vacancies for 14 men and 19 women.

Among the forms of insanity melancholia heads the list with 36, and one of the admissions was "not insane." In 42 per cent. the cause assigned was heredity of insanity or allied disorders, and in 19 alcohol. Of the admissions no less than 37 were more or less actively suicidal. One patient was admitted for the fifth time owing to the abuse of alcohol, which illustrates the unsuitability of such cases for an asylum. As Dr. Goodall very properly remarks: "In such cases the attack commonly passes off in a few days, or at most, two or three weeks, and further detention of the patient becomes impossible. The patient occupies an expensive bed and receives no treatment (for what can he be submitted to other than enforced abstinence?) which could not be administered outside under proper control. Such a case ought to be sent to a reformatory for inebriates.

Tuberculous disease was given as the cause of death in 28% of the cases. There were 22 private patients in the asylum, whose payments ranged from 10s. to 40s. per week.

With regard to treatment, electric baths, Swedish drill, massage, and

[illegible] are freely used with beneficial results. The Committee of Visitors state [illegible] Bradford Children's Hospital [illegible] the Committee hope to [illegible] the Corporation, [illegible] the project [illegible].

BRADFORD CHILDREN'S HOSPITAL.

At the [illegible] Bradford Children's Hospital [illegible] the Committee hope to [illegible] the Corporation, [illegible] the project [illegible].

MEDICAL NEWS.

THE SMALL-POX EPIDEMIC IN SCOTLAND.—The Local Government Board of Scotland reports, under date February 15th, that the greatest incidence of small-pox in Scotland during the first fortnight of this month was in the burgh of Greenock, where the cases amounted to 1·60 per 10,000 of the population, as compared with 1·50 in Govan, 1·10 in Partick, and 1·03 in Glasgow. It is also stated that of 22 cases initiated in the last report as having occurred in Coatbridge, 18 are now regarded as not small-pox, and that no other genuine cases have since occurred in that locality.

BEQUESTS TO HOSPITALS.—Under the will of the late Mr. James Keenan, of Stonehouse, Ardmachog, N.B., £3,000 has been bequeathed to the Glasgow Royal Infirmary, £1,000 to the Victoria Infirmary, and £500 each to the Glasgow Eye Infirmary and the Gartnavel Asylum.—The late Mr. Alfred G. Gibson has bequeathed £1,000 to Guy's Hospital for the endowment of a bed, and £100 each to the London Hospital, St. Mary's the Middlesex Hospital, the Great Ormond Street Children's Hospital, the London Fever Hospital, and the Poplar Hospital.

MEDICAL VACANCIES.

The list of vacancies is compiled from our "Advertisement" columns, where full particulars can be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

[illegible] ASYLUM FOR CHILDREN, Grove Road, S.W.—Assistant Physician.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, [illegible].

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Assistant House-Surgeon. Salary, £30 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon, resident. Salary, £80 per annum.

[illegible] INFIRMARY.—Medical Officer of Health and Public Vaccinator.

CANCER HOSPITAL, Fulham Road.—Surgical Registrar. Honorarium, £25 5s. per annum.

CARMARTHEN JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £100 per annum.

CARMARTHEN GENERAL HOSPITAL.—Junior House-Surgeon, resident. Salary, [illegible].

CHELSEA HOSPITAL FOR WOMEN.—Senior House-Surgeon; Junior House-Surgeon.

[illegible] WEST HOSPITAL.—Senior Assistant Medical Officer. Salary £80 per annum.

[illegible] RAILWAY.—Assistant Medical Officer. Salary [illegible] Board, Lodging, and Washing.

[illegible] Medical Officer for [illegible].

[illegible] HOSPITAL.—House-Surgeon, resident. Medical Officer.

[illegible] HOSPITAL, Stamford Hill, N.—Assistant House-Surgeon, resident. Salary at the rate of £50 per annum.

LEICESTER ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £80 per annum.

LIVERPOOL CITY ASYLUM, Winwick Road, Warrington.—Assistant Medical Officer. Salary at the rate of £120 per annum.

LIVERPOOL SKIN AND CANCER HOSPITAL.—Assistant House-Surgeon, resident. Salary, £50 per annum.

LONDON HOSPITAL, Whitechapel, E.—Assistant Medical Officer for Electrical Department. Salary at the rate of £100

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS [illegible] to the Editorial Office of the BRITISH MEDICAL JOURNAL, 429 Strand, London, W.C.

ORIGINAL ARTICLES or LETTERS [illegible] to the Editor, and if intended for publication in the BRITISH MEDICAL JOURNAL should be written on one side of the paper only.

CORRESPONDENTS who require [illegible] are requested to look at the Notices to Correspondents [illegible].

ANSWERS, [illegible] DELIVERED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES [illegible].

[illegible] to the BRITISH MEDICAL JOURNAL be addressed to the Publishing Office of the JOURNAL, 429 Strand, London, W.C., and not to any individual by name.

TELEGRAPHIC ADDRESS. The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is [illegible]. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is [illegible].

TELEPHONE NUMBERS.

EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special portions of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

Y. Z. has omitted to enclose his card.

S. R. wishes to hear of an institution where a neurasthenic female of 50 would be admitted for a small weekly payment.

INQUIRER will feel obliged to any member who will kindly inform him in which medical paper and on what date there appeared a parody of Kipling's poem, "Her Majesty's Jolly," commencing something like this:—

As I was walking home last night through the mud of a country lane,
I met a man in a waterproof cape a trudging along in the rain;
His pipe was out, and he hadn't a match, and I says to him, "Who are you?"
And says he, "I'm a doctor, a country doctor, surgeon, and midwife too."

RADIO-PHOTOGRAPHY.

INQUISITOR will be obliged to any member who can supply information as to the [illegible] following a radiographic [illegible]. Is it the electric spark falling out of the hair, or any other sequela likely to follow an exposure?

RESPIRATORY EXERCISES.

C. asks to be referred to a book giving directions for "respiratory exercises" for children with defective or obstructed nasal breathing. A book most suitable would be one that could be given to patients.

POST-AURAL PAIN.

W. P. would be glad to have suggestions as regards treatment in the following case: A single woman, aged 35, otherwise healthy, has bilateral post-auricular pain of a continuous dull character, increased by pressure. It is now of five years' standing. An aural specialist's diagnosis was negative. The usual anti-neuralgic drugs and local counter-irritation have been tried unsuccessfully.

INCOME TAX.

PERPLEXED writes: In the BRITISH MEDICAL JOURNAL of January 9th, in reply to "Assistant," it was stated that a qualified assistant was not liable to pay income-tax on the value of his rooms and board, if these were provided for him in addition to his salary. May I inquire as to the grounds for such opinion, and whether such exemption is considered to extend to the case of assistant medical officers of asylums, bearing in mind the decision in Bray *v.* Lancashire Justices, 1 K. B. 22, Q. B. D. 424? My reason for inquiring is that for the first time I am assessed to income-tax in respect of rooms occupied here by me in my capacity of assistant medical officer.

*** The opinion given in the BRITISH MEDICAL JOURNAL of January 9th is based on the decision of the judges in the case of Tennant *v.* Smith [1892] A.C. 150, where it was held that the residence of a bank agent on the bank premises as caretaker and for the purpose of the performance of his duties was not a perquisite or profit of his office within the income-tax charge. The exemption extends to the case of an assistant medical officer of an asylum who, in the circumstances referred to by our correspondent, is liable to make his income tax return, Schedule E, on the actual amount of his salary, without adding thereto the value of board and rooms for which he does not receive a money payment. The case of Bray *v.* Justices of Lancashire establishes a different point, namely, that the portions of a county lunatic asylum used as apartments by officers of the asylum with incomes of £160 a year and upwards are chargeable with income-tax, that is, the apartments are liable to be charged in the same way as a house is charged with the landlord's property tax (schedule A). This tax, however, is payable not by "Perplexed," but by the asylum authorities, and if our correspondent has received the collector's demand note in error, as seems probable, he should hand it on to the treasurer or clerk of the asylum.

D. CANTAB writes: I bought a dying business in July last: a claim for income tax on profits has been sent in. My reply was that the takings as yet were not equal to the expenses, and that I was living on my capital; my income therefore was a minus quantity. The local surveyor of taxes has demanded to be furnished with three years' accounts, showing total receipts and details of expenses. My predecessor kept no books beyond a day-book, and it would be practically impossible to furnish these accounts; he last year requested the surveyor of taxes that his profits were nil. What am I to do, and can I be forced to pay anything?

*** The surveyor is legally correct, a medical practitioner being assessable to income tax on the average annual profits of the practice for the three preceding years, whether such practice was or was not carried on by him during the three years referred to. As the financial year runs from April 5th to April 5th, our correspondent would be liable to pay three months of the tax so arrived at, the first quarter's tax, April to July, being payable by his predecessor. If the circumstances are such that accounts for three years cannot be produced, he should request the surveyor to allow the tax to remain in abeyance until April 5th next, on the understanding that an account is produced for the period from July, 1903, to April 5th, 1904, immediately after the latter date. In the event of the surveyor's refusal to sanction this, he should ask for an opportunity of appeal to the commissioners of income-tax.

ANSWERS.

LECTURER. It is presumed that the lectures to nurses will be on elementary anatomy and physiology, emergency treatment of hæmorrhage, fits, poisoning, etc., and elementary hygiene. Much of this information in a simple form may be obtained from Warwick and Tunstall's *First Aid* (Wright and Son, Bristol); and for hygiene from *The Preservation of Health* (National Health Society), or *Elementary Hygiene* (St. John Ambulance Association).

J. R. W. There are no places in Switzerland with waters like the gaseous thermal muriated waters of Nauheim, but doubtless artificial Nauheim bath salt and Nauheim exercises can be employed at Rheinfelden, Baden, and other places, although not desirable by the resident medical man. Our correspondent might consult an article by Dr. J. McGregor Robertson on Bourbon-Lancy, published in the BRITISH MEDICAL JOURNAL of August 15th, 1903, p. 367.

DR. R. R. RENTOUL. It is impossible to lay down any hard-and-fast scale of fees for such cases. It may be assumed that with a clerical income would not be above £300 a year. The finest way of settling the question would be to charge the ordinary visiting fee for patients of such a class, and a half fee in addition for the injection. No cab fare should be charged.

NOTES, LETTERS, ETC.

A WARNING.

DR. MARTIN A. COOKE (Stroud) writes to warn his brother practitioners against a man of medium height, about 35 years of age, dark, and with a small moustache, who, he says, is travelling about among the profession seeking orders for electric lamps, accumulators, etc., most plausible in manner and thoroughly understands electric matters. He passes under the name of Crawley. The police, adds our correspondent, have already had many inquiries about the man.

THE DISTRIBUTION OF CANCER.

DR. C. F. MARSHALL (Leeds, W.) writes: In the interesting article on cancer, by Messrs. Bashford and Murray, I note that nearly all the animals in which cancer was found were domesticated and not in the wild or natural state. Such animals are exempt from the natural struggle for existence which results in the survival of the fittest. In wild animals those which can bear cancer would be wiped out in the struggle for existence and hence cancer will probably not be found in them. In the case of man the tendency is for medical science to prolong the existence of those unfit to survive, and this process increases as medical knowledge increases. This may possibly explain the alleged increase of cancer. I think, that there is a fairly constant number who develop cancer, but more survive owing to increase of knowledge.

KNEE-JERK PHENOMENON IN INTERSTITIAL KERATITIS.

MR. N. BISHOP HARMAN (Leicester, W.), writes: In your appreciative article (BRITISH MEDICAL JOURNAL, February 13th, p. 353) on the recent issue of the *Transactions of the Ophthalmological Society*, in order to a paper of mine "Mr. N. Bishop Harman contributes the relative frequency of knee-jerk phenomena in interstitial keratitis, the results of inherited syphilis, etc." Lagleyze and Casey Wood are quoted as the result of their investigations as to about 50 per cent. of all cases of interstitial keratitis the knee-jerk deficiency was present, and that in about 8 per cent. of cases it was entirely absent. In this investigation 7 cases were examined. Mr. Harman, on the other hand, finds as the result of the clinical examination of 80 cases, "no noticeable difference between the condition of this phenomenon in the subjects of congenital syphilis and in healthy folk. It is possible that the question of this kind requires extended investigation." Extended investigation has already been made concerning my results. When I read the paper at the meeting of the British Medical Association, Swansea, 1901, Ophthalmological Section, two members stated that they had been engaged in a similar inquiry. In the words of your report (BRITISH MEDICAL JOURNAL, September 7th, 1901, p. 599) "Mr. Doyne said he had lately examined 30 cases. In all cases the knee-jerk was present. Mr. Bowater was also convinced. Mr. Beaumont said that in 10 cases he had examined he had found the knee-jerks present." If I can encourage to some extent I should like to suggest that the method of testing the knee-jerk I advocated in this paper be tried. It has the merit of simplicity, the possibility of making a satisfactory comparative test, and it reduces the personal equation and its variation with time and place to a minimum.

THE ETIOLOGY OF LEPROSY.

W. H. LOWMAN, M.B., B.S. Lond., F.R.C.S. (Mission Hospital, Port Ismail, Khan, N.W.I., Persian Gulf) writes: Apropos of the discussion that has been going on lately in the columns concerning the etiology of leprosy, the following case will be interesting. A native of the Shirazi country, one of those tribes which inhabit the Sulaiman Mountains on the North-West frontier, came to the hospital for treatment. He was well-built specimen—about 5 feet 10 inches in height, and 30 years of age. He suffered both with lepra tuberosa and contraction of tendons to form a left "claw".

hand. He states that he has always lived with his uncle and is the only one related who can do so. I questioned him as to his relations and their complaints to see if I could discover any deficiency in his statements, but he was perfectly consistent. I may say that these wild border people are not accustomed to tell lies about their complaints, but are generally blandly "straightforward" in their statements. He is about 5 years of age, and the disease began on the right knee. He has suffered five years. He has one awful lung about the size of the old Queensbury's as to his eating, he said he had eaten more in his life when he was little, and that was fresh meat. All we got to date seemed to be correct, and I see no reason to disbelieve it, it is rather difficult to believe that in this case atrophy of eating was the cause. He finished with a "poser" worthy of the Western mind, "Is it contagious?"

DOUBLE MONSTER: XIPHOPAGUS.

DR. J. ERNEST STRATTON (London) writes: Cases of conjoined twins belong of some rarity, I thought it would be well to send you the following notes on a case occurring recently in my practice. The mother was a multipara, her previous confinements all occurring in little over four years—having been at eight, seven, six, and six months respectively. There has been no abnormality of the fetus on any previous occasion. This time labour came on at the twenty-ninth week. Delivery was spontaneous and rapid. On expulsion of the membranes a head presented and, unassisted by a hand, which proved to be the left hand of the second child. Delivery of these parts having been rapidly effected, there were followed by the shoulders of both children and the second head, which was over-extended and pressed down to the back of the trunk to which it belonged. Turning of the whole fetus, having probably died within two to four hours before birth. The twins were connected to a fairly broad band of tissue, extending from just above the umbilicus sternalwards to the xiphoid cartilage, which was shapeless and into which was inserted a single umbilical cord running from a single placenta. The spinal axes of the two children were completely separate, but it could not be determined to what extent the organs were connected, as it was desired to present the complete specimen to the University College Museum. The children were of approximately equal size and both of the male sex.

FOR THE DILATATION OF THE CERVIX IN "ACCOUCHEMENT FORCÉ."

DR. J. FAHAS (Constantinople) writes: As I was, I believe, the originator of the practice of dilating the cervix uteri by the direct application to it of my hand, on the occasion of one case *vide* Transactions of the Obstetrical Society, vol. xxxvi., p. 1, and a paper read at the Edinburgh meeting of the British Medical Association in 1894, BRITISH MEDICAL JOURNAL, 1894, p. 1301, I am much interested in the suggestion made by Dr. Aveling in the JOURNAL of January 2nd, p. 5, that the dilating bougie be tried in preference to my method. In cases I have myself seen, I do not think it would be equally successful in this latter method as it is in the former, and so supplant to a great measure the latter. But as I have no practical personal experience in the matter, having little to do in strictly gynæcological work, I shall be glad if you will allow me to say that I should much like to see it tried by those who have its powers over the hand at their disposal. There are little short of marvellous, and I should no more think of attempting to take with me to my lying-in room of the two than I would expect to find forceps. There is, however, a right way and a wrong way of applying the hand, very much as in the case of turning with the feet. In the wrong way by pressing the os obliquely, as by a piece of cloth, or linen rag, folded with the edges, it is apt to be bruised and pound, both within and without, and thus to cause a "lying within the os, between it and the head, of a thin layer of living tissue. The wrong way is

Scientific Grants Committee

OF THE

British Medical Association.

REPORT LXXX.

A CRITICISM OF THE VALUE OF HAMMERSCHLAG'S METHOD IN CLINICAL ESTIMATIONS OF THE SPECIFIC GRAVITY OF THE BLOOD.

By E. P. BAUMANN, M.D.Edin., M.R.C.P.Lond.,
From the Laboratory of Pathological Chemistry, University College, London.

In the days of venesection, numerous observations were made upon the specific gravity of the blood. Large quantities of blood were clinically obtainable, and the estimations could in consequence be made by direct weighing by means of the pycnometer. As blood-letting fell more and more into disuse, sufficient quantities for the application of this method could no longer be easily secured, and the subject of the density of the blood received for a time but scant attention. Hayem, in his well-known textbook, *Du Sang*, which was published at Paris in 1889, makes a single reference to the matter, and disposes of it in a few words: "In reference to the question of specific gravity there is nothing further to be said than that it is chiefly dependent upon the number of the corpuscles." At the period at which he wrote, the pycnometric method was still the only one in general use, although Fano had some years prior to this introduced a means of indirectly estimating the specific gravity by the suspension of a drop of blood in solutions of gum of known density, and Roy had already improved upon this method by the substitution of solutions of glycerine in water. Soon, however, Lloyd Jones slightly further modified this method; Hammerschlag altered it by suggesting the use of a mixture of chloroform and benzol; and Schmaltz introduced a capillary pycnometer by which minute quantities of blood were weighed. All these methods, which rendered the observer independent of the use of the pycnometer, quickly passed into common application, and the estimation of the specific gravity was now brought within the range of easy clinical investigation.

Of the methods named, the most exact is necessarily that of the pycnometer, in which a certain quantity of blood is directly weighed and compared with the weight of a similar quantity of distilled water. Given careful manipulation, scrupulous cleanliness, and an accurate balance, the only possible error should lie in the fact that usually the blood is weighed at body-heat whilst the water is at room temperature. This source of error, as was shown by Schmaltz, is so slight where small quantities are concerned as to be practically negligible, and the results obtained by the pycnometer may be regarded as correct. The method is however laborious, a costly apparatus is required, and the quantity of blood needed renders it inapplicable to ordinary clinical purposes.

Schmaltz's capillary pycnometer lacks the last mentioned objection; but the other difficulties all apply, and in addition, grave sources of fallacy appear inevitable when small quantities of blood are manipulated. Vaughan Harley in an unpublished series of observations has found that results obtained by the capillary pycnometer are inexact and variable.

The Roy or Lloyd Jones method is open to the objection that it is very laborious and a relatively large amount of blood is needed for its use.

Hammerschlag's method, on the other hand, is well adapted to clinical practice, for it is easily manipulated, does not necessitate the employment of an accurate and costly balance, and can be carried out with a very few drops of blood. It is for these reasons no doubt that this method has passed so widely into use, and is now employed in the majority of clinical observations upon the subject of the density of the blood. Such observations have of recent years become increasingly frequent in investigations into the condition of the blood in health and in disease. Many observers attach great importance to the investigation of this factor, some even going so far as to assert that, owing to a close degree of uniformity between them, the estimation of the specific gravity renders unnecessary the determination of the haemoglobin value or of the solids and proteids of a particular specimen of blood. We are not, however, at present concerned in the consideration of this aspect of the subject. The object of this paper is to inquire into the value of the results obtained by the particular, widely-employed method in question.

Results obtained by Hammerschlag's method are commonly accepted as sufficiently exact for all clinical purposes, although very few reliable experimental data exist. Hammerschlag[2] himself states that figures obtained by his method are lower by 0.001 than the actual value of the specific gravity as controlled by pycnometric estimations. He appears, however, to have performed only two pycnometric control experiments, and his results—as will be seen later in the light of Levy's inquiry into the source of error in the application of this method—are open to question. Menicanti[3] and Monti[4] controlled their readings by means of Schmaltz's pycnometer, and obtained figures which corresponded closely; but the control method employed by them is itself not free from serious errors. Dieballa[5] states that on the ground of numerous control estimations he found Hammerschlag's method to yield results which were too high by 0.003 to 0.004; he gives, however, no details as to the method by which the control was exercised. The only really satisfactory records are those by A. G. Levy,[6] who controlled his results by the pycnometer and obtained readings uniformly higher than the actual values by 7° or 8° of the hydrometer scale. His observations are unfortunately few in number.

It appeared to me from these considerations that further investigations into the accuracy of the method were required before results obtained by this method can be finally accepted.

In the course of a series of experiments upon the blood of dogs[7] I had occasion in a large series of cases to estimate carefully the specific gravity of the blood and its serum. Both Hammerschlag's method and the pycnometer were employed in every case. The blood used for the indirect method was obtained from the capillary circulation of the ear, care being taken to avoid the least interruption of the venous return, and only full, freely-flowing drops being accepted. That used for the pycnometer was drawn from the femoral artery. The serum used for both methods was obtained from centrifugalized blood drawn from the same artery.

In employing Hammerschlag's method, the chloroform-benzol mixture was adjusted beforehand to the anticipated density. A drop was then carefully blown from a pipette into the centre of the fluid, care being taken to avoid imparting an impetus towards either an upward or a downward tendency. Along with occasional stirrings, small quantities of chloroform or benzol were then added accordingly as the drop tended to rise or fall. Whenever it had become stationary at at one level the mixture was filtered through fine muslin, its density estimated by means of a hydrometer, and the process repeated with a fresh drop. Generally three or four estimations were made, and the mean taken when the results differed. As a rule, however, the variations were very slight. Thus in one case the estimation of four successive drops of the same serum gave these results: 1.026, 1.028, 1.026, and 1.026. The hydrometer used was one of conveniently small size such as is generally used for this purpose. The same instrument was employed in all the observations. The reading was in each case taken at the point of lowest level of the intersection of the hydrometer scale by the fluid meniscus. I experienced no great inconvenience from the difficulties that are occasionally attributed to this method. Thus, Busch and Kerr[8] speak of the danger of the inclusion of an air bubble in the drop; this did, it is true, sometimes occur, but it was easily recognized and a fresh drop used. Askanazy[9] refers to the difficulty of stirring the mixture without breaking the drop; this I found could generally be overcome by using a small-sized drop. Von Limbeck[10] points out that the drop may break, and one portion rise whilst the other falls; this actually occurred on a few occasions as the result, no doubt, of the absorption of one or other of the constituents of the chloroform-benzol mixture. This mishap can generally be prevented by rapid manipulation, for as Zuntz has shown,[11] absorption occurs only after the lapse of some little time. When it did occur the mixture was strained and the observation repeated. On a few rare occasions, too, a portion of the drop would adhere to the sides or bottom of a glass which had not been thoroughly dried; in that case attention was confined to the portion still floating and the reading controlled by a second estimation.

The results of my observations are recorded in Tables I—IV. Thirty-three control estimations in all were made. Of these, 13 were made upon the blood of normal dogs (Table I); 12

TABLE I.—*Specific Gravity of Normal Blood.*

Experiment	1	2	3	4	5	6	7	8	9	10	11	12	Average
Hammerschlag ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.070	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pycnometer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.058	[illegible]	1.059	1.053	1.057	1.054	[illegible]
Difference ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.012	[illegible]	[illegible]	0.014	[illegible]	0.012	[illegible]

TABLE II.—*Specific Gravity of Normal Blood Serum.*

Experiment	1	2	3	4	5	6	7	8	9	10	11	12	Average
Hammerschlag ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pycnometer ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.023	1.024	[illegible]
Difference ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.011	0.011	0.012	0.012	0.012	0.012	[illegible]

TABLE III.—*Specific Gravity of Anæmic Blood.*

Experiment	1	2	3	4	Average.
Hammerschlag ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pycnometer	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Difference ...	0.011	0.012	0.013	[illegible]	[illegible]

TABLE IV.—*Specific Gravity of Anæmic Blood Serum.*

Experiment	1	2	3	4	Average.
Hammerschlag ...	1.033	1.033	1.028	1.031	1.031
Pycnometer	[illegible]	1.021	[illegible]	1.020	[illegible]
Difference ...	0.010	[illegible]	0.012	0.011	[illegible]

upon the blood serum of normal dogs (Table II); 4 upon the blood of dogs rendered anæmic by bleeding (Table III); and 4 upon the blood serum of similarly anæmic dogs (Table IV).

On studying the tables, we find that Hammerschlag's method invariably yielded excessive readings. The error amounts on an average to a difference of 0·012 in excess of the real values. In all four series of observations the same average error is struck. On analysing the individual results, we find that in 42 per cent. of the total number of observations, the difference corresponds actually to the figure obtained as an average. In 28 per cent. it is lower by 1°, and in 18 per cent. it is higher by 1° of the hydrometer scale than the average. A difference in this connexion of a unit in the fourth place of decimals is, however, so fractional as scarcely to be worthy of serious attention, and we may consequently conclude that in 88 per cent. of the total number of observations the average error of 0·012 was actually maintained. In the remaining small percentage of cases the variation from the average was very slight indeed, surpassing it by 2° in 3 per cent. of the cases, and falling short of it by 2° in the remaining 9 per cent. The difference in the results by the two methods is thus strikingly uniform, and this uniformity is displayed in the case of anæmic as well as in the case of healthy blood and blood serum.

Since the performance of the above experiments A. G. Levy[1] has carried out an admirable research into the origin and extent of the error which occurs in the use of Hammerschlag's method. He found that the extent of the error depends upon the form and size of the hydrometer used. In order, therefore, to obtain exact results the same instrument should always be employed. The source of error depends, he found, upon the use of hydrometers which have been standardized in water by the surface tension, exerting a less powerful traction than water upon the stem of the instrument, and the hydrometer consequently gives readings which are higher than the actual ones. An error consequently arises in the direction of an excess, and it is to this cause that we ascribe the inaccuracy of the observations in which Hammerschlag obtained results that were lower than the actual value of the specific gravity. The source of the error may be obviated either by the use of a special hydrometer which has been standardized in a chloroform-water mixture, or by the employment of a rough method of correction, which may be applied to any hydrometer that is graduated from 1000°. It is advisable that one or other of these methods should be adopted in order that the results of different observers and the results obtained by individual observers at different times with different hydrometers may be brought into line. It is particularly advisable in the case of those observers who propose to utilize their results for the determination, by calculation of the haemoglobin value of the blood.

CONCLUSIONS.

From the consideration of the above investigations we arrive at the following conclusions:

1. Provided the same hydrometer is used, Hammerschlag's method of estimating the specific gravity of the blood is clinically easily applied, and yields, both in health and disease, results which are uniform and reliable.

2. An error is associated with the use of this method, which is always in the direction of an excess. The excess is, however, uniform and constant.

3. As was shown by A. G. Levy, the error may readily be obviated by the use of a specially standardized hydrometer, or by the application of the rough method of correction suggested by this observer.

In conclusion, I wish to express my sincere indebtedness to Professor Vaughan Harley for many suggestions and much kindly advice, and to Dr. F. W. Goodbody for his valuable assistance in the labour of carrying out the control experiments.

NOTE AND REFERENCES

[illegible]

A PASTEUR INSTITUTE FOR TEXAS.—The Texas State Legislature has made a grant of £[illegible] towards the establishment and maintenance of a Pasteur Department for the treatment of hydrophobia in the State, in connexion with the State Lunatic Asylum at Austin and under its management.

INSANITY IN NEW YORK.—The statistics of the New York State Commission in Lunacy show that there has been an increase in the number of insane in the State during the past year amounting to about 50 per cent. above the normal. The observations of the Commissioners indicate that there is a relation between the increase of insanity and the development of industries which is sufficiently pronounced to render plausible the popular belief that the isolation and monotony of farm life are conducive to insanity, especially among women.

REMARKS UPON TEMPERATURE.

By M. S. PEMBREY, M.A., M.D.,
Lecturer on Physiology, Guy's Hospital.

Many a so-called fact in physiology is but a statement of the balance of evidence. This must vary from time to time, for new evidence may be obtained or old discarded evidence may be restated and confirmed. It is useful, therefore, at times to attempt to sum up the evidence and to draw conclusions which can be tested by further investigations. The personal equation may bias the verdict, but this is a necessary condition in the examination of evidence upon all debated questions.

The temperature of man and of other warm-blooded animals is a subject in which such a review may be useful. The general opinion has been that the temperature is remarkably constant, and under physiological conditions shows but a narrow range of variation. Since the thermometer is one of the physician's guides, it is most important that the conditions which affect the range of the temperature in a healthy man should be carefully determined. The practical side of this physiological question will therefore be kept in view in the present article.

The Temperature of the Newly-born.

The Darwinian theory leads to the conclusion that the warm-blooded have been evolved from the cold-blooded animals. Physiological facts support this conclusion. The temperature of newly-born pups, kittens, and rabbits falls when they are removed from the warm surroundings afforded by their dam, and continues to fall until it reaches a point a few degrees above the temperature of the air. Newly-born guinea-pigs, however, are able to maintain their temperature if the exposure to cold be not excessive; they are at birth in a condition of great development, they are well covered with fur, their eyes are open, and they are quickly able to run about. Young warm-blooded animals can, therefore, be divided into two classes—those which at birth are blind, helpless, in some cases naked, and unable to regulate their temperature; and those which are born in a condition of greater development and capable of maintaining the temperature of their bodies at a fairly constant level. Young birds can be classified in a similar manner. These important observations were published by W. F. Edwards[1] in 1824. Within recent years they have been confirmed and extended, and it has been shown that the difference lies in the development of the power of regulating temperature; the first class respond to changes of external temperature in a manner similar to that of cold-blooded animals; their combustion, as measured by the output of carbon dioxide, varies with and in the same direction as the temperature of their surroundings; the second class, however, increase their combustion when they are exposed to cold; they resemble warm-blooded animals.[2] The development of this power of regulating the temperature of the body can be traced in the developing chick.[3]

The practical interest of the question is centred in infants. Raudnitz[4] has investigated the variations in the temperature of infants at birth and during the first few days after birth. The effects of affusions of cold water were observed; the rectal temperature rose in the case of strong infants, but remained stationary or fell in the case of the weak. The influence of the large cutaneous surface in relation to the mass of the body and the loss of heat from the skin were shown to be only secondary causes of the irregular temperature. The chief cause was the imperfect development of the power of regulating temperature. Shivering and other muscular movements were more marked in the strong than in the weak infants. Quite recently Babák[5] has made an important series of observations upon the respiratory exchange and the production of heat in infants. Their temperature is low, even when they are fully clothed and in a room at 15° C. (59° F.); in infants an hour or two old the temperature may be as low as 34.0° (93.2 F.) or 33° (91.4° F.); it rises gradually during the first day or two, but shows considerable variations; thus on the fifth day after birth the rectal temperature varied from 36.2° (97.16° F.) to 33.5° (92.3° F.) in an infant weighing 2,550 grams (approximately 5½ lb.), and kept in a room at 12.0° C. (53.6° F.). The conclusion drawn from numerous observations made at different times of the year and upon infants of different ages is that the power of regulating temperature is incompletely developed in the newly-born. The regulation of the loss of heat is imperfect, and this is markedly shown if the infant be insufficiently clothed when it is exposed to even moderate cold. The regulation of the production of heat by variations in combustion is also incomplete, and only within narrow limits can the newly-born respond to changes of external temperature in a similar manner to the response of the adult. The further development of these powers of regulation can be traced during the first week after birth.

The results, therefore, of observations upon infants and other warm-blooded animals agree. The evolution of the warm-blooded animal can be traced not only in the animal series, as shown by the important observations of Sutherland and C. J. Martin[7] upon marsupials and monotremes, but also in the same individual at different stages of its existence.

The practical importance of the knowledge of this imperfect regulation in the newly-born is obvious; maternal instinct, however, has for long ages anticipated physiological knowledge. The mother by means of the heat of her own body fosters the helpless young. That this care is primarily for the benefit of the young, and not for the satisfaction of maternal yearnings or weakness, is shown by the fact that in many cases both the cock bird and the hen bird brood over the newly-hatched young, and that parturition does not incapacitate animals and uncivilized women from the daily routine of life. Many premature infants have been reared by proper attention to the temperature of their surroundings; the more premature and weak the more nearly do they resemble cold-blooded animals in their inability to regulate their temperature. The heat of their bodies and the combustion of their food vary with and in the same direction as the temperature of their surroundings. Cold—even moderate cold—to such premature infants is not a stimulant but a depressant, for they can regulate neither the loss nor the production of heat.

The Physiological Limits of the Temperature of the Adult.

The range of temperature in healthy men and animals has not been adequately determined. This is chiefly due to errors in the methods and the times of observation. In the case of man reasons of convenience and delicacy have led to the observation of the temperature in the mouth. Such a determination is not an exact measure of the internal heat of the body. The balance of evidence shows that Lorain[8] rightly maintained that the temperature of the rectum alone represents the internal heat of the body. It would occupy too much space to refer to the numerous observations which have been made upon the comparative values of determinations of the temperature in the mouth, axilla, groin, rectum and urine. These data have been given elsewhere.[9] It is only necessary to insist that a so-called "half-minute" clinical thermometer will not give true or even comparable values for the temperature of the body under different conditions, even if it be retained for five or ten minutes under the tongue of a firmly-closed mouth. Such a determination is unreliable owing to the cooling of the tissues which surround the buccal cavity; this is especially the case after exercise or in cold weather, but even in warm weather there is a loss of heat from the boundaries of the mouth by the evaporation of sweat. These sources of error are obviously not so marked in the case of many patients, for when the subject is lying in bed the clothes around the neck and the protection from draughts maintain the temperature of the mouth at a value more comparable to that of the rectum.

The method used by Stephen Hales,[10] the observation of the temperature in the stream of urine, gives results[11] which in point of accuracy come next to rectal determinations. Although this method is obviously limited in its application, yet it is very rapid, convenient and free from the danger of carrying infection. Haldane and Pembrey easily determined in this way the temperature of eighty-three soldiers in one hour and a-quarter.

It would be unnecessary to insist so much upon the errors of the method, were it not for the fact that some observers[12] have maintained that the temperature of the mouth is equal to that of the rectum, and many have insisted that, even if the buccal determinations be lower than the rectal, the results are comparable. Further, the observation of the temperature in the mouth has led to wrong conclusions regarding the influence of muscular work upon the temperature of man.

The internal temperature of a healthy man shows a range from 36.0° C. (96.8° F.) to 37.8° C. (100.0° F.); these are average figures for the temperature of the rectum or urine (Jaeger, Jurgensen, Mantegazza, Neuhauss, Nicol, Pembrey, and Richet), and do not include the absolute physiological

Animal	Average Rectal Temperature.	Extremes of Observations.	Number of Observations	Observer.[13]
Horse	[illegible]	[illegible]	On [illegible] horses	Strecker
	[illegible]	36.2—38.6	On [illegible]	Hobday
Cow	[illegible]	[illegible]	On [illegible] cows	Hobday
	[illegible]	37.7—39.6	On 100 ,,	Singleton
Sheep	40.0 (104.0)	[illegible] 40.2	On more than [illegible] sheep	Hobday
	40.1 (104.2)	[illegible] 41 [illegible]	On 100 sheep	Singleton
Pig	[illegible]	[illegible]	[illegible] on 4 [illegible] pigs	Siedamgrotzky
	38.7 (101.7)	38.7—39.3	On more than [illegible] pigs	Hobday
Dog	[illegible]	[illegible]	On more than 200 dogs	Hobday
	[illegible]	38.0—39.8	On [illegible] dogs	Singleton
Cat	38.7 (101.7)	37.9—39.7	On 41 cats	Hobday
Monkey (Rhesus) ...	[illegible]	36.9—39.7	22 on [illegible] monkeys	Hale White and Washbourn
	[illegible]	35.9—38.9	1,000 on 25 ,,	Sutherland Simpson[14]
Rabbit	[illegible]	[illegible]	72 on 27 rabbits	Hale White
	[illegible]	37.0—40.8	31 on 10 ,,	Pembrey
	[illegible]	[illegible]	77 on 13 ,,	Pembrey
Guinea pig	[illegible]	36.0—39.2	140 on 10 guinea-pigs	Eyre[15]
	[illegible]	37.0—39.2	19 on 5 ,,	Pembrey
	[illegible]	[illegible]	16 on 4 rats	Pembrey
Rat	[illegible]	37.0—38.5	60 on 2 ,,	Pitts
	37.9 (100.3)	[illegible]	27 on 5 mice	Pembrey
Mouse	[illegible]	[illegible]	On 14 fowls	Davy
Fowl (Common)	42.8 (109.0)	41.7—43.9	On 111 ,,	Hobday
	41.6 (106.9)	43.0		

The [illegible] is nearly [illegible] of the average temperature is, in all the cases, considerably above that of man. The range of variation is also greater, [illegible] is greater [illegible] than in man. In [illegible] observations, whether the true range has been ascertained. The lowest temperatures occur during [illegible] and sleep, under such conditions very few observations have been made except in the case of man.

range. It will be shown later that muscular exercise will raise the internal temperature of healthy men to 38.5° C. (101.3° F.) without causing distress or any pathological effects.

The range of temperature in healthy animals is also of practical importance. Their temperature must be determined in many physiological and pathological experiments, after the injection of tuberculin and mallein and in veterinary practice. The data are gradually becoming more numerous and complete; they show that domesticated animals also have during health a range of temperature which is wider than that generally accepted. In fact, temperatures which are within the healthy range have been recorded, the high ones as fever, the low ones as subnormal. Here may be given the average temperature and range found in the case of some of the animals in which the temperature is frequently observed. As far as possible the effects of exercise or of struggling have been excluded, but it is obvious that this precaution is not so easy as in the case of man.

The Influence of Muscular Work upon the Temperature of the Body.

Upon this subject numerous observations have been made by different investigators, but the results have been conflicting. The general opinion has been, both among physiologists and physicians, that muscular work does not raise the temperature of the body; more heat is, indeed, produced, but it is maintained that the body compensates, or even overcompensates, by an increase in the loss of heat. This conclusion is based in nearly all cases upon the results obtained from observation of the buccal temperature. The determination of the temperature in the mouth, especially after exercise, is [illegible] an exact or comparable measure of the heat of the body. The data, therefore, only justify the conclusion that the temperature of the mouth does not rise, and may even fall during muscular work. Even this conclusion is not the whole truth, for if the cooling of the face be prevented by a high external temperature or by other means, the temperature of the mouth rises.

This question is of practical importance in relation not only to the general effects of muscular exercise, but also to the causation of "heat-stroke" and to the modern treatment of phthisis.[16]

Muscular exercise causes a marked rise in the temperature of the rectum and mouth of healthy men. Thus the temperature may rise to 39.5° C. (103° F.) without causing distress or any pathological effects. The experimental data and a critical examination of previous work upon this subject have been given elsewhere,[17] and need not be repeated here. The question which must be decided by experiment, and one healthy man who knows how to properly use an accurate clinical thermometer can make such experiments. There is no evidence to show that the rise in the internal temperature is injurious; evidence is gradually forthcoming to show that it may be beneficial. It should be noted that the average temperature of most of the domesticated mammals is, apart from the influence of exercise, as high as 38.5° (101.3° F.).

There is little room for doubt that heat-stroke and heat-exhaustion are due, not to a hypothetical germ, but to a disturbance of the nervous control of temperature, brought about in most cases by muscular exercise in unsuitable clothes and in hot surroundings laden with moisture.[17] This view is strongly supported by the nature of the best preventive measures and of the most successful methods of treatment.

In the case of phthisical patients[16] the rise of temperature after exercise would not appear to be of such diagnostic value as the reaction after exercise and the temperature during rest. It is to be feared that many patients with a temperature somewhat above the so-called normal have been still further enfeebled by enforced rest in bed.

The Influence of Changes in External Temperature.[18]

In the healthy man the nervous control of temperature is so well developed that his internal temperature is practically the same whether he be living in the Arctic regions or in the tropics. Even apart from alterations in clothing a man can compensate for large differences in external temperature. To the higher warm-blooded animals, man included, cold is a stimulant more powerful in its effect upon metabolism than any drug. Exposure to cold will often increase the output of carbon dioxide by 50 or 60 per cent. This in turn will cause an increased absorption of oxygen, a greater demand for food, a greater exchange of material in all respects. In European children this effect is often seen; languishing in hot surroundings in the tropics, they rapidly improve in the cooler hill-country or in England.

It is probable that the exposure of phthisical patients under the modern treatment of consumption is an important factor in success; it must be useless physiologically to largely increase the food unless the metabolism be augmented. The two natural methods of increasing combustion are cold and exercise. On the other hand, it must be remembered that if the natural response to a change of temperature be defective, as it is in many debilitated subjects, cold will be injurious.

The prevalent idea that adults and children should be shielded from changes of temperature, that living rooms and bedrooms should all be maintained at an equitable temperature and thus the danger of "colds" be warded off, must lead to deterioration. Colds are no doubt infectious diseases; the arctic explorers, it is said, do not thus suffer until they return to temperate and populous countries, where they are exposed to infection. Physiological resistance can only be maintained by training: the healthy man, who takes a cold bath or is exposed to cold in the winter, trains his body to react to changes of temperature and is less liable to "colds" than the man who is constantly protected, as he vainly imagines, by excessive clothing and warm surroundings. The value of outdoor sports in maintaining this resistance, this power of accommodation, is obvious, as a therapeutic agent sport is recognized but not to the extent which it deserves.

THE INFLUENCE OF ALCOHOL AND OF ANAESTHETICS.[11]

Alcohol acts upon the vasomotor system and also upon the nervous control of the production of heat. The dilatation of the cutaneous vessels, the increased perspiration and the cooling thereby produced are well known. The temperature of the subject may be lowered although he himself feels warmer; this is due to the warm blood which flushes the cutaneous nerves where the sensations of temperature arise. In large doses alcohol paralyses the nervous control of temperature. The man who is "dead drunk" resembles a cold-blooded animal; exposure to cold produces not an increase but a decrease in combustion and his temperature steadily falls. The lowest temperatures recorded in men, who have recovered, appear in drunkards who have been exposed to cold.

Anaesthetics rapidly paralyse the nervous regulation of temperature. The disturbance in temperature, be it a fall or a rise, which is seen after many surgical operations, appears to be largely due to this cause. The convenient explanation of "shock" needs further definition. The anaesthetized patient cannot regulate his temperature. The importance of warm surroundings to a patient who is deeply under an anaesthetic during a long operation is generally recognized. Such patients require warmth; an anaesthetic in the case of warm-blooded animals quickly reduces the combustion of the body to one-half its normal value; the vital resistance and the power of accommodation are concomitantly reduced. Warmth will increase, cold, even moderate cold, will diminish the combustion.

From a physiological point of view anaesthesia would appear to be often too deep and prolonged. Pain is beneficent in numerous cases; it is a natural safeguard, and brings about appropriate responses to sensations which are too often quenched by an anaesthetic. A drug which will so profoundly disturb the nervous control of combustion can never be considered harmless. The rapid recovery of animals and savages from serious wounds is generally attributed to a greater resistance; but the question can be fairly asked whether the smaller resistance of the civilized man is not further diminished, and often seriously diminished, by deep and prolonged anaesthesia? The patient dies—not, it is said, from the anaesthetic, not from the operation, which was quite successful, but from "shock"—he does not rally. May not this absence of a rally largely depend upon the fact that the combustion of the body, one of the most characteristic signs of life, has been so greatly diminished and for a time, at least, has been removed from the control of the nervous system? It is impossible by means of an anaesthetic to influence the nervous system alone; the body works as a unit, and as such is affected by abnormal conditions.

THE LIMITS OF BODILY TEMPERATURE COMPATIBLE WITH LIFE.[13]

Under pathological conditions the temperature of man shows a range of about 22° C. (approximately 39° F.), from 24° (75.2° F.) to 46° (114.8° F.). Higher and lower temperatures have been observed in moribund patients; here, however, only well-authenticated cases, in which recovery took place, need be considered. Several observers have recorded rectal temperatures as low as 24° (75.2° F.) in drunkards who have been exposed to cold for several hours; the patients were unconscious, but under careful treatment recovered in two or three days. Low temperatures have also been observed in chronic cases of insanity, and have persisted for several weeks.

The cases of hyperpyrexia scattered throughout medical literature are exceedingly numerous. Some of the observations appear to be unreliable, owing to defects in the thermometer or to fraud on the part of the patient. The range above the normal temperature is less extensive than that below, and a very high temperature is rapidly followed by death, whereas a very low temperature is compatible with life for a relatively long period. This would be expected on general physiological grounds, for some mammals have, under the natural conditions of hibernation, a temperature only five or six degrees above the freezing point.

The highest records in patients who have recovered appear to be 45° to 46° (113° to 114.8° F.), but in these cases the high temperature appears to have been maintained for a very short time.

REFERENCES.

[1] Edwards, *De l'Influence des Agens Physiques sur la Vie*, Paris, 1824. [2] Pembrey, *Journ. Physiol.*, Cambridge and London, 1895, vol. xviii, p. [illegible]. [3] Pembrey, Gordon, and Warren, ibid., 1894-5, vol. xvii, p. 331. [4] Raudnitz, *Zeit. f. Biol.*, München, 1888, Bd. xxiv, s. 423. [5] Babák, *Arch. f. d. ges. Physiol.*, Bonn, 1[illegible], Bd. 89, s. 154. [6] Sutherland, *Proc. Roy. Soc.*, Victoria, 1897, vol. ix, p. [illegible]. [7] Martin, *Phil. Trans.*, London, 19[illegible], vol. cxcv B, p. [illegible]. [8] Lorain, *De la Température du Corps Humain*, Paris, 1857. Tome i, p. 434. [9] Pembrey, article Animal Heat, *Textbook of Physiology*, edited by Schäfer, Edinburgh and London, 1898, vol. i, p. 824; Pembrey and Nicol, *Journ. Physiol.*, Cambridge and London, 1898, vol. xxiii, p. 386, see also references 16 and 18. [10] Stephen Hales, *Statical Essays*, London, 1731, second edition, vol. i, p. 59. [11] Pembrey and Nicol, loc. cit.; see also 16. [12] Ringer and Stuart, *Proc. Roy. Soc.*, London, 1877, vol. xxvi, p. 186. [13] The references to these authorities are given in Animal Heat, loc. cit. [14] Sutherland Simpson, *Proc. Phys. Soc., Journ. Physiol.*, Cambridge and London, 19[illegible], vol. xxviii, p. xxi. [15] Eyre, ibid., 1900, vol. xxv, p. xxiv. [16] Pembrey, Arkle, Bolus, and Lecky, *Guy's Hospital Reports*, London, 1902, vol. lvii, p. 283. [17] Pembrey, ibid., p. 261. [18] Burton-Fanning and Gurney Champion, *Lancet*, London, March 28th, 1902. [19] Numerous references are given in Animal Heat, loc. cit.

THE CAUSES AND TREATMENT OF CHRONIC RHEUMATISM.

By RALPH STOCKMAN, M.D.,

Professor of Materia Medica and Therapeutics, Glasgow University; Physician, Western Infirmary of Glasgow.

ACUTE rheumatism is an acute microbic infection, running a course of variable duration when untreated, and usually presenting certain well-defined symptoms which render its diagnosis an easy matter. One attack predisposes to others. Those cases which we are accustomed to call "subacute rheumatism" are really milder cases of the same disease, and no hard and fast line of distinction can be drawn. A case of acute rheumatism may be unusually prolonged, but never becomes chronic in the true sense of the term. That is to say, it never becomes chronic any more than enteric fever or diphtheria, becomes chronic. These diseases may leave sequelae in the form of bowel lesions or peripheral neuritis, respectively, but such sequelae are not designated chronic enteric fever, or chronic diphtheria. In the same way acute rheumatism may cause fibrous thickening of the valves of the heart, or fibrous indurations of the aponeuroses, fasciae, ligaments, and nerve sheaths, but these are results of the original disease and not an indefinite continuation of it.

Such indurations of the fibrous tissue give rise to pains referred to the muscles, joints, and nerves; but these symptoms, and the lesions causing them, cannot properly be regarded as the chronic stage of acute rheumatism. more especially as acute rheumatism is not the only condition which precedes them and is responsible for their presence. Nevertheless, the name chronic rheumatism has been so long applied to chronic painful conditions of the muscles and joints that its retention is now a matter of convenience. In the popular mind, and, to some extent, in the medical mind, the name has been long associated, specially and almost exclusively, with affections of the joints; and formerly, when so many separate and quite distinct articular lesions were classed together as "rheumatic," this idea was, to a large extent, justified. Gradually, however, the meaning of the term has become much narrowed by more accurate diagnosis, and we now distinguish rheumatoid arthritis, morbus coxae senilis, coxa vara, pulmonary osteo-arthropathy, Haygarth's nodosities, septic and gonorrhoeal arthritis, and other diseases and affections implicating the joints, as things quite distinct from each other and from chronic rheumatism. It is also now recognized that the articular structures proper—cartilage, synovial membrane, bone—are not primarily affected in chronic rheumatism, but that the parts implicated are the fibrous ligaments of the joints, and more especially all the fibrous tissues of the muscles and bones. In our textbooks the condition is described as chronic rheumatism, muscular rheumatism, muscular and tendinous rheumatism, myalgia, rheumatic myositis, pain being assigned the most prominent place as a symptom and damp cold as an exciting cause. Its original causation is variously stated as a rheumatic affection, as a special infection, as a diathesis, as a neuralgia, as a manifestation of gout, and as a muscle pain from imperfect nutrition. The same indefiniteness characterizes the accounts given of its pathology. Some authors hold that there are no morbid anatomical changes, others consider it a neuralgia, or an active hyperaemia of the muscles, or of their fibrous sheaths, while only a few describe definite fibrous changes and thickenings in the connective tissues. Speaking in general terms, the treatment recommended is regarded as palliative rather than curative, and no great hope of complete and ultimate relief is held out. A consideration of its pathology and experience of the results of properly-directed and persevering treatment have led me, how-

ever, to take a more hopeful view of the prospects of sufferers from chronic rheumatism.

Pathology.

The essential pathological changes are confined to the white fibrous tissue, and as this forms so large a part of the locomotory apparatus of the body, we accordingly find that chronic rheumatism affects especially the aponeuroses, tendons, fibrous septa, sheaths of muscles and nerves, periosteum, and the fibrous structures of joints. The lesion consists in inflammation and hyperplasia of the connective tissue in patches, and this condition may be widely spread over the body, or may be confined to a certain area of it. Serofibrinous exudation with proliferation of the connective tissue takes place, probably as the result of irritation from microbes or a toxin. This may be wholly or partially reabsorbed, or may organize and form permanent fibrous swellings and indurations. On microscopic examination they are seen to consist of proliferating fibrous tissue and exudation (when recent), or (when older) chiefly of dense fibrous tissue. They are well supplied with blood vessels, and no leucocytes congregate about them, as happens in so many inflammations. Once these fibrous swellings form, they are liable to become swollen and painful under the influence of cold, damp, over-exertion, indigestion, and other causes, and in this manner chronic rheumatism is established. The fibrous indurations are frequently defined and circumscribed, varying in size from a small shot or split pea to an almond or half a walnut, or a whole aponeurosis, as in the lumbar region or fascia lata, may be thickened, imparting to the skin over it a hard, inelastic feel. Very frequently the thickening takes the form of a strand or cord running through the fascia, or of small periosteal nodules, or of swelling on a nerve sheath. Local injuries, such as sprains, rupture of muscle fibres, dislocations, and so on, often give rise to similar indurations of the fibrous tissue, and these often cause local rheumatic symptoms, sometimes very troublesome and intractable to treatment.

If these swellings are at all superficial they can be very distinctly felt, and are usually painful on pressure. The commonest situations for them are in the lumbar aponeurosis, calves, fascia lata and tendinous expansions of the thigh muscles, the trapezius, deltoid, inner border of biceps, intercostal muscles, the glutei, and the soles of the feet. The fibrous tissue of the neck of the bladder, of the pharynx, behind the sternum, and all along the spinal column and in the joints may also be affected. When these local indurations swell up—as they do from various causes—there follows local tension, with pressure on the filaments of sensory nerves. This gives rise to almost continual aching, pain, and a sense of muscular fatigue. Sudden muscular movement, by increasing the tension or exerting pressure on the swollen tissue, very greatly aggravates the pain or causes it to shoot excruciatingly. Owing to the implication of sensory nerves the aching and pain may often radiate over a wide area, hence also the numbness, tingling, and prinkling which are common symptoms of chronic rheumatism.

Etiology.

As regards the etiology of chronic rheumatism, it is necessary to differentiate between (1) the original causes of the fibrous indurations and (2) the causes of the exacerbations once the fibrous thickenings have become fully established, and the patient suffers habitually from his rheumatism.

In adults, as in children, it is comparatively common for fibrous thickenings to occur as accompaniments or sequelæ of acute rheumatism. These may disappear, or may remain after all symptoms of the original acute attack have gone, they are then slight exposure to cold, are painful on pressure, and are very intractable to treatment. True influenza is another cause, and slight fatigue attacks with pain and aching in the muscles and bones often described as an "influenza cold" or a "rheumatic cold," also bring on these fibrous thickenings. Gout likewise seems to be another cause, and as previously mentioned local injuries to joints and muscles may be the cause. To this enumeration of causes may be assigned frequent exposure to cold and wet or to extremes of heat and cold accompanied often by hard manual work. Chronic rheumatism is said to be a disease of western countries, but this is incorrect. A certain degree of it exists in the tropics, but it is very common in Canada and in early middle life. It is therefore not a disease limited to any of the climatic zones, and it apparently results from several preceding causes.

Once the fibrous indurations are established, cold, damp, draughts, wet clothing, weather changes, unusual or violent muscular exercise, intestinal indigestion, and other causes have a very marked influence on their condition. Under the influence of these exciting causes the fibrous tissue formations become swollen and more tense, and give rise to pain and aching, which disappear very slowly or may suffer exacerbation from renewed exposure. Hence in some cases the patient is never quite free from muscular aching, and may have neuralgia in addition.

Symptomatology.

The symptoms of chronic rheumatism are so well known that I need only refer to them very briefly. During an exacerbation aching and pain referred to the muscles, fasciæ, tendons, and joints torment the patient, there is a feeling of fatigue and tiredness, and often marked sleepiness. When the more acute stage passes off, it is succeeded by intermittent stiffness and aching, especially felt in bed in the morning, or after resting, or remaining for a time in one position. In certain patients it may recur again and again in the same part (lumbago, stiff-neck), or it may be widely distributed over the body. The stiffness and aching usually wear off on active movement or exertion, but recur again very soon. Any sudden movement which compresses a swollen induration may cause very severe and crippling pain (as in lumbago), but apart from this the affected muscles are easily tired and often ache intolerably for days after even moderately severe exertion. Some of the joints and nerves may be more or less painful, and the digestion is not infrequently out of order. The general health may be mediocre or fairly good, but if there is much continuous neuralgic pain the patient may become thin, peevish, and neurasthenic.

Firm gentle pressure over the skin, which it is best to smear with liquid paraffin or some oleaginous material, reveals the presence of the indurations, nodules, or thickenings, which have been previously described. These are painful or tender when pressed upon with some little force, and become less painful after a few minutes of gentle effleurage.

Treatment.

During an acute exacerbation, when the indurations swell up and cause pain and aching, relief may be given by hot baths, massage, phenacetin, Dover's powder, sodium salicylate, the local application of methyl salicylate and similar measures. But the relief thus afforded is only temporary, and often in a few hours, or as soon as treatment is stopped, the pains return to continue for days, weeks, or indefinitely, and the patient remains as before, liable to renewed attacks on every exposure to cold, wet, or fatigue.

To obtain permanent cure and complete relief from the recurrent attacks, the fibrous indurations must be completely dispersed, and in all but quite recent cases this is always a more or less tedious and troublesome procedure. The only means which I have found of any special and definite value in this respect are massage and exercises, the faradic current, and the injection of solution of chromic acid into any of the fibrous indurations which are sufficiently large and defined to allow of this being done. Of the three, massage is the most efficacious.

Massage.

General massage is of no use. It must be specially directed to any nodules or thickenings which can be felt. At first they are often too tender to be rubbed with much pressure but gradually they become more callous and more fibrous, and may then be more vigorously treated. A good deal of experience and skill is required during the early treatment, but after they begin to shrink in size, the knuckles and fists may be used for rubbing, and ultimately they disappear. The massage should be carried out daily, 10 or 15 minutes being devoted to each part. To obtain satisfactory cure the dispersion of all the indurations must be complete, otherwise relapses occur and are a source of much disappointment. The length of time required to do this varies very much. Recent soft swellings may disappear in two or three weeks, but when the indurations are old and widely spread three to six or twelve months may be required.

Exercises calculated to stretch the aponeuroses and muscles involved are of value in hastening and completing the cure. A stick, dumb-bells, Indian clubs, Sandow's exercises may all be called into requisition to provide suitable movements.

Faradism.

The faradic current should be applied over each region for

five to ten minutes daily. It has some effect in causing shrinkage of the swollen fibrous tissue.

Injection of Chromic Acid.

This method is only possible where the nodule is sharply defined and can be penetrated accurately by the hypodermic needle. Superficial nodules should never be treated in this way, as the solution is apt to damage the skin and cause a phlegmon. Ten minims or less of a 1 per cent. solution in water may be given. It may cause some aching, but if the nodule has been accurately injected, shrinking, with great relief to the rheumatic pain, follows.

Drugs.

Where intestinal indigestion is present, and especially in lumbago, a course of mild purging (grey powder, compound rhubarb powder, salines) is advisable. As regards specific remedies, it cannot be said that any are known which cause absorption of the fibrous indurations. In quite recent cases I have seen potassium iodide give relief, but in regularly chronic cases any benefit is not very apparent. Salicylic compounds lessen pain during the exacerbations. Their action is not curative, however, as they cannot be expected to remove hard fibrous tissue. The same is true of phenacetin, phenazone, quinine, and all similar compounds. Alkalies, ammonium chloride, colchicum, guaiacum, actaea racemosa do no good. Iodine and local blistering are helpful, especially over joints or nerves.

Spa Treatment.

Recent cases, where the fibrous thickenings are in the early stage and still plastic, may be cured by a course of hydrotherapy, but inveterate cases only obtain temporary relief from their sufferings. The drinking, bathing, and general massage promote absorption of the serous exudation in the fibrous tissue, and possibly some shrinking. This usually gives for a time complete relief to the pain, aching, and stiffness of chronic cases, so that the patient feels much more happy and energetic. The indurations still remain, however, and are apt to swell and give trouble under the influence of exciting causes. The regular purgation obtained at Harrogate by the sulphur water improves intestinal digestion and does much good in certain cases.

Diet.

The broad rule is to avoid gastro-intestinal fermentation and the consequent absorption of irritant products from the bowel. Indigestion certainly causes aching in many rheumatic subjects, and the best way to avoid it is to eat plainly but sufficiently of an ordinary mixed diet. Any articles which are well and easily digested by the individual may be allowed.

Climate.

Residence in a dry stimulating climate often brings about spontaneous cure. A damp atmosphere and a seaside climate increase the symptoms, and seem to favour the conditions which give rise to chronic rheumatism.

Surgical Treatment.

Certain nodules after prolonged massage remain very hard, and refuse to be dispersed. If they cause pain and aching, they can be removed surgically. Removal gives complete relief. It is sometimes not an easy operation, as the small mass of fibrous tissue often lies deep, and may be difficult to find.

Prognosis.

In recent cases the prognosis is good, and even in cases of some years' standing complete, or almost complete, recovery is assured, if the treatment be persevered with. It requires considerable resolution and determination on the part of the patient, as it takes time and trouble, relapses are common, and he is apt to get discouraged. In severe cases, where there is marked and widespread induration, and the patient is very stiff and crippled, recovery is hopeless; but by stretching, massage, and manipulations, more freedom of movement may be obtained. When the subcutaneous tissue is thickened and brawny, treatment is very tedious, and recovery usually only partial. The same is true of joints which have been long affected.

Prophylaxis.

After rheumatic fever, influenza, muscular chills, violent exertion, sprains, dislocations, and other conditions which bring on indurations of the fibrous tissue, the patient should be treated, and preferably perhaps at a spa, by massage, electricity, and bathing. After being cured of chronic rheumatism, a somewhat "hardening" mode of life should be adopted, with plenty of outdoor exercise. Any relapse should be at once treated.

A CASE OF SCURVY IN AN INFANT FED ON MUNICIPAL "HUMANIZED" STERILIZED MILK.

By HENRY ASHBY, M.D., F.R.C.P.,

Physician, Manchester Hospital for Children; Lecturer in Diseases of Children, Owens College.

In a leading article in the British Medical Journal of September 26th, 1903, p. 746, reference was made to municipal milk supplies for infants, and a note of warning sounded as to their limitations and dangers: and at the annual meeting of the Association both Dr. T. D. Lister and Dr. E. Cautley called attention to the risks attending the haphazard distribution of municipal "humanized" sterilized milk.[1]

As illustrating these remarks I am tempted to publish a case which came under my observation a short time ago. The parents were a strong and healthy couple who brought me their first infant, 10 months old. The father belonged to the higher artisan class, being an overlooker in a mill and earning good wages. The history was that the infant had been born healthy, and was nursed by its mother till it was six weeks old, but as at this time she was not satisfied with its progress, she weaned it, substituting "humanized" sterilized milk obtained from a municipal milk dépôt. The parents appear to have obtained two days' supply at a time, the milk being supplied in eight bottles in a crate. The milk was stated to be white and sweet, but there often was butter oil floating on the top after the milk was warmed. They had used this milk exclusively till the present time, apparently of the original strength, but had increased the amount, and had added some baked flour. The infant did fairly well till he was about 8 months old. He then began to cry when handled, and kept his legs still as if paralysed, instead of kicking about as he used to do. When I saw him at the age of 10 months the gums were swollen and purplish around four incisor teeth which had been cut, the roots of the finger nails were injected, both legs beneath the knees were much swollen, immobile, tender and shiny; there was tenderness of the bones of the arms. The infant was poorly nourished; there was some enlargement of the epiphyses of the forearms.

The case did not differ in any way from the cases of scurvy so often seen from the prolonged use of preserved foods, but the fact that the milk which had given rise to the scurvy had been obtained from a municipal dépôt supplies food for reflection in several ways.

In the first place I should like to say that for every typical case of scurvy met with in either private or hospital practice at least half-a-dozen will be seen who have been fed on preserved foods which exhibit indefinite symptoms of scurvy, which may be called "para-scorbutic." The tenderness of the bones may be entirely absent, but there is anaemia, loss of flesh, distaste for food, sometimes diarrhoea of a dysenteric type, more rarely haematuria, a fine zone of pinkness in the gums around the teeth and perhaps a similar zone of pinkness at the root of the finger nails. In some cases there are herpetic-like rashes. In such cases improvement at once follows a change of food such as a milk-whey mixture and orange juice. I mention this because I feel sure the amount of mischief done by preserved foods is not to be measured by an odd case of typical scurvy.

A municipal supply of "humanized" milk cannot be provided except at considerable loss to the ratepayers: it cannot possibly be made to pay its way, assuming that fresh milk and cream of good quality are obtained from suitably-foddered and clean cows, and bottles, teats, and crates are provided. There is also the rent of the dépôt, the sterilizing apparatus, and the labour to be reckoned with. A charge of 3d. a day, or 1s. 6d. a week, cannot cover the cost. There is certainly a risk that the class who use the dépôt belong to the better-circumstanced artizan class rather than the poorest class who get their milk by the pennyworth. It is difficult to know how this is to be prevented, but it is certain that it is among the latter class that the infant mortality is the highest, and that it is they who need the greatest looking after.

I wish all the municipal authorities would get rid of the word "humanized," and substitute "modified" or any other word in the dictionary they like. Municipal milk is sold with

all the stamp of authority upon it; and although compounded of diluted milk, cream, cane sugar and a pinch of salt it is apt to be looked upon as a "fetish" for all the sick and healthy babies in the town of whatever age, and, as it is "humanized," what need is there for human milk?

Some harm has been done to these well intentioned efforts of the municipalities by enthusiastic friends who have made use of statistics in a way which I cannot think the facts warrant. Thus in one town it was reported that in the year 1900 the rate of mortality among the infants fed from the municipal dépôt was 102 per 1,000, while the infant mortality of the whole town was at the rate of 188 per 1,000; these figures have been published widely to show that municipal feeding saved the lives of children at the rate of 86 per 1,000 during that year. One would be inclined to believe that the infants who were not fed from the dépôt were veritably on the "broad road which leadeth to destruction."

But surely more facts are needed. Of those "fed from the dépôt," how long were they so fed, a week or twelve months? What was the financial position of the parents? Did this class contain any of the infants who only survived their birth a few hours or days, or are these all relegated to the total mortality class? How did the mortality of those fed at the dépôt compare with the infants fed at the breast?

What I think is wanted is a careful investigation of the results of municipal feeding by some skilled observers entirely independent of the officials, and conducted on the lines of the investigations made by a medical committee recently in New York on the work of the charities supplying sterilized milk to the poor in that city.

In writing as I have done I wish to add that it is the "haphazard" methods of administering municipal milk depôts that I condemn; I most certainly commend the efforts made in Liverpool and Battersea to work in connexion with the medical charities and to keep a weekly record of all the infants being fed from the dépôt.

I am perfectly open to conviction as to the general merits of municipal feeding, but I think more investigations are necessary in order to judge results, and before it can be said that the important problem of how to bring pure, fresh, clean milk within the reach of the poorer classes, and teach them how to use it aright, has been finally solved.

REFERENCE

* BRITISH MEDICAL JOURNAL, August 27th, 1904, p. 474.

SOME NOTES ON THE URINE IN BERI-BERI.

By HERBERT E. DURHAM, M.B., B.C.CANTAB., F.R.C.S.ENG.

(From the Committee of the London School of Tropical Medicine.)

The following notes are not put forward as being in any way exhaustive, but rather to attract the attention of those who may have other cases of peripheral neuritis under their care (arsenic, alcohol, syphilis, etc.). How far such different forms of "nerve disease" may be distinguishable by the degree to which the metabolism of the individual may be upset, is a point yet to be determined. It is possible that some aid in establishing diagnoses may be obtained by attention to such matters.

It has long been known, as from the work of Scheube[1] that the excretion of urea and phosphates is much diminished in beri-beri; the figures set out in the accompanying table serve to confirm this point. It will be observed that the figures for urea are extraordinarily low in certain of the cases, so low indeed that it was not until I had more control observations on the healthy, that I was satisfied that there might not have been some error of calculation or of observation. The possibility of some tampering on the part of the patients can be excluded by reference to the proportions of other constituents.

The patients were of three races—Chinese, Tamil (Madras Indians) and Sikh. It will be observed that the Chinese controls gave figures which were comparable to the ordinary physiological standard. Such, however, is far from the case with the control Tamil cases, and it may be doubted whether these men were really in a normal condition apart from the trivial matters for which they were under hospital treatment. It should be stated that in the Malay States, as Braddon and others have insisted, the Tamil escapes but rarely even in the hospitals. The non-susceptibility, or rather non-predisposition, of the disease is even more pronounced in the Sikh, and further, usually endures during confinement in gaol, so that beri-beri in a Sikh is most exceptional. In the case of the Tamil, it may be suggested as a possibility that for some reason their nerves are more sheltered from the action of the beri-beric poison, so that they only suffer from a disturbance of metabolism—a "beri-beri sine neuritide." Naturally the control cases are much too few in number to establish such a possibility as a fact, but if it leads to a more complete knowledge of the metabolism of the Tamil, the suggestion will be justified.

DIET.

In respect to diet these control Tamil cases were perhaps on a more liberally albuminous diet during their stay in hospital than in their life outside; for they had 4 oz. of salt fish four times, and 2 eggs three times a week, with vegetables, curry stuffs, and rice. The Chinese hospital patients have 4 oz. of dried fish or meat each day, with rice and vegetables. The diet of the prisoners contained 6 oz. of meat or fish a day in the case of the long-sentenced men, but none in the case of the short-sentenced men. Two cases with extraordinary low urea values (Table Nos. 6 and 17) had been on bread and water for the twenty-four hours during which the urine was collected. The question of malingering naturally has frequently to be taken into account in gaols, and in these two cases the signs of beri-beri were not of severe type, though the diagnosis seemed to be confirmed by the low urea figure, which is below a starvation amount.

UREA.

I did not have the good fortune to examine a case of sudden death shortly before the time of decease, but it is probably not unreasonable to conclude that an individual who is only excreting a fifth or a sixth of the proper amount of urea might be prone to the onset of the sudden death which is so commonly unanticipated in the disease; nor again is there cause for surprise that these two patients complained of not feeling well, although neither cardiac distress nor paralytic symptoms were prominent. They had no albuminuria.

The question arises whether the diminution of the urea is due to a locking up in the tissues, to a deficient removal by the kidneys, or to an actual diminution of output by the effective organs.

It may be stated here that none of the samples tested showed the slightest trace of albumen; this, coupled with the comparatively normal amounts of uric acid and kreatinin, points to the conclusion that the kidneys cannot have been seriously at fault. Moreover, the marked diminution of the phosphates and sulphates confirms the idea that the production is really at fault.

The two following direct observations are opposed to the idea of a locking up of already-formed urea in the body; though the readings are perhaps a little high, it is to be remembered that the sources were *post mortem:* and that there may have been other substances yielding nitrogen with hypobromite.

1. Residue of alcoholic extract of 1·2 grams of blood after removal of choline like bodies, etc., by means of alcoholic platinum chloride, yielded nitrogen corresponding to 0·038 grams of urea, that is, 0·3 per mille.

2. Residue of 4 grams of pericardial fluid similarly treated gave nitrogen corresponding to 0·012 grams of urea or 0·28 per mille. Hamburger[2] gives the normal urea content of the blood as 0·2 to 0·15 per mille.

OTHER CONSTITUENTS.

In contrast to the urea the kreatinin, as estimated by S. Johnson's process, may be hardly decreased, indeed it is proportionately increased in nearly all of the cases.

Whilst both the sulphuric and the phosphoric acids show absolute diminution the increase proportionately to urea is more marked in the case of the former than of the latter; it will be remembered that Scheube insists that the phosphoric acid is relatively increased in the majority of cases. Mott and Halliburton have shown that during degeneration nerves lose a considerable amount of their phosphorus, but their degenerated condition can hardly be the direct cause of the diminished excretion in that the phosphoric acid obtainable from the whole of the human nervous system is estimated to be only 12 grams. (Voit.[3]), whilst that of the muscles is given as 1·3 grams.

The proportions of the conjugated sulphuric acids and of the neutral sulphur were not found to be affected in the first few cases, so that further estimations were deemed to be superfluous.

Several estimations of the purin bodies were made, but

Analyses of Urine.

No.	Nationality.	Condition.	Date.	24 Hours' Urine in c.cm.	24 Hours Urea Grams.	24 Hours Uric Acid Grams	24 Hours Kreatinin Grams	24 Hours P.O. Grams.	24 Hours SO. Grams.	24 Hours Conjugated SO_3. Grams.	4 Hours' SO_3 after Oxidation Grams.	24 Hours SO_3 of Neut. Ord. Sul. Part Grams.	Ratio Uric Acid : Urea.	Kreatinin Urea.	P.O. Urea	SO. Urea
—	European	Normal (Schafer's Text-book)		—	—	—	0.910*	—	1.610	$\frac{1}{10}$ of total SO.	—	$\frac{1}{10}$ of total S	$\frac{1}{30}$	$\frac{1}{20}$	$\frac{1}{1}$	$\frac{1}{1}$
†1	Chinese	Healthy					1.670			$\frac{1}{1}$			$\frac{1}{30}$	$\frac{1}{20}$	$\frac{1}{1}$	$\frac{1}{17}$
†2	,,	,,					1.442						$\frac{1}{30}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$
‡3	,,	Recent beri-beri			14.660	Very little not weighed	0.770	1.740	—					$\frac{1}{20}$		
‡4	—	,,		1,670						—			$\frac{1}{111}$			
‡5	Chinese	,,				Less than 0.350			—				$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$	
†6	,,	Beri-beri : recent					0.697	0.620	—				$\frac{1}{40}$	$\frac{1}{1}$	$\frac{1}{1}$	—
†7	,,	Recent recurrent beri-beri; critical urination						0.670		0.056	—		$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$
†8	—	,,			27.470	—				0.150	—		—	$\frac{1}{20}$	$\frac{1}{14}$	$\frac{1}{1}$
‡9	Chinese	10 months' beri beri		645	8.300	0.480					—	—	$\frac{1}{20}$	$\frac{1}{1}$	$\frac{1}{11}$	
‡10	Tamil, control	Synovitis		1,640	10.850								$\frac{1}{1}$		$\frac{1}{1}$	
‡11	,,	Ulcus cruris			9.930				—				$\frac{1}{1}$	$\frac{1}{1}$		
‡12	,,	,,			9.350	0.920			—	—	—		$\frac{1}{10}$	$\frac{1}{1}$	$\frac{1}{11}$	
‡13	,,	"Rheumatism"			6.740						—			$\frac{1}{1}$		
‡14	,,	Fistula in ano				0.590					—		$\frac{1}{18}$	$\frac{1}{1}$	—	
§15	Tamil	Recent beri-beri				0.480							$\frac{1}{11}$	$\frac{1}{14}$	$\frac{1}{11}$	
§16	,,	Recent beri-beri, very oedematous				0.590	1.510		0.970	0.056			$\frac{1}{10}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$
§17	,,	Incipient beri-beri					0.950	0.550	0.305	—			$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$
§18	Sikh	Recent beri-beri			720		0.630	0.760					$\frac{1}{20}$	$\frac{1}{15}$	$\frac{1}{13}$	—
§19	,,	,,			6.110			0.580	0.760		0.869		$\frac{1}{20}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{1}$
§20	,,	,,					—			—				—	$\frac{1}{1}$	—
§21	,,	,,		1,630	6.650				0.530	0.023			$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{11}$	$\frac{1}{1}$
§22	,,	,,		1,600		0.040							$\frac{1}{1}$	—		

* Kreatinin by zinc method. † Prisoner, long sentence. ‡ Prisoner, short sentence. § Patient in district or general hospital.

owing to various accidents the following only were brought to conclusion. Still they do not appear to be of much importance in the elucidation of the disease.

Estimation of Purin Bodies.

No. (vide Table).	7	21	4	16
Ammonia soluble ...	0.067	Lost	0.0[illegible]	0.059
Ammonia insoluble ..	0.0[illegible]	0.0[illegible]	0.00[illegible]	0.00[illegible]
Total	0.099	—	0.045	0.064
Uric acid	0.25[illegible]	0.[illegible]4	0.1[illegible]	0.210

Some further inquiry was made to determine whether any other substances of interest were to be found. It is to be regretted that the means for the estimation of the total nitrogen were not available. Some attempts were made to get figures for the hippuric acid, but no useful figures were obtained though the substance was readily demonstrable.

Some attempts were made to isolate bodies of a basic nature from the urine. In demonstrating the presence of cholin or cholin-like substance in the blood or other body fluids it was found that the syrupy, highly alkaline residues obtained by alcohol extraction yielded up a substance to benzol which gave a double salt with platinum chloride crystallizing in octahedra from 15 per cent. alcohol. Thus the difficulty of employing sufficiently anhydrous alcohol in so moist a climate was avoided, and the presence of potassium salts could be definitely excluded. The shake-out method with benzol was consequently applied to several urine samples both before and after alkalinization with quicklime. A number of double salts with platinum (gold salts were only made with the "cholin" of the blood, etc.) were obtained, but, like Mott and Halliburton, I failed to get any octahedra suggestive of cholin. The only substance worthy of mention was one whose platinum compound was of a brilliant orange-vermilion colour, and was soluble in strong alcohol. Marked quantities were obtained from the beri-beric cases, and but mere traces in the few controls. The quantities obtained were not sufficient for further examination. The scarlet body usually crystallized in minute octahedral crystals.

METHODS ADOPTED.

Since in the tropics conditions are not always favourable in respect to materials and apparatus, a few words on the methods employed may be added in order that the value of the estimations may be judged. In all cases the urine was measured and then filtered. It was directed to be passed directly into large stoppered bottles into which a few drops of toluol had been placed to prevent putrefactive changes; the twenty-four-hour periods were arranged from 6 a.m. to 6 a.m. to avoid delay fer the like purpose. Albumen was tested for and found absent before proceeding.

A good delicate balance was available, and gravimetric methods had to be adopted in most cases; these had the disadvantage of limiting the number of observations.

Urea was estimated with freshly-made hypobromite solution, the quantity taken being 5 c.cm. and repeated on 1[illegible] c.cm., where the read-

ing was very low, with normal urines only 1 c.c. could be used on account of the size of the only available burette. The [illegible] under was used throughout, and the cleaning was done with water but the testing was to avoid loss. Temperature [illegible] and [illegible] taken as constant.

Accuracy. [illegible] were treated after Folin's method about a teaspoonful of potassic acetate and [illegible] of saturated mercuric sublimate [illegible] After the [illegible] the box was [illegible] and filtered. After the period a precipitate of crystalline flakes occurred. The [illegible] or better per [illegible] Johnson, practically [illegible] of the mercuric compound. It should be added that the figures quoted from Schaffer are the absolute creatinin estimated by more exacting methods.

Uric acid was precipitated by Hopkins's method with excess of ammonium chloride which had been recrystallized to remove [illegible] the precipitate was taken direct upon a tarred asbestos [illegible] pump. After washing with [illegible] and [illegible] chloride and a little spirit, the tubes were left to stand with a few drops of 1 per cent. HCl in spirit, whereby the uric acid was liberated in crystalline form. Later the uric acid was washed with a little water and spirit, and dried eventually in partial vacuum over CaCl and [illegible] to constant weight. Precautions were used for each titration. These did not appear to be any loss in the washings, as judged by the murexide reaction.

Phosphoric acid.—The only available mode of estimation was as magnesium pyrophosphate. A sulphate of magnesia mixture was used, the precipitate being taken up with dilute sulphuric acid, and reprecipitated with ammonia and ignited. Twenty c.c. of urine were used in the determinations.

Sulphuric acid was taken with samples of 10 c.c., which were boiled respectively with 10 c.c. of water or hydrochloric acid (the former subsequently with HCl) and precipitated with barium chloride. The weighings were direct without incineration.

Oxidation [illegible] was done by cautiously adding excess of permanganate day by day until a permanent pink colour was obtained.

The [illegible] were doubly precipitated with ammonia and silver nitrate after removal of phosphates and nitric oxide removal of uric acid with. [illegible] sulphuric. After reduction of the silver compounds with H_2S they were converted into a mixture of a soluble and insoluble.

The estimation of sodium, potassium chlorides, etc., was not attempted.

My thanks are due to Drs. Travers, Gimlette and McCloskey, of the Malay States Service, for the use of their cases and other help. I am also indebted to the Government of the Malay States for the use of the laboratory at Kuala Lumpur, until they behaved with such discourtesy that it was not possible to remain as a guest of such inhospitable hosts. Captain Rost kindly offered facilities in Rangoon, but unfortunately the season was not favourable for the study of beri-beri. I must also express my gratitude to Dr. F. Gowland Hopkins for much advice.

SUMMARY.

Curtly put, the above notes show that the metabolism in beri-beri is seriously diminished. The amounts of urea, phosphoric and sulphuric acids may be very greatly reduced: it is suggested that the contributing organs, for example, liver, are seriously disturbed in their output, which is in accordance with the fact that patients complain of illness before the onset of marked symptoms of the involvement of the peripheral nerves.

The conjugated sulphuric acids and the neutral sulphur do not appear to be proportionately diminished.

The purin bodies do not seem to be of great interest in beri-beri as might be anticipated, they were abundant in the critical urination of a highly oedematous case.

In a number of [illegible] on comparatively liberal diet in whom no beri-beric symptoms were detected, the excretion of urea and phosphoric acid was found to be remarkably low, though their uric acid was high.

[illegible]

MYCOSIS FUNGOIDES OR ALIBERT'S DISEASE.

By JOHN REID, B.A., M.D.

Mycosis fungoides, which was described by Alibert in 1814, is extremely rare in Ireland. The following case may therefore be considered to have special interest.

CLINICAL HISTORY.

The patient was 32 years old, small stature, and fair haired. Family history: All healthy and long lived, but one uncle suffered from pityriasis rubra. Prior to the first stages her illness she suffered from absolute amenorrhoea for three years. By trade she was a dressmaker, and accustomed to sit sewing for hours at a time; in fact, used to spend almost twelve hours daily plying her needle. Constipation and amenorrhoea, I wish to point out, were well-marked symptoms before the disease manifested itself. When I was asked to see her she presented the following phenomena of the pre-mycosic stage: Round, sharply-defined erythematous patches, with scaling, about 3 in. wide, on both cheeks, and covering anterior tragus of the ear. These patches healed in a couple of weeks. I regarded them at the time as purely eczematous. They left no marks, but shortly broke out again, and also on front of the chest, healing in the centre, and extending at the periphery, and so assuming irregular shapes which are almost characteristic of the disease. Strange to say, there was no pruritus in the area of face affected. This stage lasted three months.

The second stage next came on, and the patches became infiltrated plaques, with nodules over the face, head, back, and chest; they had a reddish-brown colour, and were only slightly scaled. After changing shape for about three months a condition of infiltration of the entire skin took place, from the level of the nipples down the skin became greatly thickened, but not excoriated or fissured. Above the level of the nipples the skin of the chest became fissured, and well-developed nodules soon appeared on face, scalp, and back of neck. The fungoid stage very quickly came on.

The characteristic tomato-like tumours appeared on the face and scalp only. As may be seen from the photograph they vary in size from a bean to a small orange, and are sessile, lobulated, and distinctly circumscribed, flat and ulcerated on the surfaces, and also on the edges where they rub together. I noticed also that a few growths disappeared by cicatrization, the process being helped by pressure of surrounding growing tumours. Pus was common between the tumours. One on upper lid closed the eye, and one on lower lip enlarged it in width to 2½ in. The photographs are absolutely characteristic. The tumours on the face show an almost lepra-like deformity, closing the eyes with their size and weight, producing the leonine brow and the elephantoid ear.

The variety of ways in which tumours come and go was not apparent here. None of these large tumours disappeared spontaneously, some ulcerated till they became mushroom-like growths, only two or three contracted to a smaller size from pressure, but never absolutely disappearing, and all articulating I might almost say, on the patient moving the muscles of the head and face.

The rest of the body was covered over with an exfoliative dermatitis showing great thickening of the skin and a generalized redness. The pruritus was confined to the lower limbs.

There was no enlargement of spleen or lymphatic glands: urine, normal; appetite, poor.

Microscopic Examination.

My friend, Professor McWeeney, of Dublin, carefully examined sections of the growth, and his report is as follows:

The piece of tissue was sent in formalin, and consisted of a subcutaneous nodule about the size of a pea, covered with skin, which was ulcerated towards one end of the mass. The piece was embedded in paraffin and a series of thin sections cut stained by various methods and microscopically examined with the following result:

The tissue consists of a mass of round and oval cells very closely packed and so obscuring the details of the original structure that no trace of it is now discernible. The cells consist almost entirely of nucleus, but little protoplasm being visible. The nucleus of some is round, of others oval. They take the nuclear stain rather deeply, as a rule, so that one might almost term the cells with round nuclei "lymphocytes," whilst the oval nuclei look as if they belonged to fibroblasts at an early stage of development. There are, however, no traces of any tendency to formation of fibrous tissue. At no place is there any tendency to necrosis or caseation. Blood vessels are scanty scarcely to be found at all towards the centre of the cell mass. Scattered through it are patches of somewhat different looking cells, surrounded by a hyaline, structureless investment not unlike a basement-membrane. These cells bear a certain resemblance to altered, so to speak "undifferentiated" cells of the deeper layers of the overlying epidermis. I look upon them (the cell groups) as appearances caused by oblique section of deeply penetrating downgrowths of the epithelium. At one end of the surface a very distinct swelling and proliferation of the epithelium exists, with formation of many anastomosing cylindrical downgrowths, which become fused together so as to form three superposed layers of cubical and columnar cells corresponding to the rete Malpighi, and separated by oedematous tissue more or less infiltrated with round cells. There are one or two masses of laminated appearance resembling cell nests in this neighbourhood, and the aspect of this part of the tissue strongly suggests squamous epithelioma. Careful study of the downgrowths, however, does not confirm this view. The nuclei of the rete Malpighi are in the resting stage, and present no suggestion of mitotic activity. There are no isolated islands of epithelium, and the depth of penetration of the downgrowths is not great enough to support the view that the process is a malignant one. About 1 mm. from this point the epidermis presents a totally different aspect, being raised up into a sort of minute vesicle containing clouds of cocci, prominent amongst which are beautiful long chains of streptococci. There are also some pus cells here and structureless débris. Another millimetre or two farther on the epidermis is partly destroyed by ulceration and covered with a crust of necrotic material (inspissated secretion), which is simply swarming with cocci, so numerous as to form streaks visible to the naked eye when stained by Gram's method. They lie on the surface and between the layers of the crust. Beyond this again the surface epithelium gradually dies away, being replaced by a layer of granulation tissue abounding in micro-organisms (cocci). This corresponds to the ulcerated part of the nodule.

The cellular tissue which formed the main mass of the nodule seemed quite free from micro-organisms. Not a trace of leprosy or other bacilli could be detected even with the highest powers usually employed. It is conceivable that cultural methods might be more effective. They were, of course, inapplicable in the present case.

I cannot regard the micrococci found on the surface of the ulcer and beneath the up-raised epidermis as responsible for the subcutaneous nodule (from the interior of which they are absent). They are to be looked upon as mere secondary intruders that have settled upon the undermined and devitalized epidermis, and have, no doubt, tended to accentuate the ulcerative process.

The film preparations sent along with the tissue represent the secretion that might be collected from such a surface. They show pus cells, red blood corpuscles, and a most various collection of micro-organisms. It seems clear to me that, taking the microscopical appearances, and the excellent photographs and lantern slides that have been enclosed that this is a beautifully-marked case of mycosis fungoides. There were no areas of anaesthesia, but the tumours were absolutely painless, and no bacilli present showing tuberculosis.

Remarks.

The four features to which I wish to call attention are:

1. Intense perspirations and exudations of a serous nature from the body. I have seen the counterpane quite stiff in the morning, and a white frost deposit on its surface after a winter's night. Flannel nightgowns after being worn for two days became so stiffened that on washing they tore in pieces and were useless for wear.

2. The appearance of the patient was repulsive, and the exhalations in the highest degree fetid, notwithstanding the great care taken in dressing the patient with different antiseptic dressings. She occupied a room on the third story, but the odour pervaded the whole house, and it was quite apparent on entering the front door.

3. There was an almost entire absence of itchiness, except on the legs: the face and scalp were never itchy. There was feeling in the tumours, as, on touching with a feather, the patient could always point out the contact spot.

4. These tumours were permanent, the microscopical report shows absence of fibrous tissue.

I need hardly say that with such extensive lesions this patient's life was a short one. This enormous discharging and fetid growth produced cachexia, on which coma supervened, followed by death.

Treatment in these cases is very unsatisfactory. I prescribed up to 15 mins. of Fowler's solution three times a day, for some months, which was exceedingly well borne: the result, nil. I also gave iodide of potash in the later stages, and various antiseptic dressings. I did not use the anti-streptococcus injections, as I considered them useless.

If it had been possible at the time, I should most certainly have tried the *x*-rays or the high frequency currents. I regret that a necropsy was not allowed.

INJURIES TO THE EYES IN RELATION TO THE WORKMEN'S COMPENSATION ACT.*

By J. JAMESON EVANS, M.D., F.R.C.S.,
Honorary Surgeon, Birmingham and Midland Eye Hospital.

Since the Workmen's Compensation Act has been in force, claims for compensation for injuries to the eyes have been numerous. In many cases the advice of a medical man—expert or otherwise—has been requisitioned in order to arrive at a proper estimate of the amount of injury done and, coincidentally, of the compensation due.

Any practitioner may be called upon to render his services on behalf of respondent or applicant, and it is my purpose this evening to consider what may be expected of him under such circumstances.

In the first place he should understand the main principle underlying the Workmen's Compensation Act. The Act was made so that those who receive injuries whilst at work might be compensated for the diminution in their wage-earning capacity resulting from such injuries. It follows, therefore, that the workman is allowed compensation for injury only in the event of that injury having caused a diminution in his wage-earning capacity. If a man loses one eye, and can do his work equally well and can earn the same amount of money as he did with two eyes, he can lay no claim to compensation beyond the half of his weekly wages payable during the time he is away from work. It is also necessary that the expert should have some knowledge of the trades in which the workmen are employed. It is only with the aid of such knowledge that he can form a just estimate of the vision required for the satisfactory performance of the work.

In addition to such extra-professional knowledge, the expert will naturally be expected to be thoroughly acquainted with his own professional work, that is, he must understand the value of the various functions which go to make up perfect vision, and must appreciate the effect of their limitations. It is to the consideration of these limitations that I wish to direct your attention. In the first place, I wish to state that, in my opinion, it is impossible to estimate the amount of loss of earning ability by means of mathematical formulae. Whenever such formulae are used, certain factors are arbitrarily fixed and the whole fabric is therefore indefinite and uncertain. It is therefore preferable to decide each case on its merits, giving due consideration to all that concerns the earning ability of the workman.

The workman's earning ability may be said to be dependent upon

I. His vision—in a broad sense.
II. His knowledge of his craft or trade.
III. His ability to compete with others in his work.

I. The Essentials of Useful Vision.

Adequate Vision.

Adequate vision, which here includes central visual acuity, visual fields, light and colour senses, and musculature and varies according to the trade in which the workman is employed. It is hardly necessary to point that what is recognized in ophthalmology as full vision (§ Snellen's types) is not demanded for the average workman's occupation. Indeed, such a high standard is seldom demanded of anybody in the strictest of

* Read before the Birmingham Branch of the British Medical Association.

Government services. Roughly speaking we may say that the vision required is something as follows:—

For professional men, and skilled workmen including soldiers, sailors, and post-office employés . . . $\frac{1}{2}$ to $\frac{1}{3}$ or less
For unskilled workmen . . . $\frac{1}{3}$ to $\frac{1}{4}$

If the patient has only one eye, the minimum would need to be raised somewhat for both classes. In this matter of the limits of useful vision, the specialist must to a large extent exercise his own judgement, as even in the same trade the visual demands on individual members vary considerably. The limits also vary according to the intellect of the individual. One man may be able to do with a vision of $\frac{1}{5}$ what another finds impossible with a vision of $\frac{1}{3}$.

Further, the age at which the depreciation of vision takes place has a bearing on the man's capacity for work. Defective vision acquired in early youth may exist without interfering materially with the earning capacity. Such a defect suddenly produced, by accident or otherwise, after the age of 30 or 40 may seriously hamper the workman, and can only be overcome by prolonged and patient practice, and in some cases it may not be entirely overcome at all.

In addition to central visual acuity, the visual fields, the light and colour senses, the musculature of the eyeball must be taken into consideration in estimating the value of economic vision. A pronounced defect of any of these accessory functions may reduce the earning capacity.

Limitation of the field of vision, due to injury, is seldom sufficient in itself to reduce the wage-earning ability. Even where one field is entirely lost, the loss is only about one-sixth of the previous (binocular) field.

Light and colour senses are not likely to require consideration, except in the case of marine or railway employés. Any marked defect of the colour sense is almost invariably associated with serious organic lesion of the optic nerve, retina, or choroid; so that the patient is rendered more or less incapable of work through the primary lesion. The only exception to this rule is the deficient central colour vision (central scotoma for colours), due to tobacco-poisoning. This is quite amenable to treatment, and should hardly be sufficient to maintain a claim for compensation, though it is frequently the determining agent in the depreciation of vision which may follow an injury and its attendant period of ease.

Muscular defects often prove troublesome. If there be a distinct paralysis of one or more muscles the resulting diplopia makes it impossible for the man to use the eye for working purposes. Under the circumstances he must be regarded as having only one eye; for an eye which cannot be used to earn a living must be regarded as blind from an economic point of view. I am, however, quite opposed to Zehender's principle that "full earning ability exists only with full acuity of vision, and any diminution of the highest limits means at the same time a diminution of earning ability." This is not in accordance with everyday experience, whether in occupations requiring higher or lower visual demands.

There is the question as to how far vision can be reduced in one eye without the loss of binocular vision. This must vary in individual cases, and can only be definitely decided by testing for binocular vision. As a general rule, it will be found that a patient who has a vision of $\frac{1}{10}$, or even $\frac{1}{5}$, in his bad eye, gets binocular vision. Binocular vision, to be of sound practical value, must be of that type in which the sense of perspective or solidity is fully appreciated. The presence or absence of this faculty can be tested by means of Hering's drop test. Other tests which are less exacting and perhaps less reliable are the prism test, Berry's stereoscope test, Snellen's letters, and Priestley Smith's "red white and blue" test. The prism test, being the only absolutely objective test, may in some cases turn out to be more reliable than any other. It will be described later.

II. THE WORKMAN'S TECHNICAL KNOWLEDGE.

This factor in the workman's wage-earning capacity has a greatly varying value in the estimation of compensation. An unskilled labourer requires little or no special training by way of preliminary education, apprenticeship, etc. People occupied in such trades often voluntarily change their occupation. In the case of the skilled mechanic, on the contrary, technical knowledge is a factor of considerable importance. Injury to the eye may reduce his wage-earning capacity by limiting the quality or quantity of his work, or it may compel him to undertake less remunerative work, or work which is more onerous or distasteful to him. A man may in such a case be able to earn the same money as previously, but has to work harder or for longer hours. The importance attached to this factor varies considerably with the propensities of the presiding judge.

III. THE ABILITY TO COMPETE WITH OTHERS.

This factor has a more important bearing on the question of compensation than one might at first imagine. An injured workman may find that his working capacity has in no way been reduced as a result of the accident. This may be the case even when one eye is entirely lost. Still, notwithstanding the patient's entire capacity and desire to resume his former or similar employment, he may find that, for various reasons, such as the prejudices of employers and employed against a workman with any disfigurement of the eyes, this is not open to him, and he has to seek less remunerative work. Further, the injury, whether slight or severe, may set up nervous symptoms which render the pursuit of his previous occupation, and sometimes of any other occupation, difficult or impossible. In the mildest form this may be only a slight nervousness or timidity in resuming work at which the injury was received.

I believe that this is not very uncommon in some workmen who were previously free of all nervousness and are perfectly honest in their statements. Complaints on this score are, however, frequently made in order to avoid returning to work and so be able to draw compensation money. Another form in which physical incapacity for certain occupation may follow eye injuries is due to the ease with which vertigo is induced in some patients who have lost one eye. Others, again, suffer from slight asthenopia and conjunctival congestion with photophobia for some weeks.

The most severe complications may arise from comparatively slight injuries. These are included under the generic term of "traumatic neuroses," which includes types which are hysterical, neurasthenic, or hystero-neurasthenic. They are difficult cases to cure, and render the patient of little use for work. Those who are anxious to work are easily exhausted and break down under very slight exertion. It is practically impossible to give a definite prognosis in such cases, but once thoroughly established they are apt to go on for months and even years.

BINOCULAR AND MONOCULAR VISION.

Let us consider the position of a man who has admittedly lost the use of one eye. The higher form of binocular vision—which includes the appreciation of solidity and accurate judgement of distances—is a complex act in which the following factors are concerned:

1. The formation of two images on functionally corresponding parts of the two retinæ.
2. Accommodation and convergence.
3. Size, form, and shadow of objects.
4. Aerial perspective.
5. Movements of the head.

Of these factors, the first is the most important in producing the effect of solidity. It is evident that with the loss of one eye the patient's judgement of solidity and distances by this primary and most important means becomes permanently lost. The other factors concerned still remain to him and can be developed to such an extent that the loss of one eye is little, if at all, noticeable or inconvenient to him.

At first sight it might appear that convergence is not available by the one-eyed; this, however, still remains, and a man with one eye converges just as if he had two eyes projecting the retinal field into space along a line proceeding from a point midway between the two eyes as if they were united into one cyclopic eye.

Accommodation and convergence are of considerable importance when near objects are viewed, and in the one-eyed they become of increased value, as the result of a development of the muscular sense or rather of a more sensitive appreciation of the nervous impulses required for the accommodation and convergence for objects at varying distances.

The size, form, shadows, and overlapping of objects and the amount of aerial haze around them are likewise of equal value to the one-eyed as the two-eyed.

Movements of the head, and the production of what is called "monocular stereoscopic parallax" is probably the most important factor in the judgement of distances with one eye. It is a faculty which can be highly developed by practice. After the sudden loss of one eye mistakes in the estimation of distances (by a sound eyes) amount to 2 cm. or 3 cm. After some practice, varying in time from one or two months to as many years, and especially if the patient is employed at work in which the judgement of small distances is demanded, for

example, jewellers, dentists, ophthalmologists, the errors are reduced to about ½ cm., which are nearly the same as those made by individuals with two eyes. It is not easy to estimate accurately the capacity of the individual for estimating distances. Hering's drop test is not suitable for the purpose, as such an instantaneous appreciation of distances can only be formed when the primary factor (the formation of double images) is present. Rough tests for the purpose are the pouring of water into a glass, knocking a cork down with a penholder, and lighting a candle with a long taper, etc. Pfalz has invented an instrument which he calls a "stereoscoptometer" for the purpose of measuring the capacity for estimating distances. Some such means seems absolutely necessary to estimate how far a patient has recovered his capacity for judging distances—a matter of prime importance in the estimation of the reduction in the wage-earning capacity of many workmen.

The extent to which a patient may recover his power of estimating distances, and the rapidity with which that recovery takes place, varies considerably according to the patient's age at the time of the accident, the suddenness of the loss, and the patient's intelligence. A child, or a man under 20, probably within a few months gets accustomed to his altered circumstances, and is only conscious of his loss in so far as the field of vision is limited, and which demands extra caution in turning towards the blind side, and more extensive movement of the head in aligning with a remaining left eye.

The case is very different with a workman past middle age. He finds great difficulty in judging small distances. He may take two or three years before he recovers the faculty. Some, I believe, never recover it entirely. Such a deficiency, even if only of a year's duration, may be enough to compel the workman to relinquish an exacting but lucrative occupation for a less skilled and a less remunerative one. The suddenness or otherwise of the loss of vision in one eye makes a considerable difference in the degree of inconvenience which results to the patient. A gradual loss is associated with a corresponding development of the monocular faculties, and gives rise to little or no inconvenience. So much is this the case that many patients never discover their loss, or only discover it by accident. A sudden loss, on the contrary, especially in grown-up people, is always associated with a good deal of inconvenience and awkwardness in performing certain acts, such as pouring water into a glass, lighting candles, judging of textures, etc. The workman's intelligence and the assiduousness of his efforts to regain his lost faculties are likewise important factors in the extent and rate of recovery. It is just to expect every man to do all in his power, both by way of using what intelligence he has, and by patient practice, to recover these faculties. It is also legitimate to expect him and the employer to take every precaution—for example, by wearing protecting goggles and having the machinery guarded—to avoid the recurrence of the accident which deprived him of his eye. If these precautions are effectual he can hardly be expected to be exempted from resuming work which, though otherwise risky and difficult at first, can by these means be safely and efficiently performed after a month or two.

Comparative Value of the Eye Lost.—Some authorities hold that there is no difference in the comparative value of the eye lost. Personally, I am inclined to think that the right eye is more serviceable than the left to a right-handed man. After the loss of one eye the value of the remaining eye is immeasurably increased, for its loss would mean total blindness—a condition which has a deep significance beyond total incapacity for work. This fact in itself may reduce the earning capacity of a workman in more ways than one. The man may be so afraid of losing his eye that he will shun risky though highly remunerative work and confine himself to safe but unskilled and badly-paid labour. He may also be so much afraid of "straining" the eye that he is disposed to limit the amount of work in order to "save" the eye.

Employers and insurance companies regard the remaining eye as of such increased value that they are loth to accept the workman for any work which is associated with any risk of injury to the eye.

Sympathetic Ophthalmia.

One more consideration in the estimation of compensation is the possibility and probability of sympathetic ophthalmia. No one can with certainty tell whether an injured eye is going to set up sympathetic ophthalmia or not. But the surgeon has been taught by experience to regard some forms of injury and inflammation as peculiarly liable to set up sympathetic inflammation, and can warn the patient accordingly. It is well for the surgeon in all cases to protect himself by placing the responsibility of retaining a doubtful or dangerous eye on the patient or his guardian. At the Eye Hospital we have printed forms for this purpose. If a patient refuses to have a dangerous eye removed on the advice of one or more experienced ophthalmic surgeons, I doubt if he can legitimately claim for the loss of more than one eye, as the timely removal of the injured eye would have left him with one eye in its primary condition. If he retains a dangerous eye through ignorance of the danger or through ill-judged though qualified advice, the case is different, and I suppose the employer must suffer the consequences. In any case it is a matter which would probably be decided in court.

Simulation.

Simulation has not been very unusual since the Workmen's Compensation Act has been in force. It may assume the form of simulated complete or partial blindness, in one or both eyes, after an accident; or an old or recent disease of the eye or its appendages may be ascribed to an accident; or the subjective effects of slight injuries may be exaggerated or even deliberately aggravated and prolonged so as to avoid work and continue drawing compensation money. Assumed blindness (amaurosis) in one eye is easily detected by a careful examination of fundus and media and the reaction of the pupils. It is well also to prove the existence of binocular vision by means of one or more of the tests already mentioned—namely, Hering's drop test, Snellen's letters, or the prism test. The latter, being purely objective, is preferable in these cases. It is carried out by placing a fairly strong prism—say 6°—before the affected eye. If binocular vision exists the eye will move inwards to avoid diplopia, and when the prism is removed the eye will be seen to move out again, and resume its primary position. It is well to repeat the experiment with the prism over the other eye. As a rule, it is enough to place a +10 D lens before the sound eye, and a plane or correcting glass before the supposed blind one, and to casually ask the patient to read the test types, taking care that he does not find out which eye he is using by shutting the affected eye. It is seldom that he does not fall into the trap and read all he can, thinking that he is using the sound eye. If these methods do not disclose the simulation, some of the other numerous tests must be tried.

Exaggeration of really existing defects of vision is not so easy to demonstrate; as a rule, it is disclosed by the simple method last mentioned. It is seldom that the patient does not betray himself in some way or another during an examination: and when the appearances of the media and fundus and the exclusion of organic or functional disease indicate the probability of at least moderate vision, the patient's statement that his sight is very bad should be regarded with much suspicion, and should lead one to make repeated and varied tests for distant and near vision.

It must be remembered that vision may be really reduced as the result of tobacco poisoning. This is somewhat liable to occur in this class of patient, owing to the fact that, having nothing to do, they consume more tobacco and probably more beer, and eliminate the poisonous products less freely than they do when at work. These cases are characterized by the symptoms and signs of tobacco amblyopia.

In cases where defective vision due to disease is ascribed to an injury, the surgeon will generally be quite able to decide, from the appearance of the lesion and general symptoms, how much is due to the disease and how much to the injury. Cases of traumatic neuroses, however, present many difficulties.

The natural recovery from an injury may be delayed by the introduction of foreign bodies into the conjunctival sac. In such a case the patient should be carefully though unobtrusively watched and the contents of the conjunctival sac periodically examined for evidence of soot, tobacco, bits of shell, etc. This tendency to simulation on the part of the patient is undoubtedly due to the fact that, since the passing of the Workmen's Compensation Act, the workman expects compensation for all injuries.

When he realizes that he can only get this compensation by proving a reduction in his wage-earning capacity, he tries to make a case for himself by simulating. This state of affairs could be overcome by the granting of a reasonable sum of money as compensation for any actual loss or disfigurement which the patient has suffered apart from any diminution in earning capacity. When no such loss has

occurred the patient should be compelled to resume work. It would be necessary for this purpose to have a certificate from an ophthalmic surgeon—probably from two surgeons, one representing the workman and the other the employer. There should be no difficulty on the part of the two medical men in coming to an agreement on such a matter.

THE POSITION OF THE EXPERT.

In conclusion, I wish to draw your attention to the position of the expert with regard to fees in these cases. If a surgeon examines and reports on a patient on behalf of applicant or respondent, he may be called upon to give evidence at court on subpœna, and at the usual rate of a guinea a day at county court and half a guinea at police courts. To get any more, a private arrangement must be made with the party who desires the evidence. Should they refuse to make such an arrangement, it is in the expert's power to refuse to make the preliminary examination, or to accept the ordinary fees to medical witnesses allowed by the court.

ON REMOVAL OF THE CRYSTALLINE LENS IN HIGH DEGREES OF MYOPIA, AS ILLUSTRATED IN SIXTY CASES.*

BY SIMEON SNELL, F.R.C.S.EDIN.,

Ophthalmic surgeon, Royal Infirmary, Sheffield, and Professor of Ophthalmology, University College, Sheffield.

FOUR years ago I contributed a paper to the discussion on the operative treatment of high myopia before the Ophthalmological Society, and which is published in the *Transactions* of that Society. I there dealt with twenty operations. Since then I have increased the number in which I have removed the crystalline lens to about sixty, and it is the experience thus gained that I purpose bringing before your notice to-day.

The deplorable results associated not infrequently with high degrees of short sight are well known. The inconveniences attendant on the use of the necessarily powerful glasses are great. Without their aid, those unfortunately afflicted with high myopia are well-nigh blind, and not infrequently having removed and deposited their glasses they are with difficulty able to find them again. To relieve such cases as here depicted the removal of the crystalline lens has been suggested and performed with success in this country and abroad during the last ten years.

Donders regarded the cure of myopia as belonging to the *pia nata*. Before his day the removal of the lens had been suggested but, writing in 1864, Donders treated the proposal with ridicule, and insisted that such a momentous undertaking would exhibit culpable rashness. The forty years which have elapsed since Donders wrote these words have witnessed many changes in ophthalmic surgery. Asepticism, which has enabled so many operations to be accomplished with safety in general surgery, has extended its benefits, if in a less degree, to the operative surgery of the eye, and the attendant risks in careful and skilful hands are much less now than formerly.

With a defined limit the removal of the crystalline lens for high degrees of myopia may now, I believe, be regarded as a recognised and suitable method of treatment. By its means the myopia will be either entirely obliterated and the eye become emmetropic or a varying degree of low myopia or a low degree of hypermetropia result, according to the original degree of shortsight.

A consideration of my cases will bring into view several points which should be noted. The number of patients operated upon has been the number of eyes so. It may often be wished to be satisfied with only treating one eye, and my rule has been to take the worst eye. Frequently, however, my experience is that after passing an iridectomy operation on one eye the patient has been pleased with the result that urgent applications is made for the latter to be similarly treated. Bilateral operations are practised among those who have retained their one eye, but I have operated upon and I have been desirous to keep this second eye extra. I am always most willing to consider the question in young adults. In one instance, however, a married woman, Mrs. D., aged 48, I treated both eyes four years ago with most gratifying results.

The number of operations reviewed in this article is 59.

* Presented (in abstract) at the Ophthalmological Section of the British Medical Association.

There were 40 patients: in 21 only one eye was treated and in 19 both eyes were operated upon. Of the 40 patients, 11 were males and 29 were females. Of those who underwent operation in both eyes 13 were females and 6 were males.

One patient was aged 48, but this was the only instance over 40. Of the others, one was 37, another 35, and two 32. Those between 20 and 30 numbered eighteen, as follows: three aged 30, one aged 29, four aged 28, two aged 27, three aged 26, one aged 25, one aged 23, two aged 22, and one aged 21. Under 20 there were seventeen, namely: two aged 19, five aged 18, one aged 17, three aged 15, one aged 14, one aged 13, two aged 11, one aged 10, and one aged 9.

Of the instances in which the degree of myopia is accurately recorded I find that 28 operations were performed on eyes with 20 D and above, namely, 15 for 20 D, 1 for 21 D, 2 for 22 D, 1 for 23 D, 1 for 24 D, 2 for 25 D, 3 for 26 D, 1 for 27 D, and 2 for 28 D. The lowest degree for which removal of the lens was performed was 10 D, and this in one instance only. There was 1 eye for 11 D, 2 for 12 D, 2 for 13 D, 3 for 14 D, 1 for 15 D, 3 for 16 D, 10 for 18 D, and 1 for 19 D. The number, therefore, between the eyes of 10 and 19 D inclusive was 24. It will thus be seen that practically all the operations have been performed on eyes having 12 D and more degrees of myopia, the two exceptions being 10 D and 11 D respectively. Moreover, the greatest number of operations have been for 18 D and upwards, 18 D being the degree in 10 eyes and 20 D in 15.

If the operation be limited, as I believe it should be, usually, to cases with a myopia of 14 D and upwards the total number of suitable cases presenting themselves must always be a comparatively small one. In this connexion I have taken from the casebooks of my private practice the degrees of myopia in 3,162 consecutive patients or 6,324 eyes, a number which should give a fair idea of the proportion of the different degrees of myopia. The cases were roughly divided into those above 10 D and those of 10 D and under. If the division had been made at a higher degree of myopia, which, strictly speaking, it should have been, as, save in exceptional instances, the operation would not be performed for less than 13 D or 14 D, the total number of instances suitable for operation as far as the degree of myopia is concerned would be decidedly less.

Of these 3,162 patients I find that in 1,159 the degree of myopia was equal in each eye. In 2,003 the eyes were unequal in refraction, that is to say, that while myopia was present in one eye it was so to a higher degree in one eye than the other, or in some the second eye may have been emmetropic or hypermetropic, but the greater number would be myopic. Of these 2,003 eyes the degree of myopia was higher in the right eye in 1,029, and in the left in 974. Of the total number of eyes under review, namely, 6,324, there were 320 in which the degree was more than 10 D, or a trifle over 5 per cent. The record of my infirmary patients would, I expect, show a larger percentage of the high degrees of myopia, as those with the low degrees less frequently seek advice there than is the case in private practice.

Extraction was deemed unsuitable, and in no instance has it been adopted. In each case the transparent lens has been needled, and at the end of a week, sometimes more or less, when the lens substance has become sufficiently broken up, an incision with a broad needle has been made a little distance inside the periphery of the cornea, and the softened lens has been allowed to escape, or has been coaxed out with the aid of a curette. The pupil has previously been dilated with atropine, and by keeping the situation of the corneal wound inside the limit to which it dilates, the danger of entanglement of the iris in the wound is materially lessened. This operation is similar, of course, to that frequently performed for zonular and other forms of cataract. In all cases a watch must be kept for increased tension, which is liable occasionally to be set up by the swelling of the lens. In a few of my cases glaucoma has in this way supervened. Removal of the broken up lens was, however, promptly performed, and was followed by immediate subsidence of the pain and sickness, and with excellent visual results.

When operating endeavour is, of course, made to remove as much of the softened lens matter as will escape without undue pressure on the globe. What remains, however, will undergo absorption, but a further needling may be required. Needling may also be necessary for opaque capsule and it is therefore important to bear in mind that treatment in some cases may be somewhat prolonged. In one of my early instances I was perhaps hardly sufficiently alive to the importance of this and operated rather against time, as the patient was leaving England.

If due regard be paid to asepsis and the use of sublimate or some other antiseptic solution which are essential to eye operations, the dangers attendant on this operation are trifling. The introduction of any suction apparatus is altogether unnecessary, for by gentle coaxing the softened lens matter readily comes away through the corneal wound. It is desirable, however, that after the needling operation the patient be kept under close observation, for, as mention has already been made, in some instances the swollen lens is apt to induce increased tension as signified by pain and sickness, and the immediate performance of the second operation for the removal of the broken-up lens will be indicated. A free opening of the capsule is practised, because it is held that by permitting the broken-up lens to escape into the anterior chamber increased tension is less likely to be induced. This is not, however, the only period that it is necessary to be on one's guard against the onset of increased tension.

In a certain number of cases after the usual operative measures have been completed and the pupil is free, or nearly so, of lens matter, increased tension may occur. In these instances atropine has very properly been used to maintain a dilated pupil whilst the remnants of the lens were undergoing absorption. The atropine may be discontinued and eserine substituted, but it will, in my experience, fail frequently to overcome the glaucomatous condition. The best plan is to tap the anterior chamber, and to repeat if necessary the paracentesis. In the few instances that increased tension has arisen in the circumstances just now mentioned, paracentesis has acted well, and the results in those cases have been among my best.

The operation performed in my cases is similar to that practised for lamellar cataract, and the dangers are the same. A bead of vitreous may present at the wound, but this should very rarely occur if care has been taken to limit the tearing of the capsule to the anterior capsule, which should readily be done, and also if too great pressure on the globe is avoided when the lens is coaxed out by the curette.

My practice has been to indicate to a patient the advantages which may be gained by operative measures, but at the same time to point out that to achieve the benefits he or she must be prepared to face the risks which, however, are not great. The decision is left to the patient.

Some authors have alluded to the danger of detachment of the retina resulting from removal of the crystalline lens for high degree of myopia. I have no experience of extraction of the lens in these cases, and cannot therefore say whether it is a danger by that method or not. All my cases have been treated in the manner I have described, and certainly detachment of retina is not a danger of moment in my experience. I recollect only two instances: one was mentioned at some length in my paper before the Ophthalmological Society.

Case I

The patient was a young woman, aged [illegible]. The lens was needled, and subsequently evacuated in November, 1[illegible]. The result up to May [illegible], was excellent. Myopia of [illegible] D had gone down to [illegible] D, and vision at this time was [illegible], slightly [illegible] than the [illegible] owing to the serious illness of a near relative the patient had very anxious work and day nursing thrown upon her. Vision rapidly deteriorated, and on June 18th it was reduced to [illegible]. Besides some [illegible] changes, the gross changes were not [illegible] eye [illegible] at this point or a little worse for some months, but she had not been under examination for some time. It should be mentioned that when the lens matter was evacuated a small amount [illegible] escaped.

Case II

The second was that [illegible] a domestic servant. Both eyes had been operated on with excellent results. A year or more afterwards detachment of retina occurred in one eye. A [illegible] was in very feeble health. The other eye has remained good as far as I have heard.

These are the only instances of which I have either record or recollection in the 59 eyes which have been operated upon, and many of my cases have been under observation more or less for several years. Myopic eyes—especially the high degrees which are dealt with in this paper—are, it is well known, prone to detached retina. They are cases in which a sword of Damocles is always hanging over their heads. Even, therefore, if the percentage was much larger, as it has been in some published records of instances in which detached retina has occurred after varying periods subsequent to the operation, it could hardly be regarded as discrediting the operative methods here advocated.

The results of a successful operation to the patient will be that vision is as good or better without glasses for distance as it was previously with their assistance. The myopia will have disappeared or be present only in low degree, or there may be weak hypermetropia, according to the amount of myopia originally existing. It would be very unusual for a patient not to express his or her gratification with the change that has been brought about. There are few subjects in ophthalmic surgery that elicit such expressions of gratitude as do these operations for the relief of myopia.

I give here an extract from a letter received from a patient operated upon some few months since. She was a teacher, aged 28, and the degree of myopia in each eye was 28 D. The right eye only was treated. Before operation, with correction with [illegible] 28 D, V = [illegible]; after operation, without the aid of glasses, V = [illegible].

The benefits received from the operations are so numerous that I hardly know how to specify them. The operations, of course, [illegible] appear nothing short of a miracle. The fact that I had worn excessively strong glasses for twenty two or twenty three years [illegible]. Prior to the operation objects a few yards distant were quite unrecognisable, clear vision was only obtainable at an inch or two from the eye. The uncertainty of locating the outline of objects caused me great trouble, inconvenience, and, at times, even fear. For instance, in crossing the road the edge of the pavement was always uncertain. The same may be said of steps to vehicles, stairs, etc. Nothing of that annoyance or trouble uncertainty remains, all things are now clear. I see clearly, distinctly, and have quite a long range of vision, not only that, but the continual tired, aching feeling, and generally not sensation have entirely gone, and it is saying a great deal when I say that whereas for many years my eyes have been an ever present feeling, I now sometimes forget that I have eyes, so very natural and painless are they.

[Since this article was written I have operated on four additional cases, all successful; three females, aged 26, 15, 9, one boy, aged 10; the degree of myopia of each in this order being 18 D, 14 D, 18 D, and 15 D.]

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ALLEGED POISONING IN AN INDIGO DYE WORKER.

The following case of poisoning attributable to emanations from the contents of a mixture used in the process of calico-dyeing may be of interest;

A man, aged 37 years, came to my surgery about 6 p.m. on Christmas Eve, complaining of faintness and nausea. He said that about an hour previously, while preparing a dye mixture, he was suddenly seized with nausea, followed by repeated vomiting and prostration. He did not get better when out in the open air, so he came for advice. The man was of sturdy build, but looked haggard; he was much agitated, and in dread of death.

The first thing that struck me was the changed appearance of his skin. His face was covered with a reddish rash, the mucous membrane of his mouth had a brownish discoloration, and there were two rounded black spots on the cheek. The rash extended to the general surface of the body, and scattered over the trunk, upper arms, and thighs were groups of dark spots similar in character to those on the face. They were each a little smaller in size than a shilling piece, quite round, very black in the centre, and shading off to a grey towards the circumference. They were mostly in groups of five, arranged lengthwise, but were each quite distinct—not raised, and not disappearing on pressure.

The pulse was 90 per minute, the temperature 98.8°, heart and respiration were normal. He was perfectly clear in all his statements. His wife who accompanied him told me that he was temperate and careful as to his food and habits. I could not examine the contents of the stomach as the repeated vomiting had emptied it, but was told that he had not taken anything injurious by the mouth in the shape of food or drink. His pupils reacted normally to light, the knee-jerk was slightly increased, otherwise nothing abnormal was to be noticed.

The sample of urine given me was normal. The man said he was sure he was not going to live, as some years ago a similar case happened at their works, which ended fatally.

It was evident that the attack was caused by the inhalation of some poison which emanated from the dye mixture the man prepared, but I could not make sure what particular poison it could have been.

The treatment ordered was rest in bed and an aperient of magnesium sulphate followed by bismuth. The patient improved rapidly. The rash became fainter on the following day, and he was able to retain fluid nourishment without any nausea. On the third day from the time of the onset the

red rash had disappeared, and all that remained of the black spots were a few greyish crescentic lines. The patient felt fairly well, the only anxious point being occasional periods of drowsiness and very sluggish reaction of the pupil to light. The next two days he continued to improve and seemed almost well, but he died quite suddenly on the sixth day from the onset of the symptoms.

At the inquest no fresh light was thrown on the actual cause of death. It was concluded that the man died of blood-poisoning caused by the inhaling of some noxious substance which affected the blood directly and led to heart failure. What kind of substance it was we failed to ascertain. No aniline dyes were used.

It would be interesting if any one else has met with a similar case, as I have not been able to find a description of a like group of symptoms, caused by a definite poison in any of the standard works on toxicology.

Wellington, Manitoba. BARNETT SALE, B.A.Lond., L.S.A.

A NOTE ON VACCINATION IN THE INCUBATION STAGE OF SMALL-POX.

Seven families in which small-pox had broken out among the children were removed to isolation huts, and while there each family together with its sick member lived in the same hut.

Family No. I consists of a mother and two children. The eldest, aged 12, had confluent small-pox. The second day after isolating the family the youngest child was vaccinated and took well, showing typical vaccine vesicles, with fever and enlarged axillary glands on the seventh day.

Family No. II consists of a mother and four children, the youngest also with confluent small-pox. The other three children of the family were vaccinated, also on the day following isolation; two took well and one imperfectly.

All the four vaccinated children contracted small-pox, but of a very mild discrete form, the initial symptoms of small-pox appearing eight, nine, or ten days from the date of vaccination and running a typical course. The imperfectly-vaccinated boy took small-pox more severely. This boy had evidently been inoculated with small-pox direct, as while nursing his little sister with small-pox he had been scratched by her nails on the chest. Four days afterwards a sore, much resembling a vaccination vesicle but more depressed, developed on the site of the scratch, together with fever and enlarged axillary glands. He was vaccinated two days after the appearance of the sore, but as before said took imperfectly. He showed signs of small-pox nine days after the scratch.

Vaccine was taken from the arm of the child of Family I on the seventh day, and before she showed signs of small-pox, and was used to vaccinate 8 Indians not formerly vaccinated and 2 whites recently vaccinated in infancy. Of the 8 Indians 5 developed imperfect vaccine vesicles and 3 nil. The 3 others did not take. I rather anxiously awaited to see if this vaccine might not protect from small-pox, but it did not do so.

The facts are interesting as showing that

1. Vaccination will take and run a typical course in those who are also in the incubation period of small-pox.

2. Vaccination shortly after exposure to contagion of small-pox will modify the small-pox, but may not prevent it.

3. The vaccine may take on to typical vesicles, but the vaccine will not produce typical vaccine vesicles in those who are in the incubation.

4. Vaccine taken from the vaccine vesicles of one who at the same time is in the incubation period of small-pox will not convey small-pox.

In the above cases the vaccine vesicles matured before the small-pox rash appeared. I have vaccinated Indians somewhat earlier in the incubation period of small-pox, the small-pox appearing three or four days after the vaccination, and even in these cases the small-pox was evidently mild and modified. I am under the impression that vaccination at any time previous to the rash will modify the small-pox.

The Cree Indians have had, from experience, a firm belief in the protective action of vaccination. As a rule every Indian, and a little earlier in life, can be vaccinated at a time. They will [illegible] to procedure at the vaccinating tents. They can even be vaccinated as they are busy about applying for medical and in other directions.

As a further proof of the protective action of vaccination of such a type as I have described I may state the following.

In a family named Aramaya, consisting of two children, all the children were vaccinated two years ago, but only one took. Last year, during an epidemic of small-pox, all the children except the successfully vaccinated one contracted the disease, and two died. This vaccinated child slept most of the time in the same bed with two others suffering from small-pox, but nevertheless escaped entirely.

In a family named Aramaya, consisting of two children, one was vaccinated. The unvaccinated child contracted small-pox; the vaccinated one contracted measles. They both occupied the same bed during their illnesses, and both recovered. The vaccinated child did not get small-pox.

It may be interesting to state that I have seen various cases of small-pox and measles combined. The combination is invariably fatal.

Jujuy, Argentina. WILLIAM C. PATERSON, L.R.C.S. and P.Edin., L.F.P.S.G.

THE MANAGEMENT OF THE ICEBAG IN THE TREATMENT OF PNEUMONIA.

IN the Harveian Lectures for 1903 Dr. Lees points out the difficulties in the use of the icebag in the treatment of pneumonia—namely, (1) the discomfort caused when the patient has to lie on the icebag when applied to the back of the thorax; (2) the keeping of the icebag in position; (3) the prevention of leakage.

To overcome these difficulties the observance of the following practical points will be found of use:

1. The icebag can be rendered comfortable to the patient by lightly packing it inside with hair or wool, and using the ice finely broken mixed with this packing. The packing will greatly diminish the thickness of the wool required over the skin, and thus allows of the icebag being placed closer to the skin. It also prevents the rubber of the icebag being injured by the ice particles.

The use of the air-bed adds to the comfort of the patient by being less resistant over the icebag than an ordinary bed.

2. The icebag can be kept in position by using a well-made jacket of spongio-piline provided with armholes, and cut down both sides. Tapes are attached to the edges of the cut sides, so that they can be drawn together and fixed by tying the tapes. The cap of the icebag is passed through a slit made in the spongio-piline where necessary over the centre of the area to be covered by the icebag.

The division of the jacket in the sides will allow of the examination of the part without much disturbance of the patient. The spongio-piline will keep the surface warm, and thus assist in producing derivation of the blood from the congested area. It is also absorbent. The alteration in shape of the icebag when applied to the side of the chest, due to its pendant position, may be prevented by introducing into the icebag a circular piece of pliant wire material, and then moulding it to the required shape.

3. Leakage is often due to a spicule of ice injuring the rubber; this is guarded against by the use of the internal padding of the icebag, using the ice finely broken up, and having an air-bed in use. By placing a piece of oil silk over the aperture before screwing on the cap, so as to include it between the threads of the cap and the ring, the aperture will be rendered watertight. It is a good plan to place a few layers of blotting paper between the icebag and the skin.

There should be two relays of icebags ready for use. The form of icebag most suitable will vary according to the position and size of area to be covered. Where a large area is to be covered a single large icebag is sometimes preferable to two or more of the ordinary icebags. Bailey's adjustable water bottle need as an icebag will be found useful, also the form of icebag made by Mennecke and Co., New York.

Belfast. S. T. BROOKS, M.B., B.Ch.

CASE OF DOUBLE URETER.

THE following condition, discovered in the course of a post-mortem dissection, may have its clinical as well as its anatomical interest. The body was that of a female, about [illegible] stage, who had died, I was informed, of phthisis. In the dissection of the abdomen I found the kidneys both larger than usual, quite healthy, and normally placed. There was a very slight notch in the outer border of each, so slight as scarcely to amount to double kidney. From each kidney ran two ureters with separate pelves attaching them to the kidneys. The pelves were situated one superiorly to the other, and on making a section of the kidneys, no communication was found between them. The blood vessels divided so as to give a separate blood supply to the parts of the kidneys drained by the separate pelves. On the right side

the ureters ran, gradually approaching each other, and apparently becoming one 5 m. from their origin. However, on dissecting them apart it was found that they ran separately in a common connective tissue sheath for a further couple of inches. Just before reaching the pelvic brim they became one and ran in the normal course to the bladder. On the left side the two ureters ran separately to near the pelvic brim; from this point they ran side by side invested in a common connective tissue sheath to the bladder, the wall of which they entered in the normal position. On making an opening in each and passing a fine probe it was found that both continued separate through the bladder wall and opened into this viscus by distinct openings. The posterior opening corresponded to the normal one, forming with that of the other side and the urethra the triangular "trigone" of the bladder. The anterior one was placed in the line of the side of the triangle, one third of an inch nearer the urethral opening. I may incidentally mention that in this body the caecum lay in the right side of the pelvis, with the vermiform appendix in the right side of Douglas's pouch, while the ileo-caecal valve was in front of the right sacro-iliac synchondrosis. There was also a marked sigmoid hepatic flexure of the colon.

Matlock. GEORGE C. R. HARBINSON, M.B., B.Ch.

THE INCUBATION PERIOD OF MUMPS.

IT is sometimes asserted that the incubation period of mumps may extend beyond the twenty-four or twenty five-days which is usually considered to be the limit. In two cases which have recently come under my notice this limit was exceeded.

On May 6th, a week after the beginning of term, a boy was isolated with mumps. On June 1st the next case appeared, and on June 3rd he was joined by another. These two constituted the "second batch," which was duly followed by a "third batch" of ten cases between June 18th and June 27th, all of them occurring within the twenty-five days' limit. It is important to add that the boy who sickened with mumps on June 3rd showed signs of the eruption of chicken-pox a week later, and must have been incubating this complaint during the later period of his mumps incubation.

It would be interesting to know whether the incubation of two infectious diseases at the same time retard their development. Some time ago, in an epidemic of measles accompanied by influenza, I noticed that the incubation of the measles was distinctly longer than is usual.

Matlock. EDWARD PENNY.

ADRENALIN CHLORIDE CUM CHLORETONE IN EPISTAXIS.

ON the morning of July 8th, 1903, I was hurriedly summoned to visit Mrs. H., aged 72 years, whom I found suffering from profuse bleeding from the right nostril and through the mouth as well. She had fainted before I saw her. I passed a stream of hot water through her nostril and out of the mouth, and then lightly packed the right nasal cavity with aseptic gauze steeped in one part of adrenalin chloride cum chloretone (Parke Davis), and two parts normal salt solution. The bleeding ceased at once, and there was no return; but, to be on the safe side, I also administered a hypodermic of ergotinine citrate $\frac{1}{30}$ gr. The patient was very prostrate for a couple of weeks, requiring very careful nursing. She made an excellent recovery, and has had no return.

Manchester. C. STENNETT REDMOND, L.R.C.P.

IRIDECTOMY AS A PROPHYLACTIC MEASURE IN GLAUCOMA.

I SHOULD be glad to know whether, in performing the operation of iridectomy in primary glaucoma affecting one eye, it has ever been the practice to do this operation on the unaffected eye also, with the object here of preventing the onset of the disease. Such an operation performed on the second eye as soon as the iridectomy wound in the affected eye has healed commends itself to me for many reasons. It is well known that in a large proportion of cases of monocular glaucoma the patient again comes up after a variable period, suffering from the same affection in the other eye. In the majority of such cases a certain amount of damage has then been done in this eye. The visual acuity is less, and the field diminished, sometimes very much so, especially when the absence of pain has caused the patient to overlook the onset of the disease, or when it takes on fulminating characters, in which case the vision may be totally destroyed in a few hours.

The fact that the anatomical conditions and predisposing causes are the same for both eyes, and that it takes very little to determine the onset of the disease in the hitherto unaffected eye is grasped by ophthalmic surgeons, as evidenced by the very prevalent practice of instilling eserine into the unaffected eye when doing the operation of iridectomy for glaucoma.

It seems to me, considering the seriousness of the disease and the known safety of iridectomy in eyes with normal tension as when done as a preliminary operation, or for visual purposes, that iridectomy is a feasible operation as a prophylactic as well as a curative measure in glaucoma. The atrophy of the iris, the shallowness of the anterior chamber, and the haziness, which so often make the operation of iridectomy difficult in these cases, would be avoided, and the preservation of good vision might reasonably be expected as a result.

H. HAWARD BYWATER,
Late House Surgeon and Registrar [illegible]
to the Central London Ophthalmic Hospital.

Preston.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SALISBURY INFIRMARY.

A CASE OF PANCREATIC HAEMORRHAGE.

(By GILBERT KEMPE, M.D., B.S., Honorary Surgeon to the Infirmary.)

ON December 11th, 1902, a nurse was taken suddenly very ill just as she was coming on duty at about 9 p.m. I was called to see her and found that she had suddenly been seized with severe pain in the upper part of her abdomen and had vomited shortly after a hearty supper at 8.30. I saw her at 9.15. She was then in a state of profound collapse, with a subnormal temperature, pale face, cold and sweating skin, and a small rapid pulse. She seemed to be in great pain, was rolling and twisting about in bed, and frequently crying out. Shortly after the onset of the attack the bowels had acted and she had been sick three times. On examination the abdomen was motionless and somewhat retracted. On palpation the epigastrium was rigid and board-like and the slightest touch here caused most acute pain. The normal liver dullness was present and there was no distension. There was no pain anywhere but in the epigastric region. A previous history of some slight dyspeptic symptoms was given. A probable diagnosis of perforated gastric ulcer was made, and an exploratory incision was deemed advisable.

After the patient had been hastily prepared she was anaesthetised, and an incision between the ensiform cartilage and the umbilicus was carried into the abdomen. There was no free gas, and the peritoneum appeared normal until the posterior surface of the stomach was reached, when a curious oedematous condition of the posterior parietal peritoneum and of the mesocolon was seen. It appeared to be caused by an infiltration of the deeper layers of the peritoneum and subperitoneal connective tissue with a clear fluid of a brownish tint. Beneath this and quite at the back of the peritoneal cavity a firm mass of the size of a large walnut was found, and this on examination proved to be a hard blood-stained tumour occupying the upper part of the head of the pancreas. A small incision was made into it, and it was found to be uniformly infiltrated with blood; a bleeding vessel was seen on the cut surface, but this was thought to be the result of the incision. The part of the pancreas involved was removed, and the stump, which seemed to be formed of healthy pancreatic tissue, was ligatured with fine silk. The abdominal cavity was then sponged dry and the parietal wound closed with silkworm-gut sutures.

The patient stood the operation well, and seemed in better condition than before. She passed a restless night, crying out and complaining of severe pain, and was sick several times. In the morning she was more comfortable and said that she had but little pain. Her pulse was 88, temperature 98.4°, and respirations 24.

During the day (December 12th) she had severe spasmodic

pain from time to time, and was a good deal sick. In the evening her temperature had risen to 99.2°, and her pulse to 120. She was still sick, and her abdomen was slightly distended. She was given a large saline enema to relieve her thirst, and a grain of calomel every hour for four hours by the mouth. She again had a very restless night, and the vomiting continued.

On the 13th her condition was not so good. She was drowsy and apathetic, and though her temperature was 98°, her pulse had risen to 130. No flatus had been passed, and so a turpentine enema was ordered; this was retained for several hours, when part of it was returned, together with a little flatus and faecal matter. During the day she became steadily worse; the pain was more severe, vomiting more frequent, and the distension rapidly increased. In the evening her pulse had risen to 140, and her temperature was 99.8°, and the constipation was absolute.

On the 14th she had had a quieter night, and seemed better, but the improvement was only in the subjective symptoms since the abdomen was more distended; the constipation had not been overcome, and the pulse was weaker. She was constantly vomiting a bilious material.

It was now fully obvious that a general peritonitis had set in, and it was decided to reopen the abdomen for the purpose of cleansing, and, if possible, of removing the cause. The patient was anaesthetised with gas and ether, and the abdominal wound was reopened. Its edges were slightly inflammatory. The omentum was dark in colour, thickened, and contracted; the intestines were distended, reddened, and showed here and there flakes of lymph; there was no fat necrosis. A collection of semi-purulent fluid was let out from around the stump of the pancreas, and seemed to have occupied the lesser peritoneal space. A small incision was made above the pubes, and here a good quantity of purulent material was let out. The whole abdominal cavity was thoroughly cleansed by washing and systematic sponging. Three of the most distended loops of bowel were punctured and the contained gas allowed to escape, and other loops were milked into these for a similar purpose. Large drains of iodoform gauze were inserted into the pelvis and down to the stump of the pancreas, and the wounds were sutured with silkworm gut. Two pints of saline solution were infused into the median basilic vein, and the stomach was washed out with sterile water, some of which was left in. Strychnine sulphate $\frac{1}{30}$ gr. was ordered every two hours.

The patient rallied well from the operation and then slept for several hours.

On December 15th she had had a good night, the bowels had acted four times, and a good deal of flatus had passed. There had been some vomiting but not so much pain.

On the 16th there was less vomiting, and the bowels had acted five times; there had been but little pain. The dressings had been changed several times as the gauze was draining well. They were now removed, the suprapubic one being dispensed with and the pancreatic one replaced by a rubber tube. The abdomen was now flat and soft, and moving well with respiration.

During the succeeding days the vomiting almost ceased, but diarrhoea became a troublesome feature, and though she was able to take and retain food by the mouth she did not seem to be gaining ground.

On December 19th her wound showed some curious vasomotor phenomena. A large blood blister appeared on the left side of the chest which faded in a few hours and was then replaced by a similar one on the left side.

A steady improvement now took place with the exception of the diarrhoea, which remained troublesome. She was able to take her food well, but diarrhoea became much worse, and some of stools contained small blod clots. Her urine, which for some days had contained a trace of albumen, became highly albuminous and contained numerous granular casts and a few red blood cells. The wound showed no tendency to heal and the condition suggested that some pancreatic juice was escaping by it. From this date (December 22nd) she went steadily down hill, passing a great deal and much troubled by an intractable diarrhoea.

On the evening of the 27th she suddenly became collapsed, but was rallied by a saline infusion of two pints, only for a time however, for she finally sank and died on the morning of the 29th. The Clinical Research Association reported on the portion of pancreas removed at the first operation: "The portion of pancreas exhibits small haemorrhages into its substance and a general distention of its vessels with blood. There is no acute inflammatory change or areas of necrosis. The secreting cells are somewhat altered by *post-mortem* digestion but it is not a true pancreatitis.

A partial necropsy only through the abdominal wound was allowed. There were a few adhesions between the intestines and the parietal peritoneum and some organizing lymph patches, but no evidence of acute peritonitis or of any localized suppuration. Examination of the pancreas showed a healthy-looking granulating stump. The rest of the pancreas was healthy. There was no fat necrosis or any gall stones in the gall bladder. Both kidneys showed marked cystic degeneration of the congenital variety. The left weighed 17 oz., and the right, which was fully as large, was not removed for examination.

REMARKS. Cases of acute pancreatic haemorrhage are sufficiently rare to excuse the publication of the present instance. In this case the abdomen was opened within two hours of the onset of the disease, and we had a good opportunity of seeing the condition at its earliest state of development. I feel that prompt removal of the affected portion of the gland was the best treatment that could have been adopted, but I also think that much would have been avoided if the affected region had been drained from the first. It would seem possible, from a consideration of this and some of the recorded cases, that a haemorrhage is the primary event in some cases of pancreatitis, and that the extravasated blood and necrotic tissue rapidly become infected from the duodenum. I have recently had the opportunity of examining the parts from a similar case *post mortem*; here the pancreas was represented by a foul, blackish-blue slough and the lesser peritoneal sac was distended by a turbid brownish fluid which had become partly encapsuled behind and above the liver. A large amount of fat necrosis was present in the omenta and subperitoneal fat. Current theory ascribes fat necrosis to the escape of pancreatic secretion into the tissues, where its fat-splitting ferment breaks up the fat into glycerine and fatty acids; the glycerine is absorbed while the fatty acids form insoluble calcium salts. Granting that this is so, drainage of the affected area should prevent this complication. Drainage is also indicated to remove the inflammatory products. It would therefore seem that laparotomy and efficient drainage offer the best chance for the patient in cases of acute pancreatic disease, and the earlier that this can be done the better the chance of success. Mayo Robson and Moynihan (*Diseases of the Pancreas*) say of acute infective pancreatitis that its treatment "resolves itself into that of peritonitis commencing in the superior abdominal region: and as the only diseases which acute pancreatitis is likely to simulate are such as can only be relieved by surgical treatment, if we can prove that operation is beneficial in this class of case we shall have established the advisability of operating in all cases of peritonitis starting in the upper part of the abdomen." The symptoms of pancreatic haemorrhage and of acute pancreatitis are those of any grave abdominal catastrophe and for any such condition we explore the abdomen without delay and without waiting for the development of that peritonitis which frequently settles the case and in the class of case I am considering I would urge that immediate operation holds out the best chance, for even should the case be one of simple haemorrhage into the pancreas the lesion will almost inevitably become infected and then the condition will be one of infective pancreatitis. I venture to think that my case tends, in spite of the fatal issue, to strengthen the idea that operative measures are the only ones likely to succeed in this very fatal class of case, for it would seem from the conditions found *post mortem* that if the patient's kidneys had been able to perform their share in eliminating the *materies morbi*, she had a great chance of recovery. I have to thank Dr. Ferrier for his notes on and Sisters White and Ling for their tender and skilful nursing of, this case.

COUNTESS OF DUFFERIN HOSPITAL, BARODA.

LITHOLAPAXY IN A FEMALE: "DOOB" TWIG AS NUCLEUS OF A STONE.

(By DHANJIBHAI H. MEHTA, House Surgeon to the Hospital.)

A Eurasian woman, aged 35, was admitted on June 20th, 1903, complaining of difficulty in passing water, and of pain during and after the act.

History.—The patient had urinary troubles for the past three years. She had tried various native remedies without any benefit. About a year and a half ago she was told that the introduction of a twig of the "doob" plant into the urinary

passages would relieve her, and consequently she had recourse to that remedy. The result was that a part of the twig would not come out again, and being broken remained in the bladder.

Subsequent Examination.—Very much emaciated and nervous, and constantly crying on account of the suffering she underwent. Sound was administered for a few days, and she then passed into my hands. A sound was then passed into the bladder. It could not be moved with any degree of freedom, and gave the impression that the bladder was full of stones.

Operation.—On the same day, June 24th, under deep anæsthesia, a three-bladed urethra dilator was passed into the urinary canal, and slowly dilated until the forefinger of the left hand could be freely passed in between the blades. The finger easily felt one large stone and three small ones while the dilator was in position. After keeping the urethra fully stretched for about three minutes, during which time an effort was made to extract one of the three small stones by an ordinary dressing forceps, the dilator was screwed down to the closing point and removed from the urethra. Before introducing the lithotrite, however, I made another effort with success to remove one stone entire. It was about an inch long, had three plain facets, weighed 108 gr., and in shape very much like a dry date pressed on three sides. The largest size lithotrite was then introduced, and the biggest stone was caught between the blades. From the distance at which the blade was out I concluded that the stone was about the size of an ordinary hen's egg. This and the other two stones were crushed gradually one by one, and then the lithotrite being removed, the largest evacuating catheter No. 12 was passed in and an attempt at washing out the débris begun. At the very first pressure on the ball, however, it was found that much of the boric lotion escaped by the side of the catheter, so that very little force could be put into the glass bulb. An assistant was then requested to press the walls of the meatus firmly against the catheter, and three or four more attempts were made, but much success was not achieved, one reason being that the bladder was chokeful of the débris, and sufficient pressure could not, therefore, be made on the walls of the bladder to expand it to any very material extent. The catheter had, therefore, to be removed, and the crushed pieces were removed by ones and twos by means of ordinary dressing forceps. Quite ninety pieces were thus taken out. A twig about 2 in. long was taken out, and [illegible] was found buried in a piece of stone. A middle-sized lithotrite was then introduced and some more crushing done. Several more pieces were removed by the forceps, and some débris was then washed out by the evacuating apparatus. The whole operation lasted for about 2½ hours, and about 3½ ounces of chloroform were administered; the total débris weighed just 3 oz.

Progress. June 25th.—The temperature last night rose to 101°. She slept fairly well. She had passed urine twice intentionally, and more had passed out of itself. Débris weighing 2 gr. came away. Fomentations to pubes, barley-water, and a mixture containing soda benzoas, tinct. buchu, ext. pareira liq., and pot. bromide were ordered.

June 28th.—3 gr. of débris were passed. Temperature 100°. Treatment continued and the bladder washed out with boric lotion.

June 29th.—There was some pus in the urine; micturition was free, but slightly painful. Treatment continued.

June 30th.—Pain less. Temperature 99°. Bowels had not been opened since the operation, so an enema was ordered.

July 1st.—More débris passed, and the pain was less.

July 2nd.—Temperature 100°. The patient said she took a bath last evening, and caught a chill. Diaphoretics and strophanthus were given, with 1 gr. of quinine in the evening.

July 3rd.—No débris. Slight pain. Temperature 101°. Mixture and quinine continued.

July 4th.—Temperature 100°. The pain was very slight, and the patient felt better. Quinine 2 gr. and bladder washed out.

After the last entry the patient improved in every way, and was discharged quite well on July 9th.

REMARKS.—The number of stones, the size of at least one of them, the total weight, the presence of a twig as a nucleus of at least one stone, the native belief in the efficacy of the "dodi" twig in removing difficulty of micturition (just as another root is believed to hasten labour), the remarkably speedy return of tone in the urethral walls, the very mild attack of cystitis that followed after an operation lasting for two and a-half hours, seem sufficient excuses for publishing these notes. "Dodi" is a creeper, of which the beans are eaten largely by the poor during famine times.

HORSE SICKNESS IN NATAL.—Dr. J. F. Elliott of Verulam (Natal) recently read a paper before the Inanda Agricultural Association, in which he advocated the employment of a clinical thermometer in stables the first thing in the morning as a matter of every-day routine. From practical observation he had been led to conclude that fatal "horse sickness" was in the main nothing more or less than acute pneumonia. The latter was commonly due to horses being worked when only considered a bit "off colour," though really suffering from fever; or, if recognized to be ill, being foolishly exposed to chills. Mosquitoborne fever, of malarial type, had been shown to be common by Dr. Watkins-Pitchford, but in itself was not the immediate cause of death in horse sickness.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, February 23rd, 1904.

METABOLISM IN THE FEBRILE STATE.

DR. G. C. GARRATT, in this paper, gave the results of analysis of the urine of febrile patients at the London Fever Hospital on a constant nuclein-free diet. In absence of pyrexia this diet caused no retention of sodium or chlorine, but a small loss of nitrogen. The reduced excretion of urinary water was merely the result of increased loss by other routes. Reduced excretion of chlorine accompanied nearly all acute fevers except malaria, and retention of chlorine might continue far into convalescence, and bore no relation to retention of water. Sodium and chlorine, given in combinations other than sodium chloride, were, nevertheless, retained, and the return of the one did not necessarily coincide with that of the other. No satisfactory explanation of the phenomenon had been produced, but that which assumed the chlorine to be retained in combination with albumen was probable. He had not found chloralbumens in muscle after fever. Urea and uric acid showed the usual increase from fever. No close relation could be traced between this excretion and that of phosphates. The conclusion drawn was that endogenous uric acids came from proteids rich in nitrogen and sulphur and poor in phosphorus. Ammonia excretion was considered in special relation to that of acids and bases, and the evidence that acids caused an increased production was not convincing. The excretion of phosphorus and free acid tended to run parallel; but, while there was on the average a slight increase of the latter, there was none of the former. There was no evidence that retention of phosphates occurred. Sulphuric acid exhibited an increase which was out of proportion to that of urea. Potassium was also increased, but less so than urea; it showed a certain parallelism with phosphoric and also with sulphuric acid, and played the principal part in combining with these acids. Some of the increase did not therefore appear to represent metabolism of potassium-holding tissues, and the output of phosphoric acid was a better guide thereto. The organism in these fevers appeared to possess the power of selecting what proteids it would consume, and to choose those rich in sulphur and nitrogen, and to spare those rich in phosphorus and potassium. Calcium resembled chlorine, being excreted in abnormally small amount during fever. Magnesium was much reduced at first, but increased later.

Captain STATHAM referred to the importance of eliminating the margin of error in estimating the urea by the hypobromite process in metabolism experiments, and gave comparable results from his own experiments.

Dr. E. I. SPRIGGS alluded to observations by Dr. Beddard and himself on metabolism in diabetes and other conditions, febrile and non-febrile, the results of which agreed on the whole with those in the paper, but the deductions drawn from them were not quite parallel.

Dr. R. HUTCHISON especially discussed the question of the decreased chlorides excretion in fever, and particularly in pneumonia. He had formerly thought that they were retained in the fixed tissues, but in view of the results in the paper he had changed his opinion.

Dr. GARRATT, in reply, said that much of his paper was a protest against the simple explanations that were given for such complex processes.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. BREWIS, M.D., President, in the Chair.

Wednesday, February 10th, 1904.

HEBOTOMY.

A NOTE on this operation (lateral section of pubes) was read by Dr. D. BERRY HART. The object of obstetric practice was to find an operation satisfactory and safe for mother and child. In flat pelves, where forceps or turning could not be employed, symphysiotomy was resorted to, where the conjugata vera was below 3½ in., and down to 2½ in. Failing that, Cæsarean section or craniotomy only remained. It was said that asepsis was difficult in symphysiotomy, that neighbouring structures might be injured, and that there was difficulty in getting firm union afterwards. The objections to hebotomy on these points were much weaker. This operation had been recently revived by Gigli of Florence, who used a special wire saw

After describing the technique of the operation, Dr. Hart gave details of a case in which cystectomy was performed at a first operation, and lithotomy in the second. The latter died on the third day of exhaustion, but with normal symptoms. The death-rate in lithotomy was 6 per cent. The average [illegible] was in. for 6 cm. of divergence.

The paper was discussed by Professor A. R. Simpson, Drs. [illegible] A. H. E. Barnett, and F. W. N. Haultain; and Dr. Hart replied.

Some Renal Cases.

Dr. Percy Kidd [illegible] renal cases.

[illegible] The kidney [illegible] to be tuberculous, and [illegible] The patient was [illegible] but was [illegible] were [illegible] but [illegible] The [illegible] The patient [illegible] Dr. Brewis successfully performed nephrectomy in August, last. The tumour was universally adherent. The patient was now in good health.

The second case was one of tuberculous kidney and ureter, [illegible] by nephro-ureterectomy.

[illegible] The [illegible] The [illegible] When the patient left hospital the urine was free from tubercle and the patient was now well and strong.

The third case was one of suprarenal adenoma.

The patient, [illegible], had an abdominal swelling for seven [illegible] years. During the [illegible] Dr. Brewis removed the tumour and [illegible] The patient recovered [illegible] The tumour was [illegible] The tumour was not to be in contact with [illegible] Many [illegible]

The fourth case was one of exploratory nephrotomy for haematuria.

The patient, [illegible] had noticed blood in her urine. The [illegible] During the [illegible] very [illegible] blood was [illegible] The [illegible] organ into two halves. [illegible] The patient recovered and had had no haematuria since.

[illegible]

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, February 22nd, 1904.

Progressive Paralysis of the Insane.

Dr. T. B. Hyslop read a paper on this subject in which, after [illegible] the view that general paralysis of the insane was [illegible] he contended the following types of [illegible] were [illegible] to be mistaken for it: [illegible] absolutely syphilitic, febrile and poison cases, [illegible] of the cerebral cortex as in acute dementia, stupor, [illegible] associated with various [illegible] as also and [illegible] cases. [illegible] was attributed to [illegible] paralysis. In relation with [illegible] were differentiated terminal [illegible] syphilitic, and [illegible] syphilitic cases. Syphilis alone was [illegible] for the so-called [illegible] cases. The [illegible] did not exhibit the [illegible] while Chinese and negroes who were very [illegible] to syphilis were almost free from [illegible] and progressive paralysis. Evidence was accumulating which went to show that an important factor was a fault in the defensive mechanism which allowed of the affection of the nervous system in the late stage of syphilis. The role of stress and toxic influences as terminal infections and the paralyses due to the other causes enumerated were discussed.

Dr. C. F. Beevor thought a combination of symptoms was necessary for the diagnosis of general paralysis. In the early stages there was a mental change but not excitation, and there might be localized fits, but probably the most important symptom was inactivity of the pupil to light.

Dr. Maurice Cooke thought that in the early stage of general paralysis simple mania and other conditions were apt to be confounded with it, but the progress of the case often cleared up the doubt. Almost all true cases of general paralysis were syphilitic, but usually either alcoholism or sexual excess was added.

Dr. Sidney Phillips asked whether the timely treatment of syphilis with potassium iodide protected against general paralysis.

Dr. Vincent Bell referred to cases where onset was marked by a decay of the moral sense.

Dr. Hobson asked as to the etiology of congenital general paralysis.

Dr. J. P. Richards protested against the use of the term general paralysis for a multiplicity of clinical and pathological types, and referred to the possible influence of mercury discussed in the paper when given for syphilis, in producing progressive paralyses.

After Dr. Hyslop had replied, Dr. C. W. Buckley read a general descriptive paper on brachial neuritis.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, February 18th, 1904.

Perforating Gastric and Duodenal Ulcers.

Dr. Buchanan and Mr. W. Tolefree Thomas recited the following case of perforated gastric ulcer:

The patient, an [illegible] girl, was suddenly seized with [illegible] pain, for which she was admitted to hospital. The diagnosis was at first doubtful, but the [illegible] and [illegible] a marked leucocytosis certainly pointed towards [illegible] Some [illegible] progress of the case, however, [illegible] which was thought to be probably due to [illegible] On the twelfth day of the illness Mr. Tolefree Thomas operated. The stomach and the liver were adherent to the abdominal wall and [illegible] separate [illegible] was opened and a [illegible] [illegible] stomach. An [illegible] the perforation with stitches and finally the [illegible] was [illegible] open and packed with gauze. Convalescence was prolonged but the patient ultimately made a satisfactory recovery.

Mr. Damer Harrisson related a case in which he had successfully operated upon a man 45 years of age for perforated ulcer of the duodenum:

There had been no previous gastric symptoms. The patient was suddenly seized with acute abdominal pain, which he referred more especially to the right [illegible] An operation was performed [illegible] was found and closed with sutures.

Mr. Luther Jones referred to a case in which perforation of a gastric ulcer had occurred at midnight.

The patient, thinking that the pain was relieved by the free flow [illegible] there [illegible] a perforation of the stomach with [illegible]

A discussion of these three cases followed, in which Dr. E. T. Davies, Mr. Newsom, Mr. George Hamilton, Dr. Carter, and Dr. Macalister took part.

The Treatment of Malarial Fever.

Dr. Carter read a note on four cases of malarial fever which had come under his care during 1903, and all more or less resembled one another. Fever [illegible] continued in spite of all the ordinary remedies, and there was complete breakdown of the general health and loss of weight. In every case, however, complete and apparently permanent relief of all symptoms had followed upon the administration of Warburg's tincture.

Placenta Praevia.

Dr. Briscoe read a paper on the Treatment of Severe Cases of Placenta Praevia. By a severe case he meant one in which either one considerable, or two or more recurrences of haemorrhage had taken place, and he disregarded the degree of placenta praevia. With reference to treatment,

he thought that the comparative rarity of the use of the bag of Champetier de Ribes was in a measure due to the cumbrous appearance which, with its forceps, it presented. Its use could be rendered easy by preliminary dilatation of the cervix either by the finger or by Bossi's method in the rare instances in which instrumental dilatation was required. In exemplification of its value he cited two severe cases. In the first, free bleeding, without pains and with a closed cervix, occurred at the twenty-eighth week of gestation; in the second there was copious haemorrhage at full term. In the former, preliminary dilatation having been effected by Bossi's instrument and the diagnosis confirmed, the introduction of the bag of Champetier de Ribes controlled the bleeding, and incited and completed labour in eight hours. In the second case labour had commenced, and was completed, with a living child in the first vertex position, in 2½ hours after the bag had been introduced. After reference to the conclusions of Drs. Blacker and De Paoli, Dr. Briggs cited his own experience in six cases, in which for grave maternal conditions he had used Bossi's dilator. The great value of the bag lay in its easy introduction, the facility with which it could be sterilized, and its perfect control of the bleeding; for it formed, as Dr. Herman had stated, a better haemostatic wedge than the half-breech of the child, after turning. From his own experience of 30 cases treated by version, he concluded that forcible delivery was rarely necessary, for in all his cases the bleeding had been controlled, and no traction on the child was required to check it. The prospects of a living child were improved by the use of the bag, and whenever available it out to be used.

Dr. John Gemmell thought that as most cases of placenta praevia were of the marginal type the bag was not necessary. Its introduction necessitated the presence of a second medical man, to administer an anaesthetic, and its general employment was consequently impracticable.

Dr. Llewellyn Morgan relied upon tight packing as a routine treatment in cases of severe haemorrhage.

Drs. Heatherley, E. T. Davies, Mackay, Blair Bell, and Little also took part in the discussion; and Dr. Briggs replied.

MIDLAND MEDICAL SOCIETY.

W. C. Lowe, M.D.Lond., F.R.C.S., in the Chair.

Wednesday, February 17th, 1904.

Chronic Pancreatitis.

Mr. Gamgee showed a woman, aged 46 years, with the following history:

In October, 1901, she suffered from a severe attack of right hypochondriac pain, accompanied by jaundice. This passed, and she was then free from symptoms for a year and ten months. During August and September, 1903, she had numerous attacks of pain and was continually jaundiced, the degree of the latter varying. At the beginning of October she had great tenderness on pressure over the right rectus abdominis muscle about midway between the ensiform cartilage and the umbilicus; a swelling situated deeply in the abdomen could be felt in this position. The abdomen was opened and the biliary apparatus explored. No calculus or obstruction to the ducts could be found. The head of the pancreas was hard and markedly enlarged. The gall bladder was stitched to the skin and a fistula maintained for three months.

When shown some fullness could be felt in the old position; but there was no distinct swelling and the tenderness had almost disappeared, nor had the attacks of pain and jaundice recurred. The case was presumably one of chronic inflammatory enlargement of the head of the pancreas.

A Uterine Cyst.

Dr. Purslow showed a cystic tumour of uterus.

The patient, 24 years of age, married, one child, was admitted to the Queen's Hospital on November 12th, 1903, with a swelling of the abdomen reaching up to 2 in. above the umbilicus, and presenting all the physical signs of an ovarian cystoma. The swelling had been first noticed six weeks previously, and both she and the medical man under whose care she had been thought that it was growing rapidly. Abdominal section was performed. The cyst when exposed had the appearance of an ovarian cyst. It was tapped, and a large quantity of thin yellow fluid escaped from two separate loculi. On commencing to remove the cyst it was seen to be growing from the fundus uteri spreading out widely into each broad ligament, with extensive adhesions to omentum and intestine. The operation was difficult and prolonged; it was found necessary to amputate the uterus at the level of the internal os.

The patient made an excellent recovery.

Fleshy Mole.

Dr. Purslow also showed a fleshy mole which had been spontaneously expelled after ten months' amenorrhoea.

There were signs of pregnancy during the first four months. The patient then had a fall, and these signs ceased. There was no pain and no haemorrhage until a few hours before the expulsion of the mass. The latter, weighing 4½ oz., showed a thickened and tuberculated placenta with a distinct amniotic cavity. There was no trace of a fetus.

Gastro-jejunostomy.

Mr. Barling read a paper on gastro-jejunostomy in comparison with other methods. He recommended the posterior operation, the jejunum being taken up through an opening in the transverse mesocolon. He had had 18 cases, of which 10 recovered. He recommended union by suturing in preference to mechanical methods, as it provided a wider opening. The suturing recommended was in two layers: an inner suture taking the edges of the openings and going through all the coats of the stomach, and an outer sero-muscular suture.

Mr. J. W. Taylor usually employed the posterior operation, taking the jejunum over the front of the colon and through an opening in the great omentum. He advised suturing in three layers, and urged the importance of excluding the ulcer in the case of gastric ulcer.

Pathological Society of Manchester. At a meeting on February 10th, Dr. Reynolds, President, in the chair, Dr. Rodocanachi mentioned a case of death from thyroid intoxication after removal of goitre, and showed the specimen.—Dr. Donald made a communication on the pathology of so-called "idiopathic endometritis."—In the absence of Dr. Dreschfeld, Dr. Charles Melland gave an account of a case of leucocythaemia which showed several unusual features. The case was one of the splenomedullary type and the character of the blood as well as the patient's general condition was profoundly modified by active treatment with large doses of arsenic. On one occasion within three weeks the number of leucocytes fell from 253,000 in the c.mm. to 16,000, and a month later, after he had been taking liq. arsenicalis ♏ xv three times a day for three weeks the leucocyte count actually fell to 800 in the c.mm., and at the same time his general health was better than it had been for years. At a later stage the patient developed tuberculosis, and specimens of the blood at various stages and sections of the various organs affected with tubercle were exhibited as card specimens.—Dr. Harris and Dr. Melland mentioned a case of primary epithelioma of the lung and showed specimens. Other preparations were shown as card specimens.

Harveian Society of London. At a meeting on February 11th Mr. Edmund Owen read a paper on appendical abscess in the recto-vesical pouch, and advocated abdominal section in preference to drainage by the rectum or vagina. After the latter fistula was a very probable sequela and recovery was tedious; vesical irritation also occurred. Mr. Barnard considered the objections raised somewhat theoretical. In over ten cases of his own so drained he had met with none of the ill-effects mentioned. The drainage of pyosalpinx through the vagina was not a true analogy, and he maintained that when an abscess was strictly localized in the pelvis it should be opened by the rectum or the vagina. Mr. Lenthal Cheatle in three cases of abscess in connexion with the appendix had seen pus extend to the upper part of the recto-vesical pouch and give rise to pain, frequency and difficulty during the act of micturition, and he now looked upon this set of symptoms as indicating immediate operation. Mr. McAdam Eccles made a distinction in his treatment of localized pelvic abscess in the two sexes. In males he attacked the abscess suprapubically, in females he cleared up the diagnosis by median incision, dealt with the affected organ, and drained per vaginam, frequently closing the anterior abdominal wound. Mr. Spencer believed the best time to remove an appendix was in the first twenty-four hours, and advocated drainage by gauze in preference to tubes. The appendix in cases of suppuration should always be removed; otherwise trouble followed. He was opposed to drainage by the rectum or vagina. Mr. Jaffrey concurred as to the inadvisability of draining by the rectum or vagina. Mr. Owen replied. Mr. E. W. Roughton read a paper on a case of obstruction with gangrene of the caecum, in which during manipulation the caecum burst and flooded the operation area with faeces; the peritoneum was effectively protected by gauze packing; and on a later occasion Mr. Legg removed a cancerous growth from the sigmoid. The latter proceeding was described by Mr. Legg himself. Mr. Paton narrated two cases of partial hernia which illustrated the anomalous symptoms to which sloughing of gut sometimes gave rise. Mr. Roughton suitably replied.

REVIEWS.

RECTAL SURGERY.

PROFESSOR TUTTLE, of New York, informs us in the preface that his *Treatise on Diseases of the Anus, Rectum, and Pelvic Colon*, is the outcome of twelve years' work in a large clinic in New York for teaching and treating rectal diseases. Much space has been given to details of examination, diagnosis, and treatment, and the book may be regarded as a trustworthy and comprehensive expression of the results of both a large personal experience of rectal disease and a wide study of the best authorities on this subject. The diseases of the anus, rectum, and sigmoid flexure are very fully discussed. The chapter on examination and diagnosis, which, with the rest of the volume contains many excellent illustrations, most of them original, affords a good example of the care and thoroughness with which the author has dealt with every part of his subject. Here it is shown how by recently devised methods and appliances, and by careful attention to strict though simple details of technique, the exploration of the whole of the rectum and especially its ocular examination, has of late been much improved. In a long description of the different methods of treating internal haemorrhoids, the author deprecates a systematic rejection of simple palliative measures, which often afford as much relief as the patient needs, and, in early stages of the affection, frequently result in permanent cure. In the discussion of the many different forms of operative treatment there is no exclusive advocacy of any single method. Whilst not opposed to the use of the ligature, so much favoured by many in this country, and regarding this as probably the safest method in certain cases, Dr. Tuttle, in considering the claims of the "clamp and cautery" treatment, holds that this plan, on account of its applicability to all kinds of internal pile, the ease and celerity with which it can be used, and its uniformly good results, easily stands first among the operations for this affection. The chapter on the different methods of removal of rectal cancer is instructive. Dr. Tuttle recommends wide extirpation of all malignant growths when such treatment is feasible. Many surgeons will probably question his conclusion that in the treatment of inoperable cases, just as much comfort and prolongation of life can be obtained by ordinary palliative methods as by the performance of colotomy. Dr. Tuttle describes the methods of artificial feeding by the lower part of the intestinal tract. Acknowledging that rectal alimentation is seldom required in the treatment of the affections specially dealt with in these pages, he thinks it desirable to give a brief description of the formulae and means of carrying out of intestinal feeding, and expresses great faith in their efficacy if properly applied. Twenty days, he thinks, will probably cover the average period in which external rectal alimentation may be successfully administered.

The reputation gained by Dr. MATHEWS in the United States as a specialist in rectal surgery, and the fact that in a short time he has been called upon to prepare two fresh editions of his *Treatise on Diseases of the Rectum*, claim for the latest and revised form of this work considerate attention. Its publication as a book, though comprehensive, cannot be regarded as a very satisfactory addition to the abundant literature on this special subject. It certainly represents to a limited extent the author's views, but is full of contentious matter. The general spirit of the volume is suggested by an intimation at the outset that "no good can come of a general appreciation in order to be courteous." Too much space seems to be taken up by details which in a special treatise may be suggestive or quite necessary, as for instance a long description of the method of antiseptic surgery. The chapter on cancer of the rectum is unduly extended by a discussion of doubtful utility of the ethical question whether [illegible] should be told that [illegible] to the value of their [illegible]

[illegible]

GASTRIC ULCER.

M. ARNSTEIN has written a useful monograph on the subject of cancerous degeneration of simple gastric ulcer, and of what he calls [illegible] ulcer of the stomach. Besides reporting in full three cases of the former that had come under his own observation, and one of the latter (which, by the way, is only the fifth on record) he gives a summary of all, or nearly all, the recorded cases from the time of Cruveilhier's *Anatomie Pathologique du Corps Humain* onwards. He discusses systematically the pathological anatomy of the condition, its etiology, symptomatology, diagnosis, and treatment. Cancerous degeneration of a simple ulcer must, as he admits, be very rare; it generally attacks chronic pyloric ulcers and, he maintains, in a characteristic way, starting in the mucosa at the margin of the ulcer and not in its base. The second variety has its seat in what he believes to be a congenital adenoma, in fact an aberrant development of Brunner's glands of the duodenum, and being aberrant *a priori* more liable to cancerous transformation. The symptomatology of the former group at least is, for a lengthy period, that of simple ulceration leading to the masking of its cancerous nature. But the general symptoms, including the progressive anaemia, with the resistance to treatment and possibly more severe pain, eventually establish the diagnosis. As a corollary it is suggested that what appears clinically to be primary gastric cancer may sometimes be cancerous development in a simple ulcer, and if so such instances would go to explain those cases of gastric cancer in which an excess of free hydrochloric acid is found during life with other classical symptoms of simple ulcer. The treatment of the condition, he points out, is purely surgical, namely, gastro-enterostomy for the late and gastrectomy for the early cases. There are seven figures, macroscopical and microscopical, and a good bibliographical index. The book may be accepted as a valuable contribution to a highly controversial subject.

DR. PLENIES'S book on the part played by the sympathetic and vagus nerves in the production of the symptoms of gastric ulcer is highly elaborate, and perhaps somewhat too theoretical. He compares the symptomatology of ulcer of the stomach with a reflex neurosis having a local pathological substratum, and includes such symptoms as pain, vomiting, spasm, asthma, cough, bradycardia, palpitation, pseudo-angina, fainting, and a host of others. Apart from the fact that his views are based on a study of 1,200 cases—in itself entitling his work to careful consideration—he makes out a good case, although he does not lay sufficient weight on the toxic element. He would hold that tetany associated with gastric dilatation was nearly, if not quite, purely nervous, while many would consider that it was principally toxic in spite of the fact that it has followed the introduction of a stomach tube and even the mere percussion of a dilated stomach. As a brief for the nerve theory Dr. Plenies's work is excellent, and it is calculated to be of practical value in leading to the early diagnosis of gastric ulcer before the onset of physical signs.

ANTHROPOMETRY.

DR. GIRON'S anthropometrical researches on the increase of the various parts of the body have been made upon a series of 1,000 individuals, between the ages of 13 and 17½ years, who were under his direct observation in one of the preparatory military schools of France. They were examined at regular [illegible] six months, and the measurements taken are most detailed and precise, all parts of the body and limbs being investigated with regard to length, diameter, and circumference. Thirty-six thousand measurements in all were made, and in his monograph, Dr. Giron expresses the results obtained in numerous tables, in the form of averages of 100 individuals. His work has obviously been done with extreme care, and forms a valuable addition to our knowledge of [illegible] It is all too much valuable in that [illegible] to fill adequate space, observations on development

[illegible]

having been largely confined, hitherto, more to pre-natal than to post-natal phenomena, although it is quite obvious that, from a practical point of view, the latter are equally important and much more amenable to control. The analysis of the measurements discloses many interesting points, but as Dr. Godin's observations are confined to individuals of French nationality, it is possible that some of the conclusions formed may eventually be modified, by further series of observations made in other countries. Nevertheless, as they stand, they are well worthy the careful study of those who are concerned with the supervision of adolescents, for they show that there are certain proportional relations, between different parts of the body, at yearly and half-yearly periods, which should apparently be maintained in healthy individuals. From a general point of view some of the most interesting conclusions, deduced from the measurement of the limbs, are that the length increase of the long bones of the extremities proceeds by a series of periods of activity and repose, which succeeded each other with regularity and are alternated for adjacent bones, the bone of the arm being in repose, whilst the bones of the forearm are in a state of activity. It appears further that the period of repose of growth in length is utilized for increase in diameter, the elongation and thickening of the long bones of the extremities occurring alternately and not simultaneously. These are discoveries which expand our knowledge, but Dr. Godin's assertion that the acromion is at a lower level than the upper margin of the sternum is a direct contradiction of general belief, nevertheless the statement is fully substantiated by the measurements. The observations on the increase of the subumbilical height not only support previous investigations but also show that the increase is relatively most rapid between the fifteenth and sixteenth years. The period of puberty, according to Dr. Godin, is more especially the sixteenth year, but it extends into the preceding and succeeding year and a half, and in this period that the increase of the body is mainly muscular, whilst in the earlier years the osseous increase preponderates. Dr. Godin is to be congratulated upon having completed a most laborious and useful investigation.

VOCABULARIES.

THE *Thesaurus* of Drs. BARTON and WELLS[6] is a dictionary of medical terms rather superior to most publications of the same class. It has been prepared with considerable lexicographical skill, and the compilers are careful to include diseases called after the names of medical authorities and other technical expressions which include proper names. We fail, however, to find "Argyll-Robertson Pupil" between "Aret's Trachoma" and "Arm," nor is it placed under "Pupil." Effete terms are largely represented, as are popular names—a good feature in a dictionary though bad in a text-book; and the glossary of drugs, under the heading "Drug," is useful, as Transatlantic vernacular botany is unfamiliar to us, and American physicians do occasionally speak of Wahoo and Jersey tea. In the Introduction the system of reference adopted by the compilers is explained, and they are careful about synonyms.

The new edition of *Hadden's Pocket Vocabulary of Medical Terms*,[7] issued by a firm chiefly known for their law publications, is designedly and avowedly compiled for the benefit of registrars, Poor-law officials, and others who have professional dealings with medical men. It seems a useful production. There are, however, some marked oversights: thus, "sleeping sickness" is omitted, whilst "African lethargy," a less frequent term, is included. "General paralysis of the insane" is not to be found under "general," but under the heading "paralysis of the insane," where the definition is "a form of palsy affecting persons of unsound mind." This is a distinct error; the term "general" is almost constantly used by doctors, and great misconception exists outside the profession owing to the word "paralysis," which the definition here given serves to confirm. The general public should be informed that the disease in question is "a form of insanity." Plica polonica is more than "a matting of the hair," and "agonia" does not mean "sterility." New names for new operations like "cholecystectomy" and "nephrectomy" are well represented, but we may suggest to the medical compiler that in the next edition of this useful, and in the main reliable, *Vocabulary*, he will substitute "nephrorrhaphy" or "nephropexy," for "necusia," which is quite obsolete, and, above all, see to the correct definition of general paralysis.

We were able to speak in terms of praise of the first edition of Dr. DORLAND'S *Illustrated Medical Dictionary*,[8] published in 1900, and are, therefore, not surprised to find that a third edition was called for last year. New terms have been introduced, and some of the tables have been modified. So far as we have been able to test the work it has been found complete, and the definitions, on the whole, satisfactory. The entries under narcolepsy, sleeping sickness, and trypanosoma require revision, and the last must have been incomplete even at the time it was written. The volume is of convenient shape, and well bound—points of much importance in a dictionary.

A Medical Vocabulary and Phrase-book in Luganda,[9] by Dr. A. R. COOK, of the C.M.S. in Uganda, will be found of great use by young medical men starting as missionaries, and for dispensers, who are often far removed from any medical assistance or help in that territory. The little book is divided into two parts—the first, the vocabulary; the second, notes on Uganda diseases. The vocabulary is fairly full, and should help any one to master the medical dialect which is always difficult. Some therapeutic hints are given, and a few useful prescriptions are inserted at the end of the book.

MATERIA MEDICA AND DISPENSING.

IN his *Technique and Indications for Ordinary Remedies*[10] Professor LEMOINE has covered a wide ground, somewhat arbitrarily selected. Thus under revulsive medication the use of iodine, mustard, blisters, and the actual cautery is described; in derivative medication blood-letting, dry and wet cupping, leeches, local baths, purgatives, and douches are included; while the other sections deal respectively with tapping, lavage, baths and lotions, hypodermic medication, aperients, tonics, emetics, hypnotics, and the treatment of haemorrhage from various organs. It is stated in the preface that the objects of the book are, first, to fill a gap usually left in medical education, and, secondly, to bring some useful remedies into notice which are for the moment out of fashion. Certain sections undoubtedly fulfil both objects, such as the description of the uses of leeches and cupping. Blood-letting can hardly now be said to be out of fashion, and the section which deals with its technique and indications is one of the best in the book. Not every one will agree with the author's extensive use of mustard blisters and the cautery, and many will think that promiscuous painting with iodine deserves its present lack of favour. The chapter upon aperients is well arranged and well written. Minor operations, such as transfusion, are described in great detail, and the book as a whole should prove useful to a man who has to begin practice without much previous experience.

The first edition of *Modern Materia Medica and Therapeutics*[11] by Dr. A. A. STEVENS appeared nearly ten years ago, and the present edition, the third, has, as the title of the book might be considered to require, been entirely rewritten. An attempt has been made, as in other well-known works, to classify the different remedial substances on a pharmacological basis. This is not, it must be admitted, invariably happy; for instance, mercury and its salts are described together with the gland extracts under the heading of alteratives, and eucalyptus, ammonium chloride, and creosote together under expectorants. The descriptions of the individual drugs are far from exhaustive, and precise references to papers and authorities are systematically omitted. A good feature of the book is the inclusion of information in regard

[6] *A Thesaurus of Medical Words and Phrases*. By Winfred M. Barton, M.D., Assistant Professor of Therapeutics and Materia Medica and Lecturer on Pharmacy, Medical Department, Georgetown University, and Walter A. Wells, M.D., Demonstrator of Laryngology, Georgetown University. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. (Cr. 8vo, pp. 524. 12s.)

[7] *Hadden's Pocket Vocabulary of Medical Terms* (with their pronunciation), by Henry Payne, M.D., M.R.C.S., L.S.A., Resident Medical Officer of the District Infirmary, Ashton-under-Lyne. Third edition, revised and enlarged by Philip Cowen, M.D. Durh., D.P.H. Camb., and Herbert Davey of the Middle Temple, Barrister-at-Law. London: Hadden, Best, and Co. (Fcap. 8vo. pp. 144. 2s.)

[8] *The Illustrated Medical Dictionary*. By W. A. N. Dorland, A.M., M.D. Third edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 795. 15s.)

[9] *A Medical Vocabulary and Phrase-book in Luganda*. By Albert R. Cook, B.A. Camb., M.D., B.Sc. Lond., C.M.S., Medical Missionary in Uganda. London: Society for Promoting Christian Knowledge. 1903. (Fcap. 8vo, pp. 74. 1s. 6d.)

[10] *Technique et Indications des Médications Usuelles*. Par G. Lemoine. Paris: Vigot Frères. 1903. (Crown 8vo. pp. 44. Frs. 2.)

[11] *Modern Materia Medica and Therapeutics*. By A. A. Stevens, A.M., M.D. Third Edition, entirely rewritten. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. [illegible]. 12s.)

to many valuable therapeutic agents that have not as yet received official recognition, including some of the synthetic analgesics and hypnotics. There is a useful although much condensed, section on the remedial measures other than drugs, such as cold, heat, light, blood-letting, and massage. Probably the best portion of the book is its later fifth, in which, under the name of applied therapeutics, are given clear, concise, and valuable directions for the treatment of the different diseases and their various complications. We feel justified in recommending this book as one likely to be useful to those engaged in the practical treatment of disease.

Mr. Joseph Ince in his *Elementary Dispensing Practice*[1] has embodied the results of observations extending over his fifty years' intimate association with pharmacy. Read in this light the book is admirable, and the diction all that can be desired, but it scarcely seems to breathe the pharmaceutical spirit of to-day. It has been specially written for students of pharmacy and medicine, but we do not consider that it will be of much service to the latter class. Broadly speaking, its style is too discursive for a textbook, and it is not likely to give a student that sure grasp of the subject which could be obtained from the clear statement of a few general principles suitably illustrated by examples.

The *Twelfth Annual Laboratory Report*, issued by Messrs. Southall Brothers and Barclay, Limited (Birmingham), contains valuable records of results obtained in the examination of crude drugs and galenicals. The abnormal state of the cod-liver oil market during the year under review is reflected in the space devoted to a critical examination of the physical constants and colour reactions of authentic specimens of the genuine oil and its probable adulterants. We also note that green extract of belladonna prepared from several tons of material yielded only 0.87 per cent. of alkaloid against 1.5 per cent. obtained under precisely similar conditions in the previous year. The great variation in potency of this preparation points to the desirability of omitting it from the *Pharmacopœia*, and since a perfectly definite extract (ext. bellad. alcoholic.) is official, there can be no objection to such a course being followed.

NOTES ON BOOKS.

Dr. G. M. Pittock of Margate has recently issued a pamphlet entitled "*Flora of Thanet*,"[2] which he has prepared with the help of some friends. He took as a basis the *Flora Thanetsis* of Mr. Flower, which comprised 454 plants, including algae. Thanet is about nine miles long by four or five wide, with rivers, marsh, and various kinds of subsoil; the record now made, at the cost of much time and trouble, is valuable as showing in the first place the nature of the plants to be found in the district; and, secondly, as giving indications of the changes which have taken place within the time over which the records extend; the extirpation of certain plants is attributed by Dr. Pittock to the ravages of the plant collectors, and he has refrained from mentioning localities in order that the rare plants which still remain may escape the hands of these depredators. Although the preparation of the list has been a prolonged work we have no doubt that it has been a pleasurable task, and we congratulate Dr. Pittock and his friends on the result.

The Medical Surgical and Pathological Report of the Royal Southern Hospital, Liverpool for 1903 has just been published, and [illegible] contains a number of papers by members of the staff. Dr. William Williams details the views which he has formed as to the treatment of typhoid fever after an experience of twenty years. In the main his paper [illegible] advocates the defence of the "[illegible] treatment. In another Dr. C. J. Macalister reconsiders the views which he formerly held as to rheumatoid arthritis. He [illegible] to consider that [illegible] a separate entity, but is a [illegible] common [illegible] always due to the same cause, and that [illegible] is a rare [illegible] common and [illegible] usually deformed. Another contribution by the [illegible] on gout [illegible]

[1] [illegible] etc. London: [illegible] 1903. (Pp. [illegible] 3s. 6d.)

[2] Margate: [illegible] 1903. (Pp. [illegible] 1s.)

work, which contains several clinical observations of value in respect of bone injuries, the diagnosis of hip disease, etc. As regards the former, he considers that shortening is very likely to occur unless a fractured lower limb be but very slightly and carefully used for some months after apparent perfect cure. Other papers of corresponding interest are those on cancer by Dr. A. Alexander on primary troubles by Mr. Newbolt, and on epilepsy by Dr. Carter. The book concludes with a paper on the *x*-ray diagnosis of aneurysms by Mr. Holland, and a useful summary of the *post mortem* room work of the year by Mr. Lyn Dimond. It is to be observed that in the statistics no mention is made of anaesthetics, whether as to the drug employed or the results. Every summary of the work of a hospital ought to contain information upon this subject.

The twentieth annual issue of the *Yearbook of the Scientific and Learned Societies of Great Britain and Ireland*[3] contains particulars of a vast number of societies, and in the case of the more important a complete list of all the papers read before them during the year. How far the book is complete it is impossible to say, but judging from the medical section it should probably be considered very complete, though possibly not always infallible in its views of the respective importance of various societies, as judged by the prominence of position accorded and extended notice given. How far, again, medicine compares with other sciences we have not ascertained, but anyhow its progress is apparently assisted by some 78 societies in London and by another 125 in the provinces.

[3] [illegible] 1904. (Pp. [illegible] 3s. 6d.)

The New Sydenham Society's Atlas.

The two last fasciculi[4] of the New Sydenham Society's *Atlas* contain many interesting illustrations of varied conditions. Fasciculus xvi opens with a short account of coxa vara from the pen of Mr. Keetley, originally communicated to the Medical Society of London. This subject is illustrated by nine plates, most of them skiagraphs supplied by Mr. Robert Jones of Liverpool. The remainder of the fasciculus is made up of miscellanea. Plate J is a skiagraph taken by Mr. F. M. Mackenzie, and represents an ununited fracture of the surgical neck of the humerus in a lady of about 65. Plate K is a skiagraph of a remarkable displacement of the bones about the elbow-joint in a case of inherited syphilis, with notes by Mr. Hutchinson, from which, however, it is not clear that the condition was syphilitic, so that the title is a little misleading. The last plate consists of four photographs relating to a case of (?) carcinoma cutis contributed by Dr. Allworthy and Mr. George Pernet to the *Transactions* of the Dermatological Society of Great Britain. The condition is a very unusual one. Mr. Pernet, who examined some of the large growths microscopically, came to the conclusion that the case was one of alveolar carcinoma of the skin originating possibly from the sweat apparatus. Fasciculus xvii deals with a variety of subjects, and is mainly dermatological. Primary chancres as a result of tattooing are illustrated from photographs supplied by Drs. Thelwall Thomas and Cressley Wright. An interesting feature is the fungating or framboesiform aspect of some, a fact due, no doubt, to secondary microbic infection from without. There is an interesting series of plates illustrating the subjects of xanthoma and xanthelasma, and arsenical intoxication and the disorders of the skin it gives rise to. A good series of photographs by Dr. A. Hall of Sheffield shows various skin eruptions, such as syphilis, dermatitis herpetiformis, etc. Plates representing radiographs of fractures and dislocations bring this double fasciculus to an end. Altogether these parts of the *Atlas* cannot fail to be valuable to those in actual practice.

[4] [illegible] Compared [illegible] with the usual issue. London: [illegible] and Co. [illegible] compiled [illegible] New Sydenham Society. Fasciculus xvi [illegible] Fasciculus xvii. London: H. K. Lewis. [illegible] xvi [illegible] plates, with letterpress [illegible] xvii [illegible] plates, with letterpress [illegible]

The Panama Canal. The United States Public Health and Marine Hospital Service is making active preparations for the prevention and treatment of sickness among the workmen engaged in making the Panama Canal. A body of medical practitioners is receiving special training, and will work under the supervision of experts. The head quarters will be in a large hospital to be erected at Colon.

SEWAGE CONTAMINATION OF SHELLFISH.

REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

The extent to which the shellfish of our coasts are subject to pollution with sewage and the part played by such contaminated shellfish in the production of typhoid fever and other less well-defined forms of gastro-intestinal disturbance are subjects to which for years past attention has been particularly directed. Within the past few weeks two important contributions have been made both officially to our knowledge of this subject. One is the Report of the Royal Commission on Sewage Disposal, an abstract of which was published in these pages on February 13th, and the other is the voluminous Blue-book, presented to Parliament this month, in which the Local Government Board for Ireland has recorded the results of a laborious investigation, conducted by members of their scientific staff. As this is, to the best of our knowledge, the first instance of a systematic inspection, combined with bacteriological study of the collected material, extending round the entire coastline of one of the British Islands, we feel justified in endeavouring to give some idea of the lines upon which the work was carried out. We are all the more impelled to do so by the fact that some of the results tend to produce an estimate of the value of bacteriology as a test for sewage contamination somewhat higher than that assigned to it by the Royal Commission.

General Considerations.

The *Report on the Shellfish Layings on the Irish Coast as Respects their Liability to Sewage Contamination* contains an introduction addressed to the Lord Lieutenant of Ireland (the Earl of Dudley), and signed by Sir H. A. Robinson, C.B., Vice-President, and Mr. T. J. Stafford, F.R.C.S.I., Medical Commissioner, on behalf of the Local Government Board for Ireland.

In this it is stated that the communicability of disease, (enteric, diarrhoea, etc.), through the medium of polluted shellfish being taken as definitely established, the Board deemed it advisable to direct an inquiry into the extent to which sewage pollution of shellfish occurs round the coast of Ireland, and accordingly instructed their medical inspector, Dr. T. J. Browne, to inspect the layings and send samples of the shellfish, mud and water to their bacteriologist, Prof. E. J. McWeeney. "We arranged, however, that each should pursue his own investigations independently, that is, that Dr. Browne should form his opinion after personal inspection of the possible existence or non-existence of sewage contamination, without knowledge of the results of the bacterioscopic examination of any samples sent by him to Professor McWeeney, and that the latter gentleman, in making his examination of the samples, should not have any knowledge of the conclusions which Dr. Browne might have arrived at."

In pursuance of these instructions Dr. Browne "made a complete topographical survey of the various bays, harbours, and estuaries, on the shores of which shellfish are cultivated, and furnished maps showing the situation of each laying and its relation to the nearest sewage outfalls."

As the result of his investigations Dr. Browne divides the various beds into three classes (1) pure, (2) contaminated, and (3) doubtful. It is expressly stated that this classification has only a provisional character, merely rendering it possible to distinguish those which seem to be pure from those believed to be grossly polluted. The tendency of Professor McWeeney's results is to place in the "doubtful" class a larger number of localities than might be anticipated from the outcome of Dr. Browne's inspection. To appreciate correctly the character of these localities, as regards contamination, would require the study of prolonged series of samples—more investigation, in fact, than could be given to any one locality in so extensive a survey. The classification must therefore be regarded as preliminary to more thorough examination.

In the first section of his report Professor McWeeney "gives a full account of the methods employed in his laboratory experiments, and in the second, besides summarizing the results obtained on examination of the samples taken from each bed, he furnishes tabulated statements showing the result of the examination in each individual sample of shellfish, water, and mud. It will be seen that as a general rule he tested the specimens for B. coli communis and B. enteritidis sporogenes, and the tabulated statement readily indicates by the sign plus + or minus − whether the organism tested for was or was not found in the amount of material submitted for examination. Professor McWeeney also furnishes us with a number of photographs as illustrations of the results arrived at." The presence or absence of the B. coli communis in one cubic centimetre of the samples of shellfish and water is the test applied. The introduction goes on to emphasize the importance of estimating numerically the number of coli and other test-organisms which was not done save in a few instances, and to estimate the value of B. coli as a danger signal, increasing in gravity according as it is found, both in numerous samples and in large numbers, whilst its absence "may to some extent reassure us," as its abundance and vitality are greater than those of the typhoid bacillus. "At the same time we think it right to state that, in our opinion, bacterioscopic or chemical examination of samples taken from shellfish layings cannot be regarded as a substitute for careful and intelligent local inspection, but rather as an aid, in all but obvious cases of pollution."

The Commissioners then proceed to discuss the divergences between the reports of the inspector and those of the bacteriologist as regards the character of certain localities, and point out that "the results of laboratory investigations, on the whole, very closely coincide with the conclusions arrived at after local inspection, and that, for the most part, Dr. Browne and Professor McWeeney are in substantial agreement. When it is considered that Professor McWeeney made his investigations unaware of Dr. Browne's views as to the possibility of contamination of the layings, and without any knowledge of the local circumstances (save in the case of Dublin Bay), their joint opinion as to the pollution of certain layings will scarcely be disputed." The introduction then proceeds to point out the absence, as the law stands at present, of any adequate means of protecting the public against the sale of polluted shellfish, and the necessity for the creation of a responsible authority which, whilst closing contaminated layings such as those in the estuaries of the Liffey, Lagan, and Newry River, would have the field still open for the prosecution of the industry in suitable localities. "It stands out conspicuously in the report that there is available in this country Ireland) a great stretch of coast line with numerous bays and estuaries which, so far as freedom from sewage pollution is concerned, are ideal situations for the cultivation of shellfish. The industry would, therefore, only be transferred to larger and purer sources on the west and south coast of Ireland where there is, apparently, almost a illimitable scope for its extension under suitable hygienic conditions."

To follow in the footsteps of Dr. Browne on his tour of inspection round the Irish coast and summarize his results would, of course, be out of the question in this place. Those who care to undertake the task will find it much facilitated by the coloured maps, 34 in number, which accompany the report. From the nature of the subject Professor McWeeney's report is more compact, and it raises a number of questions of much interest to bacteriologists and hygienists generally such, for example, as the specific definition of B. coli, the value of B. enteritidis as a test for sewage, and the interpretation of the results of the bacteriological analysis. We give the text of its more instructive passages.

BACTERIOLOGICAL REPORT

By Professor McWeeney.

The shellfish examined comprised oysters, mussels, and cockles, six from each laying, as well as mud and water. The standard quantity tested for coli and enteritidis was 1 c.cm. mingled body fluid and shell water, or its equivalent in body substance when fluid was not forthcoming. At first 1 c.cm water and 3 loopfuls of mud were tested, but subsequently 100 c.cm. of the former and all the available mud were tested.

Professor McWeeney thus describes the results of his investigations:

Characteristic as the appearance of B. coli on gelatine plates undoubtedly is, there can be no question as to the necessity of always verifying the diagnosis "genuine" coli by the appropriate tests. These tests have been variously stated by various writers, and by many have, I think, been inadequately characterized. I wish to lay special stress upon the absolute necessity that every writer who concerns himself with bacillus coli should explicitly state all the characters upon which he relies when he gives that name to a given culture. Through the neglect of this precaution much of the work that has been done upon the distribution of this organism in Nature has lost its value.

Characteristics of Coliform Organisms.

The characters of every coliform organism isolated in the course of this investigation have been studied under the following heads:

1. Motility.
2. Behaviour to Gram's method:
3. Appearance of the colonies on gelatine plates
4. Power of fermenting carbohydrates;
5. Power of coagulating milk;
6. Growth on potato;
7. Power of reducing certain colouring matters, and
8. Formation of indol.

It will be necessary to say a few words on each of these points.

1. In most books the statement will be found that B. coli is a feebly motile organism. This does not always hold good. From faeces both of suckling babies and of adults I have obtained colonies of coliform appearance that consisted of extremely active organisms, and were "typical" in all other respects. Furthermore, I have isolated, direct from faeces, colonies of otherwise typical coli, the individuals of which were quite stiff, seemed spaced-out or isolated from each other in the hanging drop, so as to lead the observer to infer the existence of an abundant mucoid sheath round each, and were perfectly motionless. I have also observed cases where the organisms were motile when grown at 18° to 21°, and motionless at 37°. Many other workers have had similar experiences—for example, Stöcklin,[1] who isolated 300 strains of coli from normal faeces, and found 184 to be more or less actively motile, whilst the other 116 were motionless. The presence or absence of motility cannot, therefore, serve as a test to distinguish genuine from pseudo-coli.

2. None of the strains isolated retained the stain by Gram's method, and, as this non-retention is common to all the bacilli of the coli group, it cannot be used to differentiate coli *sensu stricto* from pseudo-forms.

3. On gelatine plates two forms of coli occur: the commoner, thin, vine-leaf, or filmy form, and the thick, opaque, discoid form. The former usually consists of short, actively motile, the latter of longer, motionless, stiff-looking individuals. I have usually termed this the aërogenes form, on account of its resemblance to, or perhaps identity with, Escherich's bacillus lactis aërogenes, isolated from suckling-faeces. Both forms occurred very generally in material which might be regarded as heavily infected with coli, and a colony of each kind was always subcultured and put through the tests, the result being that no constant difference could be found between the two varieties save the above-mentioned ones—appearance of the gelatine colonies and motility. The colon bacillus never liquefies the gelatine, and two strains which complied with the other tests but which slowly liquefied the gelatine had to be excluded. Similar strains have been obtained by other workers and received special names. I have frequently had occasion to observe the production of opacity and of masses of small crystals (of ammonio-magnesian phosphate) in the gelatine, but do not regard these appearances as sufficiently constant to serve as a basis for the separation of true coli from the outlying varieties.

4. The power of fermenting carbohydrates is an essential part of the [illegible] of this organism. All the strains which I studied *ad hoc* fermented glucose and maltose. Most of them fermented [illegible] also, though not so vigorously. In accordance with the general practice I have made lactose the test-substance, using it in the form of 1 per cent. solution in agar tinted blue with litmus. The strain under examination must evolve an abundance of gas and acid when sown as a shake culture in [illegible]. The medium must be split up by the [illegible] of gas, and the original blue colour must be turned to red or destroyed altogether by reduction. If these changes do not occur, the organism is not classed as "genuine" coli.

This would appear to be the proper place to refer to the evolution of gas bubbles in ordinary—that is, non-sugared gelatine shake cultures which is looked upon by some as a test for coli-[illegible]. My experience is that a great many strains [illegible] isolated direct from faeces do not give this "bubbling," or produce only a very few minute gas bubbles in unsugared gelatine. At first sight the "bubbling" might appear to depend merely on the accidental presence of a small amount of fermentable carbohydrate (muscle sugar) derived from the meat used in preparing the substratum. But the matter is not quite so simple. Lepierre[2] found that the gas evolution occurred in absolutely carbohydrate-free gelatine, and that the evolved gases consisted of a mixture of one part of free H with two of free N (instead of CO_2 and H, as would be the case were they derived from carbohydrate fermentation.) This curious phenomenon would appear, therefore, to depend on either (1) a more vigorous and complete destruction of the proteid molecule than the general behaviour of B. coli towards proteids would lead us to expect; or (2) the existence in the gelatine, peptone, or common salt used in making the medium, of traces of nitric acid, which is reduced by the bacillus to nitrous acid. This may then undergo further reduction to free N, or may act upon amides or amido-acids with evolution of that gas.

Whatever be the significance of the "bubbling" to which coli does undoubtedly sometimes give rise in genuinely carbohydrate-free gelatine shake culture, my experience leads me to state that it is not of sufficiently regular occurrence to justify its employment as a test reaction. The preparation of the medium is, furthermore, a source of difficulty and delay. On the other hand, if the bubbling be due to traces of carbohydrate in the medium, the proper course to take would undoubtedly be to regularize the presence of these traces by adding a definite quantity during the preparation of the medium. This I have done throughout the whole of the work, testing each batch of coliform organisms in shake culture on (1) ordinary, and (2) ½ per cent. glucose gelatine. The conclusion I have come to is that the occurrence of bubbling in No. 1 is too capricious and uncertain, and in No. 2 is too invariable to be of use. By requiring bubbling to occur in ordinary gelatine we should exclude many strains that are perfectly typical in other respects. By including all that bubble glucose-gelatine we should include a great number of strains that are in other respects (for example, effect on lactose, on milk, indol formation) quite outside the denomination "genuine." For these reasons I do not place the "bubbling" of gelatine cultures in the category of essential tests, compliance with which must be insisted on.

5. The power of coagulating milk possessed by genuine strains of B. coli would appear to be due to acid fermentation of the lactose. This character, therefore, agrees with that stated in the last paragraph as regards the behaviour of the genuine bacillus in lactose media. The coagulation must be complete, and after a few days the clot must be firm, more or less contracted, and surrounded by a clear whey. If after four days at 37° coagulation have not occurred, I do not feel justified in considering the organism to be genuine.

6. The manner in which many of these strains grew on this medium was very variable, many otherwise typical approximating to the colourless aspect of typhoid when grown on potato. In common with others who have worked on this subject, I have come to the conclusion that the character of the potato used has quite as much to do with the appearance of the culture as the character of the bacillus, and I have not therefore, rejected any organism which was otherwise typical, on account of its behaviour on this medium.

7. The powerful reducing effect of coli on litmus is one of the most familiar properties of that organism. It extends to other colouring matters as well (methylene blue, sulphindigotate of soda); but the most striking changes would appear to be produced when neutral-red is used. This colouring matter, which was first introduced into bacteriology by Rothberger in 1898, has the advantage of exhibiting not merely reduction, but a superadded phenomenon, that of fluorescence, when acted upon by the colon bacillus. As I have never met with an otherwise typical strain isolated directly from faeces which did not comply with this test, I have made it an essential one, and required compliance with it from all strains isolated in this investigation before classing them as genuine coli. At the same time I would not suggest that some coli-like microbes responding feebly to this test may not, if typical in other respects, be significant of objectionable pollution. I have always used agar shake cultures, tinged with neutral-red. By this method gas is not infrequently evolved as well. I cannot, however, agree with the suggestion of those who would use this test for the recogni-

[1] [illegible]

[2] [illegible]

tion of B. coli in bacterial mixtures.[1] Although, according to my experience, genuine B. coli always produces the change, other organisms do so as well. I do not wish to be taken as denying all value to the test when applied directly to water or the like, but for the present at least I should not feel inclined to rely upon indications yielded by neutral-red substrata unless applied to (or supported by) pure cultivations.

8. The formation of indol in liquid media containing "peptone" is, perhaps, the best evidence we possess of the ability of the colon bacillus to attack proteoses if not proteids. The reaction for indol is a delicate one, and its success depends on the kind of culture used and the way in which the test is applied. I have always used ordinary Witte peptone-broth cultures inoculated from the original gelatine-plate colonies obtained when the organism was first isolated. The broth cultures were always incubated for two days at 37° and then allowed to stand at room temperature for three weeks or a month. They were then tested with half their volume of a 20 per cent. solution of pure sulphuric acid (run in from a burette) and placed in the water bath at 60° for five minutes to see whether the pink coloration would come on, in which case the organism would appear to have formed nitrite as well as indol (assuming, of course, the Witte peptone and H_2SO_4 to be free from nitrites). This actually did happen in about 10 per cent. of the strains, though the amount of nitrite was never large enough to produce more than a faint rose tinge. After the lapse of five minutes at 60° C., from 1 drop to ½ c.cm. of a 0.02 per cent. solution of potassium nitrite was run in from a burette into the warm liquid. The effect was usually marked. An exquisitely delicate pink hue at once pervaded the fluids or formed a disc at their junction if they were not allowed to mix, and quickly deepened to an intense reddish purple. I had never seen such profound indol reactions until I adopted the above method of applying the test. Otherwise typical strains always gave the reaction to perfection, whilst it was often missed in otherwise atypical ones. Compliance with this test I have always insisted on as a fundamental character of genuine B. coli.

To sum up: The characters on the strength of which I have regarded a strain of coliform character as genuine coli are the following:

1. Character of gelatine colony and non-liquefaction of that medium even after a long time.
2. Non-retention of the stain by Gram's method.
3. Fermentation of lactose with formation of gas and acid.
4. Coagulation of milk within four days at 37°.
5. Production of yellowish green fluorescence in neutral-red agar-shake-culture.
6. Production of indol in liquid peptone media.

The accessory tests to which I have subjected all cultures, but on the result of which I do not lay principal stress, are:

7. "Bubbling" of "ordinary" and glucose-gelatine shake cultures.
8. Growth on potato.

Lastly, on the motility of individuals, or its absence, I hesitate to lay much stress.

In conclusion, I may say that I saw no advantage from studying the pathogenicity of the very numerous strains isolated. In the case of genuine B. coli this character admittedly varies within wide limits. Nor did it seem advisable to undertake the colossal task of studying the serum reactions, more especially in view of the doubtful and contradictory results arrived at by others.

With regard to the occurrence of pseudo-coli organisms, I have not found them of such frequent occurrence as I originally anticipated. They seemed to occur more especially in connexion with certain enrichment methods. One example of this may suffice. Five oysters sent by Dr. Browne from the Public Beds, Tralee, were tested by three several methods, namely:

1. The method of M'Conkey—culture in litmus-glucose bile-salt-broth, with fermentation tube;
2. The method suggested by Klein (British Medical Journal, February 21st, 1903)—culture in litmus-lactose peptone water, with fermentation tube; and
3. The phenol-broth method as described above.

The fluid contents of each oyster were divided into three parts, one of which was added to a culture tube of each of the above substrata. The result was that all five oysters gave gas and acid in the Klein and M'Conkey tubes, whilst only one (No. 3) gave rise to development in the phenol-broth. All were plated out, and yielded coliform colonies more or less mixed with liquefying ones, save in the case of the phenol-broth tube, which yielded coliform colonies in a state of purity.

On further testing it was found that the coliform organisms obtained from oysters 1, 2, 4, and 5 by the two fermentation-tube methods failed to react typically in litmus-lactose-agar, neutral-red-agar, and milk, and were besides very weak formers of indol. They belonged, therefore, to the category of pseudo-coli organisms. The coliform organisms obtained by the phenol-broth method from oyster 3 proved to be genuine.

The phenol broth is thus shown to have singled out one oyster, and justly so, whilst the seemingly positive results obtained in the case of the other four by the fermentation-tube methods proved on examination to be due to organisms, the genuine character of which seems at any rate open to question, and which certainly lie outside of the—perhaps somewhat arbitrary—limits which I have ventured to draw.

B. Enteritidis Sporogenes.

Turning now to the demonstration of B. enteritidis sporogenes. I proceeded at first strictly along the lines laid down by Klein, the discoverer of that organism, my only departure from his method being in the direction of more complete anaërobiosis. After addition of the standard quantity of material to freshly-sterilized litmus-milk, the tubes were heated in a water bath to 80° for ten minutes, and then placed in a large Novy's bottle, the air got rid of with H, connexion with the atmosphere cut off, and the anaërobiosis tested by spilling a little caustic alkali on the bottom of the vessel, which was strewn with pyrogallol. After two or three days' incubation the tubes were taken out, and the contents of those that seemed typically changed were tested by microscopic examination and injection into animals. Furthermore, by means of dilute stroke cultures on oblique sulph-indigotate agar in a Novy bottle under H and over pyrogallol, as well as by glucose-agar plates in a Bulloch's apparatus, the organisms producing the "typical" change were isolated, and their principal characters investigated. As the result of this work, I find myself in agreement with Klein as regards the following points: Large size, tendency to chain formation, bluntly-rounded ends, Gram-stainability, and variable motility of the organism; its tendency not to form spores in milk-culture; its capacity for liquefying blood-serum (I used Loeffler's), whilst it forms an abundance of spores in that medium; its power of slowly liquefying gelatine, with ultimate formation of a clear liquid, at the bottom of which are thick white flocculi, and at the top imprisoned gas bubbles; and its effect on guinea-pigs, which I have tested again and again with results identical with those recorded by Klein. On the other hand, I have not found it necessary to adopt anaërobic methods in order to obtain the typical enteritidis change in milk. In confirmation of this statement I submit photographs (Plate VI, Figs. 2 and 3) showing duplicate milk tubes inoculated with the same amount of material from the same cockle, and incubated one under aërobic, the other under anaërobic conditions for the same length of time. A glance at the illustrations will show that the typical change has supervened quite as often under aërobic as under anaërobic conditions. Furthermore, the contents of certain of the aërobic tubes that showed the typical change were contrasted as regards their pathogenicity for guinea-pigs and found to be fully equal in this respect to the milk cultures made in the absence of air. The explanation of the growth of this obligate anaërobe without special precaution is the existence of a layer of cream on the surface of the sterile whole-milk. When skim-milk was used comparatively few of the tubes show the typical change. Provided, then, that fairly rich whole-milk be used, I can see no advantage in adopting anaërobic methods for the demonstration of this organism, and the greater part of my results are based on the result of incubating the inoculated milk tubes without special precaution. Possibly those who advocate the test have observed the same facts, but hesitate to abandon anaërobic methods, lest by doing so some unsuspected error might arise.

I very much doubt the significance of the presence of B. enteritidis. Even when the milk tubes failed to display the change designated as typical by Klein, microscopic examination has repeatedly shown me the presence of a minority of anthrax-like, Gram-staining, non-sporing rods, evidently

[1] Cf. Makgill on the "Neutral-Red Reaction as a means of detecting Bacillus Coli in Water Supplies"; Savage on "Neutral-Red in the Routine Bacteriological Examination of Water."—*Journal of Hygiene*, vol. 1, No. 4.

enteritidis, but enteritidis which had failed to get the upper hand owing to the prevalence of some other obligate or facultative anaerobe competitor. I have been obliged to conclude that enteritidis is a very frequent denizen of mollusca and the sandy mud in or on which they dwell, with the exception of deep-sea beds (cf. Winslow and Wetzel's results). It appears to me to be one of a number of anaërobe saprophytes, normally occurring in putrescent organic matter, whether of animal or vegetable origin (cf. Stewart's results with corn. *Reports of the Lister Institute*, vol. iii, part I).

Its mere demonstration would not, therefore, appear to afford convincing evidence of faecal contamination. On the other hand, its absence may be allowed to have a certain negative value, inasmuch as, owing to its great frequency in faeces, it could hardly be absent from material contaminated to any appreciable extent with sewage. Looking at the whole subject from the broad standpoint of the general biologist, we see that the great processes of carbon-circulation and nitrogen-circulation in Nature are carried on through the agency of saprophytic organisms, mainly bacteria, some of which are anaërobic. These anaërobes may fairly be expected to occur wherever there is organic matter undergoing decomposition, that is, practically everywhere. The fact that some of them, through their toxins or otherwise, are capable of producing disease in animals into which they fortuitously obtain access, is a mere accident. The demonstration of potential pathogenicity, such as that afforded by Klein in the case of his B. enteritidis sporogenes, is no proof that the organism habitually acts in that way, or is in any sense closely or indissolubly connected with human life processes. Like tetanus, it is an anaërobe saprophyte, with a rôle of its own play in Nature, though what that rôle is we do not as yet know. Like tetanus, it possesses organs of persistence (spores), which enable it to indefinitely survive any fortuitous connexion it may have had with the human organism, and more especially to outlive the delicate non-sporing organisms, such as typhoid and coli, which have undergone special differentiations to enable them to survive in the human body, and to play their part hostile in the case of the one, defensive in that of the other, in its life processes. The fact that these anaërobes form spores is therefore an important reason why they should not be used as a test of the hygienic quality of an article of diet.

How different is the case with coli. Here we have an organism devoid of spores, and therefore endowed with very limited powers of persistence, an organism which is a habitual denizen of the alimentary canal of men and animals, and enormous numbers of which, thousands of millions of individuals—are daily produced by every human being and higher animal, an organism which has a most important rôle to play in connexion with the digestive processes of the animals with which it is symbiotic, the production of putrefactive changes in the alimentary canal (Bienstock). When our object is to test whether a given article of diet is contaminated with such discharges, and therefore potentially with the pathogenic forms of bacteria typhoid, cholera—which they may contain, it is clearly to the colon bacillus we must look as the most reliable index of such contamination. If we find this bacillus present in large numbers we are justified in inferring that the contamination has been recent in point of date and faecal in character. If the contamination has been of such a kind as to lead to the supposition that pathogenic forms will after a time be found, then the material may be regarded with high probability as dangerously polluted. If we do not find coli, but do find the spores of B. enteritidis or other saprophytes, it will be a matter for precise inference what weight is to be given to the presence of the coli-type of contamination. Accordingly, while not disposed to differ from those who experience the best results in older and more varied fields of inquiry in the use of the term in hygienic investigations, I cannot, in the light of my present experience, assign to it a value practically equal to that of the test for B. coli communis.

The Value of the Bacterioscopic Test.

The gravest objection to the employment of sewage contamination based on the bacterioscopic test is undoubtedly the ubiquity of B. coli. The fact that it invariably appears in the alimentary canal within a few hours of birth is a proof of this ubiquity, and the fact that so many billions are daily liberated from the alimentary canal of men and animals serves to explain it. Can we fairly base conclusions on the presence of so widely distributed an organism? My opinion is that we can, provided that we do not base them on the mere presence or absence, but upon the degree of concentration of the colon bacillus, as was, I believe, first pointed out by Houston. Faeces afford an example of colon bacilli aggregated in the closest manner met with in Nature. Next from this degree of aggregation downwards every intermediate state of concentration probably exists down to that met with in a public water supply, one or two litres of which can only supply a single colon germ. If we can establish in the case of each article of food liable to sewage contamination a maximum standard of coli-content—as has been so brilliantly attempted by Houston in the case of sewage effluents—we shall have done all that can fairly be demanded of bacteriology, unless indeed further researches show that faeces contain some still more characteristic organism (such as B. acidophilus recently found by Moro in the faeces of sucklings), which is not liable to occur elsewhere.

The question arises whether the work which I have now the honour to submit to the Local Government Board does really supply such a standard. Confident as I am of its accuracy, so far as it goes, I am not prepared to assert that it does this. It tells of the presence or absence of the colon bacillus in 1 c.cm. of oyster contents; it tends to show that the bacillus is absent from 1 c.cm. of fluid when the oyster comes from uncontaminated sources; and that when the bacillus is present in several oysters from the same source, that source is usually open to grave suspicion on other grounds. In order to thoroughly solve the problem it would be necessary:

1. To ascertain whether oysters, etc., which do not contain the colon bacillus in 1 c.cm. can be shown to contain it in their entire organism;
2. Whether the colon bacillus is ever demonstrable in small quantities, 1, 10, or 100 c.cm., of sea water taken far from the shore, and therefore absolutely free from all possibility of contamination with sewage; and
3. Whether there exist in the sea water of oyster beds sources of B. coli other than sewage. I refer to the possibility that the intestinal contents of sea fowl and fish may contain that organism, and, under certain circumstances, liberate it into the water in quantities large enough to perceptibly affect its bacteriological character.

If oysters that do not contain B. coli in 1 c.cm. juice are found free from it altogether, then there can be no doubt that this amount will really form a convenient standard quantity from which the colon bacillus must be absent in hygienically unobjectionable molluscs.

If it can be shown that the colon bacillus does not occur in, say, 100 c.cm. of open sea-water, then its occurrence in, say 1 c.cm. of water from an oyster bed, must surely be held to justify condemnation of that water as contaminated with colon-bacillus-containing material—in other words with sewage—provided that the other possible sources of coli, referred to in paragraph 3 above, are shown to be practically non-existent.

It is to these points that I propose to turn my attention at any subsequent work which the Local Government Board may see fit to entrust to me on this subject.

In conclusion, I would draw attention to the fact that in preparing the bacterioscopic reports which I have now the honour to submit, I have been not only unbiassed by any local knowledge, but—with the exception of Dublin Bay and vicinity—absolutely ignorant of the local conditions. With the results of Dr. Browne's inspection of the several localities I have never become acquainted till after the bacterioscopic report was completed and sent in. I cannot but regard it as highly satisfactory, from the point of view of bacteriology, that the conclusions arrived at by Drs. Browne and Edgar Ellis, medical inspectors to the Local Government Board, as the result of examination of the several localities, have in so many cases been in agreement with the results to which I have been led by independent laboratory investigation.

ROENTGEN RAY CONGRESS. A Roentgen-ray Congress is to be held in Berlin at Easter, 1905, to celebrate the tenth anniversary of the discovery of the rays. There will be an exhibition of x-ray apparatus in connexion with it and with the German Surgical Congress. His Excellency Professor Ernst von Bergmann is Honorary President of the Roentgen ray Congress and has expressed his intention of being present at its sittings.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, FEBRUARY 27TH, 1904.

ISOLATION HOSPITALS.

We have published during the last few months a large number of letters in which the value of isolation hospitals has been questioned. The force of the facts and arguments advanced has perhaps been obscured by the vehemence of the language in which they have sometimes been expressed, but they are sufficiently cogent to afford justification for the suggestion that the advantages and disadvantages of hospitals in which cases of infectious disease are aggregated would be a suitable subject for investigation by a Select Committee, if not by a Royal Commission.

The two diseases with regard to which it is especially alleged that isolation hospitals have failed are scarlet fever and small-pox. With regard to the former, there are the awkward facts as to the occurrence of fresh cases in apparent relation to persons discharged from hospital after convalescence and disinfection, and there are allegations that the mere aggregation of cases under the same roof reinforces the infection and aggravates the disease. The scarlet fever of the present day seems to be on the whole a milder disease than the scarlet fever of a generation ago. How far this is due to variation in type, how far to improved sanitary conditions in dwelling houses diminishing the risk of secondary infections, and how far to early isolation or improved methods of treatment is very difficult to say. The answer must be more or less of a guess, coloured by the personal prejudices or special experience of the answerer. An official inquiry would not settle these questions, but it would ascertain the facts, and would prove whether the statements as to the evil influence of infectious hospitals were of general application or were generalizations from exceptional occurrences. The official opinion is that the isolation of patients suffering from scarlet fever is desirable in the interests of the community as preventing the spread of infection, and in the interest of the individual as affording a better chance of recovery than treatment in—for example—a tenement house. The validity of this opinion is not destroyed by producing instances in which fresh cases may be traced to convalescent patients discharged from hospital. Such cases may be inevitable, inherent in the system, or they may be due to faults in administration which might be remedied. What it appears necessary to ascertain for the satisfaction of local authorities called upon to spend a good deal of public money is on which side the balance of advantage lies. The probability is that the balance is on the side of the hospitals, and if that belief is held by those who support the erection and maintenance of such institutions, they may be expected to be all the more disposed to agree to an inquiry.

The position with regard to small-pox hospitals is different. The official opinion is that there is something about small-pox hospitals which is inherently dangerous; that careful and skilful administration may diminish, but does not abolish, the risk of infection within a circle of quarter or half a mile, or even, according to the more extreme opinion, of more than a mile. From the hospital as a centre a subtle something, we are told, is blown by the wind or wafted by the zephyrs and dropped into cottages and coal mines, and even into the mouths of wayfarers on the public roads or engine-drivers on the railways near a small-pox hospital. The advocates of this theory are not quite agreed among themselves. Some would maintain that a stiff breeze is required to disseminate the infection far and wide, while others hold that a slight drift of air will carry a compact mass of infection which will be an overwhelming dose for a susceptible individual. The whole theory rests upon the construction of spot maps. Each spot represents a case, and it is seen that the percentage of spots to population is greatest within a quarter of a mile of the hospital, less, but still large, within half a mile, and so on. This, it is said, is to be explained by the theory of aërial convection—a bad term, because it may be taken to imply that the infection is gaseous, whereas we know it to be living and particulate. We published last week a report compiled from the official shorthand notes of the case in which the Corporation of Nottingham had to defend an action with regard to a small-pox hospital recently erected in the parish of Bulwell. The plaintiffs were the master of the village schools of Bestwood, a village within half a mile of the hospital, a farmer and miller of another parish whose house and workmen's houses are within 200 yards of the hospital, and the Bestwood Coal and Iron Company whose ironworks are within a quarter of a mile, and whose colliery is within half a mile of the hospital. The hospital adjoins a public high road from which it is separated by a high fence and lies between a main line of the Midland Railway and a branch line of the Great Northern Railway. A considerable number of people either live or work within a short distance of the hospital. The plaintiffs alleged that the maintenance and utilization of the hospital caused great danger by the spread of infection not only to residents, but to persons working on the farm or in the mine or ironworks, and also to persons passing along the high road; and the suggestion was even made that engine-drivers on the railway were not safe. The plaintiffs claimed an injunction to restrain the use of the hospital for the reception of cases suffering from small-pox so as to cause a nuisance either to the inhabitants of the neighbourhood or to persons passing along the highways. The defence stated that the site, which comprised four acres, had been carefully selected, and that both it and the buildings had been arranged in accordance with the memorandum of the Local Government Board of May, 1902, although the Corporation was under no compulsion to do so; every building to contain infected persons had been placed more than 40 ft. distant from the boundary, and the grounds, except in one place where bounded by a stream, had been enclosed by a fence protected by barbed wire and with an inner fence round the hospital buildings. It was further alleged that the hospital had been in use since August, 1903, and had not caused any nuisance or occasioned the spread of infection. The hospital accommodates between thirty and forty patients, and no question of maladministration was raised by the plaintiffs.

It is significant that counsel for the plaintiffs appears to have abandoned the theory of convection, and to have relied solely upon the empirical conclusion that in some way or other a small-pox hospital containing more than a certain undetermined number of acute cases operated to produce a disproportionate incidence of small-pox in its neighbourhood.

Dr. J. C. McVail, whose opinion on any subject connected with small-pox will rightly have great weight with the profession, does not appear to have been disposed to go further than this. He said that small-pox hospitals were very dangerous in disseminating the infection to surrounding populations, and that though there might be much difference of medical opinion as to the theory which accounted for the fact, it would be a serious thing for the health of the community if there were a difference as to the fact of small-pox hospitals being dangerous. He said further that he knew of no evidence to support the view that aërial convection to persons who worked more than half a mile away was a practical danger: he admitted the risk of infection through personal intercourse between the staff or convalescent patients and the neighbours, but he did not consider that this cause would account for the very much larger incidence of small-pox in the zone immediately around a hospital. He considered that the longer the time spent by a susceptible person in the special area the greater the risk of infection, and also that it was greater to a person in the open air than to one who remained within a dwelling. With regard to the alleged risk to persons using the highway which passed the hospital, he said that it was not necessary to assume that the infection was by aërial convection; material that had been related to the hospital at one time might find its way on to the high road—dust and so forth—and the infection might thus be mediate.

The memorandum of the Local Government Board to which reference has been made states that in view of the frequently-demonstrated liability of small-pox hospitals to disseminate that disease to neighbouring communities, and in order to lessen the risk of such occurrence, the Board requires certain conditions to be complied with in the case of small-pox hospitals provided by means of loans sanctioned by it. The first condition is that the site must not have within a quarter of a mile of it a hospital, whether for infectious diseases or otherwise, or a workhouse, asylum, or any other similar establishment, or a population of as many as ... persons; the second condition is that the site must not have within half a mile of it a population of as many as ... persons, whether in one or more institutions or in dwelling-houses; the third is that even where the above conditions are fulfilled a hospital must not be used at one and the same time for the reception of cases of small-pox and of any other class of disease. This is the official view; it is not the view universally held by medical officers of health who have had experience of the working of small-pox hospitals. Dr. Hope, who has had the supervision of three small-pox hospitals at Liverpool, stated that his experience had led him to reverse the theory of the aërial dissemination of small-pox. Dr. Sedgwick Saunders, M.O.H. Brighton, and Dr. George Reid, M.O. Staffordshire County Council, supported this view; and Dr. Collingridge, who while for many years Medical Officer of the Port of London had had special experience of the hospital ships in the Thames upon which particular reliance was placed by Dr. Thorne and others who maintain the view that small-pox is commonly disseminated to a considerable distance through the air, significantly said that he knew too much of the habits and customs of the people frequenting the river to accept the view that the regulations to prevent personal intercourse were always effective.

Meanwhile the Local Government Board enforces its restrictions upon all authorities, which, unlike Nottingham, must apply to it to sanction loans for the erection of small-pox hospitals. In view of the conflict of opinion we cannot but feel that it is desirable that the question should be investigated by a tribunal better qualified than a Chancery Court to review all the facts and arrive at an important decision.

THE PHYSICIAN OF THE FUTURE.

Much is heard at the present day of the lowly estate of the medical profession, of the neglect with which it is treated by governments, principalities and powers, of the imperfect appreciation of its services shown by the public, and of the manifold wrongs which it suffers at the hands of society. That there is solid ground for dissatisfaction in respect of all these things is a truth which cannot be gainsaid, and which assuredly need not be insisted upon in the British Medical Journal. Nor is it our purpose here to discuss the causes of this discontent. It may, however, be pointed out that these are partly to be found in the operation of economic laws which affect medicine in the same way as they affect every other profession or industry; partly in the uncertain nature of the knowledge on which the healing art is largely based, and the consequent defects in our therapeutic equipment; partly, too, on the new conception of the true function of the physician which is almost imperceptibly being produced by the evolution of scientific medicine. As medicine approximates more and more to the character of an exact science its chief aim tends to change from the cure to the prevention of disease. In the defence of the public health its most conspicuous triumphs have been won, and in that direction lies the hope of its future expansion.

In the application of this principle to the conservation of the health of the individual Dr. J. Héricourt sees a remedy for most of the tribulations of the medical profession. In a chapter of a forthcoming work, entitled *Les Fonctions de la Maladie*, which is published in *La Revue* of February 15th, the distinguished French physician sets forth the disadvantages under which the doctor of the present day practises his profession. As a rule, he never sees a disease till it is near its end. Before this consummation is reached the illness has passed through two phases—one corresponding to the onset, the other to the reaction of the organism against the attack. It is during these phases that help is most urgently needed in the struggle, but it is just at those periods that the aid of the medical practitioner is scarcely ever invoked. He is called in only in the third phase when the illness has already got a firm hold on the patient, and treatment can have little or no influence on its further course. Either the doctor looks on while the disease as it were burns itself out, or as was wont of the Greek physicians of old, he stands at the bedside wrapt in a "meditation on death." What indeed can all his art do in cases of established Bright's disease, cirrhosis of the liver, or diabetes, beyond relieving symptoms and perhaps retarding the progress of the malady? In the third stage of tuberculosis and in most acute infectious diseases he has practically no control over the course of

events. Much, however, could be done to prevent the development of kidney or liver disease or diabetes if the early disorders of nutrition of which they are the outcome could be corrected; tuberculosis, as every one now recognizes, can be cured in the early stages, and the sanitarian can to a large extent strangle infectious diseases in their cradle.

Being human, the physician must to a certain extent be influenced by regard for his own interest, and Dr. Héricourt holds that he is placed in a false position in the public eye by the fact that he has to find his means of livelihood in the sufferings of his fellow-men. This circumstance accounts for much of the suspicion and positive hostility with which the profession is regarded by many people. This prejudice can never be removed until the relation of the physician not only to the public but to the individual becomes normal; that is to say, until his direct and immediate interest lies in the prevention of disease. The maintenance of the highest standard of health in all members of the community within his sphere of influence should be to him a source not only of pride, but of profit. Already some classes of the medical profession are in this happy position. The direct measure of the efficiency of the medical officer of the navy or army is the absence of disease among the men under his care. His chief duty is to detect the beginnings of disease and at once check the spread of infection. He is, in short, a hygienist rather than a physician or a surgeon. An accurate appreciation of this most important truth by those who are responsible for the efficiency of our army would have saved many a disaster in the past; and if similar misfortunes are to be prevented in the future, this can only be by the opening of the eyes of Mr. Arnold-Forster and his advisers to the folly of placing the medical service of the army under the heel of the military jack-boot.

The principle of employing medical practitioners as guardians of private health is already applied to some extent in civil life. Some railway companies and a few large manufacturing and trading companies have medical practitioners whose duty it is to watch over the health of the workers in their employ. The value of medical officers of schools is coming to be more and more clearly recognized. Dr. Héricourt is strongly of opinion that it would be to the advantage of all concerned if the principle were extended to families. Every household should, he says, have a doctor paid by the year to watch over the health of each one of its members, including the servants. His duty would be to prevent illness; but if disease showed itself he would be in a far better position to deal with it than a stranger hastily called in when the case had already begun to look serious. The application of the same principle would, Dr. Héricourt thinks, solve the difficulty of contract medical practice. He insists on the advantages that would follow the transformation of Friendly Societies into mutual assurance associations. If, he says, it is a good thing to get medical help for nothing when you are ill, it is still better to avoid illness by being safeguarded against disease. To this end, it would be worth while for these societies to engage adequate staffs of medical officers at salaries sufficient to secure the services of thoroughly competent men whose duty it should be to keep a watchful eye on the state of health of every member.

Dr. Héricourt points out that if the physician of the future is to fulfil the function which he assigns to him, he will need a different training from that which he now receives. His scientific knowledge must be of a higher kind, his judgement must be sure, his powers of observation sharpened by long practice and well-directed attention. He will have to act on a correct interpretation of signs, on an exact appreciation of fine shades, on a logical prevision of consequences and possibilities. When the medical profession as a whole has been educated up to this level, it will command the public respect to which a body of such importance to the common weal is entitled.

If Dr. Héricourt's ideal is to be realized, it is clear that the public will be required to be educated almost as thoroughly as the profession. But it is certain that when a knowledge of the general principles of physiology and of the laws of health is the common property of all men and women, the belief in futile remedies will cease and quackery will die a natural death. Medicine will no longer be looked upon as the art of "curing" diseases, but as the science of preventing such of them as cannot be altogether abolished. In that far time the physician will take the place that rightly belongs to him as the most important functionary in an enlightened State. Till then he must strive to live and work in the spirit of the noble words of Sir Thomas Browne:

"I feel not in me those sordid and unchristian desires of my profession; I do not secretly implore and wish for plagues, rejoice at famines, revolve ephemerides and almanacks in expectation of malignant aspects, fatal conjunctions, and eclipses. I rejoice not at unwholesome springs nor unseasonable winters; my prayer goes with the husbandman's; I desire everything in its proper season, that neither men nor the times be out of temper. Let me be sick myself, if sometimes the malady of my patient be not a disease unto me. I desire rather to cure his infirmities than my own necessities. Where I do him no good, methinks it is scarce honest gain, though I confess 'tis but the worthy salary of our well-intended endeavours. I am not only ashamed but heartily sorry that, besides death, there are diseases incurable; yet not for my own sake or that they be beyond my art, but for the general cause and sake of humanity, whose common cause I apprehend as mine own."

A practitioner who acts up to this standard of professional feeling and conduct will certainly earn the veneration and affection of the people among whom his way of life lies, even if he often fails to cure and is sometimes powerless to prevent the attacks of disease.

SCURVY AND STERILIZED MILK.

In another column is published a paper by Dr. Henry Ashby, of Manchester, the importance of which must not be measured by its length. The etiology of scurvy is not thoroughly understood. It is not fully established whether it is due to a *plus* or *minus* change, to some non-natural constituent, or to the subtraction or destruction of some natural antiscorbutic substance. It is at any rate certain that it is produced by the exclusive use of cooked preserved foods, and that, as W. H. Neale's experience in the Arctic regions proved, it may be warded off by even a small proportion of fresh food in the diet. The better opinion appears to be that scurvy is produced by some product of decomposition present in the preserved food. Dr. Ashby relates a striking case in which scurvy rapidly developed in an infant after it was fed exclusively on sterilized "humanized milk" obtained from a municipal dépôt. Dr. Ashby does not tell us anything about the history of this milk

before it was 'humanized' and sterilized. The investigation made for the BRITISH MEDICAL JOURNAL last year would, however, quite prepare us to learn that it was obtained in bulk through a wholesale milk dealer from an uninspected farm, potted for hours in an unsealed can at the tail of a slow train, and finally submitted to humanization and sterilization when it was already swarming with bacteria and loaded with poisonous scurvy-producing substances.

We believe that every one who has seen much of infants' disease will agree with Dr. Ashby that for every case of well-developed scurvy there are hundreds which present symptoms recognizable as of a scorbutic type—mild cases of scurvy, in fact presenting the symptoms of anaemia, loss of flesh, puffiness of the integuments, loss of appetite, and diarrhoea. They recover rapidly when once the cause is recognized, but failing a correct diagnosis the whole gamut from cod-liver oil to opium may be run through without any real benefit.

A great deal has been written about the necessity for modifying cows' milk, so that it may approach in composition human milk as closely as the chemist and physician can contrive. The case for modification has been stated very fully in our columns by Dr. Rotch and others. But we do not find the arguments convincing. A baby is not a test tube. Like all other animals, the healthy human infant can digest and dispose of a diet which departs a little from the absolute standard of accurate chemical analysis. Professor Budin gives whole milk undiluted and has had most excellent results, as was shown in the article published last week, page 440. It might be better to give cow's milk diluted a little to lower the proteid, to add some cream to raise the percentage of fat, and to add also some milk sugar to increase the carbohydrates. Is not the healthy baby round and fat while the calf is long and lanky? The all essential point is that the milk should be pure, fresh, and clean. We are very glad to find Dr. Ashby lending the weight of his authority to this doctrine, which was the main conclusion drawn by our commissioner from the investigation made for us last spring into the Milk Supply of Large Towns.

Clean milk—this is really the alpha and omega of the whole matter—milk which has not been contaminated by gross dirtiness and carelessness at the farm, by unmentionable negligence in transit, by culpable manipulations at the milk factory in the town, by ignorant storage in the shops of small dealers and the tenements of the poor. As the milk trade is now conducted the sources of contamination are almost innumerable. To remedy this state of things let us begin at the beginning. Let us insist that the Orders of the Local Government Board, with regard to dairy farms, be carried into effect by the sanitary authorities of the rural districts from which nearly all the milk supplied to large towns comes. The results of a special inquiry, made a few months ago, was to establish the fact that in most country districts the orders are a dead letter, either the model rules have never been adopted, or, if adopted, are not enforced. Next, let us ask the railway companies to encourage the use of sealed churns, and to fix reasonable rates for the carriage of milk in bottles. Apparently no serious objections would be raised by the principal companies. Then let us insist upon the rather sketchy guarantees taking the form of pint samples for analysis at all but the most desperate adulterations.

Finally after all this, let us ask whether it is really necessary to sterilize. If it prove to be necessary, then the risk of scurvy must be taken as the lesser of two evils, and the more easily obviated by giving lemon juice or other "antiscorbutic." But we venture to say that the necessity has not been proved. There is no question here of the rights or wrongs of municipal trading. The question is an essentially medical one: whether it is wise and reasonable and scientific first to let milk become putrescent and then to boil it to kill the bacilli and most but not all of their spores.

THE KING AND MEDICAL EDUCATION.

THE King has recently given fresh evidence of the interest which he has always displayed in the medical profession and medical education. He has, as will be seen from the report of the last meeting of the Medical Faculty of the University of London published at p. 512, promised a donation of 100 guineas to the fund now being raised to establish an Institute of the Medical Sciences under the control of the University should the scheme be carried out. It may reasonably be expected that this expression of His Majesty's approval will greatly assist the efforts now being made by Mr. Butlin and his colleagues to raise the amount of money required to make the scheme a success. Another evidence of the King's interest in medical education is afforded by his approaching visit to Cambridge to open the new buildings of the Medical and Botanical Schools. He will be accompanied by the Queen and the Princess Victoria, and will on the same occasion attend a Congregation in the Senate House, will visit the Squire Law Library, will open the Geological Museum, and unveil the memorial statue to Professor Sedgwick in that building. We feel sure that the King's action in these matters will be appreciated by the medical profession far beyond the precincts of the Universities which they immediately concern.

DEPUTATIONS.

A DEPUTATION, representing the British Medical Association and consisting of Mr. Andrew Clark, Chairman of Council, Sir Victor Horsley, Chairman, and Drs. Heron, Major Greenwood, and O'Sullivan, members of the Medico-Political Committee, Mr. Guy Elliston, General Secretary, and Dr. J. S. Whitaker, Medical Secretary, accompanied by Dr. Bateman, representing the Medical Defence Union, had an interview with the Registrar-General on February 23rd. The deputation, which was introduced by Mr. Hempson, Solicitor to the Association, laid before the Registrar-General the recommendations of the Medico-Political Committee, which were published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of January 9th, 1904, p. 84. The proceedings were private, but it may be stated that the Registrar-General gave a most sympathetic hearing to the views expressed by the deputation. On the same day, Mr. Walter Long, President of the Local Government Board, received a deputation from the Association, consisting of Dr. T. D. Griffiths, President, Sir Victor Horsley, Chairman, and Drs. O'Sullivan and Macdonald, members of the Medico-Political Committee, and Dr. Groves, Chairman, and Mr. C. H. W. Parkinson, a member of the Public Health Committee, together with Mr. Guy Elliston, General Secretary, Dr. J. S. Whitaker, Medical Secretary; and Dr. Dawson Williams, Editor of the BRITISH MEDICAL JOURNAL. The deputation was introduced by Dr. Hutchinson, M.P., and the interview was private. The object of the deputation was to bring to the notice of the President of the Local Government Board the views embodied in the draft Bill which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of January 16th, 1904, p. 129. Mr. Long undertook to convey the representations made to him to the Inter-departmental Committee now conducting an inquiry into the duties and relative position of different public offices.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

In view of the approaching London County Council elections on March 5th, it is hoped that all medical men who have not yet joined the above Association will communicate with the Honorary Secretary, Dr. Arthur James, 69, Gloucester Terrace, Hyde Park, W. It is very desirable that candidates should understand that the whole profession is of one mind as regards the necessity of the Council providing an efficient street ambulance service for London. Several hundred members have already been enrolled, amongst them being: The President and many of the Council of the Royal College of Physicians, the President, Ex-President, two Vice-Presidents, and sixteen members of the Council of the Royal College of Surgeons, the Vice-Chancellor of the London University, members of the staffs of all the London hospitals, including Sir Thomas Barlow, Sir T. Lauder Brunton, Sir William Bennett, Sir Alfred Cooper, Sir Anderson Critchett, Sir William Gowers, Sir R. Douglas Powell, Sir E. Cooper Perry, Sir Thomas Smith, and Sir Felix Semon. The Metropolitan Street Ambulance Association has already sent a communication on the subject to every County Council candidate, enclosing a postcard for reply to the following question: "If elected to the London County Council will you interest yourself in securing the establishment, by the Council, of an efficient street ambulance service for London?" A great many satisfactory answers have already been received. There can be little doubt that all candidates will give their support if the profession will point out the great advantages of the scheme advocated.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

The National Hospital for the Paralysed and Epileptic has issued an appeal which has the approval of many distinguished persons, among whom are Lord Avebury, Mr. Joseph Chamberlain, Sir William Huggins, Mr. Justice Kennedy, Sir Norman Lockyer, the Bishop of London and Lord Strathcona, for aid towards the establishment of a pathological research department. It is pointed out that although the hospital was established primarily for the treatment of patients, it is also intended, as stated in the rules, to provide opportunities for the investigation of nervous diseases. The hospital has for many years maintained a pathological department but the funds available have been insufficient to enable it to carry out the work as completely as is desirable. "Under present conditions of life," says the Board of Management, which has issued the appeal, "nervous diseases are steadily on the increase and many forms of paralysis are still incurable and must remain so until more light has been thrown upon their origin. It is thus clearly to the interest of the public generally that every possible means should be provided for their elucidation. Those who are interested in the prevention as well as the cure of disease are asked to assist in the effort which is about to be made in order to provide that permanent and systematic research shall be carried on on a proper scale. The accounts will be kept apart from the general accounts of the hospital, and every contributor will annually receive a report of the work and a copy of the accounts." We heartily commend this appeal to the notice of all who are interested in the discovery of means of preventing or curing some of the most distressing forms of disease that human flesh is heir to. One of the characteristics of the present age is the widespread tendency to neuroses of one kind or another. The National Hospital for the Paralysed and Epileptic already does much for the relief of sufferers from nervous disorders, and the full use of the opportunities of research which it offers cannot fail to yield results of incalculable advantage to mankind.

SLEEPING SICKNESS.

Under the auspices of the Liverpool Biological Society Colonel David Bruce, F.R.S., on February 14th delivered a lecture on Trypanosomes and Sleeping Sickness in Uganda. After referring to the discovery of the trypanosome in India by Surgeon-Major Lewis in 1877 and to his own investigations in Zululand in 1894-5, Colonel Bruce gave an account of his investigations in Uganda last year. The areas in Uganda where the sickness was prevalent were clearly defined, and figures showed that, of the natives in these parts who went about doing their ordinary work, 28.5 per cent. were inoculated with the disease in its first stage. So deadly had the sickness become, that some districts had been seriously depopulated. The disease, which had been unknown in Uganda up to about ten years ago, was probably introduced from the West Coast, where it had been known for the last 100 years. In 1894-5, 10,000 natives were brought to Uganda from the Congo, and it was after their appearance that the sickness began to work havoc in certain districts. Dr. George M. Duncan, in the course of a lecture on sleeping sickness and malaria, delivered recently at Marischal College before the Aberdeen Natural History and Antiquarian Society, said that the ravages of sleeping sickness in certain parts of Africa were of the most disastrous character. So fatal were its effects upon the native population that in many instances villages, towns, and even complete districts had been almost entirely depopulated, and in some of the former as much as two-thirds of the people had been wiped out. The natives recognized that there was something infectious in the disease, and in consequence they shunned all contact with the afflicted person, leaving him in fact to die in solitary misery. Indeed, it was often to be feared that among the natives people who were suffering from other diseases were left to die in this manner because it was supposed they were suffering from sleeping sickness. The disease affected the western coast line of Africa and the hinterland from Senegal along the Gulf of Guinea down to Portuguese West Africa. It also extended up the Congo as far as the Stanley Falls, and appeared to be becoming more prevalent in that direction. It had also of late years begun to affect the district in Uganda along the northern and a portion of the eastern shores of Lake Victoria Nyanza. There it had only appeared within the last three years, and that outbreak had called the attention of Government to the disease. Dr. Duncan then described the symptoms of the disease and gave an account of the researches of the Commission sent out by the Royal Society. The habits of the carrier fly were being carefully studied, and no doubt in time means of prevention would be discovered. Passing to the malaria parasite, Dr. Duncan said the discovery of its life-history was almost the most brilliant piece of work performed within the last century, and was due largely to British scientists—notably Sir Patrick Manson and Major Ross. The investigation had been carried out in a very practical manner with an eye to the prevention of the disease.

THE STUDY OF TROPICAL DISEASES IN LIVERPOOL.

The annual meeting of the Liverpool Royal Southern Hospital was held on February 9th, the Lord Mayor (Alderman R. A. Hampson) in the chair. The Committee stated, in their report, that the Tropical Diseases Ward continued to justify its existence, the patients numbering 149. During 1902 and 1901 they were 137 and 131 respectively. Year by year, therefore, testimony was given to the estimation in which it was held by those who entered the port from tropical countries. The great bulk of the patients were suffering from malarial diseases alone, other affections being dysentery, beri-beri, enteric fever, bilharzia disease, craw-craw, sleeping sickness, etc. There was a growing number of students of the School of Tropical Diseases in attendance. In addition to British students there were representatives of America, Chile, Spain, Portugal, Germany, Austria, Finland, Sweden, and Norway. It was probable that the institution of a diploma in Tropical Medicine, contemplated by the Liverpool University, would still further attract students. The Lord Mayor, in moving the adoption of the report, said that nothing could be more important to Liverpool, which was so closely connected with the countries of the world, than that a ward for tropical diseases should exist in that hospital. The

Chief Magistrate also referred to the number of students associated with the School of Tropical Medicine who were attending the hospital, which was a matter for legitimate congratulation, tending as it did to justify the claims that Liverpool was making as an educational centre.

THE PREVENTION OF MALARIA AT ISMAILIA.

On February 22nd, Sir Alfred Jones the President of the Liverpool Chamber of Commerce, gave a luncheon in honour of Professor Rubert Boyce, who has lately returned from Egypt, where he has been inquiring into the result of the antimalarial expedition sent to Ismailia by the Liverpool School of Tropical Medicine about eighteen months ago. Professor Boyce stated that as a result of the campaign against the mosquito, which was instituted at Ismailia by Major Ronald Ross, the average number of cases of malaria had fallen from something like 2,000 per annum to 200. There had been no deaths amongst Europeans during the past year, and only four amongst the natives, as against 20 deaths in the previous year. By filling up the marshland and irrigating channels and stagnant pools near Ismailia, the European residents, he said, could now sleep in their houses without mosquito nets.

THE PREVENTION OF SYPHILIS.

It was mentioned some time ago in the British Medical Journal that MM. Metchnikoff and Roux had succeeded in inoculating the poison of syphilis in the chimpanzee. The course of the disease was similar to that in man, the primary lesion being followed in due course by secondary manifestations. The attack produced immunity in regard to further inoculations of the virus. Since these experiments were published M. Metchnikoff has carried his research to a point that may prove to be of far-reaching importance. We have seen no report of this recent work in the scientific journals, but the distinguished Russian investigator appears to have given an account of his results to an interviewer, who published them in the *Journal des Débats* of February 15th. M. Metchnikoff complained that it had been reported that he had discovered a remedy for syphilis, and he asked that this should be contradicted, as he was inundated with letters on the subject. He stated, however, that he had discovered a serum which, although it could not cure, appeared to be capable of mitigating the disease. The character of the disease contracted after vaccination with this serum would, he said, be mild. His experiments had, therefore, demonstrated the possibility of obtaining an attenuation of the syphilitic poison by passage through the macaque monkey and of producing artificial immunity by means of this attenuated virus. As a result of his discovery M. Metchnikoff thinks that before long it will be possible to limit the existing centres of infection by vaccination, first, of prostitutes, and afterwards of soldiers and sailors, who are the chief distributing agencies of the disease. He went on to say that nothing would then be easier than to make such vaccination compulsory, and to insist on the production of a certificate as a necessary condition of admission to a public school. We gather that he intends this anti-syphilitic vaccination to be universal. We cannot help thinking that M. Metchnikoff's undoubted sanguine of success in getting his proposal adopted, even in France, where public feeling is certainly not likely to be squeamish about a matter of this kind. It must be remembered that even vaccination against small-pox is not yet compulsory in that country. While recognising the hygienic importance of M. Metchnikoff's discovery, if it be confirmed, we feel bound to say that such a procedure is abhorrent to the moral sense as a proposal to vaccinate children against a disease which, as a rule, can be avoided by clean living. Healthy blood, however, in the normal atmosphere of pure living, M. Metchnikoff probably deems a sentimental objection of this kind simply irrelevant. We hope, at any rate, that no attempt will be made to apply the discovery to human beings until its truth has been definitively established by repeated experiments.

THE METRIC SYSTEM.

The Metric System Bill was read a second time in the House of Lords on February 23rd, and although finally consigned to a Select Committee it would seem that we have advanced a stage towards the compulsory adoption of the system. It is not an ideal system, but it is a very great improvement on the antiquated and irrational systems still followed in this country. The metric system has long been adopted in England for all scientific work. The continued use by the apothecary and the trader of the present systems is likely to lead to mistakes, of which some amusing instances were given during the course of the debate by Lord Kelvin and Lord Lansdowne. We need not dwell upon the waste of time entailed upon the accountant and bookkeeper, and everybody who has to keep commercial registers of weights and prices, but we may point out that the multiplicity and confusion of the present scales, and their want of any logical relation to each other, put a wasteful tax upon the children in elementary schools. The facility with which children learn numbers varies very considerably no doubt, but, even in the case of children to whom such things present no particular difficulty, the waste of time as against that necessary for the acquirement of a uniformly decimal system must be very considerable. The majority of children, however, do not learn tables easily, and those of us in whom early memories are not entirely extinct will have no difficulty in believing that the unnecessary strain thrown upon young brains is by no means inconsiderable and decidedly harmful. It is not to be expected that the law would instantly become effective and that we should hear no more of drachms and ounces, for it needs but a glance through any commercial arithmetic book to see how many old weights continue to be used in certain trades in spite of abolition elsewhere; while even in certain parts of France, the motherland of the metric system, one or two other measures are still used in, so to speak, domestic commerce or marketing. Nevertheless the benefit as far as children are concerned would probably be immediate, for it is to be presumed that "tables," if they did not at once drop out of the curriculum altogether, would at least be relegated to the back ground

THE BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting of the subscribers to the British Medical Benevolent Fund was held on February 16th, Sir William Broadbent, Bart., the President, being in the chair. The report of the Committee stated that during the year 1903 legacies amounting to £2,860 had been received and invested in trust securities. The increased income so derived had been used to create new annuities and £2,201 10s. 8d. had been paid to 117 annuitants. The Grant Department had been a constant source of anxiety throughout the year and in October had necessitated a special appeal, in response to which £[illegible] 12s. was generously subscribed, enabling the Committee to give assistance to several distressing cases the consideration of which had been unavoidably postponed. The grants during the year had amounted to £1,658, distributed chiefly in small monthly instalments. Messrs. Deloitte, Dever, Griffiths and Co., had again consented to act as honorary auditors and as such had attached their name to the balance sheet after a most searching examination of all the accounts. Hearty votes of thanks were passed to the President, Treasurer, and other officers of the fund and to the medical press for the support kindly given by the insertion of the special appeal. The Committee pleads earnestly for the continued and increased help without which many of the urgent applications made to the charity must be passed over. The cost of administration is only just over 5 per cent., and as there is no canvassing candidates are spared the pain of publicity. All legacies are invested in trust securities and thus an assured income obtained for the annuity department. The Committee confidently feels that these considerations will recommend the fund to those benevolent persons who desire to see their gifts well administered and who hold that a charity should have its accounts audited as strictly as a business concern.

REMUNERATION OF POOR-LAW DISTRICT MEDICAL OFFICERS.

We have received a report of a recent meeting of the Board of Guardians of the South Stoneham (Hants) Union, at which an application was made by one of the district medical officers for an increase of salary on the ground of the recent material increase of the population of the district and the large number of poor within it. The request would appear to have been most reasonable, and though it did not meet the approval of the majority of the Board, the increase of population was not questioned, and several guardians strongly supported the application. The majority, however, opposed it to the last. It was finally decided that the applicant's salary should remain unaltered, but that a portion of his district, containing a population of 6,000, should be transferred to one of his colleagues, and that the latter should receive an increase of £10 per annum for the additional duty thrown upon him by this fresh arrangement of the districts. We are quite at a loss to imagine how any public body can think of offering a salary of £10 for the medical care of a district containing a population of 6,000 persons. We do not gather from the report of the meeting before us what is the percentage of paupers therein resident, but we cannot imagine any rural district in England being so favoured in reference to pauperism as to justify the payment of a merely nominal amount as remuneration for their medical care and treatment. Further comment on this matter is quite unnecessary. It remains to be seen whether the Local Government Board will think fit, in justice to all parties concerned, to sanction the proposed change on the terms offered by the guardians. We can hardly regard this as possible.

THE TOXIN TREATMENT OF CANCER.

In a communication made to the Paris Académie des Sciences the other day M. Doyen gave an account of further experimental work on the treatment of cancer. He said that in papers read by him at the Académie de Médecine in December, 1903, and at the German Surgical Congress in April, 1902, he had shown that in the growing edge of rapidly-developing tumours a specific microbe, which he calls "micrococcus neoformans," could be found and cultivated. The inoculation of such cultures in different animals caused the development of lesions either inflammatory or neoplastic; in the latter case they were absolutely identical with what was observed in the case of certain neoplasms occurring in man. The toxins of the micrococcus neoformans caused in cancerous subjects a reaction similar to that produced by tuberculin in tuberculous patients. M. Doyen has cultivated the micrococcus on different media, and passed the cultures through different animal species for the purpose of determining the special conditions under which the parasite can be destroyed by normal tissues. He has, he states, succeeded in preparing a toxin which can be used in varying degrees of virulence according to the anatomical characters and the rate of evolution of any given growth. The injections may be made anywhere, but are most conveniently given in the buttock. The method should be employed with great discretion in the presence of glandular or visceral metastases, as an injection performed inopportunely may be the starting point of a rapid development of the tumour. M. Doyen, by observation of the defensive process in the cells of the economy, was led to seek for means of increasing the resistance of those cells. In view of the usually long evolution of cancer, he points out that a treatment is required which can be continued for many months or, if need be, for years. The number of cases treated from January 1st, 1901, to the present time is 126. In 58 of these no favourable effect was noted; the disease was too far advanced in some, while in others the patients abandoned the treatment. M. Doyen has still 47 cases under observation. Of these, 18 he regards as on the way to cure; 29 must still be kept under observation for several months, although from the improvement already seen, most of them might fairly be placed in the same category as the 18. In the remaining 21 cases it is impossible to find the least trace of cancer. These cases may therefore, he says, be considered as cured. M. Doyen thinks he is warranted in concluding that cancer is no longer an incurable disease, and that at the very beginning of generalization, that is to say, in cases where all treatment is at present ineffective, it is possible to stop the evolution of the disease, and even in certain cases to bring about complete cicatrization with or without operation. M. Doyen promises full details as to the method and its results in future communications. His statements are certainly interesting, but before his claim to have discovered a cure for cancer can be accepted the profession must have the fullest opportunity of forming an independent judgement on the facts, and his results must be confirmed by the experience of many other surgeons.

MORS NOBILIS.

In our plague reports a few weeks ago mention was made of the death from plague of two English ladies at St. Katherine's Hospital, Cawnpore. One of them was that of a Miss Elizabeth Walden, a trained nurse, and the other, according to the telegram received, that of a girl-compounder. Further investigation, however, shows that the latter lady was a doctor who went out to India at the instance of the Society for the Propagation of the Gospel in January, 1902, and died at her post almost on the anniversary of the day of her departure from England. Dr. Alice M. Marvall was a student of the London School of Medicine for Women, which she joined in 1896, after first matriculating at London University, and working for the Preliminary Scientific Examination at University College. Her studies were interrupted by the illness and eventual death of her brother, and she was thus led to abandon the idea of a London degree, and consequently went to Edinburgh and took the Conjoint qualification of the Colleges of that city in 1901. After qualifying, she worked for some months at the Clapham Maternity Hospital under Dr. Annie McCall, and then for a short time acted as medical officer of one of Dr. Barnardo's homes. She was about to rejoin the Clapham Hospital as Junior House-Surgeon towards the end of the year, when the call came for her to work in the mission field. This, after some hesitation as to her mental and professional fitness for the work, she finally accepted. A certain diffidence as to her own powers and fitness for the post which she occupied at the hospital remained with her to the end, but there was no room for any such feeling in the minds of those who saw her at work. With her very happy manner, and earnest, systematic way of doing her work she proved a most valuable medical officer, and her death from pneumonic plague is, like that of Miss Walden, a very great loss to the Society which they both served. In a sympathetic notice of the occurrence the *Pioneer of India* asked whether the objects in view were worthy the sacrifices that proved to be involved. This is a question as to which the personal friends of the deceased may pardonably feel some doubt, but their deaths, like those of many others in and connected with the profession of medicine, were the noble deaths of soldiers in action, and each of them is entitled to the epitaph *Mors sit le champ d'honneur*.

THE MEDICAL SERVICE OF THE JAPANESE ARMY.

Several of the American medical papers state that Dr. Nicholas Senn of Chicago is to be Surgeon-General of the Japanese army, but a press dispatch from San Francisco, dated February 5th, states that Dr. Senn arrived at that port from Tahiti and was hurrying back to Chicago to prepare himself for a call to Japan to assume charge of the Red Cross work of the Japanese army. He is reported to have said: "If my services are needed I will quickly respond, and will probably take a corps of surgeons with me. The Red Cross Society of Japan, of which I have the honour to be a member, is composed of 8,000 members, and is the strongest organization of its kind in the world. It is absolutely ready for war, and its ambulances and field corps could be called to a battlefield on the very shortest notice." Dr. Senn has, it is said, asked the citizens of

Chicago for a sum of £[illegible] in order that he may equip a party of twenty-five surgeons, nurses, and orderlies for service at the front. Dr. Senn, who is close on 60 years of age, is a native of Switzerland, but has lived in America since he was 9 years of age. At the outset of his career, he was a school teacher; then inclining to surgery, he studied at the University of Munich, returned to America and became house-surgeon, and filled other hospital appointments. On the outbreak of the Spanish-American war, Dr. Senn, who had had experience of army surgery as a volunteer, was appointed chief surgeon to the Sixth Army Corps with the rank of lieutenant-colonel, and chief of the operating staff with the army in the field. He is the author of a work on the medico-surgical aspects of the Spanish-American war, and other contributions to surgical literature.

RIVAL ANTIVACCINATION PROFESSORS.

THIS month's *Vaccination Inquirer* gives much space to the subject of German small-pox. It believes itself to be going into the subject thoroughly, and in particular it calls attention to its publication of two "valuable communications" from foreign supporters of the cause. Being always willing to learn, we naturally turned with avidity to these valuable communications, and it would be wrong not to give our readers some of the benefit derivable from perusal of them. "Professor Dr. Paul Förster, Privat-docent, Berlin," is the author of the first. It extends only to a column of the *Inquirer*, but in that short space the professor succeeds in making the following charmingly consistent statements: (1) "By the analogy of other infectious diseases it appears that vaccination has no influence at all." (2) "The diseases follow their own upward and downward curves, increase and vanish again, provided they are not foolishly converted from epidemic to endemic diseases, which is precisely the result of vaccination." (3) "However, the general health is not as good as it ought to be, and if there are fewer deaths from small-pox there are more from other diseases, particularly from consumption and diphtheria. Compared with these, small-pox, when properly treated, is a mild, and may even be regarded as a beneficial, process of eliminating morbid matter. Instead of letting this process be accomplished we weaken vitality by vaccination so that the evil must seek another way of escape or safety-valve." Thus we are told (1) that vaccination has no influence at all, (2) that it turns epidemic diseases into endemic, and (3) that it weakens vitality, and substitutes diphtheria and consumption for small-pox. The second "valuable communication" begins with a statement which ought to be of interest to Mr. Arnold Lupton, M.P. It is to the German Imperial Vaccination Law, which came into force on April 1st, 1875, required the vaccination of children in the first year of life, and their re-vaccination at 12 years of age. Before the law was passed only primary vaccination was obligatory, except for those entering the army, for whom, as recruits, re-vaccination was obligatory. The value of the "obligation" towards primary vaccination need not be discussed here. But the *Inquirer* correspondent is right in holding that prior to 1874 re-vaccination was not obligatory, excepting in the army, and that fact is of course in direct conflict with Mr. Arnold Lupton who asserted the opposite and whose statement at the *Inquirer* pronounced Mrs. Garrett Anderson to be "daft" in declaring to be a grave error. It really was good of the *Inquirer* to present to its readers the battle in one and the same monthly number.

THE SOUTH AFRICAN COLONIZATION SOCIETY AND THE MEDICAL PROFESSION.

THE South African Colonization Society is presumably a society formed with the patriotic object of facilitating British emigration to our South African colonies, but its circular asking medical practitioners in various parts of the country to examine intending emigrants for half a crown has brought us a batch of grievances. The examination asked for is rather more than that for life insurance, the medical examiner being asked to certify respecting sight, hearing, varicose veins, enlarged lymphatic glands, and the state of the teeth, in addition to the usual points of a life insurance form. There can be no doubt that the amount of work asked for is altogether out of proportion to the fee tendered. If the society thinks it has a claim upon the patriotism of the medical profession it should try to obtain the assistance of medical men in various parts of the country gratuitously, but we know too little of the society to feel sure that it should be accorded such assistance. In the meantime we are sure our correspondents are right in refusing to accept the payment offered.

DR. MALINS, OF BIRMINGHAM.

AT the General Hospital, Birmingham, a presentation was recently made to Dr. Malins by the governors of the hospital to commemorate his service of twenty-five years as the first obstetric officer to the institution. The subscribers were 152 in number, and Sir John Holder was Chairman of the Committee. The memorial, by the wish of Dr. Malins, consisted of a handsome stained glass window placed in the chapel. There was in addition a valuable collection of silver plate, with an illustrated bound copy of the resolution passed by the Board on the resignation of Dr. Malins. The gift also included a gold brooch set with a large opal surrounded by diamonds for Mrs. Malins. Dr. Malins, who was President of the Birmingham Branch of the British Medical Association in 1901, has also held the office of Vice-President of the Section of Obstetric Medicine at the annual meeting of the Association on two occasions.

THE NURSES' REGISTRATION BILL.

AS our readers are aware, two Bills for the State registration of nurses have been prepared; one of these, that promoted by the Society for the State Registration of Trained Nurses, has been introduced into the House of Commons by Dr. Farquharson. Sir Frederick Dixon-Hartland has given notice of his intention to oppose the second reading of this Bill, and it is stated that he has taken this action at the instance of the Central Hospital Council for London. This council contains representatives of all the London hospitals with medical schools attached, and their opposition is no doubt due to a dislike to any proposal to establish a central board which would diminish the independence of their nurse-training schools. The chance of either Bill being discussed in the House of Commons this session must be very small, even if Sir Dixon-Hartland were to withdraw his opposition. The wiser course for those interested in the matter would probably be to endeavour to have both Bills referred to a Select Committee.

WE are sorry to hear that Sir Samuel Wilks is not so well. His general condition is causing great anxiety, and his power and resistance are declining.

WE have to record with regret the death on February 24th of Sir Edward Sieveking, Physician Extraordinary to the King, and Consulting Physician to St Mary's Hospital. He was in his 87th year.

AT the annual general meeting of the Royal Medical and Chirurgical Society, to be held on Tuesday next, the Council will propose the election of Sir Richard Douglas Powell as President.

THE King visited Osborne House on February 24th to inspect the alterations which have been made to convert it into a convalescent home for officers of the navy and army as described in the BRITISH MEDICAL JOURNAL of January 30th, p. 255. His Majesty expressed to Lord Windsor, First Commissioner of Works, and Sir Schomberg McDonnell, Secretary to His Majesty's Office of Works, his satisfaction with the changes made, and also spoke some words of encouragement to Miss Haines, the matron.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

The Nurses Bill.—Dr. Farquharson's Bill for the Registration of Nurses has been blocked by Sir T. Dixon Hartland, who is said to be acting on the initiative of the Central Hospital Council for London. The Bill, which was down for second reading on Monday last, has been put down for March 2nd. Mr. Claude Hay has given notice of introduction on Thursday another Bill on this subject entitled, A Bill to Provide for the Better Training and Registration of Nurses and for the Voluntary Registration of Private Nursing Homes.

Plague at Hong Kong.—Mr. Weir asked the Secretary of State for the Colonies last week whether he had yet received from the Governor of Hong Kong a report relative to Haffkine's plague prophylactic, and, if so, would he state when that system of inoculation was brought into operation in Hong Kong, the number of persons inoculated, and how many had succumbed to plague? Mr. Lyttelton replied that in accordance with the promise given last July, the Governor was asked to embody the information desired in his next general report on plague, and no report having been received, he had been reminded by telegraph.

Dental Surgeons for the Army.—Sir Carne Rasch asked the Secretary of State for War last week whether he had any official reports upon the appointment of two dental surgeons to the First Army Corps; and whether he would state if it was proposed to increase their number. Mr. Secretary Arnold-Forster replied that owing to the satisfactory nature of the reports on the employment of dental surgeons, it had been decided to employ eight dentists with the troops serving at home stations.

Dispensary Medical Officers in Ireland.—Sir Thomas Esmonde asked the Chief Secretary to the Lord Lieutenant of Ireland last week if he would consent to the repeal of Section VI of the Local Government (Ireland) Act of 1902 with a view to the settlement of the difficulty which had arisen in Ireland regarding the appointment of dispensary doctors. Mr. Wyndham replied that the necessity for this section of the Act had been explained in the Committee stage of the measure on December 12th, 1902. He could not for the reasons then stated agree to the repeal of the section.

Sewage in the Thames.—Sir Joseph Dimsdale asked the Secretary of State for War whether he was aware of the state of the sewage now being discharged into the river Thames from the military establishments at Sheerness and elsewhere, notwithstanding that the attention of the Secretary of State was in March, 1903, called to the subject by the Corporation of London as the port sanitary authority; and whether he would state what steps he proposed to take to prevent the continuance of the discharge of sewage in its present state. Mr. Secretary Arnold-Forster replied that his attention had been drawn to the matter. As a similar state of affairs existed all along the lower river in the case of the civil population, it was considered inexpedient that the War Department should take action separately from the local civil authorities affected.

Vivisection and Inspection.—Dr. Shipman asked the Secretary of State for the Home Department, on Monday, whether his attention had been called to the statement made by Mr. Bayliss, in his evidence in Bayliss *v.* Coleridge, that the inspector appointed under the Cruelty to Animals Act, 1876, visited University College on an average once a week during the period Mr. Bayliss was conducting his researches and lectures there; whether he would state the exact number of visits paid by the inspector to University College during the year 1902; whether the inspector was officially connected with University College; and how many times the inspector visited each of the other places registered for vivisection in 1902. Mr. Secretary Akers-Douglas answered that 12 visits to University College in 1902 were reported by the inspector: but he understood that owing to his constant attendance at the college he was able to pay many visits to the laboratory: and these, when he found nothing special to report, were not included in his return. The inspector is Professor of Anatomy at University College, London. During 1902 the inspector and the assistant inspector paid 166 visits to the other registered places in England and Scotland, making an average of just under two visits to each place.—On the same day, Dr. Shipman also asked whether, in view of the fact that the inspector appointed under the Cruelty to Animals Act, 1876, only witnessed the whole of one and part of 11 experiments out of the total of 14,000 performed in 1902, he would consider the advisability of increasing the number of inspectors. Mr. Secretary Akers-Douglas answered that it had to be remembered that, of the 11,000 experiments mentioned in the question, 12,776 were of the character of inoculations or feeding experiments. Further, apart from the actual experiments witnessed, large numbers of the animals had been seen by the inspectors, and their condition after the initial experiment examined. He was satisfied that the inspection was sufficient to keep him fully informed as to the practical working of the Act and the observance of its provisions; but if at any time he came to the conclusion that more inspection was desirable, he should not hesitate to endeavour to obtain the necessary increase of staff.

Vivisection.—Mr. Osmond-Williams asked the Secretary of State for the Home Department whether his attention had been drawn to the fact that Professor Starling, in giving evidence in the case of Bayliss *v.* Coleridge, stated on November 13th, 1903, that on February 2nd, 1903, he performed an operation on a brown dog, and instead of killing the dog, as provided by the Cruelty to Animals Act, 1876, handed it to Mr. Bayliss for another experiment: and, if so, whether, in view of Section XIV of this Act, he proposed to take any action. Mr. Secretary Akers-Douglas answered that he considered most carefully all the facts of this case, both before and at the time of the action referred to, and that he came to the conclusion, which he saw no reason to vary, that he was not called upon to take action.

The Medical Lessons of the War.—Mr. Bromley-Davenport, in reply to Dr. Macnamara, said that as a result of the inquiry by a Royal Commission on the treatment of the sick and wounded during the South African campaign the following action had been taken on the Commissioners' recommendation:

1. The establishment of officers had been increased by 1— The Royal Army Medical Corps had been increased by 4— men.

2. The supply of surgeons and trained orderlies in the event of a great war was now receiving careful consideration. The equipment provided by the Militia Reserves for three army corps, one cavalry division, and line of communication troops would, it was hoped, be quite complete by the middle of 1—4.

3. The supply of candidates was now sufficient, and the quality most satisfactory. A College had been established in London, through which all captains must pass before promotion. Promotion to the higher ranks would be by selection, and all must attain a high standard of qualification. Acceleration in promotion from captain to major could now be obtained by officers who showed special merit at examination. Also special professional attainments would be recognized by appointment to special posts carrying extra pay.

4. The formation of Queen Alexandra's Imperial Military Nursing Service provided for a great increase in the establishment of women nurses.

5. Sanitary officers had already been, and were still being, appointed to important commands.

6. A new and improved pattern of ambulance waggon had been adopted.

7. Experiments were now in progress having for their object the provision of a tent of improved pattern, and more suitable for sick and wounded.

Overcrowding in Poor-law Schools.—Sir Ernest Flower asked the President of the Local Government Board if he was aware that the certificate of the Union Schools of the West Ham Guardians, which in November, 1901, was exceeded by 129 children and in November, 1902 and September 1903 was was still exceeded, was at present exceeded by over 200 children: that the boys were entirely without day-room accommodation; that 144 girls had day-room accommodation of 23 ft. 6 in. by 18 ft. 2 in. only; that 86 infants had a day-room in which they also took their meals, of 27 ft. 2 in. by 18 ft. 2 in. only: and whether, seeing that this overcrowding made it impossible to isolate infectious diseases, and that skin and eye complaints were present in the same dormitory, he would urge on the guardians the necessity of ascertaining if all those children at present dependent on the rates were entitled to such maintenance, and of providing temporary accommodation by hiring houses in which small groups of children might be placed. Mr. Long replied that he was aware of the overcrowding at these schools, and had impressed upon the guardians the serious responsibility which attached to them in this matter. The guardians informed him that

they were endeavouring to make arrangements for boarding-out some of the children beyond the union. He was still in communication with them, and had urged them to have homes in or near the union or to provide temporary buildings in order to remedy at once the present state of things. He had also suggested that they should have a "call over" of the children with a view of ascertaining if the numbers could not be reduced.

Ireland.

IRISH POOR-LAW MEDICAL OFFICERS.

DR. C. E. HUTCHINSON, M.P., has recently represented to the Chief Secretary for Ireland the steps which could be taken to improve the position of medical officers under the Poor Law in Ireland, calling special attention to (1) insufficient salary and the desire that a minimum of £200 a year should be paid; to (2) the fact that there is no superannuation allowance; and (3) to the absence of a recognized annual holiday. Dr. Hutchinson urged upon the Chief Secretary the necessity for doing something to relieve these very just causes of complaint, and, by making these officers contented, securing greater efficiency in the services of men upon whom the well-being of the very poor in Ireland so largely depended. Mr. Wyndham, in reply, has assured Dr. Hutchinson that the matter shall receive his attention.

THE VICEREGAL COURT.

There has been considerable discussion in Dublin of the new rules by which the Presidents of the Royal Colleges of Physicians and Surgeons are in future to be excluded from the privilege of the private *entrée* at the Viceregal Court. The daily newspapers have made the matter generally known, and have commented adversely upon the regulation. It is only fair to say, however, that the change does not affect the Presidents of the Colleges alone. The eldest sons of peers and others have also been excluded, and it is explained that there was no intention whatever to slight the medical profession. The privilege was granted to the Presidents so recently as 1887, and seeing that other distinguished people are to share in the prospective unpleasantness the resentment would probably not have been so keen had not the Lord Lieutenant been unwise enough to assign an inadequate reason.

To provide room for the heads of Government departments is, of course, plausible enough, but there are departments and departments. Some of them are of little importance, and those that are of sufficient dignity are certainly not greater in position or influence than the heads of the medical profession. In the official list of those who use the private *entrée* not [illegible] but "by custom and permission," there are citizens who could be more properly left out, and whose right to be among the sacred few could not be defended for a moment in competition with the Presidents' claims. The Colleges are not unreasonable in their dissatisfaction, and if the officials concerned had only given a little thought to what they were doing there would have been no need for protest. Perhaps even at the eleventh hour they may realize how wrong they have been.

THE ULSTER MEDICAL SOCIETY AND QUEEN'S COLLEGE, BELFAST.

The Council of Queen's College, Belfast, adopted recently a memorial to the Government pointing out the urgent necessity which exists for largely increasing the equipment and staff of the College. This memorial stated that the departments in which extensions are immediately necessary are Natural Philosophy, Natural History and Chemistry. It also set out that throughout the whole institution enlarged facilities were required for teaching and research, and pointed out the number of classes which could be more properly left out, and whose right to be among the sacred few could not be defended for a moment in competition with the Presidents' claims. The Colleges are not unreasonable in their dissatisfaction, and if the officials concerned had only given a little thought to what they were doing there would have been no need for protest. Perhaps even at the eleventh hour they may realize how wrong they have been.

The memorial was considered at a recent general meeting of the Ulster Medical Society, when the following resolutions were unanimously adopted:

I.

That this Society expresses its complete agreement with the purpose of the resolutions recently submitted to His Majesty's Government by the Council and Corporate Body of Queen's College, Belfast, regarding the necessity for the provision of increased facilities for higher scientific teaching in the College.

The Faculty of Medicine has always formed one of the most important departments of the College. The teaching of medicine must ever remain in the closest touch with the progress of investigation and research in the various physical and biological sciences. There has consequently been in recent years a great expansion, especially in practical courses, in every medical school in the kingdom. If the teaching in the Belfast Medical School is to be kept up to this standard, adopted as it is by all the universities and licensing bodies, it is essential that Queen's College should now receive the extended equipment described in the resolutions already mentioned.

This society heartily recognizes and appreciates the manner in which the College has utilized the resources at its disposal in keeping abreast of modern methods of teaching medical science. Without the foundation of the Deanville Chair of Physiology and the Musgrave Chair of Pathology, which the College owes to the public-spirited generosity of citizens of Belfast, this would have been impossible. At the same time it is obvious that the training of medical students in the subjects of zoology, botany, chemistry, and physics is certain to suffer unless more adequate facilities for teaching these subjects are now provided. This Society wishes particularly to draw attention to the necessity for providing the College with the means of taking full advantage of the generous offer of the Right Hon. W. J. Pirrie to build a laboratory for physical science at his own expense.

The absence of sufficient laboratory accommodation and staff further seriously interferes with the development of the post-graduate work in medical science which is now demanded. Not only the vitality of the School, but also the wider interests of the medical profession and the public health of the community are directly dependent on the existence of suitable means for prosecuting work of this type.

The expansion of the medical departments of the College has hitherto been accomplished without Government aid. This Society would respectfully urge that while the College remains a Government institution, His Majesty's Government cannot free itself from the responsibility for its adequate equipment.

II.

That copies of this resolution be sent to the Lord Lieutenant, the Chief Secretary, Lord Londonderry, and the members of Parliament for Belfast, Antrim, and Down.

MEDICAL OFFICERS' SUBSTITUTES.

The *Irish Independent* of February 11th states that Dr. Brennan, medical officer of the Castledermot Dispensary District, having been subpoenaed to private cases at quarter sessions twice recently, the guardians had to procure substitutes, whom they agreed to pay 1 guinea a day. They accordingly wrote to the Local Government Board asking if Dr. Brennan was entitled, as he contended, to have his substitute paid, and received a reply that a medical officer, being compelled to attend the courts as a witness on subpoena, was, in their opinion, temporarily incapacitated from duty by "other causes," within the meaning of Article 22 of the Dispensary Rules, and the guardians were bound to remunerate his substitute. The Local Government Board, however, could authorize a deduction to be made in certain circumstances from his salary to recoup the expense incurred, and as a medical witness in a private case could obtain adequate remuneration, they were prepared to authorize a deduction from Dr. Brennan's salary.

COMPENSATION TO MEDICAL MEN.

The Irish Government has selected a large space in Upper Merrion street for the erection of a new College of Science. This will lead to the disturbance of a number of medical men who reside there, and their claims for compensation have just been decided by the arbitrator. The amounts awarded are as follow: Mr. J. Lentaigne, £4,772; Mr. J. McArdle, £2,250; Dr. McEvoy, £1,110; representatives of the late Dr. Charles F. Moore, £1,188; Dr. Coppinger, £2,183; Mr. J. Booth Pearsall, £3,021; Dr. Purefoy, £1,264. These amounts are subject to reconsideration on appeal.

A FRENCH SOCIETY OF ARMY MEDICAL OFFICERS. A Scientific Association of French Military Surgeons has recently been formed with the approval of the Ministers of War, Marine, and the Colonies. The objects of the society are to study in common medicine, surgery, and hygiene in connexion with the sanitary condition of the army, and the welfare of the soldier.

THE ARMY COUNCIL AND MILITARY MEDICAL ADMINISTRATION.

The *Times*, in an article on the new army organization published in its issue of February 18th, made the following observations on the letter of the Chairman of Council of the British Medical Association, republished in the British Medical Journal of February 20th, p. 442. "Some surprise," our contemporary wrote, "has been expressed in medical quarters that the Committee's report has so far given no indication of the place it intends to assign to the Army Medical Department; and the Council of the British Medical Association has protested against the constitution of the Army Council, claiming that the Director-General of the Army Medical Service should have a seat on it, as he had on Mr. Brodrick's Army Board."

A part of the letter of the Chairman of Council was then quoted, and the following further observations made upon it:

"Important as the functions of the medical departments of the Services are, they have no separate representative on the Board of Admiralty, and it certainly seems to us out of the question to give them a separate representative on the Army Council; and the omission of a reference to it in the report, no doubt, indicates nothing more than that the Committee had not yet decided to which member of the Council to attach the supervision of these duties. The probability, no doubt, is that the Army Medical Corps will be placed under the Adjutant-General's branch, with which it will naturally come into most frequent contact in the field."

In consequence of these observations the following letter was addressed to the editor of the *Times*, and was published in its issue of Monday, February 22nd:

THE PREVENTION OF DISEASE IN WAR.

To the Editor of the "Times."

Sir,—The article on the New Army Organization published in the *Times* of February 18th might lead the reader to assume that the British Medical Association has protested against the exclusion of the Director-General, Army Medical Service, from the Army Council. This, however, is not quite the contention of the Association. It urges that the Army Council should include an officer of the Army Medical Service who would be able personally to represent the sanitary requirements and general medical needs of the army. No member of the Council as now constituted can be competent to undertake such special duties. The analogy of the Board of Admiralty must not be pushed too far. In the first place, its constitution became fixed at a time when the science of hygiene had not yet come into being, and when sanitary administration was in its infancy. In the second place, the responsibilities for the prevention of disease in war which fall upon the medical service of the army are far more onerous, and the problems presented far more complex, than in the sister service. Finally, it is notorious that the absence from the Board of Admiralty of any representative of the medical department is a source of inconvenience, delay, and inefficiency. To perpetuate in the Army Council this cause of inefficiency will be a retrograde step.

During the war in South Africa the number of men who died from disease was far larger than the number of those who succumbed to wounds. The same has been true of every big war. Military history teems with instances in which the dispositions of the most skilful commanders have been defeated not by the enemy but by epidemic disease. During the South African war, in December, 1901, and January and February, 1902, and, therefore, long subsequent to the great epidemic which paralysed the army after the occupation of Bloemfontein, the admissions for enteric fever numbered 6,379 and the deaths 953. The British Medical Association holds that the repetition of such serious epidemics, so costly in life and so fatal to the efficiency of an army, can only be avoided if the problem of prevention is adequately studied by the supreme administering body of the army, and if the army is organized and administered with constant reference to its sanitary needs. The British Medical Association would most strongly urge that this can only be achieved if preventive medicine in its relation to military problems in war is directly represented on the Army Council in peace.

I am, Sir, your obedient servant,
ANDREW CLARK, Chairman of Council.
British Medical Association.
General Secretary's Office, 429, Strand, W.C., Feb. 18.

THE LONDON LICENTIATES' AND MEMBERS' SOCIETY.

A general meeting of the members of the London Licentiates' and Members' Society was held at the Wimpole Hotel, Wimpole Street, London, on February 23rd, with Dr. F. J. Smith, of the London Hospital, in the chair.

Mr. F. W. Collingwood advocated that certain favourable statistics of the service examinations could be utilized to obtain the recognition of the diplomates of the Conjoint Board in London as the equals of provincial graduates and for the promotion of a union between the London Colleges and the University of London.

Mr. Blake said he disagreed with the last speaker's remarks, and after Mr. H. Hilliard and Mr. E. R. Dawson had spoken, Mr. A. H. Greenwood urged that the claims of the Society should be more widely brought to the notice of the London Conjoint men.

The Chairman said that to understand their position and the position of those whom they would influence it was necessary to consider broadly the position of medical education in the United Kingdom; fifty years ago, or even less, medical education was practically confined to London, Edinburgh and Dublin, with possibly Aberdeen, Glasgow and Durham, but certainly Leeds, Manchester, Birmingham, Liverpool, were not centres with universities, and in London the Royal Colleges and the Apothecaries Society were the only ordinary channels through which men qualified. With the increased facilities of communication universities with medical faculties attached had sprung up in the provinces with a result that a sound medical education had been placed within the reach of the average man at provincial centres. After passing the ordinary examinations for which and to which he was educated in his ordinary course the provincial undergraduate found himself with a medical degree carrying with it the official title of "Doctor." The public, finding so many men with a degree, began to assume that the man without one was in some way—on paper and in theory, at any rate—inferior in medical attainments to the man with one. Owing to increased competition amongst medical men themselves, rival practitioners took no pains to dispel this on behalf of a neighbour, and indeed in some cases went so far as to lead people to believe that it had a basis in fact as well as theory. They thus arrived at the position that a medical student educated in London had been obliged either to suffer under this false but fixed impression or to try to rectify his position by attempting to obtain the London University degree, to do which he had (unless some kind friend had persuaded him to matriculate at the University at an early period of his career) to go back to school studies, matriculate, pass the Preliminary Scientific Examination, and then again return to his professional subjects for the Intermediate Examination. The effect of all that on the medical schools in London had been that for the last ten years at least there had been a steady and nearly persistent increase in the provincial students with a corresponding diminution in the numbers of medical students at the metropolitan schools, a result which the teachers might have foreseen. It might be said that they had foreseen it and had taken steps to try to remedy it, but the success of their efforts had not been conspicuous. They were told that the Royal Colleges tried to obtain powers to grant a degree in medicine; that might be so, but it was impossible to believe that their efforts were really thorough and unanimous, and that they went steadily to work with the one object in view of relieving the difficulties of metropolitan students of medicine. There could be no reasonable doubt that the jealousy of the graduates of all the Faculties of the old London University was the immovable obstacle which rendered the efforts of the Colleges futile. Futile they must be admitted to be, for the reconstructed University of London seemed to have copied all the worst features of the old examining body, and had grafted on to the old constitution but little of what was useful in the metropolitan schools of medicine. The new University of London must, however, be accepted as an accomplished fact, and how harmoniously it worked under new regulations was shown by the circumstance (of which he had been informed on good authority) that of 63 candidates for the Preliminary Scientific Examination for the first time under the new regulations no less than 60 were referred. Their Society had prepared a petition setting forth the disabilities and difficulties of the Licentiates. What had been its effects? The Royal College of Surgeons received them very sympathetically; the Royal

College of Physicians had y did so much, but the result of the two interviews was the meeting of a combined Committee of the two Colleges which decided even to approach the new University with a view to any continued examinations. The Colleges professed to stand on their dignity, and said that the University must approach them. Their Society then appealed to the University itself, and its reply, though very courteous, was in effect a simple negative. "We cannot help you." The Chairman concluded by saying that he did not see what further steps they could take unless they could raise the teachers of the metropolitan schools to an appreciation of their position. Their Society could, he feared, not do this by itself, but in time the teachers must surely be moved to influence sufficient to induce the Colleges and University to make some practical use of Bye-law 131 in the statutes of the University, which was the only direction in which he could see any hope of delivery. What was it their Society asked? Surely not anything that could be called impossible. At Oxford and Cambridge men could specialize in their final examinations, thus showing that universal knowledge was not demanded. Why, then, should there be any difficulty in allowing men who had obtained a good qualification to practise to offer themselves for a final examination in professional subjects? The alleged difficulty lay in a suggestion that a Licentiate of the Royal College of Physicians and Member of the Royal College of Surgeons had not done as much science as the graduate. That might be true in an examinational sense, but considering the facts relative to Oxford and Cambridge, it seemed to him to be only an excuse, and a bad one.

It was then agreed that the meeting should stand adjourned to some future date, when the further policy of the Society would be discussed.

UNIVERSITY OF LONDON INSTITUTE OF MEDICAL SCIENCES.

LETTER AND DONATION FROM HIS MAJESTY THE KING.

THE Faculty of Medicine of the University was summoned on Friday, February 19th, to "receive a communication from His Majesty the King in relation to the proposed Institute of the Medical Sciences."

Mr. BUTLIN, the Dean of the Faculty, who presided, took the opportunity of laying before the members a statement of the means which were being taken and the progress which had been made towards the attainment of the Institute, the establishment of which was suggested by the Faculty and accepted and approved by the Senate of the University. In the early summer of last year the Senate appointed a small Committee of Appeal, consisting of the two representatives of the Faculty, Dr. Kingston Fowler and Sir Cooper Perry, the Secretary, Dr. Lauriston Shaw, and the Dean, Mr. Butlin. Dr. Fowler and Mr. Butlin were appointed joint treasurers, the former to represent the Senate, the latter on behalf of the Faculty. The duty of drawing up an appeal for funds was entrusted to that Committee, but it was determined that in the first instance the appeal should not be made more public than was implied in sending a copy of it to every member of the Faculty of Medicine. It was hoped that some individual or individuals possessed of ample means might be induced to furnish a sufficient sum of money to build and equip if not to endow the Institute, so that it might not be necessary to make a general appeal. That expectation had not at present been fulfilled, probably for reasons which will presently be stated. At one time, however, it was believed that successful negotiations to this end would be carried through. In September 1903, on the recommendation of Dr. Fowler, the Senate determined to issue public its plan and the grounds of appeal for funds to build, equip, and endow the Institute, and it must be granted that when this was approved the Senate was made on the conclusion of the Faculty of Medicine. The drawing up of the appeal and the reasons in which it should be issued were given over to the Appeal Committee.

On December 15th the letter of appeal appeared in a large number of lay and medical papers, and was commented on very freely by them and in every instance so far as the Dean was aware, favourably. In fact no appeal of the kind had ever been better received. In January a letter in favour of the Institute was addressed to Lord Rosebery as Chancellor of the University, and signed by the Treasurers, chairmen of nine of the hospitals to which schools are attached. The only names absent were those of the Treasurers of King's College Hospital and of University College Hospital, who excused themselves from signing on the ground that University and King's bear a different relation to the teaching of the science subjects of the medical curriculum to the medical schools, in so far as their teaching is not confined to medical students. On February 1st a letter was received by the Dean of the Faculty of Medicine from Sir Dighton Probyn, the Keeper of the Privy Purse, which stated that the attention of His Majesty had been directed to the defects arising from the want of concentration of the teaching of the earlier subjects of the medical curriculum in London. The letter concluded in these terms:

"As the King now learns that the University of London is making an attempt to remedy this defect by the establishment of an Institute of the Medical Sciences under its proper control, where the concentration of medical teaching will be carried out with every prospect of success, I am commanded by His Majesty to inform you that he is willing to contribute 100 guineas towards this Medical Institute should the scheme be carried out."

The Dean desired to take this opportunity of stating that the attention of His Majesty had been directed to the subject by Sir Francis Laking, Bart., whose strong interest in the welfare of the profession and in medical education were well known. The Dean begged the members of the Faculty, individually and collectively, to do their utmost to assist the Appeal Committee, for in addition to the present time being peculiarly unfavourable to any and every form of appeal for funds, this appeal was not likely, unless properly explained, to be attractive to the public. Medical education in London had always been carried on as a private enterprise, and was regarded as so profitable to those who were engaged in it that an appeal for funds seemed to many persons almost in the light of an impertinence. In spite of these difficulties a good deal had been done in the course of eight weeks by the four persons who constituted the Committee. Their appeal had been most favourably received by the lay and medical press, had been recommended by the treasurers of nine of the hospitals to which schools are attached, and had been graciously and liberally responded to by His Majesty. The Committee had received promises of donations to the amount of £8,000, including donations from the Presidents of the Royal College of Physicians and the Royal College of Surgeons. The Faculty was indebted to Dr. Fowler, not only for his own handsome subscription of £250, but for interesting Mr. Alfred Beit and Messrs. Rothschild in the project, with the result that they have contributed £5,000 and £500 respectively. If so much could be done in the face of serious difficulties in so short a time by so small a number of men, what might not be done in the course of a few months by the largest and most influential Faculty of Medicine in the world? Among its members were men who entered the houses of the richest and most powerful individuals in London and in the kingdom, and it would be an eternal disgrace to the Faculty if it could not succeed in interesting the public in this important educational scheme, and in obtaining funds, not merely to build and equip the Institute, but to endow it handsomely for teaching and research.

Mr. H. W. FARNFIELD and Sir FELIX SEMON seconded [illegible]

The resolution was carried by acclamation.

The Honorary Treasurers of the fund are Dr. J. K. Fowler, 35, Chilworth Street, London, W., and Mr. H. T. Butlin, F.R.C.S.

CONTRACT MEDICAL PRACTICE.

THE MANAGERS OF CLUB PATIENTS.

LATIN writes: [illegible]

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending January 16th and 23rd the deaths from plague in India numbered 21,[illegible] and 21,[illegible] respectively. The advance during the two weeks in question contrasted with the week ending January 9th when the returns showed only 17,[illegible] deaths from the disease. The principal figures during the two weeks ending January 16th and January 23rd were Bombay city, 174 and [illegible], Bombay districts [illegible] and [illegible], Calcutta, 12 and 11, Bengal districts, [illegible] and 1,141, North West Provinces and Oudh, [illegible] and [illegible], Central Provinces, 2,[illegible] and 2,[illegible], Punjab, [illegible] and 2,[illegible]; Central India, 582 and 1,[illegible], Hyderabad State, 2[illegible] and [illegible], Mysore State, [illegible] and [illegible], Kashmir, 52 and 4[illegible]. High as the mortality is from plague in India it is satisfactory to record that it is less than the corresponding period in 1[illegible]; when for the week ending January 22nd the deaths from plague numbered 2[illegible].

Cape Colony.

During the weeks ending January 16th, 23rd, and 30th the plague returns for Cape Colony were as follows:

Port Elizabeth. Two cases and 2 deaths from plague occurred during the week ending January 16th.

East London. One patient suffering from plague was in the plague hospital on January 30th.

No plague cases reported from any other part of Cape Colony. At Port Elizabeth, East London, Queenstown, and Kaiya plague infected rats continue to be found.

Mauritius.

During the weeks ending February 11th and 18th the fresh cases of plague numbered 4 and 1 and the deaths from the disease 3 and 1 respectively. Plague, it is satisfactory to note, has again almost disappeared from Mauritius.

Hong Kong.

During the week ending February 13th [illegible] cases of plague and 2 deaths from the disease were reported in Hong Kong.

China.

At Niu-chwang plague was reported in the middle of December to be decreasing, at Tientsin deaths from plague occurred between November 28th and December 14th.

Brazil.

During the months of November and December 1[illegible], the deaths from plague in Rio de Janeiro numbered [illegible] and 2 respectively. At Pernambuco, from September 6th to December 22nd, 1[illegible], 24 cases of plague were reported with 12 deaths from the disease.

Argentine.

During December, 1903, at Tucuman 12 cases of plague were reported with only 2 deaths from the disease.

United States of America.

During 1903 the number of cases of plague in San Francisco amounted to 17, compared with 41 in 1902.

Japan.

On January 1st there was no plague in Yokohama or its neighbourhood.

In Formosa during September and October, 1903, the cases of plague numbered 2[illegible] and the deaths from the disease 2[illegible].

THE ASSOCIATION AND MEDICAL DEFENCE.

We are requested to state that at a meeting of the Council of the Medical Defence Union held at the registered offices on February 15th, the following resolution was unanimously passed:

That this Council resolves to do all in its power to maintain the integrity of the Medical Defence Union as at present existing.

LITERARY NOTES.

We have received an official intimation that the recently founded journal entitled *Archives Latines de Médecine et de Biologie* has "owing to administrative reasons" ceased to exist.

Professor A. Siemerling of Kiel has succeeded the late Professor Jolly of Berlin as editor of the *Archiv für Psychiatrie und Nervenkrankheiten*.

Messrs. E. B. Treat and Co., the publishers of the *International Medical Magazine* and of the *Archives of Pediatrics*, have decided to merge the two journals in one periodical.

The *National Service Journal*, which is issued monthly, is the official organ of the National Service League. This is a non-political association, under the presidency of the Duke of Wellington, and the journal has for its key-note a quotation from a speech of the late Lord Salisbury in May, 1900: "The defence of the country is not the business of the War Office or the Government but the business of the people themselves." In addition to its primary object, which is that of promoting the legislative adoption of the principle of compulsory naval or military training of all men for the purposes of national defence, the League desires to bring home to the world at large the physical, moral, and industrial benefits likely to result from general naval or military training, and the special need for such training in the case of the populations of large towns. Among its more definite proposals are that physical drill and military drill shall be made a compulsory part of the educational course of all schools, and that between the ages of 18 and 22 every youth not enlisted in the regular army or navy, or serving in the mercantile marine, or a member of some branch of the auxiliary forces in which the standard of training is higher than that proposed, shall be liable to be called on to undergo two months' training in a camp of exercise, under canvas, in the first year, followed by fourteen days' similar training in the second, third, and fourth years after, or for corresponding periods at sea, at the choice of the individual.

Dorothy Osborne, who after a long wooing became the wife of Sir William Temple, the patron of Swift, holds a high place among the writers of letters. Macaulay said of her love letters that very little of the diplomatic correspondence of her generation is so well worth reading. So much, indeed, did he find in them, that he said he would gladly have purchased equally interesting billets with ten times their weight in State papers taken at random. A convenient edition of Dorothy Osborne's letters was published not long ago by Judge Parry. In them frequent mention is made of the "spleen" from which she suffered. In one letter she expresses a wish to be "rid on . a scurvy spleen that I have ever been subject to, and to that purpose was advised to drink the waters," probably at Epsom, where she was from August 16th to September 4th, 1652. In March, 1653, she writes to her lover:

I drink your health every morning in a drench that would poison a horse, I believe, and 'tis the only way I have to persuade myself to take it. 'Tis the infusion of steel, and makes me so horribly sick that every day at 10 o'clock I am making my will and taking leave of all my friends. You will believe you are not forgot then. They tell me I must take this ugly drink a fortnight and then begin another as bad, but unless you say so too, I do not think I shall. 'Tis worse than dying by the half.

In April of the same year she writes:

All that I aim at is but to keep myself from growing a beast. They do so fright me with strange stories of what the spleen will bring me to in time that I am kept in awe with them like a child. they tell me 'twill not leave me common sense; that I shall hardly be fit company for my own dogs, and that it will end either in a stupidness that will make one incapable of anything or fill my head with such whims as will make one ridiculous. To prevent this who would not take steel or anything, though I am partly of your opinion that 'tis an ill kind of physic. Yet I am confident that I take it the safest way, for I do not take the powder, as many do, but only lay a piece of steel in white wine over night and drink the infusion next morning, which one would think were nothing, and yet 'tis not to be imagined how sick it makes one for an hour or two, and, which is the misery, all that time one must be using some kind of exercise. Your fellow servant has a blessed time on't: I make her play at shuttlecock with me, and she is the veriest bungler at it ever you saw. Then am I ready to beat her with the battledore, and grow so peevish as I grow sick, that I'll undertake she wishes there were no steel in England. But then to recompense the morning, I am in good humour all the day for joy that I am well again. I am told 'twill do me good, and am content to believe, if it does not, I am but where I was.

In May she writes that "dreams are pleasant things to people whose humours are so; but to have the spleen, and to dream upon't is a punishment I would not wish my greatest enemy." In the summer of 1653 she says she had resolved not to go to Epsom lest it should be imagined that something besides her spleen carried her thither; in fact that she went there to meet her lover. In August she writes to Temple, who had just returned from Epsom:

I know not whether I told it you or not, but I [illegible]cluded from what you said of your indisposition that it was very like the spleen, but perhaps I foresaw you would not be willing to own a disease that the severe part of the world holds to be merely imaginary and affected and therefore proper only to women. However, I cannot but wish you had stayed longer at Epsom and drunk the waters with more order though in a less proportion. But did you drink them immediately from the well? I remember I was forbid it, and methought with a great deal of reason, for especially at this time of year the well is so low and there is such a multitude to be served on't, that you can hardly get any but what is thick and troubled; and I have marked that when it stood all night (for that was my direction) the bottom of the vessel it stood in would be covered an inch thick with a white clay, which sure has no great virtue in't, and is not very pleasant to drink.

Judge Parry quotes a note received from Dr. Judson Bury relative to the spleen. The distinguished Manchester physician writes:

Physicians of the seventeenth were well acquainted with the anatomy of the spleen, but knew very little regarding its functions. They were in the habit of ascribing many general conditions of ill-health to disturbances of the function of the spleen, conditions which are now known to depend on disease elsewhere. There is reason to believe that functional disturbances of the system were then as commonly put down

to "the spleen" as nowadays they are assigned by the laity to the liver or the nerves.

The Epsom waters were the first of their kind in England that became famous. At the beginning of the seventeenth century the town was already a place of fashionable resort on account of its mineral waters. In 1629 a ball room was erected and avenues were planted. Towards the beginning of the eighteenth century the Epsom waters gradually lost their reputation.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

Meetings of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Guy Elliston, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Birmingham Branch: Coventry Division.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on [illegible] March 1st. Dr. Milner Moore will take the chair at 8 p.m. Dr. Hawke will show Two Cases of Epithelioma of the Forehead after [illegible] Dr. Hutton Brown will give the Notes of Four Cases treated by Thyroid Extract. Dr. Phillips will read a Paper on [illegible] with the Methods of treating its Affections. The Committee [illegible] the attendance of each section of the Division. The [illegible] Company will exhibit a collection of new [illegible] in the out-patient room of the hospital from 7 to 8 p.m.—E. H. Snell, Kingston House, Coventry, Honorary Secretary.

Border Counties Branch.—The next meeting of this Branch will take place at Maryport on Thursday, March 17th. Members desiring to make [illegible] are requested to inform the Secretary of the Branch at [illegible] Further details will be entered by circular [illegible] of the meeting.—Thomas H. Hill, M.S., Warwick Road, Carlisle, Honorary Secretary.

Border Counties Branch: West Cumberland Division.—A meeting of this Division will be held at Workington on Tuesday, March 1st. The Secretary would be glad if every member who [illegible] to read a paper or exhibit specimens, etc.—T. G. Matthews, Senhouse Street, Workington, Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division.—The next meeting of this Division will be held at the Hampstead Town Hall, Haverstock Hill, N.W., on Wednesday, March 2nd, at 8.30 p.m. Dr. Lloyd [illegible] Mr. F. Wood, M.S., will show [illegible] Members are requested to bring their [illegible] Medical Association [illegible] Hon. Secretary.

Metropolitan Counties Branch: Hampstead Division.—A meeting of this Division will be held at the Hampstead Town Hall, Haverstock Hill, N.W., on Wednesday, March 2nd, at 8.30 p.m. Dr. Lloyd [illegible] Mr. F. Wood, M.S., will show [illegible] Members are requested to bring their [illegible] Medical Association [illegible] Hon. Secretary.

Metropolitan Counties Branch: Chelsea Division.—The next meeting of this Division will be held at the Chelsea Town Hall, on Tuesday, March 1st, at 8 p.m., when Dr. Percy Kidd will read a Paper on [illegible] Members are requested to bring their [illegible] Medical Association [illegible] Hon. Secretary.

Eastern Branch are entitled to attend and to introduce professional friends. N.E.—The Honorary Secretary would be much obliged if members would [illegible] whether they intend, if possible, to be present at the meeting, and likely to remain to dinner. By so doing they would very materially facilitate arrangements and promote the success of the meeting.—J. H. Wallcock, 11, London Road, Croydon, Honorary Secretary.

Staffordshire Branch.—The next meeting of this Branch will be held at Stafford on Thursday, March 3rd, instead of Thursday, February 25th, as one of Sir Oliver Lodge's lectures occurred on the latter date.—E. Peyton Johnson, Stoke-on-Trent, Honorary General Secretary.

South Eastern Branch: Norwood Division.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 17th, at 4 p.m. Mr. J. Sidney Turner in the chair. Agenda: Minutes of last meeting. To arrange the number, dates, and places of meetings to take place annually, and to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Communication from the Medical Secretary as to alteration of boundary of Division. Communications concerning the transfer of King's College Hospital to Denmark Hill. To consider the following questions referred by the Representative Meeting and Council of the Association to the Divisions:—(1) Six resolutions as to the reforms required in the Vaccination Laws. (2) Proposed Medical Acts Amendment Bill. (N.B.—The text of the resolutions above referred to and of the Medical Acts Amendment Bill will be found in the Supplement to the British Medical Journal for August 22nd, 1903, and members are advised to bring their copies of this Supplement to the meeting.) (3) The advisability of petitioning the Privy Council in favour of direct representation of the British Medical Association on the General Medical Council. The following papers will be read:—Mr. W. Arbuthnot Lane: On Certain Abdominal Conditions. Mr. H. G. Plimmer: Diseases in Men and Animals caused by Trypanosomata. Exhibition of instruments by Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m.; charge 5s., exclusive of wine. The Honorary Secretary would be much obliged if member would kindly inform him by the first post on the Tuesday before the meeting whether they intend, if possible, to be present at the meeting, and likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—Henry J. Prangley, Tudor House, Anerley, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Important Decision on the Isolation of Tuberculous Patients.—Official Opening of the Information Bureau of the University of Paris.—Presentation to Professor Bouchard.—Appointment of Professor Chantemesse as General Inspector of the French Sanitary Service.

An important step has recently been taken by M. Combes, the Prime Minister and Minister of the Interior, with regard to the treatment of tuberculosis. As long ago as June, 1901, his predecessor, M. Waldeck-Rousseau, addressed the prefects on the practical measures for fighting tuberculosis, recommending them most especially to ensure the isolation of the patients. In the great majority of hospitals this isolation is not yet an established fact; the Permanent Tuberculosis Commission took the matter up, and at its meeting on December 10th last passed the following resolutions:

1. In all public hospitals the competent authorities must forbid all communication, direct or indirect, between the tuberculous patients and those who are not tuberculous.

2. Tuberculous patients should be treated in separate hospitals exclusively reserved for them, and shall not be admitted into other hospitals. Towns which possess several hospitals shall be invited to [illegible] in addition to or apart for tuberculous patients one or more of their established hospitals.

3. In towns where it is impossible to set apart an entire hospital for tuberculous patients, separate blocks shall be reserved to them exclusively.

4. In cases where it is impossible to set apart an entire hospital or a separate block, tuberculous patients should not be treated on the same [illegible]

The Minister of the Interior has adopted these resolutions, and in a circular addressed to the prefects he has ordered them to attend to the matter with the shortest possible delay. In Paris the Advisory Council of the Assistance Publique had a month previously to this Ministerial decree appointed a Special Commission to consider the practical means of isolating tuberculous cases in this city, and had even set aside as far as possible funds from the recent hospital loan of 45 millions francs to meet the expenses that such isolation might entail. M. Mesureur, in laying the Minister's letter before the Council of the Assistance Publique, while giving them all credit for their forethought, emphasized the fact that the Ministerial circular is imperative and demands an immediate solution of the question. At the end of 1903

300 beds for tuberculous patients will be ready at Brevannes; it has also been decided to erect a special hospital at Montmorency or elsewhere, with 800 to 1,000 beds; and, lastly, on the departmental loans, now before the Senate, M. Mesureur will ask for 2,000,000 francs to provide 300 beds at the Boucicault Hospital. These beds, however, will not be ready for several years, and the matter is urgent. M. Mesureur in his letter calls attention to the fear of contagion among the population living round any hospital which might be selected for the exclusive use of tuberculous cases. These fears are unjustifiable. If there had been any real danger of this kind it would be already in existence, for the Paris hospitals actually house 30 to 40 per cent. of tuberculous patients. The administration of the Assistance Publique think it will be possible to assign one or two of the Paris hospitals for this purpose, but in addition it will be necessary to set aside in other hospitals special blocks or wards, with separate staffs, so as to isolate all the patients who seek admission to hospital. The Advisory Council of the Assistance Publique has decided to begin a rapid study of the question, and M. André Lefèvre has been appointed reporter.

The Information Bureau of the University of Paris was officially opened on February 10th. The offices of the Bureau are in a large room which has been luxuriously fitted up in the Sorbonne. It is under the direction of Dr. Blondel, General Secretary of the International Association of the Medical Press, who has under him assistants speaking English, German, Russian, and Spanish, who can thus advise fully any foreigners who come to study in Paris and give them all information they require on every subject. The Bureau has already arranged over 3,000 indexed catalogues. As proof of the value of the institution, over 600 English and American students have availed themselves of this source of information since August, 1903, when the Bureau began its work. The President of the Bureau is M. Liard, Vice-Rector of the University, and it is managed by a large committee known as the Conjoint Committee for the common interest of the City of Paris and of the University. At the official opening the Committee of the Municipal Council and the Council of the University were present, as well as numerous representatives of the press, both French and foreign. Speeches were made by M. Liard and M. Dusset, the President of the Fourth Committee of the Conseil Municipal.

On February 21st the numerous pupils and friends of Professor Bouchard, Member of the Institute, presented him with a gold portrait model, by the sculptor Chaplain, as a mark of their sympathy and esteem. M. Chaumié, the Minister of Public Instruction, presided at the fête in the large amphitheatre of the medical school. Numerous speeches were made, Professors Laudouzy and Gaucher, speaking in the name of the pupils of the eminent Professor, gave an account of the many scientific works of their chief, and of the general teaching of his school. Dr. Le Gendre spoke of the Professor as physician. Professor Debove, Dean of the Faculty of Medicine, recalled the bonds of friendship which formerly united Charcot and Bouchard, and of the scientific results of their collaboration. M. Chaumié, in the name of the French Government, thanked the Professor who, as the "Ambassador of French Science," had been present at many congresses in foreign countries. Professor Bouchard made a remarkable reply, and after thanking the numerous speakers, criticized his own scientific career, and then pointed out the lines along which medical studies should be further developed.

Professor Chantemesse, Professor of Experimental and Comparative Pathology in the Faculty of Medicine, has been appointed by M. Combes, the Prime Minister, to the post of General Inspector of the Sanitary Service in France, vacant by the death of Professor Proust, which occurred during the sittings of the International Sanitary Conference in Paris last autumn. The Chair of Hygiene, also rendered vacant by the death of Professor Proust, has also been given to Professor Chantemesse.

NEWCASTLE-UPON-TYNE.

North of England Edinburgh University Club.—Death of Mr. Daniel R. Guns.—North of England Glasgow University Club.

On February 12th the members of the Edinburgh University Club dined at Tilley's Rooms, Newcastle, and a most enjoyable evening spent under the Chairmanship of Professor Page. Between fifty and sixty gentlemen sat down to dinner. The guest of the evening was Sir William Turner. Among those present, in addition to the above, were Sir George Hare Philipson, Drs. Hume, Macdowall, Ranken Lyle, Oliver, McCracken, Beatley, Limont, etc. After the Royal Toast had been given from the chair, that of "Alma Mater" was proposed by Dr. James W. Smith in very appropriate terms. Reviewing the history of the University the names of many men eminent in medicine and in science were mentioned. Black, Cullen, Gregory, Laycock, and Lister had in turn added to the reputation of the northern seat of learning. No one could adequately say what Sir James Simpson had done for suffering humanity. Medicine, while one of the youngest, was at the same time probably the strongest of all the faculties of the University. To-day the influence of Edinburgh as a centre of light and learning was as powerful as it ever had been. Its medical school was well equipped and its infirmary staff was second to none. Dr. Smith felt sure that Edinburgh University would go on prospering, and would still send out graduates into the world who would be faithful to the high ideals set before them, and who would continue to labour for the progress of humanity and the welfare of the human race. Sir William Turner, who had a most enthusiastic reception, said that notwithstanding the fact that 300 years had passed over it the University of Edinburgh possessed still a good constitution. It retained the power of youth, and it kept rejuvenating itself from time to time. The University had a great history to live up to, and those in office recognized their responsibilities, for they were all determined, so far as human means would allow, that the University should retain its position. All great educational institutions had difficulties, one of which was the want of money. Without money it was impossible to keep well abreast of the times. The multiplication of universities meant competition. Sir William Turner in his concluding words confided "Alma Mater" to the continued love and appreciation of her sons. Dr. Hume proposed the toast of "The University of Durham," to which Sir George H. Philipson responded, and in doing so begged to express the hope that Edinburgh would still flourish. In a few well-chosen words Professor Page proposed the toast of "Our Guest," whom he described as one of the most distinguished anatomists in Europe and a teacher of unexampled experience and success. In responding, Sir Wm. Turner said that if a teacher would be successful he must be in sympathy with his students During the forty-nine years he had taught, he took credit to himself in having had that sympathy and in having received it in return. Alluding to the Chair of Anatomy, which he had so recently vacated for the Principalship of the University, he told his audience that although the Chair had been founded as long ago as 1720, it had been occupied by only five professors. This circumstance he regarded as a proof of the healthiness of the occupation of a Professor of Anatomy. The Chairman's health was proposed by Professor Howden.

Recent graduates of the University of Durham will receive with deep regret the announcement of the somewhat sudden, tragic death of Mr. D. R. Guns, M.B. About a month ago Mr. Guns entered upon his duties as one of the House-Surgeons at the Royal Infirmary. He had hardly been there three weeks when he was seized with pneumonia. From the first his symptoms were severe, and by degrees both lungs became affected. He died on the eighth day of his illness. Mr. Guns who was only 26 years of age was a man of great promise. His death has cast a gloom over the infirmary, for Guns was a favourite with all. Fellow-students liked him and his teachers had implicit faith and confidence in him. He was laid to rest in St. Andrews Cemetery on February 15th amid a large concourse of students, teachers, relatives, and friends. Dr. Hume (Senior Surgeon), Dr. C. Limont, Mr. Orde (House Governor), Dr. Parkin, and Dr. Walker (House-Physician), and Dr. Stewart (House-Surgeon) represented the infirmary, while Professors Page and Oliver, Drs. Drummond, Clay, and Bolam represented the College of Medicine. The coffin was carried from the hearse by six of the students. As Mr. Guns belonged to the Society of Friends the service at the grave was very simple, but impressive. A hymn was very effectively sung by the ladies' singing band from the infirmary, and on the grave were placed many wreaths and floral tributes to the memory of one who, had he been spared, would certainly have occupied a prominent and useful position in the world of medicine.

The annual banquet of the North of England Glasgow University Club will be held in Tilley's Rooms, Newcastle-upon-Tyne, on Wednesday, March 9th, under the presidency

of Professor T. Oliver. Principal Story, of Glasgow University, will be the guest of the evening. Members and friends who wish to be present should communicate with the Honorary Secretary, Dr. Frank Russell, Heaton Road, Newcastle-upon-Tyne.

CORRESPONDENCE.

AERIAL CONVECTION OF SMALL-POX.

SIR,—My experience of small-pox hospitals—and I have had charge of several—is that we should hear very little of aërial convection if one important thing was attended to, that is, alteration and enlargement of the buildings when occupied, as took place in 1881 with the hospitals under the Metropolitan Asylums Board. It is not the patients, but the constant intercourse of workmen with the towns and villages which are in close touch with the hospital. All men employed should be housed on the site, nurses should not attend the parish church or chapels, visits between the staff and villagers should not be allowed, for the nurses and matron are careless if allowed; though if they are going some distance—for example, to visit relations—all precautions are taken; one never hears of friends taking the disease from the staff.

Hospitals if possible should not be built within sight of a main road; the Local Government Board limit of 40 ft. is not sufficient. It is the panic which causes the mischief by allowing everything that goes on within the hospital being retailed in the village public-house or rectory, or allowing the public to have a full view of the grounds and hospital from the roads.

As a rule no provision is made for the reception of patients until too late—quite a British custom—and then there is a rush. Workmen are sent from all parts, vaccinated or not; certain of them are immune, others are not; and they take the disease, and so incubate and develop it in remote or near parts, according to their place of abode.

The whole matter is the fault of the committees of management; and then the blame is laid at the door of the man in charge. The epidemic of 1902 and 1903 in London was due to want of preparation, for those responsible educated men in authority laid down the law that small-pox would never occur again, and it would be useless to waste money in buildings.

I could furnish you with proofs, but it would be foreign to the purport of my letter.—I am, etc.,

London, Feb. 1904. EDWARD CARNALL.

DEGREES IN DENTISTRY.

SIR,—After reading your able editorial comment upon the question of university degrees in dentistry I am tempted to offer a few considerations, my excuse being that I have been for a quarter of a century, and still am, actively engaged in dental education. At first sight it might appear as though the mere fact of a university, whose degrees in medicine and the other arts and sciences are universally sought after and prized, would by granting a degree in dentistry, also confer an honour on dentistry—that such a degree would dignify and ennoble our calling.

Now the British Dental Association represents the dental surgeons of this country, and largely controls their affairs. This body has recently been invited to express an opinion on the question both by a private letter addressed to each member, and by an official summons to attend a special and extraordinary meeting in London and discuss and vote upon the matter. Of those members who took sufficient interest to write, nearly 100 disapproved of the degrees, and quite a small number wrote expressing their approval, a large number promising acceptance but remaining apathetic. Of those who took the trouble to attend the meeting 175 voted against and 85 in favour of the creation of degrees, a majority of 2 to 1, and this in the face of very eloquent pleading in favour of the change.

The explanation of this phenomenon is the excuse for the present letter. As one of the little world of dental surgeons who regard the granting of further degrees or titles in dental surgery with dread I wish to make clear my grounds for entertaining this feeling, which I believe to have been shared by the great majority.

First, how would the proposed change affect dental surgeons? By multiplying titles and grades in the specialty it would certainly tend to make dentistry a self-sufficient thing apart from the general world of medicine. Many of the advocates of the granting of these degrees regard this result with equanimity, but to many of us it appears that to lop off the treatment of the teeth from the general healing art would be to reduce it to its old position of isolation, a position from which it emerged some forty years ago when it was wedded to general medicine.

The L.D.S., or licence in dental surgery, is examined for, and granted by, the Colleges of Surgeons of Great Britain and Ireland. It is the only dental title that carries the privilege of registration. It is rapidly becoming recognized and understood by the general public, as well as the general medical profession. The proposed degrees would not entitle their holders to registration, and a proposal has actually been made to deal with this difficulty by the extraordinary subterfuge of giving away an L.D.S., free gratis and for nothing, with the degree! This would be an evasion of the Dentists Act scarcely creditable to such bodies as our universities. In the rush of competition for alumni and their fees which would follow such a procedure on the part of the dozen or more universities of the United Kingdom these "presented" L.D.S.'s would soon lose their meaning and value, and the man in the street would no longer distinguish the title won by years of hard work and expense from that which was given away.

If any number of people take the proposed degrees, the holders of the L.D.S. will certainly be overshadowed by the holders of the B.D.S. and M.D.S. The argument that a man's individual merit will render him unassailable is absurd; if it were so, why all this anxiety for degrees? If it is worth having and worth fighting for, it must be because it is, or pretends to be, something better, and something that will overshadow the existing diploma.

There are several fallacies in the parallel with the many existing degrees in medicine and surgery. First, general medicine is a much larger field with more room for distinctions, and moreover does not grant titles in specialities except as supplementary to general qualifications. Secondly, the added titles do not tend in the direction of severance from the general medical body. Thirdly, the multiplicity of titles in medicine and surgery is an evil, and does tend towards confusion. Fourthly, an added title inferring a wider and broader medical and surgical knowledge, while of great value for hospital appointments where the teacher should know as much as those he is teaching, does not conflict, because it does not compete with the dental title.

Lastly, there is another section of the community to be considered, namely, the public. How will a multiplicity of dental titles affect them? At present the L.D.S. is justly regarded as conveying a well-earned title to the confidence of the public, but is it likely that this safeguard would be maintained in the face of a multiplicity of titles?

This change is asked for by those who do not fully realize what it means, and are dazzled by the prospective decoration. Behind these earnest whole-hearted advocates lies an active, but I believe numerically small, body of agitators who hope to profit by the confusion, and, careless of the future of dental surgery, see only an opportunity to flood the country with "doctors and proctors of every degree."

At present the curriculum required for our L.D.S. diplomas is so stringent, and the requirements and examinations so uniform and so well in advance of that of other countries that it is not at present possible to entertain applications from abroad for reciprocal recognition, but should many different bodies begin to grant varying titles of varying stringency of requirements, I do not believe this safeguard could be maintained. At present our great strength lies in our uniformity.

I do not believe that we shall allow these evils to happen. I cannot believe that the authorities of our universities will insist on presenting these honours to a branch of the profession that has emphatically stated that it does not welcome them. If we need higher or other titles, science, medicine, and surgery all have plenty, too many, perhaps; but degrees in dentistry apart from medicine would be a huge stride backwards towards the anarchy from which we but recently emerged.—I am, etc.,

London, W., Feb., 1904. ARTHUR S. UNDERWOOD.

ST. BARTHOLOMEW'S AND THE OUT-PATIENTS.

SIR,—Will you allow me to add a postscript to a letter which you did me the honour to insert on January 2nd? The number of out-patients at St. Bartholomew's Hospital is given as 120,000, 130,000, and 130,000. From the Treasurer's speech at the Mansion House the attendances during the first three

weeks of the present year were 15,247—that is, between 800 and 900 a day, about 850. The number of working days being about 308, we find the annual attendances amount to about 262,000, or two for every patient seen. It is quite apparent how trivial are the great majority of out-patient cases many must only be seen once. One is sceptical as to the argument from poverty, when only 1s. to 3s. is the yearly expenditure that would be required from each patient were the hospital obliterated. The statement of the Westminster Hospital just published shows 23,270 out-patients, more than a hundred thousand fewer. I fear the Governors of St. Bartholomew's have not gone deeply into this matter.

The report of a dispensary has reached me. The figures show 4·6 attendances (including visits) to each case, and the cost of each attendance 9d.; the average cost, therefore, of each case is 3s. 6d. It is surely reasonably possible for all but paupers (who are otherwise provided for) to contribute a like sum. The doctor in the next street would thus have 1s. 6d. for each attendance, which appears to be the lowest living wage. This particular dispensary is about to adopt the provident system, and we should wish it all success.

Those with whom I have conversed on the subject of provident dispensaries regard them with dislike as well as disapproval. Should we not look upon them as a less evil than eleemosynary medical attendance? I am convinced that if certain serious defects of management were corrected they would be satisfactory and in a small way profitable. But this leads me away to a large subject.—I am, etc.,

London, W., Feb. 21st. G. Crichton, M.D.

THE PRUSSIAN VACCINATION LAW OF 1835.

Sir,—In the British Medical Journal of February 13th you have honoured me with some reference. Will you favour me with some of your valuable space for a reply?

With regard to vaccination and revaccination in Prussia, before the great epidemic which occurred about the year 1872, Dr. Seaton, who in his day was one of the most eminent pro-vaccinist medical men in England, when he gave evidence before a Committee of Parliament on Vaccination, said (Q. 5 608) "I know Prussia is well protected." Why did Dr. Seaton say that if vaccination was not thoroughly performed in Prussia? He was a strong believer in vaccination as the means, and the only means, of preventing small-pox. That statement of Dr. Seaton's strongly supports my position, that vaccination was compulsory in Prussia from the year 1834. The exact wording of the laws and proclamations that made it compulsory is not material. The question is one of fact. Did those laws and proclamations have the effect of making it compulsory? No one denies that every soldier in the Prussian army was vaccinated upon entering the service, and that military service was compulsory upon every male citizen not physically defective. It rests with the pro-vaccinists to explain the terrible mortality amongst adult males during the small-pox epidemic. The pro-vaccinists are on the horns of a dilemma with regard to vaccination in Prussia and the epidemic of 1872. If Prussia was thoroughly vaccinated, it is evident that vaccination does not protect from a small-pox epidemic. On the other hand, if Prussia was not well vaccinated, then it is evident that the disease of small-pox specially selects those who are vaccinated for attack, because the vast majority of those who were attacked by small-pox were vaccinated. Those who defend vaccination may choose which horn they like to sit upon.

I am much interested to observe that the British Medical Journal regards "isolation without vaccination" as "quackery," and I should very much like to know if in that statement it has the support of the bulk of the medical profession and of the medical officers of health of the United Kingdom. The idea of separating those who suffer from an infectious disease from those who have not yet been infected, as a means of preventing the spread of the disease, has made great progress during the last hundred years with most practical sanitarians, and certainly that is the idea which is now prevalent with, I think I may say, the majority of sanitary authorities in this country; but I gather from you that isolation of itself would have no beneficial effect with regard to the disease of small-pox—that it is, in fact, quackery as applied to that particular disease. I am always trying to learn (you will doubtless say I had need to), but I should indeed be interested to hear from you why isolation, which is so generally adopted and recommended by medical authorities with regard to infectious diseases, has, in your opinion, no beneficial influence upon the spread of small-pox. For myself, looking at both German and English statistics, it would seem as if it had a very great influence. There is no doubt that the Germans have most stringent arrangements for the isolation of small-pox cases and of suspects, and it is also interesting to observe that since the Metropolitan Asylums Board established the hospital ships for small pox cases, small-pox in London has been reduced in a wonderful manner.

May I say, in conclusion, that I consider that to put pus from a diseased calf into the blood of a human being is an operation that should require the most powerful and incontrovertible evidence in its support? I have no bias to guide my judgement in this matter, but, having studied the question, I have come to the conclusion of Professor Crookshank, of King's College, Dr. Creighton, and many other eminent men of science, that vaccination is a delusion and its penal enforcement a crime.—I am, etc.,

Leeds, Feb. 15th. Arnold Lupton.

*** We have taken the trouble to turn up the reference to Dr. Seaton, and find that what he says is: "You are asking me about things as to which I should like to refresh my memory, but I know Prussia is well protected." Dr. Seaton was wrong, excepting as regards the army, but Mr. Lupton prefers to mangle what an Englishman said in 1871 regarding a foreign country, and to found his case on the mangled quotation, rather than on the original published documents of 1835, of which we gave a translation last week. That is only following antivaccination precedents, of which it would be easy to give examples if it were worth while. And if our correspondent will refer even to the present month's *Vaccination Inquirer* he will learn there from a Continental writer whose authority he can hardly dispute, that, excepting in the army, revaccination was not obligatory in Germany till after 1874. For the rest we must really decline to discuss with Mr. Lupton the putting of "pus from a diseased calf into the blood of a human being," or to restate for his special benefit the evidence as to Prussia and other European countries which is so well summarized in Dr. Edwardes's little book (published by H. K. Lewis) on *Small-pox and Vaccination* in Europe. Nor need we point out to him that isolation used to be anathema to the official anti-vaccinist, and that even yet compulsory isolation is not admitted to be justifiable.

Lieutenant-General Phelps, the President of the Anti-vaccination League, also sends us a letter in which we are charged with having misrepresented him. In an article on the Prussian Vaccination Law of 1835, in our issue of February 13th, it is stated that Mr. Arnold Lupton had asserted that

> in Prussia there was a vaccination law passed in 1835, and a Royal Proclamation, enforcing the law, on pain of fine or imprisonment, on every one within the whole extent of the monarchy. In the Prussian army revaccination was compulsory. The law was passed in 1834, and every male citizen had to serve in the army, and thus Prussia was compulsorily vaccinated throughout and its male citizens were re-vaccinated.

The misrepresentation of which the President complains consists in the fact that after having quoted as above from Mr. Arnold Lupton, the article went on to say, "General Phelps wrote in the same strain." Well, it happens that the truth or otherwise of the General's charge is easily tested. In the *Vaccination Inquirer* for January, at p. 204, there is given an extract from General Phelps's contribution to the newspaper correspondence referred to. The first sentence of the extract is as follows: "The compulsory law was enacted in Prussia in 1835 for the civil population, and in 1834 for the army, which, owing to the law of conscription, means practically the male half of the population." That is what General Phelps wrote, and yet he complains that the article in our columns misrepresented him in saying that he had written "in the same strain" as Mr. Arnold Lupton in the passage quoted above. The complaint is really too preposterous for serious comment, and as for the rest of the letter, surely the columns of the League's own organ are open to such contributions from its President, whilst our refusal to find room for it will give the editors another opportunity of calling high heaven to witness how these medical journals dare not print the cogent arguments of antivaccinists lest thereby their readers should be perverted from the true faith.

ISOLATION HOSPITALS.

Sir,—Many will agree with Dr. Buckley Pogson's statement that there is much sound common sense in Dr. W. Moore's letter to you in the British Medical Journal of January

9th. Very keen and widespread discontent has been manifested of late with the results that ensue from congregating scarlet-fever patients in special institutions with a view to checking the spread of the disease from which they are suffering. Your own correspondence columns of October and November last year, and those of the *Lancet* of December and January, bear eloquent witness to this fact. The substantial nature of this discontent is demonstrated also by recent discussions at the branch meetings of the Society of Medical Officers of Health, and by editorial comments in the *Medical Press and Circular*, *Public Health*, the *Sanitary Record*, and other journals. Nor is this discontent confined to the profession. In many parts of the country intelligent laymen have brought forward the question of the ability of these hospitals to aid in checking the spread of scarlet fever, and even the Hospitals Committee of the Metropolitan Asylums Board in a public letter admits that grave doubt exists in the minds of many as to the wisdom of isolation. This being so, an authoritative body should at once take in hand the question of inquiring into the evidence that exists *pro* and *con.* the present system.

In the meantime an alternative to that system may well serve as a topic for discussion. The only practicable scheme that suggests itself is that advocated by Dr. W. Moore and others, namely, home isolation. This exists at present in the case of measles, whooping-cough, and other infectious diseases that are only actually dangerous—not officially so. In the event of such home isolation being adopted, it would be eminently desirable that the local authority should be in a position to bear part of the expense in the case of the poor, and it would seem that they already have this right under the present Act. The Stourport Urban District Council appear to have contracted out of this power by contributing to a neighbouring hospital, and if they are unable to withdraw from the present arrangement they are indeed on the horns of a dilemma. It would be part of the function of a committee of inquiry to investigate cases of this kind and ascertain how their difficulties could be solved. Such an inquiry is a pressing necessity, and cannot, it seems, be long postponed, that is if those who are alive to the impotence of the present system, and to the evils that it brings in its train, will combine to urge its institution.—I am, etc.,

Eastbourne, Feb. 14th. HUBERT E. J. BISS.

THE SANATORIUM FOR CONSUMPTIVES.

SIR,—The aggregation of the infective sick in permanent hospitals has been shown to be as useless as a preventive measure as it is injurious to the individuals segregated. It is no wonder, therefore, that experience of the system of "curing" consumptives in smitten herds has led to a reaction which is pretty certain to be set down to recalcitrancy. It is a curious commentary on the manner in which the popular imagination has been inflamed by the booming of German statistics that the system is now discredited in that country, while in France it is ridiculed. In this country, where a notion appears to exist that adverse comment must be made with bated breath, many now regard sanatorium "cure," "arrest," and "economic cure" of consumption as a played-out farce. At a meeting of the Notts Association held on February 11th, Dr. Brookhouse, referring to those who had undergone the "economic cure" at the Ratcher's Hill Sanatorium, made the statement that "the majority of them die in much less time than the public has any idea of." At a recent meeting of the Austrian Tuberculosis Commission it was declared that people in whom phthisis had been dormant for many years, and whose prospects of prolonged life were good, died very startling rapidly after entering the sanatorium with the object of "completing their cure."

What is the signification of this? If it be not secondary infection, what is it? The analogy to what is constantly happening in the isolation hospital is complete.

A word of caution, [illegible] attaches to all statistical returns, but none are more rigidly fallacious than those dealing with the so-called "cures" of consumptives in sanatoria. We read recently that 14 out of 40 cases were declared, and one was dying within a year of the last sickness. We are continually meeting with statements about the number of people who have been cured at "open-air work." The uninitiated will be surprised to learn that [illegible] per cent. of those who consumption has compelled to cease their work are permanent. By the time that a patient is compelled by his disease to give up work he has developed physical signs, and to the man with physical signs the doors of the sanatorium are closed.

What excuse, Sir, can be pleaded for the excitement, bordering on panic, which led to the formation of the National Association for the Prevention of Consumption? Has the tried methods of disease prevention failed in this country? We all are aware that the consumption death-rate has been lowered by 50 per cent. in fifty years—not by "the abolition of humanity by bacteriology" (Hueppe) but by establishing works of sanitation which have never yet been known to fail.

Leaving the tubercle bacillus to take care of itself, what are the chief causes of consumption? The respiration of exhausted air, defective drainage, unsuitable and insufficient food, etc., form the sum total of the conditions under which the disease thrives. Can the establishment of sanatoria combat these? Is it to be called "science" this wasting of enormous sums of money on supposed "cure" when the way to prevent lies open before us? "The prevalence of phthisis is now recognized as one of the most certain indications of sanitary defects" (Sir John Burdon Sanderson). According to Dr. Buchanan, of the Local Government Board, the laying of main drains at Bristol, Salisbury, Rugby, Ely, and Cheltenham led to a reduction of from 12 (Bristol) to 49 (Salisbury) per cent. of the previous consumption death-rate. Dr. Arthur Ransome has shown that while the death-rate from this disease amongst English soldiers quartered in Canada was 23 per 1,000 as against 10 per 1,000 of their compatriots at the home stations, the proper drainage and ventilation of the barracks reduced the consumption death-rate from 23 per 1,000 in 1865 to 6·3 in 1872 and 6 in 1874. Dr. Guy showed that of 104 men having less than 500 cubic feet of air 13 suffered from haemoptysis and a like number from catarrh; of 115 who had from 500 to 600 cubic feet 5 suffered from the former and 4 from the latter trouble; of 101 men having 600 cubic feet 4 suffered from blood-spitting and 4 from catarrh. It is, moreover, related by Dr. Parkes that in the badly ventilated prison, the Leopoldstadt of Vienna, the consumption death-rate was (1834-1847) 51.4 per 1,000, while in the well-ventilated House of Correction in the same city only 7.9 died from phthisis.

The direction which our efforts should take is here clearly indicated. It may not commend itself to the enthusiast who is on the look-out for royal roads, but it is the only way, and so long as science is defined as the systematization of knowledge it is the scientific way and on every account to be preferred to tentative methods, be they ever so plausible.—I am, etc.,

Nottingham, Feb. 15th. EDWARD DEAN MARRIOTT.

COMPLETE PROSTATECTOMY.

SIR,—The letters from Mr. Herring and Dr. Young, in the BRITISH MEDICAL JOURNAL of February 13th, call for an answer from those who differ from their conclusions.

Mr. Herring considers that practically the only condition which calls for active surgical interference is sepsis, that this sepsis of the urinary tract is almost always due to septic instrumentation, and that by the practice of sterile catheterization the occurrence of septic infection is prevented and the need for operative treatment of enlargement of the prostate reduced to very small dimensions. Mr. Herring has completely ignored such conditions as vesical stone complicating prostatic enlargement, and the frequent recurrence of calculus formation in bladders with an obstructed outlet. It must be remembered that stones do not always form *ab initio* in the bladder, and that renal stones are trapped by an enlarged prostate, whereas they would probably escape with ease from a normal bladder. Furthermore, these cases are completely cured by removal of stone and prostate at one operation, whilst Mr. Herring will probably allow that they are amongst the most unsuitable for lithotripsy.

The operation of prostatectomy is called for when haemorrhage complicates catheterism, however gently performed. A condition of great urgency not uncommonly results from the passive bleeding which takes place from the prostate, although catheterism may have been easy and the urine bright and clear.

Mr. Herring does not mention those cases in which, owing to the character of the enlargement catheterization is most difficult even to a skilled surgeon, and much more to the patient himself, whilst some men are naturally so maladroit that they find self-instrumentation anything but an easy matter, even when there is no particular difficulty to a

surgeon. I could elaborate this line of argument did space permit, but let us grant Mr. Herring's postulate, and admit that if sterile catheterization is practised the need for operation disappears. What chance have we of securing this essential condition for success? I answer that in 90 per cent. we have no chance.

All credit is due to Mr. Herring for his insistence upon the necessity for asepsis in urethral instrumentation. There is no doubt that all varieties of bougies and catheters can be rendered sterile, but when he asserts that by teaching patients how to do this, how to pass their instruments, and by supplying them with these instruments he can secure urinary asepsis an involuntary smile, I should imagine, must rise to the face of every practical surgeon who has to deal largely with such cases.

When we have to deal only with educated men of leisure the thing is possible, but the majority of people are anything but men of leisure, and even if the average working-man could afford the dozen or so instruments per annum necessary for aseptic catheterism, we cannot change his essentially careless outlook with regard to such matters, any more than we can alter the nature of his employment and environment which in many cases forbids the successful accomplishment of what after all is a bacteriological experiment, as is every surgical operation where asepsis is attempted.

Turning to Mr. Herring's outlook upon the pathology of prostatic enlargement, one is struck by his apparent belief that prostatitis and hypertrophy are one and the same thing. True hypertrophy of the prostate is excessively rare, and the operation of prostatectomy is seldom performed for inflammation of the gland.

Dr. Young's letter appears to be an eulogy of the recent articles of Messrs. Wallace and Albarran and Motz. The essential point in the latter article is that the cleavage takes place between a layer of compressed gland substance on the outside and the adenomatous mass within, thus leaving a shell of prostate lining the cavity. I should like to assure Dr. Young that if the operation is performed properly nothing more than a few adenomatous nodules can be found in the cavity wall after operation and sometimes not even these. It is entirely a question of correct or incorrect performance of the operation. But after all, the prostatectomy is sufficiently complete to satisfy any but the most captious critic, and differs entirely from the old method of piecemeal removal by enucleation.—I am, etc.,

London, W., Feb. 22nd. JOHN PARDOE, F.R.C.S.

THE TREATMENT OF PNEUMONIA.

SIR,—"Just for the fun of the thing," as Dr. Barr expresses it, let me "remind him of a fact of which he is no doubt aware, but which he seems to have forgotten," that if the right heart is, as he says, "a reservoir at the bottom of the stream," it is a reservoir with distensible walls, and with a curious power of forcibly expelling its contents—qualities which are unusual in "reservoirs."

Dr. Barr cannot escape the force of Dr. McNamara's testimony to the saving of life in two children who were dying from distended right heart by offering him gratuitous advice about the treatment of his next case. One would have thought that after such a striking success in therapeutics Dr. McNamara was more entitled to give advice than to receive it. And those who know something of the conditions of life of many of the London poor, when they read the recommendation to "put such cases in the best room in the house," will be conscious of sharing in the amusement which it is pleasant to hear that Dr. Barr has found in this correspondence.—I am, etc.,

London, W., Feb. 22nd. D. B. LEES.

SIR,—I hope my fellow-culprits are at one with me in their appreciation of the honour Dr. Barr has done us in deigning to reply to our effusions. I for one should not dream of begrudging him any fraction of the amusement he has derived from the controversy. On the contrary, I have read his further remarks on the subject of oxygen inhalations with considerable interest and some profit I hope. Still the subject is in itself somewhat serious, inasmuch as the treatment of pneumonia is unhappily for the most part productive of little benefit to our patients or satisfaction to ourselves. I can assure Dr. Barr that we are quite open to conviction on the subject, and that when evidence is forthcoming to the effect that compressed air will give the same relief to a cyanosed patient as, in our opinion, compressed oxygen gives, we shall gladly avail ourselves of the substitute.

I am, of course, aware of the fact that diminished aërating surface is a serious element in the production of cyanosis, especially in infantile cases of double pneumonia. Still, as the absorption of oxygen and its combination with haemoglobin is in part a function of temperature and of the percentage of oxygen in the inspired air, it certainly seems reasonable to infer that by increasing that percentage we can neutralize the dissociating effect of high temperature and enhance the oxygenation of the haemoglobin circulating in the sound portions of the lung. And that seems a desirable effect. It has sometimes occurred to me that the inhalation of pure oxygen may have an irritant or corrosive effect on tissues predisposed to inflammation, and I venture therefore to suggest that a mixture of oxygen and nitrogen in about equal proportions might give better results than either ordinary compressed air or oxygen alone.

However, I notice that Dr. Barr occasionally prescribes oxygen himself, and that being so the difference of opinion between us does not amount to much. That oxygen too often fails to give more than temporary relief is unhappily too true—the point is that there are so few methods of treating pneumonia that do even that.—I am, etc.,

Bath, Feb. 20th. C. J. WHITBY.

SIR,—Dr. Barr treats my clinical observations with some contempt, owing to the increase in arterial tension which was noted. The patient in question was about 11 st. in weight; about 14 oz. of blood were withdrawn, equal to about $\frac{1}{48}$ of body weight. Under the circumstances, Dr. Barr will pardon me for reminding him of a fact which he appears to have forgotten. It has been experimentally demonstrated that animals, for example, the dog, may be bled to an amount equal to $\frac{1}{20}$ of body weight without affecting the blood pressure; and further, that after a slight loss of blood the pressure may even rise (Worm Müller). The important practical deduction from such experiments is that arterial blood pressure is not directly diminished by moderate blood-letting. If Dr. Barr will take the trouble to refer to the case again,[1] he will see that strychnine and brandy were injected prior to the observations recorded.

I suggest, therefore, that Dr. Barr, unless he has other and more cogent reasons for rejecting my observations, is hardly warranted in doing so on the ground of increased arterial tension.—I am, etc.,

Manchester, Feb. 23rd. J. STAVELEY DICK, M.B. (R.U.I.).

*** It does not seem necessary to prolong this correspondence.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEONS: H. ACHESON, M.B., J. MCELWEE, M.B., D. HARVEY, M.B., R. T. A. LEVINGE, B.A., J. C. FERGUSON, M.B., B.A., and E. P. MOURILYAN, M.B., are promoted to be Fleet Surgeons, February 22nd. Their first commissions are dated February 22nd, 1895: as Staff Surgeons, February 22nd, 1886. Fleet Surgeon Acheson landed with the Naval Brigade for the punitive expedition against King Koko, of Nimby, the chief town of Brass, on the River Niger, February, 1895 (medal with clasp); also with the Naval Brigade at Mombasa for the punishment of Mbaruk, a rebellious Arab chief, resulting in the capture of his stronghold, M'weli, in August, 1895, mentioned in dispatches, "M'weli, 1895," engraved on rim of General Africa Medal. Fleet Surgeon McElwee landed with the Naval Brigade in the expedition up the Gambia in 1901-2, resulting in the capture of Tambi and Tomataba (medal with clasp). Fleet Surgeon Levinge served in the punitive expedition landed to punish the King of Benin for the massacre of the political expedition, ending in the capture of Benin City in 1897, on Lieutenant Commander Pritchard being shot. Dr. Levinge took command and behaved admirably mentioned in dispatches, medal with clasp). Fleet Surgeon Mourilyan was with Captain Bearcroft's Naval Brigade in 1900 from Modder River to Kroonstad. The other officers mentioned have no war record.

Fleet Surgeon JAMES MCC. MARTIN, D.S.O., is placed on the retired list at his own request, with the rank of Deputy-Inspector-General, February 12th. His commissions are this dated Surgeon, August 28th, 1882; Staff Surgeon, August 28th, 1894; and Fleet Surgeon, August 28th, 1898. He served with the expedition sent against the King of Benin for the massacre of the political expedition in 1897, and was at the capture of Benin city; he carried Dr. Fyfe when wounded off the field (mentioned in dispatches, made a Companion of the Distinguished Service Order, and received medal with clasp).

Inspector-General J. W. FISHER, M.D., is placed on the retired list at his own request, February 18th. He was appointed Surgeon, January 14th, 1865; Staff Surgeon, March 31st, 1874; Fleet Surgeon, September 22nd, 1882; Deputy-Inspector-General, May 30th, 1892; and Inspector-General, March 9th, 1898. He was present at the action against Ashantees in 1873; attached to the Naval Brigade, he was present at every action of the brigade, and was specially mentioned for services under fire at Amoaful (promoted; specially mentioned in military dispatches; medal with

[1] BRITISH MEDICAL JOURNAL, January 9th, 1904, p. 105.

clasp. He was in medical charge of the Royal Naval Hospital, Port Royal, Jamaica during the epidemic of yellow fever, and was deputed to join the Central Board of Health during the absence on leave of the Principal Colonial Medical Officer, and received the thanks of the Governor of Jamaica for services to the island during the epidemic.

The following appointments have been made at the Admiralty: James H. Beattie, Fleet Surgeon, and Robert Kennell, M.B., Surgeon to the *Andromeda*; Malcolm St. Donald I. Hossain, Fleet Surgeon; and Alwyth E. Merewether, M.B., and William K. D. Bellon, Surgeon, to the *Crescent*, February 7th; Henry W. Lenahan, Staff Surgeon, to the *Sutlej*, undated; Robert L. D. Ainson, Surgeon, to the *Naiad*, February 8th; John Mair, Surgeon, to the *Sutlej*, February 10th, and to the *Terpsichore*, on recommissioning; Hugh W. Macnamara, Fleet Surgeon, to the *Penelope* for three months' hospital training, March 1st; Hubert Holroyd, Fleet Surgeon, to the *Europa*, March 1st.

THE DEFECTS OF THE NAVAL MEDICAL SERVICE

Mr Gell, a Surgeon, Guy's Hospital writes: Thank you very much for kindly calling attention to my letter as to defects in the Royal Naval Medical Service. I have somewhere advertised and referred to the last quarterly Navy List, namely, October, 1903. There I find the numbers stated as follows:

Establishment.		Number actually on Active List.	
Inspector-Generals and Deputy Inspectors-General	17	Inspector-Generals	4
		Deputy Inspectors-General	14
Fleet Surgeons, Staff Surgeons, and Surgeons	324	Fleet Surgeons	77
		Staff Surgeons	127
		Surgeons	174
Total	341	Total	396

This shows a shortage of 56 vacancies for 56 medical officers. For these vacancies there were in May last 56 candidates for a number of commissions which were duly advertised, and of which presumably they (the 56 candidates) were ignorant. After the examination it is stated that 15 candidates have been successful, and the public is informed that the competition is 3½ candidates for every 1 post.

I take it, as particulars are not yet published, that I am considered premature in criticising the results of the last examination, although I see no reason why you will allow me to say so, to controvert my contention. The fact remains, as has so often been pointed out before, that figures may prove anything, and the above only proves to the full how utterly hopeless it is to effect any reform in a Government department when bare figures alone, at the discretion of red tape, are published for the benefit of the public, who after all pays the piper.

On the figures which you published, if I knew no better, I should say, "Why, competition is so keen that three men are struggling for every two vacancies; why, I say, should their lordships consider it necessary to introduce the extensive packet promotion scheme which they have lately done? Why should the service still be shorthanded even by ten or twenty men? Why are not the number of vacancies to be competed for advertised?

I very much fear that the answer to my letter was dictated by one who held a brief for red tape and falsely-named conservatism. So long as conservatism deals with only the grand traditions and *esprit de corps* of the navy I am with it. For why else did I enter the service? But when it takes red tape (with all its contempt for modern science) under its wing I am—as the Irishman said "again" it.

The Naval Medical service is in an unsatisfactory and discontented state. May I ask you to accept on my own statement at present, and as a late member of the teaching staff in the Naval Medical School, [illegible] of the junior staff at Guy's, I trust my word will be accepted.

Until thorough investigation and reform are instituted I shall continue [illegible] of reason, to reiterate that to render the Naval Medical service [illegible]

[illegible] must be removed from under the thumb of the Lord [illegible] be made a Lord of the Admiralty for [illegible]

Medical [illegible] be in the prerogative of a medical officer, [illegible]

[illegible] not promotion [illegible] and promotion [illegible]

[illegible]

[illegible] on new chairs the navy will [illegible] to any emergency.

Personally, I was [illegible] cause of indebtedness [illegible] and [illegible] should be as a help [illegible] are not strong enough [illegible]

*** We have perused Mr. Gell's letter, and state that the competitive examination [illegible] As we said, it was not at all satisfactory, being the latest of which [illegible] the latest point of time [illegible] Medical Council. Now did [illegible] what vacancies there were [illegible] Medical Service looking at Navy List dated [illegible] that he worked to find out what [illegible] Medical Service. [illegible] and only to look [illegible] the Navy List [illegible] the Navy List [illegible] the latest existing [illegible] Commissions were [illegible] the particulars given at the examination (in 1903). Mr. Gell's criticism is inaccurate in stating that the October list "shows a shortage of 56 vacancies for 56 officers." He appears to have arrived at that result by leaving out the officers accepted for service and at that time undergoing instruction at Haslar. The names of these are in the list, and they form an integral part of the authorized establishment of 341 officers. We may assure Mr. Gell that the reply to his letter was not "dictated by one who holds a brief for red-tape and falsely-named conservatism." We venture to think that no reader is likely to be advanced by inaccurate statements and overcoloured pictures.

ARMY MEDICAL STAFF

Brigade Surgeon William Henry Harris died on February 18th, aged [illegible]. He was made Assistant Surgeon, March 17th, 1[illegible]; Surgeon, February 5th, 18[illegible]; Surgeon Major, without date; and Honorary Brigade Surgeon on retirement, September 11th, 18[illegible]. He was in the Crimean war in 18[illegible], including the siege and fall of Sebastopol, the attack on the Redan on June 18th, and the battle of the Tchernaya; medal with clasp and Turkish medal; he was also in the Indian Mutiny campaign of 18[illegible], being present in the operations before Cawnpore, the capture of Lucknow, the surrender of the forts of Ahmatee and Shankerpore, and the subsequent operations in Oude (medal).

ROYAL ARMY MEDICAL CORPS.

The date of the promotion of Lieutenant-Colonel J. F. Williamson, M.B., C.M.G., is November 26th, 1903, and not as stated in the *Gazette* of December 22nd, 1903.

The date of the reversion from the seconded list of Captain T. H. M. Clarke, C.M.G., D.S.O., is November 23rd, 1903, and not as stated in the *Gazette* of December 15th, 1903.

Lieutenant A. C. H. Gray, M.B., is seconded for service under the Foreign Office, February 4th.

Brevet Major A. F. Tyrrell is placed on half-pay on account of ill-health, February 11th. He joined as Surgeon-Lieutenant, July 25th, 1892, and was made Surgeon-Captain, July 25th, 1895. He was in the campaign on the North-West Frontier of India in 1897-8 with the Malakand Force (medal with clasp). During the recent war in South Africa he was Orderly Officer to the Principal Medical Officer in South Africa; he was mentioned in dispatches, made Brevet Major, and received the King's medal with two clasps.

The undermentioned Lieutenants, whose first commissions date from January 28th 1903, are promoted to be Captains, from January 28th, 1904: A. J. W. Wells, G. F. Sheehan, H. H. Scott, M.B., H. A. Bransbury, M.B., W. Falkner, R.N., Woodley, E. Ryan, E. E. Parkes, M.B., J. V. Roche, A. J. Hull, R. V. Colvey, J. Conway, J. H. Babbidge, M.B., F. E. Robinson, M.B., S. Mason, J. S. Bostock, M.B., and A. H. McN. Mitchell.

Lieutenant-Colonel J. G. Halwood, who is serving in the Bombay Command, is granted the temporary rank of Colonel while officiating as Principal Medical Officer of the Poona District, vice Colonel W. E. Saunders, C.B., transferred to the Bengal Command.

ARMY MEDICAL RESERVE

Surgeon Lieutenant V. Graham, 2nd Volunteer Battalion the York and Lancaster Regiment, to be Surgeon-Lieutenant, February 20th.

Surgeon-Lieutenant N. P. Watt to be Surgeon-Major, February 13th.

The notification which appeared in the *London Gazette* of February 2nd stating that Surgeon-Captain W. P. Peake ceased to belong to the Army Medical Reserve is cancelled.

INDIAN MEDICAL SERVICE

Lieutenant-Colonel H. K. McMay, C.I.E., Bengal Establishment, is appointed to officiate as Principal Medical Officer, Presidency District.

ROYAL NAVY VOLUNTEER RESERVE.

Messrs. Edward J. Reegman, M.B., B.S., D.P.H., and Herbert R. Power, M.R.C.S., L.R.C.P., have been appointed surgeons, and have been attached to the London Division, February 13th.

HOSPITAL AND DISPENSARY MANAGEMENT.

QUEEN CHARLOTTE'S HOSPITAL, LONDON.

The report of the Committee of Queen Charlotte's Lying-in Hospital, presented at the annual meeting of subscribers on February 22nd, showed that arrangements had been made so as fully to meet the training regulations of the Central Midwives Board. In view of the increase in the number of in-patients to 1,445, and of women attended at their own homes to 1,[illegible], the Committee desire to enlarge the accommodation for nurses at an estimated cost of £[illegible]. The income for the year, including a donation of £[illegible] from King Edward's Hospital Fund, fell short of expenditure by £[illegible].

WARNEFORD ASYLUM, OXFORD.

This institution was established in 1[illegible] and contains 120 beds. It is to a certain extent endowed, the chief revenue being from the Warneford Estate, but these are unfortunately diminishing, and have now reached the amount of about £[illegible] a year. The amount received from patients during the year 1[illegible] was £[illegible] 18s. 6d., being an increase on that received in the previous year, and the year closed with a balance of £[illegible] 18s. 5d. in hand.

During the year [illegible] patients were admitted, [illegible] discharged, and the recovery rate reached the satisfactory figure of [illegible] per cent., including [illegible] calculated upon the number admitted, which Dr. Neil states to be the highest number for any one year in the history of the hospital.

[illegible] Treasurer, in his report upon the hospital and its [illegible] very reasonable, states that as to the payments for [illegible] the payments are at present under 10s. a week, for 19 [illegible] 10s. a week, and for 71 they range from [illegible]. He adds: "[illegible] payments [illegible] that sum, and they conclude their [illegible] by a statement that it is evident that the hospital [illegible] its functions as a charitable institution."

OBITUARY.

ROBERT MILNE MURRAY, M.A.St. And., M.D.Edin., F.R.C.P.E., F.R.S.E.,

Physician, Royal Maternity and Simpson Memorial Hospital; Assistant Gynaecologist, Royal Infirmary; and Lecturer on Midwifery and Diseases of Women, Edinburgh School of Medicine.

The death of Dr. Milne Murray, of Edinburgh, at the early age of 48, was briefly announced last week. In November, 1902, he went to see an invalid in the country, and got a chill while driving in an open carriage. Pneumonia followed. From this he rallied, though pulmonary symptoms did not disappear. He went first to the South of England, and later to Italy and Switzerland, in the hope that more kindly climates might help him. He was most unfortunate in the weather at several of the places he visited, and the hope of recovery was not realized. He came home in November, 1903. As his condition was far from satisfactory it was resolved as a last resort to resect portions of several ribs. This was done on Sunday, February 14th. He bore the anaesthetic badly, and died of heart failure some hours later. There was progressive cavity formation in the middle and lower lobes of the right lung.

Robert Milne Murray was born at Fetteresso, Kincardineshire, on May 6th, 1855. His father was a schoolmaster—one of those highly educated and cultured men who in past days did so much for the education of Scotland. From his father's school he went to the University of St. Andrews, where, after a distinguished course, he graduated as Master of Arts in 1875. At St. Andrews he first manifested his deep interest in scientific studies, and as a student he became Assistant to Professor Heddle in the department of Chemistry. From St. Andrews he went equipped with a considerable knowledge of chemistry, geology, and mineralogy, to the University of Edinburgh to enter on the study of medicine. After a brilliant career as a student he graduated with first-class honours in 1879. He at once became assistant to Dr. J. Halliday Croom, and thus began his devotion to obstetrics and gynaecology, and his striking success as a teacher. In 1886 he became a Fellow of the Royal College of Physicians of Edinburgh, and in the same year began to lecture on midwifery and diseases of women in the Extramural School of Edinburgh. His class soon became the largest and most successful in the school. In the session 1902-3 he reached his best class with over 130 students, but by the cruel irony of destiny he was only able to lecture for a few weeks. He was a born teacher. The best students, the most earnest, went to his class. He, along with a few of his colleagues, established the New School as an integral part of the School of Medicine of the Royal Colleges.

In the department of midwifery he was most accomplished. No one could excel his manipulative skill in the use of the forceps in a difficult case. He did not at once take to operative procedure in gynaecology, though as assistant to Sir Halliday Croom he had had a long and valuable training. When he did, he at once asserted himself as a highly dexterous, skilful, and successful operator. His consulting and operative work had at the time of his illness grown to such an extent as to engross all his available time.

He was a Fellow of the Royal Society of Edinburgh, of the Obstetrical Society of London, of the Royal Physical Society of Edinburgh: he had been President of the Edinburgh Obstetrical Society, Vice-President of the British Gynaecological Society, Vice-President of the Royal Scottish Society of Arts, as well as a Member and Fellow of various other scientific societies. He was one of the Physicians of the Royal Maternity and Simpson Memorial Hospital, Edinburgh; Assistant Gynaecologist to the Royal Infirmary, Edinburgh; Examiner in Midwifery to the Royal College of Physicians of Edinburgh, to the University of Durham, and to the Indian Medical Service.

His contributions to medical literature were many. His earliest was *Chemical Notes and Equations*. It was followed in 1881 by a paper On a Form of *Post-partum* Incontinence of Urine, and its Treatment by Faradism; in 1882, A Difficult Face Case complicated with Shoulder Dystocia; Cessation of Respiration under Chloroform, and its Restoration, 1885; Physiological and Therapeutic Actions of Water at Different Temperatures, 1886; Effects of Compression on Shape of Fetal head, 1888; Treatment of Pelvic Disease by Electricity, 1890; The Axis Traction Forceps, 1896; Adjustable Axis-Traction Forceps, 1896; Deflection and Rotation of the Pregnant Uterus, 1897; Relative Advantages of Forceps and Version, 1896; and Spontaneous Rupture of Uterus in vol. i of the *Journal of Obstetrics and Gynaecology*. He had begun writing a textbook of obstetrics for Pentland's Medical Series, but his long illness prevented his making much progress, and it is doubtful whether it can now be published with the impress of his personality.

Dr. Milne Murray often said that the highest excellence in any line of life was attained only by those who cultivated other interests beyond that of their immediate profession. He was himself a living illustration of its truth. He was a many-sided and versatile man. He knew something of everything and much of many things. Reference has already been made to his knowledge of chemistry, mineralogy, and geology. But that was not all. His knowledge of electrical science, electrical apparatus, and methods of electrical treatment was so extensive and so detailed as to justify his place in the front rank of workers in that department of science. He had himself not only devised, but made with his own hands, a large number

of electrical instruments. His switchboard, for instance, for medical investigation and treatment is used throughout the kingdom. Nor is it superseded by any of the more complex and costly switchboards of France and Germany. It was like the man that he secured no patents. He was constantly consulted by the leading makers of such apparatus in Great Britain and on the Continent, and his advice was at everybody's disposal. A visit to his private laboratory in Rutland Square was an educational treat. It was full of all kinds of ingenious electrical contrivances. The managers of the Edinburgh Royal Infirmary appointed him the first electrician to that institution, and it was under his supervision that the electrical installation for lighting and medical and surgical treatment was carried out.

He was passionately devoted to music, and could play several instruments; his favourite was the flute. His taste in music was, like his taste in everything, pure and correct. He was an accomplished mathematician and a skilled draughtsman. He had a wide and accurate knowledge of the best in English literature, as well as in the literature of France and Germany. He continued to read *Horace* and *Lucretius*. He never missed on Saturday evenings the *Athenæum*, of the literary judgements of which he had a very high opinion. He used to be a keen fisher and golfer, but latterly he devoted his holidays to Continental travel.

No medical man in the city of Edinburgh was so much beloved, not only by those who were his patients, but by the members of his own profession. He loved, and was loved by, people the most various in age, in intellect, and in station. He had no enemies; and no wonder, for he was the most genial of men, he was so pleasant, so simple, so frank, so straightforward, so friendly, so sympathetic, so ready to help everybody. He disliked ostentation and self-seeking. He had no commercial instinct. Forgetful of the possibilities of his own time and strength, he gave himself without stint to all. He was a true and staunch friend. With his sympathy, his counsel, and his help he stood loyally by his friends in the time of their adversity. Guileless himself, he was unwilling to see evil in any one. He looked at the good, and ignored the corners and asperities. He often differed from men, and strongly criticized their opinions and their actions, but there was never the semblance of personal animus. His nature was full of sunshine and kindness. In his last Continental journey, ill and depressed as he was after severe and repeated haemorrhages, he yet was thoughtful enough to procure in the St. Gothard Pass a beautiful specimen of quartzite for the writer's private geological collection. The action was essentially characteristic of Murray. He thought about everybody but himself.

His unexpected death has illuminated a character noble in its self-forgetfulness, heroic in its fortitude, pathetic in its isolation from long illness, and stoic in its submission to the inexorable. He occupied a unique place in his profession and in the affection of his fellows, and his too early death leaves a vast blank. Who shall fill it?

The funeral on February 18th was an eloquent tribute to the affection in which he was held. The great mass of the medical profession of Edinburgh was present, as were men from all parts of England and Scotland. Both at the service in the house and at the grave many men well schooled in hiding their emotions found it a hard task to refrain from breaking down.

His widow, aged mother, and brother will have the deepest sympathy of a wide circle of friends.

ALEXANDER ROLLETT, M.D.,

Professor of Physiology at Graz.

We take from the tribute paid by Professor G. Zeth, of Innsbruck, a faithful and devoted pupil of the late Professor Rollett, the following particulars of the great physiologist's life.

Alexander Rollett was born near Vienna in 1834. He entered the Vienna School of Medicine where he had for teachers Rokitansky, Skoda, Hyrtl, Oppolzer, Arlt, Ludwig, and Brücke. He became Assistant to Brücke in 1857 at a time when the two great stars in the Vienna firmament were Ludwig and Brücke. He remained Assistant until 1863, when he was appointed to the Professorship of Physiology and Histology in Graz. He began with practically no laboratory, and only fifteen pupils. The quality of his work and the growth of the Medical School forced the Government to give him an Institute, which was begun in 1870. A man of great intellectual and physical vigour, admirably trained in technique, and a profound mathematician, his work bears the stamp of accurate scientific investigation, and thorough probing of the question in hand.

Rollett was a power in his adopted city. He was four times Rector, and his influence and wise counsels did much to develop the University of the "Green Steurmarkt," as the Styrians like to call their pleasant land.

Rollett's work ranges over a wide field. In the first period, 1861-81, it was mainly concerned with the blood. This work has become classical, and is found in every textbook. To English readers it is best known through Stricker's *Handbook*; to physiologists by his elaborate articles in Hermann's *Handbuch*. The famous "muscle period" covers the period 1874-98. Few who have written on striped-muscle structure have added so much to this subject as Rollett. Another chapter to which he contributed largely was that of physiological optics.

His histological memoirs are numerous, and every student of to-day knows the nomenclature of the cardiac gastric glands—delomorphous and adelomorphous cells. Perhaps Rollett had in his mind the story of the famous Island of Delos when he coined the word. In any case, round Delos hangs a pretty tale of the loves of a god and the jealousy of a goddess. In 1876 he discovered sensory nerve-endings in the tendon of the radio-sternal muscle of the frog. Rollett has left a full record of work accomplished; he has formed a School of Physiology, with many disciples who studied and worked under him.

Although invited to occupy the corresponding chair in Prague he remained in Styria. The one event in his academic life which cost him a severe pang was when the successor to his master, Brücke, was appointed.

CHARLES GODSON, F.R.C.S.Eng.

We regret to have to record the death of Mr. Charles Godson which occurred at Ealing on February 6th. Mr. Godson at the time of his death was within a few months of his eighty-fifth year, and although, as he retired from the profession to enjoy a well-earned rest some twenty years ago, he was little known to those now in active practice, he was in his day highly thought of by his friends Gull, Jenner, Ferguson, Paget, Erichsen, Pollock, and other leading men of the past generation. Born at Heckington, in Lincolnshire, in June, 1819, he was, on leaving school in 1834, apprenticed by his father, Mr. Richard Godson, to Mr. William Wade, of the Westminster Dispensary, Gerrard Street, Soho, surgeon apothecary and man-midwife (as he is described in the indenture of apprenticeship) for the full term of five years. During this time he was to reside with Mr. Wade and attend the dissections, lectures, and practice of the dispensary, and in addition to receive instruction at St. George's Hospital. In 1840, when 21 years of age, he received the licence of the Society of Apothecaries and the diploma of the Royal College of Surgeons of England (by which body he was afterwards elected a honorary fellow.) Two years later he married and settled down at Barnet where he purchased a practice. There he held the appointments of medical officer to the Barnet Union Infirmary and to the Enfield Districts of the Edmonton Union, and was also Divisional Surgeon of the Metropolitan Police, Medical Officer to the Great Northern Railway and to the Leather Sellers' Company, and Surgeon of the Militia Battalion of the 2nd Royal Middlesex Rifle Regiment.

In 1878 he sold his practice at Barnet and removed to London. He continued to practise in South Kensington for some years before his final retirement to Ealing, where his genial character and thorough kindness of heart secured for him the same affectionate esteem from all who knew him which he had enjoyed throughout his career elsewhere. As regards his professional work the best evidence will be found in vol. xviii of the *Transactions of the Obstetrical Society of London* (1877), in which there is a paper entitled "Midwifery Statistics of Thirty-five Years' Practice compiled by Clement Godson from the records of his father, Charles Godson, F.R.C.S." It contains a record of 3,223 confinements conducted by Mr. Charles Godson with only 7 deaths or 1 in 460. The way in which the details of the cases are recorded brings out clearly the care and scientific acumen which Mr. Godson brought to bear upon his work, and fully accounts for the position he occupied while in general practice at Barnet, where his opinions were highly valued not only by his own patients but also by all medical men who resided within a wide

circuit of that centre, and who constantly called upon him to assist them in the diagnosis and management of difficult and doubtful cases.

J. SMITH TURNER, M.R.C.S., L.D.S.Eng.

By the death of Mr. Smith Turner the dental profession has lost one of its best-known leaders—one who will long be missed, for his strong individuality was such as cannot easily be matched. A fluent and effective speaker, he was decided in his opinions, and fearlessly outspoken in giving expression to them. Himself always actuated by a straightforward singleness of purpose, and given to taking a wide and liberal view, he was somewhat intolerant of narrowness of opinion in others, and more especially of anything which he deemed to savour of self-seeking; and though at times he might hit somewhat hard, it would be difficult to point to any single occasion upon which his plain speaking was productive of anything but good. His father was well known in Edinburgh, where Mr. Turner was born and educated, as an anticorn-law politician. But Mr. Turner was thrown upon his own resources very early in life, and supported himself for some time by doing mechanical work for other dentists. Subsequently he entered into partnership with a Mr. Bell, and, as soon as his means would allow, entered at the Middlesex Hospital and obtained the Membership of the Royal College of Surgeons, taking about the same time the licentiateship in Dental Surgery, which had been instituted not long previously. He was appointed Assistant Dental Surgeon to the Middlesex Hospital in 1864, and Consulting Dental Surgeon on his retirement after a service of nineteen years.

When the movement which resulted in the passing of the Dentists Act in 1878 was commenced he threw himself into it heart and soul, and under the leadership of the late Sir John Tomes unsparingly devoted his time and energies to its furtherance. Day after day he was to be found in the lobby of the House of Commons, where his obvious sincerity and force of character enabled him to influence many members; indeed, few realize how large a debt they owe to his efforts in securing the passing of the Act. Thenceforward his interest and activity in the public life of his branch of the profession never flagged, and even during his last illness he dictated a characteristic letter on the granting of University degrees to dentists, to which he was opposed, and even alluded to the matter within a few hours of his death.

In the formation of the British Dental Association, which was modelled upon our own, he took a very active part; he was its first Secretary, and later was its President and Chairman of its representative Board. He served the office of President of the Odontological Society, and for many years lectured upon mechanical dentistry at the Dental Hospital of London, subsequently serving upon the Managing Committee of that institution; in fine, at one time or other he occupied almost every position of honour and responsibility which his profession had to offer.

Mr. Turner was born in 1832, and first came to London in 1853. He was twice married, leaving by his first wife a large family. Some three years ago he married Miss Agnes Ward, formerly Principal of the Grey Training College for Teachers, who survives him.

For the last few years his health had not been quite satisfactory, and some months ago he met with a street accident, which appears to have shaken him considerably: for the last two months he had been seriously ill. Now that his career is closed his friends can in all sincerity say of it—Well done.

The distinguished Dutch physician, Dr. Hendrik Frits August Peypers, whose death was recently announced in the British Medical Journal, was born in 1855 and studied medicine at Amsterdam where he was a pupil of Stokvis, Janus, and Hertz. He obtained the licence to practice in 1882, and took the degree of Doctor of Medicine in 1895, with an elaborate dissertation on Syphilis in the Middle Ages, which was afterwards expanded into a monograph entitled *Res Veterum*. While still a student he had given much attention to the history and literature of medicine and he was the author of various writings on questions related to those subjects. In 1895, in conjunction with Professor Stokvis, he founded *Janus*, an international periodical devoted to medical archaeology and tropical diseases. In *Janus* Dr. Peypers published a series of papers entitled *Graecius Therapiae*. He was a man of wide knowledge and many accomplishments; a philosophic thinker and a considerable linguist.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LUNACY LAWS IN SCOTLAND.

The medical practitioners of Dumbarton, Scotland, have raised a question of much importance in connexion with the lunacy laws, and the profession on the subject. It appears that for two years the Dumbarton parish council have had their lunatic paupers, those unfortunate poor people who through heredity or mental disease become for the time being paupers, removed to private asylums by only one medical certificate and an emergency one, both of them granted by the same medical man. Personally the medical men following their vocation there consider this action of the parish council wrong and however careful the medical man may be—and there is not the slightest reason to think he is otherwise than most careful—who grants these certificates, they fear its continuance in all cases is likely to be fraught with danger to the insane. Moreover, they feel that the removal in this manner of all lunatics, ten in number during the time mentioned, is not quite in keeping with the spirit if not even be with the law laid down in relation to the Lunacy Act; and they consider that the "emergency" certificate remonstrance with the action of the parish council. Personally the parish council of Dumbarton save no money whatever by the action, but it may mean a few shillings more expenses.

We consider that no emergency certificate should be granted except in a case of great urgency. The question affects not only the medical profession, but also the public generally.

A PROTEST AND DISCLAIMER.

Dr. Robert Hutchison (London, W.) writes: My attention has been directed to a circular advertising a proprietary medicine which has been sent out to the profession, and in which my name appears very prominently. I desire to say that this wholly unwarrantable proceeding has been carried out without my knowledge or consent, that I know nothing whatever of the preparation concerned, and have written to the proprietors requesting them to discontinue issuing their circular at once.

LIABILITY FOR ATTENDANCE ON MINORS.

A correspondent writes that he was called to see a young gentleman staying with friends in his neighbourhood. The parents of the patient now disclaim responsibility for the fees charged for his attendance. Has he any legal claim?

**** If our correspondent was called in by the patient and the latter is a minor his father is responsible for the cost of medical attendance. If called in by the friends with whom the patient was staying, they also might be charged, unless they professed at the time to act only as agents for the patient.

PARTNERSHIP ACCOUNTS.

A. and B. are in partnership, A. being entitled to a share of two-thirds, and B. to one-third. On January 1st last B. by payment became an equal partner with A. Can B. claim to share equally with A. all the the receipts from January 1st?

**** B. should share equally with A. all payments for work done after January 1st. With regard to payments made for work done before B. became an equal partner with A., they ought to be divided between them in accordance with the partnership terms at the time when the work was done—that is, A. would be entitled to two-thirds and B. to one-third.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

Actinomycosis sends an account of a "successful surgical operation" cut from a local newspaper. The matter will be referred to the Ethical Committee.

NAME PLATE ON CHEMIST'S PREMISES.

W. H. F. writes: As I have rooms for the sake of convenience with a local chemist, would there be any objection to my having a plate put on the front door of the house which is quite distinct from the shop?

**** If there is a bona-fide tenancy and the front door is, as our correspondent says, quite distinct from the shop, the arrangement may be permissible, but it is not desirable that medical practitioners should associate themselves with chemists by renting consulting rooms upon their premises.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Pathology in the B.M. Examination.

The Board of the Faculty of Medicine issues a regulation that the oral examination in the examination in Pathology for the B.M. degree, shall no longer take place during the Practical Examination, but shall be held as a separate part of the examination.

B.M. and B.Ch. Degrees.

By a statute just passed the University has instituted changes of importance in the Final Examination for the B.M. degree. Hitherto the examination in Forensic Medicine and Public Health has been conducted by the examiners in Medicine, Surgery, and Midwifery, but in future there are to be two specially appointed examiners in these subjects, and the examination will consist of a three hours' paper and a viva voce examination.

These subjects have also been placed on the same footing as pathology in that a candidate may offer them at any time after he has passed the First B.M. Examination.

It has been enacted, further, that a time-table of the days and hours of examinations for the B.M. degree shall be prepared by the Board of Faculty of Medicine in each Easter term for the ensuing academic year;

and that each examination shall begin on the Thursday of the eighth week of full term. Michaelmas or Easter Term is the case may be.

The medical examinations have also been made subject to the same supervision as the other public examinations of the University and the conduct of the examiners in regard to the examinations is now brought under the control of the Vice-Chancellor and Proctors.

The Question of Latin.

By very narrow majorities in a largely attended house Congregation has recently passed resolutions to the following effect:

"That members of the University should not be required to have satisfied the examiners of the schools in Greek, before presenting themselves as candidates in the Honour schools of Natural Science and Mathematics, provided that they have satisfied the masters of the schools in the matter allowed as a substitute for Greek."

"That the matter allowed as a substitute for Greek in responsions should comprise (1) Mathematical science, to be determined by the Board of Faculty of Natural Science, subject to the approval of Convocation; (2) a scientific subject to be determined by the Board of Faculty of Natural Science subject to the approval of Convocation; (3) a modern language, namely, either French or German, the examination in either language comprising translation and composition, and candidates being required to reach a high standard of accuracy and proficiency."

The first step will now be followed up by the formulation of statutes along the lines of the resolutions carried in Congregation. But not until such statutes have been submitted and approved in Congregation and subsequently in Convocation, also on the suggested changes come into effect. In view of certain statements which have been published these facts are of importance; for it is still a matter of considerable doubt whether such statutes can obtain majorities in Convocation even should they be carried in Congregation.

UNIVERSITY OF CAMBRIDGE.

Tropical Medicine.—The Examiners for the University Diploma in Tropical Medicine are Dr. G. H. F. Nuttall, University Lecturer in Preventive Medicine, Sir Patrick Manson, K.C.M.G., F.R.S., and Professor Ronald Ross, C.B., F.R.S.

UNIVERSITY OF LONDON.

The Physiological Laboratory.

THE following are the provisional arrangements for lectures in the Physiological Laboratory at the University during the summer session. A course of eight lectures on physical chemistry will be given by Dr. R. A. Lehfeldt on Mondays at 2 p.m., beginning on May 4th, and a course of lectures on Cytology by Professor J. B. Farmer, M.A., D.Sc., F.R.S., on days and at dates not yet fixed.

Pass Lists.

The following candidates have passed the Preliminary Scientific Examination for internal students as undernoted:

Chemistry and Biology.—A. N. Leeming, Guy's Hospital.

Experimental Physics.—A. F. Evans, London Hospital; T. S. Lakin, St. Bartholomew's Hospital; J. Pryce Davies, Guy's Hospital.

Chemistry only.—**A. L. Candler, St. Bartholomew's Hospital; R. T.** Williams, St. Bartholomew's Hospital.

Experimental Physics only.—R. L. Crabb, University College; S. T. Davies, St. Bartholomew's Hospital; Annie Louise Jane Kann, London (Royal Free Hospital) School of Medicine for Women; Isabella Clara MacIrone, London (Royal Free Hospital) School of Medicine for Women.

Botany only.—Ethel Mary Connan, London (Royal Free Hospital) School of Medicine for Women; Mary Machin Hanson, London (Royal Free Hospital) School of Medicine for Women; P. Hirschfeld, Guy's Hospital; A. W. Holthusen, St. Bartholomew's Hospital; W. S. Reid, Guy's Hospital; Mary Elizabeth Parsons, London (Royal Free Hospital) School of Medicine for Women; F. C. Shone, University College.

(N.B.—This list is published for the convenience of candidates, is issued subject to approval by the Senate.)

The following candidates have passed the Preliminary Scientific Examination for external students as undernoted:

Physics and Chemistry.—E. F. Ballard, Merchant Taylors' School.

Intermediate.—E. S. Barker, Westminster Hospital; J. Capell, St. Bartholomew's Hospital and private tuition; B. I. Cohen, St. George's Hospital; Nora Gertrude Cotton, University Tutorial College; F. M. Cowtan, St. Bartholomew's Hospital and Imlwich College; T. B. Davies, University College, Cardiff; Violet Evangeline Fox, University Tutorial College; H. Hargeton, Merchant Taylors' School; H. L. Hutchinson, Guy's Hospital and private study; O. R. Kelly, [illegible] Hospital; P. Lang, St. Bartholomew's Hospital; J. S. Lee, University Tutorial College; Blanche Pattie Lindup, London (Royal Free Hospital) School of Medicine for Women; J. H. Meers, St. Mary's Hospital and University Tutorial College; J. [illegible], University College; Constance A. Mortlock Brown, London (Royal Free Hospital) School of Medicine for Women; D. G. S. E. Oxley, London Hospital and private tuition; N. Prescott, University College; E. [illegible], St. Bartholomew's Hospital; Alice Dorothea Sparkes, London (Royal Free Hospital) School of Medicine for Women; H. [illegible], Owens College; A. I. Weekley, St. Bartholomew's Hospital; C. S. Wells, St. Thomas's Hospital.

(N.B.—This list is published for the convenience of candidates, is issued subject to approval by the Senate.)

The following candidates have passed the Preliminary Scientific Examination for external students as undernoted:

Physics and Chemistry.—[illegible]

Intermediate.—[illegible]

Physics only.—[illegible]

Chemistry only.—[illegible]

Botany only.—[illegible]

Zoology only.—[illegible]

Special Examination in Organic Chemistry only.—S. H. C. Ait, Guy's Hospital; Alicia Pearn Aldous, London (Royal Free Hospital) School of Medicine for Women; Eileen Elizabeth Allen, London (Royal Free Hospital) School of Medicine for Women; C. J. Armstrong, B.Sc., St. Bartholomew's Hospital; L. T. Baker, Guy's Hospital; M. E. B. H. Guy's Hospital; Ella Mabel Barker, London (Royal Free Hospital) School of Medicine for Women; C. A. Basker, Guy's Hospital; Lilias Margaret Blackett, London (Royal Free Hospital) School of Medicine for Women; Sylvia Rose M. Blacksmore, London (Royal Free Hospital) School of Medicine for Women; Mary Alice Blair, London (Royal Free Hospital) School of Medicine for Women; L. H. Booth, Charing Cross Hospital; Ethel Mary Broad, London (Royal Free Hospital) School of Medicine for Women; S. S. Brook, Guy's Hospital; Kate Brown, London (Royal Free Hospital) School of Medicine for Women; G. T. Burke, St. Bartholomew's Hospital; T. W. H. Burne, St. Bartholomew's Hospital; A. Burrows, London Hospital; Rhoda Hicks Butler, London (Royal Free Hospital) School of Medicine for Women; Muriel Constance Bywaters, London (Royal Free Hospital) School of Medicine for Women; D. H. Carr, St. Thomas's Hospital; A. Camacho, Charing Cross Hospital; T. E. A. Carr, Guy's Hospital; H. J. Cates, St. Bartholomew's Hospital; **S. E. Cathcart, Middlesex Hospital; B. W.** Cherrett, St. Bartholomew's Hospital; A. B. Coomber, St. George's Hospital; M. M. Cowajee, Guy's Hospital; Winnifred Julia Cox, London (Royal Free Hospital) School of Medicine for Women; L. Croft, Guy's Hospital; H. R. Davies, London Hospital; Eleanor Davies Colley, London (Royal Free Hospital) School of Medicine for Women; Bella Dawson, London (Royal Free Hospital) School of Medicine for Women; A. F. W. Deuning, Guy's Hospital; I. J. De Verteuil, St. Bartholomew's Hospital; K. H. Digby, Guy's Hospital; R. L. E. Downer, St. Bartholomew's Hospital; Gladys Margaret C. Dunbar, London (Royal Free Hospital) School of Medicine for Women; **M. Fawkes, St. Bartholomew's Hospital; A. B.** Fearnley, St. Bartholomew's Hospital; A. G. C. Findlay, University College; Margaret Fisher, London (Royal Free Hospital) School of Medicine for Women; S. F. Fouracre, Charing Cross Hospital; E. G. Gauntlett, King's College; H. L. Gauntlett, King's College; Gertrude Gazdar, London (Royal Free Hospital) School of Medicine for Women; E. W. Giesen, Guy's Hospital; F. Goodin, St. Bartholomew's Hospital; H. L. Grabham, St. Thomas's Hospital; Ethel Rosaline Griffiths, London (Royal Free Hospital) School of Medicine for Women; Edith Mary Guest, London (Royal Free Hospital) School of Medicine for Women; N. L. Guilford, King's College; J. M. Hammond, St. Bartholomew's Hospital; H. R. Harries, London Hospital; H. J. Henderson, Guy's Hospital; Susie Eleanor Hill, London (Royal Free Hospital) School of Medicine for Women; F. G. Hodder-Williams, St. Bartholomew's Hospital; M. J. Holgate, St. Bartholomew's Hospital; H. Houwin, University College; D. W. Hume, St. Bartholomew's Hospital; W. A. M. Jack, St. Thomas's Hospital; J. I. Johnson, London Hospital; E. R. Jones, St. Bartholomew's Hospital; Rose Fanny Jordan, London (Royal Free Hospital) School of Medicine for Women; Elsie Marian Lapham, London (Royal Free Hospital) School of Medicine for Women; Elizabeth Heidman Lepper, London (Royal Free Hospital) School of Medicine for Women; C. Lovell, University College; E. I. W. Mandel, Guy's Hospital; J. B. Martin, Guy's Hospital; **C. A. L. Mayer**, Guy's Hospital; Marjorie Eva Middleton, London (Royal Free Hospital) School of Medicine for Women; H. L. Morgan, London Hospital; J. G. Morgan, London Hospital; Florence Muriel Morris, London (Royal Free Hospital) School of Medicine for Women; W. P. H. Mugden, Guy's Hospital; A. T. Narkivell, St. Bartholomew's Hospital; H. Neckolds, University College; Ida Guinevere O'Donoghue, London (Royal Free Hospital) School of Medicine for Women; J. C. Paris, King's College; Catherine Payne, London (Royal Free Hospital) School of Medicine for Women; H. E. Perkins, Guy's Hospital; A. F. Perl, St. Bartholomew's Hospital; Ellen May Pickard, London (Royal Free Hospital) School of Medicine for Women; A. M. Pollard, King's College; Hilda Margaret Poolar, London (Royal Free Hospital) School of Medicine for Women; Lily Mary Potter, London (Royal Free Hospital) School of Medicine for Women; E. J. Price, University College; M. D. Price, Guy's Hospital; M. J. Rattray, Guy's Hospital; A. H. Rich, University College; Mona Dew Roberts, London (Royal Free Hospital) School of Medicine for Women; H. C. Samuel, Middlesex Hospital; A. Sanderson, St. Thomas's Hospital; F. C. Searle, St. Bartholomew's Hospital; Marie Simpson, London (Royal Free Hospital) School of Medicine for Women; J. T. Smalley, Guy's Hospital; Eliza Macdonald Smith, London (Royal Free Hospital) School of Medicine for Women; H. J. Smith, Guy's Hospital; F. Standish, Lond.; Guy's Hospital; G. F. Stebbing, Guy's Hospital; R. W. Stocks, St. Thomas's Hospital; H. Stott, Guy's Hospital; A. J. Symes, St. Bartholomew's Hospital; A. K. R. R. W. Taylor, Charing Cross Hospital; E. F. Todd, St. Thomas's Hospital; St. J. A. M. Tozer, Guy's Hospital; R. S. Towerend, St. Bartholomew's Hospital; J. H. Turton, St. Bartholomew's Hospital; N. H. Walker, St. Bartholomew's Hospital; Edith Margaret Walters, London (Royal Free Hospital) School of Medicine for Women; F. I. Walker, London Hospital; Gladys Mary Joan Watts, London (Royal Free Hospital) School of Medicine for Women; Winifred Emmeline Watts, London (Royal Free Hospital) School of Medicine for Women; Margaret

Hannah Wild, London (Royal Free Hospital) School of Medicine for Women; H. O. Williams, St. Bartholomew's Hospital; C. McM. Wilson, St. Mary's Hospital; Sophia Margaret V. Witts, London (Royal Free Hospital) School of Medicine for Women; C. E. Zundel, London Hospital; Clara Maria Zymandl, University College.

[N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.]

The following candidates have passed the Intermediate Examination in Medicine for External Students as undernoted:

A.—Alcock, Guy's Hospital and Owens College; C. B. F. Churchill, Guy's Hospital; T. Davies, University College, Cardiff; K. E. Eckenstein, University of Liverpool; H. M. Fort, Owens College; C. E. K. Herapath, University College, Bristol; R. M. Kalapesi, St. Bartholomew's Hospital and Grant Medical College, Bombay; S. H. J. Kilroe, Owens College; C. S. Kivington, University College, Bristol; J. J. S. Rowe, University College, Cardiff; G. W. Sudlow, Owens College; F. E. Taylor, King's and Yorkshire Colleges; T. W. Wade, University College, Cardiff.

Special Examination in Organic Chemistry.—L. Ball, University of Birmingham; T. L. Bomford, St. Bartholomew's Hospital; S. H. Booth, Yorkshire College; S. Chelliah, Guy's Hospital; W. Chesters, St. Mary's Hospital and University College, Cardiff; Hilda Clark, University of Birmingham; C. Clarke, University College, Bristol; J. W. Cropper, University of Liverpool; Ethel Adelaide Douglas, London (Royal Free Hospital) School of Medicine for Women and University College, Nottingham; Clara Eglington, University of Birmingham; E. D. Ellis, Yorkshire College; P. Hamil, University of Cambridge; C. T. Hawkins, University College, Cardiff; J. A. B. Hicks, Westminster Hospital; R. de B. M. Hopkins, University College, Bristol; A. E. Iles, University College, Bristol; G. G. James, Westminster Hospital; B. A. Lloyd, University of Birmingham; S. E. McClatchey, Owens College; R. B. Nowell, Owens College; E. S. Phipson, University of Birmingham; H. R. Rawlings, Yorkshire College; E. D. Richards, University College, Cardiff; C. F. Robertson, Middlesex Hospital; W. Scarisbrick, University of Liverpool; C. J. Thompson, University of Birmingham; H. Thwaite, University of Birmingham; A. H. Turner, Yorkshire College; H. G. Webb, St. George's Hospital; J. W. J. Willcox, University College, Bristol; A. L. Yates, St. Bartholomew's Hospital.

[N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.]

UNIVERSITY COLLEGE.

The annual general meeting of members of University College, London, was held on February 24th under the chairmanship of Lord Reay, who moved the adoption of the report. The report stated that the students' fees for 1902-3 amounted to £25,518 as compared with £24,[illegible] in the previous year. The College received £3,000 from the annual Parliamentary grant, and it was a matter of congratulation that this would be doubled during the present year. Allusion was made to the death of Sir Blundell Maple, who by his gift of the new buildings of University College Hospital had conferred an immense boon on the neighbourhood and on the medical school. The Council had created a new grade of teachers in the College in the Faculties of Arts and Science corresponding in some respects to the *privat docent* of the German universities, this would enable justice to be done to a number of subjects which it was not easy to crowd into the regular curriculum. The new arrangements and regulations on the internal side of the University of London has given full satisfaction to both professors and students. The President said that he trusted that in future greater importance would be attached to teaching and less to examination. The appeal for capital funds had been so successful that only £[illegible] was now wanted; an important donation of £50,000 had been received through Professor E. H. Starling and Dr. W. Page May, and the anonymous donor was most cordially thanked for his splendid gift. After reviewing the developments which had taken place in various departments, Lord Reay concluded by saying that if the College was to be transferred to the University, as no doubt it would be before long, it would be the transfer of a going concern.

The motion for the adoption of the report was seconded by Lord Monkswell and adopted unanimously.

UNIVERSITY OF DUBLIN.

AT the Spring Commencements of Hilary Term, held on February 18th in the Theatre of Trinity College, the following degrees in the Faculty of Medicine were conferred by the University Caput in the presence of the Senate:

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetricâ (*quinto Lic.*).—W. S. S. Berry, M. FitzGibbon, J. C. Hall, R. C. Hallowes, C. E. Moore, O. J. Parry-Edwards, D. C. Pearson, H. Stone, T. C. A. Sweetnam, C. J. Wyatt.

Doctores in Medicinâ.—J. T. Bouchier-Hayes, T. J. P. Crean, M. J. Gibson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination.—A. T. Mulhall, L.R.C.P. and S.I., having passed the necessary examination, has been admitted a Fellow of the College. T. A. Burke, S. C. Clarke, J. F. Devane, M. D. Healy, J. J. Hogan, J. Prendiville, and J. R. Tobin have passed the Primary part of the examination.

Dental Examination.—C. de Foubert and H. D. Griffith, having passed the necessary examination, have been admitted Licentiates in Dental Surgery. W. Matthews has passed the primary part of the examination.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, February, 1904.—The following candidates passed in:

Surgery.—R. H. Cooper (Section I), Charing Cross Hospital; W. G. Kinton (Section II), Manchester.

Medicine.—J. Bromley (Sections I and II), Guy's Hospital; R. H. Cooper (Section I), Charing Cross Hospital; W. G. Kinton (Section II), Manchester; N. O. Roberts (Section II), Cambridge and St. Mary's Hospital; S. Zweiback (Section II), Konigsberg.

Forensic Medicine.—M. B. Taylor, Guy's Hospital.

Midwifery.—G. W. Rogers, Cardiff and St. George's Hospital; A. C. Story, St. Mary's Hospital.

The diploma of the Society was granted to W. G. Kinton.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, [illegible]5 births and 5,420 deaths were registered during the week ending Saturday last, February [illegible]th. The annual rate of mortality in these towns, which had been 19.4, 17.2, and 18.4 per 1,000 in the three preceding weeks, increased again last week to 18.8 per 1,000. The rates in the several towns ranged from 8.[illegible] in Tottenham, 9.[illegible] in Hornsey, 11.0 in Stockton-on-Tees, 11.4 in Handsworth (Staffs), 11.[illegible] in East Ham, 12.[illegible] in Northampton, 12.[illegible] in Leyton, and 12.[illegible] in Croydon, to [illegible] in Nottingham and in Liverpool, 24.1 in Salford, 24.[illegible] in Oldham, 24.9 in Preston, 25.[illegible] in Plymouth and in Warrington, 28.[illegible] in Merthyr Tydfil, and [illegible] in Bootle. In London the rate of mortality was 17.8 per 1,000, while it averaged 18.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.[illegible] per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.[illegible] per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.4 in Rhondda, [illegible] in St. Helen's and in Leeds, [illegible] in Burnley and in Merthyr Tydfil, 3.8 in Stockport, 4.1 in Norwich, 4.5 in Preston, and 6.0 in Wallasey. Measles caused a death-rate of 1.[illegible] in Leeds and in Sunderland, 1.1 in Huddersfield, 1.[illegible] in Rhondda, 1.[illegible] in Warrington, 2.[illegible] in Preston, 3.[illegible] in Stockport, and 4.1 in Norwich; scarlet fever of 2.2 in Merthyr Tydfil; diphtheria of 1.1 in Salford, 1.[illegible] in Willesden, and 2.4 in Hanley; whooping-cough of 2.[illegible] in Liverpool, 2.1 in Portsmouth, 2.2 in Gateshead, 2.5 in Wigan, and 4.[illegible] in Wallasey; "fever" of 1.4 in Preston; and diarrhœa of 1.[illegible] in Rhondda. The fatal cases of small-pox registered in these towns last week included 2 in Hull, and one each in London, Derby, Wigan, Manchester, and Gateshead, but not one in any other of the large towns. The Metropolitan Asylums Hospitals contained 29 small-pox patients at the end of last week, against 21, 25, and 24 at the end of the three preceding weeks; 9 new cases were admitted during the week, against 4, 8, and 3 in the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 1,651, 1,657, and 1,644 on the three preceding Saturdays, had further declined to 1,620 on Saturday last, February 20th; 143 new cases were admitted during the week, against 168, 149, and 16[illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 20th, 963 births and 733 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.4, 18.5, and 19.2 per 1,000 in the three preceding weeks, further rose last week to 22.2 per 1,000, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 18.1 in Edinburgh and 19.4 in Leith to 24.7 in Greenock and 25.8 in Dundee. The death-rate from the principal infectious diseases averaged 2.3 per 1,000 in these towns, the highest rates being recorded in Paisley, Leith, and Greenock. The 360 deaths registered in Glasgow last week included 2 which were referred to small-pox, 8 to measles, 4 to diphtheria, 4 to whooping-cough, and 15 to diarrhœa. Five fatal cases of measles and 5 of whooping-cough were recorded in Dundee; [illegible] of whooping-cough and 2 of diphtheria in Aberdeen; 4 of measles and 2 of whooping-cough in Paisley; 6 of whooping-cough in Leith; 3 of small-pox and 2 of measles in Greenock; and 3 of whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 20th, 580 births and 491 deaths were registered in six of the principal Irish towns, against 457 births and 487 deaths in the preceding period. The mean annual death-rate of these towns, which had been 20.5, 25.8, and 26.0 per 1,000 in the three preceding weeks, fell to 25.3 per 1,000 in the week under notice, this figure being 7.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 18.9 in Londonderry and 19.5 in Waterford to 30.7 in Dublin and 32.9 in Cork. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1.6 per 1,000, or 0.8 per 1,000 less than during the preceding week, the highest rate, 4.1, being registered in Limerick, while Waterford registered no deaths under this heading at all. Except for one death from measles at Dublin and another at Belfast, no deaths were registered in any part of Ireland from measles, scarlet fever, small-pox, typhus, or simple continued fever. One death occurred from diphtheria in Dublin and 1 in Tralee, but except for these and 2 deaths from diarrhœal disease and 5 from enteric the whole zymotic death-rate in Ireland was due to whooping-cough.

THE HEALTH OF SHEFFIELD.

SHEFFIELD is one of those towns in which sanitary reform has been pushed forward very actively during the past few years, and hence has risen from a bad to a fairly good place in the list of the thirty-three great towns, with a comparative mortality figure for 1902 of 1[illegible].6. Its report for that year drawn up by Dr. John Robertson, now medical officer of health for Birmingham, shows that with a population of 4[illegible],[illegible]65 and a density of 27.7 to the acre it had a marriage-rate of 17.5 against 15.5 per 1,000 in all England, and a birth-rate of 33.3 per 1,000 (of which 3.9 per cent. were illegitimate). This is a diminishing rate to the extent of some 12 per cent. in the last 25 years. The infantile mortality-rate was 150 per 1,000 registered births, a figure which, though a great improvement over those of former years, is mainly due to the cooler summer. What the general mortality was is not quite clear; in the summary it is mentioned as 16[illegible] per 1,000, but in Table XII the recorded death-rate is given as 17.2, and the corrected death-rate as 15.40. The report is profusely illustrated by tables and charts, and some of them are unusually interesting, particularly one dealing with 29 importations of small-pox which occurred between November, 1902, and June, 1903. Out of these [illegible] were certainly due to [illegible]aps, the others were of unknown origin. Nevertheless, isolation was sufficiently prompt and other precautions of the usual nature to end harmlessly. The report includes an able but abridged report by Dr. Waddy on the [illegible]rrence of scarlet fever in houses in Sheffield during [illegible] and 1901, and the conclusions drawn from

it by Dr. Robertson is that, though [illegible] fever [illegible] as variables or proofs of [illegible] the spread of the disease as they were formerly believed to be. We have a duty [illegible] and these [illegible] should be used to [illegible] discounted. As regards the lowered infant mortality rate, it is pointed out that it must not be taken as an index of what sheltered lives must expect under present conditions, [illegible] a [illegible] year. Much has been done in the way of [illegible] of water supply for [illegible] and [illegible] and of asphalte for [illegible] but much remains to be done in the way of keeping houses [illegible] and [illegible] from [illegible]. It is as regards the [illegible] that Sheffield shows the greatest improvement, its death-rate [illegible] being [illegible] to [illegible] usually shows a good deal [illegible] that that of the rest of England, but since then has [illegible] below it, and the total improvement obtained is practically [illegible] per cent. Voluntary notification has existed for a long time, and by an Act just passed will shortly become compulsory under certain circumstances. The duties thrown upon the sanitary authorities in connexion with the Factory and Workshops Act are [illegible] discharged, and as the result of a deputation from the Health Committee the Home Office made special regulations of some stringency for the conduct of the [illegible] trade.

PNEUMONIA IN NEW YORK

The Advisory Board to the Health Commissioner of New York has, we learn from the New York Medical Record, issued a statement to the public regarding the [illegible] and the best means of prevention. The [illegible] is based upon the [illegible] causation of the disease and the [illegible] of [illegible] [illegible] receptacles, and [illegible] [illegible] vehicles. In regard to this last point the Statement [illegible] with the recommendation that "The Advisory Board would urge upon the Health Department the desirability of instituting [illegible] schools of instruction, all those who have in charge the duty of cleaning public institutions, such as court rooms, police stations, [illegible] dispensaries, churches, theatres, public conveyances, cars, as well as those responsible for factories, stores, offices, and the like, and commends the matter to the attention of all householders, to whom [illegible] than to [illegible] public in the thousand places of assembly, the risks of dust incident to use at this time of especial [illegible]."

FEES FOR NOTIFICATION OF INFECTIOUS DISEASE IN PAUPERS AND OTHERS

REQUESTS are frequently made to ask (1) whether a Poor-law medical officer is entitled to [illegible] for [illegible] in a person whose parents are in receipt of [illegible] relief, or whether he can only claim a 1s. fee, and (2) whether a medical officer of health is entitled to a 2s. 6d. fee for reporting cases within the district of which he is medical officer or only 1s.

*** This mainly depends on the age of the patient in question. If under 16 any child would be pauperized by the relief given to its parent, Acts is would be the proper notification. If over 16, the child [illegible] not be a pauper, and the fee payable for notification would depend upon this. The Medical Officer of Health is entitled to the same fees for notification as other medical practitioners.

THE BACTERIAL TEST OF POLLUTION.

DR. ALFRED MACONKEY (Battersea, S.W.) writes: In the BRITISH MEDICAL JOURNAL of February 20th Dr. Klein quotes from a paper by Messrs. Clark and Gage of Massachusetts in which reference is made to the examination of shellfish for B. coli. As recently Dr. Klein has only seen an abstract of the paper, and one, too, which omits some [illegible] I happen to have read the complete report, I venture to supply the original text, which reads as follows:

"It has usually been possible by [illegible] investigators to show clearly [illegible] of the intestines of clams or [illegible] the presence of the intestinal [illegible] in the shell [illegible] either by direct [illegible] and sewage flowing [illegible] the careless and [illegible] handling of [illegible] during and after [illegible] the material [illegible] We were therefore [illegible] to demonstrate clearly the presence [illegible] as B. coli, was invaluable and in [illegible] of pollution. In many samples [illegible] been found either in shell water [illegible] to be confirmed at once, assuring the [illegible] [illegible] being [illegible] [illegible] may [illegible] Laboratory [illegible] possible. [illegible] [illegible] in the examination [illegible] of relative importance as [illegible]

[illegible] [illegible] [illegible] [

Dr. W. J. VON WINCKLER, Government Medical Officer, Leguan, has been specially commissioned by the Governor of British Guiana as a Justice of the Peace. He has also been commended by His Excellency for valuable services rendered at the strike of indentured and free coolies in that colony.

GERMAN BALNEOLOGICAL CONGRESS.—The twenty-fifth annual meeting of the German Balneological Congress will be held at Aix-la-Chapelle from March 3rd to 7th, under the presidency of Professor Oscar Liebreich of Berlin. The medical practitioners and civic authorities of the town have taken the liveliest interest in the preparations for the Congress, and are prepared to extend a hearty welcome to their medical guests. The opening reception will be held at the Kurhaus at 8 p.m. on Thursday, March 3rd. The Congress opens at 10 on the following morning, with speeches from Herr von Hartmann, the *Regierungs-Präsident*, and other official notabilities. The scientific work of the Congress will begin with an address by Professor Liebreich. Papers will be read by Dr. Polis of Aachen on the climatic conditions of the Rhine Provinces; by Dr. Burwinkel of Nauheim on acute articular rheumatism; by Dr. Rothschild of Soden on the climatic treatment of diseases of the heart; by Dr. Kugler of Marienbad on balneophysics and climatic health resorts; by Dr. Schuster of Aix-la-Chapelle on the use of iodipin in the treatment of gouty and rheumatic affections of joints, and many others. Several receptions will be arranged, and on the last evening there will be a special performance of Haydn's *Creation* in the large concert room of the Kurhaus. Further particulars may be obtained on application to Sanitatsrath Dr. Beissel, 18, Kleinkolnstrasse, Aachen.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clifham Road, S.W.—Assistant Physician & Assistant Surgeon.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £75 per annum.

BRENTFORD UNION.—Medical Superintendent of Infirmary and Medical Officer of Workhouse and Schools, resident. Salary £[illegible] per annum and [illegible].

BURTON-UPON-TRENT COUNTY BOROUGH.—Medical Officer of Health and Public Analyst. Salary combined, £[illegible] per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Assistant House-Surgeon, resident. Salary at the rate of £50 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officers to Casualty Department and House-Physician and House-Surgeon, respectively. Salary at the rate of £80 and £60 per annum.

CARMARTHEN: JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Resident Junior House-Surgeon. Salary, £60 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary [illegible] per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Medical Officer for Casualty Department. Salary at the rate of £[illegible] per annum. House-Surgeon, resident. Honorarium, £25 for six months.

EDINBURGH: CRAIGLOCKHART POORHOUSE AND HOSPITAL.—Resident Medical Officer. Salary at the rate of £[illegible] per annum.

GORDON HOSPITAL FOR FISTULA, Vauxhall Bridge Road.—Honorary Assistant Surgeons.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale.—Resident Medical Officer. Salary at the rate of £60 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Physician, resident. Salary, £20 for six months.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £[illegible] per annum.

LANCASTER: COUNTY LUNATIC ASYLUM.—Assistant Medical Officer, resident. Salary, £[illegible] per annum.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Physician.

LEITH HOSPITAL.—House-Physician and Assistant House-Physician. Assistant House-Surgeon. Assistant House-Physician and Assistant House-Surgeon.

LONDON FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. Salary £[illegible] per annum.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer. Salary [illegible] per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary £60 per annum.

ROYAL EAR HOSPITAL, Frith Street, Soho.—Clinical Assistant.

ROYAL PIMLICO DISPENSARY, 1, Bessborough Palace Road, S.W.—Attendance Medical Officer.

ST. MARY'S HOSPITAL, Paddington.—Resident Casualty House-Surgeon. Salary at the rate of £[illegible] per annum.

SALOP INFIRMARY.—House-Physician, resident. Salary at the rate of £[illegible] per annum.

SOUTHWARK UNION.—Public Vaccinator for [illegible] and Kent Road Registration Districts.

WATERFORD COUNTY AND CITY INFIRMARY.—Resident House-Surgeon and Secretary. Salary, £[illegible] per annum.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon, resident. Salary, £[illegible] per annum.

WEST LONDON HOSPITAL, Hammersmith Road.—Assistant House-Physician. 2 House-Surgeons. Resident.

WEST RIDING OF YORKSHIRE.—Bacteriologist and Assistant to County Medical Officer. Salary, £250 per annum, [illegible].

MEDICAL APPOINTMENTS.

BENNION, J. M., M.B. Cantab., Junior House-Surgeon to the Radcliffe Infirmary, Oxford.

COGSWELL, P. D., M.R.C.S., L.R.C.P., Medical Officer for the Stanton District of the Shardlow Union.

DAVISON, T. H., M.D., District Medical Officer of the Hartley Wintney Union.

EWART, D., M.B., Ch.B., F.R.C.S.Edin., Certifying Factory Surgeon for the Chichester District, Sussex.

FOSTER, C. W., M.R.C.S., L.R.C.P., House-Surgeon to the Radcliffe Infirmary, Oxford.

GIBSON, A. G., M.R.C.S., House-Physician and Obstetric Assistant to the Royal Free Hospital.

GODWIN, Herbert James, M.B., B.S. Durh., F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Surgeon-Dentist to the Royal Hants County Hospital, Winchester, vice H. Thomas Langdon, F.R.C.S.Eng., resigned.

HARRISON, T. H., L.R.C.P.&S.Edin., Medical Officer of the Workhouse of the St. Neots Union.

HERLEY, Ralph, L.R.C.P.&S.Irel., L.F.P.S.Glas., Junior House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

LAWSON, C. W., L.R.C.P.&S.Edin., L.F.P.S.Glas., District Medical Officer of the Rothbury Union.

LAWSON, T. H., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Steyning Union.

MARSH, C. J., L.R.C.P., M.R.C.S., Certifying Factory Surgeon for the Yeovil District, Somerset.

MILWARD, F. Victor, M.B., F.R.C.S., Medical Referee under the Workmen's Compensation Act, 1897, for County Court Circuit No. 21 and for the Bromsgrove, Redditch and Stourbridge County Court Circuit No. 22.

MILWARD, W. C., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Carlton Union.

SMITH, M. Hamilton, M.R.C.S., L.R.C.P., Deputy Medical Officer, H.M. Prison, Manchester, transferred to H.M. Prison, Wandsworth.

SNELL, Sidney H., M.D., B.S.Lond., D.P.H., Assistant Anaesthetist to the Royal Ear Hospital, &c.

STEWART, R. S., M.D.G.Ias., C.M., Medical Superintendent of the Glamorgan County Asylum, Bridgend, vice H. T. Pringle, M.D.Glas., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull. (Lecture I.)

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Mr. C. B. Lockwood: Aseptic Surgery in Theory and Practice. (Lettsomian Lecture III.)

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. W. Williams: On Deaths in Childhood, a Preventable Mortality. (Morley Lecture II.)

Pathological Society of London, 20, Hanover Square, 8.30 p.m.—Dr. D. Noel Paton: On the Influence of Adrenalin upon the Nitrogenous Metabolism of the Rabbit. Dr. A. P. Beddard and Dr. E. L. Sprague: On the Relation of the Ammonia Nitrogen to the Total Nitrogen in some Cases of Diabetes. Dr. A. E. Garrod: A Survey of the Recorded Cases of Hæmatoporphyrinuria not due to Sulphonal.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull. (Lecture II.)

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens by Mr. A. Ogston Jordan. Dr. Vellasco, and Mr. Walker (introduced by Dr. Addinsell Parry). Mr. Harrison Cripps and Dr. Henry Williams: Two Cases illustrating the question of the Source of Impregnation. Miss Reed, M.D.: Two Cases of Abdominal Hysterectomy for Uterine Fibroids complicated by Pregnancy, with Specimens.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. W. Williams: On Deaths in Childhood, a Preventable Mortality. (Morley Lecture III.)

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Presidential Address on Some Developments Noticed in the Last Six Months.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 p.m.—Discussion on Obesity, to be opened by Dr. Leonard Williams.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor L. B. Rawling: On Fractures of the Skull. (Lecture III.)

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.45 p.m.—Exhibition of Clinical Cases, etc., by Drs. Toogood, Morgan Dale, and Lockhart Williams.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 p.m.—Clinical Evening. Cases by Dr. Buxton, Bashall, Cumberbatch, and others by the President, Mr. C. Carter Braine, Dr. Fenwick, and others. All Members and Students are invited. Special meeting will be held.

Laryngological Society of London, 20, Hanover Square, W., 5 p.m.—Cases, Specimens, etc. will be shown by Dr. McBride, Dr. Turnbull Potter, Dr. Shurlthwaite and others.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Tuberculous Pulmonary Infections.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Tuberculous Affections of the Larynx in Children.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations and Lectures at 4 p.m. as follows: Monday, Skin. Tuesday, Medical. Wednesday, Throat and Laryngoscopy. Thursday, Surgical. Friday, Lectures and Demonstrations in several departments. Monday, The Diagnosis and Treatment of the Common Forms of Nasal Disease. Tuesday, Some Common Errors in the Diagnosis and Treatment of Diseases of the Ear. Wednesday, Pathology. Thursday, Cough and its Significance.

Metropolitan Hospital for Consumption and Diseases of the Chest, Fitzroy Square, W., Friday, 4 p.m. Lecture on Medical Cases illustrated by Cases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C. Lectures as follows: Monday, at 2 p.m., Diseases of the Nervous System. Tuesday, at 2 p.m., Diseases of the Nervous System. Wednesday, at 2 p.m., Pathology. Thursday, at 2 p.m., Diseases of the Nervous System. Friday, at 2 p.m., Diseases of the Nervous System.

Post-Graduate College, West London Hospital, Hammersmith Road, W. Lectures will be delivered at 4 p.m. as follows: Monday, Practical Surgery. Tuesday, Medicine. Wednesday, Gynæcology. Thursday, Clinical Lecture. Friday, Medicine. Operations will be performed by Lawrence Abbott, Esq., Wednesday, Practical Medicine. Lectures, Demonstrations, and Practical Work in Bacteriology, Pathology, Public Health, and Tropical Diseases.

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—Lecture on Irritable Bladder in Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CARTER.—On February 15th, at Carlton Manor, Leeds, the wife of Eustace G. Carter, F.R.C.S., of a son.

FAULKNER.—On February 9th, at Wellington Square, Madras, India, the wife of Lieut.-Colonel Faulkner, R.A.M.C., of a daughter.

MACLEOD.—On February 17th, at 3 and 4 Inverness Terrace, Hyde Park, Carlisle, the wife of Thomas McKinlay, M.B.C.M., of a daughter.

MARRIAGE.

BURNETT—VON PUBLICKER.—On February 22nd, at St. Peter's, Eaton Square, John Burnett, M.B., Aberdeen, to Mathilde, daughter of the late Alexander Hall-Von Publicker, Professor of Materia Medica in the University of Lausanne, Switzerland. By special licence.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS [illegible] all matters [illegible] addressed to the EDITOR, 2 Agar Street, Strand, W.C.; [illegible] concerning the sale, purchase, [illegible] and advertisements [illegible] to be addressed to the Manager, at the Office, 429, Strand, W.C.

ORIGINAL ARTICLES and LETTERS forwarded for publication are [illegible] to be the property of the BRITISH MEDICAL JOURNAL.

AUTHORS [illegible] the alternative of [illegible] Work [illegible] published.

CORRESPONDENTS [illegible] to be taken [illegible] first communication [illegible] to the contrary.

COPIES [illegible] are requested to [illegible] at the Northern Correspondents' [illegible]

MANUSCRIPTS [illegible] TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES [illegible] TO BE RETURNED.

IN order to [illegible] it is requested that ALL letters [illegible] to the EDITOR, the MANAGER, [illegible] to the Publishing Office of the JOURNAL, and not [illegible] by name.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Editorship, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE NOS. GENERAL SECRETARY AND MANAGER, 2630, Gerrard. EDITOR, 2631, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR COLIN CAMPBELL (Southport), who has come to the conclusion that in dieting consumptives better fattening results are obtained when pure unsophisticated sugar is used in place of beet sugar, wishes to know whether any scientific reason can be assigned for this difference.

USE OF ELECTRO MAGNET.

DR T. F. HOLLINGSWORTH (Olive House, Sunderland) wishes to hear from any hospital using Haab's electro magnet as to the cost of obtaining and fixing it. The Sunderland Eye Infirmary is lighted with electric light and he would like to know how this is made use of for the same.

TREATMENT OF HYSTERICAL COUGH.

M.B. would be glad of a suggestion for treatment of a very troublesome cough occurring in a hysterical lady, aged about 42. No physical signs in chest; pupils [illegible] normal. She has suffered from an injury to the right knee for a long time, and has also exhibited hysterical indications. Veronal, bromides, chloral inhalations, etc., have been tried without effect; galvanism is about to be tried.

ANSWERS.

"WIDAL'S REACTION."

BEGINNER.—Full instructions as to the technique of carrying out Widal's test for enteric fever will be found in McFarland's *Textbook upon the Pathogenic Bacteria*, fourth edition (London: W. B. Saunders, 1903).

FREE WILL.

W. W. H. writes: "Kindly lend the [illegible] will paradox fully dealt with in an article by [illegible] in *Brotherhood* for February, 1904 (F. R. Henderson, 30, Calderwood Square, E.C., price 2d.).

ANTISEPTICS IN THE NAVY.

[illegible] R.N.—The [illegible] lint is supplied to His Majesty's ships for [illegible] wound dressings, but this is not used for surgical purposes. Cotton wool and [illegible] and soloads of perchloride of mercury are supplied for antiseptic lotions, and cyanide gauze and sal alembroth [illegible] antiseptic dressings. Ordinary lint, absorbent wool, [illegible] are supplied, and there is an emergency chest containing [illegible] in hermetically sealed tins, but these are not [illegible]

INCOME TAX.

INCOME TAX writes: Might I mention, in reply to the inquiry of M.D. Cantab., [illegible] tax in the BRITISH MEDICAL JOURNAL of [illegible] my experience? I purchased a practice in [illegible] receipt of taxes claimed from me during the [illegible] the average of the last three years. I [illegible] Special Commissioner, who unhesitatingly [illegible] and taxed me on the estimated profit for the [illegible] ordinary average of the

NOTES, LETTERS, ETC.

[illegible] AND [illegible] RAILWAY.—[illegible] that since ozone can be [illegible] it is not unlikely that some [illegible] LAST gallon [illegible]

[illegible] EAR.—[illegible] Lancaster [illegible] I was [illegible] had a very well-[illegible] parts of the body. The [illegible] The patient had [illegible] It is that Eucaine [illegible]

[illegible] COMMUNICATIONS [illegible] A. A. Anderson, London; [illegible] Mr. K. Armstrong, [illegible]; Dr. R. [illegible]; Mr. [illegible]; Mr. [illegible]; Mr

Observations

[ON]

THE INCEPTION OF THE RHYTHM OF THE HEART BY THE VENTRICLE

AS THE CAUSE OF CONTINUOUS IRREGULARITY OF THE HEART.

By JAMES MACKENZIE, M.D.,

Burnley

THIS paper seeks to explain that most puzzling of all the forms of irregularity of the heart, where the heart is never regular in its action, where seldom or never two beats of the same character follow one another. Many names have been applied to this condition, such as delirium cordis, the mitral pulse, pulsus irregularis perpetuus, a heart irregular through loss of vagus control, etc. As the result of a study of a large number of cases where a jugular pulse was present I have been able to establish the fact that the cause of the irregularity is due to the rhythm of the heart proceeding from the ventricles, and not, as normally, from the great veins as they debouch into the auricles. I am also convinced that in all other cases of continued irregularity where there is no jugular pulse to explain matters (as in old people and others who suffer from attacks of palpitation with irregular action of the heart) the same cause is at work, not only because of similarity in type, but because in such people there is a great tendency to extra-systole of the ventricles—a condition which, as will be seen, often precedes the continuous irregularity.

INTERPRETATION OF A TRACING OF THE JUGULAR PULSE.

The interpretation of a tracing of an irregular pulse even with the aid of a simultaneous tracing of the apex beat is largely a matter of inference, depending on the resemblance of the tracing to the results obtained by experiment. Interpretation on such grounds is liable to error and satisfactory conclusions cannot always be reached. With the simultaneous record of the jugular pulse and arterial pulse the nature of many irregular pulses can be demonstrated. In a tracing of the pulsation in the jugular even where there is but a slight regurgitation back from the right heart, a series of waves is obtained whose significance, as a rule, can be easily recognized. In Fig. 1 the radial pulse and the jugular are taken together. The space *E* in this, as in all the other tracings, represents the time of ventricular systole during which the semilunar valves are open and when the effects of the ventricular systole would appear in any tracing, therefore a little later in the radial than in the jugular or carotid tracings.

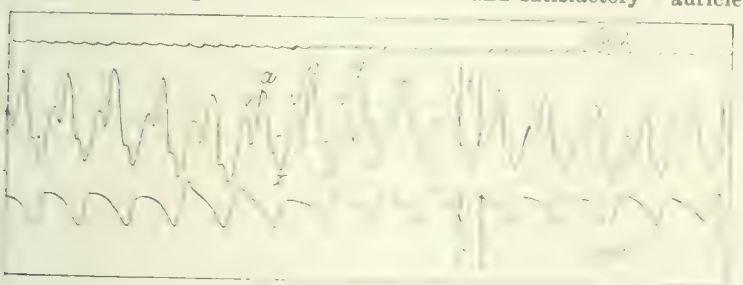


Fig. 1.

Immediately in front of this period (*E*) in Fig. 1 is a wave, *a*, which from its situation in the cardiac cycle can only be due to the systole of the auricle. Immediately after the auricular wave, *a*, is a great fall, *x*, which is due to the diastolic expansion of the auricle emptying the jugular of its contents. It is important to notice particularly this fall, *x*, as its presence indicates with certainty that the auricle must have contracted immediately before it. Sometimes it happens that the wave sent back by the auricle is so small, or that the vein is so distended, that the auricular wave cannot be detected in the tracing as a separate wave, and the systole of the auricle might be overlooked, were it not for the sudden emptying of the vein due to the auricular diastole, for, if the auricle dilates, it must have contracted. Further, when the rhythm of the pulse is altered, the presence of this fall is decisive in interpreting the nature of the changes that are taking place. Following on the fall *x* in Fig. 1, there is a rise in the tracing *v*, which is due to regurgitation by the last portion of the ventricular systole. Its appearance at this late period of the ventricular systole is due to the fact that the regurgitant blood sent back by the ventricle cannot appear in the jugular until the dilating auricle has been filled. If that has happened before the end of the ventricular systole, then the overflow appears in the jugular as a distinct wave *v*. It is to be borne in mind that the tricuspid orifice readily becomes incompetent with dilatation of the right heart. One can form an idea of the degree of engorgement from the earlier appearance in the period of ventricular systole (*E*) of the wave *v*. If the auricle does not completely empty itself, then it will fill the sooner, and the wave *v* appear the earlier. Thus Fig. 2 was taken from the same patient a week after I took Fig. 1. In this patient there was marked aortic and mitral regurgitation due to valvular disease, compensation gradually failed, and there was increased dilatation of the heart. The increased engorgement is reflected in the jugular tracing by the increase in the size of the wave *v*. The patient died the day after Fig. 2 was taken, and the necropsy verified the diagnosis, the auricles being enlarged and greatly distended with blood. If the patient had lived longer, the wave *a* and the depression *x* would have disappeared, and there would have been but one large wave synchronous with and due to the systole of the right ventricle, and one large fall *y*, synchronous with and due to the diastole of the right ventricle, as in Fig. 3. That is to say, the auricle would have ceased to contract (and therefore ceased to dilate), in fact, auricular paralysis from over-distension. I have observed such changes take place in the life of a patient, and for years the venous pulse would preserve the character of Fig. 3, and never show the slightest symptom of auricular contraction, even when the heart action became very slow as in Fig. 4. Fig. 4 is from the same patient as gave Fig. 3. The shading under Fig. 4 is the representation of the sounds and murmurs heard at the time this tracing was taken. There was a systolic mitral murmur with the double heart beats, and during the long pause a long murmur occupying nearly the whole of diastole, stopping short, however, of the succeeding first sounds—that is to say, there was no presystolic murmur of the crescendo type. The diagnosis of the heart condition from the

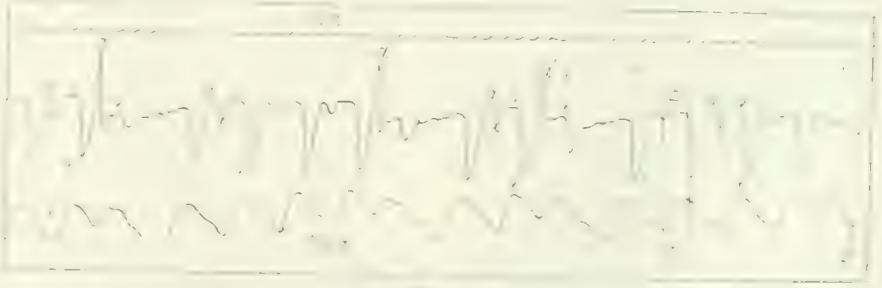


Fig. 2.

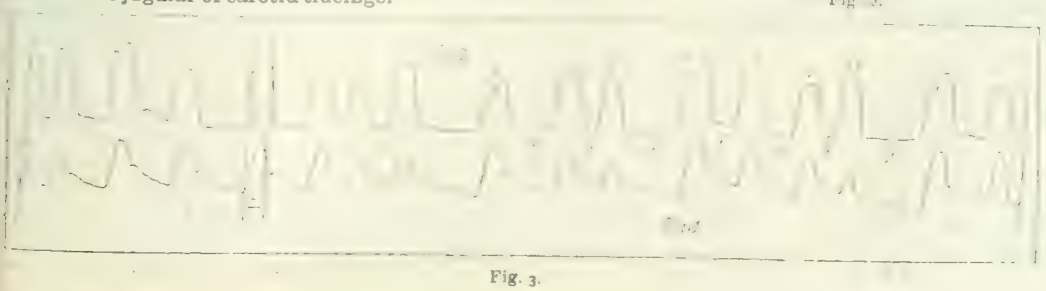


Fig. 3.

nature of the murmurs and jugular pulse was mitral incompetence and mitral stenosis, with paralysis of the auricle from over-distension. This was verified at the necropsy, where, in addition, there was found tricuspid stenosis.

THE EXTRA SYSTOLE.

In the pulse of many people an intermission is sometimes detected, or a small beat is felt, occurring earlier than usual, and followed by a pause longer than usual. If a tracing of the radial be taken, there will often be found a small pulse wave, even when the finger failed to recognize the beat at the irregular periods, as *B* and *C*, Fig. 3. At other times there may be no sign of a beat having taken place, as at *A* and *D*, Fig. 5. It can, however, be inferred with confidence that during *A* and *D* a systole did occur, but it was not of sufficient strength to propagate a wave into the radial artery from the fact that the period, including the long pause and the preceding pulse beat, equals two ordinary pulse periods, for a reason to be explained later. If the jugular tracing be studied, a very interesting state of affairs is disclosed. The wave *a* is due to the auricular systole, as was shown in describing Fig. 1. At the time of the irregular period, *C*, the wave *a* occurs before the usual time occupied by the other auricular waves *a*. Following this is the carotid wave *c'* a little later than usually follows *a*, but at a time corresponding with that when the radial. The wave *c* is due to the ventricular systole appearing late, in accordance with the interpretation given in describing Fig. 1. Here we have an instance of an extra systole set up in the auricle and followed by an extra systole of the ventricles. In passing it may be pointed out that here the carotid wave *c'* follows the wave *a'* at an interval slightly longer than occurs in the normal rhythm of the heart. The reason for this may involve the question whether the conducting power of the muscular fibres between the auricle and ventricle had completely recovered from their exhaustion after the preceding ventricular systole, but need not further concern us in discussing the subject in hand. If now we examine the irregular period *B*, we find a very different state of affairs. The auricular wave *a'* appears at the usual time after the preceding *a*, and is succeeded at the usual time by the following wave *a*. We can say, therefore, that here the auricle pursued its wonted rhythm; but it is not followed by the wave *c* due to the carotid pulse. If we look at the radial we find that the small wave there occurs slightly before its time: in fact, it occurs at the same time as the auricular wave *a'*—in other words, there is an extra systole which has only affected the ventricles, and has occurred at the same time as the auricular systole.

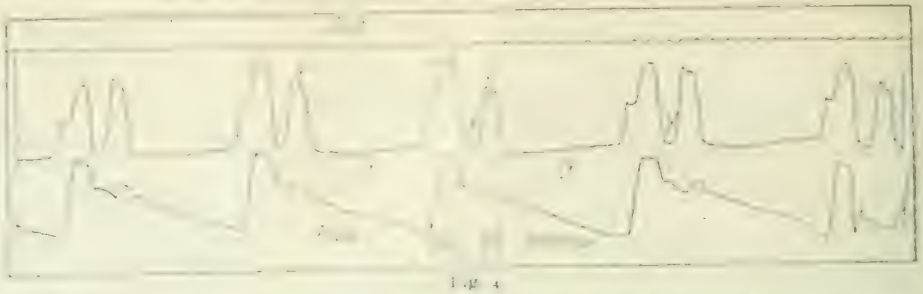


Fig. 4.

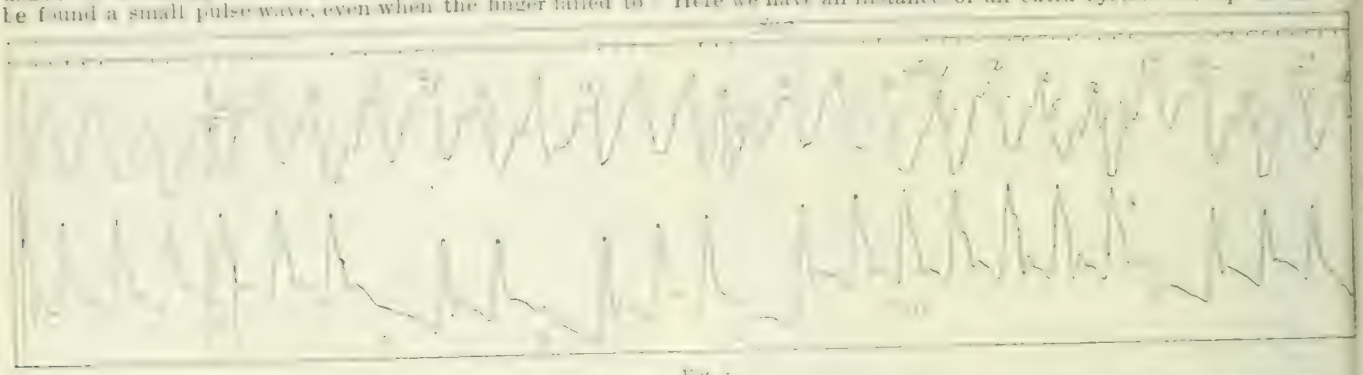


Fig. 3.

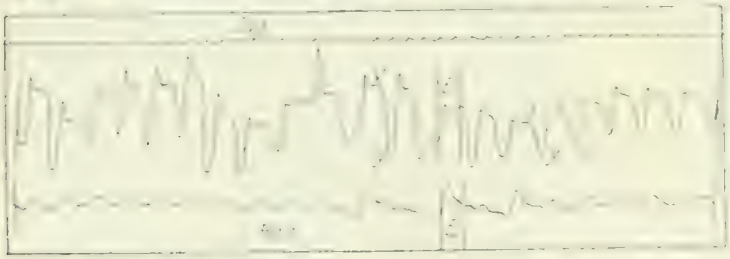


Fig. 6.

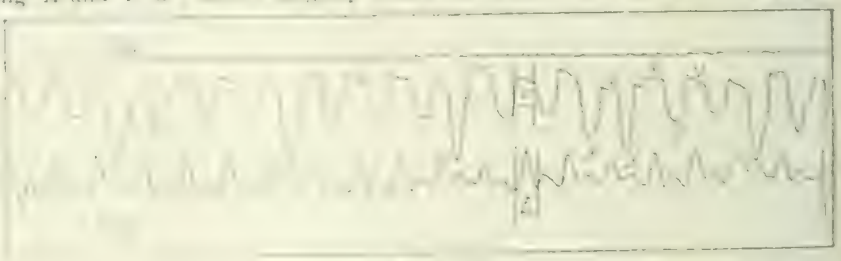


Fig. 5.

Fig. 1.

When we come to examine the character of the irregular periods *A* and *D* another change is found. Although there is no radial pulse beat, it can be inferred with certainty that an extra systole occurred from the fact that the time occupied by the long pause and preceding pulse corresponds to the time occupied by two regular pulse periods. Another evidence is found in the change in the jugular pulse. In the irregular periods *A* and *D* there is a large broad wave *c* very different from the waves *c'* in the irregular periods *B* and *C*. The explanation that I give is that here the ventricle has

begun to contract before the auricle and that the whole of that wave is really ventricular. In favour of this explanation is the fact of the absence of the radial pulse, which indicates that the extra systole of the ventricle has occurred earlier after the preceding beat than in the irregular periods *B* and *C*. The presence or absence of a wave in the radial pulse due to an extra systole depends among other things upon the time of the occurrence of the extra systole; if it occurs near the usual

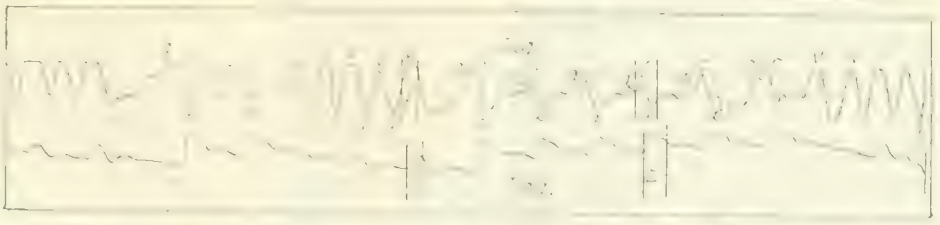


Fig. 1.

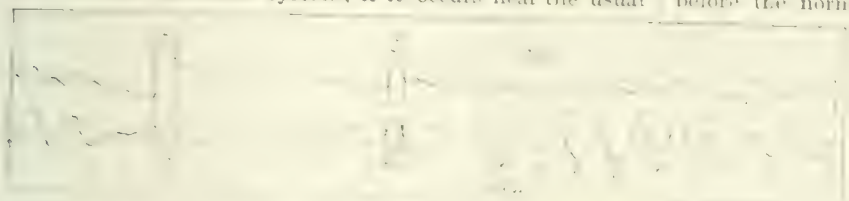


Fig. 10.

time for the appearance of the normal pulse, it will be large (see Fig. 21), if it occurs just shortly after the preceding ventricular systole it may be small or absent. The fact that it is present in the periods *B* and *C* and absent in *A* and *D* points to this being the likely explanation. I find in numerous tracings from this patient taken at different times that when there is a broad wave in the jugular pulse at the time of the extra systole, there is an absence of a corresponding pulse beat in the radial, or the pulse beat is very small; whereas, when there is a large or well-marked radial beat, it has occurred late in the diastolic period, and the auricular wave *a'* is of normal duration (Fig. 21). This fact is of importance in considering the

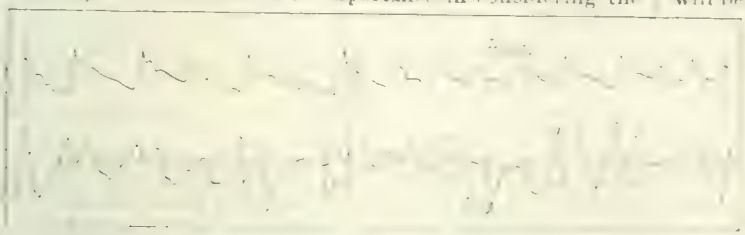


Fig. 12.

changes that take place in the veins during a sudden change in the heart's rhythm, and will be referred to again.

The Nature of the Extra Systole.

There is not space here to note the investigations of many observers, both experimental and clinical, to explain what the extra systole is. The salient facts are as follows: During the contraction of the muscular fibres of the heart and for a short time after, the heart muscle cannot be stimulated to further contraction—that is, it is "refractory"; hence it is impossible to set up a tetanic contraction of the heart muscle. The stimulus that normally produces contraction originates periodically at the mouths of the great veins and passes from thence downwards to auricle and ventricle. The auricle or ventricle may be stimulated to contract by some extra stimulation before the normal periodic stimulus is due, so that there arises a premature contraction of the auricle or ventricle—an extra systole. When the periodic stimulation arrives from the great veins it finds the auricle or ventricle in a refractory state; they do not respond but remain quiescent until the next periodic physiological stimulus arrives. Hence, as Engelmann has explained, there is a long pause—the so-called compensatory pause—after the extra systole, and hence also the fact that the period occupied by the extra systole and the preceding beat equals that of two pulse periods, as shown in Figs. 2 and 5.

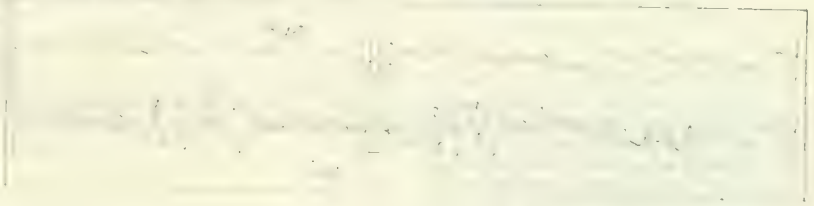


Fig. 11.

From what has been said in regard to the extra systole, it will be seen that the starting point of the heart's contraction may not necessarily be at the great veins, as they debouch into the auricles, but the stimulus may originate in either the auricle or ventricle. So far, the evidence has only shown that the ventricle can start the rhythm in isolated beats. The question arises—Can it be shown to affect the heart in a series of beats? I have proof that the ventricle can take on the inception of the rhythm of the heart, and when it does so the rhythm is almost invariably irregular—the heart staggers, so to speak. The chief exception to the heart being irregular is when the rate is very frequent—110 to the minute or over. It might seem that then the stimulus to contraction affects the heart as soon as the refractory stage has passed off.

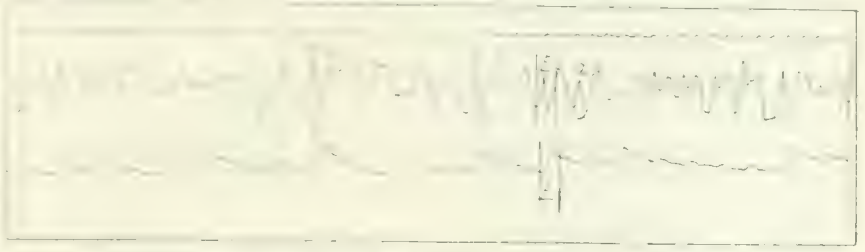


Fig. 13.

The cases I have so far studied can be grouped under three heads:

1. Those cases where there is auricular paralysis from over-distension secondary to disease of the mitral valves.

2. Those cases where there is no evidence of auricular action, but where the movements in the veins demonstrate that the rhythm of the heart is due to the ventricle.

3. Those cases where the auricle and ventricle can be demonstrated to contract simultaneously.

1. *These Cases in which there is Auricular Paralysis from Over-distension Secondary to Disease of the Mitral Valves.*

This class has already been dealt with in

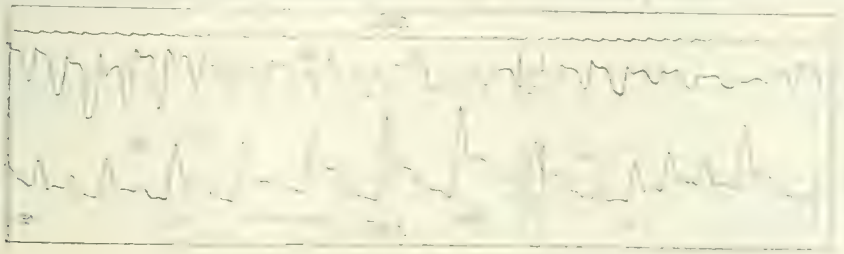


Fig. 14.

describing Figs. 3 and 4, which are good examples of the type of irregularity when the heart is acting slowly. This condition is easy of recognition if there is a jugular pulse and the movements recognized. As a rule the jugular pulse is present and is often of enormous size. In some instances I have watched the cases for six, seven, and eight years, and have taken tracings at intervals, and never found the pulse once regular after the paralysis of the auricle could be demonstrated, whilst previous to this the heart was regular in its action save for the rare occurrence of an extra systole. In Fig. 2 one can see that the heart is beginning to stagger from the presence of three premature systoles. For some months

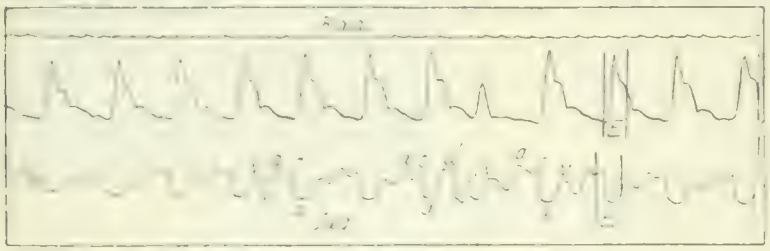


Fig. 16.

reviously I had taken numerous tracings from this patient and never once got an irregular beat. As I have already pointed out, the auricle was evidently enormously over-distended and almost paralysed. In this class of case there may be long periods of very rapid action when beats of the most varied size and duration may be present, as in Fig. 6. This is from an old-standing case of mitral disease with great enlargement of the heart, and is a good illustration of what is spoken of as the mitral pulse. It will be seen here that the wave in the jugular is synchronous with that of the radial, and the fall *y* corresponds in time with the ventricular diastole; in other words, there is a complete absence of any sign of the systole or diastole of the auricle.

2. *Those Cases in which there is no Evidence of Auricular Action during the Irregular Period, but where the Movements in the Veins demonstrate that the Rhythm of the Heart is due to the Ventricle.*

This condition of heart irregularity is usually well and permanently established when the patient comes first under observation. There is then always a history of shortness of breath and attacks of weakness extending back for months or years. When once recognized, the condition persists usually to the end of life and the fatal termination is probably due to the long-continued irregularity of the heart. Fig. 7 represents a typical tracing of this condition. There is here, as in the preceding class of cases, one large wave, *s*, synchronous with, and due to, the systole of the right ventricle, and one large depression, *y*, synchronous with, and due to, the diastole of the right ventricle. This was taken from a man aged 48 years, suffering from emphysema and bronchitis, and who had for many years suffered from attacks of weakness and breathlessness. He came under observation two months before he died. During the whole of this time the pulse was continuously irregular, though often slower than is shown in the tracing. In addition to the bronchitis and emphysema there was great enlargement of the heart (apex beat in the sixth interspace and 2 in. outside the nipple line), a systolic murmur at the apex, enlargement and pulsation of the liver, and extensive dropsy.

Fig. 15.

At the necropsy there was found emphysema of the upper part of the lungs, congestion of the bases, great dilatation of the left ventricle and auricle, the mitral valves being perfectly healthy, but the orifice permitted the passage of three fingers. The right ventricle was hypertrophied, the columnae carneae being two or three times thicker than those of the left ventricle; the tricuspid valves were healthy, but the orifice permitted the passage of four fingers. The auricles were very greatly dilated, with the walls everywhere thinned, except for a thick band that stretched across between the appendix and the cavity of the auricle. As one looked at the thin-walled auricle one could easily conceive its inability to contract, but what the meaning was of that thick hypertrophied band of muscular fibres I could not divine. If it did contract—and one cannot imagine it to hypertrophy without functionating — it must have done so at the same time as the ventricle, for there was no sign of independent contraction in the venous pulse.

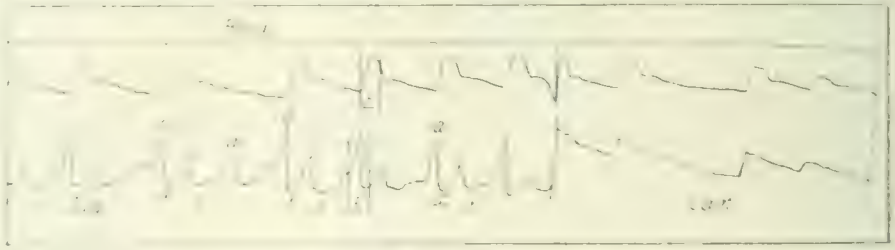


Fig. 17.

The manner in which this condition of permanent irregularity arises can be better illustrated by taking a less advanced instance, and I am fortunate in being able to give tracings from a case where the condition was only temporary, and where the gradual passage from the normal to the extremely irregular and rapid action of the heart was demonstrable. In this patient, a female aged 35, eight months pregnant with her second child, the heart was usually regular,

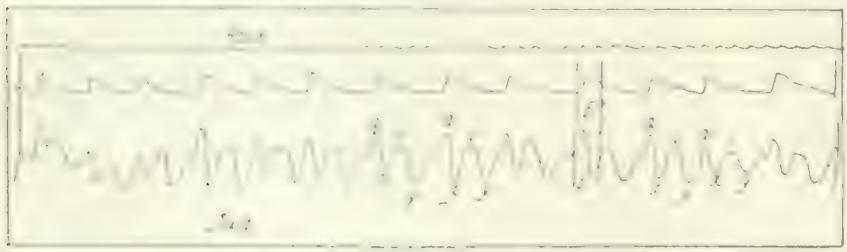


Fig. 18.

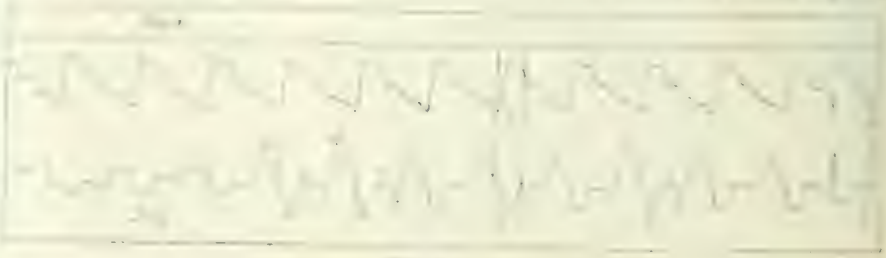


Fig. 19.

but she was subject to attacks of palpitation which distressed her greatly. I have taken numerous tracings of her pulse (radial and jugular) during these attacks. When the heart was beating regularly there was often no sign of the jugular pulse, and when present it was of very small size. When the palpitations began the heart became irregular and the veins of the neck speedily filled up with waves of blood sent back from the right heart, and good tracings were obtained of these waves. Fig. 8 shows one phase of the irregularity where the radial pulse shows intermissions at ×, after every few beats. This is due to extra systoles, as can be inferred from the fact that the long pause and the preceding pulse beat together equal the time occupied by two pulse periods. That it was a

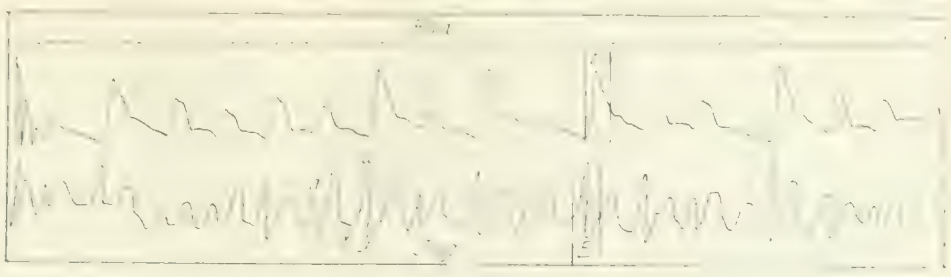


Fig. 20.

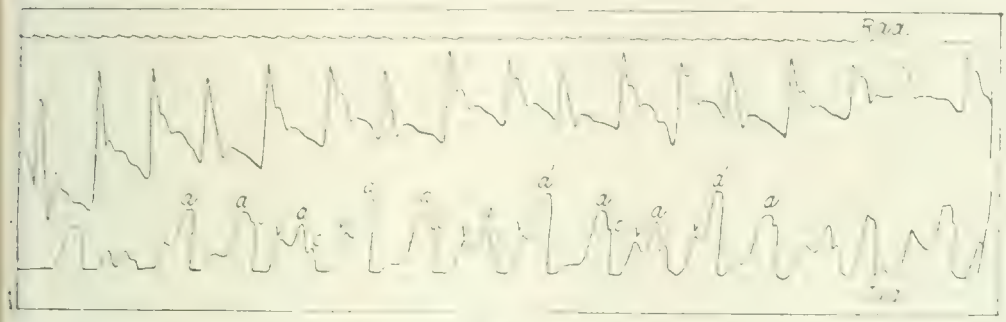


Fig. 21.

ventricular extra systole can be recognized from the jugular pulse by the fact that the auricle maintains its regular rhythm during this irregular period. The increased size of the auricular wave *a'* indicates that when it contracted the ventricle was in systole, hence a larger volume of blood was sent back by the auricle. In Fig. 9 we can observe the sudden change of the heart from the normal rhythm to one of varied frequency and strength. The normal pulse beats can be recognized always by the fact that during the period (*E*) of the ventricular systole there is always a well-marked fall *x* in the jugular tracings due to the auricular diastole. On the other hand the abnormal beats showed a rise *v*, during the ventricular systole (*E'*), indicating that the ventricle has taken on the inception of the rhythm. It will also be noted that when there is no sign of a pulse in the radial there is a well-marked beat in the jugular. In Fig. 10 we have a similar state of affairs, only that there is here but one regular pulse period (*E*), all the rest being abnormal in the sense that it is the ventricle that is giving the heart its rhythm.

The question arises what was the auricle doing during this abnormal rhythm? That it was not paralysed is evident in that it at once returns to work immediately the normal rhythm is resumed. It may be that this class of cases should not be grouped separately, some of the cases like those from whom Fig. 7 was obtained belonging to the first group, while those with irregularities shown in Figs. 9 and 11 should properly be included in the following group. Still as there is a difference in the character of the jugular pulse I provisionally include them in a separate group.

3. *Those Cases where the Auricle and Ventricle can be Demonstrated to Contract Simultaneously.*

As in the last group, the irregularity is usually permanently established when first met with, and the patient often gets gradually worse until he dies of failure of the heart. People may, indeed, go about for years with the heart acting in this disorderly manner, but they are always rather feeble, and there is a distinct limitation of the field of cardiac response. Figs 11 and 12 are from a man in comfortable circumstances who died of heart failure in July, 1897, aged 65 years. I had known him since 1879, and until the last few years of his life had looked upon him as a healthy, vigorous man. During the last few years of his life he suffered from weakness and shortness of breath on exertion. The only abnormal symptom was a pulse of continuous and varying irregularity. He had several attacks of extreme heart failure, with dropsy and oedema of the lungs, from which he made partial recoveries. Fig. 11 was taken during one such breakdown in November, 1895. Fig. 12 was taken in January, 1896, after he had made a partial recovery. In the latter tracing the pulse is slower, but still irregular. At no time after I first recognized the irregular pulse did I ever find it regular. In these two tracings the most striking and peculiar feature is the jugular pulse. Here there is no sign of an auricular wave at the usual period in the cardiac cycle, that is, before the period (*E*), nor is there a fall corresponding to the usual time of the auricular diastole, occupying the first portion of the period (*E*). During the ventricular systole (period *E*) the jugular pulse is divided into two by a depression of varying size. This fall in the tracing means that blood must have been absorbed from the veins during that time. It could not have been by the diastole of the ventricle, for the radial pulse shows the ventricle was in systole at that time. It must, therefore, have been due to the auricular diastole, and the preceding wave must have been due to the auricular systole, that in fact both chambers must have contracted at the same time. Such, indeed, is the only explanation I can suggest to explain the peculiar changes that have taken place in the rhythm of the heart. Although I was forced to this conclusion some years ago in the interpretation of the movements in the vein by applying rigidly the facts known to us of the possible causes, yet the interpretation seemed so incredible I dare not include these tracings and this interpretation in my book on the pulse, but waited till more convincing light could be thrown upon the subject. Quite recently I have had the opportunity of demonstrating these changes in a remarkable manner in another patient.

The following case I give in some detail, as the information afforded by the jugular pulse is of the most interesting and instructive character.

The patient is a widow, nulliparous, aged 57. I have known her for over twenty years as a healthy, sober, and industrious person. She keeps a small grocer's shop, works hard, and is in very comfortable circumstances. I have attended her at rare intervals for slight ailments, as quinseys and mild attacks of influenza. The only abnormalities I have found present in her case are a pulsation in the veins of the neck, and a cantering rhythm of the heart sounds when the heart is regular, an occasional intermission of the pulse, and at certain times a systolic murmur heard at the apex and at midsternum. The feature that chiefly concerns us here is the occasional irregularity of the heart as observed in its effects on the radial and jugular pulses. Until three years ago this consisted in the occurrence of an extra systole, sometimes at very rare intervals at other times more frequently, as in Fig. 5, which was taken from this patient in July, 1893. As a rule, the extra systole was of ventricular origin, but in rare instances it was of auricular origin (*C*, Fig. 5 and Fig. 16). Since 1900 she has had occasional attacks of "palpitation," in one of which attacks I got tracings of the radial and jugular pulses that agree in all particulars with the tracings obtained during the attacks about to be described.

On October 2nd, 1903, she felt weak, exhausted, and a

distressing fluttering sensation within her chest, and I found her heart's action extremely irregular, and the tracings of the radial and the jugular were similar to those in Fig. 13. This attack of "palpitation," as she called it, lasted four or five hours. On October 19th she was again seized with a similar attack, which lasted the whole of the day. The tracings (Fig. 13) of the jugular and radial convey a very true picture of the degree of arrhythmia. Next day the pulse was quite regular, and the jugular pulse presented its usual normal character of an auricular wave before the ventricular systole, and an auricular depression during the ventricular systole, as in Fig. 19.

On October 22nd the heart again became irregular. Fig. 14 shows the jugular and radial pulse during this period. This attack continued without intermission until November 1st. From October 27th the heart acted much more slowly than in Fig. 14, but still there was a distinct absence of regularity in the rhythm of the heart, as shown in Fig. 15. This slow action of the heart, with the curiously doubled beat in the jugular during the period of ventricular systole, continued until November 1st, when the heart became quite regular, with the exception of an occasional extra systole, as in Fig. 16. On November 2nd the heart became irregular, as in Figs. 17 and 18. Towards the evening of the next day, however, the heart was again quite regular except for an occasional extra systole. On November 4th the heart became quite regular, as in Fig. 19, and no extra systole was detected. The patient gradually regained strength, the jugular pulse diminished in size and gradually disappeared, but could be recalled to a slight extent when the patient held her breath. The auricular systole always maintained its normal position in the cardiac cycle during this period. On November 14th she had another attack, and the same feature was again present in the jugular pulse (Fig. 20). This attack persisted until November 19th, when the pulse again became normal with the exception of the occasional occurrence of extra systole. In Fig. 21 the extra systoles occur after every second beat, giving the appearance of a regular irregularity. This did not continue long, the extra systole appearing at much rarer intervals.

The following interpretation of the jugular pulse during irregular action of the heart seems to me the only feasible one. If we take a tracing where the heart is acting slowly, as Figs. 15 and 18, we find that during the ventricular systole there is a great fall x in the jugular tracing. This implies that at that time some great fall in pressure had taken place in the chest, which emptied the veins of their contained blood. Only two factors could produce this, the diastole of the auricle or the diastole of the ventricle. As, however, it is shown that the ventricle is in systole, it can therefore only be due to the diastole of the auricle. In that case the wave a, preceding x, must have been caused by the systole of the auricle. Because the presence of a diastolic period necessitates the previous occurrence of a systole. Therefore the wave a, though it occurs at the time of the ventricular systole, is in reality due to the auricle, and here the auricle and ventricle have contracted together. It can be shown by Fig. 19 that the auricular systole lasts about $\frac{1}{5}$ sec., and the ventricular systole nearly $\frac{1}{3}$ sec. When they contract together the former systole ceases much earlier than the latter, and so the contracting ventricle speedily fills up the dilating auricle and sends a wave (v, Figs. 15 and 18) back into the veins towards the end of its systole. After that it passes into diastole, and the vein again empties itself during the fall (y). The rise in the veins after y, when the pulse is slow, is due to stasis in the veins. After this the cycle of events is again resumed. When the heart beats rapidly the period of stasis is absent, and even the v due to auricular diastole may not be evident, as in many of the beats in Fig. 14, so that the tracing of the jugular pulse assumes the same character as in Figs. 6 and 7.

In analysing these tracings there are a great many novel and interesting points well worthy of consideration. It will be possible to deal here only with those that have an intimate relation with the irregular rhythm. One of the most striking features in the position in the cardiac cycle of the extrasystole during regular and irregular action of the heart. When the heart beats regularly, as in Fig. 19, the auricular systole is so timed as to empty the normal quantity of blood into the ventricle. Even with the occasional premature beating of extra systoles, as in Fig. 21, the auricular systole maintains its normal position in the cardiac cycle. Whether the heart beats regularly or irregularly the auricular systole always occurs at the same interval before the ventricular systole. Whether the ventricle is in the act of contracting from a normal stimulus or from a premature one, the auricle always contracts at the same interval before the ventricle. This is true not only when the heart is beating rapidly, as in Figs. 13 and 14, but also when the heart is beating slowly, as in Figs. 15, 18, and 20. In other words, when the rhythm of the heart originates at the auricles, or at the auricular mouths of the veins, it is always regular. When, however, the ventricle takes on the inception of the rhythm the heart is always irregular.

The explanation for this is to be sought for in the nature of the functions of the muscular fibres of the heart. Independent of any nervous connexion, as Engelmann has shown, the muscular fibres possess, amongst other attributes, the power of creating a stimulus and the power of conducting a stimulus from fibre to fibre. During a contraction of the muscular fibres these powers are for a time abolished, and their return takes place gradually during diastole. Normally the power of creating the stimulus arises with greater rapidity in the region where the great veins open into the auricle. From hence the muscular fibres convey the stimulus from auricle to ventricle. One great characteristic of the stimulus-production of the veins is its periodicity—that is to say, the production of the stimulus is carried on with great regularity, and hence the continuous and equal rhythm in the regular pulse and the regular succession of events in Fig. 19. In such tracings as Fig. 21 the regular appearance of the wave a and a shows that the stimulus has maintained its periodic character and the irregularity is limited to the ventricles. But as all muscular fibres possess this power of originating the stimulus, certain abnormal conditions may affect the muscle fibres of the ventricle, so that the stimulus-production arises prematurely, not only at rare intervals producing the occasional extra systole, but continuously so that the origin of the stimulus-production is in the ventricle, and not in the veins. Such, indeed, is the conclusion drawn from the study of these tracings, and from their study it can be asserted that when the ventricle gives the rhythm to the heart movement it is an irregular one the only exception being, so far as my observations have gone, when the heart beats with great rapidity as in paroxysmal tachycardia, and for periods of rapid regularity like those represented in Fig. 10. Not only can one demonstrate in these tracings the power of creating the stimulus by the ventricle, but one can also show that the conduction of the stimulus takes place in a manner the reverse of what happens in the normal rhythm.

If one measures the time in Fig. 16, from the beginning of the auricular wave a to the appearance of the carotid wave c, it is found to be approximately $\frac{2}{5}$ sec. (The movements of the time marker represent $\frac{1}{5}$ sec.) This period we know is taken up by two events, first, the contraction of the auricle, and secondly, the presphygmic interval of the ventricular systole. The wave of contraction normally passes on without stop from the auricle to the ventricle, so that we know that the top of the wave (a) indicates the time when the wave of contraction passes from the auricle to the ventricle. The time therefore from the top of the wave (a) to the appearance of the carotid pulse (c) represents the time during which the ventricle is contracting before it opens the aortic valves (what has been called the presphygmic interval). It will be found that the auricular systole lasts $\frac{1}{5}$ sec. and the presphygmic interval also $\frac{1}{5}$ sec. In Fig. 17 the radial and jugular pulses were taken simultaneously in the first part of the tracing and the radial and carotid in the latter part of the tracing. It will be found on careful measurement that the wave (a) appears in the jugular vein exactly at the same time as the carotid pulse. We know from what has been said above that the presphygmic interval occupies $\frac{1}{5}$ sec., so therefore we can infer that $\frac{1}{5}$ sec. before the wave (a) due to the auricular systole appears the ventricle had been contracting, and that it takes $\frac{1}{5}$ sec. from the beginning of the ventricular systole for the conduction of the stimulus back to the auricle. It may here be stated that there is no presphygmic interval in the auricular contraction, as the auricle has to overcome no resistance in the pressure of the veins compared with what the ventricle has to overcome in the aorta and pulmonary artery.

Experimental Observations.

There is no lack of observations in experiments on animals confirming the above interpretation. Gaskell says, "The case in which a reversal of the beats of the heart can be observed is well exemplified in the hearts of the skate and tortoise and in both cases it is clearly seen that the only [illegible] is to start a rhythm with a rate quicker than that of the natural [illegible] rhythm; that as might be expected the heart beat starts from the place where the rate of the spontaneous contractions is quickest." "Further Mac

William has shown that in the mammalian, just as in the cold-blooded heart a reversal of the sequence takes place when the ventricle is made to beat at a quicker rate than the great veins and auricles." More recently H. E. Hering has been able to induce ventricular extra systoles by raising the pressure within the ventricle. In these experiments he registered at the same time the movements of the four chambers of the heart and the variation of the carotid pressure. In one experiment on a rabbit he shows a continued series of contractions where the starting point of the contraction was in the left ventricle. In another experiment the heart spontaneously took on a different rhythm where the starting point was also from the left ventricle. But not only did the ventricle start contracting independently, but it also caused the auricle to contract and the time that the auricular contraction followed the ventricular practically corresponded to the time that the ventricular contraction followed the auricular when the rhythm was normal.

Conclusions.

From the foregoing considerations I think it may be considered demonstrated that the ventricle can take on the inception of the rhythm, and that when it does so the heart beats irregularly. It may further be presumed that whenever there is a continuous irregularity as distinct from occasional or rhythmic irregularity, the ventricle is giving the rhythm. Exceptions to this are rare, as in such peculiar rhythmical irregularity as is shown in Fig. 4 (due in all probability to digitalis), and in the extremely rapid action of the heart as is shown in Fig. 10. I am inclined to believe from the evidence I have at hand that in paroxysmal tachycardia the ventricle also takes on the inception of the rhythm.

The cause of the continuous irregularity is to be sought for in the exalted irritability of the heart muscle and not in the stimulation of the heart through the nervous system. So far as I know no experiment has demonstrated that stimulation of a cardiac nerve can produce a continuous cardiac rhythm where the contraction begins with the ventricle. Hering's experiments were carried out in hearts isolated from their nervous connexions. Further, Hering's experiments demonstrate that raising of the ventricular pressure can produce directly the premature contraction of the ventricle. I have had on several occasions the opportunity of observing in predisposed hearts—that is, hearts which give rise occasionally to extra systole—a continuous irregularity persists for several hours when the heart had been subjected to violent and unwonted exertion. As most cases that come under observation have this condition well and permanently established, and accompanied with considerable enlargement of the heart and symptoms of inefficient cardiac action, one has been inclined to attribute the continuous irregularity to the dilatation of the heart.

As I have had several opportunities of noting the beginning of the symptoms associated with attacks of continuous irregularity, I am convinced that the dilatation and ineffective action of the heart is secondary to the irregularity. When the irregularity begins there is uneasiness in the chest, a shortness of breath on exertion, a sense of weakness, which increases as the attack continues. Coincident with these symptoms are certain very definite changes in the circulation. The radial pulse becomes larger and very compressible, the veins in the neck become greatly engorged, the face becomes dusky, and the lips blue. The area of the heart's dullness extends beyond the right of the sternum, and the superficial structures of the chest wall become tender to pressure in the peculiar manner I have found so frequently associated with dilatation of the heart. These symptoms, which follow definitely the beginning of an attack of continuous irregularity, are those we meet with in advanced cases, and it is for that reason I suggest that it is the irregularity that is the cause of the inefficient heart action, and not the dilatation that causes the irregularity.

Treatment should therefore be directed to lessen the irritability of the heart muscle and to protect the heart from being exposed to causes that excite it to increased activity. While drugs such as opium, and the bromides do help in reducing the irritability of the heart muscle, in my experience no remedy equals prolonged rest in bed.

Explanation of Tracings.

In all these tracings the jugular and radial pulses are taken simultaneously. The space *E* represents the time of ventricular systole when the semilunar valves are open. In the radial tracings it is always calculated from the beginning of the upstroke of the radial pulse, and is always a little later than the same period in the jugular tracing, which is calculated from the time of the appearance of the carotid pulse.

The wave *a* in the tracings from the jugular pulse is due to the systole of the right auricle sending back into the jugular a wave of blood; the fall *x* is due to the emptying of the auricle by the systole of the right auricle, and the fall *y* due to the emptying of the jugular by the diastole of the right ventricle.

The wave *v* is due to the systole of the right ventricle. When it appears late in the period of ventricular systole, it is because it has to overcome a dilating auricle before it can appear in the veins. When it occupies the whole time of the ventricular systole, the auricle then fails to contract and to dilate, or does so at an unusual period in the cardiac cycle.

The wave *c* is due to the carotid impact. It is not really from the jugular but is due to the fact that the carotid is so close to the jugular that in most cases a tracing of the jugular cannot be taken without the effect of the carotid pulse being perceptible in the tracing. It is, however, of considerable value in determining the time of the several events in the jugular pulse.

The time marked on each figure represents one fifth of a second.

Fig. 1.—The various events in the jugular pulse show the normal time relationship. The jugular pulse is of the auricular type. Mrs. S., October 17th, 1903.

Fig. 2.—From the same patient as gave Fig. 1, taken a week later. The fall *x*, which was the greatest depression in Fig. 1 is here very small, and the fall *y*, which was small in Fig. 1, is the greater. The wave *v* fills up nearly the whole space occupied by the fall *x* in Fig. 1, and indicates greatly increased engorgement of the right heart. The radial pulse is irregular, due to the frequent occurrence of extra-systoles. The large wave *a* in the jugular is due to the regular occurrence of the auricular systole, and its increased size is due to the fact that when it contracts the ventricle is already in systole, and hence a large wave is sent back into the veins. From these evidences one recognizes that the extra systoles are of ventricular origin. This jugular pulse is intermediate between the auricular type as in Fig. 1, and the ventricular type as in Fig. 3. Mrs. S., October 24th, 1903.

Fig. 3.—The jugular pulse is of the ventricular type—that is, there is no sign of auricular contraction, and the wave *v* occupies the whole period of ventricular systole and the depression *y* the whole time of ventricular diastole. Mrs. A., March 7th, 1902.

Fig. 4.—From the same patient as Fig. 3, after taking digitalis for three weeks. The pulse counted at the wrist is 60 per minute, the small wave in the radial being imperceptible. During the long pauses there is no sign of auricular action. The shading underneath represents the time of the murmurs, that is, a systolic murmur during the large and small beats, and a long murmur during the diastolic period. Mrs. A., April 12th, 1902.

Fig. 5.—The jugular pulse is of the auricular type. The tracing shows four extra-systoles, three of them due to the ventricle (*A*, *B* and *D*), and one due to the auricle (*C*). Mrs. T., July 2nd, 1903.

Fig. 6.—The jugular pulse is of the "ventricular" type. From a case of advanced mitral disease. Mrs. F., October 18th, 1903.

Fig. 7.—The jugular pulse is of the "ventricular" type. From an old-standing case of bronchitis and emphysema with irregular action of the heart. T. W., November 7th, 1903.

Fig. 8.—During irregular action of the heart. The auricle preserves its rhythm, there being a large wave (*a*) during the premature contraction of the ventricles (compare Fig. 2).

Fig. 9.—Showing the rapid change of the jugular pulse from the auricular to the ventricular type. From the same patient as gave Figs. 8 and 10.

Fig. 10.—Showing only one beat of the auricular type (*A*), all the other beats being of the ventricular type (*B*). From the same patient as gave Figs. 8 and 9.

Fig. 11.—The irregular rhythm is of ventricular origin, and the auricular wave (*a*) occurs during the ventricular systole (*E*). J. S., November 3rd, 1895.

Fig. 12.—Shows the same as Fig. 11, with a slower action of the heart. J. S., January 1st, 1896.

Fig. 13.—Rapid irregularity, with a well-marked fall *x* due to the auricular diastole during ventricular systole (*E*). Mrs. T., October 14th, 1903.

Fig. 14.—Rapid irregularity with the fall *x* only occasionally evident during ventricular systole (*E*). Mrs. T., October 22nd, 1903.

Fig. 15.—The beat is slower, but still irregular and the fall *x* is extremely well marked during the ventricular systole. Mrs. T., October 28th, 1903.

Fig. 16.—The normal rhythm of the heart has returned, and the normal sequence of events is shown by the jugular pulse. The occasional extra-systole is of auricular origin. The wave *v* is compounded of the ventricular wave of the preceding systole and the premature auricular systole. This is inferred from the larger size of the wave and from the fall that succeeds it; *c* is due to the carotid, and will be found to occur at the same time as the small pulse beat in the radial. The extra-systole is of the same nature as *C* in Fig. 5. Mrs. T., October 10th, 1903.

Fig. 17.—In the latter part of this tracing the carotid is taken at the same time as the radial. The rhythm of the heart is irregular, and the wave *a* and the fall *x* show that the auricular systole and diastole occur during the ventricular systole. There is an occasional premature beat, and the wave *a* shows at this time that the auricle contracted, but was neither succeeded nor accompanied by a ventricular contraction, as shown by the absence of waves in both radial and jugular tracings. Mrs. T., October 21st, 1903.

Fig. 1 shows the same incidents as Fig. 2. Mrs. T. November 3rd, 1903.

Fig. 3 shows a perfectly normal pulse with all the event in the cardiac cycle following one another in a normal manner. Mrs. T., November 4th, 1903.

Fig. 4.—Inferences drawn from the radial pulse would be readily assisted in recognising the cause of the irregularity, as here there seem to exist pairs beats followed by extra systoles. The jugular tracing demonstrates the real nature of the irregular rhythm which shows the occurrence of auricular systole (a) and diastole (x) during the ventricular systole. Mrs. T., November 14th, 1903.

Fig. 5 shows the frequent occurrence of extra systoles of ventricular origin, and gives the clue to the explanation of the whole series of irregularities which the patient suffered. The explanation of the extra systoles and regular appearance of the auricular waves is the same as that given for Fig. 2. Mrs. T., November 14th, 1903.

ON SOME HAEMOGLOBIN INVESTIGATIONS IN CASES OF CHRONIC HEART DISEASE.

By PROFESSOR THEODOR SCHOTT, M.D.,
Bad-Nauheim.

THE physical and dietetic treatment of chronic heart complaints in general, as well as the special treatment by baths and gymnastics, are so widespread nowadays that in the most recent literature the question is much less frequently asked whether these methods have a good effect on heart diseases, but rather in what way they act on the heart and body generally. It would lead us too far to repeat here the various opinions of the subject. The readers of the BRITISH MEDICAL JOURNAL would gain more information from the works of Bezly Thorne, Grainger Stewart, Lauder Brunton, Bowles, William Broadbent, Douglas Powell, and others.

In this short essay I only desire to set forth the results of a series of investigations which I undertook last summer with my assistant, Dr. Wolfson, for the special purpose of giving some support to my brother's opinion and my own that the combined treatment by baths and gymnastics has a tonic action not only on the heart but on the whole system. If also the patients should show when the cure is finished a more robust appearance, increased strength of muscle, especially displayed in greater ease in walking and climbing, better sleeping and improved appetite, etc., in short, greater bodily strength, yet it is not superfluous, but rather desirable to become acquainted with those clinical methods of investigation which make it possible for medical men living at a distance to get a clear idea whether such treatment is really a tonic. Besides the weighing of the patient during and after the period of treatment, my former researches, which were principally directed to the state of the heart and vessels, had included heart diagrams, sphygmograms, and blood-pressure tracings, while some other investigations, especially those relating to the composition of the blood, had not been carried out. The reason for not having made the last named was that for general purposes former methods of investigation left much to be desired; either too much time was needed for each separate investigation or the mass of blood to be removed was so large that it must be taken direct from a vessel; in other words, such fuller investigations as would have extended over several weeks were scarcely applicable. Besides this, with most apparatus the blood had to be diluted or modified.

In the autumn of 1902 I obtained Dare's haemoglobinometer. I must not allow myself to go more fully into a description of this instrument here. I only desire to describe its most essential merits, the first is that one drop of undiluted blood is sufficient for the investigation. For this purpose Dare has constructed a pipette so exactly that in an area of ½ square centimetre one drop of blood is sufficient to fill the capillary space completely. In the apparatus there is a standard solution, the red colour of which corresponds to that of a solution of blood containing 100 per cent. haemoglobin. The drop of blood in the apparatus is compared with this standard solution. Candle light is used, so that the investigator is independent of daylight. The scale is on a revolving graduated wheel, and in that way, as the observer looks through a camera on to a white surface, the proportion of hemoglobin in the blood need not be calculated.

By following these directions every practitioner can in a short time learn how to make similar haemoglobin investigations within two minutes, and further so to diminish the sources of error that the differences between two observations and the readings of two observers amount eventually to only 1 to 2 per cent.

After sufficient practice on healthy people we began our observations on various forms of heart disease. Naturally care was taken that—besides the cautious manner of living which those suffering from heart disease must observe, with respect to the kind of nourishment, especially as to the nourishing power of the food taken—on the whole no essential change was made. In order to obtain correct comparisons the same hour was always chosen for the same patient for observation, but above all things care was taken that an equal time always elapsed after the last meal. Also it was made the rule that no examination of blood should take place during or after menstruation, or if it did take place it was not to be looked on as of any value as a comparison. The usual investigations of the heart with regard to heart diagrams and heart sounds, the sphygmogram, and above all successive observations with Gaertner's tonometer[2] always went hand in hand. In this way last summer 120 patients were examined under successive observations, and I permit myself to report here some of them very shortly and cursorily, reserving a more detailed description for a later time. In all cases except where otherwise stated the patients were subjected to combined treatment by baths and gymnastics.

CASE I. *Weak Heart, Dilatation of the Left Ventricle; Anaemia.*—Miss M., aged 18.

May 26th. Before the first bath, haemoglobin 69 per cent. (blood pressure 85 mm. Hg.).

June 3rd. After the sixth bath, haemoglobin [illegible] per cent.

June 23rd. After the eighteenth bath, haemoglobin [illegible] per cent.

July 9th. After the twenty seventh bath, haemoglobin [illegible] per cent. (blood pressure 110 mm. Hg.).

The patient appeared much more robust after the cure, could walk for hours on level ground, and could climb hills without much difficulty. The treatment consisted of baths only.

CASE II. *Weakness of the Cardiac Muscle; Dilatation of Left Ventricle. Anaemia.*—Countess St., aged 52 years.

May 25th. After the fourth bath, haemoglobin [illegible] per cent. Blood pressure [illegible] mm. Hg.).

July 14th. After the thirty-third bath, haemoglobin [illegible] per cent. (blood pressure 100 mm. Hg.).

This very feeble patient had taken iron at home for several weeks without result; during the first three weeks of her stay in Nauheim three bottles of haematicum Glausch were taken. The face was still pale at the end of the cure, though rather less so than at first, but the patient felt much stronger.

CASE III. *Mitral Insufficiency after Acute Rheumatic Polyarthritis. Anaemia.*—Miss M. D., aged 15.

June 5th. Before the first bath, haemoglobin 53 per cent. (blood pressure [illegible] mm. Hg.).

June 14th. After the sixth bath, CO_2 Spring [illegible], haemoglobin [illegible] per cent.

June 23rd. After the twelfth bath, CO_2 Spring [illegible], haemoglobin [illegible] per cent.

July 3rd. After the nineteenth bath, CO_2 Spring [illegible], haemoglobin [illegible] per cent.

July 15th. After the twenty-second bath (third effervescent bath), haemoglobin [illegible] per cent.

July [illegible]th. After the twenty seventh bath (eighth effervescent bath), haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

The patient took no kind of medicine, either for the heart or for anaemia. On leaving she felt completely recovered, and only complained of slight palpitation after climbing stairs and hills. Within the first fortnight she gained in weight 3 lb., and at the end of her stay 7 lb.

CASE IV. *Mitral Insufficiency after Acute Rheumatic Polyarthritis.*—Mr. R. [illegible], aged 14.

June 2nd. Before the first bath, haemoglobin 55 per cent. (blood pressure [illegible] mm. Hg.).

July 7th. After the twenty fourth bath (of which nine were sprudel baths), haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

The [illegible] man, who looked anaemic before, looked blooming after the treatment.

CASE V. *Mitral Stenosis.*—Miss H., aged [illegible].

June 7th. Before the first bath, haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

June 16th. After the sixth bath, haemoglobin [illegible] per cent.

June 27th. After the fourteenth bath, haemoglobin [illegible] per cent.

July 9th. After the sixteenth bath (one sprudel bath, Spring [illegible], haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

The remaining observations of haemoglobin and blood pressure all gave the last mentioned result. Altogether twenty four baths were taken.

CASE VI. *Mitral Stenosis and Insufficiency.*—Miss A., aged [illegible]. Whether the condition was congenital or acquired in the first year of life could not be determined.

June 2nd. Before the first bath, haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

June 23rd. Before the first sprudel bath (Spring [illegible], haemoglobin [illegible] per cent.).

September 1st. After the thirtieth bath (of which sixteen were sprudel baths), haemoglobin [illegible] per cent. (blood pressure [illegible] mm. Hg.).

The patient who had suffered much in youth from heart disease, and

in later years could hardly walk at all, when first examined was of a dark blue colour, both in face and fingers. On departure the dark blue colour had in a great measure disappeared, and the swelling of the liver had distinctly diminished. At the end of the cure the patient was able to take short walks of fifteen to twenty minutes, and even to make without difficulty the slight ascent of ten minutes from my house to her dwelling, whereas at first she had to be wheeled up in a bath chair.

Case VII. *Graves's Disease. Myocarditis. Severe Cardiac Symptoms.* Mrs A., aged 42. The patient had taken iron and digitalis before her stay at Nauheim. A short time after her arrival she had right-sided pulmonary infarct embolism. She continued the digitalis for three days, and later for a short time took haematogen Gruner. Three bottles.

May 18th. After the fifth bath (first measurement), haemoglobin 85 per cent. blood pressure 135 mm. Hg.

July 9th. After the thirty-second bath (of which ten sprudel baths), haemoglobin 100 per cent. blood pressure 115 mm. Hg.

Case VIII. *Mucous Colitis. Dilatation of the Ventricles, chiefly of the Left. Pulmonary Tuberculosis.* Mr F., aged 44.

July 5th. Before the first bath, haemoglobin 70 per cent. blood pressure 115 mm. Hg.

August 25th. After the thirty-second bath, haemoglobin 100 per cent. blood pressure 125 mm. Hg.

Case IX. *Mitral Insufficiency and Stenosis. Chronic Nephritis.* Mr. O., aged 22.

May 20th. Before the first bath, haemoglobin 68 per cent. (blood pressure 85 mm. Hg.)

June 4th. After the ninth bath, haemoglobin 80 per cent.

June 15th. After the sixteenth bath, haemoglobin 76 per cent.

June 24th. After the twenty-first bath, haemoglobin 81 per cent.

July 4th. After the twenty-seventh bath (ten of which were thermal-sprudel baths), haemoglobin 82 per cent. (blood pressure 120 mm. Hg.).

The patient, who took no medicine, and at first was very pale, looked blooming in the end, and could walk without the slightest difficulty for hours.

These few cases described here show that the treatment by baths and gymnastics is capable of increasing the formerly depreciated haemoglobin in cases of heart affection, be they cases of weakness of the heart muscle or valvular diseases (simple or complicated), Graves's disease, or chronic myocarditis, with or without kidney disease. Naturally there were many cases in which this increase was only very slight. According to my observations it seems far easier to raise the amount of haemoglobin in young and middle-aged persons than in those of riper years. Even if these latter feel much better after following the treatment, there is frequently no change to be seen in the amount of haemoglobin. The following is an example of this:

Case X. *Chronic Myocarditis. Severe Arterio-sclerosis. Incipient Pneumonia. Exophthalmic Goitre;* pulse 300. Mr. L., aged 52.

May 20th. Before the first bath, haemoglobin 79-80 per cent. (blood pressure 160 mm. Hg.

May 29th. After the seventh bath, haemoglobin 80 per cent.

June 17th. After the twenty-first bath, haemoglobin 79 per cent. (blood pressure 150 mm. Hg.).

During the last part of the cure duplicated heart beats were sometimes noticed, but only on auscultation; not in the radial pulse. Very often there were 54 heart beats, with a radial pulse of 30 to 36.

Very instructive for medical men are these cases in which, during the treatment, a diminution of the haemoglobin is observed; and let it here be noted that severe physical overexertion and violent emotional disturbances, especially in febrile diseases, in a short time rapidly produce a diminution in the haemoglobin. Of this, in conclusion, one example:

Case XI. *Weak Heart. Dilatation of Both Ventricles.* Mr S., aged 44. He had severe anaemia, for which for many years iron had been taken at home.

May 18th. After the first bath, haemoglobin 70 per cent. Blood pressure 135 mm. Hg.

June 2nd. After the tenth bath, haemoglobin 70 per cent.

June 22nd. After the twenty-fifth bath, haemoglobin 70 per cent. The patient suffered from feverish bronchitis and had undergone severe physical exertion during a several days' journey.

June 23rd. After the twenty-fifth bath, haemoglobin 79 per cent. (blood pressure 110 mm. Hg.).

During the following eight days the haemoglobin rose gradually again to 85 per cent. and the blood pressure to 130 mm. Hg.

I am well convinced that in an investigation of the blood which in some measure lays claim to thoroughness it is necessary to count the blood corpuscles, both red and white, and to fix the amount of ash of the blood. Such experiments, however, take so much time that in practice, at any rate, investigations on a large scale are very difficult to carry out. I propose at some other time to supply what I have here omitted.

Notes.

[1] For description see *Deutsche Medicinal Zeitung*, September 22nd, 1900. [2] Of these tonometer measurements I give only the first and last in parentheses.

IMPROVEMENTS IN DIETETICS OF DIABETICS.

By Sir James Sawyer, M.D.Lond., F.R.C.P.,
Senior Consulting Physician Queen's Hospital, Birmingham.

Comparatively successful as is the modern medicinal treatment of diabetes mellitus (glycosuria) under medical prescription and guidance, in many cases perhaps in all the appropriate regulation of the patient's food is a chief therapeutic indication. In the management of this difficult malady, it has been recognized by the profession for many years that abstinence from sugar and from other articles of food which are convertible after ingestion into glucose causes a great lessening in the quantity of glucose in a diabetic patient's urine, and also a marked diminution towards normal of the heightened density and quantity of the urine, and that these changes for the better are coincident with arrest of bodily wasting, even with some gain of bodily weight, and also with general improvement, in a very large proportion of those persons who are suffering from diabetes.

To meet these rational and practical indications as to treatment much care has been taken by many physicians to devise an extended, varied, and agreeable and practicable dietary. Until the researches of Mossé were published two years ago,[1] it was our therapeutic rule to withhold potatoes in saccharine diabetes. The potato contains from 16 to 24 per cent. of starch, and it used to be classed without qualification amongst food inadmissible in glycosuria in a case treated upon the dietetic principle I have referred to. His researches have led Mossé to conclude that potatoes, far from being harmful, form a useful and beneficial food in glycosuria, and that they are capable of being substituted for ordinary wheaten bread in daily proportions sufficient to maintain the alimentary ratio, that is to say, in the proportion of two and a half to three of potatoes for one of bread. Mossé found that a daily ingestion of potatoes in quantities of from 1,000 to 1,500 grams, roughly of from 2 lb. to 3 lb. avoirdupois, brought about in nineteen out of twenty cases of diabetes speedy diminution of the glycosuria, quick relief of thirst, and general improvement in the patient, and all this in all forms of diabetes. The salts contained in the potato are chiefly those of potash. Potash is contained in potatoes in much larger proportion than in wheaten bread, and Mossé attributes the superiority of potatoes in a diabetic dietary to the increased ingestion of potash.[2] My own experience in practice during the last two years is confirmatory of Mossé's conclusions.

I think it will be found in practice that the permission of potatoes in the food of diabetics is one of the greatest dietetic advances of our times. Potatoes cooked in any of the ordinary ways are a grateful food. I would point out that for the retention of the salts of the potato the vegetable should be cooked in a peculiar way. It should be cooked by steaming with its "skin" on. If potatoes be peeled and then cooked by steaming, they lose in the cooking large proportions of their potash and of their phosphoric acid, and they lose more of each of these their constituents if they be peeled and then cooked by boiling.

It has occurred to me that the beneficial results of Mossé's discovery and teaching as to the use of potatoes as a food in diabetes might well be carried much further in the dietetics of diabetics than in merely the free allowance of properly-cooked potatoes in a dietary. I propose that the therapeutic difficulty as to the prohibition of ordinary bread for a diabetic may be met advantageously by making bread, cakes, and biscuits for diabetics by using the "flour" of properly-cooked potatoes instead of the flour of grain. I find that excellent and delicious baked cakes can be made from paste composed of a kind of flour prepared by rubbing down potatoes cooked with their coats on by steaming, blended with cream and butter. With the aid of some good cooks in my kitchen I have made many experiments as to the formation of bread and biscuits from bran and the flour of potatoes. As the best results at present reached from these inquiries, I have decided upon the following details for the making of these new biscuits and bread for diabetics:

Bran and Potato Bread.—Take half a pound of flour of steamed potatoes, quarter of a pound of bran, half an ounce of German yeast, half an ounce of butter, one egg. Twenty-four hours before making the dough cook the potatoes by steaming them in their "jackets," then peel and break up into flour with the fingers. Mix all the ingredients together, and let the paste stand near the fire for an hour to "rise." Bake in greased tins for an hour and a half.

In common with many other physicians, I have arranged and employed in practice for many years a diabetic dietary which is sufficiently strict for practical purposes, and which

is in harmony with the principle of abstinence from sugar and from all other articles of food which are convertible into glucose after ingestion, and of such a formulated dietary I have been accustomed to give a printed copy to a patient in a suitable case. My dietary rules in diabetes, as now modified, by Mosse's permission of potatoes, and by the developments I have devised of potato-made bread, biscuits, and cakes, prepared in the ways I have here described, would read:

May Eat.—Butcher's meat of all kinds, excepting liver. Pork, ham, bacon, poultry, game, potatoes steamed in their "skins." Fish, oysters, crabs, lobsters. Animal soups, not thickened, except by potatoes. Mutton broth, beef tea. Bran and potato bread or biscuits, potato cakes, eggs, cream, butter, cheese, greens, watercress, mustard and cress, lettuce, cucumber, nuts; jelly or custard, unsweetened.

May not Eat.—Any bread or biscuits but those made of bran and potato. Sugar, asparagus, broccoli, cauliflower, carrots, parsnips, French beans, peas, turnips, arrowroot, macaroni, rice, sago, tapioca, vermicelli, pastry, excepting potato cakes; puddings; fruit, fresh and preserved.

May Drink.—Water, tea, coffee, soda water, claret, hock, spirits and water, unsweetened bitter ale, very sparingly; milk, very sparingly.

May not Drink.—Cocoa, chocolate, champagne, porter, stout, home-made wines, liqueurs, cider, sweet wines, ale.

REFERENCES.

[1] *Bull. de l'Acad. de Méd.*, December, 1903, and *Rev. de Méd.*, February and March, 1904. Dr. Cooking's abstract, *Quarterly Medical Journal*, of papers published by Mosse.

RECURRENT FEVER ASSOCIATED WITH SPIRILLA IN THE BLOOD IN A PATIENT FROM GIBRALTAR.

By Sir PATRICK MANSON, K.C.M.G., F.R.S.
Medical Adviser, Colonial Office and Crown Agents of Colonies.

There is a tendency with most of us when we come across an anomalous case to square diagnosis with some recognized type of disease rather than to search out and see if the case be not something altogether new. Thus it was that formerly the specific and distinct disease now generally designated Malta fever was put down either as malaria or as typhoid, and thus it is that at the present day, when we come across an anomalous case of fever from the Mediterranean we are prone to diagnose it Malta fever. I believe that in at least a proportion of these cases this diagnosis is wrong.

The accidental discovery recently of an unlooked-for organism in such a case has impressed this on me. I publish the case in the hope that others, as opportunity offers, may be induced to follow up the hint it conveys and endeavour to ascertain whether or not, under the term Malta fever, sometimes we may be ascribing to micrococcus melitensis a fever produced by the organism I refer to, or perhaps by some other germ.

The following condensed account of the case is from notes kindly supplied to me by Dr. Macwhirter Dunbar.

A married lady, aged [illegible], with one child, had resided at Gibraltar for [illegible] years and enjoyed good health. After a short visit to England [illegible] returned to Gibraltar on September 20th. She states that she had been bitten by a mosquito on the cheek on October [illegible]. The bite festered, and on October 7th she had a rigor, followed by fever, [illegible] after profuse sweating the fever terminated on October 9th. The [illegible] due on October 17th, did not appear on [illegible] there was a recurrence of the fever, which lasted three days. [illegible] on November 5th. She went to [illegible] on November 7th, and whilst there had a recurrence of fever on [illegible] 11th, the attack again lasting three days. She returned to [illegible] on November 13th and came to London on [illegible]. Dr. Macwhirter Dunbar on [illegible] 14th, recorded as follows: "I have been recorded as radical and [illegible] during the [illegible] 1891 treatment was continued [illegible] Dr. Manson. She has had five recurrences of the [illegible] which was very mild, being [illegible] to be [illegible] by profuse sweating. The attacks [illegible] December 6th, December [illegible] 11th, and December [illegible] 14th. In the intervals she was quite well. There has been no recurrence since [illegible] there was [illegible] There was [illegible] threatened. There [illegible] was [illegible] to be [illegible] to-day."

I was asked to see her on December 15th. The attack of December 11th had just subsided, and she was quite free from fever. The blood films I prepared on that occasion showed neither malarial parasites nor any other organism. As she had been taking quinine the negative result of the microscopic examination could not be regarded as excluding malaria. The quinine was stopped, and instructions given to forward blood films prepared during the height of the attack, should one recur. Fever recurred on December 29th, and out of six films, taken at different times, four contained spirilla; there were no malarial parasites. Films prepared the day after the abortive attack (maximum temperature, 100°) on January 11th showed no parasites. The blood was examined by Dr. Harold Spitta for Malta fever and for pyogenic organisms with negative results.

I have no doubt that this case was one of spirillum infection, but whether the spirillum was that of ordinary relapsing fever, that is spirillum obermeyeri, I am not prepared to say. I am inclined to think both on clinical and morphological grounds that it was different. According to Carter, Löwenthal, and others, fourth and fifth relapses in ordinary relapsing fever are exceedingly rare, and no mention is made by these authors of such an occurrence as six or seven relapses. In this case there were seven relapses at intervals of fourteen, eight, ten, eleven, fourteen, and thirteen days respectively.

Morphologically the spirillum differed from spirillum obermeyeri as usually represented; for whereas this well-known organism exhibits many short and abrupt flexures, the curves of the parasite I describe were few and graceful (see photograph by Dr. H. Spitta).

I would not insist too much on these points, but I consider that the case justifies further inquiry into the etiology of the Mediterranean fevers. Especially would I urge careful microscopic examination of blood in all cases in which the Widal test is negative or doubtful.

I must warn investigators that the spirillum is not easily found; possibly the paucity in this instance was owing to the fact that the infection was nearly exhausted: had the examinations been made during the earlier paroxysms, especially during the first, they might have been found in greater profusion. As stated, in four only out of the six preparations examined were spirilla found, and these contained only some three or four on each slide.

VERONAL: A NEW HYPNOTIC.

By ALFRED C. JORDAN, M.D.Cantab.,
London.

Veronal, di-ethyl-malonyl-urea, was introduced by Fischer and von Mering[1] as the result of a systematic investigation into the hypnotic properties of certain urea derivatives containing "ethyl" groups. It is a colourless, crystalline body, sparingly soluble in cold water, readily soluble in hot water. It has a bitter taste, but no smell. It is most conveniently given in the form of "tabloids," or in the form of chocolate tablets prepared by E. Merck, which can be dissolved in hot milk. Both the "tabloids" and the chocolate tablets contain half a gram each (7½ gr.) of veronal.

It has already been used in a large number of cases of insomnia, and the results have been published in the case of more than a thousand patients, and in a great variety of diseases, including pure insomnia, various diseases, functional and organic, of the central nervous system; acute febrile conditions; diseases of the heart, lungs, kidneys, and liver, even in their most advanced stages.

The doses used range from 0.25 gram (3¾ gr.) to 3.5 grams (53 gr.). In most cases a dose of 0.5 gram (7½ gr.) has sufficed

to produce sleep within an hour, lasting, with perhaps one or two brief interruptions, seven or eight hours. The sleep is indistinguishable from natural sleep and the patient awakes feeling refreshed, frequently speaking with enthusiasm.[2]

The patients never complained of any unpleasant after-effects when given in this dose. In some cases even smaller doses—0.25 or 0.3 gram (4 or 5 gr.)—were found to suffice to give the patient eight hours' sleep. This was the case in weak women suffering from heart disease with failing compensation, advanced phthisis, and diabetes mellitus respectively.[3] Again, in many cases where a patient had previously received 0.5 gram veronal, it was found possible to reduce the dose to one-half after a few days.[4]

Larger doses—1 gram (15 gr.)—were required in some cases where there was actual physical discomfort or difficulty. In these cases veronal proved equally reliable, and equally free from objection. The patients woke refreshed, and frequently with improved appetite. There were never complaints of headache or nausea, although one or two patients felt slight giddiness, lasting not more than ten minutes.

Still larger doses up to 3.5 grams (the latter in strong men only) were used with good effect in certain cases of severe mental excitement—delirium tremens, general paralysis, and epilepsy. These large doses were usually followed by continued sleepiness on the following day; but this was, on the whole, an effect to be desired. In the case of epilepsy veronal induces sleep, but has no power of controlling the fits. The only cases in which veronal failed were cases of severe pain, such as occurred in acute rheumatism and in severe sciatica. In such cases morphine is to be preferred.

Occasionally, when the dose used is not a large one, and when there is pain or excitement, the patient may not fall asleep for three or four hours after taking veronal. The following two cases, under my own observation, illustrate this, and illustrate also the way in which a single dose of veronal frequently gives a patient two or more successive nights of good sleep.

N. G., æt. 35, an engineer, subject to "migraine," took 1 gram of veronal at 8 p.m. one night while suffering from a very severe headache. He fell asleep at 11, and slept soundly till 7, when he was called. He woke free from headache, was able to attend to his usual duties during the day and did not feel sleepy. The following night he slept very well, far better than he is accustomed to sleep. About a month later he took 0.5 gram of veronal (one tablet) at 8 p.m. while suffering from a severe headache. He again slept from 11 till he was called at 7, and woke refreshed and free from headache. He again slept well the following night.

Mrs C., a hotel manageress, was suffering from gastric catarrh as the result of "tripping." Vomiting and hiccough were very frequent, the heart was dilated, beating irregularly, the first sound weak and flapping, the apex beat in the fifth space 3 in. external to the nipple line. She had not slept at all for three days, and had not well for weeks. After a few doses of bismuth with carminatives, the vomiting and diarrhœa were diminished. At 8 p.m. on the first day of treatment she took 1 gram of veronal. She fell asleep at 11, and slept four or five hours, with a few brief intervals of wakefulness, during which she used the commode. She woke feeling a little stronger, considerably refreshed, and with some returning desire for food. The heart's action was less flapping. The vomiting had ceased. The following night she slept six hours and was better. The heart's apex was 2 in. internal to the nipple line, the tones clearer, and still stronger.

A slight antipyrin-like rash has been observed for a short time in one or two cases.

No remote after-effects of any kind have been observed to follow the use of veronal. It has no action on the cardiac or respiratory centres, does not appreciably influence the blood pressure, and is without action on the liver and kidneys. The urine remains normal, free from albumen and blood pigment. Veronal is not a diuretic, as its chemical relationship to urea might suggest.

To this immunity from bad effects on the vital organs is due the great importance of veronal. For it can be given without hesitation and with excellent results in cases of severe heart disease with failing compensation, in cases of phthisis early or advanced, in other pulmonary diseases, and in kidney disease.

As regards the induction of a "veronal habit" Lilienfeld and others have never found it necessary to increase the dose: indeed in most cases it has been possible to reduce the dose after a few days, and frequently a single moderate dose of 0.5 gram (7½ gr.) has sufficed to procure for the patient a succession of four or five nights of good sleep. Berent,[5] however, found it necessary in some cases to increase the dose after a few days, or to substitute some other hypnotic, such as trional, for a few days. To conclude, it seems clear that veronal is proving to be a useful means of procuring sleep.

References.

[1] Fischer und v. Mering, *Therap. der Gegenw.*, March, 1903. [2] Dr. Leopold Wolff, *Wien. med. Presse*, No. 8, 1903. [3] Dr. Heinz Lebel, *Deutsche. m. Woch.*, Vol. XX., No. 1, 1904. [4] Dr. A. Lilienfeld, *Ther. Mon. Hefte*, No. 11, 1903. [5] Dr. Walter Berent, *Therap. Monats.*, January, 1904.

ON THE USE OF OXYGEN GAS IN DISTENDING THE BLADDER FOR CYSTOSCOPY.

BEING A PART OF A LECTURE TO THE SURGERY CLASS IN ST. MUNGO'S COLLEGE, GLASGOW.

By A. GALBRAITH FAULDS,

Assistant to the Professor of Surgery, St. Mungo's College; Assistant Surgeon, Glasgow Royal Infirmary.

In diseases of the bladder and kidneys it is often expedient to get a view of the interior of the bladder with the object of ascertaining either its condition or contents, or seeing what flows from the mouths of the ureters. In my student days not so many years ago this was not practicable, at least we had no means of doing so, there being no cystoscope, but since then, with the development of science, and especially in the way of electric instruments, we have now at our call an instrument which, when carefully used under favourable circumstances, will give you a very good view of the vesical cavity.

To enable you to use the cystoscope you must distend the bladder in order to separate its walls; for this purpose it has been the custom to inject a transparent solution such as carbolic, boracic, or sterilized water, and their use had many advantages, but, like everything else, they have their disadvantages.

One of the advantages in using a solution is that it disseminates the heat that comes from the bright glare of the electric lamp when in the bladder, and thus saves the mucous membrane from being injured; but, unfortunately, the fluid medium allows of blood, pus, or urinary deposits which may come down the ureters to mix with it and render the medium opaque, and thus obscure the view.

Last June in Berlin I saw a cystoscope used which had what is known as a "cold lamp" fitted to it; these lamps are of peculiar construction, and give an astonishing light with little or no heat, and it struck me that if I had "cold lamps" on my cystoscopes I would discard the fluid medium and inflate the bladder with air. As soon, therefore, as I was able to procure these lamps I experimented with gases, passing them through sterile solution to purify them before introducing them into the bladder, and I am now pleased to say I can get a much better view by using oxygen gas than by any of the many media I have tried.

You saw me yesterday morning in the operating theatre in the Royal Infirmary employing, instead of boracic solution, oxygen gas to inflate a patient's bladder who had no anæsthetic either local or general, and who suffered no pain or inconvenience during the cystoscopy, and some of you had a view of the interior and saw plainly the wall with its mucous membrane and capillaries. I first drained the viscus through a soft worm catheter; from the character of the urine it was unnecessary to wash out the bladder. I had beside me a small rubber gas-bag, containing the amount of oxygen I wished to use, fitted with a vulcanite cock which fitted into the mouth of the catheter. The amount of oxygen in the gas-bag gave me an idea what the size of the bladder would be when it is distended, allowing, of course, a little for the expansion of the gas when in the warm viscus. I slowly and carefully pressed the oxygen from the gas-bag, and then withdrawing the catheter, I introduced the cystoscope.

The advantages in using oxygen gas as a means of inflating the bladder over solutions for cystoscopy are obvious. In cases where you want to be free from the invasion of pus or blood, to ascertain the conditions of the ureters, and where bleeding tumours are suspected I have found this method of advantage. I use oxygen in preference to any other gas because I have found it in cases of enlarged prostate with a quantity of foul residual urine containing muco-pus, to ameliorate the accompanying cystitis, and to have a clarifying effect on the urine. Its use must be practised with great caution. The patient must be warm and comfortable when the operation is proceeded with; the gas must be pure, and be caused to enter the bladder slowly and with great care, and if cystitis exists it will be necessary to use a local anæsthetic. The oxygen can be left in the bladder without any evil effects, and often to the patient's advantage.

The Lettsomian Lectures
ON
ASEPTIC SURGERY IN THEORY AND PRACTICE.

Delivered on February 29th, 1904.

By CHARLES BARRETT LOCKWOOD, F.R.C.S.Eng.,
Surgeon, St. Bartholomew's Hospital.

Lecture III.

On the Accurate Closure of Wounds. Skin Flaps. Skin Sliding. Environment and Results.

When the cut edges of the skin are brought together with perfect accuracy, they adhere at once and are an effectual barrier against air infection. In respect to this rapid adherence the skin is comparable to the peritoneum. But to secure this advantage the apposition must be perfect and exact. This point is well understood, but perhaps a word may be said with regard to another aid to asepsis which will, in the future, have an extensive use. I refer to the complete and accurate closure of the largest wounds by the transposition of flaps of skin, by undercutting, and by the gliding of extensive portions at the boundaries of the wound.

Many of us can remember the time when an amputation wound was sewn together with discontinuous sutures about an inch apart; and can recall the little area of raw surface which was left between the sutures. Nowadays this would be considered very poor workmanship. A number of discontinuous sutures might be used to adjust the flaps and obliterate the space between them, but every vestige of the raw surface would now be covered in by running a continuous suture of the finest twisted silk along the whole of the edges of the wound. The skin adheres with great rapidity, and is probably firmly united before any bacteria which may have survived in the sweat glands, sebaceous glands, or hair follicles could have had time to multiply and invade the deeper parts of the wound. We know how rare a perfect disinfection of the skin must be. When we come to consider the matter, it would but a short time ago have been rather rash to have aimed at such accurate apposition, because then, in all probability, it would have led to the retention of septic fluids within the wound, and to such a series of disasters as can be occasionally found recorded in the older works on surgery.

In many operations, especially in those for mammary carcinoma, a very large area of skin has to be removed, as it is now recognized that the skin over the cancerous growth cannot be saved with safety because its lymphatics are frequently the seat of cancerous infection.

The excision of the suspected skin often leaves a huge gap which can only be closed by the exercise of considerable ingenuity. When the wound is aseptic, flaps of skin and subcutaneous tissue, six or seven inches long and attached by quite a narrow base, can be dissected up and turned into the wound. These flaps hardly possess proper blood supply of their own and only survive because, owing to the asepticity of the wound, they immediately adhere to the chest wall to which they are applied. From that source they do not at first acquire new blood vessels, but are probably kept alive by the absorption of plasma. It is remarkable to observe how tight these huge skin flaps may be, and how livid they may become, and yet preserve their vitality. At the end of a few days they may appear to be upon the point of perishing, but nevertheless recover and unite firmly with all their surroundings. I have used similar skin flaps to close gaps in the chest wall. About eighteen months ago in removing a recurrent carcinoma portions of three ribs and a large piece of pleura had to be excised. A large area of the diaphragm and of the lung was exposed to view. Four or five sponges were stuffed into the gap, whilst a large thick flap was brought up from the chest and abdomen. The patient recovered without a single bad symptom. Without the aid of the flap this operation could not have been undertaken; and without asepsis the flap could not have been made.

The principles which govern the fashioning of these flaps cannot be entered upon now. The theory is simple, the practice difficult. I shall content myself with saying that there is room for a whole lecture upon this subject, which, by the bye, has been almost entirely neglected by surgical writers.

For the complete closure of gaping wounds asepsis allows us to use a further device. Besides being able to convert the surrounding skin into flaps, we can also undercut it so as to allow large pieces to slide in the direction of the wound. Doubtless this undercutting destroys in part the blood and nerve supply of the skin, but so long as the wound is aseptic no harm results.

In bringing together the wound and adjusting the edges of skin flaps a continuous suture of twisted silk is used. This has one great advantage after a protracted operation such as that for removal of the mammary gland, pectoral muscles, and the lymphatic area—it is very rapid. But the continuous suture has a disadvantage for it often strangulates the strip of skin within its grasp. As a rule, when this occurs the loss is trifling, but it is to be doubted whether the wound ever remains aseptic, and at times the ultimate healing is delayed. For this reason I have found it difficult to classify as "septic" or "aseptic" some of the amputations of the breast and operations for cancer of the lymphatics of the neck. Without an explanation it would lead to misconception if they were called septic, and yet they cannot truthfully be called aseptic. Some day, when our knowledge is more precise, we shall perhaps include them in a class labelled "secondary skin infection after necrosis of skin."

In spite of these occasional drawbacks, the complete closure of wounds by means of skin sliding and skin flaps is an enormous gain, and, when boldly resorted to, does away with the necessity for skin grafting by Thiersch's or other methods. It is a very great happiness to patients to be told, on the removal of the dressing, that the wound is entirely healed, and they seem to think less of scars which are all in one place.

Drainage.

Some years ago I remember reading a paper before this Society entitled The Abuse of Drainage of Wounds.[1] About that time (1890) nearly every wound was drained. It is not unlikely but that the pendulum afterwards swung too far in the other direction. I suppose that to-day all septic wounds are drained with gauze, or tubes, or some other efficient device; also all wounds in which blood is liable to collect. I myself always drain wounds of the scrotum, and nearly always those of the axilla, merely to prevent blood collecting. Rubber tubes are the most comfortable for the patient, and can be sterilized with heat. Glass tubes are apt to hurt, and on more than one occasion have been known to break within the abdomen, but nevertheless they are so efficient and so easily sterilized that I occasionally employ them; gauze has advantages, but is painful to remove, even with the help of hydrogen peroxide solution. The introduction of a drainage tube increases the risks of infection. Doubtless infection from the skin which, as we know, is septic in 25 per cent. of cases can more easily enter when the lips of the wound are kept apart by a drainage tube than when they are allowed to adhere by immediate union. In addition, the wound has to be dressed for the removal of the tube. These considerations have led to the immediate closure of wounds made to empty psoas, lumbar, and iliac abscesses. At the worst, if the operation be aseptic, some pus may collect again and call for removal; but at this stage the abscess cavity is much smaller, and the dangers of sepsis are less. For the successful performance of this operation for emptying and then closing again these large tuberculous abscesses it is of the greatest importance to be gentle and restrained, so as not to start haemorrhage into the abscess cavity. The neglect of this is likely to bring an excellent operation into disrepute.

In aseptic wounds, then, drainage is unnecessary unless oozing and accumulation of blood are anticipated; but in septic wounds drainage is almost invariably required. This bald statement, however, ought to be amplified, for septic *cavities* ought also to be drained. This is very clear in the case of the urinary bladder. On more than one occasion I have closed the cystotomy wound at once, being guided by the absence of bleeding and of sepsis. It is a vast gain to the patients if the suprapubic wound heals by first intention, and that they should be able to walk about at the end of the third week. But when the bladder is septic, the immediate closure of the cystotomy wound is fraught with danger. Whenever the bladder is septic I insert a Guyon's drainage tube. This admirable device has robbed this class of case of a great many of its dangers and discomforts.

Also, when the bladder is septic I perform external urethrotomy in preference to internal, in order to provide adequate drainage. The dangers of an incised wound far from the surface of the body, and frequently bathed in septic urine, are too obvious to need pointing out. The perineal wound drains well, and merely needs the insertion of a strip of

gauze. When the urine is aseptic the perineal wound may be closed forthwith, with a good chance of immediate union.

The treatment of the gall bladder is ruled by similar principles. If, after cholecystotomy, it were known that the gall bladder was aseptic, and was destined to remain so, it might be judicious to suture the opening into it, and drop it back into the abdomen. But one must always be doubtful about the asepticity of a cavity which communicates with the intestinal tract by a comparatively short canal. No doubt so long as the cystic duct and the common bile duct are undilated and are lined with healthy epithelium, they prevent the intestinal bacteria from invading the gall bladder, the biliary ducts and canals, and the liver substance. But cholecystotomy is usually done when the gall bladder and the ducts have been altered by disease. It is probable that sepsis of the gall bladder is present in every case of gall stones. Acting upon this assumption, I have never yet ventured to suture and return the gall bladder after cholecystotomy, or in other words to perform what has been called the "ideal operation." The systematic drainage of another cavity—the rectum—after the removal of tumours, haemorrhoids, and for operations for fistula, has done much to diminish both the dangers and the miseries of this class of operation. A small (¼ in.) rubber tube with a packing of iodoform gauze is all that is needed. The gauze supports the drainage tube and stops the bleeding.

Dressings.

To my mind the essential qualities in the dressing are sterility and dryness. Working at St. Bartholomew's and elsewhere with a number of different assistants and sisters, I use plain sterilized gauze, double cyanide gauze, iodoform gauze, and alembroth. For many aseptic cases plain sterilized gauze is now being used. Double cyanide gauze and wool are used for a proportion of aseptic cases, as well as for the septic. For some of the latter iodoform gauze is used. But, as regards the various dressings, I cannot detect any difference in the healing of the wounds provided a layer of silver foil is put next to the skin. If silver foil were not at hand, I should prefer to use plain sterilized gauze and a layer of plain sterilized wool.

This layer of silver foil is supposed to retard the growth of the skin bacteria; next, it helps to exclude air infection; and, lastly, it separates the antiseptic dressing, if such a one be used, from the wound. It is exceedingly hard to trace the line of a wound which has been covered with silver foil because the skin edges are so entirely devoid of redness.

The original Listerian dressing was completed with an outside dressing, which consisted of a layer of waterproof jaconet and eight layers of gauze. The purpose of this outside dressing need not be referred to, but there can be no question but that it has of late fallen into disuse. At some nursing homes I have been told that I am the only surgeon who uses an outside dressing. Now, it may be conceded that the dryness of aseptic wounds has done away with one of the main objects of the outside dressing. Moreover, a large layer of impervious jaconet may be hot and uncomfortable, and, by preventing evaporation, be calculated to favour the collection of perspiration and the growth of skin bacteria. But in some cases these disadvantages are far outweighed by some very solid advantages. For instance, the triangular scrotal dressing which I first described to this Society in 1896[2] is not only comfortable but likewise secure, and since its use a suppurating scrotal wound has been almost unknown. It is true that this result has been attained with the aid of systematic drainage, but that would be risky unless an outside dressing was used to prevent the escaping blood from becoming infected from the exterior. In the radical cure of hernia, especially inguinal, it is difficult to prevent the exposure of the wound, and I should despair of doing so without the aid of a very well fitted and securely fixed outside dressing. It would be easy to adduce a number of inguinal and scrotal wounds in which the outside dressing had prevented the wound from being soaked with urine.

After laparotomy another danger has to be guarded against. Owing to the anaesthetic and the nature of the operation vomiting is a frequent complication. During vomiting the contractions of the abdominal muscles are extraordinarily violent and special precautions are needed to prevent the access of air to the wound, and hence an accurately-fitted and fastened outside dressing becomes a wise precaution. In hot weather it can if necessary be easily dispensed with after the first forty-eight hours. But nowadays it is unusual to hear any complaints of discomfort, and the skin is hardly ever found reddened, much less blistered. For similar reasons an outside dressing is of use in amputations of the breast and about the root of the neck. During vomiting, coughing, and breathing there is a strong probability of the entrance of air into the wound unless special precautions in the shape of an outside dressing be taken. Those which I use are all cut to pattern and carefully fitted and fastened with straps and buckles. They are afterwards secured with bandages which are sewn on or reinforced with strapping.

The Influence of Environment.

It is probable that much has to be learnt about the influence of environment upon the results of operations. The term environment is rather loose and ambiguous, but we all have a general notion that it comprises the surroundings of the patient before, during, and after the operation. The surroundings during the operation have already been discussed, and likewise some of those which are requisite before and after the operation.

In this metropolis surgeons operate in public hospitals, private hospitals or nursing homes, and in private dwellings. It is exceedingly difficult to ascertain how far these three different environments influence the results as tested clinically by the mode of healing. I possess, however, a small amount of information which will now be placed before you. The series begins March, 1900, and ends July, 1903.

I do not intend to weary you with a recital of the precautions which are taken in the organization of operations in private houses. Briefly the objects aimed at are accuracy and simplicity. Accuracy is attained by close personal supervision. I suspect that in order of danger come sponges, ligatures, and instruments, although the hands of the surgeon and of his assistants and the patient's skin are almost as dangerous. Now, every one of these is, and ought to be, under the immediate control of the operator. The utensils and towels may be left to others, and are easily sterilized with heat. But it is always advisable to make precise inquiry into the manner of their disinfection before allowing them to be used. Care is likewise taken to see that the room in which the operation is performed is light, clean, and airy, and that the sanitation is perfect. The room is cleared out and prepared the day before and its air left to settle.

We may begin with fifty-eight wounds inflicted in private houses, hotels, or flats. As regards severity these are not all comparable to those in St. Bartholomew's Hospital or in nursing homes. A very critical operation has usually, in case of some sudden emergency arising, to be done in a nursing home close at hand. The list includes cases of amputation of the breast, amputation of the breast with removal of the pectoral muscles and axillary lymphatics, radical cure of hernia, arthrotomy, appendectomy, laminectomy, one of ligature of superficial femoral artery, removal of tumours, and so forth. I have omitted from this list cases in which pus was present and wounds communicating with septic gall bladders or the urinary bladder.

A case which died of shock after a long and difficult operation for the removal of a broad ligament tumour has been omitted, and also a death from shock after amputation of the thigh for diabetic gangrene. In malignant disease of the breast the ultimate safety of the patient often necessitates the removal of very large areas of skin. I am accustomed to close the whole of the huge wound by turning up long flaps of skin from the flank, or abdomen, or chest. When the wound is apparently aseptic these flaps preserve their vitality in a very remarkable manner, but the pointed tip sometimes dies and a small part of the wound has to heal by granulation. Under these circumstances it would be impossible to include the wound amongst the aseptic, although nearly the whole had healed by first intention, and the temperature and pulse had fallen to normal after the shock and reaction had passed away. In three breast amputations some part of the flap necrosed, and a portion of the wound had to heal by granulation.

Of the remaining fifty-five, one had slight haemorrhage and haematoma after a very severe operation for the removal of a malignant mass from beneath the clavicle. The growth was adherent to the subclavian vein, so that part of that vessel had to be excised. The patient made a good recovery, and, I am informed, without suppuration. Arthrotomy was performed upon a young lady for the exploration of the knee, with removal of a slipping internal semilunar fibro-cartilage. After the operation the course of events was uneventful until the fifth day, when the temperature rose, the fauces became inflamed, and a red skin eruption appeared. The knee then became more painful, and some blood-stained fluid was

removed with an aspirator. This was examined by my colleague, Dr. L. W. Andrewes, and pronounced to be sterile. A small drainage tube was inserted, and slight suppuration occurred along its track and in the superficial part of the original wound. There followed a slight outbreak of eczema in the head and limbs which prevented the use of antiseptics other than boil and spirit lotion. Although this case was attended with great anxiety, the joint escaped without damage, and now possesses its full range of movement.

This is the only one out of numerous arthrotomies which has given me anxiety. The sanitation of the house was modern and seemed to be without a flaw, and the suppuration may have been, and probably was, caused by infection from the skin, for the patient was eczematous; but, on the other hand, the high temperature, the inflammation of the fauces, and the cutaneous eruption seemed to indicate the onset of one of the exanthemata. One would like to offer this to you as an explanation of the septic infection, but candour compels me to say that I have seen attacks of measles and of chicken pox produce no ill-effects upon operation wounds. I can believe that sepsis might be conveyed by the blood stream from the ulcerated fauces of scarlet fever or diphtheria, but not in cases devoid of ulceration or suppuration. The rest of the cases healed by first intention. This gives a proportion of one case of suppuration and one of healing by granulation in fifty-five, or, including both, 3.03 per cent. of sepsis.

In London and its suburbs small private hospitals or nursing homes have multiplied in a remarkable manner. As yet, so far as I am aware, none has been built for the actual purposes of a hospital. All those with which I am acquainted have been started in private houses which have been altered and adapted to serve the new purpose. That they serve the purpose exceedingly well will be acknowledged on every hand, and those in charge having been, as a rule, nurses or sisters at large hospitals, are thoroughly acquainted with and devoted to their duties. A new building planned for the special purposes of a private hospital would probably be quieter and more convenient, but could hardly possess better operating theatres, or better rooms and appliances than are now available in these nursing homes.

The operations performed in nursing homes are not strictly comparable to those performed in private houses. Amongst them were some of great severity, and therefore requiring to be within range of prompt attention. The operations included radical cure of hernia, appendectomy, ovariotomy, amputation of the breast, amputation of the breast with removal of pectoral muscles and of the axillary glands, nephrectomy, nephrorraphy, excision of varicose veins, laparotomy, and so forth. Two of the patients had double operations performed on them.

Eighty-two out of ninety-two wounds had healed by first intention when the patients left the nursing home. The wound made for the removal of an exostosis of the tibia was slightly pulled apart by premature walking. Twice after removal of the breast pectoral muscles, and axillary lymphatics, a very small portion of the edge of the skin necrosed so that a small part healed by granulation, the rest *per primam*. Seven wounds were septic, about 7·6 per cent. So far as I can tell the causes of sepsis were as follows:

[illegible]

The [illegible] adherent very [illegible] for the first two or three days after the operation.

A hernial sac was removed from beneath the gluteus maximus, the latter being separated in the direction of its fibres. The wound sweated [illegible] and had to be drained. The hernial sac which escaped suppuration was slightly contused and its mesentery was raised. After the septic cut had escaped recovery was rapid and perfect.

A large [illegible] was removed in two pieces. No drain was inserted. A knuckle of intestine formed and was removed. The wound healed in part by granulation.

Radical cure of inguinal hernia was performed on both sides. The right side healed by first intention. A small knuckle formed on the left, followed by very slight suppuration and the extrusion of one of the deep sutures.

Suppuration occurred under the following circumstances after the radical cure of inguinal hernia in a patient weighing 19 st. On the right side he had an enormous scrotal hernia, which was irreducible and liable to attacks of obstruction. It also prevented him from following his occupation and rendered his life a misery. The sac contained a part of the transverse colon, nearly the whole of the great omentum, the caecum and vermiform appendix, most of the right colon, and some part of ileum. The right colon was adherent to the posterior wall of the sac and was difficult to reduce. The great omentum was excised and found to weigh 2½ lb. The abdominal wall was repaired with silkworm gut and a drain inserted into the wound, which was large and deep. Next day the scrotum was distended and the right testicle was very tender and inflamed. When this had subsided the wound, which had apparently healed, became painful and some very fetid pus escaped. This was not followed by the loss of any of the buried sutures. I cannot help suspecting that the right colon may have been pierced by one of the deep sutures. The ultimate result of this formidable operation has been highly satisfactory.

You will have noted that I said that eighty-two patients left the nursing homes with their wounds healed: but I know that two of these afterwards each developed a small sinus, and lost some buried sutures. These cases have both been mentioned before when speaking about the fate of buried silk.

In one a very small haematoma formed beneath the skin of an appendectomy wound. The blood was let out, and the wound healed. The patient returned home within three weeks, but, as I have just said, a small sinus formed, and some of the silk escaped. In the other case, also, of appendectomy, the disease was tuberculous, and although the wound healed, and remained healed for some time, nevertheless a small sinus with some fungating granulation tissues formed, and I believe some silk was extruded. In this case some of the silk ligatures were placed upon tissue which was tuberculous, and it is most doubtful whether this ought ever to be done. In future I shall use biniodide catgut for tuberculous tissues. Obviously, these operations performed in nursing homes do not compare favourably with those in private houses, but, as I have already said, they are not strictly comparable.

The hospital operations were performed in St. Bartholomew's. The wards of that institution are more than 150 years old. Efforts have at various times been made to improve them by building sanitary towers, by refloorings, and by heating and ventilating. But the effort to alter and modernize old hospital buildings is hopeless, and the St. Bartholomew's wards remain exceedingly inconvenient when judged by modern standards. But the time is approaching when they will be replaced by modern structures supplied with ample air-space, light, and ventilation. Out of 175 wounds inflicted in the hospital, 153 healed by first intention, 10 had some suppuration, and 12 others had necrosis of some portion of a skin flap, so that a portion of the wound healed by granulation; also a laparotomy wound which had its sutures removed too soon. Omitting these, the percentage of suppuration is approximately 6.

Amongst the wounds which healed by first intention are included two amputations of the thigh for gangrene of the leg. The circumstances were rather unusual.

An elderly woman was afflicted with a large uterine fibroid, and her left leg threatened to become gangrenous. At the request of my colleague, Dr. [illegible], I performed hysterectomy. Although this operation was well borne and recovery, gangrene of the leg progressed, and it ought to be amputated. The wound healed by first intention, but [illegible] owing to a mental illness which supervened. The second case was that of a boy who had the knee flexed [illegible]. He came to have it straightened, but the [illegible] to see whether resection could not be done. The [illegible] with extreme difficulty, and soon the foot became gangrenous, and amputation had to be performed.

Thus we have a case in which a hysterectomy wound healed perfectly in spite of the presence of a gangrenous limb, and two wounds which healed perfectly after the removal of a gangrenous limb. The explanation is simple. The limbs were dead, but not infective. The amputations were done before the dead tissues were teeming with bacteria.

It would be misleading to say that 5.84 per cent. of suppuration had occurred without giving brief details of the cases. Suppuration varies in quality as well as in quantity. Not a little also depends upon the selection of cases. I have only rejected operations in which pus, a septic sinus, or a septic cavity was present at the time of the operation. I venture to think that something is to be learnt from the brief details of these cases. They are as follows:

1. The elbow was resected for advanced tuberculous disease, with much destruction of the articular cartilages, and of the humerus and ulna. It is believed that the whole of the tuberculous synovial membrane and bone was taken away. The case did exceedingly well, although a little pus was discharged from the wound. The patient had had tuberculous caries of the spine and a psoas abscess.

Cases of this kind raise the important question of the incidence of suppuration after operations for tuberculous disease. I believe that these cases would not be more liable than others to suppurate, provided that every vestige of the tuberculous disease had been removed, and that no tuberculous material had been smeared over or rubbed into the freshly-cut tissues. But in most instances it is impracticable to fulfil one or both of those requirements, and, therefore, the chances of suppuration are increased. Should suppuration occur, as it did in this case of resection, its onset is insidious and unaccompanied by marked alterations in the pulse-rate or temperature. Clearly, a wound in which there is reason to suspect the presence of tuberculous infection must be treated with special precautions. And, first, I use a drainage tube more frequently than for other cases. Next, it is injudicious to use silk for ligatures or buried sutures; prepared catgut is safest. Should catgut become infected with tubercle it does not stay long in the wound. And, lastly, I believe in the virtues of iodoform as an application and as a dressing. A little finely powdered crystals of iodoform is rubbed into the wound, and an iodoform gauze dressing is applied. Iodoform has to be used with great discretion, and it might be injudicious to put it into the cavity of a psoas abscess, although it may be used with safety in smaller cavities or wounds.

2. Another tuberculous wound suppurated and healed by granulation. A number of tuberculous glands, together with a large piece of tuberculous skin, were removed from a man's neck, the wound was brought together, but with a considerable strain upon the sutures, and in the end it tore apart and the wound had to heal by granulation.

3. The radical cure of femoral hernia was followed by slight suppuration and the loss of a buried suture.

4. Radical cure of hernia was performed on both sides for a man with double inguinal hernia. The right side was a simple operation, and the wound healed by first intention. The left side was much more difficult as the sac contained omentum which was adherent at its neck. After the adhesions had been separated and the omentum ligatured and removed some blood welled out of the abdomen. The abdominal wall was freely divided, and the omentum again secured, although it had ceased to bleed. The peritoneal muscular, aponeurotic, and cutaneous layers of the abdominal wall were fastened together with silk sutures. The whole operation lasted two hours and twenty minutes. Ultimately there was slight subacute suppuration on the right side and two deep sutures were lost. The things which predisposed to this sepsis were probably (a) The prolonged exposure to the atmosphere, (b) the bleeding, (c) the insertion of silk sutures into the subcutaneous stratum.

5 and 6. Laminectomy is not a frequent operation in my experience, but the small number that I have attempted have been followed by a very unusual and disconcerting amount of sepsis.

A youth fell from a height of 40 ft. upon his back, and became completely paralysed below the level of the seventh intercostal space. Three weeks after the accident the spines and laminae of the third, fourth, and fifth dorsal vertebrae were removed, and an epidural haemorrhage was found. After being in the hospital for over a year he was discharged much improved, with partial return of sensation and voluntary control of the bladder and rectum, and a partial recognition of the muscles of the lower extremities, all of which reacted readily, though weakly, to electric excitation. Such is the report of my colleague, Mr. Bailey, who was then surgical registrar, but he omits to say that when the dressings were removed there was slight suppuration at one or two of the silk sutures. Fortunately this did not spread, but I certainly felt very anxious when I saw it. I think it should be reported that all cases of suppuration are not recorded in the statistical tables of all of our hospitals.

Laminectomy was also performed to try and find a tumour of the spinal cord. The theca of the cord was healed at the point where the tumour was supposed to be, but when the theca was opened no tumour could be seen. The cord was displaced after division of nerve roots, but still no tumour was in sight. The operation was followed by slight temporary improvement, although there was some suppuration in the superficial part of the wound and at some of the stitch holes. This patient died a month later of ascending pyelo-nephritis and with a parotid abscess. The wound was healed except at one stitch hole. The theca was healed and there was no sepsis about or within it. After the spinal cord had been taken out and cut across a long narrow tumour was found in the anterior fissure, and at the exact level at which my colleague, Dr. Lewis Jones, had diagnosed it.

In the first case I doubt not that the skin of the back was the source of infection, as it may also have been in the second case. The skin of the back is exceedingly thick, almost the thickest in the whole body. Moreover, it abounds in large sebaceous glands and sweat glands. Owing to the recumbent position of the patient the wound and dressings become bathed in perspiration. In a recent case of laminectomy I did my best to avoid these pitfalls, and the wound healed by first intention in spite of the presence of a septic bedsore over the sacrum.

I have heard it said that these paralysed patients are more predisposed to sepsis than the ordinary run, but I doubt whether this be true as regards wounds. The idea probably arises from the liability of the paralysed to suffer from retention of urine, with subsequent infection of the bladder, ureter, and kidneys.

7. An operation for ventrifixation of the uterus was followed by suppuration, but, rather to my surprise, I was told that no deep sutures had come out. Before performing this operation I was aware that there had been severe sepsis amongst the cases operated upon in the same theatre and ward. This did not deter me from operating, because I was then firm in the belief that wounds only became infected by contact, and that the methods I employed were an efficient safeguard against that danger. I am beginning to attach more importance to environment.

8. The mammary gland, pectoral muscles, and axillary lymphatics were excised for carcinoma. A portion of the skin flap sloughed and there was slight suppuration beneath it. The patient was 67 years old, and suffered from asthma and bronchitis. A severe cough is a troublesome complication when the wound involves the chest wall, as the entrance of air is prevented with difficulty.

9 and 10. Double radical cure of inguinal hernia was performed upon a porter. Small haematomata formed on both sides and became septic. None of the deep stitches were extruded, and the wound speedily healed. Stitches from the wound infected culture media, but unfortunately no cultures were made at the time of operation.

It is rather difficult to classify some cases. For instance, in carcinoma of the lymphatic glands of the neck secondary to carcinoma of the tongue I have imitated Mr. Butlin, and begun by turning the whole of the skin from off the anterior triangle of the neck by a large flap.

In four consecutive cases a small portion of the flap died, and a part of the wound had to heal by granulation. Now it might be said that the death of a small portion of a flap under such circumstances was not a very great misfortune. But this, to my mind, is not the right way of thinking. The operation is not a perfect success unless all the flap survives and all the wound heals by first intention. I have tried turning the flap backwards with its attached base along the anterior edge of the sterno-mastoid muscle, and I have tried turning it forward with its base along the middle line of the neck. On the whole, I think it is best to turn the flap back. But, unfortunately, the skin of the neck is very thin, and it seems difficult to include the platysma and deep fascia in the thickness of the flap. But the survival of these long skin flaps is, as I have already remarked, not altogether a question of blood supply. When the wound is aseptic, long thin non-vascular flaps adhere and survive, whereas in the presence of infection they would inevitably have perished. The aseptic process is more akin to Thiersch's skin grafting than to any ordinary skin-flap operation.

In six cases of removal of the breast, pectoral muscles, and axillary lymphatics a small portion of the edge or tip of the extensive skin flap necrosed, and a very small part had to heal by granulation. Healing by granulation occurred in the superficial part of a laparotomy wound for gastro-enterostomy. A hasty house-surgeon removed the sutures prematurely.

Mr. Scott, to whom I am much obliged, has quite independently tabulated the results of the operations which I did during his house-surgeoncy. It is interesting to note how his estimate accords with my own, provided that the case with a pre-existing septic sinus be omitted, and, be it noted, that one of Mr. Scott's patients had two suppurating wounds.

Total wounds, 60; healed by first intention, 50 = 83.5 per cent.; remaining, 7.

Of these 7 cases, 2 had some necrosis of flap without sepsis; 1 had necrosis of flap with sepsis, but in this case there was a septic sinus at the time of operation; 1 suppurated with loss of sutures; 1 suppurated without loss of sutures, or time, one of them being a case of double radical cure in which both sides suppurated. Mr. Scott notes the suppuration at 5.5 per cent., and taking the case with pre-existing septic sinus.

Some of the operations which were followed by suppuration took a very long time to perform. What influence has the duration of an operation upon the chances of infection?

Assuming that the atmospheric bacteria are harmless (an assumption which cannot for one moment be granted) then there is no reason why the wound should be infected either at the beginning, the middle, or the end of the operation. But a surgical operation is a bacteriological experiment, and what bacteriologist would expose his culture media to the atmosphere for a couple of hours, and during all that time keep stirring them up? To ensure success bacteriological experiments must be done quickly and quietly, and so must surgical operations.

I can recall a few operations which have taken more than ninety minutes, and they have been followed by a larger proportion of sepsis than those of shorter duration.

Of course, the long exposure to atmospheric infection is not the only reason for this sepsis. I have already mentioned a case of radical cure of hernia in a very stout subject. Owing to his depth of fat a very big incision was required, and during the operation the loose and oily fat became bruised and full of clotted blood. Another very stout patient had an inguinal hernia full of inflamed and adherent omentum. The haemorrhage from the omentum was very free in spite of chain sutures of stout silk. Ultimately the wound had to be enlarged. The operation lasted two hours and a quarter. The patient made good progress, and left the nursing home at the end of three weeks with the wound soundly healed. Afterwards some pus formed beneath the scar, and after it had been let out some of the buried silk separated. Here, again, the thick layer of subcutaneous fat was bruised and infiltrated with clotted blood. As no drain was inserted, some blood may have collected in the depths of the wound.

Some wounds are easier than others to protect against atmospheric infection. Most abdominal wounds are of this nature. In the removal of the mammary gland, pectoral muscles, and axillary lymphatics, it is easy to protect the greater part of the huge wound with layers of antiseptic gauze.

It is difficult to see what effect any change in environment could have had upon this series of cases. In them the escape of blood into the wound and tissues around was the usual precursor of sepsis. The human blood is a most troublesome fluid; I sometimes wonder why the vessels should be filled with so strange a mixture. I often ask—but have never yet been told why—our own blood should clot and cause our own tissues to inflame? How often we meet with a sequence of events such as this: Blood shed into a serous cavity, into a joint, or amongst the tissues; clotting of the blood, and then inflammation of the tissues in contact with the clot; and, perchance, infection of the clot followed by its conversion into matter; for, although the infection usually comes from without it may come from within, being carried by the blood stream or by the lymphatics.

These phenomena are clearly displayed in cases of subcutaneous injury, such, for instance, as a fracture of the patella. Some would ascribe the inflammation which ensues to the breaking of the bone and the tearing of the tissues, but I should ascribe it mainly to the extravasation of the blood. And acting on this belief, I take the greatest pains when wiring the patella to remove every particle of clot. In the subcutaneous operations which have been devised for fractured patella the clot is, of course, not taken away. But this is a telling objection to that method of operation compared with another (or subcutaneous methods do not take away the piece of dorsal aponeurosis which always falls between the fragments.

The inflammatory effects of extravasated blood are very marked when it is in contact with that sensitive membrane the peritoneum. Twice I have been requested to operate for appendicitis and found instead a haematosalpinx. To my mind the case was clear. At the operation I saw the area of inflamed, engorged, and swollen peritoneum around the ovary, and clinically the pain, elevation of temperature, and acceleration of the pulse had all seemed to justify the diagnosis. I suppose a physiologist could tell us exactly which element in the blood-clot excited the inflammation, which raised the temperature, and which accelerated the pulse.

I have on three occasions seen the mesenteric vessels bleed into the abdomen after radical cure of hernia. The signs of peritonitis were very marked, and once they were of the most septic type. The infection must have been introduced at the operation, for the operator had had no other cases of peritonitis. I am sure that but for bleeding occurred the fatal case would not have been recorded. But when blood-clot is close to the intestines it may be invaded from them internally, the intestinal bacteria finding their way through the coats of the intestines when the latter are inflamed or infiltrated with blood.

Although I have not had to tell you of a single instance of general septic infection, or even a single one of progressive suppuration, I am not contented, and fervently hope that better results may in future be obtained.

Note and References

[1] *Trans. Med. Soc. Lond.*, vol. xv. (1891), p. 4 et seq. [2] Ibid., vol. xx. p. 97 et seq. [3] [illegible] Surgical Registrar, *Statistics of Cases of St. Bartholomew's Hospital*, 1901, p. 14. [4] Wounds of usual character, and including radical cure of hernia, appendicectomy, intestinal anastomosis, amputation of breast and thigh, excision of knee, and so forth.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

POTATOES AND GLYCOSURIA.

I have seen lately potatoes mentioned as being more wholesome than ordinary bread for diabetics.

A patient, aged 57, with slight alimentary glycosuria, thought potatoes did not suit him. I found that after a luncheon of chop and plenty of bread there was no sugar in the urine, but an hour after a chop and plenty of potatoes, there was a large amount of sugar (I did not estimate it quantitatively.)

Thinking it over lately I made an infusion of a little well-boiled mealy potato in warm distilled water, and to my surprise found a large amount of grape sugar both by the copper and the phenyl-hydrazin test. Therefore potatoes, though an excellent food, are not good for diabetics.

If I have the opportunity I will see how new potatoes (when they come in) suit my patient.

Stourbridge. George Birt, M.B.Lond.

A NEW METHOD FOR DETECTING PLAGUE BACILLI IN THE BLOOD.

It has hitherto been held that plague bacilli only occur in the general circulation in few cases, or at most when the patient dying. This is an error which has arisen from faulty methods of examining the blood films; the bacilli can be found in all cases and at all stages, and a case can be diagnosed almost as easily as a case of malaria.

In working at malaria with Ross's method it struck me that the same method would be as it has proved to be as useful in filarial blood, and a happy inspiration led me to examine a case of plague in the same manner, and, to my surprise, numbers of bacilli were easily found.

We—that is myself and Dr. Laing, assistant superintendent—have now examined numbers of cases, mostly on the first or second day of illness, and in every case the result has been positive. It is only necessary to make the film a little thinner and a little more spread out than in working at malaria to obtain good results.

J. Bell.

Superintendent, Government Civil Hospital, Hong Kong.

THE TREATMENT OF HAEMOGLOBINURIC FEVER.

The treatment of haemoglobinuric fever in British Central Africa has occupied the attention of Protectorate medical officers since 1895. Owing to lack of experience of the disease no particular line of treatment was at first followed, and such cases as were not treated with small doses of quinine were treated symptomatically.

In 1895 and the year following several cases came under observation, both at Zomba and Fort Johnston, and about this time Dr. Steudel, of the German Imperial Government, published a paper in which he strongly advocated the administration of large doses of quinine in the treatment of this disease—about 60 gr. per diem; supporting his recommendation of these large doses by quoting a remarkable number of recoveries in his experience on the East Coast.

In the absence of any guide to treatment his method was more or less adopted in this Protectorate, and the mortality from haemoglobinuric fever during the years 1896, 1897, and 1898 was estimated at about 33 per cent. The cases which then presented themselves appeared to be of a severe type, and death from suppression of urine was the termination in the majority of the fatal cases.

Early in 1899, and after an experience of several cases of

this disease, I failed to recognize the therapeutic value of quinine, more especially as I found that in cases where vomiting was a predominant feature, and in which the quinine given was immediately rejected (and therefore discontinued) the number of recoveries compared favourably with these treated with quinine. I was therefore led to abandon the use of this drug, and to substitute a modification of the Sternberg line of treatment adopted in yellow fever.

I have now treated 18 consecutive cases of haemoglobinuric fever without a single death, and as these recoveries cannot therefore be regarded as fortuitous, in view of the number of cases thus successfully dealt with, the treatment substituted appears to me to be deserving of a more extended trial.

Sodium bicarbonate and liquor hydrargyri perchloridi are the drugs employed: in doses of 10 gr. of the former and 30 minims of the latter. The combined action of these two drugs being antacid, diuretic, and gastro-intestinal disinfectant, vomiting is allayed, if not effectually checked, and diuresis is freely established. Under this treatment not a single case of suppression of urine has occurred—a symptom which is invariably fatal. The mixture is given every two hours for the first twenty-four hours, and subsequently every three hours until the urine is free of haemoglobin. No ill-effects whatever have been observed in the 18 cases in which it has been successfully employed, notwithstanding that in 4 of these there were relapses, and the mixture was again continued.

With regard to diet, fluid nourishment consisting of milk and barley water is given frequently and in small quantities. Benger's food is of great value, as it can be readily prepared and is easily digested. Brand's essence of chicken, and Valentine's meat juice are also of value. As a stimulant brandy is given to the exclusion of champagne, and in fact all acid drinks are prohibited. During convalescence, especially in view of the anaemia, it is always advisable to administer ferruginous tonics, and for this purpose the scaly preparations of iron have been found most suitable.

H. Hearsey,
Principal Medical Officer, British Central Africa.

PERFORATIVE TYPHLITIS: OPERATION: RECOVERY.

One sees so few cases of typhlitis recorded that the following seems worth publishing:

On July 13th, 1903, I saw in the evening a girl, aged 20, who gave a history of having been taken with pain in the abdomen the day before, which had since become worse with violent vomiting. Her abdomen was rigid, very tender over the caecum, pulse 105, temperature 100°, vomiting very frequent. She said she had had similar attacks before, but "never bad enough to see a doctor for." The next morning vomiting had ceased, but the temperature was 103° and the pulse 120.

In the evening I operated, cutting down over the appendix in the usual way. On opening the abdomen there was active peritonitis, pus with faeculent odour welled up, and on sponging it out I found on the outer wall of the caecum a triangular-shaped slough through which pus came; in its immediate neighbourhood were several yellow points on the peritoneal covering of the caecum all more or less triangular in shape which had not actually given way. The appendix itself was oedematous, but on removal was perfectly healthy. The caecum had no mesentery, so it was very difficult to reach, but the affected part of the wall was tucked in on itself with silk sutures in a double layer, a strip of iodoform gauze laid over it and a Keith tube put into the pelvis, where pus at once welled up.

For about three weeks after operation faecal smelling pus discharged, but there was never any flatus, and although all sutures broke away, the wound rapidly granulated, and she is now quite well.

There was no apparent cause for the attack, and no obvious reason why a small area of the outer wall of the caecum should be alone affected. The peculiar shape of the sloughs on the peritoneum suggested that the muscular fibres had limited the extension of the sloughing.

A. E. Kennedy, jun.
Plaistow, E. Honorary Surgeon Maternity Charity.

CASE OF POISONING BY PHENACETIN AND ANTIKAMNIA.

On June 10th, 1903, I was called between 2 and 3 o'clock in the afternoon to see a patient, who, I was told, had urgent need of me.

On arrival I found the lady, who is over 40 years of age, sitting up in bed. She seemed much alarmed, her face was pinched, pale, and anxious, her lips purple, the eyes small, the fingers and nails purple. She gave me the following history:

Feeling feverish in the morning she had sent to a chemist for 10 gr. each of phenacetin and antikamnia. The order was a written one, and failing to dot her "i," the word was read "grams" instead of "grains," so that 10 grams of each drug were sent her. Too ill to take it herself, she asked her maid to mix a half of each powder for her. This she took, remarking on the largeness of the dose, yet not suspecting any risk. She immediately vomited, bringing up a thick, whitish material. This was about 10 a.m. After several hours she began to feel ill, and so telephoned to know what dose had been sent her. Strangly enough the clerk who had sold her 10 gr. the day before, answered, and assured her that he had sent only 10 gr. A little later, still feeling ill, she caught sight of her face in the mirror, and was alarmed by the appearance I have described: and then also she noticed the colour of her hands and nails.

My astonishment was very great when I saw how little she had been affected by, as I thought, a dose of 75 gr. each of phenacetin and antikamnia. She then mentioned her having vomited, and this, along with the fact of its having been taken nearly six hours before, somewhat reassured me. Her heart and respiration were scarcely affected, the most troublesome symptoms being the feeling of cold and prostration, and profuse perspiration.

I ordered some diffusible stimulants. The result of these, together with an assurance of there being no special danger, soon restored my patient to her ordinary state.

It seems strange that having taken 5 gr. of each drug the day before she should have swallowed fifteen times that amount for the same dose. She certainly must have brought up the larger part of the dose, or the results would most likely have been much more serious,

Trinidad, B.W.I. Stephen M. Laurence, M.B., C.M.Edin.

TREATMENT OF ANKYLOSTOMIASIS.

Professor Stockman contributes to the British Medical Journal of July 25th, 1903, an interesting note on a case of ankylostomiasis in Scotland. There are, however, some misleading features in this report, which I beg Professor Stockman will pardon my criticizing.

It is by no means the experience of those who deal largely with ankylostomes that they "are readily killed by large doses of thymol." My own routine is to give 30 gr. of thymol in powder at 4, 6, 8 and 10 a.m. on an empty stomach, followed by 1 oz. of castor oil at 6 p.m.—that is, I use 120 gr. for the first treatment. Experiment has proved the inefficiency of smaller doses. About half the cases are not freed from the parasite even with this large dosage. The most obstinate cases I have met, of which I give the notes, shows that the ankylostome may be extremely resistant to thymol.

J. W., aged 27, white labourer.
July 13th. Given thymol, 30 gr. four times.
July 20th. Faeces contain ova of ankylostoma and ascaris.
July 23rd. Thymol, 30 gr. four times.
August 4th. Faeces contain ova of ankylostoma.
August 11th. Thymol, 40 gr. four times.
August 21st. Faeces contain ova of ankylostoma.
September 8th. Thymol, 50 gr. four times.
At the present date the faeces have not yet been re-examined.

This dose of 120 gr. of thymol is given regardless of age; children of 3 years take it with absolute impunity.

With respect to Professor Stockman's case, it will be noticed that the worms were never found on washing the stools. He supposes they were all expelled by a single dose of 20 gr. I am confident that at most only three or four worms were passed after such a small dose. It is to be observed that ova were found on June 10th, five days after the last dose of thymol, proving that the worms were not all expelled.

The improvement of the patient is to be attributed to the fact that he was given iron. This will always happen, except in very advanced cases; the anaemia will improve as long as the patient is taking iron, but will recur again and again until the parasites are eliminated.

I would suggest to Professor Stockman to observe his case some months hence, when I expect he will find him as anaemic as ever.

C. W. Branch, M.B., C.M.Edin.
Colony Hospital, St. Vincent, B.W.I.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOLVERHAMPTON GENERAL HOSPITAL.

CASE OF [illegible] FRACTURE OF FEMUR.

(By [illegible], M.B., B.S.Lond., Resident Medical Officer. Under the care of W. L. Critchley, F.R.C.S., Assistant Surgeon.)

S. K., aged [illegible], was walking along the pavement when, according to [illegible], she slipped on a piece of orange peel and fell forward. She was found to have a fracture of the right femur in its upper third. This was treated in the usual manner, but at the end of twenty weeks it was still ununited. I was then asked to see the case with a view to operative interference.

State on Admission.—I found the usual signs of a fractured femur in the upper third with no attempt at union. There was also some swelling and pain at position of fracture [illegible] to a considerable, but not much. I advised the patient to have me expose the fracture and do what I thought necessary to promote union.

Operation.—On March 17th, 1903, three days after I first saw her, the patient was given ether, and I proceeded to expose the femur through a long incision on the outer side of thigh, [illegible] just below the top of the great trochanter. Just [illegible] reaching the bone the knife tapped a collection of fluid, letting out some turbid fluid containing flakes of lymph. On enlarging the opening a large quantity of the same fluid came away, and with it several small [illegible] hydatid cysts. The fractured ends of the femur were felt to have been lying in this collection. The [illegible] was immediately above the small trochanter. The upper fragment was in front of the lower, and on examination was found to be filled with material composed of closely-packed cysts about the size of a No. 3 shot and some larger ones. These were held together by what appeared to be the [illegible] of connective tissue. It looked as if each "cancellus" [illegible] had a small cyst. This material, which spread [illegible] as far as the top of the great trochanter, was carefully scraped out with a sharp scoop, leaving only a thin and [illegible] shell of bone, which in one place was perforated [illegible]. Here a few hydatids were found in the soft [illegible]. I found that the hydatids had not spread into the [illegible] of the neck, as when all the soft material [illegible] the remaining bone felt hard and healthy. [illegible] was next examined. The medullary [illegible] in the lower end of the femur was filled with [illegible] some material like that found [illegible]. It was removed in the same way [illegible] well. The last part of the wall [illegible] the end of a large finger, [illegible] the bleeding was arrested. The [illegible] of the [illegible] thinned or expended except close [illegible]. The [illegible] was thoroughly [illegible] with [illegible] solution. I [illegible] and by means of a [illegible] wire [illegible] to fit [illegible]. Owing to the thinning and [illegible] of the upper fragment, I [illegible] hope that the wire would prevent them from [illegible] keep the fracture intact. By a [illegible] I brought the [illegible] and [illegible] a drainage tube [illegible] the [illegible] and [illegible] with [illegible] of the thigh.

Progress.—The patient progressed fairly well for some [illegible]. [illegible] after the operation the splint [illegible] but the [illegible] was still [illegible] during [illegible] to be very [illegible] Along the middle of almost the [illegible] There was much swelling [illegible] of hip, [illegible] [illegible] slight [illegible] to [illegible] I decided to examine [illegible] to amputate.

Second Operation.—On August 20th the patient was given [illegible] and the [illegible] exposed through the [illegible] to the wire. The [illegible] and was removed. The upper fragment was [illegible] filled up with the same material as at first, and the disease had spread to the soft parts. The upper fragment was more expanded and the bone thinner. There was not the slightest attempt at repair of the fracture. Considering it useless to try any further to save the limb, I amputated at the hip-joint. I fully expected to find that the hydatids had spread into the head of the femur, if not into the hip-joint. Hæmorrhage was controlled by a rubber band kept in position by two long steel female bladder sounds, used as Wyeth's pins. Very little blood was lost. The upper fragment came away in pieces, breaking off through the neck. In fact, there was very little bone in the diseased part of the upper fragment. The soft tissues were very carefully examined for any appearance of hydatids and suspicious places cut away. The flaps were sewn together and drained with tubes in two places. The patient had very little shock, the loss of blood being so little.

Progress.—Convalescence was rather slow, owing chiefly, I think, to length of time she had been ill. The wound healed quickly with only little suppuration. The patient was allowed on a couch on September 9th, and was discharged on October 12th. Two months after the amputation there was no return of the disease, and the patient was rapidly increasing in weight.

REMARKS.—On splitting open the head and neck of the femur the hydatids were seen to have spread into the cancellous tissue of the head, but not any further. The cavity in the lower fragment was more than half filled with new bone, and there did not appear to be any return of the disease. Owing to the rarity of hydatid of bone, the disease did not occur to me in the first instance, or I should have obtained leave to amputate then. I very much doubt if the bones would ever have united firmly enough to be of any use even if I had been successful in removing all disease at the first operation. As I had not got the patient's consent to amputate, I was bound to endeavour to save the limb, though I considered amputation the best treatment. The swelling felt when the patient was first seen I looked upon as callus. The fluid obtained from some of the small cysts was examined under the microscope, and several scolices found.

WINDSOR AND ETON ROYAL INFIRMARY.

CASE OF STRANGULATION BY BAND, SIMULATING APPENDICITIS.

(By F. E. Wood, B.A., M.B., B.C.Cantab., House Surgeon to the Infirmary.)

IN view of the very instructive article in the BRITISH MEDICAL JOURNAL of February 28th, 1903, on Some Cases Simulating Acute Appendicitis, by Mr. Arthur E. Barker, the following case presents some points of interest, and is an addition to those given in his list.

History.—A schoolboy, 8 years old, came home from school one afternoon complaining of feeling cold and sick, but passed a fair night. When seen next day he complained of abdominal pain. There was tenderness and fullness over the cæcum. The tongue was furred, and his temperature was 101°. The third day there was still some tenderness and a definite swelling could be made out in the right iliac fossa. There was slight pain on micturition. The bowels had been open. The temperature was normal, and there was a subsequent uninterrupted convalescence. Ten days after the first attack the patient developed mumps. He was sick and again complained of abdominal pain. His temperature was 102°, but it fell to normal next day. The bowels acted naturally on the fourth day, the pain in the abdomen became more localised, being paroxysmal in nature and referred chiefly to the umbilical region. There was increasing tenderness and the sickness continued from the second day, practically everything being returned. On the sixth day the patient was admitted to the infirmary.

State on Admission.—He appeared to be in very bad condition, and complained of abdominal pain. The abdomen was [illegible] and did not move on respiration. There was tenderness and fullness in the right iliac fossa extending across to the [illegible]. The pulse was 120 and the temperature 101°. Soon after the patient had an attack of faecal vomiting and became very collapsed.

Operation.—Dr. North, senior surgeon to the infirmary, made an incision about 4½ in. in length over McBurney's point. On opening the peritoneal cavity a quantity of blood-stained fluid escaped. Following this were coils of dark red [illegible] intestine; these were pulled to one side, and a band was seen constricting a large portion of the gut. This was divided, and the region of the appendix was explored

but nothing abnormal was seen. An attempt was then made to return the gut, but this failed owing to the distension. The gut was then punctured in three places and the contents squeezed out; one stitch was put in over the largest puncture, then, after great difficulty, the gut was returned, and the wound in the abdominal wall sutured, and a rectal tube was passed.

Progress. After the operation the patient was very collapsed; an enema of brandy and milk was given. These were continued for some time. On the day following the operation milk and water were given by the mouth, and as no sickness occurred feeding by the mouth was continued. The bowels were also moved, the motion being very thin and offensive. From this time onward the patient progressed steadily, and was discharged from the infirmary six weeks after the operation quite well.

I have to thank Dr. Norris for his kind permission to use the notes of the case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Birmingham, Friday, February 12th, 1904.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Actinomycosis of Face.—Mr. LEEDHAM-GREEN showed a woman suffering from actinomycosis of the face in a characteristic form.

Modern Treatment of Fibromyoma of the Uterus. Dr. THOMAS WILSON read a paper on this subject under the following headings: The frequency and clinical importance of the affection; methods of treatment; indications for surgical treatment: operations by the vaginal and by the abdominal routes; differential indications; and results.—The paper was discussed by Mr. J. W. TAYLOR, Dr. PURSLOW, Dr. S. SAVAGE, Mr. OAKES, Mr. MORRISON, Dr. VOKES, and the PRESIDENT; and Dr. WILSON replied.

Disinfection of the Hands. Mr. LEEDHAM-GREEN read a paper, of which the following is a synopsis: An account of a long series of bacteriological experiments dealing with the cleansing and disinfection of the surgeon's hands: the relative value of the following cleansing and disinfecting agents: permanganate of potash and oxalic acid (Kelly's method); soap and hot water, followed by plain alcohol (Ahlfeld's method); alcohol, followed by an aqueous solution of perchloride of mercury (Fürbringer's method); "sublamin" (mercuric-sulphate-ethylenediamine); lysol, biniodide of mercury, and other aqueous antiseptic solutions; alcoholic solutions of biniodide and perchloride of mercury; spirit soaps.

HONG KONG AND CHINA BRANCH.

AT a meeting of this Branch held on January 25th, Colonel W. E. WEBB, P.M.O., M.D., in the chair, Dr. F. O. STEDMAN read notes on a case of extrauterine fetation.—Dr. E. A. R. LAING read notes on a case of purpura haemorrhagica. The case ended fatally, and a portion of the large intestine was shown thickly covered with minute ulcers. Dr. O. MARRIOTT read some notes on the treatment of phthisis by intravenous injection of formalin. The paper was discussed by the PRESIDENT, Dr. W. V. M. ROCH, Dr. STEDMAN, and the Hon. Dr. ATKINSON. Dr. MARRIOTT having replied, a vote of thanks was passed for his interesting and valuable paper.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS DIVISION.

AT an ordinary meeting of this Division in the University College Hospital on February 25th, Dr. WYNN WESTCOTT in the chair, and a good attendance of members, Dr. THIELE gave a pathological demonstration in the clinical theatre, showing the following specimens: Hydatids of the liver, large clot in pulmonary artery, mitral stenosis with hypertrophy of right ventricle, tuberculous ulcers of intestine, amyloid degeneration of the liver, infarct of spleen, cellulitis of the stomach. Dr. Thiele also showed some very interesting microscopical specimens.—Dr. BOWS conducted the members through several of the wards of the hospital, explaining some cases, also showing the operation theatres.

NORTH OF ENGLAND BRANCH: TYNESIDE DIVISION.

North Shields, February 4th, 1904.

R. S. PEART, M.D., in the Chair.

Cases. Dr. ADAMS showed a girl with pneumothorax. The condition had arisen suddenly during an attack of coughing. There was bulging of the third, fourth, and fifth intercostal spaces on the right side, and over this region a tympanitic note and the bell sound were clearly elicited. The apex beat was displaced outside the left nipple line. The child was improving under treatment.—Dr. A. A. MARTIN showed a girl with empyema of the antrum of Highmore. There was a swelling over the situation of the antrum of four years' duration, the right nostril was narrowed from bulging inwards of the inner wall of antrum. The hard palate on the right side was depressed. Dr. Martin proposed to drain the antrum through the socket of the anterior molar (which had been removed) and this treatment has since been successfully adopted.—Dr. F. C. MEARS showed two cases of bow-leg and knock-knee treated by Macewen's osteotomy and cuneiform osteotomy of the tibia. The results in both cases were very good.—Dr. LACHLAN FRASER showed: (1) A girl after operation for perforating gastric ulcer; (2) a boy after Phelps's new operation for talipes. This had been a case of talipes equino-varus of the third degree in both feet. The operation (division of the neck of the astragalus) was performed three years ago: the child was now plantigrade, and there was no tendency to varus; no steels had been worn. (3) A case of ectopia vesicae in a girl aged 2 years. In this case Dr. Fraser had made an unsuccessful attempt to close in the bladder by lateral skin flaps and Thiersch grafts from the mucous membrane of a dog's bladder.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

Barrow-in-Furness, Wednesday, February 24th, 1904.

A. W. COLLINS, M.D., President-elect, in the Chair.

Hour-glass Contraction of the Uterus. Dr. A. W. COLLINS gave a short description of two cases of hour-glass contraction of the uterus which had recently come under his notice. The causation was obscure. Ergot had been given in one case, but not in the other.

Fatal Case of Poisoning by Potassium Bromide.—Dr. J. W. FAWCITT read notes on a fatal case of poisoning by potassium bromide which had been administered by a quack to a girl suffering from *petit mal*. The patient died comatose. The amount taken could not be ascertained.

Three Cases of Erysipelas. Dr. G. ALEXANDER made remarks on three cases of erysipelas. In one case facial erysipelas attacked a woman four days before her confinement. The latter ran a normal course, and Dr. Alexander threw out as a conjecture that possibly the development of antitoxins in the blood acted as a protective. In another case the disease came on a few days after vaccination, but was confined to the fore-arm, the points of inoculation being unaffected.

Midwives Act.—Dr. J. LIVINGSTON, in an instructive paper, exposed some of the more objectionable features in the Midwives Act. After a short discussion it was decided to leave the Furness Division to deal with the matter.

Cases, etc. Dr. A. J. CROSS showed a boy affected with typical myositis ossificans.—Dr. J. A. REED showed a baby suffering from hydrocephalus, spina bifida, and talipes.

Specimens. The following specimens were exhibited: Dr. A. F. RUTHERFORD: Collection of bisected eyeballs illustrating various diseases, stereograms of ophthalmic subjects and an epithelioma of the cornea, kindly lent by Mr. Simeon Snell of Sheffield. Dr. J. TERRELL WILLIAMS: Series of vesical calculi removed by lithotomy. Dr. J. S. SHELFORD: Ruptured Fallopian tube removed by laparotomy.—Dr. H. L. MUNRO: Sebaceous horn removed from head.—Mr. A. S. BARLING: (1) Cystic appendix; (2) pile-suture forceps.—Dr. W. H. COUPLAND: (1) Microscope slides; (2) ankylostoma duodenale; (3) section of omentum from a case of acute pancreatitis, showing fat necrosis; (4) chloroform-Auschütz.

Visit to North Lonsdale Hospital.—Several members visited the North Lonsdale Hospital, and were much interested in the new operation theatre. Subsequently the members dined together under the presidency of Dr. A. Carmichael.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.

Abergavenny, February 26th, 1904.

J. W. MULLIGAN, M.D., in the Chair.

Papers. Dr. W. T. NELIS read a paper on general paralysis of the insane. He pointed out that in this disease there was very little hope of recovery. Whilst insanity as a whole was not increasing, this disease was on the increase. In 50 per cent. of the cases a syphilitic history could be found. Continuous excitement, anxiety, alcohol must be in conjunction with other causes, and was not a direct cause in itself; injuries to the head might be an exciting cause. It was rare to find the element of heredity in the cases. The male sex was affected in the proportion of 5 to 1. The symptoms were frequently a degeneration of moral tone: the patient was restless, swaggering, boastful, extravagant, indecent. The speech became muttered and incoherent: it might be slow and deliberate, fibrillar tremor was often present during attempts to speak. The pupils might be unequal, dilated, or diminished. An epileptiform seizure might be the first sign of the disease. It was often impossible to distinguish this from an ordinary epileptic fit. Dr. Nelis showed several cases illustrating the various stages of the disease. The members were very greatly interested in the paper and demonstration. It was carried unanimously, on the proposition of Dr. MULLIGAN, seconded by Dr. LLOYD, and supported by Dr. W. D. STEEL, That Dr. Nelis be asked to publish his paper.

Mr. R. J. COULTER read a paper on the orthoptic treatment of concomitant strabismus, in which he referred to the various defects of vision which accompanied the obvious squint. He described the methods adopted for the curing of the amblyopia in the squinting eye: the importance of developing the power and range of fusion. He laid special stress on the fact that it was necessary to undertake the treatment of such cases at an early age, as it was impossible to get good results in children over six years old. Mr. Coulter demonstrated the use of the stereoscope in this class of case. He also showed the Worth amblyoscope, an instrument by which young children might first learn to see simultaneously two different parts of one picture, and, finally, to be able to combine two stereoscopic pictures of the same object. —The CHAIRMAN and several members thanked Mr. Coulter for his able and instructive paper. At this stage of the meeting the Chairman had to leave, and Dr. S. H. Steel was asked to take the chair. Mr. W. J. GREER then read a paper on surgical analgesia by spinal cocainization, in which he described the technique used at the Beaujon Hospital, Paris, by M. Tuffier, who had carried out the method in about 2 000 cases. He pointed out the vital importance of an absolutely rigid aseptic ritual in performing lumbar puncture. He said that the analgesia occurred in about fifteen minutes after the puncture, and that such extraperitoneal operations as those on the bladder, rectum, anus, perineum, vagina, uterus, urethra, prostate, etc., as well as operations for hernia, could be carried out without any pain. The phenomena which developed during the analgesia were numbness and prickings of the limbs, nausea, and a feeling of weight in the epigastrium, acceleration of the pulse; severe headache might follow, and a rise of temperature occur on the evening of the operation. He quoted a number of cases of death following the method but believed that as bacteriological research in the formation of fibrin had a place in anæsthesia. The paper was discussed by Dr. E. Y. STEELL, Dr. W. D. STEEL, Dr. D. J. Jones, Dr. MULLIGAN, and others.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNUAL GENERAL MEETING.

ALFRED WILLETT, F.R.C.S., President, in the Chair.

Tuesday, March 1st, 1904.

REPORT OF COUNCIL.

The report of Council for the past year was read by the senior Honorary Secretary, Mr. GRAHAM HOAD, included in which was the report of the Honorary Treasurer, according to which there was a credit balance on the year's working. It was stated that a new catalogue of the library was nearly finished. Certain proposed changes in the by-laws were explained, the end of which was that the entrance fee of 5 guineas as heretofore, which did not include a subscription for the first year, was to be henceforth divided into 3 guineas entrance fee and 3 guineas first annual subscription, non-resident members to contribute the same entrance fee, and an annual subscription of 1 guinea for the first and for each subsequent year.

PRESIDENTIAL ADDRESS.

The retiring President delivered the annual address, which included a review of the work of the Society and obituary notices of those Fellows who had died during the year.

ELECTION OF OFFICERS AND COUNCIL.

The following new officers were elected: *President*, Sir Richard Douglas Powell; *Vice-Presidents*, Dr. H. Charlton Bastian, Dr. W. B. Cheadle, Mr. H. T. Butlin, and Mr. Pearce Gould; *Honorary Secretary*, Mr. Stephen Paget; *Members of Council*, Dr. Dakin, Dr. Colcott Fox, Dr. Heron, Dr. Donald Hood, Sir James Reid, Mr. Stanley Boyd, Mr. Arbuthnot Lane, Mr. Lang, and Mr. Stonham.

Votes of thanks were passed to the retiring officers, and the newly elected President was inducted according to the ritual of the Society.

ROYAL ACADEMY OF MEDICINE IN IRELAND

SECTION OF STATE MEDICINE.

Sir JOHN MOORE, President, in the Chair.

Friday, February 12th, 1904.

PUBLIC HEALTH PROBLEMS IN IRELAND.

THE PRESIDENT delivered an inaugural address on this subject. As regards tuberculosis, he recommended compulsory (1) notification; (2) verification of the diagnosis by means of bacteriological examination of the sputum, etc.; (3) removal of the patients to "hospital," using the term in its fullest sense; (4) periodic inspection of the homes of the tuberculous; (5) periodic disinfection of those homes; (6) the provision of "hospital accommodation" for (*a*) early cases, with a view to cure; (*b*) advanced cases, to provide comfort for the dying, and to secure safety for the living. [The expression "hospital accommodation" should include "isolation hospitals," "sanatoria," "consumption wards," and hospices for the dying; (7) the vigorous and absolute segregation of tuberculous cases in workhouses, asylums, and other public institutions; (8) education of the public in all matters relating to the prevention and management of pulmonary tuberculosis; (9) improvement of the housing of the working classes and of the very poor, especially in towns. He severely criticized the Poor-law system of Ireland, stigmatizing the internal economy of the workhouses as a grave scandal and a national disgrace, and specified the lines upon which reform should go. In conclusion, he dwelt upon the very unsatisfactory state of the Poor-law medical service, particularly in relation to the sanitary organization of the country. It was a hard-worked, badly-requited body of public servants, whose efforts for the health and welfare of the community were often misunderstood, seldom, if ever, appreciated. If it were properly paid for the services it rendered under the Public Health Acts, and the suggestions for the betterment of the health of the people made by the local medical officers carried out intelligently and in a generous spirit, the dawn of a brighter day would be near at hand.

PHYSICAL AND MENTAL EDUCATION.

Dr. R. B. McVITTIE read a paper on the relation of the medical profession to this question, in the settlement and control of which it did not take sufficient part. All true education should be first concrete, and the abstract should be deferred as much as possible till the period of adolescence was fully completed, since too early a development of the psychic processes diverted the nerve energy from the control of tissue formation, which was its natural function during the period of growth.

Lieutenant-Colonel McNEECE considered that if the principles implied in the paper could be carried out, they would be to the great advantage of the nation. The present system of cramming raised distaste and nausea in the minds of school children.

Sir JOHN MOORE reminded Dr. McVittie that the Irish universities were moving towards improving education in the direction suggested by him. He mentioned the kindergarten as an example of the attention which was now given to the teaching of the concrete as distinguished from the abstract.

Dr. McVITTIE, in reply, said he had not seen a recent circular from London asking for the signatures of members of the profession with a view to having instruction in hygiene

and temperance introduced into schools, as such instruction only meant more classes and more exhaustion of the nerve centres, which would bring a desire for stimulation.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, February 26th, 1904.

Congenital Deformities.

Dr. H. Batty Shaw showed a mother and daughter, each of whom had the same congenital deformity of the hands and feet; the index fingers were separated more than usual from the remaining digits, and the interosseous spaces and thenar and hypothenar eminences were wasted. True apposition of the thumbs to the remaining digits was impossible, and abduction and adduction of the digits were both greatly reduced. The middle toes of the feet were depressed below the level of the other digits. The age of the mother was 20 years and that of the child 2 months. Dr. Shaw considered the cases almost unique.

Morbus Cordis.

Dr. Porter Parkinson showed a girl, aged 10: she had had repeated attacks of acute rheumatism and a number of cardiac murmurs were audible.

The case was examined and discussed, the *bruits* being variously regarded as of organic, functional, and high-tension origin.

Achondroplasia, with Spinal Curvature.

Mr. C. R. Keyser showed a boy, aged 15 months, with a large head and open fontanelles. The limbs were markedly small, and had been so from birth. The fingers showed the typical appearances of achondroplasia, the two outer digits curving outwards and the two inner ones inwards. A prominent antero-posterior curve existed in the dorsi-lumbar region of the spine. In this and other respects the case resembled one of rickets.

Pyopneumothorax due to Phthisis.

Mr. E. M. Corner showed a man, aged 32, upon whom operations on the principle of Estländer's (thoracoplasty) had been performed. The wound had healed, with an aërial fistula. Orchidectomy for tuberculous testis had also been performed.

Mr. W. G. Spencer mentioned a corresponding case. A bronchial fistula resulted, and had now remained stationary for three years.

Progressive Myositis Ossificans.

Dr. W. Hunter and Mr. S. Paget showed a lad, aged 17, in whom myositis ossificans had begun at the age of 4 years. Both arms were now tied to the chest by disease around the shoulder-joint, and there were bony deposits and growths in various localities. The changes were at first fibrous, but the Roentgen rays showed that they were now bony. Three of the boy's grandparents had suffered from rheumatic fever.

Femoral Hernia.

Mr. W. H. Battle showed a woman, aged 55, with a right femoral hernia of seventeen years' standing. It extended to the upper border of the patella and was half the width of the thigh. It was irreducible, and gave rise to attacks of pain and sickness. He proposed to operate when the general condition improved.

Cases.

The following were also shown: Mr. F. J. Steward: Movable knee-joint three and a half years after operation for extensive tuberculous disease.—Dr. B. Abrahams: Sporadic lymphoma-like disease.—Dr. W. G. Stone: Enlargement of the bones of the cranium, jaw, and thorax, probably of syphilitic origin.—Dr. C. [illegible] May: Multiple exostoses.—Mr. Donald Armour: Cyst connected with the ovary of [illegible].—Mr. T. H. Openshaw: Contracture of hip and knee treated by Hessing's appliance with elastic traction.

PATHOLOGICAL SOCIETY OF LONDON.

Professor W. D. Halliburton, M.D., F.R.S., Vice-President, in the Chair.

Tuesday, March 1st, 1904.

The Influence of Adrenalin on the Nitrogenous Metabolism of the Bird.

Dr. D. Noel Paton briefly recounted work he had undertaken, and which was in progress, upon the above subject. It had been long established by experiment that adrenalin was a cause of glycosuria in mammals, and the author had been able to show that the same held true of the goose. The urine was obtained free of intestinal contents by diverting the latter through an artificial anus. The adrenalin used was that prepared by Parke, Davis, and Co. How far this result would follow if the pancreas were removed was a subject at present under his investigation. The administration of adrenalin in diabetes was followed by an increased amount of sugar in the urine. As regards the action of adrenalin on the nitrogenous metabolism, he was studying this upon the same birds. The uric acid nitrogen was reduced, the urea nitrogen and the ammonia nitrogen were increased. Adrenalin appeared to inhibit the elaboration of the terminal product of the proteid metabolism.

The Chairman asked whether there was an excess of sugar in the blood after the administration of adrenalin, or whether it was only in the urine as in phloridzin diabetes. To this Dr. Noel Paton replied that there was such an excess in the blood in mammals, but he had not looked for it in the bird.

Relation of Ammonia Nitrogen to the Total Nitrogen in Diabetes.

Dr. A. P. Beddard and Dr. E. I. Spriggs read a paper on the above subject, in which they discussed the so-called acid theory, namely, that the presence of ammonia in urine was for the purpose of neutralizing acid. This might be one cause of its presence, but it was not the only one. When the diabetic patients were placed on strict diabetic diet there occurred an absolute rise in the total nitrogen excretion. The daily administration of sodium carbonate produced a fall, however, in the nitrogen excretion.

The Chairman observed that in diabetes it become increasingly clear that the nitrogen excretion had to be investigated as well as the carbohydrate. He thought on the whole that the observations of the speaker supported the view that the increase of ammonia was to be associated with the acidosis.

A Survey of the Recorded Cases of Haematoporphyrinuria not due to Sulphonal.

Dr. A. E. Garrod pointed out that whereas haematoporphyrinuria was usually due to the taking of sulphonal, there were a few cases on record in which similar urines, red or nearly black in tint, and rich in haematoporphyrin, had been passed by patients who had never taken that drug. He referred briefly to twelve such cases, including one recorded by Baumstark in which there was some doubt as to the nature of the pigmentation. He drew a distinction between such cases and the very common ones in which there was merely an increased excretion of haematoporphyrin above the normal trace, and in which the colour of the urine was not materially affected. It was shown that whereas haematoporphyrinuria due to sulphonal was hardly ever seen in males; of the non-sulphonal cases the majority occurred in males. Again, it was pointed out that in a large proportion of the cases not due to sulphonal the condition was of long standing, and in some had persisted for many years, whereas in others it had recurred at intervals, and had in one instance simulated paroxysmal haemoglobinuria. Except in Ranking and Pardington's cases, the grave associated symptoms which accompany haematoporphyrinuria due to sulphonal were wholly wanting, and no specially evil prognostic significance appeared to attach to the symptom. In the twelve cases discussed the patients suffered from a variety of maladies which had no obvious connexion with each other; but in three cases, namely, those recorded by Baumstark and by McCall Anderson, it was associated with a bullous eruption, recurring each summer and leaving grave scarring of the face and hands. It was mentioned that the evidence forthcoming was opposed to the view that haematoporphyrinuria implied excessive haemolysis, and rather pointed to a perversion of haemoglobin katabolism as its cause. However, although the study of the slight excesses of haematoporphyrin so often excreted in disease appeared to connect them with diffuse changes in the liver, it could not yet be definitely stated that the profound disturbance of pigment metabolism which resulted in haematopophyrinuria with dark red urine was wholly due to disease of that organ, although serious degenerative changes in the liver had been observed in some fatal cases in which the phenomenon was due to the taking of sulphonal.

Therapeutical Society.—At a meeting on February 23rd, Dr. Rose Bradford in the chair, Dr. Burnett discussed some compounds of ichthyol, especially ichthoform and

chloroform. The former was astringent and antiseptic: it was useful in tuberculosis of the intestines and diarrhœa in cases up to 1 gr. twice a day or as an enema: it was also of value in varicose ulcers and skin disease, such as eczema. Iodol prepared with gauze was useful for packing cavities. Iodol vapour was useful in metritis and gynæcological affections, also in many skin diseases, and in atrophic rhinitis and diseases of the eye. Hence iodol had a wide sphere of therapeutic application. Mr. McAdam Eccles, in a paper on inguinal trusses, dwelt on the importance of distinguishing right from left inguinal trusses. Trusses were found even on the mummies of Egyptian gods. A good truss should have a pad of proper size and shape fixed immovably on a well-fitting belt, encircling three-quarters of the circumference of the pelvis, and be held by properly adjusted cross and under straps. Its covering should be sufficiently thick and durable. Bad trusses were often insufficiently covered and very liable to fracture when straightened, their lower edges were too sharply curved, and the straps wrongly placed or [illegible]. All such defects were injurious to the patient. He described that material truss, with its pad prolonged into a soft band, as useful for scrotal hernia in old, stout persons; and the hinged cup truss as very valuable for irreducible scrotal hernia. Remarks on the paper were made by Dr. Dennis Vaughan.

MANCHESTER MEDICAL SOCIETY.

J. S. Bury, M.D.Lond., President, in the Chair.

Wednesday, February 3rd, 1904.

Procidentia Recti.

Mr. A. H. Burgess presented a communication on the treatment of rectal prolapse and incontinence of faeces by the subcutaneous injection of paraffin, based on an experience of nine cases of prolapse, one case of prolapse combined with incontinence of faeces, and one case of incontinence, resulting from operations for the cure of an extensive fistula *in ano*. He used a syringe melting at 110° F., and a syringe whose glass barrel [illegible] in rubber to retain the heat longer. No special [illegible] to keep the needle hot. The chief aim of [illegible] was to introduce the paraffin in successive [illegible] consisting of three large nodules placed equidistantly around the circumference of the bowel, the tiers [illegible] nodule of one tier was opposite to [illegible] between two nodules of the tiers above and [illegible] respectively. Usually three tiers were sufficient, but [illegible] required in a very long prolapse. A single [illegible] sufficed to oppose nate the buttocks over the anus [illegible] prevent the prolapse from descending before the paraffin [illegible] solidified, which occupied in twenty-four hours. The [illegible] had been excellent in all the nine cases of prolapse, [illegible] instance of re-descent having occurred. In the [illegible] with incontinence of seven years' duration a [illegible] by a combination of paraffin injections with [illegible] to narrow the enlarged anal orifice. In [illegible] the difficulties after operations for fistula the large [illegible] of paraffin was injected on two occasions [illegible] around the lower part of the rectum, and [illegible] the patient had previously been absolutely incontinent [illegible] years, he had used his linen once during [illegible] weeks that had elapsed since the operation.

[illegible]

Dr. Charles Murray [illegible] the clinical details of a series [illegible] cases of malaria recently met with in Manchester. [illegible] upon which a diagnosis [illegible] would, he thought, be difficult at present, laid great stress upon the [illegible] in making the diagnosis. He [illegible] a series of coloured lantern [illegible] of the various forms of malarial plasmodia taken from [illegible] illustrating the asexual life history of [illegible] as studied in stained blood [illegible].

[illegible] Examination.

Dr. W. J. S. [illegible] demonstration of the Sanger-[illegible] method of [illegible] as applied to [illegible].

[illegible] Meeting.—A meeting on [illegible] was held in the chair, Dr. L. W. [illegible] exhibited a [illegible] specimens. Mr. C. E. M. [illegible] exhibited specimens of [illegible] cell sarcoma of [illegible] and [illegible] cases.

removed for tuberculous disease. Mr. Althorp read notes on the case of sarcoma of the jaw, upon which he had successfully operated. After describing the operation he commented on the prognosis of the disease and on various methods of operating. Dr. H. J. Campbell read a paper on the causation of cancer, in which he reviewed shortly some of the theories propounded from time to time. Amongst these were that cancer was due to (1) embryonic cell nests taking on growth and forming tumours. (2) The irritation of vegetable micro-organisms; the association of these with tumour growths was considered to be accidental. (3) The irritation of animal micro-organisms analogous to coccidia in rabbits. It was pointed out that these organisms tended to form encapsulated growths and that there was no metastasis. (4) The association of yeast growths with tumours. (5) The displacement of portions of epithelium which subsequently took on growth. (6) Various dietetic theories. (7) The suggestion of Moore, Farmer and Walker that existing cells might take on the function of germinal cells and form tumours. The distinction between germinal and embryonic cells was pointed out and the work of these investigators discussed at some length. The work of Bashford and Murray concerning the formation of new growths in different animals was described. The question why the cells of any part should take on reversion to a germinal type was discussed. It was suggested that chronic irritation might often determine the site of a tumour, and also that the involution going on in certain organs—breast and uterus—at the cancer age might have some influence in this direction. Dr. Angus suggested that, as cancer usually came on at the end of sexual life, the cells of other parts of the body might seem to attempt to take on the function of sexual cells. Dr. Rabagliati considered that the question of the division of cells was of little practical interest, and that cancer was a disorder due to the ingestion of excessive amounts of nutrient material. It was useless to discuss the question of cancer houses unless the habits of the people who lived in those houses were also studied. Dr. Ferrier expressed the opinion that all the circumstances attending the growth of a malignant tumour tended to point to a parasitic origin. Animals in menageries, which were certainly not overfed, often developed malignant tumours. Dr. Campbell replied.

Clinical Society of Manchester. On February 16th Dr. Millican, President, in the chair, Dr. A. T. Wilkinson opened a discussion on uraemia, a term which covered a group of nervous phenomena, most frequently associated with definite renal disease. It was advisable to distinguish this condition from imperfect excretion, actual or relative, of the final products of nitrogenous metabolism, urea, and its allies. In other words, uraemia was not to be regarded as the culmination of urinary failure, but a variety of toxaemia which might occur with very different degrees of renal inadequacy. This view was applied in turn to acute uraemia obtaining in inflammatory states of the kidney, in puerperal eclampsia, in acute uraemia with little or no urinary failure, and uraemia as seen in chronic Bright's disease. The key to the solution appeared to lie in the hands of those who could study puerperal eclampsia, when uraemic phenomena occurred with very varied degrees of urinary failure. The morphine treatment here found efficacious might have to be modified considerably in dosage and method before it could be applied to all cases of uraemia, as in acute Bright's disease, where the special treatment was conjoined with general excretory failure. Saline injections into the tissues, which helped to dilute the poisons and aid their excretion, were frequently useful in the uraemia of organic disease; indeed general dropsy, if viewed as Nature's treatment, authorized this method. Dr. Lemmon agreed with the distinctions drawn between the actual effects of renal inadequacy and those due to various forms of toxaemia often accompanying the latter. The term uraemia was doubtless loosely applied to both these sorts of conditions, but it should be limited strictly to the former. He agreed that the study of puerperal eclampsia might in time throw valuable light upon the various conditions known as uraemia. Dr. E. Viscount Brown referred to cases which illustrated the ease with which uraemia might be overlooked owing to its protean character. Mr. Burgess remarked on the absence of symptoms of uraemia in cases of suppression of urine following on complete obstruction of both ureters, which seemed to indicate that uraemia depended upon some cause other than merely the arrest of the excretory function of the kidney. In uraemia associated with acute

nephritis he advocated relief of the acute renal tension necessarily present by surgical measures—incision of the renal capsule and parenchyma with drainage.

REVIEWS.

THE APPLICATION TO CLINICAL MEDICINE OF THE THEORY OF THE FUNCTIONS OF THE HEART MUSCLE.

EXPERIMENTAL inquiries into the functions of the heart muscle have made great advances during the past decade, but the application of the results so obtained to explain clinical phenomena has lagged somewhat tardily behind. Now, however, this defect is likely to be remedied. In a work just published, Professor WENCKEBACH[1] of Groningen has placed all clinicians under a debt of gratitude. He demonstrates how many of the most puzzling of heart symptoms may be explained in a manner as convincing as it is simple. Wenckebach accepts with enthusiasm the teachings of Engelmann, and has made himself familiar with all the details of Engelmann's striking experiments. In his book Wenckebach begins with a discussion of all the facts in favour of the "myogenic" theory of the heart's action as opposed to the "neurogenic," and unhesitatingly decides in favour of the view that the ordinary rhythm of the heart is altogether independent of its nervous connexions, the muscle fibres themselves possessing all the attributes necessary for the rhythmical production of the heart's work. The functions of the heart muscle are fourfold, namely, the power of conducting stimuli from muscle fibre to muscle fibre, the power of contraction, the capability of being stimulated, and the power of automatically originating the stimulus. Engelmann he tells us has proved experimentally that each of these functions may individually be affected without any corresponding interference with the remaining functions. All these functions are abolished for the time being during a ventricular systole, but they all gradually return and become effective during diastole. When any one of these functions is abnormally affected, either negatively or positively, a variation in the rhythm of the heart results. It has been found that each disturbance of function produces a distinctive and peculiar type of arrhythmia.

From a deep and close study of the result of these experiments, Wenckebach has been led to recognize a resemblance in tracings of the radial pulse taken from his own patients. The results which have been obtained are so astounding as to be at first sight almost incredible. As an illustration we may refer to the manner in which he demonstrates a depression of the power of conducting a stimulus (*die Störung der Reizleitung*). In his patient the radial tracing showed an allorrhythmia with regularly-occurring groups of three beats, each group being separated by a long pause. The period occupied by the middle pulse beat of the group is always the shortest. He reasons from analogous tracings obtained experimentally by Engelmann that in the time occupied by the three pulse beats the stimulus had originated at the great veins four times, but the ventricle had only responded to three of these stimulations. Dividing the period in the radial tracing occupied by the three beats and their pauses into four equal divisions, he shows that after the long pause the power of stimulus-conduction was restored to a normal condition, so that the ventricle responds to the stimulus at the normal time. The power of stimulus-conduction being destroyed during this ventricular systole returns more slowly than normal, so that though the stimulus arises at the veins at the usual period it takes a longer time to reach the ventricle, hence there is a longer pause before the second beat occurs. In a similar manner the stimulus is delayed after the second beat. After the third beat of the group the power of conduction returns so slowly that when the fourth stimulus comes down from the great veins the ventricular muscle is still refractory, and no contraction results. The ventricle remains, therefore, quiescent until the next stimulus comes down from the veins. On account of its long rest, the power of conduction has been so completely restored that the ventricle responds to the stimulus from the veins with a normal promptitude, and so the cycle of allorrhythmia goes on.

At first sight such an explanation seemed rather far-fetched, especially as no further proof was adduced than the similarity of the rhythm of a human pulse to that of a cold frog's heart. It so happened, however, that a patient came under observation whose heart rhythm was puzzling in the extreme. There was also present a well-marked pulsation in the jugular vein due to the systole of the right auricle. A comparison of the tracings of the radial pulse in this patient with Wenckebach's case showed a remarkable resemblance. Tracings of the auricular pulsation in the jugular taken at the same time as the radial pulse showed four beats of the auricle to three beats of the ventricle. The time between the auricular pulse and the radial varied in curious manner. After a long pause the radial pulse followed the jugular pulse at the normal period. After the second and third jugular beats the time between the jugular and radial was double. After the fourth jugular pulse no radial pulse appeared—in fact, a perfect demonstration of the correctness of Wenckebach's interpretation.

He shows also that it is a depression of the stimulus-conduction that is at fault in those cases of bradycardia where the auricle can be demonstrated to beat at a more frequent rate than the ventricle. Here the arrhythmia is due to a "blocking" of the stimulus at the fibres connecting the auricle and ventricle—a view, by the way, agreeing with that previously expressed by Clifford Allbutt, who also suggested that the fault lay at "Gaskell's bridge." In the same exact and penetrating manner he analyses tracings that demonstrate interference with the normal action of the other functions of the heart muscle fibres.

Of very great value, and of the very first importance, is his attempt to bring an intelligent discrimination to bear upon the series of allorrhythmias comprehended under the vague terms of pulsus bigeminus and pulsus alternans. As a rule writers mix up these conditions in an unintelligible jumble—what is one man's pulsus alternans is another's pulsus bigeminus, and a true conception of their distinctive nature is entirely wanting.

Taking the case of pulsus alternans, he would limit the term to those cases of alternating small and large pulse beats where the cause of the variation is due to a disturbance of the function of contractility. The stimulus in such cases arises rhythmically at the veins, but the response of the ventricle varies. After the larger of the two beats the contractility is so affected that the ventricle responds to the next beat with abnormal rapidity, but the contraction is of a shorter duration, hence a smaller pulse wave. The shorter duration of the systole permits a longer period of diastole, and in consequence of the longer rest the contractility recovers itself, and the response of the ventricle takes place in a normal manner, producing a longer and fuller pulse wave. With this larger ventricular systole the exhaustion of the heart is more complete, and the rest during diastole is not sufficient to restore the contractility, and so the next stimulus produces a smaller and more rapid ventricular systole and so the alternating rhythm goes on. This view is supported by Engelmann's experiments, and a study of cases where there has been a jugular pulse convinces us of the great probability of this interpretation.

A large number of different conditions is included under the term pulsus bigeminus, and he would limit this term to a true bigeminal action of the whole heart as distinguished from a similar form of pulse due to the rhythmical occurrence of extra systoles of the ventricle alone or of the auricle and ventricle and other forms of so-called bigeminal action. Whether such a distinction can be maintained we are not so convinced and we feel it is a matter meriting further consideration. This contention of Wenckebach's is of interest, as he stoutly maintains as correct the views of Traube, who originally described this form of irregularity and attributed to it a lethal significance. Subsequent observers have been nearly unanimous in assuming that Traube erred in fancying the irregularity to be either so rare or so grave as he supposed.

We can only briefly refer to the section dealing with nervous disturbances of the heart's rhythm. Here the ground on which he treads is far less sure, but nevertheless the section is full of interesting and suggestive matter. We would refer particularly to his penetrating analysis of the cases of Stokes-Adams disease and the light he throws upon the classical and splendidly recorded case of Wenckebach. In this case there were very prolonged pauses of the ventricular action, often terminating in epileptic attacks. During the

[1] *Die Arrhythmie als Ausdruck von Funktionsstörungen des Herzens. Eine klinische Studie.* Von Dr. K. F. Wenckebach, Professor der inneren Medicin, Groningen. Leipzig: Verlag von Wilhelm Engelmann. 1903.

pauses tracings of the radial showed slight movements due to the action of the left auricle. At the end of these pauses sometimes the pulse began to beat in the manner of Bowditch's staircase phenomenon.

In dealing with the more extreme forms of heart irregularity and with paroxysmal tachycardia we scarcely think the author has fully appreciated the facts on which other observers have based their explanations. He seems to have missed the significance of the observation that the ventricle can start the rhythm of the heart apart altogether from its nervous connexions and the periodic stimulus from the veins. Yet this fact has not only been repeatedly demonstrated by experiment, but the circumstance that a local stimulus can produce a ventricular extra systole would naturally lead one to infer that a prolongation or intensification of the condition giving rise to an extra systole would readily lead to the continuation of the ventricular rhythm.

From this notice it will be seen that the perusal of this book is of prime necessity to all engaged in the study of affections of the heart. To every one interested in clinical medicine we can recommend it as a masterpiece of acute reasoning, of penetrating insight, and of logical deduction.

NOTES ON BOOKS.

The Transactions of the Life Assurance Medical Officers' Association comprise the proceedings during the years 1900 and 1901. Owing to unforeseen difficulties, its publication was delayed, but upon the whole the volume was worth awaiting. In the list of discussions we do not find any reference to that very interesting subject, "Fees paid for insurance work," while at the same time the names of the members of the Society suggest that many of their owners must have such weight with directors of insurance companies that it is a little surprising that the question of inadequate fees should ever have been allowed to become one of acute interest to the profession at large. The majority of the papers will appeal chiefly to those frequently called upon to advise the managers of companies as principal medical officers, but others have an interest for all medical men. Such are the presidential address of Dr. Theodore Williams on Race in Relation to Life Assurance, a discussion initiated by a paper by Dr. G. V. Poore on Locality and Occupation in the same connexion, and discussions on the causes of early death among persons considered to be first-class lives, founded on papers by Drs. Glover Lyon, Hingston Fox, Newton Pitt, and Colcott Fox. Another very interesting discussion was one introduced by Dr. Parkes Weber on the influence of overweight on long life. The general opinion appeared to be that it was better to be a fat boy than a fat Gentile, and a fat woman than a fat man, or in general terms that obesity in itself was of less importance than the susceptibility to evil effects from nicotine and alcohol which accompanied it.

The Guide to South Africa,[1] edited for the Union Castle Mail Steamship Company by Messrs. A. Sadler Brown and G. Gordon Brown, is in its eleventh edition, divided into two parts. The first deals with such subjects as commonly receive notice in "Year Books," coupled with condensed information for the use of the emigrant, the miner, the sportsman, and the agriculturist—in short, of all those likely to be interested in South Africa, whether as a permanent or temporary home. The second part is a kind of gazetteer, compiled much upon the lines of a Murray's Continental Guide. The information, though compressed, is given in a readable fashion, and that with regard to the climate and weather to be expected in the various localities is likely to be found particularly useful by medical men. The latter, however, in reading the book should bear in mind that, in spite of many attractions from the point of view of climate, few of the more desirable parts of South Africa are at present available for the invalid as cannot be a very considerable expectation shortly. The preface to the guide, indeed, very properly contains a warning to this effect. The work is freely illustrated by maps, plans, and diagrams.

The earlier parts of the new edition of *Cassell's Family Lawyer* were noticed in the British Medical Journal of November 7th. The subject matter of the parts before us includes such varied topics as partnership, joint-stock companies, trades and manufactures, patents and trade marks, trade unions and Friendly Societies, workmen's compensation, railway companies, borrower and lender, inheritances and trusts, the franchise and taxation: and among this motley collection it is not difficult to find something to interest most people. The rights and liabilities of partners are stated in a concise and practical manner. Shareholders in public companies will be interested in the provisions which a paternal Legislature has found it necessary to make for their protection, while few people will pass over the sections dealing with railway rates and charges, and the position of the unfortunate passenger who loses his luggage, or travels without having prepaid his fare. Perhaps there is no branch of the law into which the amateur is more ready to plunge than that of inheritance; probably because it is a subject with which every one is brought into contact at one time or another. There are people who find a positive fascination in the frequent making of a will, and there is little objection to the indulgence of this fancy if the testator refrains from the use of technical terms, which are for him a veritable pitfall. The rules governing intestate succession are explained and graphically illustrated, though the Puzzle Chart, "Find the heir," on page 989, seems to suggest that the author recognizes the possibility of his readers experiencing some difficulty in deciding between the conflicting claims of such obscure persons as, say, the "male maternal ancestors" and "female paternal ancestors." The unpleasant subject of taxation may be dismissed with the observation that it has received adequate treatment. The index at the end of part 18 suggests that the enlargement which is advertised as a feature of the present edition consists in an additional volume with a separate index. The book would have been much more useful had a single index been prepared to include any matter now appearing for the first time.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A New Ligature.—Mr. Percy H. V. Hammersley (Leek) sends the following description of a ligature which has for some considerable time given him great satisfaction: It is made by a special process from numerous single cocoon fibres, which produces a ligature equal in every respect to silk twist and one which has the following advantages: Greater strength. Simplicity and ease of sterilization; a few minutes' boiling renders it perfectly aseptic. Good keeping properties; it will keep indefinitely unimpaired in the wet or dry states. Absence of any tendency to slip, when tied on a vessel or pedicle, owing to the flat form the ligature assumes it has no tendency to slip off. Ready temporary encapsulization and perfect after-absorption; the process of manufacture, whilst resulting in one thread of any desired thickness which retains its entirety, does not compress the component fibres together, so that the plastic lymph thrown out around the seat of application is able to penetrate between and around each strand composing the ligature, and to this is due, I believe, the absence of those annoyances so common with ordinary forms of ligature—namely, stitch-abscess and the extrusion perhaps weeks or months after an operation of the deep ligatures. The use of split-eyed needles with this as other forms of ligature saves both time and trouble. The ligature can be obtained from Messrs. Maw, Son and Sons, who have provided a neat metal case containing varying sizes of the ligature, together with split-eyed needles adapted for each size, the whole being so constructed that without disturbing the contents perfect sterilization can be effected by a few minutes boiling.

We are informed by Messrs. Reid and Tuck that the powder to which

[1] Cassell and Co. Limited.

THE NEW LABORATORIES OF THE UNIVERSITY OF CAMBRIDGE.

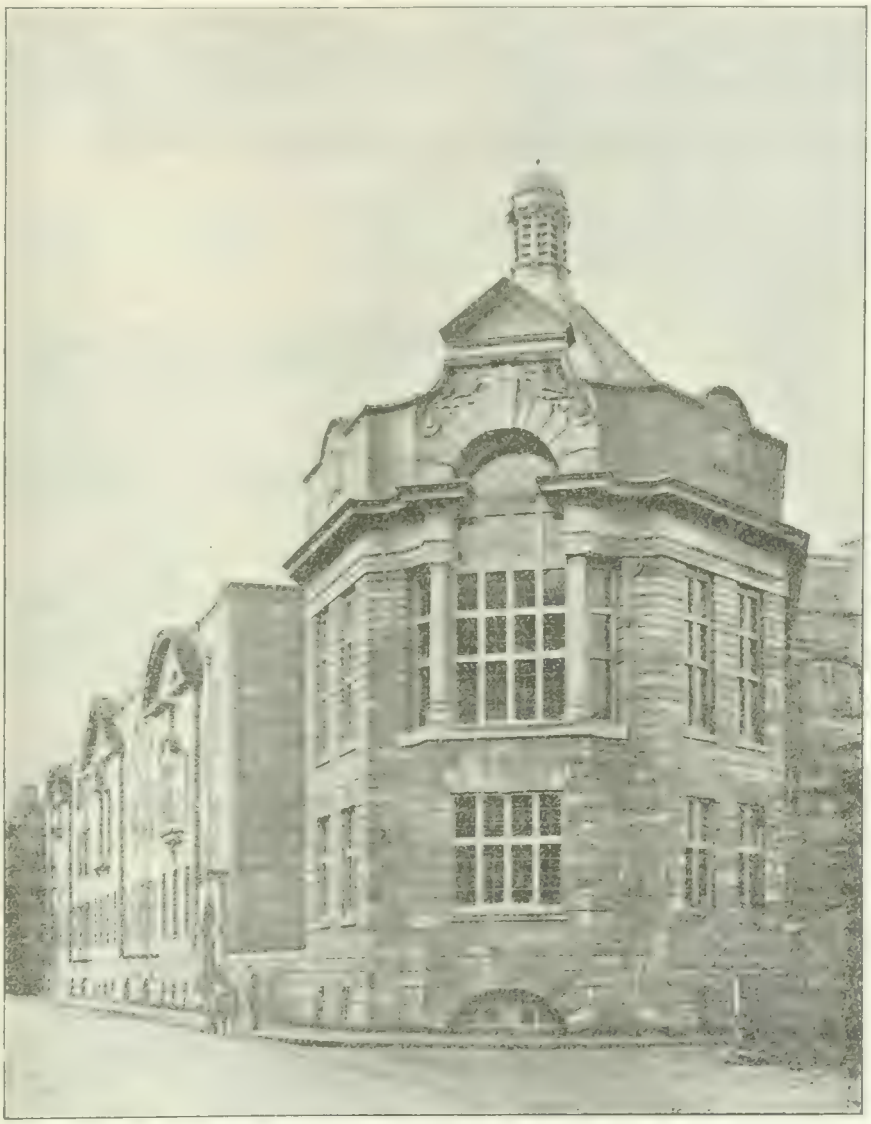
DESCRIPTION OF THE BUILDING.

THE reputation of Cambridge as the University of all England which has best known how to combine the old learning with the new is so firmly established that it may come as a surprise to many to learn that it has recently been found expedient to expend a sum of considerably more than £100,000 in building new laboratories and science schools.

The fact is, however, evidence of the determination of those who are the inspiring leaders of the Science Faculties that Cambridge should not lose its pre-eminence, and the King showed his appreciation of their efforts and his affection for the University where he once studied by visiting Cambridge on March 1st to open the new buildings. These comprise new buildings for the Medical School, the Botanical Department, the Geological Museum, and the as yet incomplete Law Library.

The new buildings of the Medical School and the Law Library face each other on either side of Downing Street. The style of the medical buildings is severe almost to plainness, betokening the practical, serious, unostentatious, but beneficent work to be done in them; the legal, more ornate, show something of that love for outward show with which law has never in this country disdained to surround the temples and the ceremonies of Themis.

With whatever unavowed envy the Medical Faculty may regard the splendour of the Law Library and the ample spaces of the Geological Museum, there need be no hesitation in affirming that in all essentials the laboratories and lecture rooms of the new buildings of the Medical School are admirably adapted to their purpose. The site is an irregular parallelogram ending in an acute angle, and in this angle (as will be seen from the photograph) the Humphry Museum has been built, jutting out as one comes up Downing Street in a manner which at once catches the eye, and gives a distinctive character to the building. At the back the windows look out on a quadrangle formed by the chemistry and the engineering schools and by the physiological department, with which, when the whole scheme is completed, the new buildings will be in direct connexion.



The New Medical School, Cambridge; the Humphry Museum.

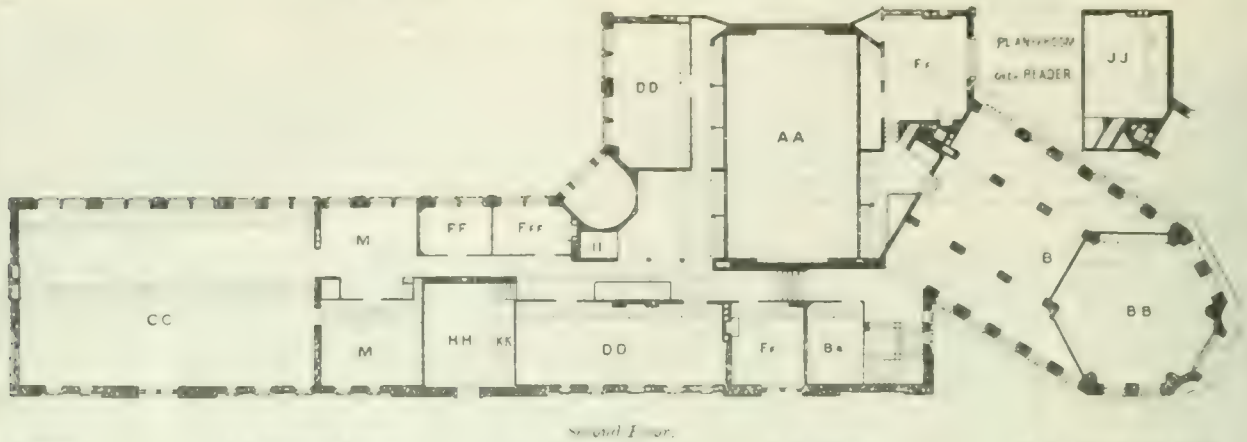
THE NEW MEDICAL SCHOOLS.

The new medical schools occupy a roughly triangular site at the corner of Downing Street and Corn Exchange Street. The Humphry Museum has been erected in the acute angle formed by these two streets; the façade of the main building is in Downing Street. The general position and aspect of the buildings are well shown in the accompanying photograph. At present the whole plan has not been carried out; eventually the new buildings will communicate with the physiological department in Corn Exchange Street. The part of the building not yet begun but urgently needed is designed to afford additional accommodation for pathology, and physiological chemistry and hygiene will be housed there until the University can afford to build an institute of hygiene, one of the next important requirements of the University.

The new building, as at present completed, consists of a basement and three other floors. The façade in Downing Street is faced with Ancaster weatherbed stone with sills, and ornamentations in Derbyshire sandstone; the elevation is plain but dignified, and no money has been spent on meretricious ornamentations. The arrangement of the several floors is shown in the accompanying plans. Entering by the main doorway in Downing Street the visitor finds himself in a small hall and lobby, from which the main staircase rises; beyond this is the entrance from the quadrangle, formed on the west by the physiological buildings and on the other sides by the engineering and chemistry laboratories. To the right of the hall is the entrance to the lower story of the Humphry Museum; this will be used as a type or school museum; the main Humphry Museum, a lofty and well-proportioned room, which will be open to the public, is on the first floor. It has a dome, supported by stone pillars, which projects into the second floor. The walls are ornamented with pale green tiles. On the second floor, above the main museum, the space not occupied by the dome will be utilized as a teaching museum; that is to say, in it will be collected specimens that can be handled, and suitable cases will be further illustrated by microscopic slides. Such luxuries as the building possesses are to be found in the main Humphry Museum and in the elevation of this part of the building.

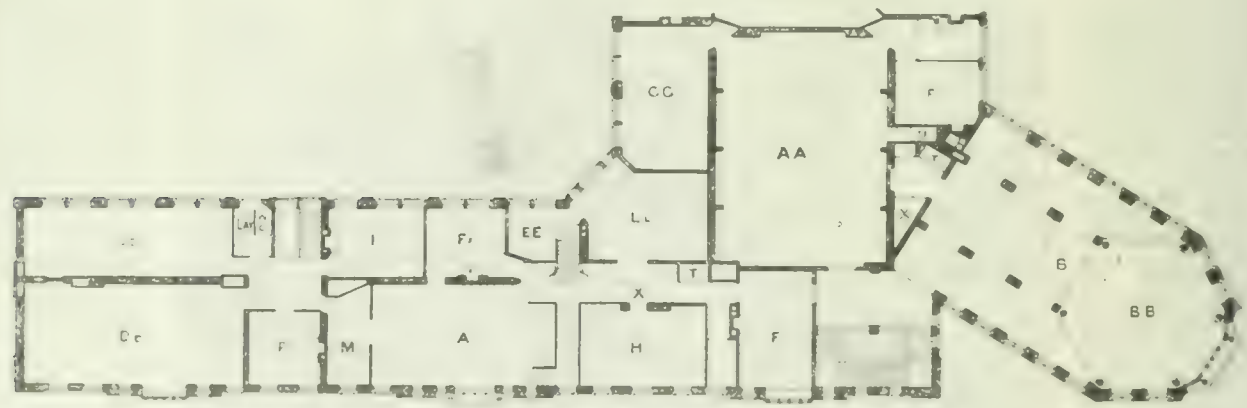
Returning to the hall on the ground floor, and proceeding eastward, we enter three small lecture rooms, which will be

PLANS OF NEW MEDICAL SCHOOL BUILDINGS.



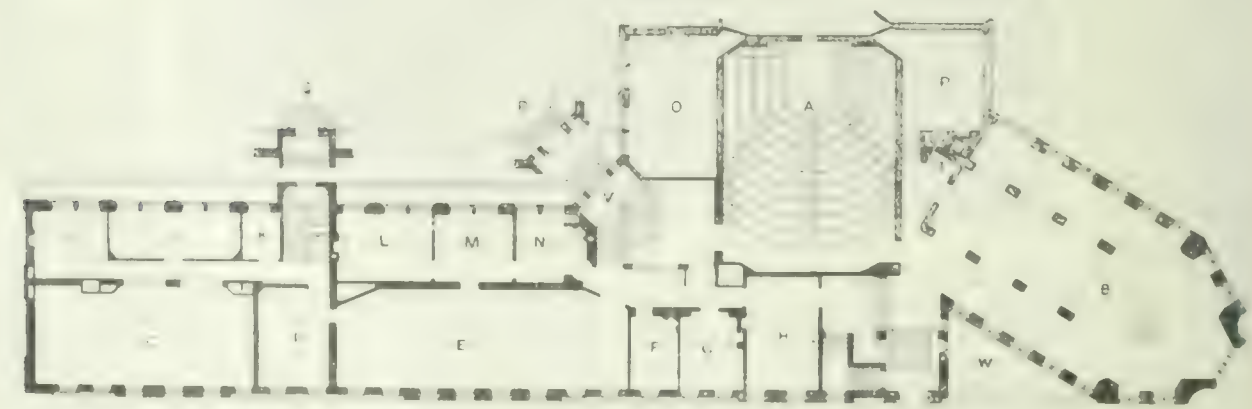
Second Floor.

A A. Lecture.
B B. Museum keeper.
C C. Museum and Store.
D D. Experimental work-room.
E E. Demonstrators.
Fr. Printer.
F r r. Demonstrator.
H H. Stores.
I I. Clipboard.
J J. Photography.
K K. Dissecting room.
M. Preparation room.



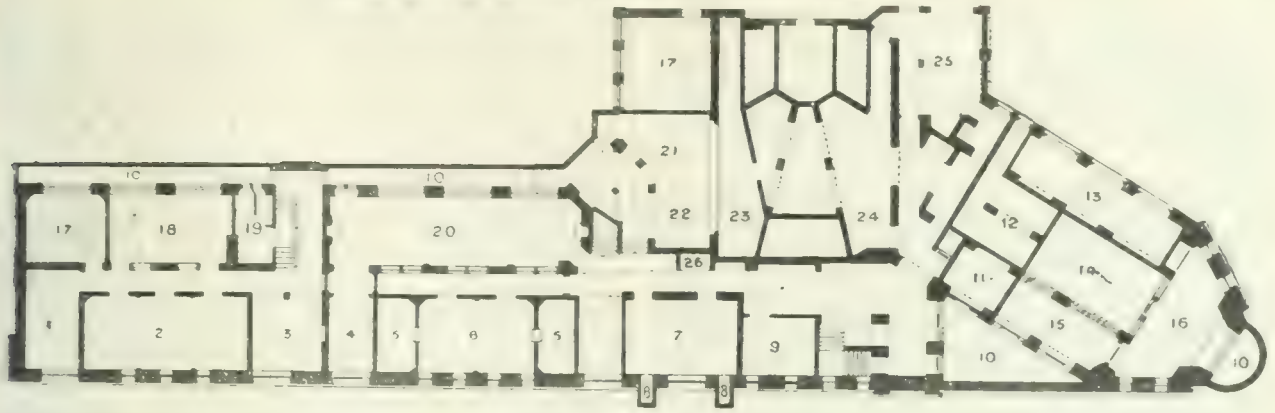
Third Floor.

A.
B. Museum.
C. Experimental physics.
D. Physiology room.
E E. Demonstrator's room.
E. Professor.
F. Bedder.
G G. Workman's.
H. Medicine.
I. Assistant.
J J. Operative Surgery.
M. Preparation room.
T. Lift.
U. Small.
X. West.



A.
B. Museum.
C.
D. Physiology.
E.
F.
G.
H.
I.
K. Assembly.
O.
P. Comparative Anatomy.
Q. R. S.
T. Lift.
U. Small.
V. Entrance.
W. Area.

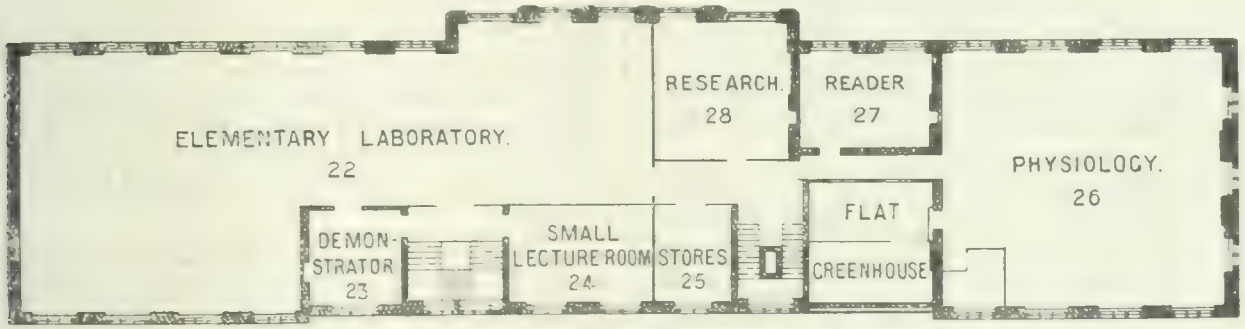
PLANS OF NEW MEDICAL SCHOOL BUILDINGS.—(*Continued*).



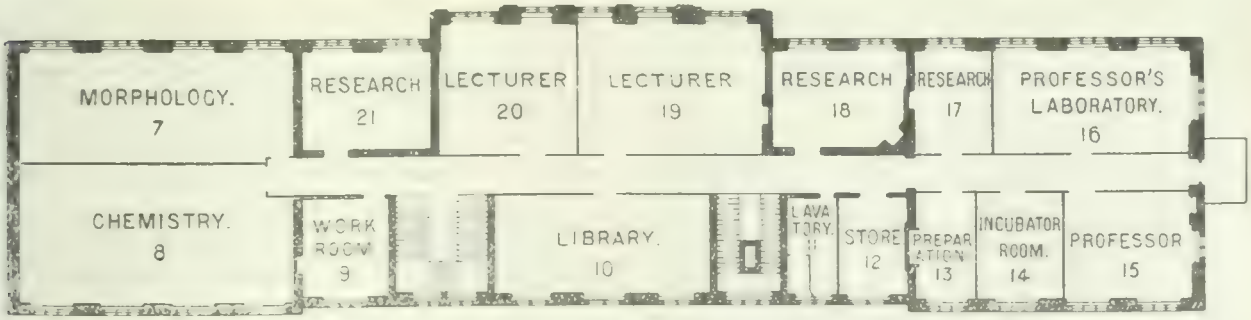
Basement.

1. Dark Rooms.
2. Combustion Chamber.
3. Glass Blowing.
4. Workshop.
5. Dark rooms.
6. Photography.
7. Engine room.
8. Coal.
9. Coke.
10. Area.
11. Mortuary.
12. Lime-kiln.
13. Cooling room.
14. South room.
16. Lavatory.
17. Gas analysis.
18. Bacteriology.
19. Laboratory.
20. Workshops.
21. Filtering and heating.
22. Motors.
23. Ventilation.
24. Calorifere.
25. Boiler house.
26. Lift.

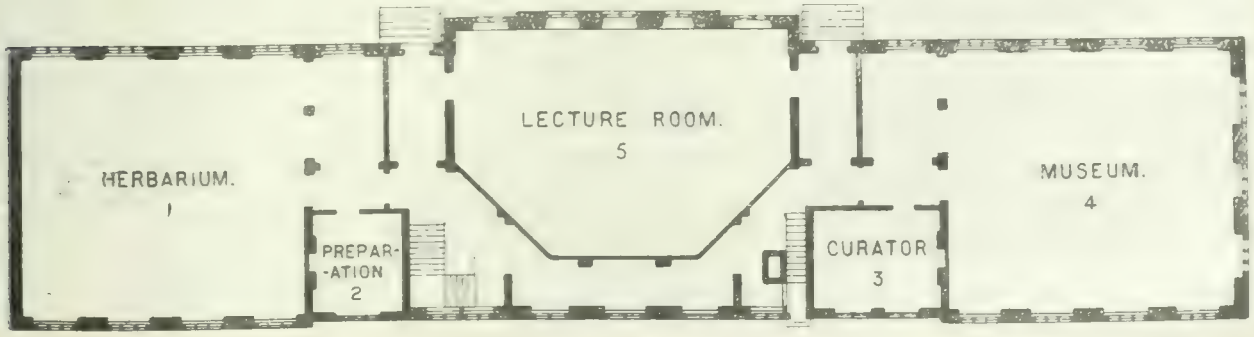
PLANS OF THE BOTANICAL SCHOOL.



Second Floor.



First Floor.



Ground Floor.

used for medicine, and beyond these a large lecture and demonstration room, with three private workrooms for the Professor of Surgery, Mr. Howard Marsh, and for the teaching of surgical anatomy. Beyond this, again, is the pharmacological department; this contains on this floor a materia medica museum for teaching purposes, and a large practical class-room for pharmacological chemistry; behind is the work-room of the professors' assistants, and a private research room as well as the room for the laboratory attendant.

There is also on this floor a pathological research room, and a room which will be temporarily given up to the department of hygiene, under the direction of Dr. Nuttall. On this floor is the chief lecture theatre; it has been built in the angle behind the Humphry Museum and the medical department, and the illumination is exclusively artificial. This theatre will seat 200 students, every one of whom will have an excellent roomy platform. On the first floor over the lecture theatre is the medical school library, where the books will be arranged on movable stack bookcases of a new pattern. At the head of the stairs leading to the laboratory, and immediately in front of it, is the private room of the Regius Professor of Physic, Dr. T Clifford Allbutt, and adjoining this is his clinical research room; behind these two rooms is a room with a skylight for operative surgery and instruction room, and the Professor of Surgery's private room, which communicates with a small theatre to hold sixty. Opening off from this small lecture theatre is a preparation room, which again communicates with the pharmacological room on this floor. The part of the pharmacological department on this floor includes the private room of the Professor, Dr. J. B. Bradbury, and the room for his assistant, while beyond is a well lighted room fitted with benches and recording apparatus for instruction in practical pharmacology. Behind this is a research room for advanced students, while west of the library is a pathological workroom at present occupied by the Professor, Dr. Sims Woodhead.

The upper part of the library, like the dome of the Humphry Museum, projects into the second floor. Opening off the teaching museum on this floor of the Humphry block is a pathological workroom, at present occupied by the John Lucas Walker Scholar, and above this, again, is a photographic studio very completely fitted. In the main building on this floor are the following rooms: the Assistant Curator's room, pathological workroom, and experimental pathological room, an incubator room, a storeroom, demonstrator's workroom, and private room, and two preparation rooms; there is also a large practical class-room, fitted with benches and apparatus, in which some seventy to ninety students can be accommodated. It is lighted by a weaving-shed roof, and can be subdivided. On this floor another room has been provided for the temporary use of the hygiene department.

The basement of the whole building has been utilized very fully; under the museum is a preparation room for the curator, in the open yard, to the east of that, is a vivarium; here, also are the boilers for heating and ventilation and for driving the electric dynamos. The heating is by warm air driven by electric propulsion on the Plenum system, the air is admitted to each room by an aperture 7 to 8 ft. from the floor, and is expelled at the floor level. The chamber for the ventilating apparatus is under the lecture theatre. Air is drawn in by means from outside, and is filtered or warmed before being distributed. Opposite the fan chamber is the power room, which contains two 20-horse power Diesel oil engines for generating current; they can be run separately or coupled. Each engine is connected with an electric generator; there is also a storage battery; the current is of 100 volts.

Other rooms in the basement are a workshop, photographic room for pathology, dark-closing room, a perfusion and other rooms belonging to the pharmacological department, a storeroom, a room for combustions, a distillation room, and a room for fumigations which will be chiefly used in connection with the study of zymotic germs.

The building will be lighted throughout by electricity, and wherever an open gas jet is used in any laboratory or research room there is a small electric incandescent lamp burning in the apparatus in that room.

Throughout the laboratories and research rooms care has been taken to avoid angles and ledges, corners are rounded, the doors are self-shutting, the material generally used is uralite and mill board fixed on frames. The floors are of concrete or of wood block, and the walls are finished with adamant cement, and in some of the passages with glazed brick. The tables are of slate, teak, or American white wood, covered with linoleum or cork carpet, and when fixed supported on T irons let into iron brackets on the wall. All pipes are carried in pipe chases which can be used for telephone wires, etc., and all wastes end in glazed gutters in the floor. The architect of the building is Mr. E. S. Prior, M.A.

The New Botanical Department.

The Botanical Laboratory, a fine building of red brick with grey stone facings, is separated from the Law Library by a gravelled courtyard, the third side of which is formed by the Geological Museum. Behind the Botanical Laboratory is a grass plot. The building, which is of three stories and basement, measures 200 ft. in length by 40 ft. in breadth. All the rooms are well lighted, and the electric light is everywhere provided. The main entrance opens on to a hall, to the right of which is the museum and to the left the herbarium. The general arrangement of this and the upper floors will be gathered from the plans reproduced here.

The museum is a large and lofty apartment with cabinets placed transversely for specimens. It is essentially a students' museum, and all the specimens, or the bottles in which they are contained, can be handled. The arrangements follow a natural order. Beginning at the further end we find first of all fungi, then algae, monocotyledons, and so on up to specimens illustrating the morphology of the phanerograms. On the last shelves are displayed a number of specimens of historical interest, including some prepared by Professor Henslow, who may be looked upon as the father of botany at Cambridge. Among the specimens of fungi are many interesting examples of diseases of plants, a subject with which the name of Professor Marshall Ward, director of the laboratory, is especially associated. The herbarium contains a collection of dried plants, numbering three-quarters of a million, and a special herbarium library. As will be seen from the outline plan, the lecture room, which will hold an audience of two hundred, occupies the space between the museum and herbarium, and is immediately behind the entrance hall.

On the first floor there is a large microscope laboratory for morphology and anatomy, botanical chemistry room, laboratory, professors' rooms—which include a laboratory, incubation room, preparation room, and two research rooms and several other research rooms. At the end of the main corridor is a small conservatory for the use of the professor.

On the second floor a large amount of space is given up to a large laboratory with benches for 160 students for elementary practical instruction. There is also a large laboratory for the teaching of plant physiology, a small lecture room, and several research rooms. On this floor there is also a preparation room and a room for the curator. On the flat roof a greenhouse has been erected which is never exposed to direct sunlight, but provides the constant temperature and light required for certain kinds of investigation. There is also a third greenhouse fully exposed to light.

The botanical department at Cambridge is exceedingly successful and attracts a large number of students, and in its new buildings, where every facility for instruction and research is provided, it may be expected to become still more useful and popular.

The New Museum of Geology.

The geological department is a fine building fronting on Downing Street, and running back, forming a quadrangle with the law schools and the botany department. There is here a certain luxury of space which may well excite the admiration if not the envy of the medical department. On the ground floor is a large economic museum and two lecture rooms, one especially designed for the exhibition of large specimens. The main museum occupies practically the whole of the first floor, and is of really magnificent proportions; it is of L shape, and at the angle has been erected the bronze life-size statue of Sedgwick by Mr. Onslow Ford, which was unveiled by the King on Tuesday. The arrangement of the specimens in this museum is systematic. In one limb of the L there is on one side specimens illustrating the invertebrates, and on the other side the flora, while the other limb is occupied by vertebrate specimens. On the second floor of this building is the museum of petrology, and the workrooms of Professor Hughes and his assistants and collaborators.

VISIT OF THE KING AND QUEEN.

Cambridge was singularly fortunate in being able to show itself to the King and Queen under a bright sky. Snow came before their Majesties arrived and fell again after their departure, but during the ceremonies the day, though cold, was fine and for the most part sunny.

Congregation.

The King, who was accompanied by Mr. Gerald Balfour as Minister in attendance, travelled from London and the Queen and Princess Victoria from Sandringham; they were met at the station by the Provost of King's College, representing the University, and by the Mayor and High Sheriff, representing the town of Cambridge, and the Chairman of the County Council. Addresses were presented by representatives of the town and county, and the royal party then drove through gaily-decorated streets to the Senate House. An escort was furnished by the mounted infantry of the Cambridge University Rifle Volunteers. The streets were lined by a cheering crowd, and in the neighbourhood of the Senate House itself their Majesties were enthusiastically greeted by a great concourse of undergraduates. Others had already found their way into the galleries of the House, and had filled in the time by protesting against people who kept on their hats or read newspapers. In the eastern gallery and under it were the general body of graduates and many ladies. At the western end, on the dais, the chairs used by Queen Victoria and Prince Consort when they visited Cambridge University some sixty years ago were set for the King and Queen, while for the Princess Victoria was placed a chair once used by Charles II.

The King and Queen, on alighting at the south-east gate opening on to the lawn of the Senate House, were received by the Vice-Chancellor and other University officials, and were conducted to the Library, where the King donned his scarlet doctor's robe. A procession was formed under the Colonnade of the Library, and passed round the Senate House Yard, entering the Senate House in the following order:

The Esquire Bedells.
The Vice-Chancellor, accompanied by the Registrary.
His Majesty the King.
Her Majesty the Queen.
Her Royal Highness the Princess Victoria.
The Representatives in Parliament
The Heads of the Colleges.
Doctors of the Several Faculties.
The Public Orator.
The Librarian.
Professors.
Members of the Council of the Senate.
The Proctors.

On entering the Senate House their Majesties were received by cheering from the undergraduates, which quite drowned the earlier verses of the National Anthem sung from the west gallery by the choir of King's College. Owing to the absence of the Chancellor (the Duke of Devonshire) through indisposition, the address of the Chancellor, masters, and scholars of the University of Cambridge was read by the Vice-Chancellor, as follows:

May it please Your Majesties. We the Chancellor, Masters, and Scholars of the University of Cambridge humbly offer to Your Majesties our dutiful welcome to the precincts of this ancient University. We avail ourselves, Sir, of Your Majesty's gracious permission to address you that we may renew that assurance of our earnest and heartfelt loyalty towards your person and your throne which we were permitted to tender on the occasion of Your Majesty's accession. Fifty-six years have passed since your Royal mother, Her late Majesty Queen Victoria, whose memory we hold in abiding honour, was pleased, together with her illustrious Consort, then our Chancellor, to visit this University. Since that time, as we rejoice to remember, Your Majesty has resided among us as a member of our body, and has thought well to connect us with yourself by many gracious personal ties, permitting us to share with respectful sympathy in the joys and sorrows of your Royal House.

We recognize, Sir, in the presence among us of Your Majesty and of Her Majesty the Queen a mark of Your favour towards this University and a proof of Your solicitude for the progress of education, on which, under the blessing of Divine Providence, the stability and prosperity of Your Majesty's Empire both at home and beyond the seas so largely depends, and in the promotion and furtherance of which the national universities are entrusted with so large a share of responsibility.

We venture to remind you, Sir, that in bestowing upon us this sign of Your gracious recognition of our endeavours to fulfil our part as one of Your Majesty's ancient universities you are following in the footsteps of Kings and Princes of this realm. The University Library and this Senate House, in which we have the honour to address Your Majesties, are enduring monuments of the concern of our well-being which your Royal ancestors were pleased to manifest; and, in particular, we recall with gratitude and pride the zealous patience and the far-seeing wisdom with which your august father, while he was our Chancellor, ever took thought for the maintenance and advancement among us of learning, and more especially of the study of the natural sciences. To him we owe a debt which no lapse of time will diminish or obscure.

We ask Your Majesties to-day to visit those new buildings which, through the munificence of many benefactors, we have lately been enabled to erect.

The Squire Law Library and the Law School symbolize the development among us of those older studies, not only of law, but also of divinity, of letters, of history, and of philosophy, of which, through many generations, we have been guardians.

The Faculty of Medicine from our earliest days has had an honoured place in this our University. The beneficent science of medicine, with the sister sciences of surgery and of pathology, will henceforth have a home not wholly unworthy, as we trust, of that splendid progress which in these later days has conferred on mankind inestimable blessings and is the pledge of a yet greater advance in the time to come.

The Museum of Geology, the memorial of the late Professor Sedgwick, whose honoured name it bears, and the Botanical Laboratory are fitting emblems of the growth of the physical sciences which is the chief glory of our times, and which stimulates and, we trust, will stimulate, the best energies of many of our ablest students.

The inauguration of these new schools of learning and science marks an epoch in our academic history. We are profoundly conscious how auspicious and how memorable the commencement of this new era is rendered by Your Majesties' presence in our midst, and by your gracious participation in our aspirations and in our hopes.

We assure you, Sir, that our earnest and humble prayer to Almighty God is that, as He has shielded Your Majesty from danger in the past, so He will vouchsafe to you, with your Royal Consort our beloved Queen, long to reign in undisturbed peace and happiness over a loyal, united, and prosperous empire.

To this address His Majesty, who remained seated, returned the following reply:

"I receive with much gratification your renewed expression of loyalty to my throne and person, and your sympathetic reference to my beloved mother, Queen Victoria, and my revered father, who was deeply interested in everything connected with the University of Cambridge, of which he was Chancellor. I am proud to be a member of the University, and I shall always look back with great pleasure upon the time which I spent as an undergrad of Trinity. It was a great satisfaction to me to send my dear son the Duke of Clarence to matriculate in the same ancient and splendid foundation, and I well remember with what pride and interest we saw, so shortly after our marriage, the University in which I studied. There are around us many monuments of the interest taken in the University by my ancestors; and, like them, I earnestly desire its well-being and the extension and development of all branches of study and research which are essential to the maintenance and the greatness and the welfare of my empire. I have no doubt that Cambridge will continue to occupy a foremost place in this work. To the older universities must accrue new endowments for education if my realm is to be kept up to its proper standard of efficiency. I am glad to know many munificent donations have been received to that end, and that the museums which are now being opened for the study of subjects of especial importance at the present time will serve as an example of that generosity at which friends and supporters of the University will rejoice. I heartily thank you for your welcome to Queen Alexandra and myself, and I earnestly join with you in the prayer that my empire may continue throughout my reign in peace and prosperity."

The reference to the fact that he was himself a member of the University elicited much cheering, which was again renewed at the close of His Majesty's speech.

The Vice-Chancellor then read a history of the new buildings which the King was to open in the afternoon, and the Congregation, which had lasted about half an hour, was dissolved.

The King and Queen lunched with the Vice-Chancellor and some of the heads of colleges and professors at the Fitzwilliam Museum, and a large company was entertained, at the invitation of the Chancellor, in the fine hall of King's College.

Visit to the Medical Schools.

The King and Queen were again most warmly greeted, by townsmen and gownsmen alike, as they drove from the Fitzwilliam Museum to the new buildings in Downing Street. Here they were received by the Regius Professor of Physic, Dr. Clifford Allbutt, the Professor of Surgery, Mr. Howard Marsh, the Downing Professor of Medicine (Pharmacology), Dr. J. B. Bradbury, and the Professor of Pathology, Dr. Sims Woodhead. Their Majesties were conducted to the Humphry Museum, where the bust

of Sir George Humphry was already in place. Here Lady Humphry was presented to their Majesties, and Professor Allbutt explained that the museum had been erected as a memorial to her late husband. The King and Queen then visited the library where they were shown some pathological specimens, including examples of the trypanosome of sleeping sickness, in which His Majesty exhibited much interest. The royal party then visited the pharmacological department and witnessed a demonstration of the action of digitalis on the separated mammalian (rabbit's) heart. Their Majesties then descended to the large lecture theatre, and took leave of the professors of the Medical Faculty.

The Law, Botanical and Geological Schools.

In the hall of the Squire Law Library the King and Queen were received by the Professors and Readers of Law. They then crossed the quadrangle to the botanical laboratories, where the arrangements were explained by Professor Marshall Ward and Mr. Francis Darwin, Reader. The Royal Party then entered the Sedgwick Geological Museum, and proceeded to a point opposite the statue of Professor Sedgwick, which was veiled by the Union Jack. There Miss Daphne Sedgwick, great-grandniece of the Professor to whose energy and enthusiasm the fine building in which the ceremony took place is largely due, presented a bouquet to the Queen, while Princess Victoria received one from the students of Newnham and Girton. Professor Hughes, in a brief but very comprehensive speech, related to Their Majesties something of the work of Professor Sedgwick, and with the unveiling of the monument by the King the ceremonies of the day came to an end. The King and Queen were again most loyally and cordially greeted as they drove to the station.

The arrangements throughout were most admirably planned and the University of Cambridge is to be congratulated not only on the solid additions which have been made to its teaching resources, but on the brilliancy of the ceremonies by which they were inaugurated.

LITERARY NOTES.

Messrs. Macmillan will shortly publish a life of Sir William Flower by Mr. C. J. Cornish. The late Director of the Natural History Museum was in communication with naturalists throughout the world, and the correspondence contained in the forthcoming book must give it great scientific interest and value.

The following is Messrs. J. and A. Churchill's spring list of new publications: *The Examination of Water and Water Supplies*, by Dr. J. C. Thresh; the work will be freely illustrated. *A Handbook of Surgical Diagnosis*, by Mr. James Berry. An illustrated work entitled *The Elements of Chemistry*, by Mr. M. M. Pattison Muir of Cambridge. *Unconscious Therapeutics, or the Personality of the Physician*, by Dr. A. T. Schofield. The same firm will issue a sixth edition of *Clinical Lectures on Mental Diseases*, by Dr. T. S. Clouston; the text has been revised, and the work will contain some additional plates. A sixth revised edition of a *Manual of Anatomy, Dental and Operative*, by Mr. C. S. Tomes, F.R.S.

The great fire which raged in Baltimore on February 7th and 8th destroyed the February issue of the *Maryland Medical Journal*, the Tuberculosis Exposition number containing papers by Drs. Knopf, Flick, Adami, Ravenel, Thayer, Hodenpyl, Salmon, etc. The publishers inform us that through facilities afforded them in Philadelphia the forms have been reproduced from proofs on file outside the fire zone. We sympathize with our contemporary at once the most interesting medical journals published in the United States on the calamity which has overtaken it, but we congratulate it on so promptly rising like the Phœnix from its ashes.

The Warren Triennial Prize, founded by the late Dr. J. Mason Warren in memory of his father, is awarded every three years to the author of the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy. The judges are the physicians and surgeons of the Massachusetts General Hospital, Boston. The amount of the prize is three hundred dollars. Essays must be legibly written, and the name of the writer must be enclosed in a sealed envelope, which must be written a motto corresponding with one on the MS. Great importance is attached to original work. Essays will be received until April 14th, 1904. Full particulars may be obtained from Dr. H. K. Howard, Resident Physician, Massachusetts General Hospital.

Several correspondents have written, in reply to a query by Mimetes which appeared in the British Medical Journal of February 20th, that the parody on Mr. Rudyard Kipling's verses on Her Majesty's Jubilee was published in the *St. Bartholomew's Hospital Journal* for August, 1887. As so much interest has been manifested in the parody we think it well to reproduce it from the journal in question:

THE COUNTRY DOCTOR.

Air, "Soldier an' Sailor too."

(With apologies to Mr. Rudyard Kipling.

As I was a goin' once to bed, through a muddy country lane,
I seen a man in a oilskin cape, a trudgin' through the rain.
E 'adn't a match, an' 's pipe was out, as I ses to 'im, "Oo are you?"
An' e ses, "I'm a doctor, the country doctor, surgeon an' midwife too!"

Now 'e never gets paid for 'arf 'e does, an 'e does the work of two
An 'e isn't one of the gentlefolks, an 'e ain't like me nor you.
E's a sort of a bloomin' chameleotype, surgeon an' midwife too.

An' I seen 'im again all over the shop, a playin' all sorts of rags
Like settin' a fractured collar-bone with a couple of toothpick flags,
An' the parsons owe 'im money, for their wives give 'im work to do,
Though 'e's only the doctor, the country doctor, surgeon an' midwife too.

An' the Poor Law Board they sits on 'im, an' tries to dock 's screw,
Though 'e 'as 's bread and cheese to git the same as me or you,
They think 'e's a 'aughty philantcerat, surgeon an' midwife too.

An' I seen 'im again with a knife an' things, and the sweat was on 's brow.
'E was trying to mend the guts of a bloke as 'ad spiked 'issel in a row.
'Twas late at night an' 'e adn't no light, to see what 'e 'ad to do
An' 's pal was a doctor, a country doctor, surgeon an' midwife too.

'E 'adn't got far with 'is little job, 'e went 'ot an' 'e went through.
When the bloke sits up an' asks for a drink, the same as it might be you.
Ho! they ain't no special anaesthetutes, surgeon and midwife too.

But there wasn't a call to do as you done when you 'ad the gout in yer toe,
An' you fetched 'im out in the dead of night, an' 'e 'ad six miles to go.
For you've 'ad it before, and you'll 'ave it again, and you know just what to do.
You don't want the pore old country 'doc,' dispenser an' staff nurse too.

You pays 'im? What? Yes, tuppence a week, an' you're earnin' "thirty two."
An' e 'as to subscribe to your football club, which you're too mean to do,
Because e's the doctor, the country doctor, surgeon an' midwife too.

Now I never believes in them specialist thieves, what stammer, an' grunt, an' blow,
As 'd watch yer die with a winkin' eye for a hundred pound or so.
An' when it's "Cheeks!" an' "'Oose turn next?"—which I opes it won't be you!—
Let's stick to the doctor, the country doctor, surgeon an' midwife too.

An' when you come to the Bar of Gawd, an' E says "Oo passed yer through."
For 'e 'ates Peculiar People an' the Christian Science crew
Just mention the doctor, the country doctor, surgeon an' midwife too.

E. C. E. A.

An interesting and valuable addition has just been made through the generosity of Dr. George W. Norris to the library of the College of Physicians, Philadelphia. It consists of three volumes, containing the collection of coloured eye grounds made up of the original drawings and notes of Professor Eduard Jaeger, of Vienna, from which the well-known "Jaeger Atlas" was produced. The drawings were all made by Jaeger himself, and each of them represents an exact and careful copy of an eye-ground appearance as seen by him. This collection was sold after Jaeger's death by order of his executors, and was purchased by the late Dr. William Fisher Norris, first Professor of Ophthalmology at the University of Pennsylvania, for £480.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, amounting to about £35, will be made on July 14th, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but must be unpublished, and must be received by the Secretary of the College on or before May 1st.

La Revue Générale d'Histologie is the name of a new periodical which is shortly to appear under the editorship of Professor Renaut, of Lyons. Its nature and scope are sufficiently described by the title.

A Society of Tropical Medicine has recently been founded in Paris. The President is Professor Brouardel.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 5TH, 1904.

THE KING, CAMBRIDGE, AND THE TREASURY.

THE KING, in his speech in the Senate House at Cambridge on Tuesday last, said, speaking of the University: "I earnestly desire its well-being and the extension and development of all branches of study and research, which are essential to the maintenance of the greatness and the welfare of my Empire. . . . To the older universities must accrue new endowments for education if my realm is to be kept up to its proper standard of efficiency." That these words should have been said by the Chief of the State on an occasion when their implication was so obvious marks a distinct step in advance, and the King has placed the country under a fresh obligation of gratitude and loyalty by so pointedly enunciating the moral which even that hard-worked person, the man in the street, will be able to draw from the Royal visit to Cambridge.

It was something more than an expression of sympathy with the University of which the King said that he was proud to be a member; it was an expression of the interest which the King feels in the great movement, as yet only in its earliest stage, for revivifying the fountains of knowledge and research in the United Kingdom. We may hope that the interest thus expressed by the Sovereign and the recognition by him of the significance for the future of the realm of this movement may serve to turn the thoughts of men of wealth and wise benevolence to the needs of our universities, even of the oldest and the richest of them. Mr. Carnegie is credited with having declined to subscribe to one of them on the ground that they were mediaeval institutions. The Scoto-American millionaire perhaps sacrificed his judgement for an epigram, for no one who visited Cambridge on Tuesday, or will study the plans and descriptions of the new laboratories and museums published at p. 553, can doubt that Cambridge, while not breaking with the past, has carried forward to the present day the spirit of the Renaissance, that eager love of knowledge for its own sake, that desire to possess the best of the new learning, and that determination to push further back the frontier between science and nescience.

But to the thoughtful observer it must have seemed pitiable that this great seat of learning, with all the prestige of its many centuries and great names, should have had to go out into the byways to beg for a beggarly tenth of a million to meet in part its most pressing needs, at a time when the House of Commons is voting thirty or forty millions for the Navy, and is to vote next week something like the same sum for the Army. Sir John Brunner who from the character of his business and training knows what he is talking about—said the other day that if the State were to borrow ten millions to help science and endow its teaching it would get the money back a hundredfold within a generation. So far from the State adopting this advice, there is rejoicing that the Chancellor of the Exchequer has consented to increase the grant to university colleges from £25,000 to £30,000. We shall be curious to see how this vote will be received by the House of Commons. Will it be passed over in silence as too unimportant to afford an opportunity to even that long-winded assembly to talk? Will it be opposed by some sapient dullard on the plea of economy? or will any member have the good sense to move that it be multiplied by ten?

Sir Norman Lockyer, in his address to the British Association last autumn, declared that a sum of twenty-four millions was required for the extension of universities and the establishment of laboratories and the endowment of teaching. A university may be maintained by private benefactions or by State support, or by a combination of these two sources of endowment, for we suppose that it is no longer necessary to expose the fallacy that a university can be run as a commercial concern—so much teaching for so much money paid by the pupils in fees. Even an elementary school cannot be conducted on that principle. We have no hesitation in supporting the contention that training for the professions, including, as one of the most important to the welfare of the State, the profession of medicine, is an enterprise in which the State has the most direct concern. As Sir Victor Horsley said at Birmingham last October, to finance a university means provision for systematic education, of extensive laboratories, and of men to carry out original research in them; while to ask parents to bear the heavy expenses of professional education is unjust. Hitherto assisted higher education has been chiefly for the Church and Bar; it must be realized that these professions should no longer stand alone. The original intention with which bursaries and scholarships were founded was to assist the impecunious student, and it was a mere accident of time that they were directed to be given to lads who gave promise of excellence in classics or mathematics. The original intention of the fellowship system was the endowment of research; it was perverted to the encouragement of a kind of cultivated laziness, it was improved into a means of endowing teachers, and is now more and more, in Cambridge at least, being turned again to its original purpose.

But the protest of the older learning that it must not be deprived of all the advantages it has enjoyed for generations is just. New conditions call for new efforts, for additions to facilities for research and teaching, not for subtraction from those already existing. This has been fully recognized in Germany and in America, where the old and the new learning are held in equal honour. The total income of the University of Cambridge is, approximately, £75,000; of Oxford £70,000. The income of the Medical School alone of Harvard University is over £32,000, and of the whole University nearly a quarter of a million (sterling). It may be objected that Harvard is not a fair case to take, but Dr. T. Gregory Foster who visited the United States recently as a member of the Moseley Education Commission stated in a lecture delivered at University College on March 2nd that what a State of the Union did for the Universities was practically to make education free for people resident in the State. Sir Norman Lockyer estimated that in Germany the income of a first-class University (Berlin) was £130,000 a year; of a second-class University (Bonn, Göttingen) £56,000; of a third-class University (Königsberg, Strass-

burg), £48,000; of a fourth-class University (Heidelb rg, Marburg) £37,000, chiefly provided in every case by the State. Judging by the latest figures available these amounts are rather under than over-estimated. The University of Vienna receives over £88,000 a year, nearly the whole of its income, from the State. Berlin spends over £40,000 a year on its teaching taff, and nearly £100,000 on its institutes; Marburg (a "fourth-class" University) over £15,000 on its teaching staff, and over £25,000 on its institutes; Cambridge, a first-class English University, has about £30,000 for its teaching staff and about £17,000 for its institutes; Oxford about £21,000 and £22,000 respectively. So that a fourth-class German University spends about as much on teaching and research as a first-class English University.

The claim for a large measure of State aid for British universities has been fully made out. The Chancellor of the Exchequer magnanimously promised that perhaps next year the State grant might be raised to £100,000, a third less than the German Government allows to the single University of Berlin! He says nothing about capital expenditure on laboratories, yet the German Government spent a million sterling on the buildings of Strassburg University alone.

We grievously want an Educational Minister with large views and large influence with his colleagues. A man who can and will break with the evil traditions of the past, who will not, like Sir William Anson, try to poise a pyramid on its apex, and talk about building up an intelligent population before providing the means to make them intelligent. Oh! for a Higher Education (Reconstitution) Committee of three, with one idea and ample powers!

THE MOVEMENTS OF THE HEART.

THE study of the movements of the heart has proved during the last few years to have a great fascination for physiologists and physicians; and it is not difficult to see why this is so. In the history of medicine, as in the history of all natural knowledge, we find that discovery is not a product of genius alone, but of genius multiplied by time and [illegible]. On seasonable time it depends whether the spring of genius shall wither in blight or drought, or ripen into the summer of fruition. Had Harvey been born in the thirteenth century he, like the author of the *Opus Majus*, might now have been but a ruin in the wilderness; a relic uncovered by the spade of the scholar. Happily, the great lights of Gilbert and Galileo shone before him; and that of Newton on his setting. From Harvey's time to our own there have been men of science to see that in the sphere of the circulation the positive methods of physics may somehow harmonize not unequally with the mysteries of life. In our own day the school of Ludwig has kept the lamp burning, and penetrated more and more deeply into the subtle mechanism of that wonderful automaton, the heart. Harvey doubtless was a good physicist, but he was a physiologist that he is great; and it is to physiologists now that we owe most of our knowledge of the circulation. By their training in method and precision the functions of the circulation are interpreted, and the physicians have their data. Yet it is by physicians that scientific discoveries are to be turned to service in dealing with the perversions of disease and the frailties of decay, and to a few physicians who, like Dr. James Mackenzie, are skilled in physical methods, we look and do not look in vain, for transitional studies by which a bridge may be built between the researches into the science and the practice of the art of medicine.

Tracings of the pulses of the heart and vessels are often difficult to obtain by any instrument. Many are published which signify nothing except the inability of the instrument to record the movements to which it is vainly applied. Still more frequently the movements are such as the instrument might in skilled hands have recorded; but most hands are unskilled. A sphygmograph needs as many dexterities as a cricket bat. In the best hands the records differ not only on different persons but also on successive applications to the same person. In his article on another page Dr. Mackenzie shows that in this technical part of his equipment there is nothing lacking. His curves tell us as much as in this way can be told. But here is the rub! What is to be the interpretation of these fragmentary registers? Dr. Mackenzie knows better than most of us that if his curves are correct his interpretations may be fallible. For example, for true interpretation we must have a *point de repère*. Thomas Coryat, whithersoever he roamed, calculated his distances from Odcombe, his home in Somerset—an inconvenient benchmark no doubt, still a definite one. Now Dr. Mackenzie will admit that in many of his curves the instrument gives him no benchmark, so he has to make one—arbitrarily. He has to set down his *a* or his *v* as seems to him best, and he takes off from this; and small blame to him. But his readers must have a like benefit, and as arbitrarily fix their own benchmarks, it may be at other loci in the heart's circuit.

To take Fig. 8, for instance: "the radial pulse shows intermissions at ×. This (these?) are due to extra systoles" (not reaching the wrist?). But on the curve we might not unreasonably fix *a* to the upnotch *v*, as on Fig. 4; again we might as plausibly affix *v* to the upnotch, and *a* to the summit. In the third section of tracing 9 the positions of *v* seem also to be arbitrary. But to argue on these fixed points would lead us too far. We have touched upon them in respect especially of one of Dr. Mackenzie's propositions: namely, that certain of these curves demonstrate the supervention of an independent ventricular rhythm. Now let us turn from the curves to the heart, as revealed by experiment on animals; let us suppose the interval between auricular and ventricular contraction to be greatly delayed—say, by digitalis (the patient of Fig. 4 was taking this drug), or again by muscular deterioration, this delay may well be long enough so to alter the pause relations of auricle and ventricle that the next auricular will *seem to follow* the belated ventricular contraction. But Dr. Mackenzie suggests that in some of his cases the auricle was so full of blood as to be unable to contract upon its contents, and thus to initiate the ventricular contraction, by "Gaskell's bridge," on which, as the author says, Professor Allbutt has insisted. Readers of the review on p. 551 will note that Wenkebach, however, leans to this latter interpretation. We recommend to Dr. Mackenzie two experiments: If a striated muscular fibre be made taut and then stimulated it will be seen that even in this state it can propagate stimulus to a free fibre; and, again, if a right auricle be gorged with fluid by means of a syringe till, even by the tonometer, no contraction can be detected, and now the auricle be stimulated, it can and does propagate stimulus to the ventricle. Let it not be said that herein we are begging the question that the ventricle may have started an independent rhythm for cut away then the venous sinus, and, although

the auricle is relaxed, all contractions will cease at once. Dr. Mackenzie admits that the behaviour of the heart in tachycardia is difficult to bring into accord with his views; but into this we have not space to enter. In such papers as we publish to-day, as in his book on the pulse, Dr. Mackenzie has proved himself a laborious, able, and ingenious worker; he opens new problems and excites us to test his propositions to the utmost. We are far from asserting that his propositions are wrong, and in any case we help each other to tease out these perplexities.

One more remark, on a different subject, we must make before concluding: In reviewing Professor Wenkebach's book we have kept for this more formal place a remonstrance which it is our duty to make on behalf of English observers. German observers in this field, because they have been behind us, have not recognized the priority of English work on the functions of the heart, and their neighbour Professor Wenkebach does not correct them. He, too, attributes to Professor Engelmann work done in England twenty years ago by Dr. Gaskell and his school,[1] and we may add by Porter also. Engelmann has elaborated the detail and has invented some large technical terms for those several elements of cardiac function analysed by Wenkebach and Mackenzie, but previously discriminated by Gaskell; yet to the essential solutions of the problem Engelmann has contributed but little.

THE MEDICAL SERVICE OF THE ARMY.

IN the second part of the report of Lord Esher's Committee issued a few days ago it is stated that Part III, which deals, among other matters, with "the position of the Army Medical Services," will shortly be ready for submission. Its appearance is awaited with some anxiety, not only by the officers of the Royal Army Medical Corps and the young men fresh from the schools whose thoughts are turning towards the army as a career, but by the medical profession, and, indeed, by all who are interested in the efficiency of our military force and in the welfare of Tommy Atkins. There is too good reason for such anxiety. In approaching the great problem with which they had to deal Lord Esher and his colleagues seem to have started from the assumption that whatever is is wrong; and, in accordance with this principle, they have set themselves to undo in every direction the work done by Mr. Brodrick. Hence their plan for the reconstitution of the War Office, as far as it has yet been revealed, is, in its way, as "thorough" as the Irish policy of Strafford.

The discussion of the proposed reforms as they affect the purely military side of army organization does not lie within our province. There is, however, another side, of scarcely less importance to the army and to the nation, with which the medical profession is directly concerned. We have already felt it our duty to protest strongly against the omission from the new Army Council of any direct representative of the medical service. We have shown that the analogy of the medical service of the navy, with which that of the army is apparently to be assimilated, is misleading, inasmuch as the work of the two services differs so widely in nature and in extent that they cannot fairly be compared, while the system of administration existing in the naval service is wrong in principle and in many ways unsatisfactory in practice. It is plainly intended to relegate the medical service to the position of a subsection of a department under one of the military members of the Council. Whether the particular officer be, as foreshadowed in one apparently inspired quarter, the Adjutant-General, or as definitely intimated in another, the Quartermaster-General, matters little. The important thing is the sacrifice of the vital principle of administrative autonomy recognized by Mr. Brodrick when he gave the Director-General a seat on the Army Board.

This alone is sufficient to condemn the scheme of Lord Esher's Committee as far as it relates to the medical service. But there are rumours of still more drastic changes. We hear of unofficial premonitions of an impending division of the Royal Army Medical Corps into three bodies, the duties of which would be respectively sanitary, hospital service, and regimental. We give this rumour for what it may be worth, but it may be pointed out that a possible confirmation of it may be found in the fact that in at least two passages of their second report the Committee speak of the "Army Medical Services." We are sorry to say that the obvious ineptitude of such a proposal does not by any means make it unlikely that it should be brought forward

Having closely watched the history of army medical reform for many years past, and having taken a considerable part in making that history, we have had abundant opportunities of observing how incompetent the military advisers of successive Secretaries of State have shown themselves in dealing with the question. This is due to the very temper and constitution of the military mind, which necessarily, and rightly, looks upon the army solely as a fighting machine. Hence it regards the sick and wounded as encumbrances and those who minister to their needs as "camp followers"—to use the polite phrase of Lord Wolseley.

We would ask Lord Esher and his colleagues, before they proceed further in their work of reforming away the reforms of the late Secretary of State for War, to remember the advice once given by our Gracious Sovereign to an editor who is now a leading politician, not to be too strenuous. Whatever may be the case with Mr. Brodrick's other reforms, those which he made in the organization of the medical service of the army have proved to be in the main of real value. They have brought peace to a department in which, owing to the fatuous perversity of the military authorities, unrest had become chronic. They have been the means of replenishing the ranks of a service which was within measurable distance of extinction for want of fresh blood. As Dr. Tooth points out, in a letter published in the *Times* of February 25th, whereas under the old regulations it was difficult to get men to enter the service, at the last three examinations there have been nearly twice as many candidates as there were vacancies, and their quality, professional and social, has greatly improved. We earnestly deprecate any rash meddling with a system which has brought about such a transformation. The change in the attitude of the medical profession towards the army is entirely due to Mr. Brodrick's reforms, and we cannot help saying that it will be nothing less than a breach of faith with the profession, and with the public for whose benefit the army exists, if Mr. Arnold-Forster now goes back upon them.

The Committee desires it to be clearly understood that its scheme of reform has been conceived and elaborated as a whole, and that any interference with the principles on which it is based would necessarily destroy its benefits. It is not for us to inquire how the Prime Minister likes being told in this peremptory fashion that he must swallow the scheme whole. On our part, however, we say to the

[1] *Phil. Trans.*, 1892-3.

Committee that we desire it to be clearly understood that no scheme of so-called reform which reduces the medical service to a subordinate position, that will bring with it all the old disabilities of various kinds from which it was happily delivered two years ago, will be accepted by the medical profession. The Committee is impressed with the evils of civilian control over military policy and administration. We invite it to apply the sound principle underlying this opinion to the administration of the medical service, where experience has shown that military control is simply disastrous.

PROPRIETARY MEDICINES.

IT is impossible not to admire the cleverness which vendors of proprietary medicines show in making extracts from lectures and articles in the medical papers and the ingenuity with which they even try to turn definite attacks upon the proprietary medicine trade to their own advantage. It is a practice, however, which is quite indefensible, as in a recent instance to which Dr. Robert Hutchison drew attention in a note published in the BRITISH MEDICAL JOURNAL of February 27th. In this an advertisement "for private circulation among the medical profession only" makes free use of a lecture delivered by him last autumn which contained the damning results of his analysis of many of the more common proprietary remedies. Placing his name in large characters at the top, the advertisers pat him on the back and are quite patronizing to him. His denunciation of proprietary or, as they say, quack preparations and quack advertisements meets with their entire approval. Their particular remedy was not discussed by him but his general attitude towards the matter seems to them so meritorious that they "cheerfully state" for the information of the profession what their preparation contains, a proceeding which would be still more praiseworthy if the contents were not of a character which Dr. Hutchison or anybody else interested in the matter would very readily discern for himself. Having thus put themselves, as they presumably think, on good terms with those whom they evidently address, they proceed to give extracts from the booklet which they issue to the public. The apparent object of this is to show how superior their way of doing business is to that of their rivals; but the net result is that quite with an engaging air of candour they disclaim the necessity or a reason for their remedy, they confess to its inanity but it possesses very much the same therapeutic properties as the remedies which are vended with less skill by rival vendors. Their medicine they confess with a frankness which would be charming if it were not a little suspicious, is "not a cure all, or a miracle, or a mystery," but simply "an honest medicine" offered with "that full sense of responsibility which every one must feel with the sick should feel. Unless they greatly err they would not take the money of the [illegible] men and women who are the principal buyers of proprietary medicines, because they are cheaper than those prescribed by physicians and to whom for that reason a meritorious proprietary medicine is a boon." All this is [illegible] and good for business, extracts daily sent and the [illegible] persons in whose welfare the vendors take so [illegible] an interest will do well to adopt the attitude of Mr. [illegible] in regard to the House of Lords and think [illegible] than those they spend their hard earned [illegible] on a remedy which is described as "a [illegible] and constipation" a "valuable [illegible] [illegible] not [illegible] a "corrective of [illegible] and derangement of the kidneys," even these all [illegible] with capital letters and the remedy supplied in a dainty aluminium box for the [illegible] price of one shilling.

THE TREATMENT OF CANCER.

Cancer "cures." The Mumbo-jumbo line fits the proverbial fiction and goes like the [illegible]. Two or three months ago the newspapers were singing the praises of Dr. Otto Schmidt of Cologne, in whom the public was invited to see our long-awaited deliverer from the deadly scourge. As no man is a prophet in his own country, it was not surprising to learn that Dr. Schmidt's professional brethren in Germany were somewhat sceptical as to the value of his discovery. An English disciple brought his work to the notice of the profession here, and the treatment has had a fair trial at the Middlesex Hospital in a series of cases pronounced by Dr. Schmidt himself to be suitable for the purpose. The result is told in a communication from the Cancer Investigation Committee of the Middlesex Hospital which is published at p. 576. The members of the Committee, which consists of Mr. Henry Morris, Mr. Andrew Clark, Mr. Pearce Gould, Dr. Pasteur, and Dr. Lazarus-Barlow, report that they failed to observe any trace of a specific local or general reaction, and they equally failed to see any local or general improvement in the condition of any single patient. They conclude that the injections in no wise alter the course of the disease. This is further proved by the fact that in the case of those patients who died, microscopic examination revealed no differences in appearance from those usually met with in cases where the special treatment has not been used. The failure of the method is admitted by Dr. Jossé Johnson, who acted as Dr. Schmidt's representative, and made nearly all the injections with material obtained direct from the Cologne physician's laboratory. We may add that the results confirm observations which we understand were made in the case of more than one patient treated by Dr. Schmidt himself. It may be remembered that Mr. D'Arcy Power, who tried the method in three cases, reported to the BRITISH MEDICAL JOURNAL of February 6th, p. 299, described it as "ineffectual," and summarized his experience in the statement that it was "of no service at present either from a prophylactic, diagnostic, or curative standpoint." Of this cancer "cure" we may say, as Heine said of Alfred de Musset, that it has a great future behind it. The testing of "cancer cures" is a part of the regular work of the staff of the laboratories set apart for cancer research at the Middlesex Hospital, who give much time to the matter, mostly without any corresponding advantage. It appears from the report of the Cancer Charity of that hospital, an abstract of which will be found at page 572, that 100 cases of carcinoma were treated in the course of the year 1903 with the *x* rays, with encouraging results. At the Cancer Hospital, Fulham, radium has been employed by Mr. Plimmer in a series of cases of malignant disease: treatment with *x* rays and high frequency currents has also been used; the results are not stated in the report of the Medical Committee for 1903, but it is intimated that Mr. Plimmer's observations when completed will be published. It may not be out of place here to quote a passage in which reference is made to this subject from the address recently delivered by M. Lancereaux, on vacating the chair of President of the Paris Academy of Medicine. "A report on a communication by MM. Lemoine and Doumer of Lille, entitled, Treatment of a Case of Cancer of the Stomach with the X Rays, was presented to you by M. Albert Robin, and a fortnight later, M. Cornil communicated to you another report on a paper by Dr. Romain Vigouroux, concerning the treatment of tumours of the breast with the same rays. Neither the one nor the other of my colleagues cared to stand as guarantee for the cures brought about by this method, and at one of the subsequent sittings, Dr. Leon Labbé rightly pointed out that, notwithstanding the favourable influence of the *x* rays on wounds resulting from cancer, the cure of that disease by those rays could not be proclaimed under cover of the name of the Academy." From all which it may be gathered that the attitude of the profession in regard to the results of the treatment of cancer by *x* rays should be one not of hasty acceptance but of "animated expectancy," if we may borrow a happy phrase attributed to Lord Salisbury by an inventive reporter. The public, too, cannot be too much on its guard against "cures" which serve only to supply sensational "copy" to newspaper scribes and then fade into the nothingness of the *acqua d'antan*.

SPOROZOA AND DISEASE.

The increasing importance of the sporozoa—a group of protozoa parasitic in many animals and in man—has become evident in recent years in connexion with the etiology and pathology of various diseases affecting man. Considerable light has been thrown on the nature of malaria and other tropical diseases by the study of these organisms, which are under certain conditions pathogenic to man. This week Professor Minchin, of University College, London, delivered the first of a series of eight lectures on the sporozoa, which are intended to deal with the biological and pathogenic aspects of the question. The first lecture, given on February 24th, dealt mainly with the life-history and developmental stages of a typical sporozoon (monocystis agilis), and traced the outlines of sporozoan biology. The sporozoa constituted a large number of forms, said Professor Minchin, parasitic in their habits, living within the tissues of worms, crustaceans, insects, and vertebrates (including man), and were liable in certain conditions to prove dangerous and even fatal to the life of their host. The parasitic life was marked by exceeding fecundity: a single monocystis gave rise to hundreds of mobile spores (swarm spores). These organisms fed on the blood and juices of the host by a process of osmosis, the parasitic life being accompanied by a total absence of any prehensile, masticatory, or food-ingesting organs such as were seen to be well developed in other classes of protozoa. The monocystis agilis, a sporozoan of the Gregarina class, lived in the seminal vesicles of the earth worm. It lived and grew within the sperm blastophores until it attained its full size, the spermatozoa themselves developing marginally around the parasite. Finally the latter emerged from its pseudo-covering as a sporont. These sporonts were motile cells with a cuticle, and possessed of the power of vermicular movement. They conjugated in pairs (gametes). Each pair of gametes secreted a cyst wall, within which the nuclei and protoplasm underwent division into numerous oval nucleated masses, fragments of one nucleus uniting with portions of the other nucleus. The offspring thus produced were known as zygotes. The zygotes underwent no further development in the earth-worm, but when the latter was swallowed by birds the faecal droppings of the latter were found to be full of sporozoites or falciform bodies which had been derived by further growth and division of the zygotes. These sporozoites were swallowed along with earth by worms within whose body further stages of development were passed. Other sporozoa infected man, and gave rise to disease—a subject which would be dealt with in future lectures.

EPSOM COLLEGE.

The Treasurer of Epsom College, Dr. C. Holman, has issued a letter to the profession, in which, following on the alteration in the title, which was the result of a unanimous vote of the governors, he calls attention to a list of distinctions won by Epsom College boys within the past ten years, given in an abridged prospectus just issued. For a school of about 230 boys the list is highly creditable both to the teaching staff and the pupils themselves: it includes 24 open scholarships at the Universities of Oxford and Cambridge, 81 higher certificates of the Oxford and Cambridge Schools Examination Board with 22 distinctions and 276 lower certificates of the same Board. In addition 129 boys have passed the Matriculation Examination of the University of London, 76 of them in the first division and one in honours: 33 have passed the preliminary scientific examination for the degree of M.B. in the same University, 10 of them in the first division; 5 have passed the intermediate science examination, and 73 have obtained South Kensington certificates in the art examination (drawing). We believe, however, that Epsom is free from the reproach sometimes made against the public schools of giving attention to the cleverer boys at the expense of the rank and file. It can boast of a very long list of boys who have left it soundly equipped mentally and physically to enter the professions, the public services, or commercial life. Further particulars with regard to the school can be obtained on application to the Bursar, the College, Epsom; the London Secretary is Mr. J. Bernard Lamb, 37, Soho Square, London, W.

A HYGIENIC DECALOGUE.

Count Leo Leonovitch Tolstoi, a son of the famous writer, has recently published a book embodying the results of observations made in the course of a visit to Sweden. The impression produced on him by what he saw in Scandinavian countries was most favourable. As for Sweden in particular, he thinks it a model nation, which should be taken as a bright example by all European countries, and especially by Russia. Industrious, frugal, educated, reasonable, and tolerant, the Swedish people almost realizes the ideal of social wisdom. Sweden is, before all, the land of health, moral as well as physical. Count Tolstoi is enthusiastic about the Swedish system of physical training, which, he says, does not confine itself to strengthening the body, but gives vigour and suppleness to the mind and the soul. He sums up the Swedish rules of living in the following decalogue: (1) Live night and day in fresh air. (2) Take exercise every day in the open air by working and walking. (3) Eat and drink moderately and simply. Take water, milk and fruit in preference to alcohol, and thus increase your capacity for work and your happiness. (4) Harden yourself against cold by washing daily in iced water, and take a hot bath once a week. (5) Wear clothes neither too heavy nor too tight. (6) Live in a dry, spacious, well sunned house, and have a house to yourself. (7) Practice rigorous cleanliness in all things, even (*sic*) in the moral order; that is a safeguard against contagious diseases. (8) Regular and strenuous work is a safeguard against diseases, both of mind and body; it is a comfort in misfortune and a preservative of happiness. (9) Do not seek for rest after work in noisy distractions. Your hours of leisure belong to your family. Night is made for sleep. (10) The first condition of good health is a life made fruitful by toil and ennobled by good actions. These are, indeed, noble sentiments, which would have won the approval of Sir Peter Teazle. We may, however, be permitted to point out that there is nothing peculiarly Swedish about them. However novel they may seem to a Russian traveler, a little inquiry will show Count Tolstoi that the general principles underlying the precepts which he admires so much have been taught by philosophers and moralists from the first syllable of recorded time. They are embodied in the proverbs of all nations with the possible exception of Russia. We are quite willing to believe that they are more generally observed in Sweden than elsewhere, but even in that privileged country there must be certain difficulties in their practical application. On those points we should be glad to have some guidance from Count Tolstoi. Will he tell us for instance how every one in Sweden contrives to live in a spacious and well-sunned house which he has all to himself? Or how he manages to get iced water for his morning tub? Does no one in Sweden ever find any difficulty in earning his daily bread, or the milk and fruit enjoined in his decalogue? Probably the economic difficulty is less urgent in Sweden than in more crowded countries where hungry generations tread each other down; but is there no struggle for life in the Arcadia of the North? Professor Ogston has lately told us that the famous Swedish system of gymnastics is now found even in the land of its birth not to do all that Count Tolstoi claims for it. Even cleanliness is to a large extent an economic question; it is impossible to practise it under the conditions in which the "submerged tenth" at present lives. Until the problems of poverty and overcrowding, with their inevitable physical and moral consequences, are solved, the hygienic decalogue preached by Count Tolstoi must for the many remain a theory of abstract perfection.

DUX FEMINA FACTI.

The Progressive Health Club, which is composed entirely of women, is, we are glad to learn, grappling seriously with the spitting nuisance in Chicago. They propose to

give the widest publicity to an anti-expectoration ordinance which was passed three years ago, but has never been enforced. They will do their best to secure the prompt arrest of flagrant offenders. Alderman Goldzier, to whose efforts the enactment of the ordinance was mainly due, has drafted a formal memorial to the Mayor and the City Council, which runs as follows: "(1) The police and health departments shall be instructed to cause the arrest of persons who flagrantly and offensively violate the ordinance by expectorating on sidewalks, etc. We are fully aware that it is not possible to arrest every offender, but an occasional arrest would call the attention of the public to the ordinance and the nuisance. (2) The present printed card in use by the Health Department is prolix and weak. (3) These notices to be given to proprietors of halls, etc., and posted on patrol boxes and other practical and conspicuous places. An ordinance to provide for their posting in public vehicles." The Committee of the Progressive Health Club was instructed again to call on the transport companies to urge the need of cleaner cars, and to secure the co-operation of the Board of Education in bringing to the attention of school children the evils of indiscriminate spitting. As we have said before the watchword of the campaign against this disgusting and dangerous habit is *Dux femina facti*. If it is ever to be put down, it will not be by ordinances, but by the education of public opinion. In this process the influence of women is the most powerful factor.

RURAL HOUSING.

A deputation from the Rural Housing and Sanitation Association, whose object is to obtain enforced improvement in the hygienic conditions under which the rural population lives, was received last week by Mr. Long, President of the Local Government Board. It admitted in the course of its statement that much improvement had been effected in the course of the past fifty years, especially in districts where the landlords were both active and willing and local sanitary authorities keen in the performance of their duties, but nevertheless made out a good case for the intervention of Government. It was shown that a very large part of the rural population still lived under housing conditions which were in every way undesirable, and that owing to apathy of the poor, ignorance as to the condition of their property on the part of many landlords, and comparative poverty on the part of others, and the neglect of many local authorities to take any action in such matters at all, little material improvement was at present to be expected. By way of bringing the influence of public opinion, both local and general, to bear upon the matter, the Association proceed to the preparation and publication by Government of a return showing the condition and occupancy of all rural dwellings throughout the country of which the rentals were under £10 a year. As a direct remedy it asked for the consolidation of the various laws bearing upon the subject scattered throughout the Statute Book, in order that the duties, powers, and rights of house owners, sanitary authorities, and local authorities might be better understood and appreciated by all alike. It asked also for greater activity on the part of the Local Government Board in calling upon local sanitary authorities to carry out such powers as they already possessed. Further representations were the increase of the qualifications, powers, independence, and pay of medical officers of health and the combination in many cases of small and poor districts into large ones and the appointment in each of travelling inspectors. As regards medical officers of health, it was almost to expect to get important duties efficiently performed at salaries such as some of the rural authorities paid, and in addition it should not be possible for any such officer to be dismissed merely by adding Sunday and without the right of appeal to the Local Government Board. The answer which the deputation received does not seem to have been very encouraging. The evils and the value of many of the proposed remedies were admitted and no action promised, while Mr. Long thought that local authorities might object to officers whom they appointed and paid being rendered independent of them. Until some sort of security of tenure is obtained for all medical officers of health there is little chance of the law being carried out, at all events in small communities where the formation and guidance of public opinion rest in the hands of the few local autocrats who may have much to fear from any active administration of sanitary laws and regulations. The majority of medical men will not require any argument to convince them that the objects of the Rural Housing and Sanitation Association are of importance.

THE REST TREATMENT.

At a meeting held recently in celebration of the twentieth anniversary of the organization of the Philadelphia Neurological Society, Dr. S. Weir Mitchell delivered an address on the mental processes by which the rest treatment was developed, a summary of which was published in the New York *Medical News* of February 6th. Dr. Mitchell said the beginning of the chain of circumstances which finally led to the adoption of the treatment was laid during the Civil War. He then referred to the cases of acute exhaustion occurring among the soldiers after or during forced marches, this being seen particularly in the Gettysburg campaign. These men remained for weeks or even months in a condition which would now be called neurasthenia. It was noted, however, that complete rest and forced feeding brought them up so that in many instances they were able to again join the ranks. Some time after the war a man who was under treatment for locomotor ataxia fell and broke a leg. This kept him in bed for three months, and as soon as he was out he broke the other leg, this enforcing a second rest of three months. When he finally recovered the use of his legs it was seen that the ataxia was decidedly improved. In 1874 Dr. Mitchell was consulted by a married woman, aged 26 years, who was exhausted primarily by much charitable work and the bearing of children in rapid succession. Having ample finances she had tried every known means for the restoration of health, but at the time mentioned was a pitable invalid. For some time Dr. Mitchell had no better success than had other physicians. He saw that the patient needed both rest and exercise, and recalled the beneficial effect he had seen from the rubbing of people by an old man, who now would be placed in the list of osteopaths and similar performers. A young lady was then engaged for the patient, and by personal instruction Dr. Mitchell developed a system of massage which produced remarkable results. Absolute seclusion of the patient, with massage and electricity, enabled forced feeding to be employed, and rapid restoration to health followed. This first case was discharged in May, 1874. Others followed, and in 1875 appeared the first paper describing the new method of treatment. It was at first received with incredulity and criticism that almost amounted to personal invective. Dr. Mitchell then traced briefly the history of the reaction against this opposition, the use and advocacy of the treatment, and finally the world-wide adoption of its principles in the treatment of suitable cases.

WATERCRESS IN THE TREATMENT OF BERI-BERI.

The Foreign Office has forwarded to us a copy of a dispatch on the subject of beri-beri from H.M. Consul at Noumea, New Caledonia, together with a comment thereon by Sir Patrick Manson. The Consul reports that "beri-beri is very prevalent on this island now among the natives of all nationalities working at the mines, but it seems to have been found out quite accidentally that watercress is an almost certain cure. Consequently all the mining companies are cultivating it largely." In his comment Sir Patrick Manson points out that similar statements as regards the influence of various kinds of food on beri-beri have frequently been made on inadequate experience. It would seem that in the endemic areas many kinds of malnutrition predispose to the disease. It may be that there has been a deficiency of vegetables in the dietary at the mines in New Caledonia predisposing to beri-beri, and that this deficiency has been made good by watercress, but

he questions whether this vegetable has any specific action on the germ of the disease in question. Nevertheless, the experience seems worth following up. To this comment little need be added. Watercress is easily grown in most places where there is plenty of water, as is the case in the majority of the regions in which beri-beri is endemic, and it is also pleasant to eat. An extensive trial, therefore, of this plant as a remedy for a disease for which no satisfactory treatment is at present known should prove neither difficult nor expensive. There are clear precedents for the specific action of herbal remedies upon parasitic disease in the case of cinchona in malaria and salix nigra in rheumatism, while at one time watercress itself was held in high esteem in domestic medicine as a simple remedy for scrofula, pulmonary phthisis, and scaly eruptions about the body.

AN ARCTIC HEALTH RESORT.

It is stated that a health resort is to be established in Lapland. It is proposed to erect a sanatorium on the shores of Lake Torne, a long and beautiful sheet of water at Wassijauve, near the end of the Ofote Railroad. That railroad, it may be mentioned, has only one station in a distance of 121 miles. There is no human dwelling near that station, which is on the line between Sweden and Norway, and was erected solely for the requirements of the Customs Office. Except for a small settlement at Wassijauve, the only sign of human existence in the district is the occasional passage of a few Laplanders with their herds of reindeer. Apart from the scenery, the inmates of the Arctic sanatorium will have no external object of interest but a scientific station which has been erected with the help of private subscriptions by men of science. The work pursued at the station includes biological, geological, botanical, and entomological, and other investigations conducted during the summer, and meteorological, magnetic, and other observations made at all seasons. The station is a solidly built block-house containing seven rooms, and it is proposed to build the sanatorium in the same way. The Arctic health resort would seem to offer ideal conditions for persons suffering from neurasthenia who require quiet and rest.

A CONTRAST.

A correspondent sends us the following extracts from the second volume of Viscount Wolseley's *Story of a Soldier's Life* published recently. They deserve to be put side by side:

> No one ever fell sick [on the Red River expedition]. I was asked to have our senior doctor promoted when the expedition came to an end, but refused, because he had had nothing to do, there never having been any sick for him to cure. (P. 201.)

> So ended the Red River expedition . . . as far as fighting was concerned it was a bloodless campaign, and although great physical difficulties were encountered and manfully overcome by the troops employed, not a life had been lost. (P. 225.)

Lord Wolseley does not go on to say that the honours which came to him as the leader of this bloodless expedition were undeserved, yet the analogy is perfect. If the senior doctor had nothing to do because nobody was sick, the senior fighter can have had nothing to do because nobody fought. How long will it be before military commandants and reconstitution committees begin to take a rational view of hygiene as an integral part of military administration, without which the most beautiful scheme with family trees and new offices and new titles for old offices must come to the ground when put to the actual test of war?

SIMILIA SIMILIBUS.

Homoeopathy is a subject which in England, at any rate, is so thoroughly dead that it might safely be buried without fear of rebuke from Mr. Tebb and the Antipremature Burial Association; nor have we any desire to revive it. Nevertheless, in response to the wish of its American author, we give here the result of a study of a little pamphlet entitled, *Are we to have a United Medical Profession?* Its main object is to show to the young professed homoeopathist how he "can fight for homoeopathy to the death, if need be, and can at the same time pursue rational medicine with an enthusiasm not in the least modified by his enthusiasm over homoeopathy." The means by which this object is to be attained is the narrowing of the issues that lie between rational medicine and homoeopathy by defining what the latter really is. Those who hitherto have not admitted the justice of its claims have failed to do so because, we are here told, they have not understood what the principles of homoeopathy really are. Among such are notably Drs. Stillè, H. C. Wood, F. W. Headland, and Sir T. Lauder Brunton. These gentlemen, however, need not be too distressed at their ignorance, because, according to our author, even Hahnemann himself did not understand the subject. We, however, are in a happier position, for after earnest study we understand the contention to be that the true principle of homoeopathy is that you must not rationalize at all. Whatever you do you must do blindly. You are dealing with vital processes which are "unknowable," and if while prescribing a drug you allow yourself to be influenced by any thought of causes and means of produeing effects you are practising rational medicine and not homoeopathy. A "similar" is anything which experience shows to cure a system however dissimilar it may seem to the non-homoeopathic mind. Thus you may take a pinch of sodium bicarbonate for heartburn, and if you carefully say to yourself, "I take this to obtain 'immediate' substitution of a normal vital process for an abnormal one," you are practising homoeopathy, which is right; but if you allow the thought to come into your mind that you desire to remove your heartburn by neutralizing an excess of acid, you are practising rational medicine, which is wrong. Provided you bear this in mind you may treat your patient with any dose of any medicine you please; if he does not get well that is not the fault of homoeopathy, but his own—because he does not "respond." In short, it is much like the old question of luck. If you wish, when you see a piebald horse, you are all right provided you do not think of its tail. If you do think of its tail you may still get what you want, but it will not be because you wished for it. All this sounds like an intentionally humorous version of matters, but it is not. It is the serious outcome of a careful study of homoeopathy as expounded by a very honest believer therein. He is one, however, who falls a victim to his own dialectical skill, and who, in his anxiety to defend those who profess homoeopathy while abandoning its practice, draws distinctions which if materialized would require much experience with an oil immersion lens to see them at all, and which, even as possible mental conceptions, can have no proper influence upon conduct.

Are we to have a United Medical Profession? By Charles S. Mack, M.D. La Porte, Indiana: Published by the Author. 1904. Pp. 44. 25 cents post paid.)

INSANITY IN AUSTRALASIA.

The latest report of the Inspector of Hospitals for the Insane in Queensland, Dr. J. B. Hogg, suggests a comparison of the leading points of the lunacy statistics of that State with those of other parts of Australasia on the one hand and of England and Wales on the other. Taken broadly, it may be said that the statistics of Queensland, Victoria, New South Wales, and those of England and Wales together correspond with curious exactness. At the end of 1902 the total number of patients in hospitals for the insane in Queensland was 3.52 per 1,000 of the general population, and in England and Wales 3.41. At the end of 1901 the rates were in New South Wales 3.25, Victoria 3.75, New Zealand 3.34, and South Australia 2.67. The dates taken it will be observed do not absolutely correspond, but they are the latest available, and, being in no case more than a year apart, relate to periods fairly comparable. The differences shown are decidedly smaller than might have been expected, and, even in the case of South Australia, do not suggest that the incidence of lunacy is materially different in any of the places named. The position occupied by England is noticeable because the figures cover all reported lunatics and not merely those in public asylums.

They also seem to offer some support to the contention that there is no real increase in the number of lunatics in England, but merely an increase in the number of certified lunatics. Otherwise the English figure might have been expected to have overtopped the Australasian figures instead of being rather lower than the majority of them. It may be, of course, that lunacy is advancing *pari passu* both at home and in Australasia, but if that be so the causes of such increase must lie much deeper than those usually ascribed, since the superficial conditions of life are dissimilar. The correspondence in the statistics with regard to such points as the ratio of deaths to residents, recovery rates and readmissions are not quite so close, but nevertheless do not suggest any great difference either in results, methods, or material. Perhaps the most curious point of all is that the expense of maintenance is very much the same in all the places. Thus the highest figure for the maintenance of a patient for a year in an Australasian asylum is £29 5s. 4d. (New South Wales), and the lowest £27 0s. 3d. (Queensland), while the cost of a patient in England and Wales may be taken as something less than 11s. a week, or say, £28 a year. In Dr. Hogg's report, as in those of most of the larger Colonies, a careful account is given of the nationality and birthplace of every patient. It is shown, for instance, that of all the patients remaining in the Queensland asylums at the end of the year 130 were born in England or Wales, 123 in Scotland, and 518 in Ireland. These and corresponding figures elsewhere suggest that the lunacy authorities of the Colonies might throw some light on the question of what division of the British race is most prone to mental disorder, provided that the census returns of the respective Colonies contain information as to the nationality distribution of the population.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

The movement initiated and undertaken by the Metropolitan Street Ambulance Association with the object of enforcing attention to an important subject has succeeded so well that there is some hope that London may at length be provided with an efficient and sufficient ambulance service. The only kind of set-back that it has received has been from letters sent to the general press with the object of claiming due gratitude from the public for voluntary efforts made by sundry bodies to fill the gap in the past. Gratitude is certainly due to those bodies but the effect of claiming it at this particular moment has been somewhat to confuse issues and make it appear as if London were much better off in the way of ambulance provision than it really is. The need for a complete ambulance service is very great and London looks towards its County Council to provide one either out of its own resources or by coming to terms with the Metropolitan Asylums Board. It must be a completely organised service ready to undertake promptly and in any part of London the transport of all sick and injured other than those destined for hospitals for infectious disease. A good deal of material already exists and what is mainly required is linking up organisation and personnel by wireless [illegible] in addition to the provision of stations and ambulances for the less central parts of the town.

DIPHTHERIA AND ANTITOXIN.

The Commissioner of Health for Chicago has recently published a review of the diphtheria mortality during the eight years which have elapsed since antitoxin treatment was commenced in Chicago, and the eight years which preceded it. The total number of deaths from diphtheria during the antitoxin period was 30 per cent. less than during the previous period although the population increased 47 per cent. between the first and last years of the combined periods. Before antitoxin treatment was introduced the annual diphtheria mortality equalled 12·45 per 10,000 of population, but only 3·45 per 10,000 annually during the antitoxin period. The statistics confirm the statement that the value of antitoxin treatment varies directly as the promptness with which it is begun. In a series of 7,455 cases in which the diagnosis was verified bacteriologically, and the treatment carried out by serum, the death-rate rose steadily from 0.34 per cent. in cases treated with serum on the first day, to 10·8 per cent. of those in which treatment was deferred until the fourth, rising to 23.1 per cent. when treatment was put off until after the fourth day. The general mortality-rate throughout the series was 6.44 per cent.

A MEDICAL AMBASSADOR.

The United States Minister to Korea is Dr. Horace Newton Allen, formerly of Delaware, Ohio. Twenty years ago, immediately after he had taken his degree at the Cincinnati Medical College, he was appointed by the Presbyterian Board of Missions a medical missionary to Peking. He remained in China for a year and then went to Seoul. There he found favour with the Court by his successful treatment of one of the princes. When the Korean Legation was established in the United States in 1888, Dr. Allen accompanied it to Washington, where he remained two years. In 1893 he again returned to the United States to take charge of the Korean exhibit at the World's Fair, Chicago. In 1894 he was made secretary of the United States Legation at Seoul, and in 1897 was appointed Minister.

THE ROYAL SOCIETY.

The following fifteen gentlemen were recommended on Thursday, February 25th, by the Council of the Royal Society for admission as Fellows:—Dr. T. G. Brodie, Professor Superintendent of the Brown Institution; Major S. G. Burrard, Superintendent of the Trigonometrical Survey of India; Dr. A. C. Dixon, Professor of Mathematics, Queen's College, Belfast; Dr. J. J. Dobbie, Professor of Chemistry, University College of North Wales; Mr. T. H. Holland, Director of the Geological Survey of India; Professor C. J. Joly, Royal Astronomer of Ireland; Dr. H. Marshall, Lecturer on Chemistry, University of Edinburgh; Mr. E. Meyrick, Master in Marlborough College (Naturalist); Dr. A. Muirhead, Electrical Engineer; Dr. G. H. F. Nuttall, Lecturer on Bacteriology and Preventive Medicine, University of Cambridge; Mr. A. E. Shipley, Lecturer on Invertebrate Zoology, University of Cambridge; Dr. M. W. Travers, Assistant Professor of Chemistry, University College, London; Mr. H. Wager, formerly Lecturer on Botany, Yorkshire College; Mr. G. T. Walker, Meteorological Reporter to the Indian Government; Mr. W. W. Watts, Assistant Professor of Geology, University of Birmingham.

GERMAN CONGRESS OF INTERNAL MEDICINE.

The twenty-first annual meeting of the German Congress of Internal Medicine will be held at Leipzig from April 18th to 21st, under the presidency of Dr. Merkel of Nuremberg. The principal question proposed for debate is arteriosclerosis. The discussion will be opened by Professors Marchand of Leipzig and Romberg of Marburg. A large number of communications are promised, among which may be mentioned the following: Diet in the Treatment of Gallstones, by Dr. Walt. Clemm of Darmstadt; Neurasthenia in Public School Pupils, by Dr. R. Wichmann of Harzburg; a New Diagnostic Sign in Disease of the Pancreas, by Dr. Ad. Schmidt of Dresden; the Cure of Tabes, by Dr. Zeimssen of Wiesbaden; the Prognosis of Glycosuria, by Dr. Felix Hirschfeld of Berlin; and Dystasia Angiosclerotica Intermittens Lumping, by Professor Erb of Heidelberg. All communications relative to the Congress should be addressed to the Permanent Secretary, Dr. Emil Pfeiffer, 13, Parkstrasse, Wiesbaden.

THE TRANSMISSION OF TYPHOID FEVER BY FLIES.

Professor Herbert E. Smith, Dean of the Yale Medical School, and Dr. Edward Mahl, President of the Hartford Board of Health, in the official report of an investigation as to the origin of a recent epidemic of typhoid fever in the New Haven County Gaol, state that flies carried the typhoid bacilli from dwelling houses in one of the streets

skirting the gaol where there were several cases of typhoid fever at the time. The germ bearing flies entered the open gaol windows and deposited the bacilli on the food in the kitchen. Of twenty-one patients who contracted typhoid fever in the gaol seven died.

THE RED CROSS SOCIETY OF JAPAN.

Reference was made in the British Medical Journal of February 27th to a statement published in several American medical journals to the effect that the well known surgeon of Chicago, Dr. Nicholas Senn, has offered his services to the Red Cross Society of Japan during the war. We learn from the New York *Medical Record* of February 27th that Dr. Senn has received a reply from Baron Hashimoto to the effect that the organization has not the power to accept his offer of assistance. Dr. Senn states in explanation that the Japanese Red Cross Society is one of the best in the world, and is able to take care of all wounded for many months to come.

We have much pleasure in announcing that the condition of Sir Samuel Wilks has much improved, and that there is now good ground for anticipating a favourable termination of his illness.

Dr. George Ogilvie will deliver a lecture entitled, What is Syphilitic Disease of the Nervous System? at the London Polyclinic and Medical Graduates College, on Wednesday, March 9th, at 5.15 p.m.

The Spanish Government recently submitted to the Cortes a Bill for the protection of children under the age of 10 years. It includes provisions for the safeguarding of children against physical and moral evil and regulations for the supervision of infants put out to nurse, and of children in schools, orphanages, workshops, and other institutions. The administration of the law is entrusted to a central council under the Minister of the Interior, and to local committees presided over by the Governors of Provinces or the Mayors of Communes. In addition to representatives of the civil, medical, and religious authorities, these committees will include elected representatives of certain medical, scientific, industrial, and charitable associations.

MEDICAL NOTES IN PARLIAMENT.

[From our Lobby Correspondent.]

The Sanitary Administration of the Army. Dr. Farquharson had a question on the paper on Monday asking when a further report from the War Office (Reconstitution) Committee would be presented, and whether it would deal with the sanitary administration of the army. The hon. member said the first part of his question had been answered by the official publication of the report, but he asked for information on the second part of the question. Mr. Arnold-Forster said that the point of sanitary administration would be dealt with in the third part of the report which had still to be presented. It was so stated in the earlier part of the report. Dr. Farquharson asked, further, whether the report would be presented in time for its discussion on the Army Estimates. The Secretary of State for War thought not, but he hoped that this report would not be debated on the Army Estimates, but would be dealt with by itself. He thought, in view of the importance of the questions raised, that would be more satisfactory to the House.

Medical Officers of Health and Milk Supply.—Mr. Sharpe asked the President of the Local Government Board whether he was aware that a clause in the Public Health (Prevention of Diseases) Bill, 1888, seeking to give the medical officer of health powers to demand a full list of a dairyman's customers whose milk supply might come under suspicion, was struck out of the Bill; and that an identical clause, introduced in the Infectious Diseases (Prevention) Bill, 1890, was eliminated from that Bill; and whether the Board would in the present Session make their recommendation to the Police and Sanitary Committee that the clause in question be omitted from the various Bills dealing with the milk supply. Mr. Long answered that he was not aware that the clause referred to was struck out of the Public Health (Prevention of Diseases) Bill, 1888. That Bill did not proceed beyond first reading. The clause was, no doubt, eliminated from the Bill of 1890, and it was the practice of the Local Government Board for some years afterwards to draw attention to this circumstance in their reports on Bills for local Acts. It was found, however, that, notwithstanding this, the clause was, in a large number of cases, allowed by Committees. Moreover, a similar provision was made for Scotland in the Public Health (Scotland) Act, 1867. In these circumstances the Board in 1899 discontinued the practice of drawing attention in their reports to the action of Parliament in 1890, and he did not propose to resume that practice.

Losses During the War.—On Wednesday Dr. Farquharson asked the Secretary of State for War whether he could state the total number of officers and men killed, the number who died of wounds, and the number who died from enteric fever and other diseases during the war in South Africa. Mr. Arnold-Forster replied that the figures were as follows:

	Officers.	Warrant, N.C.O.'s, and Men.
Killed or died of wounds	710	6,000
Deaths from enteric fever	488	7,867
Deaths from other diseases	263	4,629

The statistics do not show the killed separately from those who died of wounds, and the compilation of the figures would involve considerable labour.

The Sale of Butter Bill.—This Bill, which was introduced on one of the first days of the session, is likely to come on for discussion on an early day. It fixes a standard of 16 per cent. for water in butter, gives power to inspect butter factories to officers of the Board of Agriculture, and in its third clause makes an exception for Irish firkin butter, which is to be allowed to contain 20 per cent. of water until it is otherwise ordered by His Majesty in Council.

The Pharmacy Bill.—On Monday Mr. Lough introduced a Bill to provide for the further regulation of the sale of poisons and the compounding of medical prescriptions, and to amend the Pharmacy Acts, 1852 and 1868. One of the objects of the Bill is to put limited liability companies under the same law as private traders with regard to the sale of poisons. It is proposed that the directors, or those who have the chief control of the drug departments of large stores, or trading companies, should be qualified chemists. The second reading has been put down for March 21st, but the Bill is hardly likely to be reached on that day.

The Police and Sanitary Committee has been set up this year again to deal with all private Bills promoted by municipal or other local authorities, by which it is proposed to create powers relating to police or sanitary regulations in conflict with, deviation from, or excess of, the provisions of the general law. The Committee has large powers as regards sanitary regulations, and in some respects enables public health legislation to be advanced in local Bills beyond the limits contemplated by the Public Health Acts. The Committee consists of Mr. Bill, Sir George Fardell, Sir Ernest Flower, Mr. Graham, Mr. Corrie Grant, Mr. Layland-Barratt, Mr. Luke White, Mr. Whitley, Mr. John Wilson (Glasgow), and Mr. J. W. Wilson (Worcestershire), with Mr. Heywood Johnstone as chairman.

The Poor-law Superannuation (Ireland) Bill has been introduced once more by Mr. O'Malley, and is backed by Sir James Haslett, Mr. Haden, Mr. Joseph Devlin, Mr. T. W. Russell, Mr. Condon, Mr. Joyce, Mr. Clancy, Mr. McGovern, and Mr. Lundon. It proposes to provide superannuation allowances to certain local officers and servants in Ireland, for contributions towards such allowances by such officers and servants; and to make other relative provisions. The Bill is down for Friday in this week, but has no prospect of being considered then.

The Sale of Poisons. Sir Thomas Dewar asked the President of the Local Government Board on Monday whether his attention had been called to a coroner's inquest, held at

Southwark on February 23rd, when the jury, in returning a verdict of death by misadventure, added a rider that the sellers of acids and all poisons should be compelled to label the vessel with the name of the substance it contained and the word poison, and that no poison should be sold to young children except in sealed bottles; and, if so, would the question of legislation on the subject receive his consideration. The Home Secretary, in reply, said that he was not acquainted with the case referred to, but as to further legislation he would refer the hon. member to an answer by the Prime Minister to the effect that legislation was only waiting for a favourable opportunity.

The Vaccination Prosecutions Bill.—This Bill, which is the same as that introduced last year, provides that no prosecution under the Vaccination Acts shall be commenced without the authority of the guardians. It was presented and read a first time on Tuesday, and is backed by Mr. Channing, Sir John Rolleston, Mr. Goddard, Mr. Brigg, Mr. Corrie Grant, Mr. Broadhurst, and Mr. Bell.

The Course of Business in the House.—The first four days of this week have been allotted to Navy Estimates. On Monday the discussion was general on the motion for getting the Speaker out of the chair; on Tuesday, Wednesday, and Thursday the Estimates were discussed in Committee, with the Chairman in the chair. Next week a similar course will be taken with the Army Estimates, and there is, consequently, not much prospect of any Government Bills of importance being considered before Easter.

Scotland.

Royal Edinburgh Asylum.

Dr. Clouston's Annual Report.

The annual meeting of the members of the Corporation of the Royal Edinburgh Asylum was held on February 29th, in the City Chambers, Sheriff Rutherford, Chairman of the Board of Managers, presided. After the Treasurer had submitted the Managers' annual report, and it had been discussed, Dr. Clouston, the Physician Superintendent, read his annual report.

General Statistics.

At the beginning of the year there were 950 patients, at the end 929. There were 411 admissions. The total number under treatment during the year was 1,361. The number discharged was 313, the number who died was 110, the average number resident was 917.2.

Admissions.

The overcrowding of the West House by rate-paid patients was a great hardship on the middle-class, who were able to pay the £30 and £42 rates. This would be remedied when the Craig House was opened. There was an unusual number of aged and broken-down people (one patriarch was 98) admitted during the year, there were a very large number of cases suffering from general paralysis, and the number of alcoholics was excessive to a degree unprecedented in the history of the asylum.

Discharges.

Of the 313 discharges, 12 had recovered, and 130 were in an improved condition, 171 recovered after having been 5 years in the institution. The recovery rate on the admissions was 34 per cent., against 39 the average—a low rate.

Deaths.

The number of deaths was large but not so large as last year. Three-quarters of the mortality resulted from four diseases—general paralysis, senile decay with brain disease, tuberculosis, and acute bronchitis and ordinary brain suffering. Tuberculosis was attracting an enormous amount of attention in mental hospitals, it had hitherto been about four times as common among the general population as among the insane. In three of these it accounted for over one-fourth of all the deaths, and its mortality was in some of them in the proportion of 1,000 to 1,500 inmates, and 17.5 per cent. of the total number of deaths, the average of English asylums being 11.4. Taking the whole of the Edinburgh Asylums 16 per cent. of the deaths was either solely due to tuberculosis or it was a contributory cause. In 1874 10 per cent. of it was the sole cause. The mortality rate per 1,000 inmates was 17.5 per cent. At the Craig House, during the nine years since its opening, there had only been 3 deaths from tuberculosis, and all were imported. Thus tuberculosis was a good test of efficiency. The absence or the low rate of consumption in any mental hospital attested the good sanitary conditions, the quality of the air, the efficiency of the ventilation, the absence of overcrowding, and the abundance of the food. The opinion of the English Commissioners was quoted. While the Craig House had no tuberculosis the West House had about the average of English asylums. Its proportion was 22.5 per 1,000 inmates, and 14.5 per cent. of the total deaths, against the English numbers of 18.2 and 16.9. During the last nine years, since the West House became distinctly overcrowded, tuberculosis had distinctly increased.

The general death rate of the whole institution was 13 per cent. on the average numbers resident, and 8.8 per cent. on the total numbers under treatment. The rates of Craig House were very low—4.3 and 3.5, and of the West House high—15.5 and 10.3. Two cases of dysentery occurred on January 8th, but none afterwards. Much money had again been spent on drains.

General History of the Institution.

The overcrowding of the West House, and the loss of Miss Peter as Matron of Craig House after twenty-one years' service were referred to.

Three Decades of Mental Disease in Edinburgh.

In 1873 there were 583 rate-paid insane persons chargeable to Edinburgh and Leith, or 1 to every 413 of the population. In 1883 there were 693, or still 1 to every 413 of the population. In 1893 there were 877, or 1 to 370 of the population, and in 1903 there were 1,248, or 1 to every 315 of the population. Taking Scotland all over at these four periods, the figures were 1 in 519, 1 in 429, 1 in 371, and 1 in 320. What is the reason for the increase? The wage-earning classes are now less afraid of asylums, the area of what constitutes certifiable mental disorder or defect has enlarged among the doctors and inspectors of poor, and patients in asylums live longer than they used to do in the neglect and insufficiency of their own homes. That there has been an increase of certain forms of mental disease, notably alcoholic insanity and general paralysis, there can be no doubt; but these do not explain the whole increase. When every person afflicted with mental disease or weakness of mind in any and every marked form was accounted for there was still a proportion of 1 to 230.4 of the population of Edinburgh, and 1 to every 220.4 for Scotland generally. Edinburgh thus stood better than the average, and between the extremes of the 1 to every 118.8 of Argyllshire and the 1 to 344 of Dumbartonshire. Why should the insanity of the county of Dumbarton be three times as great as that of the county of Argyll? (1) Argyll sends a large proportion of its sane energetic young men and women to work in Dumbarton and Glasgow and such centres of industry. (2) the insane and weak minded are left at home to be supported by the rates; (3) Dumbarton produces yearly more acute insanity than Argyll in proportion to its population, but a kind of insanity that either kills off its victims soon or ends rapidly in recovery; (4) Dumbarton kills off its general child life at a most culpable rate, while Argyll takes good care of its children. In a county where there is a low child mortality the imbecile children live on and swell the lunacy list. In a county with a high child mortality the imbeciles are swept away with the others, and naturally dim in numbers out of proportion to the births. The reason for Edinburgh's moderate lunacy-rate—not a creditable one—was that the city kills off by bad environment the imbecile children along with healthy children in undue proportion. Orkney and Shetland head the list for the care of children, while Lanarkshire stands at the head of the destruction of child life.

Alcohol.

During the last thirty years the recovery rate had gone down, but the death rate had increased, the deaths from recurrent disease had risen; senile insanity was increasing, adolescent insanity had also increased out of proportion to the increase of population; general paralysis was greatly increasing, from 205 to 431 per decade in the thirty years; alcoholic insanity went steadily up, this year in no less than 42.3 per cent. of all the men and in 18 per cent. of the women, much the largest proportion ever experience. Excess in alcohol was assigned as the cause of their insanity. In 1873-7 the percentage of alcoholic cases was only 18.5 among the men and 10.1 among the women admitted. That had now been doubled. Dr. Clouston said it had sometimes occurred to

him whether one of the after-effects of the nervous lowering which the universal epidemic of influenza of 1890 undoubtedly caused might not have set up the craving for the stimulus of alcohol with a lessened power of resistance to its effects on the brain. Since 1890 far more of the depressed forms of insanity had been sent in. Another explanation was that more money was probably earned by those who had not sufficient self-control and self-respect to use it rightly. It was a social scandal of a very alarming kind that nearly one half of the insanity of any district should be more or less due to drink. Epileptic and puerperal insanities were lessening.

Treatment.

Finally Dr. Clouston urged the importance of a rational view of mental disease. (1) it should be regarded simply as a disease of the brain: (2) it may be mere arrestment of brain growth in early life: (3) it might be an event in the natural process of decay and retrogression: (4) it may be merely the effect of poisons: (5) some brains were from the first sensitive and unstable: (6) heredity: (7) any one may become unsound in mind if certain causes came into operation.

Small-pox in Edinburgh.

In the week ending midday February 27th, 16 fresh cases of small-pox were notified and 3 deaths were registered. At a meeting of the Town Council on March 1st, the Convener of the Public Health Committee said that there were 55 patients in hospital, a smaller number than last week. There had been no new cases since February 27th. One of the two new pavilions sanctioned by the Council had been completed and occupied, and the Committee did not intend to proceed with the erection of the other in the meantime.

Ireland.

Royal Dublin Society.

Professor E. J. M Weeney, M D., lectured on February 17th in the theatre of the Royal Dublin Society on Ultra-Microscopic Disease Germs. He said that many diseases were due to poisons, some of which were introduced as such from without, such at alcohol or lead; others were manufactured within the system, such as the gouty poison; whilst others, again, were the product of parasites. After showing projections of several well-known animal parasites, he traced the development of knowledge regarding bacteria. Beginning with relatively large kinds, such as the bacillus of anthrax, he threw upon the screen smaller ones, down to the germ of influenza, one of the smallest known. The limit of microscopic visibility was set by the wave-length of white light, which was 1.435 in. Particles less than half a wave-length in size could only be seen as little blurred spots (diffraction discs), neither their true shape nor structure being discernible. There had been accumulating evidence to show that certain infectious maladies, the cause of which had hitherto baffled the bacteriologists, were caused by germs too small to be seen with the most powerful microscopes, and yet perfectly recognizable by their effects. One of these was the pleuropneumonia of cattle—a veritable scourge till about ten years ago, when it was stamped out by drastic measures. It was to the labours of the late Professor Nocard, the eminent French veterinarian, one of whose last researches had been carried out in Ireland under the auspices of the Agricultural Department, that we owed our certitude with regard to the cause of this disease. Other diseases due to ultra-visible microbes were the so-called foot-and-mouth disease of cattle, the South African rinderpest, and horse sickness. Amongst human maladies, the yellow fever of the West Indies and South America had been shown by the American army surgeons, Reed and Carroll, to be of this nature. The invisible virus was carried by a mosquito, which introduced it into the blood on its proboscis. The virus of hydrophobia has also never been seen, and there was good reason to think that it also was ultra-visible. All these living viruses had this feature is common they could pass through the pores of the Chamberland and Berkefeld filters, which were able to stop the smallest bacteria. That the most widely diverse groups of living things might suffer the attacks of invisible microbes was shown by the fact that a fatal pestilence that broke out amongst poultry in the North of Italy in 1900 and a disease of the tobacco plant causing spot to appear on the leaves, were found by Centanni of Ferrara and Beyerinck of Delft to be due to "filtrable," that is, to ultra-visible, microbes. We were evidently on the threshold of a new and unknown microcosm. The lecturer concluded by referring to the causation of cancer. He threw upon the screen photographs of plants and animals suffering from tumours which had points of resemblance to cancer, and showed the parasites of these diseases, but admitted that, despite much reasearch, no satisfactory proof was forthcoming that cancer was due to a parasitic germ, visible or ultra-visible.

Central Midwives Board.

In the British Medical Journal of February 13th, the correspondence which had passed between the Master of the Rotunda Hospital and the Secretary of the Central Midwives Board was published. The Secretary of the Board writing on February 1st informed Dr. Hastings Tweedy that the Board at its meeting on January 28th had unanimously passed a resolution regretting its inability to make the alteration suggested by the Master of the Rotunda Hospital, and Professor Byers, of Belfast, as the rules had already been approved by the Privy Council.

In the report of the meeting of the Board on that day, supplied to us by the Secretary, and published on February 6th, p. 333, it was also stated that the resolution was adopted unanimously. It will be seen, however, from the report presented to the Royal College of Surgeons by Dr. J. Ward Cousins, its representative on the Midwives Board (British Medical Journal, February 20th, p. 463), that Dr. Cousins states that the resolution was adopted by "the majority of the Board." We are unable to explain the discrepancy. We gather from Dr. Cousins's report that the matter will be referred to the decision of the Privy Council.

It would seem that in thus acting the Midwives Board has made a mistake, and has practically abrogated one of its most important functions. If, when its attention was called to the matter it realized that the rules it had prepared for the approval of the Privy Council were not properly applicable to the conditions existing in Ireland it would have done better to have so informed the Privy Council; equally in the other alternative it ought to have expressed its opinion to the Privy Council.

Consumption Hospital.

Lord Herbert presided last week at the annual meeting of the Royal National Hospital for Consumption, which was held in the College of Physicians, Dublin. The report stated that 265 cases were under treatment and discharged during the year, and 59 remained in hospital. Of those discharged, 204 were improved to a greater or less degree, many presenting no signs of disease. Eighty-five per cent. showed an average gain of 8 lb. 9 oz.: 24 per cent., 1 stone: the highest individual gain being 2 stone 5 lb. The Governors are about to add a block for women, to contain about thirty-two beds. Mr. R. O. B. Furlong, Sir Arthur Macan, Dr. Parsons, Dr. J. Magee Finny, Dr. J. B. Coleman, Dr. Steed, and Mr. Justice Barton were among the speakers.

Royal Victoria Eye and Ear Hospital, Dublin.

The annual meeting of this institution was held on February 23th, under the presidency of Viscount Monck. The report stated that £8 000 was still needed to complete the main building and the out-patient department. One thousand three hundred twelve intern patients and 7 861 out-patients had been treated during the year. Mr. Justice Andrews, Mr. Swanzy, Sir James Murphy, Mr. Furlong, and Sir Augustine Baber addressed the meeting.

The Private Entrée at the Viceregal Court.

We are glad to be able to state that the privilege of private entree at the Irish Viceregal Court will not be taken from the future Presidents of the Royal Colleges of Physicians and Surgeons. The unpleasant incident is now closed.

"Mirus" Bazaar.

A meeting in promotion of the "Mirus" Bazaar which is intended to help the funds of the Mercer's Hospital, was held in the College of Surgeons, on February 26th. Lord Justice Fitzgibbon, presided, and there was a large attendance. Resolutions were passed setting out the claims of the hospital, and these were supported by the Solicitor General, M.P., Dr. Ledwich, Colonel Sir John Ross, Sir Thomas Myles, Dr. Lumsden, and the Chairman. The last named stated that from the first great bazaar held at Balls Bridge for another institution there was a clear profit of £15,712 13s. 11d.

Belfast Maternity Hospital.

The 110th annual meeting of the Incorporated Belfast Maternity Hospital was held on February 25th. The annual

report showed that 320 patients had been admitted with only 1 death; 304 women had been attended in their own homes, and 458 in the extern gynæcological department. John Campbell, F.R.C.S.Eng., resigned his post of Honorary Attending Physician and has been appointed Consulting Surgeon. Mr. R. J. Johnstone, F.R.C.S.Eng., has been appointed in his place. The new building has been begun on the site in Townsend Street, which has been purchased free of all rent for £2000 but about £7000 is needed for the building and furnishing. The present building has been in occupation for nearly eighty years.

Conviction of a Medical Man.

At the Westmeath Assizes Dr. P. Halion Fox, of Benown House Sanatorium and Private Infirmary, Athlone, a Fellow of the Royal College of Surgeons, Ireland, and a retired officer of the Royal Army Medical Corps, was indicted on a charge of maliciously wounding Thomas Bannon, on March 2nd, 1903, at Aughafin.

It appeared that the prisoner was the owner of some farms, about which there had been disputes, resulting in boycotting, and the issue of threatening notices against any persons who should have anything to do with them. Bannon's case was that he and another person went into an adjacent field to see the harrowing of a plough. He saw Dr. Fox standing on a ditch, beating a hedge, and before he (Bannon) could say anything Fox drew a revolver and fired at him. The bullet broke his arm, which was subsequently amputated. On cross-examination he said he had no quarrel with Dr. Fox; he did not know who burned down the herd's house nor did he see any of the sheep poisoned or the cattle hocked. He did not know that his father was trying to get Dr. Fox's farm. Prisoner had not told them to stand back.

A police inspector was asked to see the threatening notices about prisoner's farm. He had applied to the police for protection. He did not consider the notices serious.

The Judge said he was surprised that this officer should consider these notices harmless. We consider them boycotting notices, and very serious.

A number of witnesses swore that Bannon had beaten Fox's cattle.

The Judge said he was sorry the prisoner could not be examined, because if ever there was a case where a prisoner should give evidence it was this.

The jury failed to agree.

The Judge suggested that they might consider the charge of a common assault.

The Foreman: Would accident be considered assault?

The Judge: Yes.

The jury found prisoner guilty of common assault.

The Judge said he hardly knew what sentence to impose. It was more for general than retention. He would order four months' imprisonment without hard labour, and he hoped this would not have any serious effect upon the prisoner's health or future. He would have credited the period of nearly three months that he had already been in prison. He sentenced him solely on the verdict of the jury.

Overcrowding in the Monaghan and Cavan Asylum.

At the monthly meeting of the Joint Committee of Management of the Monaghan and Cavan Lunatic Asylum an important letter was read from the office of the Lunatic Asylums, Dublin Castle, to the effect that as a considerable period of time—at least two years—must necessarily elapse before a workhouse could be adapted as an auxiliary asylum, and that as even this method of providing additional accommodation had not been decided upon, the inspectors, having regard to the seriously overcrowded condition of the institution, could not undertake the responsibility of recommending to His Excellency the Lord Lieutenant to defer enforcing the powers conferred on him by the Local Government (Ireland) Act, 1898, for such a period. It was therefore incumbent on the Committee to take steps forthwith to provide accommodation, permanent or temporary, for the number of patients in the asylum in excess of its legitimate capacity. Notice of motion was given that immediate steps be taken to have the buildings sufficiently extended.

Typhoid in Coothill Workhouse Infirmary.

The Local Government Board has sent to the Coothill Board of Guardians the special report from its Medical Inspector Dr. E. C. Biggar relative to the recent outbreak of septicæmia. Dr. Biggar visited the infirmary on January 23th. Four patients had died from septicæmia between January 1st and 24th. The patients were in charge of a trained nurse. The operations were carried out with the necessary antiseptic precautions. The wards were disinfected twice yearly. With regard to the general condition and equipment of the infirmary, Dr. Biggar stated that no sanitary arrangements were provided inside the building, the drainage and slops were carried off in an open channel situated several feet from the walls: there was no supply of hot and cold water to the infirmary; all the water had to be carried from the main body of the workhouse; the wards had not sufficient window space; the two main wards occupied by the patients had been refloored some years ago, and the boards, which were not closely joined together, were laid on the top of the old floor. To these sanitary defects Dr. Biggar was inclined to attribute the outbreak. The Local Government Board advised the enlargement of the fever hospital now occupied by consumptives and the provision of accommodation there for all infirmary patients.

Proposed Poor-law Sanatorium at Whiteabbey.

A special meeting of the Belfast Board of Guardians was held on February 22nd to confer with the two Local Government Board inspectors, Mr. Robert Agnew and Dr. E. Covey Biggar, regarding the proposed sanatorium at Whiteabbey. Several guardians spoke on the advantages of the proposed site, and reviewed at some length the evidence given before the recent inquiry. It was stated that the guardians had examined seven or eight sites, and it was only after mature deliberation that they decided to purchase Abbeylands: these examinations were not made by the Board as a body, but by individual members in company with medical men. Dr. Biggar said that before arriving at a conclusion the Local Government Board were anxious to know whether there was no other suitable site for a sanatorium in the neighbourhood of Belfast; there was a great responsibility in the matter, and he requested in the interests of the poor that the Board might see their way to advertise for a site, say 30 to 40 acres; if a better one could not be obtained then the inspectors would know how to report. He was of opinion that the same sort of site with sandy soil would be better suited for consumptives. At the weekly meeting of the Board, held on the next day, the report of this special meeting was considered; and it was finally decided to advertise for a suitable site up to 50 acres.

Death of Sir James Musgrave, Bart., D.L.

The death of Sir James Musgrave removes another familiar public figure in Ulster, well known for his activity and philanthropy. Sir James was born in 1829, and during his life was connected with all public movements in Belfast; he belonged to numerous public Boards, and for the last seventeen years had been Chairman of the Harbour Commissioners. Sir James devoted much time and energy to the development of the County Donegal, doing much to promote the breed of cattle and sheep, the increase of fisheries, and the manufacture of home-spun cloth; and was Chairman of the Donegal Railway. One of his later acts which make him a direct benefactor of the medical profession was his gift of £5000 to the Queen's College, Belfast, to establish the Musgrave Chair of Pathology.

At a meeting of the Council of the Queen's College, Belfast, the following resolution was unanimously passed:

That we place on record our profound sorrow at the death of Sir James Musgrave, Bart., D.L., and our sincere sympathy with his sister and brothers in their bereavement; that we also record our sense of the heavy loss which the community has sustained by the demise of a citizen so public spirited and large hearted, and the college by the decease of a benefactor so thoughtful and munificent. His constant readiness to assist us in our times of need we can never forget, and the splendid help which he gave in the establishment of the Council for the better development of the College," and in particular by the foundation of the Musgrave Chair of Pathology, rendered a service to us and to science the value of which it would be difficult to overestimate. We request the Secretary to send a copy of this minute to Mr. Henry Musgrave with our heartfelt condolences.

Destruction of Tuberculous Meat in Derry.

At a meeting of the Public Health Committee of the Londonderry Corporation Dr. Ferguson, Medical Superintendent Officer of Health, reported that he had certified the carcass of a cow which had suffered from tuberculosis as unfit for the food of man. In the discussion which arose out of the report it was stated that the butchers had sent for Dr. Ferguson, and there was a general feeling that butchers should be compensated in such cases, especially where the disease was not advanced, and consequently its detection was still very difficult. On the other hand, if it were known that compensation were granted it would soon lead to heavy expense. The matter was dropped for the time.

[Erratum.—With reference to a note on page 1 medicines in the British Medical Journal on February 27th (page 494), we are informed that the Rev. Dr. Hamilton is not the editor of the organ of the Presbyterian Church in Ireland, as is that body.]

LEAD POISONING AND WATER SUPPLIES.

FOLLOWING the thirty-first annual report of the Local Government Board there is now issued a "Supplement in Continuation of the Report of the Medical Officer for 1901-2." This volume consists of the final part of the comprehensive report by Dr. Houston "On Moorland Waters in regard to their Action on Lead." It forms, with the earlier papers issued by the Board on the subject, an exceedingly valuable contribution to the literature and science of public health, and the results set forth cannot fail to be of great importance to the increasingly large number of persons in this country who are supplied with soft drinking-water derived from moorland or upland gathering grounds.

OBJECT AND SCOPE OF THE INQUIRY.

The exhaustive inquiry now concluded commenced so long ago as 1899 in consequence of recurrent outbreaks of lead poisoning amongst consumers of moorland water in Yorkshire and elsewhere, to which attention was forcibly called by the reports of Dr. Sinclair White, of Sheffield, by the medical officer of the West Riding County Council, and by others.

Without accepting the various, and sometimes ingenious, theories which were advanced by different observers about that time, the Board's officers started their inquiry with a clean slate, collecting their own facts and figures by direct survey and experiments, and following up the observations with prolonged laboratory investigations, the record of which forms a valuable example of scientific research conducted with admirable thoroughness in every stage.

Preliminary inquiry showed that in the West Riding of Yorkshire alone some 2,000 000 of the inhabitants obtained their drinking water by public services derived chiefly from moorland sources, and that cases of lead poisoning had been numerous and widespread.

THE CAUSE OF PLUMBO-SOLVENCY.

The next stage was to select a typical moorland gathering ground and carry out a detailed weekly examination, for some eighteen months, of the principal feeders, springs, and pools thereon, noting their different chemical properties and their powers of dissolving lead, and studying the results as to seasons and meteorological conditions. Only one condition was found to be at all parallel with the lead-dissolving ability namely, the chemical reaction of the water. Variations in the "plumbo-solvency" of any particular water were always associated with corresponding variations in the amount of acid in the water.

The investigation was extended to include a complete inspection and comparative examination of all the chief moorland gathering grounds in Yorkshire and Lancashire, and as a result it was clearly proved (1) that the cause of plumbo-solvency is due to the acid in the water, (2) that the acid is formed by contact of the water with the moist peat on the catch-ground, (3) that the formation of the acid is due, at all events in part, to the presence of acid-producing bacteria in the peat itself. Two such organisms (designated peat bacterium O and peat bacterium Q) have been isolated and found to be capable, when introduced into sterile peat decoction, of rendering the liquid acid and plumbo-solvent in character.

The report deals at considerable length with the power of certain waters to "erode" lead when placed in contact with that metal under laboratory conditions. This action, which is different from the true solvent action of acid waters, depends on the presence of dissolved oxygen, and shows itself by the formation of a relatively insoluble compound or powder (oxyhydrate of lead) which may tend to fall away from the surface of the metal and so permit of progressive action. Fortunately, however, erosion only takes place to any large extent when the lead is bright, and, moreover, most natural waters contain ingredients which prohibit this action.

Neutral distilled water erodes lead in vigorous fashion. It follows, therefore, that this phase of the subject, although of great scientific interest, is quite secondary in practical importance to the question of plumbo-solvent ability with which this inquiry is more directly concerned.

It is impossible here to set out the long course of observations and experiments described in the report or to give the lines of reasoning by which previously existing theories were disproved and the real factors brought clearly to light, but the following are a few crystallized items bearing on the practical issues:

Moorland gathering grounds are usually rich in peat, and moist peat is invariably acid. The reservoirs receive both acid peaty water and neutral spring water, and the reaction of the mixed water depends on the relative proportion. The dry-weather flow is usually small, being chiefly neutral spring water, but during wet weather the inflow is mostly surface water drawn from peaty soil. When wet weather follows a drought the "first washings" of the peat are most acid, especially those coming from boggy and marshy patches where there had been prolonged contact with peat. It is proved experimentally that a relatively small volume of peat can render acid and plumbo-solvent a large bulk of neutral and non-plumbo-solvent water. Acid water after neutralization does not redevelop acidity.

REMEDIES.

The results of the investigation must emphasize the responsibility which rests on those water authorities who take their supplies from moorland sources, and they will naturally turn to the report for guidance in the matter of corrective treatment. Here they may be somewhat disappointed, as each case must be judged on its own merits, and it has apparently been impossible to lay down a system of "treatment" equally applicable to the complex local conditions of every supply. In vol. I an account was given of the various remedial measures adopted by different water authorities, such as the addition at the reservoirs of sodium carbonate, chalk, whiting, slaked lime, etc., or the filtration of the water through sand, with or without special neutralizing agents. On some gathering grounds measures have been taken to divert the most acid feeders and the storm washings, and by cutting ditches in some of the boggy places to facilitate the passage of the rainwater into the main streams instead of allowing it to stagnate in the peat. Dr. Houston is inclined to believe that the best method is a combination of ordinary sand filtration, with the addition of some neutralizing material to the filter—for example, a thin coating of lime on the surface of the sand, with limestone underneath the sand—and the subsequent addition of a trace of sodium carbonate to the neutral filtered water.

On the question of standards, it is suggested that the treated water to be "safe" should give a neutral reaction with lacmoid solution of ascertained activity, and should also fail to dissolve an appreciable quantity of lead when filtered through a glass tube of lead shot under the conditions described in the report. Obviously, a further standard, and one which is easy of application, is that samples drawn from the leaden services under normal conditions should be free from lead in solution. Dr. Houston thinks it should be the aim of the responsible authorities to supply a water without any demonstrable action on lead—"not merely water which barely escapes condemnation by an administrative standard." Unfortunately, however, the present state of the law allows of no such condemnation, and the water authority may absolutely repudiate the moral duty of supplying a non-plumbo-solvent water. In the West Riding of Yorkshire we believe this anomaly has been seen by the county council, and at its instance penalty clauses have been inserted in some eight or nine recent Water Acts binding the promoters to supply water which will not act on lead to the prejudice of the consumer.

The final report concludes by reiterating the necessity of every moorland catch-ground being thoroughly investigated to determine the nature and relative importance of the various factors and how best to apply the remedy or combination of remedies in each particular instance. In the case of proposed new waterworks it is necessary to make a careful survey of the physical characters of the gathering grounds and to test the constituent waters in regard to their acidity and relative volume under various conditions of rainfall.

With such conclusions it is impossible to disagree, and when making the suggested investigation those authorities and their advisers will find in the reports before us much valuable help. The thanks of all interested in the vital question of water supply—and who is not?—are certainly due to Dr. Houston and the Medical Officer of the Local Government Board for what will undoubtedly take a first place among the many valuable public health reports issued by the Board.

QUEEN'S UNIVERSITY, KINGSTON. Sir Sandford Fleming has presented Queen's University, Kingston, with one-tenth interest in a coal mine near the Rocky Mountains. The proceeds will probably be applied to the development of the medical school.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:—

At a meeting of the Central Midwives Board, Dr. F. H. Champneys in the chair, held at the Boardroom, 6, Suffolk Street, S.W., on February 25th, the following business was transacted:

1. A letter was read from the President and the General Secretary of the Royal Academy of Medicine in Ireland setting out the difficulties that would be experienced by the Irish chartered maternity hospitals in enabling their pupil midwives to comply with the rules of the Board as to personal delivery of twenty cases and a ten days' puerperium. A copy of the following resolution of the Section of Obstetrics, adopted by the General Medical Council, was enclosed:

That in the opinion of the Obstetrical Section of the Royal Academy of Medicine in Ireland any person holding the nursing certificate of [illegible] appointments in spite should be deemed to have complied with the rules of the Central Midwives Board regulating the conditions of training in general institutions, and should be eligible to present herself for the examination of the Central Midwives Board.

After consideration of the letter and the resolution it was resolved:

That having considered the letter addressed to them by the President and the Secretary of the Royal Academy of Medicine in Ireland, the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as, having been approved by that body, it is impossible for the Board to alter them.

2. Various applications for recognition by the Board in different capacities were referred to the Standing Committee.

3. After consideration of applications for certificates the names of 917 women were passed under Section 11 of the Act, and ordered for entry on the roll. Of this total 1 claimed as holding the certificate of the Royal College of Physicians of Ireland, 291 that of the Obstetrical Society of London, 9 that of the Rotunda Hospital, 4 that of the Coombe Hospital, 14 that of Queen Charlotte's Hospital, 9 that of the Liverpool Lying-in Hospital, 2 that of the British Lying-in Hospital, 3 that of the Glasgow Maternity Hospital, 11 that of St. Mary's Hospital, Manchester, 3 that of the City of London Hospital, 1 that of the Salvation Army Hospital, and 569 were admitted as having been in bona-fide practice for one year prior to July 31st, 1902.

4. The question of the payment of a registered medical practitioner sent for on the advice of a midwife in compliance with Section 15, rule 17, of the rules of the Board was considered.

After discussion it was resolved unanimously:

That [illegible] as no provision is made in the Midwives Act, 1902, [illegible] of [illegible] medical practitioners, the Government be requested to take the necessary steps for amending the Act, by [illegible] of Glasgow, to provide for the payment of registered medical practitioners when called in by midwives in [illegible].

The Secretary was directed to send a copy of the foregoing resolution to the Privy Council.

5. The question of framing a scheme of examinations to be instituted by the Board was referred to the Standing Committee for consideration and report.

MEDICAL DEFENCE.

London and Counties Medical Protection Society.

The eleventh annual report of the Council of the London and Counties Medical Protection Society, which is to be presented at the annual general meeting on March 11th, shows that the Society continues to make considerable progress. It has continued to fulfil the object for which it was formed without having resort to any very costly legal proceedings, and the total expenditure [illegible] of income by the sum of £1,121 6s. 6d., while the surplus funds have reached the sum of £[illegible]. The honorarium which it has been customary to vote annually to the honorary general and financial secretaries on retiring from the work done [illegible] proposed to pay quarterly in advance. Owing to the funds of the Society to the amount of £[illegible] were received from sundry members, and owing to difficulties in regard to their full dealing on cases brought before the General Medical Council Mr. George Jackson, Dr. James Little, and Sir Hugh Lyon have resigned their membership. Numerous examples are given of the cases in which the Society has taken action.

Medical and Dental Defence Union of Scotland.

The Medical and Dental Defence Union of Scotland, which was registered as a company in May, 1902, held its first annual meeting at the end of last year, and the report put in by the Council showed that a good beginning had been made. Examples of the work which had been done and of the sort of troubles with regard to which advice had been sought were included in the report. They appear to be of the common type. The existence of the Union as an independent institution is justified in the report upon the ground that there are fundamental differences between the laws of England and Scotland, and that it is considered that Scottish practitioners will be more adequately protected by a purely Scottish Society. The objects of the Society appear to be somewhat ambitious, as amongst other things they are "to consider originate, promote, and support legislative measures likely to benefit the medical and dental professions, etc." The annual subscription is 10s., with a liability to pay £1 towards any deficit which may exist should the company be wound up. The Secretary and Treasurer is Mr. William Young, 108, West George Street, Glasgow.

CANCER RESEARCH.

Middlesex Hospital.

The Annual Court of Governors of the Middlesex Hospital was held on February 25th the Earl of Lathom in the chair. The report of the Cancer Charity for 1903 stated that there had been a slight reduction in the number of in-patients under treatment during the year, the figures standing at 156, as compared with 172 during 1902. In the former year the average stay of each in-patient was 92 days, whilst during the latter the period increased to an average of 96.88 days. The total number of out-patients had risen from 141 to 173. In the out-patient electric and light department 100 cases of carcinoma had been treated with 3,040 applications of the x-rays, with results which were distinctly encouraging. The resignation by Mr. Foulerton of the post of Director of the Laboratories was followed by the appointment of Dr. Lazarus-Barlow. In the laboratories examinations, mainly microscopical, were made of the portions of tissue removed by operation, as well as of all material derived from necropsies, whilst a constant watch was kept for indications from any other branch of science that might be laid under contribution in the attempt to discover the cause of cancer and its cure.

Cancer Cures.

Another branch of work for which the laboratory staff is responsible is the testing of the many alleged "cancer cures" brought forward from various sources. In many instances a cursory examination provides sufficient proof of the uselessness of these "specifics," yet in others a series of thorough and exhaustive investigations is necessary before a confident decision upon their merits or demerits can be arrived at. The report states that a notable example of fruitless endeavour is to be found in the case of the material introduced by Dr. Otto Schmidt, to which attention was widely drawn. As the result of experiments extending over a period of two months, and carried out upon nine patients who voluntarily submitted to the injection, the highest commendation possible was to the effect that while, so long as the doses did not far exceed those indicated by Dr. Schmidt, the action of the specific was not harmful to the subject, its value in the treatment and diagnosis of cancer was purely negative.

The Staff and its Work.

Consequent upon the appointment of the director of the laboratories as a foreign member of the German Committee for the Investigation of Cancer, the Weekly Board decided to give him the opportunity of proceeding to Berlin three or four times a year in order to attend the meetings, and thus keep the hospital laboratories in touch with the best work performed on the subject in Germany. One visit has already been paid by him with satisfactory results. Dr. Lazarus Barlow is aided in his investigations by two pathological assistants, and the urgency of the subject and the accumulation of details awaiting solution would, it is pointed out, warrant a further increase of staff and the consequent enlargement of the laboratories in order to adapt them thoroughly for the purpose to which they have been applied, as soon as the funds of the charity can bear the extra strain. Owing to the foundation of two scholarships due to the beneficence of Mr. Richard Hollins and Mr. Walter Emden, Dr. Lazarus-Barlow

has also at his disposal the valuable assistance of Dr. Douglas and Mr. W. S. Handley, by whom these scholarships are now held. Some further idea of the work performed by Dr. Lazarus-Barlow and his staff may be gathered from the fact that during the past year 280 patients and considerably over 800 specimens have been subjected to investigation. A full and comprehensive report of each investigation is kept for future reference, and each specimen proves not only of use in dealing with the particular case from which it was derived, but is available at a moment's notice for comparative purposes whenever the need arises.

Cancer Reports.

Annual reports are now issued from the laboratories. These are part of the *Archives of the Middlesex Hospital*, but they are self-contained, and will be numbered to form a complete series by themselves for the benefit of those who wish to obtain the Cancer Reports alone. A volume is now in the press and far advanced, and it is hoped to bring out a further number dealing with 1903 within the next few months. In future an endeavour will be made to issue the volume dealing with the data for any particular year in the succeeding May.

Financial Deficit.

Finally, the attention of the Governors is drawn to the continued deficit in the cancer charity account, and the hope is expressed that the work of the charity and its urgent needs may be brought to the notice of the philanthropic public. Every facility will, it is said, be offered by the authorities to enable those interested to inspect the hospital and laboratories, and to see the work being carried out.

CANCER HOSPITAL, FULHAM.

The annual meeting of the Governors was held on February 24th, Colonel T. R. Parr in the chair. From the report of the Committee it appeared that during the year 1903 there were 711 new in-patients, 1,714 new out-patients, and the daily average number of beds occupied was 84. Five hundred and one operations were performed, with an average rate of mortality of 3.14 per cent. Dr. H. G. Plimmer, Director of the Pathological Research Department, presented a report, in which he stated that the department, which was reconstituted at the end of 1902, had since been in full work. A more systematic form had been drawn up for recording cases, from which accurate statistical information would be obtainable. The ordinary routine work had been carried on, and in addition continuous research work had been undertaken.

Radium in the Treatment of Cancer.

In November a quantity of radium was placed at Mr. Plimmer's disposal for experimental use, one of the principal objects it was desired to attain being the knowledge of its effects on cancerous tissues. He went to Vienna to see the cases there treated by radium under the care of Professor Exner. On his return a series of cases was referred to him by the various members of the staff, and the treatment was commenced. These cases were still under observation, and when completed a full report will be published.

X-Rays and High Frequency Currents.

The report of the Medical Committee stated that treatment by the *x*-rays and high-frequency current had been in use during the past year. With the view of securing the highest possible efficiency, two rooms were set apart for the purpose of the new electrical department, and had been furnished with the best apparatus and machinery procurable. Dr. J. Donald Pollock had been appointed the superintendent in charge, and had taken much trouble to secure the best equipment.

Microscopic Examinations.

During the year 321 cases had been examined microscopically and bacteriologically for diagnostic and pathological purposes; and about fifty new specimens, all preserved by the modern method, had been added to the museum. The thanks of the Committee were due to Dr. David J. Morgan, the Pathologist, and to Dr. Alexander Paine, of the Lister Institute of Preventive Medicine, for much kind help during the year in Dr. Morgan's absence.

FRENCH OPHTHALMOLOGICAL SOCIETY.—The twenty-first annual Congress of the French Ophthalmological Society will be held this year in Paris on May 2nd. A report, preliminary to a discussion, will be presented by Dr. Sutzer on visual acuity in relation to incapacity for work.

PREVENTION OF CONSUMPTION

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE Earl of Derby, K.G., will preside at the fifth annual meeting of members of the National Association for the Prevention of Consumption and other forms of Tuberculosis, which will be held at 20, Hanover Square, on Thursday next, at 4 p.m.

Report of Council.

Sanatoria for Artisans. The report of the Council records that a National Committee has been formed for the establishment of "sanatoria for workers" suffering from tuberculosis, and that it contains representatives of various branches of the Ancient Order of Foresters, the Hospital Saturday Fund, the Postal Telegraph Clerks' Association, Mutual Aid Society of the Royal Arsenal, National Deposit Friendly Society, the National Association for the Prevention of Consumption through its secretary, and a large number of friendly and other organizations. Mr. W. G. Bunn, the Secretary of the Hospital Saturday Fund, has been elected honorary secretary to the Committee, a small executive has been appointed, and has been requested to ascertain the requirements of consumptive workers, the accommodation at present existing, and also to suggest and organize a scheme for the promotion of such sanatorium accommodation as may be necessary.

Notification of Tuberculosis. The efforts of the National Association to further the adoption of voluntary notification are related, and it is stated that owing to the strong representation made by the medical officer of health of Sheffield and one of the medical advisers to the Local Government Board, a Select Committee of the House of Commons recently sanctioned a corporation by-law for Sheffield, in which notification of tuberculosis of the lungs is made compulsory on every registered medical practitioner called upon to visit any person suffering from such disease. The clause does not, however, insist on isolation and segregation of the cases notified. This by-law was allowed by the Committee for a period of seven years, and its working in Sheffield will be watched with very close interest.

Spitting.—It is recalled that at the last annual meeting of the Association a resolution recommending that spitting in public places should be forbidden was adopted, and reference is made to the by-law adopted by the London County Council forbidding spitting on the floor, side, or wall of any public carriage, public hall, public waiting room or place of public entertainment under a penalty not exceeding 40s.

Workhouses, Asylums, and Hospitals.—The report states that steps have been taken by some few Boards of Guardians in Great Britain to deal with consumptive cases in workhouses and asylums, not only for isolation but for treatment, with good results. An appeal is made to hospital authorities, in the interests both of education and prevention, to supply patients in out-patient departments with pocket spittoons and leaflets of simple instructions.

Sanatoria.—The new edition of the sanatorium list published by the National Association showed that there were some 70 institutions in the United Kingdom, providing a total of 2,760 beds, an increase of 18 institutions and 575 beds since October, 1902. The Local Government Board is urged to utilize the small-pox hospital erected at Gore Farm, containing 1,850 beds, for advanced consumptive cases. Several of the twenty branches of the National Association in the United Kingdom had promoted the establishment of sanatoria, notably the Gloucestershire, Somersetshire, and Wilts, the West Wales and Leeds Association, the Devon and Cornwall Branch, the Cumberland Branch, and the Paisley Branch.

Membership and Finance.—The number of members of the Central Association was 935 and of the Branches 2,900, making a total of 3,835. The financial statements showed a satisfactory balance in hand on the revenue for the year ending December 31st, 1903.

AUSTRALIA.

New South Wales.—In reply to a question by Dr. Nash at a recent meeting of the New South Wales Legislative Council, the Vice-President said that he had been informed by the Chief Medical Officer that, so far as the Department of Health was concerned, certain sites to provide hospital accommodation for the consumptive poor had been inspected, but had been found to be unsuitable. The matter, however, was still receiving attention.

CONTRACT MEDICAL PRACTICE.

A COMPARISON OF WORK AND PAY.

A MEDICAL man whose work lies in a colliery district and among the industrial classes kept a careful record during 1903 of the details of his club practice, and of these the following is a summary.

He paid 2,452 visits, wrote 750 club certificates, did 511 surgery dressings, answered 1,200 night calls, dispensed 1,200 bottles of medicine, and gave away 200 supplies of pills and powders and 110 boxes of ointment. The "surgery dressings" included a great deal of minor surgery, such as removal of fingers, stitching up of wounds, setting of fractures. While counted as a single "visit" are such matters as special attendance to the galleries for serious injuries and surgery of the lowest grade at the houses of patients. In return for this work he received in contract fees from the clubs the sum of £275 5s. If nothing but the visits be regarded, and all the other work thrown in free, this works out at 2s. 1½d. a visit, or if, on the other hand, only the bottles of medicine are considered and all the rest thrown in, it works out at 5s. 5d. In both of these ways the sum works out to much the same as he would receive for charges non-club patients of the same class, but at the same time leaves unpaid a great deal of work which requires skill and time and expense, and absorbs time. He notes, moreover, that the year 1903 was an unusually light year, and his record for January, 1904, is 30 per cent. higher than for the same month last year included in the foregoing particulars. In addition to contract fees and club work proper, he received from persons who were members of one or other of his clubs an aggregate sum of £21 10s. 6d. for such things as confinements, vaccinations, and large operations. This sum may, it is suggested, be set off against the expenses of the contract work. Among his clubs he has several family clubs, and he does not object when his women patients—as these, as though he has a large outside practice, and receives from it a very considerable sum yearly, there is a good deal of trouble in collecting it. With his club patients he gets on pleasantly, and though he has to work very hard to satisfy them he seems to be favourably disposed towards this method of work; nevertheless he considers that, taking one consideration with another, 5s. a year a head should be the minimum payment made anywhere.

The writer does not state the total number of persons for whom he is medically responsible in return for the gross aggregate payment of £275 5s., nor does he give the exact rates per caput per annum. As regards the latter, however, he says that the "average" is 3s. 10½d. for men and boys' clubs, and in family clubs 12s., which works out to about 4s. 8d. a head. He appears, therefore, to be better paid than are the majority of medical men doing contract work.

ASSOCIATION NOTICES.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, April 20th, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

BRANCH MEETINGS TO BE HELD.

[redacted] Branch will take [redacted] Meeting to take [redacted] the Library, Warwick Road, Carlisle, [redacted]

[redacted]

[redacted] ASSOCIATION. Annual [redacted]

SOUTH EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Greyhound Hotel, Croydon, on Thursday, March 10th, at 4 p.m., Dr. P. T. Duncan in the chair. The following papers have been promised:—Mr. Herbert F. Waterhouse: On Gastro-enterostomy in Non-malignant Affections of the Stomach and Duodenum. Dr. Purves Stewart: On Lumbar Puncture in its Practical Applications. Dr. J. J. Perkins: On Some Points in the Diagnosis and Treatment of Chest Diseases. Mr. St. George Reid will show an automatic sounding box for testing the auditory appreciation in cases of deafness and ear diseases. Messrs. Arnold and Sons will exhibit surgical instruments. Messrs. Parke Davis, pharmaceutical preparations, etc.: The Trotmer Company, diastasic nutrients. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 7 p.m., charge 7s., exclusive of wine. All members of the South Eastern Branch are entitled to attend and to introduce professional friends. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meetings.—E. H. WILLOCK, 115, London Road, Croydon, Honorary Secretary.

SOUTH EASTERN BRANCH: FAVERSHAM DIVISION.—The next meeting of this DIVISION will be held at Westdene, Sittingbourne, on Thursday, March 17th, at 3 p.m. Agenda: Confirmation of minutes of last meeting. Time and place of next meeting. Reconsideration of the proposed Medical Acts Amendment Bill, adjourned from last meeting (*vide* SUPPLEMENT of August 2nd). To consider and suggest a standard tariff for life assurance examinations in this district. Members should bring the scale of fees of any insurance company that is available. To consider the Draft Scheme for Medical Defence (*vide* SUPPLEMENT, January 23rd, and leading article, February 20th). Dr. Grayling on The Anatomical Researches of Sir Christopher Wren. Any other business. All members of the South Eastern Branch are invited to attend these meetings and to introduce professional friends.—WILLIAM GOSSE, Westdene, Sittingbourne, Honorary Divisional Secretary.

SOUTH EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 10th, at 4 p.m.: Mr. J. Sidney Turner in the chair. Agenda: Minutes of last meeting. To arrange the number, dates, and places of meetings to take place annually, and to decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Communication from the Medical Secretary as to alteration of boundary of Division. Communications concerning the transfer of King's College Hospital to Denmark Hill. To consider the following questions referred by the Representative Meeting and Council of the Association to the Divisions: (*a*) Six resolutions as to the reforms required in the Vaccination Laws. (*b*) Proposed Medical Acts Amendment Bill. (N.B.—The text of the resolutions above referred to and of the Medical Acts Amendment Bill will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL for August 22nd, 1903, and members are advised to bring their copies of this SUPPLEMENT to the meeting.) (*c*) The advisability of petitioning the Privy Council in favour of direct representation of the British Medical Association on the General Medical Council. The following papers will be read:—Mr. W. Arbuthnot Lane: On Certain Abdominal Conditions. Mr. H. G. Plimmer: Diseases in Men and Animals caused by Trypanosomata. Exhibition of instruments by Down Bros. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 7 p.m.; charge 7s., exclusive of wine. The Honorary Secretary would be much obliged if members would kindly inform him by the first post on the Tuesday before the meeting whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting. All members of the South Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions.—HENRY J. PRANCE, F.Y., Tudor House, Anerley, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Children's Hospital and its Out-patient Department. Dr. Mott's Lecture to Medical Men at Owens College on Pathology of Sleeping Sickness. The Report of the Coroner. Death of Chairman of Infirmary Board. Unwholesome Ceremonial Food. Lecture on Dental Hospital. The Lectureship in Laryngology.

SOME important observations on the birth rate and causes of infantile mortality were made at the annual meeting of the Children's Hospital at Pendlebury on February 10th. The medical report pointed out that during the last twenty-five years the birth rate of the country had fallen from 35·3 to 28·0. If this represented improved morality and fewer improvident marriages, and were accompanied by a diminishing rate of infantile mortality and sickness, it would not be regretted; but, with the present high rate of infantile mortality, a diminishing birth rate means a diminution of the growth of the population, which could not be viewed without concern. While the death rate among the general population was decreasing, the death rate among infants was actually heavier during the ten years ending 1900

than it was in the previous ten years. Sir William Banks, in the course of a highly interesting address, said "that for too long the gross superstition had weighed upon us that zymotic diseases could not be avoided, but the public were beginning to know that it was not the will of God that those things should come to us, and that they were breaking God's will in defying His laws of nature." A physically strong man was wanted to do any good in the world, and if a nation began to fall to one of weaklings its power was gone. There were some awful slums in Manchester, Liverpool, London, and Birmingham—miles and miles of alleys, poor, mean streets, and smoke and misery. "You cannot keep people going there for more than one or two generations. Ask all the big men of these great provincial cities, and three out of four of them are not men from the city, but from the country, or, at any rate, but the first generation of city men." Regarding the Pendlebury Hospital in particular, Sir William said that the hospital itself was perhaps the finest children's hospital on the finest site in Great Britain: he also said, "Your out-patients' department is the worst I ever saw." Owing to lack of accommodation it was a hot-bed for the dissemination of zymotic disease. It is to be hoped that these forcible remarks may do something towards the amelioration of a state of affairs which should be remedied with all speed. The number of out-patients treated during the year was 18,440, and of in-patients 1,538 cases. The cost of treating out-patients was 1s. 4¾d.: the cost of the in-patients was 4s. 1d. a head a day. In 1902 the cost was 3s. 8½d. Although the income for the year showed an increase of £1,295, there was a total deficit of £3,171.

The Council of Owens College has invited Dr. Mott and Mr. Brudenell Carter to give two evening lectures to the medical men of Manchester and the surrounding districts. The first lecture was delivered on February 19th by Dr. F. W. Mott on the cerebro-spinal fluid and its relation to diseases of the nervous system. Dr. Mott regards this fluid as the nutrient fluid of the brain and as a secretion which probably was largely formed by the cells covering the choroid plexuses. Its composition was akin to that of sweat, and it was peculiar in regard to the practical absence of proteids and leucocytes. In certain forms of nervous diseases the meninges were attacked and the canalicular system around the blood vessels of the brain became filled with lymphocytes. This occurred in the late stages of sleeping sickness. Dr. Mott gave a graphic account of the phenomena and *post-mortem* appearances of this disease, and referred fully to the work of Castellani, Bruce, and Manson. Although it was definitely known that the trypanosome was present in the blood and subarachnoid space of persons affected with sleeping sickness, Dr. Mott seemed to think that there were perhaps other factors in its causation. In any case, he found a diplococcus in nearly all the tissues of the body—specially numerous in the lymphatic glands. The Portuguese observers noticed a diplococcus. Slave dealers, he said, would not purchase slaves whose glands are enlarged. There seemed, therefore, something more to be done before the causation of this strange malady was completely cleared up. In general paralysis of the insane there was a localized change, more especially in the front lobes of the cerebrum, and the canalicular system of vessels became infiltrated with a form of plasma cell. In sleeping sickness the leucocytic change was universal throughout the whole central nervous system.

The annual report of the Coroner for the Salford Division of Lancashire showed a total of 348 inquests in 1903, 227 being on bodies of men and 121 of females. These were in addition to 468 cases originally notified to the coroner but in which it was decided that inquests were not necessary. The verdicts included 132 of natural causes, 115 accidental deaths, 47 suicides, 1 murder, 1 manslaughter, and 2 legal executions; in 3 cases death was found to be due to want and exposure and in 7 to excessive drinking, while in 38 cases the circumstances were either so suspicious or so uncertain as to lead to "open verdicts." Of 55 children under 1 year of age, 9 were found to have been suffocated in bed.

Unusual regret is felt at the death of Mr. John Thomson, the chairman of the Royal Infirmary Lay Board. His influence was all for good, and under his able direction the scheme for carrying out the erection of the new infirmary made rapid progress. His sympathies were wide and catholic. He did much to bring about that harmonious action which is so necessary when two great institutions like the infirmary and the college have to work together.

Vigilance is necessary as regards the quality of food supplied in all great cities. The inspectors condemned vast quantities of food as unwholesome in 1903. Actually, 207,472 lb. of meat, several tons of fish, and thousands of rabbits were found unfit for human food. Besides the thorough inspection of the abattoirs, 10,849 carcases were examined, and 48 carcases were found unfit for food.

At the annual meeting of the Victoria Dental Hospital, which was held on February 29th, it was stated that the present number of students at the hospital is twenty-nine. During the year nineteen students passed the final examination for the diploma of L.D.S. It appears that the subscriptions from the charitable reached only £150.

Mr. Alexander Hodgkinson, M.B., B.Sc., who has held the post of Lecturer on Diseases of the Larynx in Owens College for many years with great acceptance to his numerous students, has resigned the lectureship.

BIRMINGHAM.

The Hospital for Sick Children.—The General Dispensary.—Death of Mr. Shirley Page.—Lectures by Sir Oliver Lodge.—A New Hospital at Wolverhampton.

At the annual meeting of the Governors of the Birmingham and Midland Free Hospital for Sick Children it was reported that during the year 1903, 864 in-patients, 15,611 out-patients, and 74 casualties had been treated. These figures show a slight decrease in comparison with those of the previous year. The income of the hospital was £5,242, and the expenditure £5,476. The legacies during the year amounted to the large sum of £6,074; unfortunately there was again a slight diminution in the amount of subscriptions, which have been gradually becoming less during the last few years.

The 110th annual meeting of the subscribers to the Birmingham General Dispensary was held on February 24th. In their report the Committee recorded that there was a slight increase in the amount of subscriptions which had been received. The total number of patients admitted by ticket was 49,376, showing an increase of nearly 4,000 on the number of the previous year. There was an increase in the number of the patients at each of the branches, but there was a small decrease at the head quarters in Union Street. The General Dispensary is a most popular institution in Birmingham, and one of the chief reasons for this is that in cases of necessity nourishment as well as medicine can be dispensed.

The announcement of the death of Mr. Shirley Page on February 22nd at Solihull, in Warwickshire, will be heard with great regret by recent students of the University of Birmingham. He was a student at Mason College and took the L.S.A. in 1901. He held in succession the appointments of Resident Dresser at the Queen's Hospital and Resident Surgeon at the Birmingham General Dispensary. He was the youngest son of Mr. E. S. Page, of Solihull, and was only 30 years of age at the time of his death.

A course of lectures on physics and therapeutics is being given at the University of Birmingham by the Principal, Sir Oliver Lodge. Four of these have already been delivered, and have been largely attended and greatly appreciated by a very great number of medical men and ladies, not only from Birmingham, but also from the midland counties for a great distance around.

A new hospital has been built in Wolverhampton by the Committee of the Wolverhampton and District Hospital for Women on a site which has been given by Mr. J. L. Gibbons, of Ellowes Hall, Sedgley. The hospital, which has been erected at a cost of £11,400, was opened on February 25th, by Miss Briscoe, of Chillington Hall. The new buildings are thoroughly up to date, and there is twice as much accommodation for patients as there was in the old hospital.

Marmorek's Serum in Tuberculosis.—Two patients at the Notre Dame Hospital, Montreal, one suffering from tuberculosis of the lungs, the other from tuberculosis of the knee-joint, have recently been treated by injections of Marmorek's serum. The injections were made under the supervision of Dr. L. J. Lemieux, of Montreal, who has lately returned from Paris, where he states that he saw 25 cases in which consumption was cured by means of this method. He brought back with him serum sufficient for the treatment of 15 patients. This is said to be the first time the serum has been employed in Canada.

The Turin Academy of Science has awarded one-half of the Vallauri prize of £1,200 to Professor Grassi, of Rome, in recognition of the value of his researches on malaria.

CORRESPONDENCE.

EDUCATION IN LONDON.

SIR,—I beg to enclose copies of a memorial and signatures sent in to the Board of Education with reference to the absence of men acquainted with the needs of higher instruction from the proposed Education Committee for London.

I shall be obliged if you will give the memorial a place in your columns, and trust that our contention may receive your editorial support.—I am, etc.,

NORMAN LOCKYER,
President British Association.

London, S.W., Feb. 9th.

To
The Secretary of
the Board of Education. February 22nd, 1904.

SIR,—**Having carefully considered the Scheme proposed by the** London County Council for the constitution of its Education Committee, which has been submitted for the approval of your Board, we, without bias towards any political party, desire to draw the attention of your Board to certain defects in the Scheme which must seriously impair the efficiency of the Committee in its work of co-ordinating and developing the various forms of education in London.

The Education Committee will have to undertake not only the work of elementary instruction hitherto carried out by the School Board, but it will also have the more difficult task of supplying and aiding the supply of secondary, technical, and higher education, and of promoting the co-ordination of all forms of education in London. The present backward educational position of this country is especially marked in those branches designated "secondary" and "higher." To develop the resources of London in these respects, to raise the standard of secondary education, to provide for the training of teachers for both primary and secondary schools, to organize and support the facilities for University training, and finally to organize a great technical High School of the University and the more strictly technical instruction of the Polytechnics, so that the whole may be one educational edifice crowned by the University of London, will be a task of great magnitude, and will require the assistance of persons specially skilled in and accustomed with the needs and conditions of these various grades of education.

Under the Scheme sent in by the County Council, it seem to us that no guarantee is afforded that the Council will have at its disposal any sufficient number of persons of experience in education and acquainted with the needs of the various kinds of schools in London. We would, therefore, urge on the Board of Education the desirability of amending the Scheme so that the Education Committee may include persons who would be universally recognized as authorities on the needs of the University, the Technical Institutes, and the Elementary and Secondary Schools.

While trusting that the Board of Education will take all possible means to secure the improvement of the Scheme along the lines indicated above we would earnestly deprecate any action of the Board that would lead to the postponement of the appointed day, on which, by the provisions of the Education Act, the administration of a unified system of education for London is to begin.

We have the honour to remain, Sir,
Your obedient Servants,

List of Signatories.

W. H. ALLCHIN, M.D., F.R.C.P., Senior Physician Westminster Hospital, Member of the Senate, University of London.
HENRY E. ARMSTRONG, Ph.D., F.R.S., Professor of Chemistry, Central Institute of City and Guilds.
Right Hon. Lord AVEBURY, F.R.S., President of the Associated Chambers of Commerce.
SIR H. WOLFE BARRY, Chairman of Executive Committee, City and Guilds Institute.
HOWARD T. BROWN, LL.D., F.R.S.
SIR LAUDER BRUNTON, M.D., F.R.S.
HENRY J. BURY, D.C.L., F.R.C.S., Dean of the Faculty of Medicine, University of London.
D. S. CARGILL, Professor of Mechanical Engineering, King's College.
SIR WILLIAM CROOKES, F.R.S.
HENRY L. GALLOWAY, Professor of Physics, Royal College of Science.
W. J. GARDINER, Chairman, Council, Branch of the Teachers Guild.
SIR JOHN CHARLES BALL, M.D., President, Royal College of Physicians.
PROFESSOR C. A. CARUS-WILSON, Professor of Mechanical Engineering, East London College.
SIR WILLIAM CROOKES, F.R.S., Principal, University College, London.
REV. J. GUINNESS ROGERS, Head Master, Owen's College, Islington.
JOSEPH HUTCHISON, M.D., Treasurer of Archiepiscopal Training College.
H. RICHARD, Chairman, Executive Committee, Teachers Guild.
SIR WILLIAM H. PERKIN, M.D., F.R.S.
W. D. HALLIBURTON, M.D., F.R.S., Professor of Physiology, King's College.
M. M. PATTISON PATTISON, F.R.S., Professor of Mathematics, University College, London.
REV. ARTHUR HUGHES, Professor of Theology, King's College, London.
SIR HENRY G. HOWSE, M.S., Member of Senate, London University.
W. P. KER, M.A., Professor of English, University College, Dean of the Faculty of Arts, University of London.
SIR NORMAN LOCKYER, F.R.S., President British Association.
SIR PHILIP MAGNUS, Fellow and Member of Senate, University of London.
CHARLES J. MARTIN, D.Sc., F.R.S., Director, Lister Institute of Preventive Medicine.
REV. J. ARBUTHNOT NAIRN, M.A., Head Master, Merchant Taylors' School.
KARL PEARSON, M.A., F.R.S., Professor of Applied Mathematics, University College.
SIR L. C. PERRY, M.D., Member of Senate, London University.
JOHN PERRY, F.R.S., Professor of Mathematics, Royal College of Science.
SIR WILLIAM RAMSAY, K.C.B., F.R.S., Professor of Chemistry, University College, London, President, Society of Chemical Industry.
SIR OWEN ROBERTS, D.C.L.
R. C. SCOTT, Incorporated Association of Head Masters.
MRS. S. T. D. SHAW, late Lecturer, Newnham College, and the Training College for Secondary Teachers.
H. J. SPENSER, M.A., LL.D. Cantab., Head Master, University College School.
E. H. STARLING, M.D., F.R.S., Professor of Physiology, University College.
MISS L. M. STRONG, Head Mistress, Baker-street High school for Girls.
T. E. THORPE, C.B., F.R.S., Director, Government Laboratories, London.
WILLIAM A. TILDEN, D.Sc., F.R.S., Dean of the Faculty of Science, University of London, President, Chemical Society.
FRED. T. TROUTON, M.A., F.R.S., Professor of Physics, University College.
JOHN TWEEDY, President, Royal College of Surgeons.
A. D. WALLER, M.D., F.R.S., Director, Physiological Laboratory, University of London.
SIR W. H. WHITE, K.C.B., F.R.S., President, Institute of Civil Engineers.
SIR H. T. WOOD, Secretary, Society of Arts.
MRS. E. WOODHOUSE, Head Mistress, Clapham High school.

DR. OTTO SCHMIDT'S TREATMENT OF CANCER.

SIR,—We beg to forward you a copy of a letter that we have received from Dr. Jossé Johnson, who has been afforded facilities since November 20th, 1903, of trying Dr. Otto Schmidt's treatment upon cancer patients in the Middlesex Hospital.

The treatment was tried upon the following nine cases:

1. Female, aged 47. Cancer of cervical glands. 10 injections, maximum dose 2 cg. Death.
2. Female, aged 60. Mammary cancer. 11 injections; maximum dose 1·5 cg. Death.
3. Female, aged 71. Mammary cancer. 11 injections, maximum dose 2·5 cg. Alive at present time.
4. Female, aged 73. Mammary cancer. 11 injections, maximum dose 3 cg. Alive at present time.
5. Female, aged [illegible]. Double mammary cancer. 15 injections, maximum dose 3 cg. Alive at present date.
6. Male, aged [illegible]. Cancer of the rectum. 5 injections, maximum dose 2 cg. Alive at present time.
7. Male, aged 51. Sarcoma of neck. 9 injections, maximum dose 2·1 mg. Injections discontinued on account of illness of the patient. Death.
8. Female, aged 43. Mammary cancer, recurrent. 6 injections, maximum dose 2 cg. Alive at present date.
9. Female aged [illegible]. Operable supraclavicular gland infected from a cancer of the breast that had previously been removed. The gland was subsequently removed. 5 injections, maximum dose [illegible] cg. Alive at present date.

Cases 8 and 9 underwent a rapid exaltation of dose in order to test the alleged diagnostic value of the injections.

On November 28th Dr. Schmidt visited the hospital and saw all the patients except Nos. 6, 8, and 9, who were not then under treatment. He expressed himself as satisfied with all the cases (except No. 7) as being suitable for test purposes.

We have failed to observe any trace of a specific local or general reaction to the injections, and we are therefore convinced that the material is entirely without diagnostic value. We have equally failed to see any local or general improvement in the condition of a patient. The injections in no wise alter the course of the disease.

In the case of those patients who died, microscopical examination of the tissues failed to reveal any differences in appearance from those usually met with in cases that have not undergone the special treatment.

The material used was sent direct from Dr. Schmidt's laboratory to Dr. Johnson, and Dr. Johnson made all the

injections himself, except on two occasions. The material used was Dr. Schmidt's "Killed Culture."

A full account of the research will be published later in the *Archives of the Middlesex Hospital*.—We are, etc.,

HENRY MORRIS,
Chairman of the Cancer Investigation Committee.
ANDREW CLARK,
A. PEARCE GOULD,
W. PASTEUR,
Members of the Cancer Investigation Committee.
W. S. LAZARUS-BARLOW,
Director of the Cancer Research Laboratories.

Middlesex Hospital, W., Feb. 24th.

(Copy of Dr. Jossé Johnson's letter.)

Gracechurch Street, E.C.,
Feb. 4th, 1904.

To the Cancer Committee,
Middlesex Hospital.

Gentlemen,—I beg to thank you sincerely for granting me an opportunity to test the value of Dr. Otto Schmidt's treatment of cancer in your hospital.

That the experiments carried out by me under Dr. Barlow's kind and courteous supervision have failed to demonstrate the results I had described does not in any way lessen my obligation and thanks.

Believe me, Gentlemen,
Yours faithfully,
(Signed) H. JOSSÉ JOHNSON.

A DIPLOMA IN TROPICAL MEDICINE.

SIR,—My attention has been called to your gratifying article in the BRITISH MEDICAL JOURNAL for February 20th, on "A Diploma in Tropical Medicine"; and, as a member of the Special Board for Medicine and of the syndicate which will conduct the examination for the diploma, I desire to express our acknowledgements for the cordial welcome you offer to our new departure. May I, however, venture to correct a misapprehension which appears to have been created in the editorial mind regarding the studies, evidence of which will be required of candidates before their admission to the examination?

We think, with you, that it would be "a mistake to excuse candidates from attendance on laboratory classes in practical pathology, bacteriology, and parasitology." My point is that we do not propose to do so. The "rider" to which you refer is not meant to *override* the general regulation to which it is attached; it is merely supplementary. Evidence of laboratory study (for example, for the D.P.H.), or of original research, will be admitted to consideration *pro tanto* only. A thorough knowledge of laboratory methods, such as can be acquired only in a laboratory, will be an essential requirement.—I am, etc.,

Cambridge, March 2nd. DONALD MACALISTER.

PROPOSED MEDICAL DEFENCE DEPARTMENT.

SIR,—Although the scheme submitted to the Central Council has not as yet been sent to the Divisions, it must be a matter of surprise to many that a larger amount of correspondence on it has not reached you than has been published. All must have admired the way in which in your editorial you endeavoured to hold the scales fairly.

Reading in the SUPPLEMENT of January 30th, p. 11, the proposed scheme submitted for the Central Council's approval, and on which later we are to be asked to poll our members, all of us desirous to have medical defence carried on from one office, and under the name of our Association, must have felt the whole business doomed to fail and the idea to be postponed for a very long time to come.

We all appreciate the time and thought those interested in this matter have given, but it must fill us with amazement that the Central Council are wishful to put us to the expense of a poll on a scheme they should certainly have at once referred back for further consideration.

Not to go thoroughly into the matter, as no doubt many more competent than myself will do, I would like to place before you shortly several points that on the face of the scheme will appeal to all:

1. Will the loan of the name of the Association produce better defence work or reduce cost of same?

2. Without the individual consent of every member we can take it that no clerk at present employed can give an hour of his time to any newly-formed Defence Society.

3. Has any single one of the various Defence Societies at present in existence been approached in order to find out if they are willing to sink their individuality? Have any declined to do so? (We are aware that two Societies were good enough to put at the disposal of the Defence Committee valuable details; now you have in the JOURNAL for February 27th informed us that the Medical Defence Union absolutely declines to be assimilated.)

4. What guarantee will members of these various Societies have that their business will not be interfered with by members of the Association who are not members of this new Defence Society should amalgamation be consented to?

5. What inducement to amalgamate is it proposed to offer to the various experienced officials and members of the committees of these Societies? They are holding a trust for the members; I see no suggestion of offering seats on the new committee.

6. Union is no doubt desirable and gives strength; but has the Association power to lend its name and money? and can it obtain this power if it is not at present possible?

7. Is it at all likely that members of this new Defence Society will be willing, in return for loan of Association name and money, to allow their committees to be elected by the Representative Meeting and Central Council, the majority of whom may have no interest or liability whatever with regard to same (Clause 3)?

8. Seeing the funds of this new Defence Society are to be solely supplied by its members, does any one imagine they will be willing to allow the Representative Meeting of the Association to dictate to them and say, "You must now take up defence of the interests of the profession collectively seeing you have a lot of surplus funds" (Clause 11)?

9. Would any member of this Defence Society be willing that the nominees of the Central Council and the Representative Meeting should control and spend their funds (Clause 8)?

10. Why are the Central Council of the Association to appoint the clerks and officers of the Defence Society (Clause 5)?

11. Why are Ireland and Scotland to have special local committees besides a due proportion of representatives on the Central Committee, the latter seemingly being all the English members will have (Clause 3)?

12. Why are these two parts of the kingdom to have the special privilege to spend a certain amount of the funds without any control whatever from the Central Committee; and also later, no doubt, under permission to spend more (Clause 9)?

13. If disputants (already members) can at all events agree so far as to have selected arbitrators, why in the world is the Committee to have the right to veto (Clause 7)? Surely, a third could be nominated by the Committee.

14. What will be the position of members of the Association at present on the General Medical Council? Will they have to resign the former?

The members of this rival Society ought not to require loans of money from the Association at interest (Clause 10). Let each of them, rather, make a deposit of even £5 as guarantee, and draw the interest themselves. Loans would become a bad precedent. Is it overdrawing it to suggest that one of these days some members will propose departments with loans for instruments, books, clothes, or, shall we say, for funeral expenses in the event of being a member at death?

One cannot but hope that the Central Council will reconsider their decision to refer the present scheme to the Divisions. It will waste money and cause a false impression by many voting adversely who are really in favour of the idea. The scheme bristles with queries. If the decision to consult the Divisions on this scheme is upheld, I would suggest we are justified in asking for a detailed explanation from those responsible for it.

One would think the Defence Committee would have answered query 3 above before sending in their report; and if a single medical practitioner votes in favour of it, it must be in ignorance through want of taking trouble to go into the matter.

When we read of one scheme for allowing chemists, who already diagnose and treat, the sole pleasure of dispensing our quassia and sac. ust. mixtures; and now of another wherein Jones is asked to subscribe to a fund which will be spent entirely at the discretion of Brown, we may feel pride in the evident signs of the Association beginning to step out; but many of us can now sympathize with that parrot, used to the bar of an ever crowded public-house, which, escaping into a neighbouring tree and finding itself being pecked to death by inquisitive sparrows, could only cry, "One at a time, gentlemen, please."—I am, etc.,

Southfields, S.W. E. ROWLAND FOTHERGILL.

"DOCTORS IN PARLIAMENT."

SIR,—The proposals put forward by Dr. W. Gordon, of Exeter, as to raising a fund to help medical men to enter Parliament are of vital interest to the medical profession. Matters of great importance to the well being of the nation and to medicine are being discussed in the House of Commons, and the representatives there of a profession well able to speak with authority on such questions are few.

In France a very considerable number of medical men occupy positions similar to our members of the House of Commons, and several Ministers of the Republic have been medical men. The present French Prime Minister was once a medical man in a country town. A recent President of the Swiss Republic was also a medical man.

So far back as 1892 I myself contested a parliamentary seat as a Liberal candidate, to help forward liberal ideas and so far as I could to help medical progress and efficiency, especially the Army Medical Service, then floundering in great difficulties. I received no help whatever from any medical society or organization.

I believe there is at present some difficulty in the British Medical Association in its corporate capacity taking up the work of collecting money for a Parliamentary fund to help medical candidates. Such difficulties will no doubt in the future be swept away and a definite money reserve will be available for such Parliamentary help through a special and confidential committee.

I make the following elementary suggestions as to the formation of the separate fund proposed by Dr. Gordon.

1. A small committee of from twelve to twenty members, would be sufficient to deal with the fund. Say, twelve to sixteen chosen from the existing territorial Branches of the British Medical Association, either by a special election like a caucus, or by a general consensus of opinion of subscribers, and four co-opted members to represent army, navy and Indian Medical service and Colonial members to be co-opted by the full Committee.

2. No candidate to receive help towards his election expenses who has not been chosen as an actual candidate by the existing political organization of his party in borough or county, quite apart from any medical society or organization.

The grants to be limited to £100, £200, or £300, as the Committee may think fit. The history will have to be officially recorded with the Parliamentary agent of the candidate, and shown in the return of election expenses with the source from whence the candidate received it.

4. No question of party, whether Conservative, Liberal, Radical, or Free Trader etc., would in any way enter into the allotment of money help. The only question to be—Efficiency to represent national medical interests in the House etc.

5. The grant is not to help to defray elected members' living expenses in London—say two days during the session to be considered, and to be an admitted charge against the Medical Parliamentary Fund.

The Executive receiving help to be required to join the Medical Committee in the House for the concerned deliberations of such Committee.

6. A minimum annual subscription to be fixed, but no maximum limit to be set down to the amount of subscription or donation. If there are to be [illegible] members of the medical profession in the House, probably [illegible] to be helped with general election grants of, say, £5,000 each, which would amount to £5,000. But general elections are rare and £5,000 a year would be enough to raise for the actual election expenses given.

Grants [illegible] to say fifteen members at £100 a year could be [illegible] yearly, so that the total charges would be, say, £1,500 a year.

Although I use the British Medical Association territorial Branches as units for membership of the Committee or Council, the property is quite outside British Medical Association organization, and hence could draw subscriptions from all medical men, whether members or not.

When the medical profession can combine to give half one day's income yearly to further its own interests the dawn of better days may come.—I am, etc.,

GEORGE EVATT,
[illegible], late A.M. staff
[illegible] Civil Service Club, S.W. Feb. 19th.

THE LEGAL AND MEDICAL PROFESSIONS IN IRELAND.

SIR,—The spirit of friendly relationship that formerly existed between the practitioners of law and medicine, and the courtesy that was its natural expression, seem to have departed altogether in our times, or to be recalled only by the occasion of social functions outside the sphere of professional work.

Any one who has had experience of the system that presently obtains in the Courts cannot fail to have been struck by the unwarranted impertinence frequently amounting to positive insult—to which medical witnesses are constantly subjected, as if it were a recognized fact that every medical witness must not only be prejudiced, but prepared to sacrifice his professional honour and degrade his office in the interests of whatever party employed him.

It is not an infrequent occurrence to find judges priding themselves upon their knowledge of petty medical technicalities, and parading it in a series of questions that should certainly arouse indignant protest, if it did not afford compensation in the silent amusement of the doctor who happens to be pilloried in the witness-box.

Lectures regarding excessive fees and the unreasonable requirements of medical men are occasionally contributed, and irresistibly force one to the conclusion that the judge has been a diligent student of the introductory remarks to the advertisements of patent medicines. The Bar, of course, takes its cue from the Bench, and the method of cross-examination of a medical witness bears frequently a close resemblance to the Petty Sessions Court style where evidence of a doubtful character is being sifted.

Formerly the cross-examination of medical witnesses was directed to minimize the injuries alleged to have taken place, and the most vigorous investigation of facts did not preclude the observance of that old-time courtesy that was honourable alike to both professions. Now, however, the doctor is subjected to every indignity, his motives are impugned, and his testimony regarded as, at least, not above suspicion.

That this is the actual state of things can scarcely be gainsaid; the reason for it may be debatable. It does assuredly seem that the present duty of medical witnesses is to resent immediately and resolutely any insulting observations or insinuations addressed to him in a court of justice, whether they emanate from the judge or counsel.—I am, etc.,

Dublin, Feb. 21st. E. MAGENNIS, M.D., D.P.H.

THE DIMINISHING BIRTH-RATE.

SIR,—In the various discussions on this very important subject reported from time to time it is noticeable that the speakers attribute the diminution mainly, if not entirely, to the adoption of physical means to prevent conception. Now, while doubtless it would be foolish to ignore, or even to give insufficient consideration to, the prevalence of this very regrettable cause, on the other hand it would be unwise not to consider the possibility, or even the probability, of another and developmental agency. In other words, is the present-day middle-class woman as able to bear children as her predecessors? She is under the full influence of the "higher civilization" which has brought in its train bicycling, golf, hockey, and other factors, which increase the size of her muscles and diminish the size of her pelvis. She is gradually tending in figure towards the male model. Is her heart, which has hypertrophied already to the stimulus of gymnastics, capable of further hypertrophy in response to the demands of the puerperium?

There can be little doubt in the medical mind that the "new model" is not equal to the calls of the situation.

Under such circumstances the Anglo-Saxon race must "go"—it is going fast in the United States—but so must the French and German, as both show a diminishing birth-rate under a similar civilization. One should hesitate to assume too confidently the agency of the first-named cause in explanation of the absence or smallness of many middle class families, as, to judge from my experience in my own small circle of friends, such condition to the male partner at least is not a matter of rejoicing but of regret.—I am, etc.,

London, E.C., Feb. 22nd. HOPE GRANT, F.R.C.S.E.

PUERPERAL SEPSIS.

SIR,—I spent four years at one of the largest London hospitals as a student, and during that time attended 120 cases of midwifery for the hospital. After I was qualified I spent three years at the same hospital as house-surgeon, house-physician, and assistant in the obstetric wards, attending the general hospital practice in the intervals between the appointments. Having therefore had a fair training I determined on entering private practice twenty years ago to attempt among other things to minimize as far as possible the suffering of lying-in women, and to be guided by common sense rather than by theory and tradition.

In my practice I have attended personally about 100 cases of midwifery each year, making a total of 2,000, and though this number is comparatively small, it serves as a sound basis for argument compared with the statistics of lying-in hospitals with their ever-changing staff of assistants, inasmuch

as my cases had one definite line of treatment always carried out by the same man.

In twenty years I have only had 3 cases of puerperal fever; 2 of these occurred eighteen years ago when there was an epidemic of scarlet fever in the town; not till after the women had contracted puerperal fever was I informed that the children had been ailing, though not under medical treatment, and examination showed that they were desquamating. The third case occurred three years ago, and was caused by the patient having been examined previous to my visit, and without my knowledge, by a woman with a bad whitlow. This case recovered, as did also one of the others, so that out of 2,000 cases I have only had one death from puerperal sepsis, and no case that might not easily have been prevented had I been called in earlier, and thus enabled to remove the gross infection or risk of contagion. I think this result is due to the fact that I use care and cleanliness, and also get each case over as quickly as possible. My practice is largely among the working classes, many of whom live in most insanitary houses and a long way from my house.

On looking over my records I find that in 20 per cent. of my cases the baby is born before my arrival, in 35 per cent. it is born within an hour of my reaching the house, and that in the remaining 45 per cent. I use chloroform and the forceps, or very occasionally chloroform and turning. On arrival at a patient's house, after removing my coat and rolling up my shirt sleeves, I wash with the soap and water provided. I use no kind of antiseptic, and, without waiting for a pain examine at once. A "patient doctor" who sits waiting for pains will probably "frighten them away," as the old women very correctly say; but where the doctor shows that he means to be of assistance the patient also helps herself to the utmost. She bears down and induces a uterine contraction, and where the os is soft it is an easy matter after rupturing the membranes to dilate it up to full size with the hand in the vagina and the fingers through the os. If after this the pains are strong and no progress takes place, I at once give chloroform and put on the forceps and so terminate the labour very shortly, but at the same time take care of the cervix and the perineum. Little ruptures of the latter must take place occasionally even without forceps, but these are easily mended with one or two catgut sutures without any antiseptic precautions. I have never yet had in my practice a rupture running back to the rectum. After the birth of the child I leisurely wash my hands, and then, turning the patient on her back, squeeze the uterus with both hands and express the placenta. If it does not come away at once I introduce my hand into the uterus, peel off the placenta and bring it away, following the uterus down from without with the other hand. I then remove all soiled clothing, put a clean draw-sheet underneath, apply a warm napkin, and put on a broad binder as tightly as possible, and then give the uterus another good squeeze. For this rapid, and if necessary instrumental, delivery I claim the following advantages:

1. It relieves the patient of much pain, shock, and anxiety.

2. It saves the patient an immense amount of muscular exertion, both of the voluntary muscles and also of the uterus, and consequent exhaustion.

3. This, together with the firm pressure on the uterus afterwards, is probably the reason why I have never had a case of *post partum* haemorrhage, though I never use ergot during labour.

4. With ordinary care and manual dexterity there is no risk of any damage.

5. In addition to the relief to the patient and the confidence it inspires, it is a great saving of time to the practitioner.

I use no douching before labour, and very rarely after, unless there has been a dead child in the uterus for some time, or the discharge is very foul, and then I use plain warm water. I cannot help thinking that the meddlesome midwifery that tries to kill germs that Nature either provides or tolerates may cause trouble where none existed.

I feel sure the bulk of general practitioners will agree with me, and, though anxious and willing to gain knowledge, will, nevertheless, be unable to accept the ever-changing theories of bacteriologists unless they fit in with facts and experience.

February 27th. General Practitioner.

Sir,—On reading in the British Medical Journal of February 13th the admirable paper of Dr. Horrocks on the above, the same difficulty as regards the apparent contradiction on p. 353 occurred to me as to your correspondent "J. M. K."

Close reading, however, shows that after attending a septic case and seeing another without apparently changing the clothes, an aseptic "overall" is used, along with disinfection of the hands. The question of the "overall" seems to be the crux, and unless this can be had the difficulty remains, not to speak of bag, instruments, etc. In hospital practice it is different, merely a case of having aseptic overalls at hand, and some one to tie them on carefully over the possibly septic clothing. Doubtless many practitioners, however, are well supplied for ordinary practice, and for them the ban would not obtain, according to Dr. Horrocks's reasoning.

The question of attending fresh cases with a septic puerperal case on hand is now of much medico-legal and legal interest, as already a case has been brought in the provinces within the last few years, and where the *pros* and *cons* of sufficient antisepsis were discussed in court.

Similarly trouble crops up between practitioners and medical officers of health. If a moderately definite pronouncement could be given by men of much experience, as Dr. Horrocks, with rather more detail as to this special point than in his admirable address, much confusion would be cleared away.

Perhaps Dr. Horrocks may see his way to amplify his remarks as to the point raised by "J. M. K.," as even the "twenty minutes" will become a precedent in future discussions, more especially in connexion with the propriety or legitimacy of continuing to attend a case after notifying it under the Infectious Diseases Act, and at the same time undertaking fresh cases.—I am, etc.,

February 20th. J. C.

A CASE OF PERFORATED GASTRIC (OR DUODENAL) ULCER?

Sir,—The case reported by Mr. Whiteford in the British Medical Journal of February 20th of perforated gastric or duodenal ulcer is open to another and a much simpler interpretation, which was the one generally accepted at the South Devon Hospital.

She was seen as described, and sent into hospital for immediate operation, an urgent telephonic message to this effect preceding her, and a similar one being repeated when it was learned that I did not contemplate any immediate operative procedure. She came under my care as acting surgeon for the week, and I saw her with my colleague Mr. Webber at 5.30, half an hour after admission. She was sitting up, with a good colour, laughing and joking with the nurses; temperature 100.4°, pulse 100, abdomen moving well, perfectly soft, and only a little tenderness in the epigastrium. She allowed deep palpation without difficulty. She said that since her first operation she had had several severe attacks of pain associated with vomiting, and lasting for some hours.

This present attack was similar in nature, only more severe; she had been in pain for three days, and had vomited once each day. The attacks came and went quite suddenly. Mr. Webber concurred with me that a perforation was very doubtful, and that at all events any immediate operation was absolutely contraindicated; so I sent her to bed for observation. She was kept quiet and on slop diet for a few days as a matter of precaution, but never showed the slightest sign of any abdominal trouble; her temperature only once touched 100° (its usual range was 98.4° to 99°), and she went out in sixteen days.

The view taken by myself and several of my colleagues on the South Devon staff who saw the girl while in the hospital was that an error of diagnosis had been made in attributing to a ruptured gastric ulcer the pain of a severe colic caused by dragging on the adhesions left by the previous operation. The utter absence of any grave symptom whatever while in hospital, and the history of her previous attacks of a similar nature—as to this she was positive—pointed most suggestively to this view. Recovery from an abdominal leak without operation, though possible, is exceedingly rare, and we could not find any reason to conclude that this case was one of the rarities, especially when we considered the very grave condition to which a slight leak had reduced her a year previously.—I am, etc.,

C. E. Russel Rendle.

Plymouth, Feb. 24th. Assistant Surgeon, South Devon Hospital.

THE ADMINISTRATION OF OXYGEN.

Sir,—Among the numerous references to the administration of oxygen in pneumonia and other affections, I have never seen any suggestion that the gas should be warmed.

In my practice I always insist that the gas be passed through a spiral tube immersed in hot water, as I see no

ground for supposing that a gas which on expanding after strong compression becomes icy cold, is more fit to be administered to a patient than a blast of polar air. I think that better results would be obtained when oxygen is employed if this practical and obvious point were attended to.—I am, etc.,

Menton, France, Feb. 2nd. D. W. Samways.

THE FEEDING OF INFANTS

Sir,—For some years now my attention has been directed to the feeding of infants. Last year our infantile death rate per 1,000 births was 124, which compared with previous years and with many other towns is a low rate; still, when we seriously consider to how few diseases infants are susceptible, even this rate is too high. I am more and more convinced that it is not disease which kills off our infant population as much as errors of diet, and it is time we, as medical advisers, turn our attention to this important subject. Mothers and nurses naturally look to us for advice on feeding and clothing; and if we have nothing better to tell them than the old-fashioned formula—so much milk, so much water, etc.—then the time has arrived for us either to study the subject more or refuse to advise any longer.

This morning I noticed a baby "possiting" freely, and, on asking what the child was being fed on, was told "two parts of water to one part of milk, etc.," the child being seven weeks old. I was not surprised. Yesterday I heard of a medical man recommending "three parts of water and one of milk," and, when he heard the infant was receiving pure cow's milk with a little lime-water and sugar, he expressed the opinion that convulsions would inevitably follow.

Note the composition of mother's milk in regard to fat and cow's milk in the same relation, and then see how much liquid the little one has to swallow to get enough nourishment for its growth; and is it any wonder that after this extensive dilution the child is not satisfied with the proper quantity, and when enough has been drunk to furnish the proper nutriment in fat the excess is rejected.

Some years ago I formulated a diet chart for infants, in which the proteid matter was brought down to the percentage in mother's milk by dilution with water, and the loss in fat made good by adding cream. This method, although admirable in results, proving troublesome for the majority of mothers, I was forced to some other plan; then I resorted to plain pure cow's milk, to which is added 5 per cent. of lime water and the same of sugar.

On the physiological basis that the stomach capacity of an infant at birth is $\frac{1}{30}$ of its total body weight, I now start with this as a standard, and when I am in at the birth of a child I weigh it, and commence feeding with this quantity, $\frac{1}{30}$ of total weight—namely, a child weighs 6 lb., I give 1 oz. of milk every two hours during the daytime and eight times in the twenty-four hours for the first month; if he weighs 9 lb. I start with 1½ oz. every two hours in the daytime, eight feedings in the twenty-four hours for the first month. The increase in the stomach capacity is, I believe, very regular, of 1 oz. at birth it will increase 1 oz. each month afterwards up to a certain age, when the increase is not so rapid, so that the quantity to be given is the number of ounces the child is months old—for example, if three months old then give 3 oz.

I have given this method an extended trial now, and the results are better than I ever anticipated, in fact, they could not be better, providing the child is fed during the day time at stated intervals—say every two hours—he is satisfied with the quantity, does not "possit," does not wet, is good, and above all, grows. This is not the result of a few months' trial, but has extended over the last ten years, and there are very few cases in which it has not answered.—I am, etc.,

Darwen. F. C. Haworth, Medical Officer of Health; Police Surgeon.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

Sir,—I am glad to see that there is a prospect of something being done to improve the ambulance service in London, which seems to be in a very unsatisfactory state at present, especially as regards the removal of non-infectious cases to hospital.

I had occasion to send a very acute case of appendicitis to the Tottenham Hospital recently, and had some difficulty in procuring an ambulance. I got one eventually from Edmonton, but not without considerable delay. There should certainly be some provision for sending acute and urgent cases, such as a perforated gastric ulcer or appendicitis into hospital as quickly as possible. These cases seem to me more important even than street accidents, most of which could be safely removed in a cab. There should be an ambulance in every district of London available for non-infectious cases on the application of a medical practitioner.—I am, etc.

London, N., Feb. 16th. W. Atterbury, M.D.R.U.I., M.R.C.S.

THE SIMULTANEOUS INCUBATION OF TWO INFECTIOUS DISEASES.

Sir,—Dr. Penny, in the British Medical Journal of February 27th, writes: "It would be interesting to know whether the incubation of two infectious diseases at the same time retards their development."

The following case bears upon the point: On May 7th a boy was isolated with well-marked scarlet fever, his exposure to which had probably been on May 1st. It ran an ordinary course, and he was making a good convalescence till May 30th, when a full eruption of chicken-pox appeared. This was exceptionally severe, and the temperature remained at 104° F. for three days. The incubation period of the chicken-pox must therefore have been at least twenty-three days, and possibly thirty days, as it is probable that he received both infections on the same day.

Wellington College, March 1st. H. G. Armstrong.

DEGREES IN DENTISTRY.

Sir,—May I be allowed a few words in friendly criticism of Mr. Underwood's letter appearing in your last issue? Mr. Underwood does not believe that "the authorities of our Universities will insist on presenting these honours to a branch of the profession that has emphatically stated that it does not welcome them." This may apply in London, but I doubt if it does in the provinces. There are some 1,200 dentists who are members of the British Dental Association. At the recent meeting, held in London, 289 attended, of whom 130 were Londoners: 263 voted; 175 against granting degrees for dentists, and 88 in favour. This can hardly be called an emphatic statement on the part of the British Dental Association.

But, even if it were, we must grasp the fact that Birmingham has granted dental degrees, that Dublin University has instituted them (without any petition from the dental profession) and I am credibly informed that Liverpool and Manchester have made up their minds to do the same, and are busy framing their curricula. Whether London will or will not institute degrees for dentists, or whether the authorities will be influenced by the recent vote, is as yet unknown.

It is equally unknown whether, in the event of degrees not being instituted, dental students will forsake London colleges for provincial universities, as medical students have done, or whether the College of Surgeons will hold its own.

To attribute the desire for academic training to mere vanity, or to a wish to profit by confusion, is—though motives are often very mixed—to misread the signs of the times. Rather is it an outcome of the general desire for greater efficiency and economy of all educational methods which has been actuating the more thoughtful minds of the country, and which is gathering strength.

As regards separation from general medicine—if dentistry is an integral part of medicine, it is impossible to separate it. But we must bear in mind when comparing it with other specialities, that all the latter are eggs laid by the parent bird, while dentistry was an alien egg kindly and devotedly hatched after due season. Whether it will prove an ugly duckling remains to be seen; I trust not.

I would earnestly entreat Professor Underwood to accept the inevitable, and, by his experience and counsel, so to advise the framers of these new degrees that the evils he prophesies may, perchance, never arrive.—I am, etc.,

London, W., Feb. 29th. Wm. Rushton.

A French Orthopaedic Society. The foundation of a French Society of Orthopaedic Surgery is in contemplation. Among the surgeons who are taking an active part in promoting the scheme are Professor Kirmisson, of Paris; M. Gangolphe, of Lyons; M. Gaudier, of Lille; and M. Menecière, of Rheims. It is expected that details of organization will be finally settled and the Society formally constituted at the Congress of Paediatrics to be held this year at Rouen, April 5th to 10th.

OBITUARY.

SIR EDWARD SIEVEKING, M.D., LL.D., F.R.C.P.,

Physician Extraordinary to the King; Consulting Physician, St. Mary's Hospital

WE mentioned briefly last week the death, at an advanced age, of Sir Edward Sieveking, which occurred on February 24th.

Edward Sieveking was born in 1816 in St. Helens Place, in the City of London. His father was a merchant and came of a good old North German stock, and members of the family are still to be found in the old home at Hamburg.

Edward Sieveking was educated partly in England and partly in Germany. He studied medicine at Berlin, Bonn, University College, London, and subsequently at the University of Edinburgh, where he took the degree of M.D. in 1841. For some years after graduating he practised at Hamburg, chiefly among the English colony there. While in residence there he wrote a small work on ventilation, and helped to bring about the establishment of a children's hospital. He returned to London in 1847 and passed the examination for Membership of the Royal College of Physicians, of which College he was in 1852 admitted a Fellow. In the preceding year he was appointed Physician to the Out patient Department of St. Mary's Hospital, with which he remained actively connected for forty years. On his retirement he was elected Consulting Physician. He was for some time Physician to the Lock Hospital and to the Hospital for the Paralysed and Epileptic.

In 1849 he issued his first publication in England—a pamphlet on nursing—and his advocacy had much to do with the great development which had resulted in the trained nurse of the present day. He read a paper on the subject before the Epidemiological Society, and, resulting therefrom, a committee was formed, which for years endeavoured to realize a national system of nursing the poor. On more than one occasion a deputation, headed by Lord Shaftesbury, waited on the Poor Law Board, who approved of the plans proposed, and issued circulars in favour of them.

Sir Edward was one of the translators of Rokitansky's great work on *Pathological Anatomy* for the Sydenham Society, and afterwards, for the same Society, translated Romberg's work, *Nervous Diseases*.

In 1854 he published a work on *Pathological Anatomy* written in conjunction with his colleague Dr. Handfield-Jones, he also wrote a book on epilepsy, the second edition of which appeared in 1861. He was a Croonian Lecturer of the Royal College of Physicians in 1866, and the lectures were printed in a volume entitled *On Localization of Disease*; in 1877 he delivered the Harveian Oration before the same College. In addition he was for some years editor of the *Chirurgical Review*, a periodical founded by one of his most intimate friends, Sir John Forbes.

He was appointed Physician in Ordinary to H.R.H. the Prince of Wales in 1863, Physician Extraordinary to Queen Victoria in 1870 and Physician in Ordinary in 1888. When His present Majesty came to the throne Sir Edward Sieveking, as he had become in 1886, was appointed Physician Extraordinary to His Majesty. At the tercentenary of the Edinburgh University he received the honorary degree of LL.D., he was also a Knight of the Grace of St. John of Jerusalem, and had been President of the Harveian and of the Royal Medical and Chirurgical Societies.

Sir Edward Sieveking gave valuable assistance to Mr. Propert in founding Epsom College, and was its first Honorary Secretary. He was a Vice-President of the institution, as well as a member of the Council, whose meetings he attended regularly until his health failed.

Sir Edward Sieveking married in 1849 the daughter of Mr. J. Ray of Finchley, and had a large family; one of his sons, Mr. Herbert E. Sieveking, was formerly Surgeon to the Victoria Hospital, Cairo.

Sir Edward Sieveking, who was a member of the British Medical Association, was for eight years a representative of the Metropolitan Counties Branch on the Central Council. It was largely owing to his initiative that the medal for distinguished merit was founded by the British Medical Association. The medal was founded in 1877, and is awarded to a person who has conspicuously raised the character of the medical profession by scientific work, by extraordinary professional services, or by special services rendered to the British Medical Association. The statutes and regulations were drafted by Sir Edward, then Dr., Sieveking, and approved by the Council in 1877. It was first awarded in consideration of the heroic conduct, self-denial, and humanity of the medical men at a colliery accident at Pontypridd, and was formally presented at the annual meeting in Manchester in 1877; on that occasion a gold medal was awarded to one medical man, silver medals to three, and and bronze medals to eight. In subsequent awards the medal has always been in gold. It was presented in 1879 to Surgeon-Major James Reynolds, M.B., V.C., of Rorke's Drift; it was awarded to Dr. William Farr in 1880 as an expression of the Association's high appreciation of his long and successful labours on behalf of statistical and sanitary science, and in 1886 to Dr. Edward Waters for his long-continued, self-denying, and able services in the cause of medical reform. In 1888 it was awarded to Dr. Ormerod, of Workington, for gallant services in rescuing workmen in a colliery accident; in 1890 it was awarded to Surgeon Parke, surgeon to the Emin Pasha Relief Force; and in 1896 to Surgeon-Captain H. F. Whitchurch, V.C., I.M.S., for extraordinary gallantry in the performance of his professional duties during the Chitral expedition. In 1897 it was awarded to Mr. C. G. Wheelhouse and Sir Walter Foster in recognition of their services as the first two direct representatives of the English profession on the General Medical Council. Sir Edward Sieveking delivered the Address in Medicine at the annual meeting of the Association in Sheffield in 1876.

The first part of the funeral service was held at St. Thomas's Church, Orchard Street, on February 27th. The British Medical Association was represented by Mr. Edmund Owen, a member of the Council, and Mr. Guy Elliston, the General Secretary; the Royal College of Physicians by Sir William Church, President, Sir Dyce Duckworth, Dr. Frederick Roberts, Dr. Allchin, Dr. Ferrier, Censors, Dr. J. F. Payne, Librarian, and Dr. Liveing, Registrar; Epsom College by Dr. Holman, the Treasurer, the Rev. T. N. Hart Smith-

Pearse, Head Master, and Mr. J. Bernard Lamb, Secretary the British Laryngological and Climatological Society, of which Sir Edward Sieveking was first Honorary President, by Dr. Alfred Street the Harveian Society, of which Sir Edward Sieveking had been President, by Dr. C Theodore Williams; the Edinburgh University Club, of which Sir Edward was the founder, by Dr. G. A. Sutherland and the medical staff of St. Mary's Hospital by Dr. H. A. Crley, Dean; Sir Dyce Duckworth also represented the University of Edinburgh and the Royal Medical and Chirurgical Society, of which Sir Edward was a Past President, and to which he presented the presidential badge. Dr. Ferrier also represented the National Hospital for the Paralysed and Epileptic, Queen Square, of which Sir Edward was one of the founders. The interment took place in the family grave at Abney Park Cemetery.

We are indebted to a colleague of the deceased physician for the following notes on his work at St. Mary's Hospital:

Sir Edward Sieveking was the last remaining member of the original staff of St Mary's Hospital, which was elected after much thought, and with most excellent results, in 1851. His immediate colleagues were Alderson, King Chambers, Sibson, Handfield Jones, and Markham: and, as one looks back upon this list, one can scarcely fail to be struck by its strength. For fifteen years Sieveking patiently plodded away in the out-patient department of the hospital, and for sixteen years he lectured on materia medica in the medical school, a subject which by no means lends itself to oratorical treatment. But he did the work well as well as it could be done and in a most painstaking manner. The lectures were given in the summer sessions, and at a very early hour in the morning. But the lecturer was invariably punctual in his attendance, and most methodical in his dealings with the matter in hand. More than this, he almost succeeded in making the lectures interesting. Materia medica was, however, the only subject on which he ever lectured: for, with Sibson, Chambers, Handfield Jones, and Broadbent taking in turn the class in medicine, there was obviously no vacancy for him there. Probably, moreover, he would not have desired one. A physician who could lecture upon materia medica for sixteen years might deem himself unfitted for successfully undertaking the other and the less methodical work.

It was doubtless to Sieveking's disadvantage that the circumstances of his post on upon the staff of St. Mary's Hospital entailed his spending fifteen long years amongst the out-patients, whilst the other physicians men of about his own age were pleasantly occupied in teaching from the very cases which, week after week he was sending up from among the out-patients when it was then the custom to attend in some dark rooms in the basement of the hospital. But when the day eventually arrived for Sieveking to be elected upon the consulting staff of the hospital he quickly proved himself to be as perspicuous a teacher in his work in the wards as he had been with his early morning lectures and with his other duties. And the fact is, his lectures lacked the enthusiasm and the glow which pervaded all Sibson's instructions, the depth and the learning of that of Handfield-Jones, and the perspicacity and precision of that of Broadbent, it was clear and [illegible] was widely appreciated by a considerable [illegible].

During the twenty years that Sieveking had charge of the wards, it was the custom for each resident medical officer to serve with each physician in turn, and he invariably looked forward to his association with Sieveking for acquiring a store of that kind of experience which, he clearly foresaw, would help to prepare him for the successful accomplishment of his future work in the profession. He knew that under Sieveking he should receive helpful instruction in the art of prescribing and of actually writing prescriptions—not that Sieveking had a special fondness for drugs. On the contrary, his extensive knowledge of them had the effect of limiting his use of them to a very few. But he took a good deal of trouble in teaching his clinical assistants how he would prescribe those few. The same [illegible] with Sieveking also gave him a full knowledge of the use of blistering, of hot air baths, of venesection, of cupping, and of many another methods of the sort which are apt to be somewhat neglected by a physician who is no longer "in hand," or by one who, as he sits by the side of his patient, has his mental eye resting upon the viscera as he will be demonstrating them to his students "in another place" within a very short space of time. In the thoughts of such a man, indeed, the present subject of treatment must be content with a very secondary place. But Sieveking was not of this nature; he was a thoroughly sound practitioner and a well-skilled pathologist.

Yes, Sieveking was an excellent practical clinician, teaching clearly because thinking and seeing clearly. His method was free of all speculation and doubtful theorizing. He walked and he talked along the beaten tracks of medical science, well knowing that, thus proceeding, he was safe. And in this knowledge his students fully shared.

He was a great friend to the students, and he was much interested in the establishment of a club for them in connexion with the hospital, and it was a great source of constant satisfaction to him to see this club flourishing from year to year and continuing to flourish, as it does at the present day. He was a man of great energy and perseverance; and having taken up an idea he made it his business to see it through to a successful issue. Indeed, whatever he did, he did it with all his might.

Speaking as a colleague, one can unhesitatingly say that Sieveking was loyal and straight. He pulled no wires. He came to committees with an open mind, and determined to do what was right. He was no self-seeker, no time-server. And though his manner was so reserved that he sometimes gave his colleagues the impression of being cold and somewhat lacking in sympathy, when it had been broken through one invariably found in him the kind and warm-hearted gentleman and the ready friend.

We are indebted to Sir William Broadbent for the following note:

Sir Edward Sieveking was the last survivor of the original staff of St. Mary's Hospital. On the medical side Drs. Alderson, Chambers, and Sibson were the physicians; Drs. Handfield-Jones, Markham, and Sieveking assistant physicians, as the physicians to out-patients were then called. This staff was intact when I was appointed resident obstetric officer at the end of 1858, and for many years afterwards. Sir Edward Sieveking (as he soon became), being the junior, had a long spell of out-patient work from 1851 to 1856. The out-patient department was not at that time organized for clinical teaching, and when he was promoted to the wards I was myself Out-patient Physician, so that I saw little of him in actual clinical work.

As a senior colleague I found him, while peculiarly undemonstrative, extremely kind, and I owe much to him. A mark of confidence, which I esteemed as a great honour and on which I look back with satisfaction, was that he asked me to attend one of his sons who had typhoid fever.

The distinguishing note of Sir Edward Sieveking's character was thoroughness. This came out alike in his personal relations, in his work at the medical school and hospital, and in his investigation of disease. It made him a powerful influence among students and in the profession, and contributed in an important degree to the success of St. Mary's Hospital and School. I shall always regret that absence from London prevented me from taking part in the remarkable demonstration of the respect in which he was held shown by the attendance at the funeral service on Saturday.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE

Deputy Inspector-General H. M. Ellis is promoted to be Inspector-General from [illegible]. He was appointed Surgeon, September [illegible], Staff Surgeon, November [illegible], Fleet Surgeon, January [illegible], Inspector, [illegible], and Deputy Inspector-General, August [illegible]. He was with the Ballot [illegible] Marine Artillery throughout the Egyptian campaign of [illegible] was engaged at Kassassin on August [illegible] and September [illegible] and at the battle of Tel-el-Kebir on September [illegible] and was present at the storming of Cairo. He was awarded the Egyptian medal with clasp and [illegible] Khedive's bronze star. While Inspector-General [illegible] was wrecked in H.M.S. [illegible], which was [illegible] Tripoli on the Syrian coast, on January [illegible] H.M.S. [illegible], when the Admiral, officers, and [illegible] men were drowned.

Surgeon T. J. Hanahan, B.A., M.B., has been promoted to be Staff Surgeon, [illegible]. He was appointed Surgeon, November [illegible].

Surgeon P. H. Bertken, M.D., has also been promoted to be Staff Surgeon from [illegible]. He was appointed Surgeon, November [illegible]. He was present at the capture of the Sultan's warships in Zanzibar harbour, [illegible] and was mentioned in despatches for his services on that occasion.

Surgeons N. J. Smith and S. H. Burt, whose first commissions are dated May [illegible], are likewise promoted to be Staff Surgeons, from May [illegible].

Surgeon W. E. Trevelyan is also promoted to be Staff Surgeon, from November [illegible]. He was appointed Surgeon dated from November [illegible].

Deputy Inspector-General T. J. PRESTON, retired list, is appointed to the *President*, for service in the Medical Department, April 1st.

Fleet-Surgeon J. R. MCDONNELL, M.D., has been placed on the retired list at his own request, February 22nd. He was appointed surgeon, August 21st, 1885; Staff Surgeon, August 21st, 1895; and Fleet Surgeon, August 21st, 1899. He served in the expedition against King Koko, of Nimby, the chief town of Brass, on the River Niger, in 1895 (medal with clasp); in the expedition for the punishment of Mburuk, a rebellious Arab chief, resulting in the capture of his stronghold, Mweli, in 1895 ("Mweli, 1895," engraved on rim of medal), and in the expedition to punish the King of Benin for the massacre of the political expedition, 1897, ending in the capture of Benin City, in 1897 (clasp).

The following appointments have been made at the Admiralty: THOMAS C. MEIKLE, M.B., M.A., Staff Surgeon, to the *Britannia*, March 8th; EDMUND CORCORAN, to be Staff Surgeon in charge of the Royal Naval Hospital at Portland, April 1st; WILLIAM L. MARTIN, Surgeon, to the *Moorhen*, on recommissioning, undated; GERALD C. CROSS, Surgeon, to *Pique*, additional, and on recommissioning; CHARLES H. DAWE, Surgeon, to the *Swift*, additional, and on recommissioning; GEORGE H. BALDMAN, Surgeon, to the *Tamar*, February 27th; CHARLES T. BANFER, Surgeon, to the *Alert*, additional, and on recommissioning, undated; EDWARD R. D. FASKEN, Fleet Surgeon, to the *Andromeda*, March 1st.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL SIR T. J. GALLWEY, K.C.M.G., C.B., M.D., Principal Medical Officer in India, has been granted eight months' leave to England.

Deputy Surgeon-General WILLIAM BISSETT SNELL died in London on February 26th, aged 72. His first appointment was dated May 6th, 1853, and he retired from the service with the honorary rank of Deputy Surgeon-General, June 13th, 1876. He was in the campaign in North China in 1860, and was at the action of Sinho, the taking of Tangku, with the reserve at the storming of the North Taku Forts, the actions of September 18th and 21st, and the surrender of Pekin; he was awarded the medal with two clasps, and promoted for "meritorious services."

ROYAL ARMY MEDICAL CORPS.

MAJOR M. T. YARR is appointed Surgeon to the Governor of Bombay, from December 12th, 1903.

Lieutenant-Colonel J. G. HARWOOD, who is serving in the Bombay Command, is granted the temporary rank of Colonel while officiating as Principal Medical Officer, Poona District, from December 4th, 1903.

The undermentioned Lieutenants, appointed on probation on the dates specified, are confirmed in that rank from the same dates: W. F. ELLIS, September 1st, 1902; F. W. W. DAWSON, M.B., January 31st, 1903; J. H. DUGGID, M.B., G. W. G. HUGHES, A. C. H. GRAY, M.B., D. P. WATSON, M.B., T. S. DUDDING, J. E. POWELL, F. M. M. OMMANNEY, O. IEVERS, M.B., R. H. MACNICOL, M.B., H. H. J. FAWCETT, S. L. PALLANT, N. D'E. HARVEY, M.B., C. R. BRADLEY, S. E. LEWIS, M.B., G. A. KEMPTHORNE, J. T. MCENTIRE, M.B., F. M. G. TULLOCH, P. J. HANAHAN, J. D. RICHMOND, M.B., E. M. GLANVILL, M.B., M. C. WETHERELL, M.B., H. C. HILDRETH, G. S. MACKAY, M.B., W. MACD. MACDOWALL, and R. T. COLLINS, August 31st, 1903.

A VOLUNTEER AMBULANCE TROPHY.

At Glasgow, on February 25th, in the presence of the Hon. the Lord Provost and a numerous company, the Scottish Volunteer Ambulance Trophy was formally handed over to Sir William Taylor, K.C.B., Director-General, Army Medical Service, for safe keeping until the termination of the first competition therefor, which is at present fixed for May 14th. The trophy, which cost £150, has been provided by the Scottish Volunteer Medical Officers' Association, and is for annual competition among all volunteer army medical ambulance teams in Scotland. A similar trophy was established many years ago by the London Volunteer Medical Officers' Association, and is open to competition to companies from the whole United Kingdom, but owing to distance and other circumstances the number of teams from Scotland has always been limited; it was thought, therefore, that it would be useful to establish a Scotch trophy.

The presentation was made on behalf of the Association by Major Quentin Chalmers, M.D., and in acknowledging it Sir William Taylor referred to the services rendered by the Glasgow companies during the war.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE MEDICAL PROFESSION AND TRADE ADVERTISEMENTS.

MR. ARTHUR E. BARKER sends us some further correspondence he has had with Messrs. C. J. Hewlett and Son respecting the leaflet advertising "adrenalin-eucaine" as a local anaesthetic, and quoting from an article contributed by Mr. Barker to the *Lancet*. Messrs. Hewlett and Son send Mr. Barker a revised copy of the leaflet in question, which they say is amended as suggested by him, and to which they trust he will now take no exception. To this Mr. Barker replies that he objects most strongly to the use of quotations from his article to the *Lancet*, as from the form of the advertisement it is suggested that he had used Messrs. Hewlett's solution, whereas, as a matter of fact, at the time the article was written he knew nothing of their preparation, while his experience with the sample submitted to him has not been of a kind to induce him to employ it again.

*** We do not think we need add anything to Mr. Barker's protest.

THE POSITION OF A MEDICAL PRACTITIONER IN LEGAL PROCEEDINGS CONCERNING HIS PATIENT.

PUZZLED says that he has been asked to give a patient for injuries received in an accident, and [illegible] with a statement to be used in legal proceedings [illegible] the defendant in the action publishing [illegible] to him. Later the defendant's solicitor asked him to make an affidavit, which [illegible] his patient has consulted him [illegible] affidavit for the defendant. [illegible]

*** We think our correspondent should have refused to give any certificate or affidavit for the defendant without first consulting his patient and obtaining his permission, taking care that the patient understood the effect of the statement or affidavit. If, however, the plaintiff did not call him, and the defendant chose to set that a subpoena, he would have been bound to go, and under the direction of the judge to answer all questions put to him, but except under the direction of the judge a medical practitioner is not justified in giving information as to the condition of a patient who is or has been under his care.

MEDICAL ETIQUETTE.

A. A. P. Our answers to questions in which no names are mentioned deal with a purely hypothetical series of events. We have no means of testing the accuracy of the statements made to us. As we understand our correspondent, the questions he now wishes us to answer are (1) If a medical practitioner understood that he was acting for another to whom he surrendered the case and gave a history, instantaneous, should he make any charge for his services? (2) Should the bill for his services be sent to the patient or to the patient's regular medical attendant? To these questions we reply: (1) He has a right to do so if he wishes. (2) It should be sent to the patient.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Forensic Medicine and Public Health at the M.B. Examination. By a Decree of Convocation it has been determined that the Statute instituting a separate examination in Forensic Medicine and Public Health as part of the Final Examination for the B.M., B.Ch. degrees (see BRITISH MEDICAL JOURNAL, February 27th, p. 523) shall come into operation in 1905.

Scholarships. Scholarships in Natural Science have been offered for competition on the following dates: March 15th, Keble College; March 22nd, Magdalen College; April 19th, Merton College, New College, Corpus Christi College, June 28th, Brasenose College.

UNIVERSITY OF CAMBRIDGE.

Recognized Schools.—The Medical College, Lahore, and the City Hospital for Infectious Diseases, Newcastle on Tyne, have been recognized by the Special Board for Medicine as places of medical study.

Degrees.—At the Congregation on February 25th the following degrees were conferred: *M.D.* R. N. Salaman, Trinity Hall. *M.B.*: G. E. St C. Stockwell, King's; F. A. Hepworth and H. J. Robinson, St. John's; G. P. D. Hawker, Caius; P. K. Muspratt, Christ's; S. J. Steward, Downing. *B.C.*: F. A. Hepworth and H. J. Robinson, St. John's, W. B. Swete-Evans, Clare; W. Hyde Hills, Pembroke.

UNIVERSITY OF LONDON.

INSTITUTE OF MEDICAL SCIENCES.

THE following additional promises of support have been received in response to the appeal of the Senate for funds to build and endow an institute of medical sciences under the control of the University:

Mr. George Raphael, £100; Mr. Charles Maw, £105; A. Pearce Gould, F.R.C.S., £100; F. Goodhart, M.D., £100; P. Frank, M.D., £50. A large sum is needed to carry out the scheme. Donations, which may be extended over a period of three years, should be sent to the Honorary Treasurers, J. K. Fowler, M.A., M.D., member of the Senate, and H. T. Butlin, F.R.C.S., Dean of the Faculty of Medicine, at 35, Clarges Street, W.

LONDON SCHOOL OF TROPICAL MEDICINE.

Cragg's Research Prize. A prize of £50 will be awarded to a past or present student of this school who during the current year (October to October) makes the most valuable contribution to tropical medicine. Contributions must be written in English, and essays must be sent in on or before October 1st next to the Medical Tutor at the London School of Tropical Medicine, Royal Albert Dock, E., to whom intending candidates should apply for further information.

UNIVERSITY OF BRUSSELS.

At the recent examination for the M.D. degree five candidates presented themselves, and the following two candidates passed: Robert D. A. Douglas, L.R.C.P. and S.Edin., Coldstream, Scotland; Harry Edwin Bruce Porter, L.R.C.P., M.C.C.S.Lond., L.S.A. (with honours), late A.M.S.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examination and having conformed to the by-laws and regulations have been admitted Members of the College:

P. E. H. Adams, B.A.Oxon., Oxford University and London Hospital; R. Appleton, L.S.A.Lond., Yorkshire College and General Infirmary, Leeds; E. L. Ash and H. E. Batten, St. Mary's Hospital; L. D. Bailey, St. George's Hospital; H. H. Bashfield and A. V. Benson, London Hospital; W. B. Billinghurst, B.A.Oxon., Oxford University and London Hospital; H. J. D. Birkett, B.A.Camb., Cambridge University and St. Bartholomew's Hospital; A. J. Blaxland, University College Hospital; J. A. H. Boys, Middlesex Hospital; H. R. Burpitt, University College, Cardiff, and St. Mary's Hospital; Christopher A. Campbell, B.A., M.B., Toronto, and Colin A. Campbell, M.B. Toronto, and L.S.A. Lond., [illegible] N. C. Carver, Cambridge University, [illegible] Chown, M.B. and B.A.[illegible] Clark, Birmingham University, [illegible] Hospital; G. M. [illegible] Hospital; P. [illegible] L. de Burgh, J. R. [illegible] Hospital; T. W. A. [illegible] Hospital; [illegible] Hospital; [illegible] Hospital; [illegible] College, Montreal; [illegible] Hospital; [illegible] Hospital; [illegible] Hospital

Cambridge University and London Hospital; J. J. Davis, M.D. West. Univ., Western University, Ontario and University College Hospital; A. C. Dixon, London Hospital; T. L. Drapes, B.A.Camb., Cambridge University and St. Mary's Hospital; G. D. Drury, St. Bartholomew's Hospital; A. G. V. Elder, St. George's Hospital; J. W. Elliott, L.S.A.Lond., St. Mary's Hospital; H. H. Elworthy, Westminster Hospital; H. H. Emmerson, University College, Sheffield; M. Feldman, London Hospital; J. A. Ferriere, University College Hospital; J. Ferguson, H. Finzel and A. F. Forster, St. Bartholomew's Hospital; R. R. Garrett, St. Mary's Hospital; H. B. German, Guy's Hospital; M. F. Grant, B.A.Camb. and C. F. Hadfield, M.A.Camb., Cambridge University and St. Bartholomew's Hospital; R. K. G. Graves and C. J. H. Gunning, St. George's Hospital; H. A. Haig, University College Hospital; R. H. Hardwick, St. Thomas's Hospital; G. H. Harper Smith, Cambridge University and St. Bartholomew's Hospital; D. B. Harris, Middlesex Hospital; W. L. Hawkins, King's College Hospital; V. Hetherington, St. George's Hospital; H. B. Hill, St. Bartholomew's Hospital; W. A. L. Holland, Birmingham University; W. H. Howard, Owens College and Royal Infirmary, Manchester; and King's College Hospital; L. W. Huchin, St. Mary's Hospital; F. P. Hughes, University College, Bristol, and Guy's Hospital; P. R. Humphrey, St. George's Hospital; R. M. Inman, Cambridge University and St. Bartholomew's Hospital; F. W. Jones, B.Sc.Lond., and J. Jones, London Hospital; W. A. D. King, Middlesex Hospital; W. E. Lee, B.A.Camb. and P. A. Lloyd-Jones, B.A.Camb. and H. F. Marris, B.A.Camb., Cambridge Univ. and St. Bartholomew's Hospital; J. S. LeFevre, Sydney University and London Hospital; M. G. Louisson, Guy's Hospital; J. G. Macdonald, Otago University and University College Hospital; J. W. Manchester, M.D. C.M.McGill, McGill College, Montreal and Middlesex Hospital; J. A. Milne, London Hospital; C. W. P. Moffatt, M.A.Lond., B.A.Camb., Cambridge University and University College and Royal Infirmary, Liverpool; J. N. Morgan, University College, Cardiff, and London Hospital; R. Moyle, Guy's Hospital; J. Muirhead, M.B. Durh., Durham University; C. M. Murray, M.A.Camb., Cambridge Univertity and Guy's Hospital; J. H. Napper, King's College Hospital; T. M. Neatby, M.A.Camb., M.A.Lond., St. George's Hospital; C. H. W. Page, M.A.Camb., Cambridge University and St. Bartholomew's Hospital; J. S. Pearson, M.A.Camb., Cambridge University and St. George's Hospital; J. E. Pellow, B.C.Camb., Cambridge University and St. Thomas's Hospital; W. O. Pow, B.A., M.D.Michigan, Michigan University and London Hospital; T. C. Power and J. J. Rainforth, London Hospital; E. C. Racker, Edinburgh University and St. Mary's Hospital; W. H. Rayner, B.A.Camb., Cambridge University and University College Hospital; J. F. Rey, L.D.S.Eng., Guy's Hospital; B. B. Riviere, St. Andrews University and St. Bartholomew's Hospital; H. E. Roaf, M.B.Toronto, Toronto University, and University College and Royal Infirmary, Liverpool; R. H. Robbins, Cambridge University and St. Mary's Hospital; E. Roberts, L.M.S.Ceylon, Ceylon Medical College and King's College Hospital; J. A. Roberts, M.B.Toronto, Toronto University and University College Hospital; E. S. Routly, St. Mary's Hospital; L. W. Shadwell, St. George's Hospital; A. Shelley, B.A.Oxon, Oxford University and London Hospital; S. Smulian, London Hospital; S. J. Steward, B.C.Camb., Cambridge University and St. Thomas's Hospital; L. V. Thurston and E. F. Travers, St. Bartholomew's Hospital; G. A. Ticehurst, Cambridge University and Guy's Hospital; R. H. Tribe, University College Hospital; A. H. Turner, Guy's Hospital; E. R. von Ofenheim, M.D. Leipzig, University of Leipzig and St. Mary's Hospital; J. C. Wadmore, University College, Bristol; E. I. Ward, University College, Cardiff, and Guy's Hospital; G. H. Warren, King's College Hospital; F. E. Wayte, Owens College and Royal Infirmary, Manchester; V. N. Whitamore, Charing Cross Hospital; R. K. White, St. Mary's Hospital; W. N. Whitney, M.D. Penn., Tokio and Pennsylvania Universities and London Hospital; S. M. Wilson and F. H. Wood, St. Bartholomew's Hospital; F. R. E. Wright, St. Thomas's Hospital; S. L. O. Young, Cambridge University and St. Bartholomew's Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,676 births and 5,137 deaths were registered during the week ending Saturday last, February 27th. The annual rate of mortality in these towns, which had been 17·2, 18·4, and 18·5 per 1,000 in the three preceding weeks, declined again last week to 17·5 per 1,000. The rates in the several towns ranged from 9·4 in Hornsey, 9·5 in East Ham, 9·6 in Handsworth (Staffs.), 10·2 in King's Norton, 10·8 in Tynemouth, 10·9 Northampton, 11·8 in Willesden, 12·1 in Ilford, and 12·2 in Walthamstow, to 27·2 in Wigan, 23·7 in Stockport, 24·0 in Great Yarmouth, 24·6 in Hull, 24·4 in Norwich, 23·1 in Merthyr Tydfil, 23·1 in St. Helens and in Warrington, and 30·6 in Plymouth. In London the death-rate was 16·5 per 1,000, while it averaged 18·0 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·4 per 1,000 in the seventy-six large towns; in London the death-rate was equal to 1·5 per 1,000, while among the seventy-five large provincial towns the rates from the principal infectious diseases ranged upward to 3·2 in Gateshead, in Rochdale, and in West Hartlepool, 3·3 in Burnley, 3·5 in Halifax, 3·6 in Bury, 4·1 in Norwich, and 4·8 in Warrington. Measles caused a death-rate of 1·2 in Cardiff, 1·3 in Aston Manor and in Tynemouth, 1·4 in Warrington, 1·5 in Great Yarmouth, 2·0 in Stockport, 2·1 in Hull, and 4·0 in Norwich; scarlet fever of 1·1 in Walsall, 1·3 in Oldham, 1·4 in Bootle, and 2·4 in Hanley, and whooping-cough of 1·3 in Warrington and in Newport (Mon.), 1·4 in Wigan, 1·5 in Rochdale and in Gateshead, 2·1 in Bolton and in Burnley, 2·3 in West Hartlepool, 2·7 in Wigan and 3·2 in Swansea. The mortality from "fever" and from diarrhœa showed no marked excess in any of the large towns. Only 4 cases of small-pox were registered in London and only 1 in Gateshead, but not one in any other of the seventy-six towns. The Metropolitan Asylums Hospitals contained 4 small-pox patients on Saturday last, February 29th, against 9, 24, and 20 on the three preceding Saturdays; 5 new cases were admitted during the week, against 8, 3, and 7 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,657, 1,644, and 1,620 at the end of the three preceding weeks, had further declined to 1,587 at the end of last week. 156 new cases were admitted during the week, against 169, 162, and 141 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 27th, 895 births and 525 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18·5, 19·2, and 22·2 per 1,000 in the three preceding weeks, declined again last week to 21·8 per 1,000, but was 4·3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13·0 in Leith and 18·5 in Perth to 24·8 in Paisley and 26·2 in Greenock. The death-rate from the principal infectious diseases averaged 2·4 per 1,000, the highest rates being recorded in Dundee and Leith. The 344 deaths registered in Glasgow included 2 which were referred to small-pox, 19 to measles, 2 to scarlet fever, 5 to whooping-cough, 3 to "fever," and 5 to diarrhœa. Four fatal cases of measles, 2 of diphtheria, 1 of whooping-cough, and 2 of diarrhœa were recorded in Dundee; 6 of whooping-cough and 2 of diarrhœa in Aberdeen; 4 of small-pox in Greenock; 4 of measles in Paisley; 4 of whooping-cough in Leith, and 3 of whooping-cough in Edinburgh.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 27th, 611 births and 469 deaths were registered in six of the principal Irish towns, against 580 births and 491 deaths in the preceding period. The mean annual death-rate of these towns, which had been 25·8, 26·0, and 25·3 per 1,000 in the three preceding weeks, fell to 24·7 per 1,000 in the week under notice, this figure being 7·2 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 17·5 in Waterford and 20·2 in Londonderry to 28·4 in Dublin and 28·7 in Limerick. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1·3 per 1,000, or 0·3 per 1,000 less than during the preceding week, the highest figure, 2·7, being reached in Limerick, while Waterford and Londonderry registered no deaths under this heading at all. As for several weeks past, the zymotic death-rate throughout all Ireland was chiefly made up by deaths from whooping-cough. In Belfast 1 death occurred from diphtheria, but except for this no deaths occurred in any part of Ireland from diphtheria, small-pox, scarlet fever, typhus, and simple continued fever. From measles 2 deaths occurred at Dublin and 2 at Belfast.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1903.

In the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs, based upon the Registrar-General's returns for the year 1903. The mortality figures relate to the deaths of persons actually belonging to the several boroughs, and are the result of a complete system of distribution of the deaths occurring in the public institutions of London among the boroughs in which the deceased persons had previously resided.

The 136,906 births registered in London during 1903 were equal to an annual rate of 28·5 per 1,000 of the population, estimated at 4,613,812 persons in the middle of last year. This rate was lower than that recorded in any of the ten preceding years 1893-1902, during which the birth-rate averaged 29·9 per 1,000; in the three years, 1900 to 1902, the rates were 29·1, 29·0, 28·5 per 1,000 respectively. Among the various metropolitan boroughs the birth-rates showed the usual wide variations, which are mainly due to differences in the sex and age constitution of the populations; the rates ranged from 13·8 in the City of London, 16·9 in the City of Westminster, 17·1 in Hampstead, 20·0 in Kensington, 20·5 in Chelsea, and 21·0 in Stoke-Newington, to 33·3 in Shoreditch, 34·5 in Poplar, 35·7 in Bethnal Green, 37·1 in Finsbury, and 37·6 in Stepney.

The deaths of persons belonging to London registered during last year numbered 69,737, and were in the proportion of 15·2 deaths per 1,000 persons living, against 18·6, 17·1, and 17·2 per 1,000 in the three preceding years; the mean death-rate during the ten years 1893-1902 was 18·5 per 1,000. The lowest death-rates last year among the various metropolitan boroughs were 10·0 in Hampstead, 11·1 in Lewisham, 12·4 in Wandsworth, 12·7 in Stoke Newington, 13·2 in Paddington, 13·3 in Greenwich, and 13·5 in Woolwich; while the highest rates were 18·2 in Bethnal Green and in Poplar, 18·4 in Bermondsey, 18·6 in Holborn, 19·4 in Shoreditch, and 20·3 in Finsbury.

During the year under notice 8,088 deaths were referred to the principal infectious diseases; of these, 13 resulted from small-pox, 2,046 from measles, 361 from scarlet fever, 740 from diphtheria, 1,617 from whooping-cough, 3 from typhus, 368 from enteric fever, 5 from simple continued fever, and 2,935 from diarrhœa. These 8,088 deaths were equal to an annual rate of 1·76 per 1,000, the corresponding rates in the three preceding years having been 2·23, 2·22, and 2·01 per 1,000 respectively; the mean rate in the ten years 1893-1902 from these principal infectious diseases was 1·80 per 1,000. Among the various metropolitan boroughs the death-rates from these diseases ranged from 0·58 in Hampstead, 0·81 in the City of London, 0·97 in Lewisham, 1·00 in the City of Westminster, 1·10 in Woolwich, and 1·14 in Chelsea, to 2·24 in Bethnal Green, 2·32 in Fulham, 2·34 in Finsbury, 2·36 in Stepney, 2·90 in Shoreditch, and 2·99 in Poplar. Compared with the averages in the ten preceding years the mortality from each of the principal infectious diseases showed a marked decline. Of the 13 fatal cases of small-pox registered last year, 4 belonged to Stepney, 4 to Lambeth, 1 to the City of Westminster, and 1 to Poplar. The number of small-pox cases admitted into the Metropolitan Asylums Hospitals during the year was 424, against 8,455 in the preceding year, 26 cases remained under treatment at the end of December last, against 54 at the end of the preceding year. Among the various metropolitan boroughs, Hackney showed the highest proportional fatality in St. Pancras, Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Battersea. Scarlet fever was proportionally most fatal in St. Marylebone, St. Pancras, Finsbury, Poplar, Bermondsey, and Deptford. 10,856 scarlet fever patients were admitted into the Metropolitan Asylums Hospitals during the year, and 1,602 remained under treatment at the end of December last. The greatest proportional mortality from diphtheria occurred in St. Marylebone, Hackney, Bethnal Green, Poplar, Deptford, and Greenwich. The number of diphtheria patients admitted into the Metropolitan Asylums Hospitals during the year was 6,127, and

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1903.

BOROUGHS.	Estimated Population middle of 1903.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,613,812	130,906	69,737	28.5	15.2	1.76	8,088	13	2,040	361	740	1,620	4	368		2,925	7,124	130
Paddington	146,032	3,350	1,928	22.7	13.2	1.31	191	—	40	10	15	54	—	7	—	65	155	110
Kensington	178,409	3,557	2,468	20.0	13.9	1.56	278	—	34	14	24	100	—	9	—	107	223	145
Hammersmith	115,863	2,983	1,634	25.9	14.1	1.60	185	—	27	8	17	30	—	9	1	93	170	141
Fulham	147,780	4,789	2,046	32.5	13.9	2.22	327	—	62	8	24	46	—	15	—	174	204	127
Chelsea	74,169	1,510	1,131	20.5	15.3	1.14	84	—	14	2	4	29	—	4	—	31	116	142
City of Westminster ...	179,052	3,018	2,432	16.9	13.6	1.00	179	3	40	9	15	34	—	14	—	55	201	123
St. Marylebone ...	131,234	3,984	2,145	30.5	16.4	1.60	210	—	37	17	20	56	—	23	—	59	240	96
Hampstead	85,197	1,457	848	17.1	10.0	0.58	49	—	8	4	10	16	—	2	—	9	63	88
St. Pancras	235,716	6,339	3,866	27.0	16.2	1.91	448	—	103	23	37	91	—	14	—	90	428	133
Islington	339,137	8,983	4,837	26.6	14.3	1.45	489	—	125	24	42	153	—	23	1	121	472	129
Stoke Newington ...	52,069	1,091	655	21.0	12.6	1.46	76	—	24	—	7	19	—	5	—	21	64	119
Hackney	224,082	6,182	3,099	27.7	13.9	1.78	397	—	113	21	48	67	—	16	—	112	283	119
Holborn	57,845	1,631	1,072	28.3	18.6	1.44	83	—	18	5	8	18	—	5	—	29	181	98
Finsbury	99,717	3,693	2,015	37.1	20.3	2.32	231	—	69	11	11	54	—	10	—	76	227	135
City of London	24,539	388	358	13.8	14.6	0.86	21	—	3	1	2	4	—	3	—	8	39	136
Shoreditch	117,513	3,905	2,273	33.3	19.4	2.90	340	—	102	7	22	44	—	13	—	152	272	171
Bethnal Green	130,028	4,627	2,363	35.7	18.2	2.24	290	—	85	12	27	42	—	12	—	112	272	141
Stepney	302,153	11,329	5,430	37.6	18.0	2.36	712	4	173	21	58	108	—	27	—	321	633	138
Poplar	169,550	5,832	3,078	34.5	18.2	2.99	505	2	161	19	60	80	—	17	—	166	294	154
Southwark	207,369	6,717	3,742	32.5	18.1	1.99	412	—	83	18	23	68	—	23	—	197	496	148
Bermondsey	129,801	4,201	2,387	32.5	18.4	2.05	265	—	51	25	18	41	3	12	—	115	225	158
Lambeth	307,711	9,080	4,659	29.6	15.2	1.73	530	4	130	23	29	126	—	23	1	194	430	125
Battersea	173,422	4,961	2,464	28.7	14.2	1.98	343	—	108	7	29	81	—	17	—	101	223	134
Wandsworth	249,678	6,722	3,083	27.0	12.4	1.61	401	—	107	17	44	89	—	18	—	126	237	109
Camberwell	265,562	7,311	3,627	27.6	13.7	1.36	359	—	81	13	34	72	—	17	—	142	323	123
Deptford	112,537	3,379	1,674	30.1	14.9	2.10	246	—	62	18	45	45	—	4	—	72	152	134
Greenwich	99,824	2,716	1,326	27.3	13.3	1.74	173	—	28	9	27	37	—	1	—	71	111	127
Lewisham	136,405	3,563	1,516	26.2	11.1	0.96	131	—	34	11	21	6	—	10	—	49	114	92
Woolwich	121,478	3,684	1,638	30.4	13.5	1.10	133	—	25	4	13	27	—	5	—	59	176	108

the number remaining under treatment at the end of the year was 734. Whooping-cough was proportionally most fatal in Kensington, St. Marylebone, Islington, Finsbury, Poplar, and Battersea. The highest "fever" death-rates last year were recorded in Fulham, St. Marylebone, Stoke Newington, Hackney, Finsbury, City of London, Shoreditch, Poplar, Southwark, and Bermondsey; 1,247 enteric fever patients were admitted into the Metropolitan Asylums Hospitals during the year, and 246 cases remained under treatment at the end of December last. Diarrhoea showed the greatest proportional fatality in Fulham, Shoreditch, Stepney, Poplar, and Southwark.

The deaths from phthisis in London registered during the year under notice numbered 7,124, and were equal to an annual rate of 1.55 per 1,000 against 1.74, 1.66, and 1.60 per 1,000 in the three preceding years. Among the various metropolitan boroughs the death rates from this disease ranged from 0.74 in Hampstead, 0.84 in Lewisham, 0.95 in Wandsworth, 1.00 in Paddington, 1.12 in Greenwich, and 1.22 in Camberwell, to 2.10 in Bethnal Green and in Stepney, 2.28 in Finsbury, 2.32 in Shoreditch, 2.40 in Southwark, and 3.14 in Holborn. Taking the five groups of districts, the phthisis death-rates ranged from 1.38 in the South, 1.39 in the West, and 1.46 in the North, to 2.05 in the East, and 2.40 in the Central.

Infant mortality in London last year, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 130 per 1,000 against an average rate of 157 per 1,000 in the ten preceding years. The lowest rates of infant mortality were 88 in Hampstead, 92 in Lewisham, 95 in Holborn, 96 in St. Marylebone, 108 in Woolwich, and 109 in Wandsworth; while the highest rates were 142 in Chelsea, 145 in Kensington, 148 in Southwark, 154 in Poplar, 158 in Bermondsey, and 171 in Shoreditch.

SCARLET FEVER AT PORTSMOUTH AND ISOLATION.

CRITICISMS of Milton (Isolation) Hospital having appeared in the press and the guardians having made accusations of neglect against the sanitary authority apparently for not providing sufficient accommodation for infectious cases, Dr. Mearns Frazer, medical officer of health of Portsmouth, has drawn up a report on the subject for the information of the Health Committee. In this he points out that when during the last few years patients have had to wait for admission, the cause has been the number of scarlet fever cases and the large proportion of accommodation devoted to this disease. Out of a total of 7,598 cases treated during the past 19 years 61 per cent., says Dr. Frazer, have been scarlet fever, and if it is proposed to provide for all cases of scarlet fever the accommodation will have to be doubled. The net annual cost of the hospital is about £3,500, and if all scarlet fever patients who seek admission are taken in, an addition to the expenditure of from £1,000 to £1,500 per annum must be anticipated. Are the benefits to be expected, asks Dr. Frazer, commensurate with this great addition to the annual cost? To decide this question he raises and answers three other questions. Of these the first two are whether scarlet fever is really an important disease, and whether it is of such a character that chances of recovery are materially enhanced by hospital treatment. Both of these questions he considers from the standpoint of Portsmouth statistics, and answers decidedly in the negative. To arrive at an estimate of the importance of the disease he compares the percentage of the total death-rate for which it is responsible with that ascribed to other common zymotic diseases and some seven or eight other causes of death, such as cancer, bronchitis, diarrhoea, and heart disease, while he reaches his conclusion as to the case-mortality in and out of hospital by comparing it with that of diphtheria and typhoid fever. His last question is whether isolation in hospital prevents the spread of scarlet fever. With reference to this he says that during the past ten years the mean proportion of cases isolated in hospital has been only 47 per cent. of all cases; but, nevertheless, except in 1893, when there were 1,176 cases in the town, there has not been an epidemic. During these ten years there have been few occasions when scarlet fever patients have been refused admission for lack of accommodation, and however much accommodation were provided he doubts if the mean percentage of all cases admitted could be raised to more than 70 per cent. He asks whether the chances of an epidemic will be affected by the difference of 20 per cent. one way or the other. He thinks it would not, so that even if the percentage of cases isolated in hospital could be certainly raised to this extent, it would not be worth the additional expenditure. Doubtless if an ideal system of isolation were possible the arrest of the disease might be expected, but this is impossible; cases are often not recognized early, and even if recognized cannot be compelled to enter hospital. Moreover, when admitted no one knows how long they ought to be detained, and hence the discharge of patients to their own homes is frequently followed by infection of other members of the family. One observation that has influenced him is that when in Leicester in 1892 small-pox broke out 144 cases of scarlet fever in all stages of the disease were immediately sent to their homes without the occurrence of a single "return case." In short, so far from increasing the provision of hospital isolation he would limit its use in scarlet fever to cases in schools, tailoring shops, dairies, and the like.

OYSTERS AND ENTERIC FEVER.

IN his last monthly report the Medical Officer of Health for the City of London after mentioning certain cases in which enteric fever was attributed to eating oysters purchased in the city makes the following recommendation: The Fishmongers' Company should also be requested to urge upon the trade the necessity for a strict adherence to the terms of the resolution referred to. This observation is made advisedly, as in two instances firms who set their hands to the resolution have since dealt with contaminated shellfish. This must not be taken to imply that they knowingly did so, but as evidence that they had failed to take sufficient measures to protect both themselves and the public from an ever-present danger. It is further of the utmost importance that frequent periodical examinations of all shellfish layings, pits, etc., should be made, as it has been found by experience that shellfish taken from a place apparently beyond suspicion occasionally show evidence of marked sewage contamination due to an intermittent or new source of pollution.

TUBERCULOSIS IN DAIRY COWS.

A PAMPHLET has been issued by Dr. J. Wright Mason, Medical Officer of Health, and Mr. James McPhail, M.R.C.V.S., chief meat inspector, Hull containing a simple statement of signs and symptoms of tuberculosis in dairy cows and the risks of this affection. The pamphlet, which is illustrated by a coloured microscopic drawing showing tubercle bacilli, is likely to be very useful for public distribution.

NOTIFICATION OF INFECTIOUS DISEASES.

M.D. writes: Last month I sent in my account to the Rural District Council, and had a letter in reply from the clerk in which he says, 'I enclose Council's cheque.' I am at the same time to state that they have

regarding an letter of the 3rd October last to Dr [illegible], Medical Officer of Health, [illegible] as to cases of infectious disease [illegible] [illegible] Notification Act, 1889, [illegible] Act, 1899, [illegible] Act, 1901, [illegible] Council, as a whole to the Local Authority [illegible] Council, and therefore reckoned as seven certificates, [illegible] Council.

. . The Local Government Act, 1894, requires that the medical practitioner [illegible] upon the official form prescribed by the Local Government Board and gratuitously supplied by the Local Authority, and we are advised that payment of the amount [illegible] Act, therefore, compliance upon each certificate being delivered in accordance with the [illegible] Act the certificates should be "M D [illegible] Act, and that [illegible] Act, [illegible] to any fees other than those which the Act [illegible] Act. Further, we are advised that a [illegible] is not entitled to [illegible] Act.

HOSPITAL AND DISPENSARY MANAGEMENT.

KING'S COLLEGE HOSPITAL.

At the quarterly court of Governors of King's College Hospital held last week, the accounts for the year were passed. It showed an increase in the number of [illegible], although administrative and establishment charges had increased. The annual expenditure for the year was [illegible] and also [illegible] The Rev. Dr. Headlam stated that [illegible] anatomy, physiology, and materia medica would continue to be taught at the College, and only teaching in medicine and surgery proper to be undertaken at the new hospital. Regret was expressed that the Royal Dental Hospital and others found it necessary to [illegible] the charity on account of the decision [illegible] to be underwritten, and in his speech Lord Mount-Temple, who presided for the first time, urged the necessity constantly to make known the claims of the hospital, and the need for its removal since those who were opposed to the decision still made their voices heard.

MIDDLESEX HOSPITAL.

The annual Court of Governors of the Middlesex Hospital was held on February 4th, the Earl of Lathom in the chair. The Court had before them two separate reports, the one dealing with the work of the Hospital and the Convalescent Home Branch at Clacton-on-Sea, and the other that of the Cancer Charity. The purport of the latter is given elsewhere. From the former it could be gathered that the various building improvements which have been in course of construction during the last five years are now complete, and the hospital may be said to be equipped with every known appliance for the treatment of disease. The alterations during the last decade have comprised the enlargement of some of the female wards, the building and equipment of a separate department (with operating theatre) for the treatment of diseases of women, the erection of a new house for the nursing staff, the removal of the hospital kitchens from the basement to the top floor, the removal of the laundry from the hospital to a site in the country, the installation of a new boiler [illegible] the erection of a cold storage plant, and disinfecting apparatus. The cost of these alterations has been considerable, and the hospital now finds itself [illegible] a considerable amount of its capital, [illegible] to the bankers to the extent of £[illegible]. With the object of [illegible] the debt a festival dinner is to be held in May next. With regard to the work of last year, the statistics show that 4,[illegible] in patients and 4,[illegible] out-patients, as well as 252 patients attending for the [illegible] were treated in the hospital, and 656 patients were sent to the convalescent home at Clacton-on-Sea.

MEDICAL NEWS.

We are asked to state that the annual dinner of the Medical Society of London will be held at the Whitehall Rooms, Hôtel Métropole, on Tuesday next at 7.30 p.m.

A MEETING in support of the appeal for funds for the removal of Kings College Hospital to a site which has been presented to it in South London, will be held under the presidency of the Lord Mayor of London at the Mansion House, on Friday, March 11th, at 3 p.m.

PRINCESS CHRISTIAN formally opened last week the medical and surgical home near Windsor, intended to serve as a memorial of her son, Prince Christian Victor, who died in South Africa during the late war. The home is intended for the use of paying patients, and is well fitted up both from a medical and [illegible] point of view.

CONGRESS OF EXPERIMENTAL PSYCHOLOGY. A Congress of Experimental Psychology is to be held at Giessen on April 19th, 20th, and 21st. Among the papers read at the Congress are Professor Lehmann's Mental Phenomena during Sleep, Professor Kries's [illegible] Light of Colours, by Dr. Benussi (Graz), and Experimental Researches on the So-called Common Sensations, by Dr. Dessoir (Berlin).

SOME time ago it was announced that evidence of the existence of radium in the deposit from Bath waters had been obtained. It is now stated that Mr. Strutt has found similar evidence of its existence in the water itself. While the most sanguine prophecies have been made as to the wonderful properties thus conferred upon the waters, we fail to see how the discovery, even if confirmed, can affect their therapeutic value, which by this time ought to be pretty thoroughly ascertained.

THE KING'S VISIT TO PORTSMOUTH. At the naval inspection made by the King during his recent visit to Portsmouth, His Majesty was received on the parade ground by a battalion of blue-jackets. The royal salute was given, the massed bands of H.M.S. *Excellent*, H.M.S. *St. Vincent*, and the Royal Naval Barracks, played the National Anthem. After the inspection the King drove to the Officers' Mess, where he was received by Commander Christian and Fleet Surgeon Lloyd Thomas of the *Excellent* and the other officers. In the smoking room champagne was handed round and His Majesty drank to the good health of the officers.

THE TRAINED NURSES' ANNUITY FUND.—The object of the Trained Nurses' Annuity Fund is to allot an annuity of £17 a year to women who after a definite course of training have been actively engaged in medical or surgical nursing for at least fifteen years, and are over the age of 50. The present income of the fund only permits of thirteen annuities being granted, and there are eighteen other throughly deserving cases on the books to whom no assistance can be given. There is no other fund of the same nature, since the benefits of the Royal National Pension Fund and of the pension fund of the Royal British Nurses' Association are restricted to past or present members and subscribers. The Honorary Secretary of the fund is Dr. Ogier Ward, 82, Cheapside, E.C.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ARMY COUNCIL.—Eight Dental Surgeons for duty with troops in the United Kingdom. Salary, £365 per annum and travelling expenses.

AYR DISTRICT ASYLUM.—Assistant Medical Officer, resident. Salary, £120 per annum.

BANBURY: HORTON INFIRMARY.—House Surgeon, resident. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £— per annum.

BRIXTON UNION.—Medical Superintendent of Infirmary and Medical Officer of Workhouse and Schools, resident. Salary £250 per annum and fees.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Surgeon, resident. Salary, £80 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officers to act as House-Physician and House-Surgeon respectively. Salary at the rate of £60 and £40 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Resident Junior House-Surgeon. Salary, £— per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon, resident. Salary, £— per annum.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £— per annum.

INFANTS HOSPITAL, Hampstead, N.W.—Additional Physicians.

LONDON FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. Salary, £— per annum.

MANCHESTER: CHILDREN'S HOSPITAL.—Junior Resident Medical Officer, eligible for senior post after six months. Salary at the rate of £50 and £100 per annum, respectively.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer. Salary £— per annum.

MANCHESTER: VICTORIA UNIVERSITY, OWENS COLLEGE.—Lecturer on Diseases of the Larynx.

METROPOLITAN HOSPITAL, Kingsland Road, N.—House Physician, 2; House-Surgeons, 2; Assistant House-Physician, 1; Assistant House-Surgeons, 2; Eye, Ear, and Throat Surgeon, 1; Anæsthetist, 1; Ophthalmic Surgeon, 1; Eye, Ear, Throat, and Skin Surgeon, 1; Assistant Ophthalmic Surgeon, 1; Eye, Ear, Throat, and Skin Assistant Surgeon, 1; Eye, Ear, Throat, and Skin Surgeon, 1; Assistant Eye, Ear, Throat, and Skin

KEYSER, CHAS. R., F.R.C.S.Eng., Surgeon to the Queen's Hospital.

LEA, CHARLES D., L.R.C.P., L.R.C.S.Ed., Senior Assistant Medical Officer, Metropolitan Asylum District Hospitals, Caterham Valley, Surrey.

NEWTON, W. T., M.R.C.S.Eng., L.S.A., Assistant Surgeon, Queen's Hospital, Birmingham.

OSBORNE, W. A., M.D., B.S.Lond., Assistant Surgeon to the Royal Free Hospital.

PAYNE, JOSEPH H., L.R.C.P.Edin., L.R.C.S.Edin., Physician to the Royal Free Hospital.

EDMONDS, G. I., M.B., B.S., B.A.Oxon., L.D.S., R.C.S.Eng., Dental Surgeon to the Hospital for Women, Soho Square, and to the Victoria Hospital for Children, Chelsea.

WOOLLAM, R. M., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Eastern District of Sussex.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, 5 p.m.—Professor A. W. Mayo Robson, On the Surgery of the Pancreas (Hunterian Lecture).

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. G. Lenthal Cheadle, On Some Disorders of the Blood and Blood-forming Organs in Early Childhood (Croonian Lecture).

Chelsea Clinical Society, Chelsea Dispensary, Manor Street, King's Road, S.W., 8.30 p.m. Address in Obstetrics: Sir Lewis Dunn, M.D., F.R.C.P., Physician and Obstetrician to the Chelsea Hospital for Women. Sir Lewis Dunn will be entertained at a Supper afterwards.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. W. Hale White, Cardiac Irregularity in Cases of Mitral Disease: Mr. H. Bellamy, Cases of Ovarian Tumour.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Anniversary Dinner.

Otological Society of Great Britain, 11, Chandos Street, W., 8 p.m.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Professor A. W. Mayo Robson, On the Surgery of the Pancreas (Hunterian Lecture).

Hunterian Society, London Institution, Finsbury Circus, E.C., 7.30 p.m.—Pathological Evening. Exhibits of Specimens.

South-West London Medical Society, Royal Victoria Hospital, Wandsworth Common, S.W., 8.15 p.m.—Dr. Robert Maguire, On the Diagnosis of Syphilis, by Complement Fixation.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5 p.m.—Demonstration of Cases of Interest.

THURSDAY.

Royal College of Physicians of London, 5 p.m. Dr. R. Bruce Anderson, On Some Disorders of the Blood and Blood-forming Organs in Early Childhood (Croonian Lecture III.).

British Gynæcological Society, 20, Hanover Square, W., 8 p.m.—Paper by Dr. Percy Boulton, Vesico-vaginal Fistulæ: Their Causation and Treatment. Cases will be shown by Dr. Graham Atkins, Dr. W. Lane, Dr. Herbert Spencer, and Mr. Purslow.

Harveian Society of London, Stafford House, Stafford Street, Edgware Road, W., 8.30 p.m.—Mr. Lawrence Rowden, Cases of Abdominal Surgery including Gastric Intubation. Dr. Vere Pearson, Case of Pneumonia Treated with Antipneumococcic Serum and Vaccine.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Communications will be made by Messrs. J. Jackson, H. Greeves, A. H. Benson, H. A. Lister, and others. Cases and Specimens will be shown by Messrs. A. H. Benson, H. A. Lister, and others.

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Professor A. W. Mayo Robson, On the Surgery of the Pancreas (Hunterian Lecture).

Incorporated Society of Medical Officers of Health, 3 Adelphi Terrace, Strand, W.C., 7 p.m.—Dr. C. Killick Millard, Presidential Address.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m. Dr. Parsons Watson and Dr. J. H. Watson, A Case of [illegible] Disease of the Brain Marked by Paroxysmal Attacks of Pain Beginning Unilaterally in Both Eyes, resembling Epileptic Vertigo.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Tuesday, 4 p.m.—Lecture on Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture by Dr. Nathan Raw on Sanatoria.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture by Dr. Lauriston Shaw on Acute Bronchitis.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Dr. Hadley, Surgical Diseases of the Kidney; Tuesday, Surgical Pathology; Wednesday, Dr. Hadley, Surgical Diseases of the Kidney; Thursday, Medical Pathology; Friday, Dr. Hadley, Surgical Diseases of the Kidney; Saturday, Medical Pathology. Special Courses of Instruction in Pathology, Bacteriology, Clinical Medicine, Surgery, Gynæcology, Ophthalmology, Gastro-intestinal Diseases, Diseases of the Throat, Nose, and Ear, Dermatology, Electrotherapeutics, Anæsthetics, Medical Jurisprudence, Public Health, Diseases of Children, Diseases of Women, Midwifery, Operative Surgery, Demonstrations, Out-patient Practice, Post-mortem Examinations, Lectures, &c.

Maida Vale Hospital for Nervous Diseases, Shirland Road, W., Thursday, 3 p.m. Lecture on Cases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 2 p.m. Lecture on Cases. Thursday, 2 p.m. Lecture on Pathology.

North-East London Post-Graduate College, Tottenham, N., Tuesday, 4 p.m. Lecture on Cases and Specimens.

Post-Graduate College, West London Hospital, Hammersmith Road, W., Monday, 4 p.m. Dr. Ralph W. Leftwich, Clinical Lecture. Tuesday, 4 p.m. Mr. Mayo Collier, Clinical Lecture. Wednesday, 4 p.m. Mr. Walter Pearce, Clinical Lecture. Thursday, 4 p.m. Dr. H. Tresidder Sequeira, Clinical Lecture. Friday, 4 p.m. Mr. Mayo Collier, Clinical Lecture. Saturday, 4 p.m. Dr. Ralph W. Leftwich, Clinical Lecture.

Samaritan Hospital for Women, Mary Place, Bayswater, W., and 148, Marylebone Road, N.W., Tuesday, 4 p.m.—Lecture on Cases in Bacteriological Department.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be remitted by Postal Order or Stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

KIDD.—On February 21st, at 11, Manor Road, Bournemouth, the Lodge, Hospitalfield, the wife of Harold Kidd, M.B., of a son.

MARRIAGE.

O'NEILL-LINEKATER.—On January 27th, 1904, at All Saints' Church, Jamestown, Natal, by the Rev. H. J. Bowen, M.A., assisted by the Rev. P. M. Cox, Rector of Harrismith, Orange River Colony, Robert Hopkins, Esq., Surgeon-General Orange River Colony, to Florence, youngest daughter of the late Magnus O'Neill-Linekater, Esq., Fort Durnford, Natal.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS should be addressed to the Editor, 429, Strand, London, W.C.

ORIGINAL ARTICLES will be considered for publication in the BRITISH MEDICAL JOURNAL.

All communications relating to Advertisements, Reprints, Subscriptions, and Publication should be addressed to the Manager, 429, Strand, London, W.C.

CORRESPONDENTS who wish for replies to their communications should send a Stamped Addressed Envelope.

Communications relating to Epitome of Current Medical Literature should be addressed to the Epitomist, 429, Strand, London, W.C.

MANUSCRIPTS, if forwarded to the Office of the JOURNAL in connection with the Publication, should be addressed to the EDITOR, and not to any member of the Staff by name.

REPRINTS.—Authors of Original Articles, Reviews, Epitomised Articles, Abstracts, Translations, Letters, Notes, Answers to Correspondents, Obituary Notices, Reports of Societies, Meetings, Lectures, Cases, Memoranda, Comments, Annotations, Leaderettes, Leading Articles

hydrates to illustrate his treatment, it does not seem unfair to conclude from that that this is, in his opinion, an average case. (2) We did not use the word "indiscriminately," but Dr Lorand admits that he gives every patient a certain amount of bread as well as fruit. He says in his letter: "A small quantity of brown bread and an apple." In his book he says (we translate the French): "We permit also fruits in certain quantities, for example, apples, pears, prunes, peaches, strawberries, raspberries, etc." We do not find that he limits his permission either to one apple a day. (3) We understand that Dr Lorand says that the quantity of opium he prescribes is for one day only, but he does not say so in his book. He says again we translate the French): "One may prescribe during two weeks doses of [illegible] gram (1 gr.) to 0.1 gram (1½ gr.) of opium to be taken three times a day [illegible]," p. [illegible]. In nervous diabetics, he says, the appearance of small quantities of sugar after an interval of aglycosuria **always alarms neurasthenic diabetics, and therefore he desires** "to relieve them of their alarm by prescribing a good dose of opium [illegible] gram (½ grain) to be taken three or four times during the day." **This may mean, of course, during one or several days; but,** in any case, it seems ample to justify the statement that he recommends opium with a freedom which savours of rashness. (4) From the concluding passage of Dr Lorand's letter he seems to wish to throw doubt upon our statement that the "rational treatment" of diabetes to which he refers, and which gives the title to his brochure, is the treatment by mineral waters. But the passage quoted in the review, and the whole context, amply warrant this conclusion. That Dr Lorand has a new remedy to add to those he mentioned in his work is not to the point, for it is after a consideration of all other means that he states that "**hydrological treatment is the most rational treatment of diabetes.**" We do not admit that Dr. Lorand has any ground for complaint that we drew attention to the grounds on which he expresses this opinion, or to our dissent from his conclusion.

The Repetition of Prescriptions

M. writes: Since my letter on this subject appeared in the BRITISH MEDICAL JOURNAL of February 6th, I have received several inquiries, which show me that the idea I tried to express has not been thoroughly understood, and to make it clear I enclose herewith proof of such a [illegible] which I have devised, and which has been already adopted by some of my friends. If you can find space for it, I think it would make the idea perfectly clear.

No. 1.

To [illegible],
666, Harley Street, W.
[illegible] Feby., 1904.

To Messrs. Pestle and Mortar.

Dr. Galen prescribes as follows for Mrs. Hypochondriac.

To be dispensed not oftener than three times at intervals of not less than four days.

℞

Sap. Cast. 3ij
[illegible] ℥j
M.

[illegible] Three times a day.

Signature, HIPPOCRATES GALEN, M.D.

No. 2.

From Dr. Galen,
666, Harley Street, W.
[illegible] Feby., 1904.

To Messrs. Pestle and Mortar,
[illegible], New Bond Street.

My prescription of this date, numbered as above, may be dispensed to

Mrs. Hypochondriac,
122, Grosvenor Square,
W.

Signature, HIPPOCRATES GALEN, M.D.

[illegible] suggested that such a plan would be useless in urgent [illegible] to engineers or others passing through town made [illegible] or surgeon. As to this I can only say that it [illegible] devise a plan that will fit every conceivable contingency. [illegible] is, I take it, to improve the present condition of things as far as circumstances will allow, and it generally [illegible] plan would be selected. For cases of [illegible] which [illegible] would prevail, and I take it [illegible] by taking from his private [illegible] to be worked for an emergency.

Leprosy.

[illegible] C. BAILEY, Secretary and Superintendent, Mission to [illegible], writes: [illegible] the [illegible] to the [illegible] to me being British [illegible] leprosy since the [illegible] under which I am to [illegible]

[illegible]

[illegible]

[

Remarks
ON
EXTENSIVE CARCINOMA OF THE OESOPHAGUS,
WITH UNUSUAL NERVOUS COMPLICATIONS.

BY
ROBERT SAUNDBY, M.D., M.Sc., LL.D., F.R.C.P., Professor of Medicine, and JOHN T. HEWETSON, M.D., F.R.C.S., Assistant Curator, Pathological Museum, University of Birmingham.

The following case is of special interest because it appears to constitute an exception to Semon's law. It has been carefully worked out, and will, it is believed, be found to fulfil the conditions which Sir Felix Semon has insisted upon as being necessary:

Clinical History.

Frances L., aged [illegible], was admitted into the General Hospital on March 11th, 1902, complaining of difficulty of swallowing solids and to a less extent of swallowing liquids, and of constant vomiting with partial loss of voice. He had also pains in the left side of the body and across the right temple at night. He had been ill two years; he attributed his illness to having got wet through, after which he had running from the eyes and nose and swelling of both ankles. However, he seems to have recovered from this, and it was only at Christmas that his appetite failed. The pains had been coming on for three or four weeks and the loss of voice for a fortnight. His previous health had been quite good; he had never been laid up before.

The patient was a poorly nourished man weighing 7 st. 10 lb. There was a hard, rounded swelling on the right side of the neck, which was not tender or painful, but was said to be getting larger. The left side of the chest was flattened before and behind, its movement was impaired, and the percussion note was less resonant over the upper two-thirds anteriorly. The breath sounds were not well heard at the base, but in front were harsh below the clavicles, especially on the left side; the vocal fremitus and vocal resonance were increased over the last area. The heart's apex was in the fifth interspace, internal to the nipple line, its sounds were pure but faintly heard; pulse 80, regular but small. The tongue was coated with a moist brown fur; the pharynx looked only slightly relaxed, and a large oesophageal bougie passed easily into the stomach. The vocal cords were adducted imperfectly. On March 14th there is a note that he had vomited most of his dinner on the previous day. The larynx was again examined; the cords were seen in a position of abduction; on breathing and phonation slight adduction only took place. A similar condition was noted on the 17th, and a drawing of the position of the cords was made (Fig. 1). On the 21st the deglutition sounds were

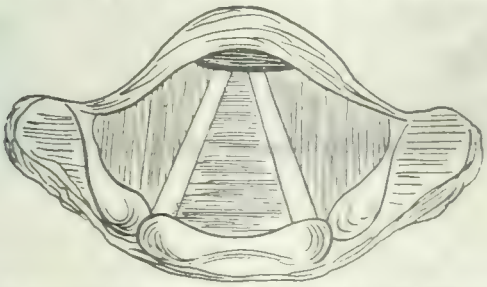


Fig. 1.—Position of vocal cords as seen on March 14th, 1902.

observed on swallowing, and appeared to be normal. In the course of a month the patient lost a good deal of flesh and continued to vomit, while the area of dullness extended across from the left to the right apex. On April 2nd it was noted that the vocal cords did not approximate at all; on phonation the [illegible] remained square wide. On April 21st his weight was only 6 st. 4 lb., and he had become extremely weak and complained now of extreme breathlessness. On April 24th the vocal cords were again examined and a drawing was made; they were motionless, but were fixed in a position of rather greater adduction than when last seen. The [illegible] of swallowing food had not increased. The urine was examined repeatedly and, with the exception of one occasion when a trace of albumen was found, it deposited urates but was otherwise normal.

He died on April 30th from heart failure. At the necropsy the body was found to be much emaciated. The pericardium was densely adherent, and [illegible] involving both lungs and the left [illegible]. The left pleura was densely adherent, and the left lung collapsed, with pneumonic consolidation at the [illegible] lobe. The right pleura was [illegible] the lung [illegible] nodules of growth. The larynx was [illegible] cords being in the cadaveric position. The upper part of the oesophagus [illegible] was involved in a [illegible] growth, which projected into the larynx and bound it to the trachea, a wedge of one cord was perforated. On the right side the [illegible] was [illegible] the [illegible] glands. There were [illegible] and [illegible] the [illegible] of the [illegible], but in other respects the [illegible] and [illegible] were normal. The [illegible] greatly [illegible] and [illegible] seemed filled with the spleen was normal.

[illegible] Photographs and [illegible]

The growth occupied all that part of the oesophagus between the first ring of the trachea and a point about 2 in. below the bifurcation of the trachea, a longitudinal distance of 4 in. The calibre of the oesophagus between these two points is increased to three times its normal extent; no stricture exists at any point. The upper limit of the growth has a definite margin, exuberant in character and overlapping the healthy mucous membrane. The lower margin of the growth is less definite, being ulcerated and apparently infiltrating and spreading down into healthy tissues. Between these two points there is a soft friable growth everywhere infiltrating the entire wall of the gullet, and generally producing considerable thickening, but in certain parts—especially towards its lower limit—the

Fig. 2.—Oesophagus laid open and viewed from behind. Epiglottis is seen at the top of the specimen.

ulcerative process has been so rapid that the wall is reduced to a wafer paper. On the right side, situated between the oesophagus and the [illegible], is a mass of enlarged deep cervical lymphatic glands; [illegible] nerves are involved in this mass. A similar mass of [illegible] glands is present on the left side, but is smaller in size. The [illegible] lymphatic glands are also affected. The [illegible] pleura [illegible] two [illegible] is densely adherent to the [illegible] pleura [illegible] pressure of the walls by the two [illegible] masses, and, as these are not

on the same level, an S-shaped lateral curvature of the trachea has resulted, the mass of glands on the right occupying the concavity of the upper deviation, and the left mass the concavity of the lower deviation. In the mucous membrane lining the posterior surface of the upper part of the trachea there is a very minute point of growth. The bronchi are firmly bound to the oesophagus by infiltrating growth and in the upper inch of the left bronchus is a button-like mass of growth which has spread through from the oesophagus. The superficial area of this mass is about that of a sixpence. The great vessels, both arteries and veins, are not invaded or compressed by the growth. The pneumogastric nerves on both sides are free until they pass behind their respective bronchi, at this point they are surrounded by the growth and lose

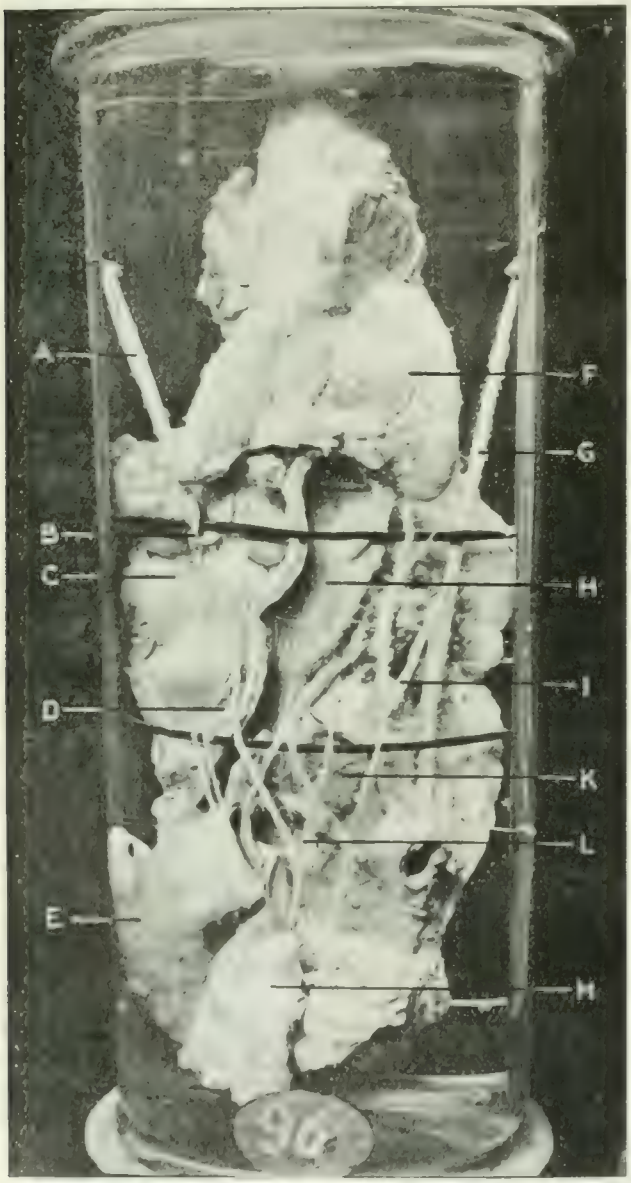


Fig. 3.—Anterior view, showing some of the nerves involved in the growth. A, Right vagus; B, right recurrent laryngeal; C, enlarged glands; D, right cervical sympathetic branches; E, aortic arch, turned down; F, thyroid gland; G, left vagus; H, trachea opened; I, left recurrent laryngeal; K, growth into left bronchus; L, cardiac plexus; M, pulmonary artery turned down.

and very friable in consistence from infiltration by the growth. It is partly buried in the mass, after leaving it it resumes its usual calibre and smooth outline and passes below the inferior constrictor muscle of the pharynx. The main trunks of the sympathetic nerves seem to have escaped, the cervical sympathetic branches to the cardiac plexuses are, however involved on the right side they pass through the right glandular mass, and emerging at its lower margin pass in front of the right bronchus to the superficial cardiac plexus. On the left side the lower ganglionic supply alone is seen considerably thickened in character. It passes over the front of the left bronchus to its destination in the cardiac plexuses. The phrenic nerves had escaped without injury.

A dissection was made of the laryngeal muscles, the right posterior crico-arytenoid muscle was rather smaller than the left, and beyond a slight pallor of their fibres these were apparently normal. The crico-thyroid muscles were equally distinct on both sides and were apparently normal. The lateral crico-arytenoids and the thyro-arytenoids were about equal in size on both sides, and to all appearance healthy. The arytenoid muscles, beyond a slight pallor in colour, were apparently normal.

MICROSCOPICAL APPEARANCES.

Oesophageal Wall.—**Sections have been examined from the centre of** the ulceration and from several points in the growing margin. **The ulcerating mass consists almost entirely of cells, arranged for the most part in masses of large size, though smaller masses are interspersed** amongst the larger ones (Fig. 4). The cells are closely packed **together and are not separated by any stroma. The cells are rounded** or oval in shape, their protoplasm stains readily with Van Giesen's

Fig. 4.—Section of oesophageal growth showing the alveolar arrangement of the spheroidal cells.

stain or eosine, and contain well-marked vesicular nuclei which stain deeply with haematin. There is little or no increase of fibrous tissue in the ulcerating masses such as one sees in a scirrhus carcinoma. The heaped up masses of cells are supported by a delicate framework of connective tissue. Towards the centre of the ulcerating surface, where there is rapid disintegration of the soft fungoid-like growth, the masses of cells are everywhere invaded by round polynuclear cells, and certain parts of the section where the cells have entirely lost their outlines show a process of complete necrosis. On examination of the extreme margin of the growth one can easily see the healthy stratified squamous epithelium overlying the mass of cells previously described. There is no evidence in these growing margins of any downgrowth of surface epithelium through its own basement membrane (Fig. 5). There are no cell nests in any of the sections examined. The entire thickness of the oesophageal wall is invaded by this cellular growth, except in the region of its growing margin.

Lymphatic Glands.—The cervical are almost entirely replaced by new growth similar to the alveolar masses described in the oesophagus. The bronchial glands are laden with black pigment and [illegible] the thyroid tissue are numbers of large cells with [illegible] and which are without doubt extensions from the primary oesophageal growth.

[illegible] through the nodules show masses of epithelial cells identical with those found in the primary oesophageal growth (Fig. 6). The [illegible] affected nodules. These metastatic deposits are likely to [illegible] the thoracic duct.

[illegible] made across the recurrent laryngeal nerves and the trunks of the pneumogastric nerves, where they are

caught in the growth, show them to be infiltrated and in places largely replaced by masses of epithelial cells. Fig. 5 sections across the recurrent laryngeal nerves after leaving the masses of enlarged glands stained with the ordinary histological stain, such as haematin and eosine, show that many of the nerve tubules are devoid of axis cylinders. These empty nerve tubules are scattered irregularly throughout the transverse section of the nerve. There is a slight increase of the fibrous tissue of the nerve.

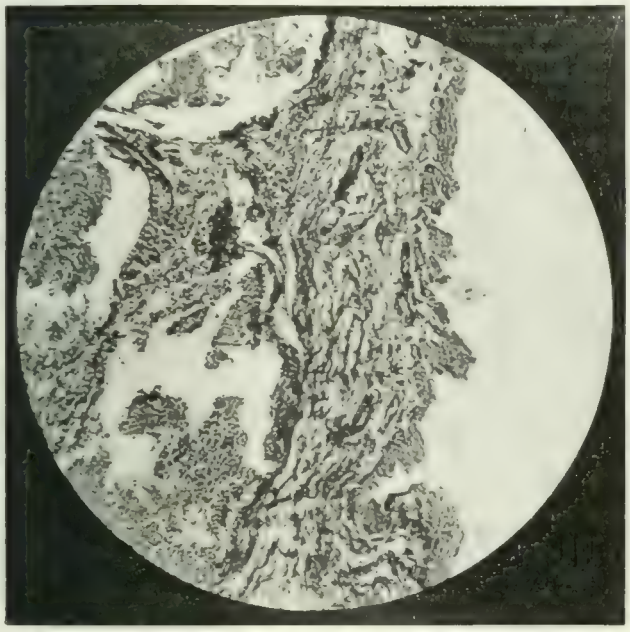


Fig. 5.—Section of upper margin of growth, showing healthy stratified squamous epithelium on the surface, with large alveolar masses of cells below.

Muscles of the Larynx.—Sections were made of the muscles cutting the muscular fibres in a transverse and also in a longitudinal direction—that is, two sections were made of each muscle.

The Posterior Crico-arytenoids.—Right: There are many bundles of this muscle in a state of advanced degeneration. Many of its fibres have entirely disappeared or are considerably shrunken in size, and are irregular in shape. Fig. 12. The degree of degeneration in this abductor muscle is less advanced than in the adductors on the same side, and more advanced than in the corresponding abductor of the opposite side. Left: There is degeneration in this muscle of a moderate degree, many fibres are quite healthy but interspersed amongst them are fibres that are shrunken, irregular in outline, or have disappeared. Fig. 11. The degree of degeneration is less severe than that found in the abductor muscles of the same side.

Lateral Crico-arytenoids and Transverse Arytenoids.—Right side shows an advanced degeneration of the muscular tissue, a large number of the muscular bundles have entirely disappeared and are replaced by a loose fibrous framework. Even in bundles that are in a state of advanced degeneration, however, isolated healthy fibres are visible. Fig. 7. The thyro-arytenoid is slightly more degenerated than the lateral crico-arytenoid. These right adductor muscles are much more degenerate than the abductor muscles on the same side, and slightly more degenerate than the adductor muscles on the opposite side. Left: The thyro-arytenoid and lateral crico-artenoid are in a state of moderate degeneration. (Fig. 10,) The thyro-artenoid is more degenerated than the lateral crico-arytenoid.

The arytenoids are in a state of fairly advanced degeneration. (Fig. 11).

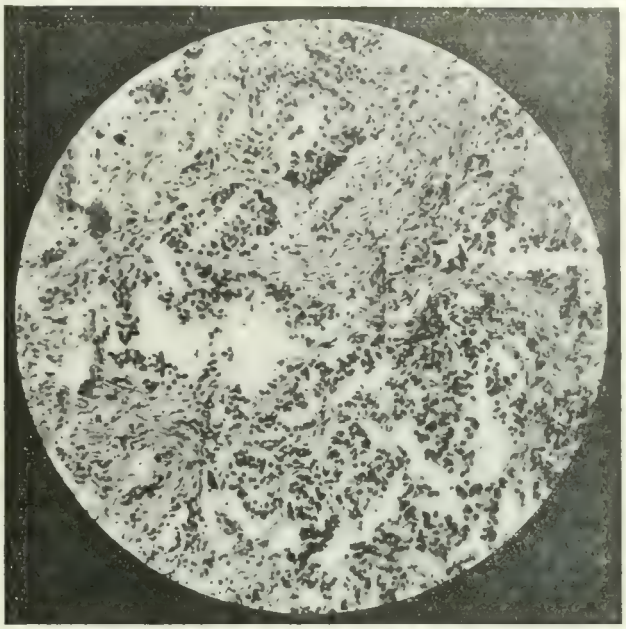


Fig. 7. Section of pulmonary metastasis showing alveoli of cancer cells.

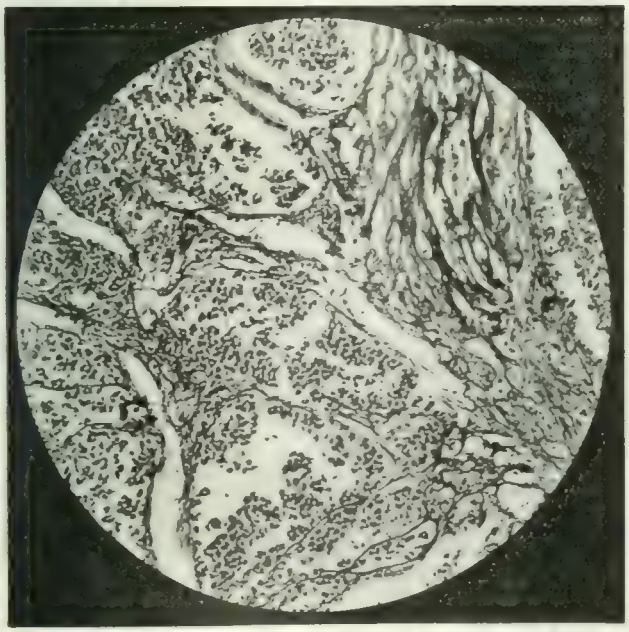


Fig. 6.—Section of a cervical lymphatic gland, everywhere infiltrated with spheroidal cancer cells.

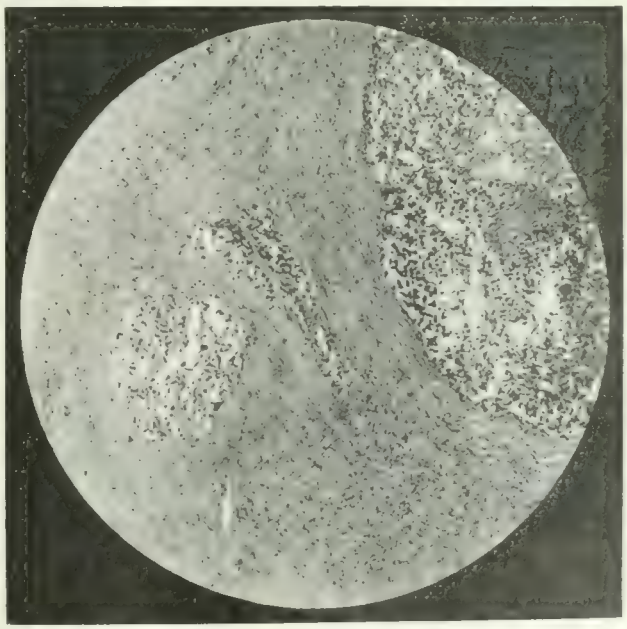


Fig. 8.—Section across the vagus nerve, where it is involved in the primary oesophageal growth, showing its infiltration by cancer cells.

Crico-thyroids.—These muscular bundles are apparently quite healthy, they stain more brilliantly, are more regular in size and shape, and in every way conform to the appearance of healthy muscular tissue.

The nature of the oesophageal growth is, in all probability, a spheroidal-celled carcinoma beginning in the oesophageal glands. This is borne out by the alveolar character of the growth which is reproduced in lymphatic glands and pulmonary metastases. One takes this view of its nature rather than that of squamous epithelioma because in none of the

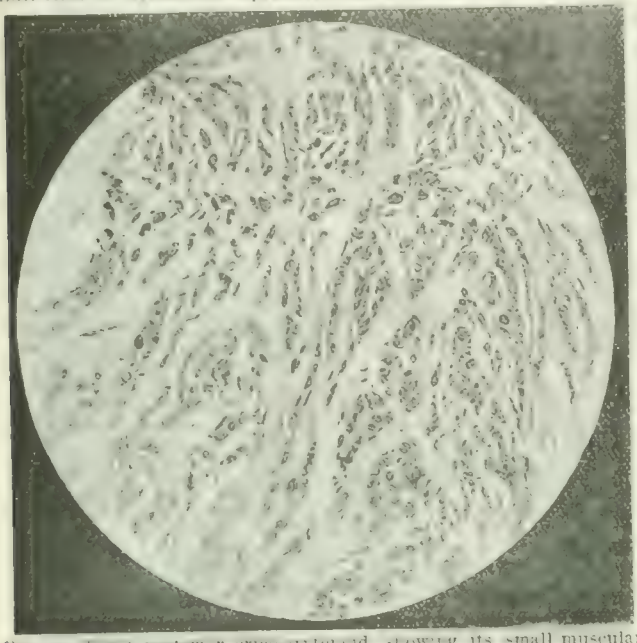


Fig. 1.—Right posterior crico-arytenoid, showing its small muscular bundles, shrinking and disappearance of fibres.

margins examined was there any evidence of downgrowth or proliferation of the surface epithelium, even where the subepithelial tissue is richly invaded by the solid alveolar masses of cells. Cell nests are entirely absent from both primary and secondary growths. We know also by experience that

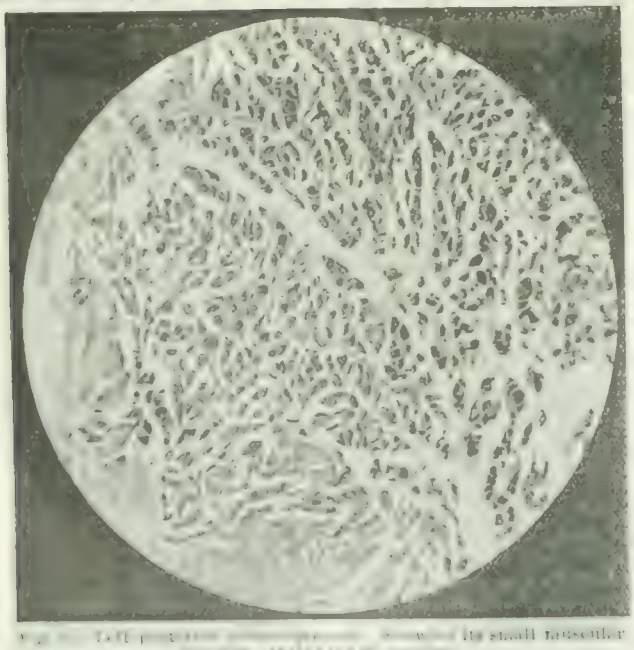


Fig. 3.—Left posterior crico-arytenoid, showing its small muscular bundles, shrinking and disappearance of fibres.

squamous growths are very rare in squamous-celled epitheliomas. Alveolar sarcoma is quite excluded by the absence of any stroma dividing the groups of cells. The type of carcinoma to which this most closely corresponds is the oesophageal carcinoma which is prone to undergo inflammatory and even gangrenous changes.

The clinical manifestations of this remarkable growth call for special mention.

There was absolutely no diminution in the lumen of the oesophagus, and the difficulty in swallowing must have resulted from an interruption of the peristaltic contraction which normally occurs in the oesophagus during the act of deglutition. Fluids would gravitate into the stomach much better than solids. Inasmuch as the muscular wall of the

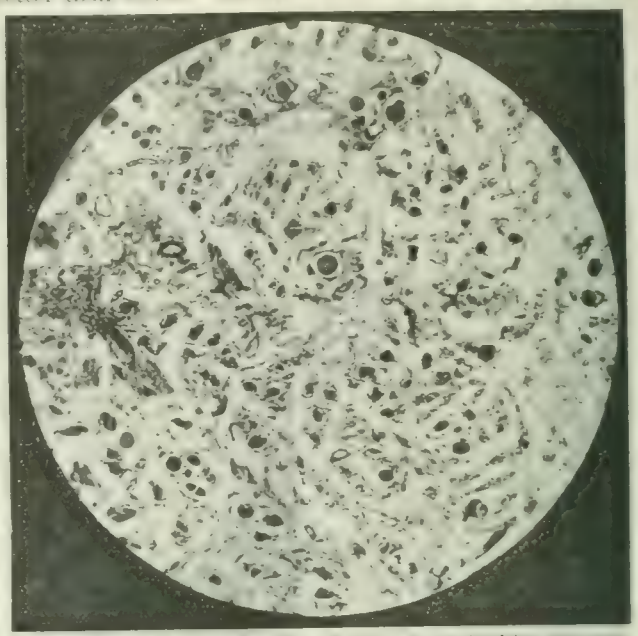


Fig. 2.—Right thyro-arytenoid. Showing large healthy muscular bundles here and there, with shrinking and disappearance of the majority.

gullet was replaced by growth for quite several inches in extent, involuntary muscular contraction of that portion must have been impossible.

The flattening of the left side of the chest, its imperfect

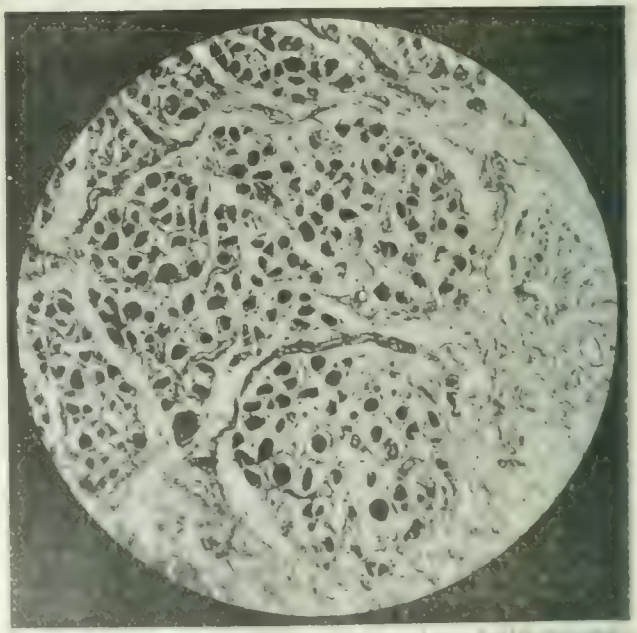


Fig. 4.—Left thyro-arytenoid, showing [illegible] muscular bundles however, are [illegible] have disappeared.

expansion during inspiration and the impaired percussion note over that side were due to the button-like projection of growth into the left bronchus which produced a degree of collapse of the left lung.

The pains in the right temple could be accounted for by the pressure of enlarged cervical glands upon the trunk of the small occipital or of the great auricular nerves, both of which come from the second and third cervical nerves, and furnish

twigs to the skin of this region of the head. The pains in the left side of the body might, in a similar way, be due to pressure by the growth upon the anterior primary divisions of the lower cervical and upper dorsal nerves.

Fig. 11.—Arytenoideus. Longitudinal section, showing small muscular bundles, with shrinking and degeneration of its fibres.

The sudden attacks of vomiting, which were of almost daily occurrence, were probably due to the involvement of the trunks of the pneumogastric nerves in the posterior mediastinum, causing irritation of the sensitive afferent fibres. Irritation of this nerve in operations upon the neck of man is known to produce dilatation of the cardiac orifice, and reflex contraction of the diaphragm, abdominal muscles and stomach. This explanation is much the most likely in this case. It is, of course, conceivable that the vomiting was due to direct stimulation of the efferent motor fibres which pass to the stomach. The stomach was found at the necropsy to be healthy.

The cardiac weakness with attacks of sudden dyspnoea was a well-marked feature during the last few weeks of this patient's life, and can be accounted for by the implication of practically all the cardiac sympathetic branches in the cervical glandular masses. This set of nerves in the human subject not only bears the efferent cardio-motor nerves, but probably also the efferent depressor nerve of the heart, and, although in this case disablement of the former would most readily explain the cardiac weakness, irritation and stimulation of the depressor fibres is quite conceivable. The inhibitory nerves of the heart coming by way of the vagus trunk are given off at a point higher than the exact spot where the pneumogastric is involved in the growth, and thus would in all probability escape injury, and continue to transmit inhibitory impulses. We know too little, however, concerning the innervation of the human heart to speak dogmatically upon what effect such a condition of cardiac nerve involvement would mean, even if every nerve could be fully dissected out and identified.

The implication of the recurrent laryngeal nerves is a matter of special interest. The specimen had been left rather too long in formalin before coming to the museum, otherwise special methods of determining the exact nerve degeneration would have been made. The recurrent laryngeal nerves, however, were examined not only where involved in growth, but also after leaving the glandular mass, and in this latter situation they showed a very definite destruction of axis cylinders.

A careful examination of the laryngeal muscles was made by dissection and by the microscope. The patient had suffered from laryngeal symptoms such as loss of voice for a little more than two months. There was therefore ample time if the laryngeal nerves were involved to produce considerable alteration in the sarcous substance of the muscles supplied, if not in their bulk, at least in their histological structure. Such a change was clearly seen on microscopical examination. The muscles showed a diminution and shrinking of their muscular bundles, loss of transverse striation and of longitudinal fibrillation. The sarcous matter had a hyaline appearance and did not react well to stains. Over large areas the muscle bundles had disappeared entirely, and were represented by the fibrous tissue framework of the muscle. Naked eye examination of small muscles such as those acting on the vocal cords must of necessity be very unsatisfactory in determining the exact amount of degeneration, especially in a nerve involvement of only two months' duration.

In this case, though little abnormality could be seen by the naked eye, a very different state of affairs was revealed by microscopical investigation. The muscles which showed the most advanced degree of degeneration were those concerned in adduction of the vocal cords, the thyro-arytenoids more particularly, to a less extent the arytenoids and the lateral crico-arytenoids. The abductors were affected to a less degree. The muscles of the right side, both adductors and abductors, had suffered more than those on the left side, a fact which is readily explained by the greater degree of involvement of the right recurrent laryngeal nerve as compared with the left. The microscopical sections of the crico-thyroid muscles formed a striking contrast to the other laryngeal muscles, showing fairly conclusively that the external laryngeal nerve had escaped damage by the neoplasm.

The clinical evidence goes to show that the adductor paralysis was an early and constant feature of the laryngeal condition during the whole of the patient's life in hospital. The abductor muscles, on the other hand, appeared to act well until a few days before death, when a slight narrowing of the previously wide open glottis was noticed. This narrowing of the glottis was probably due to the advancing paralysis of the abductor muscles causing the vocal cords to assume more nearly the cadaveric position. It could scarcely be maintained that the widely-open glottis in the earlier stage was due to spasm of the posterior crico-arytenoid induced by irritation of an early nerve involvement, in face of the fact that the adductor muscles were much more degenerate than the abductor muscles. The most reasonable explanation is that the nerve fibres going to the adductors of the vocal cords were disabled earlier and in much larger proportion than the nerve fibres going to the abductor muscles. This explanation of course takes for granted that the nerve fibres of the trunk of the recurrent laryngeal nerve are differentiated into special fibres for special muscles, though not necessarily arranged in any special position within the epineurium of the nerve.

Sir Morell Mackenzie and Sir Felix Semon have repeatedly drawn attention to the special proneness of the abductor fibres to injury as compared with the adductor fibres in chronic organic nervous diseases of either peripheral or central origin. Sir Felix Semon especially has collected a large number of cases to support this view, and he has been led to make the following statement, which has become generally known as "Semon's law": "The occurrence of an isolated paralysis of the abductor filaments of the recurrent laryngeal nerve in cases in which the roots or trunks of the spinal accessory, pneumogastric, and recurrent nerves are injured or diseased is not an isolated pathological curiosity. There is a distinct proclivity of the abductor fibres to become affected in such cases, either at an earlier period than the adductor fibres or even exclusively."

The case which has just been recorded, whatever be the correct explanation of the laryngeal paralysis, is clearly a distinct exception to this law. Both physiologically and pathologically, the adductor disablement was earlier and more intense in degree than the abductor. In conclusion, we would thank Professor Leith for kindly placing at our disposal the technique of the pathological department of the University for this investigation.

Donation and Bequests to Hospitals. The Editor of *Little Folks* has sent £500 to the North-Eastern Hospital for Children as a further instalment towards the endowment of a ward by the youthful readers of that paper. Under the will of the late Mr. William Lee, of Higher Crumpsall, Manchester, £200 each has been bequeathed to the Salford Royal Hospital, St. Mary's Hospital, Manchester, and the Children's Hospital at Pendlebury. The late Miss Elizabeth Porter, of Halifax, has left the sum of £2,000 to the Royal Halifax Infirmary.

A CASE OF SYPHILITIC CONVULSIONS PRECEDED BY MARKED SOMNOLENCE OF LONG DURATION.

By WILLIAM B. BENNETT, M.R.C.S.Eng., L.R.C.P.Lond.,
Surgeon, St. George's Hospital for Diseases of the Skin, Liverpool

THE following case of syphilitic convulsions is noteworthy on account of the remarkable tendency on the part of the patient to sleep during the five months preceding the convulsive attack. As will be seen from the history, this somnolence apparently replaced the characteristic headache, which is met with so frequently in these cases as to be almost diagnostic, and which usually produces sleeplessness. Other prominent symptoms were profound stupor and motor aphasia.

HISTORY.

The patient was a married man aged 34. On Saturday, April 26th, 1902, at 7 a.m., the patient according to his usual custom roused his wife, with whom he was sleeping; she got up, dressed, and left the room, having noticed nothing unusual about her husband. At 8 a.m. the man came down to breakfast; but, to his wife's surprise, he was quite unable to speak, although he made great efforts to do so. He then sat down, and with considerable difficulty ate a small bit of toast and drank a cup of tea. He understood what was said to him, but could make no answer. At his wife's request he then returned to bed. At about 9 a.m. his little daughter told her mother that her father was ill; the mother immediately ran upstairs, to find her husband quite unconscious, "making a snoring noise," and with some froth about his lips.

I was immediately sent for, and saw him a few minutes later. He was then lying on his back in a comatose condition, breathing stertorous, teeth tightly clenched. At 10 a.m., whilst I was standing by his bedside, he had an epileptic convulsion, which lasted two or three minutes, and resembled an ordinary epileptic fit, with the exception that the convulsions started in his right arm, leg, and side of face. He was generally convulsed, but most strongly on the right side; as a natural result, he turned over on to his left side, on which he lay throughout the fit. I threw 5 gr. of calomel and 30 of potassium bromide into his mouth, and think they were swallowed. Whilst his wife was out of the room I examined his genitals, but could find no scars or other signs of venereal disease. Between 11 and 2 o'clock he had two more similar attacks, which made three, probably four, altogether. In the interval between two of the fits he once got up, and walked about the room for a few minutes, being in a state of great excitement, but was got back to bed without any difficulty. Whilst in bed he was in much the same state as when I first saw him: eyes tightly closed, teeth firmly clenched, corneal and skin reflexes present, and quite unconscious of his surroundings. It was only with the greatest difficulty that his teeth could be forced apart for the purpose of introducing powders or fluids. In the evening I gave him 5 gr. more of calomel, having previously put him on 15 gr. of potassium iodide, with 1 drachm of liquor hydrargyri perchloridi every three hours. I also gave his relations a favourable prognosis. In the evening he got out of bed and emptied his bladder and rectum quite naturally, getting back again without any assistance, and displaying no bodily weakness. He seemed, however quite unconscious of his surroundings, and did not attempt to speak falling at once on his return to bed into his former heavy sleep, which continued throughout the night. At no time had he any incontinence except during the convulsions when he passed his water unconsciously.

On Sunday morning he was in much the same condition sleeping heavily and only waking to empty bladder and rectum. His bowels were freely moved both in the night and again in the morning. There was still great difficulty in feeding him, all nutrients and nourishments having to be poured into his mouth after forcibly opening his tightly clenched teeth. In the afternoon he was distinctly clearer, and lay for a few minutes with his eyes open; he then noticed a relative whom he had not recently seen, and said to him, "Hallo, Smith," these being his first words since he rose the previous morning. He at once relapsed into his former state of stupor, from which he could, however, be partially roused. Later in the day he said "Yes" and "No" a few times when spoken to, but not intelligently. Feeding was still difficult, but less so than formerly. During Sunday night he slept soundly.

On Monday morning he was distinctly clearer and could say a few words. He also endeavoured to dress himself, and seemed very disappointed at not being permitted to do so. The dose of potassium iodide was now reduced to 15 gr. with a drachm of liq. hydrarg. perchlor. four times a day.

On Tuesday he was able to carry on a conversation for a few sentences, but no more, not being able to fix his mind on anything for more than a minute or two.

On Wednesday he was much clearer and daily increased in strength so rapidly in mind and body that he was allowed out of bed on the Saturday for a short time, when he was physically weak but quite rational. Owing to his mouth becoming very inflamed and ulcerated the liq. hydrarg. perchlor. was omitted from his medicine, and for the next few weeks the iodide alone, 1 drachm daily, was given. His mouth soon recovered and in about a week was quite well.

On Tuesday, May 6th, as he seemed quite himself, he went out for a short walk, and on the following Tuesday, the 13th, went away for a week to the seaside, after which he returned to his business. Early in June he was ordered 10 gr. of potassium iodide with 1 drachm of liquor hydrarg. perchlor. thrice daily. This he was able to take without any ill-effects. He told me that he had a distinct recollection of coming down to breakfast and being unable to speak, but that after he returned to bed he remembered no more until he saw and spoke to his relative the following day, after which for a day or two only a few incidents appear to have left any impression on his mind.

The history previous to his attack, which I have since obtained, is as follows: He had always been healthy and well, never having been seriously ill before; he had a chancre in the usual position eight years ago, for which he was treated by a doctor for one month; he was not aware that it was necessary to undergo any further treatment, and had had no rash, sore throat, or secondaries of any description.

About five months before the present illness he began to feel drowsy at all hours, falling off to sleep with great ease. During the last two months this tendency to sleep had become most pronounced. He would return at 7 in the evening, eat his dinner, and then sleep before the fire till 10, when he went to bed and at once fell sound asleep, remaining so until he got up at 8 next morning. Whilst riding to his place of business after breakfast on an omnibus he felt sleepy, and during the day was often found fast asleep in his office. He never had any pain in his head or elsewhere, neither did he feel any discomfort of any kind besides this one desire to sleep. These facts were corroborated by his wife, who also told me that she noticed no change whatever in his disposition or behaviour.

The subsequent history has been quite uneventful. The drowsiness, which completely left him a few days after his convulsive attack, has never returned, and he only sleeps a normal number of hours at the proper time.

For some months his memory was a little defective. He would forget some incident, either trivial or important, which had happened the previous day or less recently, until reminded, when he at once remembered. This gave him some trouble, as it happened frequently, but it passed off completely, and in July, 1903, he was perfectly well in all respects.

I think this well-marked prodromal somnolence must be very rare, as I have not been able to find the report of any similar case. The symptom is, of course, known, since Gowers[1] writes of "considerable mental dullness or a somnolent condition lasting for weeks," as being an occasional premonitory symptom in cerebral thrombosis.

Aldren Turner[2] also writes of a "tendency to somnolency, so that the person drops off to sleep while at work," as being sometimes associated with a change in the character and disposition of a patient suffering from cerebral syphilis.

Buzzard[3] has recorded several cases of prolonged somnolence associated with hemiplegia; but in his cases the somnolence did not precede, but accompanied or followed the acute attack, and, moreover, produced great mental dullness.

DIAGNOSIS.

Quite apart from the history of chancre, the gradual onset, together with the complete and rapid recovery under anti-syphilitic treatment, clearly proves that the lesion was of a syphilitic nature.

NATURE OF LESION.

The most common syphilitic disease of the brain is that known as obliterative endarteritis of the cerebral arteries, a disease which slowly narrows the cavity of the vessel to a

greater extent than does atheroma, but produces very similar pathological effects.[4]

Heubner is quoted by Cornil as attributing the somnolency to the narrowing of a number of arteries, in consequence of which there is congestion and defective oxidation of the brain substance. Motor aphasia would be produced by occlusion of the first cortical branch of the middle cerebral artery.

According to Osler,[6] transient aphasia with perfect recovery may occur in advanced arterio-sclerosis, but the explanation of this fact is not easy.

Convulsions are very frequently caused by cerebral syphilis, and both Fournier and H. C. Wood[7] have laid great stress on the value of this symptom in diagnosis when occurring in persons over 30. They may be caused, like aphasia, by advanced arterio-sclerosis,[8] but are decidedly rare in atheroma, being more often due to meningeal growth or chronic inflammation.[8] This may, of course, have been present in the above case, in addition to the more obvious endarteritis, but had it been I do not think the patient would have been so completely free from headache of some kind or another.

I am therefore inclined to think, from the foregoing considerations, that the lesion in the above case was extensive syphilitic endarteritis of the cerebral arteries, without thrombosis or embolism, but possibly with spasm of the arteries.

The most interesting feature about this case is, of course, the preceding somnolence, but the entire absence of the more common symptoms—for example, headache and hemiplegia—together with the apparently complete recovery of the patient, is not without interest.

REFERENCES.

[1] Gowers's *Diseases of the Ner[illegible]* 2nd edition, vol. ii, p. [illegible]. [2] Clifford Allbutt's *System of Medicine*, vol. viii, p. [illegible]. [3] *Lancet*, June 4th, 1904. [4] Gowers, vol. ii, p. 402. [5] Cornil's *Syphilis*, p. [illegible]. [6] Osler's *Principles and Practice of Medicine*, 4th edition, p. [illegible]. [7] Ibid., p. [illegible]. [8] Gowers, vol. ii, p. 734.

BILATERAL NEURITIS OF FIFTH AND SIXTH CERVICAL NERVES.

By C. H. CATTLE, M.D.Lond., M.R.C.P.,

Honorary Physician, Sherwood Forest Sanatorium for Consumption: Assistant Physician, Nottingham General Hospital.

THE following case, while presenting some interesting points in etiology and localization, also shows that the results of brachial neuritis are not always so favourable as in the cases recently reported by Dr. Simon.[1] For the notes I am indebted to Mr. Edwards, House-Physician at the Nottingham General Hospital.

E. S., a coal miner, aged 29, was sent to me by Dr. Nesbitt, of Sutton-in-Ashfield, and was admitted into hospital on July 16th, 1903, having previously attended for about a month as an out-patient. He was a steady, industrious man, non-smoker, and almost a total abstainer. No evidence or history of syphilis. His previous health had been good and the family history was unimportant. For a few weeks before the illness began he had been extra hard worked, and worried about business and family matters. His appetite failed and he slept badly. He persisted in working, although his wife begged him to take rest.

Since May 25th he had complained of very severe pain in the root of neck on both sides, spreading over the shoulders and down the arms. This still continued when I first saw him, about a fortnight later. There was much tenderness on pressure over the cervical nerves on each side of the spine. Power of abduction of the left arm was lost; the other movements of the shoulder and elbow on both sides could be performed, but feebly. Flexion of the elbow was impaired, but not lost. The loss of power was greatest on the left side, and this has been the case throughout. (He is left-handed.) Tenderness was not marked over the main nerves in the limbs. Sensation was distinctly blunted over the cutaneous supply of the left circumflex nerve (both to pain and tactile sense), and later on there was a slighter amount of impairment on the right side. The pupils were equal and reacted normally. At no time have there been symptoms pointing to disease of the brain, cord, or membranes.

After admission on July 16th pain rapidly diminished in the right arm, and power of movement returned. In the left, also, the pains gradually diminished, and sensation on the outer side of both arms became normal. Both deltoids were wasted, the left being the worst. This ultimately became extremely atrophic. The left supra-spinati and infra-spinati were somewhat atrophied. At this time all the upper arm muscles, except the left deltoid, were stated to react to faradism. In the left deltoid there was absolutely no voluntary power, and with galvanism the muscle gave reaction of degeneration. He remained in hospital about a month, and spent about a fortnight at the Cedars Convalescent Home, galvanism being persevered with the whole time.

On September 5th the right deltoid had quite recovered, while the left remained powerless, and the horizontal measurement round the body of the muscle was 1½ in. less than on the right side. The left spinati muscles were also atrophied.

On December 16th the deltoid had recovered a certain amount of voluntary power, and the difference in measurement was less than before, namely, ½ in. The muscular wasting, however, was now more extensive than had hitherto been noted. Besides the two spinati on left side, the right serratus magnus and infra-spinatus were completely atrophied. None of these reacted with either current. The left deltoid, notwithstanding improved nutrition and return of voluntary power, still gave the degenerative reaction, and did not react to faradism.

The etiology of the case appears to resemble that of Dr. Simon's first case, the only ascertainable causes being hard work, mental worry, and a low state of health. Possibly continued work with the arms raised above the head might cause injurious pressure on the nerves by exciting contractions in the scalenus medius muscle which they pierce. An interesting feature of the case is the bilateral distribution of the muscular paresis and wasting. In two of Dr. Simon's cases, and one of those reported by Drs. Harris and Low,[2] all like the present, spontaneous or non-traumatic cases, one limb only was involved. Falls on the shoulder, sprains, or other mechanical force are the commonest causes of neuritis of the cervical nerves. Carrying weights on the shoulder is a common cause of this affection, the nerve to the serratus being particularly exposed to pressure. Thus I lately had an out-patient under treatment with the interesting condition of bilateral wasting and paralysis of the serratus magnus, due to pressure on the nerve produced as above mentioned.

The muscular weakness at the commencement of the illness corresponded pretty closely with Erb's type of upper-arm palsy. This is dependent on lesion of the fifth cervical nerve, the muscles most commonly affected being the deltoid, supra-spinatus and infra-spinatus, biceps, brachialis anticus, and sometimes the supinators, longus and brevis.

In the case under notice the flexors of the elbow, though distinctly weakened in the first instance, rapidly regained their strength and tone, while the chief stress of the disease fell on some of the shoulder muscles. The sixth cervical nerve may also have been inflamed to a slighter extent, especially on the right side, on which the serratus magnus is atrophied. The nerve to the serratus comes from the fifth and sixth cervical before they unite to form a common trunk, and sometimes also in part from the seventh nerve. The distribution of the fifth cervical nerve has been pretty fully worked out by different observers, and a short recapitulation of what is known or surmised may prove useful. After receiving a branch from the fourth, the fifth cervical supplies the nerve to the rhomboids, probably deriving its filaments from the fourth, as these muscles were not affected on either side in this case. Then comes a branch which unites with a branch from the sixth cervical to form Bell's nerve (for the serratus). Lower down the nerve, according to Drs. Harris and Low,[3] can be divided into an upper and lower fasciculus. The former, after giving off the supra-scapular nerve to the supra-spinati and infra-spinati, joins the posterior cord of the brachial plexus, and furnishes the circumflex nerve, which supplies the deltoid, the teres minor, and the skin on the outer side of the upper arm.

The lower fasciculus forms the greater part of the musculo-cutaneous nerve, from the outer cord of the plexus, supplying the biceps, brachialis anticus, and skin of the outer side of the forearm. It will be seen that the main incidence of the paralysis in this case corresponds on the left side with the assumption that the upper fasciculus of the fifth cervical nerve was the portion chiefly affected. On the right side the only portion of this bundle of fibres which has not recovered is the nerve to the infra-spinatus, while the paralysis of the serratus magnus shows a picking out of some of the fibres of the nerve immediately after its emergence from the spinal foramen.

Paralysis of the serratus magnus gives rise to a characteristic deformity, for when the arm is moved forward the lower angle of the scapula is rotated inwards, and its posterior edge projects like a wing. As the scapula is rotated and fixed by the serratus when the arm is raised above the horizontal position, its paralysis considerably weakens this movement. This man, notwithstanding wasting of the serratus on one side and only partial recovery of the deltoid on the other, has no difficulty in elevating the arms above the head. The trapezius normally co-operates with the other elevators of the arm, and can to some extent supply their place when paralysed. The spine of the left scapula in the patient under consideration is prominent, and the supra-spinous and infra-spinous fossae unduly hollowed from wasting of the spinati

muscles; but their loss appears to occasion only trifling inconvenience.

Since the above was written two further articles on the subject have appeared in the British Medical Journal for January 16th, 1904, by Dr. Distin and Dr. Charles. The latter points out the frequency of brachial neuritis among miners, and confirms my own impressions that a confined posture at work is an important factor in etiology.

References

1 British Medical Journal, July 11th, 1903, p. 71. 2 Ibid., October 24th, 1903, p. 1065. 3 Loc. cit.

DEEP ULNAR NERVE PARALYSIS AND FUNCTIONAL POWERS.

By TENNYSON PATMORE, M.R.C.S., L.R.C.P.,
London.

It is rarely that we see isolated paralysis limited to the deep palmar branch of the ulnar nerve, hence the following is interesting:

J. H., aged about 27, a carpenter, was struck by a heavy hammer over the left lower radial region, whilst the ulnar edge of the hand sustained a counter-blow through being forced against some hard body. There was a wound over the pisiform and unciform bones.

He worked from the date of accident (September 17th, 1903) at his trade for about three months, just managing to do his work with difficulty. About two weeks after the accident he noticed that his two inner fingers were commencing to become "bent." About the beginning of December he found it impossible to continue his work properly, because, although he could grasp all larger objects, such as saw-handles, hammers, chisels, etc., with his left hand, he could not hold small objects, such as nails, brads, screws, etc.

On January 6th, 1904, I saw him in connexion with his claim under the Workmen's Compensation Act, and I found the following condition: The left hand was markedly smaller than the right, and the intermetacarpal spaces distinctly hollow; there was the usual wasting of thumb and small finger muscles, but it was more pronounced than usual. The two inner fingers were markedly "clawed," overextended at the metacarpo-phalangeal joint, and flexed at the more distal joints. The mid-finger was just commencing to show the same deformity. It was interesting to observe that when I asked him to try to extend the deformed fingers "properly," he said, "I can, sir, if you just place your finger there," indicating the back of the first phalangeal joints, showing how he missed the steadying support of the lumbricales at those joints. He had complete sensation in "ulnar" portions of the hand and fingers. The usual absence of adduction and abduction of the fingers was observed. He had strong grasp for any large object, but for pins and pens and pencils the co-ordination and power of grasp was undecided and so weak as to be relaxed by slight force on my part. In fact, he had no fine adjustment of fingers and thumb.

The following struck me as most interesting: although he had his proper thumb adductors quite paralysed and wasted, and showing a marked reaction of degeneration, still I found he could actively bring the thumb powerfully, so that he held it firmly against the radial border of the index finger. On examining the apparent tendons of tendons I saw that the extensor ossis secundi internodii was in strong action, and was performing this adductor function, the obliquity of its tendon's direction from inside to outside of radius becoming very evident, and itself demonstrating its mechanical value for application. The short flexor and the long flexor and the opponens probably helped in this action, but its power was most marked.

The conclusions which [illegible] about this instructive case were: With complete deep ulnar paralysis we have still remaining a good [illegible] grasp; we have the thumb opposing power and [illegible] derived from median innervation; and we have the [illegible] supplanted to a useful degree by extensor and [illegible]. Of course, if the damaged nerve is not rehabilitated, and the degenerated muscles reconstructed, in time we must look for a very far worse state of [illegible] owing to [illegible] and joint adhesions; but even then we must remember that we shall have the thumb performing many most valuable duties in all of its [illegible]. It is important to differentiate "complete" destruction of [illegible] from "complete" although most serious destruction of it.

I may add that this case is to be operated on with a hope of recovering the deep ulnar nerve's function.

REFLEX DISTURBANCES ASSOCIATED WITH ADHERENT PREPUCE.

By ROBERT M. SIMON, M.D., F.R.C.P.,
Physician to the General Hospital, Birmingham.

Malformation and unusual condition of the penis practically never come under the notice of a physician, and it is, therefore, not remarkable that one's attention can only rarely be directed to such conditions as having a possible and an exciting influence in causing widely differing and remote disturbance of functions in other organs.

Within the last few years, however, I have seen three cases in which the symptoms were due to adherent prepuce or a narrowed urethral meatus. In not one of these cases was there any reason to associate the symptoms with any trouble about the penis, nor was such trouble suspected. It was only after every other possible cause had been considered, and the symptoms had been treated without the slightest benefit to the patient that a thorough examination revealed a condition of the penis which, if not the cause of the symptoms complained of, was, at any rate, so far from normal as to render local treatment desirable.

Case I.

A boy, aged 18 months, well made and growing rapidly, suddenly became unable to walk. He dragged one leg, and complained of pain in the hip. Any attempt to make him walk caused severe pain, and, at any rate, was resisted with screams. He was under the care of one of the best known practitioners of this city who suspected, despite the absence of many signs, incipient hip mischief. One of our leading surgeons examined the child, and gave a positive opinion against the existence of hip disease but was not able to do or suggest anything which helped to restore the child's walking power or relieve the symptoms. When called in to see the child I thus had the advantage of the opinion of two doctors more familiar with the subject of hip disease than myself, and of their assurance that hip disease was not present, so [illegible] I tried to find some cause of reflex irritation, and after irritation by worms had been considered and negatived we examined the penis.

The prepuce was found to be long and adherent. The child was circumcised and recovery was immediate and complete.

Case II.

A boy, aged 14, was sent to me from a neighbouring town on account of obscure pain and severe intestinal colic. Nothing purgative had relieved him, and I advised that he should be treated as though the colic had been due to lead poisoning. More thorough examination, after this plan had been tried and failed, revealed an adherent prepuce. This was treated, no medicines being given, with complete disappearance of all symptoms.

Case III.

A boy, aged 9, had been perfectly well during infancy but when developing from an infant into a well grown little boy, began to wake up at night screaming and complaining of pain in the abdomen. This occurred night after night with a regularity which resulted in the exhaustion of the household, and loss of sleep to the little boy whose health began to suffer. I saw him several times and treated him successively for slight tertiary and indigestion.

I thought that my attendance was [illegible] being awoke to get him to pass water, but though he went to sleep afterwards I failed to associate the fact with his symptoms. It was only after all efforts to help him had been futile that I examined the penis. The prepuce was found to be adherent and the meatus narrow. These conditions were treated surgically and immediate and permanent cessation of symptoms followed.

It is probable that in the third case the need to empty the bladder was the starting-point of the symptoms, and that the call to micturate was associated with some erection of the penis, any tumescence of which would be rendered painful by the adhesion of the prepuce. The boy was not old enough to describe his condition accurately, or locate the pain with certainty, so that both by his parents and myself he was considered to be suffering from indigestion. This explanation will not apply to the second case, which like the first must have been due to some reflex disturbance of the nervous system.

In the first case, that of inability to move the leg, it would appear that there must have been inhibition of spinal nerves, due to the peripheral irritation of an adherent prepuce. It is, of course, a truism that we ought to examine our patients thoroughly, but these cases show how great is the necessity to do so when the symptoms complained of are anomalous, and inconsistent with those generally accepted causes which produce similar disturbances of function.

TETANY ASSOCIATED WITH MUCO-MEMBRANOUS COLITIS AND PHTHISIS.

BY H. HYSLOP THOMSON, M.D.GLASG.,
Resident Physician, Consumption Sanatorium, Bridge of Weir

TETANY and muco-membranous colitis are somewhat rare conditions, and the occurrence of both in a phthisical person at the same time, the one obviously dependent upon the other, renders the case about to be described worthy of being placed on record.

E. T., female, aged 21, and employed as a packer in a confectionery, was admitted into the consumption hospital at Bridge of Weir on March 21st, 1903, with a history of cough, with expectoration, loss of flesh and appetite, and some loss of strength of eight months' duration.

Family History.—It was stated that her father and a brother had died from pulmonary tuberculosis. In connection with the supposed relationship between colitis and the rheumatic diathesis it may be mentioned that two brothers had suffered at one time from acute rheumatism.

Personal History. The patient's health prior to the onset of her present illness was considered good. With the exception of an attack of pleurisy a year before admission she had been free from any serious illness. Menstruation began at the age of 14, but had never been regular; there was a slight amount of vaginal discharge, which increased in amount for a few days before the menstrual period. For some considerable time patient had suffered from occasional intercurrent attacks of diarrhœa and slight pains in the abdomen.

Condition on admission.—She was a good-looking girl who was not emaciated; her complexion was somewhat pale, and her mucous membranes were poorly injected. Pulse, temperature, and respirations were normal. On the right side of the neck, close to the angle of the jaw, there was a mass of enlarged lymphatic glands, while more anteriorly were some old puckered cicatrices. The percussion resonance over the right upper lobe in front was diminished as compared with that on the left side, while the vocal resonance and tactile fremitus were increased. The respiratory murmur was harsh with the expiratory portion unduly prolonged, and a series of medium-sized crepitations was heard. Over the infrascapular and scapular regions behind there was respiratory murmur and medium-sized crepitations were audible. The left lung appeared normal. Sputum was scanty, and no tubercle bacilli were found on staining by Ziehl-Neelsen's method.

Progress. During the first three months the patient responded well to treatment and gained just 1lb. in weight. She was however very much troubled with constipation, alternating with attacks of diarrhœa. Apart from this she remained in excellent health until the beginning of July, when she began to complain of pain after food, with headache and giddiness, and in consequence was placed on modified diet and ordered to rest for one hour after each meal. On July 5th there was a paroxysm of acute abdominal pain. The motions as observed at this time were small and pale, occurring in round or bullet-shaped masses, somewhat sticky and streaked with bright red blood. A striking feature at this time was the sudden, obscure chill which took place in the disposition of the girl. From being a happy and contented individual she became extremely irritable and at times hysterical, while tremor of the lower right corner twitching of the mouth, especially marked when addressed, was observed. From this date on to the beginning of August there were periodical attacks of abdominal pain varying in severity, and occurring at intervals of from a few hours to several days. The pain, which was burning in character, was at times very acute, and was referred for the most part to the regions of the ascending, transverse, and descending colon, where palpation elicited tenderness on deep pressure and a definite feeling of resistance. During the [illegible] there were noisy evacuations, and [illegible] On one or two occasions there was [illegible] of undigested food or bile-stained mucus. [illegible] and was covered, except at the upper edge, with [illegible] while the breath had a peculiarly disagreeable [illegible] During this period the motions changed in character. They became more sloppy, and were at times watery, were dark-brown and contained [illegible], and occasionally blood in small [illegible], while large and [illegible] were passed. In appearance [illegible] that the nurse in attendance [illegible] the patient at she had been swallowing her sputum. The [illegible] membrane were for the most part small in size, the largest not exceeding [illegible] in length; they were light-brown in colour, thin, transparent, and [illegible]. The mucus and membrane were occasionally passed in contact with [illegible] portion surrounding the motion when formed, but in most cases they were distinctly separate from it, at times [illegible] the desire to defæcate arising as the mucus was passed. Microscopically the membrane consisted of dense layers of mucus containing a few round and columnar cells. The edges of the membrane was sharply defined, thicker, and less translucent than the surrounding mucus, and [illegible] appeared rolled on itself. Meanwhile the patient [illegible] had suffered; she had lost over a stone in weight, and [illegible] and haggard. From the onset of the symptoms [illegible] had shown a tendency to rise, averaging about 100° F. in the evening and reaching a maximum of 101° F. before the attack, the evening temperature had been 99.4° F. Towards the end of the first week of August patient's condition commenced to improve. The stools became more normal in appearance, and contained less mucus and only a few streaks of blood. She was free from acute pain, but there remained a feeling of discomfort, described by her as a tight feeling in the upper part of the abdomen. As she complained of hunger, and appeared to be steadily improving, she was allowed a light diet, and was permitted a few days later to rise for short time in the afternoon. On August 7th there was a return of the abdominal pain, with a little blood and an increased amount of mucus in the stool. On the following morning there were two motions containing some bright red blood. About midday a considerable quantity of blood was passed per rectum, preceded by severe abdominal pain. Immediately following the discharge of blood the girl had a severe and characteristic attack of tetany. When seen she was lying on her back with an anxious expression on her face and evidently trying to articulate something, which was subsequently found to be "I can't open my hands." The tonic spasms were severe, and affected the face as well as the extremities. The thumbs were flexed and pressed tightly into the palms of the hands, while the fingers flexed at the metacarpo-phalangeal joints were extended at their terminal joints. The hands were flexed at the wrist and the arms were crossed on the chest; occasionally they were held out in front as the patient vainly endeavoured to control the spasm. The feet were arched, and extended at the ankle joint while the toes were crowded together, being adducted and strongly flexed. During the height of the paroxysm the patient was quite unable to articulate distinctly: the mouth was partially open and the lips pursed together as if she were trying to whistle. As the spasm lessened the angles of the mouth were retracted. The tongue, according to the patient's statement, was forcibly drawn to the right side of the mouth. The face was very pale, the extremities cold and the pulse feeble. The girl, in describing her sensations during the paroxysm, stated that she felt her limbs cold and could not stretch them out as her sinews appeared to be all drawn together, her face felt cold and stiff and her lips as if they were being drawn out and pressed together. Patient was warned of the attack coming on by feeling sick and shaky, and after the spasm had ceased there was feeling of numbness and a sensation of pins and needles in the limbs and face. There were only two severe paroxysms, the second occurring about three hours after the first, but for some days tremor of the hands and twitching of the facial muscles remained. The spasm was easily controlled by hypodermic injections of hyoscyn. hydrobrom. and considerable relief was obtained by the application of heat to the limbs. During the first few days of September the mucus passed per rectum had increased in amount, but during the second week it gradually diminished. She then commenced to improve, her appetite increased, and she was allowed a more liberal diet. Up to September 16th, the date of leaving hospital, small quantities of mucus were, however, occasionally observed in the stools. No untoward effect was manifested on the lung condition. Cough was slight, and for some weeks expectoration had been absent; physical signs, though still present, were much modified.

REMARKS.

This case is certainly one of unusual interest. The association of tetany with muco-membranous colitis in a case of phthisis pulmonalis must constitute a very rare combination of diseases.

It is true that the diagnosis of phthisis was not confirmed by the presence of tubercle bacilli in the sputum, but the presence of enlarged lymphatic glands and some old cicatrices in the neck, with crepitations over the right upper lobe, and a fairly uniform evening pyrexia, were sufficient to render the diagnosis almost certain.

What the exact relationship between muco-membranous colitis and tetany may be I am not prepared to say, but the association of the characteristic paroxysm of tetany with a form of colitis which is now regarded as a neurosis of the colon presented an interesting clinical picture.

A CASE OF HEMIPLEGIA OCCURRING DURING WHOOPING-COUGH AND DIPHTHERIA.

BY HENRY FRASER, M.D., D.P.H.,
Aberdeen.

THE publication by Mr. Gowring in the BRITISH MEDICAL JOURNAL of December 26th, 1903, of a case of ophthalmoplegia occurring during whooping-cough recalls to mind an interesting case which I had under my care some time ago:

J. J., male, aged 18 months, was admitted to the City Hospital, Aberdeen, on March 21st, 1902, suffering from diphtheria and whooping-cough.

History. Diphtheria had been diagnosed five days previous to admission; whooping-cough had been present for about six weeks.

Condition on Admission. The tongue was slightly coated. The throat was reddened and congested, a yellowish-white membranous deposit partially covered the right tonsil: the submaxillary glands, more especially those on the right side, were enlarged. The breathing was laboured. Examination of the lungs detected the presence of the medium rale. The heart sounds were weak but there was no valvular incompetence. The pulse was soft, compressible, and feeble, the

temperature was 99° F., and the urine normal. Bacteriological examination confirmed the diagnosis of diphtheria.

Treatment.—Two thousand units of antitoxin were injected, and tinct. digitalis (m. 1) and tinct. ferri perchlor. (m. iij) directed to be given every four hours.

The child passed a quiet night and next morning (April 1st) seemed better.

Onset of Hemiplegia.—At 1 p.m. that day he had a slight attack of coughing; no whoop was heard, but a convulsion occurred which for some minutes looked serious, then gradually subsided. Soon afterwards it was observed that the lower part of the right side of the face as also the right arm and leg were paralysed. The eyelids were now closed and resisted attempts to open them; the conjunctival reflexes were present; both eyes were turned to the left, and movements did not range beyond the middle line; the pupils were medium and reacted to light. The right angle of the mouth was not employed when the child attempted oral movements. The right arm hung limp and flaccid, the right leg was flexed, abducted, and rotated outwards; the patellar reflexes were with difficulty elicited and differed in no respect. There was hemianaesthesia of the right half of the body, with the exception of the right foot and the upper part of the right half of the face. Later in the day and during the night there were some twelve fits of varying intensity, lasting on an average from two to three minutes. These fits were Jacksonian in character and began with turning, followed by rapid oscillations of the eyes to the right, next twitching about the right angle of the mouth, and ultimately convulsive movements of the whole body. As each attack passed off there was some coughing with expectoration, then the eyes were turned to the left and maintained there. On April 2nd right lateral hemianopsia was noted. The eyelids were now generally kept open. A number of apparently minor fits were observed, affecting only the eyes, which were turned to the right and oscillated rapidly. There were several major fits during the day, and towards evening they became more frequent. Liquid nourishment was well borne, and there were no attacks of vomiting. Ammonium bromide in 1-gr. doses was directed to be given every two hours or oftener if necessary.

After History.—The fits recurred, though with gradually lessening frequency, until April 5th. The temperature was very erratic, at times reaching 103° F., but never for long remaining at that height. The lungs were resonant, and the urine was invariably free from albumen. The diphtheria membrane disappeared three days after admission. On April 4th the child seemed very drowsy and much weaker. The breathing was rapid and shallow and on April 5th was of the Cheyne-Stokes type. The ammonium bromide was discontinued. On April 11th the patient seemed better. The coughing and expectoration were much diminished, but the Cheyne-Stokes breathing persisted. On the following day the paralysis of the right side of the face was no longer evident. The Cheyne-Stokes breathing was present at intervals until April 15th, after which date the child's condition steadily improved. By April 24th the hemianopsia had entirely disappeared; the right arm was at times moved from the elbow joint, the right leg showed no signs of voluntary movement, and on feeding there was no indication of facial paralysis. Sensation had returned in both the right arm and leg; the right half of the trunk was less sensitive than the left. When the child was raised the helpless condition of the right arm and leg was very apparent. On May 3rd, thirty-three days after the onset of the hemiplegia, the child was, at the mother's request, taken home. The right leg now showed signs of returning power. The right arm was capable of voluntary movement only up to the elbow. Anaesthesia had quite disappeared. The parents informed me that prior to this illness the child could talk "words fully," and on the day of discharge he could only utter an inarticulate cry. On the 8th, [illegible] eight days from the date of attack, save for some weakness in the right arm, recovery was complete. The child walked well, and the mother stated the power of speech was better than before the illness.

REMARKS.

That the hemiplegia was the result of intracranial haemorrhage will, I think, be readily admitted. Diphtheria had first been diagnosed six days before the onset of the hemiplegia, so that, even if we make allowance for the diphtheria bacilli having been present for a longer interval, the possibility of toxic hemitis is excluded. Moreover the onset of symptoms of, and recovery from, the paralysis were characteristic of a central and not of a peripheral affection.

Whooping cough had been present for six weeks; during that time the recurrent paroxysms of cough must have exposed the cerebral vessels to considerable strain, which had at length resulted in a rupture with extravasation of blood. The right hemiplegia, hemianaesthesia, and hemianopsia, coupled with the Jacksonian character of the subsequent fits, served to show that the lesion was subdural, and that the blood-clot extended over a considerable portion of the left cerebral hemisphere.

The fate of this haemorrhagic effusion must remain a matter for theoretical speculation. It may have become absorbed, and the fact that the areas which were presumably pressed on by the periphery of the clot recovered first would seem to support this assumption; it may, however, have become encysted, with adaptation of the brain and skull to the presence of this unwelcome host, and thus have led to the ultimate disappearance of the symptoms of compression and irritation. I regret that I was unable to follow up this case further. It is well known that such children may in time become the subjects of epilepsy, or that their intelligence may remain impaired. Although complete idiocy has been recorded, more often there is only defective mental power or backwardness.

LESION OF POST-CENTRAL CONVOLUTION WITHOUT PARALYSIS.

BY C. BIRT, BREVET LIEUTENANT-COLONEL R.A.M.C.,
A.M.S. Laboratory, Pretoria.

IN C. S. Sherrington and A. F. F. Grünbaum's[1] experiments on the brains of the higher apes the electrode placed on the surface of the post-central gyrus failed to elicit movements. Large lesions also in this area caused no paralysis. Purves Stewart[2] stimulated electrically the human cortex behind the fissure of Rolando in the ordinarily assumed position of the leg centre without result. The following case proves that a focus of softening in the ascending parietal convolution is not necessarily associated with monoplegia.

A young man was progressing well, late in the course of a severe attack of enteric fever, when he had a transient epileptiform seizure, the probable date of the onset of the thrombosis. He regained consciousness, and was able to move all his limbs freely. He was observed to feed himself with his right hand. Three days later a sudden recurrence of general convulsions took place, which ended in death after three hours. The brain was removed within two hours of his decease. The veins of the pia mater were blocked on both sides near the fissure of Rolando. The cortex was unaffected, beyond congestion, except in one spot in the left post-central gyrus rather more than 1 cm. in diameter, about 7 cm. from the middle line, in what is usually figured as the arm area. Here the brain substance was blood-stained and very soft, contrasting markedly with the rest of the organ, which was unusually firm. Although the veins on either side were symmetrically plugged, only the group over the focus of softening was surrounded by a zone of ecchymosed pia mater, which thus suggested an earlier date for the thrombosis on the left side. The venous sinuses, veins of Galen, arteries of the base, and iliac veins, were all patent. There was no meningitis. The intestinal ulcers were all but completely repaired.

Eberth's bacillus was recovered from the spleen.

T. Fisher[3] noted swelling of the convolutions beneath the obstructed veins in three of his cases, but this was not obvious in the present instance. Meningeal thrombosis is seldom met with in necropsies of enteric fever. This is the only occasion on which I have found it in 100 necropsies of those who have succumbed to this disease in South Africa.

Eugène Dabout[4] does not appear to mention this complication in his essay on the meningeal forms of enteric fever. It seems probable that it may be the cause of hemiplegic attacks which, with great rarity, may sometimes occur. The case reported by Hödlmoser[5] of recovery after convulsions in this fever might be explained by meningeal thrombosis, since, as Fisher has pointed out, and as the above example would indicate, the veins of the pia mater can be extensively blocked without permanent brain symptoms arising.

REFERENCES.
[1] C. S. Sherrington and A. S. F. Grünbaum, BRITISH MEDICAL JOURNAL, vol. i., 1901, p. [illegible]. [2] Purves Stewart, ibid., vol. ii., 1901, p. 1587. [3] Theodore Fisher, ibid., vol. ii., 1902, p. [illegible], and ii., 1902, p. 34. [4] Dabout, ibid., vol. [illegible]. [5] [illegible] C. Hödlmoser, ibid., vol. i., 1901, [illegible].

ON THE ALLEGED INCREASE OF DISEASES OF THE NERVOUS SYSTEM.

BY JOHN MILSON RHODES, M.D.,
Chairman of the Cheadle and Manchester Asylums Committee; Vice-Chairman of the Lancashire Inebriates Acts Board.

THERE is a popular idea that diseases of the nervous system are increasing, and especially mental diseases; one writer describes the increase of insanity as terrible, and no doubt the rise from 87,000 to 116,000 in the number of certified insane is a very grave question for the ratepayers, and one that requires very serious consideration, both by those responsible for the legislation necessary for the proper treatment of cases of mental disease and also of those responsible for the administration of the law. The general idea is that the increase in the number in the asylums is equivalent to an

equal increase in the ratio of the insane. In the report of the Metropolitan Asylums Board we find the following figures:

Percentage of Cases of Admission to Notification.

Disease.	1890.	1901.
Scarlet fever	42.82	78.80
Diphtheria	1[illegible]	[illegible]
Enteric	29.40	4[illegible]
Typhus	42.86	8[illegible]
Small-pox	[illegible]	97.29

These figures prove that the opinion of the public has undergone a great change in regard to the treating of patients in hospitals. Again, in the sanatoria all over Europe and America there must be thousands of cases of phthisis to-day where there were hundreds twenty years ago, but no one suggests that the number of cases of phthisis has increased; the Registrar-General's returns showing that the ratio of mortality is only two-thirds of what it was twenty years ago are taken as proof of the contrary.

If the public have such an increased amount of confidence in our institutions in regard to infectious diseases, is it not probable that a similar change of opinion has taken place in regard to nervous and mental disease? There was, according to the report of the Registrar-General, an increase in the mortality from diseases of the nervous system between 1866 and 1885 as shown by the following figures:

Mortality per Million.

1866-70	1871-75	[illegible]	[illegible]	[illegible]	1891-5	1896-1900
[illegible]	1715.2	1803.4	[illegible]	[illegible]	1592	1481.4

But it will be noticed that since 1885 there has been a fall, and a reference to the last report of the Registrar-General, showing the new classification, proves that, whereas the annual mortality between 1882 and 1891 varied between 737 and 940, that between 1892 and 1901 was between 694 and 803. The following are the comparative figures for 1891 and 1901:

Disease.	1891.	1901.
Increase:		
General paralysis	[illegible]	[illegible]
Insanity	[illegible]	112
Paraplegia	74	[illegible]
Other diseases of nervous system	[illegible]	14[illegible]
Chorea	5	[illegible]
Decrease:		
Softening of brain	113	66
Meningitis	291	21[illegible]
Epilepsy	[illegible]	88
Laryngismus stridulus	28	14

A glance at the figures at once suggests the question, Has the mortality from softening of the brain fallen by nearly 50 per cent. in ten years, or is there better classification? These figures make it at least questionable if there is any increase in nervous diseases, but many, acknowledging that this may be the case in regard to nervous diseases, insist "on the terrible increase of insanity that is going on."

Before we look at the actual figures it is perhaps as well to point out the change that has taken place in the distribution of the people as regards urban and rural districts; the figures are as follows:

Year.	Rural.	Urban.
1891	7,257,239	21,745,286
1901	7,469,488	25,058,355
Increase	212,249	3,313,069

This exodus from the rural to the urban districts has been going on for many years, but not to the same extent as during the last decade, and this congestion of the towns has resulted in the vast blocks of working-class dwellings which are seen in London, Manchester, Liverpool, and elsewhere. A moment's consideration will show that a lunatic who could quite well be provided for, or, at any rate, tolerated, as they are in some of the country districts of Scotland, Belgium, and the United States, cannot be kept at home in a city on account of the neighbours. Specially is this so in the enormous tenement dwellings of the United States. The Lunacy Commission's return shows that only the councils of Radnor, London, and Wilts have over 4 per 1,000 of pauper lunatics, but amongst the county boroughs Bath had 4.74, Brighton 4.64, Bristol 4.16, Dudley 4.19, Liverpool 4.71, Norwich 4.80, Nottingham 4.50, Southampton 4.04, Stockport 4.49, Hereford 4.49, and Wenlock 4.29. Half these places are towns or cities where a very large number of women are employed in mills. Still the fact faces us that the total number of insane has risen from 53,177 in 1869 to 113,964 in 1903. The rise, as the return shows, does not equally apply to all classes.

	1[illegible]	1903.
In county asylums	26,867	52,009
In metropolitan licensed houses	2,682	1,[illegible]
In registered hospitals and idiot establishments	2,352	4,282
In provincial licensed houses	2,114	1,[illegible]
In naval and military hospitals	269	2[illegible]
In Broadmoor	461	[illegible]
In workhouses, ordinary	11,151	11,264
" metropolitan district asylums		5,240
With relatives or others	7,311	6,[illegible]
Total	53,177	113,[illegible]

The ratio of admissions has risen from 4.71 per 10,000 of population in 1869 to 6.93 in 1903. The rise in the ratio of admissions is practically confined to the pauper class, for private cases have only risen 0.06 since 1889, and the criminal only 0.01.

In looking at the total increase a great many people forget the facts that every case admitted will on the average remain twelve years in the asylum. It is this low recovery-rate that throws such a serious burden on the ratepayers. Any one who will calculate what is the result of a recovery-rate on "admissions" of 38.17 per cent. and a mortality of 9.69 per cent. will be surprised at the rapidity with which the number under treatment accumulates.

The number of certified insane has increased enormously, and it is our duty to see what are the causes that throw this heavy burden upon the peoples of all civilized countries.

One of the most potent is the changed and changing conditions under which we live. No cause that I know of has a more powerful effect than that of the crowding of the population into the towns; with that crowding has come an increase of rents that makes housing a serious matter to the working classes. This no doubt is one of the causes, the serious effects of which are even better seen in the United States than here. The State Board of Massachusetts in a recent report gave a prominent position to this cause, and said that

> Home cure of the insane is the most difficult of any class of dependents because they are most likely to disturb and interfere with the rights and comforts of neighbours: but the burden of dependence in general tends to become more onerous on account of the natural increase in density of population and the more frequent migration from small to large centres. Such burden is more easily borne in country districts, where living is cheaper, separation of neighbours wider, interference more avoidable, and tolerance of eccentricities of conduct greater than in cities or large towns.

In the enormous blocks of tenement dwellings such as exist in London, Manchester, New York, Chicago, and Berlin, this cause is no doubt acting powerfully.

Another cause is the fact that year by year a larger number of women are found in the working classes, so leaving in many cases no one free to look after the lunatic at home. Still more powerful as a cause is the confidence that the public now have in the humane treatment of the cases in the mental hospitals of England; probably this feeling of confidence in institutions has been greatly increased by the general use made of hospitals for infectious diseases, with the result that the stigma of pauperism that used to be almost invariably associated with the asylum has to a very great extent disappeared, and they are now looked upon as what they really are—State hospitals for mental diseases, in which all suffering from such diseases have a right to treatment. In my opinion the State Board of Insanity of Massachusetts, U.S., very fairly stated the case when they came to the conclusion:

1. That the increase of registered insane does not necessarily imply an increase of incurring insanity out of proportion to the growth of population.
2. That the rate of increase of incurring insanity is certainly much less than the apparent increase of the insane.
3. That there is a marked and growing tendency to commit all classes

of the insane to institutions, especially in the case of old people, of the feeble-minded, and criminals.

In my opinion, it is for the benefit of the State that the mentally unfit should be taken care of, so that the multiplication of the unfit may as far as possible be prevented.

A CASE OF PROPERITONEAL HERNIA.*

By H. BETHAM ROBINSON, M.S.Lond.,

Surgeon to Out-patients, Surgeon for Diseases of the Throat, and Lecturer on Practical Surgery, St. Thomas' Hospital; Surgeon to the East London Hospital for Children, Shadwell.

In vol. lxxxii of this Society's *Transactions* my colleague, Mr. G. H. Makins, has recorded a case of prevesical hernia, and in the differentiation of that particular form reference is made to a somewhat allied condition, properitoneal hernia.

It is now my privilege to bring before you a typical case of this rather rare variety, which contrasts well with Mr. Makins's. The following are the details of my case:

History.

S. W., aged 54, a waterside labourer, was admitted into St. Thomas's Hospital on January 25th, 1904, under the care of my colleague, Dr. Acland. Of his previous history there is little to say beyond the fact that a left inguinal hernia had been present for many years, for which a truss had been worn, whether it was strictly "congenital"—that is, existed from birth—could not be stated. The hernia apparently had been kept up by the truss, and there had never previously been any trouble.

Until January 24th the bowels had been quite regular; on January 24th there had been no action, and on January 25th a very small motion was passed. From this time there had been no further passage of faeces or of flatus. The same morning he was sick for the first time, and continued being so, vomiting eight times during the day, the vomit gradually becoming darker and offensive. On January 26th sickness was almost constant, and was now accompanied by severe abdominal pain. He was brought up to the hospital in the evening and admitted.

Condition on Admission.

Examination showed his abdomen to be greatly distended, but moving with respiration. The abdominal wall was fairly flaccid, and there was no definite tenderness anywhere. The percussion note was tympanitic, the liver dullness being partially encroached on by the distended intestines. There was no dullness in the flanks. Nothing abnormal could be felt per rectum. Both inguinal canals were free of any hernial protrusion, and "both testes were normally placed." The tongue was furred and moist. The pulse was [illegible] and regular without much tension, and the temperature was [illegible]. Two enemata were given with very scanty result. As the patient was evidently suffering from intestinal obstruction, I was asked to see him and decided on immediate operation.

[illegible] After the administration of chloroform further palpation of the belly showed [illegible] resistance on deep pressure just above the pubes on the left side, but this had no ascertainable connexion with the [illegible] which seemed quite empty, although not abnormally so. A central [illegible] in length was made in the median line between the [illegible]. A coil of small gut and [illegible] were found entering through a small opening into a pouch situated behind the [illegible] wall on the side of the bladder. As the edge of the opening constricted tightly the contents of the sac, it was thought [illegible] to be well drawn [illegible] the edge into the cavity by the side of the [illegible] in front of the external [illegible] as the normal [illegible] present corrected this [illegible] to the usual way from the [illegible] was followed right up to the [illegible] In the opening itself, and [illegible] Everything [illegible] behind [illegible] the [illegible] the [illegible] the

B. *Second or deep sac behind the transversalis fascia.*

To this group belong the following:

(*a*) Properitoneal hernia of Kronlein, with which this paper chiefly deals.

(*b*) Prevesical hernia, hernia inguinalis antevesicalis of Parise.

The essentials which determine a properitoneal hernia, which may be either inguinal or crural, are the presence of a second deep sac behind the transversalis fascia through which the more superficial one in the inguinal region makes its communication with the peritoneal cavity.

As to the origin of this hernia, Kronlein has laid particular stress upon its relationship with imperfect descent of the testis. In his statistics of 23 cases, 22 occurred in men and 1 in a woman: of these, 13 were on the right side. Of the whole, 15 were definitely congenital, and 9 of these, again, had defective descent of the testis.

Imperfect descent of the testis, which is very likely to be present, especially when the hernia is on the right side, is associated with errors in closure of the processus vaginalis. Whether the testis is normally descended, imperfectly so, or not at all, non-obliteration of the processus vaginalis, especially in the vicinity of the internal ring, is a very potent factor in the production of this form of hernia; by the attempted shutting off at the internal ring there is formed a small rigid opening, oval or rounded in shape.

It is a well-known fact that delay in closure of the processus vaginalis and imperfect descent of the testis are much more frequent on the right side for developmental reasons. Statistics drawn from cases of hernia (only selecting those where want of proper closure of the processus vaginalis was definitely the case) prove how much more often they are on the right side, and Kronlein's statistics of properitoneal cases gave 13 out of the 23 on the right side.

Between the posterior surface of the transversalis fascia and the parietal peritoneum at the site of the internal ring there is an appreciable portion of the processus vaginalis surrounded by loose subperitoneal tissue. If this last and the contracted orifice between it and the peritoneal cavity contribute to the formation of this hernia, the question arises how do the bilocular sacs develop?

One view put forward is that the intra-abdominal (properitoneal) sac is the first to form from the distension of the intra-abdominal part of the processus vaginalis, free to do so in its loose bed of subperitoneal connective tissue. This distension, moreover, is facilitated by the resistance offered by the abdominal muscles to the dilatation of that part of the process in the inguinal canal. If this be the case, this resistance must be eventually overcome to allow of its dilatation later to form the second sac. A factor which would come into play here is a limit to the possible distension of this intra-abdominal sac. In favour of this statement is the view put forward by Macewen that in some cases of hydrocele *en bissac* the intra-abdominal sac does form first owing to the presence of adhesions in the upper part of the funicular process; next from some sudden strain these give way, and fluid goes down to distend the patent process below, either collecting in the scrotum if the tunica vaginalis is not shut off, or, if so, reaching to the scrotum and dilating the lower part of the funicular process.

Another view taken is that one originally put forward by Streubel. He maintained that there is a hernia passing down towards the scrotum first and the properitoneal sac develops afterwards. What commences to this formation is (1) the constricted opening at the inner ring hinders the return of the contents of the sac into the peritoneal cavity (2) the reduction of these contents, especially if pushed back roughly by the patient or crowded back by a badly-fitting truss, causes the peritoneum to be loosened about the inner ring and to be pushed backwards; the hernial contents then distend laterally the peritoneum in the subperitoneal tissue and thus form a properitoneal sac. The value of this small inner opening as a causative factor is shown by the large preponderance of the cases showing defective closure of the processus vaginalis. In an acquired hernia, where the sac is formed by a pouching of the parietal peritoneum opposite the inner ring, there is always a somewhat definite proportion between the size of the opening and the extent of the sac; hindrance to the return of the sac contents is not nearly so likely from this cause. In any hernia of the congenital type there is marked disproportion between the size of the opening and the size of the sac. The opening is rigid and sharp, due to a continued attempt from earliest days to effect a closure between the general peritoneal cavity and the sac. This is the condition which is most likely to cause acute strangulation, and in these cases it is recognized how very difficult it is to effect reduction.

Tessier's opinion was that there was a reduction *en masse* of sac and contents behind the transversalis fascia and secondary pouching again into the inguinal canal; this origin is also maintained by Gosselin.

Linhart and Bär drew attention to diverticula described by Rokitansky in the neighbourhood of the inguinal and crural openings. When these have reached some size they tend to pouch through the canals and form a second sac. This is the explanation that Bär gives for his "*hernie en bissac*," and Moynihan in his "Arris and Gale" lectures rather inclined to the view that these diverticula did play some part in the development of this hernia.

Several other rather far-fetched opinions have been offered on this matter, but, to sum up, nothing more definite can be said than that in the majority there appears to have been defective closure of the processus vaginalis, and in a large proportion of those there is imperfect descent of the testis.

In this patient the testis had descended into the scrotum, but we may assume that the sac was a congenital one, as it was surrounded by the elements of the cord, a common feature in these cases and most unusual in an acquired hernia.

The diagnosis in this case appeared to be an acute obstruction of not more than forty-eight hours' duration, without any very evident explanation. It is true that he was the subject of hernia which had never given him any bother in its reduction and that there was some indefinite increased resistance under chloroform behind the inner part of the os pubis, but his canal and rings were not abnormally empty, such as occurs in reduction *en masse* of the sac and contents. No doubt if his condition had not been so urgent and there had been more time to fully consider his case, we might have suspected the possibility of a properitoneal hernia. Pressure on the swelling did not, however, cause any hernial tumour in the canal. There was no puffiness of the cord about the external ring on which Richter has commented, and, as before stated, no tumour could be felt per rectum.

In a properitoneal hernia the site of strangulation may be at the inner opening into the peritoneal cavity, or at the junction of the two sacs. In this case, from the small size of the opening and the marks on the bowel from the sharp constriction of the ring, with the general condition of the bowel, there could be no doubt where the strangulation had occurred. Certainly a small amount of the lumen of the bowel which bulged into the common opening between the sacs, suggesting a Richter's hernia, was a little darker than the rest, but I think was accidental; before his acute symptoms there had been no diarrhoea, which is likely to occur. Although his obstruction was acute, the thickened and dilated bowel above the site of nipping suggested that there had been previously interference with its proper movements, in spite of no direct history supporting this.

Examination of the specimen shows the anatomical features of such a hernia very distinctly. The sac is an extensive one, and its close approximation to the bladder will be appreciated. On reference to the case of prevesical hernia described in the *Transactions* by Mr. Makins, and to those recorded by Parise, it will be seen that the differences are very great.

The only other point of note is the presence of a small diverticulum to the inner side of the sac agreeing with those described by Rokitansky, and upon which Bär has laid stress as a factor in the causation of this form of hernia.

REFERENCE

[illegible]

The Chicago Pasteur Institute.—The Director of the Pasteur Institute, Chicago, reports that 2,026 patients have been treated since the opening of the Institute on July 2nd, 1890. Of these, 1,357 had been bitten by dogs, 70 by horses, 57 by cats, 16 by dogs, 18 by skunks, 25 by other animals, while 22 are said to have been infected by human sufferers from hydrophobia. The number of persons bitten by animals positively known to have been rabid who were treated was 1,055; 776 persons bitten by animals presumed to have been rabid because of symptoms of disease during life were treated, while 295 cases were cared for in which rabies was suspected. The number of deaths was 7, a mortality of 0.34 per cent. The treatment was discontinued by six persons, of whom two subsequently died of hydrophobia.

ABSTRACT OF A REPORT UPON A RECENT OUTBREAK OF ILLNESS DUE TO MILK.

BY HENRY KENWOOD, M.D., D.P.H.,
Medical Officer of Health, Finchley District; Professor of Hygiene, University College, London.

ON January 18th last I was informed of an outbreak of illness among the residents in North Finchley, Whetstone, and West Finchley. From the 10th to the 20th quite 100 cases of illness had come before the notice of the local medical practitioners. The outbreak continued for a fortnight, and there does not appear to be any clear evidence of fresh infection subsequent to January 30th. During this period some 500 persons were affected in the Finchley district, and, so far as I can gather, probably another 50 in the outlying districts of Hornsey, Friern Barnet, and Mill Hill. The main incidence of the illness fell upon the districts of North Finchley and Whetstone, and its characters were as follows:

Symptoms.

After the incubation period, which appears to be commonly twenty-four hours, but occasionally forty-eight, the sufferer complains of enlargement and tenderness of the submaxillary glands, together with a soreness of throat and marked *malaise*. Some of the cases have been comparatively mild, others have been very severe, but no death has resulted. One marked characteristic of the complaint is the frequency with which the tonsils have been inflamed and enlarged, and in the worst cases the patient's temperature has invariably been high, in some cases reaching nearly 104°. From each sufferer there has been much complaint of feeling weak and ill. In one or two patients the tonsils have suppurated, and in some cases the posterior cervical and supraclavicular glands have also been enlarged. The complications which have been most frequent have been gland abscesses, cellulitis and neuralgia; and it has been repeatedly observed by medical practitioners that after apparent improvement in the patient's condition there has been a recrudescence of fever and gland enlargement. In a few cases a measly eruption on the lower limbs has been observed.

As the result of my inquiries I quickly came to the conclusion that milk was the agency by which the bulk, at any rate, of the infection, was being disseminated. I think, however, that there were isolated cases which were very justly attributed by their medical attendants to influenza. In a few cases the condition was nothing more than a simple sore throat, and in one or two instances it was certainly impossible to distinguish the condition from mumps. I do not intend to imply necessarily that there was specific cynanche parotidea in these cases, but there was certainly swelling of the facial extension of the parotid gland in one or more of them. It should also be noted that a few similar cases of sore throat were to my knowledge existent in Stoke Newington at the same time, and as a matter of fact one of my inspectors in that borough was confined to the house on that account.

In dealing with the number of cases it is not necessary to divide them into primary and secondary cases for the purpose of arriving at an estimate of the magnitude of the actual milkborne infection, because, although personal infection from case to case undoubtedly has occurred, the condition cannot be regarded as very infectious.

Nature of the Infection.

The nature of the infection in the milk is an extremely difficult thing to determine. There can be very little doubt that it is due to a living organism, but the circumstance that cases were reported to me in which the infection took place after the milk had been boiled appears to indicate that the products of the organism were also capable of producing the condition. It would appear that weather conditions of various sorts play some part in determining the onset of these outbreaks. I know of no record of any such outbreak which did not begin in the autumn or winter of the year. During the recent Finchley outbreak the daily ranges of temperature were excessive, and varied from 6° to 17°. The atmosphere was frequently almost if not quite saturated with moisture, and frequent drizzly rains and mists prevailed. On the other hand, on January 5th and 18th, when many of the last cases were infected, the weather was bright and fine. The weather at the time of the outbreak was very favourable to chills and sore throats, but it does not, of course, afford any sufficient explanation of the fact that the cases were, in the first place, mainly restricted to Finchley, and, in the second place, that they occurred almost exclusively amongst the customers of a particular milk supply.

In these milk outbreaks there are always a few cases occurring in households which are not supplied by the recognized infected supply. This circumstance does not necessarily prove that more than the one supply is affected; for the other cases can be accounted for by the practice amongst milkmen to borrow or purchase milk of each other on their rounds, by the householders themselves buying extra milk occasionally in the mornings, by the fact that the disease is doubtless communicable from individual to individual, and by the circumstance that there are usually at the same time cases of ordinary sore throat not due to milk (but most of which are ascribed to milk), during the prevalence of such an epidemic.

Measures taken to Trace and Prevent Infection.

The measures taken to trace the source of the infection and to deal with the danger may be classified as follows:

1. As the result of a veterinary examination of every cow supplying milk to the infected supply the veterinary expert reported that all the animals were in a condition of perfect health with the exception of two cows which had contracted a chill, the chill had affected their udders, causing their milk to become curdled, and that probably these animals had been in this condition for several days prior to his inspection on January 28th. Both these cows were at once removed from the herd.

2. The results of the bacteriological examination of numerous samples of the milk at University College were, on the whole, of a negative character, that is to say, although the samples came from different and often widely distant sources, a careful examination failed to find evidence of any micro-organism in any one sample which was not common to the other samples.

3. I satisfied myself that the employés of the infected supply had not been spreading the complaint by reason of any one of them suffering from a bad sore throat at the period when the outbreak occurred.

4. Lastly, with reference to the precautions taken for the safe storage and delivery of the milk, I find that these were quite satisfactory, indeed, they are in many repects exceptional as to care and stringency.

In my opinion the outbreak was in all probability due to the two cows which were suffering from an obscure condition of ill-health towards the middle of January. Although the evidence of the cows' ill-health was not manifest at the time, and although doubtless their milk would have been collected and distributed by any milk vendor, yet slight as the symptoms were the milk yielded by these two animals contained the material which was responsible for the outbreak. These outbreaks are very regrettable, and in my opinion nothing short of a veterinary inspection of the cows, undertaken at very short intervals, more especially through the autumn and winter months, will prevent them; and it is a singular circumstance that since I have been Medical Officer of Health for the Finchley district the only two such outbreaks which have been experienced have been in connexion with the milk supply of two large companies who doubtless take exceptional precautions to guard the health interest of their customers.

I should like to make a brief reference to the last Finchley outbreak. This occurred early in November, 1894; the only source of infection which could be traced then was three cows which were evidently out of health with slightly ulcerated teats, and one of the cows had an inflammatory condition of the udder. I ascertained in that case that the supply involved was distributed to 17 per cent. of the total houses in Church End, but of the number of houses infected it supplied 94 per cent. The conclusions which I then arrived at (ten years ago) are similar to those which force themselves upon me as the result of my investigation of the recent outbreak. The conclusions which I then came to were: That the outbreak was favoured by the excessive rainfall and variable temperature of the preceding fortnight, upon a cold, damp soil, at a season of the year when throat trouble is generally markedly in evidence. Under these favourable conditions a mild infection, probably conveyed in milk, was sufficient to give rise to throat illness beyond its usual type and amount and to give it the property of infectiousness. I therefore recommended the residents in the district, by means of printed posters, to boil all milk during the ensuing fortnight, and in the meantime steps were taken to ensure that the affected cows were adequately dealt with, when the epidemic ended as suddenly as it commenced.

I was called to account in some directions for not acquainting residents of the particular milk supply concerned in the outbreak. I purposely maintained a reticence upon this

point for the reason that I could not see what good could result, and it was so easy to see the many directions in which harm might be worked; for it is a general practice among milk vendors, if they run short of milk, to buy of other vendors en route, so that if one supply should be infected and named there is no guarantee that others which would be assumed to be safe are so. All dairy supplies are liable some, it is true, more than others to such a visitation of disease: the supply in question is, in my opinion, an exceptionally good one, and unless there is some very tangible advantage to be gained, one hesitates to take a step that might mean a heavy financial loss to persons who take the same precautions as others, but who are less fortunate. It was therefore judged safer and better in the interests of all to simply advise that all milk should be boiled.

There is a further lesson that the outbreak teaches us: An epidemic occurs, we find unhealthy cows, and from other very positive evidence we condemn the milk as the source of the infection, and after many people have been exposed to suffering, if not death, we are able to take measures that stamp out the disease. This is not as things should be. We should take the necessary steps to prevent the epidemic. To my mind, a thorough and systematic inspection of all cows in each district at regular and short intervals should be undertaken, and to that end a veterinary expert should be appointed by several sanitary authorities in combination. It is a monstrous thing that with these milk epidemics cropping up nothing whatever is done to prevent their recurrence, and that the whole of our action is based upon the lines of preventing the spread of the outbreak after it has already worked a vast amount of harm, when it is an easy matter to proceed upon those lines of true prevention that would aim at removing the possibility of future outbreak. I am aware that it falls within the duty of the sanitary inspector and myself to keep ourselves acquainted with the sanitary condition of the dairies and cowsheds of the district. All that we had recently done before the outbreak occurred, but what is even of greater importance is that some one acting under the local authority and possessing a good knowledge of the diseases of cows should inspect the animals at short intervals of time and not omit to draw some milk from their udders. In the absence of such a preventive measure our only alternative is to stand by with folded arms and await the next epidemic.

I have only one further point to make; it affects the large dairy companies; and the company concerned in the recent outbreak has favourably received my recommendation. It is the general practice to mix together the milk from several different farms before it is distributed, and hence the milk from one farm being infected may infect the whole of the remainder. This fact is not only responsible for an outbreak being distributed over a wide area, but it complicates the work and expense of tracing the source of the infection. It would therefore be a valuable step if in the case of large surplies the milk from different farms were not mixed, and the small area of supply of the milk for each separate farm were carefully recorded. I recognize that there are difficulties in carrying out this recommendation in its entirety, but a partial application would be very advantageous.

It must be confessed that the real cause of these outbreaks is wrapped in considerable obscurity. If a condition of the cow is really the cause, then the main symptom of that disease appears to be mammitis. I do not believe that ordinary mammitis can give rise to such outbreaks, but it is conceivable that if out of a herd of cows several of them may be suffering from the condition at the same time, the large numbers of pyogenic organisms present might be capable of producing the condition. In addition to the inspection of the cows at frequent intervals (or if that valuable measure cannot be put into operation, then in default of it), it would be a great gain if the recommendation of the Royal Commission on Tuberculosis were given legal expression to. I refer to the recommendation that notification of every disease in the udder should be made compulsory (under penalty) on the owners of all cows.

Antirabic Treatment in Havana.—A report by Dr. Enrique Acosta, published in the *Cronica Medico-Quirurgica* of Havana for September, 1903, states that since the establishment of the laboratory maintained by that journal in 1887 to the end of 1902, the total number of cases treated was 1,227. Among these there were in all 17 deaths, a mortality of 1.38 per cent. The highest percentage of mortality in any one year was 4.34 in 115 patients inoculated in 1891, the lowest 1.29 in 154 in 1890.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

THE DANGER OF SUPRARENAL TREATMENT IN HAEMOPTYSIS.

From time to time cases of haemoptysis are reported as benefited by the administration of one or other of the many medicinal products obtained from the adrenals. This is, in my opinion, a dangerous proceeding, and I beg to cite the following case:

A man, 36 years of age, a heavy drinker, had suffered from two previous haemorrhages from his lungs, two years having elapsed since the last. He had lost a pint of blood before I saw him, and it was coming up freely. I at once gave by the mouth ♏xv adrenalin chloride solution 1 in 1,000 (Parke, Davis and Co.) in a little water, and ordered ♏ijss suprarenal liquid (Parke, Davis and Co.) with potassium bromide and tolu syrup every hour, and four hours later gave ♏v every hour and a-half; the bleeding ceased in six hours. Next day the pulse, which previously was rapid, soft, and slightly irregular, had become regular, 72 to the minute, and gave to the finger a distinct impression of high tension, wiry and not easily compressible; so I only prescribed the mixture every three hours. On the third day the pulse was still harder, 80 to the minute; at 4 p.m. a smart haemorrhage took place to the extent of half a pint. I now changed the mixture, giving adrenalin chloride solution, 1 in 1,000 (Parke, Davis and Co.) ♏j every two hours in combination with iron. The fourth day again there was bleeding, so I discontinued suprarenal treatment altogether. With the exception of about 1 oz. of blood on the two succeeding days the man made an uninterrupted recovery, and is better now, four months after the haemoptysis, than he has been for years.

In this case as soon as the suprarenal treatment was abandoned the pulse became soft and bleeding ceased.

Dr. W. E Dixon, of Cambridge, in an address delivered before the Therapeutical Society on December 22nd, 1903, showed as the result of experiment that adrenalin, the physiological active principle of the suprarenal gland, not only failed to produce contraction of the pulmonary vessels, but caused decided dilatation. Now, it is surely evident that on the general rise of arterial tension—for such does take place clinically if not experimentally, if these substances be administered by the mouth when the blood pressure is falling—the pulmonary vessels not responding are bound to dilate, and then we must anticipate danger. The conditions in haematemesis, where I have found adrenalin chloride solution (Parke, Davis and Co.), of the greatest value are entirely different; here we have the remedy brought in the first place directly in contact with the bleeding surface and dilated vessels, therefore its power is expended on the local effort, contraction takes place, without any marked systemic result such as a general rise of blood pressure. I feel certain that in cases of haemoptysis suprarenal treatment should be withheld, unless the questionable procedure of spraying a solution of one of the adrenal products from an atomizer be tried as an occasional inhalation.

Shooters Hill, S.E. J. Gray Duncanson, M.B., C.M.

ERYTHEMA SCARLATINIFORME (INFLUENZAL).

I have recently had a number of cases characterized by slight fever, sore throat, and painful glands in neck, and accompanied by a scarlatiniform rash, both in children and adults, during the influenza epidemic which has lately visited this district. Some of the cases caused me much anxiety as to whether I should notify them as scarlet fever or not, and I can conceive that a young practitioner might have had his future career very much damaged by forthwith notifying such cases as scarlet fever, as the hospital authorities are not very tactful or considerate when returning them to their homes. More than one case I could not have been positive about in the first instance had I not known the history. As your space is very precious I will only burden it with the history of one case:

M. B., aged 11. I saw her on Monday, December 7th. The mother stated that on the preceding Friday she was cold and shivering. On the Sunday she complained of sore throat, tenderness beneath the angle of the jaw and back of neck, and in the afternoon a rash appeared on the face, chest, and limbs. When I saw her on Monday afternoon she was the colour of a boiled lobster all over. The tonsils were con-

gested the glands in the neck swollen and tender, and she complained of aching all over. The temperature was 100°, the tongue was yellow, smell and taste were deficient. The tongue, taste, and smell were the only symptoms that did not point to scarlet fever, but these would hardly be enough to base a positive diagnosis on. As there were a few cases in the family and in the house a diagnosis might have had serious issues. The history, however, enabled me to give a positive opinion. In April last I had sent her to hospital with scarlet fever and she had been away eleven weeks. Having caught diphtheria during her stay in hospital and had rather a severe attack. In three days she was quite well and had only a little bronchial desquamation and then her mother got diphtheria, but without a rash.

Cases like this, and I could quote about a dozen recent ones, give us several practitioners many hours of worry and anxious thought, but I presume that until some definite sign or symptom is laid down as pathognomonic of scarlet fever we must run our risks of being pronounced should a doubtful case turn out to be scarlet fever, or lose caste with the friends should a case be notified and returned after a week as not fever.

Lewis Hamilton, M.D., C.I.

RETENTION OF RUBBER CATHETER AFTER EXTERNAL URETHROTOMY.

In the British Medical Journal of November 28th, 1903, Mr. Whitehead describes a very interesting and ingenious method of retaining a rubber catheter after external urethrotomy. The following is another method of retaining a catheter after this operation.

Having passed the rubber catheter so that the end shall be just inside the bladder, the perineal wound is sutured in the following way. The first suture is passed deeply so that it shall pass through the urethra and the catheter at the posterior part of the exposed urethra. This is then tied externally in the usual way. The whole of the skin wound is then sewn up, all the sutures being of silkworm gut. At the end of seven or eight days, the wound being then healed, the catheter is withdrawn after dividing and removing the deep suture. Rubber bougies are passed straight away, followed in a few days by the metal ones, the perineum being at first supported by the hand during each operation. As yet I have only followed this method in one case, which was quite successful, but I am unable to give the after-history of the case.

The advantages of this method of retaining a catheter over that of Mr. Whitehead's are, I think, (1) that it is more simple; (2) that the wound cannot become healed by first intention, thus its less contracted tissue formed, and therefore less liability to subsequent contraction; (3) that no special instrument is required; and (4) that the patient is about again in a much shorter time.

Hugh A. Macon, M.R.C.S., L.R.C.P.

THE ADMINISTRATION OF ETHYL CHLORIDE.

In a communication in your issue of December 26th, 1903, I described a method of using ethyl chloride with especial reference to the use which might be made of it in dentistry, and since then I have used ethyl chloride in a number of cases.

I feel that the method I have adopted may be used to this end in a simple and convenient fashion in that it can be employed by one person with other.

The apparatus is as follows. The apparatus having been filled with ethyl chloride, the inhaler is set at the required distance from the mouth and nostrils of the patient, and the anæsthetic is administered. As soon as the patient is unconscious the ethyl chloride is turned from the other direction, and the inhaler is closed with the finger and the administration proceeded with.

Compared with the ether method of administration, the ethyl chloride method is certainly more difficult, and requires more practice, but it has many points in its favour. The anæsthesia is induced in a very short time, and the patient may be rendered as generally insensible as is required by a small quantity of the anæsthetic, and less than that which is necessary to produce the same effect by the ether method. The patient is very much quicker in coming round, and the very unpleasant nausea of the ether method is avoided. It is well to ascertain previously and mark the point on the scale at which the glass tube begins to vibrate through the expansion chamber, as its position varies in different patterns of inhalers.

The glass measure should be rapidly filled from an ethyl chloride tube of which the nozzle has a coarse bore, and the loss by evaporation during the whole of the proceedings described will be negligible. Thus, 1 drachm of ethyl chloride contained in a small glass measure and exposed in a dwelling room lost only 5 minims by evaporation in ten minutes, and an element of leisure is thus introduced into the proceedings which is certainly wanting when direct use is made of the spray.

The fluid evaporates more rapidly when introduced into the inhaler on account of the larger surface exposed, but a proportion of it still remains in a liquid state until it is volatilized by the heat of the breath; but possibly in very hot weather it may be found advisable to cool the interior of the inhaler by a short initial application of the spray.

This mode of giving the anæsthetic is not only acceptable to the patient, but is so convenient and effective that I feel sure it will commend itself to others.

Since writing the above I have further modified the method by employing a graduated glass tube cemented into a vulcanite stopper. After filling with ethyl chloride the combined tube and stopper is fitted into the inhaler in a dependent position whilst the index hand points to 0. In the act of applying the facepiece to the face the tube will be inverted and the inhaler thus charged. The administration can then be proceeded with, as above described. Messrs. Bush and Co. have made for me a satisfactory stopper of this kind.

London, W. A. G. Levy.

A CASE OF CEREBRAL ABSCESS WITH UNUSUAL COMPLICATIONS.

On April 1st, Mrs. R., aged 25, became feverish and had a miscarriage. The placenta, which was fetid, was removed by hand, and the uterus was douched out. For eight days afterwards the temperature was normal and the patient seemed well in every way. But on April 10th symptoms of pelvic inflammation set in. An abscess formed and on April 18th opened per rectum, discharging a large quantity of fetid pus. In about a week the discharge from the rectum ceased, acute pelvic symptoms disappeared and the temperature, which had been high before the abscess opened and had fallen gradually afterwards, became normal. The patient then began to complain of frequent attacks of facial neuralgia and gradually left off reading as light hurt her eyes (her eyes always had been weak); the temperature became subnormal and the pulse slow. The neuralgia was intermittent and came on in very severe spasms; it affected the left side of the face more than the right, but the worst pain seemed to be along both eyebrows.

On April 28th I first noticed an unpleasant smell coming from the left ear, and was informed that this was an old trouble. For the past five days the temperature had been almost constantly subnormal and the pulse slow, usually 60. There was now marked photophobia. Various remedies had been tried, but had little effect on the neuralgia, the spasms of which now seemed more frequent and more severe and were accompanied by profuse sweating. Suspecting cerebral abscess I had a consultation with a colleague, but he looked on the case as one of severe neuralgia.

Four days later, May 3rd, the patient suddenly lost consciousness, but soon recovered, and when I arrived she was quite sensible, but stammered when answering questions. There was now some ptosis of the left eyelid. None of the limbs were paralysed, but there was an increased knee-jerk on the right side. Later in the day the stammer disappeared. We could not see any optic neuritis. The pupils were equal. But we had no doubt now of the presence of a cerebral abscess, probably temporo-sphenoidal.

On the following morning, May 4th, we operated. I trephined the cranium 1½ in. behind and ½ in. above the centre of the left bony meatus. The dura mater bulged into the opening, but showed no pulsation. After the membranes were incised, the brain showed very faint pulsations, and was very firm to the touch. We explored the brain in various directions, but more especially downwards, forwards, and towards the front with a large hypodermic needle, then with a blunt-end cannula, and finally with sinus forceps, with negative results. Subsequently, after putting in a drainage-tube, we closed the wound. The patient died two hours later.

Post mortem. On the left side of the brain a large abscess

was discovered. It extended from the occipital lobe, where it appeared to have originated, into the temporo-sphenoidal lobe. It contained about 3 oz. of thick, fetid pus, and in the occipital lobe, some gangrenous brain tissue. The trephine opening was over the front part of the abscess cavity. Most of our punctures seemed to have been below or in front of the abscess. Sinus forceps passed backwards and inwards from the trephine opening could scarcely have failed to have opened the abscess.

Wellington, New Zealand. William Young, M.D., F.R.C.S.E.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE, IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DONCASTER GENERAL INFIRMARY.

A CASE OF RIGHT DUODENAL HERNIA.

(By E. W. Selby, M.D., B.S., F.R.C.S., Honorary Surgeon to the Infirmary).

On opening the abdomen in the following case of acute intestinal obstruction, I was at first puzzled to find, after the peritoneal cavity was entered, that the intestines on the right side of the abdomen were still covered by a layer of peritoneum, through which they could be seen, and beneath which the coils of bowel moved freely about. Further investigation revealed that the greater part of the small intestine was contained in a peritoneal sac, and that the case was one of "internal hernia" of some kind or other. At the necropsy I was able to define more exactly the extent and relations of the sac.

History.—A man, aged 45, was suddenly seized, while asleep, with severe pain across the middle of the abdomen at 1 p.m. on October 9th, one hour after dinner. This was followed in a few minutes by vomiting. The pain continued; he vomited everything he took, and there was no action of the bowels except a few hard lumps brought away by injections. The bowels had acted freely on the morning of October 14th. On October 22nd. [illegible] were given without result. The vomit became faecal on October 23rd, and he was sent to the Doncaster Infirmary. He said he had had two previous attacks of a similar kind, but less severe, one twenty years ago, the other nine years ago.

State on Admission. [illegible] his temperature was [illegible]. The pulse was [illegible] impossible. The tongue was rather dry and brown. There [illegible] pain. The abdomen was generally distended, [illegible] with respiration. It was dull in the right iliac region [illegible] tympanitic, the dullness unaffected by change of position. There was tenderness over the dull area. The liver dullness was much diminished, possibly from its being pushed up by the bowel.

Diagnosis. Acute obstruction, probably by a band.

Operation. At 11 p.m. on October 23rd, under ether. On opening the abdomen a large peritoneal sac was found occupying the right half of the abdomen. The caecum was empty and contracted, coils of distended and deeply congested small intestine were [illegible] outside the sac on the left side of the abdomen. The [illegible] of the sac was found just to the right of the middle line, a [illegible] hung downwards and to the left; its size was about [illegible] by 4 in. The free anterior margin of the orifice was thick and rounded and contained vessels. A coil of small intestine emerging from the lower part of the orifice was sharply bent over and constricted by the anterior edge of the orifice, and adherent to the sac. The [illegible] opening into the sac was divided between two [illegible] and a considerable length of small gut drawn out. Adhesions were found [illegible] upper part of the sac. The sac was then freely [illegible] part of it cut away. One or two of the [illegible] were of a deep claret colour. The peritoneal [illegible] was shiny but rather sticky. There was no fluid in the abdomen. The operation lasted three quarters of an hour.

Result. The patient never rallied, and died at 8 p.m. on October 24th, twenty hours after operation.

Necropsy. Seventeen hours after death the abdomen alone was examined. The seat of the opening into sac was on the posterior abdominal wall just below and to the right of the duodeno-jejunal flexure. A few coils of the upper [illegible] were adherent to the inner surface of the upper part of the [illegible] was adherent to the outer surface of the sac above. The seat of constriction was in the small intestine, [illegible] The gut was adherent to the edge of the [illegible] and for an inch or so above. The lumen of the ileum was considerably narrowed at the point of constriction. The ileum below this and the whole of the colon were empty and contracted. The ascending colon was pushed to the right by the sac, and the caecum dragged upwards, so that the vermiform appendix appeared to spring from its anterior surface. Two well-marked bands passed from the back of the caecum to the posterior parietal peritoneum, with a fossa between them admitting two fingers for about an inch.

Remarks. The case appears to have been one of right duodenal hernia. Presumably the whole of the small intestine, except the last 8 in. of the ileum, had been in the sac, but some coils of the middle portion had escaped, the upper part of the jejunum and the lowest part of the ileum involved being held within the sac by adhesions. The hernia had obviously been in existence some time, the adhesions mentioned being firm and fibrous. The ileum had evidently been constricted for some time at the point of emergence from the sac. In this connexion the history of previous attacks of abdominal pain and vomiting is interesting. It is possible that the hernia was congenital. What determined the final complete obstruction is not quite clear. The obstruction was relieved by the operation, but the case had been allowed to go on too long before surgical help was sought to permit much hope of recovery.

Remarks by Mr. Moynihan.—Dr. Selby has been kind enough to forward me a copy of his notes of the case of right duodenal hernia, now recorded. The details he gives make it quite clear that the hernia is of the "right duodenal" variety. The sac which contains the hernia is formed by an enlargement of the pouch, to which I gave the name "fossa of Waldeyer." The vessel contained in the anterior margin of the orifice of the sac is the superior mesenteric artery. There are two forms of right duodenal hernia. In the first the fossa of Waldeyer exists in association with an adherent jejunum. The upper three or four inches of the jejunum are fused to the posterior abdominal wall. In the second the fossa exists in the uppermost portion of the meso-jejunum, close to the duodenum. By Brösike the former variety is considered the more common. I have found, in all, 14 recorded cases, and, curiously enough, they show 7 examples of each of the two forms. For the first variety the term "hernia mesenterico-parietalis para-jejunalis" has been suggested, for the second "hernia mesenterico-parietalis para-duodenalis." Dr. Selby's case, the fifteenth recorded of right duodenal hernia, is of the "para-duodenal" variety.

WANGANUI HOSPITAL, NEW ZEALAND.

INTESTINAL OBSTRUCTION DUE TO PARALYSIS OF A LOOP OF JEJUNUM.

(By P. Clennell Fenwick, M.B.Lond., F.R.C.S.E., Surgeon to the Hospital).

History.—A. B., aged 26, was admitted to the hospital suffering from partial obstruction of the bowels. He had had no previous illness. Three months before he had "strained" himself lifting a heavy weight, but no subsequent effects were felt. Three weeks previous to admission he had had an attack of abdominal pain, not localized, but occasionally more severe on the left of the umbilicus. The pain became continuous and constipation occurred. He passed small diarrhoeic stools mixed with blood, but no natural motions. Vomiting commenced, at first at intervals, but for the last week it had been continuous. The vomit was biliary, never offensive or faecal. He has lost "two or three" stone in these three weeks. He never suffered from indigestion and never had jaundice.

State on Admission. The patient was a young man with flushed pinched face. The eyes were sunken and the nose was thin. He was continually vomiting large quantities of brilliant green fluid, and had rapidly recurring attacks of hiccough. The pulse was a mere thread. The abdomen was soft, and there was no pain on percussion or palpation. The percussion note was not tympanitic except in the right iliac fossa. To the left of the middle line, just above the umbilicus, there could be felt some resistance on deep pressure. There was no abdominal distension and the hernial rings were free from any obstruction. The temperature was subnormal.

Diagnosis. I diagnosed some obstruction in the upper part of the jejunum, and thought it possible that a portion of the intestine might be incarcerated without complete obstruction in the retroperitoneal pouch (the fossa duodeno-jejunalis). I advised operation, but the patient was vomiting so incessantly that I postponed the operation for twelve hours and gave opium and brandy per rectum. The vomiting ceased and the pulse improved greatly, and patient passed a quiet night. An enema relieved the rectum of a few ounces of foul-smelling slime.

Operation.—Next morning I made a 3-in. incision, passing through the umbilicus; the inguinal rings and the iliac fossa were examined without result. On the left of the spine

above the umbilicus I found a hard mass so the incision was extended upwards and the tumour brought to the surface. It consisted of six or eight glands of a stony hardness, occupying the mesentery close to a loop of jejunum. This loop, measuring 14 in., was distended, purple in colour, and showed petechial haemorrhages along the anti-mesenteric border. I traced the intestine upwards and downwards, and found that the colour faded into the normal below where the gut was collapsed and empty. Upwards the intestine was darker and more distended than usual. The liquid contents of the strangulated loop could be easily pressed downwards into the collapsed portion. There was no real constriction either above or below the loop. The peritoneum over the gut was still shiny, and its whole appearance resembled that seen in a strangulated hernia shortly before gangrene occurs. I was not satisfied that this was the cause of obstruction, so I twice examined the whole length of the gut from the pylorus to the ileo-cæcal valve, drawing each piece of the intestine out in turn. Dr. Reid, my colleague, suggested that the real explanation was paralysis of the loop caused by pressure of the enlarged glands on the nerve supply of the loop. The contents here becoming stagnant owing to the absence of muscular contraction, and causing a regurgitation into the stomach. I would have considered the advisability of excising the entire loop and mesentery, or of performing a rapid anastomosis between the duodenum and the collapsed gut, but the patient collapsed, and we had to devote our attention to saline infusion. He rallied, and was put back to bed, but vomiting recurred, and he died seventeen hours later.

Necropsy.—This was made six and a-half hours after death by Dr. Crawford. The wound was quite dry. The lower portion of the jejunum and the ileum was collapsed and normal in colour. To the left of the middle line above the umbilicus two coils of intestine were found distended and deep purple in colour. This was the loop seen at operation. There was no perforation, and only a slight stickiness glueing the loop together. The entire intestine was removed and spread out. From the pylorus to 14 in. below the last portion of the duodenum the colour gradually deepened from normal to purple, being increasingly distended. Below this the intestine abruptly resumed the normal colour, and was absolutely empty. The gut was slit along its anti-mesenteric border, and no signs of constriction or growth could be found. The interior of the strangulated loop was deeply congested and showed signs of commencing ulceration on the tops of the rugae. The mesenteric vessels in this loop were dilated, the veins being very large, but not clotted.

Pathological Report by the Chief Instructor, Mr. J. A. Gilruth.—The growth from the mesentery has the general characteristics of a lymphosarcoma, there being a growth of new round cells with numerous newly-formed blood vessels. It is likely the growth had originated in a lymph gland, and, indeed, it looked more like a lymph gland hypertrophied than anything else, at first sight.

[illegible] I could not accept Dr. Reid's theory of paralysis. Whether this was caused by passive compression of the vessels of the neighbouring mesentery or was due to actual [illegible] paralysis of the mesenteric plexus I could [illegible] I [illegible] think this case is of some interest in relation to the possible causes of intestinal obstruction. As a surgeon I have met with a very considerable number of cases of [illegible] owing to the distance many patients have to travel before reaching hospital the [illegible] in this country [illegible] cases when symptoms have lasted a long [illegible] in England. His prognosis after these cases is hardly hopeful. In this particular case the patient had been [illegible] ill for many days and his condition did not call for [illegible] I should have been more [illegible] to operate earlier or at least [illegible] to [illegible] The case although really one of [illegible] bowel was [illegible] passing of [illegible] The vomiting of [illegible] could [illegible] symptom of a [illegible] Western Australia. I have never [illegible] that [illegible] I have known instances of [illegible] patient [illegible] this symptom [illegible] Adelaide.

A [illegible] University [illegible] Chemistry [illegible] a portrait [illegible] a [illegible] recent meeting of the Pharmaceutical Association of Victoria, and has been [illegible] by the Council that [illegible] The question of the [illegible] was [illegible] ment of a Canadian medical school on the Pacific coast.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Bath, Wednesday, February 9th, 1904.

BARCLAY BARON, M.D., President, in the Chair.

DR. CAREY COOMBS read notes of a case of anthrax, and in the discussion which ensued DR. G. C. TAYLER, MR. P. BUSH, C.M.G., Mr. TUDI THOMAS, Mr. MONRO SMITH, and Mr. MOLE joined.

Mr. T. D. RANSFORD read a paper on ovarian cyst complicated with appendicitis.

DR. G. C. TAYLER described two contrivances for use after colotomy, and Mr. PRICHARD showed another instrument. Criticisms were made by MR. PAUL BUSH, Mr. RANSFORD, and Mr. MOLE.

DR. PRESTON KING read a paper on the condition of our streets, and remarks were made upon it by DR. OGILVY, Mr. PAUL BUSH, DR. WILMORE, DR. BARCLAY BARON, and Mr. TUDI THOMAS.

GLOUCESTERSHIRE BRANCH.

AT a general meeting of this Branch held at the General Hospital, Cheltenham, on February 18th, DR. E. C. CRIPPS, in the absence of the President (Dr. Storry), occupying the chair. DR. G. B. FERGUSON showed a case of (1) suprapubic lithotomy in boy of 10, with large uratic calculus; (2) renal sarcoma in woman of 40; (3) residual abscess after hysterectomy which had been done two years ago. Mr. W. R. BENCE showed cases: (1) An oxalic acid mulberry-shaped calculus removed from bladder of boy of 11; (2) a pyosalpinx which had burst into peritoneum; operation; recovery. Mr. HOWELL showed cases of colotomy for (1) cancer of upper rectum which could not be removed; (2) cancer of sigmoid flexus which was to be removed in fourteen days' time. DR. BRAMWELL showed a *post mortem* specimen of cancer of larynx. DR. CRIPPS read notes of a case of hydatidiform mole. The discussion on anæsthetics was then renewed, in the course of which DR. ELLINGER gave an interesting demonstration of local anæsthetics. Fifteen members afterwards sat down to supper at Sayer's.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. DOUGLAS POWELL, Bart., M.D., K.C.V.O., President, in the Chair.

Tuesday, March 8th, 1904.

CANCER: DULLNESS IN CASES OF CANCER.

DR. WM. COMPTON read a paper on this subject. Some years ago he had noted in cases of gastric cancer, in which ordinary emphysema could not be thought to exist, that the cardiac dullness was greatly reduced or obliterated in the recumbent posture. Since then it had been noticed in many cases. The following was a summary of results. Reduction or loss of cardiac dullness was common in cancer cases, especially of abdominal cancer, towards their end, but it was not always to be found in them. It might precede cachexia, marked wasting, and loss of skin elasticity, but seemed absent in the earliest stages. If absent at first it might slowly develop towards the end. It might be found but apparently rarely, in other diseases. It seemed not to occur in [illegible] cases. When present in a doubtful case its presence was very suggestive of the existence of a cancer. When present in a doubtful case of considerable duration it was slightly suggestive that the case was not one of cancer. It was of course necessary to exclude the existence of any ordinary cause of abnormal area of cardiac dullness. The explanation appeared to be that the lung margins extended themselves across the front of the heart; this was [illegible] by the teeth perhaps owing to a loss of elasticity of their substance; it was seen in the abdominal skin in many cases of abdominal cancer.

THE PRESIDENT remarked that the paper had interested the medical and surgical [illegible]. It was to be understood that the [illegible] cardiac dullness was due to an atrophic emphysema

and he asked if the lung had been examined microscopically and if such had been found. Experience from cancer hospitals on this point would be of interest.

Dr. GORDON in reply said he had not himself examined the lung microscopically but in one case in which microscopic examination was made it was negative. Even quiet breathing might presumably cause overlapping of the heart by the lung in the presence of diminution of elasticity.

PROPERITONEAL HERNIA.

Mr. BETHAM ROBINSON described a typical instance of this condition, which is published on p. 600 of the present issue.

Mr. W. MCADAM ECCLES considered that properitoneal hernia must be distinguished from interstitial hernia. There was a great preponderance in the male subject of the former and of the latter in the female, which could not therefore be related to imperfectedly-descended testis. An imperfectly-descended testis, a pouch in the canal, and the descent of the bowel tended in combination to form the bilocular properitoneal pouch. All such cases, he thought, should be explored. This, in some cases of imperfect descent of the testis with protrusion, might prevent the formation of a hernia. When on the right side, no mere reduction from the scrotal sac was sufficient without care being taken that there was no strangulation.

Mr. BETHAM ROBINSON replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor JOHN CHIENE, C.B., President, in the Chair.

Wednesday, March 2nd, 1904.

HIGH-FREQUENCY CURRENTS.

DR. ALEXANDER BRUCE gave (at the request of the Council) a demonstration on the mode of production and on the therapeutic application and uses of the high-frequency currents of electricity. At the outset he referred to what he considered to be the regrettable position taken up by a large body of the profession towards this mode of treatment, and to the unfortunate consequences in allowing it to fall largely into the hands of ignorant and unqualified persons. He thought that the time had more than fully come for the profession themselves to study the physiological action and therapeutic uses of these currents. The meaning of the term "high-frequency" was explained, and the steps were described through which the present development had been attained. The various modes of producing the currents by the static machine, the Ruhmkorff coil, by the motor transformer and the step-up transformer were described, and with the exception of the latter were exhibited. The modes in which the currents were utilized after passing through the condenser, namely, by direct application and by means of the auto-condensation of the specially insulated couch, were also shown, and their relative uses and merits were explained. At the end of the demonstration an indication was given of the various purposes for which the currents were used, namely, for the soothing of pain, for the stimulation of atonic muscular conditions, in the treatment of neurasthenia, and in the improvement of tissue metabolism.

ANNULAR STRICTURE OF THE LARGE INTESTINE.

Mr. DAVID WALLACE, C.M.G., read a paper on chronic intestinal obstruction caused by annular stricture (malign) of the large intestine. The paper was based upon a series of ten cases which he operated upon in his private practice during the preceding year. After defining the meaning of the term annular stricture he drew attention to the insidious onset and progress of the condition, and to the paucity of premonitory symptoms which presented in the majority of cases prior to an attack of chronic, or it might even be acute, obstruction. After a reference to the common symptoms, constipation—masked frequently by a spurious diarrhoea—and general abdominal discomfort, which were often the only symptoms of previous illness that could be elicited in the history, he pointed out that loss of weight, borborygmic, paroxysmal pain, and visible peristaltic movement were usually present in the later stages. A palpable tumour was, as a rule, only detected comparatively late in the disease, and this was readily understood when it was remembered that the site of the tumour was frequently at the hepatic or splenic flexure, and therefore anatomically so high up under cover of the ribs that palpation was almost impossible, even in thin people with soft abdominal walls. In six cases abdominal obstruction was the first thing which caused the patient to seek medical advice, and in none of these was a tumour palpable through the abdominal wall. The age of the patients averaged 62 years: the eldest 82 and the youngest 47 years of age. The main thesis in the paper was to direct the attention of physicians to the importance of accurate diagnosis and the necessity for operation at an early period before the tumour had extended beyond the wall of the intestine—to treat if possible by excision during a quiescent period when the tumour was still intrinsic to the gut. That during obstruction expectant treatment might be adopted—purgatives being carefully avoided. The food by the mouth to be chiefly fluid, and while nutritious to be as little bulky as possible. That morphine should be given to relieve pain. That a careful note of increase of distension of the abdomen or quickening of the pulse should be made, and that if either occurred immediate operation should be resorted to. That even if relief to obstruction resulted from medical treatment the question of operation during a quiescent period should be considered. Surgical treatment consisted in one of three procedures—colectomy, colostomy, or short circuiting. When no tumour was palpable, and the site of the obstruction was not known, the incision should be along the side of the middle line to the right of and at the level of the umbilicus, which enabled an examination of the whole abdomen to be made, and permitted ileo-colostomy, or opening of the ascending or transverse colon, if necessary, to be done. If the tumour could be excised, and this incision did not give free access, then either a transverse incision might be made from the original vertical one, or a second incision should be made directly over the growth. If colostomy was needed at once the gut could be opened and a secondary operation performed later to remove the tumour, and an end-to-end anastomosis be done. When the gut was full of liquid faeces probably the best method was to evacuate the intestinal contents and either at once do the needed short-circuit or colectomy or at a later period (two or three days) complete the operation. Results in the series referred to: operation was performed in six cases during obstruction and in four during quiescence; two colectomies with one death; three ileo-colostomies with one death; five colostomies with one death.

MANCHESTER MEDICAL SOCIETY.

J. S. BURY, M.D.Lond., F.R.C.P., President, in the Chair.

Wednesday, March 2nd, 1904.

RENAL DECAPSULATION.

DR. WALKER HALL read a paper on the effect of decapsulation on kidneys in which a degenerative nephritis had been induced. The removal of the capsule in such conditions was always accompanied by laceration of the cortical tubules and haemorrhage. In eight to fourteen days later the kidney capsule had re-formed, and was thicker than the normal capsule. The haemorrhages and lacerations were replaced by cellular tissue. The details of capsular changes in two human kidneys after partial removal of the capsule were given, and these, together with an account of the forty specimens exhibited, will be published shortly.

GALL-BLADDER SURGERY.

Mr. E. STANMORE BISHOP attributed the recent impetus to surgical work in this region to three things—asepsis, clearer diagnosis, and improved technique. The older teaching, which laid stress upon the presence of tumour, jaundice, intermittent pain, results of exploratory puncture, the discovery of calculi in faeces, and sensations of grating in cases of biliary calculi, was shown to be insufficient and sometimes misleading. Tumour was usually absent. The gall bladder was usually contracted and deeply seated, therefore grating could not be felt and puncture was impossible; the latter was also extremely dangerous. Jaundice was frequently absent; when present, was evanescent, and in all cases depended upon the position, not the presence of a stone. Pain was dual, continuous, dull aching, and intermittent, sharp, intense; the latter left behind tenderness, which was utilized in the two tests of Robson and Murphy, both of which Mr. Stanmore Bishop had found reliable. The tenderness along Robson's line was often in his experience higher up than at Robson's point. Improvements in technique were: freer exposure of the biliary tract to sight and touch by more careful separation of adhesions, and occasionally by rotation of the liver. The danger of undue trac-

tion upon the vena cava was pointed out. Immediate and thorough clearance of all calculi, as against the earlier two-stage method. Improved methods of drainage and greater control over haemorrhage by the use of calcium chloride and adrenalin. The speaker's remarks were based upon an experience of thirty-one cases.

A Family Record.

Dr. ERNEST S. REYNOLDS mentioned a family in which the eldest daughter had died insane, the second daughter had aberrant disseminated sclerosis, the third child (male) had fairly well-marked disseminated sclerosis of the ataxic paraplegia type, fourth (female) and fifth child (male) were normal, and the sixth (male) had aberrant disseminated sclerosis. The father had recently suffered from melancholia, his first cousin (once removed) had died of disseminated sclerosis, and a distant cousin of the last had exophthalmic goitre. Dr. Reynolds mentioned also the case of a girl who had both disseminated sclerosis and exophthalmic goitre fully developed at the same time.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting on February 19th, Mr. R. CLEMENT LUCAS in the chair, Dr. R. HUTCHISON showed a case of cerebral diplegia with changes in the fundus oculi in an infant aged 17 months. The optic discs were atrophic, there was extensive choroido-retinitis, and diffuse opacities were present in the lenses. The condition was thought to be arrested development of the cortex cerebri, probably syphilitic in origin. Dr. Hutchison also showed a case of progressive cerebral degeneration of the family type in a boy aged 4 years. Mr. T. HOWELL EVANS showed a case of symmetrical bilateral bronchial fistulae and helical fistulae and mis-shaped aural pinnae. A case of vertical monocular nystagmus was shown by Mr. ARNOLD LAWSON. The affected eye showed a leucoma of the cornea due to an old perforating ulcer. Dr. C. O. HAWTHORNE referred to a case in which a similar symptom ceased when the pupil was dilated with atropine.—Mr. J. JACKSON CLARKE showed an early case of Friedreich's disease in a boy of 4 years. He advocated in such cases light instrumental guidance, and later tenotomy and tendon elongation, with massage.—A specimen of secondary sarcoma of the lung was shown by Dr. W. A. WILLS and Mr. DOUGLAS DREW. The left testicle had been removed in April, 1903, and there was no evidence of recurrence, local or general, until December, 1903, when thoracic symptoms appeared.—A case of anaesthesia and recurrent ulceration of the gluteal regions from spina bifida was shown by Dr. PARKES WEBER. Mr. SYDNEY STEPHENSON showed a case of tuberculous disease of the lachrymal duct, with tuberculous glands in the neck. Microscopic sections from a case of general oedema in an infant were shown by Dr. GEORGE CARPENTER. There was albuminuria, but no tube casts were found. There were no inflammatory renal changes, but exudation was present between the glomeruli and their capsules. The condition was regarded as toxaemic.—Microscopic sections of the heart and kidneys from a case of acute oedema of the lungs and sudden death were shown by Dr. CARPENTER. The heart showed well-marked degenerative changes, and the condition was probably due to diphtheria.—A paper on the treatment of hernia in young children was read by Mr. LOCKHART MUMMERY. The organs from a case of hemi-hypertrophy were shown by Dr. ROBERT HUTCHISON. The asymmetry of the limbs was apparently due to an increase of the subcutaneous tissues of the left side, resembling a diffuse lipoma. Multiple angeiomata were present in the liver. He thought the condition must date back to embryonic life, and be, in consequence, of unequal segmentation in the ovum. Dr. HAWTHORNE referred to a case of hypertrophy limited to the lower limbs where, *post mortem*, there was found to be a tumour of the optic thalamus.

PHONOGRAPHERS.—The Society of Medical Phonographers will hold its annual sheet-hand examination in May, 1904. Two prizes each of the value of £3 will be offered, one for first year students and one for students of more than one year's standing. The competition will be open without entrance fee to any registered medical student in the United Kingdom who has not taken a first prize at any of the Society's previous examinations. Intending candidates should send their names before April 15th to Dr. F. G. Griffith, Vista Mollter, Green Lanes, Hornsey, N., who will supply any further information desired.

REVIEWS.

SURGERY.

SIR F. TREVES'S *Manual of Operative Surgery*[1] has been for twelve years a standard of reference for all operating surgeons in this country. The preparation of the second edition has been mainly carried out by Mr. Jonathan Hutchinson, jun. The character of the book has been little altered, and it is still a work to which we shall all refer for authoritative information. In reviewing this edition it is necessary, in the first instance, to state that we must judge the work by a high standard. The names and the reputations of the authors entitle us to look upon anything they may publish as justifying the most stringent criticism, and if in the following remarks it may seem that much is made of trivial omission or errors this must be remembered. The first volume deals with general principles and with the operations upon arteries and nerves, with amputations and excisions, and is noticeable mainly for a brief but well-illustrated description of the new theatres at the London Hospital. The letterpress throughout is admirable, the descriptions are clear and concise, and indeed could hardly be improved. The illustrations, though generally good, are, however, not always of the highest merit, and it is time that such figures as 132 and 98 were permanently discarded. Vol. II deals with the surgery of the abdomen and of the abdominal organs, with operations upon the head and spine, and upon the chest. It is in connexion with the surgery of these regions that the modern advances have been chiefly made, and it is here, therefore, that interest in this edition will be mainly centred. In the section dealing with plastic operations for congenital deformities of the bladder and penis there is no mention of Beck's operation for hypospadias, nor of van Hook's or Nové-Jusserand's methods, nor of Cantwell's operation for epispadias, nor of Maydl's method of transplantation of the ureters into the sigmoid flexure, nor of Peters's extraperitoneal operation for extroversion. It may indeed be said that the operations which have failed us in the past are described, and the operations which are likely to serve us for the present and in the future are omitted. The section dealing with "operations designed to divert the urinary passages" occupies but half a page, and opens with the statement "the procedures merely require to be enumerated." At the least Petersen's work was deserving of mention. It is surprising to find the following opinion expressed with regard to the Trendelenburg position: "For my own part, I have found the Trendelenburg position of no advantage except perhaps in the ligaturing of the iliac vessels. After a careful trial I have entirely abandoned this position of the patient." And further, to be told that in making an abdominal incision "it is even possible (by dissociating the muscle fibres) to avoid cutting any of them across: this, however, is carrying caution to extremes." The chapters dealing with the surgery of the stomach have been brought well up-to-date so far as the letterpress is concerned. We regret to see, however, that (as in figures 400, 401, 402, 405, 406, 407) the illustrations are not good. The operation of pyloroplasty is very properly discredited; but mention might have been made of Finney's and of Kocher's methods of gastro-duodenostomy. The chapters on intestinal obstruction and on intestinal resection are extremely good, but we may take exception to the statement that no resection operation should be entertained in instances in which the mesenteric glands are involved. The description of the operations for gall stones are on the whole satisfactory, though more decided opinions might have been expressed upon the inadvisability of performing "ideal cholecystotomy," and upon the need in practically all cases of stone in the common duct of drainage of the duct by a rubber tube. It seems to be taken for granted that the duct should be sutured, whereas drainage, as a rule, is desirable. The account given of the operative treatment of the various forms of herniae suffers somewhat from lack of method. The "operation for strangulated hernia" is first described, and a general account is given, then "the operation as applied to particular herniae", and finally "operations for the radical cure of hernia," with a separate paragraph entitled "modified procedures adapted to cases of strangulation." All this is unnecessarily diffuse, and the figures are not good. The time-honoured figure borrowed from Ferguson might, at least, be altered so far as the sleeves and cuffs and links of

[1] *Manual of Operative Surgery.* By Sir Frederick Treves, Bart., K.C.V.O., C.B., F.R.C.S. New edition, revised by the author and Jonathan Hutchinson, jun., F.R.C.S. In Two Volumes. London: Cassell and Co., Limited. [Demy 8vo, pp. [illegible]. 42s.]

the surgeon are concerned (Fig. 421). Fig. 423 shows the pubes half shaved for operation, and in Fig. 424 the pubes is not shaved at all. The description of the operations for the radical cure of femoral and inguinal hernia are not as clear and precise as they might be, and the addition of several good diagrams would have been an advantage. No mention is made of the "overlapping" operation for the radical cure of umbilical hernia, which in the hands of many surgeons has replaced all other methods. If the authors had put this operation to the test, their estimate of the frequency of recurrence would probably be modified. The percentage of recurrence after operation for radical cure is estimated at, for inguinal hernia 20 to 30 per cent., for femoral 30 to 40 per cent., for umbilical 50 to 60 per cent. The section on the surgery of the bladder and of the prostate is good. Plenteous extracts have been made from the writings of Sir Henry Thompson. We are glad to see that a due measure of credit is given to McGill for his pioneer work in prostatectomy. We have made these criticisms in no carping spirit. In our judgement they are flaws in an otherwise admirable work. The teaching and the methods here expounded may be taken as representing, on the whole, the best practice of British surgeons.

In the eighth edition of *Surgery: Its Theory and Practice*,[2] a work from time to time carefully revised and improved by the late Mr. Walsham, much has been done to maintain its excellence by Mr. SPENCER, whose name is now associated with that of the original author on the title page. At Mr. Walsham's request he undertook the larger share in the new volume, and has added much to the number both of pages and illustrations. It is satisfactory to know that a work so long associated with the name of an esteemed surgeon is in good hands and that it promises under such auspices to retain its well-merited position in surgical literature.

Mr. HURRY FENWICK has long been recognized as one of the leading English authorities on the use of the cystoscope. In a recent publication, *The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney*,[3] he emphasizes the advantages which are to be gained by the routine examination of the ureteral orifices in all cases of renal disease. The appearances which the terminal portion of the ureter presents in renal stone, in stone impacted in the ureter, in urinary tuberculosis, are all carefully and elaborately discussed. In some few trivial instances one may feel in doubt as to the accuracy of observation or of inference, but of the immense wealth of valuable investigation displayed in the book there can be no question. Mr. Fenwick has one recurring literary vice which may be illustrated by the following quotations: "A few months ago I had difficulty in restraining an operating surgeon, who had discovered this condition (oedema of the ureteral orifice) from doing a suprapubic cystotomy for the removal of a polypus of the bladder" (p. 144), and again "I confess that in several instances the procedure did not reflect any credit upon the surgeon" (p. 3). Mr. Fenwick's work is good enough to stand by itself, it is never necessary to disparage the work of others.

DERMATOLOGY AND SYPHILOLOGY.

DR. JEANSELME has been well advised in issuing his lectures on, in the broad sense, tropical dermatology,[1] delivered in the Paris Institute of Colonial Medicine. The first part of the book is devoted to infectious diseases, such as leprosy, syphilis, yaws, and verruga peruana. No less than 134 pages are given up to an excellent detailed account of leprosy, especially from the point of view of its incidence and spread in hot countries in particular, though they contain also a general survey of the geographical distribution. Much of what he says in connexion with leprosy applies to French Indo-China, where he has more particularly studied it. He insists on the fact that leprosy is spread by contagion from individual to individual. True heredity he excludes as an etiological factor, but admits a predisposition, just as is the case in tuberculosis. Syphilis as it is observed in hot countries is also handled in an interesting manner. Framboesia or yaws, which Dr. Jeanselme has had ample opportunities of studying in Indo-China, he considers on clinical and histological grounds to be quite distinct from syphilis. The second part of the book consists of a study of Oriental boil and the phagedaenic ulcer of hot countries, followed by lectures on fungus diseases, such as tinea imbricata, mycetoma, dhobie itch, and so forth, and concluding with a review of animal parasitic diseases and such conditions as aïnhum, keloid, and albinism. The illustrations are very good, and a useful bibliography is given at the end of each of the subjects dealt with. In an appendix the author has compiled a synopsis of geographical distribution under the headings of the various diseases, which will prove of service in connexion with the maps with which the book is furnished. The chapter on the histological and bacteriological methods of studying tropical cutaneous diseases will also prove valuable. The great fault of the work is the absence of a full index—an unpardonable omission in a scientific work. Brillat-Savarin has said that "un diner sans fromage est comme une belle fille avec un oeil"; he might have added, "ou comme un livre sans table alphabétique." A bon entendeur, salut.

The first part of the Danish work on diseases of the skin[5] from the pen of Dr. C. RASCH, of Copenhagen, was favourably reviewed in the BRITISH MEDICAL JOURNAL of June 6th, 1903, p. 1325. The second deals with the remainder of the diseases due to microbes, those resulting from chemical and physical agents, and with some of the conditions arising from various causes. As already pointed out, this etiological classification has some drawbacks. The survey of drug rashes is full; and the important subject of eczema is adequately dealt with. In connexion with erysipeloid, the erythema serpens described by Morrant Baker is not referred to; the two affections are apparently one and the same. Whether Natal sore is the same thing as Oriental boil is not yet decided; the point ought to be settled by a competent man on the spot. Natal sore and veld sore do not seem to be the same affection clinically. The Scandinavian references in the bibliography appended at the end of each article are useful. The illustrations from various sources are well selected and reproduced. Fig. 61 is upside down; the representation of Hebra's prurigo might be better. Dr. Rasch is to be congratulated on his succinct and practical presentation of his subject.

The ninth volume[6] of the Dermatological Society of Great Britain's *Transactions* contains many things of interest. In the first place may be mentioned the oration of Dr. Unna, of Hamburg, on The History of Eczema in the Last Century in England, in which he reviews the subject from the time of Willan. It will well repay perusal by all who are interested in eczema (and who is not?), for the condition is one that is met with at every turn in practice. One of Dr. Unna's remarks will bear repeating here, namely, that a deficient study of languages may be the cause of long-lasting mistakes. Dr. Stowers's table of mycosis fungoides would have been more useful had he made it more complete, and given the bibliographical references to all those cases he has cited. In a short paper, Mr. Pernet calls attention to the possibility of alopecia areata and errors of refraction being connected conditions, in the same way that errors of refraction and herpes zoster may also be in the relation of cause and effect. A number of unusual cases were shown during the session, giving rise to good discussions. Altogether, the Society is to be congratulated on the active work it is doing.

The report on 12,000 cases of skin and venereal diseases which have been dealt with in Professor Finger's out-patients, at Vienna, contains many interesting details apart from the merely statistical information supplied. As far as skin dis-

---

[1] *Surgery: Its Theory and Practice.* By William Johnson Walsham, F.R.C.S.Eng., M.B. and C.M.Aber, Surgeon to St. Bartholomew's Hospital, etc. Eighth Edition by Walter George Spencer, M.S., M.B.Lond., F.R.C.S.Eng., Surgeon to the Westminster Hospital. London: J. and A. Churchill, 1903. Demy 8vo, pp. [illegible] illustrations, [illegible].

[2] *The Value of Ureteric Meatoscopy in Obscure Diseases of the Kidney*: a study in Clinical and Operative Surgery. By E. Hurry Fenwick, F.R.C.S., Surgeon to, and Lecturer on Clinical Surgery at the London Hospital. London: J. and A. Churchill, 1903. Demy 8vo, pp. [illegible].

[3] *Leçons de Dermatologie Exotique.* Lectures on Exotic Dermatology. Par E. Jeanselme. Recueillies et rédigées par M. Tremolières. [Reported by M. Tremolières.] Paris: Masson et Cie. 1904. Demy 8vo; pp. 402, 101 figures, 2 maps. Fr. 10.

[4] *Hudsus Sygdomme og deres Behandling* [Diseases of the Skin and their Treatment]. Af C. Rasch. Second Part. Copenhagen: Gyldendalske Boghandel-Forlag. 1903. Royal 8vo, pp. [illegible] illustrations. [illegible].

[5] *The Transactions of the Dermatological Society of Great Britain and Ireland.* Edited by Arthur Shillitoe and Wilfrid H. Warde. Vol. IX. 1903. London: H. K. Lewis. 1903. Demy 8vo, pp. [illegible]. Ergebnisse der Beobachtungen an 12,000 Fällen von Haut- und Geschlechtskrankheiten. Bericht über die Klinik für Syphilis und Hautkrankheiten [and] über die Klinik für Haut- und Geschlechtskrankheiten. Von Professor Finger, Professor Pezzoli und Dr Alexander Pospisil. Report on 12,000 Cases of Skin and Venereal Disease. Leipzig und Wien: F. Deuticke. 1903. Royal 8vo, pp. 111. M. [illegible].

cases proper are enumerated, eczema heads the list here as elsewhere. Under eczema are included cases of trade or occupation dermatoses. For details of a case of chromide dermatitis must be mentioned here. It occurred in a man engaged in the manufacture of matches, who presented, in addition to an eczematous eruption, a number of sharply punched-out suppurating ulcers, involving the whole thickness of the skin from a pinhead to about a sixpence in size. The authors of the report speak well of the use of naphthalin in eczema generally, except in very acute cases. They state that in acne vulgaris they have found gastro-intestinal disturbances in the very great majority of cases, a fact well known in this country. At one time, it may be mentioned, the Viennese school rather disregarded general indications, confining treatment to local conditions only. They still refer to pityriasis rosea (so-called), they add to acute universal herpes tonsurans microsporon, including it under ringworm. This disease is a well-defined condition, and not ringworm. The section which deals with syphilis is very interesting, and gives details of cases of extragenital chancres. It is a pity the antiquated designations psoriasis palmaris et plantaris and psoriasis mucosae oris are still employed. They are misleading, and it is time they were expunged from syphilitic nomenclature. The portions relating to treatment may be given *in nuce* as follows: Intramuscular injections of calomel answered well, and were practically without drawbacks, as was also emulsion of mercury salicylate in paraffin used in the same way. The authors think less of the soluble salts, which are milder in action than the former. They prefer the salicylate emulsion. The soluble salts, however, are practically safe. On the other hand the insoluble mercurial preparations have now and then given rise to serious complications, even in competent hands. Welander's treatment is a slow and very mild method. Good results were obtained with iodipin subcutaneously injected in tertiary syphilis. The report also includes gonorrhoeal cases. The new silver-albumin preparations, the authors found, had advantages. They used largin, protargol, argonin, albargin, etc., and gave the preference to largin and protargol and found the former the more energetic of the two; argonin, however, answered best in cases of posterior urethritis.

Like a good many other observers, Dr. MATZENAUER is not satisfied that some of the accepted views with regard to syphilis are above criticism. He has therefore tackled the whole subject of its heredity anew, and his industry and scepticism have resulted in the volume before us.* The task is not an easy one, especially as the author opposes stereotyped notions. He deals first with the present position of matters, and then takes up heredity from the maternal and the paternal side, with exhaustive details as to the part played by the placenta, *chez en retour*, immunity, and so forth. Some of his conclusions may be mentioned. (1) There is no exception to Colles's law; (2) Profeta's so-called law is no law at all; and (3) true heredity of syphilis by way of ovum or spermatozoon is not proven. As to the first, it must be confessed that the instances of exceptions to Colles' law break down on sifting the evidence. From time to time one sees infantile-acquired syphilis mistaken for congenital syphilis, as appears to have been the case in the instance recorded by Dr. Coutts. In another instance pemphigus neonatorum was taken for a bullous syphilide, and no doubt a mistake even now. With regard to Profeta's so-called law and immunity he maintains there can be no syphilis of the child without syphilis of the mother. The well-known objection to this, that mothers of congenital syphilitics may be in all appearances quite healthy, does not apply when it is borne in mind that the dangers of tertiary syphilis in women most frequently be made out by close inquiry alone, and in the face of a negative history. Many cases are cited in favour of Dr. Matzenauer's attitude and there can be no doubt as to the necessity of a revision of the whole in the light of recent work on immunity. In any case Dr. Matzenauer's industry and pluck are much to be commended. Before concluding it may be remarked that the term congenital syphilis is apparently more in accordance with the clinical facts than the appellation hereditary syphilis. If the monograph could be reissued with a full alphabetical index its value and usefulness would be greatly increased.

* *Die Lehre von der Syphilis. Ein Beitrag zu ihrer Geschichte.* Von Dr. Rudolf Matzenauer. Wien und Leipzig: W. Braumüller. 1904. (Demy 8vo, pp. 510.)

FERMENTS.

DR. CARL OPPENHEIMER'S book on ferments and their action* is an excellent compilation. It is a concise summary of the more important theories which have been put forward as to the nature of fermentation, and contains a very complete digest of the facts which have been ascertained with regard to each of the better-known ferments. It would be impossible to present this highly complicated subject in a clearer or more convenient form. Each chapter commences with a brief historical outline of the older work on the particular theory or ferment with which it deals, and then brings its subject matter thoroughly well up to date. The reference to each authority quoted is given at the foot of the page, and there is a complete bibliography at the end of the book. The peculiar difficulty about the chemistry of ferments is that it is on the borderland of so many sciences, and ought, if it is to be treated thoroughly, to be approached in turn from the standpoints of the physical chemist, the organic chemist, the physiologist, and the bacteriologist. Dr. Oppenheimer is to be congratulated on the comprehensiveness of his view which enables him to give due attention to each of these four standpoints, and to place them in their appropriate perspective. Another recommendation of the book is its general tone of impartiality and freedom from an exclusively national bias. Every writer is naturally most conversant with the literature of his own country, and is apt to ignore or disparage what has been done elsewhere; it is, therefore, a particularly agreeable feature of Dr. Oppenheimer's work that full justice is done to many valuable contributions to the science of fermentation which have emanated from France and England. Whilst mainly occupied with summarizing the work of others Dr. Oppenheimer by no means stinks his own individuality; and, indeed, the main success of the book as a piece of clear exposition is due to his discernment of the main points at issue and his appreciation of the relative value of the results which various investigators have obtained. In dealing with unsettled problems he succeeds in holding the balance between conflicting theories without presenting them as a confused congeries of contradictory assertions. This is criticism in the best sense of the word, and contrasts favourably with the popular method of condoning for scientific incompatibles by calling them "interesting," and with the equally unsatisfactory habit of attempting to decide between conflicting theories by a process of arbitrary eclecticism. As special features of interest in the book may be mentioned, the discussion of the catalytic properties of ferments, the "vitalistic" theories of their action, the resemblances of toxins to ferments, and the ferment-like properties of organic compounds which have been obtained from animal tissues such as leucocytes. It is a pity there are not more scientists who are equally conversant with the work of Ostwald, Kossel, and Ehrlich. Such men are what both physiology and pathology particularly need for the solution of the problems which are immediately before them.

* *Die Fermente und ihre Wirkungen.* Von Dr. Carl Oppenheimer. Dritte vollständig umgearbeitete und vermehrte Auflage. Leipzig: F. C. W. Vogel. 1903. (Demy 8vo, pp. 440. M. 11.)

DENTAL SURGERY.

MR. ARTHUR UNDERWOOD'S *Studies in Comparative Odontology* is an introductory textbook, written with the object of smoothing the path of the student in his approach to the subject and of rendering it more attractive and interesting, an aim to which the author's style is excellently adapted. Whilst avowedly elementary it is brought up to date and is, with the exception of a few slips, accurate, so that it can advantageously be placed in the hands of a student. The object of presenting to the beginner something easier and pleasanter to read than more complete textbooks can be, as we think a good one, and, as the book is in no sense designed to supersede these, but only to serve as an introduction to their use, our only criticism is that we wish that the author had not at times been led to include too much, and to cover the field by making mention, and occasionally little more than mention, of some of the way things and creatures which may tend to confuse the beginner. We venture to think that the aim of the book would be best carried out by a very full and interesting account of a few carefully selected forms and by the absolute exclusion of all reference to anything which could not be treated discursively and at some length. Such a plan was pursued in Bolleston's *Forms of Animal Life*, which

* *Studies in Comparative Odontology.* By A. S. Underwood, M.B.C.S. London: Bailliere, Tindall and Cox. 1904. (Crown 8vo, pp. 160, with illustrations. 3s.)

in its original shape was in fact a full and ample description of the preparations in a small case in the Oxford Museum, through which all beginners were set to work as a grounding in biology. This is not far from what has been done in the present work, and it is along these lines that we think in another edition it may most usefully be developed.

A thorough-going disciple of Weismann, Dr. Sim Wallace, in his *Essay on the Irregularities of the Teeth*,[1] discards heredity as an explanation of the phenomena involved, and virtually asserts the position that the irregularity is acquired by each individual as a consequence of physical causes. The chief factor he holds to be insufficient size and muscular weakness of the tongue, the tongue having long been recognized as an active agent in pushing the mobile growing teeth into a regular arch. Hence the employment of foods which call for little mastication influences the arrangement of the teeth. This thesis is ingeniously worked out, and the essay is of value as presenting with ability one side, at all events, of the question. We cannot help feeling, however, that his theory is rather hard, and that the argument does not gain by the denial, to put it briefly, of all other influences. The underhung jaws of the House of Burgundy, the pinched jaws and faces, traceable back through many generations in the portraits of a well-known noble English family, or the Bourbon nose, are not to be accounted for by the supposition of similar influences during childhood having produced them afresh in each individual.

In *Anaesthesia in Dental Surgery*[2] Mr. T. D. Luke discusses the various anaesthetics used for short operations and the methods of their administration. Although the book emanates from Edinburgh, the use of chloroform for dental operations, except in certain cases, is strongly deprecated, and statistics indicating that the death-rate for dental anaesthesia in Scotland, where it is more largely employed, is at least eight times that of London, are quoted. He further points out that in spite of physiological investigations, of Commissions and the like, the chloroform death-rate appears to have increased rather than diminished. Of ethyl chloride, whether used alone or as a preliminary to ether administration, he speaks highly, while he does not appear to think that Dr. Hewitt's method of administering oxygen with nitrous oxide presents much advantage over the admission of air. It is an excellent little book, which we can confidently recommend to all interested in the subject.

A perusal of *The Antrum*[3] by Mr. Lloyd T. Lavan, suggests the idea that it is a compilation rather than the outcome of the writer's own experience. Special points, such as the relation of the infundibulum to the ostium maxillare, are treated with no greater exactitude than in general textbooks, and where the writer gives his own views, as on the etiology of certain cysts, he is certainly not happy. Enchondroma is, with, we believe, a single exception, spelt "euchondroma," and myeloid appears time after time as "mycloid;" whilst few surgeons will agree with the general dictum that all malignant tumours require the removal of the entire maxilla, and that large innocent ones sometimes call for this radical procedure. Notwithstanding grave defects, a good deal of useful information is brought together in its pages.

NOTES ON BOOKS.

Mrs. Burton Brown in a handbook entitled *Recent Excavations in the Roman Forum*[4] has given an interesting account of the operations which have taken place there between 1898 and 1904. Professor Boni, the eminent archaeologist and one of the most successful excavators, has contributed a preface, in the course of which he states that the book is intended, by describing the excavations, to show the light they have thrown upon the religion and history of the Romans, and through these upon the character of the people. The goal aimed at is the same that Livy saw before him twenty centuries ago: "To set our minds to understand the life and customs of the Ancient Romans, that we may perceive by what manner of men, and through what means, whether at home or in the field, the Roman power arose and grew." Many well-known facts contained in the books previously published upon the Forum have been omitted; still, the monuments not recently excavated have been noticed in their place, in order that the book, as a handbook, should be complete. A special chapter is devoted to the Niger Lapis, or black marble pavement, lately unearthed during the excavations. Much interest was aroused by the discovery, and much speculation as to the real date and character of what is undoubtedly a tomb. According to some it is the tomb of Romulus, or, at any rate, that which the Romans believed through many centuries to be the grave of the eponymous founder of the city, a conclusion strengthened by the evidence found in the writings of Horace and others. The discovery is of such recent date that, although at present the history of the tomb can only be a matter of conjecture, much light will without doubt be thrown on it in course of time. There are numerous illustrations and several plans, and the publication should not only prove useful to the tourist, but of interest to those who care for things classical and historical.

Roses and their Cultivation,[5] by Mr. T. W. Sanders, is an admirable book which may be strongly recommended as a practical and instructive guide to all rose-growers and rose-lovers, and especially to amateurs who will find in its pages very clear information about the queen of flowers—the various types, how to plant, prune, propagate, and show roses, suitable soils and manures, the various enemies to look out for, and the culture of roses in pots and greenhouses. Many books have been, and are yearly being, written on roses, but we have seldom come across one which will be found more useful to those who go in seriously for rose-growing. Many of the illustrations are really beautiful, and those illustrating rose-pruning so clear, that the young amateur could easily carry his or her own pruning by studying them. For beginners there is a useful glossary of the principal terms applied to roses. At the end of the book there is a valuable list of roses which are worth growing and usually succeed on English soils. The list is arranged in tabular form, and includes the name of the rose, its section or class, date of introduction into England, colour, habit of growth, how best grown, mode and time of pruning.

In *Food for the Tropics*[6] Mr. T. M. Macknight gives an interesting account of the various foodstuffs to be found in tropical countries and how they may be used by the inhabitants. The general plan of the book is to give in a series of chapters an account of the various tropical products which may be utilized or substituted for the materials ordinarily used in temperate countries. Thus, under bread he enumerates nine substitutes for wheat flour, under butter a number of oils which may be used in cooking, and so on. A list of indigenous vegetables and the mode of cooking them is given, and there are similar lists of fruits and condiments. The book in judicious hands will be found suggestive, and probably useful also.

We have received from the Secretary of the Institution of Mining Engineers an excerpt from its *Transactions* which contains an account of the paper read before the Institution last year by Dr. Haldane, F.R.S., on the subject of "Miners' Anaemia," and of the discussion which followed. By miners' anaemia is meant ankylostomiasis, and although there is no reason to suppose that the parasite has so far gained a footing in more than a very limited number of mines in this country, the possibility of meeting with a person suffering from the complaint is one to be borne in mind by all medical men who see anything of miners. The most obvious symptoms to which the disease gives rise are pallor, palpitations, and shortness of breath, while the Cornish epidemic was accompanied by the prevalence of irritable inflamed swellings of the skin, locally known as "bunches." Recent observations, made at home and abroad, tend to support the idea that these patches indicate the local presence of larval worms, and the route by which they reach the intestine.

[1] *Essay on the Irregularities of the Teeth*. By Sim Wallace, D.Sc., M.D., L.D.S. London: Dental Manufacturing Company. 1904. (Demy 8vo, pp. 170. 5s.)

[2] *Anaesthesia in Dental Surgery*. By T. D. Luke, M.B., F.R.C.S.E. London: Rebman, Limited. 1904. (Crown 8vo, pp. 120. 3s. 6d.)

[3] *The Diseases of the Mouth and Teeth*. By L. T. Lavan, L.D.S.R.C.S. Part I. The Diseases of the Antrum Maxillary Sinus. London: Adams Bros. 1903. (Demy 8vo, pp. [illegible])

[4] *Recent Excavations in the Roman Forum*, 1898–1904. By E. Burton Brown. London: John Murray. 1904. (Crown 8vo, pp. 270. 3s. 6d.)

[5] *Roses and their Cultivation*. By T. W. Sanders, F.L.S., F.R.H.S., etc. London: W. H. and L. Collingridge. 1904. (Crown 8vo, pp. 192, 9 illustrations. 3s. 6d.)

[6] *Food for the Tropics*. By T. M. Macknight. London, Calcutta, and Bombay: Thacker and Co. 1904. (Crown 8vo, pp. 176. 3s. 6d.)

REPORTS AND ANALYSES

AND

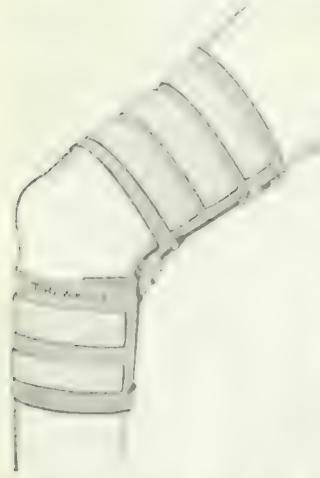
DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Instrument for the Removal of Foreign Bodies from the Nose.—Mr. A. Roberts, F.R.C.S.E. (Surgeon to the Ear, Throat and Nose Department, Royal Berkshire Hospital) writes: The accompanying illustration represents a little instrument which I have designed for the removal of foreign bodies, rhinoliths, etc., from the nose. The ordinary methods of removal are not always satisfactory, and it was after meeting with a difficult case, in which a rubber teat had been introduced into one of the cavities, that I sought for some new instrument likely to prove valuable under such circumstances. As will be seen, the end of this particular instrument is flattened and turned down, this portion being 6 millimetres in depth, and being provided with three small teeth. It can be readily passed into the nose beyond the object to be extracted, and gentle traction will lead to rapid removal of the foreign body, without laceration of the surrounding parts. Messrs. Mayer and Meltzer, of 71, Great Portland Street, W., made the instrument for me.

Splint for Transverse Fractures of the Patella.—Major Chas. H. Johnston, M.B., etc., I.M.S. (Trivandrum, Travancore, India, writes): The splint illustrated in the accompanying diagram was made by Mr. Hawksley, of Oxford Street, for me. I have found it most useful for riding, and it ought to be a boon to all huntsmen suffering from this injury; some of them in the shires are using it at the present time. It adapts itself to all the movements of the joint, has no points of pressure, is not unsightly or cumbersome, and can be worn under the riding breeches unnoticed by onlookers. If the action of the quadriceps is not desired an elastic half knee cap can be attached over the knee, with a hole cut out of the centre to avoid direct pressure on the cap. The splint consists of a conical hinge with cheeks riveted to two separate moulded fittings of leather or poroplastic felt, to which are attached the necessary straps and buckles for securing to the leg. The hinge, with this spindle-shaped rivet allows for the deviation of the point in bending and straightening, as it is important that the patient should be entrusted with the means of manipulating the range of movement, two checks are adjusted to the angle at which the limb may be bent, and as it is desirable to increase it, one or other of the checks is filed away. The patella and sides of the knee joint (especially the inner side) are uncovered, so that on horseback one's grip of the saddle may be in no way impeded, and it may be worn over or under the pants. The large movement of the head of the tibia on the condyles of the femur, in flexion, is accommodated by the steel upper part of the splint at the back fitting and sliding in a sleeve on the thighband, thus compensating for shortening at the back of the leg.



A Portable Lamp for Laryngoscopic Purposes.—Mr. E. Cresswell Baber (Brighton) writes: The lamp shown in the accompanying figure has proved itself very useful to me for carrying to patient's houses. It is an incandescent lamp burning methylated spirit, and a spare mantle is carried in the box in case of injury, and also a small reserve of spirit. The whole fits into a wooden box measuring 13 × 5½ × 8½ in., and is not at all heavy. With ordinary care there is no risk of the spirit contained in the lamp spilling. The lamp gives out a bright white light, and is useful not only for examination of the throat, nose, and ear, but for other surgical work. The want which exists for a portable and at the same time powerful light is my excuse for drawing attention to this simple lamp. It is moderate in price, and may be obtained of Vaust, 22, Rue de l'Odéon, Paris, or of Mayer and Meltzer, 71, Great Portland Street, W.

NOVA ET VETERA.

THE MEDICAL SERVICE OF THE NAVY IN THE EARLY PART OF THE LAST CENTURY.

The Statistical Report of the Health of the Navy for 1902 just issued contains among other appendices one of considerable interest entitled A Report on Journals of Medical Officers examined at the Public Record Office, by Deputy Inspector-General Theodore J. Preston, R.N., (retired). The period covered by the journals extends from 1793 to 1856.

The Personnel of the Service.

During the greater part of that period the medical service of the navy seems to have been recruited principally from Wales. Ireland furnished only a few surgeons' mates. Scottish names appear after the reduction of the navy, about the year 1820. French, Dutch, and Russian medical men seem to have been given warrants, probably after the ships in which they were serving had been captured. Owing to this, occasional difficulties with the English language arose in the compilation of their journals. The returns of the *Ambuscade* (1800-2), and of the *Pluto* (in 1824) exhibit the struggles of Dutch surgeons to make themselves intelligible. One, Godfrey Baldemus, who was serving in the *Endeavour* in 1813-4, appears to have been a conspicuously ignorant Hollander, while earlier in the history of that vessel (1806) her surgeon, a German, favours the reader with much of his personal history, his education in his own country, and his superior position in the ship as an ex-professor of a university. In 1798 the surgeon of the *Wasaamer* was able to act as interpreter to the Russian troops on board; and in 1820 Dr. J. Hall, "formerly of the Imperial Russian Navy," and then of H.M.S. *Agincourt*, writes his journal entirely in Latin, a fact which engenders a suspicion that his knowledge of the English language was limited.

Shortcomings of Surgeons' Mates.

That the Royal Navy suffered from the want of adequate medical assistance in the early part of the last century is evident from the remarks made by many of the surgeons then in charge of vessels of war. Whyte, of the *Atlas*, in 1809, complains of the want of medical education and the conduct of surgeons' assistants generally. He writes:

The third mate possessed activity, and so long as he entertained a hope of becoming first mate he was willing and zealous; but, his medical as well as common education had been entirely neglected, he neither understood Latin nor could he spell properly the most common English words . . . The present first mate . . . incompetent for the performance of his duties . . . his exterior plausible . . . but more ignorant than the third mate. Concerning the Irish B.A., now second mate . . . he could neither perform the simple operation of venesection nor make up the most common medicinal preparations. . . . Distressed me . . . such inadequate assistance . . . success of my practice and the fate of Britain's warriors depend.

UNPOPULARITY OF THE SERVICE.

With most surgeons, except those serving in vessels cruising in home waters, the service was unpopular. Then, as in later days, the executive officers were apt to stretch their prerogative. In 1798, when the surgeon arrived on board the *Serapis*, then in India, and produced the warrant of his appointment to the commanding officer, that gentleman remarked "that he was surgeon himself, and had been so near four years; that no surgeon was allowed, and that he wanted none." As late as in 1855 we find a medical officer complaining of "the annoying interference of the captain in medical matters making the surgeon a nonentity."

The surgeon of the *Violet* in 1810 was in an uncomfortable ship and writes home: "Grant me my discharge or death will soon put an end to my troubles;" and Dr. Gillespie, on leave from the *Ranchorse* in 1790, expresses his feelings in a significant entry in his diary as to "her house, how much preferable to the noise, the intemperance, the dissension of a ship of war." At Madras, in 1804, Dr. J. W. Cowan complains:

It was with much concern I found when I came to the hospital, instead of a respectable old navy surgeon, an assistant surgeon in the Company's service, he may be a very clever fellow, but surely the person who appointed him could have had very little concern for the feelings of the navy surgeons at the time employed on this station.

In certain foreign navies the surgeon had to shave the ship's company, and in our own his duty seems sometimes to have included the treatment of animals. In 1829 we find the medical officer of the hospital at Ascension objecting to rendering professional assistance to the horses, cattle, etc., on the island. A few years later the surgeon of the *Alban* states that "he has no assistance in the sick berth, and has to make his own poultices in the galley."

NELSON'S LOST ARM.

Possibly from a distaste for clerical work—for assuredly it could not have been from the want of material—very few remarkable surgical operations are recorded, especially during that period when amputations after gunshot injuries were of almost daily occurrence. A case of special interest to hero worshippers of every nation is recorded in the following bold note by the surgeon of the *Theseus*, under date "1797, July 24th and 25th." It may be remembered that Nelson received the wound which caused the loss of his arm in an unsuccessful attack on Santa Cruz, in the island of Teneriffe:

Admiral Nelson. Compound fracture of the right arm by a musket ball passing thro' a little above the elbow, an artery divided, the arm was immediately amputated and the following given him ℞ Opii. gr. ij. ft. Pil. statim, s., &c., 26 July. Rested pretty well and quite easy. Tea, soup, and sago. Lemonade and Tamarind Drink. 31 July. One of the ligatures came away; looks well. 1 Aug. Continued getting well very fast, stump looked well, no bad symptom, sore reduced to the size of a shilling.

No further remarks upon this interesting case are found until August 20th, when in the journal of the *Seahorse* the surgeon, Mr. Thomas Eshelby, writes:

I was appointed from the *Theseus* to attend the Admiral to England....one of the ligatures not come away. Twitching Pains at times, particularly at night. I gave the left wing ℞ Haust Salin. c. Tr. Opii. gᵗˣˡ. h. s. sumendus et rep pro re nata. Dress'd with Cerat Lap Calamin and dry Lint. He landed at Portsmo 1st Sept would not suffer the ligature to be touched.

The journal of Dr. Beatty, of the *Victory*, contains a list of the wounded at Trafalgar, but there is no mention of Nelson's fatal wound or of the death of the hero.

PREVENTIVE MEDICINE.

The journals show that preventive medicine was not wholly neglected a century ago. In 1797 cinchona bark in wine was given to all men employed on shore in the West Indian Islands, and continued to be generally issued as a preventive of fever until its supersession by quinine. Nelson was convinced of the value of the bark as a prophylactic, and in 1803, acting on medical advice, he ordered its compulsory use by all seamen of the Mediterranean Fleet, on duty wooding or watering their vessels. Pneumonia was suspected to be a contagious disease in the *Hawke* in 1808. Five years afterwards the surgeon of the *Rarcon* was convinced that such was the case, and separated cases of that disease from the remaining sick. Clinical thermometry in cases of fever was used in 1811. The assistant surgeon of the *Alphean* relates how he placed a thermometer beneath the patient's tongue, recording the temperature; and the medical officer of the *Cerberus* did likewise, making use of the axilla.

CARE OF THE WOUNDED.

The information as to killed and wounded is very meagre. It would appear that surgeons were not called upon to render any account or description of a battle, nor to take cognizance of the numbers killed. It is clear, however, that the wounded received every attention; and the details of amputations are usually complete but succinct, doubtless because such records afforded the Commissioners for Sick and Wounded Seamen evidence of the professional capacity of the writers. When the *Penelope* captured the *Guillaume Tell* off Malta in 1800 the surgeon remarks:

There were found nearly 300 killed and wounded, out of which number there were 30 capital operations . . . . several who lost their legs and arms, except a small portion of the skin by which they were suspended, remained in that state, without even the application of a tourniquet, for the space of from eight to ten hours, without haemorrhage of the least consequence taking place. This might be a great inducement to surgeons to delay operating during the time of action.

MEDICAL PRACTICE.

The contents of the earlier dated journals exhibit a more or less empirical form of practice, in which venesection and large doses of calomel hold a prominent place. As the century progressed the reports of heroic phlebotomy become fewer, the occurrence or production of mercurial salivation always induced in venereal disease, ceases to be noted, and the administration of crude cinchona bark is gradually superseded by the more elegant quinine. At a period when the surgeon was but sparsely supplied by the Crown with drugs and appliances, having to supplement his stores with articles which he was compelled to purchase from the Apothecaries' Society in London, it is not surprising to find that the commoner and cheaper remedies then in use were principally administered in His Majesty's ships. In spite of these therapeutical disadvantages, medical officers were particularly respected as "doctors," and considered apart from the remaining officers by ships' companies; this is shown by the fact that during the mutinies at Spithead and at the Nore, the surgeons and their assistants were never put on shore by the mutineers, as the other officers were. At least one of these outbreaks was followed by a demand for improved supplies of drugs, materials, and comforts for the sick and wounded, the absence of which was to the seamen clearly no fault of the medical officer.

SCURVY.

The term "scurvy" is loosely employed by some of the compilers of these journals, and it is difficult therefore always to identify the conditions of epidemic sickness which might be fairly described as of scorbutic origin. In 1808 a vessel at the Nore, but recently commissioned, is stated to have "scurvy" on board because "the purser neglected to draw lime juice and sugar from Sheerness yard"; and the surgeon of the *Albion* in 1800 attempted to cure a disease he identifies as "scurvy" by burying his patients up to the neck in earth procured from the shore. Opinions as to preventive measures also differ largely. One medical officer in 1797 advocates the administration of dilute phosphoric acid, others the use of citric acid as a beverage, and not a few the admixture of alkaline salts with the seamen's rations. Some surgeons pronounce lime juice useless and fresh meat the sole antidote, while others place their sole reliance in fresh vegetables. The *Ajax* in 1800 found lemon juice useless in the prevention of scurvy, as did the *Aurora* convict ship in 1835. The crew of the *Daedalus* in 1802 had had six weeks' fresh meat in sixteen months, but had been able to obtain unlimited supplies of fruit and vegetables; no scurvy appeared. In the *Rapid*, in 1846, this disease manifested itself, in consequence, it may be presumed, of the scarcity of fresh vegetables, the ship's company having had plenty of fresh meat. The *Rattlesnake*, one of the Arctic relief ships in 1853-4, was able to obtain fresh meat in plenty, and issued preserved vegetables only; there were no cases of scurvy on board. In 1807, in a ship serving in Indian waters, the surgeon obtained gratifying results from giving his scorbutic patients "green peas soaked in water, and allowed to vegetate." The use of

nopal leaves as an article of diet met with many advocates early in the last century, especially among surgeons serving in ships on the Indian and Chinese stations. The use of preserved potatoes as a preventive of scurvy is recommended in a journal from a convict ship in 1841. Ten years subsequently the surgeon of the *Miranda* urges the substitution of French compressed cabbage. Mustard as an antiscorbutic is suggested in 1[illegible].

HOSPITAL SHIPS.

Hospital ships and convalescent vessels were, apparently, for the most part men-of-war captured from the enemy, and were stationed in the home ports; but there is evidence that some ships taken from the enemy were converted on the spot into hospitals as they floated, presumably without removal of their war stores, guns, etc. Of the latter was a vessel, unarmed, captured at Cottenburgh, in 1805, and the surgeon of the *Belleisle*, writing in 1[illegible], mentions the fitting up as hospitals of ships taken at the evacuation of San Domingo. The *Alcaen* was a sea-going hospital ship in the Baltic Sea in 1[illegible]; the *Tritton* in the Tagus in 1[illegible]; and in 1[illegible], after the battle of Corunna, the *Bombay* is mentioned as a sea-going vessel receiving the military wounded. In 1801 the *Hebrus* was afloat, still earlier, the *Delphin* was serving as a hospital ship at Teneriffe in 1[illegible]. In addition, the *Dedaigneuse* was moored off Copenhagen in 1[illegible], and the *Withington* at Penang in 1[illegible], both vessels being similarly employed. It must not be assumed, however, that these vessels were purely hospital ships in the modern acceptation of that term, for they appear to have retained their armaments, although there is no record of their having been attacked or of taking part in any engagements or of acting as transports. In addition to sea-going vessels several obsolete men-of-war seem to have been converted into convalescent ships and permanently stationed at the naval ports; they received wounded from the active fleet and served as adjuncts to the local hospital ship for the reception and treatment of minor ailments. Such were H.M. ships *Le Caton* in 1[illegible], and *Prince Frederick*, in 1803, at Plymouth; the *Gladiator*, in 1707, and *Le Pegase*, in 1805, at Portsmouth. As the necessity for the existence of these auxiliary vessels ceased to a great extent with the cessation of hostilities in home waters, they were used as "prisons" as well as hospitals receiving the sick and wounded from captured French, Spanish, Danish, and American ships. The most recent mention in the journals of a vessel appropriated for purely hospital purposes is that of the *Tremendous*, which was fitted up for the reception of cholera patients at Sheerness in 1832.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

The annual meeting of the General Council of the King Edward's Hospital Fund for London was held on March 8th at Marlborough House, the Prince of Wales being in the chair. The adoption of the account of receipts and expenditure and the balance-sheet for the year ending December 31st, 1[illegible], was moved by the Prince of Wales, and seconded by Mr. H. C. Stuart who pointed out that the annual subscriptions amounted to £[illegible], more than in 1902; the League of Mercy had been able to increase its contribution by £[illegible], the total income from investments was £27 [illegible], which was £[illegible] more than in the previous year. The donations showed a falling off of £[illegible], this was accounted for by the fact that a special effort had been made in 1903 in connexion with the Coronation gift. The adoption of the report was supported by Sir Henry Burdett and carried unanimously.

The Prince of Wales then moved the adoption of the report of the General Council for the year ending December 31st, 1903. He said that the accounts showed a gratifying progress, the contributions in 1903 being £[illegible] more than in 1902, the last income year the sum distributed [illegible] exceeded the amount distributed in 1902 by £[illegible]. It had however been necessary to draw upon the reserves to the extent of over £18 000 to enable this grant to be made. The Prince said that a generous friend, who desired to remain anonymous, had written to him recently expressing the opinion that if the King's Fund had an assured income from investments and other permanent sources of £[illegible] the income from subscriptions and other sources would amount to £[illegible] a year, making a total of £[illegible] a year available for distribution, and placing the King's Fund in a position to exercise a most beneficial influence and control over the management of every London hospital. To help towards this desirable object he had decided to anticipate a provision in his will and would hand over securities representing the capital sum required to provide one-third of the £[illegible] a year, the amount by which the assured income of the Fund fell short of £[illegible] a year, provided that the remaining two-thirds (£[illegible] per annum) were provided before the end of 1[illegible]. The donor desired that the fund should prevent any portion of the sum subscribed for the relief of the poor being diverted to purposes of medical education. The Prince said that though reluctant to make personal appeals, in view of this munificent offer, he felt that it was his duty to invoke the support of those who were in a position to follow the example of the anonymous benefactor. The total number of subscribers to the fund was over 4,300, and to that number must be added the many subscribers to the League of Mercy; this showed that the fund was becoming understood and appreciated by the people. After thanking the dramatic profession for their frequent, substantial, and unassuming help, the Prince said that the reports of the Visiting Committee had been of the greatest assistance in determining the distribution of the fund. Many reforms, of which the public heard nothing, had been carried out in hospitals on the recommendation of the Visiting Committee.

The motion for the adoption of the report was seconded by Sir John Aird and supported by the Bishop of London, who said that the number of beds which had been opened through the instrumentality of the fund was no less than 443.

A vote of thanks to His Royal Highness for presiding was moved by Lord Monkswell and seconded by the Rev. Dr. Adler, Chief Rabbi.

The Prince of Wales after thanking the meeting said he had a message from the King who desired it to be known that the interest he took in the fund was undiminished, and that he congratulated the Council and all concerned on the very efficient way in which the fund was administered.

The report of the Hospital Distribution Committee expressed regret at the retirement of Lord Lister, whose place had been taken by Sir William Church. A grant had been made to the Poplar Hospital to help in opening ten more beds. The Committee expressed the opinion that one first-rate orthopaedic hospital with a country branch would be more beneficial than a number of institutions in London in rivalry with one another, and expressed regret that the City Orthopaedic Hospital had not seen its way to join in any scheme of amalgamation. A sum of £[illegible] has been set aside to be drawn upon as required for the amalgamation of hospitals. A large donation of £[illegible] to King's College had been made to encourage the removal of the hospital to the South of London.

LITERARY NOTES.

The first number of *Our Hospitals and Charities* (Kegan Paul, Trench, Trübner and Co.) which has just appeared has the handsome appearance which has been described as a good letter of introduction. The new periodical is especially intended to reach the many who never receive the appeals sent out by hospital secretaries, who do not go to the fêtes, bazaars, and concerts organized for the benefit of charities, and who do not contribute to Hospital Saturday Funds or to church collections. Its aim is "to give life and reality to the colourless statistics to be found in the perennial appeals of the hospitals and charities, which too often, in spite of the skill with which they are set forth, fail to evoke the sympathy that is their object." An endeavour is to be made to interest readers in the lives and personalities of the men and women who labour for the welfare of the sick and distressed. It is not intended "to pander to the base craving for sensational details, but surely, soberly, to bring home to the hearts of readers the real nature and value of the self sacrifice which this work entails on those who give themselves up to it." The number before us contains illustrated articles on St. Bartholomew's Hospital, the metropolitan convalescent hospitals, the Society for the Prevention of Cruelty to Children, and the General Hospital of Birmingham. We congratulate those responsible for the production of the periodical on the success with which they have carried out their avowed aim. The details of hospital work are here *multis exemplis illustrata* with a realism which has nothing in it

of morbid sensationalism, and which can hardly fail to excite the interest of all who can feel for suffering, and sympathize with the efforts made for its relief.

A distinguished teacher has sent us the following skit which appeared in the February number of the *Magazine* of the London School of Medicine for Women. He says: "It so admirably hits off the vagaries of the London University regulations, that, I think, it deserves a wider circulation."

HIAWATHA MEDICAL STUDENT.

Hiawatha was studying
In the Faculty of Medicine,
Who was reading for his Degree,
Who one night he dressed as a Venetian
Visions awful, very mystic,
Full of deeper, hidden meaning,
For it seemed he saw a Senate,
Senate of the very mighty
University of London
Sitting on the Regulations
For Internal and External
Students in the Art of Medicine
For He saw how one demurred
Rose, and argued much in this wise:
"All things change, he cried, "and never
Are we certain of the Future
Certain of the hurly-approaching,
In the middle of the next week,
In the next hour, the next moment
And we are not Medes and Persians."
Think," cried he, "Oh! Think, I beg you"
We have had our Regulations
For Internal and External
Students in the Art of Medicine
Firmly fixed for several years now"
And the members of the Senate
Bowed their hoary heads in sorrow
And with silent nod assented.
"Think again," he cried, "I beg you,
Wherefore do we search the knowledge
Of Internal and External
Students in the Art of Medicine
With our dread examinations
Is it not to prove them ready,
Ready at the call of Duty
To meet all the many changes
In a life of alterations
That a Doctor may encounter
Wherefore do we fix our Scheme then,
Our Curriculum of Study?
Fix it as with bands of iron,
Triple brass or other metals,
Never, never, to be altered"
And the members of the Senate
Gazed aghast upon each other.
Murmuring: "Wherefore do we
Are we Medes, or even Persians"
Muttering with groans of anguish:
"Wherefore, wherefore do we fix
In this life of alterations,
Alterations all unlooked for"
Then it seemed to Hiawatha
That the hubbub grew tremendous,
For "Anatomy" the one spake,
"Physiology" another,
"Nay" Mat. Med." a third one thundered
And the Institute walls echoed
With "Mat. Med." seven times repeated.
Till the very lions trembled
Then the Mat. Med regulations
Once more read and quaintly altered,
"Pharmacology they wrote there
Not "Therapeutics,
Never mentioning Therapeutics).
"Pharmacy they also wrote there
But they passed it over vaguely,
"For we cannot know the Future,"
So they argued very wisely.
Then they spake again: "'Tis little,
This is altering very little!
We must not be Medes and Persians
What is left" Then simultaneous
From all lips the words "Organic
Chemistry of Carbon Compounds!"
And the Institute walls trembled
And the lions at the entrance
Roared in unison "Organic"
So they slipped the word Organic
In among the Pre. Sci. subjects,
An important alteration
Born of heaven-sent inspiration
And its 'scheme' too shall be altered,
Once a month or even oftener,
Since no man can know the Future
Since we are not Medes and Persians,
Since we need to test our students,
Proving them at all times ready,
Ready at the call of Duty
To meet all the many changes
That a Doctor may encounter
In a life of alterations,
Unexpected alterations.

S. I. W.

Mr. George Grazebrook, F.S.A., has reprinted from *Miscellanea Genealogica et Heraldica* a paper containing documentary evidence of the birth of a family of thirty-nine children of one father and one mother. The records of the College of Heralds show that in July, 1698, Thomas Greenhill, chirurgeon, of London, petitioned the Earl Marshall that, being the thirty-ninth child and seventh son of his father and mother, he might be allowed a difference in his arms to be borne by him in commemoration of the fact. The grant was made in the following terms:

To all and singular to whom these presentes shall come Sir Thomas Sebright Knight, Principall [illegible] of Armes, and Sir Henry St George Knight, Clarenceux King of Armes, send greeting. *Whereas* Thomas Greenhill of the City of London, Chirurgion (thirty-ninth child and seventh son of William Greenhill late of Greenhill in y County of Middlesex by his only wife Elizabeth Daughter of John Jones of London), has made application to his Grace Henry Duke of Norfolk, Earl Marshall of England, y the Arms by him and his said Father [illegible] under the hand of William Ryley, by his said Father [illegible] Vert. Barrs Argent, in chief a Leopard passant or- may be allowed and confirmed to be born by him w[illegible] Alterations of y Barrs in Argent to Azure, and whereas they have borne for their Crest [illegible] and otherwise a Demi-Gryphon, he may be allowed to bear y same [illegible] powdered with thirty-nine Mullets or. And forasmuch as y said Earl Marshall, being well satisfied of the Qualifications of y said Thomas Greenhill, and in consideration of his Services of his Race and his Family, did by Warrant or Order under his Hand and Seal of his Office of Earl Marshall, bearing Date y Eight day of August last past, Order and appoint Us to Grant Allow and Confirm y said Arms and Crest so differenced as aforesaid.

The Earl Marshall (Duke of Norfolk) had good ground for being satisfied of the chirurgeon's qualifications, for it appears from another document that Thomas Greenhill had endered professional services to him and his family. William, the chirurgeon's father, is described in a third document as Secretary to General Monte, afterwards Duke of Albemarle. It is stated that the thirty-nine children were all at single births except one, and that most of them died young, only seven surviving in 1668. Thomas, who practised his profession in King Street, Bloomsbury, was the author of work entitled Νεκροκηδεια, *or the Art of Embalming, wherein is shewn the right (sic) of burial the funeral ceremonies, and the several ways of preserving the dead bodies in most nations of the world, etc.*, London, 1705. The work consists of three letters addressed to Chas. Bernard, Serj.-Surgeon to her Maty. and present Master of the Surgeons Company and one of the Surgeons to St. Barts. Hospl.; to Dr. John Lawson, sometime president of the Coll. of Physicians, London; and to Dr. Hans Sloane, Secy. to the Royal Society and F.C.P., London.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending January 28th and February 4th and 11th the deaths from plague in India numbered 23,203, 24,[illegible] and [illegible] respectively. These figures approach very closely to the corresponding periods of [illegible] This year the disease is even more widely spread than at any former time. In the Bombay districts there is a marked decline compared with 1903, but in Central India, whilst the deaths from plague numbered then about 1[illegible] a week, they are now about 1[illegible]. In the City of Bombay the disease showed a tendency to spread during the first two weeks of February. In Calcutta the deaths from plague amount to only two or three daily. The City of Madras remains free from plague. During the weeks ending February 4th and 11th the deaths in the chief centres of plague were: Bombay districts, [illegible] and [illegible], North-West Provinces and Oudh, 5,8[illegible] and 5,[illegible]; the Punjab, 2,7[illegible] and [illegible]3, Bengal districts, 2,[illegible]3 and 2,[illegible]; Rajputana, [illegible] and 1,352. The plague has disappeared from Belgaum.

A Correction.—We are informed that the deaths which took place at the hospital at Cawnpore in January were as follows: Miss Alice M. Marval, L.R.C.P. & S.Edin., Junior Medical Officer of St. Catherine's (S. P. G.) Hospital, Cawnpore, died on January 4th; Nurse Walden died there on January 16th; and an Indian nurse and an Indian compounder also died from the disease. The hospital was reopened after disinfection on February 2nd. Miss Walters, M.B., B.S. Lond., went out at the end of January for six months to fill the post left vacant by Miss Marval's death.

Cape Colony.

During the weeks ending February 4th and 11th no fresh cases of plague were reported from any part of Cape Colony. One case of plague only was known to exist in Cape Colony during the weeks in question, namely, a patient under treatment in the Plague Hospital at East London.

At Port Elizabeth, East London, and Queenstown plague-infected rats continue to be found.

Mauritius.

During the weeks ending February 28th and March 3rd the fresh cases of plague in Mauritius numbered 3 and [illegible], and the deaths from the disease 2 and 5 respectively.

The Philippines.

During December, 1903, there were [illegible] cases of plague and [illegible] deaths from the disease in the Philippines. During [illegible] the deaths from plague numbered 176.

Brazil.

One case of plague was reported from Rio Grande on February 4th. During January a widespread epidemic of plague was reported to have occurred at Pindamonhangaba, a small village lying between São Paulo and Rio de Janeiro.

Egypt.

One case of plague was reported at Alexandria on February 4th.

United States of America.

One death from plague was reported at San Francisco on January 10th, and another on January 13th.

CONTRACT MEDICAL PRACTICE.

Provident Medical Associations—An Inquiry.

The Secretary of the Southampton Provident Medical Association, Howard Road, Southampton, who is writing a paper on contract practice, would be glad to receive a copy of any agreement between a medical man and any club to which he is the medical officer.

Order of St. John of Jerusalem. At the recently held Chapter General of this Order, Honorary-Surgeon-General W. D. Campbell Williams, C.B., was promoted a Knight of Grace, in recognition of services rendered to the Melbourne Centre of the St. John Ambulance Association, and Dr. George Thomson, the Honorary Secretary of the Oldham Centre, also received the same honour for the energy and hard work he has contributed for many years past, both to the Association and to the St. John Ambulance Brigade. At the same time, Colonel T. H. Hendley, C.I.E., late I.M.S., was enrolled an Honorary Associate, for the very valuable work he has rendered in connexion with the institution and development of the Indian Centres of the St. John Association. All these appointments have been sanctioned since by His Majesty the King.

PREVENTION OF CONSUMPTION.

Great Britain.

Glasgow. A meeting of the Council of the Glasgow and District Branch of the National Association for the Prevention of Consumption was held on February 15th, when Dr. Wm. Dougan, Vice-Chairman (in the absence of the Hon. the Lord Provost), presided over a full and representative audience. The meeting was convened to consider the procedure and policy to be adopted by the ward committees and their municipal representatives in promoting the crusade against consumption as resolved on at the meeting held recently in the St. Andrew's (Berkeley) Hall. "After discussion it was unanimously agreed to recommend that with the view of providing for the erection and maintenance of the proposed sanatorium for males at Bellefield, Lanark, each ward committee or subcommittee thereof should assist in the procuring of subscriptions for that purpose in their particular district, (2) lady collectors for each ward for ladies' auxiliary shortly to be formed, and (3) that they should arrange for district lectures and addresses on the prevention of consumption and the distribution of literature bearing upon the subject." The Chairman pointed out the very valuable results which co-operation with the ward committees on the lines suggested would ensure.

The Westmorland Sanatorium.

The fourth annual report of this institution, which was recently presented to the subscribers, shows most satisfactory results. With accommodation for twenty-four patients it has been found possible to admit a few paying patients from outside the county of Westmorland, and with the additional income derived from this source, the balance sheet for the first time shows a balance on the right side. A year ago there was a deficit of £254 9s. 10d., mainly due to the expenses in connexion with the water supply. Not only has this been wiped out, but valuable extensions and alterations have been carried out at a cost of £161. The medical report, which has been carefully drawn up, shows that during the four years of the sanatorium's existence 41 cases were admitted in the early stage of the disease; these remained in the sanatorium on an average three to four months, and almost all are now in good health and earning a livelihood. Dr. Rushton Parker, in presenting the report, drew attention to the large proportion of these cases who had no expectoration, and in whom, therefore, no examination for bacilli was possible. Fifty-four cases were in the "intermediate" stage; these remained from four to five months on the average, and the majority are now well and earning a living. Seventy-four advanced cases were admitted, of whom 32 have died. During the past year 58 patients were admitted, and comment is made on the very large proportion of these who were in an advanced stage of disease. In the discussion on the report it was suggested that more good might be done in the direction of preventing consumption if the sanatorium were used as an isolation hospital for the dangerous advanced cases, but this proposition did not find many supporters, and the report was adopted.

Canada.

British Columbia.—An Association for the Prevention of Consumption was established at a meeting held in Victoria, British Columbia, on January 20th, at which were present delegates from all parts of the province, as well as representatives of the Dominion and provincial governments. Sir Henry Jolly, Lieutenant-Governor of the province, was elected Honorary President; and Dr. Proctor (Kamloops), Secretary; Dr. C. J. Fagan (Victoria), Treasurer; and on the Committee of Management, Dr. J. C. Davie (Victoria) and Dr. R. E. Walker (New Westminster). The provincial government will be approached for a grant of £5,000.

New Zealand.

The New Zealand Government, acting on the advice of Dr. Mason, the Chief Government Medical Officer, has, says the *Australasian Medical Gazette* of January 20th, erected a sanatorium for the open-air treatment of patients suffering from pulmonary tuberculosis at Maungakawa, near Cambridge, New Zealand. It has accommodation for 18 patients. The site has an elevation of 1,000 ft. above the surrounding country, and commands a beautiful and extensive view of the Waikato Plains. The sanatorium, which is said to be equipped with every modern convenience, was opened for the reception of patients last month by Sir Joseph Ward. At the Science Congress recently held in Dunedin Sir Joseph Ward said he intended to ask the Hospital Boards in districts where the climate was known to be beneficial for chest ailments to undertake the building of annexes for the reception of consumptives. With thirteen or fourteen annexes capable of holding 30 patients each, the Colony would be enabled to house and care for all those affected by this disease. He proposed to have these institutions established in Auckland, Hamilton, New Plymouth, Masterton, Otaki, Nelson, Christchurch, Naseby, Lawrence, Queenstown, and somewhere near Dunedin. Within these institutions every precaution would be taken to destroy infected material. These will be in addition to the large sanatorium at Waikato, in which excellent results have already been obtained.

Australia.

Victoria.—It is announced that the Board of Health of the State of Victoria has decided to treat consumption as an infectious disease and to subject all sufferers from tuberculosis to complete isolation. The department has arranged to accommodate numbers of consumptives at the quarantine station.

United States.

New York. The new Health Commissioner of New York, Dr. Darlington, has taken the field in force against the spitting nuisance. Officers have been sent to the ferry-houses, where the offence is most flagrant, and a number of the law breakers have been arrested.

Pennsylvania. It is announced that the crusade against tuberculosis is to be carried on more vigorously than ever in Philadelphia. All cases are to be registered, and infected persons will be removed to a camp which is to be established in a mountainous region of the State. The co-operation of the State authorities is to be secured, as the camp would at first have to be maintained by grants, though it is believed that later it could be made self-supporting.

Indiana.—The Indiana State Board of Health recently issued an order forbidding consumptive persons from holding positions in schools. As a consequence of this order 250 teachers have already been dismissed.

Minnesota.—The Assembly Committee on Streets has reported favourably on Dr. E. H. Whitcomb's ordinance for the regulation and prevention of tuberculosis in St. Paul. Dr. H. M. Bracken, Secretary of the State Board of Health, urged the adoption of the ordinance on the ground that under its provisions the city health department will be able to keep a record of tuberculosis cases, and to prevent infection by requiring vacated premises to be disinfected. The ordinance declares tuberculosis an infectious and communicable disease, and requires reports to the health commissioner from physicians and managers of hospitals of all cases coming under their observation. In case a tuberculous patient vacates a residence, the owner of the premises is required to disinfect the same under direction of the health department. Should the owner fail to comply with this provision the health commissioner is directed, after thirty-six hours' notice, to placard the premises as unhealthful and unfit for occupancy.

Massachusetts. At the anniversary meeting of the New York Academy of Medicine lately held in New York, Dr. W. Gilman Thompson stated that "Within the past decade in the State of Massachusetts alone the mortality from tuberculosis has been reduced exactly one-half." In view of the fact that between 1890 and 1900 the population of Massachusetts increased from 2,093,889 to 2,855,346, a net gain of 761,457, this statement was so startling as to demand verification. This task was undertaken by the New York *Times*, which found that between 1885 and 1902, notwithstanding the increase of population, the number of deaths from consumption in Massachusetts showed a decline from 5,055 to 4,685. During the period of fifty years since 1853 the death rate per 1,000 inhabitants of that State has declined from 42.7 to 13.9. This, says the newspaper from which we have quoted, shows without argument the value of State medicine intelligently directed.

Maryland. During the Tuberculosis Exposition recently held in Baltimore Dr. William Osler delivered an address on the History of Tuberculosis. He began with Hippocrates, and traced the history of knowledge of the disease down to our own day, the narrative being interspersed with biographical, critical and explanatory comments. The Greeks, he said, knew the disease, but were unable to treat it, being ignorant of its cause. Celsus was the first to recommend an open-air life for consumptives as a means of recovery. The Romans used to send consumptives on long sea voyages to

Egypt. Celsus was another great advocate of out-of-door habitation. Coming to modern times, Dr. Osler spoke of Laënnec, the inventor of the stethoscope; of Villemin, who was the first to prove by bovine inoculations that tuberculosis passes from man to cattle and from cattle to man; and of Robert Koch, who discovered the tubercle bacillus. Dr. Osler passed around several valuable and rare volumes, and, in closing, said:

Probably it would be too much to hope to get rid of tuberculosis entirely. But it has been unmistakably shown that it can be prevented, and some day—who can say?—there may be a way of guarding against it by vaccination. This means in a crude way has been tried on calves with some success. The best we can do is to use fully the means we can command for combating the disease, such as getting control of tenements and sweatshops, teaching cleanliness and care, and enforcing laws of sanitation.

During a recent visit to the Tuberculosis Exposition at Baltimore, Mr. Henry Phipps of New York gave £4,000 to the Johns Hopkins Hospital, through Dr. William Osler, for the purpose of establishing a separate out-patient department for tuberculous patients at the hospital. Mr. Phipps gave £2,000 to the same institution a year ago. His gifts to the institution in Philadelphia founded by him and bearing his name are said to amount to nearly £100,000. The work at the Johns Hopkins Hospital has been carried on for several years through the generosity of two ladies of Baltimore. Cases have been visited in their homes, and special directions given to the families as to the management of the disease. A library of tuberculosis has been started.

Illinois.—At a meeting of the Illinois State Medical Society to be held in Bloomington in May, a prominent place will be given to discussions on the prevention and cure of tuberculosis. The effect of different occupations on the health of tuberculous patients will be discussed, and statistics including mortality, influence of climate, topography, occupation, residence (city or country), and other data relative to the prevalence of tuberculosis in Illinois will be presented. The discussion is intended to be preliminary to active measures for the prevention of consumption.

Portugal.

The Third Congress of the Portuguese League for the Prevention of Tuberculosis is to be held at Coimbra on April 21st and three following days. Among the subjects to be discussed are the following: Professor Miguel Bombarda (Lisbon): The Moral Degeneration of the Portuguese People as a Factor in the Spread of Tuberculosis. Professor Bernardino Machado (Coimbra): The Regulation of the Work of Minors and of Women in Factories, etc. Professors Egas Moniz (Coimbra) and Cassiano Neves (Lisbon): Scheme for the Creation of a Law for the Protection of Infant Life in Portugal. Professor Antonio de Padua (Coimbra) and Ayres Kopke (Lisbon): The Early Diagnosis of Pulmonary Tuberculosis. Professor Serras e Silva (Coimbra) and Silva Carvalho (Lisbon): The Effect of General Sanitation on Tuberculosis. Dr. Candido da Cruz Ponte de Lima: Sanitary Regulations and Professional Secrecy. Professors Ricardo Jorge and Carlos Santos (Lisbon): Marriage and Tuberculosis. Councillor Ramada Curto (Lisbon): Malaria and Tuberculosis. Dr. Joaquim Evaristo (Lisbon): Prostitution and Tuberculosis. Dr. Estevao de Vasconcellos (S. Martino do Porto): The Obligations of the State in Relation to the Tuberculous Poor. Drs. Zeferino Falcao and Jayme Mauperrin Santos (Lisbon): School Diet in Relation to Tuberculosis. Professor Angelo da Fonseca (Coimbra): The Present State of the Serumtherapy of Tuberculosis. Dr. Lima Faleiro (Beja): Relations of Alcoholism and Tuberculosis in Portugal. Dr. Lopo de Carvalho (Guarda): The Climatic Conditions of Various Regions in Portugal which seem to be suitable for the Treatment of Phthisis.

Medical Magistrate.—Dr. T. W. Heywood has been appointed a magistrate for the borough of Darwen.

The Spitting Nuisance at Eastbourne.—The Eastbourne Town Council has passed a by-law forbidding spitting in any public carriage, public hall, public waiting-room, shelter, or place of public entertainment, whether admission be obtained by payment or not. The by-law will come into force on September 1st, and an offender will be liable to a fine not exceeding £2. The by-law is excellent—as far as it goes. The limitations of the prohibition to the places mentioned is not, however, the fault of the Town Council. The responsibility rests with the Home Secretary, who will not sanction the prohibition of spitting in the streets and on the parades.

INDIAN SANITARY REPORTS.

United Provinces of Agra and Oudh.

The author of this report, Lieutenant-Colonel S. J. Thomson, C.I.E., D.P.H., was on duty in South Africa in charge of the Burgher camps in the Transvaal—during nearly the whole of the year, and the office of Sanitary Commissioner was held in his absence by Major J. Cheytor-White, I.M.S. This circumstance probably accounts for the arithmetical character of the report, which is for the most part a condensation of the statistical tables appended to it. The year seems to have been meteorologically a normal one. No account is given of crops or prices of cereals. Information on a matter so vitally affecting public health in India ought never to be omitted from a sanitary report. An excellent map of the province is given. The birth-rate was 45.84 against 41.35 in 1901, and 39.65 in the preceding five years. It is noted that the excess of births over deaths has been steadily rising since 1900. The death-rate was 32.54 against 30.30 and 32.48—an average return. As in Bengal, the high and increasing infantile mortality is commented on. The rate on births in 1902 was 243.6 against 232.7 in 1901, and 229.4 in the preceding 10 years. A special inquiry has been ordered by Government. Efforts are being made to improve the verification of registration figures, and some useful returns of death causes are being obtained from private practitioners. There was an abatement of cholera mortality. Small-pox was in excess of 1901, but below the average. The same remark applies to fevers and bowel complaints. The mortality caused by plague was serious, the number of deaths actually returned being 40,223, but there is reason to believe that many plague deaths have been included under "fevers." Females died in larger numbers than males. Some efforts have been made in places to "deal with mosquitoes and their larvae with a view to the prevention of malaria." The acting Sanitary Commissioner spent most of his time in touring through the province inspecting towns and villages and visiting "melas" (fairs). The Sanitary Board held five meetings, and appears to have disposed of a large number of references relating to sanitary work. The report of the sanitary engineer also indicates useful effort in the same direction. In the towns of Benares, Lucknow, Cawnpore, Agra, Allahabad, Meerut, Dehra, Mussoorie, and Naini Tal waterworks have been constructed and drainage works are being completed.

The Punjab.

The report on the sanitary administration of this province reveals some remarkable facts. The meteorology of the year was normal, no failure of crops occurred, the prices of food grains were moderate, the birth-rate (43.8) high, cholera rare, small-pox in no great excess, fever and bowel complaints below the average, and yet the death-rate was 44.1 per 1,000—the highest provincial rate of the year 1902. The cause of this very high mortality in a year when a low rate might reasonably have been expected was plague, which carried off 171,302 persons, or 8.52 per 1,000 of the population of the province. The disease prevailed most in the central and most populous provinces—in Ludhiana, Umballa, Sialkot, Jullundur, Gurdaspur, Hoshiarpur, and Lahore. The death-rates caused by plague varied between 71 and 10 per cent., and in some localities rates of from 20 to 40 per cent. were reached. The disease attacked small towns and villages rather than cities, and the rural mortality exceeded the urban. Dead rats were observed in villages before the outbreak, and when, under these circumstances, houses were promptly evacuated the inmates escaped. Females suffered in higher proportion than males. The disease, commencing in October, 1901, rapidly rose to a maximum in March and April, and then fell to a minimum in August. The facts relating to the disease and the measures adopted to control it have been specially reported by a special officer. Small-pox prevailed rather severely in some districts which are stated to be badly vaccinated, while well-vaccinated districts, such as Kangra, were comparatively exempt. A very important disclosure is made of the prevalence of cerebro-spinal fever epidemically in some places. In the Hissar district the outbreak was preceded by pneumonia, and was associated by Dr. Courtney, the Civil Surgeon, with previous privation. The statistics relating to respiratory diseases, which appear in the returns for the first time, are not, perhaps, very reliable, but they give a provincial rate of 2.8, against 0.33 in the United Provinces and 0.07 in Bengal. In some districts the rates were very high, and mention is made

of an epidemic of pneumonia in the Gurtar Khan Tahsil of the Rawal Pindi district. Appended to the report of Lieutenant-Colonel C. J. Bomber, D.P.H., the Sanitary Commissioner, is a report of the proceedings of the Sanitary Board, which held seven meetings and disposed of a number of important references, and a report by Mr. C. L. V. Gonnet the sanitary engineer, which indicates commendable activity in sanitary work.

BOMBAY.

The sanitary report for 1902, compiled by Lieutenant-Colonel J. Clarkson, I.M.S., Sanitary Commissioner, is by no means cheerful or hopeful. It is confined, hard, dreary reading, being mainly a digest of statistical returns. The weather seems to have been unfavourable and the crops good. Famine lingered in Gujarat and the Deccan, and relief measures continued in those parts, but nearly all the camps and hospitals were closed before the year ended. The birth-rate was 32.16, against 25.15 in 1901 and a decennial mean of 33.06, and the death-rate 30.04, against 37.12 and 35.92. The City of Bombay had a birth-rate of 22.88 and a death-rate of 33.13. The large number of stillbirths reported is attracting attention. The plague mortality was higher than ever, and accounts for the high death-rate. The number of deaths registered was 184,782, giving a rate of 10 per 1,000. The disease extended its area of prevalence, and was very virulent. No mention is made of preventive measures. A great abatement of cholera mortality occurred, and the rates for small-pox, fevers, bowel complaints, and violent causes were all below the average. The new entry of "respiratory diseases" exhausts a rate of 3.21 which is higher than that of the Punjab. No reference is made to the alleged increase of phthisis in the city of Bombay. References to sanitary work are meagre, and the proceedings of the Sanitary Board are paltry, and appear to be ridiculously unequal to the sanitary requirements of the Bombay Presidency. The Sanitary Commissioner remarks that "real sanitary progress has been at a standstill for some years past," and urges the Government to come to the rescue with grits and loans. The reply is that the Governor in Council cannot at present hold out any hope of any large measure of Government aid and recognizes towards the execution of such schemes (water supply and drainage). Lieutenant-Colonel J. Crimmin, V.C., Health Officer of the port of Bombay, is complimented on the thorough and useful work of his department. The praise is well deserved.

VETERINARY ADMINISTRATION IN BENGAL.

The report of Veterinary Major F. Raymond, F.R.C.V.S., for the year 1902-3 indicates continued progress in veterinary education and relief. Twenty dispensaries have now been started in the districts, in which were treated 903 in-patients and 21,911 out-patients. In addition 21 itinerating veterinary assistants treated 21,235 village cases, mostly of rinderpest. The assistants employed were educated in the Bengal Veterinary College at Bengachia, in the hospitals attached to which 1,307 cases were treated and 691 operations performed. Preventive inoculation is being largely practised. The total number of cattle operated on was 11,472 and 25 selected animals were sent to the Imperial Bacteriological Laboratory at Muktesar for the purpose of being trained in that process. The people seem to accept the practice readily. Prefixed to the report is a photograph of the 30 students who attended the course during the year and their teachers. The youths present a smart and intelligent appearance.

MEDICAL SOCIETY OF LONDON.

The annual dinner of the Medical Society of London was held at the Criterion Restaurant, Hotel Metropole, Mr. Mansell Moullin, the President, in the chair. After the usual loyal toasts had been duly honoured the toast of "The Medical Profession" was proposed by Professor Alfred Alfbutt, F.R.S., in a speech of considerable length. He pointed to the attitude of the profession towards the public, which would not permit that the medical profession should be held up to ridicule or obloquy, and to the position which the profession occupied in the estimation of the public. He referred to the difficulties of medical education and the responsible position which the medical man had to fill. The scientific research and work of the profession was a great thing to be proud of. The Medical Society of London was a great institution, and the meeting of the society at the present time was a very appropriate occasion. He regretted the scarcity of medical men in parliament. He regretted the scarcity with some emphasis that, in pursuit of specialism, they were apt to lose sight of the universal. He warned against the division between medicine and surgery being made too absolute. In olden times the distinction between the two was necessary, because if the efforts of the surgeon proved unsuccessful his failure entailed the severest penalties, one unfortunate surgeon having been flayed alive because of the untoward result of an operation. In his concluding remarks, Professor Allbutt paid a high tribute to the work of Lord Lister. The President, in replying to the toast referred with satisfaction to the prosperity of the Society: fifty-one new Fellows had been elected during the last year, and that was a record number for the last twenty years. Mr. Edmund Owen, who proposed "The Guests," asserted that though a surgeon had sometimes cause for anxiety, physicians also had reason to be anxious, and did their best to keep their patients alive, dreading lest the revelations of the necropsy should not confirm their diagnosis. Sir John Wolfe Barry, in also responding to the toast, said that engineers were not without anxiety in connexion with their work, and confessed that at the opening of the Tower Bridge he felt some amount of responsibility and anxiety as to whether the calculations that had been made were correct, and whether the materials used were as good as they ought to be. Sir William Taylor, Director General of the Army Medical Service, also replied for the toast. In his opinion reform in his department might be ascribed either to the war or to the reorganization scheme. They had certainly had enough of the war, and perhaps some of them thought that they might have too much of the reorganization. He assured those present that the officers in the Army Medical Service were deeply grateful for the friendship and consideration shown to their branch of the service by the civilian members of the profession. The toast was also acknowledged by Mr. J. W. Comyns Carr, and after the toast of "The President" had been proposed by Dr. Allchin and suitably acknowledged, the proceedings terminated at a late hour.

THE annual festival dinner of the Irish Medical Schools and Graduates' Association will be held at the Trocadero, Piccadilly Circus, W., on St. Patrick's Day, March 17th, at 7.15 p.m. Tickets may be obtained by members from Mr. E. Canny Ryall, 30, Harley Street, W.

MEDICAL SICKNESS AND ACCIDENT SOCIETY. The usual monthly meeting of the executive committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, W.C., on February 25th. It was reported that, as is usual in the early months of the year, a large number of members have made claims on the society for sickness pay, but that neither the number of claims nor the total amount paid were in excess of what was anticipated at this season. A considerable number of claims are being received on account of influenza. So far these have been light, but the books of the society contain much evidence that what may seem at the time to be a very light attack often leaves much weakness, and the funds have perhaps been as much drawn upon in consequence of the sequelae of influenza as through the original attacks. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MIDWIFERY TRAINING. The Society for Promoting the Training and Supply of Midwives desires that its aims and objects should be more generally known, because it would thus, it considers, be likely to receive pecuniary support. It believes that, unless special steps are taken, the effect of the Midwives Act will be that the present evil of ignorance and want of training on the part of midwives will be replaced by a misfortune which will fall equally heavily on the poor, namely, a deficient supply of women who can attend to the want of that very large class of the poor who are unable to pay the doctor's fee for attendance. Its object therefore is to form a central organization to encourage the training of midwives and also for the training of those who, already practising as such, have not been properly trained for their calling. In proof of the importance of the object which it has in view it points to the heavy infant mortality which annually occurs and which is largely due to the ignorance and carelessness of unskilled midwives. In the space of a month the Society has received an increase in the number of applications for training. It therefore considers that it is entitled to support by humanitarian, economic, and patriotic grounds. The cost of training a midwife is estimated at £20, and a home has already been established at Bow Road to work in connexion with the Plaistow Maternity Charity. Further information can be obtained from the Secretary, Hanover Chambers, 16, Buckingham Street, Strand, where donations will also be received.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 12TH, 1904.

MILK EPIDEMICS AND BOVINE MAMMITIS.

Professor J. Wortley Axe, Consulting Veterinary Surgeon to the British Dairy Farmers' Association, has made to that Association a report upon the relation of udder disease in cows to the epidemic of sore throat which occurred in the districts of Woking and Horsell last autumn. The report of Dr. R. W. C. Pierce, Medical Officer of Health for Guildford and Woking, on this occurrence was published in the BRITISH MEDICAL JOURNAL of December 5th, 1903. It will be remembered that the symptoms from which the patients in this epidemic suffered were severe sore throat, febrile and general constitutional disturbance, with enlargement of the glands of the neck, in some cases ending in suppuration. It was shown that four of the cows in a herd which supplied milk to the infected houses were suffering from mammitis, and the milk yielded from the infected udders was visibly altered to the naked eye; in fact, it was reported that the liquid yielded by two of the cows consisted for the most part of pus, such as would be obtained from an abscess. Professor Axe reports that the farmer assured him that this liquid was thrown into the hog tub, and did not form part of the milk supplied to the dealers. Professor Axe further points out that it would appear that the precautions taken were not completely effective, as the retailers of the milk had a month or two previous to, as well as shortly before, the epidemic called the attention of the farmer to the fact that the milk either did not keep or gave a slimy deposit. While admitting that the presence of pus or muco-pus and streptococci in milk is "filthy, disgusting, and may prove hurtful to public health," he contends that there are not sufficient grounds for attributing to the products of the mammitis the effect of producing such an epidemic as that which occurred in and near Woking. He suggests that the infection was derived from the farmer, who had stated that he did not drink milk, but had been taken ill with sore throat and pains in the joints in the middle of September, though he did not consult his family doctor until September 29th, very shortly before the epidemic broke out. Other members of his family suffered from the disease shortly after this date. Professor Axe says that the evidence of the dairy farmer and his wife was sufficient to prove that opportunities were not wanting whereby the milk pans and other utensils used in the business could, and as it would appear did, become contaminated with infection from a human source. The farmer's wife and her daughter, who were waiting upon the sick farmer, washed the dairy appliances in the same sink as the plates and other articles used in the sick room. Professor Axe concludes that these circumstances point to at least possible infection of the milk from a human source. As against this view we have the facts given by Dr. Henry Kenwood in a report upon a recent epidemic of illness due to milk in Finchley published at page 602. The symptoms were similar to those in the outbreak at Woking, but of a milder type, Dr. Kenwood was able to satisfy himself that the persons employed in the dairy from which the infected supply came had not been suffering from a bad sore throat at the period when the outbreak occurred; moreover, the precautions taken for safe storage and delivery of the milk were quite satisfactory, in fact, in many respects exceptional as to care and stringency. Bacteriological examination in these outbreaks has not so far yielded a positive result beyond showing the presence of certain streptococci, the pathogenic nature of which has not been established. Dr. Kenwood states that, as the result of a veterinary examination, the veterinary expert found two cows yielding milk which became curdled, and he concludes that the milk given by these two animals contained the material responsible for the outbreak.

Dr. Kenwood concludes that the only way to prevent such occurrences is regular and frequent veterinary inspection; and, as already said, even Professor Axe admits that the presence of pus in milk is filthy and disgusting. We quite agree; and we trust that the circumstances of these two outbreaks may receive the attention of the President of the Local Government Board, in whose promised Public Health Bill provisions should be found for safeguarding the milk supply, and making the Dairy, Cowsheds, and Milkshops Orders really effective means for preventing disease. We believe that great improvements would be effected if county councils were given power to compel rural sanitary authorities to adopt and enforce the model regulations issued by the Local Government Board. That a matter of such grave importance to the public health as the purity of the milk supply should be left in the very unsatisfactory state shown by the facts published in our columns in the series of articles on the milk supply and on many subsequent occasions is a slur upon those responsible for legislation.

PRESCRIBING BY THE METRIC SYSTEM.

A BRIEF reference was made in the BRITISH MEDICAL JOURNAL of February 27th to the Weights and Measures (Metric System) Bill which, if it comes back from the Select Committee in the form in which it was read a second time in the House of Lords the other day, will make the employment of the system compulsory for all purposes.

The Select Committee of the House of Commons which reported in 1895 recommended that the metric system of weights and measures should be at once legalized for all purposes, and this recommendation was carried out by the Weights and Measures (Metric System) Act, 1897. A clause in this Act empowered the Board of Trade to draft an Order in Council making a table of metric equivalents, and this Order was issued in May, 1898. The Select Committee further recommended that after a lapse of two years the metric system should be rendered compulsory by Act of Parliament, so that the measure now introduced only carries out the recommendations to the House of Commons. It may therefore be assumed that if not seriously modified by the Committee, to which it has now gone, it

will be well received by the lower house. The Colonial Premiers at the Coronation conference resolved that it was advisable to adopt the metric system of weights and measures for use within the Empire, and following on this resolutions favouring the proposals have been passed by the Federal House of Representatives of Australia, by the Cape of Good Hope House of Assembly, and the Transvaal Chamber of Mines; while in July last a Weights and Measures Act was passed by the New Zealand Parliament, empowering the Governor after January 1st, 1906, to make the metric the only legal system for use in that Colony. In standing out against the metric system the British Empire has the support of the United States of America and of Russia, but there is a Bill before the Congress of the United States to introduce the system, and Russia, it is stated, has already taken some steps in the same direction, so that it seems probable that if the Imperial Parliament passes the present Bill the Colonies will be ready to follow suit, and that very shortly the system will be international and universal throughout the world.

The metric system was introduced in a tentative way into the *British Pharmacopœia* for 1867 and 1885, where metric weights and measures were used as alternatives in the paragraphs relating to volumetric analysis. In the *British Pharmacopœia* of 1898 the system was extended to every official paragraph which made reference to the usual imperial weights and measures—that is to say, quantities were given on both systems; in the part of the volume relating to analysis, whether gravimetric or volumetric, however, the metric system was alone employed. The same practice has been followed for many years in some hospital pharmacopœias, and its great convenience has been fully demonstrated.

It is still, however, extremely rare to find the new system used in the writing of prescriptions in the United Kingdom. Nevertheless, its adoption in all scientific works has had a direct influence on prescription writing, for medicaments are frequently ordered in terms of percentages or in "parts," in either of which cases the metric system is more convenient for dispensing. The process of voluntary evolution, however, appears unlikely to carry us further, and the time seems ripe for compulsory measures.

To the younger generation of the medical profession the change would be very welcome, for the metric system of weights and measures is the only one employed in chemistry, and they become thoroughly familiar with it whilst undergoing their training in that science, whereas few understand the intricacies of the imperial and apothecaries' systems. Exactly the same remarks apply to pharmacists, and it has been publicly stated on many occasions that few examination candidates have a thorough grasp of the British system whilst all follow the metric readily.

In the event of its adoption we should no doubt follow the example of France and order seeds by weight (grammes and kilos by preference) and timber (centimetres) the practice of weighing both solids and liquids which obtains in other Continental countries we will not concern itself either to medical men or to pharmacists. Fortunately the gram unit is most convenient for medical purposes, though its smallness has led to much criticism in commercial circles.

The change in weights, measures, sizes of bottles, etc., would naturally entail considerable initial expense, but pharmacists have frequently expressed themselves in its favour, and when one reflects on the enormous amount of time spent by the youth of this country in learning tables of barleycorns, inches, ells, ounces, drachms, scruples, etc., one cannot but conclude that any sacrifice which ended such an anomaly would be abundantly justified.

THE ARMY MEDICAL SERVICE IN THE CRIMEA.

The March number of the *Journal of the Royal Army Medical Corps* contains several letters written by the late Sir Thomas Longmore from the camp before Sebastopol. In the first of these, dated February 16th, 1855, he informs his correspondent, Mr. Birkett, that the deficiencies in the medical arrangements and affairs of the army which had been described in the newspapers had not been exaggerated. Shortly after the battle of the Alma he sent home a very strong letter, which an uncle of his published in the *Daily News*. He points out that it was in Bulgaria long before Alma that he and others had seen what must happen, badly appointed as they were in respect of transport and hospital equipment and subject so completely to the caprice of the military authorities under whom they were acting. It was not foreseen, however, that things would be so bad as proved to be the case in the Crimea, because they did not know that they were to be deprived of all their ordinary hospital armament, limited as it was, on landing and taking the field.

From the time they were at Devna till the date of the letter, he says, they had been constantly writing official letters, "complaining, remonstrating, warning, and in short, as the military people call it, 'making difficulties' of every sort." At Monastere, Longmore wrote so strong a letter about being without medical comforts for the hospital when it was full of cholera and diarrhœa was prevailing that a "general hubbub" was created. His complaint, however, though backed by his colonel, was proved to be "frivolous" by General Airy, and shortly afterwards a friend who had been dining with Lord Raglan told him that the Commander-in-Chief had spoken about there being a "screw loose" in the medical department of the 18th regiment, of which Longmore was surgeon. There is some sharp criticism of the P.M.O., of whom Longmore says that he cannot understand "how he condescends to retain his office after the wigging he got from the Commander-in-Chief in General Orders. "I am quite certain," he adds, "that had he *insisted* on our having in the field the necessary ambulances, etc., Lord R. dared not have faced public opinion and refused the demand." Speaking of a general who, though a bulldog in courage, referred everything to the Peninsular standard, Longmore says he had always stood in the way of every sanitary improvement in Bulgaria. This warrior was wounded in the arm, and when he saw the regiment again on his return to duty, the first question he asked was whether they had pipe clay. The major in command replied that he had not, and explained that there was none to be got at Balaklava. "Well," said the general, "it must be got from England. Get your belts clean, then the men will think of cleaning themselves." At that time the clothes of men and officers were swarming with vermin.

In a later letter, Longmore tells his correspondent that people fancy that army doctors have much more power than they have. As an example, he mentions that for years they had remonstrated against the use of the stiff stock but without avail. The military authorities insisted on its use being con-

tinued in the face of physiology and common sense. Writing in another letter of the professional training of the military medical officer, Longmore points out that he is "a veritable sanitary commissioner." "His province," he says, "is as much to prevent disease as to cure it. He has to search out and neutralize its sources, to arrest its progress when an outbreak occurs. Soldiers require constant watching, for their own sakes as well as for that of the country at whose cost they are maintained. Few of them have the necessary knowledge or care, even of self-preservation, beyond the common animal instincts; none of them have any knowledge of the many essentials to be attended to in order to ensure a general safety when they are herded together in masses. Even intelligent military officers who have not thought on this particular subject often hold very limited or mistaken ideas respecting it, and I believe it would be for the benefit of the troops if the medical officers had more direct influence than they have in matters of sanitary influence. I know, during one campaign at least, that in one division of the army no medical officers were consulted with regard to the arrangements of the encampments and other points when suggestions, such as ordinary sanitary science would have dictated, might have been of vital importance."

The publication of these letters, which, it will be seen, have more than a merely historical interest, is especially opportune at the present moment. Longmore saw clearly that the true cause of the inefficiency of the medical service in his day was to be found in its complete subjection to the caprice of the military authorities. The experience of every subsequent war has confirmed his view.

The South African war opened the eyes of Mr. Brodrick, who gave the head of the service the position of independence necessary to prevent a repetition of the disasters of the past. Military tradition and feeling were, however, dead against this reform; hence the earliest opportunity has been taken to re-establish the old order of things. We commend Sir Thomas Longmore's trenchant criticisms of a thoroughly bad system, which it is apparently intended to restore, to the very serious attention of Lord Esher and his colleagues.

THE PENALTY OF ADVERTISEMENT.

The *Daily Chronicle* of March 5th contains a message from its Chicago correspondent which conveys an instructive lesson as to the injury that may be done to a professional man by the fierce light of publicity thrown upon him by irresponsible scribes. When Dr. Lorenz of Vienna performed his operation on Mr. Armour's little daughter, who was suffering from hip disease, and had not walked from her birth, he was assisted by Dr. Riblon, a local practitioner. In a lecture delivered to medical students on March 4th, Dr. Riblon said that the result of the operation was imperfect, as were many others of those performed by Dr. Lorenz. Dr. Riblon added that Dr. Lorenz himself admitted that only ten operations out of ninety-three which he had performed were perfect, and that he did not wish the death of a patient to become known, "because," he said, "the newspapers have raised me far above my deserts, but if they hear of this failure they will cast me far below them." We cannot, of course, vouch for the accuracy of the facts, which we give as we find them in our contemporary. But even if they are incorrect, they serve to point a moral of which the press and the public have a very imperfect appreciation. The disapproval with which the medical profession regards advertising is generally attributed to no higher motive than the keen consciousness which its members have of each other's unworthiness. We need not set forth to the readers of the British Medical Journal the true grounds for the attitude taken by the profession in regard to advertising. But the instance quoted above will serve to show that, from a point of view more intelligible to the lay mind, undesirable publicity must be regarded by honest practitioners as objectionable because it is detrimental to their interest. An inevitable Nemesis awaits any man or any method that is boomed as infallible. When failure comes, as come it must to the most skilful and to the luckiest, it brings an amount of discredit proportionate to the magnitude of the "boom." We think it due to Dr. Lorenz to say that we acquit him of any complicity, direct or indirect, in the sensational statements that have been so widely made about his operations. The very fact that he has been an unwilling victim of the newspaper reporter—to whom, especially in America, nothing is sacred—makes the evil wrought by such advertisement all the more flagrant.

THE ADVERTISING OF QUACK NOSTRUMS.

The charlatan is the product of human gullibility, and will no doubt continue to flourish in one form or another until a higher civilization has dispelled more of the mists of ignorance and made mankind less credulous. Ignorance and credulity are terms which, in this connexion, may almost be regarded as synonymous, and the quack is sufficiently acquainted with the nature of the soil he has to cultivate to know that it is porous enough to imbibe greedily any quantity of assertive promise and reputed achievement. Experience has taught him that the fertilizing process can best be accomplished through the medium of the advertising columns of a cheap and ubiquitous press. Advertisements are to be met with every day, sometimes in papers or journals of the highest respectability, which can only have found their way into the advertising columns through some unaccountable oversight on the part of the censor. With such advertisements we are not here concerned, though it is our firm opinion that the law ought to be strengthened sufficiently to deal summarily both with those who contribute and with those who are responsible for publishing them. But the quack remedy, which is neither indelicate nor suggestive, belongs to a somewhat different category. It is not unclean, but it is dishonest, because it professes what its proprietor well knows it cannot accomplish, and it conceals its simplicity and worthlessness under the cloak of secrecy. It is, in this respect, closely allied to its unwholesome neighbour, but at least it does not offend against the laws of social propriety and individual purity. That the practice of quackery pays, and that it brings its golden harvest through the medium of advertisement, and through that medium only, is a fact about which there can be no doubt. The sufferer, and the person to be pitied, is the dupe who is tempted to part with 1s. 1½d. for a box of "Smith's Liver Pills" that are warranted to cure every human ailment, or with 2s. 9d. for a bottle of "Brown's Mixture" which he has the testimony of countless testimonials for believing can restore health and vigour, even when these have passed hopelessly beyond the resources of legitimate medicine or surgery. In a paper read before the Sheffield Pharmaceutical Society recently by Mr. G. Squire, the question of "Advertised Quackery" was discussed from the pharmacist's point of view. The Government, the medical profession, and the press were severally lectured by the orator on the nonchalance with which they allow an admitted evil to prosper under their eyes and on the assistance, whether passive or active, which they give to its development. In his position as counsel for his own brethren it was not unnatural that he should minimize the help afforded by pharmacists themselves to the success of secret formulae, and so-called patent medicines. He urged that all chemists in the country should refuse to stock quack remedies, but he had no fault to find with proprietary medicines, the composition of many of which, be it observed, is as unknown to those who purchase them as is that of any flagrantly quack nostrum on the market. Indeed, he admitted, from the pharmacist's point of view,

that "were some of them their own they would be proud of the fact and do all in their power by fair means to increase their consumption." But surely advertising is fair means, and if it be wrong to advertise quack remedies, it cannot be right to advertise such as are dissected under the less obnoxious name of proprietary. The difference between a quack remedy and a proprietary remedy of which the composition is unknown is merely one of degree. No combination of drugs ought to be offered to the public, any more than to the profession, without an accompanying statement of its integral composition. It is exceptional nowadays for manufacturing chemists of repute to become the exponents of proprietary remedies other than such as become so in virtue of some special method of preparation which adds to their convenience or palatability. Mr. Squire takes exception to the prescription by medical practitioners of "factory-made proprietaries"; but the danger to the public arises, not from the prescription of them, but from their unlimited sale by the retail chemist. Apparently the chemist holds himself no more responsible for these than for the quack remedies which he is also ready to provide on demand. Why, if he be urged not to stock the one, should he not also be encouraged to decline shelf-room to the other? Any remedy, be it quack or proprietary, will be eagerly sought after whenever it has acquired a reputation for relieving certain symptoms. If the reputation is justified, and the remedy is ordered by one skilled in its properties and in the proper method of its administration, the public requirement is honestly and scientifically supplied. But so long as the sick man is content to accept blatant assertion as proof, or to trust his interior economy to the action of medicaments whose name is their only credential, and which he buys over a counter at his own or some friend's initiative, so long will the "sweet uses of advertisement" find no more fertile field than in the domain of cures and specifics.

AN EFFICIENT AMBULANCE SERVICE FOR LONDON.

The first part of the programme of the Metropolitan Street Ambulance Association has been accomplished with the most encouraging results. Of the 118 candidates elected to the London County Council last Saturday 104 had given satisfactory replies to the question sent by this Ambulance Association, asking each: "If elected to the London County Council, will you interest yourself in securing the establishment, by the Council, of an efficient street service of ambulance for London?" Many of the answers show that the candidates themselves take a warm interest in this important question, and there is now therefore every reason to hope that the new Council will, without delay, take practical steps to establish an efficient and sufficient service. In the meantime a detailed scheme will be prepared by a subcommittee of the Metropolitan Street Ambulance Association for presentation to the Council, and to Parliament if necessary. A representative body like the London County Council will be greatly strengthened in its endeavour to draw up a really adequate scheme if it feels that it can thoroughly rely on the support of the whole medical profession of London. Medical men can assist the Metropolitan Street Ambulance Association not only by joining it but also by sending evidence showing the lack of proper ambulance accommodation in their respective neighbourhoods to the Secretary, Dr. Arthur James, 70, Gloucester Terrace, Hyde Park, W. Fortunately London has the experience of other cities to go upon, so that it may be hoped that time need not be wasted in experimental inquiries. In New York the horse ambulance system, originated in 1869, passed so extensive that nearly, if not most, other large American cities have adopted similar methods; such a service was established in Vienna in 1881 and in Berlin in 1882. There is an excellent system at work in Liverpool, and horse ambulances summoned by telephone have long proved successful at Bootle, Birkenhead, Manchester, Newcastle, Huddersfield, Bolton, Burnley, Hull, Sheffield, Leeds, Wolverhampton and Ipswich. At a meeting of the London County Council in December, 1902, a report was presented, prefaced to which was a note by Sir W. J. Collins explaining the existing services, and making a comparison with systems in operation in other cities. This report pointed out that the police, who in most cases have the first handling of street accidents, are provided with hand stretchers and wheeled litters, but that only three horse ambulances existed and that these were not kept in constant readiness. The St. John Ambulance Association supplies litters and appliances at certain fixed points, the Bischoffscheim service provides at fire-brigade stations and other fixed points wheeled litters and stores, while the Volunteer Medical Staff Corps renders ambulance service on special occasions. The report pointed out that there was no uniform adequate and co-ordinate system for dealing with street accidents in London, no supervising authority in touch with the hospitals, and that the telephone was not utilized. An investigation showed that nearly 70 per cent. of the ten thousand casualties carried to hospitals in London annually were taken in cabs or carts, and not in ambulances. When the matter comes up again for consideration it seems probable that the County Council will have to choose between attaching the horse ambulance to the fire brigade organization, and the alternative plan of arranging for an ambulance system to be worked by the police. In Bootle the fire brigade men and horses have been utilized for the ambulance service on a system initiated by Surgeon-Lieutenant-Colonel T. M. Wills as long ago as 1887. In that borough the ambulance with its driver and attendants is got off within half a minute after the receipt of a call; the average time for which the ambulance is absent when attending to an accident within the borough is twenty-four minutes. In Liverpool a system by means of which telephonic messages may be sent from fire alarm posts has been utilized for the purpose of summoning ambulances in the case of street casualties.

THE PHYSIQUE OF THE JAPANESE.

As is well known the Japanese are physically a small people, yet they are capable of remarkable feats of strength and endurance, and as recent events have once more shown are full of courage and daring. The Japanese themselves attribute their high average of physical strength to a plain and frugal diet, and the system of gymnastics called *Jiujitsu*, which includes a knowledge of anatomy and of the external and internal uses of water. It is claimed that the average standard of health in Japan is much higher than in China, though the Japanese are a very much smaller race. In 1880 a commission was appointed to consider whether by a meat diet or by other means the stature of the race could be raised; but the conclusion arrived at was that seeing that their feats of strength and enduring powers were superior to races much taller than themselves, the lowness of their stature did not matter. Although during the period of their ascendency the Samurai kept the secret that their great physical superiority was due in a great measure to the internal and external use of water, the belief that if used liberally and intelligently water is an infallible weapon against disease is now generally held. By those who go in for *Jiujitsu* an average of one gallon a day is drunk. Many of the springs possess medicinal properties of great value and are used, but all that is really required by the people is that the water shall be pure. By the copious ingestion of water the action of the bowels and kidneys is stimulated, and it is noteworthy that rheumatism is almost unknown in Japan. It is probable that the absence of meat from the diet, combined with the use of plenty of water, accounts for this immunity. Bathing is indulged in frequently even by the poorest. The water in the bath is heated to a temperature which would be impossible for an Englishman to endure, generally by a stove underneath the bath. These hot baths are taken to cleanse and stimulate the skin, but cold baths also are taken to invigorate and harden, and a roll in the snow often follows the hottest bath. In the matter of diet they are frugal to a degree, rice being the staple food in every Japanese house, and appearing at every meal. Japanese troops have often made record

marches on a diet consisting solely of a little rice. Vegetables and fruit are grown in abundance, and their value as a regular part of diet is realised far more than in this country. Indeed, a labourer is content to work a whole day on a dinner of tomatoes, cucumbers, and salad. Salad is eaten cooked as a cure for sleeplessness. Milk is scarce because it does not pay to keep cattle to produce milk alone, and the meat is not eaten. Tea, poured out almost immediately after it is made, is taken without milk. Beer is drunk to some extent, but not in large quantities, and, though spirits are imported, they are little cared for. Cigarettes are smoked in great moderation, pipes being preferred, but their bowls are small, and contain only a few pinches of tobacco, as Mr. Tree has been demonstrating recently to the British public. The Japanese appreciate above all things the value of fresh air: night and day they keep their windows open and their rooms ventilated, and they do not fear draughts or damp air. Breathing exercises are an important part of their physical training—deep, careful breathing, which is only acquired by practice. They hold that in this way the heart and lungs are strengthened. Then follow other exercises of various kinds described in so interesting a manner by Mr. H. Irving Hancock in his book on *Japanese Physical Training*. Nothing short of this perfection of health and strength, with its accompaniment of good mental balance and happiness, could have caused the Japanese to accomplish in thirty years what it has taken other nations centuries to achieve.

JAPANESE AND RUSSIAN RED CROSS SOCIETIES.

IN the *Journal of the American Medical Association* of February 20th Dr. Nicholas Senn gives an interesting account of the Red Cross Society of Japan. The Society, which was at first known by the name of Hakuisha (Society of Benevolence), was founded in 1877, during the insurrection in the South-West provinces. After the rebellion was crushed the Society made itself into a permanent organization. When the Japanese Government recognized the articles of the Geneva Convention, the Society decided to place itself in connexion with the International Committee of the Red Cross at Geneva, and to enter into friendly relations with similar societies in other countries. It then, with the approval of the Ministers of the Imperial Household of War and of the Navy, changed its name to the Red Cross Society of Japan, and adopted rules for its government. The growth of the Society has been remarkable. It has at present 800,000 members, which means that in a country with a population of 45,000,000, nearly every family is represented. Dr. Senn attributes the growth of the Society to the deep interest taken in it by the Imperial family and to their liberal contributions to its funds. An Imperial prince is its honorary president, while a princess is at the head of the ladies' committee. The Empress is a frequent visitor to the head quarters of the Society. Baron Ishiguro and Baron Hashimoto, the leading medical men of Japan, have been the guiding spirits in promoting the development of the Society, and their efforts have been cordially supported by the profession. Popular interest is kept up by a great public gathering of the members held every year at Tokio. At these meetings medical men deliver lectures illustrated by magic lantern pictures showing the work of the Society. The attendance is seldom less than 200,000. Dr. Senn visited the head quarters of the Society at Tokio and was greatly impressed by the completeness of the preparations for the emergencies of war which he there saw. In a day or two the Society can load a hospital ship or a railway train and send it to the seat of war without bustling or confusion. The surgeons and nurses are ready at all times to respond to a call, and the arrangements of the hospital stores is so systematic that they can be transported in the shortest possible space of time. The Red Cross surgeons and the nurses, male and female, are under military discipline and work in the hospitals behind the fighting line. The Society owns two hospital ships, the *Hakuai-Maru* and the *Kosai-Maru*, which are admirably adapted for the transport and care of the sick and wounded. The Red Cross Hospital in Tokio is the best of the many good hospitals in that city. It has 250 beds, and is attended by a staff composed of the best physicians and surgeons of the city. The central figure of the staff is Baron Hashimoto, one of the retired surgeon-generals of the army. It is in that hospital that the Red Cross female nurses receive their education and training. Instruction by lectures and demonstrations are given by members of the staff. The nurses serve an apprenticeship of three years, and on passing a rigorous examination receive certificates, which entitle them to practise their profession. In the event of war they enter the field service under military rule. The Red Cross Society of Russia is the richest in the world, having at its disposal funds amounting to £1,600,000. It was founded at Moscow in 1860, and has now 600 committees. It possesses 42 hospitals, 2 schools for nurses, 8 asylums for disabled soldiers, 1 asylum for widows, 4 homes for sick soldiers' children, and 2 sanatoria for children. The society employs communities of Sisters of Charity, numbering in all more than 4,000. These "Sisters" are not under religious vows. They receive a training, which lasts a year; some go through a course which extends over three years. In 1897 the society formed a body of male nurses—the Brethren of the Red Cross—which did useful work in China. In time of peace the society is always prepared to co-operate with the medical service of the army in the care of injured or sick soldiers. It also gives help in epidemics and other public calamities, and takes care of persons injured by accidents in large towns.

BREATHING IN LIVING BEINGS.

PROFESSOR STIRLING, in his lecture at the Royal Institution on March 4th, dealt with some problems in respiration. Although we classify animals as breathing in air and in water, when the question is pushed to its final issue all cells live and breathe in an aqueous medium. Our cells thus not only live in a watery medium the lymph but they live and breathe in running water. While oxidative processes occur in the cell—whether determined or favoured by the presence of oxydases or not—the problem arises how intestinal parasites such as ascaris, which live in a medium practically containing no oxygen, get their supply. Do they split up complex compounds to get the necessary oxygen? The experiments of Bunge on ascaris and the discovery by Weinland of the large amount of glycogen present in these worms throws some light on the question. Of course it is one also that touches the sources of muscular energy. All the energy need not come from oxydative changes. In referring to the centenary of the death of Joseph Priestley, who died in 1804, Dr. Stirling referred to experiments which Priestley called "bad experiments," those in which he found that green plants did not always render impure air wholesome and respirable. Had Priestley applied the touchstone of the "bad experiment," in all probability he would have anticipated the discoveries of Ingen-Housz and perhaps those of de Saussure, as to the relation of light and darkness—and not vegetation—to this proces. The lecturer described the remarkable way in which an insect—Donacia, one of the leaf-eating beetles—obtained air. It made two holes through the back of the plant it feeds on reached the air in the air vessels of the plant, and breathed the oxygen of the plant. Its larva breathes in the same way. Professor Stirling showed many of the classical experiments on respiration, including one on the pneumaticity of bone—a fact known to John Hunter. A lighted match was extinguished when air was forced into the end of the divided humerus of a duck.

PROTOZOA.

THE Zoological Society is now issuing each volume of the *Record* in divisions, which can be obtained separately. That which deals with the literature of the protozoa for 1902 is written by Mr. H. M. Woodcock, B.Sc. It possesses, of course, a special interest for the medical profession, and there is no other record comparable with it for completeness. A large proportion of the papers, which number in

all about 450, are concerned with the malaria parasite, the trypanosomata, and the piroplasmata they show how rapidly the group is gaining importance from a pathological point of view. As, no doubt, many of our readers are aware, the *Record* is much more than a simple catalogue of the literature, but contains the recent researches from the points of view of biology and of distribution are analyzed, and new species and new observations on known species are also arranged systematically. The discovery that trypanosomes are a cause of disease in the human subject has given to this group of the protozoa an importance second only to that possessed by the malarial parasites. Those who are carrying out research on these parasites are fortunate in the possession of the complete bibliography and summary provided by the *Record*. We note that the first discovery of trypanosomes as human parasites is ascribed to Nepveu, and the writer describes the priority discussion which has taken place on this matter as undignified. The inconclusive researches of Feinberg, Bose, and others on the protozoan origin of cancer receive mention, and, although the analysis is not critical, the grouping of related researches enables the reader to formulate his own critical digest. The various divisions of the *Record* are provided with cross-references, which add much to its value. Among a considerable number of references, the accuracy of which we have tested, we have found no errors. The volume can be obtained from the Secretary of the Zoological Society, 3, Hanover Square, W.

SPOROZOA AND DISEASE.

IN the second lecture on this subject delivered at University College on March 7th, Professor Minchin dealt with the coccidia and gregarinae—another class of sporozoa. The coccidia produced sporozoites which underwent repeated division until enormous numbers of young spores were produced, which proved fatal to the host. A similar process occurred in the case of the malarial parasite. The coccidia generally infected crustaceans, insects, and worms, but did not occur among the craniate vertebrata or the mollusca. The gregarinae, which were closely allied to the coccidia, were cell parasites like the latter. They attained a larger size and were present in the same classes of animals. In the coccidia the gametes or conjugating spores were of two kinds, namely, large quiescent cells (macrogamates) and smaller motile bodies (microgamates), a condition of the sexual life parallel to that which prevailed in the malarial parasite. The coccidia and gregarinae were present in animals as the result of casual infection of the food taken through the mouth, or occasionally through being drawn in (certain aquatic animals) into the respiratory sacs or lungs. In the case of the haemosporidia (sporozoa occurring in the blood of the human subject and causing malarial and other affections) an insect (generally a mosquito or gnat) served as the carrier of the parasite from an animal host to man, the parasite being inoculated into the human system as the result of the bite of the mosquito. Finally, certain rare skin affections have been described as occurring in South America, the cause of which was a sporozoon which was believed to be communicated from person to person by direct contact. Professor Minchin then described at some length the structure of various species of gregarinae and stated that they usually infected the intestinal epithelium or the coelomic epithelium of the various species of their hosts. They, however, were most prevalent in man or the higher vertebrates. The coccidia, gregarinae, and haemosporidia formed one large division of the sporozoa.

TROPICAL MEDICINE.

AT a meeting of the West India Committee, held in London on March 9th, Sir Patrick Manson read a paper on the disease problem in the West Indies, in the course of which he said that a well-equipped laboratory, under an able and experienced director with suitable assistants, should be established at some suitable point in the West Indies. He also urged that every boy and girl in every school in the West Indian Colonies should be taught the leading facts on which a rational system of tropical sanitation might be founded. The cost would be trifling, as the educational machinery—in the shape of teachers and schools—already existed. It would only be necessary to give the teachers a short course of instruction, to provide a few diagrams, and to add two or three additional pages to the current school books. He believed that if these suggestions were carried out incalculable benefits would result to the West Indies. We learn from the *Liverpool Mercury* that letters have been received from Sir William MacGregor, Governor of Lagos, and Sir Ralph Moor, K.C.M.G., late High Commissioner for Southern Nigeria, on the subject of the value of the work done in West Africa by the Liverpool School of Tropical Medicine. The Governor of Lagos writes that the work of the school should especially appeal to merchants engaged in trade in tropical countries, who look forward beyond the present hour to the profitable extension of their business. Referring to the fact that they had no Government grant, he says that this would not be so were it shown to the Imperial Government that the development of such colonies as, for example, those of West Africa must largely depend on sanitary measures suited to save the lives of multitudes of natives, to render stronger and more healthy those that are really the only producers in such colonies, which are not destined to become the home of a white race. Now that it was understood how much could be done by the knowledge acquired of tropical diseases during the last few years, it became a great national duty to extend and cultivate that knowledge, which was really only in its infancy. Sir Ralph Moor said his service in West Africa dated from 1891, when the conditions of life and general circumstances, as affecting health, were very different from those at the present day. Efforts were then made by enthusiastic medical officers of the local staffs and administrators to grapple with tropical diseases; but the time of the former was too much occupied in dealing with the actual cases of disease to make systematic scientific research as to their causes and the means of prevention; and, though the latter possibly succeeded in improving to some slight extent the hygienic and sanitary conditions, it was not until the establishment of the London and Liverpool Schools of Tropical Medicine that thorough scientific investigation could be systematically undertaken, and means provided for special study and instruction in the subject. Since that time great strides had been made, and there was a definite prospect that, with a continuance of the work in the spirit in which it was inaugurated, European life in the tropics might be guarded against its most insidious foes, and that diseases peculiar to the natives of such regions might be successfully combated. It may be mentioned that the British Cotton Growing Association has just voted the sum of £50 towards the funds of the school, as it realizes that the movement for the extended growth of cotton in tropical countries would be very much assisted if the conditions of life and health for those engaged in that industry could be improved.

THE PLAGUE OF RATS.

DR. HARRISON, Medical Officer of Braintree, has recently, it is stated, called attention to the large rats which infest the town. He has suggested the formation of a rat club, the members to pledge themselves to catch a certain number of rats or be fined. He says that he has done his best to keep the rodents down, but has not been supported. He may perhaps get a useful hint from a campaign with scientific weapons, which has recently been carried out with success in France. In the Chamber of Deputies complaint was made by the representatives of rural constituencies in certain departments of the immense damage to crops done by rats, and the Minister of Agriculture, M. Mougeot, promised to see what could be done for the extermination of these vermin. In fulfilment of this promise he applied to the Pasteur Institute. It was decided to try a virus prepared by Dr. Danysz and tested successfully, on a small scale, in Paris and in Hamburg some years ago, when an account of the experiments was given in the

British Medical Journal. Accordingly, on January 28th, some members of the staff of the Institute, under the direction of Dr. Roux, left Paris to conduct a campaign in the Charente departments, where the rats were causing great ravages. On February 24th Dr. Roux reported to the Minister of Agriculture that the campaign had been completely successful. The ground chosen for the experiment was an area of 1,200 hectares, extending over the communes of Aigre, Oradour, and Mons, which had been devastated by the rodents. Small pieces of bread and crushed oats soaked with the virus were placed on the ground near the innumerable rat-holes. The *matériel* of war consisted of 1,100 bottles of virus, 4,200 kilograms of bread and 6,300 kilograms of oats. By means of this ammunition 0·5 per cent. of the rats were slain. Their dead bodies were found in the holes in heaps of 15 or 20. The following was the method adopted to estimate the havoc wrought among the rodents: In a field of 1 hectare in area, the number of holes was found to be 12,484. All these were carefully stopped. Two days later, the number of fresh holes was counted and found to be 1,304. The field was then treated with poisoned oats, the bait being laid down close to the holes. A week later the holes were again stopped and the fresh ones afterwards counted, when only 37 were found. This is taken to show the extent to which the rat population had been decreased. With the object of ascertaining whether the appearance of fresh vegetation would be followed by a fresh invasion of rats, M. Metchnikoff is about to visit the scene of carnage. In reply to an inquiry by M. Mougeot, M. Roux said that the virus is absolutely harmless to those who handle it, and to all animals other than rodents. In recognition of M. Roux's services the Minister conferred on M. Roux the Commandership of the Order of Agricultural Merit.

THE DISCOVERER OF THE LARYNGOSCOPE.

Senor Manuel Garcia, to whom belongs the credit of the discovery of the practical application of the laryngoscope, will on March 17th enter on his hundredth year. He was born at Madrid in 1805. When he was still a child his family were driven from Spain by the Peninsular war, and for a time settled in Naples. There the elder Garcia studied the art of voice production, of which his son was to become so distinguished a professor. Young Garcia's fancy at first turned to the sea, but in deference to his parents' wish he was trained for the operatic stage. He made his first appearance in New York. It should be interesting to students of human longevity to learn that Manuel Garcia's physique proved inadequate to the strain imposed by the work of the stage. On his return to Europe, therefore, he established himself in Paris as a teacher of singing, gaining in time so great a reputation that he was appointed a Professor in the Conservatoire. He has lived since 1850 in London, where he trained many of the greatest singers of the last century. The following is his own account of the invention which has been so fruitful of benefit to mankind in directions undreamed of by its true begetter: "Never being thoroughly satisfied with my own teaching, I longed to see a healthy glottis exposed in the very act of singing; but how could the mysteries of an organ so well hidden be revealed? One day in the autumn of 1854 I was strolling in the Palais Royal, preoccupied with the ever-recurring wish, when suddenly I saw the two mirrors of the laryngoscope in their respective positions as if actually before my eyes. I went straight to Charrière, the surgical instrument maker, and, asking if he happened to possess a small mirror with a long handle, was supplied with a dentist's mirror. Returning home, I placed against the uvula the little mirror (which I heated with warm water and carefully dried), then flashing on its surface with a hand mirror a ray of sunlight I saw at once the glottis wide open before me, so fully exposed that I could see a portion of the trachea. From what I then witnessed, it was easy to conclude that the theory attributing to the glottis alone the power of engendering sound was confirmed, from which it followed that the different positions taken by the larynx in front of the throat have no action whatever in the formation of sound." The discovery was made in 1854, and in the following year Garcia presented a paper to the Royal Society of London, entitled "Physiological Observations on the Human Voice." More than twenty years before him Babington had devised an apparatus similar to that used by Garcia, but he had never examined his own larynx as the Spanish *maestro* did. For several years after the date of Garcia's paper the laryngoscope was treated by superior persons as a "physiological toy." Its scientific and practical possibilities were brought home to the profession by Czermak of Buda-Pesth, who undertook a missionary expedition to the chief medical centres of Europe to demonstrate the uses of the instrument. The medical profession owes many most useful discoveries to outsiders. Among these not the least important is that of the laryngoscope, for which we are indebted to the hale and hearty centenarian to whom all will join in wishing *In plurimos annos!*

A SHORT WAY WITH "DEGENERATES."

Dr. Robert Reid Rentoul is known to all readers of the British Medical Journal as a reformer of things in general. He feels strongly that the world is out of joint, and, unlike Hamlet, he thinks it not a cursed spite but a blessed joy that he was born to put it right. The particular dislocation in the social body which he has most recently undertaken to reduce is "the appalling state of physical and mental degeneracy now existing in this country." In a booklet lately published[1] he sets forth a vast array of statistics to enforce the thesis that lunacy and degeneracy, like the royal prerogative in the eighteenth century, have increased, are increasing, and must be diminished. In proving that these evils are increasing he has an easy task. But how are they to be diminished? Nature does something to check the increase of degeneracy by impelling lunatics to suicide and making idiots and cretins frequently sterile. Instead of helping her benevolent purpose, however, we do all we can to thwart it. Dr. Rentoul comes to the assistance of Nature, and in doing so he displays the courage of his convictions, which his severest critic must admit that he possesses. Briefly, he proposes to cure the social disease by surgery. His method is not bloodless, a fact which is perhaps symbolized by the red cover of his pamphlet. It is indeed as drastic as Defoe's "short way with Dissenters." He proposes that, as we cannot well kill the offspring of unhealthy marriages—for these poor degenerates have a perfect right to live, no matter how their parents have acted—we should prevent them from propagating their degeneracy. For this purpose they must be sterilized, or in plain language spayed and gelded. Agreeing with Horace that *est modus in rebus* Dr. Rentoul does not suggest that "the essential organs of reproduction" be removed. "In a large proportion of persons—excluding cases in which these organs themselves are diseased—all that is required is to ligature or excise about 2 in. of the vasa deferentia in the male or of the Fallopian tubes in the female." A "lawfully-constituted Board" is to decide what persons are to be thus dealt with. Dr. Rentoul suggests that "those suffering from leprosy, cancer, epilepsy, idiots, imbeciles, cretins, weak-minded under restraint, lunatics, persons with advanced organic disease of the heart, lungs, kidneys, or in fact any specific disease liable to be passed from parent to offspring," should, if they wish to marry, be the subjects of the operative treatment which he thinks necessary in the interest of the community. To this comprehensive list he adds the children of prostitutes, sexual degenerates, confirmed tramps and vagrants, confirmed criminals, backward, dull, and weak-minded children, and "sensible persons afflicted with incurable disease," of whom he thinks it "reasonable to suppose that a fair number would voluntarily ask that they should be operated upon." Dr. Rentoul's sterilizing zeal would, we gather, extend to persons suffering

[1] *Proposed Steps for the Cure of Mental and Physical Degeneracy.* The Walter Scott Publishing Company, London, Ltd., and Newcastle-on-Tyne. 1904. Pp. 22. Price 1s.

from infectious venereal disease. If his suggestion commends itself to progressive statesmen, there is evidently a fine field for the surgeon's knife as an instrument of social reform. Of course, proper safeguards must be provided against what Verneuil called the *fureur opératoire*. Dr. Rentoul, like General Trochu, always has his "plan." He proposes that "Parliament should empower each County Council yearly to appoint a Board composed of one person qualified in medicine, one in law, one by the Commissioners in Lunacy, one from the County Council and one by the Commissioners of Prisons. Rules would be drawn up by these Boards, such being presented to the Home Office for confirmation or otherwise. An annual report of all operations should be presented to Parliament." As not more than two surgeons in each county would be licensed by the Home Office to operate, it is to be presumed that theirs would be full-time appointments. Thus a new order of specialists would be created whose beneficent function in the State could not fail to increase the honour in which the medical profession is already held in this country. Are we prepared to rise to the height of Dr. Rentoul's great idea, and accept the noble mission which he seeks to impose upon us? If we do, there will be only one thing left to make our position as saviours of society complete—that is, that we be entrusted with the high function of purging the body politic of toxic substances by performing the duties of the [illegible] as the French, with a proper sense of the dignity of his office, call him, *monsieur de Paris*.

THE BACILLI OF DYSENTERY.

Lieutenant-Colonel R. H. Firth, R.A.M.C., has added a useful contribution[1] to the bacteriology of those forms of dysentery which are not associated with amœbæ. He has obtained from a variety of sources cultures of strains of bacilli each of which has been regarded by its discoverer as causative of dysentery. These strains Professor Firth has made the basis of a comparative study in which he has investigated their cultural characters and their pathogenic effects upon rabbits by feeding, direct inoculation into the bowel, and subcutaneous inoculation; he has also examined experimentally their toxic properties and their agglutination phenomena. He agrees with the view that in the intestinal dejecta of acute dysentery bacilli are present which can be differentiated from the coli and typhoid organisms; they are agglutinated only by the blood of men or animals either suffering from epidemic dysentery or infected by those special organisms and their [illegible]. Lesions, its symptoms and intestinal lesions characteristic of those found in human dysentery can be produced by the subcutaneous inoculation of some of these strains of bacilli or their toxic substances, and these toxins are found to have a selective affinity for the mucous membrane of the cæcum and large intestine. The intestinal lesions, however, are not produced in rabbits when the infective organisms are introduced by feeding experiments or by hypodermic and direct inoculation into the intestinal tract. Professor Firth is of opinion that the clinical entities resulting from the pathogenic dysentery bacilli represent a group rather than a single class of cases. These cases, he holds, may range from the typical acute dysentery of tropics through the various degrees of liability to the infective diarrhœas of infants and adults.

THE MEDICAL GRADUATES COLLEGE AND POLYCLINIC.

The annual general meeting of the Medical Graduates' College and Polyclinic will be held at the College, 22, Chenies Street, Gower Street, W.C., on Monday March [illegible], at 8.30 P.M. Theodore Williams will take the chair at 8 P.M. The Annual Report states that there are now 44 life members, 151 members and 721 subscribers, an increase on the previous year. The attendances at medical practice, at clinical demonstrations and lectures reached the grand total of 14,[illegible] [illegible] courses of practical classes each of six weeks' duration, and a practical course of three weeks' [illegible] in September were held. Clinical investigations were carried out in the laboratories in 314 cases: this department of college work is stated to be receiving steadily increasing support from subscribers and members. Many additions were made to the Hutchinson Museum, and the collection has been classified and arranged to permit of speedy and easy reference. In future the annual subscription of one guinea will entitle subscribers to attend both clinical demonstrations and lectures, in addition to having the use of the library, museum, and reading rooms, and to receive every month a copy of the *Polyclinic Journal*, which is now edited by Dr. C. O. Hawthorne. The financial position of the College caused anxiety, but certain economies have been instituted, and, in response to a special appeal, a sum of over £550 was received in donations, and promises of increased annual subscriptions of over £[illegible]. Further particulars can be obtained from Captain A. E. Hayward Pinch, F.R.C.S., at the College.

THE DUFFERIN HOSPITAL AT RANGOON.

In the British Medical Journal of November 14th, 1903, we commented on some figures that had been sent to us representing the mortality among mothers and children in the Dufferin Maternity Hospital, Rangoon. The mortality for the years 1901 and 1902 worked out as 9.5 for the mothers and 10.5 for the children. We expressed the opinion that this was "far too high." We have now before us the detailed report for 1902, which shows 223 births, with 22 maternal deaths and 22 stillbirths, numbers which seem excessive and need explanation. On examining the report we find this explanation. Five of the patients were admitted suffering from septic poisoning contracted outside; four were cases of neglected and prolonged labour admitted in a state of collapse, one of whom died before she could be carried into the wards; one case was admitted three weeks after labour with septic purulent peritonitis; one woman was admitted in labour with cholera. One case of endocarditis died before delivery. There was one case of abortion, which had been criminally interfered with outside. Two deaths were from dysentery, one from chronic diarrhœa, one from mitral regurgitation, two from puerperal eclampsia, and one from uræmia. It thus appears that most of the mortality was in no way the fault of the medical staff, but was due to disease arising, or infection incurred, before the patients were admitted to the hospital. The only thing that in any way reflects upon the management of the hospital is the fact that one case of puerperal fever is admitted to have arisen in the hospital, and this implies a fault somewhere in the antiseptic methods employed. In a hospital to which infected cases are from time to time admitted, nothing but stringent rules about antisepsis unceasingly enforced will prevent infection spreading in the hospital. Where human agency has to be depended on things will not always work with the mechanical accuracy of a machine. Those who know the difficulties of working a hospital under the conditions of the Dufferin Maternity may, perhaps, be inclined to congratulate the staff that only one case of puerperal fever arose in the hospital. The apparently large number of stillborn children is accounted for by the number of cases brought to the hospital on account of difficulty in delivery, but not until the membranes had ruptured and the child was dead. We gladly call attention to this explanation of the facts commented upon in our former note. We may remark, however, that the name Dufferin "Maternity" Hospital seems now to be an incomplete one as a descriptive term, for the cases of disease of various kinds treated in the hospital were nearly twice as many as the confinements. It appears really to be a general hospital for women, with maternity wards.

THE ADMINISTRATIVE CONTROL OF TUBERCULOSIS.

The fourth of the series of addresses given at Philadelphia, under the auspices of the Henry Phipps Institute for the Study, Treatment, and Prevention of Tuberculosis, was delivered on February 15th by Dr. Hermann

M. Biggs, of New York. An abstract of the address is given in the *Medical Record* of February 27th. Dr. Biggs discussed the measures to be instituted in order to secure municipal control of tuberculosis. According to him the first essential is compulsory notification and registration of all cases. Beyond their usefulness in other directions these measures had an educational value. At first resented in New York and deemed impracticable and inexpedient, they have yearly increased in favour, until at present the returns are fairly complete. The reports are considered as confidential, and action is taken by the Board of Health only when the attending practitioner makes the request, or there is none in attendance, or the patient is under the care of a public official. When necessary, instruction is given by personal visit and by printed circular as to the nature of the disease and the means of its dissemination, and also of the measures required to prevent the conveyance of infection. In case of death or removal appropriate disinfection must be instituted. Patients who cannot be properly cared for at their homes, or who are a danger to those about them, are removed to hospitals. In the campaign against tuberculosis there is need of a dispensary service which provides not only professional attention, but also medicines and food. Visits to the homes of patients should, Dr. Biggs said, be made by physicians and trained nurses, in order that necessary aid may be given and information obtained as to the relations of the patients to others. A special hospital is required for advanced cases that cannot properly be cared for in their homes; to this institution, if the circumstances demand it, patients should be removed even by force. The health department should also have at its command sanatoria for the care of the less advanced cases of the disease. Among the duties of the department should be the gratuitous examination for tubercle bacilli of all sputum submitted. A record should be kept of houses in which cases of tuberculosis occur, and when the disease occurs with noteworthy density, steps should be taken to remedy the underlying faulty conditions. Much has been done by the New York Department of Health on the lines indicated, with the result that each year an increasing number of cases is being reported; in this way a noteworthy reduction in the mortality of the disease has been effected. That this reduction is not due to an increased mortality from pneumonia, real or otherwise, as has been suggested, was shown by the results of a special investigation. Dr. Biggs showed by diagrams the number of cases in some houses in the congested districts of New York, and stated that in certain instances properties have been condemned on this account, while the conversion of portions of some such districts into public parks is contemplated.

DENTISTS FOR THE ARMY.

IT has already been announced in our advertising columns that the War Office has authorized the appointment of eight dental surgeons for duty with troops in the United Kingdom from April 1st next. They will be required to devote their whole time to army duty, and will receive an inclusive salary of £365 per annum and travelling expenses. As at present arranged, the dental surgeons will be stationed at Aldershot, Devonport, Cork, Edinburgh, Portsmouth, Dublin, Colchester, and Woolwich. They will, however, be required to give attendance as directed by the general officers in command of the various stations. Applications for these appointments should be made to the Secretary of the Army Council, 68, Victoria Street, S.W., not later than March 12th. Soundness of the dental apparatus plays an important part in efficient digestion, and soldiers who on a campaign must often, like Mark Antony, eat "strange food" have special need of a serviceable set of teeth. Moreover, modern research has shown that a healthy condition of the mouth is a safeguard against many serious diseases. On these grounds the step taken by the War Office must be hailed as a really useful reform.

ST. BARTHOLOMEW'S HOSPITAL.

THE Treasurer of St. Bartholomew's Hospital has received an intimation from Lord Knollys that His Majesty the King hopes that it may be in his power to lay the first stone of the new St. Bartholomew's Hospital, and that His Majesty will probably be accompanied by the Queen. It is also intimated that the most convenient time to His Majesty would be a day about the end of June or at the beginning of July. The part of the work to be thus early and augustly initiated is the new out-patient department, the plans of which have been practically complete for a long time. The scheme upon which the main buildings will be recast still remain to be determined. A great number of different plans have been suggested, each of which has its special advocates, and the final choice will be made by the Building Committee. This body has been selected, and is deemed to be a strong one, but it remains for a general court of governors, which is to assemble this week, formally to sanction the appointments made. The collection of funds is making what must be considered satisfactory progress, since the total already received is understood to be well over £50,000.

WE regret to learn that the condition of Sir Samuel Wilks again causes much anxiety; though there is no very material change, the general strength is diminishing.

PROFESSOR GUIDO BACCELLI, of the University of Rome, who has for several years past held a portfolio in the Italian Government, first as Minister of Public Instruction and later as Minister of Agriculture, has lately resumed active work as a clinical teacher. His first lecture, delivered a few days ago, was made the occasion for a demonstration by the students in his honour.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

A Parliamentary Committee.—A meeting of members of Parliament who belong to the medical profession was held at the House of Commons on March 8th, under the chairmanship of Dr. Farquharson, when there were present Sir Michael Foster, Sir J. Batty Tuke, Dr. Rutherfoord Harris, and Dr. Hutchinson. Sir Walter Foster was prevented from being present by a special engagement. It was determined to form a Committee to arrange for concerted action in the House to watch legislation affecting public health matters, and to obtain facilities for discussion. The Committee will invite the co-operation of other members of Parliament not members of the medical profession who are interested in public health questions; Sir Michael Foster has consented to act as honorary secretary of the Committee. It will be remembered that the formation of such a Committee was the subject of a conference on December 10th, 1903, between the Medico-Political Committee of the British Medical Association and several medical members of Parliament.

War Office Reconstitution and Army Sanitation. In the discussion on the Army Estimates on Tuesday Dr. Farquharson said that it was of course more convenient to discuss army medical matters in Committee of Supply, but his experience was that it was above all things necessary to take opportunities in the House as they arose, and the special vote for medical services was too frequently placed, as it was last year, towards the end of July, when serious discussion was impossible. He had nothing special to urge in the way of criticism, but rather of congratulation, to the right hon. gentleman's predecessor rather more than to himself for the improvements he had introduced into the administration of the Army Medical Corps. The doctors were now quite contented with their pay, their study leave, and their present and prospective arrangements, and the best proof of that was that whereas on at least one occasion before Mr. Brodrick's plan came into operation no candidates presented themselves, at the last examination the demand for admission to the service exceeded the vacancies nearly three times, and the quality of the competitors was exceptionally high. But to congratulation he must add a word of warning. Satisfaction

had reigned in the department before now, but tinkering and worrying cheeseparing, and the withdrawal of concessions made, and the making of others in a niggardly spirit, soon introduced an element of suspicion and unrest, and the department became unpopular once more. He therefore hoped that nothing would be done to impair the present harmonious state of matters, and at this stage he would only refer with regret and apprehension to the non-appearance of the Director-General on the Supreme Council of the army. It was considered a most valuable concession to experienced professional opinion that Mr. Brodrick placed the Chief of the Army Medical Corps on the Army Board, for the difference was naturally a great one between an officer who sat as an equal among the chiefs of the military administration and one who was merely called in as a witness or temporary adviser to give his opinion as required; and, whilst waiting with anxiety for Part 3 of the Reconstitution Scheme and the opportunity to be afforded for debate, he felt it his duty to utter now this note of solemn warning.

The Medical Services and Study Leave.—Sir Seymour King asked the Secretary of State for India on Wednesday if he would state what arrangements, if any, had been made for post-commission study by seconded officers of the Indian Medical Service; and in what respects the arrangements in force or proposed were similar to or differed from those of the Royal Army Medical Corps and the medical officers of the Royal Navy. Mr. Secretary Brodrick replied that an officer of the Indian Medical Service might be granted one month's study leave for each year's service up to twelve months in all. During such leave the ordinary furlough pay would be given, with lodging allowances of 4s., 6s., and 8s. a day for lieutenants, captains, and field officers respectively. In the Royal Army Medical Corps the arrangements for post-commission study were somewhat different. All junior officers were posted to the Royal Army Medical College for six months. While there they drew their ordinary pay. The examination at the end of the course was combined with the examination for promotion to the rank of major. Medical officers of the Royal Navy were required to undergo a post-graduate course of three months once in every eight years. They received full pay, lodging allowance at the rate of £50 or £70 a year according to rank, and provision allowance at the rate of £24 a year. In addition to the extra furlough for study granted to Indian Medical Service officers, they might be seconded before proceeding to India for the purpose of holding appointments in recognized civil hospitals. During such periods they received no pay from Indian revenues.

The Royal Commission on Tuberculosis.—Mr. Batty Langley asked the President of the Local Government Board on Tuesday if he could state when the report of the Royal Commission on Tuberculosis would be available for members. Mr. Grant Lawson replied that he understood considerable progress had been made by the Royal Commission with its investigations, but that the necessity of making the report as far as possible conclusive involved a very wide series of experiments. The experiments were being carried out on an extensive scale by the Commission, and he was afraid that it was impossible to state at present when the report would be issued.

The Nursing and Private Nursing Homes (Registration) Bill was brought in at midnight on Monday by Mr. Claude Hay and read a first time. The Bill, which was ordered to be printed, is backed by Mr. Bignold, Mr. H. D. Greene, Captain Bagot, Lord Cecil Manners, and Mr. Mitchell. The second reading was put down as a matter of form for Thursday.

Vaccination. The Re-vaccination Bill, which is down for second reading on Tuesday, April 26th, has been blocked by Mr. Logan and Mr. Weir. Mr. Broadhurst introduced his Bill to abolish compulsory vaccination on Wednesday. It is the same Bill as last year, and is backed by Mr. T. Bayley, Sir John Eldeston, Mr. Channing, Mr. Corrie Grant, and Mr. Levy. March 23rd is named for the second reading, but the Bill is not likely to come on.

Small-pox at Greenock. In reply to Mr. Joseph Belvin, the Secretary for Scotland said that the hospital accommodation for small pox in Greenock had been extended from time to time during the progress of the epidemic, and steps were being taken for the erection of another additional pavilion. The circumstances attending the occurrence of every case were reported to the Board, and there was nothing in these reports to suggest that patients were prematurely discharged. The existing reception house was suitable for the purpose, but had not been equal to the demands arising from the epidemic. The Board had called upon the local authority to provide additional accommodation. They understood that great difficulty was experienced in acquiring proper premises.

Glycerinated Calf Lymph for Scotland.—Mr. Weir has once more taken up the question of glycerinated calf lymph for Scotland, and on Monday last inquired whether the Secretary for Scotland had considered the proposal to establish a station in Scotland for the preparation of this lymph, and, if so, what was the nature of his decision. Mr. Graham Murray replied that so long as the general arrangements existing between England and Scotland remained as at present, it was not proposed to adopt the suggestion.

Obstacles to Enlistment.—Last week Mr. Sloan asked the Secretary of State for War whether a person wearing false teeth and suffering from varicose veins was eligible for enlistment in the army. Mr. Arnold-Forster answered that this was purely a medical question and a matter of degree, depending on the number of sound teeth and the extent of the varicose veins.

Dispensing at the Portsmouth Lunatic Asylum.—Sir Albert Rollit asked the President of the Local Government Board whether he would state what steps would be taken to carry into effect the rider of the jury in the case of the inquest held on February 25th upon the four female patients in Portsmouth Lunatic Asylum who died from the effects of careless dispensing; and whether the Local Government Board would cause regulations to be made requiring all dispensaries in public institutions to be in charge of persons registered under the Pharmacy Acts. The Home Secretary replied that he had been asked by his right honourable friend to answer this question. There were several difficult points involved in this case, and for the present he could only say that he was in communication with the Lunacy Commissioners, and that the matter should be thoroughly considered.

Enteric Fever and Inoculation.—Mr. E. Wason on Monday asked the Secretary of State for War whether he would state how many of the officers and men who died in South Africa from enteric fever had been inoculated against that disease; and what was the purport of the reports of the Army Medical Corps as to the success, or otherwise, of the process. Mr. Arnold-Forster replied that the examination of the medical records of the South African War had involved enormous labour, and was not sufficiently advanced to enable him to give the statistics asked for. The question of anti-enteric inoculation had been referred to a special committee. It was one of great interest, and would on no account be neglected. If at a later stage he could give the hon. member the information asked for he would do so.

The Board of Lunacy. Sir John Tuke has given notice of his wish, on going into Committee of Supply on the Civil Service Estimates, to call attention to the inadequacy of the constitution of the General Board of Lunacy in England and Wales, and to move a resolution.

The Pharmacy Act and its Amendment. Mr. O'Malley asked the First Lord of the Treasury, on Monday, whether he would consider the advisability of adopting for Great Britain a measure similar to the Ordinance lately promulgated for the Orange River Colony, which prohibited a firm, co-partnership, or company carrying on the business of a pharmaceutical chemist in the dispensing of medicines or the compounding of poisons unless the directors were qualified persons. Mr. Balfour answered that the subject was under consideration in connexion with a Bill for the amendment of the Pharmacy Act, which was in preparation.

The National Health Society has arranged a course of three lectures on infant feeding to be given in the Lecture Hall, Cavendish Rooms, Mortimer Street, London, W., on Fridays, March 11th, 18th, and 25th, at 4 p.m. The first and the third lectures will be given by Dr. Cautley, and the second by Dr. Hutchison.

Ireland.

Central Midwives Board.

In the British Medical Journal of March 5th, page 572, was published a report of the meeting of the Central Midwives Board, held on February 25th, for which we were indebted to the Secretary of the Board. It is there stated that after considering a letter and resolution forwarded by the President and General Secretary of the Royal Academy of Medicine in Ireland the following resolution was adopted by the Central Midwives Board:

That, having considered the letter addressed to them by the President and the Secretary of the Royal Academy of Medicine in Ireland, the Board regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as, having been approved by that body, it is impossible for the Board to alter them.

We are informed that when this resolution was moved an amendment was moved by Dr. Sinclair, and seconded by Dr. Ward Cousins, in the following terms:

That having considered the letter received from the President of the Royal Academy of Medicine in Ireland, the Board regrets that the circumstances of the midwifery training schools were not considered before the regulations were sent to the Privy Council; the Board, however, sympathizes with the Irish institutions in their difficulties, and will give every assistance in obtaining revision of the rules by the Privy Council.

The amendment having been put from the chair was declared to be lost, and the original resolution was then put and declared to be carried.

A correspondent writes: The resolution adopted at the last meeting of the Central Midwives Board has certainly the appearance of hasty and unjust treatment towards the pupil midwives of Ireland. After considering the letter addressed to it by the President of the Royal Academy of Medicine in Ireland, the Board expressed regret that the suggested alterations were not brought to their notice before the rules were sent to the Privy Council, as having been approved by that body it was impossible for the Board to alter them. Now, during the time that the rules were undergoing preparation *in camerâ*, it was quite impossible for the medical men interested in the training of midwives to anticipate the character of the certificates to be required of candidates before they could be admitted to the examinations of the Board. It is evident, then, that there is a grievance which, in fairness to the Irish maternity institutions, ought to be reconsidered. The Central Midwives Board requires pupil midwives to take out only three months' instruction under a recognized teacher, and to attend upon twenty cases of labour. These certificates of practice can be signed by any registered practitioner, or a chief midwife of any institution recognized by the Board. This regulation will no doubt work very easily, as many medical men utilize the help of women; and, by a recent resolution of the Board, the cases of labour in which women call in the aid of a medical man may be included in making up the necessary number of attendances. The method carried out within the chartered maternity hospitals in Ireland ought to secure a very efficient system of training. The course extends over six months, and at the conclusion of the term, the pupil midwives are examined as to their competency before the master and his assistants. They are required to attend a course of lectures by the assistant master. They are taught methods of examination and the treatment of normal labours. They have many opportunities of conducting cases and of hearing clinical lectures delivered in the wards. They also receive special instruction in nursing and in the management of infants. It is quite evident from these facts that the difficulty which has arisen with regard to the Irish maternity schools ought to admit of readjustment. The regulations cannot be absolutely unalterable. The curriculum of three months prescribed by the Central Midwives Board is sufficient for admission to the Board's examination, yet six months' training and practical instruction in the wards of an Irish maternity hospital are regarded as inacceptable. There is nothing in the Midwives Act which prohibits the training of pupil midwives in Ireland, and it contains a provision that up to April 1st, 1905, women holding certificates in midwifery from the Royal College of Physicians of Ireland, the Coombe Lying-in Hospital, and Guiness's Dispensary, or the Rotunda Hospital of Dublin can claim to be certified under the Act. It is evident that the exclusion of Irish candidates is the outcome of the regulations framed by the Central Midwives Board and sanctioned by the Privy Council, and that this injustice was wholly unintentional and unforeseen.

Proposed Cork Sanatorium for Consumption: Local Government Board Inquiry.

On March 1st, in the Board-room of the Cork Workhouse, Dr. Browne, Medical Inspector, Local Government Board, held an inquiry into the petition presented by the Cork Rural District Council for a Provisional Order to provide a sanatorium for consumption for the City and County of Cork. Solicitors represented the Cork Rural District Council, Cork Corporation, and the Cork Branch of the National Association for the Prevention of Consumption, and deputations attended from the various urban and district councils in the city and county. Dr. Corbey, City High Sheriff, appeared as one of a deputation appointed to represent the Cork Corporation. In urging the importance of establishing the sanatorium, he said that he considered that the rates would necessarily be very largely reduced by carrying out the project. It was generally calculated that patients should be kept in a sanatorium for three months or so, and it must be recollected that commonly patients suffering from phthisis lived for two years, so that the ratepayers would have to pay only for three or four months in a sanatorium, whereas they would have to pay for two years in a workhouse. The saving, however, would not end there, for some of the patients would be cured and thereby enabled to support those who might otherwise have to depend on the ratepayers. The risk of contagion would be lessened, and this would operate for similar reasons towards a reduction of the rates.

Dr. W. Ashley Cummins, Professor of Medicine, Queen's College, Cork, and Senior Medical Officer at Cork District Hospital, said that in 1903 135 deaths from consumption occurred at the Cork District Hospital alone; he pointed out the absolute unsuitability of the District Hospital for treating such cases. He knew of cases received which if treated under proper circumstances would have been curable but rapidly developed into incurable cases there. He considered not the least of the advantages of a sanatorium would be the educative effect it would have on the people, for each cured case would be a kind of medical missionary to those about him as to the manner in which the disease might be prevented and the precautions taken with respect to it.

Dr. Donovan, Superintendent Medical Officer of Health, said that the death-rate of the city for 1903 was 19.38 per 1,000; the death-rate from phthisis was 3.66; the infantile death-rate was 2.96; while the infectious death-rate was only 0.64. The City of Cork possessed the unenviable notoriety of having a higher death-rate from consumption than any other town in Great Britain or Ireland, one-sixth of the total number of deaths occurring every year were due to this disease. Dr. Donovan considered the high death-rate to be due to the mild damp climate, while in the centre of the city a large portion of the soil was sewage-sodden and liable to periodical flooding, lying as it did between and over rivers where the high mortality from phthisis was well marked. Then there were the insanitary dwellings and overcrowding in congested areas, whilst there was the important factor of transmission of disease by heredity as well as by infection from its many foci, no provision being made for isolation, notification, and disinfection. The precautions required to be taken in the city to check the disease were:

1. Notification, either voluntary or compulsory, preferably the latter, which would lead to—
2. Isolation and disinfection.
3. A sanatorium for the treatment of incipient cases.
4. Public education amongst the poor and in the schools, where an inkling of elementary hygiene might be instilled, particularly with regard to the value of air, light, and cleanliness in everything—person, clothes, house, surroundings, food, milk, water, etc.
5. The provision of houses for the very poor, amongst whom the disease is most prevalent.
6. Systematic bacteriological examination of the city milk supply and strict supervision over meat supply.

Dr. O'Meara, medical officer of one of the dispensary districts in Skibbereen, said that he had seen whole families in his district die from the disease, and in one small part of his district it became practically epidemic—so much so that as many as fifteen houses became infected. He believed a sanatorium would be in the first place educational; secondly, curative; and, thirdly, it would remove a focus of infection from the families.

Dr. Cremen, President of the local branch of the National Association for the Prevention of Consumption, endorsed the

views of the last witness, and pointed out that alcoholism was a prolific source of the spread of the disease in the county and city. Not alone did alcoholism lower the vitality of the individual, but it prevented the person stricken down from being able to afford a better residence, better clothes, and better food.

Mr. McMullen, J.P., C.E., then entered into the question from an architectural point of view, and pointed out that Mr. Barter's generous offer of a site at Myshall, Coachford, would be open to the acceptance of the joint body formed under the scheme; it contained twenty acres, and he thought it was very suitable.

This closed the evidence. A vote of thanks was passed to Dr. Browne for the courtesy and care with which he had conducted the inquiry.

Should the Local Government Board grant the petition, twenty districts comprising the entire county of Cork will be formed into a united district with a rating power not to exceed a penny in the pound. It is believed that this will be the first occasion that such a work has been achieved in Great Britain, and it is expected other counties in Ireland will follow the good example set by county Cork.

Professor Byers.

Some time ago a committee was formed in Belfast in order to give to Professor Byers some tangible proof of the admiration felt for the plucky manner in which he defended the lawsuit brought against him under circumstances which have already been detailed in our columns. A portrait of Professor Byers has been painted, and will be formally presented to him at a meeting in the great hall of Queen's College, Belfast, on March 18th, at 4 p.m.: the President of the College will preside and a large attendance is expected.

Endowment of the Royal Victoria Hospital, Belfast.

At the fortnightly meeting of the Board of Management of the Royal Victoria Hospital, Belfast, the Right Hon. W. J. Pirrie handed over to the hospital the various funds raised by Mrs. Pirrie towards the endowment fund. It will be remembered that it was mainly through Mrs. Pirrie's indefatigable exertions that the building fund of £100,000 was both begun and completed. Not content, however, with the accomplishment of this task Mrs. Pirrie set herself to accumulate an endowment fund. The result of her labours was manifested in cash and securities to the value of more than £48,000. The announcement elicited hearty applause, and the Board passed by acclamation the following resolution:

That the Board hereby desires to place on record its sense of profound gratitude to Mrs. Pirrie for her untiring and most successful efforts on behalf of the hospital which have been crowned in her [illegible] of £ in cash and securities of a value over [illegible] It desires also to cordially acknowledge the services rendered by Mr. Pirrie in connection with this matter, and to express its appreciation of his share in perfecting the [illegible] arrangements to be made in making it so many generous and opportune gifts.

Extension to the Queen's College, Belfast.

At a meeting of the Executive Committee of the Queen's College Lord the President of the College announced that the Misses Ewart, of Broadmount, had intimated to him their intention of presenting the College with £5,000 for the purpose of founding a "Ewart Demonstratorship in Pathology and Bacteriology in connection with the 'Musgrave Chair of Pathology.'" This gift will be received with the greatest satisfaction and gratitude. Excellent post-graduate work has been carried on in the pathological laboratories, but for want of [illegible] the [illegible] without some extraneous assistance. The present gift will enable this want to be met, and it is hoped will prove a forerunner of other gifts to enable the College authorities to [illegible] to the benefit of such post-graduate [illegible] At the same meeting [illegible] Mayor, presided over a [illegible] meeting in the Ulster Hall, Lord Mayor, presided over a [illegible] meeting in the Ulster Hall, to consider the question of [illegible] to be sent for treatment of patients who have been [illegible] to the Royal Victoria Hospital and the Samaritan Hospital.

Plague Precautions in Scotland.

At a meeting of the City Council on March 1st the Health Department's report [illegible] It appears from the report that [illegible] cases of plague [illegible] including [illegible] of small-pox. There were [illegible] births and [illegible] deaths [illegible] the week. [illegible] and [illegible] and [illegible] and

Proposed Hospital for Consumption at Liberton.

In consequence of objections raised by neighbouring tenants and owners, it was decided at a meeting of Liberton Parish Council on March 7th to approach the Local Government Board on the subject of a proposed tuberculosis hospital at Liberton, representing that such a building would, from its position, seriously injure six neighbouring properties.

Small-pox.

Although during the last few weeks there has been a very satisfactory decline in the number of cases of small-pox in Glasgow, new cases are frequent in some of the surrounding towns, and recent statistics from the office of the Local Government Board show that the disease has appeared in many places which had up to now wholly escaped. On March 7th the number of cases in Belvidere Hospital, Glasgow, had been reduced to 111, the dismissals for some time now outnumbering the new cases. During the present epidemic 673 cases have been removed to Belvidere, of which only 44 have been fatal.

During the week ending mid-day, Saturday, March 5th, 6 fresh cases of small-pox were notified to the public health authorities in Edinburgh and 2 deaths were registered.

Canada.

Conference on School Hygiene.

On February 2nd a Medical Conference was held in Toronto, at the request of the Minister of Education for Ontario, to consider questions of school hygiene and to report on the same to the Government for its guidance in legislation. The Minister of Education, the Hon. Richard Harcourt, delivered the opening address, and, in requesting the advice of the medical experts present, announced that he proposed to recommend their views to the people of Ontario, with its half million school children.

Dr. Chas. Sheard, Medical Health Officer for Toronto, read a paper on the problem of how to prevent outbreaks of infectious diseases among school children, and suppress them when present. He called attention to the dangers of communication of diseases by the exchange of toys, etc., and recommended that "mouth toys" be banished from the school; he advised the education of teachers to recognize contagious diseases, and the employment of a competent inspector to examine the children when infection was suspected or known to exist.

Dr. P. H. Bryce, of the Department of the Interior, Ottawa, read a paper on the great relative prevalence of preventable diseases in children at school age, as illustrated by the statistics of Ontario. Though statistics showed that the death-rate had been cut down to one-third in recent years, he claimed that what was necessary was: (1) a conviction that disease was disseminated; (2) to be convinced by the results of the methods that an enormous saving of disease and death was possible; and (3) that they possessed scientific methods so certain, when persistently and systematically carried out, that they would suppress outbreaks of epidemic diseases.

Dr. Hodgetts read a paper on compulsory drill in public schools as a basis for the militia, pointing out the advantages that would accrue to the pupils from the training and exercise, and to the militia from the improved material thus provided. This paper evoked some discussion, not all of which was favourable to the ideas suggested.

Dr. Oldright, Professor of Hygiene in Toronto University and Toronto Normal School, advocated the holding of a conference annually in connexion with the Annual Educational Convention.

Public Health Department of Ontario.

Dr. P. H. Bryce, who for 21 years has been Secretary of the Provincial Board of Health for Ontario, with head-quarters at Toronto, has been appointed to the position of Medical Inspector to the Interior and Immigration Departments of Canada. This appointment follows on the representations made by the Canadian Medical Association to the Dominion Government as to the necessity of the formation of a department of public health for the Dominion.

Dr. Bryce has been for years one of the best known and most painstaking officers in the Ontario civil service. He was born in the county of Brant in 1853, and graduated at the University of Toronto in 1876 with honours. After taking his medical degree in 1880 he pursued his studies at Edinburgh. In 1878-9 he was Professor of Chemistry at the Agricultural College, Guelph, and after graduation began medical practice in Guelph. Since 1882 he has been Secretary of the Provincial Board of Health, and since 1892 Deputy Registrar-General for the Province, having charge of the vital statistics. Dr. Bryce has written many papers on medical and scientific subjects, but his greatest field of usefulness has been as Secretary of the Provincial Board of Health, where his impartiality, firmness, and decisive action have been the means of preventing the development into epidemics of many hotbeds of disease, which threatened the health of small communities. Dr. Bryce has for many years lived at Bracondale, just north of Toronto. Before leaving a dinner was given in his honour, and a presentation made by the Board of Health and the clerical staff of the Department.

Dr. C. A. Hodgetts has been appointed to the position of Secretary of the Provincial Board of Health for Ontario. He has for some years most efficiently discharged the duties of Provincial Health Inspector, and the success that has followed his efforts in the suppression of small-pox epidemics in the outlying districts give assurance of the wisdom of his choice as Dr. Bryce's successor.

The Death-rate of Ontario.

The monthly bulletin for December from the Provincial Board of Health reports a death-rate of 12.5 per 1,000, the same rate as in the corresponding month last year. The death-rate for contagious diseases was 0.131 per 1,000, more than one-half being due to tuberculosis. For the year ending with this month the death-rate was 12.6 per 1,000; 2,072 deaths were due to tuberculosis, being 8.2 per cent. of all the deaths reported.

International Congress of Tuberculosis.

Dr. E. F. Barrick, of Toronto, is President of the International Congress of Tuberculosis which is to be held in St. Louis, October 3rd, 4th, and 5th, under the auspices of the Universal Exposition. The following Canadians have received and accepted appointments:

Honorary Vice-Presidents—T. G. Roddick, M.D., M.P., Sir William Hingston, M.D.

Vice-Presidents—James Loudon, Hon. Senator Geo. A. Drummond

Vice-Presidents for the Provinces—Dr. W. P. Caven, Dr. Daniel Clark, Dr. G. W. Powell, Dr. W. H. Moorehouse, Dr. John Ferguson, Rev. C. S. Eby, D.D.

Vice-Presidents for the Provinces—British Columbia, Dr. L. C. Hagan, Dr. S. T. Tunstall, Rev. Leslie Clay; North-West Territories, Dr. J. D. Lafferty, Dr. G. V. Kennedy; Manitoba, Dr. J. C. Hepburn, Manitoba, Dr. H. H. Chown, J. A. M. Aikins, Esq., Mayor Adam Arbuthnot; Ontario, Dr. A. A. Macdonald, Dr. C. A. Robertson, Mayor Alban Beck; Quebec, Mayor James Cochran; New Brunswick, Charles J. Coster, Dr. Peter E. Hughes, Mayor Dr. W. W. White; P. E. Island, Dr. Roderick Macneill, Dr. S. R. Jenkins, Rev. T. J. Fullerton.

The National Sanatorium Association.

The annual meeting of the trustees of the National Sanatorium Association was held in Toronto recently. Reports of the year's work in the two institutions under the control of the Association were presented, each showing a most successful year. An appeal is being made for increased financial support in order that the work for the incoming year may not suffer any curtailment. Dr. Parfitt has returned to take charge of the work in the Free Sanatorium, and Dr. Young, who has been temporarily resident, is going to Winnipeg to practise.

Christian Scientists.

A judgement of vital importance to the Christian Scientists in Ontario was given recently by the Full Court of Appeal in the case Rex *v.* Lewis. A boy, Ray Lewis, 9 years old, died of diphtheria under Christian Science treatment, and the Crown instituted a prosecution against the father, John H. Lewis, on a charge of manslaughter. The case was brought before Chief Justice Falconbridge and a conviction was rendered. The Crown intimated that it pleaded for a conviction on moral grounds only, so that no punishment followed the decision. From that decision the Scientists appealed, with the result that the conviction was affirmed. The chief point at issue was whether the word "necessary" in the Act of the Criminal Code, invoked as applying to the attention and care that a parent or guardian is required to give his children, included medical attendance in cases of serious illness. The original conviction was made on the assumption that it did, and this view has been upheld unanimously by the Court of Appeal. The effect is that a parent who neglects to provide medical attendance for his family leaves himself open, in case of death occurring, to a charge of manslaughter.

McGill University.

Dr. John W. Scane has been appointed Registrar of the Faculty of Medicine at McGill in succession to Dr. von Eberts, who has resigned the position on account of the pressure of private work, after filling it to the entire satisfaction of the Faculty for twelve months. Dr. Scane is a graduate of the class of 1893. For some years he held a position in the Royal Victoria Hospital, and has more recently been Assistant to the Professor of Physiology at McGill.

Professor Halliburton.

Professor W. D. Halliburton, F.R.S., Professor of Physiology in King's College, London, lectured at the University of Toronto, Friday, January 22nd, to the Faculty and students in medicine on the subject—Degeneration and Regeneration of Nerves, with lantern illustrations.

On Saturday evening the Dean and Faculty entertained Professor Halliburton at dinner in the University Dining Hall. The visit of this eminent scientist was much enjoyed by all who had the pleasure of meeting him.

The Toronto Pathological Society.

On the evening of December 30th, 1903, the Toronto Pathological Society was addressed by Dr. W. G. McCallum, B.A. Toronto, M.D. Johns Hopkins, of the Staff of the Johns Hopkins Hospital, Baltimore, on organic insufficiency as a cause of disease.

The Hamilton General Hospital.

Dr. George McLaren has resigned the position of Superintendent of the Hamilton General Hospital, and will go to the Continent to pursue his studies. The position was offered to Dr. Langrill, City Health Officer, but the City Council offered him increased financial inducements to remain in the position he has filled so satisfactorily.

The Ontario Epileptic Hospital.

Dr. J. C. Mitchell, of the staff of the Toronto Asylum for the Insane, has been appointed Medical Superintendent of the new Provincial Epileptic Hospital at Woodstock. This institution will not be completed for some months, and in the interval Dr. Mitchell will travel for the purpose of studying hospitals of a similar character.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association, 429 Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 4 o'clock in the afternoon.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon forms which will be supplied by the General Secretaries of the Association per Secretary. Applications for nomination should be in the hands of the General Secretaries not less than thirty days before the meeting at which the election of the Council

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION

Members are reminded that the Library and Writing Room at the Association House, 429 Strand, are open for the convenience of Members from 10 a.m. to 5 p.m. on every week-day except Saturday, when the hours are from 10 a.m. to 1 p.m. Members are requested to give notice of any books they require to consult, so that they may be obtained from the Library.

Jas. Stirling, *General Secretary.*

CLINICAL MEETINGS TO BE HELD.

[illegible]

Bladder presenting Tonic Spasm contraction. (2) Needle and Bladder. (3) Irish growth. Epithelioma removed and preparation of the condition. Dr. Harris will read a paper on Pain in Pleurisy due to Intercostal Lesions, and will show two illustrative cases. Arthur Hulme, M.D., 38 St. Peter's Square, Manchester, Honorary Secretary.

Metropolitan Branch: Wandsworth Division.—An ordinary meeting will be held in the Officers' Mess Room of the 2nd Volunteer Battalion East Surrey Regiment, St. John's Hall, opposite Corporation Station, on Thursday, March 24th, at 8.30 p.m. Agenda: Minutes. Correspondence. Resolutions for the Representative Meeting. Report of the Annual Meeting forming a deputation to undertake the supply of all Stationery, circulars, etc., required by the various Branches and Divisions. Mr. Guy Elliston, General Secretary, will speak on these Resolutions at the Representative Meeting, referring to the treatment by the Navy and the consequent great injuries done thereby. Dr. Bernard Thomas, Coroner for London and Middlesex, and others will speak to these resolutions. All members are invited to attend. Detailed agenda supplied on application to E. Rowland Fothergill, Honorary Secretary, Torquay House, Southfields, S.W.

South-Eastern Branch: Croydon Division.—The next meeting of this Division will be held at the Greyhound Hotel, Croydon, on Thursday, March 17th, at 4 p.m., Dr. P. T. Jordan in the chair. The following papers have been promised: Mr. Herbert F. Waterhouse, On Gastro-enterostomy in Non-malignant Affections of the Stomach and Duodenum. Dr. Purves Stewart, On Lumbar Puncture in its Practical Applications. Dr. T. J. Perkins, On Some Points in the Diagnosis and Treatment of Chest Diseases. Mr. St. George Reid will show an ophthalmic sounding box for testing the auditory appreciation in cases of deafness and ear diseases. Messrs. Arnold and Sons will exhibit surgical instruments. Messrs. Parke Davis, pharmaceutical preparations, etc.; The Trommer Company, diastasic ferments. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 6 p.m., charge 4s. exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. N.B. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meetings. E. H. Willock, M.D., London Road, Croydon, Honorary Secretary.

South Wales and Monmouthshire Branch: Cardiff Division.—The next general meeting of this Division will be held in the Rooms of the Cardiff Medical Society on Thursday, March 17th, at 8 p.m. The agenda will include the following: 1. Adoption of standing orders. Report of deputation to local supervising authority re Midwives Act, 1902. Proposal to establish local midwives training centre. Papers, etc. Dr. Mitchell Stevens, Some Clinical Illustrations of the Difficulties in Diagnosis of Cancer of the Liver. Mr. W. Spence, M.S., A Case of Revolver Bullet Wound of the Brain, in which the bullet lodged about 12 cm. from the point of entrance, and was removed from a depth of 6 cm. in the brain substance. Mr. W. Martin, Methods of Localizing by Localization, illustrated by case above cited, with apparatus and photographs. Members are invited by the Secretary to take part in discussion on Special Hygiene in connexion with the Duties and Responsibilities of the New Education Authorities, to be opened by Dr. Wayford, M.O.H. Cardiff, and to be held in the Town Hall, Cardiff, at 8 p.m. on Saturday, April 2nd. Lewis J. Maclean, M.D., 21, Park Place, Cardiff, Honorary Secretary.

West Somerset Branch.—The spring meeting of this Branch will be held at the Royal Somerset Hospital, on Tuesday, March 22nd, at 4 p.m., when the chair will be taken by the President, Dr. David Walker. Agenda: In addition to the ordinary business the Branch will be asked to appoint a representative to attend the Conference of Delegates of the Associated Medical Societies to be held in London on April 21st. Members desirous of bringing cases or specimens before the meeting are requested to give notice to the Secretary. Arthur Hulme, M.D., 38 St. Peter's Square, Manchester, Honorary Secretary.

Worcestershire and Herefordshire Branch.—The spring meeting will be held at Worcester Infirmary on Tuesday, March 22nd, at 4 p.m. [illegible] Association [illegible] dinner. To economize space it is advised [illegible] Members desiring to bring cases or specimens before the meeting are requested to give notice to the Secretary. Clinical Cases: Mr. Goodhue Abrahall, [illegible] Pathological Specimens: Dr. W. Crowe, Worcester, Honorary Secretary.

French Congress of Climatotherapy. We are asked to remind our readers that the first French Congress of Climatotherapy and Urban Hygiene will be held at Nice from April 4th to 12th, under the presidency of Professor Charrin. The latest date for the inscription of names in the list of members is March 15th. Subscriptions (15 fr.) should be sent with a statement as to the Congress, Dr. Rouzil, 14, Boulevard Victor Hugo, Nice, Alpes Maritimes, France. All other correspondence should be addressed to Dr. Henri de Rosse, General Secretary, 3, Boulevard Central, Beaulieu-sur-Mer, Alpes Maritimes.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: M. Albert Robin on the Action of the Maritime Climate in the Treatment of Pulmonary Diseases. Epidemic of Typhoid Fever. The Plan for the Isolation of Tuberculous Patients in Paris.—A New Isolation Hospital.

AT the last meeting of the Académie de Médecine M. Albert Robin presented a new work by himself, in collaboration with Dr. Maurice Binet, on the effects of maritime climate and sea baths on the phenomena of nutrition and their therapeutic application. Among the therapeutic conclusions a very important section deals with the action of maritime climate in the treatment of pulmonary phthisis. The authors draw the following conclusions:

1. At the seaside, considered only from the point of view of its effects on the respiratory exchanges, should be reserved more particularly for anæmic subjects with slight organic changes in the lymphatic glands, and in consumptive asthenic patients with feeble nutrition and in whom it is necessary to increase the exchanges whatever may be the starting point.

2. It suits the rachitic and neurotic, some chronic diseases, since it diminishes humoral disassimilation and tones tissues rich in phosphorus, and thus contributes to build up their reserve supply.

3. In principle, pulmonary patients should be kept away from the coast, since the majority of them show increased activity in their exchanges. But to this rule there are the following exceptions:

(a) The first 3 per cent of pulmonary patients have normal or slowed exchanges; these would benefit in a maritime climate.

(b) Secondly, in the case of consumptives who, although their exchanges are exaggerated, eat, digest, and assimilate their food badly with the result that the excess of oxygen consumed is all spent on themselves, a temporary stimulation of nutrition will direct to the food a portion of the oxygen which is burning up the tissues. The cure at the seaside, in these cases, should only be of short duration.

(c) Certain consumptives whose exchanges are slightly increased will benefit from certain maritime climates if their general condition is good and if their pulmonary lesions, even when advanced, are still without an evolution towards ulceration, either spontaneously or else under the influence of the treatment to moderate the exaggerated exchanges, which has been described by the authors for the last two years before the Académie de Médecine.

4. They should be advised to go to a mild and uniform climate protected from the wind and from the heat of the sun. They should not live in the zone closest to the water, and they should avoid cold winds and the change of temperature which takes place at sundown, as well as the dampness of night, which leads to a considerable hygrometric stability.

5. In every case without exception the general and respiratory exchanges must be followed during the stay, so that they may be sent inland if these become exaggerated. The above conclusions are equally applicable to persons predisposed to tuberculosis.'

4. In tubercle of bones and glands in which cases the exchanges are generally less increased than in pulmonary tuberculosis, the advantages of sea air are sanctioned by observations which have now become classical.

5. The same may be said of tuberculous gland cases in which the respiratory exchanges are increased, which often improve at the seaside, while at the same time their exchanges diminish.

Paris is threatened with an epidemic of typhoid fever, judging by the sudden increase in the number of cases notified in the last two weeks. During the third week of February 45 cases were notified; during the first week of the month the number suddenly increased to 141 cases, and since March 1st 25 cases are notified daily. The Conseil d'Hygiène, which met on March 7th at the Ministry of the Interior, under the chairmanship of Professor Debove, appointed Dr. Jules Renoult to make an inquiry as to the causes of the epidemic.

At a meeting of the Council of Supervision of the Assistance Publique, held on March 4th, M. Mesureur laid before the members the plan for the isolation of tuberculous patients, which had been drawn up in accordance with ministerial instructions (see BRITISH MEDICAL JOURNAL, February 27th). The following hospitals will be transformed into hospitals for the isolation of tuberculous patients: the Laënnec Hospital, the annexe of the Hôtel-Dieu, the Broussais Hospital and the Hôpital du Bastion, 27, which will give a total of 1,184 beds. By making use of the arrangement of certain buildings, special blocks will be isolated at the Tenon Hospital, Boucicaut Hospital, St. Antoine Hospital, and in an annexe of the St. Louis Hospital, giving in all another 909 beds. At the St. Antoine Hospital the wards of Drs. Thoinot and Lenoir shall be given up exclusively for tuberculous cases. As a result a certain number of the general medical and surgical wards will be suppressed (22 medical, 2 surgical, and 1 obstetric). This plan will be completed later by the opening in 1904 at Brévannes of a special hospital with 300 beds. Another hospital for tuberculous cases, with 500 beds, is included in the plan. If an agreement can be arrived at with the Department of the Seine, the Rambuteau pavilion of the Salpêtrière Hospital, with 210 beds, will be occupied by tuberculous instead of mental cases. If the new law permits, a block of 300 beds will be built at the Boucicaut Hospital. Tuberculous children will be isolated at Brévannes in the convalescent home in course of construction.

The Council also approved the plan of rebuilding at Aubervilliers the hospital for contagious and epidemic disease, the present wooden construction being in a disgraceful condition. The cost is limited to Fr.1,950,000 (£78,000).

LIVERPOOL.

The Liverpool Medical Institution: History of the Association: Lease granted by the Corporation in 1837: The Rutter-Phillips Mineralogical Collection: Application for a New Lease in 1900: Action of the Treasury: Large Fine now Required by the City Corporation.

THE Liverpool Medical Institution is generally admitted to be one of the most thriving of the medical societies in the country. Its members and associates number 342, its library contains many rare and costly works and is constantly being added to, and the large attendance at the meetings and the high quality of the communications made there it have often deeply impressed visitors from the metropolis and elsewhere. The affairs of this important body, through no fault of its members, are unfortunately approaching a crisis, which, if it does not terminate favourably, must seriously interfere with its prosperity, if it does not terminate its existence.

The institution had its origin about the year 1770, when the three Surgeons to the infirmary, Henry Park, John Lyon, and Edward Allanson, names some of which have become historical, laid the foundations of what soon became known as the Liverpool Medical Library. At first the books were kept at the infirmary, and in 1807 the trustees of the latter resolved to build a library over the archway which formed the patients' entrance in Shaw's Brow. In the year 1826 the land was needed for improving the town, and at the request of the Library Committee the Corporation built a new library at the public expense. A few years later another change took place in consequence of the site being required for the erection of Lime Street Railway Station, and again the municipality recognized the claims of the Medical Library, and the Corporation granted a lease of premises in Hoghton Street free of rent. For various reasons these premises and others which were proposed were not found to be available, but finally on July 18th, 1837, the Corporation gave to the trustees of the Medical Library a lease for seventy-five years of land at the corner of Hope Street and Mount Pleasant, for the nominal consideration of 10s., the only special restrictions being that the building should not be used for any other purpose than a medical library and pathological museum, and that no anatomical dissections should be made on the premises. But the generosity of the Corporation did not end here, for they also subscribed £1,000 towards the erection of the building, which received the name of the Medical Institution. Two years later the Council was memorialized by the medical profession for an additional piece of land for the purpose of erecting a house for the resident librarian, and a lease for the necessary land was granted to the trustees of the Liverpool Medical Institution on April 24th, 1840, for a term of 75 years on similar terms to the lease previously granted. This extra land was leased without payment of fine, the consideration being 21s., the Corporation being of opinion that they were justified in so applying the property because the subject of the memorial was within the terms of the Municipal Corporation Act, 1835, being for the public benefit of the inhabitants and for the improvement of the borough. It will be noted that the first mention of the Medical Institution appears in the second of the two leases. This title was adopted in 1820, the society having been formed by the amalgamation of the Medical Library with what was known as the Medical Society and with the Pathological Museum. It thus appears that the Medical Institution held its land on lease from the Corporation for 75 years at a nominal fine, and that being regarded as for the benefit of the public and for the improvement of the borough, and having adhered to the terms of the agreement there was every reason to expect that when the lease expired it would be renewed on the same

favourable terms. The Institution has deserved well of the city not only by the high standard of professional conduct and work which it has encouraged, but also by benefits of a strictly commercial value. In the year 1877 the Trustees of the Institution presented to the City Council the standard and very valuable "Rutter-Phillips" collection of minerals, which is now deposited in the William Brown Museum. It was formed by William Phillips, and comprises the actual specimens described and figured by him in his *Introduction to Mineralogy*. The collection is known to all mineralogists and is one of the most prized possessions of the museum. In the year 1877 it was valued at £1,300, and it is now doubtless worth a very considerable sum.

Such having been the relations between the Medical Institution and the Municipality it was not unreasonable to suppose that when the 75 years lease came to an end it would be renewed on some such favourable terms as those on which it was originally granted, but in order to make the position of the Institution secure, so long ago as 1880 when some 40 years of the lease had expired the trustees approached the Finance and Estate Committee of the Corporation petitioning for a renewal of the lease free of fine, and in response to the application, the Corporation resolved to grant the renewal free of fine and at a peppercorn rent. A few days later, however, the Institution was informed that the Town Clerk considered it technically necessary to get the consent of the Lords of the Treasury, and accordingly the Corporation memorialized the Lords of the Treasury for leave to grant the lease. After some further correspondence the late Lord Frederick Cavendish wrote to say that as the Institution were lessees of the premises until 1915 at a peppercorn rent, it appeared to him that no grievance could arise until then, and that in the meantime no action need be taken. It was inferred from this that the only ground for refusal was that the lease had not sufficiently expired, and that there was no doubt that at some future time the application would be granted.

It is hardly necessary to point out that the fine for the renewal of an ordinary lease increases very rapidly when the lease is nearing its end; that the trustees had prudently endeavoured to obtain a renewal at a time when the fine, if it were to be imposed, would have been comparatively light; and that if there was any possibility of a fine being imposed later, it was not the fact, as Lord F. Cavendish supposed, that the refusal to renew in 1880 could give rise to no grievance. On the contrary, it was imperative to renew the lease at the earliest possible date, unless the Institution was to be saddled with a liability in the future which it might be impossible to meet.

In pursuance of the policy indicated by the Treasury the trustees of the Institution waited twenty years, and on April 10th, 1902, made application to the Estates Committee for a renewal of the lease without fine, and received the wholly unexpected intimation that a fine of £817 4s. would have to be paid. This action on the part of the Estates Committee ignored altogether the course taken by the Corporation and by the Treasury in 1881, and the authorities of the Institution, believing that the Estates Committee had scarcely realized the circumstances, waited again by deputation on the committee and laid the full facts before them, in the assurance that the policy of the Corporation in the past would be honoured by its representatives in the present, but, so far, the municipal authorities have shown no sign of relenting.

The foregoing facts are so clear and the inference from them is so obvious that but little comment is required. The Medical Institution is not carried on for gain, but for the advance of medical skill, and its work has a direct bearing on the health and well-being of the inhabitants of the city. This relationship has been again and again admitted by the municipal authorities, and twenty years ago, when the Institution was prepared to negotiate for a renewal of the lease on such terms as the Corporation wished to offer, the latter expressed a desire to grant the renewal free. To insist on the payment of a heavy fine at this late period would be a great hardship and a serious injury, and it is believed that when the City Council realizes all the bearings of the case it will continue the generous treatment meted out by its predecessors in office.

SHEFFIELD.

The Privy Council and the Charter for the University of Sheffield: Special City Rate: Special Funds. Leeds and Sheffield.

The letter received last week in Sheffield from the Privy Council intimating its willingness to grant a charter incorporating a University under the title of a "University of Sheffield," provided there is a "substantial realization of the hopes" as to the obtaining of funds for equipment and endowment practically means that in a short time this city will have its own University, as there is little doubt that the conditions of the Privy Council will without undue difficulty be met. For the purposes of the erection of the new buildings and of adding to the endowment the local committee has been engaged in raising a sum of £170,000. Towards this, at present, about £110,000 has been subscribed, and an effort will now be made to obtain the balance.

A point that no doubt had great weight with the Privy Council was the action of the City Council in unanimously voting a sum from the rates equal to a penny in the pound, and approaching £7,000 yearly. This, to the credit of the City Council, was done without a dissentient voice, and though 12 months have elapsed there has been nothing but unanimity prevailing on its part towards the proposed University. The support also of other local bodies mentioned by the Privy Council already has either been assured or will no doubt be forthcoming.

The women of Sheffield are engaged now in endeavouring to raise a sufficient sum to endow a Chair, and their initial efforts have met with a success which is full of encouragement and has been surprising to many. Other bodies, such as the Elementary Teachers of Sheffield and Rotherham, the Pupil Teachers, the Commercial Travellers Association, etc., have their own movements for the collection of subscriptions among their members towards the university scheme. The badness of trade is, of course, telling against the raising of money for this or any other object, but it is not anticipated that with a new university so nearly attained there will be any great difficulty in increasing the amount already raised to as much as will meet the requirements of the Privy Council.

The gratification is of course unanimous at the result of the contest forced upon Sheffield by the Leeds authorities, and the decision of the Privy Council that a university situated in Leeds is to be called "The Leeds University," and not one signifying proprietary rights in the county, has been very joyfully received. It was strongly felt that the position assumed by Leeds was unjust to a neighbouring city, its equal or nearly so in population, and of no less importance than itself. Each had inherent county rights; both were in Yorkshire, but Yorkshire was no more in Leeds than Yorkshire was in Sheffield. From the outset the attitude assumed was held to be indefensible and permitting of only one ending. Throughout there had been nothing but goodwill towards Leeds in its endeavour to obtain its own university, and now that this matter of title has been finally settled there will only be a friendly rivalry as far as Sheffield is concerned between these two great Yorkshire cities in furthering to the utmost their opportunities in the matter of university training and education.

MANCHESTER.

Selection of Architects and Cost of New Infirmary. The Spitting Nuisance. Drunkenness in the City.—Northern Hospital Finances.

The Board of Management of the Royal Infirmary on March 7th decided, after report from the referee appointed to consider the plans submitted for the new infirmary, to approve the design submitted by Mr. Edwin T. Hall and Mr. John Brooke, of London and Manchester, and these two gentlemen were appointed joint-architects for the building of the new infirmary. The Board, however, reserves the right to alter or vary the plans. The plans also must before adoption receive the confirmation of the trustees. On the new site of Stanley Grove about twelve acres in extent the infirmary will have a frontage of about 500 ft. It will contain 20 wards and about 600 beds, and they are to be arranged on the pavilion system. The front will consist of three blocks, that in the centre being surmounted by a dome and clock, and the side blocks each having a tower. The building in the centre will be devoted to administrative purposes; on the south will be the nurses' home (containing about 300 beds), and on the north the teaching department. Behind these three blocks long surgical and medical corridors will run east and west, with pavilion wards ranging from them. The wards are to be of two stories, but will be so constructed that a third story may be added, if necessary, at some future time. Attached to the surgical wards are the necessary operating theatres. The remaining portion of the irregular area will be devoted to other

important departments of the work of the infirmary. The out-patients' department is to be a separate building, with a frontage into Nelson Street (behind the Eye Hospital). Here also will be the entrance to the casualty ward, and on this side, too, will be the eye, skin, and ear wards and the gynaecological wards. The pathological department will be situate on the south side of the infirmary buildings. The cost will reach the sum of £324,000, with an additional £16,500 if the full 600 beds are provided.

A new by-law to deal with the spitting nuisance has been submitted to the City Council by the sanitary authority. It provided that "no person shall, under a penalty not exceeding £5, spit in any public carriage, public hall, waiting room, or place of public entertainment, whether admission thereto be obtained by payment or not." Owing to a technical difficulty, the by-law was not passed. It will come up again in another form.

Manchester, it appears, has a greater proportion of licensed houses and drunkenness to the population than other large towns in Lancashire and Yorkshire. In Manchester the number proceeded against for drunkenness per 1,000 of the population is 16.19. In Liverpool it is 10.68, and in Birmingham 6.5. This is not as it should be, and is very intolerable to Manchester pride, and bad for the fair fame of the city.

The Manchester Northern Hospital for Women and Children shows no falling off in its usefulness, but it is a different tale with regard to its income. The normal annual expenditure is about £3,800, and the average annual income £2,800.

SYDNEY.

Expectoration in Trains and Trams.—Infectious Diseases.—Vital Statistics.—Preservatives in Foods.—News.

Some few months ago the Railway Commissioners passed a by-law imposing a fine of £2 on any person convicted of expectorating into any railway or tramway carriage. So far no one has been punished under this by-law, but the officials report that since its introduction there has been a marked improvement in the condition of the cars when they reach the sheds at night. The Commissioners have instructed the tram conductors, train guards, and other traffic officers to keep a strict watch, and to report any person found acting offensively in regard to expectoration. In order to protect the public from this objectionable and dangerous practice, the Department will take legal proceedings against any one infringing the by-law.

The present summer has been remarkably mild, and possibly, as a result, the record of infectious diseases throughout the State is very small at present. In addition to the comparatively low temperatures, there has been a remarkably good rainfall, which has greatly purified the water supplies of the country towns. The only outbreak of typhoid fever so far reported this summer has been a small epidemic at Wellington, which is attributed by the Health Department to the usual defective sanitary arrangements, and the local authorities have been urged to adopt efficient by-laws to meet the difficulty. During the month of December there were only 75 cases of typhoid fever reported in the metropolitan district, or 25 per cent. less than the number in December of the previous year. A large number of rats and mice are still daily examined in the laboratory of the Board of Health, but no case of plague infection has been discovered in them since August, 1903. A plague-infected rat was, however, caught the other day in Brisbane, and the strictest precautions are still being observed by the Sydney Harbour Trust and the Health Department of the Sydney City Council against the possible importation of infected rats or mice.

The total number of deaths in the metropolis during the year 1903 was 5,913, as against a yearly average of 5,902 during the previous five years. Specific febrile diseases caused 568 deaths as compared with 682, the average for the last five years. Following the same comparison, parasitic diseases caused 11 deaths as against 21; dietetic diseases, 52 as against 55.2; constitutional diseases, 119 deaths as against 109.14; developmental diseases, 475 deaths as against 437; nervous system, 492 as against 586; diseases of the circulatory system, 551 deaths as against 514; diseases of the respiratory system, 696 as against 714.2. The total number of births registered was 12,749 and marriages 4,771.

The question of the use of preservatives in foods still continues to occupy a large share of public and professional attention. The last two meetings of the New South Wales Branch of the British Medical Association were occupied with a discussion on some resolutions bearing on the question submitted by Dr. Wilkinson. After lengthy discussion the following resolutions were carried with only four dissentients:

1. That in the interests of the public health neither boracic acid nor borax should be used as a preservative in ordinary or concentrated milk or even in milk products.
2. That this resolution should be communicated to the State Government and the City Council through the proper channels.

At the recent meeting of the Australasian Association for the Advancement of Science Dr. Frank Tidswell, the Chairman of the Section of Sanitary Science and Hygiene, read a paper on the Hygienic Aspect of Boric Acid. This paper contained the results of some careful experiments and researches on the question of the use of boric acid as a preservative in milk, and was also extremely practical in its exposure of trade methods. An important magisterial decision has just been given in a case in which an inspector of the Sydney City Council proceeded against a dealer for disposing of some concentrated milk alleged to be unfit for human consumption on account of boric acid being mixed with it in a proportion exceeding $\frac{1}{100}$ gr. a pint of the milk, this being the largest amount allowed under the recent regulations of the Board of Health. No medical evidence was called in this case, but the attempt was made to get a magisterial pronouncement that the regulations of the Board of Health (which practically prohibit the use of boric acid altogether as a preservative in food) are unreasonable. The magistrate in his decision quoted the well-known judgement of the late Lord Russell of Killowen, in which the question of reasonableness was fully dealt with. The magistrate did not consider the regulations unreasonable, and accordingly convicted the defendant of the offence, and imposed the usual fine of £2, or in default seven days' imprisonment. It remains to be seen what further action will now be taken by the company responsible for putting this preparation on the market. The lay press, in spite of the strong expression of opinion by the profession and the clear scientific reasoning of Dr. Tidswell, still persists in its endeavours to bolster up this "industry" by asserting that all the statements of the noxiousness of boric acid as a preservative are purely theoretical, and that no evidence has been adduced to show that it is in the least degree injurious. It seems that it is much more important to maintain an "industry" which supplies an adulterated article of food than to maintain a pure food supply and a high standard of public health!

Dr. G. T. Hankins, who has been honorary secretary of the New South Wales Branch of the British Medical Association for the last five years, has left Sydney on a six months' trip to England. It is hoped that his visit will be productive of much good as regards British Medical Association matters. Dr. Scot Skirving, Lecturer in Clinical Medicine in the University of Sydney, has also left for a short trip to England and the Continent.

CORRESPONDENCE.

PUERPERAL SEPSIS.

Sir,—The letter published in the British Medical Journal of March 5th under the above heading contains a statement which, in these days of strict antisepsis causes one an involuntary shudder—2,000 confinements attended, and no antiseptics used. The writer is, however, to be much congratulated on his results.

Like "Practitioner," I have attended confinements for a period extending over exactly twenty years, but unlike him, I should never care to expose the mother to unnecessary risk by avoiding the use of antiseptics. Most people will agree that the pendulum of all reforms swings with excessive momentum in the direction of that reform, and so it may have been with antisepsis; but surely it is going too far the other way to advocate *no* antiseptics in midwifery. I am always opposed to a slavish and unreasoning following of any fashion, but antiseptics in connexion with all surgical operations, obstetric or otherwise, have for so many years proved their value, theoretically and practically, that "Practitioner's" letter induces one to turn to the title page to see if a British Medical Journal of bygone days has come to light again unexpectedly.

Personally I have only attended 1,000 confinements, but have only had one doubtful case of puerperal fever, in

private practice, and have rarely attended without a plentiful supply of antiseptics, usually sol. hyd. perchlor., 1 in 2,000.

I quite agree with the writer that douching was much overdone at one time. I rarely order it, or administer the douche myself, except under special circumstances. The only patient I have ever lost in her confinement, during the last 20 years, was douched by a vigorous nurse, contrary to my orders; she developed peritonitis next day and died within a week. With regard to the use of forceps, I have found an early application of great benefit in a large proportion of cases, cutting short the mother's suffering, and in my experience doing no harm; especially if they are quickly slipped off the head just before it passes the labia. Unlike "Practitioner," I have had one case in which the perineum was ruptured through to the rectum; not an instrumental case however.

Only a fortnight ago I was called about 1 a.m. to a patient who was expecting her confinement in a week or two. I found that pro use flooding had taken place, and the patient was in a dangerous state of collapse. Quickly making a 1 in 2,000 perchloride solution and washing my hands with some "surgeon's soap," I applied plenty of carbolised vaseline to my right hand, and having administered sufficient chloroform to render the patient unconscious, I inserted my hand and arm into the vagina and found the placenta right over the os. Having no Barnes bag with me, I was forced to use my fingers as dilators (the os being practically closed), and whilst performing this part of the operation my fingers acted as an efficient plug. The os was thoroughly dilated in about 15 minutes, and my fingers were cramped! I rapidly passed my hand right through the placenta, seized first one leg, then the other, and commenced traction; as much pressure as possible being applied to the abdomen at the same time. There being a deadlock for some minutes, owing to the large size of the child, and the mother's condition being serious, I passed my left hand right over the one put in the uterus, and made double traction. This expedited matters, and the head being low enough, I applied forceps, and the child was soon born. The mother has made an uninterrupted recovery, but I have not much doubt in my mind as to what the result would have been had I used no antiseptics.—I am, etc.,

[illegible] W., March 7th. HUBERT C. PHILLIPS.

SIR,—During the last thirteen years I have attended a considerable number of midwifery cases, but I have not the record of 2,000 which "General Practitioner," in his letter to the BRITISH MEDICAL JOURNAL of March 5th, claims to have attended with such good results; neither have I had the advantage of training as an assistant in an obstetric ward, which he intimates is left to his list. I cannot, however, regret having missed the latter if such an experience would have led me so far astray as to manage my cases in the manner advocated in his letter.

The practice followed quick dilatation, clapping on the forceps even before the natural efforts have properly commenced, the immediate emptying of the uterus by forcible expression of the placenta—not only followed by the immediate chance to the patient of crossing *post partum* haemorrhage, but in the realm of puerperal sepsis the very conditions which subject the patient to serious risks of septic infection.

I read with interest and advantage Dr. Horrocks's admirable contribution, and I feel sure that the majority of general practitioners will agree with me that the valuable advice contained in his paper should be followed as far as possible in the management of cases; it is done to lessen the number of cases of puerperal sepsis.—I am, etc.,

[illegible] March 8th. J. W. CRAY, L.R.C.P.I., L.M.

SIR,—Before entering into the controversy it may be as well to [illegible] part. I have attended nearly 1,000 confinements during the past twenty years, and have suffered [illegible] from the inability [illegible] placenta [illegible] at once. [illegible] I assert that in 95 per cent. we have no [illegible]

It is to be regretted that "General Practitioner" has not given us his appalling statistics [illegible] other members of the profession [illegible] every one who has any [illegible] knowledge of midwifery [illegible] under such circumstances as he describes. He says that he never uses antiseptics, and that if the child is not born within an hour of his reaching the house he ruptures the membranes, dilates the os to the full size with his hand in the vagina, gives chloroform, and delivers with forceps. Such treatment is occasionally necessary, but it is a well-known fact that this *accouchement forcé*, even when done in hospitals, has a mortality of 5 or 6 per cent. at the lowest computation, and one would like to know what in his cases has been the cause of death, apart from puerperal sepsis, of which he has had 1 in 2,000 cases.

His method of dealing with the placenta is bold and original in the extreme. That he has never had a case of *post-partum* haemorrhage is surely a unique experience. He probably intended to write, "I have never had a death from *post-partum* haemorrhage." It would add to the interest of his letter if this point were made clear. For my own convenience and comfort I regret to say that my conscience, teaching, and experience make me a member of the class of "patient doctors" to which he refers, and, metaphorically speaking, it is with fear and trembling that I use the forceps, which I do in about 4 or 5 per cent., mostly primiparae. In the same sense I have a perfect horror of "introducing my hand into the uterus, peeling off the placenta, and bringing it away."

He does not make it clear whether this is done in all his cases, or only reserved for the 45 per cent. delivered with chloroform and forceps. I have had to do it occasionally in cases of *post-partum* haemorrhage, when the placenta was adherent; but, as regards the remainder of the cases, I am content to wait a longer time than is required for "leisurely washing the hands," and when the position of the uterus shows me that the placenta has passed into the cervix and vagina I give it a gentle push from the abdomen with the left hand, receive it in the right, and twist it round, so as to make the membranes into a rope.

I confess I have occasionally had *post-partum* haemorrhage with this management, although I usually "use ergot immediately after labour is over."—I am, etc.,

March 5th. ASEPTIC SCEPTIC.

THE DIMINISHING BIRTH-RATE.

SIR,—Dr. Hope Grant holds "bicycling, golf, hockey, and other factors, which increase the size of her muscles and diminish the size of her pelvis," as being responsible for a decreasing birth-rate amongst English women.

Now I believe that the majority of medical men hold the opposite, and my own experience bears them out. A lady who had a very easy confinement informed me that she had bicycled until within two months of this event, and had taken severe exercise almost right up to the full time confinement. This experience is not startling when you consider that those races whose women live the roughest and savagest lives have the easiest confinements. The difficult labours and the miscarriages too, occur much more frequently amongst the sedentary, housekeeping, and hysterical classes. Athletes have not yet reached the majority of women; when they do, easy labours will be commoner.

Rickets is the commonest cause of a small pelvis, and this is usually due to the mother having worn corsets and tight clothing, resulting in depressed nipples and inability to suckle.

Human life on the average having lengthened, and the natural means of reducing a surplus population being removed for the great part, the natural balance tends to be restored by the inability of clerks and professional men to afford marriage at an early age or bear the expense of large families.—I am, etc.,

[illegible] March 7th. F. WILLIAM INMAN, M.B.

THE FALLACY OF PROSTATECTOMY.

SIR,—Mr. Pybus, in his letter of February 13th, has not made it clear, I think, whether he denies the truth of the statement that sepsis and infection arising from a faulty technique in catheterisation are the main cause which necessitates prostatectomy. He says, "Let us grant the position." What chance have we of securing this essential [illegible] for success? I assert that in 95 per cent. we have no chance.

He cites exceptional instances in which operation should be undertaken, but even in these cases the symptoms are largely due to sepsis, and I regret that space prevents my replying in detail.

Mr. Pardoe admits that "when we have to deal only with educated men of leisure" sterile instrumentation "is possible;" but, arguing on these lines, what class of patient is being operated upon most frequently in the present day? The rich or the poor? The leisured man or the labourer? The intelligent or the unintelligent? The educated or the illiterate? The patient who has been taught or has not been taught the use of sterile instruments? The man who suffers from haemorrhage and difficulty of catheterization, or the one that is worn out by fever rigors and the incessant use of the septic catheter? And, finally, does the patient belong to the 10 per cent.—that is, those who can keep themselves clean, or to the 90 per cent. who cannot?

I think he will agree that a very large proportion of the cases operated upon belong to the class which may be termed rich, intelligent, educated men; men who have time and who can learn the details of surgical cleanliness, but have not been taught, and who, through want of instruction, are suffering from cystitis with its accompanying constitutional disturbances. The patients, therefore, belong to the 10 per cent. who are able to keep themselves clean. Even on these grounds the contention "that prostatectomy is too frequently undertaken" appears to be overwhelmingly proved.

The following case forcibly illustrates most of the points touched upon:

A gentleman, aged 71, of ample means and leisure, of good education and ability, was troubled in the summer of 1902 with frequency of micturition. He consulted a surgeon, and was informed that he would have to use an india-rubber catheter three times a day to empty his bladder. The directions given him for passing the instrument were that he should lubricate his catheter by rubbing boiled oil over it with his finger and thumb, and then to push it gently, inch by inch, into the bladder. After use the catheter was to be well washed and syringed with boiled water, and put away with others in a cardboard box ready for the next occasion. All went well until November, 1903, when one evening he was suddenly seized with a violent rigor. From this time onwards his progress was markedly downwards. Severe haemorrhage appeared, and he had to use his catheter six, seven, or eight times in the twenty-four hours, often rising two or three times in the night to draw off his water.

About this time, as there was difficulty in passing the india-rubber catheter, it was changed for a gum elastic instrument, but otherwise the technique remained as before. In the early part of 1904 he again consulted a surgeon, who examined his prostate per rectum, passed a catheter smeared with a lubricant applied with his fingers, and drew off some foul urine. Without questioning the patient as to the method adopted in catheterizing himself, the surgeon gave his opinion that prostatectomy should be performed at once, as offering the patient the best chance of life, and based his view on the ground that the disease must be progressive, and that there was no possibility of his returning to his condition of November, 1902. The patient hesitated about undergoing so serious an operation at his time of life, and when it was subsequently suggested to him that his condition would certainly be improved if he would only adopt surgical cleanliness, he readily consented to give the treatment a trial.

During the first week of sterile catheterization the frequency of instrumentation fell gradually from 7 to 6, to 5 times in the 24 hours. The urine lost its smell, though the bleeding continued. He was therefore sounded for stone with a positive result. Three days later two fair-sized phosphate calculi and three or four smaller ones were removed by lithotrity. On the fifth day after he was sitting up, used his catheter at 8 a.m., 3 30 p.m., and 11 p.m., and slept through the night undisturbed. His urine now, but for an excess of mucus suspended in the urine holding a few stray pus cells, is healthy. Thus within three weeks all his urgent symptoms disappeared and he returned to a better condition than that of November, 1902! I have asked him repeatedly whether he feels any discomfort whatever, and whether he is now willing to undergo prostatectomy to relieve him of the trouble of passing a catheter three times a day. His answer is a most emphatic "No; I am quite content as long as I remain as I am." And I see no reason myself why he should not remain so, if he carries out in future the instructions given him, which I am fully convinced he will do, from the bitter experience he has had in the past.—I am, etc.,

London, W., March 4th. HERBERT T. HERRING.

STERILIZATION OF CATHETERS.

SIR, The remarks of a correspondent in the BRITISH MEDICAL JOURNAL of February 13th, on the value of "personal records," and the able letters on Sterilization by Mr. Herbert Herring and Dr. Peter Horrocks, lead me to submit a few lines to your readers to emphasize the teachings of these gentlemen.

As a student under the great Robert Liston, I shuddered when I saw the silver catheter, etc., used in case after case with no other precaution than a dry wipe with the same towel carried by the nurse from bed to bed! But these were days when such terms as sepsis and antisepsis did not appear in our dictionaries.

My own case—which is but one among many—dates from April, 1900. For some months calls to micturate had become more and more frequent—six or eight times in the twenty-four hours. The prostate gland was getting enlarged. In the beginning of April, 1900, I was exposed to cold and the cushion on which I had sat in a long journey was afterwards found to be damp. Cystitis and retention followed with painful efforts to empty the bladder, once amounting to thirty times in the twenty-four hours. I now procured a new catheter (Thompson's No. 8 elastic) which passed easily, for I had never before this suffered from any bladder or urethral ailments. But I was only slightly relieved of my trouble. I was then recommended to Mr. Herbert Herring. His treatment—which may be found exactly detailed in his lately published work—ended in my being able to reduce the calls of nature to four times in the twenty-four hours. In severe weather, or when suffering from wrong diet or strong emotion, my calls may amount to five, rarely six, and seldom in the night!

Let me add (blushingly) that in 1901 I brought on cystitis and severe urinary fever which lasted forty-seven days by my own carelessness. Visitors and other disturbances caused me hurriedly to use a quite new injecting bottle of hot water without the usual boric acid and without previously washing the bottle. Further comment is needless.—I am, etc.,

February 20th. M.D. LOND.

THE MOVEMENTS OF THE HEART.

SIR,—In last week's BRITISH MEDICAL JOURNAL a writer criticizes a paper of mine on continued irregularity of the heart, which appears in the same number. The objection that the writer takes to my interpretation of the tracings is that I have arbitrarily asserted that certain waves are due to auricle or ventricle without affording material for proving whether such an interpretation is right, suggesting that I give no standard ("bench mark," "*point de rèpere*"), by which the movements of the heart can be ascertained. When I read this statement I rubbed my eyes in astonishment, and reread the article several times to see if I really understood his drift.

Before sending my paper to the JOURNAL I submitted it to one of the ablest authorities on the heart, and he remarked that the value of my tracings was greatly enhanced by the fact that I invariably gave with scrupulous care a standard by which all the events could be referred to their proper place in the cardiac cycle with certainty.

When I began taking observations of the movements of the circulation, now many years ago, I was struck by the great amount of work that had been done by other observers which was rendered valueless, because they gave no standard by which their observations could be rightly interpreted. In my earlier work I employed the carotid pulse, the apex-beat, and the radial pulse as standard times; but I soon found, for many reasons, that the radial was by far the most reliable. Its causation is so well understood and its relation to the ventricular systole is so readily ascertained, that all events that happen during a cardiac cycle can easily be allotted their proper place by considering their relationship to the time of the occurrence of the radial pulse. Hence in every tracing I give a radial tracing which is taken simultaneously with the jugular, and I also give ordinates at the beginning or end of each tracing, from which the various events can be easily recognized by measuring with a pair of compasses. This oversight on the part of my critic deprives his suggestion of the nature of the waves of any value. I may here say that I have given in the paper a large number of tracings in order to show that I am not reasoning from too limited a number of facts. These are but selections from many hundreds of others that show the same thing, some of them in as striking a manner, and it was only consideration of your space that prevented me utilizing them.

The writer suggests for my consideration two experiments showing that conductivity is a function of muscle apart from contractility. I think my critic might have given me credit for knowing this. As a matter of fact I have for many months been carrying on a very prolonged inquiry into disturbances of conductivity, for which inquiry my method of observation is peculiarly adapted. In the human subject the conductivity is judged by the interval of time between the auricular and ventricular systoles. If my critic would pay me a visit I would show him a number of cases where the interval between the auricular and ventricular systole is doubled, trebled, and quadrupled, and two cases where the ventricular systole only responds to every second or third auricular systole. I could also demonstrate to him how conductivity in the human subject is modified by exertion, fever, digitalis, and chloroform. I mention these matters so that I can satisfy him that the question of conductivity has not been overlooked in analysing these "fragments," and I can assert as well as prove that the slow pulse in Fig. 4 is not due to a depression of conductivity.

The writer further states that "Dr. Mackenzie admits that the behaviour of the heart in tachycardia is difficult to bring into accord with his views." What I said was: "I am inclined to believe from the evidence that I have at hand that in paroxysmal tachycardia the ventricle also takes on the inception of the rhythm" (p. 535). In my book I give a detailed argument to show that paroxysmal tachycardia is but a long continued series of premature beats of ventricular origin. But I put forward the suggestion somewhat diffidently, but now, with greatly extended experience, I am in a position to state positively that that is the real cause of paroxysmal tachycardia.

I am sorry that my critic should have written the last paragraph of his article, where he refers to the work of Gaskell, Engelmann, and Wenckebach. Surely it is not necessary, in rendering Gaskell a due meed of praise, to disparage the work of Engelmann. Gaskell's position in the scientific world is so high and so assured that if any writer chooses to neglect his work he only exposes his own ignorance and incapacity. In his book Wenckebach repeatedly acknowledges in terms of highest praise the pioneer work of Gaskell, but he utilizes Engelmann's work, as it indicates with more detail the various arrhythmias resulting from interference with the separate functions of the heart. Engelmann in his writings continually alludes to the work of Gaskell with appreciation.—I am, etc.,

Burnley, March 7th. JAMES MACKENZIE.

*** We have spoken in the highest terms of Dr. Mackenzie's graphic work, and we fully recognized that he gave scrupulous comparative measurements. We are still of the opinion that on the interpretation of the curves there may be a difference of opinion; and Dr. Mackenzie ought not to resent the expression of it. We disagree moreover with Dr. Mackenzie in his assertion that "Engelmann continually alludes to the work of Gaskell with appreciation." From the time of Stokes and Latham down to this of Dr. Mackenzie himself and his contemporaries the English school has been in advance of the German; if the Germans do not recognize this, there is the less reason for our own observers to quote German work incessantly in place of that of themselves and their own countrymen. Many recall, for example, the work of Roy on ventricular rhythm.

DOCTORS IN PARLIAMENT.

SIR,—There are many good suggestions in Surgeon-General Evatt's letter in the BRITISH MEDICAL JOURNAL of March 5th, and as many other letters have recently appeared on this subject, which is a very vital one to our profession at the present time, I write to say that a resolution was unanimously passed by the Penge and Upper Norwood Conservative Association asking me to stand for the Dulwich Division of Camberwell at the last by-election, when Dr. Rutherfoord Harris was subsequently chosen as candidate and elected by a good majority. As I had only three days to consider the offer and make all arrangements about agent and the many other important matters connected with an election, to say nothing of arrangements with my partners in practice, I was obliged to decline. The expenses of a by-election and the prospect of a general election some time this year also had great weight. If we medical men had some such fund as Surgeon-General Evatt suggests to help in such cases, I feel sure that many others beside myself would be ready to come forward and do their best for their professional brethren. I shall be very pleased to co-operate in any way I can to such a desirable end.—I am, etc.,

London, S.E., March 7th. J. SIDNEY TURNER, M.R.C.S., L.S.A., F.L.S., J.P.(Kent).

THE PUBLIC HEALTH ACT.

SIR,—In the King's Speech there was promised an Amendment Act to the Public Health Act. No indication has been given of the lines of the amendments. Allow me to record a few much-needed ones:

Security of tenure in their appointment to medical officers of health and their inspectors.

Pensions to all public-health officers and servants who receive appointment.

These to put the public-health service upon a substantial footing, and to bring it into uniformity with other public services (for example, the Poor-law Service, the Local Government Board auditors, clerks to district councils, etc.

Then the lead of the Infectious Disease (Notification) Extension Act of 1899 may well be followed; and all Acts pertaining to the public health, the Public Health Act, the Local Government Act, 1888, and others should be effectively altered to read "shall" instead of "may." Adoptive Acts might be guarded by a proviso—say of population—and not left to discretion.

A standard of uniformity in position might well be now demanded amongst public-health officers. There are enough qualifications held by medical men for the efficiency of the service; and (say) two years might be granted in which all inspectors should qualify by examination.

More needed is uniformity in administration by counties and district councils. Some are conscientious and energetic, whilst their neighbours are apathetic; whilst one stamps out infections, the other keeps the materies going, and by a masterly inactivity foster them. Many representations have been made to the Government upon this, and especially from the annual meeting of the Association held in Cheltenham in 1902.

It is stated that the powers of local authorities are to be increased. It can best be done by strengthening the officials, and existing powers will suffice—as Mr. Long says. There are rumours of a dissolution in Easter Week. This, if true, means that nothing will be done.—I am, etc.,

Colwyn Bay, Feb 27th. J. LLOYD-ROBERTS.

BLEEDING IN PNEUMONIA.

SIR,—Several of your recent correspondents are practically convinced of the benefit of bleeding in pneumonia. It was a common-place observation fifty years ago. To-day many physicians theoretically doubt its efficacy, asking, "How could bleeding do such good?" May I reply?

An inflamed capillary may be seen to be dilated and sticky. The corpuscles pass along it with difficulty. They soon adhere to the capillary wall; and thus collect together, and obstruct the vessel. By this process in pneumonia one or more whole lobes of the lung are solidified, and their capillaries made almost impermeable. When this obstruction becomes more than the heart can overcome, it begins to fail and the right side dilates. Now, if 10 oz. to 20 oz. of blood be abstracted an enormous number of corpuscles and other solids are removed from the blood stream. The fluid becomes thinner. It passes through the capillaries more easily; and the heart is obviously relieved.

Contrariwise, a constricting band round a limb causes lymph to transude from its capillaries. The blood flowing from that limb becomes actually thicker; and no permanent relief could be expected.—I am, etc.,

Croydon, Feb 29th. T. ARCHD. DUKES.

THE SANATORIUM TREATMENT OF CONSUMPTIVES.

SIR,—The appearance of Dr. E. P. Marriott's letter in the BRITISH MEDICAL JOURNAL of February 27th is to be regretted. May I, with all courtesy to him, point out:

1. That the sanatorium treatment of phthisis is passing through an experimental stage, about five years only having elapsed since its adoption in this country, and that important facts will be brought to light in due time.

2. That secondary infection does not take place in a properly-conducted sanatorium.

3. That should such have occurred in any institution, Dr. Marriott's efforts would have been better directed towards seeking a remedy for the evil without stigmatizing the whole system of sanatorium treatment, and the careful, conscien-

vious and promising work many of his fellows in the profession are doing.

4. Of 25 patients treated in "Belle Vue" during the year 1900, and who left the sanatorium before the end of that year, 10 are now living, in excellent health and following their ordinary duties; this after the lapse of three complete years. This is exactly 40 per cent. No selection of cases was made, and no case refused admission whatever his condition. Nine out of the 25 were hopeless cases: if these be left out of consideration the percentage of cures would be over 60. I have no doubt other sanatoria will be able to show equally satisfactory results.

Dr. Marriott says: "To the man with physical signs the doors of the sanatorium are closed." Evidently his knowledge of the subject is very limited.

We are all pleased to hear that "the consumption death-rate has been lowered by 50 per cent. in fifty years," but why should Dr. Marriott denounce the assistance the National Association undoubtedly is giving? One would think that his zeal would have prompted him to recognize the well-intentioned efforts of others. Again, in "leaving the bacillus to take care of itself," (which it is quite capable of doing), it would appear that a would-be reformer voluntarily incurs a heavy responsibility.

The remainder of the letter emphasizes the importance of prevention of disease. Is not the establishment of properly-conducted sanatoria a valuable aid in this direction? I would invite Dr. Marriott's careful consideration of the following points:

1. Prevention can be brought about by the removal of the patient from his infected surroundings, placing him under efficient supervision and proper hygienic conditions, and the disinfection of his home (the usefulness of sanatoria in this connexion cannot surely be lightly thrown aside); by the abolition of the spitting nuisance, and by the vigilance of the administrators of the Public Health Acts.

2. Cure can be effected only when the patient is placed under constant medical supervision of the right kind. The "open-air" sanatorium affords the best of facilities for this.

Dr. Marriott's letter would imply that sanatorium treatment is quite useless, and that the physician who is devoting his life to it is a fraud! What a consolation for the sufferer! Sanitation alone will not prevent, and it certainly cannot cure. In conclusion, I can only say that such a letter is most inopportune, and its tone indiscreet to say the least.—I am, etc.,

E. W. DIVER, M.D.

"Belle Vue" Sanatorium, Shotley Bridge, Feb. 25th.

SIR,—I know Dr. E. D. Marriott sufficiently well to acquit him of intentionally wishing to misrepresent what I said at the meeting of the Notts Association for the Prevention of Consumption held here on February 11th.

I did say that of persons treated at sanatoria "the majority of them die in much less time than the public have any idea of," but this did not apply to the Ratcher Hill Sanatorium, for I was not aware that there was any evidence upon the point, and indeed the time since its establishment—about eighteen months—is far too short for any conclusion to be arrived at.

The statistics of sanatoria to be of any clinical value must be based upon the experience of years, and neither supporters or opponents of the method could be content with less.

I have neither time nor inclination to enter into any controversy as to the merits or demerits of sanatorium treatment for consumptives. But I will take this opportunity of stating my opinion that the principles of the method are rational and reasonable, and are founded in natural law. We have no specific for consumption, but by rest, fresh air, nutritive and readily assimilable foods, reasonable in quantity (no cramming), and general hygienic surroundings, the sufferer so improves in general health that his tissues become resistant, and cure results. In a word, we assist Nature to assert herself.

It is the commonly-accepted belief that the natural tendency of disease is to kill. It is nothing of the sort. The natural tendency of "dis-ease" is to ease; the natural tendency of disease is to get well, and the reason why sick people often do not get well is because they will not put themselves into favouring circumstances for Nature to assert herself.

When a patient comes to a doctor complaining of feeling weary, languid, and run down, if advised to go to bed for a few days the advice would be uncongenial, probably not acted upon; but a fortnight's holiday at a fashionable seaside resort would be readily followed, though not half so good or useful.

The *vis medicatrix* is stronger than the public realize.—I am, etc.,

Nottingham, Feb. 25th. JOSEPH O. BROOKHOUSE.

BALCONIES AT SANATORIA.

SIR,—I am very sorry that I was prevented from sooner answering Dr. Stuart Tidey's charming bit of special pleading inserted in the BRITISH MEDICAL JOURNAL of February 13th. He will, I am sure, pardon me if I say that it is convincing evidence that he is unacquainted with open-air treatment as carried out in a good British sanatorium. It is not usual to shut the windows for ordinary driving rain, even without a balcony; and a patient can remain near his window without getting wet. A narrow balcony, such as Dr. Tidey describes, is harmless, but of no great practical utility. It is roughly equivalent to an umbrella held up 12 ft. above the floor and incapable of direction.

A wide south balcony is of great value to bed patients and feeble patients on the same floor, but it does cut off the light to a serious extent from the rooms below; and I maintain, therefore, that it is better placed over entrance halls and other parts not in constant use by patients. The patient's room should not in this climate be deprived of any of the direct illumination available, as the light reflected from the floor of a balcony in dull weather is by no means an equivalent.

For the room beneath, a line drawn at an angle of 45 degrees from the outside of the balcony will roughly indicate the extent of floor space which is protected against rain, but also deprived of direct illumination during the darker months about midday.

Dr. Tidey's arguments may be sound for Montreux, but a little more practical experience of British conditions would, I am sure, soon convince him of their inapplicability to this country.—I am, etc.,

Farnham, Surrey, March 2nd. F. RUFENACHT WALTERS.

THE TREATMENT OF APPENDIX ABSCESS IN THE RECTO-VESICAL POUCH.

SIR,—Mr. Owen's paper on the Treatment of Appendix Abscess in the Recto-Vesical Pouch in the BRITISH MEDICAL JOURNAL of February 20th raises some interesting points.

In the Newcastle-upon-Tyne Royal Infirmary it is nearly always the rule to open such abscesses by the rectal route, and the results are exceedingly satisfactory. During the last three years there have been fourteen cases treated in this way and of these two patients have died. Death in each case was due to general septic peritonitis, which was present before the operation, that is to say, the abscesses were residual. One boy died the day after the operation. Necropsy showed a very extensive general peritonitis, with pockets of pus and tough lymph all over. In the other case the pelvic abscess developed in a boy who was admitted with general peritonitis. The appendix was removed and the peritoneum drained on the day of admission. On the twelfth day the pelvic abscess was opened, and on his death three weeks later pockets of pus were found everywhere among the intestines, evidently a residuum from the general peritonitis. In neither case could all the pus collections have been reached from an abdominal incision.

No untoward results have occurred for which the method of operation could be blamed. The average stay of the patients in hospital has only been twelve days, and each has made a complete recovery.

The proper cases for incision per rectum or per vaginam are those which bulge into the anterior wall of the rectum or posterior wall of the vagina. Such are nearly always attended by typical symptoms and signs. There is pain in the lower abdomen, tenesmus, and passage of mucus per rectum with vesical irritability, and frequently retention of urine. Above the pubes there is a swelling exactly like the distended bladder, but resonant, and not removed by the passage of a catheter; per rectum the tender bulging mass is felt. It is important to remember that pelvic symptoms may also be present in cases in which, if there is an abscess, it does not bulge into the rectum.

With regard to Mr. Owen's objections, on referring to the pathological anatomy of the typical cases as described above, it will always be found that they are beautifully roofed-in by intestines and omentum, and that the bowel is never at the

bottom of the pelvis. It therefore follows that with a proper selection of cases and reasonable care the danger of wounding the intestine with subsequent faecal fistula is not a real one, and is certainly very much more likely to occur when the operation is performed by the abdominal route. The only real disadvantage is the impossibility of removing the appendix—**a most desirable thing in every operation for appendicitis**, whatever its stage. The patient must be warned that he may **have further trouble with his appendix, and should be urged to come back for its removal at once should his symptoms recur.**—I am, etc.,

Newcastle-on-Tyne, Feb. —. G. GREY TURNER.

LUMBAGO AND ANGINA PECTORIS.

SIR,—May I venture to suggest that Sir William Gowers's **instructive lecture on lumbago and its analogues reported in** the BRITISH MEDICAL JOURNAL of January 16th, together with the case I am about to relate, **and the well-known variations** in the corpuscular and *post mortem* changes observed in different cases of angina pectoris, explains the pain, the source of which has hitherto been so mysterious in that dread disorder?

A man, aged —, of very active habits, both physically and mentally, who had never before had any serious illness, and who could still run faster and farther than most men ten years younger, was suddenly —— one day when —— with severe substernal pain, which obliged him to dismount and wait a few minutes by the roadside till the pain had gone. He got home, seven and a half years ago, until one month ago that pain has returned upon exertion but with varying degrees of readiness and never except upon exertion or occasionally upon excitement. At first it was often attended by extreme irregularity and fluttering of the pulse, but this subsequently ceased. Any attempt to —— exertion made the pain so severe that persistence very soon became impossible, but there was no sense of actually impending death. At its worst treatment even in the house required care, and even washing the head ——. A small dose of nitroglycerine had a magical effect in preventing the pain. The previous general good health has continued. He was liable before to an occasional attack of catarrh, to occasional pharyngeal catarrh with —— of the pharyngeal tonsils, and to occasional —— of which he has had three or four attacks since. He usually —— before rising in the morning not had his —— beyond the heart's impulse directly below the ——, but no casts have ever been found on careful examinations. He has not to rise at night, and has no other symptoms of renal inadequacy.

He is an exceptionally temperate man, and has never had gout. His father —— had any illness but lumbago till his final one at —. His mother died from —— one of his brothers has had persistent lumbago and —— for several years. He has seen five leading ——, two of whom thought that he was "true angina pectoris." The others called it "functional" or "nervous dis——."

About —— I discovered that he had a —— growth in the ——. At the beginning of January last considerable haematuria —— in, and lasted three weeks, being finally checked by an injection ——. I kept most of the last fortnight of this time ——. Now he —— and got about again I was surprised and —— to find that the tendency to cardiac pain, which had —— during the —— time, was unable ——, and appeared to be as ——. Under the —— treatment, say within three months after ——, it was ——. The previous occasions had had no good ——.

Does not this history point pretty surely to there being an —— spasmodic condition of the cardiac muscle or of some portion of it, such that it became highly sensitive to the increased tension or contraction induced in it by exercise just as the slightly irritated muscle or fibrous tissue in "muscular rheumatism" does in other parts, or as an inflamed bladder? There is reason, I believe, to suppose that severe pain so arising in the heart may cause secondary and very serious ——. In the case of the —— through its regulating nerves ——. In that case it would take place, it might be, the ill —— my mental condition ——. But ——, —— in the —— of the fibre of the ——, may only occur when there are diseased, perhaps atheromatous, coronary arteries or other organic cardiac disease from which it may extend, or by which it may be ——. Does that still account for such disease being found in the greater number of the cases of angina pectoris examined? It would be that the greater difficulty where the heart would then have in relieving the —— by ——, and so left up by the pain. But again may not —— in the ——, or other organic change in the heart, exist without any —— of fibrous tissue, and lead to ——, ——, or sudden death. Should we not then ——?—I am, etc.,

—— —— —— —

Summary.

With a *personnel* increased by 1,190 as compared with the previous year, there is an increase in cases and deaths, but a decrease in invaliding. The numbers are respectively 85,769, 590, and 2,985, in comparison with 84,026, 526, and 3,108 in 1901. The aggregate number of cases of disease and injury recorded in the year 1902 furnishes a ratio of 861.13 per 1,000, which shows an increase of 7.3 per 1,000 as compared with the ratio for 1901, but a decrease of 22.2 when contrasted with the average of the last five years. As mentioned in the reports for the last four years, the ten years' ratio hitherto shown has been discontinued in consequence of changes in classification caused by the introduction into the reports in 1897 of a new nomenclature of diseases. In the present report a comparison with the average of the last five years has been instituted, and a yearly increment will be adopted in each future report until a period of ten years shall have been again attained. The ratio of cases per 1,000 of force shows a reduction on all stations except the home and the East Indies. The invaliding ratio of the total force, namely, 29.96 per 1,000, shows a decrease of 1.62 as compared with 1901, and a decrease of 1.21 in comparison with the average for the last five years. The highest invaliding rate was on the Cape of Good Hope and West Coast of Africa Station.

As regards the death-rate the ratio per 1,000 was 5.92, showing an increase of 0.52 per 1,000 compared with 1901, and a decrease of 0.29 when contrasted with the last five years' ratio. The highest death-rate appears on the Pacific Station, namely, 07.42 per 1,000, due to the loss of the *Condor*. There were no deaths on the South-East Coast of America Station. Only two wounds in action are recorded, with one death. The prevalence of and mortality from enteric fever shows a slight decrease; one case of plague, the subject of which died, is reported from the East Indies Station. Cholera shows five cases, with four deaths, on the China Station. A decline in the ratio of cases of primary syphilis is shown, but increases are shown as regards consititutional syphilis and gonorrhoea.

Ages.

The total force serving afloat, corrected for time, in the year 1902 was 99,600. Arranged according to age in decennial periods, the numbers were as under:

[illegible]	or 59.5	per cent.,	were between	15	and	25	years of age.
[illegible]760	.. 30.82	..	..	..	25	.. 35	..
8,138	.. 8.21	..	..	..	35	.. 45	..
1,417	.. 1.45	..	..	45	years and upwards.		

Disease and Injury.

The total number of cases of disease and injury entered on the sick list was 85,769, which is in the ratio of 861.13 per 1,000, being an increase of 7.3 per 1,000 when compared with the previous year, and a decrease of 22.2 per 1,000 as compared with the average ratio of the last five years. The average number of men sick daily was 3,523.39, giving a ratio of 35.37 per 1,000, and showing a decrease of 0.02 per 1,000 compared with 1901, and of 1.71 in comparison with the last five years' average. The total days' sickness on board ship and in hospital was 1,286,038, which represents an average loss of service from disease and injury of 12.91 days for each person, which is the same as the preceding year, and a decrease of 0.6 in comparison with the average of the last five years.

Invaliding.

The total number of persons invalided was 2,985, which is in the ratio of 29.96 per 1,000, and shows a decrease of 1.62 per 1,000 when compared with 1901, and a decrease of 1.21 in comparison with the average of the last five years.

Of the total number of persons invalided, 2,823 were invalided for disease and 162 for injury. The ratio of invaliding for disease alone was 28.34 per 1,000, and for injury 1.62 per 1,000. Of the total invalided, 2,066 persons were finally invalided from the service (200 of these refused surgical operation), giving a ratio of 20.74 per 1,000 for the whole force, or 69.21 per cent. of the number invalided, thus showing a decrease of 1.1 per 1,000 when contrasted with 1901. The largest increase—namely, 3.73 per 1,000—was on the South-East Coast of America Station, but a decrease amounting to 12.37 per 1,000 appears in the invaliding rate of the Pacific Station.

Deaths.

The number of deaths was 590, which gives a ratio of 5.92 per 1,000, and exhibits an increase of 0.58 per 1,000 in comparison with the previous year, but a decrease of 0.29 per 1,000 on the last five years' average. The largest increase in the death-rate, amounting to 63.02 per 1,000, appears on the Pacific Station. Of the total number of deaths, 350 were from disease and 240 from injury. The death-rate due to disease alone was 3.51 per 1,000, and that due to injury was 2.4 per 1,000.

NAVAL ESTIMATES FOR THE YEAR 1904-5.

Lord Selborne, in his Explanatory Statement, intimates that now the Second Naval Lord is responsible for the *personnel*, including the medical branch among others; he expresses a hope that the relative rank of that branch has been satisfactorily settled; he refers also to the scheme recently introduced by which young surgeons may join the navy for four or five years, "at the end of which time they may either join the service permanently at the discretion of the Admiralty, or leave it with a substantial gratuity. There is no intention of substituting temporary surgeons for the permanent service ....."

With regard to the steps that have been taken to secure the services of civil practitioners in time of war, he states that a limited number of names have already been enrolled at home, and that a fair number of volunteers may be expected from medical men who are in the Australian Colonies. The scheme for a sick-berth attendant reserve has not proved very attractive: some 170 men have been enrolled so far. A reduction of £79 has been effected by the appointment of a new naval medical officer as "organizer" of this reserve.

There is an increase of the *personnel* of 4,000; in the past nine years there has been an increase of 45,197; the medical establishments in the same period are given as costing £1,031,200 for the year 1904-5, as compared with £814,767 in 1895-6.

The new block for officer patients at Haslar is expected to be completed in 1904-5, and also the new Chatham Naval Hospital; the medical staff provided for is 1 inspector-general, 1 deputy inspector general, 1 fleet surgeon, and 5 surgeons. The new hospital at Portland should be completed this year, as also the additional accommodation at Queensferry.

Hospital buildings are progressing at Gibraltar, providing additional accommodation and improvements at a total estimated cost of £[illegible], of which £[illegible] is to be voted this year. At the Cape of Good Hope a general hospital and sanatorium is being built at a total estimated cost of £58,000, of which £[illegible],000 will be required in future years. At Wei-hai Wei hospital accommodation is being erected at a total estimate of £45,000, of which only £20,000 will have been expended at the end of this year.

Electric lighting is making slow advances in some home hospitals, but is not yet provided for Haslar.

THE ROYAL NAVAL MEDICAL SERVICE.

The medical department of the Royal Navy seems to be at the present moment somewhat more under strength than is quite natural or than its best friends would desire. From the monthly Navy List for March we gather that there are 5 Inspectors General, 11 Deputy Inspectors-General, 141 Fleet Surgeons, [illegible] Staff Surgeons, and [illegible] Surgeons, including [illegible] under instructions. This makes a total of [illegible] officers, a number which is less than the authorized compliment by 23 officers. It is true that the date at which an examination for admission is usually held is approaching, and that the shortage will thus be abolished. The department, however, will only be temporarily up to strength, for in the course of the following months a large number of expected and unexpected retirements are certain to occur. It is inevitable under present circumstances that there should be a certain amount of shortage varying with the length of time that has elapsed since an examination for admission to the department inasmuch as officers under instruction are counted upon the strength, but under a better system this would not be the case. A complement of 544 officers is none too large for the actual work of the navy, and officers under instruction should be borne as supernumeraries and only taken on the active list as vacancies occur. In any case the shortage is unsatisfactory in itself, and the system under which it arises and under which it may be expected gravely to increase is one with which we propose to deal fully at a somewhat later date.

Inspector-General R. S. P. Griffiths has been placed on the retired list, March 7th. He entered the Royal Navy as Surgeon, November 1st, 1867; became Staff Surgeon, March 14th, 1871; Fleet Surgeon, August 1st, 1883; Deputy Inspector General, September 1st, 1893; and Inspector General, July 5th, 1901. He was Staff Surgeon of the *Orontes* during the Egyptian war of 1882, and has the medal and Khedive's bronze star for that campaign.

The following appointments have been made at the Admiralty: Arthur W. B. Livesay, Surgeon, to the *Leander*, for duty with destroyers, March 2nd; William H. Thomson, Surgeon, to the *Harrier*, additional, March 2nd, and, on recommissioning, undated; Herbert W. Ellis, Inspector General, to Haslar Hospital, March 14th; Joseph H. Whelan, M.D., Fleet Surgeon, and John B. L. Page, Surgeon, to the *St. George*, on commissioning, March 15th.

THE ARMY ESTIMATES.

The Estimates for the Medical Department of the Army 1904-5 brought forward on March 7th amount to £484,000 as compared with £530,000 for 1903-4, a net decrease of £46,000. The total vote (£345,000) for the pay of the Army Medical Service remains unaltered. The vote for pay of civilian medical practitioners, militia medical officers, and the medical officers of military prisons shows a reduction of £9,500, but the payment to dentists and to the civilian members and clerical staff of the Advisory Board shows an increase from £2,500 to £6,000. The expenses of the Army Nursing Service show a reduction of £17,000 in spite of the fact that the number of nurses returned (342) is unaltered. There is a reduction of £8,500 in the vote for corps pay and extra duty pay of the Royal Army Medical Corps and pay of clerks and other subordinates; there is a reduction also of £5,000 in the costs of medicines, probably owing to the accumulated stocks: £5,000 voted last year for the China Expeditionary Force is

not required this year; and a further nominal saving of £5,000 is shown in connexion with the Somaliland Expeditionary force, for which no credit is taken.

ROYAL ARMY MEDICAL CORPS.

MAJORS R. J. GEDDES, M.B., D.S.O., D. V. O'CONNELL, M.D., A. DODD, G. WILSON, M.B., J. M. REID, M.D., T. B. WINTER, F. S. HEUSTON, C.M.G., G. F. GUBBINS, M. O'D. BRADDELL, M.B., J. J. C. DONNET, and H. M. SLOGGETT, are promoted to be Lieutenant-Colonels February 2nd. Their previous commissions, which are simultaneous, are dated Surgeon, February 2nd, 1884. Surgeon-Major, February 2nd, 1897. Their war records are as follow: R. J. Geddes—South African war in 1879-1880 (mentioned in dispatches, Queen's medal with four clasps, D.S.O.). A. Dodd—Burmese expedition in 1885-6 (medal with clasp); campaign in the Soudan in 1898, including the battle of Khartoum (mentioned in dispatches, British medal, and Khedive's medal with clasp). South African war in 1899-1900, including relief of Ladysmith (mentioned in dispatches, Queen's medal with clasp). G. Wilson—Ashanti expedition in 1895-96 (star). operations in Sierra Leone in 1898-9, had charge of the medical arrangements in the Karene and Protectorate expeditions (medal with clasp). J. M. Reid—Campaign in the North West Frontier of India in 1897-8 with the Tirah expeditionary force (medal with two clasps); China expedition in 1900 (mentioned in dispatches). T. B. Winter—With Tirah expeditionary force in 1897-8 (medal with two clasps); South African war in 1899-1900, including relief of Ladysmith (mentioned in dispatches). F. S. Heuston—Hazara expedition in 1888, in medical charge of the 2nd battalion Northumberland Fusiliers (medal with clasp); South African war in 1899-1900, including the relief of Ladysmith, actions at Colenso, Spion Kop, Vaal Kranz, and various subsequent operations (mentioned in dispatches, C.M.G.). G. F. Gubbins—Nile expedition, 1885. M. O'D. Braddell—Nile expedition in 1884-5 (medal with clasp and Khedive's star). Hazara expedition in 1888 in medical charge of the 2nd battalion Royal Sussex Regiment (medal with clasp). campaign in the Soudan in 1898, including the battle of the Atbara in charge of the British field hospitals (mentioned in dispatches) and battle of Khartoum in command of the bearer company of the 1st British brigade (mentioned in dispatches, British medal, and Khedive's medal with two clasps). South African war in 1901. J. J. C. Donnet—Nile expedition in 1884-5 (medal with clasp and Khedive's bronze star). H. M. Sloggett—Miranzai expedition in 1891 (medal with clasp).

Major J. Will, M.B., is seconded for service under the Foreign Office, February 20th.

Captain F. S. WALKER, F.R.C.S.I., is placed on temporary half-pay on account of ill-health, February 17th. He joined the department as Lieutenant, April 25th, 1900, and was made Captain, April 25th, 1903. He was in the South African war in 1899-1900.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A MATTER OF ETHICS.

Liverpool, March 7th, 1904.

To the Editor,
BRITISH MEDICAL JOURNAL.

Sir,

I have pleasure in submitting the accompanying correspondence for your kind insertion in the JOURNAL.

I trust that the views expressed by the President of the Royal College of Surgeons of England will have the effect of eradicating from the minds of my colleagues any ideas that might have existed that my action in the matter has been contrary to those ethics of the profession that I have always been most anxious to uphold, and will once and for all close an incident which has caused me no little personal anxiety.

Yours truly,
E. LUKE FREER.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.,
15th day of February, 1904.

Dear Sir,

I am desired by the President to inform you that a letter has been received at this College calling attention to an advertisement of Mr. B. Beasley's Institution for the treatment of stammering at Brampton Park, and suggesting the impropriety of the inclusion therein of what appears to be a private letter addressed by you to Mr. Beasley.

The President thinks that probably you are unaware of the use which has been made of your letter, and, while repudiating the suggestion of any impropriety on your part, desires to draw your attention to the matter as he thinks it desirable that you will recognize that it is inexpedient that your name with all its honorary appointments and writings, should appear in the advertisement in question, and that the exclusion of these particulars will remove all room for objection.

I enclose a copy of the letter to which reference is made.

I am, Dear Sir,
Yours faithfully,
S. FORREST COWELL,
Secretary.

E. Luke Freer, Esq.

School of Tropical Medicine,
Liverpool, February 22nd, 1904.

To the Secretary,
Royal College of Surgeons of England.

Dear Sir,

Your letter has been forwarded to me here, and, oddly enough, the subject mentioned in Mr. Beasley's letter is the very one I have been specially working at in South Africa, and for which I came home to confer with Mr. Beasley and his medical colleagues in Liverpool. I certainly gave Mr. Beasley permission to use my name in connexion with the Institution, and the letter must have been written with the object of attracting attention to the matter, which, according to Dr. Dowse, the specialist in throat diseases to the Westminster Hospital, is one of the most important questions of the day. Dr. Dowse has been appointed by the Medical Council to report upon the matter, and eventually the subject was brought before the General Medical Council, who, after the correspondence had been submitted, resolved that "no further action be taken." This, however, was very unsatisfactory for me, further correspondence ensued, and Mr. Beasley suggested that he would explain his responsibility for the obnoxious features in the JOURNAL. I was, however, approached by the London and Counties Medical Association and wrote to him again, the accompanying letter being the result. As I unfortunately lost all my private property while serving for two years in the late war, and have consequently been unable to resume my consulting practice in Birmingham, I have been employed in the Army Medical Service since my return, so can disclaim any suggestion of attempting to make professional capital out of this unfortunate incident. Still, it has caused me much anxiety, and, I fear, some undeserved opprobrium with my confreres, which might, I think, have been averted had the General Medical Council either alluded to the correspondence more fully or called upon me for my evidence. I am forwarding a copy of your letter to Mr. Beasley, and trust that the matter will now be finally settled; but I should be glad if either you could kindly oblige me by briefly stating in the JOURNAL my bona fides in the matter or advise me as to my making my position clear, which I am most anxious to do prior to my early return to South Africa.

I am, dear Sir,
Yours faithfully,
E. LUKE FREER,
Surgeon-Lieutenant-Colonel, A.M.R.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.
26th day of February, 1904.

Dear Sir,

I have submitted to the President your letter of the 24th instant and the several documents sent therewith, in reference to a letter from you in a circular relating to Mr. Beasley's Institution for the treatment of stammering.

The President notes your explanation that, although the letter was published with your permission, you were not aware of Mr. Beasley's intention to include your name and address together with a list of your appointments and writings, and he also is pleased to observe that, in a letter dated the 15th of February, 1904, Mr. Beasley announces that he has given his advertising agents' instructions "not to issue any more leaflets bearing your letter upon them."

The President regards your explanation as satisfactory and recognises that in consenting to the publication of your letter to Mr. Beasley you acted solely with the object of assisting your friend, and without any interested motive.

In accordance with your request I return herewith the several documents sent with your letter.

I am, Dear Sir,
Yours faithfully,
S. FORREST COWELL,
Secretary.

Surgeon-Lieutenant-Colonel E. Luke Freer.

BROKEN RIBS AND CANCER OF THE LIVER.

CLAIM UNDER THE WORKMEN'S COMPENSATION ACT.

At the West Hartlepool County Court last week Judge O'Connor gave judgement in a case in which a widow, Mrs. Chisholm, claimed £350 compensation from Messrs. Wm. Gray and Co., Limited, shipbuilders, West Hartlepool, on account of the death of her husband. Chisholm, who had worked as a shipwright in Gray's yard, met with an accident on September 21st, 1901, whereby two of his right ribs—the seventh and eighth—were broken. He returned to the shipyard on November 26th, 1902, having received during the eight weeks he was off work the compensation to which he was entitled. Chisholm remained in Gray's employment until January 28th, 1902, when of his own accord he left to take up work in Sunderland. After following his employment there for some months he became ill and died on August 15th, 1903, that is, nearly two years after the date of the injury. On September 25th, 1903, Messrs. Gray and Co. were informed of the death of Chisholm, and that his wife claimed that the death of the husband was due to the accident received in September, 1901. Drs. Bruce Low and John Anderson, of Sunderland, detailed the symptoms the patient had exhibited, and mentioned that jaundice was a feature of the case. From the evidence tendered by these gentlemen there is reason to believe that the man died from primary cancer of the liver, followed by secondary developments in the peritoneum. In support of the claim it was maintained that the injury had in some way or other predisposed the liver to malignancy, and therefore the disease of which Chisholm died was indirectly a result of the accident. From the evidence tendered there was nothing to lead us to the supposition that until the injury the man had not been in good health. Dr. T. Oliver, of Newcastle-upon-Tyne, who was called for the defence, while supporting in the main the evidence given by Drs. Bruce Low and Anderson, and admitting that traumatism was occasionally followed by malignant disease in or near the site of the injury, stated that in the absence of a necropsy it was impossible to say what causes other than injury might have been in operation to have induced cancer of the liver. In giving a verdict Judge O'Connor said that though he himself had a strong impression that there was a close connexion between the injury and cancer, yet he did not think that that connexion had been so proved as to justify him in awarding compensation. He had no doubt, however, that the respondents would do something for the widow. Had the verdict been otherwise the consequences would have been far reaching so far as the operations of the Workmen's Compensation Act are concerned. The etiology of cancer of internal organs is too obscure for any dogmatic statement to be made upon the relationship of injury to the ribs and cancer of the liver in the above case.

LECTURES ON MEDICAL JURISPRUDENCE.

Dr. T. J. Walne, Coroner of the City of London, delivered on February 9th the sixth and last of a series of lectures on medical jurisprudence at the Old Hall, Lincoln's Inn, the chair being occupied by Sir Alfred Mathew, K.C. The lecturer said that the most interesting case of criminal poisoning in the annals of crime was connected with the murder of a young man named Cook. The principal witness in the case, as Palmer lived in the house of Cook's father, was charged with being an accomplice, and afterwards with forgery and uttering. It is likely he poisoned not only Cook, but his wife,

his brother, and three children and a friend, all of whom died suddenly in his own house and under his personal medical care. The recent case of Klosowski was cited as a leading antimony poisoning case. The poisoning of his nephew by Lamson, a medical man, was described, and the facts emphasized both of the extreme potency of aconitine and the absence of any definite chemical test. Fortunately it was possible to detect the smallest quantity of the drug in the tissues after death by absolutely trustworthy tests of other kinds.

ARSENIC IN BEER.

THE arguments upon the further consideration as to damages in the action in which Messrs. Bostock and Co., of Liverpool, sought to recover damages from Messrs. John Nicholson and Sons, Hunslet, Leeds, for negligently and wrongfully supplying to the plaintiffs sulphuric acid not made from brimstone, and not a pure chemical acid, and containing arsenic, were heard on February 10th and 12th, before Mr. Justice Bruce, in the King's Bench Division, and judgement was delivered on March 8th. His Lordship held that the plaintiffs were entitled to recover the whole price paid by them for the impure sulphuric acid and the value of the goods spoilt by being mixed with the poisonous acid. As the charge of fraud had failed the plaintiffs were to have two-thirds of their costs. The amount of the damages was variously estimated at from £5,000 to £8,000.

RESPONSIBILITY OF MASTER'S AGENT FOR ATTENDANCE ON SERVANTS.

D. H. writes that he was called in by the manager of a hotel to attend some of the servants. He was told that his account would be paid by the proprietors of the hotel, but on sending in his bill all liability was repudiated. Has he any legal redress?

*** The manager of a hotel is placed by the proprietors in a position of authority for its due conduct and management. Circumstances may arise under which medical assistance may be an imperative necessity for the servants in the interests of the hotel itself. In such a case as, for instance, suspected small-pox, it is probable that a Court would hesitate to rule that authority to that end was not implied as inherent to the due discharge of the manager's duty. On the other hand, it is improbable that a Court would hold that it was within the general scope of the authority of the manager to provide medical attendance for the servants of a hotel, and thereby bind the proprietors with liability in circumstances not affecting the interests of the hotel itself. This opinion is founded on the principle that a master is not under legal obligation to provide medical attendance for his servants. Unless, therefore, our correspondent can show that the manager had authority from the proprietors to call him in we cannot advise him to take legal proceedings.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

SIR JOHN BURDON SANDERSON, who ceased to be a member of the Board of Faculty of Medicine on his resignation of the Regius Professorship of Medicine, has now been co-opted, and has been re-elected Chairman for the current year.

UNIVERSITY OF CAMBRIDGE.

Degrees.—At the Congregation on March 8th the following medical degrees were conferred:—*M.D.*: S. H. A. Lambert, St. John's; W. M. Willoughby, Caius. *M.B.*: G. S. Haynes, King's; R. S. Drew, Pembroke; C. M. Murray, Pembroke; P. Hardy, Trinity Hall. *B.C.*: G. S. Haynes, King's.

University of Wisconsin.—Professor J. G. Adami, M.D., and Professor H. T. Bovey, F.R.S., of Montreal, have been appointed delegates to the Celebration of the Jubilee of the Wisconsin University to be held at Madison in June, 1904.

Examiners.—In consequence of the large increase in the number of candidates for the Final M.B. Examinations, it is proposed to increase the elected Examiners in Medicine and in Surgery from three to four in each case.

UNIVERSITY OF LONDON

Physiological Laboratory.

A course of eight lectures on problems of animal metabolism will be given by Mr. J. B. Leathes, M.B., B.Ch., F.R.C.S., during the summer term on Fridays, at 5 p.m.

The Library.

Mr. Lawrence Warrington Haward, B.A.Camb., has been appointed temporarily to catalogue and arrange the books of the University library and the Goldsmiths Company's library of economic literature. The library will be closed during rearrangement.

UNIVERSITY OF LIVERPOOL.

Diploma in Tropical Medicine.

THE Dean of the Faculty of Medicine requests us to state that the university grants a Diploma in Tropical Medicine (D.T.M.) to candidates who possess a qualification to practise medicine recognized by the university, and who present certificates of attendance on the following courses of study and pass the prescribed examination:

(*a*) A three months' course of study in tropical pathology and hygiene in the university.

(*b*) A course of instruction in a hospital recognized by the university, in which beds are specially reserved for tropical diseases.

The examination for the diploma is held at the end of the autumn, Lent, and summer terms, and the first examination will be held at the end of the summer term, 1904. Further information can be obtained on application to the Dean of the Faculty of Medicine, the University, Liverpool.

As is well known, the university possesses a flourishing school of tropical medicine, and it will be observed that the diploma will only be granted to pupils of that school.

Diploma in Veterinary Hygiene.

A diploma in veterinary hygiene has been instituted chiefly to provide training, and recognition for such training, to veterinary surgeons upon parallel lines to that required for the Diploma in Public Health, so that veterinarians may adequately co-operate with public health officers in the carrying out of hygienic reforms. The diploma is to be granted only to qualified veterinary practitioners after a thorough course of practical training under supervision in the newly established veterinary school of the University in the subjects of veterinary hygiene, comparative pathology and bacteriology, parasitology, veterinary toxicology and jurisprudence, and sanitary law, administration and reporting.

OBITUARY.

ALEXANDER DAVIDSON, M.A., M.D.EDIN.

F.R.C.P.LOND.,

Emeritus Professor of Pathology, University of Liverpool.

DR. ALEXANDER DAVIDSON, whose death on March 3rd we record with deep regret, was born in Edinburgh in January, 1838. His father, the Rev. Peter Davidson, D.D., was an eminent United Presbyterian minister in that city, whose memory is perpetuated by the Davidson Memorial Church, which was built on the express stipulation that it was to bear his name. His mother was the daughter of the Rev. Alexander Young, of Logiealmond, in Perthshire, the district which is commonly believed to be the original of the Drumtochtie, familiar to the readers of Ian Maclaren. Alexander Davidson received his early education at the Edinburgh Academy, and afterwards went through the arts course at the University of his native city and took the degree of M.A. He then became a medical student at the University, and among his teachers were Goodsir, Syme, Laycock, Simpson, Christison, and Warburton Begbie. In 1863 he graduated M.B., and shortly afterwards he became resident medical officer in the fever wards of the Bradford Infirmary. During his term of office there he had the misfortune to contract typhoid fever, which was followed by phlebitis in the leg, a condition which recurred from time to time during the remainder of his life, and which was ultimately the cause of his death.

About the year 1865 he began general practice in the south end of Liverpool, and was appointed one of the medical officers to the South Dispensary and soon afterwards Assistant Medical Officer to the Infirmary for Children. He was elected Physician to the Northern Hospital in 1872, when he removed to Rodney Street and relinquished general practice. In 1876 he was elected Physician to the Royal Infirmary, where he remained till 1897, when he was appointed Consulting Physician.

Soon after he had settled in Liverpool Dr. Davidson was appointed Lecturer on "Natural History" in the Royal Infirmary School of Medicine. His class was small, as the course was only required by candidates for the degrees of the University of London, but it was characteristic of the man that although the fees practically disappeared on diagrams and preparations, the lectures were delivered with as much care as though the students had been numerous and the emoluments considerable. Thus began his long association with medical teaching in Liverpool, and he became one of an ardent band of workers, united together in close friendship by community of tastes and devotion to the medical school. After a few years a lectureship on pathology was created and his fellow-lecturers unanimously elected him to the office. At a time when a knowledge of German was less common than it is at present, he had the advantage of being able to read that language, and he made himself acquainted with the work the Germans had carried on in pathology and enriched his lectures by the knowledge which he had thus acquired. When he resigned this office after some years he was created Emeritus Professor of Pathology in University College, and quite lately in virtue of this office he was given a seat on the Medical Faculty of the University of Liverpool.

In the period of twenty-one years during which he was Physician to the Royal Infirmary, he exercised a profound influence on the policy and growth of that institution, and on the training of the minds of the students of medicine. The infirmary and all that relates to it was for a quarter of a century the subject of his deepest concern. During the years that the present building was being planned and constructed, a building which though it has been twelve years completed has probably not been surpassed anywhere in the United Kingdom, the whole of his spare time was given to it. His non-medical colleagues on the Building Committee rightly placed the greatest confidence in his knowledge of sanitary

matters, and not a little of the success of the institution may be traced to the adoption of his sound advice. By all the lay committees he was held in high esteem, and such was his influence with them that it rarely happened that when he had definitely made up his mind as to the rightness of a certain line of action any other course was adopted. His even temper, his sweet reasonableness, and his manifest sincerity have done much to bring about the harmony which has for many years existed between the medical and the lay members of the committee, and which, happily, becomes more complete as time goes on.

As a clinical teacher his strength lay not in eloquence but in thoroughness. He held certain things in utter aversion, and he aimed not so much at imparting dogmatic knowledge as in training his pupils to use their powers of observation and reasoning. Not a few who have obtained success and even distinction in the highest professional work in Liverpool have been clinical clerk or house physician with him.

As a consultant his strong point was his judgement. He was never led away by the desire to make what is called a brilliant diagnosis; he weighed his opinion and delivered it as a judge might sum up a case to a jury; and then he stuck to it and never wavered so long as no fresh facts appeared. This it was that inspired such faith in him on the part of his fellow-practitioners. Moreover, he believed in treatment, and his kindly manner and the genuine interest he showed in his patients won their confidence and regard.

Among those who will sadly miss him will be the nurses of the training school. In all that concerned the nursing of the sick he took a keen interest, and when any of the nurses were ill he was unremitting in his attention to them.

In the earlier part of his career in Liverpool Dr. Davidson took an active part in the work of the British Medical Association, and was for some years secretary, and afterwards president, of the Lancashire and Cheshire Branch. His services to that Branch were considerable, and although with the rapid march of events they are little known to the present generation, they were largely concerned in raising the Branch to its present position of eminence. He made Branch meetings popular: he frequently convened them in the smaller country towns. The business on the programme was of moderate length, and was got through; there was always something of interest to be seen at the place, and there was a homely dinner at the country inn. In this way many members were added to the Branch, and many lasting friendships were formed. Dr. Davidson was a Vice-President of the Section of Medicine at the annual meeting of the Association in Bristol in 1892, and a Vice-President of the Section of Pathology and Bacteriology when the meeting took place in Glasgow in 1898.

Dr. Davidson was a man of good presence and of somewhat grave demeanour. In fact, his manner was at times almost severe, and those who did not know him well were apt to think him stiff and cold. But this was only the outer crust of the man, for he could at heart one of the kindest of hearts, and many of his old friends and patients who stood around his grave side mourned for him as for one very near and dear. In a quiet and unobtrusive way he acquired a wide reputation in the city of his adoption, and it was always put forth on the side of what was just and what made for a high standard of professional and private life. His judgement in matters of ethics was greatly valued by his contemporaries and by younger men, and he was often consulted by his professional brethren when they were in doubt as to what course to pursue. His interest in the welfare of the Association and of the profession at large lasted till the close of his life, as strikingly illustrated a few months ago, when, in spite of failing health, he attended one of the last meetings of the Liverpool Central Division and spoke strongly and convincingly in opposition to the proposed formation of a [illegible] of the Division, with the result that it was unanimously decided that no such committee should be formed. To the profession who knew him he will remain a model of integrity and honourable dealing, to those who knew him well he will be remembered in addition as a cultured gentleman and a staunch warm-hearted friend.

Dr. Davidson was not a voluminous writer but he made several contributions to the literature of his profession all more or less marked with the stamp of his practical mind. He was largely occupied in his necropsy work, and embodied his experience in some valuable post-graduate lectures. Since his lamented death enormous numbers of letters have been received from former students of his, speaking of the assistance they had derived from his teaching and from his encouragement and help in starting practice.

Dr. Davidson married a daughter of the late Mr. Lloyd Rayner, a well-known Liverpool merchant, and he has left a widow and one son who is preparing to enter the medical profession.

One of his old friends and colleagues writes of him thus: The loss sustained by the death of Dr. Davidson will be felt by a wide circle of professional and private friends, while to those who have known him long and intimately the bereavement is severe and irreparable. His character was marked by strength, decision, unselfishness, and the most absolute truthfulness. There was an apparent sternness at times in his speech and demeanour; but this was really a mask covering the greatest kindliness and warmth of heart. Most men are willing to let their good deeds be seen and known; he, on the contrary, was almost nervously anxious to conceal them. How kind and helpful he was to those who sought his counsel many can testify. Moreover, his judgement was one to rely upon in no common degree. He was a man who never would prophesy smooth things; he told the truth as he believed it without thought of fear or favour. No man, of course, can do that in this world without exciting opposition, and even occasional unfriendliness, but if ever this existed it was more than counterbalanced by the respect and affection of those who saw through the stern outward shell to the kernel of truth, faith, and friendliness within. Professionally he was a sound and learned physician, an excellent pathologist, and a successful teacher. His services to the Royal Infirmary and other hospitals in Liverpool are well known, and will be long remembered not only by his colleagues and the members of committees with whom he worked, but by the poor, to whom he ministered with so great a measure of kindliness and faithfulness.

W. M. C. writes: Will you allow me space for a short additional tribute to the memory of a true friend, an estimable man, and a great physician? I had the benefit and the honour of Dr. Davidson's friendship for over thirty years, and owe him more than I can tell personally and professionally. Besides knowing him as a consultant and as a colleague in many affairs, I had the advantage of his medical care of myself and those dear to me. Of his unwearying kindness in long cases of illness we have ever the gratefullest remembrance.

All who consulted with Davidson had implicit confidence in his judgement, and supreme faith in his loyalty and integrity. Was there a slight disagreement in diagnosis or treatment his opinion was so expressed as to strengthen rather than weaken the position of the attendant. Was the conduct of opinion vital, he knew his duty and did it, kindly but firmly. To the patient his opinion was given with no uncertain sound, and the effect was definite and lasting. He was a most careful notetaker, had a wonderful memory, and could refer at a moment to cases seen years before. The last time I saw him he reminded me of a ten-year-old case, and confirmed it by referring to a note-book lying by his bed. In his pharmacy he was conservative: he was no admirer of new drugs of the American variety, and had a positive horror of medicines to "knock down" temperature. He seldom prescribed outside the *Pharmacopœia*, and always insisted that his prescriptions should be dispensed by the best druggist.

Those of us who served with him on the Council of the Lancashire and Cheshire Branch remember a time of great unrest and prosperity, while the Secretary's work was so done that no "power behind the throne" was felt, not seen or heard. He was a loyal friend, grudging neither time nor trouble. Often I have consulted him on some private business and days afterwards have received his further investigations and opinion on the matter.

His death brought about from many lips the words "he was my best friend," and that most many who felt they had little claim on him. His position was one of unique influence always for good, both in and outside the profession. Even his retirement from the Royal Infirmary and from the meetings of the Medical Institution (owing to his health) did not seem to impair that influence, and his advice was sought upon all matters affecting them.

Alexander Davidson was a tower of strength. I cannot imagine such another, nor can I frame words to express my sense of personal loss.

ISIDOR ROSENTHAL, M.D.,

Professor of Physiology, University of Erlangen

Truly death has been busy amongst the ranks of the physiologists. Yesterday, as it were, it was Rollett, to-day it is Rosenthal who has passed away. Born near Bomberg in 1831, at his death he had reached the ripe age of 68. After graduating in 1850, he became assistant to Du Bois-Reymond in Berlin, where he did the best part of his early work. In 1862 he published his famous monograph, *Die Athembewegung und ihre Beziehung zum Nervus Vagus*, a work that forms a landmark in the history of the relation of the vagus to the respiratory movements. In the same year his *Electrotatslehre* was also published. Called to Erlangen in 1872, he remained there working at his favourite subjects of investigation. His researches on animal heat and calorimetry are standard contributions. He was the author of many papers on electrophysiology and other departments of physiology. At Erlangen he also gave instruction in hygiene, and only a few years ago he published a work on this subject. A facile writer, a clear expositor, his writings were always readable, lucid, and logical.

He also wrote much on the relation of public health to physiology, and on alcohol in its relation to health. A short time ago he published a well-known work on *General Physiology*, and shortly before his death his last publication was issued—namely, *Der physiologische Unterricht* that is, instruction in physiology, and its importance in connexion with the education of medical men. It contains several papers of great general interest on the value of lectures of a proper kind, and the use of physiology as a discipline and one well suited to "educate" the logical powers of the student. One of the addresses was given in May, 1903, when a new physiological auditorium was opened in Erlangen. Indeed, Erlangen was about the last of the German universities to establish a chair of physiology as distinct from that of anatomy. In 1872 Josef Gerlach, whose name is associated with the introduction of carmine as a microscopical stain, was professor of anatomy and physiology. In that year the chair was divided, Gerlach remaining as teacher of anatomy and histology, while Rosenthal was called to occupy the newly-founded chair of physiology.

Professor Rosenthal travelled much, was an accomplished linguist; a genial, gentle, talented gentleman; a most patient and successful investigator and a teacher, whose loss the whole physiological world will deplore.

JOHN REUBEN BATHURST DOVE, M.B., B.S.Lond.,

Honorary Surgeon, West Herts Infirmary.

We regret to have to record the death of Dr. John Reuben Bathurst Dove, which took place at Northwood, Middlesex, on January 27th, at the age of 67 years. Born at Thornbury, in Gloucestershire, Dr. Dove began his medical career at the London Hospital in 1860, where he received the gold medal in surgery, and at the examinations for his degrees obtained first-class honours in medicine, midwifery, and surgery and honours in forensic medicine. He also tied with Mr. Marcus Beck for the University Gold Medal in Surgery. After filling in succession most of the residential posts at the hospital, including that of Medical Officer of the Cholera Wards during the severe epidemic of 1866 he settled down in practice at Pinner. During his thirty-four years' residence in that place he held a number of public appointments, including that of Honorary Surgeon to the West Herts Infirmary at Hemel Hempstead, and at the same time carried on a very extensive practice, at first with the aid of an assistant, and latterly with that of a partner. In 1902, however, the incessant wear and tear of his busy life led to an attack of hemiplegia which left behind it a certain amount of permanent paralysis. He therefore determined to retire, a decision which was the occasion of a public and remarkable expression of the esteem in which he was held by the inhabitants of Pinner and the neighbourhood. Upon giving up work he moved to Northwood, and there eventually died from cardiac failure.

The funeral took place at Pinner, and the concourse of old friends and patients who attended the ceremony proved that his work had been by no means forgotten. Dr. Dove was held in no less high esteem by his colleagues than by his patients, and there were many of them to whom he seemed to possess just those qualities which would have brought a man of somewhat less retiring disposition to the front rank as a consultant. He had especially those qualities of careful observation and discrimination, joined with good judgement, which are somewhat rare, and always mark out the man of ability. Personally he had a quiet, sympathetic manner which endeared him to his patients, and a dry sense of humour which had a great charm for those who knew him well. Added to these qualities he had a great love of truth and a high sense of duty—a man, in short, who was not only a Christian but a gentleman in the best sense of the word, and a fine example of the best type of general practitioner. He left a widow, two daughters, and a son, the latter being a member of the medical profession.

Dr. William Macleod, late Inspector-General of Hospitals and Fleets, who died in West Kensington, on February 17th, at the age of 84, had a distinguished career in the Royal Navy, from which he retired under the age clause some twenty-four years ago. He received his medical education at Edinburgh University, where in 1841 he obtained the degree of M.D. and in the same year became a diplomate of the Royal College of Surgeons of that city. In the following year he entered the Royal Navy as an Assistant-Surgeon, and some three years later was sent out to the China station, where he saw a considerable amount of war service. While in the *Agincourt*, the flagship of that station, he was landed in medical charge of a detachment of Royal Marines, and took part in the assault on the the forts on the River Borneo and in the capture of the city of Bruni, and subsequently was present in the boat expedition sent in pursuit of the Sultan of Borneo. During the Crimean war, having then received promotion, he was Surgeon of the *Driver* with the Baltic squadron, and two years later was with the *Madagascar* at Rio de Janeiro upon the occasion of a very severe outbreak of yellow fever. His journal during this year and his reports upon the outbreak brought him the reward of the Gilbert Blane medal. Seven years later, having reached the rank of Deputy-Inspector-General, he was appointed to the charge of the Royal Naval Hospital at Yarmouth, and remained there until his final retirement from the service fifteen years later. During this period he was specially promoted to the rank of Inspector-General in consideration of his having, for the benefit of the public service, been detained at Yarmouth when desirous of taking his turn of foreign service. Upon his final retirement the value of his services was further recognized by the award of the Companionship of the Bath, and eight years later he was given one of the two Greenwich Hospital special pensions of £100 a year available for officers of his rank. He took a good deal of interest in questions of insanity, and while still in the service wrote several papers on that subject, and notably two on general paralysis of the insane. He was a member of the Metropolitan Branch of the British Medical Association.

It is with regret that we have to announce the death of Alexander Blair, M.B., of Ashington, Morpeth. For several years past Mr. Blair had been in indifferent health. A surgical operation performed upon his jaw eight years ago left him to a large extent disqualified for the active duties of a medical practitioner. Notwithstanding the obstacles which the malady and the operation caused to his speech, Mr. Blair yet succeeded in building up a large practice, for he was a man of admitted ability and was much liked by his patients. He died on February 20th at Ashington, at the comparatively early age of 39. His body was removed to the family burial place, near Crinan, in Argyllshire.

We regret to record the death of Dr. Joseph G. Rooney, of New Jersey, who recently died at the age of 37 years a sacrifice to professional duty. He graduated at the University of New York in 1891. During a fire which occurred at Hoboken on January 18th, five firemen were injured and Dr. Rooney was summoned to their aid. The weather was bitterly cold, but the heroic doctor, who was obliged to work with bare hands and rolled-up sleeves, refused to leave his patients until he had done all that was possible for their relief. In consequence of the exposure his hands were frostbitten; gangrene supervened and ended in death.

By the death of Dr. David Kennard of Lambourn on February 17th the medical profession in South Berks has lost one of its best known and most popular members. Born in 1837, the son of an earlier David Kennard, who settled in Lambourn in 1820, Dr. Kennard was sent to his father's old medical school, Westminster, and in 1859 obtained the diploma of L.S.A., and in the year following that of M.R.C.S. He settled in Lambourn and remained in active practice there until his death, occupying the position of public vaccinator and of medical officer to the Lambourn District of the Hungerford Union. He was a man who lived every hour of the

day: and whatever he did, he did thoroughly and did well. As a medical man he was one of a type which is growing less common than it used to be, or than it might desirably continue to be, and was as well known and popular a personage wherever manly outdoor exercises were to the fore as at the bedside. To love of all kinds of sport he added an intense hatred of all sham and pretence, and such characteristics naturally gained for him much influence in local affairs, into which he threw himself with the same energy as into everything else that awakened his interest. He was Chairman of the Lambourn Gas Company, and a manager of the National Schools up to the day of his death. He also served the parish as churchwarden for thirty-four years, and his work in that capacity will be long and pleasantly remembered. He was, in short, one who combined the position and work of a medical practitioner with those of a country gentleman of the best type. His death was somewhat typical of his life, being due to an accident in the hunting field a few days before; for in spite of his somewhat advanced age he was in his 67th year he still followed the hounds whenever the duties of his position permitted temporary relaxation of work. His horse slipped back in a blind ditch and struck its rider, who had slipped off backwards, between the shoulder blades, causing the rupture of a large vessel in the vertebral canal, and thus almost complete paralysis. He was carried at once to the house of a friend hard by, and it was hoped at first that he might recover, but he sank a few days later. He leaves a wife, seven daughters, and a son, who, like his father and grandfather, is a medical man and an old Westminster student.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,203 births and 5,4[illegible] deaths were registered during the week ending Saturday last, March 5th. The annual rate of mortality in these towns, which had been 15·4, 15·[illegible] and 17·6 per 1,000 in the three preceding weeks, rose again last week to 1[illegible]·7 per 1,000. The rates in the several towns ranged from 8·7 in Handsworth (Staffs), 10·3 in Hornsey, 11·0 in Burton-on-Trent, 11·2 in Ipswich, 11·4 in Willesden, 11·7 in Walthamstow, 12·3 in Croydon, and 13·0 in Aston Manor, to 21·0 in Great Yarmouth, 23·8 in Sunderland, 24·1 in Rotherham, 24·[illegible] in Walsall, 25·7 in Wigan, 26·9 in St. Helens, and 29·8 in Norwich. In London the death-rate was 17·9 per 1,000, while it averaged 18·[illegible] per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·7 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1·[illegible] per 1,000, while among the seventy-five large provincial towns the death-rates from the principal infectious diseases ranged upwards to 3·0 in Leeds, in Stockton-on-Tees, and in Rhondda, 3·1 in Burnley, 3·[illegible] in Birmingham, 3·[illegible] in Wallasey, 4·0 in Great Yarmouth, 4·[illegible] in Swansea, 4·5 in Bury, and [illegible] in Norwich. Measles caused a death-rate of 1·2 in St. Helens and in Leeds, 1·[illegible] in Birmingham, 1·3 in Bury and in Rotherham, 1·[illegible] in Rhondda and in Norwich, scarlet fever of 1·5 in Warrington, diphtheria of 1·[illegible] in Great Yarmouth, whooping-cough of 2·4 in Leyton, in Plymouth and in Coventry, 3·1 in Portsmouth, 3·7 in Wolverhampton, 4·[illegible] in Stockton-on-Tees, [illegible] in Swansea, and [illegible] in Wallasey, and diarrhœa of 1·[illegible] in Merthyr Tydfil, 1·[illegible] in Bournemouth, and 1·7 in Oldham. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham, and one in Gateshead, but not one in any other of the large towns. The Metropolitan Asylums Hospitals contained 91 small-pox patients at the end of last week, against 94 and 91 at the end of the three preceding weeks; 11 new cases were admitted during the week, against 7, 5, and 5 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,744, 1,[illegible], and 1,[illegible] at the end of the three preceding Saturdays, had further declined to 1,[illegible] on Saturday, March 5th; 171 new cases were admitted during the week, against [illegible], 183, and 150 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

In the week ending Saturday last, March 5th, 1,[illegible] births and 703 deaths were registered in the principal Scotch towns. The annual rate of mortality in these towns, which had been 17·[illegible] and 21·8 per 1,000 in the three preceding weeks, further declined last week to 21·1 per 1,000. This rate was 1·[illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the highest death-rate ranged from 24·[illegible] in Greenock and 25·[illegible] in Paisley to 19·[illegible] in Edinburgh, to 18·[illegible] in Perth and to 16·[illegible] in Dundee. The death-rate from the principal infectious diseases in these towns averaged 2·[illegible] per 1,000. The highest rate being recorded in Dundee, Aberdeen, and Paisley. The 44 deaths registered in Glasgow included 10 which were referred to diarrhœa, 5 to measles, 3 to whooping-cough, 2 to diphtheria, and 2 to small-pox. Eleven fatal cases of whooping-cough and 9 of diarrhœa were recorded in Aberdeen, 7 of measles and 5 of whooping-cough in Dundee, and whooping-cough and 5 of diarrhœa in Edinburgh, 4 of measles and 3 of whooping-cough in Paisley, 4 of whooping-cough in Leith, and 3 of small-pox in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday March 5th, [illegible] births and [illegible] deaths were registered in 21 of the principal Irish towns. [illegible] but [illegible] and 45 deaths in the preceding period. The mean annual death-rate of these towns which had been [illegible] and 24·[illegible] per 1,000 in the three preceding weeks, fell to 2[illegible] per 1,000 in the week under notice, this figure being 3·7 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 13·[illegible] in Waterford and 17·[illegible] in Limerick to 25·4 in Cork and [illegible] in Dublin. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1·[illegible] per 1,000, or [illegible] per 1,000 higher than during the preceding week, the highest figure, 6·5, being reached in Limerick, while Waterford, Londonderry, and Cork registered no deaths under the heading in question. With the exception of 1 death from measles at Belfast, there were no deaths in any part of Ireland from measles, small-pox, scarlet fever, typhus, or diphtheria, and only [illegible] from enteric at Dublin and 1 at Belfast. As for several weeks past whooping-cough was responsible for the greater part of the zymotic death-rate.

MEDICAL NEWS.

It is stated that the Western Counties Dairy Farmers' Association has resolved to establish milk dépôts at various railway stations in Wiltshire, and that already farms, representing some 10,000 cows, have joined the scheme.

In view of the fact that King's College Hospital is to be removed to a site in proximity to the large estates in the South of London belonging to the Ecclesiastical Commissioners, and of the benefits which will result to the poorer residents on their property, the Commissioners have resolved to contribute a sum of £2,500 towards the King's College Hospital Removal Fund.

Among the members of the London County Council re-elected on March 5th are Dr. Beaton (North St. Pancras), Sir William J. Collins (West St. Pancras), and Dr. G. J. Cooper (Bermondsey). Dr. G. Cohen has been elected a member for the Harringay division on the Middlesex County Council. Mr. Horace Rose, Surgeon to the Royal Bucks Hospital, has been elected for the Eastern Division of Aylesbury on the Bucks County Council.

MEDICAL VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

AYR DISTRICT ASYLUM.—Assistant Medical Officer, resident. Salary, £120 per annum.

BELFAST, QUEEN'S COLLEGE.—Riddel Demonstrator of Pathology and Bacteriology. Salary, £150 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Senior and Junior House-Surgeons, resident. Salary, £100 and £80 per annum respectively.

BIRMINGHAM: GENERAL HOSPITAL.—1. Resident Surgical Officer. Salary, £100 per annum. 2. House-Surgeon, resident. Salary at the rate of £80 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £40 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary, £[illegible] per annum.

BRENTFORD UNION.—Medical Superintendent of Infirmary and Medical Officer of Workhouse and Schools, resident. Salary £[illegible] per annum and fees.

BRIGHTON SUSSEX COUNTY HOSPITAL.—House-Physician, resident. Salary £50 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary, £150 per annum.

CANTERBURY KENT AND CANTERBURY HOSPITAL.—House-Surgeon, resident. Salary £[illegible] per annum.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Resident Medical Officer. Salary at the rate of £[illegible] per annum.

HULL ROYAL INFIRMARY.—Casualty House-Surgeon, resident. Salary, £50 per annum.

LEICESTER INFIRMARY.—Two Surgical Dressers, resident. Honorarium, £[illegible] 10s. each for six months.

LONDON FEVER HOSPITAL, Islington, N.—Assistant to the Resident Medical Officer. Salary £[illegible] per annum.

LONDON LOCK HOSPITAL.—House-Surgeon to the Male Hospital, resident. Salary £[illegible] per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—1. House-Physician. 2. House-Surgeon. 3. Assistant House-Physician. 4. Assistant House-Surgeon. Salary for 1 and 2 at the rate of £40 per annum, and for 3 and 4 at the rate of £30 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Anæsthetist. Appointment for six months.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—House-Physician, resident. Salary at the rate of £[illegible] per annum.

ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Assistant Anæsthetist. Honorarium £[illegible].

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician, resident. Honorarium £[illegible] for six months.

WEST RIDING COUNTY COUNCIL.—Assistant Medical Officer for the Scalebor Park Asylum, resident. Salary, £[illegible] per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary at the rate of £[illegible] per annum.

MEDICAL APPOINTMENTS.

ADAM, John, M.B., C.M.Glasg., Visiting Physician to the County Hall Hydropathic Larbert, vice G. C. Morgan, M.B., C.M., deceased.

ANDREW, W. M.B., C.M.Edin., District Medical Officer of the Launceston Union.

AUSTIN, F. C., F.R.C.S.Edin., Certifying Factory Surgeon for the Broughton Astley District of Leicestershire.

BOWEN, Lewis, M.B., B.S., F.R.C.S., Surgical Casualty Officer to the General Hospital, Birmingham.

BUFFEY, W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the St. Austell Union.

BOWEN, A., L.R.C.P.Edin., M.R.C.S.Eng., District Medical Officer of the St. Neots Union.

BOWEN, E. Dykes, F.R.C.S.Edin., Medical Referee under the Workmen's Compensation Act for the Newnham District of County Court Circuit No. [illegible].

CUMMINS, H., F.R.C.P., M.R.C.S., Health Officer of Scottsdale, Tasmania.

ELLIOT, F. E., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Dover Union Workhouse

HARE, Francis W. F., M.D., M.R.C.S. Eng., Visiting Medical Officer to the Diamantina Hospital for Chronic Diseases, South Brisbane.

HARTIGAN, T. J. P., F.R.C.S. Eng., Assistant Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

LANGLEY, J. F., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

MACKAY, Wm., M.B., C.M.Edin., Medical Officer to the Infectious Diseases Hospital at Job's Hill, near Crook.

PAINE, G. R. R., M.R.C.S. Eng., L.S.A., District Medical Officer of the St. Thomas Union.

PENNY, John, D.Sc., Public Health, M.B., F.R.S.E., Medical Officer to the Workhouse, and Medical Officer and Public Vaccinator for No. 2 District of the Cockermouth Union, *vice* James Graham, M.B., resigned.

POUNDEN, J. C., M.D., B.Ch.Dub., Certifying Factory Surgeon for the Alfreton District, Derbyshire, and Medical Officer for the Colmer Park District of the Basford Union.

PRINGLE, G. A., M.D., B.Ch.Dub., Certifying Factory Surgeon for the Aughnacloy District, Tyrone.

SHEPHAM, P., L.R.C.P.&S.Edin., L.F.P.S.Glasg., District Medical Officer of the Carlisle Union.

STOCKER, E. G., L.R.C.P.Lond., M.R.C.S., Certifying Factory Surgeon for the Cleverdon District, Somerset.

WOODBRIDGE, E. W., M.B.Lond., M.R.C.S., District Medical Officer of the Barnstaple Union.

WYATT, W. L., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Skirlaugh Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Discussion on Acute Intestinal Obstruction: I. Its Early Diagnosis, Dr. Hale White; 2. The Details of its Surgical Treatment, Mr. A. E. Barker.

Royal College of Surgeons of England, 5 p.m.—Mr. P. J. Cammidge: On the Physiology and Chemistry of the Pancreas (Arris and Gale Lecture).

TUESDAY.

Chelsea Clinical Society, Chelsea Dispensary, Manor Street, King's Road, S.W., 8.30 p.m.—Annual Clinical Debate. Subject, "Internal Secretion" in Disease and in Treatment. Professor Macfadyen, Professor Howell, Dr. Hale White, and Dr. Rose Bradford will take part in the discussion.

Pathological Society of London, Royal Army Medical College, Examination Hall, Victoria Embankment, 8.30 p.m.—Laboratory meeting.

Royal College of Physicians of London, 5 p.m.—Dr. R. Hutchison: On Some Disorders of the Blood and Blood-forming Organs in Early Life (Goulstonian Lecture III.).

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. J. H. Parsons: On the Neurology of Vision (Arris and Gale Lecture II.).

THURSDAY.

Neurological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Alfred W. Campbell: On Histological Studies in Cerebral Localization.

Royal College of Physicians of London, 5 p.m. Dr. F. Taylor: On Some Disorders of the Spleen (Lumleian Lecture I.).

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. J. H. Parsons: On the Neurology of Vision (Arris and Gale Lecture III.).

Society for the Study of Disease in Children, 11, Chandos Street, W., 8.30 p.m.—Agenda: Clinical Cases. Papers: Mr. Sydney Stephenson, Congenital Word-Blindness in Children; Dr. Porter Parkinson and Mr. Douglas Drew, Notes on a Case of Nephrectomy.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Pneumothorax.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Pulmonary Tuberculosis in Children with Pathological Demonstration.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, The Diagnosis of Ovarian Tumours. Tuesday, Some Gastro-intestinal Diseases of Infancy and Childhood. Wednesday, Deformities after Fracture. Thursday, Abdominal Surgery.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Demonstration on Laryngeal Tuberculous Cases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Bulbar Palsy; Friday, Hydrocephalus.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Complications of Phthisis and their Treatment.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Cataract. Tuesday, Certain Symptoms of Disease of the Ear. Wednesday, Common Disorders of Menstruation. Thursday, Administration of Anæsthetics. Friday, The Legal Aspect of Insanity and Signing Certificates (at the London County Council Lunatic Asylum, Claybury, Woodford Bridge, Essex.)

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—Lecture on Dysmenorrhœa.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BACKHOUSE.—On the 24th inst., at The Terrace, St. Ives, Cornwall, the wife of Charles F. Backhouse, M.R.C.S., L.R.C.P., of a son.

BOWKER.—On March 8th, at 11 North Parade, Bath, the wife of George E. Bowker, M.B., C.M.Edin., of a daughter.

BURGESS.—On March 6th, at 165, High Street, Oxford Street, Manchester, the wife of Arthur H. Burgess, F.R.C.S., of a son.

DUKE.—At 45, Osborne Road, Newcastle-on-Tyne, on March 1st, the wife of Alfred Duke, M.A., M.B., F.R.C.S.Edin., of a daughter.

HACKNEY.—On the 4th March, at 116, High Street, Hythe, Kent, the wife of Clifford Hackney, M.R.C.S., of a son.

ROWLAND.—On the 4th inst., at 25, St. John Street, Lichfield, the wife of Frank Mortimer Rowland, B.A., M.D.Cantab., of a son.

DEATHS.

ALLDEN.—On the 25th February, at No. 32 West Allington, Bridport, Sidney James Allden, M.D., B.S., Mayor of Bridport, late Resident Medical Officer of Brompton Hospital, aged 35.

LISTER.—On the 1st inst., at his residence, Courtenay Place, Mayerton, Leamington, in his seventy-second year, Edward Lister, L.R.C.P.Edin., grandson of the late Edward Lister, Coverham Abbey, Yorkshire.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2 Agar Street, Strand, W.C., London. Those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429 Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are considered to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary is stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429 Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

E. S. R. wishes to hear of an inebriate home or institution which would take a young woman in exchange for her services. She is an excellent waitress and serving maid and was fourteen years in one situation and her failing is of only eighteen months' duration.

APHASIA AND PARALYSIS ASSOCIATED WITH MEASLES.

Dr. G. NEWTON PITT (Portland Place, W.), writes: I should be very much obliged if any members could furnish me with particulars of cases of speech or brain defect, deafness, or paralysis of either limbs or ocular muscles which developed in the course of an attack of measles.

ROENTGEN-RAY INSTALLATION.

J. H. L. A. writes: I am interested in a new installation of *x*-ray work. The current will be taken from the main at 230 volts. I should feel obliged if some of your readers would advise as to the best kind of make and break to use with a 12 in. coil, and give the benefit of their experience of any they have had in use.

DIPHTHERIA DIAGNOSIS.

W. B. C. asks us to interpret for him the following report issued from the bacteriological department of a well-known provincial university. "The secretion from the throat in this case shows diphtheria bacilli of the Loeffler and Hoffman variety." We must confess that the expression "Loeffler and Hoffman variety" is as ambiguous to us as it is to our correspondent. The term "Hoffmann variety" would have been obvious enough, but though Loeffler was fully aware of the existence of pseudo-diphtherial organisms, his name is generally associated with the true diphtheria bacillus. Physicians rightly expect that the bacteriologist shall restrict himself in his clinical reports to the terms "true" and "false" diphtheria bacilli, and reserve his conundrums for the amusement of those who have no serious interest in the clinical treatment of the case upon which his assistance in diagnosis has been invited.

ANSWERS.

THE USE OF THE ELECTRO MAGNET.

DR. H. B. W. PLUMMER (West Bromwich) writes: In reply to Dr. T. F. Hopgood's query in the BRITISH MEDICAL JOURNAL of February 27th, I can inform him that the West Bromwich District Hospital had a Haab's electro-magnet presented by Mr. S. Woodhall. The cost of obtaining and fixing it came to £33 16s., and it is used simply with a wall plug from the ordinary electric lighting current.

POST-GONORRHOEAL DISCHARGES.

I.M.S.—(1) No suggestion for treatment can well be made until it has been ascertained whether there is any ulcerated spot or allied condition to account for the discharge, and if so whether it lies in the posterior or penile urethra; (2) practical experience points to the conclusion that the very late post-gonorrhoeal discharges are not infective; this may be assumed to be the case with all the greater confidence if neither in the drop of mucus nor in the deposit from the urine after centrifugalization gonococci or pus cells can be discovered.

INSTITUTION FOR FEEBLE-MINDED BOY.

D R. It is a pity that the case described has not had the benefit of special instruction at a school for defective children, which it is the moral—if not legal—duty of the education authority to provide under the Elementary Education (Defective, etc., Children) Act of 1899. As the boy is 14 it would probably be best to apply for his admission to the Royal Albert Asylum at Lancaster, which is now described as a "Training School for the Feeble-minded of the Northern Counties." Particulars as to payment, which varies according to means of parents, can be obtained from the Secretary, Mr. J. Diggens.

YOLKLESS EGGS.

D. B.—The abnormality of eggs without yolk is well known, such eggs sometimes being termed pseudo-eggs. As a rule they are of notably smaller size than the normal. In one case in which a hen regularly laid such, examination after the bird was killed showed the presence of an abnormally small oviduct; the abdomen was full of the yellow fluid contents of the yolks which had passed into it in place of into the duct. It is not easy to explain why the albumen and shell are formed independently of the local stimulus of the yolk. The considerable interval between a physiological function set up in the production and formation of the ova in the ovary, (through a nervous reflex, or) a chemical reflex arising from the formation of the secretin, as the past

...created...secretion is brought out by the...ness of the intestinal secretin to the...mes through the medium of the general circulation.

INCOME TAX

F. C. H., ... entered into a partnership on September 1st, ... was liable to pay income tax upon so much of the average annual profits of the ... during the three years ..., ..., and ..., as is represented by the fractional proportion which his share bears to the total. The average profits amounted to ... and he ... exhibited the one-half of the income of the partnership, his share of the tax for the year ... would be as set up in the ... for twelve hundredths of seven twelfths of this for the period from September, ..., to April, ... Similarly, for ... he would pay on one-half of the average profits of the partnership for the years ..., ... and ... (See the BRITISH MEDICAL JOURNAL for October 24th, ..., answer to "Omaclo, and for February 6th, ..., answer to "M.D.Cantab." The circumstances in which the average may be ignored are set out in the former answer.) The sections of the Act quoted by the surveyor refer to the right of a taxpayer to appeal at the end of the year to have an assessment adjusted on the basis of the profits of the two preceding years and the current year instead of the three preceding years. Thus for ... the profits of ..., ..., and ... would be taken instead of those for ..., ..., and .... Our correspondent should prepare accounts for the three years ending ..., and then apply to the surveyor for a ... of his liability in accordance with the sections referred to. It is stated, however, that no one can claim an assessment, either before payment of the tax or afterwards by way of repayment, at any time within three years after the end of the year to which the tax relates. Forms of application for the determination can be obtained from the surveyor.

NOTES, LETTERS, Etc.

ALCOHOL AND THE MEDICAL PROFESSION.

DR. ARTHUR P. NEWMAN, writing from South Africa, objects to a letter from Mr. NORMAN HARRIS which was published in the BRITISH MEDICAL JOURNAL of January 2nd, in that it implied that properly there could be two opinions as regarding even the moderate use of alcohol. He pleads for a more tolerant attitude toward the question on the part of the profession, and says that everything approaching fanaticism is likely to defeat its own object and bring the profession into ridicule. While favouring total abstinence among children and absolute abstinence on the part of those to whom moderation proves difficult, he considers that the terms in which alcohol is condemned are much too sweeping. The single quality not positively bad which Mr. Barnett has positively admitted alcohol to possess, namely, that of exalting imagination, is in itself no small virtue. It is to imagination that much of the progress and ... of life is due and he asks whether an idea born of a brain ... for the moment from the bonds of pure reason may not eventually prove capable of conversion into solid and desirable fact.

STEEL MATTING

A SAMPLE of "oil-up steel matting" has been sent to us by the concessionaire of American Industries in Europe. The retail price is ... a square foot, and it is claimed that the material is cheap, non-combustible, resilient, and durable. Probably these claims are justified, and as it is easily handled it might prove useful in places such as laundries and kitchens in which it may be desired to keep the feet of workers of the floor. We do not, however, think that it would be a hygienic or desirable material to use for the purposes of ordinary doormats.

NURSES FOR PASSENGER BOATS

REAR-ADMIRAL SIR LIEUTENANT-COLONEL A. B. F. MYERS (Retired) writes, with reference to a letter published in the BRITISH MEDICAL JOURNAL of ..., to express the opinion that it is difficult to believe that no proper accommodation was provided. He expresses doubt whether the Board of Trade could not compel the ... having accommodation for servants. He also says that, during the ... years, it strikes him that the nurses in quest of ... rewards are, otherwise, objected to do any work other than ... made themselves comfortable for themselves. He, ... does not believe that there is any ... on board ship. The doctors and ... only to help the ... and ... in nursing ... would be ... a great help if rewards were received ... in this ... ladies are given a good deal of practical experience in ... guard, and an officer, friend of his, with fifteen years' ... ever had a nurse ... special ...

THE LATE ... CONSOLINO ROSS

DR. ROBERT S. ROSS, ... writes: Some time ago I ... a little book ... and "medical advisers" ... I ... to the profession now ... I write to ... that ... and use the word "office." ... Do you ... "office work" ... the words ... A ... Surely ... ...

A Clinical Lecture

ON THE

TREATMENT OF SEROUS EFFUSIONS

Delivered at the Liverpool Royal Infirmary.

By JAMES BARR, M.D., F.R.C.P.,

President of the Liverpool Medical Institution, Senior Physician Liverpool Royal Infirmary, and Lecturer on Clinical Medicine, Liverpool University.

GENTLEMEN, I wish to introduce to you, and through you to the medical profession, a new method or methods of treating serous effusions. On previous occasions I have lectured to you on pleurisy, pericarditis, ascites, and hydrocephalus, but to-day I wish to confine our attention to the marked evolution which has taken place in my views on the treatment of serous effusions since August 5th, 1902. On that day I was asked to see with Mr. Paul and Dr. Chisholm a lady on whom Mr. Paul had performed a short time previously an exploratory operation for abdominal cancer. He found a very large disseminated and highly vascular mass which bled freely on the slightest touch. He drained off a considerable quantity of ascitic fluid and then closed up the abdominal wound, which rapidly healed. I found her right pleura full of fluid, and Mr. Paul drew off 70 ounces of serum tinged with blood. Apparently the cancer had extended to the pleura. Five days after that she had to be tapped again, and 64 ounces were drawn off. Four days later she was aspirated again and about 56 ounces removed. Again, after four days, she was tapped, and over 60 ounces removed. The fluid accumulated so quickly that she had scarcely a day free from distress in breathing between the aspirations, and I saw that this state of matters could not continue long. I then began to think what we could do to lessen this secretion. All the fluid was blood-stained, and it was evident to me there were secondary cancerous deposits in the pleura, so therefore I could not expect to do much, but it seemed to me that if we could only make her life more comfortable a great point would be gained. After thinking the matter out as to what would be most likely to lessen the secretion I came to the conclusion to try an injection into the pleura of suprarenal extract, and I fixed upon Parke, Davis and Co.'s adrenalin chloride, 1 in 1,000, as being a sterile preparation. I empirically fixed one drachm as the amount to be injected. I mentioned the matter to Mr. Bickersteth, who had succeded to the surgical charge of the case in the absence of Mr. Paul, who had gone away on his holidays. Accordingly, after the fifth aspiration, which took place four days after the preceding one, Mr. Bickersteth injected one drachm of adrenalin chloride solution, 1 in 1,000; there was no further secretion, consequently no further tapping, and the old lady spent the remainder of her life in perfect comfort, so far as her chest was concerned. The relatives asked me why she did not receive the injection after the first aspiration, and I had to explain to them that this was an experiment, which, so far as I was aware, had never previously been performed. Since then I have used this injection after removal of the fluid in a fair number of cases of pleurisy with effusion, and invariably with success. The quantity injected in each case has been one drachm, and there has been no second tapping.

I soon extended this treatment to ascites. My first cases were those due to hepatic cirrhosis where the effusion is caused by a mechanical obstruction, and, of course, I did not expect any marked result, and I was not disappointed. However, the rapidity of secretion was diminished, and personally I never saw any ill effects from the injections of the adrenalin. The quantity employed varied from two to three drachms. I may mention here a case which I saw in consultation with a medical friend to whom I recommended this treatment. My friend told me that after the second injection there was slight collapse, and he did not continue its use. I have no doubt about the collapse, but I am very sceptical about it being due to the adrenalin; in fact, I should expect it by raising the blood pressure to prevent collapse in such cases. Collapse after tapping ascites is not at all an uncommon occurrence in some men's practice, and if you will read their writings you will find that they expect the patient to die a few weeks after the first tapping. This, in my opinion, arises from delaying the operation too long. I have always advocated early and frequent tapping. If you delay doing so until there is an intra-abdominal pressure of ½lb. or more to the square inch, and this extends over a superficial area of at least 100 square inches, can any one be surprised that after the removal of such pressure there should be a sudden accumulation of blood in the splanchnic area which might not only cause collapse but fatal syncope? Fortunately the regulative mechanism of Nature is better than that of the physician, and these catastrophes are not so common as might be expected. On several occasions I have injected three drachms of the adrenalin solution into the peritoneal sac with good effect on the circulation. This patient is at present under the direction of a London physician so I cannot say how he is getting on, but I expect he is progressing downwards.

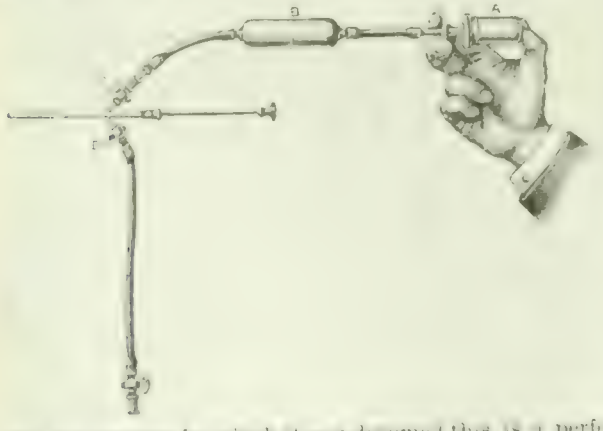
My next attack was on the pericardial sac, and this case is one of the three which I am going to show you to-day. This little fellow was admitted on June 8th, 1903, suffering from pericarditis with effusion, and on June 19th my then house physician, Dr. Lionel Picton, drew off 19 ounces of serous fluid from the pericardium. The fluid quickly reaccumulated, but I postponed as long as possible further tapping in hopes that the fluid might be absorbed. Our nurses are very enthusiastic over the adrenalin injections, and Dr. Hay told me that one of them was anxious to know why I had not injected the adrenalin into the boy, the fact of the matter was I had a certain amount of delicacy in tampering with the circulation of the heart itself. However, I determined that if further tapping was necessary I should inject the adrenalin. On the night of June 24th his condition became very critical and about 11 p.m. I went to the infirmary, accompanied by Dr. D. A. O'Sullivan, of London, who was staying with me, Dr. Hay and others. On siphoning off 20 ounces of fluid his pulse, which had been very weak, small, irregular and barely perceptible, became regular, full and strong. Then forty minims of the adrenalin solution were injected into the pericardium. I was feeling his pulse and noticed it disappear at the wrist, and the boy became of an ashy leaden hue and had a very anxious expression. The case was now very critical; it was evident that the quantity injected had been too great and the coronary arteries had been almost obliterated.

However, I never lose my head in cases of difficulty, so I immediately injected three minims of a 1 per cent. solution of nitro-glycerine and two minims of liq. atropinae sulphatis. The boy quickly rallied. If there were any further accumulation of fluid it was only very slight, and, at any rate, there was no further tapping. He next got an attack of left pleurisy, and on August 21st 10 ounces of serous fluid were drawn off and one drachm of adrenalin solution injected. There was no reaccumulation. The case was supposed to be tuberculous, there was an excessive number of lymphocytes in the pleural fluid but its injection into a guinea-pig gave a negative result. Sir W. Broadbent and Dr. Finlayson on going round my wards with me last July were much interested in this boy. He was discharged in fair condition on September 27th, 1903. On October 26th he was readmitted with his right pleura full of fluid, on October 29th 51 ounces of fluid were siphoned off, and one drachm of adrenalin solution injected. By this time I had advanced my treatment a step further. It had occurred to me that if in addition to stopping the secretion by adrenalin I substituted another fluid, say air, for that which was withdrawn I might lessen or prevent subsequent adhesions taking place. With this object in view I injected half a pint of sterilized air, and it was not all absorbed for at least ten days. I think the adhesions on this side are less than on the left. The case still appears to me to be tuberculous, and I am of opinion there is some tuberculous deposit in both lungs. However, I think you will agree that, so far as the treatment of the particular lesions is concerned, it has been wonderfully successful.

On November 14th, 1903, D. O., a joiner, aged 32, was sent to me by Dr. Jones Roberts, of Penygroes, with a diagnosis of tuberculous peritonitis and ascites. On November 17th I siphoned off 280 ounces of ascitic fluid, and I then introduced into the peritoneal cavity ʒij of adrenalin chloride solution and four pints of aseptic air. Thirteen days later 237 ounces were withdrawn, ʒij of adrenalin chloride and 2 pints of air injected. On December 11th 196 ounces of fluid were withdrawn, ʒiij of adrenalin chloride and 4 pints of of sterile air injected. Since then there has been no reaccumulation, and it required between three and four weeks for the complete absorption of the air. His abdomen has gradually shrunken, and the circumference now only measures 31 in. at the level of the umbilicus. At present you can feel friction fremitus in the abdomen, so there is no doubt some lymph glueing some coils of bowel together. On two occasions there has been haematuria, probably due to uric acid.

The third patient, M. C., aged 7, was admitted on January 11th. One pint of fluid was withdrawn from her pleura, 5j of adrenalin chloride and half a pint of sterile air injected. 65 per cent. of the cells in the fluid were lymphocytes, so it is highly probable the pleurisy was tuberculous. However, there has been no reaccumulation, and she is now quite well.

Having devised new methods of treatment it became necessary to invent new appliances for conveniently carrying them out. I entrusted my design to Messrs. E. Sumner and Co., and Mr. Overton, the senior partner, entered enthusiastically into the matter and gave me every assistance. I first got rid of the aspirator as the siphon is much more convenient, does not get out of order, and can be readily sterilized. I then designed a special trocar and cannula with a side arm, and a three way stopcock, this can be used as a siphon, a syringe or aspirator can be attached and injections of a drenalin and air can be given. Mr. Overton thought that men would forget how to turn the tap and it might be a little awkward if their memory failed when the cannula was in the chest, so he designed a trocar and cannula with two arms, one to be used for the siphon and the other for the injection of the adrenalin and the air. Each arm is provided with a stopcock which can be shut when not in use, and at the end of the siphon tube you will notice another stopcock so that the tubing can be kept full of water and the siphon at once started without any risk of introducing non-sterile air into the chest. In order to sterilize the air I first designed a very elaborate apparatus, which I now show you. It consists essentially of a large Woulfe's bottle with three openings at the top and an outlet at the bottom. Each of the four openings is guarded by a glass stopcock. One opening is in connexion with a water reservoir, the second is fitted with a large thistle head filled with cotton wool for filtering the air, and the third is an outlet for the aseptic air to be driven into the pleural or peritoneal cavity. The bottle and reservoir are filled with an aseptic fluid, then the liquid in the bottle is replaced by filtered air introduced through the thistle head, next the filtered air is driven out of the bottle into the pleura or peritoneal cavity by allowing the fluid to run in from the reservoir.



For the purpose for which it was designed this is a perfect apparatus, every part is absolutely air tight, and there is not the slightest risk of any contamination of the air, but I soon found that it was too cumbersome for carrying about, and therefore not likely to come into general use. Mr. Overton now drew my attention to a little instrument which German veterinary surgeons use for introducing aseptic air into the udders of cows. This consisted of a small metal receptacle filled with sterilized cotton wool. I was at first doubtful whether the air driven through this cotton wool under pressure could be properly filtered, but after some experiments I found that it answered my purpose very well. Accordingly, I had a small metallic pump fitted to this receptacle, and the pipe at the end of the discharge tube made to fit the cannula. The whole apparatus which I now show you, and of which I append an illustration, consists of a trocar and cannula with two arms and a stopcock tube, a syringe for injecting adrenalin and an apparatus for introducing filtered air. The whole can be boiled with the exception of the cotton wool filter, and it can be sterilized by heat as often as is thought necessary.

The whole Apparatus is supplied by Messrs. E. Sumner and Co., Lord Street, Liverpool.

I have asked my clinical assistant, Dr. John Hay, with whose acumen and accuracy you are well acquainted, to draw up a summary of these cases for publication, in the first and most important place to save myself the trouble; and in the second place to prevent any one saying that they have been coloured to suit my views.

Case I.

[illegible] aged [illegible], admitted on June 11th [illegible] suffering from pericard[illegible] with e[illegible]

History.

[illegible] was good, [illegible] to the exception [illegible] He had been a healthy boy [illegible] March, when he had an [illegible] This culminated in the pain [illegible] separated by dyspnœa. He [illegible] and about [illegible] to experience pain in the right side and front of the chest with some shortness [illegible]

[illegible]

[illegible] well-nourished boy [illegible] comfortably in bed [illegible] anæmia [illegible] Temperature [illegible] pericardium with considerable effusion, and also the presence of fluid in both pleural cavities, especially the left. The temperature varied a [illegible] The pulse-rate [illegible] about [illegible]

After History.

On June [illegible] as the patient seemed worse the pericardium was tapped and [illegible] of clear yellow fluid were withdrawn. The pericardial cavity [illegible] but the fluid rapidly reaccumulated till on the 24th it was necessary to [illegible] At this time [illegible] of dark straw-coloured fluid were removed, adrenalin chloride solution [illegible] and air afterwards injected into the pericardial sac.

[illegible] improvement noted.

July 7th. [illegible] the same general œdema of face, posterior aspect of trunk [illegible] and scrotum, with marked pallor.

July 11th. Belly much distended.

The progress of the case for the next month was rather uncertain, the [illegible] varied considerably, the temperature was very changeable, the pulse-rate oscillated between [illegible] and [illegible]. The liver increased in size and became palpable. About the beginning of August there was a recurrence of pyrexia and a loud coarse pleural friction was heard over the left upper border of the heart.

[illegible] of fluid appeared at the left base, and on August 21st the left pleural cavity was tapped, half a pint of clear yellow serum being removed. A drenalin chloride solution [illegible] was injected into the pleura. Before the tapping the limit of the cardiac dullness was [illegible] to the right of the middle line, which afterwards it was only [illegible] to the right of the middle line. After this the patient steadily improved. His temperature slowly came down to the [illegible], and the pulse-rate dropped to about [illegible]. He was [illegible] under observation in hospital for more than a month. Subsequent to the aspiration and during that time there were no signs of [illegible] of the fluid, either in the pericardium or the pleura. He did not, however, quite lose the cyanosis, and the liver remained enlarged. He was discharged on September 28th.

Re-[illegible]

He was [illegible] October 28th, [illegible], in a somewhat œdematous condition. [illegible] was demonstrated in the right pleural cavity, the [illegible] and [illegible]. Respirations [illegible] the pulse-rate [illegible] between [illegible] and [illegible]. There was [illegible] irregular [illegible]. There were [illegible] and [illegible] was [illegible]. [illegible] the right pleura was tapped and [illegible] ounces of fluid withdrawn, and [illegible] of adrenalin chloride solution injected and also [illegible] sterilized air. The latter was found to be only slowly absorbed.

[illegible] the pleural fluid was injected into a guinea-pig with negative results. The condition of the patient remained the same, but the [illegible] tended to become steadier, pulse-rate remaining [illegible].

[illegible] began to take sodium cinnamate, [illegible] per cent. [illegible] to be [illegible] doses. It was decided to [illegible] was [illegible] with [illegible] made to [illegible] cinnamate per cent. solution, a [illegible] dose was [illegible] has been done every four or five days since.

[illegible] showed a marked diminution [illegible] over the right side [illegible] the [illegible] the [illegible] to the [illegible] The heart is fixed in position. There is some [illegible] veins of the neck and the liver reaches down to the [illegible].

Case II.

[illegible], aged [illegible], was admitted on the 24th November [illegible] under the care [illegible].

History.

[illegible] history of [illegible] in the family. According [illegible] the patient [illegible] been a strong, [illegible] child [illegible] to the present [illegible] SIX [illegible] he developed [illegible] which [illegible] severe pressure. He [illegible] without any [illegible] shortly after [illegible] this time [illegible] of the chest [illegible] a marked feeling of [illegible] was noticed [illegible] a marked feeling of [illegible]. His weakness increased so much that work of any kind was

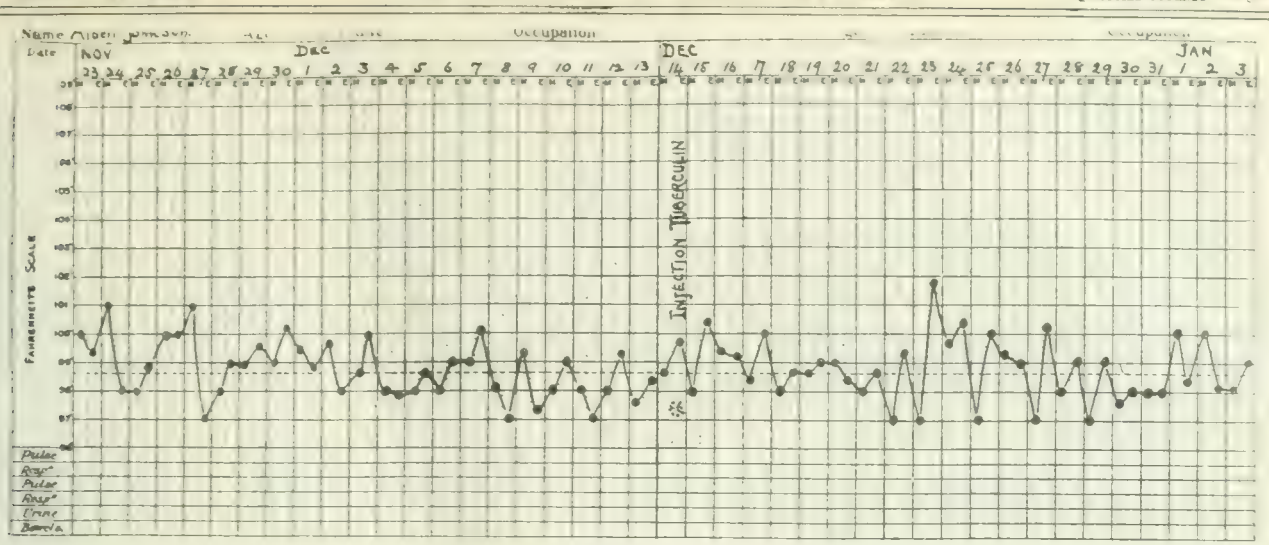


Chart 1.—Case I.

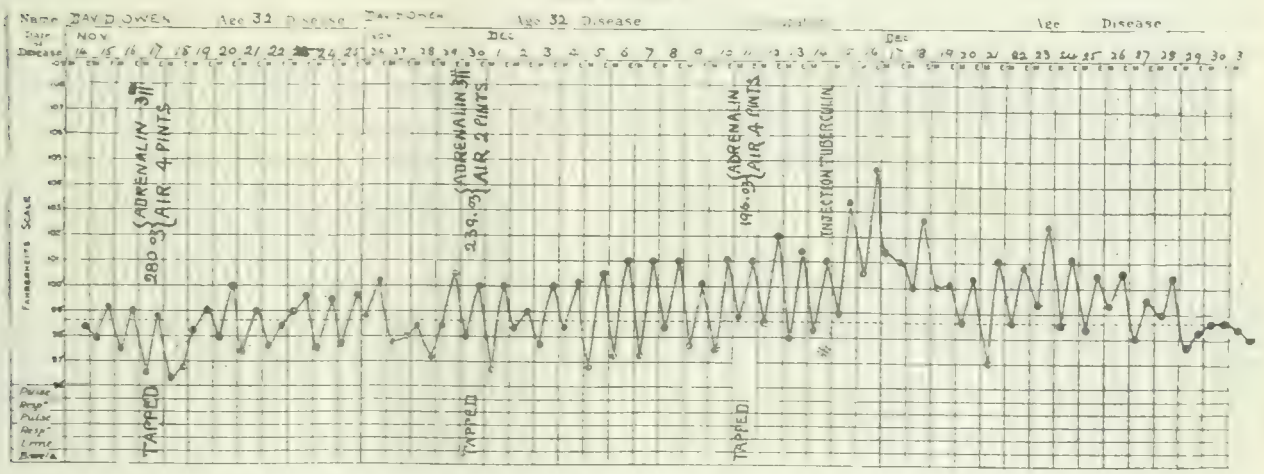


Chart II.—Case II.

impossible. Fluid collected in the abdomen and necessitated tapping three times, this was performed eight times, the longest period between any two consecutive tappings being two days. The usual interval being eight.

The tongue was clean, the teeth dirty and defective. The bowels regular. **The abdomen was uniformly distended and the superficial veins greatly enlarged. The flanks and the hypogastrium were dull on percussion, the dullness changing with position, and a definite fluid thrill was present.** Owing to the tension in the abdomen the liver was pushed up, its upper limit of dullness being in the fifth right intercostal space. There was no evidence of enlargement of the spleen. **Pulse regular in time and force, small volume, low tension. The heart was displaced upwards, not apparently enlarged, and its apex-beat and murmur were audible at the apex and pulmonary area.**

Examination of the chest showed the presence of a small amount of percussion dullness at the base of the left lung, probably pleurisy sicosse. The amount of urine passed in a day varied, the specific gravity being low, there was a deposit of urates. **Nervous system normal.**

On November 16th, 1903, 3ii of adrenalin chloride and 4 pints of air were injected into the abdominal cavity, [illegible] in solution. The abdomen was distended during the injection, and the patient complained of pain in the epigastrium. The pain and distension passed off in a few hours.

The next day, November 17th, the temperature rose to 101° F., and remained between 100° and 101° F. for three days, and then fell to normal. The urine was scanty, and contained albumin and casts. The bowels were relieved by a purgative. The patient complained of pain in the abdomen, and vomited. The pulse was rapid and weak. **Nervous system normal, and some peptone.**

Eleven days after the injection the temperature rose to 101° F., and remained between 100° and 101° F. for three days, and then fell to normal. The urine was scanty, and contained albumin and casts. The bowels were relieved by a purgative. The patient complained of pain in the abdomen, and vomited. The pulse was rapid and weak. **Nervous system normal, and some peptone.**

Since then up to the present date, January 24th, 1904, there has been no reaccumulation of fluid. It was decided in this case to apply the tuberculin test, the Berne Serum Institute tuberculin being used.

On December 16th, the fourth day after the last tapping, [illegible] gram of tuberculin was injected, this was followed by a typical reaction, lasting four days. The highest temperature reached being [illegible] F.

By the beginning of January the temperature, which previous to the injection of tuberculin had been irregular, sometimes reaching [illegible] F., settled down, and has since been either a little above or below [illegible] F. With this improvement in temperature the abdomen became softer and flatter, and all signs of fluid disappeared. He was ordered exercises to strengthen the abdominal walls and on January 11th was allowed up.

January 13th. A large quantity of blood is noted as present in the urine. Calcium chloride and adrenalin chloride were prescribed.

January 24th. Patient still improving. Blood has disappeared from the urine. On several occasions the blood was examined, the following were the results:—

November 16th, 1903, [illegible] erythrocytes 4,000,000, leucocytes 11,000, **mononuclear 20 per cent., polymorphonuclear 80 per cent.**

December 16th, [illegible] mononuclear [illegible] per cent., polymorphonuclear [illegible] per cent.

January 13th, [illegible] Mononuclear [illegible] per cent., **polymorphonuclear 18 per cent.**

March 16th, 1904. [illegible] reported himself at the infirmary to-day. He has gained 12 lbs. in weight since he left. In every respect he looks and **feels very well. I have at present a case of tuberculous peritonitis with ascites** [illegible] under similar treatment.

Case III.

M[illegible], admitted February 18th, 1904.

The [illegible] of the [illegible] is [illegible] that point to a probable duration of one week.

Case 2.—Aspiration.

She was a fairly well-nourished child, temperature subnormal, breathing comfortable. There was a loose crack with but little expansion on examining the chest there were myriad signs of fluid in the left pleural cavity with some displacement of the heart to the right, the deep cardiac dullness reaching as far to the right as the middle line. The heart was in other respects normal. Examination of the abdominal and nervous systems revealed nothing worthy of note.

Aspiration.

On January 6th the chest was aspirated and 1 pint of fluid withdrawn, following this 5 ij of adrenalin chloride solution 1 in 1000 was injected and half a pint of sterilized air pumped in. Immediately after the paracentesis the heart was found to be back in its normal site. The pleural fluid was clear and yellowish in colour, alkaline and loaded with albumen 3 per cent. Its specific gravity was 1015, and on centrifugalizing and examining the deposit 2 per cent. of the cells were seen to be mononuclear. Following the aspiration there was a transient elevation of temperature to 100·4° F., otherwise the temperature has been subnormal. The patient progressed favourably, and on January 22nd, the following note was made: "No reaccumulation of fluid, the precordium quite resonant, the whole of the left side of the chest is resonant."

I have purposely avoided giving you any statistics as to the number of times I have employed one or both of these procedures. I recently heard a gentleman say that in order to prove anything by statistics you should have 100,000 cases. I should have thought a smaller number would have sufficed. Personally, I would rather have 100 well-observed cases than 100,000. However, some people are difficult to satisfy, and I hope you will all be qualified and in good practices long before the cases have accumulated to 100 000. I think inductive reasoning is too slow a process for those who are moving in the van of progress, and I prefer to draw my deductions from well-ascertained facts. So far I am quite satisfied with my results, and I intend to continue the treatment. I have applied these methods to the pleural, pericardial, and peritoneal cavities, and recently, at my suggestion, my friend, Mr. Damer Harrisson, has injected adrenalin chloride solution into the lateral ventricle in a case of hydrops ventriculi. If our diagnosis of cerebellar tumour be correct the adrenalin is not likely to have any permanent effect. After removing several ounces of fluid from the ventricle he left in a small drainage tube, and that night the dressings were saturated twice with cerebro-spinal fluid; the following day he injected 10m of adrenalin chloride solution on each of two occasions, and on the day after 20m.

I am not going to-day to draw your attention to other methods of treatment, but I wish you clearly to understand that I do not consider these methods necessary or advisable in every case.

In a large number of cases of pleurisy and pericarditis the fluid gets gradually absorbed without any artificial means for its removal, and in certain cases of tuberculous peritonitis the surgeons have been fairly successful, but not nearly so successful as some of them would like us to believe, by free drainage. A considerable number of cases are hopeless, and there is not much to be gained by attempting the impossible. You recollect a short time ago in Ward 12 a small boy, suffering from tabes mesenterica, where the whole of the glands of the abdomen were one caseous mass. I got Mr. Paul to open his peritoneal cavity and drain away the ascitic fluid, in order to afford the boy some relief. Such was all that any of us expected or could hope for.

With ordinary care the treatment which I have recommended is easily carried out, and the instruments are fairly perfect, but I hope that every one who follows me will use all aseptic precautions. It would not be very pleasant to set up an empyema, a purulent pericarditis or a septic peritonitis. I think the risks of doing so are small, but still the possibility of such occurrences should be borne in mind. Many cases become purulent from the nature of the infection without any interference of any kind; and there is no reason why the fluid withdrawn should be examined for [illegible] In some cases you might blame the treatment for conditions which were in no way the result. If I found purulent or septic fluid I would inject neither adrenalin nor air, but have the cavity freely opened and drained. I have seen a few cases of [illegible] and empyema [illegible] aspiration [illegible] and washing out with hydrogen peroxide, but still I think the best treatment is that of free drainage. I have [illegible] in surgical [illegible] Of course there are [illegible] in the case of empyema [illegible] be meant Bülau's [illegible] Well, an objection to [illegible] is that I think it [illegible] too quickly, and I [illegible] that the central [illegible] not more active than that of the air. I can conceive of certain cases, such as those where there is an excessive number of leucocytes or apparently commencing formation of pus where oxygen in the nascent state, such as that in hydrogen peroxide, would be an advantage. But this treatment would not be without risk if a large quantity of peroxide were used as the fluid might be rapidly absorbed and the oxygen too quickly liberated in the blood. I have never known such a thing happen, but I think it well to give a word of warning as to its possibility.

The injection of air has another advantage which I have not yet mentioned. You know that in elderly people with rigid chest walls, if there be a large collection of fluid and the whole of it be withdrawn there is a great risk, from the sudden diminution of pressure, of collateral hyperaemia and oedema of the healthy lung which, in not a few cases, has led to rapid death. Now this risk can be entirely obviated by the injection of air, and part of the air may be injected, say, when half the liquid is drawn off. The air rises to the surface, and hence it is very easy to re-establish the siphon and draw off the remainder of the liquid, you can then inject the adrenalin and more air. I think it will be found sufficient to inject half as much air as the bulk of the liquid withdrawn. It is just as simple to calculate the bulk of air when you know the capacity of your pump as it is to measure the liquid which you have taken away. It is worth remembering that air expands $\frac{1}{490.9}$ for each degree of Fahrenheit which it is raised. So if you introduce air at 60° F., when it has warmed up to 100° F., it will have expanded $\frac{1}{10}$ of its bulk. When the miner had the 4 pints in his peritoneal cavity he was well blown up, but did not feel at all uncomfortable, and I suggested to him that he might play a tune on the big drum.

SOME POINTS IN THE TREATMENT OF HAEMOPTYSIS AT A SANATORIUM.

By J. PENN MILTON, M.R.C.S.Eng., L.R.C.P.Lond.,
Medical Superintendent, Devon and Cornwall Sanatorium, Budworthy, South Brent, Devon.

The following remarks are based on the experience that I have gained, first, from having been a patient at a well-known German sanatorium in the Black Forest, where I was cured; secondly, from having worked at different sanatoria since then; and thirdly, by treating patients making an "after-cure" in their own homes. It will be admitted that work in a sanatorium furnishes the best opportunities for studying the prodromata of haemoptysis, the relation of haemoptysis to the progress of the disease and to the idiosyncracies of the patient, the natural methods by which the bleeding is arrested, and, finally, the effects of treatment.

Haemoptysis may be classified as follows:

Class 1. Occurring early in the disease—that is, as the first initial sign of pulmonary tuberculosis and before consolidation can be demonstrated by physical signs.

The patient may be robust and appear in good general health when without premonition haemoptysis takes place. There may be no history of either trauma or exertion, though sometimes it follows on violent exercise—that is, tennis, football, etc. This form of haemoptysis is probably due to congestion of the vessels near the tubercles, the blood escaping from the pulmonary capillaries by diapedesis.

The treatment depends on the amount of blood lost. In these early cases my experience has been that even a large haemoptysis does not endanger life to any serious extent. For cases not presenting the contraindications mentioned below, exercise most probably is not amiss; such exercise, however, must be carefully graduated by the medical man, it should be short of fatigue and breathlessness, the pace a crawl, and the walk sheltered. The view concerning the [illegible] of exercise that I hold in haemoptysis is that the [illegible] cutaneous and otherwise, in all parts of the body, more especially those of the limbs, become dilated, and take a certain quantity of blood away from the lungs; this amply compensates for the extra amount of blood that, induced by exercise, passes through the lungs. Practical experience will bear this out but this treatment must be applied individually and not generally. The method of expectorating cases where haemoptysis is present is not originality. I heard it first commended by a great German and with [illegible] authority at whose feet [illegible] I was a patient.

Haemoptysis in early cases rarely causes [illegible] patients

come to a sanatorium, but there are those with consolidation who have it whilst at a sanatorium. With these latter my treatment is to employ exercise under the conditions mentioned above, and to keep them on the ordinary diet. I have had no bad results, nor any occasion to doubt the wisdom of my treatment. The patient certainly prefers it to being kept in bed until all bleeding ceases, being emptied by saline purges, and put on a milk diet. These early cases commencing with haemoptysis as a rule do well, the disease being detected from the start, so enabling the patient to undergo treatment at once. The old experience was that cases of phthisis commencing with a considerable haemoptysis frequently ran an acute course. There may be exceptions, but my experience has been quite the opposite, and all such patients that I have had under sanatorium treatment from the outset have invariably done well and become cured.

The contraindications for exercise are:

1. If fever is present previous to or after the attack, that is, if the rectal temperature is 37° C. or over on awaking in the morning, and 38° C. and over at night. Then rest in bed should be absolute with ordinary sanatorium diet, the amount of which is regulated by the emaciation or not of the patient, the more emaciated or the higher the fever the more food is required.

2. If the amount of blood lost is large and the patient is much weakened by the loss. This requires rest in bed and as liberal a diet as possible, regulated as in No. 1, with the extra consideration that he has lost a large amount of blood. I have never noticed that a full reasonable diet does any harm in cases of this description.

3. If the patient is in a highly nervous condition, which the medical man is unable to quiet.

In these cases rest on a lounge chair in a sheltered spot out-of-doors or in the patient's bedroom is necessary. Sometimes ¼ gr. of morphine in tabloid form placed beneath the tongue will quiet him. The personality of the doctor, however, does as much real good as anything. Exercise may be commenced at the doctor's discretion, and the ordinary diet adhered to. In these early cases of haemoptysis medicines, beyond a saline purge, are usually not necessary.

Class II.—When the disease has been present for some time and the physical signs reveal a decided extent of consolidation.

The patient in these cases is in failing health, and as a rule is subject to a bronchial winter cough, with expectoration, disappearing generally in the summer, but now continuing, combined with general lassitude, loss of appetite, anaemia, loss of weight, and no inclination for work, which, however, the patient continues to perform. These symptoms may not be urgent, and he fails to recognize the seriousness of his condition until blood in the expectoration is noticed; the bleeding as a rule is slight, and is most probably due to tuberculous ulceration of the bronchial mucous membrane. The presence of pulmonary tuberculosis is detected usually in the second stage and tubercle bacilli in the sputum are found.

The treatment should be directed to strengthening the lowered vitality and to improving nutrition by sanatorium treatment and forced dieting. Exercise, short of fatigue, the distance being regulated by the temperature. The haemoptysis as a rule requires no special treatment. If fever is present it must be treated by rest in bed if high, and by rest on a *chaise longue* in the bedroom if slight.

Class III.—Late in the disease, when cavitation is present.

Haemoptysis in this class is of more serious import, attended, as it often is, with grave risks to life, the patient in many cases rapidly passing beyond the reach of treatment. The haemorrhage proceeds from a branch or branches of the pulmonary artery, and is due either to (*a*) a ruptured pulmonary aneurysm—that is, an artery either in the wall of a cavity or stretching across it usually becomes obliterated; if not, being unsupported, an aneurysm results, and any exertion, such as by running or by lifting heavy weights—that is, a gladstone bag, etc.—causes it to rupture; or (*b*) by softening of the coats of an artery by ulceration, which happens especially in the caseous forms of the disease. The amount of blood lost is in proportion to the size of the vessel ruptured. The haemoptysis may came on suddenly and in large quantities, or slight blood spitting may occur two or three days previous to the attack. (If due regard is paid in suspected cases to this latter symptom, by ordering absolute rest, the greater evil may be prevented.) Where the onset is sudden, the quantity lost may be great. It is said that Nature may provide the best treatment by causing fainting, which allows a thrombus to form of sufficient strength to stop the bleeding. It is questionable if this, however, really occurs.

Treatment.—The object to be attained is to favour the formation of a thrombus, which is gained by (1) lessening the frequency of the heart beats; (2) resting the lungs as much as possible; (3) lowering the blood pressure. The first two can be effected by seclusion and absolute rest in bed, from which the pillows can be removed, and a hot-water bottle placed at the feet, for which the patient is usually grateful. He should not talk or make any unnecessary movement, and be fed and looked after by an attendant until all danger is passed. Morphine is the drug *par excellence*, and may be given in doses of gr. ¼ or gr. ½. The tabloid may be placed beneath the tongue, or if a quicker action be desired, it may be given hypodermically. The number of administrations must be left to the discretion of the doctor. This drug reduces the anxiety of the patient, and therefore quiets the heart beats, lessens the irritability of the respiratory centre, and allays the cough. The third object can be obtained by the administration of saline purgatives, ensuring free purgation, and so lowering the general and pulmonary blood pressure. This must also be left to the discretion of the doctor, whose judgement will be guided by the condition of the patient. Ice to suck may be given, and, as one author remarks, if it does nothing else, it produces in the mind of the patient a feeling that something is being done for his relief, and tends to diminish nervous excitement. The utility of an icebag on the sternum in this class of case, or anywhere else in contact with the chest wall, is doubtful. The diet at first should be light and unstimulating, consisting of raw eggs, milk, raw beef sandwiches, etc.; this should be gradually increased to the ordinary diet. Alcohol, unless there is collapse or high fever, should not be given. It is most important to return to a full and nourishing diet as soon as possible, especially in those cases of acute active disease, where it is so necessary for the patient to put on weight or not to lose it, as the case may be. With a haemorrhage, however, bringing a patient close to dissolution everything must be sacrificed to stop the bleeding and save life, and abundant feeding, which can be carried on in some cases, must be abandoned. If the blood clots cause obstruction in the bronchial tubes, with cyanosis and dyspnoea, the morphine, if still being administered, must be stopped, and Nature will usually remedy matters by encouraging the expulsion of the obstruction, for when the blood clots are allowed to remain they often become infected by micro-organisms, producing a septic condition with broncho-pneumonia (which complication is applicable to all cases of haemoptysis). One does not expect this, however, at a sanatorium, where the atmosphere is (or ought to be) pure and free from all such micro-organisms. The patient must remain in bed in such cases until the sputum has been free from blood for at least a week; this, however, is decided by his temperature and general condition. The personality of the doctor, if strong, has a tonic effect on the patient, especially in bad cases where it is absolutely necessary that the latter should have every reassurance of his recovery.

Class IV.—In any stage in plethoric subjects.

There is a class of patient, often with arrested disease, in whom a liberal diet has induced plethora. Usually he is very fit and able to take a lot of exercise. Owing to his plethoric condition an occasional attack of haemoptysis occurs, varying, but as a rule never great in quantity. The lung surrounding the part diseased might be described as being in an engorged condition, the blood escaping, it is to be presumed, by diapedesis from the weakest spot. In these cases the bleeding is Nature's method of relieving blood pressure, and should not be interfered with. These cases often complain of symptoms similar to those caused by an excess of uric acid for two or three days previous to an attack, that is, flushings of face, singing in ears, and fullness in the head, etc.

The treatment indicated here is: (1) To lower the blood pressure by administering full doses of magnesium sulphate or other saline purgative, followed by a seidlitz powder, or some Apenta water next morning on awaking. (2) A full amount of exercise, provided always that there is no contra-indication, such as fever. (3) A modified diet, in which vegetables, especially green ones, play a large part, a minimum amount of meat, and alcohol should be forbidden.

When the symptoms described above first manifest themselves 30 gr. of sodium salicylate, combined with an aperient, often gives relief, and prevents the haemoptysis. To give an example. I once had a patient who had a small cavity at the

right apex, and who was very plethoric in spite of careful dieting and plenty of exercise. Immediately on the presence of any such symptoms as referred to above I resorted to the treatment described, and no haemoptysis resulted, although previously without such treatment an attack resulted. Exceptions are met with, and the following case is one in point:

The patient, a man, who on arrival at this sanatorium weighed 15 st. 3 lb. (11 st. above his normal weight), and was very flabby, with a large patch of solid pleura with some disease in the adjoining lung at the right base, slight consolidation at both apices, and tuberculous laryngitis, has had, after about two months of sanatorium life, four attacks of haemoptysis, namely, on October 7th and 21st, and on November 6th and 21st. The attacks always come on at the same time after the mid-day dinner the quantity of blood lost has always been the same, just over 1 pint. There have been no premonitory symptoms as already mentioned, beyond a slight uneasiness felt in the chest. On the last occasion (November 21st), however, flushings and slight uneasiness were experienced, which the patient did not communicate to me until afterwards, so I was unable to follow my usual course in this case. The advent of the above symptoms, together with the regular periods of the attacks, tend to show that they are in the main determined by the blood pressure, which evidently rises to a certain point with resulting haemoptysis and then falls. My treatment all along in this case has been to reduce the weight, which is now 14 st. 6 lb.; it will be seen from this that he has had a moderate diet, and the amount, one would think, not enough to induce plethora. The patient, however, has a temperature which unfortunately prevents his taking only a small amount of exercise, consequently one of the most important details in the treatment of plethora, namely, exercise, is unable to be followed.

It must be borne in mind that the treatment described is not applicable to every case, but each one must be treated individually. For instance, where cavitation is present, and where it is suspected that the bleeding may come from the leaking of a large or the rupture of a small pulmonary aneurysm, the treatment must be modified accordingly, by lowering blood pressure and rest, with very careful exercise if given at all. In these cases experience is the main thing to rely on, together with a perfect knowledge of the case.

Wind exposure is always liable to bring on an attack of haemoptysis, and, therefore, should be avoided by having the sanatorium in a sheltered country.

TWO CASES OF LUNG DISEASE TREATED WITH THE EMANATIONS FROM THORIUM NITRATE.

By GORDON SHARP, M.D. Edin.,
Leeds.

Acting on the suggestion of Mr. Frederick Soddy, M.A., communicated to the British Medical Journal, I have been employing during the past few weeks the emanations from the following solution in the treatment of two cases of diseases of the lungs, details of which will be given presently.

The outlet tube is drawn in the shape of a mouthpiece, by means of which the inhalations can be made. The arrangement will be readily understood by a study of the accompanying figure.

Charging the Bottle.

The bottle has a capacity of 500 c.cm., or, roughly, 17.598 oz., and in this quantity of water are dissolved 100 grains of thorium nitrate, or as near as possible ½ oz. When solution has been effected drop by drop of dilute ammonia is added to neutralize any excess of nitric acid that may be contained in the thorium. As soon as the first cloud of white thorium hydroxide is thrown down no more ammonia is to be added. Later on small quantities of thorium fall to the bottom of the bottle, but this is not important. The solution having been so prepared, more water is added to fill the bottle, in order that when the stopper with the inlet and outlet tubes is in position the "dead air" space above the liquid may be as small as possible. Having stood for twenty-four hours so that gaseous emanations may have time to collect, the solution is ready for use. Two patients may inhale the emanations continuously for one hour a day each at an interval of eleven hours that is to say, one patient could start at 9 in the morning and inhale for one hour, while the other could inhale for one hour at 9 in the evening. By observing this rule time is given for the emanations to recollect after each exhaustion.

Mr. Soddy says a small tube of pounded caustic potash may be inserted in the mouthpiece tube to absorb moisture and to neutralize the possible presence of nitric acid vapour. I have not found any need for such a tube. In the inlet tube I place a few pieces of dry thorium nitrate. This may act as an additional help in preventing the escape of emanations when the apparatus is not in use. When the bottle is not in use the inlet and outlet tubes should be closed by glass taps or glass stoppers to prevent leakage of the accumulating gaseous contents. In my present apparatus I have no such arrangement, so I have to close the inlet tube with a strip of glass thickly smeared with white vaseline, and the narrow opening of the outlet tube I cover up with the same unguent. Carbonaceous or easily oxidizable matter must not be employed as stoppers.

For further particulars Mr. Soddy's article should be studied.

Case 1.—[illegible]

[illegible] aged 2, had suffered from a "neglected cold" [illegible] weeks previous to my seeing him on November 4th, 1903. He complained of shortness of breath, persistent cough with expectoration of mucoid frothy material, nocturnal sweatiness, and he said he had lost 9 to 10 lb. in weight within two months. Examination revealed [illegible] in the right axilla behind and over the lower lobe an area of [illegible] covered patches of dulness, and soft tubular breathing. There was also [illegible] trouble and muco-purulent sputum. The [illegible] was a case of [illegible] and had his sputum examined [illegible] bacilli. He was put on [illegible] treatment. He also took [illegible] and much exercise [illegible] lying out of doors as much as possible. The weather was [illegible] and was carried out. At the end of six weeks he showed [illegible] improvement and the [illegible] had also improved [illegible] of exercise [illegible] the [illegible] cough. I [illegible] [illegible] [illegible]

by thorium, the breathing exercises must be good. The gas-washing bottle costs 10s. 6d. and the 3½ oz. of thorium nitrate 12s. 3d., making a total of 22s. 9d.

REFERENCE.

[1] A Method of Applying the Rays from Radium and Thorium to the Treatment of Consumption. BRITISH MEDICAL JOURNAL July 18th, 1903, p. 197.

THE THERAPEUTICS OF SEA VOYAGES.*

By MARTYN WESTCOTT, L.R.C.P.Lond., M.R.C.S.Eng.

[ABSTRACT.]

THERE is so little available literature on this subject, and it is so useful for stay-at-home medical men to know something of the nature of sea-voyaging from a therapeutic standpoint that I make no apology for introducing the subject on this occasion.

Yearly there are sent abroad on sea voyages a large number of invalids who have no chance of receiving benefit therefrom. The main idea is that a change of air is probably the one thing likely to do good, and that brings me to the first point, namely, that a perfect all-the-year-round climate is not to be found in the world. If bracing and dry, there will be much wind and dust; if equable it will necessarily be moist and to some extent enervating: there is no known climate which is dry, windless, invigorating and equable. A sea voyage gives one a good chance of a long period of equable weather, but in a steamer making for any particular place, and proceeding northwards or southwards, there is too much rapidity in the changes for most invalids. The voyage to New Zealand, one of the two commonly prescribed for febrile consumptives, running out via Cape Town and back via Cape Horn, is by no means always a desirable journey, whether on first-class liner steamers or specially-fitted sailing vessels. From my own notes of weather experienced during a round voyage to New Zealand and back, from April to September, I may summarize that the first fortnight was cold, windy, and wet, and the third week was spent in muggy heat in the tropics; that the weather then grew daily colder and less agreeable, while from April 29th to May 6th the average mid-day deck temperature was as low as 40° F. On May 19th we arrived in New Zealand in autumn time, and for a week in Port Chalmers the weather was as variable as it is possible for weather to be in a temperate zone. At Lyttelton in June the weather strongly resembled that of an English November. Homewards, between the Colony and Cape Horn were days of bitter cold, tempests, and heavy rains. Five days later we were in almost insufferably hot weather, and two consumptives on board became highly febrile and contracted troublesome coughs.

Now, on both steamer and sailing vessel changes of climate must, of course, be encountered; but if on the latter they are more gradual, it is also true that, once in the tropical doldrums—a most unfavourable place for the phthisical and debilitated—a sailer may have to wait even weeks for a favouring wind. Physiologically speaking, on a sea voyage there is plenty of open sunshine and light, and the air is uncontaminated by organic particles. Passive motion takes the place of exercise for the feeble; tissue change hurries along, and where an increase of appetite follows all may go well; but many invalids find ship food very unappetizing.

As a tonic, a restorative, and a sedative for worn-out or brain-fagged people a sea voyage may do wonders. For consumptives with actual slight mischief in progress or in a latent state a voyage to South Africa and back from January to April will often prove an excellent measure; but to send a phthisical person really febrile and subject to pleurisy on a long sea voyage by himself is often a piece of ignorant cruelty. Nor will a voyage that includes much of the tropics be suitable for nervous diseases. The intense heat and damp are too enervating. Cases of angina pectoris, exophthalmic goitre, hypochondriasis, chronic bronchitis (unless sicca) should never be sent to sea.

The second point is the choice of a ship. For the majority, a first-class steamer in a first-class line is too expensive; though on the steamers of some of the second-rate lines the cabins are larger and the feeding not at all unsuitable, moreover the attendance is often better in the latter. But no steamers carry certificated nurses regularly, if at all; the surgeon meets with the greatest difficulty in getting invalids supplied with medical comforts and extra attention, and there is a feeling that board-ship is no place for the sick. Again, there is seldom adequate provision for cold and draughty weather; cabins are small, inconvenient, and must often be shared with some one else; and in bad weather the passengers may be "battened down between decks" in a place which rapidly grows steamy and unwholesome, and has little air or light. Three consecutive days of this weather will produce a most depressed effect on most invalids, the "racing" of the screw the continual jerky motion of the entire vessel, and the nervous dread of disaster often act disastrously on people who are out of health. *Per contra*, the duration of the voyage is definite, and the course is prearranged in a steamer voyage; the bill of fare is plentiful, so is drinking-water, and there are generally entertainments on board; moreover, there is nearly always a qualified medical man.

The contrary conditions frequently obtain on sailing ships, except those fitted up solely as invalid passenger ships. But the lack of an ice chamber is generally much felt, and handicaps the cook in his efforts to provide dainty fare. In favour of sailing ships, I may remark that the cabins are commonly well-ventilated and roomy; there is no smell or throb of machinery, no cramping of space on deck, and life, if monotonous, is peaceful and undisturbed. Where time is no object, in cases of neurasthenia and brain fag, such a voyage may well be prescribed. The treatment of sea-sickness, which is so greatly dreaded, and over-dreaded, should in my opinion be begun before embarking. Four or five days before sailing I like to bring patients under a course of sedatives such as chlorobrom or ammonium bromide, at the same time attending thoroughly to the action of the bowels, and endeavouring to remedy any dyspeptic condition. Beginning with a brisk purge of calomel and hyoscyamus, or colocynth, I prescribe gentian and soda, or bismuth and hydrocyanic acid, according to the case, and then 10 gr. or 15 gr. of ammonium bromide and a small dose of hydrobromic acid three times a day regularly until the second day out. An individual with bad circulation and flabby heart will require diffusible stimulants in addition, and either sedative or stimulant may be increased as the critical time approaches, according to the necessities of the case. A great deal may be done by judicious counsel and encouragement from the medical man attending the case, especially if he be skilled in the art of hypnotic suggestion. I have frequently improved bad cases of *mal-de-mer* by mere hypnotic suggestion as recommended by Lloyd Tuckey and others. In severe cases, whether due to cerebral or gastric disturbance, I have been well satisfied with the results of a blister, as large as the palm of one's hand, placed over the epigastrium. Of course there is no royal road to cure in all cases of *mal-de-mer*; some seem to be due even to such a trifling matter as slight astigmatism or ordinary errors of refraction, and the wearing of suitably prescribed spectacles on deck gives the relief required.

As advisers in the home circle, we doctors should remember that in sending a patient on a voyage we are isolating him from his home, and from any kind of home, and from the everyday world altogether; and that he will live among a set of more or less unsympathetic and careless strangers. We should reflect what it would mean if he were to die on board, or if it became essential that he should land somewhere abroad, far from friends and country, and remain there for a time. To some people mere home-sickness makes a voyage one prolonged discomfort. I would urge on family doctors the desirability of sending a communication to the ship's doctor in every instance. This is seldom done, and I have often been confronted, as the vessel leaves the land in the distance, with serious cases of whose technical medical history I have been told nothing. It is well-nigh impossible to make a satisfactory physical examination of a patient in the cabin of a steamer in motion. Again, the dispensary of a ship is not too well stocked, and if the doctor has no knowledge of the drugs that have been already exhibited, the patient may suffer in consequence. Only on my last voyage I had to treat a case of violently spasmodic asthma, and neither nitre nor stramonium were to be found in the medicine chest; and there was a quite inadequate supply of potassium iodide.

The routine of life on board ship has been too often described to need recapitulation here. Patients should be warned against over-eating (and this warning is by no means unnecessary, for little exercise is taken); also against sleeping on deck, especially in the tropical nights, which are very uncertain in temperature.

* A paper read before the St. Pancras Division of the Metropolitan Counties Branch of the British Medical Association.

With regard to clothing, thin flannel is the coolest wear in the hottest tropical weather, especially in a damp heat, and cotton drill and satin jean, smart though they look, should be avoided. I am strongly in disfavour of alcoholic drinks at sea, except, perhaps, in cases of atonic dyspepsia. In malarial regions alcohol is especially to be avoided. No laundry work can be done on board, so an ample supply of underclothing must needs be taken. Flannel or flannelette pyjamas should be worn at night throughout the voyage.

In conclusion, there are certain types of invalid who do no good at sea—dyspeptics, who require a specialized diet; aged, irritable, or nearly bedridden people; and those with chronic rheumatoid arthritis of the smaller joints. There are no facilities for the due treatment of surgical diseases requiring frequent antiseptic dressing, for there is no really adequate hospital accommodation on any ocean liner, however large, as far as I am aware. The only chance for an inebriate to improve at sea is on a sailing ship commissioned on teetotal principles, and such are, indeed, rarely to be found. On the whole, there are few cases of invalidism for which a sea voyage is a suitable remedial measure.

SOME GENERAL RESULTS OF AFFECTIONS OF THE NOSE AND NASO-PHARYNX.

By W. S. SYME, M.D.,
Assistant Surgeon, Glasgow Ear Hospital

The effects of obstruction to nasal respiration upon contiguous structures is widely recognized, and the local changes thus caused are very marked when the obstruction occurs in early life. As a result of adenoid vegetations, for instance, we get the well known changes in the shape of the superior maxillae and the changes in the tympanic cavities, catarrhal and suppurative, giving rise to deafness of a greater or less degree. In adults, too, the effects locally, though not so marked, are obvious enough in many cases: changes in the external appearance of the nose, excoriations of the upper lip from the discharge, dull aching or even sharp neuralgic pains in the head, changes in the pharynx, larynx, middle ear, and so on. In fact it is clear that both from the obstruction itself and from the nasal discharge which may be present as its cause or result some alteration must take place in the surrounding structures.

It is not, however, to the local results that I wish now to direct attention. The effects of nasal obstruction, and especially of nasal discharge, upon the system generally, and the position of the latter as a possible or contributory cause of certain conditions of what we may speak of in a general way as ill-health, have received until recently little attention. No doubt this is due to the lack of knowledge which prevailed to within the past very few years concerning all affections of the nose. However, it is safe to assert that in no branch of medicine or surgery have such strides been made as in the diagnosis and treatment of diseases of the nose and its accessory cavities. The danger of this rapid improvement is that the rhinologist is apt, even more than might be the case with the more slowly developing special branches, to see things through glasses tinted by his speciality, and reduce to terms of nasal affections as many diseased conditions as can by any means be gathered in. On the other hand, to avoid this danger he may take up the opposite position, and, by being hypercritical and too conservative, miss the connexion existing between some nasal affections and those of a more general character.

The accessory air spaces of the nose, situated as they are in close proximity to the contents of the cranium, are worthy of all the interest and study which can be expended on them; and when we remember the very thin partitions which divide three of them, the frontal and sphenoidal sinuses and the ethmoidal air cells, from the dura mater, it is evident what serious results may arise from disease of their lining membranes and walls. Already during the few years in which the rhinologist has directed attention to these sinuses cases have been described as diagnosed during life and found *post mortem*, in which suppuration of the brain and its membranes has been found either as a direct extension from these sinuses or indirectly through venous and lymphatic channels. When one remembers the number of cases in which disease of the mastoid antrum has resulted in cranial affections, one is driven to the belief that as our knowledge of the nasal cavities and their diseased states improves we shall be able more frequently to trace the connexion between cranial affections and nasal disease, and also, remembering this relationship, to diagnose and treat certain inflammatory and suppurative conditions of the meninges and brain which hitherto with our limited knowledge have been either overlooked or, when suspected, have been assigned a wrong cause.

However, at present I am more concerned with the general results of the more common affections of the nose and naso-pharynx. It has always appeared to me that the mere mechanical interference with nasal respiration caused by adenoid vegetations in the naso-pharynx is not sufficient to account for the general symptoms which frequently obtain in this condition. And yet that is the general teaching. Still it has no doubt happened to others as it has to me to see many cases of undoubted adenoids with marked nasal obstruction in which the only complaints were mouth-breathing, snoring during sleep, and, it may be, some degree of deafness—no general symptoms whatever.

A week or two ago I saw at the Glasgow Ear Hospital a very good example of this. The child, a little girl of 8 years, was brought by her mother because of a certain amount of deafness. Questioning the mother elicited the information that she continually went about with her mouth open, and that she snored at night; otherwise the child was most robust, well grown, plump, very bright and mentally quick, with well-shaped chest, and a good appetite. In fact those who saw her remarked on her very healthy appearance. Further examination, however, showed that there was decided interference with nasal respiration, and by the finger a large mass of adenoid growth was felt. Later this was removed, and the deafness and difficulty of nasal breathing disappeared. In my experience, and no doubt in that of many others, this is by no means an isolated case. We are constantly seeing children suffering from nasal obstruction due to adenoid vegetations in the naso-pharynx in whom the commonly taught general symptoms of mental obtuseness, or, as it is called, aprosexia, delayed growth, pigeon chest, and general ill-health are absent; while, *per contra*, frequently in those cases in which these symptoms are present we find the adenoid growth very small in amount, and causing little, if any, interference with respiration through the nose.

Take, for instance, the case of a little girl of 10, whom I lately saw. Her medical attendant sent her to me suffering from deafness and delay of mental development approaching imbecility. On examining her I found that her tonsils were somewhat, though not greatly, enlarged, and that she had only a moderate increase of adenoid tissue in the naso-pharynx. Nasal breathing was obstructed to only a slight extent. Yet after operation she improved wonderfully till now her mother says, "You would not know she is the same girl, she is so bright and cheerful;" even in two months others notice a marked change in her mental condition. It is a common example. Seemingly so little cause for the marked general symptoms, and yet such decided improvement after its removal.

That restoration of nasal breathing is not the sole cause of the improvement following removal of these growths is proved by the fact that in many cases mouth breathing persists for a long time after the operation, and yet both mental and physical improvement takes place. It is unnecessary to multiply instances bearing this out. We are constantly being told, "He is very much better, but he still breathes through his mouth and sleeps with his mouth open." He may no longer snore, as the levator palati may have regained their tone and there is no longer any obstruction to their action.

This being so, I have inquired what is the chief cause of the general results of adenoids, and the conclusion pressed upon me is that the secretion, which occurs in greater or less amount in this condition, must be given a prominent place. This varies much both in regard to its amount and to its character. It may be very small in amount or most excessive, and in character we find any gradation from ordinary mucus, odourless and even non-irritating, to very thick and bad-smelling muco-purulent discharge. In one little girl whom I saw frequently it was very abundant and very offensive to the smell, and in her the general physical symptoms were the most marked I have seen. Every morning she was sick, and vomited a large quantity of malodorous, thick muco-purulent material, the night's collection from the vegetations in the naso-pharynx. She sweated profusely during sleep, was very anæmic, had typical pigeon chest, poor appetite, and altogether her general state of health and physical development was such as to suggest tubercle, but though she was carefully examined with this in view no pulmonary or

other tuberculous condition could be detected. Her parents objecting to an operation, a nasal douche was prescribed, and some improvement resulted; but later, consent having been obtained, the adenoid vegetations were removed, and this was quickly followed by decided improvement in every respect. No doubt this was an exceptionally bad case, but it is certainly common, on examining the throats of children suffering from this affection, to see copious muco-purulent discharge passing over the pharynx from the post-nasal region.

It is reasonable to suppose that this entering the stomach must tend to destroy the appetite and to derange the digestion, and in proportion to the septic nature of the discharge and the amount absorbed, to set up those conditions of ill-health which are got as a result of chronic septic poisoning. We have seen in the case quoted to what a marked degree this may occur. The secretion from the adenoids is, in many cases, reinforced by that from the concomitant rhinitis, which is often found in this condition. Indeed, even apart from this condition, rhinitis is very common in children, and the purulent change which takes place in the secretion from its stagnation, due to the inability of the child to expel it, is probably the chief cause of post-nasal vegetations.

Passing from this cause of nasal obstruction in children, let us look at the commonest cause of this same condition in adults—turbinal hypertrophy, due to chronic hypertrophic rhinitis. From the nature of things, the general results are not so usual or marked as in children. The child is naturally more liable to physical and mental developmental defects and changes. Still, there are, in many cases, other general symptoms to be found following on nasal obstruction in adults—lassitude, depression of spirits, deranged digestion, with its results, irregularity of the bowels, loss of flesh, and so on.

William Hunter has pointed out the importance of decayed teeth and other septic conditions of the mouth as the cause of many deranged states of the digestive function, and it has been recognized by many writers on diseases of the nose that chronic suppuration of any of the accessory sinuses causes in many instances deterioration of the general health both from direct septic absorption from the nasal passages and cavities, and from ingestion of the purulent material into and subsequent absorption from the alimentary tract. The constant disagreeable smell, too, which is present tends to produce loss of appetite and depression of spirits to a considerable degree in some people. In these cases, as Tilley has pointed out, treatment of the sinus disease is followed immediately by decided improvement in the general state of health. In such conditions there is no difficulty in accepting the relationship between the sinus disease and the ill-health, and it is no disproof of this that some people suffer from suppuration of one or more of the accessory nasal cavities, and yet seem little the worse, for it is well recognized that the results of septic absorption from any chronic purulent focus vary in different individuals. It may be that those cases of nasal suppuration, in which digestive disorders are got, have previously had their digestive power weakened from some other more generally recognized cause, and the amount of hydrochloric acid diminished so that it is now incapable of counteracting the effect of the ingested purulent material. No doubt in most cases there is more than one cause.

In ozaena, too, whether due to sinus disease, which I have not satisfied myself is generally the case, or to other cause, I am inclined, from careful observation of cases, to look upon the anaemia and ill-health so frequently found as the results rather than as predisposing causes of this distressing complaint. Fetid particles from the dry decomposing crusts in the nose are inhaled and some also, together with infected mucus from the pharynx, find their way into the stomach. In this disease too, if we may so call it in the present state of our knowledge, we get sometimes the same absence of general disturbance of health as in some cases of sinus disease. Lately a woman consulted me on account of deafness. Otherwise she was most robust and healthy looking, and yet examination of the nose corroborated the opinion of ozaena which, as is usually the case, had been suggested by the disagreeable smell. As far then as sinus suppuration and ozaena are concerned it is easy to understand how disturbance of health may arise, and there is a very general agreement as to the cause-and-effect relationship between the local and general conditions in certain cases. The same, however, cannot be said of the effects of chronic rhinitis and the increased secretion caused by it. The good results which have followed in many instances the nasal treatment of spasmodic asthma, and which have been ascribed to the nervous connexion between the nasal cavities on the one hand, and the lungs and bronchi on the other, might be cited in support of a probable relationship between diseased conditions of the nasal mucosa and derangement of the gastric functions, the same nervous connexion existing between the nose and stomach. However, I do not wish to press this aspect of the question. My present purpose is to show that the chronic discharge from rhinitis, whether of the simple or of the hypertrophic variety, may give rise to digestive disturbance and general derangement of health, and that these may result even when the secretion is not at any rate markedly purulent. It is no doubt true that in a large proportion of normal nasal cavities the secretion is sterile—the exact percentage is variously given by different observers. At the same time it is equally true that the anterior part of the nasal cavities, that is the vestibules, is usually the abode of pyogenic organisms, giving rise at times to small furunculi in this locality, and it is also a frequent starting point of facial erysipelas. Given, then, an increase in the secretion, and stagnation also, especially when there is obstruction from turbinal hypertrophy, we find, as we would expect, even allowing for the fact that the nasal secretion is a pure culture medium, that there is a decided tendency for it to become muco-purulent, thus adding to its irritating character the possibility of absorption of septic material.

An actual purulent rhinitis is rare; indeed its existence is denied by some. If the pus is not the result of disease of one or other accessory air space, it can usually be found to depend on a local focus of bone disease. Yet the secretion in chronic rhinitis very frequently contains a large percentage of purulent material. It is hardly necessary to point out that in this condition even when it is not purulent it is irritating, as is shown by the redness and excoriation of the external nose and upper lip so frequently got. This irritating property itself is, in my opinion, calculated to cause gastric derangement, with consequent depression of spirits and general impairment of health. The following is a case in point:

A man came under my care with what he termed a chronic cold in the head. His history was that he had suffered from this for some years; that at times the discharge increased in amount, and there was a remission for a period and so on. He suffered much from indigestion always with frequent attacks of nausea, and had been treated in various ways by diet, drugs, and by washing out the stomach. It had appeared to him that the gastric condition was worst when the nasal discharge was most abundant. Rhinoscopic examination showed a condition of general rhinitis with hypertrophy, especially of the left inferior turbinal, and with an excessive amount of secretion, not at any rate manifestly purulent. The nasal condition was treated first by douching with borax and soda, followed by an antiseptic oily spray, and later the hypertrophy was reduced by the aid of the cautery. This was followed by improvement of the gastric condition, so that, as he states, he has been freer from indigestion than he has been for years.

Quite recently I have seen a lady suffering from a similar nasal condition in whom the gastric disturbance, with nausea and actual sickness, alternates with asthmatic attacks. The connexion of the two in the light of the nasal affection is interesting, though I am aware that asthma is stated to depend frequently on derangement of the functions of the stomach.

When the discharge is distinctly muco-purulent, as it is in probably the majority of cases of chronic hypertrophic rhinitis, its general effects will approximate those produced by sinus suppuration. These effects are sometimes very decided, and yet treatment and cure of the nasal condition is followed by great improvement of the general state of the health.

A case bearing this out is that of a woman under my care at the Glasgow Ear Hospital. She came suffering from nasal obstruction, which I found to be due to a large mass of polypi. Removal of these resulted in the relief of the obstruction, and she went away feeling, as she said, much better. A week later, however, she returned, and I was struck with her look of ill-health. She complained now of a copious discharge from both nostrils, which, as she herself stated, had completely taken away her appetite and caused a continuous feeling of nausea and depression of spirits. On examination of the nasal fossae the mucous membrane was found to be profusely bathed with muco-purulent discharge, which, no doubt, had increased from the negative pressure due to the removal of the compression of the polypi. She was given a nasal douche. A fortnight later, and only a few days ago, she returned looking and feeling decidedly better. The left nasal cavity was quite healthy, but in the right there was still a small amount of pus which, on careful examination,

appeared to come from the middle meatus, and by means of the probe bare bone could be detected in the region of the anterior ethmoidal cells. This may possibly require further treatment, but the notable feature was the disappearance of the gastric symptoms and the general improvement alongside the diminution of the nasal discharge.

In considering the general results of excessive or purulent discharge from the nose, we cannot, of course, leave out of account the nervous or mental element. It can easily be understood that in people of neurotic temperament, the sensation of secretion passing over the pharyngeal wall and the constant hawking to rid themselves of it may give rise to effects on the general health. Add to this the troublesome pharyngitis and laryngitis which is so frequently got as a result of nasal affections, with, in many cases, a certain degree of dysphagia, and we have a local condition which is calculated to set up a state of mind favouring abnormal instrospection, giving rise to depression of spirits, loss of appetite, insomnia, and the general ill-health caused thereby.

It would appear, therefore, advisable in cases of chronic ill-health, associated or not with gastric derangement, to include among the possible causes certain affections of the nose and naso-pharynx, and especially those giving rise to a discharge of a muco-purulent or purulent character. The patient himself may make no complaint of this—indeed, he may be unaware of the existence of anything wrong with his nose, and the condition may only be revealed by careful rhinoscopic examination. As I have already stated, it is probable it will be found in most cases that the nasal affection is of the nature of a contributory cause, and that there has previously existed some digestive weakness which makes the patient more liable to the evil effects of the entrance of purulent material into the stomach; and that, while treatment directed to the nose is necessary to enable a cure of the more general state of health to be brought about, it must be looked upon rather as a reinforcement of, than as an alternative to, the more usual methods.

NOTE ON HAEMOSOZIC SERA.

BY

MARC ARMAND RUFFER, and M. CRENDIROPOULO,
Principal Medical Director, 1st Class,
Service de Santé Maritime, and Quarantine, Conseil de Egypt.

From the Pasteur Institute, Alexandria.

In a preceding note, we gave an account of experiments made to produce an antihaemolytic (haemosozic) serum by injections of ox bile into rabbits. We were only moderately successful, for unless added to bile in very large doses the serum delayed, but did not prevent, haemolysis. In our opinion this result was due partly to the fact that it was impossible to produce a high degree of immunization owing to the cachexia caused in rabbits by repeated injections of bile, and partly to the great variety of substances which the serum of animals injected with bile might contain.

Preliminary experiments having shown us that the bile contained not only two haemolytic substances at least, but also one haemocoagulating substance, it seemed probable that on the introduction into the animal organism of such a complex fluid, reactions similarly complex might follow. We therefore endeavoured in the first instance to separate roughly the different substances present in bile and to prepare sera by injecting each substance separately into different animals.

Our method was as follows. Ox bile taken aseptically shortly after slaughtering the animals was dried in vacuo over sulphuric acid. When completely dried it was finely powdered and repeatedly extracted with ether. This was evaporated and the dried residue left after evaporation was extracted in physiological saline solution. This exhausted we call the ethereal extract. The same powdered bile was now extracted for 24 hours with absolute alcohol in the cold, the precipitate collected in a filter, washed with absolute alcohol and dried in vacuo. This precipitate, when suspended in water, we call the aqueous extract. The residue left after evaporating off the alcohol was then treated in water and formed the alcoholic extract.

We find therefore, first, that the extract soluble in ether contains practically the entire quantity of the haemocoagulating substance, and thirdly, the substance insoluble in ether is precipitated by absolute alcohol and forms the aqueous extract.

1. *The ethereal extract* is insoluble in water, and contains cholesterin, lecithin, and the fatty substances which are soluble in ether. The extract can be suspended in water only with difficulty, and though not toxic in itself when injected intravenously, it proves fatal by causing emboli. The subcutaneous injection of the extract of 300 c.cm of bile is followed by no particular symptoms, even when such large doses were repeatedly injected. Temperature and weight remained normal, or the animals increased in weight even, and no inflammatory symptoms were noticed at the point of inoculation. This extract is undoubtedly haemosozic when added to bile, for it diminishes though it never completely neutralizes the haemolytic properties of bile. The serum of animals repeatedly injected with this extract has no special haemolytic or haemosozic properties and indeed does not differ in its action on bile or blood from normal serum.

2. *The alcoholic extract* is very soluble in water; 0.20 gram injected intravenously kills a rabbit weighing 1,000 to 1,200 grams; death supervening in the majority of cases only after a few days. The temperature rises two or three hours after the injection, but the fever is of short duration. In one of our rabbits 0.10 gram gave rise to a profuse haemorrhage of the ear on the injected side lasting two days. Subcutaneous injection was followed by intense inflammation ending in necrosis of the skin at the point of inoculation. When injected under the skin of the ear, dry gangrene was the result. The part in contact with the liquid became parchment-like and thin, and finally fell off.

Phlebitis was the rule after intravenous injection. In short, the alcoholic extract produced all the lesions of the skin generally following on the injection of bile. Repeated injections, even of small doses, produced cachexia. The animals lost their appetite, diminished in weight, suffered from diarrhoea, and died, the temperature falling for some time before death. The necropsy showed no macroscopic lesions. A 2 per cent. solution was slightly, and a 5 per cent. solution very, haemolytic; but if heated to 100° C. for thirty minutes such solutions lost their haemolytic properties. The serum of animals repeatedly injected with small doses of this extract was haemosozic, that is, it prevented the haemolytic action of the alcoholic extract and of bile, but had no action on the ethereal or watery extracts. The serum of animals which had received three or four injections was more haemosozic than the serum of animals which received larger doses. Some of these sera when mixed with bile in equal proportions altogether prevented haemolysis, a result which we had seldom been able to obtain with the sera of animals injected with bile. The serum when mixed with bile in a test tube gave rise to a very fine precipitate, which did not settle down altogether at the bottom of the tube, but which did not pass through a paper filter. When heated to 70° C. for thirty minutes the serum completely lost its haemosozic properties.

3. *The aqueous extract* was not wholly soluble in water. A filtered solution of 0.10 gram injected intravenously caused death in 8 to 10 hours. The same dose injected subcutaneously without previous filtration produced a hard tumour surrounded for some days by an inflamed area. This tumour was sometimes as large as a walnut, and enclosed an encysted abscess, containing very thick, cheesy, but aseptic pus composed almost exclusively of more or less degenerated mononuclear wandering cells. The poisonous properties of this extract were marked therefore, and one had necessarily to proceed very slowly when injecting animals with it.

Moreover immunization was rendered very difficult by the fact that the animals appeared to become more susceptible to the poison. Very small doses of the extract were borne well as a rule at first, but when such doses were repeated, the fever not only increased, but lasted longer after each injection. The animal's weight diminished and cachexia supervened after the fifth to seventh injection. The aqueous was less haemolytic than the alcoholic extract, and the haemolytic power diminished when the extract was heated to 70° C. for half an hour. The serum of animals injected with the aqueous extract was haemosozic when red corpuscles were suspended in aqueous extract or bile, but less so than the preceding extract in the case of bile. It had no haemosozic effect on red corpuscles suspended in alcoholic extract, and had no effect on the ethereal extract. The serum mixed with bile produced a precipitate like the latter, which, though it did not settle at the bottom of the tube, did not pass through a paper filter.

In a previous note we pointed out that occasionally the serum of animals injected with bile was not haemosozic but haemolytic. We now find that, occasionally, the serum of animals injected with alcoholic or watery extract was haemolytic instead of being haemosozic as is the rule. In some cases

the serum of animals injected with alcoholic extract was haemolytic when acting alone or mixed with alcoholic extract but unmistakably haemosozic when mixed with aqueous extract. Similarly, in some cases, the serum of animals injected with aqueous extract was haemolytic when acting alone or mixed with aqueous extract, but unmistakably haemosozic when mixed with alcoholic extract. The same serum, therefore, was both haemosozic and haemolytic.

Lastly, a mixture of our two haemosozic sera was not more haemosozic for red corpuscles suspended in bile than the more potent of the two sera.

Note and Reference.

British Medical Journal, July 11th, 1903, p. 135. These experiments will be described shortly in the *Journal of Pathology*.

CAPSULE FORMATION BY DIPLOCOCCUS PNEUMONIAE IN CULTURE:

A POINT POSSIBLY OF USE FOR THE IDENTIFICATION OF THAT MICRO-ORGANISM IN PRACTICE.

By M. H. GORDON, M.A., M.D., B.Sc.Oxon.
(From the Public Health Laboratory, St. Bartholomew's Hospital).

Before a given micro-organism can be identified with diplococcus pneumoniae, one of the chief points to be determined is the presence of its capsule. For instance, as is well known, it is especially by dint of its capsule formation that the pneumococcus is distinguished from other virulent streptococci with which it is liable in other respects to be confused. But the pneumococcus forms its capsule only under certain conditions; and while the capsule can readily be demonstrated around the diplococci when they are present in sputum, blood, or animal exudation, it is rarely exhibited in cultures. Capsule formation, however, has been stated to sometimes take place in cultures of the pneumococcus in media containing tracheal mucus, and also in cultures in serum and in milk.[1] Be this as it may, in actual practice when capsules cannot be demonstrated around the diplococci in the original material, it is necessary before a given diplococcus can be satisfactorily identified with the pneumococcus to inject the micro-organism into a mouse and to demonstrate the presence of capsulated diplococci in the blood or exudation of the mouse *post mortem*.

The pneumococcus showing capsules in culture.

A few months since, when examining a specimen of the pneumococcus, I happened to make a subculture in gelatine and to incubate it at 37° C. On examining the culture next day microscopically after suitable staining I found that undoubted capsules could be seen around the diplococci. After seventeen to twenty-four hours at 37° C., the gelatine in the case of the pneumococcus becomes generally, but not always, uniformly turbid. To demonstrate the capsules the following procedure is used:

The gelatine used was 12 per cent. gelatine made as follows:—1 litre of distilled water is added to 1 lb. of minced beef. Boil for thirty minutes. Filter, add 12 per cent. of yellow-gold table (not bronze-gold table) gelatine, 1 per cent. peptone, and ½ per cent. salt. Make faintly alkaline to alkaline litmus paper with liq. potassae B. P. Add white of egg and steam for thirty minutes. Filter, pour into tubes and sterilize in the steamer for thirty minutes on two successive days.

A drop of the fluid gelatine culture is removed with a loop and spread over a cover glass, dried over the flame, allowed to stand in alcohol for a minute, and then without drying transferred film downwards to a watchglass containing ordinary Ziehl's carbol fuchsine. The film is allowed to stain in the carbol fuchsine for from a half minute to three minutes at the ordinary room temperature. The cover-glass is then lightly dipped in a beaker of water, and after removal of the moisture from its upper side by means of a piece of filter paper (so as to enable a drop of oil to be placed on the cover glass), the preparation is mounted on a drop of water on a slide. On examining the specimen with an oil immersion (one-twelfth or one sixteenth) clearly outlined, stained capsules can be seen around a good number of the diplococci.

It is important only to dip the stained coverglass lightly and rapidly into the beaker of water. If the specimen is washed in the usual way—that is to say, until all excess of stain is removed, the stain goes out of the capsules and they are invisible.

If several preparations are made it is advisable to renew the carbol fuchsine, which is much more efficient when first used.

While I have succeeded in demonstrating capsules in a one-day culture in gelatine at 37° C. in the case of five successive virulent specimens of the pneumococcus from different sources, six virulent streptococci which have been examined under the same conditions have failed to show capsules.

I believe, therefore, that this property of the pneumococcus of forming capsules in gelatine at 37° C. in one day may be applied for the identification of the micro-organism, and for its differentiation from specimens of streptococcus pyogenes. The point suggests itself as likely to be of use to those who are unable to make the animal experiment.

It should be added that it is difficult to get permanent specimens of pneumococcus showing capsules in gelatine at 37° C., as the capsules are less obvious in Canada balsam than in water, and tend rapidly to fade. The accompanying photograph, however, was made from a permanent specimen which was obtained by deeply staining with carbol fuchsine, only slightly dipping in water, and then, after drying, passing through xylol and mounting in balsam in the usual manner.

Reference.

[1] Washbourn, Croonian Lectures, 1902.

ABSTRACTS OF

The Hunterian Lectures

ON THE

PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

By A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor.

LECTURE I.—SYMPTOMS AND DIAGNOSIS.

[After some preliminary observations, Mr. Mayo Robson dealt with some anatomical, histological, and physiological considerations bearing on the pathology of the pancreas, and then went on to discuss the symptoms and diagnosis of diseases of the gland.]

Difficulties of Diagnosis.

As our knowledge of the functions of the pancreas both with regard to digestion and metabolism is becoming fairly well established, it would seem probable that any departure from the normal would lead to such considerable disturbance of function that the symptomatology of any of the diseases of the pancreas would be so marked as to make the diagnosis easy. But this is far from being the case for several reasons:

I. It is seldom the case that the pancreas is diseased without other organs participating. For instance, the relations between cholelithiasis and pancreatitis, between gastro-intestinal catarrh and catarrh of the bile and pancreatic ducts, between ulcer or tumour of the stomach and extension to the pancreas, between affections of the liver, colon, lymphatic glands, and duodenum and pancreatic disease.

II. Every function performed by the pancreas may be vicariously taken up by another organ except the glycogenic function, and that we are not yet certain about. The stomach can digest albumen, the salivary and intestinal glands have the power of digesting starches, and the bile and intestinal secretions can emulsify fats.

III. A considerable portion of the gland may be necrosed and cast off or otherwise disabled, and yet the portion remaining may apparently be sufficient to carry on the functions of the gland. For instance in a case of my own, a patient who is now perfectly well had necrosis of the pancreas, which I removed at operation. As may be seen, a good pro-

section at the pancreas on this table, and I will show a photograph on the screen.

By [illegible] case [illegible] disease [illegible] the [illegible] pancreatic [illegible] symptoms [illegible] by the [illegible] another [illegible] [illegible], [illegible] of the head of the pancreas producing [illegible] and dilatation of the gall bladder, giving the appearance of the [illegible] disease of the head of the pancreas. [illegible] [illegible] [illegible] a tumour of the pancreas may [illegible] the [illegible] [illegible] [illegible]

of urine that he has examined for me from patients suffering from pancreatitis bile has been found in just over 60 per cent. If common duct cholelithiasis be the cause of pancreatitis jaundice will, of course, be present. Deep jaundice, associated with distended gall bladder, is significant of cancer of the head of the pancreas, whereas if the cause of the jaundice be gall stones in the common duct the gall bladder is nearly always contracted, and not capable of being felt.

Physical Signs.

Tumour.

The situation of the pancreas behind the stomach and in front of the spinal column places it in almost the worst possible place for palpation, and under normal circumstances, if the patient be at all stout, it can only be indistinctly felt: but where the patient is thin, and in cases of gastroptosis, it can readily be defined when the muscles are relaxed and a warm flat hand is applied firmly to the epigastric region.

It is commonly stated in textbooks that acute and chronic inflammation and even abscess rarely if ever cause a perceptible enlargement of the organ; in this view I do not agree, for I have over and over again felt enlargement of the pancreas in these conditions, and I think further experience will show that in many cases a distinct swelling may be felt, which in the acute cases is made up of the swollen pancreas with surrounding effusion of blood and inflammatory fluid, together with matted omentum; in the subacute cases it is due to suppuration, and in the chronic cases to a tumefaction of the gland itself. In cancer of the head of the pancreas the only tumour that is ordinarily felt is the swelling caused by an enlarged gall bladder, which can be readily palpated in a considerable proportion of cases.

In tumour of the body or tail, as well as in some cases of cancer or sarcoma of the head of the pancreas, palpation readily discovers the swelling, and by distending the stomach with gas the relation of the stomach to the tumour can be readily made out. Resonance on percussion owing to the position of the stomach, unless the stomach be empty, communicated non-expansile pulsation, and very slight movement on deep inspiration are characteristic of swellings of the pancreas. In cystic disease of the pancreas, tumour is at first frequently the only symptom, the position depending on the part of the organ from which the cyst springs.

It will thus be seen that the absence of a tumour does not negative serious disease of the pancreas, though the presence of a swelling when taken with other symptoms, especially the urine test, affords valuable evidence of disease.

Fever.

An increase of temperature is, as a rule, associated with acute and subacute pancreatitis, but only rarely with any of the more chronic forms of inflammation, and, as a rule, it is absent in cystic disease, in calculus, and in new growths.

In acute pancreatitis the temperature may be high; but in other cases, as in the haemorrhagic form, it is usually subnormal. In suppurative pancreatitis I have seen the temperature assume a hectic form, but in one case coming under my notice it was subnormal, and in another it was persistently 101° to 102° or 103° F., and associated with rigors. In cancer of the head of the pancreas the temperature is generally subnormal.

It will thus be seen that fever as a symptom is extremely variable and alone is no guide, though when associated with digestive, metabolic, and certain physical signs it is a symptom of the greatest importance in making a differential diagnosis.

Pain and Tenderness.

My experience has been that both pain and tenderness are as a rule absent in malignant disease of the head of the pancreas, though on the other hand in some exceptional cases of cancer or sarcoma both of the head, body, and tail of the pancreas the pain may be excruciating; it depends either on pressure on or involvement of the great sympathetic ganglia, or on pressure on or invasion of the neighbouring viscera, especially the stomach or duodenum. Small scirrhus tumours are as a rule characterized by the absence of pain, while large growths are often marked by constant and extreme agony.

In the various forms of pancreatitis, pain and tenderness in the epigastrium are as a rule well marked, and the more acute inflammations are characterized by excessive tenderness on pressure, rigidity of the recti, and pain of an agonizing character. In chronic pancreatitis pain and tenderness, though usually present, may be little marked, but in some cases the pain is paroxysmal and severe and epigastric tenderness well pronounced. Cysts may be quite painless and free from tenderness, but in some cases I have seen both pain and tenderness well marked. Even in abscess of the pancreas pain may be absent, as has been reported by Stibler, though in the cases that I have seen pain and tenderness were both pronounced.

Calculus of the pancreas may exist for years undetected and unsuspected without causing any pain, but in one case that I operated on the patient pointed to a tender and painful spot on the left of the middle line, which she begged of me, before operation, to examine specially, and at which exact spot I found and removed by operation a pancreatic calculus. If a calculus reaches the orifice of the pancreatic duct or gets into the ampulla of Vater, severe pain occurs in paroxysms, resembling a gall-stone seizure, and will then be associated with jaundice. The pain may be continuous or paroxysmal, and may be limited to the epigastrium, or radiate round either side of the thorax. I have found pain in the back, under the left scapula, or between the scapulae, to be more frequent than pain beneath the right scapula, thus serving to distinguish it from gall-bladder pain. Caeliac neuralgia was a term long ago applied to epigastric pain, such as is associated with some form of pancreatic disease, and such pain may pass to the cardiac region and resemble angina pectoris, both in its intensity and in its effect on the circulation.

It will thus be seen that, while pain is a guide to diagnosis, it is not pathognomonic of any special disease except acute pancreatitis.

Pressure Symptoms.

The presence of ascites owing to involvement of the portal vein is seen at times in the later stages of cancer of the pancreas, when at the same time there may also be pressure on the inferior vena cava and oedema of the lower limbs. Where the duodenum is surrounded by the head of the pancreas—an extremely rare condition—or where the gland partly surrounds the bowel any growth or even inflammation of the head of the pancreas may lead to obstruction to the passage of the stomach contents, to gastric dilatation, and to vomiting as in pyloric stenosis. The duodenum and the colon may be pressed on both by cysts and new growth, such as cancer or sarcoma, and the viscera contiguous to the pancreas may be seriously displaced—the stomach, for instance, being pushed upwards beneath the diaphragm or downwards below the umbilicus.

Distension of the gall bladder and jaundice are frequently found in cancer of the head of the pancreas, and in some cases of chronic pancreatitis the same sequence of events may occur, the presence or absence of this sign being dependent on the relation of the common duct to the head of the pancreas. Pressure on or involvement of the solar plexus may give rise to agonizing pain. In some cases the hepatic duct may be pressed on when the common duct is free. The pressure of a pancreatic cyst passing upwards to the under surface of the diaphragm may cause dyspnoea from interference with the functions of the heart or lungs, and in case of inflammatory effusion in the lesser peritoneal sac there may be pressure on the pericardium through the diaphragm, leading to distressing cardiac symptoms.

Haemorrhage.

Besides the local haemorrhage that may be known as pancreatic apoplexy and the form known as haemorrhagic pancreatitis, there is in many pancreatic affections a tendency to general haemorrhage from wounds or from mucous surfaces, and to petechial haemorrhage in the skin or to more extensive bleeding in the subcutaneous tissues.

It is well recognized that a haemorrhagic condition coexists with cancer of the head of the pancreas. This tendency may be due to an altered condition of the blood both in its tissue elements and chemically. In cases in which the blood has been examined for me a very marked diminution in the number of blood plates has been found, and the coagulating period has always been seriously delayed. Further, it is well known that a diminution in the lime salts leads to a tendency to haemorrhage, and we have found that there is in nearly every case of pancreatitis a profuse excretion of lime in the shape of oxalates. In urine containing bile, calcium oxalate crystals are not generally found microscopically, because the bile takes up the lime salts; but, after the jaundice has been relieved by operation, an examination of the urine will, as a rule, show oxalate crystals so long as any pancreatic trouble continues. In several cases of cancer of the pancreas

on which I have operated the bleeding has been the immediate cause of death.

Before operating on these cases I now always administer calcium chloride in 30 to 60 gr. doses three daily for from twenty-four to forty-eight hours previous to operation, and by enema in 60 gr. doses thrice daily for forty-eight hours afterwards; this is usually successful in correcting the haemorrhagic tendency.

Metabolic Symptoms

Diabetes and Glycosuria.

It is believed that the absence of an internal secretion which recent researches have apparently traced to the islands of Langerhans leads to diabetes. The classical experiments of von Mering and Minkowski, who showed that the total removal of the pancreas in dogs regularly resulted in diabetes, and the important discovery of Eugene L. Opie that hyaline degeneration of the islands of Langerhans was present in a girl of 17 who had died from diabetes, followed by other observations, that diabetes is only present when the islands of Langerhans are involved as in the interacinar type of chronic interstitial pancreatitis, has now apparently established the fact that in diseases of these islands we have the origin of pancreatic diabetes. This explains many anomalies, and renders it quite easy to see why glycosuria should be present in some diseases of the pancreas and not in others. For instance, in chronic interstitial pancreatitis of the interlobular type there is no glycosuria and microscopic specimens made by Dr. Cammidge demonstrate that in this condition the islands of Langerhans are quite free from disease.

In extensive malignant disease the whole gland may be destroyed and then diabetes will be present, but if part of the gland remain unaffected in malignant or other tumours or cysts, diabetes does not occur. Out of a large number of cases of disease of the pancreas that I have seen I have only occasionally found glycosuria present, and in such cases, it well marked, I have not recommended operation, though I am not prepared to say that benefit might not arise by drainage in some cases of interacinar pancreatitis if caught early. It will thus be seen that glycosuria is not common and cannot be relied on as a diagnostic symptom in diseases of the pancreas, but when it exists along with other signs it is extremely serious, and in fact as a rule indicates an incurable condition.

Other Changes in the Urine.

In consequence of the indefinite character of the symptoms in various diseases of the pancreas, a want has been long felt for some distinctive signs by which affections of the pancreas may be diagnosed. From the important metabolic functions of the gland, attention was naturally given to the urine, and in turn melanuria, maltosuria, pentosuria, lipuria, and glycosuria have been advanced as of diagnostic importance in pancreatic troubles.

As the result of a large number of observations on a considerable number of cases, I hope—in conjunction with Dr. P. J. Cammidge—to be able to adduce proofs that a certain reaction may be obtained from the urine in the greater number, if not in all diseases of the pancreas, which affords considerable help in diagnosis; but, rather than this, our experience leads us to believe that it may be possible to distinguish between simple and chronic malnutrition and between simple and malignant disease. The presence of glycosuria does not prevent the pancreatic reaction being obtained, but the sugar must first be removed by peroxide of lead. In this way, therefore, it may be possible to make the diagnosis of pancreatic diabetes.

At best, when the most accurate and complete data on experiments in this direction were obtained, the conclusions, though helpful, were not sufficiently certain to warrant us in doing more than submitting them to the profession as a help in diagnosis, and this I announced in an address before the American Surgical Association in Baltimore in May, 1902. Since then the test has been applied in every case that has come under my care where the pancreas was suspected, including a large number of cardinal cases where there was no suspicion of pancreatic disease.

The control experiments led to the discovery that certain crystals were obtained in some cases almost exclusively in cases of pancreatic disease, whereas in other cases of tissue change were taking place, but normally, the difference in the shape of the crystals and the increased time they took to develop in alcoholic test and other tests enabled them to be differentiated.

There is still a great deal of work to be done on the subject which may have other important issues, but we think the time has come when a further announcement should be made, so that the utility of the method may be tested by other observers.

Of the manner in which these crystals were found, of the method of their preparation, and of their significance, my friend Dr. Cammidge will have much more to say in his Arris and Gale Lecture of their diagnostic importance I will now give my experience.

Although I have operated on over 100 patients for pancreatic disease of one kind or another, in my earlier cases the urinary pancreatic reaction was unknown, and it is only during 1902 and since, that we have been employing the test systematically; but during that time several hundred analyses have been made, and the diagnoses have been confirmed by operation in 56 and by necropsy in other cases.

In a considerable number of cases of cancer of the head of the pancreas, with jaundice, the test has been applied and either confirmed the diagnosis made from the clinical signs or proved the presence of malignant disease in the face of irregular symptoms which rendered the diagnosis doubtful, so that one has been able to advise non-operative treatment with confidence instead of having to recommend an exploratory operation, which could do real good.

In several cases suspected from the clinical signs and symptoms to be cancer, the disease has been proved by this test to be an inflammatory affection, and curative operations have been performed.

Different diseases of the pancreas it will be seen, as one would expect, present very various grouping of symptoms, but in nearly if not in every case since Dr. Cammidge and I have been working together at the subject we have found most valuable help from the pancreatic reaction. Although we must not yet say that this sign is absolutely pathognomonic, yet it is safe to make the assertion that if the test be skilfully carried out it affords most valuable, positive, or negative evidence when taken with other symptoms, in not only establishing the presence or absence of some disease of the pancreas, but in assisting in the differentiation of simple from malignant disease, a most important matter when surgical treatment is in question.

Symptoms of Diagnostic Importance Produced Artificially.

Alimentary Glycosuria.

Minkowski has shown that if only a part of the pancreas be removed, diabetes does not result, but the ability of the organ to perform its normal function on carbohydrate metabolism is impaired; for if, to animals in which the pancreas has been partially removed, sugar be given in large quantities, temporary glycosuria results.

While he observed the symptom in man in association with disease of the pancreas. He gave 100 to 200 c.c. of sugar before breakfast to 8 patients, the urine being tested before the sugar was taken and later at intervals of two hours. When the test was positive, glycosuria usually occurred at the end of two hours. Of 4 patients exhibiting alimentary glycosuria who subsequently came to necropsy, 10 presented grave pancreatic disease, chronic interstitial pancreatitis or cancer. Although this symptom may occur under other conditions, as exophthalmic goitre or chronic alcoholism, its presence has considerable value as an aid to diagnosis.

Sahli's Test.

If iodine, in enclosed in a gelatine capsule hardened in formalin, and given by the mouth, it is almost unaffected by gastric digestion, but is readily dissolved by the pancreatic secretion. If pancreatic digestion is normal, iodine should appear in the urine in from four to eight hours. The absence of the reaction or its delayed appearance, if the normal action of the stomach be normal, indicates according to me an impairment of pancreatic digestion.

Fat Necrosis.

By fat necrosis is understood a disintegration or necrosis of the living cells in the neighbourhood of the pancreas, or small spots diffused widely over the peritoneal cavity or even in the panniculus or pectoral or subcutaneous fat. It is associated with a splitting up of the fat into fatty acids and glycerine, the latter is absorbed, but the acids being insoluble remain in the cells either as crystals, or uniting with the calcium salts of the blood they form yellowish white patches of various sizes. As the result, however, of clinical

observation and experimental evidence we may now accept the fact that fat necrosis is always the result of the penetration of the fat-splitting ferment of the pancreas first into the tissues in the neighbourhood of the gland, and when more extensive to the diffusion of the ferment either through continuity of tissue or by means of the lymphatics. Fat necrosis may be present and yet not be visible to the naked eye, although it may be discovered by a method suggested by Bender, the application of a solution of acetate of copper to the tissues. The recognition of fat necrosis by the surgeon who opens the abdomen to relieve symptoms associated with peritonitis in the upper abdomen is of the utmost importance, as it indicates a grave lesion of the pancreas, probably haemorrhagic, gangrenous, or suppurative pancreatitis. It is said not to occur generally with suppurative inflammation, but in one case I found a most extensive fat necrosis in association with subdiaphragmatic abscess of pancreatic origin. It has also been said that the presence of extensive fat necrosis is a fatal sign, but a case of my own disproves this, as a patient under my care made a complete recovery after an operation undertaken for acute pancreatitis in which the fat necrosis was well marked and diffuse. Truhart has also been able to collect 10 cases in which the diagnosis was made and yet an immediately fatal issue did not occur.

As the ferment causing fat necrosis may be excreted by the kidneys, it would form an important diagnostic sign if it could be found in the urine, but this has not yet been determined, although in one case of acute haemorrhagic pancreatitis Opie obtained a suggestive reaction by means of ethyl butyrate as suggested by Castle and Loevenhart.

Haemorrhage (so-called Apoplexy).

It is well known that local haemorrhage into the pancreas may occur apart from injury and apart from any general haemorrhagic tendency, and that, although it may be recovered from, as shown by the remains of extravasated blood in the gland in persons dying from other diseases, yet such spontaneous haemorrhage may lead to death from collapse either immediately or after some hours. This may occur in persons apparently in good health and without any premonitory signs on which a diagnosis can be based, the only symptom at the time being those of collapse, with dyspnoea and feeble pulse. In this way severe pancreatic haemorrhage apart from pancreatitis forms a disease in itself.

The causes of pancreatic haemorrhage are:

1. Vascular disease, such as atheroma and fatty degeneration, or alcoholic or syphilitic arteritis.
2. Injury.
3. Fatty degeneration of the gland cells and deposit of fat in the pancreas, the result of alcoholism or of general adiposity.
4. Fat necrosis in the gland or its vicinity has been suggested by Balser, who related several cases in support of his views.
5. Disintegration of neoplasms such as cancer or sarcoma may be the cause of extensive haemorrhages.
6. Haemorrhage from embolism of a pancreatic artery is reported by Molliere.
7. Other causes such as heart disease, lung disease, cirrhosis of liver, haemorrhagic diathesis, scurvy, purpura, the exanthemata, phosphorus poisoning, etc., may all give rise to pancreatic haemorrhage.
8. Pancreatitis may undoubtedly lead to haemorrhage.

Large pancreatic haemorrhages are of great interest clinically, and are probably more common than is usually thought: they may occur into the substance of the gland and disintegrate it, or on to the surface and lead to extensive effusion either beneath the peritoneum or into the lesser sac, as in the case I have related.

Symptoms.—A great variety of symptoms may occur, from mere attacks of colic in the epigastric region, soon passing off, to violent and persistent pain followed by collapse and rapid death within a short time; or if recovery from the first seizure should occur, the attacks may be repeated, and ultimately symptoms of acute pancreatitis may supervene. The site of the pain may be precordial or dorsal, but it is usually epigastric, and is often accompanied by vomiting. The abdomen soon becomes distended and tympanitic, and if inflammation occurs fever of an irregular type may supervene; or if the disease assumes a rapid ultra-acute form the temperature may be subnormal throughout. At first the diagnosis will be obscure, but with the onset of pancreatitis some of the symptoms I have related will be found, and an examination of the urine for the pancreatic reaction will afford valuable help.

Treatment.—In the very acute cases, where death rapidly occurs, even if the diagnosis could be made, specific treatment would probably be useless; but if the diagnosis could be effected before a fatal result had occurred, abdominal section and gauze packing would seem to be indicated. In the later stages the treatment is that of acute pancreatitis, and in this case a diagnosis can be made both from the symptoms and physical signs as well as from the discovery of the pancreatic reaction in the urine.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

CASE OF PNEUMONIA TREATED BY ANTIPNEUMOCOCCUS SERUM.

On January 15th I was called to see a man, F. B., aged 36, who had a hectic appearance, rapid pulse and breathing, temperature 101.2° F., and all the physical signs in the right lung of acute pneumonia. He told me that for two days he had had fever, pain in the side, and blood spitting. His sputa were seen to be loose and mucoid and uniformly mixed with bright red blood. That afternoon I had him removed, in a closed conveyance, from the cottage where he lodged to the Cottage Hospital at Epsom.

The day after admission his pulse was 124 and respirations 54, and a subcutaneous injection of strychnine was given with marked benefit. Full doses of cardiac tonics and expectorants were exhibited, and the chest enveloped in large linseed poultices. The body and limbs were sponged with hot water, and that night some troubled sleep obtained by two cachets of trional (gr. xv). Pleurodynia was a troublesome symptom, though partial relief was obtained on the second and fourth day by the application, in each instance, of four leeches. An icebag was applied to his abdomen, but after some hours it had to be discontinued, as it seemed harmful and had produced no good effect upon any urgent symptom.

On the fourth day after admission, though he was taking liquid food fairly well, together with ℥v of brandy in the twenty-four hours, he seemed to be sinking. Delirium was increasing, voice faint, anxious expression, eyes staring, cyanotic tinge creeping over lips and cheeks; pulse 132, respirations 56, temperature 104°. At 5.30 p.m., therefore, I injected ℥ ij of Prof. E. de Renzi's, *siero anti-pneumonico* Pane. This serum, after careful disinfection of the skin, etc., was introduced between the integument and the chest wall, in the anterior axillary line at the level of the sixth rib on the right side.

As the needle was withdrawn a piece of cyanide gauze soaked in collodion was used to seal the puncture. This subcutaneous injection seemed to cause him no pain either at the time or subsequently. Within 4 hours both the pulse and respiration began to fall, and the expectoration to lose the bloody tinge. Curiously enough, however, the temperature still remained as high, but as the man was obviously better I repeated over the fifth rib the serum injection (℥ ij) at 11 a.m. on January 20th, with similar precautions; at 11 p.m. the temperature had sunk to 100° F. By January 21st it was 99° and the sputa bronchitic in appearance; pulse 84, respirations 28. His after-convalescence was uneventful.

I am convinced these injections saved his life, and I shall not hesitate to repeat them in any suitable future case, though I cannot close without expressing my indebtedness to the matron and nursing staff at the Epsom and Ewell Cottage Hospital for the careful and efficient way in which they gave practical effect to all my suggestions.

Ewell, Surrey. Percy Rendall, M.D.

A SIMPLE METHOD FOR THE ADMINISTRATION OF ETHYL CHLORIDE.

As pointed out by Dr. E. H. Kitchin in the British Medical Journal of December 28th, 1903, and Dr. H. F. Parker in the same Journal of February 20th, 1904, no special form of inhaler is needed for administration of ethyl chloride, the ordinary Clover ether inhaler answering admirably. Dr. Kitchen pours the ethyl chloride into the reservoir of the inhaler through a perforated cork, covering the perforation afterwards with his finger, and Dr. Parker sprays the anaesthetic on to cotton wool or gauze placed in the aperture at the top of the body of the inhaler. For induction of anaesthesia it is immaterial whether the ethyl chloride is sprayed on to a sponge in the face-piece, into the body or into the bag of the inhaler. On the ground of convenience I have been for nearly a year in the habit of spraying the anaesthetic into the bag, and find that, contrary

to what is sometimes stated, the rubber of the bag is in no way injured by the ethyl chloride.

I have recently employed ethyl chloride alone for operations lasting not longer than half an hour. For prolonged administration of ethyl chloride none of the above methods are very convenient. A simple and efficacious method of continuous administration is to take a piece of rubber tubing, 10 in. in length, and attach one end to the nozzle of a clover inhaler, in place of the tube from a nitrous oxide bottle, passing the other end over the nozzle of the ethyl chloride tube. The rubber tube must have thin walls so as not to interfere with the action of the cap of the ethyl chloride tube. By simply raising this tube and lifting the cap, the ethyl chloride is easily run into either the bag or top of the inhaler, according to the type of Clover employed, as often and in such amounts, usually 1 c.cm. to 2 c.cm. every few minutes, as are called for by the state of the patient. Frequent breaths of air are given to the same extent as when maintaining anaesthesia with ether. If the clover inhaler has no nozzle for attachment of a nitrous oxide tube, or if it is thought preferable to pass the anaesthetic directly into the reservoir of the inhaler, this can be done by using a cork perforated by a metal tube, to the outer end of which is attached the rubber tube from the ethyl chloride bottle. I find that ethyl chloride, thus administered, is followed by much more rapid recovery and less vomiting than is chloroform or ether given for a similar period. So small is the amount of ethyl chloride required for maintaining anaesthesia, that my chief difficulty has been to avoid giving an over-dose, which has on several occasions shown itself by asphyxial symptoms, the result of inhibited respiration. In these cases the pulse is usually strong and regular, and appears to be slowed only in the later stages of over-dosage. As an instance of the small amount of ethyl chloride required, in a boy aged 11 years the amount of anaesthetic used in inducing and maintaining anaesthesia for twenty minutes was only 12 c.cm. The boy vomited once at the end of the operation, and after ten minutes was wide awake. The advantages of the above method of prolonging ethyl chloride anaesthesia are:

1. The extra apparatus required is limited to a piece of rubber tubing at a cost of 1s.

2. The supply of the anaesthetic is derived direct from the glass tube in which it is supplied by the manufacturer, and is regulated by the cap and spring attached to this tube.

C. Hamilton Whiteford, M.R.C.S., L.R.C.P.,
Senior Honorary Anaesthetist, South Devon and East Cornwall Hospital; Honorary Anaesthetist, Plymouth Dental Hospital.

BRACHIAL NEURALGIA.

In connexion with the communications which appeared in the British Medical Journal on July 11th, 1903, by Dr. Simon, and on January 16th by Dr. Distin, upon the above subject, the following case may be of interest.

A lady, aged now about 70, whilst walking in her sleep thirty-five years ago, fell against the edge of a bed (she thought her forehead struck the bed). Upon being lifted up she felt violent pains down both arms. The pain became most intense, especially from the elbows to the fingers, the sensations being "as though the skin were being torn off."

Several medical men abroad, where she was staying at the time applied chloroform, opium, blisters, etc., without any relief, and finally ice, which gave most relief. But the pain still continued to be severe. On coming to London she saw Sir James Paget, who prescribed rest and time as the only cure, and told her that she would recover, but that it would take years. She suffered great loss of pain and impairment of movement in both arms for ten years.

Nine months ago without any apparent exciting cause, she was attacked by sharp neuralgic pains over the region of the brachial plexus, over the right shoulder, about the insertion of the deltoid down the forearm, and both of the right hand. The pain was very sharp, and the arm almost useless, great pain being caused by the least movement. I prescribed sedatives, counter-irritation to the back of the neck, but the pain was still severe, especially at night, which induced me to try galvanism with positive pole and bicarbonate, with a liniment of iodide, belladonna, chloroform, and menthol.

The pains became much less severe but the impairment of movement was still troublesome. For this I recommended bathing with hot water, massage, and electricity applied to neck and down arm. This she had followed out greatly and she is now practically well, only feeling a reminder upon any sudden movement occasionally. There was no muscular atrophy, or only what would be caused by the non-use of the arm for some time. Her constitution was remarkably good; she was not a neurotic subject, hypochondriacal, or hysterical.

I was struck with the inveteracy of the attack at the time and the small effect that sedatives appeared to have. As guaiacum appears to relieve nocturnal rheumatism, it struck me it might be of benefit, and I think in combination with the iodide it was of decided benefit. The electricity and massage she said gave her great relief, but this was in the subacute stage.

Bettws-y-Coed. Douglas Macdonogh, L.R.C.P., etc.

VENESECTION IN OPIUM POISONING.

In the treatment of cases of opium poisoning no mention is made in the textbooks of venesection as a last resource. When all efforts—such as the application of friction, cold affusion, the battery, etc., have failed to rouse the patient from a comatose condition, venesection may restore the patient to consciousness by the abstraction of some of the poison circulating in the blood, thereby preventing its re-absorption, and relieving in some degree the paralysis of the nervous system.

This idea was suggested and adopted in the case of a young lady who had swallowed more than an ounce of laudanum, and who, when discovered some hours afterwards, was unable to be roused by any of the methods recommended, with the result that she recovered from an almost hopeless condition.

The report of this case may induce others with greater opportunities to try venesection in cases of opium poisoning, when other methods have failed to restore consciousness.

Glasgow. William A. Caskie, M.A., M.D.

REDUCTION OF DISLOCATIONS IMMEDIATELY AFTER THE ACCIDENT.

It does not seem to be generally known with what extreme ease a dislocation may be reduced if tackled immediately after the accident, if the opportunity occurs.

Sixteen years ago I dislocated my shoulder in a fall from a tricycle and I got a gentleman to put it in for me the moment I rose from the ground. Three weeks ago I had a similar accident, from a side slip when on a bicycle, to the same arm. Once again on asking a bystander to hold me firmly by the wrist while I gave a good pull, the head of the humerus was instantly replaced.

On each occasion the reduction was quite painless and could have been effected by a fairly strong child of 10 or 12. On each occasion I had very little subsequent pain after a bandage had been applied, and I recovered the full range of movements of my arm in three weeks.

London, N.W. Walter G. Walford, M.D.

OBSERVATIONS ON TEMPERATURE.

The Remarks upon Temperature published by Dr. Pembrey in the British Medical Journal of February 27th interested me very much. I would be glad if any one could give me information as to whether observations on the rectal and axillary temperatures at death have been published. The following table of 9 cases observed by me while a house-physician may be interesting:

Record of Axillary and Rectal Temperatures immediately after Death.

			Disease.	Axillary Temperature.	Rectal Temperature.
A. C.	M.	[illegible]	[illegible]	[illegible]	[illegible]
H. H.	F.	71	Morbus cordis	[illegible]	[illegible]
A. P.	M.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	M.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	M.	[illegible]	[illegible]	[illegible]	[illegible]
A. W.	M.	[illegible]	[illegible]	[illegible]	[illegible]
F. C.	M.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	M.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	F.	[illegible]	Phthisis pulmonalis	[illegible]	[illegible]

Previous to the simultaneous observations made the thermometers were tested and proved to be accurate.

Aberd. A. Wilfred Cassie, M.B., Ch.B., M.A. Aberd.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GUY'S HOSPITAL.

A CASE OF GENERAL PNEUMOCOCCAL INFECTION: ACUTE PLEURISY, LOBAR PNEUMONIA, PERICARDITIS, ENDOCARDITIS, PERITONITIS AND COLITIS WITH DELIRIUM: FATAL IN LESS THAN FOUR DAYS.

(Under the care of G. NEWTON PITT, M.D., Physician to the Hospital.)

A MALE, aged 17, was suddenly seized with acute pain in the left chest on August 27th, 1903. He was confined to his bed and rapidly became worse. On the 28th he was admitted in a state of wandering delirium, mortally ill with intense dyspnœa and severe thoracic pain. He was very noisy, with a temperature of 103·2°, and a feeble pulse of 120. His respiration was feeble, noisy, and shallow. On the 29th he was semi-conscious only, and this became more marked. There was no dullness, but the note at the left base was slightly deficient. A widespread loud rub was audible over the greater part of the chest, most marked at the left lower portion. There was no approach anywhere to bronchial breathing; in parts it was deficient; the voice sounds were transmitted normally. The pulse was 140, and no abnormal cardiac sounds could be detected on account of the noisy breathing.

At this time it was noticed that the abdomen was distended, immobile, and rigid, and there was evidently commencing peritonitis. There was no dullness, no evidence of fluid, and the region of the appendix did not appear to be different from the rest of the abdomen.

It was clear that there was peritonitis with pleurisy, but the relation of the two to one another was uncertain. It was thought possible that the primary condition might be an appendicitis with a secondary peritonitis and pleurisy. The history was most imperfect, as the man could not answer questions, but apparently the pleurisy preceded the peritonitis.

A general pyæmic condition and a pneumococcal infection were also discussed, but no positive diagnosis was arrived at, as Dr. Pitt only saw the man once. The coma increased, and he died, without definite evidence of any consolidation, early on the morning of the 30th.

At the inspection, seven hours after death, there was general *post-mortem* discoloration of all the tissues. The glands at the bifurcation of the trachea and above the diaphragm were greatly swollen. There were 10 oz. of turbid fluid in the left pleura, and the whole of the surface of the lungs was covered with a layer of lymph which was an eighth of an inch thick in places. The surface when the lymph was scraped off had not lost its lustre. There were subpleural haemorrhages. There were haemorrhages into the lung substance, the lower lobe on the left side was compressed, and there was very slight commencing consolidation at the apex of the left upper lobe. There was early pericarditis, with a few flakes of lymph and some haemorrhages. There were small acute vegetations on the mitral valve. There was acute membranous colitis for 12 in. from the ileo-caecal valve. There was early peritonitis, with a small amount of exuded lymph. There was no obvious meningitis, but the ventricles contained a slightly bloodstained fluid. Cultivations from the peritoneum, the pericardial fluid, and the heart blood all showed pneumococci.

The case was a typical one of pneumococcal septicaemia, in which the poison overwhelmed the patient before there was time for consolidation of the lung to occur, a condition which is very rare in man, though common in animals, when they have been inoculated.

The condition of universal bilateral pleurisy, which causes both lungs to collapse, and inhibits respiration, to such an extent that it proves rapidly fatal, has been met with by the writer on two occasions previously, and in neither had consolidation of the lung developed.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.

GASTRIC ULCER: PERFORATION TWICE IN FIVE MONTHS.

(By ROBERT Y. AITKEN, M.D., F.R.C.S., Assistant Surgeon to the Infirmary.)

As Mr. Moynihan, of Leeds, has remarked, "the perforation of a gastric ulcer is one of the most serious and overwhelming catastrophes that can befall a human being." An individual who has twice within five months successfully undergone laparotomy and suture of the perforation may be considered fortunate, especially when the fact is considered that seventeen hours on the first occasion and twenty-five hours on the second had elapsed before the abdomen was opened.

History.—E. S., female, aged [illegible]. Had suffered from symptoms of ulcer of stomach for years, and had been treated medically. She had not had haematemesis. At 8 p.m. on February 26th, 1903, she felt a "pain," and soon afterwards complained of great pain in the upper part of the abdomen, and became collapsed. She was admitted to Blackburn and East Lancashire Infirmary at 11 a.m. next morning.

[illegible].—The diagnosis was clear, and considering the fact that seventeen hours had elapsed since the perforation she was in good condition for operation. The abdomen was laparotomised for about 4 in. in the middle line above the umbilicus. The perforation, which was near the middle of the anterior surface of the stomach, was easily found, as the stomach contents were seen escaping as soon as the edges of the wound were retracted. There was a considerable amount of turbid lymph round the perforation, which was surrounded by an infiltrated area of stomach wall. This area was doubled in by eight or ten Lembert sutures without difficulty. The abdominal cavity was filled with hot saline solution after a small drainage had been made. The washing was continued till the returning fluid was clear, the hand being meanwhile allowed about in the abdomen to ensure thorough distribution of the fluid. The greater part of the fluid was then removed by sponging. Large rubber drainage tubes with a wick of wet gauze in each were then inserted into each loin, and to the seat of suture, and another through the suprapubic opening to the bottom of the pouch of Douglas. The operation lasted under an hour, most of the time being taken up in cleaning the peritoneum.

Progress.—There was no great shock after the operation. The tubes were removed on the third day and replaced by gauze drains. The patient seemed to be doing well except that a parotid abscess formed about the seventh day. On March 13th, twenty-one days after operation, pneumonia of a septic type developed, and getting rapidly worse the case seemed hopeless. The pulse rate at one time was never below 140 for four consecutive days. After fourteen days the condition cleared up and the wounds entirely healed at the end of six weeks. She went to a convalescent home and came back able to eat any ordinary food.

[illegible] on Saturday evening, 19th, the same patient was readmitted and as she had had ½ gr. morphine hypodermically a short time before, the doctor was not at all apprised she had had pain in the stomach, but had been feeling out of sorts only for about a week. Acute peritonitis was present only in the area which she worked a little and drank water on getting home. I saw the patient at 11 a.m. on the following day and could not be quite certain that perforation had occurred. The temperature was 97° F., pulse 108 and respirations 33. I saw her again at 6 p.m. when she was evidently rapidly getting worse, and I decided to operate at once. It was then [illegible] after the appearance of perforation [illegible].—The operation resembled the first in the case with which the perforation was found, but the application of the sutures took at least fifteen minutes' work, as, even after cutting the left rectus across, the perforation was very difficult to reach, the chest being flat, and having a very acute epigastric angle. The perforation was smaller than the first, and the stomach contents which had escaped seemed to be mostly mucus. Thick flakes of lymph were adherent to the adjacent stomach and liver. The character of the extravasated material decided me on sponging instead of flushing the abdomen, and, as several ounces of dirty fluid were swabbed from the suprapubic opening, I put in drainage tubes as before, and finished the operation as quickly as possible, with serious misgivings as to the result. Very soon they were relieved, and, without a bad symptom, the patient recovered. The wounds were finally healed on the twenty-ninth day.

REMARKS.—The interesting point in the case is the fact of two perforations having taken place within such a short interval—namely, five months. Many recorded cases have died of another perforation within a few days or weeks of an operation for perforating ulcer, but two distinct perforations and operations, with recovery, cannot be of frequent occurrence. The flushing on the first occasion and swabbing on the second teaches nothing, although I think I will swab rather than flush in future. By setting about it methodically and carefully there should not be much septic material left anywhere. If one thing more than another contributed to success it was the suprapubic drain, as shown by the amount of discharge from it. I have operated six times for perforated gastric ulcer since March 7th, 1902, and the only case in which there seemed much hope of recovery died a week after operation with a collection of pus in the pelvis. A drain at the first operation would almost certainly have saved the patient, as the upper part of the abdomen was quite clean.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

METROPOLITAN COUNTIES BRANCH CITY DIVISION.

AN ordinary general meeting of this Division was held at the Metropolitan Hospital, Kingsland Road, on March 10th. The CHAIRMAN (Mr. Frederick Wallace) was in the chair. Mr. M. Carsham Comer, of the Stratford Division, was unanimously elected a member of the Division. The members of the medical and surgical staff of the hospital exhibited a number of cases, as follows: Dr. HALE: (1) Chronic rheumatoid arthritis, improving with aspirin; (2) Bright's disease, in which the heart's action had been altered from slow to fast. Drs. DAVIES and Dr. LAUDER BROWN: A case of pneumococcal pyæmia. Dr. CAVELEY: (1) Locomotor ataxia with gastric crises; (2) a case for diagnosis; probably degeneration of the cerebral arteries. Dr. LAUDER BROWN: An anomalous case of muscular atrophy. Mr. GOODSALL: (1) Carcinoma of rectum treated by left iliac colotomy and subsequent removal of lower part of rectum; (2) villous tumour subsequently becoming carcinomatous. Mr. HARMER: (1) Arthropathy of shoulder-joint associated with syringomyelia; (2) excision of elbow for displaced fracture of the lower end of the humerus. Mr. DANIEL: Cutaneous actinomycosis. Mr. CHARLES WATSON: (1) Two cases of osteitis deformans; (2) congenital dislocation of hip; (3) unusual case of congenital syphilis. The meeting terminated with hearty votes of thanks to the Committee of Management, the medical and surgical staff and the matron of the hospital, to the kindness of all of whom a very successful and interesting meeting was due.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

ANNUAL CLINICAL DEBATE.

T. VINCENT DICKINSON, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 15th, 1904.

INTERNAL SECRETION IN DISEASE AND IN TREATMENT.

SIR LAUDER BRUNTON, in opening a discussion on this subject, briefly outlined the history of the growth of knowledge of secretions and the ferments they contained. He then passed on to the general question of ferments. It was, he said, clear at the beginning of the last century that it was definitely ascertained that germinating barley yielded a watery extract which would convert starch into sugar. About twenty years later the chemical substance diastase was separated from this watery extract which also had the power of converting starch into sugar. Similar substances were separated from the saliva, from the gastric juice, and from the pancreatic juice. It had recently been shown that the pancreas of dogs would digest meat to the point upon which the animal fed, secreting a glycogenic ferment when the animal fed upon starch, and a proteolytic ferment when fed upon meat and a ferment which converted fats when the animal fed upon fats. A question had arisen as to the fate of these ferments, but it had been shown that they were not preformed in the glands, but that substances were present in the stomach and in the pancreas which would split up and yield active ferments. It had been recently maintained that these ferments which were carried into the intestine, and their absorption, met with antitoxic substances in the blood, and that in the case of the pancreas, which was a compound gland, the ferments secreted which would digest the pancreas itself, and that in the case of the pancreas, the ferments which would digest the blood vessels themselves, were prevented from entering the blood by the antitoxic substances in the blood. Apparently these two secretions, expended upon the tissues and the blood, were counteracted by the internal secretions of the pancreas which were carried to the tissues by the blood. Diabetes was not to be accounted for by the failure of the internal secretion, which, in ordinary cases, tended to break up the sugar in the blood and to allow it to become excreted. Continuing, SIR LAUDER BRUNTON said that the most striking of all the internal secretions was that of the thyroid gland. The experiments first of all of SCHIFF, and later of Kocher, Horsley, and others, showed that that gland was of great importance to the life of the animal. As showing that poisoning actually occurred from excess of thyroid secretion, he described a case in which he had seen all the symptoms of exophthalmic goitre except exophthalmos and enlargement of the thyroid brought on by too prolonged use of thyroid for myxœdema. The kidney was another organ which seemed to have an internal secretion as well as an external one. The internal secretion here was one which deserved a great deal more attention, and it required a great deal more research than it had yet received, because the kidney consisted of two parts, the cortical and the medullary, and it was not known whether these both secreted an enzyme or whether they secreted the same form of enzyme. Other questions which would require to be settled were how far these enzymes were actually reconverted simply into innocuous bodies in the blood, and how far were they reexcreted by the gland by which they had been originally formed? The bile which was secreted by the liver consisted of two parts: it consisted of bile which had been freshly formed by the liver, and of bile which had been absorbed from the duodenum, and which was being again excreted by the liver. It seemed highly probable that all glands had the power not only of forming enzymes, but of reexcreting them. Probably the enzymes which they excreted into the intestines were reabsorbed, converted into enzymogens, passed to the gland again, and decomposed into enzymes again. He raised this question because he thought that any one who could answer it would add greatly to the power of treating disease.

SIR VICTOR HORSLEY said that for a long time he had been anxious to discuss in a medical society the question of internal secretion almost entirely from the point of view of the thyroid gland from a rather different aspect to that in which it was most familiar. When thinking of internal secretion and its alterations by disease its banishment was perhaps the most prevalent idea. He wanted to suggest that there was not merely this negative side of internal secretion, but that the positive side was as important clinically. They must not only think of these internal secreting glands when diseased as no longer able to furnish the useful ingoing ferment, but that in the process of becoming diseased there was poured into the circulation aberrant and poisonous substances. In certain well-known conditions like simple goitre, there was ample clinical evidence of such poisoning going on. He was glad SIR LAUDER BRUNTON had dealt with the subject from the point of view of the pancreas, because there was a close parallelism between the thyroid gland and the pancreas. SIR LAUDER BRUNTON had referred to the capability of the pancreas to adjust itself to the requirements of the organism chemically. Prevention of that adjustment occurred in the thyroid gland in disease, especially in the formation of new growths. It was now recognised that in exophthalmic goitre the thyroid gland was responsible for certain nerve symptoms. The clinical treatment of exophthalmic goitre was based at present upon an attempt to treat the external secreting part of the gland. If examined microscopically, the thyroid gland in exophthalmic goitre of every degree showed total disappearance of colloidal substance in the acini, its replacement by a watery excretion, and a change in the shape of the acini; instead of being of the well-known more or less cuboidal type they became transformed, the cells tending to be more columnar. Clinically, how was such a condition treated? The first method was the electrical treatment. There were few cases of exophthalmic goitre which could not be cured by systematic treatment by the galvanic current. It was a curious fact that in exophthalmic goitre the removal of the isthmus by a surgical operation would stop the disease. How could such an operation possibly affect such an alteration in the gland as to change its secretion, and so to prevent its poisoning the body? The only explanation which could be offered was that the lobes of the gland underwent cystical degeneration after the operation, and it could be supposed that a great deal of the hyperæmia, which was part of the pathological change, was thereby arrested. An exact parallel was found in the surgical treatment of acute pancreatitis, drainage of the gall bladder would stop the apparently fatal progress of acute pancreatitis in a certain number of the cases. These were facts which at the present moment they were unable to explain. So far as in-

ternal secretion was concerned, an exophthalmic goitre patient was suffering from two conditions, a negative and a positive: he was suffering from acute poisoning and also from athyroidism. In a so-called simple adenomatous goitre in which there was an encapsulated tumour in the gland, symptoms of toxicity would be found when it was well advanced. That the patient was really being poisoned could be proved by the simple operation of removing the tumour. Sir Victor then went on to speak of supplementation of internal secretion of the thyroid gland. Clinically cases of sporadic cretinism and of myxoedema showed the wonderful therapeutic effect of thyroid extract. At the present time thyroid extract was frequently given in goitre, but it could not have any supplementation effect in a case where the new tissue was poisoning the patient already. There was one condition of goitre in which undoubtedly it produced a beneficial effect for some time, and that was parenchymatous goitre. In malignant disease of the thyroid gland, however localized, it was absolutely essential to remove the whole gland, and he (Sir Victor) had been much struck in these cases by the fact that, although the gland was completely removed, these patients required exceedingly little thyroid extract to cure them in health. He did not believe that clinically sufficiently notice had been taken of work done in Professor H. Munk's laboratory on the relation of the animal proteid in food to the secretion of the thyroid. Many patients with adenoma of the thyroid, and especially of parenchymatous goitre, did not like meat, and if they were given meat they became depressed and suffered from headache and so forth. Milk could be tolerated to any extent. So with a thyroidectomized dog: it would have symptoms of an acute toxic nature when fed on meat, which disappeared when it was fed on milk. The speaker then related the history of two anomalous cases of myxoedema in which he removed the thyroid gland.

Dr. ROLLESTON said that their knowledge of diseases due to disturbance of the internal secretions was very incomplete. It was known that in myxoedema the thyroid gland showed definite anatomical changes and that administration of thyroid extract, or the internal secretion of the thyroid counteracted the morbid manifestations and kept the disease in check. But in other diseases the evidence was far less complete; in acromegaly the pituitary body was constantly enlarged, but the relation between this anatomical change and the characteristic features of the disease was really unknown, and the administration of pituitary extract was in no way comparable to the effect of thyroid extract in myxoedema. In Addison's disease it was by no means established that the disease was solely due to suprarenal insufficiency, for if it were, the treatment should be as simple and successful as in myxoedema. Was it not possible that some of the diseases assumed to be due to disturbance of the normal internal secretion of one ductless gland were more complex in their nature? What were the conceivable nature of these complex conditions, and how were they related to each other? In acromegaly glycosuria was not uncommon, and had been shown to depend on changes in the pancreas: were these pancreatic changes secondary, or were they two concomitant changes? Again, acromegaly might be combined with exophthalmic goitre, and there was some superficial resemblance between acromegaly and myxoedema. The want of success in the treatment of exophthalmic goitre and acromegaly might possibly depend on the fact that two or more glands, instead of one only, were in each case in an abnormal condition. A deficient supply of thyroid secretion (benign hypo-thyroidism) was probably common enough, and it was widely recognized that thyroid extract was a valuable tonic in many of the ills to which female flesh was heir. The important influence of the thyroid on metabolism raised the interesting question as to the relation between thyroid insufficiency on the one hand and premature senile changes, and arterio-sclerosis on the other. Arterio-sclerosis and its renal manifestation, granular kidney, were common in myxoedema. In conclusion, Dr. Rolleston referred briefly to the therapeutic uses of suprarenal extract. Schäfer and Oliver had shown that the active principle was not destroyed by gastric juice *in vitro*, and there was no doubt that when given by the mouth to patients with Addison's disease it raised the blood pressure. Preparations of the active principle were now available for hypodermic injection and that method was probably more effectual. The effect of treatment of Addison's disease by suprarenal extract or its active principle, epinephrin, was disappointing as compared with the effects of thyroid extract in myxoedema. Improvement often occurred temporarily, but it was only in rare instances that that good effect was maintained, and that anything like a cure was effected. The statistics of 105 cases of Addison's disease treated by suprarenal extract (Adams) were quoted, and an example of a toxic effect of the extract was given.

Professor A. E. WRIGHT said that the secretions he would speak about were those which were not elaborated by any gland; they did not know where they were produced in the body, but they knew that they were created and that they were present in considerable quantities in the blood. He took as the most familiar example of an internal secretion diphtheria antitoxin. But all the protective substances which were involved in the cure of disease were to be regarded as produced by internal secretion. When a person was invaded with an acute disease it might, he thought, be said that that person was suffering from want of a particular secretion, just as a person suffering from myxoedema was suffering from the want of his thyroid secretion. When the blood of a man affected with acne was investigated and compared with normal blood it was found defective in a certain internal secretion which affected staphylococci and rendered them subject to phagocytosis. When a patient was suffering from a defective thyroid gland they could go to a normal animal and get thyroid juice, and give to the patient as much as he required, but in the case of a patient who was suffering from boils, or from acne, or tuberculosis, by reason of the fact that his blood was deficient in protective substances, they could not obtain ready made those protective substances which were required: but they could, if they knew the laws by which such substances were produced, call forth a production of those substances in the person with whom they had to deal. Of some 30 cases boils, and acne and sycosis which he (Professor Wright) had treated by inoculation, there had not been one of them in which there had not been produced enough of that internal secretion to enable the body to kill off the staphylococcus. In dealing with tuberculosis the same principle had a wide range of application. Patients with tuberculosis recovered if they produced enough of the internal secretion to render their bodies uninhabitable by the tubercle bacillus. The customary treatment of tuberculosis aimed not at directly calling forth an elaboration of protective substances. It contented itself with placing the patient in the open air in the hope that he would elaborate them. But knowing the laws under which protective elements were produced, it was possible in many cases to call forth the necessary internal secretion in the patient who was the subject of tuberculosis to enable him to overcome the disease. Broadly speaking, in the case of disease of chronic character, or in the case of a disease which was liable to relapse but which was not immediately dangerous to life, there was an interval during which those secreting tissues in the body might be induced to secrete the protective substances required. Professor Wright then went over briefly what was known about immunization, about the way in which those internal secretions developed, and how those matters had been tested in the case of man. He related in connexion with antityphoid inoculation how he had made very long series of investigations on the conditions in which an antidotal substance was produced: and how he had done the same in connexion with staphylococcus invasion, and how for the last year or two he had been working out continuously the laws in connexion with the production of protective substances against tuberculosis. In every laboratory in Europe experiments had been done on immunization, and the general law of the production of immunity under those protective substances might be taken as well established. He mentioned some results in connexion with the treatment of lupus and tuberculosis of the bladder by the inoculation of a tubercle vaccine (Koch's new tuberculin) in which he had seen extraordinarily good results. Professor Wright concluded by saying that it should be recognized that chronic or local infection was a symptom of defective internal secretions, and that those secretions could be elaborated in the body when there was youth, strength, and health, by the application of the appropriate stimulus given in proper quantities and given always in the light of careful and systematic examination of the effects produced on the blood.

The meeting then adjourned.

THE JOHNS HOPKINS HOSPITAL, BALTIMORE. The Johns Hopkins University Hospital suffered severely in the recent terrible fire at Baltimore by the destruction of a house property from which a considerable portion of its revenues were drawn. Mr. J. D. Rockefeller has given £200 to make good the loss caused to the hospital.

PATHOLOGICAL SOCIETY OF LONDON.

Meeting at the Royal Army Medical College, Examination Hall.

Lieutenant-Colonel Firth, R.A.M.C., in the Chair.

Tuesday, March 1st, 1904.

Notes on some Experiments concerning Bacillary Dysentery.

Lieutenant-Colonel R. H. Firth, R.A.M.C., read a communication on this subject. The author observed that while there could be no doubt as to the existence of bacilli in the intestinal dejecta from cases of acute dysentery which were capable of differentiation from the common colon and enteric micro-organisms, all the bacilli which had been described as being the specific cause of bacillary dysentery were probably not so. In the course of a detailed examination of a considerable number of these dysentery bacilli, derived from a variety of sources, it was possible to divide them into those which were pathogenic and those which were not. Pathogenicity had been determined in the rabbit, and although both varieties presented morphological resemblances in common, the distinctive cultural features of the non-pathogenic group seemed to be an ability to split maltose, galactose, and mannite with the formation of acid, but without production of gas, also to produce indol; these characteristics were wanting in the pathogenic varieties. The non-pathogenic forms were apparently the "pseudo-dysentery bacilli" of some authors, but whether they represented degraded or transitional forms of the pathogenic type he was unable to say. As representative of the true bacilli of dysentery he mentioned the organisms associated with the names of Shiga, Vaillard, and Kruse. After demonstrating the cultural reactions of the two types, he pointed out that, from the point of view of their agglutination reactions, the two groups presented marked differences. Whereas the serum derived from animals immunized with one or other of the pathogenic varieties was capable of reacting upon the other members of the same group in high dilutions, it had little or no effect on those of the non-pathogenic group; moreover, there was no concordant interaction between members of this latter group and sera resulting from immunization with similar non-pathogenic strains. The same experiments had shown that, in the rabbit, although a serum had developed marked agglutinating functions, it had no antitoxic action. While in rabbits no ill effects followed when the dysentery organisms or their toxins were administered either by the mouth or by direct injection into the intestinal tract, as exposed by a preliminary laparotomy, lesions characteristic of those found in human dysentery could be produced by subcutaneous inoculation. Examples of these were exhibited, showing ulcerated and sloughing areas in the caecum and large intestine, also sections of some of the affected parts in which the bacilli seemed to be primarily affecting the submucous layer of the bowel. The lesions could be caused not only by injections of living bacilli but also by cultures killed by heating to 60° C. for half an hour; the same effects followed inoculations with a sterile filtrate derived from a twenty-four hour broth culture and also with the filtrate obtained from a sterile autolyzed maceration in water of bacilli which had been killed by chloroform. The existence of a toxin in broth filtrate had been denied by some, but experiments were cited to show that the broth in which the dysentery bacilli were grown was definitely alkaline, no difficulty was experienced in obtaining a highly toxic filtrate. The specific toxin so elaborated by the cultures in these bodies appeared to have a selective affinity for the mucous membrane of the large bowel, as it was remarkable that in all cases of dysentery the blood and organs, and even the gastric mucous membrane, were practically free from lesions, which were confined to the lower part of the intestinal tract, also that experimentally, and after the failure to bring about the same effects when the bacilli or their toxins were introduced directly into the alimentary canal, some interesting observations had been recorded on the possibility of there being some bactericidal or neutralizing substance in the epithelia of the intestinal tract of the rabbit. Localized lesions in the peritoneum were easily produced by intraperitoneal injection of a virulent culture of the dysentery bacilli with bacteria from various organs of a healthy rabbit, such as the spleen, liver, kidney, mesentery glands, and the epithelium scraped from some part of the caecum or large bowel. After centrifugalization, decantation of the clear liquid were injected into five rabbits, a sixth being taken for a control injection with an emulsion of the bacilli alone. The control died on the third day; the rabbits which had received the bacilli with emulsions of spleen, liver, kidney, and muscle died on the fourth day with characteristic lesions; while the animal inoculated with the mixture of bacilli and emulsified intestinal epithelia survived until the eighth day. In a second experiment, the antitoxic influence of the intestinal epithelia was more marked, the animal surviving. Some facts had been established as to the viability of these dysentery organisms outside the body, indicating that, desiccated in soil or on rags, the bacilli could survive some twenty-one days, while from tap water kept at 22° C. they were recoverable up to fifty-five days, and at 37° C. up to twenty-eight days. If spread on ordinary bread these bacilli survived a week. The inquiry justified the conclusion that the dysentery bacilli were a specific group, capable of producing definite lesions in the caecum and large bowel of varying degrees of severity such as catarrh, simple petechial patches, punctiform ulcers, large erosions, and even complete sloughing of large areas of the mucous membrane. In accordance with these lesions, the clinical entities, called dysentery, produced by these pathogenic bacilli represented a group rather than a single class of cases, and might range from the infective diarrhoeas of infants and adults through the various degrees of ileo-colitis to the typical acute dysentery of camps and the tropics. There was still something to be done to explain the precise antecedents essential to infection, as, arguing from these experiments on the rabbit, it was difficult to explain the epidemiological facts by the orthodox channels of polluted drink and food only, without premising some condition which antecedently either inhibited or lessened the apparently normal defence against infection, inherent in the intestinal mucous membrane.

Deep Chromatin Staining in Malaria.

Major W. B. Leishman, after alluding to the advances in knowledge of the structure and development of the parasites of malaria, due to the specific coloration of the chromatin by the method of Romanowsky, and its numerous modifications, proceeded to describe the effects of deep chromatin staining on the different varieties of malaria parasites, with special reference to the changes which this intense staining demonstrated in the red corpuscles infected by these parasites. By means of diagrams and stained blood films Schuffner's dots in the cells invaded by benign tertian parasites were demonstrated and it was pointed out that a very moderate grade of intensity of staining sufficed to show them and that their presence was constant and was diagnostic of this variety. In quartan malaria, on the other hand, he, in common with other observers, had failed to demonstrate any changes in the red cells by the most intense staining. As regards malignant tertian or tropical malaria the work of Stephens and Christophers, of Maurer and of Argutinsky, was described and contrasted, and stained films were shown demonstrating, first, the dots in the red cells infected by young malignant shizonts, and, secondly, the deep-stained capsules surrounding the mature gametes or crescents as described and figured by Maurer. In view of the apparently contradictory results obtained by Maurer and Argutinsky and of his own failure, except in a few instances, to demonstrate Maurer's dots and capsules Major Leishman suggested that these discrepancies might be due to there being more than one variety of tropical or crescent malaria, and that the differentiation of this fever into malignant tertian and quotidian, although largely abandoned, except by the Italian and American schools, might prove to be correct. The existence of two or more distinct species of malignant parasites would account for the difference in the result obtained, and he suggested that the systematic investigation of these malignant parasites by means of deep Romanowsky staining should be undertaken with a view to settling this disputed point. In showing some sketches of the capsulated crescents Major Leishman called attention to some forms which appeared to him interesting as indicating the probable mode of development of the characteristic crescent from a circular intracorpuscular parasite somewhat similar to the gametes of benign tertian and quartan malaria. Specimens were also exhibited of the section of brain from a case of malarial coma to show the effects of Major Leishman's stain as applied to sections.

The other communications made were upon Various Forms of Trypanosoma, by Captain D. S. Harvey, and Perforation of Bronchus by Aorta Aneurysm, by Dr. T. J. Horder.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, March 14th, 1904.

Discussion on Acute Intestinal Obstruction.

Dr. Hale White, in opening the discussion, confined his remarks to the point of early diagnosis, the responsibility and value of which had been increased largely by modern surgical developments. Conditions which had been mistaken for it were acute appendicitis, acute peritonitis (especially as confused with volvulus), acute haemorrhagic pancreatitis, perforation of a hollow viscus or cyst, thrombosis and embolism of the mesenteric vessels, intestinal colic, biliary and renal colic, ulcerative colitis, and various gynaecological conditions leading to peritonitis. Illustrative cases were quoted and the differential diagnosis under various circumstances discussed. In reference to the form of obstruction, it was pointed out that it was the strangulation and not the obstruction which chiefly was responsible for the symptoms. Internal strangulations were by far the most important to diagnose early. The causes referred to were gall stones, bands, malignant growths, volvulus, and others.

Mr. A. E. Barker limited his remarks to the principles of the surgical treatment. There were three important factors which had to be met in obstruction: (1) mechanical or anatomical, (2) physical, (3) vital. The mechanical factor was less dangerous if promptly relieved. The physical factor, induced by strangulation, consisted in congestion of the bowel, thrombosis, and effusion, conditions which were very serious if neglected. The vital changes, due to the action of toxins stored up under pressure in the bowel, formed the greatest danger. It was essential to obtain quick evacuation of this putrid material, either by an artificial anus or better by resection of the bowel. Illustrative cases were quoted. The chief details in operative treatment to be observed were given. Local analgesia was advocated in preference to general anaesthesia in most cases and washing out of the stomach.

The President alluded to a case of mistaken diagnosis of renal colic for intestinal obstruction. If there were doubt a few hours' delay was indicated. It hardly seemed to him that the seat of the obstruction, high up or low down, in relation to the severity of symptoms was of so much importance as the amount of strangulation. He also would advocate the use of the stomach tube.

Mr. Carter Braine referred to local anaesthesia in operations for intestinal obstruction, and described the anxiety attendant on the administration of general anaesthetics in these cases. Even washing out the stomach for fifty minutes in one instance was not sufficient to empty it—the method could not always be relied on.

Dr. Vincent Bell described cases from his own experience.

Mr. H. J. Waring discussed the differential diagnosis of acute intestinal obstruction from hysteria, based chiefly on the character of the pulse. The colour of the intestine was an important guide to the seat of the obstruction. The rectum should be carefully investigated in every case.

Dr. Hale White and Mr. Barker replied.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Monday, March 7th, 1904.

Thomas Barr, M.D., President, in the Chair.

Labyrinthine Suppuration.

The discussion on Dr. Milligan's paper—the Etiology and Treatment of Labyrinthine Suppuration—was resumed.

Mr. Cheatle did not think vertigo necessarily pointed to invasion of the labyrinth, and erosion of the inner wall of the antrum and tympanum did not always imply fistular openings into the labyrinth. Cases often recovered from these conditions without exploration of the labyrinth and without serious loss of hearing. He recommended operating by stages. Exploration by the posterior limb of the external semicircular canal was less likely to cause injury to the facial nerve or jugular bulb than that by the anterior limb or by the inner wall of the tympanum.

Mr. Whitehead referred to 691 cases of mastoid disease operated on in thirteen years at the General Infirmary, Leeds: 27 had suppuration of the labyrinth. Of these, 14 had facial palsy; 5, vertigo; 11, no special symptoms; 11 died, 6 from cerebellar abscess, 3 from meningitis, and 2 from marasmus.

Professor Urban Pritchard supported the views expressed by Mr. Cheatle, and suggested the use of 1 per cent. solution of nitric acid for decalcifying large sequestra.

Dr. Dundas Grant discussed the difficulty of exploring supposed fistulae in the labyrinthine walls without producing the very disease whose existence was feared.

Mr. Fagge agreed with Mr. Cheatle as to the method of exploration.

Mr. Lake referred to the frequent causation of deaf-mutism by necrosis of the labyrinth, especially in scarlet fever.

The President spoke of the frequency of extension of suppuration from the labyrinth to the cerebellar fossa. He drew attention to the fallacies of Weber's test for nerve deafness, instancing a case in which the sound of the tuning fork was referred to the affected ear though the labyrinth was destroyed.

Dr. Milligan replied.

Cases.

Dr. Dundas Grant reported a case of thrombo-phlebitis of the sigmoid sinus in which recovery took place after removal of the suppurating clot without ligation of the internal jugular vein.—Mr. Lake showed four patients, and also drawings, one of undoubted herpes of the membrana tympani, and three of conditions "nearly allied to, if not actually, herpes."—Dr. Potter showed a patient with signs of hereditary syphilis in whom appreciable improvement of hearing had followed a course of subcutaneous injection of pilocarpin. Mr. Cheatle, Professor Pritchard, and Dr. Horne thought pilocarpin of less value than repeated blisterings. Dr. McBride and Mr. Lake thought pilocarpin the most valuable remedy which was known for labyrinthine deafness. Dr. Grant thought it was valuable in hyperaemia of the labyrinth and the reverse in anaemia.

Exhibits.

Mr. Hugh E. Jones, Dr. Tilley and Dr. Pegler: Temporal bones with apparently small antra mastoidea, or with the cavity replaced by diploë or sclerosed bone.—Mr. Cheatle: Temporal bones showing some fallacies of Macewen's triangle as a guide to the antrum. Dr. Tolson Horne: Preparations illustrating the surgical and morbid anatomy of labyrinthine suppuration.

It was announced that the next meeting of the society would be held at Glasgow.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. Richardson, M.R.C.S.Eng., President, in the Chair.

Friday, March 4th, 1904.

Rupture of the Intestine.

Mr. Lawford Knaggs read notes of two cases of rupture of the intestine, which will be published in full.

Dr. Christy Wilson (Doncaster) gave the details of a case of a man, aged 25, who had been struck by a tramcar on the left side of the abdomen and been knocked down. There was severe pain in the abdomen and collapse. No bruising was to be observed, but there was some percussion dullness and tenderness over the left half of the abdomen and flank. As the collapse did not lessen and there was vomiting, the abdomen was opened and a rupture sufficiently large to take the finger was found in the ileum. A tapeworm was seen in the intestine; 15 ft. of it was drawn out, but unfortunately without the head. The rupture was closed by a continuous silk suture and Lembert sutures. The abdominal cavity was flushed. The patient made a good recovery.

Mr. Walter Thompson read notes of the following case: A. C., aged 20, was admitted into the Leeds Infirmary on January 14th last, having been kicked on the abdomen by a horse thirteen and a-half hours previously. The abdomen was evenly and slightly distended and rigid all over. The loins were dull to percussion. There was much abdominal pain. Pulse 140, weak. The abdomen was opened below the umbilicus. There was odourless gas in the peritoneal cavity and signs of peritonitis with fluid. A rupture ¾ in. long was found (probably in the jejunum) with much bruising. The part was excised well wide of the injury and end-to-end anastomosis effected. The patient left the infirmary on March 11th.

Mr. Moynihan discussed the paper, and Mr. Knaggs replied.

Inversion of the Uterus.

Dr. E. O. Croft (with Mr. R. Muschamp) related a case of acute inversion of the uterus in which reduction was successfully effected on the eighth day after labour. The patient had been attended by a midwife and the history suggested

that the condition had originated during the third stage of labour.

The President, Dr. Seligmann, Dr. Hellier and Dr. Ellis took part in the discussion; and Dr. Creed replied.

The Causation of Cancer.

Dr. Johnstone Connell discussed the views of recent investigators who thought that the development of cancer was the result of the degenerative reversion of epithelial cells to a germinal type in association with local conditions which ensured an abundance of nourishment. He himself attributed some importance to a hereditary factor in the tendency of epithelial tissues to early degeneration, and also to a special environment which he thought would account for the existence of cancer across streets, etc. He considered that if, with the epithelial cells ripe for a degenerative reversion to a germinal type, there was also present an irritant—mechanical, chemical, or biological—and at the same time an abundant blood supply, then the development of an abortive sexual generation under the name of cancer would be inevitable.

Society of Anæsthetists.—At a meeting held on March 9th, the President, Mr. C. Carter Braine, in the chair, Dr. Ethe read notes on a case of post-anæsthetic coma in a patient, aged 40, who was anæsthetised by A.C.E. preceded by ethyl chloride. Death occurred on the fourth day. The urine contained a trace of albumen and many granular casts. *Post mortem* the kidneys and heart were found to be diseased, and in the brain were the remains of old embolisms. The President communicated a case of goitre in which nitrous oxide was given and subsequently ethyl chloride. During deep anæsthesia for tooth extraction the patient became asphyxiated without apparent cause, but recovered on being laid horizontal; an enlarged goitre which had been concealed by the macintosh apron was then observed. Subsequently ethyl chloride was given most successfully. He suggested that the neck should always be exposed as far as the suprasternal notch in all administrations.—Miss Clapham, M.B., related a case of post-anæsthetic coma; death after four days after administration of A.C.E. for an hour, followed by ether for three-quarters of an hour. The coma lasted till death occurred from bronchitis and dilated heart. A necropsy showed old mitral disease, old infarcts in the kidney, and a narrow cortex, great cerebral congestion and three small cortical haemorrhages.—Dr. A. G. Levy showed an arrangement for administering ethyl chloride by Clover's ether inhaler. A graduated glass tube was cemented into the vulcanite stopper of the inhaler, the dose was then sprayed into the tube, which was at first dependent and then inverted. The ethyl chloride vapour was gradually mixed with air by rotating the inhaler. Ether could afterwards be added.—Dr. Dudley Buxton read a paper entitled, Notes Drawn in Early Narcosis. Discussion on it was adjourned. Afterwards the annual general meeting was held. The reports of the Council and of the Treasurer were read and adopted. The following officers were then elected for next year:—*President*: Mr. C. Carter Braine. *Vice-Presidents*: Dr. J. F. W. Sark, [illegible] Dr. R. J. Prolyn Williams. *Members of Council*: Mr. Barney Hilliard, Dr. Luke (Edinburgh), Dr. Ernest H. [illegible] Dr. McCardie and Mr. Crouch. *Hon. Librarian*: Miss L. E. Aldrich-Blake, M.D., M.S., and Dr. C. J. Wenthett.

Ophthalmological Society of the United Kingdom.

At the meeting on March 10th, Mr. Arthur Critchett, F.R.C.S., Vice-President, in the chair, Mr. J. R. Lunn showed markedly tortuous and congested retinal veins of unequal calibre in one eye, the vessels in the other eye being normal. A large area above the [illegible] was involved in haemorrhage. Owing to the serious view of such cases taken by Mr. Lunn he could not [illegible] the patient with Mr. Nettleship had suggested [illegible] Mr. Lunn stated that although he had [illegible] yet in this case there [illegible] Mr. H. Gunn exhibited a case and also had [illegible] in a boy [illegible] eye. When light was allowed to [illegible] the good eye the pupil contracted, while the blind eye contracted distinctly quicker and when light was withdrawn the reverse took place. He stated eye rotating downwards. This condition had been previously noticed after head injuries, but had not before been described as occurring in such a case as the present one.—Mr. H. L. Eason showed a case of what he took to be a persistent hyaloid artery. The right eye had defective vision and nystagmus. The vessels were seen emerging from the lower border of the disc, one branch running forwards and opening in a funnel-shaped aperture against the ciliary body below the iris. She said it be considered as an inflammatory condition or as a developmental condition, namely, a persistent hyaloid artery. Mr. Treacher Collins saw no reason for doubting that it was really a persistent hyaloid artery, and that, in addition, there had been atypical development of the vitreous.—Mr. Eason also showed a patient with albuminuric retinitis, who, three years before, had acute nephritis, anasarca, and detachment of both retinæ. His general condition had greatly improved and the detachment in both eyes had subsided.—Mr. Claud Worth showed a member of a family in which congenital dislocation of the lens was present in five generations. Twenty-four years before Mr. Stanford Morton had described the family in a paper in the *Royal London Ophthalmic Hospital Reports*, and since then two more members had been born, both with the same condition. The Chairman thought that such a series of cases was most important as bearing on the subject of heredity.—Mr. Nettleship thought that possibly a slight luxation of the lens in young children might account for the high degrees of myopia which were occasionally seen and which did not get worse as time went on.—Mr. A. H. Thompson showed a girl, aged 10, who had a congenital coloboma of the iris downwards in one eye. Near the periphery of the fundus and well below the macula was a white patch with indefinite edges and a band of healthy choroid crossing it. In view of the condition of the iris he took it for a coloboma otherwise he would have been inclined to regard it as a patch of choroidal atrophy. The vision was [illegible] and the left eye was normal.—Mr. Bishop Harman showed a child, aged 5 years, with the following abnormalities: The anterior fontanelle was not closed; a coloboma of each upper lid; a coloboma of the iris and choroid on one side; two dermoids of the globe on the right side; very tortuous retinal vessels; an imperfect mouth; a depression over the sacrum representing the tail (*fovea sacralis*); two nævi on the right side and four on the left. The child was unable to walk or say more than a few words.—Mr. A. H. Bennett showed a girl, aged 9 years, who when first seen in October, 1901, had keratitis punctata in the right eye; she was not again seen until she attended as an out-patient under the care of Mr. Claud Worth at the West Ham Hospital on February 11th last. The right eye had been red for a month, and the sight had failed without pain. With this eye she could only see hand movements; the vision of the left was 6/9. The right eye was inflamed with gross oily-looking patches of keratitis punctata. The iris was yellowish and the pupil was occluded. There were five tuberculous-looking masses growing near the angle of the anterior chamber, varying from the size of a shrivelled barley-corn to that of a No. 6 shot. These appeared to be fluffy as though covered with exudation. The eyeball was not tender and there was no fundus reflex. The left eye was normal except for slight ciliary redness. Atropine was applied and hyd. c. creta and syr. ferri phosph. co. were given internally. Two weeks later the exudate had mostly disappeared, and small blood vessels were seen on the surfaces of the growths. The left eye now showed typical pyramidal keratitis punctata; the vision remained the same; the lungs were healthy, but the cervical glands were enlarged. The family history disclosed nothing either specific or tuberculous.—Mr. R. Marcus Gunn showed a drawing of an eye with malformation of the suspensory ligament. The patient complained of symptoms suggestive of a refractive error, but after the use of atropine the upper edge of the iris, instead of being convex, was roughly speaking horizontal. At two or three places some fibres of the suspensory ligament came down and were attached to it, thus giving rise to elevations along this edge; there was also a coloboma of the iris downwards.

International Dermatological Congress.—The fifth International Congress of Dermatology will be held at Berlin this year from September 12th to 17th. The following questions are proposed for discussion: (1) Skin affections in anomalies of metabolism; (2) syphilitic diseases of the circulatory system; (3) epitheliomata and their treatment; (4) the state of the questions of the spread and prevention of leprosy since the date of the first leprosy conference held in 1897; (5) the present state of knowledge concerning arsenic in leprosy.

REVIEWS.

PULMONARY TUBERCULOSIS.

Dr. Hugo Beckmann has written a pamphlet, apparently to draw attention to the tonsil and lymphoid tissue round the pharynx, etc., as the chief path of entry of the infecting micro-organism in tuberculosis. He points out, that it is only after many years of inhaling air in which carbon particles are suspended that such particles are found in the lung: they are not found in children's lungs nor in those of young adults, yet it is the young adults who chiefly suffer from pulmonary tuberculosis. If the ciliated epithelium of the air tubes can keep carbon particles from reaching the alveoli he argues that they would be equally efficacious in keeping out inhaled bacilli. On the other hand, there are anatomical grounds for looking to the lymphoid tissues round the fauces and pharynx as the most probable sites of entrance of the tubercle bacillus, as of the pneumococcus and other organisms. Though the slow development of tubercle bacilli renders it difficult to trace their course by evident pathological changes such as mark the passage of more rapidly developing organisms, yet the known course of the lymphatic vessels show the possibility (and probability) of tuberculosis of the cervical glands, or of the bronchial glands from infection through the tonsils. So also pulmonary tuberculosis and meningeal tuberculosis may be similarly caused. On this conception of the actual seat of infection preventive measures should be based, and such measures are discussed in the latter part of the pamphlet. Removal of the tonsils is recommended as one of the most important.

Drs. Pilliet and Verhaeven in the compass of 152 pages[2] give the main details of the sanatorium treatment of consumption as carried out in the sanatoria of France and Algiers, a list of which institutions is given at the end. The authors divide their subject under the headings: The air cure, the rest cure, overfeeding, antiseptics, and organization of sanatoria. They insist upon the importance of climate in the fresh-air treatment, and do not agree with those who would consider pure air to be equally valuable in the treatment of consumption in whatever locality it may be procurable. Change of air, in the sense of a change of climate, is, they consider, an important factor in the treatment. Full weight is given to the influence of complete rest—moral as well as physical: and one of the chief drawbacks of home treatment is the difficulty of ensuring complete repose of mind, as well as of body, when amongst friends and relations. In common with many Continental and some English writers, the authors attach primary importance to overfeeding (*suralimentation*), but they recognize the necessity of diminishing the quantity of food when dyspepsia occurs. The importance of attending to imperfect or decayed teeth is not overlooked. A table giving a full dietary for the week is valuable, though some of the constituents, such as veal, ham, or cucumber, would perhaps astonish English patients. Cheese in some form is given daily. Antisepsis and the proper disposal of the sputa receive due attention, and in the chapter devoted to the organization of sanatoria, questions of construction, furnishing, heating, etc., are discussed. An interesting feature of each chapter is the short historical sketch showing for each essential of the treatment of consumptives, as now practised, the landmarks in the evolution of the views now generally accepted. The last fifty pages are devoted to a description of the French sanatoria. According to the list given of these institutions, there are 12 sanatoria for paying patients and 18 for the poorer classes. Those for paying patients contain in all 2026 beds and a further 100 beds are in preparation. The sanatoria for the poor provide altogether 1,155 beds, with a further 425 in contemplation, chiefly accounted for by the fact that 5 out of the 18 institutions are as yet unfinished. The total provision for the sanatorium treatment of consumption would thus appear to be unduly small for the size and population of the country. A classification of the sanatoria according to the altitude and climate of the different localities gives occasion for some valuable remarks upon the effects of altitude, sea air, etc., upon consumption in its different stages and clinical varieties. The numerous illustrations add greatly to the interest of the book.

[1] [illegible] The Internal Treatment of Pulmonary Tuberculosis. Translated by Dr. Hugo Beckmann. Berlin: Simion Nachf. and London: Williams and Norgate, 1904. Demy 8vo, pp. [illegible].

[2] [illegible] Paris: Doctеurs A. F. Plicque et Verhaeven. Paris: C. Naud. 1903. (Crown 8vo, pp. [illegible].

THE WONDERFUL CENTURY.

The second edition of Mr. Wallace's book *The Wonderful Century*[3] is really a remarkable production. It is an extremely comprehensive epitome of modern science, and we can quite envy any educated though unscientific person who in its pages may for the first time be introduced to scientific facts. All the most interesting scientific advances are described therein—telephony, the Hertzian waves, with Marconi's applications of them, photography, light and heat, the kathodic and Roentgen rays, the wonders of radium, the liquefaction of gases; chemistry, electricity, and astronomy; geology, physiology, and evolution. Excellent summaries of most of these subjects will be found, and all are described in a simple and telling fashion. Though Mr. Wallace has expunged his objectionable chapter on vaccination, about which neither his practical studies nor his actual experience qualified him to write, he mourns very hopelessly over neglected phrenology—it is about as extinct as the dodo, in our opinion—and he evidently believes in clairvoyance; whereas he disbelieves in the efficacy of our lunacy laws and of our prison system, and he would stop starvation by forced contributions from the rich. That might be very good for the rich, but we wonder how much the poor would work under that system; and even riches themselves are valueless when they cannot command labour. On the other hand, we may sympathize with his lamentations over the dominant militarism of the time, over the loss of six million workers every year, and in respect of all that is expended on national armaments. If the good sense of nations would only abolish one-half of that waste, what a fund would it not leave for the poor and aged. Mr. Wallace calls our prison system utterly unchristian and a hell upon earth; but what would he have us do when even now we read of foreign criminals hailing their sentences with contentment, and when a prison surgeon can say that he knows no healthier and more comfortable place for a few weeks of peace, quiet, and reflection than one of His Majesty's prisons?

A charming chapter is that on dust, and from it we imagine that most will acquire much information. Mr. Wallace is well known to have thought out independently the theory of the survival of the fittest, and he tells his story in Chapter xvii with admirable taste and in the most self-restrained manner. We must warn our readers, however, that though we hope that most of them will read and enjoy Mr. Wallace's pages, they must not accept all his assertions without verification. It would take too long to analyse the whole of the volume, but we may be permitted in a medical journal to direct special attention to the chapter on physiology. Personally, we should have said that the first result of reproductive cell division was a morula and not a gastrula, as Mr. Wallace says; but let that small carping pass. The next objection is more serious. Mr. Wallace says that the white blood corpuscles are produced in the spleen. If he had consulted any modern work on the blood, say, that of Ehrlich and Lazarus—he would have seen that the spleen is just where they are not produced, unless, perhaps, in disease. More remarkable still, he affirms that the white cells are smaller than the red—an assertion which every medical student will know to be open to qualification. Then he speaks of their phagocytic power as their most important function, though it has been shown by Fodor and Nuttall how much more powerful is the germicidal action of the serum, and by Denys how leucocytes in a hanging drop will take not the slightest notice of pneumococci until some antitoxic serum has been added. Metchnikoff, indeed, himself has abandoned his phagocytic theory, and now only claims for his phagocytes that they give off a specific and digestive ferment inimical to bacteria. So all the argument of page 390 falls to the ground.

Again, we can assure Mr. Wallace that we do not wash our surgical instruments in a solution of corrosive sublimate (p. 393), nor do we (whatever we did twenty-five years ago) operate nowadays in a copious spray of carbolic acid. We are willing to believe that most of Mr. Wallace's statements are more trustworthy than those just mentioned; but those errors show how cautious we must be in accepting without verification the *ipse dixit* of any man, however eminent, when he travels outside the confines of his own special studies and experience. The statement as to the ubiquity of bacteria is exaggerated. They are not as a rule found more than 3 ft. below the surface of the soil, and not at

[3] *The Wonderful Century*. [illegible] New edition by Alfred Russel Wallace. [illegible] and Co., Limited. [illegible] pages and [illegible]

all in the pure air of the oceans or of the mountain heights. Neither are the majority of the bacteria pathogenic or capable under ordinary circumstances of injuring us; and as regards the strictly pathogenic organisms, no amount of personal or municipal hygiene will save us if we drink water infected with typhoid, etc., or, being unprotected by past small-pox or by the "Jennerian rite," we should make a practice of visiting small-pox patients.

We can not believe that the present epoch will be spoken of hereafter as of "almost incredible narrowness and prejudice" because it taboos the old phrenology. Have we not the new phrenology of Ferrier and Hitzig, of Horsley and Schäfer, and is it not far better? Thanks to the investigators above mentioned, and to Golgi and Ramon y Cajal, to Sherrington and to a host of others, we have great hopes of the new phrenology, but the old is dead and buried, along with the theory of phlogiston and with the cycles and epicycles of Ptolemy. As regards psychical matters, there can be no doubt that hypnotism can abolish pain, but it is an uncertain treatment and therefore inferior to nitrous oxide and ether, and it may be injurious in its after-effects on patients. As regards clairvoyance, is not trickery possible and likely? And if there is truth in it, why do not the clairvoyants make fortunes on the Stock Exchange, which would be much more practical than collecting a few sparse guineas from the credulous? Why does Mr. Wallace grudge to Harvey the honour of a discovery of the first class? Can it be because he utilized living animals? The Italians at least do not consider his discovery as of second-class importance, for they have claimed it with little reason but with much effusion and persistence for their own Caesalpino.

Mr. Wallace's mind is an extraordinary one—extraordinary in its scope and originality, as also in its occasional and somewhat annoying archaic one-sidedness; and we should be false to our trust if, in admiration of his great attainments, we should gloss over or pass by what we know to be his honest but believe to be his mistaken opinions. His latest book, however, like most of his books, is one to have and to hold, and we shall be pleased if this review should induce many to add to their library *The Wonderful Century*.

PUBLIC HEALTH.

The first edition of Dr. Samuel Rideal's book on disinfection was published in 1895. The author states that the third edition issued recently has been thoroughly revised, and in the new text is incorporated the result of added experience and recent researches. The volume deals with the whole subject of disinfection and disinfectants. The latter are subdivided into non-metallic, metallic, organic substances, and compounds related to the alcohols. Sterilization by heat is also fully dealt with, and details and particulars are inserted respecting the chief apparatus now in common use in this country or on the Continent of Europe. The chapter devoted to a discussion of the practical methods of disinfection will, to many readers—particularly those whose business it is to carry out disinfection—prove of most utility. The question of personal disinfection, the preservation of food, the law as it concerns disinfection, and methods of analysis, all receive attention. The book contains an immense body of facts on the subject of which it treats. If we have any criticism to make it is a general one to the effect that throughout the work the reader does not feel the guiding hand of the author as much as he would wish. Large numbers of experiments, for instance, are quoted, but there is too little of the author's own opinion respecting them. Great discrimination is needed in quoting experimental researches, particularly in the realm of bacteriology, and in new departments of knowledge more than in that region of bacteriology which deals with the powers of disinfectants. Comparable results and comparable methods are essential before conclusions can be drawn. But as the book before us, as its author would be the first to admit, large numbers of experiments are quoted respecting which there is little or no evidence that they are actually comparable or sufficiently authentic and reliable to be of permanent value. Dr. Rideal has himself contributed so largely to our knowledge of disinfectants and their properties that we look to him and others in a similar position to elucidate and eliminate in such a way as to place disinfection upon a sound basis. The standardization of disinfectants in respect of their bactericidal properties is greatly needed, and one of the most useful parts of Dr. Rideal's book is that dealing with this subject, in which he suggests that the examination of disinfectants should include a consideration of the following factors: Time of exposure, age of culture, medium used, incubation temperature, temperature of medication, variations in vital resistance of same and different species, and proportion of culture to disinfectant. This is excellent, though perhaps not exhaustive, and our only regret is that this standard is inapplicable to many of the experiments quoted in the book. The section dealing with food preservation is an amplification of the author's well known views as to the practical necessity of adopting chemical methods of keeping perishable articles of food. Under the milk section, we observe that he states that "several epidemics have been traced to this cause" (milk infection), which is a curious under-estimation. The discussion on the milk preservation question, as also that on butter, condensed milk, and cheese is scarcely worthy of the book, and the section incorporated on law might well have been left out or made much more adequate to the occasion.

We have before us the third edition of a *Manual of Practical Hygiene* by M. Guiraud. It has been revised and enlarged since the second edition appeared four years ago in order to keep pace with scientific discovery and progress. In the introduction M. Guiraud tells us that the vulgar definition of hygiene is "that part of medicine which has for aim the preservation of health." But for him its meaning is infinitely wider, and he would follow Bouchard and Rianz in adding to the definition the word *amelioration*, thus extending considerably the horizon of the science. Hygiene then would embrace all that concerns the material and moral bettering of man, taken individually or collectively; in other words, the progress of humanity. And it is to meet this definition that the author has written. He has classified his subjects according to the old Latin scheme. Thus, under the head Circumfusa are ranged climate, soil, atmosphere; under Ingesta, alimentation; under Applicata and Gesta, or Hygiene of the Body, clothing, personal cleanliness, and physical exercises; while to Percepta correspond what in the present day we term intellectual and moral hygiene. These subjects are dealt with exhaustively in over 1,000 pages, and in a very interesting manner. There is a table of contents at the end of the volume, which renders it easy to grasp M. Guiraud's scheme, and also an index.

Mr. Poley's *Guide to the Housing Acts* is intended for the use of local authorities, councillors, surveyors, solicitors, and others engaged in carrying out the administration of the Housing Acts. The general effect of the important statutes is stated in the first part of the work, and the meaning of the various provisions of these Acts is explained in notes which refer the reader to decided cases. Not content, however, with a mere epitome, the author has very wisely set out the text of the various statutes in the appendix. Those portions of the work which relate to the powers and duties of the medical officer of health are particularly clear and concise. This official, upon whom the proper administration of these Acts so largely depends, will here find a statement of his duties as inspector of insanitary areas and dwellings, and references to the statute which prescribe the limits within which he may exercise jurisdiction. A good index concludes a handy volume which we can confidently recommend to all who desire to understand an obscure but important branch of the law relating to the administration of public health.

In the fourth edition of his little book on *Water Analysis* Dr. Thresh has included a description of a process for determining the free ammonia by distillation. We are glad to see that he points out that his "simple method" is to be coupled with an examination of the source of a water supply, and we trust that attempts to simplify and shorten the systematic examination will not lead to slovenliness in an important branch of public health work.

Manuel [illegible]. Par le Docteur Guiraud. Deuxième édition. Paris: G. Steinheil. [illegible] pp. [illegible].

[illegible]. [illegible] with Appendix containing the Statutes [illegible] together with the Rules and Circulars of the Local Government Board. By A. P. Poley, Barrister-at-Law. London: [illegible]. Crown 8vo, pp. [illegible].

[illegible]. [illegible] Fourth edition. [illegible]. By C. Ernest Thresh, M.D., D.Sc. Lond., D.P.H. Camb. London: [illegible]. J. and A. Churchill. [illegible] pp. [illegible].

NOTES ON BOOKS.

Mr. BENHAM'S book, *The Law of Scientific Hand Reading*,[1] comes to us from the other side of the Atlantic. It would be unkind to express a wish that it had remained there, for the author appears to have expended a considerable amount of time and money on its production; but our British conservatism is such that, in spite of the lengthy dissertation and lavish supply of illustrations provided for our conversion, we remain unconvinced of the truth of the conclusions drawn by him. Mr. Benham tells us that a marking on the hand in the form of a large star, "with deep red lines, and a deep dot for the centre ... is the explosion which destroys..... On the Life line it means sudden death, on the Head line it means an explosion in the mental faculties, or insanity....." Again, we read that there are a number of lines on the hands denoting the influence of relations on the life of the possessor of the markings. A star on the end of a line of Influence indicates the ceasing of that influence. Worry lines denote trouble and difficulties. If a Worry line cutting a "rising branch from the Life line cross the hand and cut a line which is forked" the horrors of divorce are threatened. "If a Worry line start from a star on the end of an Influence life and cut a rising line from the Life line, it indicates that the death of a relative caused the trouble." To the unsophisticated mind these utterances sound uncommonly like nonsense.

The twenty-second annual issue of *The Medical Annual*[2] preserves all the well-known characteristics of a work which appeals chiefly to those who are engaged in busy general practice, and who have little time to read widely. It is a mine of fresh ideas culled from the medical literature of the year of all nations. The ideas may not always be sound, and the book requires to be consulted with discretion, but with this qualification it may be recommended to all those who desire to keep in touch with contemporary thought and practice. The pathology and etiology of disease receive a certain amount of notice, but are subordinated to therapeutics and practical treatment. There are a number of excellent coloured plates in illustration of small-pox and other eruptive diseases, but the most noticeable feature in this direction is a series of 12 stereographs illustrating the surgical anatomy of the ear. To view these an effective stereoscope is supplied by the publishers for 2s.

The *Medical Register*[3] for 1904 was received by the courtesy of the Registrar on March 14th. The total number of names contained is 37,878, a net increase of 646 as compared with last year. The number added by registration during the year was 1,233, which is considerably below the average both for the last five years (1,305) and for the last twenty-four years (1,324). The number of persons removed on evidence of death was 546, but no less than 151 were removed under Section XIV, which authorizes the Registrar to remove a name if no answer is returned to a letter of inquiry within a period of six months. The number of names on the Colonial list—that is to say, names of practitioners registered in respect of qualifications granted in British colonies—is 133, as compared with 123 in the last issue; the number of practitioners on the foreign list—that is to say, registered in respect of degrees of foreign universities—is 9; the universities represented are Padua, Pisa, Bologna, Turin, Genoa, and Naples; the address of the person registered is in England in the case of five, in one case in a British colony, and in three in Italy.

We have also received the *Dentists' Register*[4] for 1904. The number of names registered without a diploma as being those of persons in the bona-fide practice of dentistry at the appointed date still constitute the majority, although this majority has now come down to 1.41. The total number of names on the *Register* is 4,676, including three registered with Colonial diplomas, and twenty-four with foreign degrees.

[1] *The Law of Scientific Hand Reading. A Practical Treatise on the Art commonly called Palmistry.* By William G. Benham. London: G. P. Putnam's Sons. (Pp. 624. 200 illustrations.

[2] *The Medical Annual.* 1904. Bristol: John Wright and Co. (Crown 8vo, pp. 926, 71 illustrations. 7s. 6d.)

[3] London: Spottiswoode and Co. Limited. 1s. 6d.

[4] London: Spottiswoode and Co. Limited. 2s. 4d.

REGISTRATION OF NURSES IN AMERICA. The nurses of the State of Massachusetts are urging the passage of a law similar to those already existing in New York, New Jersey, North Carolina, and Virginia, by which an official register of properly-qualified nurses has been established.

REPORTS AND ANALYSES

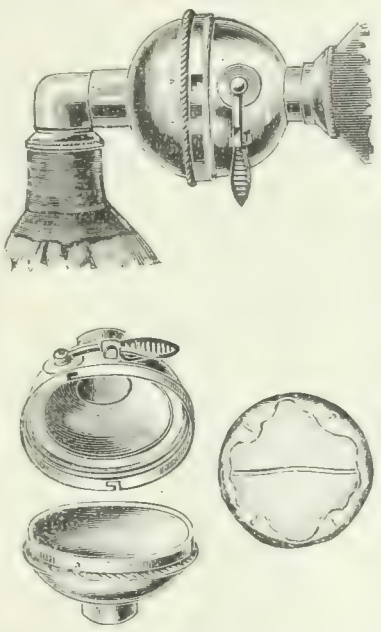
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Ethyl Chloride Somnoform Inhaler.—Mr. HOTTEN GEORGE, Senior Anaesthetist, National Orthopaedic Hospital and Central London Throat and Ear Hospital, writes: I should like to draw attention to a new universal ethyl chloride or somnoform inhaler. It consists of a hollow metallic ball about the size of a small orange; it opens at the centre, and is fixed, when closed, by a bayonet catch. A movable disc of lint or flannel is fastened on a wire frame resting against a ledge which keeps it in position in the middle of the inhaler when the cup-shaped segments are united. At one end of the apparatus is a tube fitting any ordinary facepiece, and at the other, one which takes the usual angle-shaped tube of a Clover's ether bag, so that it is only necessary to add the extra part above described to the ordinary armamentarium of the anaesthetist. The somnoform or ethyl chloride can be sprayed on to the lint either through the facepiece before it is applied, or — preferably afterwards—through an opening in the spherical part of the inhaler. This opening is closed by a flute-key-shaped stopper with strong spring, easily worked by the thumb of the hand which holds the facepiece. Of the making of new inhalers there is no end; but I venture to suggest that this one supplies a long-felt want by doing away with a great deal of special apparatus, and I claim for it the following advantages: (1) Its universal adaptability; (2) its great simplicity and portability; (3) the greater distance of sprayed vapour from patient's face than in ordinary inhalers; (4) the ease with which anaesthetic may be introduced after the application of the facepiece; (5) that an extra dose can be added also without removal of the facepiece. This inhaler has been carefully made according to my suggestions by Messrs. Mayer and Meltzer of Great Portland Street, and is not only a useful but an elegant piece of apparatus. It may be electroplated if desired.

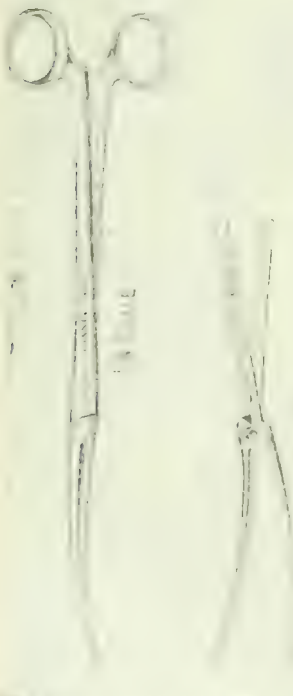


Uterine "Flag Mop." — Mr. E. SOLLY, M.B.Lond., F.R.C.S., showed at the meeting of the Yorkshire Branch of the British Medical Association recently held at Scarborough, a uterine "flag mop," which he believes will be found useful as a substitute for the instrument known as Playfair's probe. In Mr. Solly's instrument it is quite easy to replace the lint, wool, or gauze by a clean piece in a moment; in fact it is the application of the principle of ordinary sponge-holder to

an instrument which is intended to be used in cleansing out or making applications to the interior of cavities, for which the ordinary sponge-holder is too bulky. Mr. Solly writes: "The instrument has been made for me by Messrs. Reynolds and Branson, of Leeds, in aluminium, and either strips of lint or pieces of bandage or ribbon gauze can be used with it very conveniently; they may be inserted either in the

form of a broad strip placed between the serrated portion, so that the metal grips the material like the midrib of a leaf, or by the edge, so as to make a flag. Turning the instrument round in the hand, the material is easily rolled around to make a convenient mop, and equally easily undone and replaced when soiled by use. If it is thought advisable to protect the tip of the instrument (which, however, is blunt), a narrow strip of gauze or lint can be inserted between the serrations near the top, carried over the top, and then wound spirally round as in bandaging a finger, and fastened off where required by the movable collar, which brings the serrated surfaces together. The instrument is sufficiently rigid for use, but can be bent in easy curves to suit the shape of the uterus or any other cavity, and as there is a little projection at 2' in. from the point, it can be used as an ordinary uterine sound if desired.

A New Uterine Forceps Applicator.—Dr. P. J. MACNAMARA, M.D., F.R.C.S., of Kilmallock, writes: Having been worried for years by the removal of the dossil of wool from the ordinary Playfair probe I availed myself of the first improvement which appeared, namely, roughing of the probe, and doing away with the bulb ending. 'I found that while the roughing continued good the removal of the wool was not facilitated, and when the roughing had worn off the facility with which one left the dossil in a strongly contracting uterus, after strong topical applications, became a fresh difficulty. It then occurred to me to try a forceps applicator without any roughing or bulb end. As will be seen from the illustration one of the blades is a plain conical probe, with the usual uterine curve. It is accurately received into the second blade, which is concave, and about 3 mm. longer than its fellow, terminating in a blunt end. When tightly closed the instrument is not much thicker than an ordinary Playfair probe, and when a piece of cotton wool is grasped between the blades, and firmly wound round both, there is no danger of leaving it *in utero*, and very little difficulty in subsequently removing it, on gently dilating the blades.



The instrument also acts as a dilator in the first degree: the cost is extremely simple, and it is easily kept aseptic. The instrument was made for me by Messrs. Fannin and Co., Limited, Grafton Street, Dublin.

Dieting Weights.—Mr. E. Ranschke, Park Lane, Leeds, has made at the suggestion of Dr. PERCY EDWARDS, of Liverpool, some weights for use in dispensing which are likely to be found convenient. Everybody knows the loss of time which may arise in handling the small weights for grains usually issued with balances. The idea of the new weights is that they are shaped to represent 1, 2, 5, 10, 15, 30 grs., 1, 1 and 2 scruples, and 1 and 2 drachms. The 2 scruple and 2 drachm look as if they might tilt over rather easily, otherwise the weights appear to be thoroughly practical. They are supplied in a box at 2*s.* 6*d.*, unstamped, and 3*s.* stamped.

THE HEALTH OF ARMY HORSES.—According to a recent census the number of which have been handed to the Italian Ministry of Agriculture, there are in Italy at the present time 22,076 practitioners of the healing art, of whom 15,300 are women. The number of dentists is 1,200, of whom nothing belong to the gentler sex. There are 1,500 veterinarians, 16,370 pharmacists, among whom there are 1,000 women; this number includes assistants as well as proprietors. Of the physicians, 1,500 are women, and 1,200 nurses, of whom 1,532 are male and 11,768 female. These figures taken together show a grand total of professional parasites of the healing art in Italy of 22,076, of whom 10,308 are men and 11,768 women.

FEEDING IN RELATION TO THE HEALTH OF THE YOUNG.

AN interesting lecture on feeding in relation to the health of the young was given recently by Dr. James NIVEN, Medical Officer of Health, Manchester, as one of the post-graduate course now being delivered in connexion with the Public Health Laboratory of Victoria University, Manchester.

The lecture was devoted mainly to a consideration of the feeding of children in the poorest class of the community the subject being treated chiefly from the public health point of view.

I. PHYSICAL CONDITION AS INDICATED BY DEATH-RATES.

In his opening remarks he said: 'There is a widespread belief that children are degenerating owing to the increasing aggregation in towns and to the loss of that simplicity in living which was practised in former days. There are, unfortunately, no measurements of height and weight at different ages on a scale to give us any exact information on the subject, and we are compelled, therefore, to fall back on the statistics of mortality.'

Dr. NIVEN then gives such statistics from 1838 to 1901, founded on the Reports of the Registrar-General, in groups of ages for England and Wales, and for Manchester. He points out that at all the earlier ages there had been a great advance, especially in the case of infants, attributable to such factors as sanitary administration, factory legislation, better housing, etc., but in the course of the decline were followed it became clear that some other general causes must have been operative, and that the decline must be ascribed to increasing prosperity, to improving wages, and to cheapening food.

The relative lowering of the death-rate of women and children to that of men was in itself a proof of growing prosperity. The years 1870-4 were years of overflowing trade, and to the increasing prosperity might have been attributed the lowered death-rate; but as a matter of fact the prices of food increased, so that while improved wages affected only a part of the people, another part suffered from the increased prices.

It is easy to realise how the least difference in wages or in the prices of food, or in the capacity of wages to obtain food, must be reflected in the death-rate. "We may assume," he says, "that the death-rate is a measure of physical condition generally, though, doubtless, the improvement in the former is greater than in the latter." Tables follow showing the annual average death-rates for 1838-1900 in Manchester in age-groups and from certain diseases.

II. THE FEEDING OF ADULTS AND CHILDREN.

In the discussion of diets Dr. Niven used Atwater's dietary, as he considered it approximated more nearly than Playfair's to that freely chosen by persons of the requisite means. The amount of food required by various members of the family as given by Atwater is as follows:

A full-grown man requires			per week
" woman "	0.8 to 1.0	"	"
" child "	0.4 to 0.6	"	"
" infant "	0.2 to 0.3	"	"
A girl of 15 to 18	0.7	"	"
A boy of 12 to 14			

Dr. NIVEN next gave a table of the ordinary foods with their current prices, in order to construct dietaries on the scale given above, and square the price with the means of the family. With regard to milk he said:

As a constituent of food it is of the highest value, and for children under five years of age it is indispensable. It is the only food which contains all the elements necessary for the growth of the body, and when taken by itself it is a complete food. It should be given without fail up to the age of one year. It should be given without fail up to the end of the third year. After touching upon various items of diet, Dr. NIVEN went on to the care of the teeth and the intestine, regularity of meals, variations in diet, and diet appropriate to different ages. He then gave tables of diets regarded from an economical point of view, and expressed his opinion that the inclination to choose dearly expensive articles of food in towns went far to explain the inferior physique of the town man. It was, he concluded, very essential that instruction should be given in the principles of food, holding that the town child, if properly fed and cared for, would have nearly as good a physique as the country child.

III. The Feeding of Infants.

In the third part of the lecture the feeding of infants was touched upon, and it was pointed out that while diarrhœa caused an increased infantile mortality, the infant rate, as a whole, had declined, in Manchester at all events. This increased mortality from diarrhœa was attributed to the diminution of maternal lactation, a tendency ascribed by some to lower vitality and by others to disinclination to give up their accustomed pleasures.

On the other hand diminution in the infantile death-rate in Manchester in 1891 to 1902, other than diarrhœal, might be ascribed to public instruction in infant feeding since 1895. Dr. Niven next discussed the factors which have been believed to exercise an influence on the diarrhœa death-rates, such as the annual mean temperature, the mean rainfall, geological conditions of the soil, insanitary conditions such as overcrowding and dirt, defective methods of storing and removing excreta, defects in the milk supply, and defective methods of infant feeding.

We quote in full his scheme for improving the physical condition of school children and the summary.

IV. Scheme for Improving the Physical Condition of School Children.

The scheme which I have in view is something like the following, which is, indeed, only an extension of that of the Manchester Education Authority, in administering their Free Food Fund:

The trained teacher is of opinion, let us suppose, after observing a child at his studies and during exercise, that he is not receiving sufficient nourishment. He would thereupon communicate with the director of elementary education, who would instruct the school attendance officer to ascertain the income of the family, and the expenditure per week other than on food which is absolutely necessary, also the age, sex, and conditions of work of each member of the family. These particulars are returned to the director, who refers them back to the head teacher to determine whether the parents can provide a sufficiency of food, and on what scale of diet. For this purpose the teacher might be furnished with a set of model diets, and all necessary particulars guiding him in the determination of a suitable diet for the family and the amount which can be expended. He or some member of his staff must be able to work out the diet required, and special training for this purpose is required. The parent is then to be informed how a sufficient diet can be procured for his family on the money available, and required to see that the child is properly fed. If, after some weeks, it is found that the child is still insufficiently fed the parent is to be compelled to furnish the food necessary or to defray the cost of feeding him. For this purpose powers are to be conferred on educational authorities by Parliament, and they are to be required to carry them into effect. If the powers were carried into effect in one district and not in another the results would not be satisfactory.

Clearly in cases of doubt or difficulty the medical officer of the School Board would have to determine the doubtful issues and advise as to proceedings, or where the education authority does not possess a medical officer, the medical officer of health. Is the school attendance officer quite the suitable person for such delicate inquiries, and what are the inquiries which might be supposed to be necessary?

In addition to the inquiries above named, the food alleged to be given to the child would form matter for investigation. Deficiency might arise from ignorance, and therefore I consider that the first step which must be taken is to place within the reach of every family in the community so much knowledge of dietetics as will enable the parents to use their means to the best advantage, in such a shape as that, if they cannot themselves utilize the information given, they may readily get assistance in doing so. The utilization of the family income to secure, where possible, a sufficiency of nutriment to the growing child is of such far-reaching importance that where a child appears to be suffering from deficiency of food this must override the reluctance of the educational authority to interfere further with the affairs of families.

The question then narrows itself to this: Are the school attendance officers persons who are suitable for such inquiries? But that is merely a detail of administration which can receive due attention. Especially at the present time advice as to the wise expenditure of money in food is of immense importance to the population, and I am of opinion that the subject should be well discussed by all those gentlemen who have taken a special interest in these questions. In a very large number of instances, at present at all events, it would become clear that the means of the parents, when fully utilized and stretched to the utmost limit of their buying capacity, are inadequate to find the children in food.

We are then brought face to face with the question, "Is the educational authority to rely on charity for the funds required, or should these be supplied out of the heavily-burdened rates?" The Scottish Commission has answered this question in the sense that charity must be relied upon. On the whole, I am inclined to think otherwise, though I quite realize the difficulties. If the burdens of parents are removed, it may be said, you are making them so much better off, and you are thus giving an impulse to the increased production of children. Is it so? Does the birth-rate increase or decrease with increased well-being?

If you look at the birth-rates in our richer and poorer districts we find that the birth-rate amongst well-to-do people is smaller than amongst the poor. In accord with this is the reduction in the birth-rate as the circumstances of the nation have improved. I will not stay to discuss the reasons for this apparent anomaly, though I think it is quite explicable. Suffice it to say that the birth-rate reaches a maximum amongst moderately well-to-do artisans, and declines therefrom in both directions. We must conclude, then, that this argument is not without some foundation.

On the other hand, you are not lifting the burden to an extent materially to affect the birth-rate. There still remain the children under school age, and in those families in which there are no such children, in most cases the older children will have begun to earn wages, and assistance will not be required. The gain in wealth to the community by passing school children on to the working period in a condition of physical efficiency would be so enormous as to quite justify, in my opinion, the additional immediate burden on the rates. How is the necessary assistance to be given by one, two, or more school meals? It is useless entering on a course of feeding of children if it is not to effect the purpose.

Suppose, for example, one meal of porridge with sugar is supplied to a child aged 7, what relation does this bear to the 62.5 grams of proteid and 1,750 calories of energy which he requires for full efficiency? Let us suppose that at such a meal he gets 2 oz. of Scotch oatmeal and 1 oz. of sugar.

Take the analysis of [illegible] oatmeal as may state [illegible] per cent.; beet sugar or carbohydrate, 100 per cent.

First Meal.—The total proteid in this meal [illegible] grams fat [illegible]; calories [illegible]. The proteid, then, without deductions, [illegible] eighth of that required for [illegible] days' diet, and the total energy [illegible] one-sixth of that required.

Second Meal.—Supposing another meal, to get a pint of pea soup without bone or meat [illegible] ounces per [illegible] and 2 oz. of bread.

Pea [illegible] Carbohydrate per cent.

Bread [illegible] Carbohydrate [illegible] grams per cent.

The total proteid [illegible] grams, the total fat [illegible] grams, and the total calories [illegible].

From this meal he gets [illegible] per cent. of the total proteid required and over 6 per cent. of the total calories required.

Third Meal.—Supposing, before leaving school, he gets 1 lb. of bread and 1 oz. butter, he gets [illegible] grams of proteid and [illegible] calories.

By these means he will have got practically complete diet, though rather poor in fat.

It is evident that if it is desired to give a sufficient amount of food an arrangement must be made to supply breakfast, dinner, and a sort of tea, but that one good meal in the middle of the day will go far. It is further evident, on grounds of economy and for educational purposes, that the educational authority should cook the meals.

In providing the means of cooking, regard should, of course, be had to the habits of the people, and the cooking appliances should approximate as nearly as possible to those which they are accustomed to and can afford, except that cheap and necessary additions may be made, such as a pan-steamer.

V. Summary and Enlargement.

1. It is of supreme importance for the welfare of the nation that the children should be adequately fed so as to develop, as far as heredity and environment will permit, sound minds in sound bodies.

2. It is the duty of parents to provide adequately for their offspring, and this duty they should not be relieved of further than is imperatively demanded in the interests of the State.

3. There is a great surplus of unskilled labour, and the wages of unskilled labour are thus depressed to such a point that, in a high percentage of instances, say 5 to 10 per cent.,

it is impossible for the parents continuously to provide for their children. It has been suggested that a minimum wage of 25s. per week for an unskilled labourer should be provided. The proposal is impracticable, and it is not certain that if it were practicable the result would not be to lead to increased waste.

4. If, however, children during school life were adequately fed so that they could profitably receive instruction, and if that instruction were such as to educate them, as far as practicable, so as to make them fit for skilled work, wages would be more equalized, and a higher standard of living would result.

5. There are at present various sources of enormous waste going on, of which two stand out very clearly: (*a*) Drink. If the amount of alcohol consumed in this country could be diverted to the feeding of children it would maintain 20,000,000 in food, and if reckoned only as beer and spirits it would maintain 11,000,000, at a charge of 6d. per day, which would be an ample allowance. It may be said broadly, therefore, that the amount of alcohol consumed is the chief cause of deficiency of food for the young. The remedy is bound to be slow and a long process of education is required. (*b*) But a great waste also occurs from want of knowledge on the part of mothers of how economically to select, buy, and prepare food. This knowledge should be imparted in the schools. In association with this is the waste due to want of knowledge of the elementary principles of health in relation to breathing, clothing, exercise, cleanliness, and so forth.

6. The education authority possesses machinery which, when improved and extended, will enable it to detect illness and innutrition amongst children, and to apply remedies.

7. Teachers should be trained to look after the physical conditions as well as after the mental instruction of their scholars, and that training should be practical.

8. Legislation is required enabling the educational authority to enforce the provision of sufficient food and the maintenance of cleanliness in school children by parents.

9. The educational authority should also be empowered to obtain from the rates sufficient provision for the free feeding of children under certain definite conditions. In all schools kitchens should be provided for instruction in the elements of cooking.

10. In all schools children should be weighed and their height measured once a term, and a record should be kept of the age, height, and weight. By this means it would be possible to gauge the condition of the children, both collectively and individually. These observations might usefully be made more frequently in cases where a deficiency of nutriment or disease was suspected.

11. A prolonged and practical course of domestic economy and hygiene should be compulsory for girls. It should include cooking, construction and criticism of diets, management and feeding of infants, methods of cleanliness, sewing, mending, and washing. I am fully aware of the excellent work which has been done by the education authority in their evening continuation classes, and which is already bearing fruit; but, in my opinion, such instruction should be a necessary part of education.

12. The poorer population generally should be instructed as to the diet requisite and the means by which it may be most cheaply obtained.

The lecture has been published under the title of Food and Drink in Relation to Disease, Feeding in Relation to the Health of the Young. (Sherratt and Hughes, London and Manchester. Price 1s. 6d. We strongly commend it to the notice of all those interested in the welfare of the children of the labouring classes.

CONTRACT MEDICAL PRACTICE.

A [illegible] a reasonable charge per [illegible] was agreed to, [illegible] and the area [illegible] a calculation [illegible] a rate of [illegible] per [illegible] [illegible] [illegible]

such successful undertakings as the existing Medical Defence Societies broken up, but if it meant that there would be one large society for medical defence he would be inclined to consider that the most advantageous plan. However, as matters stood he thought they should wait until the Divisions of the British Medical Associaton had expressed their opinion.

The meeting concluded with a vote of thanks to Mr. Jonathan Hutchinson for taking the chair moved by Mr. Andrew Clark and carried with acclamation.

Medical Defence Union.

We have received from the President of the Medical Defence Union, through the Secretary, a copy of the following memorandum issued to members of the Union, with a request for its publication:

Medical Defence Union, Ltd.,
1, Trafalgar Square, W.C.

The Council of the Medical Defence Union desires to call the attention of the members to a scheme formulated by a Committee of the British Medical Association, by which it is proposed to create, in connexion with it, a Medical Defence Department.

The full details of this scheme will be found in the Supplement of the British Medical Journal of January 30th, 1904, and also in an editorial in the Journal dated February 20th last, in which is incorporated also a minority report signed by Mr. Messiter, J.P., President of the Medical Defence Union, and Dr. Beverley, J.P., a member of the Council, who were members of the Committee.

The Council, after carefully considering the scheme in all its details, decided unanimously, at a meeting held on February 18th last, to do all in its power to maintain the integrity of the Medical Defence Union as at present existing, and trusts that it will receive the full support of its members in so doing. The reasons that have led to the Council passing this resolution are as follows:

1. That the Medical Defence Union, existing, as it does, as a company limited by guarantee, cannot under any circumstances merge or amalgamate itself into any other company or society, but must exist as a separate entity, unless wound up voluntarily or compulsorily under the Companies Acts.

2. That to wind up and liquidate a financially sound and successful company, which has done for nineteen years, and is steadily doing, excellent and valuable work, not only for its members, but also for the medical profession generally, would be a waste of the funds of the subscribers, involving, as it would, large expenditute and a needless sacrifice of the best interests of its members.

3. That the Union includes numerous practitioners who are not members of the British Medical Association who, if the Medical Defence Union were wound up, would either be cut off from defence and protection, or would have to regain the protection now afforded them by becoming members of the British Medical Association and of its Medical Defence De partment at a cost of 35s. per annum.

4. That the Medical Defence Union is open to all members of the profession upon election irrespective of membership of the Association.

5. That the reason given for the new department of the British Medical Association is that there should be one organization only for medical defence instead of, as at present, two or more. This, the Council of the Union desires to point out, would not necessarily follow even if the scheme were carried out, as it would not prevent members of the profession dissentient to the present scheme from again forming similar organizations outside the Association.

6. That the proposed new department can only indirectly be regarded as connected with the British Medical Association, as its funds are to be kept apart from the Association funds, and the officers appointed by it are not to be officers of the Association. The work done by the department would be confined entirely to the subscribers to the department, and would not be part of the organized work carried out by the various commitees at present existing for the whole Association, and which is done in the name of the British Medical Association.

7. That the success of the Medical Defence Union has been the result of the long experience of its Executive, and that any new department taking up the work of defence would have to start afresh, and could only obtain that experience after years of practice.

8. That the proposed new department will only defend its members; that is to say, limit its work to individual defence whereas the Medical Defence Union has for many years done good work in collective defence, such as the prosecution of unqualified practitioners and the like. The method of election to the Committee appears open to criticism as involving no continuity of office.

9. That it must be remembered that there are according to the last returns in Great Britain and Ireland 30,409 registered practitioners, of which number only about 14,851 are members of the British Medical Association.

10. That for subscribers to the Union the proposed new scheme presents no advantages over those which they possess by their present membership.

The Council of the Medical Defence Union, consisting as it does entirely of members of the Association and numbering many members of the Council of the Association, is not inimical to anything which would tend to increase the welfare of the Association. It feels, however, from its knowledge of the work of defence, that it would be wiser for the Association to avoid, for the present at least, the undertaking of medical defence even in the minor degree involved in the scheme.

The Council of the Medical Defence Union therefore urges upon the members, who are also members of the Association, that they should fully consider the scheme when it comes before them at the various divisional meetings in the Association, and weigh carefully the advantages they already possess by their membership of the Union, and act in accordance with their best interests.

March 3rd, 1904.

SCHEME FOR AN AMBULANCE SERVICE FOR LONDON.

The Committee of the Metropolitan Street Ambulance Association has made the following suggestions as the basis of a plan for providing London with an efficient street ambulance service:

1. That there should be one controlling authority responsible for a uniform and well-organized ambulance service, and that the London County Council, as the representative body for the metropolis, is the one best fitted to undertake the work.

2. That London should be divided into districts or "accident areas" and a properly-organized ambulance service arranged in each. This would necessitate the establishment of horse or motor as well as hand ambulances.

3. That the fire brigade and the ambulance services could be most advantageously carried out conjointly.

4. That it is desirable that some of the ambulances under the control of the London County Council Fire Brigade should be stationed at or in immediate connexion with the principal London hospitals.

5. That the police should be kept efficient in first-aid training, and should be available, as at present, for rendering first aid to the injured, for summoning an ambulance, and for taking charge of the patient until the ambulance and attendant arrive, but should not necessarily be expected to accompany a patient to home or hospital.

6. That the 800 fire-alarm telephone posts now existing and all other telephones should, if possible, be made available for calling the ambulances, and the police should be instructed in their use.

7. That the experience gained in working such services for many years in New York, New Orleans, Chicago, Sydney, Copenhagen, Vienna, Paris, Liverpool, Bootle, Birkenhead, Manchester, Newcastle, Huddersfield, Bolton, Burnley, Hull, Sheffield, Leeds, and Wolverhampton is more than sufficient to justify the London County Council in undertaking the work in the metropolis on a scale large enough to provide adequately for the 13,000 to 15,000 street casualties requiring removal each year.

8. That there should be no charge for the use of the ambulance.

This plan would involve no new organization, but merely an extension of the existing highly efficient fire brigade service, and would not entail, as at present, the withdrawal of the policeman from his beat. The Secretary of the Association is Dr. Arthur James, 65, Gloucester Terrace, Hyde Park, W.

Major Cathcart Garner, R.A.M.C., Inspector in the Sanitary Department of the Egyptian Government, has been granted the Imperial Ottoman Order of the Osmanieh 3rd class, in recognition of valuable services rendered to the Egyptian Government.

MEDICAL NEWS.

Two distinguished physiologists, Professor Luigi Luciani of the University of Rome, and Professor Angelo Mosso (of the University of Turin), have been named Senators of the Kingdom of Italy.

It is stated that the third and concluding part of the report of Lord Esher's Committee on War Office Reconstruction will very shortly be issued. It deals among other things with the position of the Army Medical Service.

THE SPITTING NUISANCE. The Medical Society of Butler County, in the state of Missouri, at its January meeting unanimously passed resolutions recommending the enactment and enforcement of an ordinance making expectoration on sidewalks a punishable offence.

A MEETING of the Committee of the British Medical Benevolent Fund was held on March 15th, when twenty-six applications for help were considered. A sum of £280 was voted to twenty-five of the applicants; the other case was postponed for further inquiry. In addition, three annuitants of £20 were elected.

INTERNATIONAL CONGRESS OF HYDROLOGY AND CLIMATOLOGY. The seventh International Congress of Hydrology and Climatology will be held at Venice in September, 1905. The Italian Minister of Public Instruction, Professor V. E. Orlando, is President of the Honorary Committee; and Professor De Giovanni, of Padua, is President of the Organizing Committee.

AN examination in biological chemistry, with special reference to the chemistry and bacteriology of foods, water, sewage, and effluents, and to the practical applications of biological chemistry to industries, will be held by the Institute of Chemistry in October next. Further particulars can be obtained from the Registrar and Secretary, 30, Bloomsbury Square, London, W.C.

LEPROSY IN THE UNITED STATES. At the second annual conference of State and Territorial Health Officers with the United States Public Health and Marine Hospital Service, a committee on leprosy was constituted as follows: Dr. Charles B. Cooper, President of the Territorial Board of Health, Honolulu, Chairman: Dr. J. F. Smith, Secretary of the Superior Board of Health, San Juan, Porto Rico: and Dr. J. C. Nolte, Secretary of the Louisiana State Board of Health.

MEDICAL WEEK IN VIENNA. During the months of May and June this year a number of special classes will be held at Vienna by the Professors of the University and their chief assistants. The list of them is not yet complete, but it is anticipated that they will embrace a large number of special points of general medicine and surgery, together with the specialities commonly so called, and demonstrations of and instruction in some of the newer methods of clinical research. The fees for each course of twenty hours' work or twenty-four lectures will vary between £2 and £4.

SMALL-POX IN SIBERIA. The whole region of North-Eastern Siberia from the Yakutsk territory down to Mongolia, is said to be undergoing from an outbreak of small-pox. Medical men are few and far between in the affected districts; in many cases the District surgeon has to visit settlements which are distant one hundred miles and even more from his home. The Mongolians still know themselves to be vaccinated, but these have practically no protecting virtue, and medical men interviewed seem to be rendered helpless by the cost to which it is expected they will be put.

INTERNATIONAL RED CROSS CONGRESS. It was announced at the Seventh International Conference of Red Cross Societies held at St. Petersburg in May last that the Duchess of Connaught would be present at the Eighth International Conference, which will be held in London in June, 1907. The arrangements of the Executive Committee, acting in the name of the British Red Cross Society, in connection with the Congress, are already in full swing, and a number of meetings in connection with the Congress have been held. The Congress will last about a week, and a number of entertainments are to be given during that time. The Congress will be held every four years, and it is to be opened every fifth year in private by the Sovereign of the country in which the succeeding International Red Cross Conference will be held. The competition is open to the world, and competitors will be required to place their inventions on exhibition at the quinquennial exhibition of ambulance material to be held every five years in connexion with the International Conference of Red Cross Societies. The prizes to be given at the first competition which will occur in 1907 are three in number, and will be awarded to competitors who submit the best complete or partial solutions of the problems connected with rendering aid to the wounded on land or sea. The following are the points with which competitors are invited to deal: (1) The surest and quickest means of searching for and removing the wounded from the field of battle; (2) the best type of litter or vehicles for moving the wounded to the dressing stations with the greatest rapidity, and with the least degree of suffering; (3) the means of saving lives at sea; (4) the best installations in movable hospitals, wagons, ships, etc., for the final evacuation of sick and injured.

AMERICAN NURSES FOR THE JAPANESE ARMY. Dr. Archibald Newcomb McGee, who organized a corps of nurses which did duty in Cuba in 1898, and afterwards in the Philippine Islands, has, says the *Medical Record* of New York, offered to fit out a nursing staff for service with the Japanese army. This offer has been accepted by the Japanese Minister in Washington, and Dr. McGee will leave early in March with ten or twelve nurses to establish a field hospital with the army in Japan. Committees of women are to be formed in various parts of the United States for the purpose of raising money for the support of the nurses. If the movement receives adequate public support other nurses will be sent out later.

AT a meeting of the Wandsworth Division (Metropolitan Counties Branch) of the British Medical Association to be held on Thursday next, at 9 p.m., in the Officers' Mess Room of the 4th Volunteer Battalion East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), a discussion will be raised with regard to the abuse of drugs by the laity, and the responsibility which rests upon those members of the medical profession who recommend certain drugs or preparations of such drugs to their patients. By so doing it is contended that medical men not only allow themselves to be used indirectly as touts for wholesale druggists, but also help their patients to form serious habits of drug abuse. Any member of the medical profession who may desire to attend will be welcomed.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE. The fifth annual report of the Liverpool School of Tropical Medicine, which has recently been issued, states that the attendance of students has been very satisfactory; as formerly, they have generally been medical officers holding appointments of responsibility. During the past year 143 cases have been admitted into the tropical ward attached to the school. A new laboratory has been built, and equipped with the necessary apparatus. Testimony is said to be constantly arriving from West Africa and other unhealthy regions in the tropics to the effect that where the recommendations of the school have been followed the health conditions have been much improved. Since the foundation of the school twelve expeditions have been dispatched to the tropics for the study of malaria, yellow fever, trypanosomiasis, and sanitation.

SURGICAL CONVALESCENTS. A semi-public meeting was held at Lord Lytton's house on March 7th, in furtherance of a scheme which has for its object the raising first of a sum of £30,000 as an endowment and then of £5,000 as a building fund for the erection of a "recovery hospital." In the course of speeches made by Lord Lytton, the Duchess of Somerset, Lord Hugh Cecil, Mr. Asquith, M.P., and others, it was claimed that the realization of the scheme would fill a gap which at present existed in the arrangements of hospitals. Convalescent homes in great number were to be found all over the country, but they did not meet the requirements of patients who, although they had been the subject of successful surgical operation, nevertheless could not be described simply as convalescents; beyond and above good air, good food, and change of scene they required a continuation of special attention to the completion of their cure. In default of it all the care previously bestowed upon them was in many cases thrown away. It was for such patients that the recovery hospital proposed to do good, and it was estimated that the sum mentioned would suffice for twenty-one beds, together with three or four private rooms for those who could pay. The Treasurer of the fund to be raised is Mr. R. F. Martin, M.P.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 19TH, 1904.

THE MEDICAL SERVICE OF THE NAVY.

I.

In their scheme for the reorganization of the army, Lord Esher and his colleagues have avowedly taken the Royal Navy as a model. The administrative perfection of that branch of His Majesty's forces is apparently regarded by the Committee as an axiom. How far this may be the case in other respects is a question which we are not called upon to discuss. In regard to the medical department, however, we are by no means prepared to accept the system now existing in the navy as an ideal standard. We have it on the authority of the Secretary of State for War that in one point of vital importance it is intended to assimilate the organization of the medical service of the army to that of the navy. In the letter published in the BRITISH MEDICAL JOURNAL of February 13th, p. 345, Mr. Arnold-Forster, in reply to a communication from the Royal Naval and Military Committee of the British Medical Association, stated that the new Army Council was to be constituted "in the same manner as the Admiralty," and that in these circumstances it was not considered necessary that the medical service should be directly represented. It has already been pointed out by us that the model followed in this matter is a bad one, inasmuch as the subordinate position of the Director-General of the Medical Department of the Navy is a most serious defect in the organization of that service. The fact that the Committee should have so utterly misconceived the nature and scope of one of the most important of the problems with which they had to deal makes an examination of the state of the medical service of the navy especially opportune at the present time.

We have been at considerable pains to ascertain the exact state of things. This has not been an easy matter, as the iron discipline of the navy makes officers willing rather to bear the ills they have than fly to others that they know not of by breathing their grievances into the editorial ear even *sub sigillo*. We have learnt enough, however, to convince us that if the discontent of the naval medical officer is not so loud as that of his brother in the army was until lately, it is was not less deep. And it may be said at once that, notwithstanding the reforms recently made in certain directions, there is still much solid ground for dissatisfaction.

It will help to make the actual position clear if, before referring in detail to the grievances complained of, a brief account of what has been done for the improvement of the service is given. In March, 1902, a Consultative Board, consisting of Mr. Makins, Dr. Allchin and Dr. Rolleston, with the Director-General as chairman, was appointed. This Board stands in the same relation to the Admiralty Board as the Advisory Board to the Secretary of State for War. By the new regulations promulgated on October 31st, 1903, promotion was materially accelerated, rank as staff surgeon being granted to surgeons at the expiration of eight years from the date of their entering the service, and rank as fleet surgeon to staff surgeons at the expiration of eight years from the date of promotion. Special promotion to both these grades is made in cases of distinguished service or conspicuous professional merit. The recognition of professional merit as a ground for promotion is a proof of enlightenment on which the naval authorities may fairly be congratulated.

Another excellent innovation is the encouragement in the shape of earlier promotion given to men who have held resident posts in recognized hospitals to enter the service. They may be granted from six to twelve months' seniority. Again, candidates holding or about to hold such posts are allowed to serve out the term of their appointment while retaining the position on the list which they obtained on entry. The time so spent is counted for increase of full and half-pay while they are on the active list, and for retired pay or gratuity, or withdrawal. Formerly, men who felt drawn to a naval career were almost debarred from gaining the priceless experience which a resident post in a large hospital can give, because the loss of seniority entailed thereby, together with the slowness of promotion which formerly existed, made it impossible for them to rise to administrative rank before cruel age had clawed them in his clutch.

With the object of removing obstacles to the regular flow of promotion retirement has been made compulsory for inspector-generals and deputy inspector-generals at any age after three years of non-employment in any one rank, or after four years' continuous non-employment in any two ranks combined. Fleet surgeons, staff surgeons, and surgeons are also compelled to retire after like periods of non-employment. This arrangement, besides opening the way for the promotion of capable officers, provides an automatic machinery for the elimination of the unfit.

A feature in the new regulations which seems likely to make the service attractive to young men who might hesitate to engage for a term of years that would carry them beyond the usual age of entering on civil practice is the permission to withdraw at the end of four years. The prospect of a gratuity of £500, after enjoying an opportunity of seeing the world under exceptionally favourable conditions, is an inducement to young men of spirit such as is scarcely likely to present itself in the ordinary course of civil life.

On withdrawal from the service the young officer joins the reserve for a term of years during which his name still appears in the Navy List and he is entitled to wear uniform under the regulations applying to officers on the retired and reserved lists. He may elect to enter the reserve for eight years with power to resign on giving six months' notice, or he may engage himself for four years receiving a retaining fee of £25 per annum, with power to renew the engagement on the same terms for a further period of four years. Officers of the reserve, if called up for service in time of war or emergency, will immediately receive the rate of pay—17s. a day—to which they would have been entitled after four years' service. If during the period of their re-employment they are injured on duty or lose their lives from causes attributable to the service they come under the same regulations as regards compensation for themselves or pension or compassionate allowances for their widows and children as officers of the same rank on the permanent Active List.

The pay has been increased, and now compares not unfavourably with that of corresponding ranks in the army. In respect of allowances, however, the medical officers of the navy up to the selective ranks are far from being so well off as those of the sister service. Another point in which the naval officers formerly were less favoured than those of the army was charge pay. Under the new regulations charge pay, from 10s. to 2s. 6d. a day according to rank, is granted to officers in charge of hospitals and sick quarters at home and abroad, and of hospital ships. Flag allowance is also paid to the senior medical officer of ships flying the flag of a Commander-in-Chief and to the senior medical officer of ships carrying the flags of flag officers or the broad pendants of commodores not commanding stations.

Study leave to the extent of three months in each grade is granted. Officers are allowed to pursue courses of instruction in prescribed subjects at post-graduate schools in London, Edinburgh, or Dublin. The Admiralty pays the fees for all the courses, and during the periods of study leave officers receive the full pay of their rank, in addition to sustenance money amounting to £27 and an allowance of £50 in lieu of lodging. An arrangement whereby naval officers are enabled to keep their knowledge up-to-date without loss of seniority and without any expense to themselves cannot fairly be called illiberal.

That the service is not unpopular is shown by the fact that there is now no difficulty in getting candidates. The total establishment is 544 officers, and the Navy List for March shows that the number actually in the service is only 22 below that figure. From statistics as to the examinations supplied to the General Medical Council it may be gathered that the number of candidates last November was, with one or two exceptions, larger than it had been the last twenty-five years. Nor is the increase in the number of candidates to be explained by laxity in the examinations. On the contrary, these have been made at once considerably more stringent and more practical, with the object of weeding out the incompetent and securing men of good professional quality. The service is still undermanned for the needs of the navy, and from an Order in Council dated January 27th, 1904, it appears to be intended to increase the establishment to a strength of 550.

It would be ungracious and unjust not to acknowledge that the Admiralty has made an earnest effort to make the medical service of the navy attractive to young men of a good professional stamp. That it has to a considerable extent succeeded in this aim is shown by the fact that the service is attracting more men than it did until recently. What manner of men they are is shown by the testimony of the Marquis of our ancient navy. In the *Diaries of the Admiral* Major W. F. Lyon describes a naval surgeon whom he introduces into the [illegible]. A thoroughly up-to-date, hard-working, gentlemanly young doctor was this ship's surgeon at Bantry Bay—a fair type of the doctors who [illegible] and wounded of our fleet to-day.

Nevertheless, we demur to [illegible] in the profession if not allayed it is to be referred from what has been said that we believe that the medical service of the navy is everything that it should be. One radical defect has already been referred to, but there is much else that urgently calls for drastic reform. We propose to deal fully in a further article with the many serious grievances which form the subject of reasonable complaint on the part of the medical officers of the navy.

FOOD VALUES.

In the course of an address on the dietetic value of patented foods recently delivered before the American Chemical Society, Professor Halliburton, of King's College, made a powerful appeal for a closer union between physiological chemists and medical practitioners, so that the value and relation of chemistry and physiology to one another might be better understood and the public be more fully instructed in the true value of different articles of diet and in the proper meaning of the term nutrition.

Patented foods are as eagerly bought as patented medicines, usually with little more inquiry into their intrinsic merits than a mere perusal of the virtues which their vendors claim for them. A blind acceptance of articles of diet on inadequate knowledge does not involve the same risk of positive bodily injury, neither is it beset by the like possibilities of hopeless inefficiency which come from a credulous belief in all that is claimed for patented medicines; for it may be assumed that no form of food is likely to be unreservedly inimical to the maintenance of health, while the sustenance value, though probably overestimated to secure commercial success, can seldom be a wholly negative quantity. Many of them possess valuable properties. The dangers accompanying their use, or the failure which ensues upon a too wholesale dependence upon their sustaining powers, consists in an imperfect appreciation of their limitations and of the fundamental laws of assimilation and nutrition. This cannot be better illustrated than by a reference to the multitude of farinaceous products which are widely advertised for the feeding of infants. The prevalence of rickets and of intestinal disturbances among the children of the poor is in a large measure due to the fact that the public has not yet arrived at a full recognition of Nature's elementary lesson that milk is the natural and necessary form of food for the infant, whose alimentary canal is no more fit to grapple with starch than with beef.

But apart from the aspect of the subject as it concerns children, Professor Halliburton performs a signal service to adult humanity by calling attention to the inadequacy, from the nutritive point of view, of many patented articles which command an extensive sale. Meat extracts are specially commented upon, and it will at once be admitted that the time has more than arrived for disabusing the public mind of the delusions entertained in regard to these preparations. A strong cup of beef-tea—and the stronger the better—has been an heirloom of the sick-room from time immemorial, and to the present day it retains its reputation as the best means whereby the strength of the patient may be maintained when his loss of appetite resents the ingestion of ordinary food. Its greatest advantage consists, in the public view, in the practicability of its concentration, so that a minute quantity may be regarded as equivalent to an ordinary meal. This widespread belief in the universal suitability of concentrated beef-tea is frequently responsible for increasing the patient's discomfort and is even capable, in conditions of kidney inefficiency, of producing positive harm.

Popular opinion has, of late, been played up to by the preparation of many varieties of meat essence for most of which it is claimed that they contain something like the equivalent of an ox in a small jar of the extract. Solutions of these extracts are useful stimulants, but have little or no nutritive value.

The erroneous impressions which prevail on this subject receive an unpleasant but much-needed correction from Professor Halliburton, who says "instead of an ox in a teacup, the ox's urine in a teacup would be much nearer the fact, for the meat extract consists largely of products on the way to urea, which much more nearly resemble in constitution the urine than they do the flesh of the ox."

Exception is also taken to some of the modern desiccated preparations of milk, many of which consist simply of the separated casein, and possess little or no real dietetic usefulness. There are besides in the market an abundance of cereal preparations for which special virtue is claimed on account of their preponderance of nitrogenous constituent, but the excess of cellulose they contain interferes with their perfect digestion, and, on account of the large proportion of their proteid which passes through the intestinal canal without being absorbed, their nutritive possibilities are much less than is suggested by their chemical analysis.

The food customs of mankind may be regarded as the outcome of an experience accumulated through countless generations of men, and dating from the earliest days of human evolution, when an unerring instinct was responsible for the selection of such nutrient materials as were within reach and best met the necessities of well-being and existence. Gradually food customs became established in accordance with the requirements of the human economy, and these varied according to race, climate, and environment. In proportion as a race became successful it acquired greater facilities for variety in its food, and, *pari passu*, with the advance of civilization, the demand for more elaborate supplies increased until, at the present day, cheap transit and open markets have brought within reach of all classes of the community a selection of diet which, however gratifying from the point of view of national prosperity and race predominance, carries with it to those nations of the western world by which the freedom of choice has been principally achieved, a twofold danger—one arising out of an unwise departure from simplicity and an undue indulgence in complex and over-stimulating food; and another the result of commercial enterprise that, by lessening the cost, brings within the reach of almost every class comestibles which find a ready sale from the appeal they make to the appetite, but which are, in many cases, attended with risk to health either because of their meagre nutritive value or of their inferior quality.

The remedy is to be found in the better education of the public in the knowledge of food values. With a view thereto, it is more than ever necessary that greater attention should be given to the instruction of medical practitioners in chemical physiology. In most of our universities and schools the subject of dietetics is imperfectly taught, if taught at all; while the close relationship which chemistry bears to physiology is becoming so rapidly developed that, in the near future, more elaborate education in the interdependence of the one science on the other and in all that this connotes in the preservation of health and the treatment of disease will became a paramount necessity. What to eat and what to drink will always be decided by national custom and individual preference, so far as the public is concerned, but both may be influenced in the right direction by the guidance of skilled medical opinion.

The greater variety and lessened cost of our food supplies renders the gratification of individual appetite more and more a question of inclination or convenience. This is not devoid of a risk to the health of the community, which can only be minimized by the dissemination of a scientific knowledge of food values, especially in regard to such articles of daily consumption as are in most universal use and by diet regulation, so far as regulation in such a matter is possible, in accordance with human assimilative capacity. As regards the sick it may safely be said that their dietetic management is, for the most part, conducted by rule of thumb, and is utterly wanting in that scientific precision with which the details of treatment otherwise are carried out. Patented foods are not the only source of error; the whole subject of dietetics demands more attention both as to theory and practice.

THE "SUPPLEMENT."

The Supplement published this week contains several communications to which we venture to ask the particular attention of members of the Association. One is the report of a meeting of medical practitioners at Bradford at which the Medical Secretary of the British Medical Association delivered an address on medical organization with special reference to the question which has arisen not only in Bradford but in other centres, as to the possibility of concentrating the work of the profession by amalgamating local medical societies with the British Medical Association. As Sir Victor Horsley pointed out about a year ago, the growth of local medical societies in England during the last twenty years of the past century was very rapid, no doubt in response to a need felt by the profession for local organizations to deal with local questions. This work was within the scope contemplated by the founders of the British Medical Association, but the increase in the numbers of the profession, the multiplication of subjects, both social and scientific, with which the profession is called upon to deal, and the very growth of the Association itself had rendered its organization from this point of view out of date. The new Constitution of the Association, which has now been at work for over a year, was designed in part to remedy defects of this kind by supplying through its Divisions the necessary units of local organization, while binding them together for general action in a central federation. We may follow Dr. Whitaker in classifying the work done by the Association under the heads of social, scientific, and medico-political. There are many who, while in full sympathy with those members of long-established local societies who deprecate any undue haste, yet believe that the organization of the British Medical Association now affords a satisfactory means of dealing both with the social and scientific side of the work of local medical societies, while it seems quite clear that in medico-political matters a strong central organization collecting and giving effect to opinions formed first of all in the local units, will afford to the profession a far more effective means of making its views known to the public and of influencing legislation than by the independent action of isolated societies. Both local action and general action are necessary, and it is this combination which the British Medical Association affords.

Another matter to which we would direct attention is the report of the Committee of the Norwich Division on the subject of medical examinations for life insurance. From time to time during the last few years many letters

have been published in our columns protesting against the system upon which insurance companies fix their scales of fees, and pointing out that in some cases this scale, never liberal, has recently been still further reduced. Many companies have established a sliding scale in which the amount of the fee to be paid for a medical examination of candidates for insurance depends upon the amount insured. While some of our correspondents appear to hold the opinion that a sliding scale, if it acted both ways and if the number of policies for the larger sums bore a satisfactory ratio to those for smaller amounts, might conceivably be substantially just, it would appear, unfortunately, that the notion which the companies have of a sliding scale is that it shall slide down and not up.

The report of the Norwich Committee objects to this system altogether; it urges that the fee of the medical examiner, who is acting in the interest of a company, which, according to its own statements, is generally in a highly prosperous condition, should not be dependent on the financial condition of the candidate for insurance; it states, further, that there is no reason to suppose that a less thorough examination is required when the fee given is half a guinea than when it is a guinea. Some companies are content with a shortened form of report when the amount insured is under a certain amount; in these cases, however the fee is generally less than half a guinea, and in some drops as low as half a crown. The Committee considers that the amount paid to the medical examiner should be proportionate to the amount of work done by him: that for every full and careful report he should receive one guinea; and that if the fee tendered is only half that amount, the examination should entail less work and the report required be shortened. The Committee proposes that the Division shall communicate the facts and arguments to all the insurance companies trading in Norwich, but should not take any further action until the subject has been thoroughly investigated by other Divisions of the Association.

It had been thought well to republish, in this [illegible] the scheme of medical defence remitted by direction of the Council to the Divisions, together with the explanatory memorandum adopted by the Medical Defence Committee at a recent meeting. The opportunity has also been taken to print the report of the minority of the Committee drawn up after the meeting at which the scheme was originally adopted. In order to prevent a misapprehension which appears to exist in the minds of some it seems proper to remind members that the scheme as it at present stands must not be taken to be the final pronouncement of the Association on this important matter. The scheme has been drawn up so that definite proposition should be before the Association. It can now be referred to the Divisions which will, no doubt, hold meetings at an early date for its consideration, but it will subsequently be discussed by the annual representative Meeting at Oxford.

THE JAPANESE RED CROSS SOCIETY.

The *Japan Mail* recently published an address in which H.I.H. Prince Fushimi, President of the Red Cross Society of Japan, on the occasion of the annual meeting of the nurses employed by the society of the grade required, [illegible] upon them their position. The address is of especial interest as showing the spirit of enlightened humanity that now animates the foremost men of a nation which until a comparatively recent time was totally unversed in the ways of Western civilization. After congratulating those who had already graduated, and addressing those who were still under the special auspices of the Emperor and Empress, he pointed out that in the discharge of its functions in time of war it must depend on its nurses. He recalled the fact that the Society assisted in the work of the Ambulance Corps in the war of 1894-5, and received on that occasion gracious edicts from the Emperor and Empress. During the disturbances in North China in [illegible] the Society rescued and tended the sick and wounded on both sides. The Imperial Ordinance of [illegible], which promulgated the regulations of the Society and gave its nurses the right to be treated as military officers, had increased its responsibility as much as it had enhanced its glory. Owing to the application of the Red Cross Convention to naval warfare, the scope of the Society's work had been greatly extended. Proceeding to lay down a scheme of duty for the guidance of the nurses, the Prince called upon them "following the principles of the Society, inspired by the humanitarian views of Their Majesties the the Emperor and Empress," to do their work with diligence. He summed up the principles that should actuate them as follows. In assisting the military and naval ambulance service, the regulations and discipline applicable thereto should be observed, and such virtues as obedience and respect never be lost sight of; in attending patients, no matter to which side they belonged, kindness should be a guiding principle; the successful discharge of such duties should be aimed at by adhering to upright conduct, maintaining discipline, and enduring privations and want; the attainment of the Society's ultimate aim should be striven for, each adhering to his or her assigned duties and acting in harmony and co-operation with the other. His Imperial Highness concluded with the expression of a hope that all the nurses would alway keep in mind the rules and principles set forth above, and endeavour to increase the prestige of the Red Cross Society of Japan by devoting themselves to the cause which they served with genuine earnestness. Mr. E. F. Knight, in an interesting letter to the *Morning Post* dated Tokio, February 18th, says "Our first Japanese port of call was Kobe. Here, too, the preparations for war were manifest. Lying alongside us at the quay was a liner of the Nippon Yusen Kaisha, which was being converted into a hospital ship. To judge from all that I have seen, the Japanese medical arrangements for the war are very complete, and the Red Cross Society of Japan is excellently organized and strongly supported by the patriotic people."

THE TEACHING OF SANITATION IN SCHOOLS.

In a recent issue of *Chemist* some extracts from a dispatch addressed by the Governor of Lagos, Sir William MacGregor, K.C.M.G., M.D., are published which supply an excellent illustration of the practical value of the teaching of the elements of hygiene in schools. Sir William MacGregor's testimony to the success of such teaching is especially interesting in view of the strong confirmation which it affords of the soundness of the recommendations to educational authorities as to the need of elementary scientific instruction in health subjects in schools made recently by the Council of the British Medical Association.[1] Having determined to introduce the teaching of sanitation into the schools of Lagos, Sir William MacGregor says that the first step that had to be taken was to educate the School Board, which is composed of certain officials and representatives of the different denominational schools which receive subsidies from the Treasury. It is not always, says Sir William, an easy matter to get over this preliminary stage, but it is highly necessary that the school authorities should be won over from the beginning. The next thing was the preparation of a scheme to carry out the Governor's idea of giving school grants on the basis of results in sanitation which in this respect was placed on the same footing as the "three R's." A preliminary and preparatory course of lectures on hygiene was delivered in Lagos by Dr. Best, then followed, a few months later, a more elaborate course by the Principal Medical Officer, Dr. Strachan, C.M.G. These courses were well attended by the teachers of the subsidized schools.

[1] British Medical Journal, January 23rd, p. [illegible].

hospital nurses, and attendants, and by the public, audiences varying from about 150 to 250. Then followed examinations. Teachers that obtained first and second-class certificates were deemed fit to teach sanitation in the schools. Twenty-eight teachers received certificates at the first and second examinations; 98 scholars were presented for the first examinations; they were between 13 and 20 years of age. In May last, 276 scholars entered for examination in sanitation, and of these 170 were successful. All lectures were illustrated by lantern slides and by practical demonstrations. As an example of the teaching given, Sir William MacGregor mentions the method adopted to teach the development of the mosquito. He found that in the previous year, notwithstanding all that had been done by Celli, Grassi, and others in Italy, he could not convince the railway employés that mosquitos were hatched out of the black wriggling larvae he showed them on the water receptacles in their gardens. He came to the conclusion, therefore, that the way to teach that branch of the subject was to provide each teacher with a certain number of larvae in a clear glass bottle which he produced to his class daily, making the pupils count the larvae and pupae once a day till all were hatched out into the fully-developed insect. In a week or two one met pupils with bottles at every corner in Lagos, hunting for mosquito larvae that they might watch for themselves the wonders of their development. This subject, adds Sir William, is now better known by the school children of Lagos than by the trained and experienced servants of the Italian railways. The result of this experiment has convinced the Governor of Lagos that sanitation can be successfully taught in primary and secondary schools.

MEDICAL INSPECTION OF SCHOOLS IN PHILADELPHIA.

FOLLOWING the example of Boston, New York, and other cities the Department of Public Health of Philadelphia has appointed assistant medical inspectors to the number of forty to make daily examinations of all pupils in the public schools with the object of preventing the spread of contagious disease, and placing sick children under the care of the family doctor. All children found to be suffering from acute disease or showing symptoms of illness will be sent to their homes, and a systematic examination will be made daily into the physical condition of each pupil until a complete record is obtained of all pupils. Principals and teachers are every day to set apart in a different room all pupils who in their opinion require medical examination and aid. It will be the duty of the medical inspectors to instruct teachers, as far as possible, in the symptomatology of disease. They are further enjoined to recommend that all children suffering from defects of hearing, deformities, and chronic diseases shall be referred for treatment to the family doctor or to the district medical officer or to a dispensary or hospital.

GRAPHIC RECORDS OF EXPERIMENTS ON IMMUNITY.

DR. E. F. BASHFORD has recently described[1] an interesting method of graphically and permanently recording certain haemolytic and agglutination phenomena which are well known to workers on immunity. The author has used for his purpose the serum of rabbits immunized against bullock's blood. Following the usual procedure, equal quantities of a suspension of bullock's blood are placed in a series of test tubes, and the effect of adding graduated quantities of the rabbit's serum is observed. The novelty of Dr. Bashford's method consists in removing from each tube a small measured quantity by means of a fine pipette, and placing this upon white paper. The drop thus removed dries and forms a permanent record of the amount of change which has taken place in the test tube. In some of the experiments recorded the drop was removed immediately after shaking the test tube, and was then placed upon blotting paper. The red corpuscles never spread so far as the fluid, but remained localized about the centre, whence diffusion had taken place. The two limits reached produced a circular zone on the blotting-paper. This zone was coloured if the fluid had contained free haemoglobin, and its outer margin became more distinct owing to the accumulation of blood pigment there. The marginal zone became less definite as the amount of free haemoglobin increased, and the number of suspended erythrocytes diminished. When there had been complete haemolysis it disappeared altogether. The erythrocytes naturally diffused uniformly, but if they had been clumped together their diffusion was proportionately irregular. The main advantage which is claimed for this method is that it can be utilized for the purpose of demonstrating the leading phenomena of immunity to those who are not conversant with the involved and confusing terminology usually employed in the description of these phenomena. As a popular demonstration of this highly complicated and technical subject Dr. Bashford's article is both interesting and successful.

[1] *Journal of Hygiene*, January, 1904, p. 71.

ILLEGITIMACY AND INFANT MORTALITY.

THE Hon. C. K. Mackellar, M.B., C.M., M.L.C., President of the State Children Relief Board, made out in his last report a strong case for the introduction into New South Wales of an Act for the protection of illegitimate children. He showed first of all that the infant mortality among such children was almost three times as high as among those of legitimate birth, and secondly, that the percentage of illegitimacy in Sydney in particular and in New South Wales in general was unduly high. He ascribed the latter fact to the absence of an effective affiliation law, and supported his argument by showing that in South Australia and New Zealand, the only Colonies in which an effective Act had been in force for any any length of time, the rates of illegitimate to all registered births were only 3.7 and 4.42 per cent. respectively, against 10 per cent. for the metropolitan area of Sydney, and over 7 per cent. for the whole State of New South Wales. The extremely high death-rate among the children who were thus born he ascribed to the neglect of the putative father to recognize his parental responsibility by contributing either to the expenses incidental to birth or to the subsequent maintenance of the child. The mother as a rule did not compel him to assist her by police-court proceedings, owing to the exposure of her shame which such a course entailed. The sole burden therefore fell upon her, and as a result she had recourse to the baby farmer. As a remedy primarily for the heavy mortality, and secondarily for the extent of the illegitimacy, he brought in an Act based upon the principle that the best way to protect the children was to ensure protection and monetary support for their mothers. Under its clauses it was provided that a mother might take legal action against the father of her prospective child before its birth, and that, further, she might bring such action before a special court, from which the presiding magistrate could exclude all persons not directly interested in the case under trial. Other clauses made it possible for the court to compel the payment of the expenses incidental to the child's birth, and for the maintenance of the mother for one month before confinement and for six months after, and for the maintenance of the child for an indefinite period. Finally, provision was made for the control and supervision of any place established or used for the reception of infants. There does not seem to be anything not strictly logical and just in these provisions, and it can scarcely be doubted that when the possibilities of the Act became thoroughly known it would do much towards removing both the evils which led to its proposal.

A MEDICAL ORDINANCE.

GREAT though the benefits we derive by living under the Mother of Parliaments, the comprehensive and stringent measure recently enacted in the Orange River Colony (see page 702) appears to prove that there may not be wanting advantages in having a simpler legislative machinery. If such a measure could have been passed at all through the

Imperial Parliament, it would have taken years, and would probably have been emasculated in the process. We congratulate Dr. Pratt Yule, the Medical Officer of Health at Bloemfontein, on his success in piloting this measure through, and would at the same time call attention to those respects in which home experiences have been utilized to improve upon home legislation. Whilst the use of medical and dental titles is expressly protected, the act of practice is itself also forbidden to the unqualified in terms which will be difficult to evade, for the evidence of a person treated, always very difficult to procure, will not be essential. The company form of evasion also is dealt with so far as dentists and chemists are concerned, but it is to be regretted that no mention is made of medical companies; perhaps they have not yet invaded the Colony. The requirements of the home Medical Council are set down as the standard by which qualifications which it is sought to register are to be judged, and whilst the Colonial Medical Council has not the absolute power to strike a name off the *Register*, but must submit its finding to the Governor, it has by statute another power which our home Council would on many occasions have found very useful. It can by statute censure a person brought before it, and inattention to this censure may subsequently become a ground for removal of the name, whereas our own Council has no means of reprimand short of the extreme penalty; it can only strike a name off, or postpone its judgement, or acquit of infamous or disgraceful conduct. The power given to the President of the Colonial Council to administer an oath will doubtless be of great service. There is, however, no power to compel the attendance of a witness, so the difficulty of procuring evidence may arise in the colony as at home. In general terms we may say that the lines of legislation in the mother country have been followed, but that in those respects in which it has been found wanting stronger clauses have been inserted. We venture to hope that our own columns have been of some assistance to those who drafted the Act in pointing out wherein the elements of weakness lay. In bringing chemists, midwives, and trained nurses under the control of the same Council a large amount of work will be imposed upon it, but there is the advantage that there is a general uniformity of scheme little likely to be attained by any piecemeal legislation.

MEDICINAL PLANTS IN AMERICA.

The *American Journal of Pharmacy* for December contains an article by Dr. Kraemer on the Conservation and Cultivation of Medicinal Plants, in which he predicts an early extermination of the principal medicinal plants of the United States unless measures are taken for their protection and cultivation. Some well-known plants as spigelia, serpentaria, and senega, which in the time of Linnaeus were found in abundance in Maryland and other Atlantic States, are already becoming scarce. It is well known that some plants have been improved by cultivation, and it may reasonably be supposed that all can be when the peculiar requirements of each have been ascertained. Dr. Kraemer urges a study of these plants in their natural surroundings in order that they may be successfully cultivated and conserved. Many of the medicinal plants now in use are being cultivated in the United States. It is stated that [illegible] of peppermint are produced annually near Kalamazoo, Michigan. Castor beans, from which castor oil is obtained, are grown in the west and southern States. Valerian is produced in Vermont. *Digitalis purpurea*, atropa belladonna, sanguinaria canadensis, cimicifuga racemosa, and many equally valuable plants have been raised experimentally in America, and, in Dr. Kraemer's opinion, could be grown successfully with the proper cultivation. He urges the further cultivation of certain plants, such as hamamelis, conium, gentian, peppermint, which are [illegible] into the United States and shows the necessity for it. He believes that three-fourths of all medicinal plants are grown either wild or in cultivation in the United States and that fully one-half of the remaining fourth could be successfully raised there. He points out that Americans must realize the necessity of protecting their forests and plants, and must consider their care and preservation a duty both to themselves and to future generations.

SPOROZOA AND DISEASE.

The third lecture delivered by Professor Minchin at University College on March 14th dealt with the special class of the coccidia, a class of sporozoa which had great reproductive power, so that they multiplied to a dangerous extent in the body of the "host" which they infected. Coccidiae were parasitic in vertebrates, molluscs, and worms. The name coccidium has been long misused by pathologists for many forms of so-called "cell inclusions" met with in cancerous and other neoplasms. Coccidia generally occurred in the epithelium of the infected animal, the alimentary canal and liver being the usual seats of infection, but occasionally coccidia were found in the kidney (for example, mouse). A coccidium fatal to the mole was recently discovered and described by Schaudin. The coccidia reproduced by fission (schizogony), the young being called merozoites. The merozoites infest the alimentary canal and tissues of the animal in whom they dwell (for example, the rabbit) in such large numbers as to cause denudation of the epithelium, diarrhoea, and general prostration or lethargy. After a period of generations of non-sexual reproduction, the merozoites produce two kinds of spores or gametes, namely, large quiescent macrogametes and small motile microgametes. These by conjugation give rise to zygotes or fertilized cells within each of which the protoplasm and nucleus divides into four spores. Each such spore divides later into two sporozoites which begin the cycle of life anew as described above. This latter method of sexual reproduction by microgametes and macrogametes takes place when the tissues of the host prevail over the parasites, and the latter are in danger of being overcome by the phagocytic and defensive mechanisms in the body of the host. The spores formed as the result of this sexual conjugation are at first enclosed in a tough coating or cyst wall, and may be evacuated into the faeces. These spores are then ready for the "casual" infection of a fresh host, as has been proved experimentally in the case of the rabbit by Metzner. In some coccidia the male gametes are elongated and spiral in form, and without flagella, a condition which is also represented in the malarial parasite. Professor Minchin concluded this lecture by classifying the coccidia into four classes according to the spore formation, namely, Asporocystidea, Disporocystidea, Tetrasporocystidea, and Polysporocystidea.

THE ANTIMALARIA CAMPAIGN AT ISMAILIA.

Mention has already been made of the success of the campaign against malaria at Ismailia conducted under the auspices of the Liverpool School of Tropical Medicine. In the fifth annual report of the school, which has recently been issued, it is stated that Professor Ronald Ross has received from the General Secretary of the Compagnie Universelle du Canal Maritime de Suez, Paris, a letter informing him that as a result of numerous works of drainage, filling up of ditches, oiling cisterns and pits, and suppressing marshes and pools of water, etc., at Ismailia, the number of fever cases has very sensibly diminished. The *Anopheles* has not yet been completely exterminated, but insects recently captured were found to be not infected. The mosquitos called *Culex* have, however, been almost completely suppressed, so that in the hottest period of the year it had been possible to abandon the use of mosquito nets. A detailed account of the campaign is given by Professor Robert Boyce in a memoir entitled The Antimalaria Measures at Ismailia. It is there stated that early in 1902 the Suez Canal Company, through their chairman, Prince d'Arenberg, approached Sir Alfred Jones, Chairman of the Liverpool School of Tropical Medicine, with a request that Professor Ross might be allowed to proceed to Ismailia and advise upon a method to rid the town of mosquitos, and to prevent the very serious annual sickness and mor-

tality from malarial fever. The committee of the school having readily given permission, Professor Ross proceeded to Ismailia, where he arrived on September 17th, 1902, in company with Sir William MacGregor, who wished to investigate for himself the malaria problem at Ismailia. The *Anopheles* had already been discovered by Drs. Pressat and Dampeirou, the medical officers of the company. Professor Ross confirmed their observations and proceeded to make a careful examination of all possible breeding-places and to suggest a plan of campaign. His recommendations have been carried out with great success. Mosquitos are now rare, and the number of malaria cases has been reduced from 2,284 in 1900, to 200 in 1903, in a population of 9,000. For the first time on record there were in 1903 no deaths from malaria amongst the Europeans. On February 7th, 1904, sixteen months after Major Ross's visit, Professor Boyce was invited by "the courteous Chairman of the Company," Prince d'Arenberg, to see for himself "what the directorate hope will very shortly become a sanatorium and a healthy inland sea-bathing resort for the Cairenes out of what was, until two years ago, a mosquito-plagued town and a nest of malaria." In filling in marsh land and cleaning out drains the Company has spent £4,400. The "Drain Brigade" costs £200 and the "Petroleum Brigade" £520 a year. The result of the work should certainly be highly satisfactory to the Suez Company, which owes a deep debt of gratitude to the English men of science on whose advice it was carried out. This makes it all the more remarkable that the "courteous Chairman" aforesaid should, on March 14th, have given to the Paris Académie des Sciences an account of the campaign in which no mention whatever is made of Major Ross or the Liverpool School of Tropical Medicine, but the whole credit of the great sanitary victory that has been gained is given to M. Laveran. Prince d'Arenberg expressed special gratification at the fact that the success of their efforts was due to the labours of a French investigator. Nor apparently did M. Laveran think it necessary to disclaim the honour thrust upon him. He did indeed remind his hearers of the fact that Havana had shown the way to victory, and he alluded to the measures of prevention adopted in Italy. But, if we may trust a lengthy report of the meeting published in the *Journal des Débats* of March 16th, the English workers were from first to last simply ignored. The gratitude of the courteous Chairman of the Suez Company would seem to be shortlived; such a sentiment, however, is perhaps scarcely to be looked for in a business man. But it is surely deplorable that a scientific man like M. Laveran should show a spirit of such petty Chauvinism.

RATS AND RIBBONS.

It was mentioned last week that Dr. Roux had been made a Commander in the Order of Agricultural Merit in recognition of his services in organizing a campaign for the destruction of rats in agricultural districts. In connexion with the same achievement honours have also been conferred on the principal members of M. Roux's staff. Dr. Chamberland, formely a member of the Chamber of Deputies, Dr. Danysz, inventor of the virus used with such deadly effect on the rodents, and head of one of the laboratories of the Pasteur Institute, and Dr. Metchnikoff, chief of one of the departments of the same institute, have been made officers of the Order of Agricultural Merit, while MM. Chevalier and Arthaud-Berthon, *préparateurs* in the institute, have been created Knights of the Order. The list shows that the President of the French Republic is as liberal in rewarding services rendered "in the field" as Field Marshal Lord Roberts was in the South African war.

THE SANITATION OF PANAMA.

The Committee on Medical Legislation of the American Medical Association, consisting of Drs. C. A. L. Reed of Cincinnati, Wm. L. Rodman of Philadelphia, and Wm. H. Welch of Baltimore, has addressed a memorandum to President Roosevelt, making strong representations as to the need of vigorous measures being adopted to prevent as far as possible outbreaks of disease among the labourers employed in the construction of the Panama Canal. They urge that a representative of the medical profession should be appointed a member of the Canal Commission, and that Colonel William C. Gorgas, Surgeon United States army, should be chosen for the purpose. The Committee points out that "under both of the French administrations at the isthmus, the engineering problems themselves, to the chagrin of the medical profession of the world, failed of accomplishment largely through the frightful mortality among officers and labourers consequent upon lack of authority on the part of medical officers entrusted with the work of sanitation; that the same conditions of insalubrity exist now that existed then, and that consequently the sanitary problems are to be recognized as second in importance, if second at all, only to those connected with the engineering department." The Committee, therefore, urges that the technical skill involved in the solution of medical and sanitary problems be likewise invested with highest administrative authority through actual representation in the *personnel* of the Commission. It is added that the Committee fully recognizes that the Commissioners, to carry out the objects of their official existence, must possess administrative ability of the highest order; and that no person, whatever his technical qualifications, ought to be appointed who does not possess personal integrity, a knowledge of men, familiarity with affairs, acquaintance with values, the faculty of organization, and executive ability backed by courage, both of the highest order. It is pointed out that these qualifications exist in the medical profession as well as out of it—a truth which might be regarded as a truism did not Governments and official authorities, as we on this side of the Atlantic know too well, so often need to have it pressed upon their attention.

THE DECORATION OF WARDS.

Commenting upon a fresco which Mr. H. L. Raphael has recently had painted on the wall of the nurses' dining hall at Guy's Hospital, a lay contemporary recently lamented the incompatibility between high art and sanitary science, and took as evidence thereof the ordinary hospital ward. Of course if "high art" be truly and justly only represented by the Chinese fan and corner bracket—arrangements so dear to the housewife of the proverbial suburban home—it can have no place in a properly-managed hospital ward. Fortunately, however, there is another kind of "high art" and beauty which is not seldom seen in a hospital ward, and that is the art which consists in securing beauty by just proportions of length, breadth, and height, an air of space and brightness, and the constant repetition of simple lines such as those given by windows and orderly beds. It is a very real form of beauty, and it is a pity that attempts are so often made to improve upon it by the hanging of engravings, oleographs, and other similar decorations. Similar objections do not apply to frescoes nor to decorations or pictures in tiles; but, from a sanitary point of view, ward "decoration" by framed pictures hanging from the walls might desirably be very much less prevalent than it is. Every projection, such as a picture frame, is a dust trap, and all dust traps are sources of danger and of additional work. In the atmosphere of London very few hours are required for the collection on any fixed object of quite a thick layer of dust, and thence a myriad microbes may be at any moment hurled into the atmosphere by a gust of wind from an open window or door, and possibly just at the moment that an important "dressing" is in progress. The additional labour, too, involved by every dust trap when recognized to exist is no small drawback. Every additional dusting means so much time deducted from the total available for the personal nursing of the sick, not too much even in the most judiciously managed wards. It is indeed probable and in some hospitals certain that, quite apart from pictures and such things, too much attention is paid to the mere appearance of wards. The time of the nurses is so much taken up in polishing and preserving an appearance

of unblemished smartness that the sick do not receive quite as much personal service as their comfort really requires. Increase, therefore, in the decoration of wards by framed pictures, or the attempt to beautify them by dust traps, should be replaced by cleanliness, just proportions, space, air, and orderliness. Nor is the sentiment that leans to the advocacy of meritricious decorations admirable. Sickness and suffering are hard facts which cannot be banished by decorations, but may be materially lengthened by the kind of sentiment which aims at them. In not a few words what is required is less sentiment and more sanitation.

LEPROSY RESEARCH AT MOLOKAI.

The Board of Health of Hawaii some time ago formulated a plan for the systematic study of leprosy at the settlement of Molokai. The plan included a request for an appropriation from Congress for suitable provision for a bacteriological laboratory at the leper settlement, and for residences for investigators. The territory of Hawaii would provide maintenance and assistance, and an invitation would be sent to the leading institutions and societies in the world which provide for original research into such subjects, to send capable investigators. In pursuance of this object, Surgeon-General Wyman has, we learn from the *Medical Record*, invited Dr. Charles B. Cooper, of the Board of Health of Hawaii, Dr. J. F. Smith, Secretary of the Superior Board of Health of San Juan, Porto Rico, and Dr. J. C. Nolte, of the State Board of Health of Louisiana, to become members of a committtee to undertake an exhaustive investigation and study of leprosy. It will be the duty of this committee to suggest lines of investigation to competent observers willing to undertake the work, to collate the results of experiments and observations, and to report at suitable times on the progress of the work.

SIR LAUDER BRUNTON.

We learn that Sir Lauder Brunton has just resigned the office of physician, and has been appointed consulting physician and a governor of St. Bartholomew's Hospital. Although he has only just completed his 60th year, he has served St. Bartholomew's Hospital for thirty-three years, four as casualty physician, more than twenty as assistant physician, and nearly nine years as full physician. Recognizing that there are many young men at the hospital who are in the same position as he was fifteen years ago, and who would willingly devote a large proportion [illegible] of energy and time to hospital work and teaching, and being conscious that for the last [illegible] years the claims of practice have tempted him to diminish the time spent in the hospital, he has taken the step now announced. Sir Lauder Brunton has expressed to us the opinion that the system of tenure as applied to the medical staff of St. Bartholomew's Hospital is bad, and nearly though not quite as bad as that of life tenure against which Abernethy inveighed after having been twenty-eight years assistant surgeon. We learn that before he was appointed full physician Sir Lauder Brunton suggested that the tenure of office should be altered to a time tenure of ten or twelve years as assistant, and ten or twelve years as full physician or surgeon, but this suggestion has not hitherto been adopted. The failure that has been accidental vacancies caused by the appointment of Dr. Southey to be a Commissioner of Lunacy, and by the resignation of the appointment of Dr. Pitt, physician to the hospital. Sir Lauder Brunton would only have become full physician [illegible] This is a reform [illegible]

THE SPECTACLE MAKERS' COMPANY.

We understand that the Spectacle Makers' Company has in contemplation the appointment of a registered medical practitioner to take part in the examination held by the company, as the result of which a diploma is conferred upon the successful candidates. It is said that the Association that the company has not yet communicated to the Medical Political Committee of the British Medical Association assurances which are regarded as satisfactory by that Committee in connexion with the matter to which the Committee called the attention of the Company last October.

We understand that there has been no material change in the condition of Sir Samuel Wilks.

Dr. M[illegible] will give an address on the nature and use of his anti-tuberculous serum at a meeting to be held at St. George's Hospital on Wednesday next at 8.30 p.m.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Tuberculosis and Milk Supply.—On Thursday last week there was an interesting debate on the second reading of the London County Council (General Powers) Bill. Sir Edward Strachey moved an instruction to insert provisions to safeguard the owners of cows suspected to be suffering from tuberculosis of the udder. The milk, he urged, should be submitted to bacteriological examination before the cow was slaughtered, and in the event of slaughter proving the animal to be free from tubercle, special damages not exceeding 50 per cent. of the full value, should be given for the loss of the cow. If the disease was proved to exist, provisions were proposed for compensation and payment of half the costs by the county council, and that the valuation should be made by a valuer appointed by the Board of Agriculture. Sir Herbert Maxwell, speaking as Chairman of the Royal Commission on Tuberculosis of 1895, pointed out that tuberculosis of the udder was one of the rarest forms of the disease in cows, that it usually appeared only when the tuberculosis was generalized, and could be readily recognized. He further said that it was rash to assume from Professor Koch's change of front that there was no danger of infection of human beings from bovine tuberculosis. A very small percentage of cows exhibited tuberculosis of the udder, and as the disease was very easily recognized there was small risk of mistaken slaughter. Mr. Burns defended the proposals of the county council as necessary for the discharge of their sanitary obligations to the public, and Sir C. Rasch also opposed the instruction. Sir Walter Foster appealed to the House to decide the question on public health grounds. He pointed out that the Public and Sanitary Committee would be able to take expert evidence if necessary, and so be able to settle the matter after adequate consideration. It was a remarkable fact, as pointed out by the late Sir R. Thorne-Thorne, that while tuberculosis generally was on the decline, in this country it was increasing among young children. This was believed to be due to infected milk supply used in artificial feeding. Wherever tuberculosis of the udder existed, there was need for prompt action to prevent danger to the consumer. As regards Koch's views, he said that while the matter might be still regarded as speculative, it would be wise to proceed on the assumption that bovine tuberculosis was communicable, as indeed he thought the evidence inclined in that direction. After some further remarks by Mr. Gray and Mr. J. W. Lowther, the instruction moved by Sir E. Strachey was rejected by 89 votes to 57.

The Commission on Tuberculosis. Mr. Long informed Mr. Fred Hall last week that the Commission did not propose to issue an interim report.

The Local Government (Scotland) Act (1894) Amendment Bill. Under this title Mr. Cathcart Wason has introduced a measure to place outdoor medical officers in Scotland in the same position as the medical officers of Poorhouses, who cannot be removed from office without the consent of the Local Government Board of Scotland. A clause was introduced into the Local Government (Scotland) Act, 1894, to protect outdoor medical officers against parish councils interfering with their duties or employments without the consent of the Local Government Board, but it did not protect them from arbitrary dismissal from office. By a slight addition to Section 11 of the Act this Bill proposes to assimilate the law of Scotland to that of England and Ireland, and make the consent of the Local Government Board necessary for the dismissal of medical officers. The second reading is down for this week, but is not likely to be reached. The Bill is backed by Sir William Arrol, Mr. Weir, Sir Andrew Agnew, Mr.

Eugene Wason, Mr. Alexander Cross, Mr. Harmsworth, Colonel Denny, Mr. Ainsworth, Mr. James Reid, Mr. John Dewar, and Sir John Batty Tuke.

The Departmental Committee on Physical Degeneration. Sir John Gorst asked the Secretary to the Board of Education if he would state what were the terms of reference to the Departmental Committee now sitting on physical degeneration. Sir William Anson answered that the original reference charged the Committee with a preliminary inquiry into the allegations concerning the deterioration of certain classes of the population as shown by the large percentage of rejections for physical causes of recruits for the army and by other evidence, especially the report of the Committee on Physical Instruction in Scotland, and to consider in what manner the medical profession could best be consulted on the subject with a view to the appointment of a Royal Commission, and the terms of reference to such a Commission, if appointed, but this reference was subsequently explained to imply the duty (1) to determine, with the aid of such counsel as the medical profession were able to give, the steps that should be taken to furnish the Government and the nation at large with periodical data for an accurate comparative estimate of the health and physique of the people; (2) to indicate generally the causes of such physical deterioration as does exist in certain classes; and (3) to point out the means by which it can be most effectually diminished.

Plague in India and Inoculation.—Mr. Weir asked the Secretary of State for India last week if he could state the number of persons who died of plague in Central India and Rajputana respectively during the month of January last, and how the figures compared with the month of January, 1903. Mr. Brodrick stated that the numbers were—

	January, 1903.	January, 1904.
Central India	92	3,721
Rajputana	10	716

Mr. Weir also asked the Secretary of State of India if he could state what percentage of persons inoculated with plague serum in India subsequently died of plague. To this Mr. Brodrick replied that, calculated on the figures of inoculations and deaths in the several provinces given by his predecessor in office in reply to a question asked by the honourable member on June 11th, 1903, the percentage of deaths was 0.24. He had no later information on the subject, but the Government of India had lately taken steps to secure a more accurate record for the future.

Fees of Public Vaccinators.—Mr. Weir asked the President of the Local Government Board, on Monday, if he would state how the amount of fees paid to public vaccinators by the various Boards of Guardians since the passing of the Act of 1897 compared with the cost of vaccinations prior to the passing of that Act. Mr. Long answered that according to his information, the total number of vaccinations and re-vaccinations performed by public vaccinators in the four years ended at Lady Day, 1899, was 1,370,897, and the average amount of the fee per case was 2s. 2d. In the four years ended at Lady Day, 1903, the total number of vaccinations and re-vaccinations performed by public vaccinators had risen to 3,197,192, and the average amount of the fee per case was rather less than 5s. 10d. The substitution of the system of domiciliary vaccination under the Vaccination Act, 1898, for vaccination at fixed stations, and the requirement that the operation should be performed with antiseptic precautions had greatly increased the demand upon the time of the public vaccinators, and higher fees had consequently to be paid. A Departmental Committee was, however, at present inquiring into the subject of vaccination fees.

Milk Epidemics.—Dr. Farquharson asked the President of the Local Government Board whether his attention had been called to the report of the medical officer of health for Finchley on a recent outbreak of disease due to milk similar to that which occurred in Woking last autumn; and whether he intended to introduce legislation this session with a view to preventing such occurrences in the future. Mr. Long replied that he had seen the report referred to in the question. He had taken note of the suggestion for legislation, but could not promise to make proposals on the subject during the present session.

The Payment of a Locum Tenens in Fermanagh.—Mr. Jordan asked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been called to the action of the Local Government Board in refusing to sanction payment of half fees of medical practitioners acting as *locum tenens* in the Hollywell Dispensary District of the Enniskillen Union, county Fermanagh, during the enforced absence of Dr. Tate, the medical officer of the district, because of a serious accident; would he say what were the grounds on which said refusal was based; and whether, in view of the amount of the sum and the poverty of the division, he would instruct the Local Government Board to sanction the payment of the amount in question. Mr. Wyndham answered that there was no statutory provision enabling the Board to allow recoupment to the local authority in respect of this service, and the Board was unable, therefore, to sanction the payment.

Royal Commission on Feeble-Minded and Imbeciles.—Mr. Charles Hobhouse asked the First Lord of the Treasury on Monday, in view of the petition presented to His Majesty's Government by various persons and authorities interested in the case of imbeciles and defective or feeble-minded persons that a Royal Commission should be appointed to consider the provisions now made for these classes, whether he was now in a position to reply to the further letter presented to him in July, 1903, in support of the petition by members of Parliament on both sides of the House. Mr. Balfour replied that he understood that this question had for some time past been engaging the attention of both the Home Office and the Local Government Board. These departments had not yet decided upon the best form of inquiry to meet the particular problems referred to, and it might be necessary to extend the scope of the reference. A decision would be reached, he hoped, at an early date, which would be communicated to the honourable member if he would put down another question in a week's time.

Miners' Phthisis in the Transvaal.—Mr. Haldane asked the Secretary of State for the Colonies whether any steps had been taken to carry out the recommendations of the Miners Phthisis Commission appointed for the Transvaal in 1902. Mr. Secretary Lyttelton answered that Lord Milner informed him that a great deal had been and was being done to improve the sanitary condition of the mines generally, and to minimize specific danger in the dusty parts of the mines. The question if any, and if so what, preventive measures could be legislatively enforced was still under consideration. Medical opinion was not agreed as to specific preventives such as respirators, of which no completely satisfactory type had yet been discovered. The Chamber of Mines had offered a prize for the invention of best means of preventing dust in mines, and it was hoped that competition might throw further light on the subject. The medical officer of health reported that the number of deaths from miners' phthisis among the whole population of Witwatersrand, both white and coloured, was eight last month.

Fees for Medical Witnesses.—Dr. Rutherfoord Harris asked the Secretary of State for the Home Department whether he was aware that although the allowances to medical witnesses in criminal cases in courts throughout England and Wales had, in accordance with the recommendations of the Departmental Committee which reported on the subject last year, been considerably increased, there was no such increase in the fees allowed to medical witnesses in the metropolitan police-courts. Mr. Akers-Douglas answered that he thought the question was based on a misapprehension. The old regulations under the Criminal Justice Administration Act, 1851, had been revoked and the new regulations, which increased the fees allowed to medical witnesses, had been fully brought into force in the metropolitan police-courts. There was no difference between their application in the metropolitan police-courts and their application in other courts. The Act of 1851, however, did not provide for the payment of fees to witnesses in all cases; but only where the prosecution was for certain defined offences (including all felonies and the more serious misdemeanours). In the case of minor misdemeanours the law made no provision for the payment of witnesses. In those minor cases for which the law did not provide it had been the practice for many years in the metropolitan police-courts to pay certain fees to medical witnesses from police funds. These fees were not affected by the new regulations under the Act of 1851, and continued to be regulated by a different scale from that governing the statutory fees.

Scotland.

THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

THE *Edinburgh Evening Dispatch* of March 9th publishes an interview with Dr. Leslie Mackenzie, Medical Inspector for the Local Government Board of Scotland, who with Professor Hay, Medical Officer of Aberdeen, made a medical inspection of 1000 school children in Edinburgh and a similar number in Aberdeen, for the Royal Commission on Physical Training (Scotland). It is said that Dr. Mackenzie will embody the results of his inquiries and observations in a book to be entitled "The Medical Inspection of School Children." Dr. Mackenzie said that by racial degeneration he understood the transmission of weakness and disease from one generation to another, whereas the results of his inquiries had been that, in the great proportion of cases, there was nothing which would have prevented the children from growing up healthy and fit had they been reared in a better environment. Few of them were hereditarily weak or diseased. There was however, great need for the medical inspection of school children, particularly with reference to physical training. Dr. Mackenzie contended that no systematic exercise ought to be enforced without a preliminary medical examination of the vital organs, to ensure that irreparable damage should not result, and that exercises should be organized strictly in accordance with health, physical development, and vigour. He would like to see instituted in this country a system of medical inspection similar to that in force in Zurich. There provision had been made for a careful medical examination of the children as they came forward for admission to the schools. Those who were found to be fit were passed; for the others special provision was made. The result of our system, according to Dr. Mackenzie, was that children were at school who were not fit to be there, and many of them were so affected as to have their condition greatly aggravated by the course of training. As illustrating the benefits of a regular medical inspection, Dr. Mackenzie said that he had discovered at school four pupils suffering from bronchitis who ought to have been kept at home, and two children suffering from acute phthisis, whose parents were totally unaware of the fact, were profoundly grateful for the information, and at once took steps to place the children under medical treatment. The medical inspection should be under the direction of the public health authorities, which had full power over the schools with regard to general sanitation and infectious diseases. If the powers of public health authorities were slightly extended a system of medical inspection could be organized under the direction of the existing authorities. This was especially desirable in view of forthcoming educational legislation, and with regard to the probable reconstruction and enlargement of educational areas: for the facilities available in a large county area were not so adequate as in a city such as Edinburgh, Glasgow, Aberdeen, etc. In the latter places, the School Boards were in touch with specialists in every trouble, but the position of county educational authorities was different, and it would in his opinion be necessary to have the county medical officer responsible for the medical examinations, and in charge of those appointed to carry out the actual work.

THE LATE DR. MILNE MURRAY.

The fifth ordinary meeting of the session of the Edinburgh Obstetrical Society was held on March 7th. The chair was taken by Professor A. R. Simpson who gave a warm eulogy of the late Dr. Milne Murray, and concluded by moving that the Society should adjourn for a month as a tribute to his memory. Mr. J. Halliday Croom seconded in a single word. Dr. Eustace Bathgate moved that a letter of sympathy be sent to Mrs. Milne Murray. Dr. Prudfoot who began the study of medicine along with Dr. Milne Murray and had continued [illegible] long friendship, seconded.

CRAIGLEITH HOSPITAL, EDINBURGH.

MR. HAROLD J. STILES, M.B., F.R.C.S.E., Surgeon to the Royal Edinburgh Hospital for Sick Children has been appointed Acting Surgeon to Craigleith Hospital as from October 1st next, in place of Sir Patrick Heron Watson, who retires at that date.

EDINBURGH CITY HOSPITAL.

At a meeting of the Improvement Committee of Edinburgh Town Council held on Friday, March 11th, it was agreed to recommend that, as the city has no further need for the Fever Hospital (the old Royal Infirmary) in Infirmary Street, and the old hospital in the Cannongate, they should be disposed of. The Town Clerk was instructed to prepare a report on the subject, and it was agreed to communicate with the University authorities respecting the Infirmary Street buildings, as they had previously indicated their willingness to acquire the buildings in question for laboratory purposes.

EDINBURGH UNIVERSITY PHYSIOLOGICAL SOCIETY.

The inaugural address of the recently-formed Edinburgh University Physiological Society was given by Professor Schäfer on March 10th, when there was a large attendance. The subject was "The Building up of Physiology," and it was treated historically. The address was illustrated. Some of the early and rare works on physiology from the University Library were exhibited. Professor Schäfer was thanked for his lecture.

EDINBURGH ROYAL MEDICAL SOCIETY DINNER.

Sir William Turner, K.C.B., Principal of the University of Edinburgh, was the guest of the evening at the annual dinner of the Royal Medical Society. In the absence from serious illness—of Dr. Shaw, the senior President of the Society, the chair was taken by Dr. Fitzwilliams, and he was supported by Dr. T. B. Hamilton and Dr. H. D. Shepherd, the other Presidents of the Society. After the loyal and patriotic toasts were given, the Chairman proposed the toast of "The Guest," who replied, and gave also the toast of "The Royal Medical Society." Dr. T. B. Hamilton replied. Dr. H. B. Shepherd gave the toast of "The University and the Associated Medical Corporations." Professor A. R. Simpson, Dean of the Faculty of Medicine, replied for the University, Sir John Batty Tuke for the Royal College of Physicians, and Mr. P. H. McLaren for the Royal College of Surgeons.

INTERNATIONAL HOME RELIEF CONGRESS IN EDINBURGH.

The fourth International Home Relief Congress will be held in Edinburgh, from June 7th to the 10th, under the presidency of Lord Balfour of Burleigh, K.T. The Chairman of the Edinburgh Executive Committee is Sir John Sibbald. The Congress will be divided into five sections—children old-age pensions; labour colonies, the inebriate, the criminal, and the compulsory detention of paupers; the organization of the home treatment of pulmonary tuberculosis, the relation between hospital and home relief of sick poor, etc.; and, lastly, epileptic colonies, the care of friendless patients discharged from asylums, the best method of the family care of the insane and their supervision, as well as that of children who are imbecile, feeble-minded, and backward.

THE GLASGOW HOSPITALS.

Considerable progress is being made with the various schemes of extension in connexion with several of the Glasgow hospitals. A special effort is being made to raise the money necessary for the complete rebuilding of the Royal Infirmary. Some £90,000 was subscribed as a memorial fund for the late Queen Victoria's Diamond Jubilee. Now the first list of subscription to the supplementary fund is issued, and reaches the handsome sum of nearly £78,000. This leaves about £100,000 still to be raised, but it is hoped that further generous subscriptions will be received, so that the managers may see their way to go on with the work without much delay. It is two years since the Royal Infirmary was originally built, and much of it is now very different from what would satisfy modern ideas of medicine and surgery.

Another stage has been reached in the extension of the Western Infirmary. The plans have been passed for the erection, at a cost of over £20,000, of a new wing. This addition will form the north portion of a block which it is intended to add at the western end of the present infirmary. It will give ward accommodation for 45 beds, and will include a wide staircase, examination rooms, and rooms for resident medical officers. The new dispensary building is almost completed, and it is hoped that by the time this north-west wing is ready the managers may be in a position to proceed with the larger scheme, which, with the present additions, will cost about £100,000. In the plans for the two other wings of the block, which it is intended ultimately to build, arrangements are made for having two large operating theatres, four spacious wards with 22 beds in each, and an efficient gynaecological department with attached operating theatres.

The annual meeting of the Glasgow Maternity Hospital was held last week, when an important announcement was

made in connexion with the proposed large extension of the institution. It has long been recognized that the present buildings are quite inadequate for the important work that this hospital does, it being the training school in practical midwifery for the large number of medical students and nurses in Glasgow and the West of Scotland. Arrangements are practically completed for the erection of large new buildings at a total cost of about £100 000. Ground has been acquired on three sides of the present institution, and after careful study of similar departments in this country and on the Continent the plans of the new hospital have been prepared. The directors hope to erect a hospital and training school which will be equal to any in the kingdom. Already over £17,000 has been privately subscribed for the purpose, and a public appeal is now being made for fully £40,000.

SMALL-POX.

The Scottish Local Government Board has issued a circular, dated March 11th, to Governors of Poorhouses, directing attention to the importance of the routine examinations of all paupers on admission to such houses, with a view to ascertaining the adequacy of their protection against small-pox, that infants found unvaccinated should be vaccinated, that revaccination should be done on all who do not exhibit satisfactory marks of primary vaccination. During the week ending mid-day of Saturday, March 12th, 6 fresh cases of small-pox occurred in Edinburgh, and one death was registered.

Ireland.

MEDICINE IN THE MODERN UNIVERSITY.

DR. DENIS J. COFFEY recently delivered an address on the place of medicine in a modern university at the University College, St. Stephen's Green, Dublin. He said the science of medicine now bore the same relation to medicine before the dawn of the nineteenth century as the present means of locomotion and communication between European countries held to those of the Middle Ages, or as the Gothic cathedral of the thirteenth century to the Irish beehive cell of the eighth. The growth of chemistry and physics was the starting-point in the history of medicine as a science. Academies and licensing corporations existed which were endowed with the right to confer diplomas, but were frequently under no obligation to teach. The development was most forward on the Continent, helped, no doubt, by the political conditions which made them seek in organized education the means by which the progress of the nation could be assured. Countries under British rule were far behind in those early days of scientific research. Although hospital work was essential for the training, Dr. Coffey proceeded to point out that the science of medicine could not grow in the hospital alone. As Newman had well pointed out, the true value of the university system was that it brought into relation with one another all the branches of knowledge by which an atmosphere was created, wherein knowledge was seen as a whole, and from which the students took away a culture which was called "liberal." Dr. Coffey then proceeded to show the special need for the due recognition of all branches of medical knowledge in a university system. Eminently skilful as were their physicians and surgeons, their knowledge was that of a craft, their learning was second-hand. The older universities had, to a large extent, remained in the groove of education to which they were committed centuries before. The newer universities, starting with the example of London, had largely been established as a set-off to the wealth and residential character of the older, made to distribute knowledge, but always narrow in their scope. It was of the very greatest importance to them, when the readjustment and the settlement of the question of higher education in Ireland were to be dealt with, that, considering all the circumstances of the country, the equipment and organization of the medical faculties in the universities should be such as to ensure that Ireland, which had suffered so much from the want of education in the past, should be given the opportunity of thoroughly modern systems. The public had generously provided ample means for hospital instruction, and all that was required for the cure of the patient was accomplished; but in relation to the foundations of medicine, professional skill had to wait on the developments which were made in other countries.

QUEEN'S COLLEGE, BELFAST.

Lectureship in Medical Jurisprudence.

Much general satisfaction will be felt at the appointment of Dr. Thomas Houston to the Joint-Lectureship of Medical Jurisprudence (with Professor Lorrain Smith), not only on account of his personal popularity, but also because the vacancy has been filled by a student of the college and a graduate of the Royal University. Dr. Houston was Gold Medallist at the M.D. examination, and subsequently was University Student in Pathology in the Royal University and Research Scholar of the British Medical Association.

Dunville Health Lectures.

The last of the four Dunville Health Lectures was delivered by Professor Milroy on the evening of March 12th. These lectures are public, and are delivered annually by the Dunville Professor of Physiology. Dr. Milroy chose this year the interesting and important subject of the mental development of the child. The first two lectures were devoted to the development of the senses; the second two to that of the higher faculties. In the last lecture Dr. Milroy dealt with the Froebel system of education, and showed the scientific basis of evolution on which this system is built.

HEALTH OF CASTLEREAGH RURAL DISTRICT.

At the monthly meeting of the rural council of this district the Medical Superintendent Officer of Health (Dr. Chas. O'Neill) reported that reference had been made to the pollution of rivers in the district, but he was glad to be able to say that the water supply, being chiefly obtained from pumps and wells, was good. The public analyst had certified that samples taken from pumps was pure and quite safe for domestic use. No epidemic had occurred in the district. There were 136 births and only 62 deaths during the last three quarters. Regarding the foreshore nuisance, an agreement had been arranged by which the Belfast City Corporation would contribute £250 for one year, while the District Council would have the duty cast upon it of keeping the foreshore clean. The Commissioners of Holywood had undertaken to cleanse the foreshore in front of that town and so were omitted from the agreement.

Canada.

EXTIRPATION OF THE GASSERIAN GANGLION.

DR. HARVEY CUSHING, of Baltimore, in a lecture on the extirpation of the Gasserian ganglion for trifacial neuralgia, delivered before the Montreal Medico-Chirurgical Society, said that he would exclude all cases of simple neuralgia of local nature, which were usually quite amenable to medical treatment. The operation was a serious one, and only to be attempted when all ordinary measures have failed.

Three methods of approach had been tried, the low or maxillary route of Rose; the high or temporal route of Horsley and Krause; and the direct sphenoidal zygomatic route, which he had adopted. Rose's method, though improved, had not been generally accepted, and Krause's operation had superseded it, but throughout there had been a tendency to make the low operation higher, and the high operation lower, so that the direct approach had come into being by a natural process of evolution.

In the low method it was found that owing to the depth of the wound, the confined incision, and the bleeding, it was hard to remove even parts of the ganglion, and impossible to remove it all. Even by the temporal method it could scarcely be managed, and the shock occasioned by lifting the brain to expose the field of operation was considerable. In consequence of this difficulty the root had been cut behind the ganglion in the hope of permanently relieving the symptoms. Fraser and Spiller investigated the results of this method, and many observations tended to show that there was regeneration with return of pain. This, however, was not yet definitely settled. In New York an attempt had been made to divide the nerves in front of the ganglion, and interpose rubber tissue between the cut ends. In the first place this would not prevent regeneration, if regeneration could occur and in the second place the division was in no way superior to extracranial severance, and it was an invariable rule that it was better to leave things alone than do a primary operation which would cause deformity.

In the spring of 1900, at Philadelphia, the direct method was first reported. The opening was much lower than in the

high operation as it extended into the temporal fossa through the zygomatic arch, and through the skull below the meningeal artery, which was often troublesome in the high operation. If statistics could be at all relied upon, the method was much less serious than either of the other two. Tiffany calculated that there was a mortality of 22 per cent. by Rose's method. The high operation had been accompanied by 11 per cent. of deaths. The lecturer had operated upon 28 cases with one death, and 10 more had been reported with a total death rate of 5 per cent.

In reference to the steps to be taken in the actual operation, Dr. Cushing insisted upon preliminary practice upon the fresh cadaver. Dissecting room specimens were of little or no value on account of the absence in sensation and resistance of the parts. The incision was made in a horseshoe shape over the temporal fossa, with the convexity upwards and the base upon the zygoma.

The temporal fascia was divided in the same curve, and the zygoma shelled out and removed. After detaching the temporal muscle, an opening 3 cm. in diameter was made in the skull with rongeur forceps. The meningeal artery was then seen running across the dura, and, on pressing back the latter with a retractor, the ganglion came into view, and nothing further was required than patience and a blunt dissector to remove it completely. The zygoma was not replaced, and no osteoplastic flap attempted. Leaving the zygomatic arch only accentuated the deformity due to muscular wasting. Haemorrhage was in certain cases very severe, but could be controlled by packing. Drainage was only used in a few cases, and the wound healed rapidly. Age was no contraindication to operation. The result of cutting the motor root of the fifth nerve naturally rendered mastication somewhat awkward, but all the patients were able to chew their food remarkably well before they were discharged.

The areas of anaesthesia were carefully mapped out in each case, and found to correspond very accurately with the accepted distribution. The anterior part of the auditory meatus was quite insensitive, and, as far as could be explored, a similar condition existed in the Eustachian tube. The eye symptoms were not touched upon, owing to lack of time, but nutrition was not materially affected, and no permanent disability resulted from the operation. Taste was not affected in any case. Each ganglion was carefully examined by neurological experts, but no pathological lesions could be found.

Testimonial to Professor Osler.

A testimonial fund has been started among the medical graduates of McGill University for the purpose of honouring the name of their fellow-graduate, Dr. Osler of Johns Hopkins, Baltimore. He has, since leaving Montreal for Philadelphia and Baltimore, kept in touch with his old school in no ordinary way. Through his influence an annual interchange of students and graduates takes place between Johns Hopkins and the Montreal hospitals connected with McGill, and the two institutions are being drawn closer every year. It is the purpose of the Committee in charge of the fund to procure an oil painting of Dr. Osler for the Medical Faculty Room. A replica is to be given to Mrs. Osler, and each subscriber is to receive a photographic reproduction. The response has been immediate, and although medical graduates alone are permitted to subscribe, the success of the scheme is already assured.

Nurses' Fees.

The Canadian Nurses' Association has raised the tariff of charges for private nursing, and has issued a number of regulations concerning the length of work and remuneration, which are supposed to be adhered to by those belonging to the association. The Montreal Medical Society was requested to uphold the new regulations, and a number of resolutions which caused discussion. The Council of the Society very wisely refrained from taking any definite action, and replied to the effect that it would not interfere with the rulings of the Association. The only contention is the matter that the cost of living had increased, and that therefore the fees should obtain very generally. In regard to the abatement, one of the members of the Medical Society pointed out that in the families employing servants it would be hardly just to pay the nurse double what the servants got, on the ground that the nurse was a lady. Further, he said that the public would gravely doubt the wisdom of the Society if it refused to recognize the claims of the nurses, and the profession would be placed in a false position before the public. The fees would fall heavily upon the middle classes, who already found difficulty in paying the usual fees. He did not wish any one to understand that he considered the charges too high, as this could only be found out by experience, and the matter would soon right itself.

Undesirable Immigrants.

Public opinion in Canada has become alarmed about the number of immigrants suffering from trachoma and favus who are allowed to enter the Dominion every year, and the Government has now taken action. Last year a small house was rented in Quebec as a temporary hospital in which as many as 220 immigrants suffering from these diseases were handled at one time. It is proposed to erect a detention hospital in Quebec where such persons can be cared for until they can be sent out of the country.

The University of Manitoba.

Lord Strathcona has given £4,000 to be applied to the extension of the science department in Manitoba University. By the time the sum is exhausted, the disposal of a large portion of lands held by the University will provide a yearly revenue adequate for all pressing purposes.

Alcohol in Proprietary Medicines.

The Ontario Council of the Royal Templars, at a recent meeting in Toronto, discussed the amount of alcohol in medicines, which has been shown by analysis to be from 12 to 40 per cent. On the ground that several of the preparations which show the higher percentages of alcohol are purchased purely for the liquor in them, it was decided to ask for legislation prohibiting the sale of all medicines which contain a greater percentage of alcohol than is necessary for their preservation.

The Canadian Medical Association.

The Canadian Medical Association will hold its annual meeting this year at Vancouver, British Columbia, on August 23rd, 24th, 25th, and 26th under the presidency of Dr. Simon J. Tunstall. This will be the first meeting of the Association held in the most western portion of the Dominion of Canada. British practitioners who may wish to attend the meeting will be welcomed. Application should be made to the General Secretary, Dr. George Elliott, 129 John Street, Toronto, by correspondence with whom it might be possible to arrange special ocean rates to Montreal or through to Vancouver. The rate at present arranged from Montreal to Vancouver is between $ and $ to return. The St. Louis Exhibition could be visited on the return journey.

LITERARY NOTES.

The *Memoirs* of Baron Percy, which have recently been published in Paris, should make interesting reading. Percy was Surgeon-in-Chief to the armies of the first French Republic and Imperial. Afterwards he was Inspector-General in the time of the great Napoleon. In conjunction with Larrey he reorganized the medical service of the French army, and in recognition of his work he was made a Baron by the Emperor. At the Restoration he was dismissed because he had taken part in the campaign which ended on the field of Waterloo.

The endowment of medicine has supplied a text for several eloquent appeals during the last few years. As far as we are aware, however, the endowment of medical authors had not yet been advocated. It is interesting therefore, to learn that the St. Petersburg Military Medical Academy annually appropriates a sum of about £100 for distribution among the professors of the institution who during the year have produced textbooks or subjects connected with their special department of medical science. This year the money was divided between Professor Bechterew for a book on the functions of the brain, and Professor Kravkof for a manual of pharmacology.

The Craig Colony Prize of £100 is offered by Dr. Frederick Peterson for the best original essay on the etiology, pathology and treatment of epilepsy. The paper must show original research work, the subject matter must be original and the paper must be accompanied by a sealed envelope containing the name and address of the author, and bearing on the outside a motto or device, which is also to be inscribed on the essay. The manuscript must be in English and be sent to Dr. Peterson, 49 West 34th Street, New York, before November 1st, 1904.

Illustrated Keys of Physiology. Physicians desiring a set of these keys, price $1.00, for the use of students in medicine and surgery, the best price being one. All

surgeons, physicians, and hospitals interested in any branch of x-ray work should write to the *Illustrated Review of Physiologic Therapeutics*, 19, East Sixteenth Street, New York City, for information concerning the time allowed and the conditions of the competition.

PREVENTION OF CONSUMPTION.

National Association for the Prevention of Consumption.

The fifth general meeting of the members of the National Association for the Prevention of Consumption and other forms of Tuberculosis was held under the Chairmanship of Lord Derby, at 20, Hanover Square, London, on March 10th. An interesting letter was read by the Secretary, Dr. Alfred Hillier, from the Postal Telegraph Clerks' Association, saying that the consent of the Postmaster-General, Lord Stanley, had been obtained for the establishment of an arrangement to raise funds for the endowment of 100 beds for postal employés suffering from tuberculosis. The sanatoria in which it was proposed to endow the beds were those erected by the National Committee for the establishment of sanatoria for workers. Lord Stanley had consented to permit the collection of subscriptions from those employed in the Post Office by means of periodical stoppages from salaries.

In the course of the remarks made by Lord Derby in moving the adoption of the report of the Council, he referred to the very painful duty thrown on Boards of Management of sanatoria of refusing admission to very advanced cases of phthisis because it was felt that it was not right to expend upon those absolutely hopeless cases means which otherwise would benefit a large number of patients who would be restored to health and work if their treatment were undertaken in an early stage of the disease. He advocated that Homes of Rest in connexion with the sanatoria should be established for the hopeless cases.

Sir William Church, President of the Royal College of Physicians, in seconding the motion, deprecated the unreasoning and unreasonable dread that some people seemed to have of the infectivity of tubercle. Though it was happily the case that in this country and climate the population had a greater resisting power to the action of the tubercle bacillus than it had to the action of the morbific poisons of the other infectious diseases, still it was to be hoped that the medical profession would devise some means whereby tuberculosis could be more efficiently prevented. He was glad to see that in the *Journal* of the National Association for the Prevention of Consumption it was strongly urged that sanatoria should be inexpensive buildings. Vast sums of money should not be spent on bricks and mortar when cheaper buildings would not only fulfil the same object, but would do it very much better.

Mr. Malcolm Morris, the treasurer of the Association, said that unless money were forthcoming the Association would come to an end in a few months.

Dr. Lionel Weatherly gave some encouraging details of the work done at Bath, and Dr. Theodore Williams related his experiences in the early days of his work at the Brompton Hospital for Consumption and Diseases of the Chest. He gave an account, also, of the way in which the King of Sweden had provided accommodation for a limited number of advanced and hopeless cases of phthisis.

After the report had been formally adopted, Dr. Hector Mackenzie moved the re-election of the auditors, and Dr. Orme Dudfield, in seconding this, advocated that the buildings provided by the metropolitan authorities in case of an outbreak of small-pox should be utilized as sanatoria.

Sir Herbert Maxwell moved a vote of thanks to the Chairman, which was seconded by Sir William Broadbent: and Lord Derby, in reply, made special reference to the desirability of utilizing the beds provided for a possible small-pox epidemic in the manner suggested by Dr. Dudfield.

Proposed Sanatorium for Postal Employés.

Dr. Arthur Latham, in the *Civil Service Magazine* for March, 1904, points out that though the postal employés are selected lives the percentage mortality from pulmonary consumption amongst them is higher than that amongst the general population. This points to serious hygienic defects in the conditions under which they work, and calls for measures to prevent the excessive incidence of this disease on the Post Office staff. For the treatment of those who become infected there is at present no special provision, and many of them seek admission into the consumption hospitals. The employés themselves are unable to deal adequately with the prevention of the disease, but they are making a praiseworthy attempt to establish a sanatorium for the treatment of those of their number who contract pulmonary consumption. The scheme which Dr. Latham's article seeks to encourage has been already referred to in the British Medical Journal, and has the sympathy of the Postmaster-General. If, as is suggested, the postal employés' scheme is affiliated with "the National Committee for the Establishment of Sanatoria for Workers suffering from Tuberculosis," formed under the auspices of the Hospital Saturday Fund, it will probably be advantageous to both bodies.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

Guy Elliston, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

Border Counties Branch: North Cumberland Division.—A meeting of this Division will be held at Penrith on the afternoon of Friday, March 25th, when a discussion on Intestinal Obstruction will take place. Members wishing to read papers or show specimens on this or any other subject should kindly communicate with Norman Maclaren, Honorary Secretary, Portland Square, Carlisle.

Border Counties Branch: West Cumberland Division.—The annual general meeting of this Division will be held at Whitehaven on May 12th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. Mathews, 6, Scotch Street, Whitehaven, Honorary Secretary.

East Anglian Branch.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Thursday, April 14th. Members wishing to read papers or show cases or specimens should kindly communicate as soon as possible with Dr. Nicholson, East Lodge, Colchester, Honorary Secretary.

Edinburgh Branch: South-Eastern Counties Division.—A meeting of this Division will be held in the Station Hotel, Newtown St. Boswells, on Friday, April 8th, at 3.45 p.m. Business: To consider the Medical Defence scheme of the Association. To consider the following recommendation of the Ethical Committee: "That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." To consider the recommendations of the Medico-Political Committee: "That the Divisions be asked to consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." The Secretary will be glad to receive intimation of cases to be shown or papers to be read as soon as possible previous to the meeting. W. Hall Calvert, Honorary Secretary, Melrose.

Metropolitan Counties Branch: St. Pancras Division.—An ordinary meeting will be held at St Mary Islington Infirmary, Highgate Hill, Upper Holloway, on Thursday, March 24th, at 4.30 p.m. Dr. Sturge: Case of Albino. Dr. A. H. Robinson: (1) Cases of interest from the wards; (2) demonstration of Dowsing Radiant-heat Treatment; (3) demonstration of cases by X ray Apparatus. Tea by kind invitation of Dr. Robinson. —R. C. M. Pooley, Honorary Secretary, 35, Highbury Grove, N.

Metropolitan Counties Branch: Richmond Division.—The next meeting of this Division will be held on Wednesday, March 23rd, at the Greyhound Hotel, Richmond, when papers will be read by Dr. G. E. Shuttleworth and Dr. F. Graham Crookshank.—J. R. Johnson, Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division.—A meeting will be held in the Officers' Mess Room of the 4th Volunteer Battalion East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), on Thursday, March 24th, at 9 p.m. Agenda: Minutes. Correspondence. Resolutions for the Representative Meeting in favour of the Association forming a department to undertake the supply of all stationery, circulars, etc., required by the various Branches and Divisions: Mr. Guy Elliston, General Secretary, will speak to these. Resolutions for the Representative Meeting referring to self-treatment by the laity and the consequent great injuries done thereby; Dr. Danford Thomas, Coroner for London and Middlesex, and others will speak to these resolutions. All medical men are invited to attend. Detailed agenda supplied on application to E. Rowland Fothergill, Honorary Secretary, Torquay House, Southfields, S.W.

[illegible] eeting.

[illegible] Honorary Divisional Secretary.

[illegible] Carbo-

[illegible]

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

Gift to the University. Lecture by Sir Oliver Lodge. The General Hospital. Leicestershire District Nursing Society. Health of Leicester.

The University has received a very generous gift from Mr. Joseph Williams of Birmingham, who has assigned to the Council of the University the remainder of the lease, for seventy-two years, of his house in Edgbaston. It is situated near the site of the new buildings of the University, which are now being erected, and as it stands in grounds extending to about [illegible] should prove very valuable. The donor has not hampered his present with any restrictions, and he gives full permission for the house and land to be utilized in any way the University may find most serviceable.

Sir Oliver Lodge, in his concluding lecture to medical practitioners on physics applied to medicine at the University on March 10th, [illegible] struck [illegible] He thought that [illegible] should be content to [illegible] at least four hours in the [illegible] struck might in certain cases [illegible] during a temporary paralysis.

The report for the year just presented to the eighty-second meeting of the Board of Management of the General Hospital, Birmingham, showed that the number of in-patients was [illegible] and the number of out-patients [illegible]. Of the out-patients [illegible] were children under fifteen years of age. The number of [illegible] was [illegible] which, though a slight decrease when compared with the previous year, [illegible] The expenditure of the hospital in carrying on [illegible] the amount [illegible] which was handed over to the Lady Baron Hospital [illegible] that institution. The amount received in subscriptions and extra tickets was [illegible] which is a slight increase upon that of the previous year. The [illegible] amounted to £7,302, and the special congregational collections to £1,423, which were placed to the credit of the current account on the recommendation of the Committee. The [illegible] received during the past year. The adverse balance of £1,423 which was brought forward from 1903 has been reduced to £7,302, and this reduction has been chiefly brought about by the proceeds of the musical festival, and by the unusually large sum received in legacies. A considerable increase in the [illegible] is regarded as a necessity, owing in part to the greatly increased expenditure due to the growing demands of medical and surgical work, and in part to the steadily increasing number of patients who apply for treatment. During the past year a legacy was received from the late Henry Pearce for the purpose of dedicating beds, and a sum of £1,250 was given by the Aston Villa Football Club for the dedication of a bed and a similar amount by Mr. and Mrs. Jenkins to commemorate their golden wedding.

The thirty-second annual meeting of the subscribers to the Birmingham District Nursing Society was held in the Council House on March 7th. The report and statistics show that the society's work has increased during the past year by 143 cases and 2,442 visits paid by the nurses; but the committee state with regret that it is unable to increase the staff of nurses on account of the lack of funds. The members of the committee have come to this decision because they feel that if the salaries of the nursing staff are not adequate the character of the work must suffer. The subscriptions for last year only amounted to £741, while the expenditure was £942. It has been decided to admit a certain number of probationers to the homes, on the payment of a suitable premium, who will visit with the regular nurses for the purpose of gaining experience.

Dr. Bostock Hill's ninth annual report on the health of Leamington shows a birth-rate of 21.78 and a death-rate of 11.10 for that area. Dr. Hill states that out of 30 cases of typhoid fever which were reported during the year 3 were undoubtedly associated with the consumption of oysters or other shellfish, and he points out the urgent need for protecting oysters and shellfish beds from sewage pollution.

NEWCASTLE-UPON-TYNE.

North of England Glasgow University Club Banquet. Dedication of a Pulpit to the Memory of the late Thomas Anderson Dodd. Death of James Davidson Dixon, M.B. Outbreak of Glanders at a Northumbrian Colliery.

The members of the North of England Glasgow University Club dined at Tilley's Rooms, Newcastle-upon-Tyne, on March 4th when sixty-five sat down to dinner. The chair was occupied by the President of the Club, Professor T. Oliver, who was supported by the guest of the evening, Principal Story, of Glasgow University, Lord Armstrong, the Mayor and Sheriff of Newcastle-upon-Tyne, the Warden of the University of Durham (Dean Kitchin), Dr. Hume, Dr. Murphy (Sunderland), Professor Howden, Drs. Carlton E. P. Inglis, J. S. Priestley, and South Shields), and others, while the vice-chairs were occupied by Drs. Farquharson and Frank Russell. After the loyal toast from the chair, that of "The Navy, Army, and Imperial Forces" was submitted by Dr. Ramsay (South Shields), and responded to by Dr. Drummond (South Shields). In a very happy speech Dr. Farquharson proposed the "Houses of Parliament," to which Lord Armstrong responded. The toast of the evening, "Our Alma Mater and Guest," was given by Dr. Gordon Bell in felicitous terms. He dwelt upon the higher functions of universities and what such institutions ought to be, compared the work done in the past by the University of Glasgow, with its aspirations and adaptations, to the requirements of an age in which education had become so general and competition keen. Principal Story's health was drunk with great enthusiasm. In a speech as carefully pondered as it was pregnant with interesting material, Dr. Story stated that so far as Glasgow University was concerned there was no standing still. That notwithstanding her great age she still retained the vigour of youth, and was putting forth renewed efforts not only to maintain her past reputation, but to equip men even still better qualified, if possible, for all branches of human life and activity. By his own efforts he had succeeded in raising, thanks to the liberality of Glasgow merchants, £120,000 for the requisite extensions at the University, which, when completed, would enable them to teach with greater facility and to accommodate a larger number of students. He thought that Mr. Carnegie had begun at the wrong end; he should have endowed the teachers. With the £10,000 a year which was being expended on the fees of students, of per cent. of whom were able to pay the known fees, more lecturers could have been appointed and greater benefits would have

accrued all round. There was still, Principal Story thought, a great future before the University of Glasgow. "The Land we Live In" was proposed by Dr. Frank Russell, and responded to by the Mayor of Newcastle-upon-Tyne and the Sheriff. "The University of Durham" was proposed by Mr. James Thomson, M.A., and in the absence of the Warden (Dean Kitchin), who was obliged to leave to catch a train, was suitably responded to by Professor Howden. Dr. Hume, in a neat and characteristic speech, proposed "The Glasgow University Club," which was acknowledged by Dr. Inglis. "The Health of the Chairman" was proposed by Dr. Murphy. On all hands it was admitted that a most pleasant evening had been spent. Socially the reunion was a great success. The songs contributed by Dr. Farquharson, Messrs. Gibson and London, and by Messrs. Roland Cunningham and Montagu Williams, who fortunately happened at the time to be in Newcastle singing in the opera, considerably enhanced the pleasure of the evening.

In memory of the late Thomas Anthony Dodd, M.R.C.S., whose untimely death through a carriage accident was the subject of a brief note in the BRITISH MEDICAL JOURNAL six months ago, his brothers and sisters have erected a pulpit in the chapel of the Workhouse, an institution of which the late Mr. Dodd had medical charge for fifteen years. The Bishop of Newcastle consecrated the gift, and in kindly and most appropriate terms alluded to the sympathetic services rendered by Mr. Dodd to the sick and suffering poor during his tenure of office.

Old Newcastle students of the latter part of the Seventies will have noticed with regret the death of James Deighton Dixon, M.B., at the age of 50. For several years Dr. Dixon occupied the post of Senior House Surgeon to the Royal Infirmary, at a time when the post was very largely that of a resident medical official with administrative duties as well. Dr. Dixon was an uncommonly good officer, and was a great favourite not only with the honorary staff and the Committee but with the students and nurses as well. For the last few years his health had not been satisfactory. On account of his malady he had been obliged to relinquish a select and growing practice which he had succeeded in making. He died at Southsea on February 22nd, and is buried there.

At one of the Northumberland collieries glanders recently broke out among the pit ponies, and eleven have had to be shot. Very unfortunately, one of the horsekeepers at the pit, a man aged 65, contracted the disease and succumbed to it a few days ago. The symptoms observed were those of an atypical pneumonia with septic arthritis, sanious discharge from the nostrils, and enlargement of glands. Although a bacteriological report has not yet been received, the appearances of the internal organs at the necropsy and the history of the case leave no doubt as to the illness having been glanders.

CORRESPONDENCE.

IMPROVEMENT IN DIETETICS OF DIABETICS.

SIR,—I have been much interested in the communication by Sir James Sawyer on Improvements in Dietetics of Diabetics in the BRITISH MEDICAL JOURNAL of March 5th, but I now wish to draw his attention to what seems to me a historical error. He says: "Until the researches of Mossé were published two years ago it was our therapeutic rule to withhold potatoes in saccharine diabetes."

Very many years ago the late Dr. Dujardin-Beaumetz recommended potatoes in diabetes, as will appear from the following quotation:[1]

Taking for my basis the analyses of Bouchardat and of Mayet, I was one of the first to propose the substitution of potatoes for gluten bread. These analyses, in fact, show us that while the best gluten bread gives for every 100 grams of it 10 grams and more of sugar, potatoes give only 2·50 per cent. of saccharine material. But some practitioners, making therapeutic deductions from these analyses, have sanctioned a too free use of potatoes by their diabetic patients. You must remember that it is in equal weights that you should compare gluten bread with potatoes. A good-sized potato when boiled will weigh more than 100 grams. If the patient eat several of these potatoes at a meal he will lose all the benefits of this dietary, for 100 grams of bread will perfectly suffice for two meals. It will be necessary, then, to limit to one potato, boiled or baked and well buttered, the usage of this vegetable as a substitute for bread in the dietary of diabetes.

Since the publication of Dujardin-Beaumetz's article I have been in the habit of permitting diabetics to have a limited amount of potatoes, and I think with advantage. In my opinion, by far the best way to cook potatoes is by roasting them in their jackets, and serving with plenty of butter. Roasting is rather an expensive method so far as fuel is concerned, but then it does not require any skilled cook, and those who once enjoy this luxury will not grudge the expense. Moreover, all the salts of the potato are preserved. In the same number of the BRITISH MEDICAL JOURNAL there is a memorandum on potatoes and glycosuria, where in a case of "slight alimentary glycosuria" Dr. George Birt found that potatoes largely increased the amount of sugar, but in his case the patient got "plenty of potatoes." Probably the subject requires more experimental investigation than it has yet received.—I am, etc.,

Liverpool, March 12th. JAMES BARR.

[1] *Therapeutic Gazette*, Philadelphia, October 15th, 1894.

SIR,—I am sure that I only express a feeling common to all your readers when I say that I have read with warm appreciation Sir James Sawyer's communication of March 5th on the diet of diabetics. The subject is, however, of so great importance to us all, and to many of our patients, that I beg leave to criticize, in no carping spirit, two secondary but not unimportant details.

The first is as to the addition of bran to the potato-flour which will unquestionably be a boon to diabetics. It could scarcely be designed by Sir James, and others who recommend its use, to introduce additional nitrogen into a diet already so rich in that element, more especially as the greater part must inevitably pass undigested through the alimentary canal. I presume, therefore, that the intention is to ensure regular action of the bowels. But a very large proportion of glycosurics are the subjects of gastro-duodenal catarrh of which one indication is the condition which Dr. Cheadle has denominated acholia. That condition, as I stated in one of your medical contemporaries in April last, I hold to be the pathological basis of the uricaemic diathesis of which glycosuria is so often the ultimate expression. But, however that may be, gastro-duodenal catarrh must involve more or less obstruction to the admixture of the biliary and pancreatic juices with the chyme. I submit, therefore, that bran, and any other alimentary substance which is capable of exercising mechanical irritation on the mucous membrane, should be excluded from the diet of the class of patients under consideration.

The other point is the admission of soda water to the list of permissible beverages. Allow me to point out that immersion in an effervescing bath is demonstrably rubefacient, although there is no impediment to the free escape of the gas. Can it be doubted that gas emitted in the stomach, and only partially liberated by occasional eructation, exercises a similar and more decided influence on the mucous membrane; and that distension of the gastric walls interferes with the peristalsis which is essential to normal digestion?—I am, etc.,

London, W., March 14th. W. BEZLY THORNE.

PUERPERAL SEPSIS.

SIR,—My object in writing on this subject is to help by the aid of facts to combat teaching which is apt to bring into disrepute the modern system of strict cleanliness by going too far and advocating impossibilities. Thus, to mend a torn perineum aseptically or antiseptically is an impossibility. With the vulva and anus, neither of which can be made aseptic, and a sanguineous discharge that no dressing can keep from the air, is there any common sense in doing otherwise than inserting one or two catgut sutures which always are effectual?

Then to compare the vagina with the peritoneal cavity is not logical. The peritoneal cavity is shut off from the air and never intended by Nature to be opened. We have to open it for disease and accident, and only with great cleanliness can we do so safely. The vagina, on the other hand, is placed in the most septic part of the body, is open to the air, and is the natural hostess of an organ that never since the world began has been made aseptic before introduction, and this introduction often takes place quite on the eve of parturition. Undoubtedly it would be wrong and even criminal to go from doing a *post mortem* or from handling a case of erysipelas with uncleansed hands to a confinement, but my experience has been that puerperal sepsis has never been set up by my clean but not aseptic fingers.

Dr. Phillips quotes a case in which he acted with skill and promptitude, and no doubt saved his patient's life, but why give the credit to his antiseptics when the most rabid bacteriologist would never agree that dipping his hands in

corrosive sublimate solution for a second or two and using carbolized vaseline would render his hands aseptic.

I wish to record for the information of one of your correspondents that I have never had a case of *post partum* haemorrhage, and I believe the reason is that I never allow the uterine muscle to get exhausted. Where there is any delay or difficulty I put on the forceps. When the placenta does not come away immediately with firm pressure I introduce my hand into the uterus and almost always find some slight adhesion or an irregular contraction of the uterus which is easily overcome. The placenta having been removed I squeeze the uterus down to almost the size of a cricket ball, and repeat the proceeding again before leaving the house, ten minutes after the birth of the child.

In answer to your correspondent, I may say that I have no accidents beyond the occasional slight rupture of the perineum, that in all cases except the most difficult I give chloroform myself as well as deliver the woman, and that the deaths I have had out of 2 000 cases have been as follows: One from puerperal fever (infected by a child with scarlet fever), two from pulmonary embolism, and two from puerperal eclampsia. In these latter cases, which occurred sixteen years ago, I was not allowed to use the forceps, and this I regret in view of a case I had last year. This woman was at full time, and was in a fit on my arrival. Labour had begun, but the os would only admit my forefinger. I administered chloroform at once, and dilated the cervix with my hand. This is a very cramping proceeding, and requires one to change hands occasionally, but the fingers are better for the purpose than any instrument yet invented. I put on the forceps, and delivered the woman, who had no more fits and made a good recovery.

I get a case of white leg occasionally, as every one does, but I think this is due to some faulty condition of the blood, and not to bacteria; and from my small experience of it I am inclined to think it runs in families.

In conclusion, I think that when a case, such as an abdominal section, can be performed aseptically, and that results have proved it safe and successful, we should by all means carry out the treatment thoroughly. In all other cases let us remember that cleanliness, quickness, and dexterity give the patient the best chance.—I am, etc.,

March 7th. GENERAL PRACTITIONER.

THE DIMINISHING BIRTH-RATE.

SIR,—I think there are many members of the profession who, like myself, hold very different views to those put forth by Dr. Hope Grant in the BRITISH MEDICAL JOURNAL of March 5th.

Dr. Grant speaks of the present day middle-class woman as under the influence of the higher civilization, which has brought in its train bicycling, golf, hockey, and other [illegible] to increase the size of her muscles and diminish the size of her pelvis. She is gradually tending in figure towards the male model. "There can be little doubt in the mind of any one that 'the new model' is not equal to the calls of the situation."

I differ entirely from Dr. Grant. I believe that the hypertrophy of the thigh muscles attached to the pubic arch tends to increase the circumference of the outlet of the pelvis, and so make parturition less difficult.

In my opinion the gymnastic training not only develops the female physique but also fits women to be the mothers of children able to quit themselves like men in the battle of life. As to the assertion that she is tending towards the male model, I think a visit to any good gymnastic school for girls will show that there is no tendency that way. As a matter of fact the [illegible] golf woman gets through her confinements better than the untrained Lydia Languish type. The natural distinctions of the birth canal are better in the athletic than in the gymnasium and on the golf grounds [illegible] are used to distinguish the [illegible] from certain hop-picking [illegible] and the resemblance, but there are other causes at work.

The cause that can be looked at with satisfaction is the [illegible] that has taken place in illegitimate births. In 1894 they amounted to 44 per 1,000 births. In 1901 they numbered 41 per 1,000 births. In 1901 there were [illegible] illegitimate births, a decrease of [illegible] per cent. The number of women marrying under the [illegible] in 1901 was [illegible] per cent. This must have an influence on the birth-rate of the country, as Korosi showed by his tables of natality per 100 wives:

Mother's Age	Ratio of Births	Mother's Age	Ratio of Births
15–19	32		
20–24	47	40–44	11
25–29	37	45–49	1
30–34	29		

There is a fall in births of no less than 10 between the age periods 20-24 and 25-29. The Registrar General's returns prove that in England a very great change has taken place in the age for marriage. In the 57th and 64th Reports the figures are as follows:

Year	Ages of Wives													40
	15	16	17	18	19	20	21	22	23	24	25	26	27	
1804...	17	18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	1	145	[illegible]	[illegible]	[illegible]	[illegible]	41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Bearing in mind the fact that this population increased by two and a-half millions during this period the figures are very striking, for under 20 years every age, except 16, shows a fall in the gross number of marriages.—I am, etc.,

Dalbeattie, March 4th. JOHN MILSON RHODES.

GASEOUS *VERSUS* FLUID MEDIA IN CYSTOSCOPY.

SIR,—In the BRITISH MEDICAL JOURNAL of March 5th Mr. Galbraith Faulds recommends oxygen gas as a distending medium for cystoscopy, but does not make it quite plain whether all the advantages he claims for oxygen depend upon its chemical properties, or upon its gaseous nature. The real question is whether a gaseous or a fluid medium is most suitable for cystoscopy.

Most cystoscopists have, I think, at one time or other tried air or some gas in place of fluids, and will agree with Mr. Faulds that until the introduction of the "cold lamp," the use of a gaseous medium was impracticable on account of over-heating.

It is said that a fluid medium allows blood and pus issuing from the ureters to diffuse through the medium and obscure the field. I cannot say I have found the field obscured with such rapidity as to prevent a thorough examination of the ureters and bladder, and even a demonstration to one or two onlookers. In a gaseous medium, however, the ureteral contraction has not sufficient force to throw the jet of bloody or purulent urine away from the orifice. The fluid wells up and collects around and upon the ureteral opening, and in a very short time the view of this, the point of interest in such a case, is obscured.

There are, however, other advantages in a fluid medium. The activity of the ureter is more readily appreciated and the strength of the jet estimated, but, above all, slightly murky urines and those containing shreds are at once recognized when projected into a fluid medium, but not when pumped along the floor of a gas-filled bladder.

In the cases in which the disease is located in the bladder itself a fluid medium has again advantages. The majority of diseases of the bladder for which cystoscopy is practised lie somewhere in or immediately around the trigone at the bladder base. In a cystoscopy the bladder base very soon becomes filled with urine, which in itself, even without the admixture of blood or pus, interferes very materially with the examination. We have not only refraction of the different media, but also concentration of the abnormal fluids to impede the view. Further the view of, say, a papilloma is much more perfect in a fluid medium than in a gaseous. They can only be compared to seaweed floating in water and lying on a bare rock.

It is necessary in very many cases to wash out the bladder before proceeding to cystoscopy in any medium. What could be easier than to examine in the fluid at the end of the washing? Delicate manipulation in the passage of instruments and if necessary a wash of weak cocaine or adrenalin will allow of a bloodless view in the great majority of cases.

Again, the carriage of cylinders, if a gas is to be used instead of air, must in itself militate against this medium. Has any one there ever raised the question of sterility? Although air may be used with impunity in the female bladder in accordance with Kelly's method, can really [illegible] the same security in dealing with the male, the moment that a case suspected in which the air, in some means unexplained, found its way into the renal veins.

Mr. Faulds apparently suggests a therapeutic advantage in the use of oxygen, but this must be considered apart from the main question. He seems to overlook the mechanical value of fluid washing in such bladders. The mechanical action may be combined with the valuable properties of oxygen by using a solution of peroxide of hydrogen for cleansing the bladder. I am, etc.,

London, March 14th. J. W. Thomson Walker.

THE SANATORIUM TREATMENT OF CONSUMPTIVES.

Sir, I accept Dr. Brookhouse's correction that his very interesting statement which I quoted in the issue of the British Medical Journal of February 27th, 1904, p. 518, was not intended to apply to Ritcher's Hill: the wider application of it suits my purpose better. When I read that statement the conclusion I came to was that his keen intelligence had apprehended the true significance of the fact that "many of the discharged patients die more quickly than the outside public has any idea of." We are now told that the new method of treatment is still in the experimental stage. I take exception to this. The leaders of this in no sense whatever "popular" movement gave at the beginning the most explicit assurance that the experimental stage was already passed, quoting German statistics which have since been proved to be fallacious.

From no other standpoint would they have dared to suggest municipalization; for as everybody knows when once a system has been municipalized it has been immortalized a little affair which the officials who have been called into existence always attend to. I restate my main thesis which is this—the aggregation of the infective sick in large permanent hospitals is bad at all times and under all conditions. I claim that this is the scientific view, that it is supported by irrefragable evidence furnished by experience, that it is affirmed by the findings of bacteriology and demonstrated daily and hourly in the wards of the "isolation" hospitals.

Since the passing of the Public Health Act almost the sole conception of preventive methods has been the devising of laws and systems by the operation of which the infective sick might be herded like "dumb driven cattle" in pest houses miscalled "isolation" hospitals. Grossly wanting in humanity the system deserved to fail, the estimate of human nature being altogether too low. There has been no height to which the public health enthusiast has not been prepared to climb, and no depth to which he was not ready to sink: and I am not at all surprised to find one of them now boldly coming forward with a proposition to geld and spay five-sixths of the world's population in order that one-sixth may lead healthy lives. You, Sir, satirize the proposition, but it must not be forgotten that it is cousin-german to a great deal that has gone before. Some such proposal was bound to be made sooner or later as the natural outcome of the pernicious doctrine that the individual must be sacrificed for the benefit of the whole community. Signs are not wanting that the aggregation fad has had its day, and the wisest thing that we can do is to speed the departing guest with the best grace possible.—I am, etc.,

Nottingham, March [illegible]. Edwd. Dean Marriott.

"PROPOSED STERILIZATION OF CERTAIN DEGENERATES."

Sir, In your review of the above treatise your critic devotes far too much time to "Dr. R. R. Rentoul." Have we met before? He refers to me as "a reformer of things in general." This is an untruth. He says I "feel strongly that the world is out of joint, and, unlike Hamlet, I do think it not a cursed spite, but a blessed joy, that he was born to put it right." This is but poor fun, and not criticism. But, as Pope says, "A man must serve his time to every trade, save censure; critics all are ready-made." And, I fear, they often suffer from a mental dyspepsia. It is a pity your critic does not know sufficient to make him take a serious view of degeneracy. He refers only to my proposal—sterilization. But if he will take the trouble to read my treatise he will find out that already the public recognize that there are both natural and artificial sterilizations: natural, where degenerates are sterile, and artificial, where the ovaries, uterus, or testicles are removed by surgeons. Some thousands must be so sterilized yearly.

What does your critic mean by his cross statement that "Dr. Rentoul thinks it not a cursed spite, but a blessed joy" that he was born to put it right? Dr. Rentoul—"was born to put it right"? Has degeneration (as stated) the power of criticism?

But your critic is also somewhat unfair in neglecting to notice that I devote a chapter to "Boy and girl marriages," where I point out that it is fearful for us to allow a child of 12 years old to marry, and that the age limit should be increased to 18 years. He also begs to call attention to the Act of the State of Minnesota, where a fine of 1,000 dollars, or imprisonment for three years, is imposed upon degenerates who marry and upon those who conduct the marriage ceremony.

This question of degeneracy is a sad one. It is becoming sadder still by the fact that a large number of feeble-minded females are yearly bringing forth illegitimate imbecile infants; and that a large number of lunatics are allowed out of asylums either to marry or to resume conjugal relations.

These are a few of the points I have referred to in the above treatise. It takes a man of rather a strong nerve to tackle such a subject. I have done so, knowing that in so doing I expose myself to severe criticism. But I ask for honest manly criticism, and not stuff such as that above noted.—I am, etc.,

Liverpool, March 16th. Robert R. Rentoul.

THE DESTRUCTION OF RATS ON BOARD SHIP.

Sir, In the British Medical Journal of October 31st, 1903, on pp. 1164-5, you have an article on this important matter.

I can bear testimony to the efficacy of carbon dioxide and carbon monoxide in destroying these mischievous disease carriers, having employed it exclusively and extensively when Port Health Officer to this town during the plague scare in 1900.

My method of generating the gases has been fully described by me in the Journal of February 1st, 1902, p. 295, and I claim for it the following advantages: Efficacy, convenience, and cheapness.

1. Efficacy.—I never failed to destroy every rat that was in the ship, and on one occasion an unfortunate cat that had been left below succumbed to the noxious fumes.

2. Convenience.—Under the influence of the burning charcoal, the rats leave their hiding places in the lockers and between the skins of the ship, and are found dead around the site of the fires. I have not been able to satisfactorily account for the cause of this, but the fact I can testify to. The dead animals can thus be easily removed, and do not remain in hidden places to become hereafter a nuisance. My experience of the gas introduced by tubes was not so happy. I permitted it to be done on one occasion at the request of a firm of engineers here, who were anxious to try the experiment. We were successful in killing the rats, but they died in their hiding places to become a future nuisance.

3. Cheapness.—Dr. Haldane states that the installation of a plant for a large harbour would be £2,000, and the cost of clearing each ship from £3 to £4. The cost of the plant for my method would be infinitesimal, and the cost of clearing the largest ship afloat would not exceed—exclusive of labour—10s.

One great advantage in the use of carbon dioxide and monoxide is that the most delicate goods are unaffected by it, and that the nautical instruments, as the chronometers and aneroids, are not injured, as is the case with sulphur, mercury, and other agents that have been recommended and employed, and, further, the carbon oxides are more certainly efficacious.—I am, etc.,

Fred. de Lisle, L.R.C.P., D.P.H.,
District Health Officer, Hawkes Bay [illegible].

CANE SUGAR AND BEETROOT SUGAR.

Sir,—I have long been satisfied that with consumptives and children the nutrient—fattening—power of ordinary grocers' sugar is *nil*. On numberless occasions I have noticed improved results when real cane sugar—preferable I think in the uncrystallized state—was used instead; chemically they are said to be "identical," just as potato spirit and malt whisky; practically they are as different. A recent inquiry in the British Medical Journal has evolved the following interesting communication from an expert, which speaks strongly in support of my experience:

I have had a long experience of cane and beet sugars. I started with interest in upholding the former, but the result of my experience has convinced me of the superiority of cane sugar over beet.

Chemically so far as our scientific knowledge goes [illegible] so far yet both sugars, when pure and in the crystallized form, are alike. Chemistry in this branch [illegible]

[illegible] will be discovered soon, physically the [illegible]

[illegible] patient and [illegible] If I were not to [illegible] attempt would take a practical effect on the human system [illegible] and [illegible] the [illegible] such [illegible] with its natural [illegible] [illegible] [illegible]

tioned these flies with his usual care, but the specimens were in a bad condition and proved useless. I am surprised that no one else has so far attempted the study of the question by a direct examination of the fly.

Colonel Bruce and Dr. Nabarro made very numerous experiments to ascertain whether the tsetse flies of Uganda had anything to do with the propagation of the disease, and their experiments have been repeated by Drs. Dutton and Todd in Gambia. Unfortunately, these experiments have not led to any definite conclusion. At present, therefore, our knowledge of the rôle of the tsetse flies in the transmission of sleeping sickness rests solely on the reasons I mentioned in my lecture published in July, 1903: First, the limitation of the disease to the tsetse fly stations; secondly, the presence of sexual forms amongst the trypanosomes of sleeping sickness.

Analogy with other *Haemosporidia*, and especially with trypanosoma noctuae, prove further that the tsetse fly cannot be regarded merely as a passive carrier of the disease, but is, as I suggested in previous papers, a true alternative host.—I am, etc.,

LOUIS W. SAMBON.

London, N.W.

DOCTORS IN PARLIAMENT.

SIR,—The best and least costly plan would be to approach the different party organizations, and ascertain whether each will give a seat to the medical profession. That would obviate what otherwise will occur, that apart from medical measures each member must belong to and vote for a party. There is in the House no such thing as a "non-partizan." Personally, I am a Tory, and I would not support any man to augment the voting powers of the Opposition, neither am I singular in this.—I am, etc.,

Bletchley, Bucks, March 13th. P. B. GILES.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON L. H. KELLETT, M.D., M.A., is promoted to be Deputy-Inspector-General from December 5th, 1903. He was appointed Surgeon September 30th, 1876; Staff Surgeon, September 30th, 1888; and Fleet Surgeon, April 27th, 1893. He served with the Royal Marines in the defence of Suakin in 1884-5, and was Principal Medical Officer with the battalion during the operations in the Eastern Soudan in 1885, being present at the actions at Hasheen and the Tofrek zareba and the destruction of Temai (medal, with clasp, and Khedive's bronze star).

The following appointments have been made at the Admiralty: MOYLE BRETON, Surgeon, to the *Fox*; March 7th: MICHAEL FITZGERALD, C.M.G., Deputy-Inspector-General, to Jamaica Hospital, March 11th; CHRISTOPHER PEARSON, Deputy-Inspector-General, to Haslar Hospital, March 25th.

ARMY MEDICAL SERVICE.

DEPUTY SURGEON GENERAL JAMES LEITCH, M.D., died at Edinburgh on February 12th, aged 79. He was appointed Assistant Surgeon, January 23rd, 1847; Surgeon, May 1st, 1855, and Surgeon Major, January 23rd, 1866, retiring from the service with the honorary rank of Deputy Surgeon-General, January 10th, 1876.

ROYAL ARMY MEDICAL CORPS.

MAJOR R. E. KELLY, M.D., from half-pay, retires on retired pay, March 12th. He joined the department as Surgeon-Captain, July 28th, 1886; was made Major, May 10th, 1899; and was placed on half-pay, February 6th, 1902. He was in the South African war in 1901-2.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT A. A. MACKEITH, M.B., 1st Hampshire Royal Garrison Artillery (Volunteers), to be Surgeon-Lieutenant, February 27th.

INDIAN MEDICAL SERVICE.

THE undermentioned Captains, whose first commissions date from January 28th, 1899, are promoted to be Majors from January 28th, 1904: B. G. SETON, Bengal Establishment; R. H. ELLIOTT, M.B., R. K. MITTER, M.B., and W. E. A. ARMSTRONG, Madras Establishment.

The following Lieutenants, first appointed January 29th, 1901, are promoted to be Captains, from January 29th, 1904: C. W. F. MELVILLE, M.B., R. MCCARRISON, M.B., J. MASSON, M.B., N. S. WELLS, M.B., W. M. ANDERSON, M.B., E. H. B. STANLEY, W. H. LEONARD, A. W. C. YOUNG, M.B., J. G. G. SWAN, M.B., P. MCL. DALZIEL, M.B., J. J. ROBB, M.B., R. B. B. FOSTER, M.B.

Lieutenant-Colonel W. P. CARSON, M.B., Bombay Establishment, has retired from the service, [illegible]. He joined as Assistant Surgeon, September 30th, 1878, and became Lieutenant-Colonel, September 30th, 1896. He was in the Afghan War in 1878-80 (medal), and with the Burmese Expedition in 1885-6 (medal with clasp).

Surgeon General D. SINCLAIR, M.B., C.S.I., Surgeon General with the Government of Madras, is granted privilege leave for three months from March 28th, and furlough to Europe in continuation, till October 11th.

STUDY LEAVE.

WE learn that the India Office has decided that a medical officer in civil employment may be granted study leave without his services being replaced at the disposal of the military authorities. The leave will count from the commencement and finishes at the conclusion of the course of study at the hospital selected, and a lodging allowance of 7s. a day will be granted in addition to furlough pay; the period of study leave will count towards a pension.

ROYAL ARMY MEDICAL CORPS (MILITIA).

LIEUTENANT M. A. CHOLMELEY resigns his commission, March 12th.

IMPERIAL YEOMANRY.

SURGEON CAPTAIN H. WILLIAMS, Nottinghamshire (Southern Nottinghamshire Hussars), resigns his commission, March 5th.

VOLUNTEER RIFLES.

SURGEON-CAPTAIN A. E. LARKING, M.D., 1st Volunteer Battalion the Buffs (East Kent Regiment), resigns his commission, February 27th.

Surgeon-Lieutenants E. J. CROSS and W. F. FISHER, M.B., 4th (Hunts) Volunteer Battalion the Bedfordshire Regiment, to be Surgeon-Captains, February 27th.

Surgeon-Captains R. MITCHELL, M.D., A. P. NUTTALL, M.D., and J. W. COOK, M.B., 1st Volunteer Battalion the Lancashire Fusiliers, are borne as supernumerary whilst doing duty with the Lancashire Fusiliers Volunteer Infantry Brigade Bearer Company, February 27th.

The initials of Surgeon-Captain MACALISTER, M.D., whose promotion was announced in the *London Gazette* of February 12th, are C. J., and not J. C., as therein stated.

DAVID E. DICKSON, M.B., to be Surgeon-Lieutenant in the 6th (Fifeshire) Volunteer Battalion the Black Watch (Royal Highlanders), February 20th.

Surgeon-Lieutenant J. SCOTT, M.D., the Queen's Rifle Volunteer Brigade the Royal Scots (Lothian Regiment), is promoted to be Surgeon-Captain, March 12th.

MR. WILLIAM R. E. WILLIAMS is appointed Surgeon-Lieutenant in the 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, March 12th.

VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

THE appointment of Captain C. J. JACOMB-HOOD to command the Sussex and Kent Company, which was announced in the *London Gazette* of February 2nd, is cancelled, and the following substituted: Captain C. J. JACOMB-HOOD is appointed to command the Sussex and Kent Company, under Paragraph 55A, Volunteer Regulations, *vice* Major J. Turton, appointed Senior Medical Officer, Sussex and Kent Volunteer Infantry Brigade, February 3rd.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

THE undermentioned gentlemen are appointed Surgeon-Lieutenants in the 1st Dorsetshire: THOMAS A. WALKER and TELFORD TELFORDSMITH, February 20th.

MR. JOSEPH GRANT-JOHNSTON to be Surgeon-Lieutenant in the 7th Lancashire.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

LIEUTENANT-COLONEL AND HONORARY COLONEL J. E. SQUIRE, M.D., the London Companies, resigns his commission, retaining his rank and uniform, March 5th.

Captain D. CHRISTIE, M.B., from the Argyll and Sutherland Highlanders, to be Captain in the Glasgow Companies, March 5th.

The undermentioned gentlemen to be Lieutenants in the Manchester Companies, dated March 5th: WILFRED E. ROTHWELL, M.B., ALFRED F. THOMPSON, M.B.

Surgeon-Lieutenant-Colonel J. CANTLIE, M.B., 7th Middlesex Volunteer Rifles, to be Honorary Lieutenant-Colonel Commandant, the Maidstone Companies, March 5th.

MEDICAL OFFICERS OF THE ROYAL NAVY ON THE RETIRED LIST.

R. N. writes: Medical officers of the navy, on retiring from the service on pension at their own request, are, in accordance with the King's regulations, liable to be recalled for service, in case of emergency, until they reach the age of 55. As a rule, these officers, on leaving the service, retire into private life, give up all medical work, and consequently become in a very short time what might be called rusty, and not up to date in either surgical or medical work. I would therefore suggest that the attention of the Admiralty should be called to the great necessity of granting all medical officers on the retired list liable to recall a post-graduate course on full pay and allowances for at least six weeks every year. The cost of this would be trivial, but the benefit to the suffering humanity which they may be called upon to treat would be very great. When officers of the executive department of the service retire they get periodical courses of instruction at the gunnery and torpedo schools on full pay and allowances. If their Lordships think it necessary to grant these courses of instruction to the executive department to keep them abreast of their work, I think it still more necessary that medical officers should be granted a post-graduate course to keep them also abreast of their work, otherwise it is not fair to the medical officers nor the suffering humanity which they may be called upon to treat.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY.

THE medical department of the United States, like our own, is now in the Medea-caldron of reorganization. A Bill on the subject has been approved by the Secretary of State for War, and has been forwarded by him for the sanction of Congress. The Bill provides for an increase in the number of medical officers sufficient to enable them to perform in time of peace all the duties laid upon them by the army regulations. It is pointed out that so far is this from being the case at present that the regular medical corps has to be supplemented by the employment of about 200 contract surgeons.

The Bill also contains a provision for the remedy of an injustice done to the medical corps by an Act for the reorganization of the army passed in 1901. By the terms of that Act the proportion of officers in the higher grades was, without proper consideration for the needs of the medical department, greatly reduced, and the prospects of promotion were consequently much impaired. As a result it has been found impossible to fill the vacancies in the grade of lieutenant created by that Act, notwithstanding every effort to attract candidates. There have been eleven

resignations among the younger officers, as compared with only the same period of last year, the passing of the Act. The Surgeon-General therefore asked for the passing of the Act. The Surgeon-General therefore asked for the passing of the Act. The Surgeon-General therefore asked for

By the Court: The plaintiff used to prescribe generally, he was not a specialist.

Mr. Shee, in opening the case for the defendant, said the gravamen of the charge made against the plaintiff was that he represented that treatment by correspondence was practically as good as treatment after consultation. It was clear, in spite of what the plaintiff said, that he knew all about the Drouet Institute when he entered it. He would submit that the methods of that Institution and the methods of the plaintiff were a danger to the public. This was a full-fledged M.D. of Paris, who was sneering by advertisement at his professional brethren. The predecessor in office of the plaintiff at the Drouet Institute was deprived of his diploma by the Royal College of Surgeons. These advertisements were addressed to the poor. Coming into the hands of a poor person, an advertisement of this kind would create an impression that a new religious order had been sent down for the universal benefit of mankind. The methods now adopted by the plaintiff were similar to those of the Drouet Institute. It might be that the plaintiff was competent to cure deafness in persons who went to consult him; but the defendants would call evidence to show that some of the persons treated by correspondence had not been benefited in the least. It was significant that no witnesses had been called on the part of the plaintiff to say that they had been cured by the correspondence method. He would ask the jury to say by their verdict that they discountenanced this system of imposing upon the humbler classes.

Mr. Bonner, a solicitor's managing clerk, who had suffered from nose-stoppage, made an application to the Drouet Institute for a set of questions. In answer he received a letter dated May 15th, 1901. They recommended medicines costing £5. In June he felt a certain amount of relief, and wrote to the Institute to that effect. The improvement did not continue, but the irritation became worse. He then discontinued the treatment for a time. He recommenced and got no benefit. After that he went to see a doctor, who operated twice. This cured him.

At this point the Lord Chief Justice declined to allow evidence of matters which took place after the plaintiff left the Institute.

Cross-examined: The witness said he had suffered from rheumatic gout. He had been given a spray with, which to clear his nose. In a letter written after he had been operated upon he had told the Institute that he did not blame them, but that he knew they could not treat him properly without a personal examination.

Mrs. Welch, residing at Hastings, near Buckingham, said that in April, 1901, she had a discharge from ears and nose. She wrote to the Drouet Institute which was advertised in the papers. She could not use the medicines quite as directed. She could not gargle. She went on with the treatment until June. They then stopped the medicine which was doing her good, and gave one which made her worse. It made no difference to her ears. She spent £5 from her savings for it. She then got pains in her neck which she had not had before the treatment. The doctor whom she saw gave her medicine and syringed her ear. In cross-examination she said she told them she could not do it.

Re-examined: "I had an invalid husband, and if I had followed the directions I could not have done anything else."

Dr. Norman Pendred, practising at Buckingham, said that he was consulted by Mrs. Welch. She had facial erysipelas caused by a discharge from the ear. He examined ears and nose, and found that the drum was perforated. Under the usual surgical treatment she recovered, and the drum healed. He then cleared the Eustachian tube, which improved her hearing. He saw the various documents received from the Institute. There was otitis media. A gargle was no use for the Eustachian tubes, as they were behind the tonsils. There was congestive rhinitis, which was a common cold. "Chronic oligosmia," from which Mrs. Welch was alleged to be suffering, was a disease unknown in the medical profession. He had also seen Mr. Bonner. He had polypi, which he removed with a wire snare. None of the drugs would have any lasting effect on the polypi. They were, perhaps, six months old. In cross-examination he said there was no drug which was any use for absorbing a polypus. Drugs such as tannin or menthol might give temporary relief by reducing inflammation.

Mr. Andrew Binnie who was also called said that he wrote to the Drouet Institute, after seeing an advertisement. He filled up their report, and subsequently received medicines to the value of £5. These did him no good. He had had deafness in the left ear since infancy. There was a discharge from this ear. When syringing his ear with a lotion supplied by the Drouet people some of the liquid came from his mouth, shewing that the perforation had not healed. After receiving no benefit from the Drouet treatment he consulted a local doctor. Dr. Crombie, who sent him to an Edinburgh specialist. In the result both ears were completely cured.

Cross-examined by Mr. Rawlinson, K.C.: He came into communication with Mr. Lawrence here by advertisement. He did not write between [illegible]. He never saw Dr. Dakhyl. He went to the Institute about November 1901. He only saw him once.

Re-examined by Mr. Eldon Bankes: Before seeing the Drouet Institute's there was discharge from both ears.

Dr. John Frank Crombie, practising in North Berwick, examined by Mr. H. Fraser, said that Andrew Binnie consulted him in October, 1901. He was deaf in [illegible] ear. He left ear had slight discharge from it. There was large perforation in the left tympanic membrane. There was a slight tympanic membrane. He prescribed an antiseptic lotion and douche, and boric acid powder insufflation. He recommended Mr. Binnie to a specialist and corresponded with the latter on the case. Binnie improved very greatly. He saw the Drouet diagnosis. He was suffering from otorrhoea and consequent deafness. He had never heard of bronchitis as a medical term. There was a perforation of the membrana tympani of the Eustachian tube. The Drouet diagnosis was nonsense, but a statement of that Latin.

The Lord Chief Justice: All doctors' Latin is bad Latin. Do you really suppose that doctors [illegible]?

Witness said [illegible] were intelligible, but the gargle sent was useless. The box of [illegible] was useless. In the case of [illegible] the nose gargle was useless.

Cross-examined by Mr. Rawlinson: [illegible] was to keep the [illegible] caused by [illegible] was to [illegible] discharge. Assuming the Drouet antiseptic to be real, it was partly a good [illegible]. He [illegible] use to them. The salt and water gargle was not harmful, but was not recommended at the present time. The Drouet powder [illegible] and gargle was no use. Gargling as a general rule was not of much use, it did not reach the back of the throat. There were, however, a few exceptions. Politzer's bag acted on the Eustachian tubes.

Re-examined by Mr. Eldon Bankes, K.C.: In his opinion the Politzer method was right and was successful. It could not be applied by the patient himself. There was chronic catarrh of the Eustachian tube.

Dr. Prichard, F.R.C.S., aural surgeon to King's College Hospital, and Consulting Surgeon to the Royal Ear Hospital, said that in his view it was absolutely impossible to make a correct [illegible] by correspondence. In many cases it would not be safe. He would not like to advise without seeing the patient. The patient might at one moment hear the subjective symptoms were the same in many diseases of the ear. In a number of cases operation was necessary. The plasters prescribed by the plaintiff were useless.

In cross-examination witness said he had respect for some degree of M.D. Paris. In certain cases of deafness a douche or irrigation were sometimes useful.

Mr. Cheatle, F.R.C.S., Assistant Aural Surgeon to King's College Hospital, etc., and Mr. Macleod Yearsley, F.R.C.S., etc., were also examined on the part of the defendants, and a number of other witnesses were called to speak as to the results of the plaintiff's treatment.

Mr. Shee, in summing up the defendant's case to the jury, said that in all the cases of patients who had been called on the part of the defendant the treatment had been futile and useless, and in some instances dangerous to the patients. It was quite possible that the plaintiff was a skilful aurist, but that was not the question. What the defendant sought to expose was the danger of the practice of prescribing for patients without seeing them. That was dangerous and dishonest treatment. The plaintiff had had his warning, but was still carrying on his practice in the old way. He would ask the jury to say that Truth had a right to express an honest opinion upon this which was a matter of public interest.

Mr. Rawlinson, replying on behalf of the plaintiff, called attention to the words of the libel, and pointed out that it was absolutely untrue to say of the plaintiff that he was not a qualified medical practitioner. Having the degree of M.D. of Paris, his qualifications were as high as those of the most eminent practitioner in this country. During the year that the plaintiff was connected with the Drouet Institute 400 patients had written to say they were cured. This was a testimonial to the plaintiff's skill. He submitted that this attack was really an attack on the Drouet Institute, with which the plaintiff had now nothing whatever to do.

In the course of his summing-up the Lord Chief Justice said: Gentlemen with foreign qualifications are allowed to practise in this country, and that is one of the grievances of the medical profession. There are two distinct issues, namely, the skill and competence of the plaintiff, and the question whether the defendant has exceeded the bounds of fair criticism. So far as he used strong language in commenting on that system you must not condemn him; our fair comment must not be made the opportunity for personal attack. A quack has been defined to mean "a boastful pretender to medical skill which he does not possess." Unless you come to the conclusion that it was true that he was a quack of the rankest species, as the defendant has stated, the plaintiff must succeed on this part of the case. Then there is the other part of the case which involves the other issue—namely, the dealing with patients by correspondence, which the eminent specialists who have been called to give evidence so strongly object to. There is an immense deal to be said against this system, but it is a remarkable fact that the defendant has not adduced a single instance of improper or unskilful treatment on the part of Dr. Dakhyl since he started private practice. Although you may think it unprofessional and ungentlemanly to advertise, it is not against the law to do so. Some of the advertisements are couched in terms which cannot altogether be justified, but it is to be observed that eleven cases of persons who were treated by the plaintiff with wonderful efficacy, some of whom had been in the hands of other aurists without benefit, were brought before you. If the plaintiff was a party to the advertisement in the *Daily Express*, and if that advertisement was nonsense, it is for you to say whether you think this was a sufficient justification for calling the plaintiff a quack. You will have some difficulty in coming to the conclusion that the plaintiff knew nothing of this advertisement, as he was consulting physicians at the Drouet when it was published. Medical witnesses have stated that it was not only improper, but dangerous, to prescribe for patients by correspondence. There is much to be said for this view, but because another man takes a different view that does not make the plaintiff a quack. If you think that advising by correspondence is not dangerous that no competent man ought to practise it, this will affect the question of damages, but you must remember that no case has been brought before you in which any harm has been done to the plaintiff by that treatment. As to damages, they must be considered when the verdict is given. If the defendant has not justified his description of the plaintiff that should enhance the damages.

The jury found a verdict for the plaintiff for £[illegible]. The defendant has appealed.

THE ETHICS OF ANTIVACCINATIONISTS

Dr. E. Hamilton Upton, Norwood, has submitted to the [illegible] of a correspondence which has taken place between him and the Honorary Secretary of the National Anti-Vaccination League. We understand Dr. Hamilton has been a subscriber of the National Anti-Vaccination League, and at some time contributed to its funds. Recently about two years after having made the new harem from the [illegible] great benefit of [illegible] he sent a subscription to the [illegible] in the Dakhyl Institute. Dr. Hamilton has since received the following letter from the National Anti-Vaccination League, which is printed in full in the English Mechanic and World of Science:

[illegible] from which it appears that [illegible] Vice-President [illegible] the Chairman of the National Anti-Vaccination League [illegible] that they are returning his subscription [illegible] requested that [illegible].

PURE FOOD AND PURE DRUGS IN AMERICA

The [illegible] Commissioner of Health [illegible] which has already [illegible] small [illegible] of [illegible] United States [illegible].

The McCumber Bill contains a saving clause "that no drug shall be deemed to be misbranded under this provision if the standard of strength, quality, or purity be plainly stated upon the bottle, box, or other container thereof although such standard may differ from that determined by the test laid down in the United States Pharmacopœia." In the further provisions regarding the adulterating and misbranding of food and drugs the McCumber Bill takes the specific definition found in the Heyburn Bill as for example "if any valuable constituent of the article has been wholly or in part abstracted," and adds to each such clause the words "so that the product when sold or offered for sale shall deceive or tend to deceive the purchaser."

MEDICAL WITNESSES' FEES IN CIVIL CASES.

OUR correspondent, who was asked to examine a patient as to his capacity to make a will, should have stipulated either then, or when giving proof of his evidence to the solicitor, as to the fee he would expect if called upon to give evidence in the Probate Court. As he did not do so on either of those occasions, nor when served with the subpœna to attend, but only after two days' attendance at the court, he must now be content to accept the £3 3s. as a day and expenses, which the taxing master allows. The tariff of the Manchester Medico-Ethical Association is merely meant as a guide to its members, and has, of course, no legal authority. The fact that another medical witness at the same trial secured by previous arrangement £10 a day, shows at once the importance of medical men being well informed on these matters.

A PROTEST AND DISCLAIMER.

CUMBRIAN.—We share our correspondent's regret at the helplessness of members of the medical profession in regard to the unauthorized use of their names in trade circulars. So far, however, legal proceedings have not given much ground to hope that the law will afford adequate assistance. Although an injunction might be obtained to prevent the further use of a name, it would be impossible, it we may judge from the cases already tried, to recover substantial damages without proof that actual loss and injury had been suffered. Such proof would be difficult to obtain, and juries appear to be unwilling to believe that the use of a doctor's name in an advertisement can do him any harm.

NOTICES OF MEDICAL MEN IN THE LAY PRESS.

FLEET SURGEON BRICE, R.N., writes to say that he is in no way responsible for the paragraph in *Modern Society* for January 30th, which contains a story purporting to be told by "Surgeon Brice." He thinks it necessary to make this disclaimer as he is the only officer of the name in the Royal Navy List.

PROFESSIONAL SECRECY.

W. H.—(1) It was perfectly right to refuse information without being assured of the patient's (the wife's) consent. If the lawyer was instructed to obtain information from her he could have brought a letter authorizing our correspondent to answer questions put to him. (2) We do not think any fee could be charged if the information was refused, but if this particular piece of information was only part of the interrogatory our correspondent should charge his usual fee for a consultation.

THE RELATIONS OF MEDICAL PRACTITIONERS TO ADVERTISING ELECTRO-MEDICAL INSTITUTIONS.

ATHERTON MOORE.—In our opinion no qualified medical practitioner should connect himself with an institute which advertises for patients in the manner shown by the documents submitted to us.

THE POSITION OF A MEDICAL PRACTITIONER IN LEGAL PROCEEDINGS CONCERNING HIS PATIENT.

PUZZLED.—(1) If subpœnaed again our correspondent must when directed by the judge answer all questions as to the patient's condition to the best of his knowledge. (2) We believe an action for damages would lie against a medical practitioner for giving information by which a patient in any way suffered pecuniary loss or injury to his reputation.

MEDICAL REFEREES UNDER WORKMEN'S COMPENSATION ACT.

MEDICAL REFEREE states that he has entered, at the request of the [illegible] two workmen's cases and claiming damages under the Workmen's Compensation Act for each what fee he should charge. The cases were heard at the county court.

*** The scheme prepared by the Workmen's Compensation Act, 1897, has now been in force for some months. Its provisions as follows: (1) For a first [illegible] the medical examination of the injured workman and written report [illegible] (2) For attendance at the court and giving evidence [illegible] (3) For a second report not covered by the original [illegible] (4) For attendance at the court in connection with the report referred to in the second [illegible] (5) For travelling expenses if more than two miles from his residence he is entitled to [illegible] each mile.

A [illegible] Street, Westminster, has been [illegible] in an action reported [illegible]

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF [illegible]

[illegible] Council [illegible] Degrees [illegible] Medicine [illegible] have been [illegible] examination [illegible]

UNIVERSITY OF CAMBRIDGE.

Degrees.—At [illegible] Monday [illegible] Mr. [illegible] and [illegible] M.A. [illegible] and [illegible] M.B

A letter was read from the Registrar of the General Medical Council reporting the following resolution adopted by the Executive Committee of that Council, namely

"That the Executive Committee learns with regret that Mr Bryant does not contemplate an extension of his tenure of office as representative of the Royal College of Surgeons of England after March 11th, 1904, and desire to place on record their high appreciation of his services in many capacities since his appointment in 1875, and in particular as Treasurer of the General Council and Chairman of the Examination Committee."

Donation to the Museum.

The best thanks of the Council were given to Staff Surgeon C. Marsh Beadnell, R.N., M.R.C.S., for a donation of thirteen Filipino skulls collected from the battlefields of Luzon, Philippine Islands.

Sanitary Institute.

Dr. John Barlow, F.R.C.S., was appointed delegate of the College to the Congress of the Sanitary Institute to be held at Glasgow in July.

Congress of School Hygiene.

Mr. Henry Morris was placed upon the list of Vice-Presidents of the English Organizing Committee for the International Congress of School Hygiene to be held at Nuremberg in April, and Dr. Clement Dukes was appointed delegate of the College to the Congress.

Examinership in Dental Surgery.

A letter of March 8th was read from Mr Henry Morris resigning his membership of the Board of Examiners in Dental Surgery, in anticipation of the expiration of his period of office on May 11th.

The vacancy will be filled up at the Council meeting of May 12th. May 4th is the last day for applications.

HOSPITAL AND DISPENSARY MANAGEMENT.

KING'S COLEGE HOSPITAL REMOVAL FUND.

A meeting was held at the Mansion House on March 11th in support of the appeal for funds for the removal of King's College Hospital to South London.

The Lord Mayor in a few words introduced the subject. He pointed out that the population near Drury Lane and the Strand had been removed, and said that a large proportion had gone to the South of London, especially in and about Camberwell

Mr. W. F. D. Smith, M.P., entered into statistical details showing that the hospital was not adapted to modern requirements and that it was impossible to extend the building on the present site. Further, the changes of the last half-century had altered the character of the neighbourhood, and the hospital was now a comparative failure as a local charity. It was proposed to prepare plans for 600 beds in the new hospital to be built in the South of London.

The Archbishop of Canterbury, in moving a resolution that the meeting cordially approved of the scheme to remove King's College Hospital to South London, described how his earliest work had been amongst the poor in the slums on the site where the Royal Courts of Justice now stand. The new hospital in the South of London would stand on a site of some twelve acres, and would meet a need that had been felt for some time. A reference by the Archbishop to the fact that the site of the hospital was a gift from Mr W. F. D. Smith was greeted with tremendous cheering from the audience, especially from the students at the back of the hall.

The resolution was seconded by Mr. C. E. Tritton, M.P., and was supported by the Bishop of Rochester, who mentioned that the district to be supplied by the hospital stretched from Wandsworth to Woolwich.

Dr. Ferrier, as the representative of the Medical Staff of King's College Hospital, said that hospitals such as King's College Hospital, though primarily for the sick and poor, were as necessary for the rich and well-to-do, because every case of sickness or injury treated in such a hospital was an object-lesson to the students who in a few years would become the guardians of the public health, and to whom at one time or another the rich and well-to do would have to entrust their own lives and the lives of those nearest and dearest to them. It was, therefore, a matter of the most vital importance to the community that those who had to undertake such serious responsibilities should be fully trained and well fitted for the important duties they had to perform. He emphasized the fact that it was only in great hospitals, which were also educational institutions, that the training by practical experience in the methods of diagnosis and treatment of disease which the public expected, and rightly expected, on the part of medical practitioners, could be received. King's College Hospital had deserved well of the public. It had for many years ministered to the sick of a large and poverty-stricken district, and it had sent out many thousands of men who were discharging their duties in every part of the globe. The hospital had been the nursery, if not the cradle, of some of the most important advances in medicine of recent times. Not very many years ago Lord Lister was there perfecting and teaching the details and principles of his antiseptic method which had conferred such great benefits on mankind. But medicine did not stand still with the discovery of new methods and new agencies. Every day medicine was becoming more complicated, and if a hospital was to be in the forefront it must adapt itself to modern requirements. It was impossible on the present limited site to provide the necessary buildings and appliances for the comfort and treatment of patients which were requisite in the present day, and there was the further point that the hospital in its present position was no longer so necessary as it had been. The Medical School had been injuriously affected because the students were deprived of the chance of studying the ailments with which it was so essential they should be familiar. The medical and surgical staff had on due consideration unanimously decided that it would be in the interests of the poor and of the Medical School that the hospital should be transferred to a more populous district such as Camberbell. He concluded by cordially supporting the resolution.

Mr. W. Watson Cheyne, senior surgeon to the hospital, dealt with the question of the want of room on the present site of the hospital, and also pointed out that the institution ought to be near its poor patients. In regard to the question of the want of room the advance of science caused heavy demands to be made upon the hospital authorities. The teaching of Lord Lister had revolutionized surgery so that a hospital built under the old regime was at the present time wanting in many respects. New operating theatres were required; departments for bacteriology and pathology were indispensable. Then there were the numerous modern methods of investigation, which required special rooms and special officers, and the electrical advances in medicine also entailed further accommodation. It would be recognized that on the present site it was impossible to meet these needs. On the other hand, with the twelve acres of ground on which the new hospital was to be built they would be able to erect an institution in every sense well up to date and capable of expansion as science advanced. Mr Cheyne then went on to show that the sudden severe illnesses and sudden severe accidents spoken of as casualty cases required that the hospital should be placed in the immediate neighbourhood where such cases occurred. In consequence of the changes that had taken place round King's College Hospital the number of severe casualty cases had become very few, whilst in Camberwell such cases had to be transported to great distances in order to reach relief. The staff of the hospital were unanimously of opinion that the removal of the hospital was necessary, not only for the treatment of the patients, but also for the education of those who will afterwards have the charge of those who are not hospital patients.

After the resolution had been put and carried unanimously, Mr. C. Awdry announced that the sum of £106,762 had been promised for the fund.

A vote of thanks to the Lord Mayor for presiding was moved by Lord Methuen, seconded by Sir John Cockburn, and acknowledged by the Lord Mayor.

ST. THOMAS'S HOSPITAL, LONDON.

The Samaritan Fund. The report for 1903 of the Samaritan Fund of St Thomas's Hospital recently published shows an expenditure of £1,592 and receipts of £1,672. The latter were derived partly from ordinary donations and partly from the income of sundry trust funds, each hedged about by special limitations as to expenditure. The available monies were expended chiefly on the maintenance of patients at convalescent homes, but partly also on the payment of the fares of patients to and from such homes, on surgical and optical appliances, on washing, and on clothing, and fares for indigent patients on their discharge from hospital. As St. Thomas's Hospital has no convalescent home of its own, the calls upon its Samaritan Fund are very great. The Secretary of the Fund is Mr. Sydney Phillips, Steward of St. Thomas's Hospital.

ROYAL DENTAL HOSPITAL, LONDON.

At the annual general meeting of governors of the Royal Dental Hospital, Leicester Square, held on March 10th, it was reported that 97,830 cases had been treated during the year, being over 3,000 more than in 1902. Anaesthetics were given in 35,413 cases, being an increase of over 4,000. To meet the increased work in this respect two paid "house anaesthetists" have been appointed in addition to the honorary staff. Increased efforts on the part of friends of the institution were necessary in order to keep up the payments towards the interest and sinking fund of the debt incurred by rebuilding. It was stated also that the new operating chairs had not yet been completely paid for, and that each donor of 15 guineas to the Chair Fund would have his name affixed to a chair, in addition to enjoying the usual privileges of a life governor. The Secretary of the institution is Mr. J. F. Pink.

THE NEW HOSPITAL FOR WOMEN.

The report presented to the thirty-second annual meeting of the New Hospital for Women, held on March 8th, showed that the popularity of the hospital with the public was steadily increasing, and that though the accommodation had been augmented during the past few years there was still a call for further developments both of the in- and out-patient departments. Certain legacies had been received, but apart from these the expenditure for the year exceeded the income by the sum of £389. There had been 612 in-patients and 7,609 new out-patients, the total attendance exceeding 35,000. Of the out-patients over 1,000 came from places outside the metropolitan counties. It was stated that Mrs. Garrett Anderson had decided to retire from the Managing Committee, but had accepted a position upon the consulting staff. Her place on the Committee will be taken by Mrs. Scharlieb, M.D. The great regret felt at the retirement of Mrs. Garrett Anderson, who has done so much for the hospital, was expressed on behalf of the meeting by the Duchess of Bedford, who presided, and by Sir William Broadbent.

TOTTENHAM HOSPITAL.

According to the recent annual report of this hospital, which has been developed during the last four years from a suburban into a metropolitan institution, the number of patients has more than doubled during that time, the out-patient attendances for the year reaching over 60,000. Extensions in the way of a new operating theatre and new wards are in progress as part of a larger scheme. A successful system of post-graduate teaching has been organized, and Branch meetings of the British Medical Association and meetings of the North-East London Clinical Society are held at the hospital, making it a centre of medical life for an extensive and densely-populated neighbourhood.

ROYAL PORTSMOUTH HOSPITAL.

The fifty-fifth annual meeting was held at the Town Hall, Portsmouth, on February 23rd, Sir John Baker presiding. The total number of in-patients and out-patients treated during the year was 11,784, as compared with 11,564 in 1902. It was stated that, owing to the energetic efforts of the ex-Mayor, Major Sir W. T. Dupree, donations amounting to £2,672 8s. 7d.—thus wiping out a bank overdraft of £1,921 5s. 6d. and adding £751 3s. 1d. to the income for the year—and new and increased subscriptions amounting to £716 4s. 6d. had been received. Notwithstanding these amounts obtained through the Mayor's Fund there was a deficit of £637 on the working during the year. A proposal was made to proceed with the rebuilding of the hospital by the erection of a new block of wards.

HERTFORDSHIRE COUNTY ASYLUM.

This new asylum, which is situated at Hill End, St. Albans, contains beds for 268 males and 328 females, total, 596, and this accommodation is fully occupied, there being 591 patients recorded as being on the books on March 31st, 1903—the fourth year covered by the report. The administra-

tive building [illegible] correct, the effect is large to contribute [illegible] bed

During the [illegible] there were [illegible] admissions, [illegible] discharged [illegible] deaths, the [illegible] percentage [illegible] total admissions [illegible] The death [illegible] was [illegible] on the [illegible] average daily number resident [illegible] patients died, and [illegible] these the cause of death was [illegible] pneumonia, [illegible] phthisis, [illegible] syphilis, [illegible] cardiac [illegible] and [illegible] cancer. The general health of the patients was satisfactory. In cases of [illegible] infectious disease occurred [illegible] four cases of enteric fever, which [illegible] patients having been [illegible] and Dr. Norris [illegible] except [illegible] case of [illegible] contracted [illegible] The [illegible] Hospital has been [illegible] and [illegible] but there [illegible] no [illegible] to [illegible] the [illegible] bed

BRADFORD EYE AND EAR HOSPITAL.

At the [illegible] seventh annual meeting of the Bradford Eye and Ear and Eye Hospital [illegible] accounts were presented which showed that the balance of the debt upon the building had been [illegible] but that the total expenditure of the institution for the year had exceeded the income by the sum of £34. The number of both in and out patients was shown to be increasing, and a new plan for distinguishing cases unsuitable for free treatment had been introduced.

EDINBURGH ROYAL INFIRMARY.

The following appointments have been made for the period of six months from April 1st:—Resident Physicians: Cameron R. Gibson, M.A., M.B., Ch.B., to Professor Sir T. R. Fraser; William Cuthbert Morton, M.A., M.B., Ch.B., to Professor Greenfield. J. M. Kirkpatrick, M.B., Ch.B., to Professor Simpson. R. W. Craig, M.B., Ch.B., to Professor Wyllie. Thomas Nicol, M.A., M.B., Ch.B., to Dr. Stuart. R. G. Gordon, M.B., Ch.B., to Dr. Bruce. Junior Resident: D. Halliday Croom, B.A., M.B., Ch.B., to Dr. Gibson. Pupil in Obstetrics: Peter Lorimer, M.B., Ch.B., to Dr. Bruce. Resident Surgeons: W. Sibbald Robertson, M.B., Ch.B., to Professor Annandale. D. D. Paton, M.A., M.B., Ch.B., to Professor Chiene. C. E. R. D. A. Douglas, M.D., L.R.C.P., to Dr. Berry Hart; A. N. Bell, M.B., Ch.B., to Mr. Caird. Non-resident House Physician: C. M. Pearson, M.B., M.R.C.P.E., to Dr. R. W. Reid. (Waiting.) Non-resident House Surgeon: L. C. Peel

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

DISTRICT MIDWIVES.

At the invitation of the Lady Mayoress an influential and well attended meeting of those interested in Miss Alice Gregory's proposed National Training School for District Midwives was held at the Mansion House on March 12th. The chair was taken by the Countess of Stamford.

The Bishop of London described how midwives were trained and supervised in France, Belgium, Holland, Austria, Germany, Norway and Sweden, and Switzerland. This country was almost alone in doing nothing in the matter, though of course the new Midwives Act had taken the subject in hand and provided that after 1910 it will be penal for unqualified people to act in the capacity of midwives. But in the meantime what was to be done? The country had undertaken a great responsibility in passing the Act. The plan suggested was that there should be a school for the training and teaching of midwives. It was considered that there should be a grant from the State in aid of this institution and that before a woman received a certificate enabling her to practise midwifery she should have passed through at least eighteen months' training.

Dr. Annie McCall said that a supply of district midwives was a necessity. The district midwife must be a hybrid between a doctor and a nurse, understanding when a medical man should be called in and capable of carrying out the duties of a nurse. By means of the plan proposed by Miss Alice Gregory there would be a hospital where suitable women would be trained for district midwifery. It was estimated that only 5 per cent. of the women who secured the licence of the Obstetrical Society worked as district midwives. The status and standard and tone of the district midwife must be improved.

Miss Alice Gregory said that it was a mistake to suppose that poor people were unwilling to pay an adequate fee for district midwives. These women would find plenty of scope for work in an honourable calling. The great difficulty was the absence of a training school which could give women such a training in district midwifery as would make them fully equipped for the work. It was open for every one to go for three years to a general hospital and then attend a maternity hospital, but that required much time and money. She considered three months to be too short a time for properly training a midwife and explained how in the school she wished to see founded provision would be made for an eighteen months' course of instruction in midwifery and district nursing.

Dr. Cullingworth, in moving a vote of thanks to the Countess of Stamford for taking the chair, said the force of the objections urged against the proposed National Training School for District Midwives was that the Central Midwives Board should look to the training and supply of midwives, but that was outside the scope of the business of that Board, which had quite enough on its hands. By the new Midwives Act provision was made for the enrolment of midwives, provided that they should have, at any rate, some rudimentary instruction in midwifery; and it further provided that, when in practice, midwives shall be under some sort of supervision. Before the Act came into operation there was nothing of the sort. There was no necessity for a midwife to have any training at all, and there was no machinery for controlling her except such as was provided by the meshes of the criminal law. By the wisdom of Parliament the supply of trained midwives had been left to voluntary effort, and it was therefore necessary, as the new Midwives Act had come into operation, that a voluntary effort should be warmly supported by the nation. This movement was for the benefit of the married poor of the community. It was necessary for some one to speak on their behalf, and it was a good thing for the country that Miss Gregory had taken the matter up. Amongst other objections to Miss Gregory's scheme that he had heard was that it was far too small. He had also heard that it was far too large and terribly unwieldy. When objections were so contradictory it could be taken for granted there was much to be said for the scheme. He thought that out of Miss Gregory's scheme the most valuable institution would grow. There were some very obvious defects in the present methods of training midwives. They would be better trained if they had some previous knowledge of general nursing, for much of the time of the present training as midwives was taken up with details of general nursing which ought to have been learnt before midwifery training was commenced. The training given to the midwives in the present training institutions was lamentably short. It was impossible, on account of the enthusiasm of the women they were able to teach them much, and it was astonishing what these women could learn in three months' time. They managed to become fairly well equipped with an elementary knowledge of the groundwork of midwifery, but it was well known that the standard of knowledge was far below that which ought to be aimed at and which was insisted on in other countries. Then there was the third difficulty that there was no systematic arrangement by which these women could come up again for what might be termed post-graduate teaching. There was no arrangement by which the midwives could keep in touch with the institution in which they had received their training, and to which they could turn for help and guidance. It was in these particulars that Miss Gregory's scheme stepped in. It was midwives, and it was because it was so that he gave his very hearty support to her scheme.

The Countess of Stamford acknowledged the vote of thanks, and the meeting ended with [illegible].

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,900 births and 5,577 deaths were registered during the week ending Saturday last, March 12th. The annual rate of mortality in these towns, which had been 21.5, 17.3, and 18.0 per 1,000 in the three preceding weeks, further rose last week to 19.1 per 1,000. The rates in the several towns ranged from [illegible] in Tottenham, [illegible] in Walthamstow, 11.7 in New[illegible], 12.0 in Margate, 12.1 in [illegible], [illegible] in Southport, and 12.4 in Bournemouth, to 24.3 in Burnley, 24.4 in Preston, 24.5 in Newcastle-on-Tyne, 25.1 in Manchester, 25.2 in Sunderland, 25.3 in Liverpool, 25.4 in Middlesbrough, and 26.2 in Wigan. The death-rate from the principal infectious diseases averaged 1.5 per 1,000, and was 0.1 per 1,000 lower than the rate recorded in the preceding week, while it exceeded by 0.4 per 1,000 the mean rate in the seventy-six towns during the same period of the last five years. The highest death-rates from these diseases were recorded in Burnley, Preston, Newcastle-on-Tyne, Manchester, Sunderland, Liverpool, Middlesbrough, and Wigan. The 1,742 deaths from "fever" (principally enteric) were 0.2 per 1,000 above the average number in the corresponding weeks of the last five years. The 2,971 deaths from diphtheria, 4,922 from whooping-cough, 1,742 from "fever" (principally enteric), and 10,613 from diarrhœa, which were registered during the week in the seventy-six towns, included 415 which were referred to small-pox, 5,486 to measles, 2,160 to scarlet fever, 2,971 to diphtheria, 4,922 to whooping-cough, 1,742 to "fever" (principally enteric), and 10,613 to diarrhœa. The death-rate from these diseases averaged 1.5 per 1,000, and was 0.1 per 1,000 less than the corresponding rate in the preceding year. In London the death-rate from the principal infectious diseases was 1.7 per 1,000, while it averaged 1.4 per 1,000 in the seventy-six towns. The rates ranged from [illegible] in Bournemouth, [illegible] in Burton-on-Trent, [illegible] in Hornsey, [illegible] in Hastings, [illegible] in Halifax, [illegible] in Kings Norton, [illegible] in Handsworth (Staffs.), [illegible] in West Hartlepool, [illegible] in Salford, [illegible] in Rotherham, [illegible] in Middlesbrough, [illegible] in Preston, [illegible] in Shefield, [illegible] in Warrington, and 4.2 in Wigan. The 415 fatal cases of small-pox were equal to an annual rate of 0.03 per 1,000, the death-rate from this disease in the preceding week having been 0.04 per 1,000. The greatest proportional fatality from small-pox was recorded in [illegible], Liverpool, Bootle, Bury, Oldham, Burnley, Gateshead. The 5,486 deaths from measles were 0.2 per 1,000 below the average, and 0.1 per 1,000 in the preceding week. Diphtheria caused death-rate of 0.2 per 1,000, which, like the rate from measles, was equal to the average rate recorded in the seventy-six towns. In London this death-rate was equal to 1.3 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.0 in Bolton, in Rochdale, and in Swansea, [illegible] in West Hartlepool, 4.1 in Gateshead, 4.1 in St. Helens, 4.3 in Norwich, [illegible] in Swansea, and 6.2 in Warrington. Measles caused a death-rate of 1.0 in Birmingham, 1.2 in Rochdale, 1.3 in Aston Manor, 1.7 in Stockport, 1.8 in Rotherham, 1.9 in Oldham, 2.4 in St. Helens, and [illegible] in Norwich. Scarlet fever of 1.5 in Warrington; diphtheria of 1.1 in Sunderland, and 1.1 in Portsmouth and in Walsall; whooping-cough of 1.1 in Wolverhampton and in Birkenhead, 1.2 in St. Helens, 1.3 in Gateshead, 1.4 in Birkenhead, 1.7 in Handsworth (Staffs.) and in Bootle, 1.8 in Bolton and in Bury, [illegible] in West Hartlepool, and 5.4 in Swansea; "fever" of 1.1 in Nottingham, and diarrhœa of 1.6 in Middlesbrough. Three fatal cases of small-pox were registered in Nottingham, 1 in London, 1 in Warrington, and 1 in Gateshead, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 54 small pox patients at the end of last week, against 52, 51, and 41 at the end of the three preceding weeks; 21 new cases were admitted during the week, against 30, 25, and 15 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,620, 1,587, and 1,578 on the three preceding Saturdays, had risen again to 1,601 on Saturday last, March 12th; 102 new cases were admitted during the week, against 143, 150, and 153 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 12th, 703 births and 710 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.2, 21.5, and 21.5 per 1,000 in the three preceding weeks, rose again last week to 21.5 per 1,000, and was 2.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.2 in Greenock and 15.4 in Perth to 23.5 in Glasgow and 31.6 in Paisley. The death-rate from the principal infectious diseases averaged 2.1 per 1,000, the highest rates being recorded in Dundee, Aberdeen, and Paisley. The 163 deaths registered in Glasgow included 2 which were referred to small-pox, 10 to measles, 3 to diphtheria, 5 to whooping-cough, and 5 to diarrhœa. Six fatal cases of measles, 2 of scarlet fever, and 5 of whooping-cough were recorded in Paisley; 8 of whooping-cough and 2 of diarrhœa in Aberdeen; 4 of measles, 1 of whooping-cough, and 3 of diarrhœa in Dundee; 2 of small-pox in Greenock; 2 of whooping-cough in Leith, and 2 of diarrhœa in Edinburgh.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 12th, 549 births and 445 deaths were registered in six of the principal Irish towns, against 633 births and 432 deaths in the preceding period. The mean annual death-rate of these towns, which had been 25.3, 24.7, and 22.3 per 1,000 in the three preceding weeks, rose to 25.8 per 1,000 in the week under notice, this figure being 6.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 19.9 in Cork and 22.4 in Belfast to 25.3 in Dublin and 31.2 in Waterford. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 1.5 per 1,000, or 0.1 per 1,000 lower than during the preceding week, the highest figure, 3.8, being reached in Londonderry, while Waterford, and Cork registered no deaths under this heading at all. Measles caused 3 deaths in Belfast, scarlet fever 1 each in Dublin and Londonderry, and diphtheria 3 in Belfast and 1 in Londonderry. The rest of the rate was chiefly due to whooping-cough which, however, shows some diminution.

ENGLISH URBAN MORTALITY DURING 1903.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

In the accompanying table will be found summarized the vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns. During the fifty-two weeks ending January 2nd last, 446,329 births were registered in these towns, equal to an annual rate of 29.7 per 1,000 of their aggregate population, estimated at 15,075,011 persons in the middle of last year; this rate was 1.5 per 1,000 below the mean rate in the preceding year. In London the birth-rate was 28.5 per 1,000, while it averaged 30.2 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 17.8 in Bournemouth, 18.3 in Hastings, 20.3 in Hornsey, 21.1 in Halifax, 21.7 in Bury, 23.0 in Bradford, 23.1 in Huddersfield, and 24.2 in Rochdale, to 37.1 in Sunderland, 37.5 in Wigan, 38.2 in Gateshead, 38.3 in Warrington, 38.6 in Middlesbrough, 38.4 in Merthyr Tydfil, 38.8 in St. Helens, and 41.1 in Rhondda.

During the period under notice 244,468 deaths were registered in these seventy-six towns, corresponding to an annual rate of 16.3 per 1,000, which was 1.1 per 1,000 below the rate in the preceding year. In London the rate of mortality was 15.7 per 1,000, while it averaged 17.5 per 1,000 in the seventy-five other large towns, and ranged from 7.4 in Hornsey, 10.1 in Kings Norton, 12.4 in Handsworth (Staffs.), 12.5 in Leyton, 11.1 in East Ham, 11.1 in Walthamstow, 11.1 in Croydon, and 11.3 in Willesden and in Bournemouth, to 19.0 in Bootle, 19.1 in Merthyr Tydfil, 19.2 in Burnley and in Newcastle-on-Tyne, 19.3 in Manchester, 19.4 in Sunderland, 20.5 in Liverpool, 21.3 in Middlesbrough, and 22.2 in Wigan.

The 244,468 deaths from all causes in these towns last year included 28,309 which were referred to the principal infectious diseases: of these, 415 resulted from small-pox, 5,486 from measles, 2,160 from scarlet fever, 2,971 from diphtheria, 4,922 from whooping-cough, 1,742 from "fever" (principally enteric), and 10,613 from diarrhœa. The death-rate from these diseases averaged 1.9 per 1,000, and was 0.4 per 1,000 less than the corresponding rate in the preceding year. In London the death-rate from the principal infectious diseases was 1.7 per 1,000, while it averaged 1.9 per 1,000 in the seventy-five other towns, among which the rates ranged from 0.3 in Bournemouth, 0.5 in Burton-on-Trent, 0.6 in Hornsey, 0.7 in Hastings, 0.9 in Halifax, 1.0 in Kings Norton, 1.1 in Handsworth (Staffs.), 1.2 in West Hartlepool, 1.2 in Salford, 1.3 in Rotherham, 1.4 in Middlesbrough, 1.5 in Preston, 1.6 in Sheffield, 1.7 in Warrington, and 4.0 in Wigan. The 415 fatal cases of small-pox were equal to an annual rate of 0.03 per 1,000, the death-rate from this disease in the preceding year having been 0.04 per 1,000. The greatest proportional fatality from small-pox was recorded in Liverpool, Bootle, Bury, Oldham, Burnley, Gateshead. The 5,486 deaths from measles were 0.2 per 1,000 below the average, and 0.1 per 1,000 in the preceding year. Diphtheria caused death-rate of 0.2 per 1,000, which, like the rate from measles, was equal to the average rate recorded in the seventy-six towns. In London this death-rate was equal to 1.3 per 1,000, while among the seventy-five other large provincial towns the

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during 1903.

Towns.	Estimated Population middle of 1903	Births.	Deaths.	Annual Rate per 1,000 Living: Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15 [illegible] 11	24[illegible]	14[illegible]	29.7	17[illegible]	1[illegible]	28,309	415	5,486	2[illegible]	[illegible]971	4[illegible]	1,742	[illegible]1	144	1.1
75 Provincial Towns	1[illegible]291,1[illegible]	9[illegible]411	17[illegible]55	30.2	16.5	1.93	20,143	402	[illegible]432	1[illegible]7	[illegible]21	[illegible]1	1[illegible]4	[illegible]	149	1.[illegible]
London	4[illegible]112	1[illegible]	[illegible]1[illegible]	[illegible]	1[illegible]7	1.73	3,1[illegible]	13	2,054	[illegible]	[illegible]	1,631	[illegible]	2,[illegible]	131	0.3
Croydon	141[illegible]	[illegible]	1[illegible]	26.3	11.8	1.08	1[illegible]3	2	25	[illegible]	17	[illegible]2	[illegible]	4[illegible]	1[illegible]	[illegible]
Willesden	127,077	4,059	1,535	32.0	12.1	1.97	249	1	84	13	1[illegible]	69	6	64	117	0.8
Hornsey	78,386	1,8[illegible]	[illegible]14	2[illegible]	7.9	0.[illegible]	62	[illegible]	14	1	[illegible]	[illegible]1	[illegible]	[illegible]7	84	—
Tottenham	1[illegible],747	[illegible]335	1,4[illegible]	32.3	13.[illegible]	1.90	[illegible]67	—	78	4	1[illegible]	[illegible]	9	40	124	0.7
West Ham	2[illegible],[illegible]41	[illegible]47[illegible]	4,201	[illegible]7	15.3	2.65	746	—	13[illegible]	[illegible]1	73	1[illegible]	[illegible]	[illegible]11	14[illegible]	[illegible]
East Ham	1[illegible],431	[illegible],7[illegible]8	1,207	34.5	11.9	1.62	177	—	40	13	14	37	17	58	111	0.5
Leyton	1[illegible],1[illegible]8	[illegible],[illegible]67	1,154	30.6	10.[illegible]	1.64	177	—	39	13	27	43	12	8	103	1.[illegible]
Walthamstow	1[illegible],[illegible]20	[illegible],[illegible]98	1,1[illegible]7	33.2	13.[illegible]	1.91	[illegible]81	—	53	7	1[illegible]	34	18	70	113	0.2
Hastings	66,194	1,208	[illegible]21	18.3	12.9	0.69	45	—	11	1	6	14	1	14	1[illegible]	0.7
Brighton	1[illegible]4[illegible]	3,[illegible]4[illegible]	1,[illegible]7[illegible]	24.[illegible]	14.[illegible]	[illegible].[illegible]5	10[illegible]	—	[illegible]	[illegible]	[illegible]2	13	[illegible]	[illegible]5	114	0.[illegible]
Portsmouth	1[illegible]4,[illegible]8	[illegible],431	[illegible],[illegible]87	27.9	14.7	1.[illegible]	[illegible]61	—	17	[illegible]7	[illegible]1	34	[illegible]1	1[illegible]	114	1.[illegible]
Bournemouth	63,132	1,119	762	17.[illegible]	12.1	0.40	25	[illegible]	[illegible]	1	8	[illegible]	4	9	61	[illegible]
Southampton	110,120	[illegible],[illegible]2[illegible]	[illegible],[illegible]51	28.2	13.[illegible]	1.31	145	—	[illegible]1	1[illegible]	[illegible]8	28	[illegible]	[illegible]5	11[illegible]	—
Reading	7[illegible],[illegible]2[illegible]	[illegible],[illegible]1	952	[illegible]7	12.[illegible]	0.94	70	—	[illegible]6	[illegible]	15	17	4	26	121	1.7
Northampton	89,863	2,187	1,[illegible]2[illegible]	24.4	14.2	1.[illegible]4	140	[illegible]	1[illegible]	[illegible]7	[illegible]1	[illegible]2	[illegible]	4[illegible]	1[illegible]6	1.[illegible]
Ipswich	68,818	1,943	1,046	28.3	15.2	1.41	97	[illegible]	[illegible]7	[illegible]	[illegible]5	11	5	[illegible]5	140	1.1
Great Yarmouth	51,851	1,[illegible]4[illegible]	[illegible]6[illegible]	27.5	1[illegible]	[illegible].89	134	—	12	[illegible]7	41	13	[illegible]6	[illegible]	12[illegible]	—
Norwich	114,[illegible]51	3,179	1,[illegible]737	[illegible]7.[illegible]	1[illegible].[illegible]	1.[illegible]	1[illegible]2	[illegible]	1	1[illegible]	[illegible]2	[illegible]5	7	[illegible]7	1[illegible]0	1.4
Plymouth	112,[illegible]22	[illegible],847	1,[illegible]541	[illegible]5.[illegible]	1[illegible].[illegible]	1.16	130	—	5	14	14	[illegible]7	17	58	144	0.4
Devonport	[illegible],[illegible]51[illegible]	[illegible],[illegible]2[illegible]	1,040	[illegible]7.4	14.1	0.94	[illegible]6[illegible]	[illegible]	15	1[illegible]	[illegible]5	[illegible]8	[illegible]	[illegible]2	11[illegible]	[illegible].1
Bristol	338,895	[illegible],[illegible]67	4,825	[illegible]7.4	14.[illegible]	1.07	364	[illegible]	11	[illegible]5	11[illegible]	[illegible]7	[illegible]21	[illegible]8	116	0.5
Hanley	[illegible],[illegible]1[illegible]	[illegible],[illegible]1[illegible]	1,1[illegible]7	[illegible]4.9	18.7	3.08	1[illegible]4	[illegible]7	1	[illegible]1	[illegible]2	1[illegible]	[illegible]2	[illegible]5	173	[illegible].[illegible]
Burton-on-Trent	51,[illegible]45	1,362	[illegible]7[illegible]	[illegible]7.[illegible]	12.[illegible]	0.55	27	1	[illegible]3	[illegible]5	[illegible]4	[illegible]7	[illegible]1	[illegible]3	93	[illegible]7
Wolverhampton	[illegible],[illegible]47	2,944	[illegible],[illegible]8[illegible]2	30.5	15.[illegible]	1.97	16[illegible]	—	54	15	[illegible]1	[illegible]7	[illegible]7	57	141	[illegible]7
Walsall	89,878	3,046	1,474	34.0	16.[illegible]	1.[illegible]3	1[illegible]5	4	3	25	[illegible]9	[illegible]7	17	70	15[illegible]	[illegible]7
Handsworth	57,557	1,46[illegible]	597	25.4	10.4	[illegible].[illegible]7	44	—	7	11	[illegible]	[illegible]	[illegible]	[illegible]	10[illegible]	[illegible]
West Bromwich	66,558	[illegible],[illegible]2[illegible]	1,[illegible]11	[illegible]4.[illegible]	16.8	2.36	15[illegible]	[illegible]	[illegible]5	19	[illegible]1	[illegible]5	[illegible]	50	15[illegible]	1.[illegible]
Birmingham	5[illegible],[illegible]1[illegible]	1[illegible],847	9,449	31.8	17.8	[illegible].[illegible]1	1,230	12	1[illegible]3	141	1[illegible]1	[illegible]7	[illegible]7	588	159	[illegible].[illegible]
Kings Norton	[illegible],[illegible]17	1,[illegible]53	633	[illegible]7.[illegible]	[illegible].[illegible]	0.75	48	1	7	16	5	[illegible]7	[illegible]2	11	98	2.1
Smethwick	58,787	1,[illegible]76	790	[illegible].7	1[illegible]	1.[illegible]2	[illegible]3	[illegible]	5	[illegible]	[illegible]1	1[illegible]	[illegible]	15	14[illegible]	[illegible].[illegible]
Aston Manor	[illegible],[illegible]17	[illegible],[illegible]71	1,1[illegible]6	28.7	11.[illegible]	2.26	17[illegible]	4	25	18	6	[illegible]6	[illegible]	[illegible]9	161	1.[illegible]
Coventry	7[illegible],[illegible]4	[illegible],[illegible]6[illegible]	1,172	29.8	1[illegible]	1.99	114	1	57	4	[illegible]	[illegible]1	[illegible]	4	122	1.[illegible]
Leicester	220,272	[illegible],[illegible]15	[illegible],[illegible]12	[illegible]7.4	14.[illegible]	1.46	3[illegible]1	21	74	13	[illegible]	[illegible]7	14	[illegible]1	16[illegible]	1.[illegible]
Grimsby	65,772	1,[illegible]79	[illegible]31	28.8	14.[illegible]	1.[illegible]4	127	[illegible]	[illegible]	9	[illegible]	[illegible]7	[illegible]	[illegible]3	11[illegible]	[illegible]
Nottingham	24[illegible],[illegible]5	6,945	4,152	28.3	16.9	[illegible].[illegible]1	495	[illegible]2	[illegible]7	[illegible]1	64	[illegible]5	[illegible]5	1[illegible]	17[illegible]	[illegible].7
Derby	11[illegible],[illegible]7	[illegible],[illegible]15	1,[illegible]03	27.0	13.6	0.87	102	[illegible]2	5	[illegible]8	[illegible]	[illegible]2	[illegible]2	4	128	—
Stockport	9[illegible],[illegible]09	2,794	1,[illegible]7[illegible]1	29.3	18.[illegible]	[illegible].[illegible]4	[illegible]3	2	41	[illegible]7	[illegible]8	[illegible]2	14	79	13[illegible]	0.[illegible]
Barrow-in-Furness	1[illegible]3,[illegible]2[illegible]	3,489	1,[illegible]4[illegible]	30.8	16.8	2.06	1[illegible]5	[illegible]5	[illegible]2	11	[illegible]1	[illegible]1	18	1[illegible]4	156	[illegible].[illegible]
Warrington	58,[illegible]07	[illegible],[illegible]1[illegible]	805	27.6	1[illegible].[illegible]	1.[illegible]7	[illegible]4	[illegible]	[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]4	11[illegible]	1.4
Liverpool	71[illegible],[illegible]1	23,906	14,[illegible]43	33.4	20.5	[illegible].61	1,700	1[illegible]7	129	1[illegible]1	1[illegible]1	[illegible]2	1[illegible]2	[illegible]0[illegible]	1[illegible]5	[illegible].[illegible]
Bootle	[illegible],[illegible]21	1[illegible],[illegible]1[illegible]	1,[illegible]4	[illegible]	19.0	[illegible].71	164	[illegible]	[illegible]2	[illegible]7	[illegible]7	1[illegible]	1[illegible]	[illegible]9	1[illegible]5	[illegible].[illegible]
St Helens	87,[illegible]2[illegible]	3,373	1,541	38.8	17.[illegible]	1.[illegible]5	1[illegible]4	[illegible]	[illegible]7	[illegible]2	[illegible]2	[illegible]2	[illegible]	[illegible]8	142	[illegible]7
Wigan	[illegible],[illegible]1[illegible]	[illegible],[illegible]1[illegible]	1,[illegible]4	35.5	22.2	4.18	[illegible]2[illegible]	1	1[illegible]	[illegible]7	26	1[illegible]	[illegible]	[illegible]7	12[illegible]	0.[illegible]
Warrington	66,[illegible]0	2,395	1,[illegible]2[illegible]	36.2	18.7	[illegible].[illegible]5	[illegible]1[illegible]	4	[illegible]6	[illegible]8	11	[illegible]	[illegible]	1[illegible]	15[illegible]	4.[illegible]
Bolton	1[illegible],[illegible]41	4,669	[illegible]	27.0	17.[illegible]	1.99	4[illegible]	[illegible]	47	[illegible]	[illegible]	[illegible]	[illegible]4	[illegible]	152	0.3
Bury	[illegible],[illegible]13	[illegible],[illegible]1[illegible]	1,607	22.7	12.[illegible]	2.16	1[illegible]9	[illegible]	27	9	[illegible]1	[illegible]	[illegible]	[illegible]	17[illegible]	1.[illegible]
Manchester	[illegible],[illegible]47	17,704	10,886	[illegible].1	11.[illegible]	[illegible].5	1,406	[illegible]	340	[illegible]7	11[illegible]	213	[illegible]8	4[illegible]4	17[illegible]	1.[illegible]
Salford	226,480	7,284	4,284	32.2	19.0	2.86	647	[illegible]	1[illegible]1	[illegible]	[illegible]	[illegible]	4[illegible]	[illegible]2	1[illegible]7	[illegible].7
Oldham	1[illegible],786	3,545	2,577	[illegible]	18.6	2.34	[illegible]3	[illegible]	[illegible]8	[illegible]2	54	[illegible]	12	[illegible]	1[illegible]	1.1
Rochdale	[illegible],824	[illegible]	1,[illegible]41[illegible]	24.0	17.1	1.36	11[illegible]	[illegible]	[illegible]4	1[illegible]	[illegible]	4[illegible]	[illegible]	[illegible]5	14[illegible]	[illegible]
Burnley	[illegible],[illegible]4[illegible]	[illegible],[illegible]1[illegible]	1,901	[illegible]1.[illegible]	[illegible].[illegible]	2.82	281	1	17	[illegible]4	[illegible]	[illegible]8	13	1[illegible]3	217	[illegible]
Blackburn	11[illegible],[illegible]4	3,288	2,058	[illegible].[illegible]	17.[illegible]	1.[illegible]2	1[illegible]4	[illegible]	54	4	[illegible]	[illegible]	1[illegible]	[illegible]6	157	2.6
Preston	11[illegible],[illegible]4	[illegible]4[illegible]	[illegible]11	30.4	18.7	[illegible].[illegible]	[illegible]4	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]	11[illegible]	1[illegible]1	[illegible].[illegible]
Barrow-in-Furness	[illegible],[illegible]2[illegible]	1,[illegible]2[illegible]	749	33.3	13.[illegible]	0.85	[illegible]8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]4	1[illegible]	[illegible]	97	4.7
Blackpool	[illegible]	[illegible]	[illegible]	1,584	23.8	1[illegible]	0.84	80	[illegible]	[illegible]	1[illegible]	1[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible].7
Halifax	[illegible]	[illegible]	[illegible],[illegible]4[illegible]	1[illegible]	1[illegible]	15.0	[illegible]7	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]5	[illegible]1	17	1[illegible]	1.[illegible]
Huddersfield	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]7	[illegible]7	1	1	[illegible]2	[illegible]1	[illegible]	4[illegible]	14[illegible]	14[illegible]	0.7
Leeds	4[illegible]	1[illegible]	7,325	[illegible]	[illegible]	1.76	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	1[illegible]	[illegible].4
Sheffield	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]2	4	1[illegible]	1[illegible]	[illegible]
Bradford	[illegible]	[illegible]	[illegible]	34.5	[illegible]	1[illegible]	1[illegible]7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
York	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	4[illegible]	1	[illegible]	17	4[illegible]	1[illegible]	[illegible]
Hull	2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.19	1[illegible]	[illegible]	[illegible]4	[illegible]	[illegible]	[illegible]	[illegible]	11	1[illegible]	1.4
Middlesbrough	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].[illegible]	282	1	82	[illegible]	[illegible]	1	[illegible]	1[illegible]4	1[illegible]	1.[illegible]
Tynemouth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	1	[illegible]	[illegible]	1[illegible]	[illegible]
South Shields	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.80	55	1	11	7	[illegible]	11	[illegible]	[illegible]	1[illegible]	[illegible]
Sunderland	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Newcastle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14	[illegible]	[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible]
Gateshead	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	1[illegible]	4
Newcastle-on-Tyne	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Tynemouth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
South Shields	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Sunderland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Carlisle	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Rhondda	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Merthyr Tydfil	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	[illegible]
Swansea	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	1[illegible]	[illegible]	1[illegible]	[illegible]

mean rate was [illegible] per 1,000, the highest rates being recorded in Tottenham, Coventry, Wigan, Warrington, Preston, Sheffield, Middlesbrough, Sunderland, and Swansea. The [illegible] cases of scarlet fever were equal to an annual rate of 0.14 per 1,000, which was [illegible] per 1,000 below the rate of mortality from this disease during 1902; in London the death-rate attributable to this disease was [illegible] per 1,000, while it averaged [illegible] in the seventy-five other large towns, and was highest in Great Yarmouth, West Bromwich, Wallasey, Bootle, St. Helens, Wigan, Bolton, Gateshead, Rhondda, and Merthyr Tydfil. The 2,251 deaths from diphtheria gave a death-rate of 0.[illegible] per 1,000, or 0.[illegible] per 1,000 less than the rate in the preceding year; in London the rate was 0.16 per 1,000, while it averaged 0.[illegible] in the seventy-five large provincial towns, among which the greatest proportional mortality from this disease occurred in Portsmouth, Great Yarmouth, Bristol, Hanley, Coventry, Oldham, Bury, and Salford. The 4,[illegible] fatal cases of whooping-cough corresponded to an annual rate of [illegible] per 1,000, which was slightly lower than the rate in the preceding year; in London the death-rate from this disease was [illegible] per 1,000, while among the seventy-five other large towns the highest rates were recorded in Willesden, West Ham, Stockport, Oldham, Burnley, Preston, Sheffield, and Rotherham. The [illegible]42 deaths referred to different forms of "fever" corresponded to an annual death-rate of [illegible]12 per 1,000, against 0.[illegible] per 1,000 in the preceding year; the "fever" death-rate in London was 0.09 per 1,000, while it averaged 0.13 per 1,000 in the seventy-five large provincial towns, among which "fever" was proportionally most fatal in Grimsby, Liverpool, Bootle, Bolton, Salford, Preston, Barrow-in-Furness, Middlesbrough, Rhondda, and Merthyr Tydfil. The 10,613 fatal cases of diarrhoea were equal to an annual rate of [illegible]71 per 1,000, the rate in the previous year having been [illegible]4; in London the death-rate from this disease was 0.64 per 1,000, while it averaged [illegible] per 1,000 in the seventy-five other large towns, among which the greatest proportional mortality from diarrhoea occurred in Hanley, Aston Manor, Bootle, Wigan, Burnley, Sheffield, Hull, and Middlesbrough.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 144 per 1,000 last year, against 148 in the preceding year. In London the proportion during the year under notice was 131 per 1,000, while it averaged 143 in the seventy-five other large towns, among which the rates ranged from 81 in Bournemouth, 84 in Hornsey, [illegible] in Burton-on-Trent, 97 in Barrow-in-Furness, 98 in King's Norton, 1[illegible] in Handsworth (Staffs), 1[illegible] in Leyton, and 1[illegible] in Hastings, to 173 in Hanley, 178 in Wigan, 181 in Rotherham, 182 in Sheffield, 183 in Stockport, 186 in Middlesbrough, and 217 in Burnley.

The causes of 2,788, or 1.1 per cent., of the deaths registered in these seventy-six towns last year were not certified; in London the proportion was [illegible] per cent., while it averaged 1.5 per cent. in the seventy-five other large towns. All the causes of death were duly certified in Croydon, Hornsey, Southampton, Great Yarmouth, and Derby; while the largest proportions of uncertified deaths were registered in Liverpool, Bootle, Warrington, Barrow-in-Furness, Rotherham, South Shields, and Gateshead.

THE MANCHESTER GUARDIANS AND CREMATION.

THERE would appear to be a movement on foot at Manchester for the adoption by the guardians of cremation as the ordinary means of disposal of dead bodies in their charge in default of any special objection on the part of relatives of the deceased. It has been brought about partly by a difficulty in obtaining any addition to the area of the ground which has hitherto been used by the guardians for interments, partly by a feeling on the part of some persons that funerals so conducted would be of a more seemly character than those which it has hitherto been possible to accord to the bodies in question. Apart from these considerations, and also from the sanitary aspects of the question, it would appear that it would be possible to conclude with the Manchester Crematorium authorities an arrangement by which pauper funerals would cost no more than they do at present, and considerably less than they are likely to do if the system of ordinary interments is maintained.

GLAMORGAN AND CARDIFF BOROUGH LABORATORY.

AT a meeting, held on February 25th, of the Joint Committee of the Glamorgan and Cardiff Borough Laboratory, a report was put in by the directors, Drs. W. Williams and E. Wyford, which showed that the institution is duly fulfilling the purposes for which it was established. Amongst other work done investigation of the circumstances connected with a case of typhoid fever had shown that it was not referable, as alleged, to contaminated shellfish, and samples of sewage and tin-plate manufactory effluents had been examined for the county medical officer of health. Fluids from a case of suspected plague at Swansea had been examined, with negative results. Six medical men were following the bacteriological course intended for candidates for Public Health diplomas.

THE BUILDING BY-LAWS REFORM ASSOCIATION.

THE report presented to the first annual meeting of the Building By-laws Reform Association showed an income of £[illegible] and a balance of £[illegible]. Mr. Harold Vessey, Lord Hylton, Mr. Rees Jeffreys, Sir [illegible] and others spoke in support of the objects of the Association which are to secure that official control of private buildings shall not extend beyond the demands of public health and safety, and that encroachment on individual liberty shall be prevented. Various [illegible] in law and administration are suggested. The Association is properly constituted under articles and appeals for public support.

DUTIES OF MEDICAL OFFICER OF HEALTH IN RESPECT TO SMALL-POX.

ENQUIRER is entitled to charge for vaccination work, and if he is not responsible for the treatment of infectious cases in the isolation hospital as part of his duties as medical officer of health he is also entitled to charge for his treatment of the patients, but not for visiting contacts.

PROPHYLAXIS OF CONTAGIOUS DISEASES IN ITALIAN SCHOOLS.

A NEW set of regulations for the prevention of contagious diseases in schools was not long ago promulgated by the Italian Government. For prophylactic purposes contagious diseases are divided into two classes, chronic and acute. In the former category are placed trachoma, ringworm, itch, impetigo, alopecia areata, and certain forms of tuberculosis affecting the skin, the bones, etc. Children suffering from such diseases are allowed to attend school subject to the condition of presenting a medical certificate every fortnight and occupying separate benches in school. Children suffering from acute diseases are not allowed to attend school. In this category is included pulmonary phthisis. In notifying cases of contagious diseases in children medical practitioners are required to state whether the child is attending any school. If there are in the household any school children or tutors or governesses employed in a school, this must also be stated and such persons are to be forbidden to enter any schools.

NOTIFICATION OF PNEUMONIA IN AMERICA.

FROM January 1st health officers in the State of Michigan [illegible] are required to make reports of pneumonia in the same manner as consumption, diphtheria, typhoid fever, measles, whooping-cough, cerebro-spinal meningitis, and small-pox are reported.

REMUNERATION OF POOR LAW DISTRICT MEDICAL OFFICERS.

DR. HARRY GREY (Kingsbridge, Devon) writes: The action of the South Stoneham Guardians, as reported in the BRITISH MEDICAL JOURNAL of February 27th, p. 507, is on a par with that of the guardians in this union. Two or three weeks ago one of the medical officers wrote to the Board remonstrating on the increase of his work caused by the lavish distribution of orders to persons who had erstwhile been his private patients, and asking whether the Board, it intending to persist in this course, were prepared to augment his salary. This doctor had been a parish medical officer for a quarter of a century and enjoys (?) now the same salary as fixed fifty years ago for his predecessor. This week another of the parish doctors in the union writes after a year's experience of his work, pointing out that his work barely pays for the extra horse he has to keep for the work. All the medical officers in this union are paid about a quarter of the remuneration they would get for private work, and that, as they know well, is low enough (see letter on Departmental Sweating in the JOURNAL of October 24th, 1903, p. 1095). Yet the answer of the guardians to these two doctors is the same—"they have no observations to make." Underlying this reply is the strongly-felt and frequently-expressed opinion that as there is never any difficulty in filling a vacancy at ever so inadequate a salary, why should the guardians not accept the lowest tender? more especially as, dealing with honourable professional men, they have no fear of the contract not being carried out both in letter and spirit. As for the Local Government Board, that is a broken reed for us to lean upon: the duty of the Local Government Board as regards local administration appears to be to prevent increase of expenditure, rather than to see that the servants of the local bodies get a living wage. It is becoming increasingly evident to me that commercialism can be met only by commercialism, and appeals to fairmindedness, generosity and justice, (which Boards of Guardians and club members are conspicuously wanting in), are only met with derision.

The Editor of the *Kingsbridge Gazette* says this week, "it is becoming increasingly evident that the question of the revision of the medical officers' salaries will have to be undertaken by the local Board of Guardians at no distant date.....We should be the last to advocate extravagance in the administration of public affairs, but we have an equally strong feeling against that style of niggardliness which means inadequate payment for work honestly done," but we have little hope that even public opinion will alter the determination of the Board to buy in the cheapest market, and our help must come from our own profession, if we could only trust them not to undersell us when the struggle begins.

OBITUARY.

DR. AUGUSTUS BROWN, of Horsham, passed peacefully away on February 17th after many months of painful illness patiently endured. Born in the year 1828, the late Dr. Brown was approaching the end of the 75th year of a life which so long as physical health was permitted was devoted to the hard and successful practice of his profession and the relief of suffering. His early career as a student was of decided distinction, for in the years 1853 and 1854 he gained a certificate of honour, and both the gold and bronze medals for anatomy and physiology at "Lane's," otherwise the Grosvenor Place School, which formed the eventual nucleus of the present St. George's Hospital Medical School. He remained there as a demonstrator for some years, and amongst other medical men who passed through his hands and afterwards rose to distinction was Mr. Ernest Hart, the late Editor of the BRITISH MEDICAL JOURNAL. The first qualifications that Dr. Brown received were those of M.R.C.S. and L.M. in 1855, to which in the same year he added the licence of the Society of Apothecaries, while some seven years later he took the degree of M.D.St. Andrews. For some years after giving up his appointment at the school he practised in London, and was surgeon to the General Omnibus Company. Later on he went to Sidcup, in Kent, and finally to Horsham, where he remained until his death. There he did not engage in ordinary practice, but so long as his health permitted him to get about at all he was always ready to assist professionally any really poor and deserving person. He was an early member of the Pathological Society, and continued to take an interest in medical matters in spite of ill-health. He retained his membership of the South-Eastern Branch of the British Medical Association up to the day of his death. He is survived by his wife, who during his

last and many previous illnesses was his untiring nurse and devoted companion.

In Mr. George Archer, of Feltwell Brandon, Norfolk, who died recently, the profession has lost one of its oldest members and a practitioner who, so long as he remained in harness, retained the fullest confidence of his patients and colleagues. Born as far back as 1811 at Burton Mills, Suffolk, Mr. Archer became a student at Guy's Hospital, and in due course received the licence of the Society of Apothecaries. Establishing himself in the country, he contrived to combine with his practice the successful cultivation of his great hobby farming. He was a Poor Law medical officer, and in 1889 he was awarded a long service pension of £50 a year. Ever taking a keen interest in local affairs, his opinion and views thereon were greatly valued, and he was mainly instrumental in bringing about the construction of the great high road through the fens—a piece of work which was opposed by many at the time, but the value of which is now recognized by all. A natural lover of an open-air existence, Mr. Archer lead a very healthy life and was a good judge of a horse, well known in the hunting field, and an excellent shot; thanks probably to these instincts, he remained an active man to a much greater age than is common, and having lost none of his skill as an obstetrician successfully conducted, at the age of 83, a difficult case of childbirth, involving turning, far away from help of any sort. Though during the last few years of his life he lost the use of his eyes, his other faculties remained unimpaired nearly to the last. His memory in particular was remarkable, and those who conversed with him were much impressed by his keen recollection of bygone incidents.

We regret to announce the death of Dr. Edward George Dutton, formerly of Kingsteignton, Devon, and of Plymouth, and quite recently of Clapham, where his death occurred. In entering the medical profession Dr. Dutton was following in the footsteps of his father who was for many years a well-known practitioner in Hammersmith. By him he was sent first to Epsom College and afterwards entered as a student at Guy's Hospital and at the University of Durham. In 1870 he received the licence of the Society of Apothecaries and in the same year became a Member of the Royal College of Surgeons of England and in the course of time settled down in practice at Plymouth. In that town he carried on a large practice for many years and at the same time entered largely into the public life of the place. He was a member of the School Board and being an active politician of Conservative principals he three times offered himself as a candidate for municipal honours and once with success. He was also a prominent Freemason. Some two years or more ago his health began to fail and in consequence he made over his practice to his brother-in-law, Dr. Bate, and went on a voyage to the Cape. Returning in somewhat improved health he started in practice again at Kingsteignton, Devonshire, but not very long afterwards again had to relinquish work and this time went out to Australia. On his return he settled down at Clapham; he was believed to be growing stronger and his death was somewhat sudden and unexpected. Dr. Dutton was a kind hearted man and particularly considerate to his poorer patients, amongst whom he was especially popular, therefore, of his death has been received with much regret by many people and particularly at Plymouth where he was so very well known. He was for many years a member of the British Medical Association, and early in his career contributed a paper to the medical journals, published at that time, upon quackery and corruption. He leaves behind him a widow and a son and daughter both of them young.

Dr. Auguste Antoine Lutaud, of Nancy, the founder of laryngology by hypodermic injection died a week or two ago at the age of 84. Born at Perpignan in the Mediterranean Department, on September 19th, 1819, he studied medicine at Strasburg, and took his Doctor's degree in 1846. The subject of his inaugural thesis was Congenital Dermatoses. He soon distinguished himself by his skill and became Chief of Surgical Clinique. After practising for a year at Pont-de-Vaux he settled in Nancy where he remained a citizen for the remainder of his long life. In 1854 he published his work on Hypodermic Injections, in which he was the first to describe the method of his researches in this branch of medicine. Many and various were the papers he published on the results of his researches in this branch of medicine. Many and various were the papers he published on the results of his researches in this branch of medicine. He was the first to call attention to the investigation of these phenomena. For many years he was generally looked upon as an impostor but it was not indeed till in the early Eighties, when Bernheim, Beaunis, Liegeois, and others, inspired by his teaching founded what is known as the Nancy school of Psychotherapy that his work obtained any public recognition. In 1891 a number of his pupils subscribed to present him with an international token of respect in the form of a work of art. In 1902 a commemorative tablet was placed on the house in which he was born. His method of treatment by suggestion is used to a greater or less extent by many practitioners. In addition to the work already mentioned, Dr. Liébault was the author of a treatise on treatment by suggestion (1891) and of a number of papers on that and related subjects. He was Honorary President of the First and Second Congresses of Hypnotism. Whatever the real value of his life-work may finally prove to be, there can be no doubt of his absolute honesty of purpose and sincerity of conviction.

We regret to record the death of Mr. George Welford, Consulting Surgeon of the Sunderland Infirmary, which took place on March 11th in the eighty-ninth year of his age. Born in the year 1816 Mr. Welford turned very early towards medicine being apprenticed to Dr. Crawlace when he had only reached his fourteenth year. In 1837 he was admitted to the membership of the Royal College of Surgeons of England, and then went to Sunderland as House-Surgeon of the Infirmary. A few years later he obtained the diploma of L.S.A. and then began practice in partnership with Dr. Watson. At a later date Dr. E. A. Maling became his partner and the practice which they carried on between them was one of the largest and most successful in the North of England at that date. So long as he remained in practice Mr. Welford enjoyed a great and deserved reputation as a Surgeon, and he was indeed one of the first in England to carry the operation of ovariotomy to a successful conclusion. He gave up practice a great many years ago and underwent an operation for double cataract; nevertheless his reputation as a medical man persisted and his advice from time to time continued to be sought both by members of the profession and by the public. While a very young man Mr. Welford became a Freemason and passing through various offices celebrated the jubilee of his admission to that fraternity in the year 1887, being then Past-Master. He was also the first surgeon appointed to the Sunderland Artillery Volunteers. He was a member of the Sunderland Division of the North of England Branch of the British Medical Association, and upon the occasion of the general meeting held in Newcastle some forty years ago did all in his power to make that meeting a success.

We regret to announce the death of Dr. Carl Genth Koniglicher Sanitatsrath, of Bad Langenschwalbach, Germany, which took place on December 31st, 1903, at Wiesbaden. He studied at the Universities of Wurzburg, Berlin Prague, and Marburg, took his M.D. degree in 1868, and settled down in his native town, where his professional skill soon raised him to a leading position. He was a man of great learning in all branches of medical science, and his name was well known far and near as an able physician. He wrote a work on Bad Schwalbach as a watering place, an article published in the *Year Book* of the Natural Science Society of Nassau on the effect of iron on the digestive organs, and in conjunction with his friend Professor Pagenstecher compiled an *Atlas of the Pathological Anatomy of the Eye*. He was the possessor of several distinguished orders bestowed on him in recognition of his merits. Dr. Genth was widely known in England, and will be regretted by all who knew his kindness of heart and have had the privilege of his advice and ever-ready generous help.

Deaths in the Profession Abroad. Among the members of the medical profession in foreign countries are Dr. Jose J. Flores formerly Minister of the Interior of the Republic of Costa Rica and sometime Dean of the Medical Faculty of San Jose; Dr. Hetard, of Pluvigner, for many years Mayor of that town, a Corresponding Member of the Paris Academy of Medicine, and an authority on Breton medicine and archæology, aged 90; Dr. Passant, President of the French Society of Hygiene and founder of the Asile Mallet of Paris; Dr. Hermann Ebbinghaus, sometime Professor of Psychology in the University of Breslau and Dr. Hjalmar Öhrwall, Professor of Physiology in the University of Lund, Sweden, aged 58.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from one of ordinary circulation, and it is impossible to guarantee its accuracy in every detail. Applications should be made in time for the Wednesday morning

BELFAST: QUEEN'S COLLEGE.—Rabbit Demonstrator of Pathology and Bacteriology. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Senior and Junior House-Surgeons, resident. Salary, £[illegible] respectively.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer. 2 Resident Surgical Officers. Salary, £[illegible] each, rising to £[illegible].

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House Surgeon, resident. Salary, £[illegible] per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—House-Physician, resident. Salary £[illegible] per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary, £[illegible] per annum.

BUXTON: DEVONSHIRE HOSPITAL.—[illegible] House-Surgeon. Salary, £[illegible] per annum. 2 Assistant House-Surgeons. Salary £[illegible] per annum. Both resident.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House Surgeon, resident. Salary, £[illegible] per annum.

COLCHESTER: ESSEX AND COLCHESTER HOSPITAL. Honorary Assistant Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—[illegible] Assistant House-Surgeon, resident. Salary £[illegible] per annum. Two Lady qualified Clinical Assistants in the Out-patient Department.

FARRINGDON GENERAL DISPENSARY, 17 Bartlett's Buildings, E.C.—Honorary Physician.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £75 per annum.

GRAVESEND HOSPITAL.—House Surgeon, resident. Salary £[illegible] per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £[illegible] for six months each.

LEEDS UNION.—Assistant Medical Officer for the Workhouse, Schools, and Infirmary, resident. Salary, £[illegible], rising to £[illegible] per annum.

LINCOLN COUNTY HOSPITAL.—Junior Male House Surgeon, resident. Salary, £[illegible] for six months.

LONDON HOSPITAL, Whitechapel.—Ophthalmic Surgeon.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon, resident. Salary, £[illegible] per annum.

MANCHESTER: CHORLTON UPON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary, £[illegible] per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Physician.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Physician.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), Greenwich, S.E.—Junior Resident Medical Officer. Salary £[illegible] per annum.

SOMERSET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, resident. Salary, £[illegible], rising to £[illegible] per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—House Physician, resident. Salary, £[illegible] per annum.

TOTTENHAM HOSPITAL, N.—Honorary Anæsthetist.

UNIVERSITY COLLEGE HOSPITAL.—Assistant Surgeon to the Ophthalmic Department.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, resident. Salary, £[illegible] per annum.

APPOINTMENTS.

ALLPORT, Wilfrid, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Ophthalmic Surgeon to the Warneford Hospital, Leamington.

ARMOUR, Donald, M.B., M.R.C.P.Lond., F.R.C.S.Eng., Surgeon in charge of the Nose, Throat, and Ear Department, Beaufoy Hospital for Children.

DORNFORD, A. C., M.R.C.S., L.S.A., District Medical Officer of the Pwllheli Union.

EDMONDS, A. J., M.B., Assistant Medical Officer to the Bethnal Green Parish Infirmary.

FLEMMING, Percy, B.S., F.R.C.S., Professor of Ophthalmic Medicine and Surgery in University College and Surgeon to the Ophthalmic Department of University College Hospital.

FULLARTON, J., M.B., M.S.Glasg., District Medical Officer of the Lancaster Union.

GOSS, H. S., M.B., B.C.Cantab., Certifying Factory Surgeon for the Hastings District, Sussex.

GARDNER, Harry, M.R.C.S., L.R.C.P., Junior House-Surgeon to the Croydon General Hospital, vice D. M. Mackenzie, M.B., Ch.B.Aberd.

GOODMAN, T. Herbert, M.R.C.S.Eng., L.S.A., Medical Officer and Public Vaccinator for the Haverhill District of the Risbridge Union.

GRIFFITH, James De Burgo, M.B., Ch.M.Dub., Physician to Out-patients, Perth Public Hospital, West Australia.

GRUNBAUM, Otto, M.B., B.C.Cantab., D.Sc.Lond., M.R.C.P., Assistant Physician to the Belgrave Hospital for Children.

HOUSTON, Thomas, M.D.R.U.I., Joint Lecturer on Medical Jurisprudence in the Queen's College, Belfast.

KING, D. Barty, M.A., M.D., M.R.C.P.Lond., Honorary Physician to Queen Alexandra's Home for Officers' Widows and Daughters.

LAWSON, F. H., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Steyning District, Sussex.

MARSH, Charles J., L.R.C.P., M.R.C.S., Medical Referee under the Workmen's Compensation Act for the Crewkerne, Wincanton, and Yeovil Districts in County Court Circuit No. 5, vice Dr. Garland, deceased.

MILNER, Cyril William, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Consulting Surgeon to the Nottingham General Dispensary.

SANGUINETTI, H. H., M.B., B.Ch.Oxon., Medical Officer of Health for the Minehead Urban District.

SMITH, W. C. B., M.R.C.S., L.R.C.P., Senior House-Surgeon to the Croydon General Hospital, vice J. F. Robinson, F.R.C.S.

STUBBLES, Henry Martyn, M.B., Ch.B.Edin., Police Surgeon to the Amble District of the Northumberland County Constabulary.

WILLIS, David, M.A., M.D.Edin., Honorary Assistant Gynæcologist at Brisbane General Hospital.

WOODCOCK, H. B., M.B., B.C.Cantab., District Medical Officer of the Charlton Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGE.

WARDALE—ROBINSON.—On March 9th, at Christ Church, Gateshead, by the Rev. P. C. McDonald, M.A., John Dobson Wardale, M.B., B.S., youngest son of John Dobson Wardale, Esq., J.P., M.Inst.C.E., Gateshead, to Annie Georgina Robinson, eldest daughter of J. W. Robinson, Esq., of Gateshead and Haydon Bridge.

DEATH.

WALLACE.—On March 1st, at Falkner's Lodge, Upper Clapton, Annie Watson, wife of Frederick Wallace, L.R.C.P.Lond.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons of England, [illegible] p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture I.).

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. F. Taylor: On Some Disorders of the Spleen (Lumleian Lecture II.).

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Mr. J. W. Thomson Walker: The Surgical Anatomy of the Ischio-rectal Region. Mr. Lennox Browne: The Surgical Treatment of Suppurative Prostatitis. Dr. A. W. Mitchell Forbes: The Mental Condition in Epilepsy in Relation to Progress.

WEDNESDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture II.).

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Dr. Paul Frankland: Two Cases of Intestinal Obstruction and Cavernous Lymphangioma in Attacks of Typhoid Fever. Mr. W. G. Spencer: A Case of Severe and Fatal Hæmaturia of Unknown Origin. Mr. Cuthbert S. Wallace and Mr. H. J. Marriage: A Case of attempted Division of the Eighth Nerve within the Skull for the Relief of Tinnitus.

THURSDAY.

Royal College of Physicians of London, 5 p.m. Dr. F. Taylor: On Some Disorders of the Spleen (Lumleian Lecture III.).

FRIDAY.

Royal College of Surgeons of England, 5 p.m.—Mr. E. M. Corner: On Acute Infective Gangrenous Processes in the Alimentary Tract (Erasmus Wilson Lecture III.).

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. E. W. Goodall: Two Cases of Intestinal Obstruction and Cavernous Lymphangioma in Attacks of Typhoid Fever. Mr. W. G. Spencer: A Case of Severe and Fatal Hæmaturia of Unknown Origin. Mr. Cuthbert S. Wallace and Mr. H. J. Marriage: A Case of attempted Division of the Eighth Nerve within the Skull for the Relief of Tinnitus.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on The Use and Abuse of Artificial Foods in Infant Feeding.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m.—Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, On Neurotic Children; Tuesday, Skin Treatment and some of its Indications; Wednesday, On Neurotic Children; Thursday, Some General Principles of Treatment in Dermatology.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., Tuesday, 3.30 p.m.—Lecture on Chorea.

North-East London Post-Graduate College, Tottenham, N., Thursday, 4.30 p.m.—Lecture on Ulcerative Endocarditis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Structure of the Urethra; Tuesday, The Relationship of Insanity to Inebriety; Wednesday, Common Diseases of Menstruation; Thursday, Administration of Anæsthetics; Friday, Clinical Forms of Insanity.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C. London; those concerning Advertisements, Subscriptions, Non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., in correspondence.

CORRESPONDENTS who wish notice to be taken of communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the Editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attaloid, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

BLEEDING IN PNEUMONIA.

DR. ARTHUR TODD-WHITE (Leytonstone) writes: I see Dr. T. A. Dukes advocates bleeding in pneumonia. I once tried it in a case in which the circulatory organs seemed overloaded, but it was a last effort to save the patient and unfortunately failed. Do I understand that Dr. Dukes would bleed at the commencement of the attack?

MOSQUITOS.

B. G. W. writes: In the introductory remarks (p. 25) in the work *From Kulja Across the Tian Shan to Lob Nor* (1879) it is stated that the people of Lob "wear clothes of a coarse strong material called luf, the fibre of a plant which has a flower and a pod like the wild liquorice. It protects the wearer from the attacks of gnats and mosquitos, which never alight on the cloth." Is anything known at the present day of this plant, which would seem to be of a very valuable nature with respect to protection from mosquitos?

COUGH IN PHTHISIS.

COUGH writes: A man, aged 49, suffering for at least the last ten years from pulmonary phthisis, complains that whenever he commences to read either book or newspaper he is compelled to desist after a few

HERPES.

Dr. [illegible] Manchester Square, W., writes: The treatment proposed by Dr. [illegible] in the treatment of irritable conditions of the skin and mucous membrane of the laryngeal and pharyngeal region and the mouth will be found practically useful. In the literature concerning the drug amongst [illegible] the medical profession make the following extract from a [illegible] interesting and instructive. The report was published in the [illegible] and is translated as follows: "A [illegible] has proved that hydrochloride decomposes easily in water and in neutral or alkaline solution. The substance is especially suitable in aqueous solution, and to operate exercises an [illegible] action. A solution of 1 grm. in 2 c.c. [illegible] at C. [illegible] and at 2 C. [illegible] new antidote. I shall be glad to learn from [illegible] who, like myself, are in the habit of using this drug if they have found a mixture to [illegible] efficacy after three days.

PRIMARY VESICAL TUBERCULOSIS.

T. W. B. [illegible] for his care a girl aged 12. Otherwise quite healthy, she [illegible] a little in the latter part of micturition, the latter being followed by a drop or blood. Corresponding symptoms occurred two years ago, and passed off. The urine is acidy and of specific gravity [illegible] and contains a little albumin, and a trace of blood. Under the microscope are seen a little pus, cells from the deeper layers of the vesical epithelium, minute crystals of calcium oxalate, and tubercle bacilli in small number. His diagnosis is primary tuberculosis of the bladder. The being a rare disease, he asks how it could have originated and for suggestions as to the best line of treatment; he would also like to hear of other cases.

INCOME TAX.

LEO writes: My income from all sources, after deducting expenses of profession, is £[illegible]. The surveyor states I am only entitled to a reduction of £60 on the above amount. After deducting life insurance premiums [illegible] I find my income is £[illegible], and consequently I claim a deduction of £[illegible]. Who is right?

*** The surveyor is right, but the amount of abatement allowable is £[illegible] and £[illegible]. This amount is determined by the total income of the assessee from all sources and as our correspondent's total income is £[illegible] he is entitled to the abatement appliceable to incomes between £[illegible] and £[illegible] viz. £[illegible]. In order to arrive at the amount of the total income for the purposes of abatement life insurance premiums may not be deducted. See the BRITISH MEDICAL JOURNAL for June 20th, 1903, article "Income-tax Assessment," where the question of abatement is fully dealt with.

ANSWERS.

ROENTGEN-RAY INSTALLATION.

DR. GEORGE F. B. BAILEY, Dulwich, S.E., writes: "J. H. L. A." does not state whether current from mains or accumulators is available. For [illegible] current the best interrupters are Mackenzie Davidson's, Cadle by Cox, or the "Wodal," by the Sanitas Electrical Company, or [illegible] book. If alternating current is supplied a transformer [illegible] interrupter does very well, as described by me in *Medical Record* April, 1903, a copy of which I will send "J. H. L. A." will send me his address. For large hospital work [illegible] better is best, or there is now a system of coil without [illegible] all recently introduced by Schull.

DIABETES.

W. C. [illegible] to a letter published by *Truth*, quoted in the *British Medical Journal* of October 17th, 1903, praising the essence of Ascot, a drug the use of which [illegible] certain cases by the dramatist [illegible]. Many references to the alleged utility of jambul [illegible] the *Lancet* [illegible] tenth edition, [illegible].

NOTES, LETTERS, ETC.

THE DISPENSATION OF PRESCRIPTIONS.

DR. [illegible] Cape Colony writes: For some years I have [illegible] the habit of writing "Not to be repeated" at the head of prescriptions I considered dangerous, for example, containing morphine, etc. I [illegible] does not imply I have to examine every [illegible] I have a [illegible] prescription [illegible] dangerously [illegible] I could [illegible] the [illegible] responsible. In the [illegible] needless to [illegible] I have [illegible] Now I always add "This prescription is not to be repeated," and have found it answer my purpose.

BOOKS, ETC., RECEIVED.

La Rénovation Par Un Neurone et L. Ombredanne. Paris: G. Steinheil. 1903. 1 fr.

Éléments de Pathologie et de Clinique Chirurgicales. Par le Dr. Léon Minet. Huitième édition. Tome troisième. Maladies des Membres. Lésions Traumatiques. Chirurgie Spéciale. Paris: G. Steinheil. 1903.

Laboratory Manual of Physiological and Pathological Chemistry for Students and Physicians. By Dr. F. Sachsse. Translated from the Second German Edition by W. R. Orndorff, A.B., Ph.D. First Edition. New York: John Wiley and Sons. London: Chapman and Hall, Ltd. 1903. [illegible].

Directions for Laboratory Work in Physiological Chemistry. By Hermann C. Jacobson, Ph.D. Second Edition. New York: John Wiley and Sons. London: Chapman and Hall, Ltd. [illegible].

Lectures on Diseases of the Lungs and the Heart. By James Alexander Lindsay, M.D., F.R.C.P. Lond., M.A. London: Rebman Limited and Co. 1904. 10s. net.

Les Traitements de la Matrice. Par Dr. J. Héricourt. Paris: Ernest Flammarion. [illegible]. Fr.

Modern Nursing in Private Practice. By Sir W. Lewin Bennett, K.C.V.O., F.R.C.S. London: Scientific Press Ltd. 1904. 10s. net.

The Asphyxiated Baby. By J. F. Fergusson-Stewart, M.B., C.M. Third Edition. Melbourne: Jas. A. Swan, Express Office. [illegible].

Guy's Hospital Reports. Edited by J. H. Bryant, M.D. and F. J. Steward, M.S. Vol. [illegible]. London: J. and A. Churchill. 1904. [illegible].

Diseases of the Eye. By L. Webster Fox, A.M., M.D. London: Sidney Appleton. 1904. [illegible].

A Textbook of Gynæcology. Edited by Charles A. L. Reed, A.M., M.D. Second Edition. New York and London: D. Appleton and Co. 1903. 25s.

Blood Examination and Blood Analysis. By George H. F. Nuttall, M.A., M.D., Ph.D. Including Original Observations by S. Graham Brooks, M.A., M.B., D.P.H. Cantab., and J. S. P. Strangeways, M.A., M.B., C.S. Cambridge: University Press. 1904. [illegible].

Pharmaceutical Formulas. A Supplementary Volume. London: The Chemist and Druggist Office. 1904. [illegible].

Annales Médicales de Beyrouth, de Syrie et de Haute Asie. Les Leçons Hautes de Pâques au [illegible] anniversaire de la mort de Sainte [illegible] de la Médecine. Conférence pour l'Instruction Obligatoire. [illegible].

The Sick Room. By Mrs. Charles E. Buckton and Harry Campbell. London and New York: The Religious Tract Society. [illegible].

Insomnia: Its Causes and Cure. By James Sawyer. Birmingham: Cornish Bros. 1904.

Contributions to Practical Medicine. By James Sawyer. Fourth Edition. Birmingham: Cornish Bros. 1904.

Transactions of the American Otological Society. Thirty-sixth Meeting for the year 1903. Philadelphia: Wm. J. Dornan. [illegible].

Die Neubildungen an wissen Brüsten [illegible] Inaugural-Dissertation. Von der Hohen Medicinischen Fakultät der Königlichen Friedrich Wilhelms-Universität zu Berlin. Vorgelegt von Johannes Arnold, Julius Gustav Fischer aus [illegible]. [illegible].

Report of the Medical Officer of the Medical and Sanitary Department of the Gambia for the Year 1903. New Series. No. 1. Some Observations on the Prevalence of Bacillus Koch-Weeksi Enteritis. By Captain George Lamb, M.D.Glasg., I.M.S., Colonial Officer and Superintendent of Government Farm. [illegible].

The Nervous Diseases of Women. Their Treatment of Chronic Diseases of the Uterus and its Appendages. By Lewis H. Taylor, M.D., B.S. Durham, M.R.C.S. Eng., F.R.C.P. Lond., Physician to the Bath and Somerset Eye Infirmary, London and Clifton. 1904. [illegible].

Medical Magistracy. Notes on Points likely to occur in Everyday Practice. By F. G. Yeoman, M.D. Brux., M.R.C.P. Lond., D.P.H. Cantab. London: Baillière, Tindall and Cox. 1904. 2s. 6d.

The Medical Examiner Series. No. 1. Hay's Surgery Explained. By R. F. Howard. Oxford: London: Parker. Manchester: [illegible]. 1904. [illegible].

Stricture of the Urethra. Illustrated. By Major J. D. [illegible], Marseilles. Second Edition. Enlarged. Published by Author. [illegible].

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 0 0
A page	5 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the office, not later than first post on Wednesday morning preceding publication, and if not paid for at the time, should be accompanied by a voucher.

Post Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage [illegible].

N.B.—It is against the rules of the Post Office to receive letters at *Postal Exhibits* addressed either in initials or numbers.

SCIENTIFIC GRANTS COMMITTEE

OF THE

British Medical Association.

REPORT LXXXI.

THE COAGULATION TIME OF THE BLOOD IN PREGNANT AND PUERPERAL WOMEN SUFFERING FROM ALBUMINURIA AND ECLAMPSIA.

BY CARSTAIRS DOUGLAS, M.D., B.Sc., F.R.S.EDIN.,
Professor of Medical Jurisprudence and Hygiene, Anderson's College Medical School; and Pathologist, Maternity Hospital, Glasgow

ALTHOUGH a study of the coagulability of the blood in pregnancy is one deserving attention, it is not my purpose to deal with it in this paper. It is being investigated at present by another worker at the Glasgow Maternity Hospital, and the results when published will, I trust, be a useful addition to our knowledge of the haematology of pregnancy and the puerperium. My own attention has been directed primarily to a consideration of the coagulation time of the blood in pregnant and puerperal women who were the subjects of eclampsia and albuminuria, and the investigation was undertaken for the special purpose of determining whether there was or was not on the part of such subjects a tendency for the blood to clot more rapidly than in health—whether, in short, such patients had a shortened coagulation time.

In April, 1901, Dr. Hey Groves read a communication before the Obstetrical Society of London in which he gave details (clinical and *post mortem*) of a case of eclampsia, and discussed in some fullness his own views as to the pathogenesis of the condition. He held that the essential lesion consisted in the formation of minute capillary thrombi, with haemorrhagic infarcts and necrosis of the surrounding cells. These thrombi occurred most frequently in the liver, the kidneys, and the brain, and by their presence gave rise to the fits and the coma. Dr. Hey Groves attributed the more ready formation of thrombi in eclampsia to an increased coagulability of the blood, this alleged increase in its turn being due to the presence of toxins which originate in the placenta, the fetus, and the alimentary canal.

That thrombi might be found at the necropsy in cases of eclampsia, and that these thrombi were situated chiefly in the liver, has been known for some time, attention having been directed to them a number of years ago by various observers, among whom may be mentioned Schmorl,[1] Stumpf,[2] Gerdes,[3] Klebs, and Dührssen.[4] By some, however, their existence was attributed to the bruising of the liver which it undergoes during pregnancy and under the violent efforts of delivery. Klebs indeed inclined to the opinion that thrombi composed of multiple liver cells had something to do with the onset of the convulsions, and in this he was supported by Schmorl; he held, however, that they arose, not from an increased coagulability of the blood, but, as already pointed out, from a bruising of the liver tissue itself.

Now, although I am at one with Dr. Hey Groves in regard eclampsia as due to a toxaemia, I am not prepared to support his theory that multiple thrombi are very common in the disease, and that they are to be regarded as a causal factor in the production of convulsions and coma alike. I have had the opportunity during the past four years in my capacity as pathologist to the Glasgow Maternity Hospital of seeing a large number of cases of eclampsia patients, and of making the necropsy in seven or eight fatal cases. In most of these cases microscopical examination of the liver or kidneys or both was made, and I cannot say that the results obtained support the contention that in general thrombi occur as part of the pathological changes in eclampsia. The organ I have usually found most altered is the liver, and besides the macroscopic alterations, which have frequently been very striking, various microscopic changes have been noted, such as thrombi (occasional), haemorrhages, fine granular degeneration in the hepatic cells with enlargement of the nuclei, and areas of necrosis. These changes I am inclined to refer to the direct action of a toxin in the blood, just as the changes met with in the kidney in many instances are those of a toxic nephritis. There is, however, a clinical method which one may employ in a matter of this kind, and that is the determination of the coagulation time of the blood during life by some such instrument as Wright's coagulometer. This has been done in the present instance, but before giving details of the method and the results obtained, it may not be out of place to consider briefly the general changes in the blood of the pregnant and puerperal woman.

In general terms it may be said that the total quantity of blood is raised in pregnancy; that the leucocytes, fibrin, and probably the haemoglobin are increased in amount, while the red cells are if anything diminished. Regarding some of these points the following are some of the results obtained by more or less modern observers:

1. The volume of the blood is increased during pregnancy. In 6 non-pregnant animals it was 7.8 per cent. of the body weight, while in 10 similar animals but pregnant it was 9 per cent. (Spiegelberg and Geschleiden[5]).

2. There is sufficient evidence from recent work to indicate that the old idea of poverty of haemoglobin in pregnancy is untenable. Fehling,[6] Winckelmann, and Reihl (quoted by Buist[7]) all found that in the majority of pregnant women the haemoglobin was fully up to the average, while in a considerable number of cases it surpassed it. Schroeder[8] actually found, out of 34 women examined during pregnancy, that over 70 per cent. of them gained in haemoglobin.

3. Observations recently carried out point to the fact that there is not nearly so great a diminution in the red cells as is frequently stated in textbooks; and, indeed, the ordinary pregnant woman has not much less than her full complement of erythrocytes. Bernhardt,[9] for example, in healthy non-pregnant women found the average red-cell count to be 4,450,000 per c.mm., while in 32 pregnant women examined *ante partum* he had no average under 4,500,000, and even *post partum* the figures did not fall below 4,360,000. Henderson,[10] working in this hospital, in 45 cases (during and just after delivery) obtained counts varying from 2,260,000 to 5,000,000 per c.mm., and having an average of close on 4,000,000. In the Edinburgh Maternity Hospital, Elder and Hutchison[11] obtained very similar figures from 16 women at parturition, their average being 3,978,000.

4. The leucocytes are normally increased in pregnancy, especially towards the latter months. Henderson[12] in 36 normal cases obtained at term figures ranging from a little over 10,000 to 36,600 per c.mm., the average being 21,365. Elder and Hutchison[13] give figures varying between 8,000 and 25,000, with an average of 14,500, which is 33 per cent. lower than Henderson's.

5. The density of the blood was studied a good many years ago by Nasse,[14] who found it always somewhat lowered in pregnancy, though not to any great extent. It receded most from the normal between the sixth and eighth months. The fibrin he found increased by nearly 4 per cent. The water and fat he also found increased, and the salts of the blood diminished. Nasse's observations would bear repetition.

6. The coagulation time in normal pregnant and puerperal women has hardly been worked at at all. As mentioned already this paper deals specially with the question of the alleged tendency of the blood in eclamptics to form thrombi readily, and the means adopted to try to settle the point clinically is by a determination of the coagulation time.

PROCEDURE.

The instrument employed was the latest form of Wright's coagulometer, as made by Hawksley, London, which consists of a numbered series of glass tubes, each being in calibre approximate to the measuring tube in the ordinary Gowers haemoglobinometer, and each having a mark of 5 c.mm. The observations should be made with the tubes at a temperature of 67° F., or that of an ordinary room on a summer day. In cold weather the tubes can be raised to the requisite temperature by standing them in a water bath, the entrance of water into the tubes being prevented by a small rubber cap drawn over the end of each.

In using the tubes the finger or lobe of the ear is pricked. I prefer the latter region. It is necessary that the blood should come somewhat freely, hence the puncture should be made with a fine sharp-pointed bistoury rather than with a needle. As the blood is flowing, tube after tube is filled in order up to the 5 c.mm. mark, though it does not signify if a little more or less is drawn in. Each tube should be wiped clean at the end after filling, and the column of blood should be aspirated up a little way from the end of the tube. This prevents early clotting of the blood, and the cushion of

air also serves to prevent the entrance of water and its touching the blood in case the tubes require to be replaced in the water bath (thus obviating the need of putting on the caps again).

The time of filling of each tube is carefully noted by the watch, and I have made it a point through out to fill at intervals of a quarter or half minute, avoiding intermediate times and odd seconds. After, let us say, ten tubes are filled, the observer may remove them from the bedside and complete the matter at a window, table, or other convenient place. An effort is now made to blow the blood out of each tube in succession, noting carefully the time between filling and blowing, till at length a tube is found from which the blood cannot be expelled. The time that has elapsed between filling and blowing out of this particular tube gives the "coagulation time."

We begin, for example, with No. 1 after 5 minutes] (the time always being counted from the moment of filling), and we find the blood slips out easily. We next try No. 2 at 6 minutes, and again we can readily dislodge the blood. A third attempt is made with No. 3 after 7 minutes, and noted that partial clotting has commenced. Accordingly No. 4 is tried at 7½ minutes, and clotting is found to be complete. But it may be that 7½ minutes is the time and not 7, so we go on forward a tube or two and try one at 7¼, when we find clotting complete. We finally try another at the same interval, and obtain a like result, from which we state that the coagulation time is 7¼ or possibly a little less, but not so short as 7 minutes. I have regarded intervals of one-quarter of a minute as small enough. In the instance I have given, if we tabulate our results in the way I usually do, we get the following statement:

Example.—Mrs. M., 1-para, aged 26. Severe eclampsia third day of puerperium. Fits commencing, and two others none [illegible]. Albumen examined March 16th, 1904.

No. of Tube	Time of Filling	Inter-val	Time for Blowing	Coagulation.
1	11	-	11 1	Negative
2	11	+ -	11 11½	Negative
3	11	+ -	11 11½	Partial.
4	11	+ 7½ =	11 11	Complete
*	11			
5	11	+ -	11.13½	Complete.
7	11	+ 7½ =	11 14	Complete.
8	11	+		
9	11			

* No. 6 not used, as [illegible] time of filling would give the same time [illegible]. No. 8 [illegible] Coagulation time = 7¼ minutes.

It does not always happen, of course, that the observation is ended so quickly. One or two precautions have to be observed.

1. The tubes must be quite dry inside when used otherwise the coagulability appears to be diminished. Drying of the interior of the tubes is accomplished in the usual way by first washing them through with absolute alcohol, then with ether, and then aspirating air through.

2. The tubes should be warmed to the temperature of 17° F. as possible; if much below this, for example, at 44° F., the coagulation time I found was delayed; if a little above it, for example at 60° F., there was no difference.

3. The personal equation looks largely in the use of a clinical instrument of this sort, and therefore in any given set of observations the same person must always perform the "blowing out" part.

4. After use the tubes are cleaned at once by means of fine wire and then dried. It will be found to harden inside the tubes if not attended to sometimes. It may be got rid of by [illegible] by placing the tube in a test tube of warm water containing a little liquor pepticus, acidulated by hydrochloric acid.

With these preliminary remarks we may now proceed to the consideration of the results obtained between normal and abnormal cases, and in the following groups of cases:—I. Albuminuria (pregnant and puerperal). II. Eclampsia (pregnant, parturient and puerperal). III. Healthy puerperæ (non-pregnant). IV. Healthy pregnant women. V. Healthy non-pregnant women. Under each heading the general results of the coagulation time will be considered, and a table showing the individual cases will be appended. I have not given the figures in individual observations, but have collected the results given in a more condensed form.

I. *Cases of Albuminuria (Pregnant and Puerperal).*

There were in all 16 cases observed, 6 in pregnancy (near full time) and 10 in the puerperium. Some of them were very severe. Of the 6 undelivered cases, the average coagulation time was 5.6 minutes, being the shortest found in any group of cases; the limits ranged from 4.7 to 7.5. Of the 10 albuminurics examined after delivery, the average period was 7 minutes, the numbers varying between 5.6 and 10. None of these patients developed eclampsia.

In looking over my notes of these cases I observe that one a 2-para examined in the puerperium, suffered from eclampsia in her first confinement eighteen months previously. In another case of albuminuria with mitral stenosis it was noted at the time that the blood looked very watery. On two occasions in this the coagulation time was protracted to 9 minutes. I shall have occasion to refer to this group again.

II. *Cases of Eclampsia (Pregnant, Parturient and Puerperal).*

Of these no fewer than 22 were examined in the course of a little over two years. Many of them were very severe, and several proved fatal; 5 cases were obtained before delivery, and the average coagulation time obtained was 7.4 minutes, the figures extending from 4.5 to 9 minutes. In one of these, with *ante-partum* fits and a contracted pelvis, the coagulation time on admission was 4.5 minutes. A Porro operation was performed. The blood time on the second day of the puerperium was 4.7 minutes, while on the fourth it was 5 minutes. In addition to the 5 cases examined before delivery there were 17 where the first observation was possible only in the early puerperium. Of these the coagulation time varied from 4.5 minutes to 9.5, the average being 7. Some of the cases are worthy of short comment. That with the longest time (greatest diminution of coagulability) was a primipara of 18, who had severe eclampsia, *post partum* in incidence. She was transfused with 2 pints of normal saline solution. On the third day of the puerperium the time was 6.5 minutes, on the fourth day 8.75, on the sixth day (by which time she had developed jaundice) it was 8.5, and on the ninth day it was 9.5. In another case, where no fewer than 6 pints of saline solution had been given subcutaneously, the coagulation time was only 7.5 minutes, though one might reasonably have supposed it would be longer. We see from this not inconsiderable number of cases that there is nothing here to support the view that the blood clots more readily in eclamptics.

III. *Normal Puerperæ (Non-Albuminuric).*

A large number of these were examined, and the average time was found to be 7.3 minutes, the shortest being 4.75 and the longest 9.5. Of three cases showing this lengthened time, one was a case of accidental haemorrhage, one had had severe bleeding at her last confinement, and the third was a normal case. In another case, a 2-para, aged 22, with a period of 7.25 minutes, bled freely at labour, while another, also 2-para, bled freely *post partum*, the coagulation time being extended to 9.25 minutes. Two other cases of *post partum* bleeding were found to have a lessened coagulability, the times being 8 and 9.25 minutes respectively as maximal. As a rule, it was found that the coagulation time lengthened in the early days of the puerperium, attained a maximum, and then shortened again. This is what one would have expected, the loss of blood at labour being compensated for by lymph from the tissues (coagulating more slowly than normal blood), and this in its turn becoming more dense as regeneration of the various elements takes place.

IV. *Healthy Pregnant Women.*

Seven cases were examined in this group, with the result that the coagulation time was found to average 7.4 minutes, the figures ranging from slightly below 5 in a full-time primipara to 9 in a seven months' 3-para. One case showed very little of special interest, but that was a 2-para apt to the subject of phlebitis; her coagulation time was 7.5 minutes, showing no [illegible].

V. *Healthy Non-pregnant Women.*

In addition to the examination of 7 healthy pregnant women, observations were made on 10 healthy non-pregnant women with the result that an average period of 7.15 minutes was obtained, the shortest and longest times being 5 and 10 minutes respectively. The last [illegible] [illegible], and no explanation can be given as to why it should have occurred in this case, the subject being a healthy unmarried woman.

If we arrange these different results in a table and compare

the coagulation times, we observe that in the main there is very little difference between them:

Group.	Average Coagulation Time in Minutes.	Shortest.	Longest.
I. Albuminurics:			
(a) Pregnant	5·[illegible]	4·70	[illegible]
(b) Puerperal	[illegible]	[illegible]	15·0
II. Eclampsias:			
(a) Pregnant	7·4	4·[illegible]	9·0
(b) Puerperal	7·[illegible]	4·[illegible]	[illegible]
III. Normal puerperal	7·30	4·[illegible]	9·5
IV. Healthy pregnant women	[illegible]	[illegible]	[illegible]
V. Healthy non-pregnant women	7·75	5·[illegible]	11·[illegible]

Looking at the last six lots, we see that the average, the shortest, and the longest coagulation times are very near one another, the average periods being 7.0, 7.4, 7.0, 7.3, 7.4, and 7.75 respectively. A healthy pregnant woman and a pregnant woman with eclampsia show almost identical times, and there is not much difference between either of them and the healthy, non-pregnant women. There is nothing at all, so far, to support the theory of an increased coagulability in this special class of cases. When we turn, however, to the albuminurics in pregnancy, we do find that the the time is shortened as compared with the other groups, being only 5.6 minutes on an average. But when the 6 cases that make up this class are scrutinized more carefully, it is found that 2 are cardiac cases and 1 hemiplegic, leaving only 3 as possible albuminurics of pregnancy and possible eclamptics. As a matter of fact, none of these 3 did develop convulsions.

I think, therefore, that we are entitled to say from these observations that there is little difference in the coagulation time of healthy pregnant and puerperal women and of eclampsia before and after delivery, and that there is nothing, as far as a study of the coagulability of the blood goes, to support the contention that the thrombi found in certain organs in fatal cases of eclampsia are due to an increased coagulability in these cases.

In conclusion, I should like to express my indebtedness to Dr. Robert Jardine and Dr. Munro Kerr, the Visiting Physicians of the hospital, for their kindness in permitting me to examine their cases.

REFERENCES

[1] Schmorl, Untersuchungen über Puerperal-eklampsie, *Beit. klin. Chir.*, No. 42, 1904. [2] Stumpf, Ueber Puerperal eklampsie, *Centralbl. f. allg. path. u. path. Anat.*, 1896. [3] Gressler, Zur Aetiologie der Puerperal-eklampsie, *Centralbl. f. Gynäk.*, No. [illegible], 1904. [4] Dührssen, Über Eklampsie, *Arch. f. Gynäk.*, Bd. xiii, 1904. [5] O. Spiegelberg und R. Geschleiden, Untersuchungen über die Blutmenge bei Schwangeren, *Arch. f. Gynäk.*, Bd. iv, S. 112, 1872. [6] Fehling, Ueber Blutgerinnungsfähigkeit und Fruchtabsonderungsmenge u. s. w., *Verhandl. d. Gesellsch. f. Gynäk. zu Berlin*, 1898. [7] R. C. Burst, The Influence of Pregnancy in the Blood [illegible], *Med. and Surg. Journ.*, vol. x, p. 552, 1902. [8] R. Schroeder, Untersuchungen über die Beschaffenheit des Blutes von Schwangeren und Wöchnerinnen u. s. w., *Arch. f. Gynäk.*, Bd. xxxix, S. [illegible], 1891. [9] Bernhardt, *Monatsschr. f. Geburtsh.*, 1902, S. 321. [10] J. Henderson, Observations on the Maternal Blood at Term and during the Puerperium, *Journ. Obstet. and Gynaec. Brit. Emp.*, vol. i, p. 174, 1902. [11] W. Elder and R. Hutchison, Observations on Maternal and Fœtal Blood at Birth, *Trans. Obstet. Soc. Edin.*, vol. xx, p. 156, 1895. [12] J. Henderson, op. cit., p. 175. [13] W. Elder and R. Hutchison, op. cit., p. 152. [14] N. Nasse, Das Blut der Schwangeren, *Arch. f. Gynäk.*, Bd. x, S. 315, 1877.

LEPROSY IN SOUTH AMERICA.—In a report from the United States Minister, Mr. Beaupré, from Bogotà, under date November 5th, 1903, reference is made to the prevalence of leprosy in Colombia. He says this is one of the gravest questions now confronting that commonwealth. The disease has invaded the country to an alarming extent, and extraordinary measures have become necessary to check its spread. He encloses a copy of a law enacted by Congress, under which lazarettos are to be established in each department of the republic, in which all the lepers are to be confined. Various other provisions are made, but the central idea is to isolate all those who are suffering from the malady. The department of Antioquia already has a lazaretto which has been erected at an expense of more than 3,000,000 pesos, and much other good work has been done in various districts by private efforts and contributions.

TWO CASES INVOLVING THE QUESTION OF THE SITE OF IMPREGNATION.

BY

HARRISON CRIPPS, F.R.C.S., Surgeon.

and HERBERT WILLIAMSON, M.B., B.C., Demonstrator of Practical Obstetrics.

St. Bartholomew's Hospital.

IN spite of the careful and valuable work which in recent years has been done upon the early history and development of the fertilized ovum, and in spite of the light which Peter's observations have thrown upon many previously obscure pathological conditions, we are still in ignorance of the site at which impregnation normally occurs and of all details of the journey of the ovum from the ovary to the uterus. The following two cases, which have occurred in the practice of St. Bartholomew's Hospital, have some bearing upon these points and are therefore worthy of being placed on record.

CASE I.

TUBAL GESTATION AFTER COMPLETE REMOVAL OF THE OVARY ON THE SAME SIDE.

B. D. was admitted into St. Bartholomew's Hospital on January 10th, 1903, under the care of Dr. Champneys, complaining of pain in the lower part of the abdomen and haemorrhage from the vagina. She had previously had five pregnancies, four children (the last of whom was born in January, 1898), and one miscarriage in 1899. Menstruation had always been regular; the periods commenced when she was 14 years of age; they recurred every 28 days, lasted four days, and the amount lost was not excessive. The last period ceased on November 9th, 1902. The patient stated that she underwent an operation in 1899, when Mrs. Scharlieb removed an ovarian tumour.

History of the Present Condition.—After the cessation of menstruation in November, 1902, there followed a period of six weeks' amenorrhoea. In Christmas week of that year the patient commenced to suffer from pain situated chiefly in the right iliac fossa; this pain came on suddenly, but without any symptoms of collapse; at the same time she noticed haemorrhage from the vagina. The pain and haemorrhage have persisted since that date, the haemorrhage being sufficient to necessitate the use of six diapers a day.

Condition on Admission.—A scar was seen reaching from the pubes to the umbilicus. On the right side of the hypogastrium, situated 2½ in. above the pubes, was a fixed indurated mass the size of an orange. On vaginal examination the cervix was found to be displaced downwards, forwards, and to the right, so as to lie a fingerbreadth behind the right pubic ramus; behind this and occupying the rest of the pelvis was a fixed tumour partly solid, partly fluid and elastic. On bimanual examination the uterus could be felt lying behind the right Poupart's ligament, and not appreciably enlarged. The tumour itself reached to a point midway between the pubes and umbilicus. On examination by the rectum the tumour was observed to lie entirely in front of the bowel. The uterine sound passed, with its concavity forwards, for a distance of 4 in. in front of the tumour.

Operation.—On January 21st abdominal section was performed by Mr. Harrison Cripps. An incision 5 in. in length was made, nearly in the middle line and just to the right of the scar of the previous incision. A quantity of old blood clot was found in Douglas's pouch, and the right Fallopian tube was expanded and ruptured. No trace of the right ovary could be seen. The tube was drawn up into the wound (after separating adhesions) and the broad ligament transfixed and secured as a pedicle. The distended tube was then cut away. Nearly a pint of old blood clot was removed from Douglas's pouch. Careful search failed to reveal any trace of a right ovary.

After-history.—The patient made an uninterrupted recovery and was discharged on February 21st, 1903.

Macroscopical Examination.—Sections of the tube wall and of portions of the clot found in the tube show the presence of numerous well-formed chorionic villi, so that there can be no doubt whatever that the case was one of tubal gestation.

Note by Mrs. Scharlieb.—I removed from Mrs. D. a right-sided ovarian tumour on May 9th, 1899. It contained much grumous material and a little coiled up hair. It was the size of a fetal head at full term. The uterus and appendages of the left side were healthy. The patient made a good recovery and went home on June 2nd.

The chief interest in this case centres in the fact that it affords clear proof of the possibility of gestation in a Fallopian tube after the ovary of the same side has been removed.

At the operation described above a careful search was made, but no trace of the organ could be discovered; further, the condition found at the previous operation—a dermoid cyst—renders it very improbable that any portion of the oöphoron could have been left behind. What was the source, then, of the ovum which gave rise to the tubal gestation? Was there an accessory ovary on the right side? This is improbable; the presence of a third ovary is one of the rarest abnormalities met with in the human body, if indeed it ever occurs. Cases have been recorded from time to time, but of

those which have been subjected to thorough examination very few have stood the test. Small pedunculated tumours attached to the surface of the ovary, small fibro-myomata of the ovarian ligament, and corpora fibrosa have all been described as accessory ovaries, until submitted to microscopical examination, when their real nature became revealed. A very interesting case has been recently reported by Baldwin,[1] of Georgia, in which he removed both ovaries and tubes to abolish menstruation from a woman aged 42. She had for some years suffered from pelvic neuralgia, but the reasons which led him to perform this operation are not very clearly given. He states, however, that no adhesions were encountered, and that the recovery from the operation was uneventful.

In spite of this the menorrhagia persisted, and eleven months after the patient was examined and noticed benefit. In November, 1894, careful examination revealed a small mass of tissue to the left of the uterus. When this was pressed upon a sensation was experienced similar to that caused by pressure upon an ovary. The abdomen was again opened and this mass of tissue, which was between the layers of left broad ligament and apparently just below the remains of the ovarian ligament, was detached and removed. It was about the size and shape of a small lima bean and presented all the appearance of a rudimentary ovarian tissue.

The situation of this structure "just below the remains of the ovarian ligament" suggests very strongly that the ovary was not completely removed at the first operation. Doran has pointed out that this is precisely the spot at which removal is likely to be incomplete.

Thumim[2] has recently fully reviewed and criticized the recorded cases of third or accessory ovaries, and he gives instances which, apparently must be admitted; but in these cases there has been present a third Fallopian tube in communication with the uterus.

Doran[3] has examined a number of instances in which pregnancy has occurred after double ovariotomy. In all the cases he has investigated the operation was undertaken either for cystic disease or for inflammatory conditions of the ovary, and under circumstances which rendered it extremely probable that portions of ovarian tissue had been left behind. This could be demonstrated in some instances by examination of the specimens, whilst in others the description of the operation indicates the impossibility of absolute certainty of the removal of the whole organ. Where, however, we have to deal with a dermoid, a clearly circumscribed and pedunculated tumour, its complete removal is a much easier matter, and it seems improbable that any oöphoretic tissue would be left. We are therefore driven to the conclusion that the ovum was derived from the ovary of the opposite side.

It is not easy to understand how the ovum after its escape from the Graafian follicle finds its way into the tube. The fimbria ovarica is the only portion of the abdominal ostium which is in close anatomical relation with the ovary, and it is impossible to imagine that it can apply itself to each successive portion of the surface which presents a ripe follicle. It seems that the discharged ovum must pass directly into the peritoneal cavity, and subsequently through some agency imperfectly understood as yet, be directed into the tube. There is experimental evidence in support of the theory that the active agents are the cilia of the epithelium upon the abdominal ostium, that by their action they give rise to currents in the capillary layer of fluid between the pelvic viscera, and that by these currents the ova are wafted toward one or other tube.

Lode[4] injected the ova of ascarides into the peritoneal cavity of animals and found that they made their way to the pelvis, enter the tubes, traversed the uterus, and eventually appeared in the vagina. Whitridge Williams[5] states that this experimental evidence is reinforced by the fact that in certain amphibians large tracts of the peritoneum become covered by ciliated epithelium shortly before the time of ovulation.

The possibility that an ovum may enter the Fallopian tube of the side opposite to the ovary from which it was shed was long ago suggested, and to this journey of the ovum across the peritoneal cavity the term "external migration" has been applied. The case we have just recorded appears to be of this nature. Two similar cases have been recorded, one is reported by Latzer, the other by Howard Kelly.[6]

[illegible] months afterwards the woman became pregnant and was delivered at term of a healthy child seventeen months later pregnancy occurred in the left tube and rupture necessitated its removal by abdominal section.

Further proof of the external migration of the ovum is furnished by the study of the situation of the corpus luteum of pregnancy. Whitridge Williams[7] has examined six cases in which the corpus luteum was found in one ovary, and the pregnancy in the opposite tube, and Opitz in eighteen cases of tubal pregnancy found the corpus luteum in the opposite ovary in three. We have ourselves found this condition in one out of the three last cases operated upon at St. Bartholomew's Hospital.

Although the matter does not admit of positive proof, there can be little doubt that we have here an instance of external migration of the ovum, but in what part of its course the ovum became impregnated we cannot say; possibly, as suggested by Sippel,[8] impregnation occurred in the abdominal cavity, and the subsequent gestation was tubal, because the development of the trophoblast had reached such a stage that the ovum was able to bore its way into the tubal mucosa and gain an implantation before it reached the uterine cavity.

CASE II.

CASE OF PREGNANCY AFTER REMOVAL OF A PORTION OF BOTH TUBES [illegible]

In 1[illegible]4, being then 24 years of age, the patient commenced to suffer from palpitation of the heart, and from attacks of breathlessness. She noticed that these symptoms were always worse at the time of her monthly periods, indeed not infrequently on the first day of the flow she was obliged to keep her bed on account of the violent beating of the heart.

In 1[illegible] she became pregnant; for the first part of the pregnancy she remained in her usual health, but towards the end of the fourth month the palpitation and breathlessness became much more marked. In due course she was delivered, and after the birth of the child the symptoms rapidly abated.

Between 1[illegible] and 1[illegible] she became pregnant three times, in each of these pregnancies the same course of events occurred, but with each succeeding gestation the exacerbation of the symptoms appeared earlier and was more severe.

In 1[illegible] enlargement of the neck and prominence of the eyeballs were noticed, and the patient came to St. Bartholomew's Hospital.

In 1[illegible] she again became pregnant, and on October 4th of that year was admitted as an in-patient under the care of Dr. Champneys. Previous to this there had been amenorrhœa for 3 months. On admission the pulse was 1[illegible], the cardiac impulse and pulsation of the carotids were very forcible, the eyes were prominent, and the thyroid was markedly enlarged. The hands were tremulous, but neither Von Graafe's nor Stellwag's sign was present. There was marked dyspnœa, so much so that at first it was difficult for the patient to lie down in bed. The physical characters of the uterus corresponded with a four months gestation. After ten days complete rest in bed she showed a decided improvement, and left the hospital much better in every way.

On February 4th, 1[illegible], in the eighth month of her pregnancy she returned, and her condition at this time was so grave that labour was at once induced. This procedure was followed by a prompt recovery, the improvement being marked within 24 hours. At the end of a fortnight she left the hospital, only to return again in November, 1[illegible], this time two and a half months pregnant. The symptoms were so severe as to call for the immediate emptying of the uterus, and therefore a tent was put into the cervix and abortion induced. The same rapid improvement followed.

In July, 1[illegible], she was again admitted, six weeks pregnant, at this time in a state of great distress, quite unable to lie down, and suffering intensely from the beating of the heart and throbbing of the arteries. The uterus was again emptied, and Dr. Champneys expressed the opinion that steps should be taken to prevent further pregnancies.

[illegible]

Mr. Harrison Cripps[9] [illegible] the Fallopian tubes on September 5th, 1[illegible]. The abdomen was opened in the middle line by an incision [illegible] in length situated midway between the symphysis pubis and the umbilicus. The left tube and broad ligament were then drawn up into the wound, a silk ligature passed by means of a pedicle needle through the two layers of the broad ligament immediately beneath the tube, and the tube ligatured near its [illegible] end, the right tube was then dealt with in a similar manner, excepting that the ligature was passed nearer to its uterine extremity. The patient made an uninterrupted recovery, and left the hospital on September 24th.

[illegible]

[illegible] readmitted on [illegible] and stated that after leaving the hospital she was [illegible] April [illegible] since last time the catamenia had been [illegible] the left tube [illegible]

where it had been previously ligatured the tube was completely divided, and the two ends separated by a distance of about ½ in. No trace of a ligature could be seen. The right tube was then drawn into the wound; it appeared in every way natural, there was no solution of continuity and no trace of the ligature. A loop of each tube in turn was drawn up into the wound, a ligature passed through the mesosalpinx between the two sides of the loop, and the whole tied as a pedicle with a Staffordshire knot. The knuckle of tube in the distal side of the ligature was cut away. The abdominal wound was then closed. The recovery was uninterrupted.

[illegible]

In January, 1901, the patient was again admitted suffering from an incomplete abortion. The cervix was dilated and the uterine cavity explored with the finger. Portions of placenta were removed.

Cases of pregnancy after ligature of the Fallopian tubes have been from time to time reported, and the following instances throw some light upon the method of passage of the ova along tubes whose lumina have been apparently occluded:

A case is reported by Horrocks[1] in which a patient had been sterilised after Cæsarean section by ligaturing the Fallopian tubes. In spite of this she became pregnant again, and the uterus ruptured along the line of incision when near full term, the child and a portion of the placenta escaping into the abdomen. Dr. Galabin removed the uterus, and the specimen is now in the Guy's Hospital Museum. The ligature on one side had cut through the tube, and the severed ends lay about half an inch apart. On the other side the tube and ligature looked as if the tying had only just been done, but on experimenting it was impossible to force a coloured liquid through the tube. Still, it was thought that in all probability the ovum, which had become impregnated, had got past the constriction produced by the ligature, and had so entered the uterus."

Galabin[2] reports a case in which, after performing Cæsarean section, he tied the tubes with kangaroo tendon, and the patient became pregnant again within a year or so.

Taught by the experience of these cases, he continues, I have since then adopted the plan of cutting a piece out of the tube between the two ligatures, then pulling out the stump on each side as far as possible and cutting it off, so that the open lumen was left at the bottom of an inverted case of cellular tissue. None of the patients so treated have become pregnant again, and I am inclined to regard this as a reliable method.

That removal of portions of the tube wall alone, however, is not a reliable method is shown by the case we have just recorded.

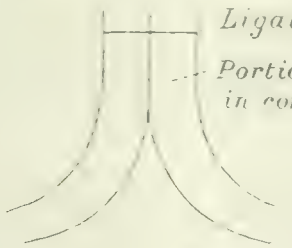


Fig. 1.

Doran has suggested that the ligature may perhaps ulcerate through the tube, which then heals behind it without causing stricture of its canal. It is well known that sometimes a ligature which has been applied to the cut end of the ureter after nephrectomy, may subsequently be passed from the bladder, and the following case shows that the same thing is possible in a Fallopian tube.

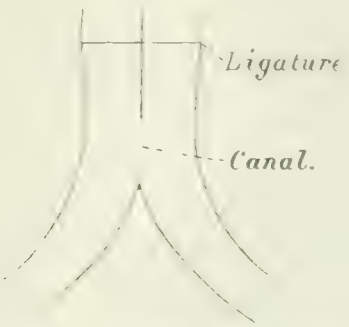


Fig. 2.

In 1898 Bland-Sutton removed an ovarian cyst, its slender pedicle was tied with thin silk, the recovery was uneventful, but for many weeks afterwards the patient complained of cramp-like pains on the side from which the cyst had been removed. The pains gradually passed away and ten months later, during menstruation, the patient accidentally noticed on her napkin a tiny loop of silk. This proved to be the loop of silk used to secure the Fallopian tube; it had descended into the tube, and had been very slowly conducted into the uterus, and so escaped.

The occurrence of pregnancy after removal of portions of the tubes is more difficult to understand. It can hardly be that the severed ends of the tube have become reunited, and the canal again patent; but it is possible that a process of absorption may have occurred in the walls of those parts of the tube which were in contact with one another. The process ultimately leading to the formation of a fistula between the two portions, so that the continuity of the canal once again becomes established.

There is another point of both clinical and pathological importance to be noticed; in all the cases quoted the lumen was either completely obstructed or narrowed—in Horrocks's case coloured fluid could not be made to pass the obstruction—yet in none of them was the subsequent pregnancy a tubal one.

These two cases taken together may perhaps add something to our knowledge of the causation of tubal gestation. In Case I we have an instance of tubal gestation with external migration of the ovum, but with no occlusion of the lumen of the tube; in Case II the lumen of the tube on one side was completely obliterated, and on the other must have been considerably narrowed, but the pregnancy was uterine.

We wish to tender our thanks to Dr. Champneys for permission to mention these cases.

References.

[1] Baldwin, *Amer. Jour. Obstet.*, December, 1902. [2] Ueberzählige Eierstöcke *Arch. f. Gyn.*, 1[illegible]. [3] *Obs. Soc. Trans.*, 1902, page 231 et. seq. [4] [illegible] Woch., 1901. [5] *Obstetrics*, page 74. [6] "Ueber Extrauterinschwangerschaft Volkmann's Sammlung Klin. Vorträge, N. F., 1899, Nos. 244, 245. [7] *Operative Gynæcology*, vol. ii, 189[illegible]. [8] *Obstetrics*, page 560. [9] "Ueber die Ursachen der Ausbildung des Eies im Eileiter, *Zeit. f. Geb. und Gyn.*, 1890. [10] Zur Kenntniss und Behandlung der Tubaschwangerschaften, *Monats. f. Geb. und Gyn.*, 1897. [11] *Obs. Soc. Trans.*, 1902, page 241. [12] Ibid, 1902, page 240.

ON VENTRIFIXATION OF THE UTERUS.

By W. J. SINCLAIR, M.D.Aberd.,

Professor of Obstetrics and Gynaecology, Victoria University of Manchester.

In a large proportion of the cases of old standing chronic backward displacement of the uterus our ordinary methods of treatment do not give satisfactory results. When the body of the uterus has become considerably enlarged after backward displacement, or when even the slighter tubal and ovarian complications exist, what could be expected from more or less forcible turning forward of the body, and the insertion of a pessary, in the consulting room? There is an element of levity in this method of dealing with a flexion producing symptoms.

When the patient is persuaded to take to bed, and remain as long as if she had to undergo an important operation, some good can usually be done. The congestion of the body of the uterus can be relieved by tampons and douches, the amount of relief being measured by the diminution of the tenderness to touch and certain changes in the visible portion of the uterus. When the uterus has been restored by tampons almost or altogether to its normal position, then is the time for the introduction of a pessary. In some uncertain proportion of even old chronic cases this treatment gives sufficient relief to satisfy the patient, and a small number of cases are actually cured in time. As a general rule it may be stated that the older the patient the more suitable the palliative treatment.

But in married women at the child-bearing time of life, and in many single women who cannot, or will not, lead restful lives, the treatment by mechanical support is unsatisfactory in many ways; and something more must be done.

Schultze's process may be dismissed with a word or two. It has never done positive harm to any patient of mine as far as I know, but upon the whole it has given no satisfaction.

Schücking's operation and similar timid and dangerous proceedings I have never tried, and never will.

Alexander's operation of shortening the round ligaments obtained great favour for many years, and still holds its place as a valuable method of treatment in a certain limited class of cases. The eagerness with which it was adopted by gynaecologists throughout the world was a fair measure of the universal dissatisfaction with the mechanical treatment of displacements of the uterus. We may also now consider

the number and variety of the recent modifications of Alexander's operation as a fair indication of the disappointment of operators who have applied it without sufficient discrimination as to its limitations. For my own part, after operating on 45 cases I abandoned the method of treatment altogether, as the result of certain experiences, to detail which would be too much of digression considering my present object. In one case I could not find the round ligament at all on one side; that of course would be explained by my ignorance of anatomy. In another case the ligaments were pulled out of their sockets, as it were, at six months' pregnancy, and the patient had complete prolapse after her confinement. My troubles suggested to my mind serious objections to the operation in private practice, owing to an element of uncertainty as to the possibility of its satisfactory completion.

The modifications of Alexander's operation which have been most pressed upon the attention of gynaecologists appear to have all the weaknesses of the original operation, or to be more extensive and presumably more dangerous than ventrifixation. This objection attaches, for example, to the proceeding of opening the vagina behind the uterus in order to break down adhesions before dealing with the round ligaments, themselves also probably involved in the inflammation which produced the adhesions. And the objection on account of its formidable character applies to Goldspohn's modification which involves all the details of abdominal section with two wounds instead of one as in ventrifixation. The formidable array of modifications involving hooking and turning and twisting of the ligaments from a wound in the vagina either in front of or behind the uterus, or by means of more or less formidable wounds in the inguinal regions, seem hardly worthy of serious attention, at least from the practical therapeutic point of view.

The operation of ventrifixation appears to me to be the best for the treatment of chronic retroflexion of the uterus in women at the child-bearing time of life. It was suggested, I believe, by Olshausen in 1886, when he fixed the uterus very slightly as an incident in an operation undertaken owing to other indications than displacement. The operation has been much practised with a defective technique in Germany, and, what implies much in its favour, it has been taken up in France, on its merits, although originating in Germany.

My first operation was done in September, 1890, and I have gradually evolved a method of operating which has fulfilled all my hopes and expectations. As an operation of choice it had to comply with certain requirements or to stand condemned on its demerits. It does not seem to me to deserve condemnation. The tests which such an operation must stand appeared to me to be (1) it must be devoid of danger when the ordinary care is exercised; (2) it must be easy to perform and the operator must know in recommending it to a patient that he can undertake it with absolute certainty of being able to finish it as planned; (3) it must relieve the symptoms which it was undertaken in order to relieve; (4) it must not produce any new symptoms that will even remind the patient for any considerable time that she has undergone an operation; (5) it must leave the patient free from any danger and permanently in a condition for active exertion and for all the duties of life indistinguishable from her original normal state of health; (6) it must stand the strain of pregnancy and parturition and the puerperium, as if the operation had never been done; and (7) the uterus must afterwards continue to maintain the position it was placed in by the operation. An operation which complies with all these conditions has many merits, whatever *a priori* objections may be raised by armchair gynaecologists, or whatever may be the terms employed to unduly condemn an operation labelled "ventrifixation" by those who have met with the unfortunate experiences which were only to be expected from a defective method of operating.

In order to obtain the desired results certain principles must be kept in mind and complied with in every case. In the first place the [illegible] must be [illegible], so that if pregnancy occurs it will run a perfectly normal course. Some time ago, in a discussion on Alexander's operation at a meeting of a gynaecological society, I expressed this opinion, and was hardly surprised at the shout of derisive laughter with which the statement was received. However, the confidence derived from long experience of the operation was not likely to be shaken by the adverse opinion of men who obviously did not know the essentials of an efficient operation, or who accepted as applied defective surgical methods without criticism and without endeavouring to account to themselves for their failures.

Another important point is to effect complete and permanent adhesion of a sufficient area of the anterior surface of the uterus to the abdominal wall. The ideal ventrifixation is that which results from Caesarean section, when the wound is longitudinal, involving about the middle third of the uterus, and complete adhesion takes place between the uterine and abdominal wounds. In these cases when pregnancy occurs again as I have known it to do repeatedly there are absolutely no abnormal symptoms, either functional or mechanical, and the operation may be repeated almost or altogether without opening the peritoneum. I have only once had occasion, apart from Caesarean section, to open the abdomen in a patient who had undergone ventrifixation in the manner which I am advocating, and I took the opportunity of examining the relation of the uterus to the abdominal wall. The uterus appeared to be completely incorporated with the anterior parietes in its middle third, and yet the patient had never experienced any unpleasant symptom referable to the uterus or bladder during the years that had elapsed since the operation. If this can be true in one case, why not in all? Firm attachment is not in itself troublesome or dangerous.

Before going into the details of the operation, let us consider what we should avoid. We can, perhaps, best do this by looking at the descriptions of the operation in some of the manuals and textbooks to which beginners in abdominal surgery naturally look for guidance.

Dr. Howard A. Kelly's method of operating has been much followed by gynaecologists abroad, and to some extent, I believe, in this country but it is extremely faulty in several respects. The introduction of sutures "through the posterior surface of the uterus" should be in itself sufficient to condemn it. In what respect is it better than that worst of all important operations practised on women at the child-bearing time of life, vagino-fixation, to wit? The operation is suspension of the uterus, not fixation; and to the extent to which it fails, owing to stretching of the adhesions, it benefits the patient only by relieving the fundus from its misplaced attachment, while perhaps it adds to her danger from ileus owing to the presence of adhesion strings or bands between the fundus and the abdominal wound. No wonder that a large proportion of Dr. Kelly's patients who became pregnant experienced suffering from abnormalities. But suspension injuriously affects all cases, whether pregnancy occurs or not. It causes dragging upwards of the uterus instead of supporting it, prevents it from firmly contracting, and makes it into an atonic bag, with resulting menstrual anomalies and troubles.

This is the operation of which Dr. Clarence Webster of Chicago says in his textbook, it "may be recommended." I have looked through most of the American manuals of gynaecology, and it may be stated generally that the authors follow Kelly, or do worse. Dr. E. C. Dudley of Chicago, whose work is deservedly held in high esteem in the United States, "uses two formaldehyde catgut sutures, one on each side of the posterior wall of the corpus uteri."

Among the books which are read for guidance in England is *Diseases of Women*, by Dr. G. E. Herman. If I understand the author's meaning in the paragraph headed "How to Perform Ventral Fixation," I must say, with deep regret, that I regard his method as defective and faulty in almost every detail, even down to the "blunt" volsella. The first suture is made to enter close to the Fallopian tube; the muscle, not the peritoneum, is depended upon for adhesion and suspension of the uterus; catgut is the material employed to fix the fundus in the wound, and a silk thread is inserted still further back. Silk sutures passing through the skin and uterus are allowed to remain *in situ* for eight days. The patient is kept in bed only a fortnight.

The defects of the operation, described by Sutton and Giles are in the material "fishing gut," which is referred to as if it stood on the same level of suitability with silk, and in the fewness of sutures. The operation may be completed with one suture through the uterus and peritoneum only. "If desirable two or more sutures may be introduced."

Exercising such judgement as I am capable of, I cannot see why such operations should be designated ventral fixation, or why they should ever be expected to give more than temporary relief from the symptoms due to retroflexion.

The operation, which was performed by Lavoyenne, of Lyons, complied with all the requirements necessary to

confer permanent benefit. Instead of using the volsella in the fundus to steady and manipulate the uterus, Laroyenne employed a stem in the uterine canal, which was manipulated by an assistant, a detail of the technique, with obvious disadvantages. But the operation produced permanent adhesion of the uterus to the parietes above the bladder.

Some of the German operations appear to be worthy of imitation with modifications. Olshausen's method is defective in as far as it fixes in the wound the cornua of the uterus. The method associated with the names of Leopold and Sippel appears to be a good operation, but it is not even mentioned by Küstner, who writes the chapters on malpositions of the uterus in Veit's *Handbuch der Gynäkologie*. Küstner makes much of the "*Beweglichkeit*" of the uterus as a condition necessary for success, but the need for mobility is a pure *a priori* assumption. He cannot find a shred of support for his objections in the practice of any one who does an efficient operation, producing firm "fixation."

In performing the operation of ventrifixation I have discarded all suture material except catgut and the finest silk thread which can be conveniently manipulated. At first I used to try to close completely the vesico-uterine fold, but now for years I have introduced for this purpose only two catgut sutures, one at each side, well below the lowest point of the abdominal wound, while the uterus is firmly pulled upwards by means of an ordinary volsella inserted in the centre of the fundus and manipulated by an assistant. This is quite sufficient practically to close the fold without interfering with the distension of the bladder, and it is more of a preventive to any possible insinuation of intestine than shortening of the round ligaments, to the extent practised by most operators, can be. The next step is to suture the peritoneum at the edge of the wound on each side. The fine silk sutures are introduced from the outside surface of the parietal peritoneum, passed through the peritoneum, and after taking a good hold of the uterus low down and near its margin, they are brought back through the peritoneum and firmly tied. The knot is thus always extraperitoneal. Two of such sutures are, as a rule, introduced on each side. The same process is now continued, with the addition that the sutures include the fascia as well as the peritoneum on each side. The transverse sutures are next introduced. These are two or three in number, consist of fine silk, and include fascia and peritoneum at the sides, and each takes a fairly extensive hold of the anterior surface of the uterus. The highest of the sutures is placed about half-way up from the isthmus to the fundus. In complicated cases, and when the prospect of pregnancy is very remote, the sutures have been placed occasionally a little higher, though not often. All the sutures that penetrate to any part of the uterine tissue are buried sutures at the finish; or if any suture includes skin as well, it is never left for more than three days, usually only forty-eight hours. There must never be suppuration in the track of this suture. The highest transverse suture should always be buried. The abdominal wound is closed in the usual way, and it is an advantage to suture separately the edges of the fascia with catgut. The last step in every case is the introduction of a glycerine-pad pessary into the vagina to press forward and support the uterus during the formation of adhesions. The patients are kept in bed for a month or six weeks, and they are advised to lead invalid lives for several months.

There is hardly ever the slightest reaction after operation in simple cases. The pulse and temperature remain normal. No case has given rise to even momentary anxiety.

This operation has stood the tests of efficiency already mentioned in nearly one hundred cases. The details of these cases I hope to find an opportunity of publishing before long. Many of the operations have been done on account of prolapse of the uterus in comparatively young women, but I do not propose to complicate matters by considering the treatment of prolapse on the present occasion.

In only one case has the treatment of ventrifixation been alleged to have failed. The medical practitioner, who sent the case to the Southern Hospital, when applied to a year or so after for information returned a discourteous reply, alleging that the operation was a failure; but he has given no information, and he has never complied with the request for the address of the patient, so that the details of the after-history could be obtained. The patient was perfectly well when she left the hospital.

A considerable proportion of the patients have borne one or more children since the operation. There have been some abortions and one or two cases of malpresentation, but not, I believe, to an extent greater than might be expected among the same class of women, apart altogether from operations. The after-history of every private patient has left nothing to be desired.

Sometimes there has been some bladder discomfort for a time, but it is remarkable how seldom any complaint is made even temporarily.

Efforts have been made to get at the present state of health of the patients, but it is often difficult or impossible to trace them and obtain information. As far as I can learn, there has been no case of relapse, even after labour. In one woman of the poorest apathetic class, ventral hernia has occurred owing to premature hard work and leaving off her abdominal belt.

I have entire confidence in the future of ventrifixation if an efficient method of operating is generally adopted, while joining in the condemnation of ventral suspension of the uterus, designated improperly by so many operators as ventral fixation.

A WARNING SIGN OF DANGER TO THE CHILD DURING LABOUR.*

By FREDERIC E. DANIEL, M.R.C.S., L.R.C.P.,
Honorary Secretary, Furness Division of the North Lancashire and South Westmorland Branch of the British Medical Association.

In an ordinary breech presentation, after the birth of the body, there is generally some delay, especially in a primipara, before the head follows. During this time a certain amount of compression of the cord is inevitable, and, if this is prolonged too much, the child's life is threatened from deficient aëration of the blood. While the child is in this position the practitioner is generally cognizant of any attempts it makes at respiration. In fact, the movements of the child are the only indications that we have that the cord is being compressed.

Now, I believe it is not very generally known that during the second stage of labour in an instrumental case with the head presenting, when from any cause the placental circulation is interrupted, the same movement can be felt by the surgeon, communicated through the handles of the forceps. This movement is an indication of a pressing desire on the part of the child to breathe, and can only be brought about by interruption to the free circulation through the umbilical cord. It is quite different to an ordinary kick, and is distinctly characteristic of an inspiratory effort.

Cases.

Before describing it further I will briefly narrate four illustrative cases that have occurred in my practice since February, 1902. I had during that year a run of bad luck, and was unfortunate enough to lose four firstborn children, all of fairly well-to-do people, who had looked forward with lively satisfaction to becoming parents. The mothers were all primiparae, and the four children were fine, healthy, well-developed babies, and at the commencement of labour were undoubtedly alive and, literally, kicking, yet were all from an unavoidable cause stillborn.

Case 1.

The patient was about 34 years of age. The presentation was normal, and everything promised well, and the mother was told that everything was straightforward. All went well until the full dilatation of the os, when progress stopped, though pains continued regularly. After waiting some time, I administered chloroform and applied the forceps. Dilatation was slow, and a good deal of traction during the pains was necessary. Before the head reached the perineum, during the intervals between several pains, I noticed that I could feel a fetal movement through the handles of the forceps. It was quite different to the ordinary kick, and I am sure it was not the first time I had felt it, but it occurred to me for the first time that it might be caused by the child attempting to take an inspiration. This was repeated several times, and eventually ceased.

It was an hour or more before I was able to deliver the child, as the perineum was very rigid, and required a great amount of patience; but delivery was effected without any rupture. Unfortunately, however, the child was dead. The umbilical cord was round the neck, and in a state of great tension, and I was unable to get it over the head, and was obliged to ligature it where it was, and divide, before extracting the body. I, of course, adopted the usual resuscitating methods, but they were of no avail. I had not, however, much expectation of being able to resuscitate, as the pulsation of the heart had clearly stopped. Now the mother had felt the child strongly up to the time of administering chloroform, so that there was no doubt that it had died during the second stage of labour. On thinking the matter over, I came to the con-

* Read at a meeting of the Division.

cession that the cause of death was stoppage of the circulation through the umbilical cord and consequent asphyxiation. In order to verify this I measured the cord, and found that it was [illegible] long. I then measured the distance from the child's navel, round the neck, and back again to the navel, and found that it too equalled the length, only allowing for downward travel. In point of fact the child was tethered to the cord to the wall of the uterus, and even a slight amount of traction would be sufficient to stop the circulation through the cord. Further, it seemed probable to me that the death of the child occurred at or about the time that I felt the peculiar movement communicated to my hand through the handles of the forceps.

CASE II.

The patient was [illegible] primipara, about [illegible] years of age. The presentation was right occipito-anterior and there was sufficient pelvic space. All went well till the os was fully dilated and the head began to descend. On beginning the pains it seemed to be arrested at any rate, there was no progress for some time, and the forceps were applied. The succeeding stages were somewhat prolonged, as the soft parts dilated slowly, and I experienced the same movement as I described that I have noted in the preceding case. At the time I wondered whether it had any real significance, or whether I had imagined the connexion between it and the death of the child; on that account I noticed most particularly the character of the movement. On delivery of the head I found the cord twice round the neck of the child. I had no difficulty in passing it over the head before extracting the body, which showed no signs of life, the respirations having ceased, and, though I tried hard and persevered long, I could not bring it round. The child in this instance was [illegible].

The fact that I had clearly felt what I will call "the inspiratory movement" during the second stage of labour, and that the child was found on delivery to be dead, considerably strengthened my view that I had formed a correct conclusion as to the cause of death in the first case related.

CASE III.

This patient was the wife of a small tradesman also a primipara, aged about [illegible] a fine strapping young woman with whom I had a most satisfactory labour. The presentation was face to pubes, and was [illegible] when the beginning. I was with the woman the greater part of a day, and had great difficulty to conceal my fears. At the time I felt most distinctly and strongly the inspiratory movement communicated to the handles of the forceps, and this time I knew the explanation to be, the knowledge that the probability was that the child could not survive. As I expected, the child was dead but to my surprise the cord was not round the neck. I omitted to measure the cord in this case but the length was ample, it had not been wrapped in any loops round the neck of the child.

CASE IV.

The patient was a healthy [illegible] primipara, and all seemed straightforward but progress was very slow and, as the patient was getting exhausted and the pains were becoming ineffectual, I decided to expedite matters with the forceps. I did not have more difficulty than is quite usual with primipara. During the descent of the head I again noticed distinctly the inspiratory movement, and took the precaution to suspect the presence of danger to the child. I found on delivery as I anticipated, that the head's action had ceased and the child could not be resuscitated. In this case the cord was [illegible] round the neck. I do not think that there could have been any connexion between the cord in this case and the cause of death, as not quite so much time elapsed between the beginning of the pains and the delivery of the head as in the other cases. Though in my opinion the bearing of the [illegible] cord round the child being born dead points to the fact that the child had ceased to receive its supply of oxygen through the cord from the time that the head [illegible] and the [illegible] commenced to be exerted on the descent of the head. The [illegible] cord was [illegible] round the neck of the child, and I have the [illegible] and the more purely voluntary muscles of respiration are [illegible] and the result is a full breath followed by a cry. In the latter case the chain of events is entirely different. The child, when [illegible] has perhaps been struggling for [illegible] hours, its supply of oxygen diminished to the contracting uterus operating to a certain extent, the [illegible] circulation in the placenta or [illegible] a child [illegible] tightly round the neck. The child attempts to breathe while still in the uterus and [illegible] liquor amnii into the air-passages, [illegible] and [illegible] it to be quite possible for the [illegible] to pass into death, but in the majority of instances the child is born, and measures are taken to restore life. The first inspirations are purely diaphragmatic, and of spasmodic character. As the child is unconscious the voluntary muscles are quite inactive. This may easily be verified by noticing that the sternum and ribs, instead of expanding are actually drawn in, until the voluntary muscles come into play, and the respirations become more complete. I do not mean to infer that the diaphragm is an involuntary muscle, but I am of the opinion that its action in the case under consideration is more automatic than the intercostals, pectorals, etc.

I wish to lay particular stress on the fact that these first diaphragmatic contractions have a characteristic peculiarity in being duplicated, and that this peculiarity is capable of being recognized by touch. It is sudden and spasmodic, and is easily communicated to the head of the child, and through it to the forceps, if they happen to be embracing the head. We often feel a movement of the child communicated through the forceps: it may be a kick; but such movements are quite distinct from that which accompanies an attempt to breathe.

If immediate delivery is impracticable the movement is repeated, strongly at first and with short intervals, which gradually become longer and the movement weaker, until it finally ceases with the death of the child. In objection to my conclusions it may be said:

(*a*) That the child was dead before labour began. In answer to this: with the exception of Case I, where I had the absolute assurance of an intelligent patient that the baby was living, I satisfied myself in each case that the child was alive, and I must ask you to trust to my personal observation.

(*b*) That the child died from causes other than interruption of the umbilical circulation for example, too continuous pressure on the child's head or unjustifiable traction on the head. This objection alleges incompetence on the part of the accoucheur. I think I am not below the average in manipulative skill; I have had nearly a quarter of a century's experience in midwifery; I have delivered many hundreds of patients with forceps, with safety to mother and child; I never tie the handles of the forceps tightly together, as I have seen done sometimes, and I always conduct labours with great patience.

(*c*) That the movement is not characteristic enough to be always recognized. This I emphatically deny. I affirm that the movement is absolutely characteristic, but, from the nature of the case, I can only convince you by asking you to refer to your own experience and to be on the look-out for cases in your own practices, and I have no doubt that you will agree with me. Further, I have very little doubt that the majority of those present are familiar with the movement, and I shall be interested to know whether they appreciate its significance.

NATURE OF THE MOVEMENT.

I will now try to describe more particularly the movement I have referred to in the foregoing cases, and to which I attach much importance as a warning sign of great value. It will generally be noticed that the first efforts of respiration are what may be called double or duplicated movements; that is to say are repeated twice in quick succession. I have repeatedly noticed that the first efforts of respiration [illegible] succeeding to each other in a normal manner, and there is no interruption to its supply of oxygen [illegible] it has to take its first breath or even if it is born in a condition of [illegible] asphyxia. In the former case the child is [illegible], and [illegible] the diaphragm, and the more purely voluntary muscles of respiration are [illegible] and the result is a full breath followed by a cry. In the latter case the chain of events is entirely different. The child, when [illegible] has perhaps been struggling for the [illegible] hours, its supply of oxygen diminished to the contracting uterus operating to a certain extent, the [illegible] circulation in the placenta or [illegible] a child [illegible] tightly round the neck. The child attempts to breathe while still in the uterus and [illegible] liquor amnii into the air-passages, [illegible] and [illegible] it to be quite possible for the [illegible] to pass into death, but in the majority of instances the child is born, and measures are taken to restore life. The first inspirations are purely diaphragmatic, and of spasmodic character. As the child is unconscious the voluntary muscles are quite inactive. This may easily be verified by noticing that the sternum and ribs, instead of expanding are actually drawn in, until the voluntary muscles come into play, and the respirations become more complete. I do not mean to infer that the diaphragm is an involuntary muscle, but I am of the opinion that its action in the case under consideration is more automatic than the intercostals, pectorals, etc.

I wish to lay particular stress on the fact that these first diaphragmatic contractions have a characteristic peculiarity in being duplicated, and that this peculiarity is capable of being recognized by touch. It is sudden and spasmodic, and is easily communicated to the head of the child, and through it to the forceps, if they happen to be embracing the head. We often feel a movement of the child communicated through the forceps: it may be a kick; but such movements are quite distinct from that which accompanies an attempt to breathe.

If immediate delivery is impracticable the movement is repeated, strongly at first and with short intervals, which gradually become longer and the movement weaker, until it finally ceases with the death of the child. In objection to my conclusions it may be said:

(*a*) That the child was dead before labour began. In answer to this: with the exception of Case I, where I had the absolute assurance of an intelligent patient that the baby was living, I satisfied myself in each case that the child was alive, and I must ask you to trust to my personal observation.

(*b*) That the child died from causes other than interruption of the umbilical circulation for example, too continuous pressure on the child's head or unjustifiable traction on the head. This objection alleges incompetence on the part of the accoucheur. I think I am not below the average in manipulative skill; I have had nearly a quarter of a century's experience in midwifery; I have delivered many hundreds of patients with forceps, with safety to mother and child; I never tie the handles of the forceps tightly together, as I have seen done sometimes, and I always conduct labours with great patience.

(*c*) That the movement is not characteristic enough to be always recognized. This I emphatically deny. I affirm that the movement is absolutely characteristic, but, from the nature of the case, I can only convince you by asking you to refer to your own experience and to be on the look-out for cases in your own practices, and I have no doubt that you will agree with me. Further, I have very little doubt that the majority of those present are familiar with the movement, and I shall be interested to know whether they appreciate its significance.

TREATMENT.

I now come to the most important consideration, What is to be done? If the patient is a multipara the answer is easy. Hurry on the delivery and you will in all probability be able to resuscitate the child. If a primipara (as all my cases have been) the matter is very different. In a great number of cases it would be a physical impossibility to do this without rupturing the perineum. Are we justified in doing this? In the cases related it was not until the expiration of from half an hour to an hour and a-half after the death of the child that I was able sufficiently dilate the soft parts to effect delivery without any rupture.

It might be possible to introduce the hand, and ascertain whether the cord was round the child's neck, and to liberate it. But, in the first place, it might even then be too late, and in the second, there would be the practical certainty of producing a prolapse of the funis. This might be avoided by placing the patient in the knee-chest position, but it would not be very practicable if she was under the influence of an anæsthetic.

It seems that the main indication is to deliver as speedily as possible, even at the risk of a moderate amount of perineal rupture, though I should prefer to sacrifice the child to producing a very extensive rupture. At the same time we must not lose the opportunity of preparing the patient's friends for the disappointment involved in the baby being born dead.

In the discussion which followed, the paper was subjected to much hostile criticism; the senior members especially being very sceptical about the possibility of any movement of the child sufficient to communicate itself to the handles of the forceps taking place while the head is wedged in the maternal passages. In reply, I pointed out that the movement I had described could only be felt during an interval between two pains, when the head always receded slightly; and that the presenting vertex being more or less wedge-shaped, such recession must of necessity involve a certain amount of freedom of movement, not very much, certainly, but quite sufficient for vibration to be felt, and even enough to cause visible movement of the handles, as I have myself seen.

One member suggested that the best plan for dealing with such a contingency, assuming that it was possible to tell that the child was in danger, which he was not at present prepared to admit, was, to turn.

Since reading the paper, I have received the following interesting letter from a member who was not at the meeting:

Dear Dr Daniel. At the last meeting of the British Medical Association in your Division, I am told by Dr Barling that you read a paper on A Point in Obstetrics; the point being a certain movement of the handles of the applied forceps caused by convulsive efforts at respiration by the still unborn child. The indication, I understand you made out, was for rapid delivery to avoid suffocation of the child, as the convulsive movements were evidently a sign of obstruction of the placental circulation. I am writing to you because of a case which I attended last month, in which, having applied forceps in a primipara, having had them on for five or ten minutes, I noticed the handles (I used axis-traction forceps) give two distinct movements forwards to the pubes and back again. I at once thought of what Dr. Barling had told me about your paper, and decided that if there were anything in it, I had better deliver at once—which I did, not sparing the perineum. In the result it was most fortunate I did so, because on delivery the child was not breathing, was black in the face, and the cord was twisted over the shoulders. It took me nearly five minutes to bring the child round by artificial respiration.

I must acknowledge myself much indebted to you for your hint, and think you will be interested in this case. I had never noticed the movement before, or if so, had paid no attention to it.

I am, yours sincerely,

Jas. A. Gibson.

Addendum.

On February 21st, 1904, I had a most instructive experience, this time with a multipara.

I had been sent for a month previous to the confinement for prolapse of the cervix. I found an enlarged and oedematous cervix protruding from the vulva about the size of a small orange. I replaced it, and advised patient to keep in the recumbent position during the remainder of the pregnancy. There was a history of a ruptured perineum at the first confinement.

I was sent for again on the above date and told that labour had commenced, and on examination found the abdomen enormously distended, a widely dilated os, and the membranes protruding. I could not make out the presentation, as I was unable to reach any part of the fetus with my finger; so ruptured the membranes, when a very large amount of liquor amnii escaped, and with it, unfortunately, a loop of the funis. I now found that the vertex presented, with the face anteriorly, the os was drawn very much forward and embraced the head, nipping the cord. I quickly applied the long forceps, though with some difficulty, owing to the position of the head, which was lodged above and almost in front of the os pubis; and though I apparently got them satisfactorily in position, I could not have done so, as when I applied traction, I felt them slipping. I should have said that I attempted to replace the funis as soon as it came down, but, as will be understood by those who have met with these cases, with no success. As the forceps seemed inclined to slip, and as there was no time to be lost, I quickly decided to turn. But, while the forceps had been partly embracing the head, the convulsive movements on the part of the child were most plainly to be seen and felt.

After sterilizing and introducing my hand I with some trouble brought down a leg. While my hand was in the uterus I could feel the child gasping for breath, and if confirmation were wanted as to the cause of the movement felt through the forceps, here it was.

I delivered the body and shoulders without much trouble, but it was a long time before I effected delivery of the head. The cause of the delay was afterwards apparent in a large hydrocephalic head. The child was, of course, dead.

This case proves beyond the possibility of a doubt that the gasping of a child for air occurs *in utero*, that it is caused by the suspension of the supply of aërated blood, and that it can be felt by the practitioner through the forceps.

South African Lepers.—It is stated that the possibility of removing the leper settlement from Robben Island to the mainland, and of some relaxation of the regulations at present in force with regard to leprosy, is under the consideration of the Cape Government.

CLINICAL NOTES ON THE USE OF BOSSI'S DILATOR.

By W. B. ARMSTRONG, M.B., C.M.,
Kirkintilloch.

During the past year I have on several occasions made use of Bossi's dilator. The ease, safety, and rapidity with which the cervix can be dilated by it give me confidence in recommending its use to the medical profession. There is no doubt that the instrument can be misused, but the same may also be said of the use of forceps. The method adopted by me is as follows: Chloroform is administered to its full surgical extent, and the patient placed in the left lateral position.

If the os be only slightly dilated the cervix is carefully pulled downwards with vulsellum forceps and the dilator, with the sheaths removed from the points, is introduced with a gentle screwing motion. Dilatation is begun and gradually maintained until the os is the size of half-a-crown. The dilator is withdrawn and reintroduced with the sheaths adjusted to the points. Dilatation is very gradually continued, the blades are frequently relaxed and their position changed circularly so that all parts are uniformly pressed upon. When the os is fairly well dilated the finger is used to assist in the dilatation. It is well to remember that the index of the instrument gives only very approximately the amount of the dilatation. When dilatation is complete the membranes are ruptured and the child delivered in whatever manner is indicated.

The following cases, which under ordinary circumstances would have been, to say the least, worrying ones, will illustrate the use of Bossi's dilator.

Case I.

Mrs. A., aged 30, a multipara, and pregnant a little over eight months. The membranes had ruptured some hours before I was called. There were no pains. On examination the cervix was found to be soft and patulous, it was dilated to the size of half a-crown and the vertex was presenting. The patient was tired and nervous, and in a weak condition generally. I sent her to bed and gave an opiate, etc. In about ten hours I saw her again. The condition had not improved, the pulse was quick, and the patient showed signs of collapse. I determined to deliver at once. Chloroform was administered, and the os gradually dilated with Bossi's dilator, the dilatation taking fully twenty minutes, then by means of forceps the patient was delivered of a still-born child.

She made a perfect recovery, and on subsequent examination I found the cervix in a normal condition with, it is true, a slight laceration but nothing more than one would expect in any multipara who had been delivered several times with forceps.

Case II.

Miss B., aged 1[illegible]. Primipara. I was asked by Dr. W. T. Blakley to see this case in consultation. She had had four convulsive seizures in the three hours previous to my seeing her, and there was a history of albuminuria. The patient was in a very weak condition, the pulse was rapid, and there was a complaint of severe abdominal pain. The cervix was found to be in a softened condition, but there was only very slight dilatation.

We agreed that she should be delivered at once, and as Dr. Blakley was suffering from a dislocated thumb I was asked to operate. Chloroform was given, the cervix was pulled down with vulsellum forceps, and the bare points of the dilator introduced in a screwing fashion. There was considerable difficulty in the introduction of the dilator, and it was slowly accomplished. Very gradually and with great care, the parts being kept in view with the vulsellum, the cervix was dilated sufficiently to allow of the sheaths being put on to the points. Dilatation was continued until complete, the time taken being about an hour. The membranes were ruptured, and a full-time living child was delivered with forceps. The mother made a splendid recovery. There were no more eclamptic manifestations, and Dr. Blakley reports that the patient is in perfect health.

Case III.

Mrs. C., multipara. I was called to this case on account of her having labour pains accompanied with severe haemorrhage. I found that she had lost a great quantity of blood, she was pale and nervous and in great fear of the return of a pain with its accompanying haemorrhage. The cervix and surrounding parts were in a soft patulous condition, the os was dilated to about the size of a five-shilling piece and the placenta was presenting.

After giving chloroform I detached as much as possible of the placenta from the lower uterine segment, and, introducing the dilator, quickly dilated up to almost full extent. The membranes were then ruptured at the margin of the placenta, version was performed and a full-time living child delivered. The uterus contracted well and the placenta was expelled easily. The whole time occupied was about twenty minutes and the patient made an uninterrupted recovery. There was no laceration of the cervix.

Case IV.

Mrs. D——d, [illegible] nervous and hysterical patient, had been in labour some twenty-six hours when I saw her, the membranes having ruptured early. The os was dilated to the size of a shilling and the vertex was pressing on the pelvic floor. The patient complained of great pain and the uterine contractions were of little or no use as regards further dilatation.

I administered chloroform to a limited extent and waited for three hours. The condition did not improve and as the patient was worn out and in an exceedingly nervous state I pushed the chloroform gradually, dilated the os and, applying forceps, delivered her with difficulty of a large stillborn child. The patient made a splendid recovery.

A CASE OF TUBAL GESTATION:

PRIMARY INTRAPERITONEAL RUPTURE: OPERATION: RECOVERY.

By BRENNAN DYBALL, M.B., B.S., F.R.C.S.,
Exeter.

On November 18th, 1903, I received a message from Dr. Arthur Bird, of Sidmouth, asking me to come over at once to see a patient with him with a view to operation. On arrival I found the case to be as follows:

The patient, Mrs. M. M., was aged 42.

Family History.—No bearing on the case.

Previous History.—she had had three children and two miscarriages. Was strong and healthy up to 1902, when her second miscarriage occurred at Pietermaritzburg, and was followed by a slight attack of peritonitis, and apparently by some endometritis, as the uterus was soon afterwards curetted. **Her youngest child was 14 years old.**

Present Illness.—On November 17th, while at lunch, she was seized with sudden sharp abdominal pain, which speedily became very severe, was most marked in the lower half of the abdomen, and seemed to her like labour pains. **She went to bed, and as the pain continued sent for Dr. Bird, who found her rather pale, with normal temperature, and a** pulse of [illegible]; she complained of feeling sick and faint, but there had been no vomiting. Later in the evening Dr. Bird saw her again, and made a vaginal examination, without detecting anything abnormal, but **with a speculum a little blood-stained mucus was seen to be coming from the os. The patient complained of bearing-down pains, and again** said she felt as if in labour. It was then found that her last period had **occurred seven weeks previously. She was put on fluid diet, hot opium and belladonna fomentations were applied to the abdomen, and a** quarter of a grain injection of morphine was given on account of the pain. She passed a fair night, but the following day was found to be much **worse: very blanched, with small rapid pulse which could hardly be counted; the abdomen much distended, tympanitic above the umbilicus,** dull below and in the flanks. She was given an injection of one-twentieth of a grain of strychnine, and shortly afterwards one-quarter of a grain of morphine, and was then removed to the private ward of the Cottage Hospital. Dr. Bird having diagnosed internal haemorrhage probably due to a ruptured tubal pregnancy. (The above notes were kindly furnished me by Dr. Bird.)

Operation.—When I saw the patient at 4.30 p.m. her condition was **much as described above. There could be no doubt as to the correct**ness of the diagnosis, but the patient's condition was so bad that one feared she would not be able to stand an operation. Her lips were almost colourless, and her pulse could only just be felt, but not counted at the wrist. In the carotid it was made out to be 140. It was therefore determined to see if infusion would improve her condition, and two pints of normal saline with [illegible] and brandy [illegible] were thrown into the right median basilic vein, effecting an immediate and marked improvement. The pulse at the wrist being easily felt and counted afterwards, and its rate diminished somewhat. The patient's limbs were then enveloped in cotton wool and she was taken to the operating theatre, where A.C.E. was administered by Dr. Leon. With Dr. Bird assisting me, I opened the abdomen below the umbilicus by a median incision large enough to admit a hand, and found the [illegible] full of blood, which was scooped out in handfuls. While doing this the uterus could be felt pushed over well to the right of the median line. After removing all clots it was found that the [illegible] of the left Fallopian tube were enlarged, and were [illegible] The uterus was bleeding at the [illegible] The [illegible] were placed [illegible] and the tube and [illegible] were [illegible] and the [illegible] portion and the [illegible] which had stopped [illegible] were removed. The pelvis was [illegible] the [illegible] was closed in layers and a dressing of [illegible] and wool applied. No [illegible] was employed. [illegible] the tube removed, the abdominal [illegible] and a probe could be passed down it to [illegible]

[illegible] The patient's condition [illegible] the operation [illegible] and a [illegible] She was [illegible] back into bed, the foot [illegible] blankets, but [illegible] thought wise to [illegible] with [illegible] Although [illegible] had a [illegible] and [illegible] very fair [illegible] she passed a good night, and the next morning her pulse [illegible] and her general condition most satisfactory. Her recovery, thanks to the care of Dr. Bird, was uninterrupted, the incision healed by first intention, [illegible] he was able to get up a fortnight after the operation, and has now quite regained her usual good health.

TREATMENT OF PUERPERAL ECLAMPSIA BY A COMBINED METHOD.

By JOHN LITHGOW, M.D.,
Cleland.

Some time ago I had occasion to report two cases of puerperal eclampsia, in both of which the fits ceased after the delivery of the child, the women recovering, and in one of which the child also was saved. In that article I commented on the evident good results obtained by delivery of the child, and had resolved that my next case should at once be subjected to that treatment.[1]

On January 6th I had another and most severe case of this dreadful condition, which I venture to put on record for the following reasons—namely, the large number of fits which the girl suffered from; the method used to dilate the os in the operation of *accouchement forcé;* treatment adopted; and the presence of urea being demonstrated in the blood.

An unmarried woman, aged [illegible] years, sent for me by telephone message about 4 p.m. on January 5th. Being out visiting I did not see her till nearly [illegible] p.m., and was then informed she had taken six fits. I waited for a few minutes in order to ascertain the nature of the fits; another seizure soon confirmed my suspicion that they were eclampsia. I found she was about full term, the cervix being obliterated and the **head presenting. The os was felt as a depression, and as there were no** labour pains I proceeded to perform *accouchement forcé.* With difficulty I passed my forefinger through the os, and ruptured the membranes with a wire, but was unable to make further progress with my fingers. During this time she had another fit. **I drove home for my midwifery bag, etc., and on my return found that** she had had four more fits. Before proceeding to sterilize my instruments, I pressed a piece of lint saturated with a solution of cocaine through the os. The cocaine solution was made up by sprinkling a few grains of cocaine powder on the lint which was wet. I then tried to make out the fetal heart sounds and movements, but could get neither. **The patient was put under chloroform, which was administered by a** neighbour woman, then with a two pronged dilator (Stevenson's) with the greatest ease, I stretched the os that I could apply the forceps. The forceps applied, a few minutes sufficed to bring the head through the os. **There was more difficulty from this stage till the child was delivered, a fairly strong pull being required; altogether about thirty** minutes elapsed from the time I introduced the cocaine till the child was delivered, and during that time the patient had three fits, which, owing to the administration of chloroform, were not severe. The child—a full term, well formed male—was stillborn. There was no laceration of perineum or of os requiring attention. Before I left the house at 7.30 she had 3 more seizures, and from this time till my return again at 12 she had 16, altogether from the commencement at 4 p.m. till 12 p.m. she had 24 fits 1 before, during and 19 after delivery. It was evident that in this case something more than delivery of the child was required if the patient was to be saved. She had been unconscious for several hours. I thought that if there was any abnormal ingredient in the blood which was acting as a poison, the treatment now would be to remove that poison, and, if necessary, the blood. Fortunately I had my pocket case with me, which contained a saline injection needle, and having obtained permission, opened a vein in her arm, from which I allowed blood to flow till it ceased spontaneously—the quantity removed I did not measure, but it was considerable. Then with a Higginson's syringe I injected into the cellular tissue underneath the breast over two pints of normal saline solution. During the time I was there, till 1.30 a.m., she had six fits. From this till 3 a.m., when they ceased, she had twenty-nine seizures. She remained unconscious for two days. Owing to incontinence of urine, I was unable to obtain a specimen for testing till the second day, when I drew off some with a catheter; this showed presence of albumen, and also gave [illegible] gr. of urea to the oz. I tested a portion of the serum from the blood withdrawn, and found it contained 21 gr. of urea in the oz. For several days she complained of severe headache, ultimately making a good recovery and is now quite well.

In discussing this case I would desire to draw attention to

1. The survival of the patient after the extraordinary large number of eclamptic fits—altogether she had sixty-nine severe seizures. There was every condition present in this case to make the prognosis extremely grave. The fits appeared before labour had commenced, were violent, with short intervals, and the patient was unconscious. As to the number of fits, it is said as a rule the occurrence of ten fits constitutes a severe case. In a recent article by Dr. Munro Kerr, when discussing the effect of dilators, he mentions that in one of his cases where death had followed the dilators

were not in the slightest degree to be blamed for the unfortunate termination as the patient had had forty fits.[3] I take it from this that as Dr. Munro Kerr is an authority after having forty eclampsic fits the patient is not expected to recover.

2. I had previously practised forced delivery on three occasions. The first on a multipara who was dying from heart disease; in that I introduced through the undilated os a piece of lint saturated with cocaine solution, and by the time my instruments were prepared the os was so dilated that I could immediately apply them without any previous manipulations; this patient was at full time. The second was multipara suffering from accidental haemorrhage about full term, and where I was able to pass my hand into the uterus, turn, and deliver. The third case was one of eclampsia in a full-term multipara, in whom there was no difficulty in introducing my hand into the uterus through an easily-dilated os and effecting delivery by turning. These three cases being multiparae I had no difficulty in dilating the os. In the first case, in which the cocaine solution was used, there was no manipulation by the hand required. Forcible dilatation in *accouchement forcé* is generally carried out by means of metal dilators, or by the more tedious method of dilating by the hand. I might put it that, as a rule, forcible dilatation in multiparae can be carried out by the hand, whereas in primiparae this method is either too tedious or fatiguing to be practical, and metal dilators have to be resorted to. In the case recorded above dilatation by the hand was attempted, but failed owing to the rigidity of the os. This was evidently a case where an efficient dilator was necessary. Judging from the contributions and discussions at a recent meeting of the Glasgow Obstetrical and Gynaecological Society on the subject of *accouchement forcé*, it is evident that the dilators which find favour with gynaecologists are those of Bossi and Frommer.[3]

It is admitted that the use of these instruments is not without danger, and several cases are reported with varying success. Not that there could be any doubt of these instruments being able to allow the operator to attain the object in view, that is, to get into the uterus, but the extent of preservation of the cervix from lacerations seem to vary. Dr. Alex. Duke, in a letter to the BRITISH MEDICAL JOURNAL on the subject of *accouchement forcé*, remarks that Bossi's dilator at first sight appears "more like a veterinary surgeon's instrument," and suggests the local application of cocaine "before using the brutal-looking dilator."[4] I had previously used the solution of cocaine as recommended by Dr. Farrar, of Gainsborough,[5] in rigid os of primipara in labour, and also, as already stated, in *accouchement forcé* performed for heart disease with the most gratifying result. In this case I think we may discount any aid received from the use of the dilator employed, as upon the slightest resistance the blades of which possess so much spring that the handles can be approximated without separating the points, and I am certain that an equally good result would have been attained by using the hand after the application of the lint saturated with cocaine solution. I would therefore venture to suggest that in the primary step of *accouchement forcé*, dilatation of the os, a solution of cocaine should be applied on lint to the part. The time occupied I find is about equal to that of dilating by Bossi or Frommer's dilators—about thirty minutes. The dangers of lacerations are avoided, and the results in the two cases I have tried it satisfactory. I may mention that in both cases the cervix was obliterated.

3. Authorities seem to be well agreed that eclampsia is due to the retention of some deleterious matter in the blood. It has also been proved that saline solution can replace (at the moment) blood lost. When the fits continued after the delivery of the child I considered the most rational treatment would be to get rid of the deleterious matter as soon as possible, and there was evidently no time to eliminate it by the natural outlets. If the deleterious matter was to be removed from her system the blood also must be taken. The quantity of blood removed was not measured, the bleeding was allowed to cease of its own accord, by which time the girl was well drained. The infusion needle was not placed in the vein I had opened as I was afraid that in her struggles the artery might be injured.

I am aware that venesection has often been employed as means of treatment of eclampsia. Oftener, perhaps, with the object of removing tension, than with the object of deliberately removing from the system a large quantity of toxin-laden blood, replacing that loss afterwards by normal saline solution. I am also aware that normal saline solution is often used to produce diuresis or dilute the poison. The combined method of venesection for removing blood laden with deleterious matter and replacing blood lost by normal saline solution is mentioned by Fehling.[6]

4. The subsequent testing of the liquor sanguinis, which gave 2½ gr. of urea to the ounce may be of some importance.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1903, p. 1211. [2] Ibid, 1904, p. 67. [3] Ibid, 1904, p. 78. [4] Ibid, 1904, p. 233. [5] Ibid. 1899, p. 742. [6] Fehling, Eclampsia, its Pathogenesis and Treatment in the Light of Present Opinions, *Halle Med. Soc.*, Feb. 8th, 1899.

ABSTRACTS OF

The Hunterian Lectures

ON THE

PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

BY A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor.

LECTURE II.—INFLAMMATORY AFFECTIONS OF THE PANCREAS.

PANCREATIC inflammations may be catarrhal, the inflammatory trouble being in the ducts, or parenchymatous, the substance of the pancreas being involved.

CATARRHAL INFLAMMATIONS.

(*a*) Simple catarrh, acute and chronic.
(*b*) Suppurative catarrh.

PARENCHYMATOUS INFLAMMATIONS.

Acute.

(*a*) Haemorrhagic pancreatitis.
1. Ultra-acute, in which the haemorrhage precedes the inflammation, the bleeding being profuse and both within and outside the gland.
2. Acute, in which inflammation precedes the haemorrhage which is less profuse and is distributed in patches through the gland.
(*b*) Gangrenous pancreatitis.
(*c*) Suppurative pancreatitis—diffuse suppuration.

Subacute.

Abscess of the pancreas—not diffuse suppuration.

Chronic.

(*a*) Interstitial pancreatitis.
1. Interlobular.
2. Interacinar.
(*b*) Cirrhosis of pancreas.

ETIOLOGY.

The etiology of pancreatitis may be classified under predisposing and exciting causes.

PREDISPOSING CAUSES.

(*a*) Obstruction in the ducts, the result of gall stones, duodenal catarrh, pancreatic calculi, cancer of the papilla or of the head of the pancreas, ulcer of the duodenum, followed by cicatricial stenosis of the papilla, ascarides, and lumbrici.
(*b*) Injury either from a bruise, as by manipulation in operating, or from a crush as by a blow in the epigastrium, or from wounding by a sharp instrument.
(*c*) Haemorrhage into the gland.
(*d*) General ailments, such as typhoid fever, influenza, mumps.
(*e*) Certain anatomical peculiarities in the pancreas or its ducts.
(*f*) Atheroma or fatty degeneration of blood vessels.

EXCITING CAUSES.

1. Infection, conveyed either
(*a*) From the blood, as in syphilis or pyaemia.
(*b*) From the duodenum as in gall-stone obstruction or gastro-intestinal catarrh.
(*c*) By extension inwards from adjoining organs as in gastric ulcer or cancer eroding the pancreas.
2. Irritation, as in alcoholism.

Gall stones in the common duct are a frequent, in fact by far the most frequent cause of the various forms of pancreatitis, but acute pancreatitis may occur apart from cholelithiasis. Any gall-stone or stones impacted in the pancreatic portion of the duct or even filling the ampulla of Vater may be efficient causes of the trouble. It may be asked why should not every case of common duct cholelithiasis be complicated by pancreatic inflammation? This is readily explained by the fact that in a certain percentage of cases the common bile duct and the pancreatic duct open by certain orifices into the duodenum, while in another percentage the duct of Santorini

is either the principal outlet for the pancreatic secretion or is of such a size that it can act as an efficient outlet even if Wirsung's duct becomes obstructed. Besides gall stones, other factors may lead to obstruction of the pancreatic ducts, to infection of the pent-up secretion, and to the different varieties of pancreatitis. It is possible also that infection may extend upwards from the duodenum without preliminary obstruction, apparently by continuity of mucous membrane, catarrhal pancreatitis being then a sequel of gastro-duodenal catarrh.

In injury, however inflicted, it seems not unreasonable to think that the soft, glandular substance will readily yield and so set free the auto-destructive secretion of the gland, which, by dissolving the walls of the blood vessels, will lead to further haemorrhage and then to the collection of a quantity of easily decomposable material that only needs infecting to become acutely dangerous. The contiguity of the stomach and intestines furnishes the possibility of infection, though, if infection does not take place, the injury may be repaired, as in other organs. This probably explains acute pancreatitis supervening, not immediately, but some days after an injury.

Haemorrhage into the pancreas, so-called apoplexy, arising from diseased vessels or in other ways, by disrupting the gland may lead in the same way to pancreatitis, but, as haemorrhage occurs at times without exciting inflammation, as shown by old blood stains in the pancreas in cases dying from other causes, it seems reasonable to argue that the exciting cause, infection, has been wanting. In general ailments, such as typhoid fever, influenza, etc., the well-known predilection of typhoid bacilli for the biliary passages would afford an easy explanation of their access to the pancreas, and, though it is difficult to prove, I have in several cases of catarrhal inflammation of the pancreas obtained a history pointing strongly to influenza or to typhoid fever as the cause. In one case, under the care of Mr. Moynihan, the relationship was proved by the discovery of typhoid organisms.

MUMPS AND PANCREATITIS.

There seems to be some peculiar and intimate relationship between the salivary glands of the mouth and the abdomen, and, in one case of mumps in an adult friend, it seemed highly probable that a metastasis occurred about the third day of the disease, when the pain and distress almost completely left the face, and were followed by violent epigastric pain and alarming symptoms of depression, accompanied by sickness and fever, which then rapidly passed off, after three days' anxiety, and were followed by orchitis.

H. Simonin[1] found, in 652 cases of mumps treated in the military hospital of Val de Grâce, that in ten cases, or 1.3 per cent., there were symptoms of pancreatitis, which occurred from the first to the twelfth day of the disease and lasted from two to seven days. Among the blood infections have to be mentioned pyaemia, which presents no special peculiarity in the pancreas, and syphilis, which may affect the pancreas either as a tertiary affection, in the shape of gumma, or as a congenital affection, as first described by Birch-Hirschfeld. It produces an interstitial pancreatitis of the interlobular type, and the islands of Langerhans are unaffected.

That the spread of ulceration inwards from the stomach may produce an acute or even suppurative pancreatitis can be readily understood, for the ulcer must be constantly bathed with septic matter, and the eroding action, when once it has passed through the stomach wall, may assume great activity.

Whether alcohol can act directly in producing cirrhosis is a matter of great doubt, the probability being that it sets up a gastro-intestinal catarrh which by extension gives rise to the chronic infective process; another explanation may be found in the fact that alcohol causes vascular degeneration, a well-recognized cause of chronic interstitial pancreatitis. The cause of cirrhosis, the most chronic form of inflammation of the pancreas, which is, though slow in its progress, almost necessarily fatal from diabetes, is probably a long-continued catarrh setting up interlobular and interacinar pancreatitis originally due to infection. Vascular degeneration is ascribed as a cause in old or in prematurely aged persons.

CATARRH OF THE PANCREAS.

From the foregoing remarks on the etiology of inflammation of the pancreas it will be seen that I hold that catarrh of the pancreas is a disease as well worthy of recognition as catarrhal jaundice, which in the same way is dependent on catarrh of the bile ducts. The diagnosis can usually be made from digestive and metabolic signs and swelling of the gland, which can in some cases be recognized by palpation through the abdominal wall, but in others only by manipulation of the pancreas through the opened abdomen.

Just as catarrh of the bile ducts may, and usually does, pass off if the cause be removed, so may pancreatic catarrh entirely clear up under appropriate treatment. Should the cause continue the catarrh will become chronic and an interstitial pancreatitis ensue which may end in cirrhosis or atrophy of the gland, a condition which probably always has a fatal termination from diabetes.

As chronic interstitial pancreatitis is in many cases simply a sequence of pancreatic catarrh, it is of the utmost importance that we should recognize catarrh at any early stage, and if in a short time it fails to yield to medical treatment that we should perform an exploratory operation with a view to removing the cause, whether that be gall stones or some other removable condition; but if the cause be not discovered, or if when found it proves to be incapable of removal then drainage of the bile ducts, either by cholecystotomy or cholecystenterostomy, will nearly always afford relief (*a*) by removing the infected bile and thus ridding the system of poison which tends to deteriorate the blood, and (*b*) by removing the pressure of pent-up bile from the pancreas thus relieving tension. Still another beneficial effect will result in some cases where the obstruction is at the papilla, for the pancreatic ducts will then also be drained indirectly through the bile-ducts. In three cases of my own as well as in two occurring in the hands of other surgeons, a mere manipulation of the gland without drainage has been followed by recovery. An explanation of this result may possibly be that an obstruction in the shape of concretions or adhesions may have been inadvertently removed during the manipulation; but in one of my own cases thus treated glycosuria has subsequently developed, which possibly might have been prevented by drainage.

I do not propose to occupy time in considering the symptomatology of acute and chronic catarrh of the pancreas as the symptoms and signs, though less in degree are practically the same as those of chronic pancreatitis, under which subject I shall consider the matter more fully.

SUPPURATIVE CATARRH.

This disease bears the same relation to simple pancreatic catarrh that catarrhal jaundice does to suppurative cholangitis.

In all the cases I have seen gall stones have been the cause. The disease tends towards death from septicaemia or pyaemia, or if the process be less acute or the vital powers more resistant it may possibly end in a localized abscess. Suppurative catarrh of the pancreatic ducts is generally, if not always, combined with suppurative cholangitis.

Four cases of suppurative cholangitis in which the lectures had operated were then related, illustrating one of the dangers of cholelithiasis which might be avoided by the removal of gall stones before the onset of deep jaundice and infection of the bile and pancreatic ducts, an operation which with due care and in skilful hands is almost devoid of danger.

Suppurative catarrhal pancreatitis is quite as serious as acute phlegmonous pancreatitis, and unless treated surgically must, I think, be almost necessarily fatal.

ACUTE PANCREATITIS.

Symptoms.

Acute pancreatitis is usually ushered in by a sudden pain in the superior abdominal region, accompanied by faintness or collapse and followed sooner or later by vomiting. There is usually some epigastric swelling with tenderness from the first, and if the warm flat hand be placed over the epigastrium and retained there without movement for a time it will be found that the swelling is diffuse and not simply dependent on a distended stomach or colon, though later, when peritonitis is established, the hollow viscera become inflated.

It is almost constantly accompanied by constipation, so that it is quite usual for these cases to be mistaken at first for intestinal obstruction. The obstruction, however, is not absolute, flatus passes, and a large enema may secure an evacuation. If the patient survive for several days diarrhoea may supervene. The pain may be so severe as to produce syncope or collapse, and though it does not quite pass away, it has a tendency to be paroxysmal and to be increased by movement. It is associated with well marked tenderness just above the umbilicus and between it and the ensiform cartilage. The pain is soon followed by distension in the superior

abdominal region, which may become general and usually does in the later stages, and by vomiting, first of food then of bile, and soon of black altered blood. The vomiting may be severe, and each attack of sickness aggravates the pain. Rarely vomiting may not be a prominent symptom. Slight jaundice, from associated catarrh of the bile ducts and pressure, is usually present, and deepens the longer the patient survives. As the impaction of a gall stone in the ampulla of Vater is probably the most frequent cause, the jaundice may become intense from a complete stoppage of the passage of bile into the duodenum. The aspect is anxious and the face is pinched, resembling the facies of peritonitis, which in fact is usually present. The pulse, which is rapid and small, is a better guide than the temperature, which may be normal, subnormal, irregular, or high. In the ultra-acute cases the temperature is usually subnormal, but in the cases that survive for several days the temperature becomes irregular and may be excessive. Delirium comes on in the later stages. The distension and tenderness may prevent an exact examination of the pancreas, which would otherwise be found enlarged. Death usually supervenes from the second to the fifth day, from collapse, probably due to absorption of virulent matter, though in the less acute cases life may be prolonged and recovery may possibly occur. Acute pancreatitis thus takes the form of acute peritonitis starting in the superior abdominal region.

If life be prolonged, the condition may become one of subacute pancreatitis, the onset in such a case being usually less grave, though often equally sudden. It is even possible for the trouble to resolve, apparently completely and then for a relapse to occur, this sequence being repeated on several occasions. The preceding description refers to acute pancreatitis generally, and applies to the haemorrhagic, gangrenous or suppurative varieties, which are phases of the same infective conditions, though the morbid appearances differ so much.

Diagnosis.

The diagnosis of acute pancreatitis is at first difficult, as the symptoms are only characteristic of peritonitis, starting in the upper part of the abdomen. Fitz's rule is worth bearing in mind:

> Acute pancreatitis is to be suspected when a previously healthy person or sufferer from occasional attacks of indigestion is suddenly seized with violent pain in the epigastrium, followed by vomiting and collapse, and in the course of twenty-four hours by a circumscribed epigastric swelling, tympanitic or resistant, with slight rise of temperature.

Acute pancreatitis and intestinal obstruction may co-exist, as the swollen pancreas may embrace and strangle the duodenum, or a collection of inflammatory material may seriously compress it. The swelling will, however, be usually less general in pancreatitis than in obstruction, and, even if the bowels will not move, flatus can generally be passed. In case of doubt, exploration may reveal fat necrosis. In perforation of a duodenal or gastric ulcer there will generally have been premonitory symptoms pointing to the disease before the perforation actually occurs, and almost immediately an absence of liver dullness will usually be found. In acute ptomaine poisoning the history, the more general character of the pain, and the presence of diarrhoea will usually help the diagnosis.

In phlegmonous cholecystitis the symptoms are usually preceded by a swelling and well-marked tenderness beneath the right costal margin, at first distinctly localized, and only later extending to the epigastrium and umbilical region, where the tenderness is generally found in acute pancreatitis. Moreover, the history of gall stones or typhoid fever will be elicited. In gangrenous appendicitis the tenderness below and to the right of the umbilicus and the swelling in that region usually remove the difficulty created by the pain in both appendicitis and pancreatitis, being frequently felt at first just above the umbilicus. In acute pancreatitis the excruciating pain, at first epigastric, but later general, the extremely rapid loss of weight, and the irregular temperature are usually characteristic.

The urinary test for the pancreatic reaction should not be neglected, as a positive reaction has been obtained in all the cases of acute pancreatitis in which it has been employed. Glycosuria is usually absent, but in two out of forty-one cases of haemorrhagic and in three out of forty gangrenous pancreatitis cases Korte found it present.

Treatment.

The pain at the onset is so acute as to necessitate the administration of morphine, and the collapse will probably demand stimulants which, on account of the associated vomiting, may have to be given by enema. In the early stages the symptoms are often not clear enough to warrant operation, but as soon as acute pancreatitis is proved, as it may be by the combination of symptoms, together with the urinary test, the surgeon must not wait until the collapse has passed off as that may be dependent on septic absorption which can only be relieved by operation.

Just as in perforative or gangrenous appendicitis an early evacuation of the septic matter is necessary to recovery, so in this equally lethal affection, an early exploration from the front through the middle line above the umbilicus or from behind through the left costo-vertebral angle is indicated, in order if possible to relieve tension, evacuate septic material, secure free drainage and arrest the haemorrhage which leads to disintegration and necrosis of the pancreas. The after-treatment will be chiefly directed to combating shock and keeping up the strength until the *materies morbi*, both local and general, can be thrown off. Even if no pus be found no harm should accrue by such an exploration, which can be made in a few minutes through a very small incision in the middle line above the umbilicus, if necessary with the aid of cocaine. After establishing the diagnosis by the discovery of fat necrosis, a posterior incision in the left costo-vertebral angle will enable the diseased organ to be freely examined and, if necessary, drained for the evacuation of pus and gangrenous material without risk to the general peritoneal cavity and with little danger of retained septic matter, as the drainage will be dependent. If, however, the inflammatory collection or the tensely-distended and inflamed gland be incised from the front, as is advisable in certain cases, gauze-packing and gauze-drainage may usually be relied on to prevent general infection of the peritoneum.

If there are signs of obstructed common duct the gall bladder should be drained, and if gall stones be discovered they should be removed, if this can be done, without seriously adding to the length of the operation or imperilling life by adding to the shock, otherwise they may be left and removed on a subsequent occasion if free drainage of the bile passages can be secured. I have had six cases of acute pancreatitis under my care and have operated on four, of which two recovered. Of the two cases in which operation was not consented to and where medical treatment alone was carried out, death occurred in the first case on the third day and in the second after a week's illness attended in both with great pain and incessant vomiting.

The argument that the percentage of mortality will be less if the surgeon waits for the formation of a local abscess is fallacious, as it takes no consideration of the large percentage of those who die before such a favourable result is presented; and in the second place, many patients never develop a local abscess, the process being diffuse from the onset. The high mortality of an early operation in acute cases is due to the fact that in many intestinal obstruction was suspected and the collapsed patients were subjected to a prolonged search for the seat of the supposed lesion. Of fifty-nine reported cases of operation (including my own) during the acute stage, twenty-three recovered. Although this is a large mortality it must be borne in mind that the disease usually ends in death if not treated surgically.

The lessons one may learn from recorded cases is not to wait until the system is overweighted with absorbed poison before operating and not to spend too long over the operation.

Subacute Pancreatitis.

Although no hard-and-fast line can be drawn between acute and subacute pancreatitis, yet the less acute onset, the longer course, the limitation of the suppurative process by lymph barriers and the much more hopeful outlook as the result of treatment present so many differences that I think such a division is desirable both from the point of view of diagnosis and treatment.

Subacute pancreatitis may have a more or less sudden onset with acute pain and vomiting and may be associated with constipation, but collapse is not a marked symptom and is as a rule absent. The upper abdominal region does not become so rapidly distended and vomiting is less severe and less prolonged.

At other times, and this is generally the case, the onset is more gradual, though the symptoms may be similar. As gall stones are the usual cause, a history of intermittent attacks of spasms, at first without and later accompanied by jaundice, will be elicited and before the onset of pancreatic trouble, the symptoms of infective cholangitis in the shape of rigors with deepening of jaundice and with intermittent fever will generally be found. Tenderness over the pancreas as well

marked, and as the tympanites is less than in the acute form it may be possible to feel the swollen gland, especially under an anæsthetic: as the case progresses a definite tumour often develops.

Constipation gives place to diarrhœa, and pus or blood may be noticed in the stools, which have a very fetid odour and usually contain fat and undigested muscle fibres. The pulse is not so seriously affected as in the acute form, and the temperature is more irregular. I have seen the temperature reaching to 104° and 105° F. and yet the pulse to vary between 90 and 110. The morning temperature may be normal and the evening temperature high for several days or even weeks. Rigors or chills usually occur and may be repeated from time to time. The pain occurs in paroxysms, but there is also a constant dull pain at the epigastrium. The patient may lose the more urgent symptoms and appear to be really improving, but the loss of flesh and feebleness continue and relapses usually occur, leaving the patient each time more and more feeble until death supervenes from asthenia. Albuminuria is pretty constant, but glycosuria is rarely present. The pancreatic reaction in the urine is as a rule well marked.

If an abscess develop, the pus may form a tumour, projecting in the superior abdominal region and forming a tender swelling behind the stomach, or, perhaps, coming to the surface above or below that viscus; or it may burrow into either loin, forming a perirenal abscess, or, passing under the diaphragm, it may form a subphrenic abscess. Occasionally the pus may follow the psoas muscle and form a subperitoneal abscess in the iliac region, or even passing over the brim of the pelvis it may collect in the left broad ligament. Sometimes the abscess bursts into the stomach and is vomited, or into the bowel and is voided per anum, after which diarrhœa may continue and pus may be seen from time to time as any fresh collection forms and bursts. With the evacuation of the abscess relief occurs for a time, and the temperature improves; but relapses usually take place and a mild form of septicæmia persists, with a hectic temperature. Death is the usual termination unless an operation be done, though spontaneous recovery may possibly occur after a tedious and prolonged illness, should the abscess burst into the bowel or be otherwise safely evacuated.

Treatment.

As in the acute condition morphine may be required to relieve the pain and lessen the collapse. Distension may have to be relieved by lavage of the stomach and turpentine enemata, or by the administration of calomel by the mouth. Calomel is also of benefit as an intestinal antiseptic, given in small repeated doses, followed by a saline aperient. As soon as the constipation is relieved diarrhœa is apt to supervene, when salol and bismuth, with small doses of opium, may be given. If surgical treatment is decided on, a median incision above the umbilicus will enable the operator to palpate the pancreas and locate any incipient collection of pus, which, if practicable, should then be evacuated by a posterior incision in the left or right costo-vertebral angle. If the posterior incision be thought impracticable, the collection of pus may be removed by aspiration and the cavity opened and packed with gauze, which may be brought forwards through a large rubber tube; this procedure will in the course of from twenty-four to forty-eight hours establish a track isolated from the general peritoneal cavity.

In abscess of the pancreas, which we must distinguish from the acute suppurative pancreatitis, where the pus is diffused through the gland, or where the abscesses are small and multiple, the suppurating process is limited by a pouring out of lymph, so that, should the patient survive the initial more acute stage and discovery of the pus-containing cavity be made, the condition is one decidedly amenable to treatment by drainage. It is important to see that the cause is removed, if that be possible; for instance, gall stones or pancreatic calculi so that, if recovery occur, there may be nothing left to lead to a recurrence of the trouble.

I have had eight cases of abscess of the pancreas under my care, one of which was secondary after acute pancreatitis. Six were operated on with recovery, operation in five, though in one of the cases the relief was only for a few weeks, and in another for a few months. In the eighth case, which was not operated on, the abscess burst into the bowel and was discharged, the diagnosis having been made by an examination of the tumour under an anæsthetic, and by the presence of the pancreatic reaction.

When inflammation of the pancreas has ended in abscess, chronic interstitial pancreatitis will also probably be present. It is possible that in some cases the interstitial change may be local, though I suspect in others it will be general, and may then lead to atrophy of the gland and to glycosuria.

A search through literature reveals a considerable number of pyæmic abscesses of the pancreas but those resulting from subacute pancreatitis are not common. Including my own seven operations for abscess of the pancreas, with two deaths, there have been seven others recorded, with three deaths. Thus, of fourteen cases, five died, giving a mortality of 35.6 per cent.

CHRONIC PANCREATITIS.

Chronic pancreatitis may be interlobular, in which case it exerts pressure on and causes atrophy of the true glandular substance and interferes with its digestive function, or interacinar, in which case the fibrous tissue invades also the islands of Langerhans and leads, not only to an interference with the digestive but also with the metabolic functions of the gland and so to glycosuria.

In cystic disease of the pancreas some interstitial pancreatitis is usually present and, in many cases, the chronic inflammatory process is the true cause of cyst formation. In an advanced condition the gland may be atrophied, small and cirrhotic, almost like true cirrhosis of the liver.

Chronic interstitial pancreatitis may be primary, as in those cases recovering from the acute or sub-acute forms of pancreatitis, or from acute or chronic or suppurative catarrh, or it may be secondary as in syphilis, alcoholism and arterial degeneration, and in the zymotic diseases such as typhoid and influenza. The inflammatory process may be general throughout the gland or limited to certain portions, especially the head.

The most frequent cause of chronic interstitial pancreatitis is cholelithiasis, which causes obstruction to the pancreatic ducts and thus leads to an infective process which extends to the parenchyma, but anything causing duct obstruction, such as pancreatic calculi, stenosis from ulceration or growth, may act in the same way. It may also follow catarrh extending upward from a duodenal catarrh or from a cholangitis, or it may be due to the extension of an inflammatory process from the stomach, as in chronic ulcer eroding, or an acute ulcer perforating into the pancreas.

In the primary stages of a catarrhal inflammation the swelling, which depends on an increased supply of blood to the part, and on engorgement of the excretory ducts, and which may be readily felt and recognized by the operating surgeon may after death almost entirely disappear, so that the pathologist may be unable to recognize any lesion except by microscopic examination, and even the microscope may in the early stages only show an excess of leucocytes in the tissue. Hence chronic pancreatitis was until recently only recognized when extreme, and was looked on as a mere pathological refinement of no practical importance except in certain cases of congenital syphilis and alcoholism.

The surgeon has considerable advantages over the pathologist in cases like those under consideration, for he has the opportunity of examining and handling the living pancreas, and after some experience he can tell the difference between the feel of the normal and the diseased gland as well as between chronic pancreatitis and cancer. In interstitial pancreatitis the pancreas is uniformly swollen and harder than usual, and the lobules give the feeling of being mapped out and differentiated in a manner very different from their state in the ordinary healthy gland and also very different from the hard, nodular character presented by cancer of the head or body of the pancreas.

The symptoms of pancreatic catarrh passing on to interstitial pancreatitis present great varieties according to the cause: for instance, if it be due to gall stones there will be a history of painful attacks in the right hypochondrium associated with jaundice and possibly accompanied by fever of an intermittent type. Tenderness at the epigastrium with some fullness above the umbilicus will usually be noticed; loss of flesh soon becomes marked, and if the pancreatic symptoms predominate the pain will pass from the epigastrium round the left side or through to the renal and scapular regions. Fat and muscle fibres may be noticed in the motions as soon as the obstruction to Wirsung's duct is complete, and the pancreatic reaction will be found in the urine.

If gall stones be not the cause, there may be merely an aching or painful attacks not at all pronounced, or the symptoms may come on painlessly, associated with dyspepsia and with slight jaundice soon becoming more marked; in such cases the gall bladder may dilate and give rise to a sus-

picion of cancer of the pancreas, which the rapid loss of flesh will tend to confirm. In the later stages, pale or white and bulky motions may be passed and a haemorrhagic tendency will be noticed. The liver is usually enlarged when the common bile duct is tightly gripped, and in several cases I have found cirrhosis of the liver, doubtless due to long continued stagnation of septic bile in the ducts. I have seen well-marked enlargement of the spleen on four occasions. An examination of the urine in all my cases gave the characteristic pancreatic reaction. In 10 per cent. bile was present in the urine. In 40 per cent. calcium oxalate crystals were found. In 4 per cent. only the oxalate crystals were associated with bile. In none of my cases was glycosuria found, though in two cases it developed several years later; it only occurs as a very late symptom. Death may occur from asthenia due to long-continued jaundice or from diabetes or from haemorrhage.

Although gall stones in the common duct are often the cause of catarrhal or other inflammatory trouble in the pancreas, it does not follow that the sequence always occurs. For instance, if the gall stone be too large to pass into the lower end of the duct, jaundice will be unaccompanied by pancreatic disease. It will also be unlikely to occur:

(a) If the duct of Santorini freely communicates with Wirsung's duct and is able at the same time to discharge the secretion of the pancreas freely into the duodenum.

(b) If the duct of Wirsung and the common bile duct open by separate orifices and the ampulla of Vater be absent.

(c) If a gall stone should pass rapidly into the bowel, so that the obstruction is only of short duration.

The treatment of catarrhal inflammation of the pancreas and of chronic interstitial pancreatitis will at first be by general and medical means, aiming at the cause, whether that be gall stones, pancreatic calculi, duodenal catarrh, gastric ulcer, alcoholism, or syphilis; but if after a fair trial of medical treatment, not too long continued, the jaundice and loss of weight continue, and the signs of failure in pancreatic digestion and metabolism are manifesting themselves, the question of surgical treatment should be seriously considered, for the condition is one that, if not relieved early, will certainly lead to serious degeneration of the gland. When operation is undertaken before the process has advanced to well-marked pancreatitis or to the interacinar form, my experience is that complete cure is effected in a very great proportion of cases; but if interstitial inflammation has become well marked, an arrest of the process is all that can be looked for. Thus, in some cases, apparently well several years after operation, a pancreatic reaction can be obtained in the urine, while in two cases glycosuria has developed, thus showing that inflammation of the pancreas, if at all advanced, leaves abiding changes.

Surgical treatment will vary, according to the cause and symptoms. Where there is evidence of obstruction, whether in the pancreatic or common bile ducts, the cause, in the greater number of cases (twenty-seven as compared with twenty-four) will prove to be concretions, which should, if possible, be removed. At the same time, the bile ducts should be drained, either by means of cholecystotomy or cholecystenterostomy. Where no obstruction, in the shape of gall stones or pancreatic calculi, can be found, I would still advise drainage of the bile ducts by one of these operations. Drainage of the bile ducts acts, not only by removing one source of irritation, in the shape of infected bile, but at the same time it relieves tension and allows the infected pancreatic secretion to escape, besides also freeing the blood from a poison which seriously damages it and the system at large. In many cases also the cause of obstruction is removed. Whether advanced chronic interstitial pancreatitis will be completely cured by operation it is difficult to say, for in some of the severer cases a pancreatic reaction is found long after operation and after all other symptoms have cleared up; but in several cases that have been tested years after operation the pancreatic reaction has entirely disappeared, thus, apparently, proving that the case is cured. Moreover, I suspect that the operation arrests the process of disorganization, even if it cannot alter changes that have already occurred. Doubtless, in some the disease was a catarrhal inflammation of the pancreas, which was arrested either before interstitial inflammation had actually developed or before it had advanced too far, and probably in none of the cases had the interstitial change advanced so far as to become interacinar, or to present the advanced stage of atrophy or cirrhosis, as in none of the cases was sugar present in the urine at the time of operation, though the metabolic functions of the pancreas were impaired, as shown by the presence of the pancreatic reaction, and the digestive functions were affected, as shown by the condition of the faeces.

Statistics of Operation for Chronic Pancreatitis.

In order to ascertain the after-results of the operations letters were recently addressed to the friends or medical attendants of all the patients who had not been recently heard of. In one case where the cause was due to pancreatic calculi these were removed both from Wirsung's and Santorini's ducts with complete recovery, and the patient is now well.

In twenty-seven cases of catarrhal or interstitial pancreatitis, where gall stones were found obstructing the pancreatic portion of the common duct, choledochotomy in nineteen, cholecystotomy in five, and cholecyst-enterostomy in three, were followed not only by immediate recovery but, as ascertained by recent reports, these patients are now well, except one case that has since died of acute bronchitis, one who is suffering from cirrhosis of the liver, and one patient who, eight years and a-half subsequent to operation, is apparently well, though sugar has recently been found in the urine. In twenty-four cases where obstruction to the common bile duct was due to an inflammatory condition of the pancreas compressing the bile duct, though probably in many of the cases originally due to gall stones, yet where gall stones were not actually present at the time of operation, the bile ducts and thus indirectly the pancreatic ducts were drained in twelve cases by simple cholecystotomy and in nine by cholecyst-enterostomy. In three cases adhesions were separated, and no drainage of bile ducts was performed. Of these twenty-four cases twenty-two recovered. Two out of fifty-one patients died as a direct result of the operation, one a cholecystotomy, undertaken in a patient reduced to the last stage of exhaustion before a surgical opinion was sought, and where at the necropsy a cirrhotic condition of the head of the pancreas was found, and a second in which a cholecyst-enterostomy was undertaken in the presence of adhesions that appeared too formidable to deal with considering the poor condition of the patient, who succumbed a few hours later. In this case necropsy revealed a stone in the pancreatic portion of the common duct which would have been discovered had the patient's condition permitted a thorough exploration. From four the letters were returned as "gone, no address." The remaining sixteen have completely recovered.

Of three patients where the pancreas was found enlarged at operation, nothing beyond separation of adhesions and manipulation being done, all recovered. In one of these cases glycosuria has supervened and is still present, though the patient seems to be well. The after-history of one cannot be traced. Of the third, word has been received to say that she is well, fourteen years after operation.

Thus I have no hesitation in advocating operation in this class of cases after general and medical means have had a fair but not too long a trial, and the results I have given will, I think, justify my conclusions.

A search through the literature of the subject has revealed the facts that (apart from my own cases—fifty-one in number with two deaths, or a mortality of 3.9 per cent.) there have have been sixty-two operations for chronic pancreatitis recorded, of which eight died, yielding a rate of mortality of 12.9 per cent. These cases have all been verified for me by Mr. Clark, of the Royal Medical and Chirurgical Library.

Reference.

1 *Bull. de la Soc. Méd. des Hôp.*, July 15th, 1904.

French Congress of Alienists and Neurologists.—The fourteenth annual meeting of the French Congress of Alienists and Neurologists will be held this year at Pau from August 1st to the 7th. Among the questions to be discussed are motor localization in the medulla, and the measures to be taken in regard to criminal lunatics. All communications relative to the Congress should be addressed to the General Secretary, Dr. Girma, Médecin-Directeur de l'Asile Public des Aliénés, Pau.

The Cause of Small-pox.—The investigations of Dr William T. Councilman, of Harvard, on the etiology of small-pox—an account of which was given in the Epitome of the British Medical Journal of May 23rd, 1903—are to be supplemented by further researches in the Philippines. Two of his assistants, who have worked for some years on the subject, Drs. W. R. Brinckerhoff and E. E. Tyzzier, are about to proceed to Manila for the purpose. They will endeavour to determine the relations of these protozoa to others and the mode of infection of man. Other tropical diseases may also be studied as they are met with.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A HYDATID CYST IN THE OVARY.

On reading a paragraph on hydatid cysts in abdomen and pelvis in the BRITISH MEDICAL JOURNAL of February 13th, it occurred to me that the following notes of a case of hydatid disease of the left ovary might be of interest.

The patient, aged 28 years, unmarried, was sent to Professor Simpson by her medical adviser. She complained of swelling of the abdomen and general weakness and pain across the bowels, the latter of which had extended for a period of four years. There was nothing of special interest to note in her menstrual history. On examination a tense fixed swelling was found occupying the left iliac region and bulging down into the left fornix, the uterus not being enlarged but pushed over to the right side.

On opening the abdomen a cyst was exposed occupying the left side of the abdomen and nearly covered by adherent omentum. Great difficulty was experienced in removing the tumour owing to its adherence to omentum and bowel, especially the sigmoid flexure, uterus, and left Fallopian tube. The cyst was attached to the left side of the uterus by a small pedicle, which was duly ligatured and divided. No trace of the left ovary could be found. The right ovary was found to be quite normal in size and appearance, and the uterus was not enlarged. The abdominal wound was closed up in three layers, and, apart from a temporary retention of urine after operation, the patient made an uninterrupted recovery and went home within six weeks. On examination after removal the cyst had all the external appearances of a dermoid tumour and it was only after cutting into the cyst that a crystalline watery fluid escaped freely along with a large number of daughter cysts. The somewhat thick cyst wall was composed of fibrous tissue, dense on one aspect, more cellular and loose on the other, while between the bundles of fibres were seen degenerating cells. The fluid on boiling showed a slight milkiness, which disappeared on the addition of nitric acid. It contained hydatid booklets and scolices. The walls of the daughter cysts were composed of laminated translucent material, corresponding exactly to the hydatid ectocyst. Their contents were similar to those of the mother cyst, but no booklets were discovered.

G. F. BARBOUR SIMPSON, M.B., F.R.C.S.E., M.R.C.P.E.

Edinburgh.

A CASE OF ILIAC ABSCESS FOLLOWING GONORRHŒA.[1]

The following notes are of interest mainly as illustrative of the untoward effects of gonorrhœal infection.

W. S., aged 21, clerk, had gonorrhœa last August, and for about six weeks had some treatment. At this time there was still some urethral discharge and there were several small ulcers on the glands and inner surface of the prepuce. He had also a large bubo in the left groin. This was lanced and treated in the usual way.

On December 29th, there were two large tender glands on the right side as well. Hot fomentations and belladonna were applied and they did not suppurate. The patient also complained of a deep-seated aching pain in the right iliac region, near the anterior superior iliac spine. There was no swelling, but only tenderness on deep pressure. He felt ill generally and unfit for work, and the temperature rose slightly. There was no evidence of appendicitis, pleurisy, etc.

On January 4th, 1904, the swelling was quite apparent, dull on percussion, tender, but not fluctuating. On January 7th, after thoroughly washing the parts, a drachm of 5 per cent. carbolic lotion was injected under the skin covering the swelling. An incision was then made about 1 in. long opposite the anterior superior spine and about 1 in. from it. With two pairs of forceps the external muscles and fascia were torn apart, and the finger was pushed down by the side of the psoas until the iliac fossa was reached, to keep outside the peritoneum. With the other hand an artery forceps was passed along the finger and thrust into the swelling, and the latter was opened. There was a good deal of pus amounting to about 6 oz. The cavity was then irrigated with an ear syringe and rubber tube, and packed with iodoform gauze and covered with absorbent wool. On the eighth day the [illegible] patient was able to return to work. This case of course reminds one of the anatomical connexion between the two sets of glands.

The eucaine was quite sufficient as an anaesthetic, but with young children or nervous and exhausted persons it cannot take the place of a general anaesthetic.

Bootle. ROBERT TURNER, M.D., F.R.C.S.Edin.

A NON-TOXIC PREPARATION OF IODINE.

BEING specially interested in the supplemental treatment of enlarged glands and adenoids with iodine, about seven years ago I made several experiments with preparations of that drug with the object of finding one which could be given internally in large doses for considerable periods without causing any symptoms of iodism, while exercising its specific effects on lymphatic enlargements.

The late Mr. Martindale and the manager of Messrs. Morson and Sons were good enough to try several formulae for me in their laboratories, and finally succeeded in producing an easily-made compound in which iodine was loosely combined with an organic substance, rendering it fit for ready absorption without causing any irritation of the digestive canal, and affording a high physiological activity without producing any evidence of intolerance.

This preparation I have prescribed ever since both in hospital and private practice, and having watched the effects have come to the conclusion that it has fully confirmed my first estimate of its value.

The formula which I am now using has been perfected for me by Mr. W. H. Martindale, is easily prepared, and very palatable. The iodine is in loose chemical combination with tannic acid, and though none can be demonstrated as free, yet it is sufficiently free to be readily given up to the tissues after absorption, and consequently there is no fear of any local gastric or intestinal irritation so often associated with the administration of free iodine. Such combination is of a nature similar to that of oxyhaemoglobin.

FORMULA.

Syrupus Iodi Tannici.

Iodine, grains [illegible]	
Tannic acid, grams 4	
Alcohol [illegible] per cent. 5 c.cm.	
Syrup, q.s. to c.cm. [illegible]	

Dissolve the iodine in the alcohol, add the tannic acid and [illegible] c.cm. of the syrup, heat to just below boiling point until the solution colours no evidence of free iodine with the starch reaction (about twenty minutes). Cool and add the remainder of the syrup with sufficient [illegible]. One drachm contains [illegible] gr. of iodine. It may be given in doses of ½ to 2 drachms in water or wine before meals, according to age.

I have found that children tolerate it well and it has proved specially useful in cases of chronic lymphadenitis associated with, or independent of, adenoids, etc., enlarged faucial tonsils, particularly when the cervical glands persist after tonsillotomy. It is further indicated in those children who possess but slightly enlarged faucial and pharyngeal tonsils in whom operation is contraindicated or objected to. In atrophic rhinitis it has afforded very gratifying results especially when combined with arsenic; also in simple bronchocele supplemented by the use of iodine oleate (1 in 9 of oleic acid) as a pigment.

Such an organic combination of iodine is by no means new as it was introduced many years ago as a wine "Vin Nourry," but so far as I know no definite or simple formula suitable for prescribing purposes has been available. It is for this reason and for the very satisfactory results which it has afforded in a prolonged trial that I venture to recommend it.

[illegible], W. WYATT WINGRAVE, M.D.

Physician, Central London Throat and Ear Hospital.

HALLUX RIGIDUS.

HAVING been much interested in the various articles and letters on the subject of hallux rigidus that have appeared recently in the BRITISH MEDICAL JOURNAL, I should like with your permission to give my experiences in connexion with this complaint, as my conclusions differ somewhat from those that have been set forth.

I daily see many telegraph messengers, and it is amongst these and these members of the staff alone, that the complaint occurs. Amongst the boys the complaint is not uncommon; advice is applied for on account of pain in the great toe joint, which interferes with their walking powers, and the complaint is called "stiff toe" by the sufferers. The ailment prevails between the ages of 15 and 17. I have no experience of the boys at an earlier age than this, but after

the age of 18 the complaint disappears, and the adults, such as postmen, do not suffer from it. The condition presents itself in all sorts and conditions of feet, well-shapen and misshapen; it may be found associated with flat-foot, but, in my opinion, it is not in any way due to this. Recurrences of the complaint are common, all pain and disability disappearing in the intervals. The attack generally incapacitates the boy for about four or five days. The complaint varies in intensity from tenderness made manifest when the joint is pressed between the thumb and forefinger, to a distinctly swollen and inflamed joint, with an erythematous blush on the skin, on which joint the slightest palpation gives pain.

Pathology.—In my opinion the condition is due to an inflammation of the epiphysis which caps the first phalanx of the great-toe joint at the proximal end. On several occasions I have found the epiphysis loosened, and palpation of the joint shows that this part, and this only, is the seat of the pain and inflammation. Complete ossification of this epiphysis with union to the shaft occurs at the age of 17 to 18. When this has taken place there is no further trouble. My experience of twenty years has allowed me many opportunities of verifying this, as well as that the ailment does not result in any stiffening of the joint, though an enlarged joint end is perceptible.

Causation.—In my opinion this ailment, in the form I have described, is due to much walking in boots made with strong unyielding soles. I am the more inclined to think this correct as I find that it prevails more when the boys are wearing new boots.

Treatment.—Rest without boots, and iodine paint daily, for four or five days, results in an alleviation of the condition, so that the boy is able to go to work.

REMARKS.—It would hardly seem that the complaint I have described is identical with the form of the ailment described by Mr. Tubby, judging from the article on p. 976, vol. ii, 1903, yet his account of the case of the youth aged 17 in the same article appears to me to indicate a complaint very similar in character to that which comes under my observation so frequently.

JOHN SINCLAIR.

Medical Department, General Post Office, E.C.

POTASSIUM BROMIDE IN INFLUENZA.

I HAVE often felt surprised that so little mention has been made of this valuable drug in the literature of influenza. Those of my medical friends to whom I have spoken of it have, for the most part, turned a polite but deaf ear to my eulogies, doubtless dreading the effect of such a depressing agent in an illness sufficiently so in itself. But I have often found it to have a sedative and even tonic action in neurotic and hysterical cases. It is most valuable in the treatment of acute mania, alcoholism, etc., and in cerebro-spinal meningitis, and why not in a disease like influenza, in which the nerve tissues are probably in a state of inflammation, or at least of great irritability? I have found it specially useful in cases in which aching in the head and limbs was a prominent symptom given in doses of 10 gr. or 15 gr. every two or three hours and during convalescence (in spite of the apparent therapeutic incompatibility) have found tr. nucis vomicae go very well with it as a tonic. It should be given with care to old or bronchitic patients and to those with valvular disease of the heart, though in all such cases the ammonia salt may usually be given with safety.

GEORGE A. BALLINGALL, M.D.Brux., etc.

St. Leonard's-on-Sea.

MESENTERIC EMBOLISM.

THE following case presents certain points of interest:

W. C., aged 78 years, a farmer, had for some few years had mitral disease and markedly atheromatous arteries.

On December 22nd, 1903, an attack of cerebral embolism, unaccompanied by loss of consciousness, resulted in partial paralysis of the left side.

On January 5th, 1904, having then been convalescent and getting up for some days, he had an egg for breakfast, got up, and during the morning had some milk to drink. About noon he had a sudden attack of acute pain centreing in the umbilicus, vomited, and had an urgent desire to defaecate. He passed a copious motion, but the abdominal pain continuing to be very acute I was sent for and saw him at 4.15 p.m. He was in bed and suffering so much so that he could hardly be still for me to examine him and had difficulty in telling me his symptoms.

He referred the chief pain to the umbilicus, but said that it extended from that point across to both sides. The abdominal wall moved fairly freely with respiration, but was rather hard, tender upon pressure, and tympanitic upon percussion, without marked distension. His skin was cold, and the face had a pinched look, and denoted great suffering. The pulse was small, irregular, and slightly increased in rate. I gave him two hypodermic injections of morphine sulphate (¼ gr.) at an interval of twenty minutes, and after that ½ gr. every three hours by the mouth. The pain, however, was not relieved, and he suffered intensely during the night. He also vomited several times what was described as "a dark reddish-brown fluid, just like blood." It clotted in the vessel into which it was received, but, unfortunately, was thrown away, so that I did not see it myself.

I diagnosed mesenteric embolism, and gave a very bad prognosis, borne out by his death at 10.30 a.m. on January 6th. Having obtained permission to do a partial necropsy I opened the abdomen 29 hours after death, noting beforehand that putrefactive changes were evidently taking place rapidly, the smell very bad, the abdomen distended, and its walls in many places purple. On opening the peritoneum much gas and bloody serum escaped, and the transverse colon presented in the upper half of the incision. The whole of the colon looked congested, but especially the transverse part, which was very dark purple in colour; here there were three spots, about 1 in. in diameter, where the peritoneal coat had given way and the inner coats were bulging through. Some parts of the small intestine were congested, but only very slightly as compared with the colon. The peritoneal cavity contained a large quantity of blood-stained fluid, but no lymph or pus was present, while the stomach and appendix were both normal in appearance. Beyond what I have noted I could find nothing further abnormal in the abdominal cavity.

Taking the history of the case, the recent attack of cerebral embolism and the sudden onset of the abdominal attack, without other obvious cause, one was justified, I think, in diagnosing embolism of a mesenteric artery, and this diagnosis appears to me to have been borne out by the necropsy, so far as it was possible to perform it, the superior mesenteric probably being the vessel occluded.

Culmstock, Devon W. HORTON DATE.

BILHARZIA IN PERSIA.

IN looking up the distribution of bilharzia I have been unable to find any mention of the disease as occurring in Persia. Dr. Powell, in the BRITISH MEDICAL JOURNAL of February 28th, 1903, mentions the fact that Major Childe, I.M.S., has seen a few cases in Bombay, his patients being Persians. Dr. Sturrock, of the Church Missionary Society, has pointed out the prevalence of the disease in Mesopotamia. The Persians, being Shia Mohammedans, annually visit Kerbela in large numbers on a religious pilgrimage; so that it is quite possible some might contract the disease whilst making the journey. The case I now wish to report is that of an officer in the Persian army. He has travelled much in Persia, but has never been outside the country. His only symptom is a painless haematuria. The ova are easily found on microscopic examination of the urine. Stone and ankylostomiasis are also common in Fars, the district in which the patient lived. It would be of interest to know what part of Persia Major Childe's cases came from.

JOSEPH SCOTT, M.B., C.M.Glasg.,

Medical Superintendent Government Indo-European Telegraph Department, Teheran, Persia.

DISSEMINATED SCLEROSIS AND EXOPHTHALMIC GOITRE.

IN the case of such diseases as disseminated sclerosis and exophthalmic goitre, in which the causation is so little known, all information is important. Last year a lady consulted me who was suffering from disseminated sclerosis and exophthalmic goitre, both fully developed. In January of this year I saw a young lady with well-marked exophthalmic goitre, and on making inquiries (because of similarity of surname) I found she was related to a family, three of whom (out of six children) I had seen with aberrant disseminated sclerosis. A fortnight ago I found that one of these last mentioned three had developed a goitre, but had no other signs of Graves's disease.

Of course, I know full well that such cases may be the merest coincidences, but I should like to ask your readers if they have seen any connexion between these two conditions, and if so, whether it is possible to suggest a common cause.

Manchester. ERNEST S. REYNOLDS, M.D. Lond., F.R.C.P.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROCHDALE INFIRMARY.

RUPTURE OF THE MIDDLE MENINGEAL ARTERY BY CONTRE-COUP.

(Under the care of A. JEFFERSON, M.D., B.S.Lond.)

By WILLIAM C. BURNS, M.B., Ch.B.Glasg., late House-Surgeon to the Infirmary.

A. O., female, aged 34, was admitted to the Rochdale Infirmary at 8.30 a.m. on December 12th, 1903, having been found in the street in an unconscious condition. On admission she was somewhat collapsed, her temperature being 98° F., her pulse rapid and thready, her face very pale and her extremities cold. She was in a state of muttering delirium and any attempt to gain information from her regarding her identity resulted only in increased restlessness and muttering. She had a scalp wound over the right parietal eminence of about ¾ in. in length extending through all the tissues of the scalp and exposing the bone for about ½ in. The wound was not clean cut but showed on its upper edge two short cuts at right angles to its length and about ¼ in. to ½ in. in length. No depression or fracture of the skull could be seen or felt through the wound.

There was a superficial wound over the right eyebrow as well as a bruise on the right side of the nose over the prominent part of the nasal bone. The right shoulder was dislocated and there was bruising of the right elbow. (An attempt was made to reduce the dislocation but this failed and at the necropsy the dislocation was found to be an old one.) Both pupils were contracted equally. There was no bleeding from the nose, ear, or mouth, and no subconjunctival haemorrhage.

Examination of the chest revealed marked dullness at the right base with diminished respiratory murmur while higher up pneumonic crepitation was easily heard as well as bronchial breathing. Some crepitation was also heard over the left lung towards the base but there was no dullness.

The catheter was passed and several ounces of urine were drawn off. This had an acid reaction; specific gravity 1020; albumen present in a marked amount; no sugar was present. Ophthalmoscopic examination revealed albuminuric retinitis, but there was no marked swelling of the optic discs. The patient was delirious all day, but was able to swallow some fluid nourishment even as late as 7 p.m. The temperature rose gradually throughout the day, and at 8 p.m. it registered 101·8° F. The pulse had improved during the day, becoming less rapid and regaining tension, without registering, however, less than 110 per minute. The respirations averaged about 30 per minute during the day. After 8 p.m. the patient became more unconscious, and the breathing became more rapid and laboured, the pulse increased in rapidity, and the face became slightly cyanosed. There was now general muscular relaxation hitherto there had been no difference in the tone of the muscles on either side which could act as a guide to the localization of cerebral pressure. At 9 p.m. the respiration and pulse were both much increased in frequency, and the patient died suddenly or being caused slightly on account of the onset of pulmonary oedema.

At 9 a.m. December 13th, I made the post-mortem examination. The body was that of a fairly well-nourished female. There was a fair degree of *post-mortem* rigidity. The wound over the right parietal eminence was as already described in the clinical report. On reflecting the scalp a fine fissured fracture was seen, commencing somewhat in front of the anterior limit of the scalp wound, and extending forwards and downwards to the junction of the parietal with the frontal and sphenoid bones. There was extravasation of blood through the fracture into the temporal muscle. On opening the skull the fissure was seen to extend through both tables, and to traverse the base of the skull to a point in a transverse direction along the posterior limit of the anterior fossa. On this the right side there was no subarachnoid haemorrhage. On the left side of the skull cavity a very large subarachnoid haemorrhage had taken place from a small rupture in the anterior branch of the middle meningeal artery. The clot covered an area of quite 3 in. square, and was situated in the middle fossa, extending upwards and backwards. There was slight subarachnoid haemorrhage over the same region (left lateral), but no extravasations in the cerebral cortex. Careful search revealed no fracture on the left side of the skull, nor was there any evidence of injury in the tissues of the scalp covering that region. The right lung presented the condition of red hepatization in its lower and middle lobes. The right pleural cavity contained a quantity of sero-purulent fluid (about 6 or 8 oz.), and there were flakes of lymph over the pleural surfaces. The lower lobe of the left lung was engorged in places, but there was no consolidation of it. The pericardium contained more than the normal amount of fluid. The heart was normal both as regards its walls and valves. The liver was enlarged. Spleen normal. The kidneys were both acutely congested, smaller than normal, and the capsule of each was for the most part adherent to the cortex, and could not be stripped off without in places tearing off the underlying cortex. The alimentary tract was normal as were the uterus and ovaries.

REMARKS.—The presence of acute pleuro-pneumonia, associated with serious renal trouble in a patient simultaneously with a severe scalp wound and other evidence of injury to the head, rendered anything like an accurate idea of the amount of intracranial mischief almost impossible. Total muscular relaxation did not take place until about one hour before death, and there never was sufficient difference between the tone of the muscles on the two sides to justify one in arriving at a certain diagnosis of compression, let alone a diagnosis of its situation. The principal point of interest in this case is, however, the occurrence of rupture of the middle meningeal artery on the side opposite to the injury inflicted on the skull. The entire absence of witnesses of the accident renders it impossible to say with certainty that no injury was inflicted on the side of the ruptured artery, but all the positive evidence of injury is in favour of the woman having fallen violently on to the right side of her head and body, while the entire absence of any trace of injury to the left side of her head and body, even on dissection of the scalp, forms negative evidence of some weight (in an alcoholic subject especially) that no injury was received on the left side of the head. It is of course possible, as Dr. Jefferson suggested, that an injury on the side of the haemorrhage might have been sustained by the woman colliding with some object, for example, door-post, off which she fell headlong on to a stone and thereby received the scalp wound and fracture. The balance of the evidence, however, is greatly in favour of the artery having been ruptured by a blow on the opposite side of the skull, in other words, by *contre-coup*. Several of the modern textbooks which I have consulted do not mention the possibility of such an occurrence, but Erichsen gives two cases, and Druitt's *Surgeon's Vade Mecum*, as early as 1887, quotes Bergmann as having seen it three times in 23 cases. In conclusion, I beg to tender my thanks to Dr. Jefferson for kindly permitting me to publish the notes of the case.

REPORTS OF SOCIETIES.

CHELSEA CLINICAL SOCIETY.

ANNUAL CLINICAL DEBATE.

T. VINCENT DICKINSON, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 15th, 1904.

"INTERNAL SECRETION" IN DISEASE AND IN TREATMENT.

PROFESSOR HEWLETT, in resuming the adjourned discussion, said it was necessary to distinguish three varieties of disturbance of internal secretions: the normal secretion of any given gland might be excessive, or diminished, or perverted, and act as a poison, the effect of which would not be neutralized by the normal gland or by gland extract. The administration of gland or gland extract could only be of service when the secretion of the gland in question was diminished, and possibly in some cases in which secretion was perverted. The administration of a gland or extract would do harm if the secretion was in excess. In the case of the pituitary body and the suprarenal capsule, acromegaly, and Addison's disease, the failure, or comparative failure of the use of the extracts of the glands in question in those conditions might be due to the fact that the internal secretion was not simply diminished but perverted. With regard to the thyroid, the distinction between the parathyroids and the thyroid proper needed further elucidation. In the treatment of cases in

which internal secretions were supposed to be diminished it was a most fortunate fact considering the extremely delicate nature of many of the substances produced in the living body and their great proneness to undergo great alteration, if not destruction, in the gastric digestion, or by heating that the thyroid gland extract might be given by the mouth, and that adrenalin, for example, might be boiled and still retain some of its physiological properties. At the same time, those considerations suggested that possibly some simple extracts of the gland could be prepared so that the extract was in as unaltered a condition as possible, and if the extracts could be injected better results in some cases might be obtained than it was possible to get at present. They might also hope for some practical outcome in the direction of the preparation of antisera: an antithyroid serum, for example, for disturbance of the thyroid, an antiadrenal serum for disturbances of the suprarenals, and so on. The method of preparation of such a serum would be to inoculate animals with unaltered extracts of the glands in question. After a course of treatment the serum of the injected animal acquired antiproperties towards the gland with which it had been injected. Such antisera, it might be conceived, would be of considerable service in cases in which the secretion of the gland was in excess. That mode of treatment had already been applied to some extent in exophthalmic goitre, and, it was stated, with benefit. Experimentally it had been found that antisera prepared by injecting animals with extracts of thyroid or the adrenals were possessed of very powerful physiological properties. It was interesting to note that when using antithyroid serum the parathyroids were unaffected, pointing to a distinction of function between the thyroids and parathyroids.

Dr. HALE WHITE confined himself to clinical and *post-mortem* points in connexion with internal secretion. He said that inasmuch as many cases of diabetes had been most carefully examined after death, and no change had been found in the pancreas, there was rather a tendency to belittle the pancreas, and not to assign to it its full share in the production of diabetes. In order to test that matter by *post-mortem* experience he had gone through the *post-mortem* records of Guy's Hospital from the year 1884 to 1897, fourteen consecutive years. During that time the number of necropsies in the hospital was 6,708, and the pancreas appeared to the naked eye of the morbid anatomist diseased or injured in 142 instances. The most frequent disease met with in these 142 instances was primary malignant disease of the pancreas in 31 instances, and 26 instances of what the morbid anatomist described as a cirrhotic, congested, or hard pancreas. The next most frequent condition was the small atrophic pancreas, of which there were 19 cases. Some of those 19 pancreases, which were described in the words of the morbid anatomist as atrophic, weighed 1 oz. On looking back at the clinical reports, and contrasting them with the necropsies, it was found that no fewer than 16 of those 19 people had diabetes. Oser fully confirmed this experience of Guy's Hospital; he considered it proved that although one cause at least of diabetes was disease of the pancreas, yet that organ might be perfectly healthy as far as the microscope could discover, and also that the pancreas might be totally destroyed by disease without there being any diabetes. Haussmann, of the Berlin Pathological Institute, found in ten years that they had 8 cases of diabetes without pancreatic disease, 6 without any mention of the pancreas in the *post-mortem* report, 40 cases with disease of the pancreas, and 19 cases where the pancreas was considerably diseased, but where there was no diabetes. Among the 10 cases in which they found disease of the pancreas 36 were simply atrophy (practically the same thing as at Guy's). Therefore, in Dr. Hale White's opinion it was proved that pancreatic disease was undoubtedly important in the production of diabetes, but that there were some cases in which no pancreatic disease was present. They were still a long way off from understanding diabetes, and they were still very liable, when a new discovery was made, to rest and not look forward any further. In connexion with this, it was true that disease of the pancreas led to hyperglycaemia, but he thought they were inclined to attach too great importance to that as a symptom of diabetes. They had not got very far in the interpretation of diabetes so long as they only thought about the sugar; there were so many other metabolic perversions in diabetes. For instance, there was the excess of ammonia, the presence of oxybutyric acid, and other metabolic phenomena; and it was gratuitous to attach all the importance of the disease to sugar rather than to those other conditions. It was not the sugar that killed—patients died from diabetic coma, and it was not the sugar which made the person comatose. Was it possible that under the term diabetes they were dealing with many different diseases? He thought some of those present might live to see diabetes separated up into different diseases; and the study of the internal secretion of the pancreas would help in that direction. They had now got as far as diabetes with no pancreatic lesion and diabetes with a pancreatic lesion. It might be possible that the failure of pancreas in treatment was because some of those cases had no pancreatic lesion. Dr. Hale White then briefly touched on the question whether chlorosis was not a perversion of the internal secretion of the female organs of generation? It was a peculiar disease, practically confined to women at a particular age, and almost always associated with amenorrhoea. Passing on to exophthalmic goitre Dr. Hale White said it had been pointed out in the debate already that it was probably an auto-intoxication from internal secretion of an abnormal gland. There were some features about exophthalmic goitre which that would not explain. It was known that any large collection of cases would show an association with rheumatic fever. Out of a thousand women who had had rheumatic fever and a thousand women who had not had it, those who had had it were more liable to exophthalmic goitre than those who had not had rheumatic fever. Then, too, possibly there was a mental association, because it was certainly commoner in women, and most common in women who were unstable mentally. There was no doubt that exophthalmic goitre was slightly hereditary, and the relatives of an exophthalmic goitre patient were liable to have diabetes, and future research should be directed to show whether it was diabetes proper, or merely glycosuria. An interesting fact in connexion with the view that exophthalmic goitre was an auto-intoxication from an abnormal thyroid was the undoubted influence of shock. He agreed with Professor Hewlett that it was necessary to know a good deal more about the parathyroids in connexion with the thyroids, for it was possible that they were the key to the situation. In concluding, Dr. Hale White suggested that they were still very much in the dark about the suprarenals, in spite of the discovery of adrenalin and its powerful action. Valuable and interesting as was the discovery of adrenalin, they must not jump to the conclusion that they knew what was the precise cause of Addison's disease. He also suggested that the symptoms of cirrhosis of the liver might be due to a perverted internal secretion of the liver, and he threw out the suggestion that it was possible that Hodgkin's disease was a perversion of internal secretion of the lymphatic glands.

Dr. ROSE BRADFORD, F.R.S., in summing up the debate, said he felt that the previous speakers had really said all that there was to be said on the subject, and therefore he would try to summarize, as shortly as possible, their present knowledge. The subject of this discussion had been looked at from a very broad standpoint indeed, especially by Dr. Wright, who had embraced practically the whole question of immunity. If they restricted their remarks to the internal secretions which were produced by those aggregations of tissue elements which they called glands, they might look at the subject first of all from the physiological side, where it perhaps might be permissible to say their knowledge was more definite at the present time, or at any rate in a more concrete form, than when dealing with the pathology of the subject. Sir Lauder Brunton and Dr. Hale White had pointed out that the earliest internal secretions to be recognized by all were those of the generative glands and that of the liver; and it was interesting, with reference to the generative glands, to observe the complete confirmation, if such confirmation were wanted, which was afforded by Mr. Shattock's exact experiments with regard to the different effects produced by castration in animals, and those produced by ligature of the vas deferens, particularly his observations conducted on a certain breed of horned sheep, in which he showed that the ligature or excision of a portion of the vas deferens in the young male in no way prevented the development of the horns; whereas removal of the whole gland produced, both in mammals and birds, the production of a form which was somewhat similar to the female. The glycogenic function of the liver was of great interest from the point of showing how very definite a substance was produced by that gland, and it was interesting to correlate with this the fact that in the other glands, such as the thyroid and suprarenal, there also the secretion or product of the activity was a very definite chemical substance which could be isolated, weighed, analysed, and its exact nature determined. The state of knowledge with regard to

the internal secretion of the pancreas, however, was unsatisfactory, since, although there could be no doubt as to its existence, its exact nature had not been determined. Another physiological point was that the glands, which apparently sometimes produced an internal secretion only, at other times seemingly had an external secretion as well. A group of glands appeared to provide either an abundant external secretion only, for if they produced any other there was no evidence of it. Among such glands were the salivary glands, and the kidney must also be included amongst them, because, although there were various grounds for thinking that the protoplasm of the kidney was in some way concerned with metabolism, there was yet no very conclusive proof of the existence of internal renal secretion. Passing from this very definite and concrete knowledge to the facts observed in pathology, Dr. Bradford thought that only in regard to myxoedema were the facts really clear. In myxoedema they were quite clear, inasmuch as the disease had been produced and arrested, and the condition had been found to be due to anatomical changes present in the gland. So that in the case of myxoedema, at any rate, it could be asserted that the disease was undoubtedly due to an arrested internal secretion. The other two hypotheses, with reference to internal secretion, from a pathological point of view—namely, that it might produce disease by mere increase in the amount, or by an abnormal character of the secretion were all pure theory. In the case of exophthalmic goitre the facts were extraordinarily complicated owing to the relationship of the parathyroid to the disease. The facts with reference to this were that first of all from the negative side if the whole of the thyroidal tissue were removed and the parathyroids left, the animal did not die. The explanation of the survival of the rabbit after thyroidectomy was that the parathyroids did not lie with the thyroid in that animal and hence removal of the thyroid was not followed by death. Edmunds's experiments on the dog were much more remarkable. He removed both lobes of the thyroid and in some instances almost all the parathyroidal tissue, and yet the animal survived that operation for a long period. In the monkey and in man that operation could not be done, inasmuch as parathyroidal tissue was scattered in the midst of the thyroidal. A still more difficult fact, with reference to exophthalmic goitre was that the changes which were present in the hypertrophied gland were closely similar, if not identical, with those which were produced by the partial removal of the thyroid. Mr. Edmunds himself said some years ago that if he were shown a section of exophthalmic goitre tissue, and a section of a thyroid which had undergone hypertrophy after partial removal he might not be able to distinguish one from the other. Further, if the parathyroid were removed and the thyroid tissue left, the thyroid tissue then underwent the same curious change. There was the fact that in exophthalmic goitre the enlargement of the gland was of such a character as to produce abnormal tissue; secondly, that the same kind of tissue was produced experimentally by the removal of portions of thyroid; and thirdly, that the same kind of tissue was produced experimentally in the thyroid by leaving the thyroid alone and removing the parathyroids. That showed that the question of the nature of the enlargement of the thyroid in exophthalmic goitre was an extremely complex one, and it showed that it was impossible to accept the view that exophthalmic goitre could be due to a mere hypersecretion of the normal thyroid juice. There was, perhaps, something to be said for the view that had been advanced by many, that in exophthalmic goitre the enlargement of the gland was secondary, and not primary. That sufficed to show that the position with regard to the pathology of exophthalmic goitre was not a satisfactory one at the present time. It was, of course, true that many symptoms of exophthalmic goitre could be produced by the administration of large doses of thyroid juice, as Edmunds himself showed, and as Dr. Hale White mentioned. But that apparently was not the whole explanation. In order to form the pathology of the other diseases, such as the supervention of pituitary, associated with disease of the sella turcica was encountered, inasmuch as disease of these glands was associated with certain definite diseases. Addison's disease and acromegaly. There were many sources of fallacy, but all pathologists would agree that there was a definite association between lesions of the suprarenals and Addison's disease, as there was between the pituitary body and acromegaly. The point of resemblance in both these diseases was that a material was eliminated by the particular gland which would explain most of the symptoms of the disease. The material that was produced by the suprarenals caused increased tension, and the fact that the suprarenals in Addison's disease did not contain that substance afforded a fairly satisfactory explanation of the circulatory weakness of Addison's disease. The marked diuretic action of the pituitary extract might afford some illustration of the copious urinary secretion that was sometimes correlated with acromegaly. But in both diseases all pathologists would agree that the whole mechanism of the disease, or the pathology of it, could not be explained on the simple hypothesis of the suppression of an internal secretion. It must be remembered that in the case of the suprarenal the internal secretion was only produced by one portion of the gland, and that physiology was at present silent with regard to the function of the cortex in connexion with the suprarenal. Dr. Bradford agreed with what Dr. Hale White had said with regard to the pancreas in diabetes, that diabetes was only a name for a number of different diseases, and that not only must they recognize pancreatic but hepatic, and possibly renal forms of diabetes. With reference to the point raised by Dr. Rolleston as to the association of two or more ductless glands, Dr. Bradford thought that received interesting confirmation in the *post-mortem* room in the frequent association of enlargement of the thymus, not only with exophthalmic goitre, but also with Addison's disease. With reference to what Sir Victor Horsley had said, cases were occasionally seen which were really mixed cases of myxoedema and exophthalmic goitre. In many cases of enlarged thyroid, possibly even in some cases of exophthalmic goitre, they might have to deal with a mixed condition in which there was amongst other things partial suppression of normal secretion and elaboration of abnormal secretion. The heredity of exophthalmic goitre was an undoubted fact; and was sometimes seen in man. He had known of a father and son who both had exophthalmic goitre, the man at the age of 50 and the son at 22. Dr. Bradford concluded by saying that although a number of observers had described beneficial results in the treatment of certain urinary diseases, and even in the treatment of uraemia, by the administration of renal extract, he thought at the present time, both from the physiological standpoint and from that of pure pathology, that there was no real evidence of the existence of internal renal secretion, and there was certainly no evidence as to this treatment being in any way beneficial. They had thus come back to the point at which they started, namely, that the one crucial instance where the physiology and pathology and the treatment were thoroughly satisfactory was in the case of myxoedema and cretinism.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, March 22nd, 1904.

The Prostate and Prostatectomy.

Mr. J. W. Thomson Walker read a paper on this subject in which he discussed the anatomy of the normal prostate and its surroundings in relation to prostatectomy; the changes in the prostate and its surroundings in enlargement of the organ; the parts left behind after prostatectomy; the structures removed in prostatectomy; and, lastly, made some general observations on the operation. In four specimens of the parts after suprapubic prostatectomy the prostatic urethra was left behind entirely in one, partly in another, and was completely removed in two. In seventy-three specimens from operations by Mr. Freyer the urethra was in some entirely removed with the prostate, in some completely left behind, but much more frequently than either the upper part alone was removed. The investigation supported the contention that the prostate was removed within its capsule and the sheath left behind, and that the operation was a complete prostatectomy.

Mr. Reginald Harrison spoke purely from the surgical standpoint. Was the operation an entire prostatectomy or a shelling out of adenomatous lobules alone? His specimens illustrated both these operations.

Dr. Cuthbert Wallace was in perfect accord with the anatomical points in the paper. The organ completely surrounded the urethra. Many enlarged prostates could not be enucleated: they had to be cut out. But if the contention of the paper were true, they should come out easily. If the adenomatous change were uniform, there would not be easy shelling out, but if it were local there would. The question was, How far was it possible to remove the adenomatous growths and yet leave the urethra intact? When small they might be thus removed, but not when large.

Mr. SWINFORD EDWARDS said that some cases of enucleation were no doubt extracapsular, and some were intracapsular, depending on what plane the surgeon entered: but in either case great relief was given from the obstruction to micturition. In properly-selected cases the operation was highly to be recommended.

Mr. PEARCE GOULD also thought the surgical distinction between an extracapsular and an intracapsular prostatectomy was unimportant. The nature depended on the exact plane which the surgeon happened to hit. He had had in his own experience examples of both types of operation. The value of the operation was extreme.

Mr. PARDOE thought the chief difficulty in accepting the completeness of the operation was because nodules were left behind: but this was not remarkable when it was remembered that the adenomatous mass might burst its way through its coverings and come to lie directly under the mucous membrane alone.

Mr. P. J. FREYER thought the question in dispute was purely of academic interest; but he maintained still that in his operation the whole of the prostate was removed, the true capsule being a part of the gland itself and distinct from the recto-vesical fascia. There were muscular fibres outside the capsule which were sometimes removed: these might come from the sphincter of the bladder or the recto-vesical fascia.

Mr. THOMSON WALKER replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND

MEDICAL SECTION.

Sir J. W. MOORE, President, in the Chair.

Friday, March 4th, 1904.

MILK, HUMAN AND BOVINE.

DR. WALTER SMITH made a communication upon milk, and demonstrated some chemical tests which have been recently proposed. One of the most curious facts in regard to the composition of milk was the presence in it, in measurable amount, of citric acid, which might be considered a specific product of the mammary gland. It had been shown that cow's milk included from one to three times as much citric acid as woman's milk, and the amount might be reckoned as equivalent to about 0.25 per cent. of calcium citrate. To distinguish between human and bovine milk a simple test had been advanced by Unikoff of St. Petersburg. It consisted simply in treating the milk with half its volume of ordinary liq. ammonia, and keeping the mixture at a temperature of 60° C. for about twenty minutes. Human milk assumed a violet-red colour, the shade being deeper according to the puerperal age of the milk. Cow's milk turned faintly yellow. This test was valid and satisfactory. Mr. Saul had proposed a test to distinguish raw milk from scalded or boiled milk. To 10 c.cm. of milk was added 1 per cent. of a recently prepared aqueous solution of "ortol" (used in photography), and then one or two drops of H_2O_2. A vivid deep red colour was produced. Boiled milk was unaffected. To detect formaldehyde added to milk as a preservative a simple test had been proposed by Manget and Marion. A few crystals of "amidol" (another photographic developer) were sprinkled on the milk, slightly diluted. Fresh milk quickly assumed a pink or salmon colour. Milk which contained a a very small trace of formaldehyde slowly assumed a canary-yellow colour.

Dr. LANGFORD SYMES strongly endorsed the opinion as to the futility of giving lime to children as a medicinal measure. The only use of lime added to cow's milk was to modify the physical properties of the curd in the stomach. Too little was absorbed from the digestive tract to render lime of use in treating rickets. He believed that it was not fully understood to what extent sterilization altered the properties of milk, and expressed the opinion that a diet of sterilized milk was capable of producing rickets and scurvy in children. It was open to question whether human milk was secreted absolutely sterile or not.

Dr. TRAVERS SMITH asked if the citric acid in milk was affected by boiling, for if such were the case an explanation was afforded of the powers of sterilized milk to produce scurvy.

Dr. COLEMAN and Dr. CRANNY also spoke.

Dr. WALTER SMITH, in reply, stated that calcium citrate being less soluble in hot than cold milk, some was removed in the scum of boiled milk.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the chair.

Friday, March 11th, 1904.

CHRONIC POLYCYTHAEMIA WITH ENLARGED SPLEEN, PROBABLY A DISEASE OF THE BONE MARROW.

DRS. F. PARKES WEBER and J. H. WATSON contributed this case:

The patient, a cabinet maker, aged [illegible], a native of Holland, who had long resided in England, had formerly been ruddy, in good health, but for six or seven years a variable amount of cyanosis of face and extremities had been noticed. In 1902 he fractured some ribs, and after a year's delusions of persecution. The peculiar symptom complex of chronic cyanosis with splenomegaly and polycythaemia was observed while in Hospital at the end of 1903. At Colney Hatch Asylum, to which he was removed, he remained bodily and mentally feeble, and during an attack of greatly increased cyanosis died suddenly on February 24th, 1904. Apart from the mental symptoms, the chief features of the case were (1) Chronic cyanosis, not to be accounted for by the condition of the heart and lungs. (2) Chronic enlargement of the spleen, though the splenic substance appeared little altered at the necropsy. (3) Polycythaemia, the blood containing about double the normal number of red corpuscles and the haemoglobin value being about 125 per cent. of the normal. (4) Increased arterial blood pressure. (5) Extreme distension of the small veins and venules with blood, well seen during life in the retina by ophthalmoscopic examination and after death in the viscera. (6) Relative dryness of the skin and tissues in spite of there being an absolute plethora of blood in the blood vessels. (7) Urine diminished in amount, highly coloured, and containing little albumen. (8) Frequent digestive disturbance and chronic constipation. (9) Tendency to vertigo and to feeling of prostration. (10) The changes discovered after death in the bone marrow of the shafts of the long bones, the red transformation and disappearance of fat, indicating doubtless increased activity in the production of blood corpuscles.

They thought that injuries to bones might increase the polycythaemia (*a*) by exciting the bone marrow to increased activity; (*b*) by rendering rest indoors necessary, and thus diminishing the destruction of red blood corpuscles. In the treatment of cases, drugs (such as iron compounds) and foods supposed to increase the erythrocyte-forming functions of the bone marrow ought as far as possible to be avoided. The authors suggested that a permanent increase of the osmotic tension of the blood would probably account for the main symptoms of the case, but the presence of such increased osmotic tension could only be confirmed or negatived by the investigation of similar cases. By experiments in Professor J. McFadyean's laboratory with fresh horse's blood, in which coagulation had been prevented by the addition of potassium citrate, the authors, using glass thermometer tubing, had succeeded in proving that, other conditions being similar, increase in the proportion of corpuscles to plasma decidedly raised the "viscosity" of blood.

Dr. HERBERT FRENCH thought the increase of blood corpuscles should have increased the oxidation processes, whereas the patient was cyanosed. Probably the difficulty was primarily in the tissues, the blood corpuscles being increased to augment the oxidation.

Drs. N. DALTON, L. S. DUDGEON, W. PASTEUR, and G. H. RUSSELL (Manchester) also discussed the case.

Dr. WEBER, in reply, said that the retinal veins were particularly distended; the arteries less so. asthenia was one of the most marked symptoms; the spleen was enlarged all the time the man was under observation. There was no thrombosis. The pituitary body and thyroid were normal macroscopically. There was no heart or lung disease. The cyanosis might be partly accounted for by the fatigue of the circulation, the blood passing with great difficulty through the capillaries.

EPILEPTIFORM NEURALGIA OF SUPERIOR MAXILLARY NERVE.

Mr. J. HUTCHINSON, jun., read notes of a case. The operations devised for the relief of the disease, he said, usually failed to prevent recurrence of the neuralgia. In his case he trephined the temporal fossa, and, raising the brain, resected the nerve for nearly half an inch near the foramen rotundum. The neuralgia had not returned a year after the operation. The scar was quite hidden in the scalp.

Mr. STANLEY BOYD mentioned the case of a woman, aged 69, upon whom he had done three operations in different years, but pain had recurred after each. Lastly, he had done the operation now recommended by Mr. Hutchinson, and a year afterwards there was only slight recurrence of pain, and over it the usual drugs had better control.

FOREIGN BODY IMPACTED IN BRONCHUS.

Dr. W. PASTEUR and Mr. T. H. KELLOCK communicated this case.

The patient was a boy aged [illegible] who swallowed a glass stopper four days before physical signs of the presence of the foreign body appeared. Crackling respiration and moist rales were heard. The temperature was normal. Signs of obstruction in the left bronchus existed, and [illegible] showed an indistinct shadow in the same region. Tracheotomy was performed and a foreign body felt with a probe passed down the trachea. Attempts to dislodge it with [illegible] with the forceps failed, but the stopper was recovered by the aid of a [illegible]. The wound in the trachea was closed after cleaning away some mucus which had come up with the foreign body. Four days later the wound had practically healed, and seventh. After that the physical signs in the chest became normal.

The PRESIDENT referred to a case in which pulmonary symptoms resembling those of tuberculosis were present, until the patient expectorated a piece of broken tooth, after which the chest trouble, which had persisted for months, disappeared.

Mr. G. EASTES remarked that the upper part of the body might be depressed in such operations, so that the foreign body might tend to escape by the wound.

Mr. G. H. MAKINS said that glass objects sometimes threw definite shadows under *x*-ray examination. He recalled the case of a child with urgent dyspnœa, in which the presence of a foreign body was suspected. After death the obstruction was found to be due to a caseating bronchial gland which closed the air tube.

Mr. J. HUTCHINSON, JUN., remarked that the glass stopper, though said to be "quite clean," was not aseptically pure, hence the formation of pus which its presence caused. The wire loop succeeded in removing the foreign body whilst the forceps failed; the loop was also the best instrument for the removal of foreign bodies from the ear or nostril.

Mr. KELLOCK and Dr. PASTEUR replied.

OBSTETRICAL SOCIETY OF LONDON.

EDWARD MALINS, M.D., F.R.C.P., President, in the Chair.

Wednesday, March 2nd, 1904.

THE SITE OF IMPREGNATION.

Mr. HARRISON CRIPPS and Dr. HERBERT WILLIAMSON read a paper on two cases which involved the question of the site of impregnation. It is published in full at page 711.

Mr. ALBAN DORAN considered that the existence of ovarian tissue in Case I on the same side as the Fallopian tube would explain the subsequent pregnancy. External migration seemed to him impossible. As regards Case II, it was unnecessary to assume that the entire tube must be restored before it could resume its functions. Published reports of authentic cases of pregnancy after double ovariotomy supported this opinion. Apart from a case of his own, Stansbury-Sutton, Baldwin, S. C. Gordon, M. M. Morris, and Anderson Rotherham had reported cases where both ovaries and tubes were amputated for cystic or inflammatory disease, yet the patients bore children afterwards. Ligatures seldom closed mucous canals securely, and thus, the stump of one tube becoming patent, an ovum from remains of ovarian tissue was conveyed to the uterine cavity.

Dr. WILLIAMSON, in reply to Mr. Doran's remarks, said that they had been dealing in Case I with a smooth, rounded, pedunculated dermoid tumour: in removing it there had been no difficulty, and it was improbable that any had been left behind. Such a possibility was borne in mind in the second case, and a careful search failed to reveal anything like other ovarian tissue or an ovary either at or after the operation. He thought that suggestion of the ovum must be regarded as an established fact, and that it was reasonable to believe that it had occurred in this case.

Dr. HERMAN thought there was abundant evidence that the ovum might traverse the peritoneum from one ovary to the opposite tube. There was also ample evidence that an ovum might traverse the uterine cavity from one tube into the other. When ovariotomising or sterilising patients after Cæsarean section, he recommended the tubes altogether.

The PRESIDENT had experienced the difficulty of securing sterilisation by ligaturing the Fallopian tubes, even cutting out a portion of the tube in between. The best method was to excise a wedge-shaped piece of the broad ligament including the tube, near to the cornua of the uterus.

Dr. GIVEN AVERY thought that extra-uterine location of the ovum was much more probable in England. In the first case recorded in the paper. This view was really supported by the cases quoted by Mr. Doran. If a stump without any fimbriated extremity could produce ectopic gestation in its neighbourhood to pick up the ovum, it was still more likely that when the fimbriated extremity was intact it might readily attract an ovum of the opposite side which had escaped just beyond the range of the ciliary current of the tube of its own side.

Dr. BOXALL found no difficulty in believing that with the pelvic organs and intestines closely applied in what was under ordinary circumstances during life merely a potential cavity, the ovum floating about like a drop of oil, might find its way from one ovary to the abdominal ostium of the Fallopian tube of the opposite side, and so be swallowed; or, for the matter of that, find its way into an ovarium in the tube which had resulted from its severance.

Dr. CULLINGWORTH, remembering that in inflammatory disease the appendages of the two sides were found united to each other behind the uterus, would go even further than Dr. Boxall, and say that the ovaries and abdominal ostia of the Fallopian tubes not only lay within a much more contracted area than appeared to be generally supposed, but were not infrequently in actual contact. Writers, in speaking of the ovum travelling across the peritoneal cavity, conveyed the impression of a long and almost inconceivable journey, whereas the ovum might merely have to step in next door.

Mr. HARRISON CRIPPS replied.

FIBROIDS COMPLICATED BY PREGNANCY.

Dr. FLORENCE BOYD reported two cases. In one a Porro-Cæsarean section was performed; a living child was delivered, but the mother died after two days' satisfactory progress, marked acceleration of the pulse, and abdominal distension preceding death. Local peritonitis was found at the site of an intestinal adhesion, but blood and peritoneal fluid proving sterile, death was ascribed to hampering of the heart's action by over distension of the intestine above the adhesion. In the other, a case of multiple fibroids, the uterus was removed entire by supravaginal amputation between the fourth and fifth months. The patient made a good recovery. The posterior uterine wall was thinned out, and the placenta implanted low down in an intramural fibroid, suggesting the probability both of rupture and haemorrhage had labour occurred spontaneously.

A discussion followed the reading of these notes, and revealed much difference of opinion among the members present as to the propriety and necessity of operating in early cases of pregnancy on account of the coexistence of fibroids.

TUBAL GESTATION.

Dr. HANDFIELD-JONES showed two cases; in both rupture occurred at about the seventh week; in one death occurred from severe haemorrhage into the peritoneal cavity; in the other the escape was only slight, but in both much blood clot was found in the distended tube surrounding the ovum.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

A. WHITELEGGE, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, February 19th, 1904.

THE ETIOLOGY OF SCURVY.

DR. MYER COLLANS read a paper on the etiology of scurvy based on the records of an outbreak of the disease in the Eastern Transvaal towards the close of the Boer war in May, 1902, and lasting up to the end of March, 1903. At this time the entire population subsisted on rations supplied by Government, and with one exception the outbreak was confined to natives, and chiefly among those attached to various camps near Standerton. The camps were separated, but the dietaries varied. The incidence of the disease was as follows: Of gun mule drivers in the Repatriation Department 50 per cent. were affected. They were perhaps the best fed, but their camp was dirty and overcrowded. In men attached to other corps, such as the Army Service, transport scavengers, the rates varied from 10 per cent. to 70 per cent. One European soldier was alone attacked, a man attached to the scavenger corps. The incidence and intensity of the disease bore no relationship to the food supplied, which was of a uniformly excellent character, and supplemented in many cases, when the outbreak first began, by the fresh vegetables which could then be obtained easily. The prevalence of the disease varied inversely with the extent to which the natives were under European control, and directly with the sanitary conditions under which they lived; if the latter were bad the incidence was heavy. No natives acting as servants to Europeans were affected. Clinically the dis-

case commenced in a definite manner with inflammation at the edge of the gums, near which were aggregated particles of food. This zone of hyperaemia rapidly spread over the remainder of the gums, and in a few days the gums showed the characteristic soft, spongy, swollen appearance. Deep down in the sulcus between gum and tooth could be found small cheesy-whitish masses of micro-organisms and food débris. In early cases the obtaining of buccal antisepsis was sufficient to effect cure without alteration of diet. Attention to dietetics was necessary in the advanced cases, but if attention was paid to dietetics alone the cases dragged on. On the clinical and epidemiological evidence Dr. Coplans based the opinion that the scurvy was a specific infection, requiring for its propagation close contact of individuals and absence of precautions in the way of mouth and body cleanliness; that the infection occurred through the mouth and gums, and possibly the swallowed saliva; and that food might act, under conditions of dirty storage, as a vehicle for contagion. The method of treatment should consist primarily in isolation of the affected individual, coupled with vigorous buccal antisepsis. In those collections of individuals in which scurvy was likely to break out regular mouth cleanliness should be insisted on, and this could only be enforced by regular medical inspection.

Professor Wright could not agree with Dr. Coplans's views, and thought his methods of treatment of no real value except in delaying the actual onset of the disease. In his opinion the disease was due to reduced alkalinity of the blood.

Colonel Lane Notter, who had been at Standerton, confirmed the statements as to the filthy habits of the natives at that place.

Dr. Newton Pitt was not inclined to support the view of Professor Torup of Copenhagen—that ptomaine poisoning was at the root of the disease.

Dr. Bulstrode quoted Lind, who had long since come to the conclusion that the absence of fresh vegetables from the dietary played no part in the disease.

Dr. Willoughby thought that the experience of Arctic expeditions pointed to ptomaine poisoning as the cause of the disease.

Professor Kenwood, on the facts shown in the paper, thought that Dr. Coplans's conclusions were perfectly justified. He remarked on the change of front that had taken place lately with reference to several other subjects. Infantile and adult scurvy were not the same thing.

Mr. Goadby had seen on the *Dreadnought* no cases of scurvy, but many cases of pyorrhoea alveolaris from the West Coast of Africa and elsewhere. Perhaps Dr. Coplans's cases were of the same character.

Lieutenant-Colonel Firth, Lieutenant-Colonel Davies, R.A.M.C., and Dr. Nash also spoke.

Dr. Coplans, in reply, said that the death-rate among the men admitted to hospital was 12 per cent. None of the medical officers who had seen the cases had any doubt as to the diagnosis. The dietetic conditions at the time of the first outbreak were better than they had been for months before. The diet of the affected and unaffected was the same; dirt was the chief feature of the condition under which the former lived.

MIDLAND MEDICAL SOCIETY.

Professor Saundby in the Chair.

Wednesday, March 2nd, 1904.

Rupture of the Axillary Artery.

Mr. Albert Lucas showed a man, aged 51, with the following history:

He was admitted to the General Hospital on November 14th with a large swelling of the right shoulder. He stated that he had fallen on his shoulder the night before when mounting a tram car. The shoulder had also been dislocated on two previous occasions. When seen by Mr. Lucas on November 15th there was a very considerable swelling of the shoulder, some pulsation could be felt beneath the clavicle and on deep pressure in the axilla. The pulse could not be felt at the wrist. Under an anaesthetic the subclavian artery was exposed in its third part and a stout loop of catgut passed round it. The artery was then compressed by the finger against the loop. An incision was then made from just below the middle of the clavicle through the pectoralis major into the axilla following the line of the axillary artery. The artery was found torn through just below the level of the coracoid process, the ends were freed and ligatured with catgut. A quantity of clot was removed from beneath the deltoid and from the axilla. The pectoralis major was sutured and the wounds closed.

The patient made a good recovery, and when shown had almost as good an arm as before. At first there was complete paralysis of the arm, but this had cleared up. No pulsation could yet be felt in the vessels of the arm. Mr. Lucas laid great stress on the advantage in these cases of a temporary ligature in the subclavian artery.

Right Hemianopia.

Dr. Emanuel showed a man, aged 51, with the following history:

He had been the subject of chronic nephritis, and eighteen months before had a "stroke." After a period of unconsciousness lasting twenty-four hours he was found to be paralysed in the left face, arm and leg, and to have numbness and a sensation of pins and needles throughout the paralysed parts. From this left-sided hemiplegia he had gradually recovered, and at the present time showed only a little weakness of the left side of the face, a weakened grip of the left hand, and some persistent numbness in the fingers of that hand. Eight months ago he had another attack in which he lost consciousness for about an hour, and ever since he has been unable to see things to the right of him. This second attack was associated with numbness in the right hand, but was not accompanied by any motor paralysis of the right side. The following is a note of the patient's present condition: Pupils unequal, the left of medium size, the right small. Both pupils contract to light and accommodation. The contraction to light is very sluggish and best obtained by central illumination. The peripheral parts of the retina respond so feebly that no definite statement can be made with regard to the presence of a hemiopic pupil.

Vision. Right eye, ⅔; left eye, ⅘ partly; both eyes together, ⅔ full.

Fundi.—No neuritis or retinitis. Some opaque nerve fibres at upper and lower margins of left disc.

Fields.—The perimeter tracing shows complete right homonymous hemianopia with a peripheral contraction of the left fields of about 15°.

Hearing, smell and taste are unaffected on either side, and except for the numbness in the right hand there is no paralysis of motion or sensation in the right side.

Dr. Emanuel was of opinion that eighteen months ago the patient had had a haemorrhage into the posterior limb of the right internal capsule, and that the attack eight months ago was due to a second haemorrhage into the extreme posterior limit of the left internal capsule.

Otitis Media.

Mr. George Heaton showed three patients upon whom he had operated for intracranial complications occurring in the course of middle-ear disease:

1. A girl, aged 19, operated upon in June, 1903, for a cerebral abscess in the right temporo-sphenoidal lobe. The lateral sinus had been inadvertently opened a few days previously without any ill-results following.

2. A man, aged 31, who had been successfully operated upon two years ago for infective thrombosis of the lateral sinus and a large abscess on the brain. An ounce and a-half of pus was evacuated.

3. A man, aged 30, who had been successfully operated upon five years previously for infective thrombosis of the lateral sinus. The jugular vein was not ligatured.

The first patient had made a good but slow recovery. Lately she had had a small abscess re-form on the scalp over the site of the old operation, due to a small piece of necrosed bone. The second patient was in perfect health, and had no pain or inconvenience. There was occasionally a little discharge from the affected ear. The third patient was in robust health, and had had no pain or discharge since the operation. The hearing of that ear was entirely destroyed. After demonstrating these cases Mr. Heaton read a paper on the Diagnosis and Treatment of the Intracranial Complications of Middle-ear Disease.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on March 9th, J. Nigel Stark, M.D., President, in the chair, Dr. G. Balfour Marshall read a paper on Intraperitoneal Haemorrhage and Haematocele arising from Tubal Abortion or Rupture, with illustrative cases. Emphasizing the necessity for early diagnosis, he pointed out that in some cases the patient had the ordinary subjective signs of an early uterine pregnancy, and was unaware that anything was wrong until seized with sudden pain in the lower abdomen. The usual symptoms in over half of all cases of tubal gestation were irregular uterine haemorrhage with cramp-like pains in one or other iliac region. Tubal abortion was much commoner than tubal rupture. The glandless tubal mucosa hypertrophied only slightly, and did not form a decidua such as was found in the uterus. The trophoblast and chorionic villi of the growing ovum readily perforated this thin layer and opened into the enlarged tubal vessels. This gave rise to haemorrhage which partially or completely separated the ovum and ended in the majority of cases in an incomplete or complete tubal abortion between the fourth and twelfth weeks. The tube might rupture spontaneously as the result of perforation of the wall by the growing villi from sudden distension by haemorrhage or by violence.

Schroeder explained the formation of haematocele in two ways: (1) The pelvic cavity had previously been shut off from above by adhesions; (2) a quantity of blood escaped into Douglas's pouch, irritated the peritoneum, and formed adhesions among the bowels above. The latter was the most generally-accepted explanation. The symptoms of intraperitoneal haemorrhage, free and encysted, were then enumerated. If expectant treatment were adopted, the mass gradually became hard, nodular, and less sensitive. It might take months to absorb, and during this time the patient was an invalid. The uterus ultimately became densely adherent to the rectum and posterior pelvic wall. It was generally accepted that an ectopic pregnancy, as soon as it was diagnosed, should be promptly removed. There was, however, a difference of opinion as to whether expectant or operative treatment should be adopted when a haematocele had formed. If seen at the onset of intraperitoneal haemorrhage operation should be performed at once, as all cases could not be expected to end in haematocele. If the haematocele were large it should be operated on whether seen recently or some weeks later, since to leave such a case to Nature was to condemn the patient to a very prolonged period of invalidism with the formation of dense adhesions. If operation were performed it should be by abdominal section. The affected tube or tubes, all blood clot, and as much as possible of the fibrinous sac should be removed. Drainage, if necessary, was best carried out by the vagina.

REVIEWS.

OBSTETRICS.

THE modest title of *The Practice of Obstetrics*[1] of Dr. EDGAR'S book might seem to imply that the author does not aspire to instruct his fellow-teachers and specialists, nor expect his book to interest them or to alter their opinions. The student may suppose that it is a mere digest to help him to pass his examination, and the practitioner that it is a handy guide in the common emergencies of practice. It is in reality the most comprehensive treatise on the science and practice of midwifery that has yet appeared. It is distinguished from all previous works on the subject by its extraordinary wealth of illustration. The illustrations are not all of equal merit; some are borrowed woodcuts that have done duty many times before. But many are original and of high artistic merit. Everything that could possibly be made clearer or plainer by means of illustrations is so illustrated.

The section on examination during pregnancy is excellent. The strictest antiseptic precautions are inculcated. The ideal method of conducting labour, in Dr. Edgar's opinion, is that that the accoucheur shall wear sterilized rubber gloves. Abdominal examination is fully described and illustrated. There is, however, one simple instrument, the utility of which might be pointed out; we mean the tape measure. Pelvimetry, both external and internal, is carefully described. Dr. Edgar gives a method of direct internal pelvimetry with the closed fist, which he says he has practised for a number of years, and which, he adds, "when applicable is the most positive and satisfactory of the internal means for determining the available space at the inlet." We agree with Dr. Edgar in his estimate of the superiority of manual measurement to measurement with any pelvimeter. But he must surely know that a method of pelvimetry identical in principle with his own, but slightly more systematic and precise, was described in the eighteenth century by an Englishman, Mr. Robert Wallace Johnson, and Johnson's method has been quoted in recent English books. Dr. Edgar frequently couples proper names with much smaller matters than this. Methods of "cephalometry" are described, and its importance pointed out. In describing how to press the head into the brim, the author does not lay stress on the position of the patient, a point which experience has taught us is important. The head enters the brim more easily if the patient is so placed that the long axis of the uterus is vertical and at right angles to the plane of the brim.

Then comes a section on "the hygiene and management of pregnancy," which, on the whole, is sound and good, except that we think the advice which is recommended as to sexual intercourse during pregnancy is except for reasons special to a very few cases unnecessary, and likely to do more harm than good to practitioner as well as patient.

More than 200 pages are devoted to "pathological pregnancy." This is treated in a very comprehensive way. Hardly any morbid condition that has been observed with pregnancy is omitted. Many very rare conditions are treated with a wealth of detail somewhat out of proportion to their importance; and, valuable as the book is, it would be still more valuable if it contained references to the evidence for the statements made in it. Thus Dr. Edgar lays it down that tuberculosis is made worse by pregnancy; from which it follows that the induction of abortion in such cases is good treatment. We know that this statement has often been made but so has its converse, that the progress of tuberculous disease is retarded by pregnancy. Up to 1890, when the subject was discussed at the Obstetrical Society of London, there was no decisive evidence either way; and we know of nothing conclusive that has since been published.

Dr. Edgar would have written a better account of the vomiting of pregnancy if he had read Dr. Giles's paper on that subject. Dr. Edgar is not very clear in his account of the mechanical forces which produce the shape of the pelvis. The heads of the femora he says press upward and *inward*; then he says, the resistance of the symphysis pubis counteracts the tendency of the ilia to flare out. A little further on "Litzmann observed a case of split pelvis in which there was no union at the symphysis pubis, so only the two forces acted—body weight and counter pressure of the femora. The resulting pelvis was very wide," etc. Why did not the inward pressure of the femora press the two pubic bones together? We commend to Dr. Edgar's notice Dr. Champneys's paper on "The Pressure of the Femora" in vol. xxv of the *Transactions of the Obstetrical Society of London*. In describing the fetal head, Dr. Edgar does not bear in mind the principle that only those diameters of the fetal head which are the maximum diameters in certain planes and positions of the head are important. Hence the suboccipito-bregmatic and the cervico-bregmatic are unimportant: and the suboccipito-frontal should be measured, not from the root of the nose, as Dr. Edgar says, but from the point on the frontal suture most distant from the nape of the neck.

The author advises against the practice of passing the hand into the uterus to rotate the occiput forwards in occipito-posterior cases. In this we entirely agree with him; but we know of no one in this country who either preaches or practices this manœuvre. Rotation of the back forwards early in the first stage of labour Dr. Edgar speaks of as a "theoretical refinement." It is in most cases an easy thing and the best possible treatment. He advocates forceps when the head is high up, in order first to pull it down into the pelvic cavity and then to turn the occiput forwards. It is probably better to leave such cases alone in the early part of labour, knowing that in most cases the resistance of the pelvic floor will turn the occiput forwards when it gets low enough to meet that resistance. Dr. Edgar has experimentally demonstrated that this is the case. When the head is low down in the pelvic cavity and the occiput is behind, Dr. Edgar advocates rotation with forceps. There are objections to this which do not apply to the practice of manual rotation.

Dr. Edgar is exceptional among American obstetricians in that he has used Ramsbotham's sharp hook and found out how superior it is to Braun's decollateur. He is not a reader of the *Transactions of the Obstetrical Society of London*, for he is not acquainted with subcutaneous symphysiotomy, which was discussed at that Society in 1900. The method Dr. Edgar describes as the subcutaneous or "American" method is almost impracticable. We are sure that if he reads the account given in the English paper we have referred to, and then tries the "American" method, he will soon desist and use the right instrument. We do not call it an "English method, because there ought to be no nationality in matters of science: the description of this or that as "American" methods is Chauvinistic.

The author distinguishes between primary and secondary uterine inertia, and between them and tonic contraction of the uterus, which he calls "continuous or tetanoid action." We do not see why a new name need be coined, nor the superiority of "tetanoid" to tonic, nor a resemblance between tonic contraction of the uterus and the spasms of tetanus. One dictum is cryptic to us. The author says that continuous action of the uterus may be seen in simple inertia (p. 607). How the uterus can be not acting and yet continuously acting at the same time is to us unintelligible. This is, however, we

[1] *The Practice of Obstetrics*, designed for the use of students and practitioners of medicine. By J. C. Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College, Attending Obstetrician to the New York Maternity Hospital, London, Rebman, Limited, 1903. 8vo, pp. xvi + 1020, illustrations.

think, mainly a verbal slip, for the author gives a true picture in his clinical description. But he is loose in his use of words in other places. Thus he gives "uterine exhaustion" as a synonym for secondary uterine inertia, and with this we have no fault to find. But in his description of "continuous or tetanoid" contraction of the uterus he says, "the phenomena of exhaustion," etc. The use of the same word, in the description of these two totally different conditions, would have been better avoided. The author also speaks of "so-called uterine retraction," as if retraction were a myth, and possibly failure to grasp what uterine retraction is underlies the statement that continuous contraction may be present with uterine inertia: for we find no reference to "retraction" in the index.

But the book is a great work, the most notable addition to obstetric literature that has appeared in recent years. The little points that we have taken the liberty of criticizing are but small flaws in a great mass of good work for which we most heartily thank the author.

DISEASES OF WOMEN.

Mr. Roger Williams is of opinion that the analytical method in pathology has been overdone, and that much more summarizing and much less minute detail is called for, especially for the purpose of teaching the nature of disease. *Vaginal Tumours*[1] is a very systematic work, and at the same time readable, whilst the references are so placed and arranged as to save the book from being physically and intellectually bulky; the foreign names are given accurately: thus the author does not linger under the common impression that Gartner is a German surname. The eponymous hero of a duct deserves to have his name properly spelt. The chapter on cancer is very good, and Mr. Williams is right in placing amongst the scanty illustrations a drawing of a case of vaginal sarcoma in an infant. This rare disease puzzles the practitioner when he comes across it, hence it is good that he should be aware not only of its existence, but also of its extreme gravity. Even the specialist's memory may require an occasional reminder about this grave malady, which is too unusual to force itself very prominently upon his attention. The chapter on cysts is very creditable, and the author rightly turns attention to another rare yet serious form of tumour, the non-ovarian pelvic dermoid.

The essay on the pathology of the mucous membrane of the body of the uterus, by Dr. Löfqvist, assistant physician in Professor Engström's clinic at Helsingfors, undoubtedly represents very solid labour. No less than 100 cases of uterine disease from the hospital practice of the Finnish professor are published in full, with clinical history and microscopical appearances of the diseased endometrium complete. The curette and the operation of hysterectomy have supplied the author with the material for his *Pathologie der Mucosa Corporis Uteri*. The subject is unfortunately not so popular as it ought to be, and is also very difficult to treat, for it cannot show operative triumphs, and it deals with a structure liable to certain normal histological variations which are at present far from evident to us. Dr. Löfqvist is right in devoting a chapter to the normal anatomy of the endometrium. Another interesting department of this treatise deals with the important question of the changes in the endometrium in cases of uterine myoma. Above all the author has not aimed at drawing conclusions, and has therefore avoided misleading his readers. The notes of the different ideas of several contemporary workers in the same field are instructive reading. Some express very definite opinions, which, however, are not, we expect, based on patient work on 100 cases. Dr. Löfqvist's method is the more likely to lead to conclusions which may prove reliable.

This issue, in the German language, of Dr. Cullen's monograph on adeno-myoma of the uterus[3] was published, according to a well-known German custom, as part of a "Festschrift" in honour of Professor Orth's jubilee. The matter, beyond the history of the pathological condition in question, is based on the author's work in the wards and laboratories of the Johns Hopkins University. With the work of that famous institution British gynaecologists must be very familiar; the illustrations in this work are of the kind which abound in the pages of Kelly's *Operative Gynecology*. Art could hardly produce anything more perfect, as representing naked-eye appearances of a diseased condition, than Figs. 4, 17, and 20. Relatively speaking, the microscopic drawings are less satisfactory, but they are all plain, and sections of myoma do not show their histological elements very clearly. Still they, like the other illustrations, are a model for European artists. The author includes adeno-myoma of the round ligament and dwells on the relation of this form of uterine tumour to cancer. The essential value of the author's studies lies in their indication of the possibility that "fibroid" means clinically several diseases, which might explain many of the clinical peculiarities of this well-known affection and might even be an important guide to treatment.

Dr. Rosenlew's thesis[4] consists of a painstaking analysis of over seventy cases of inflammatory diseases of the Fallopian tubes in the gynaecological clinic of Professor Heinricius. The "cystic" and "non-cystic" classification of Martin and other contemporary writers is adopted by Dr. Rosenlew; it is convenient, but has the disadvantage of replacing a clumsy but accepted single name like "pyosalpinx" for a clumsier double new one, "sactosalpinx purulenda." The photomicrographs are of good quality, but it is difficult to demonstrate salpingitis by their aid. The clinical histories indicate somewhat too active surgical interference, according to British views. The last word has not been said about tubal inflammation: but this thesis is a good contribution to the subject, and deserves translation.

There can be no doubt that Dr. Tod Gilliam knows how to teach, so that his *Textbook of Practical Gynaecology*[5] is a favourable example of a type of medical literature highly familiar to us. The pages are not crowded with references to authorities, engravings of instruments, and diagrams of several methods of performing the same operation do not cumber the text, and the illustrations are original, so that we miss many old acquaintances by no means indispensable. The phraseology is often original. Thus in speaking of the perils of operation in the middle stage of ectopic pregnancy, the author remarks that

> a coiled rattlesnake in the peritoneal cavity would scarcely be more obnoxious to the surgeon or more dangerous to the patient than an unfavourably-planted living placenta of advanced gestation.

The author is of the modern school, yet moderate. He seems to underrate the importance of pelvic cellulitis, just as too much was written about it by the last generation of gynaecologists, who were very little acquainted with the pathology of the Fallopian tube. In a teaching book more space should have been allowed to this subject. We must admit that Dr. Gilliam takes pains to demonstrate the distinction between haematocele and haematoma, and the drawings prepared for that purpose (Figs. 248, 249) are well suited for the student. There are fashions in gynaecology as in other things, and somehow haematoma, like pelvic cellulitis, has grown unpopular of late, and some authorities seem to take it as a personal offence if any opponent declares that a pelvic haemorrhage is not necessarily intraperitoneal. Although the drawings are artistically inferior to Kelly's, they are as a rule instructive, the first aim in a textbook. The illustrations of ectopic gestation are particularly good in this respect, especially Fig. 251, which shows what should first be done when operative interference is demanded; clamps are represented fixed to the ovarian vessels and to the uterine end of the tube. We may also award honourable mention to the diagrams of ascites, ovarian cyst, and broad ligament cyst. They are original and suited to their purpose. The sketch showing the concluding steps in that operation, which we regret to say is called appendicectomy, is clear and teaches what ought to be taught. Lastly, Dr. Gilliam was wise in making a frontispiece of a coloured diagram explaining the arterial supply of the genital apparatus, a subject with which the practitioner cannot be too familiar.

---

[1] *Vaginal Tumours, their Surgical Relations and Pathology.* By W. Roger Williams, F.R.C.S. London: John Bale, Sons, and Danielsson. 1904. (Demy 8vo, pp. 252. 58.)

[2] *Die Pathologie der Mucosa Corporis Uteri.* Akademische Abhandlung von Reguel Löfqvist. Berlin: S. Karger. 1903. (Demy 8vo, pp. 232, 2 plates.)

[3] *Adeno-myome des Uterus.* Von Thomas S. Cullen, Hulis Professor der Gynäkologie an der Johns Hopkins University in Baltimore. Berlin: A. Hirschwald. 1903. (Demy 8vo, pp. 92, 25 illustrations. M. 3.40.)

[4] *De inflammatoriska Tubsjukdomarnas Pathologiska Anatomi.* Pathological Anatomy of Inflammatory Diseases of the Tubes. Akademisk Afhandling af Wilhelm Rosenlew, Assistentläkare. Helsingfors: Tidnings and Tryckeri. 1903. (Demy 8vo, pp. 2[illegible].)

[5] *A Textbook of Practical Gynecology for Practitioners and Students.* By D. Tod Gilliam, M.D., Professor of Gynecology in Starling Medical College, Columbus, Ohio, etc. Philadelphia: F. A. Davis Company. 1903. (Demy 8vo, pp. 424; 357 illustrations. 4 dols.)

NEUROLOGY.

DR. FRANCIS HARE'S pamphlet, entitled the *Mechanism of the Paroxysmal Neuroses*, consists of a reprint of four articles which appeared in the *Australasian Medical Gazette* last year. The first is devoted almost entirely to a consideration of migraine and its causation and an endeavour to prove, both from the author's experience and from bibliography, that there is "in all cases vaso-dilatation at the seat of the pain, and that the vaso-dilatation is the proximate cause of the pain," such local vaso-dilatation being accompanied by vaso-constriction in other areas. In the second and third papers asthma, angina pectoris, and epilepsy are considered from a similar vasomotor causative aspect, while a summary of the pathological and physiological relationships of the paroxysmal neuroses occupies the final paper. Dr. Hare has given considerable force to his arguments by reference to illustrative cases, and as regards migraine he has no doubt made a strong case, arguing that the derangement of nervous action in sensory centres depends primarily upon a derangement in the blood supply to those centres. Though equally able in his presentation of the theory that asthma is due to vasomotor changes setting up a swelling of the mucous membrane, and that angina and epilepsy are due to similar changes reacting respectively upon the heart and brain, it will require more exhaustive observations before existing ideas upon these maladies become seriously shaken. The frequently observed interchange whereby any one of these affections is capable of being replaced by any other is strongly in favour of their explanation upon a vasomotor theory, and in the last paper Dr. Hare emphasizes this transformation, and calls attention to those composite cases where two or more of the paroxysmal neuroses may become mingled symptomatically. Furthermore, he would extend this conception of an inter-related mechanism to many other recurrent allied affections, for example, tic douloureux, paroxysmal gastralgia, spasmodic croup, Raynaud's disease, hay fever, recurrent oculomotor paralysis, recurrent temporary amblyopia, paroxysmal vertigo, etc. Finally, he considers that menstruation is brought about by an essentially similar vasomotor process as that occurring in such paroxysmal neuroses as migraine, asthma, and gastralgia, and accounts for the haemorrhage upon anatomical grounds as being analogous to that which may terminate any of the paroxysmal neuroses when the vaso-dilatation encroaches upon a mucous membrane. In this connexion the value of amyl nitrite in reducing the menstrual flow suggests a possible medical treatment for all internal haemorrhage, and cases are recorded of its beneficial use in haemoptysis.

DR. CASSIRER'S thesis on *Tabes and Psychosis*[1] does much in the way of raising highly interesting questions, but not much in the way of answering them. It will probably appear to some that a better, or at any rate a more accurately descriptive, title would have been Psychoses in Tabetics, for those described include not only such well recognized psychiatric types as mania, melancholia, and circular insanity occurring in individual cases of tabes, but also abnormal mental manifestations following on poisoning with lead, alcohol, and morphine. Dr. Cassirer's classification is not, in fact, rational, but we neither imagine that he considers it to be so, nor think that a complete and rational classification is at the present time possible. It is, however, no more rational than the classification of fixed stars according as they fit into the shapes of the ram, the bull, the heavenly twins, and the rest, and yet there are not wanting glimmerings of a more scientific system, here, perhaps, more distinct than those emanating from the English school. Psychoses of all kinds may, of course, occur in tabetics as in other people, but the inclusion of some of them in a systematized representation of the abstract questions involved tends to obscure the issues. The principle underlying Dr. Cassirer's monograph, which, however, as far as we [illegible] not formulate, would seem to be that in tabetics, from [illegible] or other, there is a special vulnerability of the nerve tissues, including their supporting framework, to the action of syphilitic and other toxins. But whether the occurrence of melancholia, for example, in the course of tabes is, in every case or even, we should think, in the great majority of cases, the direct result of a toxaemic toxic influence on the brain and cord or a secondary toxic result, or of the

[1] [illegible] Dr. [illegible] Cassirer, M.D. Consulting Physician [illegible] Hospital [illegible] Secretary of Hospitals, Queensland. [illegible] Berlin: S. Karger, and London: Williams and Norgate. 1903. Demy 8vo. pp. [illegible]

nature of a reaction at a distance, there is but little in the present volume to indicate. No doubt an important part of scientific method is the collection of facts having only a remote bearing, it may be, on some principle—facts from which deductions may be drawn, and as such, but only as such, the present volume is of value.

A review of DR. G. NORSTRÖM'S booklet, entitled *The Treatment of Migraine by Massage*, may well be short and at the same time explicit. Migraine is usually considered to be a purely central neurosis, and to treat it by massage would be as effective as to treat epilepsy by massage. But the author explains that by migraine he does not mean migraine, but headache associated with a myositis of the muscles of the neck. If he can remove the local results of such a myositis by massage, no harm would probably be done, with the proviso that no hope should have been held out to the trustful patient that his migrainous nerve storms would thereby be cured or even alleviated. A degree of restraint in expressing opinions in regard to the author's methods is appropriate, for has he not massaged the ganglia of the sympathetic, and quite systematically, the large nerve trunks? And has he not written a book on massage of the uterus and another on massage in affections of the annexa of the uterus? Yet, to be explicit, the book, in our opinion, is a foolish commercial book.

NOTES ON BOOKS.

The Englishwoman's Year Book and Directory which has been published for several years past by MISS EMILY JANES, the organizing secretary of the National Union of Women Workers, is not half as well known as it ought to be. It should be acquired by every one who has more daughters growing up than they expect to be able to dower, by all women who are on the outlook for an occupation for themselves, and by every one who is ever called on to give advice to those who want to work but do not know what to do. It is most carefully compiled and contains information of the most recent description upon every occupation in which women engage whether from the point of view of earning their own living, of philanthropy, or of amusement, and also a directory of the various societies and institutions which cater specially for women and girls of all classes.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS

MEDICAL AND SURGICAL APPLIANCES.

An Inspiratory Nasal Irrigator.—DR. DUNLAS GRANT (London, W.) writes: The central idea in this simple apparatus is the more effective employment of the action of "snuffing" in the irrigation of the nasal passages. The apparatus consists of a cylindrical glass receptacle, a neckless bottle of about 2 oz. in capacity, fitted with a cork bung, through which pass two tubes, one of which reaches to the bottom of the receptacle, the other for a very short distance below the cork. The long tube has at its upper extremity a flattened, bulbous expansion adapted to fit the nostril. The mode of employing the irrigator is extremely simple. It is filled with the necessary liquid, and held in the hand of the side on which it is to be used. The bulbous tip is placed in the nostril, and the alae nasi of both sides are compressed by means of the thumb and finger of the opposite hand. The patient then, by a vigorous snuffing action, draws the liquid up his nose into the nasal pharynx. The medicament, which is then to be removed from the nose while the fluid in the naso pharynx is hawked and spat out through the mouth. The advantages claimed for this irrigator are that the action of the *à la fronte* reduces the risk of invasion of

[illegible] Par Dr G. Norström. Paris: [illegible] 1903. Pp. [illegible]

[illegible] Edited by Emily [illegible] London: Adam and Charles Black. Crown 8vo. pp. [illegible]

the Eustachian tubes, that the stream is drawn upwards as well as backwards, and thereby reaches the middle turbinal and middle meatus, while at the same time the forcible inspiration forms a gymnastic exercise for the breathing mechanism which in many cases is of great value. It need hardly be said that in cases of very special weakness the inspiratory effort required may contraindicate its use, but, with the exercise of ordinary caution, it will be found a safe and effective detergent apparatus. It has been made for me by Messrs. Rouse of Wigmore Street.

BERANECK'S TUBERCULIN.

At a meeting of the French Académie des Sciences at Paris in November last, Edmond Béraneck, a bacteriologist of Neuchatel, gave an account of a tuberculin to the perfection of which he has devoted some time. He limited himself upon this occasion to a description of the method of its preparation, but promised to detail later on the results which had been obtained by physicians who had employed it at his request, he himself not being a physician. To this serum, Dr. Christy Wilson drew attention in January, at a meeting of the Leeds Medico-Chirurgical Society, in a paper which was based partly upon Béraneck's original communication, and partly upon observations which he had himself been in a position to make from a number of visits paid to Neuchatel and to Béraneck's laboratory, and in other ways.

Béraneck's claim was that he had discovered a tuberculin which was innocuous, and convenient for use in tuberculosis. His aim was to obtain active immunization during the progress of the disease by the hypodermic introduction of toxins of two kinds. He had found that the products of growth of B. tuberculosis varied considerably according to the constitution of the medium, and that the reaction of the culture varied with the stage of the growth. Veal broth rendered slightly alkaline with calcium hydrate gave the most constant results. It was kept at a temperature of 37° to 38° C. for from two to two and a-half months, and then evaporated *in vacuo* in the cold to the consistency of syrup and filtered. From this he derived what he called "basitoxin" (B.T.); while a further toxin to which he gave the name "acidotoxin" (A.T.) was extracted from the bacilli themselves. For this purpose the bacilli were washed and dried *in vacuo*, then treated for two hours in a water bath at a temperature of 70° C. with 1 per cent. of orthophosphoric acid (300 c.cm. of acid to 7 grams of bacilli). The final tuberculin consisted of equal parts of Toxin A.T. and Toxin B.T. Experiments had proved that it was much less toxic than Koch's tuberculin. Of Béraneck's tuberculin 1 c.cm. could be injected into a tuberculous guinea-pig, and instead of killing the animal within twenty-four hours, as was the case with much weaker doses of Koch's, in two-thirds of the experiments the guinea-pigs lived on for several weeks. In the human subject it was claimed that by daily injections phagocytosis was increased, and the soil rendered unfavourable to the multiplication of bacilli. It was further stated that though the tuberculin was only slightly toxic, nevertheless the patient should be only gradually brought under its influence by commencing with a small dose. There was usually a slight febrile reaction, with a feeling of *malaise*, lassitude, and loss of appetite, but these phenomena soon diminished, and disappeared in from fifteen to twenty days.

In lupus a local reaction had been observed, and in pulmonary tubercle there was a temporary increase of bronchopulmonary secretion. The sputa never became bloodstained under the influence of this tuberculin, and the presence of haemoptysis was no contraindication to its use. Febrile cases often did as well as non-febrile, though the reaction was more pronounced, and lasted longer. The temperature in one case seen by Dr. Christy Wilson reached 104° F. The amount of tuberculin injected was small in bulk, so that there was scarcely any induration of the skin observed, even though continued daily until the tuberculous foci had been completely cicatrized. As regards duration of treatment Béraneck had stated: "I cannot too strongly insist upon the necessity of continuing the injections for a long time if a lasting curative result is to be obtained. In a few weeks or months it is impossible to secure cicatrization of lesions which have taken many months or years to form."

The mode of application varied according to the seat of the disease. In pulmonary tuberculosis hypodermic injections could alone be employed, but if the disease were accessible, as in the larynx, bladder, skin, or articulations, local applications could be used in addition. The larynx had been painted with pure tuberculin for several weeks without inconvenience. During the two or three years that the treatment had been tried an improvement in 60 out of 90 cases had been noted, both as regarded the patient's general condition, the number of bacilli, and of local symptoms. Two-thirds of the cases mentioned presented evidence of softening or of cavities before the treatment was commenced. In early cases the curative effect was more marked and rapid than in those of pronounced cachexia and rapidly-advancing disease. In such the improvement would be either temporary or none at all. As an illustration of the method of employing the tuberculin in actual practice the following case was cited from notes placed at Dr. Christy Wilson's disposal by Dr. Roulet of Colombier:

Fernand Zeuba, aged 1[illegible] years, a student in the Neuchatel College of Agriculture, had a severe attack of haemoptysis on June 2[illegible]th, 1[illegible]0.

Family History.—His paternal uncle had tuberculosis of lungs, his father suffered from eczema, and a sister died, aged 12, of meningitis.

Patient's own History.—In 18[illegible] he was in hospital on account of an abscess of right knee. This was freely incised and scraped out, the result being a good cure. He had a cough for two months prior to the haemoptysis of June 25th, 1[illegible]. This was copious, and came on after the exertion of carrying some hay. Dr. Roulet found him feeble, pale, and haggard. Pulse, 11[illegible]; temperature, 100°.

June 27th. No more haemoptysis. Blowing respiration, coarse crepitations and rhonchus were found at the left apex. Some tubercle bacilli and many streptococci.

July 8th. Thirteen days from the haemoptysis, the local signs were still more marked, with the addition of dullness and friction. Commenced injection of tuberculin 0.001 c.cm. Next day there was a considerable amount of muco-purulent sputum with bacilli. Temperature 101° F.

July 14th. Nineteenth day. Dose increased to 0.002 c.cm., and continued daily. Slight local reaction. Temperature 102.5° F.

Two weeks later the temperature was normal. The injection was increased to 0.[illegible] c.cm., no reaction, and one week later to 0.004 c.cm.

On August 4th 0.005 c.cm. caused strong reaction, with rigors and vomiting.

September 5th. Eight weeks after the first injection no crepitations or *râles* could be found, and he had gained 6 lb.

On October 10th, or at the end of three months, nothing abnormal could be found. There was no cough and no sputum, and the injections were stopped. He returned to work and continued well.

On October 5th, 1903, three years after the injections had been discontinued, Dr. Christy Wilson examined the patient himself, and found him with the appearance of perfect health—well built, erect, muscular. Expansion equal. No dullness. Hyper-resonance the size of a florin between the second and third ribs on left front. Slight increase of vocal resonance the size of sixpence. There had been neither cough nor sputum for the past three years.

Dr. Christy Wilson also mentioned the case of a medical student, a Cambridge football "Blue," who became infected with tubercle, probably in the out-patient department of a London hospital. For nearly two years he had been under special treatment and in sanatoriums in England and Switzerland, without and marked improvement in his physical signs, and with from one to two ounces of heavy sputum daily and many bacilli. Fifteen months ago he was placed under Dr. Roulet, of Colombier, for Professor Béraneck's treatment. He had a slight febrile reaction for two weeks with increased sputum, but in another week the sputum diminished to a teaspoonful a day. For the last three months no bacilli had been found, and he seldom coughed.

In conclusion, Dr. Christy Wilson stated that Béraneck's tuberculin was not yet on the market, but that he was very anxious that its efficacy should be thoroughly tested by a few physicians who had special opportunities, and for this purpose he was willing to provide from his own laboratory a limited quantity without any pecuniary profit.

The Sanitation of Vera Cruz.—The Mexican Government is said to have decided to make a serious attempt to rid its Gulf Coast of the yellow-fever scourge. The Supreme Board of Health has at its disposal £1,400,000 which can be applied to the sanitary regeneration of Vera Cruz, and the greater part of the money will be devoted to sewerage and drainage work. The town is divided into four districts, each in charge of a medical officer. Each of these officers has under him a large corps of sanitary inspectors. All districts suspected or known to be infectious are thoroughly inspected every day, and each evening the number of cases in each district is reported. Oil is being used freely. Every possible effort is made to diminish the number of mosquitos coming from the marshes by which Vera Cruz is surrounded.

MEDICAL NEWS.

Lieutenant-Colonel W. G. Macpherson, C.M.G., R.A.M.C., has been attached to the Japanese army to report upon the medical arrangements.

Medical Magistrate.—Dr. Denis Walshe, a member of the Council of the British Medical Association, has been placed on the Commission of the Peace for county Kilkenny.

Dr. R. H. Fuller, personal physician to His late Royal Highness the Duke of Cambridge, had the honour of being received by His Majesty on March 23rd, and was invested with the Fourth Class of the Royal Victorian Order.

At the last meeting of the Metropolitan Asylums Board the Chairman of the Children's Committee reported that it had addressed a circular letter to the guardians calling attention to the fact that the Millfield Home was now ready for the reception of early cases of pulmonary tuberculosis.

At the suggestion of Dr. Chervin, President of the French Statistical Society, the Superior Statistical Council has appointed a committee to prepare a scheme for the unification of the system of nomenclature of causes of death in the army, navy, and Colonial service.

The Legislature of Porto Rico has appropriated the sum of £1,000 to defray the expenses of an investigation into the prevalence of ankylostomiasis in the island. The investigation is to be conducted by Captain Ashford, of the Military Hospital.

Colonel H. Cayley, F.R.C.S., C.M.G., Honorary Surgeon to H.M. the King, I.M.S. Retired, died at Weybridge on March 18th, at the age of 70. Colonel Cayley, who was for some time Professor of Military Medicine at Netley, and served with the Scottish National Hospital in South Africa, had a distinguished career, of which we shall hope to publish some notes in our next issue.

Milk and Mortality.—At the annual meeting of the Leeds Sanitary Aid Society held on March 17th, it was stated that it was hoped to be able to establish this summer a dépôt for the supply of milk suitable for the feeding of infants. The scheme was initiated last year, but although the Corporation made a grant of £500, the funds at the disposal of the Society did not then permit of the plan being carried out.

Medical Women.—In the fourteenth annual report of the Scottish Association for the Medical Education of Women, presented at a meeting on March 18th, it was stated that the Medical College for Women continued to be prosperous and useful. The number of students had risen to 126, and the Carnegie Trustees had promised to pay the matriculation fees of all students for four years in addition to giving assistance in several other directions.

Small-pox.—During the past two months there has been a considerable recrudescence of small-pox in some localities in the Midlands and Northern counties. In London the number of cases had fallen to a low ebb until about three weeks ago, when the number of notifications began to increase. In the last fortnightly return to the Metropolitan Asylums Board it was shown that there were 67 cases altogether under treatment, or some 35 in excess of the previous period.

The Friday evening lectures at the Royal Institution of Great Britain will be resumed after Easter, on April 15th, when Monsignor de Vaya will speak on Korea and the Koreans; on the following Friday Colonel David Bruce, R.A.M.C., F.R.S., will give a lecture on sleeping sickness in Uganda; on May 6th Dr. Chalmers Mitchell will lecture on anthropoid apes; on May 20th Professor Ernest Rutherford, on the exhalation and emanation of radium; and on May 27th the Prince of Monaco will lecture on the progress of oceanography.

Suture of the Heart.—According to the *New York Medical News* of March 12th, a coloured man, 30 years of age, was operated upon for a stab wound of the heart at the Jefferson Hospital on February 29th by Dr. Frances T. Stewart. The man walked some distance to the hospital after receiving the wound, and was operated upon forty-five minutes after the injury was inflicted. The wound was found to be near the base of the left ventricle, the external opening being about 1 in. in length. This was closed by means of six sutures. The patient has since been doing well, with the exception of having a rapid pulse.

In a paper on the phenology of the year 1903 read recently before the Meteorological Society, Mr. E. Mawley showed that although, owing to the abnormal mildness of the winter and early spring, wild flowers flowered in advance of their average date, the usual spring immigrants such as the swallow, the cuckoo, and nightingale did not reach England until later than in any year since the phenological reports were first instituted in 1891. After May everything was backward, and though the general yield seems to have been primarily good, the year upon the whole was disastrous, especially as regards fruit production. Other crops were greatly damaged by excessive rain.

The International Congress of Ophthalmology.—In response to numerous requests, the Executive Committee of the International Congress of Ophthalmology at Lucerne has resolved that the proceedings shall commence on September 13th and terminate on September 17th, and not on the dates previously announced. Only those papers will be discussed which have been handed to Professor Dr. Mellinger, Bâle, before May 1st. They will be printed and sent out to all members at the same time as their tickets and receipts for the subscription (25 francs). There will be an exhibition, and any object, either historical or practical, will be gladly received up to July 1st. Further information respecting the Congress can be obtained from the correspondents for the United Kingdom and Canada. Mr. W. H. Jessop, 73, Harley Street, London; Dr. G. Mackay, 20, Drumsheugh Gardens, Edinburgh; Dr. H. R. Swanzy, 23, Merrion Square, Dublin; Dr. Coote, Quebec, Canada; and Dr. Alfred Osborne, Alexandria, Egypt, will also answer inquiries.

School Teachers and Physical Degeneration.—Dr. David Lennox, Medical Officer of the Public Gymnasium at Dundee, has recently concluded a course of lectures which at the request of the Dundee School Board he gave to 350 teachers. From the syllabus which we have received we gather that the lectures covered a great deal of ground: anthropometric standards, food constituents and economic and nutritive values, the calculation of diets and of contained energy, ventilation and diseases caused by impure air, water supplies, clothing, hours for work and sleep, dentition, psycho-physics, motor and sensory exercises, eyesight, hearing and throat defects, mental and physical fatigue, and the care of defective children all received attention, and apparently in a very detailed fashion. The syllabus indeed contains some 60 or 70 headings. It is of course better to aim high than aim low, but we are not disposed to think that the standard of hygiene knowledge to be expected from teachers in Board and other schools should be placed very high or that it is worth while to endeavour to instil more than a clear appreciation of general principles and a sound knowledge of the practices which should be their outcome.

French Congress of Colonial Hygiene.—A Congress of Colonial Hygiene is to be held in Paris from May 29th to June 6th, under the presidency of Professor A. Chauffard. Professor Brault, of the Medical School of Algiers, is Vice-President, and M. Alizaky, Secretary of the Islam Committee. Among the subjects on which communications have been promised are the following: International prophylaxis and its relations with microbic diseases; pilgrimages to Mecca from the hygienic, religious, and economic points of view; the hospital as a factor in colonization; quarantines and sanitary police; camp settlements in cases of epidemics; the sanitary defence of the metropolis in its relation to colonies; the feeding of natives and its influence on their sanitary condition; the part played by climate on general hygiene; the influence of atmospheric electrical phenomena on tropical hygiene and pathology; the hygiene of the European in the tropics; the general prophylaxis of syphilis and venereal diseases; hygienic measures against malaria; prophylaxis of yellow fever; prophylaxis of leprosy; prophylaxis of cholera; prophylaxis of plague; prophylaxis of tuberculosis; prophylaxis of dysentery; hygiene and pathology of the natives of Algeria; medical aid in Algeria; prevention of diseases of the eyes, especially in Africa; medical aid in Cochin China; medical aid in West Africa; hygiene of the natives of Madagascar; hygiene of the Chinese; hygiene and pathology in Melanesia and Polynesia, particularly the New Hebrides. The French Government has given facilities to officers of the Army, Navy, and Colonial Service to attend the congress. Entertainments are being organized in honour of those who take part in the Congress.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MARCH 26TH, 1904.

THE POOR-LAW MEDICAL SERVICE IN IRELAND.

IN the SUPPLEMENT to the present issue of the BRITISH MEDICAL JOURNAL we publish a report from a Special Commissioner who has, at our request, made a careful and exhaustive inquiry into the whole question of the dispensary system as administered under the existing Poor-law in Ireland. The subject is by no means new to readers of the JOURNAL, as the grievous defects inherent in the system and the gross abuses arising from its maladministration have over and over again been exposed in our pages. The British Medical Association has in the past made strenuous efforts to secure a thorough reform of the organization of the Irish dispensary service, which, as things are, is at once oppressive to the medical officers and cruelly unjust to the poor. Thirteen years ago a large amount of evidence on every aspect of the subject was collected by Mr. (now Sir William) Thomson for the Parliamentary Bills Committee, and an endeavour was made in conjunction with the Irish Medical Association, to co-ordinate such political forces as were available to bring pressure on the Government. A general conference of medical officers was held in Dublin, and a representative deputation was, after considerable difficulty, received by Mr. Jackson, then Chief Secretary for Ireland and *ex-officio* President of the Irish Local Government Board. Mr. Jackson's reply was of the usual official type. He said nothing could be done; there were always plenty of applicants for vacancies, and he could not consent to the breaking of contracts which had been regularly made.[1]

Mr. John Morley, who succeeded Mr. Jackson as Chief Secretary, was even less sympathetic. He bluntly refused to receive a deputation, on the ground that the time of Parliament would be occupied with questions of superior importance. A second conference was called, and it was decided to promote Bills providing for the pensioning of superannuated medical officers and for the prevention of abuses of various kinds. Promises of support were obtained from a number of members of Parliament, the sympathy of influential Irish newspapers was secured, and public opinion in Ireland was favourable to reform in the directions indicated. Yet, although during the past ten years modifications have been made in the administration of the Irish Poor Law, the state of things, as far as the medical officers of the dispensary service are concerned, has changed only for the worse. The abuses and grievances justly complained of before still remain unabated and unredressed; while under the present conditions of election and superannuation the dispensary medical officer is the bondsman of guardians who for the most part represent the political feelings of the people by whom they are chosen. How can these men understand the needs of the sick poor, the importance of sanitation, or the aims and methods of scientific medicine? They are apt to judge the medical officer and his work by his political belief, making of religion itself a mere party badge. Ground under the heel of such an assembly, or rather its great toe—which, as Menenius Agrippa says, being the lowest, basest, poorest, goes foremost—the dispensary doctor, however keen he may be in the first flush of professional enthusiasm to do his duty to the sufferers who claim his help, soon has all pride in his work, all energizing ambition, and all intellectual interest crushed out of him; his knowledge gradually fades owing to the want of opportunity of keeping it polished, and even hope, which is said to spring eternal in the human breast, dies at last in his for want of anything to feed upon.

Those who wish to understand the practical working of the dispensary system under the Irish Poor Law cannot do better than study the report of our Special Commissioner with the care which the importance of the subject deserves. Here we can only direct attention to a few salient points, but we commend the whole document to the serious notice, not only of all members of the medical profession who are interested in the dignity and prosperity of their craft, but more especially of political Alexanders eager for fresh worlds of evil to conquer, and of statesmen who really have at heart the welfare of the people and the future of a vital part of the empire. It is not merely as a matter of professional interest, but still more as one of public importance that we wish to deal with the question. In the case of the Irish dispensary system, as in those of the medical services of the navy and army, it happens that the interests of the people and of the profession are at one.

The dispensary system came into existence as a consequence of the Medical Charities Act of 1851, which authorized the Poor-law Commissioners of Ireland, acting through the local Boards of Guardians, to divide Ireland into districts and to appoint medical officers to take care of the sick poor within these areas. The choice of the medical officer and the selection of cases suitable for medical relief were entrusted to dispensary committees consisting of local guardians, magistrates, and others who, being resident in the district, knew the circumstances of the poor within its boundaries, and had a personal interest in the efficiency of the medical officer. As a result of the Act of 1898 local government in Ireland was placed on a purely democratic basis, the landlord element being practically eliminated from the district councils.

From the point of view of political evolution the change may be an advantage, but in regard to the medical relief of the poor, which is one of the most important parts of local government, there can be no doubt that the effect of this administrative revolution has been far from satisfactory. For reasons which need not be discussed here, medicine, the most truly democratic of the professions, is apt to be regarded with suspicion, and treated at best with what may be called malevolent neutrality by bodies in which the democratic element is preponderant. The election of the medical officer is in the hands of the whole body of the guardians of the Union in which the dispensary is situated. The local needs of the district in which he has to work are not known to the majority of the electors, and are hardly taken into account in the selection of candidates. The professional merits of the applicants

[1] BRITISH MEDICAL JOURNAL, February 4th, 1899, p. [illegible].

are too often of no particular importance in the eyes of the guardians. Nor do the interests of the sick poor seem to weigh much more with them. The man himself matters little; what the electors look to is the politico-religious faction to which he belongs. This principle — or rather, want of principle—is professed with cynical frankness and acted on throughout the length and breadth of Ireland. Indeed, the election of a dispensary medical officer appears to be made the occasion for a trial of strength between contending factions; and guardians who attend at no other time will gather from the remotest corners of a vast electoral division to vote, as the case may be, for a good Catholic or a true blue Presbyterian as to whose fitness for the post which he seeks they take little or no trouble to inquire.

The work which the dispensary medical officer has to do is harder and worse paid than is to be found in any other field in which medical practitioners exercise their beneficent activity. The average size of a dispensary district is 42 square miles, with a population of 6,000 scattered over that wide area. Many districts are much larger, and it is no uncommon thing for a medical officer to have charge of two or more branch dispensaries with a sphere of work extending over 60 or 70 or even 100 square miles. Twice a week he must see and prescribe for patients who come to the dispensary: he has to visit at their own homes those too ill to attend, a laborious duty for which a horse and trap are required; he has to send to Dublin for drugs, and to do not only the clerical but the menial work involved in the receipt of the packages, the checking of the contents, and the return of empty bottles; he has to dispense all medicines with his own hands; he has to send out samples of each consignment of drugs to be tested; he has to keep a number of registers and to draw up reports of one kind or another; he has to advise as to sanitary improvements, and to devise and superintend the execution of measures for the suppression of epidemics. He has an exacting and vexatious taskmaster in the Local Government Board and often feels, when the Board and the guardians are at war, that

> "In dungeons where the basest nature comes
> Between the pass and fell incensed points
> Of mighty opposites."

He has to see his patients and dispense his medicines in squalid hovels destitute of the commonest conveniences for medical examination, and too often wanting in rudimentary hygienic decency. He has frequently to live in a miserable house, or in a village inn. He has to drive many miles in different directions every day, climbing hills and going down into valleys where there are no roads, crossing bogs and maybe arms of the sea, passing the night perhaps by a dying patient or a woman who in her hour of need has no help but him and returning worn, wet, famished, and heartsore, to begin the same weary round again the next day.

And what is his reward? A pittance for the most part of less than £300 a year, out of which he has to pay for his horse and trap, and for the boat which he often needs if his district is on the coast. There is here scarcely a question of a living wage. The medical officers do indeed contrive to live somehow, eking out their beggarly salaries by private practice, and by acting as public vaccinators and registrars of births, deaths and marriages. In the large majority of districts, however, the little private practice there is does not come to the dispensary medical officer whose skill is valued by the public at a rate corresponding to that at which they see it estimated by the guardians.

We have said that in the struggle for life under these conditions even hope which sustains men through difficulties and hardships often abandons the dispensary medical officer. Too often, indeed, he has nothing to look forward to but a life of unceasing toil to the bitter end. For him there is, as a rule, no prospect of an increase in salary or a change of district. He has no chance of getting out of the rut into which he sinks, for he cannot afford to buy books or journals to keep himself abreast of the advance of science; and if he had them he would have no time to read them. His mind becomes subdued to that it works in, and he lives without a thought beyond the trivial round of daily drudgery. In the matter of an annual holiday he is wholly at the mercy of the guardians. So he must stagger on under the growing burden of years till he dies under the yoke. If he is fortunate he may, when he is past work, get a superannuation allowance just sufficient to keep together for a little while the body and soul which he has spent in the service of people often not so poor as himself. But he has no right and he is often made to feel it — to a pension, and by a refinement of cruelty he must actually resign his appointment before he can apply for one. The fear of a possible refusal makes men of fourscore continue to do, as best they can, work that taxes the strength of the most robust.

A system which thus grinds men to dust in the wheels of its machinery stands self-condemned before the tribunal of humanity. But the "thin official person," so scorned by Carlyle, may say the question is purely an economic one and the conditions of the service must be regulated by the laws of supply and demand. To this we reply that it is surely a false economy which places the worker under the worst possible conditions and directly encourages him to do his work in the most perfunctory manner. "Sweating" is condemned by an enlightened economy, and the Irish dispensary doctors are "sweated" by the guardians in a manner of which there is, perhaps, no other example in the medical profession. The Local Government Board, which should in the public interest protect them against the tyranny of the parochial "sweaters," only adds unreasonable exactions and a multitude of petty annoyances to the burden they have to bear.

The case for reform of the Irish Dispensary Service rests, however, not on what politicians may choose to regard as sentimental considerations, but on the solid ground of the interest of the people. It is for the benefit of the people that the service exists, and it is in the interest of the people that it should be thoroughly efficient. It is simply impossible for men to perform efficiently the multifarious duties that fall to the lot of the dispensary medical officer under the conditions of distance, want of necessary appliances, want of skilled assistance and in many cases of the most elementary requirements of medical practice, imposed on him by his employers. Our Special Commissioner shows clearly how inadequate is the number of officers, how unworkably large and inconveniently arranged are the districts and how futile must be the fight, with such weapons as the public authorities place in the hands of the medical officers, against sickness and death among people often destitute of the bare necessaries of existence, and living in surroundings which from a

sanitary point of view are scarcely above the level of elemental savagery.

It is almost hopeless to look to the guardians for any reform; nothing at all adequate could be done by them without placing an intolerable burden on the rates. Our Special Commissioner pleads strongly for a liberal grant from the Imperial Treasury, and certainly we know of no better purpose to which Imperial funds could be applied than the promotion of the health of the Irish peasantry and the sanitation of the small towns and rural districts of Ireland. It is vain to hope for any improvement in the dispensary service itself until the conditions are materially changed. At present it is undermanned, overworked, and underpaid. The essential points in any scheme of reform, therefore, must be first the levelling up of the scale of pay to a minimum representing a living wage—that is to say, not less than £200 a year; secondly, the granting of a pension as in other public services by an automatic process based on a limit of age and period of service; and thirdly, an increase in the number of the officers and a redistribution of districts that shall make effective medical supervision possible. Lastly, the medical officer should be able to claim an annual holiday of not less than four weeks on full pay, which means that the guardians must pay a substitute during his absence.

Space will not allow us here to discuss in detail the scheme of reform suggested by our Special Commissioner, and perhaps the time is not yet ripe for this. The existing state of things tends to the physical and moral deterioration of the Irish race, and is thus a source of weakness to the empire. Every effort that has so far been made to bring about an amendment has dashed itself in futile spray against the solid rock of Government opposition. Both the great parties of the State have shown themselves equally deaf to warnings about the manifold disadvantages of the system as a means of providing medical relief, and equally indifferent to what they doubtless regarded as merely a doctors' grievance. British Governments and Oppositions have always behaved as though the securing of a small party advantage was a matter of infinitely greater importance than anything relating to the health of the people or the efficiency of the machinery provided for its maintenance. It is surely a scandal that successive Governments should allow a system so unsound in itself and so mischievous in its effects to be perpetuated, and should leave the administration of a public service of the greatest importance to the well-being of Ireland to a department which does its work in a spirit of the narrowest official pedantry. Experience has proved that it is worse than useless to expect politicians to take up the cause of reform in matters affecting public health unless it is made plain that neglect to do so will lose them votes. Let the medical profession show that it is in earnest in demanding a radical reform of the Poor-law dispensary system in Ireland, and let it use such organization as it possesses to impress on legislators that the question is within the sphere of practical politics, and this most desirable reform will be achieved.

PHYSICAL DEVELOPMENT AND INFANT FEEDING.

It is gratifying to find the views propounded by our Commissioner in the articles on the milk supply and on physical deterioration confirmed and supported by experienced sanitarians such as Dr. Niven, medical officer of health for Manchester, and Dr. F. G. Haworth, medical officer of health for Darwen. Never can the importance of careful feeding and care during earliest childhood be too much taken to heart, and it stands to reason that only in this way will general fitness be obtained. It is refreshing to find that both Dr. Niven in the lecture abstracted last week, and Dr. Haworth in the letter published elsewhere, agree with the view so often expressed in these columns during the last twelve months, the common-sense view, that the period of infant life must not be passed over in considering these questions, and that it is folly to begin to apply measures for the improvement of their physique to school children already stunted and diseased owing to neglect in infancy. The scientific basis on which Dr. Haworth would establish the feeding of infants is no doubt sound; but still more valuable would be a scientific plan to ensure clean milk. The most carefully drawn out scheme for the feeding of infants upon milk is of small use if the only milk to be procured by the labouring classes is "putrescent." "Pure unmixed cows' milk" is a consummation devoutly to be wished, but one, under the present state of milk production in Great Britain unfortunately impossible of realization. The first thing to be faced is the means whereby the milk supply may be improved. As we have said over and over again, until county councils are given power to compel the rural authorities to enforce the rules framed by the Local Government Board with regard to dairy farms, no general improvement can be expected in the physical condition of the labouring classes. Dr. Haworth's suggestion that the feeding of children should at any time be charitable is one which we find it difficult to accept. Promiscuous charity of this kind tends to demoralization. The parents are responsible, and should not be relieved of the burden. Lectures to teachers are greatly to be encouraged, and as we have frequently pointed out, an adequate system of medical inspection in schools is essential.

Another point to which attention was directed in our recent articles on physical degeneration is, we are glad to see, likely to be taken up. It will have been noticed that a report was presented[1] at the last meeting of the Council of the Royal College of Surgeons of England expressing strong approval of the scheme brought before the Physical Deterioration Committee, sitting at the Privy Council office, by Professor D. J. Cunningham and Mr. J. Gray, President and Secretary respectively of the Anthropometric Committee of the British Association. As our Commissioner pointed out, there are at present no satisfactory data with regard to the height, weight, and other physical conditions of the children of this country. It is a reflection upon the manner in which the School Boards have understood their duty that no systematic steps were taken by them to obtain such data. The Council of the Royal College of Surgeons has now expressed its opinion that the adoption by Government of a scheme for an anthropometric survey of the United Kingdom, such as that proposed by Professor Cunningham, would be well calculated to elicit those facts a knowledge of which is essential to the formation of any sound opinion as to the physical improvement or deterioration of the race. Further, all will agree with the view that the results of the investigation would be of great scientific value and interest. We would,

[1] British Medical Journal, March 19th, p. 700.

however, point out that continuous investigation is necessary, and that the data required would not be supplied by a single survey. We have no doubt that this point has been considered by Professor Cunningham and his colleagues, and we hope that the Physical Deterioration Committee may make a strong recommendation upon the subject, and will be able to support the suggestion made in our columns that systematic anthropometric observations should be carried out with the sanction of the education authorities. It is important to enlist the interest of teachers in the work, it will help them to understand that the physical education of their pupils is as much a part of their duty as their mental training; until the whole teaching profession is permeated with this idea we fear that no really satisfactory results can be expected from anything that is done in the elementary schools. In conclusion, we would again point out that attention must, in the first place, be directed to the earliest years of life; it is then that the body develops most rapidly; it is then that, owing to defective control of the milk supply, physical evils are produced which training in after-years cannot be wholly expected to eradicate.

UNIVERSITY COLLEGE AND THE UNIVERSITY OF LONDON.

A YEAR ago an agreement was come to between the University of London and University College by which the incorporation of the College in the University was arranged upon certain conditions. The College agreed that the Senate of the University should have the control of the buildings and property of the College, while the University undertook as far as possible to maintain and develop the College, and to give it representation on the Board of Advisers appointed for the election of professors. The University, however, was not willing to take over that part of the medical school which dealt with advanced medical studies, nor University College School, and would not accept any responsibilty with regard to the hospital and its funds. The two contracting bodies consented to promote a Bill in Parliament to carry out the scheme of incorporation, but hitherto financial difficulties have stood in the way, the chief being the inability of the College to make adequate provision for the school of advanced medical studies. Sir Donald Currie has now come forward in a most munificent manner to meet this difficulty. In response to the appeal issued two years ago the College had already received enough to enable it to pay off its debt and to purchase the site required for the new medical school buildings. Sir Donald Currie has now presented it with £80,000 to erect the required buildings for the school of advanced medical study. The subjects of preliminary and intermediate medical study, that is to say, anatomy, physiology (including pharmacology), biology, chemistry, and physics, will continue to be taught at University College, London, but the remaining subjects of the medical curriculum will be provided for in the new buildings to be erected with the gift now made by Sir Donald Currie. As there are funds available for the purchase of a site for the boys' school, and for the erection of the necessary buildings, the last obstacle has been removed, and it will now be possible practically to complete the incorporation of University College in the University of London, thereby making the University the possessor of a property worth, it is estimated, nearly half a million sterling. Sir Donald Currie has given a further sum of £5,000 to provide a suitable nurses' home in connexion with University College Hospital upon a site already secured in the same building, quarters will be provided for the medical students attending the maternity department. Sir Donald Currie has further offered the sum of £2,500 as a gift from his daughter, Mrs. Merriedew, Mrs. Molteno, and Mrs. Wisely for the furnishing and provision of a library, etc., for the nurses' home. In acknowledging and accepting Sir Donald Currie's gift Lord Rosebery, the Chancellor of the University, and Lord Reay, the President of University College, expressed also their sense of the timely nature of the gift, and added that the donation would be valued not merely as a help in the immediate difficulties of these two institutions, but as directing their course along the line of development by which London may be made the seat of a university worthy of the metropolis of the empire. The University has also accepted the offer of the Goldsmiths' Company to present to the University, for the purpose of promoting its work in South London, the Polytechnic Institute established by the Company at New Cross twelve years ago. The value of the site—seven acres—and of the buildings, with their equipment, is estimated at not less than £100,000, and if the Senate has a free hand in devoting the site and buildings to the extension of university education in South London, the benefits which may be conferred upon this somewhat neglected district can hardly be estimated in money.

THE FUTURE OF THE ARMY MEDICAL SERVICE.

THE third part of the report of the War Office (Reconstitution) Committee has not been made public at the time we go to press, although rumour asserted very positively that it would see the light on Monday last. Its terms are awaited with much curiosity and by those interested in the Army Medical Service with some apprehension. The reorganization of that Service, as yet hardly complete, has so far given promise of working well: the Service has begun to attract a very good class of candidates for commissions, and a healthy scientific and professional spirit has been rapidly developing. Now all is again uncertainty; the Army Council does not contain any representative of the Army Medical Service, and hygiene is thus excluded from the supreme council of the army; the Director-General is apparently to be a sub-officer of one of the departments. There is no certainty that the intelligence branch will contain a medical officer, and the important work of the organization and equipment of military hospitals has been taken from the control of the Army Medical Service, and given to a special Board with a civilian chairman which reports direct to the Secretary of State, and has only an indirect association with the Advisory Board. This change appears to conflict with the spirit of the first and second parts of the War Office Committee's report, which is that soldiers should manage their own affairs. Rumour asserts that the scheme to be recommended in the third part of the report will involve important changes in the personnel at head-quarters. It is said that the present Director-General, whose term of office would not in ordinary course expire until next December, will be retired, and that his place will be filled by an officer considerably junior in rank. Upon this we have no observations to make, feeling confident that as the appointment must be made with the advice of the Advisory Board the best interests of the service will be considered. It is said however, that there is also a proposal to appoint to be deputy director-general an officer of comparatively junior rank, passing over a large number of seniors among whom are some of the ablest officers in the corps who command respect both as tried administrators and men of science. We understand that, with regard to this appointment, the Advisory Board need not be consulted, and the rumour must therefore be regarded with the greater apprehension, more especially as the selection is attributed to considerations other than those which have to do with professional fitness.

NEW MEDICAL RESEARCH LABORATORY IN PARIS.

ON March 21st, without very much ceremony, Professor Charles Richet, acting as the spokesman of the Faculty of Medicine, opened the new laboratory of experimental medicine, which has been erected at the Fort de Vanve,

just within the line of the old fortifications of Paris. The laboratory is intended for special researches involving experiments on animals, and is so fitted up that the animals themselves can be kept under the best hygienic conditions. The laboratory consists of a two-story building about 300 ft. long and 30 ft. wide, situated in a large area of open ground behind the fortifications, and placed on the site of a former bastion. It is fitted up in a simple but perfectly practical style. There are specially-heated wards for the animals operated on. Outside there is a long row of stalls for horses and goats, and open-air cages for dogs and rabbits. The laboratory is under the direction of the Faculty of Medicine of Paris, and there is a specially-appointed Préparateur, M. Lassablière. The City gave the ground, the Faculty paid a part of the cost of the building and outfit, while generous donors found the rest of the money required. Some of these have their names placed over the doors of the various rooms—Salle Chantemesse, Salle Gérard, Salle Carvallo, Salle Louis Ollivier, and Salle Pinard.

THE PARLIAMENTARY PUBLIC HEALTH COMMITTEE.

The Public Health and Medical Committee of members of the House of Commons met on Tuesday, with Dr. Farquharson in the chair. A deputation of ladies, among whom were Lady Helen Munro-Ferguson, Mrs. Bedford Fenwick, and Mrs. Tennant, attended to consult with the Committee as to the best means of furthering legislation for the registration of nurses. It was arranged that the Prime Minister should be approached with a view to obtaining the appointment of a Select Committee to consider the two Bills now before Parliament. Sir Michael Foster reported that he had given evidence before Lord Jersey's Committee on the Local Government Board in favour generally of the views promoted by the British Medical Association. Some little discussion took place about the ventilation of the House, and it was considered desirable that the Committee of last session should be reappointed further to improve the ventilation and watch over the sanitary condition. It was thought that the bacteriological experiments of last session on the air of the Chamber should be continued and extended.

NEW SCALE OF FEES FOR MEDICAL WITNESSES.

The working of the scale of fees in criminal cases, which came into force at the beginning of this year, requires careful watching, and we shall be glad to receive reports of any cases where difficulty has been experienced in obtaining the increased allowances sanctioned by the Home Office under it. As the answer of the Home Secretary to a question addressed to him in the House of Commons last week shows, and published in the British Medical Journal of March 19th, p. 687, there are in the metropolitan police district certain rules and regulations, made so far back as July 31st, 1875, which are still in existence, in spite of the revocation by the order establishing the new scale of fees of "all such rules and regulations respecting any of the aforesaid matters." Under these old regulations the fee for medical evidence in certain police-court cases is half a guinea instead of a guinea as recommended by the Departmental Committee, and the net result of retaining this scale in force, and of the new regulation halving the guinea fee unless the witness is detained four hours from home, will be that half a guinea, which the Departmental Committee considered too little, will still be the usual fee for medical evidence at police courts and petty sessions. We understand that these and other points on which the recommendations of the Departmental Committee have not been fully carried out are at present under consideration by the members of Parliament who served on that Committee.

A FRENCH PROVINCIAL MILK DÉPÔT.

An interesting paper on the infant milk dépôt at Saint Pol-sur-Mer was contributed by Dr. A. L. Peyroux of Elboeuf to *La Pédiatrie Pratique* of March 15th. The Gouttes de Lait at Saint Pol-sur-Mer may be classified among the best-managed infant milk dépôts of France, and typical of institutions of the class. Whereas, when it started in October, 1902, only 22.4 per cent. of infants were suckled by their mothers, on September 30th, 1903, 35.2 per cent. were suckled; and in February the proportion had risen to about 50 per cent. Of 130 infants attending the dépôt and under the vigilant inspection of the village midwife who sees them every day, and of Professor Ausset who examines them every week, half are exclusively breast-fed, while the other half are fed either altogether or in part artificially. The great aim of the organization is to encourage suckling, and it is only in cases of absolute necessity that artificial feeding is allowed. Only when the weight has persistently decreased for two or three weeks does M. Ausset consent to the substitution of pasteurized milk. By his firmness and kindness he persuades many women, who in a rough seafaring town like St. Pol would not otherwise have seen the duty they owed their babies, to nurse them. Unfortunately, in many of the dépôts organized in the provinces of France under the name of Gouttes de Lait, the sole object has been to sell sterilized milk to mothers. Their real object should be to urge mothers to suckle their infants, and only when it is absolutely necessary should sterilized or pasteurized milk be sold; in either case the health of the infants should be carefully watched over, and their feeding regulated under medical supervision. The institution started by Professor Budin in Paris, and to which he has given the happy title of "Consultation de Nourissons," should be the ideal aimed at, and all institutions carrying out this wise aim of encouraging mothers to suckle their infants and only to resort to cow's milk in cases of absolute necessity might be allowed to call their establishments by that name as distinctive from the "Gouttes de Lait" or dépôts simply for the purpose of selling sterilized or pasteurized milk.

THE DUKE OF CAMBRIDGE AS A PHILANTHROPIST.

In no sphere of public usefulness will the late Duke of Cambridge be more missed than in connexion with medical and other charitable institutions, for he associated himself with all useful and philanthropic movements, and never spared himself in the cause of charity. Only last year we remember him figuring, in spite of great weakness, at the ceremony of the opening of the new wing of the London Hospital by the King and Queen, a hospital of which he was President for many years. He was President also of King's College Hospital, of the German, the Royal Westminster Ophthalmic, the City Orthopaedic, and the Royal Dental Hospitals. He was a patron of the Charing Cross, Royal London Ophthalmic, the Royal Eye, and the National Orthopaedic Hospitals, and a vice-patron of the Hospital for Consumption and Diseases of the Chest, Brompton. In other charitable undertakings also he showed a great interest; thus for sixty-two years he was a member of the Court of the Corporation of the Sons of the Clergy. In 1850 he became President of the Royal Female Orphan Asylum in succession to his father, who had become President in 1806, so that father and son held the office for nearly a century. In the year of the Diamond Jubilee he opened the Centenary Hall and new wings of the Jews' Hospital and Orphan Asylum, an institution for the support of the aged, and the maintenance, education, and employment of youth. He was always ready to plead the cause of the charities with which he was associated, and many hospitals have to thank the success of his efforts as Chairman at its festival dinners for substantial additions to their funds. Although the Duke was no lover of innovations he always had a kindly feeling for those who fell by the wayside in the modern struggle for existence. For instance, on two occasions he presided at the annual festival of the Printers' Pension, Almshouse, and Orphan Asylum Corporation, and his efforts resulted in the raising of considerable sums whereby aged and infirm printers, their widows and children, are assisted. He was intimately associated with the great school of Christ's Hospital; he became a

governor in 1841, and had he lived a few days he would have celebrated his jubilee as its President. He took a most lively interest in the institution, was a regular attendant at the meetings of the governors, and a short time before his death studied the report of the treasurer relating to the purchase by the Post Office of the site of the old buildings. As was natural, perhaps, the charities closest to his heart were those associated with the army, especially those which seek to help the wives and children of soldiers. Beyond all this he was always a willing and zealous helper in social and philanthropic movements for the amelioration of the condition of the people, and the strong common-sense, earnestness, and kindness of heart which shone through his utterances, made him a most effective speaker. The Duke of Cambridge was deservedly loved by the people, and the great concourse which witnessed his funeral on Tuesday is an evidence of the keenness with which his death is felt by those to whom he had attached himself by his kind deeds and ready sympathy.

SCHOOLS FOR MIDWIVES.

A PAMPHLET[1] on the establishment of out-door maternity departments in connexion with schools for midwives; its importance for the training of midwives and for general hygiene, published recently by Dr. Fritz Frank, of Cologne, contains rather more than is implied in its title. It contains first what the title leads us to expect—an argument in favour of the establishment of outdoor maternities in connexion with lying-in hospitals. The author urges first that by an outdoor as well as an indoor department the clinical experience of the pupils is much increased. In a well managed hospital the pupil finds everything needed ready to her hand, with the frequent result that when she goes into private practice, is called to a bad case, and finds nothing ready, she loses her head. In an outdoor maternity she learns how to adapt herself to circumstances. Then also the benefits of skilled attendance during labour are by such a maternity department given to a large number at a very small cost. The cost of each poliklinik patient to the charity the author estimates from 2 to 3 marks. The outdoor maternity has a valuable influence as a teacher of hygiene and antisepsis, not only among the poor patients, but also on the charitable ladies of higher social position who visit them. And it helps to preserve family life and strengthens family ties, while the hospital has the reverse effect. Besides this argument, Dr. Frank's pamphlet contains a full description of the working of the Cologne outdoor department, every detail of the management of which has been well considered and arranged. He gives a numerical summary of the results attained. Few who are concerned in the management of outdoor maternity departments can read this book without interest and without deriving profit from it.

SPOROZOA AND DISEASE.

Professor MINCHIN's fourth lecture at University College dealt with haemosporidia, a group of sporozoa which live parasitically on the red blood corpuscles of vertebrate animals, including man. Some of the haemosporidia are of interest, owing to the diseases (forms of malaria fever) which are produced by their presence and growth within the human body. The haemosporidia resembled the coccidia in being parasitic, but the latter class of parasites only infected the epithelial tissues of the alimentary canal. The haemosporidia multiplied within the "host" body by the process of schizogony but part of the life cycle was passed in the body of an "intermediate host" usually a mosquito in the case of the malarial parasite. Although much of the life history of haemosporidia and particularly of the malarial parasite haematozoa of LAVERAN was known from the researches of Laveran and others, it is only quite recently (1902) that a flood of light has been thrown on the whole subject of their life-history by the researches of Schaudinn. This observer, from his studies of halteridium—a parasite found in the red blood corpuscles of birds—has shown that a flagellate stage exactly like that occurring in the trypanosoma of sleeping sickness occurs in halteridium. The haemosporidia are divided into two classes—namely, the haemamoebae and the haemogregarinae. The haemamoebae include the following forms: the plasmodium malariae of quartan ague, the plasmodium vivax of tertian ague, and the plasmodium immaculatum (Grassi) of pernicious malaria, all of which are pathogenic to man; the proteosoma praecox of birds: the plasmodium Kochi, which is pathogenic to apes; the halteridium, which occurs in birds; the piroplasma of Texas (cattle) fever; and the piroplasma of a form of malignant disease in dogs and horses. The haemogregarinae comprise gregariniform (not amoebiform) parasites, which are met with only in the blood of cold-blooded animals. They include such forms as Lankestrella (drepanidium) ranarum, the haemogregarina of the water tortoise, and the karyolysus which infests lizards. All the various species of haemamoebae are transmitted to the human body by the agency of a mosquito or gnat. Proteosoma and halteridium which occur in birds are conveyed by a species of gnat or *Culex*, while the piroplasma of Texas cattle fever is carried by ticks which feed on the skin of oxen and gorge themselves with blood. The eggs of the tick are infected with piroplasma, and when hatched the little ticks get on the grass and attach themselves to the muzzle and limbs of the ox, and thus infect it when they pierce the skin of the ox and drink its blood. The piroplasmata pass into the blood of the ox, and multiplying there in large numbers produce the symptoms of Texas fever.

[1] *Die Errichtung von Anstalten für ambulante Entbindungen und ihre Bedeutung für die Ausbildung der Hebammen und für die allgemeine Hygiene.* Von Dr. Fritz Frank, Leiter der poliklinischen Abteilung der Königin Marien-Stiftung für Wöchnerinnen in Köln. Berlin: S. Karger. (Old Bond Street: Williams and Norgate.) (Demy 8vo, pp. [illegible].)

ST. PATRICK'S DAY.

ON the evening of March 17th United Ireland laid aside its schisms, and as represented by the Irish Medical Schools' and Graduates' Association foregathered in the Empire Rooms of the Trocadero, there to do honour to the memory of St. Patrick and exchange the reminiscences of a varying number of years. It was a mighty gathering of between two and three hundred persons, graced by the presence of a large number of Erin's daughters and of many sons who have won distinction in science or the public services or both. Of the presence of the former—an excellent and constant feature of these festivals—various speakers gave various explanations. None was necessary. The gallantry of the race is as proverbial as its hospitality, and the Saxon who has been happy enough to associate with it well knows that wherever Irishmen are gathered together there will be hear the rustle of feminine skirts, or the rattle of bangles in lands where the nose-ring and the waist-belt are the height and depth of fashion. In most of the speeches, some of which did not err upon the side of brevity, there was that delicate admixture of wisdom and humour which one expects in an Irish speech, but perhaps the most Irish thing about the whole entertainment was that the speech of the evening was made by one who, a Saxon by birth, claimed to be an Afghan by naturalization and an Irishman merely by aspiration to the Parliamentary representation of Galway, to wit, Sir Salter Pyne. The formal event of the evening, however, was the presentation of the Arnott Medal to Mr. P. J. Freyer, who was introduced by Dr. Macnaughton-Jones in a very eloquent oration. Of other speakers, the Chairman (Surgeon-General C. Silcheper) made a happy and applauded reference to the hoped for second visit of the King and Queen to Ireland. Inspector-General Dick, in returning thanks for the Navy, alluded to a gift of plate from the people of Donegal to the ward-room mess of the ship of that name; while Surgeon-General Evatt, speaking for the army, made an earnest protest against the medical department being deprived of a direct voice in the chief council of the army. General Sir H. D. Prendergast, V.C., one of the guests, described the great assistance he had always received from medical

officers, and especially from Surgeon-General Sibthorpe, in the Burmese campaign. The proposal of "The Health of the Guests" fell to Dr. Gilbart-Smith, who acquitted himself of his task in a racy speech, which included some clever word-pictures of the careers of some of those present. Among them were Mr. E. R. Henry, C.S.I., of Scotland Yard, and Sir Robert Anderson, K.C.B., of criminal investigation fame—representatives of law and order whose presence at a collection of wild Irishmen Dr. Gilbart-Smith considered as remarkable as it was welcome. Mr. Kendal Franks was another speaker, and claimed the burgher camps in South Africa, of which he was one of the travelling inspectors, as one of the greatest monuments of humanity which the world had ever seen. He detailed some of his personal experiences at great length, and was much applauded when he sat down. The latest report of the Association which was placed upon the table shows that it is exceedingly flourishing, and numbers between 800 and 900 members. Of these, 244 live in London, 341 in Great Britain outside London, and 145 in Ireland. The rest are either abroad, of unknown residence, or on the active list of the army or navy. The Arnott Memorial Medal, awarded to Lieut.-Colonel P. J. Freyer this year, is a medal placed in 1900 at the disposition of the Council of the Irish Medical Schools' and Graduates' Association by Mr. David Arnott, in memory of his father, the late Sir John Arnott. It may be awarded annually for any of the following achievements during the three previous years (*a*) an act of heroism or distinguished service or an act performed in the discharge of medical duties either in civil life or in one of the Services, or (*b*) an achievement in medicine, surgery, or medical research. Those who have hitherto received it are Captain Charles Dalton, R.A.M.C., Captain T. J. Crean, V.C., R.A.M.C., and Dr. Brendan MacCarthy.

THE PARIETO-OCCIPITAL FISSURE.

In the examination of a number of aboriginal brains Dr. Froude Flashman[1] was struck by the fact that the formation of the external parieto-occipital fissure differed from that regarded as typical of the European brain—a single fissure bounded laterally by an arc of cortex, the arcus parieto-occipitalis. This formation is not constant in European brains, but in the Australian aborigines it is hardly ever present, though it contains all the factors for the production of the European condition, and is, in fact, its predecessor. Cortex which in the aboriginal is on the dorsal surface of the brain becomes in the European displaced to the medial aspect, and with this there is an extension of the intraparietal sulcus well down on to the mesial surface. This is illustrated by excellent photographs of the brains of three aborigines and one adult European which have been selected as demonstrating the various stages in the morphological development of the cortical area surrounding the parieto-occipital fissure. Dr. Flashman's observations have great intrinsic value, and are also interesting in connexion with recent work on the morphology of this fissure by Professor Elliot Smith[2] and by Kohlbrugge and Zuckerkandl.[3] Professor Elliot Smith and Dr. Flashman agree that it is the anterior limb of the primitive parieto-occipital fissure which becomes the chief element of the fossa parieto-occipitalis of most human brains.

THE INFLUENCE OF MEDICINE IN THE DEVELOPMENT OF JAPAN.

Dr. Takamine, a Japanese physician living in New York, has been "interviewed" on behalf of an American paper. We gather from the *Journal of the American Medical Association* that he expressed the opinion that Western medicine played a very important part part in bringing Japan under the influence of modern civilization. Even under the old order of things, when the only intercourse between Japan and the outer world was through a few Dutch traders, Western medicine had to some extent gained an entrance into the country and exerted a certain influence, not only in the direction of sanitary reform, but in tincturing the Japanese mind with Western modes of thought. Dr. Takamine made the interesting statement that the members of the Ministerial Cabinets which have governed Japan under the Mikado during the last thirty years have all been to a greater or less extent influenced by Western medicine. A large proportion of them—estimated by Dr. Takamine at 40 to 60 per cent.—have either been doctors or the sons of doctors, or had been in direct contact with medical practitioners from the West. The Marquis Ito, the Grand Old Man of Japan, belongs, it appears, to a family almost every man of which has been connected with the medical profession. The fact has often been pointed out, but it will bear repetition, that in the expansion of our own Empire medicine has played a most important part. The humble dispensaries at outlying stations are great civilizing agencies, and the Western doctor's pills and portions often do more to bring wild tribes into subjection than bullets and cold steel. It is interesting to recall the fact that Dr. Takamine's name is closely associated with the preparation of adrenalin, which is coming to be more and more generally recognized as one of the most powerful haemostatics at the disposal of the surgeon. It is curious that Japan, which seems likely to give us some new ideas in the art of war, should have placed in our hands a substance that may be of service in mitigating its horrors.

PREGNANCY WITH DEFICIENT TUBES AND OVARIES.

The interesting article on "Two Cases Involving the Question of the Side of Impregnation" which we publish this week is highly suggestive. The authors, Mr. Harrison Cripps and Dr. Herbert Williamson, raise questions of great importance, and an active discussion followed the reading of this communication at the March meeting of the Obstetrical Society. It is certain that external transmigration of the ovum is a phenomenon by no means rare. Thus in several cases of tubal pregnancy the corpus luteum has been found in the opposite, not in the corresponding ovary, and it has been detected, in cases of pregnancy in a uterus unicornis, on the ovary corresponding to the undeveloped and uncanalised side of the uterus. The ovum may certainly stray into the peritoneal cavity and be taken up by the opposite tube. The first case detailed by the authors of this paper was an instance of gestation in a right tube nearly four years after the right ovary had been removed for dermoid cystic disease. The authors contended that the ovum was derived from the left ovary, and since external migration of the ovum has been detected under other conditions it might well explain this case. The authors, however, admitted another possible explanation. There might have been ovarian tissue on the right side, an accessory ovary according to their view of the theory. They contended that an accessory ovary is very rare, and most pathologists will agree with them; at the same time they did not believe that any portion of the true ovary remained in the pedicle of the dermoid cyst. Baldwin's case, where under other circumstances ovarian tissue was detected in connexion with the ovarian ligament after removal of an ovary, that is to say, of the anatomical structure known as the ovary, offers stronger support to this second explanation, which was strenuously defended by Mr. Doran in the discussion on this paper. He removed a burrowing oöphoritic cyst on the right side many years after Dr Robert Barnes had removed a similar cyst of the left ovary, together with the left tube, and noted that Dr. Barnes's pedicle was in a state of extreme atrophy, not a trace of tube or ovary remaining. Mr. Doran left a great part of the right tube. The tumour was easily removed entire; the patient bore a child two years later. There can be little doubt that the ovarian tissue lay in the ovarian ligament close to the uterus and far from the anatomical ovary, a condition which the same surgeon has detected in other subjects. The fact that an ovarian tumour has a long

[1] *Reports from the Pathological Laboratory of the Lunacy Department, New South Wales Government.* Vol. i. Part I. Sydney: W. A. Gullick. 1903. Demy 8vo, pp. —. 4s. 6d.
[2] *Journal of Anatomy and Physiology*, January, 1904.
[3] *Schmidtlie's Zeitschrift für Morphologie und Anthropologie.*

pedicle, so that all ovarian tissue within the limits of the ovary proper is removed at an ovariotomy, does not signify that no such tissue is left behind in the stump of the ovarian ligament. Baldwin amputated a pair of ovarian cysts, each having a long and narrow pedicle. There was no doubt that both ovaries were extirpated, nevertheless the patient here two children within nine years afterwards. The case of pregnancy after excision of a portion of both tubes, reported by Mr. Cripps and Dr. Williamson, is further evidence that such a procedure often fails to ensure sterility. The continuity of the canal of a tube simply ligatured may be restored by the ligature ulcerating through it, the tubal tissues healing behind without causing stricture: the authors noted that this had happened in one case under Bland-Sutton, and that a similar change had been recorded in relation to a ligatured ureter. However, clinical and surgical experience has amply proved that there is no necessity for the continuity of the tubal canal to be restored at all in order to allow of the passage of an ovum from ovarian tissue into the uterus. Several operators have recorded pregnancy years after they had amputated both ovaries and tubes for chronic inflammatory disease. They do not deny that they may have left small pieces of the ovary proper behind, but they had certainly amputated both tubes, and ligatured the stumps of those ducts together with the rest of the pedicle. Their experience proves that the fimbriae and abdominal ostium are not essential to the transmission of the ovum. The short stump of a tube may free itself somehow from its ligature, and its canal, rendered patulous, may take up an ovum from the stump of an ovary, or from ovarian tissue left in the ovarian ligament. Thus, when we turn to the study of the site of impregnation, we have ample evidence showing what may not prevent that physiological process. It would seem as though the site is not identical in all cases, even under normal conditions.

SMALL-POX AT THE LONDON HOSPITAL.

THE circumstances of the outbreak of small-pox at the London Hospital, out of which some newspapers have made a good deal of capital, are as follows: On February 8th a boy named Buvier visited the receiving room with symptoms deemed to be those of chicken-pox. According to instructions he came again two days later and the diagnosis was reaffirmed. A fortnight later, or on February 23rd, Buvier's father was admitted to George Ward as suffering from acute rheumatism. Four days later he developed a rash which was diagnosed as that of chicken pox. He was therefore sent to Davis Ward and kept there in one of the small rooms attached until March 12th, when he was discharged free from the symptoms both of the rheumatism for which he was admitted and of those which supervened. On March 5th, three days after the discharge of Buvier senior, a man in George Ward developed distinct signs of small pox, and was handed over to the sanitary authorities. On the same day two patients in the adjoining Baker Ward developed suspicious rashes, and were put into the isolation ward for observation. One of these cases turned out to be small pox and was sent away, but the other still remains in the observation ward, and the rash is deemed to be an acute rash. On March 6th another patient in Baker Ward definitely developed small pox, and was also sent away, and in the afternoon of the same day a case was found in Davis Ward, and was treated in the same fashion. Since then no other cases have occurred, but the following precautions are still in force. Baker, George and Davis Wards are all kept in strict quarantine, and cases are neither admitted nor discharged. The house physician in charge of the wards keeps himself isolated, as also do the nurses while the visiting physician visits no other wards. The nurses, porters, and patients belonging to the wards have been vaccinated, and the only patient who refused vaccination was discharged, and his name given to the medical officer of health. If no other cases occur in the infected wards it is considered that quarantine may be raised about the end of this month. Special instructions have been given to the receiving-room officers to keep a sharp look out for any other cases which may present themselves among the casualty patients, and a hut has been prepared for the instant isolation of any case which may be recognized, while Dr. Thomas, the medical officer of health for Stepney has promised to attend at once and inspect any case which may seem to be merely suspicious. As a result of the investigation which he made upon being apprized of the first case identified in the wards, Dr. Thomas visited the Buvier family and found reason to send to the small-pox hospital Buvier senior, his son and daughter, his brother (who has since died) and the landlady of the house in which they all lived.

PLAGUE IN JOHANNESBURG.

THE announcement that plague has broken out in certain quarters of Johannesburg has caused much alarm, but it cannot be said that the occurrence was unexpected, nor do we believe the Transvaal sanitary authorities had in any way relaxed their vigilance against possible importation of the disease. Plague has existed in Cape Colony for some four years, and although in no town or district except, perhaps, Port Elizabeth, has plague assumed any considerable proportions, yet the continued presence of the disease in both men and rats in several towns of Cape Colony and in Durban, Natal, rendered the possibility of a serious outbreak, either within the infected area or in adjacent towns or districts, an ever-present cause of anxiety. Plague has visited the following towns in South Africa since it first appeared: Capetown, Port Elizabeth, East London, Queenstown, King William's Town, Knysna, Lady Grey Bridge and Durban. According to the last report, however, dated Capetown, February 27th, 1904, no cases of plague existed in Cape Colony—a quite exceptional circumstance. The last plague patient was discharged from the hospital at East London on February 25th. Rats, however, are still reported as being infected by plague at Port Elizabeth and East London; so that although no case of plague in human beings actually exists for the moment, the probability of recurrence in one or other of these towns has to be contemplated. During the year 1903 the total number of deaths from plague in Cape Colony amounted to 185, during the first half of the year, 117 died of plague, but during the latter half only 68, so that it is evident plague has been gradually disappearing from Cape Colony, until on February 27th the Colony was quite free of the disease. We are accustomed to periodical recurrences of plague, so that the lull may be only temporary. In January, 1903, there were no deaths from plague in Cape Colony during four weeks, and it was not until April that the disease showed any marked tendency to increase. The period of recrudescence may be again at hand, and the fact that in Port Elizabeth and East London plague-infected rats are being found would appear to justify the anticipation. How plague reached Johannesburg is not known. It is unlikely to have been carried by human beings, seeing that at the moment no plague is known to exist in adjacent districts. In all probability the infection has been conveyed by animals. So long as rats are infected, not only the immediate neighbourhood but any place in communication with the rat infected area is in danger. Rats travel in grain or other merchandise conveyed by railways, and they become ready sources of infection. We would wish, however, to draw attention to the fact that, although rats are especially liable to contract plague almost all, if not all, of the domestic animals are subject to plague. Pigs, fowls, ducks, turkeys, cats, and dogs, for instance, contract plague, and, unlike the rat, pigs and fowls show no signs or symptoms of the disease until quite a late period of infection. Professor W. R. Simpson showed that pigs and fowls may be suffering from plague for weeks, and yet continue to eat their food and go about as to health. They are, however, by their excretions contaminating the soil over which they walk or the places in which they are housed, and become foci of in-

[1] Pregnancy after the removal of both ovaries. [illegible] vol. xlv., 1902. Case [illegible]

fection to other animals and possibly to man. In South Africa, as elsewhere, great attention has been paid to rat infection, but the inquiry into the infection of other animals seems to have been neglected, and it is necessary before giving an opinion in regard to the possible duration of plague in Johannesburg to ascertain if the domestic animals are infected with plague or not. If they are, plague will continue; if they are not, plague can be eradicated with something like certainty. The medical officer of health for Johannesburg is Dr. Porter, who gained a high reputation in this country as a sanitary worker, and it was mentioned in the House of Commons that Professor Simpson had offered his services and was willing to proceed to Johannesburg. In addition it may be pointed out that there are several medical officers at the Cape who have had special experience of plague, and that if their services could be lent to the Transvaal Government they would probably be of the greatest value. The information to hand indicates that the disease is chiefly of the pneumonic variety, in which the contagious character is more pronounced than in the bubonic form, and even more deadly.

THE WATER SUPPLY OF PARIS.

Although some of the newspapers have fallen into the trap laid by the nomenclature often used in France, and more generally in Germany, and have announced that an outbreak of typhus fever has occurred in Paris, the fact is, as mentioned by our correspondent early this month, that the outbreak is one of typhoid fever. It began apparently during the third week of February, and the latest returns show that the number of cases under treatment is steadily increasing. The occurrence has given rise to a lively attack by some of the Parisian journals on the body responsible for the administration of the water supply of Paris; one of the newspapers has announced its intention to placard the infected districts with a notice advising the inhabitants to boil all drinking water. On the same day the Municipal Council adopted a unanimous resolution blaming those responsible for administrating the water supply for not notifying the people of the risk they ran. This had been preceded by an announcement from the Prefect of the Seine to the effect that the recent torrential rains "had modified the régime of the water," and recommending all inhabitants of Paris to boil all water used for drinking. Bacteriological examination of the water collected in certain areas is stated to have shown that it contains bacilli which, though not enteric, are of a suspicious character.

THE LATE DR. ALEXANDER DAVIDSON.

In the obituary notice of Dr. Alexander Davidson published on March 12th we omitted to mention that he was Honorary Local Secretary of the Annual Meeting of the British Medical Association held in Liverpool in 1883. That meeting was exceedingly successful, and much of that success was attributed to the energy and zeal with which Dr. Davidson devoted himself to the organization of the meeting and to making arrangements which would contribute to the convenience and advantage of members attending. At a meeting on March 17th of the Liverpool Medical Institution, of which Dr. Davidson was a trustee, a resolution was passed in which the members expressed their sense of the loss which the institution had sustained by his death, and placed upon record their appreciation of the high principle he had always shown in the performance of private and professional duty.

We regret to see the announcement of the death of Mr. Frank Renaud, the historian of the Manchester Royal Infirmary, with which he became connected in 1848.

We are informed that Mr. Gilbert Barling, Surgeon to the General Hospital, Birmingham, and Professor of Surgery in the University of Birmingham, intends to offer himself as a candidate at the next election to the Council of the Royal College of Surgeons of England. Mr. Barling became a Member of the College in 1875, and Fellow in 1881. The late Mr. Oliver Pemberton was, we believe, the last representative of the Birmingham School on the Council of the College.

We understand that, at the instance of the Advisory Board of the Army Medical Service, a committee of experts is about to be appointed to report upon the subject of anti-typhoid inoculation.

Dr. George Oliver will deliver the Oliver-Sharpey lectures before the Royal College of Physicians of London on April 12th and 14th at five o'clock. The subject of the lectures is recent studies on the tissue lymph circulation.

We are asked to remind those interested that the annual dinner of the medical officers of the auxiliary forces arranged by the Volunteer Medical Officers' Association will take place at the Imperial Restaurant, Regent Street, London, on Friday, April 15th, when it is expected that the chair will be taken by Lieutenant-General Lord Grenfell, G.C.B., G.C.M.G. Further particulars can be obtained from Lieutenant Montgomery-Smith, 36, Abbey Road, N.W.

At a meeting of citizens held at Leeds on March 22nd to consider the best means of promoting financially the scheme of a university for the city, it was stated that donations of £39,938 had been promised towards the £100,000 which the Privy Council has stipulated must be raised before a charter for the foundation of the university can be issued. It was estimated that the necessary extension of the existing College buildings would cost some £70,000 and that at least £50,000 should be collected for purposes of endowment. Annual grants towards income amounting to about £12,000 have been promised by sundry public bodies.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Plague in the Transvaal.—Sir Walter Foster asked the Secretary of State for the Colonies on Wednesday whether he had any official report as to an outbreak of plague in the coolie location at Johannesburg; and, if so, whether he would state the number of cases and the number of deaths up to March 19th, among the coolies, Kaffirs, and whites. Mr. Lyttelton said in reply that the latest telegrams from Lord Milner on this subject were as follows:

March 21th, No. 1.

Bubonic plague has broken out in the coolie location here. It is a virulent outbreak, 30 deaths having occurred out of 38 cases within a few days. Though the nature of the disease was only recognized yesterday, steps have been already taken to remove all patients to a special camp to the north of town. Owing to the fact that the possibility of outbreak has been foreseen for some time, the site of the camp was already chosen and necessary arrangements made, while tents are ready and will be erected immediately. There will be thus no difficulty about isolation and proper treatment of all suspect cases. Outbreak confined to coolie location, which forms part of insanitary area recently expropriated by municipality. Town Council is thus in position to clear the location at once, to transfer the coolies to a new site outside the town, and to disinfect the whole space. It has all necessary legislative powers, and administrative arrangements have as far as possible anticipated the need which has arisen. There is thus every reason to hope spread of disease may be promptly checked. Mining area so far quite unaffected.

March 22nd.—No. 2.

Your telegrams of March 21st—No. 2 and No. 3. Present position of plague is as follows. Suspected cases reported, 47 coloured, 6 white; deaths, 40 coloured, 2 white. Outbreak appears to be well in hand, and I do not think it necessary to engage services of Professor Simpson, especially as I have a first-rate bacteriologist and excellent medical staff on the spot, and the public here have complete confidence in them.

Plague in India.—Last week Mr. Weir asked the Secretary of State of India, in view of the fact that there were 3,721 deaths from plague in Central India last January as compared with 92 in January, 1903, would he state what steps were being taken to check the spread of the disease. Mr. Brodrick replied that all possible care was taken to prevent the spread of plague throughout India. Speaking generally the State

Medical Officers of the Native States forming the Central India Agency applied in the territories of their respective States the preventive and remedial measures which were employed in British India. These comprised (1) the provision of hospitals and medical aid for the sufferers; (2) disinfection of infected houses; (3) evacuation of infected quarters in towns and villages; (4) refuge camps for the uninfected; (5) inspection posts and observation huts at railway stations and on main routes; (6) inoculation where desired. The Epidemic Diseases Act of 1897 was in force in the Indore Residency Bazaars, and in the Cantonments of Mhow, Neemuch, and Nowgong, and sanitary rules made under it were enforced in those localities. Mr. Weir also asked if in view of the outbreak of plague at Allahabad the approaching University Examinations could be held elsewhere, but Mr. Brodrick said he had no doubt all possible measures would be taken to secure the safety of the students.

The Sale of Poisons.—Sir Thomas Dewar asked the Secretary of State for the Home Department, having regard to the fact that attention had been called by the coroner for the City of London, and other officers holding similar positions, to deaths through misadventure arising from the sale of poisons in unlabelled vessels, would he consider the expediency of adding poisons such as phosphorus, cocaine, and chlorodyne to the Schedule of the Pharmacy Act, 1868, and arranging for the prohibition of the sale of corrosive mineral acids and ammonia unless in vessels bearing the word poison: and would the sale of poisonous preparations to young children be prohibited. Mr. Akers-Douglas replied that it did not rest with him to take any such measures as were suggested; but he might refer to the answer given previously by the First Lord of the Treasury to the effect that a Bill to amend the Pharmacy Acts would be introduced in another place after Easter.

The Payment of a Locum Tenens.—Mr. Jordan returned to this subject again last week, and asked the Chief Secretary to the Lord Lieutenant of Ireland if his attention had been called to the action of the Local Government Board auditor, in surcharging three members of the Enniskillen Board of Guardians in the sum of two guineas, part of an amount paid by the guardians to Dr. J. E. Johnston for two weeks, as *locum tenens* for Dr. Tate, in the Hallywell division of the Enniskillen Union; whether he was aware that, after advertising and making other efforts, the guardians were unable to procure the services of any medical man at four guineas a week, and were compelled to pay five guineas rather than deprive the poor of medical attendance, and that, owing to letters from the Local Government Board, the guardians refused to pay the full amount agreed on until legal proceedings were initiated; and whether, seeing that no other action was open to the guardians under the circumstances, he would take steps to remove the surcharge. Mr. Wyndham replied that the Local Government Board could not express an opinion in respect of the legality or equity of this surcharge until the matter came before it in the manner prescribed by statute namely, on appeal from the persons aggrieved.

Anthrax.—Mr. Cripps asked the hon. member for North Hunts, as representing the President of the Board of Agriculture, whether his attention had been directed to the circumstances attending a recent outbreak of anthrax at Levenshulme which resulted in the death of the owner of the affected animal, and the serious illness of the butcher by whom it was dressed, and what steps, if any, had been, or could be taken to prevent any such occurrence in the future. Mr. Ailwyn Fellowes answered that the lamentable circumstances referred to were brought under the notice of the Board of Agriculture, and a special inquiry was at once instituted with respect to them. The serious results not only to animal but to human life, which attend the slaughter in the ordinary way, and the dressing of the carcasses of animals infected with anthrax, were well known, and upwards of [illegible] copies of a leaflet calling attention to the danger had been distributed. Circular letters on the subject had been addressed to the various local authorities. It was proposed now to issue a further special notice to slaughtermen, cautioning them against the dressing of the carcasses of animals which had died suddenly until the cause of death had been ascertained. This notice would be issued to local authorities for posting on walls, and for direct distribution to farmers and others concerned.

Glanders.—In reply to Captain Norton, Mr. Ailwyn Fellowes, as representing the President of the Board of Agriculture, said that the regulation of the manufacture and import of mallein would be attended with difficulty and would require legislation. The deaths from glanders for the last three years had been 2, 4, and 5 respectively, and the Registrar-General reported that there had been no increase for the last three years.

Death Certification.—Sir Thomas Dewar asked the Secretary of State for the Home Department last Monday whether the Government had yet considered the recommendations contained in the Death Certification Report of 1893; and, if so, would he state whether he contemplated the introduction of legislation on the subject. Mr. Akers-Douglas replied that the report referred to had been considered by the Government with a view to legislation; but, as the President of the Local Government Board had stated on previous occasions, it had not yet been found practicable to bring forward a Bill on the subject.

Rabies and Quarantine.—Mr. H. D. Greene asked whether the Board of Agriculture would reduce the six months' quarantine of dogs from abroad to three months, and, if so, when such order would take effect; and whether he could state how many dogs were quarantined in 1903; and whether the Board had any reason to believe that any of them had since shown signs of rabies. Mr. Ailwyn Fellowes answered that it was already the practice of the Board to release an imported dog after three months' quarantine in cases where the dog had been under the direct personal control of its owner during the three months preceding its importation. It would be dangerous to extend this relaxation to cases where such supervision was wanting. Three hundred and sixty-seven dogs were landed from abroad in 1903 and detained under quarantine. In none of these had any signs of rabies been detected.

Uncertified Deaths in Scotland.—Mr. Weir on Tuesday asked the Secretary for Scotland, having regard to the fact that the last report of the Registrar-General for Scotland shows that 89,107 deaths were registered in Scotland during 1901, would he state how many of these deaths were uncertified, and when he proposed to introduce legislation on the subject. Mr. Graham Murray replied that the number of deaths uncertified in Scotland during the year 1901 was 2,36[illegible]. He added that he was not in a position to give any pledge as to legislation on this subject.

Expenditure on the Sanitation of the House.—Mr. John Ellis asked the honourable member for Chorley, as representing the First Commissioner of Works, what sums were voted and spent respectively on works of sanitation or improvement in the House of Commons, its precincts, and Committee Rooms during the financial years 1901-2, 1902-3, and 1903-4; and what amounts of such sums had been attributable to recommendations of any committee of the House. Lord Balcarres answered that the amounts were as follows:

Years.	Voted	Expended
1901-2 ...	...	... £
1902-3 ...	...	... £
1903-4 ...	...	... £

In the case of the last-mentioned year the amount of expenditure could only be given approximately. The expenditure of £1,120 in 1901-2 and £3,445 in 1902-3 might be attributed to the recommendations of the House of Commons Accommodation Committee of 1901, and the sum of about £600 to the Committee of 1902 and 1903.

The Meath Hospital, Dublin.—On Monday Mr. Clancy asked the Chief Secretary to the Lord Lieutenant of Ireland whether any appointments had been made to the staff of the Meath Hospital (the County Dublin Infirmary) since the passing of the Local Government Act, 1898, and, if so, what appointments had been made and by whom. Mr. Wyndham replied that since the passing of the Act two appointments of Visiting Surgeons had been made by the Joint Committee constituted according to the provisions of the Act.

Vivisection.—On Tuesday evening Sir Frederick Banbury had a notice on the paper to call attention to the vivisection of dogs, and to move "That, in the opinion of this House, no operation for the purposes of vivisection should be performed on dogs." The motion was not reached.

Scotland.

THE OLD ROYAL INFIRMARY OF EDINBURGH.

Transfer of the Buildings to the University.

At a meeting of the Town Council of Edinburgh on Tuesday, March 22nd, it was agreed to sell to the University authorities the old hospital buildings and grounds in Infirmary Street for the sum of £15,000. It is understood that the University will construct laboratories and research rooms on the site of the historic building.

The Last Kitchen Concert.

Taking advantage of the fact that the old buildings are standing empty, owing to the removal of the Fever Hospital to Colinton Mains, the Edinburgh Royal Infirmary Residents' Club on March 11th held a concert in the kitchen of the Old Surgical House. The kitchen concerts, which were such a feature in the Royal Infirmary for nearly forty years, were a few years ago prohibited by the managers of that institution, and great interest was manifested in this revival. Nearly 200 medical men, of whom fully 150 were past or present residents, attended the function, at which Sir William Banks, the President of the Club, presided. The kitchen was as far as possible left in its former condition, and many of the guests were accommodated on the long dressers which line the walls. The present house-physicians and surgeons of the infirmary were responsible for the decorations, consisting chiefly of mock coats of arms for the prominent teachers of the school, most of whom were present. The programme, as designed by Mr. Caird, indicated in the form of hieroglyphic writing the history of the medical school of Edinburgh, and will prove a valued memento of a most interesting gathering. The present residents presented two tableaux, the first a reduction of a dislocated hip in the time of Charles the First, and the second a modern operation. Both were very cleverly described by Dr. Campbell, who was responsible for some excellent fooling. The past residents contributed to the success of the evening by playing a Toy Symphony, and none of the audience appeared upset by the fact that most of the toys were considerably out of tune. Dr. James conducted with great effect, and prominent among the players were Mr. Cotterill, Mr. Caird, Dr. George Berry, Dr. Logan Turner, and Dr. Lovell Gulland. A word of praise should be given to Dr. Macrae Taylor's weird performance on an instrument which was understood to be a trombone. One of the present residents, Dr. Thomson, added greatly to the success of the evening by his admirable singing, and few who heard him will forget the effect of the well-known song the "Yeomen of England," which he gave when still in the dress of a nurse, which he had assumed for the second tableau. Dr. Kennedy also charmed the audience with his old Scottish songs, and Dr. Drinkwater was as amusing as of old. Dr. Ballantyne, Dr. James, Dr. Gulland, and Dr. Geddes were all greatly applauded, and the Secretary as usual had to deliver his well-worn recitation.

In the course of the evening the Secretary proposed the health of the Chairman, and Sir William Banks made a most amusing speech in reply. The Chairman then proposed the toast of Sir Robert Cranston who, as Lord Provost of the city, is the *ex-officio* Chairman of the Infirmary Managers, and was one of the three laymen present, the others being the Treasurer of the city, through the kindness of whose committee the use of the buildings was granted to the Club, and Mr. Lang Todd, the Convener of the Health Committee. The Lord Provost replied. Among the old residents and guests present were Dr. David Christison who was resident in 1834, Sir Thomas Fraser, Sir John Sibbald, Professors Wyllie, Simpson, Chiene, and Schäfer, Drs. Argyll Robertson, Bramwell, Smart, McBride, and Clouston, and Colonel Warburton, the Superintendent of the Infirmary. On breaking up at midnight it was acknowledged on all sides that the evening had been a most striking success, and was a credit to those particularly concerned in its management, the Secretary, Dr. Claude Ker, the Treasurer, Dr. Macrae Taylor, and Dr. Allan Sym, as well as to the present residents of the infirmary, without whose aid the whole evening would have fallen somewhat flat. It may be added that in accordance with tradition a cask of beer stood in one corner of the kitchen and churchwarden pipes were supplied to all present.

Appointment of Gynaecologist.

At the weekly meeting of the managers of the Edinburgh Royal Infirmary on Monday, March 21st, Dr. F. W. Haultain, F.R.C.P.E., was appointed an Assistant Gynaecologist to that institution. There were eight candidates for the vacancy, due to the lamented death of Dr. R. Milne Murray. The appointment of Dr. Haultain meets with the almost unanimous approval of the medical profession in Edinburgh. He is a most successful lecturer on midwifery and gynaecology in the Extra-mural School. He had, last winter session, the largest class (159 students) on record in that school.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

The Directors have appointed Dr. George A. Berry Ophthalmic Surgeon, in place of Dr. Argyll Robertson. They have also elected Dr. John W. Simpson one of the Extra Physicians to the hospital.

SMALL-POX.

During the period from March 1st to March 15th inclusive, 236 cases of small-pox were intimated to the Local Government Board. These were distributed in 14 of the 32 counties of Scotland. In regard to the actual number of cases Glasgow Burgh heads the list with 50 cases, Greenock Burgh stands second with 33 cases, and Edinburgh third with 15. The local incidence of the epidemic during the period in question was still greatest in the burgh of Greenock, where the cases amounted to 12.10 per 25 000 of the population, as compared with 7.15 in Grangemouth. During the week ending mid-day, March 19th, 8 new cases were reported to the Public Health authorities in the city of Edinburgh, and one death was registered.

SCARLET FEVER IN EDINBURGH.

It had appeared that the scarlet fever epidemic, which has been going on for some months, was abating. There seems, however, to be a recrudescence, since in the week ending mid-day, March 19th, 37 cases were notified, and in the preceding week 21 cases. In neither week was any death registered from this cause.

Ireland.

THE NEW PROVOST OF TRINITY.

SINCE the death of the great Provost of Trinity College, Dublin—Dr. Salmon—expectation has been on tiptoe as to the successor to be appointed. The patronage does not lie in the hands of the Irish Government, but in those of the Premier, who submits the name for the approval of the King. Rumour supplied many candidates, and some distinguished men outside the University were mentioned as in the running. But prominent and capable as some of these were—and any one irrespective of profession or religion or scholarly eminence may be appointed—the interests of the junior Fellows had to be counted with. The only action that could result in a move upward along the whole line was the choice of a senior Fellow, and satisfied in this, the juniors were otherwise divided. The Irish Government, as represented by the Lord Lieutenant and the Chief Secretary, were notoriously favourable to different candidates, but the Premier has nominated a gentleman who was not either of those.

Dr. Anthony Traill, the new Provost, was born in 1838, and is a descendant of Colonel Traill, one of Cromwell's soldiers, who settled in the County Down when resistance was overcome in Ireland. Entering Trinity College at an early age, he proceeded to the degrees of B.A. and LL.D. Later on he took a medical course, and he now holds the degrees of M.D. and M.Ch. He never practised, we believe, and his name does not appear on the *Register*. His arts course had been so distinguished, particularly in mathematics and experimental science, that he was persuaded to read for a fellowship, and he was successful in competition with excellent scholars. Since then he has followed the usual course; has filled professorial chairs, and passed on into the senior group, of which the juniors say the members never die. His college life has been of the character of the man—a forceful teacher, a good example to workers with an emphatic stinging tongue for the idlers—and behind his blunt speech a kindly heart that attracts confidence. The new Provost's energies, however, have found other fields for their exercise. He enjoys the distinction of being one of the few promoters of the first electric railway in the world that at the Giant's Causeway. When the Irish Church was disestablished and disendowed he rendered important service on financial questions, and since then he has been a valued member of the Church Representative Body. He has served

as a member of the Educational Endowments Commission in 1885-92, and of the Fry Commission on the Irish Land Acts, 1897-8.

He has carried his abundant energies outside the walls of Trinity, and has probably often startled some of his sedate colleagues. A man of strong political and theological convictions, he has thrown himself into the forefront of modern Irish politics, and has stated his views clearly and oftentimes with vehemence. By pen and tongue he has waged the defensive war of the landlords with all the strength of a born fighter. His diction does not affect the elegancies of scholastic rhetoric: it is plain, clear Saxon, full of force and character. He believes in Trinity College and her glories, in her traditions, her virtues, and her failings. To follow such a rare genius as George Salmon in the Provostship will prove a serious undertaking, but Dr. Traill will be at least vigorous and true in the service of his College. The position is worth about £3,000 a year, including a fine old residence.

Professorship of Botany in Trinity College, Dublin.

Dr. Percival Wright has resigned the Chair of Botany in Trinity College, Dublin. He graduated in medicine in 1858, and in 1865 and 1866 was substitute for Professor Harvey. Dr. Wright was then Professor of Zoology; and in 1867 he joined an exploring expedition to the Seychelles, and returned with a rare collection of plants and animals. On the election of Dr. Dickson to the Chair of Botany in Glasgow Dr. Wright became his successor in Trinity, and his resignation after thirty-six years' service has been received with great regret. He has consented, however, to continue to act as Keeper of the Herbarium.

Dublin Sanitary Association.

The report of the Dublin Sanitary Association submitted to the annual meeting on March 21st refers to the insanitary state of many of the national schools, and suggests that part of the equivalent grant might be allocated for the improvement of these places. The Council also complain of the number of private slaughter-houses in the city. They regard them as debasing to the inhabitants and as frequently the source of disease. They urge that the Corporation should frame by-laws under the Act. Tuberculosis is by far the most fatal of illnesses to the people of Ireland. It was the cause of more deaths annually in this country than could be attributed to small-pox for the past fifty. The infant mortality of Dublin continued to be a scandal to the community. For the 13 weeks ending January 2nd, 1904, out of a total of 1,168 deaths registered of persons, the cause of whose deaths were uncertified, 69 were of children under five years of age—that is, 63.9 per cent.; for the five weeks ending February 13th, 1904, out of 30 uncertified deaths, 27—that is 54 per cent.—were of children under one year, causes of death uncertified; for the three weeks ending February 13th, 1904, out of 31 uncertified deaths, 21—or 64.7 per cent.—were of children under five years, causes of death uncertified. The report was adopted unanimously. Among the speakers were Sir Arthur Macan, P.R.C.P., Mr. Chance, V.P. R.C.S., Dr. McWeeney, and Sir J. W. Moore.

Presentation of Portrait to Professor Byers.

A very interesting ceremony took place on the afternoon of March 18th in the large hall of the Queen's College. Some little time ago a number of friends of Professor Byers initiated the movement which was brought to so happy a close by the unveiling and presentation of his portrait. The Right Hon. Thos. Andrews, D.L., Rev. Professor Todd Martin, Professor Thos. Sinclair, F.R.C.S.Eng., and Mr. J. Theodore Richardson were appointed Secretaries of the Executive Committee, and Sir James Henderson, D.L., Honorary Treasurer. The Committee entrusted the commission to Mrs. Ernest Normand (Miss Henrietta Rae). Dr. Byers is represented in his professorial gown, wearing the red hood of Doctor of Medicine and the purple hood of Master of Obstetrics—an honorary degree conferred upon him by the Royal University of Ireland. The portrait is life size, three-quarter length, and depicts the figure in an easy sitting attitude. A replica was presented at the same time to Mrs. Byers.

The President of the College, Rev. Dr. Hamilton, occupied the chair. He described the origin of the movement, and gave an account of Dr. Byers's very successful career as a university, and post-graduate training. As Physician to the Hospital for Sick Children of which he is now Consulting Physician, as Gynæcologist to the Royal Victoria Hospital, as examiner in the Royal University, and obstetrician to the Maternity Hospital, Dr. Byers had always displayed the same high skill, energy, and ability; while in private practice the same qualities and his kindness and tact had gained him many friends in his many patients.

Sir James Henderson then read the following address and reply from Dr. Byers:

Address to
Professor JOHN W. BYERS, M.A., M.D., M.Ch. Hon. Causa,
Queen's College, Belfast.

Dear Dr. Byers,—The tribute of friendship which we ask you to accept from our hands to-day is more than the assurance and pledge of our personal attachment. We can sincerely offer it as indicating how widely and how highly your worth is esteemed. With an enthusiasm rarely equalled the opportunity of sharing in it was welcomed by representatives of all classes and professions and creeds.

An Ulstermen by descent, and an appreciative observer of the distinctive genius of Ulster, you have kept closely in touch with the people, and exemplifying their best qualities in your strenuous and honourable life, you have laid a firm hold on your fellow-citizens and good will. But yours is a reputation not merely provincial. We recognise with satisfaction and pride the position attained by you in your noble profession as a specialist in the front rank.

You and your distinguished colleagues have enhanced the fame of the Belfast Medical School, and have contributed in no small measure to its acknowledged eminence in science and skill. As one of the Professors of our Queen's College you have not spared pains or cost to bring the latest discoveries and the most advanced knowledge to bear in the training of your students.

By such services, and by the ready help you gave to the benevolent and educational work, and recently by your labours in connexion with the erection and equipment of the Royal Victoria Hospital, you have laid all interested in the welfare and happiness of the people under obligation. But it is in the homes of your patients and friends that your finest qualities are most fully appreciated. There young and old alike are bound to you by the ties of affectionate regard.

It is our desire that your portrait, executed by an eminent artist, should have a place among those of the illustrious teachers of this great school of learning. It seemed to us to be fitting that students in after days should be reminded by this fine work of art of one who as student, practitioner, and professor has reflected lustre on his college.

In conveying to you our feelings of admiration and friendship we very heartily associate with you your wife. Be assured it is our most earnest desire that you may both long live to enjoy the affection and esteem of your many friends.

Signed on behalf of the Subscribers:

Thomas Andrews, } Hon.
W. Todd Martin, } Secs.
Thomas Sinclair, F.R.C.S.I. } Hon.
J. Theodore Richardson, } Secs.
James Henderson, Hon. Treas.

Belfast, March 18th, 1904.

Reply.

My Dear Friends,—Will you accept my sincere and heartfelt thanks for the words of this most beautifully executed address as well as for the very valuable gifts with which it is accompanied.

To say that I am quite unworthy of all the kindness you lavish on me to-day is, I assure you, a totally inadequate expression of my personal feelings. I would rather thank you not merely by words but by a more diligent attention to duty, and by trying in some measure to make your far too appreciative and flattering address the ideal at which I shall aim in the future.

The portrait so faithfully painted by the well known lady artist who the Committee selected so well to depict, and bestows to her artistic skill, painstaking care, and vigorous technique.

I assure you that it is greatly enhanced in value by the fact that, the request of the donors, and by the kindness of the President and Council of Queen's College, the portrait is to occupy a place beside the portraits of distinguished men who have shed lustre on this College, and to whose teaching I have been deeply indebted.

I have never regretted that the greater part of my educational work was pursued in Queen's College and in the Belfast Medical School. I know my friends were glad when I was called to a Chair in this College and to-day I have another very pleasing and memorable token of the large hearted kindness of patients, friends, and colleagues in Belfast and Ulster.

While thanking you warmly on my own behalf, my wife desires me to give you her sincere thanks for associating her with the handsome gift of friendship. I appreciate your remembrance of her all the more that any kindness shown to myself.

Again, with grateful gratitude I thank you all for these spontaneous marks of your kind feelings and regard.

Yours very sincerely,
John W. Byers.

Precinct House, Belfast.
March 18th, 1904.

The Right Hon. Thomas Sinclair, after a speech very complimentary to Dr. Byers, then unveiled the portrait, which was accepted by the Chairman on behalf of the College.

The Right Hon. Thomas Andrews then unveiled the replica for Mrs. Byers.

Professor Byers, in replying on behalf of Mrs. Byers, said he desired to return her most grateful thanks. He felt his friends had done him an honour of which any one might be proud; and that such kindness on their part ought to prove the greatest stimulus to him to try to rise to the standard of their far too complimentary words. Professor Byers then referred to a number of former professors, and said how much he owed to their teaching, and to the influence of their character and life-work. He also referred to the Belfast Medical School, and the advances lately made in it.

Several speakers, including Dr. Redfern, added remarks, and cordially joined in the congratulations of the occasion.

A vote of thanks to the artist and to the Chairman brought the proceedings to a close.

Queen's College, Cork.

At the opening of the Spring Commission of Assize for the City of Cork, on March 18th, the Foreman said that the Grand Jury had passed a resolution in reference to the Queen's College, Cork, which they wished to submit to His Lordship, the Right Honourable the Lord Chief Justice, namely:

That we, the Grand Jurors of the City of Cork assembled at the Spring Assizes of 1904, are strongly of opinion that the intellectual and material interests of the city demand that Cork shall continue to be a university centre; that the more highly trained the intelligence of a community is the better fitted that community is to participate in the administration of justice; that as there is at present such keen competition in trade and commerce, it is an absolute necessity that the citizens of Cork should have ample facilities for obtaining the highest intellectual training, in order that they may be in a position to successfully compete with the various commercial nations of the world.

The Lord Chief Justice said that he could not receive the resolution, though he had heard it read with great respect. It was completely outside the sphere of his duties and his influence, he was precluded by judicial etiquette from interfering in this matter. He appreciated and, if he might say so, agreed with the abstract considerations that were involved in the resolution, but he could go no further.

Queen's College, Belfast.

The annual dinner of past and present students was held on March 17th, St. Patrick's Day, and was largely attended by students of all faculties. The President of the College occupied the chair. Dr. Symington, the Registrar, responded to the toast of "The Queen's College." He said that the College must look for its prosperity not to the support of any Government, but to the liberality of the province in which it was placed; all that they as officials and as a College could do was to state plainly and definitely, both to the Government and to the people of the province what they considered really necessary properly to equip the College, and to enable it to do the work that was urgently required. It was the duty of the Government and of the provinces in general to respond to their demands. Professor Lindsay, M.D., proposed the toast of "The Sister Colleges of Cork and Galway," which was responded to by Mr. O'Shaughnessy, K.C. The toast of "The Queen's College Clubs and Societies" was proposed by Dr. Mitchell; and Dr. Lowry proposed that of "The Chairman."

PROFESSOR MARMOREK'S SERUM.

In a paper read on March 23rd at St. George's Hospital, Professor Marmorek stated that in the battle against tuberculosis ordinary hygienic measures must occupy the firing line until a direct means of preventing the disease was discovered, and that what mankind at present looked for from those who were occupied in the study of Koch's bacillus was the discovery of a cure for those already diseased. The natural human resistance towards tuberculosis was great, but in many individuals it was either imperfect or entirely absent. The successful treatment of the latter was impossible, but the resisting power of the former could be reinforced in various ways, and it would be of immense utility if the varying bactericidal power of the blood serum of such individuals could be accurately determined. It was impossible at present to know in advance into what category of resistance any given case of phthisis fell. He was convinced that tuberculin was not the primary cause of the pathogenic symptoms of tuberculosis, but that it was merely a reactive which caused the bacilli to secrete another and hitherto unknown toxin; the toxin, in short, by which the bacilli attacked and undermined the organism, and he detailed an experiment which seemed to him to prove this view.

The therapeutic use of this reactive tuberculin was thus an attempt to produce an active immunization, but it commonly failed to be of use because the reaction was so great that there was no time for the formation of antitoxins. It was therefore passive immunization which must be sought, and his aim had been the production of a serum in which ready-made antitoxins already existed.[1] Having discovered this serum and ascertained that even in large doses it did no harm to healthy animals and that it cured diseased ones, he had put himself into a position to try it on the human subject. He had intentionally selected cases of great gravity because in a disease like tuberculosis it was impossible to be sure whether the cure of an early case should be ascribed to natural resistance or to the measures adopted. In other words to argue from the less to the greater in connexion with tubercle remedies was wrong, but if in any advanced case it could be established that a serum produced not perhaps a cure but at least such a retrogression of symptoms as could not be explained by any natural factor, the utility of that serum and the probability of its possessing absolutely therapeutic and prophylactic power might be considered established likewise.

By experimenting in this way Professor Marmorek claimed to have proved that though there were certain individuals who could not support the serum, in the great majority of persons the latter produced no unpleasant reaction whatever, but was a distinctly curative agent the prompt effect and efficacity of which varied directly with the acuteness of the disease and the earliness of the attack. As an example of the former Professor Marmorek detailed the case of a nun seized by acute miliary tuberculosis and deemed he stated to be hopeless, but in whom a cure was nevertheless brought about by 47 injections of serum, aggregating 720 c.cm., in three months. In another case detailed, one of acute infection of three months' standing and with extensive excavations, it was claimed that much improvement took place and that death only occurred finally because the outpour of toxin from the cavities was too great for the antitoxin in the serum, that the disease in short was too advanced.

Taking tuberculous meningitis as the most acute and fatal form of tuberculosis, he said he had never succeeded in producing a cure, because owing to the difficulty of early diagnosis it had been impossible hitherto to commence treatment before the anatomical lesions and cerebral intoxication were far advanced. Nevertheless he had established the fact that the serum in these cases was not only absolutely harmless, but caused a distinct amelioration of symptoms. As a means by which the early diagnosis of tuberculous meningitis might be established in future, he suggested the evidence given by the reaction in tuberculous guinea-pigs produced by the injection of spinal fluid drawn from suspected cases.

It was, however, pulmonary phthisis that the public and the profession meant by tuberculosis and to the question whether his serum was a specific cure for that disease he was prepared to give an unhesitating affirmative answer. After treating practically hopeless cases he had proceeded to the treatment of the ordinary run of cases of phthisis. Subduction of the fever and reduction of the extending zone of the disease to its original focus were the results of the use of the serum. The entire healing of cavities necessarily of course took a long time, and when the hectic fever was due to a mixed infection of tubercle and streptococci, the use of antistreptococcus serum simultaneously with his own was advisable and necessary to reduce it. In proof of these statements a number of charts were exhibited and some cases quoted.

Dyspnoea partly due to mechanical causes but largely also to intoxication was a symptom which constantly yielded to the serum and this result was one of the earliest proofs of its beneficial action.

Experience was not yet sufficiently extended to determine positively the effect of the serum on the amount of the sputum. In some cases this seemed to be increased but in the vast majority of cases, persistence in the use of the serum led to progressive and constant diminution of the amount of sputum and of contained bacilli. After severe and prolonged bronchial irritation it was not unnatural that expectoration should persist long after the disappearance of other symptoms and the cure of the general condition upon which it originally depended. If tubercle bacilli also persisted it was possible that these were merely in a saprophytic state; any evil from them, however, might properly be guarded against by the occasional injection of serum.

A curious result, which could not be ascribed to the direct action of the serum, was that haemoptysis had occurred only

[1] For method of preparation see British Medical Journal, November 25th, 1899, p. 1454.

in one of all the cases treated, although in many it had previously been a prominent symptom.

To the general amelioration in a patient's condition he attributed importance only because in his cases it occurred without resort to those measures—such as rest, food, and air which might be expected to produce it, temporarily at any rate, in almost any case. The treatment of any case of tuberculosis and its final cure must necessarily take a long time, and he was not prepared to say that all his cases were absolutely cured, but many of them certainly were, and as regarded the rest everything pointed towards a successful termination. This was the more remarkable, because it was not the most favourable cases which he had selected for treatment. The virtue of the serum being, he considered, established by the results of its use in severe cases, it was right now he thought that it should be extensively used in those which were only slightly advanced.

His experience in the use of the serum in surgical tuberculosis was not very extended, but a number of photographs and other records of advanced cases were exhibited, the results of the treatment of which seemed to Professor Marmorek to be distinctly encouraging. As regards the technique of the injections, that which experience had induced him now to adopt was a series of daily doses for four or five days, with an interval of three or four days between, and followed after each two or three series by an interval of a week or a fortnight. In chronic cases the dose should be 5 c.cm., but in the acute ones doses of 20 c.cm. to 30 c.cm. were well borne even by children. The serum as now prepared never gave any unpleasant reaction other than a slight passing and unimportant erythema.[2]

THE USE OF THE METRIC SYSTEM IN PRESCRIBING.

IN response to requests from correspondents we give below a few notes which we hope may be of use to those desirous of familiarizing themselves with the metric system of weights and measures as applied to the writing of prescriptions.

In prescribing by the metric system[3] the unit of weight is the gram, which is equal to about 15 gr., and that of volume the cubic centimetre equal to about 17 minims.

The relation of the two systems stated more accurately is:[4]

1 gram (g.)	= 15.432 grains.
1 decigram (dg.)	= 1.5432 „
1 centigram (cg.)	= 0.1543 „
1 milligram (mg.)	= 0.0154 „
1 cubic centimetre (c.cm.)	= 17 minims.

The fluid drachm is roughly equivalent to 4 c.cm., and the fluid ounce to 30 c.cm., and the drachm and ounce to 4 g. and 30 g. respectively.

Grams and cubic centimetre signs will alone be necessary in prescriptions, the smaller weights and measures being expressed as decimal fractions, thus 0.1 gram = 1 decigram, 0.01 gram = 1 centigram, 0.001 = 1 milligram, etc.

If we take an ordinary prescription and write the two systems side by side in exactly equivalent quantities, the difficulties advanced in the adoption of the metric system are greatly magnified; for example:

[illegible]

This is the manner in which the opponents of the change frequently support their arguments. Such difficulties would not arise however were the new system actually adopted. The doses of pharmacopoeial and other remedies would then be given in grams and cubic centimetres instead of being, say, "Ferri sulph., dose 1 gr., we should have ferri sulph., dose 0.05 g." In the same way the dosage of mixtures would be altered somewhat. Thus [illegible]

[illegible]

The most convenient dose for mixtures would probably be 20 c.cm. It is somewhat less than a fluid ounce, but has the advantage of being divisible by 5 to give a whole number, which would not be the case with 30 c.cm. (more nearly equivalent to the fluid ounce).

Too great concentration in mixtures is a fruitful source of incompatibility, and 20 c.cm. would most generally be ordered when necessary, doses of 10 c.cm. or 5 c.cm. could be prescribed. Such doses do not accord with the spoons in common use, but the introduction of the new system would be a fitting opportunity to break with this inaccurate method of measuring. The most convenient bottles to use would be those with a capacity of 200 c.cm., 100 c.cm., or 50 c.cm., and during the transition stages 8 oz., 4 oz., and 2 oz. bottles could be used to contain these quantities. In dispensing ten doses all the calculation necessary would be a shifting of each decimal point one place to the right. Bearing in mind what has already been said the following prescriptions, with approximate equivalents in the metric system, may be written:

℞ Tinct. nucis vomicae ℥iv	= [illegible] c.cm.
Ac. hydrochlor. dil. ℥x	= [illegible] c.cm.
Aquam ad ℥j	= ad [illegible] c.cm.
Mitte viii.	Mitte [illegible] c.cm.
℞ Magnes. sulph. ℥j	= 4 grams.
„ carb. gr. x	= 0.6 gram.
Aq. menth. pip. ad ℥ss	= ad 15 c.cm.
Mitte ℥iv.	Mitte [illegible] c.cm.
℞ Oxymel. scillae ℥xxv	= 1.5 c.cm.
Tinct. camph. co. ℥xij	= 0.7 c.cm.
Vin. ipecac. ℥v	= 0.4 c.cm.
Syrupum ad ℥j	= ad 30 c.cm.
Mitte ℥ij.	Mitte 60 c.cm.

Lotions, liniments, and all liquid preparations would be dealt with in a similar manner. In the same way pills 1 to 5 gr. would become 0.06 to 0.3 g. (60 to 300 cg.) in size. The dose of potent extracts, instead of ½ to 1 gr., would become, say, 0.015 to 0.06 g. (15 to 60 mg.), thus:

℞ Podoph. res. gr. ½	= [illegible] gram
Opium sulph. gr. j	= 0.1 gram.
Ext. belladon. gr. ¼	= [illegible] gram.
„ aloes gr. j	= 0.1 gram.
Mitte xii. vel xxiv.	Mitte x. vel xx.

It will be gathered from what has been said that it is hopeless to endeavour to write equivalent formulae in the two systems, and the coming change must be a radical one. No doubt pharmacopoeial formulae will be modified still further in the direction of simplicity of dosage. Those who really wish to gain some practical idea of the new system would be well advised to purchase a set of metric weights and measures (which can be obtained at a trifling cost), and by weighing and measuring a few substances they will soon become accustomed to thinking in metric quantities.

PREVENTION OF CONSUMPTION.

TUBERCULOUS CHILDREN IN NEW YORK.

AT the last meeting of the Association for Improving the Condition of the Poor a sum of [illegible] was appropriated for the maintenance at the seaside of 50 children suffering from non-pulmonary forms of tuberculosis. According to Dr. Herman Biggs, there are in the New York Tenements alone from 3,000 to 4,000 children under 15 years of age suffering from tuberculosis of the bones, joints, and lymph glands. Tuberculosis of the lungs affects but a relatively small number of children under 15.

GERMANY.

The Imperial Statistical Bureau, Berlin, has recently published the results of a statistical inquiry by Dr. Mayet as to the causes of death in the German Empire during the twenty-five years 1877-1901. The statistics relating to tuberculosis show in a striking manner the decrease of the disease during that period. The following figures, based on the returns for towns with a population of more than 15,000, show the death-rate from tuberculosis per 10,000 inhabitants:

1887-1881	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

BOHEMIA.

A Society for the Cure of Consumptives in the various countries of the Austrian Empire has been formed in Vienna. It is thought that to make the war against tuberculosis

successful the establishment of sanatoria is not sufficient. The Society, therefore, will make the safeguarding of children against tuberculous infection its principal aim. The Government has promised substantial help. In Bohemia tuberculosis is more prevalent than in Austria. The Austrian Society is to co-operate with a Bohemian Society in the erection of sanatoria. As a preliminary step accurate statistics of the diffusion of tuberculosis in Bohemia are to be collected.

INDIAN SANITARY REPORTS.

Madras.

The report for 1902 is submitted by the Sanitary Board, and prefaced by a brief account of the proceedings of that body; the reports of the Sanitary Commissioner (Lieutenant-Colonel W. G. King, Indian Medical Service) and Sanitary Engineer (Mr. J. A. Jones) being appended to it. The Madras Government publishes an appreciative and useful comment on these three documents. Colonel King's report is, as usual, concise, able and eminently practical. He uses figures sparingly and with discretion, and trusts more in personal observation than in returns. Whole paragraphs may be read without encountering a single numeral—a very rare experience in Indian reports—and, nevertheless, there is evident a keen appreciation of sanitary requirements, an eager desire for sanitary reforms and a correct knowledge of the most scientific and hopeful means of accomplishing them. The results of registration of births and deaths in the Madras Presidency are very imperfect, and both the Sanitary Commissioner and the Government are quite conscious of this defect and most anxious to remedy it. A better agency is needed but its cost is at present prohibitive. Colonel King has done good work in teaching and training sanitary inspectors for employment by municipalities and district boards, and perhaps an extension of this effort may in time procure more accurate returns. The birth-rate of 1902 was 28.2 and death-rate 20.2. In municipalities the rates were higher, but in these registration is compulsory and a special agency is employed. The special representation in this report of the condition and sanitary administration of municipalities, which must constitute the nuclei of sanitary advance, is worthy of commendation. Cholera was severe in some districts, but on the whole not in excess. Small-pox was worse than in recent years, but not nearly so bad as in the past. Figures are given to indicate the abatement of this disease and of cholera and bowel complaints, the decrease of the latter following improvements in water supply. The year was a normal one and the prices of food grains were moderate. The prevalence of fever was average, but 10,795 deaths from plague were registered. The death-rate per 1,000 attributed to respiratory disease is 0.1. Colonel King considers that phthisis is more common in the Madras Presidency than is generally realized. He mentions the prevalence of dengue and alludes to outbreaks of enteric fever.

The sanitary engineer's report indicates good work in preparing schemes for water supply, drainage, and conservancy. Money is needed to carry these out, and the Government seems somewhat despondent as to the supply of funds for such purposes. The Sanitary Commissioner deplores the consequent need of piecemeal and patchwork efforts, but admits that progress is being made in "minor" sanitation.

Assam.

Registration is still very imperfect in this province, but efforts are being made to improve it. The birth-rate of 1902 was 34.21 and the death-rate 29.01, figures which compare favourably with preceding years. Assam is fortunate in its exemption from famines, but climatic influences affect the public health profoundly for better or for worse. Malaria caused fewer deaths than usual, and kala-azar is declining in the Brahmaputra valley, but on the increase in the Surma valley, especially in the Sylhet district. The number of deaths attributed to this disease was 6,319. A "mosquito brigade" was organized by Captain Willmore at Kohima, and is said to have caused a diminution of mosquitos and of cases of ague. The province retains its bad reputation for cholera. There was a severe outbreak in the districts of Cachar and Sylhet. The disease was more prevalent among the general population than in tea gardens in the Surma valley, the opposite being the case in the Brahmaputra valley. There was less cholera than usual among coolies in transit. Small-pox visited Cachar and Sylhet severely; this is attributed to inoculation. Plague broke out at Dibrugarh in May, causing 36 attacks and 27 deaths. It appeared among grain dealers, and the discovery of dead rats was the first indication of its presence. Strenuous efforts were made to prevent its spread. No sanitary work of any magnitude was undertaken during the year, but useful work was done by local Boards in improving the water supply, etc. The Sanitary Board met twice during the year. The report is drawn up by Colonel C. W. Carr-Calthrop, M.D., Ch.D., Principal Medical Officer and Sanitary Commissioner.

Burmah.

Colonel Little's report for 1902 is mainly an elaborate commentary on statistical returns which are confessedly of very little value. The year was a healthy one. The birth-rate of Lower Burmah was 31.57 and the death-rate 21.16. In Upper Burmah registration is partial, and the corresponding rates were 38 07 and 29 95. These figures compare favourably with those of previous years. Deaths from malarious fevers were below the average. Some efforts are being made by drainage and filling up pits and pools to reduce the number of mosquitos, but the methods of rice cultivation are favourable to the breeding of these insects. Cholera and small-pox were unusually light, and this accounts largely for the low mortality of the year. No indigenous case of plague occurred, notwithstanding that 308 deaths were returned under this head. Three imported cases were isolated with success. Sanitation is actively attended to in the larger towns of the province, and the municipalities spend about half of their income on sanitary works. The report of the sanitary engineer shows that water supply and drainage projects are either in progress or prospect, and the proceedings of the Sanitary Board, which held three meetings during the year, indicate sanitary progress, though it is stated that "local authorities do not at present regularly consult the Board" on questions of local sanitation.

Hyderabad Assigned Districts.

By means of careful inspection of registers by officials and the imposition of fines on defaulters the returns of vital statistics in these districts are considered to be fairly complete and accurate. The report presented by Lieutenant-Colonel C. L. Swayne for the year 1902 indicates a marked improvement in the public health. The one blot in the record is the invasion of plague. The birth-rate was 56.9, the highest recorded during the past thirty-one years, and the death-rate 32.8—13 9 less than the quinquennial mean. The officiating commissioner calculates that if this excess of births over deaths is maintained, the reduction of population caused by famine will be wiped off in three years. Only one small outbreak of cholera occurred causing 48 attacks and 16 deaths. Small-pox accounts for 327 deaths or 0.1 per 1,000. Plague appeared in two districts early in the year, and in a third in December causing 4,188 deaths or 1.5 per 1,000. The disease was imported from adjoining portions of the Bombay Presidency and was thought to be associated with contaminated grain and infected rats. Evacuation of tainted villages and houses was found to be the most effectual remedy; 924 persons were inoculated. Monkeys contracted the disease and gipsies (Banjaras) who live in the open air escaped. Fevers and bowel complaints were less fatal than usual. An antimosquito crusade has been started. Municipalities spent 40 per cent. of their income on sanitation. The Sanitary Board met at the head quarters of each district once and took into consideration local conditions and requirements.

Ceylon.

The report for the year 1902 submitted by Dr. Allan Perry, D.P.H., Principal Civil Medical Officer and Inspector-General of Hospitals, gives full information regarding the public health and sanitary and medical administration. The year was a fairly healthy one. The birth-rate was 39 and death-rate 27.4, against 37.5 and 27.6 in the preceding year. Malaria, which is the principal cause of sickness and mortality, was not in excess. The people of the island are being instructed as to the prevention of malarial disease by destruction of mosquitos and improved sanitation. Cholera was repeatedly imported from India, and caused 179 cases and 116 deaths. Small-pox mortality was moderate. It is said that the population of Ceylon is well protected by vaccination. The number of vaccinations performed during the year was 149,901, being in excess of registered births. Glycerinated calf lymph is used. Dysentery caused 999 deaths, and enteric fever 63; the number of lepers in the island is 560. Ankylostomiasis and paranghi continue to be rife; 257 deaths were caused by the

former and to by the latter. Sixty-seven hospitals and asylums were open during the year. In addition to these a large number of dispensaries exist. It is difficult from the report to obtain a clear view of the number and work of these institutions. A tabular return including all would be useful. The Boer camps constituted a feature of interest in the medical history of the year. Their sanitary condition was satisfactory. The Ceylon Medical School continues to flourish, and the De Soya Bacteriological Institute under Dr. S. C. Paul has supplied a long-felt want.

PROPOSED HOLMAN TESTIMONIAL FUND.

At a meeting held on March 23rd, at Sir William Broadbent's house, it was unanimously resolved that a testimonial should be presented to Dr. Constantine Holman; that the fund raised should be devoted to an art and reading room at Epsom College, to be called the Holman Art and Reading Room: that Dr. John Galton, of Norwood, be appointed treasurer, and Mr. W. A. Berridge, of Oakfield, Reigate, secretary to the fund.

The following have promised subscriptions: Lord Rosebery, President of Epsom College; the President of the Royal College of Physicians, the President of the Royal College of Surgeons, the President of the British Medical Association, the President of the South Eastern Branch of the British Medical Association, the Treasurer of the British Medical Association, the Chairman of Council of the British Medical Association, the President of the British Medical Benevolent Fund, the President of Council of Epsom College, the Head Master of Epsom College, the Secretary and Treasurer of the Surrey Medical Benevolent Fund, the Proprietors of the *Lancet*, the Editor of the BRITISH MEDICAL JOURNAL.

A first list of subscriptions will be published shortly.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

During the weeks ending February 20th and 27th the deaths from plague in India numbered 27,037 and 27,[illegible] respectively. The increase is even more marked than during the week previously recorded, when the numbers amounted to 22,[illegible]. During the two weeks ending February 20th and 27th the principal figures are: Bombay city, 6,52[illegible] and 7,[illegible]; Bombay district, [illegible] and 1,[illegible]; Calcutta, [illegible] and 1[illegible]; Bengal districts, 1,47[illegible] and 2,[illegible]; North-West Provinces and Oudh, 5,[illegible]57 and 6,[illegible]; Rajputana, 6,[illegible] and 5,[illegible]; Punjab, [illegible] and [illegible]; Kashmir, [illegible] and [illegible]; Central Provinces, 1,[illegible]74 and [illegible]; Central India, [illegible]17 and [illegible]; Hyderabad State, 81 and 1,4[illegible]; Madras, [illegible] and [illegible].

SOUTH AFRICA.

No fresh cases of plague occurred in any town or district of Cape Colony during the weeks ending February 13th and 20th nor was there any deaths in the plague hospitals on February 20th. Plague-stricken vessels were dealt with at Port Elizabeth and East London, but in no case did the disease spread.

A telegram dated Johannesburg, March 20th, announced that four fresh cases had occurred in the Coolie quarter, and that 3 deaths from plague had occurred. Up to the evening of March 23rd the total number of people who had died in Johannesburg was reported to be [illegible]. Seven of the cases occurred in the Malay Location.

MAURITIUS.

During the week ending March 5th there occurred the fresh cases of plague and [illegible] deaths from the disease and [illegible].

HONG KONG.

During the week ending March 5th there occurred the first cases of plague in Hong Kong [illegible] deaths from the disease.

INFANT MORTALITY IN BELGIUM. The Central Section of the Belgium Chamber has unanimously adopted the suggestions of Dr. Delbaste for diminishing the mortality of the lives of infants. Dr. Delbaste proposed that no child should be insured under the age of 2 years, but the Chamber lowered the limit to 1 year.

THE PREVENTION OF CRIME. A Bill providing for the establishment of a laboratory for the study of the criminal, and of delinquent classes generally, has been introduced in the New York State Legislature, and referred to the Committee on Prisons. According to the terms of the Bill the laboratory is to be established in the offices of the State Commissioner of Prisons, and the work is to be carried out partly in laboratories, but the greater part of it is to be done in institutions, especially prisons, where the inmates are to be kept in confinement for the purpose of observation and study. The work is to be under the direction of a medical man, who is to be appointed by the Governor, at a salary of [illegible] a year. The staff of the laboratory is to consist of [illegible] assistants, and the cost of the laboratory.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

GUY ELLISTON, *General Secretary*.

429, Strand, March [illegible].

BRANCH MEETINGS TO BE HELD.

BOLTON AND DISTRICTS BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 6th. The Secretary will be pleased to receive communications from any members who have papers to read. Gentlemen [illegible]. T. G. MATHEWS, 3, Senhouse Street, Whitehaven, Honorary Secretary.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at the Wells Head Hotel, Magdalene, on Thursday, April 7th. Members wishing to read papers [illegible]. Luncheon will be ready at 1.30 p.m. [illegible], Honorary Secretary, 1, Newmarket Road, Norwich.

LEICESTERSHIRE BRANCH: SOUTH EASTERN COUNTIES DIVISION.—A meeting of this Division will be held in the Station Hotel, Melton Mowbray, on Tuesday, April 5th, at 3 p.m. [illegible], Medical Superintendent of the Asylum, will read a paper on [illegible].

mendation of the Ethical Committee: "That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." To consider the recommendations of the Medico-Political Committee: "That the Divisions be asked to consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." The Secretary will be glad to receive intimation of cases to be shown or papers to be read as soon as possible previous to the meeting.—W. HALL CALVERT, Honorary Secretary, Melrose.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION. A special meeting of this Division will be held on March 30th at the Board Room of the Altrincham Hospital to discuss matters remitted from the Central Council, and for other business.—T. W. H. GARSTANG, M.A., D.P.H., Edge Mount, Altrincham, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER DIVISION. A meeting of the members of the above Division will be held at the Chester General Infirmary in the Board Room at 4 p.m. on Tuesday, March 29th. Agenda: To receive the Committee's report, etc., upon the Draft Medical Acts Amendment Bill (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, August 2nd, 1902). To consider: "The question of the advertising of medical practitioners in connexion with hydropathic establishments." To consider a "scheme enclosed for your perusal) of Medical Defence."—H. W. KING, 17, Nicholas Street, Chester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The next meeting of this Division will be held at the West Hampstead Town Hall, Broadhurst Gardens, N.W., on Friday, April 8th, at 4.30 p.m. Dr. Ford Anderson will preside. Agenda: (1) Minutes, (2) notices of motions for annual Representative Meeting; (3) the advertising of medical practitioners in connexion with hydropathic establishments (Ethical Committee); (4) is it advisable that the medical witnesses engaged on each side in legal cases should meet in consultation? (Medico-Political Committee); (5) the scheme of medical defence (Medical Defence Committee); General business.—J. DILL RUSSELL, Osman House, Fortis Green, N., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The next meeting of this Division will be held at the Camberwell Infirmary, Brunswick Square, Camberwell, on Thursday, March 31st, at 4 p.m. By the request of the Medico-Political Committee, the meeting will be asked to consider: "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." By the request of the Ethical Committee, the meeting will also be asked to express an opinion on "The question of the advertising of medical practitioners in connexion with hydropathic establishments." A paper will be read by Mr. G. D. Wilson on General Practitioners and their Grievances, and a paper by Mr. A. M. Hickley on Questions of Ethics as they concern the General Practitioner. After the meeting members will be taken round various departments of the infirmary by the superintendent, Mr. W. J. C. Keats.—W. H. B. STODDART, Bethlem Royal Hospital, S.E., Honorary Divisional Secretary.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW DIVISION.—A meeting of this Division will be held at Woodford Hospital on Tuesday, March 29th, at 4 p.m., Dr. Wise in the chair. Business: (1) Resolutions for Representative Meeting. (2) To consider a recommendation of the Ethical Committee that "the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions. (3) To consider, on the recommendation of the Medico-Political Committee, "whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. (4) General business. The following papers have been promised: Mr. Percy Warner: Notes of a Case of Dilated Stomach (and will show a specimen of appendix). Dr. Edwards: Case of Congenital Absence of Eyeballs. Dr. G. Basil Price: Notes on a Case of Haemorrhage into Great Omentum. The Secretary will be obliged if members who desire to read papers or propose resolutions will communicate with him before the meeting. The remaining ordinary meetings of the session will be held at Walthamstow Hospital on April 26th, at 4 p.m. (paper by Dr. Hale White), and at Brooke House, Upper Clapton, on May 12th, at 8.30 p.m. (demonstration of cases of skin disease by Dr. Sequeira); both conjointly with the City Division.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.—The next meeting of this Division will be held at 5, Pembroke Road, Portsmouth, on Tuesday, April 12th, at 3.30 p.m. Members wishing to show cases or to read papers should communicate before April 5th with the Honorary Secretary, J. G. BLACKMAN, Poplar House, Kingston Crescent, Portsmouth.

SOUTHERN BRANCH: SALISBURY DIVISION.—The next meeting of this Division will be held at the Infirmary, Salisbury, on Wednesday, March 30th, at 8.15 p.m. Agenda: Minutes of the last meeting. Consideration of communications from the Medical Secretary of the Association—(1) medical witnesses; (2) hydropathic advertising. Communication from the General Secretary: Scheme of medical defence. Subject for discussion, "Appendicitis"—Dr. Kempe, Mr. Luckham. Cases. The meeting will be preceded by dinner at the County Hotel at 7 p.m. Members intending to be present at dinner are requested to inform the Honorary Secretary not later than March 26th. Members wishing to show any cases at the meeting are requested to communicate with the Honorary Secretary as soon as possible.—J. E. GORDON, 52, Endless Street, Salisbury, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of this Branch will be held at the North Devon Infirmary, Barnstaple, on Wednesday, March 30th; at 3.30 p.m., the President, Dr. W. T. Thompson, in the chair. The following communications have been promised: Dr. W. Gordon: The Influence of Posture on Cardiac Physical Signs. Mr. Russell Coombe: Notes on a case of Hydrocele of the Canal of Nuck. Mr. Lucy: Uterine Fibroids. Dr. Davy: The occurrence of Fever in Children caused by the Ingestion of certain kinds of Carbohydrate Foods. Mr. Wilkin: Oesophageal Cancer with Laryngeal Complications. Mr. W. Woollcombe: The post-operative history of 10 cases of Malignant Disease, Stomach, and 5 perior Maxilla. Dr. Dyball: Notes on a fatal case of Secondary Parotitis. Mr. Roper: One Case of Appendicitis. Tea will be provided after the meeting. Gentlemen desirous of joining the Branch are requested to communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: M. Laveran on the Prophylaxis of Malaria in Madagascar: M. Pinard on the Extinction of Infantile Mortality in the Commune of Villiers-le-Duc. Academie des Sciences: the Fall in the Number of Cases of Malaria in Egypt by Measures Adopted by Suez Canal Company. Complimentary Dinner to Professor Cornil.—Typhoid Fever Epidemic.

AT a recent meeting of the Académie de Médecine, on the proposal of M. Laveran, the following resolution was unanimously carried:

The Academie de Medecine, considering the excellent results already obtained in a large number of countries from the point of view of the fight against malaria by means of the mechanical protection of houses against mosquitos, expresses the wish that this prophylactic measure may be applied in the army, especially in the military barracks in Madagascar, where mosquitos which propagate malaria abound.

In the interesting report on the diseases prevalent in different French colonies, M. Kermorgant called attention to the gravity of the endemic malaria in Madagascar. In 1900 the mortality among the French soldiers in Madagascar was 33 per 1,000, while in New Caledonia, a colony free from malaria, the mortality was only 5.5 per 1,000. The preventive use of quinine has already given good results, but other prophylactic measures are needed. M. Laveran has examined several thousands of culicides from Madagascar. In one lot captured in December, 1903, in the military hospital at Tamatave, he counted 44 per cent. of *Anopheles* (*A. costalis*); in the barracks at Tananarive there were 60 per cent. of *Anopheles* (*A. squamosus* and *A. coustani*); in the native hospital among ten culicides captured all were *A. squamosus*. As the majority of the patients in hospital suffer from malaria, it was easy to understand how the *Anopheles* became infected and spread malaria among the men hitherto free. The methodical protection of houses by wire netting would render great service in the army, whereas the mosquito net prevented the circulation of air, and to feel cooler the soldier, unless watched, removed it. Those obliged to pass the night on guard in the open air could also be protected; the face and neck could be protected by a net veil fixed to the helmet, the hands by cotton gloves, and the ankles by gaiters; the men should also take a preventive dose of quinine. The hospital wards should be protected to prevent the *Anopheles* from entering and biting the malarial patients, and thus spreading the infection.

M. Pinard read to the Académie de Médecine the results obtained in the commune of Villiers-le-Duc by the Mayor, Dr. Morel de Villiers, in the prevention of infantile mortality. The means adopted were very simple and most effective. Every pregnant woman in needy circumstances who declared her condition at the mairie at the seventh month was assisted by the commune, which provided a midwife and, if necessary, a medical man. After the confinement she received 1 fr. a day, provided she stayed in bed for ten days. If the child was not breast-fed, each woman was required to possess an apparatus for sterilizing the milk. The children were inspected every fortnight, either at the mairie or in their homes, and the notification of any illness in an infant was obligatory within twenty-four hours. Every nursing woman who showed her child in good health at the end of one year was allowed 2 fr. per month for this period. These measures had been in force for ten years now, during which time no mother had died either during confinement or as a result of it. From 1884 to 1893 the mortality among infants under 1 year was 22 per cent. on the average, while during the last decennial period, 1893 to 1903, the mortality fell to zero.

At the last meeting of the Académie de Sciences Prince d' Arenberg described the methods employed by the Suez Canal Company suggested by Major Ronald Ross for suppressing malaria. By filling the latrines with petroleum, suppressing stagnant water, unceasing watchfulness, and the use of quinine on a large scale, the success has been complete and rapid. From 1897 to 1902 there were more than 2,000

cases of malaria annually, whereas in 1903 the total fell to 200 cases.

Professor Cornil, Professor of Pathological Anatomy in the Faculty of Medicine in Paris was on March 8th the recipient of a gold plaquette portrait from his numerous friends and pupils. A banquet was offered to him on the occasion, at the end of which the presentation was made. The Senators MM. Franck-Chauveau and Labbé, who have been his colleagues in the Upper House, spoke first. Dr. Blondel spoke in the name of the International Association of the Medical Press, of which M. Cornil was the founder. M. Debove, the Dean of the Faculty of Medicine, spoke of his scientific work in the Rue Christine, where in an extramural laboratory he worked with Ranvier at pathological histology. M. Cornil, in reply, recalled the fact that he was the author of the reform which made practical work compulsory in the Faculty of Medicine.

The number of cases of typhoid fever notified in Paris during the week ending March 12th rose to 147. It would seem that the majority of the cases are in the north-western parts of the city, which largely derives its water supply from the river Avre. The number of cases under treatment in the Paris hospitals was 221 on February 28th, rising to 249 on March 6th, and reaching 310 on March 12th.

MANCHESTER.

Physiology in Education. Fate of Stray Dogs.

MR. BRUDENELL CARTER, at the invitation of the Council of Owens College, lectured, on the evening of the 15th inst., on the subject "Physiology in Education"—a subject that interested a large audience of members of the medical and teaching professions. If education, in the words of Paley, should comprise every preparation that was made in youth for the rest of life, then physiology was the science which must be called upon to elucidate the problems of education, and the art, properly so called, was a branch of applied physiology. The increased control over national education, which had been brought within the reach of the public by the recent Act, furnished an opportunity of which it was the duty of the members of the medical profession to avail themselves. Dealing with the decadence of certain portions of the community, supposing it to exist, Mr. Carter discussed the question how far such decadence might be attributable to improper selection and improper preparation of food. Next what was the influence of school work upon under-fed children? What school is doing for the thousands of children in the schools, and through them for the community, was not known. If an underfed child be taught without sustaining injury from the process, the State might properly insist upon the teaching; if it could not, the State had no right to inflict the injury. It would then be a question for moralists as well as politicians whether the child should be fed as well as taught, or whether it should be left to take its chances of growth and of survival. The physiological or medical aspect of the question should take precedence of the moral or the political. Mr. Carter dwelt especially on the importance in elementary schools for the working classes of early and systematic development of the senses so as to lay the foundation of skill, and so as to cultivate acuteness of sight, of hearing, and of perception, together with manual dexterity and general alertness. Passing on to the requirements of the higher classes of society the importance, in the case of girls, of leading them to the gradual attainment of the power and habit of self control, and of subordination of emotional impulses to the dictates of the judgement was insisted on.

Over 4,000 stray dogs were captured during the past year in Manchester and of these over 3,000 were relieved from any further participation in life's troubles, and less than 1,000 found new masters. All purchasers of these dogs were required to sign a declaration stating for what purpose the dog was required and that it would not be used for physiological, pathological, or toxicological experiments.

BIRMINGHAM.

The Huxley Lecture. The Queen's Hospital. The Moseley Hall Convalescent Home for Children.

It has already been announced that a Huxley lecture which is to be given annually has been established in the University of Birmingham. The first of these lectures was delivered by Sir Michael Foster, K.C.B., F.R.S., in the Town Hall, on March 16th, in the presence of the Vice-Chancellor, the Principal, and other dignitaries of the University, and before a very large and appreciative audience. Sir Michael Foster took as the subject of his lecture "The Work and Influence of Thomas Henry Huxley," because he felt that the anonymous founder would wish the first lecture to be devoted to the man himself, as he had expressed a desire that it should be entrusted to some one who knew Huxley personally. Sir Michael said Huxley's dominant note was the love of knowledge, "an ever present, never satisfied desire to know," and he went on to speak of his method of teaching, the goal of which was that the learner should know something of everything and everything of something. He described Huxley's zeal for the education of the people, including old and young, rich and poor, and entered into the feelings and convictions which brought him into conflict with what might collectively be described as the church. The lecturer showed how Huxley retired from scientific inquiry and research, to become the untiring champion of the claims of natural knowledge. The lecture was highly appreciated by the large audience.

The annual meeting of the governors of the Queen's Hospital, Birmingham, was held in the Council House on March 18th. The sixty-third annual report stated that, during the year 1903, the in-patients numbered 2,120, and the out-patients 28,956, a slight increase in the numbers of patients when compared with those of the previous year. The hospital did a very large amount of work in proportion to its size, and administered to the wants of a district containing a population of about 70,000. That 2,050 cases from outside Birmingham were treated at the institution, and that of these 421 were in-patients and 1,628 were out-patients, were facts which should make more residents in the out-lying districts contribute to the maintenance of the hospital. The income last year amounted to £10,311 and the expenditure to £11,788, so that there was an adverse balance of £1,477. The Hospital Saturday and Sunday Funds were the principal contributors to the hospital and they sent the institution about £3,600 a year. With the exception of about £1,100 derived from investments the hospital was entirely dependent upon voluntary contributions. The legacies received during the year amounted to over £11,000, and £230 was given by Mr. George Stanley, being 5 per cent. of the gate money taken at the National Engineering and Trades Exhibition, held in Birmingham in 1903, being the sixth year in succession that Mr. Stanley had presented the hospital with money from this source: the total amount already received being £1,372. Great improvements had been made at the hospital lately, such as developing and rebuilding the pathological department and the installation of machinery in the laundry.

At the twelfth annual general meeting of the governors of the Moseley Hall Convalescent Home for Children, the report showed that the number of children admitted into the institution during 1903 was 845, as compared with 820 in the previous year. Of these children, 205 were transferred from the Children's Hospital, 250 from the General, Queen's, and other hospitals, and from the District Nursing Association, etc., and 300 were admitted on the nomination of subscribers. The ordinary expenditure for last year was in excess of the income by nearly £300, and the accumulated deficiency amounted to £522. The Lord Mayor of Birmingham said that the usefulness of the institution as a convalescent home to the large general and children's hospitals in the neighbourhood was not the only benefit received from it, for a stay of a month in such a home gave many children a fresher and purer view of life, which was of incalculable benefit to the district in which they lived.

MEDICAL INSPECTION OF SCHOOLS IN CHICAGO. The Chicago Board of Education has appointed twelve medical practitioners to act as Inspectors of the Public Schools in that city; the salary is £10 per month. Teachers must keep an account of the general health of their pupils, and bring to the notice of the inspectors any child whose physical condition seems to be below par.

SMOKE ABATEMENT. At the fifth annual meeting of the Coal Smoke Abatement Society held on March 22nd, Sir Thomas Barlow moved a resolution to the effect that the pollution of the air by coal smoke was injurious to public health and vitality, destructive to works of art and vegetation, and directly demoralizing to the inhabitants of a great city. It was passed. It has been stated elsewhere that a commercial trust has been formed with the special object of promoting the domestic use of anthracite, so there seems to be a vague possibility that the wishes of the Smoke Abatement Society may thus be partially realized.

CORRESPONDENCE.

THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—As a member of both the British Medical Association and the Medical Defence Union I should like to be permitted to make a few remarks on the subject of the Medical Defence scheme of the Association, with particular reference to the circular issued by the Council of the Medical Defence Union.

I may at once say that the latter is a great disappointment to me. The Union has been so efficiently officered, and had done such excellent work, that one expected better things from its executive than an effusion which reads as if it came from men much more concerned for the interests of a comparatively small society, than for those of the profession as a whole. Surely the Council of the Union have mistaken the signs of the times! We have been engaged during the last few years in a most arduous work—that of adjusting the machinery of the British Medical Association, in order that it should be made into a body to which every reputable medical man should feel it is his duty and privilege to belong. What is wanted now is a powerful and successful Association, comprehensive in its scope and equally comprehensive in its membership. This, however, will never be attained if men who are looked to as leaders raise peddling difficulties as to the position of this, that, and the other society. We must take larger views if we are ever to be a well-organized and powerful profession.

To consider the circular of the Medical Defence Union *seriatim*:

Paragraph 1. The invitation extended in the scheme is plain enough. It is a candid and friendly suggestion that all the various defence societies should sink their individuality, wind themselves up and come into the Association after assuring themselves that there is no fear that the fruits of all their work will be lost. Surely this is not too much to ask from men supposed to be concerned with the interests of the whole profession rather than with a section however powerful and useful.

Paragraph 2 deals with the supposed difficulty and expense of voluntary winding up. This we are told would involve "large expenditure and needless sacrifice of the best interests of its members." No proof whatever is given of the latter assertion, and I am curious to know how large the expenditure would be. I venture to think that it would be a trifle compared with the gain secured by unification.

Paragraph 3 deals with the injury inflicted on those members of the Union who are not members of the British Medical Association. I frankly confess I would do anything even to compel every man worth having to come into the British Medical Association, and I consider the winding-up of the Medical Defence Union would be a distinct step in this direction. Very few men who have once experienced the mental satisfaction of being professionally insured would care to remain outside *some* defence organization, and I should like to know what likelihood there would be of the establishment of another defence association if both the Medical Defence Union and the London and Counties Protection Society both merged themselves in the British Medical Association.

Paragraphs 3, 4, and 5 deal still further with those members of the Medical Defence Union who are not members of the Association. I suppose the officers of the Union must take these into consideration, but if the merging of the Union is desirable on other grounds, is it wise that its separate existence should be maintained for the sake of what is a diminishing minority? It is estimated that about two-thirds of the members of the various defence societies are already members of the British Medical Association, and we know that the Association is gaining steadily in membership.

Paragraph 6. To this I must take serious exception as being either disingenuous or written by men who have not taken the trouble to understand the scheme they are criticizing. They say: "The proposed new department can only indirectly be regarded as connected with the British Medical Association." Now in the scheme it is proposed that the Committee of Management shall be elected in precisely the same way as existing committees of the Association are; that is, partly by the Council and partly by the Representative Meeting. It is trifling with the matter to say that officers appointed by such a committee (or, as alternatively proposed, by the Council) would not be officers of the Association. Again, the earmarking of certain funds for purposes of defence solely cannot seriously be held as a reason why medical men should not put their subscriptions for defence into such a fund.

Paragraph 7 must be quoted.

> That the success of the Medical Defence Union has been the result of the long experience of the Executive, and that any new department taking up the work of defence would have to start afresh and could only obtain that experience after years of practice

I simply refuse to believe that this expresses the spirit of the men who tell us later that

> The Council of the Medical Defence Union, consisting as it does entirely of members of the Association, and numbering many members of the Council of the Association, is not inimical to anything which would tend to increase the welfare of the Association.

If this latter sentence is not simply a platitude it means that if the Association encouraged by the desires of its members decides to start a defence department, it will receive the loyal support of those who have done such excellent work for a section of the profession. I am satisfied from my personal knowledge of the Council of the Medical Defence Union that if they were persuaded that the work they are doing in that society would continue to be done with the greater weight and prestige of the British Medical Association they would place their invaluable experience at the disposal of the Association.

Paragraph 8 is also misleading. It states that the proposed new department would only defend its members, whereas the Union has for years done good work in collective defence. The first paragraph in the explanatory memorandum affixed to the scheme furnishes a good answer to this statement. We are there told that at present the Association is doing through its Standing Committees much collective defence, but that it is hampered by deficiencies in the Memorandum of Association, which it is proposed to alter. As a past member of the Medico-Political Committee and a close student of the work of the Ethical and Public Health Committees, I consider that the Association is doing at present much more than any Defence Society in what may be termed collective defence. It rests with the Divisions and Representative Meeting to enable it to do much more. To speak, therefore, as the circular does later of the Association "undertaking ..... medical defence ..... in the minor degree involved in the scheme" is, not to put too fine a point on it, understating the case.

Paragraph 9. A little more care might have been taken in presenting the figures given here. The circular says that there are in Great Britain and Ireland 37,232 practitioners, of whom only about 14,500 are members of the British Medical Association. Turning to the last *Medical Directory*, I find that the number of practitioners in England, Wales, Scotland, and Ireland is 30,413. The larger number given by the Medical Defence Union includes the members of the services and those practitioners resident abroad. It would have been more correct to say that out of 30,413 practitioners about 14,500 are members of the British Medical Association.

Paragraph 10 says that no advantage is shown in the scheme to those who are at present subscribers to the Union. True that there is no immediate monetary gain, although I think it is almost certain that after the new department gets into working order it will be seen that less than 10s. a head will suffice. But, apart from the probability that concentration will lead to economy, I should suggest that there is the certainty that if medical defence can be carried out as well by the Association as it is now by several societies (and it would not be difficult to point out several ways in which it might even be bettered) all concerned would feel the advantage of unity of interests in the place of the division created by competing societies.

Members of the Medical Defence Union should notice the very different attitude taken up by the London and Counties Medical Protection Society. It has resolved to wait until the scheme has been before the Divisions (where it may be altered), and to see what encouragement is given to it by the individual members of the Association. This is sound business, and while safeguarding the interests of its members the Society apparently takes a broader view of the situation than the executive of the Medical Defence Union.

The circular, in closing, "feels that it would be wiser for the Association to avoid *for the present* at least the undertaking of medical defence" (italics mine). Will any member of the Council of the Defence Union point out any single direction in which the difficulties would be lessened by delay? Would not the present vested interests obtain a still further hold? Will it be for the benefit of the Association or of the profession that any delay should occur in the process of making the Association all-sufficing for the needs of the

practitioner. Every canvassing member of the Association knows of men who would join it if it included in its advantages that of defence. It is no use pointing out to these men that they can get all they want by joining two or three separate societies. They want one Association with one subscription, and so do I.

In conclusion, let me urge Secretaries of Divisions in particular not to lose sight of the fact which is not set forth as plainly in the scheme as it might be) that it is essential to the efficiency of the Association that the Memorandum of Association should be altered as suggested. The work of the Association is at present hampered, particularly in the Medico-Political and Ethical departments, by the want of a free hand, and whether individual members of the Association want the scheme of individual defence or not, Division Secretaries should see that it is clearly placed before their members, who should instruct their representatives that the Memorandum of Association must be altered, and that without delay.—I am, etc.,

ALFRED COX,
Honorary Secretary, North of England Branch, and
Gateshead, March 22nd. of the Gateshead Division.

MILK EPIDEMICS AND BOVINE MAMMITIS.

SIR,—I should be glad if you would allow me a little space in which to criticize the report of Professor J. Wortley Axe on the outbreak of sore throat at Woking, which he made to the British Dairy Farmers' Association, and which you quote in the BRITISH MEDICAL JOURNAL of March 12th.

According to the history Professor Axe obtained from the farmer and his aged cowman on December 21st, it would appear that no milk from the four cows who were affected with mammitis gained access to the common supply. The unreliability of this account is, however, admitted by Professor Axe, in view of the complaints that had previously been made by the retailers as to a slimy deposit in the milk. When the cows were examined on November 13th the farmer admitted he knew nothing of the affection of one of the cows, and this one moreover, was the one yielding the purest pus.

That the cowman himself knew of the disease is extremely doubtful; that the cow was being milked was not denied. In addition, there is the evidence afforded by the examination of the mixed supply as taken at the dealers. Single loopfuls of the milk give numerous colonies of streptococci. Whatever may be the value of the account given to Professor Axe five weeks later as to the history of the cows' an account, by the way, which differs in several particulars from that given earlier to Dr. Eyre and myself—I do not think there can be the slightest doubt that pus in considerable quantities daily found its way into the milk supply. This pus contained large numbers of streptococci, which, as far as I have been able to make out, are indistinguishable from the streptococcus pyogenes. Moreover, mice fed on the pus have died in four days, and a pure culture of a streptococcus has been recovered from their organs by Dr. Mervyn Gordon.

In his report on two specimens of milk received from Professor Axe on December 22nd—that is, five weeks after the disease was discovered—Dr. Andrewes found in the milk (the cows had evidently greatly improved in the meantime) "some excess of leucocytes and a very large number of streptococci in long chains which are probably of a pathogenic species." He was, however, at that time unable to isolate this streptococcus. I have offered Professor Axe a specimen of the pus taken from the sore cow on November 13th, from which this long streptococcus can still be readily isolated, but he has not taken advantage of the offer.

In spite of the clear heavy pollution of the milk by pus from the cows, Professor Axe clings to the possibility of an infection of the milk vessels in the house. The farmer had a sore throat in the middle of September; his two sons were attacked on October 1st and 4th, and his wife and two daughters were very slightly affected about October 21st. The outbreak began probably during the last week in September and was continued to date up to the time the milk from the farm was stopped on November 13th. The cleansing of the milk vessels was certainly done by the wife and two daughters, but the outbreak began a month before they were affected and continued for three weeks after. It appears to me to be unreasonable to suppose that persistent contamination of the vessels took place in the house and that too during the process of cleansing during the whole seven weeks of the epidemic, especially when it is known that streptococci in abundance were being poured into the milk itself. I, at any rate, will not believe it until these organisms are proved not to be the streptococcus pyogenes. The only argument against the infectivity of the pus that seems to me to be of any weight is the comparative rarity of these outbreaks as contrasted with the frequency of mammitis. The answer to this is that in the case of these cows the character and extent of the pollution were exceptional. It is probably rare that cows are milked into the common supply whilst suffering from mammitis in the acute stage.—I am, etc.,

R. W. C. PRIDEAUX, M.D.,
March 21st. Med. Officer of Health for Woking.

THE FEEDING OF INFANTS.

SIR,—I have been very much interested in reading in the BRITISH MEDICAL JOURNAL an account of the lecture on the above subject by Dr. Niven, in the Public Health Laboratory, Victoria University, Manchester.

In my opinion it is very important to have a medical inspection of all the scholars in the elementary schools in regard to development as revealed by the weight and height of the children, the teeth, eyesight, hearing, skin in regard to diseases, and the mental condition. My short experience as medical officer to the Education Committee has brought another matter to my notice, the prevalence of adenoids in school children. It is my intention when we reopen the schools after Easter to ask the head masters and mistresses to furnish me with a return of the number of children who are slightly deaf and are mouth-breathers, so as to get an idea of the work to be done in that direction. A few weeks ago I gave a lecture to all the teachers on "Infectious diseases, how to detect them, and what should be done." The careful attention which the teachers gave to my remarks convinced me that this was a step in the right direction.

In Dr. Niven's remarks on the feeding of infants, he mentions diarrhoea and its causes. I find the temperature of the earth a very good guide, and I am convinced the germ liberated at a given temperature to be the cause of the diarrhoea, also that the majority of the children who suffer are bottle-fed, thus indicating that the milk is the medium of the infection; only a careful attention to the milk itself and to the utensils used for its storage will overcome the mischief.

The importance of attending to the feeding during the life of the child before he goes to school is evident if we consider the question of development. An infant at birth measures in height 19 in., and at 5 years of age he should be 41 in., showing he has increased in height much more than double, or 2.16 per cent. his original height; if this increase continued until he reaches 21 years his height would be 7 ft. 3 in., whereas the average height is only 5 ft. 7 in. Again, an infant averages at birth 6 lb. in weight, and at 5 years of age has reached 40 lb., thus increasing growth more than six times; if this were continued until 21 years he would be a giant, whereas from 5 years to 21 years his increase is only 3.6 times. This shows how necessary it is during the first five years of life to lay a healthy solid foundation before education is commenced.

The practice is too common of sending children at even two years to school, not with a view to them being taught, but to be nursed so that the mothers may go out to work. This should be made impossible. I think, with Dr. Niven, that as far as proteid matter is concerned milk, after the baby has been weaned, is too costly, and a more mixed diet should be introduced as he recommends: pea soup and lentil soup are both cheap and nutritious, but during the feeding time pure unmixed cow's milk, where mother's milk is unavailable, is the best, as I have pointed out in a previous letter, during the first month I advise the parent to give the child a one hundred part of its body weight of milk every two hours during the day time, during the second month one sixty-sixth part of this weight, the third month one fiftieth part, the fourth month one forty-second part; the fifth month one thirty-sixth part; and the sixth month one thirty second of total body weight. This forms a scientific basis on which to feed our infants, and I never get a case in which it disagrees.

The addition of cooking centres is an admirable idea, and should be carried out in all towns with this exception, that in smaller towns one cooking theatre would be enough for each district or ward, as the case may be; thus is a detail. The question arises, Who should undertake this work? The ordinary run of teachers do not understand the physiology of infant life. This difficulty, however, is not insurmountable. There is one thing only in which I do not agree with Dr. Niven, and that is the source of the income necessary for the

ding of the children. I am quite certain the ratepayers l not submit to be further bled, and to put it on the rates o establish a precedent difficult to remove, and also to e a responsibility from the shoulders of the parents which y alone should bear. At first it should be a charitable et, and when at last the responsible ones can bear the den let them do so.—I am, etc.,

F. G. Haworth.

irwen, March 21st.

SIR,—A good deal has been written lately on the home dification of cow's milk for the purpose of obtaining foods infants which approximately correspond to the modified lk sent out from milk laboratories; in other words, in er to procure milk on what is commonly known as the erican or percentage method, a milk in which the fundaental constituents—the proteids, fats, and carbohydrates—be combined in any required proportions. Holt, who is of the leading advocates of this method, urging it with the weight of his great authority in his well-known work *Diseases of Children*, claims that although no plan of home dification secures more than approximate accuracy in the centages, yet if the directions which he gives are carefully ried out, a degree of accuracy sufficient for all practical poses can be secured. To illustrate the point to which I h to call attention, a point which seems to me of great imtance, I will take one of his actual set of figures.

n order to obtain a milk in which the ratio of fats to teids is 3 to 1, he starts with a mixture of equal parts of inary gravity cream (16 per cent. fat) and milk (4 per cent.). This mixture will obviously contain 10 per cent. fat, l as the proteids in milk and cream are practically idenal the percentage of proteids is 3.5, or about one-third the fat. With this combination, then, of cream and lk we have to start with a mixture containing s and proteids in the proportion of 3 to 1. e whole of this calculation rests on the assumption that cream contains 10 per cent. fat. According to Holt[1] New rk cream contains fat in percentages varying from 8 to 40—per cent. is simply the average of gravity cream. Hutchi-n[2] says the amount of fat in London cream varies from 20 cent. to 65 per cent. In nine samples analysed in Hove, range was 45 per cent. to 54 per cent. (These were all trifugalized cream—it is difficult here to obtain gravity am.) Now, if we prepare our mixture according to Holt's ections with the lowest of these samples, the 8 per cent. am we get a mixture in which the ratio of fats to proteids to 3.5; if with the highest of these samples the ratio is to 3.5—that is, one contains nearly six times the fat of other—the whole principle of constant ratio of fats to teids is non-existent, it varies with the specimen of cream d: the proteids are constant, the fat is an inconstant antity, and the only way to obtain even approximate uracy is to have the cream you intend to use analysed, and s, I am afraid, is in the majority of cases out of the quesn, and therefore a system, fascinating in theory, in practice omes almost impossible. It is useless to order mixtures composition of which is quite unknown to us, on the supsition that we have obtained a food prescription of constant antities.—I am, etc.,

L. A. Parry, M.D., F.R.C.S.,
Assistant Surgeon, Royal Alexandra Hospital
ove, Sussex, March 18th. for Children, Brighton.

THE TENURE OF OFFICE OF M.O.H.

SIR,—In connexion with Dr. Lloyd Roberts's letter of bruary 29th, I have been a victim to the caprice of a dist council. I was medical officer to an urban district for e years, appointed annually. At the end of the fifth year other medical officer was appointed in my stead, with no son assigned and without my being informed of the prosed dismissal, nor of its consummation. I was allowed to d this out from the local press.

Can such treatment of responsible public servants tend to advantage of the administration of the Public Health ts? In my experience (that of nineteen years) the present certainty of tenure does of necessity cramp the action of ny medical officers; and I will add that, in my opinion, thing would promote more the benefits to be derived by the tagers from the Housing of the Working Classes Act, or by workers from the Factory Act, than freeing the hands of dical officers by ensuring them security of the tenure of their appointments, that advice may be given and insisted upon, undeterred by the risk of giving offence in influential quarters.

My districts, a rural and urban, also suffer from the "masterly inactivity" of a neighbouring district, which keeps infection going by declining to close schools to diminish epidemics; while we have to struggle by such means to stamp out the imported infections, and our school children have to suffer illness, death, or loss of education. The position of the local medical officer should be strengthened, or the county medical officer should undertake the responsibility of closing the schools, irrespective of local opinion.—I am, etc.,

W. R.

March 18th.

THE DIMINISHING BIRTH-RATE.

SIR,—The opinion expressed by me that the "higher civilization" tended to a diminished female fecundity has not obtained acceptance from those gentlemen who have criticized my remarks. Drs. F. W. Inman and J. M. Rhodes totally disagree with me.

In respect to what may be called the athletic side of the question, it is undeniable that the diminution is most marked in that very class in which athleticism is most worshipped—the middle class. I say worshipped advisedly, as that moderation to which there could be no objection is apparently unattainable. In my experience, the multipara of eight or ten children is a person who knows very little about athletics, and cares less.

As regards the effect of gymnastics on the pelvis, it appears to me that traction on the abdominal muscles above, and on the muscles of the thighs below, must tend to make it more funnel-shaped and massive—more malelike. But the term "higher civilization" implies a great deal more than cycling and athletics, and that of a character which, as it must mainly be expressed in vague generalities, is more suitable for oral discussion than for written, when space is a desideratum.—I am, etc.,

London, E.C., March 18th. Hope Grant, F.R.C.S.E.

PUERPERAL SEPSIS.

SIR,—The discussion on puerperal sepsis shows that the profession has not yet made up its mind on the cause and prevention of the disease. But it is important to notice that there is no such doubt on the part of the public. It has been taught to believe by the specialists and by the medical and lay press that, if a case goes wrong, it is solely due to neglect on the part of the medical attendant.

Theoretical authority, as represented by the teaching of the schools, is quite dogmatic on the point. Its position is that the responsible cause is the direct introduction of germs by the examining finger, and that, therefore, any internal examination is dangerous. Its dictum—"no handling, no septic infection"—is at once disproved by the fact that some cases become septic in which no internal examination is made. And it does not account for those that do well after prolonged manipulation, even without antiseptics. The letter from a "General Practitioner" in the British Medical Journal of March 5th, giving 2,000 confinements, most of them perfect examples of so-called "meddlesome midwifery," with only 3 septic cases, is a good instance of this.

Moreover, the statistics of the teachers' own maternity hospitals disprove it. In these there is as much septicity as in ordinary private practice, where antiseptics are used, and the published hospital statistics of cases where external palpation alone has been employed are practically the same.

Occasional cases do occur with our present means of prevention. Antiseptics do not prevent, even "obstetrical asepsis" does not, and "no handling" is not "no septic infection." The teaching, therefore, must be wrong, and, in view of its effect on public opinion, if it is wrong it is quite unwarrantable.

That there is some overlooked factor seems to be evident. The germs we have always with us and ready to develop under certain unknown conditions. Surgery tells us that a soil in addition to germs is required for the production of sepsis. The uterus is generally accepted as the required soil, and is called an incubator at a suitable temperature. But the normal puerperal uterus is a vascular, smooth-walled, freely-drained, and contractile organ that no surgeon would be afraid of. The presence of putrescible matter in addition to the germs would account for septicity. Some time ago I made an investigation in over 100 cases on this point, the results of which were read before the East London and South

[1] *Diseases of Children*, Second Edition, p. 142.
[2] *Lectures on Principles of Dietetics*, p. 12.

Essex District, and a brief note published in the BRITISH MEDICAL JOURNAL of April 25th, 1903. My theory was that retention of portions of placental tissue was the missing factor, and in these cases I explored the interior of the uterus with the fingers as soon as the placenta was expelled.

The results were that in more than half appreciable portions requiring scraping or picking off for their removal were found. In comparatively few was the uterus entirely free from tags and the tenacious clots adherent to them. As regards the patients, the results were better than with the use of antiseptics only. Notes of temperature, etc., were taken throughout the puerperium. Only one—a case of placenta praevia—developed a septic temperature, which lasted from the second to the eighth day. All the others had perfectly normal recoveries. The only precautions used were washing the hands in soap and water and introducing directly out of lysol solution. Douches were not used, nor perchloride of mercury with soap, which is inert, nor washing for twenty minutes, which is impracticable. Besides, we know that nothing short of boiling will make the hand aseptic. This method of prevention is, of course, directly contrary to the present teaching. It is also opposed to the generally-accepted opinion of the general practitioner, who has a horror of interfering after delivery, but holds it to be permissible and necessary to make frequent examinations before.

But if it is as safe as my results show, and is used in all cases where the placenta is, or seems to be, in the slightest degree torn, it is the best preventive that we have at present. And if it does not convince the teachers, it will to some extent satisfy the public, to whom, if septicity means "neglect," neglect means that "something has been left behind."—I am, etc.,

Walthamstow, March 20th. C. J. MORTON, M.D.

SIR, When I hear a man telling me that he never uses antiseptics, I always ask him if he ever uses soap in washing before he examines a case. I am one of those who believe that there is scarcely any agent more capable of making the hands thoroughly aseptic than good old-fashioned soap. I find, however, that if to the water a pellet of hydrarg. perchlor. is previously added, it has the effect of hardening the water and prevents a good lather. It is always better, I think, to have a solution of the perchlor. ready made to dip the hands in after washing. But a man in a country practice may be called to a case when on his rounds, and perhaps many miles from home, and he may have no perchloride with him. Well, all I can say then is, "Use plenty of soap." Dip your nails into the soap and allow as much lather as you can to cling to your fingers, and I believe that you will be quite safe. Wash the genitals thoroughly with soap and water, and see that all blood is thoroughly cleansed away, and have dry clean cloths placed under the patient.

Whatever we do, some of the cases will go wrong. I am glad to learn that some medical men are able to attend 2,000 or 3,000 cases of confinement without a single death. They are exceedingly lucky, and it must be luck and nothing else. I have been in practice here for the last twenty-three years, and had seen a considerable amount of practice before coming here, and have I suppose attended over 2,000 cases of confinement, yet I must admit that I have had many deaths, some from "accidental haemorrhage," one in consultation from placenta praevia, one from secondary *post-partum* haemorrhage, and one from eclampsia.

There is no space at my disposal to give the particulars of all these cases, but I will give the particulars of the case of eclampsia. I was called to the case out in the country, and I found the head of the child on the perineum quite soft and putrid. The stench was almost unbearable. I delivered the child and the placenta almost immediately followed. There was no haemorrhage to speak of. The uterus was firmly contracted, but the pulse was extremely rapid. I kept my hand on the uterus and had beef tea and brandy given to her. She wanted me to go downstairs to have something to eat as she felt all right. I, however, stayed with her and in a little time she complained of feeling sick and turned round in bed in order to vomit, had one slight convulsion and immediately expired.

Previous to that I had a case of eclampsia, the woman in all having thirty-two severe fits, foaming at the mouth, biting her tongue, etc. She was kept under chloroform for hours and forcibly delivered; she had many fits after being delivered, but eventually recovered completely. With regard to antiseptics, my advice is, use them by all means, but however thoroughly you use them, be prepared to expect some cases of sepsis. Whether the theory of Barnes with regard to the autogenetic and heterogenetic forms of puerperal sepsis is finally exploded or not I cannot say, but this I can state that there is not the least doubt that some women are more prone to develop sepsis than others. In some you can do almost anything and they recover without a single bad symptom, whereas others will develop sepsis where not a single internal examination has been made and where the genitals have been thoroughly washed.—I am, etc.,

W. MICHAEL WILLIAMS, M.B.

Bettws-y-Coed, March 4th.

SIR, I cordially agree with your correspondents as to the excellence of Dr. Horrocks's recent address on puerperal sepsis. During the last twenty years I have attended about 2,000 cases of midwifery, and latterly about 150 cases annually; of that number I have been fortunate enough only to lose 1—that is, to have had but one death directly connected with parturition.

This patient suffered from a severe attack of influenza about a week before she was delivered. She subsequently developed puerperal septicaemia, and in spite of all that we could do she died. I was not in attendance actually at the time of birth, but almost immediately after the child was born, and of course took all responsibility. Up to this time I did not syringe my cases unless there was a rise in temperature a few days later, but since then I have syringed almost every case I have attended immediately after the birth of the child with a 1 in 4,000 solution of perchloride (over 500 cases), the pudenda having been washed at the same time with the same solution. I have never in any one of these cases seen the slightest indication of mercurial poisoning which we hear of from time to time, but I have always observed certain precautions. The left hand is kept firmly on the fundus uteri and the uterus is felt to be well contracted before the syringe is used.

On the whole, I am satisfied with this treatment as far as my judgement goes, as it is seldom necessary to interfere with the case afterwards. I should say I use the auto-enema syringe, which is worked with the right hand, the left being engaged with the uterus. I rarely get a rise in temperature after this is done, and the patient is almost invariably able to leave her bed on the tenth day (unless one of the richer class who do not need to do so). If the temperature does go up, however, I generally syringe the uterus with the same solution and a Buden's double channel catheter, which is passed up to the fundus.

Another matter which perhaps one often overlooks in the hurry of practice is that the bowels should be opened each day if possible; and Mr. Jellett, in his excellent little book reminds us of this when he says: "An aperient should be administered every second day during the puerperium if the bowels do not move of themselves." A free purge has a considerable influence in lowering the temperature. The retention, too, in the uterine cavity of a clot frequently sends the temperature up a degree or so. The cases that worry the practitioner most are those in which influenza develops within about a week after delivery, and produces many symptoms which point to septic trouble; but the discharge is sweet, and there is no pelvic pain on pressure. I cannot say with your correspondent, "Aseptic Sceptic," that "it is with fear and trembling I use the forceps," which I do in about 15 per cent. of the cases.

If the placenta is retained and cannot be expressed in say one hour's time, I never hesitate to pass my hand into the uterus and peel it off, but deep anaesthesia beforehand is necessary in these cases. The cause, in my experience of retention, is in most cases hour-glass contraction of the uterus, and while on this I may add that Dr. Galabin says in his *Manual of Midwifery* that which most completely deserves the name of hour-glass contraction and the commoner kind is that in which the internal os contracts the circular fibres around which form a sort of sphincter, and he goes on:

> It is probable that many cases of so-called hour-glass contraction have not resulted in what is termed the normal, as raised, owing to the elongation of the cervix by stretching, and accordingly have supposed the constriction to be at a higher level in the body of the uterus.

I am a thorough believer in antiseptics, and in any case never examine a woman without washing my hands in hot soap and water first. I have had my share of *post partum* haemorrhage but I have always managed to get it under with digital compression. I find that the rectal injection of soap and water is very efficacious in these cases, and it is ready

riking how quickly the, perhaps, barely perceptible pulse mes back after it is given.

One reason probably that I have had such a low mortality that whenever anything goes wrong with a case, I take the ti ent, as far as possible, into my own hands, so to speak. ie nurse is not allowed to syringe unless very rarely and nere the case is at some distance.

As is usual, after the bowels are open on the third day, I ve full diet, and last, if not least, visiting friends are not ncouraged.

These are the rules I have followed; there is nothing very iginal about them, but they have stood by me in many an xious time, and I do not hesitate to recommend them to hers.—I am, etc.,

ston, W., March 18th. ROWLAND POLLOCK.

DEGREES IN DENTISTRY.

SIR,—May I make a brief reply to one or two of the points ised in Mr. Underwood's letter? I fully agree with him as the great desirability of in no way weakening the bond tween medicine and dental surgery. But the speciality has isted as a separate profession, by law established, for many ears; its relationship to medicine is based upon natural cts, and is proved by its recognition by the various Colleges Surgeons. The creation of a degree in the medical faculty a university would afford an almost exact parallel to exist- ig conditions, and would thereby emphasize the relationship ow obtaining. It would seem as though the logical conclu- on of your correspondent's views should involve a desire for ie abolition of the L.D.S.

It is fair to point out that those who first raised the ques- on did so solely in connexion with London University, and iat the circular sent round to members of the B.D.A. was an *ex parte* statement by those who object to university recog- ition altogether. One provincial university already grants egrees, and another university with a great reputation has ecided to do so; it is practically certain that others will ollow suit. Such localization of teaching and examining is ne of the outstanding features of recent educational pro- ress, and it is most unlikely that dentistry will not be in- luded in one or other of the faculties. Under these circum- tances it is felt that it would be wise for London to lead ather than follow, and, by granting a degree of high standard n the medical faculty, set an example whose force would not e wasted. Such a degree would not necessarily carry the rivilege of registration; indeed, it would be preferable that should not do so.

Your correspondent suggests that "holders of the L.D.S. ould be overshadowed by holders of the B.D.S." Is there ot some explanation here of the two-to-one majority polled t the special meeting? It would be no discredit to the voters it were so, but it would be extremely natural and perhaps fford an example of one of the dangers of a too strictly emocratic control of educational matters.

The training necessary to make a dental surgeon is peculiar nd differentiates the speciality from all others. We hold the iew which after consideration your correspondent rejects, amely, that a degree given by a university of prestige would ignify and ennoble our calling. We think that, besides ffering to the aspiring student an opportunity of taking a igh degree in his own subject but on lines which would pproach rather than diverge from the medical curriculum, it ould be a means of attracting to the profession men of ttainments who would otherwise enter the already over- rowded medical profession; and we believe, further, that it ould stimulate original research into the many important roblems in the realm of dental pathology which await solu- ion, and for which workers in this country are so sadly lack- ng.—I am, etc.,

London, W., March 5th. NORMAN G. BENNETT.

THE SANATORIUM TREATMENT OF CONSUMPTIVES.

SIR,—Dr. Marriott has honoured me by making indirect eference to one or two points in my letter, to which, with our permission, I would make brief allusion. I maintain hat sanatorium treatment is still in the experimental stage n this country.

I quite agree that "the aggregation of the infective sick in arge permanent hospitals is bad;" but surely such a remark annot be applied to the open-air sanatorium, where, owing o the free and open conditions of life, the most practical orm of isolation is brought into operation.

Dr. Marriott's remarks were doubtless the outcome of "honest doubt" as to the efficiency of the sanatorium treatment of phthisis, and I venture to say that a month's residence in a properly conducted sanatorium would convince him of the libellous nature of the term "farce" in association with the system. Dr. Marriott is evidently enthusiastic in reform, and for this he is entitled to our respect. And as a fair-minded man, he could not fail to be favourably impressed by evidence humbly submitted by myself (an equally enthusiastic reformer) of the real good which can be and is done by sanatorium treatment. As he passes over such important facts in silence, however, I have allowed myself to foster the impression that his gratification is too great for words.—I am, etc.,

Shotley Bridge, March 15th. E. W. DIVER.

RETENTION OF RUBBER CATHETER AFTER EXTERNAL URETHROTOMY.

SIR,—In the BRITISH MEDICAL JOURNAL of March 12th Mr. Herbert Mason refers to a method of retaining a catheter in which the perineal skin wound is sewn up at the time of the operation, a single deep suture transfixing the urethra and catheter. This plan would probably be effective provided that the urine was healthy, that the skin wound healed by first intention, and the catheter did not become blocked. If Mr. Mason finds, on further experience of his method, that suturing the skin results in a perineal abscess due to leakage of infected urine from the divided urethra, this will necessitate reopening the perineum, in which case the use of some such appliance as my "perineal stop" will be found a convenience to the surgeon and a comfort to the patient. As regards the simplicity of the two methods, the fixation of the catheter by a "perineal stop," although it takes some little time to describe in writing, in actual practice is easily performed in two minutes. Some surgeons are in the habit of treating cases of external urethrotomy without a catheter, but of this method I have had no personal experience.—I am, etc.,

Plymouth, March 17th. C. HAMILTON WHITEFORD.

THE ADMISSION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—With regard to Dr. Barr's procedure of injecting pure air into the pleural and peritoneal cavities after aspiration, may I be allowed to remark that it is difficult to see what is gained by it in the case of the peritoneum, because the abdominal wall, being collapsible, is pressed upon by the whole weight of the atmosphere, and additional support can be given if desired by the simple expedient of bandaging. The pleural cavity with its rigid walls is different, and cases are met with in which during aspiration acute distress is caused by the atmospheric pressure within the lung expanding some portions of it while others are bound down by adhesions. It is in these cases that relief is immediately afforded by the admission of pure air into the pleural cavity. But in such cases it is unnecessary to inject it. Air is drawn in to the exact amount requisite to equalize the pressure on both sides of the visceral pleura as soon as it is allowed to do so. For this purpose no elaborate apparatus is required. All that is necessary is to clip with artery forceps the tube between the cannula and the aspirator, to remove the aspirator, place several layers of aseptic gauze over the end of the tube to act as a filter, and then removing the clip to allow air freely to enter the pleural cavity. In the *Edinburgh Medical Journal* of November, 1886, I reported a case in which this was done with the best results.—I am, etc.,

Wigton, March 21th. THEOBALD A. PALM, M.D.

TRANSPLANTATION OF THE PANCREAS IN DIABETES: A CORRECTION.

SIR,—In the article, Diabetes, in the *Medical Annual* for this year, Professor Saundby says: "Dr. J. W. Allan has urged transplantation of the pancreas in diabetes. He speaks of a case in which he was going to try it, but although his communication appeared as long ago as last February, *the result has not been made known.*" The words which I have put in italics contain an error. The result was made known in the BRITISH MEDICAL JOURNAL for March 21st and March 28th, 1903. The operation was carefully performed by Dr. Barlow, my corresponding surgeon in the Glasgow Royal Infirmary. The attempt failed. The insertion of this explanation will oblige.—I am, etc.,

Glasgow, March 18th. JAMES W. ALLAN.

THE ANTIMALARIA CAMPAIGN AT ISMAILIA.

SIR,—We are much obliged to the BRITISH MEDICAL JOURNAL for its kind notification of the omission in the *Journal des Débats* to refer to the mission of the Liverpool School of Tropical Medicine in connexion with Ismailia. May we say that we are convinced the omission was purely an accidental one? Prince d'Arenberg has already so clearly expressed his acknowledgements to the school, and Dr. Laveran is so well known to be one of the most scrupulous of scientists in these respects that it is impossible to think otherwise. We must join every one in congratulating both the distinguished discoverer of the parasite of malaria and the President of the Suez Canal Company on what you rightly call the "great sanitary victory that has been gained." We are, etc.,

RONALD ROSS, Professor, } Liverpool School of
ROBERT BOYCE, Dean. } Tropical Medicine
University, Liverpool, March 21st.

*** The omission in the *Journal des Débats* may be as suggested accidental, but on turning to the verbatim report of Prince d'Arenberg's speech as officially published in the bulletin of the Suez Canal Company, we find that although he mentioned Major Ross and the Liverpool School of Tropical Medicine, it was only to say that after the publication of the works of Dr. Laveran and Major Ross of the Liverpool School of Tropical Medicine the medical officers of the company took up the question of mosquito destruction, and that in consequence Major Ross was asked to study the conditions to be dealt with on the spot. On the other hand, Prince d'Arenberg began his speech with the statement "that after the magnificent labours of Laveran there was no longer any doubt as to the part played by mosquitos in the causation of malaria," and concluded by saying that his pleasure in announcing the results of the operations at Ismailia was all the greater because they had been achieved thanks to a French man of science.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON R. E. HALL, M.B., has been allowed to withdraw from the Service with gratuity, March 17th. His commissions were dated Surgeon, May 11th, 1898; Staff Surgeon, May 11th, 1903.

The following appointments have been made at the Admiralty: JAMES L. SMITH, M.B., M.V.O., Fleet Surgeon, to the *Excellent*, on commission, 1st; JAMES C. HOW, M.B., Fleet Surgeon, and ALEXANDER MCCLOY, M.B., Surgeon, to the *Revenge*, undated; D'ARCY HAINES, Fleet Surgeon, to the *Grafton*; HAROLD R. OSBORNE, Fleet Surgeon, and NELSON J. ROCHE, Surgeon, to the *Victory*, April 7th; JOHN MOORE, M.D., Fleet Surgeon, and MONTAGUE H. SYMES, Surgeon, to the *Powerful*, undated; ELIJAH E. L. THOMAS, Surgeon, to the *Exmouth*, undated; GODFREY TAYLOR, M.B., L.R.C.P., Surgeon, to the *Terrible*, additional, and for recommissioning; FRANCIS J. P. MCKENNA, M.B., Surgeon, to the *Indefatigable*, March 1st.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL F. TREWMAN, M.B., is placed on temporary half-pay, March 16th. He was appointed Surgeon-Major, July 9th, 1892, and Lieutenant-Colonel, July 9th, 1900. He served in the Soudan campaign in 1898, for which he received the Medal with clasp and the Khedive's bronze star.

CAPTAIN H. S. WESTON retires on retired pay, February 1st, at Salisbury. He was gazetted Lieutenant, May 7th, 1892, and became Captain, May 7th, 1899. He served in South Africa with the Imperial Light Horse, and received the South Africa medal with two clasps.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. HOOD, M.D., Madras Establishment, is permitted to retire from the service, March 1st. He was appointed Surgeon-Major, March 31st, 1892, and was made Surgeon-Lieutenant-Colonel, March 31st, 1900. He served in the Waziristan war of 1894-5, and received a medal for that campaign.

LIEUTENANT-COLONEL A. NATHAN, C.I.E., Bengal Establishment, has been appointed Principal Medical Officer of the Punjaub Command, with the Temporary Rank of Colonel.

MAJOR J. E. GRAHAM, Bengal Establishment, is posted as Lucknow Cantonment.

CAPTAIN C. H. BELL, Bengal Establishment, is appointed Agency Surgeon, Eastern Rajpoot States.

IMPERIAL YEOMANRY.

THE undermentioned gentlemen are appointed Surgeons to the Corps specified, dated March 16th: Cadet S. Wood, 3rd Middlesex (Artists') Rifle Volunteer Corps.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN G. A. LYNE, M.B. (Inspector and P. Wood, 3rd Middlesex (Artists') Rifle Volunteer Corps, March 12th.

Surgeon-Lieutenant A. Y. PRINCE, 1st Suffolk and Harwich, to be Surgeon-Captain, March 12th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT J. SCOTT, M.D. (Queen's Royal Volunteer Brigade, the Royal Scots (Lothian Regiment)), is permitted to retain his rank on retirement.

DR. WILLIAM E. E. WILLIAMS, late Surgeon-Lieutenant, 1st Volunteer Battalion the Welch Regiment, March 19th.

MAJOR W. J. CLARKE, late Lieutenant-Colonel, the 3rd Volunteer Battalion the Duke of Cambridge's Own (Middlesex Regiment), March 19th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

MR. HERBERT J. ROBSON, to be Lieutenant in the Leeds Company, March 19th.

LIEUTENANT E. B. DOWSETT, the Wessex Field Company, Engineers, has resigned his commission, March 19th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE RESTRICTION COVENANT.

A case which was recently heard in the Court of Appeal illustrates the importance of the restriction covenant which is generally inserted in the agreement under which a practitioner employs an assistant. It appeared that in August, 1901, the plaintiff, who was a medical practitioner at Fazeley and Tamworth, employed an assistant at a certain salary. It was a term of the agreement that after the determination thereof the defendant would not at any future time thereafter, without the express consent in writing of the plaintiff, his executors, etc., practise or enter into the business or businesses of a physician, surgeon, apothecary, or accoucheur, or any of either of them, either on his own account or as assistant to any other person or persons, public body or corporation other than the plaintiff, his executors, etc., or establish any dispensary or other place for the business aforesaid or any of them within the towns of Fazeley or Tamworth, or within a distance of three miles therefrom, on any pretence whatever. In April the agreement was determined in the manner provided for. The defendant took a house in a district to practise elsewhere. In June he commenced to the district contemplated to practise, when the plaintiff went to the Court for an injunction to restrain him.

Mr. Justice Grantham granted an injunction, and the decision was appealed. It was argued on his behalf that the restrictive clause was unnecessarily wide, inasmuch as it would prevent the defendant, if he desired, and that in any event the Court should not grant an injunction, but leave the plaintiff his remedy in damages. The Master of the Rolls refused to take this view, saying "the agreement was entered into for a valuable consideration, and was perfectly intelligible. By the agreement the defendant undertook to serve the plaintiff upon certain terms, one of which was that he was debarred during his natural life from practising within a certain distance of Tamworth. It has already been held that a restriction to exist over a man's life is not on that ground unreasonable.

In the case referred to by the Master of the Rolls a man employed by a hardware manufacturer agreed that he would not after the determination of his service enter into the service of any other person, firm or company within a certain radius. The restriction was held to be reasonable, although it included the whole district of the United Kingdom. It seems to be reasonable at this day that employers and employed are essential in every profession of science that employers should be protected against those who have acquired confidential knowledge of their business, and that employed should be protected against the exercise of undue influence. Similarly the use of a restrictive covenant is essential for the protection of the purchaser.

GRATUITOUS SERVICE TO MEDICAL MEN.

EVERYONE is at perfect liberty to charge for his services as he thinks fit, and under the circumstances we agree that it is fair to do so.

PROFESSIONAL SECRECY IN AMERICA.

A BILL has been introduced into the Assembly of the State of New York which provides that "a person duly authorized to practise physic or surgery or a professional or registered nurse shall not be allowed to disclose any information which he acquired in attending a patient, in a professional capacity, and which was necessary to enable him to act in that capacity. But... however provided that in the examination by medical practitioners or professional or registered nurses as to their fitness to practise, or in trials or examinations of them for malpractice, as to the mental or physical condition of a patient who is deceased, which is required to be given in evidence pursuant to law, except confidential communications and such acts as tend to disgrace the memory of the patient."

PURCHASE OF PRACTICE.

A CORRESPONDENT writes to know how the negotiations of a negotiation to purchase a practice is to be regarded, that is, is either party to be at liberty to withdraw from the negotiation before the agreement is signed, or is either party to be bound after a sale or purchase is effected prior to the signing of the agreement.

*** The conclusion of such a negotiation is to be expected when the parties have come to a definite agreement. In order to be valid and enforceable by either party, such agreement must be evidenced in writing. A letter may be quite sufficient, for example if A. by letter offers to buy B.'s practice for a certain sum, and B. accepts the offer in writing, there is a binding agreement.

EXAMINATIONS UNDER THE WORKMEN'S COMPENSATION ACT.

A. C. writes: A lad was injured by a fall from a wagon, and was treated in the local hospital by Surgeon X. The parents of the boy are going under the Workmen's Compensation Act for damages on account of the injury. The boy is taken to Surgeon Y. on this account. The insurance company wish their medical referee, Surgeon Z., to examine the lad and report on his condition. The solicitor for the injured lad and Surgeon Y. insist that the latter shall be present at the examination by the company's referee, and that, before such examination be permitted, Surgeon Y. be paid a guinea for being present. Is this attitude of the solicitor

nd Surgeon Y. correct' Would there have been anything unethical in urgeon Z. seeing and examining the boy without the presence of urgeon Y.

*** In this case the insurance company are justified in wishing their edical referee to examine the boy. A refusal to submit to this examination would debar the parents from taking any further proceedings. should certainly be invited to be present at the examination, but he annot insist on demanding a fee from the insurance company. The mployer for whom the insurance company is acting is not liable for ny medical expenses except the fee due to his own medical referee for he examination. If Y. refused to be present, Z. would be justified in eeing and examining the patient without him.

MEDICAL ADVICE IN THE LAY PRESS

ATIENT draws attention to an article on lumbago, its nature, causes, and reatment in the *Weekly Telegraph* for March 5th, under the heading of "Health Notes," by Dr Andrew Wilson, F.R.S.E. He asks whether edical men ought to discuss the treatment of disease in a lay newspaper.

*** The name of Dr. Andrew Wilson does not appear in the *Medical Register* or in the *Medical Directory*. Unquestionably, for very good easons, it is undesirable for people to doctor themselves, and such dvice as that given in these notes does probably more harm than good.

THE RELATION OF A PRACTITIONER TO A PATIENT WHOM HE HAS SEEN IN CONSULTATION.

—The rule which has been laid down is that a practitioner who has been called in consultation may not take over the sole management of the case, but this applies to that particular illness only. If the patient recovers, and in a future illness chooses to consult the practitioner who then saw him in consultation, the latter is at liberty to take charge of the case. Where consultants exist as a specialized class it is to be presumed that they do not take sole charge of cases, unless under exceptional circumstances, either with the full concurrence of the medical attendant or where none exists.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree.—At the congregation on March 15th the degree of D.M. was conferred upon Herbert S. French, Christ Church.

UNIVERSITY OF EDINBURGH.

University Court.—The Edinburgh University Court met on March 14th, and, on the recommendation of the Senatus, the following applications for recognition for purposes of graduation in medicine were granted:—Professor R. S. Yapp, M.A., University College, Aberystwyth (botany); Professor Robert Broom, B.Sc., M.D., Victoria College, Stellenbosch, Cape Colony (zoology); Professor B. de St. J. Van der Reit, M.A., Ph.D., Victoria College, Stellenbosch (chemistry), provided that attendance is given on the organic, inorganic, and practical departments of the course.

UNIVERSITY OF LONDON.

The Senate.

New Cross Institute.—At a meeting on March 23rd the Senate resolved, subject to satisfactory settlement of certain administrative details, to accept the offer of the Worshipful Company of Goldsmiths to hand over the whole of the site of the New Cross Polytechnic Institute, about seven acres, together with the buildings, equipment, and apparatus complete to the University for the purpose of promoting its work in South London.

Sir Donald Currie's Gift.—The Senate also adopted a resolution placing on record its cordial appreciation of the public spirit which has found expression in Sir Donald Currie's act of timely beneficence in presenting the sum of £100,000 towards the expenses of the scheme for the incorporation of University College in the University.

Physiological Laboratory.—The Physiological Laboratory Committee presented a report on the first two years' work of the laboratory, which was established to provide facilities for original work in physiology and experimental psychology, and to publish by means of lectures to advanced students the result of recent work in this branch of study. Eleven courses of eight lectures each have been delivered, and arrangements have been made with Mr. John Murray to publish under the authority of the University such of these courses as may be from time to time approved. The first volume, containing Dr. Waller's lectures on the signs of life, has already appeared. The laboratory is being used for various researches by twenty post-graduate or otherwise qualified students, and 22 communications from persons working in it have been published in the *Proceedings* of the Royal Society and other scientific journals. Mr. W. L. Symes, M.R.C.S., has been appointed scientific assistant in physiology.

Degree.—Mr. John Herbert Parsons has been awarded the degree of Doctor of Science in Physiology as an external student.

Veterinary Science.—The Senate has resolved to establish a degree in veterinary science in the Faculty of Science.

The Lister Institute.—Dr. P. H. Pye-Smith, F.R.S., has been reappointed a member of the Council of the Lister Institute of Preventive Medicine.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, March, 1904.—The following candidates passed in:—

Surgery.—L. F. Cope (Sections I and II), St. George's Hospital; A. C. George (Section II), Manchester; P. F. Bowlett, Bristol; R. Reynolds (Sections I and II, Bristol); R. H. Rigby (Section II), Leeds; F. J. Waldemeyer, London Hospital; T. R. Waltenberg (Section D, Manchester).

Medicine.—R. H. Cooper (Section II), Charing Cross Hospital; L. S. Dudgeon (Sections I and II), St. Thomas's Hospital; J. M. S. Duncan, London Hospital; W. S. Gibson, Manchester; A. Kilpatrick (Section I), King's College Hospital; J. A. Renshaw (Section II), Manchester; R. H. Rigby (Sections I and II), Leeds; T. R. Waltenberg (Section D, Manchester; J. W. Watson (Section II), Manchester.

Forensic Medicine.—P. S. Cooke, Charing Cross Hospital; L. S. Dudgeon, St. Thomas's Hospital; J. M. S. Duncan, London Hospital; W. S. Gibson, Manchester and Middlesex Hospital; F. W. Higgs, St. George's Hospital; M. C. Vivian, Royal Free Hospital.

Midwifery.—M. O. Dolhe, University College Hospital; L. S. Dudgeon, St. Thomas's Hospital; C. D. E. Forbes, St. George's Hospital; R. C. Richards, University College Hospital; C. A. Sampson, Charing Cross Hospital; F. A. K. Stuart, Cambridge and St. Mary's Hospital.

The diploma of the Society was granted to A. C. George, R. Reynolds, R. H. Rigby, and J. W. Watson.

OBITUARY.

HERBERT ARTHUR KENT,

M.R.C.S.Eng., L.R.C.P.Lond.

It is with great regret that we have to record the death of Mr. Herbert Arthur Kent, which occurred at his residence, Carlton House, Ringwood, Hants, on March 4th.

Mr. Kent was the fourth son of the late Rev. Geo. Davies Kent, B.D., Rector of Stratford Tony, Salisbury, and Fellow of Corpus Christi College, Oxford. He was born at Stratford Tony on August 19th, 1859, and educated at Cheltenham College, and St. George's Hospital. In 1884 he took the L.R.C.P. Lond., and M.R.C.S.Eng., and subsequently spent a year as Surgeon to the P. and O. Steamship Company. In 1886 he settled down in Ringwood, where he continued to practise up to the time of his fatal illness.

Quiet and unassuming in manner, he devoted his life to ministering to the wants of others, instead of aspiring to take a prominent place in the public life of Ringwood; so that whilst his death leaves no great gap in official circles, his loss will be deeply felt by all classes, and especially by the poor, amongst whom he performed countless acts of kindness in his daily work. He was a member of the British Medical Association and of the local Lodge of Freemasons, but has always shrunk from taking any prominent part in local politics.

In May last he had trouble with his tongue, originating, apparently, in the irritation caused by carious teeth, and later it became certain that extensive epithelioma was present, but with characteristic consideration for others, he made no mention of the fact until last November, when he consulted Mr. A. J. Pepper, and subsequently, on Mr. Pepper's advice, Mr. H. T. Butlin. It was then too late for operative interference, and although treatment by radium was tried and appeared to check the progress of the disease for a time, he was compelled to relinquish his practice in December, and death ultimately occurred on Friday, March 4th, after a period of suffering which was borne with uncomplaining bravery.

The funeral took place on Wednesday, March 9th, at Ringwood, when a very large number of friends attended. Mr. Kent leaves a widow and one daughter.

We regret to announce the death of Dr. Emil Alexander de Schweinitz, of Washington, Chief of Division in the United States Department of Agriculture and a well-known bacteriologist. Within the last few years he had been Dean of the medical school of the Columbian University. Dr. de Schweinitz was born at Salem, North Carolina, in 1866, and took his doctor's degree at the University of North Carolina in 1882, afterwards receiving the degree of Doctor of Philosophy at Gottingen, Germany, and that of Doctor of Medicine from the Columbian University. He was United States delegate to the Fourth International Congress on Tuberculosis held in Paris in 1898, at the Conference on the same subject held in Berlin in the following year, and again at the International Medical Congress and the Congress of Hygiene in Paris in 1900. Dr. de Schweinitz was the author of many papers on bacteria, disinfectants and hygienic problems, on various antitoxins, and on tuberculosis, a subject to which he gave special attention. He was a member of various scientific, chemical, and bacteriological societies, both American and foreign.

International Congress of Military Surgeons.—An International Congress of Military Surgeons is to be held at the World's Fair, St. Louis, on October 10th to 15th, 1904, on the occasion of the thirteen annual meeting of the Association of Military Surgeons of the United States. The diplomatic representatives of the United States at the capital of every country have been instructed to request, in the name of the American Government and the Universal Exposition, the nomination of suitable delegates to attend the meetings.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS

In seventy-six of the largest English towns, including London, [illegible] births and [illegible] deaths were registered during the week ending Saturday last, March 19th. The annual rate of mortality in these towns, which had been 19·6 and 17·6 per 1,000 in the three preceding weeks, further rose last week to 18·2 per 1,000. The rates in the several towns ranged from 9·1 in Hornsey, 11·1 in Hastings, 11·2 in Leyton and 11·3 in East Ham, in Devonport and in Gateshead, to 28·1 in Rotherham and 28·8 in Stockport. Deaths registered in Barrow, and in Wigan, and in Manchester, in Halifax and in Leeds, and in Warrington. In London the rate of mortality was 18·1 per 1,000, while it averaged 20·1 per 1,000 in the seventy-five other large towns. The mean death-rate from the principal infectious diseases was 1·1 per 1,000 in the seventy-six towns; the rate in London was also equal to 1·1 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 4·2 in Walsall, 4·3 in Barrow, 4·4 in Wallasey, 4·4 in Warrington, 4·6 in St. Helens, 5·2 in Great Yarmouth and 5·5 in Norwich. Measles caused a death-rate of 1·4 in Salford, 1·5 in Warrington and in Leeds, 1·6 in Blackburn, 1·7 in Walsall, 1·8 in Great Yarmouth, 2·1 in Hastings, 2·4 in Newcastle, 2·5 in St. Helens, and 3·0 in Norwich. Diphtheria in Great Yarmouth, whooping-cough in Norwich, diphtheria and measles in Stockton-on-Tees, and in Rotherham. Enteric fever in Stockton-on-Tees, and in West Ham. The mortality from scarlet fever showed a marked excess in the large towns. Of the 1,[illegible] cases registered in these towns last week 1 belonged to Birmingham, 1 to Leicester, 1 to Metropolitan Asylums Hospitals contained 3,[illegible] small-pox patients on Saturday last, the 11th inst., against 3,[illegible] and 3,[illegible] at the end of the three preceding weeks. 2[illegible] new cases were admitted last week against 1,[illegible] and 2,[illegible] in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,5[illegible], 1,[illegible] and 1,[illegible] at the end of the three preceding weeks, had further risen to 1,[illegible] at the end of last week; 1,[illegible] new cases were admitted during the week, against 1,[illegible], 1,[illegible] and 1,[illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS

During the week ending Saturday last March 19th, [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.8, 21.2, and 21.5 per 1,000 in the three preceding weeks, further rose last week to [illegible] per 1,000, and was 3.[illegible] above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rate ranged from 13.[illegible] in Leith and 15.[illegible] in Greenock and 17.[illegible] in Dundee. The deaths from the principal infectious diseases averaged [illegible] per 1,000, the highest rates being recorded in Glasgow and Greenock. The 3[illegible] deaths registered in Glasgow included [illegible] which were referred to measles, [illegible] to diphtheria, [illegible] to whooping-cough, [illegible] to fever and 4 to small-pox. Fatal cases of whooping-cough were registered in Aberdeen and 4 of measles in Dundee; of whooping-cough in Aberdeen, 3 of whooping-cough and 3 of fever in Edinburgh, 3 of small-pox in Greenock, and 3 of whooping-cough in Leith.

HEALTH OF IRISH TOWNS

During the week ending Saturday, March 19th, [illegible] births and [illegible] deaths were registered in the principal Irish towns, against [illegible] births and [illegible] deaths during the preceding period. The annual death-rate in these towns was [illegible], and 25.8 per 1,000 in the three preceding weeks. The lowest rate in the week under notice, 13.[illegible] per 1,000, was recorded in Belfast, and the highest rate, 31.[illegible] per 1,000, in Londonderry. The figures relating to Dublin during the week showed a death-rate equal to [illegible] per 1,000. The deaths registered in Belfast included [illegible] from whooping-cough, [illegible] from diphtheria, [illegible] from fever and [illegible] from diarrhœa. In Cork the deaths registered during the same period included [illegible] from whooping-cough, [illegible] from fever, [illegible] from diphtheria and [illegible] from diarrhœa.

INSPECTION OF ELEMENTARY SCHOOLS BY POOR-LAW SCHOOLS

[illegible]

APPOINTMENT OF MEDICAL OFFICERS

[illegible]

OPERATIONS BY POOR-LAW MEDICAL OFFICERS IN COTTAGE HOSPITALS

A Poor-law doctor asks for an opinion in the following case. A Poor-law district medical officer who is a district surgeon to a cottage hospital was called to a case whose hand was so severely injured as to necessitate partial amputation. The patient had been in receipt of parish relief, but was not at the time of the accident. As the case was urgent the medical officer acted without waiting for a medical order, took him to cottage hospital, where, with assistance, he operated and the patient made a good recovery. The guardians subsequently declined to pay a fee for the operation on the ground that a medical order had not been given for medical attendance, and at the removal of the patient to the cottage hospital relieved them of all responsibility in reference to the case. Our correspondent asks whether in such a case the surgeon ought to be deprived of his fee.

*** We are advised that, as the medical officer attended the case without a proper medical order, he cannot enforce a claim for a fee from the guardians for the operation he performed. It is a matter for interpretation of the rules. Our correspondent does not state whether the hospital to which the patient was removed was situate within the medical officer's district, if such was the case and a medical order had been granted it is probable that the medical officer would be entitled to payment for services could have been claimed, but, as the case stands, if the patient had, by removal to the cottage hospital, become chargeable to a different Poor-law medical district, this might be disputed by the guardians as a reason for refusing to pay for any part of the work done out of the district for which the medical man had been appointed by the guardians) to act as one of their medical officers.

INDIA AND THE COLONIES.

NEW SOUTH WALES

[illegible] We have received from the Inspector-General of New South Wales Part II. of the Reports from the Pathological Laboratory of the Lunacy Department of New South Wales Government Service. W. A. [illegible], M.B., Ch.M., D.P.H. Cantab., Pathologist to the Department, was appointed Pathologist and Director. The laboratory was modelled on that of the London County Council at Claybury and the Scottish Asylums' laboratory, and like these it was purely scientific. The papers now published are the first of the work completed up to this date, and will be the first of the series to be published yearly or at shorter intervals as material ripens. In addition to the paper on the pathological lesions found in dementia, Dr. Fiaschi contributes a note on the external characters of the brain of microcephalic idiot, showing absence of cerebral convolutions. In this case the most marked atavistic qualities were the presence of [illegible] and the great length of the fissure, the apparent absence of corpus callosum, and marked recurrence of cerebellum and pons. [illegible] to embed and cut the brain, and a description of the sections will be included in the next number. Mr. Quayle, a student in the laboratory, describes some modifications of the Golgi method. The rapidity with which Golgi sections are spoiled in Carbon balsam is well known and Mr. Quayle claims for these modifications that they [illegible] remedy. The interesting question of the [illegible] is discussed, and the conclusions which are drawn from the [illegible] sulphide, namely, metallic gold, salts of silver and [illegible] make this probable, while the [illegible] of the [illegible] injured. In details the original should be consulted.

SOUTH AUSTRALIA

[illegible] In the report [illegible] there is little of general interest beyond the [illegible] the most serious cause in the [illegible] New Zealand [illegible] and although [illegible] the general death-rate has fallen [illegible] the last five years. [illegible] the general death-rate has fallen [illegible] per 1,000 [illegible] births, by [illegible] to 3[illegible] per 1,000 [illegible] 3[illegible] per 1,000 [illegible] 1[illegible] per 1,000 [illegible] 1[illegible] per 1,000 [illegible] 1

Cotterill, J. J. M'Mullan, M.B., Ch.B., Clinical Assistant to Mr. Cathcart. Paul Matthews, M.B., Ch.B., was appointed Resident Medical Officer to the Convalescent House.

ROYAL ORTHOPAEDIC HOSPITAL.

THE Royal Orthopaedic Hospital vacates its old premises in Hanover Square at Lady Day and pending the receipt of the Charter of Incorporation with the National Orthopaedic Hospital it will carry on its work at 55, Bolsover Street, W. The new hospital, which is to be built on the present site of the National Orthopaedic Hospital and on adjoining land, and which when complete will represent the two old institutions, will provide [illegible] beds and also have a branch of [illegible] beds in the north of London, or a total of [illegible] beds against the [illegible] which at present exist in the two hospitals combined.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our classified advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BEDFORD COUNTY HOSPITAL.—[illegible] House Surgeon. Salary, £100 per annum. [illegible] House-Physician. Salary, £80 per annum.

BRADFORD ROYAL INFIRMARY.—House-Surgeon resident. Salary, £100 per annum.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer, resident. Salary, £[illegible] per annum.

EASTERN DISPENSARY, Leman Street, E.—Physician. Honorarium, £50 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—[illegible] Assistant House-Surgeon, resident. Salary, £[illegible] per annum. [illegible] Duly qualified Clinical Assistants in the Out-patient Department.

GRAVESEND HOSPITAL.—House-Surgeon, resident. Salary £[illegible] per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months each.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Resident Medical Officer. Salary at the rate of £[illegible] per annum.

KILBURN DISPENSARY, 3, Kilburn Park Road, N.W.—[illegible] Honorary Medical Staff.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon, resident. Salary, £[illegible] for six months.

LINCOLN GENERAL DISPENSARY.—Resident Medical Officer. Salary, £150 per annum, rising to £[illegible].

LIVERPOOL STANLEY HOSPITAL.—[illegible] Assistant Physician. [illegible] Senior House-Surgeon, resident. Salary, £[illegible] per annum.

LONDON COUNTY ASYLUM, Claybury.—Junior Assistant Medical Officer, resident. Salary, £150 per annum.

MANCHESTER AND CHORLTON-UPON-MEDLOCK DISPENSARY.—Resident House-Surgeon. Salary £[illegible] per annum.

MANCHESTER'S NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon, resident. Salary, £[illegible] per annum.

NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon, resident. Honorarium, £[illegible] for six months.

PLAISTOW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £[illegible] per annum.

PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £[illegible] per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant Physician.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Road.—Resident Medical Officer.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Physician.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), Greenwich, S.E.—Junior Resident Medical Officer. Salary £[illegible] per annum.

SOMERSET AND BATH ASYLUM, Cotford, Taunton.—Assistant Medical Officer, resident. Salary, £[illegible] rising to £[illegible] per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—House Physician, resident. Salary, £[illegible] per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician.

APPOINTMENTS.

BARWELL, Harold, M.B.Lond., F.R.C.S.Eng., Honorary Surgeon for Throat and Ear Diseases to The Cripples Home for Girls, Northumberland House, Marylebone.

BULLMORE, C. C., L.R.C.P. & S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Falmouth District of Devonshire.

CLEGRAM, Lucy B., M.B.Lond., reappointed Assistant Anaesthetist, New Hospital for Women, Euston Road.

CROSS, Francis G., F.R.C.S., Divisional Surgeon to the Police, Metropolitan Police, Kingsbridge, Thames and Surrey Division.

DEVINE, Henry, M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

GOODMAN, Herbert, M.R.C.S.Eng., L.S.A.Lond., Certifying Factory Surgeon for Hanley and District.

HANCOCK, W. Henry, F.R.C.S., Assistant Surgeon to the Central London Ophthalmic Hospital.

HARRIS, [illegible], M.B., B.S.Durh., Junior House Surgeon, Royal Infirmary, Bristol.

JOHNS, H. D., M.D., B.S.Durh., Certifying Factory Surgeon for the Hornsea District, Yorkshire.

LOVE, R. J., L.R.C.P. & S.Edin., L.F.P.S.Glasg., additional District Surgeon of Worcester Gaol, Commissioners' Medical Officer to Inspector Land Revenue, Worcester Co., Limited, and Medical Officer to the Inspector-Manager Railway Construction, Cape Government Railways.

MCCRAE, H. M., M.B., B.Ch., B.A.O.Dub., District Medical Officer of the Wokingham Union.

MACKENZIE, J. Ivor, M.B., C.M.Edin., Assistant Medical Officer to the Birmingham City Gaol.

MACNAMARA, W., M.A., M.B., Ch.B.Edin., Port Medical Officer to the Cunard Steam Ship Company, and Consulting Medical Officer to Christmas Island, Indian Ocean.

OBERLAND, H. J., M.B., Ch.B.Birmingham, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer of Health to Kensington, Fairbridge, South Africa.

PEARCE, E. M., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Anaesthetist, Royal Infirmary, Bristol.

PERSON, Arthur C., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., D.P.H., Certifying Deputy Medical Officer, H.M. Prison, Lewes.

RAMSDEN, W. B., M.B., B.Ch.Durh., Resident Assistant Medical Officer, Cheltenham Union.

SMITH, W. H., M.R.C.S.Eng., L.R.C.P.Lond., Casualty Officer, Royal Infirmary, Bristol.

SOLOMAN, G. A. C., M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Surgeon, Grantham Hospital, Lincolnshire.

SHIRLEY, G. W., L.R.C.P., M.R.C.S., Honorary Consulting Medical Officer to the Grantham Hospital.

STEARNS-CONS, M.B., Ch.B.Edin., District Medical Officer of the Lichfield Union.

STEPHENS, J. H., M.B., Certifying Factory Surgeon for the Bath District, Bath.

TOWNLEY, J. S., M.B., D.S.Durh., District Medical Officer of the Derby Union.

WEBB, W. T., M.R.C.S.Eng., L.R.C.P.Lond., Resident Obstetric Officer, Royal Infirmary, Bristol.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Mr. E. Harry Fenwick: The Treatment of Urinary Incontinence.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C., 4.30 p.m.: Annual General Meeting.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Exhibit by Mr. J. Howard Mummery. Paper by Mr. Douglas E. Cautley.

TUESDAY.

Therapeutical Society, Apothecaries' Hall, Water Lane, Blackfriars, 4 p.m.—Mr. W. Chattaway on Photography in Natural Colours, illustrated by lantern slides.

POST-GRADUATE COURSES AND LECTURES.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Operations for Cleft Palate.

London Temperance Hospital, Hampstead Road, N.W., Wednesday, 4 p.m. Lecture on Diseases of the Stomach.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical. Lectures will be delivered at 5.15 p.m. as follows: Tuesday and Wednesday, Ophthalmic and Throat.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEATH.—On March 6th, at 1, Bansford Place, Bath, the wife of David Leslie Beath, M.R.C.S., L.R.C.P., a son. [illegible] Australian papers please copy.

EASTERBROOK.—At 1, Albert Terrace, Edmonton, on March 14th, the wife of Alexander M. Easterbrook, M.B., C.M., Gorebridge, Midlothian, Fanlandstone, a daughter.

MALLER.—On March 11th, at Holmesdale, Palace Gates Road, Wood Green, the wife of William Maller, M.B., C.M., a son.

MARRIAGE.

BRADSHAW—GLYNN.—March 12th, at St. Luke's Church, Liverpool, by the Right Rev. the Lord Bishop of the Diocese, assisted by the Venerable the Archdeacon of Warrington, Vicar, Thomas Rose Bradshaw, M.D., of Liverpool, youngest son of the late John Webb Bradshaw, of Dublin, to Rose Mary, eldest daughter of Thomas Robinson Glynn, M.D., of Liverpool.

DEATHS.

COLBORNE.—On March 14th, at Eldon Lodge, Ramsgate, Mary Ann, widow of the late W. H. Colborne, M.D., F.R.C.S., of Chippenham, Wilts, aged [illegible] years.

EDDIS.—On March 11th, at 3, Hollyrood Terrace, Plymouth, Alfred Eddis, F.R.C.S.Eng., in his 82nd year.

GRANT.—On March 15th, Alexander Grant, M.A.Aberd., M.D.Edin., 39, Cumberland Road, London, E. Aged 66.

WILSON.—On March 14th, at Flowergate, Whitby, John Wilson, M.R.C.S. and L.S.A., aged [illegible] years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS

COMMUNICATIONS relating to Editorial matters should be addressed to the Editor, 2 Agar Street, Strand, W.C. [illegible] Communications relating to Advertisements, Subscriptions, and the JOURNAL generally should be addressed to the Manager, at the Office, 429, Strand, W.C. London.

ORIGINAL ARTICLES and LETTERS forwarded for publication are understood to be offered to the BRITISH MEDICAL JOURNAL [illegible].

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., previous to publication.

CORRESPONDENTS will oblige by not writing on both sides of the paper, and should authenticate their communications with their names. [illegible] necessarily for publication.

CORRESPONDENTS to whom replies are required are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delays, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor and not to the Office of the JOURNAL, and not to his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is [illegible]. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Advertisable, London*.

TELEPHONE NUMBERS: EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER 2630, Gerrard.

QUERIES.

MILK FOR INFANTS.

R. P. writes: In the BRITISH MEDICAL JOURNAL of March 5th appears a letter on the feeding of infants, by Dr. F. G. Haworth, in which he recommends plain pure cow's milk, to which is added 5 per cent. of lime water and the same of sugar. I should like to know if he means milk sugar or cane sugar.

*** We have communicated with Dr. Haworth, who writes: I generally advise ordinary cane sugar if the bowels are constipated. I use the Demerara brown sugar. I have to deal with the ordinary working class in many cases [illegible], in nearly all cases, to wean in the proper mixing of milk food in the proportions of fat and proteid matter to resemble mother's milk is too much trouble. Where I have the least difficulty is in persuading a bottle, or nurse to take up the child every two or three hours in the daytime, when the baby is asleep. To these people it seems wrong to disturb a child once it is off. The district maternity nurse is the greatest help to me; she advises this feeding at every house where she attends, and speaks in the highest terms of the results.

THE ACCUMULATION OF CERUMEN.

M.D. writes: I should be greatly obliged if [illegible] experienced readers would tell me how I can best prevent cerumen accumulating in the meatus. I have a [illegible] healthy and elderly, and inherit [illegible]

[illegible] and five well-bar[illegible] Bottle, little alcohol. Every two or three days [illegible] that can become [illegible] and remove [illegible] gradually.

THE TREATMENT OF SEROUS EFFUSIONS.

DR SYDNEY THOMAS MONTGOMERY writes: I have read with much interest Dr Lewis Bayly's lecture under the above heading which appeared in the BRITISH MEDICAL JOURNAL of March 19th. I should like to ask on [illegible] it has occurred to him to use nitrogen gas for insertion into the body cavities. The gas is non-irritant and is absorbed [illegible] by cells resembling those that either ooze out or are [illegible] by Professor Leduc for the production of artificial [illegible] may be found in the *Comptes Rendus*, Nos. 2, 3, and No. 44, 1903.

ANSWERS.

[illegible] are requested [illegible] before [illegible]

P. G. (Late Indian Medical Service) appeals to editors of India and we therefore do not understand [illegible] correspondent.

P. [illegible], hydrosulphate [illegible] in the [illegible] in connection with [illegible] and starch. If the [illegible] sodium hydrosulphate [illegible] crystals, equivalent to the solid [illegible] is used. It is [illegible] expressing its [illegible] more concentrated solution of NaOH. NaSH [illegible] would be [illegible] by precipitating it with the appropriate [illegible] and should be readily obtainable from any firm of wholesale druggists.

PULMONARY VESICAL TUBERCULOSIS.

MR. R. H. [illegible] SWAN, M.S.Lond., F.R.C.S., Resident Medical Officer, St. [illegible] Hospital for Diseases of the Skin, W.C., writes: In answer to [illegible] W. H. I append a [illegible] which has been found [illegible] [illegible] Hospital in cases of vesical tuberculosis. [illegible] the presence of tubercle bacilli in the urine [illegible] to [illegible] In the first place I should suggest a complete [illegible] of [illegible] W. H.'s patient to ascertain not only [illegible] the distress, but also the appearance of each ureteric [illegible] when gauged an important indication of ascending [illegible] of renal [illegible] The patient should then rest, [illegible] for at least a fortnight, during which time a series of [illegible] injections of Lo[illegible]'s sterilin T.R. is given, commencing [illegible] of [illegible] and gradually increasing the dose every alternate [illegible] to the [illegible] injections, provided always that no [illegible] occurred. A dose of [illegible] mg. is then given each week for some [illegible] At the same time [illegible] treatment with urinary [illegible] [illegible] antiseptics or [illegible] wood oil, with alkalies and [illegible] chloral hydrate in large doses to relieve the frequency [illegible] The usual [illegible] for tubercle, hygiene and sea-side, [illegible] be carried out. I shall be pleased to communicate [illegible] W. H. if he will send me his address.

TREATMENT OF CHRONIC RHEUMATISM.

[illegible] of the following particulars of two cases of chronic rheumatism successfully treated with urosin, in reply to Dr Crichton's query [illegible] in the BRITISH MEDICAL JOURNAL of February 13th, p. 411: A [illegible] aged 60, suffered from intercostal rheumatism for eighteen months. No treatment gave her relief until I tried urosin, in two or three days the pain left her, and she tells me whenever she has a return two or three doses quickly relieve her pain. The other case, a female, aged [illegible], suffered from chronic rheumatic arthritis for the last five years, and had undergone treatment by several medical men as well as [illegible] had been to Bath and Buxton. Six weeks ago I saw her. She was [illegible] to walk, joints swollen, painful, and immovable. She was [illegible] and put to the country. On her return I was surprised [illegible] her walk in to the room, she had put on flesh, and lost all pain, joints less swollen, soft, and movable. The day before she had walked four miles without fatigue or any bad [illegible]

NOTES, LETTERS, ETC.

MASONIC BENEVOLENT INSTITUTIONS.

THE Hon. Secretary, Mr. H. S. Singleton, 33 St. Mary Mansions, Paddington, of the Medical League of Instruction, asks for the [illegible] medical men to communicate votes for the election of certain [illegible] for election to Masonic benevolent institutions. They are we are informed, the only medical candidates. Their cases have been examined carefully, and relate to the instance of genuine distress, and they [illegible] to be the most [illegible] support of the [illegible] [illegible] large [illegible] [illegible] to represent [illegible] in each case. [illegible] The candidates [illegible] follow: Mr. Georgina Sharp, [illegible] Mr. Frederick Walker, [illegible] election in May [illegible] Masonic Benevolent [illegible] Aged Freemasons and [illegible] Masonic Benevolent [illegible] Widows of Freemasons. [illegible] The [illegible] election on April 7th. The [illegible] Masonic Institution for Boys [illegible] Masonic School, Bushey, [illegible] Hall, Herts, [illegible] election on April 8th. [illegible] Masonic Institution for Girls [illegible] Victoria Hall, Battersea, [illegible] election on April 8th. [illegible] Masonic Institution for Aged Freemasons [illegible] Widows of Freemasons [illegible] Hall, Croydon, [illegible] election on April 8th.

ADDRESSES AND CHANGES.

DR. A. [illegible] of Leicester, [illegible] to announce [illegible] the practice of [illegible] Leicester, [illegible] to [illegible] Mr. [illegible] Wednesday, [illegible] Wednesday, [illegible] Wednesday,

A Clinical Lecture

ON

THE DETECTION OF EARLY TUBERCLE IN THE LUNGS.

Delivered at St. George's Hospital.

BY SIR ISAMBARD OWEN, M.A., M.D., F.R.C.P.,
Physician to, and Lecturer on the Principles and Practice of Medicine at, the Hospital.

IN the year 1901, the last for which the Registrar-General's returns are available, there died in England and Wales 316,997 persons over the age of 20, of whom 35,529, or about one in every nine, were stated to owe their death to "phthisis" or "pulmonary tuberculosis." And these deaths are not deaths of old people, whose course was in any case nearly run. The victim of pulmonary tubercle is nearly always cut off in what should have been the most active period of his life, and usually after years of more or less complete disablement. Of this mass of suffering and premature death, repeating itself as it does year after year, much, perhaps the greater part, may be regarded as preventable, if proper treatment of the case be resorted to in time. But the condition of time is all important. Every month during which active tuberculous disease remains undetected and untreated lessens appreciably the prospect of recovery. I think, therefore, I am not exaggerating in saying that nothing in the art of medicine is of greater importance to acquire than the power of detecting with precision the early presence of this dangerous growth in the lung. For the means of doing so you have still chiefly to rely on the now old-fashioned means of physical examination. Bacteriology has supplemented, but cannot replace them. Even on the bare question of the presence or absence of tubercle in a lung it often fails us; on questions of the age, extent, distribution and histological character of the tuberculous lesions it can tell us little. The Roentgen ray is the latest addition to our implements of exploration. Though it is at present in its infancy it bids fair to render us valuable assistance; but, so far at least, we have little reason to think that it will ever rival the fingers and the ears for delicacy and exactitude of diagnosis.

The tuberculous lesions you have to look for are often of small size; they are not always on the surface of the lung; the signs they afford frequently involve such fine distinctions of sounds as only a well-trained ear can appreciate. You have not only to detect their presence when they exist; you need also, which is the more difficult, to make sure of their absence when they do not. Such training of the ear as is required can only be gained by constant practice; practice not in the wards alone, but in the ampler field of experience furnished by the receiving-rooms and out-patient department. Even that will avail you little unless you pursue your study of the subject in the *post-mortem* room as well, and familiarize yourselves with the actual histological conditions, manifold and various as they are, of which the physical signs you discover should afford you a mental picture. *Post-mortem* observation will in the first place guard you from the common, but incorrect and misleading, use of the word "stage" in reference to *cases* of pulmonary tubercle. One case, we sometimes hear it said, is "in the stage of grey granulation," another "in the stage of caseation," a third "in the stage of breaking down" or "in the stage of cavitation." The specimens of tuberculous lungs which I am about to lay before you will, I think, show you the inadequacy of such a terminology. The morbid process is seldom one that advances along a continuous and uniform course in all parts of the lung affected, even though the area of affection be very limited. The morbid histology of nearly all these specimens is, as you will see, a mixed one; and few can be said, even predominantly, to represent any single "stage" of the process. The word "stage," in fact, belongs to the local, not to the general, histology of the disease. I will ask you then to dismiss the idea of definite clinical "stages" of pulmonary phthisis from your minds, and will in its stead invite your reception of another idea which may possibly appear more novel, as it is seldom adequately brought out in the literature of tuberculosis. I mean the idea, or the fact, as I will claim to call it, that pulmonary tuberculosis in most of its ordinary forms is a disease of essentially intermittent or remittent character. That it is not so in all cases I admit. In a minority of instances it runs a steadily progressive course from onset to fatal termination; but in the majority, if only you have the opportunity of watching them from the beginning, you will find at first a frank intermittence of the active process, and to a very late period a spontaneous tendency to fluctuations or remissions of its severity.

Whether the *materies morbi* obtains admission to the lung by the air passages, as is generally held, or, as some pathologists believe, by the lymphatic channels, the primary attack of tubercle upon the lungs is, in most cases, at first a narrowly localized one, and the infected area does not extend with any great rapidity. The bacillus seldom enters the blood stream; the disease in its earliest period advances by the propagation of successive broods or by the slow passage of the germs in the adjacent lymph spaces; extension even by the air passages is a phenomenon belonging rather to a later period of the case. The tubercle bacillus, if we may judge by clinical observation, is not exempt from the rule so commonly applying to pathogenic germs, that in attacking the human tissues they breed the means of their own destruction; so that the individual attack of tubercle, if it be of limited extent, comes spontaneously to an end after a given space of time, just as an attack of scarlatina or measles would. Upon the destruction of the *materies morbi* and the consequent cessation of the active morbid process, the granulation tissue which is the main element of the grey nodules, supposing it to be only grey nodules that the disease has yet produced, follows the usual course of such tissue and becomes converted into fibrous scar. Puckered scars, now fully recognized as the handiwork of tuberculosis, though they contain no trace of the specific germ, are frequently found in the apices of the lungs of persons who have never been known to have suffered from pulmonary disease. In such cases, it is now generally admitted, a tuberculous process must have taken place at some unknown time of life, possibly in early childhood, though the germ has entirely disappeared and the attack has resulted in nothing but a harmless and non-infectious scar. This spontaneous arrest of the disease in its early period is by no means exceptional. Taking necropsies of bodies which presented no other evidence of tubercle, the proportion in which the scars of healed tubercle are found is stated by some authors at even so high a figure as 30 per cent. If we take it at only a third of this figure, recovery from early pulmonary tubercle would seem to be as frequent a result as death.

When tubercle attacks a serous membrane, and the patient survives the immediate attack, the tendency of the new growth towards permanent arrest is evident. Tubercle of the pleura is far from being a rare form of disease. In the majority of cases the patient recovers with a pleura firmly adherent and generally thickened. The subject of tuberculous peritonitis also frequently recovers with an adherent peritoneum. Neither in these cases, nor in the rarer cases of survival from meningeal tubercle, is there often seen a relapse or a recurrence of the malady.

In the loose tissue of the lung, on the other hand, tubercle, even of the firm grey variety, tends to aggregate into larger nodules which coalesce to form continuous areas of consolidation prone to degenerate and become caseous at their centres. The products of tuberculous broncho-pneumonia, a form of tuberculous process seldom altogether absent from a case of the disease, caseate with even greater readiness. Caseous matter is unorganizable; in large masses it is unabsorbable; and when an accumulation of a certain size has been formed complete cicatrization is no longer possible. Fibrous organization, if it occurs, takes place only at the uncaseated periphery of the mass, and the caseous material, or some part of it, remains permanently embedded in a tract or capsule of fibrous tissue and suspended thereby in the midst of the loose pulmonary web. Now caseous material (it is one of the earliest experimental observations on the disease) remains permanently infectious. Though the tubercle bacillus can rarely be detected in it by a microscope it can be readily cultivated from it in the body of a susceptible animal. In the human lung, hemmed in by its cicatricial capsule, caseous matter may remain for a longer or shorter period without harming its surroundings; but, unless by good fortune it should become calcified, it retains its power of reinfection, and sooner or later, under circumstances not at present traceable, it does, in the majority of cases, reinfect the neighbouring tissue. What determines the reinfection we can only guess. Clinically it often appears connected with a depressed state of the general health. Possibly a loss of power of resistance is the determining circumstance; possibly some failure of nutrition of the fibrous tissue, by relaxing the

presence the slightest normality exists in the caseous mass allows it to [illegible] the bronchial tree, the passage [illegible] active life of the germ. In serious [illegible] lung tubercle tissue may escape, it is the constant tendency of tubercle wherever it occurs: but the individual [illegible] instead of being absorbed, are left embedded in firmer fibrous tissue than is the case with the caseous matter remaining in the lung.

The fresh tuberculous tissue formed in the lung by reinfection, and even that formed in several successive reinfections, may follow (I am again inferring from clinical observations), the same course of growth, caseation, arrest and peripheral cicatrization as the original lesions. Between each successive attack, as long as the lesions remain of small extent, the symptoms may entirely subside and definite intermissions be established. In these intermissions the bacilli may entirely disappear from the fauces; in some cases they are still to be detected in small numbers. If the attacks continue a time comes when the tuberculous formations have reached such an extent that their progress is no longer uniformly synchronous: active processes are always present in one part or another of them, and the clinical course of the case becomes remittent rather than intermittent. In many cases the remittent character is more or less traceable almost to the end, and in not a few cases complete intermissions, as far at least as symptoms are concerned, appear at a surprisingly advanced period of the case.

Large as is the proportion of cases in which the intermittent onset of tubercle, as I have described it, is actually observed, it is a fair clinical inference that it would be much larger had we more often the opportunity of watching tuberculosis of the lung from the beginning. Except in cases where early haemoptysis draws attention to the lungs it is doubtful if we often really see the initial attack at all. A slight attack of tubercle may cause either no symptoms or none that will lead the patient to seek medical advice. As I have already said, scars of healed tubercle are found in the lungs of persons who were never known to have suffered from pulmonary disease. Early haemoptysis, when it occurs, often reveals the real nature of an illness that would otherwise have passed for a temporary indisposition. In some cases, indeed, there has been no perceptible symptom whatever before the haemorrhage appeared. Such cases, thanks to the haemorrhage, are brought, and generally kept, under medical observation. Failing the blood spitting they would have escaped professional notice till long after the real onset, perhaps not till one, two, or more periods of intermission had passed by. Let me instance a patient at present under my care in the William King Ward, who presents a small area of consolidation, apparently quiescent, in the right apex, evidenced by harsh breathing and comparative dullness in the subclavian fossa and first intercostal space. He has had, he tells us, three slight attacks of haemoptysis, if not four, in the course of the last four years: each of them, he says, was accompanied or followed by a slight cough; but the cough never lasted more than two or three weeks, and his general health was so little affected that he served in the army through the greater part of the South African war. Except in the first attack of haemoptysis he never laid up or sought medical advice on his case. But though it is largely, it is by no means exclusively these haemorrhagic cases in which the frankly intermittent onset is actually seen. If the lungs of young people should ever become the object of as much solicitude as their teeth, and be habitually subjected, like them, to periodic preventive examination, the detection of tubercle in its earliest period will doubtless be much more frequent than it is at present, and the prevalence of intermittent onset be more generally recognized.

The essential intermission and remission of pulmonary tubercle would probably, indeed, have attracted more attention already than has actually been the case were it not for our inveterate tendency to attribute any improvement that may occur in a case of serious illness to the effects of treatment. I pray to not imagine that I wish to decry the importance of treatment in tuberculous disease. Were treatment of no avail it would be waste of labour to speak of early diagnosis. Unless it is undergone, there is reason to think may both limit the extension of tubercle during the attack and shorten its duration. What is more certain and more to the point is that good treatment may prolong the periods of intermission, so as to enable cicatrization to become more complete and to acquire a greater likelihood of permanency; but to intermission and *remission*, I am anxious to impress upon you, are among the natural features of the disease. They may be observed even in cases passed on to the post-mortem table, in cases subjected to almost any reasonable treatment, and in persons who have received, like any soldier patient, no particular treatment at all.

The result of this is that in most cases of chronic tubercle of the lungs that actually come under the physician's notice even for the first time we have already a mixed morbid anatomy present: we may have some fibrous scar tissue and we may have some caseous material, and both of these may include portions of different date. If the case is seen during the period of activity, we probably have also some recent grey granulations, with which more or less broncho-pneumonia is likely to be associated. If there is much fibrous scar there will presumably be some compensatory emphysema. In addition, though rarely in such early cases as those we are speaking of, there may be one or more cavities, and if the tubercle, as often happens, has been partly superficial, the pleura will be in places adherent and greatly thickened. There are, of course, exceptions. In very early cases grey nodules alone may be present. In some cases, particularly in children, the earliest lesion is broncho-pneumonic from the first, and caseates rapidly without producing either grey granulation or fibrous scar. Broncho-pneumonic cases, let me say in passing, are likely to be exceptions to the rule of intermission and remission, and to run a continuous course from the first.

The whole of the above-named lesions, cavities and emphysema apart, may for the initial purposes of physical diagnosis be summed up in the single word "consolidation." Chronic partial consolidation of the apical portions of the lungs is seldom anything but tuberculous, and the preliminary search for signs of tubercle is, to a large extent, a search for signs of consolidation. According to the time-honoured tradition of physical examination the search should commence with inspection, should proceed to palpation, then to percussion, and last of all to auscultation. May I be so unconventional as to say that the traditional order of procedure savours far more of pedantry than of practical convenience? There are cases in which the signs furnished by the fingers are clearer and more definite than those obtained by the stethoscope, but there are also cases in which the reverse obtains, and the latter class of cases far outnumbers the former. On the whole, therefore, a considerable economy of time is effected by the method I usually pursue of commencing, after a cursory inspection, with a thorough stethoscopic exploration of the upper parts of the lung, and following it up with percussion and with a more detailed inspection and palpation. I have more than once, in a clinical examination, seen a candidate spend nearly the whole of his allotted time in attempting to settle the relative dullness of two apices, the tuberculous condition of both of which was obvious the moment the stethoscope was applied. Prolonged percussion, too, is liable to cause a certain amount of suffering to the patient, which is best avoided when not really necessary. The direct signs of consolidation, I need hardly remind you, are the presence of what is called "tubular," "bronchial," or "harsh" breathing, of changes in the voice sounds which may vary from mere exaggeration to nasal "bronchophony," and of dullness on percussion as compared with the opposite side. In their typical form these signs are the A.B.C. of physical examination, but in the search for tubercle we find them in so many different degrees, combinations, and doubtful forms that I will ask your attention to a few preliminary considerations before discussing the detailed interpretation of them.

Tubular breathing (I prefer "tubular" to "bronchial," as it involves no theory) is a sound which may be fairly imitated by blowing or, rather, by drawing air in and blowing it out, through a narrow straight pipe, such as the tube of a wooden stethoscope. It may be more nearly simulated by breathing through the mouth while the back of the tongue is raised towards the soft palate, so as to reduce the faucal aperture to a narrow horizontal slit; and by slight changes in the position of the tongue the simulated sound may be made to follow all the variations of pitch which tubular breathing assumes under different circumstances. It is generally recognized that the actual sound of tubular breathing is produced, not in the chest, but in the larynx or its near neighbourhood, and that it is conducted downwards by the column of air in the trachea and bronchial tubes. Generally speaking, it is not heard over the surface of the healthy chest, being intercepted by the substitution of pulmonary tissue, which contains no tubes. In some persons, even in health, it may be more or less discerned in the interscapular region or over the main bronchi in front; but it is not correct to say, as some authors do, that it is

identical with the sound heard when the stethoscope is placed over the trachea; there is an important difference, to which I shall allude later. The sound, then, as I have said, is conducted by way of the trachea and main bronchus to the root of the lung, and thence along the lesser bronchi to within a certain distance of the surface, but in the healthy lung does not reach the surface. The hearing of well-marked tubular breathing over the chest wall implies that over the area covered by the stethoscope the superficial layer, at least, of the lung is sufficiently consolidated to conduct the sound to the surface from the point it normally reaches in the tubes and at the same time to abolish the natural vesicular murmur. Very superficial consolidation which does not reach as far as the deeper layer of the lung cannot carry forward the tubular sound. Consolidation of the deeper part of the superficial layer, not extending to the surface, may carry the vibrations forward so far as to convey a faint or "distant" tubular sound; a chain of consolidated points, leaving some permeable lung in the area covered by the stethoscope, brings a sort of diluted tubular breathing to the ear, a mixture of a faint tubular breathing with the normal vesicular murmur, which is generally called "harsh" breathing. Though other causes than consolidation in rare instances convey a tubular or harsh character to the breath sounds, the distinction between true and false tubular breathing is easy, if the expiratory part be taken as the criterion. If the expiratory sound, having the tubular or harsh character, is found to proceed with uniform pitch and intensity through the whole expiratory act, the breathing is truly "tubular" and is evidence of consolidation. If it does not satisfy this criterion, if it varies in tone, or "tails off" towards the end, it only indicates some trifling bronchial change. Mere prolongation of the expiratory sound, without the tubular or harsh character being manifest, does not constitute evidence of consolidation at all; the expiratory sound is equally prolonged in some forms of false tubular breathing, in puerile breathing, and in the clear "blowing breathing" which is so often met with over healthy or merely emphysematous apices, and which is probably of bronchial origin also. These sounds must not be confounded with the true consolidation signs, and the use of the vague term "prolonged expiration" in describing physical signs is, therefore, in my opinion, not to be recommended.

I will ask you now to note that the pitch of the harsh or tubular breathing heard in early tubercle of the apex is nearly always low—much lower than is commonly heard in pneumonic consolidation of the apex or over lung compressed by pleural effusion. The pitch of tubular breathing is a subject to which little attention has been given, but you will find it a point of some practical value. Several considerations, which it would be too long to enter on here, have led me to believe that high-pitched tubular breathing is only produced when there is a continuous tract of consolidation between the point at which the stethoscope or ear is applied and the neighbourhood of the root of the lung. This seldom happens in early tubercle; the existence of high-pitched tubular breathing, if anywhere found, would, on this view, be of serious import as regards the extent of the lesion. In speaking of the "pitch" of tubular breathing, you will, of course, understand that, neither as produced in the throat nor as heard over the lung, is tubular breathing ever a definite musical note. It is always a mere "noise," compounded of vibrations of indefinitely various lengths, some of which are better conducted under some circumstances and others under other circumstances. In speaking of tubular breathing "pitch" must be taken to mean the average pitch of those elements of the sound that most obviously impress themselves on the ear.

What the actual depth may be of the layer of the lung that I am describing as "superficial" is difficult to say. There is reason to think that it does not exceed half an inch. Consolidation entirely below this depth, whatever the depth may really be, will bring no tubular or harsh breathing to the ear. It does not therefore follow that the breath sounds give us no information at all as to the existence of deeper consolidations. If consolidation exists in large amount it hinders either the expansion of the apex of the lung or the access of air to its more superficial parts, and its presence at a deeper level is accordingly often evidenced by diminution of the breath sounds or by an irregularity of the inspiratory rhythm ("wavy breathing"), even though the actual character of the sounds may be quite normal. You need, therefore, to compare the breath sounds on the two sides for intensity and rhythm as well as for character.

The consolidation signs derived from the voice sounds are not always uniformly coupled with those derived from the breath sounds. Bronchophony is a natural sound produced, like tubular breathing, in the larynx, modified into articulate speech by the upper air passages, and carried by conduction along the column of bronchial air; but the superficial layer of lung does not cut it off so entirely as it cuts off the tubular breath sound. The vocal sounds, as might be expected from their relative loudness, are more readily transmitted than the respiratory murmurs, and instead of being stopped by the superficial layer are merely transformed into the inarticulate "buzz" that we know as "vocal resonance." Deeply-seated consolidation may augment the transmission of voice sounds without preventing their normal transformation, and thus we get "increased vocal resonance." Increased loudness of the normal vocal resonance may therefore result from consolidations which are too deeply seated to give even "distant" tubular breathing; and we may obtain from it an indication of a deep consolidation even when the breath sounds fail us. On the other hand, we so frequently come upon patches of harsh breathing which are unassociated with any change in the voice sound that we must conclude a more extensive or more complete consolidation to be needed to bring bronchophony to the surface than suffices to transmit the tubular breath sound. You will therefore regard harsh breathing associated with voice changes as of more serious import than harsh breathing without such changes, and understand that well-marked bronchophony must indicate a rather extensive tract of consolidation. Genuine bronchophony without associated change in the breath sounds is very rarely met with. I need hardly remind you of the allowance to be made for the normal excess in vocal resonance of the right chest as compared with the left. As this is an uncertain quantity, great caution must be used in drawing conclusions from an apparent increase of voice sound at the right apex, unless its character be changed or other signs concur. Vocal fremitus is also normally more marked, often greatly more marked, at the right apex than at the left, but the value of vocal fremitus in the diagnosis of early lesions is practically nil, and it need not detain us.

Percussion for the detection of tuberculous consolidation requires to be practised with great care and its results to be interpreted with judgement. To percuss the apices satisfactorily, it is desirable to have the patient standing before one. In no other posture is it equally possible to plant the plessimeter finger in a corresponding position on the two sides. But in merely placing the plessimeter finger in a similar position on the two sides there lies a snare, for, if the shape of the two sides is not quite alike, the result is vitiated. See therefore that you are percussing over corresponding points on the two sides, that you are using, as far as you can judge, the same percussive force, and that you are percussing upon exactly the same spot of the plessimeter finger, but otherwise vary the precise attitude and the degree of pressure of the latter until you are sure that you have elicited at each spot the best note that is to be got under the conditions, and compare the best notes thus obtained.

The results of percussion in many cases appear to correspond but ill with those of auscultation. In some cases we find little or no loss of resonance where auscultatory signs of consolidation are well marked, and in others marked dullness where little or no change in the breath or voice sounds has been found. In the former of these cases the presumption is usually that the resonance of the affected part is due to compensatory emphysema, which argues that the consolidation consists largely of fibrous scar. In some such instances the affected, or the more affected, apex is actually the more resonant of the two. In the latter case there are several hypotheses to be considered. "Deep" percussion gives indications of consolidation at a level too deep for it to furnish stethoscopic signs, either respiratory or vocal. In the first place, therefore, there may be consolidation deeply situated. Secondly, the presence of abundant scattered grey tubercle may affect the percussion resonance of the lung without making the breath sound harsh or increasing the conduction of the voice, these being effects which need continuous consolidation to produce them; and, thirdly, the pleura at the spot may be greatly thickened. Now comes in the value of systematically practising both light and deep percussion and comparing the results. If the dullness is more marked with the light than with the deep percussion, it is probably a thickened pleura that causes it; if the reverse obtains, it suggests a rather deeply-seated patch of consolidation. In the case of scattered grey tubercle the results of the two kinds of percussion will vary little.

To return to the subject of compensatory emphysema in the

neighbourhood of fibrous scars: you may be puzzled now and again by the curious changes in the physical signs that sometimes take place from day to day or from week to week in apices that are the seat of quiescent tubercle. One day you may find a distinct patch of dullness, associated with clearly defined harsh breathing and possibly some increase of vocal resonance. The next time you listen, neither dullness nor harsh breathing are to be found. Or, which is more embarrassing, the change may be in the reverse direction without any symptom whatever to suggest the onset of fresh tuberculous disease. The most plausible explanation of this seems to be that the change is due to variations in the degree to which the emphysematous lobules are at the moment distended with air. On one day more active respiratory movements may have caused them to become fully distended, so that the conductivity of the lung for sound is lessened and the percussion note improved. On another day partial collapse may reduce the percussion resonance and allow consolidation sounds to penetrate. The explanation is merely hypothetical, but the occasional occurrence of these changes is a fact you will do well to remember.

To determine the existence and superficial extent of a limited tuberculous consolidation is something; but it is equally important to know what it really means. How far does it consist of grey granulations; of fibrous scar; of broncho-pneumonic products? Is it wholly quiescent, or anywhere actively advancing? How far can physical examination help us to answer these questions? The advance of tubercle at a given spot may take place by the formation of outlying grey granulations or by the extension of a broncho-pneumonic area. In the former case, provided that the granulations are sufficiently near the surface, the determination of an active condition is comparatively easy; for each active granulation is surrounded by a zone of congestion with some localized fluid exudation into the alveoli or small bronchi that generally gives rise to "moist" sounds during the inspiratory expansion of the lung. Do not fall into the common error of supposing that moist sounds in a tuberculous lung necessarily indicate "breaking down." The smaller moist sounds do not in the least necessarily do so; they equally accompany the very earliest stage of grey tuberculous nodule. They may be equally found where only scattered granulations exist and where older lesions are extending by grey granulations at their edges. Two kinds of small moist sound may attend advancing grey granulations, the crepitation that shows the localized exudation to be merely serous or oedematous, and the sharp sticky click that bespeaks it inflammatory or bronchopneumonic. Crepitations need to be distinguished from the friction sound of tuberculous pleurisy—a matter of small importance—and from the dry, dull crackle of apical emphysema—a distinction of serious consequence, but one which practitioners are rarely to make. Clicks at the end of inspiration are formally diagnostic of tubercle; but they may occur at the commencement of "breaking down" as well as around active granulations. The interpretation will depend on their situation. If they are heard over a patch of definite consolidation, they are probably due to disintegration; if at the edges of such a patch or at a distance from it, they indicate an early stage of an advancing lesion. Both the crepitations and the clicks are high pitched, and neither, as may easily be demonstrated, are conducted far from their seat of origin. Granulations more than a short distance below the surface, it may therefore be inferred, do not reveal themselves in this manner. Large cavities which possess a low patch, such as the larger mucous rales of general bronchitis, are, on the contrary, well conducted through lung tissue, and may be heard on the surface, though actually formed in the larger bronchi.

Tuberculous crepitations may be accompanied by light, dry wheezing rhonchi. In some cases the rhonchi may be heard even though crepitations are not audible. The conductivity of the lung for rhonchus is much greater than for crepitations; perhaps in some of these cases the seat of origin of the rhonchus is too deep for crepitations to be heard from it. Tuberculous rhonchi need to be distinguished from those produced by bronchial catarrh or asthma. The criterion is that they are localized and that the localization is persistent. Bronchitic or asthmatic rhonchi may be localized, but only temporarily. They rapidly disappear from one part of the chest to appear in another; tuberculous rhonchi are constantly detected in the same limited region. It may chance that an advance guard of scattered grey granulations are the offshoot of a focus of infection situated too deeply to afford any direct signs of its existence. In such a case crepitations or clicks, or crepitations with rhonchi, or even rhonchi alone, persistently localized to the apex, may be the only physical evidence, and the consequential multiplication of the granulations is sufficient to impair the percussion note. The importance of not neglecting localized rhonchi is manifest. You will not forget, of course, to make the patient cough before deciding on any question of moist sound. The cough effects two ends: it brings out the moist sound that indicates alveolar exudation and it eliminates moist sounds due merely to bronchial catarrh. When seeking for evidence of tuberculous advance you will, of course, not limit your exploration to the edges or surface of the consolidated patches. The germ may have been carried by the air passages to more distant parts. You will search the entire chest for evidence of fresh granulations, and particularly the special seats of election of the disease.

Even if no moist sounds or rhonchus can be found, it does not altogether follow that the consolidation is in an inactive state. In a small number of cases the lesion is purely bronchopneumonic from the outset: in a further number the more recent advances may be purely broncho-pneumonic; and tuberculous broncho-pneumonia is capable of advancing slowly without giving rise to any moist sounds at all. The diagnosis between an advancing bronchopneumonic phthisis of small extent and a quiescent fibrous patch is, therefore, difficult to make by the physical signs alone. Inspection and palpation, and another method of examination that is often neglected—the measurement of the apices—may assist us here. If over a small patch of consolidation, without any suggestion of a cavity, the chest wall is found to be flattened and the inspiratory movement limited, and if the diminution in girth at the apex as compared with the sound side can be shown by measurement, and if at the same time we find no definite symptoms of active tuberculosis, no rise of temperature, no loss of flesh, no recent history of haemoptysis, for example, the presumption is that it is an old scar and not a recent lesion that is present. But in all such cases the safest plan is to keep the patient under observation for at least a month until you are satisfied that the patch is not extending and that no overt symptoms are about to declare themselves. You will, of course, in such a case make a bacteriological examination of the sputum, if there is any, or of the faucial secretions if there is no expectoration: but, as I have already said, the absence of bacilli is not absolute proof that there is no active lesion, and their presence, unless in large numbers, does not exclude the possibility of the lesion being at the time quiescent and mainly fibrous. Neither physical signs nor bacteriological results, let me warn you in passing, must blind us to the importance of symptoms in cases of doubtful diagnosis. A daily rise of temperature and a progressive loss of body weight, otherwise unaccounted for, are almost formal evidence of the advance of tubercle in a person who has already suffered from the disease, even though the physical signs give no indication of active growth. For reasons I have already entered into, none of our methods of physical examination can completely explore the lung beyond a certain depth, and, owing to accidents of topographical position, extensive advance may be going on without affecting the surface signs in any degree. I do not mean to say that this is common, but it is not so rare that the possibility can be neglected.

The physical signs of large cavities hardly come within the scope of our present subject. Vomicae which produce amphoric breathing, echoing voice and cough, metallic tinkling and marked pectoriloquy belong to a more advanced period of the tuberculous invasion than that which we are discussing. Small cavities, nevertheless, may exist in cases in which the superficial area of tubercle yielding physical signs is but small. In some cases of rapid tuberculous invasion cavitation may ensue at an early stage, before the consolidation signs have extended far; in others, a small smooth walled cavity may exist in an apex which is largely fibrotic and contracted from cicatrized tuberculous lesions. In others yet, a vomica may be a part of a deeply lying lesion of which only a small area comes near the surface. In all such cases the detection of the cavity is most important, as its existence increases the gravity of the case. It is hardly less important not to mistake the signs of consolidation for those of cavitation, and so to diagnose a vomica where none exists—in error by no means uncommon.

The laws which govern the conduction of the breath and voice sounds indicating consolidation apply equally to those indicating cavities. A cavity covered by a certain depth of healthy or emphysematous lung is dumb—no sign of its pre-

sence reaches the ear; a cavity connected with the surface by continuous consolidation may, and probably will, give evidence of itself by a peculiar modification of the breath sounds, if not of the voice sounds also, that indicate consolidation. Over cavities of less than a certain size you must not expect to find the true "amphoric" breathing, the sound as of the breath passing over the mouth of a vase, any more than "metallic tinkling" or "echoing cough": but even over small cavities the breath sound has a definite and readily recognizable peculiarity, which entitles it to the name of "cavernous breathing." Now cavernous breathing is sometimes difficult to make sure of unless you are provided with a definite criterion by which to distinguish it from the tubular breathing of which it is really a modification. Such a criterion is not to be found in the inspiratory part, which differs little, if at all, from that of tubular breathing, but it is furnished by the expiratory part, and the distinction involves a question of pitch. In tubular breathing due to consolidation the expiratory sound is invariably of a slightly lower pitch than the inspiratory; while over a cavity the difference is reversed. Curiously, the distinction of pitch does not strike every one alike. The expiratory sound of cavernous, as of tubular, breathing is a "noise" made up of vibrations of very various lengths, and some ears appear to be more sensitive to the higher and some to the lower vibrations among them. The former convey the general impression of a relatively high pitched, the latter that of a relatively low-pitched sound. Some authors, you will accordingly find, represent comparative lowness of pitch, instead of comparative acuteness, as characteristic of the expiratory part of cavernous breathing. I have several times brought the question to a practical test in my classes in the wards, and every time with the result that to the majority, as to myself, the cavernous expiratory sound appears to have a higher pitch than the inspiratory. Whichever way the difference impresses your individual ear, you will find it constant for nearly all cavities. In most persons, sounds of the character I have described as cavernous may be heard if the stethoscope be applied over the trachea. This suggests a caution in interpreting dry cavernous breathing heard either above the clavicle or over the back near the windpipe. In either case it may chance to be only tracheal breathing conveyed through consolidated lung. Error is best avoided by comparing the supposed cavernous breathing with the actual tracheal sound.

Pectoriloquy is of less value as a sign of cavitation than cavernous breathing. It is not always heard over small cavities, and it is occasionally heard when no cavity exists. I will devote a few words to the definition of this term, as it is not infrequently quite misused. Normal vocal resonance, as I have already said, is a confused "buzz" conveying a general impression of the vocal sounds uttered, but no distinct idea of the articulation. Vocal resonance may be augmented or may even become bronchophonic without becoming distinctly articulate. In this case it should not be called pectoriloquy; the term is intended to imply the distinct conveyance of articulate speech to the listener's ear. Pectoriloquial conduction is more easily detected when the whispered is substituted for the spoken voice, but the mere conduction of the whispered sound, as long as it is in the "buzz" form, does not constitute pectoriloquy, or even furnish evidence of disease. It often takes place through healthy lung. The sign to which many years ago I gave the name of "post-vocal whiff," I mean the faint short expiratory puff which is sometimes heard when articulation has ceased and the lips of the glottis have flown open to give exit to the compressed air in the trachea, is of no value as a diagnostic mark of a cavity. It sometimes occurs over a cavity, but quite as often over merely consolidated lung in the apex.

Up to this point I have had young subjects, the most usual victims of tubercle, mainly in mind. But tuberculosis of the lung may break out at any age. In the elderly its first onset has frequently to be recognized by a somewhat different set of signs. After a certain age the disease is more commonly the sequel of a chronic non-tuberculous bronchitis. The bronchitis may have existed on and off for many years, appearing under the guise of a "winter cough" and disappearing in the spring, and the early signs of tubercle have to be recognized among those of a generalized bronchitis which may have become familiar by repetition. The earliest sign to be discerned is usually neither dullness nor harsh breathing, nor alteration of voice sound, but a local change in the character of the bronchitic rhonchus. The pitch of a bronchitic rhonchus in the upper part of the chest, whether inspiratory or expiratory, does not usually vary much throughout the individual inspiration or expiration, whichever it be. If the inspiratory rhonchus at one or other apex become broken in the middle, the latter part becoming markedly high pitched, so as to give to the ear the impression of a creak, it should arrest attention. "Creaking" rhonchus (the creak is more often inspiratory than expiratory) in the adult should always convey a strong suspicion of tubercle. If, in addition, the inspiration should bring out sharp clicks, or even small *râles* of a higher pitch than is found over the rest of the lung, the proof is almost formal. I am speaking, you will remember, of the adult, and practically of the elderly, subject. In children these signs have no such significance: they are quite common in ordinary bronchopneumonia. In the elderly I have never, to my recollection, heard them at the apex except in lungs which were subsequently proved to be tuberculous, either by bacteriological examination or by the subsequent progress of the case.

THE EARLY DIAGNOSIS OF TUBERCULOSIS OF THE LUNGS.

By C. G. H. BAUMLER, M.D., F.R.C.P.Lond.,

Professor of Clinical Medicine in the University of Freiburg-i.-Br.; formerly Assistant-Physician to the German Hospital, Dalston, and the Hospital for Diseases of the Chest, Victoria Park, London.

With the progress of our knowledge of pulmonary tuberculosis the desirability or rather the necessity of recognizing in patients the very first changes has greatly increased, more especially since a more hopeful view as regards the curability of the disease has replaced the former despondency. We now know, to a certain extent at least, the way and the means by which the organism gets rid of the changes which the tubercle bacillus brings about, at first quite locally, in the tissues. Local inflammatory reaction and the formation of connective and, further on, of fibrous tissue, which means the replacing the diseased lung-substance by a cicatrix, are the prominent features of this healing process in which, by reactive functions of various kinds, the whole organism is more or less involved. In many cases the original strength of the body is sufficient to fight the battle even amidst unfavourable surroundings, but in the majority of patients in whom already a certain degree of debility had been the cause that the disease could have taken root, or could have been developed, assistance by external means gives the only chance of recovery. Brehmer and Dettweiler, Spengler, Sir Hermann Weber, and other pioneers on the line of the climatic treatment of tuberculosis of the lungs have shown the way by which this external support can best be offered to the patient, and by which unexpected results have already been obtained in ever increasing instances.

But this, no less than other measures—in fact, the whole modern crusade against tuberculosis—can, apart from prophylaxis, only be successful, if patients get under appropriate treatment as early as possible, when only few and small foci of disease are present, and as long as the destruction and replacement of them by fibrous tissue does not materially interfere with the normal action of the lungs or unfavourably react on the whole organism.

If by the progress in our knowledge of the disease and of the possibility to battle against it, the power of the physician has been greatly extended, his responsibility also has enormously increased, involving, as it does, the paramount duty, if possible, to recognize the very beginnings of the disease. These being at first purely local, and remaining so for various lengths of time, to make out the signs of these local changes will be of special importance.

In the majority of cases a somewhat persisting cough is the only symptom which induces a patient, or more often compels his friends, to seek medical advice. Very commonly, however, other symptoms, subjective as well as objective, are already present, which, in connexion with cough or even without it, may raise a suspicion that tubercles may have formed in the lungs. Foremost among these are febrile symptoms, lassitude, pallor, slight shiverings, night sweats, loss of appetite and weight.

Whenever such symptoms are complained of or suspected in a patient, they have to be carefully investigated, being of great value for the diagnosis, and very often even more still for the opinion which we shall form of the prospects for recovery and of the further progress of the case. Increased attention should be paid to these general symptoms,

whe ever the examination of the lungs gives at first no positive results.

Of first importance in this respect is a careful observation of the body heat, the temperature being measured for a number of days three times a day, noticing also the effect of rest and exercise on its range. If the temperature be raised ever so little above the normal standard, the observations must be continued for a certain period and at the same time, the diet being carefully regulated, the body weight ought to be taken at regular intervals.

A continuous, even slight, elevation of temperature, or a loss of weight, if not explained by other discoverable disease, is extremely suspicious of pulmonary tuberculosis, which then, sooner or later, will become apparent by distinctive local signs. In childhood, and at the age of puberty, tuberculosis of the lymphatic glands in the chest and abdomen may be the cause of such a general decline, to which, by-and-bye, lung symptoms are superadded. As in cases of this kind the spleen generally is somewhat enlarged, a suspicion may arise that the case might be one of typhoid fever of a lingering type. But the spleen hardly ever reaches the size it attains in typhoid fever, and typical rose spots never appear, whereas miliaria crystallina (sudamina), which so commonly appears in typhoid fever after the middle of the third week, may be present in either case when profuse perspirations occur. To distinguish typhoid fever from such a case of glandular, or, maybe, of latent pulmonary tuberculosis, the examination of the blood for the typhoid bacillus, the counting of the leucocytes, which in typhoid fever are diminished in number ("leucopenia"), and the Widal test ought to be employed, and will generally decide the diagnosis. Diazo-reaction of the urine may be, for a time, present in either case.

The local signs of pulmonary tuberculosis vary according to the kind of change which the disease brings about. Alveolar and lobular infiltration and bronchial catarrh being the coarse anatomical basis of the disease, diminished or altered resonance on percussion, and altered breath sounds on auscultation will be the chief signs that have to be looked for in the beginning, more especially over the apices of the lungs, which in the overwhelming majority of cases are the first parts to be affected. A careful comparison of the two sides and of corresponding points will lead to the discovery of very slight changes. Regard, however, must be had to the differences which are normally present, in somewhat varying degrees, between corresponding places of the two sides. Generally the percussion note is slightly louder on the right than on the left side, above as well as below the clavicle, unless the muscles are unequally developed on the two sides, those on the right side, at least in men, frequently showing a somewhat better nutrition.

The places which ought to be most carefully compared are the supraclavicular region and the lateral portions of the first and second intercostal spaces, a diminished percussion note at the apex generally showing itself not only above, but generally in a slighter degree, also below the acromial portion of the clavicle. A marked dullness of the percussion sound in these parts of course already signifies a somewhat extensive infiltration, involving a good many lobuli, and distinct auscultatory signs, to be discussed hereafter, will then also not be wanting.

At the back, in the supraspinal region, the percussion note may be in such a case the same as on the other side, if the diminution of air in the apex of the lung by infiltration is confined to its anterior parts. The percussion sound may then even be somewhat hyper-resonant and slightly tympanitic in consequence of relaxation of the otherwise normal lung tissue.

A marked difference on percussion may, however, be present without any lung disease in the apices, when the two sides of the chest are not perfectly symmetrical. Slight asymmetry is very common and is generally due to rickets having been passed through in infancy.

[illegible] the position and shape of the heart, and thereby also cause the shape of various parts of the chest.

Even very slight deviation of the vertebral column from its normal shape causes a difference in the height of the two supraclavicular regions and in the sagittal diameter of the upper part of the two sides of the chest, the supraspinal region on one side being at the same time more rounded than on the other. Percussion on this somewhat more convex side will produce a less resonant note than on the more flattened one. In the same manner does the altered shape of the supraclavicular space influence the percussion sound. Generally the supraclavicular space appears larger and higher on the side on which the supraspinal region is more convex. Thus the percussion sound may differ both in front and at the back in an opposite sense without there existing any disease of the lungs at all, and the loudness of the respiratory murmur is likewise thereby affected.

Even a slight deviation of the vertebral column, especially an abnormal lordosis of its dorsal portion, which may not react at all on the front aspect of the chest, but only produces a certain widening of the middle intercostal spaces, may also materially influence the position of the heart, the shape and size of the heart's dullness on percussion, and the place and quality of the apex beat. The sterno-vertebral diameter of the chest being diminished, the heart generally slides somewhat to the left, and is less covered by the anterior borders of the lungs. In consequence thereof the heart's impulse may be somewhat displaced to the left, and the heart's dullness increased. If the intercostal spaces are wide, the apex beat may appear abnormally extended and very strong, although the heart itself is quite normal. Grave errors of diagnosis, as regards both the lungs and the heart, may result from not paying due attention to these things.

As not only the air capacity of the alveolar tissue of the lungs, but its tension also is affected by tuberculous infiltration, the percussion sound may, in places and at times, become hyper-resonant, and of a tympanitic quality. This, however, is much more frequently the case when infiltration of a more extensive area occurs in the lower regions of the lungs, especially below the scapula, or in front and at the sides in the lower intercostal spaces. At the apices a well-marked tympanitic resonance generally signifies not the commencement of an infiltration but a more advanced stage, the lung tissue being, in fact, quite deprived of air. Through such a homogeneous airless tissue the vibrations of percussion reach the bronchial tubes and cause the air column contained in them to vibrate, whereby tympanitic resonance with Wintrich's sign—namely, change of pitch on opening and closing the mouth or the nostrils—is produced. The cracked-pot sound may also appear under such circumstances on strong percussion. The same physical causes obtaining when cavities have formed within an infiltrated apex of a lung, either by softening and ulceration or by dilatation of affected bronchial tubes, these signs are generally, but, I venture to say, very often wrongly, attributed to cavities. They may be, and frequently are, due to cavities, but solid infiltration down to the larger bronchial tubes, as in acute pneumonia of an upper lobe, causes exactly the same signs on percussion. In order to be justified to refer them to cavities, auscultatory signs must be called in aid. But signs such as occur over cavities never belong to the first but to the more advanced stages of pulmonary tuberculosis, and need, therefore, not be gone into further.

As already mentioned, tuberculosis of the lungs does not invariably commence in the apices, and what one observes sometimes clinically favours the view first brought forward, on the strength of pathological investigation, by Birch-Hirschfeld that tuberculosis, as a rule, commences with a local affection of the mucous membrane in one of the larger bronchi of the upper lobe. In such a case infiltration of the surrounding lung tissue will be caused by the tuberculous process spreading beyond the walls of that bronchus and also by inflammatory changes which may be started in the area of lung tissue to which the affected bronchus leads. By a local swelling and ulceration of the mucous membrane of a bronchus the passing in of the air in inspiration but more especially its passing out in expiration, will be interfered with. Collapse (atelectasis) of air vesicles and lobules, as well as emphysematous inflation of parts of this area, may be the consequence. As soon as ulceration takes place in the bronchus, infection, not only by the tubercle bacillus but also by other bacteria of the septic class, may occur both by spreading along the lymphatic channels, as by particles of pus and cast-off tissue being sucked in with deep inspirations,

such as will follow a fit of coughing, or they may be pushed forward by the increased intrabronchial pressure in the act of coughing.

Auscultatory signs, of which we shall have to speak presently, and the occurrence of signs of a lobular pneumonia, first showing itself in the second or third intercostal space towards the axilla, may possibly be due to such a primary bronchial localization of the disease. In two cases that have come under my observation the first signs of lung disease in well-built and well-nourished young girls appeared quite acutely in the form of a lobular pneumonia in the third left intercostal space, spreading gradually towards the axillary region, the apex being apparently unaffected in one case, whilst in the other one slight signs of apical infiltration were present. In another case I have seen the first distinctive signs of a tuberculous infiltration to show themselves below the right scapula.

Generally in these, as in fact in a great number of cases of the ordinary apical commencement of the disease, it is not percussion, but auscultation, which yields the first suspicious or well-marked signs. In cases such as those alluded to crepitation or a coarse *râle* caused by the bursting of one or a few bubbles of mucus, taking place especially at the first inspiration after a cough, are sometimes the very first local signs. As a locality where *râles* ought to be sought for, the medial end of the scapular ridge, in fact the upper part of the whole interscapular space, may be pointed out. Not infrequently this locality, and more often on the right side, is the only one where *râles* can be found on deep inspiration, and more especially after having induced the patient to cough. With such *râles*—a kind of crackling—however, an auscultatory sign very similar in Nature, must not be confounded—namely, the bubbling or crackling noise which is caused by swallowing frothy saliva, and which may be accidentally heard on auscultation of the interscapular region. As it only appears in the act of swallowing, and not with respiration, an error can easily be avoided.

Persistent and strictly localized *râles* of various kinds, more especially in the upper parts of the lungs, are among the most important signs of commencing as well as of already advanced tuberculous disease of the lungs.

Not so certain in their significance, but more common and always suspicious, are deviations of the respiratory murmur from its normal character in the various parts of the chest, but more especially over the apices. The respiratory murmur varying considerably in different individuals, it is chiefly a marked difference between corresponding parts of the chest which is of diagnostic value. The normal vesicular murmur being generally a little louder in the right than in the left supraclavicular and infraclavicular region, and an expiratory murmur over the right apex being audible in many cases of undoubted soundness of the lung, the reverse condition must be considered suspicious. A marked diminution of the inspiratory breath sound on one side, and more especially so on the right side, if persistent on repeated examination, must rouse a suspicion that this part of the lung contains less air. This may mean that its inspiratory inflation is somewhat impeded by narrowing of some bronchioli leading to it, or that a number of lobuli are imperviously infiltrated.

A prolonged expiratory murmur, especially on the left side, may be caused by catarrhal or other narrowing of small bronchial tubes, or it may be also, by changes in the lung altering the influence which the vesicular lung tissue in its normal condition has in modifying or extinguishing the murmur produced by the respiratory movement of the air at the glottis and in the larger bronchi. If this influence is entirely abolished by complete infiltration of an area of some extent, then the breath sounds, as generated at the glottis and at the divisions of the bronchial tubes, are conducted to the surface almost unmodified, so that tracheal or bronchial breathing will be the result.

Very frequently the breath sounds appear coarser than normally, and evidently not so uniform as regards the succession of vibrations causing them. They lack more or less the characteristic vesicular (*breecy, schlürfende*) quality of the normal breath sound. If weaker, they may resemble the murmuring noise which is heard on auscultating a large muscle in the act of contraction: if stronger, they are of a harsher quality than normal breath sounds, though quite different from and less sharp than, the harsh vesicular breath sound heard in chronic dry bronchitis of elderly people, as also sometimes in the very first stage of acute pulmonary infiltration preceding, and in many places intermixed with, fine crepitation.

There are, however, such manifold graduations from the normal vesicular breathing of young and quite healthy people to this very coarse respiratory murmur of an acute or chronic bronchial catarrh, and to the bronchial breathing of infiltration, that a description of all the forms becomes very difficult. It is therefore not to be wondered at that a term like indeterminable (*unbestimmtes Athmen*) could have been introduced into auscultatory terminology. No distinct changes in the lungs can be looked at as the equivalent pathological substratum of every one of the various deviations from the normal breath sounds. A reduction of the air contained in a portion of lung or an altered capacity of the air vesicles, and catarrhal or other narrowing of bronchial tubes are their chief causes.

A difficulty which may render auscultation quite fruitless sometimes arises in nervous persons, especially women. When asked to draw their breath they produce forcible movements of the chest, closing, however, at the same time, the glottis, so that actually no air can enter the lungs, and no breath sounds, of course, can be heard. In such a case of disturbance of the normal co-ordination of the various muscles acting together in inspiration one may, by patient instruction, gradually overcome the nervousness and get the patient to breathe properly. If this fails, in some rare instances together with the goodwill of the patient, it is well to make him cough. The forcible expiration thereby caused compels him afterwards involuntarily to draw air into his lungs.

The reverse—namely, very much louder and harsher breath sounds than should be expected from the other circumstances of the case—is sometimes observed when nervous patients, by narrowing the glottis, instead of widening it on inspiration, or by contracting their isthmus faucium, produce a noisy stridor in the throat, which, not only by the loudness with which it is transmitted through the air, interferes with auscultation, but overshadows also the breath sounds in such a manner that their character becomes more or less bronchial. The same may occur in patients in whom a thyroid swelling or other diseases, including paralysis of one or both vocal chords, cause a narrowing of the upper air passages.

The limits of a focus of tuberculous disease in the lung are sometimes marked by a zone of very sharp, distinctly vesicular breathing, which not infrequently shows interruptions—"cogged breathing," "*saccadiertes Atmen*"—due probably to limited narrowing of bronchial tubes, allowing the air in inspiration to pass on towards the vesicles only when the suction exercised by the widening of the chest acquires a certain strength.

The velocity with which the air enters into those alveoli which are quite normal, and into adjoining ones which are partly or wholly infiltrated, and with which it passes through normal or narrowed bronchioli, must, of course, vary considerably, and it is chiefly this velocity of the air current on which, to a great extent at least, the character of the breath sounds depends.

Of very great importance for diagnosis may be very fine crepitation, of greater importance still when heard only for a limited period on the same spot, then disappearing or being replaced by coarser *râles*. This would indicate that the changes causing the crepitation have gone on developing into more complete infiltration or even into softening. Such a change would indicate advancing disease. If, however, very fine crepitation be heard on one and the same spot for weeks or even months, it is evidently due to chronic changes, and may be a sign of very slight importance or of none at all, as an indication of tuberculous changes. It may simply be due to collapse of a number of air vesicles or lobuli, the inflation of the alveoli by deeper inspiration causing this fine and equable crackling noise. In support of this view it may be mentioned that such crepitation is commonly heard on the borders of the lungs, especially the lower ones, as also along the pericardium, more especially on the left side, in some rare instances over a clavicle, when old cicatricial changes are present in the apex.

Along the border of the left lung adjoining the heart fine inspiratory crepitation is often heard in cases of heart disease, in which no question at all can arise as to tuberculosis of the lungs. Over and over again it has occurred to me to see patients which had been considered to be cases of lung disease, and had been given creosote and other drugs in vogue at the time, in whom, however, a careful examination and prolonged observation showed that actually no lung disease was present, but that occasional slight haemoptysis, which had first caused a suspicion of tuberculosis of the lungs, was due to valvular disease of the heart. It had been

chiefly this haemoptysis which had led to an erroneous interpretation of crepitant *rales*, heard along the border of the left lung adjoining the heart. Haemoptysis frequently occurring in cases of mitral stenosis, quite apart from embolism and infarctus of the lung, and being simply caused by congestion due to failure of the left ventricle, it is very natural that when cough also is complained of and crepitant *râles* are heard in the neighbourhood of the apex of the lung, tuberculous changes are thought of, especially when the valvular disease is overlooked. This may easily occur, for of all valvular diseases of the heart mitral stenosis has, as is well known, the most varying auscultatory signs—a murmur, in fact, at times being quite absent—which may at the next examination, or if the heart's action gets accelerated by exercise or nervous influence, a loud characteristic presystolic murmur may be heard. If the heart is not very carefully examined and only whilst the patient is standing, the very loud first sound at the apex, which is generally present in these cases, may be taken for an increased second pulmonary sound and explained by an assumed narrowing of the pulmonary circulation in consequence of chronic changes in the lungs due to tuberculosis. A comparison of the heart sounds with the pulsation of the carotids and a careful examination of the heart, the patient being in a recumbent position, as well as of the lungs, will easily correct any erroneous presumption which may at first have been formed.

In such a case the temperature, unless raised by other causes, is of course quite normal, and in the sputum, by repeated and careful examination, tubercle bacilli are not found, and no distinct signs of a really tuberculous disease in the lungs can be discovered.

As regards the discovery of tubercle bacilli in the sputum, it need hardly be mentioned that their absence on repeated careful examination in a given case is no proof that a disease of the lungs, which, by its clinical symptoms, might be taken to be due to tuberculosis, is really not due to it. Their absence in the sputum only proves that at the time no destruction of a tuberculous focus is taking place. They may appear with the further progress of the case. Of greatest importance, on the contrary, for the diagnosis in a given case may prove their discovery, when all the other symptoms are very slight and when no focal disease can be made out in the lungs. In such a case there must be a focus somewhere, but so much surrounded by normal lung tissue, that neither percussion nor auscultation yield any positive sign of its existence. There may be very little cough and only occasionally a little expectoration of purulent sputum. This may come from a central, perhaps originally bronchial, focus in the lung, or from perforation of a softened tuberculous bronchial gland into a bronchus.

Frequently-repeated careful examination of the sputum is particularly desirable in cases in which the good general health and aspect of a patient who is troubled with cough seems to negative the idea that a tuberculous disease might be its cause. Patients of this kind are generally beyond middle age, rather stout than the reverse, and at first sight look more like being affected with emphysema and chronic bronchitis, or with heart disease. But the examination of the lungs reveals more or less extensive changes at one or even both apices. There is a history of haemoptysis some time in early life, after which, however, perfect general health has soon been established and maintained. There had at first been but slight cough which only very slowly increased. The changes found which chiefly consist in induration, including sometimes small cavities, in the remnants of an old attack of tuberculosis dating from which the patient had recovered, but where quite recently fresh changes were taking place. There are the cases in which haemoptysis occurs, at times when by catarrhal or other causes congestion of the bronchial and pulmonary blood vessels is induced.

There may exist an aneurysmatic dilatation of a branch of the pulmonary artery lying in the wall of a small cavity, perhaps even fatal haemorrhage may occur in a patient who as regards his general condition does not in the least suggest the idea that he might be affected with tuberculosis. Cases should be kept in mind in which sometimes also rupture of an acute attack of multiple bronchopneumonia caused by the aspiration of the healthy contents of a cavity. Several cases in which before the fatal illness the patient had appeared perfectly healthy, but were carried off in a galloping consumption within a few weeks have come under my own observation. The initial haemoptysis may be a symptom of the commencing tuberculosis sometimes however, when brought on by violent exercise, its very cause, the dyspnoea which accompanies profuse haemorrhage from the lungs leading to aspiration of blood and of the contents of a cavity into all parts of the lung.

Haemoptysis, with very trifling quantities of blood, but frequently repeated, is sometimes the first and only symptom that raises a suspicion of tuberculosis of the lungs. In such a case the percussion may give normal results, but the breath sounds are harsher than normally, and there may be slight catarrhal rhonchi at the base of both lungs. The scanty sputum contains no tubercle bacilli. There is no elevation of temperature and the general health is unimpaired. All that can be found on repeated careful examination is hypertrophy of the tonsils and chronic pharyngeal catarrh. This is really the cause of the haemoptysis. I have repeatedly seen cases of this kind in which for years afterwards, no signs of tuberculosis were developed.

Another throat affection, also, may sometimes be a source of erroneous diagnosis or of a suspicion, at least, that tuberculous lung disease might be present. This is enlargement of the thyroid gland or of one of its lobes pressing on the trachea, but not yet causing any noticeable impediment to respiration, unless a respiratory effort be made by heavy work or violent exercise. In such a case there arises, sooner or later, a tendency to local congestion and catarrh in that part of the mucous membrane where the trachea is slightly pressed on by the thyroid gland. This causes cough and generally a scanty and purely mucous expectoration. If from various causes this catarrh attains a greater intensity, the expectoration may even be tinged with a little blood. On auscultation rather rough breath sounds are heard all over the lungs, more especially also at their bases, and a prolonged expiratory murmur is heard everywhere. Where this condition of things had existed for some time there is generally some emphysematous enlargement of the lungs. In cases of this kind all the other symptoms which may be of importance for diagnosis have to be carefully gone into and weighed before a decided opinion can be given.

Recurrent slight or somewhat profuse haemoptysis may also be caused by an aneurysm of the aorta pressing on the trachea or a large bronchus. All other symptoms or signs of an aneurysm may be wanting, but its existence will be disclosed by tracheoscopy.

Whenever all diagnostic methods spoken of give no decisive result, there remains the tuberculin test as a most valuable means for settling the question. This is best employed according to the method observed at the Institute for Infectious Diseases at Berlin.

The normal course of the temperature of a patient having been carefully established by measuring it for two days every two or three hours, a subcutaneous injection of a small dose of the old tuberculin is made under the skin of the back in the evening between [illegible] o'clock. As the reactive rise of temperature generally begins after twelve hours. For children the dose must be smaller. After one or two days [illegible] mg and, if necessary, after another one or two days [illegible] mg are injected. A rise of temperature of at least [illegible] C. is considered a positive reaction. The solution of tuberculin should always be freshly prepared. Patients that are feverish should not be injected.

The serum test of Arloing and Courmont, which is based on the agglutination of a pure culture of tubercle bacilli being produced by blood serum from patients affected with tuberculosis is, even with the improvements introduced by R. Koch,[1] no method suitable for every day practice.

Many things, therefore, as will have been seen from the foregoing remarks, must be taken into consideration and carefully examined before we can arrive at a sure diagnosis in cases of commencing tubercular lung disease. Diagnosis gets more difficult when no very positive lung signs can be discovered and when there is no expectoration in which tubercle bacilli can be looked for. In such a case a most searching examination must be made over and over again to get at a decision, upon which the gravest issues may depend. But if, on the one side, it is a matter of greatest responsibility not to have diagnosed really existing tuberculous disease, and thereby to have allowed the most favourable time for recovery to pass by unused, it is, on the other no less a fault to take away any one, especially youths, from their work and, may be, from their family and put them on the path of health seeking invalids, if such a course is not really necessary. But what course had best to be taken when the first signs of a pulmonary tuberculosis have been actually made out, whether sanatorium or home treatment, whether at a high altitude or on the sea level or at an intermediate station—all these and other questions have to be carefully considered and must be decided according to all the circumstances of each individual case.

References.

1 *Deut. Arch. f. klin. Med.*, Bd lxiv., 1899, p. 28. 2 Ueber eine besondere, durch Aspiration von Cavernenluft hervorgerufene Form acuter Bronchopneumonie bei Lungentuberculose, *Deut. med. Woch.*, 1899. 3 Max Beck, Ueber die diagnostische Bedeutung des Kochschen Tuberculins, *Deut. med. Woch.*, 1899, No. 4 *Deut. med. Woch.*, 1901, No. 45.

ABSTRACTS OF

The Hunterian Lectures

ON THE

PATHOLOGY AND SURGERY OF CERTAIN DISEASES OF THE PANCREAS.

Delivered before the Royal College of Surgeons of England.

By A. W. MAYO ROBSON, F.R.C.S.,
Hunterian Professor.

LECTURE III.—CYSTS, INJURY, NEOPLASMS.

Calculus, Neoplasm, Pancreatic Cysts.

The surgery of cystic disease of the pancreas is much in advance of pancreatic surgery as a whole. All authorities are agreed as to the wisdom of simple drainage, which is usually sufficient to bring about relief or cure. Experience has shown that the patient's interest is best considered by a limitation of the incision to a size sufficient to empty and drain it, and not sufficiently large to satisfy pathological requirements. Hence it is highly probably that many reported cases of operations for pancreatic cyst have been for cysts of other origin, and it is an undoubted fact that quite a number of cysts originating from the neighbourhood of the pancreas are only pseudo-cysts, as in two of my own, where in one a collection of blood and serum filled the lesser peritoneal sac as a result of injury; and in another a pseudo-cyst formed rapidly around a necrotic pancreatitis, and from the cavity a slough of the pancreas was removed.

The symptoms produced by a pancreatic cyst vary according to the size and seat of the tumour. They are at first dependent on the disease leading to the cystic formation, and later to the pressure exercised by the tumour on neighbouring viscera; so that we find digestive disturbance, with loss of flesh and epigastric uneasiness, or some pain, quite early, these being followed in certain cases by very intense pain occurring in paroxysms, by vomiting, constipation, jaundice, and wasting, and later by the presence of a tumour. Fatty stools, azotorrhoea, bulky pale motions, and glycosuria will be present or absent, according to the amount of degeneration present in the gland. In all the cases I have observed recently there has been a well-marked pancreatic reaction in the urine, indicating catarrh of the pancreatic ducts or interstitial inflammation: and if this test holds good for cystic disease of the pancreas generally, as I believe it does, it will, I think, form an important diagnostic sign in any case of tumour suspected to be pancreatic.

The most frequent cause of cyst development is chronic interstitial pancreatitis, in which compression and constriction of the ducts result from a new formation of connective tissue with consequent stagnation of secretion. The Roentgen rays may also form a useful help in diagnosis in certain cases, as they will establish the presence or absence of pancreatic calculi, which are quite opaque to the *x* rays.

It is to be borne in mind that there have been cases of pancreatic cyst presenting very few symptoms except the presence of a tumour which has been under observation for a long time and has needed no active treatment, but these cases are exceptional.

Treatment.

Occasionally excision of the cyst may be performed, as in a case of my own, in a woman aged 38, where the tumour returned after drainage, and where the patient made a complete recovery after the second operation; but the greater difficulty in performing excision, the impracticability of doing it always and the greater mortality attending it, as compared with the old operation of incision and drainage, renders it quite clear that the lesser operation should always be tried first unless the circumstances be very exceptional. Aspiration and other forms of tapping are antiquated and ineffective methods attended with more danger than the operation of incision and drainage, and therefore not to be recommended even for diagnostic purposes: this also applies though in a lesser degree to operation *à deux temps* which is now rarely performed.

As to the situation for drainage, that must entirely depend on circumstances: the cyst will usually be attacked from the front, where it is manifestly nearest the surface. Occasionally it may be drained from the loin as in one of my cases.

Fistula does not as a rule follow the drainage of pancreatic cysts, but in some cases a small fistula may persist, and I have known a fistula to go on for years without hurt to the patient, and with very little discomfort.

In the cases I have operated on a cyst was enucleated on one occasion, recovery following; drainage was carried out in 9 other cases of true cyst, and was followed by recovery in 8, whereas of 2 pseudo cysts, one due to traumatic haemorrhagic pancreatitis and the other to necrotic pancreatitis, 1 recovered. These I shall hope to report more fully before one of the London societies, as the time will not permit me to dwell longer on them now.

An extensive search through literature, in which I have been assisted by Mr. A. Clarke, who has verified the references for me, reveals the following facts:

160 cases of operation have been recorded.

In 140 recovery took place, or is presumed to have taken place. In 4 cases the ultimate issue was doubtful.

In 5 out of the 140 of reported recovery after operation the patients died subsequently 1 from diabetes, four months later: 1 from tuberculosis, three months later; 1 from haemorrhage, a year and a-half later: 1 from concomitant peritonitis, 7 weeks later; 1 from epidemic fever, a few weeks later; 3 from causes not stated, a few weeks later. Death is recorded as the result of operation in 20 cases. In 5 of these the cause and time after operation are not given. One patient died in collapse; 1 before operation could be completed (the next day); 1 from "ileus"; 1 eighteen days after operation (cause not stated); 2 from shock; 1 from gangrene of the pancreas: 5 from peritonitis. Of these 5 dying from peritonitis 1 died at interval not stated, 1 after ninety-six hours; 1 after six days: 1 after an exploratory incision: 2 after two days; 1 on eighth day; 1 on second day.

In 118 incision and drainage were performed, with 16 deaths, equal to a mortality of 11.6 per cent.

In 15 excision was performed, with 3 deaths, equal to a mortality of 20 per cent.

In 7 partial excision was done with 3 death, equal to a mortality of 14.3 per cent.

Although larger numbers have been reported by others the above figures are as nearly correct as appears to be possible, for on verifying the records sometimes the same case had been reported twice, in others wrong dates had been given, and in a few the details were so meagre that even the nature of the operation was not given. The evidence is clearly in favour of drainage, but the mortality should certainly be reduced by one-half.

As to the frequency of cysts of the pancreas, Dr. Hale White has recorded that in nearly 6,000 necropsies at Guy's Hospital (1883 to 1894) pancreatic cysts were only found in 4 cases, and one of these was a hydatid cyst.

Injuries of the Pancreas.

It is quite clear that injury to the pancreas is not necessarily fatal, as shown by the development of cysts the result of accident, and their successful treatment. The indications for operation depend on the severity of the symptoms and on the presence of either haemorrhage or inflammation, which may demand operation. If, therefore, after an injury in the superior abdominal region, there be increasing anaemia, the signs of free blood in the peritoneum, or peritonitis, the surgeon will be called on to operate without delay.

Severe injuries of the pancreas not operated on terminate fatally in nearly every case. Out of 45 cases of pancreatic injury collected by von Mikulicz, 21 were perforating, 12 were gunshot, and 9 were stab wounds. Of the gunshot injuries 5 were operated on, 3 recovering; the 7 not operated on all died. Of the stab wounds all were operated on, and 8 out of 9 recovered. Of the 24 subcutaneous injuries 13 were not operated on and all died. Of the 11 operated on 7 recovered.

No hard-and-fast rule can be formulated as to the method of treatment; the injured part must be exposed and either ligature of vessels or suture of surfaces adopted, but gauze tampons and drainage form important features in any of these operations, and where the peritoneum has been generally soiled with blood and pancreatic effusion, lavage with hot saline fluid affords the double advantage of relieving shock and cleansing the abdomen.

In view of the favourable results obtained by operation and the lethal effects of non-operative treatment, the only lesson that can be drawn is that we should make an exploratory laparotomy whenever there is a question of severe pancreatic injury.

PANCREATIC CALCULUS.

The subject of pancreatic concretions can never assume the importance that attaches to cholelithiasis, but as they are associated with serious and usually progressive disease of the gland, and as they can be removed by operation their recognition and treatment is a matter that demands some consideration.

I believe that calculi never form in a healthy pancreas and it seems highly probable that like gall stones, pancreatic concretions are the result of catarrh of the ducts with stagnation of secretion, which generally if not always results from infection. Instead of calculi being formed, the ducts may actually be lined with calcareous material that may accumulate so much as to completely or almost completely close the lumen. A convenient term for this disease may be pancreolithic catarrh.

As a rule the calculi are numerous, and in only three known cases has a solitary calculus been found. The composition of pancreatic calculi is important from the diagnostic point of view, for they contain lime, either in the form of carbonate or phosphate, or as in one found in a cyst reported by Mr. Shattock, of oxalate.

In examining the urine of cases suffering from chronic pancreatitis, crystals of lime crystals have been found by Dr. Cammidge in over 40 per cent. In jaundiced cases, in which the bile acids take up the lime salts they have been found only in 6 per cent. of cases. It would be interesting to know if this fact has any bearing on the composition of pancreatic concretions, for it is a well-known fact that the normal pancreatic secretion contains no calcium carbonate. The consequence of this chemical composition is that pancreatic calculi are opaque to the x rays, and in this way we have a means of diagnosing their presence and of differentiating them from gall stones, which are not seen in a skiagraph. So far as I know this method of diagnosis is here suggested for the first time. I feel confident that in future it will be employed regularly, and I believe also that by means of the urinary pancreatic reaction we shall also be able to confirm the diagnosis by demonstrating the associated chronic pancreatitis.

The symptoms depend on the associated condition, whether that be cyst, abscess, chronic inflammation or other pathological state; doubtless in some cases symptoms are vague or even wanting, and in some pancreatic calculi have only been discovered *post mortem*. Glycosuria was recorded by Lancereaux in 12 out of 40 cases.

Pain at the epigastrium, radiating towards the inferior angle of the left scapula, often agonizing and associated with vomiting may be present, and the attacks may be brought on by exertion, or may be irregular, coming on at any hour, day or night. Dyspepsia and flatulence are usually associated. Lipuria, or and azotorrhœa, as well as bulky pale motions, are present when there is well marked interstitial pancreatitis, and in some cases where the interstitial changes have advanced to atrophy or fatty degeneration of the whole gland glycosuria is found. The pancreatic reaction in the urine was well marked in a case on which I operated, and I think it will be generally found. If a calculus descends into the [illegible] of Vater, jaundice will ensue, and the case will probably be diagnosed as one of gall stones in the common duct, but the scanty acholic action and the use of the x rays should [illegible] differential diagnosis to be made.

Medical Treatment.

The treatment by [illegible], such as injections of pilocarpin it seems to me must be useless and mere waste of time. Relief to pain may be given by sedatives, and other treatment must be adopted as occasion arises, but as soon as pancreatic stones can be diagnosed they should be removed, as destruction of the pancreas is otherwise certain, and it is quite clear that medical treatment can do no real good in these cases.

Surgical Treatment.

Some years ago I pointed out that the pancreatic duct could be readily explored by an incision in the second part of the duodenum, and by then laying open the ampulla when the opening of Wirsung's duct can be seen. In this way I have passed probes along the duct of Wirsung to explore it, and have removed a concretion exactly from the duodenal end of the duct.

The Operation of Pancreolithotomy.

For the purpose of removing calculi from the pancreas an incision 3 or 4 in. to the right of the middle line will be found the most convenient as the fibres of the right rectus can be split and the incision lengthened upwards and downwards without unnecessarily weakening the abdominal wall. A sandbag under the lumbar spine will bring the gland several inches nearer the surface. If the opening of the duct of Wirsung has to be explored, the second part of the duodenum may be incised and the papilla common to the bile and pancreatic ducts laid open, when the edges of the opened diverticulum of Vater can be seized with small catch forceps and drawn to the surface; a probe or fine forceps can then be readily passed into Wirsung's duct and any concretion removed. If the calculi are more deeply placed in the ducts, the pancreas may be exposed either through the gastro-hepatic omentum by drawing the stomach downwards, or by lifting the stomach it may be reached through a slit in the meso-colon. The calculi may be then cut down on and extracted by a scoop or forceps. Any bleeding must be arrested by ligatures. The duct can be sutured and the incision in the gland must be brought together by buried sutures, the peritoneal covering being coapted by a continuous suture. If leakage is feared a gauze drain may be applied; but the position may be difficult for this, and if it has to be done the gauze must be surrounded by a rubber drainage tube, and brought through it to the surface. In my case of pancreolithotomy I felt the closure of the gland was so secure as not to require gauze packing, and the result justified my not using it.

When the duodenum is opened it must be closed in the usual way by a muco-muscular and a serous suture, the latter being of fine celluloid thread. The incised papilla need not be sutured. If a calculus be felt in the head of the gland but not in the duct of Wirsung, it may be reached by incising the peritoneum over the duodenum and separating it gently from the head of the pancreas; or, if more deeply placed near the back of the gland, the reflexion of peritoneum from the duodenum to the abdominal wall may be incised and the duodenum may then be displaced inwards, when the back of the pancreas will be exposed, and, if thought advisable, it may be incised and treated as in the incision from the front.

NEOPLASMS.

It is quite impossible in a short course of lectures even to touch on all the diseases of the pancreas. I must therefore under this heading confine myself simply to cancer and sarcoma, leaving for another occasion the study of adenoma, lymphoma, and the granulomata, tubercle, and syphilis.

Carcinoma.

Carcinoma is the most common of the neoplasms found in the pancreas. Out of 53,000 necropsies gathered from various sources where necropsies were presumably carefully made, there were 227 cases of primary malignant disease of the pancreas (Roswell Park), but as these include Remo Segre's cases from the Ospedale Maggiore, Milan, in which the primary and secondary growths are not separated, the proportion of primary growths is probably not so large. Secondary growths are much more common, for instance, in Eppinger's statistics, of 1,314 necropsies, there were 368 cancers in various organs, of which 19 were in the pancreas, but of these only 2 were primary.

The tumour may take the form of scirrhus or encephaloid cancer, columnar epithelioma or colloid cancer, and these are given in their order of frequency.

Cancer usually occurs after 40 years of age, though I have operated for cancer of the head of the pancreas at 32, and rarely it has been known to occur in childhood.

The typical clinical picture of malignant disease of the pancreas may thus be drawn: a patient suffers for a time from indefinite symptoms of digestive disturbance, then jaundice appears, coming gradually, but persistently increasing; the gall bladder is usually distended, the liver normal or slightly enlarged. A tumour may be found in neighbourhood of the pancreas. Cachexia rapidly develops and in some cases pain disturbs the patient's rest. There is soon a feeling of intense prostration and weakness. The faeces are massive, contain fat or fat acids and an undue proportion of undigested muscle fibre. The urine contains albumen frequently, and sugar and fat rarely. The whole clinical course is run, as a rule, within twelve months, and after the appearance of jaundice, within six to eight months.

Differential Diagnosis.

In malignant disease of the pancreas the symptoms are not constant. The cases may be divided into three chief types:

1. Where the tumour extends to the right and compresses or [illegible] the common bile and the pancreatic ducts.

2. Where it takes an upward and forward direction, and besides compressing the bile duct leads to pyloric stenosis. In this case, to the typical symptoms are added those of dilated stomach.

3. Where the extension is backwards, causing compression of the vena cava and of the portal veins, thus leading to an early onset of ascites, and later to oedema of the lower extremities.

When the body and tail of the pancreas are involved the symptoms are atypical, and the development of a tumour, with steady loss of strength and increasing anaemia, are such as might be due to any malignant tumour outside the pancreas. In the differential diagnosis of cancer of the head of the pancreas we must consider common duct cholelithiasis, interstitial pancreatitis, cancer of the common bile duct, cancer of liver, cancer of the pylorus, and chronic catarrh of the bile ducts.

Whenever, in a patient at or past middle age, jaundice comes on painlessly and becomes absolute, at the same time that the gall bladder gradually enlarges so as to form a perceptible tumour, and the patient rapidly loses flesh and strength, a diagnosis of cancer of the head of the pancreas will probably be correct. The diagnosis will be made more certain if there is an absence of tenderness below the right costal margin associated with a tumour opposite to or above the umbilicus, having communicated pulsation and not moving with respiration. On distending the stomach with CO_2 it will be found that the tumour, at the best rather indefinite, becomes hidden behind the resonant stomach, and that the distended gall bladder becomes pushed to the right. If cholelithiasis has preceded the onset of cancer, the gall bladder will not be enlarged, but the rapid deterioration of health and the presence of anasarca and ascites will, as a rule, leave no doubt of the nature of the disease. In common duct cholelithiasis there is practically always a preliminary history of gall stone attacks, though it may have been years previously. The jaundice will have come on after pain and is probably never absolute, for some bile nearly always escapes past gall stones in the duodenum. The bile soon becomes infected and the ague-like seizures follow and an irregular temperature, at times almost resembling pyaemia. In place of distended gall bladder a rigid right rectus will be felt which often makes it difficult to examine the parts beneath.

A tender spot will usually be found 1 in. above and to the right of the umbilicus, and the pain will be found to pass backwards to the midscapular region or to a spot beneath the right shoulder blade. Whereas in cancer of the head of the pancreas the disease is only a question of months, in cholelithiasis it may be one of years. Pancreatic catarrh or chronic pancreatitis frequently accompanies gall stones in the common duct and clears up after their removal, but it may persist after the cause has passed away. Whenever a tumour of the head of the pancreas is felt during a gall-stone operation, especially if before middle life, hope may always be felt that the disease may be aimple and clear up by the drainage of the ducts. A long history is in favour of the simple disease, as are the presence of adhesions, the history of painful attacks, and the presence of tenderness above the umbilicus.

In chronic pancreatitis it is not uncommon to find enlarged glands in the free border of the lesser omentum, but they are discrete when the disease is simple and generally confluent in cancerous affections. The jaundice may be absolute, but as a rule, it is not complete. Infective cholangitis and infection of the pancreatic ducts are commonly present, as shown by the temperature and by ague-like seizures.

Although the loss of flesh is marked, it is less evident than in cancer of the head of the pancreas, and until the disease has existed for a longer time than cancer gives its victim, there is no sign of anasarca or ascites or of enlarged abdominal veins. The gall bladder is seldom distended, though this is not an absolute rule, as I have seen it much enlarged on several occasions.

Between gall stones in the common duct and chronic pancreatitis (which frequently coexist) it is often difficult to determine, but this is of no moment from a practical point of view, as surgical treatment is, as a rule, demanded in both conditions. Anaemia is much more marked in cancer of the head of the pancreas than in chronic interstitial pancreatitis.

Cancer of the common duct is rare and is usually associated with gall stones; if the disease involves the papilla the symptoms are indistinguishable from those of cancer of the head of the pancreas (as shown by the photograph on the screen); but if it be situated above the opening of the pancreatic duct it will not interfere with the functions of the pancreas, and therefore the loss of flesh will not be so rapid.

In one case on which I operated suppurative cholangitis was present, but this is not a constant event. Cancer of the liver is distinguished by the jaundice being absent or much less intense, and by the enlargement of the liver with irregular nodules on its surface and edges. In simple catarrhal jaundice the symptoms are almost negative, except for the jaundice and loss of appetite, and the way in which it yields to treatment shows the slighter nature of the ailment.

In cancer of the pylorus the predominance of gastric symptoms and the dilatation of the stomach, with absence of free HCl and presence of blood in the vomit, usually enable a diagnosis to be made, but it should not be forgotten that cancer of the pylorus and of the head of the pancreas frequently coexist. In all these cases the urinary test affords most valuable help in diagnosis.

Treatment.

Medical treatment must be purely symptomatic. Morphine, if needed, for the relief of pain; calcium chloride for the prevention of haemorrhage; pankreon tablets or liq. pancreatici for the digestion of food and other remedies for symptoms as they arise.

Surgical treatment is not very hopeful, and has usually been undertaken under the idea that the cause of the jaundice might be a removable one, or that drainage of the bile ducts might afford relief to the jaundice, but increased experience has shown me that if the disease has involved the head of the pancreas it is hopeless, however treated. Treatment may be radical or palliative.

Pancreatectomy can only succeed where the growth is not involving the head of the gland; cases, however, clearly demonstrate that a tumour of the body or of the tail of the pancreas may be removed with equal chances of recovery; and should the disease be primary and no secondary growths or glandular involvement have occurred, great prolongation of life is quite possible. Of the palliative operations, cholecystotomy and cholecyst-enterostomy for the relief of jaundice in cancer of the head of the pancreas I can speak about very decidedly, as I have operated on twenty-eight cases, all the patients being extremely ill at the time of operation. Many of these cases occurred when there was a difficulty in making a diagnosis between cancer of the head of the pancreas and gall stones in the common duct, or between cancer and interstitial pancreatitis, difficulties which have been overcome recently.

Of the 15 cases in which the gall bladder was drained, 8 recovered from the operation, the longest survival being eight months, but the average survival being about four months; of the 6 cholecyst-enterostomies, 2 recovered and the duration of life was only a few weeks. Even a simple exploratory operation in these cases is attended with danger, for out of 6 cases 4 only recovered from operation.

Dr. Murphy of Chicago was kind enough to furnish me with a report of his statistics of cholecyst-enterostomy up to 1897. Of 67 non-malignant cases there had only been 3 deaths, but, of his 12 malignant cases, 10 died, giving a mortality of 83.3 per cent. Thus it will be seen that any palliative operation for the relief of cancer of the head of the pancreas associated with jaundice is useless, as, even if recovery occurs, life is not prolonged to any great extent.

Sarcoma.

Primary sarcoma of the pancreas is undoubtedly rare, though secondary disease, especially of the melanotic type, seems to be less uncommon. I have found examples of sarcoma in several of the museums.

Operation for sarcoma of the pancreas is uncommon, though the few cases operated on prove that, if the tumour be in the tail of the pancreas, the case is one amenable to surgical treatment. I explored the abdomen in one case of the kind, but found the disease too extensive for removal. Kronlein in 1894 removed a tumour the size of the fist, but the patient died seven days later. A tumour, which was successfully removed by Briggs, proved to be sarcomatous degeneration of an echinococcus cyst.

OWING to the death of the Duke of Cambridge, patron of the Royal London Ophthalmic Hospital, the centenary festival dinner in aid of the funds of that charity has been postponed till Tuesday, May 10th. Sir Charles Wyndham will preside, and, to enable him to do so, will close his theatre on that evening.

ABSTRACT OF

The Arris and Gale Lecture

ON

THE CHEMISTRY OF THE URINE IN DISEASES OF THE PANCREAS.

Delivered at the Royal College of Surgeons of England.

BY

P. J. CAMMIDGE, M.B.Lond., M.R.C.S.Eng., D.P.H.Camb.,

Late Clinical Bacteriologist West Riding Yorkshire.

In the course of his lecture Dr. Cammidge made the following observations on the urinary tests referred to by Mr. Mayo Robson in his Hunterian Lectures.

On carefully considering the symptoms that may be associated with the various forms of inflammation of the pancreas one is struck by the fact that a number of the more typical of them are obviously dependent on alterations in the chemistry of the body. Among such may be mentioned the tendency to haemorrhage, apart from the presence of jaundice, the occurrence of fat necrosis, the discovery of undigested fat and muscle fibre in the stools, the appearance of sugar in the urine, and the marked wasting seen in many cases. The association of these symptoms in acute cases, and the frequent occurrence of several of them in the subacute and chronic inflammations, suggests that the chemical changes that give rise to them are directly or indirectly dependent on perversion of the pancreatic functions. The most characteristic and striking of the signs I have mentioned is undoubtedly fat necrosis, and whatever view of its ultimate causation is held there can be no doubt that it is almost invariably associated with obvious disease of the pancreas. Although it is most typically met with in acute and gangrenous pancreatitis, it is not improbable that similar but less evident changes accompany all forms of pancreatic inflammation, and it is to these changes that the haemorrhagic tendency which is so characteristic of the affections is due. It is now admitted by most authorities that the masses of free fatty acids, or the combination of them with lime, which constitute the lesion, are directly derived from the fat of the affected part by the fermentative action of the pancreatic secretion, and that the other constituent of the fat molecule, namely, the glycerine, is absorbed into the circulation. Bearing in mind the effects produced in animals by the subcutaneous injection of glycerine, it occurred to us that in man the continued action of minute doses, such as fat necrosis would give rise to, might produce such a blood state as is met with in pancreatitis especially when to the action of the glycerine on the blood there is added the effects of the removal of calcium salts from the circulation.

Starting on the theory that there was some such connexion between fat necrosis and the haemorrhagic tendency we commenced our investigations of the chemical pathology of pancreatitis by examining the blood of several cases for glycerine and glycerine derivatives. But, as we quickly realized that such direct proof was impossible owing to the small amounts of blood available at the bedside and to the relatively minute quantity of glycerine likely to be present in it, we turned our attention to the urine in the hope of there finding indirect evidence in support of our hypothesis. The well known selective power of the kidneys by which they detect and excrete abnormal constituents of the blood favoured the view that the soluble products of fat necrosis, or their derivatives, might cause changes in the composition of the urine which, owing to the large bulk of material easily available for examination, could be satisfactorily detected. Further although glycerine, when introduced into the circulation, is stated to be oxidized and to increase the excretion of carbon dioxide, Cathcart has demonstrated it in considerable quantity in the urine after administration by the mouth and from 50 to 80 per cent. of the quantity given has been shown to be thus excreted in dogs. Even a larger proportion than this might reasonably be expected to escape destruction in patients suffering from pancreatic affections, for in these the metabolic processes are abnormal, and there is apparently a tendency to defective oxidation.

Lewin has suggested a method of detecting glycerine in the urine which depends upon the fact that oxalic acid breaks up in the presence of glycerine into formic and carbonic acids. On distilling a sample of urine from a case of pancreatitis in the way he describes, indications of the presence of a formate in the distillate were obtained which, although not very marked, were still sufficiently pronounced to encourage further investigation. Several other methods for detecting the presence of glycerine were afterwards employed, and among them that which depends on the formation of glycerose when a solution of glycerine is heated with nitric acid. In carrying out this test we employed phenylhydrazin as the means for detecting the glycerose, and were struck by the exceedingly well-marked deposit of crystals given by pancreatic urines. Control experiments carried out with normal urines, and with specimens from cases of catarrhal and obstructive jaundice, intestinal obstructions, gastric ulcer, etc., were found to be uniformly negative, so that we hoped that we had not only obtained evidence in support of our theory, but also had succeeded in finding a method of distinguishing pancreatitis from at least some of the clinical conditions with which it is liable to be confused.

A more extended experience showed, however, that the matter was not quite as simple as it at first sight had appeared, for although all pancreatitis urines gave a reaction, a similar result was obtained in a certain number of other diseases in which there was no reason to believe that the pancreas was diseased, but which were characterized by rapid tissue change and defective oxidation. It had also to be borne in mind that the reducing power of most urines is increased by boiling with mineral acids, and although it was found that either hydrochloric or sulphuric acid could be substituted for the nitric acid originally employed, a series of careful experiments carried out for the purpose failed to demonstrate that the reaction obtained in pancreatic urines was due to the so-called animal gum from which the reducing substance of normal urine is said to arise. As the success of the test appeared to depend on the presence of some abnormal constituent in the urine, the examination of a large number of specimens from cases of known or suspected pancreatic disease was next undertaken, and it was found that when taken in conjunction with the clinical symptoms the reaction was of considerable assistance in diagnosis. The strength of the acid employed, the kind of acid used, the time of boiling, and other details of the experiment appeared, however, to exert considerable influence on the result, and as a consequence of numerous experiments a method of procedure was finally evolved which proved to be generally satisfactory. This I shall now describe, and call for convenience of reference, reaction "A."

The specimen of urine to be examined is filtered, and 10 c.cm. of the filtrate poured into a small flask. One c.cm. of strong hydrochloric acid is added, and a funnel having been placed in the neck to act as a condenser, the flask is placed on a sand bath and gently boiled for ten minutes after the first sign of ebullition is detected. A mixture of 5 c.cm. of the filtered urine and 5 c.cm. of distilled water is then poured into the flask, which is afterwards cooled in running water. The excess of acid is now neutralized by slowly adding 4 grams of lead carbonate, and, after standing for a few minutes to allow of the completion of the reaction, the urine is filtered through a moistened filter paper, and the flask washed out with 5 c.cm. of distilled water on to the filter. To the clear filtrate is now added 2 grams of powdered sodium acetate and 0.75 gram of phenylhydrazin hydrochlorate, and the mixture boiled for three to four minutes on the sand bath. The hot fluid is then poured into a test tube and allowed to cool undisturbed. After the lapse of a period, varying with the severity of the case from one to twenty-four hours, a more or less abundant flocculent yellow deposit is found at the bottom of the tube, and this, when examined under the microscope with a $\frac{1}{6}$ in. objective, is seen to consist of sheaves and rosettes of golden yellow crystals. As the presence of sugar in the urine would obviously vitiate the results thus obtained, it is necessary before proceeding to the test to make sure that the untreated urine does not give a reaction with phenylhydrazin. This may roughly be done with Fehling's solution or some similar test, but it is better to carry out a control experiment with phenylhydrazin hydrochlorate and sodium acetate in the manner I have just described, omitting the preliminary boiling with hydrochloric acid. Should the control experiment reveal even a trace of sugar it must be removed by fermentation, with subsequent boiling to expel the alcohol formed, before the investigation is proceeded with. The presence of albumen in the urine is also liable to cause trouble, and it is best got rid of,

either by treatment with ammonium sulphate, or by acidifying with acetic acid, heating, and filtering.

The results obtained by this method were found not to be absolutely reliable, although a useful aid in diagnosis, since a positive reaction was also obtained in patients suffering from certain other diseases where active tissue change was taking place, such as cancer, adenitis, pneumonia, etc. For a long time the positive reaction given by these non-pancreatic cases diminished the practical usefulness of the test, but eventually a means by which the pancreatitis cases might be distinguished was devised, and we now believe that by combining the results of the two it is possible in the large majority of cases to make a reliable diagnosis from the examination of the urine alone. The differentiating test depends upon the fact that the formation of the crystals described in reaction "A" is interfered with in inflammation of the pancreas by a preliminary treatment of the urine with perchloride of mercury, while such treatment does not affect the appearance of the crystals in cases of cancer of the pancreas and the other conditions which give rise to a positive reaction. The procedure, which I shall refer to as the "B" reaction, is as follows:

Twenty c.cm. of the filtered urine is thoroughly mixed with half its bulk of a saturated solution of perchloride of mercury. After standing for a few minutes it is carefully filtered and to 10 c.cm. of the filtrate 1 c.cm. of strong hydrochloric acid is added. The mixture is then boiled for ten minutes on a sand bath, and subsequently diluted with 5 c.cm. of the filtrate from the mixed urine and perchloride of mercury solution, and 10 c.cm. of distilled water. After cooling it is neutralized with 4 grams of lead carbonate and the succeeding stages of the operation carried out as in reaction "A."

Experiments were next set on foot with a view still further to differentiate the various forms of disease to which the pancreas is liable, especially chronic inflammation and malignant disease, for as I have already mentioned the accurate diagnosis of these two conditions is a matter of the utmost importance to the patient. Careful observation of the crystals isolated from the urines of various types of pancreatic disease showed that while there was a general resemblance, variations in form occurred. On classifying the crystals from a considerable number of cases it was found that those obtained in malignant disease were as a rule coarser and broader than those seen in simple inflammation, and that in the simple inflammations again the crystals from acute cases were, on the whole, somewhat finer than those seen in most instances of chronic inflammation. The lines dividing these types were not hard and fast, however, and although to the experienced eye a suggestive difference was discernible, great reliance could not be placed on a differential diagnosis based on the microscopical characters of the crystals alone. In the course of our further investigations a character of much greater value was discovered, and this was the differing rate of solubility of the crystals in dilute sulphuric acid. It was at first thought that this difference depended on the varying size of the crystals, but more extended experience proved that this was not the case: for although the coarser crystals took as a rule longer completely to dissolve than the finer ones, exceptions were met with and the time of solution appeared to be directly dependent on the intensity of the inflammatory changes in the gland.

If the crystals obtained in reaction "A" be observed under the microscope whilst a one in three dilution of strong sulphuric acid is being irrigated under the cover-glass, they will be seen to turn brown when the acid reaches them, and then to dissolve. In acute pancreatitis the interval which elapses between the first appearance of the brown colour and the complete solution of the crystals under observation varies from a few seconds to half or three-quarters of a minute; in chronic pancreatitis it extends from half to one and a-half or rarely to two minutes; while the crystals of malignant disease as a rule do not completely disappear for from three to five minutes. To form a reliable opinion, it is advisable to take the mean of several observations, so that slight variations unavoidably present in the conditions of the experiment may be neutralized and comparable results obtained. The crystals met with in non-pancreatic cases turn brown and dissolve in dilute sulphuric acid in a similar way to those obtained in pancreatic affections, and they most closely resemble those of chronic pancreatitis in their time of solution, which generally ranges round one minute. Phenylglucosazone crystals, with the strength of acid mentioned, only slowly assume the brown coloration, and take five minutes or more to dissolve.

The time limits mentioned are the result of the comparison of a large number of observations, and will as a rule be found to be correct. The exceptions, which are in most instances cases of malignant disease of the pancreas, I shall consider in detail when dealing with the examinations I have made of specimens from cancer cases. The practical results of the examination of the urine by the methods I have described may be briefly summarized as follows:

1. If no crystals are found by either the "A" or the "B" method, the pancreas is not at fault, and some other explanation of the symptoms must be sought.

2. If crystals are obtained by the "A" method, but not by the "B" reaction, active inflammation of the pancreas is present and surgical interference is generally indicated.

(*a*) The crystals obtained by the "A" method will in acute inflammation dissolve in 33 per cent. sulphuric acid in about half a minute.

(*b*) In chronic inflammation the crystals obtained by the "A" method will take one or two minutes to disappear.

3. If crystals are found in preparations made by both the "A" and the "B" methods there may be:

(*a*) Malignant disease of the pancreas, when the crystals will, as a rule, take three to five minutes to dissolve, and operation is inadvisable.

(*b*) A damaged pancreas due to past pancreatitis, when the crystals will dissolve in one to two minutes.

(*c*) Some disease not connected with the pancreas, when the crystals dissolve in about one minute.

In the two latter—(*b*) and (*c*)—the urgency of the symptoms and the condition of the patient must decide the need for an exploratory incision, but there is generally not much difficulty in referring the case to one or other of the groups when the clinical history is considered in conjunction with the result of the examination of the urine.

Other aspects of the examination of the urine in diseases of the pancreas may now be mentioned. The most important of these from a diagnostic point of view is the microscopical investigation of the centrifugalized deposit. This in nearly 30 per cent. of the specimens from cases of pancreatic inflammation that I have examined has shown calcium oxalate crystals, and if those urines in which bile was present be excluded, the proportion is more than doubled. The significance of oxalate of lime crystals has long been debated, but the marked tendency to increased oxalate excretion in diabetes and its frequent rise simultaneously with a decrease in the output of sugar has suggested that it is associated with the incomplete oxidation of carbohydrates. The remarkably frequent occurrence of these crystals in pancreatitis lends support to this view, for it is only in the comparatively early stages of the lesion that they are found; and when, as sometimes occurs, the disease progresses and glycosuria occurs, the formation of calcium oxalate appears to cease. Further, their presence seems to indicate that a stage antecedent to diabetes, and closely related to it, is reached in most cases of pancreatic inflammation, whether they ultimately develop into the typical condition or not.

Dextrose has only been met with in a very few of the urines examined, and in all instances where it has been detected the case had been either one of acute inflammation or advanced cirrhosis of the pancreas. The ordinary forms of infective subacute and chronic inflammation do not appear to give rise to dextrosuria in the stages where they come under the observation of the surgeon.

As Kulz and Vogel have detected a pentose in the urine in diabetes, and Hammarsten has demonstrated a similar substance in a nucleoproteid obtained from the pancreas, the possibility of pentoses being present in the urine in pancreatitis had to be borne in mind, but I have been unable to experimentally verify the fact.

Acetone and diacetic acid were also sought for in a considerable number of cases, but no evidence of their presence could be found, excepting in a few instances of advanced pancreatitis with typical diabetes.

In view of the fact that inflammation of the pancreas is in a considerable number of cases associated with more or less jaundice, it is not surprising to find that bile pigments were discovered in 60 per cent. of the urines examined. In some only a faint trace was detected with difficulty, while in others there was a very large quantity. All the specimens but one derived from cases of malignant disease of the pancreas showed a considerable amount of bile in the urine. No special significance can be attached to the quantity present, as in many cases with chronic catarrh the urine is as deeply

coloured as it is in most cases of malignant disease. The removal of any obstruction of the common duct that may exist is generally followed very shortly by the disappearance of bile from the urine, but in a few cases where the condition is of long standing, bile pigments may be found, although in much diminished quantity, several weeks, or even months, after the operation.

In the course of our observations over 300 specimens of urine have been investigated, but of these about 100 were only employed as controls. The remainder may be divided into an earlier series, on which the preliminary investigations were carried out, and a succeeding series of 170 specimens derived from 111 cases of suspected pancreatic disease where the diagnostic value of the methods described were put to the test.

As I have already sketched the lines along which the investigation proceeded it will not be necessary to refer further to the first series, excepting to state that all the cases were under Mr. Mayo Robson's care and had been found at operation to be suffering from some disease of the pancreas.

In the second series specimens of urine were sent to the laboratory for examination without any indication as to the nature of the report expected, and in many of the earlier ones the condition of the pancreas was ascertained while the examination was being made. By thus separating the clinical and experimental investigations any unconscious bias on the part of the surgeon or the pathologist was avoided, and a true estimate of the reliability of the tests formed.

Scientific Grants Committee

OF THE

British Medical Association.

REPORT LXXXII.

ON THE ADAPTATION OF THE PANCREAS.*

By F. A. BAINBRIDGE, M.A., M.R.C.P.,

Research Scholar to the British Medical Association.
(From the Physiological Laboratory, University College, London).

I. Introduction.

The brilliant investigations of Pawlow and his pupils have greatly extended the range of physiological knowledge of the normal mechanism of gastric and pancreatic secretion. One of their most interesting discoveries has been the observation that the pancreas, like most other organs of the body, possesses the power of adaptation to varying conditions, and that the composition of pancreatic juice is not constant, but can be modified by different diets, particularly with respect to the amounts of the enzymes which it contains. Pawlow's work has been dominated throughout by the conception that pancreatic secretion is controlled entirely by a nervous mechanism, whose efferent fibres run in the vagus, and whose afferent fibres have their origin in the duodenal mucous membrane. This view naturally led him to the supposition that the adaptation of the pancreas was also dependent on a nervous mechanism, and Pawlow holds that the intestinal mucosa contains nerve-endings which have a specific excitability, such that they react only to the stimulus of definite substances and call forth a secretion of the pancreas in a specific fashion. Fat, for example, stimulates certain nerve endings in the intestinal mucous membrane, thereby evoking the secretion of steapsin in large amount by the pancreas.

However, the recent work of Bayliss and Starling on secretin has shown that pancreatic secretion does not depend upon a nervous reflex action, but is normally provoked by a chemical substance—secretin—acting as a specific stimulus to the cells of the pancreas. The discovery of secretin has not merely rendered it possible to study the work of the pancreas without recourse to the production of a permanent fistula; it has proved that Pawlow's interpretation of his own results can no longer be accepted. Moreover, the fact that the normal mechanism of pancreatic secretion is chemical naturally raises the question as to the nature of the adaptation of the pancreas to food, and throws doubt on the nervous theory maintained by Walther the results of an investigation of this subject are embodied in the present thesis.

The majority of the observations on the adaptation of the pancreas have been made on the enzymes normally present in pancreatic juice, and considerable difficulties arise in the estimation of the amount of enzyme formed in response to different diets, since the amount of enzyme secreted varies inversely with the rate of secretion of juice, and the rate of secretion is different for each food stuff. For this and other reasons it was found more satisfactory to follow Weinland and work with lactase, which converts lactose into galactose and dextrose. This enzyme is absent from the pancreatic juice of adult dogs, though it is present in extracts of the pancreas of most young animals; consequently, the mere appearance even in small amount of lactase in pancreatic juice as the result of a diet containing lactose furnishes conclusive evidence of adaptation on the part of the pancreas. Moreover, lactose has the advantage of being a normal article of food in early life, and can be readily added to or excluded from the diet of animals.

Historical.

The investigations of Weinland not only furnish an important contribution to our knowledge of lactase, but supply convincing evidence that adaptation of the pancreas does occur. Weinland used chloroform-water extracts of the pancreas (of dogs), added a known quantity of lactose, and also toluol, and kept the mixture at 37° for twenty-four hours. The solution was then acidified and boiled, and the proteids removed by means of potassio-mercuric iodide; the clear filtrate was examined polarimetrically.

He found that, with one or two exceptions, the pancreas of dogs fed on a diet free from milk contained no lactase. On the other hand, extracts of the pancreas of dogs fed for several days on milk, sometimes with the addition of lactose, invariably contained lactase in considerable amount; in some experiments he obtained conversion of 50 per cent. of the lactose added to the pancreatic extract. In one experiment an extract of the pancreas of three sucking puppies three weeks old contained lactase.

In a second paper Weinland attempted to ascertain how a milk diet caused the formation of lactase by the pancreas. He found that the pancreas of dogs fed on meat, with the addition of milk-sugar, contained lactase, whereas lactose injected subcutaneously for several days in succession was ineffective. He also fed a dog for several days on meat, with the addition of galactose, but found no lactase in the pancreatic extracts. From these experiments Weinland concluded that the formation of lactase was not dependent on any direct chemical action exerted by lactose or its products on the pancreas; he therefore accepted the view that the adaptation of the pancreas to milk-sugar was brought about by a nervous mechanism.

Methods.

The discovery of secretin has made it possible to obtain pure pancreatic juice in large quantities; and the majority of my observations have been made with pancreatic juice. Occasionally chloroform-water extracts of the pancreas were used. The animals used were almost invariably dogs; a few experiments were made on cats. They were fed either on milk or on biscuits. The dogs fed on milk received about two pints of milk daily for two or three weeks as a rule, sometimes for as long as two months. In some experiments 1 oz. of pure lactose was added to the milk each day for a week. The animals were kept without food during the twenty-four hours preceding an experiment, in order that the pancreas might be in a "resting" condition.

At the beginning of each experiment one-half to 1 gr. of morphine was given subcutaneously and the animal was anæsthetised with A.C.E. mixture. The abdomen was opened, a small metal cannula was placed in the main pancreatic duct, and the abdomen was then closed by ligatures or clips. A cannula was also placed in the jugular vein for the purpose of injecting secretin. As a rule, the blood pressure was not taken. A certain amount of pancreatic juice was collected, and then the animal was killed while still anæsthetised.

When an extract of the intestine was made the gut was opened and washed with water; the mucous membrane was scraped off, ground up with sand in a mortar, and extracted with chloroform water and filtered through muslin. If the extract was to be used for injection into animals no further filtration was made; but if the presence of enzymes was being investigated the extract was

* This paper forms part of a thesis approved for the degree of Doctor of Science of the University of London, and partly submitted to the Royal Medical and Chirurgical Society.

also filtered through filter paper. Extracts of the pancreas were made in a similar manner.

Great care was taken throughout the course of the research to prevent any dogs from having milk, unless they were on a milk diet. The biscuit-fed and milk-fed dogs were kept in separate compartments, and it was impossible for the biscuit dogs to obtain any milk.

The occurrence and degree of conversion of lactose into galactose and dextrose by the enzyme lactase was estimated volumetrically with Pavy's solution in all the experiments. This method has been shown by Croft Hill to be extremely accurate, provided that the experimental conditions are kept uniform, and I have found that it yields very constant and reliable results. In a considerable number of experiments this method was checked and the results controlled by the preparation of osazones and by the fermentation method.

RESULTS.

I.—*The Reaction of the Pancreas to a Milk Diet.*

In the first place a number of experiments were made on adult dogs fed on biscuits. The pancreatic juice from such dogs never contained lactase.

TABLE I.—*Pancreatic Juice of Biscuit-fed Dogs. (The figures represent the number of c.cm. of the solution, which reduced 50 c.cm. Pavy's solution.)*

Experiment.	Pure Lactose Solution.	Control. Lactose + Boiled Juice.	Lactose + Panc. Juice Incubated at 37°.
VI.	[illegible] c.cm.	–	6.50 c.cm.
VII.	7.50 c.cm.		7.50 c.cm.
VIII.	8.35 c.cm.		8.35 c.cm.

In the next place, adult dogs were fed solely on milk for periods varying from two weeks to two months in different experiments. When the milk diet was only given for a short time (say a fortnight) lactose was sometimes added to the milk, an ounce of lactose being added daily for a week. The pancreatic juice was then collected in the usual way and examined for lactase, which was found to be present in every case.

TABLE II.—*Action of the Pancreatic Juice of Milk-fed Dogs on Lactose. (The figures represent the number of c.cm. of lactose solution which reduced 50 c.cm. of Pavy's solution.)*

Experiment.	Duration of Feeding on Milk.	Lactose Solution.	Control Lactose + Boiled Juice.	Lactose + Panc. Juice.	Degree of Conversion.
					Per Cent.
I.	1 month	5.5 c.cm.	–	[illegible] c.cm.	20.0
II.	2 weeks milk + 8 oz. lactose	7.3 c.cm.	[illegible] c.cm.	[illegible] c.cm.	[illegible]
III.	1 month	[illegible] c.cm.	–	8.8 c.cm.	14
IV.	2 weeks	[illegible] c.cm.		[illegible] c.cm.	[illegible]

In the experiments given in Table II, Pavy's method was controlled by the preparation of osazones and by the fermentation method. Both these methods yielded positive results in each case.

In a certain number of experiments the pancreatic extracts of young suckling puppies and kittens were examined and were found to contain lactase; and there is every reason to suppose that lactase is a normal constituent of the pancreatic juice of young animals, and gradually disappears when they cease to live on a milk diet.

These experiments show clearly that lactase is absent from the pancreatic juice of adult dogs, unless they are fed on a milk diet, when it invariably makes its appearance in the juice. They furnish satisfactory evidence that the pancreas does adapt itself to differences of diet by modifying the composition of its secretion as regards the enzymes: and probably the formation of lactase in response to a milk diet may be taken as typical of the reaction of the pancreas to all forms of food.

II.—*The Specific Nature of the Reaction.*

I have made a number of experiments with extracts of the mucous membrane of the small intestine of dogs, usually comparing it simultaneously with pancreatic extracts or juice from the same animal. Some experiments were also made with the alimentary mucous membrane of puppies and kittens and one calf. In all cases lactase was present even in adult dogs fed on biscuits. One or two observations were made on the mucous membrane of milk-fed dogs, but the amount of lactase was not noticeably larger than in biscuit dogs.

The question whether lactase passed from the duodenum into the blood stream, and was simply picked out and secreted by the pancreas had therefore to be considered. The fact that no lactase occurs in the pancreatic juice of biscuit-fed dogs, although it is abundant in the intestinal mucous membrane is strongly opposed to such a view. But it seemed possible that on a milk diet the amount of lactase in the mucous membrane might be increased to such an extent that some ferment entered the blood stream and appeared in the pancreatic juice. However, this does not occur as is shown by two sets of experiments.

In the first place, extracts of the intestinal mucous membrane of biscuit-fed dogs were injected subcutaneously into other biscuit-fed dogs on one or more days in succession. The juice of the latter was then collected and examined for lactase, but invariably with a negative result. Such extracts always contained lactase, and in all probability the enzyme entered the circulation; yet the pancreas did not pick it out of the blood and secrete it in the juice.

In a second set of experiments, pancreatic juice from milk-fed dogs, and therefore containing lactase, was injected subcutaneously into a biscuit dog, and on the following day the juice of the latter was collected and examined; in such experiments, the pancreatic juice of the injected dog contained no lactase.

From the results of these experiments it may be concluded that the lactase of the pancreas is not derived from the lactase of the intestinal mucous membrane, but is formed by the pancreas itself in response to a milk diet. On *a priori* grounds one would naturally expect that lactose was the particular constituent of milk, which actually evoked the production of lactase by the pancreas. This has been shown to be the case by Weinland, who fed a dog for some days on biscuits and lactose only, and found that the pancreas contained lactase. Weinland suggested the possibility that the production of lactase might be due not directly to the milk sugar, but to the products of the conversion of milk sugar. It is obvious that dextrose has no influence on the formation of lactase, and Weinland showed by experiment that galactose given by the mouth was quite ineffective. I have confirmed his observation as regards galactose.

There is therefore no doubt that lactose itself is the particular contituent of milk which leads to the production of lactase by the pancreas: but a further point of great importance must be discussed. Weinland raised the question as to whether lactose was absorbed as such from the intestinal canal into the circulation, and exerted a direct influence on the pancreas, or whether it only acted indirectly. In order to decide this point he injected lactose subcutaneously into a dog for several days, keeping the animal during that period on a diet free from milk; he found that the extract of the pancreas contained no lactase. I have confirmed this observation, which demonstrates very clearly that lactose, when introduced into the circulation, has no direct action on the pancreas, but is only effective in producing lactase when given by the mouth. Such a result is entirely in harmony with the facts that lactose introduced into the circulation is rapidly eliminated by the kidneys, and that it is not normally present in appreciable quantity in the blood.

Consequently, the formation of lactase by the pancreas is a specific reaction to a diet containing lactose, a reaction which takes place only when lactose is given by the mouth.

III.—*The Influence of Secretin.*

The important part played by the intestinal mucous membrane in the adaptation of the pancreas to food was recognized by Vassiliew and Walther, and was still more strongly emphasized by Weinland, to whose experiments reference has just been made. All these observers, however, considered that the mechanism of adaptation was purely nervous, and, apart from one or two experiments by Weinland, the possibility of a chemical mechanism was not even raised.

My first observations as to the mechanism of adaptation were made on the assumption that secretin was not a perfectly definite chemical substance, but that secretins made from animals kept on different diets might differ to some extent as regards the character of the pancreatic juice to which they gave rise. It seemed possible that variations in diet modified the kind of secretin produced, and thereby altered both the nature of the chemical stimulus reaching the pancreas and the characters of the juice secreted.

Secretin made in the ordinary way from the duodenal mucous membrane of milk-fed dogs was injected into biscuit dogs, and the pancreatic juice of the latter was collected and examined for lactase. The results, however, were entirely negative. Negative results were also obtained when the mucous membrane was incubated with solutions of lactose, or partially converted lactose, for some hours before making the secretin. Secretin from a milk dog was injected subcutaneously into a biscuit dog on two successive days, and the pancreatic juice of the latter collected; it also contained no lactase.

Finally, it was found that when secretin from biscuit-fed dogs was injected into milk-fed dogs, the juice of the latter contained lactase as usual. There is therefore, absolutely no evidence that secretin takes any part in the adaptation of the pancreas to food. On the contrary, the facts show that the action of secretin is always the same: it stimulates the pancreas to secrete a juice containing all the enzymes present in the gland at that moment. The amount and nature of the ferments, which are present in and secreted by the pancreas at any moment depend not on the action of secretin, but on the previous diet of the animal and are quite independent of secretin. This view is fully in accordance with the conclusions arrived at by Bayliss and Starling as to the chemical nature of secretin.

IV. *The Mechanism by which Adaptation is Effected.*

An attempt was next made to determine whether unboiled extracts of the intestinal mucous membrane had any influence on the production of lactase. Extracts of the small intestine were made from milk-fed dogs and from biscuit dogs. In both cases some lactose was thoroughly mixed with the extract, the mixture allowed to stand for twenty-four to thirty-six hours in the cold, and then filtered through muslin. Such an extract was injected intravenously into a biscuit dog, and after waiting for an hour or two ordinary secretin was injected and pancreatic juice collected. These experiments also yielded negative results.

It then occurred to me that even if the formation of lactase were due to a chemical stimulus arising in the intestinal mucous membrane, the methods of experiment just described did not allow sufficient time for the pancreas to manufacture an enzyme which was not normally present in the juice of adult dogs. Consequently I made chloroform-water extracts of the entire mucous membrane of the small intestine of several kittens fed only on milk, and injected such extracts subcutaneously for two days in succession into a biscuit dog. The pancreatic juice of the latter was then collected and examined for lactase. In subsequent experiments the intestine of milk-fed dogs was used for making the extracts; with two exceptions, the pancreatic juice of the injected dog invariably contained lactase. As a rule, two injections only were given on two successive days, the dog being anæsthetized and the juice collected on the third day. The extracts were made with as little water as possible, and the bulk of the extract (1 c.c.) could be injected in each experiment. In spite of the inevitable presence of micro-organisms in such extracts the chloroform seemed to inhibit their growth, and the dogs showed no signs of infection or illness except in two cases in which injections were made on five days in succession. In these two cases the dogs were unwell, although the local inflammatory reaction was not severe; and these were the only experiments in which the results were negative.

In several experiments Pavy's method was controlled by the fermentation and copper methods, which gave confirmatory results.

Table III. *Pancreatic Juice of Animals Injected with Extract of the Intestinal Mucous Membrane of Milk-fed Dogs.*

Experiment.	Secretin.	Time of collection.	Quantity of juice.	Lactase.
1.	Milk dog.	1 hour.	1·5 c.c.	+
2.	Milk dog.	1 hour.	1·5 c.c.	+
3.	Milk dog.	1 hour.	1·5 c.c.	+
4.	Milk dog.	1 hour.	1·5 c.c.	+
5.	Milk dog.	1 hour.	1·5 c.c.	+
6.	Milk dog.	1 hour.	1·5 c.c.	+
7.	Milk dog.	1 hour.	1·5 c.c.	+
8.	Milk dog.	1 hour.	1·5 c.c.	+
9.	Milk dog.	1 hour.	1·5 c.c.	+
10.	Milk dog.	1 hour.	1·5 c.c.	+
11.	Milk dog.	1 hour.	1·5 c.c.	+
12.	Milk dog.	1 hour.	1·5 c.c.	+
13.	Milk dog.	1 hour.	1·5 c.c.	+
14.	Milk dog.	1 hour.	1·5 c.c.	+
15.	Milk dog.	1 hour.	1·5 c.c.	+
16.	Milk dog.	1 hour.	1·5 c.c.	+
17.	Milk dog.	1 hour.	1·5 c.c.	+
18.	Milk dog.	1 hour.	1·5 c.c.	+
19.	Milk dog.	1 hour.	1·5 c.c.	+
20.	Milk dog.	1 hour.	1·5 c.c.	+
21.	Milk dog.	1 hour.	1·5 c.c.	+
22.	Milk dog.	1 hour.	1·5 c.c.	+
23.	Milk dog.	1 hour.	1·5 c.c.	+
24.	Milk dog.	1 hour.	1·5 c.c.	+
25.	Milk dog.	1 hour.	1·5 c.c.	+
26.	Milk dog.	1 hour.	1·5 c.c.	+
27.	Milk dog.	1 hour.	1·5 c.c.	+
28.	Milk dog.	1 hour.	1·5 c.c.	+
29.	Milk dog.	1 hour.	1·5 c.c.	+
30.	Milk dog.	1 hour.	1·5 c.c.	+
31.	Milk dog.	1 hour.	1·5 c.c.	+
32.	Milk dog.	1 hour.	1·5 c.c.	+
33.	Milk dog.	1 hour.	1·5 c.c.	+
34.	Milk dog.	1 hour.	1·5 c.c.	+
35.	Milk dog.	1 hour.	1·5 c.c.	+
36.	Milk dog.	1 hour.	1·5 c.c.	+
37.	Milk dog.	1 hour.	1·5 c.c.	+
38.	Milk dog.	1 hour.	1·5 c.c.	+
39.	Milk dog.	1 hour.	1·5 c.c.	+
40.	Milk dog.	1 hour.	1·5 c.c.	+
41.	Milk dog.	1 hour.	1·5 c.c.	+
42.	Milk dog.	1 hour.	1·5 c.c.	+
43.	Milk dog.	1 hour.	1·5 c.c.	+
44.	Milk dog.	1 hour.	1·5 c.c.	+
45.	Milk dog.	1 hour.	1·5 c.c.	+
46.	Milk dog.	1 hour.	1·5 c.c.	+
47.	Milk dog.	1 hour.	1·5 c.c.	+
48.	Milk dog.	1 hour.	1·5 c.c.	+
49.	Milk dog.	1 hour.	1·5 c.c.	+
50.	Milk dog.	1 hour.	1·5 c.c.	+
51.	Milk dog.	1 hour.	1·5 c.c.	+
52.	Milk dog.	1 hour.	1·5 c.c.	+
53.	Milk dog.	1 hour.	1·5 c.c.	+
54.	Milk dog.	1 hour.	1·5 c.c.	+
55.	Milk dog.	1 hour.	1·5 c.c.	+
56.	Milk dog.	1 hour.	1·5 c.c.	+
57.	Milk dog.	1 hour.	1·5 c.c.	+
58.	Milk dog.	1 hour.	1·5 c.c.	+
59.	Milk dog.	1 hour.	1·5 c.c.	+
60.	Milk dog.	1 hour.	1·5 c.c.	+
61.	Milk dog.	1 hour.	1·5 c.c.	+
62.	Milk dog.	1 hour.	1·5 c.c.	+
63.	Milk dog.	1 hour.	1·5 c.c.	+
64.	Milk dog.	1 hour.	1·5 c.c.	+
65.	Milk dog.	1 hour.	1·5 c.c.	+
66.	Milk dog.	1 hour.	1·5 c.c.	+
67.	Milk dog.	1 hour.	1·5 c.c.	+
68.	Milk dog.	1 hour.	1·5 c.c.	+
69.	Milk dog.	1 hour.	1·5 c.c.	+
70.	Milk dog.	1 hour.	1·5 c.c.	+
71.	Milk dog.	1 hour.	1·5 c.c.	+
72.	Milk dog.	1 hour.	1·5 c.c.	+
73.	Milk dog.	1 hour.	1·5 c.c.	+
74.	Milk dog.	1 hour.	1·5 c.c.	+
75.	Milk dog.	1 hour.	1·5 c.c.	+
76.	Milk dog.	1 hour.	1·5 c.c.	+
77.	Milk dog.	1 hour.	1·5 c.c.	+
78.	Milk dog.	1 hour.	1·5 c.c.	+
79.	Milk dog.	1 hour.	1·5 c.c.	+
80.	Milk dog.	1 hour.	1·5 c.c.	+
81.	Milk dog.	1 hour.	1·5 c.c.	+
82.	Milk dog.	1 hour.	1·5 c.c.	+
83.	Milk dog.	1 hour.	1·5 c.c.	+
84.	Milk dog.	1 hour.	1·5 c.c.	+
85.	Milk dog.	1 hour.	1·5 c.c.	+
86.	Milk dog.	1 hour.	1·5 c.c.	+
87.	Milk dog.	1 hour.	1·5 c.c.	+
88.	Milk dog.	1 hour.	1·5 c.c.	+
89.	Milk dog.	1 hour.	1·5 c.c.	+
90.	Milk dog.	1 hour.	1·5 c.c.	+
91.	Milk dog.	1 hour.	1·5 c.c.	+
92.	Milk dog.	1 hour.	1·5 c.c.	+
93.	Milk dog.	1 hour.	1·5 c.c.	+
94.	Milk dog.	1 hour.	1·5 c.c.	+
95.	Milk dog.	1 hour.	1·5 c.c.	+
96.	Milk dog.	1 hour.	1·5 c.c.	+
97.	Milk dog.	1 hour.	1·5 c.c.	+
98.	Milk dog.	1 hour.	1·5 c.c.	+
99.	Milk dog.	1 hour.	1·5 c.c.	+
100.	Milk dog.	1 hour.	1·5 c.c.	+

In the last two experiments were those in which the dogs received four and five injections respectively, and were not in a normal condition.

Although the degree of inversion produced in these experiments is not large, yet in some of them it is as large as that obtained with the juice of milk-fed dogs. Moreover, the constancy of the positive results gives them an additional reliability, particularly as this was the only means apart from a milk diet by which the appearance of lactase in pancreatic juice could be produced; the other methods used yielded uniformly negative results. In addition, the difficulty of obtaining sterile extracts of the mucous membrane limits the number of injections which can be made, and consequently, it is impossible to obtain a marked cumulative effect on the pancreas. It is very probable that the most satisfactory mode of treating the mucous membrane has yet to be found, but beyond the fact that the action of the extract is destroyed by boiling and by standing for some days, nothing has been ascertained in regard to it. Moreover, the actual amount of ferment formed is of little importance, since the appearance of enzyme even in small amount is quite sufficient evidence that adaptation has taken place.

The experiments described in an earlier section seem to me to negative the possibility that the lactase secreted by the pancreas is in any way derived from the lactase present in the extracts used for injection. It must therefore be concluded that extracts of the intestinal mucous membrane of milk-fed dogs contain some substance which stimulates the pancreas to produce lactase. This substance, which is only formed in the mucous membrane as the result of a diet containing lactose, is normally carried in the circulation to the pancreas, upon which it exerts a specific action, giving rise to the formation of lactase by the latter. The nature of this substance is as yet absolutely unknown. The process presents an obvious analogy to the action of secretin, but it is more complex in that it evokes the production of a new ferment, whereas secretin merely causes the secretion of pre-existing ferments.

The production of lactase by the pancreas as a result of the subcutaneous injection of intestinal extracts made from milk-fed dogs conclusively shows that adaptation is not invariably dependent on a nervous reflex originating in the duodenal mucosa, since the adaptation may be produced in a dog to which no lactose at all has been given.

Moreover, if lactose is injected into the duodenum of a dog during life and left there for some hours, no lactase is present in the pancreatic juice subsequently collected from that dog. I made several such experiments, all of which yielded negative results.

On the ground of these experiments, I hold that the adaptation of the pancreas to a diet containing lactose is brought about by a chemical mechanism: by the action of lactose on the intestinal mucous membrane some substance is produced which acts as a specific chemical stimulus to the pancreas, causing it to form lactase. The reaction is produced slowly, and reaches its maximum gradually.

The existence of a chemical mechanism for the adaptation of the pancreas is merely a natural corollary to the chemical mechanism of normal pancreatic secretion such as it was the discovery of secretin which provided the means of carrying out these experiments, and indicated the lines along which investigations should be made. But the mechanism, though both are chemical, is not exactly the same in nature, the stimulus of secretin calls forth an immediate response on the part of the pancreas, whereas the specific stimulus of the intestinal cells is slower in its production and more prolonged in effect.

Hence, secretin evokes the secretion by the pancreas of all the different enzymes present in the pancreas at the time, and the relative proportion of the juices or ferments in any given case depends mainly on the previous diet of the animal, and little if at all on the nature of that part existing meal, except in so far as the nature of the food determines the amount of hydrochloric acid secreted by the stomach.

The influence of diet in modifying the nature and amount of the enzymes secreted by the pancreas has some bearing on the time of appearance of the ferments after birth. Apparently lactase is not present in the pancreas at birth, although it makes its appearance entirely within ten days, and in all probability earlier. I have made one experiment on the pancreas of a new-born child which had received no milk, and also on three puppies taken away from the mother and killed immediately after birth. In both cases extracts of the pancreas contained no lactase, although it was present in the intestinal mucous membrane of the puppies. Here, again, the secretion of lactase by the pancreas seems to respond to

the milk diet, and the presumption is that the adaptation takes place in the same way as in adult dogs. If this proves to be the case, it is possible that the same process may occur as regards the amylolytic ferment, and that the absence of this enzyme in early life is due to the lack of an adequate chemical stimulus for its secretion.

Bayliss and Starling, ... vol. xxviii, p. ...; Croft Hill, ... p. ...; Jaboulay, ...; Vassilieff, ibid., 1893; Wallner, ...; Pawlow, ... Digestion of Blood (Thompson); Weinland, ... vol. xxxviii, ... vol. xl.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF ADIPOSIS DOLOROSA (DERCUM'S DISEASE) IN A MALE.

This case, which I exhibited before the Huddersfield Medical Society on January 5th, affords many points of interest. The patient, aged 75 years, is a gentleman of independent means. The body back and front, the arms to the wrists, and the legs to the knees only, are one mass of typical lipomata. The disease began at the age of 40 years. Before each growth appeared he had an aching sensation at the spot which lasted until a shotty papule made its appearance. Some of the tumours are as big as a child's head. In fact there are representations of all stages of development. He has no pain on manipulation of the growths nor on either active or passive movement of the underlying muscles. There is not a single growth on the hands, feet, or face; this is, I believe, characteristic of this disease. There have never been any haemorrhages in connexion with the tumours. His father had the disease, and died a hale and hearty old man; one of his living sisters has the disease. Two of his sisters and one brother have been subject to fits ever since they were 10 years old. Here there seems to be a marked hereditary tendency, a point which I have not seen previously raised with regard to this disease. This gentleman is otherwise perfectly healthy. There is no sign of asthenia.

At a meeting of the Clinical Society of London, held last October (BRITISH MEDICAL JOURNAL, October 31st, 1903) Dr. Leonard Williams exhibited a case in a male, and made note of the fact that there was only one other recorded case in a male. If this is correct then the case now reported makes the third. In Professor Osler's *Medicine* he states that the disease is characterized by irregular symmetrical deposits of fatty masses in various portions of the body, preceded by or attended with pain, and that it is an affection of women, occurring at the middle period of life. In my patient the aching only preceded the appearance of each growth. Professor Osler also says that in a case of Burr's and in one of Dercum's the thyroid gland showed atrophic changes. There is evidence of no such changes in my case.

The patient has a very large scrotal hernia, and for which I was consulted in the first instance, but owing to the asymmetrical condition of the buttocks and the friction caused by the growths I cannot get a truss to act.

Slaithwaite, Huddersfield. MARTIN J. CHEVERS.

THE TENDON REFLEXES IN URAEMIA.

DR. MITCHELL STEVENS'S note on the condition of the deep reflexes in some cases of acute uraemia emphasizes a point which is well worthy of clinical recognition. The remarkable exaggeration of reflexes which he has noted is not limited to acute cases, but may also occasionally occur in cases of chronic uraemia also. The differential diagnosis is then peculiarly difficult.

My attention has been directed to these alterations in the reflexes since 1892, and my connexion with St. Thomas's Hospital has afforded me many opportunities of observing the phenomenon. In the *St. Thomas's Hospital Reports* for 1896 I published a short paper dealing with the subject, and my later experience has only served to corroborate the conclusions there formulated.

I cannot, however, attach much weight to the value of the symptoms in the differential diagnosis of such cases as Dr. Stevens mentions. Increase of the reflexes in the earlier stages of certain cases of cerebral haemorrhage, and also in other convulsive affections, is not very rare. In the earlier stages of cerebral embolism it is remarkably common. In all these conditions it may be bilateral.

The note also suggests another point—that of the use of morphine in uraemic states. I am inclined to think that the dangers of the use of morphine in convulsive and maniacal uraemia are exaggerated. I should say that, judiciously used, it is of almost equal value with venesection. I am certain, however, that its danger in comatose uraemia is very real.

London, W. CHARLES R. BOX, M.D.

ADRENALIN IN PULMONARY HAEMOPTYSIS.

A REPORT of the successful administration of the above preparation in haemoptysis by Dr. Arthur C. Bird, of Sidmouth, in September last, which appeared in the BRITISH MEDICAL JOURNAL of January 23rd, reminds me of a like success which followed immediately the administration of two suprarenal tabloids (Burroughs, Wellcome, and Co.), in a case under my observation in March, 1902.

In the early part of that month a young man, whose father had some time previously succumbed to phthisis, suddenly suffered from a somewhat alarming attack of haemoptysis. The usual methods were adopted with a view to control the bleeding, such as absolute rest, the application of ice over the apex, the internal treatment by gallic acid, ergot, hamamelis, turpentine, and small doses of morphine to allay the cough, but all with not much success, as fresh bleeding seemed to recur, when it occurred to me to try the suprarenal extract. I gave four of the tabloids, directing that one was to be crushed, placed on the tongue, and washed down by means of a little water, a second to be taken likewise in four hours. After the second tabloid the bleeding entirely ceased. In a few weeks the patient had sufficiently recovered to resume his out-of-door employment, and on only one occasion since has there been any return of the haemoptysis, for which he immediately took, as before, a couple of the tabloids, which he asked me to let him have in his possession.

He always now keeps a couple of the tabloids in case of emergency, being convinced of their great efficiency. I have also found the tabloids most effective in a persistent case of epistaxis which baffled usual treatment.

Liverpool. O. BOWEN, M.R.C.S., etc.

RECURRENT HERPES ZOSTER.

As I have seen it stated lately that herpes zoster recurs in the same patient more frequently than is generally supposed, it may be worth while to place on record my personal experience. I have had three attacks in seven years—November, 1896, November, 1898, and June, 1903, all in South China.

The first attack was on the right side, affecting the cutaneous lateral branch of the last dorsal nerve. There were three erythematous patches, with vesicles on them later, two just below the crest of the ileum, which appeared first and were also the largest, the third on the abdomen just above the groin. The inguinal glands were swollen and painful. There was the usual smarting pain, and the scars of the vesicles were visible for many months afterwards.

The second attack, in November, 1898, showed itself by an erythematous patch about an inch above the left elbow-joint on the ulnar side: there were ten or twelve papules, of which two first, and afterwards all, became vesicular. In the axilla was a smaller patch. Next day a large patch was observed on the back, midway between the spine and axilla, and just under the spine of the scapula three patches in all. The pain was slight. The lesion was connected with the second dorsal nerve. I had been taking small doses of arsenic and nux vomica for a week. On the appearance of the herpes arsenic was discontinued. The third attack in May, 1903, was of the terminal branches of the first and second divisions of the trigeminal nerve on the right side, and occasioned some alarm on its appearance. On May 29th I felt a little burning pain at the outer canthus of the right eye; next day it was more painful, and the eyelid was swollen, while red streaks appeared on the forehead above the eyebrow, below the eye, in front of the tragus, and near the nose. On the third and fourth days the eye was nearly closed with moderate swelling; the surrounding skin was hot, swollen, and extremely painful if touched. A few vesicles then appearing, made the diagnosis certain. Fortunately the eyeball itself was not affected, there being only slight conjunctivitis. The vesicles were all small and aborted quickly, but in November the scars left were visible, and for several days after the scabs had dried up the right eyelid still felt stiff.

The Chinese suffer from herpes zoster about as frequently as people in England; and although one or two have told me they have had a previous attack, I have not yet come across a recurring case in my practice except in my own person as detailed above.

LEOPOLD G. HILL, M.R.C.S., L.R.C.P.
Canton Mission Hospital, March 8.

A CASE OF ACUTE TRAUMATIC TETANUS.

THE following case will, I think, prove both interesting and instructive: I was called to see a boy, aged 13, who complained of pain in his back and "a stiff jaw."

The history of the case as given by the patient's mother was as follows: Eight days prior to my attendance a small rabbit bone pierced the palm of his right hand and was removed. Two days later he went to a hospital, his hand being painful and swollen. A boracic fomentation was applied and the wound healed in a day or two. Seven days after the accident, however, he complained of a pain in his back and "a stiff jaw." At 10 o'clock on the same night he went to a hospital and was examined by the medical officer on duty, who found a slight stiffness of the jaw, and prescribed a liniment with which to rub the muscles of the neck and jaw.

On examination I found the following condition: Well-marked trismus, masseters and temporals hard and contracted, abdominal and other muscles flaccid, a cold profuse sweat all over his body, tonic spasms, knee-jerks exaggerated; temperature, pulse, and respiration normal, mind clear, other conditions normal with the exception of a small dirty wound, with much induration around, on his right palm.

Having excluded hysteria, I diagnosed traumatic tetanus and sent him at once to the hospital, where he died within ten hours of admittance—that is, within forty hours of the first symptoms and eight days after the injury.

I think the case is one of interest for the following reasons: (1) The short period of incubation—seven days; (2) the short period between the first symptoms and death—forty hours; (3) the flaccidity of the abdominal and other muscles; and (4) the increased knee-jerks.

I should like to know whether the condition of the patellar reflex is usual.

London, E. CECIL JOHNSON, M.B., Ch.B.Vict.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HIGH WYCOMBE AND EARL OF BEACONSFIELD MEMORIAL COTTAGE HOSPITAL.

CASE OF VILLOUS TUMOUR OF BLADDER: SUPRAPUBIC CYSTOTOMY: RECOVERY.

(By L. W. REYNOLDS, M.R.C.S., L.S.A., assisted by J. C. W. GORDON, M.A.Cantab., M.R.C.S., L.R.C.P.)

History.—W. N., aged 60, was admitted to the hospital on September 2nd, 1902. All his relatives were said to be healthy, and there was no history of previous illnesses. In June, 1900, when lifting a heavy plank, he felt a sudden pain over the left lower abdominal region. On returning afterwards he noticed his urine was red, and ever since the urine has contained more or less blood, the blood appearing at the end of micturition, the first portion of the urine being clear. Occasionally a little blood was passed at the beginning of the act, but never any clots. At times at the end of micturition clots were passed with the blood. No pain over the bladder was experienced or any distress on walking, but sitting on a chair or other seat was uncomfortable. The area of discomfort was between the perineal pain and the scrotum and the anterior border of the anus. There was never any pain before, during, or after micturition or defæcation. The patient has been losing weight and getting thinner during the months before admission, but his appetite remained good.

State on Examination.—He was found to be of medium height, spare but fairly muscular, complaining of hæmaturia. Nothing abnormal was discovered in the heart, lungs, abdomen, or nervous system. The pulse was 84; his general condition was fair, although he was somewhat weak. Urine: On making the patient micturate into a series of three vessels blood appeared in the third vessel at the end of micturition. No increased frequency of micturition was complained of. The urine was smoky, with a dark red deposit, which contained small clots. On one occasion a whitish flake of membranous material about ¼ in. square was seen to issue from the penis at the end of micturition (this proved to be a portion of a growth: see below). Its specific gravity was 1010, and it was feebly acid. There was a trace of albumen and some leucocytes. Microscopically coffin-lid crystals of ammonio-magnesium phosphates, stellar phosphates, leucocytes, numerous red blood corpuscles, and bacilli were found. The fragment of growth was translucent with fine red streaks. Under the microscope it showed papillary tufts of varying size, and delicate capillaries filled with blood, forming loops; around the blood vessels was sparse connective tissue supporting cylindrical epithelium. These appearances were considered consistent with an anatomically benign soft or villous papilloma of bladder. Per rectum some slight prostatic enlargement was discovered, but otherwise nothing abnormal. A No. 8 silver catheter was passed, with some resistance at the neck of the bladder, into the bladder cavity. The usual smoky urine was drawn off with blood and small clot at the end of the process; on rotating the end of the instrument over the bladder wall nothing very definite could be detected in the nature of roughness or tumour.

Operation.—On September 9th suprapubic cystotomy was performed, ether being administered by Mr. G. B. Turtle for an hour and a half. The bladder having been distended with 1 in 4,000 mercuric perchloride lotion a suprapubic incision was made and the bladder opened. Scattered generally over the mucous membrane of bladder were felt several velvety prominences partially pedunculated, and two larger growths were situated in the region of the trigone. With Thompson and Guyon's forceps these various growths were removed, and the inside of the bladder was finally curetted with a sharp uterine curette. Two villous growths the size of small and large walnuts and about a dozen smaller pieces (½-in. cubes) were removed. The haemorrhage ceased after a 1 in 4,000 mercuric perchloride douche at 118° F. The upper portion of the incision into the bladder wall was united by interrupted sutures of fine silk. The upper part of the skin incision was united by interrupted sutures of silkworm gut. Into the lower angle of the wound a ½-in. indiarubber drainage tube was inserted into the bladder, and a dressing of cyanide gauze and wood wool was applied. The patient rallied well from the operation.

September 13th. Tube removed; the bladder is being washed out every day with 1-4,000 mercuric perchloride lotion.

September 17th. Stitches from the external wound removed. The wound is healed except for fistula in lower end where drainage tube was.

September 21st. Under ether the edges of the fistula were freshened and approximated by a stitch.

September 28th. Stitch removed.

October 11th. Fistula again freshened and stitched.

October 18th. Stitch removed; pinhole fistula. Urine passed naturally.

October 22nd. Dressing now keeps dry; wound completely healed. Patient's condition fair, but inclined to syncopal attacks, for which he is having strychnine hypodermically. No haemorrhage since the operation. Urine, specific gravity 1020, acid, no albumen, clear. Patient getting up an hour to an hour and a-half daily.

Since October 11th, when washing out of the bladder was discontinued, urotropine—gr. xij, t. d. s., ex aqua—has been given, and occasionally omitted for sandal-wood oil, ℥ xv.

October 28th. Patient discharged well.

The temperature did not become normal until October 4th up to then it had varied 97·2° or 98° in the morning to 99·8° or 101° in the evening. From October 5th to 14th it varied from 98·8° in the morning to 101·4° in the evening. On October 15th it became normal, and remained so.

June 15th, 1903, nine months since the operation. The patient has had no return of the haematuria he described himself this morning as "quite well."

REMARKS.—Attention may be drawn to the following points: the length of the history of haematuria and the general good condition of the patient, although anaemic; the absence of the symptom of frequency of micturition; the late age—60 years—for an apparently benign tumour. In view of the microscopical evidence of cystitis and the frequent supervention of severe cystitis and pyelonephritis after operation in such cases (1) the adoption of 1 in 4,000 lotion douches daily

until the suprapubic wound closed; (2) the administration of urotropine after the washing out of the bladder was discontinued.

SOUTHWARK INFIRMARY.

SURGICAL EMPHYSEMA SECONDARY TO TUBERCULOUS PNEUMOTHORAX.

(Under the care of P. C. P. Ingram, M.R.C.S., Second Assistant Medical Officer to the Infirmary.)

The patient was an old man of 72, the subject of chronic phthisis, who at the time he came under observation had signs of a large cavity at the apex of his right lung, and much consolidation of the rest.

He remained bedridden and in an apparently stationary condition for some weeks, until an ill-defined swelling was noticed on the upper part of his chest, which on examination was found to be due to subcutaneous (surgical) emphysema. There was no evidence of history of any injury to the chest wall, or account of any violent fit of coughing, and he seemed, in fact, unaware of its existence.

When first observed, the amount of subcutaneous tissue involved was an area from the chin to the nipple, and laterally as far as the axillae, and in the course of the next few days it gradually extended, until by the fourth day after its first appearance the anterior surface of his body, from his forehead to his knees, was distended by a varying amount. With this came increasing discomfort, and two days later he died suddenly.

Necropsy.—The subcutaneous tissue of the body was seen to be distended by air over an area extending above to the scalp and below to the knees. The amount of distension varied, being greatest over the front of the chest, where the distended tissues were over 1 in. in thickness. The right pleurae were thickened and the pleural cavity distended with air a little pus being also present, while what was left of the right lung was a tough and airless mass adherent to the lower half dozen ribs. From the pleural cavity an opening could be traced into the eparterial bronchus, which would just admit a probe. The connective tissue of the mediastinum was emphysematous. The left lung showed much compensatory emphysema, and contained a small caseous mass in its upper lobe. The trachea and larynx were normal, with no evidence of any ulceration. The liver showed some lardaceous changes, and the heart and kidneys degenerative lesions, the result of old age.

Remarks.—It is curious that no opening could be found in the parietal pleura by which the air could have got into the subcutaneous tissue. It is possible, of course, that an opening was overlooked, but it would appear to be more probable that the air got beneath the pleura at the root of the lung and then spread through the mediastinum to the root of the neck. The disorganized condition of the lung and bronchi would seem to make such a course possible. From its distribution there is no doubt that it became subcutaneous at the root of the neck, though, owing to the patient having a long beard, it was not noticed until it had spread to the upper part of the chest.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

LANCASHIRE AND CHESHIRE BRANCH.

A general meeting of this Branch was held in the Memorial Hall, Albert Square, Manchester, on March 17th, the chair being occupied by the President, Mr. Alex Hamilton (Chester), and over 200 members being present.—Dr. R. T. Williamson demonstrated the following cases of disease of the nervous system: (1) Amyotrophic lateral sclerosis; (2) Erb's paralysis of the arm: in addition to the paralysis of muscles usually affected (deltoid, biceps and supinator longus) the extensors of the fingers and wrists and the triceps were also paralysed; (3) tabes commencing at the age of 22, marked hypotonus; (4) tabes with joint affection (Charcot's joint disease), *x*-ray photograph; (5) ? hereditary tabes; (6) paralysis of the trapezius; (7) spinal syphilis, ? early stage of Erb's syphilitic paralysis; (8) cases of disseminated sclerosis.—Dr. J. Gray Clegg demonstrated the following cases of disease of the eye: (1) aberrant retinal artery; (2) separation of the retina; (3) neuro-retinitis; (4) calcareous cataract in the anterior chamber.—Mr. Southam showed the following surgical cases: (1) a case of removal of a polypoid growth from the base of the skull, after a preliminary excision of the upper jaw; (2) a case of excision of the upper jaw for a diffused osteoma.—Dr. Eugene Yonge showed, by means of Professor Meyer's demonstration apparatus for the larynx, the following cases; (1) papilloma of the larynx; (2) tuberculous laryngitis; (3) catarrhal laryngitis; (4) paralysis of the left vocal cord; (5) a case showing the method of demonstrating intralaryngeal operations to a class.—Dr. Lancashire demonstrated a series of cases of disease of the skin.—Mr. E. Stanmore Bishop read a short communication upon some unusual gall bladder appearances, referring to the following conditions: (1) adhesion of duodenum to liver; (2) cicatrized ulcer of gall bladder, producing hour-glass contraction; (3) mobile gall bladder; (4) cystic growth of gall bladder; (5) ulceration and perforation of ductus communis.—Dr. Haring read a short communication on facial erysipelatoid oedema due to intranasal lesions, and showed two illustrative cases.—Dr. T. Arthur Helme read notes of a case of puerperal convulsions in which a new method of treatment had been adopted.

SOUTH-EASTERN (IRELAND) BRANCH.

At a meeting of this Branch held at Kilkenny on March 23rd, the President in the chair, Dr. Wynne read a paper on the prevalence of tuberculosis in the South of Ireland, and also produced statistics showing the increase during the past ten years as compared to England and Scotland.—Drs. Morris (Waterford), Walsh, James, Carey, Hackett, and Mackesey having discussed various points on the subject, Dr. Wynne replied.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.

At a meeting held on March 17th Dr. Garrett Horder and Dr. Rhys successively in the chair, Dr. Mitchell Stevens read a paper on some clinical illustrations of the difficulties in diagnosis of cancer of the liver.—Mr. William Sheen described a case of revolver-bullet wound of the brain, in which the bullet lodged about 12 cm. from the point of entrance, and was removed from a depth of 6.5 cm. in the brain substance. The patient was shown.—Mr. William Martin gave an excellent demonstration of methods of localization of foreign bodies by *x* rays; (1) Webster Fox's (Philadelphia) quadrant wire localizer for foreign bodies in the eye; (2) Mackenzie Davidson's thread localizer; (3) *x*-ray photographs (lateral and antero-posterior views) of bullet in centre of brain (Mr. Sheen's case); (4) stereoscopic view of bullet in centre of brain in living subject. This, Mr. Martin stated, was as yet rare; (5) plastographic view of bullet in the brain. Mr. Martin said this was probably the first time this method had been used to give stereoscopic Roentgen pictures, and expressed the opinion that there was a future in store for it.

YORKSHIRE BRANCH.

Harrogate, Wednesday, March 9th, 1904.

J. W. Martin, M.D., in the Chair.

Cases.—Mr. Nimmo Watson (Harrogate) showed a case of splenic enlargement.—Dr. Sinclair White (Sheffield) showed an unusual specimen of prostatic enlargement, and a gall stone that had formed round a catgut ligature.—Drs. Solly and Daggett (Harrogate) read notes on a case of malignant obstruction of the oesophagus for which gastrostomy was successfully performed.

Bacteriology in General Practice.—Dr. Cammidge (Wakefield) gave a demonstration of the uses of bacteriology in general practice. After pointing out the lines along which research in histology, chemistry, bacteriology, and other branches of science had in recent years opened up new methods of accurate diagnosis, Dr. Cammidge considered in detail the chief diseases in which bacteriological methods might prove useful in practice. Anthrax, enteric fever, tuberculosis, diphtheria, actinomycosis, septicaemia, and other microbic infections were each in turn dealt with, and the distinctive characters of the particular micro-organisms concerned in each were briefly described. In connexion with diphtheria particular stress was laid on the necessity for repeated bacteriological examinations during convalescence in order that the patient should not be prematurely discharged to act as a carrier of infection. The probability of the frequent spread of typhoid fever through the urine was insisted on and the need for careful bacteriological examination before the discharge of the patient was pointed out. Reference was made to ptomaine poisoning and to the symptoms associated with the various forms of this condition. In the course of his remarks

Dr. Cammidge gave the results of his experience in the West Riding County Laboratory, where nearly 4,000 specimens had been examined for the detection of diphtheria, over 700 samples of blood had been submitted to Widal reaction, and some 1,500 examinations conducted for tubercle bacilli in sputum during the past three years. The demonstration was profusely illustrated by lantern slides, cultures, and specimens, and the large gathering of members present showed the interest the subject excited. Regret was expressed that the speedy departure of Dr. Cammidge to London would not permit of his dealing in greater detail with the subject on some future occasion.

Baths.—Dr. D'Olier Grant and others kindly showed the members round the Royal Baths and gave demonstrations of the high-frequency and light and ozone baths.

New Members.—The following gentlemen were elected members of the Association: J. Blyth, M.D. (Sheffield), A. Drury, M.B. (Halifax), W. J. Gray, L.R.C.S. (Ingleton), C. C. Oakley, M.R.C.S. (Halifax), J. H. Warrington, L.R.C.P. (Bradford), and C. R. Willans, M.B. (Cambridge).

Dinner.—The meeting closed with a vote of thanks to Dr. Gibson. After the meeting twenty-two members dined together at the Hotel Majestic.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, March 28th, 1904.

Treatment of Urinary Tuberculosis.

Mr. Henry Lenwick read a paper on this subject, in which he advocated the use of Koch's new tuberculin in cases where the mucous membrane of the bladder was alone affected by the disease. He had used this remedy since its introduction in 1890, and found that in many instances it afforded real relief to the pain in the lower urinary passages. It must not be administered unless tubercle bacilli were found in the urine by a competent observer. Its exhibition had to be carefully watched, for it was liable to light up trouble in one or other kidney latently affected by tuberculosis. In a large number of cases of urinary tuberculosis the cystoscope enabled the surgeon to decide whether the kidney was affected or not, for the chronic form of the disease was almost always unilateral, and the kidney implicated early in the course of the disorder. When the kidney was shown by the cystoscope to have a ureter ureteral canal choked by pertuberculates, he advocated its removal. A list of twenty-five nephrectomies for tubercle with one death was given. Evidence was advanced that a tuberculous kidney in a tuberculous patient could bear the stress of pregnancy. The best estimate of nephrectomy for tubercle of the kidney depended on delayed operation; the cystoscope enabled earlier interference and a more judicious alternative. Should the cystoscope show a single ulcer in the bladder the condition was ripe; it should be cut away suprapubically instead of using tuberculin. The same lines were followed in the treatment of genito-urinary tuberculosis. The affected testis, vas, and seminal vesicles could be safely and speedily removed. Should, however, the epididymis be early and widespread, or should a history of tuberculous epididymitis precede the genito-urinary trouble, it should be left alone. Tuberculin injections and tuberculin were useless, and the fact that cases of this nature consisted of hygiene, climate, and therapeutic measures.

Dr. A. E. Wright thought it was a great result that new tuberculin had been found to be on the whole satisfactory. Concerning the [illegible] the tubercle bacillus. It came into the body [illegible]. He had seen many cases of tuberculosis, including one of the urinary organs, with [illegible] and had found a distinct improvement to result. The commencement of tuberculin was accompanied by changes in the blood.

Mr. J. Swinford Edwards had had a fair number of cases of the use of tuberculin in tuberculosis of the bladder, and in all these had given it in small doses at first so that symptoms seemed to be completely [illegible]. The treatment marked a great advance. He was the opinion not to be used in the presence of a septic state of the bladder.

Mr. Parker had not found the [illegible] in such cases of advanced tuberculosis of the kidney. In doubtful cases he had seen it [illegible] symptoms. In his experience the [illegible] was usually over the trigone, and hence probably easy to remove.

Mr. Thomas Wilson referred to his extensive experience of the use of tuberculin in diseases of the bladder. In one case of early primary tuberculosis of the kidney he had seen improvement.

The President asked if a moderate degree of pulmonary tuberculosis would contraindicate its use; what was the ordinary course of other treatment, and if urinary antiseptics were used?

Mr. Henry Lenwick, in reply, said that the lungs were rarely affected in urinary tuberculosis; latterly he had used in addition guaiacol, creasote, fatty foods, etc.; there did not seem to be any indication for urotropine, santal oil seemed preferable. He preferred to excise the single ulcers, because they were of a very dense type.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, March 17th, 1904.

Radium and Therapeutic Irradiation.

Dr. Colin Campbell related two cases of tuberculous ulceration of the mouth and of the pharynx which he had treated with radium rays.

[illegible] followed by sound healing.

X Rays and Malignant Disease.

Dr. Thurstan Holland read a note on the value of x rays in the treatment of malignant disease. In a case of recurrent mammary carcinoma [illegible] a large spreading ulcer he had entirely, and numerous outlying cancerous nodules disappeared. Enlarged glands had since appeared in the axilla and neck, but had not appreciably increased in size for some weeks. He thought the results obtained must largely depend upon the efficient application of the rays. It was difficult to say what class of case would derive most benefit from the treatment, but he had obtained the best results in cases of cutaneous cancer. Deeply seated growths did not respond so well to the treatment. He suggested that all cases after operation for malignant disease should be treated with x rays.

Infant Mortality and Milk.

Dr. F. W. Hope read a paper on the above subject. He described the investigation into the causes of infant mortality which had been carried on by himself and other members of the Medical Institution for many years, and which had established the fact that amongst artificially-fed children below three months of age the mortality in the summer and autumn months from digestive disorders was fifteen times as great as it was amongst breast-fed infants, namely, approximately 300 per 1,000 instead of 20 per 1,000. He attributed the close and rigorous attention given to the milk supply in Liverpool not only that from cows within the city, but under a special Act of Parliament, that which was brought into the city from country cowsheds. He described the methods of sterilizing and humanizing the milk, the food being distributed in bottles of measured quantities, containing a sufficient supply for 24 hours, a bottle being used twice. He strongly emphasized that the milk was intended solely for the use of those infants whose mothers were unable to suckle them or who could only partially suckle them. This he always impressed upon mothers at the earliest stage, and brought into prominence at every opportunity. The problem of having a complete substitute for the milk of a healthy mother had not been solved, and probably never would be. There was nothing like a certain proportion of the mother's cases who specially adapted it to the growing infants' needs, matters which could not be appreciated artificially. The interest had upon the milk supplied up to December last amounted to £[illegible]. A study of their cases showed that over 50 per cent. were ill when the milk was first issued to them. In many cases long under observation there had been a mortality-rate of 15 per cent. The causes of death showed no particularly telling certificate to be due to bronchitis, pneumonia, whooping-cough, convulsions, etc. This was a tremendous testimony to the [illegible] infantile mortality of the city, especially as so many of the children were

already sick when they first came upon the books. The educational value of the method was also considerable. Comparing these results with those obtained at the Clinique Tarnier, he showed that there the infants, all of whom had been born in the institution, were under constant medical supervision, and much fewer in number (512), with a mortality-rate of 3.5 per milley. They were selected infants; large numbers of them were only very partially fed on sterilized, humanized milk, whereas in Liverpool there was no selection, and a large proportion were already ill.

Dr. PETER DAVIDSON thought the strength of the milk should be modified to suit infants of different ages, and that rickets and scurvy were likely to follow the prolonged use of humanized milk.

Dr. MUSSEN said the system was of decided educational value.

Dr. MACALISTER suggested that milk prescriptions should be made up at the depôts on forms supplied to the hospitals and to medical men working in the districts.

Dr. HUBERT ARMSTRONG objected to the term "humanized" as encouraging mothers to utilize what was, after all, only modified cows' milk, in place of suckling their infants themselves.

Drs. F. W. INMAN, A. C. RENDLE, LITTLER JONES, A. G. GULLAN, and F. H. BARENDT also made remarks.

Dr. HOPE, in replying, said that the necessity for obtaining milk quite fresh to start with was recognized, but it could not be done until the Corporation had its own dairy. This system, even if perfected, would never relieve the mother from her obligations, but the results obtained were such as to encourage the Corporation to persevere in its efforts.

EPIDEMIOLOGICAL SOCIETY.

A. WHITELEGGE, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, March 18th, 1904.

ENTERIC FEVER IN HAMBURG.

A PAPER on the etiology of enteric fever and cholera in Hamburg, by Dr. REINCKE, medical officer of health to that city and the port sanitary authority, was read by the SECRETARY. Hamburg, the population of which had quadrupled in fifty years, had now, with the adjacent but independent municipalities of Altona and Wandsbek, over a million inhabitants, and extended for many miles along the right bank of the Elbe. This, like most of the coast, was formed of a plateau of drift rising 100 ft. to 150 ft. above the alluvial foreshore which was rendered habitable only by means of dykes, and embankments. A larger dyke, the Wetterung, ran parallel with the shore, and the wells in it, though exposed to pollution, were much used by the dairy farmers and market gardeners on either side. During the forties systems of sewerage and water supplies were begun by Lindley and Hawksley respectively. Wandsbek obtained its water supply from lakes in Holstein, and Hamburg had removed its intakes higher up the river beyond any but the highest springtides, while Altona still pumped its supply from the Elbe, polluted with the sewage of both towns, but submitted it to a most effective filtration. Owing to occasional failures in the latter followed by explosive outbreaks, deep wells were being gradually substituted for the river. There was, however, a large floating and riverside population which frequently carrying infection, polluting the river with dejecta, and drinking the unfiltered water, constituted a standing danger. Such being the conditions, it was interesting to note the results. Prior to 1893, when the water supply was in an imperfect state, epidemics of enteric fever were frequent in Hamburg, and spread over six months with a slowly rising and falling curve, while in Altona they were rare, but burst out with appalling rapidity, disappearing again as fast: since that date there had been no epidemic, only the residuum, which it seemed impossible to avoid, even in towns obtaining their supplies wholly from deep wells. Several of such had a higher average mortality than Hamburg, a fact which must be referred to food and personal infection. Cholera seemed governed by the same conditions, but the remarkable contrast in its incidence in Hamburg and Altona in 1893 seemed explicable only by the better filtration of the naturally inferior water of Altona and possibly to some extent by the different density of the population. From its geographical position, Hamburg could not be expected to escape cholera whenever it visited Germany, but the mortality from enteric fever was trifling, 3 to 4 cases per 10,000 inhabitants, with one-tenth that number of deaths, or less than in many English towns.

Mr. SHIRLEY MURPHY thought that the large part played by water was clearly proved, as was the risk of using contaminated supplies even though filtered. Of course an unimpeachable supply would not necessarily secure immunity as the disease might be carried by vegetables, shellfish, etc.

Dr. SEATON held that water had little to do with the prevalence of the disease, which was higher in Glasgow, Liverpool, and Manchester, with their pure mountain water, than in London.

Dr. PARSONS maintained that it was owing to the great general improvement in water supplies that the part played by water was apparently less, and that other causes were attracting attention.

Dr. C. CHILDS pointed out the contrast between the relations of the movements of the ground water to the fever in Munich and in Hamburg. Pettenkofer began as an enthusiastic believer in the English theory, but found that it was not applicable to the conditions of Munich.

Colonel NOTTER said that in South Africa flies, dust, and overcrowding of young men, ill-fed and filthy, were the factors, water being often absent altogether, but the experience of Maidstone and Lynn showed that no cause could be more powerful than specifically contaminated water.

ROYAL ACADEMY OF MEDICINE IN IRELAND. At a meeting of the Section of Obstetrics on March 11th, Professor A. J. SMITH, President, in the chair, Sir ARTHUR V. MACAN showed a series of eight plaster casts of fetal heads, by Professor E. Winternitz of Tubingen, illustrating the changes in the child's head due to the several presentations; also an enlarged (six diameters) cast of the fetal heart. He also demonstrated an obstetric phantom (Dr. Sellheim's), and a *papier-mache* fetal head, by Dr. Hugo Gloeckner. A "lay figure" of a fetus designed by Dr. Ludwig Knapp and several plaster casts of deformed pelves were also shown.—Dr. A. DEMPSEY (Belfast) read a brief report of his operative work in the gynaecological wards of the Mater Hospital, Belfast, during the year 1903. There were 107 operations, 25 being intraperitoneal, with only 1 death. In cases of metritis and endometritis he regarded curettage alone as not sufficient to cure all cases. He referred to the hot, dry-air treatment, and apparatus introduced by Reitter of Vienna for ovarian and vague pelvic pain, and for the absorption of cellular exudates in the pelvis. He had found it satisfactory in both classes of cases. Temperatures of 120° to 130° C. could be obtained by it. The treatment was not applicable in the presence of active inflammation. Among the laparotomies were 11 ovariotomies, 2 retroperitoneal hysterectomies, 2 extrauterine fetation cases, both diagnosed before rupture; 1 case of gastric and intestinal adhesions, 1 appendicectomy, and 1 intraperitoneal abscess drained through the abdominal wound. The report was discussed by Sir ARTHUR MACAN, Dr. W. T. SMYLY, Dr. TWEEDY, and the PRESIDENT; and Dr. DEMPSEY replied.—Drs. JELLETT and EARL read a paper on sarcoma of the vagina, and showed a specimen.

GLASGOW MEDICO-CHIRURGICAL SOCIETY. At a meeting on March 4th, Dr. NEWMAN, President, was in the chair. Dr. A. K. CHALMERS, Medical Officer of Health for Glasgow, introduced a discussion on infant mortality, which remained persistently high. It might have been assumed that the reduction of the general death-rate, and more particularly of that of children under 5 years, would have been associated with a corresponding reduction in infant mortality. To some extent this was the case, but investigation brought into prominence one feature of the infantile rate which was refractory, and by reason of its volume tended to obscure the other changes which had occurred. Comparison of the death-rate of infants under 12 months in the years 1871 and 1902 showed that there had been little or no reduction in the death-rate of infants under 3 months, but a marked improvement in the rate in infants over that age. The high death-rate in infants under 3 months was due mainly to deaths grouped under immaturity, and the proportion of deaths from immaturity was as high in the very healthy districts as in the most unhealthy areas. Professor GLAISTER said that during the last thirty years there had been a progressive decline of the general death-rate in civilized countries, but no such diminution of the death-rate of children under 1 year. All causes of infant mortality might be divided into (*a*) unavoidable, (*b*) preventable. Unavoidable included (1) premature birth, (2) injury at

birth, (3) congenital defects, etc. Some of the above causes were the result of the marriage of people in poor health. Preventable causes were chiefly (1) insanitary domestic surroundings; (2) vicious and objectionable habits and modes of life of parents; (3) effects of parental poverty; (4) occupation of mothers during the early months of child nursing; (5) wilful or compulsory abstinence on the part of mothers to nurse their offspring; and (6) physical unfitness of mothers for that duty. As preventive measures, he recommended that child-bearing mothers employed in certain industries should not be allowed to resume work until the completion of a full month after delivery. Mothers should be supervised by women inspectors in poorer districts. This had been adopted with advantage in some English towns. Municipal *crèches* should be established, also municipal dépôts for the supply of good milk. Dr. JARDINE said that in 1866 the average weight of 122 consecutive children born in the Glasgow Maternity Hospital was 7 lb. 3½ oz.; in 1904 the average was 7 lb. 9½ oz. He gave figures which seemed to prove that rickets had increased in prevalence during the past twenty-five years.—Dr. NISS said that to increase the number of healthy infants we must diminish tuberculosis, syphilis, and alcoholism. To diminish the infant mortality he suggested the following:—(1) Improvement of dwelling houses for poor people; (2) taking greater care of women during the latter months of pregnancy and during their confinement; (3) encouraging mothers to nurse their children; (4) constant supervision of infants in the poorer districts; (5) supply of pure milk; (6) admission to hospital; (7) establishment of municipal *crèches*.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.—At a meeting on March 14th, Mr. A. E. MAYLARD, M.B., B.S., President, in the chair, the following cases were shown or reported: Dr. J. CRAWFORD RENTON: (1) A patient who had suffered from right facial paralysis, caused by mastoid disease. After clearing out the mastoid Dr. Renton had intended to graft the facial into the spinal accessory nerve; but this proved unnecessary, for within a few weeks of the mastoid operation the paralysis had disappeared (see BRITISH MEDICAL JOURNAL, January 16th, 1904). (2) A case of Kraske's operation. The patient, a female, aged 35, had in the rectum a carcinoma movable and limited in extent. After removal the two ends of the rectum were stitched together, the anus not being touched. The patient when shown ten months after the operation was in perfect health. Dr. A. N. M'GREGOR: (1) A case of venous naevus of the thigh treated by subcutaneous ligature, which was shown October 12th, 1903. Cure was now practically complete. (2) A case of post-typhoid varix of the superficial epigastric veins, which was shown January 11th, 1904. Since then the vein had been ligatured at the left saphenous opening, and material relief thus obtained. Dr. T. K. MONRO and Dr. A. N. M'GREGOR reported the sequel of a case mentioned at a meeting in March, 1903, and characterized by paroxysms of pain, swelling, and haemorrhage in various situations. The symptoms continued and the patient eventually died during an attack of severe pain in the neck, supposed to be of the same sort as before. Necropsy, however, revealed no lesion in the neck, nor any lesion elsewhere which would account for the symptoms. There was fairly advanced tubercle in the left lung and intestines, and the remains of haemorrhages in various places. No changes were made out in the nervous system; no microbes were found. The nature of the condition remained unknown. (For the early history of this case see vol. IX of the Society's *Transactions*.)—The PRESIDENT: A case of wound of the abdomen caused by a Martini bullet, evidence of haemorrhage being present laparotomy was performed. The intestine was unwounded, but the mesentery pierced in three places, and an artery of considerable size severed. This was secured and the patient made a good recovery. The Pathological Sub-committee reported that the tumour of the humerus shown by Dr. Rutherfurd on January 11th, was a mixed-celled sarcoma of central origin.—Dr. WHITEMAN reported that the tumour of the eyeball exhibiting carcinoma of the cornea shown by Mr. Henry Clark on January 11th, was to prove that a definite decision as to its nature was impossible; but he was inclined to regard it as an alveolar sarcoma. Mr. Clark, however, remarked of the opinion that the growth was rather to be regarded as a metastasis from the mammary carcinoma. There was recurrence in the scar of the breast operation.

[illegible] years' standing, associated with pain and tingling of one year's duration. [illegible] two cysts on the thyroid body and a periosteal sarcoma removed from the orbit behind the eyeball.

HARVEIAN SOCIETY.—At a meeting on March 10th Dr. S. VERE PEARSON read a paper on the diagnosis of pulmonary tuberculosis in infants and young children, considered under four heads: (1) Broncho-tracheal gland affection; the differentiation and classical symptoms were described; the differentiation from persistent cough following whooping-cough depended upon the exclusion of the too common causes of such persistent cough, namely, adenoids and habit, combined with a tendency to repeated catarrhal attacks; appropriately treated, this cough usually soon disappeared unless tuberculous glands were present within the chest; (2) miliary tuberculosis of the lungs: the diagnosis of this form depended upon a study of the general features, the history and course of the case, not upon any special local signs; an insidious and progressive wasting without adequate cause should arouse suspicion: the state of the skin, especially the presence in it of small haemorrhages or of subcutaneous tubercles, the condition of the hair, irregular pyrexia, quiet demeanour, enlarged spleen, and the variety of anaemia present, were important; the wasting had to be distinguished from simple marasmus and that due to septic infection, etc.; (3) tuberculous bronchopneumonia; certain peculiarities of this type were described, and its differentiation from the simple form with its complications was reviewed; (4) rarer types of pulmonary tuberculosis: their varieties, the time of occurrence, and nature were dealt with briefly.—Mr. LAMING EVANS read a paper on the treatment of congenital club-foot in early infancy, and showed a number of cases. He advocated manipulation soon after birth, followed, if necessary, by early tenotomy, first of the tibials to overcome the varus, and then of the tendo Achillis to overcome the equinus, the case being kept under prolonged observation, and the foot kept in a fixed apparatus. Mr. NOBLE SMITH concurred with Mr. Evans on the importance of maintaining fixation of the heel until the inversion of the foot had been entirely overcome, supported early treatment, and drew attention to the difficulty of treating neglected cases. Extensive operation and everything which tended to destroy the natural movement of the foot was to be avoided. Lately he had practised Lorenz's method, which differed from the former forced manipulation by the persistency of the surgeon's efforts at the time of operation. He showed some casts and photographs illustrating excellent results obtained by the improved method of treatment. Mr. JACKSON CLARKE agreed with Mr. Evans's method of treatment, which he thought was now followed at all the orthopaedic hospitals in London. In a few exceptional cases other methods were necessary to obtain a perfect result. That of manipulation and fixation in plaster-of-paris, as practised by Lorenz, was in Mr. Clarke's experience the most valuable, but should not be undertaken until the child was able to walk. In performing it, sterility should be aimed at, on account of possible rupture of the skin during manipulation.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on March 4th, Dr. P. MCBRIDE, President, in the chair, the following cases were shown:—Dr. FURNISS POTTER: (1) A youth aged 19, with an immobile right vocal cord; he was believed to be suffering from tubercle, but no definite signs were present. (2) A man aged 60, with infiltration of the larynx involving both crico-arytenoid joints and an indurated ulcer on the tongue; the glottic aperture was much diminished, and tracheotomy had been performed on account of severe dyspnoea; no glands could be felt in the neck; the diagnosis rested between syphilitic and malignant disease.—Dr. H. TILLEY: Three cases in which radical operations for empyemata of the accessory sinuses had been performed; the symptoms in all three cases had been severe, and the final result of operation in each case was good.—Dr. D. GRANT: (1) A young woman with a syphilitic ulcer of the tonsil and well-marked cutaneous syphilides; the former was regarded as a primary sore. (2) A man with extreme laryngeal oedema believed to be syphilitic, under treatment by mercurial inunction and local incision much improvement had occurred.—Mr. ARTHUR THORNE: A man aged 32, with adhesions of the soft palate to the posterior pharyngeal wall; when first seen there was a mere pinhole aperture, but without operative interference the aperture got larger month after month, apparently by contraction of the adhesions towards their fixed front at the periphery.—Mr. R. LAKE: (1) A

case of chorditis tuberosa; (2) a woman with tuberculous ulcer on the left vocal cord. Dr. H. W. Kelson: A girl with a sinus situated about an inch from the tip of the nose in the midline. Dr. F. Powell: (1) A man, aged 34, with a swelling of the right ventricular band and a small papillomatous-like growth on the anterior margin of the right cord; (2) a patient, aged 28, who had suffered from what he considered to be necrosis of the premaxillary bone: this diagnosis was contested by Dr. W. Hill, who considered that the sequestrum was not the premaxilla itself, but the Stensonian portion of the premaxilla. Dr. H. J. Davis: A patient with a large swelling between the arytenoids and an oedematous mass resembling a large mucous polypus and extending below the cords. It was doubtful whether the case was one of acute oedema resulting from syphilis alone or one of mixed tuberculous and syphilitic infection.

Exhibits.—The President: A knife for cutting up lacunae in the tonsils and a special pair of forceps for removing the stumps of polyp.—Dr. Spicer-Watson: A specimen from a case of rapid tuberculosis of the larynx and trachea in a man aged 22 years.

Association of Registered Medical Women.—At a meeting on March 1st, Miss Webb, M.B., President, in the chair, Miss Alström, M.B., B.S.Durh., read a paper on Lateral Curvature of the Spine, and demonstrated its treatment by Ling's system and exercises. The two chief theories as to the actual cause of the curvature—the myopathic theory and the theory of superincumbent weight—were discussed. It was pointed out that in cases of incipient lateral curvature the asymmetry of the body was often seen more plainly when the trunk was looked at from the front, and that therefore this view should not be omitted, and the hips should always be uncovered during examination. It was urged that more ought to be done for the prevention of this deformity, and that children should be taught to sit in a correct attitude and also how to stand while at school. Suitable desks should be provided and sufficient light falling in the proper direction obtained. The discovery of deformity ought not to be left, as was so often the case, to the dressmaker or the tailor, but should be discovered early or prevented entirely by the regular medical inspection of schools. The tendency of to-day was to treat lateral curvature rationally—the days of torture instruments had passed—and those surgeons who considered spinal supports in some cases advisable, almost invariably supplemented that treatment by exercises, massage, and strict hygiene.

Bradford Medico-Chirurgical Society.—At a meeting on March 15th, Mr. C. T. M. Althorp, Vice-President, in the chair, Dr. T. W. Hime showed Nocard's harpoon for removing a fragment of the deeper part of a tumour for examination. He also made observations on the use of humanized and sterilized milk for the feeding of infants. He animadverted strongly on the growing practice among women of the well-to-do classes of refusing to suckle their children and of resorting to artificial feeding. In regard to humanized milk, after comparing analyses of human and of cow's milk, he said that though the chemical composition of human milk might be more or less closely imitated by the removal of casein from cow's milk and the addition of cream, yet it was probable that the resulting product differed widely from mothers' milk in its vital constitution. Allusion was made particularly to the antiseptic action of the serum-albumen of human milk on the B. coli, a quality which found no counterpart when humanized milk was used. In regard to the sterilization of milk by heat, he pointed out that in most cases many hours elapsed before the milk came into the hands of the consumer, and that notable chemical and bacteriological changes might often take place in this time, so that, even though the milk might be sterilized, toxins had been formed which could not be got rid of. He said that if sterilization were to be of any use more care must be taken to avoid the gross contamination of the milk at its source, and that the sterilization must be performed earlier. Drs. Evans, Mercer, Rabagliati, and Bell made remarks; and Dr. Hime replied.—Dr. Eurich, who earlier in the evening gave a demonstration of microscopic specimen, read notes on the treatment of gonorrhoea in the male. He relied exclusively on the demonstration of the gonococcus as the criterion of the presence of gonorrhoea, and he advocated the use of protargol injections. In internal remedies he had little faith. In cases which had become chronic he employed irrigation with protargol under a pressure of about 1 metre of water, and said that it was important that the patient should make an effort to micturate while the irrigation was going on, in order that the whole urethra might be exposed to the action of the antiseptic.

Midland Medical Society.—At a meeting on March 10th, Mr. J. T. J. Morrison in the chair, Dr. Herbert Perry showed a case of infantile scleroderma. When first seen the infant (a male) was aged 2 months. The scleroderma was best marked over both gluteal regions and the external aspect of both thighs; there were also scattered circumscribed patches over both arms and forearms. The face and hands were not affected. The differential diagnosis between this condition and sclerema neonatorum was pointed out; it was also noted that Dr. Radcliffe Crocker had stated that the youngest case of infantile scleroderma recorded was aged 13 months. The treatment was discussed. In addition to inunction with cod-liver oil, Dr. Perry proposed to give small doses of thyroid extract.—Mr. W. Duncan Lawrie showed a case of coxa vara of adolescence in a boy aged 18. A subtrochanteric osteotomy was performed and the limb put up in an abducted position with the eversion corrected, on the abduction frame recommended by Mr. Jones, of Liverpool. This frame was simply a double Thomas's hip splint with one limb abducted. There was now 1 in. of real and ½ in. of apparent shortness. This was a gain for the patient of 1½ in. Abduction was still very limited, rotation both inwards and outwards being limited, and outward rotation more limited than inward rotation. It was important to note that a few weeks after recovery from the operation, as the result of a slight exposure, the patient suffered from haematuria. He had, however, a history of scarlet fever with some subsequent renal trouble. The point was interesting because albuminuria had been described in connexion with late rickets. A rachitic or softened condition of the bones was not, however, necessary for the production of coxa vara. It was only necessary that the bones should be growing and overweighted. Dr. Stacey Wilson read a paper on some varieties of nerve irritation causing neurasthenic symptoms.

Pathological Society of Manchester.—At a meeting on March 9th, Dr. Reynolds, President, in the chair, Dr. A. W. W. Lea made some observations on the etiology and diagnosis of tuberculous disease of the Fallopian tubes, and showed specimens.—Dr. Orr showed a series of lantern slides illustrating the distribution of an acute lesion of the posterior columns of the cord in a general paralytic. By Marchi's method the lesion was found to occupy the areas usually affected in tabes dorsalis, and was found to have its starting point where the sensory fibres entered the cord.—Other preparations were shown as card specimens.

REVIEWS.

DISEASES OF THE LUNGS.

Dr. Tendeloo's volume on the causation of diseases of the lungs[1] is divided into two parts. The first is a physiological study of the lungs and respiration, with special reference to the nature of the distribution of the force A D, where A represents the atmospheric pressure, and D the contractility of the lungs, and to the effect of this force on the degree of distension of the pulmonary alveoli during respiration, for they do not all share alike, those towards the caudal and lateral parts of the lungs being much more expanded during inspiration than those which are situated near the hilus and apex. Another point discussed is as to parts of the lung in which the movement of inspired or expired air reaches its maximum; it appears that air enters the lateral and basal parts more freely than the apices. Further, it appears the bases receive a larger blood supply than the apices. Considerable importance is attached to the freedom of circulation of the lymph, especially when it is remembered that the lymphatics play so great a part in the spread of infective agents. Dr. Tendeloo generalizes his consideration of the study of the lymphatics in the following propositions: the respiratory movements are of great importance in supplying the necessary kinetic energy to the lymph stream; there is a maximum energy during expiration and a minimum energy during

[1] *Studien über die Ursachen der Lungenkrankheiten.* Studies in the Causation of Diseases of the Lungs. By Dr. N. P. Tendeloo. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. Royal 8vo, pp. 480, 9 illustrations. 12s. 6d.)

inspiration. He devotes considerable space to the consideration of these physiological problems, preparatory to their application to the explanation of various pathological processes. The second part, dealing with studies of various forms of lung disease, treats first of emphysema. Amongst the better known theories of the cause of chronic emphysema the Villemin's view that it is due to an atrophy of the connective tissue of the lung. Eppinger and others consider that the connective-tissue element at fault is the elastic tissue. Other pathologists have attributed emphysema to changes in the blood vessels, to disturbances of the pulmonary circulation, to inflammation of the pulmonary tissues and to increased rigidity of the costochondral structures (Freund). Considerable attention is given to the popular view that the elastic tissue of the lung is primarily at fault. Basing his opinions on his own anatomical investigations Dr. Teacher agrees with Sudsuki who is indisposed to accept this view; atrophy of elastic tissue to whatever degree it is present is a mere accompaniment of an expansion of the pulmonary alveoli and the cause of this expansion must be looked for in some disturbance of the mechanism of respiration. That part of the volume which deals with infection of the lungs, contains a very complete analyses of the various views held as to the path and means of infection. The author propounds a series of questions as to the causation of fibrinous pneumonic infection, broncho-pneumonic infection, atypical infections and the various forms of tuberculous infection of the lung proliferative and exudative. What is the original seat of the infection? Is such infection primary or secondary, using these terms in a broad pathological rather than a clinical sense? Is it a mere development of pathogenic characters of an organism already present as a harmless inhabitant, or is it secondary and due to a spread from some other focus of disease? Or again, does an organism already present as a mere saprophyte pave the way for the attack of a more pathogenic microbe. The rehearsal of these problems, which the author has set himself to consider, will give some idea of the scope of the volume. Many other similar questions are raised in the book, which is a most welcome contribution to the study of lung disease.

Professor NOTHNAGEL'S system of medicine consists of a number of very exhaustive monographs which, with but one exception, have been handed over for translation and publication in English to Dr. Stengel and an able group of subeditors. Dr. Musser is responsible for the translation of the volume on diseases of the bronchi, pleura, and lungs. The first part deals with diseases of the bronchi, and with emphysema and collapse of the lungs. Professor Hoffmann has paid great attention to the pathology of various bronchial affections, and we are indebted to him for one of the most exhaustive surveys of cases of foreign bodies in the bronchi, to the list of which Dr. Musser has added further examples. Hoffmann's method of treatment of bronchitis is very simple, and is largely by hydrotherapy; the American editor, however, supplies a number of useful drug prescriptions. Bronchiectasis is shown to be usually associated with some stenosis of the more central part of the tubes affected, either by reason of the presence of a foreign body, changes in the bronchial wall or, in the case of bronchiectasis combined with marked fibrosis of the lungs, with constriction applied outside the bronchus. The subject of emphysema has always been, and promises still to be one of considerable difficulty; beyond a full historical account of the study of this subject little will be found in the section dealing with the pathology of the condition which is calculated to help the English reader. Professor Aufrecht's contribution to the discussion of inflammations of the lung and pleura, particular part of the volume will prove of very great interest because of the originality of [illegible]. According to the [illegible] of Hodges, the last stage of [illegible] There is an antecedent change in the alveolar epithelium, as shown by [illegible] of the cells. The statement [illegible] to the presence in the organisms [illegible] of Weichselbaum, [illegible] the explanation [illegible] and the more recent work of Dr. G. S. [illegible] in particular [illegible]

possibly Aufrecht has confused these organisms with Fraenkel's diplococcus. Dr. Musser warmly advocates the extreme view that croupous pneumonia is not merely a local affection of the lung, but is simply a local manifestation of a general disease—a view which is very much in harmony with experimental results, but which, at present, needs a great deal more confirmation from an extended series of blood examinations of patients in whom the pneumococcus has been found, say, in the lungs, meninges, or joints. According to Röhmann the chlorides of the body in cases of pneumonia are not retained in the fixed tissues, but are combined in the plasma with the proteids which have been derived from disintegration of tissue cells. It is a very strange statement to read in a modern treatise of this kind that in the delay of resolution in pneumonia "chronic consolidation or a caseous pneumonia will develop which may lead to phthisis." Dr. Musser's alertness corrects any mistaken ideas which might be held as a result of this statement, and denies that tuberculosis follows croupous pneumonia. On page 547 there is a most useful tabulation of cases of pneumonia treated by antipneumococcus serum. One of the most interesting sections contributed by Professor Aufrecht is the one dealing with cases of atypical pneumonia: these are not cases of croupous pneumonia; the disease is highly infective, is often lobular in distribution: the spleen is constantly enlarged, nephritis is almost always present, and the cut surface of the lung is nongranular. From the accounts given of this most serious disease, it would appear to be what we in England have met with so often in the periodic visitations of epidemic influenza. Then, again, physicians of large experience must recognize a familiar, if not frequent, experience, in what Aufrecht calls "desquamative pneumonia"—a name first suggested by Löhl for another and very mixed group of cases: the individuals attacked suffer from haemoptysis, not merely rusty sputum; there are very obvious signs of apical consolidation which entirely clears up in favourable cases: in cases that have been examined *post mortem* desquamative proliferation of the alveolar epithelium has been observed unfortunately we have no information as to what organism or organisms are found in connexion with this disorder. The volume concludes with Professor Rosenbach's account of the various pleural affections. Here, again, we meet with the same want of sympathy with modern bacteriological investigations that we have already noted, and Dr. Musser has again to intervene with extracts from the great modern *Traité de Medecine* in support of the view of the close association of simple pleural effusions with present tuberculosis of the organs. Netter found 40 per cent. of all primary pleurisies were tuberculous, inoculation tests being used; Fiedler, with the same method of procedure, but using a larger quantity of fluid, found that 62 per cent. were tuberculous; and, finally, Le Damany, inoculating animals with a total of 300 c.cm., found that about 85 per cent. were tuberculous. The vexed question of the treatment of pneumothorax is dealt with very fully: 15 per cent. of all cases recover, 85 per cent. die in less than a year, and 10 per cent. live over five years; the cases which recover are practically all cases in which serous effusion also occurs, but they generally die later of pulmonary tuberculosis (Monod). In cases of pneumothorax complicating pulmonary tuberculosis it is best not to interfere surgically. Incision should only be performed, provided the lungs and the general condition of the patient are not absolutely unfavourable, when there is a very large exudate, when the pus discovered by exploratory puncture proves to be thin or putrefying. A few words remain to be said of the volume as a whole. All serious students of this branch of medicine should study it. Amongst much which needs emendation there will be found an immense store of observations, and quite original views are promulgated, especially by Aufrecht. We are highly glad that the original German edition represents modern views notably in the case of the influence of micro-organisms in pulmonary disease; the writers appear to belong to the older school, which was obliged to limit itself to clinical and purely histological methods of investigation. That this is not an unmixed disadvantage is shown by the excellent clinical accounts given by the writers. However Dr. Musser has done his task very satisfactorily, and where the German writers have failed to give a broader and more liberal view of modern advances in bacteriological investigation of lung disease he supplies the deficiencies. A little more weeding out would have reduced the size of this lucky volume and spared the reader the unnecessary perusal of material which,

though interesting, has no great value in the elucidation of pathological or therapeutical problems. The original writers have written monographs of extreme value, and to Dr. Musser great credit is due for having made these weighty discussions palatable to the practical physician.

Professor Fraenkel's volume on the special pathology and therapeutics of diseases of the lungs is actually the second volume of his treatise on diseases of the respiratory system. The first volume, dealing with diagnosis and general symptomatology, was published some years ago, and in explanation of the long delay in issuing this companion work, the author remarks upon the immense strides made recently in our knowledge of his subject, also upon the need for a comprehensive study based on a uniform system and from one pen. Most readers will be ready to agree that a knowledge of pathological anatomy is of paramount importance for correct diagnosis and proper treatment; they will therefore not be surprised to find that therapeutics hardly receives the share of attention foreshadowed in the title page. Throughout the book the descriptions of both macroscopical and microscopical appearances are given with minuteness and accuracy, and are excellently illustrated. On debatable ground, as for example the pathology of infarction of the lung and its relationship to embolism, or the essential causative factor in asthma, the author contents himself with a concise statement of the views of most authorities, contributing himself very little to the elucidation of obscure points. It is to the account of lobar pneumonia that one most naturally turns, and we find the claims of the diplococcus to unique specificity clearly maintained. In support of the author's own clinical observations, the experiments of Klemperer, Goldenberg, Koch, and Kitasato are adduced. Thus we are told that in the first stage of every typical case of the disease (die genuine fibrinöse Pneumonie) Fraenkel's diplococcus alone is to be found; all other organisms are secondary invasions, or related to complications; all cases of lobar inflammations owning other bacterial origin are swept into the category of the atypical. That pneumokoniosis may and does arise independently of tuberculosis is now well known; the importance of the physical characters of the particles inhaled as a determining factor, however, should not be lost sight of, and is here insufficiently insisted upon. The gradual intrusion of surgery into the practical therapeutics of pulmonary disease is indicated throughout, but a very necessary warning is given as to the great danger of haemorrhage after exploratory puncture of the lung in suspected new growth. The figures provide the best evidence of the value of radiography for diagnosis in cases of abscess, hydatid, and malignant disease. There is little doubt that Professor Fraenkel's aim will be attained, and that his handbook will be the standard work for some years to come.

NOTES ON BOOKS.

The number of new textbooks on organic chemistry is continually increasing, but we gladly welcome the latest comer, which is a translation of Dr. Holleman's[1] work. It is called *A Text-book of Organic Chemistry*, and the hand of the practised teacher can be felt throughout. The general scope of the book does not differ much from what has become customary in this subject, but only such compounds are described at length as will exemplify modern theoretical views. A special feature is the thorough manner in which proofs of the structure of substances mentioned are given. Where all is good it is difficult in a short notice to mention any part in particular, but we must single out for high praise the masterly treatment accorded to the sugars. The translation is from the second Dutch edition, and has been revised and added to by author and translator, so that it is quite up to date.

The second series of lectures on diseases of the nervous system by Sir William Gowers will be welcomed by those interested in the more recondite problems of neurology. The first of the series is on subjective visual sensations, being the Bowman Lecture delivered before the Ophthalmological Society in 1895; the second on subjective sensations of sound formed the Bradshaw Lecture delivered the Royal College of Physicians in 1896; the fourth, sixth, and ninth on myopathy and a distal form, on syphilitic diseases of the nervous system, and on myasthenia and ophthalmoplegia were published in the British Medical Journal shortly after they were delivered. Of the rest, the third entitled abiotrophy, diseases from defect of life; the fifth, on metallic poisoning; the seventh on inevitable failure, a study of syphilitic arterial disease, and the eighth on syringal haemorrhage into the spinal cord were delivered at the National Hospital for the Paralysed and Epileptic, and the last on the use of drugs was an address delivered before the Harlesden Medical Society in 1895. The lectures are therefore well known to many already who will be doubtless glad to have them collected between the covers of one volume, and to others it is not necessary at this time of day to descant on the soundness of the matter or the character of the style of one of our leading neurologists.

One rises from the perusal of Professor Cappelletti's work of nearly 500 pages on neurasthenia,[2] with the conviction, that the author is a thorough master of his subject. Limits of space necessarily make it incumbent upon him to compress his material, but in spite of that the literary style is good and in a condition presenting so multiform an aspect, he steers his way methodically and clearly through the sea of symptoms over which he has to sail, nor does he fall into the trap of seeing neurasthenia everywhere and in everything. For him as for the best authorities on the subject, the essential symptom is of a psychical character, namely, a perennial state of doubt, and in accordance with his view one of the longest and most important chapters in the book is that which deals with the psychical symptoms of neurasthenia; of the various theories which have been put forward as possible causes, he finds, after discussing three or four of the leading views, most satisfaction in that which supposes the disease to be essentially based on a primordial disturbance of the nerve cells. He draws an important distinction between primary and acquired neurasthenia, and compares it to primary and acquired syphilis; the prognosis in the former case being distinctly more serious than in the latter. There is an excellent bibliography containing as many as 1,131 references, arranged in chronological order from the time of Hippocrates down to 1903.

Mr. A. J. Martin's compact little volume is worthy of a more pretentious title than that of *Up-to-Date Tables*.[3] To open a book with such a name and to find it quite pleasant to read is surprising. It is a mine of information upon every point connected with weights and measures, official and unofficial, ancient and modern, in use throughout the British Isles, India, and the Colonies. Their relations to one another, their history, the laws regarding them, all receive adequate notice; and all sorts of outside matters, such as measurements used in electricity and in various field sports, find a place. Not the least interesting and instructive parts of the work are those sections which deal with the metric system and its possibilities. The innumerable advantages which would accrue from its introduction into the every-day life of the land are clearly shown, and no opportunity is missed throughout the book of proving how easily the metric system could be substituted for present systems of mensuration in many cases and adjusted to requirements in others. A short penny abstract for the use of children is supplied gratis with the volume.

[1] *A Text-book of Organic Chemistry*. By Dr. A. F. Holleman, Professor Ordinarius in the University of Groningen, Netherlands. Translated from the Second Dutch Edition by A. Jamieson Walker, Ph.D., B.A., assisted by Owen E. Mott, Ph.D. New York: John Wiley and Sons; and London: Chapman and Hall, Ltd. 1904. Demy 8vo. pp. 574; 72 figures. Dols. 4.50.

[2] *La Neurastenia*. Neurasthenia. Per Dott. Luigi Cappelletti, con proemio de Prof. C. Bontigli. Milan: Ulrico Hoepli, 1904. (Fcap. 8vo, pp. 510. L. 4.)

[3] *Up-to-Date Tables*. Compiled and written by Alfred J. Martin. London: T. Fisher Unwin, 1904. (Fcap. 8vo, pp. 128. 1s. 6d.)

Dr. W. Hanna published recently in the *Quarterly Journal of Microscopical Science* a paper on Trypanosoma in Birds in India, in which he gave a description of a trypanosome which he found in the blood of domestic pigeons in India, and also of another he found in blood slides of Indian crows which Major Ross allowed him to examine. Measurements of both are given, and show that the trypanosomes are much larger than those found in mammalian blood. Both parasites appear not to have been described before, and if this is so they will require to be named. A coloured plate shows the appearance very well.

REPORTS AND ANALYSES

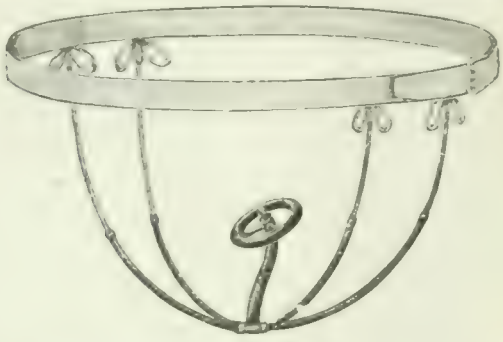
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Pessary for Prolapsus Uteri.—The annexed figure represents a pessary and waist-belt which Mr. DERHAM REID of Manchester has had made for the treatment of pronounced cases of prolapsus uteri. In watching the descent of the uterus when attempts were made to prevent it by an ordinary elastic-ring pessary he observed that the anterior margin of the ring inclined downwards, and was followed by the anterior wall of the vagina and the floor of the bladder, while



the posterior margin of the ring retained its position in the posterior *cul-de-sac*, occasionally even after the whole uterus was expelled. His object, therefore, was to reinforce the anterior resistance of the ring. This he thinks he has attained in this pessary by a spring extending from the central stem to the anterior margin. Like other stem pessaries it requires a waist-belt for its attachment, but differs from them in that the stem is merely supplementary to an ordinary elastic ring. It is claimed that its introduction is easy. It has been made for him by Messrs. Arnold and Sons of West Smithfield, under the name of the "Derham-Reid pillared pessary."

THE REVACCINATION BILL, 1904.

THE following manifesto in support of general revaccination at school age has been extensively signed by influential individuals and by representatives of public or corporate bodies:

"Believing that vaccination and revaccination we possess the best protection against epidemic small-pox, we should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors or those who may be for a time excused on the ground of ill health.

Among the numbers of corporate bodies or representative individuals who have signified their intention of supporting the Bill are the following:

[illegible]

Cheltenham, Dulwich, Repton, Westminster, Malvern, Tonbridge, Radley, Epsom, Uppingham, Oundle, Merchant Taylors', Christ's Hospital, Lancing, Ley's, Emmanuel, Cambridge, Downe College, Mill Hill, Wakefield, Framlingham, Type Street, Edward's School, Birmingham, etc.

[illegible] Queen's College, Church of England High School, Baker Street, Notting Hill, City of London, Rutlish School, Skinners' School, North London Collegiate School, Ipswich, Wycombe Abbey, Winchester, Ladies' College, Guernsey, Southampton, etc.

Medical Officers of Health. By 127 medical officers of health in charge of towns, each containing not less than 20,000 inhabitants.

Other Medical Men. By 37 members of the Council of the British Medical Association, by 9 of the London coroners, Dr. Barnardo, etc.

Other Clergy. The Chief Rabbi, Sir Edward Farrant (Bowton House), Messrs. Maple and Co., Mr. William Whiteley, Messrs. John Barker and Co., the Army and Navy Stores, Messrs. Jay's, Marshall and Snelgrove, and Debenham and Freebody.

MEDICAL NEWS.

THE annual dinner of the Pharmaceutical Society of Great Britain will take place at the Whitehall Rooms, Hotel Metropole, on Tuesday, May 17th.

SUCCESSFUL VACCINATION.—Dr. S. H. Rentzsch, of Week St. Mary, Cornwall, has received for the third time in succession the Government grant for successful vaccination.

CHICKEN-POX NOTIFICATION.—In consequence of the increase of small-pox in London, the London County Council decided on March 29th to make an order for the notification of chicken-pox during the next four months.

A PRESENTATION.—Dr. William Odell, of Torquay, who has been giving ambulance instruction at the Central Technical School, has been presented by his pupils with a writing-case, bearing an inscribed silver shield.

POST-OPERATIVE PHLEBITIS.—A prize of 500 dollars is being offered by a Fellow of the Rhode Island Medical Society for an essay by any member of the medical profession on the subject of post-operative phlebitis. Particulars of the competition will be found in our advertisement columns.

SMALL-POX IN LONDON.—During the past ten days the number of small-pox notifications in London has continued to increase, chiefly in the East End, and at the beginning of the week it was stated that there were 124 patients under treatment at the small-pox hospitals, against a total of 60 on March 19th.

FLANNEL SHIRTS.—The Flannel Shirt Club is a society, the working members of which each subscribe 1s. annually, and undertake to provide at least one flannel (not flannelette) shirt during the same period. The honorary members subscribe 2s. 6d. a year, and undertake to provide at least two shirts annually. Gifts of flannel or money, to buy the same and to pay for its conversion into shirts by paid workers, are also sought. When received or completed, the shirts are given to the sisters of hospitals for distribution to such poor patients as may stand in need of them on their discharge from hospital. The utility of such a society is obvious. Its secretary is Miss Gethin, Stanley House, Bow Road, London.

DEFECTIVE AND EPILEPTIC CHILDREN.—At a conference of the after-care committees of Birmingham, Leicester, and Nottingham, held at the former town on March 24th, Miss Dendy, Secretary of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, read a paper in which she urged that the Act of 1899 should be amended so as to compel every school authority to provide suitable accommodation for defective and epileptic children; manual training only should be given, book learning being perfectly useless. At the afternoon sitting papers were read which advocated the provision of further accommodation for non-pauper imbeciles, and the transference to the county councils of all authority over the feeble-minded.

FACTORY GIRLS.—The Factory Girls' Country Holiday Fund sends factory girls into the country for a holiday at such times as they can best afford to leave their work. Most of them go for a week; others who have been ill are allowed to stay longer. Last year 3,600 girls and women were sent away, while the amount they contributed themselves rose to nearly one-third of the total expenditure of the fund. The little holiday is of immense benefit to the girls, who save all the money they can towards it. Once they have been in the country they try to save money to go again, so the outing has a good educational as well as a good physical influence. The fund is at present overdrawn. The Honorary Secretary is Miss Paget, 28, Camden Hill Square, W.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 2ND, 1904.

LORD ESHER'S COMMITTEE AND THE ARMY MEDICAL SERVICE.

ELSEWHERE we publish extracts from the final report of Lord Esher's Committee on War Office Reconstitution, issued at the end of last week, touching the points which concern the medical service of the army. The first thing that will probably strike most readers in the new scheme is its vague and sketchy character. Lord Esher and his colleagues seem to be aware that their whole scheme is open to this criticism. They endeavour to meet it in anticipation by insisting that they claim only to have devised the machinery which will enable the problem of the reorganization of the military forces of the Crown to be worthily solved. They say that it has been their object to avoid details as far as possible, and to "erect a strong and well-knit fabric which can be elaborated by others." They appear to have felt the nebulous character of their scheme most in regard to the medical service; nor is this to be wondered at considering that not one of the triumvirate can have any special knowledge of the medical requirements of the army. They have doubtless done their best, but their single idea seems to have been to make the medical service of the army as far as possible an exact replica of that of the navy. We have already pointed out more than once that in making this their aim they have followed a model which is not good in itself and is likely to prove disastrous if applied to the vastly more complex conditions under which the Army Medical Service has to work.

It is clearly the mistaken idea that everything is for the best in the best of all possible navies which has inspired the report; in regard to the medical service in particular this has been frankly admitted by Mr. Arnold-Forster in his reply to the representations of the Royal Naval and Military Committee of the British Medical Association. Now, it is notorious that the weakest point in the administration of the medical department of the navy is the subordinate position of the Director-General, who is simply a puppet in the hands of the Naval Lords of the Admiralty. Can a service be efficient in which an officer, who has set his heart on a particular billet which he is for good and sufficient reasons refused by the Director-General, has only to go behind his superior officer's back to get the wires pulled as he wishes? Can a service be efficient in which the responsible head has no opportunity of impressing his views, founded on expert knowledge, on the First or even on the Second Lord? His advice on matters with which he is specially conversant has to be filtered through a subordinate official who may or may not be a satisfactory medium for the purpose. This is the system which Lord Esher's Committee has taken as a model

In reply to criticisms founded on undeniable facts the Committee virtually say with Falstaff, "I deny your major." They cannot accept the view "that a place on the Army Council ought to have been provided for the Director-General of Army Medical Services," who, as they recall with something rather like a chuckle, "was a member of the defunct War Office Council." They are good enough to point out that the Royal Army Medical Corps "exist to serve the army in a most important capacity." They repudiate the principle of representation as tending to destroy the character of the Council. As on their own showing, the function of the Army Council is to create and to maintain an army, it would certainly seem that the more completely the representative principle is accepted, that is to say, the more completely special knowledge of all arms and branches of an army is in a position to make its influence practically felt, the more efficiently will the Army Council discharge its functions.

We are not, however, concerned about a word. By all means let the character of the Army Council be saved by making it, as the Committee would have us believe, absolutely non-representative. The principle for which we contend—let it be called representation or by any other name—is that in the administration of the medical, which is also the sanitary, service of the Army the Director should have no authority over him in his own sphere but the Army Council of which he should be a member. Lord Esher and his colleagues seem to have persuaded themselves that, under the arrangements which they propose, the status and the power of the Head of the Medical Services of the Army will not be lowered; they profess to believe on the contrary "that his position will be considerably strengthened in peace and war." The reason for this seems to be that the Council as a whole is now responsible for the welfare of the soldier. "It has full powers over the whole range of military administration, and there should be no danger that sanitary considerations will be neglected." The Adjutant-General, it is stated, as a member of the Council, occupies a far stronger position than his predecessors, and it is asserted that he will be able to represent effectively the medical needs of the personnel of the army with which he is especially charged. On this the obvious comment is: Could not the Head of the Medical Services represent these needs far more effectively than an officer whose mind must surely be sufficiently occupied with the multifarious duties—of less importance, indeed, than medical matters to the welfare of the army—which fall within the province of the Adjutant-General? We do not doubt the plenitude of the power of the Army Council, and we quite agree that there should be no danger that sanitary considerations may be neglected, but if the Adjutant-General should be an officer of the type with which the medical service has been painfully familiar in the past, it is pretty certain that they will be neglected. The only security against such neglect is that the Director-General shall be on the Council, not merely to recommend but to enforce his recommendations.

As will be seen by a note in another column (page 814) the Royal Naval and Military Committee of the British Medical Association held a special meeting on March 29th, and passed a resolution reaffirming its opinion that the Medical Service of the army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in

order to secure the highest state of efficiency it is essential, in the best interests of the army, that the medical service shall be administered by an army medical officer who shall have a seat on the Army Council. This resolution was adopted after considering fully the arguments adduced by Lord Esher's Committee in the contrary direction.

The plan proposed by Lord Esher's Committee is so retrograde that we can account for its adoption by three earnest and able men only by the supposition that it is the outcome of a compromise between conflicting influences and ambitions. We venture to predict that if the proposal is adopted by the Government, the attitude of the medical profession towards the service, which had become favourable under the influence of the reforms instituted by Mr. Brodrick, will once more be changed to one of at least negative hostility.

For the rest, as presented in the report, the scheme invites no particular criticism except in regard to the mistiness of its outlines. But, as the logicians say, *dolus latet in generalibus*, and the innocent-looking definition of the duties of the Director-General may conceal ulterior intentions of the most mischievous kind. The issue of the first part of the Report was hailed by the public as indicating the birth of a new order of things at the War Office. The "old gang," to use Lord Randolph Churchill's phrase, was to be eliminated: jobbery was to be stamped out: social influence was to count for no more. A Saturnian reign was to be established in which Napoleon's maxim, *La carrière ouverte aux talents*, was to be taken as the guiding principle, and the whole machinery of administration was to be framed and worked out with a single eye to efficiency. It was a beautiful idea, but alas! for the somewhat sordid reality. Before the ink of the signatures to the Report could well have been dry, there come whispers of jobbery and social influences to mar the fair dream of reform. We know not what truth there may be in these rumours, but there is unfortunately nothing in them that is intrinsically impossible. We of course acquit Lord Esher and his colleagues of any conscious tampering with the scheme, but the very shadowiness of the system of administration which they propose lends itself to possible abuses in its practical working. Before, therefore, a final judgement is expressed on the matter, it will be well to watch for some time the development of the new organization of the service.

In the executive committee may be called to a certain feature of the report. Reference is made to an Army Hospitals Committee the existence of which is simply ignored. What any intelligent being could find useful to know is the history of this and its members. In the last issue of the Army List there is no mention of such a Committee. We are sure that the profession and the public would be interested to learn more about this little mystery which is suggestive of the Venetian Republic rather than of our stolidly straightforward British Army. Let the mystery be cleared up, for it is one certainly if not the greatest of the blots on the Committee's scheme that it leaves the independent halo of the Director-General and of the Adjutant-General, for which we are said to be to strive the Civil Member of the Council as regards the dangerous and sanitary questions of hospitals might be supposed to have a decisive voice in relation to the "medical and sanitary questions" which are within the province of the Director-General.

The Army Sanitary Committee is supposed to [illegible] Advisory Board is allowed to survive, though instead of giving counsel to the Secretary of State for War direct it is required to bestow its advice on the Army Council. The Nursing Board has also escaped the iconoclastic hand of the reformer.

There we must leave the matter for the present. The scheme, as far as it has been revealed to the public, has, as we have pointed out, one fundamental defect which of itself must tend to make it hopelessly ineffective and therefore unacceptable to the medical profession. A system under which the head of the Army Medical Service is subordinate to an officer who represents the purely military element of the army, and an *imperium in imperio* is set up in the medical service itself may be said to combine the maximum of confusion with the minimum of efficiency.

THE PHYSIOLOGY AND PATHOLOGY OF THE PANCREAS.

TWENTY years ago the pancreas and its diseases were omitted altogether from our standard works on the practice of medicine and even ten years ago they were dismissed in a few pages. The progress which has since been made and the knowledge which has been acquired respecting the functions of this gland, its relation to metabolism, its morbid conditions and the clinical symptoms caused by them we owe in the first place to physiological researches carried on by means of experiments on animals and in the second place to the surgery of the abdomen.

Unquestionably the clinical importance of the pancreas was greatly increased by the discovery of its relation to glycogenesis by von Mering and Minkowski, but we have to thank abdominal surgeons like Mr. Mayo Robson for working out in detail the distinctive features of the various pathological affections of the pancreas and for laying the foundations of their diagnosis. The work of von Mering and Minkowski has been followed by a series of contributory researches, but it was Pawlow who struck out by Pawlow in the study of the secretions under which the pancreas secretes the ferments which, as we now know, play an important part in digestion. It was Pawlow who first drew attention to the singular adaptability of the [illegible] to special needs. Thus a dog fed on meat secretes a fluid relatively rich in starch ferment, and again a third fluid for use with [illegible] that rich in fat-splitting ferment. The study of the function of the pancreas has been greatly facilitated by the discovery of Starling and Bayliss that the secretion of pancreatic juice may be stimulated by introducing into the circulation the chemical substance to which they have given the name of "secretin" obtained by them from the intestinal mucous membrane. In the communication we publish by Dr. Bainbridge, one of the Research Scholars of the Association, he details some very interesting results obtained by the study of the pancreas on the lines indicated by the investigators to whose work we have alluded. He selected lactose as enzyme normally absent from the pancreatic secretion of adult dogs as this ferment converts lactose into galactose and dextrose, and its effect may be readily determined by estimating by means of Fehling's solution the quantity of dextrose formed with a given amount of pancreatic juice. His experiments showed that dogs fed on biscuit secrete no lactase, while those on milk secrete

it in every instance. As traces of lactase are found in the intestinal mucous membrane, he desired to answer the question whether this passed into the blood and was taken up by the pancreas. He found that a watery extract of lactase injected into the circulation did not cause a secretion of this ferment unless the injections were kept up for at least two days, while lactase injected into the duodenum of living dogs was not found in the pancreatic juice. He believes, therefore, that the effect on the pancreas is due to some substance other than lactase, which stimulates its production, and that it is a chemical and not a nervous action. In support o the conclusion that the production of the ferment is the ultimate but not the immediate effect of special feeding, he states that the pancreatic juice secreted by newborn puppies contains no lactase, but in the course of a few days, certainly within ten days, it makes its appearance. These researches show the remarkable adaptation of the pancreas to special foods. The influence of the nervous system causes the pancreas to secrete whatever enzymes may be present in it: the production of special enzymes is the effect of the specific chemical stimulus.

Mr. Mayo Robson, in his very valuable discussion of the diagnosis of pancreatic diseases, by no means hides the extreme difficulty still attending the question. He points out that this is largely due to the vicarious power possessed by other organs to perform the functions of the pancreas, so that the suppression of one or other of these may give rise to no symptoms. The only function which cannot be supplied is glycogenesis, but its relations are still obscure, and so long as a small portion of the gland is intact that seems able to perform the whole of the work. He attaches considerable diagnostic importance to the presence of fat in the stools, but in order to elicit this symptom it may be necessary to give a sort of test meal in which fat is in excess; when it is associated with evidence of imperfect digestion of meat, probably only ascertainable in many cases by microscopical examination of the faeces, the presumption in favour of pancreatic disease is very strong. He also lays stress upon the so-called pancreatic diarrhoea, but points out that it is not true diarrhoea, as the stools are not liquid, but bulky, soft, and greasy. Great interest attaches to the so-called "pancreatic reaction" discovered by Dr. Cammidge in his work upon Mr. Mayo Robson's cases, and described by him in his Arris and Gale Lecture (page 776). This reaction depends upon the presence of glycerine in the urine, which in its turn is dependent upon the fat necrosis so characteristic of pancreatic disease. The reaction is a somewhat complicated process, depending upon the formation of glycerose when a solution of glycerine is heated with nitric acid and the detection of this body by the formation of characteristic osazone crystals by a special adaptation of the phenylhydrazin test. Any sugar present must, of course, be removed from the urine by fermentation and the alcohol expelled by boiling before this reaction is looked for. By a modification of the method, and by the careful determination of the length of time required for dilute sulphuric acid to cause the disappearance of the crystals when watched under the microscope, Dr. Cammidge believes it is possible to distinguish between various pancreatic affections, and in particular to differentiate acute from chronic inflammation, and either of these from malignant disease.

It is remarkable, or at least noteworthy, that out of the very large number of cases of pancreatic disease seen by Mr. Mayo Robson he has only found a few in which glycosuria was present. This result justifies the failure of older clinical observers to connect the two conditions, and it was not until experiments on animals had shown that total extirpation of the pancreas in dogs is regularly followed by diabetes that closer attention to the matter proved that any such connexion existed. As Mr. Mayo Robson points out, it is only when the entire gland is destroyed, as in extensive malignant disease, or when the islands of Langerhans are involved in the interacinar type of chronic interstitial pancreatitis that diabetes supervenes. In the interlobular type of chronic interstitial pancreatitis there is no glycosuria, and microscopical examination has shown that the islands of Langerhans are quite free from disease.

Unquestionably it is too early to express a final opinion of the value of the rather intricate methods employed by Dr. Cammidge, but that a very real advance has been made by Mr. Mayo Robson by his work upon the pancreas there can be no doubt. He has been ably assisted on the chemical and bacteriological side of these researches by Dr. Cammidge, and from this happy association we see great reason to hope for fresh and valuable additions to our knowledge of a department of pathology which only a few years since was almost blank.

PLAGUE AT JOHANNESBURG.

WHEN confirming by telegram last week the report of the outbreak of plague at Johannesburg, Lord Milner was at the same time able to give an assurance that suitable measures were being taken to check the prevalence of the epidemic. A good deal of light upon the foundation for this assurance is afforded by a report dated November, 1903, but dealing with the year ending June 30th, 1903, by Dr. Charles Porter, medical officer of health to the municipality of Johannesburg, which has lately been received in this country.

It would appear that in December, 1902, the medical officer of health conferred with Dr. Turner, medical officer of health for the Transvaal, and afterwards with the Colonial Secretary, as to the measures to be taken on the Natal border and in Johannesburg in view of the occurrence of plague at Durban, and the possibility of its extension to the Transvaal. The Public Health Committee of Johannesburg, acting on the advice of the medical officer, resolved on December 18th, 1902, to prepare a plague camp at Rietfontein, seven miles east of Johannesburg, for the reception of any cases which might arise either in Johannesburg or the surrounding districts. The Colonial Secretary and Dr. Turner placed all the existing stores at the lazaretto at the disposal of the municipality. As a temporary measure the old leper asylum was cleaned out and furnished for the reception of plague patients, and the ground around it cleared and prepared for tents. A large pavilion formerly used for small-pox was fenced in with barbed wire, and held in readiness for coloured patients: at the same time a number of preparations for the establishment of a plague camp were undertaken, a space measuring 300 ft. by 900 ft. on high ground, about 200 yards south of the old leper asylum, and half a mile east of the lazaretto, was enclosed with galvanized iron and divided into two parts for whites and coloured, each part being further subdivided for sufferers and contacts. In the white division

six cemetery sites for marquees were prepared, and for both ports storerooms, baths, latrines, and kit-bens were erected; the marquees, tents, and tarpaulins were lent by the Government. The water supply was attended to, furniture, bedding, disinfectants, and other necessary stores for the immediate reception of 25 patients were sent out to the camp; provisional contracts made for the requirements of 75 additional inmates, arrangements for nurses were made with a Nursing Association and a list kept of available cooks and attendants, while the use of two army ambulance wagons was secured. A supply of both Yersin's serum and Haffkine's prophylactic were obtained from the medical officer of health for the Transvaal, and a list of persons willing to act as inspectors, disinfectors, rat-catchers, etc., was compiled. An offer of 3d. a head for every rat was made, and in any suspicious cases the animals were forwarded to the Government bacteriologist for examination, but in no instance was the plague bacillus then found.

In January, 1903, a notable mortality was observed among rats; the bodies of several were examined bacteriologically with negative results. In February a circular was sent out to every medical man in Johannesburg transmitting the official description of plague issued by the English Local Government Board, and pointing out its tendency when first invading a district to simulate other diseases. Directions for sending material for bacteriological examinations were also supplied. In April, 1903, it was observed that rats were dying in large numbers in the Market Buildings. A local reporter published what is characterized as a false and alarming statement to the effect that the rats were infected, and some 53 rats were sent to the Government bacteriologist, but they were in too decomposed a condition for examination. Meanwhile certain cases had occurred which were suspected to be plague. On February 9th a Jew bookkeeper in a large forage store, living in a crowded tenement, sickened, three days later he had a large bubo in the right groin, but eventually recovered; bacillus pestis was not found in the blood and no bacteria were detected in stained sections of the groin glands. On March 21st a Dutch mason died suddenly from pneumonia after an illness of fourteen days, and his wife miscarried and died on the same day: a bacteriological examination afforded no indication of plague, but the pneumococcus was found in both cases. A week later a native died suddenly with a large bubo in the right armpit and congestion of both lungs: here again the pneumococcus but not the plague bacillus was found. A fortnight later a native employed at the hospital was found with a large abscess in the right armpit: he recovered, but on April 14th a boy died suddenly and the death was ascribed by the medical man who attended him to plague; *post mortem* and bacteriological examination revealed nothing suggestive of plague. On April 28th a Zulu, who had arrived from Natal sixteen days before, was found to have a large abscess and brawny swelling in the right axilla; he was removed to the plague camp on April 30th and died on the following day, the medical man who attended him had no doubt that he was suffering from plague. The *post mortem* appearances were apparently typical of the disease, but the plague bacillus was not found in the affected glands or in the spleen, although a very virulent pneumococcus was identified. At the same time a native sickened with a large bubo in the right groin and other symptoms of plague. He was removed to the plague camp. The results of the necropsy and bacteriological examinations were almost identical with those observed in the previous case, and death was ascribed to pneumonia. This patient had not been out of Johannesburg for ten months.

It would appear that the preparations made more than a year ago for meeting an outbreak of plague were very complete and well-considered, so that unless they have been allowed to get into disorder, Lord Milner's assurances were less rather than more forcible than the circumstances warranted. At the date of the publication of the report to which we have referred, November, 1903, the authorities appear to have been satisfied that all was well. Nevertheless the sudden occurrence of so many cases at the very beginning of the existing outbreak is, in itself, a circumstance which throws distinct suspicion on the real history of the preceding months. It gives ample ground for the belief that cases among the coloured folk may have been occurring unobserved, and, apart from other circumstances, fully justifies the doubts which Sir Walter Foster expressed in the House of Commons in the remarks which he addressed to the Colonial Secretary on March 29th. There is certainly room too for the theory that the suspicious cases which occurred last spring were in reality plague, and that the disease has since been lying dormant, as has often been the case elsewhere. The features of some of those cases which we have quoted resemble, as will be observed, those of fatal plague cases to a very striking extent, and it is not to be forgotten that the identification of the plague bacillus in an undoubted but late case has often been found difficult. Nor did the answer which Sir Walter Foster received from Mr. Lyttelton, though intended to be reassuring, materially detract from the force of this conception. He made it plain that Lord Milner is relying entirely upon the negative results of the bacteriological examinations made last year, and it is generally recognized by physicians that a failure to find the plague bacillus cannot be accepted as conclusive evidence that the clinical diagnosis is erroneous. Further, Lord Milner's telegram reveals a fact which is not disclosed in the report, namely, that during the last six months the plague bacillus has been identified in some thirteen of the rats which have been examined.

The insanitary area of Johannesburg, to which reference has recently been made in telegraphic reports from South Africa, and in which the outbreak has occurred, comprises some 172 acres of land. It contains some 1,400 houses, huts, and habitations of one sort and another, and is partly occupied by gasworks, brickfields, and the coolie location. Its population towards the end of last year was estimated to be about 5,600 persons of whom 2,000 were Asiatics, 2,800 Kaffirs and Cape Boys, and the rest poor Dutch and other whites. The medical officer of health reports that much of this area, especially the coolie location, is in a dangerously insanitary condition, and is a great and constant menace to the health of the town. The ratio of population to acreage in the area is quite small, and its insanitary condition and heavy disease and mortality-rates are due not to overcrowing, but to the dirty customs of its inhabitants, coupled with the absence of drainage and of effective means for the disposal of refuse. An improvement scheme estimated to cost over a million sterling has long been under consideration.

THE PRINCE OF WALES AND THE ASSOCIATION.

On Saturday last His Royal Highness the Prince of Wales received personally from the hands of the Chairman of Council the certificate of Honorary Membership of the British Medical Association. This certificate was suitably illuminated and inscribed on vellum, and was signed by the President of the Association, the Chairman of Council, the Treasurer, and the General Secretary. It will be within the recollection of members that at Swansea a resolution was unanimously passed electing His Royal Highness an Honorary Member of the Association, and it had been hoped that the Prince would have attended the annual meeting at Oxford and there receive the certificate of Honorary Membership at the hands of the President. Owing, however, to other pressing engagements during the last week in July the Prince was unable to carry out such an arrangement. In accepting the certificate from the Chairman of the Council, His Royal Highness said that he observed that the King was Patron of the Association, and added that he himself was pleased to be an Honorary Member; the Prince also evinced considerable interest in the aims of the Association, making special inquiries as to the scientific work carried on under the auspices of the Association and with its financial assistance: he appeared especially interested in the work of the Scientific Grants Committee, and desired to know if the Association had taken up any special investigation into the causes and cure of cancer. All the members of the British Medical Association will, we feel sure, be gratified by this evidence that the Prince of Wales shares the King's interest in the medical profession and in the work of the Association.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

We publish in another column a letter from a Fellow of the Royal College of Surgeons of England, suggesting that it would be to the advantage of the College were a Fellow engaged in general practice elected to the Council. We do not know what proportion of the twelve hundred odd Fellows are general practitioners, but it must be very considerable, and it is surprising that the Council contains no one of their number. Moreover, the last general practitioner who had a seat upon the Council was, we believe, the late Mr. Sibley, who was elected as long ago as 1886. Our correspondent, passing from the general to the particular, suggests that Mr. George Eastes, for many years Treasurer of the Metropolitan Counties Branch of the British Medical Association, and once its President, would be a suitable person to be elected. He is engaged in general practice in London, and his work on the Council of the Association and its Committees has made his character and business capacities well known to many members of the profession outside London, among whom must be not a few Fellows of the Royal College of Surgeons of England. The suggestion will no doubt have their sympathetic consideration.

"DISCRETION," IN THE PAYMENT OF MEDICAL WITNESSES.

In commenting on the new scale of fees in criminal courts sanctioned by the Home Office from the commencement of this year, we pointed out[1] that possibly a short Act of Parliament might be required to enable the Home Secretary's intention of increasing those fees to be carried out in places where, owing to the "discretion" allowed to the magistrates, no fee had hitherto been allowed for medical evidence at police-courts or petty sessions unless the case was committed for trial, on the ground that the regulations said such fee "may be," not "shall be," allowed. A case illustrating in another way the need for legislation in the matter has just occurred at Birmingham (see page 808), where a medical witness, who was entitled to two guineas a day under the new regulations, was paid only one guinea a day at the "discretion" of the clerk of the court, and was told that two guineas, being the maximum, was intended only for such people as the President of the College of Physicians or of the College of Surgeons, and that the limit of three miles, fixed in the regulations as entitling to the higher fee, applied only to those coming from a long distance. When this is the sort of "discretion" exercised by clerks of the peace who control these payments, and from whose decision there seems to be no appeal, it becomes necessary that the attention of Parliament should be called to the fact that the new regulations "considerably increasing the allowances to professional witnesses," as the Home Secretary declares, are not being given effect to in the criminal courts generally. It will greatly assist those members of Parliament who are moving in the matter, if all medical witnesses in England and Wales will procure through their booksellers a copy of the new *Regulations as to Allowances to Prosecutors and Witnesses in Criminal Prosecutions*[2] (Eyre and Spottiswoode), price 1d., and in any case in which they are not allowed the full fee named therein, get a question asked by their representative in the House of Commons. At present it seems incredible to members of that House that so little discretion, not to say common sense, should be exercised by clerks of the peace in a matter of such importance to criminal procedure.

THE MANCHESTER ROYAL INFIRMARY.

Among the objections raised to the transfer of the Manchester Royal Infirmary to the new site at Stanley Grove was that founded on the fear that cases of accident or illness arising in the centre of Manchester requiring prompt treatment would be at a disadvantage if they had to be removed to Stanley Grove. The advocates of removal met this objection with a constructive promise that the needs of those requiring prompt surgical assistance should be duly considered. In what way these needs should be met has recently been the subject of a long letter to the *Manchester Guardian* from Mr. William Thorburn, Deputy Chairman of the Medical Board of the infirmary. In it he indicates that he at first favoured the idea of building a central "urgency" hospital, but that he now thinks the need of the situation could be met in another and much better way. An emergency hospital of twenty beds would probably suffice for real needs, but he points out that, apart from the expense of building, such an establishment would require a very comprehensive staff and equipment, and that its relative expense would be enormously greater than that of the parent institute, whose funds, moreover, would be seriously burdened by the initial and permanent outlay. Besides this, it would prove difficult in practice really to restrict the use of the beds to their ostensible purpose of the reception of cases of such urgency as to be incapable of transport; twenty beds would therefore prove too few. If, however, the number were materially increased it would amount to the perpetuation of the city hospital plan, which it was the general desire to abolish, with the added disadvantages and expense of dual administration. Besides, the public would certainly suffer in one way, even if it gained something from the existence of such a hospital in another. Many cases would certainly be taken to the urgency hospital as the nearest, only to be sent on a second journey after removal from the vehicles in which they arrived and the examination necessary to determine the precise gravity of the injury. He thinks, therefore, that instead of building such a hospital it would be much better that Manchester should decide upon the alternative which is that of improving its existing ambulance system. Motor or horse-drawn ambulances should be kept in constant readiness at the infirmary, and should be sent out in charge of a medical officer of the rank of a junior house-surgeon, and driven by a policeman, receiving the same right of way as that accorded to fire engines and escapes. The infirmary should be connected with every police-station and every police-station if possible with every policeman's beat. In this way sufferers would receive almost instant and skilled first-aid, and would be conveyed to the infirmary

[1] British Medical Journal, January 2nd, 1904, p. 34.

[2] An abstract of these regulations was published in the British Medical Journal of January 2nd, 1904, p. 8.

under circumstances which would take ten minutes more or less on the road is a matter of small moment. A useful but not essential addition to the scheme would be the provision of dressing stations, equipped with first-aid appliances in connection with the police stations, and in charge of a senior medical student or a retired non-commissioned officer of the Royal Army Medical Corps; in outlying parts of Manchester such stations might have an hour's use as well. This, briefly, is the scheme propounded by Mr. Thorburn. It seems to us perfectly sound, and if administrative and executive details are carefully arranged it will result in a system which, while safeguarding the interests of personal patients, will assure the greatest good of the greatest number more amply than any plan of an urgency hospital in a great and spreading city such as Manchester.

CENTRAL AFRICAN NATIVES IN THE TRANSVAAL.

A Blue-book issued on March 24th contains a dispatch from Lord Milner in which he gives an account of the health of the natives recruited in the British Central Africa Protectorate for employment in the Transvaal. Up to the date of the report three batches had arrived as follows: [illegible] in June, [illegible] in August, [illegible] in September, or altogether [illegible]. The total mortality among them was very high, being [illegible], or nearly [illegible] per cent. The heaviest mortality occurred in the first batch, amongst which influenza broke out directly after its arrival. Some 20 died from this cause within the first six weeks. Amongst all the batches there had been a great deal more sickness and mortality than there ought to have been, but it was the heavy initial death-rate, equal to nearly one-third of the whole, among the first batch which makes the total mortality-rate appear so very high. The great mistake which had been made, Lord Milner says, was that of bringing the natives of hot low-lying regions to the high lying plateau of the Transvaal right in the middle of the South African winter. They should have been brought down during the hot season and so enabled to get acclimatized gradually to the cold weather as the winter came on. An additional source of sickness was the incredible carelessness of these natives in the matter of health, and especially their disregard of the most elementary precautions with regard to change of temperature. The men last brought, seemed now to have a better appreciation of how to take care of themselves, and were passing on their knowledge to newcomers. Lord Milner's conclusion is that this unfortunate experience with the early experiment of importing Central African natives should not at present put a stop to the enterprise altogether, but that it indicates that further results must be awaited with great care.

THE SERUM-THERAPEUTICS OF TETANUS.

In an article on the scientific and practical aspects of serum immunization against tetanus, Professor L. von Behring collects some statistics which illustrate the curability of the mortality in this disease when tetanus antitoxin is employed. Previous to the introduction of antitoxin treatment out of [illegible] cases recorded, there was a mortality of [illegible], or [illegible] per cent. In cases treated by antitoxin, Professor Behring says, it is found that the mortality has been reduced from [illegible] to [illegible] per cent. For successful treatment [illegible] administration is obviously of the greatest importance, the dangers of [illegible] progressively increasing as the disease progresses. [illegible] by [illegible] can be given, but even by veins. Other factors of importance are age, individual susceptibility, the virulence of the infective material, the amount of [illegible] the site of infection, and the [illegible] pathogenic agencies in the lesions which predispose to the growth of the infective. Some of these differences in the [illegible] with tetanus bacilli [illegible] to explain in the theoretical part of his article, which deals with the action of tetanus toxin. Comparing the modes of action of [illegible] to those of hydrocyanic acid and its compounds, he holds that the molecules which contain the toxic nucleus peculiar to tetanus are acted upon in different ways by the different bodily fluids and cellular elements of different types of animals and that similar differences occur between animals of the same species but of different age or general condition. The modifications thus produced upon the toxin-bearing compound bring about a corresponding modification in its pathogenic activity when it arrives at its seat of election in the central nervous system.

PLAGUE IN QUEENSLAND.

A [illegible] recently presented to the local government by Dr. Barnett Hart, Commissioner of Health for the State of Queensland, gives an account of the [illegible] of plague which occurred in Queensland from February to May. A number of interesting points are [illegible], but the report in general does not throw any fresh light upon the epidemiology of the disease. The [illegible] to the fourth consecutive year and has continued to increase with a mortality-rate of [illegible] per cent. It is noted that during the hot months the plague [illegible] with mosquitos and that cases [illegible] constantly bitten. No member of the staff [illegible] the disease, although at the time there were [illegible] patients with B. pestis constantly present in their general circulation. It is [illegible] that the [illegible] appeared to have been [illegible] the mosquito [illegible] on her face. A high [illegible] to [illegible] the value of Yersin serum as a curative agent, but its view is safeguarded by insistence on very early treatment and very large doses, and [illegible] and [illegible] cases are specially excepted, there is room for a good deal of discount.

POST MORTEM DELIVERY IN HOSPITAL AND IN PRIVATE.

A note on a case of *post-mortem* Cæsarean section was recently read by Blau before the Vienna Obstetrical Society. The patient was an undersized, strumous girl, 21 years of age, a victim to old disease of the left hip; the thigh was flexed, abducted and rigid, and there were numerous scars on the buttock and also cicatrices on the neck. Valvular disease was advanced and hydrothorax present. The pregnancy, her first, ended about term by feeble pains followed by dyspnœa, cyanosis, spasms of the facial muscles and death. Within two minutes the child was delivered by Cæsarean section. It was asphyxiated, but recalled to life by appropriate measures. It measured [illegible] in. and weighed [illegible] lb. The necropsy on the mother showed even more advanced visceral disease than was suspected during life. The child was saved and no obstetrician will deny that the infant should always be rescued if possible, but Blau operated in a hospital. There are great obstacles in the way of success in private cases of any kind. The disadvantage of Cæsarean section in practice is evident: the mother is dead, the infant has no voice or feelings, but the relatives have both and must be taken into account. Dr. Walter Cockle's paper on a Case of Eclampsia with *post mortem* delivery by forceps read in Dublin last spring dwells on this question. In the instance the patient's heart failed suddenly as Dr. Cockle was preparing to apply the forceps. He made use of that instrument on the dead patient and delivered a well-nourished child, which had all the appearance of recent vitality with asphyxiation. Artificial respiration was persisted in for a considerable time, but in vain. It is fair to bear in mind that the complication which killed the mother would have endangered the child even if delivered spontaneously. Dr. Cockle observed that to the physician who has decided upon trying to save the life of the child after the mother's death the method of Cæsarean section is always open, while forceps delivery is only possible under certain circumstances. Yet with the os fully dilated and the head well down in a normal

[illegible]

[illegible]

pelvis the forceps can be used with great advantage and speed. It is, in Dr. Cockle's opinion, as rapid and sure as Caesarean section and is much cleaner, being practically bloodless. It leaves behind no disfigurement of the mother, and is on that account less repugnant to the minds of the relatives. If the infant be found dead already when extracted by an incision into the parietes and uterus, the operation might appear to the mother's friends in the light of an experiment. This last point, Dr. Cockle urged, is of no small importance, as the relatives are often the determining factor as to whether the doctor may interfere at all. Lastly, Dr. Cockle observed that in private practice the obstetrician is more often armed with the forceps than with a scalpel.

HOMOEOPATHIC STATISTICS.

A good deal of irritation seems to have been caused locally by a speech made by Dr. Madden at the annual general meeting of the Phillips Memorial Homoeopathic Hospital at Bromley in Kent. According to the report published in the *Bromley and District Times* Dr. Madden said: "All over Europe the death-rate in homoeopathic hospitals was lower than in allopathic hospitals. In London in the Homoeopathic Hospital for Children the death-rate was between 19 and 20 per cent., while in the Great Ormond Street Hospital for Children the death-rate was between 69 and 70 per cent. The cases dealt with were of a precisely similar character, the only difference was in the medicine given." Dr. Madden wrote at once to correct this statement so far as to say that the statistics referred only to cases of broncho-pneumonia in children under 5 years of age, but in a subsequent letter to the same paper he further modifies his statement, and apologizes to the Great Ormond Street Hospital for having given figures which were "by no means correct." However, he still endeavours to support his main thesis by comparing the mortality from simple pneumonia and broncho-pneumonia in the Homoeopathic Hospital for Children with those at Shadwell and at Great Ormond Street. We think no useful purpose can be served by attempting to compare statistics collected from such disparate material. Our hospitals have to deal with the great mass of the poor in which class belief in homoeopathy is comparatively rare, and the lower one goes socially the less frequently do we meet with parents who hold these opinions. Moreover, the facility of admission to hospitals influences their statistics, and for this reason those hospitals which do the greatest amount of good must always show a relatively high mortality.

RADIO-ACTIVITY AND MINERAL WATERS.

In a paper read before the Royal Society on March 10th the Hon. R. J. Strutt detailed some studies which he had made with a view to determining the nature of the radio-active constituents of certain minerals, and whether any hitherto unknown radio-active body were present. He found that when dealing with any radio-active body which gave off emanations, it was better to test for the emanation rather than look for activity in the solid, irrespective of whether the amount of material available were small or great, and thus take advantage of the fact that each emanation had a definite rate of decay and could thereby be identified. His method was to heat a definite weight of the crude material in a combustion tube sealed at one end, collect the gases over mercury, break off the sealed end, and make up the volume of gas to a fixed quantity by the admission of the requisite amount of air; then, after waiting a certain time, he estimated the radium present by the rate of leak due to the accumulated emanations as against that due to a known quantity of radium. Tested in this way, samarskite, fergusonite, monazite, and zircon, all gave radium emanations in varying quantity. His studies had not revealed any emanations other than those of radium and thorium. Several varieties of monazite, though markedly radio-active, contained little radium, but a considerable amount of helium. It was suggested in explanation that helium might possibly result from the decomposition of thorium not less than from that of radium. The minerals mentioned were found for the most part to retain nearly all their emanations when not submitted to heat. In the same paper Mr. Strutt narrated his experiments with Bath, Buxton, and other mineral waters and the deposits therefrom. No emanations could be obtained either from the natural deposits or dissolved salts of any of the waters tested other than those of Bath and Buxton. The deposits from the latter were estimated each to contain about the same amount of radium, the amount existing in the deposits being relatively very much greater than that in solution. The gas which rose from the Bath spring contained helium, and this no doubt owed its origin to the same store of radium as that which supplied the water. The paper concluded by an interesting estimate of the annual output of radium by the Bath spring. The whole of it was ascribed to the disintegration of radio-active minerals and the total amount considered to be not more than one-third of a gram each year in addition to about 1,000 litres of helium. In this estimate the dissolved radium was alone considered, since although the radio-activity of the deposit was relatively great its total amount was infinitesimal.

SPOROZOA AND DISEASE.

Professor Minchin in his fifth lecture on the sporozoa, delivered at University College, dealt with the life-history of halteridium, and gave an account of the flagellate or trypanosoma-like forms exhibited by the haemosporidia. Halteridium was a curved parasite which grew within the red corpuscles of birds, partially enclosing the nucleus. MacCallum, of Toronto, some years ago showed that a process of fertilization of the halteridium occurred in which flagellate forms played a part. Mosquitos which bite birds infected with halteridium are in turn infected by the parasite, which in the mosquito's stomach multiplies largely, the final resultant forms being motile flagellate trypanosomes. These pass into the blood vessels and assume the non-motile stage after attaching themselves to the red corpuscles, which they penetrate and enter (endoglobular form of halteridium). Other halteridia, however, remaining free in the blood plasma maintain their flagellate condition (trypanosome form). The full-grown male trypanosome has an elongated and slightly sinuous body provided with four chromosomes, a long terminal flagellum, a narrow vibratile band continuous with the flagellum along the length of the body, and several myonemes, or contractile fibres, attached to the band longitudinally. Besides male trypanosomes, neutral and female forms (Schaudinn) are also met with in the mosquito. Of the three forms—male, female, and neuter—the females are best fitted by their constitution to survive periods of "famine" in the stomach of the mosquito—that is, when the latter has not had a meal for some time. The male gametes usually die under these circumstances, but the female gametes pass in between the epithelial cells and hold on, and when the mosquito gorges itself with food they swarm back to the blood and go on multiplying afresh. The neutral forms wander into the blood and lymph spaces, and finally enter into the pharynx and ovaries of the mosquito. From the pharynx they pass, via the proboscis of the mosquito, into the blood of a bird or other animal bitten by the mosquito, while those in the ovaries infect the next generation of mosquitos (hereditary infection). In these ways the life-cycle of halteridium is kept up. Schaudinn anticipates that a trypanosome-like stage will be found in the human body as a stage in the development of the malarial parasite, and is preparing for publication a monograph on the subject.

FRENCH ANATOMICAL CONGRESS AT TOULOUSE.

The Sixth Congress of the Association of French Anatomists took place at Toulouse from March 27th to 31st, and was attended by a large number of anatomists and histologists. The "Congressites" were received in state by the Mayor on the afternoon of March 27th in the Capitole. In the evening the Rector of the University gave a dinner in his official residence. On Monday, March 28th,

the reading of communications commenced in the new buildings of the Faculty of Medicine, which were opened in 1901 and were largely subsidized by the municipality. M. Tourneux, who holds the Chair of Histology, was President of the Congress. Nearly fifty communications were read and in addition there were nearly twenty special demonstrations, most of which were histological. Most of the members belonged to the universities of France. Amongst those present from beyond the limits of "la belle France" were Waldeyer, Ramon y Cajal, Van Gehuchten, Van der Stricht, Eternod, Romiti of Pisa, and Stirling of Manchester. A large number of the communications were histological, and several dealt with interesting developments in comparative histology. A specially interesting series of skulls showing the "*Hyperostosis toulousaine*" or Toulousian skull, was exhibited by Professor Charpy. It is hoped that the various anatomical societies, of which there are many in Europe, may be brought together some time next year on neutral ground, most probably at Geneva. After the Congress a day was spent at the interesting old town of Carcassonne.

Sir M. Foster has given notice that on April 12th, the day on which Parliament reassembles after the Easter recess, he will ask the First Lord of the Treasury whether opportunity will be given to discuss in the House of Commons, before action is taken, the portion of the report of the War Office (Reconstitution) Committee which bears on the health of the army.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Plague in Johannesburg.—Last week, on the second reading of the Consolidated Fund (No. 1) Bill, Sir Walter Foster took the opportunity of calling attention to the serious outbreak of plague at Johannesburg. The number of deaths occurring in the first few days indicated the virulent type of the malady, and the fact that it was pneumonic in character added to the gravity of the situation. He said he was not without some suspicion that the high mortality which had occurred in the mines might be due to a mild form of plague preceding the present outbreak. He specially asked the Colonial secretary to search out the causes of the outbreak, so as to find out whether it had been introduced by recent additions to the Indian population, or whether it had come in through rats or other animals. He pointed out the danger of its introduction by pigs, fowls, and even dogs and cats. The steps taken to isolate all the people in the Indian location and the removal of between 200 and 300 Indians to a site eight miles away, he commended and urged equally stringent isolation of all other suspected persons. As regards the importation of Chinese and Indian coolies, he pointed out the special susceptibility of these races to the malady and the danger inherent in the importation of labour from ports like Hong Kong, which was the *focus originis* such as regards this disease in modern times. Chinese labour must only be imported from uncontaminated ports if South Africa was to be kept free from the disease. He also urged the isolation of the newly-arrived Asiatics for at least six days before they were allowed to enter the mines or join gangs of workmen. Dr. Hutchinson supported the views advanced, and gave striking testimony from his own personal experience of Chinese coolies as regards their susceptibility to disease and their resisting power. He spoke strongly of the insanitary condition of Johannesburg and the urgent necessity of the epidemic, for taking the most careful precautions as regards the introduction of Chinese labour. Mr. Lyttelton, in his reply, said that each cooly would be medically examined in China before he was embarked that a surgeon-superintendent would be on board each ship, and that a medical examination would be again made on disembarkation. He was unable to say anything on so difficult and obscure a point as the origin of the outbreak. The insanitary condition of Johannesburg was aggravated by the scarcity of labour, which prevented the municipality from carrying out its sanitary works; but, as regards the plague, complete measures for isolation had been taken. In reference to the importation of Chinamen, he said that they would not be shipped from insanitary ports, or ports infected with plague. The discussion then turned to other matters. On Tuesday Sir Walter Foster again drew attention to the plague at Johannesburg, and said that he felt bound to impress on the Colonial Secretary the urgency of insisting on full information being given as to the progress of the disease. His suspicion that the present outbreak had been preceded by plague in some less evident form was confirmed by the report of the medical officer of health of Johannesburg, which described cases undoubtedly of plague occurring between February and April last year. Rats were also dying in numbers at Johannesburg in April, 1903. Yet the rumours of plague had been denied by telegram in May last. He strongly condemned any concealment of such conditions in the interest of public health, and said the present outbreak was the nemesis of keeping the matter so dark last year. Mr. Lyttelton said that in consequence of what the hon. member said the other day he had sent a telegram to Lord Milner asking him for information. Lord Milner, in reply telegraphed on March 20th that it did not seem to be realized that extensive Government laboratories existed and that a bacteriological laboratory under first rate specialists, with skilled assistants, had been on the look out for the plague for months. Great numbers of dead rats had been examined. During six months 13 rats had been found to have died of plague. Each of these cases was specially investigated, and no possible connexion could be traced between any two of them. The conclusion was that the rats were transported individually from the coast. The Government laboratories had also devoted the greatest attention to pneumonia, which was a very common disease there among mine workers. Many scores of cases had been bacteriologically examined, but no trace of plague was found in any one of them. It was impossible that the same specialists who were on the look out for plague, studying all these cases of pneumonia, should have failed to detect the plague bacillus in a single case, if what had been thought to be pneumonia had really been plague. This was all the more certain because it was only bacteriological examination which revealed the plague when it arrived. The present epidemic had so far only appeared at Johannesburg, at Pretoria, where there was one case in the hospital, and in one other place. Machinery was ready for taking measures immediately on the notification of cases of plague. The place in which the epidemic had occurred was surrounded by a cordon, and natives were being removed as quickly as possible. During the eight days since the outbreak of the epidemic only three fresh cases had occurred among the inhabitants of the cordon area. A Committee was giving its attention to the matter, and strongly recommended that the old Indian location, which formed part of the insanitary area, should be burned to the ground. The disinfection of all compounds was being thoroughly carried out. All rats were being killed as quickly as possible, and stray dogs and cats were being exterminated. Lord Milner was perfectly satisfied that the precautions which were being taken were as comprehensive as possible. The gentleman who was acting as medical officer had a number of excellent medical assistants, the majority of whom had had experience of the plague. This telegram, he thought, made any additional statement unnecessary.

Exemptions from Vaccination.—Last week Mr. Weir asked the President of the Local Government Board if he would state how many certificates of exemption from vaccination were granted during the year ending December 31st, 1903. Mr. Long replied that the returns made to him showed the number of certificates of conscientious objection received by the vaccination officers during each year, and the number might be taken as substantially agreeing with the number granted during the year. The returns for the year 1903 were not quite complete, but the number of certificates of the kind referred to received during the year might be stated approximately as 37,000. This week Mr. Long, in answer to Mr. Corrie Grant, said that the number of certificates of conscientious objection to vaccination received since the passing of the Vaccination Act, 1898, might be taken as approximately 387,000. By far the largest number were given between the passing of the Act and the end of the year 1898—namely, 203,413. This was due to the fact that certificates could be obtained during the four

months after the passing of the Act in respect of all children born prior to that date, whilst in respect of children born after that date the certificate must be obtained within four months from the birth of the child. He had no means of ascertaining how many of the exempted children had been attacked by small-pox, but several such cases had been reported to him.

Vaccination in Scotland.—In reply to Mr. Weir, the Lord Advocate said that he was informed that the object of the circular letter issued recently by the Local Government Board in Scotland was to secure that all the inmates of poorhouses should be vaccinated, but the circular did not enjoin the compulsory vaccination of the classes of children referred to. It recommended but did not require that medical officers of poorhouses should examine paupers on admission with regard to the inadequacy of their protection against small-pox. It did not require compulsory revaccination. The Local Government Board had not instructed the medical officers of poorhouses to keep a record of the number of inmates examined and the number revaccinated, and it preferred to leave this to the discretion of poorhouse committees.

Death Certification in England and Wales.—Sir Walter Foster asked the President of the Local Government Board last week if he could state the number of deaths registered in England and Wales for the last five years for which he had official returns, and the number certified and uncertified for each of the years. Mr. Long answered that he had obtained the following figures from the Registrar-General on this subject:

Year.	Number of Deaths			
	Total.	Certified by Registered Medical Practitioners.	Inquest Cases.	Uncertified Deaths.
1898	552,141	507,541	34,159	10,441
1900	581,709	534,441	36,608	10,745
1900	587,830	539,712	36,861	11,257
1901	551,585	504,817	36,781	9,986
1902	535,538	490,091	35,793	9,654

The proportions per 100 deaths were as follows:

Year.	Certified by Registered Medical Practitioners	Inquest Cases.	Uncertified Deaths.		
			Total.	Reported to Coroners.	Not reported to Coroners.
1898	91.90	6.19	1.89	1.44	0.45
1899	91.88	6.29	1.83	1.43	0.40
1900	91.81	6.27	1.92	1.57	0.35
1901	91.52	6.67	1.81	1.50	0.31
1902	91.52	6.68	1.80	1.54	0.26

The Physical Condition of Children.—On the third reading of the Consolidated Fund Bill on Monday Sir John Gorst drew attention to the fact that 12 per cent. of the children attending London Board schools were suffering from insufficient nutrition. He referred to the Committee now sitting on the question of national deterioration, and said the causes had been known for years to be want of proper food and fresh air. He said the question was urgent and it was the duty of the Government to prescribe remedies or to authorize local authorities to do so. Mr. W. Crookes made a remarkably forcible speech in favour of the views expressed by the previous speaker. Sir William Anson admitted that it was the most heartbreaking aspect of the education question. The Committee of Inquiry referred to had been appointed to consider whether a Royal Commission should not be appointed to consider the question of national deterioration. The reference implied a plan for collecting periodically a national set of facts on the physical condition of the people with a view to indicating the causes and treatment of the deterioration. The Committee had evidence from Professor Cunningham, chairman of a similar Committee appointed by the British Association, and his evidence had been sent to the Royal Colleges for consideration. The College of Surgeons had approved of an annual survey of the population, agricultural and working, and of the children. The survey, it was hoped, might be completed every ten years. The Committee had gone carefully into the question of the nutrition of the children and their ailments, and he hoped the report would be presented at no distant date. The subject then dropped.

Experiments on Animals.—Sir John Rolleston asked the Home Secretary whether, in view of the 14,900 experiments upon living animals in 1902, he could obtain from the institutions or persons to whom certificates were granted, a statement of the practical results in scientific knowledge or in the improvement of medical treatment which could be traced to those experiments. Mr. Akers-Douglas answered that certificates were not granted under the Cruelty to Animals Act, 1876, to institutions. Persons holding certificates under the Act published in considerable numbers in books, journals, and the proceedings of learned societies reports of the experiments performed by them. He thought that these reports enabled those who were interested and qualified to judge the results which the experiments had yielded or were likely to yield in the advancement of scientific knowledge or the improvement of medical treatment. By far the most of the experiments quoted in the question were inoculations, many of which were performed either for diagnosis or in connexion with the preparation and standardizing of drugs and curative sera, of which the practical utility was well known.

The Treatment of Whites and Blacks at Johannesburg.—In answer to a question of Mr. MacNeill's last week as to the flight of white inhabitants from Johannesburg and the alleged retention of the black population, the Colonial Secretary said that he had no official information bearing upon the assumed differential treatment of the two classes of the population. He had no reason to believe that any distinction was made between the white and black population, or that the blacks generally were being prevented from leaving the town. The measures being taken by the Government were, as he understood, only what were necessary, in the opinion of Lord Milner's medical advisers, for the purpose of controlling the outbreak by temporary aggregation of those within the infected area.

The Woking and Finchley Sore-throat Epidemics.—Mr. Weir asked the President of the Local Government Board, having regard to the epidemic of sore throat at Woking last autumn, and at Finchley early this year, attributable to milk taken from cows out of health, if he would consider the expediency of taking such steps as might be necessary to ensure the occasional examination by a veterinary surgeon of all cows kept for the purposes of a public dairy. The President of the Local Government Board replied that legislation would be necessary to give effect to the suggestion made. He had caused the suggestion to be noted, but he could not promise to introduce legislation during the present session.

The Easter Recess.—The House adjourned on Tuesday night till Tuesday, April 12th. On that day Navy Estimates will be taken so far as shipbuilding, ordinance, victualling, and clothing are concerned. On Wednesday the Licensing Bill may be taken, and on Thursday Army Estimates will come on.

The Prevention of Malaria in the Roman Campagna.—The results of the four campaigns against malaria in the Campagna may be summarized as follows: In the first campaign, in 1900, there were found 3,751 cases, of which 27 were of the pernicious type; this is equivalent to 31 per cent. of the population. In the campaign of 1901 the number of cases dealt with was 2,366, of which 9 were pernicious; the proportion to population was 26 per cent. In the campaign of 1902 the number of cases was 2,591, of which 9 were pernicious, but the proportion to population was only about 20.5 per cent. In the last campaign the total number of cases had fallen to 1,547, of which 3 were pernicious. This gives a ratio of malaria cases to population in 1903 of about 11 per cent.

Scotland.

The Biological Significance of Malignant Growths.—On March 22nd Professor J. Bretland Farmer, F.R.S., Examiner in Botany in the University of Edinburgh, delivered a lecture illustrated by lantern slides in the lecture hall of the Royal Botanic Gardens, Edinburgh, on the Biological Significance of Malignant Growths. Professor Bayley Balfour introduced the lecturer, and there was a large attendance. The lecture was based on the results of the investigations mainly conducted by Professor Bretland Farmer and Mr. J. L. S. Moore. These investigations went to show that in a malignant growth what really took place was the conversion of ordinary cells into a type of reproductive cells, which in the new generation were parasitic on and destructive of the old, and were characterized by very definite nucleolar and other cellular characters from other body cells. It was upon the recognition of these nucleolar divisions that the present view largely rested. They had been led to their conclusions by an extensive comparative study of the reproductive tissues in plants and animals. The lecturer emphasized the importance of a general training in such facts of organic life as could be elucidated by the study of plants and the lower animals. Professor Bayley Balfour moved a vote of thanks to the lecturer.

Close of the Winter Session, Glasgow.—The winter session in the Glasgow University and the medical schools was brought to a close at the end of last week, and the students and examiners are this week in the throes of professional examinations. The university graduation ceremony this year is to take a new form. A "commemoration day" has been instituted, which will be an annual function. It is to be held this year on April 19th, and an elaborate programme has been arranged. After divine service there will be an oration by Sir William Ramsay, the first medical chemist, and then the capping of the recipients of the honorary degrees. The same evening a university banquet will take place in the Bute Hall. It is proposed to confer the ordinary degrees on the previous day—the 18th. This will thus be mainly exclusively a students' ceremony.

The Andersons College Medical School brought a very successful winter session to a close on March 24th. There was a large turnout of the Governors, the staff, and the students, and Lady Ure Primrose, the wife of the Lord Provost, presented the prizes and certificates. The Lord Provost himself gave a short address, urging the students to take an interest in the great social problems of the nation and therefore not to confine their attention to their own special work.

The St. Mungo's College Medical School also held a closing meeting for the session on March 24th, when the various prizes were presented to the successful students.

Chemical Department, Glasgow University.—In connection with the extensions that have recently been made in the chemical department of the University, the Glasgow University Court have just made an important appointment. Mr. Frederick Soddy, M.A.Oxon., has been appointed lecturer on Physical Chemistry for five years from October next. Mr. Soddy has been engaged for some time with Sir William Ramsay at University College, London, in connection with the [illegible] recently [illegible]. Prior to this he had been working with Professor Rutherford at McGill College, Montreal, and it is in the course of this work that the brilliant young [illegible] associated with the names of Rutherford and Soddy [illegible].

Aberdeen Royal Infirmary.

Annual Report.

The report of the Infirmary, submitted to the annual meeting of the Aberdeen Royal Infirmary and Royal Lunatic Asylum Incorporation, is most satisfactory reading, as the [illegible] generally. The condition of affairs almost seems to be the reverse of what it was a year ago. It is gratifying to be able to announce the extinction of the debt on the Infirmary, and to add that this result is largely due to the subscriptions from the class who most directly benefit by the Infirmary, and in addition are not wanting that the source of income is still capable of further successful development. The total number of patients treated in the wards during the year 1903 was 2,742, an increase of 78 over the previous year, and the average number of occupied beds has risen from 211 in 1902 to 217 in 1903. The cost per bed for the year was £[illegible] 18s. 11d., being £1 13s. 11d. over the previous year—this figure including provisions, wages, salaries, fire, light, and all ordinary repairs to the fabric of the hospital, such as painting, plumber work, painting etc., and the additional repairs last year ran into 12s. of the above sum, so that great care in the management is clearly indicated. The question of erecting a sanatorium is still under consideration, and already an offer has been made by two bodies of trustees to find money sufficient for the building of a sanatorium to contain forty patients and the necessary staff. The chief difficulty has been regarding a site, and this has not been got over yet, but those in charge are still giving the matter their attention, and collecting information regarding sanatoria in other parts of the country, so it is hoped the matter may be gone on with in the near future.

The Chairman, in moving the adoption of the report, referred generally to the state of the Infirmary finances, showing that during his three years of office they had improved by £60,000, this sum including the munificent gift of £25,000 given by Lord Mount Stephen to clear off the debt on the hospital. He also referred to the building of new operating theatres, one for each surgical ward, as being likely to be gone on with very soon. A very important announcement was made by Dr. Ferguson, of Kirmundy, one of the trustees of the late Mr Thomas Primrose. During the past year these trustees have given £447 to the Infirmary: £300 went to meet the cost of six beds for the year, £100 was spent in providing easy-chairs and large wheel-chairs for the use of the patients, and about £50 went to provide a general library for the nursing staff. Dr. Ferguson then announced that the trustees had now decided to give £[illegible] to the Infirmary on condition that the money should not be used for the ordinary expenditure of the institution, but should in time coming be available permanently for the upkeep of the establishment. The managers of the Infirmary were much gratified at this announcement, and the Lord Provost suitably voiced this feeling.

Changes in the Surgical Staff.

During the past six years the senior surgical staff of the Infirmary has been completely changed. In 1898 the Infirmary lost the services of Professor Ogston, who resigned after many years of valuable work. Three years later this was followed by the resignation of Dr. R. J. Garden, whose death was noticed in these columns some months ago. The early weeks of this year again saw the resignation of the Senior Surgeon, when Dr. McKenzie Booth was compelled to demit office owing to ill-health. For over twenty years Dr. Booth had been connected with the Infirmary, and had done much for its welfare. The directors accepted his resignation with much regret, and a strong tribute was paid by the Chairman to the excellence of his work on behalf of the institution, and he was unanimously appointed a Consulting Surgeon to the Infirmary. Dr. Booth's departure will be much regretted by the students, by whom he was held in high estimation as a teacher, particularly in the department of ear and throat diseases, in which he held the post of University Lecturer. All past and present students will unite in hoping that the release from active duty will bring about an improvement in his health. The directors have appointed Mr. J. Scott Riddell, M.A., M.B., to the post of Senior Surgeon, Mr. John Marnoch, M.A., M.B., to that of Second Surgeon, and Mr. H. M. W. Comry, M.B., F.R.C.S.Edin., Third Surgeon; and Mr. T. S. Stevenson, M.A., M.B., was appointed Third Assistant Surgeon.

The New Bangour Asylum.—The buildings for the new asylum being erected at Bangour by the Edinburgh District Lunacy Board have been so delayed that they are not likely to be completed for a year or two. Meanwhile the demand for increased asylum accommodation in the district has become so urgent that it has been necessary to make immediate provision for a certain number of patients. It has therefore been decided to build houses of wood and iron to receive 100 patients. These will be erected in connection with the new working patients, to which purpose they will eventually revert. Provision had to be made for patients of both sexes, for administrative offices, staff residences, store, kitchen, laundry, nurses' home, electric light installation etc. These buildings are all but completed,

and will be ready for the reception of patients early in April. There are five houses in all, in addition to the temporary building for the laundry and the electric installation. One of these is arranged to serve as a residence for the medical superintendent, the matron, the nurses, and also to be the general store. The other four will each accommodate 48 patients. The total cost of the buildings is £17,175, an average of less than £90 for 192 patients, while, including the staff of about 30 persons, the cost is £77 per bed.

Small-pox and Scarlet Fever.

During the week ending midday of Saturday, March 26th, 5 fresh cases of small-pox were notified to the Edinburgh Public Health Authorities, and 2 deaths were registered. During the same period 10 fresh cases were notified in Leith. During the same week 24 new cases of scarlet fever were notified, and 2 deaths were registered as due to that disease.

The trawler *Strathisla* arrived in Aberdeen from Lerwick having on board a man suffering from small-pox. The patient and the rest of the crew were removed to the fever hospital. His wife had already been removed to the hospital suffering from the disease. The man and his wife had attended a wedding in Shields about a week earlier, and developed the disease after returning to Aberdeen. The contacts are to be kept under observation for some time, and measures were taken for the disinfection of the vessel.

Ireland.

Royal Victoria Hospital, Belfast.

Generous Gift by the Right Hon. W. J. Pirrie.—Cost of the Building.

The annual meeting of the hospital was held in the Out-patient Department on March 22nd. This was the first annual meeting in the new building, and as the final statement of accounts of the building fund was announced as ready the attendance was large. As Mr. Pirrie had taken the chair at the initial meeting of the movement it was happily conceived that Mrs. Pirrie should preside at the first meeting after completion. The annual report stated that the transference from the old to the new building was carried out in September last. Up to the present only 204 beds of the 300 have been opened, as it was decided only to open as many beds as the estimated income would support. This is really an average of about 40 more than formerly if the old fever block is excluded. Already the attendance in both intern and extern departments is considerably in excess of the previous year. The medical report showed 2,298 new intern and 24,255 new extern cases. Of the intern, 888 were medical and 1,410 surgical. There were 859 surgical operations, with 27 deaths. "The medical and surgical staff desire to express," this report says, "their great satisfaction with the new hospital, which is fully answering their highest expectations."

At the beginning of the meeting Mr. Alexander McDowell, on behalf of the Construction Committee, made a final statement as to its history and duties. The committee had been in operation seven years. It had held its first meeting in 1897 and its last on the previous evening. Mr. Pirrie had been the chairman and had worked indefatigably. All the work that could properly be done in Belfast was executed locally, and it reflected the utmost credit on the contractors. As regards the financial aspect, Mr. E. Bailey had acted as honorary auditor; £100 050 had been promised but £[illegible]92 17s. 3d. had been received; interest had been received from the bank and several subscribers, which brought the total receipts to £108,994 9s. 3d; the valuable site was a free gift of the City Council. The expenditure included the following items: the purchase of an adjoining public-house and some land, £4,269 2s. 5d.: the building, including laying out the ground, plumbing, etc., £[illegible]4,217 3s. 2d.: electric lighting, gas fitting, electric bells, telephones throughout the hospital, £2,262 2s.; boilers, engines, pumps, fans, laundry machinery, hot and cold water service, pipes, filters, and kitchen appliances, £10,247 2s. 10d.: sterilizing apparatus and dispensary fittings, £424: furnishings (including ward furniture), surgical appliances, beds, equipment of medical officers', nurses', and servants' apartments, kitchens and pantries, £13,135; miscellaneous including architects' and surveyor's fees, advertising, stationery, etc., £11,460; making a total of £125,961 18s. 5d. This left a deficiency of £10 967, a portion of this had been paid off by Mr. Pirrie as the work progressed, in addition to the exceedingly handsome donation at the outset: but on the previous evening, they had found there was still a debit balance of some £11,000: and as some subscriptions had been received on the understanding that the hospital would be opened free of debt, it was a grave responsibility to appeal to the public so soon for such a large sum. However, the trouble was surmounted in splendid style, as Mr. Pirrie had promised to defray this remaining debt.

A resolution of deep gratitude and heartfelt thanks to Mr. and Mrs. Pirrie was proposed by the Chairman of the Board of Management, Mr. W. Crawford; it was seconded by the Rev. Dr. Hamilton, President of Queen's College, supported by Professor Byers, and passed with acclamation. Mr. Pirrie returned thanks.

Mrs. Pirrie then in an eloquent and most sympathetic speech proposed the adoption of the annual report.

Sir William Whitla, M.D., in proposing the adoption of the medical and surgical report said that although they had an increase of 300 patients in their wards already over last year, yet patients were constantly being turned away: and all joined in the hope that very soon the whole wards would be available for patients. It was the unanimous feeling of the medical and surgical staff that they had one of the best equipped hospitals in the United Kingdom, and one of the most perfect of its size. He testified on behalf of the staff how grateful they were to Mr. and Mrs. Pirrie, not only for their munificent financial aid, but also for their time, ability, and experience, so ungrudgingly given.

The ordinary routine business was then transacted.

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

A meeting of the Central Midwives Board was held at the Board Room, Suffolk Street, S.W., on Thursday, March 24th, Dr. F. H. Champneys in the chair, when the following business was transacted:

1. On consideration of applications for approval of certificate as a qualification under Section II of the Act, the certificate of the following institution was approved:

National Maternity Hospital, Dublin.

2. The following institutions were approved for the training of midwives under Section c of the Rules, subject to an undertaking to comply with the requirements of Section E of the Rules:

Birmingham Workhouse Infirmary.
Bristol Royal Infirmary.
Brownlow Hill Workhouse Hospital, Liverpool.
Essex County Cottage Nursing Society.
Gloucester District Nursing Society.
Hull Lying-in Charity.
Ipswich Nurses' Home.

3. The following registered medical practitioners were approved as teachers under Section c 1 (3) of the rules:

A. E. Batley, M.R.C.S.	Wilfrid Kingdon, M.B.
A. B. Calder, M.R.C.S.	E. J. Maclean, M.D.
John Gutch, M.D.	Thomas Pimley, M.B.
E. S. Hoare, M.R.C.S.	Penrose L. W. Williams, M.R.C.S.

4. The following certified midwives were approved under Section c 1 (2), for the purpose of signing certificates of attendance (Forms III and IV).

Eleanor Heatley.	E. S. Tate.
E. S. Sibery.	Bessie M. Worrall.

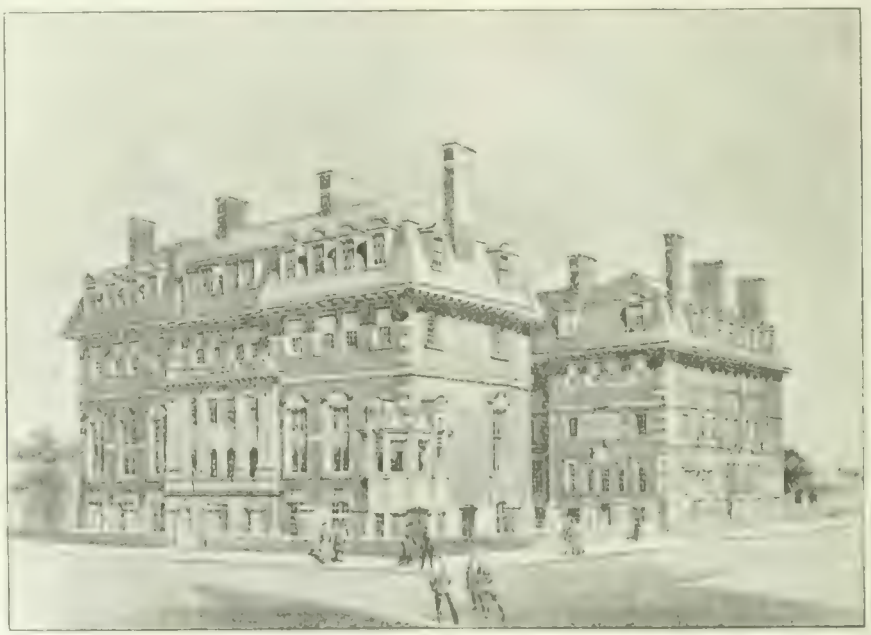
5. After consideration of applications for certificates, the names of 849 women were passed under Section II of the Act, and ordered for entry on the Roll. The following table shows the separate numbers of the various qualifications at present entered on the Roll:

Royal College of Physicians of Ireland	1
Obstetrical Society of London	[illegible]
Rotunda Hospital	43
Coombe Hospital	1
Queen Charlotte's Hospital	52
Liverpool Lying-in Hospital	1
British Lying-in Hospital	2
Glasgow Maternity Hospital	32
St. Mary's Hospital, Manchester	53
City of London Lying-in Hospital	6
Royal Maternity Hospital, Edinburgh	5
Salvation Army Maternity Hospital	3
Women in bona-fide practice only, 1[illegible]1	222
Total enrolled	415

ROYAL ARMY MEDICAL COLLEGE.

IN the BRITISH MEDICAL JOURNAL of February 6th (p. 314) a general account was given of the proposed buildings of the Royal Army Medical College, together with a description of the instructional portions of the buildings, illustrated by a view of the north elevation of the laboratory building and the ground plans of all its floors. In continuation of that account, we now give a sketch of the mess and officers' quarter block as it will finally appear. It will lie on the river side of the laboratory block, and follow the same style of architecture as that of the other buildings within the enclosure. Practically it may be said that this block is formed of three buildings of which the larger one at the back is joined by a somewhat narrower portion to the front building, somewhat smaller than that at the back, which is seen in the foreground of the sketch. In looking at the latter, it should be understood that it is being viewed as it will be seen from the river, from which it is only divided by the Grosvenor Road.

Its northern side, if regarded as a single block, measures 175 ft. and its eastern side 150 ft. Practically including the basement it will have five floors, namely, three elevated floors and an upper and a lower ground floor in addition to the subways, cellarage, and boiler rooms; and thus will give ample accommodation to all the officers in residence, including the Commandant. The lower ground floor, in addition to a well-arranged kitchen and domestic offices of all characters, not forgetting a day room for mess waiters, has in the front part a billiard-room, a visitors' and reception room, a large hall fitted with telephones and and an office for the mess secretary. On the upper ground floor are the mess-man's living rooms in the south portion of the main block, while the Commandant's house occupies that to the north. In the centre of the block are two quarters for senior officers. On this same floor in the front portion of the building commences the mess room, ante-room, and smoking room; each of these will be two stories high. The measurements of the mess room will be 50 ft. by 35 ft., and those of the ante-room 45 ft. by 35 ft. These rooms will communicate by broad folding doors, so that practically it will be possible to throw the two rooms into one. The mess room is provided with an alcove for the band, while separated from the ante-room by the balcony, which projects over the entrance, is the smoking room, and over the balcony a card room. All these three rooms face the river, and will thus have a very fine view. Part of the space in the first upper floor is taken up by the projections of the mess room, ante-room, and smoking room, which as already stated have a height of two stories. The rest is given up to officers' personal quarters. The second and third upper floors are identical in the way they are planned, and together with the rooms in the two stories afford accommodation for a total of seventy-five officers, not including in the calculation the house of quarters provided for the Commandant. All the quarters are well arranged, they vary to a certain extent in size and some are laid down as for senior officers and others for juniors. All, however, are roomy and all have more than one window. The bulk of the building is to be warmed by means of hot water pipes, but in addition there is in each officer's room a fireplace. The lavatory accommodation is sufficient, and bath rooms for hot and cold water baths are provided in the proportion of one to every six quarters. On each landing also will be found a room for the brushing and cleaning of officers' clothes—an excellent idea. The whole building will be light and well-ventilated, since throughout the long axis of every floor runs a long corridor from end to end except on the first upper floor where the corridor ends in a stairway.



Royal Army Medical College (Mess and Officers' Quarters Block from the North-East).

Altogether it appears as if the future inhabitants of this building are very much to be congratulated. It will be a place of study and residence thoroughly worthy of the corps, and it is to be anticipated that it will form a centre of attraction for the purposes of scientific or social intercourse to all officers of the Royal Army Medical Corps who come to London, whether on leave from home stations or on return from tours of foreign service.

CONTRACT MEDICAL PRACTICE.

THE ATTITUDE OF FRIENDLY SOCIETIES.

AT the annual conference of the Friendly Societies of the United Kingdom which assembled in Caxton Hall, Westminster, on March 24th, medical matters as usual received some attention. The President in his opening address pointed to the Medical Acts Amendment Bill, the progress of which required to be watched closely by the societies. It was not many years ago, he said, that an attempt was made to induce the General Medical Council to strike off the *Register* for "infamous professional conduct" a medical man whose sole crime was that he acted as doctor to a Friendly Societies' medical aid association. That effort failed, but in the interim there had been developed a stronger feeling in the medical profession against such associations, and there had arisen an objection to the continuance of the ordinary contract practice with the various Orders, unless revised on terms which would include a wage limit. The disturbing elements were to be found not so much within the ranks of the doctors already engaged by the Friendly Societies as amongst other sections in the profession. The medical benefit, however, was only one of many benefits of Friendly Societies, and it was positive nonsense for medical men to urge, as they did, that persons—particularly those in good circumstances—joined Friendly Societies simply to obtain the medical benefit at cheap rates. He was in full sympathy with any reasonable effort to improve the conditions of service of their medical men, where the need could be pointed out; but he desired to make it very clear that they would not have any interference from medical men with the internal management of their associations. There were no express terms in the Bill which would enable the General Medical Council to declare acceptance of service under Friendly Societies as infamous conduct, but the Bill was very vague, and this vagueness had concealed dangers against which they must carefully guard themselves. It was essential, therefore, to secure the introduction of amendments explicitly framed so that the Bill, if it became law, could not be converted into an instrument whereby medical men could be compelled to cease to be officers of Medical Aid Associations, or even take up ordinary individual contract practice. He concluded by suggesting that the societies should consider whether they had not better invite the Committee of the Trades Union Congress to co-operate with them in opposing the Bill.

STATE REGISTRATION OF NURSES.

We have received the following manifesto, dated March, 1904, which is signed by a number of chairmen of hospitals, members of the medical profession, and matrons of hospitals in London and the Provinces:—

We, the undersigned, feel called upon to make the following statement in view of the steps that are being taken to obtain, by Act of Parliament, a State Registration of Nurses.

The objects claimed for such registration are:

(A) The benefit to the public, who would, it is said, be enabled to ascertain from the Register the competency of the nurse employed, and would be protected from unskilled and incompetent persons.

(B) The benefit to the "trained nurses" themselves, who are alleged to be placed at a disadvantage by the employment of imperfectly-trained persons.

We believe that these claims are mistaken, and that any system of State Registration would be detrimental to the public and harmful to the nurses themselves, for the following reasons:

1. Inasmuch as any system of registration must be based on the results of testing by examination the technical capabilities of a nurse, it of necessity raises to a predominant position this side of her work, and leaves entirely unconsidered those personal qualities upon which her main value depends, such as good temper, manner, tact, discretion, patience, and unselfish womanliness. It is these characteristics which cannot be ascertained by examination, and which no system of registration can include.

The experience of those concerned in the training of nurses and supplying them to the public shows that it is the want of these qualities in a nurse which gives rise to complaints on the part of patients and their friends. It is seldom that a want of adequate technical training is the ground of fault-finding.

Moreover, it is the difference in the comparative value of the technical skill and the personal qualities in the making of a nurse, which constitutes the essential difference between her and a doctor as regards the applicability of a system of registration, and renders the analogy, so often made, entirely fallacious. A doctor's technical knowledge takes many years to acquire, and his education is tested at various stages by authorized bodies, and, however important his personal character may be, it is for his skill and knowledge primarily that he is consulted. But, without desiring to underrate the importance of the technical knowledge of the nurse, it is certain that apart from a speciality such as midwifery—the extent of this knowledge is secondary in importance to her personal character.

It is well known to many of the signatories that not a few women who have done extremely well in examinations have quite failed to make good nurses, or such as could with confidence be sent into private families.

No one would engage a governess, or even a domestic servant, simple because her name is on a register, without inquiring into her character as distinct from her ability to perform her specific duties. *A fortiori*, the same inquiry should be made before engaging a nurse. No register would in either case furnish the requisite information.

2. A State Register of Nurses, far from being a security to the public, would be an actual source of danger, since an utterly unsuitable woman, simply because she has passed an examination, would be entitled to be on the Register, which it is claimed would certify to the nurse's fitness.

3. Great difficulty, personal odium, and possibly the expense of defending an action for libel, would attend any one seeking to have a nurse's name removed from the Register even if she were notoriously bad. Shortcomings, sufficient to disqualify her as a nurse, would be almost sure to be passed over, and a really bad nurse might, and many would, be going about "hall-marked" as fit to be employed. The public would be lulled into a false sense of security, being led to believe that the Register would protect them from incompetent and undesirable nurses.

4. In our opinion it is not advisable that there should be a uniform training made compulsory on all nurses, such as a State Registration would require. To supply the manifold needs of patients, and to meet the very different conditions under which nursing of all sorts and kinds has to be done, a variety of nursing knowledge and experience is requisite, and a large number of women, trained only in certain directions, and who would not comply with the conditions imposed by registration, satisfactorily supply what is wanted. To exclude such from following their occupation, as a State Register more or less aims at, would be as unjust as it would be impracticable.

5. If nurses are to be registered on their technical qualifications (and it is conceded even by the advocates of registration that nothing else can be "registered") it is inevitable that they will concentrate their efforts on the attainment of the technical knowledge, which is thus made the *first* essential. From the beginning of their training they will deem the passing of examinations to be of primary importance. Those who realize that the ultimate success of a nurse must depend upon her personal suitability for her work, already deprecate the growing tendency to attach undue importance to the passing of examinations at the expense of the cultivation of those qualities of power of observation, of sympathy, cheerfulness, and self-control, without which the services of a technically-trained nurse can never be acceptable to a patient.

6. A State Register, such as is proposed, would tend to lower the status of the best nurses, partly from their association thereon with those persons who, from defects of character or performance, ought to be removed from the Register, but have not been so for the reasons stated. Further, if by the imposition of an unduly high standard of examination, the nurses able to pass such an examination may be said to be protected, this would be attained by the exclusion from the nurses' calling of a large number of women who could perfectly well fill many situations for which their services were suitable. If, on the other hand, an unduly low standard be set, the women most competent at examinations would be placed on the same level as the less capable, and those best qualified would lose most.

When in 1893 a scheme for the registration of nurses was promoted, a similar protest to this was issued, signed by Miss Florence Nightingale and representatives of almost all the large London nurse training schools as well as most of those in the provinces, and we know that to-day Miss Nightingale's opinion remains the same as it then was, that as the personal qualities, which are of first importance in a nurse, cannot be registered, it would be misleading to allow nurses or the public to imagine that any scheme of State Registration would indicate the fitness of any woman registered to act as a desirable attendant on the sick.

It should not be forgotten that all important hospitals give to the nurses trained in their wards, and whose work has been well done, certificates of service after the ordinary term of three or four years has elapsed. These certificates are sufficient testimony of technical knowledge and experience, and would not be improved upon by a registration or examination by persons who have had no experience of the actual conduct of the nurse during her period of service.

The preliminary list of signatures includes the following:

Chairmen of Hospitals and others.—Mr. Sydney Holland, Chairman of the London, Poplar, and Tilbury Hospitals; Mr. Charles Burt, Chairman of the Royal Free Hospital; Lord Sandhurst, Chairman of the Weekly Board, Middlesex Hospital; Lord Methuen, Chairman of King's College Hospital; Mr. Henry Lucas, Chairman of University College Hospital; Mr. J. Danvers Power, Chairman of the National Hospital for the Paralysed and Epileptic; Mr. Arthur Lucas, Chairman of the Hospital for Sick Children, Great Ormond Street; Mr. J. G. Wainwright, Treasurer of St. Thomas's Hospital; Mr. H. Bonham-Carter, Secretary to the Committee of the Nightingale Fund; Mr. J. G. Talbot, M.P., Chairman of Westminster Training School; Mr. W. L. Saunders, General Superintendent of the Manchester Royal Infirmary (on behalf of the Committee and Medical Board); and others.

Members of the Medical Profession.—Lord Lister, Sir Thomas Barlow, Bart., Sir James Reed, Bart., Sir Dyce Duckworth, Sir William Bennett, Sir Patrick Manson, Sir Isambard Owen, Sir Anderson Critchett, Professor Watson Cheyne, Mr. Bowlby, Dr. Norman Moore, Dr. Sharkey, Professor McCall Anderson, Dr. Ferrier, and others to the number of fifty-one altogether.

Matrons of Hospitals in London.—The matrons of twenty-three hospitals in London, the matrons of seven metropolitan Poor-law infirmaries, the Matron of the Westminster Training School for Nurses, and a few others.

Matrons of Provincial Hospitals.—The Matrons of the Royal Infirmary, Bristol; the Norfolk and Norwich Hospital; the Cumberland Infirmary; the Royal Infirmary, Dundee; the Worcester General Infirmary; Addenbrooke's Hospital, Cambridge; Lincoln County Hospital; Derbyshire Royal Infirmary; Royal Southern Hospital, Liverpool; Edinburgh City Hospital for Infectious Disease; Radcliffe Infirmary, Oxford; General Infirmary, Gloucester; the Lady Superintendents of the Newcastle-on-Tyne Infirmary; the General Hospital, Northampton; the Leith Hospital; the Workhouse Hospital, Liverpool, and the Worcester Nursing Institution, the Superintendent of Nurses, Edinburgh Royal Infirmary, with others to the number altogether of sixty.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association, at 429 Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

The Library will be closed on Thursday evening, March 31st, and reopened on Tuesday evening April 5th.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (1) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (2) a general statement of the expenditure incurred, accompanied, so far as is possible, with [illegible] and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which [illegible] annual, at the value each of £150 per annum, tenable [illegible] and subject to renewal by the Council, provided the [illegible] of three years.

The Scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Medicine, Surgery, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st, 1904.

LOUISA HOPE RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Louisa Hope Memorial Scholarship of the value of £150 per annum, tenable for one year, but subject to renewal by the Council for another year, [illegible] Applications must be made on forms to be had of the General Secretary, and returned on or before May 31st, 1904.

ERNEST HART, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

[illegible] Branch: South Eastern Counties Division.—A meeting of the Division will be held in the Station Hotel, Sevenoaks, on Friday, April 8th, at 4 p.m. Business: To consider the Medical Defence [illegible] Association. To consider the following recommendation of the Parliamentary Committee: "That the question of the admission of [illegible] to Conferences with Metropolitan Members of Parliament be referred to the Divisions." To consider the following recommendation of the Medical Defence Committee: "That the Divisions be asked to consider whether it is advisable that the medical witnesses engaged in any [illegible] should meet in consultation." The Secretary will be glad to receive information of cases to be shown or papers that members may desire to read as far previous to the meeting.—W. HALL CALVERT, Honorary Secretary, Melrose.

Metropolitan Counties Branch: Hampstead Division.—The next meeting of the Division will be held at the West Hampstead Town Hall, Broadhurst Gardens, N.W., on Friday, April 8th, at 4 p.m. Dr. Ford Anderson will preside. Agenda: To consider the following motions for Annual Representative Meeting: (1) The advertising of medical practitioners in connexion with hydropathic establishments. (Medical Committee.) (2) That it is undesirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (Medical Committee.) (3) That the scheme of medical defence (Medical Defence Committee) be put in force. J. DUNCAN RUSSELL, Ossian House, Bolton Street, N., Honorary Secretary.

Southern Branch: Portsmouth Division.—The next meeting of this Division will be held at 3, Pembroke Road, Portsmouth, on Tuesday, April 12th, at 8 p.m. Members wishing to show cases or to read papers should communicate before April 6th with the Honorary Secretary, J. G. W. DAVIS, Ingmar House, Kingston Crescent, Portsmouth.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Presentation to Alderman Dr. T. Clarke, late Chairman of the Hospitals Committee.

Dr. THOMAS CLARKE, who has been a member of the City Council and chairman of the Port Sanitary and Hospitals Committee for the past eleven years, has resigned his office as alderman, and with it his seat on the Council. He has deserved well of the community by the manner in which he has superintended the important work of the committee and by the great advance which has been effected in the hospital administration and accommodation during his term of office. When he became chairman there was only accommodation for between 300 and 400 infectious cases in the city, and there is now accommodation for about 1,000. Dr. Clarke's late colleagues on the Council have presented him with a handsome silver tea and coffee service as a mark of their high esteem and personal regard, and in recognition of his valuable services to the city.

The presentation was made on March 23rd by the Lord Mayor, who was accompanied by the Lady Mayoress. The Lord Mayor said that Dr. Clarke had served the city with an ability and zeal which had won not only the confidence of the public, but also the admiration and regard of his colleagues. They had all learned to appreciate the firmness and yet withal the courtesy and consideration with which he had handled the business which he had had charge of in the Council. The gift, which is a richly chased solid silver Georgian tea and coffee service, bears the following inscription:

"Presented to Alderman Thomas Clarke, M.D., [illegible] as an expression of the high esteem and personal regard in which he is held by his colleagues upon the Council of the City of Liverpool. November 1903."

The service was accompanied by a beautiful silver tray.

Dr. Clarke, in accepting the gift, said that when he undertook the Chairmanship of the Hospitals Committee he felt that Liverpool was not adequately provided with hospital accommodation for isolation of infectious disease, and that in the interests of the general community and the trade of the port that accommodation should be increased. Fifteen years ago the health of the city so far as infectious diseases were concerned was not much thought of by foreign nations; but during the last few years they had, through their representatives at this port, been paying very special attention to the efforts made to cope with infectious diseases in Liverpool. It would have been a serious matter if the city had failed to provide the necessary accommodation. As a medical man he felt it was absolutely impossible for the working classes to provide adequate shelter at home for the isolation of the infectious sick. He thought the Council was now in a position, or shortly would be, to meet all possible requirements, and that Liverpool would stand perhaps first among the cities of the empire in regard to the ample accommodation provided for dealing with infectious disease.

BIRMINGHAM.

The Birmingham Medical Institute.—Care of the Feeble-minded.—The Ear and Throat Hospital.—National Trades Exhibition.

The annual meeting of the Birmingham Medical Institute was held on March 24th. The report showed that the past year had been a most successful one for the institute. The number of members was 212, of whom 183 were ordinary members and 30 life members. During the past year, 24 members had resigned or removed from the district, and one old member had died; 41 new members had been elected, so that there was an increase of 16 on the total number. The amount of the subscriptions had also increased, since in 1903 it was £104 10s. and in the previous year £180 2s. The income for the year was £497 and the expenditure £479, so that the excess of income over expenditure was £18. A canvassing committee has been formed, which has already done good work by obtaining more members. The library now consists of 13,493 volumes, and of these 168 were added during the past year. The library is largely used by the members, as is seen by the fact that 1,158 volumes were issued to 125 borrowers. The reading-room is supplied with 83 periodicals, of which 37 are regularly bound and added to the library. At the annual meeting the following gentlemen were elected officers for the ensuing year: *President*, Mr. Arthur Oakes; *Vice-Presidents*, Dr. E. D. Kirby and Dr. J. W. Russell; *Honorary Secretaries*, Dr. W. R. Jordan and Mr. C. Leedham-Green; *Honorary Librarians*, Mr. J. T. J. Morrison and Dr. Douglas Stanley.

A conference, organized by the After-Care Committees of Birmingham, Leicester, and Nottingham Education Departments, was held in the Council House on March 24th with the object of discussing the problems and difficulties which arise with regard to the care and treatment of feeble-minded persons. The conference was largely attended, and it seemed to be the general feeling that the only satisfactory way of dealing with the question was by the permanent care of the feeble-minded in residential homes. The following resolutions were adopted:

"That in the opinion of this conference it is necessary that the provisions of the Elementary Education Defective and Epileptic Children's Act, 1899, should be made compulsory; that an inquiry should be held to consider whether, and if so what alteration in the law is necessary, so that harmless pauper and non-pauper lunatics, epileptics, and feeble-minded persons could be confined in suitable establishments upon a different certificate to that now required; that Boards of Guardians should receive a grant of 4s. per week for every harmless lunatic, epileptic, or feeble-minded person sent to homes provided by them to the satisfaction of the Local Government Board."

The fifty-ninth annual meeting of the governors and subscribers of the Birmingham and Midland Ear and Throat Hospital was held on March 23rd. The report for 1903 showed that the total ordinary income for the year was £2,225 and the ordinary expenditure £2,323, leaving a deficit of £98, notwithstanding the fact that the in-patient department was closed for about four months of the year owing to building operations. The subscriptions amounted to £1,421, which was a slight increase when compared with those received in the previous year. Owing to the large structural alterations and extensions which have been going on during the past year the number of patients treated at the hospital was smaller than in previous years. The number of out-patients was 7,872 and the in-patients 781, as compared with 8,122 and 1,191 respectively in 1902. Of the in-patients, nearly 36 per cent. were admitted from districts outside Birmingham and its suburbs, so that the work of the hospital is distributed over a large area of the Midland counties. The committee reported with regret that the donations towards the hospital extension fund amounted only to £2,015, whereas the sum of £8,000 was asked for. Partly to meet this deficiency the committee authorizeed the trustees to realize the Corporation of Birmingham gas and water annuities. The alterations and extensions have now been completed, and enable the work of the institution to be carried on in a much more efficient manner, and giving the city a hospital of which it may well be proud. The authorities are trying to prevent the charity from being used by any but those who are unable to pay for medical advice, and their determination to accomplish this is shown by the large number of patients who were refused treatment at the hospital during the past year.

The Queen's Hospital should be greatly benefited by the National Trades Exhibition, which was opened at Bingley Hall on March 24th by the Lord Mayor of Birmingham, as the hospital receives 5 per cent. of the gate money. The exhibition promises to be even more successful than any of its predecessors, but even if it should not be so, the institution is bound to receive a considerable sum. As the result of former exhibitions the hospital has obtained £1,372 from Mr. George Stanley, who is the general manager.

CORRESPONDENCE.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—The letter signed by Dr. Cox in your last issue is too long and too diffuse to permit of a full answer on all points raised. With reference to his correction of the number of practitioners in the United Kingdom, as representing those within and without the charmed circle of the British Medical Association, had he read his JOURNAL of the week ending March 19th carefully he would have noticed that the clerical error was already corrected in the published copy of the circular issued by the Council of the Medical Defence Union.

Perhaps I may be allowed to point out the exact position of the Medical Defence Union, on whose Council I have had the honour to have a seat since its inauguration. In 1885 it originated medical defence—such defence never having been accomplished previously—and it is, in spite of competing societies which have sprung up since its foundation, the leading and most powerful society in this respect: it has never spared expense when its members were attacked, employing the highest and best legal talent in the courts regardless of cost. It is to this generosity, added to promptness, that it owes its present position. Other societies may have more money in reserve per head, but such reserve can only be obtained by cheeseparing policy in relation to costs at law, and such a policy has never obtained in the Medical Defence Union as being contrary to the interests of its members.

More than one quarter of its total membership consists of practitioners who have not for various reasons joined the British Medical Association, and to wind up a going concern and cease to protect and defend such members is, in the opinion of the Council, an uncalled-for action. In addition to these members there are many others who have written to say that they would sooner cease their membership of the Association rather than permit the Union to be wound up for mere sentimental reasons. The British Medical Association has taken seventy-three years to raise a membership of about 15,000; the Union in nineteen years has obtained members to the extent of 6,000. Now the Association, after many years' sleep, has awakened to a sense of its position and suddenly presents a pistol at the head of other societies which have been doing excellent work, and invites them to commit the "happy dispatch" and to cease to exist.

The Medical Defence Union has received no call from its members to commit suicide, and is quite ready and willing to continue its work as long as confidence is shown in it. The Council has no objection to healthy competition. It has the greatest possible objection to monopoly. Trusts and combines are un-English, and America has not justified their existence.

The ultimate issue lies in the hands of the members of the Medical Defence Union, and when the time comes, if they cease to have confidence in their Society, the Council will respect their wishes. Such want of confidence, judging from the numerous letters received, has no existence at the present time, and therefore the work will be continued without injury to either the Union or the Association.—I am, etc.,

M. ARDEN MESSITER,
President of the Medical Defence Union.

Dudley, March 28th.

SIR,—I must dissent from Dr. Cox in his severe criticism of the recent action of the Medical Defence Union on the above subject. He forgets that the first duty of the officers of the present medical defence societies is to look after their interests, and not to risk them in favour of schemes, the chief recommendation of which is that they may possibly increase the membership of the British Medical Association, and benefit in some not very clear manner the whole profession.

If the present societies were to wind up to-morrow, and transfer their business as far as possible to another society to be carried on within the Association, according to the proposed scheme, is it certain that the latter would attract

a larger number of members than those belonging at present to the Medical Defence Union and the London and Counties Medical Protection Society. I think not, and if the number were less a loss and not a gain to the profession would result from the scheme.

I disagree, too, with Dr. Cox that such a defence society would be anything more than "indirectly connected with the Association." As only such members as paid towards the new Society would be entitled to benefit, and these probably but a small minority of the Association, how could it be fairly said, when an action arose that the member was being defended by the British Medical Association?

The only link between the Society and the Association would be the officers elected under the scheme by the Council and the representative body, and it is incomprehensible to me how any officer of the present medical defence societies could ever consent to such an arrangement. Why should the Council and representative body elect all the officers? Because the funds of the Association are in certain cases to guarantee the solvency of the new Society.

Such cases have never yet occurred in the experience of either of the present societies, and would only be likely where action was being taken on matters affecting the whole profession; and it is specially stipulated in the proposed scheme that only individual defence should be undertaken at first.

On the Council and representative body there might possibly be no member of the new Society, and yet it is to have the right of electing all the officers. Surely, in common fairness, the officers should be elected by the members for whom they are to act. I can see no reason for such a system of election, except to make it appear that the proposed Society is an integral part of the Association, when, as a matter of fact, it is nothing of the kind—in other words, to throw dust in the eyes of the profession.

In my opinion, no scheme of medical defence by the British Medical Association would be worthy of support unless every member were included in it, and only under such circumstances could it be truly said that medical defence was being conducted by the British Medical Association.—I am, etc.,

London, N.W., March [illegible]. MAJOR GREENWOOD.

SIR,—Dr. Cox is anxious lest the members of the Medical Defence Union should refuse to accept the scheme of the British Medical Association. I am anxious lest the members of the Association should refuse to reject it. For twenty years the great body of its members have looked forward to the time when the Association would provide a scheme of medical defence, compulsory on all its members and included in the general work of the Association, and covered by one annual subscription. Instead of this the Council has produced a scheme, optional in its operation and grotesque in its details. The funds are to be provided by the individual members of the Association who desire to accept this scheme, and are to be under the absolute control of a central committee, which is to be elected by the Representative Meeting and the Council of the Association jointly, many of whom may not be contributors to its funds. Although the scheme is not to be an integral part of the Association, its funds are to be drawn upon in the case of urgency, and the Treasurer of the Association is to advance money on "terms approved by the Council" on the guarantee of the medical defence fund.

One of the arguments against making a compulsory scheme of medical defence has been that it would be "inconsistent with the constitution of the Association that any member should be called upon to contribute towards any object in which he has no share." I can see nothing in Article VII. or By-law 14 to justify this contention, but it appears to me to be equally inconsistent to devote money belonging to all to benefit only some of the members, as is proposed under the new scheme. In any case the Articles of Association will have to be altered, and I hold it absurd that a Council which could transform an organizing secretary of a more or less temporary character into a permanent medical secretary without the sanction of the members of the Association, would be able to produce a satisfactory scheme of medical defence, compulsory in its character, an integral part of the Association, and not merely an outgrowth from it, and at the same time maintain subscription. Even it might then be said to be under the "organization, prestige, and help of the British Medical Association" (and this, I trust, will be the decision at the next annual meeting), I am, etc.,

Salford, March [illegible]. E. H. WHITEHOUSE.

SOME GRIEVANCES OF THE WEST AFRICAN MEDICAL STAFF.

SIR,—In the beginning of 1902 the six various Colonial medical departments in the West African possessions were consolidated into one service under the name of the West African Medical Staff, other modifications of rules being granted at the same time. Considering that the death-rate in this service is normally nearly twice that of the active service rate in the Cape war, it would appear that it is deserving of every privilege it could be granted. Allow me, as I think the first to come out under the new rules, to state grievances that still exist; for those serving at present prefer to do so without the risk of complaining and being considered to be giving "trouble," it also in official etiquette being not the duty of a head of a department to fight his subordinates' battles except they complain in official form.

1. *Gratuity.*—Some years' acquaintanceship with the Treasury in Crown Colonies makes me say that, unless a man resigned either at nine years or twelve and a-half, as the case might be, under the present wording he would get nothing (his heirs or executors) if he deceased after serving beyond those periods.

2. *Quarters.* We were promised free furnished quarters, or allowance in lieu thereof. In my last spell in Ashanti I had one room found, with three articles of furniture out of some two dozen authorized. A letter pointing this out, and asking for modified allowance was not even answered, as far as I remember. The officers of the Gold Coast Regiment were receiving allowances for living under the same conditions. When I left Cape Coast hospital there were three medical officers in it, the quarters they occupied being two special rooms, and two wards with only a few of the authorized articles in each.

3. *Special Duty.* This has always been the great stumbling-block: it has amounted to pure sweating. The last Governor, Sir Matthew Nathan, tried to abate it, but found that a vicious system could not be altered all at once. Soon after he assumed office there were six doctors doing duty as acting commissioners in six out of thirteen Supreme Court districts, representing a saving to the Colony of £250 a month. I was one of the six, my work was increased by 200 per cent., and income by 10 per cent. Under the regulations you cannot refuse such duty, nor is it desirable that such right should exist: but such a devolution of work should only be required in emergency. The practice has been to save the Treasury at the expense of the doctors, a legal Commissioner has been at Elmina perhaps twelve months in the last six years: Ada and Kwitta must have been getting on to half their time in those years under medical acting commissioners. In the northern territories one medical officer was for six months away from his station without any other European, acting as a tax-gatherer; another was for four months recently a foreman of works, erecting public buildings in Salaga. All this is very disheartening to men keen on their profession. They find their time taken up with other than medical duties, and yet are told in a circular that promotion will largely depend on original research and special professional work. This constant sweating led up to most doctors resigning if they could, hence there was a permanently undermanned staff: in my first five leaves I was on an average over two months overdue.

4. *Extra Duty.* The worst feature of this extra duty was not the duty itself, but the conditions under which it was done. It might be because the Commissioner was ill; you then had this extra duty with increase of medical work. Doctors in West Africa have to be nurses as well. There might be no Commissioner; after being ill yourself you had to go back to work too soon, to clear off arrears. You became responsible for every department in your district, being as open to adverse criticism as if specially trained in that duty. The Treasury held you as financially responsible as a fully trained member of that department. Members of the secretariat, clerks of a few months' standing, would criticize your local knowledge, although of several years' standing. I knew one doctor made an Acting Commissioner within a month of his first landing, within a fortnight he was gravely censured for a mistake in legal procedure; he left after his first leave.

5. *Breach of Contract.* After signing you find that you have only bound yourself as against the Crown, that the Crown cannot be forced to observe its share. Those of us who had joined with the right of private practice were suddenly told in 1901 that it was a right the Governor could withhold. In 1903

doctors who had drawn pay for attending to imperial troops, this being private practice, were ordered to refund the amounts, although the War Office had agreed to the charges.

6. *Seniority.* There is no settled system by which seniority has a claim to the best stations for private practice. To do your duty as an Acting Commissioner was to court being sent to the smaller districts. I have known of doctors who purposely made a muddle of such work being rewarded by being sent to the larger stations where there was rarely any extra duty but plenty of extra practice. I am, etc.,

G. ROME HALL, M.D.,
Late Senior Medical Officer West African Medical Staff.
Chiswick, W., March 28th.

THE PROPOSED MINISTRY OF HEALTH.

SIR,—The British Medical Association is engaged in the most valuable work possible in advocating the extension of the powers vested in the health departments of the civil, naval, and military populations on a scientific basis.

Recently I had the honour to forward to you a commentary on your valuable memorandum dealing with a proposed reconstruction of the Local Government Board, which was approved by the British Medical Association. May I be allowed to review briefly the main features of that commentary?

1. The Bradford meeting of the Sanitary Institute in 1903, the Brussels Congress of Hygiene 1903, and many other meetings have approved of the formation of a health ministry.

2. The British Medical Association would model the Local Government Board upon the system of the Admiralty.

3. Noting a closer analogy between the army and public health, it is probable that the new army scheme offers a more appropriate standard, provided that it be adapted to public health requirements.

4. A comprehensive and elastic scheme in outline is as follows. (It is seen that there is an alternative proposition to the Minister of Health being an expert, but there is no doubt that his title should be as set forth. A critical analysis of the pros and cons regarding an expert head in State medicine shows no valid contraindication. Thus it is expedient on the grounds of progress merely, to propose such an alternative.)

I. MINISTER.

Cabinet Minister of Public Health and Separate Cabinet Minister of Local Government.

or an expert Cabinet Minister presiding over Health Ministry. A Cabinet Minister of Local Government Office.

or, as an alternative.

A Cabinet Minister of Public Health and Local Government (non-expert).

II. HEALTH MINISTRY.

1. *Public Health Consultative Committee.*

(a) or (b) presiding over a Public Health Consultative Committee advisory, which is a thinking, collating, initiating, and recording body, advising the Minister on all matters relating to public health in the Empire.

2. *Public Health Executive Committee.*

(a) or (b) presiding over a Public Health Council (administrative), a department to administer the public health civil services, including hospitals, sanitary works, vaccination, pathological and public health laboratories, etc. The duties allocated to each member to be defined with the organization of the health services.

3. *Inspection Department.*

An Inspection Department, to be the eyes and ears of the Council, a development of the present system of inspection.

4. *Public Health Services (Naval and Military).*

III. LOCAL GOVERNMENT OFFICE.

(a) or (b) presiding over a Local Government office (for business other than public health, but not defined here).

Suggestions as to the constitution of these bodies are given in my commentary on your valuable memorandum in the hands of the Secretary of the Medico-Political Committee, to which I hope to be allowed to refer at a future date.—I am, etc.,

Plymouth, March 26th. J. BUSHNELL.

THE FEEDING OF INFANTS.

SIR,—In a letter published in the BRITISH MEDICAL JOURNAL on March 26th, Dr. L. A. Parry calls attention to the fact that in the home modification of milk for infants, as usually recommended, it is necessary to have a cream of a known specific gravity. He points out how difficult it is to obtain accurate results unless the cream is analysed. This is truly a serious objection to the system of percentage feeding, by a process of home modification, if absolute accuracy is essential to success. To a certain extent the objection does not hold good in London, for some of the dairy companies will supply a 10 per cent. cream when ordered; and sometimes this is a gravity cream. Such devotion to accuracy may be useful or even necessary occasionally, and no doubt impresses the public. Nevertheless I am of opinion that a simple method of home modification is all that is usually required and that this can be carried out quite easily as long as it is possible to get a good supply of mixed milk. A great deal too much importance has been attached to the pseudo-scientific method, the so-called percentage method of feeding. It is rarely necessary. It is frequently disadvantageous. It condemns the infant to a succession of meals of the same quantity, taste, and composition—a diet which I have called the *toujours perdrix* diet. It may give rise to malnutrition, anaemia, and scurvy. And it can hardly be called scientific, seeing that it starts on a purely empirical basis. We can no more assert that a given percentage mixture will suit a particular child than will an empirical mixture, home-made, of roughly the same composition. The simplest methods will in the end survive and prove the most useful. Of these, the one I recommend in my book on *The Natural and Artificial Methods of Feeding Infants and Young Children*, page 182, second edition, has proved most satisfactory.

In this method it is necessary to obtain, morning and afternoon, a supply of good mixed milk. For practical purposes we may regard the percentages of the different constituents in such milk as—proteid 4, fat 4, sugar 4.4. Let the milk stand for a definite period, say four hours, in a refrigerator, covered up, and surrounded by ice in hot weather. Then siphon off the top half or top third. The top half of such milk will usually contain the same proportions of proteid and sugar, but double the amount of fat. I am not concerned with minute accuracy in the percentages. In addition, a sugar solution must be made of 1 oz. of milk sugar or cane sugar, 1 oz. of lime water, and 19 oz. of water. This solution is alkaline and contains 5 per cent. of sugar. It must be made fresh twice a day and kept in the refrigerator. In order to start with a weak mixture and gradually to increase the strength, it is only needful to take 5 oz. of the top-milk and enough sugar solution to make the total quantity 20 oz., and to gradually increase the amount of top milk up to 10 oz., while the amount of the sugar solution is reduced in proportion, the total bulk of the mixture remaining at 20 oz. By this means the percentage of proteid is gradually increased from 1 to 2, of fat from 2 to 4, and of sugar from 6 to 7. Should it be desired to have a higher proportion of fat without any increase in the proteid, the top-third milk must be used instead of the top half. The percentage of sugar can be reduced by using a weaker sugar solution. Using this method it is quite simple to start with a very weak mixture and to alter its composition according to the necessities of the case. The weak point in the method is that it does not enable us to increase the relative amount of albumin as compared with caseinogen. If albumin is required in preference to caseinogen it can be added in the form of egg albumin. The essential points in this process are good mixed milk, the composition of this varies little from day to day; it must be kept under the same conditions and for the same length of time; and the sugar solution must be fresh. The variations in the composition of the mixture will be slight, and probably less even than in mother's milk at different times of the day. Such variations are most probably advantageous.—I am, etc.,

London, W., March 28th. EDMUND CAUTLEY, M.D., F.R.C.P.

POOR-LAW MEDICAL SYSTEM IN IRELAND.

SIR,—I have read your excellent report on the above, but cannot understand why medical men in the twentieth century undergo "voluntary slavery" so willingly. If the medical men in Ireland would take a leaf out of the miners' book they would unite, ask redress, and, if need be, go on strike. I am certain their medical brethren in England and Scotland would not prove "blacklegs."—I am, etc.,

JOHN WISHART, M.D.
Dudley, R.S.O., Northumberland, March 28th.

THE DIMINISHING BIRTH-RATE.

SIR,—The subject of the diminution in the birth-rate has undoubtedly brought to light some ingenious theories, particularly as regards the case of the middle class. But why muscularity in the poor woman should produce such totally different results as the same condition amongst the more refined is not explained. Is it not probable that any attempt at an explanation will embrace the theory entirely? I feel some diffidence in coming forward with yet another

hypothesis. But since I have for 25 years practised exclusively amongst the professional class having neither poor nor wealthy patients and having since boyhood moved in that society alone, I cannot help thinking that I may have had peculiar advantages of forming an opinion regarding them.

The question I opine is entirely an economic one. There is, as far as I have observed, no loss of virility or fecundity, but children are now universally undesired, mainly from the increasing difficulty in educating them and placing them in life.

To find a girl a suitable husband with a home, or a boy with an avocation suited to a gentleman, will in the near future tax the ingenuity of the most capable mother or father.

When we have realized that we are being made to pay, in order that our coachman's sons may be able to compete against our own sons for daily bread, the contemplation of the situation in front of us must give us pause. Thus it is that many men dread matrimony (notably amongst the clergy) and almost all practise Malthusian methods.

It is my solemn conviction that the professional class, as a distinct order, is being obliterated. In the past the upper class depended on its estates (funded or real), the merchant class upon its capital, the poor on their labour, and the professional class upon its education. The new education legislation has robbed the latter of its patrimony, and there is therefore no sure living for its children.

This is a saddening prospect, for the old refined ways of thought and living, of which this class were the custodians and examplars, are passing away. England will become Germanized or Americanized by this process alone, and the English gentleman, apart from the *jeunesse doré*, will become as extinct as the British yeoman.—I am, etc.,

March 28th. HAMPSTEAD.

THE SITE OF IMPREGNATION: PREGNANCY AFTER DOUBLE OVARIOTOMY.

SIR,—In the report of my observations in the discussion on Mr. Cripps and Dr. Williamson's paper[1] I am made to say that external migration seemed to me impossible. I really contended that it was less probable than the opposite explanation. Baldwin's experience, related in the annotation in the same number of the JOURNAL (p. 743-4) on Pregnancy with Deficient Tubes and Ovaries, requires no external migration theory. He removed a pair of large ovarian cysts, and the pedicles were so long that the entire anatomical ovary was extirpated without difficulty on either side. The stump of one tube and a trace of ovarian tissue (not of ovary) in the stump of the corresponding ovarian ligament were sufficient to allow of two subsequent pregnancies. But granting that in Baldwin's case transmigration occurred from ovarian tissue in the stump of one ovarian ligament to the stump of the Fallopian tube on the opposite side, such a transmigration would have been impossible in my case. For I found Dr. Barnes's pedicle, fourteen years old, in a state of complete atrophy, which involved the tip of the uterine cornu itself. The right tube, which I left more or less intact, must have received the ovum from some ovarian tissue in the stump of the right ovarian ligament. I had no difficulty in drawing up the base of the tumour during the operation, so that no portion of the anatomical ovary was left behind.

Of course transmigration was possible in Mr. Cripps's case, but the experiences which I have related make the other explanation far more probable. Should a piece of the anatomical ovary be left behind in a case like Baldwin's or my own, recurrence of the cystic disease would be more likely than pregnancy.—I am, etc.,

[illegible] ALBAN DORAN.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—In the BRITISH MEDICAL JOURNAL of March 26th you notify the fact that Professor Barling of Birmingham will be a candidate at the next election to the Council. Well and good. But the object of this letter is to suggest that it is highly desirable that the interests of [illegible] should again have representation at the College. The late Mr. Sibley was, I believe, the last representative there of this important element amongst the Fellows of the College. I do not know, but I am willing to believe, that the services of a good Fellow engaged in general practice would be welcomed by the Council, and I am bold enough to suggest that Mr. George Eastes, F.R.C.S., a general practitioner of high character and of wide information, is the man for the post. I cannot say whether he would accept nomination, for I have had no communication with him or with any friends upon the subject; but we all know that he is not a man to shirk a burden if he thinks its acceptance is a duty.—I am, etc.,

March 28th. F.R.C.S.

THE INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—In his communication on the above subject in the BRITISH MEDICAL JOURNAL of March 26th, Dr. Theobald A. Palm says:

> It is difficult to see what is gained by it in the case of the peritoneum, because the abdominal wall, being collapsible, is pressed upon by the whole weight of the atmosphere, and additional support can be given if desired by the simple expedient of bandaging.

Well, I am very sorry if I have not made my meaning clear, but I thought I had written so plainly that a wayfaring man could not err therein; however, I shall now try and let Dr. Palm have the loan of my spectacles for a little. My object is to maintain a positive intraperitoneal pressure, and I hope Dr. Palm will not consider it necessary for me to explain that the atmosphere cannot do that, nor can any amount of bandaging, apart from raising the intra-abdominal pressure, which is not quite the same thing. Moreover, there are some who ascribe the undoubted benefit which often follows drainage of the peritoneal cavity in cases of tuberculous peritonitis to the introduction of oxygen. Be that as it may, sufficient success has already attended the operation to make me anxious to continue it. Regarding the pleural cavity my object is to prevent adhesions, and obviate collateral hyperaemia which is apt to occur in the aged with rigid chest walls, as well as to relieve the acute distress which often follows aspiration. To accomplish these purposes the chest is not a sufficiently good aspirator to draw in the requisite amount of air. I recommend the injection of a volume of air equal to half the bulk of fluid which has been siphoned off.

In some of my earlier experiments I allowed the chest to suck in the air filtered through cotton wool in a glass thistle head, but I soon gave over this ineffective method. Dr. Palm recommends "several layers of aseptic gauze over the end of the tube to act as a filter." No doubt as a rule the air contains very few pathogenic organs, and so in the majority of cases unfiltered air might be introduced with impunity; but what would we think of a bacteriologist who used "several layers of aseptic gauze" as an air filter, and for the life of me I cannot see why practising physicians should be more careless in their methods than bacteriologists or surgeons.

In reply to Dr. Stuart Tidey, I may say that I use atmospheric air in preference to oxygen, from the fact that it contains nearly four-fifths of its volume of nitrogen, and hence is more insoluble. In tuberculous lesions the oxygen may be of advantage, and at any rate the one-fifth volume is not sufficient to interfere with the mechanical advantage of the nitrogen.—I am, etc.,

Liverpool March 28th. JAMES BARR.

PROPOSED STERILIZATION OF CERTAIN DEGENERATES.

SIR,—In view of the serious proposal made by Dr. Rentoul that certain "degenerates" should be sterilized, may I ask him, or any other of your readers, what is meant by a "degenerate," and what is the definition of "degeneracy"?—I am, etc.,

London, S.E., March 29th. CHAS. MERCIER.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES TO MEDICAL WITNESSES.

A case which has recently been brought before the courts serves to show that [illegible] The new regulations which were issued in November last, with regard to the allowances payable to medical witnesses in criminal proceedings, members of the medical profession are now able to obtain adequate remuneration in all cases. The facts of the case were shortly these. A medical practitioner was subpoenaed to give evidence for the [illegible] a charge of [illegible] which was [illegible] before the [illegible] Magistrates. He was called to prove that a medical witness for the prosecution was suffering from pneumonia, and was on that account unable to attend the court, owing to the date of the business at the [illegible] The witness was summoned to attend on two days, on each of which he was kept away from his practice for over four hours. After

the case was over he called at the treasurer's office to receive payment of his fees. He was allowed on the pay sheet the sum of two guineas for the two days, together with one shilling on account of travelling expenses. He refused to allow the sum of one guinea which had been paid to him by the solicitors for the prosecution when he was served with the subpœna to be deducted from the fees so paid. On his making a complaint to the clerk of the peace, whose business it is to settle the allowances within the limits prescribed by the rules, our correspondent was informed that "the allowance of £2 2s a day to which you claim to be entitled is the maximum allowance which the clerk of the peace could make it, for example, the President of the Royal College of Physicians or Royal College of Surgeons were to be summoned to give evidence at the city sessions. The actual allowance which the clerk of the peace shall make is left entirely to his discretion upon the lines suggested by the Home Office Order which you brought us." In the event our correspondent had to be satisfied with the amount awarded by the clerk of the peace, and he was compelled to return to the solicitors for the prosecution the sum of one guinea which had been paid to him with the subpœna.

A reference to Paragraph I of the Regulations made by the Secretary of State, governing the allowances payable to prosecutors and witnesses in criminal prosecutions, shows that the rule is certainly capable of the construction put upon it by the clerk of the peace. It is provided that:

"There *may* be allowed to practising members of the.....medical profession for attending to give professional evidence, but not otherwise, allowances not exceeding the sums stated in the following scale: For attending to give evidence elsewhere than in any town or place where the witness resides or practises, whether in one or more cases, not more than two guineas per diem."

"In this regulation 'town' means municipal borough or urban district; and 'place' means the area within a radius of three miles from the court at which the witness attends to give evidence." The regulations also provide that where evidence is given in the town or place where the witness resides or practises, a fee of not more than one guinea per day for each case may be allowed.

The clerk of the peace thus has a "discretion" in making these allowances. Nevertheless, the reasons stated by the clerk of the peace in the case under review are manifestly absurd. The three-mile limit is laid down by the Home Secretary in the regulations which he has drafted for the very purpose of providing that adequate remuneration shall be paid to a medical man who is compelled to travel more than a reasonable distance from the place where he practises.

AN ILLEGAL OPERATION.

On March 25th, Bertha Boudach, a German, aged 55, was, according to the *Morning Advertiser*, indicted at the Central Criminal Court for the manslaughter of the wife of a working tailor. From the evidence given it appears that the prisoner attended the deceased in August and December last and on each occasion performed an illegal operation. After the last operation blood poisoning set in, and the patient died. On being questioned by the police, the prisoner left her house, and ultimately went to Germany. After the inquest was completed she returned, and was arrested. The jury having found the prisoner guilty, it was announced that she had already undergone a sentence of five years' imprisonment for a similar offence, and was tried again only last year upon a corresponding charge. On that occasion she was acquitted, but was severely censured for her conduct by Mr. Justice Lawrance. On the present occasion Mr. Justice Grantham, on receiving the verdict of the jury, remarked upon the gravity of the offence, and sentenced her to seven years' penal servitude.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

A CORRESPONDENT sends a copy of a pamphlet, entitled *Woman*, issued by the Bio Chemical Company of New York, which contains a number of testimonials purporting to be given by British medical practitioners. We have referred the matter to the Ethical Committee.

PROFESSIONAL SECRECY.

SUSSEX.—Where a medical practitioner is employed by a Government department or a company to take charge of the health of its employés it is not a breach of professional secrecy for him to make all necessary reports upon cases which come before him, as the employés submit themselves to examination by him on the understanding that such reports will be made. On the other hand, he has no right to examine any member of the staff without his or her consent, and he ought to explain that it will be necessary for him to report the result of his examination. The position of the medical practitioner in these cases is analogous to that of an examiner for an insurance company, and no breach of professional secrecy is involved.

MEDICAL AID SOCIETIES.

RHYTIDOSIS.—The resolution passed by the General Medical Council on June 6th, 1893, on the subject of the association of medical practitioners with medical aid societies is as follows: "That the Council strongly disapproves of medical practitioners associating themselves with medical aid associations which systematically practise canvassing and advertising for the purpose of procuring patients."

THE USE OF "MR." IN OFFICIAL ANNOUNCEMENTS.

CRUX MELITENSIS.—In English official announcements by the Government and Court it is customary to use the form "Mr. A B C, M.D.," so that the Malta Government has authority for the practice.

HORSE HIRE.

A, B and C. are equal partners, and by the partnership deed it is agreed that each shall find and pay for the horses he requires to do the work of the firm. A will not have his horses out at night, or on long distances, and hires in consequence. Could this horse hire to be paid by A. or by the firm?

*** Strictly speaking A. would have to pay, but if the hire were necessitated, owing to his own horses being overworked, or on account of professional work at a time when it was practically impossible for him to use his own horses, then it would be usual for the expense to be borne by the firm.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Examination in Preventive Medicine and Public Health (D.P.H. Examination).

THE examination for the Diploma in Public Health will commence on Tuesday, November 22nd, at 1 p.m. in the schools.

The examination is in two parts, conducted partly in writing, partly viva voce, and in each subject partly practical.

The first part comprises the application of chemistry and physics to general hygiene.

The second part comprises the following subjects: General pathology, with special relation to infectious diseases, the laws relating to public health, sanitary engineering, vital statistics.

Both parts may be taken together at the same examination, or they may be taken at separate examinations; but no one is deemed to have satisfied the examiners in Part II unless he has satisfied the examiners in the subjects of Part I.

The fee for admission to each part is £5.

A diploma is issued to every candidate who has passed in both parts of the examination, but no diploma or certificate is given under any other circumstances.

Candidates (who are not necessarily members of the University) must have their names on the *Medical Register*, and must have satisfied all the rules of the General Medical Council of the United Kingdom relating to the admission of candidates for Diplomas in Public Health which are in force at the time.

Candidates must send in their names by letter to the Secretary to the Board of Faculties at his office in the Clarendon Building, Broad Street, not later than 9 a.m. on Tuesday, November 8th, at the same time enclosing the statutable fee and full evidence of having satisfied the above requirements.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Monday, March 28th, the President, Sir William Church, being in the chair.

President's Address.

The President delivered an address dealing with the chief events of the collegiate year, and gave brief obituary notices of the following eight Fellows of the College who had died during the year: Dr. Lloyd Birkett, Dr. W. S. Playfair, Professor Corfield, Dr. John Tatham, Dr. W. Sangster, Dr. John W. Hill, Sir Edward Sieveking, and Dr. Alexander Davidson.

On the motion of Dr. J. Pollock a cordial vote of thanks was passed to the President for his address.

Election of President.

Sir William Church then vacated the chair, and voting took place for the office of President for the ensuing year.

After a first ballot the numbers recorded were—for Sir William Church 44, Sir William Broadbent 42, Sir R. Douglas Powell 35, Dr. Pye-Smith 29; a few votes were given also to Dr. Howship Dickinson, Professor Clifford Allbutt, Sir Dyce Duckworth, Dr. Barnes, Dr. Payne, and Dr. Pavy. A second ballot was then taken for the two names with the highest number of votes, and it resulted in Sir William Church being placed first with 91 votes, and Sir William Broadbent second with 69 votes.

Sir William Church then thanked the Fellows for electing him for a sixth time to the office of President, and intimated that this was the last time he could consent to accept it.

Licence.

A licence to practise physic was granted to Colin Alexander Campbell, M.B.Toronto.

Oliver-Sharpey Lectureship.

The College Seal was set to a "Declaration of Trust" accepting a sum of £2,000 from Dr. George Oliver for the endowment of "The Oliver-Sharpey Lectureship or Prize" on the terms agreed to at the last meeting.

Official Communications.

Communications were received from:

1. The Colonial Secretary, moving the College to establish an examination and diploma in tropical medicine. The question was referred to the Committee of Management to consider and report to the College.

2. The Clerk of the Privy Council, asking, on behalf of the Physical Deterioration Committee, observations from the College on a scheme for establishing a permanent anthropometrical survey of the United Kingdom. This was referred to the Committee already appointed to deal with the question of the physical deterioration amongst recruits.

3. The Secretary of the Royal College of Surgeons of England, reporting certain proceedings of their Council on February 11th and March 10th.

4. The English Committee of the International Congress on School Hygiene, to be held at Nuremberg, April 4th to 9th, inviting the College to appoint a representative on the Committee, and send delegates to the Congress. Dr. Warner was appointed a representative of the College on the Committee, and Sir Lauder Brunton was nominated as delegate to the Congress.

5. The Secretary of the Sanitary Institute, inviting the College to send delegates to the Annual Congress to be held at Glasgow, July 25th to 30th. The invitation was accepted, and it was left to the President to nominate delegates at the next Comitia of the College.

6. The Secretary of the Midland Medical Union, Nottingham, forwarding a memorial praying the College to adopt a form of academical costume for its diplomates. It was resolved that an answer be sent pointing out that as nearly all the diplomates were also Members of the College of Surgeons, and as such entitled to wear a distinctive gown, any further addition in this direction from the College would seem unnecessary and undesirable.

THE VICTORIA UNIVERSITY OF MANCHESTER.

Adapted Course of Lectures. At a meeting of the Council on March 22nd Dr. S. Moritz was appointed Lecturer on Diseases of the Throat and Nose.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Fellowship Examination. The following candidates, having passed the necessary examination, have been admitted Fellows of the College: J. H. Barrs, L.S.A.Lond., and W. F. Law, M.B., F.Ch., Univ. Dub. The next examination is fixed for May 10th.

OBITUARY.

FRANK RENAUD, M.D.,

We regret to announce the death, in his 84th year, of Frank Renaud, M.D., M.R.C.S., L.S.A., L.S.A., which took place at Alderley Edge, on Tuesday, March 22nd.

Dr. Renaud was one of the oldest medical men in Manchester and its neighbourhood. He came of an old Huguenot stock, and was born on July 24th, 1820, in Hanover Street, Hanover Square, London. After a preliminary education in England Renaud studied medicine at Edinburgh, where he took his degree of Doctor in 1839 with a thesis on "The Ovaries: their Anatomy and Physiology, Comparative and Human." On account of his interest in his studies and his scientific attainments he was elected Senior President of the Royal Medical Society of the Harveian Societies of Edinburgh whilst he was a student. In 1844 he also obtained the diplomas of M.R.C.S. and L.S.A., and next year was appointed Honorary Physician to the Ardwick and Ancoats Dispensary, an institution situated in one of the most crowded districts of Manchester. At this time there was much sickness in the town, in consequence of the potato famine, and Renaud and his colleagues found typhoid fever, scurvy, and dysentery very prevalent in the patients under their care. In 1845 he wrote a paper in the *Monthly Journal of Medical Science* on the human female ovary, with reference to corpora lutea, both true and false, and this was published in book form of 50 pages in Edinburgh.

In 1849 he was elected Honorary Physician to the Manchester Royal Infirmary on the death of Dr. James Davenport Bolton. In those days the election of an honorary medical officer of the Infirmary created as much excitement in the town, and was nearly as costly as a political election, for all the trustees of the hospital—and there were several hundreds of them—had votes. The result of the poll was, as Dr. Renaud tells us in his *Short History of the Royal Infirmary*, that he and his opponent received an equal number of votes, and the treasurer of the hospital, who had a casting vote as chairman of the election, decided in his favour. Nowadays such elections are by a committee of about forty.

Shortly after being appointed to the Infirmary staff Renaud started in the teaching of medical students at the Pine Street School of Medicine, the forerunner of the Owens College School, taking medical jurisprudence as his subject in 1850, but changing in a short time to pathology and morbid anatomy, a branch of medicine he was specially interested in and to which the few papers he published belonged. In 1848 he wrote an article on the Literature and Probable Pathology of the Cauliflower Excrescences of the Uterus for the *London Medical Gazette*, publishing in the same year as a small pamphlet 40 pages. Another paper was entitled Observations on the Pancreatic Heart, took considerable interest in the Pathological Section of the Manchester Medical Society, contributing several papers to its meetings. At this time he had practically given up the scientific medical work in the town, and he gained a great reputation which brought him consultations among many of the best families of the district.

He arranged the books in the valuable library of the Infirmary, and made a classified catalogue of them, for which he received a testimonial from the committee. He always published his interest in the library, serving on the Library Committee which dealt with its concerns when he was [illegible] in later years.

He was also elected at this time to the Manchester Portico Library, a very old institution, and undertook the secretaryship, apparently by writing a pamphlet in which he advised the adoption of [illegible] measures.

For many years as the infirmary staff, Dr. [illegible] was in his [illegible] with the active [illegible] of the hospital, every [illegible] of his life, on [illegible] from the post of Honorary Physician he was [illegible] Consulting Physician, [illegible] to which body he [illegible] the charity to the Board of Management of the Infirmary, at [illegible] with them. He devoted the interests of the hospital, most regular and punctual in his attendance at committee meetings, he gained the esteem and respect of his colleagues, who looked to him for guidance in questions before them about which he had special medical knowledge, for at this time the rules of the hospital did not provide for any direct representation of the Medical Board on the Board of Management.

When the question of the removal of the Infirmary from its present site came up about 1877, it was probably a letter of Dr. Renaud's, vigorously opposing removal, published on the day of the poll, which influenced the trustees by a small majority to retain the hospital in its central position, and when the same question was discussed a few years ago he again opposed removal and drew up a plan of his own for extending the accommodation on the present site by adding wings without rebuilding. Such a scheme would not have been costly, but it had obvious disadvantages, and did not find favour with the majority of the trustees of the hospital, who, as is now generally known, decided to move to the Stanley Grove site. When he retired from the Board of Management in 1902 his colleagues, as a mark of respect, commissioned an artist to paint his portrait in oils, and the excellent picture thus obtained now hangs in the Board Room of the Infirmary.

In addition to his connexion with the Infirmary and its associated charities the Fever Hospital and Lunatic Hospital he was Consulting Physician to the Ancoats and Ardwick Hospital, Henshaw's Blind Asylum, Cheetham's Hospital, the Warehousemen and Clerks' Schools, the Haydock, Clifton Hall, and Cotton Hill Student Lunatic Asylums.

No account of Dr. Renaud would be more than half complete did it not refer to his great love for antiquarian research. In his leisure moments he wrote many papers which he read before the Chetham and the Lancashire and Cheshire Antiquarian Societies and published in their journals. He was also a member of the "Rosicrucian Brotherhood," composed of a few kindred spirits brought together by their taste for things antiquarian. He contributed many papers to its *Transactions* on the history and genealogy of East Cheshire, some of which he made use of afterwards in writing his *History of the Ancient Parish of Prestbury*, published by the Chetham Society in 1879. Of other papers of similar nature the most important were On the Suppression of Religious Houses, the Use and Teaching of Encaustic Tiles, and many on the ecclesiastical, manorial, and genealogical history of Cheshire. He also edited the *Architectural History of the Cathedral Church of Manchester*, written by his friend J. S. Crowther, and Canon Raines's *Lives of the Fellows of the College of Manchester*. For this good work he was elected to the Fellowship of the Society of Antiquaries of London.

His interest in the history of the Infirmary was shown by two small books, the one *A Short History of the House of Recovery or Fever Hospital in Manchester from 1796 to the Present Time*, 1880, and the other *A Short History of the Rise and Progress of the Manchester Royal Infirmary from the Year 1752 to 1887*.

He only gave up his consulting rooms in the summer of last year, and until the beginning of March has well-known, intellectual face, clean-shaven except for a fringe of whiskers, was frequently to be seen in the town. Whilst short in stature and somewhat bowed in recent years, his active habits and bright appearance and manner made it difficult to realise that he was an octogenarian.

Dr. Renaud's position was unique in the medical life of the town. His 84 years formed a connecting link between the medical student of to-day, for whose journal he recently wrote a paper, and the men who in 1783 first began to deliver public lectures in Manchester to the eighteenth century apprentices. Not that he ever knew Charles White, Thomas Percival, or Thomas Henry, they were all dead before he was born, but he must have known intimately Edward Holme and Samuel Argent Bardsley, who in their turn were closely acquainted with these men, and who handed on the traditions of the medical world of their time, and let [illegible] interesting stories of their great predecessors. Many of these Dr. Renaud knew and was fond of retelling. It was a great treat to hear them from his lips, his deliberate manner of speech, his venerable appearance and courtesy the very nature of the stories, called to mind previous generations and the atmosphere thus created was further enhanced by a habit of taking snuff, which he always retained.

He married Emily Anne, daughter of Thomas Legh, of Adlington, and widow of Mr. Brian Lawton, but leaves no children. Mrs. Renaud died only a few years ago, whilst he

was himself severely ill. He was buried on March 25th at Macclesfield Church, in the district he loved so well.

Mr. Walter Whitehead, Consulting Surgeon to the Royal Infirmary, Manchester, writes:

From a personal intimacy, both as a friend and a colleague, dating back for upwards of forty years, I feel a deep and sincere gratification in being allowed to add a few lines to your obituary notice of the late Dr. Renaud.

In more respects than one Dr. Renaud stood conspicuously alone in the ranks of the profession in Manchester, and he was the last typical representative of the old school of medical men in that district. It would be difficult to discover by his accent the place of his origin, as he spoke perfect English, but with a peculiar post-oral intonation. He was deliberate both in his speech and his movements: modest and retiring, and always expressing his views slowly and precisely.

Until quite recently he bore his age with a singular vigour and freshness, but the activity of his mind and the brightness of his personality appeared to receive their first check a couple of years ago, when his connexion with the Lay Board of the Manchester Royal Infirmary—which had previously secured a large share of his public usefulness—came to an end. His failing powers were further observable when about twelve months ago he decided to abandon his consulting practice; another instance of the mistake professional men frequently make who relinquish work whilst still retaining an active capacity, and who find out, when too late, how rapidly they pass in consequence into the deep waters of discontent and regret.

Long before pathology had secured in Manchester a definite position as a scientific study, Dr. Renaud was diligently seeking and collecting fresh evidence, and devoting his skill as an artist to richly illustrating any unusual specimens he was able to secure. He possessed a most accurate and retentive memory, and he had stored up in his mind facts and features of bygone history long since forgotten by most of his contemporaries. He was endowed with a love for antiquarian literature, and had contributed many articles dealing with the history of our churches, colleges, and other institutions in the Lancashire and Cheshire counties.

Amongst other attractive and lovable qualities which drew men towards him was the thorough kindliness of his nature, which made him more quick to think of others than for himself; and his art of doing kind things in the kindest manner. He was incapable of entertaining for a moment a single thought inimical to the best interests of the profession: free from jealousy and from any kind of ungenerous thought. He was most punctilious on matters of professional etiquette, and was held in the highest esteem by his professional brethren, to whom he set a perfect example of integrity and honour.

And now that his blameless life is at an end, and he rests from his fifty years of active labour, he has left behind him lasting evidence of a well-spent and useful life, and though dead he will long live in the memory of his numerous friends and patients.

Through all this tract of years
Wearing the white flower of a blameless life.

JAMES STUART, M.D.,

Ballymena; ex President of the North of Ireland Branch of the British Medical Association.

THE news of the death of Dr. James Stuart, of Ballymena, has been received with the deepest regret. Dr. Stuart had been in ill-health for some time, and last year had sought the aid of his many medical friends in Belfast: he remained for several weeks in one of the private hospitals till the tuberculous nature of the affection was clear, and subsequently underwent the open-air treatment in the Rostrevor Sanatorium, but the disease early showed signs of dissemination, and he died in London on March 23rd.

Dr. Stuart obtained the M.D. of the late Queen's University in Ireland in 1877, and soon settled in Ballymena, co. Antrim, where he rapidly gained a large practice, and was consulted for many miles around by all classes. He was elected President of the North of Ireland (now Ulster) Branch of the British Medical Association for the year 1893-9, and hospitably entertained the members to luncheon in Ballymena on the occasion of the annual meeting of the Branch; he was also a Fellow of the Ulster Medical Society.

Dr. Stuart was one of the most popular and respected medical men in the North of Ireland, both in the profession and amongst the public he was looked upon as a friend: his skill in medical work and his kindliness and sympathy with every one gained for him affection and high esteem.

Dr. Stuart was interested in country life, and on a farm of his own bred a special valuable variety of small horse from an Arab stock.

He was unmarried. Much sympathy is felt for members of the family in what must be considered the untimely loss of one still in his prime.

DEPUTY-SURGEON-GENERAL H. CAYLEY, F.R.C.S., C.M.G.,

Honorary Surgeon to the King.

THE unexpected death of this distinguished and popular officer has occasioned surprise and regret to a large circle of friends. His well-known vitality and vigour gave promise of a prolonged enjoyment of the arrangements which he had recently made for his declining years. Symptoms of paralysis of the upper extremities—sensory, vaso-motor, and motor—consequent apparently on an injury of the cervical spine caused by a bad fall from horseback some four years ago, became manifest somewhat insidiously, and during the last month progressed and extended rapidly, and ended in fatal exhaustion. The traditional three-score and ten years were nearly completed, and they were replete with industry and success. The life cut short was a full and fertile one.

Henry Cayley belonged to an old Yorkshire family, the present representative of which is Sir George Everard Arthur Cayley, Bart., of Brompton, Yorks. He was descended collaterally from Sir William Cayley, first Baronet, who was knighted by Charles I in 1640, and created Baronet April 26th, 1661, for his services in the civil war. He was the fourth of six sons of Edward Cayley, banker, of Stamford, co. Lincoln. He was born in the year 1834, and studied medicine in King's College, of which he became an Associate, being admitted to the Membership of the Royal College of Surgeons of England in 1855. He obtained the Fellowship of the College in 1886.

He entered the Indian Medical Service by competition, in which he obtained the first place. His commission as Assistant Surgeon was dated January 29th, 1857, and he landed in Calcutta on April 28th of the same year. He saw no active service during the Indian mutiny; but was on duty with the 53rd Foot, and had medical charge of a detachment of the 37th and 38th Regiments at Benares and Allahabad, and of Major Anderson's troop of Royal Artillery, and other details in the Fort of Rajghat. For these services he obtained the mutiny medal. He was appointed Civil Surgeon of Gorakpur, a district of the North-Western Provinces on the Nepal frontier, and placed in medical charge of the 2nd Sikh Police Corps in March, 1858. He held this charge till March, 1864, with an interval of fourteen months, during which he was compelled to proceed to England on sick furlough. He was then appointed joint Civil Surgeon of Simla—a coveted post—and retained it till March, 1866, when he obtained the Civil Surgeoncy of Burdwan in Bengal, and afterwards of Howrah, an important district and town on the right bank of the Hooghly, facing Calcutta.

In May, 1867, he was placed on special duty at Leh, a mountainous district of Kashmir. His head quarters were at Leh, a town on the Indus river, situated at an elevation of

at court. His duties here were commercial and political. The appointment was the first in this place, and his status was that of Resident and Joint Commissioner. The Punjab Government recognized the delicacy and tact which were necessary in dealing with an alien native Government, corrupt and hostile officials, and suspicious and turbulent merchants and tradesmen, obtained sanction for the deputation of a British official on condition that he was a medical officer. This tribute to the powers of conciliation and management possessed by members of the Indian Medical Service was justified by repeated experience of the humanizing influence of medicine and the popularity of medical men on the Punjab frontier. The objects of the appointment were to develop the trade to Central Asia and Eastern Turkestan, of which Leh was an emporium and channel, to protect merchants from oppressive imposts, and to report on the commerce and political condition of these regions. The country was accessible by bad roads and high passes and was only open during the months of June, July, and August. Dr. Cayley resided during the remainder of the year at Simla. He spent four seasons at Leh and submitted elaborate reports of his observations and proceedings, which were favourably received by the Governments of the Punjab and India, and acknowledged approvingly by the Secretary of State for India. Immediately on his arrival at Leh he opened a dispensary, which was at first viewed with suspicion, but was soon resorted to by patients of all grades and classes. In an interesting paper on the medical topography and prevalent diseases of Ladak, published in the *Indian Medical Gazette* of November, 1867, and January, 1868, he thus describes the opening of his dispensary:

> I had with me a hospital compounder as an assistant and a small supply of the most necessary medicines and instruments. Two of my store-tents were soon converted into a hospital. A grove of poplar trees served as an operating theatre, and my surgical assistants numerous native students were always at hand who took great interest in the proceedings.

This part of his work was highly appreciated by Government. On relinquishing his post in 1871 he received a letter from the Punjab Government conveying an expression of appreciation of the zeal and ability with which he had conducted his official duties at Ladak. It was thoroughly merited. His work had been done with rare energy, thoroughness, tact, and humanity.

After thirteen months' furlough he returned to Bengal and served as Civil Surgeon of the 24th Pergunnahs and then of Cuttack, both important districts. He acted also as Deputy Superintendent of Vaccination for a short time. During his furlough he had like most Indian medical officers, striven by attendance on lectures, societies, and hospitals to improve his knowledge of his profession, and had specially studied ophthalmology at Moorfields. He devoted particular attention to this branch on his return to India. Accordingly on the retirement in March, 1872, of Surgeon-Major J. C. Macnamara, he was appointed Superintendent of the Eye Infirmary at Calcutta and Professor of Ophthalmic Surgery in the Calcutta Medical College. He also obtained the appointment of Surgeon Superintendent of the Mayo Hospital for natives and its affiliated dispensaries. He retained these charges, which involved service as Presidency surgeon, during the remainder of his Indian career, extending, with an interval of two years' furlough in 1877-8, over twelve years. These were years of steady hard work. His practice was extensive, and all the time not required for official and hospital duties was devoted to consultatory and general practice. His skill in these lines earned for him remarkable popularity among both Europeans and natives. He devoted to his work an energy and thoroughness which were the admiration and envy of his colleagues.

He was editor of the *Indian Medical Gazette*, and the *Transactions of the Calcutta Medical Society*, of which he was President for two years, showed the great interest which he took in his profession. His views were varied, and his services as an ophthalmic surgeon were in extended request. He attained [illegible] and the front. He finally left India in April 1901. He was appointed a member of the Medical Board at the India Office on January 24th, 1902, and while holding that office was twice called upon in May, 1902, to complete the number of [illegible] for military medals at the Army Medical School, Netley, interrupted by [illegible] and [illegible] by Dr. D. Bruce, the president of that session. His disposition and ability obtained for him the permanent appointment of the chair which he had held from August, 1899, to July, 1902. His work at Netley was conscientious and painstaking and many generations of "surgeons-on-probation" [illegible] to both Indian and home services retain pleasant recollections of the man and his work.

On retirement from this office he settled at Weybridge, but on the outbreak of the South African war he sought employment and went to the front, with the rank of Colonel, in command of the Scottish National Red Cross Hospital, which was stationed at Kroonstadt. He performed this duty with his wonted zeal and ability. His services were mentioned in dispatches; he obtained the South African medal with clasps, and was created C.M.G. In 1901 he had been appointed Honorary Surgeon to the Queen. He also received the Coronation medal, and was appointed Honorary Associate of the Order of the Hospital of St. John of Jerusalem in England. These tokens of recognition of his valuable services, extending over a period of forty-three years, were well deserved.

Surgeon-General Cayley was a man of slender physique, but endowed with vivacity and activity, both physical and mental, which were almost phenomenal. His power of work was prodigious. In Calcutta he was on the move from early morning till late evening, and by way of refreshment he would take a smart gallop on the racecourse. Everything he did was done with heart and energy, and he never showed signs of flagging or fatigue. In disposition he was even tempered and kindly, staunch and honourable. In all relations of life he was eminently sound, and in professional life diligent, skilful, and humane. He was accordingly esteemed highly as friend and physician. He had no enemies, and was ever ready to spend and be spent for others, and though absolutely correct and sincerely religious he was tolerant and thoroughly imbued with the grace of charity. His intellectual abilities were of a high order. He was keen in inquiring and sound in judgement. On most questions he was well informed, and his opinions were clear and strong. He had a facile pen, and, though not eloquent, was fluent in speech, plain, practical, and intelligible. He had studied his profession well, and up to the last continued to familiarize himself with scientific and medical progress. Though he made ophthalmic surgery his speciality, he was an excellent general surgeon and a well-informed physician.

In Calcutta his position brought him into close contact with native medical practitioners and students, with whom his relations were always friendly and agreeable. With colleagues and fellow officers he was most popular. The writer of this notice had known him intimately for about a quarter of a century and never heard an unkindly or disparaging word spoken by or of him. His career in the Indian Medical Service gave evidence of that breadth of capacity and fitness for various employment which has been so characteristic of many distinguished members of that great guild. Though for many years employed in political work he retained his professional aptitudes and instincts, continued to relieve the sick and suffering, and was prepared to resume his own special vocation with avidity and success. With all his earnest devotion to his life-work he was a keen sportsman, fond of hunting and boating, and while at Netley he kept a small yacht in which he loved to sail in all weathers. From beginning to end he lived a most energetic, useful, and fruitful life, and he leaves behind him the savour of goodness and faithfulness.

He is survived by a widow and eight children—six sons and two daughters. One of his sons has followed his father's profession, and is Assistant Health Officer of Bombay: two are in the army and one in the navy, one is a coffee planter in Madras, and the youngest a solicitor in Calcutta.

WILLIAM FINDLAY, M.A., M.D. ABER.

Many will hear with deep regret of the death of Dr. William Findlay, which occurred at the residence of his father, 34, Fountainhall Road, Aberdeen, on March 23rd, at the early age of 37. Though he was known to be in somewhat indifferent health for some years, yet his death came as a shock to his medical brethren in the city, for only some three weeks ago he was performing his duties as usual, and it was not generally known that his health was in a serious condition. After a distinguished career at the Aberdeen Grammar School, of which he was Gold Medallist and *dux* in the Latin class in his last year, he entered the Arts Faculty of the University as Second Bursar in 1884. Here his record was excellent, and he took the M.A. degree in 1888 with honours in Natural Science. Proceeding to medicine he had a most brilliant career, gaining among many other distinc-

tions the Shepherd Gold Medal in surgery, and graduating M.B., C.M. in 1891 with highest honours, carrying off the John Murray Medal and Scholarship as the best student in a very strong class. In the same year he gained the George Thompson Travelling Fellowship and with it proceeded to Berlin, where he worked under Virchow and in the women and children's clinics. Thereafter he spent some time in London in general clinical work.

In 1893 he settled in Aberdeen with every prospect of a successful future. In 1894 he was appointed assistant to the Professor of Medicine in the University, and ever since had done excellent work in this appointment and also in the Dispensary, to which he became physician in 1895. He also engaged for some time in research work in the Pharmacological Laboratory of the University, and a year or two ago took the degree of M.D. with honours, presenting a thesis on the pharmacology of the alkaloids of conium maculatum.

At the time of his death he was Treasurer, and had for some years been Librarian, of the Medico-Chirurgical Society. In private practice he had a considerable and growing connexion, and was well known for his thorough work, and readily gained the esteem and confidence of his patients. His death is a distinct loss to the institutions he so well served, and to his medical brethren in the city, by whom he was universally respected.

To his colleagues on the Dispensary and Junior University staffs his early demise is a matter for much regret. To them he was not merely a respected colleague but a staunch friend, ever ready in his quiet and unassuming way to advise and give practical help out of his wide knowledge and experience. Those who enjoyed his friendship most admired the man who, in spite of the heavy burden of ill-health, fought on with never a complaint, and with a calm courage.

His funeral at Allenvale Cemetery on Saturday, March 26th, was largely attended by members of Senatus, medical men, the junior staff of the University, students, and many prominent citizens of Aberdeen.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

WAR OFFICE REFORM.

The Medical Service of the Army.

We are indebted to the personal courtesy of Sir Edward Ward, K.C.B., Permanent Under-Secretary of State for War, for a copy of the third part of the report of the War Office (Reconstitution) Committee, consisting of Lord Esher, Admiral Sir John Fisher, and Colonel Sir George Clarke. In this, the concluding part of the report, the medical service of the army is dealt with. In a letter addressed to the Prime Minister with which the report is prefaced, Lord Esher and his colleagues point out that Part III "contains no new principle, but is descriptive and explanatory of the nature and the duties of offices already created by the act of His Majesty's Government, of principles already accepted and of a scheme already become operative." They add that the Sections of the Report dealing with the duties of the several branches of the War Office "have in every case been drawn up in consultation with the head of the branch concerned."

The Duties of the Adjutant-General.

The "Army Medical Services," as they are called in the report, constitute one of the four main groups into which the Adjutant-General's Branch is divided. The duties of the Adjutant-General, who is the second Military Member of the new Army Council, are summarized in the word "Personnel." His functions are described as—

Raising and organizing the military forces.
Maintenance of the army abroad in officers and men.
Distribution of units.
Regulations for placing units on a war footing.
Personal questions.
Medical and sanitary matters
Discipline, ceremonial matters.
Administrative arrangements connected with training and education.
Selection and administration of the Adjutant-General's staff.

The Committee devotes several paragraphs to what seems to be intended as an explanation of the inclusion of the supervision of "medical and sanitary matters" among the multifarious and heterogeneous duties assigned to the Adjutant-General. It appears advisable, therefore, to quote this part of the Report textually. The following passages occur in Section I of the third part of the Report, which is headed "The Adjutant-General":

"9. Too much importance cannot be attached to the Sanitary service of the Army in peace and in war, and it has been represented to us that a place on the Army Council ought to have been provided for the Director-General of Army Medical Services, who was a Member of the defunct War Office Council.

"10. We cannot accept this view. The Army Council is not and cannot be a representative body as regards the several Arms and Departments. The Royal Army Medical Corps exists to serve the Army in a most important capacity; but the first object must be to create and to maintain an Army, and this is the function of the Army Council. To admit the principle of representation would destroy the character of the Council.

"11. Sanitation in war and in peace is closely bound up with discipline, and we, therefore, consider that the proper position of the Director-General of Army Medical Services is, as we have laid down, under the Adjutant-General, whose duties are specially connected with the person of the soldier.

"12. We do not admit that, under this arrangement, the status and the power of the Head of the Medical Services will be lowered. We believe, on the contrary, that his position will be considerably strengthened in peace and in war.

"13. The Council as a whole is now responsible for the welfare of the soldier. It has full powers over the whole range of military requirements and there should be no danger that sanitary considerations will be neglected. The Adjutant General, as a Member of the Council, occupies a far stronger position than his predecessors, and will be able to represent effectively the medical needs of the *personnel* of the Army with which he is specially charged. Morover, the Director-General, if necessary associated with a civil representative of the Army Medical Services Advisory Board, should be summoned to the Council whenever his advice and specialist knowledge are required.

"14. We consider, however, that it is desirable to strengthen the hands of the Director-General as regards the control of his expenditure. A case was brought to our notice in which inexcusable delay occurred in supplying necessary stores for hospital use, the apparent cause being the involved paper arrangements entailed by the alteration of a schedule. The requirements of hospitals cannot be stereotyped like those of barracks, and if all special hospital stores were placed in a separate subhead of the Vote, as we understand might be done, the Director-General could be given discretionary powers of purchase, which he does not now possess, to enable him to meet a pressing need."

We make no comment on the arguments, if such they can be called, and statements contained in these paragraphs. The whole subject is discussed in a leading article which will be found at p. 791.

The Duties of the Director-General.

The position of the Director-General of Army Medical Services is, as has been stated, that of head of a "group" under the Adjutant-General. There are four such "groups," the other three being Recruiting and Organization, Personal Services, and Auxiliary Forces. It this list the Director-General occupies the third place, the fourth in order being the Director of Auxiliary Forces. The functions of the Head of the Medical Services are comprised in the following summary:

Medical and sanitary questions.
Administration of the Royal Army Medical Corps.
Supply of medical stores.

Army Hospitals Committee.

Under Section IV, which deals with the duties of the Civil Member of the Army Council, it is stated that the proposals of Lord Esher's Committee on the Construction of Barracks, 1902, for the formation of a new barrack department, have been approved, and preliminary steps have already been taken to give them effect. It is recommended that this department, charged with the duty of constructing all new barracks and hospitals costing more than £2,000, be placed under the Civil Member. The Director of Barrack Construction, it is urged, should occupy a position analogous to that of the Director of Works at the Admiralty, with the powers assigned by Lord Esher's Committee, the Army Hos-

petrol Committee (a body of which no mention is made in the foregoing parts of the Report, and which finds no place in the *Army List* for February), should, it is recommended, advise the civil member as regards the designs, sites, and sanitation of barracks and hospitals.

It is recommended (Section XI.) "The Quartermaster-General" (par. 6) that the Sanitary Officer now attached to the Quartermaster's branch should be transferred to the new Barrack Construction Department.

From a paragraph considerably further on in the Report (Section VII. entitled "Committees") we gather that the Army Hospitals Committee was formed to undertake "among other duties" that of "reporting upon all plans for new hospitals and standard plans for barracks and standing camps, and of selecting sites for new hospitals." It is recommended that this "important Committee," should be brought into touch with the New Works Branch, and should select a civil representative to attend the Army Council when required. As far as can be gathered from the Report, the Army Hospitals Committee is altogether independent both of the Director-General of Army Medical Services and of the Advisory Board, but is responsible solely to the Civil Member of the Army Council.

Army Sanitary Committee.

The abolition of a number of permanent committees is recommended. Among them is the Army Sanitary Committee.

Advisory and Nursing Boards.

Among the permanent committees stated to be required is the Army Medical Services Advisory Board, "which has already done invaluable work in relation to the whole question of Army hygiene, and which forms an essential link between the Civil and the Military Medical Professions."

The Committee advises that the Nursing Board be retained.

Both the Army Medical Services Board and the Nursing Board will advise the Army Council on the subjects allotted to them and will send a representative to attend the Council when required.

Under the head of "Committees" it is stated that "where specialist knowledge not available at the War Office is required, the temporary association of experts with officials may be beneficial."

Medical Stores.

In the field the hospitals and sanitary arrangements, the supply of medical stores, and accommodation and rest camps are among the duties of the Adjutant-General.

Medical Intelligence Work.

In Part II of the Report (Section IV entitled "The Chief of the General Staff" par. 26) it is stated that there is at present a great lack of information as regards technical military progress. Among other recommendations to remedy this is one to the effect that an officer of the Royal Army Medical Corps should be attached to the section of the Director of Military Operations which deals with Intelligence. It should be the duty of this officer to supply the Director-General of Army Medical Services with information in regard to new developments of military hygiene. This officer should be enabled to travel when necessary.

ROYAL NAVAL AND MILITARY COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

At a special meeting of the Royal Naval and Military Committee of the British Medical Association held on March 29th the report of the War Office (Reconstitution) Committee in so far as it affects the Medical Service was considered and the following resolution unanimously adopted:

That notwithstanding the arguments adduced in support of the proposals set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical service of the Army now occupies so exacting a position in safeguarding the health [illegible] of the soldier in peace and in war, that it is necessary to secure the [illegible] of efficiency it is essential that the head of the army from the Medical [illegible] should be definitely [illegible] by all other professional [illegible] shall have a seat on the Army Council.

ROYAL NAVY MEDICAL SERVICE.

Inspector-General A. E. Messer, M.D., has been placed on the retired list on the Greenwich Hospital Establishment, and is granted the rank of Inspector-General. Fleet Surgeon W. Macdonald, C.B., Inspector-General Messer entered the Royal Navy as Surgeon, May 1st, 1878; became Staff Surgeon, February 1st, 1891; Fleet Surgeon, December 31st, 1894; Deputy Inspector-General, February 1st, 1900; and Inspector-General, April 1st, 1903. He received the thanks of the Admiralty for his services in connection with the Ashanti Expedition, 1895-96, was present at the bombardment of Alexandria, July 11th, 1882, and was awarded the Egypt medal with clasp. He was promoted Deputy Inspector-General for his services in the Ashanti Expedition, 1895-96, and

at yet the large towns. Of the total cases of small pox registered in the seventy-six towns [illegible] were in the Outlying Districts of London, West Ham, Northumberland, Tynemouth, Shields and Tynemouth. The Metropolitan Asylums Hospitals contained 11 small pox patients at the end of last week, against 41, 34, and 34 at the end of the three preceding weeks. 31 new cases were admitted during the week, against 15, 21, and 20 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 1,[illegible] and 1,[illegible] on the three preceding Saturdays, had declined again to 1,[illegible] on Saturday last, March 26th. 145 new cases were admitted during the week, against 155, 192, and 176 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending March 26th [illegible] deaths and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been [illegible], 21·5, and 23·0 per 1,000 in the three preceding weeks, declined again to [illegible] per 1,000, but was 3·2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15·[illegible] in Leith and [illegible] in Perth to [illegible] in Dundee and 31·[illegible] in Paisley. The death-rate from the principal infectious diseases averaged 2·8 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 324 deaths in Glasgow included 2 from small pox, 11 from measles, 2 from scarlet fever, [illegible] from diphtheria, 1 from whooping-cough, 2 from fever, and 2 from diarrhœa. Seven fatal cases of whooping cough were recorded in Edinburgh, [illegible] of measles and one of diarrhœa in Dundee, [illegible] of whooping-cough in Aberdeen, 3 of whooping cough in Paisley, 1 of small pox and [illegible] of whooping cough in Leith, and 4 of small pox, [illegible] of measles, 2 of whooping cough, and 1 of diarrhœa in Greenock.

SUICIDE IN THE UNITED STATES.

ACCORDING to statistics recently published, the number of suicides in the United States during 1902 was 8,597, as compared with 8,290 in 1901, 7,845 in 1900, 6,755 in 1890, and 4,734 in 1880. Carbolic acid was the most common poison used, and poisoning was the most common method. This calls attention to the ease with which carbolic acid may be procured, and gives emphasis to the agitation for the lessening of this possibility. Altogether 4[illegible] persons took poison, [illegible] killed themselves by shooting, [illegible] by hanging, 185 by railroad trains, 4 by jumping from windows and roofs, 15 by fire, 15 by stabbing, 2 by dynamite, and 4 by starving. Of the 8,[illegible] cases of suicide in 1902, 5,[illegible] were men and 2,[illegible] women. Among professional men, physicians headed the list, numbering 35, ministers 5, lawyers 4, artists 4, college professors 3, bank officials 12. The causes of suicide were as follows: Despondency 4[illegible], unknown 1,454, insanity 4[illegible], ill-health 84, domestic infelicity [illegible], liquor 510, disappointed love [illegible], business losses [illegible].

A MUNICIPAL *CRÈCHE*.

THE Acton Improvement Bill, which is at present under the consideration of a Select Committee of the House of Commons, contains clauses which give the authorities of Acton power to establish a municipal *crèche*. There are 45 laundries in the district, and a great number of the women employed are mothers. The average infant mortality in Acton is higher than in other parts of the country, and this fact is believed to be due to mothers leaving their babies during working hours to the care of young children. The proposal made is to establish a day home for 6 children, and to charge about 4d. a day for each child. It is estimated that the plan, if authorized, would necessitate the addition of 1d. to the rates. The Select Committee, however, refused to pass the clauses, and this, apparently, on the somewhat unsatisfying ground that the contained idea was novel from a legislative point of view.

VACANT APPOINTMENT OF DISTRICT MEDICAL OFFICER.

P. L. G. writes that when a vacancy was recently occasioned in a provincial union by the resignation of a district medical officer, the chairman of the Board moved that at the next meeting "the guardians proceed to fill up the vacant appointment." In accordance with this notice the son of the previous medical officer became appointed to succeed his father, the vacancy in question not having been advertised. Our correspondent asks us whether this form of procedure was "legal."

*** As formal notice was given at a certain meeting of the Board of Guardians that they would proceed at their next meeting to fill up the vacancy in question, it was not necessary to advertise such vacancy by any further intimation. The method of election appears to have been in accordance with the regulations of the Local Government Board.

VACCINATION RETURNS IN SCOTLAND.

A. M. sends us copy of a correspondence he has had with the Local Government Board of Scotland with reference to payment for half-yearly vaccination returns which he has to furnish to that Board. He considers that as these returns have to be certified on soul and conscience he should receive a guinea for each return. He states that his yearly salary as public vaccinator is [illegible], and that for that sum he has to go to a station [illegible] miles distant twice a year. He is allowed to charge half-a-crown for each vaccination, but as sometimes only one or two persons meet him this does not amount to much. The Local Government Board, in their reply, referred A. M. to Section XXI of the Vaccination Act, which places on parish vaccinators the duty of furnishing the Board periodically with returns as to cases vaccinated, and as to remuneration, they state that this is a matter of arrangement between A. M. and his parish council.

*** We are advised that as the returns to the Local Government Board of Scotland are statutory, no special fee can be charged, even though they have to be certified on soul and conscience. The parish council should take into consideration in fixing a salary that these returns have to be supplied, and should give an adequate one. In view of the small salaries given in Scotland to parish vaccinators, we consider that a special fee should be given for these returns, but this we fear cannot be made compulsory without an alteration in the Act.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from [illegible] as to which full particulars will be found. To ensure insertion in the next issue, [illegible] and be received not later than [illegible] a.m. on Wednesday morning.

BEDFORD COUNTY HOSPITAL.—[illegible] House-Surgeon. Salary, £[illegible] per annum. [illegible] House-Physician. Salary £60 per annum.

BIRMINGHAM GENERAL HOSPITAL.—[illegible] House-Physician, [illegible] House-Surgeon, [illegible] House-Surgeon for Special Departments. Appointments for six months. Salary at the rate of £50 per annum each.

CHESTER: COUNTY ASYLUM.—Third Assistant Medical Officer, resident. Salary, £[illegible] per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.

GREAT YARMOUTH HOSPITAL.—House-Surgeon, resident. Salary £[illegible] per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Ventnor.—Resident House-Physicians. Honorarium, £25 for six months each.

HULL: VICTORIA HOSPITAL FOR SICK CHILDREN.—[illegible] House-Surgeon, [illegible] Lady Assistant House-Surgeon. Both resident. Salary, £[illegible] and £[illegible] per annum respectively.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House-Surgeon, resident. Salary, £50 per annum.

LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon, resident. Salary, £100 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon, resident. Salary, £[illegible] per annum.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer at the Convalescent Hospital, Cheadle. Salary, £[illegible] per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary £70 per annum.

PLAISTOW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £[illegible] per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Assistant House-Surgeon; resident. Salary at the rate of £[illegible] per annum.

PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £[illegible] per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant Physician.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road.—Resident Medical Officer.

ST. PANCRAS AND NORTHERN DISPENSARY, Euston Road, N.W.—Honorary Surgeon.

SOCIETY OF APOTHECARIES, Blackfriars, E.C.—Examiner in Surgery.

STIRLING ROYAL INFIRMARY.—Resident House Surgeon. Salary, £[illegible] per annum.

APPOINTMENTS.

BURSTON, Charles N., L.R.C.P.Lond., M.R.C.S.Eng., Anæsthetist to the Gordon Hospital, Vauxhall Bridge Road.

CLEARY, M. R., F.R.C.S., L.R.C.P.Irel., Certifying Factory Surgeon for the Hospital District, co. Limerick.

COLCLOUGH, W. Frank, M.D., B.C.Cantab., Medical Officer to Out-patients, Yeatman Hospital, Sherborne.

COOK, A. H., M.B., M.R.C.S., L.R.C.P., Honorary Medical Officer to the Infants' Hospital, Hampstead.

GOODMAN, T. H., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the Haverhill District, Suffolk.

HOLLOWORTH, Stuart, M.D.Lond., D.P.H.Camb., M.R.C.S., L.R.C.P., Medical Adviser to the Hanley Education Committee.

KELYNACK, T. N., M.D., M.R.C.P., Honorary Physician to the Infants' Hospital, Hampstead.

LAIDLAW, J. H., M.D., Clinical Assistant to the Chelsea Hospital for Women.

LONGHURST, Frederic W., L.R.C.P.Lond., M.R.C.S.Eng., Anæsthetist to the Gordon Hospital, Vauxhall Bridge Road.

MORITZ, S., M.D. Wurzburg, M.R.C.P.Lond., Lecturer on Diseases of the Throat and Nose at the Victoria University.

O'DOWD, John Austin, M.B.Lond., M.R.C.S., District Medical Officer and Public Vaccinator of the Dudley Union.

PIRIE, W. R., M.B., Ch.B. D.P.H. Aberd., House Surgeon to the Royal Aberdeen Hospital for Sick Children, *vice* T. S. Slesser, M.A., M.B., resigned.

RAYNER, Percy C., M.B., Ch.B.Edin., Medical Officer and Public Vaccinator for the Bralsford District of the Ashbourne Union.

ROBERTSON, Eva A., M.B., Ch.B.Edin., Resident Medical Officer for the Craiglockhart Poorhouse.

TELLING, W. H. Maxwell, M.D., B.S.Lond., M.R.C.P., Assistant Physician to the Hospital for Women and Children, Leeds.

TENNANT, J., M.B., C.M.Edin., Medical Officer of Health for the Bromley and Framingham Urban District.

DIARY FOR NEXT WEEK.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Lieutenant-Colonel Sturmer, I.M.S.: Short communication on 41 cases of Puerperal Eclampsia treated by Thyroid Extract. Dr. R. Hamilton Bell: Torsion of the Pedicle in Hydrosalpinx, and other Morbid Conditions of the Fallopian Tube. Specimens by Dr. W. W. H. Tate, Dr. Horrocks, Mr. Bland-Sutton, and Dr. Handfield Jones.

THURSDAY.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Exhibition evening.

FRIDAY.

West London Medico-Chirurgical Society, Hammersmith, W., 8 p.m.—Clinical evening. Cases will be shown by Dr. Seymour Taylor, Dr. Ball, Dr. Saunders, Mr. Lunn, Mr. Paton, Mr. Parnell, and others.

Incorporated Society of Medical Officers of Health, 9, Adelphi Terrace, Strand, W.C., 8 p.m.—Dr. J. Howard-Jones: On the Control of Measles Epidemics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BEEGLING.—On March 22nd, at Coolnda, Huddersfield, the wife of D. H. Beeglng, B.A. Sydney, M.B., C.M. Edin., of a son.

DEANESLY.—On March 25th, at 7, Waterloo Road, Wolverhampton, the wife of Edward Desmesly, M.D., F.R.C.S., of a son.

FAIRRIE.—On March 25th, at [illegible], Cleveland Road, South Woodford, London, N.E., the wife of Captain S. H. Fairrie, R.A.M.C., of a son.

LANGER.—On March 22nd, at Hatherease, Derbyshire, the wife of H. W. G. Langer, M.B., of a son.

DEATH.

RICHARDS.—On March 22nd, at 6, Freeland Road, Ealing, W., Joseph Peek Richard, M.R.C.S., L.R.C.P., L.S.A., aged 65.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS relating to Editorial matters should be addressed to the EDITOR, 7 Adam Street, Strand, W.C., London. Those relating to business matters should be addressed to the MANAGER, BRITISH MEDICAL JOURNAL, 429 Strand, London, W.C.

ORIGINAL ARTICLES and LETTERS forwarded for publication are understood to be offered to the BRITISH MEDICAL JOURNAL alone, unless the contrary is stated.

All communications relating to the Literary Department of the BRITISH MEDICAL JOURNAL should be addressed to the Editor, 7 Adam Street, Strand, W.C., London.

CORRESPONDENTS are requested to write legibly and briefly. Letters containing questions on professional matters should be clearly headed "For Publication" or "For Private Answer."

COMMUNICATIONS and ANSWERS to Queries are entered in the Notes to Correspondents Index.

MANUSCRIPTS intended for INSERTION in the JOURNAL cannot under any circumstances be returned.

IN ORDER TO AVOID DELAY, it is particularly requested that ALL letters on Editorial business of the JOURNAL be addressed to the EDITOR of the JOURNAL and not to any person by name.

LETTERS containing remittances for the JOURNAL should be addressed to the MANAGER of the BRITISH MEDICAL JOURNAL, 429 Strand, London, W.C.

LETTERS on the Supply of the JOURNAL to Members of the Association should be addressed to the GENERAL SECRETARY AND MANAGER, 7 Adam Street, Strand, London, W.C.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

VENTRIFIXATION OF THE UTERUS.

DR ALEXANDER DUKE (London, W.) writes: The interesting account of Dr Sinclair's new plan of operation for ventrifixation of the uterus contains this paragraph, p. 721, in the BRITISH MEDICAL JOURNAL of March 26th: "The last step in every case is the introduction of a glycerine pad pessary into the vagina, to press forward and support the uterus during the formation of adhesions. The patients are kept in bed for eight or ten weeks (dialics mines, and they are advised to lead invalid lives for several months." May I ask why in bed? Surely, the recumbent position, prone or semiprone, should be quite as effective. I presume the unfortunate patients are not informed of this "last step" beforehand, or I imagine very few would submit to the operation: when more than likely the month or six weeks' recumbent position (at first, with appropriate local treatment as well, would enable them to dispense with a cutting operation altogether! May I ask, does retroflexion (complete or otherwise) take place if the uterus is healthy? My own impression is that it does not, and if the time and treatment given after operation were adopted beforehand, there would be fewer cases of ventrifixation with the chance, however remote, of ventral hernia in addition, or the continual trouble of wearing an abdominal belt as preventive of that lesion.

INHABITED HOUSE DUTY.

TAXES writes: Ought the inhabited house duty to be assessed on a higher sum than the actual rent paid because the tenant does inside repairs?

*** Yes, the assessment to inhabited house duty should be made on the full annual value of a house, for example, the rent that a tenant would pay for it if the landlord agreed to do both outside and inside repairs.

TEST FOR ALCOHOL.

SADDUCEE asks what value is placed nowadays on the potassium bichromate and sulphuric acid test as evidence of the presence of alcohol or a derivative in the urine, and consequently of excess in its consumption? I have seen the test performed, he writes, by underlaying a column of the suspected urine with the reagent. In Hilton Fagge's "Principles" it is described differently, and mentioned as one means of proving acute alcoholic intoxication, but is it of any use in establishing as an opinion as to habitual surreptitious excess where other evidence is very hard to obtain?

CAPILLARY VARICOSITIES.

L. A. S. L. asks what is to be considered as the best treatment for dilated capillaries occurring at puberty about the size of a pea, on the cheek of a young lady. He writes: I have applied the actual cautery to several spots with apparent benefit for the time, but later fresh patches appear in the surrounding skin. Weak lead lotion with zinc sulphate and tannin has also been tried. Is electrolysis the only treatment? With regard to this I would like to ask (1) for details of the method employed, (2) whether one platform is necessary, (3) whether the operation be painful, (4) certain and permanent.

HYPODERMIC INJECTIONS OF SOLUBLE MERCURY.

HYDRARGYRUM writes: Has any one prepared statistics of the frequency of administration of abscesses, particularly in a review of a report by Pezzoli and Rossi of 1,000 cases of skin and venereal diseases (March 6th, p. 599)? Also, has any one observed whether any untoward results were noted?

*** The precautions are as follows: (1) Calomel vapor paraffin ointment is to be used by rubbing an equal quantity of the older paraffinic ointment into the skin once a week. (2) Abscesses were never observed. (3) Slight pyrexia of 100° occurred. There was some pain at the seat of injection. (4) The method consisted in following the directions of Scarenzio, namely, to make the injection above a horizontal line passing through the two greater trochanters, and about one finger's breadth internal to the anterior superior spine. The needle must be of sufficient length to go through the fatty layer of the buttock. Trouble may result when the needle is inserted into the fat instead of in the muscular tissue. In one or two instances of ill-mounted patients there was some pain and induration and in another patient a generalized scarlatiniform erythema, as a result of the mercury salicylate. It should be added that in two cases a fit of coughing occurred after an injection, accompanied by frothy bloody sputum. Lung embolism was never observed. The authors found the salicylate emulsion the best preparation to employ. Although the authors never observed complications, the fact must be insisted on that such have occurred after the intramuscular injections of insoluble mercurial salts. Their use needs to be watched very carefully; and not more than six injections at intervals of a week between each should be given, followed by an interval of rest of some length, say a couple of months. With insoluble salts, once the mercury is introduced there it must remain and become absorbed into the system, whatever the reaction in any particular case.

ANSWERS.

RAISED SCARS AFTER VACCINATION.

CAPTAIN E. BLAKE KNOX, R.A.M.C., M.D. (Simla, India) writes: In reference to a note on this subject by Dr Rentoul, in the BRITISH MEDICAL JOURNAL of February 6th, p. 344, I have noted several such cases. Among fifteen vaccinations I successfully carried out on board a troopship proceeding to India early last year, in which I used glycerinated calf lymph supplied from the Aldershot Military Calf Lymph Institute, in one case a keloid condition arose and still exists in *one* of the scars at the site of vaccination. All these patients were vaccinated from the same lymph, which was between glass plates, and full antiseptic precautions were taken. In no other case did a keloid scar form. The lady just mentioned, although the first vaccinated, was the last to take. She had a very bad arm owing to sepsis ensuing from fibres of a silk blouse she was wearing getting into the wound one evening while dancing. Only one vaccination mark was thus infected, and a keloid condition with a raised red scar still persists and causes a feeling of itching at times, but otherwise gives no trouble of any kind and is not increasing.

LETTERS, COMMUNICATIONS, ETC., have been received from:
A Ant-tuberculin, A. M. Adams, M.B., Broughton-in-Furness, Mr. G. Allen, London. **B** Mr. E. A. Boxer, Edinburgh, Dr. J. Brown, Glasgow, J. E. Bloomfield, M.B., Sevenoaks, Dr. A. Bonner, Bradford, H. L. Barnard, M.B., London, Dr. C. Battar, London, Dr. F. Bushnell, Plymouth, Dr. J. W. Byers, Belfast. **C** Cosmos, A. Cox, M.B., Gateshead, Dr. A. J. Chalmers, Colombo, Dr. G. W. Crowe, Worcester, E. M. Corner, M.B., London; Mr. G. Christy, London, Dr. E. Cautley, London, E. M. Corner, M.B., London. **D** Mr. A. A. Doughton, London, Dr. S. Davies, Woolwich, Mr. G. W. B. Damell, Edinburgh, Dr. A. Duke, London; Mr. G. W. Durcan, London. **E** Dr. J. W. H. Eyre, London. **F** N. S. Fraser, M.B., St. John's, Newfoundland, F.R.C.S.; Dr. T. Fisher, Clifton; Fair Play, Mr. E. P. Farber, Oxted, C. H. Fiske, M.B., Ardrahan. **G** Dr. J. H. Galton, London, Mr. W. H. George, London, Mr. W. J. Green, Newport, Mon., Mr. V. P. Gonsalves, Harwich. **H** Mr. J. Hutchinson, jun., London, Mr. J. Housten, London, Mr. J. I. Halstead, Barrow-in-Furness, Dr. B. Hovander, London, Dr. J. Haddon, Hawick, G. E. Herman, M.B., Lower Hampstead. **I** Mr. P. C. P. Ingram, London. **K** Kan'y. **L** Mr. H. S. Lane, London, Late House-Surgeon, Dr. A. Lacham, London, F. H. Low, M.B., London. **M** Mr. A. H. Mahr, Liverpool, A. Murchison, M.B., Lieut. Dr. E. J. Macewan, Cardiff, H. Melarer, M.B., Glasgow, Dr. C. J. Morton, Walthamstow, Dr. E. Morgan-Jones, Mytholmroyd, Dr. T. H. Moorhead, Coolhill, Mr. J. MacMunn, London, Mr. J. R. Metcalfe, Bradford, Mr. M. A. Messiter, Dudley, Dr. T. McIlroy, Newtownards, Mr. R. Matheson, Dublin, Mr. W. J. Morris, Portmadoc. **O** Mr. E. W. Orpen, Bagenalstown, One of the Rank and File. **P** Pharmaceutical Society of Great Britain, Secretary of, London, Messrs. L. Paechtner and Co., London. **R** Dr. W. Rosenthal, Erlangen, Mr. B. Rigden, Canterbury, Dr. J. B. Rankin, London, Mr. J. Robertson, Edinburgh, Mr. E. H. Richards, London. **S** Dr. D. Stanley, Birmingham, Mrs. Sheldon, Hessle, Dr. D. W. Samways, Mentone, D. L. Smith, M.B., Rawden, Dr. J. Sinclair, London, Mr. H. C. Smith, London, C. E. Sparks, M.B., Watlington, Thames, Dr. H. Smith, London, Dr. E. C. Seaton, London, Dr. J. Swain, Carlisle, Saddleback. **T** Dr. W. Taylor, M.B., Dublin, Dr. W. E. F. Tinley Whitby. **W** Mr. J. H. Williams, Taverham, Dr. T. J. Wood, Bradford, J. D. Wynne, M.B., Clonmel, Mr. W. B. Wanck worth, Taunton, W. F. Williams, M.B., Portmadoc, Dr. A. McC. Weir, Rochdale, W. M. S., Dr. W. B. Warrington, Liverpool, Mr. R. H. Wolstenholme, Salford, Dr. J. Wishart, Dudley, etc.

BOOKS, ETC., RECEIVED.

Natural Mineral Waters: their Properties and Uses. Eleventh Edition. London: Inchcape and Co., Ltd.

On Passing Off. By John Cutler, M.A. London: Gay and Bird, 1904. 1s.

Alcohol: its Place and Power in Legislation. By Robinson Scattar, M.A., D.C.L. London: Hodder and Stoughton, Ltd., 1904. 3s. 6d.

International Catalogue of Scientific Literature. Second annual issue. K. Bacteriology. London: Harrison and Sons, Ltd., 1904. 5s.

North London University College Hospital Reports of the Surgical Registrar, Resident Medical Officer, and Pathologist for 1903. London: H. K. Lewis, 1904.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	..	..	...	£0 4 0
Each additional line	..	...	...	0 0 6
A whole column	..	..	...	2 0 0
A page				3 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than 10 A.M. on Wednesday, preceding publication, and if not paid for at the time, should be accompanied by reference.

Post Office Orders should be made payable at the Strand Branch Office of the London Post Office, London. Small accounts may be remitted in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at the Office addressed to initials or numbers.

Scientific Grants Committee

OF THE

British Medical Association.

REPORT LXXXIII.

SOME EXPERIMENTS ON ENTERICA, SCARLET FEVER, AND MEASLES IN THE CHIMPANZEE.*

[A Preliminary Communication.]

By ALBERT S. GRUNBAUM, M.A., M.D., F.R.C.P.,

Lecturer on Experimental Medicine, University of Liverpool; Director of the Liverpool Cancer Research; late Ernest Hart Memorial Scholar, British Medical Association.

The bacillus described by Eberth in 1880 and isolated by Gaffky in 1884 has been very generally accepted as the causal agent of enteric fever, although it was not then possible to fulfil Koch's third postulate, and to produce with the bacillus lesions in animals similar to those resulting from the disease in man. Additional evidence was forthcoming as to the probable responsibility of the Eberth-Gaffky bacillus for enteric fever in 1896, when I was able to show that the serum of human beings, in either the acute or the convalescent stage of the disease, was often able, even in considerable dilution to agglutinate emulsions of the bacillus. But this observation does not amount to actual proof, as Balthazard[1] thinks, for we know that the serum of patients suffering from typhocoloid (paratyphoid) fever, while agglutinating the typhocoloid bacillus in, say, 1 in 2,000 dilution, may nevertheless agglutinate the typhoid bacillus in 1 in 100 dilution—that is, in greater dilution than the serum of many patients with genuine enterica. It does not therefore follow, although it may be probable, that a bacillus agglutinated in considerable dilution by the patient's serum is the causative agent of the disease; but it is certainly a corroborative fact when other indications point that way.

Various investigators have tried to produce the typical intestinal lesions in animals; but in those cases in which successful results have been obtained it has been necessary to give excessive doses of the bacillus. Thus Remlinger[2] fed rabbits and rats for four to ten days on cabbages contaminated with B. typhi abd.; of eight animals, four showed no symptoms. The other four had the typical variations in temperature accompanied by the serum reaction and intestinal lesions characteristic of enterica. Chantemesse confirmed these experiments and obtained similar results in monkeys.

In ordinary monkeys I have not seen any effect beyond a transitory diarrhoea and the subsequent appearance of the serum reaction follow the administration of a single dose of typhoid bacilli by the mouth, even when accompanied by virulent streptococci. Nor indeed has infection occurred when the organisms were introduced directly into the small intestine, or under the dura mater, or into the knee-joint. But I do not lay much stress on these negative results.

Macacus Rhesus.

July 6th, 1901.—B. typh. abd. given in milk. Blood no agglutination.

August 5th. Blood agglutinates 1 in [illegible] minutes.

"	8th.—	"	1 [illegible] "
"	12th.—	"	[illegible] "
"	12th.—	"	1 [illegible] "
"	14th.—	"	1 [illegible] "
"	15th.—	"	1 [illegible] "
"	16th.—	"	1 [illegible] "
"	19th.—	"	1 [illegible] "
"	22nd.—	"	1 [illegible] "
"	26th.—	"	1 [illegible] "

29th. Killed under CHCl3. No evidence found of enteric lesions.

The blood was examined daily, with few exceptions.

The variation in strength corresponds with what is also seen in man.

Chimpanzee A. (Fig. 1).

July 15th, 1901. 10 c.cm. 24 hours culture in broth of B. typhi abd. (laboratory culture, unknown origin) given in milk. Blood [illegible] reaction.

July 21st. Blood reacts slightly, 1 [illegible] in [illegible] minutes.

July 24th. Blood reacts slightly, 1 [illegible] in [illegible] minutes.

July 25th. Necropsy. Peyer's patches enlarged and swollen. Mesenteric glands and spleen enlarged. B. typhi abd. obtained from each culture of spleen.

Fig. 1.—Chimpanzee A. lower portion of ileum.

Chimpanzee B. ♀ (Figs. 2, 3, and 4.)

May 1st. 2 c.cm. culture of B. typhi abd. per os. Blood [illegible] in 5 minutes.

May 14th. Blood reacts 1 [illegible] in [illegible] minutes.

May 20th. Blood reacts 1 [illegible] in [illegible] minutes.

May 31st.—Blood reacts 1 [illegible] in 50 minutes.

June 1st.—Blood reacts 1 [illegible] in [illegible] minutes.

June 2nd.—Necropsy. Appearances as above.

The chimpanzee, although not every individual, is susceptible to B. typhi abd., but the virulence of my cultures was not sufficient to produce a fatal result in the two instances in which they were given the opportunity of so doing. In the other two cases the animals were killed under chloroform on the twelfth day after infection. The clinical symptoms were but slightly marked; a dirty tongue and diarrhoea were the most prominent. In one instance general *malaise* was fairly evident; headache was apparently not present. No rose spots were seen nor was the spleen felt. The initial dose is often

*The experiments on enterica were made in part during my tenure of the Ernest Hart Memorial Scholarship. To my regret the Scientific Grants Committee did not see its way to letting me extend them to paratyphoid fever. The investigation of scarlet fever and measles was undertaken with the aid of the Research Scholarship of the Grocers' Company.

followed, both in the chimpanzee and in the lower monkeys, by a slight and temporary rise of temperature accompanied by diarrhœa. The temperature curves were not very characteristic. One of the charts is appended. I am not inclined to lay much stress on the atypical character, because the temperature of the chimpanzee is normally subject to rather wide variation partly according to the surrounding temperature. The serum reaction did not always become strong although it almost always appeared. Before infection the blood generally did not agglutinate B. typhi abd. at all.

The chief evidence of infection is found in the characteristic intestinal lesions of which photographs are given and the recovery of the bacillus from the spleen tissue after death.

The lesions are more advanced than in man at the corresponding date; perhaps on account of the larger infecting dose.

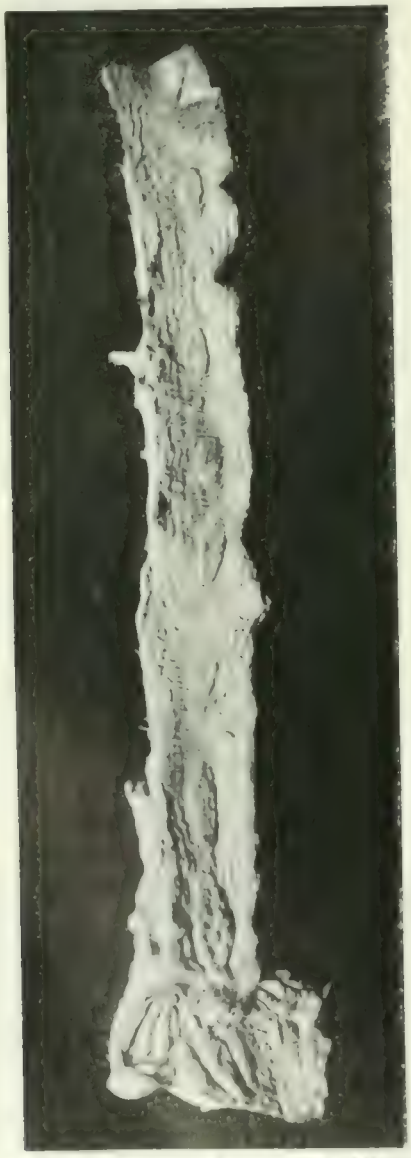


Fig. 3.—Chimpanzee [illegible] ileum.

Various modes of infection by scarlet fever were tried; by clothes, skin peelings, swab from throat of patient, culture of streptococcus conglomeratus, and the heart blood removed shortly after death with a syringe. With the last only rhesus monkeys and rabbits were infected. The streptococcus isolated proved very fatal to the latter, in the monkey it merely caused suppuration. Some of the material was from a very malignant case described by de Beurmann[1]. In the chimpanzee the only positive result was obtained when the throat was rubbed with the swab from a patient's throat.

Fig. 5.—Chimpanzee B, lowest portion of ileum. Natural size.

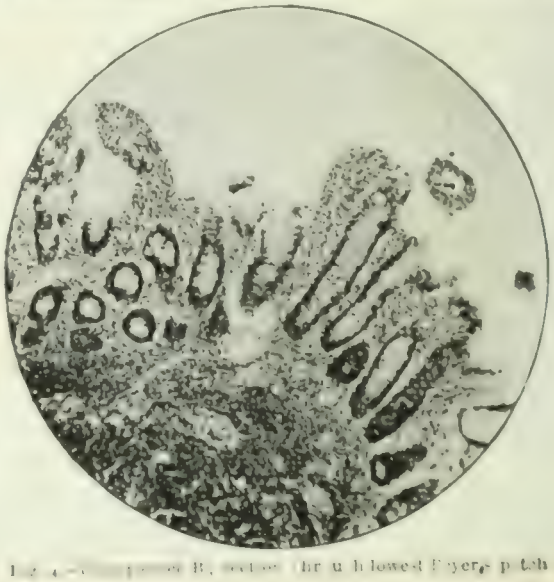


Fig. 4.—Chimpanzee B, section through lowest Peyer's patch

A scarlatinal tonsillitis ensued, but no rash or extensive desquamation.

Chimpanzee C. ♂ (Chart 1).

January 4th, 1903.—1 loop agar culture B. typhi abd. (Fisher). Blood no reaction, 1 : 2.

January 8th.—Blood reacts trace 1 : 2.

January 14th.—Blood reacts well 1 : 2.

The blood never reacted in higher dilution. This animal died 13 months later on February 28th, 1904, of pneumonia.

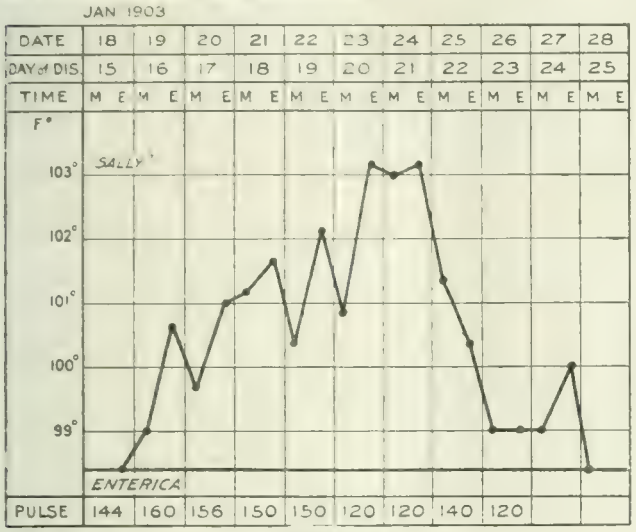


Chart 1.

Chimpanzee D. ♂.

May 21st, 1903.—Portion of typhoid stool given in water. (B. typhi abd. could not be isolated.) Blood gave no reaction 1 : 2, nor did it at any time later.

June 4th.—Distended abdomen. Yellow stools.

June 5th.—Since there has been no rise of temperature some culture of B. typhi abd. is given in milk.

June 22nd.—The temperature curve has been quite erratic, and has come down to normal.

This animal was probably not infected. It died on August 10th, 1903, of diarrhœa, due to colitis—a common and fatal disease of the chimpanzee. From the faeces was isolated a bacillus closely resembling B. dysenterica Gray).

Chimpanzee. ♀ (Chart 2.)

June 25th, 1902.—Clothed in nightgown from scarlet fever case. No result.

July 9th.—Swab from case of scarlet fever applied to throat.

July 10th.—Doubtful roseola.

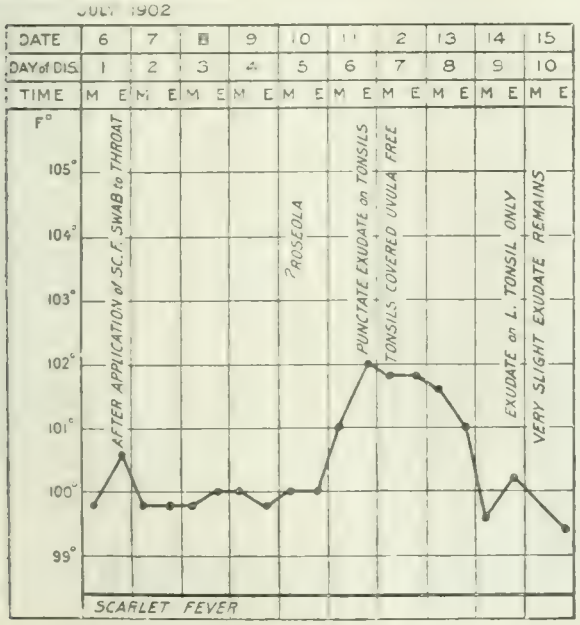


Chart 2.

July 11th.—White specks on both tonsils; not on uvula.

July 12th.—Exudate covers both tonsils. The roseola mostly on abdomen, has not a scarlatiniform appearance.

July 14th.—Still exudate on left tonsil only. (The temperature chart is given below.)

Streptococcus conglomeratus was isolated from the throat. Own blood agglutinates it.

Similar methods of infection were tried for measles and also the injection of blood taken direct from the median basilic view of measles cases. It had no effect: it may even have conferred immunity rather than conveyed infection.

Chimpanzee. ♀

May 22nd, 1902.—Clothed in nightgown from case of measles. No effect.

June 5th.—Swab from case of measles applied to nose and throat. Temperature, 100·2° F.

June 7th.—Coryza. Temperature, 99.6° F.

June 11th.—Slight roseola. Temperature, 102° F.

June 15th.—Rash gone. Temperature, 99.2° F.

It remains doubtful whether this animal was really infected with measles. Coryza is not uncommon in the chimpanzee, although here it seemed to have a causal relation to infection.

Chimpanzee. ♂

January 29th, 1902.—Injected 2 c.cm. measles blood. No effect.

February 8th.—Injected 4 c.cm. measles blood. No effect.

February 22nd.—Clothed in measles nightgown. No effect.

Of these experiments I think that those on enterica assist in fulfilling Koch's third postulate as applied to Eberth's bacillus.

I have called these remarks a preliminary communication to indicate my sense of their incompleteness; but anthropoids are scanty and costly, so that the completion of the investigation may be a matter of years.

It only remains for me to acknowledge my indebtedness to the British Medical Association and to the Grocers' Company, who to a large extent made the investigation financially possible, and to thank many friends and colleagues who, often at much trouble and inconvenience to themselves, provided me with material (21 cases of scarlet fever and 25 cases of measles) and laboratory facilities.

REFERENCES

[1] Balthazard, *Toxine et Antitoxine Typhiques*, p. [illegible]. [2] Remlinger, *Ann. de l'Ins. Pasteur*, 1897, p. 229. [3] De Boinville, *Lancet*, 1902, vol. ii, p. 359.

REPORT LXXXIV.

EXPERIMENTAL NEPHRITIS FOLLOWED BY DECAPSULATION OF THE KIDNEY.

BY

I. WALKER HALL, M.D., Assistant Lecturer in Pathology, The Victoria University of Manchester; Honorary Pathologist to the Salford Royal Hospital.

and

G. HERXHEIMER, M.D., Prosector to the Stadtisches Krankenhaus, Wiesbaden.

WHEN Edebohls first suggested the decapsulation of the kidney as a reasonable method of treatment in chronic nephritis, he based his proposal upon the urinary and general improvements which followed the fixation of a movable kidney by the removal of its capsule. In one of his cases which died four months after decapsulation, he observed "enormously dilated and enlarged blood vessels which penetrated from the fatty capsule through the capsule proper into the kidney substance." This access of additional blood he considered would provide increased nutrition, stimulate an extensive regeneration of the secreting cells, and consequently produce a more efficient excretion of waste products. Whether decapsulation yields better results than the simpler reni-puncture of Reginald Harrison, which has been so widely and successfully employed, is a question which the available clinical data have not yet satisfactorily answered. We must wait from two to five years before making any definite conclusions as to the value of this operation. Meanwhile, we may with advantage investigate the anatomical aspect of the procedure, and thus the present inquiry has for its main object the observation of the tissue changes which follow the decapsulation of kidneys in which nephritis has been induced.

Claude and Balthazard, and Albarran and Bernard already in 1902 published short notes on the changes following renal

decapsulation in healthy rabbits, and Harold Johnson, during the progress of our experiments, communicated the results of similar experiments upon normal dogs. As our observations on normal animals agree in the main with these workers, we may here briefly discuss this part of the subject by stating that when the capsule is removed from healthy kidneys it reforms early and at the end of ten to twenty-one days is represented by a fibrous covering thicker than the original capsule. Johnson was unable to detect any vascular anastomoses between the central and perirenal vessels in dogs, Emerson observed vascular connexions with the adjacent organs, but not with the fatty tissue. In rabbits Claude and Balthazard and Laboulay state that a slightly increased vascularity may occur while Emerson was unable to demonstrate such conditions in these animals. After decapsulation of the kidney in some thirty-five rabbits, we also have not observed, either by ordinary or by serial sections, any marked formation of new blood channels between the kidney and the adherent tissues.

After the preliminary experiments we directed our attention to the production of an acute degenerative nephritis and to subsequent decapsulation of the kidney in order to more nearly approach the conditions under which the operation has its practical application. Of the numerous irritants employed for the experimental production of nephritis, few, if any, imitate exactly the tissue changes which result from those auto-intoxications and hetero-intoxications which affect the human kidney. The majority of the available bacterial toxins are somewhat variable in their action, and cantharides is open to the same objection. Metallic irritants offer more advantages than even vinylamine, with which Lindeman has recently produced glomerular and tubular changes, and of these lead, for instance, is known to act directly upon the cells of the convoluted tubules, producing a coagulated necrosis; as its action is slow we decided to use one of the more rapidly-acting chromates, and ultimately selected the neutral ammonium chromate. This substance has been previously employed by Bannister in his work on the acute inflammations of the kidney.

From a number of experiments we found that a dose of 0.5 to 0.75 c.cm. of a 2.5 per cent. solution of neutral ammonium chromate injected into rabbits weighing 1,500 to 2,000 grams produced very intense acute congestion, a coagulative or degenerative necrosis of the cells of the convoluted tubules, a large number of hyaline casts, and the appearance of albumen in the urine within twenty-four hours. Glomerular and interstitial changes other than congestion were at first, as well as later, distinctly absent; but in those animals who survived for five or twenty days small cell infiltrations were visible around the medium-sized blood vessels. The effects of the irritant varied in different animals. In some, $\frac{1}{2}$ in 1,000 albumen first appeared in the urine during the first twenty-four hours, and these as a rule died in convulsions or coma within three to ten days. In one animal there was even $\frac{1}{1}$ in 1,000 albumen; in others the albumen was only $\frac{1}{2}$ in 1,000, and this quantity was present at death or disappeared within sixteen to eighteen days, when the animal lived so long. The urine always contained hyaline casts.

The normal capsule of the kidney consists of two distinct layers of fibrous tissue, an inner, thin, dense, and reticular, closely connected with the connective tissue surrounding the cortical cells, and an outer, broad, lamellated, and of loose texture in some places covered by peritoneum. Forty-eight hours after the injection of neutral ammonium chromate the capsule is swollen, its fibres are separated by oedematous fluid, and its capillaries are congested and dilated. As a rule, no epithelia was [illegible] and decapsulation performed three days later, but in a few cases the capsule was removed and the neutral ammonium chromate injected three days afterwards. The results observed were practically the same in each set of cases.

The Operation.

The operation was performed in the following manner: In one the peritoneal cavity was opened, the intestines retracted, the kidney brought to the wound, and the capsule incised and removed in the usual manner. An incision was made along the external edge of the quadratus lumborum, the fascia separated, and the kidney exposed and delivered. The latter method was more generally employed. The capsule healed readily, and suppuration was rare. Decapsulation in one animal whose kidney was exposed and split in another portion of the experiment twice was easy, and the operations were performed in Germany; 17 of the chromicized animals were decapsulated on both sides, and 8 on one side. The remainder were only injected with neutral ammonium chromate and used as controls.

When removing the capsule it was impossible to always detach both the layers. The outer layer peeled off quite easily, but the inner layer came away in fragments, and during its removal the underlying tissues were lacerated. Thus in the latter case haemorrhages were large and free, and the capsular changes were delayed by the absorption and organization of the clot: in the former the haemorrhage was slight, the capsule showed early signs of new formation, and adhesions were frequent and extensive. Speaking generally, the formation of fibrous tissue was the same in both instances, any difference being due to the rate of progress only. The protocols and detailed reports of the operations and the clinical data will be elsewhere stated, and in a later paper we hope to record the regenerative changes which occurred in the renal tubules.

Macroscopical Appearances of the Decapsulated Kidneys.

After twenty-four hours there was little trace of the capsule, and small clots of blood were visible on the surface of the kidney. At the end of four days the kidney was covered by a thin, whitish film, whose density varied in different areas. In some instances the kidneys were adherent to the liver or adjacent tissues. The blood clots disappeared, and the filmy covering increased in opacity and in density, until at the end of ten days it was as thick as the normal capsule of the other non-decapsulated kidney or of those of the control animals. To the end of the experiments the capsule continued to increase in thickness, and to become closely adherent to the neighbouring structures.

Microscopical Appearances.

The first animal was killed at the end of twenty-four hours, and the following appearances noted. In places where the outer layer of the capsule is absent there is a thin layer of blood and exudation; where the inner layer is missing many of the tubules are ruptured, and there is considerable haemorrhage. The convoluted tubules show necrosis in patches, many of them contain hyaline casts, and such are also present in the collecting and straight tubules of the medulla. The glomeruli are intensely hyperaemic, and all the blood vessels are engorged.

During the operative procedures hairs from the skin became sometimes attached to the decapsulated areas; and, although from a surgical standpoint the occurrence was regrettable, yet their position amongst the newly-formed tissue was at times helpful in defining the exact amount of capsule which had been removed.

After forty-eight hours the haemorrhagic areas, which as a rule extend into the cortex, are but slightly changed. At those places where the outer layer of the capsule is alone missing, adhesions are being formed and the right kidney is often attached loosely to the liver. Four days after the operation there are distinct evidences of newly formed fibrous tissue where the inner layer of the capsule persists, and the intracortical haemorrhages contain round cells and also cells resembling fibroblasts. Many of the tubules are necrotic, and between them there is an increase of cellular elements. The casts and hyperaemia remain as before. On the ninth day the necrosis is well marked and the casts are numerous, but the hyperaemia is less intense. The capsule is now much thicker than normal and consists of loose cellular fibrous tissue. Adhesions to the surrounding fat and muscles are frequent, but the capsule is forming under the adhesions. The haemorrhages have practically disappeared, and their seats are indicated by patches of connective tissue which are visible between the atrophied tubules. The kidneys of those animals killed on the tenth to the fourteenth days exhibit a progressive thickness of the newly formed outer layer. The position of the lacerated areas is now only distinguishable by the cellular tissue, and their surface is covered by a thin layer of fibrous tissue. The new capsule contains numerous small vessels, collections of round and fusiform cells and small pieces of hay surrounded by giant cells. The glomeruli are still hyperaemic, but the necrosis is not so marked and few casts are visible.

From the fourteenth to the twentieth day the most evident changes are those connected with the disappearance of the hyperaemia and of the casts and the regeneration of the renal cells. The capsule is greater in extent and in thickness.

Under the adhesions it is dense and thin; where the organ is free there are frequent nodules of fibrous tissue, the intervening parts being composed of loose, vascular, and somewhat lamellated fibres, almost devoid of cell elements. Up to the twenty-eighth day the specimens examined show a practically normal renal cortex, save that the capsule is much thicker than normal, and the intertubular strands of cellular tissue are well defined.

In addition to the ordinary haematoxylin and rubin and orange, Weigert's iron haematoxylin and Van Gieson, the sections were stained for fibrin and elastin. The former did not yield any noteworthy results. By the latter the relations of the blood vessels were determined. It was apparent that when distinct adhesions occurred, small arteries and veins were present in the tissues immediately surrounding the kidney, but these were always separated from the cortex by the thick, newly-formed capsule. When serial sections were made, it was found that these vessels still maintained their extra-renal position. The only route by which the vessels could definitely pass into the cortex was along the strands of cellular tissue, but although the capsule covering those areas was less dense than elsewhere, blood vessels large enough to contain elastic tissue were not present. Neither was there any evidence to show that the capillaries which passed from the capsule into the cortex were more numerous than those which are normally present.

Post-operative Changes.

To these experimental observations we may append a description of the post-operative capsular changes which occurred in two human kidneys which we have had the fortune to examine.

In one which had been incised with the object of removing a calculus, and which came to the *post mortem* table sixteen days later, we observed some capsular changes near the point of incision. The capsule had retracted, and in its place there was extensive cell infiltration, with but little formation of fibrous tissue. In neighbouring areas, where the fibrous investment had been partially removed, the capsule was thickened, and the newly-formed tissue was richly cellular.

In another we were able to examine the capsular changes two years after an operation for movable kidney. The posterior portion of the capsule had been removed in order that the organ might become adherent and fixed to adjacent structures. The kidney was adherent to a narrow portion of the psoas muscle for about 4 in., and the muscle fibres were absent in the plane of adhesion, and atrophied on the side of it. The renal cortex was covered by a very thick capsule of connective tissue of a stronger and denser type than that of the normal capsule, and in some places it was distinctly puckered. Microscopically, the newly-formed capsule consisted of thick fibrous tissue containing a few nuclei, the underlying tubules were somewhat atrophic, and the interstitial tissue was slightly increased both in extent and in cellular constituents. These changes occurred, as a rule, in scattered areas. Some of the glomeruli were entirely hyaline. Deeper in the cortex collections of small cells were here and there visible, but otherwise both the cortex and medulla were normal.

We are now in a position to consider what renal decapsulation really means. It consists of the removal of a portion of the capsule, or of the entire capsule, with more or less laceration of the cortical tubules, of haemorrhage, and of the exposure of a "raw" absorptive surface. It has been shown by Emerson that while immersion of a kidney in a solution of potassium iodide before decapsulation does not develop the drug in the urine, after decapsulation a similar immersion leads to its early appearance in the urine, so that the removal of the capsule accelerates the absorption of any local toxins.

In eight to fourteen days after renal decapsulation in animals in which degenerative nephritis has been induced, the kidney is covered by a thick, strong connective tissue capsule, and the haemorrhages and marked necrosis are replaced by cellular tissue, which in some instances is connected with the capsule, and which persists after the nephritic changes have resolved. When the capsule is removed in the first instance, the normal passage of capillaries from the capsule into the superficial areas of the cortex, well shown during renal infarction, will be broken; and, if this is afterwards fully regained, it is all that may be expected. In addition, the laceration of the stellate veins will partially obstruct the return of blood to the intertubular vessels, and new anastomoses will be here necessary. Neither in the former nor in the latter instances have we observed any new formation of vessels, but Emerson found that in normal dogs vascular connexions were formed with the pancreas, liver, and intestines, but not with the surrounding fatty tissue, and that these vascular channels were associated with the production of connective tissue, apparently penetrating into the parenchyma from the new capsule, and so marked as to present the picture of a commencing interstitial nephritis. He also states that the renal substance was free from lesions except around the new blood channels. The latter, however, are only described as small capillaries, and the injection of coloured gelatine employed for the demonstration only reached the capillaries and smaller vessels of the liver, although the oozing from the cut surface of the adherent organ was not inconsiderable.

Observations.

While we must clearly admit that artificial animal nephritis cannot be too closely compared with nephritis in a human subject, yet we submit that the changes produced by metallic poisons are somewhat similar in each case, and the experiments provide at least some grounds for the probable occurrence of like processes in the human kidney.

We must of course for the moment only deal with the forms of degenerative nephritis, as it is yet impossible to induce an interstitial nephritis in animals. From the anatomic standpoint yielded by our experiments and those previously reported, decapsulation does not appear to offer any advantages. And if there exists no anatomical basis for the operation in acute degenerative nephritis, it is surely impossible that in chronic nephritis the capsular changes will be less marked. If indeed the changes are at all analogous, we should imagine that the laceration, the haemorrhage, and the new formation of the capsule would rather tend to accelerate the interstitial inflammation; while in the event of any concomitant arterio-sclerosis there would be no possibility of much vascular anastomosis or even of a satisfactory replacement of the channels ruptured during the removal of the capsule.

But if there is no anatomical basis for the operation, there may be another explanation of the rapid flow of urine—the increased excretion of urea, the disappearance of the albumen and casts which have been observed to follow decapsulation. By some the results are ascribed to the relief of congestion, but in our experiments the intense hyperaemia persisted after the capsule had reformed. Pel, Jaboulay and others suggest that the improvement is due to the action upon the sympathetic ganglia, and that the decapsulation should be considered in the same light as those operations which, undertaken to remove a renal calculus, lessen the pain and improve the general condition of the patient, although no calculus is found.

If the latter be the correct explanation, the question naturally then arises as to the necessity for the entire denudation of the renal cortex. Would not reni-puncture, or one longitudinal and several transverse incisions, while avoiding the main anatomical disadvantages, afford a sufficient stimulus to the sympathetic centres? We cannot at present offer any experimental evidence upon this point. That it would provide a sounder anatomical basis is probable; at all events, it would more locally limit the interstitial and capsular processes in kidneys the seat of chronic nephritis.

Guiteras has recently compiled the results of some 120 cases in which the diagnoses of chronic nephritis were fairly well established before decapsulation and their post-operative courses followed for some months. Regarding the results from their most favourable standpoint, 16 per cent. of the total number may be said to be "cured," 40 per cent. thought to be improved, 11 per cent. unimproved, and 33 per cent. followed by early death. Suker reports 15 cases of nephritis in which retinal changes had occurred and which were submitted to decapsulation; 14 died within the "two-year" period and the history of the remaining one was somewhat questionable.

The value of these statistics is, however, minimized by several considerations. First, the operation has been necessarily restricted to the latest stages of the disease, and has often been only performed as a last hope; secondly, the exact stages and extent of chronic nephritis do not permit of accurate diagnosis; thirdly, chronic nephritis is as a rule characterized by acute exacerbations and frequent remis-

sions, its anatomical course is in the main a progressive one, and the remittent stages often occur under treatment other than that of decapsulation.

Of the above 33 per cent. mortality, 26 per cent. died from chronic interstitial nephritis; and of the remainder, in 25 per cent. death occurred from the so-called chronic parenchymatous nephritis, and in 75 per cent. "diffuse"(?) nephritis was assigned as the cause.

In acute nephritis, anuria, haematuria, puncture and decapsulation of the kidney is said to yield relief and to favourably affect the function of the other kidney. In these cases it is suggested that the improvement is due simply to the relief of tension.

From the standpoint of pathology we may not make an excursion into the field of surgery, and therefore we must not discuss the possibilities of the operation. We feel, however, that the purpose of the paper would not be served unless we mentioned that while many American and some French surgeons regard the procedure as one that has come to stay and as possessing much promise in the treatment of degenerative and interstitial nephritis, such operators as Israel, Nicolayson, and others have already abandoned the method in chronic conditions. It is, of course, a matter of common knowledge that the simpler reni-puncture relieves tension and promotes renal functions, so perhaps the description of the changes observed after decapsulation may give more prominence to the method of simple incision, may emphasize the probability of rapid local reparation when the temporary obstruction is removed, and may suggest the earlier surgical treatment of those post-febrile and acute renal manifestations, which, when unrelieved, often terminate fatally.

Since the completion of our experiments Boncz-Osmolowsky has published a paper on "the changes in the kidney after removal of its capsule." He used rabbits for his experiments, and found that six days after decapsulation the leucocytes and connective tissue were increased between the tubules and that the cells of the superficial tubules showed granular changes in the protoplasm. Twelve days after the operation the superficial tubules and glomeruli were slightly compressed by the connective tissue elements, and there was atrophy of renal cells. He did not observe any new formation of blood vessels in the reformed capsule.

[Some portions of this paper were communicated to the March meeting of the Manchester Medical Society.]

REFERENCE
1 [illegible], Bd. cxxxvii.

BIBLIOGRAPHY
C. [illegible] Baltzard, Effets de la Decapsulation du Rein. [illegible] Albarran et Bernard, Rôle [illegible] Capsule du Rein après Decapsulation de l'Organe. [illegible] H. A. Johnson, Results of Decapsulation [illegible] E. Boncz-Osmolowsky [illegible] Nieren bei Entfernung ihrer Kapsel. [illegible] Sänger, Ueber [illegible] Labo-Clay Gravet et Ramond, Des [illegible] Néphrites, etc. [illegible] Stonham upon the Capsule of the Kidney, [illegible] p. [illegible] Cavaillon et Trillat, De Traitement de la Néphrite [illegible] Mai, 1903. [illegible] Primary Sutures, Dr. Edebohl's, the Treatment [illegible] Medical Record, December 21st, 1901. [illegible] the Surgical Treatment of [illegible] No. 1. R. Greenwood [illegible] Decapsulation with [illegible] Literature [illegible] New York Medical Journal, October 24th, p. [illegible] R. H. Harrison, the Treatment of [illegible] Renal Puncture, Decapsulation [illegible] Medical Record, October 24th, p. [illegible] Nieren, Wien. klin. Wochenschr., 1903, No. [illegible] Nephritis, Medical Record, October 24th, p. [illegible] Nieren- und Nierenkapsel-Verletzungen, Deutsche

mosquitos, which had bitten and relieved themselves of parasites, one or more openings were seen in the labellae, often very apparent owing to the escape of pigment and granular matter; there were no openings elsewhere.

It remained to be proved by actual experiment, that filariated mosquitos could infect dogs, and it was important to ascertain how long a time would elapse before embryo filariae could be detected in the experimental dog's blood. The time taken from the bite of the mosquito until the embryos can be found in the blood is about nine-calendar months; in one instance it was only eight and a-half months. One dog, which had been filariated, was stolen at eight months, up to which time there were no embryos in its blood. To fix the time as accurately as possible, this experiment was made: a puppy, bred from non-infected parents, was kept away from filariated dogs: on December 30th, 1902, it was put into the mosquito house and 183 filariated mosquitos, three weeks old, were liberated; the next morning it was found that 70 mosquitos had bitten: that was the only infection the dog received. After seven months had elapsed its blood was examined weekly, but it was not until October 1st, 1903 that is, nine months—that the embryos were detected; the dog was then killed and the heart and lungs examined. There were 32 fully-developed filariae (16 males and 16 females) in the right ventricle and pulmonary artery.

I was desirous of ascertaining (although the chance of doing so was very slight), where in the dog's body the young filariae lived before betaking themselves to the heart. I had on several occasions, whilst dissecting filariated dogs, found half-grown forms in the lungs. One dog, which had been bitten by 103 filariated mosquitos and in whose body there would be at least fifty worms, was examined three months afterwards; the tissues were sliced with a knife or cut into small pieces with scissors in hope that, were a worm cut, it might move or its body protrude and thus attract the eye; nothing, however, was seen. Mature filariae scarcely move when cut across, and might readily be overlooked, so it can be understood how such delicate bodies as young filariae might easily escape detection. It is probable that the young filariae live in minute arteries in the lung. Another filariated dog was examined seven months after infection, full grown filariae, both males and females—the females 10 in. long, which is the maximum length they attain to—were found in the heart; the uterine tubes were devoid of embryos however. The parasite is at this date probably sexually mature, but a month or two must elapse before embryos are developed.

Two dogs used as a "control" in this investigation, lasting over a period of two years, remain free from filariae.

REFERENCES.

[1] *Proceedings of the Royal Society of New South Wales*, vol. xxxiii, p. 62. [2] Ibid., vol. xxxv, p. 44.

DIGESTION AND ABSORPTION OF HAEMOGLOBIN.

By W. D. HALLIBURTON, M.D., F.R.S.,
Professor of Physiology, King's College, London.

Some years ago, when Bunge's theory of the part played by inorganic iron preparations in the relief of anaemic conditions was exciting interest, it occurred to me as important to determine whether haemoglobin was capable of absorption. For among organic preparations of iron, haemoglobin is sometimes prescribed for the cure of chlorosis and allied disorders.

Pressure of other work at the time caused me to leave my investigation in an unfinished condition, and I never took it up again, and in the meantime numerous other researchers had taken up the question and published their results.

The main trend of this work has been to show that numerous preparations of iron, both inorganic and organic, including haemoglobin, are really absorbed, though probably in small quantities, and do not, as Bunge taught, merely remain in the alimentary canal, to be the ready prey of bacteria, so protecting the normal haematogen (iron-nucleo-proteid) contained in small quantity in numerous food stuffs.

The evidence adduced by these investigators in favour of the absorption hypothesis may be briefly summarized in the following way:

1. Animals fed on the preparations added to their food, rendered as iron free as possible, increase in weight, and thrive better than the control animals.

2. Their red corpuscles increase in number and in their richness in pigment. This by itself might, however, be equally well explained by Bunge's theory.

3. By macrochemical methods the amount of iron in their spleen and other organs increases more than can be explained by the small amount of iron in the haematogen of their food.

4. By microchemical methods the granules containing iron can be detected in these organs as well as in the intestinal epithelium. Of the microchemical methods, that with ammonium sulphide has been shown to be more trustworthy than that involving the use of potassium ferrocyanide.

5. The duodenum appears to be the situation where most absorption takes place; the spleen the principal situation for storage; the reappearance of the iron reaction in the colon, and to a certain degree in the kidneys, appears to indicate excretion rather than absorption.

I may say briefly that my experiments, as far as they went, supported on all these grounds the hypothesis that haemoglobin given with comparatively iron-free food is really absorbed, and may thus lead to blood formation. Looking through my old notes, I have determined that it is quite worth while to publish the results, not because they now contain anything which is absolutely new, but as confirming the observations of others just alluded to. Moreover, in one or two directions the methods adopted have been somewhat different from those used by others. Particulars, for instance, concerning the action of the digestive fluids on haemoglobin I do not remember as having seen in previous publications.

Action of Artificial Digestive Fluids on Haemoglobin.

It appeared to me first to be important to determine what changes haemoglobin undergoes when subjected to the action of the various digestive juices. For this purpose I prepared a large quantity of crystalline oxyhaemoglobin from dog's blood and divided it into several portions:

1. On keeping it at body temperature for some days it underwent no change.

2. On adding saliva to it and keeping the mixture at 40° C. there was also no change in twenty-four hours, except that the crystals underwent solution.

3. On adding to a solution of these crystals an equal volume of 0.4 per cent. hydrochloric acid the solution showed almost immediately and in the cold the bands of acid haematin. On keeping this at 40° C. a swollen amorphous precipitate of acid haematin settled out gradually, though twenty-four hours later a good deal still remained in solution. Menzies[1] states that the first effect of dilute acids on oxyhaemoglobin is to form methaemoglobin; this I have confirmed if a few drops only of the 0.4 per cent. solution of hydrochloric acid are added to the solution. But with the amount of acid present in gastric juice this stage, if it occurs, is too transitory to be caught. The spectroscopic bands of acid haematin and of methaemoglobin are very similar, but the two can be readily distinguished by careful measurement, and even more readily by the following test. If a reducing agent like ammonium sulphide is added, the absorption bands of methaemoglobin are replaced by those of oxyhaemoglobin and reduced haemoglobin; whereas the bands of acid haematin are replaced by the perfectly characteristic bands of haemochromogen. I sought for haemin after treatment with hydrochloric acid of this strength, but was never successful in proving it to be present.[2]

4. In the next experiment pepsin solution was added to the mixture with hydrochloric acid, and the resulting appearances were just the same. On keeping the mixture at 40° C. the acid haematin gradually separated out as a precipitate, the appearance of which closely resembled that of "coffee grounds." In this case the digest within a few hours gave evidence of the presence of albumoses and peptone derived from the hydrolysis of the proteid component of the haemoglobin. These did not appear when the acid alone was employed; the dissolved proteid in that case was simply acid albuminate. So far, we have learnt that the effect of gastric digestion is not only to form hydrolytic products from the proteid constituents of the haemoglobin, but the iron-containing portion is converted into acid haematin, which, as it mainly separates out as a precipitate, is not very likely to be available for purposes of absorption.

5. Sodium carbonate was next added to another portion of the haemoglobin solution until 1 per cent. was present. To half of this a solution of trypsin was added; the result in both cases was the same so far as the iron-containing portion of the pigment was concerned. In the specimen where trypsin was added there was naturally in addition the formation of proteolytic products. No immediate change in the pigment was produced, but on keeping at 40° C. the fluid became reddish-brown and showed the absorption spectrum of alkaline

haematin, which on the addition of ammonium sulphide was replaced by that of haemochromogen. No precipitation of the haematin occurred as in the acid preparations. We thus see that pancreatic digestion *in vitro* yields a product which remains in solution, and so presumably one better adapted for absorption. The normal sequence of events in the alimentary canal is that gastric is succeeded by pancreatic digestion; this I sought to imitate in my next experiment.

6. The insoluble brown residue which follows gastric digestion was washed with water, and placed, part in artificial pancreatic juice, and the rest in a 1 per cent. solution of sodium carbonate. In both cases the precipitate rapidly dissolved at 40° C., giving rise to a reddish-brown solution with a green dichroism which showed the band of alkaline haematin. Pancreatic juice *in vitro*, and therefore probably *in vivo*, has no difficulty in converting the insoluble haematin compound formed in the stomach into a soluble modification.

The next point to see was whether such a solution is diffusible, for although we must admit that diffusion is not the sole factor in absorption, it is evidently an important one, for the whole object of digestion is to render materials diffusible which are naturally not so. Accordingly, the digests from the gastric and pancreatic products were dialysed in parchment paper tubes against distilled water; the result was that no acid haematin came through, but the alkaline haematin diffused fairly rapidly into the outer fluid; but diffusion ceased when all the alkaline carbonate had passed out into the water; under these circumstances the haematin was precipitated within the dialysing tube.

The same series of experiments was repeated with haemoglobin purchased from Grübler, and in all cases with the same result.

Shortly after this I had the opportunity of examining three specimens of blood vomited from the stomach in hospital cases. The first case was that of vomiting which occurred soon after epistaxis; the blood was bright red and showed the oxyhaemoglobin bands with a trace of the characteristic methaemoglobin band in the red. The other two were cases of haematemesis in which the vomit showed the typical coffee grounds appearance. The material was extremely insoluble, but by means of ether, acid haematin was dissolved out and gave its typical reactions. The results thus recorded were those obtained by artificial digestion.

Feeding Experiments with Haemoglobin.

Rats were selected for these experiments, a certain number being fed on bread and milk, a diet which is poor in iron, and the remainder on the same diet over which powdered haemoglobin was freely sprinkled. In all cases they took the food quite readily. My intention was to make observations on the weight, blood corpuscles, and haemoglobin during life, and after death to examine the different organs microscopically and macrochemically for iron, and, where possible, to estimate it. As will be seen, these experiments were never completely carried out, but, so far as they went, they indicate that haemoglobin is really absorbed, and is utilisable for blood formation. Two series of rats were taken, and in each batch of 10 or 12, 5 or 6 were used for controls, and the others had haemoglobin added to their food. The following are the results of typical experiments:

Increase in Weight.—The animals were kept alive for three weeks. The increase of weight per week in the bread-and-milk rats were respectively 22, 32, 21, 31, and 44 grams. The large increase in the last-mentioned animal was found after death to be due to pregnancy. In the haemoglobin rats, the weekly increase of weight was respectively 19, 17, 27, 24, and 25. It will be seen that there is not much to choose between the two sets so far as increase of weight is concerned.

Red Corpuscles and Haemoglobin.—I was met with a difficulty in making these observations because it was not possible to obtain a sufficient amount of blood for analysis from the skin even over a superficial vessel, by a needle prick. I therefore selected two of the best-nourished animals from the batch at the beginning of the experiments, killed them, and examined the blood from the heart, letting this serve as a standard for the remainder, which were killed after three weeks' feeding. The red corpuscles were counted by the Thoma-Zeiss instrument, the haemoglobin estimated by Gowers's haemoglobinometer. The following were the results obtained; the numbers represent percentages taking normal human blood as 100 per cent.:

Rats killed before feeding experiments were started

No.	Oxyhaemoglobin.	Red Corpuscles.
1 ...	85	50.0
2 ...	82	...
3 ...	85	44.0
4 ...	88	46.0
5 ...	...	...

Rats killed after feeding for three weeks on bread and milk:

No.	Oxyhaemoglobin.	Red Corpuscles.
1 ...	52	52
2 ...	95	65.8
3 ...	80	50.2
4 ...	100	72.0
5 ...	95	77.8

Rats killed after feeding for three weeks on bread, milk, and haemoglobin:

No.	Oxyhaemoglobin.	Red Corpuscles.
6 ...	85	50.0
7 ...	82	...
8 ...	85	44.0
9 ...	88	46.0
10 ...	...	...
11 ...	100	72.0
12 ...	95	77.8

The distinct improvement in the last set of animals is clearly seen and needs no comment.

Examination of the Organs of the Animals.

The method adopted was that recommended by W. S. Hall. Two solutions of ammonium sulphide were prepared; the first had the composition, ammonium sulphide solution 30 parts, and absolute alcohol 70 parts; this is the best solution for spleen and liver. The second solution gives the best results with intestinal epithelium, and has the composition ammonium sulphide solution 5 parts, absolute alcohol 70 parts, and distilled water 25 parts. Pieces 2 to 4 cm. thick are placed in these solutions for twenty-four hours. The iron reaction, when marked, is quite visible—by the darkening produced—to the naked eye. The FeS, however, partly bleaches on the surface after standing, and the black granules become yellow owing to the formation of $Fe(OH)_2$, which are difficult to detect in microscopic sections. The pieces are therefore hardened in alcohol, embedded in paraffin, and sections cut: the sections are freed from paraffin and placed in the ammonium sulphide solution once more before being finally mounted. I placed the whole alimentary canal, slit open, in the alcoholic ammonium sulphide solution, next day made notes of the naked-eye appearances observed, and subsequently selected portions for embedding and section cutting.

The difference between the alimentary canals of the two sets of animals was very pronounced. In those fed on bread and milk only there was faint darkening at the extreme pyloric end of the stomach, which was somewhat deeper in the duodenum. The rest of the canal was unaffected, except the caecum, where again slight darkening appeared. The liver usually showed a slight reaction, the spleen one rather more intense, and the kidney either none at all or a very faint reaction.

In the animals who had received haemoglobin the liver was rendered pale green, the spleen was intensely dark, and in the kidney little or no reaction was observable. In the alimentary canal the reaction commenced at the pyloric end of the stomach. The duodenum showed an intense reaction for 2 in. or 3 in., and then this gradually faded away, disappearing altogether about 5 in. from the pylorus. No further reaction was seen until the caecum was reached, when once more there was coloration, fading away and disappearing about 1 in. to 2 in. beyond the commencement of the large intestine.

On microscopical examination of a number of typical specimens the darkened granules in the epithelial, liver and splenic cells, so well described by Hall[4] and others, could be easily seen. Increase in their number and the intensity of their colour coincided with the situations where the colour was deepest to the naked eye. In some cases the staining was diffuse and not limited to granules. Unfortunately, the estimations of iron in the organs which I intended to make were omitted.

General Conclusions.

1. The administration of iron in the form of powdered haemoglobin to rats leads to an increase in the number of their red corpuscles, and the amount of haemoglobin in their blood.

2. There appears every reason to suppose that the haemoglobin is actually absorbed; the intensity of the ammonium sulphide reaction is much greater than in animals kept on a diet poor in iron. The main situation for absorption, as judged by this reaction both to the naked eye and to the microscope, is the extreme pyloric end of the stomach and the first few inches of the duodenum. The spleen appears to be the principal organ for storage.

3. Haemoglobin in the stomach is converted into acid haematin. This is the pigment of what clinical observers call "coffee grounds" in the vomit of cases of haematemesis. Acid haematin, after it is formed, is slowly precipitated, and is indiffusible through parchment paper. It therefore seems unlikely that much of it is absorbed.

4. By the pancreatic juice, however, it is rapidly dissolved, and forms alkaline haematin, which diffuses through parch-

ment paper. This will account for absorption in the first part of the duodenum. Lower down, where the reaction once more becomes acid, absorption ceases. It is well known in many animals that the reaction of the intestinal contents becomes alkaline owing to ammonia formation in the large bowel, but in the rat I found that the contents of the caecum and first part of the colon were still acid. Alkalinity does not occur till the last part of the colon is reached.

NOTES AND REFERENCES.

[1] *Journal of Physiology*, xvii, p. 415. [2] In spite of Gherardini's statement that blood in the stomach is converted into haemin (*Bull. dell Sci. Med.*, 1885, p. 456) *Du Bois-Reymond's Archiv*, 1896; *Physiol. Abth.*, p. 142. [3] Loc. cit. On account of the incompleteness of my work I have not attempted to enumerate the very numerous published papers on iron absorption. A recent paper by Tartakowsky (*Pflüger's Archiv*, 1901, vol. c, p. 586) gives reference to the most important. Hall holds that the reappearance of the iron reaction in the beginning of the large intestine, and to a certain extent in the kidney, is an indication that iron is excreted here. I have not pursued this line of inquiry, but see no reason to doubt the grounds on which this hypothesis is founded. I find, however, that Tartakowsky, whose experiments were made with inorganic iron compounds principally, regards the caecum and colon as situations where absorption and not excretion occurs.

NOTES ON RECENT CANCER MORTALITY IN THE THAMES VALLEY.

By ALEXANDER URQUHART, M.A., M.D., D.P.H.Aberd.,
Shepperton-on-Thames.

The south-eastern division of England has long been regarded as showing a high death-rate from cancer, and the Thames valley in particular has had this unenviable reputation. Many years ago Haviland, in an investigation into the matter, stated that the high cancer mortality and the Thames floods were closely related to each other. In the Thames counties, where there are frequent floods over considerable areas, the alluvium is deposited on what is for the most part a clayey, tenacious soil; and a clay soil has been regarded by some as more favourable to the growth of parasites, which may have a connexion with cancer, than carboniferous or chalky soil. It is doubtful, however, whether much influence is exerted on the cancer death-rate in England by the geological formation, as, in the low mortality areas, strata are found similar to those existing in the counties and districts showing the highest rates. I have recently collected certain statistics of cancer mortality in the Thames valley with the view of ascertaining whether it still maintains its reputation as a high cancer mortality area. The statistics are taken from the annual and decennial reports of the Registrar-General for England, and I have more especially compared the decennium 1881-90 with 1891-1900.

The Thames riparial districts (by which is meant those which immediately skirt the river or are traversed by its head waters), have been divided into groups, each of which comprises a number of registration districts. The groups which form the Thames valley are roughly:

1. From Oxford to Wokingham.
2. ,, Cookham (Maidenhead) to Wycombe.
3. ,, Eton to Kingston.

The counties in which the various riparial districts in the Thames valley are situated are Middlesex, Bucks, Oxford, Surrey, and Berkshire.

Comparing the decennia 1881-90 and 1891-1900 in these counties in relation to cancer mortality, I find the following:

TABLE I.

1881—1890.

	Total Deaths from all Causes, at all Ages.	Cancer Deaths, all Ages.	Percentage of Cancer Deaths to Total Deaths.
England and Wales ...	5,244,771	[illegible]	[illegible]
Surrey	[illegible]	[illegible]	3.94
Berks	[illegible]	[illegible]	4.86
Middlesex (Ex. Met.)	[illegible]	2,610	3.39
Bucks	26,874	[illegible]	[illegible]
Oxfordshire ...	[illegible]	[illegible]	3.98
1891—1900.			
England and Wales ...	5,[illegible]	[illegible]	[illegible]
Surrey ...	[illegible]	4,846	[illegible]
Berks	[illegible]	[illegible]	[illegible]
Middlesex (Ex. Met.)	[illegible]	[illegible]	4.87
Bucks	5,011	[illegible]	[illegible]
Oxfordshire	29,792	[illegible]	[illegible]

All the counties show a cancer death-rate higher than for England as a whole in each decennium. In all the counties also there is an increase in the latter decennium over the former varying from 1.64 per cent. in Buckinghamshire to 1.18 per cent. in Middlesex (Ex. Met.).

TABLE II.

Surrey	= 1.29	per cent. increase
Berks	= 1.57	,, ,,
Middlesex (Ex. Met.)	= 1.18	,, ,,
Bucks	= 1.64	,, ,,
Oxfordshire	= 1.60	,, ,,

For registration purposes each county is divided into a number of registration districts. Of these districts I have taken first those which are riparial (as defined above). The cancer mortality occurring in these in the two decennia 1881-1890 and 1891-1900 has been summed up and compared.

Following the course of the river upwards, the riparial districts in the Thames valley on the south bank are Richmond, Kingston, and Chertsey in the county of Surrey; Windsor, Maidenhead, Reading, Bradfield, Newbury, Wallingford, Abingdon, and Faringdon in the county of Berkshire.

On the north bank of the river the districts which are riparial are Brentford and Staines in the County of Middlesex; Eton and Wycombe in Buckinghamshire; Henley, Thame, Headington, Oxford, and Witney in Oxfordshire.

The results arrived at, put in tabular form, are the following:

TABLE III.

Registration District.	Per Cent. Cancer Mortality. 1881-1890.	1891-1900.	Increase Per Cent.
SURREY:			
Richmond	3.89	5.31	1.42
Kingston	4.72	5.76	1.04
Chertsey	4.50	5.50	1.00
BERKSHIRE:			
Windsor	4.59	5.52	0.93
Maidenhead	4.81	6.22	1.41
Reading	4.51	5.96	1.45
Bradfield	4.03	[illegible]	2.60
Wallingford	3.57	5.34	1.77
Abingdon	4.30	4.64	0.34
Newbury	4.59	5.63	1.04
Faringdon	3.24	5.72	2.48
MIDDLESEX (EX. MET.):			
Brentford	3.43	4.93	1.49
Staines	4.10	4.33	0.23
BUCKS			
Eton	3.68	5.34	1.66
Wycombe	2.72	4.74	2.02
OXFORDSHIRE:			
Henley	4.10	5.81	1.75
Thame	3.90	5.00	1.10
Headington	4.72	6.60	1.88
Oxford	3.51	4.48	0.97
Witney	3.33	4.70	1.37

When the cancer mortality in the riparial districts is contrasted with that in the non-riparial districts in each of the above counties, it is found that the average cancer mortality-rate to total mortality from all causes was:

TABLE IV.

1881—1890.

	Riparial Districts.	Non-riparial Districts.
	Per Cent.	Per Cent.
Surrey	4.37	3.71
Berks	4.16	3.94
Middlesex (Ex. Met.)	3.76	3.62
Bucks	3.29	3.72
Oxfordshire	3.92	4.04
1891—1900.		
Surrey	5.71	4.73
Berks	5.44	5.53
Middlesex (Ex. Met.)	4.53	4.63
Bucks	5.04	5.46
Oxfordshire	5.30	5.[illegible]

It will be seen that the average cancer mortality-rate has increased in the latter decennium in all the riparial and non-riparial districts; also that in both decennia in the counties of Bucks and Oxford the non-riparial districts show a slightly higher rate than the riparial. With these exceptions the rate in the riparial districts is higher than in the non-riparial.

I have compared the cancer mortality in the two decennia in each of the above registration districts with a view to

ascertaining (1) whether there has been an increase or a decrease during these periods, (2) what proportion the increase or decrease bears to other districts in the Thames valley similarly compared. The result shows that the cancer mortality has increased in all the districts, the increase varying from 0.23 per cent. (Staines) to 2.66 per cent. (Bradfield).

In each of the counties and districts the total deaths from all causes at all ages have been taken, and the total number of deaths from cancer at all ages occurring in each decennium. The figures are computed from the annual reports of the Registrar-General for England during the twenty years. The percentage of cancer deaths to total deaths is thus obtained. This is naturally a crude method and can give only approximately accurate results, but the conditions in regard to age and sex distribution in a given district vary but slowly, and there is less liability to error in comparing the cancer death-rates of the same district or town at the different periods.

The above statistics seem to justify the conclusion that the Thames valley is still associated with a relatively high mortality from cancer. All the districts immediately bordering on the river show a rate in the decennium 1891-1900 above the average rate for the whole of England, the excess varying from 0.15 to 2.53 per cent. This uniform high rate along both banks of the river suggests that there may be a connexion between the river floods and the incidence of cancer, but what that connexion is it is not easy to explain. If we presume that cancer is a parasitic disease, the drying vegetation on the river banks after the floods have gone down may form a favouring nidus for the growth of the parasite. The fact that the majority of the riparial districts show a higher cancer mortality than the non-riparial seems to support this view of probable parasitic infection, seeing that districts nearest the river are most prone to suffer from cancer. This, however, does not explain the cause of the increase of cancer which is everywhere apparent, but given the other unknown predisposing factors which lower the vitality of the human organism to a non-resistant degree, we may have along the banks of the river a more or less constant manufactory of the *materies morbi*, ready to attack the already weakened host, and thus, with the additional risk of infection, there is higher mortality.

The above facts and figures taken as a whole and collectively are not only not inconsistent with the parasitic theory, but they seem to find their best explanation on this hypothesis. They are a contribution to the statistics of the disease whose etiology is at present the vexed question of medicine.

ON THE ACTION OF THE BLOOD SERUM FROM CASES OF ACUTE MENTAL DISORDER ON B. COLI COMMUNIS.

ALICE V. JOHNSON, F.R.C.S.I., D.P.H., and EDWIN GOODALL, M.D., F.R.C.P.
[illegible] Carmarthen

At the meeting of the British Medical Association at Swansea in 1903 we made a preliminary communication upon the agglutinating power of the blood serum from 25 cases of mental disease upon B. coli. Having since examined a further series of cases, raising the number to 100, we now give the results obtained and the conclusions drawn.

TABLE I.—*Showing the Agglutinative Power of Serum from 100 Cases of various Acute Forms of Insanity upon 25 Mixed and 75 Single Strains of B. Coli Communis:*

Form of Disease.	No. of Cases.	Good Agglutination.	Per Ct.	Partial Agglutination.	Per Ct.	No Agglutination.	Per Ct.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] were made of which [illegible] gave good agglutination, [illegible] partial agglutination, and [illegible] no agglutination.

TABLE II.—*Showing Duration of Disease, Degree of Dilution of Serum Used, and Agglutination Results in 25 Cases of Acute Melancholia.*

No. of Case.	Duration.	Dilution.	Result.
1	1 month / 1 month	[illegible]	
[illegible]	1 month / 1 months	1—[illegible]	
[illegible]	7 months / 7 months	1—100	Good agglutination.
4	9 months / 12 months	1—100	
5	years over 12 months	1—[illegible]	
1	weeks	1—[illegible]	
[illegible]	1 month	1—100	
[illegible]	2 months / 3 months	1—[illegible]	
4	3 months	1—[illegible]	
[illegible]	3 months	1—[illegible]	
[illegible]	4 months / 5 months	[illegible]	Partial agglutination.
[illegible]	4 months / [illegible]	1—[illegible]	
[illegible]	5 months	1—100	
9	5 months	100	
[illegible]	5 months / 6—12 months	1—[illegible]	
11	months	1—[illegible]	
12	months	1—[illegible]	
1	1 week	1—[illegible]	
[illegible]	4 weeks	[illegible]	
[illegible]	5 weeks	1—[illegible]	
[illegible]	6 weeks	1—100	
[illegible]	months / 1 months	1—[illegible]	
[illegible]	months	1—[illegible]	No agglutination.
[illegible]	2 months	[illegible]—100	
[illegible]	months	1—[illegible]	
[illegible]	4 months / [illegible] months	1—[illegible]	
10	4 months / [illegible]	1—[illegible]	
11	6½ months / 12 months	1—100	
1	years over 12 months	1—[illegible]	

TABLE III.—*Showing Duration of Disease, Degree of Dilution of Serum Used, and Agglutination Results in 25 Cases of Acute Mania.*

No. of Case.	Duration.	Dilution.	Result.
1	2 weeks / 10 weeks / 1 month / 3 months	1—[illegible] / 1—[illegible]	Good agglutination.
1	5 days	1—100	
2	10 days	1—[illegible]	
[illegible]	weeks	1—100	
4	3 weeks	1—[illegible]	
[illegible]	3 weeks	1—[illegible]	
[illegible]	4 weeks	[illegible]—[illegible]	
[illegible]	4 weeks	1—[illegible]	
[illegible]	4 weeks	[illegible]	
[illegible]	6 weeks	1—[illegible]	
10	7 weeks / 3 months	1—[illegible]	
11	weeks	1—[illegible]	Partial agglutination.
12	weeks	1—[illegible]	
13	8 weeks	[illegible]	
14	weeks	1—[illegible]	
15	weeks	1—100	
16	weeks	1—[illegible]	
17	weeks	1—[illegible]	
18	weeks	[illegible]	
19	weeks	1—[illegible]	
20	weeks / months / months	1—100 / 1—[illegible] / 1—[illegible]	
1	days	1—[illegible]	
[illegible]	1 week	1—[illegible]	
[illegible]	1 week	1—[illegible]	
4	weeks	1—[illegible]	
[illegible]	weeks	1—100	
[illegible]	weeks	1—[illegible]	
[illegible]	weeks	1—100	
[illegible]	weeks	[illegible]	
[illegible]	weeks	1—[illegible]	
[illegible]	weeks	1—[illegible]	
10	week / 6 months	1—[illegible]	
11	weeks	1—[illegible]	
12	weeks	1—[illegible]	
13	weeks	1—[illegible]	
14	weeks	1—[illegible]	
15	weeks	1	No agglutination.
16	10 weeks	1—[illegible]	
17	weeks	1—[illegible]	
18	11 weeks	1—100	
19	11 weeks	1—[illegible]	
20	weeks	1—[illegible]	
[illegible]	12 weeks	1—100	
[illegible]	weeks	[illegible]	
[illegible]	weeks	1—[illegible]	
[illegible]	17 weeks	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]

Taking cases of any period up to six months' duration as "recent" cases, Tables II and III show that 71 out of the total 82 cases of acute mania and melancholia were recent, that with but few exceptions the cases giving no agglutination were recent, and that consequently the failure to agglutinate does not depend upon chronicity of the disease.

Conclusions.

From the tables the following conclusions are drawn:

1. In 50 per cent. of the total cases of acute insanity there was agglutination, whereas this was present in only 15.5 per cent. of the controls.
2. The agglutination was partial in the great majority of the cases (39 per cent.).
3. In those forms of the disease in which the cases were sufficiently numerous to permit of percentages being taken (mania and melancholia), the preponderance of partial over good agglutination was also obvious.
4. The percentage of agglutination (good and partial) was greater (58.5) in the cases of melancholia than in those of mania (45.2).
5. The percentage of good agglutination was greater in melancholia than in mania.
6. Even when the disease is quite recent in duration there is as often as not a failure to agglutinate.

Our thanks are due to Dr. J. H. W. Eyre, of Guy's Hospital, for kindly supplying cultures for the purpose of this work.

CASES OF LATERAL SINUS PYAEMIA.*

By WILLIAM SHEEN, M.S., M.D.Lond., F.R.C.S.Eng.,

Surgeon, Cardiff Infirmary and Seamen's Hospital, Cardiff.

I purpose relating to you my experiences in certain cases of lateral sinus pyaemia associated with middle-ear disease which have been under my care. By this term I mean an extension of the inflammatory processes which we so commonly speak of as mastoid disease to the interior of the lateral sinus, thence to the jugular bulb and the internal jugular vein, and thence, if not arrested, throughout the circulation. My chief reason for this communication is to urge the necessity for prompt and radical surgical interference in these cases, which belong to the class of great surgical emergencies. I will commence with a brief summary of the cases:

Case I.—Girl, aged 10, admitted to Cardiff Infirmary in 1895. Left mastoid disease. Rigors, headache, and pyrexia for four or five days. Antrum and middle ear cleared out; lateral sinus opened behind mastoid and internal jugular in neck; septic thrombus removed. Temporary remission of symptoms. Death on third day. Necropsy—secondary abscesses in lungs.

Case II.—Girl, aged 10, admitted Cardiff Infirmary January 2nd, 1899. Right otorrhoea three years following measles. Acute symptoms one week; vomiting, mastoid pain, pyrexia, rapid emaciation; child very ill. Antrum only opened. Death twelve hours later. Necropsy—mastoid portion of lateral sinus filled with septic clot, small extra-dural abscess over roof of tympanum, septic infarcts in lungs.

Case III.—Male, aged 13, admitted Cardiff Infirmary, February 2nd, 1902. Left otorrhoea of long standing, following measles. Radiating mastoid pain for last six weeks with four shivering attacks. Ear discharge ceased for a week. On day following admission severe rigor: temperature 1[illegible], pulse 1[illegible], respirations 35. Meatus occupied by polypus. Double optic neuritis. February 4th. Antrum and middle ear cleared out; much foul pus; temporo-sphenoidal lobe and cerebellum explored with negative results; extradural abscess found in sinus groove; sinus pulsated feebly, and was not opened. Temperature reduced normal. Recovery uneventful. Persistent sinus left behind ear. In good health now, April 21st, 1903.

Case IV.—Male, aged 14, admitted Union Hospital, June 30th, 1902. Old-standing deafness in, and intermittent discharge from, right ear. Pyrexia, which subsided after syringing, but returned on July 9th with a severe rigor. Seen by me at request of Dr. Alfred Sheen, Medical Officer to Union Hospital. "Complete" mastoid operation performed on July 14th. Patient died thirty-six hours later. *Post mortem*, septic thrombus in lateral sinus reaching from genu to jugular bulb. Organs in condition which accompanies acute septic infection. No secondary abscesses.

Case V.—Male, aged 24, admitted Cardiff Infirmary, August 5th, 1902. Right otorrhoea three years. Discharge ceased a month before admission, and pain commenced in and around ear. Daily vomiting for a week; no rigors. Temperature 104°; very ill. First operation: Antrum and middle ear cleared out. Temperature came down to 101°, but later rose to 103°, and patient had a rigor. Second operation, twenty-four hours later. Lateral sinus exposed and freely opened, and much foul thrombus cleared out. Convalescence interrupted by attacks of pyrexia with rigors, temperature fell after 1 c.cm. of antistreptococcus serum. Now April 21st, 1903, is well and strong; still has sinus behind ear.

Case VI.—Male, aged 15. Private patient, under Dr. Mulligan, Abersychan, Mon. Operation at patient's house on November 12th, 1902. Left otorrhoea of ten years' duration following scarlet fever. "Polypus" removed from left ear a year ago. Four days before operation taken suddenly ill with left mastoid pain, fever, and rigors. Pain extended down neck. On day before operation five severe rigors; temperature 106°. Operation in small country house; bad light. Assistant, the village barber, who fainted at an early stage of the proceedings, his place being taken by the patient's father. Antrum and middle ear cleared out; lateral sinus exposed in its groove; foul thick pus surrounded it, and it did not pulsate; sinus opened freely, and septic breaking-down clot removed. Internal jugular opened in neck, the incision having to be extended low down to get below clot. Venous channel washed out. Recovery interrupted by febrile attacks and rigors, pain in the right side of the chest, and cough. Temperature fell after antistreptococcus serum, and after acetanilide (8 gr.), given by Dr. Mulligan. Formalin inhalations and urotropine internally were also used for a time. Boy eventually recovered, and was in good health on April 21st, 1903.

I have used the term "pyaemia" in the title of this paper in order to emphasize the general infective nature of the process which we are considering and the necessity of isolating the source of general infection to bring about recovery. Three of the cases (half the total number) died, and of these three, two had secondary abscesses in the lungs, while the third was the victim of an acute toxaemia, and might possibly have been saved by earlier intervention. Of the three cases that recovered, one was in an early stage, and the thrombus in the lateral sinus was probably only partial in character, while the symptoms of the other two showed that some general infection had taken place before the local source was cut off. They are, however, encouraging cases, as showing that recovery may follow even advanced conditions.

History. In cases of lateral sinus pyaemia the history usually shows that the middle-ear trouble is of old standing, being a sequel of scarlet fever or measles in the younger patients; and in the older, as we have learnt latterly, of influenza. The patients are usually young adults, but they may be children, or, more rarely, older people.

Onset.—As a rule a patient who is going about his everyday occupations, accustomed to his deafness and his aural discharge, all at once finds himself the victim of a serious malady; rigors, sickness, and fever, with severe pain in and around the ear, are leading features of the onset. Less commonly, the onset is more gradual; increasing pain and fever leading up to a kind of crisis, signalized by vomiting or rigor. A cessation of the ear discharge (not really a cessation but a lessening) is not infrequently met with.

Symptoms.—In addition to the above points there is great prostration, loss of appetite and strength, with a characteristically rapid emaciation. The temperature usually remits, but may intermit: with the high fever there is a rapid pulse, coated tongue, foul breath and earthy complexion: constipation is more frequent in the earlier and diarrhoea in the later stages. There may be delirium, but the more usual mental condition is one in which the patient when roused answers questions sensibly and then sinks back into a condition of lethargy which may be interrupted by attacks of restlessness. The local symptoms consist of pain and tenderness over the affected mastoid process and over the corresponding side of the head: pain and stiffness in the muscles of the neck: sometimes oedema over the mastoid process. There is a diffuse swelling in the upper part of the neck and the cervical glands are enlarged and tender; later the internal jugular may be felt as a hard cord-like swelling. The superficial veins are sometimes greatly dilated. This was particularly noticeable in Case VI in the superficial temporal and its continuation, the external jugular. Optic neuritis is often present, but is in my opinion due more often to associated localized meningitis over the tegmen tympani and tegmen antri than to the inflammation around the sinus itself. Examination of the meatus shows a perforated or entirely destroyed tympanic membrane with thick curdy pus occupying the middle ear, or that cavity and the meatus may be filled with the infected granulation masses commonly known as polypi. If unrelieved by surgical intervention, later symptoms arise which indicate general infection. As might be expected, the lungs are first involved, and there is a teasing cough with intermittent

* A paper read before the South Wales and Monmouthshire Branch of the British Medical Association.

pains in the chest; accompanying these there are at first no physical signs, but later there is evidence of broncho-pneumonia, or of pus in the thorax; the expectoration is sanguinolent and purulent, and contains abundant micro-organisms. Other seats of abscesses are the liver, kidneys, joints, and cellular tissue. The later stages of the toxic process are not infrequently accompanied by an enteritis—a typhoid condition with offensive diarrhoea. At other times the systemic invasion takes the form of an acute septicaemia rather than pyaemia; this is illustrated by Case IV of my series. By local spreading of the process or the attacking of different areas at once, the symptoms of brain abscess, of meningitis, or of both may be added to those of the sinus affection. The thrombosed jugular in the neck may break down and an abscess form there.

Diagnosis. This is arrived at not from any particular symptom but from the association of symptoms, and in many cases lateral sinus pyaemia can only be diagnosed with certainty at operation. In acute local suppuration in the mastoid process, like acute local suppuration anywhere else, the usual local signs may be accompanied by headache, fever, vomiting, and even rigors; and if, as not infrequently occurs, a little basal meningitis over the anterior face of the petrous bone be present in addition, optic neuritis will also be observed. Where the prostration and general symptoms are severe, where the rigors are marked and repeated, where there is tenderness along the course of the sinus prolonged into the neck, and swelling in the neck, with perhaps a cord-like jugular; and, still more, when there is evidence of systemic infection, lateral sinus pyaemia can be recognized with certainty. Extradural abscess in the sinus groove occupies symptomatically as well as anatomically a midway position between mastoid disease and sinus thrombosis, and could be even less easily differentiated: direct signs of jugular involvement would, of course, be absent. In extradural abscess over the tympanic roof the other frequent situation eye symptoms are more likely to be marked; not only neuritis, but paralyses of ocular muscles. In advanced cases of extradural abscess symptoms of cerebral compression will present themselves. The typical symptoms of cerebral abscess are, as is well known, different from those of sinus pyaemia. The commencement of an abscess is usually signalized by pain, vomiting, some rise of temperature, and one or two rigors; but the rigors are not repeated, and the patient soon settles down into the characteristic condition, with fixed headache, subnormal temperature, slow pulse, vomiting independent of food, constipation, and lethargy. Differentiating symptoms for cerebellar abscess are occipital pain, giddiness, ataxia, and yawning. Meningitis, again, by which I include all forms of meningeal inflammation, presents the usual symptoms of cerebral irritation—acute pain in and retraction of the head, photophobia, squint, optic neuritis, restlessness, and convulsions. It is where the various lesions complicate one another that the greatest difficulties in diagnosis occur. When the meningeal symptoms overshadow the others it may be impossible to tell whether they originate in extradural abscess, cerebral abscess, or sinus thrombosis. Infective processes around the sinus, in the sinus, and in the cerebellum may all occur together from the spreading of the infection backwards. In this class of cases operation alone can decide the actual condition or complication of conditions present. In my third case I was led quite unnecessarily to explore the cerebellum and the cerebellum before I found the real seat of the mischief in the sinus groove. I have had experience in other cases of such negative brain exploration happily without any result. The possibility in advanced cases of the primary source of infection being altogether overlooked must not be forgotten. The regular occurrence of the rigors has led to the diagnosis of ague or the predominance of the abdominal symptoms to one of typhoid fever. One result of the secondary infection of the clots being treated as thrombosis, and of a secondary abscess in the cellular tissue being opened as an ordinary cellulitis.

Pathology. Under the heading of pathology I can only say a few words. In thrombosis as Macewen has pointed out, the tendency is to the formation of a clot, and the formation of the organized septic matter favours a ready exit of purulent material, and thus favours the occurrence of pyaemia. The infection may reach the sinus in one of two ways, either by destruction of the bone so that there is direct communication between the antral cavity and the sinus groove, or by means of emissary infected thrombi formed in the small veins which traverse the bone. In either case the next stage is usually suppuration around the sinus, which may form a definite extradural abscess, or more commonly exist as a periphlebitis, the sinus being covered with pus and infected granulations. The contiguity of the inflammation brings about stasis of the blood in the sinus, and a thrombus forms in it, or the thrombus forms through the actual pressure of an extradural abscess stopping the blood current in the sinus. This thrombus may be partial at first, parietal or mural as it is called, and it is not at first infected: in a short time, however, micro-organisms reach it through the sinus wall, it becomes infected and breaks down into pus, some destruction of the sinus wall also occasionally taking place. When operation exposes the sinus at this stage it does not pulsate, is greyish in colour, and has a somewhat shrunken appearance. The thrombotic and infective processes extend in the direction of the blood current down the sinus and the jugular vein; an arrest may now take place, the blocking thrombus organizing and abscesses forming behind the mastoid process or in the neck; obliteration of the jugular without external abscess is even recorded. The thrombus may spread to other venous channels, particularly the superior and inferior petrosal sinuses. Although I have spoken of arrest, the more common and more serious course is for systemic infection to take place, micro-organisms or minute particles of infected thrombus being carried by the blood stream to the right side of the heart and thence to the lungs, where small subpleural abscesses form; or, getting through the pulmonary circulation, the infection may reach other parts of the body, forming abscesses in the viscera, around the joints, in the cellular tissue or elsewhere, each fresh abscess formation being accompanied by a fresh outbreak of symptoms. Although I have described the infection as reaching the sinus via an extradural suppuration, yet occasionally the minute infected thrombi, which form in the veins traversing the mastoid, may extend direct into the interior of the sinus; in such cases the protective thrombus is less likely to form, and systemic infection is of early occurrence. Indeed there may be in certain cases no thrombus formation at all. The general infection may at other times take the form of a septicaemia rather than a pyaemia, no secondary abscesses being formed. The effective micro-organism in these cases is almost always the streptococcus pyogenes. Into the details of the morbid processes which accompany such secondary complications as brain abscess or meningitis I cannot enter.

Prognosis. It is almost superfluous to say that in this class of cases the prognosis is grave, but cases apparently *in extremis* have been saved by radical treatment; neither does the evidence of secondary infection, even when this has got through the lungs and reached the body, generally with formation of abscesses, necessarily determine a fatal issue. Obviously the further the disease has advanced the worse the prognosis, and particularly it has been pointed out that the lower the infected thrombus extends in the jugular the more serious is the outlook.

Treatment. Finally, we reach the important question of treatment. Speaking with regard to this, I would emphasize in the first place the great urgency of these cases. They are as urgent as a strangulated hernia or a ruptured ectopic gestation. Secondly, I would point out that it is but seldom that a case is too bad to prohibit operative interference, and that even when the case has been prolonged and the evidence of systemic infection is definite, the cutting off of the primary infective source may save the life of the patient. The first step in the operation is the opening up of the mastoid antrum and making a free communication between it and the middle ear. I have latterly in mastoid cases operated according to Ballance's method, removing the posterior bony and cartilaginous walls of the meatus and throwing the whole into one cavity preparatory to skin grafting the cavity at a subsequent operation; but this method is, I think, unsuitable for sinus cases, because it takes longer and the necessity of packing gauze into the mastoid wound, and its subsequent "tidy" presents it cleanly and evenly granulating in a manner suitable for skin grafting. After the mastoid and the middle ear have been dealt with the bony opening is prolonged backwards to reach the sinus groove, which, it must be remembered, lies more superficially than the antrum, and very often actually lies so far forwards as to overlap it. The sinus must be reached, not through a little round hole, but through a free opening with broadly shelving sides, and a full vertical inch of it must be exposed. Any pus, infected granulations, or membranous material surrounding the sinus are then removed and the sinus inspected. If there is now

doubt as to whether it is thrombosed or not it should not be explored with a needle, as some have recommended, for this might carry infected material into an as yet uninfected sinus: if the condition of the sinus is doubtful the operator must carry his mind back to the symptoms observed prior to operation: if these have been such as might accompany an acute local infection only, he may stay his hand at this juncture and wait twenty-four to forty-eight hours to see if the symptoms subside; but if they do not subside, or if they have been such as to indicate, either by their severity or their character, systemic infection, then the jugular must be ligated. So we get the following three indications for tying the jugular: (1) When the sigmoid sinus is definitely thrombosed; (2) when the symptoms of toxaemia do not disappear after the lesser operation—that is, dealing with the mastoid antrum and middle ear, and possibly also with extradural suppuration; (3) even without thrombosis when there is evidence of severe systemic infection. An additional local indication would be feeling the thrombosed jugular in the neck as a hard cord. Whether it is felt or not, it is better always to ligate the jugular in thrombosis of the sinus, for it is impossible to say how far down the thrombus extends. Probing, curetting, and washing out the sinus from above are uncertain processes as far as removal of septic matter is concerned, and unsafe processes in that they are liable to detach clots which may be introduced into the general circulation. Further, bleeding from the lower end of a sinus opened behind the mastoid does not necessarily indicate that it is clear, for such bleeding may come from the occipital or inferior petrosal sinuses. Rather a bogey has been made of the ligature of the internal jugular in this operation, but quite unnecessarily so; one jugular is just as good as two. Some of those present saw a case under my care a little while ago in which the intimate adhesions between the internal jugular and a large mass of glands in the neck necessitated the removal of about 3 in. of the former, yet the patient experienced not the slightest inconvenience and went to a convalescent home within a fortnight of the operation. Similar cases are by no means uncommon.

At what stage in the operation should the jugular be opened? In my cases this was done after opening the sinus, but Ballance has pointed out that it is better practice to open the jugular first, so that the risk of any clot detached entering the circulation may be obviated. The jugular then is reached through an incision along the anterior border of the sterno-mastoid muscle, and having its centre opposite to the cricoid cartilage. This incision may be prolonged downwards, if necessary, in order to reach an unthrombosed part of the vein; the external jugular usually requires to be tied. The internal jugular, being ligatured, is opened above the ligature, and as much thrombus removed from below as possible. The sinus is then opened by a free vertical incision made with a tenotomy knife. On proceeding to remove the clot free bleeding takes place from the upper end; this should be allowed to continue for a second or two to wash out the septic contents, and is then easily stopped by gauze plugging. Clot is removed down to the bulb, and the venous channel washed freely through with carbolic lotion from the mastoid and from the neck wounds. Some recommend removal of the jugular from where it is divided in the neck right up to the bulb, its tributaries, the lingual, facial, and other veins being tied. This is an additional traumatism, and adds to the length of the operation. It can only be on the principle of minimizing the adverse chances, for it is impossible to block all the infection routes and absolutely remove all the infective sources—for example, the dura on the deeper aspect of the sinus remains as a possible infective source, and the inferior petrosal sinus, the occipital and condylar veins as possible infection routes.

When all the infected clot has been removed the cut end of the vein in the neck is ligatured and the neck wound disinfected and closed with drainage. The sinus openings, the mastoid wound, and the meatus are plugged with gauze and the mastoid skin wound partially closed.

The first dressing need not take place for forty-eight hours, and is preferably done under chloroform. There is usually some bleeding from the upper sinus opening. Recovery may be uncomplicated, or may be complicated by evidences of systemic infection. Antistreptococcus serum should not logically be used until the streptococcus has been found in the discharges, but as one knows that it is the usual micro-organism active in these cases, and further, as there is probably only one kind of streptococcus, and, as far as I know, only one serum, one should not hesitate to give it a trial when circumstances prevent a previous bacteriological diagnosis. The value of the serum is uncertain, apparent benefit after its use being probably sometimes of the *post hoc* kind.

In conclusion, I should like to express my gratitude to the work of Ballance and Macewen, both pioneers in this department of surgery, and from whose writings I have largely drawn in preparing this paper.

THE PHYSICAL DEVELOPMENT OF THE LONDON SCHOOLBOY: 1,890 EXAMINATIONS.

By LESLIE THORNE THORNE, M.D.Durh., M.R.C.S.Eng.,
Medical Examiner to the Technical Education Board of the London County Council.

At the present time, when the physical development of the rising generation has awakened a real and, by no means unnecessary interest, among both politicians and educational experts, I venture to think that the statistics of the physical examination of 1,890 scholars of the Technical Education Board of the London County Council may be of some interest to those who are working in this important branch of public health.

The ages of the scholars range from 9 to 16 years inclusive. They are divided into two groups, junior scholars, who are under 13 years of age; and intermediate scholars under 16 years of age, for the purpose of compiling physical statistics, however, it will be more simple to combine these two groups.

The examinations were carried out between the years 1898-1902 inclusive. The class to which the scholars belong is best shown by the following particulars taken from the reports of the Board.

The junior scholarships, of which there are about 350 a year, are open to boys whose parents do not earn more than £150 per annum, and a large number of them are gained by the children of those who are in receipt of less than £100 a year. The intermediate scholarships, of which there are about 70 a year, are restricted to boys whose parents are in receipt of not more than £400 a year, but half of these are reserved for scholars whose parents earn less than £250 a year; in fact many of the parents do not earn £150 a year.

In giving the average number of junior and intermediate scholarships open for competition, only those for boys are mentioned, as the statistics in this paper deal entirely with boys.

Those statistics dealing with the heights and weights, chest measurements, cardiac examinations, and percentage of scholars with normal vision, do not include the whole 1,890 boys, as some alteration in the form of tabulation was made after the first examination in 1898-9, which prevents the inclusion of the whole number; but wherever a smaller number is dealt with, the fact is mentioned.

Analysis of the Physical Examination of 1,890 Boys. General Appearance: 5 Good, 1,170 Fair, 530 Rather Delicate, 183 Delicate, 8 Very Delicate. Table of Heights and Weights of 1,890 Boys.

Age	9	10	11	12	13	14	15	16
Total number examined	1	1	30	130	470	1,110	130	17
Average height	4 ft. 0 in.	4 ft. 2 in.	4 ft. 3 in.	4 ft. 5 in.	4 ft. 7 in.	4 ft. 9 in.	5 ft. 0 in.	5 ft. 2 in.
No. 1 per cent. above the average	—	—	7	22	7	2	4	—
No. 2 per cent. above the average	—	—	3	4	—	—	—	—
No. 1 per cent. below the average	—	—	—	—	4	5	—	—
No. 2 per cent. below the average	—	—	—	—	—	—	—	—
	4 st. 7 lb.	4 st. 10 lb.	5 st. 1 lb.	5 st. 7 lb.	6 st. 2 lb.	7 st. 0 lb.	8 st. 7 lb.	9 st. 2 lb.
Average weight								
No. 1 per cent. above the average	—	—	10	1	—	—	—	—
No. 2 per cent. above the average	—	—	—	—	—	2	1	—
No. 1 per cent. below the average	—	—	3	5	2	2	—	—
No. 2 per cent. below the average	—	—	17	4	—	—	—	1

Note.—The boys were measured in their boots, and their weights were taken when they had been stripped to the waist, but had their jackets on.

Degree of Chest Expansion of [illegible] Boys.

Inches	Number of Cases	Percentage of total Number of Cases
1	[illegible]	[illegible]
[illegible]	45	[illegible]
[illegible]	52	53.5
4	[illegible]	22.3
5	[illegible]	[illegible]
6	3	[illegible]

Circumference of Chest at Forced Inspiration, [illegible] Boys.

Inches	Number of Cases	Percentage of Total Number of Cases
[illegible]	2	[illegible]
[illegible]	[illegible]	0.8
[illegible]	[illegible]	[illegible]
[illegible] to 27	[illegible]	[illegible]
[illegible]	41	[illegible]
[illegible] to [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	47	2.8
[illegible]	[illegible]	[illegible]
4 to [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

LUNGS.

One boy had signs of consolidation at one apex, and gave a history of haemoptysis: he was sent to a convalescent home for six months, and returned perfectly well.

Twelve boys had bronchitis, but in none of these cases was the disease serious.

One boy gave a history of empyema, for which there had been an operation, but beyond some pulmonary collapse on the affected side no signs of disease were discovered.

HEART.

Of 1,438 boys, 90, or 6.2 per cent., were found to have definite cardiac disease.

Classification of Cardiac Lesions.

Mitral regurgitation	43 cases
Hypertrophy with albuminuria... ...	15 ,,
Mitral stenosis	13 ,,
[illegible] hypertrophy	[illegible] ,,
Mitral regurgitation and stenosis ...	[illegible] ,,
Feeble and irregular [illegible] action ...	[illegible] ,,
Aortic regurgitation	1 ,,
[illegible] stenosis	1 ,,
Mitral regurgitation and pulmonary stenosis	1 ,,

In only [illegible] of the above cases were symptoms of defective circulation complained of, and in those cases the disease was somewhat serious: 2 of those were suffering from mitral regurgitation, and 1 from pulmonary stenosis, probably of congenital origin.

In the remaining [illegible] cases, the boys were unaware that they had any cardiac lesions, and will probably not feel the effects of their defective circulation for some years, if at all. Only in 2 cases was a definite history of rheumatic fever obtained, and in one a history of chorea; many of the boys, however, said they had suffered from severe "growing pains." I believe that these pains are, in many cases, of a purely rheumatic origin, and are in reality slight attacks of rheumatism, which are not diagnosed and not treated, and lead to the development of cardiac disease only discovered later on when the mischief has been done. This theory is, I believe, the only tenable one to account for the comparative frequency of definite organic cardiac lesions in children who have not suffered from rheumatic fever or chorea. Were it possible to impress upon parents the fact that "growing pains" are not natural, but are the result of a definite pathological and treatable cause, these attacks might not be disregarded, and cardiac disease in children of this class might not be so prevalent as it undoubtedly is at the present time. Children of the more moneyed classes being better clothed and cared for, and much less liable to exposure to cold and wet, do not run such risks, and consequently do not suffer to such a degree.

In addition to the 90 cases of definite organic disease there were a fairly large number of boys with pulmonary basic murmurs, unaccompanied by hypertrophy or any symptoms of cardiac lesion. These murmurs were probably all of haemic origin. Another class of murmur which was very prevalent, and which was also unaccompanied by any sign or symptom of cardiac disease, was a very definite, very localized presystolic murmur heard over the cardiac apex. This murmur occurred entirely in boys of a nervous temperament, and was, I am convinced, produced by an unusually rapid and forcible propulsion of blood through the mitral orifice, set up by the quickened heart's action of nervousness: it was entirely and absolutely separable from any organic presystolic murmur, and was never accompanied by a thrill or cardiac hypertrophy, two signs which I find to be almost equally common in cases of true mitral stenosis.

SPINE.

There were only 3 cases of spinal disease, all lateral curvatures, two of them of rachitic origin, and one the result of an old empyema.

EYES.

In 49 cases, or 2.5 per cent., the colour vision was affected: in 24 there was "confusion of colours," and in 25 definite colour blindness.

Acuteness of Vision. In 430 cases, or 23.1 per cent., vision was below "army standard"—namely, less than $\frac{6}{9}$, with one or both eyes tested separately—in 73 of these cases the vision of one eye was normal. Of the 439 boys whose sight was below "army standard," 202 were wearing glasses. Out of 1,619 boys, 619, or 37.5 per cent., had normal vision—that is, could read $\frac{6}{6}$ with either eye.

It must be borne in mind that the chief object of the examinations from which these statistics are compiled is to ascertain if the scholars are in any way physically delicate or defective, and if they are found to be so to draw attention to those defects, so that they may be dealt with, and if possible cured. Dealing with so large a number it is quite impossible to do a retinoscopy in each case, therefore any boy with defective sight is referred to an ophthalmic surgeon, hence no statistics as to the number of hypermetropes, myopes, or astigmatics can be given.

THROAT AND NOSE.

Enlarged tonsils, adenoids, or both, were found in 633 boys, or 33.4 per cent. of the total number examined. Of these, 494 had enlarged tonsils, 98 adenoids, and 41 adenoids and enlarged tonsils; 208 boys of the 633 had defective hearing, and required treatment to avoid increasing deafness, but a very large majority of the 494 with enlarged tonsils only had slight enlargements, which gave no inconvenience and required no treatment.

HEARING.

Three hundred and thirty-three cases, or 17.6 per cent., had more or less defective hearing.

In [illegible] the hearing was fair: the tick of a watch could not be heard at more than [illegible] ft.

In [illegible] the hearing was poor: the tick of a watch could not be heard at more than 1 ft.

In 6 the hearing was bad: the tick of a watch could not be heard at more than 4 in. to [illegible] in.

No. [illegible]. The watch used could be easily heard by a person with ordinary acuteness of hearing when [illegible] ft. distant.

Of the above 333 boys suffering from defective hearing 233 had, or had had, enlarged tonsils, adenoids, or both; 38 had had a discharge from one or both ears, 2 had nasal obstructions, and 1 had received a blow over the ear, which had caused deafness.

In the remaining 53 cases no cause to account for the deafness could be discovered, but it may have been due to collections of cerumen or some forgotten otitis. As in the case of the examination of the sight, no thorough examination into the cause of deafness was possible, but all those boys who were deaf and had naso pharyngeal growths were referred to a throat hospital, and all those who were deaf, but had no adenoid growths or nasal obstructions, were referred to an ear hospital.

With reference to the hearing of children being affected by naso pharyngeal growths, Mr. Cheatle notes, in the examination of 1,000 school children attending the Hanwell District School, that in 30 per cent. the hearing was defective, and 38 per cent. of these were suffering from enlarged tonsils, adenoids, or both.

Dr. Wilbert found that, of 231 boys he examined, 27 per cent. were affected in their hearing, 11 per cent. not being able to hear whispered speech at a distance of 1 metre, and all these boys with defective hearing were suffering from

adenoids. He also found that, of 26 boys described as bad scholars, 22 had adenoids, and that of 84, forming the bottom 12 of each class, 65 suffered in the same way.

URINE.

Of the 1,890 urines examined, albumen was found in 172, or 9.1 per cent.

In 73 there was a trace.
In 54 there was a faint cloud.
In 17 there was a fair cloud.
And in 28 there was a heavy cloud.

150 of these urines were examined a second time, intervals of from three to eight months elapsing between the examinations.

In 54 albumen was present only at one examination.
In 53 albumen was present at both examinations.

Of the 172 boys who suffered from albuminuria, 15, or 8.7 per cent., had definitely hypertrophied hearts and increased arterial tension, and were undoubtedly affected with chronic nephritis.

Although there were no such definite signs of chronic nephritis in all the 53 boys in whose urine albumen was found on two separate occasions, I should regard the condition of their kidneys with suspicion, but can come to no absolutely definite conclusion with regard to them, as it is not possible to keep them under observation for a lengthy period.

With reference to the subject of albuminuria, Dr. Samuel West gave some very interesting statistics in his Lettsomian lectures, reported in the British Medical Journal of February 25th, 1899, and the following refer to children between the ages of 10 and 18 years. Stirling found on examining the urine of 369 boys albumen was present in 20.8 per cent. Ribbert in 240 examinations found albumen present in 22.8 per cent.; and Grainger Stewart in 100 examinations found albumen present in 17.0 per cent.

In conclusion, I should wish to record my thanks to my colleague, Dr. Lullum Bathurst, for his assistance in these examinations, especially with reference to the careful re-examination of all the cases in which I found cardiac lesions, and his thorough and painstaking testing of the urines.

I would also thank the Technical Education Board for their unvaried courtesy and kindness in considering and granting all requests I have found it necessary to make for the better carrying out of these examinations.

REFERENCE.

1 *Deut. med. Woch.*, February 5th, 1903.

EPIDEMIC SORE THROAT FROM SUPPURATIVE MAMMITIS IN COWS.

By ROBERT FRENCH, M.B.Durh., M.R.C.S.,
Finchley.

I have read with much interest Dr. R. W. C. Pierce's account of epidemic sore throat in connexion with suppurative mammitis in cows, in the British Medical Journal of December 5th, 1903, and also Dr. Kenwood's account of a similar epidemic in North Finchley and neighbourhood, in the Journal of March 12th. It is quite apparent that these epidemics are similar in nature, and that from their widespread and pernicious effect more notice should be taken of their cause and treatment, and, if possible, of their prevention in the future. Prevention, to my mind, can only be carried out by a far more strict surveillance being exercised, by the veterinary inspectors appointed to the farm, when the cows are milked. It is too late to repair the damage when the milk is sampled from the cans during the daily round of the milkman. It seems to me an extraordinary proceeding to allow curdled milk, or perhaps pus, to be drawn from cows suffering from mammitis and distributed for human beings to drink. It is "filthy and disgusting," as Professor Axe mildly puts it. A cow suffering from mammitis must surely be apparent even to an experienced milker, and yet we hear that this condition had existed for several days prior to the inspection by a veterinary expert. A few notes on the epidemic at Finchley may be interesting.

SYMPTOMS.

The disease was generally ushered in with chilliness and *malaise* about twenty-four hours after infection, and the throat felt sore. Its appearance was generally one of follicular tonsillitis or commencing quinsy. In no cases were any patches resembling diphtheria. In one or two instances the throat seemed to have escaped, and the infected milk produced an intense attack of diarrhoea. As the throat grew worse the glands of the neck became enlarged and matted together, and felt very hard and very painful. In rare instances suppuration occurred, but this was not the rule. At the same time the temperature rose to 103° or thereabouts, and in one instance I was able to record 107°. Neuralgia was a common symptom, and no nerve seemed exempt. One patient suffered from very acute neuralgia of the ophthalmic division of the fifth left cranial nerve, followed by herpes of those parts supplied by it. This was one of the cases complicated with erysipelas as hereafter described. Other complications arose, such as oedematous swellings of the limbs, swellings of the joints resembling rheumatism, and occasionally erysipelas of the face and head, and a rash resembling measles on other cutaneous parts. A fatal termination was rare, but was generally due to some complication, and in one instance in this epidemic cerebral toxication producing Bell's mania proved fatal. A recrudescence of the symptoms was a very common factor.

TREATMENT.

I was particularly struck with the fact that the usual remedies for follicular tonsillitis, for enlargement of the glands of the neck, and for all other symptoms caused by this infected milk were not at all amenable to treatment and it was not until I had had a case of severe facial erysipelas complicating the disease, in which I used the antistreptococcus serum (B. W. and Co.) that I noticed all other symptoms abate, as well as the marked effect on the erysipelas itself.

I was thus induced to try the same treatment in other severe cases of the epidemic. Without exception the disease began to abate immediately, the temperature fell to normal within 12 hours, and the patient made rapid progress towards recovery. This treatment suggested to me that the cause of the disease was undoubtedly the streptococcus mammitis bovi and should I ever be called upon to treat similar cases, I should at once adopt the serum treatment.

Dr. Eastes of the Laboratories of Pathology and Public Health, Queen Anne Street, very kindly examined some of the pus which I took from a suppurating mass of glands in a child, and I am much indebted to him for the following report:—

> In cover-smear preparations of this pus numerous streptococci were seen and a very few bacilli. These bacilli were short and comparatively stout, not at all fine and thin like the B. mallei. Cultures were made in various media, but only the streptococcus has grown. Some of the pus was also examined for tubercle bacilli, but none were discovered. It is interesting to see that the bacteriological finding coincides with your diagnosis of an "erysipelatous character of infection."

CONCLUSIONS.

The conclusions I formed upon the nature and cause of this disease were that it is of an erysipelatous infection of the throat caused by these micro-organisms, which find their way into the glands of the neck and occasionally spread to the skin, causing a typical erysipelas of the face and head. They eventually find their way into the blood, causing a general septic infection, making their appearance in colonies under the skin and infecting the synovial membranes of the joints. They also attack the neurilemma of nerves, accounting for the acute pains in various parts. The case of neuralgia of the ophthalmic division of the fifth cranial appeared to me very interesting. The micro-organisms apparently attacked this nerve, and herpes followed its course. One morning when I arrived I was astonished to find erysipelas had supervened without any other apparent reason. I am now inclined to think that the streptococci found a suitable soil in the herpes to increase and multiply. The clear fluid in the herpetic vesicles became sanguineous and the vesicles much enlarged. The whole disturbance quickly subsided under the serum treatment. The oedematous swellings of the limbs were apparently due to phlebitis.

INFECTION.

It was not common to find the infection to spread from one member of a family to another; but unless due care be taken—as we should do in dealing with erysipelas—the disease may be contracted without ever having drunk any infected milk. I can recall one instance which would absolutely prove this statement. The husband drank some of the infected milk on his way to business. His own milkman had not called when he left home. The same evening he had a shiver, and passed through the course of the disease in the usual way. His wife, who had not drunk the infected milk, duly became a martyr to an attack typical of the disease.

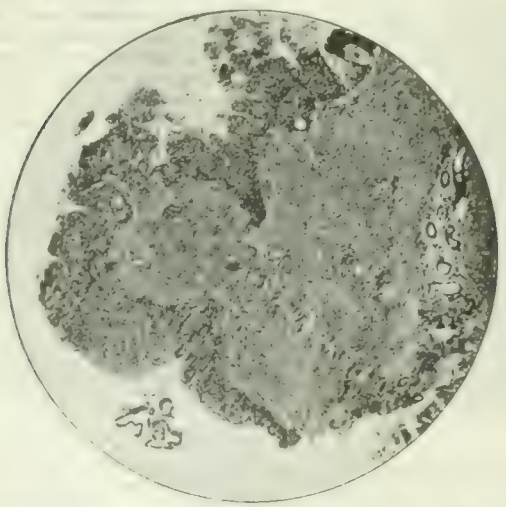
PAPILLIFEROUS CYST FROM AN AXILLARY SUDORIPAROUS GLAND.

By H. BETHAM ROBINSON, M.S.Lond., F.R.C.S.,

Surgeon to Out-patients, Surgeon in charge of the Throat Department, and Lecturer on Practical Surgery, St. Thomas's Hospital; Surgeon, East London Hospital for Children, Shadwell.

A case illustrating this rare condition came under my care in June last, and presented the following features:

A single woman, aged 22, attended my out-patients' department at St. Thomas's, and complained that during the previous two years a lump had been growing in her armpit. Its progress had been slow and not attended by any discomfort until the last fortnight, when it had become painful. Examination disclosed at the dome of the right axilla and rather to its outer wall a convex lump about the size of a pigeon's egg with its long axis corresponding to that of the arm. The skin was unaltered but stretched over it, and free all over except at one point, which agreed with a slight depression, the apparent opening of a duct of one of the axillary sudoriparous glands. The lump was in the substance of the skin, and they together could be lifted up from the subjacent tissues; there was evident elasticity denoting fluid, which latter was confirmed by the marked translucency of the tumour. Having had a previous case, as noted below, I made a correct diagnosis and removed the cyst by its removal. Section showed it to be a skin cyst consisting of one large cavity containing a thin watery fluid, the lining was in general smooth, but over an area the size of a sixpence soft papillary growths were attached.



Histologically the connective tissue of the cyst wall is seen to be covered internally by epithelial lining. The latter over the main part of the cyst consists of two or three layers of cuboidal cells flattened by pressure. The papillary processes show a many layered epithelium, the surface cells being columnar and vacuolated, as is frequently seen in secreting cells. The appearances suggest an origin from that portion of the duct between the glandular and the coiled tube. The tubes of the coiled glands are normal but without any papillary growths.

This class of cyst appears to be very rare, for any literature bearing on the subject is extremely scanty. Curiously my [illegible] case was almost identical.

The woman's age was [illegible] and the tumour was the size of a [illegible] and attached to the outer wall of the axilla. On examination [illegible] was very much larger than the [illegible] and the walls the largest cyst were apparently [illegible] with [illegible] and [illegible] with the surface [illegible] and [illegible] was that described above.

Dr. H. D. Rolleston[2] records a very similar case where the tumour was situated over the left parotid region.

Unna, in his work on the *Histopathology of the Skin*, says that cysts of the sudoriparous glands are only known of the duct and not of the coil. Small cysts, generally related with [illegible], may exist within the epithelial layer, and he terms these "parocysts". Cysts from the other part of the duct are placed in the corium and contain sweat. Hydrocystoma [illegible] to these latter having papillary growths.

It is very evident that in this condition we have to deal with retention cysts of the gland, and there is no more likely place in the body to see such occur than in the axilla, where the glands are so well developed and the possibilities of blocking of the duct with dirt so great. Dr. Rolleston compares the appearances with those seen in a duct-papilloma of the breast. In both cases, no doubt, irritating material enters via the duct, and sets up such surface change as to cause the formation of the papillary growths: retention of the secretion, when it occurs, is brought about by the papillary growths and maintained by the cyst tension, causing distortion of the duct.

References

1 *Trans. Path. Soc.*, vol. xlix. p. 2[illegible]. 2 *British Journal of Dermatology*, No. [illegible], vol. xiv.

TRAUMATIC RUPTURE OF THE SMALL INTESTINE.

By R. LAWFORD KNAGGS, M.C.Cantab., F.R.C.S.,

Surgeon, Leeds General Infirmary.

The following two cases of rupture of the small intestine are suggestive. In both of them the intestine was ruptured as the result of external violence, but in neither of them was there any external wound. Both of them were treated by laparotomy: the one recovered, the other died shortly after removal from the theatre.

Case I.

History.—E. L., aged 1[illegible], was swinging on a rope fixed to two gateposts, when they collapsed, and portion of a wall fell upon her, striking the pelvis and abdomen. The accident occurred on April 1[illegible]th, 190[illegible], at 2.30 p.m.

Condition on Admission.—When admitted she was suffering from Colles's fracture of the right wrist, some hæmorrhage from the vagina, and a contusion of the left hip. The next day she complained of pain in the body, and at midnight I was sent for. The pain had been getting worse during the day, and now the abdominal wall was rigid and there was great tenderness over the lower part. Below the liver dullness the resonance was impaired, and there was a doubtful thrill. The urine passed had been free from blood, and the bowels had not been open since admission. The pulse had risen from 1[illegible] to 1[illegible]. The cause of the peritonitis was suspected to be perforation of a hollow viscus, possibly the bladder.

Operation.—At 2 [illegible] a.m. on April 1[illegible]th, or [illegible] hours after the injury, median laparotomy was performed. Extravasated blood was found in the subperitoneal tissues. On opening the peritoneum pus escaped, but no gas. The intestinal coils were found matted together with yellow lymph, and very offensive pus lay between them. This was wiped away gradually as the coils were separated towards the pelvis. At last a portion of bowel was seen with a hole in it from which bloody faeces were exuding. This portion was at once separated and drawn outside, and further escape of its contents prevented, whilst the cleansing away of the pus continued until the lowest collection containing faeces was found in Douglas's pouch. When the disturbed parts had been well cleansed, the hole in the small intestine through which a pea could have been passed and which was situated opposite the mesenteric attachment, was closed by a single catgut suture, and two continuous Lembert sutures applied longitudinally to the [illegible]. The lumen was considerably narrowed. The kidney pouches were now washed out, and the left one needed a [illegible]. Drains were carried down to Douglas's pouch, and another, as well as a rubber tube, were inserted into Douglas's pouch. The damaged coil was placed behind the wound, which was then closed.

Progress.—For two days the patient's condition was very uncertain. She was very restless and retches occasionally of green bile. She vomited occasionally, but the pulse showed a tendency to fall. On the third she was distinctly better and had two spontaneous evacuations. On the third the gauze drains were removed and from this date her progress to convalescence was uninterrupted. She left the hospital well on [illegible]th.

Result.—All trouble however was not at an end when she ceased to attend hospital. For a long time she had good health, but in January [illegible], nearly two years after the operation and after a week of abdominal pain an abscess pointed in the abdominal cicatrix, and faecal and a large quantity of intestinal matter escaped. The opening closed in about three weeks and there has been no local trouble since. It does not appear that the abscess was associated with a stitch in the parietes, but it is quite possible that the Lembert sutures in the gut had not enclosed it without. The abdominal muscles are quite healthy. There is no protrusion at the opening, and there is no fulness or thickening to be felt. The patient at present suffers from pain and vomiting after food, regurgitation of stomach contents, and easily exhausted by simple exercise. The cause of these symptoms, which may be described as [illegible] to the ingestion of food, follows the taking of [illegible] and is probably due to the [illegible] and adhesions resulting from the [illegible].

Case II.

History.—E. [illegible] was run over on a [illegible] across the lower portion of the abdomen on [illegible] 1903. He was admitted to [illegible] Infirmary [illegible] and [illegible] in a state of [illegible] and recovered [illegible], but on the morning of [illegible] his condition caused anxiety, and I was sent for.

Symptoms.—[illegible] m.—His facial expression was typical of abdominal suffering; the pulse was 14 and the hands cold. There was diffused abdominal pain but no particular tenderness, and in the right lumbar and iliac regions there was dullness and a fluid thrill. There had been some vomiting; the urine contained a trace of albumen. After a consultation operation was decided upon.

Operation.—The incision commenced in the right linea semilunaris over the dull area had in the course of the operation to be carried across the right rectus and upwards in the median line. On opening the peritoneum bloody serum escaped and the caecum was found distended. The small intestine was then traced from the ileo-caecal valve to the termination of the duodenum, and the higher it was traced the more evident did the signs of trouble become. At last a longitudinal rent 1 in. long was found just at the duodeno-jejunal junction. The torn edges of the mucous membrane were protruded and everted. Much intestinal fluid was escaping, and the peritoneum in the neighbourhood was strewn with currants and peas. It was impossible to get at the rupture to suture it until the reflexion of peritoneum lying over the duodenum and continuous with the transverse mesocolon was torn through so as to liberate the fourth part of the duodenum. Then the opening could be manipulated and was closed with a double continuous Lembert suture. The abdomen was next washed out and finally closed, except for a Keith drainage tube in the pelvis, and a gauze drain and indiarubber tube leading to the seat of the rupture.

Result.—At the close of the operation the patient was moribund, and he died an hour later.

Remarks.

A recovery after operation for traumatic rupture of the bowel is always a matter of gratification to the surgeon. Superficially these cases resemble perforation of the bowel by bullet wound, but in reality there is a great difference. In a penetrating bullet wound of the abdomen there is no hesitation as to the proper course to pursue—at any rate in civil surgery. The almost absolute certainty that some viscus has been wounded renders immediate exploration imperative.

But the symptoms produced by abdominal contusion when the bowel has been ruptured are not infrequently insidious in their onset. In some cases the profoundness of the collapse and the urgency of the symptoms leave no room for hesitation, but in others the immediate effect of the accident is recovered from, and the surgeon, having excluded to his satisfaction injury to the other abdominal viscera, spends a period of some anxiety before the development of symptoms justifies an exploratory operation.

It is the time that is lost in this way that is responsible for the great want of success in the treatment of ruptured intestine. Yet it is impossible to prevent it unless a rule be formulated that every severe abdominal contusion should be subjected to immediate laparotomy. But there would be few surgeons who would not feel that such a rule would be quite unjustifiable, for it would lead to much unnecessary operating.

The presence of abdominal rigidity in these cases may appear to the surgeon to be easily explained by the contusion of the abdominal muscles. Indeed the patient's behaviour when the abdomen is gently palpated is often convincing, though there cannot fail to remain an uncomfortable uncertainty that the cause of the rigidity may be twofold. The increasing rapidity of the pulse to which Mr. Makins has attached great importance as an indication for operation is undoubtedly a most important sign, but as it almost certainly indicates the absorption of toxins from the peritoneum it means that valuable time has already been lost. But in not a few cases the occurrence of vomiting, sometimes of a severe character, has begun very early.

I am beginning to attach a great deal of importance to vomiting after abdominal contusion. It is true that, even in cases of rupture of the bowel, it is not always present until unsatisfactory conditions are well advanced, but in doubtful cases where a ruptured intestine is suspected, when the quiescent period following recovery from initial shock—if that has been present—is reached, the occurrence of vomiting, pointing to the probable implication of the peritoneum, may be the first sign upon which a fair amount of reliance can be placed. It may occur some time before the pulse-rate has advanced sufficiently to make it quite clear that the increased frequency is not due to subsidiary causes.

In cases, therefore, where the nature of the injury was such as to make a rupture of the bowel not unlikely, the onset of vomiting, when the patient had apparently rallied from the immediate effects of the accident, would justify, in my opinion, an exploratory operation; nor should I have any doubt as to its propriety if, in addition to the vomiting, the pulse showed a tendency, however slight, to rise.

A NOTE ON PERINEAL LITHOLAPAXY.

(KEITH'S MODIFICATION.)

By Captain A. HOOTON, I.M.S.,
Bijapur, India

Although it is now more than ten years since this most useful modification of litholapaxy was first described,[1] and several surgeons have since published large series of cases showing excellent results, the operation has not met with that general acceptance which might have been expected.

This may, perhaps, be attributed chiefly to two causes. In the first place, it has suffered by a confusion with the more serious procedure associated with the name of Dolbeau, an operation more nearly allied to perineal lithotomy than litholapaxy: in the second there is, so far as I am aware, no description of the method under consideration in any standard work on surgery. The latest textbooks at my disposal contain no reference to the subject, though they were all published long after Brigade-Surgeon Keith's articles,[1] and it may therefore be of sufficient general interest to review briefly the present position of the operation.

Even in India its employment is by no means universal; it was stated not long ago that no considerable headway had been made in the Punjab, and in the Bombay Presidency it is probable that there are many hospitals where perineal litholapaxy has never been performed. On the other hand, those who have once adopted the method are, without exception, enthusiastic in its praise.[2] Litholapaxy in children is always a somewhat anxious undertaking, and the relief afforded by this alternative in difficult cases, which would otherwise often have to be relegated to one of the more extensive cutting operations, is necessarily very much appreciated. It is in stone in children that its application chiefly lies; contrary to what anatomical descriptions would lead one to expect the most difficult part of a child's urethra, after the meatus, is often well in front of the membranous portion,[3] and in these cases the shorter route solves the difficulty.

Perineal litholapaxy has been steadily performed in Hyderabad, Scinde; in 1900 Lieutenant-Colonel W. H. Henderson, I.M.S., published his series of 110 cases,[4] with 3 deaths, and the records of the Civil Hospital there (kindly placed at my disposal by Captain T. Jackson, I.M.S.) now show a total of 447 cases, with 18 deaths. From various other sources I have collected a few more cases, which make, with the Hyderabad figures, a total of 458 cases and 18 deaths. It is necessary to remark that the great majority of these represent stones, which, for one reason or another, would have otherwise been dealt with by some form of lithotomy, and that they also include the early operations of a number of surgeons; in fact they may stand for a fair average, and are therefore less likely to prove misleading than the statistics of one peculiarly expert operator. My own experience of perineal litholapaxy is limited to six cases in children, all of which recovered; in two, however, on account partly of prolonged manipulation, partly of the weak condition of the child, the wound did not heal readily, and convalescence was protracted. These were both instances which might have benefited by drainage, and probably a lateral lithotomy would have been preferable for this reason.

The following may be taken as fair examples of uncomplicated cases. It will be seen that recovery is very rapid, and that often only a few drops of urine escape from the wound. Lieutenant-Colonel R. Baker, I.M.S., observes that children used to run about the ward on the day following operation, and I believe Brigade-Surgeon Keith often found that no urine whatever was passed from the opening, and that the sheet on which the patient lay remained perfectly dry. Other advantages which the latter claims for this over the ordinary cutting operations are voluntary micturition, absence of shock, and non-interference with the sexual powers.

Case I.—A Hindu child, aged ½ years. The smallest instrument available could not be passed through the penile urethra. The stone weighed 23 gr. Urine ceased to pass through the wound on the second day, and he was discharged cured on the ninth day after operation.

Case II.—A Hindu child of 2 years. The perineal operation was performed for the same reason as in Case I. The stone weighed 42 gr. Urine ceased to pass by the wound after twenty-four hours, and he was discharged cured on the fifth day after operation.

Indications.

Various authorities recommend perineal litholapaxy under some or all of the following conditions:

1. A large stone necessitating the use of a lithotrite which will not pass easily by the natural route.
2. A very hard stone, necessitating the passage of a similar instrument.
3. Stricture, in conjunction with a large or hard stone, or perhaps with any stone.
4. A difficult or narrow urethra.
5. Imperfect equipment—the absence of the smaller sizes of lithotrite.
6. Cases in which litholapaxy has been commenced in the ordinary way, but cannot be completed satisfactorily owing to swelling of the urethra and deposit of débris.

The Operation.

Perineal litholapaxy may be thus performed: the patient is placed in the lithotomy position, and the thighs held so that the parts are as symmetrical as possible. A curved staff with a median groove is introduced into the bladder and held as in lithotomy, but neither drawn up beneath the pubes nor depressed. The scrotum is allowed to hang down in the natural position, and neither the operator nor the assistant steadies the skin.

A very small incision or stab is now made with the point of a tenotomy knife or double-edged scalpel in children about 1 in., in adults 1½ in. in front of the anus, through the median raphe in the direction of the staff; the groove is entered and the urethra incised for ½ in. or more, and the knife withdrawn, slightly enlarging the superficial part of the incision as it emerges. The point of an ordinary director, which should not be too blunt, is inserted through the wound into the groove of the staff and passed into the bladder; the staff is withdrawn, and graduated female sounds or Hegar's dilators introduced up to the required size. Some operators do not pass the dilators so far as the bladder, but there is at all events no harm in doing so.

Dilatation is proceeded with slowly, and each instrument is left in position some little time; when the required aperture has been attained the director is withdrawn, leaving a circular gaping orifice into the urethra. The appropriate size of evacuating catheter is now passed, and the bladder injected, and the lithotrite should follow without difficulty.

If preferred, the director can be guided into the groove of the staff along the knife before the latter is withdrawn. Both cannula and lithotrite are entered point downwards, and carried into the bladder by the usual rotary movement. The operation is completed in the same way as an ordinary litholapaxy, and, as a rule, there is no difficulty in retaining fluid in the bladder; if leakage should occur at the margins of the wound it is easy to compress them against the instrument.

In order to avoid a valvular aperture (which renders the introduction of instruments difficult) it is most important that the skin should not be displaced when making the incision. Also, it is better to enter the knife too far forward than too near the anus, as in the latter case the instruments enter the urethra at an acute angle instead of vertically, and are much more likely to slip past the opening, and there is the added difficulty of working in a deeper wound. The chief danger of the operation lies in the lithotrite or cannula missing the urethral opening, and passing upwards between the bladder and the rectum; the possibility of a small median wound of the bulb especially in children, need not give rise to anxiety, and so far as I can recollect, in cases of troublesome hæmorrhage have been recorded.

Most of these points have been previously drawn attention to by Colonel Henderson, to whom I owe any knowledge of the operation. He remarks that it has never been contended that this method would replace lithotomy. There will always remain cases in which, owing to the need for drainage or especially age of the stone, a perineal or suprapubic cystotomy will be required, but any one who gave the operation a fair trial will find it, under certain conditions of invaluable service. It appears probable that a restricted knowledge of the procedure, together with the impression in some cases that a cystotomy is involved, may account for its very limited employment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

PASSAGE OF A RENAL CALCULUS THROUGH A LUMBAR SINUS.

J. M., aged 45, had suffered from stricture of urethra for twenty years, and was in the habit of passing a metal bougie himself.

In November, 1901, he had an attack of retention, but failed to give himself relief. Whilst straining he "felt something give way. On examination I found him with distended bladder, left epididymitis, and a purulent discharge from the urethral meatus. Catheterization revealed several false passages, and I drew off a large quantity of offensive alkaline urine. The cystitis was treated by lavage. Seven days later a perinephritic abscess developed, and was opened under ether. A second abscess developed a fortnight later, and was similarly treated. Both healed rapidly after evacuation of contained fetid pus.

In February, 1902, the patient went to a convalescent home, but was sent back suffering from pleurisy, with effusion on right side. The effusion was clear; temperature varied from 99° F. in the morning to 103° F. in the evening. The urine was acid, and contained much albumen and pus.

In October, 1902, a large, painful swelling developed in right kidney region, and was opened in the flank. A large collection of intensely fetid pus escaped. The sinus so made continued open, though patient gradually improved and was able to return to his occupation as a tailor.

In December 1903, a swelling the size of a hen's egg appeared under skin immediately below the sinus. The patient applied a linseed poultice and the following day found a stone lying on the poultice. The stone is reniform, measures 25 mm. by 15 mm. by 6 mm., and consists of uric acid.

The sinus now (January, 1904) is completely closed, and the patient is free from pain.

REMARKS. The case is of interest as illustrating an unusual way of passing a renal calculus. The calculus was evidently located in one of the calices without giving rise to symptoms. The occurrence of pyelonephritis (secondary to cystitis) and perinephritic abscess provided a track by means of which the calculus was liberated and discharged direct through the abdominal wall.

W. E. ALDERSON,
Newcastle-on-Tyne. M.D., M.S., B.Hy., D.P.H. Durham.

CASE OF BONE CYST OF THE NOSE.

THE number of recorded instances of cystic distension of the accessory air spaces of the nose are sufficiently few to make the following example of nasal bone cyst of interest.

The patient, a woman, aged 36, presented herself at the Glasgow Ear Hospital with a history of gradually-increasing difficulty of respiration through the left nostril, extending over a year. There was no abnormal nasal discharge or evidence of swelling externally, nor was there headache or pain such as is found in chronic suppuration of any of the accessory sinuses. Anterior rhinoscopy showed the following. Blocking almost the whole interior of the nostril, only a very small opening remaining in the inferior meatus, was an ovoid glistening body of a light pink colour. The probe could be passed externally between it and the outer wall of the middle meatus, but internally between it and the septum it could not be passed, as the two were in such close apposition. On probing the swelling a crackling sensation was elicited, and the mucous membrane covering it was quite smooth and thin as if tightly stretched, and it was evident we had to do with a growth having thin bony walls, and not one of polypoid degeneration of the mucosa. In fact it was clearly an enlargement of the middle turbinal, and from its size and the nature of its wall a distension of the air cell of this structure. I attempted to remove it by means of the snare, but during the manipulation the thin wall crumbled and it was impossible to get it away in one piece. However, by the aid of the snare and Grunwald's forceps the whole was removed. It was found to contain rather thick, sticky mucus, but no pus could be detected. The contents did not appear to be under pressure, and this is interesting. It may be that the compression upon it by the surrounding structures had set up a

process of absorption causing the disappearance of the more liquid portion of the contents. In nature it was probably of that variety known as mucocele. As far as one could calculate, the dimensions were antero-posteriorly 1 in., vertically ¾ in., transversely ½ in. A large cavity was left in the nostril, allowing the posterior and upper parts to be distinctly seen. No doubt the pressure of the cyst had caused atrophy of the other ethmoidal cells. There was nothing in the after-history of interest: no suppuration or other accident occurred to delay the process of healing.

Glasgow. W. S. Syme, M.D.

IS ATMOSPHERIC PRESSURE A POSSIBLE DETERMINING CAUSE OF CEREBRAL HAEMORRHAGE?

I have never seen the suggestion made in any textbook, but in my somewhat limited experience it would appear to me that atmospheric pressure plays a very important part in determining an attack of cerebral haemorrhage. On several occasions I have noticed that when I have had one case others have followed almost immediately. This I have found to occur especially when there has been a sudden rise in the barometer after a more or less continued depression. Doubtless with increased atmospheric pressure coming on suddenly to the extent of an inch or so of the barometer, as occasionally happens, the blood pressure is greatly increased, and in apoplectic subjects with disastrous results if the systemic condition is predisposed. I now so look on this as cause and effect that I warn such patients to watch for a sudden rise in the barometer and to take precautionary measures in the matter of diet, stimulants, and the use of suitable purgatives at such times.

Stoke-under-Ham. R. Hensleigh Walter, M.B.

TWINS, PLACENTA PRAEVIA, AND (?) CONCEALED ACCIDENTAL HAEMORRHAGE.

On December 18th, 1903, I was called to an obstetric case by one of the hospital district nurses. The history, as given by the patient, 5-para, aged 34, showed her to be about eight months pregnant. Two months previously she fell from the steps of a car. This induced pains in her back and abdomen simulating those of labour, and associated with a feeling of abdominal distension, vomiting and weakness. She took to her bed for a week. About seven weeks afterwards, six days before the onset of labour, she sustained a second fall. On neither occasion was there any external haemorrhage. On vaginal examination the os was found to be fully dilated and the membranes unruptured. The presenting part was only just within reach, so high up that it was impossible to diagnose the presentation digitally. To the left, intervening and projecting between the presenting part of fetus and the uterus, placental tissue was felt. To the right of the presenting part of the fetus the lumen of the parturient canal was interrupted only by the liquor amnii and the limiting bag of membranes. Nothing definite was elucidated by abdominal examination. There had been some haemorrhage prior to the nurse's arrival, and the latter had seen a pint or so of blood. The patient was at once removed to hospital.

Chloroform was administered, and a hand having been introduced a placenta was found encroaching on the left lower uterine segment, and a fetus lying transversely with head to the left. Podalic version was done, a living child extracted, and its placenta removed. In performing version what appeared to be a second bag of membranes was felt. On reintroducing the hand a second fetus was felt and extracted feet first, with its placenta and membranes attached. It was in a macerated condition, with cranial bones much collapsed. *Per partes* bimanually the superior half of the uterine wall felt abnormally thick and hard, and internally was much wrinkled both anteriorly and posteriorly. Nothing, however, was found to be detachable. An intrauterine douche of 1 per cent. lysol was given, and the patient watched. The inference drawn from this condition was that it might be due to an adherent organized clot resulting from a concealed haemorrhage caused by the fall two months prior to delivery, to which, doubtless, the death of the second fetus was due. The first fetus weighed at birth 4½ lb. It died on December 20th, 1903. This case is of interest in that it is one of placenta praevia occurring in a twin pregnancy and, relying on the history furnished by the patient, complicated by concealed accidental haemorrhage from the normally placed placenta. The condition of the uterine wall immediately after delivery, previously mentioned, is worthy of notice. It may be said that the uterus underwent normal involution up to the tenth day, when the patient was dismissed well. I am indebted to Dr. Robert Jardine for his kind permission to publish this case.

Glasgow Maternity Hospital. J. Goodwin Tomkinson, M.D.

ROUND WORMS SIMULATING ABDOMINAL TUMOURS.

The following case is of interest for the reason that in a woman a large number of round worms had grouped together in three different parts of the small intestine simulating mobile abdominal tumours:

I was called to see a Hindu widow, aged 30 years, who was said to be suffering from some abdominal growths, with pain, vomiting, and emaciation. I was informed that she had suffered from the lumps for two years, and that they gave her great discomfort and caused flying pains. She also complained of severe backache. She had often noticed these lumps shifting their position. She had been subject to vomiting, irrespective of food, had no appetite, and had lost much flesh and weight.

On examining the abdomen, three distinct tumours, of the size of a hen's egg, were found situated, one just over the right ovarian region, another near the umbilicus just towards its left, and the third about an inch above the umbilicus in the middle line. They were round, rather firm and elastic, were freely moveable, and knotty to the feel.

The abdominal walls were very flaccid, and the tumours could be grasped and moved about quite freely. The handling of the lumps did not cause any pain or sickening sensation. The temperature, pulse, and respirations were normal, and there was never any trouble with menstruation.

The first tumour was situate just over the ovarian region, and felt quite like an ovarian cyst, but I could not account for the other two similar growths situated elsewhere. I was thinking about this when my attention was drawn to the complaint of intense thirst she was suffering from, and on examining her tongue enlarged papillae were found standing quite prominently on the tip and sides—characteristic of worms. This, together with vomiting, loss of appetite, and intense thirst, led me to suspect the presence of intestinal worms, and so I prescribed 6 gr. of santonin in two powders with a saline mixture.

Late in the night she had three or four large loose motions wherein she passed more than 60 round worms in groups. The same powders with the mixture were repeated next day, when she passed some more worms, about 25 in number.

On re-examining her nothing abnormal was found in the abdomen; all the three tumours had disappeared. She felt now quite comfortable, regained her appetite, has been free from pain, and has put on much flesh.

Mazagon, Bombay. K. R. Dalal, L.M.S.

A CASE OF ACUTE OR PERNICIOUS BERI-BERI.

Some time ago I was in medical charge of 1,200 Mohammedans travelling from Singapore to Jeddah on the Haj or sacred pilgrimage to Mecca. The pilgrims were gathered from the Dutch Archipelago and consisted of Malays with a few Arabs. When a week out from Penang my attention was drawn to a well-formed Javanese of 21 years of age, who was supported on his feet by two friends whose shoulders he clasped with his arms, for he could not stand alone.

There was paresis of the lower extremities, and when he attempted to walk he flung his legs about in an aimless and awkward fashion, lifting the feet loosely and bringing them down flatly. There did not appear to be any marked disturbance of sensation, but it was not easy to determine a finer degree of this even with the aid of the interpreter. There was no oedema or tingling or girdle sensation. The patient looked ill and showed extreme languor, though he tried to keep a smiling countenance and brave it out. He could scarcely sit up without help. The knee-jerks were exaggerated, the right slightly, the left distinctly so. Ankle-clonus was not elicited.

The pupils responded to light and in accommodation. The pulse and respiration were moderately increased in frequency and both were somewhat irregular; otherwise there was no defect in the internal organs. The temperature was 102° and persisted near this reading during the illness. The bladder and rectum were not involved and there were no trophic changes. He rapidly grew weaker and died quietly with symptoms of cardiac failure on the morning of the fourth day.

The patient's friends stated that he had not been ailing long before he was seen by me, but this history could not be relied upon for various reasons. He was, however, well enough a dozen days before to walk aboard and he could easily avoid detection afterwards while sickening by remaining seated during the daily inspection of the ship. It is very probable that the privations of the journey from his native place to Singapore and twelve days in the hold of the steamer had amplified the virus of beri-beri already in his blood. The hatch, which was crowded with coolies and their baggage, had an average temperature of 92°.

With regard to the presence of fever, Sodre, the Brazilian authority, says that this is not uncommon, and that the increased patellar reflex is sometimes seen in the beginning of the illness.

Glasgow. ARCHIBALD JUBB, M.D.

THE EFFECTS OF BAKING POWDER.

ON September 21st, 1903, I was called to see a woman, aged 69, whom I found vomiting up quantities of blood and also passing blood by the bowel; there was slight tenderness of the abdomen, a very weak pulse of 72, and temperature of 96.2°. I was informed by her that she had felt bilious a fortnight before, and had been taking baking soda on this account ever since, at least six teaspoonfuls a day, and some days more than that. The mucous membrane seemed to be injured throughout the whole alimentary tract. I first administered ergot, both by the mouth and subcutaneously, and then morphine. These remedies made her feel a little easier by the following morning, but she still passed a little blood. I therefore gave a dose of adrenalin, which stopped the haemorrhage. On the third evening she became delirious and very violent, and I again injected morphine. On the days following until October 8th she remained very weak. There had been profuse diarrhoea before haemorrhage started, but afterwards the bowels were unmoved until October 8th, when I gave an enema of soap and water, which brought away a little black faeces. Patient was given an acid mixture on October 9th, and after that there were no more bad symptoms, and the patient made a good recovery. She had nothing but liquid food till the 17th.

I think this case is interesting on account of the large amount of baking soda taken (we have all heard of a little being taken for heartburn), and also on account of the symptoms which it caused. A profuse haemorrhage was the most marked. A. A. HUMPHRYS, L.R.C.S., L.R.C.P.Edin.

Coupar Angus, N.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

QUEEN'S HOSPITAL, BIRMINGHAM.

CEREBRAL ABSCESS FOLLOWING OTITIS MEDIA: OPERATION: RECOVERY.

(By WILLIAM BULLEN-YEO, M.B., M.S.Lond., F.R.C.S., Surgeon to Out-patients.)

ON November 24th, 1903, A. D., a carter, aged 27, attended the Queen's Hospital complaining of severe pains in the head and drowsiness. He was admitted into the medical ward under the care of Dr. [illegible].

[illegible] since he was in the street and had a heavy [illegible] Feb., and had been rather deaf. This [illegible] three weeks when he began to suffer pain in the [illegible] ear at any time. He was told that [illegible] pain in the left ear. This was increased on November 9th, [illegible] followed [illegible] to Sept. 23rd. [illegible] left ear [illegible] days. [illegible] ear [illegible] days. [illegible] ear [illegible] days. [illegible]

may heal after being opened, leaving little or no mental or physical impairment. The exact mode of origin of the abscess was not clear, but probably it resulted from thrombosis of small veins leading from the seat of infection into the brain. The temporary paresis on the opposite side after the first operation was interesting. It was probably due to the left crus being compressed against the dura at the point where it passes through the opening in the tentorium. Evidences of such pressure are not uncommon in cases of temporo-sphenoidal tumour.

LUDHIANA HOSPITAL, PUNJAB.

A CASE OF HEPATIC ABSCESS OPENING INTO THE PLEURAL CAVITY.

(By Sophia Palmer, M.B., Ch.B.Edin.)

Bohti, a Hindu female, aged 30, was admitted December 17th, 1902, with the following history:

History.—Quite well till four months ago, when she miscarried at eight months. Fourteen days afterwards had "fever," and ever since "fever" and "dysentery." During last month or more complained of pain in right side, weaknesss, cough, and shortness of breath. Amenorrhoea since the miscarriage.

On admission the patient was seen to be anaemic and emaciated, and the following notes were made:

Condition on Admission.—Temperature 103° F., respirations 46, pulse 132. Tongue furred, breath fetid, prefers lying on right side and propped up. The chest as a whole flat; on the right side there is diminished expansion, marked dullness, with much diminished breath sounds on all sides, except as regards the dullness, over an area corresponding to fourth and sixth costal cartilages in parasternal line, and as regards the breath sounds, between sixth and ninth ribs in mid-axillary line. Vocal resonance corresponded to the breath sounds. No oegophony. Left side healthy; heart displaced to left, and a soft musical systolic murmur in the mitral area; both second sounds accentuated everywhere. No evidence of enlargement of liver or spleen. No blood count (no apparatus). Urine normal, but at first diminished somewhat. Faeces nothing special.

Progress.—The day after admission about 20 oz. of purulent fluid were removed through an exploratory puncture in the sixth interspace in the post-axillary line. It was a reddish-brown fluid, containing pus cells, red blood corpuscles, and granular débris, but no micro-organisms; in fact, the typical contents of hepatic abscess. Considerable relief resulted, but dullness did not clear up. On December 23rd, under cocaine and a little $CHCl_3$, I excised 2 in. of seventh rib in the mid axillary line, where the skin was tender and oedematous. Through this opening Oij of fluid were allowed to slowly escape, and two large drainage tubes inserted. The cavity seemed smooth and free from adhesions, and the lung expanded remarkably quickly. The patient bore operation well, but four hours later needed a hypodermic of strychnine and a nutrient enema of brandy to combat some collapse. The fluid escaping at the operation and during the following week was of a dark, "crushed-strawberry," or "anchovy-paste" colour, of aromatic odour, and slightly viscid. It contained a good deal of friable curdy membrane, and on standing coagulated into a soft creamy mass. By January 3rd, 1903, discharge was much diminished, and chiefly serous, but next day the fluid was bile-stained, and thereafter from 2 to 4 oz. of almost typical bile escaped daily. January 7th. Sinus closing, a rigor, the gauze plug replaced by tube. January 13th to 29th. The discharge of bile produces much local discomfort, much relieved by occluding lumen of tube and a bi-daily dressing. January 30th. Some pus in the bile and tenderness over eighth and ninth interspaces in mid-axillary line. Under $CHCl_3$ I explored sinus, which was found to run backwards and outwards; no adhesions felt below seventh rib. An aspirating needle did not strike pus at any of the six points explored. Nothing further was done, as she took anaesthetic badly. February 2nd. A discharge of bile-stained pus of buff colour, rather viscid, of mawkish smell. Began a daily irrigation with 1 in 3,000 hydrarg. perchlor.

Result.—After the commencement of the irrigation described a gradual improvement, local and general, began, and by July 1st the patient was perfectly well in every respect. Throughout the faeces remained normal, and there was neither jaundice nor biliuria.

Remarks.—The case was pretty clearly one of hepatic abscess, which perforated into the right pleural sac. Its points of interest, I consider, are: (1) The non-appearance of bile in the discharge until ten days after the resection; and (2) the question of what is the best treatment for biliary fistula under such conditions. As for the late appearance of bile, there were probably two abscesses, the second one not opening till pressure had been relieved by the emptying of the first, the combined cavity then communicating on one hand with the sinus, and on the other with a biliary or even the cystic duct. As to the treatment to be adopted, I received advice which covered everything from cholecyst-enterostomy and hepatotomy to "masterly inactivity." Eventually the irrigation and careful watching proved quite successful. I need not have worried as early as I did, and should have more readily remembered the words of a revered teacher, "repair is a natural and spontaneous process; the surgeon has to aid Nature." There was nothing peculiar about the temperature, which varied a good deal, but became permanently normal after irrigation was commenced. The amount of bile discharged also varied; usually it was from 2 oz. to 5 oz., and occasionally more, but for nine weeks before the sinus finally closed had diminished to a drachm or less.

SUNDERLAND INFIRMARY.

(By Thomas F. Hopgood, L.R.C.P., M.R.C.S., Surgeon to the Infirmary.)

SARCOMA OF THE SCAPULA: OPERATION: RECOVERY.

The following notes were kindly taken by my House-Surgeon, Dr. Stanley Raw:

J. H., aged 52, was admitted into the infirmary on September 17th, 1903, complaining of pain and swelling of the right shoulder of seven months' duration.

Condition on Admission.—On examination of the shoulder there was found a large smooth swelling of the scapula of the size of a moderately large water melon. The growth was of firm consistency and involved the whole scapula area uniformly, whilst it was freely movable over the ribs. The patient stated that he first noticed something wrong in February, 1903, when he found difficulty in moving the arm, the movements being accompanied by pain in the shoulder and side of the neck. The growth gradually increased in size, and at the same time the pain and limitation of movement became more pronounced.

Operation.—An incision was made on October 16th over the midpoint of the clavicle, which was then divided and the subclavian artery tied in its third part. The original incision was then continued over the pectoralis major and anterior border of axilla to the level of the sixth rib at the mid-axillary point, the various vessels being picked up *en route*. The usual posterior incision was then made, and the inter-scapulo-thoracic amputation completed.

Result.—There was not much haemorrhage during the operation, but there was considerable shock, and the patient was infused with 3 pints of normal saline solution into the median basilic vein before he was taken back to bed. He rallied well and the after-treatment was uneventful, the patient leaving the hospital on December 10th with the wound soundly healed. On section the growth proved to be a small round-celled sarcoma.

RUPTURED GASTRIC ULCER: OPERATION: RECOVERY.

M. O., aged 21, was admitted into the infirmary at 2 a.m. on January 18th, 1904, suffering with severe epigastric pain.

History.—As a child she was always healthy, and attended school regularly and without any illness until she was 12 years of age, when she left school to assist in the housework at home. This life she continued until 16 years of age, when she had typhoid fever and was in bed for a month. After convalescence she had symptoms of indigestion and also menstruated for the first time. Her indigestion got progressively worse, and she occasionally sought medical advice, until at 19 years of age she took a situation as a cook. She still continued to have gastric trouble, and this after two years culminated in her acute illness on the night of January 17th. During the previous few weeks she had had more gastric trouble than usual, and had been under medical care. On this night at 9 o'clock she ate a roast potato, and then went to bed. At 10 p.m., when just dozing off, she was seized with a sudden and acute epigastric pain. It grew worse, and on being seen by her doctor at 12 p.m. she was advised to go to the infirmary.

State on Admission.—She complained of great pain and tenderness in the epigastrium; the abdomen was retracted, and the recti abdominis muscles were in a state of strong tonic contraction. Respiration was shallow and entirely thoracic. Collapse was only slight, the pulse being 110, but of good volume and steady, and the temperature 97.8° F. The patient, however, was markedly distressed and urgently ill. A diagnosis of ruptured gastric ulcer was made, and the patient given a hypodermic injection of one-sixth of a grain of morphine.

Operation.—The abdomen was opened at 2.40 a.m. under chloroform, and on incising the peritoneum a quantity of gas escaped from the cavity. The stomach was drawn into the wound and a perforation discovered on the anterior surface close to the mid-point of the lesser curvature. The stomach was carefully isolated by means of strips of sterilized gauze and the perforation closed by a silk purse-string suture and two superimposed layers of Lembert sutures. The exposed surface was then carefully cleaned with gauze sponges and the strips of gauze removed, the upper part of the general peritoneal cavity being carefully freed from escaped stomach contents. The abdominal cavity was then closed by silkworm-gut sutures, each strand being passed through the whole thickness of the wall, and a gauze drain inserted between the stomach and splenic flexure. The drain was removed after thirty-six hours, and the whole of the wound healed by first intention.

REMARKS.—The after-treatment was uneventful, and the patient made a most excellent recovery, the temperature never rising above 100° F. (this temperature was only on the first day) nor the pulse above 100. After the second day sips of hot water (1 drachm every hour) were allowed by mouth, and after a week, when the stitches were removed, peptonized milk was carefully administered, and after that time the diet was gradually placed on more generous terms. The patient's teeth were in a very bad state, as there were only three sound molars in her mouth. She stated that she had always had bad teeth, but could not say when they commenced to decay. Before she left hospital the decayed teeth were removed, and she promised to have an artificial set substituted as soon as possible. It is worthy of note that she was a great tea drinker. The success of the case was no doubt due to the early operation and to the care and attention paid to the patient by my house surgeon, Dr. Stanley Raw, whom also I have to thank for these notes.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FREDERICK TAYLOR, M.D., F.R.C.P., President, in the Chair.

Friday, March 4th, 1904.

INTESTINAL OBSTRUCTION AFTER TYPHOID FEVER.

DR. E. W. GOODALL communicated two cases:

The first was that of a boy, aged 14, admitted to the Eastern Hospital at the end of an attack of typhoid fever, during the latter part of which there had been abdominal pain. A relapse followed, and then for three days vomiting, hiccough, and pain in the abdomen. About three weeks later a second relapse was again followed by pain, hiccough, and vomiting, and the patient died. At the necropsy the small intestine was partially constricted by a fibrous band which appeared to be attached to a patch of local peritonitis opposite a deep ulcer. There were many healing ulcers in the small intestines. The second case was that of a young man admitted for pain in the left iliac region on the seventh day of an attack of typhoid fever. At the end of the second week general peritonitis developed, and he died. There was no general peritonitis or peritoneal bands. He did well for a fortnight, when he began to vomit. A week later there were clear symptoms of partial obstruction, and the patient died suddenly from a second perforation. At the necropsy two small bands were found kinking and compressing the small intestine. The second perforation was about 18 in. above the valve, in an ulcer just above the ileo-cæcal band.

DR. SEYMOUR TAYLOR remarked that relapses could often be traced to change of diet. Intestinal obstruction as a sequela of enteric fever was most rare; no author, he believed, had even mentioned it.

THE PRESIDENT also had never seen or read of a case of the kind.

DR. GOODALL, in reply, said that apparently both cases resulted from a local peritonitis after ulceration. He was surprised it had not been previously observed.

FATAL HÆMATURIA OF UNKNOWN ORIGIN.

MR. WILLIAM SPENCER read notes on this case.

A man, aged 70, noticed blood in his urine about a fortnight before his death. His previous health had been good. The chief symptom was the severe hæmaturia, which occurred by fits and necessitated the patient's admission to the Westminster Hospital. He was very anæmic, pale, and emaciated. The bladder was distended, but there was no tumour. The temperature was not below normal. He was treated with astringents and injections, had repeated enemata of [illegible], but the hæmaturia continued unchecked. He passed [illegible] and died on the twenty-first day. The necropsy revealed [illegible] the ureters were not dilated. The kidneys were [illegible] in the cortex, but the pelves and ureters were healthy. The source of the hæmaturia was not discovered. A similar case had been under the speaker's care in 1901, but in that case the patient was [illegible] than the present one. A case of recovery from hæmaturia of unknown origin was recorded by Dr. [illegible] in the *Lancet* of 1902. In that case the patient was [illegible] and recovered completely.

DR. W. P. HERRINGHAM had seen various forms of the mucin in some cases of renal hæmaturia. The age of the patient was suggestive of a malignant disease of the kidney.

DR. A. E. BARKER mentioned the case of a fatal hæmaturia in which a malignant ulcer was found post mortem over the junction of several large vessels. During a cystoscopic examination, with the bladder distended, an abnormal pot might be detected, and yet nothing found when the bladder was opened and its walls collapsed.

DR. WILFRED HARRIS asked if the coagulation time of the blood had been determined, and if calcium chloride had been administered.

MR. C. H. FAGGE inquired if haemoglobinuria was present in either case.

MR. G. LAKE asked if the clots passed by the patient had been floated in water to ascertain their shape, and thus fix the site of the haemorrhage.

MR. SPENCER, in reply, said there was no haemoglobinuria, and that calcium chloride had been administered.

TINNITUS.

MR. CUTHBERT S. WALLACE and MR. H. J. MARRIAGE described a case in which an attempt had been made to divide the eighth nerve within the skull for the relief of tinnitus.

The patient, a girl, aged [illegible], contracted left otitis media in [illegible]. Several operations followed, and four years afterwards she began to suffer from tinnitus and vertigo, which symptoms increased in intensity to such a degree that life was rendered well-nigh intolerable. It was therefore decided to attempt to divide the eighth nerve, as in the operation for the exploration of the posterior surface of the petrous bone. The procedure was very difficult on account of the constant discharge of cerebro-spinal fluid and haemorrhage, but the auditory nerve was exposed and divided with a blunt hook. Noises were present on the following day. There was no facial paralysis. The wound never showed reaction, and continued to discharge. The patient gradually sank and died on the twenty-first day. At the necropsy it was found that a fine strand of the auditory nerve had escaped division. There was no meningitis, and the internal ear presented a normal appearance.

DR. FAROUHAR BUZZARD said that his examination of the nerve showed that the vestibular and two-thirds of the cochlear nerves were degenerated as a result of the resection of the nerve. Very little was known as to the morbid anatomy of tinnitus, which was a rare symptom in gross lesions of the brain, except where the nerve roots at the base were affected. There was little or no evidence in favour of its central origin.

MR. C. H. FAGGE mentioned two cases in which he had not found it difficult to expose and excise the eighth nerve. Tinnitus was more common than was usually suspected after operations for chronic mastoid disease, and was probably peripheral in origin.

DR. PARKES WEBER believed that many of the cases were complicated with leukaemia. Alt, of Vienna, had found leukaemic infiltration of the nerve. Had commencing leukaemia been observed in the case?

MR. CUTHBERT WALLACE replied.

HUNTERIAN SOCIETY.

F. J. SMITH, M.D., President, in the Chair.

Wednesday, March 3rd, 1904.

THE NAUHEIM BATHS.

DR. PAUL C. FRANZE read a paper on the physiological action of the Nauheim springs and the indications for their use, chiefly in circulatory disorders. There were three springs containing chlorides of sodium, lithium and calcium, and carbonic acid gas in various proportions, and having temperatures of 85° F., 90°, and 93°. The carbonic acid was artificially regulated so as to produce (*a*) thermal baths, (*b*) thermal sprudel baths, (*c*) decreasing or sprudel baths. The physiological actions of these baths were: (*a*) Increased metabolism when colder than body heat; (*b*) contraction of the vessels of the skin followed by reaction and dilatation: the well known glow of the cold water bather were produced in the Nauheim baths at temperatures only a degree or two below body temperature, and with so little violence as to be suitable to debilitated heart cases. This effect Dr. Franze attributed to the bubbles of gas stimulating the cutaneous nerves, but he thought in part it might be due to the local action of the salts on the capillaries of the skin. (*c*) This improved circulation led to more active metabolism, and thus to more active digestion and nutrition, whilst the tone of the nervous system was simultaneously improved. He also claimed that low blood pressures were raised by the bath and high blood pressures lowered, and that the baths relieved a heart which was too heavily loaded by peripheral spasm and filled an empty heart from the peripheral vessels. As the baths afforded a means of administering the most delicately graduated exercises to the heart and circulation the cases suitable for them were by cardiac cases which were not of so severe a degree that baths of any sort would be dangerous. If the patients could bear the journey safely they

could bear the treatment. Valvular lesions, simple muscular weakness due to influenza, enteric or acute rheumatism, fatty hearts and even arterio-sclerosis with angina pectoris greatly improved under a graduated course of baths.

Dr. Arthur Davies thought too much had been made at Nauheim of the reduction in size of the heart by a bath or two. The heart varied in size from minute to minute.

Dr. Alexander Morison was of opinion that cases of angina pectoris were unsuited for bath treatment.

Dr. Glover Lyon thought the benefit of Nauheim arose from its atmospheric depression, which discouraged undue exercise.

Dr. Colbeck attributed the benefit of the baths rather to the mechanical action of the water heat and bubbles than to any chemical action either direct or indirect of the chlorides.

Dr. L. A. Smith, Dr. Bryant, Mr. Barnard and the Chairman also spoke; and Dr. Paul Franze replied.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Pathology on March 18th, Dr. H. C. Earl in the chair, Mr. E. H. Taylor and Dr. O'Sullivan exhibited a tumour from the leg of a man, aged 42, which had originated a year previously in a mole. The tumour, which was attached by a pedicle, was pigmented, and had grown very rapidly. The glands in the inguinal region and in the iliac fossa were large and hard. Dr. O'Sullivan demonstration microscopic preparations from various portions of the tumour. It showed, near the periphery, spaces lined by a single layer of high cubical cells separated from blood vessels by hyaline connective tissue. In a deeper portion the cells, several layers deep, had encroached on this connective tissue and formed a sort of outside sheath to the vessels. The main part of the growth consisted of solid columns of cells separated from one another by a fine fibrous stroma. These cells showed very numerous mitoses. The pigment was confined to the stroma. Dr. O'Sullivan considered the tumour to be an endothelioma growing from the lymph spaces in the subcutaneous tissue. The President also discussed the paper.—Mr. L. G. Gunn showed two tumours from kidneys of different subjects. One, which showed large round cells invading the kidney substance, he called a sarcoma. He discussed the possibility of the tumours being carcinoma of the suprarenal capsule. The second tumour showed a firm cystic structure with a papillary growth extending into and dilating the ureter. The President and Dr. O'Sullivan spoke.

Liverpool Medical Institution.—At a pathological meeting on March 24th, Dr. James Barr, President, in the chair, Mr. C. G. Lee and Mr. E. M. Stockdale exhibited three sections of endothelioma of the retina usually known as gliomata which were demonstrated by the latter. One showed tubules made up of a layer of conical cells like the cones of the retina. This was found in early specimens, and the tubules were regarded as capillaries with modified walls. Other specimens showed blood vessels surrounded by a sheath of new growth. In structure, therefore, these tumours resembled what were elsewhere known as plexiform angiosarcoma, plexiform sarcoma, and cylindroma. Another specimen showed spaces filled with colloid material surrounded by cells.—Dr. Grossmann demonstrated a case in which an orbital tumour of fibromatous nature and of slow growth had been removed. After two partial removals evisceration was finally necessary. There had been no recurrence after four and a-half years.—Mr. Newbolt showed (1) large multiple villous papilloma of the bladder removed by suprapubic operation, patient aged 55. Although the growth was very large, symptoms had only existed for a year; (2) a sacculated bladder, the two parts being connected by an aperture only large enough to admit a probe. The patient was admitted with stricture of the urethra and pneumonia.—Concretions in the appendix were shown by Mr. Paul and also by Mr. Thelwall Thomas. The former was convinced that the immediate cause of appendicitis was almost invariably a mechanical irritant. Mr. Thomas said statistics collected by him showed concretions not to be a very common cause. The duration of illness in his case was only 36 hours; it was a first attack, and would undoubtedly have ended fatally but for operative interference.—Dr. Buchanan read notes of a fatal case of carbon-monoxide poisoning due to coal gas to which water gas had been added. Chemically and spectroscopically the characteristic features of CO haemoglobin were present. The stomach, though six weeks had elapsed since death, retained the characteristic cherry-red colour, and showed no signs of putrefaction. Blood from another fatal case which occurred six years ago, also shown, retained its peculiar colour and gave the characteristic reactions. Dr. Grünbaum gave a spectroscopic demonstration to show that the addition of potassium ferricyanide to blood saturated with coal gas altered the absorption bands to one broad indefinite band in the green. It was as yet uncertain to what constituent of coal gas this was due.—Dr. Gordon Little described purin bodies and their metabolism. He had found ammonium fluoride a better precipitant of uric acid than ammonium chloride.—Various card specimens were also shown.

Glasgow Medico-Chirurgical Society.—At a meeting of this Society on March 18th, Dr. Newman, President, in the chair, Professor McCall Anderson showed three cases of lupus in which light treatment had failed. Dr. Anderson proposed to show the cases again after they had undergone a course of tuberculin treatment.—Dr. W. S. Syme made a short communication on ethyl chloride as a general anaesthetic for short operations on the throat and nose. He demonstrated a simple inhaler, and the results with this compared favourably with those obtained with more elaborate inhalers. He claimed for ethyl chloride the following advantages: With a single administration, the dose varying according to the age of the patient and the time required, a period of anaesthesia up to two and a-half minutes might be confidently expected. There was a minimum of struggling, so that, as in some of his cases, the assistance of a nurse was sufficient. The patient quickly recovered and the after-effects were slight. If vomiting did occur it was of short duration. Ethyl chloride came next to nitrous oxide in safety. The dose he recommended was 3 to 8 c.cm., though more might be given if necessary.—Dr. G. H. Edington showed: (1) A specimen of undescended testicle showing tubercles in the processus vaginalis; (2) a specimen of a testicle fully descended but strangulated by torsion of the pedicle; (3) a solitary kidney with dilated ureter, associated with malformation of the generative organs, ribs, etc., from a case of atresia ani.—Dr. Hinshelwood reported a case of congenital word blindness.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on March 23rd, Dr. J. K. Kelly, Vice-President, in the chair, the following specimens were shown: Dr. Munro Kerr: A pregnancy situated either in the interstitial portion of the tube or in one-half of a double uterus. He had explored the uterus, and, finding it empty, had amputated it supravaginally with the pregnant sac.—Dr. Pace: A fibroid tumour of the uterus undergoing myxomatous degeneration. There was also myxomatous tissue in the broad ligaments.—Dr. Jardine: A curette for the treatment of abortions. The edge was sharper than that of the ordinary dull curette.—Dr. Jardine read notes of a case of gastric ulcer occurring after removal of an ovarian cyst. The cyst, a fibroid of the uterus, was also present, and was not removed on account of the debilitated condition of the patient. On the second day after operation the patient became collapsed. The motions after this were dark, like altered blood. On the twelfth day collapse again occurred, followed by coffee-ground vomiting. The patient ultimately made a good recovery. Dr. Carstairs Douglas said that in some such cases, where death took place, no gastric ulcer was found on necropsy, and suggested that this was a case of post-operative haematemesis. Dr. Jardine replied that post-operative haematemesis occurred within a few days of operation, whereas in his case the second attack of collapse occurred on the twelfth day.—Dr. W. L. Reid estimated the relative value of ventrifixation and certain other operations for the relief of uterine prolapse and retroflexion. If a prolapse, retroflexion, or retroversion could be effectually relieved by a pessary, he usually contented himself with recommending one, more especially as a permanent cure often resulted. Where pessaries failed and where there were no adhesions shortening the round ligaments frequently was successful. It was, however, difficult to perform, and there was the danger of hernia, so he often favoured other operations. For prolapse only he preferred anterior and posterior colporrhaphy, accompanied, if the uterus were heavy, by amputation of the cervix. In young women likely to bear children he had more recently performed hysteropexy. His conclusions

were that, in otherwise untreatable retroflexion, abdominal suspension should be employed. If the appendages were so diseased as to require removal hysterectomy was indicated. If the patient was beyond the child-bearing period he would amputate the cervix and almost close the vagina: if the uterus was heavy he would fix it to the muscular wall of the abdomen. Where the uterus was not heavy and the woman within the child-bearing period he would restore the perineum and partially narrow the vagina with the introduction of a narrow Hodge pessary before the patient got out of bed. In certain cases of prolapse in young women where the uterus was not heavy and where the vaginal tissues were simply dilated, a hysteropexy by which the posterior surface of the uterus, slightly rawed, was attached by three silk sutures to a large surface of parietal peritoneum was a trustworthy operation by itself and not likely to interfere with a subsequent pregnancy.

Society for the Study of Disease in Children.—At a meeting on March 18th, Dr. Percy Lewis in the chair, Mr. Harold Burrows showed a case of enlarged liver and spleen in a girl aged 13. Six months previously laparotomy had been performed for supposed hydatid disease of the liver, but the liver was found to be uniformly enlarged and smooth. There was no history of syphilis, but as there were the remains of old retino-choroiditis in both eyes a diagnosis of syphilis had been made. Dr. C. W. Chapman showed a girl of 12 years who had suffered from mitral disease, with recurrent attacks of dilatation of the heart. These had at first yielded to the ordinary remedies, but later the dilatation and failure of compensation was not relieved until the administration of adrenalin solution in 5-drop doses every four hours. This was followed by steady improvement.—Mr. Keogh Murphy showed a case of haematoma of the parietal bone in an infant of 8 weeks. At the age of 6 weeks the swelling was still soft and fluctuating, but a fortnight later it was rather larger, and hard and bony throughout. Dr. Carpenter said that in a similar case the *x* rays had shown that the swelling was not really composed of bony tissue, and asked whether Mr. Murphy had made this test. Mr. Howell Evans thought that the tumour was bony, and that the development of such a condition was a strong argument in favour of early surgical interference in all cephal-haematomata.—Mr. Murphy also showed a case of double pes cavus in a boy of 4 years. Two years previously his walking had become awkward and had steadily become worse. There was no history of acute illness as an exciting cause. The left lower extremity showed a condition of equino-varus, with contraction of the plantar fascia and tendo Achillis. The foot could only be put into a good position with difficulty. The right lower extremity showed a condition of talipes calcaneus and valgus, with great laxity of ligaments. The tendo Achillis and the tendon of the tibialis posticus could not be felt, and there was great wasting of the gastrocnemius muscle. Dr. Leonard Guthrie showed a boy, aged 11, who for two years had been subject to peculiar attacks in which he would suddenly run to his mother, exclaiming "horrid smell." He would appear much agitated and distressed for a few moments, sometimes spitting and grimacing, and going through the action of trying to pull something out of his mouth. He would then behave "as if he were silly," running to persons in the room and trying to embrace them. After five or ten minutes of this behaviour he would become quiet, turn pale, shiver as if cold, seem exhausted, and lie down to sleep. Dr. Guthrie regarded the case as one of automatism with olfactory and gustatory aurae, a condition allied to epilepsy or migraine. Under treatment with potassium bromide 5 gr. doses three daily the attacks diminished rapidly in frequency and severity. Dr. Eustace Cautley showed a case of multiple congenital deformities in a girl aged 4 years. She was one of twelve children, all the others being healthy and well formed. She was very small and intellectually deficient. Walking or standing had not yet been accomplished, although there was no indication of muscular or nervous lesion. The eyes were marked by notching of the upper lids, dermoid cysts on the conjunctivae, coloboma of the iris and choroid, and choroidal atrophy. There were accessory auricle and meatus on the right side. The following papers were read:—(1) Congenital word-blindness in children, by Mr. Sydney Stephenson; and (2) notes on a case of nephrolithotomy, by Dr. Porter Parkinson and Mr. Douglas Drew. A specimen of early pituitary nodes and of an embryonic cyst from the mesentery were shown by Dr. F. P. Batchelor.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

Barclay J. Baron, M.D., President, in the Chair.

Bristol, Wednesday, March 30th, 1904.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Electrical Treatment of Lumbago, etc.—Dr. G. Parker read a paper on the electrical treatment of cases of lumbago, neuralgia, diabetes mellitus and insipidus, hysteria, Erb-Duchenne paralysis, and lead poisoning.—The President, Dr. Shingleton Smith, Mr. Mole, Drs. Preston King, Markham Skerritt, and Michell Clarke discussed the paper.

Parasite of Aestivo-Autumnal Fever. Dr. J. O. Symes exhibited blood films which showed the parasite of aestivo-autumnal fever. He said that quinine had had no effect in the case.—Dr. Sieveking said that Warburg's tincture, followed by a course of arsenic, was the best method of treatment in such cases.

Cysts and Other Abnormalities arising from Branchial Clefts. Mr. T. Carwardine read a paper on some original observations on cysts and abnormalities arising from the branchial clefts. He showed a number of lantern slides illustrating the character and mode of origin of these cysts, and brought forward evidence that cystic hygroma of the neck arose in connexion with a branchial cleft. Drs. Newman, Neild, and Edgeworth discussed the paper.

Incontinence of Urine in Children. Dr. F. Edgeworth read a paper on incontinence of urine in children. He discussed the causes of this condition and the various methods of treatment. He had found, though belladonna often relieved for a time, its effect was not permanent. The syrup of hypophosphites had given him good results. In older children careful training of the bladder was a useful mode of treatment.—The President, Mr. Mole, Drs. Watson Williams, Waldo, Michell Clarke, Neild, and Mr. Paul Bush joined in the discussion which followed.

GLOUCESTERSHIRE BRANCH.

At a general meeting of this Branch, held at the General Infirmary, Gloucester, on March 17th, the President (Dr. Storry), who was in the chair, read notes of and showed the specimen from the following case. A woman, aged 40, complained of pain in the back for five or six years; she had also pains in the abdomen referred to the right iliac fossa. The appendix was removed four years ago, but the pain in the right abdomen was not relieved. It was known at that time that she was passing pus by the urethra, and has passed it daily since, but no small stone or blood was passed until within the last three months, during which she had passed at intervals about a dozen small stones the size of half a pea, usually accompanied with much pain, and the appearance of blood in the urine. She was admitted into hospital at the end of February, and operated on March 1st. The right kidney was removed, together with a stone which weighed 2½ oz. The patient was now convalescent. Dr. Firmin Cuthbert showed two kidneys removed by lumbar nephrectomy for hydronephrosis. (1) A woman, aged 45, had been passing pus per urethram for twelve months. The tumour, on the right side, extended down to the pubes and considerably to the left of the umbilicus into the left iliac region; 47 oz. of pus were let out and the kidney removed. In it was a large stone with many branches which totally blocked the ureter, the kidney itself being reduced to a large sacculated abscess cavity with thickened walls. (2) A man, aged 72, had a large tumour occupying the lumbar and iliac region on the right side. There was a history of a fall off a bicycle a year and a-half previously; he passed some blood per urethram after the fall; he had suffered from pain in the back and lumbar region ever since but there was no pus in the urine: a large quantity of pus was discovered in the kidney but no stone; the pelvis of the kidney was occupied by one large abscess cavity, due no doubt to haemorrhage into the pelvis at the time of the accident. Both patients were now convalescent, having made an uninterrupted recovery. Dr. Hobbs illustrated some remarks on radium with interesting experiments. Dr. Sollas read a paper, entitled, What should I do

with a case of Recent Insanity? He maintained that a large number of these recent cases recovered if subjected to efficient treatment; that it was essential that treatment should be begun early; that delay was dangerous as tending to chronic insanity; that treatment must be thorough, and that it should consist in attention to many details. He mentioned the difficulties experienced in efficiently treating these cases in private houses, and the consequent tendency to let them drift more or less until the grosser manifestations of mental disorder made it imperative to take steps to protect the patient or the community. He claimed that these cases should from the outset be considered from the point of view of necessity for treatment, not of that for protection. The treatment could be best secured in institutions equipped and maintained for that particular purpose. He expressed the opinion that advantage might more often be taken in these recent cases of the clauses referring to voluntary boarders in the Lunacy Act of 1890, and he urged that it was a misconception to suppose that medical certificates were to be granted only when it could be said, "This man is dangerous; we cannot protect him properly." They should be granted as soon as it could be said, "This man is ill mentally and we cannot treat him efficiently." Drs. Storry, Batten, Hodges, Buckell, Millard, Pruen, and H. Bramwell took part in the ssbsequent discussion.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.

Dr. A. F. Street in the Chair.

Westgate, March 22nd, 1904.

Treatment of Adenoid Growths. Dr. Nicol read a paper entitled The Treatment of Adenoid Growths in the Naso-pharynx. He treated the subject from its various aspects. He was strongly in favour of operation under full anaesthesia, giving plenty of time for thorough removal of the growths, specially drawing attention to the fibrous condition which was sometimes found and which would require removal by some instrument other than the finger. He advised the use of the curette, care being taken to keep in the middle line, but advised against the use of instruments for the clearing of the lateral pouches of the naso-pharynx, as in this way the Eustachian tubes were often damaged.

Rupture of Thoracic Aneurysm. Dr. Fisk read notes and showed a specimen of a case of ruptured thoracic aneurysm in a woman, which was discussed.

Acute Appendicitis.—Dr. Sutcliffe read a paper entitled Some Practical Points in Cases of Acute Appendicitis. His conclusions were that if no definite improvement had taken place at the end of forty-eight hours, operation should in nearly all cases be undertaken. He used long pieces of sterile gauze for shutting off the affected area during operation, and packed the cavity with gauze, which he removed at the end of twenty-four hours. He advocated the removal of the appendix at the time of operation whenever possible; in cases of acute diffuse peritonitis he advised multiple incisions and drainage from Douglas's pouch, the loin, and the iliac fossa, both tubes and gauze plugs being used. He did not sew up the wounds. Stress was laid on the necessity for rapid operation, and several cases were quoted.—Mr. Treves, Dr. Heaton, Dr. Street, and Mr. Hugh Aaron discussed the paper; and Dr. Sutcliffe replied.

Treatment of Lupus.—Dr. Berry showed a case treated by the ultra-violet lamp.—The case was discussed by the members.

South Wales and Monmouthshire Branch.—The spring meeting of this Branch was held at the Hospital, Swansea, on Thursday, March 10th, at 4 p.m., Dr. J. Tatham Thompson, President. The following papers were read: A new method of examining the naso-pharynx, by D. R. Paterson, M.D.; some common difficulties in the diagnosis of chronic nervous affections, by W. Mitchell Stevens, M.D.; Caesarean section for the minor degrees of pelvic contraction, with an illustrative case, by Ewen J. Maclean, M.D.; the anastomotic buttons of Professor Jaboulay, by Dr. W. T. Greer.—Mr. W. F. Brook showed a case of tubage of larynx in lieu of tracheotomy during mouth operations, with a note on a new method of removing the lower half of the upper jaw.

REVIEWS.

OPHTHALMOLOGY.

The Arris and Gale Lectures for 1903 delivered at the Royal College of Surgeons by Mr. J. Herbert Parsons, the Curator of the Royal London Ophthalmic Hospital, dealt with *The Ocular Circulation*,[1] and gave a most complete account of the subject. The first chapter on the anatomy of the eye is illustrated by numerous diagrams showing the arrangement of the blood vessels in the rabbit and dog, the animals used by Mr. Parsons in his experiments. These anatomical dissections and drawings are taken from a paper by E. E. Henderson in the Royal London Ophthalmic Hospital Reports. Other drawings are from preparations by Nettleship and Henderson. The second chapter deals with physiology and in it the author describes the methods he used for experimental purposes, and tracings of his results are given. In the third chapter the relation of the intraocular to the intracranial circulation is discussed, and many references are made to the excellent work on intracranial circulation done by Leonard Hill. The fourth chapter is perhaps the most interesting from the point of view of the practical physician and surgeon, discussing as it does such conditions as embolism of the retinal arteries, pulsation of retinal arteries and veins, and the effect on the circulation of diseases such as glaucoma, and the toxic effects of tobacco, quinine, etc. The book is certainly the most complete on the subject, and is one of considerable interest both to the scientific worker and to the practicing physician and surgeon.

We are delighted to welcome the third edition of an old and favourite textbook—namely, *A Handbook of Ophthalmic Science and Practice*,[2] by Mr. Henry E. Juler. It has been one of the standard books of this country for twenty years. We cannot help expressing regret that two of those who so materially helped the author in bringing out the second edition are no longer among us—we refer to the late John Griffith and Tillinghurst Atwool. Mr. Keeling has, however, ably filled their places, and some of the excellent drawings of microscopic specimens are his work. The book has preserved all the characteristics which deservedly made the earlier editions so popular, and we are pleased still to see the excellent coloured drawings of the fundus oculi which were made by the late Mr. Tillinghurst Atwool. These and other drawings have always been a feature of the volume. The book is a great deal larger than it was, and altogether it is most imposing. The illustrations are numerous, and everything has been done to bring the book thoroughly up to date; in their proper places references will be found to almost every improvement that has of recent years marked the progress of ophthalmology, though space prevents more than a passing reference to this important fact. Useful appendices are to be found giving formulae, test types, and excellent drawings of microscopic specimens, which are the work of the late Mr. Griffith and of Mr. Keeling, while there is a glossary giving the derivation of ophthalmic terms from Greek, Latin, and Anglo-Saxon. Notes on the eyesight regulations for the public services are given, and a copious index much facilitates reference. Altogether it has more than kept up its reputation as a standard textbook, and we are pleased to see it still holding its own amongst the numerous competitors that have appeared long since Mr. Juler brought out the first edition.

New editions of thoroughly useful books are always welcome, and the ophthalmic world is not slow to appreciate the virtues of such a work as Swanzy's *Handbook of Diseases of the Eye*,[3] the eighth edition of which was issued recently. The book has again been thoroughly revised, and while some matter that may be considered obsolete has been omitted, other fresh material has been added. An excellent description is given of herpes ophthalmica, embodying the views of the most modern workers on the subject. Owing to improved methods certain conjunctival diseases have been elucidated, and much that is new will be found in the chapter dealing with them. The book has always been noted for its clear and lucid descriptions of operations, and the usefulness of this

[1] *The Ocular Circulation.* By J. Herbert Parsons, B.S., B.Sc., F.R.C.S. Arris and Gale Lecturer, R.C.S. 1903. London: John Bale, Sons and Danielsson. 1903. (Demy 8vo, pp. 82. 3s.)

[2] *A Handbook of Ophthalmic Science and Practice.* By Henry E. Juler, F.R.C.S. Third Edition. London: Smith, Elder, and Co. 1904. (Demy 8vo, pp. 753. 21s.)

[3] *A Handbook of the Diseases of the Eye and their Treatment.* By Henry R. Swanzy, A.M., M.B., F.R.C.S.I. Eighth edition. London: H. K. Lewis 1903. (Crown 8vo, pp. 696. 12s. 6d.)

part of the work is much enhanced by a description of Maxwell's operation for shrunken socket and Krönlein's temporary resection of the outer wall of the orbit for the removal of orbital tumours, etc. In spite of the fact that the present edition contains but 654 pages, there is scarcely any work of importance to which reference will not be found, while at the end of each chapter there is a very fair bibliography of the latest work done on the subject of which it treats. Finally, it may be said that the book surpasses the preceding editions, and thoroughly keeps up its reputation as being most complete and carefully written. For its size and scope we know of none that surpass it, nor even equal it, and we thoroughly recommend it as being practical and well written. We trust it will continue long to retain the popularity it already possesses.

The fourth edition of DE SCHWEINITZ'S *Diseases of the Eye*[1] is a large book. It does not differ materially from the last edition published only four years ago, but opportunity has been taken to bring it thoroughly up to date, and all the recent work on ophthalmology is at least referred to. Many new paragraphs have been added, and several of the old chapters have been rewritten, while the great advance due to therapeutic agents recently introduced gives opportunity for adding much that is new. The majority of the illustrations are excellent and include several coloured pictures of the fundus. The name of the author was so well known even when the early editions of the work were published that a favourable reception was assured, and since then he has done so much, especially with regard to toxic amblyopia, that there can be few to whom his reputation is not more or less familiar. The present edition is likely to be as popular as its predecessors and from its intrinsic merits we can thoroughly recommend it to all workers, both students and practitioners.

The second edition of HIGGENS'S *Manual of Ophthalmic Practice*[2] has been revised and edited by Mr. ARTHUR W. ORMOND. We are told in the preface that it "is intended entirely for students and general practitioners, and that it does not pretend to go deeply into the subject," but still even with this object in view improvement might be possible. Some antiquated cuts introduced from "Bryant" show but little, notably the illustration of a patient being operated upon, and a diagram of an antique mouth suction apparatus for the removal of broken-up lens matter after discission which probably no aseptic surgeon would dream of using. It is not fair to criticize the description of obscure and rare diseases, but certainly a rather fuller account of tumours of the eye might be written, and the rearrangement of this, together with an elaboration of the index, would make the book far more valuable. In its present form it is hardly as satisfactory as some, though for the purpose of students preparing for the ordinary examinations it is equal to most other books of similar scope.

A third edition of the *Manual of the Diseases of the Eye*,[3] by DR. CHARLES H. MAY, of New York, has just been published, and seeing that the first edition was only issued in 1899, the popularity of the book cannot be doubted. It does not profess to be of the same comprehensive nature as many of the larger books, but care has been taken to give as fully as possible those things most required by the student and general practitioner, while the more detailed description of rare diseases has been omitted. It is a reliable and handy volume, and we can thoroughly recommend it for those about to present themselves for examination as well as for those in practice.

A very neatly arranged and well got up *Outlines of Diseases of the Eye*[4] by DR. HANSELL and SWEET, of Philadelphia. The [illegible] practical volume [illegible] possible, practical and to give as to as possible.

[illegible]

attention to diseases of every-day occurrence, rather than to describe in detail the more obscure and rare diseases that are only occasionally met with and but little amenable to treatment. The plates and illustrations are excellent, and show very well the conditions they are intended to illustrate, though it is perhaps a pity that the drawings of the fundus are not coloured, as it is difficult to show in black and white the conditions met with when viewed with the ophthalmoscope; the force of this remark is well seen on page 293, where various degrees of cupping of the optic disc are illustrated. Although there are so many textbooks in existence, yet most of them are modelled to somewhat the same pattern, and it is difficult among so many to say which is the best. Certainly this one is excellent, it is of moderate size, and great care and attention has been expended in its production. It thoroughly recommends itself to us, as it has all the characteristics that tend to make a book of this sort popular.

The third edition of BALLERY'S *Medico-Legal Studies on Injuries of the Eye and its Appendages*[5] has appeared. A previous edition has already been translated into English. It describes the various injuries to be met with to the eye, and indicates the appropriate treatment, much as in an ordinary textbook. Numerous illustrative cases are given, and the whole subject is treated from the medico-legal standpoint as affected by the French law. It is of course more applicable to those engaged in the law courts of France than to those practising in the courts of any other country.

It says much for the public appreciation of a book when it has reached its twelfth edition in nineteen years; this is what has happened in the case of HARTRIDGE'S *Refraction of the Eye*.[6] Its appearance and form are so well known to all workers of ophthalmology that it is unnecessary to say much about it. Although but two years have elapsed since the last edition appeared, yet the whole book has been revised, and the chapter on retinoscopy has been rewritten. Among the numerous works on refraction that have appeared since the first edition of this it is sometimes hard to know which to recommend, but no one can go wrong in advising students and practitioners to make themselves acquainted with this book, which is reliable, practical, and well written.

We are glad to see the second edition of Major HERBERT'S useful book on the *Practical Details of Cataract Extraction*.[7] The first edition only appeared in 1902, and although there is little alteration in the new edition, yet a few small errors have been corrected and some new observations have been added. The book is of value as giving thoroughly practical details of an operation which the author has performed thousands of times, chiefly in India.

The plan of the little book entitled *Eye Symptoms as Aids in Diagnosis*,[8] which Dr. MAGENNIS has compiled, is excellent, his idea being to summarize the essential facts of ophthalmology for the benefit of the busy general practitioner. On glancing through the booklet we were prepossessed in its favour, but a more careful examination hardly substantiated our favourable impression. The greater part is sound, and usefully arranged, but here and there the matter is open to criticism. For example, he would have us believe that optic neuritis always produces vision defect, and atrophy sometimes does not, both statements being open to question. He believes that optic neuritis is common in influenza, and that it is caused also by disorders of menstruation, pregnancy, and hæmatemesis, a view for which we think he would receive but little support.

TEXTBOOKS OF MEDICINE.

The fifth and final volume of Dr. ALLCHIN'S *Manual of Medicine*[9] is devoted mainly to diseases of the abdominal organs; the general plan of the book follows the lines we

[illegible]

took occasion to commend in our review of the fourth volume. The subject of "Food and Diet" is dealt with by Dr. Robert Hutchison, who gives a clear account of the scientific basis and framing of dietaries. Dr. Lazarus-Barlow writes upon "The Bacteria of the Alimentary Tract," and gives prominence to the work of Lorrain Smith and Tennant upon disturbances in the normal distribution of intestinal bacteria by such irritants as worms. His view that the colon bacillus is no very potent factor in the causation of appendicitis is not shared by the editor. The diseases of those parts of the alimentary tract above the diaphragm are described by Dr. Abrahams, who, in his pages upon the differential diagnosis of acute sore throat, has contributed an extremely useful piece of work. Of general dilatation of the oesophagus he says, "This is but rarely secondary to stricture." Whilst this is true of actual organic narrowing, the constant association of muscular hypertrophy, in these cases, with the dilatation strongly suggests some obstruction, whether it be due to muscular resistance in the oesophagus itself, or to that opposed by the prepyloric sphincter during the first stage of digestion, or even to the pylorus itself. The contributions of the editor include anatomical and physiological introductions, the general etiology, pathology, and symptomatology of diseases of the stomach and intestines, together with a large share in the accounts of particular diseases of those organs, and of the liver. The comprehensive manner in which he has dealt with such difficult and uncertain subjects as "indigestion" and "constipation" will commend the book to every reader. We notice that Dr. Allchin considers, as the most frequent cause of "peptic" ulcers, "the readiness with which a catarrh of the mucous membrane is induced, and with that superficial erosion just sufficient to give the gastric juice a chance. Dr. Hebb's articles upon the degenerations of the liver and affections of the biliary tracts embody the results of lengthy experience and acute observation. He suggests, with regard to biliary cirrhosis, that there is no "necessity for protracting the existence of this somewhat mythical disorder." Dr. Hale White in his able article upon the peritoneum cites von Brunn, but without giving him definite confirmation for the statement that an onset with very sudden rigors is diagnostic of pneumococcal peritonitis. When discussing the diagnosis of renal calculus Dr. Rose Bradford omits to mention the valuable aid of radiography. The last article, on diseases of the ductless glands, is the joint work of Dr. Sidney Coupland and Dr. Abrahams. With regard to the *Manual* as a whole, we think it may fairly be said that there is no more accurate and reliable, as well as readable, textbook of moderate compass.

A review of the fourth edition of the *Textbook of the Practice of Medicine*, by Dr. J. W. ANDERS[13] of Philadelphia, was published in the BRITISH MEDICAL JOURNAL of June 1st, 1901, p. 1348, and we are glad to welcome the sixth edition recently issued. The first edition appeared in 1897, the fifth in 1901, and during the two later editions two large reprints have been exhausted, so that the popularity of the work, which in our opinion is merited, is manifest. The book remains in character what it was—succinct, clear, accurate, practical, well developed on the experimental and therapeutical sides alike, and with few, if any, exceptions, well arranged. The changes in the present edition consist of additions on such subjects as the mosquito-borne diseases, bacillary dysentery, and the use of the *x* rays in diagnosis and treatment, and of the introduction of matter on such comparatively new subjects as paratyphoid fever, the fourth disease, trypanosomiasis, and amaurotic family idiocy.

Professor ROGER has revised his *Introduction à l'Etude de la Médecine*,[14] the English translation of which was reviewed in our columns of October 4th, 1902. The book retains its former character, and is perhaps adapted to the senior than to the junior student. In the interests of the latter, however, Professor Roger has introduced a short lexicon of medical terms which will no doubt be found very convenient by the beginner.

Dr. WHEELER'S *Handbook of Medicine and Therapeutics*,[15] which was orginally published some nine years ago, has reached a second edition, and has been revised for that purpose by Dr. JACK. It contains a good number of tables, and a numerical system of arranging the causes and symptoms of disease is followed throughout. A work of this description might be valuable to the hastily-prepared student if only its accuracy could be guaranteed. We regret to say we are unable to state so much of Dr. Wheeler's book. Reference is, for instance, made to the comma tract of Gowers, and the diagrams of the nervous system on pages 110 and 120 are calculated to produce erroneous ideas. Modern views as to the affections of the blood are virtually unnoticed, and the account of the chemistry of peptone on page 373 is far from being correct. It is recommended to give adrenal extract in Addison's disease, and it is stated that the pigment of the urine is urobilin. It is to be feared, therefore, that as a guide to examinations the book cannot be regarded with confidence, and we know of no other purpose for which it is adapted.

[13] *Textbook of the Practice of Medicine*. By James W. Anders, M.D., LL.D. Sixth Edition. Philadelphia, New York, and London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 1295. 24s.)

[14] *Introduction à l'Etude de la Médecine*. Par G. H. Roger. Deuxième Edition. Paris: C. Naud. 1904. (Demy 8vo, pp. 741. Fr. 10.)

[15] Wheeler's *Handbook of Medicine and Therapeutics*. Second Edition. Revised and enlarged by William R. Jack, B.Sc., M.D., F.F.P.S.G., Physician, Outdoor Department, Glasgow Western Infirmary. Edinburgh: E. and S. Livingstone. 1903. (Cr. 8vo, pp. 432. 8s.)

MATERIA MEDICA AND DISPENSING.

THE title which Drs. KHORY and KATRAK have selected for their book[16] is unfortunate, but the work is a very voluminous and laborious compilation, and calculated to be of great service to medical men practising in India, and to all who desire to obtain a knowledge of the medicinal products of India, their sources, preparation, action, and uses. The main object of the authors, who are distinguished practitioners of Bombay, is to make known scientifically and systematically the drugs which have been employed by Indian *Hakims* and *Vayids*, empirically and traditionally, with a view to the investigation of their reputed properties in the light of modern rational and scientific methods. At the same time the articles of the materia medica contained in the *British Pharmacopoeia*, or used in practice in Great Britain and America, are included in the compilation in order to enhance its utility for Indian practitioners. The work may indeed be described as an Indian pharmacopoeia or dispensatory, and does great credit to the industry and ability of the authors, who have evidently spared no pains to make it complete and serviceable. The first volume contains an introductory chapter on pharmacy and pharmaceutical methods and processes. It includes a description of organic extracts and serums. Then follows a detailed and systematic account of the articles obtained from animal and inorganic sources and of synthetic remedies. The contents of the volume are classified according to the therapeutic character of the item, and a very elaborate table is finally given of diseases (arranged alphabetically) and of methods and drugs used in their treatment. The second volume is devoted to the vegetable materia medica, and is arranged according to natural orders. The information given regarding each plant is exhaustive, and includes vernacular synonyms. The chemistry, pharmaceutical preparations, actions, and uses of each article are also detailed at length. It is this section of the book which includes most of the Indian and oriental drugs. These are classified as in the first volume, and their employment in the treatment of diseases is similarly displayed. A copious index—scientific and vernacular—completes the work. From this sketch of its subject-matter it is plain that the book is one of considerable pretensions. It will be found useful for purposes of reference. As a guide to practice it contains many helpful indications, which must, however, be employed with judgement.

The difficulties which are experienced by medical practitioners who are compelled to dispense their own drugs in finding reliable information as to the most accurate and at the same time most economical way of carrying on this department of their daily work will be considerably lessened by the perusal of a small volume entitled *Dispensing Made Easy*,[17] written by Dr. WILLIAM G. SUTHERLAND. The training of most men in practical pharmacy is sadly deficient, and to the majority the need for including the dispensing of drugs as a part of their professional duty is an irksome necessity which they would willingly run away from. It is still, however, unfortunately true that in many country villages, and in prac-

[16] *Materia Medica of India and their Therapeutics*. By Rustomjee Naserwanjee Khory, M.R.C.P.Lond., M.D.Brux., etc., and Nauabhai Naoraji Katrak, L.M.S. Bombay, etc. In two volumes. Bombay: *Times of India*. 1903. (Demy 8vo, pp. 1442.)

[17] *Dispensing Made Easy*. With Numerous Formulae and Practical Hints to Secure Simplicity, Rapidity, and Economy. By William G. Sutherland, M.B. Aberd. Bristol: John Wright and Co. 1904. (Fcp. 8vo, pp. [illegible]. 3s. 6d.)

tices which are largely concerned in club and parish attendance, there is no escape from the unwelcome drudgery of supplying medicine. It is an essential condition of almost every form of contract work, and any plan of management which lightens the burden it involves will be welcomed by a large body of hard working and poorly-paid practitioners. Dr. Sutherland's book is a creditable attempt to "make things easy." It is clearly and concisely written, and without being tedious, it provides in detail all the instructions that are requisite for conducting a surgery on the best lines. The formulæ which are detailed are well selected, valuable information is given as to how the drug bill can best be cut down without loss of therapeutic efficiency, and many useful hints are offered for economizing time and at the same time ensuring accuracy in dispensing. It may be warmly recommended as a trustworthy guide for those to whom it is addressed.

The non-commissioned officers and men of the R.A.M.C. owe a debt of gratitude to Lieutenant H. HAROLD SCOTT, M.B., who has provided them with such an excellent textbook in *Compounding and Dispensing Made Easy*.[18] The book has been written as an aid for the promotion of examinations in the subjects treated of, and, with the exception of chemistry, contains all the information necessary for these examinations. The work is well systematized throughout, and is quite above the ordinary "cram" textbook.

In the preface to his book on *Drugs*[19] Mr. H. WIPPELL GADD states that its object is to give a concise account of the principal vegetable, animal, and chemical substances used in medicine. It has been written primarily for students, but we fail to see what particular class would be benefited by its perusal. The information given is too bald a statement of facts to be of much educational value, whilst it is not complete enough to be of use as a work of reference.

SPINAL AND CEREBRAL INJURIES.

DR. AUGUST LUXENBURGER, of the Munich Surgical Polyclinic, has made a valuable and welcome contribution to a difficult and imperfectly-explored subject in his experimental studies on spinal cord injuries.[20] Not only are the more obvious lesions and degenerations of the cord, those associated with such injuries as distortions and contusions of the spine producing cord changes and haemorrhages both extramedullary and intramedullary, with crushes and lacerations of the cord as in fracture dislocations of the spine not only are these subjected to experimental analysis, but the far more subtle changes due to such conditions as concussion and simple severe flexion of the spine are given—to some extent at least a concrete representation. The author has produced distortions, and studied the artefacts of the living cord, as Van Gieson has studied them in the non-living cord. He has produced extramedullary and intramedullary haemorrhage in animals and studied the relation of the haemorrhage to displacements of the nerve substance and consequent degeneration. He has studied the difficult subject of crushes and lacerations of the cord under the more or less precise and deliberate conditions of the laboratory, and all this with a genuine gain, both for the practising surgeon and for the medical jurist, as, for example, in dealing with the controversial questions arising in connexion with railway injuries. There are, of course, many points still left in the realm of pure speculation: for instance, the relation of the movements of cerebro-spinal fluid in setting up a molecular concussion and giving rise to so-called functional lesions, but the number of debatable points which are brought into the light of plain observation is not inconsiderable, and is, indeed, gratifying. The main points the author endeavours to elucidate are the varying effects of slight as compared with severe crushes, and of sudden as compared with slow whether actual dystrophic occur in the living cord as in the dead in what types of injury the greatest haemorrhage occurs, and the effect of haemorrhage, apart from the actual trauma, in contributing to the necrosis of the nerve tissue. The work is one which must take high rank in the literature of traumatisms of the spinal cord, and will throw not a little light on the parallel pathology of brain injuries.

Professor ROBERT LANGERHANS has contributed a monograph on traumatic late apoplexy,[21] which will help to bring the subject of cerebral concussion from under the almost sole domain of surgery into the sphere of the physician, and at the same time will tend to disentangle the clinical condition of traumatic neurasthenia from the group of so-called functional diseases. The old view that the symptom-complex of concussion of the brain depended on a commotio cerebri of molecular nature whereby the nerve structures underwent a vibration that put them functionally out of gear, as, for instance, a permanent magnet may be partially demagnetized by a severe blow, is being steadily discredited (for many cases at least) in favour of the view that vascular lesions are usually produced, not only in petechial haemorrhages in the region of the ventricles, as shown experimentally by Duret and attributed by him to the distension produced by waves of the cerebro-spinal fluid, but also haemorrhages into the substance of the brain. Dr. Langerhans makes a powerful contribution to the latter argument, and relates and comments on some 28 recorded cases. What he argues for and comes little, if at all, short of establishing is that after injuries to the brain the usual sequence of events is: (1) The traumatic lesion, in his opinion, as we gather, of the nature of a bruise; (2) in the course of a few hours the formation of areas of necrotic softening; (3) in the course of a few days changes in the vessels of the part leading by the end of a week to (4) an actual haemorrhage with its pressure changes and the phenomenon of "late apoplexy." In its own way the monograph is as valuable a contribution to the pathology of traumatisms of the central nervous system from the clinical side as that of Dr. Luxenburger's is from the experimental side. The volume includes a good bibliography.

[illegible] By H. HARROLD SCOTT, M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., D.P.H.M.S. London, and Aldershot. Gale and Polden, [illegible] pp. [illegible]

[illegible] By H. Wippell Gadd. London: Bailliere, Tindall and Cox. [illegible] pp. [illegible]

[illegible] By August Luxenburger. Wiesbaden: J. F. [illegible], and Glasgow: J. Bisset Forester. 1903. Demy 8vo. pp. [illegible], and 18 [illegible] plates.

NOTES ON BOOKS.

The *London Manual*[22] is a book which might with advantage be more frequently encountered than it is. In towns other than London nearly every adult male recognizes his citizenship thereof and is conversant with the administration of its affairs. In London a very large proportion even of its more intelligent inhabitants barely recognize the existence of citizenship, and have but the vaguest idea of how or by whom municipal affairs are managed. Their interests are absorbed by their home life, business, or occupation, and the broader political issues, and they regard municipal rates as things with which they have little concern other than that of paying them promptly. If there is anything more curious than this attitude, it is a certain fact which to some extent explains if it does not justify it. This is, that it is not easy for any one who has not followed the evolution of existing municipal and allied institutions, and who is not aware of the existence of this volume, to obtain ready information as to the general principles involved, and still less as to the precise ways and by whom they are carried out. With the help, however, of this annual, it is easy for any one to obtain a detailed acquaintance with everything that concerns municipal London and its work.

The value of *Hazell's Annual*[23] has been so long recognized that in referring to the current issue it will suffice to draw attention to one or two of its special features. Among these is an index which appears for the first time. For the rest, topics such as the British Empire, Parliament and Parliamentary doings, the weather, and education all receive extended and very full notice. It need scarcely be said that the fiscal question is not forgotten. It has, indeed, some 29 pages devoted to its direct consideration, besides a number of references in the new index to other portions of the work which bear upon the subject directly or indirectly. In order that the question may be fairly represented in all its aspects, it is dealt with in three articles, two by active partizans on either side, the third by an expert who reviews the general situation. The average person, however, is as tired of the fiscal question as he is of the education dispute, and we recommend its present perusal only to those who have not

[illegible] By Prof. [illegible] in Kiel. [illegible] Gerhardt. [illegible] Hirschwald. [illegible] Demy 8vo. pp. [illegible]

[illegible] for [illegible]. Edited by Robert Donald. London: Edward Lloyd, Limited. Crown 8vo. pp. [illegible]

[illegible] for [illegible]. London: Hazell, Watson, and Viney. [illegible] Demy 8vo. pp. [illegible]

been reading the daily papers. Later on, when time has thrown the subject into proper focus, its admirable treatment in this volume will make the exposition of both sides of the question as they stand at present of decided historical value.

The fourteenth and final volume of the *Encyclopaedia Medica*,[24] which has now appeared, is entirely devoted to an elaborate index of the preceding volumes. The work of indexing so extensive a publication cannot have been easy, and it is satisfactory to be able to note that the indexer, whose name is not mentioned, appears to have acquitted himself of his task in a satisfactory manner. The list of subjects or points extends to 282 double column pages, containing roughly some 35,000 entries all very clearly given, while a number of blank pages are left for insertion of personal notes and references. The general system adopted has been that of printing in black type every disease, condition, anatomical structure, physiological function, place, name, or thing, which is the subject of a special article. The references to the contents of these articles are placed immediately below in ordinary type, not in alphabetical order, but in that which they follow in the article. The task of hunting up a point is further aided by displaying in large characters the names of large general subjects, such as abdomen, adenoids, water, by way of a general heading to the references which follow.

THE INDIAN PASTEUR INSTITUTE AT KASAULI.

The third annual report of the Pasteur Institute of India, Kasauli, has been issued.

Hydrophobia.

In the twelve months from August, 1902, to August, 1903, 584 persons were treated; there were but six failures, and these all amongst natives. The tables are arranged in three classes:

A. Those bitten by animals *proved* to be rabid.
B. By animals certified to be rabid.
C. By animals suspected to be rabid.

Into the the third group fall all the failures, and further subdivisions as to site of the wound show that no failure occurred amongst those persons bitten through the clothing. Of 25 bitten upon the head or face 2 died, whilst a fatal result was not prevented in 4 cases where the wound was upon other exposed parts; 269 Europeans and 315 natives were treated; of these 462 were men, 30 women, and 92 children. The better results amongst Europeans are attributable to less severity of bites, prompter and more efficient local treatment, earlier treatment at the institute, and, finally, better constitutional condition and surroundings.

Difficulty is found in proving the animals inflicting wounds to be rabid, because the condition of brain and cord received is often faulty. Microscopical examination of the medulla, for the lesions described by Babes, and of the pneumogastric ganglia (Van Gehuchten) has given positive results in some cases; negative results of these investigations have, however, little value.

The highest monthly returns were in October (66), and the lowest in July (36). Dogs were accountable for 510 bites, jackals for 59, cats for 3, mules for 1, and foxes for 1; 10 persons were infected by the saliva of a hydrophobic man. Two cases of rabies scheduled as cured in the previous report have died at intervals of eight and fourteen months respectively from the completion of treatment.

When the thermometer stands at or above 80° F. auto-infection from the intestine is liable to take place during the later stages of rabies in rabbits, so that in the hottest months a larger series of rabbits to supply cords is necessary, and the cords must be removed immediately after death. The supply of antirabic serum is obtained from young healthy ponies that have been immunized by successive inoculations over eight months with material of increasing virulence. Experimental proof of the destructive power of this serum upon the virus *in vitro* has been furnished by inoculation of rabbits with admixtures of the two substances, and by control experiments with normal serum and with "fixed virus." Hypodermic administration has no inhibitory effect upon infection by subdural inoculation, but there is reason to believe that applied as a first dressing to wounds, and subcutaneously in the neighbouring parts, the serum may have definite therapeutic value; so far it is only employed as a preliminary to the usual methods in badly-bitten and late cases.

Anthrax.

For the preparation of the two anthrax vaccines necessary for immunization (Pasteur) a virulent anthrax culture is grown at 42° C. and replanted in broth daily till an attenuated strain is obtained fatal for a rabbit but not for a sheep; a weaker culture, lethal for the guinea-pig but not for the rabbit, is produced by further subcultivation. From these standard cultures the vaccines actually issued are prepared by incubation of broth subcultures at 37° C. for ten days. In practice the weaker vaccine is first injected, beneath the skin of the neck, and the stronger similarly fourteen days later; local reaction is but slight, and the constitutional disturbance negligible. For a 15-hand horse 1 c.cm. is a safe dose, and the vaccine if kept in a cool dark place maintains its potency for three months. All the results of the 560 doses supplied to applicants are not yet collected, but those to hand show that none of the animals vaccinated have contracted anthrax.

Snake Poisoning.

Antivenene is prepared from the serum of horses immunized with cobra venom; other sera, for protection against viper and mixed venoms, are in course of production. To accomplish immunization of a pony to the degree of withstanding a dose of 1 gram dried venom requires sixteen to eighteen months, fresh inoculations being made fortnightly with doses increasing regularly from 3 mg. (1 per cent. solution in sterile water).

Blood is aseptically collected for the first time a fortnight after the last injection, and it is found that if the horses be well fed blood can be withdrawn once a month for years without detriment to health. Standardization is accomplished by quantitative inoculation tests on rabbits; 1 c.cm. Kasauli antivenene neutralizes 1.1 mg. of dried cobra venom, and is a little more powerful than that prepared at Lille. Larger doses are necessary for children and persons of feeble physique than for healthy adults. Intravenous injection is much more rapidly effective than hypodermic; this method should certainly be employed if symptoms have already appeared, and is advisable in all cases. Heat and light are the most serious causes of deterioration, but carefully kept, the depreciation in a year is but 5 per cent. to 10 per cent., and this can be met by proportionate increase of dose. No form of local application but the proximal ligature, where possible, is advisable, whilst alcohol, ammonia, and strychnine are to be avoided.

Classes.

The laboratories of the Institute have been thrown open for the instruction of officers of the R.A.M.C. and I.M.S., and have been employed for clinical diagnoses of material from all parts of India, for the preparation of typhoid vaccine, diphtheria and tetanus antitoxins, and for research.

ANATOMICAL CONGRESS AT TOULOUSE.

At the Anatomical Congress held at Toulouse at the end of March the chief subjects discussed may be roughly grouped as follows: Some points in human anatomy dealing with the occipital bone (Waldeyer), the aponeurosis of the axilla (Charpy and Soulié), the pectoral and pelvic girdles (Sabatier), the arterial regions of the kidney demonstrated by means of injections and x rays (Gérard and Castiaux). An extremely interesting paper was communicated by Soulié on radiographs of the blood vessels of bones. By removing the periosteum from injected bones and by long exposure of the radiograph he found it possible to obtain stereoscopic pictures of the exact distribution of the nutrient and other arteries of the bones.

There were several papers on development, including development and phylogeny of the digastric muscle (Chaine), the liver, pancreas, and spleen of ceratodus (Neumayer), the venous system of mammals (Bonne), transverse sinus of pericardium, development of the ape (Keibel), the eye of the mole (Soulié), the pulmonary apparatus of bufo (Buvignier), and gills of reptiles (Saint-Remy and Prenant).

As usual there was a large number of histological papers and demonstrations. Several dealt with connective tissue (Renaut, Laguesse). Renaut and Dubreil showed a new method whereby the cell plates covering the points of intersection of the fibres of adenoid tissue were demonstrated, by using a combination of Victoria blue and saffranin; the granules in living cartilage cells are easily demonstrated by the use of neutral red after the method of Arnold of Heidelberg. It has long been known that the spleen of the hedgehog contains many large multinuclear cells. Morel and Soulié

[24] *Encyclopaedia Medica.* Under the general editorship of Chalmers Watson, M.B., F.R.C.P.E. Vol. xiv. Index Volume. Edinburgh and London: William Green and Sons. 1904. (Demy 8vo, pp. 282. 12s.

have applied and extended this observation to other insectivora. It opens up a singularly interesting question in relation to blood formation. There were sixteen communications on spermatogenesis and the relation of the interstitial cells of the testis to the genital apparatus (Bouin and Ancel).

There were, of course, numerous papers on the nervous system, among others a special demonstration by Cajal on the relation of nerve fibrils to nerve cells, and one by Van Gehuchten on the superior cerebellar peduncles. Regaud and Lavre showed that the abdominal muscles of snakes contain a large number of easily demonstrated muscle spindles which are known to be part of the sensory apparatus of voluntary muscle. Ductless glands like the suprarenal capsule and hypophysis cerebri (Launois) contain fatty particles which vary with the state of physiological activity of these organs.

Vigier showed some beautiful preparations to demonstrate how it is that the hair of the negro assumes its "curly" character. Apart from the curved form of the hair follicle, there is a special peg or outgrowth of the perifollicular connective tissue, which not only buttens the hair, but gives it a new direction.

One of the interesting papers on account of its far-reaching morphological interest was that of Suchard of the College de France. Few perhaps have cared to look into the wonderfully beautiful book of Ruscni a large folio on the lymphatic system. It well repays perusal at the present day. Suchard dealt with the lymphatics of the frog's lungs among the simplest of pulmonary sacs. Ruscni who injected these vessels shewed them as a wide plexus under the pleura, as if their origin was superficial and subpleural. Their origin, however, is near the free border of the septa that project into the lung. When one of these septa is examined on the flat after injecting the blood vessels with a blue and the lymphatics with a red mass it is seen that there is a morphological analogy between the distribution of these vessels in the lung and those of the folds that exist in the mid-intestine of the frog. This is all the more interesting on account of the origin of the lung from the intestinal tract.

Some exquisitely beautiful preparations of striped muscle fibres, ciliated cells on the surface of the liver of the newt, and cells of the intestinal villi were shown by Prenant, some of them prepared by methods indicated by Gustav Mann.

Professor Tourneux, the President, gave a demonstration of the vasa aberrantia of the mole, and showed a singularly beautiful series of mitotic figures and chromosomes obtained from the mother cells of the pollen grains of the white lily.

Van der Stricht, of Ghent, gave a special demonstration on the structure of the ovum, a subject with which his name is already so intimately identified.

MEDICAL NEWS.

The annual dinner of the West London Medico-Chirurgical Society will be held at the Trocadero Restaurant, Piccadilly Circus, W., on May 4th.

The medical staff of the Post-Graduate College will give a conversazione at the West London Hospital on Wednesday, April 20th, at 8.30 p.m.

An International Congress of School Hygiene was opened at Nuremberg on April 4th by Prince Ludwig Ferdinand of Bavaria. All the leading States were represented; Japan has sent a delegate.

Dr. [illegible] who was born in Manchester, Ontario Classis, March 14th, 1830, has retired from the practice of his profession after having practised in Lyons Street, Rochester, N.Y. He [illegible] friends and neighbours during the day.

Queen Charlotte's Hospital.—Her Majesty the Queen has sent to the Hon. Mrs. Matheson, of King's College Hospital, [illegible] in connection with the fund for the removal of the hospital to South London, a cheque and letter expressing Her Majesty's best wishes for the success of the scheme.

Royal Medical and Chirurgical Degrees.—Dr. Adolf Lorenz, of Vienna, who has already visited many parts of the United States, and Prof. Dr. A. Bier, of Berlin, have been accepted invitations to hold clinics at the Jefferson Medical College Hospital, Philadelphia, in June next year. The date of the first clinics have been arranged for Monday morning, June 6th, the day before the first session of the American Medical Association. It is stated that Dr. Bier will operate on at least one patient previously treated unsuccessfully by the Lorenz method.

A Temperance restaurant, so-called, has been opened with some solemnity in Paris by the Director of the Assistance Publique. Alcoholic beverages are not entirely excluded, but will be served only at meals, and then not more than a quantity equal to rather less than half a pint.

The Red Cross and various other societies in Russia have prepared 26 sanitary detachments with hospitals, providing altogether [illegible],000 beds, and some have already started for the seat of war. Reserve detachments, consisting of 1 surgeon, 4 students, and 6 male nurses, are being formed. The first hospital train left Moscow on February 15th; it consisted of 15 wagons, 14 for the transport of wounded, 4 for the staff, and 1 for the kitchen. The staff consisted of 3 surgeons, 5 sisters of charity, and 36 nurses. In addition, 200 surgeons of the reserve left St. Petersburg for the seat of war soon after the commencement of hostilities.

The new wing of the Victoria Hospital for Children, Chelsea, has now been completed. The new building is of four floors and contains six wards of 16 beds each, and an isolation block providing accommodation for 16 more. A large operating theatre has also been constructed, an *x* ray department has been established, apparatus for sterilizing milk for patients and dressings for the theatre has been introduced. Outside each ward is a balcony for the use of those patients requiring fresh air treatment. The total cost of the new building, including the furnishing, added to the cost of reconstructing the old building for the purposes of administration and providing accommodation for resident medical officers and the extra nursing staff that will be required, is estimated at £40,000, of which £13,000 has yet to be raised.

Students at French Universities.—The total number of students attending the French universities is 30,405, made up as follows: Paris 12,085, Aix-Marseille 1,080, Besançon 333, Bordeaux 2,320, Caen 752, Clermont 269, Dijon 880 Grenoble 705, Lille 1,164, Montpellier 1,707; Nancy 1,327, Poitiers 8[illegible]3, Rennes 1,160, Lyon 2,0[illegible], Toulouse 2,291. The Arts Faculty has 4,38[illegible] students, of whom 3,873 are French. It has 613 women students. Law has 12,672 students, and of these 3,382 belong to the University of Paris and 1,02[illegible] to Toulouse. In the Faculty of Science there are 4,765 students, of whom 1,33[illegible] attend the Paris Faculty, 552 that of Lyon, and 47[illegible] at Nancy. There is a total of 6,686 students of medicine, of whom 6,115 are French. They are distributed as follows: Paris 3,42[illegible], Lyon, 65[illegible], Bordeaux 654, Montpellier 552. There are 571 foreigners attending this Faculty, of whom 127 belong to Persia, [illegible] to Turkey, 63 to Bulgaria, and 57 to Roumania. To these must be added 262 French women students and 104 women students from abroad, together with 1,388 students who are taking the course of medicine and pharmacy. Besides these there are 3,614 students of pharmacy.

According to *American Medicine*, the Utah State Board of Health has caused samples of various patent medicines to be bought from the shelves of druggists and submitted to the State chemist for examination. One alleged remedy, widely advertised as "Hyomei, a liquid preparation for catarrhal troubles was found to be crude oil of eucalyptus diluted with oil of vaseline. The retail price printed on the label was 1 dollar. Kauffman's Sulphur Bitters was another "remedy" for about fifty different internal ailments. On the label was printed "No alcohol, but the State chemist found 23·4 per cent. of alcohol in the pint bottle, which sold for 1 dollar. Moreover, there was not even a trace of sulphur, and the alleged restorative had no curative properties that could be discovered. "Swamp-Root" was a third "remedy" for all the ills the flesh is heir to, particularly in the line of renal troubles. The chemist found 21 per cent. of alcohol in the pint bottle, with a large percentage of sugar and juniper berry. "Pamo's Celery Compound" was a fourth 1 dollar per pint "remedy." The analysis showed 20·9 per cent. of alcohol and a large amount of fusel oil, so that our contemporary considers it worse than "straight" whisky, which is a variety perhaps akin to that which has been called "twenty-rod." But the gem of the collection were some Catarrhal Powders. In this the chemist found 2 per cent. of cocaine, with 97 per cent. of sugar preparations, and inert substances to hold the drug. The preparation is sold in small vials, each containing 1·5 gr. of cocaine.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 9TH, 1904.

STRAINS OF THE TUBERCLE BACILLUS.

The first volume of reports on Tuberculosis,[1] issued recently by the German Imperial Health Office, comprises two papers. One, embodying the joint work of Professor Kossel, Dr. Weber, and Dr. Heuss, is a comparative research upon tubercle bacilli of different origins; the other, upon fowl tuberculosis and its relationship to mammalian, its transmission by means of animal experiments, particularly with regard to feeding, is by Dr. Weber and Dr. Bollinger.

The first paper is of considerable importance, containing as it does the results of experiments carried out in pursuance of a plan drawn up by a commission of experts, unconvinced of the truth of Koch's assertions, of whom there are here mentioned by name von Baumgarten, Bollinger, and Virchow. The object of the plan is to demonstrate the mutual relations of human and bovine tuberculosis with respect to their transmissibility, and effect has now been given to the first recommendation. This was the subcutaneous injection into calves of pure cultures of as many strains as possible of bacilli from different cases of tuberculosis, and a corresponding series of injections into calves with different strains of bovine bacilli. In all some fifty experiments with forty strains of human bacilli and a further fifteen with strains from bovine, fowl, and swine sources have been made.

The cultural and morphological differences of the respective organisms are first described, and from this standpoint it is maintained that in the overwhelming majority of cases of human tuberculosis, bacilli differing in every respect from those which originate the *Perlsucht* of cattle are found, and only exceptionally such as cannot be distinguished. Nevertheless, the possibility of infection in man, under certain circumstances, by milk from tuberculous udders is to be regarded as proved, since in one of their cases at least a definite *Perlsucht* infection of the calf resulted from the injection of a strain derived from a case of miliary tuberculosis in a child. In this connexion they point out the interesting fact that the only cases of generalized tuberculosis resulting in the animals experimented upon were cases in which intravenous inoculation with strains cultivated from disease occurring in children, in contrast to adults, was employed. At the same time, judging from these results as a whole, it would appear that Koch was right to this extent, that the numerical importance of bovine sources for the spread of human tuberculosis is comparatively slight. The authors, who naturally hold their decision on the main question in abeyance, think that any relaxation or increased stringency of our present precautions against milk and allied infections would be at least premature.

In the second paper cultural distinctions between mammalian bacilli and those determining fowl tuberculosis are established. The natural mode of infection in the case of fowls would appear to be by the alimentary canal, although it is only in the early stages of the disease that bacilli are easily recoverable from the excreta of diseased birds. This is due to the speedy healing of the initial lesion in the Peyer's patches, which occurs despite the spread of the disease to other parts of the body. The authors consider that so far the transmission of the mammalian disease to fowls is not proved; on the other hand, fowl bacilli are pathogenic for other birds, for rabbits, mice, and in slight degree for guinea-pigs. Primary tuberculosis of the intestinal tract results in mice, rabbits, and guinea-pigs from feeding with fowl bacilli. In the case of mice there is a characteristic accumulation in the body of enormous numbers of bacilli, for the most part within cells of new formation; the local reaction is trivial. Further, the lungs become infected before the bronchial glands, and the infective path is obviously from the mesenteric glands along the thoracic duct. Fowl organisms seem to maintain their virulence unaltered by residence in the mammalian body, neither heightened for guinea-pigs, for example, nor diminished for fowls. The French observation as to the recovery of mammalian bacilli from the organs of diseased parrots is confirmed, and a typical culture of fowl bacilli from the mesenteric glands of pigs has been obtained, but there is no evidence in the bodies of fowls, or of mammals, of a transformation of the one bacillus into the other. An excellent bibliography is appended to each article.

In connexion with the subject we may refer to a recent report by Dr. Paul H. Römer, of Marburg,[2] describing experiments commenced by him in 1902 on the immunization of bovines against tuberculosis. The animals to be immunized were inoculated intravenously with doses of living bacilli, but it was found that for this purpose great care must be exercised in the selection of a suitable virus. Neither bovine nor avian tubercle bacilli could be used with safety and success, and strains of human origin were very variable, some of them being by no means innocuous to bovines.

Dr. Römer invariably used a special strain of human origin which had been proved reliable by years of experience. The dose used at the first inoculation was equivalent to 4 milligrams of dried bacilli; at the second inoculation, twelve weeks later, five times this quantity was injected. Much better results were obtained with young than with older animals; calves from 3 weeks to 3 months old were the most suitable subjects. Out of an experience of over 1,000 immunizations in which these conditions had been observed no case had occurred in which the inoculations seriously impaired the animal's health. As regards the practical efficacy of the inoculations, Dr. Römer states that cattle treated by this method and afterwards kept for a long time in infected stalls have never, on careful *post-mortem* examination, shown the least trace of spontaneous infection. He has not yet been able to determine the duration of the immunity established, as his method has been put into practice only for a year and a-half; he is of opinion, however, that it will last for a very considerable time, probably throughout the life of the animal.

[1] *Arbeiten aus dem Kaiserlichen Gesundheitsamte.* Heft 1. Berlin: Julius Springer. 1904. Roy. 8vo. pp. [illegible]

[2] *Beiträge zur experimentellen Therapie.* Heft 1. Berlin: August Hirschwald. 1904. Demy 8vo. pp. [illegible]

THE LONDON MILK SUPPLY.

THE question of the control of the milk supply has been before the Incorporated Society of Medical Officers of Health a good deal recently. Papers contributed by Dr. Mitchell Wilson and Dr. Newman have aroused considerable discussion, and the recent presidential address to the metropolitan branch by Dr. Reginald Dudfield was devoted to this subject. On March 24th a discussion took place upon the steps which should be taken in the metropolis to obtain a more effective control of the milk supply. Ultimately it was resolved to urge the Local Government Board (1) to consider the advisability of carrying out its statutory powers under the Public Health (London) Act, 1891, Section XXVIII. by virtue of which the Board may make general and special orders dealing with registration of dairymen, inspection of cattle, sanitation of dairies, cleanliness of milk vessels, authorization of by-laws etc., (2) to bring in legislation to give effect to the recommendations contained in the report of the Departmental Committee on Food Preservatives and Colouring Matter which was issued in 1901; and (3) to take such steps as will ensure the Dairies Orders of 1885, 1886, and 1899 being efficiently carried out by all sanitary authorities, more especially in rural districts; and, further, that outside the metropolis provision be made whereby the carrying out of such orders be transferred to the county councils wherever default is persistently made by the local sanitary authorities concerned. Such an arrangement is provided for in the metropolis under the Public Health (London) Act, 1891, sections 1 and 61, and it is extremely important that similar provision should be made for the country generally. The Society also proposes to give consideration to the advisability of an amendment of the "warranty sections" of the Sale of Food and Drugs Acts, 1875 to 1899, in order to prevent any defence of warranty being allowed under such Acts in regard to milk.

The attention of the Public Health Committee of the London County Council has been frequently drawn to these matters, and again early in the present year by the Finsbury Borough Council. Mr. Wynter Blyth, M.O.H. for Marylebone, has made a special report to the Borough Council, in which he expresses the opinion that most of the dirt in milk finds its way into it before it reaches the town, and recommends an organized system for inspecting milk at the railway stations and in the yards of large contractors. We believe that opinion, both among the members of the London County Council and of the Metropolitan Borough Councils, is almost unanimous that legislation is urgently needed along the lines suggested in our reports and now supported by the expert opinion of the members of the Society of Medical Officers of Health. Undoubtedly the most pressing matter is control of the sources, as we have repeatedly pointed out. It is a matter of common knowledge that a large proportion, estimated by some authorities at about 50 per cent., of the metropolitan milk comes from various parts of the country as widely separated as Glasgow and Plymouth and Wales and Norfolk. It is this immense gathering ground that needs much stricter supervision.

The antiquated and insanitary conditions under which cows are milked and the milk is subsequently handled in the vast majority of English farms were graphically described by our Commissioner in the course of the articles published about a year ago. There is no reason to suppose that any serious improvement has since taken place, and it is abundantly clear that small rural authorities will not take the necessary action. They are composed largely of farmers, whose proverbial conservatism has not been corrected by the education given in the elementary schools; they fail to realize that it would be in the best interests of English agriculture to put the milk trade upon a scientific basis. They believe that the observance of sanitary precautions—which, after all, mean little more than ordinary cleanliness—will increase their expenses, whereas evidence has been adduced in our columns to prove that this is not the case. Meanwhile it is interesting to note that an examination of country-produced milk and London-produced milk yields a result altogether in favour of the latter. The same thing has been proved abundantly in Liverpool and Manchester. These cities have a much more perfect system of control than that which obtains in the metropolis. Dr. Niven, in his last annual report, actually proved that milk declared not fit for sale in Manchester and therefore disallowed, was being sent to London. The recommendations of the metropolitan branch of the Society of Medical Officers of Health are reasonable. If anything, they do not go far enough, and we trust the Society's appeal to the Local Government Board will not be in vain.

PLAGUE IN JOHANNESBURG.

THE more the situation in Johannesburg as regards plague is considered the more serious does it seem. It is not only that the present outbreak has already occasioned a considerable number of deaths—70 in the first twelve days of its reported prevalence—but the so-called "sudden" onset calls for investigation. Sir Walter Foster, M.P., for a second time, drew the attention of Parliament "to the gravity of the outbreak of plague at Johannesburg" on Thursday, March 31st, and in a letter to the *Times* of April 4th he discusses the annual report of the Medical Officer of Health for Johannesburg for the year ending June, 1903, to which we drew attention last week. In his letter Sir Walter points out that the "document gives support to the suspicion, expressed in my first speech, that there must have been lurking seeds of plague in the town to account for the sudden and startling announcement of 30 deaths among 38 cases. Short details are given in the report of eight 'reported cases of suspected plague.' In three of these which occurred in April last year the clinical signs and symptoms were so strikingly suggestive that the medical attendants regarded them as plague, but the results of bacterial examination were negative."

The suspicion entertained by Sir Walter Foster has been present to the mind of every medical man who has studied the epidemiology of plague. In a previous article we sought an explanation of the sudden mortality arising from the disease in the announcement that it was the pneumonic type of the disease that prevailed in Johannesburg. We are now rebuked for our presumption, and publicly informed that in this statement we have been misled. We regret that we were led to take a too favourable view of the situation; we had hoped that the municipality of Johannesburg would have been able to justify its position in regard to the late announcement of what we must now regard as a serious infection, before the official communication of March 24th was made.

Sir Walter Foster finds in the report of the Medical Officer of Health for Johannesburg, as we found last

week, evidence to support the belief that plague had existed in Johannesburg for some time. We have already given some particulars from this report, but Sir Walter adds that the "recent outbreak gives the strongest grounds for believing that rats have been dying of plague in the city for many months, and that Johannesburg is, and for some time has been, contaminated with the disease. How long it may remain so it is impossible to say. In Bombay plague began in August, 1896, and, with scientific aid not likely to be less than that at the command of the authorities of the Transvaal, there were 6,741 deaths in the Bombay districts in the week ended February 27th last; while in India the deaths in the same week reached the terrible total of 27,858." Not only is it probable that rats were dying of plague in Johannesburg during the last twelve months, but it is now pretty certain that plague prevailed amongst human beings before its presence was admitted on March 20th. To whom to attribute the hesitation in announcing the presence of plague until it had attained a serious hold we do not know, and perhaps it would serve no good purpose to probe the matter too deeply; but we agree with Sir Walter when he says: "With this lesson of our impotence to stamp out the malady (in India) it is folly to minimize the danger." While he praises the authorities in the Transvaal for supplying themselves with able medical officers and a well-equipped laboratory for bacteriological investigation, he points to the example of Capetown, which is said to be the only place in South Africa which has really got rid of plague after it had once become established. This success has been attributed, on high authority, to the extermination of rats by the use of Danysz's virus.

No doubt stringent measures are being taken, and we know that the Public Health Department of the Transvaal is efficiently conducted by able medical officers; but it is impossible for a limited staff to manage the general business of the public health service, and, in addition, to staff and organize a plague service.

It is not only in Johannesburg that watch has to be kept. Cases of plague have already been reported from Pretoria, Germiston, and Benoni, and we have no hesitation in saying that were plague looked for amongst animals—not rats only—a widespread infection would probably be found. The present staff of the Public Health Department of the Transvaal is not sufficient; their calibre is excellent, but their numbers are too few, and should be supplemented by a plague corps, with a medical man as commissioner at its head, with an efficient staff of, say, 100 medical men under him, and with inspectors and gangs of men at his command, while inoculation and destruction of rats will be valuable accessories.

We hope for the sake of the country and for the many lives that are at stake that the authorities in the Transvaal will accept the offers of help that may be made to them, that they will not consent to minimize the danger, but with the terrible lesson of India before them will listen to advice. In some circumstances it is a sign of weakness not of strength to refuse help. If we except Capetown we have only one real instance of plague being "stamped out." This was when plague appeared in Osaka, one of the principal cities of Japan; the government of that country deputed 300 medical men to deal with the outbreak. Had he Transvaal been Japanese territory there would have been, by this time, at least that number working in the city of Johannesburg and another 1,000 distributed throughout the country.

MILITARY HOSPITALS.

As we have already stated, the large military hospital for the London garrison which has been built on the Thames Embankment, will shortly be ready for occupation, and we understand that the principle of erecting large military hospitals at convenient centres will be extended. The localities have not yet been finally determined, but Aldershot, Salisbury Plain, and Devonport are mentioned. It is intended that cases from the small stations shall be transferred under suitable arrangements to the large central hospitals, while adequate provision will be made for the local treatment of non-transportable cases. The central hospitals will vary in size, and the details have not yet been worked out. The general principle governing the arrangement will be to concentrate the sick of the army, and this will involve a corresponding concentration of medical *personnel*, thus counteracting the drawbacks which necessarily attend the isolation of medical officers in small stations. The large hospitals will be thoroughly equipped, so that any and every form of treatment may thus be available for soldiers.

AN AMBULANCE SERVICE FOR LONDON.

The question of the provision of an efficient ambulance service for London to deal mainly with street accidents and casualties continues to evoke letters to the press and the attention of municipal bodies. While there are those who seem inclined to remain satisfied with hand ambulances and improved instruction of the police in first-aid, it must be evident that they are not in a majority, and that those who urge that the capital city should be in advance of rather than far behind many provincial towns in the mode of handling street accidents have public sentiment at their back. The question was advanced a stage by the report on the whole question which Sir William Collins presented to the last County Council. The Asylums Board does not contemplate dealing with this branch of the ambulance service, and the way is therefore clear for the London County Council to go ahead. We understand that in the last Council there was some indisposition on the part of those responsible for the Fire Brigade to engraft the ambulance service upon the work of the brigade. We gather from the reports of the Association, of which Mr. Reginald Harrison is the President and Dr. James the Honorary Secretary, that the new County Council is almost to a man pledged to support the speedy provision by the Council of an efficient ambulance service, summonable by telephone and supplied with means of rapid transport, either horsed or motor. The needful external support having been thus supplied, we trust there may be no further delay in preparing a complete scheme or in commencing its practical application. The new General Purposes Committee of the London County Council is, we are informed, not yet constituted, and this is the Committee which has the matter in hand. If Parliamentary powers are required, no time must be lost, and we are glad to know that the Metropolitan Street Ambulance Association is organizing an influential deputation which will shortly interview the General Purposes Committee and urge it to prompt and effective action.

AN IRISH DUTCH AUCTION.

The Board of Guardians of an Irish Union recently advertised for a medical officer to one of the dispensary districts in the union, and invited applicants to state the terms at which they would be willing to undertake the duties. This is undoubtedly a curious proceeding but not if memory serves, quite unique. The correspondent who draws our attention to the advertisement sees in it evidence that the guardians are seeking to take advantage of the "lack of union in the profession, especially in Ireland." If so we can only reiterate the opinion of our Commissioner that while posing as economists they are in reality being false to their duty towards the people they represent. What sort of a medical man will he be who will consent to

take part in this Dutch auction? Will it be the self-respecting well-trained man who values science and realizes the importance of the medical art as a part of the social fabric? There can be but one answer. We have received a number of letters from correspondents well acquainted with the conditions of life in Ireland, and with the dispensary medical service, who one and all assert that our Commissioner's picture was by no means overdrawn. The correspondent already quoted states that the last time he went to a case with a dispensary medical officer, after driving three Irish miles on a dark winter's night, he and his companion had to get out of their trap and proceed on foot about a mile over bog, etc., under the guidance of a native. They returned to the trap wet almost to the knees; he adds that this dispensary medical officer was some 63 years of age, and dared not think of retiring because he did not know whether he would get a pension or not. The report of our Commissioner has been placed in the hands of Irish members of Parliament, and of officials responsible for the administration of local government in Ireland. We trust that it will receive their most serious consideration, and that with the help of the British Medical Association some amelioration in the condition of the Poor-law medical dispensary service in Ireland may be brought about.

MEDICAL INSPECTION OF SCHOOLS.

Dr. J. H. Clayton, Medical Officer of Health, Richmond, Surrey, has presented to the Education Committee of the borough an interesting report recommending the appointment of a medical officer for the inspection of children attending the elementary schools and for the performance of other duties under the Education Act. He points out that the powers of the medical officer of health are limited to the closure of a school or the exclusion of an individual scholar when one or other of these procedures is considered likely to prevent the spread of infectious disease. He, however, cannot act until he receives a notification: whereas, if the cases were recognized early, prompt action might often avoid the more serious step of closing the whole school. He adds that inspections made by himself at various times at the request of managers of schools have had beneficial results, and gives one instance in which, though really exceeding his statutory duties, he was able, by recognizing that a child attending school had been suffering from a mild attack of scarlet fever, to prevent the spread of the infection and so to avoid the necessity of closing the school. He points out that the medical inspection of schools would not only check the spread of notifiable diseases but also of others, such as measles, whooping-cough, ringworm, and ophthalmia, which are not notifiable and he adds that many of the teachers have complained to him of the unsatisfactory position they are in if they send home an ailing child since in many instances no medical man is called in, and the child has to be readmitted to school without a medical certificate. Further he shows that medical inspection would reveal errors of refraction and would discover defi[illegible] children who ought to be sent to a special school under the Defective and Epileptic Children's Act. Finally, as he truly says, there are many other matters in which a medical officer would be of service to the Education Committee. The report is we believe, now under the consideration of that Committee and we may expect the report on the recommendations of the medical officer of health will be accepted.

THE CARE OF CHILDREN IN NEW SOUTH WALES.

In New South Wales a [illegible] Department known as the State Children Relief Board looks after children of two distinct classes and has [illegible] a general supervision over the interests of all children [illegible] of the two classes of children [illegible] is formed of children who are practically entirely apart from their parents or relatives. If they have any, and the other of children for whose care the Board makes an allowance to their mothers, the latter being either poor widows or deserted and poor wives. The first class are usually orphans or [illegible] into the care of the State for some other reason. Of the total of 7,191 children under the care of the Board at the date of its last report about half belonged to the one class and half to the other. As regards the children left with their parents the cost of the subvention to the mother and for the inspection of the child averaged for each child about £6 8s. a year. At present the mothers may be granted an allowance simply after a departmental inquiry but it is proposed in future to hold an inquiry before a special court at which sworn evidence as to the real needs of the case may be taken. The total expenditure upon the children provided for apart from their parents if any, was, including inspection duty, about £15 15s. per a head a year; the children were provided for in one of several ways, namely: by boarding-out, by apprenticing, by adoption, by cottage homes for children who are physically unfit to be treated in any other way, and by another home for those who are refractory. The Board always has more satisfactory applications for children than it can meet and boarding-out very often eventually leads to adoption, because the foster parents get fond of the children under their care and are willing to dispense with State aid in order to keep them. State inspection however, is continued whether State aid is given or not, and the children of mothers who receive subventions are inspected likewise. From an economic point of view it is considered that the system results in a saving of at least £7 a year for every child as compared with any barrack system which could be substituted. More important still it is believed that it really effects the purpose for which it was instituted—namely, that of obtaining for the children a close substitute for home life of a desirable physical and moral sort. To keep it informed of the working of the system the Board has, besides its paid inspectors, a small army of honorary lady visitors and also receives reports from schoolmasters and mistresses and others officially brought into contact with the children. Extracts from a very large number of reports from these unpaid sources are given in an appendix, and the testimony in all is strikingly favourable to the system. One or two of them contain evidence that the apprentice system requires very careful watching; but the fact that it is stated that most of the children remain on with their whilom guardians by private agreement when out of their articles seems to indicate that, upon the whole, it must work well. These children cost the State nothing beyond an occasional outfit and receive pay, which is collected and kept for them, and paid over on the termination of their indentures. The sum commonly paid for boarded-out children is about £1 a year, a fact which goes a long way to confirm the complaint recently made before the Irish Poor-law Reform Commission that the sum of £5, as paid in Ireland, is far too little.

FOOD FOR THE MIND.

It has somewhat cynically been said that a nervous disease is one in which the diagnosis is uncertain, and there is no treatment. The energies of many skilled physicians have during the past quarter of a century tended largely to overthrow the first part of this reproach and signs are not wanting that efforts are being made to take the sting out of the latter threat as well. But while prescription as to the physic and the bodily food which are to be consumed by nervous patients abound, very little attention has hitherto been paid to their mental pabulum. The late Mr. Marcus Beck, as usual far in advance of his time, once cured a boy of hysterical hip disease by taking him away from school and prescribing a course of Jane Austen's novels. It is too customary for those who carry out Dr. Weir Mitchell's course of treatment to limit the patient's reading to what may be called bland and non-irritating materials. Very little attempt, however, has been made in this country to systematize the subject, in Germany the case is different, and books and papers by Binswanger, Dunin, and others, are open for all

who wish to consult them. Recently also Dr. B. Laquer of Wiesbaden has published a short but interesting paper[1] upon this topic. He starts with the perfectly true statement that many of the medical procedures employed in the treatment of nervous disease are merely intended as vehicles for the real method of cure, which is psychotherapeutical. He condemns the consumption of exciting literature before the age of puberty; and instead of alcohol, theatre, music-hall, concert room, and newspaper, he recommends twelve to thirteen hours' sleep, steady moderate sport, every inducement to the observation of Nature, and everything which tends to improve the senses, the whole of the muscles, and to render the subjects children of the country and not of the town. According to Dr. Laquer, artistic education tends particularly to upset the psychical balance, and its commencement should, he holds, be delayed to the age of 16 in girls and of 18 in boys. He agrees with Dunin's view that the three main characteristics of the psychically unstable are abnormally increased self-analysis, fear, and lack of will power. To combat these he recommends books of travel, sober histories, and biographies, particularly those of men of action. Humorous books are also recommended; the English humorists selected by Dr. Laquer are Dickens, Jerome, and Mark Twain—a juxtaposition which is perhaps in itself sufficiently amusing. The reading should be moderate in amount, its theme frequently changed, and the habit of concentration encouraged by writing abstracts of the works read. Finally, it is pointed out that hypochondria is by no means a new disease, for a very pertinent quotation is given illustrating Alfred Musset's sufferings from the complaint; the literary element in its prevention and cure sounds, however, quite the modern note.

LEPROSY OF THE OVARIES

Drs. Glück and Wodynski[2] have recently directed their attention to leprosy as it affects the ovaries, a subject which has not received all the attention it deserves. That menstruation is interfered with in leprosy has long been known, but peculiarly enough, instead of looking upon this as the result of the disease, just the reverse view was held. Retentio menstruorum was looked upon as an important cause of leprosy by such writers as Theodoricus, Guy de Chauliac, and de Largelata. It was only in the second half of the eighteenth century that more rational views obtained in regard to this matter. Schilling and Hensler then pointed out that Couzier was the first to remark that females who developed leprosy before puberty did not menstruate. It is a fact that leprosy leads to irregularity and sometimes cessation of the menses. Drs. Glück and Wodynski, who practise in a leprous area (Bosnia), relate the results of their investigations into this point in the case of six leprous women who died in the Sarajevo Hospital. They found chronic interstitial inflammation, leading to sclerosis of the ovaries, with hypoplasia or atrophy according to the age of the patient. This oöphoritis chronica leprosa originates, they consider, in the following manner: The bacilli circulating in the blood vessels, together with their toxins, give rise to an arteriosclerosis with obliteration, which reacts by leading to an interstitial cell-proliferation. Bacilli were found in the ovarian tissues, both in extracellular and intracellular situations.

BULK AND ABILITY.

In a recent communication to the *Archives of the Middlesex Hospital*[3] a reprint from the *Journal of Anatomy and Physiology* is published on the relation of the size and shape of the head to mental ability, by Dr. R. J. Gladstone. The measurements were taken by means of Gray's callipers, which have the advantage—an important point in cephalometric observations—of giving the same measurements in different hands. The principal diameters of the head, length, breadth, and height multiplied together were accepted by the author as giving the index of size. The subjects, 342 in number, comprised students and members of the medical staff of the Middlesex Hospital, boys from St. Catherine's School, Regent's Park, and inmates of St. Pancras Workhouse. As regards mental ability, the individuals were divided into three classes, A, B, C, and every care was taken to eliminate possible sources of error from differences of stature, body weight, and age. Dr. Gladstone's results are somewhat remarkable, as he finds "a distinct correlation between large size of heads and a high degree of mental ability, this correlation being both absolute and relative to the general size and weight of the body." The tables of indices of size given show a progressive diminution from Class A to C, and also that the largest head belongs to Class A and the smallest to Class C; moreover, the average index of size of Class B is considerably above the general average of the uneducated classes. A point of much interest, illustrated in the text, is that if a "frequency polygon" be made showing the number of individuals having heads corresponding to successive degrees of size, the polygon will probably have two main peaks corresponding to two types of head, a large and a small, the apices of the peaks indicating the size of head most frequently met with in the corresponding type. If now on the same chart curves for Classes A and C be drawn—leaving out the individuals of average intelligence, that is Class B—it will be found, says the author, that these also will arrange themselves in two peaks lying within the corresponding peaks of the main curve, and the position of the apices will show that in each of the two types of head Class A have generally larger heads than Class C, although the individuals composing Class A and belonging to the small type will have smaller heads than those of Class C belonging to the large type. These results are so strikingly uniform that they call for remark and, to some extent, criticism. In the first place, the accurate gauging of the intellectual position of many individuals is a difficult—a well-nigh impossible—task; and even their rough division into three classes—A, B, and C—cannot possess the same evidential worth as the cephalometric data to which they are here related. Again, even accepting the product of length by breadth by height as equalling the size of the head, and admitting the general truth that the growth of the skull is dominated by that of the brain, so many other factors play a part in the shaping of the skull, that cephalometric data of this kind cannot, as Ford Robertson has said, supply the date required by human craniology, but only such as belong to the wider science of anthropology. Dr. Gladstone's observations, collated with other material gained by the same methods, should have decided value. Only those, however, who, like Dr. Gladstone, have worked in this field can appreciate the marked influence on any results produced by the inclusion of two or three individuals markedly differing in size of head from a group of people, as in this case, comparatively limited in number; and whilst most anxious to avoid the appearance of disparaging useful work of this kind, we would deprecate any hasty generalization from such results.

METASTASIS IN CARCINOMA.

Professor Martin B. Schmidt[1] publishes some researches on the dissemination of carcinoma and the relationship between generalized sarcoma and the leukaemic new growths. He has made a complete pathological investigation of forty-one cases of carcinoma, with special reference to dissemination by the blood stream. It is well known that in many cases in which conveyance of cell groups appears to have taken place through the lungs to the general circulation these organs remain free from metastatic growths; it is also recognized that the metastases of certain carcinomata disseminated through the arterial system show a preference for certain organs. The multiple secondary growths of the osseous system in

[1] *Ueber psychische Diätetik*, von Dr. B. Laquer, Wiesbaden. Reprinted from *Deutsche Medicinal-Zeitung*, vol. xxiii.

[2] *Archiv für Dermatologie und Syphilis*, Bd. lxvii, Heft 1.

[3] *Archives of the Middlesex Hospital*. Vol. i. London: Macmillan and Co. (Demy 8vo. pp. 150. 5s.)

[1] *Die Verbreitungswege der Karzinome und die Beziehung generalisierter Sarkome zu den Leukämien neugebildeten Gewebes*. Von Professor Dr. Martin B. Schmidt. Jena: Gustav Fischer. 1904. Roy. 8vo. pp. 70. M. 2.50.)

prostatic cancers illustrates both these conditions. Several theories have been advanced in explanation, the question being whether the circulating cell groups come to rest in certain selected organs only or are distributed throughout the body but form secondary growths only in organs in which they find suitable conditions. It is known that carcinoma cells undergo degeneration in the blood stream, but on the mode of destruction of such cell groups in organs nothing has hitherto been ascertained. Of the 41 cases investigated, 1 only, a carcinoma of the gall bladder, was free from any metastasis: the others fell into three groups. The first included 12 cases of carcinoma in an abdominal organ, with metastases in lymph glands, peritoneum, and liver, without entrance to the blood circulation and without lung metastases: the second group contained 13 cases, in which the lungs were involved, the secondary growths being due to lymphatic transport, in part through the diaphragm to the pleura, in part by retrograde conveyance from infected bronchial glands; the third group contained 15 cases, in which carcinoma emboli were found in the small arteries of the lungs. The investigation of these cases showed that in cancer of an abdominal organ metastatic cell groups are frequently arrested in the pulmonary arteries, but that only a small proportion of these cell masses give rise to metastatic growths in the lung or break through the arterial wall into the perivascular lymph stream. The greater number are destroyed by organization of the thrombus surrounding them or are encapsuled and rendered inert; a small minority grow forwards through the surrounding thrombus to the capillaries and small veins, and become capable of originating secondary growths in other organs. Schmidt considers that the differences in the dissemination of sarcoma and carcinoma are not due to differences in distribution of the metastatic particles, but to the fact that in the latter the arrested cell groups more rarely proceed to the formation of secondary tumours. Schmidt also gives a description of a case of sarcomatosis of the skeleton and the lymphatic glands with a single metastasis in the left suprarenal; with this are compared the pathological findings in a case of lymphatic leukaemia with leukaemic hyperplasia of the periosteum; and a case of lympho-sarcoma of the thymus, hyperplasia of the tonsils, lymphatic glands, and spleen, and lymphatic new growths in the kidneys and testes. The relationships between these different conditions are discussed.

THE INOCULATION OF APES WITH SYPHILIS.

Reference has already been made in the BRITISH MEDICAL JOURNAL to the successful inoculation of a female anthropoid ape with syphilis by Metchnikoff and Roux. Lassar of Berlin has also apparently succeeded in producing the disease in another anthropoid ape. The animal in this case was a male between 4 and 5 years old. The inoculation was carried out somewhat in the same manner as in Metchnikoff's experiment. Scarifications were made in the skin of the forehead in several places, and the secretion taken from a primary sore rubbed in. This was also done upon the lips. In addition, in this case small pockets were made in the skin of the forehead and ears, and minute portions of the chancre inserted into them. All the inoculations were made on the same day. No inoculation was made upon the genitals. The primary sore referred to above was an untreated extragenital chancre of several weeks' duration, situated on the arm of a man who had become infected in the operation of tattooing. This patient also undertook the care of the ape, since, in the event of the experiment proving successful, scratches or bites inflicted by the animal would naturally be fraught with danger to any person not himself suffering from the disease. In order to ensure that the material did not get rubbed off, the ape was kept rolled up in a sheet for an hour or two after the operation. The various sites of inoculation healed in forty-eight hours without disturbance, and in fourteen days two apparently characteristic lesions appeared on the forehead. These were still quite evident when the animal was exhibited at a meeting of the Berlin Medical Society held six weeks later. In this case, as in Metchnikoff's, definite secondaries followed—namely, papular rashes on the soles of the feet, the palms, the brow, and round the anus. Cervical adenitis was also present, and the front of the scalp became bald. In the Paris experiments, it will be remembered, the virus of more than one patient was used, and secondary as well as primary material was employed, the primary material being applied to the genitals, and the secondary to the forehead. Further, the inoculations on the genitals were performed on two separate occasions, five days intervening between them. The resulting chancre appeared on the genitals (clitoris). Thus in both experiments it is extremely interesting to note that the inoculation was effected by means of primary virus.

[1] BRITISH MEDICAL JOURNAL, October 18, 1903, and February 27, 1904, p. 501.

THE PLEA FOR CONSERVATISM IN MEDICINE AND SURGERY.

WE have of late had somewhat frequent occasion to call attention to the swing back of the pendulum of professional thought and practice from the methods of extreme enterprise which were in fashion but a few years ago. Many and weighty protests against undue enthusiasm in the prosecution of new methods and the administration of new remedies have appeared in our columns, and we are glad to note that the feeling which they have expressed is awakening echoes even in America. Dr. Beverley Robinson of New York has reprinted from a recent number of the *Medical Record* an address, of which we quote the subtitle at the head of this article. Dr. Robinson quotes Dr. Reginald H. Fitz, of Boston, who has stated that an analysis of the operations undertaken at a large and well-conducted hospital between the years 1890 and 1900 shows that many of them could not be justified by a fair consideration of their results, either immediate or remote. Dr. Robinson, moreover, points out that during the past few years there have been considerably more than 100 recorded operations for cirrhosis of the liver, of which the subjects have very seldom obtained benefits which are denied to medical treatment. He quotes with entire approval Sir Frederick Treves's Cavendish Lecture, in which it is laid down that operation in appendicitis is indicated only in the ultra-acute cases and where there is definite evidence of suppuration, and that except where urgent symptoms arise the question of surgical interference need not be decided for the first five days or so. These views are, Dr. Robinson says, in complete agreement with those of Dr. Maurice H. Richardson, who is well known as one of the foremost American surgical authorities on the disease; and they appear also to fall into line with the opinions expressed by Dr. Hemmeter in his book on the diseases of the intestines. Dr. Robinson also refers, with approval, to the attitude taken up by Sir Felix Semon in respect of operations upon the throat and nose,[1] and by Dr. W. M. Polk, of New York, with regard to the conservative treatment of diseases of the uterus and appendages; on the other hand, he deprecates in the strongest terms suggestions, such as that which he attributes to Sir Lauder Brunton, of operative treatment in mitral stenosis. While he admits the enormous progress made by surgeons in the treatment of deep-seated and visceral abscesses, he fears the tendency of surgical practice, owing to the impunity which skill and opportunity afford, to become subservient to these factors. Nor does Dr. Robinson confine his criticisms to the surgeons. He states that of the enormous number of new remedies continually put upon the market very few are really useful and relatively innocuous. With regard to fever, for instance, he views with alarm the replacement of the old-fashioned diuretics, diaphoretics, and febrifuges by coal-tar products. Where fever is slight it is usually wisest to leave it alone; where it is continuous, but moderate, mild antipyretics may be used. It is only when it reaches a dangerous degree that powerful remedies must be

[1] BRITISH MEDICAL JOURNAL, 1901, ii. pp. 1145, 1147.

mployed. In such a case cold bathing is of great value, ut Dr. Robinson agrees with Dr. Hare in opposing the outine use of this in typhoid fever. He is also inclined o doubt the wisdom of the substitution of alkaloids, such s cocaine, quinine, and morphine, for the natural products rom which they are prepared. Another modern practice vith which he is not in accord is that of treating intestinal ffections by the use of antiseptics instead of clearing out he bowels by means of castor oil. The older physicians, ven without our present advantages, anticipated many of ur most modern lines of treatment; thus the open-air nethod of combating consumption was indicated by the vritings of Jacob Bigelow and Austin Flint on the self-imitation of diseases, and we may add was practised by George Bodington in England in the Thirties. A point in vhich the author considers we have not improved is our ursing. The modern nurse may have a very systematic nowledge of her duties, together with a smattering of everal sciences, which are of but little use to her, but she s certainly not superior, according to him, to her prede-essor of one or two decades ago. Finally, he reiterates a varning against the specialism engendered by the progress of chemical and microscopical research, which sees a local rouble everywhere and often overlooks its underlying ause. Dr. Robinson has framed a cogent and picturesque ndictment of certain modern medical and surgical evils, nd although in England, at any rate, one may be inclined o regard his account as a little too lugubrious, his paper is vorth reading for its stimulant effect.

THE PERILS OF ATRESIA VAGINAE.

A young woman subject to closure of the lower part of he genital canal is obviously in a perilous position, and t has for long been taught that her life may be in danger t any moment. Authorities have further been careful to emind us that an incision through the obstructing septum n order to allow of the escape of retained menstrual blood nust not be made without great caution, and when made he operator must never press on the lower part of the bdomen to hasten the flow of the fluid. Grave or even tal results have followed incision even when every pre-aution has been taken. This fact cannot be impressed oo strongly on the practitioner and specialist. An minent instance of the bad results which may follow ncision when its immediate performance seems urgent s related by Heidenhain.[1] A girl aged 19 came into his onsulting room in great pain, walking with her chest ent forward and her hands pressed against the abdomen. She said that she had been informed that she had an ovarian cyst, and begged that it should be removed t once as it was becoming very painful. There was a tender, smooth, tense, but distinctly fluctuating swelling reaching several inches above the umbilicus. The hymen was well-formed; immediately above it a tense membrane was detected. The membrane was incised and over 2½ pints of greasy blood ran out of the incision. For about a fortnight the patient did well; the temperature, over 101° at first, fell to normal, but on the fifteenth day it rose again, and there were severe pains in the left iliac fossa. A swelling in that region was detected and incised, much greasy blood escaped, the cavity was washed out and packed with iodoform gauze; it began to granulate, and all seemed satisfactory till thirteen days later. Then once more the temperature rose, and a fluctuating swelling in the right iliac fossa was opened and treated in the same manner. It contained much syrupy blood. A bad faecal fistula developed, and two or three days later the patient seemed moribund, chyle coming away in streams. Heidenhain separated the adherent small intestine from the wall of the haematosalpinx of the right tube which had been opened, drew out the tube, and resected it. The edges of the opening in the dilated tube were closed by suture. Nine months later the patient was in fair health, but a large hernia had developed in the cicatrix of the last incision. This case occurred near Marienwerder, in West Prussia, and the operation for the closure of the artificial anus had to be undertaken in the patient's home. Comment is needless, but this case is a good object lesson on the perils of atresia. Those who treat a case must be prepared to meet the complications which were encountered by Dr. Heidenhain, and to act as promptly if necessary. When there is time for delay, an exploratory operation through the abdomen and removal of the affected parts, if necessary, may be safer than incision of the obstructing membrane in the vagina; whilst, should the uterus and tubes be normal, it might be safer to remove the blood while it is not septic through the upper part of the genital tract than to let it out through a vaginal incision, which involves great risk of infection of residual blood in the dilated tubes and uterine cavity.

[1] Atresia Vaginae Congenita. Report of meeting of the Ostsund Westpreussische Gesellschaft für Gynäkologie, *Monatsschr. f. Geb. u. Gyn.*, March, 1904, p. 445.

THE BACTERIOLOGICAL STANDARDIZATION OF DISINFECTANTS.

During the last few years it has been satisfactory to note that much has been done to place the bacteriological standardization of disinfectants on a scientific basis. In the early days of bacteriology a large number of experiments were performed to elucidate this subject, which we now know were unsatisfactory. It is not sufficient to take a disinfectant of which little is known and add a certain quantity to a laboratory culture of the typhoid bacillus of which less is known, and then draw far-reaching deductions from the results. What is necessary in such cases is clearly an exact knowledge of the two chief factors, the disinfectant and the bacillus, combined with a careful and exact treatment of the one by the other. Bacteriologists are coming more and more to understand that results differ according to the strain and age of the bacillus, its culture medium, its ancestry, temperature and period of incubation, and other similar fine points, as well as the broad facts of its species and sporulation. Quite recently Dr. Andrewes, of St. Bartholomew's Hospital, and Dr. Rideal have both drawn attention to these matters, and the latter in conjunction with Dr. Ainley Walker has laid down, experimentally, definite limits of time during which bacterial cultures should be exposed to the action of the disinfectant and the exact dilutions of the disinfectant used. They hold that a bacterial rather than a chemical standard of efficiency is necessary, as the chemical strength of such disinfectant bears no exact relation to its germicidal power. We have received a record of some further preliminary tests on these lines by Professor W. R. Smith and Dr. Somerville, of King's College, from which it appears that creolin (or cyllin) in a strength of 1 in 1,280 acting on a standard culture of the typhoid bacillus incubated for 48 hours at 37° C. in neutral broth performs the same germicidal action as carbolic acid in a strength of 1 in 80. Similar tests were made with the diphtheria bacillus of Klebs-Loeffler, and it is proposed to continue the series. Such a series needs most thorough work before any conclusion can be drawn, and also much more detailed information respecting the tests and the life-history of the bacillus used.

FOOTBALL INJURIES.

In a small pamphlet entitled *Football Injuries*[1] Dr. R. H. A. Whitelocke gives a record of his experience in his practice among undergraduates at Oxford. Some of his observations are of general interest. They show that the view which has led to the substitution in so many schools of Association for Rugby Union rules of football is only very partially justified. It is true that of the two games as commonly played the Rugby gives rise to the greater proportion of injuries among the players; but on the other hand, while the injuries received under Rugby Union rules are commonly contusions, twists, wrenches, and the like, those which are specially liable to be met with among players of the Association game are fewer in number but

[1] *Football Injuries.* By R. H. A. Whitelocke, M.D., F.R.C.S. London: J. and A. Churchill. 1904. (Demy 8vo, pp. 111, 15.)

more serious in character, often being injuries of the viscera. The average schoolboy is still, we are glad to say, able to put up contentedly with a good deal in the way of sprains and bruises, but injuries to viscera are a very different matter. It would seem, therefore, that if Dr. Whitelocke's experience is borne out by that of other surgeons who see much of that part of the younger generation which plays football, there should be a revulsion among school-masters in favour of the older game. Besides the kind of game other circumstances bear upon the question of resulting injuries, and among these are the season of the year and the atmospheric temperature which prevails. In the autumn players are wont to begin suddenly and to throw themselves at once into hard and well-contested games. As has been often pointed out in these columns, when fresh back from holidays neither schoolboys nor undergraduates are thoroughly fit from a football point of view. They may be in excellent training for walking or shooting, bicycling or riding, but the extreme activity demanded by football is a different thing. The result is that lacerations of muscles, and strains and wrenches of joints occur in individuals who later on in the season could go through the same or greater exertion entirely unscathed. At Oxford it has been observed that more athletic injuries are met with during the first fourteen days of term than during the whole of the remaining six weeks. This fact seems to indicate that at public and private schools, in which regulations as regards games and exercises can be better enforced than at the universities, the authorities should stipulate for the first week or two of the football term being given up to training. As regards the effect of the atmospheric temperature, we are all of us acquainted with the facility with which one seems to "bark" one's knuckles on frosty days, and this common observation finds its analogue in football injuries. Ruptures of muscles seem to occur more readily during frosty weather than on damp and warm days, and the explanation offered by Dr. Whitelocke is that cold retards the contraction of muscles, and renders them inelastic. An observation of a corresponding kind as regards the skin is the facility and painlessness with which large cuts in the skin may be incurred during bathing and swimming.

MISS FRANCES POWER COBBE.

Miss Frances Power Cobbe, who so long ago was the Boadicea of the war against experimental research, died on April 5th in her 81st year. For some years before her death she had ceased to be a leader in the cause. Not that she ever sheathed her sword or forgot her swashing blow, but the rashness in which she brandished her weapon grew to be an embarrassment to more politic anti-vivisectionists, while her adoption of methods of warfare, recalling the stock-pot of the Chinese, disgusted all decent people. We prefer not to dwell on these aberrations of a remarkable woman before the grave has closed over her. She gave the example of a strenuous life, marred by no sordid or selfish aims. She did much valuable work in social reform, and was a brave champion of what she conceived to be the rights of horses. A woman of unquestionably high intellectual attainments, she considered her life of sufficient importance to be told to the world in two volumes. The most interesting thing in the book are the unconscious touches of self-revelation. One gets the impression of a disarming spiritual nature with a considerable [illegible] and more than a trace of spite. We are not surprised to read it recorded that she was a good hater where her dislike was called forth. It is plain that it was rather easily called forth, and she was already ready to become critical of any person or party or cause to profess the least sympathy with [illegible]. Towards no platform philanthropist to whom a cause [illegible], and of this quality Miss Cobbe had her full share. Undoubtedly she did good service to her fellows. It is also true that, having no better, she failed to do a good deal of harm. Fortunately for humanity she was [illegible]. It is difficult not pathetic to think of the utter failure of the cause to which she devoted her best energies. Miss Cobbe could neither pen to good purpose in other directions, but in her anti-vivisection polemics she was more sounding brass or tinkling cymbal.

SIR FREDERICK TREVES AND THE HONG KONG BRANCH.

Our Hong Kong correspondent writes: On the evening of March 3rd the members of the Hong Kong and China Branch of the British Medical Association entertained Sir Frederick Treves to dinner in the Hong Kong Hotel. Colonel W. E. Webb, R.A.M.C., President of the Branch, presided over a large and representative gathering of medical men. The toast "His Majesty the King" having been duly honoured, the Hon. Dr. J. M. Atkinson proposed "The Navy, Army, and Reserve Forces," which was responded to by Deputy Inspector-General Drew, R.N., Colonel Brown, R.E., and Surgeon-Captain Stedman, H.K.V.C. "Our Colony, coupled with the name of Sir William Goodman," was then proposed by Dr. Jordan, and acknowledged by Sir William Goodman. The President in proposing the health of "Our Guest," referred to the great work Sir Frederick Treves had done in operative surgery, recalling how he had offered his services to the nation during the South African war, and how he had been called to attend His Majesty the King in a serious illness. Colonel Webb further alluded to the good work Sir Frederick was still doing in helping to bring about reforms in the Royal Army Medical Corps. In responding to the toast Sir Frederick Treves thanked the members for the the honour they had done him and said that of all honours those bestowed on him by members of his own profession were most highly appreciated by him. Dr. Rennie then proposed the health of Dr. Laing, secretary to the Branch, and Dr. Laing having responded, a very pleasant and memorable gathering was brought to a close.

We are glad to learn that the health of Sir Samuel Wilks is improving, although progress is slow.

At the General Council of the Glasgow University held on April 6th Lord Kelvin was unanimously chosen Chancellor of the University.

We regret to learn that the Johns Hopkins University, Baltimore, suffered somewhat serious loss during the recent terrible fire in that city, owing to the destruction of some seventy warehouses which were not fully insured.

The Osborne Convalescent Home for officers of the navy and army, a description of which was published in the British Medical Journal of January 30th, p. 285, was opened without ceremony on April 6th, when ten officers took up their quarters.

We are informed that Mr. Jordan Lloyd, Surgeon to the Queen's Hospital, Birmingham, and Professor of Operative Surgery in the University of Birmingham intends to offer himself as a candidate at the next election to the Council of the Royal College of Surgeons of England. Mr. Lloyd became a Member of the College in [illegible] and Fellow in 1883.

Notification in Johannesburg. In view of the present state of the public health in Johannesburg it is of some interest to note that the notifiable diseases which figure upon its list are small pox, chicken pox, enteric fever, gastric or typho-malarial fever, malaria, scarlet fever, puerperal fever or puerperal septicæmia, dysentery, diphtheria, membranous croup, erysipelas, and leprosy. Cholera, typhus, relapsing and continued fevers find no place. All medical men in the town and suburbs are kept supplied with outfits for the transmission to the public bacteriologist of material from suspected cases of each of the following diseases: diphtheria, typhoid, and tuberculosis. The sanitary authority also keeps for gratuitous distribution stocks of antidiphtherial, antistreptococcus, and antistaphylococcus serums.

Canada.

Lunatic and Idiot Asylums, Ontario.

The thirty-sixth annual report of the Inspector of Prisons and Public Charities upon the Lunatic and Idiot Asylums of Ontario for the year ending September, 1903, contains statistics of some interest to alienists and medical men in general, as will appear from the following abstract:

Total population of Ontario (circa)	2,200,000
Total insane population in asylums	5,458
Total insane population, including idiots, known to authorities	6,236
Increase over 1902...	183
Number of insane to each 1,000 population	2.8.3
Total number of admissions	880
Total number of discharges	4[illegible]
Total number of recoveries.	3[illegible]
Total number of deaths	320
Percentage of deaths to population	5.86
Percentage of recoveries on admissions	36.67
Percentage of recoveries on resident population ...	5.09
Percentage of recoveries on total discharges	71.16
Number granted probational leave	413
Returned to asylum	75
Total expenditure...	$714,345.18
Per capita expenditure	$136.74
Average for 5 years	$[illegible]
Average number of days' work done during year per patient who worked	294

These figures give food for thought on the seriousness of the apparent increase in insanity in a country so young, prosperous, and healthful as the province of Ontario. The number (6,236) includes all in asylums, and all known to the Inspector-General either in private retreats, hospitals, gaols, or by application made and not yet accepted; it shows an increase, as has been shown by every return during the last thirty-three years. No doubt this is partly explainable by the greater tendency to the sequestration of the insane, and especially of idiots and epileptics, and also by the increase in the facilities afforded by the asylums for successful treatment. But, after due allowance for all these causes the melancholy fact remains—that in a population unsurpassed in the world for general intelligence, morality, and prosperity—where there is no criminal or pauper class, and where the climatic conditions are most favourable to health, mental disease should so increase.

The Inspector-General believes that a study of the class of patients, their occupations and dwelling-places, will disprove the suggestion that overtaxed energies, in consequence of over-competition in every business and profession, is the cause of the increase, as the large majority of the patients registered is composed of those who are not possessed of that intellectual calibre which would award them any prominent place or position in society, but are evidently drawn from a degenerate class whose mentality is of a low order. A hopeful sign is the percentage of recoveries and the small number of returns after probational discharges. The death-rate is high—5.86 per cent. of resident population—but there are always many cases suitable rather for a hospital than an asylum.

Institution for the Feeble Minded.

Dr. T. J. Moher, Assistant Superintendent of the Institution for the Feeble Minded, Orillia, Ontario, has been promoted to the position of Medical Superintendent of the Asylum for the Insane, Brockwell, in place of the late Dr. Murphy, who died suddenly a short time ago. By the policy adopted in the Government institutions of this class, of advancement of juniors serving on the various staffs, each man is fitted by special training for his position, and a continuity and similarity of policy is assured.

The Ontario Anatomy Act.

The Anatomy Act in force in Ontario provides that when an inmate of a house of refuge dies and the remains are not claimed within twenty-four hours by a relative or friend, they go to the Inspector of Anatomy, who sends them to one of the medical schools. Other sections of the Act apply to unclaimed dead in hospitals and other institutions, the net result being that the medical schools receive a supply adequate to their requirements. At the session of the Legislature on February 26th an amendment was introduced by Mr. Hislop to the effect that the disposal of the remains in these cases be left to the discretion of the warden of the county and the head of the institution. This was strongly opposed by the medical men in the House on the ground that it was a retrograde step, and a spirited debate ensued. Finally, on the suggestion of the Hon. Mr. Stratton, that requests in this connexion might be referred to the Department, the amendment was sent to Committee.

Public Health of Ontario.

The winter now closing has been the most severe and continuous throughout Quebec and Ontario that has been experienced for many years. February, curiously enough, holds the record for the lowest temperature, greatest snowfall, and largest amount of sunshine for that month since the eighties. Railway communication has been constantly interrupted by storms, and the impassability of country roads has been a special hardship to the medical profession and to the sick. A death-rate increased by the fact that many old and weak people succumb at such a time is a feature of the vital statistics. In Manitoba and the North-West the winter has been pleasant.

The birth-rate of Ontario for 1902 was 21.7 per 1,000; the death-rate 12.6 per 1,000.

The January bulletin of the Ontario Board of Health reports 2,200 deaths, a rate of 13.1 per 1,000 of that part (92 per cent.) of the population reported. A marked increase in the number of deaths over the corresponding month of 1903 was due probably to the very severe cold which has been experienced. The number of deaths from contagious disease was much reduced, though the number caused by tuberculosis increased and amounted to 67 more than from all other infectious diseases; 103 cases of small-pox were reported, no mortality. Appended to this bulletin is the report of the provincial bacteriologist, Dr. J. Amyot, analysing 228 examinations made.

Diphtheria is very prevalent in London (Ont.), and the hospital accommodation is crowded.

Sanatoria for Consumptives.

The report of the National Sanatorium Association states that over 1,000 patients have been cared for in the two institutions maintained. The death-rate from tuberculosis has fallen steadily during the last three years, largely owing to the good work of this association. Taking 115 patients in the college sanatorium, the physician-in-charge reports these results: 24 were discharged apparently cured, 41 with the disease arrested, 31 with marked improvement, 17 as unimproved, 3 as failed. Bacilli were found in 87 per cent. of all patients on admission. Of 97 patients under treatment in the free sanatorium for periods over one month, 5 were discharged apparently cured, 20 with disease arrested, 27 improved, 41 not improved, and 4 died. The average duration of stay was 170 days.

Professional Interests in Ontario.

The clause in the Assessment Bill before the Legislature of Ontario which relates to physicians and surgeons has been altered upon the representations of the members of the profession, so that it now provides that medical men shall pay an income-tax on the basis of 20 per cent. of the value of the house he occupies. At the meeting on February 24th at which this was discussed, a resolution was adopted "that the Federal Government be asked to establish a laboratory for the preparation of antitoxin in Canada, and that until this is accomplished the Government take steps to secure, at lowest cost, a supply from the Lister Institute of Preventive Medicine in London. The formation of an association for business purposes was then discussed, and it was agreed that such an association would be in the interests of the profession, and the Chairman was instructed to appoint a committee to formulate a scheme, and to report to a future meeting.

Radium-bearing Minerals.

Extensive discoveries have been made recently of radium-bearing mineral deposits in eastern Canada, and it is thought that it may be found also in the great mineralized tract south of James Bay. An interesting series of experiments has just been concluded under the supervision of Professor McLennan, of the Physics Department in Toronto University, to determine the radio-activity of each of the minerals in the large collection in the geological museum.

School Drill and Fire Rescues.

During the last eight weeks there have occurred in Toronto three serious fires in educational institutions, two in ordinary day schools, each with a very large population of children, and one in a building the upper flat of which is occupied by a business college attended by 500 students. All these fires occurred while the schools were in session; in the first two

the fire spread rapidly and destroyed the buildings, but in every case, owing to the perfection of the system of drill, the pupils left the building in an orderly manner within three minutes of the time the alarm was sounded. This most striking exemplification of the value of such a system for public buildings has caused an increase in its adoption, and in hospitals and asylums special attention is being paid to the drilling of employés.

THE LATE DR. LANGSTER.

At a meeting of the ex-pupils of the Normal School, Toronto, it was decided to ask permission of the Government to erect a tablet in the school in honour of the late Dr. Langster, who was Principal of that institution for five years, and the author of a series of textbooks.

Scotland.

SMALL-POX.

DURING the period from March 16th to March 31st, both days inclusive, 204 cases of small-pox were intimated to the Local Government Board as having occurred in Scotland. These were distributed over fifteen counties. In actual number of cases the burgh of Greenock stands first, with 70; Glasgow second, with 65; Edinburgh third, with 18; and Leith fourth, with 11. Thus, as in the first half of March, the local incidence of the epidemic is still greatest in the burgh of Greenock, where the cases amount to 10.27 per 10,000 of the population, as compared with 9.67 in Bo'ness, 7.5 in Buckhaven, 2.96 in Port Glasgow, 2.09 in Ayr, and 1.42 in Leith. In Edinburgh, during the week ending Saturday, April 2nd, 8 new cases were reported to the public health authorities. No death occurred in the week in question. The number of cases remaining in hospital was 43, as against 47 in the preceding week.

PREVENTION OF CONSUMPTION.

SANATORIA FOR WORKERS.

THE first report of the executive committee appointed last spring by the National Committee for the Establishment of Sanatoria for Workers suffering from Tuberculosis states that enquiries made by the statistical subcommittee show that much further accommodation is necessary. Another subcommittee, which has been making inquiries as to a suitable site, and the cost of building, have recommended the erection of a sanatorium for two hundred patients, including a certain proportion of women; the cost of the building is estimated at about £50,000, and of maintenance at about £65 a bed per annum. The success of the scheme, the committee points out, will depend upon the co-operation of the Friendly Societies, trades unions, and the patients themselves.

THE SPITTING NUISANCE IN TRAINS AND TRAMS.

In August last the New South Wales Railway Commissioners, in view of the large amount of public attention which was being directed to the danger of the spread of pulmonary tuberculosis by means of expectoration, passed a by-law imposing a fine of £2 on any person spitting into or upon any railway carriage or tramcar. Since the by-law was passed a considerable improvement has taken place in the condition of the railway carriages and tramcars, although no prosecution has been made, so far, for the offence. The *Australasian Medical Gazette* states that the Railway Commissioners have recently instructed tram conductors, tram guards, and other traffic officers to keep a strict watch, and to report any person found acting offensively in regard to expectoration, and the department will take legal proceedings against persons who infringe the by-law.

DEATH SEATS.

MARYLAND.—The Governor of Maryland has been authorized to appoint a commission of five, three of whom are to be physicians, to investigate the questions of tuberculosis to the public health and welfare, and to devise means for restricting its prevalence. A Bill to render expectoration on the floors, seats or platforms of passenger cars and steamboats or in public buildings a misdemeanour has recently been introduced into the State Legislature. The law would be a good one, but to watch would go to the infirmer. Railway and steamboat companies would be required to provide spittoons under a penalty of 25 dols. Bills have recently been introduced into the same Legislature to provide for the registration of tuberculous patients and for other preventive measures. The Bill would also give the health department of Baltimore compulsory powers to disinfect houses or apartments which have been occupied by tuberculous patients.

RAILWAY CARRIAGES FOR TUBERCULOUS PATIENTS.

The Santa Fe Railway, which has power to exclude tuberculous patients from ordinary Pullman cars, has arranged to run special hospital cars at intervals from Chicago to health resorts in Colorado, New Mexico, and California.

CONTRACT MEDICAL PRACTICE.

THE ATTITUDE OF FRIENDLY SOCIETIES.

WE referred last week to the address of the President of the annual conference of Friendly Societies of the United Kingdom at Caxton Hall, Westminster, on March 24th. We learn that the annual conference of the Friendly Societies Medical Association was held on April 4th at the Town Hall, Scarborough. The President, Dr. Hugh Watson, of that town, stated that the most important matter considered during the year has been the Medical Acts Amendment Bill. Though there was no actual reference in it to Friendly Societies or to medical associations, yet it was generally believed that the power asked for to erase the name of a practitioner from the *Medical Register* if he were found guilty of "infamous conduct in a professional respect" might be used against the medical men connected with their associations. It was absolutely necessary for the Association to maintain a firm stand in opposition to this or any similar proposal. A resolution was carried on the motion of Mr. Pride (London), seconded by Mr. R. E. Marshall (York), protesting against the Medical Acts Amendment Bill, and instructing the incoming council to take immediate steps to oppose the Bill if it should be reintroduced during the present Parliament, unless words were inserted setting forth that service as a medical officer of Friendly Societies was not *ipso facto* to be regarded as coming within the scope of the Bill.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending March 5th, 12th and 19th, the deaths from plague in India numbered [illegible] and [illegible] respectively. These returns place the mortality from plague in India far above any previous record. Since plague appeared in Bombay in [illegible] the highest weekly mortality from plague occurred in April [illegible], when for three weeks the deaths from the disease amounted to [illegible]. The chief centres of the disease during the three weeks in question are: Bombay districts, [illegible] and [illegible]. Berar districts, [illegible] and [illegible]. North West Provinces and Oudh, [illegible] and [illegible]. Punjab, [illegible], and [illegible]. It will be observed that out of the [illegible] deaths the above districts contributed [illegible] of the total. Besides these, plague prevails in the Central Provinces and Berar, where during the week ending March 12th the deaths from the disease numbered [illegible]. Central India returns [illegible] deaths during the same week. Rajputana, [illegible]. Bombay city, [illegible]. Hyderabad city, [illegible]. Calcutta, [illegible]. In Mysore the disease regularly begins [illegible] with the return of the hot weather, and as the temperature rises from South to North in India the annual epidemic [illegible] follows the climatological change.

SOUTH AFRICA.

Cape Colony.—During the weeks ending March 5th and 12th the report on plague in Cape Colony [illegible] was as follows:

[illegible] Fresh cases and [illegible] deaths from the disease, and [illegible] remaining in hospital on March 12th.

During the week ending March 19th: Fresh cases, [illegible]; deaths [illegible]; remaining in hospital [illegible].

From no other town in Cape Colony is plague reported during the above period. Rats are reported as plague infected only at Port Elizabeth and East London.

Transvaal.—In Johannesburg, from the 33rd report of the prevalence of plague, we learn that down to April 2nd the number of cases reported amounted to [illegible], which [illegible] were fatal. Of these [illegible] deaths from the disease occurred [illegible], and [illegible] were reported and no deaths. April 5th: [illegible] cases were reported and no deaths. April 6th: [illegible] cases were reported and [illegible] deaths.

A telegram from Lord Milner to the Colonial Office gave the number of plague in Johannesburg up to April 2nd as follows: Fresh cases [illegible]; deaths [illegible]; remaining in hospital [illegible]. April 3rd: [illegible] cases; [illegible] deaths; [illegible] remaining in hospital. April 4th: [illegible] cases; [illegible] deaths; [illegible] remaining in hospital. April 5th: [illegible] cases; [illegible] deaths; [illegible] remaining in hospital. April 6th: [illegible] cases; [illegible] deaths; [illegible] remaining in hospital.

Durban.—On April 7th [illegible] cases of plague were reported [illegible] Durban, [illegible] deaths.

On April 8th [illegible] cases were reported [illegible].

EGYPT.

A telegram dated March 19th states that a case of plague had been detected on that date at Port Said.

MARMOREK'S ANTITUBERCULOUS SERUM.

The following is an abstract of a paper which Dr. Arthur Latham has communicated to us, in which he details his experiences with Dr. Marmorek's antituberculous serum:

Last December, impressed with the theories upon which Dr. Marmorek had based the preparation of his serum, Dr. Latham determined to try the preparation among his patients at St. George's and at the Brompton Consumption Hospital; while trying it he had upon three occasions the advantage of the personal advice of Dr. Marmorek, who came over from Paris on purpose to give it. Dr. Marmorek, when first sending over the serum, expressed a desire that it should not be tried in hopeful cases until some benefit from its use in very grave ones had been proved. This attitude, though scientifically very sound, somewhat increased the difficulty of investigation, and hence Dr. Latham's experience is limited to thirty cases treated within a space of three months. It is at Dr. Marmorek's express wish that he now gives an account of what he has personally learnt, and he is the more ready to do this because his experience, incomplete though it be, may be of use to the many medical men who, after reading Dr. Marmorek's lecture at St. George's Hospital, may desire to give the serum a trial. The investigation of a new remedy in tuberculosis with its ever varying clinical picture can never be easy, for it is difficult to distinguish between *post hoc* and *propter hoc* results, whether in respect of favourable or unfavourable effects. For instance, three patients in whose cases there had been a question of commencing the serum, died almost suddenly from acute exacerbations of the natural disease. If the serum had been given the fatal result would naturally have been ascribed to its use. Little is known, moreover, as yet of the effects of administering horse serum for months independently of antitoxin. This also adds to the difficulty of determining what results are due to antitoxin and what to other causes. The difficulty of selecting suitable cases was also great; some patients refused treatment; others would not submit to it long enough; others could not support it at all.

The Technique.

Finally, the precise technique had to be chosen. Dr. Latham now usually injects the serum into the abdominal wall, but some patients prefer the back, the axilla, or the arm; in surgical cases a spot near the lesion may be best. Before the first injection the skin should be sterilized, the puncture closed by collodion, and all the locality covered with sterilized gauze. The object of this is to avoid the necessity of anything more than swabbing with an antiseptic before further injections are made, because with frequent sterilizations the skin becomes too sensitive. Using collodion too freely has the same effect. As much space as may be should be left between the sites of successive injections, and a newly-sterilized syringe and fresh needle should be employed. In order to avoid contamination of the remainder of the serum left in the flasks, the cork and neck are sterilized by passage through a spirit lamp flame, the cork withdrawn by pressure against the side, and not by a circular motion, the syringe needle inserted, the cork and neck reflamed, and the cork then reinserted. The flask should be kept in a cool place, but not on ice. If the serum becomes cloudy or bloodstained it should not be used. This method has been used by Dr. Latham in making over 450 injections, none of which have been followed by sepsis. The best time for injecting is between 9 and 11 a.m.

The Dosage.

As regards the dosage, Dr. Latham found after a little experience that the doses he at first gave in chronic cases were too large. He now gives 5 c.cm. for four consecutive days followed by three days' rest; he repeats the series three times altogether, and then allows a rest of two weeks. Patients sometimes improve during the intervals, and not at all if the serum is pressed too hard, but it is difficult to lay down any general rule as to the frequency of injections and intermissions. Some patients show no serum reaction after comparatively large doses given in a short time, others cannot bear three consecutive doses of 5 c.cm. In treating such patients the intermissions must be lengthened. In acute cases, and perhaps surgical ones, the serum is better borne. In meningitis he has given 30 c.cm. doses to a young child for four days without harm, and in adult surgical cases 8 c.cm. to 10-c.cm. doses are frequently borne well.

Serum Reactions.

By this term Dr. Latham means effects probably due to the serum itself and not to the antitoxin which it contains, and they are, he considers, common more or less to all sera. Such reactions are rises of temperature, rashes, neuralgic pains, tenderness and enlargement of glands, feelings of *malaise*, and, in rare instances, affections of joints. In many chronic cases 10 c.cm. caused a rise of temperature, which usually fell again when the injections were omitted. In certain cases the pyrexial effect seems to be cumulative, as it occurred sometimes after the injections were stopped. This cumulative pyrexial action may sometimes be anticipated and prevented by careful observation of the temperature. In two cases the pyrexia continued for a long time; in one of these bloodstained serum had been used; in the other the serum, borne badly from the beginning, was used in what Dr. Latham now recognizes to be too large doses. Since adopting the lower dosage pyrexia has been exceptional. If it occurs the injections should be suspended and only recommenced tentatively. As regards rashes, mere erythema about the site of injection may be passed over, but rashes elsewhere and those accompanied by coryza or other symptoms are a signal for interruption of treatment. As examples of other symptoms, Dr. Latham mentions a feeling of pins and needles followed by neuralgic pains; swelling and inflammation of a finger-joint, lasting a few days; and oedema round the site of injection. In three cases doses of 10 c.cm. caused drowsiness and listlessness. In two or three cases there was some vasomotor disturbance immediately after injections, and one patient became collapsed after his nineteenth injection of 5 c.cm.

The Antitoxic Effects of the Serum.

As regards this, Dr. Latham says he is not yet prepared to give a definite opinion. In some instances, especially when excavation has been present, the disease has made steady progress during the period of treatment. In the majority of cases, however, the patients have definitely stated that they felt better for the injections. In three cases of surgical tuberculosis, out of six treated, pain and tenderness disappeared after a few injections. In most pulmonary cases the first injections lead to an increase of sputa and of moist *râles*. In some this increase has been followed by progressive decrease more marked during intermissions of treatment. He does not think, however, that he can at present usefully give a summary of the effects of the serum on the various symptoms of phthisis, especially as so many of his cases are as yet incomplete. He gives, however, examples of cases which he considers show that the serum has a definite antitoxic effect.

Case I.

W. L., a commercial traveller, aged 19 years. Five weeks before admission this patient consulted Dr. E. C. Greenwood, who sent him to Dr. Latham. Before consulting Dr. Greenwood he had been feeling "out of sorts" in consequence of a strain at football. Up to that time he had always felt well. For the last three weeks before admission he had suffered from cough, night sweats, and fever. During the last month he had lost 6 lb. On admission he was anaemic, and complained of dyspnoea on exertion, and of being easily fatigued. Pulse 108, regular, soft, and of poor volume. Evening temperature 100°. Tuberculous infiltration was found throughout the right lung with signs of commencing softening in the upper third; the left lung healthy. During the first week in hospital, when no injections were given, the average daily weight of the sputum was 1 oz., and contained on an average 38 tubercle bacilli in each film. The body weight was 9 st. 7 lb.

He received 145 c.cm. in twenty-three injections. After six weeks' treatment he went to the Royal Ventnor Hospital. During treatment he became stronger and felt much more comfortable. The night sweats ceased, dyspnoea disappeared, and the cough less troublesome, expectoration diminished, and instead of 1 oz. by weight a day averaged ½ drachm. The tubercle bacilli showed no diminution. The patient, who was of a better class than the usual hospital patient, gained 10 lb. in six weeks. When he left St. George's he was able to walk three miles without fatigue. The temperature became practically normal; the dyspnoea disappeared. With regard to the physical signs, it is interesting to record that there was no extension of the disease to the left lung. The actual extent of the disease in the right lung underwent no diminution during the six weeks of treatment. Where there had previously been signs of softening there was now definite excavation with comparatively few moist sounds. In the rest of the right lung the adventitious sounds became markedly less.

Case II.

W. K., labourer, aged 36; treated at the Brompton Hospital. In July, 1902, this patient had an attack of haemoptysis. Since then he had suffered from cough and expectoration. On admission he was described as a fairly healthy man with a malar flush. His voice was hoarse, the epiglottis was thickened and rigid, and no view of the larynx could be obtained. The evening temperature was 101°. The

daily weight of the sputum varied from [illegible] and contained tubercle bacilli. The boil, weight was [illegible] the left lung was found to be infiltrated, and there were large crepitant rales to be heard in the region of the [illegible] over the lower part of the lung.

The patient has had up to the present time [illegible] c.c. of the serum at intervals. At first he felt [illegible] and the night sweats disappeared. After three injections the evening temperature fell [illegible] to normal, although a week's treatment under ordinary conditions had produced no change in his [illegible]. After 42 days treatment the physical signs in the left lung [illegible] diminished the large crepitant [illegible] being [illegible] but there were [illegible] of caught in that [illegible] at the apex of the right lung [illegible] the serum treatment was omitted on January [illegible]. The evening temperature, which hitherto had been normal except at the commencement of the treatment, again rose to [illegible] on January 19th and remained at this point till February 4th. The lung began to lose ground. At his own request the injections were renewed on February 4th, and the temperature again [illegible] normal on February 11th. At the present time the physical signs in the lung are more especially at the base, are much less marked, and the advantages gained are considerable, and the patient [illegible] at the right apex show signs of diminution. The [illegible] distinctly less, the general condition is improved, and there has been a gain in weight of [illegible] three and a half pounds. The weight of sputum and number of bacilli so far show no sign of decrease.

Case 2.

W. H. D., boot [illegible], aged 17.

This patient had a chill twelve months before admission to the hospital with subsequent cough. He had been losing ground for the last three months.

On admission he was suffering from night sweats and dyspnœa. Physical examination showed infiltration of the upper third of both lungs, with signs of consolidation on the left side. [illegible] c.c. of serum were injected in 10 injections. The patient left the hospital with his general condition greatly improved, in fact he has lost his night sweats and has less dyspnœa. His weight has remained stationary, and the physical signs in the lungs show no alteration beyond some diminution in the number of moist sounds. The interest of this case lies in the sputum. This disease never [illegible], showed a diminution in weight. Again, during the first week of treatment [illegible] tubercle bacilli were found in the [illegible] field, together with a few elastic fibres. During the eight weeks of the patient's stay in the hospital a weekly examination of the sputum failed to reveal any elastic fibres or tubercle bacilli, except [illegible] on one occasion. The sputum became much [illegible], and towards the end of the treatment was [illegible] purulent.

Case 3.

This case was one of extremely acute tuberculosis. A lady, under the care of Dr. [illegible], who had previously enjoyed good health, began to [illegible]. On an examination of the chest [illegible] were discovered at the apex of the right lung. Tubercle bacilli were present in the [illegible]. The disease rapidly spread through [illegible] and [illegible] resulted in [illegible] weeks from the onset of [illegible]. When I saw this patient [illegible] weeks after the commencement of the illness there appeared to be no hope whatever of a recovery. [illegible] crepitant rales were heard over the entire surface of the [illegible]. Emaciation was marked, the pulse feeble, and the temperature [illegible]. I determined to try the effect of the serum at the [illegible] necessity it in this case but, somewhat against [illegible] consent, [illegible] was [illegible] the patient. The number of the daily [illegible] was raised [illegible] the minimum [illegible] [illegible] [illegible]

inefficient women farmed out as a commercial speculation for the pecuniary advantage of a middleman.

The advocates of registration deny that the present want of organization and the absence of any definite test of professional efficiency is a guarantee of the possession by nurses of superior moral qualities, and they also contend that however valuable personal qualities may be it is through technical skill alone that a nurse is rendered valuable in cases of serious illness. The possession of the highest character and the best intentions would not enable an ignorant woman to arrest the haemorrhage of a wounded artery or adjust a bandage carefully and skilfully. On the other hand, education and technical training tend to cultivate "observation, sympathy, cheerfulness, and self-control," and the highly skilled usually acquire that professional zeal or devotion to a patient's interests which is likely to be better directed and more effective than any amount of native, but unskilled, kindness and sympathy.

It is not suggested that there should be a "uniform training," but that a certain minimum standard of training should be laid down, anything less than which cannot be regarded as complete or sufficient.

Non-registered nurses will be free to work for hire, but will be forbidden to claim the title of "registered nurse;" and it is maintained that registration, by giving a definite status to the fully-trained nurse, and by enabling the public to discriminate between the quality of the services offered, will attract a good class of women into the profession, and will lead to a better subdivision of labour and to greater economy of nursing effort.

The State Register would in no way "lower the status of the best nurses," for, although every nurse on the Register would have reached a certain minimum standard of efficiency, those who undertook further courses of study, or obtained experience in different departments of nursing, would have these facts duly notified in the Register, and this would result in the creation of a higher order of nurses, to whom higher fees might be paid, and by whom the prizes of the profession would naturally tend to be filled.

The opposition to registration comes from certain hospital committees—the employers of nurses—and from some matrons in the service of these committees, who have ranged themselves on the side of their employers. It is unnecessary to point out that the interests of employer and employed are not always identical, and both need safeguarding. There is also considerable prejudice in the minds of hospital committees against any proposals which would establish a central Board, and thus diminish the independence of their nurse-training schools.

At present the training schools have absolute power to regulate the hours of work and the conditions of labour of their employés. In some hospitals the position of the probationer is inferior to that of the domestic servant, who at any rate is entitled to a month's notice. Neither have women who enter the training schools any guarantee at present that they will receive a thorough training in return for the three years' service to which in most cases they bind themselves on the understanding that they will receive an efficient training.

These training schools are at the present time a law to themselves. There is no minimum standard to which they must conform before they are entitled to rank as training schools, and, while some give due consideration to the interests of their pupils, others—as is only natural—consider their own convenience first.

As an efficient nursing service is a valuable "national asset," it is imperative that nurse-training schools should give proof of their qualifications before their recognition as education authorities. This is imperative in the interests of the nurses and of the public.

The list of signatories includes seven matrons of hospitals in London, six matrons of metropolitan Poor-law infirmaries, seven matrons of provincial hospitals, six matrons of provincial infirmaries, and thirty-eight honorary officers, vice-presidents, and others of the Society for the State Registration of Nurses.

Faith Healing.—Dr. Dowie, of faith-healing fame, appears to have gone far and fared worse. Failing in his New York campaign he has met with no greater success in Australia to which he repaired. He was very unfavourably received even on his first arrival, and it is now stated by the *Daily Chronicle* and other papers that owing to his speeches and the public irritation caused thereby, the Mayor of Adelaide has prohibited any further use by him of the town hall. A cheque also, which the "Zionist prophet" lodged in order to secure the use of the Exhibition building, has been returned to him

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A Meeting of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 20th day of April next, at 2 o'clock in the afternoon.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than 31st of May, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is expected to furnish to the Committee on or before 31st May following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Scientific Grants Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships which become vacant, of the value each of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

Guy Elliston, *General Secretary.*

429, Strand, March 25th, 1904.

BRANCH MEETINGS TO BE HELD.

Border Counties Branch: West Cumberland Division.—The annual general meeting of this Division will be held at Whitehaven on May 12th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. Mathews, 6, Scotch Street, Whitehaven, Honorary Secretary.

Birmingham Branch: West Bromwich Division.—A meeting of this Division will be held in the Board Room of the District Hospital, West Bromwich, on Wednesday, April 13th, at 4 p.m. Business:—General. Also the consideration of the following important questions: From Medico-Political Committee—Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. From Ethical Committee—The question of advertising of medical practitioners in connexion with hydropathic establishments. From the Council of the Association: Shall Medical Defence be undertaken by the Association: As a poll of the Division is asked for on the latter question, members who are unable to be present at the meeting should inform the Honorary Secretary as soon as possible on If it is their wish that the Association should take up Medical Defence as suggested whether they approve of the general principle and details of [illegible]

they are willing to join the Medical Defence Association. [illegible] Secretary, Agricultural and Commercial Bank, Bala. [illegible] Bala, and West Brownwich. Honorary Secretary.

EAST SUFFOLK AND NORTH ESSEX BRANCH.—The spring meeting of this Branch will be held at the White Hart Hotel, Manningtree, on Tuesday, April 12th. Programme of proceedings:—(1) Quarterly Meeting. (2) Communications and Intimations. (3) Intimation should be made to Dr. Salmon of intention to be present by Monday morning, April 11th. (4) Minutes of last meeting. (5) To receive and pass the Financial Rules for this Branch, copy circulated. (6) Resolution re Mr. Ballance. (7) Reporting Sessions for [illegible] New Members. (8) General business. (9) W. Alton Lieve, M.B., L.R.C.P. will read a paper on the Cure of [illegible]. T. H. Morse, F.R.C.S. (Norwich), will read a paper on Twenty-one Cases of Extrauterine Fetation [illegible] Operation, with special reference to Diagnosis and Results before Rupture. (10) Sidney Bree, M.B. Manningtree will show a specimen of thyroid adenoma, with [illegible] case. H. Mott Lays, M.D. (Lowestoft) will read a paper on a Rare Case of [illegible] Operation. Recovery. (11) [illegible] o'clock. After [illegible] by Kind Invitation of Dr. and Mrs. Bayne. Surgical instruments and [illegible] will be shown by Messrs. David Bree, E. B. Nicholson, [illegible] H. A. Ballance, Norwich, Johnson, Ipswich. Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH. SOUTH MANCHESTER DIVISION.—A meeting of this Division will be held at the Medical Society's Reading Room, Owens College, Manchester, on Tuesday, April 12th, at 4 p.m. Dr. C. Glascott will preside. Business: (1) Whether it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of advertising of medical practitioners in connexion with hydropathic establishments. (3) Scheme of Medical Defence. (4) General. F. H. Collins, M.D., Bridge House, Didsbury, Honorary Secretary.

SOUTH MIDLAND BRANCH. BEDFORDSHIRE HERTFORDSHIRE DIVISION.—The next meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3 p.m. Agenda.—Minutes of last annual meeting. Election of officers. Appointment of Finance Committee. Matters referred to the Division by the Central Council. (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of local practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently issued Year Book of the Association for the year 1904 and to point out and [illegible] dealing with the work and constitution of the Division. The Committee would urge upon members the importance of attending the meetings of the Division, and take pleasure in the work devolving upon the Division as the executive and committee of the Association, to which matters of great importance to the profession may be referred by individual members or by the Central Council of the Association, and upon the success which attends the general working of the Association as a whole must largely depend. The Committee invites members of the Division to communicate with the Honorary Secretary, S. J. Hoss, M.D., Mill Street, Bedford, Honorary Secretary.

SOUTH EASTERN BRANCH. FOLKESTONE DIVISION.—A meeting of this Division will be held at Hotel Wampach, Folkestone, on Friday, April 8th, at 7 p.m. Agenda: Confirmation of minutes of last meeting. To consider matters deferred from last meeting. Vaccination [illegible]. Medical Acts Amendment Bill, &c. BRITISH MEDICAL JOURNAL, September [illegible]. representation on General Medical Council. Resolutions of Meeting to consider a recommendation of the Local Committee at [illegible]. The question of [illegible] medical practitioners [illegible] to the Division [illegible] a recommendation to the Medical Political Committee. Whether it is desirable that medical witnesses engaged on each side in legal cases should meet in consultation. To consider the Medical Defence Scheme. [illegible] to the Medical Defence Committee of the Association. Appointment of Delegates of the Division to the Medical Defence Committee. Any other business. [illegible] Members of the Division are requested to bring with them any cases of interest in the [illegible] Medical Defence Association. Members of the Division are also

completely, as the presence of poison could sometimes only be ascertained by careful chemical examinations. Finally, the Committee decided (by eleven votes against seven) that no steps were to be taken to alter the existing state of things.

PARIS.

Société Médicale des Hôpitaux: Dr. Louis Martin on the Isolation of 2,745 Contagious Cases at the Pasteur Hospital.—Académie de Médecine: Dr. Kirmisson on Administration of Chloroform by Roth's Apparatus.—Restoration of Ancient Medical School.—Typhoid Fever Statistics.

At a recent meeting of the Société Médicale des Hôpitaux Dr. Louis Martin read an interesting paper on the isolation of contagious diseases as carried out at the new Pasteur Hospital. Since 1900 all kinds of contagious diseases have been treated in the same pavilion, but isolated in separate boxes. The hospital was originally intended for cases of diphtheria alone, but it was soon found impossible to treat continually 60 patients with the same disease. From October 1st, 1900, to April 19th, 1903, 2,000 patients were treated—that is, 443 diphtheria, 166 non-diphtherial anginas, 524 small-pox, 55 chicken-pox, 126 measles, 92 scarlet fever, 163 erysipelas, 20 abscess of the tonsil, 7 hydrophobia, 26 antirabic treatment, 7 preventive treatments for diphtheria; 192 mothers of sick children or children of sick mothers; 179 cases which do not come under any of the above heads. Dr. Martin then fully described all the measures taken from the time of admission of the patient to prevent contagion.

From April 17th, 1903, to the present date, 745 patients had been treated in the hospital, and out of this total of 2,745 cases, the cases of contagion had been less than 3 per 1,000, that is, 8 cases of contagion in all, 5 small-pox, 2 erysipelas, and one diphtheria. These cases have all been explained, and Dr. Martin hoped that in the future contagion will be avoided. Two convalescents from small-pox took erysipelas on the same day from insufficient disinfection of combs used by erysipelas patients which, still greasy, had been soaked in 1 in 1,000 solution of corrosive sublimate. The mortality statistics were for small-pox 18 per cent., instead of 24 per cent. for the same epidemic at the Aubervilliers Hospital; for diphtheria, 11 per cent.; for scarlet fever, 2.17 per cent.; for erysipelas, 6.75 per cent.; from measles there were 2 deaths only among 126 patients. Dr. Martin was of opinion that for the new fever hospital at Aubervilliers the principle of the Pasteur hospital should be accepted. One or two pavilions might be set apart for the prevailing epidemic and another pavilion for other diseases. A Pasteur pavilion should be added to new hospitals in Paris to avoid as much as possible the transport of serious cases to the fever hospitals. In each service there should be some isolated rooms for the isolation of doubtful cases of contagious disease and to allow the moribund to die quietly, instead of in the general ward. Dr. Martin thought that new hospitals should not have large wards, but rather wards for three, six, or twelve patients at most.

At the last meeting of the Académie de Medecine Dr. Kirmisson made a communication on the administration of chloroform associated with oxygen by means of the apparatus of Roth, which he considers a real progress in the use of chloroform. Since December 20th, 1902, 229 cases had been thus anaesthetized, all being children up to 15 years of age, the youngest being only 6 months old. The quantity of chloroform used was found to be 50 cg. a minute or 15 grammes for an operation of half-an-hour. The longer the operation the smaller was the proportional quantity of chloroform used. Anaesthesia by this means was always slower than by chloroform alone, requiring as a rule five or six minutes. The calm of the patient and the small amount of agitation in the initial stage were especially striking, the breathing and pulse were quiet, the face remained of a good colour, there was no tendency to syncope, and vomiting was very rare. The patient came round with surprising rapidity as soon as the administration was stopped. In some older patients of 14 or 15 years there was some agitation, due to the dose of oxygen being raised, improperly, to 4 litres a minute; in children, as a rule, 2 or 2½ litres were sufficient.

The Municipal Council of Paris has approved the plan of restoring the ancient Faculty of Medicine in the Rue de la Bûcherie, across the river from the cathedral of Notre Dame. The building will be considered as a historical monument.

The following table shows the course of the present epidemic of typhoid fever in Paris which is now decreasing:

	Cases Notified.	Deaths.
5th week (February 1st to 7th)		4
6th ,, (February 8th to 14th)	49	3
7th ,, (February 14th to 21st)	58	2
8th ,, (February 21st to 28th)	117	6
9th ,, (February 28th to March 5th)	188	17
10th ,, (March 6th to 12th)	147	14
11th ,, (March 13th to 19th)	151	15
12th ,, (March 20th to 26th)	1[illegible]	24

INDIA.

The Civil Department of the Indian Medical Service.—The Director-General.—Leishman-Donovan Bodies.

The question of increased pay for the civil branch of the Indian Medical Service has been referred to each of the local Governments for report, a process which will lead to very considerable delay, but it is hoped that it will be followed by a liberal scheme being ultimately sanctioned. In all fairness, too, the rates when finally brought into force should be made retrospective from the date when the military branch began to receive the enhanced rate of pay, for it would be manifestly unfair for the much harder-worked civil officers to suffer severe loss by a delay due to its not being possible to take up their case until the military rates had been gazetted. While this matter is receiving attention, certain anomalies in the pay of officers officiating in the civil department before obtaining permanent vacancies might very well be remedied. The most serious of these is the great difference between the pay of an officer, who has been fortunate enough to be gazetted to the permanent charge of a native regiment before entering the civil department, and that of his less fortunate brother officer who may have entered the civil branch just before he would have got the full pay of the regiment. Both these officers will be officiating in the civil department in the ordinary course of events for several years, and during the whole of this time the former will be drawing considerable more pay than the latter simply through pure luck. If the latter officer happens to be married he will be very hard put to live at all during the time he is officiating in civil on account of the numerous very expensive moves which he must necessarily experience, as he will usually be acting for some more senior officer who is on leave. This is by no means a very exceptional condition of affairs, as we have met with more than one instance recently of officers officiating in the civil department who could not pay their way from one station to another on transfer without assistance. Moreover, it is largely due to the very inadequate pay of junior officers in the civil branch that so many highly qualified men throw up after a short trial the civil branch and return to their regiments (on which they retain a lien for two years while officiating in civil) although in so doing they sacrifice their prospects of eventually obtaining a good position in the once lucrative civil employment, and thus for ever abandon the pursuit of the goal which they doubtless nearly all set before themselves when they entered the renowned and still much-sought-after Indian Medical Service.

The extension of office of the Director-General of the Indian Medical Service which has recently been granted to Surgeon-General Sir Benjamin Franklin is singularly well timed at the present crisis in the fortunes of the service over which he presides, as he has fully gained the confidence of his officers, and will now be able to see through the reforms which are under the consideration of the Government, especially as Surgeon-General Sir W. Hooper has retired from the India Office. The latter officer has also deserved well of the service by the able manner in which he has piloted through the reforms of the military branch, and he has earned his retirement by long and valuable services.

The parasite-like bodies found in the spleen in certain chronic fevers by Leishman and Donovan are attracting a great deal of attention in India. Dr. Bentley has wired home that he has found them in kala-azar cases. If this is confirmed it will be of great practical importance, as the well-known preventative and therapeutic measures which are of value in controlling that disease will be available for the more widely-distributed sporadic cases, although the discovery of a protozoal parasite, which differs somewhat from the malarial organisms, will not *per se* explain the origin of the Burdwan and Assam epidemics. A medical officer who is acquainted

with kala-azar has recently been placed on special duty to inquire into the mortality from fevers in the worst districts of North-Eastern Bengal, including the Kala-Dukh area, so more light may soon be thrown on the extent and distribution of the new organism. The differences of opinion as to its exact classification among high authorities leads one to think that there must be other forms of the organisms still to be discovered, and the progress of investigation will be watched with great interest.

BRISTOL.

Reports of the Royal Infirmary and General Hospital.

THE report of the Committee of the Royal Infirmary states that a serious crisis has to be faced in the affairs of the institution, and this crisis is, as might be expected, a financial one. It appears from the report that there has been for some years an increasing debt to the treasurer, and that now the indebtedness is little short of £16,000, to say nothing about the pressing needs of a new casualty department and the necessary repairs to the fabric. The Committee decided to appeal to the citizens for £20,000 to wipe off the debt and to increase their subscriptions in number and amount in the future. During the past year the income had been £11,041, but the expenditure had been £5,410 more. The number of patients had been 44,263—3,293 in-patients and 38,480 out-patients—the largest number in the last five years. The chairman, in moving the adoption of the report, referred to the proposed appeal, and stated that he had approached the Lord Mayor to receive a deputation from the Committee and had received a favourable reply. If the money was not forthcoming the institution would have to close some at least six of its wards, a serious matter which he hoped would not be necessary.

The report of the General Hospital also shows a state of financial affairs somewhat though not so unsatisfactory. The debt to the treasurer had risen last year from £1,803 to £3,825. This large increase was partly due to a remodelling of the lavatory accommodation, but the income fell short of the expenditure by £1,340. The number of in-patients treated during the year was 2,004, nearly 200 less than in 1902; this was accounted for by the necessary closing of wards during alterations. Out-patients numbered 31,994, an increase; the total number of patients being 34,188. At Avonmouth in connexion with the new dock works a small hospital was opened by Sir John Aird and Co., in which 87 in-patients and 2,343 out-patients had been treated, this institution being worked in conjunction with the General Hospital. The chief alterations made during the year were the lavatory accommodation and the fitting-up of a second operating theatre. In the speeches hints were thrown out that an appeal to the public to wipe out the debt would have to be made, but, taking into consideration the intended action of the infirmary, this will probably be postponed.

In comparing the reports of these two large Bristol institutions, one or two interesting facts can be observed. The infirmary received £386 less than the hospital, and has a debt of £12,000 more; the infirmary treats about 10,000 more patients in the year than the hospital, which no doubt accounts for the big deficit.

CORRESPONDENCE.

THE HOLMAN TESTIMONIAL FUND.

SIR,—As Treasurer and Secretary of the Holman Testimonial Fund we ask your insertion of the following circular and first list of subscribers. It is very rare in our own profession or in any other that so complete a career of public work and effort in the cause of charity can be found. In disregard of personal interest Dr. Holman has for the last fifty years taken more than his share, as a worthy successor to the Martons of Reigate, of the labour of love which builds up our medical charities. As founder and secretary of the South Eastern Branch, and as Treasurer of the British Medical Association, he has advanced the progress of the Association and improved its finances; while as Treasurer for twenty years of Epsom College he has fathered it and tided it over many difficulties, until it is now recognized as a great public school with a greater future before it. It seems a worthy object to do something to mark time in such a career.

In the Church of St. Maria Antiqua, in the Roman Forum are pictures of Popes with square and rounded nimbi. The square nimbus is the mark of a living Pope, and such a one would we place on the head of our friend, whom we desire to honour while living, and would do so in the manner most congenial to himself in some help to Epsom College associated with his name. We are sure that those most intimate with his work will be our helpers in this aim, which we trust will lose no supporters from any inadequacy on the part of its promoters. We are, etc.,

JOHN H. GALTON, M.D.Lond., Treasurer.
W. A. BERRIDGE, Secretary.

April 4th.

Copy of Circular Letter.

HOLMAN TESTIMONIAL FUND.

For the last fifty years the name of Constantine Holman has been prominent in all the public work of the profession. As Treasurer and Vice-President of the British Medical Association, Vice-President of the British Medical Benevolent Fund, President of the Surrey Benevolent Medical Society, Treasurer and Vice-President of Epsom College (for which he has collected over £7,000 by his personal efforts), Member of Committee of the Royal Asylum of St. Anne's, he has rendered signal services to his profession and the cause of charity. So great have been these services that it is thought desirable by his friends and colleagues that some record of their appreciation should be set down. It is proposed to devote the proceeds of this testimonial to the erection of an Art and Reading Room at Epsom College, to be called the "Holman Art and Reading Room."

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E., Treasurer.

Communications to be addressed to Mr. W. A. Berridge, Oakfield, Redhill, Secretary.

The following is the first list of subscribers:

	£	s.	d.
Lord Rosebery, President of Epsom College	5	5	0
Sir Wm. Church, Bart., President, Royal College of Physicians	2	2	0
W. Tweedy, F.R.C.S., President Royal College of Surgeons	1	1	0
J. C. Thorowgood, M.D., Member of Court of Assistants, Apothecaries Society	0	10	6
F. de Havilland Hall, M.D., President Medical Society of London	2	2	0
T. D. Griffiths, M.D., President, B.M.A.	5	5	0
Andrew Clark, F.R.C.S., Chairman Council, B.M.A.	1	1	0
E. Markham Skerritt, M.D., Treasurer, B.M.A.	1	1	0
W. A. Elliston, M.D., Past-President, B.M.A.	1	1	0
Mr. A. A. Napper, President, S.E. Branch, B.M.A.	3	3	0
Mr. T. J. Verrall, Secretary, S.E. Branch, B.M.A.	2	2	0
Mr. J. Sidney Turner, J.P., Chairman, Norwood Division, B.M.A.	2	2	0
J. Walters, M.B., J.P., Chairman, Reigate Division, B.M.A.	2	2	0
P. T. Duncan, M.D., Chairman, Croydon Division, B.M.A.	1	1	0
J. Rand, F.R.C.S., Representative, Norwood Division, B.M.A.	2	2	0
Mr. H. J. Prangley, Secretary, Norwood Division, B.M.A.	2	2	0
Mr. W. A. Berridge, Secretary, Reigate Division, B.M.A.	2	2	0
Mr. C. R. W. Parkinson, Member of Council, B.M.A.	1	1	0
Dr. R. J. Tyson, M.D., Member of Council, B.M.A.	2	2	0
Editor, BRITISH MEDICAL JOURNAL	1	1	0
Sir William Broadbent, Bart., President British Medical Benevolent Fund	10	10	0
Sir Joseph Fayrer, Bart., President, Council Epsom College	5	5	0
Rev. W. Northey, Vice-President Council Epsom College	2	2	0
Rev. Hart Smith-Pearse, M.D., Head Master, Epsom College	1	1	0
Dr. F. Needham, M.D., Member Council, Epsom College	1	1	0
Mr. W. Herbert Page, M.C., Member Council, Epsom College	3	3	0
Mr. A. W. Propert, Member Council, Epsom College	1	1	0
Proprietors of the [illegible]	5	5	0
Dr. T. E. Ada, J.P.	1	1	0
A. Goadby, M.B.	1	1	0
Mr. E. R. Law	0	5	0
Mr. J. N. Waite	1	1	0
John H. Galton, M.D., Vice-President, Epsom College	10	10	0

REPORT ON THE POOR LAW MEDICAL SYSTEM IN IRELAND WITH SPECIAL REFERENCE TO THE DISPENSARY MEDICAL SERVICE.

SIR,—At a meeting of the members of the Irish Medical Association, residing in Downpatrick Union, held at the Dispensary here to-day, the following resolution was proposed by Dr. McComiskey, seconded by Dr. Parkinson Cumine and passed unanimously, and I was directed to forward it to Surgeon-General Evatt, C.B., through your office.

"That the meeting of members of the Irish Medical Association residing in Downpatrick Union desire to express our thanks and sense of the great services rendered to the cause of the Irish poor law officers generally by the report of the recent special commissioner sent over to investigate personally by the British Medical Association and one in whom

t British public must place perfect confidence from his position,
ity, and lengthened experience in many lands
am, etc.,

Wybrants Olpherts,
Hon. Sec. North Down Branch, Irish Medical Association,
and Ex Vice President and Down County Councillor,
Irish Medical Association.

Bangor, April 1st.

Sir,—At a meeting of the County Donegal Branch of the
sh Medical Association, held in Lifford, March 30th,
was proposed by Dr. Johnston, seconded by Dr. Boyd, and
rried unanimously:
That this Branch begs to tender to the British Medical Association
d the Editor of the British Medical Journal its warmest thanks
the very valuable report on the Poor-law medical system in Ireland
pearing as a Supplement of the British Medical Journal of March
h, 1904.

I am, etc.,
April 4th. W. J. Weir,
Honorary Secretary.

MEDICAL WITNESSES' FEES.

Sir,—Referring to the annotation in the British Medical
Journal, April 2nd, p. 795, kindly allow me to state that I
ave procured a number of copies of the paper referred to
om Messrs. Eyre and Spottiswoode, and shall have much
easure in sending a copy in a sealed envelope to any
ember of the United Kingdom Police Surgeons' Association,
any medical practitioner who may wish to have on receipt
a letter with two penny stamps enclosed. It is most impor-
nt that all medical witnesses should not only insist upon
eing paid the increased fees and allowances to which they
e entitled for attending police sessions and assize courts,
ut also for making examination in sexual cases. These
xaminations are important and responsible as well as being
xtremely repulsive.

The fee of one guinea recommended by the Departmental
ommittee of the Home Office, 1902, is not excessive for the
xamination of a female; still less so if it involves the micro-
copic and chemical examination of stains on linen, etc.
With regard to the examination of males, it appears to have
scaped the notice of Mr. Akers Douglas that the law officers
f the Crown advised one of his predecessors that it was ex-
edient that a medical examination of prisoners charged with
uch offences as rape should be made.

Such examinations are therefore duties performed under
he orders of the Secretary of State for the Home Department
nd those who make them may fairly look to him for pay-
ment.—I am, etc.,

Fred. W. Lowndes,
Honorary Secretary, United Kingdom Police Surgeons'
Association.

Liverpool, April 3rd.

THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—I am sorry Dr. Messiter found my letter too long and
iffuse to answer in detail. I would merely say that its
ength and its only claim to the notice of the President of the
Medical Defence Union were due to the fact that it was an
ttempt to criticize point by point the circular of the Union.
Some of the criticisms are still unanswered.

I am a loyal member of the Union and yield to no man in
my admiration of its work, having as an officer of a local
medical organization benefited considerably by its advice and
assistance in time of need. My criticism of the position
taken up by the Council of the Union is actuated by the con-
viction that the whole of the profession is greater than any
part, even such an important part as the Medical Defence
Union. I am also constitutionally unable to see that what
has been done by some men under the name of the Medical
Defence Union should not be done by similar or the same
men under the name of the British Medical Association.
It seems to me that the main duty of the Council of the
Union lies in making sure that there is no fear of the work of
the Union being neglected. The name does not seem to me
to matter. The position of the British Medical Association,
as by far the largest and most important medical organiza-
tion, is a sufficient guarantee that if defence work is taken up
it will be done well.

I frankly admit that the qualms expressed about the
position of the man who will not become a member of the
British Medical Association do not worry me a bit. I know
that man only too well. When his reason for abstaining is
not some small personal one it will generally be found that
he belongs to that numerous class which is only too pleased
to take the benefits while other men fight and subscribe for
them. If the two great defence associations for the sake of
the greater efficiency of medical organization resolved to
throw in their lot with the British Medical Association, the
outside gentleman would have to reconsider his position, for
it would hardly be worth while starting a new society for his
sake.

I am quite agreed with Drs. Greenwood and Wolstenholme
in being disappointed that the scheme does not propose to
cover every member of the Association. It is plain to me
that the Committee is also disappointed, but they had to
deal with hard facts, and so must we. The Association has
just gone through a critical period, when it was necessary
amongst other changes to raise the subscription, and prac-
tical men naturally no not wish to unsettle the members so
soon by another compulsory rise. Under the circumstances
they wisely I think desire to introduce the new department
gradually, and by accustoming members to it pave the way
for the inclusive scheme we would all like. The closeness of
the connexion between the new department and the Associa-
tion is a matter of opinion. To me it is good enough to have
the executive for the defence department elected in the same
democratic way as the other no less important committees
are, and I believe that in a very few years there would be
few members of the Association outside the defence depart-
ment, thus obtaining by a slower method the end Drs.
Wolstenholme, Greenwood, myself, and many others would
prefer to see aimed at directly.

I do not wish to follow Drs. Fothergill and Greenwood in
their criticisms of the scheme. The whole is open to amend-
ment by the Divisions and must come before the Representa-
tive Meeting. What I am concerned about at present is to
point out that this scheme of defence is only another step
towards the realization of that all-sufficing organization
the profession needs so badly. Any one who ignores this,
either with a desire to preserve some useful but comparatively
unimportant society, or by fixing his eye on minor
details, misses the crux of the whole matter.

There is a sentence in Dr. Messiter's letter which will be
painfully familiar to those who have realized the mission of
the British Medical Association and who have been actively
engaged in organizing the Divisions and canvassing for
members. He says:

> The Association after many years' sleep . . . . suddenly presents a pistol at the head of other societies which have been doing excellent work and invites them to commit the "happy dispatch."

The simile is not a happy one when one considers the way
in which the susceptibilities of the existing defence societies
have been studied. Their representatives sat on the Com-
mittee and gave advice which was freely used and gratefully
acknowledged, and in the report an invitation is extended to
them to merge themselves, for the greater good of the profes-
sion, in the largest and most important organization of that
profession. Judging by the report of the meeting of the
London and Counties Society, that body is not aware of the
existence of the firearm which Dr. Messiter sees aimed at
the Union. Surely this terrible anxiety for the continued
existence of a Society is a misapprehension of the whole
business. Sectional societies, when convinced that their work
is to be carried on at least as well as they are doing it, and
with a prospect of greater usefulness, should sink themselves
for the common good. If the British Medical Association is
to become the great national organization of the profession,
embracing every reputable member of the profession, it must
include in its benefits medical defence. The British Medical
Association can include defence as well as all its other
benefits, while there is not even a suggestion that the defence
societies propose to include the other things. Therefore, for
the sake of simplicity and concentration, the smaller societies
should join forces with the greater.—I am, etc.,

Gateshead-on-Tyne, April 4th. Alfred Cox.

Sir,—The circular of the Council of the Medical Defence
Union protesting against the proposal that the British
Medical Association shall take up the duties of medical
defence is much to be regretted. In the 1896 agitation, which
successfully brought the question before the members, those
who were urging the Association to take these duties up re-
ceived the active support and sympathy of many of the
officials of the Medical Defence Union. It was strongly felt
that the multiplicity of medical defence societies was a
source of weakness, and that their competition and rivalry
was unseemly. It was thought that the medical profession
would gain by an amalgamation of the existing defence
societies under the aegis of the Association. The societies
were considered to exist for the benefit of the medical

profession, and, as they were merely a means to an end, there could be no advantage in maintaining any or all of them, provided that the work for which they were formed could be more efficiently carried out by another body. This is the only clear-headed way of regarding this question of medical defence, and it will be a grave mistake if, by falling victims to the common illusion of mistaking the means for the end, we allow our judgement to be one warped by any sentimental consideration for the existence of any one of the defence unions.

In the history of most societies formed to advocate a cause there comes a time when enthusiasm for the object gives place to regard for corporate existence, and officials then seem to regard the interests of the Society as more sacred than the cause for which it was created. Judging by the circular just issued the Medical Defence Union has reached this stage of fossilization.

We all recognize the good work which has been done by the existing defence societies, and those who are anxious to see the Association undertaking the duties of medical defence have not, as Dr. Messiter suggests, ceased to have confidence in the societies or their Councils. They believe that the work which has been well done up to the present can be still done better when the Association absorbs the various defence societies which weaken one another by suicidal competition. As these societies are not commercial ventures competition is neither healthful nor desirable, but as they are founded to promote union and to defend our interests competition between them is absolutely hurtful. The idea that this movement—with which every sensible man must sympathize, as its aim is to put an end to this competition—can be in any way comparable to an attempt to form a monopoly on the lines of an American trust or combine can only arise either from a complete misapprehension of the subject or from officialism running amok.

It is much to be regretted that the Council of the Medical Defence Union has seen fit to expend the money of the Union in sending out a circular the only result of which will be to cause division and strife among us and to play into the hands of our enemies.

It is to be hoped that no one will be led astray and that all will heartily support the attempt of the Association to realize the resolutions passed in 1896. Many among us, including myself, are strongly in favour of a compulsory scheme of medical defence, but difficulties are in the way and it is better to have half a loaf than no bread. If the optional scheme is realized and works well there will be no great difficulty in making it embrace all the members of the Association, if at any time it is thought desirable to do so; but if, because we cannot have the whole we rejeet the part, the scheme may be shelved for years and one of the rare golden opportunities to raise the medical profession from the mire will have passed, perhaps for ever. I am, etc.,

Hendon, April 2nd. A. C. Wellsford.

Sir,—It appears to me that the majority of the members are with the minority of the Committee; for I think the majority of the Medical Defence Committee failed to realize the want of the Association as shown by special resolutions passed at Birmingham and confirmed at Carlisle.

I take it that we should be so contented, therefore medical defence should be compulsory, and being compulsory the subscription should be small, say 5s. This was in our minds when the subscription was limited to 5s. Article VIII.

I am quite sure it is possible, by experience of associations and unions to see that there is a tendency of the official staff to live up to their income. Moreover checks and limitations could be arranged by rules being passed by the Ethical Committee of the Division attorney finally taking its own responsibility subject to the Central Committee of Defence, which would have to report to the Representative Meeting. Thus in all cases the expenses would not exceed the income derived from the increased subscription, especially as there would be an increase of members attracted by the tangible advantage offered. Again, [illegible] the ordinary members the first call on the accumulating surplus funds of the Association, and [illegible] they be better employed than in the furtherance of the honour and interests of the medical profession?

I quite agree with the contentions of Drs. Arthur Pitt and Wolstenholme even to the latter's objective appeal to the scheme, for medicine being "gutta-percha" the scheme is unwieldy and impotent as it is. Finally let I am etc.,

Nottingham, April 4th. Wm. [illegible]

Sir,—The President of the Medical Defence Union, in the letter he has sent you, and which you published on page 80 of the British Medical Journal, says:

"[illegible] have more to say about [illegible] but [illegible] [illegible] by unscrupulous [illegible] [illegible] law [illegible] [illegible] [illegible]

ments attached thereto: and as that Council has omitted the result of its deliberations on so important a matter from its recently-printed minutes of the November meeting, I have to request that you will give this correspondence the publicity it deserves.—I am, etc.,

London, April 4th. S. Wesley Wilson.

P.S. The revision and reduction referred to consisted in the General Council limiting the travelling expenses of its members "to their actual outlay together with one guinea for incidental expenses to and from London"!

MEDICAL EXAMINATION OF SCHOOL CHILDREN.

Sir,—There can be no doubt of the desirability of regular medical examination of all school children, but it will probably be a long time before education authorities in general adopt this measure. Meanwhile there is a step in the same direction which would have a much better chance of speedy adoption, because its advantages are more obvious to the lay mind and its expense less.

The proposal is simply this: that, before any scholarship can be held, the winner must satisfactorily pass a medical examination. The examiner should be appointed by and responsible to the authorities of the school where the scholarship is to be held. He should report not only on the soundness of the lungs, heart, etc., but also on the condition of the special senses, the throat, the teeth, and the general development. He must have—though he will very seldom need—the power to reject on account of grave organic disease, but it is equally important that he should have and use the power to postpone the holding of the scholarship. Many conditions—such as errors of refraction, adenoids, extensive caries of the teeth, defective chest development, anaemia, etc.—can be corrected by appropriate treatment in a few weeks or months, but the candidate ought not to be passed till they have been corrected.

May I point out some of the advantages of this plan?

1. It must be obvious to all that it is a misuse of public funds to give special facilities for higher education to those who are physically unfit to profit by them.

2. When once this regulation is thoroughly understood it will benefit not only those who gain scholarships, but also all who try for them. Ambitious parents and teachers will be forced to realize a truth too often ignored that success in examinations is too dearly bought at the cost of a weakly and stunted body.

3. Since the most influential people are in general those who have the best brains and the best opportunities of cultivating them, it is very desirable in the interests of the national physique to secure that those persons should have and should appreciate healthy bodies.

The Education Department has for many years required a certificate of physical soundness for all pupil teachers. This is a recognition of the same principle, but does not go far enough. The examination ought to be as careful and impartial as in a case of life insurance, and it is not fair to put the onus of rejection on the family doctor. Recognizing this, the larger School Boards appointed their own medical officers for the purpose, but the fees they paid were often inadequate.

It is, perhaps, in the lower grades of education that the need for such a regulation is most apparent, but I think there would be many advantages in applying it to all scholarships in schools of all grades.—I am, etc.,

Helen M. Wilson, M.D.Lond.,
Medical Examiner, Sheffield High School for Girls, and formerly
April 4th. to the Sheffield School Board.

THE DIMINISHING BIRTH-RATE.

Sir,—Your correspondent "Hampstead" is undoubtedly right when he opines that the diminished birth-rate, in the upper middle-class particularly, is chiefly the result of economic considerations, which lead to the limitation of families by "Malthusian methods." One knows of numberless families in which the number of children is limited to one or two, where in the natural course seven or eight might have been expected. These practices seem to be extending, and are likely to become more effective still in causing a diminution of the physically best. Mr. Roosevelt, President of the United States, in his book upon *The Strenuous Life*, of course alludes to this, when he conjures the American woman not to shirk motherhood. The thing has also been for a long time operative in France, and even in some of our colonies is preventing a natural increase of population.

It may be the fecundity of the human race varies a little as between one time and another, but there is always an immense unused potentiality for increase, which can at any time be brought into play at the will of the people, and national or patriotic sentiment would perhaps be sufficient stimulus to bring it into play if it looked as if our numbers were undergoing a rapid decline.

The pity is that the increase of our population is to so large an extent of the worst class. Of the higher classes it may be truly said that they are constantly undergoing decrease, and would soon die out but for recruits from the lower ranks.

The latter part of "Hampstead's" letter suggests a selfishness and poorness of spirit in the class he represents, which is pitiable to contemplate. He claims education, and the refined ways of thought and living which accompany it, as the birthright of the sons of his class, and laments that the new education legislation has robbed these sons of their patrimony by bringing the coachman's sons into competition with them. I suggest to "Hampstead" that free competition is requisite as a means of improvement, and that if his coachman's sons prove themselves more competent than the sons of professional men to occupy places in the higher professions, it would be unfortunate if they were not able to occupy them. Coachmen and cab drivers will still be required, so that there will be places vacant. I have heard of several university graduates and other "gentlemen" taking to the cab-driving profession, and the born cab drivers seem to receive them into the "ranks" without complaint of the increase of competition they cause there.

But in all seriousness, is it not one of the most gratifying and satisfactory things a man can experience in life, to have several children, who being morally and physically well developed, may live good and useful lives in any sphere. In comparison with this broader consideration—the grand legacy he thus leaves his country, what is the value, and what the satisfaction of the artificialities and pretences of the genteel existence, for which so much is sacrificed. Surely a good man is better than a bad gentleman, and the sooner we recognize this fact, the sooner we shall be able to compete with the Germans, and the Americans, that "Hampstead" affects to hold in such light esteem, and who are laughing at him in their turn, whilst accomplishing great things.—I am, etc.,

April 4th. Cheltenham.

Sir,—In my opinion the diminishing birth-rate is due in a very large measure to the unblushing, wholesale, and systematic practice of inducing abortion.

The following cases, occurring in my practice during the short period of two months, will bear out my statement:

Mrs. A.—Last child eight months ago. Comes for treatment for metrorrhagia following on three months' amenorrhoea and sickness. States with engaging candour that she took "hickery-pikery" powder one month ago to induce abortion, but without result beyond severe purging.

Mrs. B.—Youngest child aged 18 months; anaemic and thin. During treatment for severe attack of myositis of the trapezius incidentally mentions that she considers herself pregnant, is much worried about it, and meant to come and see what I could do for her as she strongly objects to a further increase in the family.

Mrs. C. Last child 18 months ago. Requests me to cure amenorrhoea, which is causing her much anxiety. She has recently nursed her baby through a six weeks' illness, has had influenza herself, and is in very poor condition—so much so that she would rather "take poison than go through another confinement so soon.

Mrs. D.—Last child 18 months ago. Amenorrhoea six weeks. Now suffering from metrorrhagia and diarrhoea. Admits taking something that brought on uterine haemorrhage, griped and purged her severely, and made her feel so ill that she had to get medical advice.

These cases speak for themselves. They are not accounted for by the "higher civilization," "excessive muscular exercise," and the many other theories of a diminishing birth-rate. The whole thing is explained in two words—namely, criminal abortion.—I am, etc.,

April 4th. N. P. P.

Sir,—Many theories have been advanced in this correspondence, but one condition, which I think has a great deal to do with the above, is not mentioned. I allude to dysmenorrhoea, or, more strictly speaking, the causes of it. From my own experience a large percentage of married and unfertile women suffer from it, and the unfertility is not due to any "prevention" method but to the condition which causes the dysmenorrhoea, which appears to be on the increase. I think this is worth the attention of specialists. I am, etc.,

April 4th. Veritas.

THE BIOLOGICAL SIGNIFICANCE OF MALIGNANT GROWTHS.

SIR,—I trust you will pardon me calling attention to a paragraph in the BRITISH MEDICAL JOURNAL of April 2nd, page 860, in which it is stated that Professor Bretland Farmer claims for himself and Mr. J. L. S. Moore the discovery of the biological relationship of malignant to normal cells. It is at least three years since I pointed out this fact, and a reference to my book *Cancer, its Causation and Curability without Operation*, pages 18 and 19, will demonstrate this. This book was published in January, 1903, but in a paper I read on the subject at Cairo, December, 1902, I made the following remarks:

Were cancer due either to a parasite or a microbe would we find it unilateral as it almost invariably is in the first instance, and would it not be invariably accompanied by a rise of temperature which the presence of a latent germ or parasite embedded in the tissues would naturally produce in consequence of the amount of irritation they would excite.

It may be considered a bold and sweeping assertion when I state that I am convinced that cancer or rather the elements of cancer are present in every individual whether it manifests its presence or not. My reason for making this statement is because I believe the cancer entity is simply a normal state a normal cell, which, from a combination of circumstances, has become altered in character, and assumed a new role of existence. It thus loses its benign attributes, and ceases to perform its functions in harmony with its surroundings, becomes aggressive and parasitical in its proclivities, prostrating and then preying upon its neighbours. In doing so, it procreates its species at an alarming rate of rapidity, and by its contact with the neighbouring tissues, saps their vitality and then destroys them when their power of resistance is thus reduced. The physiological condition of these normal cells is displaced by a pathological activity, terrible in its results. Speedily the disease process is conveyed by means of the lymphatics to distant organs, each of which becomes a new centre, from which the mischief radiates.

At Madrid I also read a paper on the subject, of which the following is an extract:

Il peut être considéré comme hardi de ma part de dire que je suis convaincu que le cancer ou plutôt ses éléments existent l'état latent dans chaque individu, soit qu'ils manifestent leur présence ou non. Je fais cette affirmation parce que je crois que le cancer dans son état primitif est une cellule normale laquelle par suite d'une combinaison de circonstances change de caractère et prend un nouveau rôle biologique. En effet elle perd son caractère physiologique, et cesse d'accomplir ses fonctions en commun avec ses voisines, elle devient agressive et cannibale plus dévoreuse de ses voisines. En agissant de la sorte la cellule se multiplie très rapidement et par son contact avec les tissus environnants, diminue leur vitalité et finalement les détruit, quand leur pouvoir de résistance a diminué. La fonction physiologique de ces cellules est remplacée alors par une activité pathologique terrible dans ses résultats. Très rapidement le processus de la maladie est transporté au loin par les vaisseaux lymphatiques allant à d'autres organes qui deviennent chacun un nouveau centre d'infection.

I fear, therefore, Professor Farmer has not been cognizant of the investigations I have made prior to his. At the same time I cannot but express the gratification I feel that he has independently arrived at the same conclusions. I am, etc.,

Glasgow, April 3rd. ROBERT BELL.

A CASE WITH A MORAL—AND A SEQUEL.

SIR,—Some years ago, when house surgeon at a general hospital, I had among the in-patients a man, age about 60, suffering from diffuse cellulitis of the throat and neck. Notwithstanding that all the usual remedies had been tried, including free incisions, the unfortunate patient went from bad to worse, until at last his life was threatened from suffocation. The honorary surgeon, under whose care he was, suggested that, should his condition become more critical in the night, I might as a last resort perform tracheotomy.

At one o'clock a nurse came to my room to say "the man had passed a bad night." Having prepared a tracheotomy case I at once set off to the ward where my patient lay, and sure enough he was in all appearance dead—respiration had ceased, there was no pulse. I placed my ear over his heart, but there was no sound. Without further delay I cut down on the trachea, inserted the tube, and with the assistance of two nurses commenced artificial respiration. Our efforts were soon rewarded by hearing a faint wheeze of inspiration, the first flicker of returning animation. This stimulated us to increase our exertions, until, little by little, the man who "was dead" breathed again.

I remained with my patient the greater part of the night, and finally, having made all arrangements for his further treatment, left him in charge of two nurses.

The first visit of my usual morning round was to my tracheotomy case, who I was pleased to find had made most satisfactory progress. All the urgent symptoms were relieved, and he seemed in a fair way to recovery.

This brings me to the main point of my notes and my excuse for writing them.

It being now time to change the night nurses, I was anxious to place my patient in charge of a competent nurse, so canvassed the staff to find one who had experience in tracheotomy. One volunteered her services, saying she had nursed similar cases at a large general hospital from which she had come to us only a short time before. I placed her in charge, and gave her, as I thought, all necessary instructions as to his treatment during the day. In the afternoon I received a message to say that the tracheotomy patient was not so well, and that the fluids given him returned through the tube. I was at a loss to account for this, and thought that possibly in my haste to operate I might have wounded the oesophagus. On visiting my patient I found a great change in him since I left him only a few hours before: he now had all the appearances of one labouring under great respiratory distress. I asked the nurse to give him a little milk, so that I might see for myself the cause of this new and altogether unexpected development. She took up a feeding-cup and proceeded to pour the contents not into his mouth, but, to my horror, down the tracheotomy tube!

I am induced to send you these notes in the hope that others may profit by my experience, and when entrusting serious cases even to that very excellent institution, the trained nurse, to keep in mind the old proverb that "a little knowledge is a dangerous thing."

While on this somewhat extraordinary case, the sequel may also be of interest to your readers as an example of how a medical man may be the victim of the ubiquitous reporter. At the time my patient was supposed to have died his son was with him. When I went into the ward and was about to perform tracheotomy I requested him to leave, which he did. On his return he was naturally surprised to find that his father was not "dead" after all.

Next evening one of the staff came thundering into the hospital with a local newspaper, containing a sensational article headed with heavy type, "Extraordinary case at the hospital: a dead man brought to life," and wanted to know how it was that I allowed such "stuff" to get into the papers and bring the hospital into ridicule. I professed my innocence, and assured the irate senior that I gave no such report to the press.

The explanation of the matter was: The son going into the town next day got talking of the proceedings of the night, and getting into the hands of the reporters told them his story; it got its finishing touches from them, and was then served to the public in its sensational form.—I am, etc.,

March 3rd. LATE HOUSE-SURGEON.

THE METRIC SYSTEM IN PRESCRIBING.

SIR,—Some years ago a friend of mine at Geneva was slowly drugged to death by a chemist's assistant putting ten times as much arsenic into a tonic as the prescriber intended. Though the assistant was accustomed to the metric system from boyhood, he made the simple mistake of displacing the decimal point one place.

Who would mistake ℥x for ʒj ℥xl? But how easy to mistake 0·02 g. for 0·02 g., especially with the caligraphy chemists usually have to contend with. The system is only safe where doctors do their own dispensing. How are students to be expected to remember their "doses"? Vulgar fractions present a definite picture to their mind, but not so decimals. One may remember that the dose of ext. opii is gr. ¼ to gr. j, but 0·015 g. to 0·06 g. is as difficult to call to mind as an address in New York.

In all countries where the metric system is legalized, the old measures are still used by the bulk of the people.—I am, etc.,

Eastbourne, April 4th. HAROLD WHICHELLO.

THE FEEDING OF INFANTS.

SIR,—The admirable papers of your Commissioner and the letters of your correspondents have greatly enlightened us upon faulty infant feeding and physical deterioration, but I venture to state that sufficient stress has not been laid upon the causes of these. They are twofold—the general neglect of maternal nursing and, in our slum population at all events, the absence of fresh food in the diet of children.

Most English mothers are unwilling or unable to suckle their children, or they cease to do so before they are many

weeks old. The organic phosphates and other complex organic constituents of human milk cannot be obtained from other sources without great difficulty, yet they are all important in the formation and development of bone and nerve. Cow's milk at its best is not easily digested by infants, but as delivered at our homes it is often putrescent, and if we sterilize it we decompose the important organic constituents to which I have referred. Indeed, it is common knowledge that children fed on boiled milk sometimes develop scurvy.

During the last twelve months I have weighed, measured, and examined upwards of 4,000 school children, most of them living in the slum district of our city. Not only are the majority of British slum children rickety, but they are also tainted with scurvy. They are stale, they live on stale food, chiefly garbage.

During the same period I have weighed, measured, and examined upwards of 1,000 Jewish children born and bred in the same slum district. They are free from the taint of scurvy, and are superior in physical development. And why? Because most Jewish mothers suckle their children for twelve months and feed them on fresh and suitable food when they are weaned.

I am at present giving breakfast and dinner on school days to 100 slum children, and their diet is arranged on antiscorbutic principles, and includes limejuice.

There is plenty of evidence that improper food is more injurious to the wellbeing of children who survive their infancy than city life and overcrowding, and I submit that we should strenuously oppose the present wide tendency of mothers to avoid nursing infants at the breast, and that we should publicly and persistently agitate that some of the £30,000,000 now annually spent upon the mental culture of our school children be devoted to their physical development.—I am, etc.,

Headingley, Leeds, March 26th. WILLIAM HALL.

SIR,—In the home modification of milk for infant feeding we must without doubt be content with approximate rather than exact results as regards the percentage composition of the milk mixture. This should not prevent us doing the best we can with the materials at our disposal, and endeavouring to provide the infants of this country with a food that resembles as close as may be "good mother's milk," and not leave the control to mothers and nurses with the probable haphazard result of two of water and one of milk with a little sugar.

The necessity of the profession exercising control over infant feeding is continually before us—rickets, scurvy rickets, and parascorbutic symptoms, in the children of the rich caused by being fed on sterilized and humanized milk, in the children of the middle classes from cheaper but much advertised patent infants' foods, and among the poor from fresh or condensed machine-skimmed milk.

From my investigations in this subject, I find that provided cream is bought from a good dairy it will, taken all the year round, contain from 45 to 48 per cent. of fat, and that milk under similar conditions contains proteid 3.4, sugar 4 5, and fat 3 5 per cent. With these figures before one it is not difficult to instruct the mother or nurse as to a suitable milk mixture for a child of a given age.

In Dr. Cautley's letter of March 28th it is not clear whether the sugar is measured by weight or by volume when making the 5 per cent. sugar solution. If by volume, the amount of sugar by weight will be considerably more in the case of cane sugar than when milk sugar is used; in either case the amount by volume will be less than the amount by weight, the same figure being used. It is of importance to have regard, when prescribing milk mixtures, to the measurement by weight or volume, or more than minute errors will appear in the percentage results. I do not follow Dr. Cautley when he states that the sugar in the milk mixture is increased from 6 to 7 per cent. by the addition of a 5 per cent. sugar solution to top milk containing sugar 4.4.

The diminishing birth-rate, the high infantile mortality, together with the many pitfalls set by traders in infants' foods, all point to the necessity of the profession giving the greatest attention to the feeding of infants.—I am, etc.,

London, S.W., April 2nd. F. HERBERT ALDERSON, M.B.

VENTRIFIXATION OF THE UTERUS.

SIR,—Professor Sinclair, in his interesting paper published in the BRITISH MEDICAL JOURNAL of March 26th, does me the honour of referring to the description of the operation of ventral fixation contained in my work on *Diseases of Women*. The method of operation therein described, he says, is "faulty in every detail."

The differences between the operation as performed by Professor Sinclair and as described by me are too trivial for me to ask space to discuss them, except as to one thing; this is that Professor Sinclair stitches the uterus to the parietal peritoneum, while I advise stitching it to the muscle of the abdominal wall. There can be no question that adhesions between peritoneal surfaces are often absorbed. We know not yet how often or how quickly this happens, but there is no doubt that it does take place. Therefore I advise suture of the uterus to muscle, not to peritoneum. I predict that if Professor Sinclair will watch his cases long enough, he will find that in some, if not in all, the fixation is not permanent, and he will come to stitch the uterus to muscle, instead of to peritoneum.—I am, etc.,

London, W., March 29th. G. E. HELMAN.

SIR,—In the BRITISH MEDICAL JOURNAL of March 26th there is an article by Dr. Japp Sinclair on the above subject, in which he says:

> It was suggested, I believe, by Olshausen in 1886, when he fixed the uterus very slightly, as an incident in an operation undertaken owing to other indications than displacement.

I believe I was the first deliberately to open the abdomen for the purpose of doing ventrifixation of the uterus. This I did at the Hospital for Women in June, 1880, on a single woman, aged 30, with an abnormally large vagina, who was suffering from retroversion of the uterus with prolapsus. The result was good. I well remember a contemporary criticized the proceeding very severely, saying that, "although Dr. Smith claimed this as the first operation of its kind, they sincerely hoped it would be the last, as it was unjustifiable to open the abdomen for so trivial a malady"—or words to that effect; and now it is universally acknowledged as not only justifiable, but indicated.—I am, etc.,

London, W., March 29th. HEYWOOD SMITH.

THE FALLACY OF PROSTATECTOMY.

SIR,—Mr. Herring asks if I consider sepsis to be the most important indication for prostatectomy. I think that it is probably the most serious complication of prostatic enlargement, and that it is one of the most pressing indications for operation in some cases. But whereas Mr. Herring thinks that by avoiding sepsis all necessity for operation is done away with, I consider that this only removes one indication for operation.

Moreover, Mr. Herring considers that it is possible and practicable to avoid urinary infection in every case where self-catheterization must be practised, a result which I believe cannot be hoped for except in a limited number of cases.

The interesting case a description of which occupies two-thirds of Mr. Herring's letter of March 12th—does no more than prove that an infected bladder and urethra can be more or less satisfactorily disinfected, a fact which, I imagine, is sufficiently well known already. I fail to see that it proves either that every case can be so relieved, or that another breakdown may not occur through carelessness, etc.

The question of operative *versus* non-operative treatment of enlarged prostate is, however, too large to be discussed at all fully in the narrow limits of a few short letters which the pressure on your space alone permits, so that I must content myself with this short protest against the assertion that prostatectomy is seldom or never necessary or advisable.—I am, etc.,

London, W., March 26th. JOHN PARDOE.

STUDENTS' OUTDOOR OBSTETRIC PRACTICE.

SIR, In the EPITOME to the issue of the BRITISH MEDICAL JOURNAL of April 2nd, p. 54, a report is given of the result of the work of an outdoor maternity charity in the United States, the death-rate being 0.5 per cent., or 1 in 200. This is compared with similar maternities on the Continent, and the mortality is apparently regarded as exceptionally low. I venture to think that it would not be so regarded by those having charge of similar maternity departments in this country. In that connected with the Queen's Hospital, Birmingham, of which I have the honour to be in charge, 579 cases were attended last year, with one maternal death, and in the previous year 478 cases, without a death. The cases are attended in their own homes by students, as in the maternity first mentioned, a qualified house-surgeon super-

vising. Many of the homes are exceedingly poor, and I attribute the low death-rate mainly to the fact that the third stage is never hurried unnecessarily, and that the rules laid down for the students' guidance impress the necessity of a thorough cleansing of the hands with soap and water and perchloride before every vaginal examination, and the equal necessity of cleansing the vulva of the patient.—I am, etc.,

Rotherham, April 4th. C. E. Purslow, M.D., M.R.C.P.

PROPOSED STERILIZATION OF CERTAIN DEGENERATES.

Sir,—I am glad my above treatise has prompted so high an authority on mental diseases as Dr. C. Mercier to ask for a definition of a "degenerate."

I suggest that a mental degenerate is a person who has been, or is, or should be certified as such under the Lunacy Act or the Inebriates Acts. It is perhaps difficult to give an all-embracing definition—just as it is difficult to give a definition of a "lunatic." It would be better to define by means of a schedule, such including idiots, imbeciles, epileptics, lunatics, and feeble-minded. I would ask Dr. Mercier to note that I have only dealt with degenerates from the one standpoint—not of marriage but of impregnation and pregnancy.

May I take this opportunity of referring to two rather unpleasant circumstances connected with the publishing of the above treatise? A large number of correspondents have suggested that doctors should kill all degenerate infants, or those likely to be so. I take no objection to legal murder where a judge and jury take evidence and sentence a person to be hanged. So long as a country has advanced even so far as to allege that they are Christians and that they consider hanging a lawful method well and good; but if these Christians advocate that doctors shall sink to the level of South Sea Islanders and become murderers, then let them do their murdering by the usual judge and jury. Did we kill every existing degenerate, but left the causes of degeneration alone, as great a crop would spring up in a few years.

The second point I reluctantly refer to is—correspondents have suggested that those degenerates who marry should be supplied—whether by the State or by doctors they do not say—with means to prevent impregnation. Such a suggestion is, of course, absurd, as degenerates would not use such methods, the mental degenerates generally considering themselves quite healthy.—I am, etc.,

Liverpool, April 2nd. Robt. R. Rentoul.

THE CHEMISTRY OF THE URINE IN DISEASES OF THE PANCREAS.

Sir,—In referring to the "pancreatic reaction" in your article on the Physiology and Pathology of the Pancreas last week, you stated that the results obtained were dependent on the action of nitric acid on glycerine excreted in the urine. May I be permitted to point out that, although this is the working hypothesis on which the research was originally based, I did not claim, in my Arris and Gale lecture, as your article appears to imply, that it was the true explanation.

The purely chemical aspect of the whole subject will be dealt with elsewhere, as soon as some experimental work now in progress is completed and this I hope will be very shortly.—I am, etc.,

Cambridge, April 4th. P. J. Cammidge.

THE INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

Sir,—Like Dr. Barr, I am sorry if I have not made my meaning clear. My point is that practically there is no difference between Dr. Barr calls "positive intraperitoneal pressure" and extraperitoneal pressure, because the abdominal wall is kept by atmospheric pressure in contact with the abdominal contents. I see it is stated in the Journal of Physiology that the normal pressure which supports the abdominal wall is made up of two factors, the atmospheric pressure and the elasticity of the abdominal wall. Air injected into the peritoneum simply neutralizes a part, which, practically, these factors. The pressure therein exerted by the viscera and the abdominal wall is of course more satisfactory to Dr. Barr than extra-peritoneal pressure, which, with regard to the stomach, would tend to impede rather than increase the tonicity of the abdominal wall by keeping it abnormally stretched, and by putting the gastric muscles at a mechanical disadvantage in contracting.

On the other hand, a belt or bandage which the commonsense of mankind has hitherto led them to use supplements the natural action of the abdominal wall, or after distension acts as a substitute for that action until it recovers its tone. Further, since the object of treatment is as far as possible to restore to the normal, surely a simple method of treatment which preserves the normal contact of visceral and parietal peritoneum is better than an unnatural and unnecessary air pad which keeps those two surfaces apart.

With regard to the admission of air into the pleural cavity, there is no reason why a sufficiency of aseptic gauze should not form as efficient an air filter as cotton wool, and in the hands of distinguished bacteriologists the latter has been found effective.—I am, etc.,

Wigton, April 2nd. Theobald A. Palm, M.D.

PUERPERAL SEPSIS.

Sir,—I have carefully thought over the causes of puerperal sepsis both in this country and in the West Indies under very varying conditions of cleanliness—nursing, water supply, drainage, and ventilation—without coming to any satisfactory conclusion. There are, however, a few facts that force themselves upon me.

1. The disease was distinctly rare in the West Indies.
2. I never find it in this country when there is a nurse.
3. I very seldom find it when one of the old-fashioned "Howdies," who are obedient and fairly clean, is engaged.
4. It is when there is bad nursing that I get temperatures, as when an inexperienced mother nurses her daughter, or when some neighbour is called in who "goes out occasionally to oblige," and who if called upon while disembowelling a rabbit would give her hands a hasty rinse under the pump, and dry them on her apron, and consider herself quite ready; or with some of the younger "Howdies," who think they know better than a doctor and disregard his instructions. These women look upon a rigor as of no importance and do not report it. They consider a temperature either as a wise provision of Nature or else due to some indiscretion in diet.
5. I almost invariably find that the more manipulation there has been the less chance there is of a temperature. My worst cases usually have a normal temperature throughout.—I am, etc.,

Goudhurst, Kent, March 7th. G. H. Mapleton, M.B.

X RAYS IN THE TREATMENT OF TINEA.

Sir,—The Epitome of this date contains an abstract of a paper by M. Saboraud (not Jaboraud) on the treatment of ringworm by the x rays, which seem to me so likely to be misunderstood that I desire to draw attention to it.

The abstract states that it is possible "to use five exposures consecutively of forty minutes each on a child's head without bad effects." I have looked up the original, and I find that the statement is that these exposures may be used on different parts of the child's head. Personally I would not risk this; but certainly to expose one part of the head forty minutes on five consecutive days would be nothing short of criminal, and I certainly hope that no unfortunate child has been subjected to the treatment incorrectly said to be recommended by so great an authority as Saboraud.—I am, etc.,

Liverpool, April 2nd. Norman Walker.

*** We regret the ambiguity, and may add that the name of the eminent dermatologist is spelt Sabouraud.

OBITUARY.

GEORGE RIGDEN, M.R.C.S., L.S.A.,

Late of Canterbury.

The death, of Mr. George Rigden, of Canterbury, at the ripe age of 80, deprives the medical profession of one of its most picturesque representatives, and the South-Eastern Branch of one of its oldest members, whilst it is true to say that he had been a member of the British Medical Association all his medical life.

He was born at Wingham on December 20th, 1815, and in due course entered as one of the first medical students at University College Hospital at the same time as the late Sir W. Jenner. Having qualified as L.S.A. in 1837 and M.R.C.S. in 1844, he settled at once down to the Canterbury Dispensary. This was his first introduction to the cathedral city, and shortly afterwards he was appointed Surgeon and Secretary

to the institution, and devoted the remainder of his life to the promotion of its welfare and usefulness. On his retirement in 1900, after some sixty years' service, the Committee voted him an annuity of £200. With characteristic generosity he at once announced his intention of giving a donation of £50 a year to the Dispensary so long as he lived, and duly carried it out.

Mr. Rigden may be regarded as a connecting link between a past generation and the present: a representative type of the hard-working, self-respecting general practitioner of the olden time. His practice was extensive, and entailed continuous hard work, but he never seemed to be the worse for it, and apparently thoroughly enjoyed it. What leisure he could make was devoted to sanitation—for he was a great sanitary reformer at a time when sanitary matters were considered by the general public as of very little importance. For upwards of twenty years he continued to publish annual charts of the health of Canterbury, thus as volunteer anticipating the work which is now performed officially by our medical officers of health. Obstetric work was that which had the greatest attraction for him in general practice, and in the *Obstetric Transactions* for 1881 he published a Statistical Report of 5,682 Consecutive Cases of Midwifery occurring in Private Practice. He was a great advocate of turning in suitable cases, and in 1862 he contributed a paper on the subject to the British Medical Journal. He regarded the early application of the forceps as of the utmost importance in obstetrics, and read many papers embodying his views at the East Kent District meetings.

During the temporary absence of his son on one occasion he applied the forceps in a primipara, and he was 80 years of age at the time! It must have been about this period, when he was past 80, that he assured the writer of this article, who had remonstrated with him about overworking, that "he was taking things very easily then, for he never paid a visit after 11 p.m."!

As a member of the South Eastern Branch he was a constant attendant at the meetings of the East Kent District. His contributions possessed great clinical interest, and chiefly dealt with obstetric subjects. The enunciation of his views based upon his extensive experience was generally followed by a lively discussion, which attracted many of the neighbouring country practitioners, and helped to make these District meetings successful.

But it was not the excellence of his clinical work so much as the honesty of purpose, the uprightness of character, the conscientious performance of duty, the sterling worth of the man which won for him the respect and esteem of his professional brethren. This feeling found expression in the year 1881 when he was elected President of the South Eastern Branch, a position which he valued perhaps more than anything else which came to him in the course of his professional life. A "good and faithful servant," full of years, he has passed to his rest, leaving to his friends the pleasant remembrance of an exemplary, useful and honourable life.

There is already a permanent memorial of his work in the shape of a drinking fountain which he presented to the city in the fiftieth year of his professional residence in Canterbury. But for him, too, the Beaney Institute would probably never have come into existence. The bequest of £10,000 by which it was founded came from one who was formerly surgery boy and afterwards dispenser to Mr. Rigden, and who in the days of his prosperity in Australia was ever grateful to him for the assistance he had received from him in early life.

His funeral took place on March 24th, and was largely attended, nearly all the medical men of the city being present. He celebrated his diamond wedding two years ago, and is survived by his wife and a number of sons and daughters. All the former are in the medical profession; one is in practice at Taunton, another in Kensington, a third is Deputy Superintendent at Shrewsbury Asylum, and the fourth practises at Canterbury, having succeeded to his father's post at the dispensary.

Since the above was in type the death of Mrs. George Rigden is announced in the local papers, at the age of 82—only eight days after that of her husband, and after sixty-two years of married life. Truly, "in death they were not divided."

THOMAS HUNTER HUGHES, M.R.C.S.Eng., L.S.A.,

Coroner for South Carnarvon.

It is with great regret that we record the death of Dr. Thomas Hunter Hughes, which occurred at the age of 67, at his residence, Penmaen Castle, Pwllheli, on March 18th.

The eldest son of the late Mr. Hunter Hughes, M.R.C.S., of the same place, he was educated at St. Bartholomew's, and after taking his M.R.C.S. in the year 1858 returned to his native town, where he joined his father in practice, and continued to work until within a few days of his death. He held the post of Workhouse and District Medical Officer for many years, and on the death of his father about fifteen years ago was without opposition elected Coroner for South Carnarvon. The coronership has been in this family for three generations, and previously was held by a medical man.

He was the oldest member of the North Wales Branch of the British Medical Association, having joined it almost as soon as he was qualified. He was its President in the year 1895, and although he was not a very constant attendant at its meetings, he always took a very warm interest in its affairs. He had a very large practice, which extended over a wide area of South Carnarvon, and by all classes was held in the very highest esteem. By none will he be more missed than by the poor among whom he practised. To these he was ever a firm and generous friend, his charity being dispensed in a quiet unostentatious manner, and many a pauper's home has been cheered by his gifts in money and kind, without any one else being made aware of the source from which they emanated.

When the Volunteer movement was originated he took a commission in the then Flint and Carnarvon Battalion and held it for many years. He was a prominent agriculturist, and his advice and counsel on agricultural matters were the fruits of practical experience.

As a coroner he was always most courteous and painstaking, never allowing a single point to escape him in the conduct of an inquest; while his summing-up to the jury was invariably marked by precision and care. Although at times his medical *confrères* considered they were not called as witnesses when they ought to have been, his frank and, to his mind, sufficient explanation was couched in such a conciliatory spirit, that any trace of resentment was at once banished.

He was buried in the family vault at the Abererch Parish churchyard, his funeral being one of the largest seen in the district for many years, and testifying to the universal respect and esteem in which he was held.

He was unmarried, and leaves a brother (Dr. J. E. Hughes, of Nevin) and three sisters to mourn his loss.

CHARLES EDMUND OLDMAN, M.A., M.D.Cantab.,

Late M.O.H., Godstone Rural District.

The death, after a very short illness, of Dr. Charles Edmund Oldman, of Bletchingley, which occurred on March 19th, is a distinct loss to the medical profession and the cause of the deepest regret in Bletchingley and the surrounding district. Dr. Oldman was born in Gainsborough, Lincolnshire, in 1847, and received his education partly at Cambridge and partly at Guy's Hospital Medical School, taking the M.A. in that University in 1869, the M.B. in 1873, and the M.D. four years later. His first diploma was the M.R.C.S., which he obtained in 1872. Before commencing work in Bletchingley he practised for a short time at Spalding, in his native county. In 1886 he was appointed Medical Officer to the Western District and Workhouse of the Godstone Union, and later became Public Vaccinator and Medical Officer of Health to the Godstone Rural District Council. He had suffered from gout and erysipelas in the early part of the winter, but was believed to be quite strong again, and his death was due to acute blood poisoning starting from the throat, and contracted, it is believed, in the course of duties at health officer. Although assiduously attended by his his partner of 15 years, Dr. E. Furber, and by his friends, Mr. Percy Furnivall and Dr. Luff, all treatment proved unavailing.

In the performance of his public duties Dr. Oldman exhibited great intelligence, energy, and kind heartedness, with the result that he was greatly respected by those whom he served and exceedingly popular with the poor. It is not remarkable, therefore, that his funeral at the parish church should have been attended by a great concourse of people, while in the Congregational church the minister included in an intercessory prayer not only his relations but also "the many poor people who will feel that they have lost one of their best friends." Of the way in which he carried out his public duties one who understands the matter writes: "He was quite one of the very best private practitioner medical officers of health I ever knew." He was indeed a most successful M.O.H. who, showing neither fear nor favour for any man, proved that

the duties of a health officer may be successfully combined with those of a busy and widespread practice. The various drainage schemes which, together with the isolation hospital in the Godstone district, came into existence during his term of office, may well be considered memorials of his work. In the conduct of his practice the standard that he set himself was a high one, and he would always rather suffer pecuniarily than appear to transgress in the slightest manner the strictest code of medical ethics. He was an active member of the British Medical Association and Vice-President of its South-Eastern Branch and of the Reigate Division. He leaves a widow and several children.

RICHARD WHEELER HAINES, M.R.C.S., L.S.A.,

Birmingham.

We record with regret the death of Mr. Richard Wheeler Haines which occurred very suddenly on March 25th. Mr. Haines was in his 61st year, and although he had not been in good health for some time past, his condition never caused any serious anxiety. He was seized suddenly with an attack of angina pectoris, and died within three hours from the onset at his house in the Edgbaston Road. He was born at Bromsgrove, and educated at the Grammar School in that town. He was a medical student at King's College, London, and took the M.R.C.S.Eng., and the L.S.A. in 1864. At his hospital he won the Senior Medical Scholarship and the Warneford Scholarship, and held the posts of House-Physician and Resident Accoucheur. He was also Junior House-Surgeon at the Manchester Royal Infirmary. Mr. Haines started in general practice in Balsall Heath over thirty-six years ago, where he soon became widely known and highly esteemed. For many years he took great interest in public affairs, and was connected with the Local Board of Balsall Heath for some considerable period before that suburb was made a part of the municipality of Birmingham. Mr. Haines was one of the representatives of Balsall Heath Ward in the City Council for about twelve years, and was associated with the Free Libraries Committee and the Lunatic Asylums Committee. He was an ex-Chairman of the former body, and his portrait is to be seen on the wall of the staircase leading to the Reference Library. In November last his reelection as Councillor for Balsall Heath was opposed, but Mr. Haines had so well won the regard and confidence of his constituents that he was returned by a majority of 121. The deceased gentleman also took keen interest in Freemasonry, and was a Past Master of the Arter Lodge, and had held high offices in the Grand Lodge of his province.

JOSEPH PEEKE RICHARDS, M.R.C.S.Eng., L.S.A.Lond.

The announcement of the death of Mr. J. P. Richards at his house, Ealing, on March 22nd, came as a shock to a wide circle of friends and acquaintances. His fatal illness lasted only three days, during which he received the unremitting attention of his friends, Mr. J. S. Grubb, Dr. W. S. Colman, and Mr. H. Stansfield Collier. It began as influenzal otitis, and notwithstanding that the mastoid process was early explored, meningitis, coma, and death in a few hours ensued.

Mr. J. P. Richards was born in 1841. His father was Mr. Joseph Richards, Surgeon, of St. Clement's Dane, Strand. Young Richards was educated at Merchant Taylors School, and matriculated at the University of London in 1859. He received his medical training at King's College, and obtained the diplomas of M.R.C.S. and L.S.A. in 1863. He soon afterwards became Assistant House-Surgeon at the Stockport Infirmary, whence he went as Assistant Medical Officer to the Devon County Asylum, Exminster. In 1868 he was selected for the post of Assistant Medical Officer at Hanwell Asylum, Middlesex, and in 1872 was appointed Superintendent of the Female Department of that institution. This post he filled for twenty years, retiring with a pension in 1892. Since that date he has resided at Ealing.

It was at Hanwell that his best work was done. He entirely devoted his time and talents to the endeavour to relieve the patients entrusted to his charge, and proved himself a most able and painstaking asylum physician. He had an extensive acquaintance with general medicine, good business habits, and a methodical frame of mind was thorough in all his work, cheerful and sympathetic in his manner, and consequently successful and beloved. One of the chief traits in his character was unfailing geniality, rendering him a good companion; and a peculiarity, rare in one who had retired from active professional work, was the assiduity with which he attended meetings and lectures, whereby he might keep himself abreast of medical and surgical advances. He was a Freemason and a Fellow or member of several medical societies, but especially interested himself in the work of the Medico-Psychological Association. He has left a widow and a son and daughters to mourn their irreparable loss.

The late Deputy Surgeon-General Cayley.

Mr. Henry Clark, C.M.G., President of the Faculty of Physicians and Surgeons of Glasgow, sends us the following note on the life and work of Surgeon-General Cayley, of whom an obituary notice was published in the British Medical Journal of April 2nd:

Surgeon-General Cayley and I were very intimately associated during a period of six months, for he was in military charge of the Scottish National Red Cross Hospital at Kroonstad, Orange Free State, and I was the civilian surgeon in charge. Our relations throughout were undisturbed by even the slightest ripple of disagreement, and our work was carried on with the utmost unanimity and good feeling. He was a man of simple habits, was guided by the highest principles, and brought to bear on all the different problems of administration a maturity of judgement and uprightness of aim which secured for him the confidence of all his subordinates. When he arrived at Kroonstad with the staff and equipment of the hospitals, he was suffering from broken ribs, the result of accidentally walking off the pitch-dark platform of Bloemfontein. He had travelled up to Kroonstad in a guard's van (and any one familiar with the South African railways can tell what that must be to a man with broken ribs), yet he would not be persuaded to rest, but set about getting the equipment unloaded, the tents set up, and the hospital put in order for receiving patients. This is only one sample of his untiring service and self sacrificing heroism. He was exceptionally well read in the scientific aspects of his profession, and was able to draw from a wide experience, especially of tropical diseases. He had also a special acquaintance with diseases of the eye. His health was excellent, and was so maintained by total abstinence from stimulants, regulated exercises, and simple fare. In this way he was able to accomplish feats of strength and endurance which were far beyond me, though I was more than ten years his junior. It has been my lot to know none more able, upright, gentlemanly, and truly Christian than Henry Cayley.

Mr. John Wilson, whose death on March 13th was announced recently, was the oldest medical practitioner in Whitby. The only son of John Wilson, M.D., of the same town, Mr. Wilson received his early education locally and at St. Peter's College, York, whence he proceeded to King's College, London, and there began his medical career. After receiving the diplomas of M.R.C.S.Eng. and L.S.A. in 1857, passing the first examination for the M.B.Lond., and spending some time in further study in Paris and Leipzig, he returned to Whitby and commenced practice in a firm, the senior partnership of which his father had just resigned. He did not, however, long continue in this position, but started a fresh practice on his own account, which eventually became a very large one and extended far into the surrounding country. He was a man much esteemed by all classes, but being of a retiring disposition he did not aspire to public offices, but was content to devote himself to the strict duties of his profession. His work was characterized by perseverance and great thoroughness, qualities which in his later years caused him to be frequently called into consultation by his colleagues. He enjoyed reading all new publications, and thus kept himself ever abreast of the times. Pedestrianism and the natural sights and objects of the countryside also had a great attraction for him, and although he used to ride and drive in his earlier days, he latterly did all his country work on foot. His energies in this direction were not exhausted at home, and he turned into pedestrian expeditions his not very frequent holidays, a distance of 20 to 30 miles being not uncommon for him. He was at work until about a week from his death, which resulted from pneumonia at the age of 69. At this time he held the appointment of Medical Officer to the Post Office staff, and also was surgeon to several clubs. He married about forty years ago the daughter of Mr. J. Ingleby, of

Pateley Bridge, who predeceased him; he leaves four grown-up sons, one of whom is in the medical profession.

The sudden death is reported of Dr. Henry Blackburn Smith, a member of the Bermuda Branch of the British Medical Association. He was only in his 33rd year, was much respected, and regarded as a man of considerable promise. He graduated at first in Dental Surgery at the University of Maryland, but after a year or two of dental practice graduated in medicine at the same University in the year 1900. During the South African war he was employed by the Imperial Government as Civil Surgeon to the garrison at St. George's, Bermuda. His death on February 13th occurred quite suddenly while he was on a brief visit to his father's house during a round of professional calls.

The Hon. Thomas Robert McInnes, whose death in Canada was recently announced, was born in Nova Scotia, received a medical education at Harvard, and practised at Dresden, Ontario. After filling several public offices there, including that of coroner, he moved to British Columbia, where he built up a large practice at New Westminster, and was also physician to the Royal Columbia Hospital and medical superintendent of the principal asylum of the province. Later he entirely gave up practice for politics, and was for a short time Lieutenant-Governor of British Columbia.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon C. James is promoted to be Deputy Inspector-General from January 4th. His previous commissions are thus dated: Surgeon, September 28th, 1877; Staff Surgeon, September 28th, 1893; and Fleet Surgeon, March 12th, 1894. He was Surgeon of the *Boadicea* during the Zulu war in 1879 (medal). He received the expression of the great satisfaction of the Lords of the Admiralty at the display of zeal and devotion to duty manifested during the epidemic of yellow fever at Jamaica when attached to the hospital ship.

The notice which appeared in the *London Gazette* of March 22nd relative to the withdrawal from His Majesty's Naval Service of Staff Surgeon H. B. Hall, M.B., is hereby cancelled.

The following appointments have been made at the Admiralty: William G. Scott, M.A., M.B., Fleet Surgeon, to the *Assistance*, April 7th; Henry B. Hall, M.B., Staff Surgeon, and Godfrey Taylor, M.B., B.A., Surgeon, to the *Endymion*, April 12th; Harold G. T. Major, Surgeon, to the *Europa*, April 8th; Edward H. Ross, Surgeon, to the *Lancaster*, April 5th; James E. Johnston, M.B., B.A., John Shirsey, Frederick Cook, Thomas W. Jeffery, Arthur D. C. Cummins, Charles W. Woods, and Bertram R. Bickford, Surgeons, to the *Europa*, additional, for disposal, May 6th. Norman H. Meikle-John, Henry Woods, M.B., James J. Boucher, M.B., Frederick M. V. Smith, David H. Vickery, and Walter G. M. Anderson, M.B., B.A., Surgeons, to the *Fire Queen*, additional, for disposal, May 6th; James C. Bringham, M.B., Walter P. Yetts, George H. S. Mills, M.B., Reginald H. St. B. E. Hughes, George D. Walsh, Arthur R. Davidson, M.B., Edward Kenny, and Edward P. G. Causton, Surgeons, to the *Europa*, additional, for disposal, May 6th; Lionel C. E. Merchy, Evelyn R. Townsend, and Arthur R. Schofield, M.B., Surgeons, to the *Hecate*, additional, for disposal, May 6th; Palmer D. Ramsay and Francis J. Gowans, Surgeons, to the *Vivid*, additional, for Plymouth Hospital, May 6th; George T. Bishop, Staff Surgeon, to the *Iphigenia*, April 14th; and John Fullarton, M.B., Surgeon, to the *Caledonia*, April 15th.

MEDICAL OFFICERS OF FOOT GUARDS.

Army Order 43, dated February 12th, 1904, provides that medical officers shall not in future be transferred to regiments of Foot Guards, and cancelling the regulations authorizing the transfer of an officer of the Royal Army Medical Corps to the regiments of Foot Guards. Medical officers who have already been gazetted to the regiments of Foot Guards must elect, within such time as may be prescribed by the Army Council, whether they will remain therein, or be transferred to the Royal Army Medical Corps.

Medical officers who elect to remain in the regiments of Foot Guards will be eligible for promotion under Article 383A of the Pay Warrant up to, but not beyond, the rank of surgeon-lieutenant-colonel. Those who elect to be transferred to the Royal Army Medical Corps will take rank and seniority therein as follows:

A brigade surgeon-lieutenant-colonel—as a lieutenant-colonel selected for increased pay, with seniority from the date of promotion to his present rank.

A surgeon-lieutenant-colonel—as a lieutenant-colonel not selected for increased pay, with seniority from the date of promotion to his present rank.

A surgeon-major—as a major, with seniority from the date of his original promotion to the rank of surgeon-major or major.

The Warrant of Her late Majesty Queen Victoria, dated October 26th, 1900, as amended by the Warrants of March 24th, 1902, and August 11th, 1902, will be further amended accordingly.

Medical officers now serving with the Foot Guards are given six months within which to make their selection; if they do not join the Royal Army Medical Corps they will remain doing duty with Guards. The application of the new system will, we understand, be introduced gradually.

ROYAL ARMY MEDICAL CORPS.

The Sir William Taylor Prize.

The Sir William Taylor Prize of 25 guineas has been awarded to Major M. P. C. Holt, D.S.O., R.A.M.C., in recognition of distinguished professional attainments in surgery as evidenced by the returns of operations performed in Ireland, a summary of which appeared in the *Journal of the Royal Army Medical Corps* of last month.

This prize is awarded annually by Sir W. Taylor to the executive officer of the Royal Army Medical Corps on the active list, or on full-pay employment below the substantive rank of colonel, who shall, in the opinion of the Committee, be most deserving on account of professional or scientific work.

Colonel R. de la C. Corbett, M.D., D.S.O., is granted the temporary rank of Surgeon-General while officiating as Principal Medical Officer in Bengal from March 8th.

Lieutenant-Colonel A. W. F. Inman, M.B., is granted the temporary rank of Colonel while officiating for Colonel Corbett in the Oude and Rohilund Districts, from March 8th.

Exchanges.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A Major R.A.M.C. serving in India, whose tour expires next trooping season, desires exchange to remain in India for part tour. Apply to G., care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

Indian Pay.

Colonial writes: To those who have recently joined the Royal Army Medical Corps upon the understanding that the Indian pay is now adequate, it comes somewhat as a surprise to find that the Indian pay is precisely the same as the home translated into rupees, and whilst every other white man is receiving a large salary in return for his exile and injured health, a Royal Army Medical Corps officer receives his meagre home stipend. An engine driver receives £240 per annum. The fact that captains and lieutenants still receive no horse allowance is equally serious. This allowance has been suggested and recommended for the last ten years, has many times been referred to by the British Medical Journal, yet it was omitted from the recommendations of the Advisory Board. A veterinary surgeon upon joining receives double horse allowance, thus being paid over £100 a year more than a medical lieutenant in India, for of course both officers require horses equally.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel T. H. Pope, M.D., Madras Establishment, retires from the service from March 1st. He was appointed Assistant Surgeon, March 7th, 1885, and became Surgeon-Lieutenant-Colonel March 7th, 1897. He was in the Afghan war of 1878-80, receiving a medal for that campaign.

Pay and Prospects.

Sarpam writes: I see from the Supplement of the British Medical Journal of January 30th, Proceedings of Naval and Military Committee, that "some little time" must elapse before the Government of India complete their considerations with reference to the pay and prospects of officers of the Indian Medical Service in civil employ. As far as I can remember, the matter has been "under consideration" for the past two years; in the meanwhile the Government of India saves the extra expense and the Indian Medical Service is the sufferer. Can it be that this protracted incubation period is the direct result of a sufficiency of competitors coming forward to fill and more than fill all vacancies in the service? At the recent examination 42 competed for 20 vacancies. I think men at present entering the service can hardly be fully aware of the respective values of the two military services, R.A.M.C. and I.M.S. Pay I.M.S. compares unfavourably with that of the R.A.M.C.:

	I.M.S. Rs.	R.A.M.C. Rs.
Captain, 1 years	... ...	 720
Major	... ...	... 810
... 15 years	... 1,400	 1,005
Lieutenant-Colonel	... 1,600	 1,215
Selection	1,600 1,800	 1,620

I take these figures from the Journal of 23rd January. Pay of Major (15 to 20 years) I.M.S. is therefore from Rs.105 to Rs.245 less than one of corresponding rank and service in the R.A.M.C. (2) I.M.S. service is continuous duty in India, instead of getting enhanced pay for doing duty in a bad climate, less pay is given. Furlough, medical certificate, R.A.M.C. free sea passage home and out. I.M.S. officers have to pay both ways if over three years' service, if under three years a passage is provided home, but they will have to pay their way out again.

HOSPITAL AND DISPENSARY MANAGEMENT.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

1st, April 2nd, was 1,5[illegible], against 1,61[illegible] and 1,[illegible]5 on the three preceding Saturdays. The new cases were admitted during the week, against [illegible]1, and 14[illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS

During the week ending Saturday last, April 2nd, the births and deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been [illegible] and 2[illegible] per 1,000 in the three preceding weeks, further declined last week to 20[illegible] per 1,000, and was 1[illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 1[illegible] in Leith and 1[illegible] in Aberdeen to 2[illegible] in Greenock and [illegible] in Perth. The death-rate from the principal infectious diseases [illegible] was equal to 2[illegible] per 1,000, the highest rates being recorded in Dundee and Paisley. The 329 deaths registered in Glasgow included 5 from small-pox, [illegible] from measles, [illegible] from scarlet fever, [illegible] from whooping-cough, [illegible] from diphtheria, [illegible] from typhoid fever, and [illegible] from diarrhœa. Four fatal cases of [illegible], [illegible] of whooping-cough, and [illegible] of diarrhœa were recorded in Greenock; [illegible] of measles and [illegible] of whooping-cough in Paisley, and [illegible] of whooping-cough in Edinburgh, in Aberdeen and [illegible] in Leith.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

SECOND EXAMINATION FOR THE DEGREES OF B.M. AND B.Ch.

The Board of the Faculty of Medicine give notice of the following changes in the Regulations for Examination of Students [illegible]:

The Regulations for the Schools of Medicine, Surgery, Midwifery, and Pathology have been amended, and now stand as follows:

V. *Medicine.*

The examination shall be held in the Principles and Practice of Medicine, and shall consist of the following parts:

1. A written paper of three hours.
2. Clinical work.

Clinical work. This shall include (1) A full clinical report upon a given case, together with a statement of the treatment and the writing of [illegible] prescriptions; (2) an oral examination upon other cases selected by the examiners.

Practical examination in chemical and microscopical methods of diagnosis, such as the investigation of urine, the detection of parasites, examination of blood, sputum, etc., and on the use of special instruments for diagnostic purposes.

A viva-voce examination.

VI. *Surgery.*

The examination shall be held in the Principles and Practice of Surgery. Candidates will be expected to possess a general knowledge of the anatomy of the eye and ear.)

The examination shall consist of the following parts:

1. A written paper of three hours.
2. Clinical work, partly in writing partly oral.
3. An examination in surgical anatomy, the methods of operating, the [illegible] of the living or dead subject, and surgical bandaging and applications.
4. A viva-voce examination.

VII. *Midwifery.*

As at present, except that the words "(1) Paper work, (2) practical examination" have been replaced by the words "(1) A written paper of three hours, (2) a practical and viva-voce examination."

In the viva-voce examination in Medicine, Surgery, and Midwifery, candidates shall be shown pathological specimens, and shall be examined upon such appearances as bear upon the clinical aspects of disease.

VIII. *Pathology* (including General Pathology, Morbid Histology, and Bacteriology).

The examination shall consist of three parts:

1. A written paper of three hours.
2. A practical examination of three hours.
3. A viva-voce examination.

These regulations will come into force at once, and take effect at the examinations of Trinity Term, 1904.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

Appointment of Teachers.—Mr. William Ernest Harmer and Mr. Robert Charles Bailey were reappointed as Teachers of Surgery, and Dr. James Calvert as a Teacher of Medicine at St. Bartholomew's Hospital Medical School. Dr. Wilfrid James Haslip as a Teacher of Forensic Medicine at the London Hospital Medical College, Dr. Nathaniel Henry Alcock as a Teacher of Physiology at St. Mary's Hospital Medical School, and Mr. [illegible] Hopewell Smith as a Teacher of Dental Anatomy and Physiology at the Royal Dental Hospital.

Conferment of the M.D. Degree.—It was resolved: That internal students registered in the Faculty who passed the Final Examination for the M.B. degree in the [illegible] held in accordance with the regulations adopted for external students, after completing a course of study for the examination for internal students, be granted diplomas as their final exercise. That internal students [illegible] who passed the examination for the M.D. degree [illegible] be held in accordance with the regulations adopted for external students, after completing a course of study to be laid down at a school of the University be granted diplomas as internal students.

The Physiological Laboratory.—The Physiology Laboratory Committee presented a report upon the work done in the laboratory during the past two years in which they stated that eleven courses of lectures each had been delivered, and that arrangements had been made by the Senate with Mr. John Murray for the publication under the authority of the University of some of these courses as might from time to time be approved. The first volume published in this series was Dr. A. D. Waller's "[illegible]." The laboratory has been visited during the two years by twenty-[illegible] post-graduate or otherwise qualified students, and twenty-three [illegible] persons working in it have been published in the [illegible] journals. The Senate approved the [illegible] and agreed to the Panel of Lecturers in Physiology in connexion with the laboratory: N. H. Alcock, B.A., M.D., Lecturer on Physiology at Mary's Hospital School; C. J. Martin, M.B., B.Sc., F.R.S., Director of the British Institute of Preventive Medicine; F. W. Pavy, M.D., LL.D., F.R.S., Consulting Physician to Guy's Hospital; and [illegible] M.D., Lecturer on Pathology and Bacteriology at St. Mary's Hospital Medical School.

Courses of Instruction.—The following courses of instruction in Advanced Physiology to [illegible] Hospital Medical School were approved, and it was resolved that they be included in the scheme be temporarily recognised as Teaching of the University while delivering their respective courses: Physiological Department: Lecturer, M. S. Pembrey, M.A., M.D., B.Ch.; Demonstrators, L. E. Springs, M.D., M.R.C.P., D. Forsyth, M.D.; Lectures and Demonstrations, J. S. Haldane, M.A., M.D., LL.D., F.R.S., Lecturer in Physiology, University of Oxford. M. S. Pembrey, M.A., M.D., B.Ch., Chemistry of Respiration; F. G. Hopkins, M.A., M.B., Lecturer in Physiology, University of Cambridge, Recent Work in the Chemistry of Proteids; W. A. Ramsden, M.A., M.D., Demonstrator of Physiology, University of Oxford, Coagulations; A. P. Beddard, M.A., M.D., F.R.C.P., Assistant Physician, late Demonstrator of Physiology, Metabolism in Glycosuria; E. I. Spriggs, M.D., M.R.C.P., Digestion; A. E. Boycott, M.A., M.B., Gordon Lecturer, on the Nervous Impulse.

The times of these lectures will be so arranged that they do not clash with the Advanced Lectures on Physiology at the University of London, University College, and King's College. Permission to attend these lectures will be given to internal students of the School of the University.

Practical Courses in General Physiology, Experimental Physiology, and Histology.—These will be conducted by [illegible] special practical courses upon the methods used in the determination of the respiratory exchanges, the blood gases and [illegible] metabolism will be given by Dr. Pembrey, Dr. Springs, and Dr. Boycott.

Degrees in Science.—Courses of study and examinations, extending over four years, for degrees in Veterinary Science were approved.

Degrees in Science.—It was resolved to print at the head of the botany and zoology papers constituting the papers in Biology for the Preliminary Scientific Examination for Internal and External Students the following sentence: "Every candidate must show an acquaintance with both the botanical and the zoological divisions of biology."

Evening Classes.—The Board entrusted by the Senate with the management of the school-leaving certificate examination, and the inspection of schools has, at the desire of a number of schools, decided to hold a school-leaving certificate examination beginning on July 4th, in addition to that held in connexion with the ordinary Matriculation Examination, beginning on June 14th. Any school desiring to present pupils for the school-leaving certificate will be required to submit to the University a general statement of the complete course of instruction given in the school and also the curriculum of study pursued by the candidates. Further information and forms of entry may be obtained on application to the Principal University of London, South Kensington, S.W. The entries must be made, for the June examination before May 1st, and for the July examination before June 1st.

Martin Wood Benefaction.—A course of [illegible] lectures on Social Evolution in Oceania will be delivered by Dr. A. C. Haddon, M.A., Sc.D., F.R.S., University Lecturer in Ethnology at Cambridge, at 4 p.m., on the following days: April 26th and 28th, May 10th, 12th, 17th, and 19th, June 2nd, 7th, 9th, and 14th. Admission to the lectures will be free but tickets must be obtained. Syllabuses may be obtained from the Secretary, University of London, South Kensington, W.C.

Prizes.—[illegible] the Senate will receive reports from the Senate of the Faculty of Medicine upon the [illegible] of the medical profession in the United Kingdom, for an essay on Anæsthetics, their Physiological and Clinical Aspects. Candidates will attach importance to the results of original investigation. Essays, typewritten or printed, must be sent in not later than June 1st, 1904.

Mr. J. H. Parsons, M.B., B.Sc., of University College, London, has passed the D.Sc. examination in Physiology.

UNIVERSITY OF EDINBURGH.

THE following candidates have passed the First Professional Examination in the subjects undernoted:

Botany.—J. Aitken, W. Bainbridge, A. Baldie, A. C. Barker, Christina H. Barr, W. Beggs, P. D. Cameron, G. Coats, G. C. Dalton, J. M. Deuchars, J. A. Duggan, F. P. Gibson, G. de C. Hugo, P. F. Hugo, H. Hutson, M. J. Johnston, A. W. Kendall, A. J. B. Leckie, G. H. Lowe, G. J. Luyt, B.A., R. M'Adoo, D. M'Carroll, A. K. Maclachlan, E. P. Maitland, N. Martin, W. M. Menzies, R. C. J. Meyer, B.A., J. E. Mitchell, F. L. Moore, C. C. Murray, A. A. W. Petrie, H. R. A. Philp, N. H. Prior, P. H. Salmond, E. D. Smith, W. A. Stewart, A. White, E. W. Wilbourne.

Zoology.—G. J. Adams, W. Bainbridge, A. C. Barker, F. V. N. Bruce, H. Burns, P. D. Cameron, J. J. Coates, G. Coats, J. M. Dalrymple, G. C. Dalton, F. Dillon, J. A. Duggan, W. G. Evans, J. P. Falver, W. Fleming, W. T. Gardiner, K. N. Ghosh, A. B. Gordon, R. W. Houman, A. M. Hewat, St. G. M. L. Homan, A. E. Huckett, P. F. Hugo, W. P. S. Johnson, W. D. S. Johnston, R. O. Jollie, A. W. Kendall, H. R. Lawrence, A. R. Leggate, C. R. Lethem, C. L. Louw, H. B. Low, G. J. Luyt, D. M'Carroll, L. G. M'Cune, W. S. M'Cune, A. E. M'Iver, J. C. Mackenzie, K. Mackenzie, D. Macnair, E. R. D. Maconochie, W. J. Mayne, R. C. J. Meyer, T. S. Mitchell, I. A. Van Niekerk, R. J. E. Paterson, N. H. Prior, E. M. Reid, P. Roytowski, C. S. Sandeman, F. Shannon, J. T. Simson, E. W. Smerdon, E. E. Smith, W. A. Stewart, S. G. Tibbles, F. H. de Villiers, Dora M. Walker, F. K. te Water, W. H. te Water.

The following candidates have passed the Third Professional Examination for the degrees of M.B., Ch.B.:

T. Addis, F. Aitken, D. C. Alexander, J. C. D. Allan, A. C. Alport, A. G. Anderson, W. Anderson, [illegible] Banks, D. M'F. Barker, J. M. Barkley, W. J. E. Bell, C. E. Blair, D. P. Blair, G. Blair, R. A. Blake, H. Brown, J. W. Carnie, T. F. Carmichael, H. M. Cargill, Mary Duake Cohen, H. P. Cook, J. Craw, D. C. Crole, J. A. Cruickshank, A. B. Darling, T. Davidson, M. J. M. Davidson, H. A. Edwards, C. E. Elliott, P. F. Field, C. [illegible], C. [illegible], H. A. Frew, W. G. Frizell, Jessie M. Gray, W. [illegible], Louise A. Gribbe, L. M. Grant, [illegible], C. Ker, [illegible]

J C Greig, J A Gunn, M A, B Sc; G Hadden, J D Harmer, Ada A. Hatchard, A S Heroine, W M Hercules, J S Hogg, F R. Holgate, Inga T S Jackson, J P S Jamieson, J H B Jowbert, G P Jay, S Kark, Ethel Lawson, J M Lawrie, J Lindsay, E. Prosser, W L Locke, Macdonald, F M Swan, M A, with distinction; T A Macculloch, J D M'Kelvie, K W Mackenzie, M. Mackinnon, A. C. M'Master, S M Naughton, C M'Neal, M.A., N. N. G. C. M'Vean, S. E. Martin, E. S. Massiah, A. Mathieson, D. M. Matheson, M.A., A I Muter, O M Marsh, C E S Mitchell, J S Mitchell, H E Morris, D L Morrison, R E Murray, A W Neill, G P Norman, A J R O'Brien, A A Oliveira, D H Paul, H. E Rawlence, C Reece, A E C Rees, B.A., A O P Reynolds, W E Reynolds, W G Robertson, M.A. W L Robertson, J Z H Rotherham, B.A. (with distinction), A Sandison, W M Scott (with distinction), W J B Selkirk, D W Spibal, F S Stimson, O Smith, (with distinction), S A Smith, T E Smith, A G V van Someren, A B Spence, J E Tannahill, J A R Thompson, R E Thomson, Nettie B Turnbull, E Valenzia, A N J Vincent, France, M. Wakefield, R C Walker, H E A Washbourn, H C Weaver, I D Wells, W H. Welsh, I F Wernicke, Essie E Wilkie, H C Wilson, J Young. The following candidates have passed in Pathology in the Third Professional Examination: G Britto, N S Carmichael, F W Cragg, E G. Deverell, M G Dill, H F Fenton, L Gardener, E G Girdwood, H S A Hogg, R E Moyes, E E Munro, R H Nolan, C E O'Brien, A M Price, B.Sc., D E C Pottinger, D G Read, H M Saunzer, E M Summers, T Young.

J. A Grierson has passed the Second Professional Examination for degrees in Medicine (old regulations).

UNIVERSITY OF GLASGOW.

The following have passed the First Professional Examination for the Degrees of Bachelor of Medicine (M B) and Bachelor of Surgery (Ch B) in the subjects indicated: B, Botany; Z, Zoology; P, Physics; C, Chemistry.

A. Aitchison, Z; I A Aitken, P; W Allen (C.), D Anderson (Z., W Anderson (B., P.), I Archibald (Z., C.), I C Auchencloss (B., Z., P.), W. Barr (Z.), F. Beatch (B.), C. Bennett (Z., C.), R. I. Bruning (B., P.), J. Blakely (Z.), J. L. Boyd (Z., C.), W. Brown, M.A. (B., P.), W. B. Brownlie (B., C.), D Y Buchanan (Z.), M Buchanan (Z.), H. M. Calder (P.), J. Cameron (Z., P.), J. Carrick (Z., C.), D J Clark (C.), J H J V Coats (B., P.), Cook (Partick) (Z., C.), J Cruickshank (Z., C.), W Dawson (P., C.), J C Dick (B.), W. H. Duncan (B., P.), F K Dunlop (P., C.), A. Dunsmuir (C.), T. L. Fleming (B.), T. Forsyth (B.), W. L. Forsyth (Z., C.), J. Fotheringham (Z.), B. Gale (C.), D. Gibson (Z., C.), W. Gilmour (Z., C.), H MacA Gossman (B., P.), A T A Gourlay (B., P., C.), E. O'D Graham, P; T L Gray (Z., C.), W C Gunn (P.), J S Harbinson (B., Z., P., C.), S J Henry (Z., C.), J B Hislop (Z., P.), W A Hislop (P., C.), A Hogg (P., C.), E Hutchison (Z., C.), A M Kennedy (Z., C.), T J Litt (Z.), J Long (Z.), W Leitch (B., Z., P., C.), D C M'Ardle (B., C.), P C M'Arthur, M.A. (B.), F C Macaulay (Z.), H. M'Callum (Z., P.), R. M'Carlie (P.), A. M. Macdonald (Z.), A. C. MacDougall (B., P.), J E Mackay (B., P., C.), W M'Kendrick (P., C.), F W Mackechan (B., P., C.), W C Mackie (Z., C.), W J M'Clelland (C.), W M'Leod (Z., C.), J M'M M'Millan (Z., P., C.), J MacMillan (B., P.), P R M'Naught (Z., C.), D I M'Naughtan (B., P., C.), A M'Pherson (Z., P.), W A L Marriott (Z., C.), F N Mason (Z., C.), H Matthews (C.), K C Middlemiss (Z., C.), T Miller (Z.), R M'I Morrison, M.A., B. (Z., C.), H Morton (C.), J Muir (Z., P., C.), R C Muir (P.), W Muir (Z., P.), A C Munro (Z., C.), A A Murray (P.), C S Mck Murrison (B., C.), A Naismith (P., C.), W Noble (Z., C.), A R Paterson (Z., C.), A Paterson (B., Z., P.), E M F Pickard (Z.), D. Purvis (Z., C.), M Purvis (Z., C.), J Quarry (P.), R Rae (Z.), N M'N Rankin (B., Z.), T D C. Ker (B., P.), W Scott (P., C.), A Spurway (B., P.), W A Sewell (Z., C.), J. B. Sim (Z., P.), W. Stevenson (P., C.), L. Storey (C.), H. C. Storrie (B., P., C.), D. Taylor (Z., C.), W Telfer (P., C.), J. A. Thomson (B., P., C.), J. S. Thomson (Z., C.), R. M'N. Walker (Z., C.), W. S Waterhouse (P.), J P Watson (B., P.), T C D Wall (C.), C P William son (Z., P.), D. M'G. Wilson (Z., C.), H. M. Wilson (B., P., C.), W. A. Wilson (B., C.).

B M (P., C.), M B. S Darroch (B., Z.), M Foley (P., C.), M E (B., P., C.), J W Jones (P., C.), A M'Clorie (B., Z.), A M (B., P.), T Morrison (P.), J. P. Rose (B., Z., W M Ro (P., C.), J C (P., C.), H Stewart (P., C.).

The following have passed the Second Professional Examination for the Degrees of Bachelor of Medicine (M B) and Bachelor of Surgery (Ch B) in the subjects indicated: A, Anatomy; P, Physiology; M, Materia Medica and Pharmacy.

G. A (A., P.), M J M Allison (M., A.), H Arnott (P., M.), Barr (M., A.), E C E (A., P.), W A Campbell (P., M.), D L Cameron (P., M.), H H Chrystie (A., P., M.), D (M., A.), S Clark, M.A. (A., P.), J. Coutts (A., P., M.), A D (A., P., M.), A M Craw (A., P., M.), W E (A., P., M.), R S (A., P., M.), A C Dodds (M., A.), E (A., P., M.), W A Fairlie (A., P., M.), H (A., P., M.), M (A., P., M.), M S (A., P., M.), M L Gemmell (P., M.), E M (A., P., M.), J (A., P., M.), A (A., P., M.), J (A., P., M.), A (A., P., M.), J (A., P., M.), A

Physiology—D. Adams, first prize (£5) and medal; T. Sheehy, second prize (£3) and certificate.
Chemistry—D. P. Clement, first prize (£5) and medal; A. E. S. Martin, second prize (£3) and certificate.
Pathology—L. Lucas, first prize (£5) and medal; P. D. Sullivan, second prize (£3) and certificate.
Physics—A. E. S. Martin, first prize (£5) and medal; W. G. Ridgway, second prize (£3) and certificate.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BURY INFIRMARY.—Senior House-Surgeon, resident. Salary £110 per annum.
DUBLIN: RICHMOND, WHITWORTH AND HARDWICKE HOSPITALS.—Anæsthetist.
EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Assistant Physician.
GREAT YARMOUTH HOSPITAL.—House-Surgeon, resident. Salary, £90 per annum.
LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Resident House-Surgeon. Salary at the rate of £80 per annum.
LEICESTER INFIRMARY.—Clinical Assistant, resident. Honorarium, £10 10s. for six months.
MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon, resident. Salary, £120 per annum.
MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon to act as a Junior and Casualty Servant. Salary at the rate of £80 and £40 per annum respectively.
MARGARET STREET HOSPITAL FOR CONSUMPTION, Etc.—Assistant Physician.
MIDDLESEX HOSPITAL.—Pathologist, Second and Third Assistants to the Director of the Cancer Research Laboratories. Salaries £200, £150, and £100 per annum respectively.
PLAISTOW ST. MARY'S HOSPITAL FOR SICK CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £50 per annum.
PRESTON ROYAL INFIRMARY.—Assistant House-Surgeon, resident. Salary, £60 per annum.
ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Resident House-Physician. Assistant House-Surgeon. House-Physician. Casualty House Surgeon.
SOCIETY OF APOTHECARIES, Blackfriars, E.C.—Examiner in Surgery.
ST. BARTHOLOMEW'S HOSPITAL.—Assistant Physician.

APPOINTMENTS.

BARNES, C. J., L.S.A., District Medical Officer of the Chippenham Union.
BROWN, H. Reynolds, M.D., C.M.Edin., Medical Officer for the All Saints District of Maldon, and Public Vaccinator for the Purleigh District of the Maldon Union.
CONWAY, J. P., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer for No. 1 District of the Greenwich Union.
GRIFFITH, W. S., M.B., C.M.Edin., Certifying Factory Surgeon for the Milford Haven District, Pembroke.
HARVEY, J. H., M.R.C.S., L.R.C.P., District Medical Officer of the Weymouth Union.
HIGNETT, L. W., M.B., C.M.Edin., District Medical Officer of the Uxbridge Union.
JEFFARES, James, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Kegworth District, Leicestershire.
LINTON, Edward, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Government Medical Officer and Vaccinator at Wellington, N.S.W., vice C. D. H. Rygate, M.R.C.S., L.R.C.P.
MURPHY, Allen, M.B.Syd., Government Medical Officer and Vaccinator at Emmaville, N.S.W., vice Dr. T. C. Shaw, resigned.
NORMAN, L. S., M.B., C.M.Edin., District Medical Officer of the South Shields Union.
SEAGLE, C. F., M.B.Lond., District Medical Officer of the Hunslet Union.
STAMBLES, H. M., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Amble District, Northumberland.
THOMAS, John Lewis, M.R.C.S.Eng., L.S.A., Medical Officer of Health to the Brynmawr Urban District Council, vice D. Nyhan, L.R.C.P. and S.Edin., L.F.P.S.Glasg., deceased.
WALKER, C. R. Hall, M.D., C.M.Edin., Medical Officer to the Workhouse of the Risbridge Union at Kedington.
WILLIAMS, D. J., M.R.C.S., L.R.C.P.Lond., Chief Resident Medical Officer at the Kingston Asylum, Jamaica.
WORSLEY, R. Le Gest, M.R.C.S., L.R.C.P.Lond., L.S.A., Deputy Medical Officer, H.M. Prison, Manchester.
YOUNG, C. W. F., M.D.Lond., D.P.H.Camb., Medical Officer for the Middlesex County Council.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ATKINS.—On April 3rd, Easter Sunday, at 15, Booth Street, Handsworth, Birmingham, the wife of J. F. Atkins, M.B., Ch.B., M.R.C.S.Eng., L.R.C.P.Lond., a son.
BARTON.—On March 24th, at 17, Redcliffe Gardens, South Kensington, the wife of Charles N. Barton, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., a daughter. Colonial papers please copy.
BROOK.—On February 16th, the wife of Graham Brook, M.R.C.S., J.P., Broome, Western Australia, of a daughter.
LOCKYER.—Mrs. Lockyer, wife of Cuthbert Lockyer, M.D., B.S., M.R.C.P., F.R.C.S., of 117A, Harley Street, of a son.
ROBERTS.—On Wednesday, March 23rd, at South Eaton Place, S.W., the wife of Edward A. Roberts, M.D., of a daughter.

MARRIAGES.

BLAIKIE—ALEXANDER.—At Union Church, Hong Kong, on the 8th inst., by the Rev. C. H. Hawking, assisted by the Rev. J. Gaughen Gibson, D.D., Swatow, the Rev. Warden Blaikie, M.A., E.P. Masson, Chaplain-elect, to Lina Mosuli Alexander, M.B., Ch.B., E.P. Masson, Swatow, youngest daughter of the late John Alexander, Esq., Free Church Offices, Edinburgh.
WILSON—BISSET.—At Christ Church, Morningside, Edinburgh, on April 5th, by the Rev. C. M. Black, M.A., James Wilson, M.B., Ch.B.Aberd., Pelling-on-Tyne, eldest son of the Rev. James Wilson, B.D., Gardenstown, Banff, N.B., to Kate, youngest daughter of the late William Bisset, Aberdeen.
WOOD-BROOKER.—On March 26th, at St. George's Church, Bloomsbury, by the Rev. R. B. Tolhurst, M.A., Thomas Jason Wood, M.D., M.R.C.S., L.R.C.P., Surgeon, Bradford Royal Infirmary, to Edith Isabel, second daughter of the late James W. Brooker, Esq., of Sevenoaks, Kent.

DEATH.

ARMISON.—On April 4th, at Alnwick, Northumberland, George Armison, M.R.C.S., etc., aged 77 years.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical cases.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Holland Cotton will show (for discussion) a case of supposed Cancer of the Rectum, for which colotomy was performed. Dr. W. Aitken Turner: The Mental Condition in Epilepsy in relation to Prognosis. Mr. A. W. Mayo Robson: Peptic Ulcer of the Jejunum.
Royal College of Physicians of London, 5 p.m.—Dr. George Oliver: On Recent Studies on the Tissue Lymph Circulation. Oliver-Sharpey Lectures I.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of Cases of Interest.
South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Clinical evening.

THURSDAY.

Royal College of Physicians of London, 5 p.m. Dr. George Oliver: On Recent Studies on the Tissue Lymph Circulation. Oliver-Sharpey Lectures II.

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Cases will be shown by Drs. H. Ashby, Hawthorne, James Taylor, Morrison, Anderson Smith, and Farquhar Buzzard, and Messrs. Sydney Stephens and Pernet. Papers by Mr. Leonard Bidwell, F.R.C.S., Dr. George Carpenter, and Mr. Rose Bradford.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 7 Agar Street, Strand, W.C., London. Those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are considered to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary is stated.*

AUTHORS OF ORIGINAL ARTICLES published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish for replies to private letters must enclose their name and address, and should authenticate them with their initials or a pseudonym.

CORRESPONDENTS should look for answers to queries in the "Answers to Correspondents" column of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to individuals by name.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is "Aitiology, London." The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is "Associate, London."

TELEPHONE: National EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

QUERIES.

JUNIUS asks for recent literature on sea-sickness on long ocean voyages, containing up-to-date theories as to causation and methods of treatment, particularly in the case of delicate females.

PRESERVATION OF RUBBER INSTRUMENTS.

INELASTIC asks for advice for the preservation of rubber instruments, such as black rubber douche tubing, icebags, rubber parts of gas (nitrous oxide) apparatus. He finds that in time the rubber loses its elasticity, becomes brittle, cracks, and perishes; soaking in warm water restores the rubber a little, but in time this fails.

ANSWERS.

THE ACCUMULATION OF CERUMEN.

IN answer to a query from "M.D." (BRITISH MEDICAL JOURNAL, March 26th, p. 763) G. P. writes that in the course of thirty years he has frequently met with this trouble, which he attributes to subacute otitis. There is more or less pain during its removal by syringing and a raw surface is left. Instillation of glycerine or of a solution of sodium carbonate softens the wax. But for habitual use by the patient almond oil should be employed, the ears being gently syringed twice a week at night with the smallest-sized urethral syringe, and precautions taken against catching cold in the ears. An occasional blister behind the ear is useful, especially if any pain is present.

FRENKEL'S TREATMENT OF ATAXIA.

L.R.C.P. asks for the address of a sanatorium at home or abroad at which Frenkel's treatment of tabetic ataxia is carried out.

*** We do not know of any place in England where this method of treatment is habitually pursued, but it is one for which arrangements could readily be made anywhere. The treatment can be obtained at Heiden, in Switzerland, where Frenkel started it; similar methods are in use at Oeynhausen in Germany, and, we belive, at Lamalou in France.

TREATMENT OF OBSTINATE SCABIES.

DR. ARTHUR EMIAN (Brae, Shetland), who states that scabies is very common among Shetlanders, writes as follows in answer to a question by "F. Q.": I have found izal 4 fl. oz., glycerine 2 fl. oz., water 2 fl. oz., cure when all other means had failed. The lotion should be rubbed well into the skin night and morning. Every night the patient should have a good hot wash all over, using plenty of soap. Every third day the sheets, pillowcases, nightdresses, towels, underclothes, stockings, everything that touches the skin, should be changed. Even the gloves worn should be cotton or woollen, which can be put into boiling water once a week. All kid gloves at present in patient's possession should be burned. Women should wear long sleeved spencers or combinations, otherwise they are apt to reinfect their arms from their blouse sleeves.

The above lotion [illegible] a little for an hour sometimes, but not to all patients alike; often a white [illegible] people will cry to half an hour after the [illegible] sapped them to keep the [illegible] skin [illegible] removed by several hours of the trial. Patients should keep [illegible] and [illegible] of the disease has passed away [illegible] a healthy result to be well [illegible] once. Equal parts of [illegible] and glycerine [illegible] to better results and are more [illegible].

LETTERS, NOTES, Etc.

Leaflets and Infection

D. F. H. writes: [illegible] Health Act, 1891, [illegible] cleared, certainly [illegible] Act. It is the duty of [illegible] to inquire into any [illegible] and [illegible] in [illegible] [illegible] to have [illegible] the [illegible].

The Treatment of Consumptives

MR. GEORGE [illegible], C.M.G., M.L.C., F.R.C.P. (London), writes: The [illegible] to open a [illegible] to the fact that the [illegible] Colorado, [illegible] the treatment of [illegible] [illegible] characteristics [illegible] and [illegible] [illegible] does not [illegible] [illegible] to predict the [illegible] in the air respired by the patients. [illegible] in a institution in London. The [illegible] and cheap, and are preferred the most suitable [illegible].

Treatment of Pityriasis Rubra

MRS. M. N. [illegible], M.B., and Medical [illegible], writes: On the Lady Hatchlock despatch of Wednesday last, Colombo, Ceylon, [illegible] course of a letter referring to previous [illegible] on this subject, writes: I have [illegible] with precautionary [illegible] care in the hospital and [illegible] that for most developed cases [illegible]. Mine [illegible] a gentle [illegible], as recommended by most [illegible], but [illegible] allows. Rest, [illegible], and quiet: a diet of [illegible], and [illegible] food, must [illegible] to keep the bowels [illegible]. The [illegible], while [illegible] containing salicylate [illegible] to [illegible] a diluted [illegible] mixture, diuretic powders [illegible] drink. I have [illegible] this treatment to [illegible] cases, all have gone [illegible] from [illegible] and [illegible] have [illegible].

Practitioners of Indian Medical Practitioners

MR. V. P. [illegible], L.R.C.P. [illegible], L.F.P.S. (Glas.), Harwich writes: In answer to my letter drawing your attention to the [illegible] and [illegible] Indian medical gentlemen owing to want of [illegible] to a wider employment in the [illegible] of the [illegible] [illegible] were [illegible] to [illegible] the Indian Medical Service [illegible] the [illegible] of India. Perhaps I am to enter [illegible] that the [illegible] [illegible] of all [illegible] of Asia [illegible] and [illegible] the [illegible] [illegible] [illegible]

Remarks
ON
THE TREATMENT OF RETROVERSION OF THE GRAVID UTERUS.*

By G. ERNEST HERMAN, M.B., F.R.C.P.,
Consulting Obstetric Physician, London Hospital

Before considering the treatment of retroversion of the gravid uterus we have first to ask why it needs treatment. It needs treatment because it causes retention of urine. If it is not treated the patient will very likely die from the effects of retention of urine. The most common mode of death is by extension of the inflammation from the bladder up the ureters to the kidneys, producing what is known as "surgical kidney." This differs not from surgical kidney produced by retention independently of pregnancy. It may lead, like other forms of destructive kidney disease, to uraemia. Thus the patient may die from the effects of the displacement, weeks or months after it has been replaced.

It is not usual for cystitis to bring about death after the retention has been relieved, but the patient may die from hectic fever due to the condition of the bladder and kidneys, the bladder symptoms being the more conspicuous. In some cases there is exfoliation of the mucous membrane either as a complete sac[1] or in large pieces. This has been called "gangrenous" cystitis, "pseudo-membranous" cystitis, and "diphtheritic" cystitis. The latter term is a bad one, because this condition has nothing to do with the disease produced by Loeffler's bacillus. In some cases in which a membrane cast off from the inside of the bladder has been examined microscopically, it has been found to be not simply mucous membrane, but to contain also some muscular fibre. The membrane is generally encrusted with phosphatic salts so as to be rough, sometimes almost like sand paper.

Exfoliative cystitis is due to acute and prolonged retention of urine, and retroversion of the gravid uterus is its commonest cause. Next to that in frequency comes retention following delivery. It may occur in men from enlarged prostate, or other cause of retention. One of the specimens in the Museum of the Royal College of Surgeons was an exfoliation removed by Mr. Liston by suprapubic incision from the bladder of a man, in whom retention had occurred as a result of injury. Exfoliation has been produced experimentally in dogs by causing retention of urine. There is a specimen in the museum of Guy's Hospital in which the vesical mucous membrane is raised into nodular elevations by blood effused beneath it: this probably is the first step towards its complete detachment. It has been suggested that the pressure of the urine on the stretched mucous membrane may cause gangrene, but the cutting off of its blood supply by haemorrhage beneath it is a more satisfactory explanation. On *post-mortem* examination the mucous membrane has been found detached everywhere except at the neck of the bladder, so that it seems that it is here last separated, and that detachment begins at the fundus, the place farthest from the blood supply.

Recovery may take place after exfoliation of the vesical mucous membrane, but we know as yet nothing about the reparative process in the bladder after sloughing of the mucous membrane. In some of the cases the bladder has remained contracted. I know not whether this is the rule, but should think it probable.

Hurry[2] observed that for several weeks after exfoliation the urine contained a quantity of albumen larger than could be accounted for by the amount of pus, while there was no sign or symptom of Bright's disease. He suggests that there may be a serous exudation from the surface left bare by the exfoliation. This has been observed also in the London Hospital.

Exfoliative cystitis is not more painful than other kinds of cystitis. But instead of tending to recovery after retention has been relieved (as does cystitis which has not lasted long enough for exfoliation to take place) the cystitis continues until the dead mucous membrane is expelled or removed from the bladder. If nothing is done, the membrane will in time be passed by the urethra. The date of this will depend upon the size of the slough. It may be passed during the first week or not till the end of the third week.

The bladder may give way and extravasation of urine may take place, and in this way speedy death may result. This is not a simple mechanical bursting or tearing open (unless external force has been applied); it is a perforation of the vesical wall by destructive inflammation. In some cases inflammation spreading through the bladder wall to the peritoneum may lead to the formation of adhesions. But if this is not the case, the separation of a slough may lead to extravasation of urine either into the peritoneal cavity or into the cellular tissue according to the situation of the slough; or the wall being thinned by the sloughing of part of the bladder wall, it may rupture at the weak spot.[3] This event has been studied by Krukenberg.[4] He says that gangrene of the vesical wall has never yet been seen when the catheter was used before the sixth day of retention, and that if the catheter is used before the tenth day rupture of the bladder need not be feared.

Death may take place from peritonitis. This is not a frequent, but may be a cause of very speedy death. Rasch has published[5] a case in which peritonitis appears to have been the cause of death. The patient had had retention for 36 hours, and there was severe cystitis; the bladder was full of blood, and the bladder wall gangrenous at places. In this case it would seem as if the micro-organisms causing cystitis had spread through the injured bladder wall to the peritoneum. Peritonitis is not a common cause of death in these cases. A case has been recorded[6] in which the patient died from peritonitis twenty days after reposition. But in this case I regard it as doubtful whether the peritonitis was caused by the displacement.

It is commonly stated that when the retroverted gravid uterus is not replaced, sloughing of the uterus and slow discharge of its contents by fistulous openings into the vagina, rectum, or bladder may take place. This statement seems to have gained currency from its having been made by Dr. Arthur Farre, in his great article on the uterus in the *Cyclopædia of Anatomy and Physiology*. Dr. Farre was so accurate in his statements that his name alone was regarded as a guarantee of fact. But in this instance his statement is a mere general assertion; he relates no cases nor refers to any. I can only find one case recorded in which this is supposed to have happened, and as to this, I agree with Robert Barnes and with Tarnier and Budin in thinking that the case was one of ectopic pregnancy. It is recorded by Guichard.[7] The retention of urine occurred in March, when the patient was two months pregnant, a date too early for the pregnant uterus to cause retention of urine, and fetal bones escaped in the following December. This can hardly be spoken of as "gangrene of the uterus." So far as my knowledge goes, this alleged danger of gangrene of the retroverted pregnant uterus is a mere figment; it is an event which has never yet been known to occur.

An important case is reported by Dr. Macleod, of Kilmarnock.[8] It is authenticated by a necropsy. The gestation sac, which is said to have been the uterus, was adherent everywhere—in the pelvis, to the abdominal wall in front, and to the bowel above which communicated with the cavity. When such universal adhesions are present it is not always easy to determine the anatomical relations of the parts involved, and for this reason I think it just possible that this pregnancy may have been ectopic. But accepting the record as it stands, it must be pointed out that in this case there were repeated attempts at pushing up what was thought to be the uterus, and also at emptying it; and in 1857 antiseptics were unknown. The case, accepting the interpretation given in the report, is unique; but it only proves that pregnancy may take place in an adherent uterus, and that by septic infection suppuration may be set up. These cases are the only evidence that I can find in support of Dr. Arthur Farre's statement. They afford no ground for apprehending that suppuration is likely to occur in a retroverted gravid uterus that is properly treated, even if the displacement be not corrected.

It is said that the vagina may rupture and the uterus protrude. In one case mentioned by Charles this was the result of violent attempts at reposition. In another case the usually accurate Spiegelberg says, on the authority of Halbertsma, that the fetus made its exit through the anus. I have referred to the original record of this case,[9] and all I understand Halbertsma to say is that the uterus (covered by the anterior wall of the rectum) bulged at the anus, and that fetal parts could be felt through the uterine wall. Two other old cases have been quoted, the records of which I have not been able to see. I cannot say that this may not happen.

* Read before the Ealing Division of the Metropolitan Counties Branch of the British Medical Association.

but I do say that it is an event of the extremest rarity, which should never happen in the practice of any one provided with a catheter and an anæsthetic. It is so rare an accident that the possibility of its occurrence need not be taken into account.

It is commonly said that retroversion of the gravid uterus brings with it danger of abortion. This is a statement without foundation. On the contrary, by the time the uterus is large enough to become incarcerated under the sacral promontory, **the patient has gone past the time at which abortion is most frequent, and hence there is little tendency to abortion.** If retention of urine is allowed to go on long **unrelieved, so that cystitis and pyelitis have been brought about, and the patient is dying of uraemia, abortion will** probably precede death. And if the uterus is roughly handled in violent attempts at replacing a retroverted gravid uterus, **such misusage may bring about abortion. But retroversion** of the gravid uterus is not itself a cause of abortion. Let me give you some figures in illustration. Before considering **them, remember, please, that taking all pregnancies together,** about one out of every five ends in miscarriage. If, therefore, retroversion of the gravid uterus brings with it a special **tendency to abortion, this should take place oftener than in** 1 pregnancy out of 5. Busch, out of 74 cases, found that in 67 of them the uterus spontaneously righted itself, and of these only 4 aborted, or 1 in 17. This shows remarkably little tendency to abortion. In the other 5 cases the uterus **had to be manually replaced, and all these aborted.** Charles has analysed 138 cases. In 8 of these abortion was induced. **In 88 the displacement was forcibly reduced, either manually** or instrumentally, and in 11 of the cases abortion took place, or 1 in 8—that is, twice as frequently as among Busch's cases, **in which the uterus was allowed to right itself, but not as** often as among pregnancies generally.

Among his 138 cases, Charles reports abortion in 47; but in 8 of these the abortion was induced. Of the 39 who **spontaneously aborted, no less than 20 died. This illustrates** the association of abortion with the dangerous effects of un**relieved retention of urine.**

During the years from 1885 to 1903 inclusive, there were admitted into the London Hospital 74 cases of retroversion **of the gravid uterus. My general instruction to the resi**dent accoucheurs has been to treat such cases by keeping the **patient in bed and having the catheter frequently passed, but I have not objected to the uterus being at once replaced** when this could be done easily. In 5 of the 70 cases the notes are imperfect; of the 74 that remain, 40 spontaneously righted themselves when the patient was kept recumbent with the bladder empty; in 33 the uterus was manually replaced. Only 2 aborted, both of them cases in which the uterus was manually replaced; 2 died, both of them from uræmia. In 1 case a water-bag was used to effect reposition but took several days about it. I think the uterus would probably have gone up without the bag.

Dr. Champneys has kindly given me permission to use the **records of St. Bartholomew's Hospital; and I wish to thank** Dr. Eric E. Young for abstracting the notes from the registers. During the years 1894 to 1902, inclusive, 42 cases of retroversion of the gravid uterus were admitted into that hospital. One of these had not had retention of urine, but was admitted because she was aborting. The remaining 41 were all admitted because the uterus was incarcerated, and was causing retention of urine. In 23 of them the bladder was emptied, and the uterus easily replaced. In 2 cases attempts at reposition failed but the bladder was frequently emptied, **and the uterus afterwards spontaneously righted** itself. In 5 others the treatment was limited to the frequent use of the catheter, and the uterus in each of them spontaneously went up. In one case the uterus was pushed up by a water-bag in the vagina, and in another case by an air-bag. In two cases the uterus was pushed up by Aveling's repositor. In 2 cases abortion was induced, and 3 aborted spontaneously. In one of these abortion did not take place till a fortnight after relief of the retention. Two cases died both from the effects of retention of urine on the kidneys. One of the abortions did not take place till a fortnight after the uterus had righted itself. And another, in a fatal case, preceded death by two days. Here we have occurring in the two largest hospitals in London, 41 cases, with 6 abortions, or 1 in 7, a frequency about one fourth of that in pregnancies generally.

Looking over the clinical history of this condition it will be seen that the whole and sole danger of retroversion of the gravid uterus in the fourth month comes from its action as a **cause of retention of urine. There is no evidence that retro**version of the gravid uterus produces any ill effect upon the organ itself. Its only importance arises from its effect upon **the bladder; its only dangers are those which directly or in**directly spring from retention of urine, cystitis, peritonitis, rupture of bladder, pyelitis, uræmia. The one necessary treatment is the catheter. This, if used in time, is sufficient to relieve all symptoms and prevent all danger. Keep the bladder empty and the patient recumbent, and in over 50 per cent. of cases the uterus will right itself. If it does not, pregnancy will still go on. **The uterus will enlarge, its an**terior wall rising in the abdomen to accommodate the growing fetus. **After a few days the bladder, urethra, and cervix uteri gradually accommodate themselves to their** altered position, and retention of urine ceases. But **unfortunately it does not spontaneously cease soon enough to prevent harm from continued retention;** and therefore the possibility of its cessation should never be a reason for omitting or postponing the use of the catheter. The catheter must be used early and often, and if it is so used there will come a time when its use is no longer required. **The pregnancy will in all probability go to full** term, and when the full term has been reached, the uterine contractions will, while they dilate the cervix, pull it down **into its natural position, and effect natural delivery. This** has happened in every case in which the accoucheur in attendance has allowed it.

The catheter, and the catheter alone, is therefore all the necessary treatment for retroversion of the gravid uterus, and reposition is in the strict sense of the word unnecessary, for the patient will do perfectly well with the uterus in **its abnormal position if only retention of urine is prevented.**

But reposition, though unnecessary, is yet often desirable. In a few cases, although the bladder is kept empty and the **patient recumbent, the uterus does not spontaneously go up.** In such cases it is better to push the uterus up, and thus **obviate the necessity of frequently passing the catheter for** several days. In many cases it will be found easy, after the **bladder has been emptied, to push the uterus up with the** fingers in the vagina; and if so it is well to do it, and thus **relieve the patient of the necessity for further use of the** catheter.

I have never seen a case of retroversion of the gravid uterus **that could not be pushed up. In most such cases, after the** bladder has been emptied it is no use to attempt reduction **while the bladder is full—the uterus can be pushed up by** pressure applied through the vagina. But if the uterus is large, or the promontory much overhanging, the attempt to do this may fail, because the shortness of the vagina prevents **the pressure from being applied far enough back. When the retroverted uterus is incarcerated the knee-elbow position has no special advantage; the uterus is prevented from going up, not by the intra-abdominal pressure, but by the sacral promontory, and this obstacle to reposition remains the same** whatever the position of the woman, and is not removed by **making the intra-abdominal pressure negative.**

If there is difficulty in replacing a retroverted gravid uterus, the best way of doing it is with two fingers in the rectum under anæsthesia. By the rectum pressure can be applied at the fundus of the uterus a part that cannot be reached by the vagina. With two fingers in the rectum you can press on further up than with one finger. The presence of two fingers in the rectum is disagreeable for a patient who is sensitive, but when done under anæsthesia the slight stretching of the sphincter which it involves leaves behind no unpleasant effects. With the two fingers applied to the fundus it should be pressed upwards and towards the side on which the larger half of the uterus lies. By pressing towards one side the resistance of the overhanging promontory will be evaded. I have seen the advice given to pull down the cervix with a hook or vulsella; but this is unnecessary; push the fundus up, and the cervix will take care of itself. Instruments have been devised for the special purpose of pushing up the uterus, but no instrument can press so accurately upon the right point in the right direction, and with such economy of force, as the tips of the fingers. It has been sometimes advised to effect reposition by placing a dilating bag in the vagina. I have known with such a bag in the vagina a week to elapse before the uterus went up, and I suspect it would have gone up as quickly if no bag had been there. Such a bag cannot very powerfully press upwards, because the perineum is its only point of support below. Therefore I believe a dilating bag to be both ineffective and unnecessary.

It has been said that it may be necessary to empty the

bladder by suprapubic puncture. I cannot understand how a competent man, with an elastic male catheter, the use of his eyes, and a good light can fail to pass a catheter in these cases. The figures I have read to you show that in twenty years, in the two largest hospitals in London, not a case was met with in which the catheter could not be passed; and therefore, suprapubic puncture of the bladder was never done.

I have spoken of this subject at greater length and with more emphasis that I should have done had it not been that in some textbooks, meritorious in many ways, abdominal section is recommended for retroversion of the gravid uterus. But when one finds that it is apparently not known that a retroverted gravid uterus will nearly always right itself within forty-eight hours if the patient is kept recumbent and her bladder empty, the force of the advice to do abdominal section is considerably weakened.

I can see no reason for performing abdominal section. The only cases in which it can possibly be beneficial are those in which the uterus is fixed by adhesions in a position of retroversion; and as adhesions generally lead to sterility, such cases will always be of extreme rarity. And in such cases the breaking down of adhesions and replacement of the uterus will be attended with more haemorrhage than usual, owing to the greater vascularity of the pelvic organs brought about by pregnancy. Nevertheless, I think in a case of retroversion fixed by adhesions it would be better to free the uterus by manipulating within the peritoneal cavity than to try to break down adhesions by pressure from below. Death has been caused by injuries inflicted during such manipulations. The operator who tears through adhesions by pressure from below cannot know what pus cavities he may open or what vessels he may tear across. The operator who opens the abdomen can at least tell if he liberates pus or if there is haemorrhage, and in the latter case he can do something to stop it. But if there is no other indication for abdominal section other than retroversion of the uterus causing retention of urine and not easily replaceable, it is not necessary to replace the uterus. Either the pregnancy will go to the full term, the uterus enlarging at the expense of its anterior wall or else spontaneous abortion will take place. If the gestation goes to full time, in the course of pregnancy the adhesions will get looser, softer, and probably in time will be absorbed.

Abdominal section is not free from risk. The case of an adherent pregnant uterus is just the one in which oozing from severed adhesions is likely to be free and difficult to stop. The danger of abdominal section is greater than that of a week's frequent use of the catheter, and greater than that of letting pregnancy go to term with part of the uterus in the hollow of the sacrum.

It has been proposed and recommended in some textbooks to puncture the uterus by the rectum or by the vagina, draw off the liquor amnii in order to reduce the bulk of the uterus, and thus make reposition easy. This proposal ought to be respectfully considered because it was made by William Hunter. It will prevent too much weight being attached to the fact that Hunter thought the uterus was sometimes irreducible if we remember that Hunter had no anaesthetic. If the uterus is really irreducible it may seem a reasonable thing to do; but before doing this it is desirable to be sure that the uterus is really irreducible. We should remember not only that in the great majority of cases the uterus will go up if the patient is kept recumbent and the catheter frequently passed: but that even in cases in which attempts at reposition had failed, when the patient was kept lying down with her bladder empty the uterus went up, to use an expression I often find in the notes, "of its own accord."

It is also sometimes recommended to induce abortion. When the cervix is high up it is not an easy thing to get a sound or tent into the cervix. But looking at the facts, that in the large majority of cases the uterus will right itself if the patient is kept recumbent and the catheter frequently passed, and if the uterus does not right itself the pregnancy may go to term and natural delivery take place in spite of the displacement, provided retention of urine is avoided, the induction of abortion seems to me unnecessary.

References

[1] There are several such sacs in the Museum of the Royal College of Surgeons of England, Nos. [illegible]. [2] *Lancet*, May [illegible], p. [illegible]. [3] There is a specimen in the R.C.S. Eng., No. [illegible], showing this. [4] *Arch. f. Gyn.*, Bd. xix, 1882. [5] *Obst. Trans.*, vol. xxxi, p. [illegible]. [6] *Med. Times and Gazette*, 1865. [7] *Gaz. Méd. de Paris*, 1861. [8] *Medical Journal*, January, 1887, p. 210. [9] *Monats. f. Geb.*, xxxiv, p. 415. [10] *Inaugural Dissertation des Wirtz*, Bd. iii, s. 153. [11] *Des Lésions traumatiques de la Matrice en Avant pendant la Grossesse*. [12] *Lancet*, May [illegible], p. [illegible].

EXTRAUTERINE PREGNANCY.

By A. E. HIND, F.R.C.S.,
Jersey.

The following case of extrauterine pregnancy in which rupture occurred at the third month, and death took place on the tenth day after an operation from pulmonary embolism, presents points of interest.

History.—Mrs. L., aged 31, had had three healthy suggested ages, but no miscarriage. On September [illegible] she called in Dr. O'Connor, of Grouville, who found her suffering from abdominal pain. She had vomited several times. She had not been feeling well for some days, and had felt pain more or less for a week. She was living in bed on her back. The abdomen was distended and hard. The pain was referred chiefly to the right iliac fossa, and she could not bear the slightest pressure in that region, no dullness could be detected. She declared that menstruation had occurred every three weeks and that she was not pregnant. The bowels had not acted for more than a week. Pulse [illegible], feeble. Temperature [illegible]. Heart sounds normal. Urine normal. The patient was ordered to remain in bed. Diet milk and beef tea only. An enema was given with satisfactory result. After condition gradually improved and when seen on October 4th she said she felt quite well. There was then no pain on pressure, but the abdomen was still distended. Pulse [illegible]. Bowels very obstinate. Eight days later she again called in Dr. O'Connor. He found that she had been downstairs every day, and that whilst in the kitchen that afternoon she was suddenly seized with violent abdominal pain and fell unconscious.

When seen she was in a state of collapse. She lay on her back, knees drawn up, face pale and pinched, pulse [illegible], respirations feeble and rapid, abdomen most painful.

State on Examination.—On the following day, October 25th, I was called by Dr. O'Connor to see the case, and decided to open the abdomen without delay. The patient was breathing very quickly. Pulse rapid and less tension. Face very pale. Abdomen distended and immobile, especially over the lower half; painful and tender all over. She was too ill to be removed to the hospital four miles away. In the attic of a poor labourer's cottage, with the help of Mr. Tweedie we set to work with such precautions against sepsis as we could command.

Operation.—The abdomen was opened by a [illegible] inch incision through the sheath of the right rectus, and the lower part of the abdomen and the pelvis were full of blood, mostly clotted and dark. Some difficulty was found owing to the distension of the intestines, and while washing out the blood there was a sudden rush of water from the pelvis, and a fetus about 3 inches long appeared, still attached by its umbilical cord to its torn and anaemic placenta. There was only one definite adhesion between bowel and sac, and the sac was apparently continuous with an enlarged portion of the fimbriated extremity of the Fallopian tube, distal to the ovary. The fetus and sac were easily removed and the Fallopian tube ligatured. After clearing out the abdomen as completely as possible the wound was closed and dressed, and a large hot water and salt enema was given and retained.

Progress.—The patient passed a good night after the operation, with the exception of some vomiting, which was relieved by a dose of calomel. After this there was slight diarrhoea, but the wound healed and convalescence was uninterrupted till the tenth day. On November 4th the patient was cheerful and wanted to get up. She seemed quite well, except that the breathing was rather more rapid than one would wish and the pulse still rather feeble. There was no pain or tenderness over the abdomen. Ten minutes after I left her she suddenly collapsed and died.

Necropsy.—Wound perfectly healed. Pelvis contained some blood stained fluid *post mortem*. No injection of peritoneum. Slight signs of a localized peritonitis between two coils of intestine in one place. The remainder of the peritoneum quite healthy. Stump of tube firmly held by silk ligature partially imbedded. The pulmonary artery contained a large clot, which, although branched, was not altogether fixed. It was laminated on section and in parts hollow. Its laminated structure and variegated colour suggested that parts of it were not of recent formation.

Remarks.—I have no doubt that death was caused by the clot described becoming detached and causing a complete block. It had doubtless been slowing forming. There was also some engorgement of the posterior parts of both lungs, which I do not think was a *post-mortem* change, but probably due to the obstruction of the pulmonary arteries. How long that clot had been in the pulmonary artery before getting moved and causing death one can only surmise. The rapid breathing had been a prominent feature of the case from the first time I saw her, namely, before the operation. Such an accident is apt to follow any operation, and I cannot see how it can be guarded against. I do not think that sepsis has anything to do with the causation. Twice previously have I had similar trouble. Once on the tenth day after removal of a large fibroid, and once after ovariotomy (on the fourteenth day). In neither case was there the slightest sign of any septic infection at any time of the case.

An anonymous offer to defray the cost of the erection of an operating theatre for the High Wycombe and Earl of Beaconsfield Memorial Cottage Hospital has been accepted.

TREATMENT OF A CASE OF DEPRESSED FRACTURE OF THE SKULL CAUSED DURING BIRTH.

By ANDREW B. ROSS, M.A., M.B., Ch.B.Edin.,
Late House Surgeon, Glasgow Maternity Hospital

I was called on January 25th to see Mrs. F., aged 28, in her sixth confinement. At her first confinement and her third she had chloroform, and her children were born alive and uninjured, but she does not know whether instruments were used on these occasions. Her second labour was tedious: the child was born dead, but its head was injured; no instruments were used. Her fourth labour was only a little prolonged, and a healthy female child was born uninjured. Her fifth labour, twelve months before, was a case of placenta praevia, delivered by version, between the seventh and eighth months. On the present occasion labour had been going on for fourteen hours, and the nurse in attendance reported that progress had ceased. The os was fully dilated. The head was presenting in the left occipito-anterior position, and seemed fairly well fixed in the brim. Flexion was well marked. I delivered with axis-traction forceps. There was considerable resistance to traction at first, then something seemed suddenly to give way, after which the head and trunk were easily delivered. The diagonal conjugate of the pelvis was roughly estimated to be 4 in.

On the child's head there was a deep almost circular depression, measuring 2 in. antero-posteriorly and 1¼ in. across, in the left frontal bone; its posterior and internal margins were at the corresponding borders of the bone, the angle of the latter at the anterior fontanelle being slightly tilted up. The anterior margin of the depression lay ½ in. from the supraorbital ridge. I endeavoured to raise the depression by Dr. J. Munro Kerr's method, placing the child's head between my knees, and with one hand on its right frontal bone and the other on its left parietal posteriorly, making strong compression in the diameter of the head at right angles to that in which the depression lay, but this produced no change. The child did not appear to be suffering in any way from the effects of the injury.

On February 17th, twenty days after birth, as there was no spontaneous improvement visible, the child, who was showing no symptoms, was operated on in the Glasgow Maternity Hospital. I made an incision 1 in. long through the scalp, beginning just external to the anterior fontanelle and running parallel to, and ½ in. in front of, the left coronal suture, and then cut through the bone in the same position by a lateral rocking movement with a sharp scalpel. An angled periosteum elevator was now inserted and passed forward between the bone and the dura mater; injury to the latter was avoided by making the incision in the bone ¼ in. away from the suture to which it is adherent, as recommended by Dr. Jardine. The point of the elevator was brought under the centre of the depression, and by tilting it upwards the inner portion of the bone was raised without difficulty, a sound and sensation being produced as if a dent in a cellular ball were being pushed out. The outer part of the depression, however, had not come up, and when the point of the elevator was moved out to get under it, it was found to slip out from under the bone and to be immediately below the scalp. There was then recognized to be a fracture of the bone running antero-posteriorly and situated rather in the outer half of the depression. The point of the elevator was got under the outer fragment which was now raised out and replaced as the inner fragment, as the position and size of the incision in the bone prevented a proper manipulation of the instrument. Had the incision been larger while further retaining the coronal suture doubtless the difficulty would not have been experienced. There was very little bleeding and the scalp wound was closed with two stitches. The depression had been well raised, and the area of bone depressed had become prominently arched; the child's condition was excellent, although the head was slightly [illegible] in comparison with the right side, except a slight ridge which was visible where the outer margin of the depression had been. The child was seen a week later, and no further change in the skull had taken place, and the good difference between the two sides remained.

The operation was technically a very simple one, and could easily be done immediately after birth, without fear of infection from the skin, in cases where the depression could not be raised by other means, and where it was giving rise to respiratory or other symptoms. The failure of compressing the head immediately after birth in this case to raise the depression might, I think, have been taken as strong presumptive evidence of the presence of a fracture, although it was not otherwise detected, because Dr. Munro Kerr has found that in ordinary depressions his method is almost invariably successful; and, as the late Dr. Milne Murray suggested when the method was first described, in cases of fracture the lateral pressure is more likely to drive the angle in the bone at the line of fracture inwards than to force it out.

THE GLYCOGEN REACTION IN BLOOD:

Its Pathological and Diagnostic Import.

By G. LOVELL GULLAND, M.A., B.Sc., M.D., F.R.C.P.E.,
Assistant Physician, Royal Infirmary; Physician, Victoria Hospital for Consumption, Edinburgh.

Nature of the Reaction.

The reaction which I wish to describe is one which has been known for a good many years. Ehrlich described it in pus in 1883, and Gabritschewski studied it in numerous blood conditions in 1891. It fell out of sight, however, and it is only within the last two or three years that it has again been made use of to any extent. This has been due mainly to Kaminer, Czerny, and Weiss on the Continent, and to Dunham, Locke, and Cabot in America. In this country little attention has been paid to it. It is to Locke that the credit is due of having most exhaustively studied it and placed its application on a firm basis. Since his paper appeared I have applied it to all the cases whose blood I have examined, and to many earlier cases of which I had preserved films, and I have found his conclusions hold good on almost every point.

The method is extremely simple. The solution employed, which serves for fixing, staining, and mounting, is composed of

[illegible] gram iodide of potash, 2 grams distilled water, 1 c.cm., with enough gum acacia or gum arabic added to make the fluid of a syrupy consistence.

The bottle must be kept tightly corked as the iodine evaporates and the staining is weakened. A rather large drop of this solution is placed on a clean slide, and an ordinary air-dried blood film on a cover-glass lowered on to it, allowed to remain undisturbed for half a minute to allow of complete staining, and then displaced towards one end of the slide in order that the thick layer of fluid may not cut off too much light in examination; or the surplus fluid may be removed with filter paper. The gum soon sets and the preparation will keep for weeks, or sometimes longer, though it slowly fades. The film of blood should be thin, as the reaction is much more easily studied if the leucocytes are flattened out.

The specimen is at once ready for examination, and this must be done with an oil immersion lens and a good light—daylight for choice—but if that is not available, with the whitest light obtainable. The light from an incandescent gas burner is satisfactory. An ordinary high power will usually allow one to make out well-marked reactions, but not fainter ones, and should therefore not be used. Other methods have been devised both of staining and mounting, but after a careful trial of them all I have returned to the original method as most satisfactory.

In a film of normal blood treated in this way the red corpuscles are stained yellow or a white or faintly yellow background, the white corpuscles of a much fuller [illegible] yellow tint. The lymphocytes, indeed, can hardly be distinguished from the background, except by the slight difference in the refractive index of their nuclei. In [illegible] cases, and the polymorphonuclear neutrophile cells in [illegible] cases, the cytoplasm of these cells is stained a deep [illegible] brown, the colour of the granules [illegible] In cases of these leucocytes should be the [illegible] tone of colour in normal blood this colour is only seen occasionally in the cytoplasm of blood plates which [illegible] scattered all over the slide. The amount of this [illegible] colour also varies greatly in different cases. The only disease in which it seems to be uniformly increased is [illegible] and it was in connection with [illegible] that I was led to discover the law [illegible] to which I shall subsequently refer.

The appearance described is regarded as a "negative"

reaction. In a "positive" reaction the change occurs in the polymorphs alone; lymphocytes and eosmophiles are never affected, and the rare cases of myelaemia in which glycogen appears in myelocytes and basophiles may be disregarded. The cells affected may give the brown or reddish-brown colour of glycogen in three ways: (1) As a diffuse coloration; (2) as fine granules scattered through the whole or part of the cell body; (3) as coarser granules or masses which may be scattered through the cell body, but are more usually found at or near the periphery, sometimes indeed projecting as pseudopodia from it. The last form is usually seen only in well-marked reactions, the two former both in these and in fainter ones. All may be studied by the beginner in pus, though the staining in pus is usually much darker than in blood leucocytes. A beginner will only observe the more deeply-stained cells in blood. I am satisfied that the granules of glycogen do not correspond with the neutrophile granules of the cell body, which I have elsewhere shown to be identical with the nodes of the reticulum of the cell, but that they are paraplastic and embedded in the inter-reticular substance. This accounts for the fact that the larger masses are pushed to the outside of the cell. The nuclei are never affected.

The nature of the substance so stained has given rise to some discussion, but there seems little doubt, from the facts adduced by Best, that it is not pure glycogen, but probably a rather loose combination of glycogen with some other substance, possibly proteid in character. In cases where the blood reaction is positive it is not found, according to Katsurada, in leucocytes in the bone marrow, so that the substance would seem to be taken up or elaborated by leucocytes in the blood stream. Emigrated leucocytes in inflammatory exudations and in pus show it in larger amount than those in the blood.

The number of cells affected in a "positive" reaction varies greatly, almost every one may show the staining, or only 2 or 3 per cent. If, after five minutes' searching, or passing a hundred polymorphs in review, no "positive" cell is seen, the reaction may be regarded as negative. A much shorter time is usually all that is required to make out a positive reaction; the first glance at a film may suffice. The degree of reaction or the number of cells affected generally gives a very good index of the severity of the causal condition.

Conditions under which it Occurs.

The general conditions in which the intracellular reaction occurs are generally regarded as four in number.

1. Severe disturbances of respiration.
2. Anaemia.
3. Toxaemias of metabolic origin.
4. Suppuration and bacterial infection.

1. *Severe Disturbances of Respiration.*

The reaction occurs in such conditions as laryngeal stenosis, extensive atelectasis of the lungs, extensive pneumothorax, terminal dyspnoea, severe heart failure with dyspnoea. In none of these is the reaction usually marked, and it disappears when the causal condition is removed, unless pneumonia or broncho-pneumonia sets in.

2. *Anaemia.*

In ordinary cases of chlorosis, in moderate secondary anaemia, mild or chronic pernicious anaemia, and in some leucocythaemias the reaction is negative. In severe secondary anaemia, in late and severe pernicious anaemia, and in late and in acute leucocythaemias the reaction is often positive. Secondary anaemia, however, is so often caused by septic conditions and by malignant disease, in the late stages of which a marked reaction usually occurs, and patients with bad pernicious anaemia and leucocythaemia are so notoriously prone to bacterial infection, that I am very doubtful whether the anaemia *per se* has anything to do with the reaction.

3. *Toxaemias of Metabolic Origin.*

It occurs in such conditions as uraemia and diabetic coma. It is possible that the reaction occurring in the late stages of malignant disease—it is absent in early cases—should be classed here. It is, of course, well known that tumour cells contain large amounts of glycogen. In many cases of cancer the accompanying ulcerative and inflammatory processes account for the positive reaction. It has also been found in chronic morphinism.

4. *Suppuration and Bacterial Infection.*

The foregoing headings are mainly of pathological interest; it is in the conditions presently to be cited that the diagnostic interest centres.

Kaminer has made a series of experiments on animals in order to discover what organisms, when injected, will cause the reaction. He obtained positive results with streptococcus, staphylococcus, pneumococcus, bacillus anthracis, bacillus pneumoniae (Friedlaender), bacillus coli communis, bacillus typhosus, bacillus pyocyaneus, and bacillus diphtheriae; and Sorochowitsch has also got positive results with the toxins of these organisms; negative results with the organisms of tetanus and fowl cholera, and with such haemolytic agents as potassium chlorate.

But Weiss has since shown that only those cases of diphtheria in the human being give the reaction which are associated with much inflammation and infiltration, and Locke and others have shown that in typhoid fever the reaction is never intense, and does not appear until the end of the second or third week, if at all. Infections in the human subject with the other organisms named give a positive result.

Clinically, the following are the chief conditions in which a positive reaction is constant:

(*a*) *Croupous Pneumonia.* Here the reaction is early and usually intense. I have found it well marked within ten hours of the rigor. In the early days of a deep-seated pneumonia with few physical signs I have found it useful. It persists until the crisis, soon disappears thereafter, and if it persists should excite suspicion of delayed resolution or empyema.

(*b*) *Broncho-pneumonia.*—The reaction is rarely so well-marked as in croupous pneumonia, but I have found it of value in cases where there was doubt whether this condition was present in addition to bronchitis, in which the reaction is negative. In a case of healed phthisis, where there was an attack of fever with vague signs in the chest, and a fear of recurrence of tubercle, the presence of reaction enabled one to negative this suspicion.

(*c*) *Empyema.*—The reaction is always well marked, and this is a valuable aid in diagnosis from serous effusion, in which the reaction is negative, in cases where the fears of the patient, or other reasons, make exploratory puncture impossible. In dry pleurisy the reaction is also negative, and this is of importance in severe cases in diagnosing it from pneumonia.

(*d*) *Abscess and Gangrene of Lung.*—The reaction is positive unless there is free drainage.

(*e*) *Septicaemias and Pyaemias of all Kinds*, accidental, puerperal, and post-operative, and such conditions as ulcerative endocarditis. The reaction is always very marked, while leucocytosis is by no means constant.

(*f*) *All Advancing Suppurative Processes.*—In these the reaction is constant when any of the pus-producing organisms are concerned, unless the abscess is quite trivial or the condition is early, and varies in amount according to the severity of the condition and the amount of constitutional disturbance produced. The actual size of the abscess does not affect the reaction, thus a carbuncle will give a reaction as intense as a large abscess or an osteo-myelitis, and I have seen a teaspoonful of pus in a retrocaecal abscess give as intense a response as a croupous pneumonia. Free drainage very soon puts an end to the reaction, and pus-pocketing at once brings it back. Recently I have seen a very striking instance of this in a case of pyelitis or pyonephrosis, in which pus was discharged intermittently with the urine from the affected kidney. Whenever the urine was clear, coming obviously from the unaffected side, the reaction was intense, while a discharge of thick pus-containing urine was regularly followed by a remission, though not a disappearance, of the reaction. Tuberculous abscesses do not give the reaction.

(*g*) *Septic Gangrene of all Kinds.*—Gangrene of the bowel in strangulated hernia or intestinal obstruction, or of a limb in the late stages of diabetes, will alike produce a marked reaction. Small aseptic sloughs do not cause it.

(*h*) *Appendicitis and Peritonitis.* In regard to these conditions, Locke's statistics are so striking that I cannot forbear quoting them. In 8 cases of interval operation the reaction was invariably negative. In 13 cases of acute appendicitis without general peritonitis or local abscess, the reaction was always positive, but varied in degree from slight in cases where there was simply moderate inflammation of the appendix to marked in cases where the appendix was gangrenous. In 20 cases of appendicitis with local abscess, but without general peritonitis, the reaction was always good, sometimes very marked, except in one case, where there were only a few drops of pus thoroughly walled off, and the reaction

was faint. In 21 cases of general peritonitis, from various causes, the reaction was always present and usually intense, especially where pus was present. It was faint in only one case, after nine hours of a fatal inflammation from perforating gastric ulcer. My own experience, though much less extensive, exactly bears this out. In abdominal cases in particular the reaction is a much more trustworthy guide than leucocytosis, for while a large leucocytosis, of more than 20,000, practically always indicates operation, the majority of appendicitis cases have an annoying way of showing a leucocytosis of from 15,000 to 17,000, even with a gangrenous appendix, while some, and those the very worst cases of peritonitis, have no leucocytosis at all. In these, however, the glycogen reaction is always well marked. That the converse holds good the following case will indicate. I was asked some time ago by one of my surgical colleagues to see a case in which the history, symptoms, and signs were so vague that the diagnosis was about equally balanced between perforating gastric ulcer and broncho-pneumonia. A leucocyte count had been made and had given 17,000, but the time and place did not allow a more complete blood examination, and it was decided to operate. Nothing was found in the abdomen, and the patient afterwards went through a broncho-pneumonia. When I had an opportunity of examining the films I found a polymorph percentage of only 68 and a doubtful glycogen reaction. Had the circumstances of the case allowed me to make the complete examination at the time I should have refused to sanction operation. I might multiply instances of the sort, but the point is sufficiently well illustrated by what I have said. A point of some importance is the time after the onset of symptoms at which the reaction appears. Locke found it faint three hours after the perforation of a typhoid ulcer, well marked six hours after. I have found it very intense twelve hours after perforation of a gastric ulcer; well marked fifteen hours after the onset of symptoms in a gangrenous appendix case; and quite recently, well marked an hour and a half after the onset in an inflamed appendix with peritonitis.

There are numerous other conditions of less importance in this connexion in which the reaction is present, such as late typhoid, advanced phthisis (in both of which it is probably due to secondary infection), severe malaria, acute cystitis, cerebro-spinal meningitis, miliary tuberculosis (sometimes), severe enteritis (slight), gonorrhoeal arthritis, etc.

Conditions in which it is Absent.

The conditions in which the reaction is uniformly absent are equally important from the point of view of diagnosis. In addition to those already named—rheumatic fever, chronic rheumatoid arthritis, chorea, rickets, infantile atrophy, congenital heart disease and adult heart disease (unless compensation has failed badly), catarrhal jaundice, uncomplicated tubercle of all kinds, dry and serous pleurisy, bronchitis, whooping-cough, asthma, alcoholism, nervous conditions, early cancer, lead colic, diabetes (except when coma has supervened), and such abdominal conditions as ruptured extrauterine pregnancy, obstructed hernia, intestinal obstruction from bands, etc., unless gangrene or peritonitis has set in, and in stationary abscesses.

The relation of the reaction to leucocytosis has already been hinted at, and may be stated briefly thus—that while many of the causes which produce the reaction also cause leucocytosis, there is no necessary connexion between the two, for in rheumatic fever, for instance, where leucocytosis is the rule, the glycogen reaction is absent, and frequently in the [illegible] producing diseases the infection is either so slight or so severe that the leucocytes do not rise, though the glycogen reaction is positive, and in the latter case, of great severity, is always lacking. Thus in septicæmia I have seen cases [illegible] with marked glycogen reaction. There is a much closer relation between the reaction and a high percentage of polymorphs (over 75 per cent.) than between it and leucocytosis, and one usually finds the two running parallel, a marked reaction with a high polymorph count. Even this, however, is not invariable, and I have found as low as 52 per cent. of polymorphs in cases with marked glycogen reaction. One unfortunate result of the use of the test has been that we have [illegible] in the conditions named.

Experimental Studies.

The [illegible] of the reaction is not very clear. It is [illegible] leucocytes with broken-down [illegible] other evidence goes to show that glycogen is usually found in young and active cells. It is probably associated in some way with the resistance of the organism to poisons, and especially to those which produce positive chemotaxis.

It is unnecessary to repeat in detail the various ways in which the reaction may be used in diagnosis, but it will be obvious that a method which enables us to approach greater certainty of diagnosis in deep-seated pneumonias; to distinguish gonorrhoeal arthritis from ordinary rheumatism, septic or cerebro-spinal meningitis from the tuberculous variety—perhaps, though, on this point observations have not yet been made—cerebral abscess from cerebral tumour, obstructed from strangulated hernia, and which possesses, in addition, the wide range of application already indicated in septic conditions, deserves a more frequent application than has yet been accorded to it. One point which Locke makes is worthy of note, that patients who show it are always "sick," to use the expressive Americanism. Its presence, therefore, in cases which do not admit of a positive diagnosis should always put us on our guard against the possible development of some serious condition.

It must also be clearly understood that, while the method is simplicity itself, it demands in the observer some previous acquaintance with the appearances of blood films, and that it takes some practice before the reaction can be read aright. In its interpretation also it necessitates the same precautions as other blood tests, and, indeed, as all laboratory tests. It requires a thorough previous examination of the patient, the exclusion, as far as possible, of complicating conditions, and the endeavour to keep in view a clear issue for diagnosis. If this be done, the method will be found to be of great value.

Bibliography

1. Locke and Cabot, *Journ. of Med. Research*, vol. viii., 1902. 2. Locke, *Brit. Med. Journ.*, vol. cxlvii., 1903. 3. Best, *Beiträge path. Anat. (Ziegler)*, vol. xxxiii., 1903. 4. Katsurada, *Centralbl. f. Inn. Med.*, 1903. 5. Kaumheer, *Berl. klin. Woch.*, 1899. 6. Sorochowitsch, *Centralbl. f. Inn. Med.*, vol. li., 1902. 7. Weiss, *Zeitschr. f. Heilkunde*, vol. lviii., 1902. Full references to earlier papers will be found in Nos. 1, 2, 6, and 7.

OBSERVATIONS ON SOME TESTS FOR ALBUMEN IN URINE.

By CHARLES MURRAY, M.A., M.D., D.P.H.,

Senior Assistant in Physiology, University of Aberdeen.

From the Physiological Laboratory of the University of Aberdeen.

In connexion with what is probably the most commonly employed clinical test for albumen in urine—namely, the application of heat combined with acidulation—my attention has been directed to some facts which I believe are not generally well known, and an explanation of which I have not been able to find in any published work. The great point in this test is the amount of acidulation, and the fallacies which are apt to mislead one in using the test generally arise from inaccurate acidulation. This is especially the case if strong nitric acid is employed, as is still done by many physicians and recommended in many textbooks, diverse directions being given as to the amount of acid to be used.

In connexion with the use of strong nitric acid in performing this heat-coagulation test, Bence-Jones long ago (about 1850) pointed out the fact that, if too little nitric acid be added (2 to 3 drops to 10 c.cm. of albuminous urine), or too much (10 to 20 drops), one may fail altogether to detect the presence of albumen, although it is present in appreciable quantity. On the other hand, if 10 to 12 drops are added, and the upper stratum of the fluid rapidly heated, the test is positive—that is to say, a white turbidity or coagulum is produced. Moreover, when 2 or 3 drops of nitric acid have been used and the test tube boiled with a negative result, the further addition of a certain amount of nitric acid (for example, 6 to 10 drops) leads to coagulation.

These peculiar facts as observed by Bence-Jones seem to have been almost entirely forgotten, for very few, if any, of the present-day textbooks point out this fallacy, and I have not been able to find any published work which gives experimental evidence to explain the above phenomena.

In the formation of acid albumen (not coagulable by heat) the presence of the negative result with 2 to 3 drops of nitric acid [illegible] to any definite [illegible] that such is the case we may explain why coagulation takes place on the further addition of 6 to 10 drops of nitric acid since all the [illegible] acid albumen is not coagulable by heat. Again why should not the [illegible]

12 drops of nitric acid lead to the formation of acid-albumen and an absence of coagulation on heating? I have performed a large number of experiments with albuminous urine, and the main results obtained have been similar in all the cases. The following is selected as a typical experiment:

Albuminous urine (2 per cent. by Esbach's albuminometer) is faintly acid in reaction, sp. gr. 1010, and contains a few hyaline casts. Five test tubes were taken, each containing 5 c.cm. of the filtered urine. Drops of strong nitric acid were added as follows:

A	no HNO$_3$
B	1 drop
C	3 drops
D	10 drops
E	30 drops
F	40 drops

After boiling, A, B, E, and F were quite clear, coagulation was present in C and D. The addition of another 1 to 2 drops of HNO$_3$ to A and B after boiling caused turbidity.

This illustrates the phenomena as observed by Bence-Jones. With the larger amounts of nitric acid some turbidity is induced on adding the acid; this may clear up on boiling as in the foregoing experiment, or may not clear up, as often occurs. That acid-albumen had been formed in tubes A. and B. was conclusively proved in this way:—

1. *By Neutralization.*—1 drop of the strong HNO$_3$ employed was found by experiment to be almost neutralized by 2 drops of 5 per cent. KOH solution. Tubes A and B were carefully neutralized first by the addition of 1 to 2 drops and 2 to 3 drops 5 per cent. KOH respectively, the final part of the neutralization being carried out by 1 per cent. KOH solution. At the neutral point down came a copious precipitate of acid-albumen, which was soluble in excess of the alkali, but which was again thrown down by neutralizing with weak acid, and again re-dissolved in excess of the acid.

2. *By Saturation with Neutral Salts, such as Sodium Chloride and Magnesium Sulphate.*—Portions of albuminous urine were taken in tubes A and B, as before, and 1 and 2 drops of HNO$_3$ added respectively; these were then boiled as before. After cooling, both mixtures were saturated with NaCl crystals. There was a copious precipitate of acid-albumen in both tubes. Similar results occurred on saturation with MgSO$_4$, and on half-saturation with ammonium sulphate. The urine, before adding the HNO$_3$, did not give such a precipitate with NaCl, etc. Now, acid-albumen (like serum-globulin, etc.) is precipitated by saturation with NaCl and MgSO$_4$, and by half-saturation with $(NH_4)_2SO_4$, while ordinary albumens are soluble in saturated solutions of NaCl and MgSO$_4$ and half-saturated solutions of $(NH_4)_2SO_4$. After filtering off the precipitated acid-albumen the filtrate was found to be proteid-free and gave no precipitate when tested with proteid-precipitants (for example, salicyl-sulphonic acid, etc.), showing that all the albumen had been converted into acid-albumen, with the exception, perhaps, of a little in the form of proteose.

Strongly albuminous urine boiled with 1 to 3 drops of HNO$_3$ without coagulation sometimes becomes gelatinous on standing, so that the tube can be inverted without spilling the contents; this is due to the large amount of acid-albumen present.

I found that similar phenomena occur with the other mineral acids (hydrochloric and sulphuric); they are not peculiar to nitric acid.

It is clear that the first part of Bence-Jones's phenomena (the addition of too little HNO$_3$) is to be explained by the formation of acid-albumen.

As regards the effects of adding too much nitric acid (30 to 40 drops), the turbidity induced may or may not disappear on boiling (for example, tubes E. and F.). When it does disappear it is due to the destructive influence of the corrosive acid on the proteid (as in the first stage of the xantho-proteic reaction), and not to the formation of acid-albumen. In this case neutralization gives no precipitate, nor when the fluid is boiled after diluting till the HNO$_3$ present would be in the proportion of 8 to 10 drops in 10 c.cm. does any coagulation occur. (A little proteose may be present.)

The reason why coagulation occurs with 10 to 12 drops of nitric acid is that, although a good deal of acid-albumen is formed, yet acid-albumen does coagulate on heating in the presence of a considerable amount of nitric acid. The great stumbling-block is the ordinary textbook statement that "acid-albumen is not coagulable by heat." This is not strictly correct; it is true only in a weak acid solution. Acid-albumen is rapidly coagulated by heating in certain strengths of the mineral acids; the exact percentage of acid cannot be definitely stated, as it varies with the time and the temperature (for example, acid-albumen will coagulate in a relatively low percentage of mineral acid, even at room temperature, if it is allowed to stand long enough). The change may be regarded as a coagulation by the mineral acid accelerated by heat, or a heat coagulation accelerated by the presence of a certain amount of mineral acid.

The results obtained by heating after acidulation with nitric acid may fall into one or other of four categories: (1) With faint acidulation, coagulation; (2) with more acid, 1 to 3 drops, no coagulation; (3) with 8 to 10 drops, coagulation; (4) with 30 to 40 drops, coagulation or not.

In performing the heat-coagulation test, acidulation with weak acetic acid (2 to 5 per cent.) or 1 to 5 per cent. solution of acid sodium phosphate (the acid salt to which normal urine owes its acidity) is decidedly preferable to acidulation with nitric acid, since with these acidifying agents the danger of forming acid-albumen is reduced to a minimum. The careful production of a suitable degree of acidity followed by the rapid heating of the upper stratum of the fluid is one of the most delicate tests for albumen in urine. The crux of the test lies in the proper amount of acid to be added; the amount needed to give the requisite faint acidulation will vary according to the original reaction of the urine. When using acetic acid in this way the addition of litmus solution as an indicator is necessary. Another way of using acetic acid is to add it, drop by drop, after the urine has been brought to the boiling-point; hardly any time is here given for the formation of acid albumen and the amount of acid used has not to be graduated in the same precise way as when it is added before boiling. On the other hand, a precipitation of "mucin," which might have been seen on acidulating before boiling, will now be indistinguishable from albumen if the acid is added after boiling.

As regards the danger of mistaking urinary "mucin" for albumen when testing is done by acidulation and heat, etc., it is to be remarked that a clear sample of urine which is decidedly acid in reaction can contain little mucin in solution. In a neutral or alkaline urine, however, a very appreciable amount may be dissolved, and here a danger of confusion comes in, and it seems probable that some of the conflicting statistics that have been obtained as to the occurrence of the so-called "physiological or functional albuminuria" of apparently healthy persons (for example, in soldiers and others) are in part at least attributable to urinary "mucin"—either true mucin or nucleo-proteid, or both—being mistaken for albumen. A simple method of distinguishing "mucin" (whether true mucin or nucleo-proteid) is to precipitate it by decided acidulation with acetic or citric acid without heating, for example, by mixing equal volumes of urine and 5 per cent. acetic acid.

Pickering[3] recommends an additional procedure in cases of doubt as regards "mucin," namely, boiling a small portion of the precipitate with dilute sulphuric acid, and testing its reducing properties with Fehling's solution. Such a procedure not only takes time, but is inadvisable and is apt to mislead, since it is based on the assumption that the urinary "mucin" is true mucin, whereas it is commonly made up largely or wholly of nucleo-proteid, which of course yields no reducing sugar on boiling with sulphuric acid.

As regards any advantages in the use of dangerous corrosive acids, like nitric, in testing for albumen as compared with weak acetic or acid salts—I have not been able to find any. Probably force of habit accounts in great measure for the continued use of nitric acid. Of course, it is possible to use faint acidulation with dilute nitric acid before boiling (litmus solution being employed as an indicator), but this has no advantage over the use of weak acetic acid. Strong nitric acid is obviously unsuitable for the purpose. Again, strong nitric acid dropped in after boiling is apt to redissolve proteid if present in small amount.

A saturated solution of acid sodium phosphate may be used like nitric acid in Heller's test; a precipitate of proteose clears up on heating, while albumen does not. With this reagent there is not the liability to redissolving which is seen with nitric acid.

The test for albumen most used in this laboratory for a number of years has been "the salicyl-sulphonic acid test," and an extended experience of its use has abundantly shown its safety, convenience, and delicacy. As recommended by Professor MacWilliam,[4] the test is done by adding a few drops of a saturated aqueous solution of salicyl-sulphonic acid to a small amount of urine (20 or 30 minims) in a very small test tube. If no precipitate occurs there is no proteid present; if there is a precipitate the tube is boiled to distinguish albumen, which does not clear up on heating but becomes coagulated and flaky from proteoses (primary), which do clear up to reappear when the fluid cools. In the

absence of precipitation on the addition of the reagent it is not necessary to test it at all, hence the test is a much shorter one than the ordinary acidulation and heat test, a matter of great importance when a large number of urines have to be examined, for example, in hospital practice.

There is no need to measure the exact amount of the reagent used; no danger of over-acidulation, as with nitric or acetic acid; even large excess of salicyl sulphonic acid does not redissolve the precipitated proteid. Further, the reagent is not caustic and exceedingly stable, while it does not stain like picric acid, etc. As regards portability it can be used in the form of crystals, which are much safer than the poisonous and staining picric acid crystals, with their further disadvantage in precipitating certain other bodies besides proteids—for example, many alkaloids, etc. When using the crystals, one should proceed as follows. Half a drachm, or less, of urine is taken in a small test tube, for example, ½ in. diameter, and 3 in. in length; a few crystals of salicyl-sulphonic acid are dropped in, and boiling, if necessary, can easily be done in the absence of a spirit lamp, etc., over an ordinary lamp or candle.

No substance in the urine, apart from those of the proteid class, has been found to give the reaction, which is an exceedingly delicate one. As a precipitant of proteose it is greatly superior to nitric and acetic acids, as the latter redissolve the precipitate when too much acid is added.

NOTES AND REFERENCES.

Attention was called to Test-tube's many years ago in this Medical School by Dr. Arthur Ernest. Some observers deny that acid albumen is [illegible] Pickering [illegible] vol. xiv, p. 354; MacWilliam, British Medical Journal, 1891, p. [illegible]. To obtain a saturated solution Roberts [illegible] the acid crystals in 10 c.cm. of water. Ringer [illegible] 10 per cent. solution, and the results got by his method are very [illegible] Roberts did not distinguish between albumen and [illegible]. MacWilliam, loc. cit., p. [illegible].

AN INQUIRY INTO THE PRIMARY SEAT OF INFECTION IN 500 CASES OF DEATH FROM TUBERCULOSIS.

BY

J. ODERY SYMES, M.D.Lond., D.P.H., Assistant Physician, Bristol General Hospital.

and

THEODORE FISHER, M.D., M.R.C.P., Pathologist, Bristol Royal Infirmary; Physician to Out-patients, Bristol Hospital for Sick Children.

Owing to us having been requested to examine the reports of fatal cases of tuberculosis in the hospitals in Bristol, it was thought that a short account of the analysis might be of some interest.

A question which it is scarcely necessary to remark has much agitated the medical mind of late has been the method of entry of the tubercle bacillus into the system. The statistics of some observers appear to show that in the great majority of cases of tuberculosis invasion takes place by means of the respiratory passages, while others have maintained that their experience shows that entry by means of the alimentary tract is by no means uncommon.

Those whose experience led them to believe that the abdominal viscera are first invaded naturally lay great stress upon the danger of infected milk, while those who hold that the thorax is almost invariably the primary seat of disease are the most prone to consider that bovine tuberculosis is rarely communicated to man. The whole question is involved in difficulty, and it is needless to remark that it is in the age of childhood that milk is chiefly drunk, and it is at this period of life that primary abdominal tuberculosis is most common; yet it does not follow that this is a point to question with bovine tuberculosis.

There are numerous ways by which tubercle bacilli of human origin may enter the alimentary canal. Even in the early months of life such infection is possible. All day long some babies are sucking an india-rubber comforter, and it no sooner drops to the floor than it is hastily picked up and thrust again into the mouth of the infant. Older children do as they crawl, take up every article they can lay hold of and put it into their mouths, to the danger of which their dirt-begrimed cheeks bear witness.

While these risks are real, we have on the other hand, to remember that the discovery of disease in a certain part of the body does not necessarily imply that the cause of the disease found its way to that spot by the nearest route. There is what we may call the inborn weakness of certain organs, and the infecting agent may pass through more resistant parts of the body in order to reach these weaker organs.

Recent experimental work seems to show, also, that tubercle bacilli entering by the mouth may reach and cause disease of the lungs while other parts of the body remain unaffected. However, although we may say that in some cases of disease of the lungs infection may have taken place by the alimentary canal, so far as we can judge from *post-mortem* evidence it seems to us that infection of the abdomen may, on the other hand, sometimes occur from a small focus in the thorax. Thus we have seen acute tuberculosis limited to the peritoneum when the only caseous focus in the body that could be discovered was a caseous bronchial gland. During an attack of rheumatism in a boy peritonitis had arisen, and the disturbance set up by this inflammation in the thorax appeared to have disseminated tubercle bacilli contained in the caseous bronchial gland, which bacilli had attacked the peritoneum only.

As we have said, the question of the method of invasion is involved in difficulty, but, even if the matter were sufficiently simple to be settled by the evidence afforded by the situation of the oldest foci of disease in the body, we still have the difficulty of deciding in many instances which are the oldest foci. Cases of tuberculosis in children in which the disease is entirely limited to one cavity of the body are considerably in the minority, and the liability to fallacy of personal judgement cannot but influence the conclusions as to which cavity of the body was first attacked. Then, again, there is the difficulty that the pathologist who wrote the *post-mortem* notes may not always have been sufficiently explicit to enable the reader to decide which was probably the primary source of infection. Since, however, one of us has been responsible for fully half of the necropsies, the notes of which have been examined, and has always paid attention to this point, fallacies due to this cause are not likely to be serious. In the following list many cases are classed as doubtfully abdominal or respiratory in origin.

Although there may be intestinal ulcers, and perhaps a few caseous mesenteric glands of apparently recent origin, should there be old pulmonary lesions such as a cavity and perhaps also large masses of caseous bronchial and mediastinal glands, we have generally considered it justifiable to classify the abdominal disease as produced by swallowed sputum infected with tubercle bacilli, and therefore secondary to the disease in the thorax. In other cases, however, when we have considered that there would be the least possibility of difference of opinion, we have placed the case under the heading of "doubtful." For example, when the notes say, "In front of the right bronchus was an abscess cavity with thick walls containing caseous material," and also state that only "two mesenteric glands were caseous and all the others normal," we have classified the case with those in which the disease might have originated either in the abdomen or the thorax, though we are inclined to believe that the thoracic focus was with little doubt the older.

Apparently abdominal [illegible]				[illegible] per cent.
Doubtfully thoracic				[illegible]
Doubtfully abdominal or thoracic				2
[illegible] case the primary lesion was [illegible]				
[illegible]				[illegible]
The skin				1
The tonsil				1
[illegible]				[illegible]

It will be noticed that there were 12 abdominal cases to 57 thoracic; that is, the proportion was 1 to 4·7. Examination of the cases under the age of 2 years showed, however, a much higher proportion of abdominal cases. There were 5 apparently primary abdominal cases and 9 apparently primary thoracic in the first two years of life. But if we consider it to be universally true that cases of primary abdominal tuberculosis are most common under the age of 2 years although it suggests infection by means of milk as a frequent cause of tuberculosis, it does not prove it. The abdominal lymphatic glands are at an early age irritated and weakened by the products of the almost universal dyspeptic disturbances which occur in the first years of life, and this weakness naturally exposes them to infection with tubercle bacilli, whatever its source.

To digress from this subject for a moment, it may be remarked that, although excavation of the lung due to tuberculous disease is decidedly much less common in children than in adults, there were two cavities of considerable size

present in one case at the age of 5 months and in another at the age of 8 months. The second cavity was the size of a tangerine orange. In neither of these cases was there any trace of disease in the abdominal cavity not even of solitary tubercle in the spleen or liver. As is usual with such cavities in children, the tuberculous disease of the lung was obviously due to direct spread from caseous bronchial glands. Here a word may be said about primary affection of the bronchial glands. It seems to us that, as with the mesenteric glands, there is no doubt that the bronchial glands can be infected with tubercle bacilli without the presence of any lesion of the lungs or bronchi that can be discovered with the naked eye. Few pathologists perhaps deny this, yet it has been considered improbable by some. Tubercle bacilli undoubtedly at first not uncommonly set up a bronchitis. We have seen the sputum of a patient (who had been quite well a fortnight before) swarming with tubercle bacilli when but for the fact that the bronchitis from which he was suffering was associated with a rather suspicious temperature nothing more than a passing ailment would have been thought of. Not until three months later was there any discoverable physical sign of disease in the lung, and death did not take place until three years later. An almost precisely similar case occurred in an athletic fellow-student of one of us, who tested his own sputum during a microscope class, when he was suffering from what he only considered to be a passing catarrh. To his dismay he found tubercle bacilli present in abundance, and his death from phthisis took place a few years later.

One can understand how the setting up of bronchitis by the tubercle bacillus further complicates the difficulty of ascertaining from *post-mortem* evidence the primary source of infection with tubercle. The sputum containing thousands of bacilli when swallowed may readily produce more extensive lesions of the mesenteric glands than in the bronchial glands which are close to the seat of origin of the infected sputum. To return to the question of the evidence afforded by our statistics of the relative frequence of primary abdominal and thoracic affection. Curiously enough the proportion of definitely abdominal to thoracic cases appeared to be as great in the second as in the first twelve years of life. Thus there were 8 cases apparently primarily abdominal and 31 primarily thoracic; that is to say, the proportion was just over 1 to 4 in the second 12 years and under 1 to 4 in the first 12 years. It must be mentioned, however, that in the analysis of statistics for the years we have only placed 3 amongst the doubtful cases. It must be remembered also that fatal cases of disease in hospitals cannot be taken as illustrating the comparative frequency of those diseases or varieties of disease. A serious abdominal affection is far more likely to be taken into a hospital than a case of chronic pulmonary disease, especially if the latter is considered to be tuberculosis. The same remark is applicable when we consider the value of statistics for the third period of 12 years, that is, between the ages of 25 to 36, but here the proportion of primary abdominal cases is less marked.

The ratio of cases of primary abdominal to thoracic tuberculosis in this series of 12 years and during the periods of the same length before the age of 25 and after the age of 36 is shown in the following table:

0—12 years ...	1 to 4·—
13—24 years ...	1 to ·—
25—36 years ...	1 to ·66
37—48 years ...	1 to 9·25
48—60 years ...	No definitely primary abdominal case
Above 60 years ...	1 abdominal case and — thoracic—ratio, 1 to —

The above cases do not include all cases of disease either of the abdomen or lungs. In a few cases disease of internal organs was with little doubt a sequel to long-standing joint trouble; in 3 the kidney appeared to be first affected, and in 2 the epididymis. It may be interesting to note that in 2 of the fatal cases of Addison's disease tuberculosis occurred in no other organ of the body except the suprarenal capsules; and it may be added that these cases presented, what is sometimes seen in Addison's disease, marked hypertrophy of Peyer's patches and of the lymphoid follicles of the intestines.

Many other details which attract attention when reading through reports might be mentioned. A somewhat curious point is, perhaps, the rarity with which a case of general adhesion of the peritoneal cavity, due obviously to a previous attack of tuberculous peritonitis, is met with. One of us who has had experience of nearly 2,000 necropsies only remembers having seen one such case. Localized adhesions with some evidence of a tuberculous origin are, however, not so very uncommon. In an apparently healthy boy, aged 16, who had been run over and killed, adhesions were present over the liver, and a calcareous mesenteric gland with several fibrous glands were present. Another case of similar character was met with in a girl aged 17, dying of heart disease. There were "firm adhesions" enclosing several calcareous nodules over the liver and some over the spleen. The mesenteric glands presented nothing abnormal. A caseous nodule was present at the apex of each lung, but no active tuberculous mischief existed.

Another point of interest that has frequently struck us in the *post-mortem* room is the presence of calcareous nodules in the lower lobe of a lung, and not very uncommonly limited to such a lobe. It appears that the tubercle bacillus can more commonly than is generally thought acquire a temporary foothold, so to speak, in some part or parts of a lower lobe, but that it almost invariably ceases to be able to materially advance, and consequently basal phthisis as we know is extremely rare. Yet we have seen on three or four occasions cavities of considerable size in the lower lobe, while tuberculous disease of less advanced nature was in the upper lobe. In connexion with the reference to isolated calcareous nodules, it may be interesting to remark that in some cases there appeared to have been, earlier in life, recovery from widespread tuberculosis of both lungs. For example, in a middle-aged man "brought in dead," having died of sudden cardiac failure, both lungs were found to be studded from apex to base with calcareous nodules the size of peas. There were from forty to fifty in each lung, and they were as abundant in the lower as in the upper lobes. Precisely similar nodules were found scattered through both lungs of a man aged 25, who died of tuberculous meningitis, but recent tuberculous pulmonary lesions were absent.

To sum up, if we take local foci of disease as evidence of primary disease in the neighbourhood of the foci, our statistics tend to show that during the first twelve years of life tuberculous infection by the air passages is four times as common as by the alimentary canal. Our statistics also seem to show that the comparative frequency of infection through the alimentary canal during the second twelve years is equally common. Deaths in hospitals above the age of 12 years can hardly, however, be taken to represent the average causation of death from varieties of tuberculosis for the whole population above that age, because cases of tuberculosis of the lungs are more chronic than at an earlier period of life, and are not usually admitted to ordinary hospitals.

In spite of the exclusion of chronic pulmonary troubles from hospitals, the proportion of abdominal to thoracic tuberculosis in the institutions from which the reports were taken was very small after the age of 24.

TWO CASES OF PRIMARY MALIGNANT DISEASE OF THE PANCREAS.

By JOSEPH STEWART, M.B., M.Ch. R.U.I.,
Leeds.

The two following cases occurred in my practice last year within a period of four months, and as there is reason to believe that primary malignant disease of the pancreas is somewhat rare, it seems desirable to publish them, especially as one of the cases presented an unusual congenital condition.

Case I.

Mrs. S., married, age 58, came to see me in December, 1902, suffering from intense jaundice and most pronounced muscular weakness. She had never had an illness before. Had been a cook for a couple of years in a restaurant and had indulged moderately in stimulants. She had been losing flesh gradually for six or eight months, although able to do her work.

State on Examination.—The jaundice affected skin and conjunctivae and urine, the latter being deeply coloured. There was no constipation, but instead several motions daily as many as six), quite white in colour, formed, and considerable in quantity: not lumpy, nor dry, passed in pieces about two inches long, and extremely smooth on the surface. There was intense irritation and itching which prevented sleep. The liver was very large, the right lobe extending into right iliac fossa, the edge and notch in the margin being easily felt. The left lobe was likewise enlarged and could be distinctly felt. The gall bladder was very much enlarged and tense, so tense that it could be grasped in the hand without making any impression on it. In the epigastric region there was a large mass rising as it were from the smooth surface of the liver and continuous with it. This was painful on pressure and was the only tender spot detected on palpation.

Progress and Result.—The patient continued to lose flesh and strength,

and died in April the [illegible]. Mr. [illegible] had noticed a discoloration of pain over the [illegible] and was much distressed. Twenty four hours before death [illegible] and scanty. The urine was [illegible] and a nodule [illegible] the size of a walnut found in the great [illegible]. The liver showed [illegible] forming in the substance the size of a pea [illegible] to that of a walnut. The pancreas [illegible] and [illegible] the [illegible] of the [illegible] was felt to be enlarged and hard [illegible] [illegible] and on pulling it up [illegible] was [illegible]. It was [illegible] white in appearance. The gall-bladder was full of bile. There were [illegible] in the bladder or ducts. No albumen or sugar was present in the urine at any time during the illness.

Case II.

Mr. H., aged [illegible], had been attended by me many times for giddiness and faintness. The pulse of [illegible] degeneration. Four weeks before he died I noticed a [illegible] of the urine, and a week later some [illegible] was observed, coming on [illegible]. Up to ten years ago he had very severe attacks of [illegible] which could at times be relieved by an aperient, but since that time he had been quite free from such attacks.

[illegible] He was [illegible] kept [illegible] the skin of the face, cheeks, and body [illegible] appearance, and [illegible] a golden yellow. On scratching the skin with the finger nail, the mark with the [illegible] assumed a light brown colour. The skin was [illegible], loose, and baggy, and [illegible] he had not much weight. The urine was [illegible] and dark like coffee. Part of the right lobe of the liver could be felt during the spare [illegible] by the right costal cartilages down to the [illegible] and [illegible] extending from this cartilage across the middle line [illegible]. There was no pain on pressure over the mass, but if the fingers were inserted between its free edge and the [illegible] up pain was [illegible] at a spot near the middle line of the body. At a point [illegible] above the umbilicus and 1 in. to the left of the middle line, which [illegible] covered by a shirting, there was a very tender spot on deep pressure. This painful spot could always be detected [illegible] to the last. Surgical [illegible] could be felt. He complained of great weakness and loss of strength, but [illegible] well. He had no appetite, and [illegible] stated, and stated that everything he took tasted and [illegible] same. The urine was as offensive as it had [illegible] me during [illegible] bladder or prostatic trouble was present.

[illegible] were [illegible] white never confluent, [illegible] and quite [illegible] the surface. They appeared to raise the [illegible] so [illegible] resemble pieces of thin [illegible] stuck through a [illegible] sack. The quantity was extraordinary considering the [illegible] and so marked was this that it attracted the patient's and the friends' attention. On May 7th [illegible] vomiting and [illegible] was very distressing. As much as six pints of [illegible] were [illegible] material was rejected during the night. [illegible] there [illegible] had been administered during the day. All food by the mouth was stopped for [illegible], and during the time he was [illegible] and hot [illegible]. On May 9th he had a [illegible] lasting two hours. When I saw him [illegible] was [illegible] the feet and legs [illegible] up to the [illegible] and [illegible] lying on [illegible] morning the patient was [illegible]. Warmth and returned to the extremities, and [illegible] the whole tissues [illegible] as a sponge. The [illegible] tip; large, dry, brown crusts were [illegible]. It was [illegible] attempt at [illegible] even as [illegible] absorbent cotton. The [illegible] [illegible] and [illegible]; [illegible] by the mouth with no [illegible] of [illegible] to the last. Albumen [illegible] urine.

[illegible] was [illegible] in the urine with [illegible] specific gravity [illegible]. The [illegible] except [illegible] which [illegible] on standing. The [illegible] and there on its surface [illegible] [illegible] [illegible]

gall bladder, and its futile efforts to evacuate its contents. Although in the following case eighteen small calculi were present, it is quite open to question whether their presence produced the typical biliary colic of which the patient complained, or whether this was not equally if not entirely due to the kinked cystic duct.

Case I.

S. E. W., aged 50, sent to Ancoats Hospital by Dr. Paton, of Manchester, March 3rd, 1904. A stout, florid woman of healthy appearance; married twenty-nine years; six children; no miscarriages. Her youngest child was 16 years of age, and it was whilst suckling her four months after birth that the first attack was experienced. The milk somewhat suddenly ceased to be secreted. Spasmodic pain with vomiting came on and lasted for thirteen hours, being ultimately relieved by morphine, hypodermically given. For seventeen days she took nothing by the mouth, being entirely fed by nutrient enemata. During this time no stool was passed. The first evacuation after this was "as white as lard." So far as she knows, this was the only occasion on which bile was absent from the dejecta. Urination was all through regular, and easy.

For some six years she has suffered from eczema of the legs. For this she was sent to Harrogate, and there she took the water for some time. After drinking this for a fortnight she had another severe attack, which began after supper, and lasted for three hours. During the month she remained in Harrogate she had four or five attacks.

On returning home she had another severe attack. In 1902 another, and since then several milder ones until a month before admission, when I saw her in consultation with Dr. Paton, in consequence of perhaps the most severe attack of pain and persistent vomiting she had ever experienced. So severe was it that Dr. Paton feared that acute general peritonitis was present. From this attack, however, she recovered, and arrangements were made for her admission to hospital with a view to operation.

During all her attacks no marked jaundice was ever observed. There was no history of typhoid fever or dysentery, and she had never been abroad. On March 7th, 1904, a vertical incision was made near the outer edge of the right rectus muscle, passing through over 2 in. of subcutaneous fat, from 1 in. below the costal margin to the umbilicus. When the peritoneum was opened it was drawn up on either side and pinned to the skin by Allis's forceps. I have found this manœuvre very useful in wounds of such a depth, since the fatty walls are thereby protected from damage during the intraperitoneal manœuvres, and not becoming bruised are more likely to unite by primary intention.

The gall bladder was easily found, but was entirely free from the liver, and hung down from it at an angle, which was situated at the commencement of the cystic duct. The cystic duct was firmly attached. The bladder was full, but not distended, and lay behind the first part of the duodenum, to which it was not adherent. In it, and near the duct end, were eighteen small, angular, facetted calculi, composed of cholesterin and bile colouring matter. These were removed, a rubber tube tied into the open fundus, and the abdominal wall closed. She made a rapid and complete recovery. The tube came away on the ninth day, and she returned home a fortnight later.

But pain of a paroxysmal character and associated with vomiting may be found in another set of cases, when on operation no stone is found. In these adhesions are discovered between the gall bladder, the liver, the colon, the duodenum, the stomach, or the omentum; most frequently perhaps between it and the last structure. Here the sequence of events would appear to be this. A mild attack of cholecystitis, followed by the formation of a calculus. Passage onwards of this concretion, the irritation of its passage setting up some local peritonitis around the gall bladder, and its consequent adhesion to the viscera around. Pressure upon or kinking of the cystic duct produced by the contraction of these adhesions. It is in the differentiation of these cases from those in which calculi are still actually present that Murphy's test has appeared to me to be specially useful. There is the same pain and vomiting in both, possibly also the same evanescent jaundice, but in the cases where adhesions only are present Murphy's test gives a negative result, whilst in those associated with actual calculi the characteristic check to inspiration yielded by this test is always found. Of such cases I have had several. Two only are given here in any detail.

Case II.

Mrs. G., aged 50, sent to Ancoats Hospital July 3rd, 1903, with a sinus in the epigastrium, from which bile and muco-pus were exuding.

The history given was that for fourteen years she had suffered from "gastric fever, colic, and ague" at intermittent periods. These attacks were associated with pain in the epigastrium and right hypochondrium and vomiting of watery fluid. There was also a great deal of retching. During the previous April she suffered from a severe stitch in the right side for about a week, at the end of which time the pain gave way near the median line about 2 in. below the sternum and 2 in. to the right, the point at which the opening of the sinus was seen. Much pus and greenish-yellow material escaped, but no fragments of calculi, and this fluid had been discharging in small quantities ever since. She was a stout, healthy looking woman and had never been jaundiced. Previous to it giving way a hard, firm mass with rounded outline had been detected by her medical attendant beneath the right lobe of the liver. This could no longer be detected. Murphy's test gave a negative result.

On July 5th a probe passed down the sinus detected no foreign body. A vertical incision was made internal to the sinus through the right rectus and the peritoneum opened. Nothing could be felt in the gall bladder, with which the sinus was continuous, nor in the ducts. Extensive and firm adhesions between the bladder, omentum, and transverse colon were found. The sinus was laid open down to the gall bladder, which was drained with gauze. The rest of the abdominal incision was closed. No bile escaped on shutting up the sinus, and the wound gradually healed.

Case III.

Mrs. L., aged 55, admitted to Ancoats Hospital January, 1904, under Dr. Melland. For the last three years she had suffered from pain across the back, just below the angles of the scapula, and for the last four months she had been confined to bed. The pain was gnawing in character. There had been no vomiting; some jaundice was present. There was no pain in front below the costal border. Menstruation had been regular, and the menopause occurred twelve years since. As Dr. Melland discovered an ill-defined resistance below the right hepatic lobe, he very kindly transferred the patient to my care.

The pelvic organs were all healthy; the uterus in good position, and not prolapsed. There was some enteroptosis. The right kidney was very markedly movable downwards and inwards. The left kidney was in its normal position, and not mobile. The liver was not enlarged. Beneath its right lobe could be felt on deep pressure an increased resistance, with indefinable outline; percussion note over this was clear. Murphy's test gave a negative result.

On February 18th an exploratory incision was made in the usual vertical line near the outer edge of the right rectus muscle. There was no fat necrosis. No gall stones could be felt. There was no enlargement of the pancreas. There was, however, firm adhesion of the duodenum to the under surface of the liver, and below it the small contracted gall bladder was found.

Other changes in the gall bladder, probably after-effects of the irritation set up by previous lodgement of gall stones, are sometimes found. A case sent to the hospital by my friend, Dr. Willis, of Gorton, illustrates one of these.

Case IV.

Mrs. G., aged 51, admitted to Ancoats Hospital, November 19th, 1903. This patient had suffered from three or four attacks of severe abdominal pain, the first attack occurring twelve months before admission. The pain was very acute, extended from the right costal arch to the umbilicus, and was followed by vomiting. After the first attack there was jaundice, which lasted for a few months. Each attack was associated with the passage of high-coloured urine and stools of a light colour. The pain passed round the right lumbar region, never higher than the level of the ninth or tenth ribs in the scapular line. The last attack was fourteen days before admission, and was cut short by morphine.

At the time of examination there was no jaundice, but the face was sallow. The patient was inclined to be stout, and there had been no loss of weight. Murphy's and Robson's tests gave a negative result.

November 30th, 1903. The abdomen was opened in the usual line. There was no fat necrosis. The gall bladder was found firmly adherent to the colon and omentum. After separation of these adhesions, the gall bladder was seen to have an hour-glass contour, the fundus being constricted off from the rest by a narrow constriction, as if a ligature had been tied round it. No gall stones could be felt in the bladder or ducts. After packing around with sponges, this portion was opened and clear mucus found within. On introducing a probe, at first no communication could be found between this distal cyst and the rest of the gall bladder, but after a while a pinhole opening was detected. On passing through this, a very slight movement with the instrument broke down what appeared to be a slight and thin adhesion of the mucous lining, and then bile escaped. A drainage tube was fixed in the gall bladder and the abdominal wound closed. This came away on the ninth day, and the wound was perfectly healed on December 22nd, 1903.

The condition found suggested adhesion of an ulcerated mucous membrane consequent upon the previous presence of a gall stone, which had long since passed into the intestine through the normal channel. Possibly a similar explanation might account for the appearances presented in the next case, though this is hardly probable, since the dissepiments found within the gall bladder were so many, and the various cavities formed so various in shape and size.

Case V.

Mrs. S., aged 52, was sent to Ancoats Hospital by my friend, Dr. Harburn, of Buxton, in November, 1903. She was a widow, of perfectly regular menstrual habit, and had never had any children or miscarriages. She looked perfectly healthy. She said that she had been liable to bilious attacks but had had none for the last two years, that she had had two transitory attacks of jaundice the last eight years before examination. She was in perfect health, however, until eighteen months since, when she began gradually to complain of a heavy, dull, sickly pain in the left lower quadrant of the abdomen and over the sacrum. About the same time there was some oedema of the ankles. The latter symptom, however, had been less during the last twelve months, and was now barely discernible. She had never had pain beneath the right costal margin, where Dr. Harburn had discovered a swelling.

On examination a firm elastic mass could be felt below the lower edge of the right rectus in the gall-bladder area, which moved with respiration. Its outlines were rounded and its lower extremity could be plainly outlined just above the level of the umbilicus. Its base was approximately that of a small lemon. Its upper extremity was just beneath the liver. The abdominal veins were visible, and were, if anything, more marked on the left side. The size of the tumour appeared to her to have varied from time to time since it had been pointed out to her.

On December 3rd, 1903, a vertical incision was made through the right rectus muscle, over the tumour in the usual line, thus opening the peritoneum. A bluish grey tumour was seen, surrounded by omentum, which was loosely attached, but was not adherent in any way to the mass. The tumour was easily turned out of the abdominal cavity, and was seen to be the greatly enlarged gall bladder. It was **evidently transformed into a multilocular mass, the outer wall showing** the outlines of the various cavities. To its lower extremity intestine was firmly adherent, and the adhesions contained large veins. As **separation of these seemed undesirably risky, the lower extremity of** the mass was stitched all round to the parietal peritoneum, after paracentesis of one or two of the larger cavities failed to bring about any **notable diminution in its size. The main mass was then cut away, and** the pedicle, which had a diameter of over an inch, left fixed in the abdominal wall. Some bleeding points in its circumference required a few ligatures. Gauze was packed around and over this.

Four days later she was somewhat jaundiced and she was annoyed by a slight, but persistent cough. Bile had been escaping by a crescentic opening near the lower edge of the pedicle, but not to any great extent. There was for a time some abdominal distention, which was rapidly relieved by turpentine enemata. The stools varied in colour, sometimes light, sometimes evidently containing a normal amount of bile. The urine contained bile, but also in varying amounts.

As the wound had healed around the stump, but this remained practically unchanged, on January 20th, 1904, Paquelin's cautery was applied to its surface until it was minimized. After this it pretty **rapidly contracted, but when she left the hospital on February 6th a** biliary fistula still remained. This, however, closed entirely during the next two months.

In January, 1905, she married a second time, having been perfectly well in the meantime, and unfortunately became infected with the gonococcus almost immediately. In September she died with acute **peritonitis following double salpingitis. I had the opportunity of** inspecting the area of operation *post mortem*. The stump still lay in the abdominal wall, but was entirely covered by epithelium. Its continuation inwards was a normal cystic duct. Some small cystic cavities con**taining clear fluid were still descernible in the fragment of stump** remaining; there were no secondary deposits, and no sign of new **growth about the part still in existence. There were no gall stones.**

The tumour on examination showed a large number of cystic cavities, of all sizes, generally polygonal in shape, owing to their pressure, containing clear mucoid fluid but no calculi. The septa between them **were composed of a central thin layer of connective tissue, lined on** either side by mucous membrane. No sarcomatous or carcinomatous elements could be found.

It is far more usual to find a number of calculi in those cases in which they exist than single unfacetted specimens. It is, therefore, somewhat curious that I should have had 3 cases of single gall stones in a list of 35 upon which I have operated. One of these is of additional interest because of its probable causation.

CASE VI.

In April, 1902, I was asked by my friend Dr. Wallis, of Ashton, to see with him a single lady patient who gave the following history:

When she was a young child she was taken by her parents to New Zealand where she lived for eighteen months, then she returned to England and has lived in this country ever since.

When she was 17 years of age she had a severe attack of pain in the right hypochondrium [illegible] as she felt it would succeeding attacks. This attack did not last long.

When she was 19 years of age she had a severe illness which lasted about [illegible] during [illegible] was confined to bed. At this time the [illegible] and [illegible] this illness [illegible] the [illegible] through the gall-bladder [illegible] a yellow fever.

[illegible] had [illegible] attacks of pain [illegible] panied all this [illegible] the [illegible] [illegible] [illegible]

Here we have a young man apparently in good health, without any preliminary signs or symptoms of lead poisoning, suddenly struck down by the most severe of convulsions, which terminate in his death. Has lead a special predilection for the nervous system in certain individuals? If so, are we to regard the convulsions as due to the direct irritation of the lead upon the nervous system, or may we look upon the convulsions, as in the case of uraemia, due to autointoxication from the retention of harmful substances due to defective renal metabolism?

REFERENCES

[illegible] January [illegible] 2 Child and Allbutt's System of Medicine, vol. ii, p. 988.

TRYPANOSOMIASIS AND MORBUS DORMITIVA.

By ALEX. MAXWELL ADAMS, M.B., C.M.Edin.,
Late of the Gambia Protectorate

In the British Medical Journal, March 28th, 1903, there appeared an article of mine entitled Trypanosomiasis and its Cause. In this I asked the question, "Has the trypanosome any relation to sleeping sickness?" pointing out that in Europeans the parasite is found in the peripheral circulation, and suggesting that the African lethargy is an identical disease, and also that the parasite might be found in the brain centres blocking the capillaries, thus causing local anaemia and corresponding somnolence.

This very important contention afterwards received confirmation at the hands of Castellani and Bruce, who first published their results in May and June, 1903, and in the report of the Royal Society, issued later on, Professor Castellani had first observed a trypanosome in the cerebro-spinal fluid about the end of the year 1902, but his opinion was that the disease was due to a streptococcus which he had isolated. My paper, written in December, 1902, could, therefore, not be influenced by this as yet unpublished observation. I was led to my conclusions by the following clinical considerations:

1. In the trypanosome fever and in sleeping sickness we have the same puffiness of the face and lower eyelids (I was the first I fancy to point out the fugitive nature of the oedema and temporary unilateral distribution).
2. Irritability and apathy in both instances.
3. The same alteration of voice—a characteristic huskiness. I do not here allude to the changes in the speech of the negro where the sounds are unintelligible through paralysis of the tongue, but to a primal change in voice *timbre* noticed early in the disease, and in all probability due to a local oedema of the larynx. I have not seen this change remarked upon by other observers. The symptoms in the two races seemed to me to differ in degree rather than in kind. The chief difference appeared to be that the European, though apathetic, seemed to have less capacity for sleep than usual, and that the African suffered but slightly from the initial fever.

An important point now arises, Colonel Bruce attributes the infection to a species of tsetse fly, and no doubt in Uganda this holds correct. It is understood that no horse can exist in a country infested with this pest; and it is very interesting to note that in the Gambia (with the exception of Kombo) we have the coexistence of horses and sleeping sickness, the horses in good health, and the sickness quite typical. Therefore, with this fly presumably absent, what is the origin of the disease in the Gambia? In my previous article I traced the origin to a rat-bite. However, people are not often so bitten, and cases of the disease in this colony, though somewhat scarce, are not uncommon. Hence I conclude that if the disease were caused by insect bites cases would be numerous, and a state of affairs would exist similar to what we have on the Congo, where we hear of as many as 4,000 cases in one district alone; whereas in the Gambia it is to be doubted if more than a few cases could be collected at one time, facts which point to a different method of dissemination.

In India there is a trypanosome disease in horses probably caused by the common horse fly, and I see little difference between this species (*Tabanidae?*) and a fly found in the mangrove swamps of the African river. This insect at times attacks the human species and might thus introduce the parasite.

I am more disposed, however, to trace the disease to the rat—in the Senegambia at least. I lean towards this view on account of the long-known and well-proved existence of trypanosomiasis in that animal. Sir Patrick Manson suggests the *Ornithodorus moubata* as a probable cause, but this animal is unknown in the Gambia, though, judging from analogy, it is quite a possible vehicle of infection, especially when we bear in mind that the parasite of Texan cattle fever is carried by a tick.

Again, the *Halteridium* of birds has been shown to be one stage of a trypanosome, whose full sexual life is completed in the body of *Culex pipiens*. As long as the parasite continues its existence by indirect generations or fission, I can easily conceive of several species of [illegible]-sucking insects conveying the fissiparous germs, and that different methods of infection are possible as in typhoid fever.

The real animal in which the complete sexual life of the parasite is reached has not yet been discovered. Till this is done, the tsetse and other flies must be looked upon as an indirect though no doubt an efficient mode of infection.

The elucidation of the complete cycle of the life-history of the trypanosome is necessary to the complete proof of its relation to sleeping sickness; and when this is done—as I have no doubt it will be—far-reaching practical results will be in sight. My former paper seems to have attracted little attention. In this I put forward my claim to be the first one who suggested that sleeping sickness was caused by a trypanosome, and, secondly (what is more difficult to prove), that the disease in the European and African is identical. Discussions in regard to priority have been rife in regard to this disease. The observations contained in my previous paper and this are, I venture to think, non-controversial, and cannot in any way be considered as minimising the splendid work accomplished by Nepveu, Dutton, Castellani, and Bruce.

AN ADDRESS ON THE PROPOSED MEDICAL ACTS AMENDMENT BILL.*

By J. P. WILLIAMS-FREEMAN, M.D.Durh.,
Chairman of the Division.

Gentlemen,—The Committee of the Division which was called to arrange for this meeting suggested that it might tend to expedite the long and somewhat tiresome business before us, if I should, instead of giving a presidential address on some medical or surgical subject, endeavour to analyse and summarize this proposed Bill to Amend the Medical Acts which has been drafted by the Medico-Political Committee of our Association, and which the Council has sent down for our consideration to-night. In doing so, therefore, I am responsible only for the manner and not for the matter with which I shall try your patience.

There is one central fact which we must never lose sight of in a discussion on this subject, and that is that the Medical Acts of the past and any new legislation which we may hope to get enacted in the future can only be for the benefit of the public, and not for that of the medical profession. No doubt we are quite right to try to bring before Parliament the interests of the profession, and the public would wish to see them safeguarded, but only in so far as those interests are their interests, and not for our professional benefit. They do not wish to work the willing horse to death—they are even anxious to improve the breed of horses—but as only workers for the general weal. The days of special legislation for professional and class interests are happily nearly over.

It may seem unnecessary to insist on this, but I have done so because there is always a natural tendency to forget this principle—not certainly more amongst us than in the ranks of other learned professions—but enough I think to make us often overstate our case and do harm rather than good to our best interests. I doubt, for instance, whether the excited agitation which some of our friends thought fit to indulge in in connexion with the Midwives Bill has done much to raise the profession in the estimation of the public.

The great central change in the Bill before you is the establishment of one uniform State examination held by the General Medical Council, without passing which no one can practise medicine in the United Kingdom or (subject to any local law) in any part of the empire.

The early parts of the Bill lead up to this examination, and Part VI consists of penal clauses to protect the public from practitioners who have not passed it. It is this penal portion that will perhaps excite most discussion. The public likes and always has liked quacks of all descriptions. A certain interest in the unusual, a vein of superstitious credulity in the mysterious (*omne ignotum pro magnifico*) which runs

* Delivered before the Salisbury Division of the Southern Branch of the British Medical Association.

to most people, a mistrust of anything like professional narrowness and even of expert evidence, and the ever-ready suspicion of professional jealousy, all go to make silly people run after the quack. People actuated by such ideas they are usually of high rank and low education—I should never wish to protect; the fool in his folly may be left to work out his own salvation. All we can do is to guard ourselves against narrowness and jealousy, and keep ourselves to the front in all scientific knowledge, and having done that we may be permitted to derive a good deal of quiet amusement by watching the irregular antics both of the patient and the enterprising practitioner.

But there are others; there is the wretched incurable who either has not the mental capacity to grasp and face the situation, and who rush frantically from one quack cure to another in their efforts to escape the inevitable. These we have no power to help. And there is, finally, the largest and most important class, happily growing smaller every year the poorer people who are genuinely unable to distinguish between the qualified and the unqualified "doctor," between the real and the bogus "professor," who really believe the clever quack advertisements which fill their newspapers, and who, even if they are not imposed upon, are often driven to consult a chemist or a herbalist because his fees are within their means. This class, I think, we are called upon to protect to the extent of making deception as nearly impossible as we can, and this Bill does a great deal to make the qualified practitioner distinguishable and also to prosecute impostors. Whether it is possible or desirable so to interfere with the liberty of the subject as to make it punishable for a man to sell to a willing purchaser his advice on any subject whatever is a question on which every man will have his own opinion. Personally I do not think it is.

But to turn to the Bill. Part I concerns itself with the constitution and powers of the General Medical Council, whose full title as at present constituted it is well to remember. It is the General Council of Medical Education and Registration of the United Kingdom. It shall consist of 22 registered medical practitioners and 1 registered dental surgeon, in place of 31 as now constituted. Of these, 5 shall be nominated by the Privy Council, as at present; 9 by the universities and medical corporations of the United Kingdom, as against 21 at present; and there are to be 8 direct representatives as against 5 in the present Council. The direct dental representation is an innovation that I think we shall all approve and may possibly consider might be increased with advantage. The rest of Part I. Clauses 2 to 11, concerns the methods of election of members and their officers, and the payment of their fees and expenses.

Part II deals with the Registration of Medical Students. It provides for a preliminary examination and for temporary or permanent removal from the *Register* in case of misconduct.

Part III deals with the Education of Students. It establishes one final State Examination in Medicine, Surgery, and Midwifery for everybody. The General Medical Council to appoint the examiners and direct the conduct of the examination. It also provides for intermediate examinations in subjects prescribed by the General Medical Council to be held by medical corporations and universities, which examinations as well as the medical schools may be inspected by the General Medical Council, and on their recommendation the Privy Council may withhold recognition as qualifying for entrance to the State examination.

Clause 16 is new and important. It provides for the appointment of Visitors to attend at these intermediate examinations if the General Medical Council think fit, their fees, I observe, being determined by the Council but paid by the Medical Corporations.

Part IV provides that no person may be registered unless he has passed the State examination, that there shall be a right that every qualified practitioner in the colonies already registered shall be registered here, and that every person registered shall pay an annual registration fee of £1 to keep his name on the *Register*. This provision (which I believe is copied from the Scottish Act) gives the General Medical Council considerable power, which I do not think we need object to, to pay the examiners handsomely as well as to provide for the necessary expenses of the members of Council.

Part V is formal, and provides for the transfer of funds and exemption from the Estate Duties to the General Medical Council.

Part VI consists of penal clauses.

Clause 22 enacts that the General Medical Council may suspend or strike off the *Register* any practitioner who shall have committed a felony or misdemeanour or be judged by them to have been guilty of infamous conduct in a professional respect. I must confess this last word does seem to me a most necessary one, as there is no appeal, and a practitioner is absolutely at the mercy of a partisan tribunal, with no lay assessors to guard against prejudices.

Clause 23 invests the General Medical Council with the powers of a court of justice. Would it not be safer for the General Medical Council to bring the black sheep of the profession before the ordinary court to be dealt with as in the case of solicitors?

Clause 28 provides that no unregistered person shall practise medicine, surgery, or midwifery habitually and for gain, be entitled to recover fees, or hold any medical appointments, or sign any certificate of death, stillbirth or sickness, which purports to be a medical certificate or implies that the person signing it is possessed of medical skill and knowledge. Midwives are exempt by a later clause. The whole question of death certification I think we shall agree is ripe for legislation, and the Act proposed in the last Parliament would of itself be a great protection against irregular practice both to the public and the profession.

Clause 29 provides that no body may grant medical degrees or diplomas to persons until they have been registered, so that the State examination is to be the best qualification a student can get. This would, of course, tend to diminish the number who would go in for diplomas of the lower grades.

Clause 30 is the most radical in the Bill. It must be read *in extenso*:

Penalty for Practice by Unregistered Persons. Any person who is not registered under this Act and who (1) *habitually treats patients*, or (2) otherwise practises medicine, surgery, or midwifery; or (3) *performs any surgical operation* for which he demands or receives any fee, gratuity, or remuneration, and also any person who not being registered under the Act, (4) *pretends to be*, or takes or uses the name or title of physician or surgeon, doctor of medicine, licentiate of or bachelor of medicine or surgery, or master in surgery, or assumes any other style, title, addition, designation, or description either attached to the name of the person or to his place of residence or business, or otherwise exhibited, implying that he possesses the skill and knowledge necessary for the practice of medicine, surgery, or midwifery, or that he is recognized by law as a physician or surgeon or licentiate, in medicine or surgery or midwifery or a practitioner in medicine, or an apothecary, shall be guilty of an offence under this Act, and shall on summary conviction under the Summary Jurisdiction Acts be liable (1) for the first offence to a penalty not less than ten and not exceeding twenty pounds, and to imprisonment in default of payment of not longer than two calendar months, and (2) for each subsequent offence to a penalty not less than twenty and not exceeding forty pounds, and to imprisonment in default of payment for not longer than six calendar months.

This is very severe. I take it (1) would cover chemists who prescribed a diarrhœa mixture; (2) would cover herbalists and private sanitary house inspectors; (3) would apply to a tooth-drawer or a chiropodist, and (4) would include the proprietors of Dr. Williams's Pink Pills or Dr. Mcleod's Electric Belts. I think we shall all agree that (4) is amply calculated to give proper protection to the public, whether parts (1), (2), and (3) are either desirable or practicable is a matter of opinion.

Under Clause 32 the General Medical Council receives the fines.

Clause 33 prevents a patent medicine being falsely sold as the prescription of a living or deceased registered person, the fine being paid to the aggrieved person. It does not where to?

Clause 34 provides that every person practising, whether principal, assistant, or deputy must have his name up.

Clause 35 permits any foreign or qualified in his own country to come to consultation in this country and to act as medical officer in a hospital for foreigners.

Part VII contains definitions, and provides that persons registered before the Act may continue to enjoy their privileges.

Clause 34 provides that nothing in this Act shall apply to midwives which I submit is not very happily worded, since it apparently entitles them to practise medicine and surgery, sign death certificates, and even grant degrees!

These, gentlemen, are the chief provisions of this proposed Bill. Though it is easy enough to criticize it I think it is an honest attempt to deal with a very difficult subject. It is

submitted to us for our consideration, and it is for you to make proposals to help the Council in their deliberations upon it.

CONSULTATIONS BETWEEN MEDICAL WITNESSES.

By W. J. GREER, F.R.C.S., D.P.H.Irel.,

Honorary Secretary and Treasurer, Monmouth Division of the South Wales and Monmouthshire Branch of the British Medical Association.

It is perhaps hardly necessary to apologize for calling the close attention of the members of our Association to the importance of the issue involved in the discussion on this subject. The Medico-Political Committee has sent to the Divisions for decision a matter which will require to be approached in a cautious and judicial manner, as the final result will be embodied in an ethical rule, and will be binding on all members of the Association.

It can hardly be doubted that, however difficult the subject may be, it is distinctly to the advantage of the profession that a great Association like ours should endeavour to formulate a line of conduct out of this controversy. In dealing with this inquiry it would seem well to adopt the political spirit, at the same time keeping clearly before us that "it makes all the difference in the world whether we put Truth in the first place or in the second place."

Possibly the class of cases that come under the notice of the greatest number of us, will be those involving the Employers' Liability and Workmen's Compensation Acts. It is in these that sharp differences of opinion are exhibited. The public would seem evidently to take a very great interest in these tournays, for the combatants are often advertised in the local press under the heading "Doctors Differ."

If such incidents could be prevented by the ruling suggested in the recommendation, then by all means let us adopt it. But it would be folly to proclaim a law unless we can make it reasonable in its application and binding in its effects. Now it is quite unnecessary to insist that the guiding principle of every medical witness who enters the box is to tell the truth. This will be readily conceded by all of us, no matter on which side we appear.

Notwithstanding this our differences of opinion in the witness box create in a sinful public a smile. It happens that our opinions as medical men are sought in perhaps two ways: one to give an exact account of the facts of the case, and an unbiassed opinion on them; another way, to emphasize the favourable facts in a case for the side which employs one. The question is usually put thus: *a*) Will you kindly examine A. B. and give us your opinion as to the precise condition? Or *b*) We shall be glad to know if you can kindly examine A. B. and appear in court on his (or our) behalf? The gentleman who writes the second letter has no doubt of the justice of his case and seeks the sympathetic co-operation of the medical man. No matter in what way the request to examine is worded, it is pretty generally understood that the side which employs us has a distinct hope that we shall be able to lean somewhat in their favour.

This brings us abruptly to the question. Do the etiquette and honourable traditions of our profession permit medical witnesses to be partisans? It is truly to be doubted if a plain yes or no can be given to this question any more than to that old favourite, "Have you left off beating your wife?"

With regard to the second form of inquiry mentioned as commonly received from solicitors, it may be said that in this case a particular opinion is suggested, but the report which is drawn up and sent by the examiner will clearly state the facts and the opinion, and the inquirer will at a glance know if it is suitable to his case. If it is favourable to the inquirer's case, and this may surely often happen without duplicity, it would hardly be fair to say that in this case the favourable opinion is suggested. Taking it for granted that the case goes into court and the medical witness appears, counsel in the examination in chief soon presents the witness and all the effulgence of his qualifications in a partisan light; the other side look upon him as a hostile witness and proceed to endeavour to weaken his statements by cross examination, this cross-examination being usually prompted by the medical man on that side. The witness is expected to stick to his proof, and in doing this, if he has been careful to found his opinion firmly on the facts, always, of course, presuming that the facts honestly bear the interpretation presented, the witness becomes not only a partisan but something of an advocate. If he has not formed his opinion or is not able to hold to it under cross-examination, he may do a grave injury and a serious injustice to his client. It may be considered by many that this prompting of counsel is one of the most certain ways of producing a sharp conflict of evidence; it raises the further question, Is this custom in accordance with the best interests of the profession. Will consultations between medical witnesses entirely do away with all this? Whatever view the legal profession and the public may take of it, we cannot think that this clashing of opinions, however enjoyable the subtlety of intellect displayed by the combatants may be, tends to raise our position.

This being admitted, we may now turn to inquire how this undesirable conflict can be avoided. The suggestion in the recommendation before us is that a consultation is the best means of settling our differences; that is to say, to arbitrate before going into court. Now, it is said by those who have most frequently to deal with these matters that arbitration is a very good thing when you have a weak case: that the best pleaders in an arbitration are those who can get the most information out of the other side without giving anything away of the weakness of their own side. If the medical witnesses who go in to consult happen to be so worldly as to know of this canon, then the consultation would be a bright example of how not to conduct a consultation, and this could hardly tend to honesty in consultations in general. It appears tolerably certain that to be on the winning side is an instinct as firmly planted in the medical as in the lay breast, so that a compromise is not likely to be effected between two strong-minded medical men well up in their work; besides, compromise is not a very popular word amongst litigants. It is said that it may be heard as a ground of complaint against counsel that some of these learned gentlemen are too ready to compromise.

Again, if the gentlemen who employ us object to this consultation compromise, a ready method of stopping it would be to omit the extra fee which this formality will surely require. Our reply to that, if we were a combined profession, would be to insist on the consultation and on the fee, but alas for a combined profession! The consultation fee, if it could be insisted on would tend to encourage the workman's doctor to be present more often than he is when the employer's doctor makes his examination, or if a consultation is not intended at this stage it would help to ensure the medical witnesses coming together later. Here it will benefit the discussion to intercalate the question, Who is going to pay the fee?

This consultation will mean a careful discussion, which will occupy considerable time. It will mean that the result of the conference will be explicitly written out and signed. It can hardly be contended that this extra work is to be done without an extra fee. It seems clear that the successful working of the proposition will be the greater in direct proportion to the lesser contentious nature of the case. If strongly divergent opinions are formed during the consultation and are irreconcilable, then the consultation is a failure, or worse. On the other hand, if an agreement can be arrived at, then the case is settled, as far as the medical side is concerned, before going into court. This will, of course, be of great advantage to the medical men; but how will the parties look at it—at least, those who like a sporting chance in open court? It must not be forgotten that the ordeal of the witness-box is not avoided by this consultation, that learned counsel are not parties to the conference, and that the galling fire of cross-examination may elicit such replies as may give the advocates an opportunity of exercising their art, and that the result of this may surprise the medical witnesses.

Again, let us suppose a case in which the consultants are in agreement as to the facts. Say, a boiler maker has had a severe injury to his shoulder causing a fracture into the joint, he has been receiving compensation for twelve months, it is agreed that the fracture has united in good position, the question is, Can he work? The employer's doctor thinks that he can work—that it would be good for him to work; the man's doctor thinks that he cannot work for at least three months. Are they to "split the difference" and go into court and swear that the man can go to work in six weeks?

Another very serious matter that must be considered in this discussion is that the workman's doctor may endanger his livelihood if the workmen think that he is too ready to compromise with the employer's doctor.

Passing to another matter, it may be remembered that if these consultations are successful, then to the hard-worked (?) medical referee the only honour that will be left is to keep his distinction after his name in the *Medical*

Directory with the hope that some football secretary may see it and request the doctor to act on the board in his dual capacity.

As to the "expert witness" and the "trusty witness" in medical matters, perhaps he had better go; but as this individual is usually of vigorous growth he will give some trouble in his passing. At any rate, if it is for the common good of the profession, he must go.

Finally, can we hope that if the recommendation is adopted an immediate future will see us holding up our hands in pious horror at the memory of past public exhibitions of doctors' differences and feel thankful that these have passed away like the baseless fabric of a vision?

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

MEDIAN HARE-LIP.

The annexed illustration is from a photograph of a man with a curious simulation of median hare-lip. I have since met two other examples of this deformity. On either side of the median fissure is a tumour-like protuberance, which was painless, and distinctly shotty on palpation.

This man said that five years before his lip was normal, and that a fissure gradually came in the centre without ulceration. Since seeing this case I have met with others whose history extended over periods of ten years. There was no evidence of either syphilis or tuberculosis in any of the cases, and except to appearance the condition gave no trouble. I believe the condition to be a symmetrical adenoma of the mucous glands of the lip. I was not able to verify this and should be glad to have experiences on the point, and to hear if similar cases of a median deformity have been recorded.

W. H. Bowes, M.B., B.S., L.R.C.S.

ACUTE YELLOW ATROPHY OF THE LIVER.

As the literature of comparatively rare cases, it will be interesting to record the history of the following case, which shows no striking peculiarities in the ordinary type.

L. P., aged 22 years, eighteen months previous to the present illness had an acute attack of catarrhal jaundice. Convalescence was not altogether complete, there still being a recurrence of dyspeptic symptoms, biliousness, with marked mental depression, a condition continuing more or less up to the onset of the second illness. There was still a perceptible yellowness of the skin and a slight tendency to pale clay stools. Her parents testify to the extremely tremulous condition of the limbs at this time, resembling very closely that of a person with senile tremors.

The present illness commenced on November 13th, 1903, with delirium, rise of temperature, quick pulse, nausea and vomiting, pain in hepatic region, bile-stained urine, and clay-coloured stools suggesting at the time a typical case of the non-obstructive form of jaundice, and it was treated as such. On November 15th mental delirium was absent, symptoms abated, and the patient seemed improved. Up to November 20th the state of the patient fluctuated, but her condition then became distinctly alarming; delirium became more pronounced, with grinding of the teeth, occasional convulsions, sordes on lips and gums, epistaxis, haemorrhage from the mucous membrane of the mouth, stomach, and intestine; the pupils were dilated, and the liver dullness showed now distinct diminution. Examination of the urine showed the presence of leucin and tyrosin; there was no optic neuritis; a pronounced feature was twitching of the masseters; the jaundice became gradually deeper, and finally the patient was quite unable to retain anything in the stomach; the temperature was subnormal, and nutriment with medicinal treatment was now resorted to per rectum. On the evening of December 3rd coma rapidly set in and death occurred on the morning of December 4th.

The special features of the case were its strong likeness in the early stage to simple catarrhal jaundice and the fact that coma did not set in until very late in the disease. Unless to cause slight abatement of symptoms, all the forms of treatment resorted to proved equally futile. Unfortunately a necropsy was out of the question; still no confirmatory evidence was necessary, as the whole case was so typical.

Manchester. G. O. Robertson, M.A., M.B., Ch.B.

SPONTANEOUS RUPTURE OF THE ABDOMINAL WALL.

Cases such as that reported here must be so extremely rare that I offer no excuse for publishing it.

T., aged 40 days, a male Chinese infant, was brought to the Mission Hospital, Tainan, Formosa, on January 15th at 9 p.m. with the following history:

There had been no difficulty at its birth, and the child appeared to be perfectly healthy. The cord dropped off at the end of about a week, and the mother was quite certain, and never varied in her statement though carefully cross-questioned, that never then or since had there been any protrusion of the navel.

The child was perfectly well till five days before admission. Up till that date motions had been passed daily, and were quite healthy in appearance. The child then had what would seem to have been an attack of acute enteritis. He had constant diarrhœa with a great deal of straining, and in the intervals between these motions was always crying.

This was the condition of things when the mother went to sleep on the night of January 14th. In the middle of the night she got up, and on going to change the child found that a small portion of bowel was protruding at the navel. The more the child cried the more bowel protruded. The woman lived some miles away, and the next day seems to have been taken up by a general family council as to what should be done with the patient, so that it was not till 9 p.m. on January 15th that the child arrived at the hospital.

I found a clean hole about the size of a shilling at the navel through which the greater part of the small intestine with the cæcum and ascending colon protruded. The bowel was very congested and covered with flakes of lymph. The child was very collapsed. The bowel was cleansed as much as possible, an abdominal incision made upwards and downwards without an anæsthetic, and the bowel replaced with considerable difficulty. The incision was then closed with sutures. The child lived for about six hours after the operation, but never rallied properly. There was no necropsy.

Formosa. James L. Maxwell, M.D.Lond.

SCIATICA AND LUMBAGO.

I have no doubt many have found the above disorders very intractable to treatment in certain cases. When metabolic in origin or symptomatic of the rheumatic habit, after employing all the well-known remedies with no benefit to my patient, I have within the last few years found a short ancho in pelo-cargin citrate gr. ½ injected subcutaneously every night or every other night, with the exhibition of a saline purge and cod-liver oil mist once a week. Of course painful points are to be avoided.

The most hopeless case of sciatica I ever met yielded to a persistent course of this scheme of treatment in three weeks. There is, I suppose, no universal specific for either the one or the other, but in desperate cases the above, in my experience, is worth a trial. The only bar is in a case where cardiac disease is present, but few medical men have not found out that pilocarpin is badly borne in the presence of organic disease of the heart.

Marlborough. J. Farquhar, M.D.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GOCULDASS TEJPAL HOSPITAL, BOMBAY.

CASE OF STRANGULATED INGUINAL HERNIA: PERFORATION OF THE BOWEL: RESECTION OF 7 IN. OF GANGRENOUS GUT: RECOVERY.

(By W. H. Burke, B.A., M.B., B.Ch., etc., Lieutenant-Colonel I.M.S., Surgeon in charge the Hospital.)

History.—Ebrahim Khan, aged [illegible], a fairly robust Mohammedan, was admitted to the hospital on March [illegible]th, [illegible]. Three days before admission, while walking with a heavy load on his head, he felt a sensation of something having given way, and simultaneously felt severe pain and noticed a swelling on the right side of his scrotum. He stated that this was the third time that the hernia had come down, but that on the two previous occasions he had been able to return it and that he wore an improvised suspensory bandage to keep it in place. His bowels had been constipated since the hernia came down. On the night of March [illegible]th he was very restless, and vomiting of a stercoraceous character set in.

Operation.—Patient was seen by me on March [illegible]1st, and at 11.30 a.m. was brought under the influence of chloroform. On opening the sac a quantity of liquid faeces escaped. The hernia was found to be a large enterocele containing many coils of small intestine, much inflamed and matted together, while one loop was in a gangrenous condition, and in this portion a perforation of the gut (as shown below) had taken

Showing the 7 in. of gangrenous gut removed. Specimen preserved in alcohol. The dark portion A shows the perforation.

place. After freeing the constriction, which was at the internal abdominal ring, I decided to resect the whole of this gangrenous gut and to suture the cut ends. I divided the mesentery gradually, ligaturing it piecemeal with catgut sutures. The cut ends of the gut were brought into careful apposition by a series of catgut Lembert sutures, after which I was pleased to see the united [illegible] inflate like a bicycle tube. I then returned the whole hernia carefully into the abdomen, divided and closed the sac above with catgut sutures, returned it into the abdomen, and sutured the pillars of the ring with two deep silkworm gut sutures. I removed a portion only of the lower portion of the sac, and did not dissect out the whole as I usually do, as the patient's condition was such as to indicate the advisability of rapidly terminating the operation. I put in a small rubber drainage tube, making a counter-opening in the scrotum below, and closed the wound, using silkworm gut for the buried, and silk for the skin sutures.

The antiseptic used before opening the sac was biniodide of mercury; afterwards boracic acid and saline solution were used. One hypodermic injection of digitalis and ether was given during the operation.

Progress.—The patient was fed entirely by enemata (eggs, milk, and brandy) for four and a-half days; on the evening of the fifth day 1 drachm of Brand's essence of beef was given every three hours. On the sixth day, besides this, he was allowed by the mouth 1 oz. of a mixture of one part of cream to two parts of barley water. On the ninth day he was given four oz. of Benger's food every two hours in addition; the nutrient enemata were gradually discontinued, while his food by the mouth was gradually increased, but he did not resume his ordinary diet until 4 weeks after the operation. During the first twenty-four hours after the operation the patient passed five stools, which were offensive and contained blood-stained serum, but from that time on the stools became normal in appearance and free from abnormal fetor. The wound was dressed on April 1st, and the drainage tube removed: subsequently it was dressed every third, and finally every fourth, day only. There was no suppuration; the patient never complained of any pain, a little thickening remains around the cord where the lower portion of the sac was left; the hernial opening is apparently permanently closed. The patient walked on the twenty-seventh day and left the hospital on May 5th. The temperature after the operation never rose above 100° and it reached that point on two occasions only; it was usually normal or subnormal. I was assisted at the operation by my house-surgeon, Assistant-Surgeon Lafond, and for the careful nursing of the case I am indebted to Charge-Nurse Flynn.

Remarks.—I consider that this case is interesting as the result is much better than what I could have expected if I had followed the course usually adopted in a case such as I have described, namely, the removal of the gangrenous gut and the making of an artificial anus, which would either have remained or have had to be dealt with by a subsequent partial laparotomy with greater resultant tendency to hernia. Mr. William Thorburn, in his interesting paper on an analysis of 110 operations for strangulated hernia, published in the British Medical Journal for April 25th, 1903, says: "The condition of the intestine varied within the widest limits, but actual gangrene or perforation had occurred in 10 instances only;" also that "in 9 of the 27 (fatal) cases the intestine was gangrenous or perforated by ulceration.....of 10 cases with perforation or gangrene, only 1 recovered." In only 2 cases of the 110 published by Mr. William Thorburn was resection of the gut practised, and both of these cases died within a few hours.

WEST LONDON HOSPITAL.

BREAKAGE OF A COIN-CATCHER: GASTROTOMY: RECOVERY.

(Reported by Donald Armour, M.B., F.R.C.S., Assistant Surgeon to the Hospital.)

This case illustrates the possibility of a dangerous accident occurring in the employment of the coin-catcher now in general use, an accident apparently as unexpected as unpreventable; and, secondly, it shows that operations upon the stomach in young children, when rapidly performed, are not so fraught with danger as is generally supposed.

History.—On the evening of June 18th, 1903, J. H., a boy of 5 years was brought by his mother to the casualty department of the West London Hospital with the history of having swallowed a "coronation medal." On examination by the house-surgeon with the fluorescent screen, the "medal"—or, as it turned out to be, a public-house token the size of a halfpenny—was seen lodged at the level of the sinus pyriformis. The coin-catcher was passed down and seen to engage the coin. On traction being made, however, to withdraw the coin, the coin catcher broke at the junction of the metal portion with the whalebone handle. The metal portion, 5 in. in length, then passed on down the oesophagus, presumably into the stomach.

State on Examination.—I was sent for, and, reaching the hospital about two hours after, found the child resting quietly, complaining of no symptom beyond his throat "feeling sore." On examination again with the fluorescent screen the coin was readily seen as before, its position unaltered. Nothing was made out in the stomach, but a very faint shadow was seen in the position of the lower end of the oesophagus. This only appeared at intervals and was scarcely to be discerned. These facts, therefore, led me to believe that the coin-catcher was lodged in the lower end of the oesophagus, and was prevented for some reason from passing into the stomach. Nor was there any likelihood of being able to extract it through the mouth without severe injury to the oesophagus owing to its sharp broken end, which was

uppermost, and its great flexibility. It was therefore decided to operate.

Operation.—With the child under chloroform the coin was first felt with the tip of the index finger passed through the mouth. A pair of curved crocodile forceps was passed along the finger and the coin easily seized and withdrawn. An incision 2 in. long was then made just to the left of the middle line above the umbilicus. The stomach at once presented. It was carefully palpated, but found to be empty. Its anterior wall was then invaginated and the index finger passed through the cardiac orifice. The end of the coin catcher could just be felt against the tip of the finger, but disappeared again at once owing to the forcible contraction of the orifice by which the finger was forced out. A small part of the anterior wall of the stomach was then drawn out through the abdominal wound and carefully surrounded with sterile gauze. A vertical opening just large enough to admit the index finger was made in the stomach midway between its upper and lower borders. Through this the finger was passed into the stomach and up through the cardiac orifice into the œsophagus, where again the lower end of the coin catcher could just be reached. A pair of curved crocodile forceps was then passed along the finger up into the œsophagus and the piece of the coin catcher seized and withdrawn. The wound in the stomach was sewn up by a continuous catgut suture through all the coats covered in by a continuous cellulod Lembert suture through the serous coat. The abdominal wound was closed by continuous catgut sutures for the deeper layers, and interrupted silkworm gut sutures for the skin. No drainage was used.

The child showed no signs of shock as the result of the operation. He was fed by nutrient enemata for two days following the operation, and then on fluids, gradually increased in amount, by the mouth. The night following the operation he vomited some "coffee ground" fluid. His temperature rose to 100° F., and his pulse to 116 per minute at 10 o'clock the same night that is, exactly 24 hours after operation, but immediately dropped again to normal, in which state they remained until his discharge on July 11th, 24 days after operation. The abdominal wound healed per primam.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH. A meeting of this Branch was held on March 12th; Dr. Purves, President, in the chair.

Malarial Disease in South Africa. Dr. Edington read notes on malarial disease in South Africa, and detailed the steps by which he had been able to prove a common origin for the three diseases of stock namely, horse sickness, veld sickness, or biliary fever in cattle, and heart water in sheep and goats, and to pass from one disease to another at will. The result of the inoculation experiments was illustrated by temperature charts and formed a most interesting and convincing demonstration.

Malarial Horse Sickness. Dr. Edington showed further a slide of horse blood containing an intracorpuscular parasite. This was obtained by inoculating a clean imported horse from an ordinary collection in Grahamstown whose blood showed no parasites. Dr. Edington suggested that the disease, which had a mortality of 90 per cent. and a febrile course, was a modified form of horse sickness or a malarial type.

Aneurism of Descending Aorta. Dr. Greathead showed a specimen of aneurysm of the descending aorta causing death by rupture into the left pleural cavity in a woman of 35. The heart and both of the aorta were perfectly natural.

Other Specimens Shown. The President showed a section of [illegible] showing the progress of a Dutch "cure."

A communication, illustrated by photographs, from Dr. Hill Aitken of Durban was read, dealing with the effect of [illegible] cases of [illegible] and dyspepsia.

PERTHSHIRE BRANCH.

A meeting of this Branch was held in Perth Infirmary on [illegible] 1904, Dr. Keay, President, in the chair.

Case. Dr. Griffin demonstrated by a cast the location of a [illegible] which he removed after. He also showed a patient with an abdominal cyst, the patient an old woman, a month before fracture of the femur, and found to have a rapidly growing right ovarian cyst. Three cases of lupus of the nose treated by the Finsen light with improvement, and (3) a case of oculo-motor paralysis of the right eye in an old woman. Dr. Pavis showed a young woman admitted in a typhoid state, with marked constipation and vomiting. On examining the rectum for some discharge noticed coming from that region, a hard mass was felt in the vagina, which turned out to be a ring pessary *in situ* for two years, which was at once removed; the odour was terrible, and a great deal of ulceration was present in the vagina. The condition was due to this and improvement at once followed. Dr. Taylor showed: (1) A case of cerebro-spinal paralysis in a man, aged 28; paralysis started in the right arm and leg and passed off, affecting then the left side; there was continual cerebral vomiting, nystagmus, pupils normal. (2) Two cases of malignant growth, one involving the liver and gall bladder with increasing jaundice, the other involving the stomach and secondarily the liver. (3) A case of general psoriasis improving rapidly with alkaline baths, arsenic, and thyroid treatment. (4) A case of antitoxin rash two days after injection subcutaneously of 6,000 units. The above cases were shown in the wards. Afterwards Dr. Taylor read a short paper on the administration of antitoxin in diphtheria, giving details of his experience with high dosage.

Appointment of Joint Secretary. On the motion of Dr. Taylor, seconded by Dr. Morton Burnett, Dr. Alexander Trotter was appointed Joint Secretary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, April 12th, 1904.

The Mental Condition in Epilepsy in Relation to Prognosis.

Dr. W. Aldren Turner read a paper on this subject based on 161 colony cases. Sex had little influence on the mental condition, but males were numerically more afflicted than females (91 as compared with 78 per cent.), but the highest degree of dementia was somewhat more common in women. A family predisposition to epilepsy and insanity favoured mental impairment. The duration of the disease influenced to some extent the mental condition. The earlier the onset of epilepsy, especially during infancy and childhood, the less the probability of an unimpaired mental state. The profoundest degree of dementia was most commonly seen when the major and minor attacks coexisted. The more frequent the seizures the greater the degree of mental impairment. Fits recurring in series were accompanied by a high grade of dementia. The view was upheld that the interparoxysmal mental condition seen in most cases of epilepsy was one expression of a neurosis of which the fits constituted another. Of the 161 cases, 13.6 per cent. were intellectually normal, 31.6 with impaired memory, 25.4 feeble-minded, and 29.1 were demented.

Dr. Fletcher Beach believed that the explanation of the greater mental deterioration in the epilepsy that dated from childhood was that nerve instability was greater in early life, and that education was lacking. In certain colony cases distinct improvement in the disease followed, according to his own observation, on systematic school education. Among epileptic idiots who were under his care it was noticed that when an attack occurred in school hours the patient not only forgot all taught that day, but also all that had been learned during the previous week.

Dr. Bond referred to other conditions allied to heredity as factors in prognosis, such as difficult labours and juvenility of the parents. The fits were not the essential disease, its nature was as yet unknown.

Dr. Turner replied.

Peptic Ulcer of the Jejunum.

Mr. Mayo Robson communicated a paper on this subject, and gave a list of all the reported cases, 18 in number, his being the first so far as he could ascertain, recorded in English literature. All the recorded cases had occurred after gastro-enterostomy, nearly all after the anterior operation, and in all perforation had occurred. Out of 12 posterior gastro-enterostomies it appeared that he had personally performed there had been no instance of ulceration. Out of 29 anterior gastro-enterostomies he had had this one case. After some remarks on the pathology, he described the symptoms and treatment of the condition. His own case had occurred three years and four months after an anterior gastro-enterostomy performed for pyloric and duodenal ulcer, the patient having been in the interval well for two years. At the operation he had excised

the ulcerated portion of the jejunum and then performed Roux's operation. The patient made a good recovery and was now well.

Mr. F. C. Wallis asked why an ulcer of the jejunum should be so frequent after anterior jejunostomy and so rare after the posterior operation.

Mr. Armour asked as to the cause of the closure of the pylorus.

Mr. H. J. Patterson asked whether there could be a causal relation between the ulcer and adhesions of the jejunum with the anterior abdominal wall.

Mr. Robson, in reply, thought that the frequency after anterior gastro-enterostomy was to be ascribed to the defective drainage of the stomach, and hence the persistence of the hyperchlorhydria. The closure of the pylorus was by cicatrix.

Cast.

Dr Cotton described and showed a case of malignant disease of the rectum in which great improvement had occurred after colotomy which was discussed by the President, Mr. Mayo Robson, and others.

OBSTETRICAL SOCIETY OF LONDON.

Edward Malins, M.D., F.R.C.P., President, in the Chair.

Wednesday, April 6th, 1904.

Puerperal Eclampsia treated by Thyroid Extract.

Lieutenant-Colonel Stubmer, I.M.S., read a short communication on the above subject. Ten grains of thyroid extract were given in each case on admission and five grains every four hours afterwards. Morphine and saline injections were also used in many of the cases. Rupture of the membranes, followed by dilatation of the cervix and the early application of forceps or other means of assisting labour, was the usual practice adopted. Under thyroid treatment the maternal mortality was reduced to 12.2 per cent. It was claimed that the urine after the first two or three doses showed considerable increase and that by the end of twenty-four hours the increase was great, whereas with saline injections and morphine alone, no marked improvement usually set in for twenty-four hours. It was remarked that most of the cases of eclampsia occurred on dull and cloudy days, when probably the skin did not act as well as usual.

Dr. Herman considered that increase in the urinary excretion was one of the most trustworthy indications of recovery of the patient; and that, as when thyroid was given the quantity of urine became quickly augmented, this preparation was really beneficial.

Dr. Boxall said that he had recently learnt that eclampsia was unduly prevalent in the West Indies as well as in the East. This was attributed by the local doctors to malarial influence.

Dr. Oliphant Nicholson considered the results of treatment of cases of eclampsia and of impending eclampsia by thyroid extract as very encouraging. In severe cases he always used morphine in addition.

The President remarked on the difficulty of determining the value of thyroid extract treatment from a series of cases of eclampsia in which other remedies were at the same time used. He was of opinion that atmospheric conditions often exerted a potent predisposing influence in the production of cases of eclampsia.

Specimens were shown by Dr. Tate, Mr. Alban Doran, and Mr. Bland-Sutton.

Myoma.

Dr. Tate, in exhibiting a specimen of fibro-myoma of uterus with carcinoma of body and fibroid tumour of ovary, emphasized the importance of exploring the uterus in cases of haemorrhage persisting for years at about the time of the menopause and later, because in these cases malignant disease of the body was a very probable cause of the symptoms.

Dr. Lewers and Dr. Bonall referred to similar cases of carcinoma associated with fibro-myoma which had come under their observation.

Dr. Peter Horrocks called attention to the fact that bleeding from the uterus after the climacteric in a woman known to have a fibroid tumour did not necessarily indicate malignant disease of the uterus as in this case, nor malignant degeneration of the fibroid. Some authorities disputed the possibility of the latter, but Mr. Alban Doran and he himself had shown specimens illustrating sarcomatous changes in fibroid tumours.

Two specimens of diffuse adeno-myoma of the uterus were also shown.

After remarks from Dr. Stevens, Mr. Bland-Sutton, and Dr. F. E. Taylor, these specimens were, on the motion of Dr. Blacker, referred to the Pathology Committee.

Dr. Blacker remarked that they were the first examples of this kind of tumour to be shown before the Society. Further examination would no doubt show that the glandular downgrowths were in reality derived from the uterine mucous membrane.

Torsion of Fallopian Tube.

Dr. R. Hamilton Bell read a paper on this subject: Twelve cases of torsion of the pedicle in hydrosalpinx and other morbid conditions of the Fallopian tube, in addition to 41 collected by Cathelin, were recorded. A full account was given of a case under the author's own observation. The general problem of torsion of the abdominal viscera was discussed. It was pointed out that the particular conditions necessary to the production of this accident were much more frequently present in cases of hydrosalpinx than in other forms of tubal disease. Short notes followed on the two varieties of torsion, acute and chronic, the direction of rotation and the results of the twist. The influence of age and pregnancy was also discussed. The paper concluded with a consideration of the more clinical aspect of the cases. The close approximation of the symptoms to those of a twisted ovarion was recognized, and the fact was noted that a correct diagnosis previous to operation had never yet been made. But it should be at least suggested when the following conditions were present: a fluctuating abdominal tumour of irregular shape, not rising above the umbilicus, associated with paroxysmal attacks of pain, culminating in a very severe attack with vomiting and constipation, and, if the tumour had been observed before, increase of size, tenderness, and some loss of mobility. The treatment consisted in removal of the twisted tube by abdominal section, while the writer thought that the other tube should be dealt with conservatively whenever possible.

Mr. Bland-Sutton regarded the diagnosis of this condition as practically impossible. It was very difficult even to attempt to frame a plausible theory to explain why the pedicles of Fallopian tubes, when distended with simple fluid, pus, blood, or even when gravid, became twisted. This failure might be attributed in great measure to our profound ignorance of the statics and dynamics of the peritoneal cavity.

Mr. Alban Doran considered that diagnosis must be impossible in many cases, and that, therefore, this condition was often overlooked. It seemed probable, for mechanical reasons, that it was easier for a tube than for an ovarian tumour to untwist itself after axial rotation. Tubal torsion to any appreciable degree was rarer than torsion of the ovarian pedicle, because the dilated tube soon became fixed by adhesions, whilst many ovarian cysts did not become adherent to neighbouring structures till after torsion.

Dr. Lewers referred to a case of his own of pyosalpinx with torsion of the pedicle, and Dr. McCann to a case he had reported of tubal gestation with twisted pedicle.

Mr. Targett mentioned two cases of tuberculous pyosalpinx in which a similar accident had occurred. The conditions in tuberculous disease were specially favourable to torsion. He believed that practically all cases of pyosalpinx with subsequent twisting of the pedicle were tuberculous in character.

Medical Society of London.—A clinical meeting of this Society was held on April 11th, Dr. de Havilland Hall, the President, being in the chair, and showing a case of thoracic aneurysm of the first part of the arch of the aorta.—Mr. J. Hutchinson, jun., showed a case of undescended testicle, complicating hernia, brought down into the scrotum by means of section of all the structures of the cord except the vas deferens and its accompanying vessels, which was followed by atrophy of the gland.—Dr. Herbert Tilley showed a case after radical operation for frontal sinus empyema, which was associated with an inter-arytenoid pachydermia that disappeared after the operation; also a case of asthma relieved by removal of the anterior half of the two inferior turbinals.—Mr. Richard Lake showed a case of Ménière's disease in a woman of 25, which had lasted for five years, and was relieved, as regards the vertigo but not the tinnitus, by removal of the semicircular canals of the left side. The malleus and incus were also removed, yet the voice was now heard at a considerably increased distance.—Dr. Wilfred Harris showed a case of post-diphtheria chronic bulbar

[illegible] Dr. H. A. Caley showed a case of abdominal cyst, with [illegible]

REVIEWS.

ANATOMY.

Variations of the cranial bones are of importance not only to anatomists and anthropologists, but also to surgeons, and there can be but little doubt that Dr. Double's treatise on the variations of the human cranial bones will be welcomed, for it is as exhaustive and, perhaps, is of more general interest than his previous treatise on the variations of muscles. In the present volume Dr. Double deals with the occipital, the parietal, the sphenoid, the frontal, the ethmoid, and the temporal bones, and he discusses the peculiarities which have been recorded, and their significance and probable causation. It is possible that all observers will not agree with the author regarding the causation of many of the phenomena which he records, but they will all admit the cogency of his arguments and the excellent grouping of his facts. We are glad to see that Dr. Double takes a firm stand against the assumptions which have been made too frequently that certain peculiarities, occasionally noted in association with the bones of the human skull, are indications of a low type of organization simply because the peculiarities represent conditions frequently or regularly met with in lower forms. He is also strongly opposed to the idea that irregular conformation of the cranial bones is any indication of diminished mental power, and in this association he points out that the skulls of Dante and Pericles were assymmetrical, that Kant had an interparietal bone, that Descartes, Bonham, Juvenal des Ursines, and Volta had metopic sutures, whilst Pascal not only had a metopic suture but also a meso-frontal eminence. Many of the peculiarities discussed in the treatise are illustrated by figures, and the book is provided with a copious bibliography and an excellent index.

Dr. Mooney's thesis on *Some Mechanical Peculiarities of the Human Body* deals with the movements and ligaments of the knee-joint and with the functions of the prepuce. There are considerable differences of opinion with regard to the means by which the movements of the knee-joint are modified, and Dr. Mooney's suggestion that the internal rotation of the femur which occurs at the end of the movement of extension is due to the pull of the tense anterior crucial ligament, would have been more likely to receive acceptance if he had discussed the possible effects of other ligamentous bands which become tense at the same moment, and if he had shown that the tension of the posterior crucial ligament, which is developed at the end of flexion, had a similar effect; that is, Dr. Mooney's arguments would have been more convincing if they had been more comprehensive. His remarks upon the use of the prepuce of the penis are more interesting, and are well worthy the careful consideration of those surgeons who so frequently advise the very general removal of the preputial fold, for, if Dr. Mooney's contentions regarding it are well based, it has important functions, and should not be removed without sufficient cause.

The work on the [illegible] of the descriptive anatomy of the human [illegible] by Mr. Symington, consists of short descriptions of the bones, ligaments, joints and muscles of the human body, together with [illegible] accounts of their development and function. It contains no illustrations, and is intended to be used with the atlas of descriptive anatomy by the same author, the figures in the *Atlas* being referred to as [illegible] the text. The [illegible] are mainly compiled as short descriptions [illegible] which are more completely dealt with in accounts given in the *Elements and Atlas* of Anatomy, it has been thought [illegible] that the *Elements* that has been [illegible] the [illegible] are to be used [illegible] It is a very [illegible]

[illegible] Paul, Fund [illegible] Mr. [illegible] M.B. [illegible] Mr. [illegible] M.B. [illegible] Mr. [illegible] M.B.

orbital and spheno-maxillary surfaces, as the translator might have discovered had he consulted other German text-books or atlases.

The number of books dealing with clinical or applied anatomy has increased rapidly in recent years, and it cannot be said that Professor Eisendrath's *Textbook of Clinical Anatomy*[5] is an extremely valuable addition to those which have previously appeared. The text is certainly comprehensive, dealing with both the medical and surgical aspects of the subject, but it contains little that is new, either in the subject-matter or in its arrangement, and the illustrations, though beautifully executed, are of very mixed value from a teaching point of view. The inadequacy of the illustrations is unfortunate, for the figures are the most striking feature of the book, and though the representations of dissections and sections of the body and limbs are excellent, the same praise cannot be extended to the figures of more diagrammatic character, for some are distinctly misleading, and others certainly do not represent the conditions ordinarily met with. Thus, from Fig. 4 it would seem that the lymphatics of the upper and front part of the face usually pass to the facial glands on the buccinator muscle, but these glands are by no means constant structures, whilst, even in the cases where they are present, many of the lymph vessels from the eyelids and adjacent parts terminate in the superficial parotid glands. In Fig. 5 the facial vein is shown terminating in the external jugular vein, a by no means common condition; but a still more unusual relationship is depicted in Fig. 17, in which the thoracic duct is shown passing behind what appears to be the second part of the subclavian artery and in front of the brachial plexus, whilst its usual position is in front of the scalenus anticus. In Fig. 57 the duodeno-jejunal flexure is placed beneath the lower end of the left kidney instead of behind the stomach; and in the same figure, which is repeated as Fig. 62, the splenic flexure of the colon is represented at the level of the middle of the spleen instead of at its lower end. The cystic and the common hepatic ducts usually unite together at the right end of the transverse fissure of the liver above the first part of the duodenum, but in Fig. 63 the union is represented as occurring at the lower border of the first segment of the duodenum. Other figures are equally misleading, and the text also is not devoid of errors. Perhaps the statement made during the discussion of the functions of the air sinuses of the skull bones, that "they probably aid through giving the facial bones an opportunity to grow without increasing their bulk," is open to discussion with regard to the exact meaning of the word "bulk," but there is no doubt that the assertion made in association with branchial fistulae that the branchial clefts of the embryo permit of communication between the surface and the pharynx is incorrect, and readers who believe the statement that the lingual artery and the hypoglossal nerve pass "across" the greater cornu of the hyoid bone will acquire an erroneous opinion regarding the relative positions of those structures. The book certainly has good features, but they are scarcely available until the numerous weak points have been eradicated.

There are not many good introductory manuals to the study of mammalian anatomy, which is far too much neglected, and Dr. Alvin Davison's little volume on the subject[6] is therefore all the more welcome. It is based more especially on the anatomy of the cat, but the opening chapters deal, in a general way, with the tissues met with in all mammals, and with the methods of preservation and preparation necessary for their proper study. In the subsequent chapters the various systems of the body are described in detail, the descriptions being illustrated by numerous and well-designed figures, and frequent references are made to those features of feline anatomy which deviate from the more general mammalian arrangements. It is not often that one finds so much information condensed, in so readable a form, into so small a space.

SUGAR FORMATION IN THE LIVER.

In a volume of collected essays on sugar formation in the liver[7] the veteran Professor Seegen, whom we congratulate upon having well passed his 80th birthday, has brought together no less than thirty-six papers published during the last thirty years, which all those who are interested in the historical study of the physiology of sugar formation will like to possess. Professor Seegen was originally a follower of Pavy, sharing with most of his countrymen the belief that sugar formation in the liver was merely a *post-mortem* phenomenon, and the starting point of his work was the discovery that the liver of freshly-killed animals contained three times as much sugar as Bernard had supposed, this discovery being due to better methods of analysis. He relates that when he went to his old teacher Professor Karl Ludwig, of Leipzig, and told him of the results of his experiments, Ludwig was by no means convinced, and contended that the sugar formed was derived from the blood. One day Seegen came across in Vienna Kühne, who had for some time been a follower of Bernard, and chattingly asked Seegen how it was that he had been changed from Saul to Paul? "Oh," said Seegen, "it was not due to any vision or revelation, but just the result of hard work." Having satisfied himself that the liver is the true seat of sugar formation his next step was to attempt to verify Bernard's hypothesis that it is produced by the action of a diastatic ferment; careful research, however, failed to find any trace of such ferments in the liver, but he discovered that the action of salivary ferment upon glycogen is to form not glucose but a sugar which has a feebler reducing and greater rotatory power, since called maltose, whereas liver sugar is glucose. Subsequent chapters relate his discovery of the formation of sugar from peptone and fat. He maintains that the liver sugar is the chief source of animal heat and muscular energy. He thinks Chauveau by his researches on the sugar in arterial and venous blood has proved that sugar is destroyed in the capillaries. Among points of more general interest which are touched by these essays is that of the disappearance of glycogen from the liver of persons dying of suffocation or from carbonic oxide poisoning. The author's latest piece of work is to have found in a decoction of liver a nitrogenous body which by the action of weak hydrochloric acid and heat is converted into grape sugar. Decoctions of other organs do not contain this substance, which, however, has still to be isolated and analysed, a task which the veteran physiologist still hopes to pursue, and in which he has our very hearty sympathy and good wishes.

OBESITY.

The translation of Professor von Noorden's monograph on *Obesity*[8] will perhaps cause disappointment to those who expect to find in it a discussion of the means by which superfluous fat may be reduced. It contains no such information, but as the secondary title implies, it merely discusses the indications for the establishment of these methods, the main points of the teaching being (1) that the different methods must be suited to individual cases; (2) that reduction cures should be seldom applied to children and old persons; (3) that rapid reduction cures pursued for a month and followed by eleven months of self-indulgence are of little benefit; (4) that massage does not, as is popularly supposed, remove local deposits of fat, but rather increases them; (5) that slow methods of reduction are to be preferred, especially in women with a large amount of abdominal fat, and in young subjects; (6) that the reduction of obesity is often of very great advantage in heart disease, the treatment being best conducted in a sanatorium; (7) in renal diseases obesity can only aggravate the functional disturbance; (8) in chronic bronchitis, chronic rheumatism, chronic gout, diseases of the organs of locomotion, and diseases of the nervous system, obesity may constitute an unwelcome complication and good results may follow careful reduction; (9) even in pulmonary tuberculosis the extreme obesity which has sometimes followed the overfeeding and lazy life of a sanatorium does harm, this result being likely to occur in early or slight cases of pulmonary tuberculosis. The translation might be better. "Will" is frequently used in place of "shall." There are many clumsy sentences such as: "Watering places are visited that enjoy the reputation in the reduction of obesity"; "an earnest but by no means pleasant refreshing debate has been waged." "Sanatoria" is more often "sanitaria." "Fraught" appears as "frought"; "emphysematous" as "emphesematous." "We should exercise great care in humouring peculiar whims" evidently means from the context, "We should exer-

[5] *A Textbook of Clinical Anatomy*. By Daniel N. Eisendrath, A.B., M.D. London: W. B. Saunders and Co. 1904. Demy 8vo, pp. 512; 155 illustrations. 21s.

[6] *Manual of Anatomy*. By Alvin Davison, Ph.D. London: Rebman Limited. 1904. Demy 8vo, pp. 272; 200 illustrations.

[7] *Gesammelte Arbeiten über die Leber*. Collected Essays on Sugar Formation in the Liver. By Professor Dr. J. Seegen. Berlin: August Hirschwald. 1904. (Demy 8vo, pp. 492. M. 12.

[8] *Obesity, the Indications for the Establishment of Reduction Cures*. By Professor Dr. Carl von Noorden. Authorised translation under the direction of Thomas Oliver, M.D. Bristol: John Wright and Co. 1904. Demy 8vo, pp. 111. 3s. 6d.

case great care *not* to humour peculiar whims. Possibly we must accept the American "pathologic" and "anatomic" for "pathological" and "anatomical," but to our ears these words are inharmonious. We do not know what the author means by "Terrapin" watering places, unless this is a blundering reference to Oertel's "Terrain Cure." Once or twice reference is made to what are called "closed" institutions, which we can only guess to be private hospitals.

NOTES ON BOOKS.

FOREIGN HEALTH RESORTS.

Evian.—Dr. BERGOUIGNAN, in his book on treatment at Evian, shows us at once the extreme opinion he holds as to the value of spa treatment. Thus, according to him, "the most powerful agents that can be employed in therapeutics against chronic complaints and diatheses are mineral waters. Bordeu wrote, upwards of a hundred years ago: 'I consider every complaint incurable which has not yielded to the application of mineral waters,' and this opinion has been since then almost universally adopted." We cannot say we think this opinion has been almost universally adopted in England or is ever likely to be, though we believe that great benefit is to be derived in many pathological conditions from treatment by health resorts and mineral waters. That we believe is undeniable, and is likely to be more and more generally acknowledged. Evian-les-Bains, in the French department of Haute Savoie, is situated at an altitude of about 1,350 ft. above sea level on the centre of the southern shore of the Lake of Geneva, facing Lausanne on the opposite (Swiss) shore. Its name Roman, Aquianum shows that its waters have been long known. They have a temperature of 53° F., are clear, limpid, and somewhat aërated, and yield only 0.3 gram of solid constituents by evaporation per litre. Naturally the "ionic" theory is called up to account for the therapeutic qualities of the waters of Evian, as of those of the whole class of weakly-mineralized mineral waters. Whatever the correct scientific explanation may be, it is sufficiently attested that a course of treatment at Evian is useful in many conditions of ill-health. Dr. Bergouignan explains especially the diuretic action of the waters and their indications in arteric-sclerosis and biliary, urinary, and metabolic affections.

Eaux-Bonnes.—Dr. LEON LERICHE'S medical studies on Eaux Bonnes give a good idea of the main indications of this well known Pyrenean sulphur spa. Eaux-Bonnes is chiefly resorted to for chronic affections of the respiratory organs, and many patients with pulmonary tuberculosis go there, so that some talk of the danger of infection has got about. This fear is groundless, as Dr. Leriche shows, for the hygienic arrangements are excellent, and rooms are regularly disinfected when visitors leave. Professor LANDOUZY in his preface even goes so far as to declare that Eaux-Bonnes has attained to his ideal of 1893, when he said, "To-morrow the health resorts for consumptives will be the places where one will be best protected from the contagion of tuberculosis, just as already the lying in hospitals offer the surest guarantee against puerperal fever." There can likewise be no doubt that to minimise the danger of tuberculous infection the [illegible] must be considered and the human organism must be maintained in as healthy and vigorous a condition as possible.

Chatel Guyon.—Dr. [illegible] monograph on Chatel Guyon deals with the history, development, mineral waters, and other resources of this health resort which has a pleasant situation in the Auvergne, about 1,400 ft. above sea level. Much of the work is devoted to a consideration of the mineral contents and actions of the mineral waters and to physiological experiments which have been carried out with the object of obtaining further information regarding their therapeutic [illegible] of the various [illegible] Chatel Guyon and its [illegible] patients [illegible]

occasionally go there medical men in this country may wish to hear the opinion of a local practitioner on the value and indications of the spa treatment. Dr. Bonnet's work, though written in French, may therefore find some place in England.

Austria Hungary.—Dr. LARAT'S little book on the *Climate and Mineral Waters of Austria Hungary* is a worthy successor to his similar publications on the climates and mineral waters of Germany, Spain, Italy, and England. This well-known author on balneotherapeutic subjects has travelled much and has visited the health resorts about which he writes. Amongst the places specially dealt with in the present work are Meran, Carlsbad, Gleichenberg, the neighbourhoods of Vienna and Buda-Pesth, Pystjan, Trencsin, Mehadia, and, of course, the famous Bohemian spas Carlsbad, Marienbad, Franzenbad, and Teplitz-Schoenau. Larat gives the first place in Europe to Bohemia for purgative spa treatment, to Hungary for purgative "bitter waters." He considers that the pure sulphur waters of the Pyrenees should rank above the compound sulphur waters of Austria, and he naturally points out that there are no pure alkaline waters in Austria-Hungary to be compared with the famous French ones (Vichy and Vals). The book is concisely written and contains much which might interest English medical men especially those who have themselves visited foreign health resorts.

BRITISH HEALTH RESORTS.

In *Buxton: Its Waters, Baths, and Accessory Methods of Treatment*, Drs. ARMSTRONG and HARBURN have discussed the therapeutic methods employed at the well known Derbyshire health resort in the treatment of gouty and other conditions for which patients are sent there. In regard to accessory treatment the authors write:

> No waters, however effective, can be used with advantage in every case, nor are any so circumpotent that their prescribers can afford to reject the aid of the resources of science and of progress.

This is, no doubt, very true; but that it should be thought necessary to make any statement so obvious is a curious proof of the extravagances into which some writers on mineral waters have indulged.

Dr. W. BOWEN DAVIES, in *Llandrindod Wells as a Health Resort*, points out the therapeutic qualities of the best known of the Central Wales group of health resorts. This much-frequented place has bracing air and mineral waters, about which a good deal has already been written. It certainly deserves its growing popularity, yet we cannot quite understand the quotation which the author has placed at the commencement of his address. However much we may have reason to be grateful for the healthfulness of English climates, surely we cannot admit that within the narrow limits of Great Britain every kind of climate which can be of use to any variety of invalid is to be found.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A New Interrupter.—The Carpentier-Delille patent platinum interrupter, which has been brought out by the Medical Supply Association, 32, Gray's Inn Road, is intended for the use of medical men. In it the spring common to the ordinary interrupter is abolished, the weight of the platinum gravity rod, by its momentum, so modifies that a full make spark only is given to the coil, the rod being pulled by two coils of fine wire. The tension of the hammer, moreover, can be adjusted at will. A practical and compact piece of apparatus for which the inventor claims that it is good and practical invention, and that, whereas with ordinary interrupter breaks the platinum points are speedily pitted together that they get roughened

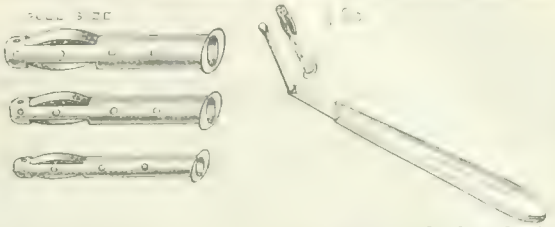
[illegible] Climate and Mineral [illegible] Austria Hungary. By Dr. A. Larat, Paris [illegible] Co. [illegible]

[illegible] By E. W. [illegible] M.R.C.S., L.R.C.P. [illegible] L.R.C.P. & S. Edin. [illegible] Crown 8vo. [illegible] Advertisement by W. Bowen Davies, L.R.C.P. Lond. London: The Health Resorts Bureau. [illegible] pp. [illegible]

and sometimes jam or even fuse together, with this interrupter the points separate quickly. The instrument is portable.

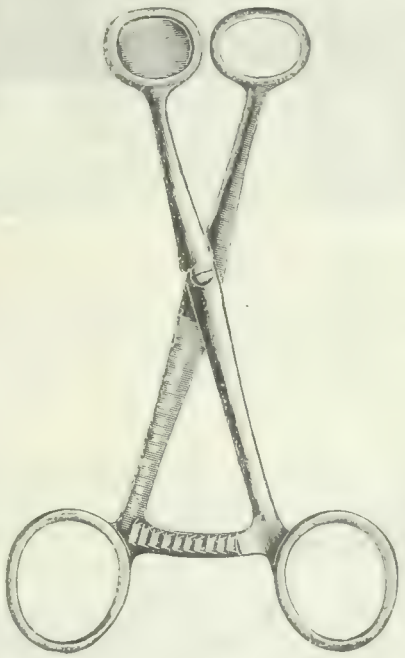
A Colour-test Appliance.—Mr. Percy Dunn, F.R.C.S., Ophthalmic Surgeon to the West London Hospital, Lecturer on Ophthalmology at the West London Post-graduate College, writes: The following is a description of a new appliance for testing the colour vision, which I venture to suggest will be found useful for the examination of candidates for the various public services. It consists of a dead-black metal screen 14 cm. in height, by 9 cm. in width, supported on two metal cross-bars. Just above the centre of the screen there is an oval aperture about 3 cm. in diameter; around the lower half of the aperture is fixed a double groove, similar to that in a trial spectacle frame, for the purpose of carrying the coloured discs and diaphragms employed in the test. In addition to the above, there are four coloured mounted glass discs blue, red, green, and yellow respectively; one ground glass and one smoke glass disc, and three black vulcanite discs having central apertures, the diameters of which have been designed approximately to test the acuteness of the colour vision at the varying distances of 100, 300, and 500 yards. There is also a card upon which appear four squares coloured to correspond with the four coloured discs. The method of using the test is as follows: The screen is placed upon a convenient table with a light behind it, the candidate to be examined being seated upon a chair about 4 metres distant. In the candidate's hand is placed the card with the coloured squares. One of the coloured discs is then inserted in the groove in front of the aperture in the screen, and the candidates is first asked to name the colour and next to point to it on the card. The remaining colours are similarly tested. Lastly, the acuteness of the colour vision is further inquired into by inserting the vulcanite diaphragms in front of the coloured discs. The crown glass and smoke glass discs are for the purpose of delineating "misty" and "foggy" atmospheric conditions. The appliance is supplied in a neat mahogany box, and can be obtained from the manufacturer, Mr. F. Davidson, 140, Great Portland Street, to whom I am indebted for the care with which he has carried out the design. The cost is very moderate.

Self-retaining Drainage Tube and Pilot for the Maxillary Antrum.—Mr. Lawrie McGavin, F.R.C.S.Eng. (London) writes: The operation of draining the maxillary antrum is one of those which are usually performed under the influence of nitrous oxide anæsthesia, and, so far as the drilling of a hole into that cavity is concerned, is a very simple matter. The introduction of the drainage tube is, however, at times quite the reverse, especially when the tube used is one of fine spiral silver wire and the patient is struggling forcibly; for as soon as the drill is withdrawn the mucous membrane of the gums falls together over the hole, and the entrance of the tube is at once obstructed. If now a solid tube is forced into the drill-hole without the aid of a pilot, the surgeon will usually experience difficulty and the patient pain; on the other hand, if a flexible wire tube is used, the rings are not uncommonly displaced, and the tube is thereby rendered worthless. Again, one now and then finds that patients who get into the habit of sucking at their tubes in order to clear them are liable to dislodge them, there being nothing to anchor them in position. In order to overcome these difficulties I have devised the drainage tubes and pilot shown in the diagram, and have found them a great convenience. Each tube is provided with a small metal tongue, which stands out from it and holds it in position. The pilots, which all fit the same handle, are made with a waist just below the head to



allow of the recession of the metal tongues during the insertion or withdrawal of the tubes. The tubes are made in several sizes in order to conform to England's antrum drills, and in cases where it is intended to drill through a tooth socket and the space between the teeth is narrow I have had the flange made oval in place of circular. The instruments have been made for me by Messrs. Down Bros., and will, I believe, be found an improvement on the older patterns.

Entropium Forceps.—Mr. Lionel Stretton (Senior Surgeon, Kidderminster Infirmary and Children's Hospital) writes: At my suggestion Messrs. Arnold and Sons have constructed a pair of entropium forceps, as figured in the accompanying drawing. It will be noticed that they are larger than the old-fashioned instrument, and fixed by a rack instead of a screw. This facilitates their application, and enables an assistant to hold them in position more easily. The fenestrated blade is made to fit into a groove round the flattened blade, and the latter is made slightly convex, so that it will force the tissues above the level of the fenestrated edge, and save the scalpel coming in contact with it. To facilitate cleansing the joint is detachable, and the groove for the reception of the fenestrated blade concave instead of angular. Any one who has used the old-fashioned instrument must have experienced some of the difficulties I have indicated, and as the removal of a tarsal cyst is an operation which many members of the profession undertake, I hope this modification may be of use. I am indebted to Messrs. Arnold for the careful manner in which they have carried out my idea.



A New Uterine Forceps Applicator.—Dr. P. J. MacNamara (Kilmallock, Ireland) writes: Will you permit me to supplement the description of my "uterine forceps applicator" which appeared at p. 734 of the British Medical Journal of March 12th, by stating that I find it a most useful instrument for uterine tamponade?

The Lister Institute.—The governing body of the Lister Institute of Preventive Medicine has issued a pamphlet containing an account of the Institute and its several departments, together with some notes on serumtherapeutics by members of the staff. The pamphlet is illustrated by reproductions of photographs of the Institute in Chelsea Gardens and of the laboratory and stables at Queensberry Lodge, near Elstree, where the preventive and curative serums are prepared. A short account is given of the origin and use of the various preparations, together with instruction as to the mode of their application and dose and the indications for its repetition. The pamphlet will be found convenient for reference in an emergency.

NOVA ET VETERA.

THE SULTAN AND THE HAMIDIÉ HOSPITAL FOR CHILDREN AT CONSTANTINOPLE.

Never has monarch been so severely criticized as Abdul Hamid II, Sultan of Turkey. The seclusion in which he lives lends an air of mystery and romance to a life in reality so simple as to resemble that of a hermit rather than of an Eastern monarch. The Sultan indulges in none of the licentious extravagance associated with the name of most of the rulers of Turkey; he does not care for wine, he is cold to women although his harem is peopled with all the rarest beauties of Circassia, Albania, and Turkey; he dresses in a simple dark blue uniform, eats sparingly, and works harder than any one in his kingdom. The recreations he indulges in are music, reading, and revolver shooting; his great library is stocked with rare editions of English, French, and Turkish works, while he is an unrivalled shot at a target. His evenings are spent oftener than not with his children, he himself and his sons being excellent musicians. No one who has been received by Abdul Hamid has failed to feel strongly his charm of manner and his strong personality. His courtesy is perfect and his mind swift and intelligent. But unfortunately he is known personally to few, while the jealous manner in which he is guarded lends itself to the most fantastic and gruesome legends of those who at most get a glimpse of the "Shadow of God" when, as chief of the Mohammedan religion, he attends the ceremony of the Selamlik every Friday.

Hamidié Hospital, Constantinople—General View from the South.

To those who know him more intimately his generosity is well known. Abdul Hamid's private purse is a large one, and he gives in charity and in supported good works with no niggardly hand. An instance is afforded by the fact that it is entirely to his initiative that the foundation of the Hamidié Hospital for Children near Constantinople is due. Moreover, it is maintained entirely at his private expense, the annual expenditure being about 7[illegible] Turkish liras. The finest hospital in Turkey, it compares favorably with indeed institutions in other European countries.

Situated at Chichli, nearly 90 ft. above the sea-level, in large grounds, it commands an extensive view of the city of Constantinople, the Bosphorus, Scutari, and, in the distance, the Sea of Marmora—an ideal situation for health and picturesqueness. The different pavilions or buildings stand in well-laid-out grounds planted with fragrant trees, including 200 pines, acacias, oaks, and chestnuts.

Inside no art or money has been spared: the walls are white-tiled and the ceilings varnished. A special system of ventilation obtains.

The flooring, of polished wood, is built on a masonry foundation open at the sides and allowing the air to pass freely. The beds are of iron and the furniture white, so that dust can easily be detected, and all furniture is frequently repainted. Twice a week each pavilion is thoroughly washed out with water and disinfectants. The dirty linen is placed in boxes painted white inside and covered with lead outside, and in these it is sent out on carts to be washed. In order to avoid dust all sweeping is done with horse-hair brooms steeped in antiseptics. The drainage has been most carefully planned, and is greatly aided by the declivity of the soil.

As for the instruments, they are a unique collection. They cost 10,000 Turkish liras, or £8,000 sterling, and were chosen with the utmost care from all the most famed makers in Europe. Recently complete radiographic appliances, worked by a petroleum motor of three horse-power, have been installed.

The feeding of the children is carefully considered. There are seven different diets according to their condition, and when strong enough they are allowed to choose. The kitchen is managed by a staff of cooks, and instead of, as in some hospitals, a difference being made according to the class of patients, here by special desire of the Sultan there is no class prejudice, and the poor are treated exactly the same as the rich.

Hamidié Hospital, one of the Pavilions.

The hospital proper, built in pavilions, provides accommodation for 100 patients. The main administrative building contains the directors rooms and those of his assistants, as well as fourteen rooms for the employés, the pharmacy, a chapel, and a library. The pathological and bacteriological laboratories are well equipped, and important work is done there under the direction of Fuad Bey, who has studied in the best known German institutes. The operating room is furnished with aseptic appliances, and, as has been said, the instruments used are the best that money or skill can command.

The wards are pictures of cleanliness and smartness. There are five trained female nurses from Berlin (the head nurse receiving 70 francs a month and the others from 40 to 50), and a visitor to the wards might almost imagine himself to be in a German hospital. The patients are chiefly children ranging from the ages of 1 to 12 years; among the most common diseases treated are tuberculosis of the bones, joints, and lymphatic glands; diseases of the skin, nose, throat, and eye, and infectious diseases for which there are separate pavilions. The Sultan has caused sixteen beds to be set aside to accommodate strangers who may be taken ill while in Constantinople. They are received subject to a recommendation from their respective embassies, no matter of what nationality or religion. This regulation alone speaks volumes for the Sultan's liberality of sentiment and kindness of heart.

There is a policlinic attached to the Hamidié Hospital at which the average daily attendance is about 150. After passing a preliminary examination to detect infectious cases, the non-infectious patients are allowed into a large hall, where they are classified by a physician. Five physicians are in attendance from 9 a.m. to 2 p.m. There are separate well-equipped departments for surgery, gynaecology, medicine, ophthalmology, and nose and throat diseases; medicines are supplied from a dispensary, free of charge. Indeed throughout the hospital the Sultan has willed that no money shall be taken from any patient.

As a further proof of his generosity Abdul Hamid has made over to the Hamidié Hospital all revenues accruing from the mineral waters of Kara-Hissar-i-Sahib. These springs are at some distance from Constantinople, and until recently no use had ever been made of them, though mineral waters were, at a great cost, imported into Turkey. Now, however, works are in progress for the catchment and bottling of the waters, and the Anatolian Railway is to transport the water free of freight and all taxes. The analysis of the water is as follows:

Physical qualities of the water	Limpid, pure, agreeable to the taste, without smell, refreshing and gaseous	
Density		1.0030
Temperature at the source		17° C.
A litre of water contains		Grams.
Sodium bicarbonate		.1410
Calcium bicarbonate		0.2780
Magnesium bicarbonate ...		.521
Potassium chloride		0.3340
Lithium chloride		traces
Alumina		.11
Iron oxide .. .		0.110
Silicates		0.200
Total		3.8430
Carbonic acid (free)		1.0555

It will be seen that these waters are to be classified among those containing free carbonic acid and sodium barcarbonate, such as the waters of Ems, Giesshubler, Vichy, and Vals. As the water does not contain sulphurous salts it keeps indefinitely, and it has no odour of sulphurous hydrogen; for this reason it is superior to some of the mineral waters possessing otherwise similar properties. The further advantage is claimed for it that the cure can be successfully followed at home.

The water is chiefly of use in digestive and urinary troubles, and in various diseases of the skin and thoracic organs its value has been tested at the different hospitals in Constantinople, always with the happiest results, while it has been found that the Kara-Hissar water in many cases effects much more rapid cures than some similar better-known waters. It will be seen that the springs are likely to be a valuable source of revenue to the hospital when they become better known, and so munificent a gift shows how deeply Abdul Hamid must have the welfare of the hospital at heart.

The fourth annual report of the Hamidié Hospital shows that the institution is continuing to do good work under the able guidance of Dr. Ibrahim Pasha, who has studied in Germany, is a competent bacteriologist, and who works for the advancement of science in the broadest sense. The report contains clinical and pathological papers in English, French, German, and Turkish, and a number of interesting illustrations. We wish the hospital all the success it deserves.

It is stated that during the last winter session the number of women students in the Faculty of Medicine in the Swiss universities has exceeded the number of men students, the total being 763 men and 891 women. There were no fewer than 377 women students in Berne, 181 in Lausanne, 177 in Zurich, 151 in Geneva; in Bâle there were only 5.

EGYPT AND THE SOUDAN.

The report of His Majesty's Agent and Consul-General, Lord Cromer, on the finances, administration, and condition of Egypt and the Soudan in 1903 contains some particulars with regard to the public health of Egypt and the Soudan.

Medical Administration.

The sanitary and medical department received an additional grant of about £E.10,000; about £E.2,500 was devoted to increasing the number and improving the position of subordinate employés, £E.2,000 to the street services of Cairo, and £E.1,000 to hospital expenses.

The number of admissions into the Government hospitals has increased year by year; in 1893 it was 17,473, in 1903 it was 25,162. Lord Cromer observes that while this is satisfactory in so far as it shows that the people are gaining confidence in the hospitals, no Government can afford to give medical treatment gratis to the larger portion of the population. "The principal function of Government," he says, "is the prevention of epidemic diseases, not the cure of persons suffering from ordinary maladies. The Egyptian Government is still far from being in a position to deal adequately with the former of these two questions." Lord Cromer therefore expresses the opinion that it is "very necessary to insist on the payment of fees for treatment, save in the case of the really indigent poor."

Infectious Diseases.

Small-pox.—There were 2,118 cases of small-pox with 394 deaths; the successful vaccinations numbered 406,856 as compared with 377,421 in 1902.

Diphtheria.—There was a good deal of diphtheria in Cairo during the autumn months; 286 deaths occurred, 15 of them amongst Europeans. Whenever the children in the house where one case had occurred were treated with anti-diphtherial serum the disease did not spread.

Plague.—The number of cases of plague notified throughout Egypt was 303 with 160 deaths, as compared with 481 cases and 291 deaths in 1902. The cases occurred in the same towns and villages as in 1902. Lord Cromer quotes the following observations by Sir Horace Pinching:

> The incidence of the disease has followed the same course as that observed in the previous years, namely, the disease became more acute during the early spring months, and ceased during the late autumn. It is interesting to note that the period in Egypt when most cases of the disease appear corresponds with the period when rats are breeding. Almost invariably in the houses where cases occur, and in those adjoining, dead and dying rats are found. For this reason a general disinfection is made not only in the affected house, but in all the houses adjoining. After such a thorough disinfection it is rare that other cases occur.
>
> During 1903 there was a marked increase in the number of cases as compared with 1901. It is therefore very satisfactory to note the decrease which has occurred during 1903. Without doubt the strict supervision of infected districts and the immediate measures taken have to a great extent prevented plague from assuming serious proportions in Egypt. In my opinion these measures must be continued for a number of years to come before we shall be able to consider Egypt safe from a serious epidemic of plague.
>
> For some years past experience has shown that in a country where sanitary police measures and general sanitation are in an advanced state of perfection, a few cases of plague recognized at once as such and dealt with on simple practical lines, need cause no great alarm as to the disease spreading and assuming a grave epidemic form as it has done in India. Plague, without doubt, like cholera, is a disease which spreads with alarming rapidity among a population devoid of all ideas of hygiene, and amongst whom no rational measures are taken to deal with the early cases. It behoves the Government, therefore, to take all measures possible to keep so serious a disease as plague within reasonable limits. This can only be done by constant supervision, and by energetic measures with regard to the discovery of first cases, disinfection, and isolation of the sick.

Infectious Hospital.—A hospital for infectious diseases was completed at Port Said during the course of last year.

Prevention of Malaria.

Lord Cromer draws attention to the very remarkable hygienic results which have been obtained at Ismailia by the application of Major Ross's plan for the destruction of mosquitos. The public health of Ismailia, which was founded in 1862, was satisfactory until 1877, by which time various works had been constructed resulting in a considerable increase in the area of stagnant water. In that year an epidemic comprising 335 cases occurred and malaria subsequently became endemic. The average number of cases in the thirteen years from 1884 to 1897 was 1,700, constituting a very large proportion of the total population. Down to the

end of 1897 the Suez Canal Company had spent about £15,000 on improving the sanitary condition of the town, besides some £13,000 on medicine furnished to its employés. In 1897, on the advice of a medical commission, further expenditure amounting to £4,000—a portion of which was borne by the Egyptian Government—was undertaken, but no impression was made on the fever, the average number of cases in the five years from 1898 to 1902 being 1,[illegible]. As our readers are already aware, Major Ross visited Ismailia on the invitation of the President of the Suez Canal Company, and on December 27th, 1902, his system, including the prevention of the accumulation of stagnant water and the destruction of the breeding of *Anopheles*—was adopted. The following table, giving the number of cases which occurred month by month in 1902 and 1903, shows the very remarkable results achieved:

				1902		1903
January	...	...	...	[illegible]	...	1
February	...	...	...	10	...	4
March	...	...	...	161	...	47
April	...	...	...	761	...	24
May	...	...	...	1[illegible]	...	[illegible]
June	...	...	...	1[illegible]	...	18
July	...	...	...	1[illegible]	...	4
August	...	...	...	1[illegible]	...	3
September	...	...	...	1[illegible]	...	2
October	...	...	...	1[illegible]	...	3
November	...	...	...	1[illegible]	...	1
December	...	...	...	[illegible]	...	[illegible]
Totals	...	...	...	2,105		21

Sir Horace Pinching reports that out of the total number of 213 cases which occurred in 1903, no less than 203 were those of persons who had previously had the fever, so that the number of fresh cases during the year was only 10, and no fresh case occurred after October 15th. Commenting upon these figures, Lord Cromer says: "There can, therefore, be no doubt as to the efficiency of Major Ross's system. It would, perhaps, be somewhat over-sanguine to expect that results similar to those obtained at Ismailia can invariably be produced elsewhere; the conditions under which the experiment has been tried at Ismailia are, in fact, exceptionally favourable. Success can only be ensured by careful attention to a number of petty details. Even if it were possible, it would, I conceive, generally be objectionable to attempt to enforce this attention by legislative measures, which would almost certainly involve minute and probably vexatious interference on the part of the officials with the household arrangements of each family and individual. In most cases, therefore, everything will depend on the effective and voluntary co-operation of the inhabitants themselves. The position and influence of the Suez Canal Company at Ismailia greatly facilitate the task of securing this co-operation, for the whole population practically consists of those who, in a greater or less degree, are connected with the Company. Elsewhere the requisite amount of co-operation may be more difficult to obtain. There is, however, one point in connexion with the result of the experiment which is worthy of notice. Expert authorities are agreed in holding that mosquitoes do not range far from the place where they are bred. It would therefore appear possible for a new neighbourhood to create for itself a comparatively free their special locality from this insect pest. The experiment is now being tried in the [illegible] Canal Zone, which I propose [illegible]

QUARANTINE.

Lord Cromer, who in previous reports has dealt on the question of introducing modifications into the quarantine regulations, expresses the opinion that the proposals made by the Egyptian Government constitute a very distinct step forward towards the realization of this object, and, while reserving his opinion as to [illegible] with the measure, he bears testimony to the [illegible] with which the interests, not only of Egypt, but also of all concerned in [illegible] have been considered by the Egyptian Government. He also [illegible] the opinion that the proposed [illegible] will not only [illegible] but will [illegible] the expenses [illegible] Egypt [illegible] to the [illegible] Canal and the harbour dues. He expresses the hope that the [illegible] Board will [illegible] the [illegible] which [illegible] modification and [illegible]

WATER SUPPLY.

Lord Cromer records the progress which has been made in the matter of the Egyptian Government's [illegible] to the [illegible] of Egypt. [illegible] a portion of which [illegible] on the very most [illegible] sanitary schemes [illegible] until the [illegible] has a [illegible] in no small degree upon the purity of the [illegible] attention will first be given to this matter.

Provincial Towns. A sum of £E.[illegible] was set apart at the beginning of the year to be expended on the water supply of the provincial towns, and further funds will be forthcoming. A scheme for the town of Mansourah has been prepared at an estimated cost of £E.21,000; the municipality has in hand £E.8,000, and the balance will be advanced by Government on payment of interest at 2 per cent.; a sinking fund of 2½ per cent. is also constituted, so that the loan will be paid off in about thirty years. In 1902 Assouan was provided with water at a cost of £E.3,200, and the Government has now advanced £E.5,000 to enable the scheme to be extended. Schemes for Damietta and Zagazig and other towns are in preparation, and in some cases money will be advanced without charge for interest, and repayment will not be demanded.

Cairo. The work in connexion with the new water supply is being rapidly pushed on, and it is hoped that during 1905 the water, which will be drawn from a series of deep-boring wells now being sunk along the banks of the Nile, will be distributed to the town. The water from two of these works is already being distributed. This allows of less stress being put upon the filter beds, with the result that the water recently supplied by the company has been much clearer and better filtered than was formerly the case. A sum of £E.10,000 a year is devoted to the maintenance of free taps from which the poorer classes can obtain pure water, and the Government has contributed £E.20,000 for the improvement of the quality and the increase of the supply of water.

Alexandria. The question of the water supply of Alexandria, which has been under consideration for many years, has been settled by the signature of a convention with the water company under which it has engaged to construct some new filters on the American "Jewel" system, capable of supplying 36,000 tons of pure filtered water daily. It is hoped that the works will be completed by the middle of next year and they are so designed as to admit of expansion if necessary.

OPHTHALMIA.

In accordance with the provisions of the trust instituted by Sir Ernest Cassel with a capital of £40,000, a British ophthalmic surgeon, Dr. MacCallan, was appointed last July to be in charge of the work. Tents, equipments, and instruments were purchased. A native medical assistant, together with the necessary staff, was engaged, and a travelling hospital was erected at Menouf. During the autumn, Dr. MacCallan visited several towns in Lower Egypt. Notices were sent out that an ophthalmic surgeon would examine and treat any cases of eye diseases amongst the poor gratis. Large numbers of persons availed themselves of Dr. MacCallan's services. There can be little doubt that, by means of travelling hospitals, it will be possible to render assistance to many persons suffering from eye diseases in distant villages, who would probably never go for treatment to the chief provincial town. The present dispensary will be kept at Menouf for two or three months more, and will then be transferred to some other district. After some more experience has been gained, it is proposed to equip another similar dispensary and to despatch it elsewhere.

LUNACY.

Cairo Asylum. The accommodation of the Cairo Lunatic Asylum is inadequate, and when the new military hospital is constructed the present building, which adjoins the asylum, will, after some alterations, be converted into the reception of the lunatics. A further extension will eventually be necessary, a pavilion for 50 in-patients and 20 workers is in course of construction. Lord Cromer adds that the want of a suitable [illegible] has long been felt, and that the matter is now under consideration.

Hashish. The total amount of hashish seized during the past year amounted to 24,[illegible]0 kilos, an increase of 7,770 kilos over the previous year. A large [illegible] of the drug is said to have been seized. Two cylinder-cakes belonging to Europeans and 1,851 belonging to natives were ordered to be [illegible] by the Tribunals in 1902, as against 17 and 32 in 1901. The price of hashish in Egypt stands higher than it has ever stood before. The rise of price appears to have slightly affected the consumption, for each [illegible] of opium is [illegible] a piece of hashish weighing about 2 grs. and [illegible] to less than 3 millièmes [illegible] with some charcoal. The latter [illegible] [illegible] which gives [illegible] [illegible] [illegible] [illegible] It is said that formerly each [illegible] was required to [illegible] twice [illegible]. The profits of the retail traders have certainly been reduced, but they are

still enormous. The following extract from Dr. Warnock's report shows a distinct improvement:

"[illegible] male patients admitted to the lunatic asylum during the year, [illegible], or about 18 per cent., suffered from insanity due to hashish, as compared to [illegible] per cent. in 1[illegible], 2[illegible] per cent. in 1901, 2[illegible] per cent. in 1[illegible], [illegible] per cent. in 1[illegible], 25 per cent. in 1[illegible], and 33 per cent. in 1902."

School of Medicine.

Lord Cromer reports that since the introduction of reforms which were undertaken on the advice of Sir Cooper Perry, who visited Egypt in 1897, the School of Medicine has been steadily growing in popularity: 35 students joined it in 1903 as against 27 in 1902. The total number of students is at present 98.

The Soudan.

An approximate estimate of the population of the Soudan is held to justify the statements that before the period of the Dervish rule it was 8,525,000, that 3,451,000 persons died of disease, that 3,203,500 were killed in external or internal war, and that the existing population is 1,870,500 persons. Sir Reginald Wingate believes that these statistics, startling though they be, are fairly correct, and as an example of one among many cases which have come under his personal observation he states that prior to 1882 the district comprising the banks of the Rivers Rahad and Dinder contained upwards of 800 villages. When this country was examined some two years ago, not a village remained, but through the energetic action of the Governor, Colonel Garringe, 28 new villages have sprung up. The great decrease in the population appears to be attributable mainly to the intertribal wars and to the heavy loss of life in the engagements with the British and Egyptian troops, but in part also to the recent prevalence of small-pox and other diseases.

Small-pox.—Small-pox has in recent years caused fearful ravages in the Soudan. It is said that 25,000 persons died of it in the town of Omdurman in 1885, and serious outbreaks occurred in 1891 and 1899. A recent outbreak which also threatened to be serious was, Lord Cromer states, averted by the skill and energy of the British medical officers. Great difficulties have stood in the way of the general application of vaccination: owing to the prevalence of communicable diseases of various sorts, arm-to-arm vaccination has been prohibited as dangerous. On the other hand, calf lymph which has come from Cairo frequently becomes inoperative in a few days, owing to the excessive heat of the Soudan. The number of properly-qualified medical officers is inadequate to deal with vaccination over so vast a country, and an endeavour is being made to train a certain number of barbers who are to be found in every village, and for the inspection of their work by the medical officers of the districts. Though 11,000 people were vaccinated last year, Dr. Christopherson attributes the decrease of small-pox in the Soudan during the last few years rather to the protection afforded by previous outbreaks—the last of which, in 1899, was severe—than to vaccination.

Malarial Fevers. While the health of the troops in the Soudan was generally good during the past year (the percentage constantly sick was 2.83 of the total force), malarial fevers were exceedingly prevalent among the garrisons in the Bahr-el-Ghazal Province. Captain Nickerson reports that "mosquitos swarm over every square yard of the Bahr-el-Ghazal during the rains. No one who has not felt or seen them at Meshra-el-Rek can have an idea of their numbers. As soon as the sun goes down they appear like a flight of locusts, disappearing one hour after sunrise. During the rains, when the country is full of swamps and the khors flooded, no system of drainage is possible." The destruction of mosquitos and their larvae, draining operations, and other measures are being energetically carried out at Khartoum, Kassala, El-Obeid, and certain stations on the White and Blue Niles, and even in the Bahr-el-Ghazal. Although it is too soon to expect any very striking improvement, there are encouraging signs, and Colonel Penton believes that when the system has been thoroughly developed in the larger and more important stations there will be a marked diminution in the prevalence of malarial fevers.

Hospitals.—A number of good hospitals have been established, and the people appear to be gaining confidence in them; 40,862 out-patients and 3,357 in-patients were treated in the Government hospitals in 1903, as against 26,591 and 2,395 respectively in 1902. The number of paying patients is increasing. Last year they were considerably more numerous than those who received gratuitous treatment.

Research Laboratory.—The research laboratory attached to the Gordon College, Khartoum, and generously equipped by Mr. Wellcome with all the appliances necessary for the conduct of scientific research, has been under the direction of Dr. Balfour, and Lord Cromer states that his researches into the causes of the diseases which specially afflict animal and vegetable life in the Soudan, by adding to the means of prevention which may be adopted, amply justify the creation of the laboratory. He adds that Dr. Balfour's report on his vigorous campaign against mosquitos at Khartoum is specially interesting as showing what is possible in a populous town in the direction of carrying out Major Ross's system.

Tsetse Fly. Major Griffith, Principal Veterinary Officer of the Soudan Government, had found the tsetse fly in the Bahr-el-Ghazal province on the banks of the Pongo, where the road to Dem Zubeir crosses it. This is believed to be the most northern locality in which the fly has been found.

THE COST OF VACCINATION IN GERMANY, AND THE RISKS ATTENDING ITS USE.

I.—Animal Lymph Institutions: the Cost of Vaccine.

In Germany with a population of about 55,000,000, there are twenty-two State institutions for the provision of animal vaccine; and a report on the working of these establishments is published yearly by the Imperial Board of Health, Berlin.

II.—Cost of Vaccination.

The expenses of the Vaccine Institute in Berlin during the year 1902 amounted to £610, including salaries, hire and expenses of rooms; hire, cost, and feeding of calves; fire and lighting, cleaning and disinfecting, packing and carriage of lymph, and wear and tear of instruments and furniture. From this sum must be deducted £186 received by sale of lymph to private practitioners, thus the actual cost to the community was only £424. Some of the smaller establishments cost much less than this; but, assuming the average cost to be £400, then the twenty-two State institutions for animal vaccine cost in all £8,800. This is a very small sum compared to the cost of a severe epidemic in any large town.

As regards salaries of public vaccinators in Germany, it must be remembered that all official salaries there, and especially those paid to medical men, are very much lower than in this country. In some parts of Germany the public vaccinators receive a fixed salary, in other parts each vaccination is paid for. It appears that in Cologne, to take one place, in the year 1899, there were 13,772 vaccinations by public vaccinators, revaccinations included, and the amount received was £224 17s. During 1900 the sum of £256 12s. was paid for 13,852 vaccinations; and in 1901 the sum of £256 18s. for 13,851 vaccinations. Of course, the vaccinations were all done at stations, where everything was made ready for the public vaccinator. For in Germany everything required in the way of clerical assistance, rooms, etc., is provided by the local authorities and the cost of all this must be considered in reckoning the cost of vaccination. In Germany, in short, the idea is to save the vaccinator in every possible way, whereas in England, it is the child's parents who are considered.

In the (official) Memorandum on the Introduction of Animal Lymph, which was placed before the German Vaccination Commission of 1884 by the Imperial Board of Health, the cost of vaccination was estimated to be about 1s. per vaccination, and in the same document the additional cost of animal in place of human vaccine was placed at one-twentieth of a shilling—that is, a little more than ½d. of English money. During the year 1897 the number of primary vaccinations was 1,455,349 and of revaccinations 1,174,827; thus over 2,500,000 vaccinations were done. If each of the above cost 1$\frac{1}{20}$s., the total cost in 1897 was about £138,000. On this scale 2,000,000 vaccinations would cost about £100,000.

III.—Injuries presumably due to Vaccination.

All cases of asserted injury to the health of any child by vaccination are very carefully investigated, and reports of all such are published yearly by the Imperial Board of Health (*Statistische Mittheilungen aus der k. k. Gesundheitsamte*). By the official regulations cross-cuts are strongly deprecated in vaccination, and so is puncture. The method of operating in Germany is to make four slight incisions, one at each site—that is, one only for each vesicle to be produced. The official instructions are:

"Four slight incisions suffice, of at most 1 cm. in length (⅜ in.), and at a distance apart of at least 2 cm. (¾ in.). Into each little wound, held

open by gently stretching the skin the centre is touched as a small stroking [illegible] bleeding avoided.

During the thirteen years 1885-97 out of a total of 32,107,619 children vaccinated or revaccinated in Germany 115 children died "within a few weeks or months" after the operation from injuries presumably due thereto. This is a proportion of 3.5 deaths per 1,000,000 vaccinations. Of these 115 it was shown that 7 died owing to improper treatment of the vaccination sores by parents, 2 were infected by contact with others who had suppuration going on, 1 had cerebral meningitis from a blow on the head on the day of vaccination, 1 was "scrofulous" when vaccinated, and 2 more were "neglected"—that is, did not receive proper care at home. In 1 case anthrax germs infected the child subsequent to vaccination. In 28 cases of other wound diseases the infection must have occurred subsequently, because the disease first appeared from one to three or four weeks after the operation, 2 cases were doubtful as to fault of vaccination, and 2 more were excluded because the disease, sepsis, only appeared thirty-four weeks and a few months respectively after vaccination. Deducting the above cases, there remain 69 deaths from diseases the causation of which by vaccination does not appear to be excluded, according to their character. Meanwhile in many of these cases the data are too scanty to enable us to form a judgement as to whether such a connexion existed. If we compare this number [illegible] with the number of vaccinations over [illegible], it results that vaccine sores which run an abnormal course are very rare.

Such is the official comment. Thus, when examined, the deaths were brought down to a little over 2 per 1,000,000 vaccinations. The report continues:

While [illegible] a painful and distressing death due to small-pox removed tens of thousands of children yearly, there now die in all Germany about [illegible] in consequence of unfavourable occurrences after vaccination. We could deprive [illegible] much of the advantages of railway travelling because of the accidents that sometimes occur would be looked upon as a simpleton. Compulsory school attendance involves far more dangers to health than compulsory vaccination.

From the report re vaccination for the year 1902 we learn that in that year no death occurred directly due to bad lymph or bad vaccination itself. But two deaths from inflammation of the cellular tissue of the upper arm were perhaps due to the subsequent invasion of the site of operation by impurities.

MEDICAL NEWS.

The late Sir Edward Sieveking left real and personal estate of the value of £24,863.

Metropolitan Magistrate. Dr. John E. Panton has been appointed a Justice of the Peace for Bolton.

The Lord Mayor of London will preside at a festival dinner in aid of the funds of the Middlesex Hospital to be held at the Hôtel Metropole on Tuesday, May 3rd.

Gresham College.—Dr. E. Symes Thompson, Gresham Professor of Medicine, will give a course of lectures on heredity and evolution at Gresham College, E.C., on April 19th, 20th, 21st, and 22nd at 6 o'clock on each day.

In consequence of the prevalence of anthrax in the County of Chester, the Board of Agriculture and Fisheries has made an order for the slaughter of affected animals, and for the payment of compensation.

It is reported that President Roosevelt has issued an order directing the Japanese system of wrestling to be introduced into the Naval Academy as an addition to the system of athletic training in use there.

We learn from the *London Medical and Surgical Journal* that at a meeting of the Working Men's Educational Club on March 24th a cantata, "Hymns to Hygeia," composed and orchestrated by [illegible] Hemmens, of Battersea, and dedicated to Dr. William H. Welch, was given.

Convalescent Home for Females.—An appeal for assistance towards clearing off a debt of £600 is being made by the Committee of the Mary Wardell Convalescent Home for Scarlet Fever at Stanmore. It is now twenty-five years since the foundation of this institution was brought about by the efforts of Miss Mary Wardell, who had realized the need for such a home through her experience as a worker among the poor of London, and who is now, in the case of a covering letter to the appeal, 77 years of age. Patients are admitted upon payments which vary from one to a week upwards, about half the annual cost of the home is thus covered. Last year 188 patients were received. So far as we are aware, this is the only home which specially devotes itself to convalescents from scarlet fever, and its utility and value are attested by the fact that it received last year grants from each of the three metropolitan hospital funds.

Charities amounting to £320 has been forwarded by the National Sunday League to various hospitals and charities as a result of concerts recently given at Battersea, Brixton, Deptford, St. Pancras, Shoreditch, Hammersmith, Stratford, the People's Palace, and Kennington.

The annual dinner of the Volunteer Ambulance School of Instruction will be held on Thursday, May 12th, at the Trocadero Restaurant, London, W., when the chair will be taken by Brigade-Surgeon-Lieutenant-Colonel P. B. Giles, V.D., at 7.45 p.m. The guest of the evening will be Sir William Taylor, K.C.B., Director-General of the Army Medical Service.

The Ingleby Lectures of the University of Birmingham will be delivered by Dr. C. J. Cullingworth, Obstetric Physician to St. Thomas's Hospital, London, in the Medical Lecture Theatre of the University on Tuesdays, May 10th and 17th, at 4 p.m. on each day. The lectures will be A Plea for Exploration in suspected Malignant Disease of the Ovary, with illustrative cases.

The Prefect of Police has proposed, and the Municipal Council of Paris has approved, the introduction of certain amendments in the regulations to which public prostitutes in Paris are at present subjected. Although ostensibly somewhat more severe than those which have hitherto existed, it is considered by many people that the amendments proposed will practically amount to an abolition of the regulations altogether.

The spring meeting of the South-Eastern Division of the Medico-Psychological Association will be held at the West Ham Borough Asylum, Ilford, Essex, on Friday, April 29th. At the general meeting at 2.45 p.m. Dr. F. W. Mott will give a lantern demonstration on the Significance of the Convolutional Pattern of the Human Brain, and Dr. D. G. Thomson will speak of the "Nursing Bill" from the mental nursing point of view.

The report of the Council for 1903, presented to the annual meeting of the Metropolitan Hospital Saturday Fund on April 9th, showed that the receipts from workshops and business houses reached £23,674, being the largest amount recorded in the history of the fund; £21,183 had been distributed among 195 hospitals, dispensaries, and convalescent homes. The Surgical Appliance Committee had supplied 4,313 appliances, towards the cost of which the recipients contributed £2,045. The Lord Mayor, as President, has consented to preside at the annual public meeting of the fund to be held at the Mansion House on Saturday, April 23rd, at 4 p.m.

Epizootic Lymphangitis. The Board of Agriculture has issued a circular stating that disease of horses known as epizootic lymphangitis, which has existed for many years in Italy and in several other countries in Europe, and is also prevalent in India and in some parts of South Africa, has recently been introduced into Great Britain. The disease is due to a cryptococcus, an ovoid body with a double contoured envelope and highly reflectile contents; it is easily transferred from a diseased horse to a wound on another horse usually no doubt by sponges, rubbers, or brushes, or by the hand of the attendant. The condition is liable to be mistaken for the farcy form of glanders, as the symptoms are swelling of the lymphatics of the skin on the inside of the hind legs as a rule, but also sometimes on the side of the neck or on the body; usually nodules varying in size from a pea to a hazel nut are produced and eventually burst, discharging a small quantity of purulent material. The disease may be diagnosed by a microscopical examination of the discharge which, under a magnification of 300 will reveal the characteristic large oval cryptococcus without staining; the mallein test may also be used, as an animal suffering from epizootic lymphangitis does not respond. A horse suffering from the disease should at once be isolated, and notice should at once be given without delay to the police. Separate implements should be used for and about the diseased horse, and as the germs of the disease have been known to linger about a stable for a long time, disinfection should be practised.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 16TH, 1904.

THE PRODROMATA OF THE PSYCHOSES.

"The great field for research," said a friend to Professor James, "is always the unclassified residuum," and though to attach an unclassified residuum to a field so superficially explored as that of mental diseases may appear a premature assumption, work of importance is being done by many investigators in the outer fringe of psycho-pathological inquiry.

Of such work is that of Dr. Clouston, who in a recent paper on the Prodromata of the Psychoses and their Meaning[1] has insisted on the need for a more lively recognition of the solidarity of the whole central nervous system, and a clearer conception of the underlying connexion between the mental and non-mental symptoms occurring in the course of any psychosis. Not only are mental diseases accompanied by symptoms non-mental in character, but Dr. Clouston asserts that in a large proportion of cases the non-mental phenomena precede the appearance of the psychosis in a recognizable form. The practical importance of this, implying the possibility of arrest of a mental disease in its earliest stages, is obvious.

Of the sensory prodromata in melancholia, head pain is one of the most common, but there may be instead "peculiar sensations" of weight or of lightness, bursting or congested feelings, giddiness, heat or cold. The head pains are not those of megrim, and are seldom accompanied by sickness or vomiting. A fact of much practical significance and speculative interest is that they frequently pass off with the appearance of the true mental phenomena, and reappear during the period of convalescence, so much so, that when in the course of melancholia there is a return of the prodromal neurosis the recovery of the patient may be anticipated.

The cause of these prodromata and their precise relation to the mental disease which succeeds them are questions still awaiting elucidation. No toxaemic theory, Dr. Clouston holds, is satisfactory, and as there are no flushings or pallors, and the general circulation is not uniformly affected, the common explanation of headaches by the supposition of vasomotor disturbance is here inadequate. In maintaining that these symptoms depend on "failure of nutritive and dynamic energizing of the higher cortical cells," Dr. Clouston is probably describing their origin in as accurate terms as is permitted by the limitations of our present knowledge. Dr. Clouston assumes—as has been for many years affirmed by Edinger of Frankfort in his *Ersatz-Theorie*—a condition of metabolic equilibrium in each neuron, whose stability is influenced and regulated from without by adequate afferent stimuli. Now for the development of the "mental cortex" and for its due functional activity the presence of constant stimuli acting on the sensory centres by way of peripheral sense organs is absolutely necessary. If therefore the sensory system be hereditarily weak, or be exhausted or starved or poisoned, then the mental centres whose proper action depends necessarily on the peripheral integrity must soon exhibit symptoms of disturbance. By this relation Dr. Clouston explains the sequence of sensory neuroses and melancholia. "Sensory disturbances arise first, disturbing impressions are sent to the mental cortex, and melancholia or mania stupor or mental dissolution come next as natural physiological sequences. The sensory areas of the least important, the more shallow, are the gateways to mind and so suffer first."

The conclusion "and so suffer first" seems hardly warranted by the terms of the syllogism. From the context it is apparent that in the psychoses under consideration Dr. Clouston is of opinion that the clinical facts he has adduced show that the mode of neuro-psychic declension is from the periphery to the centre, and not from the centre to the periphery. A quotation from the summary at the end of the paper puts this even more clearly. "A general consideration of the character and frequency of such facts from the physiological and pathological, as well as from the clinical points of view.... seems to point to the fact that the lower parts of the sensory apparatus very often break down before the mental apparatus in the highest regions. They seem to prove the mental cortex to be the centre of the organism, and teleologically its end. In this way they point to a greater resistiveness against disease in the higher centres." That without sensation no mentality could develop or exist may be freely admitted, but it is not abundantly clear that because non-mental neuroses appear in the transition period between sanity and insanity that these phenomena are the result of "a breakdown in the lower part of the sensory apparatus." Pathological facts in support of such a contention are as yet wanting, the underlying changes in the psychoses being up to the present beyond our ken and purely conjectural, whilst the clinical facts, set though they are by Dr. Clouston's researches beyond doubt or cavil, hardly warrant so striking a generalization, and it appears to us they may possibly bear some other interpretation more in harmony with the laws of dissolution as expounded by Herbert Spencer and Hughlings Jackson. Agreeably with the views of these latter the production of these paraesthesias might be analogous to that of hallucinations, and depend on changes in the psycho-sensory centres of the cerebral cortex (Tamburini). That the effect of such changes, slight in amount though they might be, would be felt throughout the whole series of linked neurons, even to the periphery, is *a priori* probable, but the changes would be initiated not in the lowest but in the highest regions.

Returning, however, to the clinical evidence, which throughout is of high value, it may be noted that the prodromal symptoms enumerated by Dr. Clouston are not confined to the head. He states that spinal and visceral pains may precede mental attacks, and special sense disturbances, tinnitus aurium, deafness, loss of taste, and hallucinations recognized by the patient as such have been met with as precursors of mental disorders.

On the motor side convulsions, "fidgets," alterations in handwriting, and particularly, and most characteristic of all, changes in the facial and eye expressions occur amongst the prodromata. No prodromal symptom, how-

[1] *Review of Neurology and Psychiatry*, vol. i., No. xii.

ever, is more common than insomnia. Dr. Clouston frankly admits that no pathogenetic explanation of this symptom is possible until the mystery which enshrouds the physiology and psychology of sleep has been penetrated, but he is convinced that none of the vascular theories put forward explains the matter, and maintains that the elucidation lies in a knowledge of the essential physiological qualities of the cortical cells and that just as a disturbance in the proper balance of anabolism and katabolism in the sensory neurons leads to pain or paraesthetic forms, so a corresponding disturbance in the cortical cells expresses itself in insomnia and distressed dreaming as preludes to a mental attack.

Since Dr. Ford Robertson's observation that in a large percentage of cases of general paralysis catarrh of the bowel can be demonstrated, thus suggesting a causal connexion between intestinal infection and general paralysis, it is possible, Dr. Clouston thinks, that in the nutritive and digestive troubles which often precede mental symptoms for a long time there may lie a similar explanation.

The intrinsic value of Dr. Clouston's suggestive paper lies in the emphasis it lays on the fact that an attack of mental disease is not a simple or localized phenomenon: that the several parts of the nerve system exist in a state of mutual dependence on one another approximating under normal conditions to a state of equilibrium: that if any one factor be disturbed all others are disturbed to a greater or less extent, and finally, to quote the words of the author, "that the whole class of mental diseases should be regarded and treated, not as local disturbances, but as symptomatic departures from the normal physiological condition of the whole organism."

IMMUNITY AND BLOOD AFFINITIES.

Our knowledge of the properties of the blood in relation to immunity has increased so rapidly that it is difficult to realize how recent is its origin. In 1888 Nuttall published an important series of experiments which demonstrated the bactericidal action of normal blood serum. This work created much attention and criticism, and proved a powerful stimulus to further research on both the natural and the acquired powers of the animal body to resist infective organisms. The more recent discoveries and theories on which the modern science of immunity is based are largely attributable to the work and inspiration of Ehrlich and Metchnikoff. At the present day the number of workers in the field is enormous, and the subject has become so extensive and so complicated by the accumulation of individual and more or less isolated data that the main issues still requiring elucidation tend to become obscured. This disadvantage is to some extent a necessary concomitant of the early stages in the progress of a new scientific field: new data must be gathered from a heterogeneity of sources conducting lines each advocated by its special pleaders, crop up side by side and cannot be finally adjudicated upon except by the slow and studious procedure of elimination, in obedience to the law of the survival of the fittest: and even as in all scientific work, the personal equation plays an important part. Men engaged upon scientific research must necessarily become absorbed in details, and it is the gift of only the very few to look beyond their immediate objective, and foresee the destiny of their science as a whole. The great majority aim at nothing further than placing upon record new observations, with a veneration for experimental facts which is often accompanied by a proportionate irreverence towards such intangible ideals as ultimate principles. But the discovery of new facts is only half the work: the more difficult task remains of incorporating these as an integral part of the body of knowledge which has already accumulated.

What is imperatively needed is the grasp of a master mind, to bring into order the chaotic mass of experimental work on immunizing serums, and indicate the lines on which substantial progress is actually being made. In his new book on precipitins[1] Dr. Nuttall has attempted a portion of this task, and has also contributed highly important additions to the experimental data hitherto available. Dr. Nuttall is exceptionally well fitted for this work. In addition to his high reputation as an authority on the properties of blood serum, he possesses an unrivalled grasp of the literature of his subject and is capable of handling it in the true spirit of cosmopolitan impartiality. His work done in Germany entitles him to rank amongst the German bacteriologists, but has left him without a trace of bias against the French school: and from his intimate acquaintance with American work he can form a better opinion as to its value than any other authority in this country. The present volume fully justifies his right to be regarded as the proper man to deal with this subject, and constitutes a work which must necessarily rank as the standard authority on the precipitins of blood serum.

As to the nature of precipitin test, it will be remembered that an experiment is performed as follows: An animal, generally a rabbit, is repeatedly inoculated with small doses of a particular serum. The animal is subsequently killed and its serum is collected. This serum, assuming the inoculations to be successful, is now called an "antiserum," and possesses the specific property of causing a precipitate when added to a sample of the same serum as that with which the rabbit was inoculated. But when the antiserum is added to serum from another type of animal no precipitate, or at most a much smaller amount of precipitate, is produced.

This method has been employed by Dr. Nuttall for the purpose of determining the degree of inter-relationship amongst various species of the animal kingdom. He has obtained 900 specimens of blood from different animals and collected from a large variety of sources and tested them with precipitating antiserums.

As an example of his results we may take the case of man. Darwin claimed that man was more closely related to the Old World than to the New World apes. In confirmation of this view Dr. Nuttall finds that "the reactions obtained with the bloods of *Simiidae* closely resemble those obtained with human blood; the bloods of *Catarrhinidae* came next, followed by those of the *Cebidae* and *Hapalidae*, which gave but slight reactions with anti-human serum, whilst the blood of *Lemuroidae* gave no indication of blood relationship. The other valuable results obtained with the serum of *Marsupialia*, *Aves*, *Reptilia*, *Amphibia*, and *Crustacea* are far too numerous to admit of a summary.

In a later chapter contributed by Dr. G. S. Graham Smith blood relationship is investigated amongst the lower [illegible] and *Lethocerus* by means of precipitating antiserum. Here Gaskell's theory as to the origin of vertebrate

[1] [illegible] By G. H. Nuttall, M.A., M.D. Cambridge: University Press. 1904. (Royal 8vo, pp. 410.)

comes under consideration. It is well known that, in spite of his persistence, that eminent physiologist has failed to gain for his favourite theory the adherence of zoologists, and it has often been hoped that he might at length be left free to return to his physiological studies by the appearance of some authority who could accept his zoological hypothesis as valid. It is therefore with genuine regret that we find Dr. Graham-Smith concluding from his precipitin tests that "no evidence can as yet be produced in support of this hypothesis."

The precipitin test for blood has already been shown to be of practical value in medico-legal diagnosis. Dr. Nuttall has paid special attention to the application of antiserum for this purpose, and embodies in the present volume a most interesting chapter which contains the results of researches conducted, at his suggestion, by Drs. Graham-Smith and Sanger, who obtained specimens from a number of articles in the possession of the Criminal Investigation Department of Scotland Yard, and found that blood which had been dried many years could still be tested by means of precipitins.

Apart from its zoological and medico-legal interests Dr. Nuttall's book will prove of the highest value to students of immunity as a summary and criticism of present knowledge concerning precipitins and as an indication of the lines on which future researches ought to be conducted. If only Dr. Nuttall will take up the allied problems of his subject in the same masterly spirit in which he has dealt with precipitins he will confer a benefit upon medical science which it would be difficult to over-estimate.

OUTDOOR EMPLOYMENT FOR "CURED" CONSUMPTIVES.

It is a common experience that patients suffering from pulmonary consumption who have improved considerably during treatment in a sanatorium or hospital fail to maintain this improvement in health, or even become worse than before, when they return too soon to the conditions under which they originally became ill. It requires a prolonged stay in a sanatorium for a case of tuberculosis to become entirely quiescent or "obsolescent," and amongst the poorer patients such prolonged absence from home and work is rarely to be obtained. Thus in any scheme for sanatorium treatment of the poorer consumptives provision must be made to obviate as far as possible this return to unhealthy conditions, or the good work of the sanatorium will be seriously curtailed, and may be partially annulled.

It is a sign of the practical spirit in which the National Committee for the Establishment of Sanatoria for Workers suffering from Tuberculosis, formed under the auspices of the Hospital Saturday Fund, has approached the problem that this aspect of the question has not escaped attention. The Sites and Buildings Subcommittee of this body, guided by its medical members, has recommended that for some of the patients should be found light and suitable employment out-of-doors. It is rightly believed that a certain number of medically-selected patients whose disease is arrested might be fitted for a return to wage-earning as outdoor workers by prolonging their stay at the sanatorium, still under observation, and learning or practising such occupations as it may be possible to include in the scheme as it develops.

This endeavour to teach some outdoor employment to those whose illness has been contracted in unhealthy surroundings, so as to prevent as far as possible a return to the dangerous occupation, has figured in most of the schemes which have been drawn up by writers on the subject, but it is one of the details of sanatorium treatment which has hitherto received little practical recognition. To those who are acquainted with the conditions of work in many of the occupations which the poorer consumptives of London follow, the paramount importance of removing these sufferers permanently from such work is obvious, not only for the sake of the patients themselves, but also in the interests of their fellow-workers also.

It is sincerely to be hoped that if, or when, the proposed sanatorium for consumptive workers is established this outdoor work scheme may form a prominent feature of the institution. To withdraw the man who has recovered from an attack of pulmonary tuberculosis from the town, and fit him to earn a living by agricultural employment, will give him the best possible chance of keeping well, and of becoming robust. If, at the same time, the scheme tends to relieve, even to a small extent, the overcrowding of the cities and to lessen the gradually-increasing difficulty in finding the necessary labour for farm work, it may have an economic value beyond that of restoring an invalid to the ranks of the wage earners. The success of the scheme outlined by the National Committee for the Establishment of Sanatoria for Consumptive Workers depends, as the report states, upon the co-operation of the Friendly Societies and of trades-unions as well as upon that of the patients themselves. It will, however, surely not be difficult to secure their co-operation for a scheme which will be of such advantage to all.

HYGIENE AND TEMPERANCE.

It will be remembered that early in January a Committee containing many influential members of the medical profession issued a form of memorial praying the central educational authorities in England, Scotland, and Ireland respectively to consider whether it would not be possible to include in the curricula of the public elementary schools, and to encourage in the secondary schools, such teaching as may, without developing any tendency to dwell on what is unwholesome, lead all the children to appreciate at their true value healthful bodily conditions as regards cleanliness, pure air, food, drink, etc. The memorial further pointed out that under the present permissive system teaching on the laws of health was given to a small proportion of the pupils only, and urged that it should be compulsory. In the army schools of this country, and of all foreign stations west of Aden, teaching in elementary hygiene including temperance and health and sanitation, with special attention to the deleterious effects of alcohol, is given while in many colonies teaching on the nature and effects of alcohol and the advantages of temperance is regularly carried out. Such teaching is still more completely organized in the United States of America. Having regard to the fact that much of the degeneracy, disease, and accident with which medical men are called upon to deal is directly or indirectly due to the use of alcohol, and that a widespread ignorance prevails concerning not only the nature and properties of this substance, but also its effects on the body and the mind, the memorialists urged the Board of Education of England and Wales, the Scotch Education Department, and the Irish Education Authorities to include in the simple hygienic teaching which they desired, elementary instruction at an early age as to the nature and effects of alcohol. The memorial concluded by urging the necessity of ensuring that the training of all teachers should include adequate instruction in these subjects. At a meeting of the Committee of Distribution, held on April 11th at the house of Sir Victor Horsley, it was

reported by Dr. L. Claude Taylor, honorary acting secretary, that the number of signatures received up to date was 14,632. It was decided to print the petition with all the names appended, and to send copies of it to all the members of both Houses of Parliament and to all the local education authorities. It was also arranged to invite the central educational authorities in the three kingdoms to receive deputations at an early date, in order to present the petition and to point out the importance of the subject which it raises.

COMPANY PRACTICE.

Two recent cases in which titles were assumed under the aegis of limited liability companies illustrate the serious uncertainty of the law. At Bolton a person was prosecuted for wrongfully using the description or title "Reynolds, dentist." The defence that he was only the servant of a company and that the word "limited" was painted on the windows was of no avail: the magistrates convicted and imposed a fine, refusing to state a case for appeal on the point of law. In the Dalle case, to which we have already alluded, precisely the opposite course of events took place, and the judges of the Irish Court of Appeal delivered themselves of a legal subtlety so remarkable that it is desirable to refer again to the case. They laid down that when a company had been registered under a name which included a medical or dental title the whole set of words became purely its name, just like a man's surname, and that in using the name under which it comes into being no question of assumption of title could be raised. To make it clear the Lord Chief Justice asked: If a man is born with the name "Dentist" can he be prosecuted under the Act for using his name for example "John Dentist"? such a person obviously could not be convicted of assumption of title when he used a name that was his own. This is a novel view of the circumstances, and seems to point to the necessity of regulating the registration of such companies. Whilst adopting this, as it seems to us, far-fetched interpretation, the judges expressed regret that the law did not allow them to convict the persons brought before them.

ALTERATIONS IN THE INCIDENCE OF MEDICINE STAMP DUTY.

As a result of recent legal decisions the Board of Inland Revenue announced last June that it would change its practice in dealing with proprietary medicines, particularly in the case of those the names of which suggested the possession of remedial properties. The new regulations came into force on April 1st, 1904. In times past the practice of the Board has always been a source of uncertainty to chemists selling such remedies; for example under the old regulations a distinction was drawn between medicines labelled "the cough mixture" and "a mixture for coughs," the former being duty free and the latter taxable. To ordinary mortals there appears to be no reason for any difference of treatment in such cases, and both will pay duty in future. Such a change has caused some consternation amongst prescribing chemists, particularly those whose business premises are situated in country districts, the sale of small quantities of such preparations, and liable to taxation a penny packet of antibilious pills or cough mixture would cost the purchaser 2*d*. Although the Act dealing with the question passed so far back as 1815 the discovery has only recently been made that it contains an exemption in favour of chemists by virtue of the exemption they will be able to sell approved remedies if recommended by an adequate number of their competitors. As a result of this, huge formularies have been published, and a reference on the label of any preparation giving the number of the formula in these compilations will be considered equivalent to publication of the formula and render the remedy duty free. This will probably result in a great decrease in the number of secret remedies, though some will be unwilling to disclose their composition, and still will continue to pay the duty.

THE UNIVERSITY QUESTION IN IRELAND.

SIR ROWLAND BLENNERHASSETT, President of Queen's College, Cork, has discussed at some length the present position of university education in Ireland in an article in the *Nineteenth Century* for April. He gives a short history of universities in Ireland from 1312, when the then Archbishop of Dublin established a short-lived university in that city. While recognizing the important contributions to human thought and progress made by Trinity College, Dublin, he admits that the University of Dublin has only commanded the respect and regard of a part of the nation. Although many substantial reforms were introduced into its administration, beginning with the admission of Roman Catholics at the end of the eighteenth century, it maintained during the greater part of the nineteenth century its essentially Protestant character, and all but Protestants were excluded from its highest distinctions. He traces the history of the Queen's University and of its successor with which, he says, almost every one in Ireland who takes intelligent interest in the subject of university education is thoroughly dissatisfied. He believes that the true model for Ireland to follow is the university system of Germany, avoiding centralization. He points out that whatever is done will involve large expenditure in order to place the equipment of the university colleges on an adequate footing. Thus at Cork, he says, not only would laboratories have to be built and large additions made, but a really great library established. He concludes by expressing the opinion that the main lines which should be followed in any scheme of Irish university reform should be to leave Trinity College to shake off all remaining trammels connected with its origin and to become the great national University of Ireland; "to reconstruct a university on the lines of the old Queen's, and to reform the Royal so as to enable it to meet wants not met either by Trinity or by a reconstructed Queen's. These universities should all be as free as possible of State control and preserved from the blighting influence of official interference." Such a scheme would, he asserts, commend itself to the Irish people, and have a most stimulating effect on national life and on the formation of a sound public opinion. Speaking at an assembly of old Corkonians, who were entertained at the Café Monico by Dr. Macnaughton-Jones last week, Sir Rowland Blennerhassett congratulated the medical school of Cork on the fact that the number of entries last year was larger than in any other school in Ireland save Trinity College, Dublin, and added that he thoroughly believed in the principle of decentralization in regard to university education. He referred to the difficulty of carrying out original research in the College owing to the poverty of its endowments, but said that it had withstood many attacks made upon it from various quarters, and he hoped it would always continue to exist as a centre of education and intellectual influence in the south of Ireland.

MILK AND NATIONAL DEGENERATION.

We are glad to observe that the *Pall Mall Gazette* of April 13th in the course of an able article on the question of the physical deterioration of the nation has adopted a view which we have steadily advocated from the beginning. This is that it is the absence of due care of the child in early life which is most to be blamed and that while the ordinary rules of hygiene in the surroundings of the young require every attention it is the milk supply of the country which demands immediate and radical reform. The urgent and repeated pleadings in the series of articles which we published last year have not been made in vain, but so far have been regarded by the general press chiefly from the standpoint of the older members of the community and of its connexion with infectious disease. The real point of the matter however, is as punctuated by the *Pall Mall Gazette* that so long as artificial feeding, which to a great extent is an unavoidable evil in towns, healthy babies are impossible without clean and wholesome cow's milk. The article to which we refer points out that it is here that the question of physical deterioration of the nation comes in, for as generations of weakly babies necessarily spell a

nation with an undue proportion of defective citizens. So far almost the whole attention of the public has been concentrated upon the treatment of children at school age and upon reforms in educational curricula. Doubtless much harm is done at that age; but reform to be effectual must be taken much further back, in short, to the early months of a child's life, when its after-history from the point of view of robust health or of comparative weakness is, in nine cases out of ten, to a very large extent determined. This point is one that hitherto has escaped general notice, and, as the *Pall Mall Gazette* states, has been overlooked even by such a body as the Council of the Royal College of Surgeons, which, in replying to the circular of the Director-General of the Army Medical Department on the subject of physical deficiencies among the troops, suggested reforms only applicable to the treatment of children at school and later ages. This prevalent oversight of the importance of an essential and primary cause of degeneration is the more curious because nothing is more common than for the parents of weakly children to ascribe their delicacy to difficulties experienced in rearing them as children. Another point made by the *Pall Mall Gazette* is that so far, although certain municipalities have taken up energetically the question of placing better milk at the disposition of the public, and especially of the poorer classes, they have hitherto concentrated their endeavours upon the impossible; in other words, they have tried to take milk which must often be already practically putrescent and to convert it by heat and other processes into healthy food for the young. They have not recognized, as has been done in France, that milk must be protected from all impurities from the very moment it is drawn. This should be the object of all reform, legislative and executive, and the *Pall Mall Gazette* confirms our statement that, once the prejudices of the farmer are overcome, clean milk is no more expensive to produce than foul. It would also appear that the authorities of Shadwell Hospital for Children have now recognized this fact, and are about to establish a dépôt the milk contract of which will be given to a farmer who will undertake to conduct his milk production operations upon the hygienic lines frequently advocated in these columns. The seed therefore appears to be sprouting, and we may hope that other authorities will soon follow suit.

SCHOOL BABIES AND MEASLES.

The last meeting of the Society of Medical Officers of Health was given up to the discussion of the control of measles, the mortality from which almost alone among preventable diseases shows no sign of decreasing, but, after a short fall in the Eighties, has rather tended to increase, costing the country about 13,000 lives annually in England and Wales alone. Opinions differed as to the efficacy of school closure and the value of notification, though members representing rural or small urban districts for the most part found that closure, if carried out early enough, was successful in suppressing epidemics within a month. A happy suggestion was that adopted by Dr. Newsholme, at Brighton, of allowing children who have already suffered from any given infectious disease, and are therefore insusceptible, to continue their attendance, excluding those only who are liable to contract it. To facilitate this arrangement cards bearing the names of all the more important infectious diseases are issued to the teachers, who, after inscribing them with the name of the child, draw lines through those from which the child has already suffered. But whatever opinions the medical officers may have held as to the success or failure of particular measures they were unanimously agreed in ascribing the prevalence of measles and the terrible mortality—for how else can 13,000 deaths from a mild and preventable disease be described?—to the custom, unknown in other countries, of crowding the infant schools with babies from 3 to 6 years of age. These children, too young to be capable of learning lessons, are kept for five hours on five days in the week in a foul atmosphere, the effects of which they cannot throw off by an active game in the interval, for the purpose of earning the Government grant for attendance and to relieve their mothers of their natural duties as parents. They number 611,000, or 14 per cent. of the children in elementary schools; they provide about 75 per cent. of the cases of measles and 90 to 95 per cent. of the deaths. Their exclusion would conduce to the health of the rising generation, add 14 per cent. to the existing accommodation, and set free for purposes of more real importance to the nation a sum of no less than £1,250,000. The average age incidence of the disease would be raised and consequently the mortality greatly reduced, for though infants might contract it at home from older children, the majority would escape while they constituted the only, or the only susceptible, members of the family.

THE EVICTED ENGLISH.

In an article with this title published in the *Monthly Review* for April, Major Evans-Gordon, M.P. for the Stepney division of the Tower Hamlets, has discussed the problems, largely of a sanitary order, raised by the alien immigration into the East of London in recent years. The emigrants are largely continental Jews of the poorest class; and from a variety of causes, partly social habits and partly religious customs, they herd together in certain streets under conditions as to overcrowding which would be unendurable even to the poorest British or Irish inhabitants of the slums, low as their standard of cleanliness and comfort is. Major Gordon alleges that there is a "capitalized, methodical overcrowding by which the native inhabitants are expropriated from a constantly spreading area," and that it "differs essentially from the haphazard, unorganized, overcrowding among our own people here in a street, there in a court." We have reason to know that there is no exaggeration in the picture which he draws. A house in a by-street is taken by a small capitalist, who may or may not be a Jew and an alien; he deliberately sets about making the place intolerable to the tenants he finds there, and when they are once got rid of he overcrowds every room with alien Jews, excluding natives, even if any can be found willing to share the conditions of life which soon prevail. The means provided by the Public Health Act for dealing with the evils which arise have proved to be inadequate, and the overcrowding is a standing menace to the public health. One shudders to think of what would be the consequence of the introduction of plague into such a hotbed. The insanitary conditions already produced and extending year by year call urgently for a remedy. The Aliens Bill, introduced by the Home Secretary just before the Easter recess would give the Local Government Board, if satisfied on the complaint of any sanitary authority that the dwellings in the district of that authority or in any part of that district are overcrowded and that the immigration of aliens had substantially contributed to that overcrowding, power to make regulations for prohibiting or regulating the dwelling or residence of aliens or of any particular class of aliens in the area, and for defining the limits of the prohibited area. Inspecting officers would be appointed, who would have power to prohibit the landing of an alien suffering from any infectious or loathsome disease, or from any mental incapacity, or who failed to furnish the certificates of particulars or means of identification prescribed. The Home Secretary would consider the reasons for the prohibition of the landing, and would have power to require the alien to leave the United Kingdom.

THE JAPANESE HOSPITAL SHIPS.

The Japanese hospital ships which have been frequently mentioned were not prepared specially for the existing war, but were built soon after the signature of peace between China and Japan after the war of 1894, during which the inconveniences and drawbacks of depending on adapted transports made themselves felt. The ships are two in number, the *Hakuai-Maru* (boundless love or benevolence) and the *Kosai-Maru* (eternal charity or beneficence). They are sister ships and both were specially designed for the purpose to which they are now being put, being built in England to the order of the

Japanese Red Cross Society. The expense of course was very considerable, and by way of lessening it an arrangement was concluded between the Society and the Japanese Steamship Company, the Nippon Line, by which the latter was allowed to make use of them for the ordinary commercial purposes of passenger and freight traffic until occasion should arise for their use upon war or allied service. It was not very long after their completion before this happened, and both proved of great use during the international occupation of China in 1900. Between them they performed some fourteen or fifteen journeys from China to Japan, and carried to the military hospital at Ujina 2,866 sick and wounded, amongst whom were a considerable number of men belonging to the European armies of occupation, especially that of the French. Each of the vessels has a length of some 300 ft., a breadth of 40 ft., and a displacement of 2,700 tons, while their speed is fifteen nautical miles an hour, and their draught has been kept so low that they can be used in waters not exceeding 20 ft. in depth. They have three decks, which, according to Dr. Tessier, who described the ships in *Le Caducée*, are divided as follows: On the upper deck are saloons and sleeping cabins, disinfecting chamber and laundry, galley, lamp lockers, bath-rooms and waterclosets, together with an apparatus for hoisting patients on board. The cabins on this deck are assigned to the officers of the ship to the Red Cross representative and his secretary, the principal medical officer in charge, and to two officers of the Imperial Navy. The middle deck is the hospital deck proper, and has forty-five cots intended especially for officers and a large ward for 115 beds commissioned officers and men. Infectious cases are provided for in a ward placed in the forward part of the ship cut off by a bulkhead: it has cots for 4 patients. The total hospital accommodation, therefore, of each ship is 200 patients. Upon this same middle deck the junior medical officers, the dispenser, and the female nurses have their sleeping rooms, while other rooms are assigned for laboratory, radiograph work, dispensing, and operations. The lower deck is given up to quarters for the male hospital corps, a mortuary, an ice plant, ordinary storerooms, machinery for compressing and cooling air, and away forward the quarters of the ship's company. The complement of each ship for medical and administrative purposes is as follows: A chief medical officer and three assistants, a clerk, two dispensers, a matron, two sisters and nine staff nurses, four non-commissioned officers and twenty-eight men belonging to the medical corps, and in addition a laundryman several interpreters and a man who is charged with the care and upkeep of the instruments.

THE WOUNDED IN NAVAL ACTIONS.

The methods which might best be followed in dealing with the wounded in naval actions have been discussed on more than one occasion at the annual meetings of the British Medical Association, and it has been pointed out that the construction of modern ships of war would place great difficulties in the way of giving prompt and efficient surgical aid. A letter from Captain Lewis Bayly of the *Askold*, describing the naval action at Chemulpo shows that these difficulties have been proved in practice to be very considerable. The chaplain of the *Askold* had informed Captain Bayly that during the action with the Japanese fleet the carrying away of the wounded on stretchers became impossible. Several [illegible] carrying them, and out [illegible] were brought down to the [illegible] of these two were [illegible] of the [illegible] during the action, [illegible] per cent. were killed and 33 per cent. wounded. The wounds of many of the men were described as punctures about a large as the tip of the little finger, and from 1 in. to 2 in. deep, but with no foreign substance in the wound and no sign of scorching. It does not appear to be known how these wounds were produced, but in other cases pieces of clothing were carried into the wounds with the projectile. The men on board the *Variag* had received instruction in first aid, and bags of bandages had been served out. The surgeon reports that some lives were saved by first aid thus given.

MESSAGES TO MEDICAL MEN.

Dr. H. [illegible], Deputy Coroner of Lincoln, at a recent inquest in that city called attention to the insufficiency of the messages upon which medical men are not infrequently expected by the public to take prompt action. The occasion which led him to touch upon the subject was one upon which a woman died from haemorrhage without receiving any medical assistance. It was shown in evidence that a medical man had been summoned to the bedside, but that he did not go simply because, though he was aware that his services were needed by some one, he was not informed either where or by whom he was wanted. Awakened by a ring at the door bell in the middle of the night, a thin, small, childish voice answered his queries through the speaking tube by "It is me," and after twice repeating this interesting but insufficient information its owner disappeared. Incidents of a similar nature must be familiar to most medical men engaged in practice in the poorer and more populous parts of large towns, nor are those whose work lies even among the well-to-do and educated classes invariably supplied with as much information upon being summoned as may rightly be expected. Sharp as are the majority of town-bred children, they often either do not understand the messages which they have to deliver or take it for granted that the simple announcement of their presence is sufficient to convey to the doctor all that he requires to know. In the case of the poorer classes a child messenger may occasionally be the only one available, but the practice of sending them is to be deprecated. Apart from the fact that the fuller the information conveyed as to the probable requirements of the case, the more likely are they to be promptly met with a minimum of trouble to the medical man and a maximum of benefit to the patient, no medical man can be blamed if he refuses to act upon a summons *ex parte* less business-like than that upon which men in other walks of life would be expected to take action.

THE RECRUDESCENCE OF SMALL-POX IN LONDON.

THE increase in the number of cases of small-pox in London which was predicted for the spring has taken place. It is well known that such a seasonal rise frequently occurs in this disease. On the whole, probably, we may consider ourselves fortunate that the increase has not been more marked. From the official returns it appears that there were in all 17[illegible] fresh notifications in January, [illegible] notifications in February, and 1[illegible] in March, or a total for the three months of 14[illegible]. In the fortnight ending April 7th there were [illegible] further cases, making [illegible] cases of small-pox in the metropolis since the beginning of the year. The heaviest returns occurred in the weeks ending March 12th, 24 cases; March 19th, [illegible] cases; March 26th, 5[illegible] cases; and April 2nd, [illegible] cases. It is not improbable that subsequent events may show that the week ending March 26th indicated the summit of the recrudescence. But reliable forecasts are impossible. All we know is that March and April frequently show the zenith of the epidemicity of small-pox, and in the present instance there has been a decline since the week named. It should be noted that the above figures refer to notifications only. Some of these cases proved not to be small-pox. When we turn to the local distribution of the recrudescence, we find that towards the end of the wave in the week ending April 2nd the cases occurred chiefly in Bethnal Green (49), Stepney (45), Poplar [illegible] and Southwark (1[illegible]. There were 7 cases in Lambeth, and Battersea and Hackney are credited with 5 cases. The remaining [illegible] cases occurred in ten other metropolitan boroughs and the City of London. The local rise in Bethnal Green and Stepney began in March, and as far as can be judged it was due in the main to two conditions which prevailed at the time of the London

epidemic, namely, unrecognized cases and personal contact. These conditions have in some measure of course dictated the preventive measures which have been promptly applied both by the London County Council and by the borough councils concerned. In accordance with the provisions of the Public Health (London) Act, 1891, Section lvi. the London County Council has made an order placing varicella among the notifiable diseases for a period of four calendar months. This order was duly advertised, and came into operation on April 8th. On the previous occasion such temporary provision was found in some districts to be of service, especially in the direction of stimulating the observation of all cutaneous rashes. With a view further to facilitating the diagnosis of doubtful cases of small-pox occurring in the metropolis, the County Council has made an arrangement under which the expert assistance of Mr. S. Bingham, formerly medical superintendent of one of the metropolitan small-pox hospitals, and Mr. W. McC. Wanklyn, late small-pox referee to the Metropolitan Asylums Board, can be obtained gratis by telephonic message. Early removal to hospital, disinfection, supervision and revaccination of contacts, and investigation as to channel of infection are matters appertaining to local administration, and we are glad to learn that they are receiving all necessary attention from the medical officers of health in London. The County Council has materially assisted in these preventive steps by daily notification to each sanitary authority of all cases occurring. We trust that these preventive measures will result, as seems likely, in effectually protecting the metropolis from a more extensive outbreak.

THE LEISHMAN-DONOVAN PARASITE.

In the *Bulletin de l'Académie de Medecine* of March 22nd Laveran describes a parasite in the spleen juice of an infant from Tunis. The specimens were sent to him by Dr. Cathoire, who unfortunately only saw the case when *in extremis*. At the necropsy the spleen was found considerably hypertrophied. The anatomical features of the parasites are in all respects similar to those described by Leishman, and subsequently by Donovan, from the spleen juice of obscure fevers in India. The discovery of a similar parasite in Tunis is very important, as it shows that this new disease is evidently much more widespread than was formerly supposed. It will be interesting to hear of further cases, not only from North Africa but from other parts of the world.

CORNWALL AS A HEALTH RESORT.

With the object of drawing the attention of health seekers and their medical advisers to the possibilities of Cornwall, the authorities of the Great Western Railway have issued a small book, under the title of the *Cornish Riviera*, which, it is understood, may be obtained gratis upon application. Well illustrated, it contains, in addition to ordinary guide-book information, a number of comparative meteorological data and the recorded opinions of sundry medical authorities. Among the latter are extracts from a paper which the late Sir Edward Sieveking read before the Harveian Society some years ago on Falmouth, and of an address, which many readers will probably recall, delivered by Sir Joseph Fayrer at the Carlisle meeting of the British Medical Association in 1896. In both papers a high opinion had been expressed of Cornwall as a health resort, and the writers were almost as eloquent upon the subject of its climatic advantages as were Sir Walter Besant and Mr. Baring Gould upon its beauties. The meteorological data serve to show that as regards mean temperatures West Cornwall rivals several well-known health resorts in southern Europe, and entirely beats some of them in the important point of equability or lowness of range. The range of temperature at Falmouth, for instance, during the winter months is but 4°, while that at Nice exceeds 11°, and at Mentone is nearly 10° during the same months. At one time, of course, Cornwall was neither easy to reach nor to live in, but this is all now altered. As regards hotels, the railway company itself has opened several of the highest class, while the people throughout the towns and villages are now fully alive to the advantage which will accrue to themselves by making visitors thoroughly comfortable. The train services have been improved, and by way of rendering access to the most picturesque spots thoroughly easy and comfortable, the railway authorities have arranged an extensive system of motor cars.

EXIT THE REGIMENTAL SYSTEM.

We published last week (p. 871) an Army Order of February 12th, 1904, abolishing regimental medical officers in the Foot Guards, but the order does not apparently extend to the Life Guards and Royal Horse Guards. With that exception the old regimental medical system has thus virtually come to an end, and the unification of the Army Medical Service been completed. The existing medical officers of the Guards will, within a time prescribed by the Army Council, have the option of continuing to serve with their regiments, or of being transferred to the Royal Army Medical Corps. When that corps was constituted, the medical officers of the Household Troops were not included in it, but remained regimental officers under special conditions, and with compound titles, in deference to the old privileges, or perhaps prejudices, of the Guards. But these sentiments have either died away in the process of evolution, or have been brushed aside by the new brooms of the Army Council in carrying out schemes of army reform. For some years past a few Royal Army Medical Corps officers have been shown as "attached" to the regiments of Household Troops. Whether this will continue, or whether these regiments be put on the same footing for medical aid as line regiments remains to be seen. Whether or not this reform portends further immediate changes in army medical administration we cannot say, but there is a feeling that such changes are probable.

A REAL LIVE WAKE.

An instructive and curious case, which one of the lawyers engaged described as "a real live wake, and a real live corpse, and plenty of porter," was heard in one of the Dublin magisterial courts a fortnight ago. The prisoner was a woman charged with obtaining a sum of £8 from an insurance company by false pretences. She was caretaker and niece of a woman who was insured for the sum mentioned, and who, being very old and infirm, had been receiving advice from time to time from a medical man. The latter had seen her a few days before, and as she was then very ill he was not surprised when he was visited by the prisoner, informed of her death, and asked for a certificate. The latter he gave, guarded by the statutory declaration "died as I am informed," and the prisoner attested the information by a thumb mark. Having received the certificate, the accused, accompanied by a woman who had seen the "corpse," and was presently to lay it out, went to the insurance office, where, on presentation of the death certificate, she was promptly paid. The rest of the day seems to have been spent partly in a street carouse and partly in a typical Irish wake, which included a dance and the consumption of much porter by the candle-decked bedside of the corpse. During the greater part of the day and evening the latter remained as quiet as any well-regulated corpse, but towards night it broke all precedent by suddenly jumping up in bed. Why it behaved in this unbecoming fashion is not quite clear; but in any case Hamlet, having thus thrown up her part, the play necessarily came to an end, and a few days later the deceased materialized herself at the insurance office. There she declared she was not dead at all, and never had been, a theory which the insurance people admitted with some hesitation might possibly be correct. Later on in the police-court she modestly disclaimed any share in the authorship of the play in which she had taken so actively passive a part, and declared that while dead she had only been given the merest sup of porter, and afterwards received no share in the takings at all. According to her account, indeed, she did not remember having been

dead at all, and had merely lain quiet because she had been told to do so, but with what object she did not know. The prisoner's story was that her lately deceased aunt had been dead from seven o'clock in the morning and had only come to life again when washing operations were threatened, and that anyhow even if she was not dead she had received all but 30s. of the money which resulted from her decease. As a witness the prisoner called the woman who accompanied her when she received the insurance money and had previously seen the "corpse," but the witness admitted that she had heard the corpse and the accused talking together. It is true that she did not understand what they said, but that was quite natural, for, as the magistrate pointed out the conversation was of course carried on in a dead language. In the event the prisoner was sentenced to two months' imprisonment for illegal possession of money, and to a fine of £5, or two months more in default, for making a false declaration. This remarkable case is doubtless one which after the lapse of a sufficient interval will be added to the list of those supposed examples of burial alive to which we have frequently referred. In the meantime, it is one which supplies very strong evidence in favour of the contention so often supported in these columns that the death certification as at present should be immediately amended.

COUNTY WATER SUPPLIES.

The desirability of systematic inspection of water supplies by county councils has frequently been emphasized in our columns. Such examinations may be carried out in each district of a county by rotation, or certain geological areas or watersheds or gathering grounds may be examined. The recent report by Dr. J. R. Kaye on the water supplies derived or derivable from the new red sandstone formation in the West Riding of Yorkshire is an example of the latter. The new red sandstone occupies a considerable area in the West Midland counties and, roughly speaking, all that part of the West Riding lying to the east of a line drawn northwards from Tickhill to Hesketh and northwestwards to Ripon. This area inside the West Riding is about 440 square miles, though a large part of it is covered with drift composed of clays, sands, and gravels, which conceal the formation. There are outcrops at certain points, and bore-holes may be made with most advantage at these exposed sandstone areas. In not a few instances local authorities have availed themselves of this, especially in the southern part of the area. Some sixteen sanitary districts, with a combined population of 112,435, are situated on the area and derive some or all of their water supply from the new red sandstone. It is with these districts that Dr. Kaye's report deals and he furnishes particulars of sixty-seven borings: their depth, location, strata passed through, etc. He agrees with the findings of the Royal Commission on River Pollution, 1868, that the spring waters and deep well waters are of good quality, potable, and well adapted for domestic purposes. The hardness of the former is, however, usually so marked as to render the water unsuitable for washing purposes. The latter will yield soft and palatable water, but as they are so liable to produce pollution they are condemned. Before leaving this head we may add an interesting note that the Commissioners state that they stimulate inquiry and create responsibility in regard to water supply matters of the first importance.

PERTHSHIRE BRANCH: PRESENTATION TO DR. URQUHART.

At the annual dinner meeting of the Perthshire Branch of the British Medical Association a report of the proceedings at [illegible] the meeting submitted to the Branch Council presentations were made to Dr. A. R. Urquhart on the occasion of his resignation of the office of Honorary Secretary. Dr. Urquhart's successor and several [illegible] were present, viz. Dr. William Bennet (chair), Cunningh[illegible] Sergt. M'Arthur, Inspector Stewart, Liddell, Carolt, Alexander Lyster, Hamer Stirling, Ross, Menzies, Taylor, and Bisset. The Chairman said that their Association had been in existence in Perthshire since 1[illegible] and within the last fourteen or fifteen years had become affiliated with the British Medical Association. During his twenty years of office Dr. Urquhart had discharged his duties with the greatest zeal and efficiency. He had always been willing to help and do what he could in their midst. It was the feeling of the Branch that they should not let Dr. Urquhart part from them as Secretary without in some way showing their appreciation for his long and faithful services, and in the name of the Branch he had much pleasure in asking Dr. Urquhart to accept of two silver fruit stands bearing the following inscription: "Presented to Dr. A. R. Urquhart as a mark of esteem and appreciation of his long and valuable services to the Perthshire Branch of the British Medical Association. 20th February, 1904." Dr. Urquhart, in reply, said that though he had resigned the office of secretary, so long as he was in Perth and able to speak and act for the Association he should do so for their benefit and for the promotion of the interests of all the members of the Association. He had done his best for the Association, and he felt that it would be a great loss to them if anything was to happen to the Association. It had been more and more impressed upon him that in Perthshire they had a most efficient and loyal Association for the purpose of advancing and maintaining the dignity, honour, and usefulness of the medical profession. The future they did not know, but so far as it lay within him it would be his aim, honour, and pleasure to help the Perthshire Branch in so far as it was possible for him to do so. With regard to the gifts, he could only say for himself and his family that they would be highly treasured, and would be a reminder of the goodwill of the medical profession of Perth and Perthshire.

We are glad to learn that Sir Samuel Wilks continues to make satisfactory progress.

The Queen has accepted the office of President of the London Hospital, in the place of the Duke of Cambridge, who held the position for 50 years.

A Reuter telegram states that at the sitting of the Cape House of Assembly on April 7th a motion was adopted directing the Government to make a full inquiry into the leper question, especially with regard to fish diet.

The subject announced for the Silliman Lectures at Yale University this year by Professor Sherrington, in succession to Professor A. D. Waller, is the Integrative Function of the Nervous System. The course commences on April 22nd.

A special meeting of the Metropolitan Street Ambulance Association will be held at 20, Hanover Square, W., on May 2nd, at 3 p.m. Amongst the business to be brought before the meeting will be a proposal to send a representative deputation to the London County Council.

The Council of the Medical Society of London has resolved to recommend to the honorary Fellowship, in recognition of his long services to the medical profession, Dr. Robert Barnes, Sir Joseph Fayrer, Sir William Gairdner, and Mr. Hutchinson; only other British honorary Fellows of the Society [illegible] we may still claim Professor Osler.

At a meeting held under the chairmanship of Professor William Osler, of Baltimore, at the College of Physicians of Philadelphia on March 24th, a United States Society for the Study of Tuberculosis was formed. A Committee was appointed, and a further meeting will be held at Atlantic City during the week of the meeting of the American Medical Association.

It is common, and, as illustrating the difficulty of arousing public interest in hygiene, not without significance,

that no one of the London morning papers, in the account they gave of Lord Cromer's report, made any references to the passages dealing with the sanitary reforms which are being carried out, although by reference to page 901 it will be seen that they were neither few nor lacking in interest. Whether the great provincial dailies showed more enlightenment we have not ascertained.

The King and Queen visited the Finsen Light Cure Institute at Copenhagen on Saturday last; they were conducted over the building by the staff, and a bouquet was presented to the Queen by four British patients. The King and Queen afterwards paid a visit to Dr. Finsen, whose health did not permit him to attend the institute, and expressed to him their appreciation of the results brought about by the system of treatment which he has elaborated.

The annual report of the Inspector-General of Recruiting is incorporated for the first time in the general annual report of the British army for the nine months ending September 30th, 1903, which was issued on April 11th. It is stated that in March last year as the army still remained much in excess of the authorized establishment, the standards of height for recruits for the Royal Artillery, Royal Engineers, and the Army Service Corps were materially raised, as also was the standard of height for the militia. In the reports from several districts particular stress has again been laid in several instances on the medical rejections, specially for defective teeth. The Inspector-General thinks that the experience of the South African war may have directed the attention of medical officers more especially to this subject, but points out that the fact remains that the number of men medically rejected is still very large and should be the subject of anxious consideration.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The House of Commons, which had nearly a week less holiday for Easter than the House of Lords, began work again on April 12th, and, after questions, proceeded to discuss the Naval Estimates. The House was moderately well attended, some 260 members being present in the first division. There was a listlessness, however, in the proceedings, and the votes were passed quickly, the medical vote for the navy exciting no comment whatever. So rapid was the progress that the House adjourned a few minutes after seven and so escaped the evening sitting. At question time Sir Michael Foster asked the Prime Minister whether an opportunity would be given to discuss the portion of the report of the War Office (Reconstitution) Committee which bears on the health of the army. Mr. Balfour said that he was unable to give an answer at present. The question was repeated on Wednesday by Sir John Tuke, and Mr. Balfour said that an opportunity would be given on the Army Estimates on Thursday.

The Physical Condition of Children, to which Sir John Gorst gave notice to call attention some weeks back, will most probably come under consideration on Wednesday next week at the evening sitting. Mr. Claude Hay has first place then for a motion which reads as follows: "That the Board of Education should require arrangements to be made by the local education authorities whereby every child compelled by law to attend a public elementary school shall have received proper nourishment before being subjected to mental or physical instruction, and that in cases in which proper food has not been provided for the child by its parents it should be first supplied by the local education authority, and subsequently suitable proceedings taken in respect of such parents." This resolution will enable the subject of physical deterioration and its relation to underfeeding to be discussed. Arrangements are being made to get a good number of representative speakers on both sides of the House.

Plague in India.—In answer to a question put by Sir Walter Foster on Wednesday, Mr. Secretary Brodrick stated that except as regards the Bombay Presidency the returns of plague deaths in India received up to date did not go beyond the week ended March 19th. The totals for the three weeks ended on that date were 13,187 for Bengal, 24,390 for the Bombay Presidency, and 102,962 for the whole of India, including the above. The number of plague deaths in the Bombay Presidency alone during the month of March was 35,410.

Vaccination Mortality.—Sir John Rolleston put on the paper for Tuesday a motion for an annual return from the year 1875 of births in England and Wales, and of the deaths under 1 year of age, and at all ages from fifteen specified causes, with detailed information (in the same form and in continuation of a Return, No. 433, dated May 15th and ordered by the House of Commons to be printed August 14th, 1877), with, from the year 1898, an additional heading to Tables I to XVI, showing vaccination enforced under Exemption Clause, and Table XVII (vaccination and small-pox) to be continued from 1872. The President of the Local Government Board, however, declined to grant the return, and so the motion was not proceeded with.

Vaccination Bills.—The Vaccination Bill, which seeks to abolish compulsory vaccination, has been blocked by Sir John Tuke and Mr. Cohen. The Revaccination Bill has been blocked by Mr. Logan and Mr. Weir, but Mr. Channing's Bill to prevent prosecutions for non-vaccination, except with the consent of the guardians, has so far escaped blocking.

Vivisection of Dogs.—Sir Frederick Banbury had a notice on the paper on Wednesday night to move, "That in the opinion of this House, no operations for the purposes of vivisection should be performed on dogs." Throughout the evening sitting there seemed little chance of it coming on, as the Irish members were dilating eloquently on the Land Judges Court (Ireland), and criticizing the judges in the good old fashion. Mr. Wyndham, however, astonished his critics by accepting their resolution, which he evidently regarded as harmless, and then after a few more remarks the Irish resolution was carried at five minutes to twelve. This gave Sir Frederick Banbury his opportunity, and he moved his resolution in three or four sentences, and it was seconded by Mr. Channing. Then for a moment or two the Under-Secretary looked anxiously at the Deputy Speaker for his opportunity of reply. He was saved, however, by Mr. Flavin, who from the Irish benches pleasantly chaffed Sir Frederick Banbury on the scanty information he had given the House in support of the resolution, and demanded some medical testimony on the subject. Then the magic hour of 12 arrived, and the debate stood adjourned to a day that may not come in this session.

Doctor and Magistrate.—Mr. Griffith-Boscawen asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the action of Dr. Tierney, J.P., in adjudicating at petty sessions at Clones in cases where he had already acted as medical adviser to and had accepted fees from one of the parties; whether a specific case was brought before the Lord Chancellor on January 2nd last; and, if so, whether any notice had been taken of Dr. Tierney's conduct. Mr. Wyndham replied that this case was brought to the notice of the Lord Chancellor, who, upon consideration of all the circumstances, arrived at the conclusion that official action in the matter was not called for. Steps were taken, however, to convey to the justice named an intimation that the Lord Chancellor considered he had been guilty of an error of judgement in adjudicating in the case in question.

The Osborne Convalescent Home.—Mr. Gibson Bowles asked the Secretary to the Treasury how many convalescent military and naval officers respectively were now accommodated at Osborne, and for how many in all was accommodation provided. Mr. Victor Cavendish replied that fifteen convalescent military officers were now accommodated at Osborne; two of them were accompanied by their wives. There were not as yet any naval officers at Osborne. The accommodation provided was for thirty-eight unmarried officers, and for five married officers accompanied by their wives.

Ireland.

Ulster Medical Society.

The seventh general meeting of the Ulster Medical Society was held in the Physiological Laboratory, Queen's College, on the evening of March 24th. Dr. John Campbell, President, occupied the chair, and there was a large attendance.

Dr. T. H. Milroy, Professor of Physiology, after expressing his pleasure in welcoming the members to the laboratory, gave a demonstration of ascending degenerations in the spinal cord after section of the posterior sacral roots. He also showed a method of demonstrating the action of drugs upon the blood pressure and upon the volume of organs, and gave a demonstration of the action of light of different wave lengths upon the retina.

Dr. J. A. Milroy read a paper on some products of the action of reducing agents upon blood pigment considered in their relation to the pigments of the urine and of the bile. He also gave a demonstration of methods for the recognition of (1) reducing substances other than glucose which may be present in the urine; and (2) of indican and other aromatic substances in the urine.

Professor Symington and Dr. Carnwath showed specimens of (1) unilateral flat-foot, (2) chronic rheumatoid arthritis limited to both elbows, (3) hydrocephalus and spina bifida, and (4) topographical anatomy of the cerebellum.

Professor Lorrain Smith read a paper on the infectivity of typhoid fever, giving some statistics from the Belfast Public Health Department which tended to prove that in about 50 per cent. of cases only 1 occurred in each house, or from 1.8 to 2.0 on an average in a street.

Professor Lorrain Smith and Dr. R. A. L. Graham gave a demonstration of the toxic effects on nerve cells of oxygen at high pressure.

Dr. John McCaw and Mr. Robert Campbell showed a specimen of congenital stricture of the pylorus; and Dr. McCaw read notes of a case (1) of tuberculous meningitis, and (2) the autopsy of a child who died from intussusception, and showed the specimens.

Dr. J. C. Rankin showed a specimen of a ruptured heart, and Dr. Thomas Houston gave an account of a case of severe anaemia due to sepsis closely simulating pernicious anaemia, and showed preparations.

Sir William Whitla proposed and Professor Byers seconded a resolution of condolence on the death of Dr. James Stuart, Ballymena, Fellow of the Society.

Health of Belfast.

At the last monthly meeting of the Belfast City Council the Medical Superintendent Officer of Health reported that 116 cases of zymotic disease had been notified. The births registered numbered 913 and deaths 713; there was a considerable rise in deaths due to respiratory affections owing to the prevalent weather. The total death rate was 25.0. It was exceedingly interesting to find that just when small-pox had been stamped out a new case had been imported from Glasgow. In one district, however, had the disease spread. Cases had been notified in the month. The question of a city consumption sanatorium was postponed for the present.

Enniskillen District Asylum.

The election of a Deputy Medical Superintendent to this asylum in succession to the late Dr. Robert Fletcher took place on April 11th. Formerly these appointments were in the hands of the Lord Lieutenant, but under the Local Government Act they are now elected by the governors. The two candidates were Dr. J. Mills, the Senior Assistant, and Dr. J. [illegible], the Junior Assistant. Both had served for several years in the asylum, and Dr. Mills had acted as Medical Superintendent during Dr. Fletcher's long illness and since his death. The Chairman was Dr. MacCormick, the Roman Catholic Bishop of Galway and he proposed the election of Dr. Kirwan. Mr. Lowry, also a governor, seconded the motion, and said that [illegible] Catholics and when they [illegible] Medical Superintendent [illegible] them as a committee [illegible] of the religious belief of the patients, to elect a man of the same faith. If they did not do so they would be [illegible] men.

Mr. Colyn proposed Dr. Mills. Both candidates were men of admitted medical [illegible] but, as Dr. Mills had very considerable experience in the senior assistant, his claim was superior. He was admitted to be a man of great skill and great humanity. He also possessed great administrative capacity, which was essential in an institution of that kind. The question of religion should not enter into the matter, and he believed the Committee would rise superior to such narrow views. He represented a Catholic and Nationalist Council, and he had been appealed to by a number of the members of that Council to support Dr. Mills, who had acted so efficiently as medical superintendent for some time past. He asked the governors to give fair play, and to reward merit in the interest of the public service. He also appealed to them on behalf of those afflicted unfortunates amongst whom Dr. Mills had ministered so successfully, devotedly, and strenuously.

Mr. P. J. Kelly seconded. He said he was one of those who had gone through the fire on behalf of catholicity, and he held that the question of religion should not enter into the election. It was because he was a Home Ruler that he would vote for Dr. Mills, who, as senior assistant, occupied priority over every other candidate.

The vote showed 17 for Dr. Kirwan and 5 for Dr. Mills.

An application by Dr. Mills for one month's leave of absence was refused pending the appointment of a junior assistant.

The result of the election is an illustration of the influences which operate in elections to public offices in Ireland. It is manifest that no devotion to service or ability in the discharge of duty will count when candidates of different creeds are applicants for appointments. The one essential is the form of religious belief. The appointment is worth £620 a year.

Royal Academy of Medicine.

Mr. J. B. Story, the General Secretary of the Royal Academy of Medicine in Ireland, has intimated his intention not to seek re-election in October next. Dr. James Craig and Dr. Travers Smith are candidates for the office, which is one of considerable importance.

The Coroner Again.

A man died suddenly at his work last week, and an inquest was held at the Royal City of Dublin Hospital by Mr. Coroner Friery. Dr. Booth, the house-surgeon, said he could not say for certain what was the cause of death without a necropsy, but probably it was heart disease. Whereupon the coroner delivered himself to this effect:

I am sorry to say that there is a great deal of [illegible] among members of the medical profession of refusing to give an opinion in cases such as this as to the cause of death except they hold a post-mortem. I am strongly opposed to such an unfair practice, and I certainly will not give any instructions to have this poor fellow's body cut up. I have been twelve years now acting as coroner, and I can say that this is the first case in my experience where I have found that a doctor declines to give an opinion as to the cause of death. If the doctor is notable to give an opinion I will give an opinion myself, and that is, that the man has died from heart disease. The circumstances we have heard detailed show beyond a shadow of doubt that the deceased has for a considerable time past been attending the dispensary of this hospital, and there is no reason in the world why any medical man should have any hesitation in stating his opinion as to the cause of death. It is a monstrous thing to think that a post-mortem examination should be held in such a clear case as this, and I am determined so far as I can, to oppose any such practice in my district.

A verdict of death from cardiac failure was then returned. This expression of opinion is an example of the way in which some coroners think an inquiry into the cause of death can be conducted. They do not perceive that they stultify themselves by such exhibitions.

Scotland.

Small-pox.

Another case of small pox has been reported to the sanitary authorities in Aberdeen. The patient, a woman, who lives in the same street in which the last case occurred, was removed to the City Hospital. In view of the outbreak instructions have been issued by the City Parish Council to their medical officers to offer vaccination to the inmates of the poorhouse and to the control of the Council.

The vessel *Gardenia*, from which one of the crew was removed a few days ago at Inverness suffering from small-pox, arrived in Aberdeen on April 11th. The vessel on her arrival was boarded by Dr. Matthew Hay, the Medical Officer of Health, and Dr. Taylor of the City Hospital, who satisfied themselves that the

vessel had been properly disinfected, and that there were no other cases on board. In the week ending mid-day, Saturday, April 9th, only three fresh cases were notified to the authorities, and there was no death. It would therefore appear that for the present the outbreak is in abeyance.

Scarlet Fever in Edinburgh.

Scarlet fever in Edinburgh continues. In the week ending April 29th 25 cases were notified, and 2 deaths were registered.

Box Beds.

Dr. C. G. Burnett, Medical Officer of Health for Buckie, in submitting his annual report to the town council, made some interesting remarks on a number of the influences which operate to the prejudice of the health of fishing communities such as Buckie. He pointed out that perhaps the most malign was the ignorance of a comparatively large section of the inhabitants concerning the rudimentary laws of health. This ignorance was manifested, for example, in the general aversion to fresh air. In very many houses the most minute precautions were taken to prevent the ventilation of bedrooms. It was not uncommon to see the only window of a bedroom carefully nailed up. The greater part of the population still passed the night in "boxes" made just large enough to contain a bed, a portion only of one side of the "box" being open to the room, and that portion partially closed by curtains as a rule. General deterioration of health and propagation of infectious disease were certain to follow such a state of affairs. He also animadverted on the danger to the general health from the overcrowding which takes place in such fishing ports as Fraserburgh and Peterhead during the annual migration to these places for the summer fishing. He drew attention also to the prevailing ignorance of the laws of diet shown by the abuse of tea, white bread and potatoes, the want of any knowledge of artificial feeding of infants, and the prevalence of juvenile smoking.

Royal Aberdeen Hospital for Sick Children.

The annual report of this hospital shows that the ordinary income for the year 1903 amounted to £2,119 2s., and the total ordinary expenditure to £3,107 18s. 3½d., leaving a deficiency of 988 10s. 3½d. This has been reduced to £230 4s. 4½d. by carrying to the credit side £752 11s. 11d. from legacies, as compared with the previous year, however, the ordinary income showed an increase of £242 11s., while the expenditure had diminished by £122 14s. 0d. This reduction in the expenditure is undoubtedly largely due to the excellent management of Miss Tatham, the matron of the institution, to whose capabilities the Chairman bore testimony. The extraordinary income amounted to £1,667 19s. 7d., made up of £1,032 11s. 11d. derived from legacies, and a capital endowment bequest of £615 7s. 8d. The number of in-patients treated was 767, compared with 770 during 1902, while the out-patients numbered 2,141. The average cost per annum of each bed was £42. Colonel Allardyce, in moving the adoption of the report, referred to the large annual deficit which the directors had to face in spite of the most careful management, and expressed the hope that, in view of the excellent work done by the institution, it would receive a large share of attention from subscribers to such charities. He announced also that the trustees of the late Mr. Thomas Primrose had decided to give £5,000 to the hospital, which was the largest grant it had received since its inception. The hearty thanks of the directors was conveyed by the Chairman to the trustees for this generous gift.

The War in the East.—The *Sei-I-Kwai Medical Journal*, published at Tokio by the Society for the Advancement of Medical Science in Japan, and written partly in Japanese and partly in English, contains in its February number an account of the present work of the Japan Red Cross Society in Korea and of the casualties at the first engagement off Port Arthur. At the date of writing the Red Cross Society had taken over the British hospital at Chemulpo, and the beds, twenty-four in number, were occupied by Russians. Of the five men killed at the Port Arthur engagement three were officers, as were seven of the twenty-eight wounded taken home to Japan. Some few of the cases were compound fractures, but the majority being caused by splinters of shell or portions of the deck or masts do not seem to have been very severe. One officer who was hit in the thigh is reported to be suffering, curiously enough, from lead poisoning.

THE CONTROL OF THE TRAFFIC IN ALCOHOL.

The Public-house Trust.

Reference has already on many occasions been made to Earl Grey's Public-house Trust Association, and the third annual report just issued gives a satisfactory account of its progress during 1903. The movement is spreading, and 29 trust companies are now working in England, 1 in Wales, 11 in Scotland, and 1 in Ireland. These companies, with a total subscribed capital of over £300,000, have brought under trust management 130 public-houses, a number which the report states is increasing every week. In fact, the only English counties without a trust company formed, or being formed, are Berkshire, Buckinghamshire, Leicestershire, and Oxfordshire.

In Ontario, Manitoba, South Australia, New Zealand, Tasmania, Mauritius, Natal, and the Transvaal, the trust principles are being brought before the public, while in Germany the movement has attracted the notice of the Emperor, and in the United States of America sister societies are at work.

An interesting part of the report is the memorandum by Colonel Craufurd on points of detail in the arrangement and management of trust houses, written after a tour of inspection made by him to some of the principal trust houses in England and Scotland. It is satisfactory to know that he was of opinion that all the companies are working zealously and loyally, and that there is great promise for the future in the trust movement.

In the opening sentence of his memorandum Colonel Craufurd picks out what is, in our opinion, the point upon which the whole success or failure of the scheme depends, "In no undertaking does success depend more on the personality of 'the man at the helm' than in the management of a public-house and especially a trust house." To discourage hard drinking and to suppress bad conduct, and simultaneously encourage non-alcholic drinks, requires tact and courage, and a weak man in such a post would be worse than useless.

Colonel Craufurd remarked that one of the public-houses in a very bad neighbourhood, and notorious when managed by men for having been frequented by the worst characters of both sexes, became, when the management was transferred to women, a model trust house, and that under the refining influence of women some innate chivalry, found even in the lowest ruffian, might be awakened and have the desired effect. Of course it would be difficult to find the exact type of women suited to run a public-house; they would require to have business capacities; to be courageous, firm, quiet, and respectable; the ordinary barmaid would be worse than useless. Doubtless women with these qualifications are to be found, and the good they might do would probably be very great.

We are told, "The leading principle of these trust companies is the elimination of the element of personal profit from the sale of alcoholic liquors. Accordingly the dividend payable on the capital subscribed is limited to 5 per cent. per annum, and thus the shareholders have only a nominal monetary interest in the trade. All surplus profits are handed to a council to be applied to objects of public benefit other than those properly chargeable to the rates, the provision of counter-attractions to public-houses being especially kept in view. If a trust company is liquidated, the assets, after repayment of the shareholders' capital at par, are handed to the Council for appropriation to public objects."

The wisdom of handing over the surplus profit to a Council not subject to public control may be questioned inasmuch as a Council in a particular district might have hobbies and these, though useful, might be less urgently needed than others far more important.

The Norwegian System.

This is a system of absolute control. It is realized that the company system is not in itself sufficient. The companies work under the joint supervision of the central government and the local authorities, and in the wise relation of these to the companies lies the excellence of the Norwegian system which, while leaving the companies free from unnecessary interference, prevents them from trying crude experiments.

The municipality always determines the number of licences that are to be issued, and the companies are worked under three powerful safeguards against abuse:

1. There is the safeguard of statutory law in reference to

(2) constitutions, (3) administration, and (4) appropriation of profits.

2. There is the safeguard of their association with the licensing authority.

3. There is the safeguard which usually attaches to affairs carried on directly under the public eye, and which are ultimately subject to public control.

The interest received by the shareholder is limited to 5 per cent., and the appropriation of the profit is defined by law; 65 per cent. goes to the central government, and of that retained by the company 25 per cent. Nothing can be applied to objects for which the municipality itself, under the laws in force, is responsible. It can only be used for objects of "public utility" not chargeable to the rates. The balance of 15 per cent. goes to the municipality, and the accounts are audited each year by two auditors. The manager of each retail place is selected subject to the approval of the magistracy and municipal council.

Messrs. Joseph Rowntree and Arthur Sherwell have drawn up a liberal scheme which seems well worthy of the study of all those interested in the prevention of alcoholism. The following outline of the scheme is taken from a pamphlet entitled, *Popular Control of the Public-house*.

"1. That the right of prohibiting the traffic shall be placed within the power of every locality.

2. That localities, where the right of prohibition is not exercised, shall be at liberty to organize and control the traffic, preferably through a company, as in Norway, but always under the direct supervision of the central government and the local licensing authority, and only within clearly defined statutory limits.

3. That the whole of the profits shall, in the first instance, be handed over to a central State authority.

4. That the sole benefit that a locality in which the trade is placed under public control shall receive from the profits shall be an annual grant from the State authority for the establishment and maintenance of recreative agencies, the primary object of which shall be to counteract the influence of the public-house. Such grant to be in ratio to population, and not in ratio to profits earned.

5. That similar grants shall be made to prohibition areas, all inducement to continue the traffic for the sake of the grants being thus effectually destroyed."

Character of the Public-houses that would Remain.

"The houses carried on under public control might reasonably be subject to the following among other conditions of management:

(a) Sales on credit to be prohibited.

(b) No female barmaids to be employed.

(c) No advertisements, attractions, such as music, etc., to be associated with the sale of intoxicants.

(d) Accommodation for clubs, sick benefit societies, etc., no longer to be provided at the public houses; ample provision for these being made elsewhere (for example, in buildings devoted to the counteracting agencies).

(e) Every place licensed to be open to full inspection from the highway, no screens or partitions to be used. It is noteworthy that this reform was advocated by a Select Committee of the House of Commons as long back as 1834.

(f) Back-door and side-door entrances (that is, doors opening into passages which may lead to the neighbourhood to be prohibited).

Profits of the Trade and their Destination.

We have estimated that the present profits of the public-house trade in the United Kingdom amount to £30,000,000 per annum. These enormous profits must go somewhere. There are [illegible] they may be paid.

1. They may be allowed, as at present, to go into private hands, and so add to the power and wealth of the trade and to increase its evil sway.

2. They may be left in the hands of the present licensed holders of those public houses which are owned by the companies. This system obtained in New York, Philadelphia, Boston, and in many other States of the United States, but from the [illegible] were paid to these companies [illegible] to the political life of the country. [illegible]

sales is stopped, the publican [illegible] a heavy-licence payment before his profits begin.

3. The remaining plan is to take the trade out of private hands, and so secure the whole of the profits for the nation. The State might [illegible] the whole, or devote a portion, to counteracting agencies, as already suggested. The need for such agencies is now universally felt, and the evidence is clear that they cannot be efficiently carried out without support which is beyond the range of private munificence, and impossible from rates.

"At the present time the public-house is to a large extent the poor man's club, and it will be impossible to draw men away from the public-house unless something is put in its place. The few experiments which have been made upon a sufficiently adequate scale in the provision of counter-attractions have been eminently successful, but in the great majority of cases such efforts have failed for want of the necessary funds. We estimate that for the creation and maintenance of counter-attractions upon an adequate scale a sum of £1,000 per annum for every 10,000 of the population would be required; that is to say:

Edinburgh, would require			per annum.
Glasgow	..	..	£[illegible] ..
Dundee	,,	,,	£16,000 ..
Aberdeen	..	..	£[illegible] ..

"Taking the towns of Scotland, the sum required each year would be equal to more than a fivepenny rate. This amount obviously could not be obtained by subscription, and certainly it would not be forthcoming from the rates.

A few temperance reformers, who are unaware of the immense profits of the retail liquor trade, have objected to our proposal to maintain counter-attractions out of grants from these profits, from fear lest the traffic should be made permanent, as its destruction would endanger the annual grants. The answer to this is simple. The profits of the retail liquor trade are such that, were the traffic reduced to one-fifth of its present amount, there would still be ample funds for the support of counter-attractions throughout the United Kingdom upon the scale suggested."

In their summing up Mr. Rowntree and Mr. Sherwell point out that at present public opinion is in the formative stage, in which it may be powerfully influenced by clear thought and wise practical suggestions. Under the circumstances a merely negative policy, such as a general hostility to any scheme of public management, will be futile, and can only play into the hands of those whose proposals are fraught with peril. At present the country would, they believe, consider with an open mind any practical proposals on which the temperance party were agreed, but that party must formulate a clear positive policy; the note which it ought to strike is that of effective control of that portion of the traffic which cannot be suppressed. Let the trade, when taken out of private hands, be placed under strict statutory control, and the appropriation of the profits be determined by law, so that there can be no inducement to stimulate or continue the traffic for the sake of the profit which it yields.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of the Holman Testimonial Fund desires to acknowledge the following further subscriptions to the fund.

	s. d.		£ s. d.
[illegible] Anderson, M.D.		Dr. J. W. Davy, F.R.S.	
Mr. J. Parker [illegible]	1	Mrs. E. Catchpool Anderson	
Sir N. [illegible], C.I.E.		M.D.	
[illegible], M.D., F.R.M.S.		W. Sawkey Tuke, M.D.	
[illegible], M.D.		J. Gordon Lowe, M.D.	
Dr. [illegible], F.R.S.		Lord Rosmead, Bowke	
[illegible], M.D.		Dr. Fitz Neild	
Mr. Wynne Baxter		Dr. A. Forbes Gould	
[illegible]		Mr. A. A. [illegible]	
[illegible], F.R.S.		Thomas Eustace, M.D.	
Dr. [illegible]		George Eustace, M.B.	
Dr. [illegible]		Mr. W. [illegible]	
Mr. A. C. [illegible]		[illegible], M.D.	
[illegible], F.R.C.S.		Sir B. Walter Foster, M.P.	
[illegible]		C. [illegible], F.R.C.S.	
[illegible]		M. W. H. May	
[illegible], M.D.		G. R. F. Stewart, M.B.	
Mr. H. W. [illegible]		Miss A. J. W. [illegible]	
Mr. W. A. [illegible]		Miss J. M. W. [illegible]	
[illegible] Lawrence		[illegible], M.D., J.P.	
[illegible] Macdonald		Henry Barnes, M.D., J.P.	
[illegible], M.P.		Chas. Cadman, M.D.	
[illegible], M.D.		Walter Weatherhead, F.R.C.S.	

Subscriptions will be received by the Treasurer, Dr. John H. Galton, Chunam, Sylvan Road, Upper Norwood, S.E.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday next, the 20th day of April, at **2 o'clock** in the afternoon.

The following Committees will also meet:

Tuesday, April 19th, 1904. Premises and Library Committee, 3.0 p.m. Trust Funds Committee, 4.0 p.m. *Wednesday, April 20th, 1904.*—Journal and Finance Committee, 10.0 a.m.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

April 12th, 1904. GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at the Town Hall, Trowbridge, on Wednesday, May 11th. JOHN TUER THOMAS, The Halve, Trowbridge, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. **The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.**

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 1st. T. ARTHUR HELME, M.D., 15, St. Peter's Square, Manchester, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, April 28th, at 8.45 p.m. Agenda: 1. Question from Central Council as to advertising by medical practitioners attached to hydropathic establishments referred by Central Council as to medical witnesses meeting in consultation before trial. 2. Paper by Mr. Arthur E. Giles, F.R.C.S., on The Diagnostic Significance of Gynæcological Symptoms. 3. Other business. E. ROWLAND FOTHERGILL, M.B., Town House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH: BOSTON DIVISION.—A meeting of the above Division will be held at Andersons Hotel, Market Place, Boston, on Tuesday, April 26th, at 7.30 p.m. Agenda: 1. Medical Defence. 2. To consider Proposals from Medico-Ethical Committee. 3. Contract Practice. 4. Annual Meeting.—A. E. WILSON, Grove Street, Boston, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Newcastle-on-Tyne on Tuesday, May 3rd. Full particulars will be given by circular. Members wishing to show cases or bring anything before the Branch are requested to communicate with the Honorary Secretary as early as possible. ALFRED CUA, Coniscliffe House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVON AND ANGLESEA DIVISION.—A meeting of the above Division will be held at the Queen's Hotel, Bangor, on Wednesday, April 20th, at 3 p.m. Dr. LLOYD PRICE, Bangor, Chairman. Agenda: 1. To receive the minutes of the last meeting of the Division. 2. To read letters of apology. 3. To consider the following matter referred by the Divisions on their opinion thereon: 1. That it is the Council's duty to urge upon the President of the Local Government Board for improving the existing Vaccination Acts: (a) That revaccination be made compulsory by law, and that it be performed between the ages of 12 and 14 years. (b) That both primary vaccination and revaccination be subject to the same provisions for conscientious objection as in the present Vaccination Act, but that the procedure for exemption should be more strictly defined in any future legislation. (c) That the Vaccination Act should be administered directly by a department of the Local Government Board. (d) That in future vaccination legislation no certificate of successful vaccination should be accepted unless it contain a statement as to the number and area of the vesicles produced. (e) That all lymph shall be supplied by the Government, or by private establishments under Government supervision and guarantee. (f) That every private practitioner intending to be a vaccination authority with certificates of successful and efficient vaccination, satisfying a standard fixed by the Local Government Board, be entitled to receive a suitable fee for each such certificate. 4. Representation on the General Medical Council. Resolution passed by the Representative Meeting, 1903. That a petition be presented to the Privy Council praying that in any future legislation the British Medical Association be directly represented on the General Medical Council in proportion to its magnitude and representative character. 5. The proposed Medical Acts Amendment Bill. 6. Arising from last meeting: (a) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (b) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 7. Discussion on the Treatment of Acute Rheumatism, to be opened by John Evans, M.D., Carnarvon. H. JONES ROBERTS, Penygroes, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORD AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.15 p.m. Agenda: Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (a) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (b) The question of the advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43, dealing with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Division as the executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested. S. J. ROSS, M.B., Mill Street, Bedford, Honorary Secretary.

STAFFORDSHIRE BRANCH.—A meeting of this Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 28th. G. PEPGRAVE JOHNSON, Stoke on Trent, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Public Health in 1903.—Voluntary Notification of Consumption.—Earlier beginning of Summer Session.

THE health report for the fourth quarter of 1903 has just been issued, and with the data already published the following deductions may be made: The number of births registered in Manchester during 1903 was 17,568, which corresponds to a birth-rate of 31.7 per 1,000, a rate which is lower than that of any of the last thirty years, with the exception of 1901, when it was 28.7; in 1902 it was 33 per 1,000. The number of deaths from all causes was 10,726, which corresponds to a death-rate of 19.4 per 1,000, and is the lowest rate on record for Manchester. Before 1903 the lowest death-rate on record was 19.8 per 1,000 in 1894. The infant mortality, or the death-rate of children under 1 year per 1,000 births, was 168 in the City of Manchester, and in the township 104; in Ancoats, 194; and in the central district, 207; and the lowest rate, 88—was in Crumpsall. The average infantile mortality over all the immense area was 168 per 1,000 children born, against 151 in 1902. This is a high rate, but it is relatively good as compared with 1901, when the rate was 198 per 1,000. Perhaps the fall in the rate is due less to improved methods of feeding and better sanitation than to the prevalence of colder weather in the summer of 1903 and a consequent decrease in the amount of diarrhœa.

A system of voluntary notification of consumption to the Health Department has begun to grow, and is encouraged. All cases notified are registered, and the houses visited by the staff of the Public Health Department, who give all the instruction necessary for the prevention of infection, and where necessary cleansing and disinfection of premises are carried out. Thus valuable knowledge regarding the incidence of the disease is gradually being acquired. The number of cases registered and visited during the year was 1,363, and of these 206 occurred in common lodging-houses. The number of cases removed to hospitals was 1,151.

Manchester set the example of beginning the summer session before the time-honoured first of May. To get the summer session over before the Dog Days, and for other reasons, it begins on the third week of April—a date that has been adopted by the sister University of Liverpool.

SOUTH WALES.

South Wales School Hygiene. Medical.

Small-pox has once more made its appearance in Cardiff and its neighbourhood. One case was notified in Canton in the week ending March 26th, and another was reported in the Llandaff and Dinas Powis Rural District adjoining Cardiff. About a week ago a second case was notified from Canton last week. All the cases are isolated, but unfortunately this unfortunate circumstance is due to the fact that the Canton district is one of the few in the county which has not made provision for the isolation of small-pox, notwithstanding frequent warnings by the county council.

Dr. Williams, County Medical Officer of Health, delivered an instructive address recently before the Guild of Graduates of the University of Wales at Aberystwith on the Sanitary and Medical Control of Schools. He emphasized the importance and necessity of (1) the systematic sanitary inspection of schools, (2) the periodical medical inspection of the scholars, (3) the necessity of teaching of hygiene, etc., to the school classes. On April 23rd, the provincial sessional meeting of the Sanitary Institute will be held at the Town Hall, Cardiff, when Dr. E. Walford will open discussion on "School Hygiene in connexion with the duties and responsibilities of the New Education Authorities." The chair will be taken by Mr. W. Whitaker, F.R.S., Chairman of the Council of the Institute. It is expected that several medical officers of health will take part in the discussion. Arrangements have been made to visit the Isolation Hospital and Crematorium at the Flat Holms after the meeting.

Arrangements are being made at the University College, Cardiff, to establish a lecturing centre for young women contemplating entering for the Central Midwives Board examinations. It is much to be desired that a few other centres should be established so as to enable young women from all parts of the county to attend the necessary classes, without incurring greater expense than many of them are able to meet.

BIRMINGHAM.

A New Lunatic Asylum for Birmingham. Care of the Feeble-minded. Women's Hospital. Dental Hospital.

The City Council has elected another lunatic asylum at Hollymoor, which is about eight miles south-west of Birmingham and within a mile of Rubery Asylum. The original estimate was £210,000 and sanction for a loan of £200,000 has been given by the Local Government Board. The new institution will be the fifth Birmingham asylum, and is quite required to meet the ever-increasing demands. In addition to the asylum at Winson Green, where all the patients are received, and the City Asylum at Rubery Hill, which has 850 beds, several large private houses—Glenthorne, Sandwell Hall, and The Laurels—have also been used for the treatment of the insane. The new asylum at Hollymoor will cover in the buildings and grounds an estate 115 acres in extent. As to the buildings are concerned, the institution is practically entirely detached, as the internal equipment will take some time to complete, the asylum is not likely to be opened until towards the end of the year. It has been erected in blocks, with a corridor of communication; the administrative block, including engineering department, kitchen, laundry, and a large dining-room and recreation hall in the centre. Accommodation is provided for 250 patients of each sex, in addition to the medical staff and attendants who will reside on the premises. Many workrooms will be provided, and it is proposed to provide suitable occupation for the patients. Great attention has been taken against overcrowding, and it is proposed to provide for the patients all that is considered necessary in modern asylum construction, and there is no doubt that the institution will be a credit to the city. The question of the treatment of the feeble-minded is gradually being forced upon the attention of the Birmingham authorities. Arrangements have been made in connexion with the Birmingham Education Committee for the training of a limited number of children in the Birmingham Day Industrial School, but the question is one which will have to be dealt with on a much larger scale than at present. It is estimated that there are in the city of Birmingham about 1,000 feeble-minded children of school age, and the Education Committee has under consideration the question of providing a special school for them. The Women's Hospital, which has been in existence for 30 years, has been removed from its old premises in Ann Street to a new building in Ladywood Road, Edgbaston. The new hospital has been built at a cost of £20,000, and contains 40 beds. The Dental Hospital, which has been in existence for 20 years, has been removed from its old premises in Temple Row to a new building in Great Charles Street, Queensway. The new hospital has been built at a cost of £10,000, and contains 40 beds. The Dental Hospital, which has been in existence for 20 years, has been removed from its old premises in Temple Row to a new building in Great Charles Street, Queensway. The new hospital has been built at a cost of £10,000, and contains 40 beds.

The annual meeting of the subscribers of the Wolverhampton and District Hospital for Women was held on April 7th. The report showed that there was a slight increase in the amount of subscriptions received as compared with the previous year and that a sum of £800 was still required before the institution would be free from debt. The income for 1903 was £1,831, and the expenditure £1,044, the donations to the building fund amounted to £4,097. During the past year 241 in-patients and 761 out-patients were treated at the hospital, and this number is an increase on the figures of the previous year. A still further increase is to be expected now that the hospital has been moved to the new buildings which were opened in February last.

An appeal is being made by the Committee of the Birmingham Dental Hospital for funds to build and equip a new hospital. It is stated that the work of the institution has outgrown the present building, which was originally a private house. When the hospital was removed in 1882 to its present place, the number of patients treated was 5,515. Since then the numbers have steadily increased, until in 1902 they reached the large total of 11,112. During these years the tendency has always been more and more towards the conservative treatment of the teeth. The Committee have obtained from the Colmore trustees a lease of a suitable site in Great Charles Street. The building has been designed with economy but will cost about £8,000, and the equipment about £1,500, making in all a total of £10,000. This is the only charitable institution of its kind in the Midlands, there being none nearer than London, Manchester, or Liverpool. The establishment of the Birmingham University, which grants degrees in dental surgery, makes a new dental hospital, equipped with all modern requirements, very necessary for the training of dental students, and for the development of the dental faculty in the university.

CORRESPONDENCE.

A SELF-SUPPORTING HOSPITAL.

SIR,—A correspondence has recently been taking place in the *Guardian* on the subject of self-supporting hospitals. The question involved is one of growing importance both to the public and to the profession.

As regards the public, it is notorious that the middle classes, which comprise in different grades a large proportion of our population, are without adequate and necessary facilities for the management of their sick and injured. They cannot afford the cost of the nursing homes which flourish in abundance for the convenience of their richer neighbours; and their worldly circumstances are too comfortable to make them eligible as recipients of charity in a public hospital. If they are tempted, from a very human and commendable desire, to do what they are assured is the best for their sick relative or friend, the nursing home is chosen at the cost of subsequent months or years of privation to themselves and the other members of their family. Otherwise the cure must be undertaken at the patient's home, under conditions that are always upsetting to the comfort of a small household, and are often not conducive to the chances of speedy and uncomplicated recovery.

It may be replied to such a statement that nursing homes are provided to suit the resources of almost every exchequer, and that while some are admittedly expensive, others are to be found in which the cost is reasonable. This may or may not be the case, but even the smallest cost, which from the nursing home point of view is reasonable, is more than many of the middle classes can afford, and despite what is asserted by those who support such homes, the charges are in most instances high, in many extravagant, and in some outrageous. A room at from five to ten or more guineas a week is by no means the beginning and end of the tenant's responsibility. The electric action mount up to a formidable total for which the patient has not been prepared.

Abundant evidence can be produced in support of the contention that nursing homes, as they now exist, are luxuries for the rich only, and are far beyond the reach of those whose incomes are limited. Even in the rich they are often costly luxuries, more so in some instances, than on the ground of strict economical necessity they have any right to be.

Fortunately it is not the custom in this country, as it is in many others, for doctors to own private hospitals. Nurses, and others, consequently start homes to meet the demand which they know to exist, and they are frequently encouraged thereto by tempting promises of support. But the promoters

of such enterprises are not usually capitalists, and the result is that the homes are small, and unless kept constantly full, cannot be carried on profitably except on high charges. Further, though there need be no reflection on the management of the good homes among those which now exist, it must be admitted that many valuable details are denied to the patients, of which the inmates of a charity hospital have full advantage. House-physicians, house-surgeons, laboratories, special appliances for treatment, and even disciplined nursing and supervision by night and day, as well as many other factors in the routine of a well-appointed hospital are entirely wanting in the nursing home.

If all this be true, can a remedy not be found in the establishment of a self-supporting institution which shall be conducted on hospital lines? Patients would be admitted on the payment of a weekly sum, which would vary according to accommodation. This might be provided in four grades—large open wards, small cubicled wards, private rooms, or suites of rooms. The patients would be attended by their own medical men, to whom the hospital staff would be responsible for the due carrying out of instructions in regard to treatment. The hospital would be governed by a medical superintendent and a matron, who would be directly controlled by a Board of Management. It may be urged that such an institution would be inimical to the interests of general practitioners in that it would tend to deprive them of valuable attendances. This is not my belief. The patient would be treated in the paying hospital under precisely the same conditions of professional etiquette as at home. Whatever consultations were necessary would be arranged for at the hospital: requisite operations would be performed; special lines of treatment would be carried through there: but instead of the patient being temporarily wholly removed from his own doctor's jurisdiction, he would continue under his charge, with the assistance to such an extent as was required, of outside help from physician, surgeon, or specialist.

The only attempt which has so far been made in London in the direction of a paying hospital—apart from paying wards in general hospitals, which are for many reasons a mistake—is that of the Home Hospitals Association in Fitzroy Square. This is an excellent institution, travelling in the right direction, but it is practically confined to surgical work. It is, moreover, only a nursing home, and does not provide laboratory and other hospital facilities which are so desirable. The cost is from four to ten guineas per week, with an extra three guineas for a special nurse if one be needed. These sums, with certain small items which always fall to be added, place even Fitzroy House beyond the reach of the class of people who would be prompt to take advantage of a more comprehensive and less expensive institution.

Details would require to be carefully elaborated, but the time seems to be about ripe for a move in some direction to provide for a widely-felt want and to improve upon the defective and extravagant system which is now in fashion.

The one element necessary for success is capital, but the cost of foundation would be the first and only outlay. An institution conducted on the hospital system and with accommodation to take in a sufficient number of patients could be carried on at such a lessened rate of payment as would make it attractive and speedily keep every bed constantly full. The public would benefit by getting all the advantages of hospital treatment at a price for which they could, according to their circumstances, afford to pay, and the profession would reap the advantage of having under one roof every appliance and convenience for the thorough investigation of disease, and in addition would have the security of constant skilled supervision.

The fees of the medical attendant would remain, as at present, a matter personal to himself and his patient, while the charge to the patient for hospital accommodation would be so calculated as to be strictly inclusive. In these days, when so much is being done by munificent gifts for the upkeep and extension of our existing medical charities, it might advantageously suggest itself to some benevolent prince of wealth that his favours could be well bestowed on the foundation of a self-supporting hospital, which would not be a charity in the sense of supplying the poor and indigent, but would not the less be a charitable boon of priceless value, because it would bring within the reach of a very large number of persons who are shut out from both the charitable hospitals and the nursing homes as they now exist, the best attainable facilities for the relief of sickness at a minimum cost.—I am, etc.,

April 3rd. MEDICUS.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—In answer to Dr. Hugh Woods's letter in the BRITISH MEDICAL JOURNAL of April 9th, it is difficult to imagine why he should have fitted the cap upon the head of the London and Counties Medical Protection Society, Limited. I wrote "Other societies may have more money in reserve per head," making thus a hypothetical statement. No charge was made against the officials of the Society he represents, nor against its working or management. Indeed, such a conclusion would be impossible to arrive at, as according to the statistics presented by Dr. Woods himself to the Special Committee of the British Medical Association *re* Medical Defence on November 12th, 1903, as published in the SUPPLEMENT of the JOURNAL, January 30th, 1904, it was proved by him "that the working and legal expenses of these two medical protection societies were almost identical per member"—that is, about 9s. 1d. per member.

With respect to Dr. Cox's further letter I do not propose to comment further upon it, except to point out that according to his view there can be no salvation for the medical profession outside the British Medical Association. Well, this may be so in the future, but it certainly does not obtain in the present. Both Dr. Cox and Dr. Welsford are evidently prepared to throw over the claims and repudiate the rights of the 1,600 members of the Medical Defence Union who do not belong to the Association.

The Council of the Union cannot agree to this, whilst it acts on behalf of all its members equally, and is trusted and elected by them to act on behalf of them in such manner. Perhaps if either Dr. Welsford or Dr. Cox could spare time to read the numerous letters which we have received from Association members of the Union upholding the Memorandum of the Council, they would not so readily believe that the scheme formulated for Medical Defence is so acceptable. I can assure both these gentlemen that the interests of the British Medical Association are as dear to the Council of the Union (all of whom are members, and several active members of Council and Committees of the Association) as they are to them, and all unite in desiring increased power and strength to it. It is clear, however, to many that the scheme of Medical Defence described by Dr. Wolstenholme as "grotesque in its details," and by Dr. Gosse as "unwieldy and impotent as a Hindu idol," will add neither to the prestige nor to the weight of the Association.

As stated in my former letter, if the members of the Medical Defence Union desire to destroy their organization which it has taken years to build up, it is for them to say so. Up to the present, however, the contrary opinion has been expressed, and the Council of the Union can have no alternative but to carry on the work, even subject to the completion of the Medical Defence department of the Association, that is, if such a department be ever formed.—I am, etc.,

M. ARDEN MESSITER,
Dudley, April 11th. President of the Medical Defence Union.

SIR,—Dr. Cox is to be congratulated in having succeeded in eliciting a few opinions on this matter, although they all seem to be in opposition to him. The circular of the Defence Union, on which he spends his energies, is after all of very little concern to us. They certainly helped with valuable information, but now find they are to be faced with a rival. Naturally they will write as they have done. But attacking them, while ignoring the feebleness of the result of the referendum to the Central Council, is not a good defence.

Dr. Cox says my various queries, published in the BRITISH MEDICAL JOURNAL for March 5th last, can be rectified in Divisional meetings. I would beg to differ from him. Tinkering up a scheme which in its essentials is drawn up so loosely is only likely to result in a poor job.

The Central Council when issuing the scheme have not placed before the members that information we are entitled to have. Those of us in official positions cannot shut our eyes to why so many members and non-members look still askance at the Association. Two remarks constantly recurring touch on this scheme, and ought to be met with suitable replies. One is, Why cannot the Association so alter its Memorandum as to give all its members medical defence if applied to by them, and do it on the present subscription? The second remark is, What is being done with the guineas retained at the head office? We are entitled to some detailed account showing how much of that sum goes to this thing and how much goes to that. No personal imputations are made when we say we are in total ignorance as members, as to

who they are being rightly spent. The Council asks for ten shillings more for defence. We say, Why? What do you do with the guinea: is there any waste? If five shillings of it [illegible] was given to defence, it would cost, they say, £7,000. The Association puts £[illegible] a year clear profit. What is it used for; and why do they require another ten shillings a head [illegible]? Without the above information being given, it is impossible to debate the subject in any Divisional meeting. We have no reply to make to dissentients, and shall never make any headway. Will the Council publish answers to this?

The Defence Committee have in this matter dropped into an old groove, a groove based on tradition, a method of procedure we had hoped had been once for all wiped away. Three fundamental errors have in consequence been made: They have ignored the various defence societies as well as the members and non-members of the Association.

The existing defence societies have been ignored. It never seems to have occurred to them to try and amalgamate these as a first step in the right direction. The discreditable position of two societies being opposed to a case before the General Medical Council is still possible. A scheme is prepared and not a word is said to these societies as to whether they could amend it before publication, and so allow it to go before the profession with a chance of success.

The members have been ignored. In preparing a scheme of this sort, would it not have been as well to have issued first to every Branch a string of queries on fundamental points, and, having obtained the replies, to have then drawn up the scheme? Men like to be asked their ideas and what they want. There is no hurry to start defence by the Association, and time would be well spent if we were working along the right lines. Instead of that we are having a one-man scheme put before us to accept, tinker, or decline. Of course the London and Counties Medical Protection Society did not oppose the scheme. It would have been in a sense fouling their own nest to do so; for is not one in the most influential position therein responsible for it?

The non-members of the Association belonging to defence societies have been ignored. That not there has been no attempt to crack. They simply give them the go-by. I believe they number some 2000. Would it not have been a good policy to an end to have allowed these to join the proposed department without joining the Association direct, at the same time bringing with them on to the proposed committee a certain number of experienced officials? Would even ten years' grace have been too much to offer in exchange for such a gain? In time no doubt all differences would have disappeared, and all would be absorbed into the Association.

The Central Council keep reiterating they leave the matter in our hands to decide, they do not want to be considered as prejudicing the subject one way or another. Such a position as the Central Council could stand who produced an [illegible] Bill to Parliament. Dr. Cox alone stands by the title. The Council were asked to draw up a scheme by which defence could be "safely and efficiently carried out by the Association." How it was to be done was left to their discretion. They have drawn up a scheme after such a reception and they please [illegible] responsibility. It is stamped with [illegible] and they must acknowledge their adopted child. Most are voting in favour of the scheme simply and solely [illegible].

Many must feel the difficulties of the situation have not been well considered, when we [illegible] have their duties and drills to [illegible] and then throw into the arena of medical politics [illegible] become and run away from it.

We have made no progress [illegible] defence by our Association [illegible] a danger of the future, until we have been put into possession of the case with [illegible] information on the two fundamental points I have given above, and until the societies and defence [illegible] have not only consulted in the preparation of a scheme. Until then it is to be hoped Divisions will [illegible] to the effect that the scheme [illegible] and only [illegible] Association "safely and efficiently carries the work of Medical Defence." I am, etc.,

[illegible] E. Rowland Fothergill.

Sir,—From the letters in the British Medical Journal on this subject I take it that there is a strong feeling amongst the members that our Association should undertake medical defence, not as an appended society to it, but as an integral part of itself. Two sides to this question, as an onlooker, appear to me evident: (1) The side of the Council, (2) the side of the members.

After years of apparent lethargy the Council has roused itself, and undertaken for no increased subscription a very large increase of responsibility and work. In what association can any one obtain so much for such a small subscription? A mother association located in London, holding an annual meeting at one of the large centres of the kingdom to which all members have free admission; a journal of excellent condition; Branches all over the Empire to which all members belong who are within the radius—all this for the large annual subscription of twenty-five shillings.

But the members want defence, and I think very rightly. Now, it appears to me wasting time and breeding ill blood to write letters of complaint or what may seem to be such, so I would suggest that the Council should take the members into its confidence and say what extra capital would be requisite to enable the Association to undertake such defence. There are some rich men in the Association, some well-to-do, some with sufficient for their wants and a little over; possibly these can combine, if they know what is wanted, and so help in attaining what certainly appears desirable.—I am, etc.,

Paignton, April 2nd. Griffith C. Wilkin.

Sir,—Dr. Gosse in his letter points out the real difficulty in supporting the present scheme. I have been a member of the Medical Defence Union for many years—why should I leave it for another defence society unless I get more for my money?

What is the advantage of belonging to the British Medical Association if I have to pay just as much to join its defence department as I now pay to the Medical Defence Union? Make the scheme compulsory and the total subscription £3 a year, and there would soon be no necessity for any other defence societies.

Nobody questions the great advantage of having one powerful defence society instead of two or three; but the present scheme will still further weaken us by adding another to those already existing.—I am, etc.,

Folkestone, April 12th. Arthur E. Larking.

THE STATE REGISTRATION OF NURSES.

Sir,—In answer to the reply to the manifesto against State registration of nurses, it is said that we who signed it have failed to grasp the aim and purpose of the Bill, which we are told is to establish a representative Council, to whom all questions of training, discipline, and other professional matters will be referred, and upon which the medical profession, matrons, and nurses must be represented. But the first flaw in the suggestion is that the matrons of almost all the leading training schools for nurses are opposed to registration, and will not serve on any such Council, and it is worthy of note that in New York, where registration of nurses exists, the nurses themselves do not register. Dr. Bristowe has lately been speaking to them and complaining that they really ought to register.

The Bills are promoted by people who, however worthy, cannot be said to represent the nursing profession. It is pointed out that one great advantage of registration will be that it will show that the registered nurse has gone satisfactorily through a recognized training school. But the nurse's certificate shows this just as well as the *Register*, and has this advantage, that the certificate shows that the nurse was efficient, say, in 1880, when she got her certificate, and the employer knows that the certificate speaks only up to that date. But the *Register*, which gives no further security at all, is so to speak, a continuing certificate, and would lead the public to think that the nurse was efficient so long as she is on the *Register*.

Those who signed the protest know only too well that many nurses who have in past years gained their certificate have seriously deteriorated, but a nurse once on a register will always be on unless guilty of some gross misconduct. Thus a register in so far as it deceives and blinds the public, is not only useless but dangerous.

It is needless to point out the fallacy that "it is by technical skill alone that a nurse is rendered valuable in cases of serious illness." One more let it be repeated that one of the dangers of registration is the preaching of this idea—the making of the technical qualifications of paramount importance—the passing of an examination the highest ideal and end of a nurse. Those who signed the protest foresee that every time any member of the public was disappointed with

a nurse, as would alas too often occur, the cry would be raised "Give me never again a registered nurse," and this would reflect to the detriment of the really good up-to-date nurses. An eccentric woman utterly unsuitable to be a member of a household, and the writer knows several such women would pose, and not only pose, but would actually be a State registered nurse, and during her whole life would reflect on all other registered nurses.

It is silly to write with a sneer that "the opposition comes from certain hospital committees, the employers of nurses, and from some matrons." Who are for it? How do those who are for it differ except as to quantity and importance from those who are against it? Those who are for it are a few matrons and a few honorary officers and vice-presidents of the Society for the State Registration of Nurses.

Is it too much to ask any one interested in the subject to compare the position and experience of those who oppose registration with those who are agitating for it? Why, almost all the leading medical men and the leading matrons are against it; in fact, all the people to whom one would naturally go to arrive at an opinion founded on the experience of many years of useful work.

Compare the signatures:

For:

7 matrons of hospitals in London, it is said:

1 "Bart's," good	... ...	... beds
2 "Charing Cross," good	... ...	150 ,,
Western Hospital (Fever), Fulham	... ...	450 ,,
Chelsea Poor-Law Infirmary	... ...	42[illegible] ,,
St. Giles Infirmary, Camberwell	... ...	[illegible] ,,

These are all I can find. The other two may have come in since.

Provincial Hospitals and Infirmaries:

Infirmary, Leicester	240 beds
North Staffordshire Infirmary, Stoke-on-Trent ...	216 ,,
Royal Victoria Hospital, Belfast	196 ,,
Royal Albert Edward Infirmary, Wigan	156 ,,
Southampton Hospital	[illegible] ,,
Richmond Hospital, Dublin	120 ,,
Bolton Infirmary	[illegible] ,,
East Lancashire Infirmary, Blackburn	[illegible] ,,
Stockport Infirmary	85 ,,
Royal Hospital, Richmond, Surrey	[illegible] ,,
Kidderminster Infirmary	[illegible] ,,

and then come 38 honorary officers, vice-presidents of what forsooth?—of the Society for the Registration of Nurses!

Against:

Twenty-three matrons of hospitals and infirmaries in London, including the eight hospitals with medical schools attached.

The London Hospital	Westminster
King's College	St. Mary's
St. Thomas's	St. George's
University College	Middlesex.

Sixty-one matrons of provincial hospitals and infirmaries, including the Matron of Edinburgh Royal Infirmary and the Matron of Birmingham Infirmary; and a large number of members of the medical profession, including Lord Lister, Sir J. Reid, Sir Thomas Barlow, Sir Dyce Duckworth, Sir William Bennett, Dr. Allchin, and many others.

Resolutions are coming in daily from all parts of the country against the idea of registration.—I am, etc.,

London, E., April 11th. Sydney Holland.

LONDON MEDICAL DEGREES AND DIPLOMAS.

Sir,—The mischief of comparison between the two standards of medicine in London probably, to many, bulks little enough in a general professional survey; but the practical outcome serves actually to entrap the licensees into an intolerable position, and for a long time has called for alteration. Examiners for both the degrees and the diploma have assured me they could not distinguish that the one was superior to the other where the subjects of the final examination were the same; the similarity is proved also by the many service and local competitions, when frequently the diploma holders have proved the equals to the others. This equality might be extended to provincial degrees.

The real difficulties, however, turn on the lack of opportunities which beset them in all the ordinary professional paths of progress. The diplomas were all very well when those titles ruled in the profession; but although that state of affairs has almost passed out of reckoning, we are still governed in the College of Surgeons by that unchanging, unrepresentative patriarchal oligarchy, the Council, as it has existed since the constitution of 1843. To-day the highest distinctions of the profession are not considered to be those of the Colleges, degrees have taken their place and are invariably placed first, and degrees, in every district, amongst the general ranks, are ousting the status of the Colleges. That means, surely, that the Colleges are no longer of any use to the public or to London, unless they choose to blend their undoubted strength with the University, to improve the present decidedly badly organized teaching, and to re-instate the old credit of London training and qualifications. On that position I still rest my plea for the junction of the two standards.

That limns out a very different position to that of the small London Licentiates' and Members' Society, which, so far, has impoverished rather than advanced this reform, with their pretended tinkering of by-laws, and little letters or petitions to one or the other of the interested bodies, and which they hint at sending to all the hospitals, and to every member thereof, whilst to do so they propose to entirely alter their name. But these are only half measures, like all their petitions, and have always ended, and are likely I think to end, in being discredited.

In the case of one other instance bearing on this reform, the late tendency and effect of the general meetings at the Royal College of Surgeons cannot be said, in my opinion, to have removed the practicability of this brilliant opportunity for *rapprochement*. The College meetings simply serve up a convenient audience for the Council, they are all held entirely on sufferance, and the usual amenities of a meeting of equal counsel and debate do not exist. Such idle propositions or resolutions as "facilities for London students to get an M.D." or "the desirability of putting the University Act in force" that have been considered at the meetings must be void. Two phrases simply cover them. The facilities exist. The Act is already in force. At the last meeting, the one official objection to any reciprocity with the University was most strained, that "the University Act really gave no power to confer a degree with the University." As if the Senate of the University, with its abundant powers and clauses, were not there for that very purpose, and were not masters of the situation; as if the Senate had not already made many diverse concessions, even as far as accepting foreign leaving certificates, with similar proposals for provincial schools; and the University thus comes to be reduced to placing all those beneficiares before the ill-provided-for sons of her own town and substance. I am convinced facilities could be made and conceded on both sides to consolidate their interests. The differences, then, seem slight, but they persist in standing in the fairway of improving London above the medical capacity of a provincial town, and stop it from becoming a medical pattern to the whole empire. This temerity asserts itself in the face of the fact that London has gradually become a town of a university type, with unprecedented repositories of learning, specialized facilities and faculties, and above all, having accumulated the richest of collections.—I am, etc.,

Bognor, April 9th. H. Elliot Blake.

THE METRIC SYSTEM IN ENGLISH MEDICAL PRACTICE.

Sir,—After thirty-one years of the old style I decided to adopt the metric system in my own practice, and now, having used it for five years, I am perfectly satisfied with the change and its advantages to myself and those about me. The necessity of working out prescriptions gives a familiarity with the system that mere reading never did. The number of mistakes is greatly exaggerated by not unnatural fears. They occur, as things are now, chiefly from medical men being occupied for too long a time at a stretch, just as railway accidents do from signalmen and drivers being similarly overworked, but also, I must admit, from the excessive use of intoxicating liquors. So I cannot agree with Dr. Whichello that it is best for medical men to dispense their own medicines. It may be a necessity for them to do so, but least mistakes, to my thinking, are likely to be made by having medicine dispensed by some one else. Such as have occurred in my own prescribing have been corrected for me by my dispensers, and I should look upon it as an act of the grossest negligence for a dispenser to make the mistake with arsenic that he relates. The most ordinary chemist I have met is put on his guard by having to deal with an active poison, and in some establishments each prescription of the kind has to be checked by a second assistant. Having trained both men and women, I can bear testimony to the ease and accuracy with which it is done.

The real rub lies with the prescriber; 0.06 gram takes some time to get ingrained; but if any egregious blunder occurs the dispenser will be only too glad to prevent harm by pointing it out. Another source of difficulty, though not of

danger, is the seat for the gram. The symbols g. and gm. are so easily confounded that attention ought to be called to the use of the gram, perhaps by underlining, thus gm.

It would be a mistake for any medical man to attempt the change in his busy times; but let him start, after the preparation, when the press of spring work is over, and he will find it a pleasurable occupation for a slack time. I am, etc.,

[illegible] ALEX. P. LIDDIAN.

THE FEEDING OF INFANTS.

SIR,—The medical officers of health of several large towns, notably Dr. Hope in Liverpool, are doing a good work in trying to provide a pure milk for the artificial feeding of infants. Unfortunately, owing to the milk having been sterilized, it lies under the serious objection of causing scurvy in some few cases, and no doubt imparts the "taint of scurvy" which Dr. Hall, of Leeds, mentions in many other cases. At any rate, I notice children with late development of the teeth, and lateness in learning to talk and walk, with a history of boiled milk or artificial foods very frequently. Signs of rickets are usually found, but this is probably another ultimate outcome of slight scurvy in most cases. These children are often quite fat.

Now it appears to me to be perfectly easy for Dr. Hope and other medical officers of health with energetic municipal councils to arrange for a supply of milk from selected shippons within the city boundaries for infants. Such milk should be drawn off by a mechanical milker, acting by suction. The pups could be washed carefully, and the rubber tubes when not in use would be kept in carbolic acid solution, and boiling water passed through them before use. The milk would be drawn direct into sterilized bottles in the presence of an inspector, and the small screw feed bottles filled from this in the municipal laboratory, and then rapidly distributed, packed in ice in hot weather. Absolute sterility is not required. This would be expensive; but in Liverpool, at any rate, it is possible.

A great objection to a mechanical milker that it does not exhaust the possible supply does not in this limited use apply, as the cow can be milked off by hand, for the benefit of the general consumer.

If barley water could be used as a diluent instead of plain water it would be a great advantage.—I am, etc.,

[illegible] T. WILLIAM INMAN, M.B.

SIR,—In the BRITISH MEDICAL JOURNAL of April 9th, Mr. William Hall states that "most English mothers are unwilling to nurse their children, or they cease to do so before they are many weeks old. I think that the question is, Is this not largely the fault of their medical attendants? When asking well to-do women why they have not suckled their children even for a time, I have often been struck with the uselessness or absence of any reason. The following are common answers: 'I really don't know.' 'Nobody told me that I ought to, and I thought they did not look well on the bottle.' 'My husband did not wish me to.' 'The doctor advised me not to.'

I find many of these women are perfectly willing to nurse their children when they know the reasons why they ought to do so. Personally, I feel that a medical man should give the matter of suckling or artificial feeding due consideration as to the questions relating to the future. The risk to the child's health is about equal in the two cases. [illegible] I have to [illegible] I should explain to her the importance of suckling both with regard to herself and the infant. If she still declines to nurse I then request her, consistently with [illegible] to allow me to [illegible] attend her. I never [illegible] having by this means [illegible] the attentions of the nurse and doctor. In the [illegible] I have found [illegible] baby [illegible] and it will [illegible] an instrument [illegible] deal with. Secondly, a [illegible] who [illegible] and increases [illegible] the [illegible] monthly [illegible] [illegible] [illegible]

The object of this note is to suggest that, instead of hunting so vigorously for something new and adopting all the new creations of chemists, some effort should be made, by some such company as the Apothecaries' Society, to make reliable preparations from some of the older drugs obtainable from native plants before they are allowed to become extinct, so that they could be tried as remedies in common ailments. The old gentian still holds its own, and is frequently used in diseases of the liver and stomach. Colchicum is still a valued specific for gout. Might not some drugs of the gentian and quassia type become available for the treatment of dyspepsias? A preparation of coltsfoot (*tussilago farfara*) might really be as useful as squills or pennyroyal in the treatment of coughs and bronchial affections. Some other members of the digitalis family might be found to contain properties as valuable as it does. Broom and juniper might not be the only British diuretics, and colchicum the only specific. May we not be leaving much that is really valuable to the herbalist? It is possible that experiment might result in the discovery of some drugs which would be useful especially in chronic diseases. The discovery that lily of the valley (*convallaria majalis*) has a distinct action upon the heart is a comparatively recent one.

Perhaps the cultivation of these old plants, and extraction of their alkaloids or other active principles, might give us some useful and powerful drugs of many kinds.—I am, etc.,

Ecclefechan, April 6th. FRED. TRESILIAN, M.D., F.R.C.P.Ed.

THE INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—The diatribe of Dr. Theobald A. Palm reminds one of the ancient discussion as to why a fish did not displace water, which was solved by an individual of an inquiring cast of mind who tried an experiment and found that a fish did displace water. In discussing a physical subject Dr. Palm seems to me like a fish out of water—he is not in his proper sphere. He has satisfied himself that the injection of air into the peritoneal sac must be useless, and hence he thinks the matter settled; but I have tried the experiment and have found it of great utility. I am continuing, and shall continue, the practice whatever Dr. Palm may think of it.

In my last letter I showed that his arguments were fallacious, and that the atmospheric pressure and his bandages could have no effect *per se* on the intraperitoneal pressure. Instead of meeting my contentions he now gives us some views of his own about "the normal pressure which supports the abdominal viscera," which, to use an expression of the late Samuel Woodcock, have no more to do with the subject than the flowers which bloom in the spring. We are not now dealing with the support of the abdominal viscera, but with the best means of checking excessive effusion or transudation into the peritoneal cavity, and it would be much more to the point if he could cite a single case where an ascites had been cured by the atmospheric pressure and his bandaging. If I were to follow his example and broaden out this discussion, I might try to extract a little information from Dr. Palm as to the part played by the "atmospheric pressure" in supporting "the abdominal viscera." He speaks of the atmospheric pressure not as *a constant*, but as something like a sandbag, which can be shifted about at pleasure. It is no part of my duty to give Dr. Palm a course of instruction in physics, but as he has ventured into a field of exact science, I may be allowed to remind or inform him that in computing relative pressures *a constant* can be neglected.

I am happy to say that I do not know "the distinguished bacteriologists" who use aseptic gauze as efficient air filters, but I do say that no one is justified in running any risk of producing an empyema or a septic peritonitis, and I also say that Dr. Palm's method of the introduction of air into the pleural cavity by the aspirating effect of the chest is a clumsy and ill-regulated device.—I am, etc.,

London, April 8th. JAMES BARR.

SIR,—Dr. James Barr, in his clinical lecture on the treatment of serous effusions published in the BRITISH MEDICAL JOURNAL of March 19th, wherein he advocates the injection of air, etc., into the pleura and pericardium after tapping, makes no reference to previous work on the same lines. He even goes further, and says in his opening sentence, "Gentlemen, I wish to introduce to you, and through you to the medical profession, a new method or methods of treating serous effusions." Professor Dieulafoy, in his well-known *Manuel de l'Affection Interne*, Tome I, Ed. VIII, p. 475, wrote in 1895:

Dans un cas de pyopneumothorax, M. Potain a obtenu un succès éclatant à la suite d'injections pleurales d'air stérilisé. Communic. à l'Acad. de Médecine, 24 Avril 1894. J'ai eu l'occasion de traiter un pyopneumothorax tuberculeux par des ponctions multiples; à chaque ponction on ne retirait qu'une cinquantaine de grammes de liquide, et on pratiquait ensuite une injection intra-pleurale avec solution de sublimé. *Gazette de Médecine*, 1 Février, 1896.

Dr. Barr's "new method" is old history abroad; and, judging from Dr. Palm's letter in your issue of March 26th, is not altogether unknown at home, where, I think with Dr. Barr, it might more commonly be profitably applied.—I am, etc.,

Mentone, April 5th. D. W. SAMWAYS.

VENTRIFIXATION OF THE UTERUS.

SIR,—Will you kindly give me space for just a few sentences about Dr. Herman's letter in the BRITISH MEDICAL JOURNAL of April 9th? If I could have brought myself to believe that the differences between the two operations referred to were unimportant, not to say "trivial," I would not have had another word to say; but, in my humble judgement, Dr. Herman entirely misapprehends the importance of the differences. The chief difference is a matter of principle and is essential. Dr. Herman, according to the description in his work on *Diseases of Women*, binds down the fundus uteri into the abdominal wound. I leave a considerable part of the corpus uteri and the round ligaments free. The importance of this fact when the operation is performed upon women at the child-bearing time of life it would be hardly possible to exaggerate. "Trivial," indeed! I do not regard as unimportant even the differences in the amount of suturing, and therefore in the superficies, in the firmness, and in the permanence of the adhesions. But as these are the details of the operation upon which complete success in rectifying the position of the uterus depends, and their absence means comparative failure, I am free to admit that "the rest is all but leather or prunello."

Dr. Herman is welcome to "predict" that if I wait "long enough" I shall find "the fixation is not permanent." Would he oblige by expressing his "long enough" in figures? Some of my cases have been watched ten or twelve or fourteen years. A systematic inquiry was made into the after-histories about ten years from the time of the first operation, and in all the cases that could be traced the operation had stood up to that time the somewhat exacting tests of primary and permanent success. This could still be said just one year ago, when I read the address which formed the basis of the article in the BRITISH MEDICAL JOURNAL which is the subject of Dr. Herman's criticism.—I am, etc.,

Manchester, April 11th. W. J. SINCLAIR.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE BRISTOL UNION.

SOME six or seven years ago we had occasion to comment upon the manner in which the guardians of the Bristol Union were carrying out their duties towards the sick, and it would appear that no improvement has since been effected. This is the more remarkable because the existence and magnitude of the evils which provoked criticism from ourselves and others have not only never been denied, but were frankly admitted almost as soon as the union was created in 1898 and the present Board came into existence. In each of the workhouses under the control of the guardians the able-bodied, the aged and infirm, children and infants, the sick, the imbeciles, and lock and infectious cases are all aggregated together in buildings which admit neither of proper classification of cases, nor of the upkeep of efficient executive and administrative staffs; one of them, in addition to other evils, consists chiefly of temporary wooden buildings with all their attendant drawbacks and disadvantages. It was admitted years ago, and is not denied now, that whether from the point of view of administrative economy or of that of medical treatment of the sick or of the hygienic surroundings of the sound the whole arrangements are bad if not from many points of view entirely disgraceful.

The steps first taken by the guardians after fifteen months experience of the evils and prolonged consideration of the way

in which they could best be met were entirely reconsidered. They determined to close up and dispose of one institution altogether, provide in the other for casual paupers, the able-bodied healthy children, imbeciles, and aged, but not sick persons, and to build for the sick of both sexes and of all ages a separate infirmary on a new site. With a view to planning the latter in the best possible way from all points of view, a committee was dispatched to visit and report upon the sick asylums of other unions in the larger cities of England, with the result that a very handsomely illustrated report was prepared and published. Thereupon a site was acquired, the services of an architect engaged, plans and quantities got out, provisional contracts entered into, the sanction of the Local Government Board secured, and everything brought, without the slightest opposition from anybody, to a point at which nothing remained to be done except to issue final orders to commence work.

At this point, however, the views of the guardians as a body suddenly changed, and instead of proceeding with a scheme on which some six or seven thousand pounds had already been spent, they adopted a fresh one by a very narrow majority. This, however, the Local Government Board promptly condemned, pointing out that it was a mere patchwork scheme, which would provide efficiently for the needs neither of the present nor of the future, while it would entail an initial expenditure very little if at all less than the business-like and comprehensive scheme which the Board and the guardians had alike entirely approved. Instead, however, of returning to this original plan, the guardians danced off on quite new lines, appointed a Committee to visit imbecile asylums, and eventually submitted a third scheme to the Local Government Board. The opinion of the Board upon this has recently been published; it is one of unsparing condemnation, it being pointed out, amongst other things, that while no finality is reached or economy of administration secured, the interests of the sick are sacrificed to those of the incurably insane.

What course the guardians will now adopt remains to be seen, and the present position is that while some six years have elapsed since the urgent need for reform was admitted, nothing has been effected beyond frittering away a large amount of the ratepayers' money upon futile plans, reports, and committees; at the same time the condition of things in the workhouses is so bad that it cannot be doubted that lives have been sacrificed. The whole history of the matter is discreditable to a city which has not a few claims to be considered one of the most progressive in the United Kingdom. How far the business element of Bristol is really represented upon the Board of Guardians is unknown, but if it be represented at all it is time for the ratepayers to insist that it should make its influence felt. Either the scheme originally sanctioned should be taken up from the point at which it was dropped in September, 1902, or the plan should be adopted which the Local Government Board has outlined in its last report by way of an unwilling concession to what are apparently the present wishes of the guardians. The former, of course, would be best, as large sums of money have already been sunk in it and it can be put into operation at once without any further delay or trouble. It is the scheme, too, which best provides for the adequate treatment of the sick. The latter is a matter of the very first importance, not only from a humanitarian point of view, as a passage in one of the annual reports of the proceedings of the guardians would seem to indicate, and to provide increased comfort for those whom stress have driven unwillingly upon the rates, but from the point of view of the ratepayer himself. It is the truest economy to provide every possible means of curing the adult sick pauper and of returning him speedily to a self-supporting condition, while the alternative is the infinitely worse one of perpetuating the chronic invalid to the State. Unless the Bristol guardians bestir themselves and do something, the Local Government Board will either be forced to step in and take the matter out of their hands, or else to leave the sick poor of Bristol to suffer from the inadequate treatment which is now meted out to them, and which, we believe, is a disgrace to the city.

TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH.

THE following letter has recently been addressed to the Rural District Council of Dolgelley:

Local Government Board,
Whitehall, S.W.,
March 21st, 1904.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 7th instant, reporting the reappointment for a further term of three years of Mr. Hugh Jones as Medical Officer of Health for the Dolgelley Rural District.

The Board have taken into consideration generally the question of the tenure of office of medical officers of health, and they direct me to state that, whereas medical officers of health have been in office several years, and, so far as they are aware, discharged their duties satisfactorily, they would be prepared to consider favourably an application for their sanction to a reappointment without limit of time.

In the present case the District Council are willing to so reappoint Mr. Jones, the Board would be prepared to sanction the reappointment accordingly.

A copy of any resolution which the District Council may pass on the subject should be forwarded to the Board.

I am, Sir,
Your obedient servant,
(Signed) JOHN LITHGOW,
Assistant Secretary.

The Clerk to the Rural District Council of Dolgelley.

The letter may be found interesting at the present time, though it does not embody a new departure, as similar letters have been addressed from time to time to other district councils in which the Local Government Board has considered that there would be advantage in having a medical officer of health permanently appointed. It will be observed that the letter contains no reference to salary. But we believe that the Board has never sent a letter advocating permanency of tenure of a medical officer of health unless the salary paid were considered adequate. The periodical review to which the appointment is subjected by the district council sometimes leads to the salary being raised.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,[illegible] births and 5,370 deaths were registered during the week ending Saturday last, April 9th. The annual rate of mortality in these towns, which had been 15·5, 15·7, and 15·7 per 1,000 in the three preceding weeks, declined last week to 14·4 per 1,000. The rates in the several towns ranged from [illegible] in Walthamstow, 9·1 in Hornsey, 9·3 in Wimbledon, 9·6 in East Ham, 10·1 in Leyton and in Northampton, and 11·1 in Southwick, to 21·4 in Burnley, 21·9 in Manchester, 21·9 in Swansea, 22·2 in Leeds, 23·4 in Wolverhampton, 24·1 in Birmingham, 24·2 in Bootle, 27·1 in Hanley, and 28·5 in Norwich. In London the rate of mortality was 13·8 per 1,000, while it averaged 13·8 per 1,000 in the twenty-five large provincial towns. The death-rate from the principal infectious diseases averaged 2·2 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 2·3 per 1,000, while among the seventy-five other large towns the rates ranged upwards to [illegible] in Rotherham, 3·2 in Brighton, and in Wolverhampton, 3·4 in Bolton, 4·1 in Hanley, and in Birmingham, 4·7 in St. Helens, and 5·4 in Norwich and in Warrington. Measles caused a death-rate of 1·3 in Salford, 1·8 in Hanley, in Stockport, and in Barnsley, 1·8 in Rochdale and in Rotherham, 2·1 in Bradford, 2·4 in Norwich, and 3·5 in St. Helens. Scarlet fever of 1·1 in Warrington and in Newport (Mon.), diphtheria of 1·1 in Bradford and 1·2 in West Hartlepool, and whooping-cough of 1·8 in Bury and in Salford, 1·9 in Aston Manor, 2·2 in Swansea, in Walsall and in Birmingham, 2·3 in Wallasey, 2·4 in Warrington, 2·5 in Wolverhampton, and 3·2 in Bootle. The mortality from enteric fever and from diarrhœa showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered last week in London, 1 in Hull, and 1 each in Stockport, South Shields, Gateshead, and Newcastle-upon-Tyne, but none in any other of the seventy-six large English towns. The Metropolitan Asylums Hospitals contained 1[illegible] small-pox patients at the end of last week, against 1[illegible] and 1[illegible] at the end of the three preceding weeks; 9 new cases were admitted during the week, against 26, 34, and 42 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1[illegible], 1[illegible], and 1[illegible] at the end of the three preceding weeks, had further declined to 1[illegible] at the end of last week; 141 new cases were admitted during the week, against 157, 143, and [illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 9th, [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The death-rate of mortality in these towns, which had been 22·6 and 21·1 per 1,000 in the three preceding weeks, further fell last week to 20·[illegible] per 1,000, but was 1·3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 17·4 in Paisley and 18·9 in Edinburgh to 23·1 in Aberdeen and 24·3 in Perth. The death-rate from the principal infectious diseases in these towns averaged 2·2 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 20 deaths registered in Glasgow included [illegible] which were referred to small-pox, 9 to measles, 4 to scarlet fever, 3 to diphtheria, 3 to whooping-cough, and 1 to diarrhœa. Seven fatal cases of whooping-cough and 3 of diarrhœa were recorded in Aberdeen, 3 of whooping-cough and 1 of measles in Dundee, 4 of measles in Greenock, 3 of measles in Paisley, and 2 of whooping-cough in Edinburgh.

THE American Medical Association has undertaken to organise a pathological exhibit at the World's Fair in St. Louis. It will include general pathology and bacteriology.

OBITUARY.

SIR PHILIP CRAMPTON SMYLY, M.D.,

Ex-President, Royal College of Surgeons in Ireland; Honorary Surgeon to the King in Ireland; Senior Surgeon, Meath Hospital, Dublin.

We deeply regret to announce the death of Sir Philip Crampton Smyly at his residence, 4, Merrion Square, Dublin, on the morning of April 8th. Sir Philip had suffered for many years from gout, but a retinal haemorrhage, which permanently injured the sight of his right eye, occurred about three years ago, and was the first indication of anything to cause serious anxiety to his medical friends. Since then his sojourns at mineral spas at home or abroad became more frequent, and during the present year it became evident to those who were intimately acquainted with him that he was ageing rapidly. He had of late frequently expressed a desire to resign his position as Surgeon to the Meath Hospital, but to this his colleagues were unwilling to consent; and although he had virtually ceased to take part in the active work of the hospital, he was in harness until the hour of his death. On April 7th he had attended to his private patients in the ordinary routine, and indeed on that particular morning his relatives thought him looking better than for several weeks, but while at dinner on that evening the rupture of a cerebral artery brought to a sudden termination within a few hours a life that had been filled with work and crowned with many honours.

Sir Philip was born in Dublin on June 7th, 1838. His father, Josiah Smyly, was then one of the surgeons to the Meath Hospital, and died of pneumonia in 1864. His mother, who died in 1901, was a truly remarkable woman, whose philanthropic life-work was devoted to the establishment of ragged schools and homes for destitute children. His early education having been conducted by private tutors, Smyly was apprenticed in 1853 to his grand uncle, Sir Philip Crampton, Bart., who was also at that time on the surgical staff of the Meath Hospital. He entered Trinity College, Dublin, from which he graduated with a Moderatorship and Silver Medal in Experimental Science in 1859. In the following year he obtained the degree of M.B. and the Licence of the Royal College of Surgeons in Ireland. In 1861, at the early age of 23 years, he was fortunate enough to succeed to a Surgeoncy in the Meath Hospital. Two years later he became M.D. and F.R.C.S.I. In 1864 he married the Hon. Nina Plunket, sister of the late Archbishop of Dublin and of Lord Rathmore.

He was appointed in 1859 on the Viceregal Staff, a connexion which lasted through several administrations up to 1892. He served for exactly thirty years on the Council of the Royal College of Surgeons, and at the early age of 40 he became its President. During his year of office the members of Council presented him with a silver cradle to commemorate the birth of one of his children. In 1893 he was honoured by his College in being selected to represent it on the General Medical Council, and this position he filled for the following seven years. In 1892 he received the honour of knighthood, in the following year he was appointed Surgeon-in-Ordinary to the Queen in Ireland, and on the Accession of King Edward VII he became Honorary Surgeon to His Majesty in Ireland.

The medical profession was not slow in recognizing Sir Philip's claims to whatever honour it was in its power to bestow. He became in turn President of the Laryngological Association of Great Britain, Vice-President of the Section of Laryngology at the annual meeting of the British Medical Association in London, President of the Irish Medical Association, President of the Irish Medical Schools' and Graduates' Association, and next month he was to have become President of the Leinster Branch of the British Medical Association. He was Consulting Surgeon to the Dublin Hospital for Diseases of the Throat, Nose, and Ear, the Rotunda Hospital, and the National Children's Hospital.

Sir Philip Smyly achieved a distinguished medical position in the public mind. He had a large private practice. He was a good surgeon, a throat specialist, and a skilled family physician. While his practice was lucrative, his advice was never denied to those whose means rendered a high fee impossible. Indeed, it was a matter of common knowledge that in his crowded waiting-rooms the poor clergyman and the badly-paid governess were frequent visitors and received as much attention and skill as those who were able to pay.

As a hospital surgeon, Sir Philip was a painstaking, keen, and successful operator. His abdominal operations in the early Eighties were highly successful and did much to enhance his reputation as an operating surgeon. He often deplored the fact that his teaching powers had never been fully developed. He was not a great clinician, but taught quietly and by example. He had neither the time nor the inclination to publish much of his work or experiences, so that his contributions to surgical literature were few.

The little of leisure which fell to his lot was given to music and literary studies. His position in musical circles in Dublin was recognized by his fellow members of the Hibernian Catch Club, who selected him for a number of years to fill the office of President. Sir Philip also held the highest rank in the Society of Freemasons, being a member of the Supreme Council of the 33rd degree. Probably of outside interests the one which he cherished most was his connexion with the Royal Zoological Society of Ireland. As a member of Council for many years he rarely missed the weekly breakfasts at "the Zoo," and the usual bag of apples

with whom he regarded some of the friendships which had arisen out of his athletic training as models.

A large portion of Sir Philip's annual income was set apart for charitable purposes; he gave without ostentation and he gave freely. His life was that of a true Christian gentleman in the highest usage of those terms. His religious feelings were deep and self-contained, and his quiet, courtly manners were the outcome of a noble mind.

This is not the place to raise the curtain of his happy domestic life. Let it suffice that he was blessed in his wife and family, who to-day are suffering from a great bereavement.

His children were eight in number, three sons and five daughters. His eldest son is the Honourable P. Crampton Smyly, Chief Justice of Sierra Leone, his second is a distinguished Fellow of Trinity College, while his youngest is just about to enter on his medical studies.

ARTHUR MERRIFIELD GARRINGTON, M.D.Edin., M.R.C.S.,

Portsea.

By the death of Dr. Arthur Garrington, the Portsmouth Division of the Southern Branch has lost one of its oldest and most esteemed members. Dr. Garrington was born at Portsea sixty-eight years ago, and he was the worthy son of the late Mr. H. H. Garrington, who for the long period of fifty years carried on a very successful practice in the locality. Dr. Garrington obtained the diploma of M.R.C.S. in 1858, and the degree of M.D. of the Edinburgh University in 1859; shortly afterwards he returned to his native town and joined his father. He held the office of Surgeon to H.M. Prison at Kingston, near Portsmouth, for forty years. He possessed an extensive acquaintance with medicine, and in all his professional relations was ever guided by the highest principles. Throughout his long career he appeared to be impelled by an earnest desire, without any show or ostentation, to discharge faithfully and honourably every duty.

Dr. Garrington was one of the original members of the Southern Branch at the time of its recognition in 1873, and for many years he was a frequent attendant at all the local meetings. When the British Medical Association visited Portsmouth in 1899 he held the office of Treasurer, and rendered valuable assistance in all the local arrangements. About eight years ago he retired from practice, and in his retirement he still enjoyed the friendship and esteem of his professional brethren and a large circle of friends. His sudden and fatal illness lasted only a few days, during which he received the constant attention of Dr. Goss and Dr. Archer Colt. Dr. Garrington was twice married, and leaves behind a widow, three sons, and three daughters.

EBENEZER DONALDSON, B.A.Univ.Dub., L.R.C.S.I., L.R.C.P.I

Surgeon, Londonderry Eye, Ear, and Throat Hospital.

After a protracted illness Dr. Donaldson died in Londonderry at the early age of 49 on April 7th. He was a native of County Cork and was educated in the Dublin School of Medicine. After short terms of service he became Dispensary Medical Officer of Burt, near Derry. Here instead of becoming overwhelmed by the ordinary dispensary work, he set himself to work to learn ophthalmic surgery. He started an eye and ear dispensary in Derry for the poor, and after some years settled in Derry and took up ophthalmic work in addition to general practice. He founded the Londonderry Eye and Ear Hospital of which, with Dr. Hunter, he was joint Surgeon.

A student all his life, he was gifted with a most retentive memory, and was, in addition to being a well-read and accomplished gentleman, a most learned and skilful general practitioner. His training and early associations of his professional brethren on the hill was at the service of the poor. His attainments professional life was very high, and as a student [illegible] the unerring principles laid down by the works of Hunter. Versatile to the last possibility. The most difficult of cases he took up as a labour of love and such they proved to be.

He held the office of President of the South-West Branch of the British Medical Association and was for many years its Secretary and Representative on the General Council. He was a member of the Ophthalmological Society and a contributor to its proceedings.

A true friend and accomplished practitioner has been to the professional brethren not to the poor of the north-west of Ireland seems almost irreparable.

Inspector General Timothée Jean Haran [illegible] death occurred at the age of 74 [illegible] April last. He had last signalled himself in the Boer War, which he entered in the year 1900 [illegible] the Royal College of Surgeons in Ireland in 1853. A year after entering the service he went, as assistant surgeon of the *Vengeance*, in medical charge of the boats which attended Lord and Lady Dufferin's despatches. Subsequently he took part in a series of operations for the suppression of the slave trade on the West Coast of Africa. During the Crimean war he was surgeon of the *Vigo*, a vessel which played an active part in the Black Sea, being repeatedly in action. Inspector-General Haran was present at the battle of Lupatoria at the capture of Kertch in the expedition to the Sea of Azoff, the night attacks on the defences of Sebastopol, and at the capture of Kinburn. He received the Turkish medal and Crimean medal with clasps for Azoff and Sebastopol. In 1858 he was promoted staff surgeon, and four years later accompanied Commodore Wilmot on a mission to the Knight of Dahomey, an enterprise at that time considered to be one of considerable peril. He also received the Gilbert Blane gold Medal, and finally reached the rank of Inspector-General of Hospitals and Fleets, and retired after two years' service in that rank in 1888. He was a member of the British Medical Association and was Honorary Surgeon to the King.

We regret to announce the death of Colonel Robert de la Cour Corbett, M.D., D.S.O., Royal Army Medical Corps, at Lucknow (where he was Principal Medical Officer) on March 24th, in his 60th year, and within a few months of his retirement under the age limit. Colonel Corbett was the son of Dr. Richard Corbett of Cork, where he was educated; he became a graduate of the Royal University of Ireland in 1867, and entered the Army Medical Service in October of the same year. His period of thirty-seven years was largely spent in India, where he saw considerable service in Burmah (1885–7), for which he was mentioned in despatches, and received the Distinguished Service Order, with medal and clasp. He became F.R.C.S.I. in 1880. Colonel Corbett married a daughter of Mr. Robert Gregg of Cork.

Erratum. We are glad to hear from Dr. Werner Rosenthal that his father, Isidor Rosenthal, the famous Professor of Physiology of Erlangen, of whom an obituary notice was published in the British Medical Journal of March 12th, p. 645, is not dead. He is, indeed, in excellent health, and is as busily engaged in scientific work as ever. The error, which we much regret, was occasioned by a Berlin newspaper recording the death of Dr. L. Rosenthal, who was a well-known practitioner of Berlin, and also an elder brother of Dr. Isidor Rosenthal himself.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TESTING THE EYESIGHT OF THE NATION.

In the *Times* of April 8th there was a report of a letter that [illegible] contemporary had received [illegible] from the above heading in the [illegible] of the [illegible] which proved to be the case [illegible]. We are indebted to the courtesy of the editor of the [illegible] for a copy of the communication, which is [illegible]:

"Testing the Eyesight of the Nation. Improvements required.

A new report on the [illegible] of the Snellen optotype, which has been [illegible] for some time past, has just appeared. The Worshipful Company of Spectacle Makers, whose [illegible] during the past three years [illegible] their attention to everything connected with [illegible] sight, have devoted much time and thought to [illegible] a subject [illegible] in the art of correctly testing, and [illegible] with the state of [illegible] throughout the country. In pursuance of the [illegible] of the Company, a committee was appointed, consisting of [illegible] Spectacle Makers' Company, Dr. [illegible], and [illegible] to report on the [illegible] in general and visual [illegible] in particular, and to suggest [illegible] in the shape of [illegible].

[illegible] the Worshipful Company of Spectacle Makers were [illegible] possessed of a considerable [illegible] in the [illegible] property [illegible] well to us and [illegible] as Lord [illegible] Sir William Crookes, Sir Henry Roscoe, Sir [illegible], Mr. W. H. Preece, Mr. [illegible], well-known [illegible], the Lord Chief Justice, Sir [illegible], Dr. [illegible], Sir W. W. Avery, [illegible] and [illegible], with the object of [illegible] the Company to [illegible] the [illegible] of [illegible] in [illegible] to [illegible] the [illegible] of [illegible] vision.

The Worshipful Company of Spectacle Makers were [illegible] to take [illegible] in a [illegible] of [illegible] under such [illegible] as [illegible] with the [illegible] by [illegible].

[illegible] the [illegible] of [illegible] Makers [illegible] and [illegible] the [illegible] of the public [illegible] the National Association of [illegible], who met on the [illegible] of

jewellers, etc., have approached the Spectacle Makers' Company, and, as we understand, are fairly reaching a theory of the scheme, and desirous of following some definite and technical education within their ranks, have requested the Company to undertake the examination of jeweller opticians in order that they may obtain the much prized diploma. The Company, a powerful and influential body comes forward to co-operate with the Spectacle Makers' Company in no little tribute to the new and enterprising movement made by it, the latest, effort of an enterprising City Guild. It means that the public will be better catered for and protected in the matter of their eyesight than has been the case previously in the country.

The public, moreover, can rest assured, when they visit an optician holding the eyes-testing diploma of the Company, that not only will they be honestly treated as to the application of glasses for the particular defect from which they may be suffering, but also—and that is of equally great importance—they may be certain that they will be advised to consult the oculist whose services, if the case presents any indications of some great trouble which the optician, no matter how great his technical skill may be, is not qualified to treat. In short the eyesight-testing diploma of the Company will be a guarantee to the public in the highest sense of the term.

The publication of extracts in this circular, with comments, in the form of a letter to some correspondence from which it appears that the Optical Society was founded in 1895, and wishes to be regarded as a scientific body and the Honorary Secretary dates his letter from 25, Hanover Square, the house of the Royal Medical and Chirurgical Society. The assumption in the last paragraph of the memorandum is no doubt well meant, and we observe that the Honorary Secretary states that the Society "has nothing whatever to do with the granting of diplomas of any kind whatever." It is therefore to be regretted that, at its "organ" has thought fit to issue the memorandum above quoted. The whole subject is engaging the attention of the Medico-Political Committee of the British Medical Association.

THE TEACHING OF CHILDREN ALLEGED TO BE MENTALLY DEFICIENT.

A somewhat novel case, arising out of a School Board summons, came before Mr. Horace Smith at the Westminster Police Court on March 14th. Mr. Dance, a working man, of Lambeth, was prosecuted by Mr. A. J. Burton, the divisional superintendent, for not sending his son to a special school, the contention being that the boy, who was nine years of age, was mentally deficient. Mr. Burton handed in a certificate from the Board's expert showing that the boy could not be educated in the ordinary way at an elementary school. On the other hand, the boy's father produced a certificate from Dr. Benj. Jones, of South Lambeth Road, to the effect that the boy was of "average intelligence," and another showing that he was regularly attending another school. The magistrate then suggested that both medical men had better be in attendance.

Dr. Charles James Thomas, Assistant Medical Officer to the London School Board, said the boy was brought to him on January 15th, having been sent up by the head teacher of the school he was attending, a copy of the case was forthcoming on one of the prescribed forms. He examined the lad, and was satisfied that he was extremely deficient mentally, and totally incapable of receiving instruction in the ordinary elementary schools by reason of this defect. He gave the boy books of a simple character to read in the presence of an educational expert. The boy's power of building up words from letters was found to be extremely deficient for his years. He could not read a sentence made up of three-letter words, and could not add together 4 and 3. In his opinion the case came within the Act for the mentally deficient, and he certified accordingly. An independent examination was also made by the chief inspector, and he came to the same conclusion as witness. Answering the magistrate, Dr. Thomas said that the boy's imitative powers were very good: he could follow a copy, but could not of his own initiative write anything.

Dr. Benjamin Jones, of South Lambeth Road, said he gave the certificate handed up by the father after an examination of the boy. His conclusion was that the boy was of average intelligence. He tested him by ordinary questions, the lad being brought to him for that purpose. Some three years ago he had sent the boy to Charing Cross Hospital to be operated upon for slight deafness. He did not ask the boy to read or write.

Mr. Horace Smith said he should require to be still further satisfied in this case. He would now like to see the head master or mistress of the school where the boy had attended for some four or five weeks. During that time he should imagine any mental deficiency would have been found out by the teacher.

The hearing was therefore adjourned for the attendance of the teacher.

The case was resumed on April 12th, when Mr. T. D. Dutton, solicitor, appeared for defendant.

Mr. A. T. Burton, the divisional superintendent, said that, in accordance with the expressed wish of his Worship, the teacher of the boy was in attendance.

Mr. Dutton said he supposed it was only a question of doctors differing. When the matter was placed in his hands he wrote to the head master of the school where the boy was now regularly attending, and he had replied to the effect that the child, although of slightly weak intellect, was obedient, attentive, etc., and should not for his own sake be sent to a special school, as suggested.

Mr. Horace Smith said it seemed to him that he must ask the opinion of the High Court on this matter. It was pressed upon him that he was practically bound to fine the father of the child for not sending his child to a special school, notwithstanding the fact that he sent the child to another recognized school. He should prefer to act upon their lordships' decisions.

Mr. Burton said that if his Worship decided against him, of course he could not let the case rest. He could merely apply the machinery he had.

Mr. Horace Smith dismissed the summons and said he proposed to state a case for the High Court as to whether he had any right to dismiss.

MILK WARRANTIES AND ANALYSTS' CERTIFICATES.

[illegible] the Fulham Borough Council summoned the Farmers Dairy Company, of [illegible] Road, at the West London Police Court [illegible] March, for selling milk not of the nature, substance and quality demanded by the purchaser. The milk was purchased by the inspector of the Council from a milk-cart in the street, and was found to contain 15 per cent. of boracic acid. The Callow Park Company, when prosecuted, set up the warranty defence, and the case was dismissed. The local authority then proceeded against the Farmers' Company, and furnished, as part of the evidence, the analyst's certificate used in their case against the Callow Park Company. The magistrate dismissed the summons on the ground that one analysis could not be used in two separate prosecutions, on the basis of the judgement in the High Court in the case of Tyler v. Kingham in 1900. In this case Justices Riley and Bigham held that the analyst's certificate made for the purpose of first proceeding against a retail dealer was not admissible as evidence against a wholesale dealer. It will be seen, therefore, that the case of the Fulham Council was dismissed on a technical point of procedure rather than on the reliability of the warranty. The case illustrates the unsatisfactory nature of these warranties.

AN UNFOUNDED CHARGE OF NEGLECT.

At an inquest before Dr. Danford Thomas on April 7th, certain facts came to light which illustrate the risks to which members of the medical profession are exposed.

It appeared that a man named Pollock, being in arrear with his rent, was ejected from his lodgings on March 22nd. He went with his wife to the house of a friend, where, in an underground kitchen, Mrs. Pollock gave birth to a child on March 23rd. After the birth Dr. Stitt of Cambridge Place, Regent's Park, saw the mother seven times without any charge. Becoming dissatisfied with Dr. Stitt, Pollock then called in a person described as a dispenser, who prescribed for Mrs. Pollock. On March 31st, Dr. Griffith, Dr Stitt's partner, found Mrs. Pollock in such a serious condition that he advised her removal to St. Pancras Poor-law Infirmary, where she died on April 3rd. Pollock then sent a letter to Dr. Stitt accusing him of gross carelessness and demanding compensation. He subsequently threatened to report the matter to the coroner. Dr. Stitt, who had in the meantime, consulted the Medical Defence Union, refused to pay anything. At the inquest, where Dr. Stitt was represented by Mr. Hempson, Dr. Dunlop, Medical Superintendent of the infirmary, who had made a necropsy, said that there were no signs whatever of any medical neglect. Death was due to peritonitis caused by septic poisoning. It was probably due to the insanitary surroundings in which the patient had lain for eight days. The jury returned a verdict in accordance with the medical evidence, and the coroner advised the husband to withdraw the letter which he had written to Dr. Stitt.

THE ETHICS OF ANTIVACCINATIONISTS.

DR. E. HAUGHTON writes: As the committee of the National Antivaccination League seem to consider that I acted without due consideration in publishing the fact of my withdrawal from the League I beg to send the grounds of this action in the shape of correspondence, which I think will justify me in the minds of most persons, more particularly in view of the fact that for several years I have lain under the imputation of being influenced by personal motives in relation to an important public question:

[Copy.]

The National Anti-Vaccination League,
50, Parliament Street, Westminster,
London, S.W.
November 18th, 1902.

E. Haughton, Esq., M.D.

Dear Dr. Haughton, Your favour of the 5th inst. was read to the Council on Thursday last, and I am directed to express very great regret that you feel hurt that your letter was not published in the *Vaccination Inquirer*.

The Honorary Editors explained that the only reason for this was that the letter in question referred to some points upon which the Council do not all think alike, and that it was very unwise to let it appear there was any division of opinion. The Council very much hope that you will reconsider your determination *to sever yourself from the League*, as it would give them great pain to lose your valuable assistance. Believe me, yours very truly,

CHARLES GANE,
Hon. Secretary.

November 19, 1902.

Dear Sir,—Your appreciative letter, with message from the Council of the League, duly received last night. It seems, however, to be written under some misapprehension, as it implies that it is only now that my "assistance" has been withdrawn. I should not be surprised to learn *that after the completion of ten years* some members of the League were unaware that their oldest member *had withdrawn in great measure on the ground of the censorship exercised over liberty of speech in the Vaccination Inquirer*. I remember when it was the only paper really open to us, as indeed this was the reason of its existence. To say that it is unwise to let difference of judgement appear is to beg the whole question at issue between us. You will therefore see that my resignation ought to stand until actual proof is given, in *the conduct of the journal*, that every shade of opinion receives its just recognition, even when it must ultimately be condemned.—I am, etc.,

Charles Gane, Esq. E. HAUGHTON, M.D.

March 26th, 1904.

Dear Sir, In reply to your letter just received I beg to say that the paragraph to which you refer is "the outcome" of the Editor of the BRITISH MEDICAL JOURNAL having read an official communication from you (outcome in November, 1902, and now in his possession), and my reply; and from having seen a copy of the annual report, in which my name still appears as one of the Vice-Presidents of the League. I think you can hardly be ignorant of the fact that I withdrew from the Presidency of the Croydon Branch a considerable time ago in order to sever the connexion more completely; but I have neither alluded to Mr. Alexander Paul in my communication with the British Medical Association (of which I am a member) or in any communication that I know of with the National Anti-vaccination League. I therefore do not think it necessary or desirable to attend your meeting on Monday.—I am, dear Sir, yours faithfully,

Charles Gane, Esq. E. HAUGHTON, M.D.

BRITISH MEDICAL JOURNAL, March 19th, 1904, p. 690.

The National Anti-Vaccination League.
[illegible] Parliament Street, Westminster
[illegible] S.W.
E. Haughton [illegible] M.D. [illegible]
[illegible] meeting of the Council held yesterday and I was [illegible] which it was decided that we had [illegible] Council [illegible] also to withdraw [illegible] the list of [illegible] Council will note this and care shall be taken that your name does not appear [illegible] as in any way connected with this League [illegible].
CHARLES GANE
Hon. Secretary.

MEDICAL CERTIFICATES FOR NON-ATTENDANCE AT SCHOOL.
THE Rugby medical officer of health [illegible] certificates of absence from school. In the case heard at the Rugby Police Court on April 1st the medical officer said he [illegible] examine the defendant, and on the medical certificate the fee was [illegible] costs against the school authority. The latter [illegible] fee of 10s. 6d.

MEDICAL ETIQUETTE.
FAIR PLAY complains that a specialist [illegible] was [illegible] by the parents to [illegible] surgeon [illegible] are [illegible] being interned [illegible] Asked to [illegible] only a hundred yards away, there could have been no difficulty in sending for him. Immediately afterwards he received letters from the practitioner in question, [illegible] and asking certain suggestions as to treatment. On the day after this visit our correspondent sent to a consultation, and was then informed of what had happened. He asks whether under the circumstances he ought to have thrown up the case. He also asks: (1) May a practitioner visit a patient known to be under the care of another available practitioner?

*** (1) Our correspondent acted wisely and properly in continuing in attendance, but he must explain to the patients that he has not already done so the undesirability of calling another practitioner except in consultation. The parents, no doubt, wished to get what they considered an independent opinion, but they do not take into account the difficulty of diagnosis. Parents may be excused a good deal on account of their anxiety for their child.

(2) As a general rule the answer is No. But there may be circumstances under which the practitioner so called upon may attend; for example, if the case is stated to be one of urgency and the friend's refuse to send for their usual medical attendant. This seems to have been so in the present instance, but the parents do not appear to have had the intention of giving up the services of Dr B., although unwilling to let him meet Dr M. in consultation. Therefore Dr M. gave his opinion, and ultimately wrote a letter to Dr B. If he had written this letter at the time, and requested the parents to hand it to Dr B. at his next visit, he would have done all that medical etiquette required.

INQUIRER writes that it is his intention to devote himself henceforward entirely to the diseases of children, and wishes to know whether there would be any professional impropriety in putting the words "children only" in small letters on his doorplate.

*** The announcement of the speciality upon the doorplate is not practised in this country although common in Germany and America. The objection to it is that it is of the nature of an advertisement, and therefore to be avoided.

FEE FOR ATTENDING A PATIENT CONFINED BY MIDWIFE.
T. J. G. writes: I was [illegible] at 7 A.M. to a patient [illegible] was [illegible] had been [illegible] I found [illegible] placenta, which was all [illegible] I am [illegible] by myself. There is no further attention [illegible] to see patient [illegible] to take, and, if not [illegible] Had I attended the patient at the confinement I should [illegible] fee.

*** T. J. G. is entitled to charge his ordinary confinement fee of 2 guineas [illegible] attendance was not necessary, but under the circumstances stated [illegible] the attendance was required and given, he is satisfied with [illegible] fee. The patient would be treated very liberally. If [illegible] a guinea [illegible] T. J. G. would have been entitled to [illegible] for any [illegible] attendance.

FEES FOR POLICE CALLS.
J. T., who [illegible] by [illegible] to the police for the treatment of a lacerated [illegible] wrote [illegible] with the regulations [illegible] to know [illegible] to be paid [illegible] to [illegible]

J. [illegible]

[illegible]

J. a [illegible]

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVAL HOSPITAL, HASLAR.

THE session for the surgeons under special instruction at Haslar was brought to a close on April 7th, when the prizes were given away by Inspector-General Sir John D. Macdonald, K.C.B., M.D., F.R.S. Inspector-General Sir Henry Norbury, K.C.B., M.D., Director-General of the Medical Department of the Navy, and Dr. Aldridge, a member of the Royal Naval Examining and Consultative Boards, were also present.

The following list of marks having been read to the assembly by Sir Henry Norbury, he congratulated them on the very creditable report which he had received from Inspector-General Ellis, R.N., in charge of the establishment. Their conduct had been exemplary, the manner in which they had discharged their duties was all that could be desired, and their relations with the staff of the hospital generally satisfactory. After wishing them a very prosperous career in the service, he said that he could not give them better advice than to try to emulate the example of Sir John Macdonald, who, while yet a surgeon in the Royal Navy, holding the same rank which they held that day, was for his brilliant scientific achievements elected a Fellow of the Royal Society.

Continued [illegible] the Examination [illegible] Surgeons [illegible] H.M. Ships [illegible] R.N.

	Marks.		Marks.
W. P. Yetts [illegible]	4,268	J. C. Bringan [illegible]	3,5[illegible]
T. D. Liddle [illegible]	4,[illegible]	W. G. M. Anderson [illegible]	3,[illegible]
N. S. Meiklejohn [illegible]	4,[illegible]	G. L. Bickerdige [illegible]	3,[illegible]
R. H. St. B. E. Hughes [illegible]	3,[illegible]	A. D. C. Cunninghame [illegible]	3,[illegible]
F. M. V. Heath [illegible]	3,[illegible]	T. W. Jeffrey [illegible]	3,[illegible]
C. J. Boucher [illegible]	3,941	P. D. Ramsay [illegible]	3,[illegible]
A. H. S. Richardson [illegible]	3,[illegible]	E. P. G. Causton [illegible]	3,[illegible]
H. Woods [illegible]	3,[illegible]	G. P. Welsh [illegible]	3,[illegible]
G. H. S. Mullin [illegible]	3,470	J. E. Johnston [illegible]	2,[illegible]
D. B. Vickery [illegible]	3,[illegible]	F. C. [illegible]	2,[illegible]
E. B. Kenny [illegible]	3,450	A. R. Davidson [illegible]	2,[illegible]
A. R. Schofield [illegible]	3,[illegible]	B. R. Bickford [illegible]	2,[illegible]
J. Shipsey [illegible]	3,[illegible]	C. M. Woods [illegible]	2,[illegible]
F. J. Gowans [illegible]	3,[illegible]	L. C. E. Murphy [illegible]	2,[illegible]
E. R. Townsend [illegible]	3,[illegible]		

The prizes were awarded to the following officers:
Surgeon W. P. Yetts, late of St. Thomas's Hospital, London, the Gold Medal.
Surgeon T. D. Liddle, M.B., late of Queen's College, Belfast, the Microscope.
Surgeon N. S. Meiklejohn, late of St. George's Hospital, London, the Silver Medal and Books.

Inspector-General Sir John Macdonald, in distributing the prizes, said: It gives me a great deal of pleasure to be here to-day at the close of another session of technical instruction. Special teaching of this kind is found to be necessary to keep the Naval Medical Service in touch with the progress of science, and the most efficient treatment of medical and surgical disease both at home and abroad. Formerly the medical schools at home dealt very superficially with so-called tropical diseases, so that medical officers serving abroad were often brought into contact with cases of epidemics quite outside the ordinary range of their experience or knowledge. Even independently of this, the special constitution of the service demands in each case the adoption of rules and principles to be carried out in all grades, and especially to be taught to the junior members. In all this we must perceive the necessity of a special form of medical instruction for the officers of the public services, and it has always been pleasant to me to reflect that I was the first chosen to take up the subject of naval hygiene, and supervise the general instruction of the naval surgeons formerly at Netley, but subsequently transferred to Haslar. It was only to be expected that a naval establishment would institute a system of instruction for the benefit of medical officers of the navy, and a commencement was made very naturally, with the aid of officers who had gone through the Netley course, and were therefore better fitted to carry on the good work at Haslar. I must now give my heartiest congratulations to the prizewinners and my best wishes to all the surgeons for the present happiness and future success in their profession of life.

Dr. Aldridge also congratulated the class, and reminded them that they could not regard their education as completed. At some of the ports at which you would be stationed there were probably enlisted hospitals where you would be welcomed and every opportunity afforded you of continuing your

study of clinical medicine and surgery, of pathology and the like, would be presented in a manner that no civil private practice afforded. Nor need they restrict themselves to purely professional subjects. The study of the many aspects of natural history, of ethnography, of the flora and fauna of certain regions, numerous geological problems that await solution, would all invite them as well as the language and dialects of certain races, and the various questions connected with their social and political life.

Inspector-General Ellis then proposed a cordial vote of thanks to Inspector-General Sir John Macdonald for giving away the prizes and the proceedings terminated.

Fleet Surgeon William Tait, M.B., has been appointed Fleet Surgeon for "Instruction of Surgeons on Entry" at Haslar Hospital. The next session commences in June.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: William E. Ormsby, M.B., B.A., Surgeon, to the *Thistle*, additional, April 7th, and on recommissioning; Thomas D. Gimlette, Deputy-Inspector-General, to Hong Kong Hospital, April 20th; Leonard H. Kellet, M.D., M.A., Deputy-Inspector-General, to Plymouth Hospital, April 20th; John L. Barrington, Fleet Surgeon, to Haulbowline Hospital, April 20th; Harold R. Osborne, Fleet Surgeon, to the *Good Hope*, April 25th; William Bett, Fleet Surgeon, to the *Russell*, April 20th; Edward B. Townsend, Fleet Surgeon, to the *Britannia*, for Dartmouth Sick Quarters, April 25th; John H. Stenhouse, Fleet Surgeon, to the *Spartan*, April 15th; Walter H. S. Stalkartt, Staff Surgeon, to the *Monmouth*, April 20th.

ROYAL NAVY MEDICAL SERVICE (VOLUNTEERS).

In accordance with the provisions of His Majesty's Order in Council of May 13th, 1901, a commission of the rank and date shown has been restored to Staff Surgeon F. Woore, who has been placed on the list of Volunteers for service in the event of war or emergency; dated August 28th, 1894.

ROYAL NAVAL VOLUNTEER RESERVE.

M. Fielding C. Whitmore, M.D., has been appointed Surgeon, March 31st.

ROYAL ARMY MEDICAL CORPS.

Lieutenant J. Waddell is placed on temporary half-pay on account of ill-health, March 11th. He joined as Lieutenant, June 19th, 1901.

Lieutenant-Colonel Nathaniel Alcock died at Ballybrack, co. Dublin, on April 4th, aged 64. He was appointed Assistant Surgeon, October 1st, 1861, Surgeon, March 1st, 1872, and Surgeon-Major, September 2nd, 1875. He retired from the service with the honorary rank of Lieutenant-Colonel, August 14th, 1889. He was in the Kaffir war in 1878, receiving the medal. He was Medical Officer to the Dublin Military Prison, to which he was appointed in 1863.

ARMY MEDICAL RESERVE.

Surgeon-Captain G. A. Lang, M.D., having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve.

A STATEMENT OF THE CASE OF RE-EMPLOYED ARMY MEDICAL OFFICERS DURING THE SOUTH AFRICAN WAR.

From a Correspondent.

During the exigency of the South African war a certain number of retired army medical officers of lieutenant-colonel's rank, both those liable to recall and those not so liable, were re-employed by the authorities and continued re-employed for periods varying from eighteen months to three years and longer. A few of these officers were promoted in the *Gazette* of October 17th, 1902, and February 24th, 1903, to the rank of colonel, in recognition of the services they rendered during the national emergency, which services were also duly and fully recognized by official letters emanating from the Adjutant-General conveying the thanks of the Commander-in-Chief. The rank attained on promotion—that is, of colonel—was fully recognized by the authorities during the re-employment of the army medical officers by the grant of full pay and allowances of the rank of colonel.

When the exigency of the South African war ceased these officers' services were dispensed with, and they were compulsorily replaced on the retired list. It has now been decided to refuse these colonels the increased retired pay to which they seem justly and equitably entitled.

The refusal to grant these officers the increased retired pay is based on Article 601A of the Royal Warrant, "Pay, etc.," issued by the Finance branch, says only authorizes the grant of any increased retired pay to which a re-employed officer's further service may entitle him, and that the stipulation of three years' service in the higher rank cannot be dispensed with.

Now, as the refusal to grant increased retired pay is based on the "three years' service" in the higher rank, the following comments may be made:

1. How possibly could such officers possibly by serving three years in the promoted rank, seeing that they were compulsorily relegated to retired pay, and thus prevented from serving? Is it right to first force an officer on to the retired list after he has been passed out of it, and then to tell him "you cannot have the increased retired pay of your special promotion because you have not served three years in the rank.

2. The article of the Pay Warrant quoted hereinbefore was framed long before the unforeseen contingency of the South African war arose. It therefore appears scarcely reasonable or equitable to apply an old warrant to a new condition.

3. The case of the re-employed officers promoted was submitted to an ex-official who occupied, before retirement, a high position in the Finance branch of the War Office who has recorded his opinion on the clause of the warrant, namely: Article 601A Pay Warrant as follows:

"But it strikes me that a very narrow meaning has been given to the word 'service' in Article 601A, and as far as I can remember not the sense that was intended—I think there is something to fight."

In the spring of 1902 a question was put by Captain Cecil Norton, M.P., to the Secretary of State for War, in the following terms:

"If he would consider the advisability of granting officers who had retired from the Army Medical Department and other branches of the service, and were not liable to recall, but accepted service in the late national emergency, similar conditions with reference to pension and rank as are granted to reserve officers who have been re-employed."

To this question the Financial Secretary to the War Office replied:

"Medical officers not liable to recall who volunteered to take the places normally occupied by medical officers of the regular army obtain similar conditions to reserve officers."

Now, the reserve medical officers, that is, those liable to recall, have benefited materially by their re-employment in obtaining increased retired pay, for example, an officer who only completed twenty years' service and more but under twenty-five years, obtained after re-employment on completion of twenty-five years an extra 2s. 6d. a day. Another point in favour of increased retired pay for the re-employed medical officers promoted to colonel's rank is Paragraph 2 of Army Order 164 of July, 1902, which reads as follows:

"Retired officers and others specially taken into re-employment on or before May 31st, 1902, will be allowed to reckon employment subsequent to that date, if continuous with employment before it, towards increase of retired pay."

On this ruling, officers of majors rank who had voluntarily retired but were re-employed during the South African war have been promoted to lieutenant-colonel's rank, and have duly obtained the increased retired pay of the latter rank.

Under these circumstances it is singular and incomprehensible why the lieutenant-colonels who were promoted to colonel's rank are denied the increased rate of retired pay to which they consider themselves entitled.

The action of the War Office Finance branch towards officers who in the stress of war worked hard and well can scarcely be termed creditable. The power of the Finance branch to put any ruling it likes on any clause of a Royal Warrant to the disadvantage and prejudice of officers is one that should be curtailed. The officers concerned, who are losers to a large extent by the ruling of the Finance branch, can now only fall back on such help as members of Parliament can give them.

It is, indeed, an open secret that when the *Gazette* (October 17th, 1902, giving promotions specially for services during the South African war was promulgated there was no consultation between the Military and Financial branches as to its financial effect, and now that the officers promoted are retired again it is sought to perpetuate a blunder by refusing them increased pension.

The probable cost to the State of doing justice to a body of officers of all branches promoted to colonels and causing contentment among them would be not more than £16,000 a year. While millions are muddled away a very few thousands are grudged to officers who came willingly to the aid of the authorities in a crisis, in fact in a great national emergency, and who at their present ages will in all probability not live many years to enjoy the increased pension if even it is sanctioned.

ARMY REFORMS.

A correspondent sends a cutting of a "military letter" from the *Times of Ireland* of March 16th, in which it is stated that if unacceptable changes are made in the Medical Service by the Army Council, and old boycotting tactics adopted to meet them, "doctors with commissions will find any attempt at combination rather risky."

Our correspondent should pay little heed to such idle threats; we do not anticipate any evil to the service. "Doctors with commissions" never have "combined," but the medical profession knows perfectly well how to protect the interests of its members.

REGIMENTAL STRETCHER PARTIES.

The annual competition for the Connaught ambulance challenge shield among regimental stretcher bearers, which includes the rendering of first aid and the bringing in of wounded, took place at Aldershot on April 11th with the following results. First, 2nd Cheshire Regiment; second, 2nd Royal Scots Fusiliers; third, 1st King's Own Yorkshire Light Infantry; fourth, 1st Royal Berkshire Regiment; fifth, 1st Royal Scots (Lothian Regiment); and sixth, 1st East Surrey Regiment. The judges were Major J. H. Parry, D.S.O., and Captains H. A. Hinge and G. St. C. Thom, all of the R.A.M.C. In presenting the shield, Surgeon-General W. H. McNamara, C.B., P.M.O. 1st Army Corps, expressed the regret of Lieutenant-General Sir John French at his enforced absence from a competition in which he took great interest. Surgeon-General McNamara added that it gave him very great pleasure to see the quick and careful manner in which the dressing of the wounded had been accomplished and the cases brought in from the field. The winning team had worked remarkably well, the second team were very little behind while none had done badly, and all had shown great interest in the work. The highest points gained were 150 out of a possible 160, and the lowest 72.

INDIAN MEDICAL SERVICE

MILITARY EMPLOYMENT

We have received some notes from a member of the Indian Medical Service on military employment, from which we extract the following:—

Station Hospitals.

I would place first on my list the reform to be effected in the present station hospital system for soldiers. It is the only blot on the way of treating the sick of Native troops. By the present regimental hospital system, with its multiplicity of hospitals, every penny which might be expended on equipping one decent station hospital is simply thrown away. And the probability is that within the next twenty or more years, with no more reasonable chance than a regimental hospital, with its limited scope for professional work, chokes off every young man from the Line side, and tempts them to go into civil employ. For the station hospitals themselves a station hospital system would be invaluable, and would soon be beginning to realize. On arrival in India I would be posted to some station, where the world gradually fell away for some years, and be exempted from the constant moving about that the present regimental system entails, and there would be under the eye of a senior to direct their own service, whose experience in matters professional and domestic would be at their service.

Messing.

So far as I know, practically all the Indian Medical Service men in military employ with the exception of the very senior ones are anxious for the introduction of the station hospital. Possibly I have never been attached to a regimental hospital, absolutely his own master, as a station regimental hospital is attractive while the pleasure of being a member of a regimental mess with its camaraderie and hospitality appears to be constant.

But in a station hospital system were introduced, the greater expense of living would more than counterbalance the first item, while as regards the mess, in the larger stations at any rate there is no reason why an I.M.S. mess should not be started. In smaller stations bachelors might give as honorary members at various regimental messes, as subalterns now do. The chief opponents of the station hospital and the cry of the weight are combatant officers, both regimental and on the staff. Of course every commanding officer likes to have with him a doctor whom he can order about as he likes and every regiment is glad of the medical officers regimental subscriptions while, as he rises in rank, he very highly values and of his services as mess president where they are generally utilized, and the people who really deal with all reforms in the service are the combatant officers employed in the military department of the Government of India.

What is wanted is a strong man, or if the strong man is not forthcoming the strong pressure of an influential body like the British Medical Association to force the hand of the Government of India to get rid of an anachronism which has really nothing to commend it.

Rates of Pay.

With regard to the new rates of pay, they are a great improvement in many respects, but further changes are needed. At present a man's military employment is largely paid on the basis of mileage, that is, according to years' service.

Thus, an addition of Rs.100 per mensem at 15 years' service has been made, but even so he is less well off than his brother officer of similar standing in the R.A.M.C. The latter receives cost to India for himself and Government expenses, and, if a married man, brings his wife and family also at Government expense. He can reasonably expect to spend a fair proportion of his Indian service in a hill station, leaving the cost of a dual establishment, one in the plains for himself and one in the hills for his family, which is the case in the I.M.S. man. Also, when he comes to India or returns to England in a Government transport, the duties of the purser and I.M.S. man in military employment are the same, whereas the R.A.M.C. man is in receipt of 5s. per diem as an extra. Hence their pay envelopes are proportionately larger. Hence their pay envelopes very rarely with them again, but have to remit a portion of their pay to their wives at home. In the Monthly Notes I see a large increase in medical officer's pay.

Cantonment Hospitals.

Of late years the cantonment hospitals have been greatly improved, and the lowers and bedsteads are now fairly up to date. But as I treated, when in charge of the Bareilly cantonment hospital, to be given to I.M.S. men, as I well know, but rarely to the R.A.M.C. men, as I have had the latter under me for periods of from one to three years, and have found them as efficient as the I.M.S. men.

In a cantonment hospital only native sick are treated, it seems to me that only I.M.S. men should be in charge. The European sick in the R.A.M.C. hospitals are in the proportion of the south, and treated as in the British hospitals.

Furlough.

The [illegible] furlough [illegible] after [illegible] Europe [illegible] Indian [illegible] Indian [illegible] Indian

[illegible] Medicine (M.B. and Medicine).—J. Clarke, F. Herrmann Lobstein, A. Irvine Fortescue, G. Adam, M.A., F. Vallentin, W. Beeme, A. D. Davidson, M.A., F. W. Davidson, A. Dugard, M.A., J. Fairbairn, M.A., A. Flett, J. A. Gibb, J. S. Gray, M.A., J. D. Henderson, H. Hunter, A. Hutchison, M.A., H. M. Jamieson, N. Kennedy, M.A., W. W. J. Lawson, D. McKay, M.A., M. Macleod, C. G. Macmahon, W. M. Mcintosh, A. McKibbin, A. D. Pringle, J. Robertson, A. N. Ross, F. R. G. Russell, H. W. B. Ruxton, W. A. Smith, A. Wood.

First-class Honours. Second-class Honours.

Diploma in Public Health of Medicine (M.B. and Medicine).—[illegible] Cardno, M.A.

The following received the Diploma in Public Health:

L. J. Bruce, M.B., Ch.B. Aberd.; J. Macdonald, M.B., C.M. Edin.; G. Mitchell, M.B., Ch.B. Aberd.; W. R. Paine, M.B., Ch.B. Aberd.; C. A. Suvoong, M.A., M.B., Ch.B. Aberd.; A. Watt, M.B., Ch.B. Aberd.

CONJOINT BOARD IN SCOTLAND

THE quarterly examinations of the Conjoint Board of the Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Faculty of Physicians and Surgeons of Glasgow, held in Edinburgh, were concluded on April 11th, with the following results:

Second Examination (Five Years' Course).—D. Lotter Luther, A. Johnstone with distinction, C. Berry, C. K. Carroll, T. Mohan (with distinction), Maria S. Allen, D. J. Joubert, M. J. Hayes, C. A. O'Driscoll, E. J. Lumsden, G. Smith, E. S. Shiach, and J. du T. Malan.

Second Examination (Four Years' Course).—A. Mckendrick (with distinction), E. A. Williams (with distinction), H. H. Babington, J. H. Johnston (with distinction), R. W. Duncan, W. M. Chambers, A. P. O'Connell, J. B. N. Raphael-Tom, H. D. Stewart, K. W. Dani, J. T. Anderson, D. J. G. Ladford, H. M. Sturrock, H. C. Orrin, T. W. Faulkner, and L. L. N. Ghosh.

Two passed in Physiology.

Third Examination (Five Years' Course).—W. W. Dunlop (with distinction), J. Watson (with distinction), H. T. Simpson (with distinction), G. A. S. Hamilton, D. J. M. Legge, H. A. Pascoe (with distinctions), T. McL. Galloway (with distinction), W. Fleming, and J. E. Cox.

One passed in Pathology and one in Materia Medica.

Final Examination.—A. Rogers, A. S. McNeill, J. A. Tolmie, Marian T. Pool, J. C. Pickup, W. D. Yuille, H. A. Foy, P. C. Bharucha, E. O'Shaughnessy, A. H. Khan, G. S. Thadani, J. Cretin, Dora Mann, E. N. Jan, C. F. Coke, H. J. George, W. T. Clarke, G. W. Armstrong, A. C. J. La Frenais, and D. J. Lewis.

Three passed in Medicine and Therapeutics, 2 in Surgery and Surgical Anatomy, 3 in Midwifery, and 3 in Medical Jurisprudence.

One candidate passed the Second Examination (Four Years' Course) in the subject of Materia Medica.

CONJOINT BOARD IN IRELAND

CANDIDATES have passed the Preliminary Examination as undernoted:

T. N. Allman, J. J. Blake, F. Cassidy, D. F. Curran, H. P. Heuey, A. Humphreys, W. S. Johnston, A. R. Mallet, J. Moynihan, J. T. O'Boyle, M. C. O'Hara, F. E. Preston, B. Reilly, S. Robinson, Israel Scher, G. C. Sneyd, R. H. F. Taafe, M. Tobin, B. Wallace, F. Williamson, R. A. Wright.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have passed the Primary Examination, Part II, as undernoted:

Anatomy.—I. R. Fearn, Guy's Hospital; J. W. Featherstone, Guy's Hospital; T. S. Harrison, Manchester; R. J. W. McKane, Leeds; A. W. C. Miller, Leeds; F. B. O'Dowd, Birmingham; H. V. White, Manchester; F. H. P. Wills, St. Mary's Hospital, R. P. Wylde, Manchester.

Physiology.—A. C. Dickson, Guy's Hospital; I. R. Fearn, Guy's Hospital; J. C. Fletcher, Royal Free Hospital; J. W. Featherstone, Guy's Hospital; W. J. G. Gayton, London Hospital; T. S. Harrison, Manchester; A. W. C. Miller, Leeds; F. B. O'Dowd, Birmingham; H. V. White, Manchester; F. H. P. Wills, St. Mary's Hospital.

The following candidates have passed the Primary Examination, Part I, as undernoted:

Anatomy.—G. F. C. Harvey, London Hospital; E. A. Mordaunt, Royal Free Hospital.

Chemistry.—D. M. Hunt, London Hospital; E. A. Mordaunt, Royal Free Hospital; I. Pulteney, Royal Free Hospital; P. Rowlands, Glasgow; C. S. Spencer, Manchester; M. V. Webb, Royal Free Hospital.

Materia Medica and Pharmacy.—J. C. Fletcher, Royal Free Hospital, G. P. K. Grey, Middlesex Hospital.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

The list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR CHILDREN.—Resident Surgical Officer. Salary, £100 per annum, rising to £150.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-Surgeon. Salary, £50 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Pathologist. Salary about £150 per annum, and fees.

CUPAR: FIFE DISTRICT ASYLUM.—Junior Assistant Medical Officer, resident. Salary, £140 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—1 House-Physician, 1 House-Surgeon. Both resident. Salary, £50 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary, £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House Surgeon; resident. Salary, £20 for six months.

LEEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Resident House-Surgeon. Salary at the rate of £100 per annum.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Medical Officer. Salary, £25 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION, ETC., Ryde.—Assistant Physician.

MIDDLESEX HOSPITAL.—Four Senior Demonstrators in the Department of Experimental Pathology and Cancer Research. Salaries £100 each, and £50 per annum respectively.

NEWARK AND DISTRICT HOSPITAL.—House Surgeon, resident. Salary, £— per annum.

NORFOLK AND NORWICH HOSPITAL.—Assistant House Surgeon. Appointment for six months. Honorarium, £—.

ROBBEN ISLAND LUNATIC AND LEPER ASYLUM.—Senior Medical Officer. Salary £600 per annum. Second Assistant Medical Officer. Salary £—, rising to £350 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Four Examinerships in Anatomy and Physiology, Secretary to the Board of Examiners, Assistant Secretary, Curator of the Museum, Demonstrator of Anatomy, Lecturer on Physiology, Lecturer on Comparative Anatomy, Lecturer on Materia Medica, Examiner in Dental Surgery, Examiner in Pathology, Examiner in Physiology, Examiner in Comparative Anatomy, Examiner in Materia Medica and Pharmacy, Examiner in Dental Anatomy and Physiology

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

[illegible]

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Phoenix writes: I am treating a patient for obesity. Can I recommend eggs in any form, or are they fattening?

The Prevention of Congenital Hydrocephalus.

L. R. writes: A healthy young woman had one normal child. About two years afterwards she had another hydrocephalic, and twelve months later another hydrocephalic. She is again pregnant since February 1st, and wants me to prevent a recurrence of the last two catastrophes. The only abnormality I can find is in the urine, the reaction of which is perfectly neutral and the specific gravity 1·01.

Treatment of the Chlorodyne Habit.

W. A. (Scotland) writes: A widow, who takes chlorodyne, was in a home where her brother paid for a week for her, but the authorities turned her out as she was so ill and disturbing. Her brother is a poor man and she is constantly getting him into debt. Is there any public institution where she could be placed or detained and made to do some work?

*** There does not seem to be any institution into which such a case would be taken, unless she agreed to become a voluntary patient of an asylum. If she were willing, which is doubtful, the matter might be arranged through the respective poor-law authorities, and a small allowance would probably have to be paid, according to the friend's ability. If she has proved herself unsuitable for a private home she would not be taken into any of the general hospitals.

Treatment of Morning Headache.

[illegible]

ANSWERS.

A. P.—[illegible]

St. M.—[illegible]

Prevention of Poisoning by Insecticides.

[illegible] Veterinary Department, [illegible]

Irritation from Paint.

[illegible]

LETTERS, NOTES, Etc.

Medical Witnesses' Fees.

The address of Mr. Fred W. Lawrence, Honorary Secretary United Kingdom Police Surgeons' Association whose letter on Medical Witnesses' Fees was published in the British Medical Journal of April 9th, p. [illegible], is 40, Knight Street, Liverpool.

A Warning.

We have received the following communication from the *New York Medical Journal*: We are informed that a young man representing himself as being a correspondent for the *New York Medical Journal* and giving the name of Dr. De Quett, has called upon physicians in the United Kingdom as a representative of this journal. We wish to acquaint our readers with the fact that no such person is connected with the *New York Medical Journal*, and that at the present time we have no travelling representatives in the United Kingdom.

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Anon.; Mr. Herbert A. Allingham, Montreux; Mr. Walter Ames, M.B., Glasgow. **B** Mr. L. A. Bidwell, London; Dr. W. Bain, London; Boots Limited, Manager of, London; Dr. C. W. Bayley Balston; Dr. F. G. Bashford, Plymouth; Dr. A. S. Baynard, St. Albans; H. Barrett, M.B., Derby; Dr. L. A. Bause, Hull; Mr. J. K. Bartlett, London; C. R. J. Cassar, M.B., Newport, Mon.; Mr. R. M. Cranston, Kendal; Mr. A. Cornett, London; Dr. W. H. Channell, Montreux; J. G. Cooke, M.B., Londonderry; Dr. G. Creighton, London; Dr. E. Cautley, London. **D** Dr. R. Dutton, London; Devon, Messrs. Down Bros., London; Director-General of Medical Department of the Admiralty, London. **E** Mr. J. Edwards, Manchester; Mr. H. E. ... Bass, Bagnor; F. R. Mr. G. V. Eales Turgate. **F** Mrs. B. Fenwick, London; Mr. G. A. Fennell, Nottingham; F. J. G. W. E. St. L. Finn, M.B., Kinsale; Hon. Mr. E. F. Francis, Chittagong; E. E. Fothergill, M.B., London; Dr. ... H. M. Fortescue, M.B., Dartmouth. **G** Dr. A. Green, Norwich; Dr. J. H. Graham, London; Dr. C. G. Gray, Harrogate. **H** Mr. H. M. H. J. Mann; Dr. G. A. Heron, London; W. Hunter, M.B., Hong Kong; Mr. A. E. E. Hudson, London; Mr. F. Harris, Bicester; Dr. T. A. Hayes, Manchester; Hon. Sydney H. ... Hall, London. **I** W. Inman, M.B., Sugarloaf. **J** J. T. Dr. G. P. Johnson, Stowon-the-Wold; Dr. A. James, London. **K** Mr. T. G. Kerr, London; M. A. Key, M.B., M.B., Southsea. **L** Mr. F. W. Lewarne, Liverpool; Leicester. **M** Mr. J. J. de Z. Marais, London; Dr. R. Marton, London; R. G. A. Mercier, M.B., Leeds; Dr. J. Mackenzie, Burnley; J. T. J. Morgans, M.B., Birmingham; Mr. F. H. Mayo, Wigan; A. A. McNa..., M.B., Lewis; Mr. J. D. Mackenzie, Battersea; Messrs. J. M. ... & Co., London; Medical Publishing Co. Dr. D. MacIlwain, London; M.D. Cantab.; Mr. M. A. Mossdier, Burley. **N** Mr. G. A. Nunn, London; "New York Medical Journal" Manager of, New York; N. P. K. Dr. D. Newman, Glasgow. **O** Ophthalmological Society, Secretary of, London. **P** Dr. W. M. Partham, Ipswich; Mr. C. H. W. Parsons, Wolverhampton; S. A. Powell, M.B., Bombay; Mr. F. P. Phelp, London; Dr. W. A. Potts, Birmingham; Phoenix; Cadet, A. F. H. Pines, I.M.S., London. **R** Mr. A. T. Ross, Newton Heath; Dr. R. E. Rentoul, Liverpool. **S** S.G.S.; Dr. G. A. Sutherland, London; Dr. J. C. Seaton, London; Dr. D. W. Samways, Montreux; Dr. S. Sutherland, Lytes; Mr. J. Smyth, Croydon; Dr. C. S. Sherrington, Liverpool; R. H. Shaw, M.B., Great Yarmouth; K. S. Sturrs, M.B., Chesterfield; Dr. G. C. Saundby, Liverpool; Dr. W. ... Sinclair, Manchester. **T** W. A. Taylor, M.B., Perth; Mr. T. Treasurer, Bristol; Mr. J. Tabo Thomas, Trowbridge; Dr. P. Tresilian, Falmouth; G. G. Turner, M.B., Newcastle-on-Tyne; Dr. E. C. Taylor, London. **V** Veritas; Vertumnus. **W** Messrs. Wills, Limited, London; Dr. J. E. W. Ewerson, Vienna; Dr. S. M. Whitaker, Leicester; Mr. J. T. Williams, Barrow-in-Furness; Dr. N. West, London; Dr. R. Wybauw, Spa; W. H. C. S.; J. W. T. Warner, M.B., London.

BOOKS, Etc., RECEIVED.

[illegible]

*** Reference books [illegible]

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

[illegible]

Demonstration

ON

RECENT ELECTRO-THERAPEUTIC WORK,

WITH SPECIAL REFERENCE TO LUPUS, RODENT ULCER, AND MALIGNANT DISEASE,

Given before Members of the Glasgow Medico-Chirurgical Society this Session, being the Third of a Series.

By JOHN MACINTYRE, M.B., F.R.S.E., F.R.M.S.,

Surgeon for Diseases of the Nose and Throat, Glasgow Royal Infirmary.

During the past three sessions I have had the honour of giving a demonstration to the members of the Glasgow Medico-Chirurgical Society, and upon each occasion have tried to convey some idea of the yearly progress which has been made in the treatment of lupus, rodent ulcer, and malignant disease. It is exceedingly difficult at any time to express an opinion upon methods which are still under consideration, involving as this does some attempt at comparative value between the different agents employed. While admitting this difficulty, and being fully conscious of the responsibility, I venture to give this demonstration for certain reasons; amongst others, the large number of workers engaged in experimental research in all countries, the conflicting reports which have been published, the importance of the subject, and last but not least, the interpretations of the meaning of results which have sometimes been misleading even to the extent of raising false hopes in those suffering from the severer forms of malignant disease.

In order to make my meaning as clear as possible, I shall divide the work in the following way: First, the theories involved will be considered; secondly, reference will be made to improvement in apparatus; and thirdly, the clinical aspect of the subject will be discussed.

Theory.

In my previous demonstrations I have generally thrown some magic lantern slides on the screen, which were intended to represent the ordinary spectrum of light, then by way of comparison others more of a diagrammatic nature, such as those published in the British Medical Journal of June 6th, 1903. In these latter the relationship which exists between most of the forces we are about to consider could be seen. All these were merely intended to show that one could in a general way indicate a series of forces beginning with the so-called electric waves on the one hand, and passing successively through the heat, light, ultra-violet waves, and lastly the x rays, that is to say assuming them to be transverse waves in ether. The changes in thought brought about by the recent experiments with radium naturally cause us to reconsider some of the views which formerly, for practical purposes at least, were considered quite acceptable. For example, until very recently it has been customary to describe all these as transverse waves in ether, but, to quote Sir Oliver Lodge, every electric current is now believed to be a procession or torrent of negatively charged particles called electrons. Whether, therefore, we now accept the old classification or not, or whatever change our ideas may have recently undergone, it is quite evident that all the forces between these two extremes were not known, and, as has frequently been said when referring to the diagrammatic spectrum, certain gaps had to be filled in. Thus in the diagram above referred to, and published in this Journal, a space was found for such rays as were known under the term Becquerel. Within the last year our ideas of these have expanded, and it is now believed that these are of three different kinds, alpha, beta, and gamma rays, the first of them probably being the only new ones. These three are given off by radium, whilst the alpha rays have as yet only been obtained from polonium, a fact which may become more important for therapeutic purposes.

As I have hinted, the advantages of the above-mentioned diagrammatic spectra may become less, although whatever the result be we must in some way or other group the different forces. Since last year two rays have been announced which are new to us: the alpha rays, which I shall consider when speaking of radium; the n rays, and these may here be considered.

The history of the n rays are exceedingly interesting; and M. Blondlot, in a series of papers (Paris Academy of Science, nine or ten in number during the year 1903), gave the results of a large number of experiments from the physical aspect mainly. They were first detected amongst other rays coming from an excited x-ray tube, but it was soon discovered that they exist in sunlight and also in electric, gas, and other sources of illumination. Further, they have been discovered in substances such as hardened steel or other metals under severe molecular strain. The discoverer has shown that they are not all of one kind, and he has distinguished n_1 rays. In some respects the latter differ from the former, producing reverse phenomena when applied to substances which the ordinary n rays would increase in brightness. Both rays also seem to produce different results according to the manner or direction in which they fall upon the indicator. At first these n waves were supposed to be placed somewhere in the spectrum below the heat and near to the electric waves, but the most recent investigations would seem to show that they are more likely to be related to those near the violet rays, their mean wave length being something like one-tenth that of extreme violet light. The rays pass easily through aluminium, black paper, wood, and saline watery solutions, but they are arrested by water themselves. They are capable of reflection, refraction, and polarization, and the index of refraction has been determined by means of aluminium prisms. Another curious property is to be noted in the fact that there seems to be a storage or accumulation of the rays in some substances. They are said to cause increase in the length of an electric spark, increased phosphorescence in many substances, and M. Blondlot has described a photographic method of recording changes in the electrical phenomena and brightness of phosphorescence. Another curious statement made about the n rays is the power to increase visual acuteness, and the original discoverer was led to believe that they were capable of acting upon the retina. Other workers have confirmed and added to Blondlot's observations. Bichat has shown that the various n rays act differently when bodies are placed in their path, and he has shown a possibility of selective absorption by different metals. Macé de Lépinay thinks during musical vibration in such instruments as the tuning-fork or siren these rays are given out apart from the molecular strain. Jegou finds that they are given out during the passage of an electric current through wire. Charpentier seems to think they may be transmitted through a metal wire and excite phosphorescence upon a suitable screen at the other end of it, but he considers these are probably not ordinary n rays, and Bichat thinks that the conduction through a wire is much the same as that of light waves passed through a curved glass rod.

Professor Charpentier's studies and papers have increased medical interest in the physiology of the subject. Briefly summarized, he says that rays similar to the Blondlot rays are given out from the human body during muscular and nervous excitement. The rays produced resemble the Blondlot rays inasmuch as they increase phosphorescence, the length of the spark of a coil, the passage through certain solid bodies, and the reflexion and refraction and index of the latter seems to be the same as the n rays. There are various devices in the form of screens for demonstrating their presence. In a letter from Dr. Charpentier he writes to me saying that as a rule most observers prefer absolute darkness, others a relative darkness only, and that the screen should be suitably excited first of all in order to see if there is increase of phosphorescence before or during the application of the rays. He is confident that the rays are not the result of heat, because they develop in a few seconds, whereas the effect of heat takes much longer, and moreover he has satisfied himself that such waves are emitted from animals such as the frog, which may be kept at a temperature from 0° to 10° below that of air. He has studied their action upon phosphorence of bacteria, which is said to be augmented. Not only are they found in the region of muscles during contraction, but compression of nerves gives the best results, and he selects certain regions, such as the spinal cord over the cervical and lumbar region, for special demonstration. Not only so, but he declares that over central convolutions such as Broca's augmentation takes place while one is speaking. Similar statements are made about other centres in the brain. Further, he declares that mental effect may be observed by others, and the experimenter himself, inasmuch as this causes the fluorescence to augment upon the screen. Lastly, he declares that the rays are complex in nature, and that difference may be got by filtration through different metals.

While many have been sceptical, there are others who have had no hesitation in confirming Charpentier's results. Hence we have Dr. Walsham and Leslie Miller in London stating

that they have been able to pass the rays through books and to discriminate between the result obtained when the muscle is in action and when it rests by the physical results or changes produced on the photographic plate.

From what has been said it will be seen that all investigators do not accept Charpentier's conclusions, and a great deal of sharp criticism and scepticism has been directed in the physical world to Blondlot's original experiments. Many experimenters, such as Schenk, Burk, McKendrick, and Campbell Swinton, have not been able to confirm the results of Charpentier. The last-named states that where he has been able to detect any such phenomena these are explained by other causes than *n* rays. Lummer of Berlin thinks it is a case of subjective phenomena, or, as he would have it, objective phenomena in the retina. McKendrick, assisted by an able staff of observers, cannot confirm Charpentier's results, and the explanation, he asks, may it to some extent be the result of a change in accommodation. He makes the suggestion that the mental condition of some observers may result in a reaction on the intrinsic muscles of the eye. While these suggestions and objections are interesting, what are we to make of the statement about photographic results? Walsham and Leslie Miller maintain that the difference in the brightness of a screen due to some force emitted during muscular contraction can be detected by the changes upon a photographic film. Having made a large number of screens and attempted to confirm most of the phenomena above described, and having had great difficulty in verifying some of the statements, I was exceedingly indebted to Professor Charpentier for a private communication and screen made by himself. Gaiffe of Paris has also sent me a number of screens, and likewise Leslie Miller of London. Professor Charpentier's letter to me leaves no doubt whatever as to the certainty in his mind of the facts above referred to, and after the demonstration I shall be pleased if some of you will attempt to confirm what has been said by trying the experiments yourself.

Whatever the outcome of these different opinions may be as to the cause or true value of the *n* rays, they are of sufficient interest to us as showing that there are many more forces or rays yet to be discovered, or, as has been said above, if we attempt to represent them diagrammatically, there are many gaps to be filled in; but many physicists and other investigators are evidently doing their best to discover these, and in time the whole series may be at our disposal.

It may not be out of place here in a general way to classify or indicate the different forces or rays, or whatever we may be pleased to call them, which are now being used in connexion with electro-therapeutics, the methods of demonstrating these, and the agents at our disposal for producing them. There are various forms of electrical or possibly cathodal rays the alpha rays, which are new to us: the *x* rays, which many believe to be identical or similar to the gamma rays; heat, light, ultra-violet, and, it may be in the future, *n* rays. As we shall be discussing the question of apparatus, it is important to notice that the physician or surgeon has to consider a great many different methods or agents for producing these. Thus it may be matter in the form of radium and polonium, or it may be electrical agencies produced by the ordinary continuous battery or thermopyle, or obtained from the main or alternating or continuous currents altered by passing through an intermittent coil, an alternating dynamo, some form of Tesla apparatus or high-frequency accompanied by the use of the alternating dynamo. In addition there may be the changes in condition wrought in some of these by means of the Leyden jar, the static machine, the vacuum tube; and, lastly, the ordinary mains may be the source of energy.

All these agents may be made manifest to us by their physical properties outside the body, and under this heading we speak of the chemical, photographic, fluorescent, electroscopic and illuminative properties. Further, it is possible to obtain results upon living tissues such as micro-organic life, and hence we have the bactericidal aspect to consider. On the other hand, some of the most important properties are only seen when they are applied to the living tissues themselves, vegetable or animal, and hence we have to add the physiological, it may be the pathological, so well known to us in the form of reaction or burns, and lastly the therapeutic results.

The almost limitless range of study begins to dawn upon us when we take into consideration any single property above mentioned. Many of these agents or forces, or rays, have properties which are common to others, yet some give certain results which are entirely absent in others. Again where different agents possess similar properties they may vary in degree. Thus a photographic plate may be more influenced by one agent than by another. Some of these agents, such as some of the rays from radium, discharge an electroscope, but heat, visible light, will not, and ultra-violet only does it indirectly. The bactericidal properties vary. Thus the ultra-violet waves, or some of those produced by radium, are strongly bactericidal, whilst others, such as the *x* rays, are doubtfully so. The importance of this from the therapeutic standpoint will be seen further on in this paper, because the same disease—say lupus—may be attacked, as Finsen does, basing his theory entirely upon the bactericidal effect upon the organisms in the tissues, while a similar result may be obtained by *x* rays or other agents which many experimenters believe cannot have any influence upon the pathogenic organisms unless indirectly through the agency of these forces which belong to the living tissues themselves.

Speaking from the theoretical standpoint, there can be no doubt that great results may be expected from the light which during the past year has been thrown upon many questions hitherto unexplained, and for this information we are largely indebted to the researches in connexion with radium. Whatever theoretical value this agent may have, we are in all probability destined to learn much about cathodal rays and *x* rays produced in the ordinary way by means of the static machine, transformer, or coil. For example, no question is of greater importance than the conditions of an ordinary *x*-ray tube, however, excited, as can easily be understood from the disastrous results which have followed from the application of *x* rays for photographic or other purposes. In fact, most of the phenomena taking place inside the *x*-ray tube have hitherto been very imperfectly understood. Let us take one example. If the cathodal stream be really a torrent of electrons travelling at a tremendous speed, the production of *x* rays, which are themselves probably not particles but waves or pulses in ether, can be much better understood as a result of the terrific impact against the anticathode. But, further, may these electrons not escape from the *x*-ray tube through the glass itself? That is a possibility which I have long had in view. We know that soft tubes are very apt to cause burns, and most physicists now look on the beta rays of radium as likely to correspond to the cathodal stream in the *x*-ray tube. In my paper to the BRITISH MEDICAL JOURNAL of December 12th, 1903, I gave my reasons for suggesting that most likely it was the beta rays from radium which caused the well known and destructive dermatitis with which we are all familiar, and not the alpha or the gamma rays. So much was I impressed with this possibility that I made a considerable number of experiments, with a view to distinguishing whether beta rays or cathodal stream could be detected in front of the ordinary *x*-ray bulb. In these experiments I was much assisted by Lord Blythswood and his assistant, Mr. H. S. Allen, but up till now the photographic results have been negative. The same attempts at magnetic deflection of the cathode rays in front of the tube were tried, as have been found successful in deflecting the negatively-charged beta rays which come from radium. With radium it is easy to demonstrate these phenomena photographically, but, as I have said, it is exceedingly difficult to get a similar result with the *x*-ray tube. However, we know that if one holds a charged electroscope near the bulb effects by way of discharging it will be got which would rather point to the escape of electrons through the glass. If this be definitely proved it would throw much light upon the burns or destructive effects known as dermatitis. Further, the same theories would explain largely the secondary and obscure rays which are got from the sides of the tube and elsewhere, and which to a certain extent destroy and hinder the fine detail which a photograph when it is mostly due to those *x* rays that come from the anticathode itself. And, lastly, there is the possibility that the course of the positively-charged ions which are passing in the opposite direction to the cathodal stream inside the bulb will be better understood, and hence greater exactitude in the construction of these, as well as the arrangements for controlling the vacuum, may be expected.

APPARATUS.

During the past year considerable improvement in apparatus has taken place, and this is of great importance. It is necessary to have every part of our apparatus under control of the operator, because he may require constant variations in any force, and the amount of required energy varies in degree and, it may be, in the same patient at

different times. Many operators have suffered from the fact that the apparatus placed in their hands was not at all suitable for constant and prolonged daily work. Hence it is that no part of our armamentarium can be overlooked. A constant source of trouble, for example, was the arranging and the fitting together of the different parts, and for this purpose switchboards were necessary. One of the best I know is that made by Trotter, of Glasgow, and the value of this particular form lies in the fact that, in addition to proper arrangements for measuring the voltage and ampèrage of current, the operator has the choice of a great variation in the amount of current both for his coil and motor interrupter. Great improvement has also taken place in the construction of coils, the most important points being greater insulation, variations in self-induction, and means of regulating the condensers.

To those who prefer the influence machine it is interesting to know that improvements in the Voss type have been recorded by Schall and Gebbert. Gaiffe's latest productions for mechanical construction and great simplicity are specially to be noted. Where there is a difficulty in exciting the plates, owing to the damp atmosphere or other conditions, the Wagner micro-plate principle has proved a great boon, and some of their latest instruments, for mechanical construction and attention to details, would be difficult to surpass.

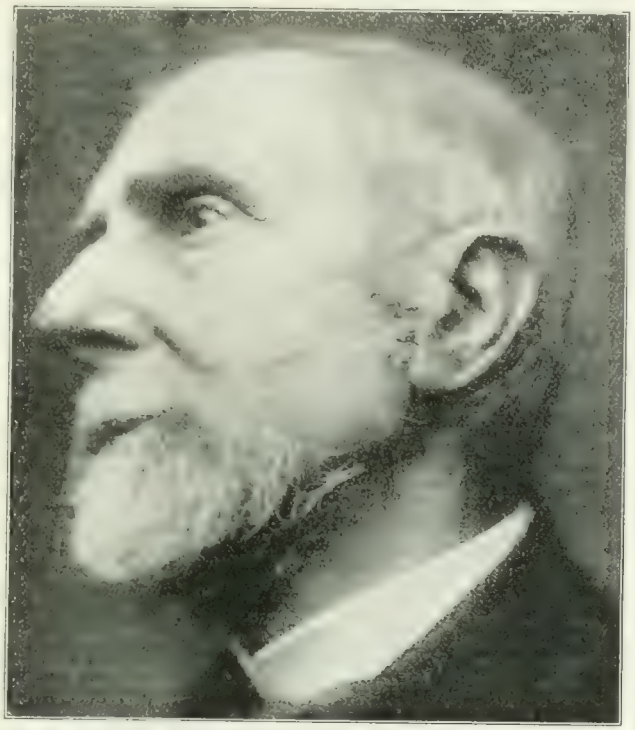


Fig. 1.—Case of epithelioma of nose reported in the British Medical Journal of June 6th, 1903; radium failed to effect cure, result after 2 sittings' x ray treatment

Improvements in interrupters have also been made. Isenthal has a new one called the film brake; Max Kohl and others have improved theirs; Wilkins has produced a good mechanical brake with rotary wheels, the advantage being that there is no mercury used; and the Sanitas Electrical Company has improved the mercury-jet interrupter (Wodals). Simple and in many cases efficient and economical forms of rectifiers for those who have the alternating current have been introduced, Woden's by modification of the Hewitt vapour lamp, and Chaplin lately showed a cheap and good instrument at one of the meetings of the Roentgen Society.

Many excellent forms of tubes have of late been introduced, and amongst those which I have found of value in electro-therapeutics are Siemens's and Halske's and Hirschmann's of Berlin, which will stand the strongest effects of most coils. Queen and Co. have produced most beautifully designed and finished tubes for the same purpose. Cox is also supplying excellent adjustable tubes. Some trouble was experienced in using Cossor's tubes, which he has produced specially for therapeutic work, and the great value of which is to obviate the necessity of masks to protect the surrounding tissues. For the last two years I have tried glass tubes made of English glass, and containing a large quantity of lead for the same purpose. Dean has patented a similar arrangement within the last year, and Cox, at the suggestion of Dr. Martin of Cardiff, is advertising a similar contrivance.

Perhaps the most interesting developments of all have taken place in the construction of machines for high-frequency currents. Hirschmann, Dean, Isenthal, Cox, and others have made many improvements, and Dean has a large double resonator which is highly valued by many operators. Other makers, however, such as Leeds and Northup, have produced a new form of apparatus to which my attention has been called by Dr. Lenard of Philadelphia. The principle of this machine, like those which I am about to describe, is not that of the ordinary interrupter coil. My own experience has led me to think that the operator should have a greater quantity of energy than hitherto at his disposal, to be used with care, and only when required. Hence I made arrangements where, by means of oil condensers, I get at least 600 to 800 milliampères.

An old method, but under new conditions, has appeared under the name of Koch's patent, and is sold in this country by Schall. The advantages claimed for the system are greater than when the currents are produced from spark coils with interrupters. The apparatus consists of a switchboard with choking coil, rheostats for the motor and transformer, with the usual accessories and instruments for measuring the currents. The transformer is wound like an ordinary spark coil and greater insulation is required. In addition, a rectifier is employed, so that the discharge from the tubes is uni-directional, and this part of the arrangement consists of a small synchronous alternating current. This is not required when being used for high-frequency currents however. The alternating current is employed in this system, and when the continuous current is only at the disposal of the operator a dynamo is introduced. Messrs. Gaiffe, of Paris, have, however, also introduced a transformer, using the alternating current, but they require no rectifier. They claim that any possible danger to the operator or patient is entirely removed by properly constructed and insulated cases. As may be expected, the principle lies in using a step up-transformer. The current may may be used so as to be in one direction only. There is little or no noise, great continuity of spark, steady illumination. They claim that the effleuves from this apparatus are greater than any other, and what is as important probably, the milliampèrage can easily be raised to 1,000 or more at will. It is also said the dosage can be regulated and measured, because the milliampèrage and voltage to the current in the tube can be accurately measured. The possibility of doing away with the troublesome interrupter will be a great gain, but I am doubtful, while the new apparatus may

Fig. 2.—[illegible] treated with radium [illegible] Lesions

be of great use in high-frequency currents, it by no means generally and more particularly rapid or instantaneous photography any of these will compete with the results obtained when a strong coil and a powerful interrupter like the Wehnelt is used. In all work of this kind great quantity of energy is the essential thing, a principle which I first laid down as long ago as to the Royal Society of Edinburgh, and nothing has caused me to change this view whether we apply it to photographic or therapeutic work.

Radium.

Everything to be said of the last agent, radium, and the forces to be obtained from it, is included in the history of its discovery and the researches in connexion with it since that event. Most of the physical properties will be found in my paper to the British Medical Journal of December 12th, 1903. Since then, however, our knowledge has increased, and I intend, therefore, to demonstrate most of the phenomena by means of which we are able to distinguish it. First of all, let me say that good specimens for therapeutic purposes are even more difficult to find than six months ago. I have brought here a large number varying in radio-activity from 40 units to 2,400,000, measured by means of Curie's instruments. The different effects of these from the physical aspect should always first be tested when a specimen is obtained, and for this reason I am showing you the effects of different more or less pure salts upon barium platinocyanide, potassium platinocyanide, Willemite screens. I consider the test of induced radio-activity upon sulphide of zinc screens of great importance, and likewise the penetration of a given specimen through wood and different metals, and these things I will now show you. Another test of these specimens, the most delicate of all, will be demonstrated by means of the magic lantern, namely, the discharge of an electro-condenser.

Fig. 1.—Lapse, leaving it applied

For therapeutic purposes it is important that we should refer particularly to the alpha rays, which may be small particles of helium, each weighing about 1 per cent. of the hydrogen atom, and which are calculated to travel at least at the rate of 20,000,000 metres per second. Now, the important thing to notice is the fact that they are easily stopped by air, thin layers of substances, such as mica, hence they are not likely to be the active agent in most of our therapeutic experiments. They discharge a condenser are positively charged, and strong magnets cause deviation of them. Photographs of this phenomenon I have brought with me, and will show upon the screen. The beta rays are of still greater interest to us, because experiments have been made to confirm the view expressed above that these are probably the strongest agent for therapeutic purposes. They are much smaller than the alpha particles, travel relatively at 200,000,000 metres per second, are negatively charged, easily deflected by the proper magnetic appliances, but what is most important from our standpoint is that they penetrate most substances, the human body by [illegible] They are possibly emitted by the alpha rays as [illegible] Since the past I referred to above [illegible] more about what he terms [illegible]

ment's about them possess a therapeutic value, let me sum it up in the following way. Rutherford and Soddy, who by experiments, got something luminous, which they were able to collect. This was found to be a gas, inasmuch as it could be confined. Now Ramsay had long ago found helium in pitchblende, and he and Soddy collected this gas, removing the oxygen and hydrogen chemically. The gas which remained contained carbon dioxide, and this was frozen out by [illegible] and the resulting gas gave a spectrum corresponding to that of helium. This element is itself inert. It is not, however, to be found in radium, hence it must have developed. These experiments have given rise to all the statements bearing upon the splitting up of elements into simpler ones. The results from our standpoint are important, because it has been suggested that inhalations of radium or thorium may be used as inhalations in tuberculosis and other affections of the lungs. The apparatus for this I am now showing you in three different forms, one designed by myself, and the other supplied by Mr. Isenthal, and at present experiments are being conducted on these lines in the Royal Infirmary here.

There is nothing of great moment to be added to the physiological and therapeutic effects of radium referred to in my last paper, such as burns, the destruction of lower animals, and the effects upon bacteria are still under consideration. Lord Blythswood has discovered the radio-active principles in Bath waters, and the Hon. Mr. Strutt has demonstrated the presence of radium itself. The question as to the possible difference between waters obtained direct from the spas and those preserved being due to the presence of such conditions in the one case and lost in the other, may here be noted.

In my last paper I gave the results obtained up till that date by a large number of workers in this country and on the Continent, and there would seem to be no doubt further experiment shows that some of the rays from radium possess therapeutic value. Moreover, the fact that it can so easily be introduced into cavities, and that it is simply applied, would fain lead us to hope that it would prove of greater value than has been found to be the case in the result so far revealed. As yet in my own experience, for reasons mentioned already in this paper, I have not likely continue to dispense any of the agents we have been referring to. In my last paper I described a case in which radium had failed after a very fair trial, and this is reproduced here with a successful result after treatment with X rays (fig. 1). There is another instrument applying radium to which I shall now refer. It has been suggested that it might be possible to introduce the agent in small quantities to the interior of deep-seated tumours, and with this object I made the following arrangement. An ordinary gold cannula was planned into the tumour by means of a trocar, in combination with a slight cavity at the end and a suitable cap to fit, so as to contain the small quantity of radium, was pushed through the cannula and left to act upon the tissues. By this method [illegible] and the great results which are brought to bear upon the parts. The case is one of carcinoma of the neck, quite inoperable, and it has now been [illegible] in the tissues (fig. 2). So far the result has been [illegible] of the mass external to the cannula. What the ultimate result may be I cannot say, but I will [illegible]

Personal Account (Concluded).

While regretting [illegible] the following [illegible] I [illegible] the first case to the question of radium. In

the first place, there can be no doubt that many workers have shown that therapeutic results have been got in cases of lupus and rodent ulcer; but the use of radium for ordinary purposes, however, the agent is not in the meantime likely to displace those which I am about to mention. Whether we attribute this to the fact that the amount of energy at our disposal, even with a fairly large quantity of radium, does not anything like represent the energy to be got by the Finsen lamp or spark coil, or whether the specimens used have not been of sufficiently great radio-activity or not, the fact remains as has been stated. Many workers are now engaged in experiment, however, and we must wait for further results before attempting any comparison. For introduction into cavities it, of course, possesses an advantage.

Apart from radium we have the light treatment, high-frequency currents, and *x* rays to consider and compare. I intend to limit the discussion meantime to the application of these forces in the treatment of lupus, rodent ulcer, and malignant disease, as where one of these agents has been employed with benefit the other two can also be shown to have had some success. I shall first of all take up Finsen's method—the oldest. In order that I may be as just as possible in my criticisms to Finsen himself, let me first of all say that no one who has read his most recent work on the subject, and who has seen the magnificent results represented in the large series of photographs reproduced in his book, can fail to testify to the success of his treatment. I shall now throw upon the screen twelve photographs of these in order that you may judge of the results for yourselves. Unquestionably the main drawback in this treatment is the long time required to effect a cure. Notwithstanding all this, there is a tendency on the part of many to question any supreme advantage in this method of treatment over that of *x* rays. I find that in a large number of instances in this country where Finsen's treatment has been tried there is a great disposition to trust more to *x* rays, and sometimes to high-frequency currents, than to the arc light. Further, any one reading the reports of different societies particularly where discussions have taken place upon skin diseases will see that the results in many hands have not been so successful as in those of Finsen himself. Another strong feature to be noted is the fact that with a smaller lamp such as the Lortet-Gounod the results have not been as good as with the large lamps. On this point it may be of interest to quote a communication which I have had from Professor Finsen himself. He maintains that his results are better than others because of his large lamps, and that the only advantage of the small ones is cheapness. He gives longer sittings, and from all reports I think it should be added he gives greater attention to the details than some operators. For a single patient lamp he tells me that the Finsen-Reyn is almost as good as the large one. This opinion, when carefully looked at, simply means an expression of comparative merit between different apparatus employed for the production of light and the manner in which they are used, but it gives no opportunity of comparing the light treatment with others, such as the *x* rays. A most serious difficulty in connexion with his method will be found in an interesting paper by Dr. Hans B. Christianssen in the *Journal of Laryngology* for October last. This gentleman has been appointed oto-laryngologist at the Finsen Light Institute, and the necessity for such an expert will be seen when it is stated that he found three-fourths of a thousand lupus patients treated during the past six years to be suffering from lupus vulgaris of the mucous membranes. Now, if this lupus should be anywhere near the orifice it is possible to apply Finsen's light, but the author says the light treatment can be used only in lupus of the mucous membranes of the anterior parts of the nose or mouth, and if not they are forced at Finsen's Institute to resort to other means of treatment. I am bound to confess to a certain amount of disappointment in reading his paper to find that the galvano-cautery is said to be their chief resource.

No reference is made to any attempt by Dr. Christianssen or others to apply high-frequency or *x* rays. In such hands and under the direction of Finsen himself most favourable comparative results might have been obtained. These two agents may have been tried, but the author does not say so. It seems rather strange that, whenever the disease passes beyond the region where Finsen's apparatus can be applied, he and his assistants should resort to the galvano-cautery, iodine, and other solutions—or in plain words to methods of treatment which were in vogue long before any of the newer methods. This is all the more extraordinary when we consider his own statement that three-fourths of the cases had disease in the mucous membranes of the nose and throat, and this statement is still more striking when we consider that other operators have had a considerable amount of success with *x* rays and high-frequency in the nasal and buccal cavities.

Fig. 4.—Lupus after treatment with *x* rays.

I have made inquiry at the Glasgow Royal Infirmary, and find my colleagues in the electrical department are employing Finsen's light treatment less frequently than the other, and, as far as can be judged, with no appreciable loss or disadvantage to the patients. I have often used the light treatment, and in cases where the disease passed from the nares on to the face have had experience of both regions, internal and external. Perhaps for the reason that most of my work has been in a special department of surgery, and the most of the cases under my personal observation being lupus of the nose and throat, I have come to the conclusion that, for my purpose at least, the *x* rays are more useful. Sometimes the static machine or high-frequency currents have been selected instead.

When we come to the question of high-frequency currents, it seems difficult to get as definite statements as are quoted above when speaking of light treatment. I am quite aware that many experimenters, many of whom probably have only one agent at their disposal, find high-frequency of great use in lupus and rodent ulcer. It is not to be forgotten, moreover, that high-frequency currents have been more in evidence before the public, at least in connexion with experimental research, in the therapeutics of malignant disease. Judging from these workers with whom I have come in personal contact, I should say that the most striking results in lupus, rodent ulcer, and superficial epithelioma have so far been obtained by means of the excited *x*-ray tube. Where an operator has asked my opinion as to the most useful of these agents in these three affections, and where he has only been desirous of selecting one, I have of late suggested *x* rays in preference to the other two. On the other hand, in hospitals and in fully-equipped private laboratories, remembering, as one must do, the magnificent results of Finsen above referred to, and the claims of those working with high-frepuency apparatus, there is no reason for thinking that further experience can be dispensed with. Much requires to be done yet before any truly valuable comparison can be attempted. I will not here attempt to compare these three methods with surgical procedures, but I think it is only

fair to say that in lupus many cases which had been operated on by surgeons with only temporary success followed by recurrence have come under my observation, and been apparently cured by means of the *x* rays without recurrence for a longer period than by any surgical procedure. I make no reference here to the after-effects for the simple reason that the cosmetic value of *x* rays is generally admitted. Speaking of rodent ulcer, there is one observation which I desire to make with regard to surgical procedure, and that is that I dread nothing more than taking up a case which has passed through the surgeon's hand. I will now show you a number of cases of lupus and rodent ulcer treated by me, leaving you to judge of the results, and the least successful are one or two rodent ulcers for which the surgeon had first operated. In two cases I have had absolute failure, and there the parts had been previously surgically removed. I deem it of supreme importance that those parts of the tissues which are necessary for the reproduction of epithelial structures should be as little interfered with as possible. Even in an ulcerated part there is often enough tissue left by nature to give a start to the new process; but where the skin, subcutaneous tissue, and it may be the bone below, have been completely removed, the results are most seriously interfered with. I shall reserve all reference to malignant disease until further on in this demonstration.

Probably no more important question can arise than that of recurrence, but of course this applies to surgical and all other procedures. In a large number of cases the word recurrence is a mistake. It simply means that the whole disease had not been removed before the patient was discharged. In lupus and rodent ulcer the patients if at all possible, should be kept under observation for long periods after the disease is supposed to be healed, and they should be warned that if any other illness such as influenza or debilitating affection supervene, the diseased parts should be carefully looked after until all [illegible] removed.

Rodent ulcer [illegible] duration.

CLINICAL RESULTS.

I shall [illegible] to the results obtained in lupus because [illegible] such [illegible] I am glad to be able to say that the [illegible] cases which I showed at last year's demonstration have, after twelve months' further observation, confirmed all that was claimed for them a year ago. Similar results are being obtained in every centre where well-equipped hospitals have been carrying on experi[illegible]. Here and there is a growing tendency on the part of medical practitioners to send their cases to our hospitals, and [illegible] the fact [illegible] surgical interference [illegible] the newer methods a fair trial. Of this we have had [illegible] in the number of patients [illegible] treatment at the Royal Infirmary. In several [illegible] of these surgical methods already [illegible] I will show you a few [illegible] upon the screen to-day, and will take one or two special [illegible] I have [illegible]. The patient to whom I [illegible] attempts had had nine years [illegible] had been [illegible] most severe [illegible] yet yesterday [illegible] month [illegible] with the *x* rays (Figs. 3 and 4).

Figure 3 [illegible] I am sure [illegible] remind you of the [illegible] by themselves. Special interest [illegible] paper to the Edinburgh Medical Journal [illegible] by way of emphasizing this [illegible] past year I have had an opportunity of collecting over two papers upon this subject, and in a large percentage of these it was abundantly evident that what the authors referred to as cancer, epithelioma, and carcinoma were really cases of rodent ulcer. In consequence it is impossible at present to classify the results in a satisfactory way. The whole history of the affection is so different from what is ordinarily termed cancer that it is unfair to consider it as such, if we are to give the profession a genuine idea of the value of any of our recent electro-therapeutic methods. I will therefore upon the screen a series of pictures of such cases, and will again select one of the face and nostrils as typical of the results of *x* rays (Figs. 5 and 6). The same remarks which I made about lupus apply to this affection. The results from different quarters are ever becoming more encouraging, and there is an increasing number of patients presenting themselves or being referred to the electrical departments by the medical advisers.

Passing to the much more serious question of malignant disease proper, let me first say that even here some more definite classification is advisable than some writers seem to think necessary. For example, epitheliomata of the face or superficial parts, or even recurrence after operation in parts which the surgeon can reach by such means, are not to be placed in the same category as malignant affections as deeply seated as the viscera of the thorax or abdominal cavities. Of course there are regions within cavities, such as the nose, throat, and uterus, which do not quite come under either of these two classes, and which, occupying as they do a sort of intermediate position, may fall into the category of those which can be treated with some prospect of success, and those in which little or no good can be obtained. The others in a number of these cases I will now show you. In the first of these, a patient aged 70, you will see the results of *x* ray treatment carried on for five weeks. This patient refused surgical interference, and came specially for *x* ray treatment. I personally recommended him to allow me to excise the tumour, but he selected this agent. The disease had lasted for seven or eight years, but had only taken to rapid growth within the last two or three months. The glands were not enlarged. Let me select another case from the photographs shown and one which was published from my former papers. In this case an undoubted epithelioma which occupied the whole integument of the cheek, and was of three or four years' duration, has entirely disappeared. There was no glandular enlargement in this case either. My colleague, Dr. Robbie, recently showed a case of naevus from the Royal Infirmary, [illegible] which a sarcoma rapidly growing and filling a large portion of the left parietal has entirely disappeared. I have more than once at this Society brought under your notice several cases of malignant disease of the mamma in which recurrence had taken place more than once after surgical operation and in which the neoplasm undoubtedly had been diagnosed by the surgeon and [illegible] excised. had disappeared under *x* ray treatment. Such cases are typical of those which have given rise to the hope that one or other of these agents, more particularly *x* rays, would cure cancer, but another years experience has more than confirmed what I have already said, that the various disagreeable affections which in the public mind at least may be considered cancerous, are the most easily [illegible] to be influenced. The problem

remains to-day as great as ever. Many suggestions have been made whereby we may be able to try to pass the agent through the normal tissues without doing harm to them, and so attack the diseased tissues at a distance from the surface. For this purpose the penetrative rays alone should promise the best results, and probably by ionization. Considering that we know so little about how these forces act it is not to be wondered that the best agents to be introduced into the tissues are not easily named. If one were quite sure that in cases of superficial mischief the results were due in any way to ozonizing of the air, then the introduction of oxygen in gaseous or liquid form might be tried. Salts of quinine and other agents have already been tried, either by absorption through the alimentary canal or injection into the tissues, but all this work is so far experimental at present.

At this time all we can say is that however much we may regret it, complete removal of the disease at the earliest stage possible by the surgeon is the only safe and genuine recommendation to patients suffering from malignant disease at present. There is no reason, however, why in many instances this should not be followed up by treatment with the γ rays, with a view to the prevention of recurrence.

When tumours, especially those that can be reached, have passed the aid of the surgeon, there can be no doubt in many instances of what I have previously stated in former demonstrations about palliative effects, the stimulation of ulceration to healthier conditions, the removal of bleeding surfaces, and offensive odour, and a general amelioration of the patient's condition. In a number of cases of affections of the throat, more particularly in the regions of the tonsil, from actual observation I am inclined to think that we are justified in claiming a prolongation of life. Of course it is only fair to state that just as in all other methods of treatment recurrence may take place, and permanence of beneficial results, even in superficial cases such as I have shown you to-night, cannot be claimed until more time has elapsed.

Fig. 6.—Rodent ulcer after treatment with γ rays for 2 months.

There is one supreme difficulty which all workers feel in experiments bearing upon the treatment of malignant disease, and that is the want of definite knowledge about its etiology. We have seen how much weight Finsen gives to the presence of micro-organisms in lupus, and, whether we agree with him or not as to the possibility of directly destroying these organisms in the living tissues, and whatever his admirable results may be due to, the fact remains that there is a definite sense of satisfaction, when working with such an affection, as long as we accept a pathogenic cause. Unfortunately, the same cannot be said of malignant disease, and, when criticizing recent methods of treatment, some say the only satisfactory way to approach the subject is from the etiological standpoint, and to an extent it may be admitted this is true. The history of medicine, however, shows that we have in the past been forced to seek relief in many affections, such as syphilis and malaria, without a knowledge of cause. A careful study of the most recent work upon the etiology of cancer only shows us how little is at present known. One of the ablest contributions to this subject of late was the Bradshaw lecture delivered by Henry Morris, and published in the British Medical Journal of December 12th. In a masterly review of the most important theories he deals specially with the microbic theory. The schizomycetic, psorospermic, and blastomycetic theories are all advanced, but he dismisses the possibility of such in the following language: "In short, neither fission, fungus, yeast fungus, nor psorosperm—neither bacterium, blastomycete, nor protozoon—has up to the present moment been satisfactorily shown, in spite of years of patient study by many skilled workers, to be in any sort of casual relationship to these diseases."

The same number of the Journal contains a paper by Mr. Plimmer which shows that the last word has not yet been said about the possible parasitic theories involved, and this writer ably deals with the prevalence of the disease in certain districts due to possible local conditions. The writer closes with an able advocacy of all the views in favour of the parasitic theory and a description of certain bodies to be found in the tumours themselves. Mr. Henry Morris falls back upon the tumour-germ theory of disease for which we are indebted to Colmheim and Durante, and so much is he impressed with it that he makes the following statement: "There is one theory which is more consistent than any other with all that we know about malignant diseases which fully explains the origin of very many non-malignant tumours, and is, I believe, destined to be accepted as the true explanation of the genesis of malignant new growths."

Curiously enough, practically at the time these words were being spoken a paper was offered to the Royal Society by Professor J. Bretland Farmer, F.R.S., J. E. S. Moore, F.L.S., and C. E. Walker. The whole value of their work depends upon the accuracy of the observations made, and doubtless these will be tested and confirmed or otherwise by many observers in the future. Briefly stated, these gentlemen find that the malignancy of tumours is intimately connected with the conversion of the small somatic cells of the body into reproductive, and they describe the similarity existing between malignant tissues and what is found in the sexual reproductive glands, the terms gametoid and gametogenic are used. They first of all trace the changes which take place normally in the cell during proliferation. They describe the process of the somatic division and the heterotype, and come to the conclusion that in malignant disease the cells of tumours which resemble the reproductive elements are characteristic and are not found in benign tumours, but are due to the conversion of somatic cells as the result of a stimulus of a kind they admit is at present unknown. The authors make a special point of the fact that the cells which undergo these changes must in no sense be considered embryonic because they are somatic in character, the cells possessing the potentiality of the normal number of chromosomes and exhibiting them during division. There are some very striking sentences in their work. For example, they say it is a fact of the highest importance when once the heterotype division has supervened all the descendants of that cell retain the reduced number of chromosomes in normal cases. The importance of this in view of those who seek for the introduction of micro-organic life to produce the stimulus which brings on activity and by the reproduction of the organisms to continue that activity, or, in other words, to constantly reproduce the cause, cannot be overlooked.

According to these writers, "The essential features wherein this heterotype mitosis differs from those of the body or some of the organism (whether plant or animal) as well as those in the cell generations of the reproductive tissues that have preceded it, are as follows: (1) The period of rest and growth; (2) the chromosomes where they are formed from the resting nucleus are present in only half the number of those occurring in the rest of the dividing nuclei of the organism; (3) the forms exhibited by these chromosomes are strikingly different from those of other nuclei; they produce figures resembling loops, rings, aggregations of four heads, and so on.: (4)

their division on the spindle is transverse and not longitudinal.

The subject being of great interest the following explanation made to me by Professor Farmer himself is important. In a letter he says: "The conversion of somatic cells as the result of a stimulus of a kind as yet unknown. This is a familiar conception to botanists, by whom the sharp distinction between somatic and reproductive or gametogene elements has never been recognized. Perhaps the reason why it has not been so admitted by many zoologists is due to the pathological consequences of its occurrence in animals in which the tissues are more definitely destined to particular ends than is the case with plants. Without committing myself to a definite formulation of an opinion, I might suggest that possibly all cells are potentially reproductive as phylogenetically they certainly are and that the somatic characters impressed in the majority during ontogeny conceal, but do not entirely abrogate, this potentiality, which might thus be reawakened under appropriate conditions. The observation applies to carcinoma and sarcoma. If these observations be correct, then the need for explanation in an embryonic cause of tumours would disappear, because, amongst other reasons, if the ordinary somatic cells can undergo this reduction, then it is unnecessary to seek for embryonic tissues at the seat of the tumour, either by inclusion or postnatal processes.

Fig. 1.—Epithelioma of lip before treatment and one month after.

In Mr. Plimmer's paper he says, in conclusion, that the only hopeful outlook in cancer would seem to rest on the ground of the parasitic theory. Without venturing into the realm of prophecy let me say that we would fain hope that malignant disease will one day be commanded whatever its cause be, parasitic or not. A [illegible] examination of what I see, not microscopically as well as microscopically when treating malignant disease by means of the rays tends in some small way to confirm this. In cases where I have examined the tissues microscopically and even in instances where portions have been sent without any history to the pathologist for confirmation of my eye observations, I have noticed [illegible] evidence of a destructive influence upon the diseased cells as evidenced by the disappearance of the nucleus, the body of the cell itself degenerating and disappearing. [illegible] by cutting [illegible] in the epithelioma, we have [illegible] of having to [illegible] the tissues [illegible] and the response under certain conditions [illegible] to the rays. We may [illegible] the [illegible] of the inflammatory surrounding and other [illegible] which are not of the nature of the [illegible] itself, but which are [illegible] abundantly present [illegible] malignant disease [illegible] by rays. [illegible] all the [illegible] some attempt to [illegible] the diseased part. A new [illegible] the pathology of [illegible]

stood, who would have believed what is now known to be an accepted fact in connexion with the electric remedy, the large number of people who have been affected more or less in some of the tissues of the body at one time or another during life, and in whom nature has evidently been able to arrest the disease. May the same thing not possibly occur in malignant disease? If the true history of the human race were known, is it impossible to conceive that infection may take place to some extent in a number of instances, and that this is controlled by the natural forces to which we are referring? In other words that those cases which come under the observation of the physician or surgeon are the cases in which, for some reasons at present unknown, resistance to the invasion of the disease has not been sufficient to arrest its progress.

In all the demonstrations which I have given here I have never claimed more than has been justified by the results. Notwithstanding the great work which is yet to be accomplished, I am more hopeful than ever that some day malignant affections will be commanded, and this view is largely founded upon what one can see from careful examination of the results even in the worst of cases, when patients are undergoing such treatment as we have been describing to-night.

[illegible]

The Health Bureau of Rochester, N.Y., has decided to treat pneumonia as an infectious disease, and to ask physicians to notify all cases. A new map is to be placed in the Health Office upon which are to be designated, by means of pins, all cases of pneumonia and the sanitary conditions accompanying them.

A Tooth in the Trachea during Anaesthesia. A case of interest in relation to the treatment of patients in difficulty under anaesthesia has been noticed in a German contemporary (Salin, *Zentralbl. f. Gynäk.*, No. 11, 1904, p. 375. The original was in *Hygiea*, F. II, Jahrg. 2 1902, October); it occurred in Sweden. A patient suddenly ceased to breathe during a supravaginal hysterectomy for fibroid. Artificial respiration and manual pushing forward of the lower jaw proved ineffectual: the anæsthetist therefore opened the mouth forcibly with a wooden spatula. Something was heard to snap, but no broken tooth could be found. The patient began to breathe well, and the operation was concluded. For a few days all went well, then the patient discovered that she had lost a tooth. On mention being made to her of the accident, she declared that she could feel the tooth in her throat. Later on she thought it had stuck in her chest. On the sixteenth day after the operation she left her bed. On the nineteenth the temperature went up to 102.2°, and coughing set in. At length during a violent paroxysm the missing tooth was coughed up. The fever and coughing at once ceased.

TREATMENT BY ROENTGEN AND RADIUM RAYS.*

By REGINALD MORTON, M.D., F.R.C.S.E., Etc.,
Medical Officer in charge of the Electrical Department, London Hospital.

The discovery of the therapeutic property of *x* rays, like the *x* rays themselves, was more or less accidental. The pioneers in the *x*-ray world, continually exposing their hands to the rays, began to notice after a time peculiar and unpleasant changes in the skin. A form of dermatitis developed, of a very obstinate character, especially if the *x*-ray work were persevered in. The changes in the skin of those parts most frequently exposed were of course quite unexpected and the tendency at first was to blame the developing solutions or anything but the real cause the *x*-ray tube itself.

Finally parts were exposed deliberately to the action of the rays, and it was found that the dermatitis could be produced at will. It was also noted that, if sufficiently prolonged, a destructive inflammation was produced causing sloughing of the skin and more or less of the subcutaneous tissues, finally leaving behind an ulcer possessing unique characters, the chief of which was its great chronicity.

It was evident that here was an irritant and caustic having characteristics peculiarly its own and the effort to make use of it in the treatment of diseased tissues was merely a development along normal lines.

The changes observed on normal skin under the influence of *x* rays are (*a*) pigmentation, (*b*) erythema, (*c*) blanching and loosening of hairs. This order is not invariable. In individuals who burn rather than tan after exposure to ordinary sunlight the erythema usually precedes the pigmentation. These changes are superficial and of no serious moment and if the exposure to *x* rays be stopped at this point, the skin rapidly clears up and resumes its normal condition.

If, however, the exposures are continued another set of effects begin to manifest themselves, the first and most important of which is dermatitis or *x*-ray burn. The extent of this burn varies with the amount of exposure, and it will be found possible to divide *x*-ray burns according to their severity into degrees very much as in the case of ordinary heat burns (Pusey and Caldwell).

First Degree.—Dry dermatitis, without destruction of tissue, first appears around the follicles as a punctate redness, gradually becoming diffused over the whole exposed area. It is not accompanied by pain, but perhaps by a burning or tingling sensation. If the process stops here; irritation rapidly subsides, there is some desquamation and, except for more or less pigmentation, the area becomes normal.

Second Degree.—This proceeds as above, but goes on to the development of a bright red dermatitis with vesiculation. Vesicles rupture, leaving a weeping surface which gradually becomes covered with epidermis and returns to the normal, as in the first degree.

Third Degree.—Here we have a dark red, angry dermatitis with intense congestion. Redness disappears on pressure, but immediately returns. Vesicles and bullae develop, rupture, and leave a raw weeping surface, upon which is formed a greyish necrotic membrane composed of epithelium. This is adherent, and when removed forcibly the surface bleeds freely. Patients as a rule do not complain of much pain, but there is always some, and also burning or itching, which may be severe and last a long time. The connective tissue is not destroyed, but may be swollen and infiltrated.

The process of resolution after a burn of this degree is not so simple as in the first and second. Some cases throw off the membrane quickly and it is not reformed. Epithelium grows in from the margins and from small islands dotted over the surface of the ulcer, and, as a rule, healing will be complete in from three to four weeks from the development of the bullae. In other cases relapses occur which may carry on the process for three or four months. The newly-formed epidermis is generally very red for some weeks, and the skin is left smooth, thin, and softer than normal.

Fourth Degree.—In the development of this form of *x*-ray burn, the congestion goes on almost to the state of stasis. The skin becomes blue or purple, brawny, and tense, bullae are formed, and later on there is actual necrosis of the skin and subcutaneous tissues. The necrotic tissue is of a dark grey colour, tough and adherent and the line of demarcation is not well marked. It remains *in situ* for a very long time—months—if left alone. After it is thrown off the surrounding tissues gradually regain tone, the ulcer contracts and heals over in the ordinary way, except that the scar is more vascular. This is a type of burn seldom seen nowadays and rarely if ever produced intentionally.

A friend of mine who produced intentionally a severe *x*-ray burn on the back of his hand, has now in the scar numerous telangiectases which are apparently permanent.

On the hands of those who are exposed to *x* rays more or less continually *x*-ray workers and who do not take precautions, there is developed a chronic persistent atrophic dermatitis seen almost entirely on the backs of the hands. The skin becomes thin and cracked, particularly about the joints, pink in colour, and marked with small telangiectic areas (Sequeira)—like small capillary hemorrhages. The nails become longitudinally striated and brittle. There may be exfoliation of epidermis, and suppuration under and loss of the nails. In all degrees of *x*-ray dermatitis the hairs suffer, they may be merely decolorized, but more often they fall out.

From the early effect on the hairs, and the dry, cracked condition of the skin after prolonged exposure, it would seem as if the hair follicles and sebaceous glands were peculiarly susceptible to the influence of *x*-rays.

The effect of *x* rays on deep-seated tissues is very much less than on the skin, for the very obvious reason that most of the rays are absorbed by the latter, and the deeper tissues come in only for a very small remainder. But that the *x* rays do affect the deeper tissues is beyond doubt; a happy instance of this is the relief of deep-seated pain which frequently follows exposure to their influence. In the treatment of a case in which pain is a feature, the relief—sometimes after a single application—is one of the most common observations, and this alone justifies its use in cases not otherwise very suitable. Individuals vary as regards susceptibility. Speaking generally, fair people are more so than dark, and it is well to remember that an area which has been the site of an *x*-ray dermatitis is more susceptible than it was before. No part of the body seems more susceptible than another, except the eyes; conjunctivitis being very easily produced. We are occasionally asked to treat cases of trachoma, and some of these have been apparently cured by this means, but the application requires to be made with the greatest care and skill.

The microscopic changes are very interesting, and consist, in general terms, of a slow degeneration affecting principally the epithelial cells, and, to a lesser extent, the cells of the glands and vessels. The cells of connective and muscular tissues are only affected in the very severe forms of *x*-ray burn. As the degeneration proceeds inflammatory reaction comes on, vessels are dilated, and there is a marked migration of leucocytes and red corpuscles. This active process of leucocytosis seems to be the chief agent in effecting the removal of masses of tissue which have undergone great degeneration.

The changes in the blood vessels are important, and, according to Gassmann, are as follows:

The vessels are changed into irregular swollen masses, the lumen being sometimes obliterated and sometimes filled with corpuscles, and surrounded with a mass of infiltrating cells. The intima is thickened, endothelium swollen and detached from the wall. In the larger arteries and veins there is also thickening of the intima, proliferation of the endothelium, and partial or complete obliteration of the lumen. There is considerable vacuolation of intima and muscular coat. In the latter the cells seem pressed together, are smaller, and the fibres between them do not stain well. Leucocytes are present in the middle and especially the outer coat. It seems to me that in these changes in the vessels we have an explanation of the great chronicity of the lesions produced by prolonged exposure to *x* rays. It is a case of starvation due to the interference with the proper supply of blood to the parts.

Practical Applications in Therapeutics.

The first disease which occurs to one is rodent ulcer. In the treatment of this disease by *x* rays we have most distinctly a real acquisition to medical science. This disease is incurable otherwise; total extirpation by surgical means is not a *cure*. Its almost inevitable persistence after other forms of treatment is familiar to most of us. In short, a cure formerly was the rare exception, whereas now under *x*-ray treatment a cure is the almost invariable rule.

It seems to be primarily a disease of the sebaceous glands. It spreads locally all the time, but does not disseminate along blood or lymph channels. I mentioned above the apparent

* A paper read before the Kensington Division of the Metropolitan Counties Branch of the British Medical Association.

elective affinity of the x rays for the sebaceous glands. The great success of this method of treating rodent ulcer would seem to bear out this idea. Another point bearing on this is the fact that x-ray dermatitis is never seen on the palm, which has few, if indeed any, sebaceous glands. Of course it is not expected to do anything like to the extent the back of the hand is, but it is just possible the absence of sebaceous glands may have something to do with it.

From rodent ulcer it is but a step to cancer; in fact I am not sure that rodent ulcer is not believed to be a form of cancer by some authorities. It is certainly sometimes very difficult to be sure which we are dealing with.

On the subject of cancer you will naturally be inclined to ask the question, Have any undoubted cases of epithelioma ever been cured by x rays? There is no doubt in my mind that the answer is "Yes," but it will be found that the successful cases were almost invariably superficial. Such cases are most often dealt with surgically, and rightly so; but sometimes the patient absolutely refuses operation, and under such circumstances, provided the growth is quite superficial and localized, the x rays can be depended upon to effect a cure in almost all cases.

One of the greatest uses of x rays with respect to cancer is that of their application after an operation for the removal of a cancerous growth. I think if ten or a dozen applications were given after the wound had healed, as a matter of routine, we would hear less of recurrences.

A common type of case sent to us for x ray treatment is that in which we find numerous small lymphoid nodules in clusters, and in the immediate vicinity of the scar after an operation for the removal of a cancerous growth. These nodules are in or immediately beneath the skin, are undoubtedly cancerous, and are easily removed by x rays. Unfortunately, however, these recurring deposits do not spread only towards the surface, and the great majority of these, as indeed of all the cases that are sent to us for x-ray treatment, are foredoomed. All is not hopeless, however, as we are sometimes enabled to discharge a patient as apparently cured; but of course all such are kept under observation and instructed to report themselves immediately on the slightest suspicious sign of recurrence. But whatever the final result may be there is in all cases evidence of good effects locally in the inhibition of the growth at least, if not definite reduction.

The microscopic changes in a cancer undergoing x ray treatment are interesting. The young cells at the periphery of the cell nests are seen to be degenerating and breaking down, they lose their outline and the nucleus is fragmented.

These changes can take place in a growth covered by sound skin and without any signs of the skin breaking down. From this it would appear that the rays have some selective action on young cancer cells. As bearing on this statement, I saw a case at one of the large hospitals of a cancer of the neck, covered by sound skin, which softened and broke down under x-ray exposures. It discharged a quantity of liquid or semi-liquid material containing numerous white masses which were undoubtedly cell nests in an extreme state of degeneration. That such changes do occur in the cell masses of epithelial cancers under the influence of x rays has been clearly demonstrated by Pusey. The same writer thus sums up the action of x rays on cancerous tissues:

[illegible]

In this very power of softening and breaking down cancerous tissues we are confronted by fresh difficulties. In the first place a considerable amount of toxins is sure to be [illegible] and ultimately have an unfavourable influence on the patient's general health. I think it should be a rule in treating cancers of any sort to promote the elimination of these toxins by every means at our disposal, such as sodium salicylate, diuretics, and moderate exercise if circumstances permit.

A great danger also has to be considered, and that is the risk of disseminating the disease in removing and setting free [illegible] to carry [illegible] of fresh growths in distant parts. I am strongly of the opinion that in the x-ray treatment of large cancerous masses this is not [illegible] surgery danger, and I am now trying my attempts to deal with them here [illegible] with very little success.

There is one variety of cancer which gives very good results with the x ray treatment, and that is [illegible]. Here we have a growth undoubtedly cancerous, but quite localized, and tending to shrink rather than to spread, but yet having the power to infect, more or less, distant parts, sooner or later, if not removed or destroyed. So far I have treated but one case of this kind, and the growth disappeared with surprising rapidity. Several other observers have noticed this.

Sarcoma. The changes produced by x rays are very similar to those in epithelioma. There is the same destructive effect on the younger and most actively proliferating cells, but from the fact that sarcomata are vascular growths and more dependent on a free blood supply for their development, the x rays act with greater efficiency by virtue of their effect on the smaller blood vessels—thickening of the intima, with narrowing, or even obliteration, of the lumen. For this reason, under favourable conditions, we should get comparatively good results; but, unfortunately, most cases come to us after other methods have been tried and found wanting and local and general dissemination already begun.

To get good results we ought to be well on with our treatment before there is any dissemination, since the superficial parts of the growth are the first to succumb, and not until they are removed do the deeper portions come in for efficient treatment. From these deeper parts dissemination and local invasion may, in the meantime, extend to the point of rendering our efforts futile.

A case of sarcoma in the posterior triangle of the neck was treated at the London Hospital by x rays as a last resort. So far as local appearances were concerned this case did remarkably well. The tumour was about the size of half an orange, and it became so reduced that the normal contour of the neck was almost restored. Unfortunately, however, the disease invaded the chest, and the case passed out of my hands.

Another case treated in the same department—sarcoma of the scalp in the middle line at the back portion of the frontal bone—was twice operated upon, and recurred after each. Under the x rays the growth entirely disappeared. That was seven months ago, and there is still no sign of recurrence.

Tuberculosis. The treatment of some of the manifestations of this disease by x rays is now an established method, notably in the case of lupus vulgaris. This was the first disease to be treated by x rays, and was suggested by the success of Finsen with his light treatment. Sufficient successful cases have been reported to give the x rays an established position in the treatment of this disease, and as a matter of fact there is a growing impression that it is as good, or even better, than the Finsen method. Next to rodent ulcer, the treatment of lupus is the most successful application of x rays. As compared to the older method, a much smaller number of shorter exposures are required, and in the great majority of cases the whole area can be treated at once. It is thus much less tedious, is cheaper, and apparently equally efficient. Cases, more or less successful, of the treatment of other tuberculous lesions have been reported, such as enlarged cervical glands, ulcers, scrofuloderma, and verruca necrogenica. Leigh reports a case where excision of the elbow was considered necessary, but was exposed two or three times weekly for two hours to x rays. After six exposures the inflammation disappeared, and there was no recurrence after eighteen months.

Tertiary Syphilides. The results of the treatment of these have not been such as would justify one in substituting it for known methods of treatment. I might mention, however, that recently I was permitted to see at a large London hospital an extensive case involving the whole leg, which had resisted the usual methods and which took a decided turn for the better after x ray treatment was begun.

Psoriasis. Good results have been obtained by competent observers in the treatment of this disease by x rays. It cannot be said that it does anything to prevent recurrence, but the method is easy to apply and much more pleasant than the various evil-smelling compounds ordinarily used, and it has succeeded in bringing about a temporary alleviation in cases where all ordinary methods of treatment had failed.

Chronic Eczema. There is abundant evidence to prove the value of x rays in this troublesome complaint, and often in a surprisingly short time. For many years before x rays were discovered I had suffered from a dry and very intractable form of eczema. A short time after I began to use x rays I noticed the eczema was very much better, but it did not occur to me to connect the two together. Considering what we now know about the therapeutic value of x rays, the ex-

planation is quite clear, and though I have never deliberately treated the eczema, so long as I am carrying on *x*-ray work the eczema remains in abeyance.

The number of diseases in which *x* rays have been tried is very large, and would take more time than we have at our disposal to even enumerate, let alone report the results obtained. It will probably be some time yet before the therapeutic value of *x* rays comes to be accurately defined; but so far as the investigation has been carried, it would seem that for the treatment of all chronic, obstinate, and malignant conditions of the skin and easily-accessible parts we have in *x* rays an agent of very great value.

The Technique.

In the selection of a coil for *x*-ray therapeutics it is important to see that it gives a thick fat spark. A coil giving such a spark, 6 in. to 8 in. long, will meet all requirements. In the choice of tubes, this depends entirely on the effects desired; the softer the tube the more superficial the effect. The therapeutic power of the very hard tubes is very limited. The rays from these penetrate so readily as to suffer little absorption by the tissues. Having chosen a tube for a case always use the same tube for that case, as it will be found much easier to keep control of the resulting effects.

When treating localized conditions such as rodent ulcer and lupus it is necessary to protect the surrounding parts. Thin sheet lead is mostly used, but special tubes have been devised for application to cavities and very localized areas. In treating cancer cases it is advisable to screen as little as possible.

Elaborate schemes of technique have been devised and are practised by some individuals, the idea being to arrive at a means of producing a certain effect, neither more nor less, as desired variations in personal susceptibility, and the difficulty of maintaining exactly the same conditions in battery, coil, and tube at all times have rendered such efforts more or less abortive.

The routine method employed at the London Hospital is as safe as any I know of. The tube is fixed about 9 in. from the exposed surface; a full span of the hand gives this distance with sufficient accuracy. Applications are made for ten minutes on an average of three times a week. This method enables one to keep in touch with the progress of the case, with little risk of producing a too severe dermatitis in the event of landing on a very susceptible individual. The question as to whether dermatitis should be produced at all or not is one about which there has been some difference of opinion. Probably the best results are obtained by producing and maintaining a mild degree of dermatitis; the great difficulty is to avoid overdoing it. Practice and experience are the only sure guides to successful treatment.

General Conclusions about X Rays.

In conclusion, we may take for granted that in *x* rays we have an agent of considerable power and one capable of doing much good in the cause of suffering humanity—the results in rodent ulcer alone represent a great triumph—but also capable of doing much harm in the hands of unskilled and unqualified persons. There seems to be a popular idea, among some people at least—for which I think we have the instrument makers to thank in great measure—that all that is necessary is to buy a more or less elaborate outfit and learn to work the switches. The extent to which *x*-ray work and medical electricity generally is being commercialized is deplorable. Institutes under various titles are springing up in the various parts of London and the provinces. They advertise freely in the lay press, and receive and treat all and sundry who present themselves. One of the worst features of the case is that many members of our profession habitually employ unqualified men to do their electrical treatment—a practice not to be distinguished from "covering," which is very severely dealt with by the General Medical Council. The subject really deserves a better fate than to fall into the hands of laymen to be exploited as a commercial undertaking.

A proper medical training is as essential here as in any other branch of medicine, and the more one has been trained in electricity the better will he be in a position to deal with the various problems which are always arising. That disaster sometimes follows the want of the above essentials is exemplified by occasional actions for damages in the law courts.

Radium.

This, the most wonderful discovery of the scientific world in recent years, is a metal forming the top member of the calcium-barium series. It is obtained from the barium residues which are left in the extraction of uranium from pitchblende. It gives a red colour to the bunsen flames resembling strontium in this respect. Almost all commercial radium is really a barium salt, containing a greater or lesser percentage of the corresponding salt of radium—usually the bromide. The physical properties of this wonderful substance have been already described in the British Medical Journal by Drs. Macintyre, Dawson Turner, Mackenzie Davidson, and others. Of all its wonderful and unique properties that of giving off rays which have an active and a therapeutic action is what concerns us most. These rays are of three kinds, each having characters peculiar to itself.

α Rays. These consist of minute particles of the mass of the radium atom—of the radium itself, which are flung off at great velocity, and if these are projected against a suitable screen they cause a very beautiful fluorescence. It requires a dark room to see this well, and we are indebted to Sir W. Crookes for devising the spintheroscope, by which this phenomenon is seen to the best effect; *α* rays have little or no penetrating power, and as we must protect the radium from moisture by enclosing it in glass or metal, they cannot exercise any action on the tissues.

β Rays. These penetrate glass, mica, and aluminium with more or less difficulty. They are primarily cathode rays, and as such must form *x* rays in collison with a solid body. The rays so produced correspond to those given out by a moderately hard *x*-ray tube. According to Dr. Mackenzie Davidson these are the rays which cause the burning and destructive action on the skin. For this reason it would seem that they are chiefly responsible for the therapeutic action possessed by radium.

γ Rays.—These are said to correspond to the rays given off by an exceedingly hard *x*-ray tube, though I doubt if the tube has yet been made to give off rays equal in penetrative power to those possessed by a good specimen of radium. With the sample at the London Hospital weighing 30 mg., the fluorescence was easily discerned with 2 in. of cast iron between the radium and the screen.

It is difficult to say how far the *γ* rays are responsible for the therapeutic activity of radium. We have compared the *β* and *γ* rays to the rays given off by ordinary *x*-ray tubes of different degrees of hardness. It is a matter of common knowledge among *x*-ray workers that a very hard tube giving off rays of high penetrative power has much less local action on the tissues than a soft tube. If the *γ* rays are merely *x* rays of exceedingly high penetrative power, one would expect their therapeutic value to be correspondingly reduced—in fact, to practically a negligeable quantity. That such a standard of comparison is correct seems a matter of doubt. If we experiment in the dark room with a considerable mass of radium 30 mg. or more and an *x*-ray screen, the difficulty soon becomes apparent. Holding the radium 12 or 18 in. behind a large screen, the latter is faintly but wholly illuminated, and if the hand be placed behind the screen it is seen in its gross outline as a dense black shadow. There is no greater translucency of the soft tissues, and by no adjustment of the screen, hand, and radium is it possible to get any differentiation between the hard and soft tissues. It is difficult from this to see how radium can ever take the place of the *x*-ray tube in diagnosis. It would seem that the rays given off by radium are not perfectly identical with *x* rays as we understand them, and consequently it is not safe to assume that *γ* rays have no therapeutic action because of their resemblance to *x* rays of great penetrative power.

For practical purposes we might speak of the rays of radium as of two kinds—the visible and the invisible. Specimens which have a large amount of self-luminosity are as a rule less therapeutically active. The amount of this self-luminosity possessed by the best specimens is comparatively small, but the amount of fluorescence imparted to an *x*-ray screen is very brilliant and the penetrating power exceedingly high.

Practical Applications.

These are practically the same as in the case of *x* rays. Owing to the scarcity of the substance a very much less quantity of rays are available; but while we lose in quantity we gain in convenience and direct application. There are no wires necessary carrying a current of very high potential, and its small bulk renders it easy to apply it to parts not accessible to the *x*-ray tube.

The chief results attained so far have been in the treatment of rodent ulcer and lupus vulgaris, and the number of reported cases treated successfully is rapidly increasing. Successful cases have been reported by Mackenzie Davidson, Macintyre, Sequeira, Sichel, and others.

The value of radium in the treatment of malignant disease is still under investigation. Dr. Mackenzie Davidson has reported a case of carcinoma of the breast to which radium was applied to the extent of producing ulceration and sloughs with no resulting good of any kind, and from this he thinks radium is of no use in the treatment of this form of malignant disease. It is to be hoped further trial will give more encouraging results. Exner and Holzknecht, of Vienna, have reported cases of epithelioma and melanosarcoma treated with radium with results apparently satisfactory.

Dr. David Walsh has reported a case in which radium is being used in the treatment of a cancerous throat. The case was still under treatment but he is convinced that the progress of the case has been profoundly modified, if not arrested. The same may be said of a similar case under treatment at the London Hospital. A noteworthy fact is the great diminution in the amount and offensiveness of the discharge. Full details of this case will be reported in due course. So far as we have gone there seems reason to believe that radium has a more or less benign influence on malignant growths—whether this influence is sufficiently powerful to entitle radium to be regarded in any sense a cure is a matter for further research to determine.

METHOD OF APPLICATION.

No doubt the most efficient way would be to apply the radium near the area to be treated without any intervening diaphragm. This I have tried, but it is not satisfactory, owing to the impossibility of keeping the radium dry. Moisture reduces its radio-activity very seriously, so that any advantage there may be in direct application is very soon counteracted. The same objection applies to its use through mica, though to a lesser degree: mica obstructs the passage of the rays much less than glass.

The best plan is to have it in small glass tubes 1 in. or 2 in. long, containing 5 mg. in each, as suggested by Dr. Mackenzie Davidson. One, two, or more of these may be used according to the requirements of the case.

As to the length of time between the applications and the duration of each it is impossible to lay down any hard-and-fast rule as yet. So much depends on the amount and radio-activity of the radium used. Taking that of uranium as the unit of radio-activity, the specimens of radium obtainable range from 5,000 units to 1,000,000 units or more. The plan followed at the London Hospital is to apply it for half an hour every second or third day, and there has been no severe reaction in any case as yet. Once we can obtain an adequate supply of radium of a standard radio-activity, the question of application will be very much simplified.

The following notes refer to a case of rodent ulcer successfully treated with radium, which was shown at the meeting when the above paper was read.

It is not, of course, claimed that in this case a cure was brought about in record time. Probably the *x* rays would have cured the case within a month, instead of a little over fifteen weeks. It must be remembered, however, that at the time of commencing treatment very little was known of radium in the treatment of disease. It was the first case submitted to such treatment in the London Hospital, and it was considered advisable to proceed with caution, and for this reason there were two, if not three, intervals of a week during the first half of the time, that the treatment was suspended in view of the possibility of a severe reaction taking place. We now know such a precaution was unnecessary. A further reason for the long time taken in effecting a cure was the small amount of radium available. Placing the radium the same distance from the surface of an *x*-ray screen, it was seen that an area ½in. in diameter was all that came within the effective field of action, and I think I am safe in saying that had there been enough radium to subject the whole ulcer to its action a dozen applications would have been sufficient to effect a cure.

In support of this assertion I was shown a case of a small rodent ulcer, ½in. in diameter, under the care of my colleague Dr. Sequeira, which was quite healed even after nine applications with the same specimen of radium used in this case. From a cosmetic point of view the result has been exceedingly satisfactory.

[illegible]

The patient was last seen on February 2nd, 1904, and except that it is more shiny, the scar very closely resembles the surrounding skin both in colour and texture.

A special feature of this case was that beyond the application of a little vaseline once or twice daily, no attempt had been made to effect a cure up to the time the case came under observation, and that radium was the only agent used in the treatment.

My thanks are due to Mr. F. S. Eve, surgeon to the hospital, for his kindness in allowing me to publish the details of this case.

SOME TYPICAL EXAMPLES OF ROENTGEN-RAY AND HIGH-FREQUENCY TREATMENT

WITH OBSERVATIONS THEREON.

BY ARTHUR W. WIGMORE, L.R.C.P.LOND., D.P.H.ENG. CONJOINT BOARD

Surgeon Roentgen Ray and Electro-Therapeutic Department London Skin Hospital, Fitzroy Square

I should like to offer a few remarks on the following cases treated by the Roentgen rays and high-frequency electric current, and also on the general application of the Roentgen rays therapeutically. The few cases taken from my note-books from some hundreds treated at the London Skin Hospital and in private, during the last four years, are fairly typical ones, as they are all absolutely cured cases, with no return during a long period after treatment. In the cases treated by the Roentgen rays, my *modus operandi* has been the use of a Mackenzie-Davidson break with a coil of 12-inch spark and a medium tube, rather hard than soft, made for me by Messrs. Harry W. Cox and Co., Limited, of Cursitor Street.

I use 24 volts for the break and coil, and generally give three amperes with the surface of the tube 4 in. from the part affected.

I generally, but not always, protect the surrounding parts by thick lead foil covered on both sides with silk, as the emanations from the tube consist of a large amount of static electricity from the surface of the glass, combined with the Roentgen rays from the interior, the lead foil thus cutting off the rays, and the silk, the static electricity. Proof of the amount of static electricity being given off, can be obtained by stroking the skin of the patient while under the rays, when a peculiar rasping will be felt by both patient and operator.

My experience had led me to trust in short applications 5 to 10 minutes, never more, ceasing treatment when any marked dermal congestion occurs, but keeping the patient under observation. By these means I have been enabled to give fairly continuous treatment until apparent cure, but the effect of the rays being cumulative I find that patients return, after a prescribed period of rest, in a better condition than after entire cessation of treatment.

The great point about the results of Roentgen ray treatment is the very natural appearance of the scar which results—a soft and pliable one, with no keloid.

I should also like to draw attention to Cases V and VIII, where the Roentgen rays, applied through a special nasal dilater made for me by Messrs. Allen and Hanburys, of vulcanite only, were enabled to affect the cartilaginous septum of the nose with the best results. In certain cases I have

used medicinal preparations while the patient has been under the rays.

In lupus and rodent ulcer I have used a saturated solution of permanganate of potash well painted over the part, the therapeutic value of which I attribute to the freeing of the oxygen by the electricity and rays. In psoriasis I have found the unguentum pyrogallolici co. (Unna) most useful in combination with the rays.

I have a case now under treatment of deep naevus stain, on the left cheek of a little girl, to which I applied solution of hydrogen peroxide 40 vols. in conjunction with the rays, with much diminution of the staining. Afterwards I decided to try adrenalin (Parke, Davis, and Co.), and the case is rapidly improving.

I believe that there is a great future for the use of different applications in conjunction with the rays, for possibly the penetrative powers of the Roentgen rays, combined with the static electricity, have some effect of increasing the therapeutic action of the applications. The same plan may be found to be useful even in internal medication, as in a case of carcinoma of the rectum, which I have under treatment (which had been operated on and recurred and pronounced inoperable). I am giving sulphate of quinine 2 grains four times a day and apply the high-frequency electric current internally four inches up the rectum, impinging on the mass; the patient has steadily improved in health and locally.

Case I.

Mrs. F., aged 56, first came to consult me in October, 1901. She had a rodent ulcer on right cheek, which had commenced about seven years previously. She had had various ointments and lotions, but had refused to have it scraped or burnt. The ulcer was about the size of a two-shilling piece. Thirty-five applications of the Roentgen rays were given, five each week for a period of seven weeks. The ulcer commenced to heal from the commencement of treatment and at the end of treatment very little was noticeable, except a slight dermal congestion was to be seen.

I have had frequent opportunities of seeing the lady at various times since. At the present time it is (nearly 2½ years after treatment) absolutely healed with no apparent scar.

Case II.

Mr. G., aged [illegible], was a case of chronic gouty eczema of the buttocks, anus, and testicular regions, accompanied by severe pruritus ani, which had extended over a period of fifteen years. He consulted me in January, 1902. The patient could not lie down at night, but had to sit up in an armchair. Various applications and treatments had been tried, some of which had partially relieved him for a time. He was given five weeks' continuous treatment with the Roentgen rays, consisting of twenty-five sittings, the patient lying in the prone position.

He steadily improved and since cessation of treatment has had no return, two years after treatment.

Case III.

The Rev. F., aged 52, in November, 1901, was a case of psoriasis of about ten years' standing, extending from the shoulder blades to the heels in large scattered patches. The patient suffered great irritation and could not lie down in comfort or ride his bicycle. He had two periods of treatment by the Roentgen rays of three weeks at the time, five applications a week with an interval of one month, thirty applications in all. He left me with only a slight staining of the skin and has since had no return. The method of treatment in his case was the prone position on a castor couch, the Roentgen rays being stationary, and the couch was moved backwards and forwards during a period of fifteen minutes at each application.

This case has remained well for more than two years.

Case IV.

Mr. P., aged [illegible], had an apoplectic seizure three years ago. The right hand and leg were paralysed, with speech impediment. He gradually partially recovered, but with difficulty in walking and inability to co-ordinate movements of the right hand, used to scribble some time at his office before he could write even fairly well until December, 1902, when he came under me. I applied the high-frequency electric current with general massage—sparking to the spinal column and the right arm and leg for a period of six weeks continuously for five to ten minutes at the time, in all thirty-six applications. The patient has now no difficulty in walking, has good co-ordination of movements of the hand, and the general health very much improved.

My method in this case was monopolar, the patient holding the electrode in his right hand, during which time I gently spark-massaged the regions indicated.

Case V.

Mrs. M., aged 45. This was a case of lupus vulgaris of nose with ulceration of the cartilaginous septum, which had commenced about three years previously. She came to me in September, 1902. Had been subjected to various treatments. There was not much destruction of nasal tissue externally but very deep ulceration of the cartilage. This was a very obstinate case and very similar to Case VIII. I had her under treatment by the Roentgen rays during nearly a year at intervals varying from a month to six weeks for three weeks at the time. For the treatment of the cartilaginous septum I employed a special nasal dilator made solely of vulcanite, which Messrs. Allen and Hanburys carried out from my design. I heard from the patient about a month ago by letter in which she said she was quite well, and no trouble with the nose externally or internally. Before she ceased treatment there was no scarring and the cartilage was practically healed.

Case VI.

Dr. O'S., aged 58. This gentleman had a very suspicious ulceration on the left side of lower lip at the junction of skin and mucous membrane about the size of a threepenny bit with slightly indurated edges and much constant scaling. He had the very best advice and saw several eminent surgeons who almost unanimously advised removal, it having very slowly but surely advanced for seven years, and was of a marked epitheliomatous character. He came to see me in December, [illegible], when I persuaded him to let me apply the Roentgen rays, which I did for about five minutes at the time. I gave him eighteen applications during a period of three weeks, and then two periods of six applications with an interval of a week.

There is now nothing to be seen or felt, except the slightest indentation.

Case VII.

Mr. B., a farmer, aged 55. In 1900 he was wearing pince-nez which caused a redness on the right side of nose where the glasses caught. A red spot formed and spread into an ulcer about the size of a sixpence. He was told by his medical man that it was a rodent ulcer, and various applications were tried. In September, 1901, he came under me and I decided to apply the Roentgen rays. He had twenty applications extending over four weeks, the ulceration healing very rapidly. The patient was seen in February, 1903, and there was then no visible sign of ulcer or cicatrization.

I have heard from the patient this year and his condition remains the same with no vestige of any recurrence, and it is now two and a-half years after treatment.

Case VIII.

Miss D., aged 52, first came to see me in September, 1902. Disease commenced about five years previously with ulceration of the cartilaginous septum of the nose and lupoid infiltration of the lower third of the skin of the nose. She came from New Zealand, where she had been a hospital nurse, and had been subjected to many treatments, but the ulcer had steadily increased. She was treated in a similar manner to Case V., with satisfactory results. She has returned to New Zealand, after being in England about six months.

I have since heard from her—in November, 1903—more than a year after treatment, and she expresses herself as cured, and suffers no trouble with her nose internally or externally. She had forty applications of the Roentgen rays altogether.

Case IX.

Mrs. B., aged 72. This was a case of rodent ulcer, extending over the left half of the chin, from the lip to the lower jaw, about the size of a five-shilling piece, which had lasted over a period of twenty-seven years, with deep ulceration and indurated edges and eversion of the left side of lower lip. She had had many applications and treatments. It was "burnt" in May, 1901, and again in July, 1901, and commenced with a single spot on the chin, and the progress in its increase in extent was slow, but steady. The patient came to me in the middle of November, 1901, and I had her under observation until April, 1902, and applied the Roentgen rays sixty times. She steadily improved, with the exception of one small place about the size of a split pea, but as there was a good deal of dermal congestion I advised a rest. She came again at the end of October, 1903, until December, during which period I gave her forty applications.

I saw her a few days ago, when the ulcer had remained healed, with a good dermal-looking scar and no disfigurement, the eversion of the lip having disappeared.

Case X.

Mr. R. J., aged 45. This was a case of severe ulceration, partaking of both an epitheliomatous and rodent ulcer type. About eighteen years ago patient was cut, whilst being shaved, on the right lower jaw. A red spot formed where the cut had been made, which gradually increased in size, but with no destruction of tissue at first. Then a "sore" made its appearance at the end of three years and steadily increased until November, 1901. He was treated by his local medical man and subsequently advised to have it operated upon. When he came to me there was a very deep, ragged ulceration, extending from the angle of right lower jaw to the chin, along the ramus, extending above and below about two inches, with indurated edges and much suppuration and steady breakdown of tissue. I gave him the Roentgen rays for a period of six weeks—thirty applications—the resultant scar being very presentable.

In a letter just received from him he says: "Since December, 1901, there has been no return and not the slightest inconvenience."

The late Deputy Surgeon-General Henry Cayley, C.M.G., who died on March 19th, has left estate of the value of £60,354 17s. 3d.

THE USE OF RADIUM IN A CASE OF RODENT ULCER.

By J. A. B. HAMMOND, M.B.Lond.,
Shanklin, Isle of Wight.

IN connexion with the cases of rodent ulcer treated with radium, which were recorded in the BRITISH MEDICAL JOURNAL of January 23rd, the following notes may be of interest:

My patient was an old gentleman of 83 years. The trouble first started three years ago as a small nodule on the right side of the face, over the maximum point of the second division of the fifth nerve. His sister diagnosed a pimple and promply squeezed it. As might be expected, despite this treatment ulceration commenced and began to spread. Some valuable time was lost by the patient falling a victim to the enticingly-worded advertisements which promise a cure for skin troubles, trying, as he did, everything, from violet leaves to cuticura soap. When my partner first saw the case, although the ulcer was even then quite small, the patient absolutely refused to have it excised. The case came under my care some eighteen months later. Although the ulcer had by this time spread to the size of the top of a teacup, it was still limited to the area supplied by the second division of the fifth. Even at the present time, while it is ulcerating deeply along the nasal process of the superior maxillary bone, it remains within this boundary. It is thus an example of Mr. Cheatle's hypothesis of a nervous influence directing the spread of cutaneous cancer.[1] The question of using Roentgen rays was discussed, but as so feeble and aged a man could not travel, and as at that time we had no portable coil, the idea had to be abandoned. The advent of radium, by removing these difficulties, gave the patient another chance, for, although he was failing more from old age than from the rodent ulcer, I thought it worth while to try the effect of radium bromide. A small tube of 5 milligrams was purchased. In the absence of any guiding standard, I commenced by giving an exposure daily of 15 minutes, holding the tube within half an inch of the ulcer, without any screen, and slowly moving it over the surface. After four or five days, although there were no visible effects, the patient said the pain was less troublesome, so I increased the exposure to twice a day, with the result that the discharge, which had been considerable, rapidly became less, and the granulations were certainly more healthy, but the edges of the ulcer remained unaffected. The treatment was persisted in for some six weeks, during which time the patient's general health failed very rapidly. Finally he absolutely refused to be bothered with any treatment at all. That was about a month ago. Since then the ulcer has spread deeply, the pain increased, and the discharge returned, which is certainly an indication that even in such a desperate case as this the radium had a distinctly beneficial effect.

In connexion with L. S. London's experiments with the effect of radium on mice, showing that they get blinking of the eyes by the third day, it is interesting to note that the nurse who applied the radium for me after two or three weeks complained very much of smarting and aching of her eyes. This was, however, soon relieved by a small screen, which prevented the radiations from reaching her.

Fig. 1.—Before treatment (full face).

Fig. 2.—Before treatment (side view).

RODENT CANCER TREATED WITH *X* RAYS.

By G. G. STOPFORD TAYLOR, M.D.,
[illegible]

[illegible] was recommended [illegible] by Dr. Mackay [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Fig. 3.—After treatment.

Fig. 4.—After treatment.

the nasal apertures and extending upwards between the orbits, and spreading laterally on to the cheeks and involving also the upper and lower lids of the left eye, are seen nodulated and irregular growths of various shapes and sizes. Some of these are still covered with epidermis, whilst others are raw, bleeding, and fungating. Upon the left upper eyelid are seen typical rolled elevations characteristic of rodent cancer. Some of these are situated about the outer canthus. The disease prevents the patient elevating her eyelid, while the lower lid in its inner third is ectropic. Situated in the subcutaneous tissue of the right cheek a lobulated growth as large as a walnut is seen. The epidermis is intact (see Photographs 1 and 2).

Treatment.

Treatment was commenced June 23rd. *X*-ray exposures were continued twice weekly up to the [illegible]th November. The duration of the treatment varied from five to twenty minutes, according to the effect produced. On July 10th the fungating growths were shrivelling up. On July 21st these were gently removed with a curette. On July 31st signs of healing and cicatrization were evident. On September 4th the other growths were reduced almost to the level of the surface. Photograph 3 shows that the growths on the nose had disappeared. The nasal apertures contracted, the right being a mere slit, and the situation of the growth in the cheek represented by an indurated scar. In November an artificial nose, made by Harry Brook, of Halifax, and attached to spectacles by Curry and Paxton, was supplied (Photograph 4).

Unfortunately I was unable to procure any portion of the growths for microscopical examination. The disease, however, in the centre of the face undoubtedly began as a rodent cancer, which after all is but a variety of epithelioma; indeed, I have seen true epithelioma develop on the site of a rodent ulcer. As to the nature of the growth in the cheek, I am unable to go further than to express the opinion that it is a form of carcinoma, and in this I am supported by Mr. F. T. Paul. There was an absence of any glandular infection.

A MICROBE PATHOGENIC TO RATS (MUS DECUMANUS AND MUS RATUS.)

AND ITS USE IN THE DESTRUCTION OF THESE ANIMALS.

By Dr. J. DANYSZ,

Director of the Laboratory of Agricultural Microbiology, Pasteur Institute, Paris.

[Translation.]

Ever since Loeffler[1] first published his discovery of the bacillus typhi murium, which he isolated during an epidemic of spontaneous disease among white mice and successfully employed in the destruction of field mice (M. agricola), many other bacteriologists have had occasion to study epidemics of a corresponding character and have isolated microbes morphologically identical with that of Loeffler, but exhibiting considerable variety in their effect on different species of small rodents.

Thus the B. typhi murium proved to be absolutely pathogenic only towards ordinary mice (M. musculus) and field mice (M. agricola), that of Laser[2] towards the mus agrarius, that of Merechkozzski[3] in the case of ground squirrels, and, finally, that of Hatchenko[4] towards white rats. In addition, each of these different bacilli was found to vary so considerably in virulence that much difficulty was experienced in turning the powers of any of them to any practical purpose.

It was obvious that it would be exceedingly useful if any means could be discovered (1) of extending the field of action of any one of these microbes and of thus rendering it capable of attacking rodents other than those towards which it was normally inimical; (2) of maintaining its virulence after having thus raised it to the desired pitch. This is the problem which I set to work to solve, and the following is an account of how far I have succeeded up to the present date.

A cocco-bacillus which I isolated during an outbreak of spontaneous disease amongst field mice presented the general characteristics of the B. coli, and to that extent resembled the bacillus of Loeffler, and also from the beginning exhibited some pathogenicity towards grey rats (M. decumanus). Out of ten such rats fed upon a culture of this microbe I found that there died as a rule two or three, while others fell sick but recovered, and the rest remained perfectly healthy. The fact that a certain number of rats fed upon these cultures invariably died seemed to offer some hope that it would be possible to increase the virulence of the microbe by ordinary methods, that is to say, by passing the microbe a certain number of times from rat to rat. On the contrary, however, after making a great number of experiments of this character, it was found that the passage of the microbe from rat to rat, so far from exalting its virulence, always weakened it, whether the animal was inoculated with the culture hypodermically or simply fed upon it. Thus in

any series of passages of the microbe from rat to rat, it was observed that the first culture killed the animals in from seven to twelve days, though the virulence might become sufficiently increased after one or two passages to cause death in from five to ten days; nevertheless, subsequent passages resulted in constantly-decreasing virulence so that finally no rats died at all. For example, after the tenth or twelfth passage, or even sooner, most or all of the rats invariably survived. The result was exactly the same, even if in any series the animals were not fed simply on cultures derived from the bodies of their predecessors, but allowed to feed on the dead bodies themselves. It was obvious, therefore, that when tracing the natural evolution of the disease caused by this microbe, it was necessary, in considering its cessation, to take into account not only the natural resistance of the survivors, but also the progressive diminution of the virulence of the microbe itself. The following is a case in point. Thirty healthy mice were placed in a large cage with two sick ones, while another lot of thirty were divided and placed in six different cages, and fed upon the same culture as the two sick ones which had been placed in the cage of the thirty healthy animals. The result was that in each of the six small cages all the mice died in from four to six days, while in the large cage of thirty rats disease did not begin until three days after the death of the two first mice and the consumption of their bodies by their companions.

This epidemic lasted twenty-three days, during which 27 mice died; the 3 which survived nevertheless died a month later after being fed on a culture of average virulence.

Messrs. T. Kirter and P. Kottyen,[1] working in the laboratory of Professor Dunbar, obtained much the same results in experimenting on rats with a culture sent from my laboratory. Their results are sufficiently interesting to be worth citing in detail.

The original culture killed the rats in		8	days
The second passage	,,	12	,,
The third	,,	7	,,
The fourth	,,	8	,,
The fifth	,,	7	,,
The sixth	,,	0	,,
The seventh	,,	13	,,
The eighth	,,	9	,,
The ninth	,,	11	,,
The tenth resulted in no deaths at all			

It is to be remembered in my experiment with mice, that the 3 mice who survived owed their immunity, not to natural resistance, but to the fact that the initial pathogenicity of the microbes had been lost: for these same 3 mice when fed a month later on a culture of average virulence died at the same time as those used as controls.

There can therefore be no doubt whatever that the virulence of this microbe diminishes progressively and constantly in the course of its passage from rat to rat, and since in this case we are dealing with a microbe which from time to time gives rise to outbreaks of spontaneous disease amongst animals, this fact would seem to throw considerable light upon the natural evolution of epizootic and epidemic disease in general, at least so far as the general group of haemorrhagic septicaemias is concerned. It may be said in short that an epidemic commences, increases in virulence, and then disappears, not only because it meets with individuals who are naturally refractory to its action, but also and in all probability mainly because the virulence of the microbes becomes attenuated, and finally disappears altogether after passage through a certain number of bodies.

I hope soon to be able to throw full light upon this interesting point, but for the moment confine myself to stating it as a fact which has been demonstrated in indisputable fashion. The same result of diminished virulence may be obtained *in vitro* by inoculating a series of cultures one from the other or simply by leaving any individual culture untouched for a longer or shorter period of time.

The general result, therefore, is that it is difficult to maintain the virulence of the case-bacillus of the rat or to increase it when it is found to be small. It can only be effected by constantly making a large number of experiments and frequently testing the virulence of the culture. When making experiments on a series of twenty or thirty rats at a time, it is always found that from the bodies of one or two of these animals a culture can be obtained more virulent than that from the others, and that in this case the virulence of the culture may be maintained for two or three months, it is thus possible while continuing to use the culture for current work to gain time to produce another of equal or even superior virulence. It is by working in this fashion that I have succeeded in keeping up a supply of cultures of sufficient virulence for eight years.

During this time cultures of a sufficient degree of virulence to kill rats fed upon them in cages in my laboratory in from five to twelve days have been used for a large number of practical experiments on farms, warehouses, hospitals, workhouses, etc.

A summary of the reports which I have received and which number several thousands, shows that in 60 per cent. of the operations undertaken the rats completely disappeared, in 15 per cent. the results were entirely negative, and in the rest, or 25 per cent., of the experiments, though dead and sick rats were found and a large diminution in the number of rodents in the places in which the experiments were conducted was simultaneously observed, complete destruction was not obtained.

In certain but not numerous cases it was observed that the epidemic extended from the locality in which it had been brought about to other localities where nothing had been done, and that sometimes the epidemic lasted for nearly a year. As an example may be quoted Odessa, where my cultures were used to destroy rats during the outbreak of plague in that city in 1902. There the rats completely disappeared after my cultures had been employed, and in 1903—or eight months after the experiment—rats brought back to the port on ships were found to be suffering from the disease which the culture causes. This extensive experiment, or rather this application of the treatment to the whole of a great town like Odessa, which with its suburbs has a radius of 10 or 15 kilometres, may well serve as a model for the use of the treatment in other places. Doubtless errors were committed which should be noted in order that they may be avoided in future, but in general the operation organized by the sanitary authorities and directed by M. Diatroptoff, Director of the Pasteur Institute of Odessa, were very well conducted indeed. It was divided into two parts—one in September and the other in October. In September the proprietors of all houses were ordered to conduct matters themselves, but in October the sanitary authorities enlisted the services of the medical men and medical students of the town.

In order to prepare the 25,000 litres of virulent bouillon required by the town and its suburbs a number of large disinfecting boilers were installed in huts usually employed for storing petroleum, and in this way the whole of the infected bouillon required was supplied in the course of about twenty days. The cultures thus hastily got ready were invariably distributed for use on the day of their preparation, and crusts of bread dipped in it were used as a bait. The first supply of bouillon was inoculated with a culture brought from my laboratory to Odessa by Professor Wyrokouvick, and all the rest of the bouillon prepared from it. To keep check upon the results the Bacteriological Institute had all rats, dead or alive, which could be found after the eighth day after the first distribution collected, and paid a reward of five kopecks for each of them. Each of these rats was carefully examined with a view to deciding whether it had died as a result of the virus or otherwise.

It was not deemed necessary to exercise any special control over the way in which the directions given for the use of the virus were carried out, and reports received showed that in many cases the directions had not been sufficiently observed. Thus in certain quarters of the town, and especially in the poor ones, either the infected bouillon was kept for several days, corked up more or less tightly, or else the inoculated crusts were thrown into streets or courts or other open places in the daytime with the result that the bread intended to be eaten by rats was devoured by dogs or other domestic animals. In the quarters thus inadequately treated the proportion of rats found to have been killed by the virus was only from 40 to 45 per cent., while in quarters where the directions for treatment had been rigorously carried out the results of the necropsy of the rats found were without exception positive.

In most of the small villages round Odessa it was observed that rodents completely disappeared, and finally, it is to be remarked that several weeks after the operations had been carried out the Bacteriological Institute was only able to procure fourteen rats alive and in good health although it offered a reward of 15 kopecks a head. In concluding his report M. Diatroptoff stated that the result of the employment of the virus was far superior to that of any other measures used, and that in spite of the freedom with which the virus had been distributed, no illness either amongst human beings or domestic animals could be traced to its use. The general outcome of this report is to lead to the conclusion

that, provided a culture of this coccobacillus is of sufficient virulence, it is possible to count upon the destruction by its use of all the rats in a large city without causing any danger whatever to its other inhabitants, human or animal, always supposing that the operations are conducted in an orderly and methodical manner.

REFERENCES

[illegible]

ON THE ADMINISTRATION OF CHLORIDE OF ETHYL AND SOMNOFORM, ALONE OR IN CONJUNCTION WITH NITROUS OXIDE OR ETHER.

By G. W. BAMPFYLDE DANIELL, M.R.C.S.Eng., L.R.C.P.Lond.,

Instructor in Anæsthetics, Royal Infirmary, Edinburgh.

If these newer anæsthetic agents can be shown to be almost as safe as nitrous oxide and, seeing that they possess the advantages over it, amongst others, of a longer available anæsthesia and a more prolonged period of analgesia, it is of advantage to obviate certain disadvantages in respect to some initial sensations and symptoms experienced by the patient, and also inconveniences from the point of view of the operator and anæsthetist.

It is not uncommon to hear patients complain of a choking and suffocating feeling on going under, and I venture to hold that this can, in the large majority of cases, be prevented, it being caused by the sudden application of a concentrated vapour and is more noticeable in nervous adults, in children, and those with sensitive or irritable throats.

Many patients are greatly alarmed at having a mask applied to the face filled with a powerful vapour. This not infrequently causes holding of the breath, coughing, and, in some cases, is followed by struggling with consequent delay in the induction of anæsthesia. These initial strugglings, etc., on the part of the patient may also be the cause of dreams of a disagreeable character.

In these respects, unfortunately, the anæsthetic agents now under consideration compare unfavourably with nitrous oxide, and it behoves us to use our best endeavours to minimize all disadvantages in connexion with the use of these volatile drugs if we intend to include them in our list of standard anæsthetic agents.

There is a fear in my mind that nitrous oxide, as far as the public are concerned, may have to bear the blame of some unpleasant sensations produced by these agents. This would be a calamity indeed, and I venture to think that, before administration, the patient should be told that "gas" is not the anæsthetic to be used, and also due precaution should be taken, when possible, in the preparation of the patient beforehand, to prevent after-effects, as well as a careful and skilled administration with the use of any inhaler that will obviate unpleasant initial sensations.

Apparatus.

One of the most satisfactory methods of overcoming these disadvantages is that described by Dr. F. W. Hewitt, namely, that of administering chloride of ethyl with nitrous oxide gas, using his own special gas apparatus. This method I have used a number of times with excellent results, but unfortunately the period of available anæsthesia is shorter than when the agent is administered alone and a smaller bag is employed. In most of the inhalers I have seen and used for the administration of chloride of ethyl or somnoform alone an estimated dose is first projected on to a more or less extensive surface of lint, cotton-wool, or sponge; inside the facepiece, close to the patient's nose and mouth, and then the mask is quickly applied. In others a capsule, containing either 3 c.m. or 5 c.m., is broken inside an inhaler of special construction.

The objections to the first class of inhalers (besides that mentioned above) are, that a certain amount of the fluid at once evaporates and is lost for anæsthetic purposes, and consequently an unknown quantity of the agent is given. Also, freezing takes place inside the mask and often close to the patient's nose and mouth. The objection to the use of capsules is that there is too much restriction to dose. One must use either 3 c.cm. or 5 c.cm. In the case of young children, for instance, 2 c.cm. or 2½ c.cm. is often ample to produce satisfactory anæsthesia. Adults seldom require more than [illegible] c.cm. for one inhalation, and further, for prolonged administration a much larger amount than 5 c.cm. may be required, when it is found both inconvenient and wasteful to be frequently breaking capsules.

An inhaler both simple in construction and use is that made by attaching together the facepiece and angle-mount of a Clover's portable ether inhaler and introducing the agent through the tap commonly found in the angle-mount, used for gas in the nitrous oxide-ether sequence. Dr. Luke has described a modification of this, in which the tap is removed flush with the angle-mount, the hole being closed with a wooden plug.

Having used this Clover method a number of times I find the following modifications and method of great advantage. Instead of the hole and wooden plug in angle-mount I prefer the tap with metal tube continuation. A tap is easier to manipulate than a plug and cannot get lost. Also, owing to the reconstruction of some of the trigger-valved ends of the ethyl chloride bottles it is easier to get in the fluid through the projecting end of the tap than through a hole flush with the surface of the angle-mount, especially is this so if the patient is inclined to move. At the commencement of the inhalation, instead of projecting the fluid through the tap directly from the bottle, a definite quantity is first measured out into a small tube made of thick glass, which for the sake of accuracy I have marked in 3 c.cm., 4 c.cm., and 5 c.cm. graduations. To this small measurse-glass is attached a short piece of red rubber tubing, by means of which it is accurately attached to the end of the tap of the angle-monnt. (Vide illustration.)

Method of Administration.

In the case of a patient sitting up in the dentists' chair the position of the tube and angle mount in relation to the facepiece is the reverse of that shown in the illustration. The tube being downwards, no fluid can escape and no smell will be noticed if the tap is closed. The mask having been accurately adjusted to the patient's face a short period of to-and-fro breathing is first permitted, the tap is now opened, and the angle-mount with its tube is rotated from the vertical position until it is almost horizontal. The rotation is now conducted gradually, so that the fluid will run very slowly out of the glass phial through the tap and metal tube into the bag. The patient will thus inhale a dilute vapour, which he soon gets accustomed to and will tolerate a stronger vapour in a few seconds. One should aim at producing a steady evaporation at first until signs of unconsciousness begin to show themselves, then the drug can be more quickly given. If there is a tendency to holding the breath or to coughing it is a sign that the vapour is too strong for this individual case; the angle-mount should then be rotated back again, thus limiting further evaporation of the fluid until the symptoms subside; it can then be again rotated upwards and the flow continued until the tube is empty. With a little care and practice a very satisfactory induction results in a large percentage of cases.

If the patient be in the recumbent position the facepiece may be put on first, the angle-mount and charged tube then so adjusted that the tube be in the most dependent position, the patient's head being slightly on one side. Now tip up the tube very slowly, which is easily done on account of its rubber attachment to the tap.

The idea of the glass tube I have from Dr. F. W. Hewitt, who uses it with his special gas apparatus, as mentioned before. The metal tap and tube of the angle-mount can with advantage be made larger than those generally found,

and that of mine supplied me by Mr. J. H. Montague of New Bond street, London, who also makes the glass tubes) is very much better.

MIXED WITH NITROUS OXIDE.

In giving a mixture of nitrous oxide and either of these anæsthetics with this apparatus, the simplest way is as follows: The rubber tube from the nitrous oxide cylinders is attached to the tap, the gas is turned on, the mask applied to the face, and the patient is instructed to commence breathing at once. After a few seconds the nitrous gas tube is detached from the tap, and replaced by the charged phial, which should be in this case rather more quickly emptied; satisfactory anæsthesia rapidly follows.

CHLORIDE OF ETHYL ETHER SEQUENCE.

About nine months ago I tried the method of introducing chloride of ethyl into the ether chamber of a "Clover" inhaler through its ordinary filling orifice by first measuring into a minim measure glass a definite quantity, pouring it in and rapidly replacing the plug. This had the advantage of simplicity and could be used in "Clovers" not having a tap on the angle-mount.

On experimenting, I experienced every time a peculiar and unpleasant metallic taste and smell in the vapour, and even when administering it in this way to patients, was distinctly conscious of it, this is absent when given through the tap in angle-mount. The evaporation of the chloryde of ethyl in a large metallic chamber may account for this. I may say I tried two different "Clover" inhalers, with the same results.

The cooling of the ether chamber was very marked. But apart from this, it is a distinct advantage to be able to commence this sequence with the ether chamber ready charged with ether. There should be no smell of ether if the apparatus is well made, and the working parts occasionally taken out and vaselined. The ether chamber is now of course between the angle mount and facepiece.

According to my experience a better induction results if the ether be gradually turned on quite early; in fact, a few seconds after the ethyl chloride has begun to be inhaled, so as to produce a mixture of the vapours. This is easily done by this method and the manipulations are simple. I am convinced that the less ethyl chloride used the better, 1½ c.cm. to 2 c.cm. being often ample if the mask fits well and the ether is turned on soon enough.

CONCLUSIONS.

The following is a summary of the advantages of this inhaler and methods of administration.

1. A measured quantity of the anæsthetic fluid is given, varying according to the age of the patient and taking into consideration the time of anæsthesia required, the nature of the operation, etc. This gives accuracy of dosage and is useful for making observations and notes for future reference. It should also help to insure against an overdose.

2. The anæsthetic can be given gradually, and that after the facepiece is adjusted; this prevents coughing, holding the breath, etc., and produces a satisfactory induction.

3. More can at any time be added if necessary, either by projecting the fluid through the large open tap or by measuring off more in the tube; also, ether can be done without having to remove the facepiece, which is an advantage in some cases in which an exclusion is necessary. On the other hand, the tube need not be emptied if satisfactory anæsthesia is likely to be produced by less than its contents. In hospital practice this is kept over for the next case for purposes of economy.

4. In the event of voluntary struggling, as is sometimes the case in children and very nervous subjects, it is easy to empty the tube by tipping it up with one finger, both hands being available to hold the mask and steady the patient.

5. If the tap is turned off before the tube is filled or the patient will not experience the slightest smell of the narcotic when the mask is applied. This is of importance in nervous patients.

6. A perfectly free airway, no lint, sponge, or wool to breathe through, and no trouble with the patient's mouth to clean, as all evaporation takes place in the metal tube and chamber.

7. Nitrous oxide can be given as a preliminary.

8. By retaining the ether chamber ether can be given with ether as used as a sequence. All that is necessary is the glass tube.

9. Bromide of ethyl could be given with advantage by this apparatus, as it is important to be able to measure the quantity of the dose.

10. Economy in the amount of anæsthetic used.

I have given chloride of ethyl by this method and apparatus, using the paper bag invented by Mr. Richard W. Lloyd, and made by Messrs. Barth and Co., with satisfactory results, and recommend its use (instead of the ordinary black rubber one) in the case of patients suffering from tuberculosis. In purchasing a new apparatus it is as well to have the bag and face-piece of red rubber as it stands sterilization, and as far as my experience goes these drugs have no action upon it.

In conclusion, I would state that I have used this apparatus and method about 500 times, with results so satisfactory that I may perhaps be excused adding another paper to the now large accumulation on this subject.

INTRASPINAL COCAINIZATION.

BY ALFRED S. GUBB, M.D. PARIS.,
Mustapha Supérieur, Algiers

THE method of inducing anæsthesia of the lower limbs by the introduction of small doses of cocaine into the spinal canal is one of which we have heard a great deal, though, so far as I can judge, it does not seem to have been received with favour in England, and but very few practitioners can have had an opportunity of seeing it put in practice. For this reason I thought a few notes on a recent observation here might prove of interest. The idea has hitherto always excited a feeling akin to horror in my mind, for I had not got over the dread of possible consequences as the result of penetrating that *sanctum sanctorum* the spinal canal. The news that Dr Vincent's *chef de service* was about to amputate a thigh at the Civil Hospital at Mustapha under the influence of "rachis-cocainization," as it is styled, raised my curiosity, for I had never seen the method in operation. The patient was a man about 35 years of age, who had some time previously sustained a severe crushed and lacerated wound of the left knee. This had suppurated, and the removal of the limb was judged indispensable.

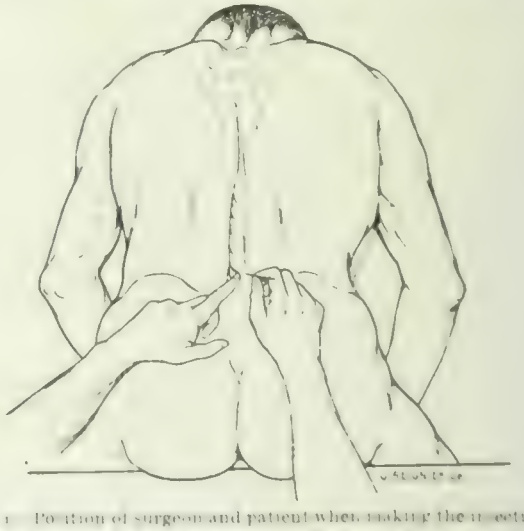


FIG. 1.—Position of surgeon and patient when making the injection.

He was naturally rather nervous, but was too much debilitated by the consequences of his complicated injury to testify much objection. He was placed in the sitting position on the operating table and the skin over the lower part of the back was carefully disinfected in the usual way. The long platino-iridium needle was sterilized by heating to redness in the spirit lamp, and the operator, seated at the patient's back, selected a spot in the spinal column on a level with a line joining the two iliac crests. Guided by a finger placed on one of the spinous processes he plunged the needle boldly into the tissues to a depth of about 2 in. The needle met with no resistance and on disconnecting the syringe cerebro-spinal fluid escaped in rapid drops. One c.cm. of cocaine solution, contained in a sealed glass bulb, equivalent to 2 cg. (about a third of a grain) of the alkaloid was promptly poured into the syringe and ejected into the spinal canal. The

puncture was dressed with cotton steeped in traumaticine (a solution of guttapercha in chloroform).

The patient was then placed on his back and a rag placed over his nose and eyes to give him the illusion of inhaling something, and in five minutes the operation was commenced. It was performed in a very leisurely way and took at least half an hour. The patient never gave the slightest indication of pain or even discomfort throughout the operation proper; in fact, he remained perfectly quiet, breathed evenly, and his pulse was steady and firm.

I must confess that it gave me a little unaccustomed shudder to follow the operation, knowing that the patient was quite conscious, and this feeling was enhanced by the fact that he resented the application of the elastic bandage and Esmarch's tourniquet, for it seems that though this method of cocainization abolishes sensitiveness to the knife it leaves that to pressure unaffected. Even the grating vibration of the saw elicited no reaction on the part of the patient, and he frankly admitted when the stump had been dressed that he had not felt anything.

This was the 231st occasion on which intraspinal cocainization had been resorted to in Dr. Vincent's service, and there has been only one mishap, and this one not due properly speaking to the method *per se* but to the clumsiness of an inexperienced assistant, who allowed the needle to become contaminated without calling attention thereto.

I have since experimented on the cadaver, and I found no difficulty in introducing the syringe except in one instance, when I succeeded an inch or so higher without difficulty.

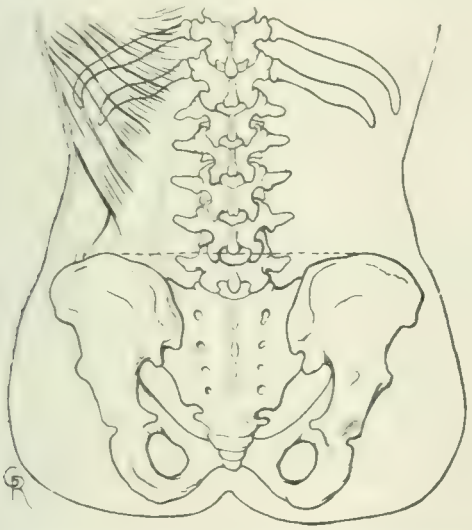


Fig. 2.—The dotted line shows the vertebra corresponding to a line drawn between the iliac crests.

What the future of the method may be I cannot say. I doubt if many surgeons would have the courage to have recourse thereto until they had seen with what ease, certainty, and satisfactory result it can be done, but my own opinions on the subject have been greatly modified by this experience. It is as remarkable in its way as must have been the earlier observations with chloroform and ether. Apart from the theoretical risk of septic infection, spinal cocainization appears to present many advantages over general anaesthesia, which, moreover, is by no means devoid of risks of its own, witness the numerous deaths that occur annually in Great Britain from this cause. Its simplicity, the readiness with which the patient is prepared for the subsequent operation—for it only takes two or three minutes—and the fact that there is no struggling, no respiratory disturbance, or subsequent discomfort are certainly very striking. The skin of the back is comparatively insensitive, so that the pain from the puncture is quite trifling.

Since writing the above I have been afforded several opportunities of performing the operation myself on the living subject. I chose the space above the last lumbar vertebra, which, when the patient is made to bend forward, affords plenty of room if the needle be directed from below slightly upwards and inwards. I experienced no difficulty in attaining my object. I was advised that it is well to allow a certain quantity of cerebro-spinal fluid to escape before making the injection, and some operators dissolve the alkaloid in the fluid itself instead of in sterilized water.

On one or two occasions there was a little vomiting, but as the patient is quite conscious it gives rise to no trouble, and is readily got rid of without hindering the progress of the operation. In a case of operation for hernia the patient left the theatre smiling, asking if she might not be allowed a square meal as she was hungry, showing the slight constitutional effects of the injection and the total absence of shock.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF CYSTIC HYGROMA: REMOVAL: RECOVERY.

A girl aged 7 was brought to the Mayo Hospital in November, 1903, for a tumour in the left axilla, which the mother stated had been present since birth and had grown with the growth of the child until it attained the size represented in the photograph. It extended from the scapula behind, round the side of the thorax, to the outer border of the sternum, and upwards to the apex of the axilla. It was soft and to some extent compressible, but it did not appear that its bulk was lessened by pressure. It had bled occasionally from a point in its lower border, which is marked in the photograph by a plug of absorbent wool applied to check the oozing. The tumour was painless, non-pulsatile, not affected by coughing or crying, and the skin over it not altered in appearance; it did not apparently pass beneath the outer border of the scapula.

As the mother still desired that the removal of the tumour should be attempted, although the risks of any operation were pointed out to her, I decided to excise it. In order to control possible haemorrhage an elastic cord was tied tightly round the base of the tumour and an oval incision was made through the skin beyond this ligature. On cutting into the tumour, it was found to consist entirely of multiple cysts having fairly thick walls of connective tissue, which were marked in places on their inner surface by linear thickenings or puckerings. On loosening the elastic band there was no arterial and not much venous bleeding. There appeared to

be a pedicle of attachment to the wall of the thorax, but there was no extension beneath the scapula. The child made a rapid recovery.

A second photograph sent showed the removal of the deformity to be very complete.]

J. LEWTAS, M.D.Lond., Lt.-Col. I.M.S.,
Surgeon, Mayo and Eye Hospitals, Cawnpore.

ERYTHEMA SCARLATINIFORME.

THE memorandum under the above heading from Dr. James Hamilton of Chelsea, in the BRITISH MEDICAL JOURNAL of March 12th, greatly interested me. I have lately had six cases here in which a distinct scarlatiniform rash appeared; one was obvious scarlet fever, a second was doubtful for days, but proved to be scarlet fever; two others were certainly influenza, and the remaining two closely agreed with **Dr. Hamilton's description in signs, symptoms, and course, and were evidently influenza also.**

In the article by Dr. F. Foord Cleaver, in Professor Allbutt's *System of Medicine*, **influenza is included among the maladies** which have given rise to eruptions mistaken for scarlet fever. Others, like myself, may be indebted to Dr. Hamilton for **opportunely emphasizing this point.**

Mentone. D. W. SAMWAYS.

GLANDULAR FEVER IN JAMAICA.

I WAS much interested in reading in the BRITISH MEDICAL JOURNAL of January 9th, p. 71, of an account of an epidemic of glandular fever by Dr. Byers. **I have had recently several cases under my care, all being children of from 5 to 9 years of age. I have also heard of one or two cases occurring in adults. The symptoms observed in my cases were exactly the same as those mentioned by Dr. Byers, with the addition (1) of severe toothache (molar), lasting for a few hours; and (2) earache lasting on and off for two or three days. In one of my cases the temperature rose to 104°, and so continued for some days. Convalescence was established in a week or ten days.** The cases at first appeared to be mumps, and were so regarded by some of the relations of the patients. I note Dr. Byers's cases occurred in the middle of November. **The epidemic in my district occurred at the beginning of January.**

Jamaica. F. A. G. FURCHAS, M.B.

TWINS: DIFFERENT SEX: DOUBLE AMNION: COMMON CHORION.

ON March 11th I was called to see a patient who was in labour. **This was premature, being between the sixth and seventh months of pregnancy, and the woman was a primipara. The first child had the breech presenting, and was delivered fairly easily: it was a male. The second was a vertex presentation, which I converted into a breech by turning to facilitate delivery. This was a female; both were stillborn. The afterbirth came away entire and without difficulty, and showed two amniotic sacs with a common chorion and one large and well-developed placenta, obviously a single placenta, not two united by fibrous tissue. The point of interest lies in the fact that the children were of different sexes, whereas it is usual under such circumstances to find them both of the same.**

Bury. P. F. BRAITHWAITE, M.B.Lond.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LEEDS CITY FEVER HOSPITAL (BECKETT STREET).

[illegible] CHANCRE OF HEART, HAEMATOMA AND ARNEURISM [illegible] WEEK OF ILL-HEALTH.

Clinical Notes by [illegible] Lumsden, M.B.C.S., L.R.C.P., Resident Medical Officer.

[illegible] was suddenly taken ill [illegible] Nov. 12th, 1903, reported [illegible] vomiting, and complaining of headache, backache, shivering, and pain in the body.

Second Illness.—He was said not to be quite himself, complained of feeling very tired and from time to time [illegible]. He was irritable, and had for some time been very [illegible] she had spoken of insanity [illegible] recently, and since then he seemed to have a fixed idea that [illegible] would attempt to poison him, and in consequence was often afraid of the food she put before him. If any of his friends or acquaintances died he would draw her attention to the fact that they were probably poisoned, and hint that things were not all right on board, etc. After taking to his bed on the 5th, he was very violent and absolutely refused all forms of food. His sister said that for some time prior to marriage (eighteen months previously) he had always been strong and hearty, steady in habits, but with curious eccentricities which they did not understand, and had had no illness before. He would often leave his bed at night and rush round to their bedroom door, knock loudly, and inform the inmates that he was dying, and was evidently frightened about himself. Alcohol and syphilis were inquired for, but strongly rejected. No information was obtainable from the patient himself. A question seemed to arrest his attention, but he lapsed without answering it. Inquiry as to pain only elicited a **sneering negative answer.**

[illegible] Patient was extremely ill, and was thought to be dying. Pulse 160, and very feeble. Artery was not noted to be tortuous or thickened. Cyanosis. Noisy respiration, 24. Constant low muttering delirium and slow waving movement of arms. Pupils small, equal. It was thought that the case might be one of brain disease or that patient was possibly under the influence of opium. The temperature was [illegible]. Tongue moist, dark, heavy fur. Teeth and lips covered with sordes. Abdomen and chest normal. Heart sounds very weak and distant, no [illegible] made out. Two or three acne spots on chest and back. Some wasting of muscles. Reflexes present. Plantar reflex. Finger drawn over the sole produced [illegible] spasm of leg muscles, and seemed to annoy patient considerably. Patient had complete movement of all limbs. Bladder active, but excretions were voided into bed. Skin harsh and dry. Urine collected, negative.

Progress.—The patient remained quietly in bed without restraint; continued to pull clothes about and wave his arms constantly, muttering, with occasional shouting, unless attempts were made to feed him. Food poured into the mouth was returned after a longer or shorter interval, and he continued to spit until all was out again. He was very violent, and swore vigorously on any further attempt being made. The food was held in the mouth, never swallowed. Temperature, on admission, was [illegible] in the evening, [illegible] next morning normal on the second evening, and remained normal till the end. Pulse on admission, was never above [illegible] afterwards, but always very small, and irregular. Respirations between [illegible] and [illegible]. The patient had no sleep until the third night and then after 1 dr. of morphine for only two hours. On awakening he took two feeders of milk. The bowels were washed out with simple enema on the morning of admission, and the result was slight but apparently normal. The enema was given with difficulty, the patient resented it, and strained considerably to retain it. An unsuccessful attempt was made to feed by the nasal tube. The patient always succeeded in catching the tube on the base of the tongue and so directing it into his mouth. On the fourth morning he suddenly developed a condition which was thought to be acute bilateral ophthalmoplegia, though it is possible that the external rectus was not affected, since there seemed to be some slight external squint. Fixed, irregular pupils, ptosis, squint may have been more apparent than real. In spite of [illegible] he developed facial paralysis later. After a month, day there was voluntary and involuntary movement, enemata were given, but were quite unsatisfactory, patient straining so to void the [illegible]. Death occurred on the ninety-[illegible] day of illness. Typhoid was reported as [illegible] from the first, and the case was thought to be certified. Ophthalmoscopic examination was unsatisfactory.

Necropsy.—**The body was that of an average built man, rather wasted;** rigidity and post-mortem staining well marked. The brain was much congested with dark blood, as were all the organs. No signs of growth. Blood in left orbit removed. Contents of orbit normal in appearance. No interference with third nerve. Intestines congested, distended, empty except for [illegible] material in large bowel. Solemn normal. Spleen firmed, facets [illegible] on large bowel. Solemn. Normal size. Kidneys. Normal, congested, capsules stripping easily. No enlargement of mesenteric glands. Liver. Not enlarged, congested. Lungs. Normal, except for some congestion and slight [illegible] exudation on sinking. Diaphragm. Right side. Central tendon looking very thin and shiny, quite enhanced in itself hypertrophied on the left like the heart, was on a similar condition, but easily moved to the [illegible]. Heart. Some hypertrophy, particularly of left ventricle. Pericardium much thickened opaque, and adherent over greater part. Valves. Mitral valves thickened and edges [illegible]. [illegible] may or may not have been present to cause [illegible] valve [illegible] only slightly. In three places calcareous deposits and vascular [illegible] and apparently actually involving the tissues, and it was necessary to use a small saw to open up. In [illegible] the [illegible] would be [illegible] the next was [illegible] with [illegible] and extended into the [illegible] wall. The third was a similar deposit [illegible] and [illegible]. The aorta showed much the same, but to a less degree. The carotid on left side [illegible] very dark, but extending to branches of ophthalmic ophthalmic. Dura mater [illegible] at [illegible] base. The pulmonary artery, about [illegible] above semilunar valves, showed a nodule of calcareous [illegible] which had [illegible] through endothelium and projected into lumen of artery. The surface was grey, and of similar appearance to the deposits described.

REMARKS.—The specimens as above described were exhibited before the December meeting of the Leeds and West

ding Medico-Chirurgical Society. The changes must have en taking place for some time and no doubt would explain e symptoms of the case, and also account for strange ehaviour and night attacks of angina-like suffocation spoken by the sister. The changes are gross for a patient of this e (32 years), and I thought they might be worth recording e this if for no other reason. I am indebted to Dr. Pearson superintendent of the hospitals) for the privilege of describ- g and exhibiting the above.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

At a meeting on March 11th, Mr. Jordan Lloyd, President, in the chair, Dr. Stacey Wilson showed a simple apparatus which he had invented for the administration of creosote in vapour as a treatment for cases of bronchiectasis or certain varieties of phthisis, and which seemed to him to obviate the disadvantages of a creosote chamber. The apparatus consisted of a tin box about a foot in diameter, in which creosote was vaporized by a spirit lamp and the vapour conveyed to the patient's lungs through a valved tube and mouthpiece such as is used for ether inhalations. There was a glass door by which the burning of the lamp could be watched, and fresh air could be introduced by bellows connected with the tube.

Sections of Prostate Glands, etc.—Mr. Jordan Lloyd showed a series of transverse sections of prostates removed *post mortem* from persons at all ages to illustrate the changes which were liable to occur in that organ with advancing years, and to which the name hypertrophy or enlargement was usually applied. The sections were macroscopic, and of thicknesses varying from $\frac{1}{50}$ in. to $\frac{1}{4}$ in. They were preserved by a formalin method, and looked exactly as if freshly taken from the body. They were permanently mounted by a method of the exhibitor's own between glass plates and in a glycerine solution of potassium acetate. Mr. Lloyd's conclusions from a careful study of his own sections led him to conclusions similar to those reported in the British Medical Journal a few years ago by Mr. Cuthbert Wallace. He also showed sections of the uterus prepared in the same way.

Typhoid Fever.—Dr. Simeon read a paper on some varieties of typhoid fever, with remarks on the causes of death. He regarded the disease as a toxaemia the effects of which varied with its intensity and with the site of its principal incidence; intestinal haemorrhage and perforation were the principal causes of death.

Exhibits, etc.—A paper by Mr. Loxton on the treatment of common disorders of the skin was taken as read owing to the lateness of the hour. Earlier in the evening Dr. McCardie demonstrated the special features of Professor Harcourt's chloroform inhaler, while Mr. Loxton showed a case of rodent ulcer which had improved under *x*-ray treatment and one of papular syphilides.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.

At a clinical meeting on April 12th, Dr. L. Maybury, President, in the chair, Mr. Henry Rundle exhibited a man, aged 36; he developed an abscess between the skull and dura mater twenty-three days after an injury, which stripped off a large flap of scalp over the left parietal bone, together with the periosteum. There was no fracture. The symptoms were aphasia and left facial paralysis. He was trephined and pus let out; the suppuration was limited. Speech began to return on the second day, and the facial paralysis disappeared within a week. Mr. Rundle also read notes of two cases of electric current accidents. In one the injuries were burns of the hand and head; in the other the electric shock, which had been conveyed by a flame of gas, had produced a temporary paralysis with rigidity of the muscles of the arm and neck. He also read notes and showed photographs of a case of haemophilic arthritis. Other cases shown were as follows: Dr. J. Ward Cousins: A cranial meningocele, a fracture of skull after operation, and congenital plastic oedema of right hand and arm.—Dr. Lysander Maybury: Spontaneous fracture of humerus, and intussusception occurring twice in a young child.—Mr. C. P. Childe: A case of obstruction following removal of a double broad ligament cyst; ileo-colostomy.—Dr. R. Emmett and C. P. Childe: Case of choledochotomy, and one of "ideal" cholecystotomy for gall stones.—Mr. A. Bosworth Wright: Carcinoma of male breast; congenital absence of fibulae; rodent ulcer treated by *x* rays.—Mr. C. C. Claremont: A case of tuberculous infiltration of larynx after treatment by submucous injection of guaiacol; a case showing the sequelae of herpes ophthalmicus.

Pathological Specimens.—The following pathological specimens were exhibited: Dr. M. Aston Key: A mummified foot produced by embolic gangrene. Mr. C. P. Childe: Carcinoma of the body of the uterus, removed by abdominal panhysterectomy.—Mr. C. C. Claremont: A dermoid cyst.

Clinical Notes.—Clinical notes were read by Mr. Basil Trevelyan on a case of acute cerebro-spinal meningitis; and by the President on a case of subspinous dislocation of the humerus.

SOUTH-WESTERN BRANCH.

At the spring meeting held at the North Devon Infirmary, Barnstaple, on March 30th, Dr. W. F. Thompson, President, in the chair, Dr. W. Gordon read a paper on the influence of posture on cardiac physical signs.—Mr. Russell Coombe read notes of a case of hydrocele of the canal of Nuck.—Mr. R. H. Lucy read a paper on the treatment of uterine fibroids.—Dr. Davy read a paper on the occurrence of fever in children caused by the indigestion of certain kinds of carbohydrate foods.—Dr. Dyball read notes on a case of secondary parotitis ending fatally.—Mr. A. C. Roper read a paper on a form of appendicitis.—Mr. J. W. Cooke showed a case of prostatectomy, and Dr. Harper showed three cases of congenital inguinal hernia occuring in children of the same family, upon whom he had done a radical cure.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Professor E. Klein, F.R.S., Vice-President, in the Chair.

Tuesday, April 19th, 1904.

Bacteriology of Climatic Bubo.

Mr. Cantlie and Professor R. T. Hewlett read a joint communication on climatic bubo. Mr. Cantlie saw the disease, commonly known by the above name, in 1893 in Hong Kong. Many cases occurred, and about a year afterwards plague broke out. The real interest of the subject turned upon the relation of the disease to plague. Climatic bubo was a specific disease accompanied with a high temperature and lasting three or four weeks. The gland affected suppurated, or suppuration occurred around it, and required excision. The pus examined had hitherto proved sterile. Mr. Cantlie named the condition pestis minor. The case in which the present bacteriological examination was made concerned a gentleman in whom a bubo formed in the groin; the periglandular exudation proved sterile, but from the excised gland cultures were made. Professor Hewlett reported that three bacteria were grown from the gland—staphylococcus pyogenes albus, staphylococcus cereus albus, and a minute bacillus staining by Gram's method, and curdling milk. In these respects the bacillus differed from that of plague: it was non-pathogenic to guinea-pigs and mice. As Dr. Simpson had pointed out to the speaker, it corresponded with a micro-organism isolated by Kitasato in 1898 from a case of plague.

Dr. Simpson remarked that the bacillus of Kitasato was not infrequently seen in Capetown, and was associated with what was clinically diagnosed as plague. It was significant that climatic bubo was found in the regions affected with plague; it seemed to bridge over the true epidemics.

Dr. A. E. Wright could not help thinking that a disease caused by such a bacillus as that grown by Professor Hewlett could not be called plague: the two micro-organisms were quite distinct. He observed that the glandular disease due to the true plague bacillus assumed all grades of severity: the glands might not suppurate at all, and the disease would, under such circumstances, be quite local and practically incapable of spreading to other individuals.

Dr. D'Este Emery pointed out that the bacillus in question

bore some resemblance to the acne bacillus of Sabouraud, and might possibly be this, that is, it might have reached the glands in some way from the skin.

The Chairman remarked that sections of such an excised gland would be particularly useful in settling whether the bacillus lay in the tissue; he had seen a similar microbe in connexion with the skin. Kitasato appeared to have modified his descriptions, and it was not easy to identify the micro-organisms under discussion. He did not think the bacillus of Kitasato was a true plague bacillus.

Pyocyaneus Pyaemia.

Dr. T. H. Horder recounted a case of double middle ear disease terminating in pyaemia, in which the B. pyocyaneus was isolated after death. Purulent spinal meningitis was found after death involving the lower part of the cord; paraplegia had been present.

Dr. W. Bulloch adverted to the fact that Charrin had noticed spastic paraplegia in animals experimentally infected with B. pyocyaneus, and the same had been described in man. The microbe was highly pathogenic to animals.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. Brewis, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, April 13th, 1904.

Obstructed Labour.

Professor Jardine (Glasgow) read a paper on clinical notes of a series of 22 cases of obstructed labour, 4 cases of symphysiotomy, and 10 cases of Caesarean section. During 1903 Professor Jardine and his colleague had under their care 703 cases at the Glasgow Maternity Hospital. Of this number 98 had contracted pelvis, the very unusual proportion of 1 in 7. Even this was not all, because these 98 only included those in which there was difficulty in delivery. Details were given of 8 cases of induction of labour. In 2 of these the mother died. Some obstetricians believed induction of labour to be unjustifiable, and advocated symphysiotomy or Caesarean section at full term. Perhaps more children would thus be saved, but even in the hands of expert operators the maternal mortality would not be so low as after induction of premature labour. Four cases of symphysiotomy were then narrated. All the mothers recovered. The children weighed 7½ lb., 11½ lb., 7½ lb., and 8½ lb. Ten cases of Caesarean section were next detailed. Here, also, all the mothers recovered. The placenta was found on the anterior wall in nine-tenths of the cases. The uterus and ovaries were left, even if the tubes were tied for the purpose of sterilization.

Drs. Haultain, James Ritchie, Fordyce, Lackie, Keppie Paterson, and the President discussed the paper; and Professor Jardine replied.

Gynaecology and the Thyroid Gland.

A paper by Dr. R. C. Buist (Dundee) on some cases illustrating thyroid relations in obstetrics and gynaecology, was read by one of the secretaries. The first case was one of myxoedema with cystocoele and prolapse, in which ventrifixation was performed. The second was one of myxoedema with pregnancy. The third had had enlargement of thyroid in successive pregnancies. Although this was the twelfth pregnancy she had only one living child, because of difficult labour.

Thyroidectomized Animals.

Dr. Oliphant Nicholson made a communication on experiments in feeding on thyroidectomized animals. These dogs very readily developed toxic symptoms when fed on meat, which symptoms disappeared when fed entirely on milk. Horsley had noted that some patients suffering from goitre (hyperthyroidism) were apt to develop symptoms of auto-intoxication when the dietary contained too much animal proteid. The hypertrophy in Dr. Chalmers Watson's experiments clearly indicated that these glands were overtaxed in their duties to supply an increased amount of secretion to meet the altered metabolism consequent on the dietary. The remarkable influence of milk diet in eclampsia rested on this explanation, and the exhibition of thyroid in eclampsia was indicated.

Dr. Chalmers Watson showed specimens illustrating the influence of a raw meat dietary on the thyroid (hypertrophy) and parathyroid glands (hypertrophy). The specimens shown are described in a preliminary note in the *Proceedings of the Physiological Society* for March, 1904.

LIVERPOOL MEDICAL INSTITUTION.

James Barr, M.D., F.R.C.P., President, in the Chair.

Thursday, April 14th, 1904.

Carcinoma of the Oesophagus: Gastrostomy.

Dr. Philip Nelson related a case of carcinoma of the oesophagus in a woman aged 50.

Difficulty in swallowing had only existed for three months but had rapidly increased. Her voice was hoarse and there had been several attacks of laryngeal spasm. On examination there was found to be complete paralysis of the left vocal cord and abductor paralysis of the right cord. An oesophageal bougie became arrested at a point opposite the cricoid cartilage.

Gastrostomy was performed by Mr. Paul in June of last year; it resulted in marked relief, and all went well until January of this year, when she died. Subsequent examination showed that the growth had opened into the trachea, the right lung being the seat of a large abscess.

Excision of Gasserian Ganglion.

Mr. Damer Harrisson related two cases in which he had removed the Gasserian ganglion for paroxysmal neuralgia.

The first case was that of a man aged 41, who for years had suffered from severe neuralgia corresponding to the distribution of the inferior dental and infraorbital nerves. The inferior dental nerve was exposed in the bony canal and a portion of it excised; the infraorbital nerve was exposed and stretched. The operation was followed by complete relief of the symptoms. Some months later, however, there was a return of the neuralgia, and Mr. Harrisson, after reflecting the zygoma, exposed and tore through the middle and inferior divisions of the fifth nerve. Pain was relieved for ten months, but then returned again. Finally the Gasserian ganglion was excised by Rose's method.

This operation was performed seven and a-half years ago, and since then there had been no return of the neuralgia. The second case was as follows:

The neuralgia was confined to the distribution of the inferior dental nerve, the latter Mr. Harrisson exposed near the base of the skull and tore through. Marked temporary relief followed, but some months later, owing to a return of the neuralgia, the Gasserian ganglion was excised by the same method as in the previous case.

This operation was performed in 1896, and the patient had been entirely free from pain ever since.

The Technique of Aseptic Surgery.

Mr. Paul, in opening a discussion on this subject, said that though the recent changes in the treatment of wounds did not constitute a revolution like the introduction of Listerism they were unquestionably very important, and he thought there were many advantages in discussing the details of their practice. He first dealt with the preparation of the skin of the patient, and said there was a strong tendency amongst surgeons to leave this important matter too much to the discretion of the nurses. The hands of the surgeon were next considered. For his own part he employed the permanganate method, and was well satisfied with it. Except in septic cases he did not wear rubber gloves, but his assistants did. For ligatures and buried sutures he much preferred catgut, prepared according to a method he described, to silk, and for skin sutures he used silkworm gut. He did not hesitate to employ drainage in the form of a glass tube or gauze if there was any reason to expect an accumulation of serum in the wound. For dressings he preferred plain sterilized gauze and absorbent wool. In conclusion, he said that while the introduction of Listerism had been the means of saving many lives, the introduction of the aseptic method had been the means of saving much time through the more perfect healing of wounds.

Sir William Banks said he had followed the whole course of antiseptic surgery from 1865, when he had learnt its tenets from Professor Lister until to-day, and had practised it in every phase of its development. More and more it was resolving itself into simple but thorough surgical cleanliness. He deprecated the lavish expenditure upon modern operating theatres, and said he found his operations done in private just as successful as those done in the most elaborately-built hospital theatres. He boiled everything that came in contact with the wound, and for this reason preferred silk to catgut as a ligature. As to skin cleansing, if the skin was well shaved, a good scrubbing with any mild antiseptic was all that was necessary. He had a strong opinion that aseptic surgery would soon resolve itself into boiling everything that could be boiled and shaving everything that could be shaved.

Mr. Thelwall Thomas thought the term aseptic, when used as opposed to antiseptic, unfortunate; there was no such thing as aseptic surgery in the strict sense of the term, for every surgeon used chemical antiseptics for the skin. He

as convinced that the deeper parts of the skin were never endered sterile, and was an ardent advocate of the wearing f rubber gloves by the surgeon and his assistants. He conidered the question of aerial infection a negligible quantity i private practice, but that it remained in hospital theatres, here septic and clean cases were operated upon, a matter or serious consideration, and he strongly approved of the rinciple of special theatres and wards for septic cases.

Mr. Newbolt compared the results of 126 consecutive cases f hernia operated upon with and without rubber gloves, the onditions otherwise being the same. In the first series 1 ase in 7 suppurated. In the second series suppuration ecurred in 1 case in 5.

Mr. George Hamilton said he had performed 125 major perations since May last, and in only 5 of these had supuration occurred.

Mr. Larkin, Mr. Damer Harrisson, Dr. Alexander, Dr. Briggs, Dr. Grimsdale, Mr. Rushton Parker, Dr. John Semmell, and Dr. L. T. Davies also took part in the discussion.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND:

NORTHERN AND MIDLAND DIVISION.

J. Rutherford Gilmour, M.B., C.M., in the Chair.

Thursday, April 7th, 1904.

The spring meeting was held on April 7th, at Scalebor Park, Burley-in-Wharfedale, the new asylum erected by the West Riding County Council exclusively for the reception of private patients, at the invitation of its medical superintendent, Dr. J. Rutherford Gilmour.

Saline Injections and Mental Disease.

The Chairman read a paper on the value of saline injections in certain acute cases of mental disease. His method was first to empty the rectum by an ordinary enema and then to inject 15 oz. of a 0.75 per cent. solution of common salt three or four times daily. Improvement in many cases had followed, the mental symptoms quietening and the pulse-rate falling. The injection was rarely returned and no bad effects had been observed. The bladder had to be watched. The treatment was most useful in severe delirious cases, where the strength was much reduced.

Dr. Eddison believed the improvement was similar to that occurring in the febrile cases, in which restlessness and excitement abated when plenty of fluid was given. In such cases the nervous system shared largely in the benefit produced by the much-needed water.

Drs. Pope, Macphail, Eurich, Maule Smith, and Trevelyan also discussed the treatment.

General Paralysis and Workmen's Compensation.

Dr. Middlemass related a case of general paralysis of the insane, where the symptoms appeared a week after a fall of 3 ft. or 4 ft. from a ladder. The patient had received compensation under the Act, which was withdrawn after his opinion as to the cause of the disease had been heard. Dr. Middlemass based his opinion upon the following facts. The accident was comparatively slight, causing no loss of consciousness nor any symptom of direct brain injury; the symptoms of general paralysis appeared in a pronounced form a week after the accident; there was also a strong presumption of a syphilitic history. The patient died. On necropsy no signs of traumatism was found in the brain or skull, and the state of the cerebral vessels confirmed the syphilitic theory of the cause of the disease. He asked whether previous existence of syphilis should absolve the employer from liability.

Dr. Gilmour related a case where general paralysis followed a blow upon the head, but in this instance *post mortem*, besides the signs of this disease, there was evidence of fracture of the skull and of secondary meningitis.

Dr. Merson though the accident was often the result of the patient's clumsiness; where the disease started directly after an injury, a decided opinion against the claim would not be justifiable, without evidence of previous illness, the accident having roused a latent disease.

Dr. Johnstone mentioned a case where locomotor ataxia was only diagnosed after a bicycle accident to an experienced rider.

Dr. Eurich thought the victim was entitled to compensation if the onset of the disease was accelerated by injury.

Drs. Mould, Pope, Eddison, and Maule Smith joined in the discussion.

Laryngological Society of London.—At a meeting on April 8th, Dr. P. McBride, President, in the chair, Dr. StClair Thomson showed a case of membranous ulceration of the fauces of six weeks' duration in a woman of 36. The glands were enlarged, but there was neither fever, nor Klebs-Loeffler bacilli, Vincent's spirilla, or fusiform bacilli. Those members who discussed the case inclined to a diagnosis of syphilis.—Mr. P. de Santi showed a case of chronic hoarseness in a woman of 43. There was general thickening in the interarytenoid space and a small nodule at the right processus vocalis (pachydermia laryngis).—Dr. H. L. Lack showed a man with bilateral abductor paralysis, the result of trauma, and asked whether any operation could be done to relieve the laryngeal obstruction. The opinion of the meeting was contrary to operation.—Mr. H. Tod showed a case of tuberculous laryngitis in a girl of 13 with definite tuberculous disease of both lungs, and 3 cases where the "fenster-resection" operation for deviation of the septum had been performed. The results were satisfactory, but the opinion was expressed that this operation was no new one, and had been performed frequently in England for the last fifteen years.—Dr. H. Tilley showed a case, exhibited twelve months ago, to illustrate the permanence of the success of an operation for extensive adhesions of the soft palate to the posterior pharyngeal wall.—Dr. H. W. Kelson two cases of disease of the fauces simulating syphilis.—Dr. J. B. Ball showed a case of melanotic sarcoma of the palate in a man aged 53, who had noticed some black patches on the palate about two years before. Some seven or eight months ago a growth commenced on the soft palate which had grown considerably during the last few weeks, while the patient had lost a stone in weight during the last year. There was some slight glandular enlargement under the chin in the middle line. Mr. de Santi advised thorough extirpation of the growth itself and surrounding parts, but thought the prognosis very bad in any case.—Mr. E. B. Waggett showed a pair of shears for thyrotomy and an aseptic forehead-mirror handle for use during operations on the throat and nose.

Dermatological Society of Great Britain and Ireland.—At a meeting on March 24th, Dr. J. H. Stowers, President, in the chair.—The President announced that Dr. H. A. G. Brooke (Manchester) had consented to give the oration at the annual meeting next month on the Clinical Relationships of Seborrhoea, and that the Society's dinner would take place after the meeting. The following cases were exhibited: Dr. A. Eddowes showed a case of extensive acute squamous eczema in a woman, aged 55, who was addicted to alcohol.—Dr. E. Graham Little showed (1) a female child, aged 13 months, with purpura haemorrhagica; (2) a boy, aged 10, with prurigo of Hebra.—Dr. V. H. Rutherford showed (1) a woman, aged 35, with lichen planus; (2) a case of (?) lichen obtusus.—Mr. A. Shillitoe showed (1) a syphilitic eruption of the corymbose type, (2) a case of syphilis and scabies.—Mr. Waren Tay sent a boy, aged 17, with small pigmented depressions on the bridge of the nose, for diagnosis. The opinions expressed varied between the condition being congenital, of the nature of acne cheloid, an early stage of rodent ulcer and a chronically infected sebaceous cyst.

Bristol Medico-Chirurgical Society.—At a meeting held on April 13th, Mr. J. Paul Bush, C.M.G., in the chair, Dr. Stack showed some specimens of rare tumours of the breast, with microscopic sections. Dr. Shingleton Smith and Messrs. Mole and Groves remarked on the specimens.—Mr. Bush read notes of a case of acute haemorrhagic pancreatitis. Messrs. Mole and Carter and Drs. Waldo and Firth discussed the case.—Dr. E. C. Williams read notes of a case of blackwater fever, and Mr. Carter and Dr. Waldo remarked thereon.—Mr. Munro Smith read a paper on the diagnosis of malignant tumours by the microscope, illustrated by lantern slipes. Drs. Michell Clarke, Stack, and Wills discussed the paper.

Railway Ambulance Men.—A competition took place at King's Cross Station last week to select the team to represent the Great Northern Railway in the competition with other railway companies for the challenge shield presented by the St. John Ambulance Association. The judges, Dr. R. J. Roberts and Dr. J. Maclean Carvell placed the King's Cross team first.

REVIEWS.

CANCER.

Dr. DAWBARN's work on *The Treatment of Certain Malignant Growths by Excision of the External Carotids* is one that should receive the attention of all surgeons. Ligature of the carotids for the purpose of starving out tumours of the head and face is a proceeding which has been made use of from time to time, but the infrequency with which it is practised to-day shows how utterly disappointing have been the results. Dr. Dawbarn presents in a most complete and satisfactory manner the histories of 47 cases in which the proceeding which he advocates was carried out, in 21 instances by himself, and also gives an account of 17 cases in which excision of the external carotids was supplemented by injection of the terminal branches. The operation consists in the exposure of the external carotid and its removal in its whole extent with ligature of the branches. In order to cut off the blood supply effectually it is necessary to do this on both sides; after unilateral excision, pulsation returns in the branches within a few days. The results which Dr. Dawbarn records can only be described as remarkable. Of 11 cases of sarcoma whose history was traced, 2 died from the growth, 1 from doubtful recurrence, the remainder were living and well at periods of from one to eight years. In 24 cases of carcinoma the statistics were much less favourable; in 2 cases only occurred what could be called permanent cure. The supplementing of the operation of excision by the injection of paraffin into the termination of the artery and its three last branches was suggested to the author by Dr. J. A. Wyeth; the cases which he records show that this addition is not without serious risks, such as that of sloughing of the eye, but no final opinion can at present be formed as to its value. All the patients on whom these operations were performed were the subjects of otherwise inoperable malignant disease of the mouth, pharynx, neck, or face, and there seems no doubt that the successful cases were rescued from a hopeless condition. In certain desperate cases it seems likely from a perusal of these histories that the operation can be expected to cause such shrinkage of the growth as to bring it within the bounds of possible surgical removal. If this proved to be rule the operation would be of very great value. The technique is clearly described; evidently it is not an easy undertaking under the best conditions, and access to the terminal branches must be impossible in a considerable proportion of those cases in which the growth encroaches on the neck. No doubt the operation will be repeated by many surgeons within the next few years. Dr. Dawbarn must be complimented on the very candid and temperate manner in which he writes of the operation; it seems probable that he will also have to be congratulated on having elaborated a method of treating with a fair measure of success an otherwise desperate condition.

The character of Major LINK's pamphlet on *Cancer* will be perhaps most readily judged by quoting a few extracts. On the subject of a probable parasitic origin of the disease the author writes that

> "the [illegible] or "autosite," which [illegible] seizes its favourable opportunity through certain flaws and defects in hygiene and sanitation, and develops into a [illegible] casting off allegiance to the protophyta, and claiming allegiance to the skin to protozoa [illegible] in the mental world of lower animals and insects, etc.

Major Link feels that the above statement is quite consistent with the laws of parasitology and bacteriology. Professor McFadyean will be surprised to hear that he was the first to discover that cancer occurred in animals other than man. Chemists and bacteriologists will be also surprised to learn that

> [illegible] be as necessary to us as bacteria [illegible] certain [illegible] be [illegible] all.

We have heard of histologists who have claimed as parasites forms which have later been shown to be of other nature. We have never before found an example of a bacillus being argued into existence and named. The fact that cancer is common at the menopause is probably due, according to the author, to dead or decaying ova which infect the system: they act as a ferment which sets up a new growth "in the same manner almost as fleshy growths occur in mole pregnancy of the uterus." It is surely a new fact in cytology that nucleated red corpuscles are "intermediate elements" between white and red corpuscles! The pamphlet is full of "monads," "haematozoa," "animalcules," "acantho cephalidae," and readers are given a choice of a large number as the "cancer parasite." Major Link appears to favour "Gordius," for reasons which are not quite clear: we are given to understand that possibly this parasite may enter the human body apparently on the ground that it "has been found wandering into the bodies of ephemera." With regard to its entry into the human body, "it probably enters a vein or lymphatic where the eggs are deposited, and where it sets up changes leading to leucocythaemia of a peculiar type, which leads either to a form of lymphadenoma or myxoedema, or to cancer." We find it necessary to refrain from any general criticism of this remarkable publication.

TEXTBOOKS OF SURGERY.

In the first volume of this *Manual of Surgery*, Dr. ALEXIS THOMSON and Dr. ALEXANDER MILES have given an instalment of what promises to be an able and important contribution from the Edinburgh Medical School to the teaching literature of modern surgery. This volume, which, we assume, presents one-half of the manual, fulfils in all details, including the not insignificant ones of size and handiness, the conditions of an authoritative work on surgery adapted to the requirements of both practitioner and student. The teaching throughout is in complete accord with the latest developments of surgical work, and, as would be expected, carries out the traditional character of Scotch teaching in being practical and thorough. Although with a view to necessary compression the authors have curtailed as far as possible the discussion of theoretical and debatable matter, and have dealt with pathological subjects simply in their relation to questions of diagnosis and treatment, the manual is comprehensive and well fitted to impart sound instruction on both the scientific principles and the practical points of the surgery of the present day. The usefulness of the book is enhanced by its excellent type, an abundance of original drawings, and a full and accurate index. The present volume, in addition to chapters on different branches of general surgery, deals with injuries and diseases of bones and joints, and with the special subject of the deformities of the extremities.

The Principles and Practice of Surgery, by Professor G. T. VAUGHAN, of Georgetown University, conforms to the prevailing type of works of this kind intended for general practitioners and students. It presents no special features, and it seems difficult, considering the number of such general treatises that have of late been issued, both in the United States and in this country, to make out how the author has been convinced that there is much need for this addition to surgical literature. He has, it is true, presented his subject-matter from a very practical point of view, and his teaching, though condensed, is clear and sound, and such as to render his book trustworthy for purposes of both study and reference. It would have been well if the list of special subjects omitted from this work had been extended, as some of the chapters—those, for instance, on the Roentgen ray and on orthopaedic surgery are brief and inadequate. The illustrations, for many of which the author acknowledges his indebtedness to other sources, are in many instances wanting in clearness and in the pictorial excellence that is expected in modern works on medical subjects.

Dr. KELLY and Dr. J. WILLIAM WHITE, who have so ably edited the American *Textbook of Surgery* from its first issue

> [illegible] By G. E. [illegible] M.R.C.S., L.S.A. [illegible] M.B. [illegible] London: H. K. Lewis. [illegible] Demy 8vo. pp. [illegible]
>
> [illegible] By Alexis Thomson, M.D., F.R.C.S. Edin., Assistant Surgeon, Edinburgh Royal Infirmary; Surgeon to the Deaconess Hospital, Edinburgh; and Alexander Miles, M.D., F.R.C.S. Edin., Assistant Surgeon, Edinburgh Royal Infirmary; Surgeon to Leith Hospital. Vol. I. General Surgery. Edinburgh and London: Young J. Pentland. [illegible] (Crown 8vo, pp. [illegible] illustrations, [illegible] net.)
>
> [illegible] Designed for Students and Practitioners. By George T. [illegible] Vaughan, M.D., [illegible] of Vol. Assistant Surgeon-General, Public Health and Marine Hospital service of the United States; Professor of the Principles and Practice of Surgery, Georgetown University, Washington, D.C. Philadelphia and London: J. B. Lippincott Co. [illegible]. Demy 8vo, pp. [illegible], 81 illustrations, [illegible] net.)

1902, have to be congratulated on the success of their venture and the recent appearance of a fourth and thoroughly revised edition. This book is the result of the combined efforts of many contributors who have gained a wide reputation. The new edition, it is stated in the preface, has been more extensively altered than any of its predecessors, and contains six entirely new chapters. The tendency to increased size has been kept down by the use of a thinner and better type, and by the substitution in some few chapters of a smaller type. The names of the eminent editors and the part taken by the contributors in the advance of modern surgery form a sufficient guarantee that the excellence and usefulness of this work have in its latest form been well maintained.

The English translation of Professor Kocher's *Textbook of Operative Surgery* by Mr. Harold Stiles has reached a second edition. The thorough revision of the German work and the many additions made to it from time to time since the first issue of the translation in 1895 have led Mr. Stiles to compile a volume almost twice the size of its predecessor. Many sections, including those on the treatment of wounds and the operative surgery of the thorax, abdomen, and pelvis, have been entirely rewritten; and, indeed, as is pointed out in the preface, the present work—a translation of the fourth German edition—may be regarded as practically a new book. The earnest endeavour of the editor to impart to British surgeons the teaching of the distinguished Bernese professor has led him to add in the form of an appendix a translation of an instructive but somewhat polemical paper on gastro-duodenostomy.

In the preparation of the fourth and latest edition of his well-known treatise on emergency surgery,[1] Professor Lejars has endeavoured both by addition and by omission to render his a complete and reliable source of information on the latest methods of surgical therapeutics in urgent and very severe cases. The size of the volume has been increased by the addition of sections on certain fractures, on rupture of the uterus during labour, on inguino-interstitial herniae, and other injuries and affections not dealt with in previous editions. Every chapter, the author states in the preface, has been revised and rewritten, with the intention of adding to the practical details without increasing too much the size of the book. Considerable additions have been made to the number of illustrations which form so marked and instructive a feature of the book. Amongst them are sixteen excellent coloured plates from water-colour drawings by M. Leuba, which represent the important stages of certain operations, as, for instance, trephining of the cranium and mastoid antrum; and hysterectomy, removal of the appendix, enterectomy, and other procedures of abdominal surgery.

ORTHOPAEDICS.

While the volume by Drs. Julius Wolff and Joachimsthal deals mainly with the pathogenesis and treatment of club-foot, the first part of it is devoted to the general factors, physiological and anatomical, by which the shape of the bones is determined. Then the value of the study of physiological and functional influences in elucidating the pathogenesis of deformities is emphasized, and Wolff's law, which is now widely accepted, is frequently mentioned in this part of the book. The factors determining the shape of the skeleton in general are then examined more minutely, so far as their application to club-foot is concerned. All the various theories are duly discussed, with a wealth of bibliography and such patience and thoroughness as is only to be met with in special treatises. The latter part of the book describes the various methods for the treatment of club-foot of various kinds, and more particularly contrasts the procedures of Volkmann, Lorenz, and Hoffa. Finally, Dr. Wolff gives his own experiences, but we must confess that the figures illustrating the cases do not convince us that the results are all that can be desired. As a work of reference we think that if the bibliography had been duly tabulated, and if an index of subject material and of authors' names had been added, the volume would prove of greater use to those interested in the subject.

Mr. Noble Smith is well known for his writings on spinal caries, and now he presents us, in his small work on the *Management of Lateral Curvature of the Spine*, with his experience in the treatment of lateral curvature and kyphosis and kindred deformities. In the preface he states that he has discussed the advantages to be derived from scientifically-applied exercises, and has also endeavoured to show that in a large number of cases the use of a mechanical appliance is advantageous, while he freely admits that there has existed a strong prejudice against the use of spinal apparatus. He believes that he has found a simple splint which is free from the objectionable qualities appertaining to the older mechanism. On looking through the volume we find that this particular splint is Chance's spinal support, a somewhat difficult arrangement to adjust properly and one requiring frequent attention. We must confess that we are unable to pin our faith so thoroughly to this apparatus as the author does, and we look upon it as more likely to be suitable to those cases in which no further improvement may be expected and where the object is to prevent the patient from becoming worse. The book is well printed and most of the illustrations are good, although we do not find anywhere a clear diagram of Chance's splint. We lament also the absence of an index. To those who desire information as to some varieties of spinal and chest exercises the little volume will prove useful.

FRACTURES.

Professor Helferich's *Atlas of Fractures and Dislocations*[10] has, under the editorial supervision of Dr. Bloodgood, been added to the useful series of books known in their English form as Saunders's Medical Hand Atlases. In this authorized translation from the fifth and last edition of the German work, both editor and publishers have succeeded in presenting a book of much practical value in so fitting and convenient a form as to render it acceptable to students as well as to practitioners. The high repute of Helferich's *Atlas* and the service it has rendered to students of clinical surgery are due for the most part to the excellence of the illustrations, which are intended to show side by side the external signs and the internal anatomical lesions of the typical forms of both fracture and dislocation. To these are added Roentgen-ray pictures, in which the effects of traumatism are compared with the normal conditions of bones and articulations. The clearness, accuracy, and pictorial qualities of the original drawings are well preserved, and the descriptions afford good examples of careful translation. To the epitome or general comment of the original author Dr. Bloodgood has made some extensive additions, which serve to bring under the reader's notice the most recent views on the treatment of fractures and dislocations, and certainly add to the value of the book as a clinical treatise.

Dr. Scudder's book on the *Treatment of Fractures*[11] has gained a permanent place among the many treatises on this subject written by American authors, and may be regarded as an instructive guide to the modern methods of diagnosing and of dealing with these common forms of injury. In the fourth edition the author has revised and added to the text, and written a new chapter on the generally-accepted methods of treating a few of the ordinary dislocations. Several *x*-ray plates of the epiphyses at different ages of life have been in-

[1] *A Textbook of Surgery for Practitioners and Students.* Edited by William W. Keen, M.D., LL.D., F.R.C.S. (Hon.), and J. William White, M.D., Ph.D. Two volumes. Fourth edition. London: W. B. Saunders and Co. 1903. Roy. 8vo, pp. 1,[illegible] 800 illustrations. 36s.)

[2] *Textbook of Operative Surgery.* By Dr. Theodor Kocher, Professor of Surgery and Director of the Surgical Clinic in the University of Bern. Authorized Translation from the Fourth German Edition, by Harold J. Stiles, M.B., F.R.C.S.Edin., Surgeon to the Royal Edinburgh Hospital for Sick Children, etc. London: Adam and Charles Black. 1903. (Roy. 8vo, pp. 4[illegible] illustrations. 25s.)

[3] *Traité de Chirurgie d'Urgence.* Par Felix Lejars, Professeur Agrégé à la Faculté de Médecine de Paris, etc. Quatrième édition. Paris: Masson et Cie. [illegible]. (Cr. 8vo, pp. [illegible] 326 illustrations. Fr. [illegible].)

[4] *Ueber die Entstehung und die Behandlung des Klumpfusses.* (On the Causes, Condition, and Treatment of Talipes.) Von Dr. Julius Wolff. Weil Geb. Medicinalrath, a.o. Professor der Chirurgie und Direktor der Königl. Universitäts Poliklinik für orthopädische Chirurgie zu Berlin. Herausgegeben von Professor Dr. Georg Joachimstal. Berlin: August Hirschwald. 1902. (Demy 8vo. pp 178. 7 Illustrations. M 4

[10] *The Treatment of Fractures, with Notes upon a Few Common Dislocations.* By Charles Locke Scudder, M.D., Surgeon to the Massachusetts General Hospital. Fourth edition. London: W. B. Saunders and Co. 1903. Demy 8vo. pp [illegible] 600 illustrations. 21s.

[11] *The Management of Lateral Curvature of the Spine, Stooping, and Development for Chest in Phthisis.* By E. Noble Smith, F.R.C.S.Edin., Senior Surgeon to the City Orthopaedic Hospital. London: Smith, Elder and Co. 1904. (Cr. 8vo, pp. 141, 45 illustrations. 2s. 6d.)

[1] *Atlas and Epitome of Traumatic Fractures and Dislocations.* By Dr. H. Helferich, Professor of Surgery in the Royal University, Greifswald. Authorized translation from the German. Edited by Joseph C. Bloodgood, M.D., Associate in Surgery, Johns Hopkins University, Baltimore. Fifth Edition. Philadelphia and London: W. B. Saunders and Company. (Crown 8vo, pp. 353; 426 illustrations. 14s.)

troduced, and the accuracy of the other illustrations has been increased by the introduction of half-tones. The work in its present form is a lucid and practical review, and may certainly be regarded as one of the best illustrated volumes on its subject.

NOTES ON BOOKS.

DR. REGINALD FARRAR, in writing *The Life of Frederick William Farrar*,[1] has collected material chiefly from friends of his distinguished father, and is wise enough to suppress any personal feelings which, however natural, might render the book less generally interesting. He has not aimed at writing a complete and exhaustive biography, but rather a memoir of such length as to be read by the general public. Frederick William Farrar, son of the Rev. Charles Pinhorn Farrar, was born in Bombay, on August 7th, 1831, and began his education at King William's College, Isle of Man, afterwards passing through King's College, London, and Trinity College, Cambridge. After being assistant master, first at Marlborough and then at Harrow, he became head master of Marlborough in 1871; he was appointed successively Canon of Westminster and Rector of St. Margaret's and in 1895 Dean of Canterbury. Farrar, who was an ambitious man, was not happy nor at his best as assistant master, teaching in a low form, and being able to preach but once in a term. He had only a small boarding house, and had no means of being a leading spirit, nor was he consulted about the management of the school. His friends were glad therefore when he became head master at Marlborough, and had a field for his great powers. He was assisted by an exceptionally able staff, which served under him with loyal and heart-whole devotion, and Marlborough rose to the very zenith of her great reputation. Of his transfer to St. Margaret's Bishop Montgomery, one of his curates there writes:

> It was obvious that the Canon was not brought to Westminster for the parish work, but for the sake of the Abbey and of St. Margaret's pulpit, as a factor in the religious life of London.

The Rector accepted this position, and left most of the parish work to his curates, although he visited to a certain extent and taught for some years in the schools. Farrar was one of the great preachers of Queen Victoria's reign, and while he was Canon of St. Margaret's, Westminster, the church used to be crowded to overflowing. Of his work there Bishop Montgomery writes:

> The transformation of St. Margaret's, both as a building and as a spiritual force, was the crown of the Canon's work as Rector. It is no derogation to the earnest men who were in power in the parish before him to say that Canon Farrar revolutionized the Church from every point of view. . . . The congregations were of course enormous. Constantly those who could not gain admittance betook themselves to the Abbey instead. The House of Commons seats for it is the church of the House of Commons) were filled. Americans made it a point to worship, not only in the Abbey but also to listen to Canon Farrar in his parish church. Soon a large choir was formed, homely in one sense, a truly parochial choir composed of men who were never absent, and whose numbers were only limited by the space in the Church. The sidesmen and churchwardens never failed to be present, and were hard worked officials in their attempts to cope with eager throngs collected from all parts of London, and indeed of the world. I have seen the church so full, again and again, that it was almost a painful sight.

It is interesting to speculate whether Farrar would have been a successful bishop, the fact that he was believed to favour certain schemes for reforming the Church of England which were looked upon with disfavour by members of the Church in high authority, probably prevented his elevation. But he was a remarkable man, and his *Life of Christ*, which helped thousands to understand the New Testament, thereby rendering a lasting service to the cause of religion, would alone have earned for him the lasting gratitude of the Church. An accidental fall, some years before his death, set up an insidious process of degeneration in the spinal cord, the results of which caused progressive muscular atrophy, and finally robbed him of all power in the upper extremities; finally atrophy of the muscles of respiration brought his life to a peaceful and painless end.

The Book of Herbs,[2] by Lady ROSALIND NORTHCOTE, is one of the series of Practical Gardening books edited by Mr. HARRY ROBERTS. The book is divided into three parts, the first dealing with the chief herbs used at the present time, the second with herbs chiefly used in the past, and the third with herbs used in decorations, in heraldry, and for ornament and perfumes. In a chapter on herbs in medicine we read:

> Many herbs have been expunged from modern *Pharmacopœias*. Perhaps we have no use for them now that we in England no longer live in perpetual terror of the biting of sea hares, scorpions, or tarantulas, as our forefathers seem to have done. Herbs are dying out among the country poor in favour of quack medicines, though some are still employed, such as wood-sage, dandelions, centaury, and meadow-sweet as "bitters." Hellebore is also used, and angelica holds a high place among village herbalists. The dried leaves are said to have great power to reduce inflammation. Mallows are likewise used, while elder still keeps its place in the *Pharmacopœia*. Primrose, poor man's friend, and comfrey are together made into ointment, white comfrey being used when the ointment is for a woman and red-flowered comfrey for a man. The juice of house leek mixed with cream relieves inflammation, and particularly the irritation which follows vaccination in an arm "taking beautifully." Pennywort is said to be equally efficacious, especially used with cream, and when simmered with the "sides of the pan" have been known to heal where linseed poultices failed to do good. When the leaf of pennywort is applied to a wound one side draws, the other side heals. Marigold tea is administered for measles, and also in a less degree saffron, both probably on the "doctrine of colour and analogy" referred to the rash. Meadow saffron is still officinal, and is dispensed as tincture of colchicum. Broom and furze are popular remedies, while camomile is officinal. Dr. Schimmelbusch, the great authority, recently recommended it as a mouth wash for disinfecting the mucous membrane after cases of operation of the mouth. In a fomentation camomile heads are a recognized anodyne, and wild camomile and red pimpernel are given locally for asthma, it is said, with great success. Numerous other herbs, too many to enumerate, are said to have medicinal and healing properties.

Abroad herbs are much more commonly employed even among the educated classes than in England. Thus, in France tisanes are given for indigestion, headaches, chills, and other ailments. The tisanes are made of such herbs as lime blossoms, violets, marsh mallow, and camomile flowers, while Iceland moss is considered an infallible remedy for a cold, and a teaspoonful of orange flower water is believed to cure headache or a feeling of nausea. Lady Rosalind Northcote's book contains numerous illustrations, and is altogether readable.

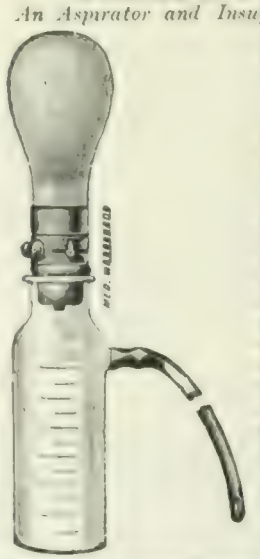
[1] *The Life of Frederick William Farrar, Archdeacon of Westminster, Dean of Canterbury*. By his son, Reginald Farrar. London: James Nisbet and Co. 16s.

[2] *The Book of Herbs*. By Lady Rosalind Northcote. London: John Lane. 12s. 6d.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

An Aspirator and Insufflator. The annexed figure represents an apparatus which Dr. ALBERT ROSENAU, of Bad Kissingen, has had made. Its primary purpose is to withdraw liquids from the stomach for analysis, but, in view of its portability, he thinks it would prove useful in general practice as an instrument for evacuating pleuritic effusions in children or for insufflating the lungs of asphyxiated infants. It consists of a graduated bottle of the capacity of about 7 oz., communicating with a stomach tube and closed by an indiarubber stopper. The latter has three valved apertures, any one of which can by a rotatory movement be made to communicate with the superimposed elastic bag. Thereby the atmospheric pressure within the bottle can either be exhausted or increased at will. It has been made for him by the Mechanisches Waarenhaus Actiengesellschaft, Berlin, and the price is £1 4s.



MILK PRECAUTIONS AT LIVERPOOL. At Liverpool a dairyman has recently been fined 40s. and costs for failing to give written notice to the medical officer of health that one of his cows exhibited signs of tuberculosis of the udder.

HE QUEEN VICTORIA MEMORIAL PAVILIONS, ROYAL PRINCE ALFRED HOSPITAL, SYDNEY, N.S.W., AUSTRALIA.

By Professor T. P. Anderson Stuart, M.D., LL.D.,
Chairman of the Board of Directors.

s working out the design of these two new Queen Victoria lemorial Pavilions for the Royal Prince Alfred Hospital, ydney, I had so much help from the plans and descriptions f other hospitals, often published in the British Medical Journal, that I am persuaded that a few notes and some of the plans of the pavilions would probably be of assistance to others. I have touched only such points as I think will be useful. The perfect architect is difficult to catch, even in Europe, but I should record that our architect, Mr. Walter Vernon, Government Architect of N.S.W., and I have acted together in the most cordial way.

The two pavilions are practically alike in every respect, and together add 250 to the 236 existing beds, so that they double the capacity of the hospital. One is named the Albert Pavilion, the other the Victoria, and each is surmounted by a bronze statue of the Prince Consort and of the Queen respectively. They are in red brick, while the rest of the hospital is in white, so that altogether they form a distinctive memorial of Her late Majesty. The cost will be about £90,000, defrayed partly by public subscription, partly by a Parliamentary vote—the latter providing the building as such, the former providing the fittings and furniture. The buildings have been erected and roofed, and now the fittings are being supplied. The cubic air space, floor space, window areas, etc., all follow familiar data, so that they need not be specified here. The walls are hollow. Each pavilion has a basement and three floors. The floors are identical in the two pavilions, and the three floors in each pavilion are identical, except as to the piece projecting backwards from the middle of each pavilion (Fig. 1.). Thus one plan of the main part of the pavilion serves for all the six floors.

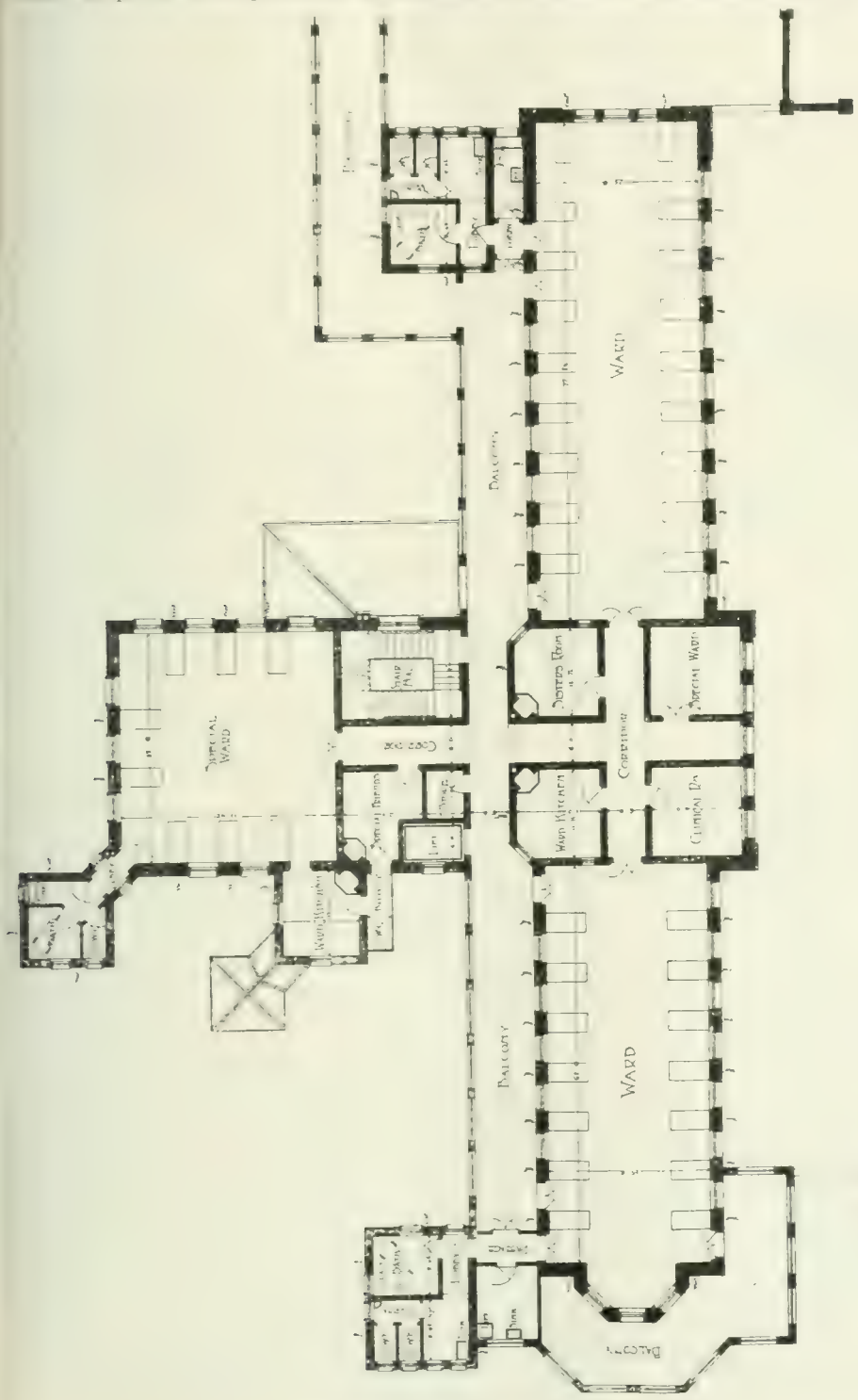


Fig. 1.—General plan of the six floors.

The large wards have 18 and 16 beds respectively, and are separated by the nurses' dayroom the nurses "live" in the home—the ward kitchen and a corridor, a large clinical room, a special ward for 1 or 2 beds, and a corridor which serves as a convalescent patients' dayroom. The lavatories and bathrooms are shut off by a passage with cross ventilation across the balcony. The surgical-dressing sink is approached from this passage and is on the balcony, as is a small lift for linen, etc. The balcony gives ample sun and shade and, kept from the front of the buildings, it is private. The windows on the west side are provided with outside venetian shutters controlled by a special screw arrangement within the ward. The staircase has no openings from the house itself; it opens only from the open balconies and is fireproof throughout. It thus acts as a fire-escape. The lifts provided for are hydraulic, but I find electric lifts now so very perfect that they may yet be adopted. The walls are of painted cement, with a dado of tiles or opalite. The flooring is a most vexing question; pitch pine brought up with wax has been provided for, but terrazzo tiles 4×4 ft. may yet be adopted. No artificial system of ventilation is required in such a climate. Doors and windows can be kept open pretty well all the year round. Open fires and radiators have been provided.

In the projection from the middle of the pavilion and on the ground floor is a special ward of 8 beds. Similar wards are in the basement

of this projection, so that altogether much segregation and classification of cases is possible. On the first floor are a lecture room and annexes, and over these on the second floor is a very complete operating department.

There are already two operating theatres in the hospital, so that there will be four in all. Besides these, it is intended to provide separate ophthalmic and gynaecological operating rooms. The enlarged plan (Fig. 2) renders much description superfluous. I would merely say that no sinks or other fixed fittings of any sort will be within the operating area proper. All these things will be in the adjacent anteroom, which may be shut off from the operating area by a sliding door. The walls of the theatre generally will probably be of cement painted of a dark grey colour, so as not to blunt the acuity of the operator's vision. Light is from a single very large wind-w on the south side and going up into the roof. The filtered air entering the operating area will pass outwards over the heads of the spectators, the outward current rendering unnecessary any special arrangement for shutting off the spectators from the operating area. The spaces below the gallery are used for a surgeon's vestiary and for the instrument porter. The surgeons' bathroom seems necessary, especially in the hot, stormy weather, of which we have so much. The gallery is not shown in the plan. The entire theatre will be flushed or steamed in the manner now usual. With a large anaesthetic room a recovery-room is really not required.

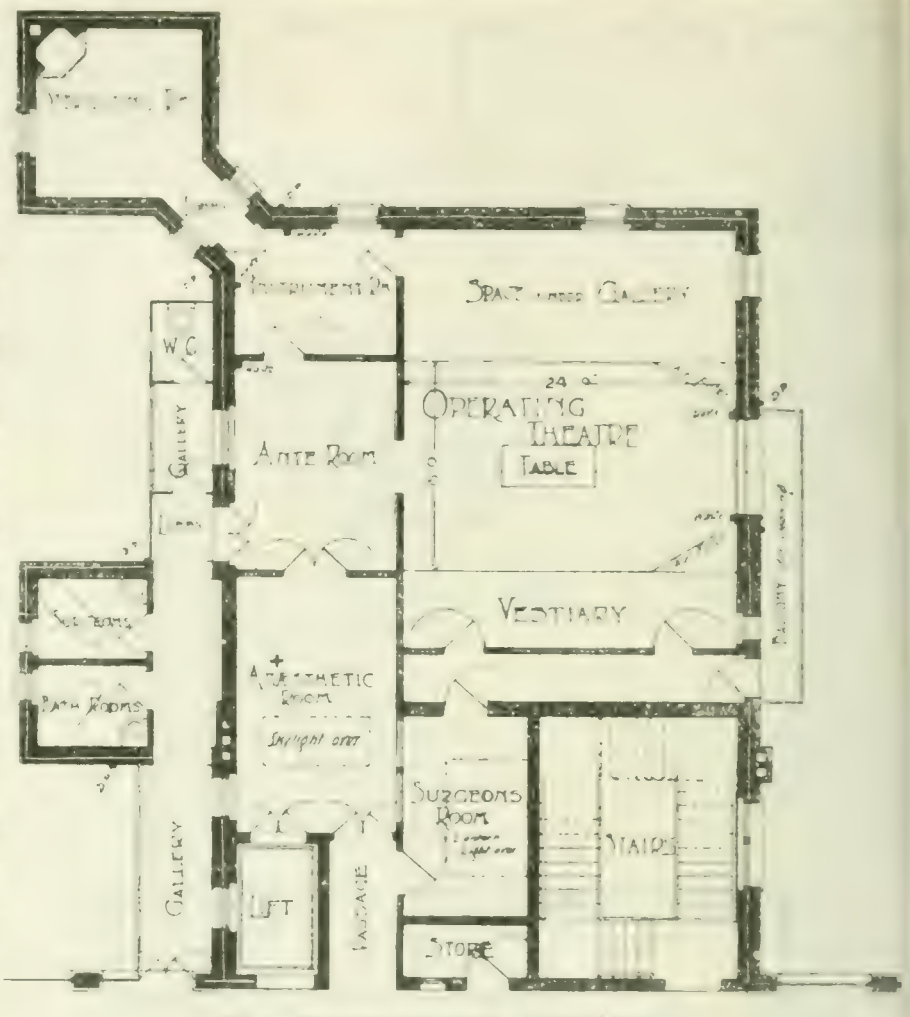


Fig. 2.—Operating department. Enlarged scale.

The basements are entirely devoted to the special wards beforementioned, the dispensary and its annexes for the entire hospital, a patients' library, a patients' clothes-room, photographic, Roentgen, electrical, massage, medical bath, Finsen, and children's physical exercise departments, record rooms, Samaritan Society and various stores.

In conclusion I should like to acknowledge the very great courtesy with which I have been treated in visiting numerous hospitals during my visit to the Old Country.

NOVA ET VETERA.

CHINESE MEDICINE.

According to Dr. Lennox, who some time ago read a very elaborate paper to the Military Medical Society of Berlin, Chinese medicine at the present day is not merely at a standstill but is declining. There was a time when great activity was displayed; thus the Emperor Chen-hung [illegible] published a work on materia medica containing [illegible] for which he collected the herbs himself. The Emperor Hung-ti [illegible] wrote a book on hygiene, gymnastics and published B.C. 2697 the *Nei-king*, a basic anatomical work. He also collected all the scattered works on medicine into an encyclopædia. Among later works the most celebrated are the *Pên-ts'ao*, a treatise on herbs in 52 volumes by Li-shi-chen (Ming dynasty A.D. 1552–1596), which contains 1,892 recipes, and a book on therapeutics by a prince of the Ming dynasty A.D. 1368–1644, containing 2,370 recipes. Very ancient works on hygiene still exist, but the most important book of the kind was written in the first century A.D. Works on the diseases of women and children also exist. The esteem in which a knowledge of medicine was held in ancient China is shown by the fact that the Emperor Chi-Hoang-ti (B.C. 246–209), the powerful political peacemaker of China, who ordered the great burning of books excepted all those on medicine.

Education.

As the Chinese, saturated with the spirit of Confucius, see in their classic literature the highest wisdom and cling to the moral therein contained, so do they also cling to the ancient teachings on medicine. Scarcely any advance has been made in this subject for centuries; the old ideas are accepted as absolutely true. In fact, there is no modern medical literature in China which is not grounded wholly and entirely on the principles and teachings of the old medical classics, except where here and there the influence of such a Western school as that at Hong Kong makes itself felt over a limited area.

There are no restrictions on the practice of medicine; there are no examinations and the calling is often hereditary. Persons who have passed the literary examination often devote themselves to medicine, for the number of vacancies for official posts is small in comparison to the number of those who pass the examinations for them. A knowledge of the medical books is the first thing needed. Then the pupil must go for instruction to an experienced physician to learn how to undertake examination of cases, especially how to feel the pulse. At least two years is needed for this.

The Court of Medicine in Peking (Tai-i Yuen)—one of the small offices of the State—seeks to preserve carefully the teachings of the ancient medical classics and to see that the practice of medicine is based on these teachings rather than to encourage new knowledge. It is a kind of medical high school in which only theoretical instruction is given. The teachers are mandarins who have passed the ordinary literary examinations and have devoted themselves specially to the study of medical literature. From them is chosen the Emperor's physician.

The fixed branches of therapeutics taught in the Tai-i-Yuen are:

1. Diseases of the large blood vessels.
   Diseases of the small blood vessels.
3. Fever.
4. Diseases of women.
   Diseases of the skin.
6. Acupuncture.
7. Eye diseases.
   Diseases of the throat, mouth, and teeth.
   Diseases of the bones.

Medical practitioners are not much esteemed in China. Socially they rank above the priests, but below the geomancers and schoolmasters. Educated people in China only call in medical advice in serious illnesses, and usually treat themselves with the aid of medical books. It is different with the lower classes. The doctor impresses them greatly because he can read and write, and learning is held in great esteem among the Chinese. The lack of education, the terrible superstition of the people, and the inclination to mysticism render it easy for medical men to gain an influence, and on this account they are treated with much respect among the poor; everywhere the words *tai-fu* (great master of medicine) are used. Nicknames also are frequently given—for example, Dr. Root of Strength, Dr. Rhubarb, Dr. Salts of Hartshorn. While in many books on China written by Europeans the native practitioners are spoken of contemptuously as quacks, charlatans, and swindlers, trading on the stupidity of the masses, yet there are some who are fully convinced of the value and incontestableness of their scientific conceptions.

The medical profession is not remunerative in China; one dollar is a high fee, but often not a-fifth of that sum is paid; consequently it is not a favourite calling among the practical Chinese. Consultations are usually held in the morning at the practitioner's house, patients being taken in their turn as they come in the appointment book. The examination of the patient does not last long. Some practitioners prepare the medicines themselves, but for the most part the prescriptions, written on red paper, are taken to be made up at a chemist's shop, which is nearly always elegantly decorated, the front attractively adorned. Great cleanliness reigns within, and the excellence of the medicine is advertised in gold letters, but the prescribing chemist is not unknown. In Shanghai and Canton there are clinical hospitals, benevolent institutions in which patients are examined and treated without a fee; connected with each is a pharmacy and coffin manufactory, medicines and coffins being provided gratis.

Anatomical and Physiological Theories.

Knowledge of anatomy is very backward in China. Anatomical observations are based on imagination rather than actual observation. The difference between tendons and nerves (*kin* signifies both tendon and nerve) and between arteries and veins is unknown; the capillary system is undreamt of. The cranium, pelvis, forearm, and leg are looked upon as each forming one bone; the large joints are depicted as two rollers, the small ones completely ignored. The larynx, it is taught, passes through the lung to the heart, while the heart is connected by tubes with the liver, the spleen, the kidneys, and the small intestine. Urine passes through the latter into the bladder. The spinal marrow passes to the testicle. Thus does the Chinese medical practitioner picture to himself the construction of the human body.

The physiology of the Chinese is based on a peculiar system of natural philosophy which has many points in common with religious, philosophical, and occult theories.

According to the Chinese, Kosmos arose out of the co-operation of *yáng*, the male, and *yin*, the female principle, and its equilibrium depends on the harmonious activity of these two principles. Mikrokosmos represented by mankind, the product of the co-operation of *yáng* and *yin*, is, like makrokosmos, the whole living world system, only a manifestation of universal life. This thought is symbolically expressed in a Pantagramm, called *pa Kua* (the eight signs) ascribed to the Emperor Fu-Hsi, (2900 B.C.) which is the foundation of most of the intellectual and philosophical theories of the Chinese.

Health, they teach, depends on the equilibrium of *yáng* and *yin*, on the even balance between weakness and strength, fluidity and dryness, heat and cold. Of the 12 organs of man 6 are governed by *yáng*, and are expansive, their domain is the humerus; 6 by *yin*, and are residuary, their sphere being the blood. If *yáng* predominates there is excitation, if *yin* depression. The 5 main organs of man correspond to the 5 elements, 5 stars, 5 colours, and 5 sensations of taste, as in the following formula:

Saturn.	Stomach.	Earth.	Yellow.	Sweet
Jupiter.	Liver.	Wood	Green.	Sour
Mars.	Heart.	Fire.	Red	Bitter
Venus.	Lungs.	Metal.	White	Sharp, biting
Mercury.	Kidneys	Water.	Black	Salt

These speculations lead to other extraordinary theories of the functions of the various organs of the human body. The chief organ is the heart, and, together with the stomach, is the source of thought; the stomach is the organ for breathing; the lungs expel the humours; the gall bladder, which purifies the fluids of the body, is the seat of courage (*tan* = gall = courage). The liver is the seat of sensations, while brain and spinal marrow produce the semen. The right kidney is the seat of the sexual functions. The pulse indicates any disturbance in the state of the body. The pulse is felt at 11 peripheral arteries, and it is believed that every organ has a spectal pulse, which can only be felt by a certain finger. The pulse varies with the sex, age, emotions, seasons, hour, and so on. At least 57 variations of the pulse are known, and it takes two years to master the technique of pulse feeling.

Next to the pulse, the outward appearance of the patient is most relied on to indicate the state of health, but the tongue is examined also. Much stress is laid on these signs, as it is believed that every part of the body has an organ with which it corresponds—for example, the tip of the nose with the stomach, the lobe of the ear with the kidneys, and so on. The breath, taste, etc., of the patient are also studied, the expectoration and urine examined. Attention is paid to palpation and to the influence of cold or heat on the organ examined; auscultation and percussion are unknown.

Therapeutics.

With regard to treatment, internal medication is the most usual. Distinction is made between tonics, astringents, resolvents, purgatives, and alteratives. Among 442 remedies, Hobson found that 314 were from plants, 78 from animals, and 50 from minerals. Roots, blossoms, stems, leaves, and fruit are given in the form of mixture, decoction, pill, powder, or bolus. The skins and hides of animals are specially prepared and used, and salts from various minerals are employed both externally and internally in the form of powder for wounds, plasters, and ointments.

In catarrh of the respiratory organs celery, ginger, nelombo, aconite, gentian, cinnamon, opium, arbor vitae, bamboo, colt's foot, violets, burnt scales of tortoise, toad's saliva, pills from old loam are given according to the effect it is desired to produce, exciting, expectorative, or sedative. In pneumonia an ammoniacal drink with liquorice, clematis, and aristolochia is given. In phthisis a sovereign remedy is *O-tschian*, a gelatine made from asses' skin boiled in arrack. Orange peel is also given, compounded with salt, vinegar, and urine. Oedema is treated with old loam, water plantain, smilax, convolvulus, black beans, and areca nut. Diseases of the kidneys with pigs' kidneys. In haemorrhoids gentian, aconite, ginger, nelombo, gypsum, borax, pulverized rhinoceros horn, burnt hair, or garlic are given. The most effectual remedy in nose-bleeding is powdered dragons' bones, a preparation which we grieve to hear is frequently adulterated. For catarrh of the digestive organs, pepper, cloves, green orange peel, squills, coriander, the crop of a young fowl, or French beans are among the remedies prescribed. As an emetic betony is used, in constipation rhubarb, tamarinds, plums, etc. For dysentery, which is very common in China, there are many remedies, such as magnolia, water plantain, nutmeg, helianthus, cinnamon, snakes' skin, peel of pomegranate root, aloes, and rhubarb. In congestion of the liver sweet basil, buds of bamboo, and elephant hide are used.

Lunatic asylums are unknown in China, but the insane are kindly treated at home. Among the lower classes lunacy is looked upon with superstitious awe.

Various forms of paralysis are described in Chinese books, and maple roots, red sulphide of mercury, tigers' bones, musk and cricket skins are favourite remedies. Camphor and valerian are used for hysteria, which is frequent in women in China.

Infectious Diseases.

Small-pox is frequently epidemic in China, and attacks large numbers. Pock-marked people are often to be seen, and

many are left blind after an attack. Owing to the prevalence of this disease, the Chinese have made a special study of it, and it is curious to find that they believe that the infection which they hold is contained in the fluid of the pustules or in the scabs spread by the wind.

The Chinese have known of variolization since the tenth century, and it is often performed; powdered scabs of mild cases of small-pox being used. This powder is rubbed into the nostrils or the region of the navel. Very carefully-prepared remedies are prescribed, some internal, some external; and it is believed that the disease may be aborted by the use of celery, dahlia, origanon, and liquorice; the eyes are treated with chelidonia, ibex, and rhinoceros-horn powder.

Cholera is not infrequent; aconite root, betony, atractalys, cinnabar, and arsenic are usual remedies. Plague, common in the south, is treated with purgatives (rhubarb), sudorifics (ginger), and diuretics (potassium nitrate).

The treatment of malaria with quinine is unknown. The principal remedy used is magnolia hippoleuca; others are boiled tortoise heads, buffalo cheese, and iron peroxide.

Syphilis is treated much in the same way as in Europe. The use of mercury dates from the tenth century, but is not so energetically employed. It is given internally in the form of calomel, sublimate, and other salts, mixed with calcium sulphate.

Diphtheria is treated by blowing into the throat an astringent powder composed of various ingredients. This is said to be very effectual.

SURGERY.

The knowledge of surgery is in a deplorably backward state in China. Confucius taught that a man must keep his body unmutilated, and out of love for his parents must avoid all danger to life. Sometimes the Chinese will let European surgeons operate on them but seldom or never their own. A Chinaman will take the greatest care to preserve an amputated limb, so that after his death it may be buried in the coffin with him so that he may appear worthily before his ancestors.

The treatment of fractures and dislocations is ineffectual owing to the want of anatomical knowledge. Deformity is not corrected but plaster is applied and bamboo splints to prevent movement. Massage has always been greatly used, not only with the hands but also with balls and wooden strikers. Moxa, cauterization, cupping, and bleeding are frequently resorted to.

Plasters are applied to gunshot wounds to extract the balls. Antiseptics are unknown. A solution of alum, pepper-water, powdered tobacco, paper ashes, burnt scales of animal skin are used for dressings.

Operative surgery is limited to extraction of teeth, opening of abscesses and boils. Surgical instruments are primitive. In treating an abscess a preparation of dried toads or litharge is first applied to bring it to a head; then very cautiously it is cut to make a way for the matter to escape.

Acupuncture is used in every kind of illness, even in fractures, cholera, and diseases of the stomach. It is performed with steel needles, which are inserted deeply into certain parts of the body to remove the supposed stoppage of the canals.

Glasses have been used for correcting errors of refraction for centuries. Numbers of the upper classes wear spectacles. Several eye operations are common, such as cataract extraction and paracentesis of the anterior chamber. Inflammation is treated with chelidonia, goat's gall, or woman's milk.

MIDWIFERY.

Women in labour are in ordinary cases attended by mid-wives. Various drinks are given to the women, ergot, bats excrements, wild chilli, aloe and arack. There are many works on the treatment of children during the early days after birth. After the birth the mother is given dried placenta, she must get up on the third day after, but should not bathe for twelve days. A period of three years should elapse before the birth of the next child. The midwives are much respected, given up to superstition, and will attempt to predict the sex of the child by lines on the hand, the shape of the womb, and the movements of the child.

FORENSIC MEDICINE.

Forensic medicine forms an interesting chapter in the history of Chinese civilization. A necropsy is compulsory in all cases in which the cause of death is uncertain, and it is carried out by doctors appointed for the purpose by the State. Regulations are prescribed which they must obey, and severe punishments are inflicted for any crime with great strictness. Works on forensic medicine are full of superstitious beliefs, so that great scope is given to those in authority to attribute death to innumerable causes, hence bribery is much resorted to.

Many signs are given in the textbooks by which to distinguish whether, for instance, wounds were inflicted on the body before or after death, whether a body found in the water was drowned or thrown in dead. The following are some of the tests given in the textbooks:

Indistinct wounds on a dead body can be made more visible by pouring vinegar on them and looking at them in sunlight through a piece of silk steeped in oil.

If a rope by which a man has been hanged quivers when struck it is proof that he has committed suicide: if not, the case is one of murder.

Remains of parents or ancestors may be identified by the children or descendants by letting the blood of the investigators drip on to the bones. In the case of relations the blood soaks in.

HYGIENE.

The ancient books on hygiene lay down rules as to the proper division of the day between work, rest, and enjoyment, and as to eating, drinking, and clothing according to the season. Public sanitation, as is shown by the state of the towns, is unknown. The Chinaman does not trouble himself about the welfare of his fellow-beings so long as the members of his own family are cared for. The narrow dirty streets are filled with heaps of rubbish of every description, and there are filthy pools and puddles everywhere. Public lavatories are in an indescribable state, and are frequently not used at all. Dogs and pigs in company with children add to the general confusion in the streets. After seeing the filth on the banks of the Peiho in Tientsin, the traveller can only wonder that the whole population has not fallen victim to every infectious disease under the sun. Dysentery, which is very common, is attributed to drinking bad and unboiled water.

Even among the highest classes superstition is very prevalent. The medical practitioners base many of their cures on superstitious remedies. Spirits of the dead play an important part in the daily life of the Chinese. If any misfortune comes it is attributed to the vengeance of the souls of neglected ancestors. In epidemics the people see the hand of a great dragon, processions are formed, and bonfires lighted to appease the god of the epidemic.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending March 12th, [illegible] persons died of plague in India, during the corresponding period of [illegible] the deaths from plague numbered [illegible]. The principal figures during the week in question were: Bombay City [illegible], against [illegible]; during the week ending March 12th Bombay District [illegible], against [illegible]; Calcutta [illegible], against [illegible]; Bengal districts [illegible], against [illegible]; North West Provinces and Oudh, [illegible], against [illegible]; Punjab [illegible], against [illegible]; Central Provinces, [illegible], against [illegible]; Central India [illegible], against [illegible]; Rajputana, [illegible], against [illegible]; Kashmir, [illegible], against [illegible]. In the Bombay districts during March there occurred [illegible] cases of plague with [illegible] deaths from the disease; of these [illegible] cases occurred in Europeans, of whom [illegible] died.

SOUTH AFRICA.

Cape Colony.

Port Elizabeth.—During the weeks ending March 12th and 19th the fresh cases of plague numbered [illegible] and [illegible], and the deaths from the disease [illegible] and [illegible]; six Europeans under treatment at the plague hospital. At Port Elizabeth and East London plague-infected rats continue to be found.

According to a telegram dated April 2nd, [illegible] cases of plague were reported in Johannesburg up to that date. Of these, [illegible] were Europeans. The deaths from the disease numbered [illegible], of which [illegible] were Europeans. No fresh cases of plague have been notified in Pretoria. On March 31st the reported cases of plague from the commencement of the outbreak numbered [illegible], of which number [illegible] were Europeans. [illegible] died of the disease, [illegible] being Europeans.

HONG KONG.

During the week ending April 2nd and 9th the fresh cases of plague in Hong Kong numbered [illegible] and [illegible], and the deaths from the disease [illegible] and [illegible].

MAURITIUS.

During the weeks ending March 19th, 26th and 31st, and April 6th, 13th, and 20th the fresh cases of plague in Mauritius numbered [illegible], [illegible], [illegible], [illegible], [illegible], and [illegible], and the deaths from the disease [illegible], [illegible], [illegible], [illegible], [illegible], and [illegible].

PERU.

On April 2nd [illegible] cases of plague were under treatment at Lima. The disease was confined to the poorer parts of the city. On April 9th [illegible] cases of plague were notified at Lima.

CHILI.

Cases of plague are reported from Santiago, Chili.

THE IRISH DISPENSARY MEDICAL SERVICE REPORT.

This important report has been in the hands of our readers since March 26th, on which date it appeared as a Supplement to the British Medical Journal. The report has been everywhere received as a very valuable contribution to the intricate and pathetic question of the condition of the Irish Dispensary Service. At the moment when we write the report is still under the consideration of all classes of opinion in Ireland. Judging, however, by the clearly-expressed opinion of the press and of county Branches of the Irish Medical Association, there is no room to doubt that the publication of this report makes a landmark in the Irish dispensary evolution which will not be easily overlooked.

The Irish Medical Association is organized in county Branches, and of these five counties, Donegal, Kerry, Armagh, Galway, and Roscommon, have up to the present in the warmest terms passed resolutions of thanks to the British Medical Association, the Editor of the British Medical Journal, and the Special Commissioner for the great service rendered to the Irish Poor-law Medical Service by the report. The medical officers of the Downpatrick Union have also forwarded resolutions couched in similar terms.

Some of these county Branches have also called on the parent Association in Dublin to arrange for a full circulation of the report throughout all classes concerned in Ireland. The Irish press has also received the report with general satisfaction, and has printed lengthy extracts from it. The *Irish Times*, a leading Dublin newspaper, says:

> The Irish Poor law Medical service owes a debt of gratitude to the British Medical Journal for its action in bringing grievances of long standing under the notice of the English public. ....The report is of a most exhaustive character, a model, in fact, of what such a report should be .....It is conceived in a spirit of moderation, and what makes it doubly valuable is its recognition of the difficulties which beset the authorities in any attempt to reform the service upon the lines advocated by its members.

The *Northern Whig* of Belfast says:

> The Special Commissioner of the British Medical Journal has studied the question carefully on the spot and sets forth the grievances of his inquiries with impartiality. ....There is no doubt as to the clearness and fairness with which he has stated the case.

The *Cork Examiner* says:

> Nothing but good can come from a full exposure of existing defects and grievances, and the report published by the British Medical Journal with special reference to the Dispensary Medical Service should do much to enlighten public opinion in England and force the Government to legislate in the matter. The report is all the more valuable for its moderation and the thorough insight into every feature and detail of the question.

The *All Ireland Review* makes long extracts from the report and in two separate weekly issues prints with sympathetic comments some of the sadder features of the report. The *Irish News* of Belfast also sympathetically reviews the report and joins in the cry for the betterment of the dispensary service. In Glasgow also the report has been referred to and quoted from the *Glasgow Star*, one of the local journals interested in Irish affairs.

From individual members of the Irish community, lay and medical, very sympathetic letters have been received from every part of the country and every shade of political and religious opinion. The completeness of the report and the insight it displays into a very tangled question of Irish life is everywhere commented upon, and the grateful thanks of the writers are given. "It is simply splendid, and it is astonishing the thoroughness with which a very complex question is dealt with" writes one, and this letter is the prevailing note of all the communications. "Very admirable." "Admirable exposition of the conditions of the Irish Poor-law Dispensary Service. No previous writer has gone to the root of the matter as the Special Commissioner has. How in a limited time he obtained so clear an insight into the complicated conditions he came to examine and unravel I cannot conceive."

A more effusive correspondent writes: "The report is simply lovely, and how so much information was got in so short a time is a marvel." "A report of great power and deep insight." "The literary level all through is a high one; the descriptive powers of the paper are very striking." A Catholic prelate writes of the Commissioner: "He took in the situation perfectly, and has pourtrayed it most faithfully."

A layman writes: "The doctors consider it a tower of strength to their cause. It seems as if the Commissioner had been half a lifetime in the West of Ireland." "The Commissioner has dealt with the subject most thoroughly." "In every particular an admirable one." "It has placed the whole dispensary service on a proper basis," writes a well-known professor in Ireland. "Very full and lucid report." "Interesting, exhaustive, and painstaking." Another writes: "The report is, without exaggeration, the best I have read on the subject. It is an exhaustive scientific analysis presented with rare literary merit, at times rising to poetic elevation, and, even when dealing with squalid, grimy details, able to descend and paint them in simple short lines, which serve to make the picture more obvious. No more need be written on the subject." "The Commissioner has certainly done wonders in the time, and Irish dispensary doctors owe him a debt of gratitude for what he has done for them." "A man who had spent years in the service could not have written a better report."

The editor of the *All Ireland Review* of April 2nd, 1904, says: "I have not read anything for a long time at the same time so powerful and so convincing, so graphic and so truly tragical as the Supplement to the British Medical Journal of March 26th, which reveals better than was ever done before the intolerable conditions under which our Dispensary Medical Service exists to-day."

Another writes: "I congratulate you on the full and splendid report of your Special Commissioner on the Irish Dispensary Service. Irish or English, it is the very best compendium on the subject I have read for years. Will you convey to your Special Commissioner my gratitude and thanks for the splendid report, which, true in substance and fact, is the best summary I have ever read of the Irish Dispensary Service as it exists?"

"The most complete and satisfactory presentation of the dispensary medical officer which has been anywhere or by anybody published up to this time."

"I have no hesitation in expressing my conviction that the report has taken a unique position among all other reports or statements on the subject. This pre-eminence it has secured largely from the unsparing pains the Commissioner has devoted to his task; largely, too, from his faithful word portraiture of the dispensary phase of Irish life."

Another writes: "The ablest and most exhaustive exposition of the Irish Dispensary System that has yet appeared. The Special Commissioner is entitled to the gratitude of every member of the dispensary service."

An Irish West Country Doctor writes: The case of the dispensary doctors has never before been so ably stated, and I doubt much if one of themselves could do it half as well." "It seems wonderful how it has been so thoroughly done." "A very fine piece of work, and all are very grateful."

A Northern Magistrate writes: "I think the Commissioner has grasped the situation in an extraordinary way." "True in every respect." "The clearest and most convincing report I have read." "The report is beyond praise. When I read it I said from my heart 'God bless the writer.' He has done a noble work for a long-suffering section of men."

From these extracts it will be seen that there is a considerable consensus of opinion in Ireland favourable to the report.

MEDICAL NEWS.

It is reported that uranium ores containing radium have been found in Sweden and in Portugal.

The out-patient department, dispensary, and offices of the Royal Waterloo Hospital for Children and Women were removed to the new buildings this week.

An "Amalgamated Society of Registered Midwives" has been formed in Salford to protect the interests of midwives under the new Act.

The annual dinner of the Sanitary Institute will take place in the Whitehall Rooms, Hôtel Métropole, on May 2nd, at 7.30 p.m.

Death under Chloroform.—An inquest was held at the Royal Devon and Exeter Hospital on March 29th last on the body of a farm labourer, aged 34, who had died under chloroform during amputation of a finger. The customary clinical examination was made before the anaesthetic was given, and nothing was found to contraindicate its administration. At the necropsy the heart muscle was found to be in a flabby condition. At the request of the coroner, the police surgeon was present at the necropsy, and he corroborated in court the medical evidence given. The coroner said he considered it advisable in the interests of the medical staff as well as of the

hospital that the police surgeon should attend, and he believed the patients in the hospital had every care. The jury returned a verdict in accordance with the medical evidence, and added that they considered proper precautions were taken.

The report of the Council of the Royal National Pension Fund for Nurses states that 953 policies were issued last year, the largest number since the establishment of the fund. In the same period the policies surrendered numbered 362, held by 353 nurses, the sum paid out amounting to £22,140.

Mr. E. M. Crookshank, formerly professor of bacteriology at King's College, London, has been adopted by the Central Conservative Council of the East Grinstead Division of Sussex, in which he resides, as a candidate for the Division at the next general election.

An entertainment in aid of the Nervous Diseases Research Fund of the National Hospital for the Paralysed and Epileptic will be given at the Eolian Hall, New Bond Street, on April 27th under the patronage of Her Royal Highness the Duchess of Albany.

The *Journal of the American Medical Association* states that a recent decision of the Court of Appeals of Kentucky practically establishes in that State a precedent for the appointment of expert witnesses in damage cases by the Court and for doing away with partisan experts.

Prince Henry of Battenberg will be present at the annual meeting of the Colonial Nursing Association, which will be held, under the presidency of Earl Grey, at Sunderland House, Curzon Street, London, W., by the kind permission of the Duchess of Marlborough, on Wednesday June 8th.

It is stated that a peculiarly virulent form of influenza is prevalent at Philadelphia, U.S.A., which from the predominance of symptoms referable to the central nervous system closely simulates cerebro-spinal meningitis, and also lasts much longer than the commoner types of influenza.

A Bill has been introduced into the Senate of the State of New York which provides for the abolition of the office of coroner in New York City upon the expiration of the terms of office of the present coroners. As a substitute it is proposed to appoint medical examiners, who will report the circumstances of all suspicious cases direct to the city magistrates.

The American Academy of Medicine. The twenty-ninth annual meeting of the American Academy of Medicine will be held in Atlantic City on June 4th and 6th. The programme includes a discussion on school hygiene, and to facilitate the same a summary is to be published of all the laws in force in different parts of America which relate to the teaching of hygiene.

The Royal British Nurses' Association will hold its fifteenth annual meeting at the Portman Rooms, Baker Street, on Tuesday, April 26th at 8 p.m. A meeting on behalf of the Trained Nurses' Accounts Fund will be held at 10, Stratford Place, on April 27th at 3.30 under the presidency of Lady Loch. The meeting will be addressed by Mrs. Garrett Anderson, Miss C. J. Wood, and others.

A Co-operative Dairy. During their stay in Denmark the King and Queen visited the Tirtolhum dairy at Hasley. This is a co-operative dairy, comprising upwards of 7,000 cows. It is under the medical supervision of Professor Jensen and Dr. Feilberg and produces yearly about 1 million lbs. of butter and 1 million lbs. of cheese in addition to selling daily in Copenhagen some 8,000 quarts of milk. About 50 persons are employed in the dairy. Their Majesties [illegible] in it and at the Leper Asylum in the Danish West Indies.

Samuel Smiles, the author of *Self Help*, although a graduate in medicine of the University of Edinburgh, and for [illegible] practised in the native town, Haddington, N.B. [illegible] to have been [illegible] to be included in [illegible] have been detected [illegible] of the daily papers, and the only one that [illegible] to 1872 he was [illegible] Provident Institution. His career as a [illegible] example of the fact that [illegible] with it.

Erythrasma. At a recent meeting of the French Academy of Sciences M. Laveran read a communication in which he maintained the identity from the point of view of morphology, biology and pathogenicity of the trypanosoma gambiense (Dutton) and the trypanosoma ugandense (Castellani). In view of this identity he urged that the term trypanosoma ugandense should be dropped altogether since the description of the organism and term applied to it by Dutton were anterior to those of Castellani and the existence of two terms for the same organism was superfluous and confusing. In the same communication he proposed that the term sleeping sickness should also be abandoned inasmuch as it merely represented the final stage of a disease which he thought should be simply be called human trypanosomiasis.

Anthrax from Horsehair. An inquest was held at Liverpool on April 18th on the body of a woman who had died from anthrax. She worked in a hair manufactory, and while engaged in the remixing department a horsehair penetrated her chin; she died three days later. The manager of the manufactory stated that samples of this particular kind of horsehair were handled daily, and that during the thirty-seven years he had been with the firm he had not known a similar case. Mr. Graves, Inspector of Factories, said that experiments were being carried out in the neighbourhood of Worcester and also on the Continent under the direction of the Home Office with a view to some effectual means of killing the virus when present in horsehair.

We are requested to state that the Wandsworth Division of the Metropolitan Counties Branch will hold a meeting at the Drill Hall, opposite Clapham Junction, on Thursday, May 12th, at 4 p.m., for the discussion of the questions: (1) Whether it is advisable that the British Medical Association should take up the individual and (or) collective medical defence of its members; (2) is the scheme now submitted one by which this defence can be safely and efficiently carried out? Drs. Bateman, Heron, and Woods have promised to be present, and any medical man who wishes to attend will be welcomed.

According to the special correspondent of the *Morning Post*, there has been a severe epidemic of typhoid fever among the Russian troops at Harbin during the past winter. The water which is obtained from shallow wells, is believed to be the source of the infection, and as the town has no drainage system it is feared that great difficulties will be encountered in dealing with the epidemic. As Harbin will probably be the chief Russian dépôt during the war the outlook is very serious. The same correspondent states that the troops leave the camps along the Siberian railway in a filthy state, and, as our experiences in South Africa showed, this neglect is a prolific source of fresh epidemic outbreaks.

Fees for Insurance Work. We have received a copy of some letters which have passed between Dr. Basil Housman, of Stockport, and the New York Life Insurance Company. The latter asked for Dr. Housman's co-operation as an additional examiner at half guinea fees for policies under £250. Dr. Housman refused to have anything to do with the company at all unless paid 1 guinea for each examination, pointing out that it was a matter of indifference to him to what sums the examinees proposed to be insured. Writing on the same subject Dr. Distin, of Enfield, encloses a summary of the annual report of the Law Union and Crown Insurance Company, one of the chief offenders in the matter of fee cutting. The accounts show that the company is making such large profits in the usual course of its business that there is no excuse whatever for endeavouring to increase them at the expense of medical men. If they can get medical men to accept inadequate payments, the result in the long run will be less careful work than that on which the foundations of the companies' success have been built up.

Society for Relief of Widows and Orphans of Medical Men. A quarterly Court of the Directors of the Society was held on April 13th at 11, Chandos Street, W., the President, Mr. Christopher Heath, being in the chair. One new member was elected and the deaths of 6 members reported. Two widows had become ineligible for further grants. Fresh applications for grants were read from 4 widows, and assistance was given to 3, the fourth not being eligible under the bylaws. Fifty-four widows, 14 children, and 3 orphans on the Capitation List applied for a renewal of their grants, and it was resolved to pay a distribution at the next Court. A legacy of £1,000 from the late Mrs. Isa Dupuy was announced. The following gentlemen were nominated for election at the annual general meeting to fill the vacancies in the Court of Directors: Mr. Snell, Mr. Bell, Mr. Cockson, Mr. May, Dr. James, Mr. Green, and Dr. West. The expenses of the quarter were £[illegible]. It was resolved to hold the annual [illegible] at 5 p.m. on Wednesday, May 18th.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 23RD, 1904.

THE MEDICAL SERVICE OF THE NAVY.

II.

In the British Medical Journal of March 19th, 1904, it was shown that a serious effort has recently been made by the Admiralty to remedy some of the legitimate grievances of the medical officers of the Royal Navy, and to make the service attractive to young men of sound professional training, possessing the personal and social qualities that go to the making of a good officer. Much has been done for the improvement of the service, and it is only fair to Sir Henry Norbury and his staff to acknowledge that it is owing to no lack of vigour on their part that a great deal more has not been accomplished. The peculiar discipline and traditions of the navy place exceptional obstacles in the way of attempts at reform, and if the Director-General has not succeeded in getting everything that could be desired from the Admiralty, he is at any rate to be congratulated on having got something substantial. As a result of these concessions, the service, which was falling into a state of atrophy, already shows signs of improved nutrition; it is beginning to attract a fair supply of well-qualified candidates, and there is every prospect that the depletion in its ranks will shortly be made good.

It would be a dangerous mistake, however, to conclude that the medical service of the navy is in a thoroughly satisfactory condition. Although it has been made more attractive to young men, especially to those who engage for a short term of service, it still presents serious disadvantages as a professional career.

In our previous article we put the case for the Admiralty, indicating briefly what has been done for the betterment of the service; in the present we propose to play the part of "devil's advocate" setting forth the grievances from which medical officers of the navy still suffer, and pointing out what remains to be done to make the service what it should be—a career for self-respecting, scientifically trained members of a liberal profession.

As has been pointed out more than once in the British Medical Journal, a radical defect in the organization of the medical service of the navy is the position of official inferiority assigned to the Director-General. The chief of an important department ought to have authority commensurate with his responsibility. The Director-General has not direct access to the Secretary of State, but can approach him only through one of the Naval Lords of the Admiralty. His decisions, even as to such minor matters as the posting of his own officers, are always liable to be overruled. The Director-General, in short, is merely a figurehead, and his position as head of his department is recognized only when his official superiors find it convenient to make him a whipping-post for their own shortcomings. It is clear that a system which thus undermines the authority of the official chief of the medical service of the navy must tend to paralyse initiative and cripple efficiency, not only in the Director-General himself, but in all the officers of his department. Naval and military authorities alike are jealous of the slightest encroachment on their prerogative. Their conception of the function of a medical department is that it should be a Greek chorus, giving advice which may be taken or disregarded as seems best in their eyes. The theory is unquestionably convenient, for when things go right the executive branch claims the credit, and when they go wrong the blame is laid on the medical department. Surely a plan which leaves the care of the health of the navy largely to the caprice of Naval Lords and commanding officers who know little and often care less about hygiene stands self-condemned. Until the Director-General has full power within his own province he cannot justly be held responsible for defects or failures against which he has not sufficient authority to make provision.

As in the case of the army, we shall doubtless be told that the navy is primarily a fighting machine, and that the care of the sick and wounded is a matter of secondary importance. In this statement there lurks a fallacy which has several times been exposed in the British Medical Journal. Neither the navy nor the army can fight without men, and many a powerful fleet has been made ineffective by sickness. A historical example may serve to set this point in a clear light. In 1774 James Lind, Physician to the Naval Hospital at Haslar, wrote: "The number of seamen in time of war who die by shipwreck, capture, famine, fire, or sword are but inconsiderable in respect of such as are destroyed by the ship diseases and by the usual maladies of intemperate climates." Of "ship diseases" the most disastrous was scurvy, which, according to Lind, "proved a more destructive enemy, and cut off more valuable lives than the united efforts of the French and Spanish armies." Over and over again during the eighteenth century our fleets were crippled by outbreaks of that disease, and more than once our command of the sea was seriously imperilled by its ravages. In 1780 Admiral Geary had to put back to port with 2,400 men disabled by scurvy, and in 1795 Lord Howe's fleet in the Channel was nearly lost owing to the same cause. Yet for nearly fifty years the value of lemon juice as a prophylactic had been urged by one of the chief medical officers in the service of the Government without anything whatever being done by the Admiralty. Had Lind been in a position to enforce the adoption of the measure which he recommended an incalculable amount of suffering and death would have been prevented, and the navy would have gained immensely in efficiency.

This is a particularly glaring example of the evil effects of the subordination of special knowledge to executive authority, but it does not by any means stand alone; the history of hygienic reform in the navy is a record of struggle against official ignorance and apathy, which, taken together, spell inefficiency. The only effective safeguard against disasters that might at any time cripple the navy lies in the efficiency of its medical service, and that service can never be fully efficient unless, in its own sphere of operation, it is untrammelled by a cast-iron discipline which places the health of a ship or a fleet at the mercy of a commanding officer who may, if he pleases, let the advice of his medical officers pass by him like the idle wind. This could not happen if the Director-General held such a position at the Admiralty that his authority in matters relating

to the service of which he is the head could not be ignored. The efficiency of the medical service is in direct ratio to the degree of autonomy which it possesses within the sphere of its own special duties. The failure to grasp this elementary truth has inspired the ill-judged recommendation of Lord Esher's Committee that the medical service of the army should be assimilated to that of the navy in respect of the position of the Director-General. In both services an essential condition of thorough efficiency is the frank recognition of the principle that medical administration must be in the hands of medical officers, and that the responsible head must have full control of his department, subject only to the authority of the Secretary of State.

The want of adequate authority, which goes far to make the Director-General in his official capacity a cipher, is, as we have said, the fundamental defect of the service. The same flaw runs throughout the whole organization, from the highest ranks to the lowest. Everywhere the proper activity of the medical officer is hampered by the interference of the executive branch. As an illustration we may point to the manner in which medical surveys are conducted. Medical surveys in the navy correspond to Medical Boards in the army. Their duties are purely medical; yet the president is always an executive officer who may be junior in rank to the medical officers over whose deliberations he presides. This is not only an absurdity and an indignity, but a direct cause of inefficiency, for the executive officer can of his own mere motion overrule the decisions of his colleagues on matters as to which he is incompetent to form a judgement. Another illustration of the extent to which the functions of the medical department are usurped by the executive branch is to be seen in the fact that reports of outbreaks of epidemic disease are often drawn up and signed by captains of ports without reference to the medical officers in charge. The incongruity and possible danger of such a practice need scarcely be dwelt upon. It was said of a former Prime Minister of this country that he was ready at any moment to take command of the Channel Fleet or to cut for stone. It would seem to be the theory of the Admiralty that executive officers of the Royal Navy have a like multiplicity of gifts imparted to them by their commission. An executive officer is as much out of place as president of a medical survey as a medical officer would be as president of a council of war.

Another illustration of the hindrance to efficiency caused by the fact that medical officers have not proper authority within their own sphere is to be found in sick bays and hospitals. At sea of course the captain must be supreme, but the recognition of this fundamental principle of discipline does not involve the conclusion that the medical officer should have no control at all over sick bay cots, nursing sisters, or patients. In hospitals the evils of the predominance of the executive branch are still more marked. The want of authority on the part of the medical officer necessarily leads to insubordination and inefficiency in the attendants working under him, who know that he has no power to punish them. This system, which places the medical officers in the discharge of their own special duties under the control of an outside authority, has a bad effect on these officers themselves. Held fast in the bonds of a routine duty, once they lose the habit often noticed the power of independent action and settle into the groove of routine, their chief aim being to avoid responsibility.

Enough, we think, has been said to show that the want of the authority necessary for the proper discharge of their duties is a source of inefficiency and possible danger in an important branch of the naval service. There are, however, other causes of justifiable dissatisfaction among medical officers. A reform which would be greatly appreciated is a definite system of medical guards. At present, if a number of ships are together in harbour, the commanding officers may at their own sweet will keep medical officers from going ashore. The duties in such a case are analogous to those of the house-surgeon for the week at a hospital, and there is not the slightest necessity for keeping all the medical officers at their posts. One of the ships might without any inconvenience be constituted the medical guard-ship for the day, setting free the surgeons on board the others.

Another grievance of which medical officers of the navy may fairly complain is the capricious manner in which cabins are assigned. By some perversity of fate—or malice prepense in the executive officer with whom rests the allotment of the quarters—the worst cabin in the ship is generally set aside for the fleet surgeon. But medical officers as a class fare badly in this respect, no regard being, as a rule, paid to seniority. Some definite principle should be adhered to in the selection of cabins, and in a matter which so closely concerns the comfort of life at sea, medical officers should not be treated as though it were in accordance with the fitness of things that they should be last served.

In discussing the position of the medical officers of the navy the question of titles naturally arises. The experience of the South African war conclusively proved that military titles greatly facilitated the work of the Royal Army Medical Corps. In the navy, as far as we have been able to gather, the majority of medical officers have no wish for executive titles. It is felt, however, that if adequate authority cannot be obtained without such indications of rank, it will be necessary to get them. As has already been stated in the Journal, the Surgeon-General of the United States Navy has made a strong representation to Congress as to the expediency of granting executive titles to medical officers.

The refusal by certain commanding officers of the social recognition which is due to men who are at once officers and members of a learned profession is a subtler, but not less galling, grievance. This is a thing that can scarcely be dealt with by an Order in Council or admiralty instruction, for no authority can transform a naval officer who is a snob into a gentleman. Social recognition is largely a personal matter, and a medical officer who knows his work, and who in his behaviour shows a proper sense of the dignity of his profession may, as a rule, hope to have little trouble on that score. The social difficulty, such as it is, would disappear of itself if medical officers were given the measure of authority which has been shown to be essential.

We have indicated on broad lines the reforms which we regard as necessary to make the medical service of the navy thoroughly efficient. Certain grievances affecting particular classes of officers have not been touched upon, as the discussion of them here would confuse the main issues. Some time ago Lord Selborne, whose attitude towards the medical officers has been not unsympathetic, invited suggestions for the improvement of the service. We here submit some which we consider of vital importance. We have freely acknowledged that the service has

been made more attractive than it was till recently, and that it now offers a good start in life to young men with a taste for the sea. To those, however, who think of entering the medical service of the navy with the hope of finding in it their life work and a field for the gratification of legitimate ambition, we recommend a careful consideration of the advantages and disadvantages which we have attempted to set forth without prejudice. In the interest alike of the navy and of the nation we feel bound to press on the serious attention of the responsible authorities the expediency of completing the work of reform so well begun. Notwithstanding the increase of pay, the acceleration of promotion and the other improvements which have been referred to, there is still much discontent among the medical officers of the navy. That there are reasonable grounds for this discontent has been shown in this article. It is a matter of public concern that the causes of this discontent should be removed, for a service in which a sense of injustice rankles can never be really efficient.

SMALL-POX AND VAGRANCY.

Dr. Henry E. Armstrong, the Medical Officer of Health for Newcastle-on-Tyne, has presented to his sanitary authority a valuable report on this important subject. It is really in continuation of a similar report which he made about eleven years ago, and which was followed by a conference of sanitary authorities of England and Wales convened by the London County Council in 1894. At that conference various resolutions were adopted and, it is understood, were forwarded to the Local Government Board, but small-pox prevalence diminished in the country and the subject dropped out of public notice. In the epidemic which began between two and three years ago, and which still continues in some parts of England, the part played by the vagrant class in spreading the disease has probably been more obvious and prominent than it was even in 1893.

In January of the present year Dr. Armstrong issued to fully 200 medical officers of health in urban areas with populations of over 20,000 a series of questions regarding small-pox and vagrancy, and received replies from 126 districts. The replies show that, of these 126 districts, 111 have been invaded by small-pox in the course of the present outbreak, and that in 57 the disease was first introduced by vagrants. There were also secondary introductions from similar sources on fully 300 occasions. In particular Sheffield, Manchester, Wakefield, and Liverpool had from 23 to 34 such invasions of the disease to deal with. In 41 districts the infected vagrants were housed in workhouses and in 58 districts in common lodging-houses. The number of cases occurring in common lodging-houses was somewhere over 600. Systematic inspection of lodging-houses and enforcement of Section lxxxiii of the Public Health Act of 1875 were the chief means used for securing information.

Regarding measures to be taken for preventing spread of small-pox by vagrants, suggestions elicited by Dr. Armstrong's circular letter are summarized under a number of headings. One question was as to the desirability of the establishment of labour colonies, and about one-half of the medical officers sending replies have answered in the affirmative. Some have given no answer and others state that they have no sufficient knowledge or experience on which to base an opinion. Three distinctly negative answers were received. Apart from this special point, the medical officers were simply asked for suggestions without any guiding questions being put to them. In their replies first and most prominent comes compulsory vaccination and revaccination of insufficiently protected contacts, and also general revaccination. The suggestion is made that in epidemic times there should be power to grant an allowance to any person rendered temporarily unfit for work by revaccination. Other recommendations are compulsory removal to hospital, compulsory detention of contacts, notification of chicken-pox, systematic information to sanitary authorities regarding spread of small-pox, if necessary by the establishment of intelligence bureaux, say, in each of the eleven registration districts of England and Wales, and the establishment of an organization for sending quickly and directly unemployed navvies and other workmen to places where work can be obtained. These suggestions are of general application, and to some of them partial effect has already been given. Others, with special reference to vagrants, include their compulsory vaccination (if not already sufficiently protected) on entering common lodging-houses or casual wards of workhouses, the treatment of infected lodging-houses as areas delimited on the lines of the Contagious Diseases (Animals) Act; the division of lodging-houses into two classes, one for regular weekly lodgers, and the other for nightly or casual lodgers; the provision of baths in all common lodging-houses and their compulsory use by inmates, and the provision of an isolation room for suspicious cases, the systematic examination of inmates of common lodging-houses and casual wards, and the establishment of labour wards or dépôts.

The question as to the total number of the tramp population in the country and as to whether it is increasing or decreasing is also referred to. There is no reliable census, but in the West Riding of Yorkshire the medical officer states that there are 1,100 vagrants, and he estimates the number in England and Wales at 36,000. The general view is that tramps are on the increase, and it is a recorded fact that the mean daily number relieved in England and Wales mounted from 5,265 in 1888 to 11,295 in 1898 and 11,361 in 1899. Dr. Armstrong, also, in his interesting report discusses the tramp as a disease spreader; the unemployed workman on tramp; small-pox among workmen seeking employment at water works; and so forth.

The importance of the whole subject is obvious, and it will be readily seen how an inquiry started with special reference to small-pox soon becomes wider in scope so as embrace the general subject of the management of the tramp population and even of the education of their children. But it is one thing to recognize the legislative importance of a subject, and quite another and a very much more difficult thing to secure any useful legislation regarding it. The indifference of Parliament to questions not directly influencing the place and power of political parties is unfortunately too well known, and in this matter of tramps such indifference can find a ready excuse in the general objection which exists in this country to interference with the liberty of the subject. Will a Government which, in spite of a sufficiently definite understanding in the contrary direction, year after year fights shy of introducing a Revaccination Bill even subject to an exemption clause, have the courage, and take the trouble, to legislate for compulsory powers over tramps and vagrants in the matter either of vaccination and revaccination, or of enforced

detention in labour colonies? That is a question the answer to which largely depends on the amount and duration of the pressure which may be brought to bear. The subject should certainly be placed definitely before the Local Government Board. The fact that nothing came of the conference held a decade ago is no reason for refraining from calling another, and the statement made recently by the Home Secretary in reply to a question by Mr. Ormsby-Gore shows that the time is opportune. If the promised inquiry into the vagrancy laws is instituted it will, we presume, include the public health aspects of vagrancy.

RAYS, RADIUM, AND ELECTRICITY.

Some ten months ago we published simultaneously a number of articles on the treatment of disease by various forms of light by Professor Finsen, Dr. Sequeira, Mr. Malcolm Morris and Dr. Dore, Mr. Stephenson, and Dr. Gamlen. There was included also a detailed review of recent electro-therapeutics by Dr. Macintyre. Since then other articles have appeared, and in the present issue will be found a review by Dr. Macintyre of things electro-therapeutic as they stand at the present date, together with papers by Dr. Morton and Mr. Wigmore. All three of these papers are interesting, for each of them treats the matter from a different standpoint. Dr. Morton deals specially with treatment by Roentgen and radium rays, detailing specifically the diseases in which he has tried them, and including in his remarks an interesting discussion of the clinical aspects of *x*-ray dermatitis. Mr. Wigmore confines himself to the narration of his own methods of work, and of ten cases which have occurred in the course thereof. The latter are all clearly stated, and the only objection which might perhaps be raised is that Mr. Wigmore possibly pays electro-therapeutics too high a compliment when he justifies the term "typical," which he applies to his cases, by stating that they were all cases of permanent cure.

The paper by Dr. Macintyre is of a somewhat different character. While it is a review of recent electro-therapeutic progress it deals in a lucid fashion with the more purely scientific aspects of the matter. It shows that the discovery of radium, though its direct therapeutic results hitherto have not been great, yet promises to throw much light upon the whole subject of electro-therapeutic work in general. There would appear, indeed, to be some hope that before long electro-therapeutics, and possibly other branches of treatment may be placed upon a purely scientific basis. In another part of his paper Dr. Macintyre discusses the changes which have taken place in apparatus and methods of application of electrical force to the treatment of disease and compares their value. This is an important matter to the authorities of hospitals and all others who desire to provide themselves with outfits [illegible] Dr. Macintyre deals with the subject from the [illegible] aspect.

Reading these papers together it may be concluded that the cases of [illegible] disease is no longer open to question to be at times cured, and that [illegible] results have recently been obtained in the treatment of such cases of malignant disease as are open to direct attack. Further, it would appear possible that by a combination of surgery and *x*-ray treatment the recurrence of malignant disease may eventually be rendered much less common than at present. Nevertheless, it cannot be too clearly understood that it is as true now as ever that the only procedure upon which any reliance whatever should be placed in operable cases of malignant disease is the early and complete removal by the knife of every scrap of tissue involved.

We would draw special attention to these papers because, judging from correspondence which reaches us, there seems to be a good deal of doubt amongst the profession as to the comparative and true values of these different forms of treatment; and careful perusal of these three papers will give a clear idea of how matters at present stand. Before leaving the subject we would add that it is most desirable that the general public should clearly grasp the fact that rodent ulcer, the successful treatment of which has done more to popularize *x*-ray work than anything else, stands in a class by itself, and is scarcely if at all comparable to any other form of what is commonly known as malignant disease.

THE VOLUNTEER MEDICAL ASSOCIATION.

General Lord Grenfell, G.C.B., G.C.M.G., took the chair at the annual dinner of Volunteer Medical Officers held at the Imperial Restaurant, Regent Street, London, on April 15th. After the usual loyal toasts had been duly honoured, that of "The Imperial Forces" was given by Dr. Dawson Williams and briefly acknowledged by the Chairman. Lieutenant-Colonel Babtie, V.C., C.M.G., Assistant Director-General, A.M.S., in giving the toast of "The Medical Officers of the Honourable Artillery Company, Yeomanry, and Volunteers," said that the Director-General desired him to say that his absence was due solely to his having to leave London on duty. Colonel Babtie went on to say that the medical officers of the regular forces understood and sympathized with the difficulties of the medical officers of volunteers, but expressed the hope that the volunteers would share in the advances made by the regulars. For example, he hoped that the new unit about to be introduced would benefit the volunteers. Hitherto there had been bearer companies and field hospitals: in the future these would be combined into one unit, to be called a field ambulance, and the number of stretchers and of bearers to the stretchers would be increased and the total strength raised to perhaps 90. The toast was acknowledged by Lieutenant-Colonel Valentine Matthews, who said that the change in direction would be very satisfactory to the medical officers of the auxiliary forces, who might hope that the increased grant would overcome some of the financial difficulties by which they were now handicapped. The toast of "The Volunteer Medical Association," was proposed by Lieutenant-Colonel E. M. Wilson, C.B., C.M.G. Deputy-Assistant Director-General, A.M.S., who said that the head quarters welcomed an Association which could speak, in the name of the medical officers of the auxiliary forces, and he regretted that out of the 200 or 300 officers only about 130 had joined the Association. The toast was acknowledged by Brigade-Surgeon-Lieutenant-Colonel Andrew Clark, who said that such an Association had a most useful function to discharge if only because the difficulties encountered by volunteer medical officers differed very much in various parts of the country. For example, in London the greatest difficulty was to get the men for the bearer company but, when recruited, there was owing to the kindness of the commanding officers of battalions, no difficulty in drilling them. In other districts, as, for instance, in the manufacturing districts of the North, the conditions were exactly the reverse. It was easy to get the men, but difficult to bring them together for drills. The council meetings of the Volunteer Ambulance Association were well attended, and the difficulties were being thoroughly discussed by it. Representations could be made to head quarters which he knew were highly valued. Lord Grenfell gave the toast, "The Visitors," and referred to the interest which he had long felt in the volunteer medical service. He had become well

acquainted with its work while acting as Inspector-General of Auxiliary Forces ten years ago, while, as commanding the 4th Army Corps, it had, in considering the defence of London, which would in the event of war fall to a large extent on the auxiliary forces, recently been his duty to go carefully into the question of the buildings which might be made available for the treatment of the sick and wounded in such an emergency. The toast was acknowledged by Colonel Lloyd, V.D. The toast of "The Chairman" was then given by Brigade-Surgeon Andrew Clark, and briefly acknowledged by Lord Grenfell. Captain Harper proposed the health of "The Honorary Secretary," Lieutenant Montgomery-Smith, who said that his only regret was that out of the whole body of volunteer medical officers, which he estimated at about 1,200 very little more than a fourth had joined an association which endeavoured, as he believed, with much success to represent their interests and wishes. The annual meeting of the Association will take place at 20, Hanover Square, W., on Tuesday, April 26th, at 4.30 p.m.

HOME RELIEF.

The fourth International Home Relief Congress is fixed for June 7th next at Edinburgh. Its President is the Right Honourable Lord Balfour of Burleigh, and the Chairman of the Executive Committee, Sir John Sibbald, M.D., F.R.C.P.E. The title of the Congress is a translation of the French term, "Assistance Familiale," and the Congresses have grown out of a Congress of charitable work generally held in Paris in 1900. It was there suggested that it might prove useful if an International Congress of all persons interested in the poor were instituted for the purpose of interchanging views and information upon all subjects connected with charitable help to the poor in their own homes whether afforded by the State or by voluntary institutions or associations. The first Congress was held in Paris in 1901, the second in Antwerp in 1902, and the third and most recent at Bordeaux last year. The kinds of aid which formed the subject of discussion at the first Congress may be taken as fairly typical of the general subjects with which the Congresses are intended to deal. They included not merely the giving of material aid in the form of food, clothing, lodging, or money, or of medical aid in the form of advice, nursing, drugs, and medical appliances, but the ways in which useful sanitary and economic information could best be disseminated among the poor. The question of how habits likely to develop health of body and mind might best be fostered received notice; in addition, different plans were considered by means of which a spirit of self-help might be stimulated amongst the poor. The work for the approaching Congress is provisionally divided into five sections. The first deals with children, the second with old age, the third with able-bodied adults, the fourth with sick adults, and the fifth with insane persons and epileptics. The subjects put down for discussion in the children's section include the supervision and home care of children and adults who are mentally affected, the boarding-out of pauper children, the methods of organizing home relief for cripples, the prevention of cruelty to children, the care of middle-aged widows and children who are in receipt of outdoor parish relief; and, finally, home relief in relation to the feeding of infants and of school children. The latter seems to us at the present moment to be of all the subjects entered in this section the most immediately important, and that most capable of yielding early and fruitful results. We hope, therefore, it will receive the fullest attention. In the section for able-bodied adults labour colonies, model lodging-houses, and the compulsory detention of paupers are all to receive attention, but we find no direct reference to the interesting question of vagrancy. It is a distinct honour to Scotland that Edinburgh should have been chosen as the site of a Congress so early in the history of the movement, and we hope that it will prove a success. In view of the numerous sections of workers to whom the objects of the Congress must appeal there should be no lack of attendance thereat. Tickets of membership of the Congress, including the right to receive a copy of the printed report of the proceedings, may be obtained, price 16s., from the Secretary, Mr. I. J. Cowie, 59, Frederick Street, Edinburgh.

INDUSTRIAL LEAD POISONING.

A "Return of the Cases of Lead Poisoning reported as occurring in China and Earthenware Works during the years 1899 to 1903" has just been published by the Home Office. The total number of reported cases in the United Kingdom during 1903 was 97 as against 87 for the previous year. The increase is explained by a slight rise in the number of persons affected in the manufacture of tiles and majolica ware. Taking the potteries in North Staffordshire alone, the principal seat of the industry, the numbers of reported cases of lead poisoning were 75 in 1903, 66 in 1902, 84 in 1901, 165 in 1900, and 204 in 1899. When Professors Thorpe and T. Oliver reported to the Home Secretary on the employment of lead compounds in the manufacture of pottery, the number of cases reported (1898) was 348. It must be gratifying alike to the Home Office and to those who in Parliament and elsewhere have striven to promote the hygiene of our industries to observe this very marked decline in the number of cases of lead poisoning in the manufacture of earthenware and china. No stronger argument could be brought forward to justify the steps then taken to improve the dangerous processes in the manufacture of pottery than the figures just given. The results reflect credit all round. While there is a notable decline in the number of cases of lead poisoning in china and earthenware works, it is a matter for some regret and serious consideration that in certain other trades—for example, that of house painting—there is a distinct increase.

SCHOOL HYGIENE.

The first International Congress of School Hygiene, which concluded it proceedings at Nuremberg on April 9th, appears to have been a success. Every European country except Italy and Turkey was duly represented, and delegates from America and Japan also attended. The work was divided into seven sections. In the first were discussed school buildings and the furniture of the schoolroom; in the second, the hygiene of boarding schools and the various questions relating to the physiology and psychology of education; in the third, the training in hygiene desirable for both teachers and scholars; and in fourth, physical education. The fifth dealt with contagious disease and those other conditions which affect school attendance; while the sixth discussed the institutions and requirements of special schools for the feeble-minded and physically incompetent children. Finally, the seventh dealt with such subjects as holiday camps, the inter-relations of home and school life, and the effect of teaching upon the health of those who engage in it as a profession. The next Congress is to be held in London in 1907, Sir Lauder Brunton being its elected President.

THE BIRTH-RATE OF NEW SOUTH WALES.

Our correspondent in Sydney referred a few months ago in one of his letters to an essay by Mr. Coghlan,[1] the New South Wales Government statistician, on the decline in the birth-rate in that colony. The essay, which deals also with "other phenomena of childbirth," is, however, so important a contribution to our knowledge of birth statistics that it is desirable to call further attention to it. Such statistics for New South Wales are available since 1856, but Mr. Coghlan has confined himself to a consideration of those for 1891-1900, in which time 356,496 children were born. The New South Wales birth statistics are superior to our own, because the records give the ages of the parents of each child born, the period elapsing since marriage, and their previous issue, while the death records show for each married woman the age of the deceased and of her husband, the duration of their marriage, and the number of issue both living and dead. By these means many important problems can be cleared up.

[1] *The Decline in the Birth-rate of New South Wales, and other Phenomena of Child Birth.* An essay in statistics by T. A. Coghlan. Sydney: Gullick, Government Printer. 1903. (Pp. 79.)

The most notable fact shown by the statistics is that in this new country the birth-rate is steadily declining. Thus in 1901 the births per 1,000 married women under 45 were only 235, while as recently as 1886 their number was 339, a decline in 15 years of very nearly one-third. The marriage age among women is now sixteen months later than it was in 1885. It is also noteworthy that in 259 out of every 1,000 marriages the fecundity is prejudiced, or in other words, "the probability of there being issue thereto is actually assured before marriages take place." Of every 1,000 first-born children 510 are of post-nuptial conception. 233 of ante-nuptial conception, and 257 are illegitimate, The reduction of fecundity which has taken place is clearly not due to climatic influences. True, it varies in different parts of the same colony, but there is no marked difference in climate in parts in which there is great difference in fecundity. The difference must be sought for in the influence of town life or in the occupations of the people. It is really a question of artificial checks. At the same time it is interesting to note that the fecundity of Australian women is greater than that of European women living in Australia at every age of marriage, and that amongst other women the Scotch show greater fecundity than the Irish, and the Irish than English women. A difference is drawn between fecundity and fertility. Thus women of Irish birth in Australia are less fecund than women born either in New South Wales or in Scotland, but they are more fertile. In other words, fewer Irish women have children, but to those who are fecund more children are born. One-fourth of all the children born in ten years have mothers whose ages are below 24 years; one-half have mothers below 28 years and 4 months; and three-fourths below 33 years and 6 months. The interval between marriage and first births, the births to women with previous issue, the effects of postponement of marriage on fertility, the number of children to marriages lasting through the whole period of child-bearing, the average number of children to all marriages, fertility in relation to birthplace and religious belief, families of various sizes, joint ages of parents as affecting birth-rates, plural births, sex, deaths in childbirth, multiparae, are among other subjects comprised within the scope of study of Mr. Coghlan's book, but enough has been said to illustrate the almost unique importance of this contribution to a subject of imperial gravity.

THE ANTHROPOMETRY OF THE VISCERA.

Whilst anthropometry has concerned itself with various measurements of the limbs, head, and trunk, and accurate data in these directions have been rapidly accumulating, next to nothing has been done with regard to the variability of the viscera. Mr. M. Greenwood has endeavoured to supply the deficiency, and has contributed to the last issue of *Biometrika* a preliminary paper which deals chiefly with the weight of the heart as compared to other organs—for example, the liver, spleen, and kidney. He has obtained his data from the *post mortem* records of the London Hospital and has dealt with them on the lines laid down by Professor Karl Pearson. It is obvious that the material is from a selected class, and is not an average sample of the whole population. Moreover, those taken as "healthy" come, with few exceptions, from the bodies of persons who have succumbed to disease and are only pairs of organs which have been recorded as normal in the *post mortem* room books. Nevertheless, though open to these objections, the results are of interest and value as being more precise than any heretofore recorded. It is found that the mean weight of the heart is higher than that usually given in textbooks, and that, while the heart is more variable than the liver or the kidneys, it is much less variable than the spleen. So far as the observations are available for drawing such a conclusion the general effect of disease is to increase the absolute variability of organs and to reduce their correlations with other organs; on the other hand, as one passes from a general hospital population to a healthy population, variability sinks and correlation becomes closer. It has been otherwise established that low variation and high correlation of different parts mean closeness to type, the reverse being a sign of instability and departure from type. It is now shown that individuals who die of disease in adult life are more variable and less well correlated than the healthy, which is what we might expect on the doctrine of survival of the fittest. Though the paper is avowedly only of a preliminary character, it contains much that is worth careful study.

AN INTERNATIONAL FACULTY.

At the next summer session of the University of California, which will be held in Berkeley for the six weeks beginning June 27th and ending August 6th, a number of European Professors will be on its teaching faculty. The *Boston Medical and Surgical Journal* states that Professor Svante A. Arrhenius, Professor of Physics in the University of Stockholm, will give in English a course of lectures on the application of physical chemistry to serumtherapy, in which he will make public his most recent and hitherto unpublished conclusions. Professor Arrhenius will give another course upon the general subject of physical chemistry. Sir William Ramsay, of London, is to be another member of this summer faculty, and is now preparing a course of lectures to be published later, giving his views upon recent developments in chemical theory, dealing with the ion and the electron, and illustrated experimentally by the behaviour and properties of radium. Dr. Hugo de Vries, Professor of Vegetable Anatomy and Physiology in the University of Amsterdam, will deliver in English a course of lectures on natural plant breeding, giving his views on species and varieties and their origin by means of mutations. The lectures will be illustrated by drawing and specimens. The scheme seems to take us back to the early days of universities, when learning and learned men were truly cosmopolitan, and when they spoke a universal language.

THE HEALTH OF FLAX AND LINEN OPERATIVES.

As long ago as 1894 certain processes in flax and linen mills were declared by the Secretary of State to be dangerous, and two years afterwards special rules were framed by the Home Office for the guidance of employers and employed. Although the operation of these rules did much to secure healthier conditions for the workpeople, much was still left to be accomplished. To Commander Hamilton Smith was recently entrusted the duty of making an inquiry and of showing how additional improvements might be effected. So far as the ventilation of weaving sheds is concerned, there is not the least doubt that it is extremely difficult to measure with accuracy the amount of air passing into or escaping from the workrooms, and even where this can be done the result obtained is no proof that ventilation has been adequate, for there must be certain areas in the weaving shed where the air has been, practically speaking, undisturbed. The purity of the air is more satisfactorily estimated by taking samples from different parts of the shed and comparing the percentage of carbon dioxide with that of the outside air. It was found that the percentage in factories situated in country districts was often much below what is considered normal in less favoured places. In some instances the amount was only 1 per 10,000 parts of air. Attention is directed to the excessive humidity of the air in wet spinning rooms, and stress is laid upon the necessity of the water used for producing humidity being taken from a public supply of drinking water, or from an equally reliable source, since in Belfast serious injury to health is said to have followed the use of impure water for this purpose. Splashboards are recommended for the floors in wet rooms and the wearing of waterproof aprons or overalls. In the backling and preparing rooms considerable quantities of dust are given off, and these processes are properly regarded as injurious to health unless careful precautions are taken. It is difficult to get the workers to

Issued by Commander Hamilton Smith, R.N., H.M. Superintending Inspector of Factories. Messrs. Eyre and Spottiswoode, East Harding Street, E.C. 2d.

wear respirators. In Belgium, according to Dr. Glibert, the same difficulties exist, both as regards the means employed for obtaining efficient ventilation and of combating the evil effects of dust. Commander Smith maintains that the most suitable and reliable ventilation for carding machines is direct suction by means of fans. He recommends, also, that the workers should be protected by a pneumatic arrangement fixed close to the feeding table, which would draw away the dust generated during the feeding and spreading operations. It is recommended that the proportion of carbon dioxide in the workrooms shall never exceed the proportion in the air outside by more than 5 volumes to every 10,000 of air; that the air inlets shall be so arranged that no direct draught falls upon the persons employed; and that the temperature of the incoming air shall not be less than 60° F.

ANTIVACCINATION IN PARLIAMENT.

The Antivaccination League is evidently not pleased with the action of those members of Parliament who are usually regarded as supporters of the cause. Part of the programme of the recent annual meetings of the League was "a conference with members of Parliament and other representatives of public bodies." In the authorized account of the proceedings no mention is made of any one having been present to represent any other public bodies, and as for Parliament, only four members turned up, of whom three appear to have departed immediately after speaking their piece. They were thus saved from hearing a bit of the League's mind regarding themselves, and their doings, as expressed to the great satisfaction of the audience by Mr. Alfred Milnes, M.A. He said that a voice from the inside of St. Stephen's had told them to do their duty outside. In return he was inclined to tell them to do theirs inside. If there were but one man in the House who knew their question, great things would result; but, alas, there was not a skilled representative of antivaccination in Parliament, otherwise the antivaccinists should not go on suffering as at present. Such are the thanks which members of Parliament receive for truckling to antivaccination, and it is to be hoped they are satisfied with their reward. Who is to be the new skilled representative has not yet been divulged, but as a natural preliminary, a seat is being sought out for him. In the *Leicester Post* we read that the paid agent and lecturer of the League wishes that town to give over its representation to the good man and true whose presence is required to save from utter destruction the Westminster Sodom and Gomorrah. But the *Post*, which normally supports the League's side of things, treats the new proposal with scorn. In its own words, "It is hardly worth while to discuss a question which can scarcely be taken seriously." That is cold comfort, but so the matter stands at present, and what the outcome may be those who live long enough will see. Meanwhile, the policy which the League urges on its members is to make the question of vaccination a test one at every election. The latest experiment in that way has been at East Dorset, and it is pleasant to learn from the *Vaccination Inquirer* that the attempt there has fallen a long way short of success. Liberal candidates appear to be regarded as more hopeful subjects of pressure than Conservatives, but in this case, at any rate, Mr. Lyell, the Liberal who won the seat, stuck to his own views. He is reported to have irritated the League's friends by his unsympathetic attitude. "As far as soldiers and sailors are concerned, he would vote that they should be vaccinated by force if necessary," while as to general revaccination, all that he would promise was to require its accompaniment by a conscience clause, and on being further pressed he replied, "I must ask you to consider these answers as final. I cannot receive any further deputation on this subject." We take the liberty of congratulating Mr. Lyell on the strength of his backbone and the maintenance of his self-respect. We trust, too, that other candidates of both parties will follow his example, and so save themselves from subsequent castigation by League orators for insufficient antivaccination enthusiasm once they find themselves in the House. It is hard to conceive of a Parliamentary position much more degrading than that of a member who in any degree owes his election to, and has to suffer the hectoring of, the leaders of the Antivaccination League and its local branches. Their support indeed must very often be in the nature of a Greek gift. The fact that a candidate has condescended to cringe to such noisy faddists will in most places detach more votes than can be mustered by those who attempt to wring from him pledges of which he would afterwards have reason to be ashamed.

AN EARLY AFRICAN EXPLORER.

Mrs. Larymore, writing recently to the *Morning Post* from Murmur in Northern Nigeria, narrated a visit which she and her husband had paid on their way from Katagum to Kano, to the grave of a medical man and early African explorer whom she calls Richard Oudney. The person, however, to whom she refers must be Walter Oudney, M.D.Edin., the companion of Lieutenant Huge Clapperton and Major Dixon Denham in their endeavour to discover the sources of the Niger in the third decade of last century. Walter Oudney, who was only 34 when he died in the Soudan just 80 years ago, was the child of persons in humble circumstances, and commenced life as a surgeon's mate on board a man-of-war. In 1810, at the age of 19, he became an assistant surgeon, and shortly afterwards was promoted surgeon, and served in the East Indies. On the conclusion of peace with France he returned to Edinburgh, attended classes, and graduated M.D.Edin. in 1817. He had the advantage during this portion of his career of the friendship of the well-known Dr. John Abercrombie, who in his time did so much for Edinburgh medical students. After graduation he at first intended to devote himself to botany, having, indeed, some prospect of becoming university lecturer in that study. Later on, however, he threw in his lot with the explorers already mentioned, and with them left Tripoli for the interior at the end of 1821. By March, 1823, they had reached Kouka, the capital of the kingdom of Bornou, on Lake Chad, and there remained for many months. Towards the end of the year they started afresh with the intention of exploring the country to the west of Bornou. The party, however, had been exposed to considerable privations, and Oudney, whose health had already begun to fail at Kouka, entirely broke down and died of pneumonia not far from Katagum, halfway between Kano and Kouka. He was, according to the descriptions of his companions, a quiet man of slight build, but possessed of much enterprise and determination, and a singularly happy way of dealing with natives. He did much medical work among them and carried on his ministrations up to the last. He was buried under a large tree and the grave covered by a clay-built tomb. Mrs. Larymore says in her letter that since that time no white men have been over the route, but that the natives knew well the site of the grave, although the ancient tree had fallen and the rains of eighty seasons had levelled the tomb to the ground. Before leaving they planted around it the seeds of some white acacias.

PREGNANCY AND DERMOIDS OF BOTH OVARIES.

The recent discussion at the Obstetrical Society on pregnancy after more or less mutilation of the tubes and ovaries will remind us that prognosis as to sterility or fertility after operations where such mutilation is unavoidable must be very guarded. Condamin of Lyons has published an interesting summary of instances of pregnancy in patients subject to bilateral dermoid ovarian tumours already of large size.[1] This phenomenon shows that when the two ovaries, in the anatomical sense of the term, are converted into dermoid cysts pregnancy may nevertheless occur. Follicles bearing ova probably remain in the outer wall of the tumours and manage to enter the ostium of the Fallopian tube; it is also evident that spermatozoa must somehow reach the ova. But, as was sug-

[1] *Annales de Gynec. et d'Obstét.* March, 1904, p. 168.

gested in the discussion above alluded to, it is possible that in some of these cases there was ovarian tissue beyond the limits of the anatomical ovary, probably in the ovarian ligament; this would explain how in many of the cases collected by Condamin though the pair of dermoids, very small as tumours, were apparently destitute of any trace of ovarian tissue, yet the patient had borne children to within a short time before the operation. In nine cases of an opposite type a brace of large dermoids was removed during pregnancy. On reflecting on these instances of conditions widely different as to the degree of development of the pair of dermoids we may reasonably suspect that not rarely the destruction of true ovarian tissue within the limits of the ovary proper occurs very early, so that pregnancy in double incipient dermoid disease takes place in the same way as when the tumours have become large, that is to say, the ova do not come from either of the diseased ovaries. It cannot be denied, on the other hand, that true ovarian tissue exists in some cases within the limits of a dermoid ovary, and on that fact rests a question of grave importance to the surgeon. In four cases the operator when removing the pair of dermoids left a small fragment of the ovary and had the satisfaction of learning that the patient became pregnant again after recovery. Condamin expresses doubt as to whether it be always possible to preserve a portion of normal ovary. It is certainly not always possible, but it is also doubtful whether it be ever advisable. It would be interesting to know whether recurrence occurred in any of the four cases where a piece of ovary was designedly left behind. The relief felt by a patient after convalescence from ovariotomy is extreme, but the disappointment and mental pain should recurrence occur is correspondingly great, hence it is questionable if it be right to incur the risks of recurrence even for so high an aim as the securing to the patient a chance of maternity.

THE DESTRUCTION OF RATS.

In another part of this issue will be found a paper in which M. Danysz, of the Pasteur Institute at Paris, gives an account of the virus known by his name. It is an interesting and exceedingly modest statement of an excellent piece of bacteriological work, of which the practical utility, both to agriculturists and epidemiologists, has been more widely recognized hitherto on the Continent than in England. It will be observed that the coccо-bacillus, upon the life-products of which the utility of the serum depends, is not easy either to procure or preserve in a sufficiently virulent condition, and that its passage from susceptible animal to susceptible animal, so far from exalting its virulence rapidly and progressively, decreases it. M. Danysz, however, has found that by using large numbers of rats he can always rely on obtaining from the bodies of one or two out of every twenty or thirty, a strain of microbes sufficiently strong to kill laboratory rats in from seven to twelve days. The virulence of cultures of such strains continues to rise for two or three months, and thus while the existing culture is available for all current purposes, there is sufficient time to hand by other experiments for another culture to take its place. Working in this way M. Danysz has for the last eight years been enabled constantly to keep by him a supply of virus of adequate virulence, and practical use has been made of it for the destruction of rats in warehouses on farms, and in other places in some thousands of instances. A summary of these operations shows that the experiments thus conducted have resulted in about 80 per cent. of all cases in the complete destruction of the rats, while in the operations have been partially successful and in the remaining 10 entirely unsuccessful. M. Danysz's statement includes a careful account of the largest operation effected or started by his method, namely, the campaign against rats in Odessa in 1903. A wish appears to have been very generally felt on that occasion that the virus was very freely distributed, prepared by very rapid and easy means, and entrusted for use even to persons of the lowest classes. The rats would appear to have been annihilated without any harm having either to human beings or to domestic animals, although there was good reason to suppose that many of the latter ate the infected crusts of bread intended for the rats. Given a culture of suitable strength, the methods of preparing and using the infected bouillon seem so simple that the virus might well be employed in places in England where the destruction of rats is deemed desirable, whether from a sanitary or other point of view. We believe that an experiment of a limited character was conducted with this virus at Capetown during the early part of the outbreak of plague in 1901, and under the existing circumstances in the Transvaal it seems to be eminently desirable that the sanitary authorities of that country should at once arrange for the transmission from the Pasteur Institute of a sufficient quantity of culture of adequate strength for the initiation of a great campaign with Danysz virus. The results obtained under corresponding circumstances at Odessa appear to render this most advisable.

EUNUCHOID GIANTISM.

Men of good inches, as Carlyle called giants, are rarely men of good constitution. It is significant, but not surprising, to find that, according to the above-mentioned author, the only Potsdam grenadier whose life was reliably recorded by a trustworthy contemporary, "took swelling in the legs; good for nothing as a grenadier, and was likely to fall heavy on society: so he came to England and made a competence for his wife by making a show of himself. Frederick the Great on his accession, seeing the uselessness of his father's giant regiment, disbanded "the stupid splayfooted eight foot mass." Carlyle's expression is most appropriate when applied to giants as a class. Giantism is a morbid condition. Sometimes it is simply a symptom of acromegaly, Maire and Brissaud distinguishing two separate types of acromegalic giant. Vidal and Picqué quite recently turned attention to giantism intimately associated with essential defects in the genital tract. They read notes at the meeting of a society on a giant aged 42. When 17 years of age he had an attack of typhoid fever, and after convalescence began to grow rapidly until he became very tall. His genital organs were those of a little child, and the history showed that atrophy of the testes preceded the onset of abnormal growth. The bacillus and the toxins of typhoid possibly played a prominent part in destroying the functions of the testes in this case, and abnormal osteogenesis followed. Vidal and Picqué speak of this destructive inflammation or other degenerative changes as "natural castration," and speak of similar cases reported by Launois and Roy, as well as one other instance recently published by Meige and Brissaud. Launois himself, in discussing the above case, quoted another where an infant was castrated by a dog which attacked him in the cradle. He lived to middle age with all the attributes of feminism but his height was only 1·54 metre, a little over 5 ft. 7 in. It is of course possible had he not lost his testes, he would have been shorter. The big, heavy bones of a eunuch are to be borne in mind in association with eunuchoid giantism, and Cavallo has compared that condition with the arrest of the appearance of mellitic acidum after removal of both ovaries. It would be interesting to distinguish healthy from morbid giantism, for undoubtedly a minority of giants have been sound men.

GRANTS TO UNIVERSITY COLLEGES.

It will be remembered that the Chancellor of the Exchequer recently promised a deputation that the Treasury grant to University colleges should be raised from £15,000 to £20,000 a year, and held out some hope that the sum might be raised to £25,000 next year. The following Committee has now been appointed to report on the allocation of the proposed increased grant: The Right Honourable R. B. Haldane, M.P. (Chairman), Sir J. Mowatt, G.C.B., LL.D., Mr. C. A. Cripps, K.C., M.P., the Rev. Dr. Woods, late President of Trinity College, Oxford, Mr. Henry Higgs, of the Treasury, will be Secretary.

It is reported that the Goldsmiths' Company has placed the sum of £1,000 at the disposal of the Council of the Royal Society for the purpose of investigations into the sources and properties of radium.

The King, in writing to express his regret that he finds himself unable to be present at the annual athletic festival of the South London Schools, has added that he regards with satisfaction the importance now attached to the physical development of children, and takes great interest in all institutions which have for their object the improvement of the physique of the young.

Mr. Carnegie has created a fund of 5,000,000 dols. for the benefit of persons dependent on those who have lost their lives in heroic efforts to save life or of such persons themselves if injured but not killed. The benefits of the fund apply to Canada and the United States, and Mr. Carnegie's letter contains the following: "No action (is) more heroic than that of doctors and nurses volunteering their services in the case of epidemics. .... All these and similar cases are embraced."

In December last Mr. W. C. Fletcher was appointed Chief Inspector of Secondary Schools under the Board of Education in England. Mr. J. W. Headlam, M.A., who as temporary inspector of secondary schools has for several years inspected the intermediate schools in Wales and a large number of secondary schools in England, Mr. R. P. Scott, LL.D., head master of Parmiter's School, N.E., and formerly Honorary Secretary of the Association of Head Masters of Secondary Schools, and Mr. Frederic Spencer, M.A., Ph.D., for fifteen years Professor of French and German at the University College of North Wales, but more recently Rector of the High School at Glasgow, have been appointed Staff Inspectors of Secondary Schools to assist the Chief Inspector. The task before these officers is of great importance to the country, and not least perhaps to the medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

Underfed School Children.—The debate on the motion of which Mr. Claude Hay, M.P. for Shoreditch, had given notice did not come on on Wednesday night until nearly eleven o'clock owing to a motion for adjournment, and the discussion was short and disappointing. Mr. Hay proposed that the State should provide free meals—breakfast and dinner for necessitous children, and estimated that a rate of considerably less than a halfpenny in the pound would meet the expenses. The motion was seconded by Sir John Gorst, who thought the plan would not only put a stop to the hunger of the children, but would be an efficient instrument for bringing the parents to see what their real parental responsibility was. Dr. Macnamara, who reminded the House that he was for many years a Board School teacher, supported the proposal; but while he thought that parents who could not make provision for their children must be assisted without any suggestion of pauperization, those who could but would not should be severely punished. Sir William Anson said that the Committee on Physical Deterioration now sitting was collecting a quantity of important and valuable evidence on this subject. Regard must be had not only to the child which went hungry to school, but also to the child ill-fed, ill-managed, and ill-nurtured from birth, who was behind other children and hindered their education. From evidence submitted to the Committee it appeared that about 90 per cent. of children, in whatever class, started with an average chance of a healthy life, but in the case of slum children, by the time they reached school age 60 per cent. were below the normal. The regularity of school life so far benefited the children that midway in that period the percentage below the normal diminished to 40, and to about 15 at its conclusion. Some of the remedies for this condition might be attained without legislation, such as the teaching of the laws of health and the dissemination by the Board of Education through their intelligence department of information as to what was being done in various localities. He would like to see the case of children brought to school occasionally underfed dealt with by voluntary effort, but for the case of retarded children an extension of the system of truant and industrial schools, accompanied by a diminution of intellectual teaching and a considerable increase in the amount of manual exercise and work about the house. The discussion was continued by Mr. Bond, who was still speaking at midnight when the debate stood adjourned.

Rats and the Plague in Capetown.—Sir Walter Foster asked the Secretary of State for the Colonies on Wednesday whether he would state the results of the use of Dr. Danysz's virus for the destruction of rats as applied in Capetown in the year 1901; and, if the results were satisfactory, whether he would order the same means to be used to destroy rats at the other South African ports affected by plague and in the Transvaal. Mr. Secretary Lyttelton replied that he understood that the results of the use at Capetown of Danysz's virus did not afford grounds for supposing that it was efficacious in the extermination of rats on a large scale. The means to be used to destroy rats at British South African ports were a matter for the Governments of the Cape of Good Hope and Natal. In the case of the Transvaal, he saw no reason to interfere with the discretion of the local Government and its medical advisers, in whose competence to deal with the plague epidemic Lord Milner had full confidence.

Plague in South Africa.—Mr. John Ellis asked the Colonial Secretary on Monday whether, having regard to the presence of plague at Hong Kong and Johannesburg and the admitted susceptibility of the Chinese to this disease, he would suspend the embarkation and importation of any Chinese labourers until the port in China and the district in South Africa are declared to be free from plague. Mr. Lyttelton referred the hon. member to the answer given to a similar question on March 29th, in which he refused to give the undertaking asked for on the ground that the experience of the last three years had shown that the slight outbreaks of plague among human beings in South Africa had been met without much difficulty, and that there was no reason to anticipate special difficulties at Johannesburg. Mr. Ellis asked whether the events of the last fortnight made any difference, and the Colonial Secretary replied in the negative.

Inoculation for Plague in Johannesburg.—Sir John Rolleston asked the Secretary of State for the Colonies whether, in view of the results of serum inoculation for plague in India, he would prohibit the use of plague serum in Johannesburg. Mr. Lyttelton replied that he was not prepared to interfere with the local medical authorities in this matter, and he was not aware of any reasons for the suggested prohibition of the use of plague serum, to which no objection was taken by his medical advisers.

Plague at Hong Kong.—Sir Walter Foster last week asked the Secretary of State for the Colonies if he had received a report on the plague from the Governor of Hong Kong; and, if so, could he state the number of cases of plague reported there during the first three months of this year and the number of deaths. Mr. Lyttelton said that according to the weekly telegraphic reports from Hong Kong on the subject, which were regularly communicated to the press as soon as received, there had been 11 cases of plague and 11 deaths at Hong Kong this year up to April 9th. He had received no detailed report as to the occurrence of plague during the current year, but he had given instructions that a report of the acting medical officer of health on the epidemic of plague during the first seven months of last year, which had just been received, should be sent to the hon. member.

The Tuberculosis (Animals) Compensation Bill.—Mr. Price moved and carried the second reading of this Bill last Friday after a very interesting debate. The object of the Bill is to give compensation to the owner whenever a carcass is con-

demned as unfit for human food on account of tuberculosis. A good deal of mistrust has been felt on account of the varying degrees of tuberculosis for which animals have been condemned. It was pointed out in a very interesting speech by Sir Herbert Maxwell that in Edinburgh the whole carcass was destroyed, while in Manchester the organs affected by the disease were removed, and the rest of the carcass, being perfectly sound, was allowed to be sold as meat. Dr. Farquharson strongly supported the Bill in the interests of the butcher and the farmer, who could not diagnose tuberculosis, and he pointed out the public health advantages which the Bill would secure. Dr. Hutchinson protested against any attempt to stop a measure for the benefit of the public health on account of a difference as to whether the taxpayer or the ratepayer should provide the compensation. Mr. Long, on behalf of the Government, was willing to accept a second reading of the Bill on the condition that it was referred to a Select Committee with power to take evidence, and so give the traders an opportunity to present their case and devise some system of compensation. He admitted that it was most important to have skilled inspectors, and that public slaughter-houses should be provided, but it was difficult to force these measures on the local authorities. The promoters of the Bill accepted the reference to a Select Committee.

The Weights and Measures Bill, which occupied a portion of the Friday's sitting of the House of Commons last week, had a section devoted to the metric system, which it was proposed to substitute for Troy weight and apothecaries' weight. In the course of the discussion this part of the Bill was withdrawn in deference to the views of the Government. A good deal of doubt was expressed as to the practicability of introducing the metric system, in spite of its scientific attractions, and when the Bill which is engaging the attention of the House of Lords comes to the Commons for consideration there is likely to be much criticism of the proposal. The Weights and Measures Bill, which, apart from the section dealing with the metric system, is mainly an administrative measure, was read a second time without a division and referred to the Standing Committee on Law.

The Evasion of the Factory Acts.—Mr. Forde Ridley asked the secretary of State for the Home Department on Tuesday if his attention had been called to a statement lately made by one of the sanitary inspectors of the borough of Bethnal Green as to the evasion of the Factory Acts in consequence of workrooms being part of tenement houses, thus avoiding inspection by the authorities as to the sanitary conditions, overcrowding, and other circumstances under which the work was done, and if so, could he give any hope of these evils being remedied by the issuing of an Order in Council or other method? Mr. Secretary Akers Douglas replied that he did not clearly understand the question, and thought there might be some misconception. So far as he could gather from inquiries, the statement referred to did not attribute any difficulty in enforcing the Factory Act in workrooms to the fact that they formed part of tenement houses; and, as a fact, the provisions of that Act were enforceable equally in tenement houses as elsewhere. He understood that it was a rule in Bethnal Green that these houses should be visited once a month. On the information no question appeared to have arisen which called for further action.

The Licensing Bill of the Government was introduced on Wednesday evening by the Home Secretary. It proposes that the compensation in Brewster Sessions when they consider that licenses should be reduced must make a report to Quarter Sessions, who, finally, by the final decision will test. Where a license is withdrawn for reasons other than misconduct, compensation will be given out of a fund to be raised by a special [illegible] duty levied upon public houses, including [illegible] and clubs. Judging from the speech of Sir Henry Campbell Bannerman and from that of Sir Wilfred Lawson and Mr. Whittaker the Bill will be strongly opposed by the Opposition and by the temperance party.

Calf Lymph for Scotland.—On Monday, Mr. Weir asked the President of the Local Government Board, having regard to the fact that Dr. Blaxall, a salaried officer of the London Board, received from the Scottish Board £105 per annum for lymph prepared in the Board's laboratory and produced from calves the property of the Board, would he state whether this sum represented the whole of the profit derived by Dr. Blaxall from lymph prepared in the Board's laboratory; and, if not, would he state what extra sum Dr. Blaxall thus received last year and to whom the lymph was sold. Mr. Grant Lawson said, in reply, that apart from his ordinary salary no sum other than that paid to Dr. Blaxall by the Local Government Board for Scotland was received by him for lymph prepared in the laboratories at Chelsea. As he had stated on a former occasion the cost of the preparation of the lymph supplied to the Scottish Board was borne by Dr. Blaxall.

The Budget. There was a very large attendance on Tuesday to hear the taxation proposals for the year. The Chancellor of the Exchequer made a clear and careful speech, and announced an increase of a penny in the income tax, of twopence on tea, and some further duties on tobacco in the leaf and on cigarettes and cigars. In the Chancellor's speech there was no indication of any desire to modify the method of levying of the Income Tax so as to favour precarious incomes, though some of the subsequent speakers favoured a system of graduation.

The Poor-law Medical Officers (Ireland) Superannuation Bill. Mr. T. W. Russell introduced this Bill on Monday, and the second reading was fixed for April 28th. The measure is intended to make up for the defects of the Poor-law Officers (Ireland) Superannuation Bill, and proposes to place medical officers in a satisfactory position by giving the right to superannuation without any vexatious conditions.

The Revaccination Bill. This Bill is down for second reading on Tuesday next, but as that day will be occupied by Government business most probably it will not be reached before 12 o'clock, and then a simple objection can stop it. There are blocking motions down in the names of Mr. Logan and Mr. Weir.

Scotland.

COMMEMORATION AND GRADUATION DAYS AT GLASGOW.

Graduation Ceremonial.

At the annual graduation ceremonial of the University of Glasgow on April 18th, in the Bute Hall, Principal Story presided, and opened the proceedings with prayer in Latin. The graduates from the various Faculties were then presented and capped. The number of degrees conferred was as follows: Doctor of Medicine (M.D.), 3; Doctor of Science (D.Sc.), 3; Doctor of Philosophy (D.Phil.), 1; Bachelor of Divinity (B.D.), 12; Bachelor of Laws (LL.B.), 13; Bachelor of Law (B.L.), 4; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 6, including 1 lady; Bachelor of Science (B.Sc.), 27; Certificate of Proficiency in Engineering Science, 8; Master of Arts (M.A.), 78, including 22 ladies.

The Principal then delivered an address. He said that while the fund for the extension and equipment of the University Buildings now amounted to over £70,000, a further sum of £20,000 was required, and he expressed regret that the Government of this country was not ready to give the financial assistance which the German Government gave to universities in that country. After commenting on the modern tendency to substitute physical science for what used to be called the humanities in education, he said that the University should hold the balance evenly and that the soundest foundation for the training of any specialist was the wide and general culture of the character which all schools meant by the term a liberal education. He then referred to the current opinion that the remedy for the defects displayed by the South African war and the continuing struggle for commercial supremacy was to be found in education, but said that it was equally necessary that traders, craftsmen, and workers in every department of national activity should be strong in that which was an indispensable condition of welfare, the sound health of the population. Nowhere could the foundations of health be more surely laid than in the military training, exercise, and discipline of the volunteers. The Principal then dealt with the new Scottish Education Bill, and at the conclusion of his address the proceedings ended.

Commemoration Day.

The first annual commemoration day to keep in remembrance the founders and benefactors of the University took place on April 19th, and was attended by a large number of graduates from many parts of the country and by many citizens of Glasgow. The principal ceremonies took place in the Bute hall, and were opened by a religious service.

Joseph Black, M.D.

Sir William Ramsay, K.C.B., Professor of Chemistry in University College, London, delivered an address upon Joseph Black, M.D., the son of a native of Belfast of Scotch extraction, whose father engaged in the wine trade at Bordeaux, where Joseph Black was born in 1728. He received his education at the University of Glasgow, and early attracted the attention of Cullen, who was at that time lecturer in chemistry. Black completed his medical studies in Edinburgh and graduated M.D. there in 1754; two years later he was called to succeed Cullen in the chair of anatomy and the lectureship in chemistry at Glasgow. Shortly afterwards he exchanged the chair of anatomy for that of medicine and engaged in medical practice. In 1766, when Cullen became professor of medicine at Edinburgh, Black succeeded him in the chair of chemistry and devoted himself entirely to teaching. His character and abilities greatly contributed to increase the respect in which science was held in Edinburgh; he continued in harness until his death in 1799, in his 71st year. Black's great claim to remembrance was founded on his researches on fixed air; he first showed that a gas can be retained by a solid, and can be made to escape by treatment with acid or by heat; he was then led on to the discovery of what he termed latent heat, and his researches upon this subject, though carried on at a time when precision in experiment was very difficult, gave a value for the latent heat of water which was within one seven-hundredth of that subsequently established. Black's proof that the change of a complex compound to simpler compounds, and the building up of a complex compound from simpler ones could be followed successfully by the use of the balance, had had for its consequence the whole development of chemistry.

Honorary Degrees.

At the close of Sir William Ramsay's address a number of honorary degrees were conferred. The recipients of the degree of LL.D., presented by Professor Glaister, were Mr. Choate, the United States Ambassador; Mr. G. F. Deacon, an eminent civil engineer; Sir Ludwig Grant, Bart., Regius Professor of Public Law in the University of Edinburgh; Mr. John Honeyman, architect of Glasgow, distinguished by his work in sanitary matters, especially with regard to the housing of the poor; Mr. J. H. Muirhead, Professor of Philosophy in the University of Birmingham; Dr. William Stirling, Brackenbury Professor of Physiology in the Victoria University of Manchester; and Sir William Taylor, K.C.B., Director-General A.M.S., who graduated M.D., M.S. in the University of Glasgow in 1864. The same degree was conferred *in absentiâ* on Professor Mendeleeff.

A Memorial of Professor Young.

On the afternoon of the same day a memorial to the late Professor John Young, M.D., Professor of Natural History and Keeper of the Hunterian Museum 1866 to 1892, was presented to the University. The memorial consists of a medallion bearing in bas-relief a bust of the late professor, a volume of his essays and addresses, with a biographical notice by Dr. David Yellowlees, and the catalogue of Hunterian manuscripts. Replicas of the medallion were presented to Mrs. Young and to Queen Margaret College.

Banquet.

In the evening the banquet was given in the Bute Hall of the University; the chair was taken by the Principal, who was supported on his right by Sir William Ramsay and on his left by the Lord Provost.

Graduation Day at Aberdeen.

At the spring graduation ceremony of the University of Aberdeen, held in Marischal College, honorary and ordinary degrees in all the Faculties were conferred. On account of the somewhat extraordinary exhibition of rowdyism on the part of the students at the Rectorial Address in November strict regulations were laid down by the Senatus regarding the behaviour of students at this ceremony. These regulations were much resented by the male students—there had, of course, been no need for their application to the lady undergraduates—and resulted in a complete boycott of the ceremony by the male section. This certainly made the occasion unique, for in all probability such a state of matters had never before occurred, at least since the fusion of the Colleges in 1860. To the graduates' friends and the general public who assembled in large numbers to view the "capping" the occasion was one for congratulation, since for once they were enabled to hear all that was said and to see the function carried out with unwonted quiet and decorum. Among the honorary graduates who received the degree of LL.D. were General Sir A. J. F. Reid, a graduate in Arts of the University, who recently commanded the British contingent in the International Expeditionary Force against China, and who has had a brilliant career in the India Army; Dr. C. J. Cullingworth, of St. Thomas's Hospital; Sir George Watt, M.B., C.M.Aberd., F.L.S., C.I.E.; and Mr. William Watson, the poet.

Professor Kennedy, Dean of the Faculty of Law, in introducing Dr. Cullingworth to the Principal, who presided at the ceremony in the absence of the Chancellor (Lord Strathcona), referred to him as a man of many distinctions and of long experience, both on the academic and practical sides of his profession, in Manchester and in London. He recalled his many contributions to medical literature which his professional brethren value as models of accurate observation and sound judgement, instancing his studies on puerperal fever and his more elaborate treatise on the diseases of the Fallopian tubes. Dr. Cullingworth met with an enthusiastic reception.

In introducing Sir George Watt, Professor Kennedy mentioned him as an officer of the French Academy and holder of the Daniel Hanbury Gold Medal for research, a distinction awarded in only two other instances to British men of science. He referred to his career as a successful teacher and instructive writer in systemic botany, and enumerated some of the many responsible positions which he had ably filled.

In the evening a reception was held in the Mitchell Hall by the Principal and Professors, and was largely attended by the honorary graduates, graduates, and prominent citizens.

Ireland.

A Rate-supported Sanatorium for Consumptives in County Cork.

The action of the Rural District Council of Cork in petitioning the Local Government Board for a Provisional Order to provide a sanatorium for consumptives of the city and county of Cork marks an interesting step forward in the campaign against tuberculosis. The result of the petition, which has been granted by the Local Government Board, is that the twenty districts into which the county of Cork is divided will be formed into one for the purpose of providing a sanatorium. There will be power to make a rate not exceeding a penny in the pound. A suitable site of twenty acres is open to the acceptance of the joint body, and the beds in the sanatorium will be allocated in proportion to the contributions from the various districts.

It is most appropriate that the lead in such an undertaking should be taken by the county of Cork, for whereas the mortality from tuberculosis is steadily decreasing in Great Britain, there is no diminution of the disease in Ireland, and Cork—especially the city of that name—shows a most deplorable death-rate from this disease. This heavy mortality from tuberculosis is scarcely remarkable when we consider the poverty and insanitary surroundings of many of the people. The overcrowding in many of the lanes and alleys of the city of Cork is almost beyond belief. Professor Corby, in his evidence during the inquiry held by Dr. Browne, Medical Inspector of the Local Government Board, gave an instance of eleven people living in a single room, and another case in which there were seven people living in a house which contained only 336 cubic feet of air space altogether. Dr. Ashley Cummins testified to having seen, in some of the tenement houses in the city, consumptive cases lying in rooms where the walls were covered with the expectoration of the patients. The Cork District Hospital for Consumption, which is practically the only place where phthisical patients can be received at present is so unsuitable that Dr. Cummins, the senior medical officer to the institution, believes that curable cases admitted there quickly become hopeless.

It is evident that there are very few, if any, districts which could have presented to the Local Government Board so strong a case in favour of allowing combination for the erection and maintenance from the rates of a sanatorium for consumptive patients. The principle being accepted, it will be possible for other districts in England and Scotland, as well as in Ireland, to obtain similar permission to levy a rate for the establishment of sanatoria. It must, however, be borne in mind that the sanatorium treatment of early cases is only one portion of the scheme of prevention of tuberculosis. Provision is required for the advanced cases and the disinfection of infected houses and rooms must be carried out. Dr. D. D. Donovan, Superintendent Medical Officer of Health, made this clear in his evidence during the inquiry at Cork, and it is a point which should never be allowed to escape notice. A scheme of prophylaxis which includes only part of the requirements can at best be only partially successful and risks complete failure, but it is to be anticipated that the provisional order for the formation of a sanatorium district, of which the Local Government Board has given notice under date April 14th, will now lead to the introduction by the various local authorities concerned of a complete scheme of tuberculosis prophylaxis.

Central Midwives Board.

We understand that the difficulty which has arisen between the Central Midwives Board and the Irish Training Institutions respecting the certificates which must be produced before candidates can be admitted to the examination will be considered at an early meeting of the Board. The existing regulations, which have received the sanction of the Privy Council, completely exclude the pupil-midwives trained at the Irish hospitals, and under these circumstances it is felt to be very desirable that some modification of the regulations should be adopted, so that women who have obtained certificates from the Irish chartered training institutions can be admitted to the examination of the Central Midwives Board.

Medical Attendance to a West Coast Island.

That the difficulties of dispensary medical officers in Ireland do not always receive due attention from the Local Government Board is manifested by the narrow escape of Dr. O'Meara, the much-respected medical officer of Tullagh Dispensary District, from drowning while endeavouring to reach the sick poor on the islands belonging to his district. It appears that there are some 1,300 or 1,400 persons living on the islands Sherkin, Cape Clear, Hare, and the Skeams, and the only communication with the mainland is by means of an open boat. In rough weather the passage across is extremely dangerous, so much so that Dr. O'Meara and the crew who rowed him across to one of these islands were almost drowned a short time ago in the discharge of their duties. In a letter to the Skibbereen Board of Guardians Dr. O'Meara drew the attention of the Board to the fact that this is the third occasion on which within a recent period he has with the men accompanying him, narrowly escaped death while on his way to patients on the islands.

Dr. O'Meara also appeared before the Board in person, and pointed out that even when possible to attend the islands it often happened that a medical man could not be obtained for days afterwards and in the case he had been attending on the day of the accident the messages could not be got for four days, although a boat had a patient suffering from pneumonia on board at the time. He suggested that a medical officer should be appointed to attend to the islands at a salary of from £20 to £30 a year. This he could not see why the County Medical District Board would not supply, as otherwise they would have to make boats between the mainland and the islands to prevent further risk of life. Personally, he, Dr. O'Meara, would be glad not to receive a straw whether they appointed a medical officer or not, as he had already been unanimously appointed [illegible] was unanimously adopted.

Ballinasloe Asylum.

The [illegible] of the Board on the [illegible] appointment to the asylum [illegible] Dr. Miles, Bleak, or Didsbury, near Manchester, to send us a letter, from which we like [illegible]

The question raised by the [illegible] Ballinasloe Asylum is a far larger one than two mere local ones. As a county alderman and guardian I have been taking an active part in administrative work in regard to the insane for over twenty years, and I look upon the action of the committee as the worst blow at democratic government in regard to the management of asylums that has yet been struck. I remember an old friend of mine saying, in regard to Boards, that when the parsons came in at the door charity flew out at the window. In this affair the case is worse, for it is actually the case that appears to have been evicted from the committee room because the senior resident medical officer had been acting as superintendent during the long illness of Dr. Fletcher. What I want to ask is this: What encouragement is there to the best men to enter the asylum service if, after years of hard work and low remuneration for their services, they are to be ignored and thrown aside on account of their religious creed. Many of the best assistant medical officers enter the asylums for a year or two, and when they see the low position and small chance of a good position they leave just as they are becoming thoroughly competent for the work. It must be borne in mind that the average student has very little training in the actual treatment of mental disease during his curriculum, as in no branch of the profession is the saying, "Get through your exams. and then learn your profession," truer than in the case of those who intend to become alienists, and it takes a considerable time for any one to acquire the knowledge to fit him for a position of authority in a large asylum. Dr. Miles has evidently devoted himself to the study of mental disease and his case is a hard one. One governor is reported to have said that it behoved them to elect a man of their own faith. I could find but few gentlemen in asylums where the religious state of affairs was exactly reversed, but the Roman Catholic was appointed.

Registration of Nurses.

On April 15th Dr. James Little presided at a meeting in the Royal College of Physicians in Ireland in furtherance of the proposed Bill for the registration of nurses. There was a crowded attendance. Mrs. Bedford Fenwick explained the objects of the Society for the State Registration of Trained Nurses; and finally the following resolution was proposed by Sir John Moore and seconded by Dr. O'Carroll:

1. That it is essential the nurses throughout the United Kingdom should be efficiently educated for the performance of the responsible duties entrusted to them. 2. That a minimum standard of education and common rules of discipline can be secured only by an Act of Parliament. That, as a preliminary to such legislation it is desirable a select Committee of the House of Commons should be appointed at an early date to inquire into the whole nursing question.

Two gentlemen, Mr. Moses and Dr. Parsons, opposed the proposal, which was strongly supported by Sir Thornley Stoker, Sir Thomas Myles, Sir C. Ball, and Dr. Hayes, and was eventually carried with two dissentients.

The Professorship of Botany, Trinity College, Dublin.

The Board of Trinity College has appointed Mr. Henry Horace Dixon to the Chair of Botany, vacant by the resignation of Dr. Percival Wright. Mr. Dixon has acted for some years as his predecessor's assistant. He won a classical scholarship, and at his degree was first senior Moderator in natural science. He has been a hard worker, and he is well known for his observations on the rise of sap in plants.

Dentists and the Companies Act.

An interesting case involving questions regarding the registration of "dentist" companies was heard in Dublin on Tuesday last in the King's Bench Division, the Lord Chief Baron presiding. A person called S. G. Rowell, of Clonmel, wished to obtain registration of a company named "S. G. Rowell, Dentists, Limited." He had applied to the registrar, but he put off the registration owing, apparently, it was alleged, to certain recent legal decisions, although under section xvii of the Companies Act, 1862, he was obliged to register when the documents were in order. A conditional order for mandamus had been obtained. Counsel for the Irish Branch of the British Dental Association opposed the application on the ground that under the Dental Act of 1878 no person unless fully qualified was entitled to use the name dentist, that a certain training was required by and certain formalities were obligatory on all persons who become dentists, and that what Rowell could not do as an individual he could not do on forming his business into a company. The Lord Chief Baron in delivering judgement held that the first sentence in Section iii of the Act of 1878 amounted to a statutory definition of the word dentist, and meant that for the future the word dentist should mean a registered dentist. In the present instance the Company was not and could not be registered under the Act of 1878. Its incorporation would imply that there was a business of dentist carried on by registered persons, and as the end of that Court could not be asked for or granted for the purpose of effecting a false representation, the application ought to be refused, and should be refused with costs.

MEDICAL EDUCATION IN AMERICA.

Reports of Medical Members of the Mosely Educational Commission.

In 1902 Mr. A. Mosely, who during his residence in Kimberley, South Africa, had been impressed by the practical ability of American engineers, organized an industrial commission of British business men to visit the United States in order to find an answer to the question, "How is it that the United States can afford to pay half-a-dollar in wages where we pay a shilling, and yet compete with us in the markets of the world?" The answer turned largely upon the character of the education, using that word in its widest sense, available in the United States. In the autumn of last year Mr. Mosely arranged for an education commission to visit the United States with a view to studying the schools and universities. The subjects placed for investigation before this Commission were:

1. The development of individuality in the primary schools.
2. The social and intellectual effects of the wide distribution of secondary education.
3. The effect of special instruction in commercial or business methods on applied science.
4. The present state of opinion as to the value of professional and technical instruction of university rank designed with special reference to the tasks of business life.

The Commission consisted of twenty-six persons selected for their special acquaintance with various departments of education in Great Britain and Ireland. The medical representatives were Dr. J. Rose Bradford, Professor of Medicine, University College, London, and Dr. W. H. Gaskell, University Lecturer in Physiology, Cambridge. Their reports,[1] which form part of the volume issued recently by Mr. Mosely, contain many points of interest to which we can only briefly refer.

Anatomy and Physiology.

Dr. Gaskell prefaces his remarks by the statement that there is at the present time a feeling of unrest and uncertainty both in the United States and in Canada as to the best methods of instruction. Experiments are being tried, and he has evidently found it difficult to give any general view.

In the universities of Harvard and Johns Hopkins the student is first of all required to spend three to four years in an academical course for the degree of M.A., and is only then permitted to enter upon the medical curriculum of four years, at the end of which he receives the degree of M.D. This long period is recognized as a drawback, though the great advantage of a collegiate course is universally recognized, so that Dr. Gaskell believes that there will be a tendency more and more developed in the United States to institute a combined course of six years, which will enable the student to obtain his academical degree at the end of four years and his medical at the end of six, a system very similar to that in force in the universities of Canada and at Cambridge and Oxford. The system is already in working order in the more western universities of Chicago, Minneapolis, and Ann Arbor. Here the teaching of human anatomy and physiology is included in the scientific subjects for the scientific degree, and, in consequence, the laboratories for these subjects are built in close connexion with those for the other scientific subjects, and not, as in most of the eastern States, in the midst of the town near the hospital, but far removed from the scientific buildings of the university. In this tendency of the universities of the Middle West not to divorce physiology and human anatomy from the list of subjects belonging to a science school and confine them entirely to medicine, he finds one of the most hopeful signs for biological progress in the States, and he adds:

> Such a subject as physiology especially ought never to be taught or studied except in close proximity to the laboratory buildings of chemistry, physics, and anatomy, both human and comparative. All the problems of physiology fall under one of these three heads, and where there is easy intercourse between the teachers and thinkers in these various subjects, there will be found the broadest views and the most efficient teaching power. When the scientific buildings of the university are situated many miles away from the medical school, and in the latter alone is provision made for teaching physiology and human anatomy, then such intercourse is very much hindered, to the detriment of both schools. I hope sincerely that in the new arrangements for the London University the proposal to concentrate all the preliminary medical subjects, even up to bacteriology, into one or more scientific schools apart from the hospitals, will be carried out.

[1] *Reports of the Mosely Educational Commission to the United States of America, October-December, 1903.* London: The Co-operative Printing Society, Limited.

Examinations.

None of the universities in the United States or Canada have extern examiners. The question whether or no a student can pass in any subject is decided by his teachers alone, and not only by a separate examination, but also by the nature of the work done by the student throughout the term. Every student belongs to a certain year, and should move with the rest of his class from fresh man to sophomore, from sophomore to junior, and from junior to senior; the work for each year is settled by the teachers and the university authorities, and upon the termination of each course of instruction there is an examination, the results of which together with the marks obtained during the course, determine whether the student has passed or failed in that subject; if he has failed in only one or two subjects he has a chance of making good those failures by working in the summer and passing a supplementary examination in September. If he fails in many subjects he loses his year and has to take all the year's work over again; or he may be advised to try somewhere else where it is easier to get a degree. Each course is got rid of entirely as soon as it is finished and the student can dismiss it from his mind as far as examination is concerned. Further, a subject is much more split up into subdivisions than in Great Britain. Under the term physiology, as understood in England, Dr. Gaskell found almost universally three separate laboratories with separate professors and staff of teachers in each—namely, histology (usually combined with embryology), physiological chemistry, and physiology proper. Each of these subjects forms a separate course with a separate examination.

Method of Teaching.

In all the medical schools of the United States the teaching in any subject is carried on by means of lectures, conferences, recitations (catechetical classes), and laboratory work; to which must be added in some cases seminars. In many universities didactic lectures were looked upon as nearly valueless, on the ground that they were only a repetition of what was already in the textbook, and were not, therefore, needed. Dr. Gaskell sums up this part of his subject as follows:

> The idea underlying the whole system of instruction in these scientific subjects is that they are subjects based on experimental research, that the question which the student ought to be taught to ask from the very first is not, What man is the authority for such and such a statement? but, What is the experimental evidence which proves the truth of the statement? Therefore, in every way the student is taught to consider that he himself is undertaking a research, that he is rediscovering for himself what others have found out before him. In accordance with this view no slovenly work is allowed: every experiment must be done as though it was an actual research, the markers stimulation markers, being used, with the result, so I am assured, that in a very short time it becomes a habit in each man to perform every experiment with real care and thoroughness. Such a method of instruction necessarily means a large amount of time given to the subject and a considerable staff of efficient teachers to supervise the practical work and conduct the recitations, for the latter in order to be of real good must not be given to too large a class.

Dr. Gaskell then describes at length the Harvard "concentration system," a brief account of which is quoted below from Dr. Bradford's report. At Harvard the students are also required to prepare theses, which are read at fixed times and discussed in the class by students and teachers. This is an adaptation to an elementary class of the system of "seminars," followed in all advanced work in all the graduate schools for the degrees of Ph.D. and M.A. A seminar is really a discussion opened either by the teacher or by a member of the class in which all are expected to take part. This system, founded on the belief that the best way of learning is to teach, Dr. Gaskell regards as very valuable, though he questions whether it can with advantage be applied to a large elementary class. In some of the more fortunate universities each student had a separate place in the laboratory which was entirely his own, but where this was not possible the class was divided into sections, so that during the whole time each section was at work the working places belonged absolutely to the members of that section. The whole system, Dr. Gaskell points out, throws a great strain upon the teachers; but he says:

> To my mind, two of the most striking points about the laboratory instruction of all kinds in the states is the energy and activity displayed by the teachers, their earnest endeavour to do their utmost without sparing themselves, and the determination of the students to be taught. I do not think it is only because the practical work counts in their final examination that the men attend and work steadily, but because they want to get their money's worth; they have come to the university to be educated for the medical profession, and the stimulus of want of means spurs on a large number, with the net result that the

class as a whole attends well, works well, and in consequence soon become thoroughly interested in what must interest everyone—the discoveries of science.

Teaching Appliances.

The greater number of subdivisions of the preliminary medical scientific subjects necessitates a greater number of well-equipped laboratories and a greater staff of teachers. Upon this topic Dr. Gaskell makes the following observations:

With respect to the first item, the building of laboratories, the activity going on in the states makes one ashamed of one's own country. Everywhere one has the feeling that the whole country is so impressed with the desire for the best educational methods that whenever new buildings are required the money is forthcoming for their erection. Either it is given by a munificent donor or is left by will, or is obtained from the past alumni and the general public by the exertions of the President. In the state universities matters may move a bit more slowly, but here too, new buildings arise with considerable rapidity at the demand of the faculty. It is impossible to enumerate all the rooms for students and research in the different departments of all the universities visited; it is sufficient to say that at Harvard and at Philadelphia University it was felt that the laboratories for the preliminary scientific medical subjects were not quite up to date, and in consequence in both places palatial buildings are arising for the teaching of physiology, pathology, etc. The building at Philadelphia, which is nearly completed, will be, I should think, the finest in the world, unless the Harvard building beats it. At Chicago also there is practically unlimited space for buildings, and also an unlimited purse.

The laboratories in all the universities are well equipped, and in some cases the laboratory unit system has been introduced and has given great satisfaction. He says:

The essence of this system is the limitation of the size of each room in which practical work is done. Instead of one large room holding places for seventy or eighty students, there are a number of small ones each with places for twenty-five students. Each room has its own demonstrator, and every student has his place during the course. The new laboratory for physiology and pathology at Toronto is built on this plan, and impressed me very much. The dissecting room at Johns Hopkins is also divided in the same way, so that each room contains three bodies, and as there are seven students to a body there are twenty-one students in the room under the charge of a demonstrator.

A dissecting room under these circumstances does not give the usual feeling of being overcrowded. There is an air of seclusion and quiet work such as one is accustomed to associate with a class of advanced students in English laboratories but not with a large elementary class. I am inclined to think that one of the most important lessons we can learn from Canada and the United States is how to treat a large elementary class as though its members belonged to a small select one. In order to carry out any such plan successfully, we must not only have the right kind of laboratories, but also a sufficient number of efficient teachers, each unit of the laboratory must have its own demonstrator, while the professor supervises and superintends the whole laboratory.

Suggestions.

We quote in full the suggestions which Dr. Gaskell is led to make as the result of his investigations as to the teaching of anatomy and physiology in America.

1. In our medical and scientific schools separate laboratories with a separate staff of teachers ought to be provided for anatomy, histology, physiology, physiological chemistry, experimental psychology, and perhaps neurology; such laboratories should be arranged on the laboratory unit plan and fitted up throughout with electric light, electric power, and telephones.

2. In cases where there is not sufficient accommodation for the whole class at once, the class should be divided into sections and the teaching so arranged that every student has his place to himself during the whole of that course.

3. I would not advocate the extreme concentration method of learning a subject, but would rather spread such a subject as physiology (in the English sense) over two years. In the first year I would give a general course in which the subject should be treated as a whole in an elementary way, taking, therefore, together the histological, chemical, and physiological aspects of the subject, so as to give the student a good general view of the subject and leaving the more detailed study to be undertaken in the second year in the separate laboratories of histology, physiological chemistry, and physiology.

4. I am inclined to think that histology should not be connected with embryology and put with the department of anatomy, but the laboratories of histology and physiological chemistry should be under the control of the professor of physiology, the head of each department being an assistant professor.

5. I am not convinced that didactic lectures are in large measure a mistake, and that recitations should largely take their place. I think, however, that the system of seminars should be encouraged as much as possible.

6. A six or seven years' conjoint course for the academic and medical degree should be encouraged as much as possible, and in all universities the preliminary medical scientific subjects should be included among the subjects for the degree in arts or sciences.

7. There is much to be said in favour of taking into account the work done by the student during the term in his examination. There are, however, so many difficulties in the way, owing to our system of examination, that it does not seem advisable to lay much stress on this point.

MEDICINE AND SURGERY.

Professor Rose Bradford reports that the medical schools visited were those in connexion with the universities in New York, Philadelphia, Baltimore, Chicago, Ann Arbor, Boston, Ithaca, Montreal, Toronto, and Quebec. His report is made under four headings.

I. *Relation of Hospitals to Medical Schools.*

Professor Bradford states that in most of the cities the hospitals are only indirectly associated with the medical departments of the universities, and their clinical facilities are not exclusively employed for the instruction of the students of a single university or medical school. In some instances the hospital staffs also contained members who were not necessarily teachers at any university or medical school. In some cities in the States and in Canada arrangements have been made by means of which the services of one hospital are devoted entirely to the needs of a single medical school, as, for example, the Johns Hopkins Hospital at Baltimore, the Mercy Hospital at Chicago associated with the North-Western University, the Royal Victoria Hospital at Montreal, and the Vanderbilt Clinic in association with Columbia, New York.

In a great many hospitals in the States and in Canada the custom is for the members of the visiting staff to be on duty only for a limited period in each year—sometimes three months, sometimes six months; at the end of this period the wards are transferred to another physician or surgeon. These regulations are apparently made by the lay bodies governing these hospitals, and where the rule exists the students of any given medical school in association with that hospital have access to the wards only during the period of service of their chief. On this he observes:

The obvious inconveniences of this system from the point of view of clinical teaching are to a certain extent mitigated by the fact that the teachers usually hold appointments at more than one hospital, and by mutual arrangement and otherwise it comes about that throughout the academic year such a teacher is in charge of wards at one or other hospital, and thus his students are able to accompany him at his visits.

In America the medical school is an integral part of the university and controlled by it, and the hospital is usually an independent institution managed by trustees, the clinical opportunities afforded by it being often shared by several medical schools. In many of the cities visited evidence was obtained that changes are imminent, and attempts are being made, in many instances successfully, to obtain funds to erect and maintain hospitals which shall be available for the clinical teaching of the students of a single university or medical school. Upon this Professor Bradford says:

This undoubtedly will remove many of the difficulties that are at present experienced by clinical teachers, and will also in all probability bring the teaching of medicine more directly under the control of the university authorities, and in this way still further promote the progress of medicine.

The system of clerks and dressers long established in the United Kingdom is followed in the Canadian medical schools, but not in those of the United States, with the exception of that of the Johns Hopkins University, Baltimore, where the period of service is three months, and the men filling the posts are in their last (fourth) year. While many of the American teachers are alive to the advantages of the system of clerks and dressers, they urge that under their system students get practical acquaintance with disease subsequently to graduation during their period of office as interns at a time when they are more fully capable of making use of the opportunities afforded to them.

II. *Clinical Laboratories.*

In most of the medical schools visited well-equipped clinical laboratories were a conspicuous feature, and this was more especially the case in the University of Pennsylvania, Johns Hopkins University, the Massachusetts General Hospital, and in the University of Michigan at Ann Arbor. The labora-

tories contained accommodation for chemical, bacteriological, and histological investigations, and were in intimate association with the hospitals in relation to the particular medical school. Separate rooms were usually allotted for the separate branches of the work, and there was ample accommodation for workers who desired to investigate special problems. In some instances, indeed, separate rooms were available for properly accredited workers, and, speaking generally, the degree of development of this side of medical instruction and investigation was highly advanced. It was evident that there was a very general tendency in all the medical schools visited to bring clinical medicine more intimately into relation with the recent developments in the sciences of chemistry, of bacteriology, and morbid histology. Such routine examinations as blood counts, urine, and stomach-contents analyses, Widal reactions, and cytological observations on effusions were carried out with great thoroughness and with very great frequency, so that a very valuable mass of knowledge with reference to these changes in a large number of diseases is being accumulated under the direction of the officers in charge of these laboratories. In other words, blood-counts and other investigations were not made simply in the special diseases where they were necessary from a mere diagnostic point of view; but these and other elaborate methods, dependent on the recent development of science, were employed in a more or less routine fashion.

In addition to this, special investigations on various problems in clinical medicine were being worked out by a number of independent observers, and it would seem that ample facilities both in the way of material, provision of space, reagents, etc., were afforded for these purposes. Every new method of investigation that seemed to be suitable for the purpose was pressed into service.

In some universities the clinical laboratories were under the charge of the professor of pathology; in others, of the professor of medicine, the latter plan affording a means of maintaining the relationship between clinical medicine and pathology so necessary for the progress of both. In some of the universities the association was maintained by providing in the pathological department separate rooms for the departments of medicine and neuro-pathology, surgery, and gynaecology, in which the professors of these subjects were enabled thoroughly to work up, with all the resources of the pathological laboratory, the material of their clinics; the workers in these rooms were, to all intents and purposes, under the direction of the professor of the particular department concerned.

Ward Laboratories.—In many instances special rooms were provided in the hospitals where the students could make ordinary analyses of urine and stomach contents.

Clinical Bacteriology and Chemistry.—Very complete courses of instruction were given as a rule in clinical bacteriology and chemistry, extending in some instances over two terms, the class meeting twice a week for three hours; sometimes a period of as much as three months was spent on blood work alone. The student had his own place and locker in the laboratory, and was free to carry on his observations at all times during the day and in the evening. In other words, during the third and fourth year the student always has a head quarters in the clinical laboratory, where he can make any observations he desires. At the Johns Hopkins University the cost in materials for about 100 students amounted to only £200 per annum; this economical working is in part to be attributed to the small number of attendants provided, a great deal of the rountine of clearing up being done by the students themselves. To this custom Dr. Gaskell also calls attention. In some universities, however, undergraduates were not admitted to the clinical laboratories, a smaller laboratory being provided for their routine instruction.

Out-patient Departments.—A great deal of the instruction of students is carried out in the out-patient or dispensary clinic, which in many instances possess an equipment for teaching purposes of a very high order of excellence. In some of these out-patient buildings a small laboratory is provided where blood examinations, analyses of urine, and examination of stomach contents of an elaborate character could be carried out.

III. *-The Teaching of Medicine.*

Professor Bradford, after stating that in all the universities visited a four years' curriculum was in vogue, and inasmuch as a year was not devoted, as is the custom in this country, to the preliminary subjects of chemistry, physics, and biology the four years of medical study common in the States and in Canada are more or less comparable to the four years in this country subsequent to the first, continues as follows:

It is very difficult, however, to carry the parallel between the systems of education in the two countries any further, because we are at once met with very fundamental differences both in the methods of teaching and in the curriculum. The most important differences in the methods of education may be summarized by stating that in the States the whole course of instruction is in the first place far more systematized than is the case in this country, and there is probably far more supervision of the individual student throughout the course of his studies. An Englishman is, perhaps, most struck with what I have called the systematizing of the instruction. Almost every hour of the student's time is allocated to definite and specific studies, and very commonly these are carried out in very small classes under the direct supervision of an instructor or demonstrator.

In the second place, care seems to be taken that each student should at any rate make himself familiar with certain specified things and objects. For instance, in the teaching of medicine it would seem to be the duty of the instructors to take care that each student should see and thoroughly study one or more examples of the most important diseases, and this is carried to a far greater extent than is customary in this country, where it is assumed as a matter of course that the student in the course of his hospital career will necessarily have many instances of the more important maladies brought to his notice. It would seem that in the American schools this is actually made a special point of by the instructors.

In the next place great use seems to be made of drawings, lantern slides, models, and, in fact, all measures directed to bringing the objective side of the subject before the student.

Lectures or Recitations? The general trend of opinion seemed to be in favour of curtailing formal and didactic courses of lectures, and in some universities they have been abolished altogether. In the case of medicine their place is taken by what is called the "recitation," which, Professor Bradford says, varies in value enormously in different schools. He gives the following description:

In some in the recitation the teacher meets a section of the class and a given subject is discussed between them, the teacher questioning the class and the individual members of the class frequently questioning the teacher. In fact, in many of the recitations it was very striking to see that the ordinary distinction between the teacher and the taught was very largely broken down, and that the teacher was, so to say, almost a member of the class. In such instances the recitation was based on a given subject which the class had previously read up in one or more textbooks. It is obvious that such a method of instruction has a very distinct educational value, particularly if the subject is selected judiciously. In other instances the recitation was based on a given textbook, and the class was informed at a previous meeting that at the next meeting pages so-and-so to so-and-so would be considered, and in the course of the academic year the textbook was gone through almost page by page by the class. The attendance at recitations was remarkably good, and the students were earnest and eagerly took notes. Where the recitation was based on a textbook the recitation was really a means of ensuring that the student had made himself acquainted with the text, although, doubtless, in many instances the experience of the teacher enabled him to add to the information imparted by the book. The recitation in one form or another may be said to be universal as a system of instruction, and has to a great extent, and, in some instances, entirely, supplanted the lecture.

Special Courses.—The American student gives more time to the study of specialities, and will follow courses on medicine, on laryngology, on surgery, on orthopaedic surgery, nervous diseases, electro-therapeutics, diseases of children, skin diseases, genito-urinary diseases, etiology, ophthalmology, mental diseases, history of medicine, and dietetics.

Amphitheatre Clinics.—Instruction in case-taking and in physical signs is given in small classes by special instructors and so-called amphitheatre clinics, that is to say, demonstrations on selected cases by the professor, were found to be very largely used; the attendance was large, amounting in some cases to one or two hundred; in other words, all the students were at liberty to be present.

"*Ward Walks.*"—The attendance at the ward visits, or, as they are frequently termed in the States, "ward walks," was more restricted, as it was customary to divide up the students into sections of 12, or 20, or 25 men; these sections had the right to attend the visit of the visiting physician or surgeon. The attendance was restricted to a certain definite period, as otherwise it would have been impossible for all the students to attend in the course of their curriculum.

Out-patient Practice.—This is very largely used for teaching; the patients are examined in small, well-equipped rooms by students, one of whom takes the history and the other the present state, which are recorded on a card; the card is then handed to the professor, who examines the patient, demonstrates the signs, cross-examines the student, points out

features of interest, and discusses the case generally. Similar methods are employed in teaching surgery and in the special departments, which every student is required to attend for a certain definite number of hours during the session as one of a small class. Classes for special clinical instruction in therapeutics quite distinct from the systematic instruction in pharmacology and therapeutics are held in some schools.

IV. *Pathology.*

The pathological departments of the universities visited were generally fine buildings very completely equipped. In many normal histology was under the charge of the professor of pathology, and in some the instruction was actually given by him and his demonstrators. The study of pathology was usually commenced in the second year, that is to say, at a period when anatomy and physiology were still being studied; in some, bacteriology was commenced in the first year, but as a rule the study of pathology was commenced in the second year either with elementary bacteriology or morbid histology; sometimes both subjects were taken at the same time.

The Concentration System. At Harvard instruction in such subjects as anatomy, physiology, and pathology is carried out by the concentration system, under which the entire time of the student is devoted to the consideration of a single general subject, such as anatomy, physiology, pathology, as the case may be, and the whole course of instruction is carried out in the period of four months. Thus at Harvard, pathology is studied in the first term of the second year.

Size of Practical Classes. The "section method," that is to say, the division of the class into small numbers under the charge of an instructor or demonstrator, was followed throughout the States for the practical teaching of almost all subjects, and at Harvard the proportion of instructors and demonstrators to students was approximately one to ten; a very complete record of the students' work is kept, and a report made to the professor.

Pharmacology and Therapeutics. In many of the universities the system of instruction in pharmacology and therapeutics is more specialized and more amplified than is the case in the United Kingdom. In addition to practical instruction in pharmacy and materia medica, lectures and experimental demonstrations are given on pharmacology. The lectures are given to the whole class, but for the demonstrations the class is divided up into small sections—in some cases not more than eight or ten men—and the fundamental experiments on the actions of drugs are shown. Optional or elective classes of a more advanced character where further experimental work is done are also common. Special instruction in therapeutics is given very frequently by a special lecturer or professor, and in some instances ward visits are attended, where the whole clinical instruction is devoted to the consideration of the treatment of the patients.

Examinations.

Upon the subjects of examinations Professor Bradford makes the following observations which it seems desirable to quote in full:

[redacted]

Conclusions.

Professor Bradford summarizes his conclusions as follows:

1. That the enthusiasm of the teachers and of the students was one of the most striking features of his visit.

2. All the leading universities had exceedingly fine, and in some cases magnificent, laboratories, and the equipment was of a high order of excellence.

3. In the teaching of the non-clinical subjects the laboratory and practical side was especially developed.

4. Systematic instruction by lectures seemed not to be in general favour.

5. Even in the final subjects (medicine, surgery, etc.) the teaching was extraordinarily systematized, but, speaking generally, the students did not have the clinical facilities they obtain in this country.

6. The scientific investigation of disease in clinical laboratories had reached a very high order of development.

7. The teachers in this country in such subjects as pathology might well consider whether some of the methods in vogue, such as the early study of bacteriology and the custom of giving the class unknown organisms and sections to identify, and the careful record of the students' work, are not features thoroughly deserving of imitation.

ON THE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

By H. Lewis Jones, M.D.,

Medical Officer in Charge of the Electrical Department, St. Bartholomew's Hospital.

Medical men who have taken up the study and practice of electro-therapeutics are much concerned in a question which also concerns the whole medical profession, and that is the invasion of this field of medical practice by laymen and the extensive support which is being given by medical men to the unqualified persons who undertake this and other forms of medical treatment by physical agents. The situation is growing rapidly worse. Electricity has always been exploited by charlatans of various species, and this state of things will doubtless continue, but medical treatment by electrical methods is now being taken up by chemists, by nursing institutions, by instrument makers, who undertake to carry out x-ray photography and x-ray treatment, and by syndicates, specially equipped for making money by the treatment of patients; and the feature which makes the situation a serious one is the way in which these persons and agencies are encouraged by members of the medical profession. Mainly in consequence of this encouragement we are confronted by an extensive invasion of an important sphere of medical practice by laymen who are deliberately taking up a branch of medical treatment as a means of livelihood. Some of these people seem to think that the treatment of the sick by electricity and other physical methods is a field of work into which they have a perfect right to enter. Take the following instance. Last April I received a letter which bore signs of having been written by a person of education; and from it I take the following extracts, as they illustrate the situation very clearly. The writer says: "Dr. B. has kindly allowed me to use his name in writing to you for information in connexion with a course of lectures at St. Bartholomew's Hospital. I have explained to him my intention to open an electrical establishment in London, and my wish to take all necessary steps to become efficient before doing so. I should be much obliged if you would give me your opinion as to what training you consider necessary, and whether it would be possible for me, a layman, to obtain admission to your demonstrations on the subject of medical electricity at St. Bartholomew's."

In replying, I said that the teaching at the hospital was for medical men and medical students only, and that I was sorry to think that my correspondent proposed to start an establishment for unqualified medical practice, that it was unreasonable to expect me to assist in training persons for such an object, and that I thought the crowd of unqualified practitioners was already large enough. In his reply he said:

"I am thankful to you for your letter, as it will serve as an instance of what you must pardon me if I describe as the unreasonable attitude of mind taken up in certain quarters on this subject. I cannot but think that it is to the interest of the medical profession and science itself, that reasonable

encouragement should be given to specially-trained men who desire to work under medical direction. Of these there are several in London whose work and reputation for many years past are a sufficient answer to the imputation conveyed in your letter."

These letters clearly reveal the idea of their writer that a layman was fully entitled to embark on medical practice and treatment, an idea which causes him to consider my view that medical practice should be confined to medical men as an "unreasonable attitude of mind." It is also worthy of note that he was referred to me for advice by a medical practitioner. Another striking instance of the general attitude of medical men towards electrical work is afforded by the fact that a well-known firm of chemists of good standing has embarked upon the systematic treatment of patients by electrical methods.

Here is an extract from a letter from a well-known firm of chemists, written in reply to a medical man who wrote to ask whether they would treat a case of lupus. "We.....shall be pleased to undertake the treatment of your patient for lupus either by *x* rays or the ultra-violet rays. The former treatment we have generally found more successful, but can apply either to your instructions." Another letter from the same firm, in reply to another inquiry, is couched in similar terms. It states that the firm had had considerable success with the majority of their cases, and that any case entrusted to their care will be treated with the greatest skill and attention. In a further letter this firm enumerate a number of leading medical men in London who have sent them cases.

If medical men had had any proper feeling in this matter of unqualified practice and electrical treatment, this abuse would hardly have been allowed to grow up.

I have recently seen a letter addressed by a chemist to a medical man asking for instructions as to technical details and describing his methods of treating a case, presumably of uterine cancer, by a vaginal *x*-ray tube. Surely the treatment of a case of that kind is not a matter to be properly entrusted to a chemist, and yet the country abounds with chemists who are taking up *x*-ray photography and *x*-ray treatment.

The mistresses of nursing homes are also becoming imbued with the same desire to make money out of unqualified practice.

A little while ago I received a visit from the proprietor of a nursing home. She wished for my advice as to the setting up of an installation of electrical apparatus in her establishment. Her alleged reason for this was that her neighbours and competitors were all doing so, and she thought she must either follow in their train or fall behind, and so lose money.

Recently a booklet of a "nursing home" has been freely circulated. It contains price lists of fees for courses of treatment for non-resident patients by high frequency, by *x* rays, by light rays, by radium rays, and even by radio-active thorium emanations. Surely this extensive programme is rather more than should be undertaken by a nurse. Is there a "nigger in the woodpile" in the shape of a medical man touting for work behind the nurse's cloak?

In this country a few inconsistencies more or less do not arouse much interest unless attention is pointedly drawn to them, but in this particular matter of the transfer of electrical treatment to laymen the medical profession must needs be interested. An inconsistency, which seems to me to be a glaring one, is the following: The unqualified assistant has been ruthlessly exterminated with all the rigour of the law. In his day he worked under the close supervision of his chief, attending mainly to minor points of medical practice, and was subject to punishment by the loss of employment if he did wrong. Is it not an abandonment of the principle for which the unqualified assistant was sacrificed to countenance the unqualified electrician? Nowadays the unqualified electrician is flourishing by the support of medical men who have no close control over him, who are generally unable to prescribe the details of what they wish to be done with any accuracy, nor to form any proper judgement as to the manner in which their instructions are being carried out.

The notion of medical practice for medical men is simple and comprehensive, but its importance is not yet fully grasped by the members of the medical profession. Quite the reverse. There are plenty of members of our profession who support unqualified electrical operators. I believe that the majority of the electro-therapeutic work done in London is done by laymen. I hear of it continually.

Here is a case of some interest. A medical man with considerable experience of *x*-ray therapeutic work was consulted by a patient suffering from rodent ulcer. The patient said that he had been under the care of a gentleman who is surgeon to a large London hospital which has a good electrical department. He further said that the surgeon advised *x*-ray treatment, and recommended him to apply to a firm of chemists for the treatment of his case. The patient did so, but without benefit, and therefore came to ask my informant to undertake his case; further, he asked for a reduction of fees on the ground that he had been already put to great expense for the treatment given by the chemists.

A few years ago a physician, writing on medical electricity, indulged in a sneer at the expense of medical men practising electro-therapeutics, by suggesting that they were more versed in the intricacies of their apparatus than in the knowledge of anatomy and physiology. Where are we now? The knowledge of the intricacies of the apparatus seems to be the only thing looked for, by those at least of our profession who support the unqualified electrician.

In my opinion the least skilled medical man is to be preferred to the most elaborately equipped of institutes or of lay electro-therapeutic operators, simply because he is a medical man, has had the education of a medical man, and feels the responsibilities which belong to every right-minded medical man. The conversion of medical electricity into a branch of work for electricians would be the greatest possible mistake in the public interest.

It is often said—though chiefly by badly-informed persons—that the equipment of the unqualified operator is so much better than that possessed by the medical practitioner, that the latter must be at a hopeless disadvantage. I mention this in order to contradict it. It is not true for one moment. There is no genuine or useful electrical appliance which is not possessed by the medical men who practise electro-therapeutics. If the unqualified man has nickel-plated knobs to his instruments where the medical practitioner is satisfied with plain brass, does that make the former apparatus any the better? Good modern electrical apparatus is made to regular patterns and can be bought ready-made at the instrument makers. Judging from what little I have seen of the interior of the unqualified man's treatment rooms, and from photographs of other places which have been shown to me, I can unhesitatingly contradict the statement that the unqualified men have any monopoly of the best things.

It must also be remembered that the consequences of electrical applications in the hands of non-medical persons may be disastrous. I have authentic information of a fatal *x*-ray burn produced in the treatment of cancer by an unqualified operator. Some time ago I was called to give evidence at an inquest upon another case in which the taking of *x*-ray photographs by a photographer had resulted in a burn to the patient which ended fatally.

The effect of the neglect of electrical methods of treatment in this country is already reacting very unfavourably upon the medical profession itself. Consider the electrical departments of the larger London hospitals. Are they a credit to the hospitals or are they not? Emphatically they are not. Men of the best stamp—men, that is, of the class who are willing to take up work in other special departments of hospitals—are unwilling to take up electro-therapeutic work because they do not find its status good enough. They are almost afraid even to be associated with electro-therapeutics.

It is a deplorable thing that medical men should fear to identify themselves with medical electricity lest it might injure their professional prospects. To practise electro-therapeutics in a proper manner requires not only a knowledge of anatomy and physiology, of medicine and of surgery, but also a knowledge of physical science such as is possessed by very few medical men. Electricity renders indispensable assistance to all branches of scientific medical practice, and its applications are growing greater every year. Medical electricity as a field of work calls aloud for the best possible type of trained medical man. If medical treatment by electrical methods is to be handed over to any kind of lay operator, its development is certain to suffer seriously, because the right kind of man will be deterred from touching it.

Mr. Morgan, in his presidential address to the Medical Society in October, 1900, has expressed exactly the same opinion. He says: "The further development of *x* rays in surgery and medicine is a study which I should like to see appropriated by members of the profession. I believe that it is still in its infancy, and that there is a great future before it. But, in order that we may obtain the full advantages of

its resources, it appears to me that the study must be pursued by men having a thorough medical training, and must not be allowed by them to fall into the hands of mechanicians, lest its progress as a scientific aid to diagnosis be checked. I heartily commend it as a new form of specialty to those who have time and opportunity to pursue this entrancing study."

To show that the condition of our London electrical departments leaves something to be desired, I will quote an extract from the official bulletin of the French Society of Electrotherapy for the month of July last. It is contained in a letter addressed to the Secretary of the Society by a delegate who was asked to report on the position of electro-therapeutic work in England. He says of one of the large London hospitals: "The electro-therapeutic department seemed to me to be somewhat primitive in its organization and in its apparatus, and I have doubts of its being of any great utility."

At another large London hospital with a medical school there is no electrical department, and this appears to be partly due to the fact that the staff have been unable to induce any suitable man to take it up. In others the electrical department is in an imperfectly-developed condition.

X-ray photography and x-ray therapeutics are entrusted to lay operators at several of the London hospitals. This, I think, supports my contention that where electricity is concerned the medical profession is a little careless of its rights and its responsibilities. It does not seem to me that a proper degree of consideration is shown to patients, however humble they may be, if they are made to uncover themselves and expose their infirmities before a lay operator under the false impression that they are in the hands of a duly qualified medical man.

In considering the position of affairs there is a point which should not be lost sight of, and that is that there is a distinction between the common charlatan and the more or less trained electrician who carries out treatment under medical orders. Unfortunately, the latter class tends to shade off into the former, and it is not always easy to recognize much difference.

Our difficulty to-day is not so much the old—and still present one—of the common impostor, but a new difficulty of the voluntary surrender of medical work to laymen. In considering this matter we must not be too ready to impute prejudice or any other unworthy motive to the medical men who employ the lay operators. I am sure that the harm done is often due to thoughtlessness or sheer ignorance. I saw a letter only last week, written by a medical man in the country to another in London. The writer said that a patient of his had fallen into the hands of an unqualified electrician in London, and asked for advice as to how to extricate him. He did not know, he wrote, of any medical man in London practising in electro-therapeutic work to whom his patient might be entrusted. The profession at large does not know that there is any systematic study of electro-therapeutics by medical men. They do not know who is a competent exponent of this branch of therapeutics or who is not. They read the copious advertisements of the numerous electrical institutes, they see the phrase "solely under medical direction" which these establishments use so lavishly, and they take for granted that things are all right. The fact is that the present state of affairs is the natural result of the low esteem in which the subject of electro-therapeutics is held in this country. That may have been pardonable twenty years ago, but electricity has made advances since then, and its medical applications have also advanced very notably.

It is high time for the medical profession to awake to the fact that electro-therapeutics demand serious attention, that many applications of electricity are of great value in medical practice, and that the carrying out of electrical treatment for disease is a matter for medical men and not for irresponsible laymen.

It is much to be regretted that the Council of the British Medical Association should have decided not to [illegible] the subject at the annual meeting this year particularly as the holding of a successful conference in the summer of last year [illegible].

In order that members of the medical profession may realize the extent to which unqualified persons in electro-therapeutics have gained a footing, I append the following extracts of the circulars which are being sent out more or less indiscriminately.

1. An extract from a letter dating from Cavendish Square:—"Dear Sir,—I beg to inform you that I have, at the suggestion of several leading medical men for whom I work, opened a branch establishment at the above address. My many years experience enables me to deal with all cases that are suitable for mechanical and electrical treatment."

2. A circular, with illustrations, dated from Elizabeth Street, Eaton Square. In it I find the following: Marvellous results. Roentgen rays, high frequency, Tesla, Finsen. Skin diseases, lupus, etc., radically cured by iron light. Paralysis, etc., treated by perfect electro-medical appliances. Skilled male and female operators.

The addresses of branch establishments are given.

3. Another from Woodstock Street, London, W., says: "We have on our books an efficient staff of hospital-trained male and female nurses. They can be employed by either doctor or patient. We treat patients by ultra-violet lamps for the profession."

4. In a circular with prices, an x-ray photograph of a hand, and a card from a "Member of the Roentgen Society, X-ray Specialist," I find the following: "I have recently installed the best and most up-to-date appliances, thereby ensuring satisfactory results with short exposures, and without risk of the dermatitis which hitherto has been the only drawback in connexion with the use of x-rays."

"X rays now being so largely used therapeutically as well as for diagnosis, I propose to devote my services exclusively to the medical profession for these purposes."

5. The illustrated circular of a Swedish Institute in Harrington Gardens, S.W., offers many forms of medical treatment, and includes the following: "Physico-therapeutic treatment of muscular and nervous diseases." "*Electro-thérapie*, galvanic and faradic electricity, electric baths."

6. Recently a prospectus was circulated of The Light Cure and Electro-Therapeutic Institute, Limited, capital £12,000. It had four directors, none of whom belonged to the medical profession. Among its objects were enumerated the provision of "light-cure" treatment. Its installation will include "Finsen light, Roentgen ray, high frequency, vibratory and electric massage, hydro-electric, static, galvanic, faradic, and other forms of electric treatment."

7. The Electrical, Ozone, and Light Treatment is a concern which has been in existence for some time. In its advertisements rheumatism, sciatica, neurasthenia, dyspepsia are specially named, and it is stated that "currents of high potential and great frequency are passed into the system," while "expert masseurs attend patients, who are only received on the authority of their medical man."

Another prospectus recently issued is that of the Kroeger Light Cure and Electro-therapeutic Institutes, Limited, with a capital of £15,000. It has three non-medical directors. The managing director is Herr Martin Kroeger. "Electro-therapeutist," and it also gives the name of a consulting physician and surgeon. Its objects include the acquisition from Herr Kroeger of four institutes, three of which are in London and one at Eastbourne, and the making of arrangements for carrying out any form of medical, dietetic, hygienic, or other treatment of disease.

Another institution is "The Red Cross Light Cure and Electrical Institute" for the modern treatment of disease by electric light and vibration. "Consultations and Roentgen-rays examinations free." "Patients treated under the supervision of their own medical man if desired. Or a qualified medical man can always be consulted at the Institute."

ILLEGIBLE PRESCRIPTIONS. It is stated that in view of the commonly illegible writing of medical men, the Minister of the Interior of Prussia has issued an order forbidding chemists to dispense medicines upon prescriptions any part of which is not perfectly clearly written, in default of explanations thereof being obtained from the prescribers. They are also instructed to write the name and address upon each prescription of the person by whom the medicine is intended to be taken, if this has not already been done by the prescriber.

THE CIGARETTE HABIT IN CANADA. A resolution was moved in the Canadian House of Commons, on March 23rd, with the object of prohibiting the importation, manufacture, and sale of cigarettes, the consumption of which in Canada has enormously increased during the past few years. The resolution having been opposed by the leaders of both sides of the House no vote was taken upon it, and the subject is therefore at present shelved. Last year a similar resolution was passed by a large majority, but owing to some irregularity in the way in which it had been framed it was subsequently ruled out.

PREVENTION OF CONSUMPTION.

Workmen and Sanatoria.

Dr. G. A. Heron delivered an address on the prevention of consumption before a meeting of working-men convened by the Kindred Working Men's Hospital Supporting Societies, on April 14th, at St. James-the-Less School in Sewardstone Road, Victoria Park, close to the City of London Hospital for Diseases of the Chest. After explaining what was meant by the use of the term consumption and maintaining that the disease was, for the most part, caused by the dust arising from the dried expectoration of consumptives, Dr. Heron quoted some interesting statistics which he had received from Dr. Tatham, Superintendent of Statistics, General Register Office, Somerset House. According to these figures in England and Wales the death-rate from phthisis per million living in both sexes for the five years, 1866 to 1870, was 2,448; from 1871 to 1875 it was 2,218, from 1876 to 1880 it was 2,040, from 1881 to 1885 it was 1,830, from 1886 to 1890 it was 1,635, from 1891 to 1895 it was 1,462, and from 1896 to 1900 it was 1,323. In a period, therefore, of 35 years the fall in the mortality from phthisis had been from 2,448 per million to 1,323 per million. The population of England and Wales had increased by 50 per cent., while the mortality from pulmonary tuberculosis had fallen 50 per cent. The mortality from phthisis differed greatly in the two sexes. In the last five years, for which statistics had been prepared, that is to say, in the quinquennium, 1897-1902, phthisis was fatal to 1,529 out of every million males living, but to only 1,114 females in every million females living. Dr. Heron then observed that there were probably from 300,000 to 500,000 people in England and Wales who were suffering from consumption. Of those it was reasonable to suppose that at least one-half were too poor to have themselves properly treated in their own homes. Therefore, for their own sakes, as well as in the interests of the healthy community, those people should, at the earliest possible moment, be taken to a sanatorium where they would be taught how to take care of themselves, and how to deal with their illness. In a sanatorium the poor man should have as good a chance of regaining his health as the rich man, who could afford to pay for all things helpful for recovery. The question arose as to how they were to provide accommodation in sanatoria for a quarter of a million or so of poor people. That would necessitate, after building sanatoria, and without counting the cost of land, an expenditure of at least thirty shillings a week for each patient. In Germany they had commenced to solve the problem by the system of industrial insurance which was an enforced payment from every working man and women in Germany of a certain percentage of their wages; the money was paid to a central fund, and to this the employers of labour were also obliged to subscribe, and the Government also paid a certain amount. The Germans had resolved to get rid of tuberculosis, and that was the means they had taken for the purpose, feeling sure that in the end they would accomplish their object. Dr. Heron thought that the working-men of the United Kingdom could not do better than copy the very sensible example of the people of Germany. The Government must help, because the sum of of money required was so large. Dr. Heron then alluded to the necessity at the next General Election of impressing on candidates for Parliament the importance of the question of the health of the people, and it was a subject that Members of Parliament must force, in season and out of season, on the attention of whatever Government was in power. Dr. Heron then took up the consideration of the treatment of consumption as carried on now among the poor, especially among the poor of large cities, which consisted, in the earlier stages of the disease, in a patient repairing to the nearest out-patient department of a hospital, being examined there by a physician, receiving a bottle of medicine, and then returning to his poverty-stricken home, where, being the bread-winner, comforts were rapidly diminishing, and proper nourishment was wanting. In a miserable home of that description the patient, already ill and worried, was expected to recover from phthisis by means of medicine received from the hospital. It was an impossibility to treat patients satisfactorily in that manner, and Dr. Heron asserted that the out-patient treatment of phthisis of the kind he had indicated was a farce and a mockery, a great waste of money, and a public scandal. Continuing, Dr. Heron said that above all things he was convinced that if the people of this country did not take an intellegent interest in the question very little could be done even with the most willing Government in power. The only way in which they could excite an intelligent public opinion on this matter was by educating the people. He knew from his own observations that children at the age when they leave school could be taught to take a rational interest in the rules that govern health, and especially in the means for preventing the spread of infectious diseases, provided, of course, that the subject was put before them in simple words. Dr. Heron said he would like to see it made compulsory on the educational authorities to provide for the proper teaching of the rules that govern health to children leaving school, and the same kind of instruction should be afforded to those who attend universities and colleges. If people were educated in that way when they were young, then, in the coming generations, they would have the fathers and mothers keenly interested in questions of public health, because they would thereby be enabled to keep away from their homes the infections now so fatal and so common in this country. And, further, any one advocating measures to that end would find he had an intelligent body of supporters anxious to have the necessary safeguards set up in their own interests.

Middlesex.

A conference of Middlesex Boards of Guardians was held on April 18th under the presidency of the Chairman of the Brentford Board of Guardians with a view to the establishment of a consumption sanatorium for the county. A provisional Committee, appointed some months ago at a previous conference, recommended the formation of a Middlesex open-air sanatorium of 100 beds, consisting of an administrative block and separate sleeping kiosks on solid foundations, the whole to occupy about 50 acres. The cost was estimated at £250 a head exclusive of the site, and it was recommended that the maintenance should not exceed 30s. a head per week. Certain proposals as to the apportionment of the beds were also submitted. After discussion it was agreed that provision should be made for the treatment of pauper consumptive cases. The conference approved of the scheme of the provisional committee, and decided that a deputation should wait upon the Local Government Board to ask what powers Boards of Guardians possessed, and what might be given if necessary.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of the Fund which is being raised to defray the cost of some permanent testimonial to Dr. Holman acknowledges the following further subscriptions. The fund will be devoted to the erection of an Art and Reading Room at Epsom College, of which Dr. Holman has been Treasurer for twenty years.

	£	s.	d.
Fred. Durham, M.B. ...	1	1	0
Francis Bossey, M.D. ...	2	2	0
J. Roberts Thomson, M.D., J.P.	3	3	0
John Crew, J.P.	1	1	0
W. H. Tayler, M.D.	1	1	0
E. L. Adeney, M.D.	0	10	6
Mr. Geo. C. Croft	5	5	0
M. Baines, V.D., M.D. ...	1	1	0
The Misses Maynard ...	2	2	0
Mary Ann Jaffray	1	1	0
Sir Hermann Weber, M.D.		2	0
Sir R. Douglas Powell, Bart.	2	2	0
Mr. Malcolm A. Morris ...	3	3	0
Mr. Jas. Nightingale ...	1	1	0
Seymour J. Sharkey, M.A., M.D.	1	1	0
Mr. Jeremiah Coleman ...	3	3	0
Mr. T. I. Grun	2	2	0
Professor Howard Marsh ...	2	2	0
H. T. Butlin, D.C.L.	3	3	0
Sir Thomas Smith, Bart., K.C.V.O.	2	2	0
H. R. Crocker, M.D. ...	1	1	0
E. H. Drake-Brockman, F.R.C.S.	1	1	0
Edw. F. S. Green, M.D. ...	0	10	6
Mr. Clement C. Smiles ...	5	5	0
J. G. Glover, M.D., J.P. ...	1	1	0
Miss Adelaide Baxter ...	1	1	0
Dr. Hutchins Williams ...	1	1	0
W. A. Evelyn, M.A., M.D. ...	1	1	0
G. Fielding Blandford, M.A., M.D.	1	1	0
Sir Alfred Cooper	2	2	0
Leonard W. Sedgwick, M.D.	1	1	0
Mr. R. W. Inglis	5	5	0
S. Parsons Smith, J.P. ...	1	1	0
Mr. T. M. Rutter	1	1	0
Wm. Travers, M.D.	1	1	0
John H. Morgan, C.V.O., M.A.Oxon.	1	1	0
Lord Alverstone	2	2	0
Fred. T. Roberts, M.D. ...	1	1	0
Mr. Anthony A. Bowlby, C.M.G.	1	1	0
David W. Roberts, M.D. ...	1	1	0
Mr. Sydney C. Austin ...	1	1	0
John E. Ogle, M.A., M.D. ...	1	1	0
J. W. Bond, M.D.	2	2	0
R. L. Bowles, M.D.	2	2	0
J. L. Stordet, M.B., F.R.C.P.	1	1	0
W. Essex Wynter, M.D. ...	1	1	0
Mr. F. W. E. Kinnier ...	1	1	0
A. P. Luff, M.D.	1	1	0

Subscriptions will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. E. Berridge, Oakfield, Redhill.

The *Medical Record* of New York states that Dr. Edward Martin, Director of Public Health and Charities of the city of Philadelphia, has purchased at his own expense a mansion and twenty acres of grass and woodland on the banks of Crum Creek in Delaware County, Pennsylvania, for the purpose of providing a place where ill-treated, poorly-fed and sickly children can during the summer obtain fresh air and good food, and spend a life in the open.

ASSOCIATION NOTICES.

NOTICE OF MEETINGS.

1904 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Examination Schools, Oxford, on Tuesday, July 26th, at 12 o'clock noon, and Wednesday, July 27th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Examination Schools, Oxford, on Tuesday, July 26th, immediately after the Annual General Meeting which will be held at 12 noon; on Wednesday, July 27th, after the Annual General Meeting at 2 p.m., and on Thursday, July 28th, at 3.30 o'clock in the afternoon, if required; also at 2 o'clock in the afternoon on Friday, July 29th, if required.

By Order,

April 21st, 1904. GUY ELLISTON, *General Secretary.*

REPRESENTATIVE MEETING AT OXFORD.

TUESDAY, JULY 26TH, 1904.

NOTICES OF MOTION

THE following notices of motion have been given for discussion by the Annual Representative Meeting at the Annual Meeting of the Association to be held at Oxford, July 26th, 1904, and following days.

A. Notices concerning alteration of the By-laws of the Association.

By the COUNCIL OF THE ASSOCIATION:

1. That By-law [illegible] be amended in the following respects namely that the words "one month" occurring in the last line but one thereof, be deleted, and that the words "seven days or such longer period as the Branch may by its rules prescribe" be inserted in substitution therefor.

2. That By-law [illegible] be amended in the following respects namely

(a) That the words "as hereinafter provided" in the fourth line of such by-law as is contained in section [illegible] thereof be deleted and no longer form part of such by-law.

(b) That the words "At any time after January 1st, [illegible]" with which such section [illegible] of such by-law commences be deleted.

(c) That section [illegible] of such by-law, as thus amended, be designated section [illegible] thereof and that section [illegible] be designated Section [illegible].

3. That By-law [illegible] be amended by the addition of the following clause at the end thereof namely "For the purposes of this by-law the Annual List of Members prepared on May [illegible] of members of any Branch shall be deemed to be the list of members of such Branch for the said year and members whose names are [illegible] on Council, whose membership does not [illegible] shall be deemed to be members of the Council during the ensuing year."

4. That By-law [illegible] be amended in the following respects, namely

(a) That section [illegible] of such by-law as is contained in sections [illegible] thereof be deleted and no longer form part of such by-law.

(b) That section [illegible] of such by-law, as thus amended by the deletion of section [illegible] thereof, be designated section [illegible] and that the words "at the meeting of the Annual Representative Meeting next after the [illegible] Annual Meeting" occurring in the first line thereof be deleted and the words "at the Annual Meeting" be inserted in substitution therefor.

(c) That section [illegible] of such by-law, as thus amended by the deletion of section [illegible] thereof, be designated section [illegible] and that the words "the Annual Representative Meeting" occurring in the first line thereof be deleted and the words "the Annual Meeting" be inserted in substitution therefor.

(d) That section [illegible] of such by-law, as thus amended by the deletion of section [illegible] thereof, be designated section [illegible] and that the words "the Annual Representative Meeting" occurring in the first line thereof be deleted and the words "the Annual Meeting" be inserted in substitution therefor.

(e) That By-law [illegible] be amended in the following respect, namely That after the words "Annual Election" occurring in the fifth line thereof, the following words be inserted and form part of such said by-law "Or, in respect of election by a Branch, in such other manner as may be prescribed by the rules of the said Branch," so that the by-law as thus amended shall read as follows:

"Any casual vacancy occurring in the Council, not less than four months before the annual general meeting, may be filled up by any Branch or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch. Any person so elected shall retain his office so long as the member in respect of whose such casual vacancy may have occurred would have retained the same."

That By-law [illegible] be amended by the addition of the following clause at the end thereof namely "In addition to the above mentioned report the Council shall have power to present to the Annual Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the JOURNAL if time permits."

That section [illegible] of By-law [illegible] be amended in the following respect namely That the words "The public health service, the Poor law medical service, and the vaccination service" be deleted, and that the words "public health and the Poor law medical service" be inserted in substitution therefor.

That the following new by-law be made, and form one of the by-laws of the Association, namely "In the month of May in each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, and for the purposes of By-laws [illegible] and [illegible]."

That the following new by-law be made and form one of the by-laws of the Association, namely "The powers conferred under Article XXV upon any constituency to appoint a substitute in the place of a Representative unable or unwilling to attend a Representative Meeting, shall be exercised by such constituency at any special meeting, or by some officer or member of the Division or Divisions representing the constituency who shall have been authorized by the officials of the said Division or Divisions or Branch by resolution of the said constituency be authorized to exercise such powers."

That the officers of the Association be hereby authorized and instructed, in accordance with the Schedule of the Association to determine the respective positions in which the new by-laws made this day by the Representative Meeting shall be placed among the existing by-laws to number the said new by-laws accordingly and to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the numerical references contained in any of them.

By the WANDSWORTH DIVISION Metropolitan Counties Branch):

By-law [illegible] "The British Medical Association

The Council shall be elected by voting papers sent to each elector by post for which voting papers [illegible] the names of those candidates who have been nominated [illegible] in writing to the Secretary of the Association on or before an appointed day, of which not less than fifteen days' notice has been given in the JOURNAL.

Amend by [illegible] the words "or by Division" be inserted after the word "writing."

Any Branch may, subject to the rules that [illegible] and by a Division be signed by any member of such numerous committee as the Branch may deem expedient."

By the WALTHAMSTOW DIVISION (Metropolitan Counties Branch):

In [illegible] Bye-law [illegible] the word "twenty" for the words "a [illegible]" inserted. "Voting shall be [illegible] system of [illegible] before such vote is taken [illegible] that [illegible] may be taken to send [illegible] as [illegible] the [illegible] would be [illegible] sent.

B.—Other Notices of Motion:

By BIRMINGHAM (CENTRAL) DIVISION (Birmingham Branch).

That the representation of the medical profession in Parliament at the present time is inadequate, and in the interests of the public and profession alike should be improved, and that the Council be instructed to consider how this may best be effected.

By BRADFORD DIVISION (Yorkshire Branch):

That the Council be instructed to transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available.

By CARDIFF DIVISION (S. Wales and Monmouth. Branch):

That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons.

By GATESHEAD DIVISION (North of England Branch):

(A.) That a prominent place shall be reserved in the BRITISH MEDICAL JOURNAL for notices from Divisions and Branches where disputes are taking place as to contract terms, etc., and from which districts it is advisable that decent members of the profession shall keep away. Each such notice shall be repeated, free of charge, until in the opinion of the Division or Branch in question the necessity for it has disappeared.

(B.) That the Council of the Association be instructed forthwith to take the steps necessary to obtain the alterations in the Memorandum of Association contained in the Birmingham resolutions, subject to such modifications as are required to harmonize them with the present articles, submitting the same for adoption by extraordinary general meeting in their amended form as a special resolution, before application to the High Court, if legally advised necessary.

By HAMPSTEAD DIVISION (Metropolitan Counties Branch):

1. That it is advisable that all Association Business Notices be withdrawn from the JOURNAL and be collected and published in the SUPPLEMENT, so that the JOURNAL be purely medical.
2. That it is advisable that the good idea of the Year Book be developed that it should contain the names and addresses of all members, medical regulations, and other details of general interest to make it a real handbook of medical information.
3. That it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

By PORTSMOUTH DIVISION (Southern Branch):

That in recording the votes of members of Divisions on matters to be referred to Representative Meetings the following plan should be adopted, namely: The number voting affirmative present; the number voting negative present; the number absent.

By STRATFORD DIVISION (Metropolitan Counties Branch):

(A.) That to Clause 21 of the new Medical Acts Amendment Bill should be added the words, "and such registration shall confer the title of Dr."

(B.) That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of payment of medical practitioners for services rendered when required in midwives cases.

(C.) That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

By WANDSWORTH DIVISION (Metropolitan Counties Branch):

(A.) That it be referred to the Central Council to consider whether it would not be possible that all announcements of births, marriages, and deaths should be inserted free of charge for members of the Association and their immediate family; and also to charge members of this Association for advertisements at a much lower scale of fees than at present, in cases when these are of a private and non-commercial character and at the same time, by appending to all such some special sign, to indicate that the advertisements are those of members, and in their private capacity.

(B.) That it be referred to the Central Council to consider whether it would not be an advantage to charge for the BRITISH MEDICAL JOURNAL, from the beginning of 1905, sevenpence a copy to all non-members of this Association. (75,000 copies are annually sold besides those sent to members).

(C.) In order to reduce the present misuse of Charity Trust Funds put at the disposal of hospitals, the constant necessity for hospital appeals, the indiscriminate issuing of "commends" for treatment, as also the consequent gradual reduction now taking place in the scope offered for practice to general practitioners through this largely increasing attendance of the laity at hospital out-patients' departments, hospital authorities should endeavour to make obligatory

1. The presentation of a form signed by a medical practitioner.
2. That this form should be produced by all before they receive a *second* gratuitous visit or consultation, or apply for admission to the hospital for treatment.

(D.) That a copy of the above resolution be sent by a deputation if possible) to the King Edward Hospital Fund Committee, as also to all hospital and other similar committees, together with a copy of a proposed form, and, after pointing out the necessity for same, a hope be expressed that they will use their influence to have it adopted, either alone or in conjunction with any subscriber's recommend at present in use.

(E.) That the Central Council of the Association are hereby asked to carry out the above resolutions and to take into their consideration the desirability of offering to make donations towards the salaries of almoners properly trained, who could thus be expected, while safeguarding the expenditure of Charity Trust Funds, to indirectly aid the interests of the local general practitioners.

(F.) That in the opinion of this Representative Meeting, the time has come that the Central Council should take into its consideration the advisability of forming a Printing and Stationery Department of the Association, not necessarily at the head office, from which all necessary stationery, circulars, and general printing could be supplied and charged to the Branches and Divisions at a sum only sufficiently over cost price to cover working expenses.

(G.) That it is desirable that the Central Council draw the attention of the Medical Profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

(H.) That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a Committee to investigate the subject, either alone or in conjunction with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the Law.

By the WIGAN and LEIGH DIVISIONS (Lancashire and Cheshire Branch):

That in the opinion of the Representative Meeting all medical practitioners are entitled to use the title "Dr."

GUY ELLISTON,
General Secretary.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, April 27th, at 8 p.m., Dr. Barclay J. Baron, President in the chair, when an address will be given by Dr. Hale White, on Forms of Joint Disease met with in Medical Practice.—W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 15th. The by-law governing the election is as follows. "(22) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days' notice has been given in the JOURNAL." —W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will be held at the Town Hall, Trowbridge, on Wednesday, May 11th. JOHN TUBB-THOMAS, The Halve, Trowbridge, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 1st.—T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at Altrincham on May 18th Mr. J. Smith Whitaker, the Medical Secretary of the Association, will deliver an address at 5.30 p.m. (other particulars will be announced hereafter). Members of other Divisions are cordially invited to attend The meeting will be followed by a dinner (5s. each, exclusive of wine), which

[illegible] Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: PRESTON DIVISION.—A meeting of this Division will be held on Thursday, April 28th, at the Town Hall, Preston, at 4 p.m., to consider the question of electing four Members of the Association to represent the Division on the Central Council. Any Member desirous of being nominated for election should send his name to the Honorary Secretary not later than April 25th. Members are reminded that the Annual Meeting of the Association will be held in London on May 18th, 19th, and 20th, and that the Preliminary Agenda will be published in the JOURNAL of April 30th. Members are requested to forward to the Honorary Secretary, not later than April 25th, any questions they may wish to be considered. Medical practitioners connected with Public Institutions who desire to have medical witnesses engaged on each side in legal cases to meet in consultation. To receive and consider selection prepared by the Medical Defence Committee of the Association.—D. TURNER, 2, Fishergate Hill, Preston, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ECCLES DIVISION.—The annual meeting of this Division will be held at the Wellington Hotel, Drake Street, Rochdale, on Thursday, April 28th, at 4 p.m. Agenda: 1. Report of Executive Committee. 2. Election of officers. 3. Discussion on medical defence. 4. Matters referred to Divisions by Central Council or Advertising. 5. Medical witnesses: consultation of medical witnesses on each side in legal cases. A. B. MCMASTER, M.D., 124, Drake Street, Rochdale, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 1st. Nominations should be supported by two Members, and it is necessary that the written consent of the nominee should be obtained. It is hoped that no elections will be taken by the adoption of this course.—GEORGE ROWELL, 20, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY AND WALTHAMSTOW DIVISIONS.—A combined meeting of the City and Walthamstow Divisions will be held at the Hospital, Orford Road, Walthamstow, on Tuesday, April 26th, at 4 p.m. Dr. W. Hale White will read a paper on Forms of Joint Disease met with in Medical Practice. Members are entitled to introduce friends, and visitors are cordially invited to attend. CITY DIVISION.—A preliminary meeting will be held at 3.30 p.m. Business: 1. To consider a recommendation of the Executive Committee that "The question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions." 2. To consider on the recommendation of the Medical Parliamentary Committee, "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." 3. The election of members of the Metropolitan Counties Branch to serve on the Central Council of the Association. The Walthamstow Division will meet at 5 p.m. to consider the question of the Representation received by the Council of the Association.—E. W. GOODALL, M.D., the Eastern Hospital, Homerton, N.E., Honorary Secretary, City Division; C. J. MORTON, 7, Orford Road, Walthamstow, Honorary Secretary Walthamstow Division.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A meeting of this Division will be held at the Town Hall, Wandsworth, on Thursday, April 28th, at 4 p.m. Agenda: 1. Question from Central Council as to medical witnesses meeting in consultation before a trial. 2. Paper by Mr. Arthur E. Giles, F.R.C.S., on The Diagnostic Significance of Gynæcological Symptoms. 3. Other business.—E. ROWLAND FOTHERGILL, M.B., Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH: LEICESTER DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4 p.m., at the Infirmary, Leicester. Agenda: The election of officers for 1904, and other business. [illegible] Medical Secretary. ARTHUR V. CLARKE, M.D., 37, London Road, Leicester, Honorary Secretary.

MIDLAND BRANCH: BOSTON DIVISION.—A meeting of the above Division will be held at Anderson's Hotel, Market Place, Boston, on Tuesday, April 26th, at 4 p.m. Agenda: 1. Medical Defence. 2. To consider Proposed Medical Parliamentary Committee. 3. Contract Practice. 4. Annual Meeting. A. E. SHARMAN-CROSS, Grove Street, Boston, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at the New Club, Leeds, on Tuesday, May 3rd. Full particulars will be sent by circular. Members wishing to show cases of [illegible] anything [illegible] are requested to communicate with the Honorary Secretary as early as possible.—ALFRED COX, Cotcliffe House, Gateshead, Honorary Secretary.

[illegible] BRANCH.—The annual meeting of this Branch will be held at [illegible], Burnley, on Wednesday, May 4th, at 3 p.m., Dr. J. H. EWART, President-elect. The following is the Agenda: 1. To elect the officers of the Branch. 2. [illegible] will be read. Members are invited to send papers for the consideration of the Council. Nominations should be sent for the office of President-elect, Vice-Presidents, Secretaries, and Members of Council. The Honorary Secretaries will be pleased to receive the annual reports of the Divisions [illegible] the Council. The Annual Report of the Council will be issued [illegible] Meeting. Members are reminded that the Annual Meeting of the Central Council will be held in London on May 18th, 19th, and 20th, and that the Preliminary Agenda will be published in the JOURNAL of April 30th. Members are requested to forward to the Honorary Secretaries of the Branches, not later than April 25th, any questions they may wish to be considered by the Central Council, and which relate to the work of the Association. Medical practitioners connected with Public Institutions who desire to have medical witnesses engaged on each side in legal cases to meet in consultation. To receive and consider selection prepared by the Medical Defence Committee of the Association.—D. TURNER, 2, Fishergate Hill, Preston, Honorary Secretary.

STAFFORDSHIRE BRANCH.—A meeting of the Branch will be held at the Victoria Hotel, Wednesbury, on Thursday, April 28th.—G. PERCEVAL JOHNSON, Stoke-on-Trent, Honorary Secretary.

STIRLING BRANCH.—The annual general meeting of this Branch will be held at the Royal Hotel, Stirling, on Monday, May 2nd, at 3.30 p.m. Agenda: 1. Election of office-bearers. 2. Report of Council. 3. Reference as to "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." 4. Reference as to "The question of the advertising of medical practitioners in connexion with hydropathic establishments." 5. Paper by Dr. J. G. Cowie, Glasgow, on Diseases of the Middle Ear and its Complications.—J. E. MORRISON, 1, Glebe Avenue, Stirling, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Extent of Physical Unfitness for Army Service.—Provision for Confirmed Inebriates in Lancashire.—Education of Defective Children.

IN Manchester the percentage of applicants for the army and militia rejected in one year was something like forty-nine, which means that one out of every two Manchester youths who tried to enter the army failed to meet the modest requirements of the Government. Of 3,200 men, applicants for entry into the army and militia, 1,025 were examined medically, with the result that 880 were reported as physically unfit, and 810 were finally admitted into the militia and army. The martial ardour of 350 was cooled before they reached the medical examination room. Bad teeth was again a prominent cause of rejection. A good many were rejected owing to their failure to produce a written character from the last employer, a regulation recently introduced.

The Joint Reformatory of the Lancashire Inebriates' Board was opened on the 14th inst., by the Chairman, Sir John Hibbert. The Board was constituted in 1899 under the Inebriates Acts of 1879 and 1898. It is representative of the Lancashire County Council and all the county boroughs save Oldham, and consists of forty-four members. The reformatory is built near Whalley-on-the-Ribble and a short distance from Langho Station. The site comprises 320 acres and cost £17,000. The building itself, situated between two and three hundred feet above sea-level on a beautiful plateau, cost £73,418. It contains twelve separate "homes," each with accommodation for ten persons. The provision at present is solely for women, of whom there are already over 100 from Lancashire in various reformatories outside the county. The inmates will be employed on farming and gardening work, namely, outdoor and open air treatment. The possible period of detention for females committed by the county and county borough court justices is three years. The director and medical officer is Dr. F. A. Gill. The Chairman said that the Board has to deal with a population of 4¼ millions of people, with a rateable value of £22,335,000. During last year, in Lancashire, 38,901 cases of drunkenness came under the care of the police, and amongst these were 229 cases eligible for treatment in reformatories. The want was far more urgent for women than for men; hence the Board had built for women first. A far from roseate view was given by Mr. Beanlands, Home Office Inspector of Inebriate Homes. The first lot the Board would receive would be practically "irreformable." They had been drinking for fifteen, thirty, and even forty years, and they could not be reformed in three. The Board, moreover, must work that stratum before they reached the "reformable" cases. Even when a case was not reformable that person should not be left in the street, for one drunkard at liberty soon made other drunkards.

In a report presented to the Education Committee Dr. Ashby gives the following details of the work done in the special schools for defective children from March, 1902, to the end of last year. It deals with 120 children between the ages

of 7 and 14. These children had some physical or mental defect which made them incapable of receiving proper benefit in an ordinary elementary school. In Manchester the tendency is to exclude the lower grade feeble-minded child. More good can be done by educating the upper grade of this class. Owing to the objectionable habits and dangerous propensities of many of the lower grade children their presence is apt to create a prejudice in the minds of parents. All the children are alike in the weakness of their mental powers and the slowness with which they learn to read, write, and calculate. Physical exercise, drawing, modelling, and handicraft, together with careful attention to the development of the special mechanism, are important factors in the treatment. The future of these children is not bright, because the home conditions in many cases are unfavourable. There is therefore need on their behalf of some after-care association. As these children are unstable, and easily influenced for good or evil, much necessarily depends on their surroundings. As to the chief causes of mental deficiency, they are "inheritance of nervous instability, ill-health of the mother during the months before the child is born, bad hygiene, bad feeding during the first year or so of the infant's life." Doubtless alcoholism—directly or indirectly—contributes. One of the most perplexing social problems of the present day is the question of how to prevent the making and multiplication of the mentally unfit, and how to bring home to all classes the vast importance of all that concerns maternity and infant life.

CORRESPONDENCE.

BLOOD-PRESSURE INSTRUMENTS.

SIR,—The question of accurately measuring the arterial pressure in patients is one to which I devoted a considerable time some years ago. The result of my observations was to convince me of the total unreliability of the methods employed. The instruments I used were those of Oliver and Hill and Barnard, and, from a consideration of the constitution of others, the following objections are also applicable to them. To begin with, I had considerable difficulty in telling when the levers of these instruments attained that maximum swing which was supposed to represent the mean arterial pressure. This, of course, may have been due to a lack of perceptive power on my part. I also found that that the readings in mm. of Hg. from these instruments when applied to the same patient were at such variance that one was forced to conclude that some grave error existed in one or both instruments. When I reflected on the manner in which they were supposed to act, it soon appeared to me how utterly unreliable they were for practical purposes. Take Hill and Barnard's instrument for instance. In this instrument there is a broad armlet of stiff leather on the inside of which there is a bag of thin india-rubber. This band is applied round the middle of the upper arm, and the pressure within the indiarubber bag is raised by pumping air into it until the pulsation of the manometer becomes of maximal excursion. By what process of reasoning the force necessary to attain this maximal excursion is supposed to represent the mean arterial pressure I never could make out. Some have the idea that the tissues surrounding the blood vessels act like a fluid and convey the movements of the blood to the air chamber, and the moment when the maximal excursion of the manometer is reached the pressure within the air bag and the vessels is exactly counterbalanced. A little consideration will convince any thinking man that the tissues (muscles and fat, etc.) cannot act like a fluid, for if they did the pressure exercised would be reflected all over the body. The application of this armlet is exactly the same procedure as the surgeon employs in applying a tourniquet before amputating the arm. Now, it is a matter of common knowledge that the efficiency of the tourniquet varies in different arms. In a thin, spare arm the arteries are occluded with very little pressure. In a bulky, fat arm very much greater force is needed, and even then the result may be that, while some arteries are entirely occluded, others are only partially so; while some are even not affected by the pressure. The force employed in partially compressing the arteries with Hill and Barnard's instrument does vary according as the tissues are spare or bulky, and the consequence is that a variable force is spent in crushing the tissues before the arteries. This crushing force is registered by this instrument as blood pressure.

The same fallacy is met with in Oliver's instrument. Here a fluid pad is pushed down upon the artery, and if the artery is readily reached it is possible there may be some relation between pressure within the artery and that recorded by the spring. But if the artery is small, and lies deep within a groove bounded by resisting structures (bone or tendon) then considerable pressure is necessary to reach the artery, and this pressure is translated by the instrument as arterial pressure. An exceedingly good example of the fallacy arising from this method of observation was furnished in the BRITISH MEDICAL JOURNAL some weeks ago, when Dr. Barr stated that in a case of paroxysmal tachycardia it took a pressure of 190 mm. by Oliver's instrument to obliterate the arterial pressure. If one reflects a moment on the condition of the circulation in paroxysmal tachycardia, the absurdity of such a result will be easily realized. The heart is beating at a great pace, but it throws less blood into the arterial system. The blood is dammed back into the venous system to such an extent that I have seen the face of a patient in the course of a few hours become livid and swollen, while the liver enlarged, and could be felt pulsating 2 in. or 3 in. below the ribs. At the same time the radial pulse became small and contracted, so that it could only be felt with difficulty as it lay at the bottom of its bed. When searched for with an Oliver's instrument the pad has to be forced deep into the groove, and the pressure recorded is not that of the pressure within the artery, but mainly that of the force required to push the pad down into the groove. In one case of transient tachycardia I found that Oliver's instrument gave a mean pressure of 190 mm., while Hill and Barnard's gave 125 mm.

Supposing one did get an accurate record of the pressure within an artery, what is its significance? Is it supposed to be a record of a pressure within the whole arterial system? An idea seems to be prevalent that if pressure within one artery, whatever its size may be, is obtained, the pressure within all the other arteries of the body must be the same. This notion is evidently based on the idea that as a variation of pressure in a fluid contained within a vessel is reflected at once to all parts of a vessel, so variations of pressure within the arteries is at once reflected to all parts of the arterial system. That this is not the case is evident from a little consideration. The arterial system is not like a closed vessel; the blood is a flowing stream escaping at one extremity. As the stream flows towards the periphery there is a great loss of pressure on account of the friction of the blood against the walls of the arteries. The smaller the artery the greater the resistance and hence the greater the fall of arterial pressure. It takes a light pressure to obliterate the digital artery, a greater to obliterate the radial, and a still greater to obliterate the brachial. What the actual loss of pressure is from the aorta to the radial or digital arteries we have no means of calculating, but it is a factor to be reckoned with and not to be ignored as inventors appear to have done.

I do not want to decry efforts towards the solution of this question. I think the ingenious inventors of these instruments have rendered a great service by their attempts, and if perfection is still far off, nevertheless by their endeavours they bring us nearer to the accomplishment of a very necessary requirement.—I am, etc.,

Burnley, April 9th. J. MACKENZIE.

THE STATE REGISTRATION OF NURSES.

SIR,—In answering Mr. Sydney Holland's letter it is perhaps unnecessary to refer to his elaborate comparison between the numbers and importance of the individuals who have signed his antiregistration manifesto and the numbers of those who have supported the reply to it. The merits of a case can rarely be adequately estimated by a simple counting of heads, and it is doubtful if the value of a matron's opinion corresponds exactly with the size of her hospital. The advocates of registration must concede to Mr. Holland the honours of the day as regards the vigour and energy of his canvass; but they cannot admit that they are unsupported by the nursing profession, seeing that the Royal British Nurses' Association, and the Irish Nurses' Association, together with several independent leagues of nurses, are warmly supporting the registration movement, while 1,100 nurses have joined the Association for promoting State Registration.

Mr. Holland suggests that there will be no advantage gained by registration because "a nurse's hospital certificate shows

just as well as the register" that the nurse has gone satisfactorily through a "recognized training school"; this is hardly the case, for at present certificates are issued by hundreds of institutions of every type and description. Some of these certificates do represent a thorough and complete training, others again simply mean that the holder has spent a very limited time in a special or a cottage hospital. The public have not the technical knowledge to enable them to discriminate between the value of the innumerable certificates held by professing nurses, and as even the twelve leading metropolitan hospitals have arrived at no common understanding as to what constitutes a thorough all-round training it is not surprising that there should be some uncertainty on the subject in the lay mind. In some of these leading hospitals a certificate is granted at the end of one year's training, or to paying probationers after a still shorter period; in others three years in the wards alone entitles a nurse to a certificate, while one important hospital binds its nurses to a four years' term of training, two out of which are spent in earning fees from the public for the funds of the hospital. In view of this diversity of procedure, and of the fact that every hospital works as a separate unit and carries out its own methods of training, it may be questioned whether a "recognized training school" exists, and if so how and by whom it has been recognized.

Mr. Holland further contends that a hospital certificate is superior to registration in that it shows when a nurse was trained, but such facts will naturally be equally given in the register, which will further notify any subsequent experience gained by the registered individual. The register will also have this advantage over a hospital certificate, that whereas the latter once granted can never be recalled, however flagrant the subsequent conduct of the individual, the registration certificate will be subject to forfeiture in cases of moral or professional misconduct.

Mr. Holland fears that "eccentric women" will "pose" as registered nurses, and will by this means bring discredit on all registered nurses; but under the Bill submitted to the House a "pose" of this kind would be sternly dealt with, and eccentric persons of this type will find it less easy than they do at present to pose as hospital nurses.

No doubt all unsuitable individuals will not be eliminated from the profession by registration, but their unsuitability will be more personal than professional, and therefore less dangerous to their patients. The public are also perfectly familiar with the system of registration, and understand its limitations. If dissatisfied with one medical practitioner, they do not condemn the whole medical profession and resort to non-registered "quacks" nor does an employer who finds that a certificated teacher fails in those personal qualities necessary to her position denounce the whole system of registration of nurses or cease to require diplomas and evidence of educational competence. It is therefore inconceivable that, as Mr. Holland suggests, the public will, if disappointed in one registered nurse, cease a cry against all registered nurses and expect results from registration in the nursing profession similar to those known to be matters of fact in other professions.

I am, etc.,

HELEN MACILWAINE.

SIR,—It is evident from Mr. Sydney Holland's letter of April 16th that he has failed to keep the aim of the proposed Bill in view, and that he knows nothing of the widespread dissatisfaction which exists among doctors and others connected with nursing at the present state of affairs. He lays great stress on necessity of character as opposed to technical skill. But what practitioner would be able to answer

[illegible]

A [illegible] "cheerful, cheerful, and observant nurse" who gives a vaginal douche when an enema is ordered.

[illegible]

It may be argued that as in the case of the hospital of [illegible] which registration aims at is to protect patients against this kind of thing.

It is childish to say that because a nurse is competent in 1904 that she will not be so in 1907. What guarantee have we that a doctor is competent ten years after he takes his degree? Nothing except the *Medical Register*. The majority of doctors keep up to date by reading and talking over cases with other men. Is it impossible for a nurse to keep abreast of her work in a similar way? I know that many do so. A State register for nurses would not be a danger to the public, but would act in the same way as the *Medical Register*, and protect the public against impostors and incapables.

The charges of want of tact and eccentricity stated against nurses are doubtless now and then true. But the question naturally arises, Why were such women allowed to finish their training, and what was the matron of the particular hospital thinking of when she allowed them to remain in the hospital? Apparently we cannot get reliable proofs of amiability, but we can of skill in nursing, and it is not an impossibility to apply suitable written and clinical tests.

Those in favour of this Bill appreciate and desire tact and kindness in nurses as much as those opposed to the Bill, but they do not wish to cherish ignorance, and justly consider that the best and highest womanly qualities are to be found, and are most capable of development, in the nurse who has a decent modicum of brains.

Your correspondent also states that almost all the leading medical men and the matrons of large hospitals are opposed to this Bill. Is he quite sure of this?

And what authority have those matrons to speak for the nursing profession? As a general rule, the matron of a large hospital knows very little of the desires of her subordinates, to say nothing of the large number of nurses in private practice.

And it is not medical men of the status of Lord Lister and Sir James Reid who experience the anxiety and trouble caused by half-trained nurses.

Mr. Holland will get a more accurate opinion on the question at issue if he will consult the general practitioners and the trained nurses engaged in private practice. I am, etc.,

April 16th M.B.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—The President of the Medical Defence Union says he did not intend to make any charge against the management of the London and Counties Medical Protection Society, when he wrote the words to which I took exception in the letter you kindly published on p. 852 of the BRITISH MEDICAL JOURNAL. When he wrote the words in question, which are so misleading, the President of the Medical Defence Union knew they could apply only to one society engaged in the work of medical protection, namely, the London and Counties Medical Protection Society. Nevertheless, I, of course, accept his explanation in the spirit in which it is made.

I am, etc.,

HUGH WOODS,
General Secretary of the London and Counties Medical Protection Society.

April 14th

THE INTRODUCTION OF PURE AIR INTO SEPTIC CAVITIES.

SIR,—I am very much obliged to Dr. Samways for drawing my attention to the fact that in case of pyo-pneumothorax M. Potain had obtained a brilliant success following injections into the pleura of sterilized air, and that Professor Debove had treated a case of tuberculous pyo-pneumothorax by multiple injections, and of each injection withdrew very little of the liquid and then gave an intrapleural injection of a solution of subnitrate. But what all this has got to do with my treatment of serous effusions I am rather puzzled to see. If Dr. Samways had read my letter with care he would have discovered that it had nothing to do with pneumothorax, and that the injection of sterile air was only a [illegible] part of my new method of treating serous effusions.

Had I been delivering a lecture on the treatment of pyo-pneumothorax, and had I known of the methods of Potain and Debove, I should have commented both. What could my opinion be of such treatment? But in my own case I have not the slightest intention of trying to [illegible] the treatment of serous effusions by pneumothorax from the example of the empyema. The proper treatment of empyema is surgical, although it is by no means free from danger, and the best way of introducing air into the pleural cavity when there is an

it is through a free incision. When I find "old history abroad" confounding the treatment of pleural effusions with that of pyo-pneumothorax I am not surprised that medicine should remain in some men's minds a matter of irrelevant history while surgery is advancing by leaps and bounds. Dr. Samways has evidently had no personal experience in any part of the treatment, yet he indulgently thinks "with Dr. Barr it (the introduction of air) might more commonly be profitably applied."

Much more pertinent was the letter of Dr. Stuart Tidey in which he showed that Professor Forlanini had used injections of nitrogen for the production of artificial pneumothorax. In the Epitome of the British Medical Journal of April 2nd, there is an abstract of a paper on the treatment of pleural effusions by Antonio Pisani, published in the *Gazz. Med. Ital.*, March 3rd, 1904. After removing the effused fluid he insufflated air filtered through cotton wool and slightly impregnated with formaldehyde. It seems this paper was published sixteen days before mine, but my lecture was delivered in January and my apparatus was exhibited at the Liverpool Medical Institution on November 5th, 1903, and the following week a notice of it appeared in the weekly medical journals. Some months prior to that I delivered another unpublished lecture on the same subject. If I find any more "old history abroad" I shall be pleased to record it.—I am, etc.,

Liverpool, April [illegible]. James Barr.

Sir,—Dr. Barr too obviously misrepresents me when he says: "He speaks of the atmospheric pressure not as a constant, but as something like a sandbag which can be shifted about at pleasure." This is directly contrary to fact. But I must decline further controversy with Dr. Barr. His method of controversy consists in imputing ignorance or obtuseness to any one who presumes to differ from him, and he retorts with personalities as if it were a personal affront not to agree with him. He appears to imagine that I interfere with his liberty to continue his experiments. So far as I am concerned he is free to inflate the abdomens of his patients and if he can prove that this will "cure ascites" I shall heartily congratulate him, though I claim the same right to be sceptical as he has to be sanguine. Time will show whether his procedure constitutes a "marked step in the evolution of treatment," or whether some future autocrat of medicine may perchance characterize it as a "clumsy and ill-regulated device."

This little passage-at-arms with Dr. Barr is not due to any aggressive intention on my part, but has arisen in consequence of my having simply pointed out that there is no novelty in the introduction of pure air into the pleura, and that Dr. Barr's method is not the only one, but that a method which I practised twenty years was both simple and effective. My reference to inflation of the peritoneum was made *en passant* and not with the intention of wounding Dr. Barr's [illegible].—I am, etc.,

Wigton, April 12th. Theobald A. Palm, M.D.

*** This correspondence should now cease.

SCHOOL BABIES AND MEASLES.

Sir, The annotation in the British Medical Journal of April 16th has brought me enquiries as to the method adopted in Brighton for the exclusion of children from school attendance who belong to households in which measles is present. I hope, therefore, you will allow me to explain a slight inaccuracy of detail in that annotation.

It is not, so far as I can judge, practicable to obtain from the teachers of elementary schools lists of the infectious diseases from which each child has already suffered, although this obviously represents the ideal to be sought after, and I believe already secured, for the majority of boarding schools. Failing this the method adopted in Brighton is to exclude from school attendance only those children belonging to the household affected by measles who attend the infants' school, and those older children who have not already had measles.

It should in fairness be added that this plan was adopted as the result of Dr. Kerr's report on the same subject to the School Board for London.

It does not follow that this plan would be the best to follow in circumstances in which it was found that a very high proportion of the children over 8 years of age at a given school had not already had measles.—I am, etc.,

Brighton, April 18th. Arthur Newsholme.

"NOTES ON RECENT CANCER MORTALITY IN THE THAMES VALLEY."

Sir, In my paper on the above subject in the British Medical Journal, April 9th, p. 825, one or two of the figures given under Table I have been wrongly printed. Thus, in the decennium 1891-1900, the total deaths from all causes, at all ages in England and Wales was 5,575,375, not 5,575,374.

In the same period the number of cancer deaths at all ages in England and Wales was 232,178, not 332,178. This gives the percentage of cancer deaths to total deaths as 4.16. The figures were taken from the annual reports of the Registrar-General for England for the years 1891 to 1900 inclusive.

As it may be of interest to know the actual figures for the various years of the decennium I give the following tables:

Year.	Total Deaths from all Causes, at all Ages.	Cancer Deaths, All Ages.
England and Wales.		
1891	587,[illegible]	20,117
1892	550,[illegible]04	20,[illegible]
1893	5[illegible],458	21,1[illegible]
1894	4[illegible],[illegible]7	21,4[illegible]
1895	508,[illegible]7	2[illegible]
1896	5[illegible]7	[illegible]5,1
1897	541,4[illegible]	[illegible]4,44[illegible]
1898	552,141	25,[illegible]6
1899	521,7[illegible]9	[illegible]
1900	5[illegible]7,[illegible]0	[illegible]72
Total	5,[illegible]	[illegible]17[illegible]
In the County of Surrey.		
1891	[illegible]247	408
1892	[illegible]4[illegible]	4[illegible]
1893	[illegible]	44[illegible]
1894	[illegible]1	41[illegible]
1895	[illegible],111	[illegible]
1896	5,532	4[illegible]
1897	[illegible]93	50
1898	[illegible],430	524
1899	10,[illegible]	[illegible]47
1900	10,347	[illegible]
Total	2[illegible]	4,846
In the County of Berkshire.		
1891	4,[illegible]62	[illegible]05
1892	4,[illegible]75	[illegible]6
1893	4,[illegible]87	[illegible]42
1894	3,91[illegible]	2[illegible]
1895	4,[illegible]	[illegible]2
1896	3,[illegible]7	[illegible]0
1897	3,[illegible]91	[illegible]27
1898	4,[illegible]10	[illegible]
1899	4,[illegible]22	[illegible]
1900	4,[illegible]	[illegible]
Total	42,005	2,361
In the County of Middlesex (Ex Metropolitan).		
1891	[illegible],144	[illegible]2[illegible]
1892	[illegible],[illegible]17	41[illegible]
1893	[illegible]	[illegible]12
1894	[illegible]7	[illegible]85
1895	[illegible]	[illegible]14
1896	[illegible]7	[illegible]75
1897	[illegible]	[illegible]02
1898	1[illegible]	[illegible]0[illegible]
1899	11,[illegible]	[illegible]1
1900	11,[illegible]81	[illegible]7[illegible]
Total	[illegible]	4,[illegible]11
In the County of Buckinghamshire.		
1891	2[illegible]	121
1892	[illegible]6[illegible]	[illegible]1
1893	[illegible]4[illegible]	[illegible]3[illegible]
1894	[illegible]	[illegible]0[illegible]
1895	[illegible]	[illegible]24
1896	2[illegible]	[illegible]0[illegible]
1897	[illegible]	[illegible]2[illegible]
1898	[illegible]	[illegible]2[illegible]
1899	[illegible]	[illegible]2[illegible]
1900	[illegible]21	[illegible]2[illegible]
Total	[illegible]5[illegible]	[illegible]1[illegible]
In the County of Oxford.		
[illegible]91	[illegible]	[illegible]7[illegible]
[illegible]	[illegible]	[illegible]1[illegible]
[illegible]7	[illegible]71	[illegible]2
1894	[illegible]7[illegible]	[illegible]1[illegible]
[illegible]	[illegible]	[illegible]2
[illegible]97	[illegible]	[illegible]2
[illegible]7	[illegible]	[illegible]2
[illegible]95	[illegible]	[illegible]1
[illegible]99	[illegible]94	[illegible]2[illegible]
[illegible]00	[illegible]72	[illegible]1[illegible]
Total	[illegible]	[illegible]

These are the counties in which lies the Thames Valley.—I am, etc.,

Shepperton-on-Thames, April 11th. Allen, Urquhart, M.D.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ASSESSORS IN CASES OF PHYSICAL INJURY
NEW RULES IN COUNTY COURT

The first case under the new rules adopted by His Honour Judge Reginald Brown, K.C., which provide for the medical referee in workmen's compensation cases sitting with the judge as assessor instead of the case being referred to him, was heard in the Stockport County Court on April 11th. Application was made to terminate or diminish a compensation order for the payment of £1 weekly to a certain person, who was formerly employed by the applicants as a spinner. Under this order the man had received £52, and the applicants asked, as the alternative to terminating it, that the order should be redeemed by the payment of £60. They contended that a slight operation would remedy the effects of a sprained foot which prevented him working, but the Court could not insist that the operation should be performed. One of the medical witnesses called said, however, that the result of the operation might not be good, and in such a case it had been bad. The respondent was examined by the medical referee, and his Honour then decided that the applicants should be allowed to redeem the order by paying £60. An opportunity to appeal was allowed to the respondent.

As this is a matter of considerable interest to medical men, we have obtained through the courtesy of the Registrar of the County Court of Stockport a copy of the document referred to and adopted by his Honour, Judge Brown. It is as follow

THE WORKMEN'S COMPENSATION ACTS, 1897 AND 1900.

In any application for arbitration under the above named Acts where a question is to be submitted to the Court as to whether the workman has wholly or partially recovered from injuries received in the course of his employment, or as to otherwise of a purely medical nature, the judge will be glad if the parties to such arbitration will place it in his power to have one of the medical referees, duly appointed by the Secretary of State and attached to this circuit, to sit with the judge at the hearing of the application and act as an assessor, pursuant to Section 6 (11) of the County Courts Act, 1903, instead of the judge having to follow the more cumbrous procedure provided by Schedule 1 (6) of the Workmen's Compensation Act, 1900, and the regulations made thereunder.

It is suggested that the desired result may be arrived at by mutual agreement of the parties to the arbitration, or on the application of one of them under Section 6 (11). In either case the fee (two guineas) of the medical referee must be deposited with the Registrar six clear days at least before the day fixed for hearing the arbitration. Such fees will be considered costs in the arbitration unless otherwise ordered by the judge.

By order.

March 14, 1904.

Appointment of His Honour Judge Reginald Brown, K.C., as Medical Assessor for Circuit No. 1.

District	Name.	Address	Qualifications.
Ashton-under-Lyne and Stockport Judge Stockport Hyde	William Hugh Hughes	Harwood, Ashton-under-Lyne	M.R.C.S.Eng., L.S.A.Lond
Manchester and Cornbrook Judge Stockport Salford	James Thomson Wilson Baird	Overton House, Congleton	M.B., M.S.Ed.
Chester Judge Stockport	Seymour Hugh Munro	Nantwich, Cheshire	M.D.Ed., L.R.C.S.Ed.

[illegible] in the medical evidence, either side can apply [illegible] the medical referee attached to the Court to sit with the Judge. Of course both sides may consent [illegible] for the benefit of this arrangement is [illegible] the advantage of hearing the [illegible] better than the former cumbrous method [illegible] medical referee who had not the advantage of [illegible] and should be brought into force by [illegible] The medical referee of course sits merely in an advisory capacity.

A BOLINGBROKE HOSPITAL INQUEST

At an inquest held by Mr. Troutbeck on the body of a child [illegible] at the Bolingbroke Hospital, Wandsworth, Common, it was stated in the [illegible] the child was born at Mitcham and was brought to the hospital on March 16th. It attended the out-patient department for a few days up to April 4th, except on Good Friday and Easter Holiday. A certificate of death [illegible] the mother with the statement that it was not [illegible] to take the child to a hospital. The mother [illegible] that the child was ill when it was born, and that it was [illegible] The child was [illegible] The mother [illegible] Dr. Freyberger [illegible] Dr. Freyberger [illegible] Dr. Freyberger

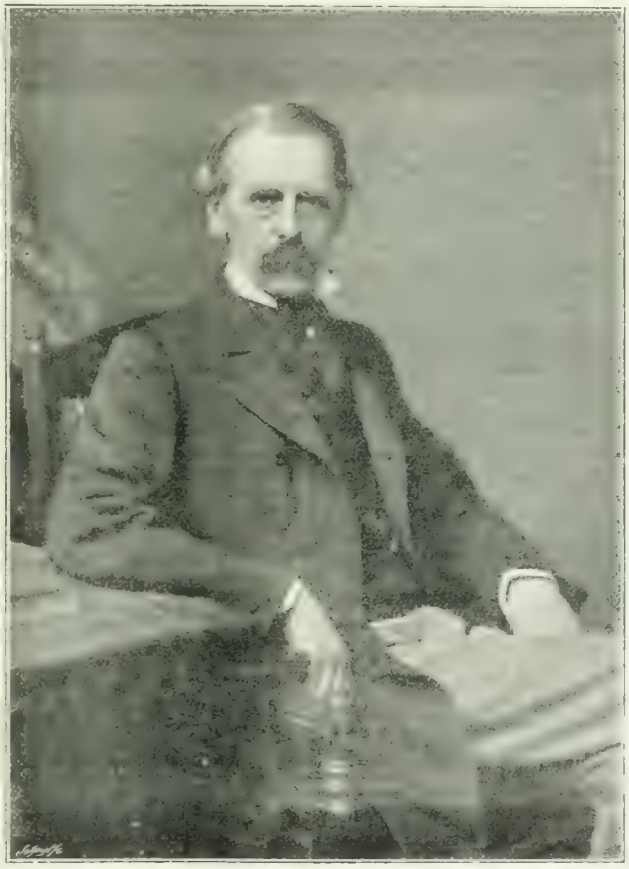
OBITUARY.

Sir HENRY THOMPSON, Bart., M.B., F.R.C.S.,

Surgeon-Extraordinary, His Majesty King of the Belgians; Consulting Surgeon, University College Hospital; Emeritus Professor of Clinical Surgery, University College, London.

Sir Henry Thompson died on April 18th after a short illness at his house in Wimpole Street. He was in his 84th year.

Henry Thompson, the son of Mr. Henry Thompson, of Framlingham, Suffolk, and of his wife, the eldest daughter of Samuel Medley, the artist, was born at Framlingham on August 6th, 1820. His father, like the members of his wife's family, was a strict Baptist, and objected to his son entering the medical profession on the ground that, according to the old saying, many doctors became infidels. Owing to the delicacy of his health young Thompson was educated by private tutors, and, eventually obtaining his father's consent, entered as a medical student at University College in 1848, and, therefore, somewhat late in life. He, however, quickly made up for lost time—if, indeed, the time was lost. He obtained the Gold Medal in Anatomy at the Intermediate Examination in Medicine of the University of London in 1849, and that in Surgery in 1851, being second in the Honours Class on both occasions. He became F.R.C.S.Eng. by examination in 1853, but had already, by winning the Jacksonian prize in the previous year for an essay on the pathology and treatment of stricture of the urethra, shown the bent of his mind. He had married Miss Kate Loder the pianist in 1851, and had commenced practice in Wimpole Street. For a time he was Visiting Surgeon to the Marylebone Infirmary, and in 1856 was appointed Assistant Surgeon to University College Hospital. He continued to study the subject of diseases of the male urinary organs, and in 1860 again won the Jacksonian prize with an essay on the healthy and morbid anatomy of the prostate: this essay was published and formed the basis of his subsequent works on diseases of the prostate, which were two in number: *Enlarged Prostate, its Pathology and Treatment, with Observations on the Relation of this Complaint to Stone in the Bladder*, the fourth edition of which appeared in 1885, and *Diseases of the Prostate*, of which a sixth edition appeared in 1886. At this period the minds of surgeons were very much occupied with the question of the best treatment of stone in the bladder. Lateral lithotomy had become established as the operation of election, but the demonstration in 1824 by Civiale of Paris that a stone could be crushed in the bladder and its fragments removed without any cutting operation, had considerably impressed surgical opinion, and Keith of Aberdeen had already begun to perform the crushing operation. Thompson visited Paris to study the methods of Civiale and also witnessed the practice of Keith, and finally himself began to perform lithotrity at University College Hospital and in private practice. The history of the case of Leopold I., King of the Belgians, did much to establish the operation and the fame of Thompson as one of the leading men in his speciality. The King, who was an uncle of Queen Victoria and greatly esteemed by her, was staying at Buckingham Palace about Christmas, 1862, and consulted Sir Benjamin Brodie, who diagnosed a stone in the bladder, and being asked who should operate replied "Before all men, Civiale of Paris." Mr. Henry Thompson, being asked the same question, made the same reply, having studied with Civiale in Paris. The great French surgeon was accordingly summoned to the King, and many sittings for lithotrity were held, but some fragments still remained in the bladder. The King was afterwards attended by Langenbeck, without obtaining complete relief, and finally asked Queen Victoria to recommend an English surgeon. Mr. Henry Thompson was selected, and eventually obtained the King's consent to submit to a further operation. At the second sitting the bladder was completely emptied, and the distinguished patient entirely recovered from his affection. After his return to London, Thompson wrote to Civiale that he had really completed King Leopold's cure by the hands of his grateful pupil, who had always worked solely on the principle and by the art which Civiale had been at so much pains to impart to him. The Parisian surgeon, who was much pleased with the letter, returned the compliment by recommending to the Académie de Médecine Thompson's work on the prostate for the Prix d'Argenteuil given for the best work on urinary surgery; the Académie crowned the work and awarded the third part of the triennial fund to Thompson. We may add here that Thompson was appointed Surgeon Extraordinary to King Leopold I, an office continued by the present King, and that he was made an Officer of the Order of Leopold in 1864 and a Commander in 1876. In 1867 he received the honour of knighthood from the English Crown, and then and for many years afterwards carried on a large operating and consulting practice in his speciality. Another distinguished patient upon whom Sir Henry Thompson operated was Napoleon III; although the Emperor had for several years suffered from symptoms of stone in the bladder, and had been advised by his surgeons in Paris to submit to exploration, and, if necessary, to operation, it was not until July, 1872 more than a year after his arrival in this country that he consulted Thompson. Even then he refused to permit exploration, and it was not until December that political reasons, which were supposed to have justified the delay, appeared to render operation advisable; although Sir Henry Thompson gave a most unfavourable prognosis, he consented to perform lithotrity in three sittings. The first took place on January 2nd, 1873, and the second on January 5th. It had been intended to complete the removal of fragments on January 9th, but the Emperor, who was suffering from extensive disease of the kidneys, with dilatation and much destruction of tissue, succumbed on that morning.



When the eminent American surgeon Bigelow introduced the principle of completing the removal of all the fragments of a crushed stone from the bladder at one sitting, Sir Henry Thompson quickly put it to the test, and his attitude may perhaps best be shown by the following quotation from a paper which he read at the annual meeting of the British Medical Association at Cambridge in 1880:

> The enunciation of this axiom threw light on a point of practice which I had myself long ago observed, and on several occasions had called special attention to. It is this, that when cystitis occurs in the course of lithotrity the most advantageous way of dealing with it is, not to treat the patient by the usual remedies for cystitis, but without delay to crush the remainder of the stone, and remove the whole by aspiration at once. This proceeding I have found very successful, and had strongly urged its adoption both at home and abroad long before

Professor Esmarch's proposal was announced. I name this merely to show how completely it was at variance with his view from my antecedent experience, and not with the least idea of laying the slightest claim to forestall my [illegible]. It was this conviction of mine, however, relative to the [illegible] arguments, which prepared me at once to believe that the principle of Esmarch's proposal would almost certainly prove to be well grounded. Hence I instantly closed with it, and tested it without delay.

The opinion Sir Henry Thompson expressed at this time as to the value and general applicability of the operation at a single sitting was guarded, but we believe that he eventually came to use it very extensively. He also gave attention to suprapubic lithotomy, and wrote a book upon the subject in 1885.

In 1862 he was appointed Surgeon to University College Hospital, but even in hospital practice confined himself almost exclusively to his speciality, and many old students will remember the small and inconvenient wards of which he had charge, although he continued to see out-patients down to 1872. In 1877 he finally retired from the active staff, and in 1877 was made Consulting Surgeon and Emeritus Professor of Clinical Surgery.

He had been appointed Professor of Clinical Surgery in 1866. His clinical teaching was of value chiefly to those students who followed his practice closely, although from time to time he gave stated lectures characterized by much perspicacity and marked by a certain dogmatism which undoubtedly impressed his opinions indelibly on the minds of his hearers. He delivered at least one course of three or four lectures after his retirement from the active staff. As a private practitioner Sir Henry Thompson was most successful; his confidence in his own resources combined with his dexterity of hand and lightness of touch secured him probably the largest practice ever enjoyed by a surgeon in London engaged in the speciality which he followed. No man probably more thoroughly enjoyed his success. He enjoyed not only its solid reward, though by no means indifferent to it, but also, and perhaps more, the social position which he owed partly to his eminence as a surgeon and partly to his artistic associations. He was himself an artist of no mean talent, and early in life began to find one of his chief recreations in sketching; a little later he studied seriously under Elmore and Alma Tadema, and his first picture was exhibited at the Royal Academy in 1865; he exhibited again in 1870, annually from 1872 to 1878, and again in the years 1881, 1883, and 1885. Two of these pictures were afterwards exhibited in the Paris Salon, to which he contributed also a landscape in 1881. The pictures which he exhibited were all either of still life or landscapes; he also made many excellent portrait sketches, and a rapid sketch in pencil of Thackeray has been reproduced by Mrs. Ritchie in her *Edition de Luxe* of her father's writings. Sir Henry Thompson was a keen collector of Chinese and Japanese china, but, characteristically did not begin to purchase on a large scale until after he had made a most minute study of the subject. In 1878 an elaborate catalogue of a large collection was published, illustrated by etchings from six drawings by Sir Henry and twenty by Mr. James Whistler. It was Sir Henry Thompson's habit to take a long holiday on the Continent every year, and he was generally accompanied by his daughter. They spent their time largely in visiting picture galleries, and eventually Miss Thompson, with the assistance of her father, prepared an elaborate *Handbook to the Public Picture Galleries of Europe*. The first edition was published in 1877, and there have been several other later issues. The volume contains a complete list of all pictures whose works are on public view, of the [illegible] where they are to be seen, notes on the distinguishing style of each painter with references to the most characteristic pictures, and a list of the pictures in each [illegible].

[illegible] had a larger acquaintance [illegible] in London. He entertained frequently, and especially the art of dining well was a study with him. It was a dinner at first at eight o'clock, then at half-past eight, and eventually at eight o'clock. These dinners were continued [illegible] a fortnight or three weeks [illegible] down to within a month or two of his death. It is safe to say that few men who attained to eminence during the last thirty years in literature, art, or science failed to take part at least occasionally in these dinners, which for a number of years were enjoyable hours would be spent. The host took great pains to ensure variety, and with many men of different callings met together on this occasion it could rarely be dull. He could point out the very seat at the round table which had been occupied by Thackeray or Dickens, and in later years had welcomed all the chief writers of the younger generation. Sir Henry Thompson himself made two incursions into the field of fiction; the first, *Charlie Kingston's Aunt*, published anonymously in 1885, was a rather lugubrious story, the opening scene of which was laid in the dissecting room; nevertheless the book was a success, and in the following year was followed by another story called *All But*, which was published with the author's name and portrait.

All through his life Sir Henry Thompson showed a keen interest in questions of the day, although he never took any part in politics. Soon after ceasing his active association with University College Hospital he took a house at East Molesey, and at first grew tomatoes and bred chickens for the market; later these pursuits were abandoned for astronomy, and he established a well-equipped observatory with a skilled assistant; although this was not long maintained he retained his interest in astronomy, and in 1897 gave a 30-in. reflecting telescope to the Greenwich Observatory, having previously presented the instruments used in his private observatory. He does not appear to have cared for sport, but when the tricycle first came in he took it up keenly; in later years it had to give way to the motor car, upon the selection and management of which he wrote a short book only three or four years ago.

The large part which he played in introducing the practice of cremation into this country is too well known to our readers to render it necessary to enter into the matter at length here. The Cremation Society—the first of its kind in Europe—was founded at a meeting held at his house in April, 1874. A crematorium was built at Woking, but its use was forbidden by the then Home Secretary. It was not until 1884 that Sir James Stephen decided, in a case brought before him by the Government, that the practice of cremation was not illegal if effected without a nuisance. The first cremation at the Society's crematorium at Woking took place in March, 1885. The practice has since grown very considerably, owing largely to the persistent advocacy of Sir Henry Thompson, who wrote a small book on the history and practice of modern cremation which reached a third edition in 1889. Through his interest in cremation he was led to study the system of death certification and strongly represented its imperfections to Mr. Asquith then Home Secretary in 1893. As our readers know too well, the imperfections of the system have not yet been remedied. He was President of the Cremation Society, and it was largely through his efforts that a new crematorium has been erected by a private company at Golders Green, near Hampstead Heath, and the rules of the Cremation Society designed to guard against crime, more effectually than the present law, has, we believe, been accepted for all the crematoriums established in Great Britain.

Sir Henry Thompson was created a baronet in 1899, and is succeeded in the title by his son, who is a member of the Bar. He is survived also by Lady Thompson, who has long been an invalid, and by two married daughters.

We have received the following note from one who knew Sir Henry Thompson well:

By the death of Sir Henry Thompson the profession has been robbed of one of its most distinguished ornaments. It has lost not only the pioneer in urinary surgery, but also a man whose genius and gifts rendered him an able representative of the field of art, literature, and sanitary reform. Among his more marked characteristics those, perhaps, which led to his success were his indomitable perseverance and [illegible] energy, both remained with him until the end. He was never idle, idle moments were unknown to him; he was always thinking or planning to bring to the object with which he was engrossed. Even during the wakeful moments of the night he was at his sleepless pen was ever ready to jot down any thought or expression that occurred to him, and there would frequently be a long list of [illegible] queries on the morrow as he never under any circumstances trusted to even the most trivial subject to memory. In instituting the [illegible] of any object he possessed the rare ability of making the best use of any material to hand, and if this was not entirely satisfactory he did not hesitate no matter at what cost to seek what was required. His personality and [illegible] almost invariably gained the sympathetic attention of those from whom he sought information, and rendered his task the more easy. When dealing with a new subject or question, he marvellously quickly assimilated the important points, and as rapidly formed a sound opinion.

Sir Henry rarely if ever abandoned any subject without bringing it to what he considered a successful issue, and this he accomplished by his pluck, persistence, and careful study of his subject. He was a keen observer, and no detail was too small to attract his attention.

Sir Henry was a delightful companion, and his conversation was always interesting and well expressed, dealing as it did with his varied experiences, the people he had met, the divers subjects he had studied, and invariably furnished the listener with some new idea or suggestion. He often described the exact meaning he wished to convey by some terse saying or simile, thus allowing his teaching to be carried away in a form which would never be forgotten.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon H. Meikle is placed on the retired list, April 6th. Appointed Surgeon, August 21st, 1885, he was made Staff Surgeon, August 21st, 1895, and Fleet Surgeon, August 21st, 1900.

Deputy Inspector-General W. D. Longfield has been awarded the Greenwich Hospital pension of £50 a year, vacant by the death of Deputy Inspector General L. H. J. Hayne.

The following Surgeons have been promoted to be Staff Surgeons, from the dates specified: T. T. Jeans, M.B.; J. H. Pead, M.A., M.B.; and H. S. Burniston, M.B., from May 15th, 1900; H. P. Jones and A. O. Bobardt, M.D., from November 14th, 1902; S. T. Reid, from May 15th, 1903; C. H. J. Robinson and H. Huskinson, M.B., from November 15th, 1903. All the officers cited had completed eight years' service from the time of their first appointment as Surgeons.

Voluntary Retirement of Naval Surgeons.

Ancient Mariner writes to point out that many men will probably be attracted to the Naval Medical Service by the offer in the new regulations of a gratuity of £500 to those who desire to retire at the end of four years' service. He asks, therefore, whether the right of retirement will be enjoyed by those who may be serving abroad at the end of their four years.

*** Voluntary retirement is permitted after several different periods of service and the general rules respecting it are the same in each case. They run as follows: "Voluntary retirement and withdrawal at the discretion of their Lordships will be allowed, as a rule, only when an officer is unemployed or serving at home. Under special circumstances, however, it may be permitted in the case of an officer serving abroad, provided he is prepared to pay his successor's passage to relieve him if necessary. In order that arrangements may, as far as possible, be made for the relief of officers who may wish to withdraw on a gratuity, it is desirable that six months' notice of their wish should be forwarded for the consideration of their Lordships. Applications from officers to retire or withdraw, or resign their commissions, will receive every consideration, but no officer will, as a rule, be permitted to resign under three years from the date of entry." The only rules that specially apply to officers retiring after four years' service are those which concern their subsequent entry into the Naval Medical Reserve.

ROYAL NAVAL VOLUNTEER RESERVE.

William B. Betenson is appointed Surgeon to the Newhaven Company of the London Division, April 13th.

ARMY MEDICAL STAFF.

Surgeon-General Sir T. J. Gallwey, M.D., K.C.M.G., C.B., Principal Medical Officer H.M.'s Forces in India, has been granted leave out of India on private affairs for eight months.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel G. A. Hughes, M.B., D.S.O., is promoted to be Colonel, *vice* R. de la C. Corbett, M.D., D.S.O., deceased, March 25th. Colonel Hughes was appointed Surgeon, February 4th, 1877; made Surgeon-Major, February 4th, 1885; granted the rank of Lieutenant-Colonel, February 4th, 1897, and selected for increased pay, May 10th, 1903. His war record includes: The Afghan war, 1878-80 (medal); the Bechuanaland expedition, 1884-5; the Ashanti expedition, 1895 (honourably mentioned, star); and the Nile campaign in 1898, as Senior Medical Officer, 2nd British Brigade, being present at the battle of Khartoum (mentioned in dispatches, British and Egyptian medals, clasp, and appointed a Companion of the Distinguished Service Order).

Lieutenant J. H. R. Windeb, M.D., to be Captain, February 27th. He joined the department as Lieutenant, February 27th, 1901. He served during the recent war in South Africa in the operations in Cape Colony, south of the Orange River.

Lieutenant-Colonel R. C. K. Laffan retires on retired pay, April 16th. His commissions are thus dated: Surgeon, February 5th, 1881; Surgeon-Major, February 4th, 1894; and Lieutenant-Colonel, February 5th, 1901. He was in the Egyptian war of 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star); and in the Soudan campaign in 1884-5 (clasp). He was nominated to the third class of the order of the Osmanieh for his services as Inspector of Hospitals to the Egyptian Sanitary Department.

Colonel J. M. Beamish, M.D., who is serving in the Bengal Command, has assumed the duties of Principal Medical Officer, Bengal, *vice* Surgeon-General R. de la C. Corbett, deceased. Lieutenant-Colonel T. B. Moffitt will act as Principal Medical Officer, Allahabad, in place of Colonel Beamish.

The following officers are detailed for duty with transports on the homeward voyage: Lieutenant-Colonel J. Carmichael, Punjab; Major H. N. Thompson, M.B., D.S.O., Bengal; Major J. J. O'Donnell, M.B., Bengal; Captain G. B. Carter, M.B., Punjab; Lieutenant-Colonel A. O. Geoghegan, M.D., Bengal; Major J. C. Weir, M.B., Punjab; Captain H. G. Martin, Madras; Captain J. D. G. Macpherson, M.B., Bengal; Lieutenant-Colonel T. F. MacNeece, Punjab; Major R. W. Wright, Bengal; Major J. W. Bullen, M.D., Madras; Captain F. F. Cleaver, M.B., Bombay.

Captain G. Dansey-Browning is seconded on service with the Egyptian Army, March 31st.

Lieutenant-Colonel John Watson, M.D., died at Canterbury on March 15th, aged 46. His commissions were dated Surgeon, March 6th, 1878; Surgeon-Major, March 6th, 1892, and Lieutenant-Colonel, March 7th, 1900. He served with the Chitral Relief Force in 1895, receiving a medal with clasp.

Exchanges.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 8s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A Lieutenant-Colonel due for foreign service about August would like to exchange to remain one and a-half to two years at home. Apply, stating terms, to "B. A.," care of William Hewat, Esq., 86, Northumberland Road, Dublin.

ARMY MEDICAL RESERVE.

Surgeon-Captain W. Curtis, 1st Volunteer Battalion the Prince of Wales's Volunteers (South Lancashire Regiment), to be Surgeon-Captain, April 16th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,... births and 5,142 deaths were registered during the week ending Saturday last, April 16th. The annual rate of mortality in these towns, which had been 18.7, 18.7, and 18.3 per 1,000 in the three preceding weeks, further declined last week to 17.6 per 1,000. The rates in the several towns ranged from 8.2 in Reading, 9.7 in Southampton, 9.8 in Tynemouth, 10.4 in Walthamstow, 10.6 in Hanley, 10.9 in Hornsey, 11.0 in Hastings, and 11.5 in York to 22.1 in Birmingham, 22.3 in Smethwick, 22.9 in Newcastle-on-Tyne, 23.2 in Wigan, 23.9 in Norwich, 24.0 in Great Yarmouth, 24.7 in Aston Manor, and 25.2 in Halifax. In London the rate of mortality was 16.7 per 1,000, while it averaged 17.0 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.9 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.3 in Birmingham, 4 in Salford, 4.5 in Handsworth (Staffs.) and in Gateshead, 4.1 in St. Helens, 4.2 in Bootle, 4.8 in Wolverhampton, 5.4 in Norwich, and 5.8 in Aston Manor. Measles caused a death-rate of 1.3 in Aston Manor, 1.4 in Salford, 1.6 in Hull, 1.9 in Leeds, 2.1 in Burnley, 2.3 in Tottenham, 2.9 in St. Helens, and 5.0 in Norwich; and whooping-cough of 1.7 in Wallasey, 1.9 in Hornsey, 2.1 in Newcastle-upon-Tyne, 2.3 in Walsall, 2.4 in Birmingham, 2.6 in Handsworth (Staffs.), 3.2 in Aston Manor, 3.4 in Bootle, and 4.2 in Wolverhampton. The mortality from scarlet-fever, from diphtheria, from enteric fever, and from diarrhœa showed no marked excess in any of the large towns. Three fatal cases of small-pox were registered in Gateshead, 1 in Bristol, 1 in Leicester, and 1 in Tynemouth, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 144 small-pox patients on Saturday last, the 16th inst., against 110, 126, and 134 on the three preceding Saturdays; 37 new cases were admitted during the week, against 54, 42, and 25 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,585, 1,570, and 1,505 in the three preceding weeks, had risen again to 1,5... at the end of last week; 17... new cases were admitted during the week, against 145, 153, and 141 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 16th, 1,062 births and 690 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 22.3, 20.6, and 20.3 per 1,000 in the three preceding weeks, increased again last week to 20.7 per 1,000, and was ... per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.8 in Perth and 15.0 in Greenock to 22.3 in Paisley and 26.5 in Dundee. The death-rate from the principal infectious diseases averaged 2.0 per 1,000, the highest rates being recorded in Dundee and Greenock. The 3... deaths registered in Glasgow included 3 which were referred to small-pox, 12 to measles, 7 to whooping-cough, and ... to diarrhœa. Four fatal cases of whooping-cough, ... of measles, and 2 of diarrhœa were recorded in Dundee, ... of whooping-cough and ... of diarrhœa in Edinburgh; ... of measles in Greenock, and ... of whooping-cough in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March ... 7th, 71 births and 471 deaths were registered in six of the principal Irish towns, against 471 births and 465 deaths in the preceding period. The mean annual death-rate of these towns, which had been 23.3, 25.... and 24.7 per 1,000 in the three preceding weeks, fell to 24.5 per 1,000 in the week under notice, this figure being 5.8 per 1,000 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 11.7 in Waterford and 2... in Limerick to ... in Londonderry and ... in Belfast. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged ... per 1,000, or ... higher than during the preceding week, the highest figure, 4.1, being reached in Limerick, while Waterford registered no deaths under this heading at all.

[illegible] wh[illegible]oping cough, a[illegible]or [illegible] the [illegible] of [illegible] During [illegible] ending April [illegible] births and [illegible] deaths were [illegible] the principal [illegible] [illegible] births and [illegible] deaths in the [illegible] The [illegible] and [illegible] death-rate of these [illegible] and [illegible] per [illegible] the three preceding weeks [illegible] per [illegible] the week under notice, this figure being [illegible] [illegible] the mean annual rate in the seventy-six English towns [illegible] corresponding period. The figures ranged from [illegible] in London [illegible] to [illegible] in Liverpool and [illegible] in Cork. The [illegible] death-rate in the principal Irish towns from disease during the same period [illegible] [illegible] averaged [illegible] per [illegible] per 1000 over the [illegible] During the previous week, the highest figure, [illegible], being reached in [illegible], while Waterford and Londonderry reported no deaths under [illegible] heading. [illegible] the preceding week, [illegible] the death-rate was [illegible] due to [illegible] fever. There [illegible] no deaths from it occurred except in Dublin, Belfast, and Cork. From measles [illegible] deaths occurred in Dublin and in Belfast from scarlet fever [illegible] in Dublin, and from enteric [illegible] in Dublin and [illegible] in Cork. [illegible] small-pox, typhus, diphtheria, and simple continued fever to [illegible] were registered [illegible]. Diarrhœal diseases were [illegible] above [illegible] deaths altogether.

POWERS OF RELIEVING OFFICERS IN REFERENCE TO THE GRANTING OF ORDERS FOR MEDICAL ATTENDANCE.

SWEARER asks (1) whether a relieving officer has power to grant orders for medical cases and to recover the fee from the patient, and what charge would have to be [illegible] patient, (2) whether anything can be done with a relieving officer who professes himself ready to give orders to every applicant, rich or poor, on the ground that he is thereby protecting himself from a possible charge of manslaughter.

*** (1) A relieving officer on granting an order for midwifery can give notice to the applicant that such order is granted on loan, and then, if authorised by the guardians, he can take legal measures to recover the cost of the case, but before obtaining a legal order for repayment of loan it would be necessary for him to prove to the satisfaction of the magistrate before whom the case was brought that the defendant had the means to pay the debt made on him. (2) A relieving officer is bound to exercise a judicial discretion in granting or refusing orders for medical attendance, and under no circumstances ought he to grant an order except on the ground of poverty of the patient. Should he be so indiscreet as to provide medical attendance for any rich person at the expense of the ratepayers on the ground of protecting himself, the guardians on [illegible] being reported to them, ought at once to stop the practice.

FEE FOR REVACCINATION DISAPPROVED BY AUDITOR OF UNION.

PUBLICAN VACCINATOR wishes to ask whether an auditor of union accounts can properly disallow an objection to the vaccination of the inmates of workhouses on which vaccination was done two years ago on the ground that he (the auditor) could not see the necessity for the operation.

*** We are not aware of any regulation which enables an auditor of Poor-law accounts to object to payment for such a case of vaccination as is described by our correspondent. We are, moreover, quite at a loss to understand how this question crops up now two years after the event. The matter should really have been settled a long time back.

[illegible] OF POOR-LAW MEDICAL OFFICER'S DEPUTY.

[illegible] whether [illegible] for the deputy of a Poor-law medical officer [illegible] or whether the order of the appointment is [illegible].

*** Every Poor-law medical officer has on appointment, or soon after, [illegible] deputy. He will be prepared to provide medical attendance [illegible] of medical officer, whenever properly [illegible] of the incumbent's absence or illness.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

[illegible] EXAMINATION FOR THE DEGREES OF B.M. AND B.Ch. The Board of Medical Studies gives notice that on and after [illegible] the regulations under the head [illegible] Medicine are [illegible] to mean that candidates [illegible] [illegible] Natural [illegible] and [illegible] Physiology [illegible] Hygiene [illegible] of three months, [illegible] [illegible] Pharmacology [illegible] Pathology [illegible] Medicine [illegible] Surgery [illegible] Midwifery [illegible] Medical [illegible] Forensic Medicine [illegible] Public Health [illegible] Ophthalmology [illegible] Diseases of Women [illegible] Diseases of Children [illegible] Diseases of the Skin [illegible] Diseases of the Nervous System [illegible] Insanity [illegible] Anæsthetics [illegible] Dental Surgery [illegible] Operative Surgery [illegible] Clinical Medicine [illegible] Clinical Surgery [illegible] Clinical Midwif

UNIVERSITY OF ABERDEEN.

THE following candidates have passed examinations as under:

First Professional Examination for the Degrees of M.B., Ch.B.—E. E. Allaway, J. Anderson, D. W. Bruce, A. L. E. Coleman, W. Y. Davidson, T. Donaldson, N. A. Duncan, J. W. Littlejohn, W. T. Mackintosh, D. J. M'Kinnon, J. M. Matheson, H. Middleton, S. Parrona, W. R. Stephen, A. Stewart, W. L. Stewart.

Part of First Professional Examination—W. S. Argus, G. Davidson, J. Geddes, H. Hargreaves, J. B. M'Allan, W. G. M'Donald, Elizabeth M'Hardy, Elizabeth M. M'Laggan, A. J. Shinnie, A. B. Traill, M. J. Williamson, C. C. Wood.

Diploma in Public Health—E. J. Bruce, M.B., Ch.B.Aberd.; J. Macdonald, M.B., C.M.Edin.; G. Mitchell, M.B., Ch.B., Aberd.; W. R. Pirie, M.B., Ch.B.Aberd., C. A. Survong, M.A., M.B., Ch.B., Aberd., A. Watt, M.B., Ch.B.Aberd.

University Gold Medals in the Faculty of Medicine have been awarded as follows: Fite Jamieson Memorial Medal in Anatomy and Lizar Medal in Anatomy, W. A. H. McKerrow; Keith Medal in Systematic and Clinical Surgery, William Low; Shepherd Medal in Systematic and Practical Surgery and Dr. James Anderson Medal and Prize in Clinical Medicine, James Clark.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, resident. Salary, £80 per annum.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL.—1 Honorary Consulting Surgeon. 2 Honorary Surgeons.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—House-Surgeon. Salary, £50 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Pathologist. Salary about £[illegible] per annum, and fees.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road.—Clinical Assistant.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—1 House-Physician, 2 House-Surgeon. Both resident. Salary, £50 per annum.

FARRINGDON GENERAL DISPENSARY, 17, Bartlett's Buildings, E.C.—Honorary Physician.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon, resident. Salary, £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Medical Registrar. Honorarium, 50 guineas a year.

LEICESTER INFIRMARY.—House-Physician, resident. Salary, £100 per annum.

LIVERPOOL: MILL ROAD INFIRMARY.—Assistant Medical Officer; resident. Salary, £120 per annum.

LIVERPOOL STANLEY HOSPITAL.—Second House-Surgeon; resident. Salary, £80 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION, ETC., W.—Assistant Physician.

NORFOLK AND NORWICH HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium, £25.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Physician; resident. Salary, £80 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon, resident. Salary, £80 per annum.

OXFORD: RADCLIFFE INFIRMARY.—Surgeon.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—1 House-Physician; 2 House-Surgeon. Both resident. Salaries at the rate of £50 per annum each.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road.—1) Third House Surgeon; resident. Salary, £25 per annum. 2) Refraction Assistant. Salary, £25 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

ST. HELENS COUNTY BOROUGH.—Medical Officer of Health. Salary, £450 per annum, rising to £525.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—1 House-Physician, resident. Salary, £25 per annum. 2 Junior Resident Medical Officer. Salary, £40 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

WESTMINSTER GENERAL DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

ADAM, James Wilson, M.B., C.M.Glasg., Physician to Aberdeen Dispensary, *vice* Wm. Findlay, M.D., M.A., deceased.

BROOKES, F. W., M.R.C.S., L.S.A., District Medical Officer of the Parish of Lambeth.

CARNEGIE, A. E., M.B., B.C.Cantab., Certifying Factory Surgeon for the Bruton District, County Somerset.

COWIE, James M., M.D., M.Ch., D.P.H., Medical Officer of Health and Public Analyst for the County Borough of Burton-upon-Trent, *vice* Harold Coates, M.D., resigned.

HALL, A. N., M.B., Ch.B.Aberd., District Medical Officer of the Skipton Union.

KIRWAN, James St.L., M.B., B.Ch., B.U.I., Resident Medical Superintendent of the Balmashoe District Lunatic Asylum.

LARKIN, F. G., L.R.C.P.Edin., M.R.C.S.Eng., Medical Officer of the Grove Park Workhouse of the Greenwich Union.

LLOYD, William, F.R.C.S., Surgeon in charge of the Nose, Ear and Throat Department, St. Pancras and Great Northern Dispensary, W.C.

MOIR, D. R., M.A., M.B.Aberd., Visiting Surgeon to the Holland and Scilly Isles Dispensary.

MOORE, A. E., L.R.C.P. and S., District Medical Officer of the Towcester Union.

PAGE, H. M., M.D.Brux., M.R.C.S.Eng., D.P.H., Medical Officer of Health for the Borough of Yeovil.

PENTREATH, C. H. R., B.A., M.B., B.C.Cantab., Resident Medical Superintendent of the Government Sanatorium for Consumption, Cambridge, New Zealand.

PRITCHARD, W. L., M.B., C.M.Edin., Certifying Factory Surgeon for the Brynmawr District, County Brecon.

STORRS, F. G., M.R.C.S., L.R.C.P., D.P.H., Medical Officer of Health for the Overton Rural District.

WALL, Cecil, M.A., M.D.Oxon., M.R.C.P.Lond., Honorary Physician to the Poplar Hospital, *vice* Lewis Smith, M.D.Lond., M.R.C.P.Lond., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. W. J. Tyson: Some Points in the Prevention and Early Treatment of Disease. Dr. S. Sunderland and Mr. H. J. Curtis: A Case of Tuberculous Pertyphlitis, with unusual features.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Noel D. Bardswell and Mr. John E. Chapman: The Economic Value of the Sanatorium Treatment for the Working Classes, based upon after histories.

THURSDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 4.30 p.m.

SATURDAY.

Sanitary Institute, Parkes Museum, Margaret Street, W., 11 a.m., Discussion on Food and Meat Inspection, to be opened by Colonel J. Lane Notter, R.A.M.C., and Mr. W. Hunting.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear. Lectures will be delivered at 5.15 p.m. as follows: Monday, Gall Stones and their Surgical Treatment. Tuesday, Personal Hygiene. Thursday, The Principles of Abdominal Diagnosis.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Demonstration of Cases of Ophthalmic Interest.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

ANDERSON—ENTWISLE.—On March 4th at Wellington, New Zealand, Dr. John William Anderson, of Wanganui, only son of the late John William Anderson, of Christchurch, to Ada Ellen Wastall Entwisle, eldest daughter of the late William, and Ellen Shuttleworth, of Pressbury Hall and widow of George Ernest Entwisle, Solicitor, of Manchester.

ROBINSON—HENDERSON.—At St. Mary's Waterloo, Liverpool, on April 14th, by the Rev. S. J. Sykes, M.A., Vicar, assisted by the Rev. S. E. Dymott, M.A., Vicar of St. Bridget's, Wavertree, Liverpool, George Burton Robinson, M.B., M.R.C.S., to Annie Savile, youngest daughter of the late William Gavin Henderson, Liverpool Union Bank, and of Mrs. Henderson, 15, Beach Lawn, Waterloo, Liverpool.

DEATHS.

CHAMBERS.—On April 13th, at his residence, The Lodge, Bucklurst Hill, Essex, and formerly of 289, Hackney Road, John Chambers, M.R.C.S., L.S.A., in his 90th year. Friends please accept this the only intimation.

HEPBURN.—On April 13th, at Coalston, Dalkeith, William Alexander Hepburn, M.D., F.F.P.S.G., aged 56.

KENNEDY.—On April 13th, suddenly, at 113, Balaam Street, Plaistow, E., Angus Edmund Blyth Stewart, the dearly beloved husband of Margaret Kennedy, aged 3 months.

MORICE.—At Greymouth, New Zealand, on February 20th, 1904, Charles Lloyd Morice, M.R.C.S., L.S.A., aged 70.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2 Agar Street, Strand, W.C., London. All communications, letters, advertisements, and the delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring REPRINTS of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish to have letters or communications replied to should authenticate them with their names, or initials, or some distinguishing mark or address.

CORRESPONDENTS desiring answers are requested to look at the NOTICES TO CORRESPONDENTS in the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the EDITOR, and not to any other address.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is Editorial, London. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is Subscribe, London.

TELEPHONE: National EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630 Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M. asks to be recommended a good preventive for midge bites.

PEM asks for advice in the treatment of a corn on the foot, which has been more or less suppurating for two or three months. The patient is a lady aged 50, otherwise in good health.

"LOCUM TENENS" WORK IN IRISH DISPENSARIES.

IRISHMAN, writing on the subject of Irish dispensing practice, (1) expresses the opinion that in most cases 3 guineas should be enough for a *locum tenens* if the latter gets the benefit of private practice, and asks the following questions: (2) if the doctor on sick or other leave gets the benefit of the private practice, why should he not himself pay the *locum tenens* something in addition; (3) who pays for the keep of the *locum tenens*? (4) is it right for the guardians to pay for a *locum tenens* for looking after private practice, as he "takes it that 5 guineas covers the whole work?"

*** (1) We suggest that "Irishman" should study the Report upon the whole question of Poor-Law practice in Ireland published as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 26th. (2) As there is little or no paying private practice in the majority of Irish Poor-law practices, no one "gets the benefit" of it. (3) The *locum tenens* pays for his own keep. (4) The guardians do not pay any one for private practice, which, as far as payment is concerned, is practically non-existent in most Poor-law districts.

ANAESTHESIA BY THE RECTUM?

T. H. MITCHELL, L.R.C.P. and S. Edin. (Ambleside) writes: Would chloroform vapour under low pressure produce general anaesthesia if administered by the bowel? If so, the manifold advantages of rectal anaesthesia in operations about the mouth, etc., are too palpable to require mentioning. Spasm of the glottis—a not uncommon cause of death—would be prevented, and the dangers of impeded respiration from faulty position could be avoided. In cases of gut perforation dilatation of bowel by chloroform vapour under low pressure seems desirable: (1) For its antiseptic effect, (2) its distinctive odour would readily lead to detection of hole, (3) its anaesthetic effect. It would be worth trying in cases of ankylostomum and other worms difficult to get rid of.

*** As far as we know chloroform has never been given by the rectum. It seems more than likely that the vapour would condense and cause very painful proctitis, as it is a very powerful irritant unless greatly diluted. Ether has, of course, been extensively used in this way, and reference to Dudley Buxton's *Anaesthetics*, p. 115, explains the methods and dangers. Ether would, no doubt, answer some of the purposes our correspondent requires, and would, we think, be less likely to produce local irritation.

WORKS ON ELECTRO-THERAPEUTICS.

C. L. asks to be referred to a small work on electricity containing special reference to the methods of its application and the conditions for which it is advised, which would be of use to a general practitioner with little or no knowledge of the subject.

*** C. L. might consult *Medical Electricity*, by H. Lewis Jones, M.D. Third edition (London: H. K. Lewis, 1902, 10s. 6d.); *Therapeutic Electricity*, by W. S. Hedley, M.D. Third edition (London: J. and A. Churchill, 1902, 8s. 6d.), or *Practical Medical Electricity*, by Dawson Turner, M.D. Third edition (London; Baillière, Tindall, and Cox, 1902, 7s. 6d.

AUTOMOBILES IN INDIA.

JUNIOR I.M.S., who is anxious to buy a two seated petrol motor for use in India, asks for the following information respecting it: (1) Its minimum initial cost, (2) the expense of up-keep; (3) whether in Northern India with frequent transfers a car would be preferable to keeping a carriage and horse, (4) the names of firms.

*** As regards questions 1, 2, and 4, we would refer our correspondent to the detailed articles in which this question was treated as regards England in the BRITISH MEDICAL JOURNAL of January 16th and 23rd, 1904. As regards India we have no special information. The minimum initial cost of a car in England is £150; the cost of up-keep and of working expenses is somewhat greater than that of using a single horse and carriage in England. As regards 3, we should imagine that in many places in India difficulty would be experienced in getting repairs effected, that the expense of keeping the car would be relatively very much greater than that of a carriage and horse in India, and that, in view of the expense involved by transfers, a car would be an undesirable possession in India to any one who has to study ways and means.

ANSWERS.

SEVERAL correspondents who have omitted to verify their communications by their names are reminded that no notice can be taken of anonymous letters.

ENQUIRERS are recommended to consult the *South African Medical Record*, copies of which can be seen in the library of the Association.

J. B. L. M. Lucas Champion here has described his method of treating fractures in the *Tendances . . . Fractures par la Manoeuvre et le Mode d'action* (Paris: Bureaux de Cie, 1895, Fr. 1.25). A less thorough mode of application, as practised by the country is discussed by Sir William Bennett in an address on *Bone Manipulation*, given at the annual meeting of the British Medical Association at Norwich, in 1902, published in the BRITISH MEDICAL JOURNAL of October 4th, 1902, p. 1007, and republished in book form by Longmans, Green, and Co. (1902, 4s. 6d., and also in two clinical lectures on *Bone Manipulation* (London: Longmans, Green, and Co., 1902).

MORNING HEADACHE.

P. M. [illegible] case would probably be cured by a restricted diet of [illegible] at most two meals. The same treatment is advisable for the [illegible].

FEES FOR EXAMINATION UNDER THE WORKMEN'S COMPENSATION ACT.

C. H. [illegible] according to the nature of the case. One of the [illegible] pays a fee of [illegible] for examinations made at the [illegible] and [illegible] a day. The amount involved is often small, and the report very short and concise, and as the same [illegible] paid for a second visit if the report [illegible] the injured person does [illegible] work [illegible] the first report, this fee [illegible] be equitable [illegible] examiner has to report upon all [illegible] examination [illegible] a fee [illegible] proportionate [illegible] the patient's house which involves [illegible] attendance may also be taken [illegible] appointment from the [illegible] and when [illegible] a special examination and report, [illegible] fee [illegible].

LETTERS, NOTES, Etc.

A LAW [illegible] CRUELTY.

FOR ATTEMPTED [illegible] (Attempted) [illegible] knowing case [illegible] [illegible] [illegible]

An Address

ON

TRAUMA IN RELATION TO DISEASE OF THE NERVOUS SYSTEM.

Presidential Address to the Manchester Medical Society.

By JUDSON S. BURY, M.D.Lond., B.Sc.Vict., F.R.C.P.,
Physician, Manchester Royal Infirmary; Lecturer on Neurology, Victoria University.

It is not an uncommon thing for patients who suffer from symptoms indicating serious disease of the nervous system to attribute the onset of their illness to some antecedent external injury. Thus patients who suffer from fits, from mental incapacity, or from some form of paralysis may state that these symptoms followed an injury to the head, to the back, or to one of the limbs. They assure the doctor that they were quite well before the accident, and that the fits, the mental incapacity, or the paralysis began some days, weeks, or months after the accident. Unless the injury has been severe, and unless a very direct connexion can be traced between the accident and the symptoms of the nervous disorder, the doctor in his superior wisdom is apt to make light, at least in his own mind, of the traumatic influence, and prefers to regard the apparent close relation between the two events—namely, external violence and nervous disease—as a coincidence. For, as a rule, he finds it impossible to trace any pathological sequence. His scientific training has taught him to beware of the dangerous doctrine *post hoc ergo propter hoc*, and for surer footing he falls back on the well-worn rock of inherited predisposition to disease of the nervous system, or to the modern favourite hypothesis that unknown microbes have entered the body, where they have manufactured toxins which have exerted a deleterious influence on certain parts of the nervous system, the selection of the part attacked varying partly with the nature of the toxin and partly with inherited weakness of structure. Such hypotheses appear to him the most likely explanation of the development of lesions which underlie well-marked types of brain and cord disease.

In many cases the views of our imaginary doctor are doubtless correct, either in whole or in part. Nevertheless, there are reasons for believing that trauma, apart from fracture or disease of bone, may initiate changes in nerve tissue which progress and lead to symptoms of permanent serious disease. At any rate, with our present ignorance regarding the etiology of disease, it behoves us to keep our minds open and prepared to admit the possible influence of any important antecedent to the onset of symptoms indicating bodily disease.

With these considerations in mind, it occurred to me that it would be profitable to consider to what extent trauma might be regarded as an exciting cause of serious nervous disease. At the outset it is desirable to indicate the limitations of my inquiry, and for this no single heading is quite appropriate. Thus the word trauma implies any external violence producing bodily injury. Now for my present purpose a term implying a narrower range of inquiry is needed. Concussion in the sense of a violent shock or shaking is more to the purpose, but I wish also to speak of the effects of injuries to the peripheral nerves. My purpose, in fact, is to consider briefly some of the effects of concussion of the brain and spinal cord apart from the results of injury or disease of their bony envelopes as well as some of the results of injury to the peripheral nerves.

Concussion of the Brain.

In surgical works this heading is used for a definite clinical condition which is characterized by a more or less complete suspension of the functions of the brain. I propose to use it in a sense which is wider and in accordance with its original meaning—namely, a violent shaking or agitation—and to consider some of the results that may follow a shaking or concussion of the intracranial contents as produced by a blow or a fall on the head.

The anatomical effects of such concussion are manifold; they may be slight and temporary, as when limited to a sudden displacement of the cerebro-spinal fluid with ensuing or concomitant changes in the quantity of blood in the cerebral vessels, or they may be severe and more or less permanent and demonstrable at necropsies. Such conspicuous pathological results may be classified as follows:

Haemorrhage { Meningeal { Subcranial. / Subdural
Cerebral from rupture of a vessel.

Inflammatory changes { Subcranial abscess. / Abscess in the brain. / Pachymeningitis / Meningitis { Acute. / Chronic.

Laceration of brain—associated with ecchymoses or extravasations of blood into the cerebral substance.

New growths—started by molecular changes arising in connexion with some of the above lesions or independently of them.

The symptoms and results of these various lesions are to be found in the textbooks, and it would be out of place to attempt their systematic description to-night. My object is rather to bring before you types of cases which have impressed me as of great practical importance, and especially those which illustrate some of the later effects of head injuries.

Let me begin by trying to draw a clinical outline of the sequences of cerebral concussion. A man receives a blow on the head which, without seriously damaging the skull, is severe enough to give a violent shake to the intracranial contents. He may or may not lose consciousness, and in either case he may make a complete recovery, or become the subject of symptoms which are either temporary or permanent. The individual symptoms are numerous: they comprise headache, vertigo, convulsions, mental disorders, paralysis, anaesthesia, and, indeed, almost any symptom that may result from disease of the brain occurring independently of trauma. They may, however, be arranged into definite groups constituting clinical conditions which for the most part are well recognized. Of these I would especially refer:

1. To the early group of symptoms which indicate the presence of meningeal haemorrhage.

2. To symptoms, which although they may develop soon after the accident, are not usually conspicuous until some weeks later. Under this heading we have:
   (*a*) Varieties of so-called neurasthenia.
   (*b*) Some forms of insanity.
   (*c*) Symptoms of brain tumour.

3. To symptoms associated with the condition known as "late apoplexy."

Meningeal Haemorrhage.

Of the immediate effects of head concussion none is more serious than meningeal haemorrhage.[1] In typical cases the diagnosis is easy, but we must remember how variable the clinical course may be, and how easily the condition may be overlooked—a mistake which is responsible for many deaths as well as for many cases of permanent physical and mental incapacity.

The haemorrhage may occur either between the dura mater and the bone or between the dura mater and the cerebral cortex. The former is called subcranial, the latter subdural, haemorrhage. In a typical case of subcranial haemorrhage three clinical stages may be distinguished: An initial stage in which there is partial or complete loss of consciousness as an immediate result of the blow to the head. Then consciousness is regained, and the patient passes into the second stage, known as the "lucid interval," which lasts from a few hours to a couple of days. During this period the patient may feel and appear to be pretty well, and sometimes he is able to resume his work. Sooner or later, however, according to the quantity of blood which is separating the dura mater from the bone, consciousness is again lost, and stupor deepens into fatal coma. During this third stage spasms, accompanied or followed by paralysis, may be observed on the side of the body opposite to that of the blood clot.

The subdural is distinguished from the subcranial variety of haemorrhage by the absence of a lucid interval and by the more rapid onset and development of compression symptoms, which, too, are more general in distribution. To these rules there are, however, many exceptions, and I will now describe a case of subdural haemorrhage in which not only was there a comparatively lucid interval, but one also of considerable length.

Case I.

A man aged 30 fell off a lorry, probably on to his back. He was stunned but quickly recovered, carried a hamper for about half a mile, and then walked back to his place of business another half-mile. He told his employers that he had had a fall and sprained his wrist but he made light of the accident. The same night he felt giddy, and is said to have lost consciousness for a time. During the next day he felt pretty well, but in the evening he had two fits in which the right hand worked. During the following week he felt well, and eight days after

the accident he had a chat with his manager, who did not notice anything wrong with him.

Four days later—that is, twelve days after the accident, I saw him in consultation with Dr. Hopps. The patient was lying in bed in a state of stupor, and could be roused with difficulty to answer questions. The actions of the right thumb and first finger were observed; there was no paralysis. The knee-jerks were exaggerated. The pupils were small, but reacted to light. The tongue was large and thickly coated. The urine contained a considerable quantity of albumen but no casts; there were signs of hypertrophy of the left ventricle. Dr. Hopps informed me that the man had followed his work regularly for the last seven years without any illness, and had never suffered from headache, vomiting, or dropsy. It is interesting to note that he suffered from violent headache for the first time on the seventh day after the accident.

I was unable to form a positive diagnosis. The condition of the heart and urine pointed to chronic nephritis, and suggested that the nervous symptoms might be expressions of a uraemic condition. On the other hand, the history of good health prior to the accident was a strong point in favour of the view that the stupor and twitching were the results of an intracranial lesion produced by the fall.

In order to be ready for a possible operation we decided to send him to the infirmary, where he came under my care. At this time, just a fortnight after the accident, he could not be roused to answer questions. No injury to the skull could be detected. There was ptosis greater on the left than the right side, and the left pupil was smaller than the right one. When supported he could walk a little; the left limbs were weaker than the right limbs. The knee-jerks were exaggerated. A week later he was less drowsy, could answer questions, and said he remembered falling off the lorry. Two days later—that is, three and a half weeks after the accident—he lapsed again into stupor and had a convulsive attack on the right side. I then asked Mr. Thorburn to see him. After a careful examination Mr. Thorburn decided that Bright's disease might be a sufficient explanation of the man's condition, and that he did not feel justified in opening the skull.

The patient died a few days later, and at the necropsy a large partially organized haematoma was found under the dura mater on the left side; it covered the whole motor area, and extended backwards over part of the parietal and forwards over part of the frontal lobe. The kidneys were small and granular, and the heart was hypertrophied.

In this case the presence of Bright's disease made it difficult to decide whether there was an intracranial lesion or not. Moreover, even if the existence of meningeal haemorrhage had been certainly known it was not easy to locate it, for while clonic spasms were observed on the right side paresis affected the left side of the body. It is noteworthy that although a varying degree of stupor was present during the first three weeks, actual coma did not come on till three or four days before death. Other cases might be mentioned in which the onset of compression symptoms was still longer delayed. A remarkable case in this respect was recently operated on by Mr. Collier.

CASE II.

A man aged [illegible] was crossing the street when he slipped and fell on the back of his head. He went home by tram, then fainted, and went to bed for three days. On getting up he felt so weak and dazed that he returned to bed where he remained for six weeks. During this time he suffered from severe headache. About ten months after the accident he was admitted under Dr. Steell at the infirmary. He was then suffering from paresis of the left arm and leg. After three weeks at the infirmary and then three weeks at the Cheadle Convalescent Hospital he returned home where he had an attack of unconsciousness lasting [illegible] days. He remained in a weak state of health suffering much from headache till he came under Mr. Collier's care about sixteen months after the accident. At this time he had persistent headache, and lay in a state of stupor. His memory was bad, and his speech was often indistinct. Most frequent constant twitchings of the left side of the body were observed, and the left arm was partially paralysed. About a fortnight later Mr. Collier opened the skull on the right side and removed from beneath the dura mater a [illegible] lying on the cerebral cortex. The man died the next day from collapse.

The case just related [illegible] how a long time subdural haemorrhage may exist without giving rise to decided signs of compression. In this instance the patient was credited with symptoms of irritative disturbance rather than abolition of the functions of the cortex. We may now ask, Are these cerebral symptoms due to the actual haemorrhage or to associated cortical changes, both being immediate consequents of the trauma? We know that haemorrhage may cause the paresis of an infant's brain produced by interference with the circulation during a difficult birth, although the development of the brain, and consequently the evolution of the cortical lesions which are expressed clinically, be spread over many years by convulsive attacks and a varying degree of dementia. At least this is the usually accepted pathology, but it may be [illegible] that recently evidence has been brought forward to show [illegible] as such a pathological sequence, and in support of the view that the cortical disturbance is primary, being possibly caused by some toxin, and not due to the pressure effects of haemorrhage. Certainly in the adult it is probable that a blow on the head severe enough to produce meningeal bleeding will also cause laceration, with extravasation of blood into cortical tissue, and that many symptoms, such as headache, vertigo, mental disability, are due to a bruised brain, rather than to a clot on its surface, the latter lesion being responsible for pronounced stupor or coma. Nor can there be any doubt that the former group of symptoms is frequently associated with a bruised cortex in the absence of meningeal haemorrhage. To this group of symptoms the term "neurasthenia" is often loosely applied, and on this subject I would now make a few remarks.

Traumatic Neurasthenia.

The symptoms of typical neurasthenia, whether the result of trauma, of prolonged mental strain, or of other causes, are well known, and constitute a clinical condition which as a rule is readily diagnosed. In all probability the condition depends on molecular changes in certain groups of cortical cells, changes which are closely allied to those which have been shown to follow great fatigue or prolonged experimental stimulation.

The subject of traumatic neuroses is a large one; it has been admirably studied by Page, Oppenheim, my colleague Mr. Thorburn, and many others, and to-night I will only allude to a small portion of the subject. I will omit all reference to the diagnosis of malingering, to traumatic hysteria, and to the transient forms of neurasthenia which, even apart from bodily injury, are met with after railway accidents, as results partly of the terror or horror incident to the catastrophe, and partly of the mental anxiety associated with litigation. This, together with repeated medical examinations and suggestions from friends and lawyers, leads the patient to conscious or unconscious exaggeration of his symptoms, and frequently to the simulation of serious disease.

Of such temporary cases I am tempted to give one example, because it affords an amusing illustration of the mixture of neurasthenia, hysteria, and simulation met with in many cases that go to trial.

CASE III.

A young married man, after a blow on the back from the sudden closing of a railway carriage door, suffered from weakness of the legs, left hemianaesthesia, and general debility of both mind and body. One symptom on which he laid particular stress was complete impotence. After the trial, at which each side was well represented by the medical profession, he received satisfactory compensation for his ailments, and soon regained his health. About a year later I met his doctor, who said, "You will be interested to hear that the wife of our patient who complained of impotence was safely delivered of well-developed twins exactly nine months from the time when his symptoms were most pronounced."

Passing now to more permanent forms of neurasthenia, it is, I think, open to question whether they have yet received adequate recognition. I allude to cases which, whether the result of railway or other accidents involving compensation for damages received do not recover after the cessation of legal irritation, and after claims for loss of work and health have been duly met.

Two groups may be distinguished. The one group comprises cases which clinically closely resemble those of non-traumatic neurasthenia. As a rule, there is inherited predisposition to neurosis—that is, the intimate structure of the cortical centres is easily deranged, and molecular changes started by head injuries tend to pathological increase, while the chemical products of cell disintegration may set up sclerosis of the surrounding tissue.

I have said that clinically these cases resemble those of ordinary neurasthenia. No doubt this is so at first; but as time goes on the tendency to exaggeration of individual symptoms gives way to mental dullness and to other signs of cortical deterioration. The other group comprises cases where from the first there are signs of cortical lesions, these occurring either beneath the injured spot or on the side of the brain opposite to the injury as a result of *contrecoup*. The lesions are various, including minute lacerations, punctiform haemorrhages, and other changes which collectively constitute contusion of brain tissue. In severe cases these lesions, as already stated, may be associated with meningeal haemorrhage. Now, the symptoms of a bruised brain may closely resemble those of the later stages of the first group of cases which are dependent on molecular changes and slight degrees of cortical sclerosis, hence a certain diagnosis of the pathological condition can only be attempted soon after the accident, when notable differences may be observed between the symptoms of a bruised brain and those of ordinary neurasthenia.

Instead of an uncontrollable tendency to discuss their sym-

ptoms in detail, sufferers from a bruised brain are dull and apathetic; mental action, instead of being acute and introspective, is carried on with difficulty, as if a thick mist enveloped the faculties. Insomnia, a prominent feature in traumatic neurasthenia, is less common in cases of bruised brain, in which, on the contrary, there is a tendency to drowsiness and stupor.

The neurasthenic complains of pains in the back, which often radiate to the head and to other parts of the body. In addition to pain there is pronounced hyperaesthesia; the spine and adjacent parts become exceedingly sensitive not only to deep pressure but also to a light touch, and the hyperaesthesia may extend to the special senses. Dyspepsia, palpitation, and other visceral disorders are also common.

The above symptoms are absent or inconspicuous in cases of bruised brain. The neurasthenic is able to commence work, either physical or mental, and to do it accurately for a short time, but he soon tires; he lacks concentration, finds his memory unreliable, and exhibits indecision in all his actions. He is constantly restless, while anxiety about his condition fills his thoughts, and thus constitutes another hindrance to reliable work.

The patient who has a bruised brain is quite unfit to follow any employment; he is too apathetic as a rule to exhibit anxiety or to worry, and when his cortical lesion is severe and extensive apathy is often associated with profound loss of memory and other signs of considerable mental deterioration. In both groups a marked intolerance to alcoholic drinks is frequently observed.

Now the distinctions above mentioned, although practical ones, are not always prominent, and tend to fade as time goes on. Nor need we be surprised if unable to make a diagnosis between molecular changes in the cortex and bruising of its tissue, for both morbid processes may disorder the same neurons, when the symptoms of the changes will be similar or identical.

But in whatever way we look at the matter, one thing stands out clearly, namely, the permanent physical and mental incapacity that so often follows concussion of the brain, and even when the injury to the head appeared to be a slight one. I would lay particular stress on the minor degrees of mental disturbance which are apt to be ignored, and yet seriously interfere with the patient's wage-earning capacity.

Insanity.

With regard to actual insanity after injuries to the head, there is abundant evidence that it does occur, and sometimes apparently without any evidence of hereditary predisposition. It may develop out of the prolonged depression and irritability so often associated with bruising of the brain, and especially if there is a predisposition to insanity, either inherited or acquired, in consequence of the cerebral changes which result from syphilis or from prolonged indulgence in alcohol. As to forms of insanity which ensue in cases of depressed fracture and of surface haemorrhage, these are doubtless becoming rarer owing to the activity and skill of our surgeons.

Sometimes a mental condition develops after concussion which presents a close resemblance to that of general paralysis, but as a rule dementia is less marked, while the pupil phenomenon and other paralytic symptoms are usually absent. One such case I saw some years ago.

Cerebral Tumour.

That tumours of the brain may owe their origin to nutritive changes produced by concussion is now generally admitted. In the *Medical Chronicle* for 1893 I have recorded a case in which symptoms of a brain tumour developed a few weeks after a blow on the head from the fall of a scaffold pole. The patient died a year after the accident, and at the necropsy a vascular sarcoma was found in the upper part of the right frontal lobe and immediately beneath the part injured.

Late Apoplexy.

The last sequel of head injuries to which I will refer is that known as late apoplexy. Some weeks after a blow on the head the patient becomes suddenly unconscious and dies in a state of coma, or he regains consciousness when it is found that he has hemiplegia. Cerebral haemorrhage from rupture of an artery is found at the necropsy. The character of the apoplectic attack and the morbid anatomy do not present any obvious differences from those of cerebral haemorrhage occurring independently of trauma. Nevertheless, evidence is forthcoming in some cases that the accident was responsible for the arterial disease. Thus the patient was under 40, and had no signs of heart disease or of arterial degeneration, while the influence of syphilis, of alcoholism, and of nephritis could be excluded. Moreover, symptoms of vascular disease developed soon after the accident, and the apoplectic attack occurred within a few weeks. A voluminous literature, especially in Germany, has gathered round these so-called late apoplexies, the pathology of which has excited much discussion. Bollinger, who was the first to use the term "traumatic late apoplexy," states that a necrotic softening is set up in the injured portion of brain, and that this is combined with changes in the walls of the vessels, which, together with alterations in the relations of resistance and pressure lead to haemorrhage.

The possibility of arterial disease being set up by concussion is a valuable suggestion, but as to the correctness of the pathological views just related I am unable to offer an opinion.

Concussion of the Spinal Cord.

Using the term concussion in the sense already explained, we omit from consideration all cases of injury to the cord from direct wounds or from fractures and dislocations of the vertebral column, and our inquiry is limited to cases which seem to result from a violent shaking of the elements of the cord. Such concussion may follow a blow to the back, or a fall on the back, the head, the feet, or the buttocks.

Indications of cord disease may come on immediately after the concussion or be delayed for a few days or weeks. In the former case the lesion is usually a severe one. Occasionally the cord is lacerated when the vertebrae are uninjured. Sometimes haemorrhage occurs either outside or inside the dura mater, or into the substance of the cord itself. A case remarkable as regards the probable origin of the haemorrhage is now in my wards at the Royal Infirmary.

Case iv.

The patient is a coachman, aged 42, who four years ago was thrown from a carriage and sustained a fracture of the base of the skull which kept him in hospital for fourteen months. After the accident he was unconscious for nearly a month. On regaining consciousness he was unable to move his arms and legs; the paralysis remained absolute for three months, then power began to return and has gradually improved ever since. At the present time he can walk slowly in a stiff fashion, the legs being rigid and their movements weaker than normal. The knee-jerks are exaggerated, and both ankle-clonus and Babinski's reflex are well marked. The left arm is weak, the right is subject to coarse tremor on voluntary movement. The wrist-jerks and elbow-jerks are much increased.

This condition of spastic paresis indicates a slight affection of the pyramidal tracts, in all probability due to a compression myelitis in the cervical region set up by haemorrhagic effusions, which drained down to the top of the cord from the destructive lesion at the base of the skull.

Another cause of severe damage to the cord is a blow in the vicinity of the vertebral column. Cases of gunshot wounds were long ago described by Weir Mitchell, in which immediate and complete paraplegia followed the impact of a bullet near the spine, the cord being softened at the spot while the bones were uninjured. A case of this kind was recently under my care.

Case v.

A man was kicked by a horse between the left scapula and the spine. During the next two days he suffered from severe pain, associated with numbness in the legs. On the third day his legs were paralysed. When seen a fortnight later the paraplegia was absolute and was accompanied by other symptoms indicating destruction of the functions of the cord at the level of the fourth dorsal segment. The patient died at home a few months later. No necropsy was obtained.

In connexion with the immediate effects of concussion it is of the greatest interest to note that a few cases of complete paralysis have been recorded in which no lesion of the cord was found either with the naked eye or the microscope a few days after the injury. The assumption is that the molecular nutrition of the nerve elements was abolished. Now whether minute changes were overlooked or not, these fatal cases without obvious lesions afford a valuable suggestion in regard to the development of symptoms of cord disease a long time after an accident. With such cases in mind, it would not, indeed, be foolish to suggest that more diseases of the cord owe their origin to a long-forgotten trauma than has hitherto been admitted. But without dwelling on this speculation, and without attempting to give complete pathological explanations, one may admit that such evidence as we have bearing on the development of cord disease some months after concussion is worth considering and is often convincing.

Before referring to these later effects of trauma, mention may be made of an intermediate group of cases in which initial symptoms are absent or slight and grave symptoms come on a few days or weeks after the injury, having the character and course of a subacute myelitis.

Thus Lehrisch reports the case of a man, aged —, who, after a fall on his back, suffered for a fortnight from violent pains on attempting to move his legs. During the next fortnight the pains were less severe, but on the twenty ninth day after the accident there quickly developed a complete motor and sensory paralysis of both legs together with paralysis of the bladder. At the necropsy a softened focus was found in the dorsal region.

Gowers,[4] too, mentions the case of a lady who was severely shaken in a railway collision. Immediately after the accident she seemed to have suffered no injury, but in a few days paraplegia developed, and from its consequences she died six weeks after the accident. Throughout the dorsal portion of the cord indications of a subacute myelitis were found, chiefly in the white columns.

These cases bridge over the interval between the early severe changes, whether molecular or coarse, and later changes, more or less degenerative in character, which underlie the symptoms of locomotor ataxia, disseminated sclerosis, chronic myelitis, and other slowly progressive diseases of the cord. The symptoms of these disorders may not appear until several months after an accident, and their dependence on morbid changes produced by concussion can only be inferred after the exclusion of other causes.

On going over cases of spinal disease which have been under my care during the last fifteen years, the collection of hospital cases having been kindly summarized by a former house physician, Dr. Charles O'Neill, I find that a relation to trauma can be traced more frequently in disseminated sclerosis than in locomotor ataxia. The following are two examples:

Case VI.

A woman, aged 30, previously healthy, fell through a trap door into a cellar, a distance of 12 ft., and dropped on to a stone slab in a sitting posture. A few days later she complained of numbness on the left side of her face and back. In about five months she began to have a difficulty in walking, this increased, and spastic paraplegia slowly developed. This was followed by nystagmus and weakness of the arms. When seen at a later period the symptoms were unmistakably those of disseminated sclerosis.

Case VII.

A man, aged 25, fell over a banister on to his back. He was unconscious for four days. After a week he went to work, but could not stand properly. The weakness in the legs increased, and when examined two years after the accident he had well-marked signs of disseminated sclerosis.

Much has been written on the subject of traumatic tabes and in a few cases it seems probable that concussion has started the changes in the posterior root fibres. A patient of my own stated that his ailment dated from a fall three months before he came to see me. He slipped down some thirty stone steps, jogging the lower part of his back on each step. He walked home and went to bed. Two days later he began to stagger, and had pains in the soles of his feet. On examination the patient showed a moderate degree of ataxia. The knee jerks were absent. The pupils were unequal, and did not react to light. Micturition was delayed.

Leyte,[5] who has written a thesis on traumatic tabes, gives a full account of a case in which a severe sprain of the left arm was followed in a few months by signs of tabes. Syphilis and other possible causes could be excluded.

These cases, however, are exceptional, and a study of the literature, as well as one's own experience, leads to the conclusion that although concussion may initiate the development of characteristic cases of tabes it rarely acts as the sole cause of this disease. Frequently it will be found on careful inquiry that the tabetic patient was not quite free from [illegible] before the accident. No doubt trauma often co-operates with other causes, especially syphilis, and tends to light up disease which was pre-existent, or for which the ground was duly prepared.

Injuries to the Peripheries of the Body.

Passing now to the periphery, I will consider only the question whether disease of the spinal cord may result from injury to the peripheral nerves. A good starting point, because the condition is well known, is arthritic muscular atrophy. Muscular atrophy, whether produced by injury or disease, is almost invariably followed by rapid wasting of the muscles that move the joint, the extensor muscles being predominantly affected. Thus if the shoulder is injured the deltoid chiefly wastes, if the elbow the triceps, if the hip the glutei; if the knee the quadriceps. The atrophy comes on quickly so that in cases, for example, of injury to the knee a difference of an inch between the girth of the thighs might be noticed at the end of a week or ten days. As to the explanation of this condition, the evidence both experimental and pathological gives support to the reflex theory held by Paget, Vulpian, and Charcot, which is that the muscular atrophy depends on a damaged nutrition of the motor cells of the cord, this derangement being the effect of morbid impulses from the irritated nerves of the injured joint. The correctness of this view is practically proved by the experiments of Raymond, who found that a previous division of the posterior spinal roots prevented the wasting of the muscles.

Further light has been thrown on the subject by the investigations of a former Manchester student, Dr. Warrington, who has shown that actual changes in the motor cells may be detected after lesions of the posterior roots.

There can indeed be no doubt that healthy sensory impulses are essential for the proper nutrition of motor neurons, and that morbid sensory impulses will lead to detectable disease. Do the morbid changes pass away when the cause—say articular inflammation—is removed, or do they ever progress and lead to atrophy and destruction of the motor cells? In other words, may progressive muscular atrophy result from peripheral irritation? The answer is that occasionally the muscular atrophy resulting from arthritis becomes permanent, and that many cases of progressive muscular atrophy appear to originate from a severe sprain or other injury to a limb. I have notes of several instances of this relation. A few years ago I showed a patient at a meeting of this Society in which the sequence was striking.

Case VIII.

The patient, a powerfully built policeman, aged 36 years, was admitted in the infirmary with characteristic signs of progressive muscular atrophy, the muscles of the right arm being principally affected. He attributed the onset of his ailment to a violent struggle with a maniacal person in which he strained the upper part of the right arm. About a month later he noticed that the arm was getting weak and thin. The weakness and wasting increased and were marked when he came under my care twenty months after the injury.

The boundary line between cases of arthritic muscular atrophy and chronic anterior poliomyelitis is not always easy to define, and the differential diagnosis may present great difficulties.

In conclusion, I would draw attention to the need for further study of the after-effects of trauma, and especially as regards their prognosis. Traumatic neurasthenia and hysteria have received ample consideration, but there is room, I think, for a fuller recognition of the prolonged and sometimes permanent incapacity for work that may result from concussion of the head or the body.

Adequate recognition of the possibility of disease leads to increased care in preventive treatment, and to mention only one thing, I believe that the simple prescription of a longer rest in bed after injury than is usually obtained in hospital practice would do much to reduce the number of sufferers from chronic diseases of the nervous system.

References.

1 Page, Concussion of the Brain, 1875. 2 Crisp English, Hutchinson's Archives, 1904. 3 Lehrisch, Zur Lehre von den traumatischen Erkrankungen des Rückenmarkes, Dissertation, Königsberg, 1894. 4 Gowers, Diseases of the Nervous System, vol. i. 5 Leyte, Les tabes traumatiques, Paris, 1893.

THE EXAMINATION OF THE TISSUES OF THE CASE OF SLEEPING SICKNESS IN A EUROPEAN.

[With Special Plate.]

by

GEORGE C. LOW, M.A., M.B., Medical Superintendent and Tutor, London School of Tropical Medicine.

and

F. WALKER MOTT, M.D., F.R.S., Physician, Charing Cross Hospital; Pathologist, London County Asylums.

In October, 1902, Sir Patrick Manson was consulted by the widow of a missionary from the Congo suffering from chronic pyrexia and enlargement of the spleen. After an examination he came to the conclusion that the disease was probably trypanosomiasis, and sent the patient to the wards of the London School of Tropical Medicine, where Dr. Dutton confirmed the diagnosis by finding trypanosomes in the blood. A full account of the case was published in the British Medical Journal of May 30th, 1903, by Manson and Dutton, and the termination and results were described later by Manson in the same journal, December 5th, 1903.

The symptoms that were present when the patient was

Fig. 1.—Film preparation of blood with trypanosomes. Magnification 2,000 diameters.

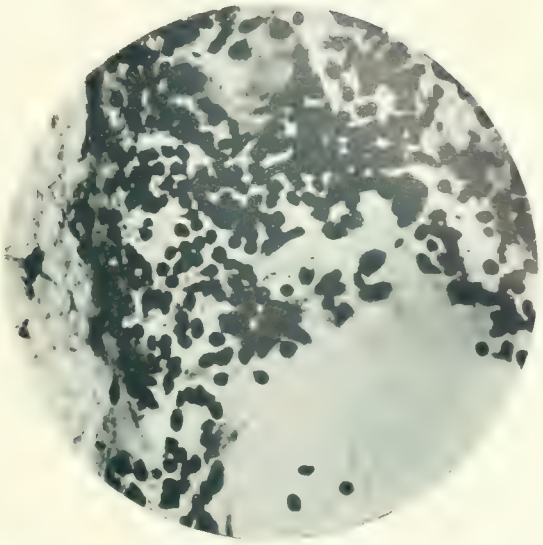


Fig. 2.—Perivascular infiltration of mononuclear leucocytes—cerebellum. A number of small bodies not diplococci or disintegrated cells possibly degeneration trypanosomes. Magnification [illegible] diameters.

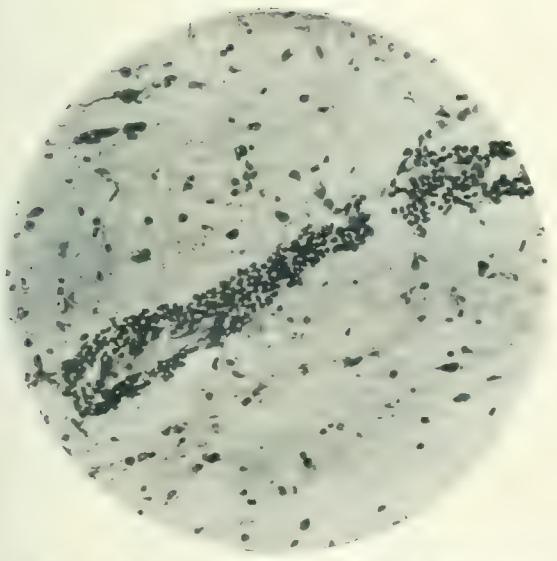


Fig. [illegible].—Small vein of meninges blocked and showing the surrounding accumulation of mononuclear leucocytes. Magnification 175 diameters.

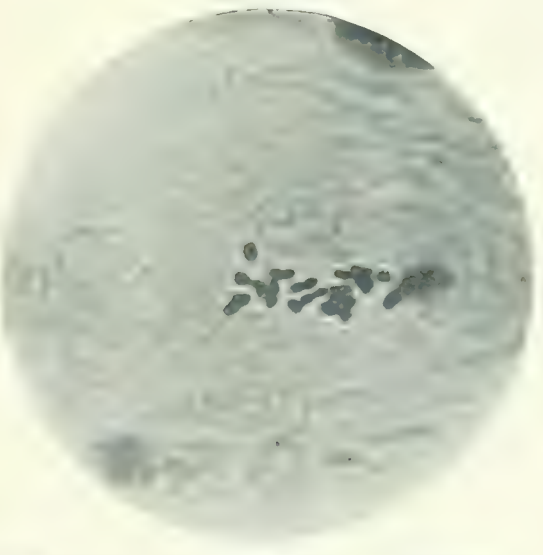
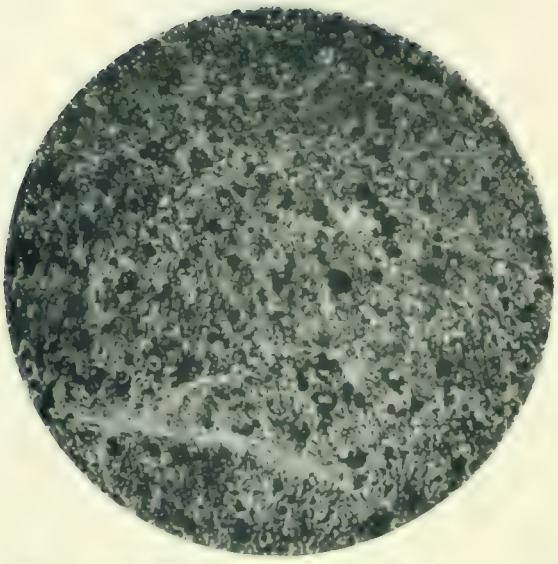
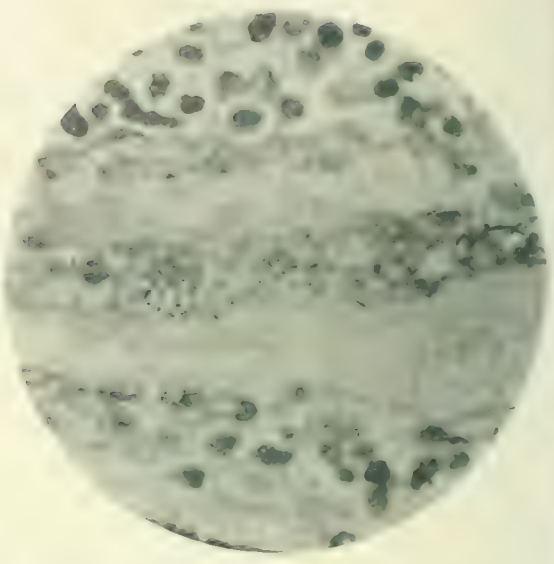
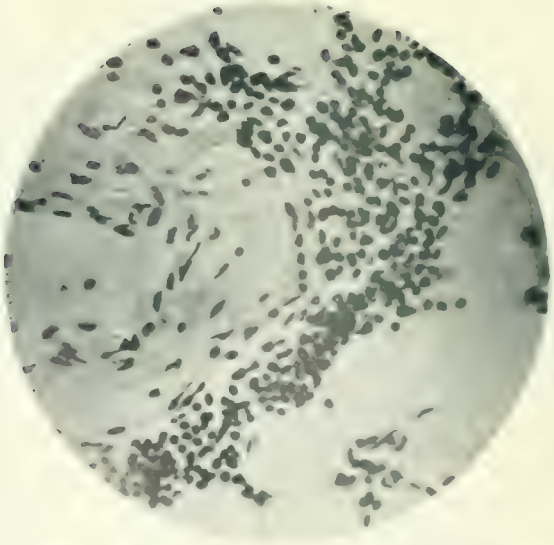


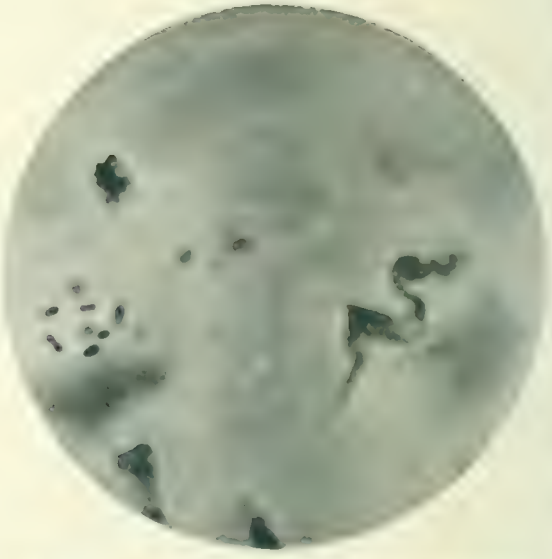
Fig. 4.—Diplococci in brain. Magnification [illegible] diameters.

TO ILLUSTRATE PAPER BY DRS. GEORGE C. LOW AND F. WALKER MOTT.









under observation in hospital were chronic irregular pyrexia, emaciation, enlargement of the spleen, a peculiar erythematous condition of the skin, and the presence of trypanosomes in small numbers in the peripheral blood. At that time there were no signs of tremors, drowsiness, or other nervous symptoms associated with sleeping sickness.

After leaving hospital a change to the seaside was advised, and the summer was chiefly spent at Cromer. In October, 1903, the patient returned to her home in Bristol, and for the first time about the middle of that month a marked tendency to drowsiness appeared. With the exception of some twitchings at the left angle of the mouth there were no other evidences of tremors. Emaciation, however, had now become extreme, and small hard glands were palpable in the posterior triangles of the neck. She gradually became more drowsy; in the last days of life the sphincters relaxed and she died in a state of coma.

Necropsy.

We are indebted to Dr. Neill, University College, Bristol, who made a necropsy two and a-half hours after death, for the following notes of the macroscopic conditions:

External Appearances.

Skin yellowish over body, rough and dry on the upper arms, thighs, and abdomen; sclerotics tinged yellow, pubic and axillary hair very scanty. Great general emaciation, mammary glands small and sharply outlined. Early bedsores over sacrum, posterior ends of iliac crests, very early over right trochanter; skin tightly drawn over facial bones. No obvious oedema, but slight pitting over tibiae on firm pressure. Rigor mortis present in jaw muscles only.

Head.

(Brain examined first.) Calvarium unchanged, dura mater normal; a quantity of blood and cerebro-spinal fluid escaped on removing the brain, and the infundibulum was accidentally opened. Pia mater finely injected, and veins distended with blood. Injection difficult to remove with finger pressure, more marked over the occipital lobes. No glazing of surface. Convolutions sharply rounded, and sulci wider than normal, this being very marked on the right side. Larger sulci filled with clear fluid, and the superjacent membrane slightly hazy. Circle of Willis normal. No atheroma. Excess of fluid in basal lymph cistern, with injection over medulla and pons, otherwise nothing abnormal at base. No adhesions in longitudinal fissure. Corpus callosum and fornix quite firm. Lateral ventricles dilated and contained excess of fluid. Ependyma injected, but brain tissue not softened. No abnormality discovered macroscopically in centra, basal ganglia, crura, cerebellum, pons, or medulla. No abnormal fullness of cerebral vessels. No thickening of meninges over anterior end of upper surface of vermis; no obstruction of veins of Galen.

Spinal cord not opened, but about 2 in. of cervical cord removed. No obvious thickening of membranes. No macroscopic changes on section.

Thorax.

Small remains of thymus, and one or two small, deep-red, lymph glands found under manubrium sterni. Lungs: Right, a few thin bands of old adhesions laterally and above upper lobe. Lower lobe firm to the touch and covered with fine recent pleurisy. On section some fibrous pigmented thickening at extreme apex of upper lobe, probably healed tubercle. Rest of lobe showed oedema. Middle lobe normal. Lower lobe: Bronchioles congested, substance pale red, uniformly firm, airless, and non-crepitant, granular on section. Left, adhesions and fibrous tissue at apex similar to right, but less extensive. Rest of lung and pleura normal.

Pericardium uniformly adherent, but stripped fairly easily except over roots of great vessels. Heart cavities a little dilated, and the auriculo-ventricular orifices admitted the fingers more easily than normally. Mitral and tricuspid valves showed chronic fibrous thickening, with one or two small raised nodules of old fibrous tissue. No recent endocarditis. Semilunar valves and coronary arteries normal. Minute patches of atheroma in aorta. Heart muscle normal colour, no fatty or fibrous changes visible to naked eye. Blood dark, had not coagulated, clotted rapidly on being shed.

Abdomen.

No fluid in abdominal cavity. Peritoneum glazed over upper part of small intestine. A patch of inflammation on surface of jejunum. Intestines not opened. Spleen occupied upper left quadrant of abdomen, reaching to within an inch of the umbilical level, and crossing the middle line by a fingerbreadth. Uncovered, except by the omentum, at the anterior margin. The spleen was uniformly enlarged, and the margins rounded, the hollow at the hilum being filled out. Capsule somewhat thickened, but no perisplenitis except at the upper end, where the organ was suspended by a thick band of fibrous tissue as thick as the little finger. On section the substance was firm, but not markedly so. Surface pale, opaque trabeculae thickened. Malpighian bodies clearly seen and sparsely distributed.

Liver.—Enlarged; firmer than normal. No perihepatitis, although a little recent lymph at right anterior margin. Margins rounded. Surface smooth, but, on closer inspection, fine nodular arrangement visible. Firm on section; colour browner and darker than normal; showed condition of cirrhosis.

Kidneys.—Tougher than normal: cortex and medulla almost the same colour, former diminished. Capsule stripped with a little difficulty, leaving a granular surface. Kidneys smaller than normal.

Suprarenals. Healthy on section.

Lymphatic glands. Enlarged, intense red colour.

Uterus. Nulliparous. Small fibroids.

Bladder and appendages healthy.

Pelvis. Normal.

Bone Marrow.

Taken from left humerus. Marrow in cancellous spaces pale red with some fat, in shaft dark red, barely keeping together. No yellow fat seen.

Blood films were prepared by Dr. Symes from the heart and spleen. Portions of the different organs were sent to us in Müller's solution, formalin, and in alcohol for microscopic examination, and arrived on the following day.

The Blood.

Unfortunately the spinal fluid was not examined for trypanosomes, but blood films taken a week before death, and those taken by Dr. Symes from the heart and spleen at the necropsy, though carefully examined, have shown no trypanosomes. The characteristics of the blood are similar to those of the peripheral blood described in the former report of the case, namely, some changes in the size of the red corpuscles, nucleated red corpuscles, and an increase relatively of the large mononuclear leucocytes. In addition, however, all the films show very clearly the presence of large numbers of diplococci, these being more numerous in the heart than in the spleen.

Microscopic Examination of the Tissues.

The sections were for the most part cut in paraffin from tissues hardened in formalin or alcohol, but those stained by Marchi method were prepared from those hardened in Müller's fluid and the sections cut in celloidin. The sections cut in paraffin were stained with carbol-thionin and erythrosine, Unna's polychrome, or logwood and eosin. Sections of the brain were made from various parts of the cortex, the cerebellum, the pons, and the medulla. The spinal cord was also examined. The posterior spinal ganglia and the roots were unfortunately not sent.

Description of the Changes. 1. *Central Nervous System.*

Membranes. The pia-arachnoid membrane showed an infiltration, with large and small celled mononuclear leucocytes of a not very marked character in the sections of the cortex, but much more marked in those regions where there is a larger amount of cerebro-spinal fluid, for example, the cerebellum and the medulla.

Vessels. In the cortex the small vessels, especially the capillaries, frequently show swelling and some proliferation of the endothelial nuclei; this, however, is more marked in some places than others. The blood contained in the vessels exhibits usually an excess of mononuclear leucocytes; in some places groups of polynuclears are seen. Around the vessels are found the characteristic mononuclear infiltration first described by one of us (F. W. M.), and since confirmed as pathognomonic of this disease. This infiltration is much more marked in some portions of the cortex than others, but it is very well marked in the cerebellum and the medulla oblongata. (Figs. 2 and 3.) The vessels of the medulla and spinal cord are congested and in places, especially in the former, there are many recent capillary haemorrhages.

Nerve Cells.—The ganglion cells of the cortex and of the medulla, to a much less degree the spinal cord (in which latter the vascular changes are not marked), show acute changes, probably of the nature of coagulation necrosis. The cells are by no means all affected, nor to the same degree. There is chromatolysis, the Nissl granules being either indistinct, absent, or a dust-like powder, with absence of the granules on the dendrons, which may be broken off, or not exhibiting their normal forms. The changes, in our opinion, are mostly of recent origin, and like the capillary haemorrhages were due to the toxic conditions of the blood and cerebro-spinal fluid caused by the invasion of the diplococci to be described.

Glia Tissue.—The neuroglia cells in places show active proliferation.

Organisms.—No trypanosomes were found in the blood vessels or perivascular spaces of the central nervous system, although a large number of sections were examined. In the superficial cortex in some sections small foci of leucocytes, mononuclear, and polymorphonuclear were found. Several of these foci exhibited no diplococci, but curious granules of varying size, as if these may have been the cause of the inflammatory action. We would not venture to say that these were degenerated trypanosomes, but it is possible that they may have been such. Similar bodies were found amidst the cells in the perivascular spaces of the medulla and cere-

bellum (Fig. 3). The magnification, 500 diameters, is not sufficient to show these small round bodies distinctly. Under a high power, however, no differentiation of structure can be made out. It is therefore impossible at present to do more than record the fact of their existence.

In all parts of the central nervous system, as indeed in all the organs and tissues, diplococci resembling by Gram's method could be found (Fig. 4).

By Marchi staining, numerous recently-degenerated fibres could be found in the medulla, spinal cord, and cortex (Fig. 5).

The microscopical examination, therefore, of the nervous system shows changes similar to those which have been met with by us in cases of the disease occurring in Africans.

Lymphatic Glands.—A large number of sections of these were examined, and by Gram's method every section showed large numbers of diplococci in loci, or in the lymph channels and blood (Fig. 6).

Bone Marrow.—Showed diplococci and large numbers of large mononuclear leucocytes.

Lungs.—Congestion and pneumonia of the right lower lobe was found. Diplococci present.

Liver.—The cells exhibit fatty infiltration; there is some increase of fibrous tissue; the blood in the vessels shows haemolysis; excess of mononuclear leucocytes and diplococci. There is no malarial pigment.

Spleen.—Congestion of vessels, increase of fibrous stroma; diplococci; no malarial pigment.

Kidneys.—Vessels congested, no diplococci discovered; epithelium of uriniferous tubules exhibits first stage of coagulation necrosis, probably due to the toxic condition of the blood.

Heart.—Epicardium, a marked mononuclear infiltration around the vessels (Fig. 7). Early pericarditis: Myocardium, the muscle fibres exhibit brown atrophy and pigmentation, and there is a condition of recent haemorrhagic myocarditis due to infection; for in the haemorrhages are numerous colonies of diplococci, and in one section what appears to be a dead trypanosome (Fig. 8).

This is the only distinct evidence pointing to the existence of trypanosomes found in the large number of sections examined, but its form and size and its existence amid the blood corpuscles point undoubtedly to its nature, although it does not present the typical characters of the trypanosome seen in the film preparation (Fig. 10).

We have recorded the bare facts, and consider that this case is of especial interest, inasmuch as it shows that a European who has resided in a country where sleeping sickness exists, and who leaves that country with trypanosomes in the blood, may for a considerable time present no symptoms of sleeping sickness, and then develop them and die, the tissues showing changes similar to those met with in Africans. It is a strong argument in favour of the trypanosomes being the cause of the disease; but what part do the diplococci play? Have these appeared subsequent to the onset of the trypanosome symptoms of the disease, and is there, therefore, a causal connexion, or is it merely a terminal infection?

We desire here to acknowledge the services of Mr. Charles Geary, Assistant to the Pathological Laboratory, Claybury, for the excellent photomicrographs of his preparations of the tissues.

ASYLUM DYSENTERY IN RELATION TO B. DYSENTERIAE.

BY J. W. H. EYRE, M.D. LOND., F.R.C.P. LOND.

Physician for Mental Diseases, Guy's Hospital; Medical Superintendent, Claybury Asylum, Woodford, Essex.

Dr. [illegible] Lieut.-Colonel Sir Ronald Ross, K.C.B., F.R.S., and Captain Leonard Rogers, I.M.S., have resulted in the demonstration of the presence of endamoeba-like organisms in the contents of the ulcers of tropical dysentery, thereby establishing a disease due to the presence of the [illegible] to be classified. A dysentery, perhaps in some of the uncertainty existing in regard to the relative importance of the Bacillus and Amoeba, it would be well to [illegible] of epidemic diarrhoea occurring in asylums for the insane in America, thus supporting the contention of Mott, that the disease, as identical with the dysentery of tropical climes. So far as I am aware, however, the organism above referred to has not hitherto been isolated from cases of asylum dysentery in this country, and I therefore wish, to state briefly the positive results obtained from the bacteriological examination of material derived from such cases. My material was obtained from an epidemic of dysentery which occurred towards the end of last year in one of the London county asylums, and I now wish to express my thanks to Dr. Mott for his kindness in placing the said material at my disposal.

COURSE OF THE EPIDEMIC.

With the clinical aspect of the cases comprising this outbreak, and the means by which the disease was carried towards other than that in which it first appeared, I am not at present concerned. Indeed many interesting points bearing on asylum dysentery and its bacteriology must be reserved for a detailed paper, which will appear in the forthcoming volume of the *Archives of Neurology*.

Briefly, the course of the epidemic was as follows: The male side of the asylum had been remarkably free from cases of diarrhoea and dysentery for some time prior to August, 1903. On the 20th of that month, however, two cases of dysentery were reported from a ward which I will call Ward A and were followed by two more on the 24th; a fifth case occurred on the next day, and a sixth on the 28th of that month. No more patients were attacked in this ward, and within two months all six cases were convalescent.

Towards the end of September a similar outbreak, but of a more severe type, made its appearance in Ward B. Here eight patients were successively attacked, and of these three succumbed to the disease. In Ward C three patients contracted the disease, of whom one died. Isolated cases, in ones and twos, cropped up also in other wards at varying intervals during the months of September and October to the total number of eight, three of these being fatal.

TABLE I *Ward Incidence of Cases of Dysentery.*

Ward.	Patient's Initials.	Date of Onset of Disease.	Result	Date.
A	G. E. R.	Aug. 20th.	Recovery	Sept. 17th.
	H. M. H.	,, 20th.	,,	,, 11th.
	C. V.	,, 24th.	,,	,, 11th.
	C. H.	,, 24th.	,,	,, 10th.
	T. W. S.	,, 25th.	,,	,, 17th.
	J. R. M.	,, 28th.	,,	,, 11th.
B	J. F. S.*	Sept. 25th.	Death	Nov. 20th.
	T. H.*	Oct. 15th.	,,	,, 5th.
	A.*	,, 17th.	,,	Oct. 27th.
	S. H.*	,, 17th.	Recovery	Nov. 14th.
	S. A. H.	,, 17th.	,,	,, 8th.
	J. L.*	,, 17th.	,,	,, 20th.
	P. M.	Nov. 11th.	,,	,, 27th.
C	A. A. S.	Oct. 17th.	Death	Oct. 27th.
	J. L.	,, 18th.	Recovery	Nov. 10th.
	W. S.*	Sept.	,,	,, 7th.
D	F. C.	,, 7th.	,,	,, 17th.
E	E. B.*	,, 17th.	,,	,, 14th.
F	A. D.	,, 7th.	,,	Oct. 20th.
	F. O.	,, 7th.	,,	Nov. 18th.
G	R. P. D.	,, 8th.	,,	,, 2nd.
H	H. M.*	,, 3rd.	Death	Oct. 20th.
	C. S.*	,, 24th.	,,	,, 4th.
	W. G. B.	,, 24th.	Recovery	Nov. 3rd.

*Cases examined bacteriologically are indicated by an asterisk.

None of the cases in Ward A came under my observation, but of the remaining 18 cases I was supplied with specimens of the stools from a sterilizing tube. Further specimens of faeces, scrapings of dysenteric ulcers, blood, and bile were collected at the post-mortem inspection from 5 of the 6 fatal cases (with all precautions against accidental contamination), and sent to me for examination.

METHODS EMPLOYED.

The method adopted in the examination of the faecal material and scrapings from dysenteric ulcers was simple in the extreme, the work of differentiation and isolation being facilitated by the employment of a special nutrient medium—a modification of the "Lakeside Laboratory medium" of Dopter and Conradi.* A platinum loop, provided for this particular purpose, and capable of holding about 2 mg. of faeces was employed to efficiently thrust one or more loopfuls of the specimen in 10 c.cm. of sterile nutrient broth. Three

* A complete account of preparing and incubating the serum media [illegible] by Dr. Dopter will be found in the *Annales de l'Institut Pasteur*, [illegible].

loopfuls of this suspension were deposited on the surface of a nutrose agar "plate," and then spread evenly over its entire surface by means of a sterile L-shaped glass rod. Two, and sometimes three, other plates were then inoculated in series, and the whole set of plates incubated at 37° C. for twenty-four hours. At the end of this time such colonies as corresponded in their naked-eye appearances, blue coloration, and characteristic odour of fresh semen, with those produced by a typical B. dysenteriae (Shiga) were severally emulsified with sterile broth, and tested against a 1 in 100 and a 1 in 200 dilution of antidysenteric serum (for which I am indebted to Professor Kolle, of the Institute für Infektionskrankheiten, Berlin) both macroscopically and microscopically.

If a good agglutination reaction was obtained within half an hour the organism was grown upon agar, the subsequent growth plated, the organism then isolated and subcultivated in parallel series with an authentic B. dysenteriae (also obtained from Professor Kolle), and its identity or otherwise therewith determined.

Blood.

Specimens of blood, unfortunately, were available only from such patients as succumbed to the disease, and were collected at the *post-mortem* inspection—the bodies being kept in a cold chamber during the interval that elapsed between death and the necropsy—generally from the femoral vein, but occasionally from the heart direct. Some of the blood was employed to inoculate agar and broth tubes, and if after incubation at 37° C. growth supervened, that growth was plated on nutrose agar in a manner similar to that adopted for the suspensions of faeces, and the contained organisms isolated.

The remainder of the blood from each case was thoroughly centrifugalized, the separated serum pipetted off, and tested in varying dilutions against the strains of B. dysenteriae previously obtained from this epidemic, and also against the various "stock" strains of B. dysenteriae, which have been given me from time to time by Professors Flexner, Kolle, and others.

Bile.

Bile was also collected at each necropsy direct from the gall bladder, and cultivations were established from it on agar and in broth. Careful search was made in every case for the minute diplococcus recorded by Durham as occurring in similar cases, but without success. When growth was observed in the cultivations from the bile it was plated on nutrose agar and the contained organisms isolated and identified.

The result of these examinations is most conveniently given in the form of tables (Tables II and III), which in their arrangement correspond to the list of the cases comprising this epidemic given above:

From these tables it will be seen that B. dysenteriae was isolated from six of the cases examined. All these had, at some time or other during the course of the disease, been passing typically dysenteric stools—semi-fluid and plentifully mixed with slime, mucus, and blood—but with one exception all had passed this stage before I obtained specimens from them. The single exception (S. H.) afforded me a typical dysenteric stool, consisting chiefly of blood-stained mucus, which, when suspended in broth and plated on nutrose agar, yielded a practically pure cultivation of B. dysenteriae. This specimen was one of the earliest I received, and the B. dysenteriae from it was actually the first to be isolated and identified. It was strictly comparable in all its characters and reactions with the Shiga strains obtained from Berlin and Philadelphia; further, it was completely and almost immediately agglutinated, macroscopically and microscopically, by a 1 in 200 dilution of antidysenteric (Shiga) serum, and also by the serum from the patient T. H. in similar dilution.

The results obtained from the examination of *post-mortem* material were by no means so satisfactory, as the bacillus was isolated from two only of the five cases examined.

At the necropsy of the first patient (J. F. S.) from whom the bacillus had been isolated during the early stages of the disease, the dysenteric lesions of the intestine were found to be healing, so that presumably the organism, if not actually absent, was probably present in but very small numbers. In the third case (J. A.) the failure to isolate the bacillus must, I think, be attributed to the interval that elapsed between the necropsy and the commencement of the examination—an explanation that holds good also in the fifth case (J. C. S.).

The agglutination reactions, too, seem at first sight unsatisfactory, but I think it is quite possible that the general septicaemia which had attacked the patient J. F. S., and which was associated with the presence of large numbers of streptococci in the blood (the blood, too, showed marked haemolytic changes), was sufficient to account for the negative reaction. The other cases may be explained on the assumption that agglutination is a reaction of immunity rather than a reaction of infection. My experience, too, of numerous other cases of asylum dysentery leads me to believe that a positive serum reaction is most likely to be obtained during the first fortnight of the disease. An alternative explanation in the case of the fourth (H. M.) would be that the interval between the onset of the attack and death—two days only—was too short to allow of the formation of any agglutinin.

Conclusions.

The number of cases included in this preliminary communication is obviously too few to admit of any generalization as to the etiology of asylum dysentery, but the following

Table II.—*Results of Examination of Faeces obtained during Life.*

Ward.	Patients' Initials.	Age.	Date of Onset of Disease.	Date of Receipt of Specimen.	Naked-eye Appearances of Faeces.	B. Dysenteriae Present or Absent.	Bacillus Isolated, Agglutinated by "Shiga" Serum in Dilution of
B.	J. F. S.	35	September 25th, 1903	November 2nd, 1903	Normal "formed"	Present	1 in 200
	S. H.	50	October 17th, „	October 29th, „	Typical dysenteric stool, semi-fluid, containing blood and mucus	„	1 in 200
	J. J.	[illegible]	„ [illegible]th, „	November 2nd, „ / „ 5th, „	Resembling pea-soup	Absent	—
C.	W. S.	[illegible]	„ 31st, „	„ 6th, „ / „ 9th, „	Dark reddish-brown, semi solid / Pea-soupy	Present / Not isolated	1 in 200
E.	B. B.	[illegible]	„ 1-th, „	October 29th, „	Putty-like in consistence and colour	Present	1 in 150

Table III.—*Results of Examinations of Post-Mortem Material.*

Ward.	Patient's Initials.	Age.	Date of Onset of Disease.	Date of Death.	Date of Receipt of Specimens.	B. Dysenteriae Present or Absent.	Dilution of Blood Serum giving Positive Reaction against		Organisms Present in	
							"Shiga" Strain.	"S.H." Strain.	Blood.	Bile.
B.	J. F. S.	35	September 25th, 1903	November 7th, 1903	November 9th, 1903	Absent	—		Streptococcus pyogenes longus	
	T. H.	[illegible]	October 15th, „	„ 17th, „	„ 19th, „	Present	1 in 200	1 in 200	B. coli communis.	
	J. A.	[illegible]	„ 16th, „	October 24th, „	October 25th, „	Absent			*Nil*	
H.	H. M.	[illegible]	„ 23rd, „	„ 25th, „	„ „ „	Present	1 in 10	1 in 10	*Nil.*	
J.	J. C. S.	[illegible]	„ 14th, „	„ 24th, „	„ „ „	Absent	—	—	B. coli communis.	

statements seem to be quite warranted by the facts observed:

1. That a bacillus, identical with the B. dysenteriae, described by Shiga as the specific cause of acute dysentery in Japan, can be isolated from the stools of many cases of asylum dysentery.

2. That the blood serum of some of these cases of asylum dysentery possesses a specific agglutinative action when tested against B. dysenteriae isolated from the stools of other similar cases, and also against other strains of B. dysenteriae isolated from cases of dysentery in tropical countries.

On the other hand, the experience of an extended series of examinations of the stools of patients suffering from asylum dysentery will permit me to state:

3. That in order to detect the presence of B. dysenteriae, the stools must be examined when fresh.

4. That *post-mortem* material must be collected and examined as soon after death as possible, as after a few hours' delay, even in quite acute cases B. coli becomes the predominant organism in the intestinal canal.

5. That under these conditions (3 and 4) the isolation of B. dysenteriae from the stools of patients suffering from acute asylum dysentery is comparatively easy by the methods I have indicated—when those stools are, naked eye, typically dysenteric.

6. That in cases of chronic asylum dysentery B. dysenteriae, if present, is so outnumbered by B. coli and other intestinal saprophytes as to render its isolation a matter of extreme difficulty.

DIFFERENTIATION OF B. TYPHOSUS AND B. COLI COMMUNIS BY MEANS OF THE PHOTOGRAPHIC PLATE.

By WALTER C. STEVENSON, M.D., D.P.H.,
Pathological Laboratory, Trinity College, Dublin.

IT does not appear to have been recorded that the gelatino-bromide photographic plate is sensitive to direct application of the products of certain bacterial cultures in a very remarkable manner, and that, further, the effect on the plate is variable with the special nature of the bacteria to a degree which renders easily possible, in at least one important case, a discrimination between bacteria otherwise difficult to differentiate.

My observations having been mainly confined, so far, to the typhoid bacillus and the B. coli communis, I will refer at present to these only.

Cultures of these bacilli are made in broth, samples of the same broth being used for each culture. After, say, 24 hours a few drops of each culture are placed upon the sensitive surface of a photographic plate and spread so as to wet an area of any desired extent say, 1 cm. or 2 cm. in diameter. On general, 0.2 c.cm. of the culture has been allowed to spread by itself upon the plate, covering an area of about 1 square cm. This is done in a red light sufficiently faint to avoid sensible fog upon the plate. An opaque cover—an empty developing dish will do - is now turned over the plate, and it is left thus screened for about 40 minutes.

The cover is now lifted and the superfluous fluid upon the wet areas drawn off with a pipette. No change is observed at this stage of the experiment. The plate is then developed in the usual manner, and during development it is best screened from light. It will now be found that the moistened areas have developed with very different densities of silver deposit. [illegible] coli culture produces a full and marked reduction of the salt. There has progressed over the area wetted by this culture an action similar to the formation of a photogenic [illegible] in the film. But where the typhoid culture has acted the result is quite different. Only a very faint deposit has been produced. And if the plate has, in fact been [illegible] only to the red light (either visually or mechanically by means of a [illegible] fogging it and be found that the effect is even more intensified, its presence marked by an [illegible] free from reduced silver.

The following points are of interest, but can here only be briefly noted:

(a) The discriminative action is the same, with some variation in degree of intensity, when typhoid bacilli from cultures of the same age are exposed to very different periods of incubation. Thus, cultures of these two organisms in broth examined after 4 hours' growth and after 33 days', acted as above.

(b) The activity of each increases with time up to a certain age which has not been accurately ascertained. This activity possibly varies with the physical conditions attending culture, but may be taken as increasing from shortly after inoculation to 4 days of growth.

(c) A coli culture of 24-hours age, when compared with a typhoid culture of any age tested up to 33 days gives the more marked reducing effect.

(d) After a few hours' growth the broths may be boiled and thus sterilized, and the differential effect upon the sensitive surface persists.

(e) This discriminative reaction has been obtained with four cultures of coli from different sources and with five typhoid cultures from different sources.

(f) It will be found that if the sensitive plate is wetted with tap water and also with sterile broth, and simultaneously applications of the cultures are made four separate areas being thus prepared for comparison—the typhoid and sterile broth do not differ markedly in their actions upon the silver bromide, whereas the effect of the tap water has been intermediate between that of the coli and the typhoid. It is known that water is to some extent a sensitizer.

(g) The time of exposure of the plate to the application of the cultures has varied between 10 and 90 minutes, and the discriminative action of 24-hour cultures found to be best marked with an exposure of 45 minutes. But from at least 10 minutes exposure upwards the difference is obtained with any broths in which there is a visible growth.

(h) While in some of the earliest of these observations, and before I had gained experience as to the best methods to employ, a few cases occurred in which the distinctive difference was not well marked, in all my recent observations, twenty-four in number, I have unfailingly obtained the differential effect.

(i) Finally I have observed that if pools of well-grown coli and typhoid broth cultures are poured on a photographic plate and exposed to light, a reduction of silver is seen in a few minutes without development. After about 30 minutes the deposit due to the typhoid broth is distinctly darker than that due to the coli broth. If the pools be now poured off the sensitive plate the difference reaches its maximum, but as the gelatine dries the distinction is almost completely lost. Tap water has no visible effect, except the swelling of the wetted gelatine of the plate.

I am continuing the experiments, and am not without hopes of more extended applications of the phenomenon.

NOTE UPON THE CAUSATION OF CANCER.

By H. J. CAMPBELL, M.D., F.R.C.P.,
Senior Physician, Bradford Royal Infirmary.

THE observations of Professor Farmer and others with regard to the mode of division of the nucleus in cancer cells render it possible to formulate a theory which seems to me to afford reasonable explanations of many of the difficult points in connexion with cancer.

Briefly stated, my view is that cancerous growth is caused by the degenerative reversion of epithelial cells to a germinal type, in association with a local irritant and in the presence of an abundant blood supply. The post heterotypic multiplication of the cells having once commenced, as a result of the degenerative reversion to an ancestral type, the local conditions serve to continue and fix the type, with the result that the growth becomes practically a colony of unicellular parasites. These act as one would expect members of such a colony to act: they encroach upon the tissues of the host, preferring to multiply along the lymph channels both, on account of the resistance being less in this direction than in any other, and also on account of the favourable nutritional environment there met with; or when they permeate the walls of a vein tend to be washed off from the colony as independent units, which, when they lodge in suitable situations, give rise to new colonies, namely, the metastatic growths.

Just as in animals we find an ascending and a descending stream running along parallel lines, so in cells, with regard to specialization, evolution may be downward as well as upward. Again, just as the individual in his development presents a brief epitome of the history of the race, so, to a certain extent, does the individual cell in its decay tend to approximate to an earlier type of cell similar to that from which it has been evolved, and with similar attributes and powers. However, the more specialized the cell the greater

will be the difficulty in its reverting to an ancestral type. Thus one sees that, with certain exceptions, nerve cells, having once been formed, are incapable of multiplication and in fact just as nerve, muscle, connective tissue, and epithelium may be said to form a descending scale in respect to their specialization or departure from the ancestral type, so do these various tissues differ in their attributes and in their powers of multiplication from the ancestral cell. The epithelial cells may, indeed, be looked upon as those cells which have been left over after the more specialized cells have been budded off, and it follows that it is these cells which will most nearly resemble the ancestral cells in their attributes, and especially in their powers of reproduction, and will most easily revert to the original type. In other words, as this reversion must be in the form of a degeneration, it is in these cells that one may expect a degenerative reversion most readily to occur. It may be objected that the reversion ought to be to an embryonic type, that is to say, to a type which is capable of reproducing the whole organism; but, in the higher animals at least, the power of so complete a reversion has been lost, though in many of the lower animals, and in most of the higher plants, this capacity is retained by the least specialized of the individual cells of which the organism is composed.

If, then, the tendency of degenerating epithelial cells to a reversion to a germinal type be allowed, the next thing to consider is, what the causes are which determine the appearance of the disease at any one time or place. With regard to time, the essential condition is that the epithelial cells should be becoming somewhat inert, that is to say, growing prematurely old, and losing their normal powers of reproduction or multiplication. In other words, that, with regard to them, the decadent period of life should have set in. It has often been said that a man is as old as his vessels, and this is equally true of most of the organs of the body, and of the epithelial cells more especially. A tendency to what may be described as precocious degeneration of the epithelium may be a parental legacy; and just as in some families the vessels tend to develop atheroma early, whilst in others the hair becomes prematurely white or thin, or the nerve cells all soon tend to undergo atrophy, so also with these tissues the liability to the early formation of cancer is not infrequently a pronounced family characteristic. Again, the favourite sites for cancer are those, like the breast or the cervix uteri, where degenerative processes appear most early. Further, with the increased rapidity of living under modern conditions, all the degenerative diseases are tending to increase in frequency, and to appear at earlier ages than was the case with our more slow-living ancestors. I need only instance general paralysis of the insane and degenerative conditions of the heart muscle apart from valvular disease.

Again, with regard to cancer houses, streets, and villages, any external conditions which favour the early onset of degenerative changes in epithelial structures will favour the development of cancer, hence it is not surprising that environment should be effective within somewhat narrow limits in determining the frequency of the disease. The high percentage of stomach cases is further hardly to be wondered at considering the amount of irritation to which this organ is exposed by overcooked, hard, irritating food on the one hand, and nauseous, artificially, semi-digested messes on the other, let alone the worry it suffers from the continus drugging it receives on the wall-poster advice of the quack medicine vendor. It is therefore small cause for surprise that the stomach epithelium tends early to grow old and feeble, and the cells individually to strive to retrace their evolutionary history.

So far, then, if I have succeeded in establishing that under certain conditions the epithelial tissues, and especially those in certain regions, are in a state ripe, as it were, for reverting to an ancestral germinal type, then it only needs that some exciting cause should appear in order to start the cancerous growth. But even it started, if it is to go on, the nourishment must be abundant, and hence, again, the great liability to cancer of those regions, like the breast and the uterus, where the mechanical arrangements for the supply of blood are far in excess of the needs of a decaying or degenerating organ. The exciting cause may be a mechanical irritant such as a rough tooth or a gall stone, a chemical irritant as occurs when an irritating discharge flows over a granular surface, or a biochemical one as in the case of a simple ulcer becoming malignant, or as in Paget's disease of the nipple. The effect of the exciting cause is probably complex, in that it not only may act as an irritant to the cells, but will also cause dilatation of vessels and excessive blood supply to the part concerned. Thus it seems to me that all the conditions present in cases of cancer can be more readily and satisfactorily explained by this theory than by any other which has so far been advanced.

STRUCTURAL LINKS IN MALIGNANT GROWTHS.

BY

FRANK BUSHNELL, M.D.Lond., Pathologist, South Devon and East Cornwall Hospital, Plymouth.

and

F. CAVERS, B.Sc.Lond., F.L.S., Lecturer in Biology, Municipal Technical School, Plymouth.

It is said that the qualities which constitute malignancy differ in degree rather than in kind from the characteristics of benign growths. Thus, for example, simple adenoma becomes malignant adenoma, fibroma becomes sarcoma, and papilloma becomes carcinoma. Again, it is impossible by clinical or pathological methods to distinguish sharply between certain cases of retained placenta, simple and malignant moles, chorion-epithelioma (deciduoma malignum) and even teratoma. Progressive growth and the formation of metastases, the infiltration of surrounding tissues, their atypical character, and the absence of specific symptoms are most frequently noted in carcinoma and sarcoma. The laws which govern the growth of tumours and the "fecundity" of the cellular constituents are as yet unknown, but a rapid rate of multiplication and also of degeneration—in other words, cellular instability—is usual. The growth is not in proportion to the nutrition of the body as a whole or in part, or to the age of the patient—for example, the "cancer age" is late middle life.

In carcinoma both lymphatics and blood vessels are the channels for the supply of nourishment, but in sarcoma no lymphatics are known. In both cases the cells are bathed in nutrient fluid and must be fed by a process of osmosis, perhaps aided by increase of assimilatory activity. The purpose of new growths is, of course, unknown. A parallel is perhaps suggested between cancerous growths and the rank vegetative activity often observed in herbaceous plants and in the larger fungi.

Various irregularities in the divisions of the nucleus have been observed in malignant growths—for example, multipolar spindles, increase in the number of chromosomes or in the amount of stainable substance (chromatin) in the nucleus, direct or simple division, etc. Professor Farmer and his colleagues have recently shown that heterotype nuclear divisions, characterized by a reduced number of chromosomes which are annular or "bunched" in appearance, are attached to the long axis of the spindle, and divide transversely, are present in malignant growths in man. Drs. E. F. Bashford and J. A. Murray have reported the same in other mammals and in fishes.

During the study of a large number of sections made by one of us (F. B.) it was noted that the mitoses were very readily observed in a glandular carcinoma of the rectum, less so in a sarcoma, and least in a scirrhus mammae. The appearance of the mitotic figures, as sketched from microscopical preparations with high magnification, is of interest to all pathologists, and the difference between the slender V-shaped somatic chromosomes and the thick irregularly-shaped heterotypic ones, is especially well shown in Fig. 1. In Fig. 2 the somatic mitosis shown in A stands in sharp contrast with the heterotypic ones, B to G; these sketches are all from a glandular carcinoma of the rectum, and were made with uniform magnification. A similar contrast is shown in the sketches H (somatic) and I (heterotypic), which are from a sarcoma. It was observed that the cells undergoing heterotypic mitosis were frequently enlarged and of a spherical or ovoid form. Another feature noticed in the glandular carcinoma was the occurrence of both somatic and heterotypic mitoses in the glands of Lieberkühn adjacent to the growth, and their tendency to be situated nearer to the lumen than to the basement membrane.

Observations are being made with a view to mapping out the topography of cancer cells by this method and to ascertaining their distribution, as described by Professor Farmer, in various growths and in "heterologous" neoplasms. No evidence was obtained of conjugation of resting nuclei, or of conjugation of cells in pairs ("gametes"), or of appearances resembling the formation of "swarm-spores."

The question arises whether cells which have undergone a reducing nuclear division are "inclined" in plants or in animals to self-fertilization or fertilization from chemical stimuli. Such a phenomenon in cancer would presuppose that a sexual change is signified by this reducing division, similar to the sexual and asexual phases in the life-cycle of certain sporozoa and dependent on intrinsic and extrinsic (environment) forces. Parthenogenesis brought about in some way might explain by reinforcement the wonderful power of mimicry of original structures seen in metastases. It has long been known that parthenogenesis occurs in certain animals, and it has been shown in some cases to result from the lack of separation from the egg-nucleus of the second polar body, or to follow on the re-fusion of this body with the egg-nucleus. As stated by Professor Farmer in his kind reply to my letter of inquiry[1] parthenogenesis has been shown to occur in consequence of chemical stimuli, in cases where the egg-nucleus evidently possesses the reduced number of chromosomes. On the other hand, Dr. Bashford believes that the heterotypic mitoses are the expression of a terminal phase in the life-cycle of the cancer-cell.

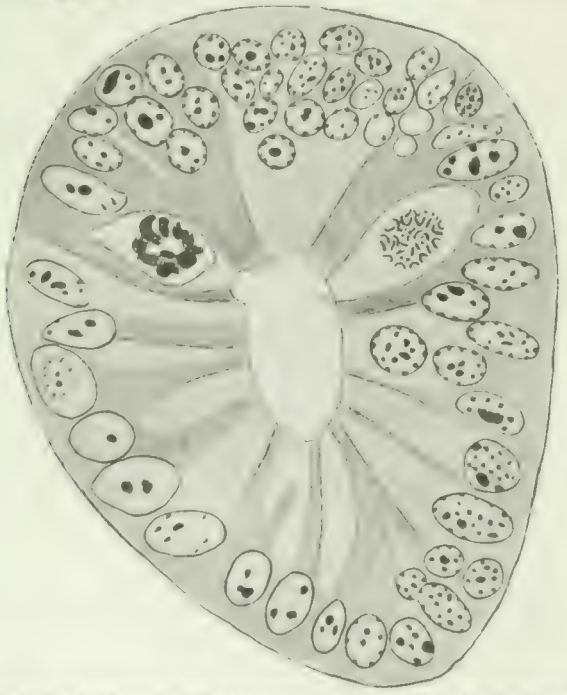


Fig. [illegible] glandular carcinoma of the rectum [illegible] two cells of a gland. Both [illegible] the [illegible] figure being viewed from [illegible] the [illegible] the somatic figure nearly [illegible] chromosomes are shown in the heterotypic figure [illegible] chromosomes are seen in the [illegible]

A second structural [illegible] that links malignant processes [illegible] tumours of cells of sarcomatous [illegible] of epithelial type. Many sections of an [illegible] the breast removed by Mr. C. Whitfield at the South Devon Hospital from a woman, aged 52, [illegible] with all the characteristic growths pass [illegible] transition to large sarcomatous elements. A certain [illegible] of the liver (in another [illegible] under the care of Mr. W. L. Woollcombe) [illegible] with pigmented cells [illegible] small epithelial [illegible] large [illegible] A [illegible] over the overfull [illegible] pigmented cells in the [illegible] was the seat of a [illegible] I expect it was [illegible] grounds that [illegible] [illegible] [illegible]

Similarly, H. D. Rolleston and O. Grünbaum note as follows: [illegible] are the transition from cells of [illegible] type to cells resembling columnar epithelium and the adoption of a [illegible] arrangement, despite the loss of specific epithelial stain.[2] This is not "metaplasia," defined by S. G. Shattock and C. A. Ballance as the transformation of one normal tissue to another but is akin to true "heterology" (Virchow). It appears to be the reverse of that which is seen in those tumours in which epithelial and sarcomatous elements are formed from "indifferent" tissue.

Not only may such changes as calcification, pigmentation, vascularity, etc., be faithfully transmitted from primary to secondary growths, but pigment appears in the neighbourhood of certain pigmented secondary deposits (for example, in or between the liver cells). This cannot be explained by the wandering of pigmented sarcoma cells, comparable to the wandering of pigment cells in fishes, but may be an excretion. It even appears in some sections as if the cells of a secondary deposit and those of the organ exert mutual action on each other's shape. Again, carcinoma can convert adjacent normal tissues to stroma. Both phenomena suggest that environment does influence the "germinal" cells of these growths, chemically or otherwise, despite the tendency of Jensen's experiments to magnify the potentiality for growth and reproduction inherent in "epitheliomatous" cells in the mouse.

Figs. [illegible] A to E are from the same series of sections as Fig. 1 (glandular carcinoma of rectum). A is a somatic mitosis; metaphase, and all the chromosomes are seen; in B and C the spindle is cut [illegible] gradually; in D and E it is cut transversely at about the middle. In F to J the mitoses shown are of the heterotype kind, the chromosomes being few, thick, and irregularly shaped. In some cases they are evidently ring-shaped and in four of the [illegible] are shaped in some cases as in G, is probably a multipolar mitosis, the chromosomes showing a tendency to form three groups but the spindle-threads were not detected. H and I are from a sarcoma in lobe of thigh. H being a typical example of a somatic mitosis, whilst in heterotypic [illegible] showing only [illegible] chromosomes [illegible] metaphase, heterotypic metaphase showing four thick [illegible] chromosomes above is seen the resting nucleus of an adjacent cell. The drawings were made with [illegible] magnification.

The figures which accompany this paper are from cases under the care of Messrs. R. H. Lucy, W. L. Woollcombe, and C. E. Russel Kendle at the South Devon Hospital, to whom I express my thanks for the material obtained on removal during operations. I am greatly indebted to Mr. F. Cavers for his beautiful and exact drawings, some of which are here reproduced.

REFERENCES

[illegible] February 6th, 1904, p. [illegible] "Proceedings Royal Society," vol. lxv, p. [illegible] "Glastonia" of C. P. White [illegible] February 27th, 1904, and [illegible] show.

THE TREATMENT OF INEBRIETY BY ATROPINE.

By C. A. McBRIDE, M.D. TORONTO, L.R.C.P. AND S. EDIN.

As doubt is sometimes thrown on the efficacy of all short-term systems of treating inebriety, a few notes on the subject based upon a lengthy and somewhat wide experience, may be of interest, especially as I have come to the conclusion that in the majority of cases long periods of detention are wholly unnecessary, and that a complete recovery, with absence of all craving for stimulants, may generally be expected after a course of treatment lasting six weeks.

The advantages of a short-term system, if efficient, are so obvious as not to call for enumeration. The question, of course, is whether the treatment results in permanen

recovery. As to this, there is, to my mind, no doubt whatever, assuming that the drugs be not only rightly selected but rightly employed.

The essential element of the treatment I have found successful is the administration of atropine. This is most conveniently given hypodermically, using the sulphate. In my opinion this drug has a specific action, and, although probably by itself insufficient to eradicate a craving for alcohol or other narcotics previously administered, it is, in the great majority of cases, essential to the treatment. Along with atropine it is my practice to administer at the same time strychnine, and I consider it also of great importance to exhibit regularly a bitter tonic, usually a fluid extract of cinchona bark. The cases to be mentioned subsequently will indicate the method of treatment. I may here say generally that the drugs used must at first be given in small doses which subsequently are increased: that their exhibition must be conducted personally by the medical attendant in charge of the patient and not deputed to others, and that the drug should be pushed until a distinct physiological effect is produced. In an adult where there is no delirium or serious complication, the doses I am in the habit of administering are as follows:

1. Atropine sulphate commencing at $\frac{1}{200}$ gr. three times a day, increased gradually during the first week until the pupils are affected and the mouth becomes dry. In most cases $\frac{1}{50}$ gr. will be the maximum dose.

2. Strychnine nitrate given at the same time subcutaneously in doses beginning with $\frac{1}{60}$ gr. and rising to $\frac{1}{30}$ gr. in the majority of cases.

3. Fluid extract of red cinchona bark given every three hours in ordinary doses by the mouth.

It will be obvious that in the administration of powerful drugs of this kind considerable judgement is required, and that in many cases it is needful to modify the above treatment. Auxiliary methods of treatment are also of great value, amongst which may be mentioned attention to the general health of the patient, the use of warm baths, special dietary, and regulated exercise. In cases where there is delirium, or when maniacal symptoms are threatened, as is only too common in cases of acute alcoholism, other remedies may be required. Even at the risk of somewhat lowering the strength, it is generally advisable to administer a brisk purge at the commencement of treatment, in order to remove imperfectly eliminated waste products. Bovril containing plasmon may be administered freely and frequently.

To illustrate the application of the remedies I have selected four cases, each one being typical of a different class of inebriate.

Case I.

E. M., aged 45, entered for treatment August, 1903; of cadaverous appearance, slight physique, markedly nervous, general health bad, suffering greatly from insomnia. He was a heavy smoker. The attacks of alcoholism were periodical, and lasted about a fortnight. During the two or three months' intervals he had no desire for stimulants. While transacting his ordinary business he would suddenly be seized with an uncontrollable desire for them, and rushing from the room would disappear for a time; he would be found later in the back room of some low inn, where he had been drinking large quantities of whisky. During the debauches he would talk quite rationally, but afterwards could remember nothing of what had occurred. Prior to the beginning of treatment the patient was found by his friends, after having been in hiding for three days, commencing a fresh debauch.

Finding the patient hypersensitive to the effect of strychnine, I did not push this drug beyond $\frac{1}{50}$ gr. three times daily. In combination with this I gave atropine sulphate, commencing with $\frac{1}{200}$ gr., and gradually increasing the doses until the eyes and mouth were affected; this strength was maintained for a fortnight, and the drug withdrawn two days later. The patient was also given every three hours a mixture of red cinchona bark, gentian, and capsicum. The above strength of strychnine was maintained until the twenty-eighth day, when it was gradually reduced to *nil* at the end of the fifth week. The capsicum in the mixture was only administered during the first fortnight, and the simpler mixture continued during the remainder of the course. The patient lost the craving for stimulants on the third day; on the next day the insomnia disappeared; his general health improved with marked rapidity, and he left the sanatorium at the end of six weeks enjoying excellent health.

In 1901, when I last heard of this man, he was still perfectly well, and there had been no return of his troubles

Case II.

W. B., aged 45, entered November, 1896; married. At the time of commencing treatment he had been drinking to excess for five years. His nervous system was completely shattered and the heart's action weakened: he was very emaciated and anaemic.

Treatment was as follows: Strychnine injections were administered four times a day, commencing with $\frac{1}{60}$ gr., and sulphate of atropine commencing with $\frac{1}{200}$ gr. At the end of the second day the desire for alcohol had completely disappeared. On the morning of the third day I was, however, compelled temporarily to withdraw the atropine as the man began to develop symptoms of delirium tremens, these I met with a hypodermic injection of $\frac{1}{2}$ gr. of morphine, which sent the patient into a sound sleep lasting ten hours. After resuming consciousness the delirium had quite disappeared. The atropine injections were resumed upon the following day and continued as in Case I; the strychnine was rapidly increased, so that by the fourth day he was receiving $\frac{1}{30}$ gr. each injection, and this strength was continued for twenty days, when it was gradually reduced to nothing at the end of the fourth week. The rest of the treatment varied but little from that in Case I.

The patient was so satisfied with the results that during the two years following his admission he was the means of inducing a number of men from his native town to undergo treatment. I may state that most satisfactory reports regarding this patient have recently come to hand—that is, September, 1903.

Case III.

A. B., aged 32, married, one child, entered for treatment May, 1891. He was anaemic, of slight build, highly nervous, but there were no signs of visceral disease. He had been drinking to excess for about three years.

Entering under compulsion, and consequently refusing treatment, it was with difficulty that I succeeded in inducing him to submit to treatment by allowing whisky at frequent intervals. He was able to take this stimulant for two days, but on the morning of the third he could not bear its odour, and although he made persistent efforts to drink a glass of whisky and soda was quite unable to do so. Being an intelligent man, he recognized that some change had taken place, and decided to go through with the treatment. From that time on to the completion of the courses he gave me no trouble, but, on the contrary, became intensely interested in his progress towards recovery. The hypodermic treatment consisted of four injections daily of strychnine nitrate and atropine sulphate, commencing with $\frac{1}{60}$ gr. and $\frac{1}{200}$ gr. respectively. In conjunction with this he received every three hours a mixture of red cinchona bark, coca,* gentian, and capsicum. The strychnine was rapidly increased so that by the third day he was receiving $\frac{1}{30}$ gr. each injection, this strength being maintained for twenty-one days, when it was gradually reduced to *nil* at the end of the fourth week. The atropine was slowly increased until the usual physiological symptoms appeared on the fifth day, and this strength was maintained until the thirteenth day, when it was gradually reduced and finally discontinued on the sixteenth day. The coca and capsicum in the mixture were only administered during the first fortnight and the simpler mixture continued during the remainder of the course, which lasted altogether five weeks. During the whole course of treatment he resided with his wife at a neighbouring inn. Here he had every facility for indulgence in his former habits and enjoyed entire liberty after the fourth day. He rapidly gained in strength and flesh, his appetite for food returned during the first week and remained excellent throughout; he slept well, thoroughly enjoyed the daily exercise prescribed, and left for home in good health.

I met with this gentleman about three months ago, and ascertained that ever since the treatment thirteen years ago he had retained a strong aversion to all alcoholic stimulants. I may add that about seven years ago he passed through a severe financial crisis, owing to the worries of which he became very depressed. At this time he was in a strange country—separated from all his friends, and in the heart of a heavy drinking community. I naturally asked him whether, under this great trial, he felt any inclination to resort to stimulants, his reply was that he never once thought of them. Prior to his treatment his family physician had informed me that he would not live two months longer unless something was done to check his heavy excesses.

Case IV.

C. H., aged 50, married, a commercial traveller, was treated May, 1891. He began drinking at the age of 20, but did not drink to excess till he was 35. Though a man of exceptional ability, his drinking habits had brought him so low as to cause him to sell his furniture to obtain money for drink. He had been unusually fleshy, but at this time the flesh hung upon him loosely, and there was considerable enlargement and tenderness in the hepatic region. The heart's action was weak, but there were no lesions; the mental faculties, even during sober periods, were enfeebled. The man was a nervous wreck, the slightest thing throwing him into either tears or excessive laughter.

Treatment was as follows. Three strychnine injections were administered precisely as in Case III. The atropine was commenced in the same way, but was temporarily withdrawn after two days' administration, as symptoms of delirium tremens appeared. Doses of whisky had been allowed periodically up to this time, and to obtain sleep 30 gr. of potassium bromide had been added to the final drink of the day. Although he slept off and on during the second night, the delirious symptoms remained. On the morning of the third day he was given $\frac{1}{2}$ gr. of morphine hypodermically; at the end of two hours the excitement had increased to such an extent that he was rapidly exhausting his remaining strength. Another $\frac{1}{2}$ gr. was injected, and after an hour and a-half had passed without the desired result another $\frac{1}{4}$ gr. was administered. This caused the excitement to subside in about ten minutes, so that he dropped into a deep sleep which lasted for about seven hours. Upon

* For some years now I have entirely omitted the use of coca, and believe that it played no useful part in the treatment of these earlier cases.

waking for a few minutes he took some bovril and I gave an injection of strychnine. Another quiet sleep ensued for about the same period as the first. During the few minutes he was next awake he was fed and treated as before, altogether he slept for twenty four hours, at the end of which time the atropine injections were resumed and continued as in Case ... He found on regaining consciousness that the craving for stimulants was greatly lessened, and during the course of the next two days it not only disappeared, but was replaced by absolute aversion to alcohol. With the exception of some slight modifications incidental to the condition of the patient's system, the treatment varied but little from that in Case III during the remainder of the course. He returned home in what he was pleased to term "the pink of condition," his treatment having lasted five weeks.

During the second week he informed me that he had apparently been "living in a cloud," but he now felt as though "scales had fallen" from his eyes, and that he could not only think and see clearly, but that also his views on the use of intoxicants had been entirely reversed. His subsequent career proved that his recovery was complete. It may be added that three years after treatment he unintentionally took some brandy sauce when away from home; the effect was remarkable, in that he had hardly time to leave the dining room before vomiting. He remained well in January, 1904.

The four cases cited are typical of the majority, but I may refer to one extreme case that passed through my hands in October, 1895. It was a case of acute alcoholic poisoning in a man 30 years of age. He was a confirmed inebriate and not expected to rally from the unconscious condition in which I found him. I agreed to treat him in consultation with his medical adviser, provided consciousness was regained. The treatment was administered at his own home, and as the man had no idea that he was being treated for alcoholism, I purposely left the decanter and siphon within his reach. On the fifth day he ordered them out of his sight, remarking that their presence nauseated him. This may be scarcely credible, but I can vouch for the accuracy of the statement. It was not until his recovery was completed that he was informed of the reason of his treatment. When I last heard of the patient three years ago there had been no relapse to his former habits.

I think that the foregoing cases will fully illustrate the method of application.

I make no claim for originality in respect of the drugs used in this treatment of inebriety. The method of their application is, however, I believe, new, and I cannot find that the medical profession generally is aware of the specific action of atropine in combating inebriety. In the ordinary textbooks no mention is made of it. In Hare's *Therapeutics*, published in 1903, the value of strychnine and atropine is discussed. I may quote the following passages:

> There can be no doubt that in most cases strychnine is beneficial, and that it markedly diminishes the depression of the period of withdrawal, and may even tend, as is claimed by Phelps (*Medical Fortnightly*, St Louis, 1901), to impair the appetite for alcohol. Though it has not in the writer's experience so valuable a property no harm can be done by its use, especially in moderate doses. In many cases we must admit that it is followed by most gratifying results.

Referring to the use of atropine, he says: "Its stimulating qualities are occasionally of much service in many cases of alcoholism. Like strychnine it appears to lessen the depression caused by the withdrawal. It seems to diminish especially the distressing epigastric and retching sensations from which alcoholics suffer. ... Clark (*New York Medical Journal*, vol. xxiii, p. 721) regards the combination of strychnine and atropine as a specific. He maintains that while strychnine by a reflex action diminishes the appetite for alcohol, atropine has a special aptitude for lessening the craving for alcohol. Cutter (*Medical News*, March 7th, 1903) also regards atropine as a special remedy. He declares that atropine given three or four times a day will produce a great distaste for alcohol in from one to two days; that whisky becomes repellent as strong salt water, and that even beer and cider become intolerable. ... Hare has also remarked that ... Atropine may indirectly lessen the craving for alcohol."

Having now for fully thirteen years used these remedies with a large measure of success, during which time I have treated several hundred cases, I feel justified in saying that a remedy is available which will prove of great value in the treatment of one of the most hopeless forms of disease.

The remedy I put in this article is for sale simply to patients who have suffered from excessive use of alcohol. I have also used the treatment largely in the case of those who are suffering from the abuse of other narcotics, especially cocaine and morphine. I have never known unsatisfactory sequelæ to result either in the case of these or alcoholic patients.

From *a priori* point of view one would naturally think that recovery was impossible in a considerable number of cases. It is well known that alcohol produces extensive degeneration of the nervous elements in the brain and peripheral nerves, and as our present knowledge seems decidedly to indicate that very little repair of damaged nerve cells is possible it is hard to believe in the complete restoration to mental vigour of patients who have for many years taken alcohol in great excess. Nevertheless, experience has shown me that many cases which are apparently most hopeless do recover under the treatment here recommended. I can hardly offer any explanation of this. I apprehend that in these cases the marked signs of mental deterioration are due to the effect of continued intoxication by alcohol retained in the body rather than to actual nervous destruction of tissue from alcoholic poisoning. No doubt some degenerative changes are present in most cases. The amazing recoveries which I have seen under the treatment here set forth make it perfectly clear to me, however, that the degenerative changes play but a small part in producing the obvious degradation and deterioration of the mental faculties.

I trust that the publication of these notes may result in this treatment having a careful and extended trial, but perhaps a caution is desirable lest the fate that sometimes follows the introduction of good methods of treatment should attend this and it become discredited by its wide adoption without proper precautions. Very considerable attention is required on the part of the physician. The cases are often exceedingly difficult to manage, and success is hardly likely to follow unless the treatment be carried out under proper conditions, and for this reason treatment in a sanatorium or other special institution is desirable in order to obtain the best results.

THE SO-CALLED "GOLD CURE" OF INEBRIETY.

By S. BACKWELL FENN, L.R.C.P. and L.R.C.S.Ed., etc.,
Medical Officer, Southport Hydropathic Hospital.

Having had the opportunity of treating many patients with, and watching the effects of, the so-called gold cure of inebriety for the last three and a-half years I esteem it a privilege and duty to testify to its methods and results. We are all only too familar with the sad relapses occurring where the patient has been placed under restraint for six, twelve, or more months. Under these circumstances he is unable to procure the drink he craves for, and on leaving the retreat often immediately resorts to the prohibited stimulant and becomes its slave as before. The Americans have long recognized this, and institutions for the rapid cure of this disease abound in the new world, though it would appear that most of them work with secret or proprietary formulae. I am indebted to the Rev. Dr. Wolfenden for seriously calling my attention to the "gold cure" and inducing me to give it a trial.

The *modus operandi* of the "cure" is as follows: On entering the institution the patient is at once made thoroughly at home, and is given a glass or bottle of his favourite beverage if he wants it. No restriction is put upon his movements, and he can go in or out as he pleases between meals and the times for administering the medicines. A generous table is provided and, in some cases, extra nutrition is prescribed in the shape of soups, beef tea, oysters, etc. Before commencing the medicinal treatment the patient is thoroughly examined, and the presence or absence of organic disease ascertained. The "cure" then begins and consists of hypodermic injections, medicines given by the mouth and the administration of baths. The first are given four times a day and consist usually of a solution containing daturine sulphate gr. $\frac{1}{150}$ or atropine, gr. $\frac{1}{100}$ and strychnine sulphate gr. $\frac{1}{30}$, these doses being regulated according to the patient's condition. I have never seen an abscess or unduly sore arm from this frequent use of the needle. The medicine given internally is taken every two hours during the day and evening. This generally is a mixture containing chloride of gold and sodium gr. $\frac{1}{10}$, ammonium chloride gr. j, aloin gr. $\frac{1}{6}$, fluid extract of valerian ℥x and tincture of cinchona ℥xl. Should the patient suffer from diarrhœa I omit the aloin. It is found that small doses frequently repeated are better than larger ones at longer intervals.

If the patient from force of habit resists after the fourth or fifth day in taking alcohol, a little liquid extract of ipecacuanha is added to his medicine. The resulting emesis quickly induces him to abstain from his whisky. Should the medicine produce nausea, diarrhœa, or bilious symptoms I change the prescription accordingly. Tincture of capsicum, fluid extract of kola, and ammoniated tincture of valerian are drugs frequently used in addition to the above named. Special attention is paid to insomnia and neurasthesia, symptoms from which inebriates frequently suffer. The next, and by no means the least, important part

of the treatment is the hydrotherapeutic. Full sheet packs, liver packs, vapour baths, sitz baths, spinal baths, are all in their place found to be most beneficial. The skin is thus got into a thoroughly healthy condition and internal organs are invigorated in the performance of their functions.

Mentally and morally much is accomplished by the patient's cheerful surroundings, the presence of others nearing the completion of their treatment, whose well-being and health greatly encourage the new arrival, and by tactful counsel from the physician or nurse to help the patient's resolve and open up to his mind fresh and healthy views of life and its privileges.

In the great majority of cases four weeks is sufficient to transform the drink-sodden victim of intemperance into a healthy and sober man or woman. Exceptional cases will require five weeks, and very occasionally six to eight are desirable.

There are some few cases who have little or nothing left to work upon. They appear to be thoroughly burned out, so to speak, by alcohol, and though the baths and medicines may take the appetite for drink away they have no vitality left, and soon drift back into their old habits. Such cases, however, are not numerous. Rarely, too, one meets with another class of patients that are very disappointing. They will not treat one honestly and fairly in taking the treatment, they will drink on the sly, and will never show an honest purpose to live a clean life. As a rule, however, no patient who takes the full course of treatment as directed, and manifests an honest desire and set purpose to rid himself of his bondage will fail to succeed. One clearly recognizes that alcoholism is not simply a physical disease but also a great moral malady, and we therefore seek to lead the patient to look upon life in a new way; to persuade him to give up false friends and old associations; and to make up his mind that in the future he will under no circumstances whatever touch the poison that has ruined his past.

The treatment is necessarily institutional from its very nature and the frequent, regular, and thorough administration of the remedies employed. Besides, there is much about institutional life and its environments that is extremely helpful to the patient. I should add, however, that considerable success has been achieved by sending specially-trained administrators as residents into homes of alcoholics for a month or five weeks, there to treat the patient under the physician's directions.

What percentage of the patients remain permanently cured? It is most difficult to answer this question, as from the very nature of the malady it is not easy to gather reliable statistics. Dr. Wolfenden's statistics in Australia go to show that 80 per cent. remained total abstainers after a period of one to eight years. My own experience leads me to conclude that 60 per cent. here do so. Some fall and return at once, and having learnt their bitter lesson are the stronger for the relapse. Others are led back to drinking habits by old associations, the presence of drink in the home, or the lack of moral courage. The results, however, are most encouraging and stimulate one to further research and endeavour to secure the best results.

ADRENALIN IN NEUROTIC HEART.

By A. S. MYRTLE, M.D.,
Harrogate.

Nothing has been more forcibly impressed on my mind during the last fifteen years than the great and steady increase of heart cases of a neurotic origin. On examining such in a quiescent state, one discovers nothing abnormal with heart or pulse. The attack generally comes on suddenly without apparent cause — the patient feeling perfectly well, detects a little flurry in heart's action with a sense of oppression or weight—the pulse is feeble, very irregular, and intermittent, beating rapidly for a second or two, then halting, missing a beat after every third, fifth, or seventh. Respiration is hurried and shortened, but not remarkably so, and a full deep breath can be readily taken. Early attacks pass off generally as quickly as they appear with rest and a glass of whisky or other stimulant; they can be frequently be traced to errors in diet, over-fatigue, mental excitement, or functional derangement of the liver. As time goes on they become more frequent and persistent, demanding active treatment. I have found full doses of strychnine $\frac{1}{60}$ gr. hypodermically or by the mouth most reliable, and with this $\frac{1}{250}$ gr. to $\frac{1}{125}$ gr. strophanthin is combined with marked advantage; in severe cases I have resorted to ether inhalations without permanent good. I have long discarded digitalis as useless.

Recently I met with two cases lasting for days where the above measures, with plenty of brandy, etc., had absolutely no effect.

Case I.

The first, a gentleman over 70 years of age, had been very bad for four days and nights, when my son suggested a trial of adrenalin. He had been using this (to me a new therapeutic agent in cases of haemorrhage, internal and external, at the infirmary and in private. He had noticed that in cases where he had found the heart weak, the pulse feeble and irregular before the adrenalin was given, after its use the heart's action got stronger, the pulse steadier, and whilst admitting that the improvement in these cases might reasonably be accounted for by the cessation of the bleeding, he advised a trial of the drug in this case and prescribed 20 min. of adrenalin chloride solution every six hours: the pulse was so rapid, feeble, and irregular that it could not be counted, the patient complained of a dull pain with sense of weight over the heart, his expression anxious, the face and ears ashen, the extremities cold, and the voice reduced to a whisper. After the second dose a little improvement was noticed, and this continued without a check after each dose; after the fifth the patient fell asleep in his chair and in a couple of hours awoke feeling quite himself but very shaky.

Case II.

Shortly afterwards a similar case came under our care—a gentleman close on 80 years of age, of gouty habit. He had been liable to heart attacks for many years. After reading a highly sensational blood-and-thunder novel, the heart suddenly gave in; he began passing large quantities of pale urine, for an hour and a-half he had to empty his bladder every fifteen minutes. He was put on the same course as the other patient, and after the third dose was relieved of all discomfort.

In neither of these cases did any unpleasant effect follow.

In milder cases we have given small doses, 5 min. with $\frac{1}{125}$ gr. of strophanthin with the most satisfactory results. I feel scarcely warranted in bringing this new remedy as a cardiac tonic to the front on such limited experience, but having watched its action most carefully I am convinced of its value, and place it before the profession believing it will prove of great benefit in cases of heart failure such as I have described. I am all the more encouraged to do so after reading the original, bold as well as successful results obtained by Dr. James Barr, of Liverpool,[1] in dealing with the very worst cases of serous effusion in the cavities of the body, where complications of the gravest kind had to be faced.

Reference.
1 British Medical Journal, March 12th.

DIONINE: A NEW OCULAR ANALGESIC.

By JAMES HINSHELWOOD, M.A., M.D.,
Surgeon, Glasgow Eye Infirmary.

In dealing with disease in such a sensitive organ as the eye, our aim must be not only to cure the disease, but during its course to give relief to the sufferings of the patient. Every agent which can contribute to the relief of pain should therefore be welcomed as an additional weapon to our therapeutic armamentarium, which cannot be too well stocked. At the meeting of the British Medical Association in 1898 at Edinburgh I made a communication[1] on holocaine, an ocular anaesthetic and analgesic, greatly superior to cocaine in its power of relieving the deep-seated pain of ocular disease. On reading Darier's recent work[2] on ocular therapeutics my attention was directed to dionine as an ocular analgesic, and I have since made extensive use of it with great success, both in my private and hospital practice. Although dionine has been used for several years in general medicine as a sedative to replace codeine and morphine in bronchitis, pulmonary emphysema, and bronchial asthma, its use as an ocular analgesic is practically unknown in this country, and hence I wish to briefly record my personal experiences of this new and powerful agent for the relief of pain in the eye.

Dionine, or ethyl-morphine hydrochloride, is a white odourless crystalline powder freely soluble in water. I have used the dionine chiefly in 5 per cent. aqueous solution, or made up with vaseline as an ointment in similar strength. Where there is great lachrymation I prefer to use it as an ointment, which smears itself over the globe of the eye, and is gradually melted and aborbed. In such cases a few drops of a solution are rapidly diluted with tears and washed out of the conjunctival sac, and therefore it is not so effective as the ointment. Even in 2 per cent. aqueous solution, or as an ointment of same strength, dionine has marked analgesic properties, and hence, where the pain is not severe and the inflammatory condition of the eye not very acute, the

strength of 2 per cent. may be quite sufficient to give the necessary relief.

When this 5 per cent. solution is dropped into the conjunctival sac it does not modify in any way the sensitiveness to touch of the cornea or conjunctiva. The gentlest contact with cornea or conjunctiva is felt just as distinctly after the instillation of the dionine as before it, hence it is not an anæsthetic like cocaine or holocaine. It is of no use, therefore, for the removal of foreign bodies or for performing operations of any kind on the eye. But if the patient is suffering from a painful affection of the eye, such as iritis, irido-cyclitis, glaucoma, ulcer, or inflammation of the cornea, the instillation of the dionine solution will always soothe, and often give complete relief, for several hours from the severe pain which accompanies those affections of the eye. Dionine is not an ocular anæsthetic, but is a powerful ocular analgesic.

Does the dionine give this relief by its local action on the globe of the eye, or does it act on the central nervous system, after being absorbed into the general blood stream partly by the conjunctiva and partly by the tear passages? That its action is purely local is proved by the fact that when both eyes are painful relief is experienced only by the one into which the dionine has been instilled, the other eye remaining painful as before.

Cocaine and holocaine are both anæsthetics and analgesics. Cocaine and holocaine render cornea and conjunctiva insensitive, so that we can perform operations on the eye without pain, and for this purpose they stand so far unrivalled. They are also analgesics, relieving the pain of disease when it is superficial, as in abrasion and ulcers of the cornea. But in this analgesic power dionine is undoubtedly superior both to cocaine and holocaine, and hence the great value of this new agent in the treatment of diseases of the eye. In the deep-seated pain produced by iritis, irido-cyclitis, and glaucoma the analgesic effect of cocaine and holocaine is much less powerful, and particularly that of cocaine. Sometimes cocaine actually increases the pain by elevating the tension of the eye, and hence cocaine should be used with the greatest caution as an analgesic in inflammatory conditions of the eye. I have recorded a case where an attack of acute glaucoma was brought on by the use of cocaine. In glaucoma cocaine should never be used for the relief of pain. Holocaine can be freely used in glaucomatous cases, as it has no effect whatever on the tension of the eye. It is in these cases of deep-seated pain due to inflammatory affections of the eye that the analgesic effects of dionine are of the greatest service. We can give the patient relief no doubt by the internal administration of morphine by the month or hypodermic injection, but this method has the great disadvantage of frequently deranging the digestion and disordering the patient's nervous system. It is a great step in advance to give the patient relief by a local analgesic alone, and this we are able to accomplish, in most cases by dionine.

I have recently, in cases of deep-seated pain due to inflammatory affections of the eye, such as iritis, cyclitis, irido-cyclitis, and glaucoma, carried out comparative experiments with regard to the power of cocaine, holocaine, and dionine in relieving pain. I have used three solutions—cocaine, 5 per cent., holocaine, 1 per cent., and dionine, 5 per cent. I have used these solutions alternately in the same cases with the view to determine the degree and also the duration of the relief afforded. Cocaine is a long way at the bottom of the list both as to the degree and duration of the relief which it gives. Its analgesic effects are not to be compared with those produced by holocaine and dionine in this particular [illegible] Cocaine only gives very partial relief as compared with the great relief afforded by holocaine and dionine. The analgesic effects of the latter two were found to be even [illegible] those of cocaine.

With regard to the duration of the relief afforded, both holocaine and dionine were much superior to cocaine; but [illegible] of the two. The period relief [illegible] was rarely longer than an hour, whilst the analgesic [illegible] was sometimes manifested for three and [illegible] hours. For the relief of the severe deep-seated pain in inflammatory affections of the eye both as regards degree and duration of the analgesic produced, I found dionine the most powerful and best holocaine, and a long way inferior to both cocaine.

There is an occasional effect of the dionine requiring which the patient must be warned, otherwise it may cause much needless alarm. After the first instillation there sometimes appears an intense chemosis of the conjunctiva, which swells up and overlaps the cornea. This need cause no alarm as it rapidly subsides, and it is even an appearance to be welcomed, as in these cases where the dionine produces this intense chemosis its analgesic effects seem to be greatest. This chemosis of the conjunctiva appears only after the first or second instillation of the dionine, and never after the subsequent ones, and need not interfere in the slightest degree with the regular use of the drug. I have never seen it after the use of 2 per cent. solutions, but only after the use of 5 per cent. solutions. The dionine drops or ointment may be used every four, six, or eight hours, according to the severity of the pain and the effect produced.

REFERENCES

1 BRITISH MEDICAL JOURNAL, [illegible] Glaucoma. *Lancet*, [illegible] *Ophthalmic Review*, [illegible].

HYDRONEPHROSIS DUE TO ABNORMALITIES IN THE URETERS

TWO CASES SUCCESSFULLY TREATED BY PLASTIC OPERATIONS.

By B. G. A. MOYNIHAN, M.S., F.R.C.S.,

Leeds.

WITHIN the last twelve months I have operated upon 2 cases of hydronephrosis and have found, in each, a deformity of the ureter to be the cause.

CASE I. [illegible] *Ureter* [illegible] *Recovery.* [illegible] *Ureter* [illegible] *Recovery.*

A. D., female, aged 17, admitted to the Leeds General Infirmary on October 6th, 1903, complaining of a swelling on the right side of the abdomen. The history was, that ever since the age of [illegible], the patient had suffered from pain and constant uneasiness in the right loin, especially after exertion. There had never been any symptoms of urinary disorder, neither pain nor frequency of micturition, and no blood had ever been observed in the urine. The pain during the last year or more had been worse and had come in spells which caused faintness and sickness. Four weeks before admission she noticed that the right side of the abdomen was swelling, since the first appearance of this enlargement it had steadily increased in size, without remission.

On examination of the abdomen a smooth rounded fluctuating tumour was found in the right lumbar region. The signs revealed, permitted an assured diagnosis of hydronephrosis to be made.

On October 8th, 1903, the kidney was exposed through an oblique lumbar incision. The tumour was found to be formed by the enormously distended pelvis of the kidney. About [illegible] oz. of fluid were drawn off by the aspirator. It was then apparent that the relation of the ureter to the renal pelvis was abnormal. The ureter of normal size, opened at approximately the junction of the outer third with the lower two-thirds of the pelvis, and was immediately adherent to the wall of the pelvis as it lay in contact with it. The ureter was freed from the pelvis, and at its point of origin was seen to be very much dilated. The size of the ureter was abruptly diminished over a short length, as though a narrow tape had been tightly tied around it. A small incision was made into the ureter above and below the stricture and a fine probe passed upwards to the pelvis. At the stricture its passage was arrested, nor could any probe be made to pass. The stricture was, therefore, carefully divided from the outside with a fine scalpel and the incision continued upwards into the pelvis. This length was approximately 1 in. This longitudinal wound was then stitched transversely with a continuous double suture of fine Paget-Lister thread passed with an intestinal needle, the mucous membrane was not pierced before introducing any of the stitches a probe was passed downwards along the ureter into the bladder to make certain that the channel was pervious. The kidney, which after the emptying of the pelvis seemed unduly movable was anchored by a few sutures through the capsule passed in such a way as to tilt the kidney slightly in the hope that the ureteral opening might thereby be made the lowest point.

Recovery from the operation was uneventful but three weeks later it was seen that the tumour was recurring. On November 2nd an examination showed that the hydronephrosis was, to the full, as large as before. On November 4th the kidney was therefore again exposed through the old incision and the distended pelvis emptied. The ureter was found patent across at its junction with the pelvis. The incision was made precisely as before. The pelvis opening was closed by a purse-string suture and a [illegible] suture outside this. The distended pelvis of the ureter was [illegible] rather over an inch. An opening was now made into the ureter at the lowest point and to this opening the cut end of the ureter was stitched. The sutures of fine gut and thread were passed with an intestinal needle and did not pierce the mucous membrane. The wound in the loin healed by the first intention, and the patient rapidly improved in health and strength.

When seen in August, 1904, she had gained just 4 lb. in weight. The ureteric operation [illegible] was passed. Both test tubes began at once to [illegible]. On examination it was found that the urine from the right kidney was [illegible] larger in quantity, and of lower specific gravity (1010) as compared with 1015 than that from the left. Palpation of the lumbar

region elicited no tenderness, and no enlargement of the kidney could be perceived. The wound was soundly healed, and the patient expressed herself as feeling well in all respects.

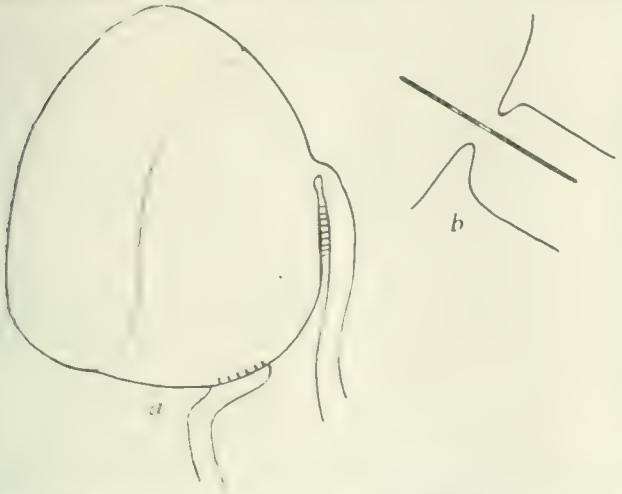


Fig. 1.—Diagram showing the distended pelvis and adherent ureter. *b* shows the stricture at the orifice of the ureter and the incision for ureteroplasty. *a* shows the position of the ureter after the second operation.

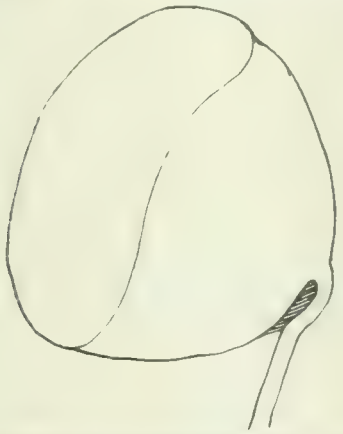


Fig. 2. Diagram showing the spur-like projection at the entrance to the ureter.

CASE II.—*Valvular obstruction at the Upper End of the Ureter: Pyelo-ureteroplasty: Stricture Reformed: Re-operation.*

M. B., female, aged 21. In September, 1902, the patient was confined. Shortly after her rising from bed she began to experience pain and a feeling of weight, "as though something were dragging" in the left side. Before this there had never been any symptom referable to the urinary organs. When the side was examined by her medical man a swelling was found. This increased gradually in size at first, until a tumour, obvious at once on inspection, had formed. During the last three months some variation in the size of the swelling had been noticed. The urine passed had varied a little in quantity, but had not been accurately measured. A diagnosis of hydronephrosis was made, and on April 2th, 1903, the kidney was explored through the loin. A large distension of the pelvis of the kidney was found. The pelvis was aspirated, and 32 oz. of thin clear urine withdrawn. On the inner side the ureter, which was of normal size, was adherent very firmly for about an inch to the wall of the pelvis. On separating it the upper end was found to be much thickened, and it was at first thought that a small stone might be impacted near the pelvis. The ureter was incised longitudinally, and the incision carried upwards into the pelvis. The thickening was found to be due to a prominent indurated spur which had formed at the junction of the pelvis and the ureter. The ureter opened obliquely into the pelvis, and that wall which was nearest to and adherent to the pelvis had formed, with the pelvic wall, a tough triangular valve, which seemed to be obstructing the entrance to the ureter. The incision in the ureter and pelvis divided this valve completely; it was continued upwards and downwards until its length was approximately 2 in. The vertical incision was then closed transversely. A small drainage tube was passed into the sac of the hydronephrosis through the cortex of the kidney, in order to drain away for a few days all the urine and so allow a better chance of healing in the ureteral wound. The wound in the loin was then closed, except at the point where the pelvic drainage tube issued.

For nine days all the urine was passed through the loin, no drop of urine issuing from the bladder. At the end of that time the tube was withdrawn and the wound gradually healed, and concomitantly urine began to be passed from the urethra.

The patient was seen on July [illegible]th, 1903. The lumbar wound was entirely healed, the kidney could only just be felt. Urine was passed in normal quantity, and without any discomfort. The urine separator of Luys was passed. At the time of using this instrument I was not aware of the fact that no urine had been passed from the bladder for nine days subsequent to the operation, as two days after the operation I had left home for a few weeks. I found on passing the separator that all the urine escaped into the left test tube, not a drop came into the right. I was therefore very much chagrined at my apparent lack of skill with the instrument, but ample compensation was afforded me when I learnt the previous history, for it became then quite obvious that the patient possessed only one kidney, that upon which I had operated. The result, therefore, was a proof of the efficiency of the instrument as satisfactory as it was unexpected.

These two cases illustrate very well the treatment of hydronephrosis due to stenosis and valve obstruction of the ureter. In the first pyelo-ureteroplasty was followed by pyelo-ureteroneostomy; in the second the plastic operation alone sufficed to effect a cure. The number of cases of hydronephrosis which have been treated by procedures similar to these is still very small. In Mr. Henry Morris's book on *The Surgical Diseases of the Kidney and Ureter*, vol. ii, pp. 444, 445, only 12 cases are tabulated, and of these 5 were in the practice of the author. In Israel's work, *Chirurgische Klinik der Nierenkrankheiten*, page 72, 2 cases, one of valve formation and one of stenosis of the ureter, are recorded.

In Case 1 the stenosis of the ureter at its origin from the renal pelvis was doubtless congenital. Symptoms had been present since the age of 2. The high opening of the ureter was probably caused by the earlier and more considerable distension of the lower part of the pelvis. As the urine accumulated in the most dependent part of the pelvis, it would cause a bulging and an increasing distension of this part, so that as time passed the ureter would appear to be pushed higher and higher up in the inner wall of the sac. Although the opening at the first operation was made of large size, it was clearly inadequate as a means of drainage, on account of the fact that the lowermost part of the pelvis was never completely emptied. At the second operation the incision into the renal pelvis was made of good size and at the very lowest point.

In the second case the cause of valve formation was obscure. No better case than this could be quoted in strenuous advocacy of conservative treatment in the treatment of hydronephrosis, for the kidney affected was the only one the patient possessed, and if harm had come to that death would have been inevitable.

In both cases a thorough exploration of the whole length of the ureter was made, and no other abnormal condition was discovered.

DECAPSULATION OF THE KIDNEY FOR THE TREATMENT OF ALBUMINURIA.

By DAVID NEWMAN, M.B.,
Surgeon, Glasgow Royal Infirmary.

I have read with much interest an article on Experimental Nephritis followed by Decapsulation of the Kidney by Drs. I. Walker Hall and G. Herxheimer, in the British Medical Journal of April 9th. While they deal with the subject almost entirely from the experimental and pathological standpoint, at the end of their valuable article they make a short reference to the surgical aspect of the subject. The conclusions they have come to by experimental methods are the same as those I have drawn from clinical experience over a period of many years. I have seen no reason to depart from my original opinion that the benefits derived from surgical operative interference in cases of albuminuria were due to relief of tension. When the capsule of an inflamed or congested living kidney is incised, the capsule retracts and the cortical substance pouts out through the wound, thus demonstrating that the parenchyma has been subjected to considerable pressure. Not only is this observed during life, but even in the dead kidney to a lesser degree the same physical conditions maintain. It is the contrary in old-standing parenchymatous and interstitial nephritis; in both these conditions there is no protrusion of the kidney substance when the capsule is divided. Edebohls and his followers maintain that decapsulation of the kidney is necessary, not only in acute but also in chronic renal affections, and that relief is obtained

by the establishment of a new and active cortical circulation, by which the diseased cells of the uniferous tubules are regenerated and their functional activity increased. I look upon this view as entirely erroneous, and not supported by facts. I have never seen any such new formation of blood vessels in kidneys which have been decapsulated, quite the contrary, the new-formed fibrous tissue is usually found to be almost non-vascular when a few months old. When the capsule of the kidney is removed granulation tissue forms on the surface of the organ, and blends with the granulation tissue thrown out by the tissues of the parietes. At first the capillary circulation in this new cellular connective tissue is very active, but no new vessels of any size form, and within a comparatively short time it becomes converted into dense fibrous tissue.

Certainly Edebohls has rendered good service to the profession by the enthusiastic advocacy of surgical interference in certain forms of albuminuria, but I do not consider that his method of decapsulation does more good to the patient than relief of tension by simple incision, as advised by Mr. Reginald Harrison in 1897, and as practised by me in 1885. It is true that in the instance referred to the operation was undertaken on the belief that the patient was suffering from renal calculus, but the operation and its result taught me that by incising the kidney "relief of tension facilitates the renal circulation," it relieved pain and caused the albuminuria to cease. This lesson I have always remembered, and it has regulated my practice in such cases ever since.

In my paper in the *Clinical Society's Transactions*, page 74, I said: "All the cases referred to above seem to have an important bearing, not only upon the pathology of albuminuria, but also on the treatment of it in certain cases:" and again at page 75: "I believe that not only in the cases referred to here, but in many others, the retardation of the glomerular circulation by venous engorgement is the chief factor in the causation of suppression of urine and some forms of albuminuria, and consequently the relief of tension may give immediate ease to the patient and restore the function of the kidneys.

"General experience, I think, has shown that the vascular tension produced by mechanical venous obstruction or by inflammatory engorgement cannot be relieved permanently by drugs, while it can be rapidly alleviated, and serious consequences avoided, by surgical treatment. Free incision or local bleeding is clearly indicated in such cases, and in all cases of increased vascular tension of a tissue, whether the one or the other method should be employed, depends upon the immediate cause of the tension and the anatomical structure of the organ or part involved." As my case in 1885 was probably the first in which incision of the kidney was recognized as a means of relieving pain and causing the albuminuria to disappear, it may be worth while giving the following short account of the case as recorded in the article in the *Clinical Society's Transactions*, p. 77.

[redacted]

[redacted] disappeared entirely, and afterwards the patient enjoyed excellent health.

In this case, from the onset of the trouble till the time of the operation albumen was constantly present and the quantity of urine secreted was decidedly below the normal, but after incision the albumen disappeared and remained absent, and the quantity of the urine increased. I have no doubt that in this case the relief of tension by the incision facilitated the renal circulation.

The conclusions I have come to as regards the efficiency of incision of the kidney is that it is useful in cases of acute or subacute congestive disorders, such as acute nephritis, congestion associated with haematuria, in cases of anuria from toxic poisoning, or in other instances where the functions of the kidney are suddenly arrested without any evidence of mechanical obstruction to the escape of urine. I am glad to see that more importance is now being attached to surgical intervention in the cases I have referred to.

REFERENCE

[redacted]

A FATAL CASE OF SECONDARY PAROTITIS.*

By BRENNAN DYBALL, M.B., B.S., F.R.C.S.,
Anaesthetist to the Royal Devon and Exeter Hospital.

Parotitis, as a sequel to injury or disease of the abdominal or pelvic viscera, is a well known but not very common occurrence. Though it may often be a troublesome or even a serious complication, it is as a rule overshadowed by the primary lesion. In the following case, however, the parotitis was of such severity as to be the actual cause of death, and it is therefore, I think, of sufficient interest to be reported:

Onset.

Mrs. S. M., aged —, after two days' slight epigastric pain, was seized with intense abdominal pain about 2 a.m. on November 14th, 1903. I saw him about two hours later. He was lying on his back with his knees drawn up, complaining of most intense pain all over the abdomen, but worse in the lower part. The pulse was [redacted], and the axillary temperature normal. The abdomen was slightly distended and scarcely moved with respiration, which was of the thoracic type. It was very tender and resistant all over, but not more so at any one spot than another; there was no dullness or local swelling, and repeated inquiries failed to elicit a history of any previous pain in the caecal region. There had been no vomiting or previous attacks of indigestion. The tongue was somewhat coated, and the bowels had not been opened for two days. Most of the teeth were in a shockingly carious condition. In the absence of localizing signs it was decided to wait a short time. Two hours later the pain was not as severe, but was now localized to the right iliac region, which was very tender and resistent to palpation, while the rest of the abdomen was comparatively free from pain and tenderness. He had passed urine and complained of great pain over the bladder when doing so. The urine was quite normal. The pulse was still [redacted], but the temperature had risen to 103° F.

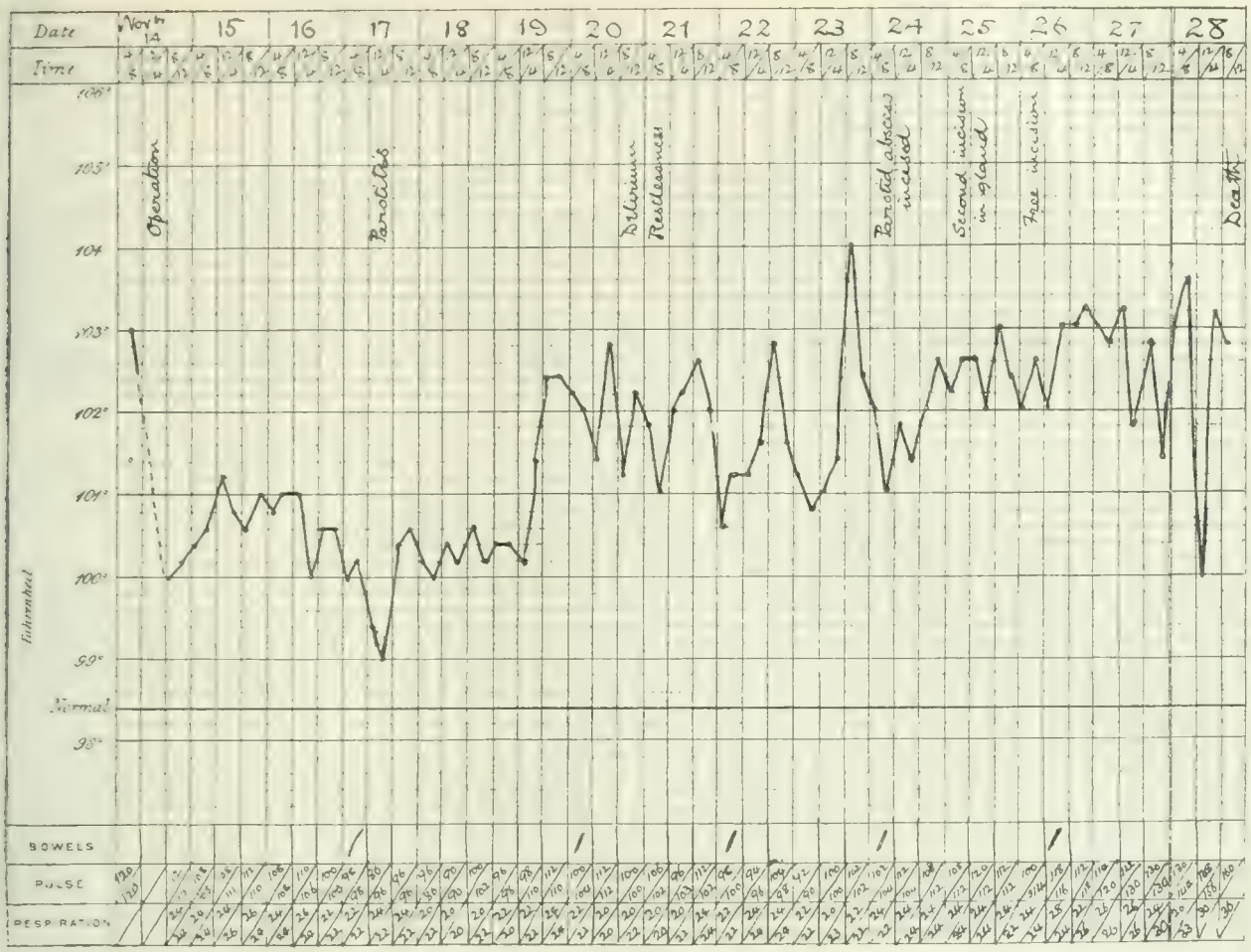
Operation and Appendicitis.

It was clear that the patient was suffering from a very severe type of appendicitis and operation was advised. Dr. Davy saw him with me a few hours later, agreed with the diagnosis and the necessity for operation, and the patient was removed in an ambulance to the Home Hospital where the operation was performed. Chloroform was given by Dr. Andrew, and Dr. Solly assisted me. On opening the peritoneal cavity a little faeculent-smelling fluid escaped; there were no adhesions and the appendix was easily found. It was much swollen and congested almost up to its junction with the caecum, had an inch from which a small concretion could be felt. There was no perforation. The meso-appendix was oedematous inflamed and nearly half an inch thick. After emptying of the operation area with sponges, the appendix was removed by the usual "clamp and sleeve" method, the stump invaginated into the caecum and buried by a row of Lembert sutures. About an ounce of serum or pus was removed from the pelvis with sponges after which the operation area and the pelvis were well irrigated with sterilized water and sponged dry. The wound was then closed, drainage being provided by a large rubber tube with a piece of gauze reaching to the pelvis and a smaller tube down to the caecum. The patient stood the operation very well, but gave a good deal of trouble to the anaesthetist owing to his tongue persistently falling back. Tongue forceps and a gag had therefore to be freely used, the latter causing some damage to his carious teeth.

[redacted]

As far as the abdominal condition was concerned, the after progress was most satisfactory. There was no vomiting after the operation, the abdomen quickly became free from pain and distension and moved well with respiration. The discharge from the drainage tubes was merely a [redacted] serum. They were shortened daily and soon dispensed with. The incision healed without any trouble, and the sutures were

* Read before the South Western Branch of the British Medical Association.



removed on the tenth day. The temperature on the afternoon of the fourth day fell to 99° F.—in fact, after the first forty-eight hours the abdominal condition gave rise to no anxiety at all.

Onset of Parotitis.

But, unfortunately, in the neck the state of affairs was very different. On the fourth day the right parotid gland became slightly swollen and tender, and the temperature rose from 99° F. to 100.4° F. A gland beneath the jaw on the same side was also swollen. Hot fomentations of lead lotion were applied, but the parotid bubo increased in size and interfered greatly with feeding owing to the pain on opening the mouth. Two days later the temperature rose to 102° F. and maintained a high level for the rest of the illness: while on the following day low, muttering delirium, coupled with extreme restlessness set in, and the pulse rose to over 120.

Operation.

Naturally a very keen watch was kept for signs of suppuration, but the swelling kept very hard and brawny, and it was not until the eleventh day that a small spot of softening was detected at the centre. Chloroform was given and the abscess incised by Hilton's method, liberating no more than half a drachm of very thick pus. No improvement in the patient's general condition followed this, and the following day another spot of softening was found at the lower part of the gland and was incised. The discharge from the first incision was now considerable indicating rapid breaking down of tissue, and on the next day the abscess was found to be discharging through the external auditory meatus, and the two cavities were found to be communicating and were laid freely open by an incision joining the other two. The walls of the cavity exposed were in a horrible grey, sloughy, semi-gelatinous state, and the necrosed tissues evidently extended deeply, as a probe passed inwards touched the fronts of the transverse processes and also the base of the skull, but laterally the inflammation was confined fairly to the limits of the gland. Much of the slough was cut away, the cavity was frequently syringed out with a solution of hydrogen peroxide and dressed with hot fomentations of lotio sodae chlorinatae.

After-Treatment.

Antistreptococcus serum was injected, brandy and injections of strychnine had been and were freely administered, and the patient held his own extremely well for a time, but on the thirteenth day the heart began to fail and he died on November 28th, fifteen days after the operation and eleven days after the first appearance of the parotid bubo.

Remarks.

The rarity of parotitis as a cause of death is shown by the fact that only six instances were found in the English, American and French literature, and in one of these, reported nearly fifty years ago, death was certainly not due to the parotitis but to the primary abdominal condition. Suppurative parotitis, whether primary or secondary, is not, as a rule, very severe, the pus being confined to the limits of the gland. In the case now related, however, the inflammation was exceptionally virulent, and I can find but very few similar cases in the literature. In one of these the parotid sloughed completely away leaving the masseter bare, but the patient, a boy of ten, recovered.[1] In another, the inflammation spread beyond the gland with a resulting cellulitis, which extended down to the lower border of the pectoralis major and outwards to the acromion at the death of the patient.[2] Both of these were cases of primary parotitis. In the third, a case of secondary parotitis after ovariotomy, there was also a consecutive cellulitis of the neck with death of the patient.[3] In my case it was no doubt owing to a secondary infection of the already-inflamed parotid by septic organisms from the mouth, derived from the broken-down carious teeth, that the inflammation was so virulent. In cancrum oris one sees a similar type of inflammation, also due to the action of buccal organisms.

References.

[1] Roth. Gangraena Parotidis. *Woch. f. d. ges. Heilk.* 1851. [2] Coombs, *Med. Press and Circ.* 1881. [3] S. Paget. *Lancet*, i., 1880. Case No. 32.

Presentation.—At the conclusion of a course of lectures on home nursing conducted by Mr. H. Norman Barnett, F.R.C.S., at Knock, Belfast, some members of the class presented him with a silver-faced carriage clock as a slight recognition of his services.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

TREATMENT OF ANKYLOSTOMIASIS.

IN the BRITISH MEDICAL JOURNAL of March 5th, p. 545, Dr. Branch, in an interesting note on the treatment of ankylostomiasis, suggested that a case treated by me in the Western Infirmary of Glasgow in June, 1903, might still harbour the worms, and advised that inquiry should be made into the man's present condition. During his stay in the infirmary the patient got 20 gr. thymol thrice and 2 drachms liquid extract of male fern once. I asked him to come into hospital again for a few days, and repeated examinations of his stools have failed to reveal in them the presence of ova or of altered blood. Since dismissal last June he has been working as a miner and furnaceman without discomfort from breathlessness or debility, and states that he feels perfectly well.

Glasgow. RALPH STOCKMAN.

A WARNING SIGN OF DANGER TO THE CHILD DURING LABOUR.

IN the BRITISH MEDICAL JOURNAL of March 26th I see the paper by Dr. F. E. Daniel, A Warning Sign of Danger to the Child during Labour, read at a meeting of the Furness Division of the North Lancashire Branch of the Association.

I have myself for years been aware of the same movements in the child he speaks of which are peculiar, and when once noticed cannot be mistaken for "a kick"), and I always associate them with great danger to the child. My invariable practice has been to deliver (as Dr. Daniel suggests), as rapidly as possible, being careful of injury to the perineum, but making this a secondary consideration. I have never met with any evil consequences as the result of such practice. I have noticed the movements in forceps cases, but not nearly so frequently as in breech presentations. I had as recently as March 20th a well-marked case in a breech presentation, in which delivery was hastened in the usual way by introducing the fingers and assisting the sweep of the face over the perineum by pressure on the malar bones. In this case the cord was tightly twisted round the neck. The child did not breath upon delivery, but by means of artificial respiration slowly recovered.

[illegible] C. E. HOLMES.

PNEUMONIA.

THE [illegible] cases are interesting owing to their cerebral complications.

1. Mrs. P. [illegible] on January 14th, 1903, fell down insensible with clenched teeth. A systolic *bruit* was present, but no fever. The base of the left lung was consolidated, and she was [illegible] to allow her to be discharged on January 17th. On January 18th [illegible] epileptic attack occurred. She worked up to the [illegible] remained comatose more or less for [illegible]

2. Mrs. M. [illegible] October 6th, 1902, had a temperature [illegible] with consolidation of the left base. There was [illegible] on the right side, and hallucinations of sight, [illegible] green, etc., after the fever [illegible] She [illegible] well on October [illegible] year she came [illegible] another district to consult [illegible] which [illegible] undertook [illegible]

3. Mrs. O. [illegible] January 18th, [illegible] Monday, 18th, epileptic fits, with unconsciousness, occurred. The base of left [illegible] a quickened fetus [illegible] During the fits [illegible] The tongue was bitten on the [illegible] The patient [illegible] a partial coma was present. She was [illegible] up to Tuesday night, the 19th. On Wednesday [illegible] but knew nothing of the past. She had been roused by the cries of her husband [illegible] In December last movements were felt about a fortnight later, and she was discharged on February 1st. On the 20th she gave birth to a [illegible] child, and made a good recovery. Under treatment the asthma improved. She [illegible]

4. Miss W., aged 22, an epileptic, had a fit on February 22nd, with continued vomiting but no fever on to the 27th. In the morning epileptic coma occurred with tremors, frothing at the mouth, contracted pupils and pale discs. In the afternoon she had temperature of 103.4° with pneumonia at the right base. Death occurred next day at 3 p.m., consciousness not having returned.

[illegible] J. REID, M.D.

THE MORPHOLOGY OF THE SPIRILLUM OF RELAPSING FEVER.

IN a paper on "Recurrent Fever associated with Spirilla," in the BRITISH MEDICAL JOURNAL of March 5th, 1904, p. 538, Sir Patrick Manson says, "Morphologically the spirillum differed from spirillum obermeyeri as usually represented, for whereas this well-known organism exhibits many short and abrupt flexures the curves of the parasite I describe were few and graceful." I have had over a hundred cases of relapsing fever under my care and in all the blood was repeatedly examined. I venture to say that in every slide the curves of the parasites were "few and graceful," often serpentine or in loops, the serrate or abruptly-jointed form being the exception.

The "spirillum obermeyeri as usually represented" is an excellent illustration of the manner in which one "observer" after another slavishly copies the original type of the discoverer instead of, like Sir Patrick Manson, faithfully recording what he actually sees.

I have no doubt that Sir Patrick's case was one of relapsing fever with an unusual number of relapses or perhaps reinfections. To me it seems strange that a larger number of cases have not been imported into Europe from Bombay, a journey of fourteen days to London, considering there must have been tens of thousands of cases in the former city during the years 1901 and 1902. As there are many cases without any relapse they would only be recognized by an examination of the blood.

Bombay. A. POWELL, M.B., M.Ch.

INFLAMMATION OF THE LACHRYMAL PASSAGES.

I CONSIDER a treatment which I have recently adopted a useful adjunct to that usually employed in such cases. Counter-irritation has long been employed in the form of hot bathing to the skin over the nasal duct, and I have recently employed it by making an application of tincture of iodine to the nasal mucous membrane covering the front of the anterior turbinal bone, but keeping away from the opening of the nasal duct.

Forest Gate, E. ALBERT CORNER.

ANTENATAL RIGOR MORTIS.

ANTENATAL rigor mortis is so rarely observed and yet of such importance from a medico-legal standpoint that the following case is of sufficient interest to report.

On visiting Mrs. W. P. S., aged 35 years, 4-para, on the evening of September 6th, 1903, I found her well on in the second stage of labour, with strong regularly recurring uterine pains, although she considered herself only eight months pregnant. Her face was red and swollen, partly from the violent expulsive efforts, but largely from an overdose of brandy, and she was calling loudly for chloroform. A very few drops of the latter sufficed to quiet her, and the baby was born after a few more pains. It was very plump and well nourished, but did not cry out. Observing this I attempted artificial respiration, but found that the arms were rigid. Further examination revealed the fact that the child was in a state of rigor mortis, and the nurse subsequently told me that this had not passed when the child was put into the coffin next day for burial.

I am unable to state the cause of death in this case, but fetal movements had been felt feebly about five hours before birth. The patient was one who habitually suffers very greatly from the vomiting of pregnancy, and she had done so during this pregnancy, the vomiting having been particularly distressing during a month preceding confinement. There was also a tendency to alcoholism, and two of her children showed stigmata of hereditary syphilis. She has had one abortion and one premature labour with a dead fetus, attributed at the time to the excessive vomiting.

The rigor mortis did not offer any obstruction to the labour, as has [illegible] reported cases, but this was probably due to the difference in the degree of the stiffness. The patient also had a [illegible] roomy pelvis and lax vagina with very easy labours.

[illegible] NEILSON S. FRASER, M.B., M.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

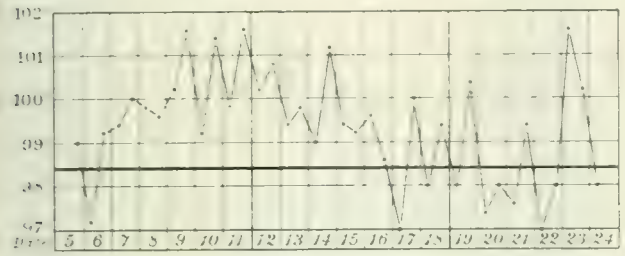
PETERBOROUGH INFIRMARY.

A CASE OF SEVERE AND FATAL HAEMOPTYSIS IN A CHILD, AGED 3½ YEARS.

(Under the care of Dr. CANE, Senior Physician to the Infirmary.)

[Reported by WILFRID A. ALDRID, M.R.C.S., L.R.C.P., House-Surgeon to the Infirmary.]

S. S., a female child, aged 3½ years, was admitted on December 5th, 1903, into the Peterborough Infirmary, under the care of Dr. Cane, for cough.



History not very reliable. The child had, according to its grandmother, been suffering from a cough for nine months. In June, 1903, had an attack of measles, since which time the cough had been much worse. A few weeks before admission had a spell of bad breathing, the noise (it was said) was so loud that it could be "heard all over the house." Legs have been swollen. Patient was brought up in an open cart a distance of seven miles on a very cold day. Mother died of consumption.

Present Condition.—The condition of the child was so bad with dyspnoea, cough, and cyanosis that she was at once admitted, examination being deferred.

Examination.—Child pale, thin and dusky, especially about the nose and temples. Sitting bolt upright in bed, the recumbent posture causing an increase in the cough and dyspnoea. Respirations rapid and somewhat laboured: there is marked stridor both inspiratory and expiratory. Cough harsh and croupy, somewhat paroxysmal. Voice, husky. Neck: There are a few enlarged glands in anterior triangles. Tonsils natural. Legs: There is no oedema. Chest: Shape markedly pigeon-breasted. Harrison's sulcus well marked. No beading of the ribs. There is marked recession of the lower costal region, and also of the supraclavicular fossae. The sterno-mastoids are called into play during inspiration, and there is but poor movement of the costal arches. Epigastric pulsation very noticeable. Heart: A B just outside N L, in fifth space; impulse rapid, and inclined to be wavy. A C D is increased to right of sternum on light percussion; no cardiac murmur. Lungs: On palpation there is a purring sensation on left side, most marked posteriorly. On percussion, dullness at left apex and down to base posteriorly. At the right apex the note is impaired; over the rest of this side there is hyper-resonance. Auscultation: Right side, breath sounds are much increased in intensity, and are harsher than natural; there are scattered crepitations all over this side. Left side, breath sounds greatly diminished; tubular quality in places, which, at a point just below the apex, approaches an amphoric type. Short, sharp *râles*, mixed with coarser ones, are heard everywhere; voice sounds are not reliable. Urine: Slight cloud of albumen. Progress of the case: Temperature irregular, ranging from 97° to 101.6°; general condition appeared to improve slightly for a few days; cough more paroxysmal, and somewhat resembling the paroxysmal stage of whooping-cough; no sputum could be obtained; signs of a cavity at the left apex; cavernous breathing and resonant *râles* became more pronounced.

Necropsy (thorax only allowed).—Body that of an emaciated child. Thorax. On removing sternum and ribs it was found that the left lung was adherent, while the right came well over to the left side of the chest. Pleurae: Left—adherent to chest wall all over, and also to diaphragm. Right—some recent adhesions showing scattered clumps of tubercles. A small quantity of blood-stained exudation. Trachea: Surrounded by large masses of glands, some hard, others breaking down. Just above the bifurcation there was a clean punched-out hole on the posterior wall of the trachea, which communicated with an abscess cavity formed by a necrotic gland the size of a small nut. Bronchi and bronchioles were filled with blood clot. Lungs: Left—shrunken, solid, and airless, greyish-white in colour, and very hard. In the upper lobe towards its anterior border there was a cavity the size of a pigeon's egg, containing blood clot. The wall of this cavity was closely adherent to the chest wall, and was torn during removal. Section.—Quite solid and somewhat racemose in appearance. The cavity in upper and anterior part of upper lobe communicated with a smaller one at the extreme apex. At the lower part of the larger vomica there was a leash of thrombosed vessels extending across it, but the bleeding spot was not seen. Right Lung—Extremely emphysematous. The upper lobe was solid and airless. Section.—Upper lobe solid and in a condition as seen in lower lobe of left side. Through the rest of the lung are scattered nodules of bronchopneumonia. Heart: Pericardium—Two layers so adherent that they could not be separated. Right heart was dilated. Pericardium over the left auricle was adherent to left pleura. Spleen: Full of tuberculous nodules. Liver: A few scattered tubercles are to be seen. Kidneys: Large and pale. Capsule strips off easily. Venae stellatae marked. Amyloid reaction was not obtained. Peritoneum: Natural.

The rarity of severe and fatal haemoptysis in children—and it is not a very common termination in adults suffering from phthisis—is, I hope, a sufficient excuse for my reporting this case somewhat at length. There are several interesting points in the case apart from the haemorrhage, which was so profuse as to cause death in less than ten minutes. The enlarged tracheal glands caused, I take it, the marked stridor and croupy cough, which, apart from the physical signs in the lungs, simulated the laryngeal obstruction due to diphtherial membrane. The stridor was, however, both inspiratory and expiratory, that due to diphtheria being inspiratory. The perforation of the glandular abscess into the trachea was also an interesting point. Large cavities are not usual in children with tubercle of the lungs. In conclusion, I have to thank Dr. Cane for permitting me to publish the notes of this case.

THE ASTLEY-COOPER PRIZE.—The date which has been fixed for the next reception of the essays in competition for the Astley-Cooper Prize of £300 is January 1st, 1907, and the subject of the essay or treatise is to be the Naked-eye and Histological Anatomy of the Spinal Cord. The conditions annexed to the competition by the testator of the Prize fund, the late Sir Astley P. Cooper, Bart., are that the essays and treatises of competitors must contain original experiments and observations which have not previously been published; further, that each essay or treatise must be illustrated by preparations and drawings, and that the preparations and drawings which accompany the successful essay shall be added to the museum of Guy's Hospital, and, together with the work itself, become the sole and exclusive property of the hospital. Sir Astley Cooper's will further declares that "no physician or surgeon or other officer for the time being of Guy's Hospital or of St. Thomas's Hospital in the Borough of Southwark, nor any person related by blood or affinity to any such physician or surgeon for the time being, or to any other officer for the time being in either of the said hospitals shall at any time receive or be entitled to claim the prize." With this exception the prize is open for competition to the whole world, but it will not be awarded to any essay which is the joint production of two or more authors. The essays, which should be typed or otherwise legibly written, must, if not in the English language, be accompanied by an English translation. Each must be distinguished by a motto and accompanied by a sealed envelope containing the name and address of the writer. Only that envelope will be opened which bears outside the motto of the successful treatise. The conditions as to originality of observation, illustration by preparations and experiments, and previous publication should be studiously observed by all competitors, who would do well perhaps to put themselves in advance in communication with Dr. Newton Pitt, the secretary of the fund at Guy's Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR R. DOUGLAS POWELL, K.C.V.O., President, in the Chair.

Tuesday, April 26th, 1904.

THE ECONOMIC VALUE OF THE SANATORIUM TREATMENT.

DR. NOEL DEAN BARDSWELL and MR. JOHN E. CHAPMAN contributed a paper which was devoted to the consideration of the life-histories of twenty-eight consumptive patients who were treated according to sanatorium methods in the Sheffield Royal Infirmary between June, 1899, and March, 1900. These patients were accommodated in two of the general wards of the infirmary specially reserved for the purpose, and facilities were made for carrying out the main essentials of the sanatorium treatment—namely, a maximum amount of open air, an adequate diet, and regulated rest and exercise. The diet, which was a modification of a hospital convalescent diet, consisted of breakfast at 6.30 of porridge, bacon and eggs or fish, bread and butter, and half a pint of milk; half a pint of milk at 10.30; dinner at 12.30 of meat and two vegetables, milk pudding and fruit, with half a pint of milk or beer; tea at 4.30 of bread and butter or jam, and an egg, with half a pint of milk in tea; supper at 7 p.m. much the same as at breakfast with half a pint of milk; half a pint of milk was also allowed for each patient during the night. The class of case admitted for treatment: The cases admitted were quite unselected. Of the 28 admissions, 11, or 39 per cent., were hopeless, and only 10, or 57 per cent., appeared to have a chance of being restored to a fair working capacity. The following table gives a brief summary of the twenty-eight admissions, the basis of classification being the duration of the disease and the extent of the lesions:

Duration of Phthisis.	No. of Cases.	Average No. of Lobes Affected.
6 months	8	2 or
6 to 12 months	8	or 4
12 months, or more	12	4 or 5
	28	

The patients with miliary, acute caseating, and very advanced fibro-caseous disease (30 per cent.) were not appreciably benefited by treatment; the satisfactory results were obtained in those who had either fairly recent active disease or chronic slowly progressive mischief of considerable duration. Of the 16 patients who belonged to one of these two classes, 9 were discharged restored to their full working capacity, and 7 were sufficiently improved to allow of their return to light work. Statistics were prepared, covering a period of four years, subsequent to the patients leaving the infirmary, the basis of the classification being that of their various wage-earning capacities during this period. In the course of four years, of the 9 patients who were restored to their full working capacity, 3 died, 2 were lost sight of during the third and fourth years respectively (their conditions when last heard of being in every way satisfactory), and the remaining 4 maintained their health and were at full work throughout. Thus 4 patients certainly and possibly 6, of the 9 under consideration had successfully withstood the strain of four years' work. Of the 7 patients only partially restored to health, only 1 was alive at the expiration of four years; but up to the end of the third year 5 of them had remained well enough to do a certain amount of work. The factors which seemed chiefly instrumental in determining the ultimate results obtained were the amount of income, financial obligations, and of family, etc., and conditions at home and at work. The advantage of comfortable home conditions, and an adequate income were very apparent. The nature of the employment on which the arrested consumptive depended for his livelihood had such an important bearing upon his future that a decision as to the kind of work to which he should return became one of paramount importance. Usually it was difficult for men to exchange injurious occupations for work of a satisfactory nature without incurring considerable financial loss. The following table gives the occupations of all the patients admitted to the sanatorium wards:

1. Indoor Work.

	No.		No.
Workers in metal-shops	8	Coal miner	1
Workers in cloth-cutting shops	1	Workhouse hospital attendant	1
Cooks	4	Bookbinder	1
Shop-assistants	2	Mason	1
Cabinet-maker	1	Housework	3

2. Outdoor Work.

Rate collector ...	1	Stone-mason ...	1
Errand boy	1		
Grand total	28.		

Female patients

From this table it is seen that no less than 22 out of the 24 men admitted were dependent for their livelihood on occupations to which it would be undesirable for a case of arrested tuberculosis to return, and this fact illustrated the great odds that the consumptive working man had to contend against in large cities. Of these 24 men, however, only 15 on their discharge actually resumed work, and of these no less than 12, or 80 per cent., changed their employment. The following table gives the original work of these 15 and the nature of the employment they returned to, with the result:

Original Trade.	Trade Returned to.	Success or Failure.
G. Metal grinder ..	Same work, shorter hours	Success.
S. Cycle mechanic .	Same work	Failure.
S. Stone-mason . .	Same work	Failure.
F. Cabinet-maker's assistant . ..	Porter in medical school	Partial success.
F. Metal smith . ..	Other work, nature unknown	Failure.
R. Coal miner .	Telephone company's labourer	Success.
T. Grocer's assistant .	Emigrated to Australia: odd jobs	Success.
S. Steam-hammer driver	Steward of working men's club	Success.
T. Type founder	(1. Commercial traveller (2. Tram conductor	Failure. Success.
E. Silver spinner	Emigrated, farm labourer, etc.	Failure.
B. Office clerk . ..	(1. Rate collector (2. Office clerk	Success. Failure.
P. Workhouse hospital attendant	(1. On workhouse farm (2. Workhouse attendant general	Failure. Success.
G. Silversmith	(1. Commercial traveller (2. Assisted in wife's shop	Partial success Success.
H. Box-maker	(1. Van driver (2. Worked in a bakehouse	Success. Failure.
H. Clerk	Caretaker	Died soon after. Death independent of nature of work.

Of the 3 men who returned to their original employments, two, namely, the cycle mechanic and the stone-mason, quickly relapsed, although the former was on clinical grounds a very promising case. The satisfactory occupations were those of telephone company's labourer, steward of working men's club, tram conductor, rate collector, workhouse infirmary attendant, van driver, hall porter, and doing odd jobs in Australia. Commercial travelling and working on farms both proved failures, the work in each case entailing too much labour. The conclusions drawn were as follows: (1) That general hospitals, even when situated in large cities, could do a great deal for their consumptive patients; (2) that the sanatorium treatment could be carried out with a considerable degree of success in institutions other than those especially constructed for the purpose; (3) that to obtain satisfactory economic results patients admitted should be rigorously selected, unmarried men with early disease, who were both willing and likely to have the opportunity of returning to suitable employment having the best prognosis; (4) however satisfactory the immediate results of treatment might be in the case of the working man, the risk of subsequent relapse was very great, unless his social status allowed of his living and working under at least fairly favourable conditions after discharge.

DR. THEODORE WILLIAMS thought the paper told on the whole a sad tale. The number of cases was unfortunately small. Taking the 28 cases, the results seemed to him unsatisfactory. Of the 16 that were at all hopeful, only 5 did well. Of the cases classified as partial arrest, several merely showed some improvement, and of 9, 8 died. At the end of 4 years, 5 cases only out of 28 were still at work. Of 3,500 cases of phthisis recorded by Dr. Pollock with ordinary out patient treatment, the average of life was 2 years 10 months among the 125 that died, and of the others many promised to go on working for long. This did not argue well

for the sanatorium treatment, unless it were thoroughly carried out and the patient returned to favourable conditions. Not much trust was to be placed in gain of weight alone; this came and went very easily. The after-occupation was very important. Colonies for old consumptive patients seemed to be very desirable.

Dr. Kingston Fowler remarked that the miliary type was found in children from the breaking down of a caseous mass or as a terminal event in chronic cases. In regard to the true fibroid type there was fibroid transformation of miliary tubercle often with emphysema. The extent of the disease was an important factor in prognosis. A pathological classification was better than a clinical. Prognosis depended largely on the patient's temperament and on character traits. Distinguishing the economic point of view from the philanthropic, cases should be taken early, preferably unmarried males without any one dependent on them. Most of the cases referred to in the paper were beyond cure. The results were only unfavourable in so far as they disappointed unwarranted expectations. The pathological condition was three or four times more extensive than the clinical signs indicated. A very favourable occupation was nursery gardening. Better-class cases nearly all broke down from over-exertion; for two years, as Dr. Walther held, nothing but walking exercise should be taken. He still considered that the open-air treatment gave the best results.

Dr. Rufenacht Walters thought the duration of the treatment was a very important point. Most of the cases recorded in the paper required a long course. The gained fat should be converted into good muscle; girth might decrease, while weight was maintained. The cases at Sheffield were treated for too short a time. For an early case the German idea that three months' treatment was sufficient had been abandoned. Only about 10 per cent. of the cases seeking sanatorium treatment were really early cases.

Dr. Glover Lyon had inquired of 20 hospital patients who had undergone improvement; not one had returned to work. Better results were probably obtained from indoor treatment, but it was of questionable advantage for a working man, as he could not go on with his work and he would probably get into lazy habits.

Dr. Newsholme thought the economical part of the question had a wider bearing from the public health point of view. Thus a married man was more suitable for treatment than the unmarried because more depended on him, and he had more opportunities of disseminating infection. The chief value was less therapeutic than educational. The extreme importance came out very strikingly in working a system of voluntary notification. Even one month's educational treatment was probably of more value from the economic point of view than three months' curative. The importance of early diagnosis could not be over-estimated; in many towns an examination of the sputum could be made gratuitously, and an examination should be made of the sputum in every case of intractable cough.

Dr. Horton-Smith thought from the individual point of view the early cases should be subjected to treatment. But how were they to be got into the sanatoria? Perhaps the Friendly Societies might help by giving the patients full pay during the treatment. Change of occupation was a difficult thing; a labour bureau organized by philanthropic societies might help. In relation to statistics an examination of the sputum for bacilli should be appended in the slight cases.

The President, speaking of general hospital treatment, thought that for prolonged treatment it was unsuitable, but it was very valuable for the acute phases and for intercurrent affections of tuberculosis. Moreover, all patients might well have a probationary period in a general or in a large chest hospital for a few weeks' observation before being passed on to the sanatoria. This would probably be the ideal plan. If every large hospital could supply 3 or 4 beds for such a purpose much might be gained. Of the after-care of cases not much could be learned from small numbers of cases. Patients must be divided into those without claims on them, and those with responsibilities. The aim for the former should be to afford them as good aseptic conditions as were obtained in the sanatorium. If occupation was essential, a change to outdoor life was indicated. In some of the latter other members of the family might help. There was great need for the founding of village colonies for the benefit of patients who had had some months of definite sanatorium treatment; the expense on the rates would not be very great. While the earlier cases were more hopeful, yet the severer cases deserved treatment and sympathy; they were of a certain value to civilization, if of no economic value. These were, however, as a rule, unsuitable for sanatorium treatment; they needed treatment in hospital wards. Physicians should not be too economically minded as to these cases. Relief of symptomatic suffering was one of the highest functions of hospitals.

Dr. William Ewart also thought that general hospitals should undertake the treatment of a certain number of consumptives. They had remedial, educational, and medical educational functions. The last had not been sufficiently emphasized. Medicinal treatment would greatly shorten the duration of sanatorium treatment and lessen the mortality of the disease.

Dr. Newton Pitt, in view of so many cases improving under open-air treatment, and retrograding afterwards, thought the need for colonies for patients after treatment seemed urgent. Some broke down from overwork, and others seemed to suffer from the impossibility of satisfying the craving for pure air and an excess of food. The London infirmaries might organize work for their patients, and Friendly Societies and county councils likewise. For London clerks very little was at present done; a colony or camp in the neighbourhood of London for such would be a great good. Extreme moral deterioration seemed to result from sanatorium treatment in the way of developing habits of idleness.

Dr. Bardswell, in reply, said his cases were very unfavourable ones, more so than the average; the social conditions seemed to turn the scale; the length of a man's purse determined his cure. Gain of weight on a physiological diet was of great value and was largely muscular. Loafing habits followed, it seemed, on too great carefulness over convalescent patients. The Charity Organization Society had helped to support some cases while at a sanatorium, and these, being freed from anxiety, did very well. In all the cases recorded tubercle bacilli were found in the sputum. There would be great difficulty in making colonies for horticulture, as they would never be self-supporting, and an endowment would be needed. Tuberculous labour was unsound labour. The crux of the social factor seemed to be largely a matter of diet.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, April 22nd, 1904.

Mobility after Joint Operations.

Mr. F. J. Steward showed a girl, aged 5, who had had tuberculous disease of the knee, from which, three and a-half years ago, he removed all the synovial membrane, most of the cartilage of the femur, etc. When the plaster-of-paris splint was discontinued after two years' use movement in the joint slowly returned, without attempts being made to obtain it.

Mr. Crisp English referred to two cases in which after extensive operations at the ankle and knee-joint respectively mobility had ensued. He thought it better, however, to aim at obtaining a stiff joint.

Polycythaemia and Erythromelalgia.

Dr. F. Parkes Weber showed a woman, aged 30, a Jewess, mother of two children, who after her last confinement, seven years ago, suffered from "inflammation of the womb" and swelling of the whole left lower extremity for a month. Burning sensations in both feet appeared three years ago, and when she was first seen in 1903 the feet were turgid with blood, hot and painful. Some improvement had occurred; but on the skin of the left foot there were still some livid patches, tender to pressure. The spleen was enlarged. Haemoglobin was about 125 per cent. of the normal; red cells 9,000,000 in the c.cm.

Dr. James Galloway said that the case revived the original conception of erythromelalgia as described by Weir Mitchell, for arterio-sclerotic changes were certainly not prominently marked. The condition could be well simulated as a result of such vascular degeneration, and he had come to the conclusion that cases of redness, pain in one extremity, leading to necrosis, in an adult over middle age were more likely to be due to ischaemia of arterio-sclerotic origin than to true erythromelalgia. A revised classification of the cases was called for, based upon the blood changes rather than upon the actual condition of the vascular walls.

Dr. Weber, in reply, said that the case could not very well have been mistaken for anything else when it was seen in the acute stage. Radiographs of the affected side revealed a lighter shadow than that seen in the opposite limb, but he feared that this would not prove of much diagnostic value.

Osteo-arthritis of the Knee.

Mr. Openshaw showed an acrobat who, after fracture of his femur, had osteo-arthritis of the knee; this had been treated by a splint which transferred the weight of the body from the pelvis to the ground, and thus gave the knee complete rest. Great improvement resulted, and he could now walk without pain.

Mr. L. McGavin considered that the case was probably an instance of Charcot's disease.

Gangrene of Fingers.

Mr. Charters J. Symonds showed a man, aged 45, who attended to horses during the hunting season, and who during the winter of 1902 lost the tips of one finger, and during last winter lost the tips of several other fingers on both hands. He had no arterial or nerve disease, nor diabetes. It was possibly a case of frost-bite.

Dr. Pasteur thought the possibility of Raynaud's disease could not be excluded.

Spontaneous Fracture of Neck of Femur.

Mr. C. J. Symonds showed a man, aged 42, who when kneeling to open a cupboard heard a crunching noise, and had increasing inconvenience at the hip, though he was able to walk without pain. One day he became suddenly worse; there was enormous swelling about the hip, and the leg was shortened. The neck of the femur appeared to be broken, but the head remained in the acetabulum. There were at present no decided symptoms of locomotor ataxy.

Mr. Bowlby remarked that one of the earliest signs of tabes was spontaneous fracture, and described two striking cases, in one of which the disease was found to be fully developed ten years subsequently.

Mr. Symonds, in reply, said there was in his case a suspicion of some insufficiency of the ocular muscles.

Cases.

The following cases were also exhibited: Mr. Openshaw: Firm ankylosis and [illegible] since treated by elastic steel bar traction. The angle of [illegible], which had been 110 degrees, opened out to 140 degrees in seven weeks under treatment without pain or heat, and the mobility of the joint increased. Dr. Wilfred Harris: Early [illegible]. The patient was a girl, aged [illegible]. Dr. Lee Dickinson: Congenital heart disease, assumed to be patent ductus arteriosus, chiefly manifested by a [illegible] murmur and thrill; the second left interspace close to the sternum, the murmur occupied the whole cardiac area, the thrill was merely diastolic. Mr. R. P. Rowlands: Congenital obliteration of left first bronchial cleft, absence of ear and seventh and eighth cranial nerves, and deformity of left upper limb, only two fingers being present. Mr. Rowlands also showed: Premature puberty in a boy aged [illegible]. The external genitals resembled those of a boy of [illegible]. He was [illegible], irritable, not precocious in mental development.

MEDICAL SOCIETY OF LONDON.

F. de Havilland Hall, M.D., F.R.C.P., President, in the Chair.

Monday, April 25th, 1904.

Prevention and Early Treatment of Disease.

Dr. W. J. Tyson read a paper on this subject instancing, as regard to prevention, acute specific diseases, diphtheria, myxœdema and [illegible], and in regard to early treatment tuberculosis and cancerous diseases of the intestinal tract. He referred to the milk question, and said that it should be boiled, sterilized, and unadulterated milk should be obtainable by all. In regard to the education question, he regretted the neglect of it formerly paid to it. He alluded to the needless expenditure by institutions in treating confirmed disease which would have been better employed in preventing it. The profession must [illegible] its proper place as the most important [illegible] enlightened and progressive state.

Dr. George Latham [illegible] the effect of frozen food in producing appendicitis and to the importance of drug habits in the [illegible].

Dr. W. Evans thought the beginning of prevention was at the cradle and [illegible] and discussed the question of artificial [illegible].

The President referred to the [illegible] of age from this country, and to hospital progress and typhus.

Epithelioma simulating Cancer.

Dr. Septimus Sunderland and Mr. H. J. Ogilvie communicated this case, which was relieved for nine months by lateral anastomosis, followed by acute appendicitis, appendectomy, and cure. It illustrated the difficulty sometimes found in determining whether a tumour, although exposed by abdominal incision, was malignant or not. The mass found at the first operation was now thought to be either tuberculous or inflammatory, which, disappearing, was followed by a recurrent attack of appendicitis.

Dr. H. A. Caley alluded to the difficulty of distinguishing appendicitis from malignant disease in old subjects.

Mr. J. D. Malcolm referred to cases comparable with that described in the paper.

The President mentioned a case of malignant disease wrongly diagnosed as one of syphilitic.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

C. Richardson, M.R.C.S.Eng., President, in the Chair.

Friday, April 22nd, 1904.

The Prophylactic Use of Diphtheria Antitoxin.

Dr. A. L. Porter read a paper on the administration of prophylactic injection of antitoxin to persons who had been exposed to the infection of diphtheria. He mentioned the results of this mode of procedure in Essex in 1903-4. Out of 36 persons in 24 households, only 1 subsequent case occurred after the injection and this was a very mild attack. Among the remaining 8 persons in the same houses who did not receive injection there were 3 cases of diphtheria. During the same epidemic there was another series of 24 similar households in which no injections were made and one sixth of all the inmates, excluding the primary cases, contracted diphtheria. In neither series was it possible to maintain proper isolation. The employment of prophylactic injections in Cambridge, Toronto, New York, and Chicago was quoted. The speaker considered that 500 units protected the majority of persons exposed to the infection for about three weeks. Failures occurred in a small percentage of instances, but the subsequent attacks were of a very mild nature: the administration of antitoxin was especially advocated during an epidemic prevalence of diphtheria when ordinary measures had failed to localize the disease and also in the case of institutions containing children. It was mentioned that among persons so protected a considerable proportion were infective and that care should consequently be taken to prevent them from mixing with unprotected individuals.

Dr. Bampton, Dr. Gordon Sharp, and Dr. Cheetham took part in the discussion; and Dr. Porter replied.

The Estimation of Uric Acid in the Urine.

Dr. A. F. Dimmock described a new method of estimating uric acid in urine which he and Mr. F. W. Branson, F.C.S., working in conjunction, had devised. Their aim had been to make it a simple process which would not require much time. A definite amount of urine was taken, saturated with chloride of ammonium, and the precipitated urate of ammonium collected and carefully washed. The precipitate was transferred to a close bottle, and thus brought into contact with hypobromite of sodium, the evolved nitrogen being collected in an apparatus similar to that used for the determination of urea. The volume of gas being read off, the amount of uric acid was calculated therefrom. Experiments with chemically pure uric acid had given excellent results, and from these a scale had been prepared.

In the discussion which followed Mr. Branson was asked to demonstrate the method.

Dr. Trevelyan, Dr. T. Fox, and Dr. Barrs made some remarks; and Dr. Dimmock and Mr. Branson replied.

Intussusception.

Mr. Herbert Rotter related two cases in which he had reduced an intestinal intussusception after abdominal section. In one case the symptoms had lasted four days, and in the other less than twenty four hours. Both cases recovered. One child was 5½ years old and the other 12 months.

Mr. Littlewood, Mr. Lawford Knaggs, and the President took part in the discussion; and Mr. Rotter replied.

Mechanism of the Alimentary Canal.

Dr. Theodore Fox read a paper on this subject, in which he propounded some quite novel ideas chiefly concerning the cephalad propulsion of the contents along the alimentary canal, which he divided into five segments.

The Pathological Society. At a general meeting on April 26th, Dr. Cooke in the chair, Dr. H. French read a paper on some experiments upon dogs which were fed

to increase the number of leucocytes in the blood. After describing Metchnikoff's and Ehrlich's opinions, and Walker's experiments on the action of leucocytes, he said that he had found the maximum number of leucocytes in his own blood was 13,000 in a c.cm., and since the number in animals varied greatly, he had made all his experiments on himself. At first he took nuclein both by the mouth and hypodermically in increasing doses, but he never found more than 13,125 leucocytes in one c.cm. of his blood. Then hypodermic injections of sodium cinnamate were tried, but no increase of leucocytes occurred, and lastly, collargol was injected in increasing doses; this raised the number of leucocytes to 22,187 per c.cm., but caused fever, headache, and great depression. It was very desirable to find some drug which would increase leucocytes without causing so much general disturbance. —A note from Dr. T. BELGRAVE, of Australia, a Corresponding Fellow of the Society, was next read, which forwarded a translation of a letter from Dr. Hahl, Imperial Governor, German West Guinea. The latter stated that no parasite of a mosquito had been found in West Guinea, but Dr. Dempwolff, the leader of the malaria expedition, found that a species of *Notonecta* existed in the mosquito-infested ponds, which devoured the larvae of the *Anopheles*, and he suggested that this *Notonecta* should be bred wherever malaria existed. Lastly a paper from Mr. J. MAIDEN, Director of the Botanic Gardens, Sydney, Australia, a Corresponding Fellow of the Society, was read, on plants which induced eczema; in this he described the following plants and gave instances of the irritation that they caused: (1) Phlebolium argenteum (blister plant); (2) Dysoxylon Richii and (3) Dysoxylon Muelleri (red bean); (4) Rhus radicans (the poison ivy); (5) Rhus diversiloba (the poison oak); (6) Rhus vernix (the poison sumach; (7) Castanospermum Australe (the black bean); (8) Eucalyptus maculata (spotted gum); (9) Eucalyptus hemiphloia (gray gum); (10) Capania aculeata (dogwood); (11) Pyrethrum parthenicum (featherfew); (12) Primula obconica; (13) Primula sinensis; (14) Excoecaria Agallocha; (15) Excoecaria parviflora; (16) Thuja Douglasii; (17) Hyacinthus Orientalis; (18) Richardia Aethiopica (the arum lily). All these plants excited irritation of the skin by contact, and some such as rhus and eucalyptus even by proximity.

MANCHESTER MEDICAL SOCIETY. At a meeting on April 13th, Dr. J. S. BURY, President, who was in the chair, gave an address on trauma in relation to disease of the nervous system (see p. 997).—Dr. C. W. BUCKLEY read a paper on the treatment of neurasthenia. He considered objective symptoms the chief guide to treatment. (1) To remove nervous causes, it was generally necessary to send the patient away from home and relations for a while, and preferably to a bracing climate. (2) Accessory causes included errors of refraction, malformations and disorders of the mouth, nose, and naso-pharynx, dyspepsia and functional hepatic disorders, movable kidney and enteroptosis, malformations and disorders of the generative organs, etc. These were all open to treatment, but the influence of a neurotic heredity could rarely be removed, nor was the increased vulnerability of the nervous system, resulting from prolonged or exhausting disease, open to direct attack. (3) Disorders of the vasomotor systems were common and important, and should be treated by such measures as hydrotherapy, massage, and physical methods of other kinds; electricity, though appealing to the patient's imagination, was rarely so useful; galvanism of the abdomen was often useful especially if constipation were present. (4) Abundant nourishment must be supplied to the nervous system, carefully chosen and suited to the needs of the nervous structures. The Weir-Mitchell treatment, which covered all this ground, must be rigidly carried out to be successful. (5) Special symptoms, such as headache and sleeplessness, should be treated as they arose. Drugs were of little value; the organic forms of phosphorus, such as glycerophosphates and lecithin, supplied food to the nervous system, but they were generally unnecessary if the diet was carefully arranged; arsenic and valerian were both useful, and also strychnine in very small doses. Suprarenal gland was useful in cases of vasomotor paresis. Most reliance, however, was to be placed on diet and physical methods, and drugs should be avoided as far as possible.

[illegible] Specialties.

Mr. A. WILSON: Professor Vernon Harcourt's new chloroform inhaler. —Mr. A. H. BURGESS: (1) Sterilized dressings in portable form; (2) aseptic caps for surgeons use during operations. Professor WILD: Specimens of drugs and minerals.

HARVEIAN SOCIETY. At a clinical meeting on April 14th, Dr. C. THEODORE WILLIAMS, President, in the chair, Dr. LEONARD GUTHRIE showed a tailor, who during three years had gone through the following phases of insular sclerosis:

In 1881 a short attack of hemianaesthesia, in 1894 paraesthesia of hands and feet with loss of power in all extremities, lasting a fortnight. In 1[illegible] symptoms recurred, he was admitted to the National Hospital, Queen Square, and discharged, apparently completely cured, in about three months. In 1[illegible]8 weakness of legs reappeared, and in 1[illegible]9 he could not walk without help. In January, 1901, he was readmitted to hospital with loss of power, slight manual incoordination, ataxic spastic gait, exaggerated deep reflexes, and extensor plantar reflexes, no ankle clonus; he had several relapses and was becoming ataxic and spastic. At present there was very slight nystagmus on lateral deviation. The optic discs were normal. Speech was stuttering but not scanning or syllabic; no wasting of muscles: muscular power of upper extremities fair. Very slight "intention" tremors: abdominal and back muscles were paretic at times; muscles of lower extremities showed varying degrees of weakness. Gait, weak and uncertain; knee-jerks active, ankle-clonus (spurious) at times, plantar reflexes irregular, electrical reactions normal. The muscular paresis was worst under influence of emotion, or after fatigue. If notice were taken of him, he became flurried and nervous while walking and presently fell like a tree and became completely paraplegic and exhausted for the time being.

Dr. Guthrie had regarded the condition as one of functional myasthenia until the history, clearing pointing to relapsing and remittent insular sclerosis, was forthcoming. — Dr. RISIEN RUSSELL showed a case of myasthenia gravis in a young woman, aged 28 years, whose illness began about a year ago, and in whom many of the characteristic phenomena of the affection were present, including the myasthenic reaction on faradic excitation of the muscles. The symptoms were not, however, always made worse by muscular exertion, nor were they more pronounced at the menstrual period, and they disappeared in a remarkable manner ten months ago, but returned eight months later. Some impairment of resonance over the manubrium sterni suggested the possibility of enlargement of the thymus gland.—Mr. JACKSON CLARKE showed a girl, aged 7 years, on whom over two and a-half years ago he performed costo-transversectomy for obstinate paraplegia due to tuberculosis at the level of the fourth dorsal vertebra. Paraplegia in spinal disease frequently yielded to rest and general treatment, but there were two indications for operation: first, when total motor and sensory paralysis, including the bladder, supervened rapidly; and, secondly, when in the more ordinary type of case in which the paralysis was chiefly motor, rest had been given a fair trial without success. If performed with due care, costo-transversectomy was less dangerous than laminectomy, and on other grounds was preferable to it.—Dr. EDMUND CAUTLEY showed a case of cerebral syphilis in a man aged 22, admitted to the Metropolitan Hospital for lassitude and headache of three months' duration, and vomiting for three weeks. He had been treated at the Lock Hospital for eighteen months, and still showed the remains of a specific rash. His hair came out a year ago, and on admission he was almost bald. His mental condition was dull, but had distinctly improved under a month's treatment, and there was a free growth of white hair becoming dark in places. The knee-jerks were exaggerated, there were no ocular changes, and the headache had ceased; the condition was doubtless due to a mild form of endarteritis.—Dr. WILFRED HARRIS showed two cases of lead paralysis. In addition to ordinary symptoms, one had paralysis of the deltoids and supraspinatus and infraspinatus muscles; the other had complete atrophy of the intrinsic muscles of both hands.—Mr. T. CRISP ENGLISH showed three cases, one a case of goître in a girl aged 17. An operation indicated by severe dysphagia had led to improvement of the general symptoms.—Mr. E. LAMING EVANS showed a case of congenital absence of the fibula in a female aged 4 months. The metatarsal and phalangeal bones of the fifth toe were also absent, and the foot was in a position of marked equino-varus. No history of deformity in the family, nor of injury during pregnancy was obtainable.

HUNTERIAN SOCIETY.—At a clinical meeting on April 13th, Dr. F. J. SMITH (President) in the chair, Dr. O. K. WILLIAMSON showed a child with a loud diastolic murmur heard beneath the second left costal cartilage and a non-collapsing pulse. Dr. Williamson regarded it as a case of pulmonary regurgitation, and thought that there were pericardial adhesions, as the cardiac hypertrophy was greater than he would expect from the valvular lesions. The general opinion of the meeting, however, was that the murmur was aortic, since it was heard in the vessels of the neck.—Mr. H. L. BARNARD

showed a young girl with symmetrical parenchymatous goitre. Slight stridor had been present, but had disappeared under a few days' treatment by tincture of iodine, potassium iodide, and extract of thyroid. If the stridor increased thyroidectomy of one lobe and the isthmus would be advisable. Dr. WILLIAM LITTLES showed a case of tumour high up in the neck, with congestion of the skin and mucous membranes and greatly dilated venules. There had been small petechiae on the palate. The large veins of the head and neck had not been engorged. The tumour was the right lobe of the thyroid probably enlarged by an adenoma, but it did not apparently exert pressure on the trachea or great veins. The veins of the arms had never been congested, but both retinal veins had been greatly engorged. Dr. GLOVER LYON suggested that the congestion was of vasomotor origin and not mechanical.—A case of a cervical rib springing from the transverse process of the seventh vertebra on the left side in a man was shown by Dr. WILLIAM LITTLES. The subclavian artery crossed it and simulated an aneurysm. It produced a fullness in the neck, but did not give rise to any symptoms. A skiagraph was shown in the case. A similar case of a cervical rib on the left side, but in a woman, was shown by Mr. H. L. BARNARD. In this case pains and weakness were complained of in the arm. No surgical interference was recommended. A case of actinomycosis of the left side of the head and neck, which had been cured by the daily exhibition of 330 gr. of potassium iodide and several applications of *x* rays, was also shown by Mr. H. L. Barnard. The disease started at the angle of the jaw. It progressed rapidly until the dose of iodide reached 270 gr. About the same time *x* rays were tried, and the case commenced to improve and was now practically cured. The cure was attributed rather to the potassium iodide than to the *x* rays. The ray fungus was found on many occasions.

PATHOLOGICAL SOCIETY OF MANCHESTER. At a meeting on April 20th, Dr. REYNOLDS, President, in the chair, Dr. NATHAN RAW made a communication on the method of infection of the human body by the tubercle bacillus, and exhibited several specimens in illustration. He was of opinion that human and bovine tuberculosis were distinct varieties of the same disease, and that the bacilli were culturally and morphologically different. Abdominal tuberculosis in children, together with enlarged glands and strumous joints in children, he considered were in reality bovine tuberculosis conveyed to the alimentary canal by tuberculous milk. He was also of opinion that acute miliary tuberculosis was generally bovine in origin and was not true human tuberculosis. He believed the human body was attacked by two distinct varieties of tuberculosis. Mr. MONTGOMERY mentioned a case of excision of a congenital dilatation of the sigmoid colon, and showed the specimen. Mr. SOUTHAM made some remarks on a series of 120 operations for the removal of vesical calculi, and showed the specimens, which included examples of encysted calculi, spontaneous fracture, calculi containing foreign bodies as their nuclei, etc. In 40 cases the calculi had been removed by lithotrity, 14 of the patients being boys under 10 years of age. In 3 cases lithotomy had been performed, the lateral operation in 17 patients, and the suprapubic in 9 patients. In 10 cases there was a recurrence after operation namely, in 5 patients after lithotrity and in 5 patients after lithotomy. No instance of recurrence was met with in children or in adults under 30 years of age. Other preparations were shown and specimens.

GLASGOW MEDICO-CHIRURGICAL SOCIETY. At a meeting on April 21st, Dr. RUTHERFURD in the chair, Dr. ALFRED YOUNG showed (1) a case of sarcoma of nine years' duration. The patient, aged 38, was operated on for a left-sided ovarian tumour in 1895. A year afterwards a tumour appeared in the left iliac and umbilical regions. An incision was made by a surgeon at the Glasgow Royal Infirmary, but as the lower part of the left rectus muscle was found to be involved with tumour tissue the operation was abandoned, and a portion of tissue was removed for microscopical examination. The tumour proved to be a spindle-celled sarcoma. The case had been under Dr. Young's observation for the last six years, and the original portion of the tumour had undergone marked atrophy and had now almost disappeared. The growth, however, had extended upwards along the sheath of the rectus, and there was now a considerable mass of two years' duration over the left costal margin. The lymphatic glands in the left axilla were enlarged. The patient's general health was very good, and there was no intestinal or pulmonary trouble. (2) A patient who sustained a dislocation of the left knee two years ago, and a skiagraph showing the displacement. The injury was produced by a blow from a "sprag" from a wagon just as the patient was extending the leg with the foot on the ground. The lower end of the femur was driven backwards and slightly inwards. The internal condyle of the femur was very prominent in the popliteal space, but there was no apparent injury to the vessels or nerves. The dislocation was reduced, and the patient made a complete recovery, being now able to play football. The joint was quite firm and strong, though there must have been considerable tearing of the ligaments. Dr. GEORGE BELL TODD read a paper on ankylostomiasis, and illustrated his communication by lantern slides and specimens. Dr. ALEX MACLENNAN showed a patient on whom he had operated with a good result for web fingers. The third, fourth, and fifth fingers on both hands had been joined together.

REVIEWS.

"THE CONFESSIONS OF A PHYSICIAN."

The Confessions of a Physician[1] should be reserved for the ear of a discreet confessor and not shouted from the house tops, and the only discreet confessors for a physician are his professional brethren, who are able justly to weigh his transgressions and apportion the blame due unto him. It is with regret therefore that we find a Russian physician washing his dirty linen in public with every sensational accompaniment that is calculated to attract attention to the nasty business. Our regret is all the greater when we find that he has not confined himself to the recitation of his own delinquencies, but has tacked on to his avowal of them calumnious statements about other men, and vilification of the craft to which he belongs.

Dr. VERESAEFF's book, which had been before the public first in the original and afterwards in French and German translations for some time before it was rendered into English, must be taken seriously; it is not a merely literary venture or flight of imagination. There is probably no physician who is not in possession of secrets which, were the seal removed from them, would make material for romance, or who has not been mixed up in tragic events which not only point a moral but might adorn a tale. A well kept casebook is a series of scraps of biography often on its seamy side which a novelist or novelette writer would greedily seize and weave into fictitious narrative. In *Passages from the Diary of a Late Physician* Mr. Samuel Warren made use of incidents occurring in medical practice in the construction of a series of very beautiful and touching stories. But Dr. Veresaeff's *Confessions* are not in this category. They are not by any means inventions, or fanciful sketches intended merely to interest and amuse. They profess to be frank and veracious disclosures of the doubts and difficulties that beset a physician's career, of his ignorant flounderings amongst the pitfalls that surround him, of his fatal mistakes, of the weaknesses and affectations that his work begets in him, and of the harsh treatments he meets with at the hands of his patients. They are addressed to the crowd, are on the general market, and have been prepared for sale to all and sundry, and it is evidently hoped that the sale will be a large one. Medical phraseology is used, medical works are quoted, medical theories are discussed, medical writers are criticized. The work cannot be dealt with on its literary merits, which are not inconsiderable, but must be taken as a grave and measured manifesto, laying bare to the public Dr. Veresaeff's private shortcomings, and all the shortcomings, brutalities, and pretentious impostures which he thinks he has discovered in the medical system in which he has found himself involved. By its very nature the book stands condemned. It is no light or jesting parody, and we must assume that in its publication reform was held in view; yet Dr. Veresaeff has appealed to a court that is, as he well knows, incapable, in the absence of skilled assessors, of giving any just judgement and has stated his case in a manner well calculated to excite prejudice and obstruct reform, and wholly unworthy of himself and his profession.

Dr. Veresaeff's book is, we do not hesitate to say, an opprobrium to Russian medicine, and unless it be repudiated the impression will prevail that the healing art in

[1] *The Confessions of a Physician.* By "V. Veresaeff" (V. Smidovitch). Translated from the Russian (with the author's permission) by S. Linden. London: Grant Richards. 1904. (Demy 8vo, pp. [illegible].)

that country remains in a state of semi-barbarism. Refinement, and even common decency, must be unknown to physicians there if they approve of the style Veresaeff adopts in describing for the general public some of his experiences and his reflections thereon. He is called to see a girl in the country, who manifests some reluctance in telling him what is the matter with her.

"Turn round, Annie, and let him have a look," coaxed her mother. She turned on her side, and lifted her crude linen shift, which was stiff as bark from dried pus. I grew faint with the unbearable odour and from the sight I saw. Her entire left thigh from waist to knee was one great bluish-red swelling, corroded by sores and abscesses the size of a fist, covered with stinking, decomposing matter.

He was attending a lady student:

Everything indicated typhoid; the spleen could be felt through her chemise, but it was necessary to bare her middle that I might see the rose-dae. I hesitated for a moment—even now it pains me to proffer such requests: "Ah! you want me to raise my nightgown."

He meets a lady, who informs him that she has been

A victim of dysmenorrhoea for the last four years. She had consulted various professors. One diagnosed antedevion of the uterus, another constriction of the collum—a month ago division of the collum had been performed on her . . . . she initiated me into the most intimate details of her sexual and married life.

And the man who can write thus—and a score of such superfluous and gross expositions might be quoted—in a popular book that is certain to fall into the hands of women and girls has the audacity to lecture his professional brethren on their want of fastidiousness in the examination of women. He thinks it objectionable that "a man still in his prime should feel over a young and bared girl," and he is of opinion that patients gradually develop a habit for such examinations, attained at the cost of a painful shattering of their spiritual ideology and blunting of their moral sense. If his description is correct—let us hope it is not—of the way in which the clinical examination of women is conducted in Russian hospitals, there may be some ground for his opinion and some explanation of his own offensive bluntness of statement. In the propaeddeuthic clinique, he tells us, a young woman suffering from pleurisy mounted the professor's dais:

One of the students stepped up intimating that she was to undress . . she took off her shawl and bodice and lowered her chemise, as far as her waist, her face was serene and proud.

In the clinique of syphilodology a young woman presents herself.

The assistant went behind the screen. She stood fully attired and was crying. He made her strip to her chemise. Placing the patient on a lounge, they began to examine her. She was examined at length in a detail revolting to the lay person.

From what Dr. Veresaeff says it seems that there is in the hospitals of Russia scarcely the same amount of scrupulous regard for the patient's feelings to which we are accustomed in this country. But we fear we cannot altogether ascribe to the atmosphere of his student days the uncleanliness of Veresaeff's confessions, for he unblushingly acknowledges a constitutional pruriency of mind, which is sufficient to account for what we complain of in them. When a young female was stripped before him he had "voluptuous feelings." When he approached a young girl of eighteen of rare beauty with presystolic resonance who had "thrown off her nightshift, and sat up in bed bared to the waist," he tried "to look upon her with the eyes of a physician, but could not help observing that she had handsome shoulders and a beautiful breast . . . I was conscious of the impurity of our glances." There is no prudery in characterizing all this as discreditable to its author and especially censurable when appearing in a popular work by a physician.

Enough has perhaps been said to indicate that Veresaeff is an unsafe guide; and a further examination of his work must convince that he is utterly untrustworthy. The charges that he makes against himself in respect of his treatment of the patients who sought his help—one of them is a charge of homicide—are certainly highly coloured and probably unfounded, but we are not concerned to refute them. If he chooses to hold himself up to condemnation and contempt as having been an ignorant and incompetent practitioner, that is his affair, not ours, and we only refer to his self-reproaches because they show that he is the last man in the world who should criticize his brethren or throw dirt on the profession of which, by his own showing, he has been so unproficient a member. His attempts to cast obloquy on physicians and surgeons may deceive lay readers, but will be readily seen through by medical men. Mistakes and misadventures must occur. What profession is exempt from them? Have we not a Court of Appeal? Do not bridges collapse and boilers burst? Are not theatres burnt down? Mistakes and misadventures should be recorded for the benefit of those who may profit by the warnings they afford, but it is monstrous unnecessarily to frighten the public by harping on them, for much mischief may thus be done. The wonder really is that the medical mistakes and misadventures which Veresaeff has scraped together are so few and trivial. His very worst case is that of a hospital surgeon who had punctured the intestine while performing ovariotomy, and whom he meanly represents as standing in the *post-mortem* theatre in a state of great trepidation, and trying to ingratiate himself with the pathologist so that his blunder might be lightly passed over. The patient had died of peritonitis, and there was a small wound of the intestine. Veresaeff would have his readers believe that the surgeon had by his clumsiness killed the woman. "She had applied," he says, "to the surgeon for aid, and thanks to his intervention she now lay a corpse." But what are the facts? The woman suffered from a large abdominal tumour, with extensive adhesions to the intestines. She had previously suffered from peritonitis, and was practically under sentence of death. An attempt was made to save her, but so dense were the adhesions that the tumour could not be removed. The Professor of Pathological Anatomy who performed the necropsy and found the small rent in the bowel declared that it was all but impossible to notice a small wound of the intestine in such a mass of adhesions, and that in such complicated cases the best surgeons could not be guaranteed against untoward accidents. But suppose that the version of this case which Veresaeff desires to convey was correct, and that the surgeon did kill the woman, what good purpose does he hope to serve by his narration of it now, long after the event? It can only frighten many poor women with ovarian tumours, and prevent them from availing themselves in good time of the only sure means of relief, while it lowers the estimation in which surgery is held.

It would be profitless to make observations on Veresaeff, in his writhings of remorse, real or affected, over the blunders of his early days, or to follow him step by step in his progress to smug complacency attained apparently at about his 30th year. He stands self-condemned. His pages bristle with contradictions and inconsistencies. Open where we may, these confront us in matters great and small. On resolving what his attitude towards his patients should be, the first principle he lays down is that he must be fearlessly honest and transparent in all his dealings with them. "Hostile and ironical feelings are raised in patients when the full truth is withheld from them." On the very next page he describes the case of a young Government clerk, suffering from typhoid fever, in whom by the incautious administration of calomel he had induced profuse salivation.

What could I say? Was I to tell them that taking my medicine was the cause? Nothing could have been more idiotic. For I would merely have shattered the patient's confidence; no useful end would have been attained, and in future he would have anticipated some catastrophe from my every prescription. So I wisely held my peace, avoiding the eye of the patient's wife.

But Veresaeff's *Confessions* are not confined to reminiscences of his own errors and wholesale slander of others. They have a wider range, and are made the vehicle of his scientific and philosophical musings, and in this department they are stuffed with speculations, which might be amusing on the pages of Mr. H. G. Wells, but which in a sedate scientific work can only arouse contempt. The length of the intestines of man, we are told, gradually diminishes as we march across Europe from North-West to South-East (the allegation is in the highest degree doubtful, and has no adequate basis of observation), and the meaning of this, we are assured, is that the French and Spaniards eat more digestible food than do the Germans and Russians—an explanation in the highest degree questionable, assuming that the state of matters to be explained really existed. Well, the outcome of this is "a bright hope for the future of mankind." It is clear that, by the adoption of a rational diet made up of concentrated chemical compounds which would become transformed into blood in their entirety without any previous digestive preparation, our race will get rid of its intestines altogether, and thus free itself from a burden and be enabled to reinforce its higher functions by energy now expended upon mere vegetative processes. In the course of time sauer kraut and sausages, roast beef and dumpling, bread and onions, and even oysters and sweetbreads, must all go by the board and peptonized lozenges suffice for human sustenance. Such prospects reconcile one to having been born in an early and imperfect era of evolution. The fact that rubbish of this kind is gravely propounded by strutting scientists and is

joyously swallowed by gaping multitudes suggests that not only shortening of the intestine but softening of the brain is in rapid progress.

But what has all this to do with the confessions of a physician? Nothing whatever. It is merely irrelevant padding. And does Dr. Veresaeff really believe it? It is impossible to say. He enumerates all the changes in conformation and practices grotesque and preposterous they are—which consistent evolutionists of the border sect, with an assumption of prophetic foresight greater than that of Daniel, predict for our species in the progress of civilization. He apparently acquiesces in the prediction, and then he breaks away from it, questioning whether the sacrifice of so many useful organic appliances and humble faculties is necessary for cerebral development and the higher intellectual life, and arguing that, while availing ourselves of the advantages offered by civilization, we must preserve the closest communion with Nature and remain jealous of our old characteristics while developing new qualities. But how taking for granted his evolutional hypothesis—this is to be accomplished he does not give us a hint—and in the next breath he tells us that the future so bright from a social point of view is hopelessly sinister and poor as far as the life of the organism itself is concerned "everything will tend to make physical labour superfluous, and bodily idleness will result, fat will take the place of muscle, we shall lead an introspective vegetative existence being deprived of broad horizons and strangers to Nature." All that can be said is that the man does not know what he would be at, and puts a low estimate on the intelligence of his readers.

The proper place for Veresaeff's *Confessions* is not the drawing-room table, but the dustbin.

TROPICAL MEDICINE AND HYGIENE.

Malaria.

Another book, specially adapted for students studying tropical medicine in the laboratory, has quickly followed that published recently by Dr. Daniels. This is the *Practical Study of Malaria*,[1] by Dr. Stephens of Liverpool and Dr. Christophers, now of the Indian Medical Service. In the introduction the authors contend that their plan of giving essentially practical methods is the correct one. The contents follow the lines now generally taught in schools of tropical medicine—first, the preparation and study of normal blood, then pathological conditions, then malaria, then mosquitos, then blackwater fever, then the haemamoebidae, trypanosomes, and filaria. The part on malaria should give the student a good grasp of the subject, the subsidiary signs, of which the authors have made a special study, being well described. Following malaria come the description, habits, and anatomy of mosquitos, how to dissect them to show parasites, and their classification. The latter is taken from Theobald's latest work on the subject, and is up to date. A very good chapter follows on the clinical study of malaria, and the opinion is expressed that between quinine haemoglobinuria and blackwater fever there is practically no difference. Blackwater fever is described as a quinine intoxication plus something more—namely, a condition of the blood in particular malarial patients, which is the determining factor whether quinine will produce an attack or not. The writers have had much experience in this disease, and their statement backs up Koch's original idea. A good synoptic account is given of the various haemamoebae of animals, the trypanosomata, tsetse flies, and filariae, and an appendix closes the book. The latter chapters do not quite come up to the high standard of the first part of the book, but, taken as a whole, it is excellent, and will be found very useful by the student beginning the study of tropical medicine.

In a pamphlet entitled *A Revision of the Anophelinae*, Lieut. Theobald criticises the second edition of *A Monograph of the Culicidae or Mosquitoes* up to date. The question of the classification is gone into at length, and the general scheme and numerous species proposed by Mr. Theobald is adopted, the regrouping of the family proposed by Neveu-Demaire, based mainly on the [illegible] being slightly condemned. Though agreeing in the main with Theobald's new genera the author considers one or two of these unsatisfactory, and sounds a warning note as to the degradation of genera to species. After all, however, the differences are not very great; *Stethomyia* he thinks should be kept within the limits of the *Anopheles* in spite of its mamillated prothoracic lobes, and the single specimen which has founded the genus *Aldrichia* he thinks should really be classed as an aberrant form of Myzomyia rossii. The amateur entomologist will find the diagnostic table based upon obvious colour-characters very useful.

That the little work on *The Causation and Prevention of Malarial Fevers*,[2] by Captain James, I.M.S., should have reached a second edition so quickly shows how popular it has been amongst the class for whom it was intended. The scope of the work has been enlarged, and a very good summary on malaria and mosquitos is the result. The treatment of malaria is discussed scientifically, and many useful points for the proper administration of quinine are given. The statements that quinine should not be taken until the diagnosis is absolutely assured, and that an accurate diagnosis is essential for successful treatment, may be accepted. The question of prophylaxis is entered into fully, and all the different methods that have been adopted are taken up in detail. An appendix, containing methods of examination of the blood and diagrams, concludes this very excellent little treatise.

In a small pamphlet entitled *Haemoglobinuric Fever: its Distribution and Etiology*,[3] Dr. Collett, of Southern Nigeria, suggests that blackwater fever may be due to the presence of the bacillus megatherium. This suggestion is based on his own statement that haemoglobinuria due to megatheriolysin is identical with that condition in haemoglobinuric fever. There is nothing new in his description of the distribution of the disease, and after a short discussion on this point the writer, in language that pertains more to Virgil and Homer than to himself, proceeds to the causation. Briefly stated, his conclusions are that neither the malarial nor the quinine theory have sufficiently satisfied the demands of science to be acceptable as facts or speculations. Having lightly swept those factors aside, a specific theory is introduced and a long ramble into the question of immunity—a subject which does not seem to have any connexion with the case—is undertaken. The idea of the bacillus of megatherium is furnished by Ehrlich's work on the haemolytic products which are produced by that organism, and then a parallel is drawn between this and the haemolysis in blackwater fever.

Plague.

To those interested in inoculations against plague a book entitled *The Treatment of Plague with Professor Haffkine's Serum*, by Dr. N. H. Choksy, will appeal. The *pros* and *cons* are treated fairly, and there is much useful work incorporated in the book. In a short review all the points contained in the book cannot be touched on, but dealing with Dr. Choksy's conclusions, which are also held by so great an authority as Professor Sir Thomas Fraser, one notices that he claims that both the Lustig and Roux-Yersin serums are capable of reducing the case-mortality of plague in the non-septicaemic cases, but that in the septicaemic both are equally of no avail. These results obtained in Bombay differ from those reported from Oporto and Glasgow, where the Roux-Yersin serum was credited with bringing about the recovery of grave septicaemic cases. It is satisfactory to be able to record that the serum reduces the case-mortality in some cases of plague, even though not in all, as this is a distinct advance. Subcutaneously or intravenously, the author states, must be relied on for success solely in non-septicaemic cases, and must be begun immediately after the disease declares itself. It is to be feared that the great expectations that followed the introduction of a serum for diphtheria are not to be realized for some of the more deadly bacterial diseases such as plague and tetanus. A series of appendices on illustrative

[1] *A Practical Study of Malaria and other Blood Parasites*. By S. R. Christophers, M.B., I.M.S., and W. Stephens, M.B., I.M.S. [illegible] Medical Research Committee. [illegible] Medical Officer, Liverpool School of Tropical Medicine. [illegible] Medical Officer, Liverpool School of Tropical Medicine. [illegible] Medical Officer, Liverpool School of Tropical Medicine

cases, recent studies in immunity and their bearing on serum-therapy, and Kolle and Otto's comparative studies of various antiplague serums complete the book, which will repay careful study.

Trypanosomiasis.

Dutton and Todd, who were sent out by the Liverpool School of Tropical Medicine to the Gambia to study trypanosomiasis[6] in 1902, have now published their results in a somewhat voluminous report. It is unfortunate that the publication has been delayed so long, as it is rather out of date now, the work done on trypanosomes and their connexion with sleeping sickness in Uganda having all been carried out since then. Clinical descriptions of two cases of trypanosomiasis in Europeans are first given, the former being Forde's original case, the second that of a quadroon born on the Gambia. Unfortunately necropsies were not obtained in either of those cases, and so the opportunities of determining whether the perivascular infiltrations of sleeping sickness were present or not was missed. The next and most important part of the report deals with equine trypanosomiasis, which is a very chronic disease in the Gambia. Cases are recorded and photographs of affected animals given, and then the question of the transmission is taken up. Numerous experiments were conducted with flies of the genus *Glossina palpalis;* but all those failed entirely, and the efforts to repeat Bruce's transmission experiments were without result. Though probosces of tsetse flies and stomoxys were carefully dissected, the authors never found trypanosomes, as seen in the blood, in those situations. They think the failure may have been due to the fact that they were working in the dry season. In the light of this work it is certainly of the greatest importance that more investigations should be made on the question of the tsetse fly as a transmitter of the trypanosome, and the exact mechanism should be carefully studied. Especially is this the case when it is remembered that the tsetse fly has been implicated in the spread of sleeping sickness. The report, which is illustrated by coloured diagrams and photomicrographs, contains an account of inoculations into rats of trypanosomes found in birds and frogs, and a bibliography.

The Bureau of Government Laboratories, Department of the Interior, U.S.A., has issued a report on trypanosomes and trypanosomiasis,[7] by Dr. W. B. Musgrave and Mr. Moses T. Clegg, of the Biological Laboratory in Manila. The volume is somewhat bulky, but as it deals largely with the work that has already been accomplished on this subject it will repay a careful perusal by those interested. A very complete classification of all the names of the trypanosomes (and their synonyms) discovered up to date in various animals is given, and then the important questions of the modes of transmission and infection is entered upon. The old theories of infected grass and water are condemned, emphasis being laid instead on the transmission through wounds in which biting insects play the principal part. Other flies beside the tsetse fly may act as transmitters, and carefully worked-out experiments on dogs show that fleas may transmit surra from dog to dog. The further fact that rats are also said to be infected with surra in the Philippines shows that it will be difficult to stamp the disease out in Manila. From a scientific point of view the most important part of the report is the consideration of the identity or individuality of surra, nagana, dourine, and *mal de caderas.* The writers bring forward evidence that these diseases are caused by the same parasite, and incline to the belief that surra should be the only vernacular name allowed. The chapter on prophylaxis is especially good, and it indicates how serious a matter the introduction of this disease into a non-infected island or country may be. The quarantine regulation of the States forbidding the entrance of any horses from an infected port is doubtless the best that can be adopted for places so far free from surra. Once the disease is introduced very little can be done. The endeavours of the authors to discover prophylactic and curative serums have all failed, and they have come to the conclusion that all methods tried for the treatment of the disease have been without results of practical importance or significance. A very complete bibliograph, compiled and edited by Miss Mary Polk, is appended to the report.

The Leishman-Donovan Body.

In the *Thompson-Yates and Johnston Laboratories Report*, vol. v, New Series,[8] the first page is devoted to the memory of the Rev. Samuel Ashton Thompson-Yates, M.A., the founder of the laboratories called by his name. A very excellent photograph is given of the deceased gentleman and a short account of the interest he took in natural science. The loss to Liverpool of such a benefactor must be great, but his name will be handed down to posterity in association with the laboratory he so munificently endowed. A passing reference is also made to the death of Professor Nocard. The main part of the fasciculus deals with the work of the trypanosomiasis expedition to Senegambia; this has been published separately. As it has been reviewed, all that remains is to deal with what is left. This consists of an interesting article on the Leishman-Donovan body, by Professor Ross. A very accurate and well-studied description, with a coloured plate, is given of these parasites, and then the question of their nature is discussed. Leishman's original idea that the parasite was a trypanosome is held to be incorrect, and as regards Laveran's view that it is a *Piroplasma*, it is pointed out that they are not piriform nor intracorpuscular and do not show signs of bipartition. The recent paper by Manson and Low on this subject also goes strongly against the theory that the parasite is a *Piroplasma*, and the suggestion made by Ross that it probably belongs to a new genus of sporozoa is possibly the correct solution. The subject, it is pointed out, is of great importance, and it is hoped that the Indian Government will take the matter up.

NOTES ON BOOKS.

The second annual issue of the *International Catalogue of Scientific Literature*[9] comprises the literature on bacteriology available up to May, 1903. The important feature of the work is the elaborate classification of the subject matter by means of a very extensive range of subdivisions. Most of these subdivisions are obviously of great utility for purposes of reference, but it is a little difficult to understand what the editors mean by the "philosophy" of bacteriology. The four articles which constitute the whole of this division do not appear to be, in any proper sense of the term, philosophy; and if the word is merely intended to comprehend articles dealing with the general bearings of bacteriological principles, the list surely ought to have been made very much more extensive.

The Garden Decorative,[10] by F. M. Wells, is a useful, compact little handbook on gardening which should prove very useful to amateur gardeners. It gives much practical and useful information and covers a wide field of general gardening. The author has a practical knowledge of his subject and gives hints not always to be found in more ambitious works. Some portions of the book have appeared in the *Gardener* and *Amateur Gardening*.

Under the title of *New Poems*,[11] Mr. Ronald Campbell Macfie gives a collection of short poems, chiefly republished from *Black and White*, the *Bookman*, the *British Weekly*, the *Illustrated London News*, and other periodicals. They are slight; some of them are graceful and rhythmic while others are sentimental and rather far-fetched, but on the whole there is good promise, and we wish the author well.

[6] *Liverpool School of Tropical Medicine. Memoir VI.* First report of the Trypanosomiasis Expedition to Senegambia, 1902, of the Liverpool School of Tropical Medicine and Medical Parasitology. By J. Everett Dutton, M.B., B.Ch. Viet., and John L. Todd, B.A., M.D., C.M. McGill; with Notes by H. E. Annett, M.D., D.P.H., and an Appendix by E. V. Theobald, M.A. London: Longmans, Green, and Co. 1902. (Demy 4to. pp. 75. 10s. 6d.)

[7] 1903. No. 5. Department of the Interior Bureau of Government Laboratories. Biological Laboratory. *Trypanosomes and Trypanosomiasis. A Special Report on Surra in the Philippine Islands.* By W. E. Musgrave, M.D., Acting Director, Biological Laboratory, and Moses T. Clegg, Assistant Bacteriologist, Biological Laboratory. Manila: Bureau of Public Printing. 1903.

[8] *The Thompson-Yates and Johnston Laboratories Report.* Edited by Rubert Boyce and Charles Sherrington, with H. E. Annett, A. S. Grunbaum, Benjamin Moore, Ronald Ross, and E. W. Hope. Vol. v. (New Series). Part II. London: Longmans, Green and Co. 1903. (Demy 4to. pp. 103. 12s. 6d.)

[9] *International Catalogue of Scientific Literature.* R. Bacteriology. London: Royal Society. 1903. (Demy 8vo, pp. 443. 21s.)

[10] *The Garden Decorative.* By F. M. Wells. London: The Cable Printing and Publishing Company. 1903. (Cr. 8vo. pp. 135. 2s.)

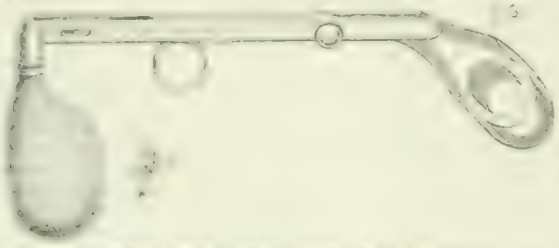
[11] *New Poems.* By Ronald Campbell Macfie. London: John Lane. 1904. (Cr. 8vo. pp. 134. 5s.)

Dr. Dupont, of Antwerp, is reported to have under his care a young European who has recently returned from the Congo and who is suffering from sleeping sickness.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

A Tonsil-tome.—Mr. LAWRIE MCGAVIN, F.R.C.S.Edin., (London W.), writes: In a recent communication I drew attention to the fact that although the majority of laryngologists at present use Mackenzie's guillotine in the performance of tonsillectomy, this instrument, like many less well known, still leaves much to be desired. I have been for some time working at the production of a more ideal instrument, and the points which I have borne in mind in doing this are those which I believe such a one should possess. They are as follows:



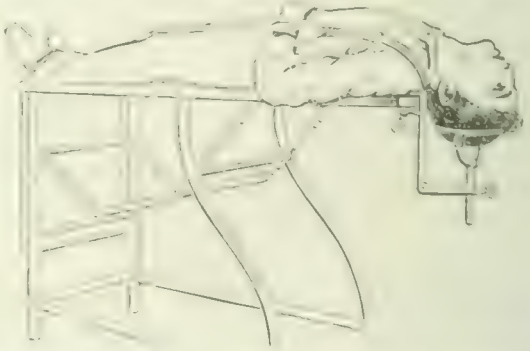
1. It should conform to the curved shape of the oropharynx.
2. The long axis of the instrument should coincide with the long axis of the tonsil when the instrument is in position.
3. It should be very light at the distal end and fairly heavy at the proximal, thus giving correct balance to the instrument.
4. The guard should be a powerful one, and therefore the handle should be well fitted to the hand.
5. It should cut by a pull, with one surface of the blade as with the other.
6. The action should be that of the powerful flexors of the index finger rather than that of the feebler lumbrical muscles.
7. There should be no possibility of jamming of or dislocation of the blade or guard.
8. It should be easy of access and easily put together.

All of these points I have endeavoured to combine in my guillotine, which will, I think, be found handy and practical. It is provided with a ring knife in place of a blade, and with it tonsils markedly dependent in the pharynx are quickly and easily grasped; indeed, in this respect it overcomes one of the chief difficulties which confront those who are not specially practised in tonsillectomy. As the instrument differs entirely from all others of its kind, it has necessarily had to pass through a good many alterations, and for their patient supervision my best thanks are due to Messrs. Down Brothers for the patience and careful work they have expended on the production, and to which its success is very largely due.

An Instrument for Localising Bullets and Opening in Skull.—Mr. W. ARBUTHNOT LANE (Guy's Hospital) writes: As one is always glad to know of an instrument by means of which portions of the vault of the skull can be removed rapidly and safely, I make no apology for calling attention to that illustrated here, which I have devised and had made for me by Messrs. Down Bros. The instrument is made on the principle of the old tasheret forceps. The fulcrum is so arranged as to afford a good hold on the outer surface of the skull. The blades are open to a distance of one inch from the fulcrum, allowing sufficient room for the thickest skull. When opened to their full extent the ends are easily passed under the bone, and then follows a slight turn of the handle which acts as a lever, and the piece of bone is removed by the pressure gripped between the claw and the fulcrum. The size of the fragment removed is regulated by the depth to which the claw is inserted and the length of the shaft keeps the hand quite free from the wound.

Pile-suture Forceps.—Mr. A. S. BARLING, Surgeon, Royal Chester Infirmary, has devised the pile-suture forceps here illustrated. They have "proved of value in the excision and suture of haemorrhoids by a method practised by myself—and doubtless by many others—for several years, and which was carefully described and beautifully illustrated by Mr. A. B. Mitchell, of Belfast, in the BRITISH MEDICAL JOURNAL of February 28th, 1903, p. 485. All the forceps that I have seen described for the treatment of piles are unnecessarily cumbersome. Kocher's artery forceps often allow the cut edges to slip through before the insertion of the suture, thus giving rise to troublesome bleeding and irritating delay. These disadvantages are avoided by the use of the new forceps. There is nothing original in their construction, but I think that if any one should use them he will be satisfied. They have been made for me by Messrs. Down Brothers, Limited, 21, St. Thomas's Street, Borough, S.E."

A Head-rest for Post-nasal Operations.—Dr. F. A. NYULASY, of Melbourne, Australia, writes: I have found the head-rest here figured most convenient in the removal of post-nasal growths and for operations within the nostrils. The "hanging head" position over the end of the table as ordinarily maintained, in my opinion, seriously impedes respiration, owing to the extremely strained condition of the anterior neck muscles. My head-rest overcomes this difficulty, and dispenses with the need of an assistant to steady and support the patient's head. The operator sits at the end of the table, beyond the patient, and does his work in a more deliberate, satisfactory and safe manner, than is possible by other methods, while at the same time the risk from any anaesthetic is considerably diminished (personally, I prefer chloroform). The head-rest is easily clamped on to the end of an ordinary kitchen table, while the "rest" itself may be quickly raised or lowered. It should be kept low to allow of full extension of the neck. A towel thrown over it after it is fixed in position will prevent soiling by blood. The whole apparatus is in parts for convenient portability in one's bag. It will also be found useful in operations on the roof of the mouth and upper jaw, in excision of the larynx, and in endoscopic examinations of the oesophagus. I have designed, for ready use with the head-rest, a simple folding chloroform mask on which a fresh piece of lint or domette may be clamped at each operation.



CARNIVOROUS APES FOR PUGILISTS.—According to a recent account in the *Daily News*, Mr. Allen, a veterinary surgeon, of Dublin, has successfully discovered that turpentine is an antidote to carbolic acid when injected in poisonous doses. He was called upon to treat two horses who had been poisoned, and gave one of them a dose of what he thought was carbolic, but which was really turpentine. The latter was so great that he gave the second horse, both recovered rapidly, although the second horse was already unconscious when the dose was administered. In view of the comparative inefficacy of all the remedies hitherto suggested for the form of poisoning the experiment, if there is any real foundation for it, may be worth following up.

NOVA ET VETERA.

SOME NOTES ON CHINESE MEDICINES.

It is difficult, for various reasons, to estimate the amount of knowledge of medicine possessed by the Chinese physician, that is, the native practitioner who has not received an education in Europe or America. He is not required to pass any examinations nor do his patients require any assurances of his knowledge beyond the possession of one or more native books on the art of healing. Heredity is a very strong recommendation in the young physician's favour, if his father chance to have been a doctor he will certainly be popular, and if, in addition, his grandfather has also been a medical man, a large *clientèle* is assured him.

It would be absurd to imagine that a people of such an ancient civilization as the Chinese possess no knowledge of therapeutics, but they are extremely reticent in the presence of foreigners as to their reasons for the administration of certain drugs, their composition and therapeutic action. A people which has practised inoculation against small-pox since the Sung dynasty (A.D. 1014) must, in ordinary fairness, be credited with some research into the actions of drugs on the human body. The doses used are invariably large to our ideas; pills are taken by the hundred and other things in like exaggerated proportion. The statistics quoted are taken from the *List of Chinese Medicines*, published by order of the Inspector-General of Imperial Maritime Customs, 1889. The port quoted is Canton, which may be taken as a representative city (population about 2,000,000) similar drugs being in use throughout China with possibly some local variations which are unimportant. Opium is not mentioned in this paper as its use has become so universal in southern China that it may be considered more a luxury of diet than a drug.

Ginseng, that universally popular medicine in China, is imported to Canton to the extent of 590 piculs from Korea and 1,545 piculs from other parts of China, mostly from Szechwan. Korean ginseng being the most expensive and said to be best, this much-discussed root is supposed to possess an aphrodisiac action. The total import of ginseng of various grades to Canton amounts to over 3,000 piculs per annum (1 picul = 133 lbs.). There are many other drugs credited with a similar action, to which further reference will be made.

Liquorice is a very favourite medicine, the annual import amounting to 2,722 piculs. Rhubarb also (rheum officinale) is largely used, 229 piculs a year. There are many substances used as carminatives and appetizers, and one has only to read a China menu or be in a Chinaman's presence after a meal to understand that they must frequently require the assistance of the physician in the treatment of dyspepsia. Such drugs as cardamoms, orange peel, ginger skin, cassia, peppermint leaves, mustard, pepper, orange pips, gentian, coriander, etc., are all used by them. For aperients they administer calomel, castor oil, senna, leaves of castor oil plant, castor oil nuts, prunes, rhubarb (rheum officinale), liquorice and croton seeds.

A favourite tonic is made from the "roots of a woody climbing plant with hooked spines and axillary tendrils and large oval-ribbed leaves, furnishing a tonic like sarsaparilla of which the decoction is drunk. Probably a smilax." More than 1,700 piculs of this root are required annually in Canton. Arsenic, peroxide of iron and dandelion are also used.

Mercury is used for syphilis, cubebs for gonorrhoea, and asparagus as a diuretic. Other substances largely imported for medicines are camphor, sulphur, borax, sodium sulphate, poppy capsules, potash, copperas, cinnabar, realgar, dried urine, zinc carbonate, olive oil, camomile, eucalyptus, linseed, areca nut, orris root, aconite, black hellebore (veratrum nigrum), nettles, and tansy, all of which suggest some use to the Western mind.

Peppermint ice and oil are exported from Canton to the value of 4 000 taels annually. (The tael varies from 2s. 6d. to 3s. 6d.) Peppermint ice is sold in small bottles and is snuffed up the nostrils, it having a really surprising effect on nasal catarrh, relieving congestion and headache, and loosening the mucous secretions.

Of foreign medicines an emulsion of cod-liver oil, a "headache cure," and anti-opium pills seem to find a large market. The anti-opium pills are a patent medicine containing morphine sulphate, they relieve the patient of one drug habit and enable him to abandon the opium pipe only to replace it with the morphine pills.

Besides ginseng there are many other substances taken as aphrodisiacs or in cases of impotence. Many of the substances used are very disgusting and will not be quoted. Deer penis is imported in large quantities and is sold at 100 taels per picul, also asses' penis, seal's penis, and sheeps' penis. Human placentas are exported and many other things, as deer wombs, compounds of liquorice and human faeces, and liquid manure many years old are probably used for similar purposes. The deer is believed to possess wonderful properties, and there is scarcely any portion of the animal that is not used for medicine, the horns to the value of several hundred thousand taels are imported annually and the unborn young are cleverly imitated and sold. A possible explanation of the popularity of this animal for medicinal purposes suggests itself in the fact that the God of Longevity is always represented by Chinese artists as riding a deer. Tigers' bones, tiger-bone jelly and blood are largely used, being credited with the property of promoting bravery, and for the same reason the spleen and liver of executed criminals and boars' gall bladders are eaten.

The Chinese possess an enormous veneration for antiquity, and one can see the same idea in the choice of some of their medicines, for example, old varnish, liquid manure preserved many years, fossil ivory, fossil teeth, soot from old ovens, fossil crabs and shells, old chunam (Portland cement and sand 1 in 3), putty caulking from old broken-up vessels and water in which a few "cash" of an early dynasty have been boiled.

There is so much rank superstition mixed with some knowlege of drugs that it is impossible to draw a line between reasonable thought and arrant nonsense in their choice of medicines. Insects and animal substances enter so largely into their materia medica that one might be tempted to imagine all native doctors to be quacks of the most unscrupulous type. The following list will suggest the nostrums concocted by the charlatans of our own Middle Ages:

Dried silkworms	Sea-dragon
Scorpions	Wens or corns from monkeys
Red lady-bug	Dried lizards,
Blistering fly (not cantharides, but a small fly whose bite produces a blister)	Snails
	Tortoise-shell glue
	Snake skins
Maggots found in liquid manure	Buffalo horns and bones
Common earthworms	Chrysalis of the mantis
Centipedes	Goats' sinews
Dried toads	Dried snakes
Toad cakes (toad spittle mixed with other ingredients and pressed into cakes)	Caterpillars
	Hedgehog skins
	The dung of silkworms, magpies, bats, rabbits, cockroaches, and birds
Cast skins of cicadas	
Lining membrane of fowls' gizzards	
Wasps' nests	Sand, earth, and stones
Sea-horse	

The above is far from being a complete list of the Chinese Pharmacopoeia, but it will serve to show through what a varied range of thought their ideas have moved in attempts to relieve the diseases common to humanity.

The poetic nature of the Chinese is evident in the nomenclature of some of their drugs and is pleasanter reading than the above nauseating catalogue. The following are literal translations of some of the native names:

"The arrow of the hundred medicines."
"The stone which the sun vapourizes."
"Water dragon bones" (old caulking of ships).
"Thunder pills."
"The king of the field boundaries" (a weed).
"The grass which the deer picks" (another instance of the healing properties with which the deer is credited).
"Opium weaning grass."
"Head-turned chicken" (a dried fruit).
"Golden antique olives."
"Thousand taels worth seed."
"The hill over running duke."
"Sure remedy" (the bark of a tree).
"Robust the whole year" (certain bulbs).
"Phoenix bowels" (the phoenix is a beneficent animal like the dragon, and is the special emblem of the Empress as the five-clawed dragon is of the Emperor).

The Chinese possess a great faith in prophylactics, but here one finds nothing but superstition pure and simple; for example, the soup made from a black cat is drunk by blacksmiths in Canton to prevent burns from hot metals.

There is no mention of quinine as an import, but it is probably prescribed by the better-educated doctors, the refuse of indigo vats is used as a medicine, but whether it is given in cases of malaria is doubtful.

The sister science of surgery may be dismissed with a few words, it consists mainly of acupuncture, actual cautery,

ligation, counter-irritants and massage. We have all read of the expert Chinese dentist who extracts teeth with his fingers as the only instrument. The removal of a stump by this means seems an impossibility, and if we examine the strings of teeth which form the native dentist's professional badge we find that the teeth extracted are almost invariably sound, a fact which rather detracts from the world-wide reputation of the Chinese operator who requires no forceps to assist him in his work.

H. L. Norris, Surgeon, R.N.,
H.M.S. Terrible, China.

PHYSICAL EXERCISE IN SCHOOLS.

The following is a summary of the report of the Committee which was appointed by the Lord President of the Board of Education and the Vice-President of the Committee of the Privy Council in Scotland, with instructions to examine the model course of physical education at present in use, to judge how far it should be modified or supplemented, and to consider what principles should be followed in order to render a model course or courses adaptable for the different ages and sexes of the children in public elementary schools.

General Considerations.

The existing model course is condemned because it does not seem to the Committee to be constructed, as a whole, on the well-defined general principles which may be educed from a consideration of the function of physical exercise as a necessary element in a well-ordered course of general education for children. A fresh syllabus or alternative course is therefore suggested which is founded on principles evolved in the course of discussion as to which of enumerable exercises suggested and examined should or should not be included in a model course. It is not urged that this should be compulsorily or immediately substituted for that in use, because there is reason to believe that the various educational authorities concerned will of their own accord bring their systems into line with the model now proposed.

The actual exercises embodied in the syllabus in many cases are common to many well-known "systems." They have been selected because they are suitable for children of school age and require no special apparatus. All exercises in the least likely to prove injurious to children of even weak physique have been carefully excluded, as also all those not considered to have distinct value for one or other of the purposes mentioned hereinafter. It is contemplated that within the limits of the approved syllabus a certain freedom of choice will be left to teachers in the selection of groups of exercises and that they should be permitted or even encouraged to apply their minds to the consideration of the principles involved, and from time to time suggest emendations. It is noted, however, that no such fresh departures should be accepted without grave consideration, that uniformity of practice is desirable, and that the words of command suggested for each exercise should be strictly adhered to throughout the country.

Physical Exercise and General School Hygiene.

The Committee state that it has been forced upon it in the course of its deliberations that, important as is the question of physical exercise in itself, it is only part of the much larger question of general school hygiene and the various considerations connected with it. As regards physical education, certain children ought at times or altogether to be excluded from participation therein, and the responsibility for such exclusion must primarily rest on the teacher. This, independently of all other considerations, renders it necessary that instruction in the laws of health and in the outward signs of physical and mental weakness should occupy a more prominent place in the training of teachers than has hitherto been the case. More written examinations in physiology and hygiene are insufficient, and the teachers should be so instructed as to be able to recognize general defective nutrition and such defects of sight, hearing, &c., as require medical attention. They should be familiar with the signs of physical and mental fatigue, which to the experienced teacher ought to be a guide on which to keep his eye in regulating the work of his pupils. How further the teachers would be able to pick out from the children those whose cases required further investigation at the hands of a medical man who has made a specialty of this kind of work

[1] Report of the Inter-departmental Committee on Physical Deterioration. Presented to both Houses of Parliament by Command of His Majesty. London: Wyman and Sons. 1904. Price 2d.

The Committee, in short, is of opinion that no kind of educational organization can be considered complete which does not provide for the systematic reference to medical experts of questions of school hygiene and the special treatment of individual scholars.

The Conduct of the Work.

As to the question of by whom physical education should be carried out, the Committee considers that these simple exercises, which it terms "recreative," should be conducted by the ordinary class teachers. It considers these exercises an essential part of the course proposed, and that they should be repeated for a few minutes several times a day. For the rest, the Committee points out that there is a considerable and increasing supply of persons, chiefly women of good education, who have made a systematic study, both theoretical and practical, of the scientific principles which should regulate bodily exercise, and who are also experienced in class teaching. It suggests that the local authorities should make more use of these experts, in some cases to undertake the instruction altogether, and in others to organize and supervise the physical education given by such ordinary teachers as may chance to have qualified in some degree under the existing systems.

The Locality of the Work.

Finally, the Committee point out that not only should all schools be provided with playgrounds, but, in addition, some room should be provided in which the physical exercises may be carried on systematically from week to week, irrespective of weather. It does not regard it as essential that the physical education should be conducted in the open air, but does regard it as essential that it should be carried on with great regularity.

The Physical Exercises Recommended.

These include 109 exercises, as to each of which precise instructions are given. Twenty-eight supplementary and voluntary exercises are also mentioned which require the use of light dumb-bells. A key table is given in which the exercises are divided into sections so as to be progressively suitable for children from 7 to 9, from 9 to 11, and from 11 upwards.

The Purpose of the Exercises.

It is pointed out that every exercise recommended, with the exception of those marked "recreative," has a double object—its physical effect upon the health and physique of the children and its educational effect, sometimes the one sometimes the other prevailing. Exercises in which physical effects prevail are roughly as follows:

Nutritive exercises, which, acting primarily on respiration and circulation, thus make for improved nutrition. Natural types of such exercises are the untaught movements of children in running, leaping, and skipping. Given a sufficient supply of food and of oxygen for its combustion, it is by such exercises that healthy frames are built up.

Breathing exercises are those which principally affect the mechanism of respiration. The object of these is less that of increasing simple chest capacity than of increasing the difference between the full and empty chest. Correct breathing is essential, and the child on its first admission to school should be taught by imitative movements how to breathe correctly, or unlearn those bad habits which unhealthy catarrhal conditions in infancy may have produced. This instruction is quite as important as any other infant school work.

Corrective exercises are those designed to counteract the evil habits and defects, often apparently of trivial character, which may be acquired during school work. In addition to the specific exercises prescribed, attention to the positions assumed by children during their lessons must be regarded as an integral part of the physical training. For instance, children should never be allowed to hold their books nearer than 12 in. from their eyes.

Postural exercises are those found in various balance exercises. Examples of them in ordinary life are dancing, skating, cycling; their chief effect is to educate the nervous system and increase its influence over muscle action and co-ordination.

Educational Effects.—These are brought about by nearly all the exercises, but especially by those which require complex co-ordinations of movement, a certain concentration of mind and a distinct effort of will. When thoroughly learnt, the educational effect may cease but the nutritive value remains. Two or three times a week, the exercises should be regarded in the same light as ordinary school lessons, inasmuch as that their acquirement and perfect performance involves more or

less physical and mental fatigue. There is therefore the same general need for proportioning their length to the age and development of the children.

Recreative Exercises. The foregoing considerations, however, do not apply to certain simple exercises, marked recreative, which should be used purely for their nutritive effect. Being simply mechanical and recreative, they should be repeated in the classroom two or three times daily for a few minutes at a time. When thus used it will be found that children who have been at one task for a considerable time and are getting fatigued and inattentive are at once refreshed.

Final Observations.

The exercises in the syllabus are designed for children between 7 and 12 years of age, and the physical capabilities of children of such ages have probably been under-estimated rather than over estimated. Improperly-fed children are not likely to derive much benefit from exercises of the nutritive order: these and other children whom some constitutional weakness or other cause seems to unfit for participation in the exercises should be reported to the local educational authority, in order that steps may be taken to find a remedy, where a remedy is possible. The breathing exercises in particular will at once disclose defects which should be reported for medical advice and treatment. The regular appearance of breathlessness amongst certain apparently healthy children will also usually indicate recourse to medical advice.

Desk work for infant classes should be very short; intervals for play and kindergarten games frequent; and great attention should be given for securing proper positions at desk work; while the simple and nutritive exercises should be frequently practised. In the infant classes musical accompaniment to the nutritive exercises may generally be allowed, but not in the older classes, because the rhythmic stimulus given by it to some extent replaces the need for will effort, and so diminishes the educational value of the movements. Every exercise should be performed with intention that is, with distinct realization of its purpose, and with requisite attention and decision.

Finally, during all exercises, and especially during the few minutes of daily exercise, doors and windows should be opened so that the rooms may be flushed with as much fresh air as possible. Nevertheless, the exercises should not be omitted even if this condition cannot be fulfilled, for with proper nasal breathing any atmosphere which is good enough to live in will be good enough to exercise in.

THE CANCER RESEARCH FUND.

The first scientific report issued by the Cancer Research Fund[1] of the Royal Colleges of Physicians and Surgeons records the progress of certain investigations conducted by Dr. E. F. Bashford and Mr. J. A. Murray under the direction of the Executive Committee and Pathological Subcommittee. The report contains three papers.

Zoological Distribution of Cancer.

In the first of these are described certain facts concerning the zoological distribution of cancer which have been demonstrated by the examination of specimens of the disease in domestic animals and other vertebrates; growths with the histological characters of carcinoma have been obtained from the cow, dog, horse, sheep, and pig, and from the mouse, cat, hen, parakeet, salamander, cod, gurnard, and trout. The disease therefore occurs in domestic animals, and also in wild animals both in captivity and in natural surroundings. These observations confirm those of previous workers on the wide distribution of cancer throughout the vertebrate class; the great diversity of the habitat, food, and conditions of life generally of the animals in which the disease occurs, relegates such external agencies to a subsidiary part if they play any part at all—in determining the incidence of the disease. The observations were not sufficient to justify any conclusion on the relative frequency of the disease in the domestic and wild animals.

The Transmissibility of Malignant Growths.

The second paper treats of the transmissibility of malignant new growths from one animal to another. The results of recorded attempts to transplant normal tissues, embryonic tissues, and tissue from the reproductive organs have been entirely negative; the possibility of successfully transplanting chorion was tested with completely negative results. On the other hand, the successes recorded by Jensen and Borrel in transplanting carcinomata in mice from animal to animal were repeated in the laboratory with material supplied by Professor Jensen. With this material 259 inoculations were made with a successful result in 25 to 30 per cent.; the histological characters of the tumours confirmed Jensen's observations that they developed from the actual cells introduced. The suitability of the animal into which the inoculation is made seems to be of importance; but greater weight attaches to the character of the tissue introduced when the inoculations are made into animals of the same race. Age seems to have no influence on the proportion of successful transplantations, in contrast to its cardinal importance in determining the initiation of the cancer cycle. In the light of the phenomena of immunity it is interesting to note that it is possible to obtain multiple tumours from transplantations performed on the same date, and that transplantation can be successfully performed in animals in which the tumours have already developed fourteen days to ten weeks after the first effective transplantation. In all successful transplantations the parenchyma of the tumour preserves the same character: the rate of growth and the relative proportion of stroma is subject to variation. Exposure of the tumour tissue to a temperature of 37° C. for twenty-four hours rendered all the results of transplantation negative, and the breaking down of the tissue in a mortar had a similar effect.

Cytological Characters.

In the third section of the report the comparative cytological characters of malignant new growths are considered. The work of v. Hansemann is examined, and it is shown that although he described the hypochromatic nucleus as occurring in carcinomata, yet his observations did not include what is of chief importance in those of Farmer, Moore, and Walker—namely, that the diminution of chromosomes takes place in exactly the same way as in reproductive cells, and that the numbers are approximately halved as compared with those of the somatic mitoses. The occurrence of this heterotype mitosis in carcinomata was confirmed by observations in the Cancer Research Laboratory. The number of cells exhibiting this mitosis varies in different tumours, and no direct relation to the degree of malignancy has been established; the mitoses in the growing margin are uniformly of the somatic type, and in some cases, where rapid degeneration is a characteristic phenomenon, heterotype mitoses may be very difficult to find. These considerations militate very strongly against the value of the heterotype mitosis as a diagnostic criterion of malignancy. A clear description of the characteristics of this mitosis is given in the report. Exception is taken to the view of Farmer, Moore, and Walker, that the cancer process consists in a transformation of the normal adult tissues into modified reproductive or "gametoid" tissue possessing the features of malignancy; the negative results of testis and ovary transplantation are held to show that this explanation is inadequate. Certain nuclear figures which have been seen in some of the carcinomata examined are considered to support the idea that a species of conjugation occurs amongst these cells: if this be so a new cycle would be started thereby, and the independent growth of malignant tumours and their metastases would be explained. Whether such a conjugation of cells or nuclei of normal tissues occurs as the initial phenomenon in the cancer cycle must be settled by further investigations.

At the annual meeting of the Royal National Pension Fund for Nurses the Council was able to report a very successful year, and that the policies granted were approximately 100 over those issued in the preceding period. At the quinquennium which ended December 31st, 1902, it was found that a bonus of £27,944 could be declared, and this sum was duly divided among the policy-holders during the year. The expenses of management were 3.77 of the premium income, and £1,764 was distributed in sick pay in 1903 or £200 more than in 1902. During the last quarter of the year the annuities then being paid were at the rate of over £10,000, divided among 708 annuitants. It was stated that the actuaries' investigations again seemed to show that nurses as a body lived longer than other classes of women.

[1] *Scientific Reports on the Investigations of the Cancer Research Fund.* Under the Direction of the Royal College of Physicians of London and the Royal College of Surgeons of England. No. 1. London: Taylor and Francis. 1904. Demy 4to. pp. 36, 35 illustrations. 2s. 6d.

MEDICAL NEWS.

Sir ——-Mayor McSheehy of Wimbledon, was recently sworn in as a Justice of the Peace for the County of Surrey.

The plans filed for the annexe to St. Luke's Hospital, New York, involve a building ten stories high, with a roof garden and kitchen.

At the last meeting of the Council of the British Medical Benevolent Fund 17 applications were received, and sums amounting to £181 were voted to 15 applicants: 2 cases were postponed for further inquiry.

Sleeping Sickness.—Colonel David Bruce was the Friday evening lecturer at the Royal Institution on April 22nd, when he gave a popular summary of the many scientific accounts of sleeping sickness and its etiology, which have already been published in the British Medical Journal by himself and many other observers.

Conscript Nurses.—In Zurich a lady doctor has been advocating that all unmarried women of the well-to-do classes should be compelled by the State to devote one year to unpaid hospital work. She claimed that the hospitals would benefit and the girls gain a training of great value to them after marriage. The latter may be true, but the result to the hospitals would, we imagine, be anything but desirable.

Volunteer Ambulance School of Instruction.—Sir William Taylor, K.C.B., Director-General Army Medical Department, has accepted the invitation of Brigade-Surgeon-Lieutenant-Colonel P. B. Giles and officers of the Volunteer Ambulance School of Instruction to be present at the annual dinner, which will take place at the Trocadero on Thursday, May 12th.

Nature states that Mr. Francis Galton is about to address a circular letter and a schedule of questions to each Fellow of the Royal Society on "Ability in Families." He asks for a return of those relatives in specified near degrees who have achieved any kind of "noteworthy" success. This is defined to be a success in any pursuit whatever that ranks among those who follow that pursuit at least as high as success in gaining the title of F.R.S. ranks among men of science.

The May dinner of the Edinburgh University Club of London will take place at the Criterion Restaurant on May 11th, at 7.30 p.m. Sir Robert Finlay, K.C., M.P., Lord Rector of the University, will preside, and amongst those who have accepted the invitations of the club are Mr. Justice Darling, Mr. J. M. Barrie, Captain Robert Marshall, and others. It is expected that a large number of members will be present to support the chairman.

Bequests to Medical Institutions.—The estate of Dr. William Sutton, of Dover, who died recently, was sworn at a value of £——. He bequeathed £1,000 each to Dover Hospital, the Royal Medical Benevolent College, and the British Medical Benevolent Fund; £500 to St. Thomas's Hospital; £300 to the Dover Institute of Trained Nurses; and £250 each to the London, Guy's, Charing Cross and Royal Free Hospitals.

The report for 1903 shows that the affairs of the Nurses Co-operation, 8, New Cavendish Street, W., are in a satisfactory condition, and that the accommodation for nurses has been increased. Owing to the success of the society, all those who joined before 1897 are now to be put upon the same terms as present members, that is to say, they will receive their commission only 5 per cent. instead of 7 per cent. as heretofore.

A twelve-page pamphlet advocating the claims of St. Bartholomew's Hospital to public support has been published by Sir William Treloar, Alderman of the City Ward in which the hospital stands. He addresses himself as a business man to business men, and however we may regret it, we must admit that "Sixty" has been to the City of the past considerably more than the whole community of to-day is to the hospital. Possibly the attitude of the institution will be the same if the letters D.S.O. and C.B. follow the name of Sir William Treloar.

Mr. ——— Cup.—On Saturday April —— a golf match presented by the Bar Golfing Society was played between eight barristers and eight medical men on the links of the Burhham Beeches. The day's play was by reason of the morning and by foursomes in the afternoon. The ——— were very evenly contested, each side scoring four points. In the afternoon, however, law got the better of Medicine by one point.

The Royal Visit to Denmark.—The *London Gazette* of April 22nd announces the following honours conferred on the occasion of the King's recent visit to Copenhagen: Professor Thorold S. V. Petersen, Physician in Ordinary to the King of Denmark, and Professor Jens Schou, Surgeon in Ordinary to His Majesty, to be Honorary Commanders of the Royal Victorian Order; Doctor Christer M. Wittrock, le Maire, Resident Surgeon to the King of Denmark, to be an Honorary Member of the Fourth Class of the Royal Victorian Order.

Metropolitan Hospital Sunday Fund.—At the annual meeting of the Metropolitan Hospital Sunday Fund, held at the Mansion House on April 23rd, the report put in showed that the amount collected during 1903 was £23,074, or £1,710 more than in the preceding year. This success had been achieved without in any way trespassing on the ground covered by King Edward's Hospital Fund or of the Hospital Sunday Fund, all three funds alike having steadily progressed in public favour. The meeting terminated with an address from Professor Smith upon the close connexion between the absence of an adequate "health conscience" among the public and the extent of the calls at present made upon hospital accommodation.

Home for Inebriate Women.—The Duxhurst Industrial Farm Colony was established for the treatment of cases of inebriety among women of the working classes some nine years ago. It has accommodation for 60 patients, and annually receives some 500 applications for admission. Of its annual expenditure of about £6,000, some five-sixths are covered by the payments of patients and the profits on work done. As a rule only voluntary patients who cannot be received in any State-aided reformatory are admitted, but occasionally patients are accepted under the Act, these being usually "one-conviction" cases amongst young women. Steps are taken to trace the after-history of all patients, and it is believed that the percentage of permanent cures is over 50 per cent. It is now desired simultaneously to extend the scope of the work and to relieve Lady Henry Somerset, who founded the home, of all further financial responsibility in respect of an institution which is considered to have proved that it can successfully meet a national need. Subscriptions for this purpose may be sent to the Secretary, Miss M. P. Bolton, 411, Birkbeck Bank Chambers, London, W.C.

Public Health in the Philippine Islands.—The monthly report of the Board of Health for the Philippine Islands and the City of Manila for November last, which is issued by the Acting Commissioner of Public Health (Dr. Munson) records a death-rate of 53·9. During the last four years some eight or nine monthly rates have exceeded this figure. In July, 1902, the annual death rate reached the extraordinary figure of 107·0. The population, according to a rough census, is 219,941, of whom 185,782 are Filipinos, 21,230 Chinese, 4,880 Americans, and the remainder Europeans and others. The high death-rate in November appears to have been due to the latest mortality. The number of deaths occurring during the month among infants less than 1 year of age amounted to 28·5 per cent of the total deaths of the city population. Among the Filipinos this percentage amounted to 33·1. The principal causes of the mortality of infants were 201 convulsions, eclampsia, and tetanus, and 193 bronchitis, pneumonia, and debility. In respect to the former group Dr. Munson reports: "The most prominent symptoms presented by these three causes largely resemble each other, and it is believed that the latter are often confounded with each other, particularly since deaths of this class largely occur in the absence of medical attendance, and the death certificates in such cases must be made out on the basis of the symptoms given by members of the family. There is strong reason to belief that the deaths occurring in the first month after birth and attended by convulsions or tetany depend upon tetanic infection at the time of the severing of the umbilical stump at the birth of the infant, and the common local practice of [illegible] the navel of the newborn. The filthy condition in which it is attended to, and the insufficient clothing, depending upon poverty and ignorance. The Board of Health, in calling [illegible] from these various causes, [illegible] Sanitary Inspectors [illegible] were also 2 deaths from [illegible] Asiatic cholera, which was likewise [illegible] [illegible] during the month, and smallpox [illegible]

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, APRIL 30TH, 1904.

THE POOR-LAW MEDICAL SERVICE IN SCOTLAND.

THE report of the Departmental Committee of the Local Government Board for Scotland on Poor-law Medical Relief and the Management of Poorhouses has been issued and contains much information and makes many recommendations of interest to the medical profession.

In the SUPPLEMENT this week (p. 86) will be found the terms of reference to the Committee, and an outline of the main features of the report. The recommendations of the Committee, together with the paragraph referring to the tenure of office of parochial medical officers and other points of prime importance to the medical profession are quoted textually.

The Poor-law administration in Scotland has differed since its formation from that of England in that it has consisted mainly of a system of outdoor relief, but within recent years more attention has been given to indoor relief. The many recommendations made by the Departmental Committee show that much yet requires to be done in this direction.

It appears from the report of the Local Government Board for 1903 that there are 67 poorhouses having accommodation for 16,235 inmates, so that the efficient treatment of the sick and infirm in poorhouses is a matter of much importance. The proposal to give increased powers to the the medical officer to deal more effectively with the classification of the inmates, and the suggested regulations in connexion with the treatment of tuberculosis, are steps in the right direction. Parochial sanatoria for consumptives are suggested, and it is pointed out that "if by two, three, or four months of treatment in a poorhouse hospital the patient can be restored to working efficiency, the Poor-law authorities are to that extent relieved of the burden both of patient and family. On these grounds alone, apart from the question of infectivity, parish councils are, we think, justified in undertaking the treatment of patients in sanatorium lines." The carrying out of the recommendation that pauper nursing be abolished and a general system of trained nursing introduced, would remedy a distinct grievance.

The British Medical Association has long recognized that the tenure upon which a parish medical officer in Scotland holds his appointment is most unsatisfactory; he may be dismissed, or his services may be dispensed with, by the parish council at any meeting duly called on ten days' notice without any reasons being assigned. The report of the Committee points out that while adequate means have been taken to secure the interest of the sick poor in Scotland, nothing has been done to protect medical officers against unjust or capricious dismissal, and adds that with a fear of dismissal always present the efficiency of the service may be greatly impaired. We could have wished that the Committee had definitely stated that the efficiency is impaired because there can be no doubt that it is; nevertheless, they make a very definite recommendation which is that parish medical officers should have the same tenure of office as medical officers of health and sanitary inspectors, under the Public Health (Scotland) Act, 1897, that is to say that they should only be removed from office with the sanction of the Local Government Board. Attention has been repeatedly drawn in Parliament to dismissals, especially in the Highlands and Islands of Scotland, of Poor-law medical officers without just cause, and now that this recommendation has been made it is to be hoped that there will be as little delay as possible in giving effect to it.

Last year the British Medical Association undertook to accord its support to the Local Government (Scotland) Act Amendment Bill then before Parliament, on condition that a clause providing that all medical officers holding office under the Poor Law in Scotland should be dismissible only by or with the consent of the Local Government Board were added to it. Dr. Muir, Secretary of the Scottish Poor-law Medical Officers' Association, speaking at the Annual Representative Meeting at Swansea, formally thanked the Chairman and members of the Medico-Political Committee for the action taken; and the matter is one of those which the Council of the British Medical Association at its meeting last week recommended members of the Association to bring to the notice of candidates for Parliamentary honours.

If effect be given to the further suggestions made in the report of the Departmental Committee that dwelling-houses should be provided for medical officers, and that additional medical attendance should be provided in certain Highland and Island districts, special causes of difficulties in these districts will be removed.

The consideration of Poor-law administration raises many very complex questions, and it is open to debate whether the present system is the best that could be devised. According to the Report of the Local Government Board for 1903, thrifty Scotland has a Poor-law roll of 103,016 persons, costing £1,225,053 per annum; and it may be argued that a system of national assurance or old age pensions would be preferable. There can, however, be no doubt that the adoption of the recommendations of the Committee will be the means of removing many defects and of immensely improving the present service. We congratulate Dr. Leslie Mackenzie and the members of the Committee on their very practical and comprehensive report. It now remains for the medical profession, and more especially those resident in Scotland, to urge on Parliamentary representatives and candidates the necessity of carrying out the recommendations made.

MENTAL FATIGUE.

CONSIDERING the importance of the study of mental fatigue, and the large mass of evidence educed by psychologists engaged in its investigation, the opposing views of different authorities might appear, at first sight, somewhat remarkable. Even a cursory examination, however, shows that the whole subject is so dependent on the solution of other questions concerning which psychologists are divided, and on inherent difficulties of aesthesiometric and psychometric investigation, that this conflict of theories is, at

present, inevitable. One of these questions is that of attention. Memory and attention, closely if not inseparably related powers which play a necessary part in all human operations, vary in all individuals, and appear to correspond in degree to each individual's position in the intellectual scale. Ribot, in fact, argues that savages are incapable of voluntary attention, whilst both Carlyle's definition of genius as an infinite capacity for taking pains, and Macaulay's more sonorous dictum "a magisterial subjection of all dispersive influences, a concentration of the mind upon the thing which has to be done, and a proud renunciation of all means of effect which do not spontaneously connect themselves with it," if they do not correctly define genius, nevertheless embody the same central truth of the intellectual value of attention. Attention is thus a property or condition urgently requiring elucidation in relation to mental fatigue.

Voluntary attention, phylogenetically and ontogenetically late in acquirement, is one of the first to weaken in pathological conditions, a diminished power of attention being characteristic of many morbid states, psychoses, and hereditary types of mental disease. Attention and conscious mentation are so closely connected that mental fatigue might almost be expressed in terms of attention, and a study of attention would cover a large part of the field of the psychology of fatigue. Yet here we encounter diametrically opposed views. Some psychologists hold that attention is essentially spontaneous and reflex, arising from the affective states (Ribot, Fechner, etc.), voluntary attention being a subsequent development of these constituent elements; while others maintain that attention is psychical in nature, the result of a voluntary apperceptive process, and "that whilst in accordance with the methods of the old faculty-theory 'attention' and 'will' were regarded as different, sometimes as related, forces....the truth evidently is that these two concepts refer to the same class of psychical processes."[1] For Wundt, also, involuntary attention is only a simpler form of internal volition, and "the conditions of attention are not given with the internal and external stimuli which we regard as the physical counterpart of centrally and peripherally excited sensation. For psychologists holding these latter views psycho-physical experiments upon attention must possess only limited interest. To enter into this controversy would lead us too far; but, whilst admitting that the time is not yet ripe for any dogmatic expression, we may state with Münsterberg[2] our conviction that the physiologist cannot be thus summarily excluded from the discussion.

The foregoing observations have been evoked by a paper in the *Psychological Review* by Professor Seashore, who therein very briefly points out some errors and some lines of progress in the study of experimental fatigue. The article does not embody the results of any independent investigation, but formulates in very general terms the author's views of the lines on which the experimental study of mental fatigue should be carried out, and is preceded by a fairly critical review of Kraepelin's statement that "Fatigue through mental work is, so far as we know, a general fatigue....only the difficulty and not the kind of mental work is significant for the general extent of fatigue." This is directly controverted by the author, who states that Kraepelin is evidently wrong both in regard to fact and in regard to the supposed significance of the fact, but he does not adduce any experimental data in support of his contention. He agrees, however, with Kraepelin, who says that the conclusions founded on æsthesiometric experiments in school children are *in our light*, the essential truth to be found in them being such as the experimenters have read into them from their general knowledge, and that in including under the same ban the ergograph method, Ebbinghaus method, and others, Kraepelin was probably right. Dr. Seashore then lays down some excellent rules for the guidance of investigators, but we are bound to admit that these rules are such as would naturally occur to any worker in this field and are couched in terms often insufficiently precise.

Dr. Seashore's original contention that Kraepelin is wrong in affirming that fatigue is general is, however, debatable. Mosso and McDougall both maintain that fatigue is general. "All the magazines of energy can be drained by the exaggeration of any activity of the organism....there exists only one kind of fatigue, namely, nervous fatigue; this is the preponderating phenomenon, and muscular fatigue also is at bottom an exhaustion of the nervous system."[3] The hypothesis of inhibition by drainage is on this point a restatement of the same idea, and of the theory of a general body of energy which may be tapped on the side of least resistance under the influence of sensory stimuli, thus diverting to itself the main stream of energy and draining it from other parts, should appear somewhat mechanical as applied to a singularly complex phenomenon, the universality of the relation of reciprocal inhibition is by it certainly most easily explained.

The fact is that the whole subject, considering its physiological, pathological, and—and this is a point which deserves particular mention on—its pedagogical importance, requires more extended investigation and a thorough critique of method. On this latter point we are entirely at one with Professor Seashore and heartily commend his plea for revision. The difficulties are enormous, but, as in any other sphere of work, these difficulties are directly proportional to the breadth and importance of the field of operation.

THE NATIONAL ANTIVACCINATION LEAGUE.

This League has recently held its annual meetings, and a glance through the official reports is not without interest. The first point that will probably strike a reader of the annual report is that the League has certainly no want of vice-presidents, male and female, the total list amounting to 64. Lieutenant-General Phelps occupies the distinguished—if not indeed the unique—position of being both president and vice-president; but we hasten to say that we feel quite certain he is well worthy of the double honour, and so we trust he will not think it necessary to send us an epistle in explanation or defence of his official positions.

Among the vice-presidents there appear the names of four medical men. One of these, Dr. Edward Haughton, recently complained to us that he had insisted, apparently so long as three or four years ago, on having his name removed from the list, but that no attention had been paid to his request. The explanation now made to him on behalf of the League would, in any ordinary connexion, be

[1] Wundt, [illegible] Psychology, translated by Judd, p. [illegible]
[2] Münsterberg, [illegible] Psychology, Chapter [illegible]
[3] Mosso, Fatigue, translated by Margaret Drummond, M.A. and W. B. Hardie, M.D. London: Swan Sonnenschein and Co. [illegible]

regarded as peculiar. Since his complaint was made public in the British Medical Journal the Council has held a special meeting, at which it agreed to tell Dr. Haughton that it had supposed he wanted to retire only from the Council, and not from his vice-presidentship. This is put forward notwithstanding the fact that so long ago as November, 1902, it was writing to him regarding his already declared decision to sever himself "from the League"—as if a man could be a vice-president of a society from which he had severed himself. The cause of the severance was the refusal of the organ of the League to open its columns to one of its own vice-presidents, on the ground that his letter referred to some disputed points, "and that it was very unwise to let it appear that there was any division of opinion." This is rather perplexing, coming from a body whose constant complaint is that wicked editors persist in suppressing their correspondence.

A notable point about another of the four medical vice-presidents (whom the League dubs "M.D.," but without the confirmation of the *Medical Register*) is that the *Vaccination Inquirer*, in its report of the proceedings at the annual meeting, refers to him as "not an antivaccinist," though he looks on compulsory vaccination as "an evil of the gravest character," owing to its being "the beginning of a scientific tyranny." On this matter also the position of the League is peculiar. Its objects are "The entire repeal of the Vaccination Acts, the disestablishment and disendowment of the practice of vaccination, and the abolition of all regulations in regard to vaccination as conditions of employment in State departments, or of admission to educational or other institutions." But on another page of the annual report there is in large letters the invitation, "All opponents of compulsory vaccination are earnestly desired to join the National Antivaccination League. A subscription of 5s. and upwards per annum constitutes membership. Funds urgently needed." It would thus appear that to swell its membership the League is not merely willing but anxious to obtain recruits who may be quite out of sympathy with the stated objects of its existence, for manifestly there is a great difference between the abolition of compulsory vaccination and the entire repeal of the Vaccination Acts.

Notwithstanding the wide net by which it tries to catch members, the League's annual meeting, though held in the metropolis, does not appear to have been at all well attended. The gatherings extended over two days, and the total number of delegates and visitors who signed the roll in the course of that time amounted to 78, including 13 ladies. In the discussion there were several references to the Exemption Clause of the present Vaccination Act, and it is evident that, now they have got it, the opponents of vaccination are not at all sure whether it has done them any good. A representative from Leicester stated that the majority of the people of that town were now asleep, as the certificate gave them nothing to fight for; another member held that a good deal of apathy had crept into their ranks; still another urged that the effect of the clause in reducing opposition to vaccination was the very thing the Imperial League wanted; and a fourth went the length of declaring that the Vaccination Acts troubled him less than the dog licence, and that in a Parliamentary election he would not pledge himself to vote only on the question of vaccination. Such deliverances do not indicate that the Antivaccination League is in very good spirits.

It is painful to notice that the grievances of the President are not confined to our own action regarding him, or to our refusal to fill columns with his argumentation. The Commission on Physical Degeneration seems to be equally hard-hearted. The General naturally assumed that this Commission "would have seen that first and foremost among all the causes of degeneration there was none more significant than the introduction of cow-poxing—the introduction of miscellaneous disease—into every child born," and he is both grieved and surprised that the Commission was not anxious "to have light thrown upon the problem." We desire most respectfully to express our sympathy with the disappointed warrior. It is very sad that the Commission should have so treated him, and that it prefers darkness rather than the illumination which he himself was chivalrously willing to bring to bear on what he regards as the root matter of their inquiry.

Another subject which appals General Phelps is the ignorance of the doctors in Leicester concerning the proper treatment of small-pox. A Leicester leaguer stated that he attributed the small-pox deaths in the Leicester Hospital to the fact that they "did not give what he regarded as a bath. The bath was too often in the nature of a mere wash." This information was greeted with cheers by the assembled antivaccinationists, but exactly what they were applauding is not obvious to the uninformed outsider. It was at this point that the President animadverted on the want of knowledge of the Leicester doctors, but he appears at the same time to have made a flank attack on his colleague from that town. That gentleman had spoken only of baths, but the President wanted to know "whether oil had been used on the patients." The Leicester man thought not, but in some cases "Captain Fielden's ointment" had been applied; and, regarding this, General Phelps said that his own belief was "that if oil had been used in conjunction with the ointment the death-rate would have been very small." One remarkable point in connexion with this valuable discussion is that the layman from Leicester stated that just over a year ago he had attended three cases of small-pox, and that "the cases were never notified." This assertion surely requires investigation by the Local Government Board.

While we cannot subscribe to all that the President says, it is a great pleasure to agree with him on one point, and as he seems to imagine we have treated him somewhat scurvily of late, we hasten to the ground which is held in common between us. General Phelps declares that "no class would gain more by doing away with the compulsory enforcement of cow-poxing than the medical profession itself." Most undoubtedly that is so. The abolition of vaccination would fill the pockets of the medical profession. It would also fill the hospitals and the graveyards, and would fill with tears the eyes of mourning relatives of the victims of antivaccinist folly; but so far as the material welfare of medical men is concerned, there is no question that they would gain largely. But considerations of our duty and of our profit point in diametrically opposite directions. Our profit is to let vaccination go by the board, to offer no resistance to the false teaching, to the vile insinuations of interested motives, to the ignorant and self-conceited clamour of the League which has General Phelps for its President. But our duty is to try to save the public from the cruel mercies of sentimental fanaticism, to try to save men and women from the results of their own ignorance or indifference, and, above all, to try to save helpless children from the folly of their parents. Even if, on account of the political exigencies of the time

and of eagerness to secure odd votes, one Government after another may refuse to do its legislative duty towards the prevention of small-pox, the obligation yet remains on the members of the medical profession to promote the practice of vaccination and revaccination by every proper means, notwithstanding that in doing so they are reducing their own income and are at the same time making themselves the objects of attack and insult by the supporters of the National Antivaccination League.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

THE text of the Bill to provide superannuation for Poor-law medical officers in Ireland introduced into the House of Commons on April 19th is published in the SUPPLEMENT to this issue. It is backed by three Irish members, each representing a different shade of Irish political opinion—namely, Mr. T. W. Russell, an Ulster (Tyrone) Unionist; Mr. Harrington, a Nationalist member, representing a Dublin division, and closely identified with the Irish National Party; and, thirdly, by Dr. Thompson, the Independent Nationalist member for North Monaghan. The union of members of these three Irish political groups in supporting such a Bill is in itself a great step in advance, and is full of good augury for the success of the measure. The Bill consists of six clauses; we may set aside their numerical order and at once fix on Clause 5 as the key of the position. If passed into law, it would in itself confer a great boon on the Irish Medical Services by removing one obstacle to superannuation. It lays down that the superannuation allowance shall be paid in the same proportion and from the same funds as the actual salary of the medical officer. This proviso would be far-reaching in its effect, and would wipe out the injustice which at present saddles the local rates with the whole cost of the superannuation allowance of medical officers, although the State pays 50 per cent., and in the case of agricultural districts somewhat more, towards the salary of these same officers while they are serving. This point is very clearly referred to in our recently-published report on the Irish Dispensary Service (page 69, column 2). The second clause of the Bill uses the magic word "shall" in lieu of "may" when referring to the action of the local guardians in granting superannuation allowance. This is a great advance on the optional phraseology of the Acts of 1895 and 1898. The whole of the emoluments of the medical officer, whether as a workhouse infirmary medical officer under the original Poor-law Act of 1841, or as a dispensary medical officer under the Medical Charities Act of 1851, or as a medical officer of health under the Public Health Act of 1878, or as a registrar of births, deaths, and marriages under the Registration Acts, would be brought under contribution in estimating the retiring allowance of the medical officer. It seems a pity that, so far as we read Clause 1 of the Bill, it would not apply to medical officers of county infirmaries, nor would it in the future apply to county medical officers of health when such much-needed officials are appointed in the same manner as to workhouse and dispensary officers; but these omissions can be dealt with later. The fourth section enables the Local Government Board to add to the actual service of a medical officer a certain number of years of boon service not exceeding twenty—a highly-important matter in dealing with medical men whose education is long and expensive, and who cannot retire on actual employment until six or eight or even more years after most other public officials. It may be hoped that the Local Government Board, who would be vested with authority to fix the number of boon years to be added to the actual service, would decide such questions in a liberal and just manner. Of the other details of the Bill, as to the actual financial clauses no doubt we shall hear a certain amount of criticism, but no one can doubt that the Bill, if passed, would be a step towards the amelioration of the sad condition of the Irish Poor-law Medical Service. The Bill, having been introduced at so late a date, has not obtained a favourable place, but we feel sure that the Divisions and central Council and the Medico-Political Committee of the British Medical Association would support any action which the Irish members might take to induce the Government to find an opportunity for its second reading at an early date.

ARMY MEDICAL ADMINISTRATION.

A special meeting of the Royal Naval and Military Committee of the British Medical Association was held on April 27th to consider a reply received from the Secretary of the War Office (Reconstitution Committee) to representations made in accordance with the resolution adopted by the Committee at its meeting on March 29th, and published in the BRITISH MEDICAL JOURNAL of April 2nd, p. 814. The reply stated in the first place that the War Office (Reconstitution) Committee has not proposed any change as regards the Army Hospitals Committee except to bring that body into touch with the new barrack branch under the civil member of the Army Council; and further, to provide that it shall send a representative to attend the Army Council when required; secondly, that the Advisory Board remains unaffected except that Lord Esher's Committee has laid it down that the Director-General, if necessary associated with a civil representative of the Board, should be summoned to the Army Council "whenever his advice and specialist knowledge" are required: and thirdly, Lord Esher's Committee has recommended the abolition of the Army Sanitary Committee because its functions could better be discharged by the new medical bodies recently constituted. The Royal Naval and Military Committee having fully considered the reply, resolved that a communication should be addressed to Lord Esher's Committee pointing out that the further arguments set forth in the letter now received from the War Office (Reconstitution) Committee did not in any way meet the objection urged against the exclusion of a military medical and sanitary expert from the Army Council, but by showing clearly that there was no adequate method of co-ordination rather tended to aggravate the apprehension that the scheme was likely to be inimical to the welfare of the soldier and the efficiency of the army.

THE DRUG TREATMENT OF INEBRIETY.

A PAPER by Dr. C. A. McBride, on the treatment of inebriety by atropine, which is published in another column, appears completely to disclose the method which he employs. The method is not novel. It has been followed for a good many years past, chiefly by unregistered practitioners. We may therefore be all the more indebted to Dr. McBride for helping to lift what would appear to be a therapeutic method of some value out of the mire. Information has been communicated to us by independent observers which confirms the conclusion that in certain cases the treatment, of which atropine appears to be the essential feature, has been successful in weaning drunkards from their pernicious habit, and that under favourable circumstances at least they are able to resist the temptation for years. Whether the cure is permanent or not time alone can prove, but no treatment can be expected to work miracles, and there must be on the part of the patient a real desire for amelioration; the atropine apparently produces a distaste for alcoholic drinks which may perhaps be temporary, but the concomitant tonic treatment is calculated to put the general health into a better condition, and the patient is by so much more likely to regain sufficient will power to resist subsequent temptations. A paper by Dr. Backwell Fenn on the so-called "gold cure" of inebriety is also published in this issue. The use of the double chloride of gold and sodium has often been vaunted as a specific for inebriety. Dr. Fenn would appear to consider it useful, but on comparing the method he describes with that used by Dr. McBride it will be observed that atropine is used in both instances. Dr. Fenn indeed prescribes daturine, but this is a drug of uncertain composition. The name daturine was originally given to the total mixed alkaloids obtained from stramonium before the real nature of this mixture was understood. This is

now known to consist of atropine and hyoscyamine. Probably stramonium, hyoscyamus, and belladonna contain no atropine in the fresh state; all contain hyoscyamine, however, and all yield atropine on extraction, the generally accepted view being that this is due to conversion of hyoscyamine into atropine during the process. These two alkaloids are isomers, and the conversion indicated readily takes place, though its extent is a question of conditions—hence daturine is of very variable composition. We find that in the gold prescription the gold at first forms a compound with the cinchona alkaloids and is precipitated. The mixture on keeping darkens considerably and assumes a purplish colour. This change indicates that the gold compound is becoming reduced, but to determine whether the gold becomes deposited or whether it forms a colloidal solution would require further experiment. Other metals, for example mercury, have now been obtained in a colloidal form (in which they are soluble in water), by reduction in the presence of organic matter, and it is just possible something of the kind occurs here. The prescription is a curious one, somewhat reminiscent of the days of polypharmacy, and in view of Dr. McBride's recorded observations it would appear that gold chloride forms no essential part of the treatment.

ALIENISM AND INEBRIETY.

At a recent meeting of the Society for the Study of Inebriety, Dr. Robert Jones, Medical Superintendent of the London County Council Asylum at Claybury, read a paper in which he made some interesting remarks on inebriety from the point of view of the alienist physician. He showed that physical illness was often the cause of mental breakdown in persons described not as alcoholics but as long-continued moderate drinkers; while as characteristics of an insane inebriate he pointed to illusions of a visual character, a tendency to sudden impulsive movements, and delusions of a persecutory nature. Even when the delusions were, as an exception, exalted and grandiose, they were egotistical and selfish in comparison with the benevolent altruism of the general paralytic. The habitual lying of the insane inebriate he ascribed to defect less of morals than of memory. The patient forgot recent events, and brought into the present long past events in his life. While apparently regarding inebriety as a species of insanity in itself, the speaker drew a distinction between the inebriate and the insane person suffering from alcoholic insanity. In the former the stress of alcoholic injury fell mainly on the bodily organs, while the brain held longest of all. Nevertheless there was a considerable amount of mental deterioration evident in all inebriates. In support of this statement Dr. Jones cited the fact that over 20 per cent. of all the inebriates under treatment in retreats and reformatories during the year 1902 were transferred to asylums for the insane. The rest of the address was taken up with a consideration of economic effects of alcoholism upon the nation and of the direct expense to ratepayers involved by the increased provision for the treatment of insanity thus rendered necessary. He showed that out of 35,916 persons admitted to the London County Council Asylums during the ten years 1893-1902 inclusive, in 21 per cent. of the men and in 11 per cent. of the women the insanity was due to alcoholism alone. The treatment was very unsatisfactory and disappointing, because when patients were discharged they almost invariably relapsed if they tasted alcohol at all and there were very few who did not do so. In trying to account for the extent of alcoholism, and in searching for means by which it might be lessened, he ascribed considerable weight to the absence of sufficient knowledge of its physiological effects amongst the people and not a little to bad cookery. Food as habitually served up in ordinary, especially working-class, households, lacked a stimulus which men and women alike sought in alcohol and mistook for the feeling of repletion and nutrition incident to a food meal. Amongst the subjects which he suggested for discussion was the question whether there was any physical explanation of the craving for alcohol and whether the total amount of alcohol consumed by a people was a measure of the temperance of those people.

COIN DEBASER AND QUACK DOCTOR.

At the trial of Ralph Appleton and another at the Central Criminal Court last week for feloniously "sweating" gold current coins an interesting and somewhat instructive piece of evidence was given by Detective-Sergeant Beard, one of the officers engaged in the case. In cross-examination by Appleton, the detective said that when he searched the premises in Tyers Street (the place in which the felonious occupation was carried on) a quantity of drugs and documents referring to purchase of drugs were found. "He had heard that Appleton was at one time with a quack doctor and that after leaving him he posed as a M.D. of the United States." Appleton informed the Court that he had "made a study of the cause and cure of cancer and that he had at his residence at Brixton 200 medical books." We commend these statements to the Cancer Research Association and also to the public. The connexion between a cancer quack and a debaser of current coin is somewhat mystical at first sight, but really in both cases there is a "lightening of gold"—in the one case, however, the patient is fraudulently deprived of his coin in its entirety: in the other only a small portion of the gold is "sweated" from the coin itself. How many persons were treated by Appleton, if any, unfortunately, did not come out in evidence and the result of "his study of the cause and cure of cancer" must remain unknown for at least fourteen years, the period of the penal sentence inflicted upon him. Would that more pretenders to a secret knowledge of cancer cures could follow him in his well-earned retirement from unqualified practice! As long as the Medical Act remains unamended there will be many "Appletons" outside the prison walls.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

An important meeting of the Metropolitan Street Ambulance Association will take place next Monday, May 2nd, at 5 p.m. at 20, Hanover Square, when a number of motions will be submitted for approval. The first of these will be moved by Sir William Church, President of the Royal College of Physicians, and seconded by Sir Cooper Perry. It is to the effect that, having considered the present condition of ambulance provision in London for dealing with cases of accident and sudden illness in the streets and public places, the Association is of opinion that there is urgent need of organization under one body of an improved ambulance service summonable by telephone and provided with more rapid transport. A second resolution, to be proposed by Mr. Tweedy, President of the Royal College of Surgeons, and seconded by Sir Alfred Cooper, Vice-President, Royal College of Surgeons, affirms the opinion that, having regard to the excellent ambulance services organized by municipal authorities elsewhere, the London County Council is the proper body to provide and maintain such service. A final resolution, to be moved by Sir Thomas Barlow and seconded by Mr. Makins, will direct these resolutions to be communicated to the London County Council by deputation, and request the officers of the Metropolitan Street Ambulance Association to arrange for the co-operation and support of other representative associations for this purpose. It is to be hoped that all those interested in the success of the important object which this Association has at heart, and especially medical men, will make a point of being present at this meeting. The prospects of a successful issue are greater now than they have been for several years past. Thanks to the active canvass of candidates at the last London Council election, the majority of the present Council are believed to be favourably disposed to the proposal that the London County Council itself should undertake the organization and administration of an ambulance system to meet the needs of London. That Council has already been made acquainted with the ambulance requirements of London, and with what has been done to meet

analogous needs elsewhere by the able report drawn up by Sir William Collins, Chairman of the Committee specially appointed to investigate the matter in 1901. It is hoped that when the subject is again formally brought forward for consideration by the Council any resolution proposed will have the advantage of being fathered by Sir William Collins, and in view of the favourable canvass to which reference has already been made, no serious opposition should be encountered.

THE FUTURE OF FEEBLE-MINDED CHILDREN.

Dr. G. E. Shuttleworth has reprinted a paper on this subject which he read at the National Conference of Teachers of Special Schools. After referring to the pioneer work of Dr. Seguin half a century ago and the sanguine estimate as to the proportion of feeble-minded children who could by education and careful management be turned out useful citizens, he said that the pendulum had now swung a little too far in the opposite direction; while he was not prepared to argue that indiscriminate liberty could be given to the feeble-minded subject, however feeble-minded he or she might be, he felt that it would be a mistake to maintain that all children requiring special instruction should without distinction be permanently segregated from the rest of the community. Inquiries made in London, Birmingham, and elsewhere tended to show that about one-third of the children passing through the special schools would require permanent care for the protection of themselves and the community. The Act of 1899 had not been sufficiently long in force to justify any trustworthy estimate with regard to the results, since the period of training ought to extend over nine years. He commended the work of the After-Care Associations, which would maintain a friendly interest in the welfare of ex-pupils, and might perhaps be able to accomplish something in discouraging the marriage of the unfit. He thought it would be better for school authorities to have discretionary power to retain pupils in special industrial classes even beyond the age of 16, and pointed out that some feeble-minded children possessed special mechanical aptitude, which, if properly directed, might be turned to good account in after-life. He added that the Local Government Board had set a precedent by allowing the training of the Poor-law feeble-minded children under the Metropolitan Asylums Board to be continued up to the age of 21. In concluding his address he dwelt on the necessity for co-ordination amongst various workers for the benefit of the feeble-minded.

THE WONDERS OF CHRISTIAN SCIENCE IN MANCHESTER.

The "First Church of Christ, Scientist," has been opened in Manchester. It is stated that the Christian Science Church treats diseases in return for fees. A Liverpool gentleman in the audience is reported to have said that his elder daughter, who was now a young woman, had ailed from childhood, and had had a wretched life. Everything that was abnormal had been her lot. Doctors did not understand her case, specialists had given no relief, and nursing homes without number had been tried without success. Her weight was under 5 st., and her appearance recalled the pictures of the victims of the plague in India. When [illegible] on the brink of the grave her parents placed her in the hands of a Christian Science healer in Manchester. She accepted the truth, and the truth had made her free. She had been physically and mentally an absolute wreck, now she was sitting in that church enjoying, for the first time in her life, peace and happiness. Mentally she was sound as a bell, and physically she was practically well. A Manchester man went even one better. He had given it whisky, wine and cigars because he now had no desire for them." Let our legislators take note. Why legislate and stir up [illegible] when such remarkable results can be effected by resorting under Christian Science treatment? Another Manchester adherent, a lady, had manifested a subtle susceptibility to instrumental music; it deprived her of consciousness and more besides. She regained the use of her paralysed limbs a few hours after this beneficent treatment, but unfortunately "in her joy broke one of them in using it. As if to show the cosmopolitan and general applicability of the system, a Californian lady said Christian Science had cured her sister of cancer, her brother of yellow fever and of a burn from head to foot, her mother of an internal growth, and her father of deafness. She had much to be thankful for, no doubt. Here we at last have something like evidence as to the wonderful virtues of the new dogma. Moreover, it was vouched for even by a belted earl. What more is necessary? It must be added, however, that phenomena of this sort have occurred in all ages with a curious periodicity resembling that observed in so many epidemic diseases.

A CLIMATIC SCALE.

Mr. W. F. Tyler, F.R.Met.Soc., thinks that the effect of climate—that is to say, what is generally referred to as its bracing or relaxing effect—is probably the combined action of temperature and humidity. He has therefore invented a new word, "hyther," to indicate the joint effect of temperature and humidity, and by a comparison of the "hyther" of various places—the maximum, minimum, and mean quantities—he hopes that their relative bracingness or relaxingness will become obtainable.[1] He even suggests that the extreme degrees of "hyther" in which life can exist might be experimentally ascertained, including the limits for saturated air, for dry air, and for air with various percentages of moisture. The discovery of the laws governing the extreme degree of "hyther" would be most valuable in assisting to the discovery of those governing the modern degrees of "hyther." At Shanghai in 1902 Mr Tyler requested twelve persons of normal condition and regular habits to estimate by their own sensations every day at noon the degree of "hyther" on a scale of 0 to 10, the highest figure representing the very muggiest day—hot, damp, and enervating—which the observer had experienced, and the other end of the scale (0) representing an ideal summer's day—warm, but bright, brisk, and bracing. The table of the results of these observations during the thirty-one days of the month of August as compared to the dry-bulb thermometer readings and the wet-bulb differences during the same period rather leads to the conclusion that there must be great variations between individuals as regards sensitiveness to "hyther," or else that the sensations of bracingness and relaxingness must be partly due to other climatic factors besides temperature and humidity. It is, indeed, notorious that the sensitiveness of an individual to conditions of the atmosphere depends largely on temperary conditions of his body, and a person who has been eating freely will think weather "relaxing and depressing" in which at other times he would be quite comfortable. Perhaps "rheumatic" persons and those suffering from the remains of old injuries to bones or joints would prove particularly sensitive to variations in "hyther."

AUTOMOBILES AND MEDICINE.

The use and abuse of the bicycle from a hygienic point of view came in for much discussion at one time, and the turn of the automobile seems to have arrived. Its therapeutic and pathogenic powers were the subject of a thesis recently presented by Dr. Blanchet to the University of Lyons. The thesis was founded partly on personal experiences and partly on the opinions collected from a number of medical men whose patients included numerous automobilists. The author considers the matter chiefly from the point of view of the treatment of phthisis. He himself had influenza in April, 1903. Previously he had had good health, but the attack was followed by pleurisy with effusion. The latter disappeared with some rapidity but a dry pleurisy continued for a long time. Eighteen months later he had symptoms of slight bronchitis, and tubercle bacilli were found in the sputa. He then began to lose flesh and appetite, and had

[1] Address for the Department of Climatic [illegible] and Meteorology, February 1904.

slight fever; fifteen months later he had to give up work. Some six or seven months of rest and open air treatment restored his health sufficiently for him to recommence work, but he was still below his usual weight, and had little appetite. Upon resuming work he bought an open automobile, and went out twice a day, covering on each occasion 60 or 70 kilometres. After a year of this experiment he recorded the results, which were that he had entirely got rid of his cough, entirely regained his appetite, and had increased 6 kilos. in weight, in spite of being actively engaged in professional work all the time. His chest capacity had also increased between 500 and 900 c.cm. Summing up his own experiences and those cited from a number of medical friends, the author concludes that automobile exercise will gradually abolish or greatly diminish the cough of tuberculous patients and of those suffering from chronic bronchitis, and at the same time produce healthy sleep and appetite. On the other hand, the exercise will increase pyrexia if the latter already exists, and may cause it in those who are excitable. In view of the long stay in the open air which automobile exercise implies and the increased atmospheric pressure entailed by the rapid motion, it is quite natural that benefit should be experienced in cases of early pulmonary tuberculosis. It is essential, however, that the body should be duly protected from cold. It is also most important to avoid dust, and for this reason unfrequented roads should be selected. There is still more reason to believe that the exercise will prove of value in all conditions which are accompanied or brought about by ineffective or slow tissue metabolism. Examples of distinct benefit in neurasthenia have come under our own notice, and, on the other hand, we have had reason to conclude that a catarrhal condition of the upper air passages may be kept up indefinitely by motoring under ordinary conditions and on frequented roads.

THE JUBILEE OF SIR HENRY ROSCOE.

A large number of old pupils and friends of Sir Henry E. Roscoe assembled in the Whitworth Hall, Manchester, on the evening of April 22nd to celebrate the jubilee of his graduation as a Doctor of Philosophy in the University of Heidelberg. Sir Henry was presented with congratulatory addresses from over thirty universities, colleges, learned societies, and scientific institutions. There were also a large number of personal tributes. The keynote of all was the great services rendered by Sir Henry to the advancement of science and to the cause of education. Although his great work was the promotion of the interests and fame of Owens College, more especially in connexion with its chemical department, Manchester, largely through his influence, became recognized as probably the most influential education centre in the north of England. For the long period of thirty years, from 1857, Sir Henry was actively engaged in the work of the College, and he took an active part in obtaining the charter of the university. From all parts of the world messages of goodwill and congratulations were received. Amongst the speakers were Dr. Thorpe, Sir Michael Foster, Sir William Ramsay, and Professor Ostwald.

INSTRUCTION OF RAILWAY EMPLOYEES IN FIRST AID.

We mentioned last week that the teams to represent the leading railway companies in the competition for the railway challenge shield presented by the St. John Ambulance Association are now being selected, and we believe that a large number of the men employed by the principal railway companies in Great Britain receive instruction in first aid and ambulance work. We learn from the *Medical Record* of New York that all men engaged in operating the Pennsylvania railway system will in future receive instruction in first aid. The plan, it is stated, is very comprehensive, and includes the equipment of all baggage, mail, express, working and wrecking cars, terminals, yards, offices, shops, and important stations with stretchers. First-aid boxes will also be provided in all locomotives, terminals, yard offices, shops, and stations. These boxes will contain six sterilized first-aid packages. Each package contains one large triangular bandage, one ordinary roller bandage, two compresses, and two safety pins. No drugs or liquors will be provided. The boxes will be of wood, and will contain a tin box, in which the materials will be placed. The Pennsylvania Railway is also perfecting plans for the construction of several hospital cars adapted for the transportation of the sick, and to be used in emergency cases. The employés to be instructed include all passenger and freight trainmen, enginemen and firemen, and all employés at terminals, yards, and shops. The employés will be arranged in classes, and will be instructed by medical examiners connected with the Pennsylvania relief department. They will be taught how to place injured persons on stretchers, how best to transport the injured, and will be schooled in the simple means of taking care of wounds, fractures, burns, and shock, without the use of drugs or liquor. The instructions will include emergency treatment of pain, unconsciousness, convulsions, and heat prostration.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At a meeting of Fellows of the Royal College of Surgeons of England practising in Birmingham and the Midland Counties, held at the Medical Institnte on April 21st, Mr. Frank Marsh in the chair, a resolution proposed by Mr. George Heaton, seconded by Dr. John W. Taylor, and supported by Mr. Jordan Lloyd and others, was adopted unanimously: "That this meeting of Fellows of the Royal College of Surgeons of England practising in Birmingham and the Midland Counties is of opinion that the provincial Fellows are at present inadequately represented on the Council of the College, and pledges itself to support the candidature of Mr. Gilbert Barling at the forthcoming election."

THE BRITISH ASSOCIATION.

The British Association will meet this year in Cambridge, from August 17th to August 24th. This will be the fourth meeting in Cambridge, the first having been held in 1833, the third year of the Association's existence. The invitation to meet in Cambridge in 1904 was presented by the University and town of Cambridge and the county councils of Cambridgeshire and the Isle of Ely acting conjointly. Accommodation for the eleven Sections will be found in the rooms of the Science Department. The President of the Section of Physiology will be Professor C. S. Sherrington, F.R.S., of Liverpool; the President of the Section of Anthropology, Mr. Henry Balfour; the President of the Section of Botany, Mr. Francis Darwin, F.R.S.; and the President of the Section of Educational Science the Bishop of Hereford. The Guildhall will be used as a reception room; the address by the President, the Right Hon. A. J. Balfour, will be given on August 17th in the Corn Exchange and the lectures in the new theatre. A special edition will be issued of the *Guide* to the town and University of Cambridge by Mr. J. W. Clark, the Registrary of the University, who will also deliver a lecture on the origin and growth of the University; a handbook to the natural history of Cambridgeshire, written for the meeting, and edited by Dr. J. E. Marr and Mr. A. E. Shipley, will be published by the University Press. Many of the colleges will extend hospitality to persons attending the meeting. Trinity College will give a reception, and garden parties will be given in the Botanic Gardens by the Lord-Lieutenant and the Mayor of Cambridge.

THE EPIDEMIC OF SMALL-POX.

The recrudescence of small-pox in England, has not subsided. In a large number of places the occurrence of a few cases has ceased to attract attention or to receive notice in the local papers; but, in spite of this, in some thirty or more localities the prevalence or extent of small-pox has been sufficiently serious to have been noted by the general press.

Derbyshire, Nottinghamshire, and Leicestershire are the counties chiefly affected, the principal foci being the towns which derive their names from those counties. Leicester in particular has suffered heavily during the past month. In the north, too, the disease has been causing considerable trouble in the neighbourhood of Newcastle, while Yorkshire has come in for a good deal of notice, especially in connexion with Hebden Bridge and Sheffield. Throughout the country the addition of chicken-pox to the list of notifiable diseases is now apparently a common measure, while, judging from the number of discussions at meetings of Boards of Guardians the connexion of the tramp population with the spread of small-pox and other diseases is at length becoming so clearly recognized that some movement may be expected on the part of guardians as a body in favour of an amendment of the laws which affect the question of vagrancy. In London the situation as regards small-pox does not materially differ from what it was when we last referred to the question, a fortnight ago—that is to say, there are now under treatment at the small-pox hospitals of the Metropolitan Asylums Board between 140 and 150 small-pox cases, as compared with some 60 in the middle of March. In Scotland the disease continues to be notable rather for the extent of country over which it prevails than for severity of character or number of cases. Some forty-six places in all appear to be affected, while the totals of the fortnightly statements of notifications which have been received, issued by the Local Government Board of Scotland, run as follows: 197, 296, 259, 240, 234, and 261. These figures include all the notifications made from the beginning of the year up to April 15th.

THE REVACCINATION BILL.

THE Imperial Vaccination League has issued a list of those who have signed the declaration in favour of the Revaccination Bill now before the House of Commons. The declaration is in the following terms: "Believing that in vaccination and revaccination we possess the best protection against epidemic small-pox, I should heartily welcome legislation making revaccination at school age obligatory on all but the children of conscientious objectors, or those who may be for a time excused on the ground of ill-health." The list forms a small volume of seventy-eight pages, and the classification shows that the declaration has been signed by the heads of a large number of public schools and women's colleges, by many professional musicians, by the mayors or ex-mayors and town councillors of a large number of boroughs, by chairmen and members of municipal health committees and Boards of Guardians, and by a number of commercial firms and large employers of labour. A concluding note states that the County Council of Herefordshire, the councils of the metropolitan boroughs of Finsbury, Holborn, and Westminster, and the corporations of Bootle, Bury, Manchester, Leamington, Newcastle-upon-Tyne, St. Helens, Stoke-upon-Trent, and Sunderland as well as the guardians of the Prescot Union, have resolved to present a petition to the House of Commons in support of the Bill. The Bill was down for second reading in the House of Commons on April 29th, but was not reached. It has been put down again for next week, but, unless the Government grants special facilities, the chance of a discussion is small.

INCREASE OF VACCINATION.

DR. MANSFIELD COLLINS, in continuing the course of advanced lectures on public health given at the University of Manchester, when speaking of Vaccination, its Pathology and Practice, referred to the results of legislation. Since the Act of 1871 came into force there had been a steady increase in the number of people vaccinated for the first time. In 1872 the number was 144,174, and last year it was 1,260,000. At the same time there has been a constant decrease in the number of cases of illness reported as due in any degree to vaccination.

WE have pleasure in stating that the rumours concerning the health of Mr. Lockwood, Surgeon to St. Bartholomew's Hospital, London, are unfounded.

EVIDENCE before the Physical Deterioration Committee was given on Monday, April 25th, by Sir John Gorst, M.P., Dr. Ralph Vincent, and Dr. Arthur Shadwell, and on April 27th by Mr. Macnamara, M.P.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Aliens Bill on its second reading occupied the House of Commons the whole of Monday, and evoked a very interesting discussion. Sir Charles Dilke moved, "That this House, holding that the evils of low-priced alien labour can best be met by legislation to prevent sweating, desires to assure itself before assenting to the Aliens Bill that sufficient regard is had in the proposed measure to the retention of the principle of asylum for the victims of persecution." He contended that the numbers of alien immigrants had been greatly overstated, that they were in this country only a quarter of the number in France, and that the percentage of increase was larger in France and other countries than in Great Britain. He also quoted the evidence of medical officers of health to show that these aliens lived regular lives, were not intemperate, and that in spite of overcrowding the mortality among them was lower than among our own people. Mr. Trevelyan seconded the amendment. Major Evans Gordon and Mr. Hayes Fisher supported the Bill; Mr. Asquith, who made a powerful speech against it, said that any insanitary evils connected with aliens and sweating should be met by a more vigilant administration of existing Acts. Mr. Long in the course of his reply said that he hoped to have the opportunity of making amendments in the Public Health Act with the objects referred to, but argued that overcrowding must be treated as a national and not a local question. Later in the debate Mr. Bryce pointed out that the Jewish aliens could not be accused of ill-health or of introducing epidemic diseases. The Jewish community were less liable to be attacked by epidemics than any section of Europeans. In Rome in old days the Ghetto was comparatively immune from plague, and in more recent years the Jews were more immune from cholera than Europeans among whom they lived. He opposed the Bill, which was read a second time after midnight without a division, the amendment having been rejected by a majority of 122.

Rabies and Imported Dogs.—In the House of Lords on Friday in last week Lord Lytton called attention to the Importation of Dogs Order made by the Board of Agriculture, whereby owners of dogs are separated from the dogs for a period of six months after their importation. As no case of rabies had occurred in any dog imported since the present order had been in force, it was suggested that the Board of Agriculture should revert to the former practice of allowing owners to quarantine dogs themselves under suitable regulations. Lord Onslow said it was perfectly true that no case of rabies had occurred in any imported dog since the present order had been in force, but rabies was common on the Continent, and the regulations were imposed to prevent the introduction of the disease. He hoped and believed that the existing practice of requiring quarantine for imported dogs on the premises of a veterinary surgeon would continue in the majority of cases, but under the new rules it was provided that after a dog was sent to a veterinary surgeon for identification and examination, and that proper precautions might be taken, the owner might obtain an order for removal upon signing an undertaking to abide by regulations laid down by the Board of Agriculture. The dog, being in the custody of the owner, would, for the prescribed period, be required to bear a distinctive badge or harness, bearing the inscription "In quarantine for rabies." If the dog strayed from the custody of the owner, it could thus be identified. It would, he admitted, be a source of trouble and expense on the part of those who imported dogs, and if this was objected to the dog might, under existing regulations, be sent to the care of a veterinary surgeon. He hoped there would not be

many who would avail themselves of the new rule, which was a concession in the interest of a few persons who felt there was hardship in a long separation of the animal from its owner. If these concessions were in any way abused, if the regulations were not in every way observed, the order would be at once rescinded, and there would be a return to the order at present in existence. If there was any indication on the part of an individual of a desire to evade the orders, the dog would at once be taken to the veterinary surgeon, and a similar licence would at all future times be refused to that person.

Experiments on Dogs.—Mr. Logan asked the Secretary of State for the Home Department whether his attention had been directed to Professor Schäfer's experiments on dogs; and whether, seeing that 109 doctors entered a protest against the experiments as being cruel and useless, he proposed to take any action in the matter. Mr. Akers-Douglas replied that the memorial to which the hon. member referred had received his most careful consideration, together with all the circumstances of the case; but for reasons explained in answer to questions last year he did not feel justified in disallowing the experiments.

Fees of Medical Witnesses in Scotland.—Mr. W. F. Lawrence asked the Lord Advocate on Monday whether in sheriff courts the fee of one guinea per diem to a medical witness was a fixed sum or liable to be reduced if case was unimportant or took less than four hours' attendance. Mr. Scott Dickson replied that the regulation in regard to medical fees in the sheriff courts was as follows: Medical men, when cited to give professional evidence from a distance of more than one mile from the towns in which they reside, if detained above four hours, are allowed, not exceeding, per day, £2 2s., besides fares, but nothing additional for maintenance; if in town, they are allowed, not exceeding, per day, £1 1s. The fee of a guinea, therefore, was not a fixed sum. The procurator-fiscal might exercise his discretion and give less than that sum, according to the circumstances.

The Prevention of Corruption Bill.—This Bill has again appeared, and was read a second time in the House of Lords on Tuesday. The Lord Chancellor, in moving the second reading, said that there was a great and advancing evil which it was necessary to meet, and it was urgent that steps should be taken to diminish what had been described as a canker eating away commercial honesty. He had accepted with one exception the amendments made in Grand Committee of the Commons, and that ought to clear the way for complete acceptance of the Bill. The exception was the veto of the Attorney-General, which he regarded as essential to prevent blackmailing, which might otherwise be encouraged by the Bill. A blackmailer was likely to be the last person in the world to pay a visit to the Attorney-General and ask permission to institute a prosecution under the Bill. Lord James of Hereford criticized the veto of the Attorney-General as a cumbrous provision which would put obstacles in the way of using the measure. The Lord Chancellor insisted on the necessity for the safeguard, and the second reading was agreed to. The text of the Bill as amended in Grand Committee was given in the British Medical Journal of July 25th last year.

The Revaccination Bill did not come on for discussion on Tuesday and the second reading has been postponed till Wednesday, May 4th. The chances are against it for that day as it must be low down on the list.

Poor-law Guardians as Public Vaccinators.—In reply to Mr. Caldwell, the President of the Local Government Board said that the Greenwich Board of Guardians appeared to have resolved at their meeting on April 7th to enter into contracts with two members of their own body as public vaccinators. He had the question of the approval of these contracts under consideration. He might, however, remind the honourable member that any person who was concerned in any contract entered into with a Board of Guardians was disqualified for being a member of such Board.

Poor-law Children Boarded Out.—Sir Walter Foster asked the President of the Local Government Board last week if he would state the number of children at present boarded out in England and Wales, distinguishing between those boarded out within and those beyond the union. Mr. Long answered that the number of children boarded out in England and Wales on January 1st last was 8,372. Of these, 6,581 were boarded within the union and 1,791 beyond the union.

Corporal Punishment in Poor-law Cottage Homes.—Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to a case of flogging at the Cottage Homes at Wednesfield, in which the medical officer described the back of the boy as covered with weals and abrasions from the nape of the neck to the back of the knees; whether he could state the character of the birch rod used, and if it was of the regulation pattern and weight; and whether steps would be taken to prevent such punishments being inflicted on young persons in Poor-law institutions in future. Mr. Long replied that his attention had been called to this case, and he had communicated with the guardians of the Wolverhampton Union with respect to it. The Cottage Homes Committee of the guardians had investigated the matter, and he understood that at the inquiry held by them the police medical officer, acting for the Society for the Prevention of Cruelty to Children, described the condition of the boy's back in the sense stated in the question. He was informed that the birch used was similar to that used by the police, and that the weight of the instrument was 4½ oz. The regulations made by the Local Government Board with respect to these homes, whilst allowing corporal punishment in the case of boys, provided that no punishment should be inflicted with any instrument which had not been approved by the guardians or the Committee, but it would seem that there was no record of the approval having been given to the birch used in the present instance. The guardians had censured the officer by whom the punishment was given, and had adopted the report of the Committee which recommended that the use of the birch as an instrument of punishment should be abolished, and which contained other suggestions with a view to preventing excessive chastisement in future. The action taken by them would, he hoped, have the effect desired.

The Treatment of Epileptics.—Mr. Schwann asked the First Lord of the Treasury if, seeing that mental disease was held by the authorities not to include epilepsy, he would extend the promised inquiry as to the treatment of the feeble-minded so as to include epileptics, with a view to giving the county councils power to make provision for sane epileptics which they did not at present possess. Mr. Balfour replied that he learned from the Home Secretary that in the reference to any body of inquiry which may be set up the particular case which the hon. gentleman had in view would certainly be included.

The Budget occupied the attention of the House on Tuesday and at the morning sitting on Wednesday. There was a good deal of dissatisfaction expressed at the continuance of war taxes in time of peace, and a strong desire was expressed by Mr. Trevelyan and others that any inquiry into the incidence of income tax should be extended so as to take in the question of graduation. In a division on the report of the resolution levying the income tax at 1s., the Government majority was reduced to 38, and defeat was only averted by the fact that 20 members usually in opposition voted with the Government. On Tuesday evening and Wednesday the additional duty on tea occupied both sittings. The tax was condemned as cruel to the poor, inasmuch as it taxed an article which had become a necessity to the working classes. On the other hand, some members—notably Mr. Wylie—condemned tea as a beverage, described the evils of excessive tea-drinking, and startled the House by declaring that its component parts were the same as those of strychnine. The House, however, when it had recovered from the shock of this chemical disclosure, continued the discussion on the sober lines of finance, and finally the amendment to keep the duty at the old rate was rejected by the narrow majority of 37.

The Public Health Acts Amendment Bill.—The long delay in the introduction of this Bill is causing questions to be asked in the House. In answer to one inquiry the Prime Minister stated that it was in an advanced stage of preparation, and the President of the Local Government Board stated on Monday that he could not at present fix a date for the introduction of the Bill, but that he would introduce it at the earliest date practicable.

Scotland.

The Scottish Volunteer Ambulance Trophy.

Elaborate preparations are being made by the Scottish Volunteer Medical Officers' Association for the inauguration of the new trophy competition which will take place in the drill hall of the 1st L. R. V. Glasgow on Saturday, May 14th. The trophy, which is a fine piece of silverwork, is valued at 300 guineas, and no less than fourteen teams have entered for the first competition, representing regiments in Glasgow, Edinburgh, Perth, Dundee, Inverness, Hamilton, Kilmarnock, and Helensburgh. Surgeon-General Sir William Taylor, M.D., K.C.B., Director-General Army Medical Service, will preside, and will be supported by the Marquis of Breadalbane, the Marquis of Graham, Colonel Wilson, C.B., C.M.G., D.S.O., A.M.S., Colonel F. W. Trevor, P.M.O. of Scottish District, Sir John Ure Primrose, Bart., Lord-Lieutenant of the County, and Lady Primrose, and others; while at the close of the competition the Duchess of Montrose will hand over the trophy and badges to the winning teams. The competing teams will be examined in three subjects:

(a.) Drill, including stretcher and wagon drill and the transport of the wounded.

(b.) First-aid and bandaging.

(c.) General knowledge, including anatomy and physiology.

Three examiners will judge in Section *A*, Major C. C. Fleming, D.S.O., R.A.M.C. Surgeon-Lieutenant-Colonel Napier, 3rd L.R.V., and Major J. Macgregor Robertson, R.A.M.C. Volunteers. Two judges will undertake each of the other sections, namely, Brigade Surgeon Lieutenant-Colonel A. D. Webster, 9 R.V.A., Edinburgh Surgeon-Major J. Mill, 4th V.B.R.S., Leith Lieutenant-Colonel Geddes, D.S.O., R.A.M.C., Marylhill Station Hospital, and Honorary Staff Surgeon J. Macintyre, R.N.V.R. Reserve examiners include Surgeon-Captain A. K. Chalmers, 1st L.R.G.A., and Surgeon-Captain Rowan, Clyde Submarine Miners.

The necessary equipment is being supplied by Colonel Geo. T. Beaton, C.B., and officers of the Glasgow Companies R.A.M.C. Volunteers, while the details of the competition are being arranged by Captain R. T. Halliday and Lieutenant H. Wright Thomson of the same corps. The ceremony will be of a very interesting character, and will be under the patronage of the officers commanding the various regiments of the district. It is hoped that Lieutenant-General Sir Charles Tucker, K.C.B., commanding the Scottish District, will also be present with his staff.

The trophy, which is the property of the Medical Officers' Association, is of very handsome design, standing about 3 ft. high. The base is richly ornamented, and supports four figures representing different branches of the service—a naval volunteer, a yeoman of Scottish Horse, an artilleryman, and a Royal Highlander. The central pillar is ornamented with the Scottish Arms, the badges of all the Scottish regiments, and a scene representing the succour of the wounded on the field of battle. The Arms of Glasgow and Edinburgh also appear in relief, while on the base are those of Perth, Dundee, Aberdeen and Inverness, in which towns the competition will be held in turn. The badge and motto of the R.A.M.C. also occupy a prominent position. Two figures on the top of the pedestal support a four-mouthed gourd, while above the whole design is a figure representing the Triumph of Science, with in one hand the rod of Aesculapius, and in the other the laurel wreath of Victory. The trophy is at present in the Glasgow Art Galleries in the custody of the Corporation of the City, and will be returned for the year by the winning corps, while specially designed badges will be given to the first, second and third teams.

Edinburgh Royal Maternity Hospital.

Residence for Students.

It has been a reproach to the Edinburgh Medical School that sufficient means were not available to students for acquiring experience of midwifery. In consequence many students from abroad have gone to Dublin, Belfast, and Bristol for what they failed to find in Edinburgh. The reproach is in part at least now about to be removed. Part of a building behind the Maternity Hospital has been acquired and is to be altered and converted into a residence for students. It will be connected by a covered passage with the hospital and will be capable of providing room for twelve students, who will be provided with board and lodging at 25*s.* a week, and will have the intern and extern practice of the hospital at their disposal for one month. Thus 144 students will be provided for each year. The new house will be called "The Milne Murray Lodge," in memory of the late Dr. Milne Murray, who was one of the first to urge the organization of such a home. To the time of his death he was deeply interested in the scheme. Mrs. Milne Murray has been asked, and has consented, to become the first matron of the new home, which is expected to be available for occupation about the beginning of July next.

Edinburgh Royal Maternity and Simpson Memorial Hospital.

D. N. Callander, M.B., Ch.B., and T. W. E. Ross, M.B., Ch.B., have been appointed House-Surgeons for the quarter beginning May 1st next. Dr. Fordyce will act as Assistant Accoucheur to the Physician-Accoucheur during the same period.

Small-pox in Scotland.

During the period from April 1st to April 15th inclusive 202 cases of small-pox were intimated to the Local Government Board. These were distributed over fifteen counties, Lanarkshire heading the list and Renfrewshire standing second as regards the actual number of cases. Of towns Glasgow Burgh had 74 cases, Greenock 34, Edinburgh 9, Falkirk and Bo'ness each 7, and Falkirk 5. The local incidence of the epidemic during the period in question was greatest in the Burgh of Bo'ness, where the cases amounted to 7·52 per 10,000 of the population, as compared with 4·99 in Greenock, 3·57 in Grangemouth, 2·37 in Port Glasgow, and 2·36 in Falkirk. The following are the totals in sequence of the previous similar tables issued by the Local Government Board since the beginning of the year, namely, 197, 296, 259, 240, 234, and 201. In Edinburgh in the week ending April 16th, 5 new cases were notified to the Public Health Authorities, and in the week ending April 23rd 2 cases. In neither week was there a death.

Compulsory Revaccination.

The Edinburgh Town Council has by a large majority approved of the principle of the Bill for compulsory revaccination. The Convener of the Public Health Committee said he thought opinion in Scotland on this matter would be unanimous.

Edinburgh District Lunacy Board.

Resignation of Sir John Sibbald.

At a meeting on Monday, April 25th, a letter was read from Sir John Sibbald resigning his position as medical adviser to the Board. His resignation was accepted with unanimous regret. It was he who first inspired the Board with the idea of having a segregated asylum. The Chairman hoped, when their work at Bangour was more complete, that they might be able permanently to associate Sir John Sibbald's name with that institution.

Appointments for Bangour.

At their meeting on Monday, April 25th, the Board appointed Isabella Davidson, of Murthly, to be matron of the first female villa and administrative home at Bangour Asylum at a salary of £60. At the same time they appointed a female clerk, a charge nurse, and five nurses, all seven curiously enough coming from Inverness.

Ireland.

Royal Academy of Medicine.

We are requested to state that Mr. John G. Cronyn, of Dublin, is a candidate for the office of General Secretary of the Royal Academy of Medicine in Ireland which will become vacant in October next.

Sanatorium for Consumption in Cork.

A special meeting of members of the Cork Branch of the Association for Prevention of Consumption was held on April 20th, Dr. P. J. Cremen in the chair, to consider a communication from the Local Government Board sanctioning the provision of a sanatorium by a joint Board. The Local Government Board pointed out that as the number of members on the Board (fifty-six) would probably prove unwieldy, it would be better that a working Committee of Management should be selected. The first duty of the new body will be the selection of a site, and in this connexion a letter was read from Mr. Barter, who so generously offered a site of twenty acres at Myshall, saying that if this site should not prove satisfactory to the Committee he would gladly give £500 towards the acquirement of another one. The Chairman directed attention to the fact that the provision of this institution was not the be-all and the end-all of the movement

which the Association had taken in hand. That was only one part of the programme, which included the improved housing of the poor, improved sanitation, an efficient system of notification, the provision of a home for curable cases of consumption, or those capable of being improved, as well as providing a home for advanced cases. The need of providing sanitary dwellings and of getting rid of overcrowding, especially in insanitary areas, said Dr. Cremen, was receiving some attention in Cork, but so far the country towns had done nothing in that direction. Proceeding, he drew attention to the advantages of notification, and pointed out a passage in the report of Dr. Browne, Local Government Board Inspector: "Infection was traced in forty-four instances. In one instance that came under my notice members of three families who successively occupying a house in which a case of consumption occurred contracted the disease." If this sort of thing were allowed to go on, said Dr. Cremen, then a fourth family might go into the house, and so on, till innumerable lives would have been lost, and he thought the remedy for all this was notification. The efficient inspection of dairies, and, as Dr. Browne had pointed out in his report, the bacteriological examination of milk should receive due attention. Before the meeting concluded it was agreed that the attention of the Public Health Committee and the Corporation should again be directed to the report received from Dr. Browne in regard to the prevention of consumption, and especially to the points made by the chairman.

This Branch of the National Association for the Prevention of Consumption, and particularly its President, Dr. P. J. Cremen, to whom its formation was chiefly due, is to be congratulated on its energy and successful work. It is to this Branch that the inquiry which has led to the constitution of the Joint Sanatorium Board was due, and it is evident from Dr. Cremen's speech at the meeting that it does not intend that the Public Health Committee shall forget that since consumption is preventable no delay should be allowed in taking all necessary steps for its prevention.

Meath Hospital, Dublin.

The annual meeting of the Meath Hospital was held on April 25th, Mr. A. Andrews, J.P., in the chair. The report stated that the total expenditure was £6,173 4s. 4d., and the ordinary income £5,604 17s. 1d.; 1,472 patients were treated in the wards during the year, and the mortality was 5·53 per cent. Speeches in support of the resolutions were made by Mr. George Perry, Mr. Vere Ward Brown, Mr. Darley, and Dr. Keys, and by Sir J. W. Moore, Sir Lambert Ormsby, Dr. James Craig, members of the staff.

Presentation to the Provost of Trinity College.

At a meeting of a number of Dr. Traill's former pupils held in Dublin on April 13th, presided over by the Right Rev. C. F. D'Arcy, D.D., Lord Bishop of Clogher, it was decided to raise a fund for the purpose of making a presentation to Dr. Traill in commemoration of his recent appointment to the Provostship of Trinity College, that all who were pupils of his while in the university should be invited to join, and that the subscription should be limited to £1 1s. Cheques should be drawn in favour of the "Traill Presentation Fund," and forwarded to the Honorary Treasurer, Dr. James Craig, 18, Merrion Square, Dublin.

Ballinasloe Asylum.

Dr. J. J. Gorham, of Clapham Common, has sent us the following letter about the recent election at Ballinasloe Asylum, some references to which have been made in the last two Irish editorials:

I believe with you that Dr. Mills was the more suitable candidate at the recent election for the post of resident medical superintendent, and am sorry he was not chosen, but in the interests of fair play I ask you to insert the few following facts.

The selected candidate, Dr. Kirwan, is a member of a local family of considerable influence in the county, and has already served a long apprenticeship on this staff in the asylum.

Nineteen-twentieths of the inmates of the asylum are Roman Catholics.

Until Mr. Balfour's recent reform of county administration all these county appointments were usually made on religious considerations, and the effect was that the leading officials were exclusively Protestant.

I would venture to say that no one knows this better than your Dublin correspondent, and I challenge him to deny it.

Action against a Medical Man.

A civil action for the recovery of £50 damages was brought in the Londonderry Recorder's Court on April 15th against Dr. John W. Watson, Dispensary Medical Officer at Limavady, to recover £50 damages sustained by reason of negligence, unskilfulness, coarseness, and violence on the part of the defendant in operating on the plaintiff, a woman. It is satisfactory to be able to note that this scatter gun charge entirely failed, and resulted in the return by the jury, after only five minutes' consideration, of a verdict for Dr. Watson, to whom four guineas expenses were allowed. The alleged unskilfulness, etc., occurred in the course of an operation of plugging for profuse nasal haemorrhage. The plaintiff had suffered from profuse haemorrhage on more than one occasion, but had not before been treated by Dr. Watson. He used adrenalin, and successfully arrested the haemorrhage by plugging, but was subsequently unable to remove the plug because the plaintiff would not allow him to use the necessary measures. He consequently sent her to the Ear and Eye Hospital in Derry, where the plug was removed under an anaesthetic. Several medical men gave evidence that the treatment adopted was entirely correct and scientific, and that the difficulties which arose were the fault of the plaintiff alone.

THE HOLMAN TESTIMONIAL FUND.

The name of Constantine Holman is a household word throughout the British Medical Association, in the work of which he has taken a prominent part during more than the lifetime of the great majority of its members. No living member of the medical profession has done more in an unostentatious manner to promote the interests of his brethren, and none has better deserved a public recognition of his persevering and self-sacrificing efforts on their behalf. Dr. Holman's line of public work was doubtless determined by the circumstances of his introduction to professional life. He had the good fortune to be apprenticed, in 1847, to Messrs. Thomas and Peter Martin, of Reigate, who helped Sir Charles Hastings in bringing the British Medical Association into existence, and warmly supported Mr. Propert in the establishment of Epsom College. The name of Dr. Holman is writ large in the history of both these foundations.

In 1848 Dr. Holman was assistant secretary to Mr. Thomas Martin at a meeting in favour of Poor-law medical reform. In 1849 he entered Guy's Hospital, just at the palmy time when three discoverers—Bright, Hodgkin, and Addison—gave their names to three new diseases. In 1851 he went to Edinburgh, and in 1852 to Paris, settling in Reigate in June, 1852. As Secretary—appointed in 1862—and afterwards as President, of the South-Eastern Branch, he laboured strenuously in the division of the three counties composing it into districts of manageable extent, and in organizing its work. It is generally acknowledged that this Branch has been one of the most successful in the Association, and that its prosperity is in great measure due to the energy and organizing ability of Dr. Holman. He served for several years on the Committee of Council (twenty-one in number) of the British Medical Association, and actively supported the transference of the Central Office of the Association to London. He took an active part in replacement of the Committee of Council by a Council consisting of representatives elected by the Branches. He strongly supported the late Dr. Waters of Chester in promoting the passage of the Medical Acts Amendment Bill. In 1887 Dr. Holman was elected Treasurer of the Association, and during his period of office, which was one of exceptional storm and stress, he showed himself a careful keeper of its purse and a vigilant guardian of its interests.

Dr. Holman, who had been for some years a member of the Council of Epsom College, was pressed to undertake the duties of Treasurer of that institution. The affairs of the school were then at a very low ebb, and drastic measures of reform had to be adopted in which he was ably assisted by Mr. Malcolm Morris. There was a deficit of £7,000. Thanks to the devoted labours and administrative capacity of Dr. Holman the debt has been wiped out, and the school has been enlarged and adequately equipped for scientific teaching. The lists of distinctions which boys trained there won at the universities and medical schools show that Epsom College is, in regard to efficiency, second to no public school in England. Dr. Holman has also done valuable work as Vice-President of the British Medical Benevolent Fund, as President of the Surrey Benevolent Medical Society, which has only had three Presidents since its foundation in 1812—the two Martins and Dr. Holman; and as a member of the Committee of the Royal Asylum of

St. Anne's. For some time he was on the Board of Management of Vention Hospital. When it is remembered that all this public work was, till his partial retirement from active professional life a few years ago on leaving Reigate, done amidst the manifold cares and burdens of a large country practice, some measure will be obtained of the devotion with which Dr. Holman has served his brethren. In all his work not the most uncharitable or censorious could show any trace of self-seeking; he has been content with the feeling that he has faithfully done his duty to the medical profession collectively and to all members thereof who have come within his sphere of practical benevolence. It is in every way fitting that the services of such a man should be commemorated in a permanent manner, and no fitter form could have been chosen for the purpose than the "Holman Art and Reading Room" which it is proposed to erect at Epsom College. The College itself in its present condition is a monument of his unselfish labours. But it is well that his name should be enshrined at a memorial, and we earnestly hope that the whole profession, for which Dr. Holman has for half a century given unstintedly of his best, will show their appreciation of his services by responding liberally to the appeal for funds issued by Drs. John H. Galton and W. A. Berridge.

The Treasurer of the Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
Mr. [illegible]	1	1		Mr. Edward East	1	1	
W. W. [illegible]	1	1		Clayton [illegible], O.B.	1		
[illegible]	1	1		W. R. Dakin, M.D.	1	1	
Mr. [illegible]	1	1		Thomas Bullard, M.D.	2		
Mrs. Carpenter	1	1		Wm. Collier, M.D.	2	2	
[illegible], M.D.	1	1		Mr. Nath. P. Blaker	1	1	
Mr. [illegible]	2	2	0	Deputy Surgeon-General E. McKellar, M.D., F.	1	1	
Mr. [illegible]	1	1		P. W. Latham, M.D.	1	2	
[illegible]	5	5		A. H. Tuxby, M.S.	1	1	
Mr. [illegible]	1	1		E. A. Saunders, M.A., M.B.	1		
[illegible]				H. A. Martin, M.D.	1	1	
Mrs. Matthews	2			P. Maury Deas, M.B., M.S.	2	2	
Mr. W. [illegible]	1	1	0				

So far, the list of subscribers contains the name of only one Old Epsomian.

In the list published on April 16th for G. Owen, M.D., read G. Oliver, M.D.

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill.

CONTRACT MEDICAL PRACTICE.

A MEDICAL ATTENDANCE SOCIETY.

A correspondent sends us the rules and regulations of a Medical Attendance Society, and inquires whether it is any better than an ordinary Medical Aid Society. It would appear that the district is situated in a Welsh valley and is about two miles in extent. The population numbers about 11,000 and includes all classes, but consists mostly of miners and those employed in industries connected with mining. A "head doctor" is appointed at a salary of £300 per annum, and there are a certain number of "assistant doctors" under him. Surgeries, drugs, and medical appliances are found by the Society and a horse and trap for the use of the "head doctor." The duties of the latter are practically to give his whole time to the Society and to overlook all the medical arrangements. The amount paid by members is not stated, but there is evidently no wage limit, and we have no information as to the salaries of the "assistant doctors." The salary of the chief is, in our opinion, very inadequate considering the responsibility of his position, and does not suggest a very generous remuneration to the assistants. The Society appears to possess some of the worst features of Medical Aid Societies, as it tends to force the whole population of the district to employ the services of the medical attendant. With adequate remuneration the practice would probably be one of the best qualities, but [illegible] the inadequate remuneration [illegible] From a professional point of view we cannot [illegible] such a Society, and advise all self-respecting members of the profession to [illegible].

VOTES.

By a vote of [illegible] a copy of the following resolution passed by the Council of the Irish Dispensary [illegible] was ordered to be forwarded to the Chief Secretary for Ireland:

That on and after the first day of August next no drugs or preparations be ordered by any of the medical staff except such as are to be found in the British Pharmacopœia, that the use of carbolised tow be substituted for absorbent wool, and antiseptic lotions with ordinary lint for prepared forms of antiseptic dressings, unless the consent of one of the honorary medical staff has been obtained for the use of other forms of dressings. This resolution is not to apply to midwifery cases.

THE IRISH DISPENSARY MEDICAL SERVICE REPORT.

A MEETING of the Belfast and District Branch of the Irish Medical Association was held in the Medical Institute, College Square North, on April 22nd. The President, Professor Byers, M.D., presided. Dr. S. B. Coates was nominated as representative of County Antrim on the Central Council of the Association. The meeting took up the consideration of the recently published report of the Special Commissioner of the BRITISH MEDICAL JOURNAL on the Poor-law medical system in Ireland. Professor Byers explained the steps which led up to the publication of the report, and expressed warm appreciation of the action of the JOURNAL. Their Special Commissioner had given very considerable time to the studying of the present system. He had visited every county in Ireland, and had interviewed representative members of every profession and every class all over the country. He had presented a masterly report, which was calculated to place the present agitation for improvement in the medical service on a sounder basis, and to do more than anything yet attempted to secure much-needed reforms. Several of the members present spoke in similar terms of the report, and, on the motion of Professor Lindsay, seconded by Dr. J. Walton Browne, it was unanimously resolved:

That the best thanks of the Branch are hereby tendered to the BRITISH MEDICAL JOURNAL for the very able and exhaustive report of their Special Commissioner on the Poor-law medical system in Ireland, which appeared in the JOURNAL of March 26th, 1904.

We are informed by Mr. Thomas Glick, Secretary of the Irish Medical Association, Dublin, that at the meeting of Council of the Irish Medical Association on April 20th the following resolution was passed:

That the best thanks of the meeting be given to the Editor and the Commissioner of the BRITISH MEDICAL JOURNAL for the able and exhaustive report on the Poor-law system in Ireland, which appeared in the JOURNAL of March 26th, 1904.

The following resolution was carried unanimously at a meeting of the County Meath Branch of the Irish Medical Association:

That a vote of thanks be sent to Surgeon-General Evatt for his master's and statesmanlike exposition of the grievances of the Irish Dispensary system, clearly demonstrating not only the necessity of the dispensary doctors, but also to the sick poor; and that a vote of thanks be simultaneously accorded to the British Medical Association for securing a Commissioner to deal with this intricate subject with congratulation to that Association on the choice of so able a Commissioner, whose report could scarcely be improved upon even by any one who spent a lifetime in the Irish Poor-law service.

At a meeting of the County Galway Branch of the Irish Medical Association held on April 18th, the following resolution was unanimously adopted:

That the best thanks of the County Galway Branch of the Irish Medical Association be tendered to the British Medical Association, the Editor of the BRITISH MEDICAL JOURNAL, and Surgeon-General Evatt, C.B., for their valuable assistance to the cause of the Irish Poor-law medical services, and that the Irish Medical Association be asked to have Dr. Evatt's Report sent to every member of both Houses of Parliament.

THE MIDWIVES ACT.

MEDICAL FEES IN MIDWIVES CASES.

At the annual meeting of the Birmingham and District Medical Practitioners Union on September 27th, 1903, the following resolution was adopted:

That in view of the [illegible] of the Midwives Act it is desirable in the opinion of this meeting that the Council [illegible] should [illegible] a report [illegible] the Union [illegible] the Act [illegible] the Local Supervising Authority [illegible] the Act [illegible] the Local Supervising Authority [illegible] the Act [illegible] the Local Supervising Authority

Union, held on March 30th, the following report of the Ethical Committee of the Council was read and approved:

"The question of medical attendance in midwives' cases having been thoroughly discussed, the Committee considers that it is impossible to formulate a code of rules for the guidance of members.

"They wish to point out:

"1. That the relation of medical men to the public is not altered by the Midwives Act, either financially or professionally.

"2. That a larger fee should be charged in midwives' cases.

"3. That when summoned to a case by a midwife, a medical practitioner's relation to the patient is the same as if summoned by the patient."

We understand that in June last the East Birmingham Branch of the Birmingham and District General Medical Practitioners' Union adopted a resolution to the effect that the members of that ward agreed not to attend midwives' cases at a fee of less than one guinea and that the midwife concerned in the case would be held responsible for obtaining the fee. As will be observed this suggested action, which we understand has aroused much apprehension among midwives, has not been endorsed by the central Council of the Union, which has taken the view that the relation of medical men to the public has not been altered by the Midwives Act, and that the relation of a medical practitioner to the patient is the same when summoned by a midwife as when summoned by the patient direct.

Central Midwives Board.

The following memorandum was issued last October by the Midwives Board to those county councils which applied for it:

Suggestions to County and County Borough Council's in Reference to the Duties Assigned to The under the Midwives Act, 1902.

1. The Central Midwives Board suggests to the county councils the advisability of retaining the administrative duties assigned to them, under the Midwives Act 1902, as far as possible in the hands of a committee directly appointed by themselves. This will not only secure for the county council more adequate control over the expenditure, but will tend also to prevent the possibility of local rivalries and jealousies interfering with the carrying out of the provisions of the Act.

2. The Board suggests further that the Health Committee of the county council would form a suitable committee to act as the local supervising authority, with power to add to its number from outside the council or otherwise.

In counties where there is no county medical officer, it is suggested that a special medical officer be appointed to advise the committee.

3. It is further suggested that supervision should be regarded as at least in part a medical duty, and that the medical officer of health, or the medical adviser specially appointed, should be empowered to act as the executive officer of the committee.

4. The Board suggests to county and county borough councils that, this being a matter almost solely affecting women, the local supervising authority should, as sanctioned by the Act, include in any committee it may appoint, one or more women conversant with the needs of the poor in the district.

Some information with regard to the action taken by county councils in various parts of the country was given in an article published in the British Medical Journal of October 31st, 1903, page 1170.

HYGIENE AND TEMPERANCE.

The memorial to the central educational authorities of the three kingdoms on the subject of the introduction of compulsory instruction in hygiene and its allies circulated to the medical profession in January received, as stated on April 16th, such a remarkable amount of support that some practical outcome from it may confidently be expected. It becomes, therefore, a matter of interest to consider what precise form instruction in personal and domestic hygiene should take in our public schools. Obviously this is a matter upon the wise decision of which the success of the movement must largely depend, and at the present moment we merely propose to indicate some of the many and diverse considerations which are involved.

Amongst these are, What are the scientific truths which must necessarily be taught? What are those which may conveniently be omitted? How shall the teaching be given? In what grades or at what periods of the school career should the instruction be carried on and with the help of what textbooks?

Although we have put the question of textbooks last, the compilation and choice thereof involves in a measure the settlement of all the earlier questions. Any person who desired at this moment to commence instruction in a school in the subject of temperance would naturally ask, as we have done, for suitable textbooks. Presumably he will be offered, as we have been, a choice of a number of American publications or those which are in use in the army schools, the only places in this country in which such instruction is compulsory. Taking the latter first we find that instruction on the subject of temperance and sanitation is not given to junior classes, but only to those of the "elder children's schools," or in Standards IV to VII, and that five textbooks are used. One is Jarrold's *Temperance Reader*, another Hart's *Sanitation and Health*, while the others are entitled *The Scriptural Aspect of Temperance*, *The Economy of Temperance*, and *The Physical Aspect of Temperance*. The first two we have not seen, but the last three we have examined carefully. They are all written by the same author and upon the same system, each chapter terminating with a summary or a display upon the blackboard of the principal points included in the lesson. The book upon the scriptural aspect of temperance consists of excerpts from the Old and New Testaments which bear upon the use of alcohol, with comments and explanations. The next deals with the economic effects of excessive indulgence in alcohol upon the individual, the family, and the nation, and contains a good many calculations of somewhat dubious precision. The last and largest of the three deals in three divisions, each of twelve lessons, with the following general subjects: (1) Strong drinks, what they are: how they are made; their effects on the stomach and digestion; (2) alcohol and the blood; (3) the brain, the nerves, the mind; and how alcohol hurts them. In effect it is a textbook of very elementary chemistry and physiology, with the possible effects of alcohol brought into constant and not always quite legitimate prominence.

These books are doubtless compiled with a considerable amount of ability, but, nevertheless, we do not think that they are to be recommended, and still less do we believe that they would meet the views of those who initiated the movement, or be willingly accepted by the majority of educational authorities.

Turning now to the volumes published in America, we find quite a different condition of things prevailing. There, it is to be remembered, the question is no new one. The movement now in progress in England was initiated in America some thirty years ago. The first law making the study of physiology and hygiene, including the nature and effects of alcoholic drinks by public school children, compulsory was introduced in 1882, and the growth and effects of the work have been most carefully supervised by an association specially formed for that object. It is a branch of the Bureau of Scientific Temperance Investigation, and is the special care of an Advisory Board, which consists of two "reformers," one of whom is a clergyman, three persons actively engaged in education, and seven medical men.

There are several series of textbooks, such as the *Union*, the *Pathfinder*, and the *New Century* the latest of all, which are popular and are all regarded by the Advisory Board as more or less completely meeting the needs of the case. The Union series, like, we understand, all the others, deals with matters in a different way to those English works to which we have already referred. Its underlying conception is that the subject of physiology and health should be commenced in the very lowest classes, and the extent of the teaching increased as the children pass upwards class by class. The books issued, therefore, all deal with the same subjects in much the same way, the second of the series entering into it somewhat more deeply than the first and the third than the second. The first book is written almost entirely in words of one or two syllables, and the information given on physiology and hygiene is such as could be absorbed by the smallest child of school age. At the end of each chapter are lists of questions which may be asked and simple illustrations which may be given.

As textbooks of physiology and hygiene these works are certainly better than the English ones. Considerations as to alcohol are brought into proper focus and relegated to the end of each chapter, together with an account of other undesirable habits which are harmful to personal health and success in life. The existence of these books is probably due to what is called a petition to authors and publishers, which was signed very early in the history of the movement by a very large number of physicians, members of State Boards of Health, educational and other persons of influence in the United States. It was intended as a guide as to what text-

books should teach and as to the grading of the instruction and the amount of temperance matter it was thought desirable that they should contain. The petition was originally issued in 1887, and steps have been taken ever since to keep it up to date and to bring it constantly under the notice of publishers and possible authors.

The following are the specifications made as to what textbooks should be:

1. They must teach with no uncertain sound the proven findings of science, namely

That alcohol is a dangerous and seductive poison, and must define a poison.

That beer, wine, and cider contain this same alcohol, thus making them dangerous drinks to be avoided, and that they are the product of a fermentation that changes a food to a poison, and must define a food.

2. That it is the nature of a little of any liquor containing alcohol to create an appetite for more, which is so apt to become unquenchable that the strongest warning should be urged against taking that little and thus forming the appetite.

3. They must teach also the effect of these upon "the human system," that is upon the whole being, mental, moral, and physical. The appalling effects of drinking habits upon the citizenship of the nation, the degradation and crime resulting, demand that instruction here should give clear and emphatic utterance to the solemn warnings of science on this subject.

3. This instruction must be as well graded to the capacities of each class of pupils as the modern school readers are. A book fit for high schools put into primary or intermediate classes will make the study a failure there. Truth is just as true and as scientific when told in easy words as when put into stilted technicalities the child cannot understand.

4. This is a physiological temperance movement. In all grades below the high school this instruction should contain only physiology enough to make intelligible the general laws of health, including those relating to the nature and effects of alcoholic drinks and other narcotics. The latter subjects (that is, the nature and effects of alcoholic drinks and other narcotics) should occupy at least one-fifth the space in textbooks for these grades. As only a small portion of the pupils in our public schools attend high schools, and vast numbers leave school from the lower grades, this instruction should be early and ample. It is not desirable to have a separate book for the physiology heretofore studied in the high school or to limit the amount, but at least twenty pages in a textbook for these classes should be given to the question of the danger of alcoholic drinks and other narcotics.

5. The effort to misuse the minds of the rising generation of the fallacies which lead to drink habits should purposely avoid reference to the medical use of alcohol. As by common consent its lay prescription is condemned, the question of its use as a remedy may properly be relegated to medical treatises, as out of place and misleading in a school textbook.

Lacking in any of these points, a textbook on scientific temperance is incomplete, and teaching in the schools of such a book will not result in a strong temperance sentiment among the pupils using it.

Because the question of total abstinence for the public school children of this country, and therefore of their well being and that of the land that is to be governed by them, depends so largely upon the teachings in these books we make this appeal.

We are somewhat inclined to believe that this petition or manifesto is worthy of imitation. It is obvious that as soon as a demand for textbooks arises an attempt will be made by publishers to meet it, and unless the ground is duly prepared in advance it may very well be that a book or series of books, if issued by an enterprising publisher, may become popular for other reasons than their essential value. If treated in a sufficiently broad-minded manner the matter ought not to be one of essential difficulty, for about the main truths of hygiene and physiology and the connexion therewith of alcohol there is no dispute.

At the last meeting of the Royal Meteorological Society a paper by Mr. W. L. Dallas on the variation of the population of India compared with the variation of rainfall in the decennium 1891-1901 was read. The author showed that during the first years of the rainfall was generally normal or heavy over nearly the whole country, and during the six years the rainfall was mostly deficient. The general census of India in March last showed the total population to be 294,277,477, excluding the territories not under the direct control, was an increase of only 1·3 per cent. The population had thus failed to increase according to the normal rate during the decade. Part of this failure was no doubt due to epidemics. The author, however, showed that there was a relationship between the variations of the population and the variations of rainfall during the dry years. The area within which the most serious decrease of population occurred coincided almost exactly with the area of greatest deficiency of rainfall.

ASSOCIATION NOTICES.

ANNUAL REPRESENTATIVE MEETING.

ERRATA.

The following notices of motion were inadvertently omitted from last week's JOURNAL:

By the Folkestone Division (South-Eastern Branch).

1. That the present method of election by the Branch Council is unsatisfactory and that new members should be elected by the members of the Division in which they reside.
2. That all members of over thirty years' standing should be made honorary members of the Association.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 14th. The by-law governing the election is as follows: "(a) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days notice has been given in the JOURNAL." W. M. BEAUCHAMP, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will take place at the Town Hall, Trowbridge, on Wednesday, May 11th, at 4 p.m. Business: 1. To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To elect the Representative of the Division to Representative Meetings of the Association. 3. To receive the annual report of the Executive Committee. 4. To consider the business of the Annual Representative Meeting. 5. To make new rules, or alter or repeal existing rules. 6. To transact any business that may be brought before a quarterly or ordinary meeting. To consider the advisability of, and if necessary to petition or to petition the Council to alter and extend the area of the Trowbridge Division. To consider the following matters referred by the Divisions for their opinion thereon: (a) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (b) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (c) Shall medical defence be undertaken by the Association. As a guide to the Division on the latter question it is asked for members of the Division who are unable to be present should inform the Honorary Secretary as soon as possible (and in any case before the Annual Meeting) whether they would take up the defence as suggested. Whether they approve of the general principle and details of the scheme. Whether they are willing to contribute the additional subscription in the event of such a department being formed. They would be asked to express their views briefly, and return it to the above address. The Executive would urge on members the importance of attending the meeting of the Division, and taking part in the work divisional as the Executive and in the annual work of the Association, which matters of great moment to the medical man may at any time be brought before the annual representatives to the Central Council of the Association, and upon the loyalty with which the Secretary working of the Association as a whole now so largely depends. JOHN THOMAS, Jun., Hon. Sec. Trowbridge, Wilts. Honorary Secretary.

BIRMINGHAM BRANCH.—The fifteenth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 2nd, at 3 p.m., the retiring President, Professor Jordan Lloyd, will introduce the President-elect, Dr. J. F. Tocher. The annual dinner will be held in the evening at the Grand Hotel, Birmingham. J. T. J. Mercieson, F.R.C.S., Great Charles-street, Birmingham, Honorary Secretary.

LEEDS (EAST) BRANCH.—Nominations for two elective members of the Central Council on the Association may be sent to the undersigned on or before May 14th. J. J. MORRISON, F.R.C.S., Great Charles-street, Leeds, Honorary Secretary.

BIRMINGHAM BRANCH: COUNTIES DIVISION.—The annual meeting of this Division will be held at the Queen's Hospital, Birmingham, on Thursday, May 5th, at 4 p.m. by kind permission of the Governors. Agenda: [illegible] that the members present engaged in the [illegible] of the Division [illegible] the election of the

advertising of medical practitioners in connexion with hydropathic establishments; (3) The medical defence scheme of the Association; (4) The Committee will recommend the adoption of a new rule making a time limit for papers and speeches. The election of officers, the Representative of the Division on the Branch Council, and the Executive Committee.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 17th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES COMBINED.—Notice is hereby given that the names of candidates for election as a member of Council of the Association for these Branches must be sent to either of the undersigned on or before Tuesday, May 17th next.—WILLIAM VAWDREY LUSH, Weymouth, or W. B. WINGFIELD WORTH, Taunton, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION. The annual meeting of this Division will be held at the Medical Societies Rooms, Shaftesbury Hall Chambers, Bournemouth, on Wednesday, May 4th, at 3.15 p.m. An agenda paper will be sent to each member, and it is hoped there will be a good attendance as matters of great importance will be considered. Tea at 5 p.m.—C. H. W. PARKINSON, Wimborne, Honorary Secretary.

EAST ANGLIAN BRANCH. The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH.—Election of members of Council. The nomination of candidates to represent the Branch on the Central Council of the Association for the ensuing year must be made by three electors on or before May 12th next, in writing, to the General Secretary of the Branch, B. H. NICHOLSON, M.B., East Lodge, Colchester.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION. The annual meeting of this Division will be held at the Victoria Hospital, Southend-on-Sea, on May 26th, at 4 p.m. Members wishing to read papers or show cases are requested to send immediate notice to W. CARDY BLUCK, Southend-on-Sea, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH. Nominations for the election of a Representative on the Central Council for this Branch (grouped for the present with the Cambridge and Huntingdon Branch) should be sent not later than May 14th to E. M. HAINSWORTH, 16, Albion Street, Hull, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH. The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINSWORTH, 16, Albion Street, Hull, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Royal Infirmary, Glasgow, on Friday, May 20th. Programme: Statutory business meeting of Branch in the Board Room of the Infirmary at 3 p.m. Demonstration by Dr. John Macintyre upon Recent Electro-Therapeutic Methods of Treatment in the Electrical Pavilion from 4 to 5.30 p.m. Dinner (morning dress) at 6.30 p.m., as intimated by post.—JAMES H. NICOLL, 3, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 1st.—T. ARTHUR HELME, M.D., 3, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at Altrincham on May 18th. Mr. J. Smith Whitaker, the Medical Secretary of the Association, will deliver an address at 5.30 p.m. (other particulars will be announced hereafter). Members of other Divisions are cordially invited to attend. The meeting will be followed by a dinner (5s. each, exclusive of wine), which will be open to all members who signify their intention to be present (enclosing postal order for 5s.) to the Honorary Secretary of the Division on or before May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, Honorary Secretary.

LEINSTER BRANCH. The annual meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Wednesday, May 11th, at 4 p.m.—ARTHUR H. WEIR, Derrybawn, Rathgar, Dublin, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 9th. This notice should have appeared earlier, but as fourteen days' notice is necessary, it is hoped that no objection will be taken to the above extension of time.—GEORGE ROWELL, 6, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A special meeting of this Division will be held in the Officers' Mess Room of the 4th V.B. East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), on Thursday, May 12th, at 4 p.m. There will be a discussion on the scheme of medical defence submitted for the approval of the members under these heads: (1) Is this meeting in favour of the Association taking up the general and (or) individual defence of its members? (2) Is the scheme now submitted one by which the Association could safely and efficiently execute the work of individual medical defence? All medical men are invited to attend. Drs. Heron, Messiter, Bateman, and Woods have agreed to attend and help in the debate. Agenda papers on application to E. ROWLAND FOTHERGILL, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH. The last day for sending in nominations of elective members of Council for this Branch is May 1st. J. MICHELL, 3, Prebend Street, Leicester, Honorary Secretary.

MIDLAND BRANCH: LEICESTER DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4 p.m., at the Infirmary, Leicester. Agenda: The election of officers for 1904-5, and other business as put forth in circular sent to each member. ARTHUR V. CLARKE, M.D., 37, London Road, Leicester, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Newcastle-on-Tyne on Tuesday, May 3rd. Full particulars will be given by circular. Members wishing to show cases or bring anything before the Branch are requested to communicate with the Honorary Secretary as early as possible. ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH OF ENGLAND BRANCH. Notice is hereby given that nominations of Representatives for this Branch (two required), each signed by three members of the Branch, must be sent to me on or before May 14th.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION. The annual meeting of this Division will be held at Wrexham on Friday, May 27th.—E. D. EVANS, Bodeirian, Wrexham, Honorary Secretary.

OXFORD AND READING BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Friday, May 6th, at 3 p.m. Dr. W. Collier will move a resolution against the registration of nurses. Dr. G. H. R. Holden (President 1904-5) will read notes about a case of acromegaly. Cases of interest will be exhibited by Dr. Marriott, Dr. W. J. Maurice, Mr. H. A. Whitelocke, Dr. Price, Mr. J. H. Walters, Dr. Freeman, and by others members of the Branch. Mr. H. A. Whitelocke, F.R.C.S., will read notes about Some Cases of Ectopic Pregnancy treated by Operation. Mr. Arthur Roberts, F.R.C.S.E., will give a few remarks on Disease of the Middle Ear in Relation to Disease of the Brain and its Coverings. Dr. W. T. Brooks will read notes About a New Form of Milk for Infants, and, if time permits, Dr. Francis Hawkins will read some notes about Paracentesis as a Means of Treatment for Ascites, and Mr. H. G. Armstrong will read notes on One Hundred Cases of Measles with Special Reference to Differential Diagnosis. Dinner will be served at the Great Western Hotel at 6.15 p.m., price (to include coffee and dessert) 6s. 6d. Members intending to dine should signify their intention to W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading, Honorary Secretary.

OXFORD AND READING BRANCH.—Notice is hereby given that nominations for a Representative Member of Council for this Branch must be sent to me on or before May 15th.—W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading, Honorary Secretary.

SHROPSHIRE AND MID WALES BRANCH. A meeting of this Branch will be held at the Salop Infirmary on Tuesday, May 3rd, at 3 p.m., the President, Dr. F. K. Piggott, will take the chair. Agenda: To consider a resolution on the recommendation of the Medico-Political Committee of the Council of the Association: "Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation." To consider a recommendation of the Ethical Committee of the Council of the Association: "The question of the advertising of medical practitioners in connexion with the hydropathic establishments be referred to the Divisions." The Secretary will communicate to the Branch the result of their recent vote re medical defence. Mr. Gilbert Barling will read a paper on Some Observations on Enlarged Prostate, with Special Reference to Enucleation, illustrated by lantern slides. Dr. Cureton will read a brief note with regard to potatoes in diabetes. Drs. King and Emery will show a specimen of ovarian tumour removed successfully (for axial rotation) during the fourth month of pregnancy. Mr. Macleod will show a case of coxa vara (with skiagraph). By the invitation of the President members will partake of tea at the Infirmary after the meeting. Note: This is the last meeting of the Branch under its old name.]—HAROLD H. B. MACLEOD, Shrewsbury, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larking gives notice that he will move, "That in the opinion of this meeting the present South Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Monday, May 16th.—T. JENNER VERRALL, 47, Montpelier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Croydon General Hospital, on Thursday, May 19th, at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the annual meeting officers for the ensuing year will be elected. 2. To arrange for the next meeting and to elect a Chairman. Members will be asked to consider "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."—Medico-Political Committee. And also to give their opinion upon "The

question of the advertising of medical practitioners in connexion with hydropathic establishments." Ethical Committee. As a main feature of the hospital meeting is the exhibition of clinical cases, these questions may be put to the vote without discussion. 4. The exhibition of clinical cases. Members desirous of showing cases are requested to communicate with the Honorary Secretary at their earliest convenience, and not later than May 10th. Messrs. Down Bros. will show surgical instruments. The dinner will take place at the Greyhound Hotel, at 6 p.m. Charge 8s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By doing so they will materially facilitate arrangements and promote the success of the meeting. All members of the South Eastern Branch are entitled to attend and to introduce professional friends.—E. H. Willcox, 11, London Road, Croydon, Honorary Secretary.

South-Eastern Branch: Reigate Division.—A meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 6 p.m., the President of the Division, Dr. John Walters, J.P., will take the chair. Agenda: Important Association business. By Mr. F. Curtis, F.R.C.S.Eng.: A Note on Freyer's Operation for Removal of the Prostate. Specimens kindly lent by Mr. Freyer will be shown. By Sir Dyce Duckworth, Physician to St. Bartholomew's Hospital: The Pursuit of Novelties in Medicine. Dinner at 7 p.m. W. A. Berridge, 15a, Station Road, Redhill, Honorary Secretary.

South-Eastern of Ireland Branch.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers. Raymond W. Orpen, Bagenalstown, co. Carlow, Honorary Secretary.

South Eastern of Ireland Branch.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th. Raymond W. Orpen, Bagenalstown, co. Carlow, Honorary Secretary.

South Midland Branch.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. Harries Jones, 45, Sheep Street, Northampton, Honorary Secretary.

South Midland Branch: Bedford and Hertfordshire Division.—The annual meeting of this Division will be held at the County Hospital, Bedford, on Tuesday, May 3rd, at 3.30 p.m. Agenda: Minutes of last annual meeting. Election of officers. Appointment of Ethical Committee. Matters referred to the Division by the Central Council: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. The Executive Committee ventures to draw the attention of members of the Division to the recently-issued Year Book of the Association for the year 1904, and in particular to pp. 42 and 43, dealing with the work and constitution of the Divisions. The Committee would urge upon members the importance of attending the meetings of the Division and taking part in the work devolving upon the Divisions as the Executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. The attendance of members of the Division is earnestly requested.—S. J. Ross, 25, Mill Street, Bedford, Honorary Secretary.

South Midland Branch: Northamptonshire Division.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, May 5th, at 12 noon, under the presidency of Dr. Buzzard. Agenda: Minutes of annual meeting. 2. Election of officers. 3. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The [illegible] Medical Defence Committee of the Association.—E. Harries Jones, 45, Sheep Street, Northampton, Honorary Secretary.

South Wales and Monmouthshire Branch: Cardiff Division.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 1, [illegible] Street, on Thursday, May 12th, at [illegible]. Agenda: Minutes of the two previous general meetings. [illegible] of the Division, namely, Chairman, Vice-Chairman, [illegible] Secretary. [illegible] To elect [illegible] representatives on the Council of the Branch [illegible] ordinary members of the Executive Committee. [illegible] representative of the Division [illegible] Secretaries of the Association. Note: The elected members [illegible] constitute the Executive Committee of the [illegible] Medical Defence Committee. [illegible] representative meeting and to [illegible] Representative Meeting. [illegible] To consider other [illegible] meeting before the Executive Committee [illegible] Secretaries will be glad to receive [illegible] the Executive Committee [illegible] the Division [illegible] the Council [illegible] the Division [illegible] the Council [illegible] the Division [illegible] the Council

emanations of poisonous gases such as sulphuretted hydrogen due to insufficient ventilation, which caused the epidemic among the miners of Anzin, Fresne, and Vieux-Conde, or from lead as in some mines at Schemnitz in Hungary. The ankylostoma causes fewer cases than is generally supposed. Dr. Fabre then studied pathologically the modes of production of anaemia among miners, and clinically the special influences—general, professional, and individual—which favour its development, as well as the prophylactic measures for its prevention. In cases due to ankylostoma, how is the disease contracted, and what regulations should be ordered for its prevention? A discussion followed, in which Professors Blanchard, Chantemesse, Chauveau, and Dr. Roux took part, and the Académie appointed the following as a special commission to study the whole question: Drs. Blanchard, Chantemesse, Lancereaux, Laveran, Magnin, Railliet, and Dr. Roux.

Dr. Reynès (Marseilles) showed a patient whom he had cured of inoperable epithelioma of the two breasts by ovariotomy, the only vestige being a sort of cicatrix with induration. At the time of the operation the woman, aged 33, was already cachectic: one of the tumours she had had for nine years, the other for three years. The microscopic examination made by Professor Cornil showed these to be pavement-celled epitheliomata. The tumours began to diminish soon after the operation, and in two months the large ulceration of the left breast had cicatrized. He considered that his method of treatment was only applicable to cases of cancer occurring before the menopause.

The last International Congress of Professional Medicine and Deontology expressed the opinion that a code of ethics ought to be drawn up to serve as a guide to the profession, and to be given to each newly-qualified man on the day he passed his thesis examination. The April number of the *Bulletin* de l'Association Générale de Prévoyance et de Secours Mutuels de Médecins de France publishes a rough draft of a code of medical ethics which has been drawn up by a Special Commission composed of Drs. Dignat, Glower, Le Gendre, Lepage, and Lereboullet.

The Municipal Council has just decided to begin immediately the work of rebuilding and enlarging the Cochin-Ricord Hospital at an estimated cost of nearly Fr.11,670,000 (£466,800). The Pitié Hospital will be reconstructed at an estimated cost of Fr.8,051,000 (£322,040) on ground belonging to the Salpêtrière Hospital. Various improvements are also to be carried out at the Lariboisière Hospital, at the St. Louis Hospital, and at the Hôtel-Dieu.

The Municipal Council has authorized the erection of a monument to Professor Tarnier on the façade of the Clinique d'Accoucheur, in the Avenue de l'Observatoire, facing the Luxembourg Gardens.

VIENNA.

A Political Contest. The Surgical Clinic at the General Hospital.—A New Cancer Microbe. New Plans for the General Hospital.—Lady Doctors in Austria.—Dr. Moser's Scarlet Fever Serum.—General News.

During the last few months little of special medical interest has occurred in Austria-Hungary, with the exception of the election of twenty-nine members to the Arztekammer, the equivalent in Vienna of the General Medical Council. Over this election many serious battles were waged, the election itself being the crucial point, and, it is to be hoped, the last event of a commotion which has been going on for some time past. It will be remembered that several months ago the anti-Liberal, clerical, and anti-educational party, then in power in the Diet, made a most offensive attack upon the medical profession with the officials of the High School of Medicine as its immediate victims and vivisection as a weapon. It was very generally considered by medical men that the Government had been culpably negligent in protecting the medical profession from unjust political attacks, and as a protest the majority of medical men holding public appointments tendered their resignation. Fresh appointments to the Medical Council, therefore, had to be made, and the occasion was seized, partly by politicians and partly by a discontented section of medical men, to convert an election in which professional matters should alone be considered into a political battleground. There were two principal parties, of which the German-national, anti-Liberal party tried to show that the other comprised nothing but antiquated, old-fashioned persons unworthy to be leaders of modern professional life. All weapons commonly used in political contests were introduced, and those questions of religion and nationality which have so much weight in Austria were brought into play. Ninety per cent., however, of all voters were induced to throw in their influence, and, in spite of the Government giving the clerical anti-Liberal party as much help as it could, the old party, as it was called, eventually won the day. This party includes in its ranks the best-known members of the profession, and endeavours to combine all fair-minded opinions upon one platform, while at the same time demanding that Government shall give due protection to scientific research, and secure for all medical workers the consideration and respect which is their due. Dr. Ewald, Senior Surgeon of one of the largest hospitals, has been elected President of the Council, and it appears likely that, now the strife is over, its work will be carried out on desirable lines.

Professor Hochenegg has been appointed Director of the first surgical clinic of the General Hospital, a post at one time occupied by Billroth. In his clinical teaching he lays much importance upon exact diagnosis and trains his pupils to be critical. His best known published work is a monograph on cancer of the rectum. He is still a young man and by the majority of persons his appointment is welcomed.

A special committee of the Society of Physicians is engaged in investigating a sporozoon which, in a paper read by him before the Society, Dr. Feinberg alleged to be a hitherto undescribed organism. Its importance is that, according to Dr. Feinberg, its life-processes are the true cause of cancer.

It has been recognized for long past that the General Hospital in Vienna so well known to all English students is with its 2,300 beds too crowded for the requirements of modern science. Plans therefore have been adopted for the building on the pavilion system of a new hospital at a cost of about a million sterling on the site of the old lunatic asylum which comprises 220,000 square yards.

At length Vienna can boast of a lady doctor with a Vienna degree in the person of Miss Margareth Konigsberg. Two lady doctors already practise in Vienna, and at Bosnia, where there are many Mohammedans, a certain number of lady doctors were appointed some time ago to work among the female population. Hitherto, however, all lady doctors have obtained their degrees abroad, and the lady mentioned is the first to obtain the M.D. degree of the Vienna University.

In one of the children's hospitals trials have been in progress of the scarlet fever curative serum described by Dr. Moser at the Carlsbad Congress in 1902. Forty-four serious cases complicated by hyperpyrexia and nephritis were chosen with results considered to be very favourable to the claims made for the serum. A second trial is now in progress.

Dr. Gersuny, who now is perhaps the best known of all Billroth's pupils, recently celebrated his 60th birthday in a fashion different to that common in Austria. Instead of holding a reception he performed four prolonged operations. It is to Gersuny that in Austria is ascribed the credit of several new operations and modifications of technique, especially in connexion with plastic operations on the vagina, the use of paraffin injections, and the introduction of torsion to produce an artificial sphincter ani.

The summer term, or semester, as it is called here, begins on May 1st, and will last till about July 15th. A considerable number of special courses are announced, of which the following are the more important: A course by Docent Sternberg, on Cardiac Diseases; one by Docent Strasser, on Hydrotherapy of Internal Diseases; and another on Chemical and Microscopical Examination of Diseases of the Digestive Organs, by Docent Czyhlarz. Laryngology will be taught in courses delivered by Professor Chiari, by Hayeck (including lectures on Diseases of the Accessory Sinus of the Nose), by Réthi, and by Koschier in the Poliklinik. Lectures and courses on Haemology by Türk and by Weiss. Diseases of Children will be demonstrated and lectured upon in all the hospitals by Monti, Kassowitz, Escherich. As regards surgery, the following courses are worth mentioning: Surgical Diseases of the Urinary System, by Frisch, Zuckerkandl, Jurié; Surgery of Children's Diseases, by Hochenegg, Friedländer, Lorenz. The courses on Otology comprise Pollitzer's course, and those of Urbantschitz, Alt, Hammerschlag, and Pollak. The courses on Surgery of the Ear by Hammerschlag or Pollak, and by Biehl or Alexander are specially worthy of mention. Several courses on the use of the Ophthalmoscope will be delivered by the assistants of the respective clinics, and also on the Methods of Operative Ophthalmology by Professor Königstein. In Gynaecology and Obstetrics special courses

on operative treatment will be given by Peham, Savor, Braunteuwald, Dittel, Latzko, and on conservative treatment of Gynæcological Diseases by Herzfeld. This does not complete the list, as other courses on Dermatology and Syphilis, Cystoscopy, Radiotherapy, Neurology, Embryology, Hygiene, and Bacteriology will be given by various specialists. The greater number of all the courses mentioned will be given in the General Hospital, and some in the Poliklinik, about three minutes' walk distant, and a very few in other hospitals. The fees range from £1 1s. to £4 4s., and the duration of the courses from five to eight weeks.

MANCHESTER.

Southern Hospital for Women and Children.—Jewish Ward and Kitchen in Infirmary.

The report of the Manchester Southern Hospital for Women and Children states that the number of patients treated during the year was 5,805, while at the Maternity Hospital 1,820 cases were attended. The expenditure was £4,311 and the income £2,912, thus leaving a deficit on the year's working of £1,398. The Committee state that "knowing the pressure and urgency of the cases requiring treatment, it is deplorable that the income should be so much below the expenditure." In view of the increase of expenditure in the future when the institution is removed to large and more suitable premises, it is contemplated bringing the wants of the institution before the public. The design for the new buildings has been approved, the administrative block, containing the residential quarters for the medical officers and staff, and for students training in the Maternity department, will be placed facing Oxford Road and overlooking the free open spaces of Whitworth Park. Behind this block and connected by corridors are to be three blocks of wards for the Maternity Department, and for women and children. There is to be an isolation block for cases of puerperal fever which occur in home patient practice. It is intended to begin with accommodation for 60 beds, but when complete 100 beds will be provided.

The question of special hospital provision in the infirmary for those who are members of the Jewish community has often been discussed. Although the Jews of Manchester are erecting a hospital of their own, the question of providing a Jewish ward and kitchen in the new infirmary has again been brought into prominence. The Jews have agreed to bear the cost of erection, and to provide a Jewish cook, but they ask the infirmary to maintain it. The Board of Management remitted the question to the Infirmary Committee and the Building Committee, the former to deal with organization and the latter with the question of cost if it arose.

BIRMINGHAM.

The Birmingham and Midland Hospital for Women.—The New Hospital for Women.—Small-pox at Arley.

The annual meeting of the Birmingham and Midland Hospital for Women was held on April 20th in a large marquee erected on a portion of the foundations of the new hospital. The annual report showed that the total number of new and old cases treated in 1903 was 1,570, being an increase of 1,212 on the number of the previous year. The in patients were 345 and the number of operations performed 420. The income of the hospital for the past year amounted to £3,514, and the expenditure to £3,638, which received from subscriptions and £[illegible] from the Hospital Saturday collection. There was a balance of ordinary expenditure over ordinary income of £[illegible].

The New Hospital for Women in Stratford Road, Sparkhill, has long been found inadequate, and it has therefore been decided to erect a new hospital. The site for the new building has been secured at Showell Green Lane, Sparkhill; it is [illegible] that the number of beds there, while the operating theatre [illegible] which is a free open space, has been [illegible]. It is estimated that a sum of £[illegible] will be required to erect and equip the new building and towards this £[illegible] have already been promised. The foundation stone was laid by the President of the Hospital, Mr. Arthur Chamberlain, in the presence of a large gathering of the supporters of the charity. The new Hospital will be a [illegible] building of two storeys. In the centre will be the administrative block, containing a large entrance hall, the accommodation for the resident medical officers and the matron, the kitchens, offices and store rooms. At the back of this block are placed four ward units, two on each floor, each unit containing a ward for ten beds, an isolation ward for two beds, a duty room, bath room, pantry, and two laboratories placed at the corners, with a balcony between them, from which a staircase leads to the ground. A narrow balcony will run on each side of the wards on the first floor. These wards will be connected on the ground floor with the administrative block by a central corridor. Opening out of this corridor there will be the dispensary, surgical store rooms and other offices; the staircase will surround a large lift. On the first floor, immediately opposite the lift, will be two operating rooms, an anæsthetic room and a sitting room for the sister in charge. The hospital will contain forty-eight beds. At the south end of the central block it is proposed to erect a detached nurses' home, and at the north another detached building for the laundry, engineering department, and mortuary. A convalescent home is also being built and will probably be ready for occupation by September. The main building is expected to be finished in the early part of 1905.

About 30 cases of small-pox have already been notified at Arley, near Nuneaton. The majority of these are under treatment at the isolation hospital at Binley. The Chairman of the Rural District Council has intimated that when the epidemic is over he will draw attention to the greatly increased cost occasioned by people not having their children vaccinated.

SOUTH WALES.

A Discussion on School Hygiene.

At a sessional meeting of the Sanitary Institute, held at Cardiff on April 23rd, Dr. Walford, medical officer of health for Cardiff, in the course of an address on school hygiene in connexion with the duties and responsibilities of the new education authorities, said that the present moment was a suitable one for directing special attention to the subject of school hygiene. Recent legislation had transferred the management of our public elementary schools to the local authorities, already in existence, with other powers and duties, especially those concerned with public health. Practically the education authority and the sanitary authority were one and the same body; the present, therefore, was a fitting time for organizing a systematic and effective method of supervising the sanitation of schools and of putting the care of the health of the scholars on a more scientific basis than before. The comparative neglect of hygiene in connexion with school life in the past was probably due to erroneous ideas as to education. The development of the mind was looked upon as apart from the physical development of the body, regardless of the fact that the brain, the organ of the mind, was an essential part of the body. An original or acquired defect in the structure of the brain might render futile the best efforts of the most accomplished teacher. Impurities from the air taken into the lungs might enter the blood circulation and seriously affect the mental faculties of the pupil. It was therefore important that both teachers and pupils should carry on their work under the most favourable conditions. In the matter of school hygiene many other countries were ahead of us. The schools in America, Germany, and Switzerland compared favourably with any of those in this country.

The Sanitary Institute had recently interested itself in theoretical and practical course of instruction in hygiene for teachers. The syllabus would at once suggest the enormous advantage, to school children, of being under the control of teachers possessing a knowledge of these subjects. At the same time it must not be forgotten that many of the teachers in the elementary schools were quite alive to the importance of maintaining the schools under their control in a proper sanitary state. The active and intelligent co-operation of teachers was absolutely necessary to the success of any scheme of school hygiene. Probably the most urgently-needed reforms in most schools was improved methods of heating an artificial system of ventilation, and electric light. With the present desks and improper modes of handwriting, it was a wonder that spinal curvature, impaired vision and St. Vitus's dance were not more common. It was wrong to place a clever and healthy child at the same desk as a child suffering from some parasitic disease, the result of dirt and neglect. There should be single and properly adjustable seats. It was difficult at present to exclude those pupils who were physically unfit for school, and those suffering from infectious disease. A medical officer appointed by the Education Authority would remove the danger. The

Board of Education in 1901 issued a memorandum urging teachers to be watchful, and to exclude affected children. In the matter of diagnosis of visual defects, continued the Board, the school authorities were confronted with a difficulty owing to the fact that a large proportion of the cases required special care for their detection, and hence, unless expert knowledge were brought to bear, it was only too probable that many would be overlooked, to the detriment of children, who might be subjected to unjust censure and punishment as well as to the overtasking and further deterioration of their sight. The visitation of schools by suitable nurses, especially the infant departments, might have some advantage, but its adoption by voluntary associations in one or two big towns did not in any way meet the case or relieve the education authority from its responsibility. It was the primary duty of that authority to teach the children something by which they might obtain the means to live; it was one of the duties of the sanitary authorities to teach the people how to live. There was now before county councils, county boroughs, and to some extent the district councils, an opportunity for work in a national and imperial sense unequalled in their histories, while in a public health sense they had now an opportunity of eclipsing all previous records.

Dr. Howard Jones (Newport, Mon.) stated that the large amount of money spent in this country in the attempt to educate children under 4½ years of age was absolutely wasted; in fact, more or less permanent injury both to the health and mental aptitude of children was thus caused. He also referred to the great prevalence of measles and its high death-rate, etc., as being in a great measure due to the attendance at too early an age of children at school. The cleansing of schools was not what it should be. The floors, etc., were swept daily, and once every two months or so scrubbed out. The use of oil on the floor would, in the speaker's opinion, be a great improvement, as it would keep down the dust.

Dr. Herbert Jones (Hereford) referred to the Education Department as being the only public department without a medical expert.

Dr. Paterson (Cardiff) quite agreed with what Dr. Howard Jones (Newport) had said as to the attendance of very young children at school. He thought that it would be very much better if the money now spent in attempting to educate very young children were spent in the establishment of gymnasia for schools. This, Dr. Paterson contended, could be done without any addition to the rates. The need for physical training in this country was very evident from the fact that of the number of young men from our towns who joined the army a high percentage were on medical examination rejected as unfit, and of those who were accepted a large number were subsequently discharged as unfit for further duty.

Dr. Meredith Richards (Medical Officer of Health, Croydon) stated that he had three nurses who visited school children suffering from minor ailments, and advised the mothers as to the necessity or otherwise of calling in a medical man.

Dr. Tatham Thompson (Cardiff) said that from 3 to 5 per cent. of the children attending school suffered from defective eyesight. The percentage increased right up to the university, when it was between 30 and 40 per cent. Children generally were born long-sighted. It was in learning to use their eyes that the mischief was done—too close a vision and faulty illumination. The window space should be sufficient and well arranged; great care should be exercised in the colouring of the walls, so that the light should be diffused as much as possible. It might be convenient to parents to have their children (under 5) at school, but educationally it was of no value. Single desks were an absolute necessity, and these should also be adjustable. The speaker condemned in a most emphatic manner the use of slates and slate pencils, and also the "slant" writing, which he contended was conducive to defective eyesight and curvature of the spine.

Miss Kate Hurlbatt (Principal, Aberdare Hall, Cardiff) said there was something radically wrong in the management of girls. Many entered college with defective teeth, impaired digestion, weak eyesight, anaemia, and headache. The value of fresh air was not recognized by parents. It was most important that as much time as possible be spent in the open air in order that real intellectual work could be accomplished.

Dr. D. J. Thomas (Medical Officer of Health, Merthyr) referred to the selection of suitable sites for schools. These in many cases were built without any regard as to the prevailing winds, the result being that during a greater part of the year the inlets for ventilation acted as outlets and vice versa.

Dr. T. H. Morris (Chairman, Glamorgan County Education Committee) said that the greatest brake on the progress of education was the Board of Education in London, and if any of those present could suggest any means whereby that body could be made alive to its responsibilities a great deal of good would be done.

In addition to those who took part in the discussion there were present: Dr. Eben Davies, Swansea; Dr. J. D. Jenkins, Rhondda; Mr. Howells, clerk to the Education Committee, Rhondda; Mr. Harpur, borough engineer, Cardiff; Dr. Lloyd Edwards, Barry; Dr. W. H. Symon, Bath, etc., and several ladies.

In the afternoon a visit was made to the Isolation Hospital and Crematorium on the Flat Holme.

Dr. W. Williams (Medical Officer of Health to the county of Glamorgan), who had promised to deal with the subject from the point of view of county councils, was unavoidably absent.

Mr. J. H. Sugden, F.I.C.

Mr. J. H. Sugden, F.I.C., of the Cardiff and County Public Health Laboratory, has graduated M.Sc. in the Victoria University. The well-wishers of the laboratory and Mr. Sugden's many friends will be delighted to hear of his well-deserved success.

Midwifery Training.

The question of the training of midwives for South Wales and Monmouthshire has been the subject of a discussion between Principal Griffiths of University College, Cardiff, and a deputation which waited on him on behalf of the Cardiff and District Medical Association. The deputation, which consisted of Drs. Walford (M.O.H. Cardiff), M'Lean, Rhys Griffiths, Paterson and Morris, pointed out that under the new Act midwifery candidates must have attended a three months' course on anatomy and the theory of midwifery. The medical department of University College could, the Association considered, undertake the duty of giving this instruction better than any other body in South Wales and it therefore urged that the necessary theoretical courses should be established and the county councils of Cardiff, Glamorgan, and Monmouthshire invited to afford financial assistance. Three courses a year, each of twelve lectures, would probably be necessary. In reply the Principal stated that the College would be willing to undertake the responsibility of carrying out the scheme, if the three county councils could see their way to provide the necessary financial assistance and also establish certain free scholarships. A guarantee of a sum of about £150 per annum for five years would, he thought, probably meet the case.

CORRESPONDENCE.

A SELF-SUPPORTING HOSPITAL.

Sir,—In the British Medical Journal of April 16th I read with much interest a letter by "Medicus" on the subject of self-supporting hospitals. It is a subject which has interested me for some years. There is no doubt that the most deserving and the most useful classes are at present quite unprovided for in the matter of hospital discipline and nursing. It is also a fact that the converted houses which constitute the private nursing homes, with their unequal and badly-distributed rooms, impossible passages and lavatory arrangements, their lack of accommodation for the nurses, servants, or administration, leave much to be desired in efficiency as well as in economy of working. I dealt with this subject in a pamphlet which I published some few months ago. I think if "Medicus" considers the difficulties in the way he will not be very hopeful of starting special hospitals. The first difficulty is the vast capital necessary. When we consider that the working capacity of the proposed homes would have to be almost if not quite equal to that of our present charities; and also, if we consider the enormous cost that the public already bears for such purposes, it is obvious that it will not be easy to raise the sums required.

The second difficulty is the efficiency. Those who have had experience of the difficulties of running a nursing home will realize how necessary it is in the interests of efficiency as well as economy to have a place specially built for the work, and also how essential it is to be able to provide for a sufficient number of patients; in fact, how essential it is to centralize as far as possible all the local nursing and hospital

requirements. It is not enough to have a sufficient number of pay beds open to the public, but the actual cost price of these beds must be kept low. There is only one way of keeping them low enough to be really useful and low enough to give a sufficiently wide range of usefulness, and that way is to make use of the many idle hospital beds in the existing charities. There are reasons why the scheme should not be adopted in teaching centres, and also there are some provincial hospitals which have no room, but in by far the greater number of provincial charities there are more than enough spare beds to supply the want. Besides supplying a want which in the near future must be attended to, this scheme also goes a long way towards solving the question of charity hospital finance. The profits to be earned are considerable. If the average cost per bed in a charity is, say, 25s. a week, pay patients could be admitted at prices varying between 10s. and 42 10s. a week, and averaging, say, 30s. The actual out-of-pocket expenses would be very small, about 5s. a week each for food, etc. They would cost no more because there would be no need of any increase in the administration expenses, which would have to be paid in any case. Practically no extra nurses would be required and no extra servants, or heating, office expenses, lighting, rent, rates, etc. Therefore, not only would the beds pay their actual cost, but, by sharing the expenses of the existing charity beds, they would show a profit of thousands a year. Two small wards of ten beds each in an average provincial hospital would earn for that institution about £1,500 a year. Every doctor should have the right to send his cases into these wards and attend them there himself. I hope to deal more fully with this important subject elsewhere.—I am, etc.,

Bath, April 25th. J. R. BENSON, F.R.C.S.

MEDICAL ASSESSORS.

SIR,—Those of us who have seen something of medical evidence in "compensation cases" will commend the action of the county court judge of Stockport, described in the BRITISH MEDICAL JOURNAL of April 23rd. The rules adopted by him only provide for an assessor under certain circumstances. It seems desirable, however, that the judge should be assisted by assessors in all "compensation cases." The medical evidence always differs on some essential point. Previous consultations between the medical witnesses will not usually be consented to by the parties to the arbitration. In the event of appeal, the Court of Appeal might be assisted by an advisory "Court of Medical Appeal."

The way the decisions vary in different courts alone shows the necessity for altering the present procedure. In two cases on hernia an accident? in which the writer was recently engaged, and in which the facts were practically identical as far as the accident factor was concerned, the decision was by one judge for and by the other against the applicant.

Judges are hardly to be blamed for following the line of least resistance *post hoc ergo propter hoc* but it is well known how fallacious such reasoning is in medical matters. Before the Compensation Act all the colliers with pain in their backs used to come as out-patients suffering from "rheumatism"; now they have "strained themselves lifting a tram."

Medical witnesses liable to be biassed are salaried works or colliery doctors who may be dismissed by the men at a [illegible] assistants in works practices who have become disgusted by accidents [illegible]; men who have studied the case on the broken and bogy principle; men who are engaged by employers for the routine examination of their workmen. These and other varieties of possibly biassed witnesses, in addition to the case where there is an honest difference of professional opinion, all call for the appointment of medical assessors.—I am, etc.,

Cromer, April 25th. WILLIAM SQUIRE, M.S.Lond., F.R.C.S.

BLOOD-PRESSURE INSTRUMENTS.

SIR,—My attention has just been drawn to Dr. Mackenzie's letter, and I must [illegible] to his short reply in your last issue. It is quite evident to me that Dr. Mackenzie has learnt as the result of experience by the sphygmograph, which he made his first pressure observations to be open to the abnormalities of a new sense, but that is doubtless [illegible] for us. Yet we are now at the entrance to the valuable work he has done on the circulation. Nearly all the points he mentions have been in my mind for years, and I have done my best to show how they can be met; but it is difficult to get others to realize as one does oneself the importance of particular points in technique. Each one requires to be trained in the details of a method just as Dr. Mackenzie has trained himself in the sphygmographic line. We do not expect absolute perfection in blood-pressure instruments, nor in anything else.

In regard to my own instrument, from the first I have seen that if an observation is to be made on the radial artery that artery must be taut in its bed. To that end I directed that the wrist should be bent as far back almost as it will go without discomfort and rigidly kept there. I have seen even a professor of physiology begin all right and end all wrong, and then tell me he kept the wrist at the prescribed 45 degrees all the time when at the close of the observation it was at a much lower angle. The observer, while absorbed with the instrument, gradually relaxes the angle, and the record rises in proportion to that relaxation. To secure the right angle mechanically I have devised a simple wrist rest, which is made by Mr. Hawksley, 357, Oxford Street, W. The instrument is now mounted on a slide, which greatly simplifies and facilitates the use of it, and makes its readings more precise and accurate. It secures a mechanically true forward thrust of the pad, which is thus easily and delicately actuated by the thumb, and the handle gives perfect steadiness to the hand in applying the instrument.

In making observations large excursions of the indicator should be avoided, for then it is impossible to read with precision. When, however, they cannot be avoided, rubber caps (made by Mr. Hawksley) are used. The observer should, if possible, find some part of the artery which gives the least response; then he will be able to locate the reading within 2½ mm. In the physiological work just done I found no difficulty in distinguishing differences of 1 mm. There is one source of error which I have so far only casually referred to. Every now and then one meets with a case in which, after the lessening of the first development of the movement, a second begins on applying further pressure. I am not yet quite clear as to the cause of this second development: I only know that it does not represent the true arterial pressure, whereas the first does. I believe that many high records are thus produced. The observer should, therefore, carefully look out for the first reduction of the pulsation of the indicator, and he will avoid being misled.

My observations in tachycardia show that it is extremely difficult to make a reliable reading of the arterial pressure in that condition of the circulation. In the course of work I should think that I exclude 10, or perhaps 15, per cent. of all cases as unreliable for blood-pressure observation, either on the score of nervous excitation of the circulation or on that of structural unsuitability. Still I prefer the half-loaf rather than no bread. I am satisfied of one thing, that the clinical observation of the arterial pressure is one requiring the greatest care and tact. The influence of the nerves requires to be sedulously excluded as much as possible, and physiologists and physicians have not yet grasped the great importance of the physiological variations which form the very groundwork of the clinical study of blood pressure. As will be shown from some recent work, the time for accurate comparative observation during the day is quite limited. At present we are jumbling up normal with abnormal pressures, utterly disregarding a normal base line which does exist.

Exercising tact and caution I know nothing more valuable or more important in clinical observation than a well recorded arterial pressure; and a little experience of the right kind would soon assure Dr. Mackenzie of this fact. I am quite sure if he could be at my side during the coming season at Harrogate to the practical aspect of this matter would dawn upon him, and perhaps he might glance with more favour on my first love.—I am, etc.,

Harrogate, April 26th. GEORGE OLIVER.

THE INTRODUCTION OF PURE AIR INTO SEROUS CAVITIES.

SIR,—I am sorry that Dr. Theodoli A. Palm should have extracted from an untenable position with such bad grace. However, in this controversy I save the right to the last word and I propose to leave it to my fellow-disputants to say so. The question is not with me a personal matter, as Dr. Palm seems to think, but the question of Dr. Palm, in his anxiety to claim priority, trying to controvert a demonstrable fact. As a Scotchman he should have known that "facts are chiels that winna ding, An' downa be disputed."

It would have been much better if Dr. Palm had stuck to

what he did in 1886, which, so far as we know, he has not done since. However, being anxious that he should have all the credit to which he is entitled, I have read his article, "On Some Experiences with the Aspirator," in the *Edinburgh Medical Journal*, November, 1886. In this paper he refers to 2 cases where he allowed air to enter the pleural cavity in an even more careful manner than that described in his letter in the British Medical Journal, March 26th, 1904. In one of these two cases one aspiration sufficed; in the second two were required. He also refers to a third case in the following terms:

In contrast with these, I remember one case in which, while I was superintending the process of aspiration, the aspirator was accidentally detached from the tube, and there was a sudden rush of air into the pleura. The patient was not under my care, and I had not the opportunity of watching the progress of the case, but I heard that the case took an unfavourable course, and in the course of some months the patient died.

I have no doubt that if Dr. Palm had followed up and developed his method he would have made something out of it, but I shall leave it to others to estimate the amount of credit to which he is entitled after allowing his method to sleep for eighteen years, and then only waking up on the appearance of my lecture; and I think it will take a good deal of ingenuity on Dr. Palm's part to prove that what I have described as my new method of treating serous effusions is merely a replica of his.—I am, etc.,

Liverpool, April 23rd. James Barr.

PUERPERAL SEPSIS.

Sir,—I venture to suggest that we should hear less about puerperal sepsis if every puerperal patient were given a dose of opium on the conclusion of labour, and, at the same time, if the head of the bedstead were raised. No doubt the nervous system plays an important part in determining the intake of septic matter. A nervous patient is more inclined to sepsis than a phlegmatic individual. The medical attendant should insure proper contraction of the womb by manipulating that organ through the abdominal wall for twenty minutes after labour is concluded, and also bring about efficient drainage by causing the patient to lie on a slightly inclined plane. I remember a case where the nurse reported scanty lochia, which smelt badly on syringing. I immediately ordered the head of the bed to be raised, with the result that the lochia increased in amount and the odour became normal. The labour had been satisfactorily concluded. It was the after-drainage that was at fault; the vagina contained a pool.—I am, etc.

Bournemouth. Frederic Vicars, M.D.Brux.

Sir,—Probably there is no disease that gives so much anxiety to the general practitioner as puerperal sepsis. He attends the case, and after all is finished he feels pleased with himself and the relatives of the patient are all jubilant and charmed. This continues till the third or fourth day, when rigors and a rise of temperature perhaps come on. What is the cause? Septic poisoning! Why? Cases of sepsis are often put down to various causes such as influenza, milk fever, typhoid, but in the end they are septic poisoning. The great question for us all is where do the septic germs come from, and how do they get into the uterus? I believe that many of these germs exist in the hair and external parts of the mother. Acting on this supposition I have rendered these parts aseptic and with the best results, that is, I have not had a temperature for two years, including several operative cases (cephalotripsy, etc.). Of course the practitioner's hands are rendered perfectly aseptic; I then instruct the nurse to wash the external genitals with thoroughly germicidal soap and a nail brush for the surrounding parts. This done I cut off all the hair about the part, and with cotton wool wash the labia and all round with a solution of sublimate, 1 in 1,000. If the head is not too far down I douch with sublimate 1 in 3,000. After the child is born I always wash the external parts with sublimate solution, and for a week afterwards the nurse uses a douch of sublimate, 1 in 4,000, at first twice a day and after the first three days once in 24 hours. I think that in this way sepsis should become rarer. Amongst the poor particularly, the women are very careless and neglect to wash the genitals. Discharges give a grand hunting ground to any microbes. If these are hanging round the parts how easy for the examining finger, itself perfectly aseptic, to carry them up to the uterus, or at least into the vagina. Once there, where does it stop?—I am, etc.,

Derby, April 20th. Henry Barrett, M.B.

PAPILLIFEROUS CYSTS FROM SUDORIPAROUS GLANDS.

Sir,—I have just seen Mr. Betham Robinson's note on Papilliferous Cyst from an Axillary Sudoriparous Gland in the British Medical Journal of April 16th. He refers to the rarity of such growth and quotes Unna "that cysts of the sudoriparous glands are only known of the duct and not of the coil." In my paper on Hydrocystoma in the *British Journal of Dermatology*, No. 80, vol. vii, 1895, Mr. Robinson will find a photomicrograph showing an intracystic growth in a sweat cyst, and others showing that Unna's statement is not correct. In this I have been confirmed by Dr. Alex. Morton of Glasgow, Dr. Colcott Fox of London, and Dr. Thibierge of Paris, all of whom have seen my sections. In fact hydrocystoma is explicable as a disease of the coil rather than of the duct.—I am, etc.,

Hamilton, April 23rd. James Adam.

THE LEISHMAN-DONOVAN BODY FOUND AT OMDURMAN.

Sir,—I have just received a telegram from Professor Andrew Balfour, of Khartoum, informing us that the new parasite of man, *Leishmania donovania*, has been discovered by Dr. Sheffield Neave at Omdurman. Numerous researches now being made are showing the great importance of this organism, and the fact of its discovery in Egypt will be sure to be of interest to many of your readers.

I must add also that Dr. Bentley, of Assam, has kindly sent me preparations of smears from the spleen of cases of kala-azar. These smears verify his statement that the parasite occurs also in that disease. The organism appears to be a tissue parasite rather than one belonging specially to the blood. I venture, therefore, strongly to suggest the search for it, or similar parasites, in many other diseases such as the exanthemata, of which the causative agent is not at present definitely known.—I am, etc.,

Liverpool, April 18th. Ronald Ross.

THE STATE REGISTRATION OF NURSES.

Sir,—Those who consider that nursing reforms are urgently needed in this country and who are surprised that those reforms are being opposed, will be interested and amused to read Mr. Sydney Holland's letter in the British Medical Journal of April 16th. Interested to find that he evidently recognizes the advisability of making some explanation to the medical profession for the opposition of himself and his friends, and amused to observe how fragile his explanations are. Permit me briefly to summarize these:

1. "The matrons of almost all the leading training schools for nurses . . . will not serve on any such council" as the General Nursing Council. The Bill before Parliament provides that two matrons of general hospitals in London, two matrons of provincial hospitals, and one matron of a Scottish and one matron of an Irish hospital should serve on the proposed council. I regret to be obliged to point out to Mr. Holland that, on a council of some thirty persons all told, it would be a physical impossibility for "the matrons of almost all the leading training schools" to serve—even if they desired to do so. On the other hand, I can confidently inform him that there are far more than a sufficient number of such matrons who would be able and willing to take the seats which would be available for them on the governing body of their profession. I have no doubt note will be taken of the fact—which Mr. Holland must of course have full authority to state—that when Parliament creates a Nursing Council the matrons of the hospitals he specifies will refuse to serve thereon.

2. That "a nurse's certificate shows that she has gone satisfactorily through a recognized training school" and that therefore a nursing register is not needed. I assume that Mr. Sydney Holland cannot be entirely ignorant of the subject upon which he speaks so dogmatically. He must, therefore, be aware that a "nurse's certificate" in thousands of cases at present proves nothing at all. There are some 300 hospitals in this country which grant such certificates after one year or less, after two years or more, to those nurses who have worked in their wards. Such hospitals vary from 800 beds to 40 beds, or perhaps less—and the amount of the nurse's training as represented by her certificate, is at least equally variable. One cardinal reform which is hoped for is that every registered nurse shall have passed through a uniform curriculum of education, and shall have reached a minimum standard of efficiency in the responsible duties she may be

called upon to fulfil when her training is ended. On the other hand, Mr. Holland must be aware that numbers of women are now at work as nurses who are a disgrace to the whole calling and a danger to the public. They produce certificates—how obtained is immaterial—and by means of these gain admission into private houses in the most trusted capacity possible. At longer or shorter intervals, they appear in the police-courts, but on their release from prison are again able on the strength of the certificates, which Mr. Holland considers so infallible, to resume their career with its exceptional opportunities for safe and easy crime. It is fair to ask what single step have Mr. Holland and his friends taken in the last sixteen years to protect the public against such criminals posing as nurses? And if they have done nothing themselves, by what authority, or with what justification, do they attempt to prevent others from obtaining reforms which are so obviously and so urgently needed?

3. "One of the dangers of registration is the preaching of this idea(!) the making of the technical qualifications of paramount importance." It is somewhat difficult to deal with an argument which is transparently futile. It is certainly open to question whether "the preaching of an idea" could cause the slightest danger to any one. Does Mr. Holland imagine that a register could deal with anything but "technical qualifications," or does he consider that such qualifications in a nurse are of no importance at all?

4. "That every time any member of the public was disappointed with a nurse the cry would be raised, 'Give me never again a registered nurse, and thus would reflect to the detriment of the really good up-to-date nurses." It is at least satisfactory to find that Mr. Holland acknowledges that "the really good nurses" will hereafter be registered. But why this sudden pity for the public and for really good nurses? Has it never occurred to Mr. Holland how much more detrimental to the latter are the reflections now caused by the frequent spectacle of so-called "nurses" being condemned for criminal offences?

5. That those who are "for registration are only a few matrons and a few honorary officers of the Society for the State Registration of Nurses." I regret that there is only one word which fitly characterizes this assertion. Mr. Holland has no possible means of knowing all the support this movement has now received. Ignorance in some men—and those not the least honoured—induces a certain degree of modest diffidence; in others, of a different stamp, it may take the form of sublime self-confidence which obscures the truth. I venture to believe, from some knowledge of the facts, not only that the Nurses' Bill has received most wide and influential backing in Parliament, but that it has a very wide measure of support behind it both from the medical profession, the nurses—who are, I observe, ignored by Mr. Holland—and the public, who, I may remind him, employ the nurses, and will, whatever Mr. Holland wishes, have the final word to say in this matter. There is only one other point upon which I need at present touch. It would be interesting if Mr. Holland would reply to one simple question. If he believes that he and his friends are right in opposing nursing reforms, why do they not employ all the influence they can bring to bear to obtain the suggested inquiry by a Select Committee of the House of Commons into the whole question, and thus obtain the immense advantage of publicly explaining upon oath their objections to the registration of nurses? I am, etc.

London, W., April 18th. Bedford Fenwick.

*** We must appeal to correspondents who may be disposed to write on this subject to pay some consideration to [illegible]

TESTING THE EYESIGHT OF A NATION.

Sir, The address of the Optical Society, which is quoted in the British Medical Journal of April 16th, states:

"The public [illegible] when they visit an optician [illegible] diploma of the company, that they will be [illegible] treated as to the appliances [illegible] from which they may be suffering, but also that it is of equally great importance [illegible] the examination of some great [illegible] skill may be [illegible]."

A case bearing on this came under my notice a few days ago. I was consulted by a City gentleman to refract for vision, especially marked in the right eye. On examination I found that vision in this eye was reduced to fingers at 3 metres. Further examination disclosed some patches of choroiditis in the neighbourhood of the macula, floating opacities in the vitreous, and some opacities in the lens. He told me that when he had first noticed the vision of the eye failing he had consulted a well-known optician in the city, who had "made a full examination of his eyes, diagnosed syphilis as the cause of the trouble, told him the case was incurable, and of course prescribed glasses. He did not suggest that he should seek medical advice.

Now that we have the Midwives Bill passed into law no doubt we shall soon hear of a demand for the legal registration of these "diplomates" of the Spectacle Makers' Company. I am, etc.,

London, W., April 18th. John P. Henry, M.D., B.Ch.Dub.

Sir, I observe in the British Medical Journal of April 16th, p. 926, that you take notice of the new diploma which the Worshipful Company of Spectacle Makers has decided to grant for proficiency in eyesight testing. I think that these persistent attempts to encroach on the domain of the medical man ought certainly to receive some check. The aim and ambition of these self-styled eyesight specialists is that they shall be recognized by the public as persons who are properly qualified to prescribe and supply spectacles, and I fear that it is only the medical fraternity who are capable of appreciating the extent of their presumptuousness. The safeguard which this new diploma is said to contain about referring the serious cases to the oculist is no safeguard at all, since nothing short of a medical curriculum, followed by many years' clinical experience, can teach the difference between a morbid and a healthy eye, especially in those cases where for the time being the central vision is perfect or nearly so. I sincerely hope that the Medico-Political Committee will find some means to place the correct limitations to the sphere of the jeweller-optician, and to put some control over the misleading statements by which he lures the purchaser to his wares. I am, etc.,

April 25th. Associate.

ESPERANTO.

Sir, In your leading article on an International Language (February 6th) you say that Esperanto is as hard to learn as a "real" language. So far is this from being the case that its acquisition is more a recreation than a labour. You also say that, even when learnt, one has but acquired a body without a soul, a language without a history or a literature.

It has a history. Its history is the story of the lifelong labour of its author, Dr. Zamenhof, a member of our own profession, and of his patient efforts to overcome the opposition and natural indifference of mankind to any thing that savours of innovation. A literature will surely come in time: no language was ever born with one ready made. It has already commenced.

Briefly, Esperanto consists of a relatively small number of unchangeable root-words, the meanings of which can be extended by means of thirty-three affixes, so that each root word is, in itself, a small vocabulary. This power that it possesses of creating new words, drawn entirely from its own resources, and in which it resembles the old English (Anglo-Saxon) language, should appeal strongly to all English-speaking peoples. The majority of these roots are derived from the Latin; this fact ought to recommend it to the scientific world.

The grammar can be mastered in half an hour, and all rules are without exceptions! Being a phonetic language, it is as easy to speak as to read and write; and it has been proved repeatedly by actual practice that there is no variance in its pronunciation by persons of different nationalities.

For obvious reasons no modern tongue could ever hope to become international, and nowadays we are much too busy to acquire a colloquial knowledge of Latin. An easily learnt neutral language alone has any chance of success. Such a language is Esperanto.

As a member of our profession, Dr. Zamenhof has some claim on our sympathy and support in his good work for the benefit of the human race. I say good work, for if Esperanto is once adopted as a second language for all nations—we do not propose to displace national tongues—it would do more to aid the cause of universal peace than numberless Peace Societies and Hague Tribunals.

If you, Sir, would only give your invaluable aid you would [illegible] the greatness of the Esperanto world, and most probably

would induce many members of the Association to join our ranks.

Fifteen months ago Esperanto was almost unknown in England, although it had then made much headway all over the Continent. To-day there are many groups in various parts of the country and the London Esperanto Club publishes the *Esperantist* (3s. per annum). Among the contributors to this monthly magazine we find the name of Sir William Ramsay, himself an enthusiastic Esperantist. But the most weighty argument in favour of Esperanto from our point of view is the *Internacia Scienca Revuo*. Hitherto it has been almost impossible for us to keep pace with the times without a reading knowledge of English, French, and German, and more and more invaluable works are yearly given to the world in Italian and Russian. Now, however, thanks to this admirable monthly review, we are able to read in Esperanto a synopsis of the doings of the previous month all over the world. Here we indeed realize the practical value of Esperanto, and when we bear in mind that it is a language easily learned in odd moments from an eighteenpenny textbook and a dictionary costing half a crown, it is surely a matter worthy of more than passing comment.

I understand that the Librarian of the London Esperanto Club, 41, Outer Temple, will gladly give further information on the language which has provided me here in quiet Trinidad with an interest both agreeable and profitable. In conclusion, I will mention that a sample copy of this *Internacia Scienca Revuo* can be had for the sum of sixpence.—I am, etc.,

Trinidad, April 5th. A. M.

THE DIMINISHING BIRTH-RATE.

Sir, I have read with much interest the letters on "The Diminishing Birth-Rate" which have recently appeared in the British Medical Journal. Although it is idle to consider the reasons of this condition, still we need not refrain from discussion on that account. The point to which I would call attention is the, perhaps, minor one of attaching a stigma to the majority of English wives and mothers. I assume that since the diminishing birth-rate is so appreciable, it must be in consequence of the attitude of the majority, who fail to "produce" as many children as is physically possible. I should think that those unnatural women who "shirk motherhood" because they prefer their own pleasure might be wiser to continue doing so than to be affected by Mr. Roosevelt's words of wisdom, unless their whole idea of the use of life were altered. If those who do raise small families, as wisely as they know how, consider it undesirable to have large families, might not the stronger sex give them credit for a good motive instead of using the words "unblushing" and "criminal" to describe an act which ought not to be forced upon many hardworking women of the upper middle classes? It is said that we should not interfere with Nature, but although it is natural for disease to afflict humanity, it is not considered right to let Nature have her way there.

The wife of a country practitioner knows very well how an income of £350 goes. Rent, taxes, travelling, insurance, account for £150. Living for £100, dress for £50, wages for £50, and there is not much of a margin for provision for as many children as are physically possible. Such prospects are not hopeful for the education of the two or three children who may appear. Are we to blame the mothers who say, "We wish to do our best for our children, to give them a good education and start in life," and to praise those whose dragged-up family of nine is referred entirely to "The Lord's will" for its existence? I do not mean to insinuate that all large families are a failure in the matter of citizenship, but a large family is a luxury that cannot be thoroughly appreciated by the professional classes. Then there is a more selfish view to be taken. The good of the community is inseparable from the good of the individual, and may it not be right that modern women should desire to keep always ahead of their children; to be their "guide, philosopher and friend" when the leading strings are left behind—a progress which is hardly possible with a steadily-increasing family? One of your correspondents gives four cases which ought to appeal to his softer feelings for the weaker sex who bear so much of the burden of life. The cases of "Mrs. B." and "Mrs. C." are indeed pitiful, and I am sure that "N. F. R." treated them with all the kindness which I know doctors always exercise, although he uses two very strong words at the end of his letter to describe their wishes.—I am, etc.,

April 9th. Aesculapia.

THE METRIC SYSTEM.

Sir, If those who dispense their own medicines will adopt the metric system they will not give it up again. The gram is sufficiently large for us to regard it in the concrete, whereas a grain is a mathematical abstraction. It is easier to calculate in 1, 2, 3, etc., grams than in halves and quarters of a drachm, or in twelfths—meaning 5 gr. or in eighths—meaning 7½ gr. Then the fluid measure, the cubic centimetre, is the exact equivalent, whereas the ounce is 437 gr. and the fluid ounce is 480 drops. We remember a gram is 15 gr., and the transition to the drachm is easy. We must, however, in writing put grm. and gr. plainly.

The objection as to the point (.), which might be misplaced in a hurry, has force. Let the grain (apothecaries' weight) be made exactly the fifteenth part of the gram. For opium and the alkaloids, etc., where doses are very minute, the grain or minim might be retained, and we should still have liq. arsenicalis ♏iij or strychnine gr. $\frac{1}{30}$.

The Pharmaceutical Committee of the General Medical Council would have power, I suppose, to authorize this.

There is no reason for delay in using bottles divided in tenths, 20 c.cm. or 10 c.cm. to the dose, corresponding with tablespoons and dessertspoons. An inquiry I have addressed to a manufacturer of glass bottles elicits the following: "We shall be glad to make the necessary moulds and plates as soon as there is the slightest prospect of selling bottles from them."—I am, etc.,

London, S.W., April 21st. George Crichton, M.D.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE

The following appointments have been made at the Admiralty: Arthur E. Kelsey, M.B., B.A., Staff Surgeon, to the *Melampus*, temporary, April 20th; Charles M. Wood, Surgeon, to the *Implacable*, May 6th; Edward G. P. Causton, B.A., Surgeon, to the *Vivid*, May 6th; Penry G. Williams, Surgeon, to the *Impregnable*, for the *Inconstant*, April 26th; Charles M. Beadnell, Staff Surgeon, to the *Erebus*, April 30th.

The appointments of Surgeon C. M. Woods to the *Vivid* and of Surgeon E. P. G. Causton to the *Pembroke* have been cancelled.

ARMY MEDICAL STAFF.

Lieutenant-Colonel John Stannard MacAdam, late of the Army Medical Staff, died at Southsea on April 23rd, at the age of 66. He was the youngest son of the late Philip MacAdam, of Blackwater, co. Clare, and entered the service as Assistant-Surgeon, March 31st, 1862; was made Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1881; granted the rank of Lieutenant-Colonel, March 31st, 1882; and appointed Brigade-Surgeon-Lieutenant-Colonel, July 26th, 1887. He retired August 3rd, 1892. He had no war record in the Army Lists.

Lieutenant-Colonel John Henderson Whittaker, late Army Medical Department, died at Dublin on April 24th. His commissions were thus dated: Assistant-Surgeon, October 3rd, 1857; Surgeon, November 23rd, 1872; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, April 20th, 1883; and Honorary Deputy Surgeon-General on retirement, July 7th, 1884. He took part in the Fenian Raid into Canada in 1870 as Assistant-Surgeon, 69th Regiment, receiving a medal with clasp. He was Surgeon to the Royal Hibernian Military School in Dublin, to which he was appointed in 1885, relinquishing that position in 1901.

ROYAL ARMY MEDICAL CORPS.

Lieutenants R. M. Ranking, M.B., and F. H. Noke, M.B., from the Seconded List, to be Lieutenants, April 5th.

Lieutenant G. W. G. Hughes is seconded for service with the Egyptian Army, April 7th.

Lieutenant G. W. Smith, M.B., resigns his commission, April 23rd. He joined the department, September 1st, 1902.

Captain Henry Evered Haynes died on March 15th, in the province of Bahr-el-Ghazal, Soudan, aged 32. He joined the R.A.M.C. as Lieutenant January 28th, 1899, and was made Captain January 28th, 1902. He was employed with the Egyptian army from September, 1899, and was seriously wounded in action while serving in the Soudan. He had been awarded the 4th class of the order of the Medijidie.

Exchanges.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A Major, recently arrived home, is willing to exchange to either South Africa or Egypt in about four months' time for either whole or portion of tour. Please state terms to Medicus, c/o Holt and Co., Whitehall Place, London.

ARMY MEDICAL RESERVE.

Surgeon-Captain D. Todd is promoted to be Surgeon-Major, April 13th.

MILITIA.

Surgeon-Lieutenant-Colonel A. M. Adams 3rd Battalion the Cameronians (Scottish Rifles), is retired on account of ill-health, April 23rd; he is granted the honorary rank of Surgeon-Colonel, and retains his uniform.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last two months:

		From.	To.
Lt.-Col.	W. T. Johnston, M.D.	Bengal	Dublin.
,,	C. Seymour, M.B.	Bombay	Southampton.
,,	D. O'Sullivan	Belfast	Punjab.
,,	W. Hellerman	Templemore	Limerick.
,,	W. D. A. Cowen	Bengal	Alderney
,,	H. L. E. White	Punjab	Woolwich.
,,	J. L. Hall	Shoeburyness	Bombay.
,,	H. K. Allport, M.D.	Madras	Maid-tone.
,,	A. S. Rose, M.D.	Maryhill	Bengal.
,,	J. Battersby, M.B.	Dublin	Curragh.
,,	R. C. K. Ladlan	,,	Queenstown.
,,	E. O. Wight	Devonport.	Hounslow.
,,	Sir A. A. Brooke-Pechell, Bart., M.B.	Dublin	Belfast.
,,	C. R. Tyrrell	Dover	Shorncliffe.
,,	W. B. Thompson	Madras	Portsmouth.
,,	W. G. Macpherson, M.B., C.M.G.	North China	Jap. Army
,,	R. H. Moore, M.D.	Bengal	Aldershot.
Major	G. E. Russell, M.B.	Templemore	Tipperary
,,	A. E. C. Spence, M.B.	Belfast	Londonderry.
,,	L. R. Colledge	Newport	Devonport.
,,	W. T. Swan, M.B.	Portsmouth	Queenstown.
,,	J. S. Green, M.B.	Bengal	Dublin
,,	M. O'Halloran, M.D.	Dublin	Curragh.
,,	H. Cooke, M.B.	,,	Cork
,,	H. M. Adamson, M.B.	Devonport	Bodmin.
,,	H. H. Brown, M.B.	York	Sheffield.
,,	J. Will, M.B.	Portsmouth	East Africa.
,,	C. J. Macdonald, M.D.	Malta	Crete.
,,	D. M. O'Callaghan	Colchester	Bedford.
,,	F. R. Newsand, M.B.	Curragh	Bombay
,,	G. Scott, M.B.	Fort George	Edinburgh.
,,	T. Browning	Dublin	Mullingar
,,	J. J. C. Watson, M.D., C.I.E.	Maryhill	Bermuda.
,,	W. S. Dawman	Shorncliffe	Brighton.
,,	E. Caldwell	Aldershot	Bengal
,,	O. R. A. Julian, C.M.G.	Home District	Chatham.
,,	S. Macdonald, M.B.	Bengal	Woolwich
,,	A. C. Watson, M.B.	Punjab	Edinburgh.
,,	J. C. Morgan	D. York's Sch.	Bengal.
,,	C. A. Young	Punjab	Dublin.
,,	B. J. Innes	Bengal	Cork.
,,	A. S. Bole, M.B.	Dublin	Dundalk.
,,	A. P. Blenkinsop	Brighton	Bengal.
,,	V. H. W. Daveren	Madras	Devonport.
,,	J. Girvin	Cyprus	Home District.
,,	A. L. Luttrell	Aldershot	Bombay.
,,	A. W. Bewley	Hong Kong	Dublin.
,,	H. E. Winter	Crownhill	Cardiff.
,,	R. W. H. Jackson, M.B.	Punjab	Dublin
,,	G. A. T. Bray	Cardiff	Crownhill
,,	B. Forde, M.B.	Bengal	Templemore
,,	W. A. S. J. Graham	Egypt	Chatham
,,	C. Dalton	—	Dublin.
,,	A. F. Hardy	S. Africa	Dover.
,,	E. Beasley	Netley	Gosport.
,,	T. J. Leeman, M.B.	Kildare	Dublin.
,,	J. M. Dowell	Madras	Punjab
,,	I. A. O. MacCarthy	Bombay	Somaliland.
,,	[illegible]	Bengal	Uganda
Capt.	[illegible] M.D.	Perth	Edinburgh
,,	H. W. O'Reilly, M.B.	Limerick	Dublin
,,	[illegible], M.B.	Home District	Bombay
,,	[illegible]	Bombay	Madras
,,	[illegible]	Dover	Shorncliffe
,,	A. H. [illegible], M.B.	Devonport	Bristol
,,	[illegible]	Alton	Egypt Army.
,,	[illegible]	Aldershot	Alton
,,	J. P. Silver, M.B.	Devonport	Pembroke Dk.
,,	[illegible]	Portsmouth	Netley
,,	[illegible]	Dublin	West Africa
,,	[illegible]	Punjab	Newry
,,	[illegible]	Dublin	Bengal
,,	[illegible]	Madras	Aldershot
,,	[illegible]	Netley	Bermuda
,,	[illegible]	Punjab	R.A.M. Coll.
,,	[illegible]	Dreghorn	Exeter
,,	[illegible], M.B.	Bengal	Chester.
,,	[illegible]	...	...
,,	[illegible]	Aldershot	Birr
,,	[illegible]	Mauritius	Somaliland
,,	[illegible], M.B.	Bengal	...
,,	[illegible]	...	Chester
,,	B. O. Hall	Madras	Somaliland
,,	[illegible]	Aldershot	Aldershot
,,	[illegible]	Mauritius	Punjab.
,,	[illegible]	...	Bengal
,,	[illegible]	Bengal	Somaliland
,,	[illegible]	...	...
,,	[illegible]	...	...
,,	[illegible]	...	...
,,	[illegible]	...	Dublin
,,	[illegible]	Dublin	Shorncliffe
,,	[illegible]	...	...
,,	[illegible]	Bengal	Bengal
,,	[illegible]	Punjab	Cork
,,	O. Challis	—	Aldershot
,,	[illegible]	...	Bengal
Lieut.-Col.	[illegible]	Madras	Madras
,,	J. Colledge	Madras	Shorncliffe
,,	W. F. Trimble, M.B., C.M.G.	Bengal	Bengal
,,	W. B. Taylor	—	Madras
,,	H. J. Chesney	...	...
,,	R. L. V. Foster, M.B.	Woolwich	,,

		From.	To.
Lieutenant	J. G. Beel, M.B.	Aldershot	Madras.
,,	M. G. Wrieder	Curragh	Dublin.
,,	T. S. Coates, M.B.	Netley	Madras
,,	A. E. B. Wood, M.B.	,,	Bengal
,,	J. C. G. Carmichael, M.B.	,,	Madras
,,	E. H. Bridges	Aldershot	,,
,,	J. A. W. Webster	,,	,,
,,	R. C. Wilmot	,,	,,
,,	C. W. Holden	Curragh	West Africa
,,	H. B. Kelly, M.B.	Galway	Madras.
,,	E. M. Pennefather	Curragh	,,
,,	G. H. J. Brown, M.B.	Netley	,,
,,	B. H. V. Dunbar, M.D.	,,	Bombay.
,,	D. Ahern	Curragh	,,
,,	D. G. Carmichael, M.B.	Netley	Madras
,,	J. M. M. Crawford	Woolwich	Bombay.
,,	C. Bramhall	,,	Bengal
,,	T. E. Herty	,,	,,
,,	H. H. Swanzy	,,	,,
,,	H. T. Stack, M.B.	,,	,,

The undermentioned Lieutenants, appointed on probation, January 1st, 1904, are stationed as follows: W. F. Ellis, Woolwich; F. W. W. Dawson, M.B., Aldershot; J. H. Dugaid, M.B., Aldershot; G. W. G. Hughes, with Egyptian army. The following, appointed August 1st, 1903, are posted, thus: A. C. H. Gray, M.B., Uganda; D. P. Watson, M.B., and T. S. Tuidding, Netley; J. E. Powell, Woolwich; E. M. M. Chantler-Ley, Aldershot; O. Ievers, M.B., and R. H. MacNicol, M.B., Curragh; H. H. J. Fawcett and S. J. Pallant, Netley; N. D'E. Harvey, M.B., Curragh; C. R. Bradley, Netley; S. E. Lewis, M.B., and G. S. Kempthorne, Aldershot; J. T. McEntire, M.B., Curragh; F. M. G. Tulloch, Royal Army Medical College; P. J. Hanafin, Curragh; J. D. Richmond, M.B., Aldershot; E. M. Glanville, M.B., Woolwich; M. C. Wetherell, M.B., Netley; H. C. Hildreth, Aldershot; G. S. Mackay, M.B., Netley; W. MacD. MacDowall, Aldershot; R. T. Collins, Netley.

Lieutenant-Colonel J. Hickman, retired pay, has been placed in medical charge of troops at Gravesend.

Lieutenant-Colonel W. Babtie, M.B., V.C., C.M.G., D. Bruce, M.B., and I. E. Anderson have been selected for increased pay under Article 7 of the Royal Warrant.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel R. Macrae, M.B., Bengal Establishment, officiating Civil Surgeon of Hazaribagh, is appointed to officiate as Administrative Medical Officer and Sanitary Commissioner, Central Provinces.

Lieutenant-Colonel W. G. H. Hendelson, Bombay Establishment, is appointed Honorary Surgeon on the personal staff of the Governor-General of India.

Colonel W. R. Browne, M.D., Madras Establishment, is appointed to officiate as Surgeon-General with the Government of Madras.

Colonel V. M. Brantoot, M.D., C.I.E., late of the Madras Establishment, has been appointed to succeed Sir William Hooper as President of the Medical Board at the India Office.

Deputy Surgeon-General George Cocket Chesnaye, late Bengal Establishment, died on April 7th at Bournemouth in his 78th year. Appointed Assistant Surgeon, February 14th, 1849, he became Surgeon-Colonel, January 14th, 1882, and retired from the service in 1884. From 1854 to 1874 he was attached to the 3rd Bengal European Light Cavalry and to two troops of Bengal Horse Artillery. During this period he rendered excellent service at Mian Mir and Amritsar in the cholera epidemic of 1861, for which he received the high approbation of H.R.H. the Duke of Cambridge and H.E. the Commander-in-Chief in India. His war record is as follows: Hazara campaign, 1868, medal with clasp; Lushai expedition, 1871, mentioned in despatches, clasp; Afghan war, 1878-80, as Principal Medical Officer, and in charge of the Sirhind Brigade, 1st Division, being present at the capture of Ali Masjid, the expedition to Shuprare in December, 1879, the action of Sindand, the operations in Kohistan, the march from Kabul to the relief of Kandahar, and the battle of September 1st, on the following day being placed in charge of all the Native wounded mentioned in despatches, medal with three clasps, and Order of the Medjidie, Maori expedition, as Principal Medical Officer. He was in receipt of a Distinguished service pension, granted 1881.

Lieutenant-Colonel Edward Ferrand, M.D., Madras Establishment, died at Peshawar on March 9th, aged 53. He was appointed Assistant Surgeon September 30th, 1872, and was made Brigade Surgeon Lieutenant-Colonel September 30th, 1892. He was with the Burmese expedition in 1885, and with clasp in the campaign on the North-West Frontier of India in 1891, including the operations on the Samana, 1891-92 (for the Kurram valley during August and September, 1892, and of the relief of Chitral, medal with two clasps), and with the Tirah expedition in 1897-98.

IMPERIAL YEOMANRY.

Surgeon-Lieutenant E. M. Wilson, M.D., Derby Fife Regiment, to be Surgeon-Captain, April 16th.

Lieutenant C. Thompson, M.B., to be Surgeon-Major in the Northumberland Hussars Regiment, April 16th.

ROYAL GARRISON ARTILLERY VOLUNTEERS.

Surgeon-Major A. E. Cresswell, 3rd Devonshire, is promoted to be Surgeon-Lieutenant-Colonel, April 16th.

Mr. D. L. Davis, Llyan to be Surgeon-Lieutenant, April 9th.

VOLUNTEER RIFLES.

Lieutenant [illegible] Volunteer Battalion the Welsh Regiment, to be appointed Surgeon-Lieutenant, April 16th.

Surgeon-Lieutenant E. J. Bantock, M.B., 1st Volunteer Battalion, Durham Light Infantry, to be Surgeon-Captain, April 16th.

Surgeon-Captain Charles Colledge, M.B., 1st Bucks, is seconded while holding the appointment of Senior Medical Officer of the Home Counties Artillery Brigade, April 16th.

Mr. John C. Baker to be Surgeon-Lieutenant to the 1st Bucks, April 16th.

Mr. James Wood and Mr. Frank Forrinson to be Surgeon-Lieutenants to the 3rd Volunteer Battalion the Loyal North Lancashire Regiment, April 16th.

Surgeon-Lieutenant C. R. Fraser, 18th Middlesex (London Rifles), to be Surgeon-Captain, April 23rd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

The following is substituted for the notice which appeared in the *London Gazette* of April 12th: Major V. Matthews, the London Companies, to be Lieutenant-Colonel, and to command, under Paragraph 55A Volunteer Regulations, April 4th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Lieutenant R. Le G. Worsley resigns his commission, April 13th.

Lieutenant H. V. Crasier, 2nd South-Eastern District Company, resigns his commission, April 23rd.

ROYAL ENGINEERS (VOLUNTEERS).

Sub-Lieutenant E. S. Cardell, 1st Sussex, resigns his commission, April 13th.

CHANNEL ISLANDS MILITIA.

Mr Charles A. Bois, to be Surgeon-Lieutenant in the Royal Jersey Artillery, March 12th. Surgeon-Captain F. N. Gaudin, 2nd or East Battalion, to be Surgeon-Major, March 19th; Surgeon-Major P. B. Benetfi, from Royal Jersey Artillery, to be Surgeon-Major, 3rd or South Battalion (Medical Corps Section), from July 27th, 1901. Surgeon-Captain A. C. Stamberg, M.D., from 2nd or East Battalion Royal Jersey Light Infantry, to be Surgeon-Captain 3rd or South Battalion (Medical Corps Section), from February 21st, 1903.

THE PARKES MEMORIAL PRIZE.

The Parkes Memorial Prize, consisting of seventy-five guineas and a bronze medal, which is awarded every third year to the writer of the best essay on a subject connected with hygiene, will be awarded next in 1905. The competition is open to medical officers of the Army, Navy, and Indian Medical Services of executive rank on full pay, with the exception of professors and assistant professors of the Royal Army Medical College during their term of office. The subject of the next prize is On Sanitary Requirements of Naval and Military Units in Peace and War, with suggestions for Complete Schemes of Sanitary Organization suitable for both the Navy and Army. Essays must be sent to the Secretary of the Parkes Memorial Fund, Royal Army Medical College, Examination Hall, Victoria Embankment, W.C., on or before December 31st, 1905. Each essay must have a motto, and must be accompanied with a sealed envelope bearing the same motto and containing the name of the competitor.

BARRACK-ROOM EQUIPMENT.

"One of the Rank and File" of His Majesty's army, who does not belong to the medical department, writing from Woolwich, wishes to draw the attention of the medical profession in general, and of R.A.M.C. officers in particular, to the following matter. Barrack rooms are only supplied with an eight-gallon zinc tub intended for scouring purposes, two tea cans, and two ration tins. The zinc bath is usually, however, employed as a refuse tub and is not available for scouring purposes, especially on the upper floors of barracks. The result is that the ration tins used for drawing meat rations and intended for serving up vegetables are used for scouring purposes. The tea buckets are also used for the same purpose, and are mopped out and cleansed with the same implement as is used for mopping out the urine tubs. The writer "knows nothing about germs and their kin," but considers that these practices, which are the fault, not of the men, but of the lack of equipment, must foster disease. They are also disgusting and not, he believes, confined to Woolwich.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SMALL POX IN STOCKPORT.

The outbreak of small pox at Stockport has given rise to certain very serious proceedings on the part of the Stockport Sanitary Committee. It appears that on April 12th this body took proceedings against Ernest Pritchard, the Workhouse Master of the Northwich Union, and Dr. Gough, the Medical officer of the Northwich Union, "for that they did on February 13th, having charge of one James Foy, who was then suffering from a dangerous infectious disease, unlawfully expose the said James Foy without proper precaution against the spread of such disease in a certain place, to wit, the borough of Stockport." It appeared that the man in question was a pauper who had been discharged from the Northwich Workhouse. He was subsequently found in a Stockport lodging-house suffering from small pox.

At the outset Mr. Gordon Hewart (barrister) instructed by the Medical Defence Union, who appeared for Dr. Gough, took objection to the proceedings on the ground (*inter alia*) that the offence, if any, had been committed at Northwich, and therefore the case was not within the jurisdiction of the Stockport magistrates.

After hearing the arguments and after a consultation on the bench, the Chairman said that the magistrates considered it was very unfair that it should go forth that the Corporation of Stockport had acted arbitrarily in this matter. It had been stated that the medical officer of Stockport had communicated with the Northwich authority, and that a number of letters had been forwarded, and the magistrates were therefore justified in saying that the Northwich authority had had sufficient notice of legal proceedings. However, the magistrates upheld the objection that that court had no jurisdiction in the case and on those grounds they dismissed the summons against Mr. Pritchard and Dr. Gough.

THE ADVERTISEMENT OF AN UNREGISTERED PRACTITIONER IN NEWSPAPERS.

More than one correspondent has drawn our attention to the full-page advertisement in the *Daily Express* and *Daily Mirror* of Mr. Alabone and his method of curing consumption, and has asked whether no protest can be made against it. To our mind the worst feature about Mr. Alabone's advertisement is that it contains alleged testimonials from medical practitioners, whose names, with one exception, are not given but whose qualifications are set out in full. No doubt the publication of advertisements is a matter which mainly concerns the financial side of a newspaper, but we are informed that the managers of *Black and White* have been canvassing the medical profession for orders, offering copies at a reduced annual subscription; we should have thought, therefore, that this advertisement, which is mainly an attack upon the medical profession and its institutions, was calculated rather to deter than attract medical subscribers. Those who followed the correspondence that took place in the *Times* a few years ago and the result of Mr. Alabone's promise to disclose his methods should be able to put a correct value upon the claims he makes, but outside the medical profession comparatively few persons would interest themselves in the controversy.

QUACKERY IN BRADFORD.

On April 21st Lewis Hirst was summoned at the Bradford City Court on two charges of having practised as a medical man without being registered.

Mr. A. Neill (instructed by the Medical Defence Union) prosecuted; Mr. Hammond defended.

Mr. Neill stated that the defendant carried on the business of a quack doctor; that he issued large quantities of bills headed "King and Co." stating that he had sixty years' experience, and that he was the oldest specialist in the world. The bill also stated that a qualified surgeon was in attendance. Persons who had visited the defendant in his "professional capacity" were called for the prosecution.

The defence amounted to a denial of all the facts.

The Stipendiary said it was a very bad case. The public were greatly indebted to the Medical Union which had prosecuted. The defendant was little else than a quack. People who required medical assistance should be protected from such men.

The defendant was fined £25 and 13s. costs on the first charge and £20 and 13s. costs on the second charge, with the alternative of one month's imprisonment in each case.

CERTIFICATE FOR WORKMAN'S COMPENSATION.

M. C. asks what is the usual fee charged for examining an injured workman, and filling up a certificate on behalf of an employer of labour who had his workmen insured against accident. The man had just been attended professionally by the certifier, so no special visit was required; the amount of compensation involved was small.

*** Five shillings is an ordinary fee to charge for filling up the certificate in these cases. The amount involved is often small, and generally the medical certificate has only to state the nature of the injury and the probable duration of the disablement.

MEDICAL ETIQUETTE.

Devon.—C. was visiting in a village epidemic of diphtheria. X. (not a patient of C.'s) asked him to see his little boy. X. explains that he had sent for his doctor four hours ago, and has a boy dead from diphtheria in the house, and fears the second child will die. At first C. refuses to see the child as it is E.'s patient, he being the regular attendant; but, on being pressed by X., C. says he will see the case for E. He does so, and rides straight to E.'s house, two miles away, and urges E. to go at once. C. alleges that he is rude to him, and writes afterwards and accuses C. of unprofessional conduct. C. notifies the case. Was it wrong (1) to see the case as E.'s substitute in such an emergency? (2) To notify the case. Is it wrong for a medical man called in to an infectious case as a second opinion to notify the case?

*** (1) We do not see that C. could have acted otherwise. (2) He was legally bound to notify the case. The consultant called in as a second opinion to a case of notifiable disease is also responsible for its notification, but if it has been already notified by the practitioner first in attendance, it is not usual for the consultant to take any further steps.

THE FORM OF A DEDICATION.

Senex asks the best way in which a medical man should be described in the dedication to him of a piece of music?

*** This is purely a matter of taste, but we think it should run: "Dedicated by the Composer to A. B., M.A., M.D.Oxon."

THE BIOGRAPHIC PUFF.

Dr. Phineas Abraham (London, W.) sends us a copy of the correspondence he has had with the Editor of *Land and Water Illustrated* respecting a proposal made on behalf of that paper for what is called "a photographic interview" with Dr. Abraham for publication in a special supplement of that journal. Dr. Abraham in his reply, while courteously declining the proposal, very properly points out that the editor cannot be aware that respectable members of the medical profession are not accustomed to lend themselves to anything which savours of public advertisement.

*** This is unquestionably the right attitude to take towards such proposals, which are becoming increasingly common.

HOSPITAL AND DISPENSARY MANAGEMENT.

GUY'S HOSPITAL.

The report for the year 1903 shows that for the first time since 1884 all the wards have been brought into use, and that the institution ministered to a greater number of sufferers, both in-patients and out-patients, than in any previous year. The beds in occupation at the end of the year numbered 662, and the patients treated in the wards were 5,151, exactly 100 more than in 1902, and about 2,500 more than a decade ago. This increase is due in measure to the reopening of closed beds, but also to the acceleration of cure resulting from advancement in science, better nursing, and improved general conditions. Of the 5,151 patients, 2,566 were cured or relieved, 387 unrelieved, 661 died (as compared with 722 in 1902), and 511 were still under treatment. Of all the cases, 2,585 were medical and 2,566 surgical. The out-patients numbered 128,051, it is

stated that the propriety of their being granted charitable medical relief was in each case investigated by an out patient visitor. The total expenditure for the year was £35,462 11s. 8d., as compared with £[illegible] in 1902. The diminution occurred under the heading of extraordinary expenditure, indicating that building operations are nearing completion. Ordinary expenditure underwent but slight increase. As the ordinary income was £[illegible], and the extraordinary income from legacies and donations £17,114, there was a deficiency of £[illegible], which had to be borrowed, with the result that on December 31st last the hospital owed its bankers and others some £[illegible], and the amount temporarily withdrawn from the Re-endowment Fund was close upon £[illegible]. The Treasurer makes an urgent appeal for donations and subscriptions to pay off this debt. A sum of £[illegible] is in addition required to complete the Renovation and Building Fund; and additional income to the extent of at least £[illegible] per annum is necessary to keep the hospital free from debt in the future.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree Days.—Congregations will be held for the purpose of conferring degrees in Easter and Trinity Terms on the following Thursdays: May 19th, June 9th, June 23rd, and July 7th.

UNIVERSITY OF CAMBRIDGE.

Examiners.—Mr. D'Arcy Power and Dr. J. Rose Bradford have been appointed additional Examiners in Surgery and Medicine respectively for the Third M.B. Examination in the present term.

Examinations.—The following dates are published by the Registrary:

	Names Sent In.	Certificates Received	Examination Begins.
First M.B.	May 20th.	June 8th.	June 13th.
Second M.B.			
Third M.B., Part I. ...			

State Medicine.—Mr. H. E. Durham, M.B. (King's), Dr. J. J. W. W. Stephens (Caius), and Dr. L. H. H. Guillemard (Caius) have been appointed additional members of the State Medicine Syndicate, with special reference to the new examinations in Tropical Medicine and Hygiene.

Medical Preliminary Examination.—The following candidates have satisfied the Examiners in both parts of the examination for the diploma in Public Health:

E. Baines (Gonville and Caius), W. W. O. Beveridge, B. K. Chatterjee, T. A. Clinch, M. Coplans, E. K. Gawn, E. S. Gorman, A. E. Horsfall, H. L. P. Hulbert (Trinity), A. C. Ingram (St. John's), J. C. Jameson, R. Millar, T. Rhind, L. Swainston.

UNIVERSITY OF EDINBURGH.

OPENING OF THE EDINBURGH MEDICAL SCHOOLS.

THE University and extra-mural medical classes will be resumed for the summer session on Monday next, May 2nd.

The following is the official list of passes at the recent Professional Examinations for degrees in Medicine and Surgery:

First Professional Examination.—**G. J. Adams, R. C. Alexander, A. C. Barker, W. Beggs, J. A. Belcham, H. Blyth, W. Boyd, A. Brenner, F. V. N. Bruce, H. Burns, P. D. Cameron, P. Chalmers, G. Coats, C. L. A. Colebeer, H. M. Cook, A. C. Court, J. Crocket, F. J. Davidson, C. H. Derbyshire, J. A. Duggan, W. G. Evans, J. P. Falvey, J. Findlay, W. Fleming, K. Fraser, K. N. Ghosh, A. B. Gordon, F. G[illegible], A. G. M. Grant, R. D. L. Greene, J. O. H[illegible], R. W. Hardman, F. W. Hay (with distinction), W. S. Heron, A. M. Hewat, S. G. M. L. Homan, J. J. Jervis, M. J. Johnston, C. W. [illegible] A. W. Kendall, H. W. Kerrigan, A. E. Lee, A. E. Leggate, C. E. Leishman, C. J. Lowe, H. D. Low, G. J. Luyt, B.A., D. M'Carroll, J. G. M'Cree, W. S. M'Cree, J. Macdiarmid, J. V. Macdonald, T. MacEwen, A. E. M'Iver, G. M. Mackay, W. J. M'Keand, J. C. Mackenzie, E. R. D. Macrae, E. P. Maitland, N. Martin, W. L. Mayne, R. C. J. Meiser, B.A., J. F. Mitchell, T. S. Mitchell, J. A. Murray, [illegible], J. H. H. Pearce, A. A. W. Petrie, J. P. du Plessis, C. H. Price, I. M. Reid, J. Y. [illegible] Edinburgh, P. Roytowski, M. W. Rutherfurd, F. H. Salmond, Charlotte D. Schaeffer, F. Shannon, L. G. Stevens, [illegible], D. S. [illegible], I. D. Smith, W. B. Somerville, [illegible], H. M. Spoor (with distinction), W. A. Stewart, W. Stirling, W. Stonie, A. Tait, J. C. Tennant, Eleanor M. Thomson, A. E. [illegible], H. S. Wallace, F. K. te Water, and A. Watt.

Second Professional Examination.—[illegible] H. A. Acton, M.A., J. A. Ainscow, A. [illegible], R. C. E. [illegible], E. G. A. Bagnall, C. F. Bainbridge, C. E. M. Baker, D. M. [illegible], [illegible], Beattie, F. H. Block, E. Blad[illegible], [illegible], [illegible], Mary Brown, J. G. Brown, [illegible], [illegible], [illegible],

of Medicine for Women; F. W. White, College of Medicine, Newcastle-upon-Tyne.

The following candidates for the Third Examination for the Degree of Bachelor in Medicine have satisfied the Examiners:

Honours.—First Class: J. G. Gibb, St. Bartholomew's Hospital. Second Class: W. Fairclough, College of Medicine, Newcastle-upon-Tyne; R. J. Willan, College of Medicine, Newcastle-upon-Tyne.

Pass List.—G. N. Biggs, St. Thomas's Hospital; J. F. Bridge, Birmingham University; H. Drummond, College of Medicine, Newcastle-upon-Tyne; H. Drummond College of Medicine, Newcastle-upon-Tyne; A. Finlay, London Hospital; S. F. St. D. Green, M.R.C.S., L.R.C.P., Capt. R.A.M.C., St. Bartholomew's Hospital; A. B. Jones, College of Medicine, Newcastle-upon-Tyne; J. C. Norman, College of Medicine, Newcastle-upon-Tyne; J. C. Pearce, A.Sc., College of Medicine, Newcastle-upon-Tyne; L. M. Rosten, St. Bartholomew's Hospital; R. Rutherford, College of Medicine, Newcastle-upon-Tyne; R. G. S. Simpson, College of Medicine, Newcastle-upon-Tyne; A. A. Smith, M.R.C.S., L.R.C.P., Guy's Hospital; R. J. Weidner, College of Medicine, Newcastle-upon-Tyne; J. L. Wilson, M.A., College of Medicine, Newcastle-upon-Tyne.

UNIVERSITY OF DUBLIN.

The following degrees in the Faculty of Medicine were conferred by the University Caput on Thursday, April 21st:

Doctors in Medicine.—W. E. Grandy, J. Wallace.

CONJOINT BOARD IN IRELAND.

Candidates have passed the First Professional Examination as undernoted:

Honours.—A. E. S. Martin, E. Waide.

Pass.—P. H. Black, S. Blake, A. Curry, E. Evans, H. S. Johnston, G. S. Levis, F. Mahony, A. E. S. Martin, R. Power, G. W. Stanley, J. P. Zeederberg.

Completed the Examination.—W. Breen, R. J. Brookes, P. Ferguson, J. P. Grainger, C. A. O'Burne-Ryan, G. G. Stephenson, T. J. Williams.

Candidates have passed the Second Professional Examination as undernoted:

Honours.—G. Sheppard, T. J. O'Farrell, R. M. Bronté.

In all Subjects.—Miss H. O. D. Beamish, J. A. Buchanan, J. Crowley, H. J. Raverty, R. O. Kelly.

Completed the Examination.—P. M. Carroll, J. Damell, M. J. Kelly, B. C. A. Leeper, J. H. Lyne, J. G. M'Great, H. V. M'Keogh, J. O'Brien, W. B. Soady, M. Walters.

CONJOINT BOARD IN ENGLAND.

The following have passed the First Examination of the Board in the subjects indicated:

Chemistry.—A. Baxendale, Owens College, Manchester; A. C. B. Biggs, University College Hospital; H. V. Bettley-Cooke, A. J. Brown, C. Clarke, and R. E. Clarke, London Hospital; S. H. Browning, Guy's Hospital; J. P. Clarke, University College, Liverpool; R. Cock, Charing Cross Hospital; F. J. Craddock, St. Bartholomew's Hospital; E. E. Davies, University College, Bristol; A. W. Duncan and G. D. G. Ferguson, St. Mary's Hospital; H. W. Gabe, Middlesex Hospital; C. P. R. Harvey, London Hospital; H. W. Heasman, Guy's Hospital; H. L. Hughes, St. George's Hospital; H. G. Janion, University College Hospital; J. A. A. Kernahan, St. Bartholomew's Hospital; H. G. Kilner, Middlesex Hospital; C. E. Lowe, Westminster Hospital; G. H. Mead, St. Thomas's Hospital; C. A. Meadon, Birkbeck Institute; H. R. Mullins, Oxford University and Guy's Hospital; A. E. Nicholls, University College, Cardiff; F. T. O'Mahony, London Hospital; R. G. Oram, Guy's Hospital; C. E. H. Paley and W. N. A. Paley, Westminster Hospital; R. A. Parsons, St. Mary's Hospital; M. W. Phipps, Queen's College, Cork, and London Hospital; E. S. Pierrepoint, Technical Institute, Wandsworth; E. A. Pywell, St. Thomas's Hospital; R. B. N. Reade, St. Mary's Hospital; M. Remers and J. R. Rigg, Owens College, Manchester; F. Rendall, London Hospital; A. Rhodes, Birkbeck Institute; R. G. Riches, St. Bartholomew's Hospital; W. S. Simpson and P. E. Stibbe, Charing Cross Hospital; C. R. Start, Felsted School; D. Wainwright, Middlesex Hospital; W. H. Watson and F. J. Wheeler, Guy's Hospital; C. H. Welch, King's College Hospital; H. M. Williams, University College, Aberystwyth; H. A. F. Wilson, St. Thomas's Hospital.

Practical Pharmacy.—J. Avery and N. H. Bye, London Hospital; F. C. J. Baker, King's College and St. Mary's Hospital; E. J. Chambers, Westminster Hospital; R. J. Cyriax, Edinburgh University; J. W. Dadd and A. W. Eyles, Guy's Hospital; E. P. J. Dawes, Birmingham University; L. C. Ferguson, St. Bartholomew's Hospital; G. Finch, Yorkshire College, Leeds, and St. Thomas's Hospital; W. H. Flint, Birmingham University; B. M. Footner, King's College Hospital; R. Franklin and R. S. Harper, Guy's Hospital; L. A. Harwood, private study; S. Heathcote, Owens College, Manchester; A. T. Jackson, L.D.S.Eng., University College, Sheffield; H. H. Jenkins, Guy's Hospital; T. L. Kennion, University College, Liverpool; H. A. Lash, St. Mary's Hospital; J. D. L. Lloyd, Birmingham University; A. C. Martin, London Hospital; C. A. Meadon, private study; L. Myer, L.D.S.Eng., Guy's Hospital; H. W. Nicholls, Middlesex Hospital; O. S. Norton, Guy's and Westminster Hospitals; C. W. O'Brien and A. O'Neill, St. Bartholomew's Hospital; W. S. Orton, Guy's Hospital; E. S. Prior, University College, Bristol, and Middlesex Hospital; R. M. Rendall, D. H. Richards, G. C. F. Robinson, and H. W. B. Walling, Guy's Hospital; C. R. Start, private study; H. J. D. Walker, London Hospital; J. Warburton, Owens College, Manchester; S. Williams, University College, Cardiff.

Elementary Biology.—S. D. Adam, R. B. Adams and F. Basford, St. Mary's Hospital; E. B. Allnutt, J. J. H. Beckton and N. B. Benjafield, St. Bartholomew's Hospital; A. Baxendale and G. N. Braham, Owens College, Manchester; H. V. Bettley-Cooke, London Hospital; S. H. Browning, Guy's Hospital; C. J. Butler, Charing Cross Hospital; C. A. Caufman, St. Thomas's Hospital; E. J. Chambers, Westminster Hospital; J. P. Clarke, University College, Liverpool; R. E. Clarke, London Hospital; R. C. Clifford, St. Bartholomew's Hospital; R. Cock, Charing Cross Hospital; B. Dale, St. George's Hospital; D. Davies, London Hospital; S. A. Day, St. Mary's Hospital; J. W. Doherty, Birkbeck Institute; C. S. Douglas and A. Downes, St. Bartholomew's Hospital; J. G. Edwards, City of London College; B. G. Goodwin, Birmingham University; R. S. Graham, St. Mary's Hospital; G. C. Gray and P. Hall, St. Bartholomew's Hospital; E. J. D. Haining, University College, Bristol; M. Hallam, University College, Sheffield; P. T. Harper, St. Thomas's Hospital; W. G. Harrop, Owens College, Manchester; C. P. R. Harvey, London Hospital; L. A. Harwood, Birkbeck Institute; W. H. S. Hodge, St. Bartholomew's Hospital; G. P. Humphry, St. George's Hospital; H. G. Janion, University College Hospital; T. W. Jones, Charing Cross Hospital; C. E. Lowe, Westminster Hospital; R. H. S. Marshall, St. Mary's Hospital; F. L. Nash-Wortham and T. H. Oo, St. Bartholomew's Hospital; A. E. Nichols, University College, Cardiff; T. F. O. Mahony, London Hospital; T. G. Percival and C. C. Pickles, Yorkshire College, Leeds; A. B. Pettigrew, University College, Sheffield; M. W. Phipps, London Hospital; W. H. Pickup, Birmingham University; C. M. Plumptree and H. C. Pugh, Guy's Hospital; E. J. J. Quirk, Charing Cross Hospital; G. F. Randall, Middlesex Hospital; M. Remers, Owens College, Manchester; A. Rhodes, Birkbeck Institute; J. F. Richardson, London Hospital; A. B. Scott, St. Bartholomew's Hospital; W. S. Simpson, Charing Cross Hospital; H. Spitz, St. Bartholomew's Hospital; J. Startin, St. Thomas's Hospital; P. E. Stibbe, Charing Cross Hospital; J. E. Taylor, Yorkshire College, Leeds; H. H. S. Templeton, University College, Bristol; C. R. B. Von Braun and C. F. Willies, St. Bartholomew's Hospital; A. H. L. Thomas, H. E. Wall, J. L. Waller, and J. B. Webb, St. Mary's Hospital; D. P. Williams, Charing Cross Hospital; S. Williams, University College, Cardiff; H. A. F. Wilson, St. Thomas's Hospital; P. V. Wynne-Werninck, Merchant Venturers' College, Bristol.

CONJOINT BOARD IN SCOTLAND.

At the April sittings of the Conjoint Board held in Glasgow the following candidates passed the respective examinations for the triple qualification:

First Examination.—O. T. Jones (with distinction), F. G. Allan.

Second Examination.—N. B. Watch, J. H. M. Jones, H. Watson, J. F. O'Brien, T. M'Clure, J. P. Bamboat, J. J. O'Callaghan, W. C. Mann, E. A. S. Shaw, W. F. F. Durr, G. W. Hill.

Third Examination.—D. E. A. Buchanan, H. S. Gettings, T. P. Cox, W. W. N. Knox, W. W. Dempster, J. J. Egan, T. G. Campbell, Beatrice Fanny Board, P. Bateman, W. E. Davies, J. Wylie.

Final Examination.—Maud Farley Everett, W. H. Williams, E. N. Coutts, J. O'Brien, Beatrice Fanny Board, Eva Mary Handley, S. M'Carthy, E. Claye, J. L. Niven, A. M'Innes, C. E. Ross, J. O'Connor, H. F. Warwick, S. Cunliffe, J. B. L. S. Scott, R. H. Rigby.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, April, 1904.—The following candidates passed in

Surgery.—G. Dewick (Sections I and II), St. Thomas's Hospital; W. S. Gibson (Sections I and II), Manchester and Charing Cross Hospital; C. Kellgren (Section I), Royal Free Hospital; L. H. Lewis, Middlesex Hospital; H. J. May (Sections I and II), London Hospital; F. H. Hand (Section II), St. Mary's Hospital; A. B. S. Todd (Sections I and II), Leeds; T. R. Waltenberg (Section II), Manchester.

Medicine.—A. Anderson (Sections I and II), Leeds; G. J. Eady (Section I), St. Bartholomew's Hospital; J. H. Harrison (Section I), Sheffield; J. A. Kilpatrick (Section II), King's College Hospital; C. S. Scott (Section I), St. Bartholomew's Hospital; R. W. L. Wood (Sections I and II), Leeds.

Forensic Medicine.—M. O. Dollie, University College Hospital; G. J. Eady, St. Bartholomew's Hospital; H. R. Grellet, Guy's Hospital; H. G. Peel, Leeds; L. S. Veale, Royal Free Hospital; F. J. Waldmeier, London Hospital; R. W. L. Wood, Leeds.

Midwifery.—A. Anderson, Leeds; H. H. R. Bayley, Charing Cross Hospital; A. G. C. Findlay, University College Hospital; W. A. T. Lloyd, London Hospital; W. S. Mitchell, St. Mary's Hospital; E. D. Richardson, St. Mary's Hospital; A. B. S. Todd, Leeds; L. S. Veale, Royal Free Hospital; J. S. Ward, Sheffield; J. A. R. Wells, St. Thomas's Hospital.

The diploma of the Society was granted to G. Dewick, F. H. Hand, L. H. Lewis, H. G. Peel, and F. J. Waldmeier.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.

The following prizes have been awarded for the Winter Session, 1903-4. First Year's Students: J. A. Clark, the William Tite Scholarship, £25; R. W. Rix, College Prize, £20. Second Year's Students: H. J. Nightingale, the Peacock Scholarship, £35; A. C. F. Turner, College Prize, £20; H. G. Bennett, College Prize, £10. Fifth Year's Students: A. G. Gibson (medicine), £10; H. A. Kisch (surgery), £10; C. E. Palmer (midwifery and disease of women), £10; A. G. Gibson (pathology), the Haddon Prize, £10; F. A. Broadribb and E. W. Parry (forensic medicine and insanity) and K. Takaki (pharmacology and therapeutics), £5 each. The Mead Medal for proficiency in medicine, pathology, and hygiene was awarded to K. Takaki. The Wainwright Prize, £10, and the Seymour Graves Toller Prize were awarded to A. G. Gibson, of Christ Church, Oxford. The Cheseldon Medal for proficiency in surgery and surgical anatomy was awarded to H. A. Kisch.

THE MEDICAL DIPLOMATES' SOCIETY OF LONDON.

The last meeting of the London Licentiates and Members Society was held at 20, Hanover Square, W., on April 19th, again under the presidency of Dr. F. J. Smith.

The first motion, by Dr. A. Douglas Cowburn, was to send a "circular letter to the medical schools asking their support." Dr. Elliot-Blake rose on the first motion to propose an amendment that a new name be adopted for the new society—namely, "The Medical Diplomates Society," with or without the addition "of London." The Chairman, having agreed to place the amendment first, the speaker added that if a new society was to be formed he was in accord therewith, but rules should be framed. He said this was the only course open to them to follow, inasmuch as the London Licentiates and Members Society had been founded three years ago with the one object to petition the Colleges and the University, and this had failed. As to the "letter," he viewed it only as a preliminary matter, and would be content with it if simply used to obtain legitimate opinions and not to compose the sole policy.

Dr. H. Hilliard did not object to the new title, but certainly thought

"of London" should form part. The title, "The Medical Diplomates Society of London" was put to the meeting and carried as a substantive motion.

Dr. A. Douglas Cowburn then carried his motion that a letter be sent to the members of the staffs of the London medical schools. He was willing to comply to Dr. Elliot-Blake's suggestion that the names of the members of the Society should be obtained and attached to the letter.

Dr. F. W. Collingwood proposed that the statistics relating to the public medical examinations of the army and navy be included in the letter, but this was not carried.

The following members were appointed an Executive Committee: Drs. Smith, Hilliard, Langford, Elliot Blake, Cowburn, and Rose, the President to be a member ex officio. The meeting closed with cordial votes of thanks for the past assiduous services of the President and Dr. F. C. Langford, the Honorary Secretary. New members desiring to join the Society should address themselves directly to any member of the executive with the exception of the President.

OBITUARY.

JAMES FRANCIS TAPLIN, M.D., C.M.Glas.,

Small Heath.

It is with profound regret that we record the death of Dr. Taplin, the oldest medical practitioner in Small Heath, which took place at his residence, 414, Coventry road, on April 14th, and this regret is enhanced by the sad circumstances surrounding his sudden demise.

Dr. Taplin, who was 69 years of age, was born in Devonshire, and was the son of the Rev. James Taplin, a well-known Unitarian minister. When 16 years old he was apprenticed for a term of six years to Messrs. Pearse and Northey, surgeons, at Tavistock; in 1860 he sailed in the *Windward* of Peterhead on a whaling expedition to the Arctic regions in order to earn the requisite fees for completing his medical education. On his return he resumed his studies at Glasgow, acting for a time as dresser to Professor Lister, now Lord Lister, and finally graduated at that university, taking the degree of M.D. in 1863 and that of C.M. in 1865.

He went several voyages as a ship's surgeon to India, sailing via the Cape, as the Suez Canal route was not then opened, and then settled down as assistant to a surgeon at Shaftesbury in Dorsetshire. His exceptional abilities and industry were at once recognized, and he received an offer of partnership; but his love of travel and adventure was not yet satiated, and he accepted in preference an appointment on a tea plantation in Assam. Here he practised for a few years, and before returning to England in 1872 he also practised for a short time in Calcutta, where he was Junior Warden to a local Lodge of Freemasons. After his return to England he engaged in general practice in Small Heath, and his sudden death has come as a sad blow to his numerous friends and patients.

Possessed of a genial and cheery manner and indefatigable energy, he was greatly loved by all, whilst his wide experience and sound professional knowledge gained him a high reputation. Upright and conscientious in the highest degree, he was a man of broad human sympathies, ever at the call of the sick and suffering, whether rich or poor. For the last thirty-two years he devoted himself entirely to his practice and denied himself even much-needed rest and recreation in order to gratify the exacting demands of his oldest patients, many of whom owed their lives over and over again to his tireless devotion and attention. Until the very day of his tragic death he had been in active work, and it is difficult adequately to portray the gloom which has settled and has cast over the whole neighbourhood. If ever man was loved it was he, and his memory will be treasured as that of a kindly, honourable, and true-hearted gentleman. His son, Dr. Julian Taplin, has the deepest sympathy of the profession in the irreparable loss he has sustained.

Dr. [illegible] died at Southport on February 24th in the 54th year of his age. [illegible] time one of the most [illegible] practitioners in Lancashire and at the time of his retirement in 1897 the senior partner of the leading firm of medical practitioners in Burnley. He was born at [illegible] and received his early education [illegible] at Heaton Bridge and Huddersfield Collegiate School. [illegible] connexion with Burnley and [illegible] was established by his appointment up to Mr. [illegible] Lister, he entered at University College Hospital, London, where he proved himself an able and successful student. He gained the Lawrence Anatomy and Medal in 1868 and the Gold Medal for Anatomy in the same year. In the following year he received the Gold Medal in Comparative Anatomy, and was admitted a Member of the Royal College of Surgeons. In 1870 he became L.S.A., and four years later took the degree of M.D. at the University of London. The first three years after completing his formal career as a student he spent as demonstrator of anatomy at his old school of medicine and then went abroad and worked for some time in Paris. In 1875 he was taken into partnership by his old master, Mr. Stephen White, and after the death of the latter carried on the practice alone for several years. In 1879, however, he himself took a partner. His retirement in 1887 was due to ill-health, which, however, was not sufficiently pronounced to prevent him passing his time in travel abroad. Later on he settled down at Southport and there passed the remainder of his days. He was a life-governor of the Burnley Victoria Hospital and a few years before he gave up practice was appointed a Justice of the Peace for the County of Lancaster. Having begun medical work in the first half of the nineteenth century, he naturally had many interesting experiences to relate, and amongst others was that of the first operation performed under chloroform by Robert Liston. He died a bachelor.

On the afternoon of April 12th, Mr. Francis Joseph Lander was accidently killed when out bicycling with his wife, close by his house in Stamford. Running down a rather steep lane which opened into a main road he lost control of his machine and dashed into a passing dray horse. The base of the skull was fractured, and he received other injuries. He was brought home and lingered until shortly after midnight, when he died. Mr. Lander was a member of an old Leicestershire family; received his medical education at the London Hospital, and obtained the diploma of L.R.C.P. in 1880, and that of M.R.C.S. in 1891. He commenced his professional career as House Surgeon to the Nottingham General Dispensary. He subsequently practised in Nottingham, remaining there for about ten years, and was Medical Officer to the No. 1 Poor-law District. About a year ago after a severe attack of pleurisy the state of his health gave cause for grave anxiety, and he was strongly advised to leave Nottingham. This he did, and after travelling for some time, took a practice in Stamford four months ago. Here, completely recovered in health, and in what he considered ideal surroundings, he looked forward to spending many happy years, but it was not to be. Mr. Lander was of a singularly gentle and loving disposition; he was not a pushing man, and his interests were mostly centred in his profession. He had a sound knowledge of his work and succeeded in obtaining not only the confidence but also the esteem of his patients. He was a devoted husband and father and leaves a widow and one young son. He was 30 years of age.

It is with great regret that we have to record the death of Dr. N. M. Brown, of Spondon, near Derby. Dr. Brown was the eldest son of Mr. Adam Brown, a gentleman until lately in the Civil Service, and who survives his son. He was educated at Eccles Grammar School, where his abilities attracted the attention both of his masters and schoolfellows. Leaving Eccles, he entered Downing College, Cambridge. His university career was distinguished, and in due course he obtained the B.A. degree with first class honours in 1884, and was an Exhibitioner and Prizeman in Natural Science. Shortly afterwards he gained an open scholarship in Natural Science at St. Bartholomew's Hospital, and there completed his professional education. Subsequently he was appointed Assistant Demonstrator in Biology, a post he occupied for some time. In the year 1891 he became associated with the late Dr. Charles Cade, of Stroud, with whom he shortly afterwards entered into partnership. From that time he resided in Spondon and there carried on an extensive practice. Dr. Brown was an ardent Conservative in politics and took great interest in the welfare of the party locally. Some three years ago his health gave way as the result of repeated attacks of influenza. Change of climate effected no permanent improvement, and eventually he was advised to undergo treatment at the Cotswold Sanatorium, near Cheltenham. Unfortunately his case had been allowed practically hopeless, and he died there on March 29th, deeply regretted not only by his patients but by all his numerous personal friends. By his own desire his body was cremated at the Derby Bar Crematorium on April 5th.

Dr. Robert Hartley, of Pemberton, Wigan, who died on April 19th at his house Ashleigh, Orrell, near Wigan, in his 58th year, was a well-known figure in medical circles near Wigan. He had been in practice in Pemberton for thirty years, had a large general practice, and was especially beloved by the poor, who looked on him as a friend as well as medical attendant; whatever "Robert" said was taken as gospel. He was educated at the Wigan Grammar School, afterwards was apprenticed to a chemist, but, deciding on medicine as a profession, he proceeded to the School of Medicine, Manchester, and became M.R.C.S.Eng. and L.R.C.P.Edin. in 1874. Soon afterwards he was appointed Medical Officer of Health to the Pemberton Local Board, which afterwards became the Urban District Council, and only a few years ago his appointment was made permanent in recognition of his long and faithful services. He was also Union Medical Officer and Public Vaccinator for the Pemberton District of the Wigan Union. In addition to his professional duties he was Chairman of the Orrell District Council for some years, and also after a severe contest was elected a County Councillor of Lancashire for the Pemberton and Orrell Division of the Council, only resigning both positions quite recently; by virtue of his position as Chairman of the Orrell District Council he was a J.P. for the county of Lancashire. In July last he found he had some rectal inconvenience associated with pain; but it was not until later that he called in Dr. Wolstenholme, his neighbour, and his friend Mr. Berry, Wigan, who discovered that he was suffering from cancer of the rectum. Sir William Banks kindly saw him with a view to operation, but it was discovered that little prospect of success could be held out. He patiently bore his suffering till the end. He leaves a son and two daughters to mourn his loss. He was interred at Upholland Church on April 22nd, the funeral being a large and representative one.

Mr. Hugh Prytherch, M.R.C.S.Eng., L.R.C.P.Edin., died on the last day of March of pneumonia at the age of 52 years. He studied medicine in Dublin in the Seventies, and for a considerable time he assisted the late Dr. Roberts, Portmadoc. Here he gained an excellent insight into general practice, which stood him in good stead during his professional life. In 1877 he began practice on his own behalf at Menai Bridge, Anglesea, and, being a man of commanding appearance, genial and sympathetic, he very rapidly gained the confidence of his patients and very soon developed a large practice and became highly popular and well known throughout the island. He was very fond of his profession and hardly ever took any relaxation from heavy professional work and the anxieties attached thereto, and no doubt this to a considerable degree brought his professional career to a premature close. He held the appointment of medical officer and public vaccinator to the Bangor and Beaumaris Union and was for many years a member of the North Wales Branch of the British Medical Association. He was also a prominent Freemason and held high provincial honours. He was buried on April 5th at Bethel, where a large concourse of patients and friends came to pay him their last respects. It might be said of him in the truest sense of the word that he was "A man who loved his fellow-men."

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,586 births and 4,[illegible] deaths were registered during the week ending Saturday last, April 23rd. The annual rate of mortality in these towns, which had been 18.7, 18.4, and 17.6 per 1,000 in the three preceding weeks, further declined last week to 16.0 per 1,000. The rates in the several towns ranged from 5.1 in Willesden, 7.0 in Handsworth (Staffs.), 7.1 in Hastings, 7.2 in Newport (Mon.), 7.7 in Hornsey, 8.5 in Leyton, and 9.7 in Tottenham and in Devonport, to 20.6 in Oldham, 20.7 in Sunderland, 20.9 in Birkenhead, 21.8 in Burnley, 22.0 in Manchester, 22.4 in Birmingham and in St. Helens, and 25.6 in Warrington. In London the rate of mortality was 16.0 per 1,000, while it also averaged 16.0 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six large towns; in London the rate was equal to 1.8 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 3.2 in Salford, 3.3 in Huddersfield, 3.4 in Bootle, 3.5 in Manchester, 3.7 in Walthamstow, 4.1 in Burnley, 4.3 in Birmingham, in Wallasey, and in Rhondda, 5.4 in Warrington, and 7.1 in St. Helens. Measles caused a death-rate of 1.4 in West Ham and in Walthamstow, 1.6 in Huddersfield, 2.3 in Norwich, 2.5 in Brighton, 2.6 in Hornsey and in Wallasey, 3.1 in Burnley, 3.6 in Rhondda, and 6.5 in St. Helens; scarlet fever of 1.5 in Warrington; and whooping-cough of 1.7 in Walsall and in Wallasey, 1.9 in Leicester, 2.2 in Swansea, 2.3 in Birkenhead, 2.5 in Bootle, 3.0 in West Hartlepool, 3.1 in Birmingham, and 3.9 in Warrington. The mortality from diphtheria, from "fever," and from diarrhoea showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Manchester, and 1 each in London, Nottingham, Gateshead, and Tynemouth, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 123 small-pox patients at the end of last week, against 120, 134, and 144 at the end of the three preceding weeks; 23 new cases were admitted during the week, against 42, 25, and 37 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,570, 1,505, and 1,523 on the three preceding Saturdays, had risen again to 1,543 on Saturday last, the 23rd inst.; 210 new cases were admitted during the week, against 153, 141, and 172 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 23rd, 1,017 births and 695 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 20.6, 20.3, and 20.9 per 1,000 in the three preceding weeks, further rose last week to 21.0 per 1,000, and was 5.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.0 in Leith and 17.8 in Edinburgh to 25.8 in Dundee and 26.2 in Perth. The death-rate from the principal infectious diseases averaged 2.4 per 1,000 in these towns, the highest rates being recorded in Glasgow and Dundee. The 339 deaths registered in Glasgow included 2 which were referred to small-pox, 19 to measles, 3 to scarlet fever, 7 to whooping-cough, 3 to "fever," and 6 to diarrhoea. Five fatal cases of whooping-cough, 3 of measles, and 3 of diarrhoea were recorded in Dundee; 6 of whooping-cough and 3 of measles in Edinburgh; 7 of whooping-cough in Aberdeen; and 2 of whooping-cough and 1 of small-pox in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending April 9th, 495 births and 485 deaths were registered in six of the principal Irish towns, against 527 births and 470 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.9, 24.5, and 25.8 per 1,000 in the three preceding weeks, fell to 25.5 per 1,000 in the week under notice, this figure being 7.1 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 16.4 in Londonderry and 21.9 in Limerick to 31.1 in Dublin and 32.2 in Cork. The death-rates from the principal zymotic diseases during the same period and in the same six towns averaged 2.1 per 1,000, or 0.9 per 1,000 higher than during the preceding week, the highest figure, 3.4, being reached in Cork. Whooping-cough, as for several weeks past, was again the principal cause of death from zymotic disease throughout Ireland, but 4 deaths from measles were recorded in Dublin and 1 in Belfast. During the following week ending April 16th, 635 births and 438 deaths were registered in the same six towns, against 495 births and 485 deaths in the preceding period. The mean annual death-rate of these towns, which had been 24.5, 25.8, and 25.5 per 1,000 in the three preceding weeks, fell to 23.3 per 1,000 in the week under notice, this figure being 5.7 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12.7 in Limerick and 17.6 in Londonderry, to 26.9 in Belfast and 31.2 in Waterford. The death-rate from the principal zymotic diseases during the same period and in the same six towns averaged 1.1 per 1,000, or 1.0 lower than during the preceding week, the highest figure, 3.2, being reached in Belfast, while Cork, Limerick, and Waterford registered no deaths under this heading at all. Whooping-cough showed a slight diminution, but caused 11 deaths in Dublin and 10 in Belfast. The deaths from measles increased, 4 being registered in Dublin and 7 in Belfast: 1 death from enteric and 1 from diarrhoeal disease occurred in Belfast, and 6 deaths from diphtheria were recorded in various parts of Ireland.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1904.

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the first, or winter, quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 33,254 births registered in London during the three months under notice were equal to an annual rate of 28.7 per 1,000 of the population, estimated at 4,647,387 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates had been 30.1, 30.8, and 29.1 per 1,000 respectively, the average rate for the first quarters of the ten years 1894-1903 being 30.9. The birth-rates last quarter ranged from 15.2 in the City of London, 16.0 in Hampstead, 17.5 in the City of Westminster, 20.8 in Kensington, and 22.0 in Stoke Newington, to 34.5 in Bermondsey, 34.7 in Poplar, 36.0 in Bethnal Green, 37.6 in Finsbury, and 37.9 in Stepney.

The 20,604 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 17.8 per 1,000, against 18.6, 21.3, and 16.8 per 1,000 in the first quarters of the three preceding years; in the corresponding quarters of the ten preceding years the mean rate was 20.5 per 1,000. The death-rates last quarter in the various metropolitan boroughs ranged from 12.6 in Hampstead, 12.7 in Lewisham, 14.5 in Stoke Newington, 15.0 in Woolwich, 15.4 in Wandsworth, and 15.7 in Fulham, to 20.7 in the City of London and in Shoreditch, 21.3 in Poplar, 21.5 in Finsbury and in Bermondsey, and 22.5 in Southwark.

During last quarter 1,852 deaths were referred to the principal infectious diseases; of these, 8 resulted from small-pox, 670 from measles, 81 from scarlet fever, 204 from diphtheria, 595 from whooping-cough, 54 from enteric fever, 1 from simple continued fever, and 239 from diarrhoea, but not any from typhus. These 1,852 deaths were equal to an annual rate of 1.61 per 1,000, against an average rate of 2.14 per 1,000 in the corresponding periods of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0.51 in the City of London, 0.71 in Stoke Newington, 0.75 in the City of Westminster, 0.82 in Hampstead, 1.01 in Islington, and 1.02 in Lewisham, while the highest rates were 2.04 in Stepney, 2.05 in Shoreditch, 2.08 in Battersea, 2.38 in Poplar, 2.45 in Bermondsey, 2.47 in Southwark, and 3.04 in Hammersmith. Measles showed the greatest proportional fatality in

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1904.

BOROUGHS.	Estimated Population middle of 1904	Births.	Deaths.	Annual Rate per 1,000 Living: Births	Deaths	Deaths from Principal Infectious Diseases	Deaths from Principal Infectious Diseases	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
COUNTY OF LONDON	4,649,088	5,274	20,604	28·7	17·8	1·61	1,182	6	670	11	294	111	—	54	1	239	2,035	133
Paddington	142,27	351	602	23·5	19·1	1·45	68	—	30	4	5	6	—	—	—	2	42	145
Kensington	175,3	931	741	20·8	16·6	1·58	71	—	47	—	5	6	—	1	—	12	70	128
Hammersmith	112,41	501	557	27·4	13·6	3·84	89	—	76	—	2	3	—	1	—	7	49	145
Fulham	130,42	1,014	647	33·0	16·7	1·61	61	—	19	—	19	12	—	1	—	9	66	142
Chelsea	74,329	427	318	22·8	19·3	1·89	35	—	19	4	1	7	—	—	—	4	41	151
City of Westminster ...	177,21	778	722	17·4	16·3	0·75	33	—	14	2	—	4	—	1	1	5	55	125
St. Marylebone ...	130,37	977	757	30·1	19·6	1·63	51	—	25	2	4	5	—	2	—	12	68	88
Hampstead	[illegible]	345	261	16·0	12·1	0·80	17	—	9	1	1	3	—	—	—	3	16	143
St. Pancras	243,26	1,559	1,144	27·1	19·4	1·63	104	—	45	10	14	24	—	1	—	7	117	146
Islington	331,04	2,275	1,438	27·—	16·9	1·61	98	1	20	5	9	37	—	2	—	11	157	104
Stoke Newington ...	52,445	282	179	22·0	14·5	0·68	9	—	—	2	2	5	—	—	—	—	25	168
Hackney	220,—	1,443	902	27·4	17·—	1·65	60	—	12	4	16	20	—	4	—	4	86	119
Holborn	57,10	405	287	1	20·1	1·47	21	1	17	—	1	1	—	—	—	1	37	113
Finsbury	92	947	—	37·6	23·5	1·17	29	—	5	3	5	11	—	—	—	5	78	120
City of London ...	23,482	80	121	15·2	20·7	0·51	5	—	—	—	1	2	—	—	—	—	9	124
Shoreditch	112,33	1,004	764	34·4	20·7	2·05	60	—	17	3	5	29	—	—	—	6	47	166
Bethnal Green	130,07	1,067	653	36·0	20·1	1·72	—	4	10	3	13	17	—	1	—	8	82	139
Stepney	300,51	2,868	1,537	37·9	20·3	2.04	154	—	45	5	22	55	—	6	—	21	154	142
Poplar	167,20	1,469	964	34·7	21·3	2·36	101	1	20	3	23	43	—	2	—	7	82	144
Southwark	207,937	1,716	1,169	33·1	22·5	2.47	125	1	51	1	9	45	—	5	—	16	117	177
Bermondsey	123,07	1,111	764	36·1	24·8	2·45	79	—	22	5	2	36	—	2	—	12	64	157
Lambeth	301,54	[illegible]	1,365	29·—	17·—	1·41	116	—	44	5	10	25	—	5	—	21	122	122
Battersea	170,4	1,07—	714	29·0	16·3	2·08	91	—	19	2	6	39	—	5	—	20	80	150
Wandsworth	2[illegible]	1,742	990	27·1	15·4	1·20	77	—	27	6	10	22	—	3	—	9	97	114
Camberwell	2[illegible],754	1,855	1,[illegible]79	27·7	16·1	1·43	[illegible]	—	35	1	6	38	—	4	—	9	95	129
Deptford	1[illegible],5[illegible]	[illegible]	408	[illegible]·3	17·6	1·82	53	—	11	5	8	27	—	—	—	2	42	125
Greenwich	1[illegible],—	[illegible]	411	26·3	16·2	1·58	43	—	4	1	6	31	—	1	—	5	39	147
Lewisham	14[illegible],401	[illegible]3	445	28·9	17·7	1·02	[illegible]	—	4	1	4	19	—	—	—	8	30	123
Woolwich	1[illegible],416	[illegible]28	463	29·—	15·0	1.40	43	—	4	3	3	23	—	1	—	8	53	120

Paddington, Kensington, Hammersmith, Chelsea, Holborn, and South wark; scarlet fever in Chelsea, St Pancras, Stoke Newington, Finsbury, Bermondsey, and Deptford; diphtheria in Fulham, Hackney, Bethnal Green, Stepney, Poplar, and Deptford; whooping-cough in Shoreditch, Finsbury, Bermondsey, Battersea, Deptford, and Greenwich. Typhus in the City of Westminster, St Pancras, Hackney, Stepney, Southwark, and Battersea; and enteric fever in St Marylebone, Stepney, Southwark, Bermondsey, and Battersea. Of the fatal cases of small-pox, five occurred in Bethnal Green, and one each in Islington, Holborn, Finsbury, and Southwark.

During the first quarter of 1904 deaths from phthisis were registered, equal to the annual rate of 1·— per 1,000 living, and 1·— to the corresponding rate of the three preceding years. Among the [illegible] boroughs the lowest death-rate from phthisis was recorded in Paddington, Hampstead, Westminster, Kensington, Fulham, Chelsea, and Lewisham, and the highest rates in Greenwich, Southwark, Finsbury, Bethnal Green, Stepney, and Shoreditch.

The mortality caused by the proportion of deaths among children under 1 year of age registered during the quarter was equal to 1·— per 1,000 living, and was in the corresponding quarters of the four preceding years [illegible]. The rates of infant mortality during the quarter were highest in St Marylebone, Islington, Stoke Newington, Hackney, Holborn, Finsbury, Shoreditch, Stepney, Poplar, Southwark, Bermondsey, and Battersea, while the lowest rates were recorded in Chelsea, Hampstead, Greenwich, Lewisham, and Woolwich.

PLUMBERS EXAMINATION

[illegible] held at Bridge College [illegible] under the direction of the Plumbers' Company [illegible] Lambeth proved. The examiners were [illegible]

CROYDON WATER

[illegible] that there appeared [illegible] Croydon Water Supply [illegible] from [illegible] Mr. Dibdin's report [illegible] Mr. Dibdin [illegible] Croydon [illegible] Mr. Dibdin [illegible] Croydon [illegible] Mr. Dibdin [illegible] Croydon

BURNET, James, M.A., M.B., M.R.C.P. Edin., Registrar to the Royal Hospital for Sick Children, Edinburgh.
DAWKIN, G. M., M.R.C.S., L.R.C.P. Lond., District Medical Officer of the Pontypridd Union.
EATON, W. S., M.B., Ch.B. Edin., District Medical Officer of the Whitehaven Union.
HALL, D. G., M.D., B.C. Cantab., House Physician to the Sussex County Hospital, Brighton.
HENDRY, J. D., M.B., C.M. Aberd., District Medical Officer of the Poplar Union.
HUTCHINSON, T., M.R.C.S., L.R.C.P., Medical Officer of the Cam. ... Union Workhouse.
KIRK, T. D., M.D., Ch.B. ... R.U.I., Medical Officer of the Workhouse and Public Vaccinator for the Berriew District of the Forden Union.
NORTON, Edward F., M.R.C.S., L.R.C.P., D.P.H., Medical Superintendent of the Brentford Union Infirmary.
O'MEARA, W. H., M.R.C.P., L.R.C.S. Ire., Medical Referee under the Workmen's Compensation Act for County Carlow.
OXFORD, T. C., M.R.C.S., L.R.C.P. Lond., District Medical Officer of Grenada, West Indies.
SMITH, S. H., M.B., M.S. Edin., Medical Officer of the York Union Workhouse.
SPENCER, A. R., M.D. Lond., M.R.C.S., L.R.C.P., Resident Medical Officer to the Hospital for Epilepsy and Paralysis, Maida Vale.
WALKER, J. R. Hall, M.D. Edin., Medical Officer to the Post Office at Haverhill including Thurlow.
WRIGHT, B. J. E., L.R.C.P. and S. Edin., L.F.P.S. Glasg., District Medical Officer of the Ellesmere Union.

DIARY FOR NEXT WEEK.

TUESDAY.

Pathological Society of London, Guy's Medical School, 8.30 p.m.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Specimens will be shown by Dr. Horrocks, Dr. F. E. Taylor, Dr. Lockyer, Dr. Fairbairn, and Mrs. Boyd, M.D. Short communications: Dr. H. C. Bartlett, introduced by Dr. Bonney, a case of Lithopaedion of thirteen years' duration. Laparotomy Recovery. Dr. F. E. Taylor, two cases of Enlarged Wandering Spleen forming pelvic tumours in women. Paper: Mr. Alban Doran, Haematoma and Haematocele—a study of two cases of early tubal pregnancy.

THURSDAY.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Specimens and Cases by A. L. Whitehead, N. B. Harman, A. Bronner, R. W. Doyne, J. H. Parsons, J. B. Lawford, R. E. Bickerton, Mr. S. Mayou, Sen.—Papers: Mr. S. Mayou, the Retina and Optic Nerves in Anencephaly. Major H. Herbert, Trachomatous Pannus and its Associated Corneal Changes; Dr. W. C. Rockliffe, 1, Optic Atrophy and Primary Amenorrhoea, 2, Optic Neuritis following Concussion of Globe, 3, Unusual Sequence in Cataract Extraction, 4, Peculiar Outbreak of Granular Ophthalmia; Mr. W. B. Cant, Trichiasis and Operations for Trichiasis.

Roentgen Society, 20, Hanover Square, W., 8.30 p.m.—Mr. J. J. Vesey, the Roentgen Society, its past Work and Future Prospects. Mr. F. H. Glew, Some Experiments with Alpha Rays.

FRIDAY.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith, W., 8.30 p.m.—Mr. L. A. Bidwell, the Operative Treatment of Pancreatitis. Mr. W. McAdam Eccles, Lessons from a Year's Fatalities.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, S.E., 8.15 p.m.—The President, Dr. Robert E. Schofield, will deliver the Presidential Address on some Considerations on the Causes and Treatment of Anaemia.

Laryngological Society of London, 20, Hanover Square, W., 5 p.m.—Cases and Specimens will be shown by Dr. St. Clair Thomson, Dr. L. H. Pegler, Dr. H. J. Davis, Dr. W. H. Kelson, Dr. A. Brunner, and others.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 5.30 p.m.—Dr. George Carpenter, A Case of Chronic Intestinal Obstruction. Papers: Mr. W. W. Watson Cheyne and Dr. R. H. W. Wilbraham, A Case of Perforated Gastric Ulcer in a Boy. Mr. Harold J. Stiles, Edinburgh, and Dr. Stuart McDonald, Edinburgh, Delayed Chloroform Poisoning, with lantern demonstration.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Medical Cases.
Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on the Surgical Treatment of Empyema.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 p.m., as follows: Monday, Gall Stones and their Surgical Treatment; Tuesday, Personal Hygiene; Wednesday, The Relationship of Syphilis to Insanity; Thursday, Some Surgical Emergencies.
Mount Vernon Hospital for Consumption, and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Introductory Address on the Morbid Anatomy of Pulmonary Tuberculosis in relation to the Clinical History of the Disease.
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Functional Tremors; Friday, Surgery of the Nervous System.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

PAUL JONES.—On Sunday, April 24th, at 1, Walton Place, Hans Place, London, S.W., the wife of W. Paul Jones, M.D., L.R.C.P., of a son.
DUNNETT.—On April 23rd, at 7, Ascott Avenue, Ealing, W., Agnes Dunnett, M.B. Lond., wife of Lionel Francis Dunnett, of a son.
SHAW-MACKENZIE.—On the 17th April, at 42, Green Street, Park Lane, W., the wife of John A. Shaw-Mackenzie, M.D. Lond., of a daughter.

MARRIAGES.

WELLS—HENDERSON.—At the Gardens Presbyterian Church, Capetown, on April 21st, by the Rev. J. J. McClure, assisted by the Rev. W. G. Macfie, M.A., Alexander Simpson Wells, M.A., M.B. Glasg., F.R.C.S. Edin., eldest son of the Rev. Dr. Wells, Glasgow, to Edith Boyd, youngest daughter of Sir William Henderson, Aberdeen.
MILLER—PARRY.—At Christ Church, Pentonville, on Wednesday, April 20th, by the Rev. C. M. Backhouse, assisted by the Rev. W. E. Cuttar, James Miller, M.B., Ch.B., Weymouth, son of James Miller, Las Palmas, Grand Canary, to Eleanore, daughter of W. Ensor Parry, of 57, Nile Grove, Edinburgh.
BROWN—HODGINS.—On April 25th, in London, the Rev. Richard Elnus Brown, B.A., of Halifax, to Charlotte Hodgins, M.D., of Bradford.

DEATHS.

WILLIS.—On April 20th, at Leawood, Cantelupe Road, Bexhill-on-Sea, formerly of 64, Sutherland Avenue, Maida Vale, Julian Willis, M.R.C.P., etc., aged 57.
MACDONALD.—At 15, Castle street, Dumfries, on April 14th, Alexander Dall MacDonald, M.D., etc., in his 58th year.
FOX.—On April 23rd, at Abergavenny, G. Aubrey T. Fox, M.R.C.S., L.R.C.P., aged 37. R.I.P.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London. Those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication* are understood to be offered to the BRITISH MEDICAL JOURNAL alone, unless otherwise stated.

AUTHORS desiring REPRINTS of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names, not necessarily for publication.

CORRESPONDENTS requiring answers are requested to look at the Notices to Correspondents in the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters and editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Editorship, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONIC Nos. (Public Exchange):
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630 Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SENEX asks for advice as to the most suitable seaside place in England to which to send a patient who is a martyr to hay fever, and where he would be likely to be free from it.

THE F.R.C.S.ENG.

M.B., nine years' standing, asks what chances a country practitioner would have of acquiring the F.R.C.S.Eng. simply by reading for it. Limited means of seeing good operative work. No opportunities for operations on cadaver. Which textbooks would be most suitable, and how could lack of opportunity for practical work be overcome?

*** We are advised that, under the conditions detailed by our correspondent, a country practitioner could not hope to prepare himself for the Final Fellowship, which is at present an examination demanding a practical acquaintance not only with operative surgery, but with surgery from its scientific aspects, including a real knowledge of morbid anatomy, morbid histology, and a certain amount of bacteriology. The knowledge expected on these subjects is of a kind that reading alone could not supply.

PRACTICE IN CALIFORNIA AND BRITISH COLUMBIA.

M. B. A. asks what examination a holder of an English qualification would have to pass in order to practise legally in California or British Columbia.

* In California an English graduate or diplomate must be personally examined by the State Board in anatomy, physiology, bacteriology, pathology, chemistry and toxicology, surgery, obstetrics, materia medica and therapeutics, and the theory and practice of medicine. The examination in each subject includes not less than ten questions, and is understood to be mainly written. In British Columbia all aspirants to registration must produce proof that they are the holders of a diploma or degree in medicine and surgery granted by a Board which demands four years' study from all candidates and in addition must pass an examination before the College of Physicians and Surgeons of British Columbia. As to the precise nature of this examination we have no information.

THE VENTILATION OF OPERATING THEATRES.

DR. THOMAS LAFFAN has recently caused an operating theatre to be so constructed at his hospital that its entry is from, and its exit into, a garden; he has been influenced by the view that if an "independent atmosphere" is essential to an ideal ward, it is *a fortiori* essential to the ideal theatre, and would like to hear other professional views upon the point.

*** It may doubtless be successfully contended that a theatre should be provided with an "independent atmosphere," but scarcely *a fortiori* inasmuch as that the considerations underlying the two questions probably differ in some degree, for example, into questions of the ventilation of wards, in which patients may lie for weeks or months, theories of permissible CO_2 and other respiratory products enter more largely than they can into the question of the atmosphere necessary in a theatre.

ANSWERS.

TOOTHACHE might consult the following: Smale and Colyer's *Diseases and Injuries of the Teeth*, second edition (London: Longmans, Green and Co. 1901. 21s.); Tomes's *System of Dental Surgery*, fourth edition (London: J. and A. Churchill. 1897. 18s.); and Pearsall's *Mechanical Practice in Dentistry* (London: C. Ash and Sons. 1902. 15s.).

MORNING HEADACHE.

VOX CLAMANTIS writes: In the BRITISH MEDICAL JOURNAL of April 16th, "Devon" asks advice as to the treatment of morning headache in an old lady. Let me advise him to read a paper by Sir Lauder Brunton published in the *Practitioner* for February, 1894, "On the Use of Bromide of Potassium and Salicylate of Sodium in Headache." I can testify to the great value of this as given as Sir Lauder advises. My wife suffered agonies for years from frequent morning headaches, and was almost

...ulcer...relieved by this treatment as well as of the slight gouty symptoms which occasionally troubled her. I also frequently suffer from neuralgic headache as described by Sir Lauder Brunton, and this, together with indigestion and gout, are the troubles for which Vichy-Célestins relieves me. But I find gouty symptoms and neuralgic headache are severe and more than usually frequent if I fail the best plan is to take at two or three weeks' age of sodium benzoate (two or three grains per day) and a dose of blue pill and a saline draught once a week. The relief thus afforded is very great.

BOOKS ON ORTHOPAEDIC SURGERY

C. L. might consult: *Deformities*, by Lewis A. Sayre, M.D. (New York: D. Appleton and Co.); *Diseases and Injuries of the Spine*, by A. H. Tubby, M.S. (London: Macmillan and Co.); *Deformities and Surgery*, by J. Jackson Clarke, F.R.C.S. (London: Cassell and Co.); *Orthopaedic Surgery*, by C. B. Keetley, F.R.C.S. (London: Smith, Elder and Co.).

RETENTION

REX. Swanzy's *Diseases of the Eye* (eighth edition; London: H. K. Lewis, 136, Gower Street, W.C.) probably gives the correct answer to your question. One of the best books solely on refraction is Stanford Morton's *Refraction of the Eye* (sixth edition; London: H. K. Lewis, 136, Gower Street, W.C.).

THE FINANCES OF THE GENERAL MEDICAL COUNCIL

SPECTATOR will see by reference to the report of the proceedings of the General Medical Council on May 5th, published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of June 6th, that the fee for the registration of a name removed from the *Medical Register* under section 35 of the Medical Acts of 1886 was raised to £1, and that the fee for the registration of each additional qualification was raised to the same amount.

VISION OF CANDIDATES FOR THE ARMY AND NAVY

O.—In the English army and also in the Indian Medical Service the regulations are as follows: (1) If a candidate can read Dent. at 6 metres in English print and Dent. at any distance selected by himself, with each eye without glasses, he will be considered fit. (2) If a candidate can only read Dent. at 6 metres in English print with each eye without glasses, his visual deficiency being due to faulty refraction, which can be corrected by glasses which enable him to read Dent. at 6 metres in English print with the eye and Dent. at the same distance with the other eye, and also to read Dent. with each eye without glasses at any distance selected by himself, he will be considered fit. (3) If a candidate cannot read Dent. at 6 metres in English print with each eye without glasses, but can read Dent. at 6 metres, he will be considered fit. (4) Squint renders to disqualify, but the principal colours of any normal candidate subject to the risk of aggravation or recurrence in either eye, will cause the rejection of a candidate. (5) Navy candidates for the Executive and Engineering branches must have either unaided visual vision equal to 6/6 in each eye. For other branches vision need not be normal but must be capable of correction to 6/6 in each eye.

OUT-DOOR SHELTERS FOR CONSUMPTIVES

Q. Q.—The erection of outdoor shelters for patients suffering from consumption in public parks has been suggested—as, for example, in Victoria Park and on Plumstead Common—but so far as we have been able to ascertain the proposal has not yet been carried out. It might be possible to obtain some details of the practical working of such shelters in the Berlin parks through the Secretary of the National Association for the Prevention of Consumption, 20, Hanover Square, W.

BOOKS ON TAXIDERMY

LANCASTRIAN would probably find all the *Text-books of Practical Taxidermy* advised by W. Hale White (London: Young J. Pentland) very useful, would suit his requirements. A useful work by an American writer is *Practical Taxidermy and Home Decoration*, by H. C. Wood, eleventh edition (London: Smith, Elder and Co.).

LETTERS, NOTES, Etc.

PHOTOGRAPHS TELEGRAPHED

DR. E. FLEMING (Edinburgh) writes: It may interest your readers to know that a photograph of the bishop at the Portsmouth Congress was successfully transmitted by wire to the *Daily Mail* office in London. I believe it is the first time that a photograph has been transmitted by wire in this country. The picture was received at the *Daily Mail* office in a perfect condition.

WOUNDS IN NAVAL ACTIONS

[illegible] to the paragraph [illegible] in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of April 16th, p. 1, Captain [illegible] has been kind enough to write to us as follows: "[illegible] were [illegible]."

APPOINTMENTS

[illegible]

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Dr. T. S. Ainsworth, London; Dr. I. W. Anderson, London; Mr. M. Ancrum, Bombay; Dr. A. S. Anderson, Stockport; Dr. J. Adam, Hawick; Assistant-Surgeon W. H. M. Alexander, M.B. (Cantab.), Crewe. **B** Mr. J. T. Barrett, London; Mr. R. N. Barrett, Belfast; Dr. J. S. Bates, Manchester; Dr. C. Bentzer, London; Dr. T. E. B. Brown, C.I.E., London; Mr. K. C. Bose, Calcutta; Dr. J. Beer, Liverpool; Mr. W. Beers, Wigan; Mr. J. Bruce, Lytham; Dr. W. G. Bagot, Leamington; Dr. E. C. Bridges, London; **C** C. W. Cathcart, M.B., Edinburgh; Mr. A. Cresswell, Sheffield; Mr. T. T. Cotton, Bath; Dr. G. Crocker, London; A. Cox, M.B., Gateshead; Mr. P. W. Cromwell, London; Dr. E. M. Cavenagh, London; Mr. J. G. Crerar, Dublin. **D** Dr. Ernest Smith; Mr. S. Dyer, London; E. E. Dyer, M.B., Acton. **E** Mr. E. East, London; Mr. H. Eccles, Bolton; Dr. W. A. Evans, Bradford; Mr. A. Evans, Leeds. **F** Lady Hope Fenwick, London; R. G. Fellas, M.B., Newcastle-on-Tyne; F. G. Fleming, M.D., London; Dr. E. Fraser, London; Miss R. Ford, Tamworth; Major G. H. Fox, London. **G** Mr. M. Greenly, Chester; Dr. J. B. Gabbett, London; Mr. T. W. H. Gardiner, Aberystwith; G. A. B. A. C. Gilbert, M.B., Leeds; Mr. E. Greer, Ludlow; Mr. E. L. Gardiner, London; Dr. T. Gee, Dublin; Mr. W. J. Greer, Newport; Mon.; Dr. J. J. Graham, London. **H** Hunterian Society, Secretary of, London; W. Harrison, M.B., Liverpool; A. Harris, M.B., Chesterfield; Dr. E. M. Hayward, Hull; Mr. F. Hawkins, London; Messrs. P. Harris and Co., Birmingham; Mr. M. C. Hope, London; Surg.-R. T. Hamilton, M.B., Glasgow; Dr. J. P. Hobson, London; Dr. G. Herschell, London; J. Dr. F. H. Jarvis, London; Mr. J. F. James, Dover; Mr. J. A. Jackson, London. **K** Dr. S. W. Kelly, Cincinnati; Mr. J. Knox, Portsmouth; Dr. F. Kidd, London. **M** M.B., Manchester; Medical Society, Secretary of, Manchester; Mr. E. C. Mansergh, South London; Mr. A. E. Mayo, London; Messrs. Macmillan and Co., London; Dr. E. J. Maclean, Cairo; Dr. D. Maclay, Berne; E. Mellows, M.B., Leicester; M.D. Dr. H. G. Mallory, Baltimore; Dr. A. S. Myrtle, Harrogate; Mr. J. McMunn, London; J. J. Morrison, M.B., Edinburgh; Mr. J. Nunn, Bournemouth; **O** Old Member of Twenty Years' Standing; Optician; Mr. R. W. Orpen, Bayswater; W. Osborne. **P** Dr. M. Peters, Grosvenor Hill; Miss J. Palmer, Lytham; Dr. J. M. Pope, Leicester; R. C. Powe, M.B., Rosyth; Captain A. F. H. Pym, London; Peter. **R** R.S.D.; Mr. G. Rose, London; Royal Navy, Paymaster, Retired List, Name of; Nurses, Secretary of, London; Mr. J. Robertson, London; Mr. H. Roberts, London; Dr. W. Rayner Prentice, West Africa. **S** Scott, F. Scott, M.B., Buenos Ayres; Miss L. Stevenson, Edinburgh; Specialist; Dr. W. Shaw, Carlisle; D. F. Scott, M.B., Penrith; Mr. W. S. A. Smith, Derby; Dr. F. H. Spencer, Coventry; G. Sumner, M.B., Liverpool; Mr. G. B. Strucker, London; F. A. Southam, M.B., Manchester; Mr. A. F. Shaw Lyon, Sussex; Dr. S. Sutherland, London; Dr. A. Sellers, Manchester; D. L. Smith, M.B., Bootle; Messrs. Street and Co., London; S. Stephenson, M.B., Edinburgh; Surgeon. **T** Mr. J. W. Taylor, Bristol; S. J. Taylor, M.B., Norwich; Mr. J. Tweedy; Thomas Trowbridge; Dr. J. H. Teacher, Glasgow; Mr. A. J. Thornton, Liverpool; Dr. E. F. Trevor, Leeds. **W** Mr. P. Wilson, London; Dr. J. S. Wheeler, Hanover; Dr. S. M. Wilkinson, Liverpool; Dr. P. Wilson, Leeds; Dr. Wigan Medical Society, Secretary of, Wigan; Dr. H. Wilson, London; Dr. W. B. Warrington, Liverpool; Mr. I. H. Wilcock, Croydon; Mr. W. B. Wainwright, Taunton; Dr. W. Williams, Rhyl. **X** Y Z.

BOOKS, Etc., RECEIVED

Der Einfluss von Bäder- und Heilmittel auf die Blutgerinnung und Krebsheilung nach Dehnicke, Ausführungen in Bayern. Von Dr. med. Karl Kolb. Mainz: J. P. Lehnen. Pp. 84.

Brain: Over-Work, Cerebral Hyperæsthesia, and Nervous Disease. By Charles Mercier, M.B., F.R.C.P. Lond. Second edition, revised and enlarged. London: Walter Scott, Ltd. Pp. 264. 3s. 6d.

Bäder und Trinkkuren in Theorie und Praxis. Von Prof. Dr. E. Leyden. Berlin: Verlag von Fischer's Medicinische Buchhandlung H. Kornfeld. Pp. 48.

Beiträge zur Kenntniss der Thyreoidea. Von Prof. Dr. E. Baumann und Dr. J. Roos. Berlin: Verlag von Fischer's Medicinische Buchhandlung H. Kornfeld. Pp. 48.

Bibliography of Water Purification, with Special Reference to Sand Filtration. By John A. Wesbrook, M.D. Chicago: Engineering News Publishing Co. Pp. 64

A Clinical Lecture
ON
A CASE OF STRANGULATED FEMORAL HERNIA.

By ANDREW CLARK, F.R.C.S.,
Surgeon to the Middlesex Hospital, and Lecturer on the Principles and Practice of Surgery in the Medical School.

THE case to which I wish to direct your attention this afternoon is that of a patient who was admitted into Bird Ward on March 8th with intestinal obstruction. A message was sent to me in the operating theatre that she was in a serious condition, and that faecal vomiting had been going on for several hours. Accordingly as quickly as possible I went to investigate the case, and decided to lose no time in operating on a femoral hernia which I found she had on the right side, and which I thought was very likely the cause of her trouble. There were several unusual points about the case, and I am therefore bringing it before your notice in a more formal way than I could do at my ordinary ward visit.

History.—The patient was too ill to give a very definite account of herself, but with the aid of her daughter who accompanied her to the hospital we elicited the following history: She appears to have been a very healthy woman, never having been laid up, except with an attack of rheumatic fever thirty years ago, from which she recovered perfectly. She had had a right femoral hernia for many years, for which she wore a truss, and this she continued to wear. When I called attention to the hernia she insisted that it had nothing to do with her present trouble, because she had no pain in it and it was always in its present condition. The present trouble began five days before admission (March 3rd), when the patient was seized with pain in the abdomen just after eating some beefsteak. This pain was accompanied by sickness, and several attempts to relieve the bowels were unsuccessful. She sent for a doctor, who, she states, ordered no medicine, but told her to put turpentine and hot fomentations on her abdomen, which she did, and, getting relief from the pain, she did not stay in bed, though the vomiting and constipation continued. The next day she had one evacuation of the bowels, but otherwise remained in much the same condition. She continued to persevere with her household work though in pain and discomfort until March 7th, that is, for four days after she was first taken ill. She then felt so bad that she took to her bed and sent for the doctor again, who, she states, ordered her some medicine and to continue the turpentine fomentations, which she did till the soreness of her blistered abdomen made her leave them off. The doctor on visiting her the next morning found increased distension and faecal vomiting, and advised her to go to a hospital, so she came here in the course of the afternoon, walking into the ward. Before she could be got into bed she vomited a good deal of faeculent material.

Condition on Admission.—A spare, delicate looking person, and very dirty. All over the abdomen is a large blister, which she states was caused by the vigorous application of turpentine on hot flannels. The abdomen is very tense, and tympanitic all over, and patient complains of pain in the epigastric and hypogastric regions. There is a right femoral hernia which is neither tense nor painful but decidedly tender on manipulation. A rectal examination revealed nothing.

Now, with this history and condition before us what were we to do? Here was a patient who had intestinal obstruction five days, immense distension, and faecal vomiting, but the surface of her abdomen was in such a state of rawness and dirt, and altogether she was so dirty, that an aseptic laparotomy seemed impossible until some time had been allowed to elapse to purify her; but why should not the hernia be the cause of the trouble? It might be, though I must confess I had my doubts about it, as it presented none of the ordinary local symptoms of strangulation. But the skin was healthy in that neighbourhood, and it was quite possible to get that part aseptic quickly, so I decided to explore it, and, as the sequel proved, here really was the cause of all the trouble. True we did not save the patient's life but we relieved her urgent symptoms, and she was saved a good deal of suffering.

Before I go into the details of the operation let me tell you what passed through my mind while I was examining the patient. Here was a bad case of intestinal obstruction, not very acute, but it could not be called chronic, as the patient had been quite well up to six days before admission. Was the hernia (which one could not help seeing when the abdomen was uncovered) strangulated and was this the sole cause of the obstruction? We remember that the local symptoms of strangulated hernia are a tender, painful, hard, tense, irreducible swelling with no impulse on coughing or straining; there was not one of these signs present except irreducibility, and you recollect the patient walked into the ward, which you hardly expect a patient with strangulated hernia to do. The general symptoms are the same as intestinal obstruction from other causes. What are these, and is there anything in this case that would lead us to diagnose any other cause? They are intussusception, internal strangulation by a band or by a twist of the gut, volvulus and impaction of a foreign body. Intussusception rarely occurs in patients of the age of this individual; the symptoms were not severe enough for acute, and chronic would have had a longer history; the abdomen was too tense to expect to feel an intussusception. Internal strangulation by a band was unlikely, as the patient had never had peritonitis or indeed any abdominal disease to produce it, and at her age one would hardly think it was a congenital band; it might have been a twist, and that I thought not unlikely. Volvulus—that is, twisting of the mesentery so as to produce obstruction to the calibre of the bowel—was a possibility, but the history was too short; and for much the same reason obstruction by a foreign body was unlikely, and, moreover, there was no history of her having swallowed anything hard and indigestible; and there was no reason to think the patient had gall stones, the other foreign body most likely to get impacted and cause obstruction, so that the diagnosis really in my mind was between the hernia and a twist.

Had the abdomen and the patient been in such a condition that I could have safely operated in the middle line, I think I should have done so, and dealt with the hernia from within if it proved to be the cause of the trouble, but that was out of the question, and one knows that in an old femoral omental hernia, which this was, it is not uncommon for a little bit of bowel to come down and get strangulated, though in most cases there is some local sign of it.

Having determined on exploring the hernia it was desirable that no time should be lost, accordingly the patient was taken into the theatre and anaesthetised with gas and ether. The details of the operation are as follows: An incision was made over the hernia towards its inner side, the sac was exposed and freely opened, when about an ounce of slightly blood-stained fluid escaped, a mass of omentum somewhere about the size of an orange was then seen and found to be adherent at the femoral ring, but free elsewhere; this was gently raised, and behind it was seen a piece of gut which was deeply congested, but not gangrenous, and tightly nipped at the femoral ring. The constriction was divided with a hernia knife in the usual way, and the piece of bowel was easily returned to the abdomen. The adherent omentum was then carefully separated, transfixed, tied in two pieces with a silk ligature, and removed. The sac, which was very thin and tore easily, was tied at the femoral ring, but the lower part was left where it was. The wound was closed with interrupted silk sutures, dressed with cyanide gauze, and the patient put back to bed. To comment on the steps one by one—First: The escape of slightly blood-stained fluid—this indicated congestion and nothing more; next we observed a lump of omentum which was free at the bottom of the sac, but adherent at the neck; it was a good deal altered in appearance from normal omentum, but only in the condition this tissue gets into when it has been in its abnormal position a long time; it was obviously not the cause of the trouble, but on lifting it up there was a claret-coloured lump in appearance not unlike a large black Hamburg grape protruding from the femoral ring and nipped by it; this, I had no doubt, was the cause of the obstruction. Taxis had no effect, as one would expect, so I divided the constriction with a hernia knife and the little piece of gut slipped back easily.

May I say a few words on how to safely do this part of the operation? First, a director should be got under the band, and the best director is the finger-nail, then, it is wise to use a knife which has had the very sharp edge taken off; I think it is about the only condition under which a surgeon likes to use a blunt knife. You naturally make your nick away from any known vessel; here you would not cut outwards, as if you did you would probably damage the femoral vein, nor directly upwards lest you wound the spermatic cord or epigastric artery and get trouble with bleeding; but inwards, and if, as sometimes happens, there is an abnormal vessel in the way which a sharp edge would wound, a blunt edge would divide the resisting band and probably push the vessel away, that is why I used a blunt knife.

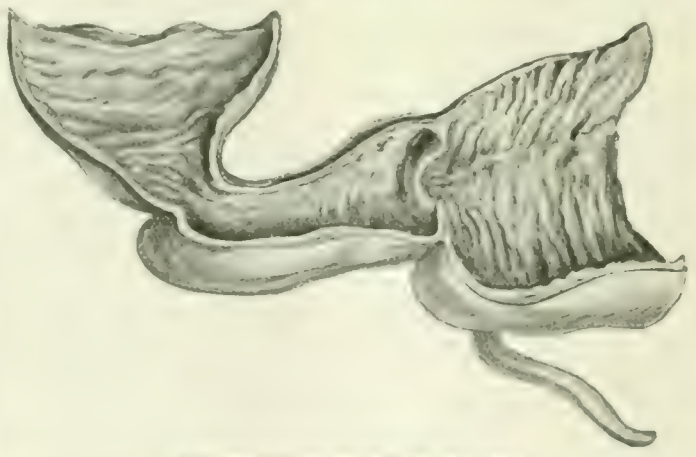
The question as to whether one should return the herniated bowel did not arise in this case; it was obviously in a condition in which recovery could take place when the constriction was removed. Now we come to the omentum. What was to be done with that? I examined it carefully, and found that it was only adherent in the outer part of its circumference and that it did not contain any gut, so I decided to remove it, and I did so by first separating the adhesions and tying

several vessels that bled; then I transfixed the main piece and tied it securely in two halves, the stump was then allowed to fall back into the abdomen and the neck of the sac ligatured. I made no attempt to close the ring, in a femoral hernia I do not think this is much use, neither did I dissect out the sac, which I found very adherent, and when it is securely cut off from the peritoneal cavity it rarely gives trouble.

We now come to the subsequent life-history, and unfortunately it was very short. The operation had evidently relieved the mechanical obstruction for the vomiting had quite ceased, but the abdominal distension did not go down and the bowels did not act. When I saw the patient twenty hours after the operation I learned that she had had a fair night and was more comfortable, and I suggested a turpentine enema to try to get the bowels to act; this however had no effect. The same evening, about thirty hours after the operation, her pulse began to fail, and notwithstanding the administration of stimulants she never rallied and died about 10 o'clock the next morning, forty-two hours after the operation. The only points here I need remark on are the continuance of the distension and the non-action of the bowels. Was this due to another constriction or to reduction *en masse*? Seeing that the vomiting had ceased I did not think it was either, but probably due to paralysis of the gut which might have been caused by the long constriction, and not improbably by the administering of opium, though we did not know for certain that that drug had been given, and it was acting on this belief that I ordered a turpentine enema. I may add as to reduction *en masse* that it rarely if ever occurs now, as it is an invariable custom to open the sac freely and explore the adjacent parts, and moreover it is very rare in femoral hernia.

A *post mortem* examination was made the same afternoon, and I will read an extract from the notes:

On opening the abdomen the large intestine was found to be collapsed and empty (see fig.), the small intestine considerably distended, its walls injected, especially along the line of contact, and in places it was deeply discoloured, and this was most marked near the ileo-cæcal valve. There was no exudate on the peritoneum, but its surface was slightly rough in a few places. The appendix was behind the cæcum and in it the vessels were much discoloured and showed evidence of recent [illegible] the peritoneum being discoloured and in one spot slightly [illegible] the gut was narrow, but not obstructed, the obstruction having apparently been relieved at the operation. The mucous membrane of the gut was much discoloured and slightly rough from superficial ulceration, but there was no actual gangrene. The discoloured area in the patch in several places was deeply discoloured, and there was considerable submucous haemorrhage in these regions, but no ulceration. The neck of the hernial sac was found to be closed and the [illegible] the omentum was natural with the ligatures upon it.



Portion of Intestine: half natural size.

I need not read the rest of the *post mortem* notes, as they are [illegible] for our purpose to-day; it is sufficient to mention that with the exception of the liver and kidneys, which were fatty, the organs were normal.

[illegible] the collapsed condition of the large intestine, there we notice that the constricted part of the gut and the dilated area immediately above [illegible] (see fig.). I have cut open this part of the gut [illegible], and we see that it is healthy, the most marked part of the tube is that immediately above the constriction, the mucous membrane here [illegible] and [illegible] the ileum. The caecum and colon are [illegible] and [illegible] the kidneys are [illegible]. We also notice that the peritoneal covering [illegible] especially that [illegible] this was easily accounted for by the [illegible] the constricting [illegible] which the gut had not recovered during the short time the patient lived. Post mortem changes had not been employed and [illegible] to account for the rest of the discoloration. I imagine it to be *post mortem*. The fact of the surface being slightly lacking in lustre, and injected at the lines of contact looks as if peritonitis, the old bugbear of abdominal operations, but which we rarely meet with now, was beginning. It is not many years since it was the rule in operating for hernia never to open the sac if it could be avoided for fear of this complication, indeed, this was the practice within my recollection. In a clinical lecture given in University College Hospital by Mr. Quain in my early days as a student, speaking of the way of dealing with the omentum in a hernia after the gut has been returned he says: "The bowel being restored to the abdomen by division of structures covering the sac, but without opening the sac itself, it would not be justifiable to proceed further, not justifiable to open the sac in order to act more immediately upon the omentum with the view of replacing it in the abdomen, as well as the bowel which has been already replaced." Such was the fear in those days of cutting the peritoneum, but if the peritoneum had to be opened then the omentum was treated exactly as we treat it now, though the surgeon is enjoined to make as small an opening as possible. The next point to comment on is "the lumen of the gut was narrow, but not obstructed," and I think this is well shown in the figure below. Whether the lumen was completely obliterated before the operation we cannot say; it suggests the possibility of a so-called Richter's hernia—that is, the inclusion in the constricted part of only a portion of the circumference of the bowel, this condition is not often met with, but is said to be more common in old and in femoral hernia than any other variety. You observe there is one constriction close to the ileo-cæcal valve and the other a little higher up, and a well marked pouch between the two; you also notice the marked distension of the ileum above, which is nearly as large as the cæcum. This, you remember before laying the intestine open, we saw to be quite collapsed. A actual nipping was removed, and there is no pathological cause to show why there was no action of the bowels after the operation. The superficial ulceration and discoloration of the mucous membrane and the submucous haemorrhage were probably due to the irritation of purgatives given with a view to relieving the obstruction in its early days. Enteritis is a condition that sometimes follows the operation for strangulated hernia, and when it occurs is a serious and troublesome complication.

I cannot conclude this lecture without impressing on you the importance of searching for a hernia in all cases of intestinal obstruction, and if you find one to explore it before resorting to other treatment or to the more serious operation of examining the intestines for an internal cause, even though as in the case under consideration, there was no definite evidence from the local signs in the hernia that it was the cause of the trouble, and further, that whenever you do operate on a strangulated hernia, take care to explore the adjacent parts thoroughly, so that in the event of the continuance of any of the symptoms you know it cannot be due to reduction *en masse*, and remember that there are cases in which the symptoms may continue for a limited period, and that time and suitable drugs will effect a cure.

MEDICINE AND MATRIMONY. It is stated that the New York State legislature will shortly have submitted to it a Bill providing that all persons applying for a marriage licence must, as a necessary preliminary, obtain a medical certificate. The Bill is intended to place greater restrictions upon the marriage of imbeciles and half witted persons and also to prevent those having consumption and other diseases from marrying. A Bill having a similar object has recently been introduced in the Ohio legislature. It provides that no person who is an imbecile, a lunatic, a drunkard, or suffers from the effects of narcotic drugs, shall be allowed to marry.

AN OPERATION FOR THE RADICAL CURE OF HERNIA.

By J. HOGARTH PRINGLE, M.B., F.R.C.S.,
Surgeon, Glasgow Royal Infirmary.

In this paper I desire to describe a method of performing a radical operation for the cure of inguinal hernia which I have now been employing for nearly eighteen months, and which has so far given results that are quite satisfactory.

Previous to that time it had been my practice to operate upon all cases according to the method of Sir William Macewen, for I well know what admirable cures are obtained by him. Formerly I had many opportunities of seeing and examining cases, often at long periods after operation at his hands, and I never saw a patient who had a recurrence of his hernia.

With the results in my cases I was, however, disappointed. Seventy-six patients were operated on by me, and of these 14 have not been seen again since very shortly after their dismissal; possibly some of these may have had a relapse; but, of the remainder, 5 are known to me to have had a recurrence of the hernia, while in the others who have been seen from time to time since their operation the result has been good, and the inguinal canal seems to be closed perfectly. Of the 5 patients in whom a recurrence occurred, 2 had a stitch abscess after operation; one of these went eighteen months, the other two years before recurrence took place; while of the 3 others, all of whom healed perfectly aseptically, 2 relapsed within a few weeks after dismissal, the other not for eighteen months.

In some of my cases trouble was caused after operation by thrombosis of the spermatic veins, which lead to great oedema of the scrotum and the formation of a sausage-like swelling, which often extended for the whole length of the inguinal canal, where it might possibly act as a sort of wedge and tend ultimately to interfere with the accurate apposition of the walls of the canal.

It had sometimes appeared to me at the end of an operation that an unnecessarily large amount of tissue, composed of the cremasteric and other fasciae, was left to be transmitted through the inguinal canal as it had just been restored, and that this might prevent the closure of that passage being as perfect as it might be if they were not there. For this reason I frequently removed considerable portions of these tissues, and thought that a more perfect closure was obtained in consequence; but in doing this it was constantly observed that the fasciae so cut away were of considerable thickness, the cremaster itself even in cases of large herniae being often quite a good layer, and it was thought they might be advantageously utilized for the purpose of aiding to close the canal instead of removing them.

Operation.

With this idea an operation came to be performed of which the following is a description:

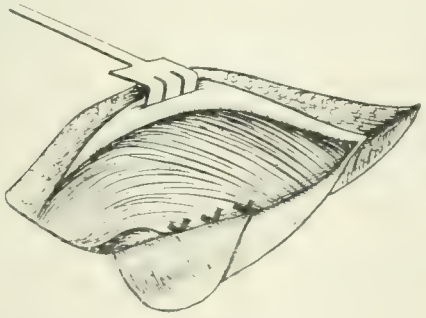


Fig. 1.

1. An incision ¾ in. above and parallel to Poupart's ligament, and running from a point over the internal pillar of the external abdominal ring to a point situated over the exteral iliac artery, is made; the external oblique is shown for the whole length of the wound and the external ring clearly defined. The aponeurosis of the oblique is now divided from the point of meeting of the two pillars of the ring, outwards as far as the limit of the skin wound, and its margins retracted, the lower flap being dissected off the internal oblique and cremaster down to Poupart's ligament (Fig. 1).

2. The cremaster and all tissues beneath it down to the sac are divided in a direction corresponding to the dotted line in Fig. 1, and the flap, as outlined, is turned down off the sac by blunt dissection and held back.

3. The sac is now stripped carefully off the cord right up to the internal abdominal ring. In cases where the sac is sufficiently thick to permit the necessary manipulation it is returned in the following way: A ligature is tied round the fundus, or, if any of the sac has been cut away, round the most distal portion of what is left, and one end of the ligature, which is left long, is used as a continuous suture, which passes from side to side, and, in a sense, spirally, up the sac, which is at the same time continually invaginated. The result is that a "balling" of the sac is produced, and in this way a thick and rounded pad is formed, which comes to lie exactly at the internal abdominal ring, and to project into the peritoneal cavity as a slightly rounded prominence. If the hernia is recent and the sac thin, it is very troublesome to get it to invaginate satisfactorily; it is then returned by the running suture, as recommended by Sir William Macewen.

4. The distal end of the cord is now drawn upon from the wound; the spermatic veins isolated, and divided between two ligatures just proximal to the epididymis: the ligatures are then tied together so as to keep the venous stumps approximated in order that some traction may be exerted upon the cord at a later stage.

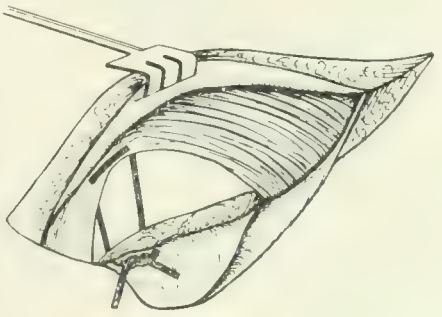


Fig. 2.

5. *Suture of the Internal Oblique.*—A "relaxing" suture—of catgut of medium strength—threaded on two needles is next passed through the horizontal portion of the combined tendons of the transversalis and internal oblique, just as they approach the rectus muscle, at two points from without inwards so as to leave a loop of the suture lying upon the outer aspect of the tendon: the two needles are then passed behind the cord and through Poupart's ligament (as in Fig. 2); the needle which is placed nearer the middle line being passed close up to the spine of the pubes, the other at the point where the spermatic cord naturally crosses the ligament. This suture is meantime left untied. Several catgut sutures are then passed between the internal oblique and Poupart's ligament so as to get as close coaptation of these two structures as possible from the insertion of Poupart at the pubes to the point where it is crossed by the cord, these sutures all being

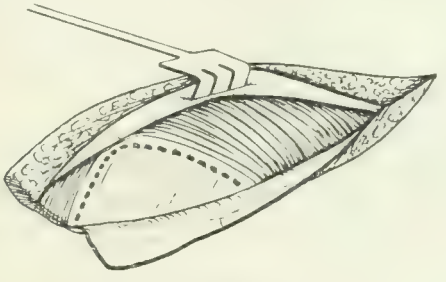


Fig. 3.

posterior to the latter. It often happens that the sheath of the rectus (here not a "sheath" at all in the sense of there being two layers, but actually the combined tendons of the transversalis and oblique passing in front of the rectus) is too rigid to draw down easily. In these cases its attachments to the anterior surface of the tendon of the rectus are freely divided, which always permits it being easily approximated to Poupart; and if, as is sometimes the case, the rectus sends

a prolongation outwards to be inserted into the ileo-pectineal line; this is also divided close to the bone and sutured to Poupart, and thereby much additional strength is given to the inner part of the posterior wall of the canal. In tying these sutures the "relaxing" suture is first tied and the others after it.

An assistant now draws upon the testicle so as to stretch the cord, and three or four sutures are passed external to the latter between the oblique and Poupart so as to draw the muscle down in front of the cord (see Fig. 3).

6. The cremaster flap is drawn upwards and inwards as far as possible and sutured to the anterior surface of the internal oblique and of its tendon over the rectus by deep as well as marginal sutures. (The appearance of the wound at this stage is shown in Fig. 4.)

FIG. 4.

7. The aponeurosis of the external oblique is now sutured as close as possible; a buried suture is used for the subcutaneous tissue layer, and finally the skin is sutured.

RESULTS.

Twenty patients have now been operated upon by me in this manner, and although no great interval has elapsed since the first case was so treated, there is no instance of any recurrence of the hernia.

All the cases have been seen frequently, and the region of the operation in every one is firm and tight.

None of the patients after operation developed any thickening of the cord above the level at which the veins were ligatured, and the object for which that procedure was adopted appears, therefore, to have been attained. Oedema of the scrotum has been very markedly less than in my former experience, and only one of the patients developed a hydrocele.

I believe strongly in the advantage of a pad formed from the cremaster, as advocated by Sir William Macewen, and think that the method I employ for making it is a good one. In a patient recently operated upon who had both an irreducible inguinal and a femoral hernia, the inguinal was treated in the way above described in the first place, and when the femoral hernia was dealt with I took the opportunity of examining the state of the inguinal region from the abdominal aspect, and found the closure to be as accurate as it could possibly be. The peritoneal pad was tight and had united to the parts around, leaving the surface of the abdominal wall at the internal ring like the end of a small ball.

The [illegible] of the cord which forms such a prominent feature of the Bassini-Halsted operation. I take great care that the cord does not pass Poupart's ligament at its normal position. The cord, however, in my operation is practically adherent to the scar and its own vessels by ligation and dividing the veins. I get rid of them as veins almost immediately they have passed the [illegible] by ligation, so that the cord in its collapsed condition is not even noticed, so that the opening through which the cord [illegible] internal oblique is of the smallest.

My reason for dealing with the veins in this way is that I believe it offers the best means of preserving intact the nerve to the cremaster. Normally this nerve runs in close proximity to the spermatic vessels, and if the peritoneal investment of the cord, which can be preserved, be obliterated, the nerve will usually be preserved and in that case will be of much greater value than if it is stripped up with what happens if the veins be dissected. When the cord with its sheath is sutured into position in the region of the internal ring it is drawn both upwards and inwards a little further than its actual natural position (compare Figs. 1 and 4); the two structures mutually support each other, and form a small canal in which lies the vas along with the collapsed veins. The flap remains a taut layer, always, as I have found, of a definite value, which, however, will vary in different cases. I have been struck with the degree of contraction possessed by the fibres of what at first sight looks like an attenuated and thin muscle. After the flap is cut and dissected down it will contract into quite a compact layer.

I have quite recently learned that an account of an operation somewhat similar to what has just been described was published by Halsted in the *Johns Hopkins Bulletin* for August, 1903: it constitutes a very marked modification of the operation which has hitherto been known by his name. In his new operation Halsted removes the sac, excises the veins, and employs the cremaster as an additional layer of tissue much in the same way as I have done; but he places it deeper than the internal oblique, suturing it to the under surface of the latter.

It appears to me to be distinctly preferable that the flap made of cremaster and the other fasciae should be placed in front of the internal oblique; it does not interfere in any way with the suturing of the oblique to Poupart's ligament, and it has, as it seems to me, this great advantage, that nothing remains except the vas, and in my operation the empty veins to be passed beneath the inferior border of the oblique. Whereas if it be placed deeper than the oblique there will be a puckered-up portion of these fasciae to be transmitted, and consequently, a less close approximation of the oblique to Poupart is possible, unless the flap is cut away from its prolongation into the scrotum—a procedure which I do not gather from his description is carried out by Halsted.

Excision of the spermatic veins is, I believe, absolutely certain to lead to division of the cremasteric nerve and consequent atrophy of the cremaster fibres, a result which in my method I have all along done my utmost to avoid, and as I believe with success, for several of the patients have shown a good cremasteric reflex after operation.

FEMORAL HERNIA.

In my operations for this variety of hernia after freeing the sac I return it in the same manner as above described so as to invaginate and "ball" it. Then I make a longitudinal incision at the inner part of the femoral sheath, so as to open the venous or middle compartment, free the inner border of the femoral vein with the handle of the knife and draw the vein outwards. Then pass a needle carrying a strong catgut suture from the venous compartment (and therefore to the outer side of the septum between it and the "femoral canal") through the pectineus muscle, and bring it out close to Gimbernat's ligament; the two ends of the suture are then passed from below upwards through Poupart, and, at the inner side, through Gimbernat.

This suture lies entirely outside the walls of the femoral canal, and when it is pulled up and tied closes the latter completely; no chink is left between the margin of the ring and one of the sutures through which a hernia can work its way.

Further closure of the canal and reinforcement of this deep suture are obtained by two or three interrupted stitches which are passed between Poupart and the pubic portion of the fascia lata over the pectineus, and the wound is closed by suturing the subcutaneous tissues and then the skin.

No case which I have operated upon by this method is known to me to have had a recurrence of the hernia.

ON GASTRO-JEJUNOSTOMY FOR PYLORIC STENOSIS, GASTRIC ULCER AND SOME OTHER NON-MALIGNANT CONDITIONS.

BY CUTHBERT BARLING, M.B., F.R.C.S.,

Professor of Surgery in the University of Liverpool, and Surgeon to the Royal Southern Hospital

My observations will not be rigidly circumscribed to the title of my paper as there are operations similar in purpose to gastro-jejunostomy to which I must briefly refer, so also some other conditions than actual pyloric stenosis not existing [illegible] and [illegible] stomach. The actual procedure of excision of the pylorus or some other part of the stomach I have however, purposely excluded as these would expand my remarks to undue length. In my own hands gastro-jejunostomy has

been performed for a variety of conditions which I will classify into three groups:

1. For stenosis of the pylorus, for hour-glass contraction of the stomach, or for a stenosis of the duodenum in each case to allow the contents of the stomach to pass freely into the intestinal tract and thus provide relief to gastric stasis with its distressing symptoms and the incapacity for work which it brings.

2. For the purpose of putting the stomach at rest, to stop haemorrhage from ulcers, whether situated in stomach or duodenum, with the intention also of relieving pain and procuring the healing of the ulcers.

3. For atonic dilatation of the stomach with marked proptosis it being hoped that the substitution of a passive opening for the pylorus, and at a more dependent position of the stomach, would relieve the organ of its burden of overfullness and consequent pain and vomiting. Chronic dyspepsia, without evidence of gastric ulcer or dilatation, has also thus been treated as a refuge when no relief was obtained by dieting or other medical measures.

How far has gastro-jejunostomy fulfilled the purposes for which it was undertaken? The answer varies with the condition for which the operation was done. In simple uncomplicated stenosis of the pylorus or of some other part of the stomach (hour-glass contraction), the relief has been almost always complete and thoroughly gratifying, the more severe the symptoms the more marked the benefit. If, as is not rarely the case, the patient has been markedly neurasthenic, the full benefit of the operation has been somewhat delayed, and subsequently under stress of work or anxiety a threatening of the old symptoms of pain and vomiting has arisen due to gastric catarrh or to an easily exhausted nervous apparatus. With appropriate treatment these threatenings have passed off and the former condition of improvement has been maintained. Many in the group of patients now under consideration have attained a power of digestion so robust that I have been astounded by an account of what they can dispose of; happily their nutrition and power of work has been equally satisfactory.

When haemorrhage or pain due to gastric or duodenal ulcer has been the necessity for operative interference both symptoms have been relieved. The relief may be permanent, but I have had two experiences to the contrary. One patient was the subject of duodenal ulcer for which an anterior anastomosis was made with complete cessation of severe pain and bleeding which had produced extreme anaemia. At the end of two years, however, the ulcer extended and produced death by perforation. In another patient with gastric ulcer causing severe pain, relief was given by an anterior anastomosis, and a year later, when the patient appeared to be doing well, a sudden severe haematemesis caused death. The ulcer in this case was extensive and firmly adherent by its base to the liver and probably therefore a difficult one to heal, but as it was not possible to obtain a necropsy there is, of course, room for doubt whether this or some other condition produced the fatal haemorrhage. Neither of these ulcers could have been excised without great risk to life, but where excision of an ulcer is feasible its removal, in addition to gastro-jejunostomy, should be considered.

Group 3 in my classification mentions atonic dilatation of the stomach, and chronic indigestion, producing pain and vomiting unrelieved by medical treatment and dieting, without evidence of stenosis, ulcer, or dilatation of the stomach or duodenum. I have operated in one case of each kind. The example of atonic dilatation was in a woman, feeble, emaciated to a degree, and very neurasthenic. In the first instance I thought this patient's pylorus somewhat more rigid and narrow than in health, and regarding pyloroplasty as a less severe measure than anastomosis resorted to the former but without any relief to the symptoms. Later I performed posterior gastro-jejunostomy by suture, and though a good recovery followed the operation scarcely any benefit was derived from it: pain is still complained of after all kinds of nourishment, the stomach is still as dilated as formerly, reaching almost to the pubes, the neurasthenia is as profound as ever and the emaciation as extreme, but the patient does not vomit now. The patient with chronic indigestion was a man aged 28, engaged in laborious work, which he frequently had to give up owing to pain after taking food and vomiting, though at no time had he suffered from haematemesis. The patient was sent to me in 1901 as ordinary treatment had failed to relieve him, and at the General Hospital I opened his abdomen to see if an ulcer existed in stomach or duodenum, but after careful search neither ulcer, stenosis, nor dilatation of the stomach was found and the operation was finished as a mere exploratory one. He seemed better for a time, an improvement due probably to rest in bed and very careful dieting, but in six weeks the patient was as bad as ever. For months he haunted the out-patient room complaining of the old symptoms, and in February, 1902, I readmitted him for observation. Whilst he was in bed he did not vomit, but when allowed to get up and move about the ward, pain in the epigastrium occurred every day and was followed by vomiting. In March, thinking that I might have missed an ulcer at my previous examination, I reopened the abdomen, and again could find no gross lesion, but lest I should have overlooked anything I did a posterior gastro-jejunostomy by suture, unfortunately without benefit and the man is still under treatment in the medical out-patient department. The result then in this limited group of cases has been discouraging.

Taking the whole of the cases together, pyloric stenosis has been the reason for surgical interference in a large majority. How this particular stenosis arises is not clear, whilst in some instances it is due to the cicatrix of healed ulceration; in most this is probably not the correct explanation. The local condition usually found is a pylorus which will only admit just the tip of the little finger, the opening feels like a buttonhole, the surface layers of the stomach over the pylorus are supple and not infiltrated, there is no puckering or scarring on the peritoneum. This condition appears to be brought about by persistent spasm of the pylorus, initiated by an ulcer at a less or greater distance from the pylorus, or by excess of hydrochloric acid in the gastric secretion, perhaps in some cases ulcer and hyperchlorhydria coexist. I show you a specimen which illustrates these points, taken from a patient who died nine days after anastomosis by Murphy's button. At the necropsy the pylorus admitted a No. 10 catheter with difficulty, a chronic ulcer existed on the anterior surface extending across the lesser curvature to the posterior surface, where it was adherent to the pancreas, having perforated all the coats of the stomach; the ulcer came near to but did not involve the pylorus; the circular muscle of this orifice appeared to be much hypertrophied and fibrosed. Dr. Saundby's note states that free HCl was present to the extent of 0.0357 per cent., that is, it was in excess.

The signs and symptoms of pyloric stenosis are quite definite in the later stages when the stricture is well marked and the dilatation and proptosis have advanced to an extreme degree, associated with in some cases a good deal of hypertrophy of the muscular coat. The story generally told by these patients is one of long-continued indigestion, with pain and vomiting at varying time after the ingestion of food, sometimes of haematemesis or melaena. The vomiting eventually may not be constant, but occurs at intervals of a day or two, large quantities then being brought up with food material very incompletely digested though it might have been taken days before. When the stomach is artificially distended its lower border will be found some inches below the umbilicus, and its upper border is also displaced downwards, showing proptosis as well as dilatation. When the stomach is palpated, and sometimes even when it is not, powerful waves of peristalsis may be seen crossing the organ from left to right. There may be intermission of the symptoms after careful dieting, and especially when the patient is resting in bed, but a return to activity starts the whole train over again. In such cases there is clearly a mechanical obstacle to the emptying of the stomach and a definite thickening may be palpated about the right rectus. But this is the condition of the patient after much suffering, great loss of weight, and inability to work. These severe cases when submitted to operation, if they recover, are enormously benefited, and are restored to health and active life, but because of their enfeebled condition they are exposed to undue risk from operation, and by earlier surgical interference might not only escape this risk but much misery and disability.

Dr. Saundby is of opinion that the minor degrees of obstructive dilatation are often overlooked as in them the classical symptoms, periodic vomiting, and visible peristalsis are absent, and the symptoms are ascribed to chronic gastritis. He holds that the only way to avoid this mistake is by the sytematic employment of inflation in the examination of stomach cases. But dilatation of the stomach is not always dependent upon pyloric obstruction, and where it is due to simply atony experience shows that surgical interference does not give good results. It is, therefore, important

to determine whether obstruction exists or not. Dr. Saundby believes that this may be done by the examination of the contents of the fasting stomach twelve hours after a test meal of bread and meat. He recommends a supper of bread and meat, usually minced meat, to be given at 9 o'clock at night, and at 9 o'clock the next morning the stomach tube should be passed and the stomach emptied. If there is no obstruction the stomach will be completely free from even microscopical traces of food. If there is slight obstruction there may be traces of food, the amount of residue being in proportion to the degree of obstruction. This method has been too recently introduced to enable a final opinion to be given as to its value, but it seems to be based on sound principles and has proved trustworthy in several cases transferred to me by Dr. Saundby for operation.

The earlier recognition of gastric stasis leading to earlier relief by surgical measures is what we should aim at: patients should not be allowed to go on for years in more or less constant distress becoming more and more unable to perform their duties in life, and having to face an operation of some risk at the end. Early operation, in this as in so many other conditions, means safe operation. That the operation must be one of small mortality I fully concede, how this is to be secured I have just indicated. With these general observations on the kind of cases requiring operation, the benefit conferred by gastro-anastomosis, derived from an experience which now extends over about seven years, and the necessity for early operation in pyloric stenosis I turn to the methods of operating. First, let me say a few words as to the rival operations of pylorodiosis or stretching the stricture and of pyloroplasty by which it is incised and subsequently sutured, in either case for the relief of pyloric stenosis. With regard to the first mentioned, in my opinion it should be absolutely abandoned; if dilatation is thoroughly performed the risk of splitting the peritoneal coat and causing a fatal peritonitis is considerable, if the stretching is less complete the stricture is apt to recur quickly as in one of the cases I shall presently relate.

Pyloroplasty is a much better operation than that just alluded to, and is an occasional alternative operation to gastro-jejunostomy. When there is a choice between the two some surgeons prefer it to gastro-jejunostomy, but this is a preference I do not share, the results attained by it in my cases have not been as satisfactory as those brought about by anastomosis, consequently I rarely resort to pyloroplasty. On the making of an anastomosis between stomach and jejunum much ingenuity has been expended and very numerous methods suggested—a sure sign of dissatisfaction with most if not all. I do not propose to occupy your time with a full discussion of these, but will quite briefly summarize the matter and give the conclusions I have arrived at.

First, the union may be made either with the anterior or the posterior surface of the stomach. My earlier operations were all made with the anterior surface, either by means of suture alone, by suture with the aid of a bobbin, or by Murphy's button. The subsequent course was nearly always an anxious one owing to interference with the onward passage of the intestinal contents between the pylorus and the anastomosis, with resulting regurgitation of bile and pancreatic secretion into the stomach and vomiting. In some cases death appeared to me to be brought about directly in feeble patients by this vomiting. This "vicious circle," as it is termed, seemed due partly to the awkward displacement of the jejunal loop when it is brought out of its usual position from the back of the abdominal cavity to the front of the stomach and partly to the drag of the transverse colon, with its constantly varying distance around which the portion of intestine is brought to apply it to the stomach. For the last [illegible] I have, therefore, abandoned the anterior anastomosis [illegible] driven to it by some diseased condition which forbade a posterior junction. The posterior [illegible] is carried out in various ways, each having strong [illegible] to which [illegible] the method I have generally employed is [illegible] Y is much [illegible] [illegible] a complete section across the jejunum, the portion of it [illegible] with the stomach and to the proximal end [illegible] of the distal portion of the jejunum. This enlarged loop was devised to prevent regurgitant vomiting, but as it involves the risks of a double anastomosis I have personally not practised it. We then have left the choice of posterior union by suture alone, by suture with the support of [illegible] Murphy's button. I have done bone bobbin or by the use of Murphy's button. Each has some advantage and some disadvantage. Suture takes longer to apply than does Murphy's button and is more apt to be followed by regurgitant vomiting, as will be exemplified later on, but it leaves no foreign body in the stomach or to be passed out by the bowel with possible risk of ulceration or obstruction. The bobbin helps, I think, to prevent regurgitant vomiting, but is a rather inconvenient object to suture round owing to its bulk, and in a case which I shall presently mention, its use was followed by death from haemorrhage. Murphy's button is quickly applied, and its use is generally followed by an easy recovery with very little, if any, regurgitant vomiting. It may, however, produce obstruction if it escapes down the bowel, a point which I shall presently illustrate, and it may cause perforation about the line of union with fatal peritonitis. If retained in the stomach, as the button often is, it is doubtful if harm happens.

In the choice of methods just alluded to I am not in a position to speak dogmatically, though my judgement, on the whole, is in favour of suturing, still I cannot ignore the easy recovery generally associated with the use of Murphy's button nor can I forget the briefer time occupied in applying the latter when the patient is very feeble, as not infrequently happens, and even a quarter of an hour's prolongation of the anaesthetic is a serious addition to the risks of the operation. In a few cases, too, it is more convenient to use the button because anatomical or diseased conditions allow only of small exposure of the posterior stomach surface with scarcely room for satisfactory suturing as in a patient whose case will be described presently where there was widespread adhesion from an old perforation.

I will not weary you with full details of all the cases in which I have performed posterior gastro-jejunostomy for innocent conditions, though a few I must describe at some length, but I wish to record my results by this method and to urge its general adoption. I have done the operation 18 times with 2 deaths, 8 of of them were by suture only with no death, 2 were by suture and absorbable bobbin with 1 death and 8 were by Murphy's button with 1 death. So much as to the safety of the operation.

The cause of death in the case anastomosed by suture and bobbin was haemorrhage into both stomach and peritoneal cavity, the source of which could not be discovered. There was nothing in the patient's history suggestive of any haemophilic tendency, the operation presented no difficulty, and the suture was carried out exactly as in the other cases. Since this accident I have taken even more precaution to ligature any tiny vessel divided in the transverse meso colon and to close by ligature or suture the vessels divided in the stomach wall. The other death was due to the Murphy button ulcerating through the junction on the ninth day after operation. The patient, a male aged 52, had emaciated and lost strength very rapidly the few days preceding operation, and I am perfectly convinced that his days were lengthened rather than shortened by the operation. My reason for not suturing in this case was the absolute necessity of saving every minute possible at the time of operating, and for the next 36 hours the patient was so feeble that it seemed impossible that he should struggle through, but stimulants and very early feeding by the mouth carried him through this extreme depression. When nutrition is at so low an ebb repair can hardly be carried out in a satisfactory manner, and this no doubt in part, if not entirely, explains the perforation at the line of union. It makes one inclined in future to run the immediate risk which suturing with its greater consumption of time implies but, perhaps, the most useful lesson of these cases is the necessity for earlier operation.

As to case of recovery, I find that in 8 cases of suture troubles me vomiting occurred in 4, in 1 of them presently to be described secondary anastomosis between the portion of jejunum above and that below the union with the stomach was necessary to save the patient's life. In 2 cases treated by suture and bobbin troublesome vomiting did not occur in either. In 8 cases anastomosed with Murphy's button troublesome vomiting occurred in none.

As to the subsequent patency and efficiency of the opening it appears to me to matter little how the union is effected. I have patients going about in comfort and taking ordinary diet years after the anastomosis was made and without any [illegible] of narrowing of the anastomotic opening whatever method was used.

I now propose to describe the chief details of the operation. Little preliminary preparation of the patient is necessary, nothing but fluids is allowed for forty-eight hours before the operation, and much feeding is interdicted after 6 o'clock in

the evening preceding operation, and nutrient enemata are then commenced and repeated every four hours. Stomach washing is never resorted to, a few patients do not resent it, but to the majority it is very disagreeable and occassionally distressing. Cultivations made from 15 of my cases by my friend, Dr. Hewetson, show that the contents of both stomach and jejunum are generally free from bacterial life under the conditions above mentioned. Of the 15 cases 9 gave no growth at all from the stomach or jejunum. In the cases in which growth occurred torulae and staphylococci were each found three times, bacilli, the exact kind undetermined, five times, and streptococci once. Even if washing out were resorted to I doubt if it would have much effect on any organisms in the stomach, and it certainly would have none on those in the jejunum.

To gain access to the stomach the abdomen is freely opened in the middle line, the transverse colon and great omentum are turned upwards, the transverse mesocolon is divided, care being taken to avoid the arches of vessels supplying the colon, and the posterior surface of the stomach is seen. Lying close to it is the junction of the duodenum and the jejunum to the left of the vertebral column. A portion of jejunum not less than 12 in. from this junction is selected for the anastomosis, it is emptied and lightly clamped with Doyen's forceps so as to control its canal and its circulation. A pouch of stomach, drawn through the opening in the mesocolon, is similarly treated and the parts surrounded by sponges are as far as possible brought outside the peritoneal cavity. The junction is made by two rows of sutures, the outer, including peritoneum and muscle, is interrupted once when it has completed a half circle and is then laid aside. Stomach and jejunum having then been opened, and the larger vessels in the stomach incision ligatured, the second suture is applied including all the coats, and it makes a complete circle without interruption. The parts have been held in apposition by an assistant who manipulates the clamp forceps, and at this point the forceps may be taken off before the outer row of suturing is resumed and completed. The parts are swabbed over with normal salt solution and returned into the belly. Recently I have adopted a suggestion of Littlewood's, of Leeds, removing some of the redundant mucous membrane of stomach and intestine before making the second row of sutures, but I have not yet had sufficient experience to approve or condemn this. I may here state that in no case of gastro-jejunostomy, however the anastomosis has been made, have I had a death from septic peritonitis set up by the operation. Indeed, in all cases, both anterior and posterior, numbering about 40, there has been only death due to faulty technique, namely, the one due to haemorrhage which I have already described. The after-treatment is simple.

Nothing is given by the stomach for a few hours, then sips of hot water are allowed, and at the end of twenty-four hours tablespoonfuls of milk and water are taken every half hour. This is steadily increased until by the end of the fourth day a couple of pints of milk per diem are being disposed of, custard, beef tea, or similar food is then added to the diet. On about the tenth day minced meat or chicken is allowed and additions are gradually made until at the end of three weeks an almost ordinary diet is taken. This is subject to variation in patients who suffer much from regurgitant vomiting and is modified also by the condition for which operation is undertaken as, for instance, active ulceration still present in the stomach.

I have already given the number of my cases operated on by posterior gastro-jejunostomy, the general results of the operations, and a few other details.

The following are a few of the more remarkable included in my list of cases, and are introduced in detail to illustrate some particular points:

Case I. *Failure of Pyloroplasty: Complete Relief by Posterior Gastro-jejunostomy.*

History.—Miss K., aged 2.., sent to me November 24th, 1901, by Dr. Martin, of Stourport, with a history extending over four years, during which time she had been subject to pain in the stomach immediately after taking food, and vomiting, but at no time had there been haematemesis. Two years before I saw the patient a surgeon in London had opened her abdomen, but the incision was merely exploratory and nothing else was done. In April, 1901, another surgeon in London reopened the abdomen and finding a stenosis of the pylorus did Loreta's operation of stretching the stricture which gave relief to the symptoms, but by August, 1901, the patient was as bad as ever.

Condition when First Seen.—The only food the patient could take without vomiting was milk; when in bed and taking milk she was free from pain, but was always in pain when up and about. The lower border of the stomach when it was distended reached more than half-way down between umbilicus and pubes; in the epigastrium nearly 2 in. above and slightly to the right of the umbilicus a slightly tender and movable mass measuring about an inch in all directions could be felt, there was no visible peristalsis of the stomach. Discomfort in the region of the left kidney was complained of and the organ was found to be freely movable.

Operation.—On November 26th, 1901, I opened the abdomen and found the pylorus densely thickened, and it evidently formed the mass felt from the outside. Posterior gastro-jejunostomy was performed by suture and Robson's bone bobbin.

After-history.—The operation was well borne; the patient vomited a little during the next two days, and not at all afterwards. Her recovery was quick and easy; she was soon able to take ordinary diet, has continued to do so since, and leads an active life.

In October, 1903, Dr. Martin wrote to me, in answer to my inquiry, and said that the patient is very well indeed.

Case II. *Pyloric Stenosis, Pyloroplasty: Relief for a Time: Relapse: Posterior Gastro-jejunostomy by Suture: Persistent Regurgitant Vomiting: Secondary Anastomosis: Recovery.*

History and Condition.—Mrs. C., aged 41, was admitted to the General Hospital on May 21st, 1902, for pain in the stomach and vomiting. Her illness began eight months previously with several attacks of haematemesis, accompanied by pain in the stomach after taking food. When admitted only fluid nourishment could be taken, as had been the case for months, and even this caused vomiting about twenty minutes later. The stomach was dilated until its lower border reached about 3 in. below the umbilicus. The patient was very neurotic; she suffered from palpitation, from prolapse of the uterus; the period was irregular, the bowels constipated.

First Operation.—On May 26th the abdomen was opened and a stenosis of the pylorus found, which would only admit the tip of the little finger. Pyloroplasty was performed and a good recovery ensued, with fairly complete relief to the symptoms, but by the end of the summer the patient's complaints of pain and vomiting were as bad as ever.

Readmission.—She was readmitted on September 26th, 1902, with pain in the stomach, vomiting, and haematemesis.

Second Operation.—Posterior gastro-jejunostomy was performed on October 6th by suture, and during the following seventeen days persistent regurgitant vomiting occurred, varying from 1 to 3 pints, the last-mentioned quantity being vomited on October 23rd.

Third Operation.—As the patient was rapidly losing ground, becoming thinner and feebler, the abdomen was reopened on this day. The portion of jejunum between the duodenum and the anastomosis was found hugely dilated, so a secondary anastomosis was made between it and a portion of jejunum beyond the anastomosis.

After-history.—Some ounces per diem were vomited for the first few days, the largest amount in any day being 7 oz. Then matters settled down, and the patient was discharged on November 9th, able to take ordinary diet.

Case III. *Pyloric Stenosis and Hour-glass Stomach: Pyloroplasty and Posterior Gastro-jejunostomy.*

History.—Mrs. D., aged 47, sent to me by Mr. Macleod, of Shrewsbury, with pain in the stomach and back and vomiting, became an in-patient at the General Hospital June 13th, 1903. For several years she had been subject to attacks of pain in the stomach and back, accompanied by vomiting, with intermissions lasting three or four weeks. Latterly the periods of relief had become shorter, until finally the pain became continuous and was quite independent of taking food, but was relieved by vomiting, the vomit at times being very large in amount. The patient had been carefully dieted and treated, most relief being afforded by lavage of the stomach, but latterly this had failed and there was steady loss of weight. Distension of the stomach with CO_2 did not show any extreme dilatation, but there was a marked notching in the distended organ suggestive of hour-glass constriction.

Operation.—June 15th the abdomen was opened and a double condition found, namely, a narrow stenosis of the pylorus and a severe constriction of the stomach about the junction of the middle third with the pyloric third of the organ. The first condition was relieved by pyloroplasty, the latter by posterior gastro-jejunostomy between the proximal portion of the stomach and the jejunum. Being driven by the contraction much nearer than usual to the cardiac end of the stomach only a small area of the posterior surface could be exposed without risk of injury to the arterial supply of the colon. This space seemed insufficient for a safe anastomosis by suturing, so a 1 in. Murphy button was employed.

After-history.—An excellent recovery followed the double operation, and the patient was discharged from hospital at the end of a month taking ordinary diet in comfort. A month later she was threatened with an attack of intestinal obstruction due to the button, but this was voided in a day or two, and for five months all went well, weight and vigour were gained and the patient resumed her ordinary household duties. Quite recently she has experienced a new pain immediately under the left costal arch, and vomiting has occasionally happened. It is not evident yet to what this relapse is due, whether to adhesions outside the stomach, to fresh ulceration, to contraction of the anastomatic opening, or possibly to some transient condition which careful dieting and management will put right. The patient is now well again.

Case IV. *Hour-glass Stomach and Gastric Ulcer: Stenosis: Multiple Ulceration: Posterior Gastro-enterostomy with Removal of Ulcer: Recovery: Subsequent Complete Relief to Symptoms.*

History.—In October, 1902, I was asked by Dr. D'Abreu to see a Mrs. K.,

aged 4.., was suffering from pain in the stomach and vomiting. The latter extended over six years, but there was at times intermission of the symptoms, but never permanent relief, at no time had there been haematemesis or melaena.

The patient was extremely emaciated, had been confined to bed for some weeks, and subsisted entirely on milk. Another kind of any kind could be tolerated, and even with milk alone she occasionally vomited a large quantity of fluid. The stomach appeared to be much dilated reaching nearly to the pubes, and peristaltic waves could be seen passing across it from left to right. In the umbilical region was a mass larger than one's fist which appeared to be closely attached to the stomach, it was firm, rather lobulated and tender, the mass moved with some freedom in the lateral but only slightly in the vertical direction. The patient was extremely anaemic and weighed only 4st. lb. The urine and the motions were free from blood. The long-continued history, the mobility of the stomach tumour, and the absence of cachexia such as is associated with advanced malignant growth, led me to believe that I had to deal with a case of chronic ulcer with massive inflammatory thickening around, and I proposed gastroenterostomy to the relief of the condition.

On opening the abdomen on October 20th, 1903, the large mass felt through the parietes was found to occupy that portion of the stomach next to but not involving the pylorus, the tumour was pinkish in colour as if from inflammatory injection, and it was markedly oedematous. A posterior anastomosis was quickly made with Murphy's button as the pulse was very feeble and quick, running up to as high as 1..

Recovery was entirely uneventful, the patient was never sick, the tumour mass rapidly disappearing by the eighth day to be reduced to about half its former size, on the twentieth day the patient's weight had increased 1.., and she left the hospital on the twenty-third day after taking solid food. Since that time she has continued to thrive, can do her household work, and has gone up in weight from 4st. 7lb. to 5st. 1lb.

[illegible]

E. P., aged 4.. years, was sent to me by Dr. Mary Hamilton, Newmarket, and was admitted to the General Hospital on January 1..., 1... She had been treated at the Liverpool Infirmary by Mr. Hamilton for a perforated ulcer on the anterior wall of the [illegible] Prior to that she had suffered from indigestion for some years, with periodical attacks of vomiting, and at times haematemesis. Following the operation just mentioned the patient had a period of comfortable digestion which lasted a few months, then the old symptoms returned, and vomiting a little later, whilst on the occasions of haemorrhage the last time being about three months ago. The pain was relieved very soon after taking food, and was generally relieved by vomiting.

On admission.—The patient was anaemic but well nourished; the menses were suspended, the period was irregular. There was no evident tumour, nor could the stomach no definite thickening could be felt through the abdominal wall, but there was some degree of tenderness all over the upper [illegible] of the abdomen. Milk could be taken as a diet with freedom from pain or discomfort, but the patient was also distressingly recumbent, but if she remained [illegible] gave rise to pain and vomiting; if she remained [illegible] food but milk was tolerated.

On January 11th, 1..., posterior gastro-enterostomy was performed by the very widest [illegible] the pyloric end of the posterior surface of the stomach, [illegible] little to allow of safe suturing and a small opening [illegible] tumour was made by a finger, the opening was so narrow as only to admit the tip of the finger, no active ulcer existed in any part of the [illegible] to determine [illegible] none was felt.

Recovery followed, the patient vomited [illegible] after operation and not again. The [illegible] and on the fourth day [illegible] practically an ordinary [illegible]

[illegible]

Dr. Mary [illegible]

matters and examination of the stools showed that a considerable quantity of blood escaped by the bowel. The patient was very anaemic, he was heart sound, and presented the appearance of a man who was gravely ill. The pain was relieved at night to procure any rest.

Duodenal ulcer was diagnosed, and at the operation a dense thickening over an area of about an inch in diameter was felt in the second portion of the duodenum mainly in the posterior surface, but also involving some of that on the outer wall. Posterior gastro-enterostomy was performed.

An absolutely uneventful recovery has followed, entirely free from recognized vomiting. Pain has been entirely absent except on one occasion after an indiscreet meal. No morphine has been required, and there has been no further loss of blood by the bowel. At the end of fourteen days the patient was up and about in the ward taking the ordinary house diet. He was discharged apparently well on February 11th, and has since been in excellent health.

ACUTE INTESTINAL OBSTRUCTION CAUSED BY SYPHILITIC ULCERATION IN THE ILEUM.

BY JOHN M. ELDER, M.D., C.M.,

Surgeon Montreal General Hospital, Assistant Professor of Surgery, McGill University, Montreal, Canada.

E. L., aged 23, labourer, was admitted to the ophthalmological department of the Montreal General Hospital on August 20th, 1903, suffering from extensive ulceration of the left upper eyelid. This trouble, he stated, began about one month prior to admission in the form of a small, painless papule on the lid, which so rapidly increased in size that the surrounding swelling of the lid prevented him from opening the eye. The affected area on the summit of the lid then broke down, forming a spreading painless ulcer, which showed no disposition to yield to topical healing remedies.

Status Praesens.—The patient, a fairly well-nourished young man, not markedly anaemic, showed three ulcerating patches, almost coalescing, on the left upper eyelid, one about the centre of the lid, ½ in. above and parallel to the ciliary margin, ¼ in. long and about ⅛ in. wide. The second, near the outer canthus, was circular, and about ½ in in diameter. The third was at the inner canthus somewhat stellate and elongated. All three were deep-seated, and sharp, punched-out edges, with unhealthy bases and absence of granulations. The skin of the upper lid was congested, but there did not appear to be any tendency to infiltration. The skin of the lower lid was markedly pinkish, and at the outer side of the eye there was a well-marked [illegible]

A few hours after his admission to the hospital he developed acute abdominal symptoms, the first thing noticed being a sharp intermittent pain at the umbilicus coming on half an hour after a meal. He next felt nauseated, but could not vomit. Mental uneasiness was persistent. He passed urine normally. The pain became continuous, and as the abdomen was becoming markedly distended and rigid, the patient's general condition was one of collapse. I was sent for in the night to see him. I found him very depressed and mentally dull, with shallow breathing, rapid pulse, and subnormal temperature. The abdomen was moderately distended rather more about the umbilical region than elsewhere, marked rigidity of abdominal muscles, especially in the epigastric region, but tenderness only to a moderate degree, with no marked rebound tenderness. There was no vomit, but considerable [illegible] I got the history as given above, and was assured by the medical superintendent that the patient was hourly growing worse, as indeed I saw for myself. A careful urinalysis gave us no clue to [illegible] We therefore determined upon an exploratory laparotomy as the only means of clearing up the diagnosis, and of possibly saving the patient's life.

He was taken at once to the operating room, where under [illegible] the lid [illegible] was opened [illegible] and [illegible] the tissues [illegible] tuberculous. In the peritoneal cavity was found a considerable quantity of turbid, yellowish, odourless sero-purulent fluid, in which floated a number [illegible] like pieces of fibrin. The peritoneum was injected but no [illegible] could be seen. The intestines were very much distended, the [illegible] and most part of the ileum were [illegible] and [illegible] This showed that the obstruction was [illegible] On turning up the omentum [illegible] [illegible] [illegible] were noticed. At a point about two and a half feet [illegible] the gut was found to be [illegible] and it was with some difficulty that these adhesions were separated and the loop delivered through the incision. It was then found that the [illegible] adhered to the [illegible] at its convex border, giving it a [illegible] appearance. The [illegible] was extended [illegible] as the bowel above [illegible] The bowel above that point was [illegible] very dark, and contained [illegible] The [illegible] was carefully separated from the [illegible] bowel to which it was attached by firm old adhesions [illegible] [illegible] was then completely obstructed by a [illegible] [illegible] [illegible] We found at once that the bowel above the

constriction, was filled with quite recent blood. An end-to-end enterorrhaphy, with catgut suture, was done, and the bowel replaced, the abdomen was well irrigated with hot saline solution, and a large rubber drainage tube passed down into the pelvis, the abdominal wound closed around the tube, layer by layer, and patient given a rectal saline with brandy, and sent to the surgical ward. On examining the resected portion of intestine, it was found that adherent to the mesenteric attachment there was an old ulcer, showing loss of tissue of the mucosa, but without evidence of surrounding inflammation, and not involving the underlying muscular coats of the bowel. Opposite to this ulcer was a small abrasion in the mucosa, showing evidence of recent haemorrhage from some small vessel there, and this blood had dissected up between the mucosa and muscularis, causing a haematoma, opposite the ulcer, sufficient to quite obstruct the lumen of the gut at this point. Beyond the obstruction the blood was escaping into the proximal part of the bowel, where it was observed before resection. Cultures of the free fluid in the peritoneal cavity showed B. coli infection. The pathologist's report of the specimen is as follows: "On mesenteric border of portion of small intestine received, the mucosa is atrophied and tissues contracted at base of cicatrizing ulcer. Opposite mesenteric border is a haematoma beneath the mucosa. Underneath the area of attached mucosa is an effusion of blood. Lumen of bowel is filled with a blood clot. Mesenteric arteries show extensive sclerotic changes."

Result.—The patient made an uninterrupted recovery after the operation, the bowels acting the day following operation and regularly thereafter. He left the hospital in twenty-two days, is now at his work, and has regained his normal weight.

Remarks.—Clinically, this case was a rather unique and most interesting study to me, and before saying anything about the literature bearing on it I wish to refer shortly to the history. Here was a young man, with no history of venereal infection, it is true, who developed a typical tertiary ulcer on the eyelid. This chronic ulcer subsequently healed quickly and completely under mercurial inunctions (which were begun two days after operation), combined with pot. iod. grs. xv-xxx t.i.d., though locally it was not treated, except by an ordinary boracic compress. The ulcer in the bowel presented similar syphilitic characters, and we had evidence, microscopically, of an endarteritis, which, in a man of 23, with such an associated skin lesion, was presumably also syphilitic. The possibility of typhoid ulceration was thought of, but against that was the absence of other symptoms, the absence of the Widal reaction (for which we tried several times), and the position of the ulcer (at, and not opposite to, the mesenteric attachment). All these considerations, in conjunction with a typical tertiary skin lesion, yielding readily to antisyphilitic remedies, makes the diagnosis of syphilitic ulcer of the small bowel almost certain.

As I afterwards ascertained from the patient, there was a history of obscure abdominal symptoms for some time before admission to the hospital. He had noticed "pains in the stomach after eating" for a month previous, but he had had no vomiting nor had he lost flesh. He had also alternations of diarrhoea and constipation for about the same time, but never severe enough to interfere with his work. It would seem, therefore, that though the haemorrhage had produced the complete obstruction, he had doubtless previously suffered somewhat from the intestinal ulcer. He is still under appropriate antisyphilitic treatment.

The surgical literature on this subject is, so far as I have been able to examine it, very scanty. Many textbooks on surgery say nothing about the subject at all. Treves, in his work on *Intestinal Obstruction* says: "Excluding the rectum, syphilitic ulcers of the bowel are rare. They may be met with in any part of the intestine, but according to Rieder[1] are most common in the upper part of the lesser bowel.....It is said that syphilitic ulcers produce stenosis of the bowels. If any deductions can be drawn from the effects of tertiary syphilitic ulceration of the rectum this can be quite well understood. There is no doubt that a gumma in the wall of the gut may lead to a stricture without causing any ulceration of the mucous membrane."[2]

In that most excellent *Manual of Surgical Treatment* lately published by Messrs. Watson Cheyne and Burghard, the reference reads (vol. vi, p. 352): "Syphilitic ulceration leading to stricture is very rare in any part of the intestinal tract except the lower part of the rectum." Rose and Carless[3] state that "stenosis of the small intestine due to cicatricial stricture may arise from syphilitic disease, and may long remain chronic or almost unnoticed until some intercurrent condition produces complete obstruction." But no special stress is laid on the subject, and no case is cited.

The *American Textbook of Surgery* dismisses the subject curtly thus: "Syphilis of the intestinal tract in the adult has little interest for the surgeon" (p. 166). Similarly, even from a pathological point of view, I think we may safely say that syphilis of the intestinal tract is a comparatively rare condition, and, as Treves says, is generally seen in the rectum and colon. Oberndorfer has collected 25 cases of congenital and 24 cases of acquired disease showing lesions in the intestinal tract. Fournier is mentioned as having found about a dozen cases.

Oberndorfer in his 25 cases of congenital lues reports as to the site of trouble in the intestine: jejunum, 9 cases; near ileo-caecal valve, 3 cases; colon, 6 cases.

Thoma recognizes the four following conditions which may be found in any organ as the result of syphilis: (1) Simple hyperaemia, with a few clumps of lymphoid cells in the region of the smaller blood vessels. (2) Exudate; this may be rich or poor in cells, and is usually accompanied by changes in the walls of the capillaries and smaller arteries. (3) Dense round-celled infiltration, together with formation of new connective tissue on the one hand and degeneration on the other, resulting frequently in superficial or deep ulcers. Dense scar tissue formed from the above-mentioned new connective tissue. Jurgens differentiates the syphilitic lesions of the intestine into three classes: (1) Superficial lesions; these usually show fatty and necrotic changes, and occur most frequently near the ileo-caecal valve. (2) Gumma. (3) Eruption of miliary nodules in the mucosa, serosa, and muscularis. The nodules closely resemble tubercles, but are distinctly yellow. Lochte found these in a necropsy of a case of congenital syphilis where other lesions made the diagnosis certain.

In children dying from congenital syphilis the intestines frequently show circumscribed or circular areas of hyperaemia, also patches of infiltration or definite ulcers. Scar tissue is found in rare instances. Exudates and adhesions in the peritoneum are found.

In acquired syphilis the same anatomical picture is presented with certain peculiarities. There is a marked tendency to the formation of nodules or girdles of infiltrated tissue, or else ulceration. The ulcers are usually flat, starting in the submucosa, and soon followed by loss of the epithelium. Their depth varies, perforation being not uncommon, resulting in local abscess or general peritonitis. In 35 cases of acquired disease there were 7 perforations. At least one such case has been seen in the congenital form.

On the other hand, the ulcer may heal with the formation of scar tissue and consequent stenosis. This has been seen in 7 cases, in 4 of which the intestine above the stricture was distinctly dilated.

The prognosis of this disease may be judged from the fact that a fifth of the cases die from perforative peritonitis, another fifth suffer from multiple intestinal stenoses, and a certain percentage have repeated intestinal haemorrhages. Involvement of the intestine is a very severe complication in syphilis.

As to the therapy, mercury and the iodides are, of course, indicated for the general condition. The haemorrhages should be treated by absolute rest and opium. Perforative peritonitis and stricture should be dealt with according to the general principles of surgery. These are a few extracts from a very full discussion on this subject, with excellent bibliography, in an article by Dr. A. Weiss, in the *Centralblatt für die Grenzgebiete der Medicin und Chirurgie*, August, 1902, which should be read by any one interested in this subject.

REFERENCES.

[1] *Arch. Clin. Med.* [illegible], vol. i, 1892, p. 31. [2] *Intestinal Obstruction*, p. [illegible]. [3] *Manual of Surgery*, p. 521.

SOME CASES OF INTESTINAL OBSTRUCTION SUCCESSFULLY TREATED.

By WILLIAM TAYLOR, B.A., M.B.Univ. Dub., F.R.C.S.I.,

Surgeon, Meath Hospital and County Dublin Infirmary; Consulting Surgeon, Cork Street Fever Hospital; etc.

THE following paper is a sequel to a communication which I made last year to a society, entitled Some Fatal Cases of Intestinal Obstruction. In the discussion that followed the desire was expressed that on a future occasion I should bring forward those cases in which more success attended my efforts. This, then, is my apology for dealing with a subject that many will say is already worn threadbare.

For convenience I have arranged the cases as far as possible into groups.

CASE I.

Case 1 was that of a man aged 4[illegible] years who was [illegible]mitted into the

Meath Hospital under Dr. Craig's care complaining of constipation, vomiting, abdominal distension, and pain. The previous history was that of occasional attacks of diarrhœa, but increasing difficulty in getting the bowels to act was the most noticeable feature. For over a week before admission the bowels had not acted, though he had taken several doses of medicine. The abdomen was enormously distended, the intestinal coils being clearly outlined. Vomiting was severe and decidedly stercoraceous in character. The clinical clerk administered an enema, but without any effect. Next day Dr. Craig asked me to see the man with a view to operation. On hearing the history and looking at the man the diagnosis of acute, supervening on chronic, obstruction was obvious, and its cause was easily determined on making a rectal examination. About 3 in. up the rectum was blocked with a fixed mass of cancer. On getting the patient to pass water immediately before operation some bright red blood was mixed with the urine, and the patient informed me that for some weeks he had been compelled to evacuate his bladder more frequently both by day and night than previously. This condition pointed to implication of the bladder by the growth. The stomach was washed out, ether administered, and a left inguinal colostomy performed, the gut being opened and washed out at once. This had the effect of prolonging the patient's life for close on four months, but his condition was truly pitiable on account of the cystitis and pain in the bladder. The bladder was irrigated twice daily, but morphine had to be given in large doses to subdue the pain and give rest.

CASE II.

Case II was that of a woman, aged 42 years, who was admitted into the Meath Hospital under my care with all the symptoms of acute obstruction. The previous history showed that on three occasions during the three previous months she had been under the care of a surgeon for similar, but not quite so severe, symptoms. On each occasion she informed me this gentleman ordered the "sister" to give her an enema, which acted, and in a couple of days she was again able to leave hospital. On examination the abdomen was considerably distended, the distension being much marked along the course of the colon. The vomiting was gushing and severe, but though of a brownish colour did not possess any faecal odour. The hernial rings were free, but rectal examination revealed a mass of cancer which was quite adherent to the sacrum behind, and I was doubtful as to whether it was not also adherent to the uterus in front. Left inguinal colostomy was performed as quickly as possible, and the gut opened and washed out. I know this patient was alive sixteen months after, but I then lost sight of her.

CASE III.

Case III was that of a man aged 50 years, who was admitted under my care one night last September complaining of constipation, abdominal pain, distension, and vomiting. For several months he had had considerable difficulty in getting his bowels to act. During this time he got a few attacks of diarrhœa, which he had attributed to the aperients he had taken. For six days before admission his bowels had not acted at all, while for a week before that they had only acted very slightly. The vomiting was bile-stained. The abdomen was generally distended, the distension being most noticeable along the course of the colon. The hernial rings were free, but rectal examination revealed a mass of cancer situated as high up as the finger could reach. As his condition was not very urgent a hypodermic of morphine was administered, and operation postponed until the next morning when inguinal colostomy was performed in the usual fashion, and the gut opened and washed out at once. Here again in a few days we had evidence of implication of the bladder, which was then daily irrigated with warm boric lotion, while the pain was relieved by morphine. In this case the obstruction was relieved and life prolonged for about two months.

CASE IV.

Case IV was that of a boy aged 13 months, who was taken suddenly ill some days [illegible] with screaming, acute pain, and vomiting. The pain seemed to come in paroxysms, with intervals between of about five or ten minutes, and was attended with profuse perspiration, later the intervals between the paroxysms were as much as an hour. The bowels acted soon after the onset of pain, and [illegible] three times, the last motion containing some blood. The eyes were sunken, the lips drawn, and the eyes surrounded by a dark area. It could easily be detected in the position of the transverse colon, and there was a well-marked loss of resonance in the right [illegible]. Chloroform was administered, and the abdomen opened under anæsthesia. [illegible] intussusception which had extended [illegible] of the colon was easily reduced. [illegible] and the child made a good recovery. The operation was completed in less than twenty minutes.

CASE V.

Case V was that of a girl, aged 13 years, who was taken ill six days before admission into hospital with abdominal pain and vomiting. The bowels acted twice soon after the onset of pain, each action taking place immediately after or towards the end of a paroxysm of pain. When seen by me about an hour after admission except that the child looked seriously ill, with a little pale anxious face, my examination was entirely negative. Two drops of tincture of opium were ordered to relieve the child's suffering. Next day the condition was much the same, a paroxysm of pain occasionally making the child scream out, but she only vomited once during the twenty-four hours after admission. Examination of the abdomen both during and in the intervals between the paroxysms of pain failed to reveal anything. On the second day after admission a swelling could easily be detected in the right half of the pelvis. Pressure upon this caused the child to cry out and the abdomen to become rigid. Under chloroform the swelling could be easily felt to be a distinctly oval shaped mass, and this was further confirmed by placing one finger in the rectum and the other hand on the abdomen. I decided to explore at once, so had the child brought to the theatre and the abdominal wall cleansed. While the abdominal wall was getting its final washing I noticed that the swelling could no longer be felt while immediately before this it was even visible. I hesitated for a moment or two as to what I should do but knowing that the last portion of an intussusception, which I considered this to be, is often difficult to reduce I desired to make a small incision and explore the abdomen with the finger inside and thus make sure that everything was right. Except for a little serous fluid that escaped on incising the peritoneum nothing abnormal was detected, and the small wound was closed with three silkworm-gut sutures. The facial appearance of the child after this was quite different. Its recovery was complete. I have no doubt but that this was an example of intussusception reduced by manipulation. As regards the diagnosis we were not unmindful of the fact that Henoch's purpura sometimes closely simulates intussusception, but there was no evidence to warrant the suggestion that this was such a case.

CASE VI.

Case VI was that of a little girl aged 2 years, who was taken ill a few hours before admission into hospital with abdominal pain and vomiting. The bowels acted twice soon after the onset of pain, each action taking place immediately after or towards the end of a paroxysm of pain. When seen by me about an hour after admission except that the child looked seriously ill, with a little pale anxious face, my examination was entirely negative. Two drops of tincture of opium were ordered to relieve the child's suffering. Next day the condition was much the same, a paroxysm of pain occasionally making the child scream out, but she only vomited once during the twenty-four hours after admission. Examination of the abdomen both during and in the intervals between the paroxysms of pain failed to reveal anything. On the second day after admission a swelling could easily be detected in the right half of the pelvis. Pressure upon this caused the child to cry out and the abdomen to become rigid. Under chloroform the swelling could be easily felt to be a distinctly oval shaped mass, and this was further confirmed by placing one finger in the rectum and the other hand on the abdomen. I decided to explore at once, so had the child brought to the theatre and the abdominal wall cleansed. While the abdominal wall was getting its final washing I noticed that the swelling could no longer be felt while immediately before this it was even visible. I hesitated for a moment or two as to what I should do but knowing that the last portion of an intussusception, which I considered this to be, is often difficult to reduce I desired to make a small incision and explore the abdomen with the finger inside and thus make sure that everything was right. Except for a little serous fluid that escaped on incising the peritoneum nothing abnormal was detected, and the small wound was closed with three silkworm-gut sutures. The facial appearance of the child after this was quite different. Its recovery was complete. I have no doubt but that this was an example of intussusception reduced by manipulation. As regards the diagnosis we were not unmindful of the fact that Henoch's purpura sometimes closely simulates intussusception, but there was no evidence to warrant the suggestion that this was such a case.

CASE VII.

Case VII was that of a young woman of 21 years who was taken ill, five days before admission under Dr. Craig's care with pain in the abdomen and vomiting. The bowels had not acted for two days before the attack. There was a history which pointed to an attack of peritonitis a couple of years before this. Several doses of medicine had to be taken and a doctor administered two enemata to her but without any other result than that of increasing her pain and vomiting. Dr. Craig, seeing that she was suffering from acute obstruction asked me to see her with a view to immediate operation. On examination the hernial orifices were all free, the abdomen was generally distended, but slightly more so just to the left of the middle line below the umbilicus, at which place she complained of tenderness on pressure. At this place also one could detect a distended coil of intestine on palpation. It was thought this was the most likely site of the obstruction. Rectal examination failed to reveal anything. On opening the abdomen fæces through the [illegible] a number of distended and congested coils protruded and directly in the site of the previously detected tenderness the cause of obstruction was found to be a band enclosing a branch of the coils of the colon. Its separation was quickly effected, but in doing so a portion of the softened wall of the intestine was opened, giving exit to some of its contents. This was easily closed again by a few Lembert sutures. The coils of intestines in the pelvis were found to be firmly adherent to each other at acute angles, so that I have no doubt if they had not been separated the liberation of the strangulated coil of intestine would not have completely relieved the obstruction. The only trouble subsequently was a severe diarrhœa, which started some fourteen hours after the operation and continued for several days. This was the first case in which I was led to wash out the stomach after a well, as before the operation as we noticed that though the stomach had been washed out there was still [illegible] prior to the administration of the anæsthetic. [illegible] vomiting came on just as she was being lifted off the operating table. After being put to bed I passed the tube and washed out a considerable quantity of stercoraceous material more, in fact, than I had been able to wash out prior to the administration of the anæsthetic. From the great benefit of the post-operative gastric lavage in this case and in subsequent cases of [illegible] to which I subjected [illegible] to get certain positive results. To this procedure I draw your attention specially last session.

CASE VIII.

Case VIII was that of a woman, aged [illegible] years, who was admitted under my care into a large [illegible] hospital [illegible] symptoms of intestinal ob-

struction. The hernial sac was opened up and the omentum separated from it with some difficulty, but there was no evidence of strangulated intestine. The omentum was pulled out and removed after ligatures had been applied. On passing the fingers into the abdomen after enlarging the orifice a distended coil of intestine was felt, and on examining this further it was found to be strangulated by a fibrous band, which passed upwards and backwards from the upper part of the umbilical orifice to the mesentery, to which it was adherent and from which it was easily separated, thus liberating the strangulated coil. The other end was ligatured and cut off and the wound closed. Recovery was uninterrupted.

Case IX.

Case IX was that of a spare woman, aged 56 years, who was admitted into hospital with symptoms of obstruction of a chronic character. Diarrhoea alternated with constipation for some months, but for some days prior to admission the bowels had not acted. There was no vomiting. Pain was complained of for some time in the right iliac fossa, and a tumour was not only easily detected on palpation but was distinctly visible through the thin abdominal walls. A provisional diagnosis of cancer of the caecum and ascending colon was made, and exploration undertaken with a view to removal if possible. However, on opening the abdomen, the adhesions were so extensive and the mesenteric glands so enlarged, it was considered that a palliative procedure to obviate the inevitably acute obstruction was the only advisable course to adopt. A lateral anastomosis was then effected between the ileum and the left side of the transverse colon. This operation gave complete relief to the obstructive symptoms—in fact, the bowels acted a few hours after operation. The patient got occasional attacks of diarrhoea during the six months that followed before her death, but no evidence of obstruction.

Case X.

Case X was that of a woman aged 55 years, kindly sent to me by Dr. Wallace Beatty. She was taken ill last Christmas night with abdominal pain and vomiting. This pain and vomiting continued during the night and up to the time she was seen by Dr. Beatty, who gave her husband a note addressed to me, in which he asked me to admit her into the Meath Hospital as an urgent case of intestinal obstruction.

I had her admitted and saw her soon after. The abdomen was distended, but chiefly on the right side. Some distended coils could be easily palpated. The pulse and general condition were good. The hernial rings were free, and rectal examination revealed nothing of importance. An enema did not produce any effect. Though her condition was not urgent, I determined to operate at once. When the abdomen was opened the caecum and ascending colon bulged into the wound. Their great distension rendered an accurate diagnosis of the state of things impossible, so the caecum was incised and its contents, as well as those of the ascending colon, evacuated. It was then seen that the cause of obstruction was a cancerous growth involving the hepatic flexure of the colon. Secondary deposits were found in the omentum and mesentery, conditions which precluded radical treatment of the stricture. The ileum was then brought across and fixed to the sigmoid flexure by means of the largest-sized Murphy button (as the quickest method). The small opening in the caecum was previously closed by a continuous Lembert suture. The condition at the end of the operation was very good, and since that she has never had a bad symptom. The bowels acted freely on the third day, and since the fifth day have been acting daily without medicine. The button was passed on the eleventh day. The woman is now convalescent.

Case XI.

Case XI was that of a young man of 22 years of age who was sent to me by Dr. Sandes from Cork Street Fever Hospital on December 27th. He was taken ill the previous evening with pain in the abdomen and vomiting. On inquiry it was ascertained that he had been drinking heavily for some time before Christmas, but his bowels had always been regular, and he did not remember ever having had an attack of pain of this character prior to the present one. Dr. Sandes had diagnosed intestinal obstruction, but when I saw him soon after admission into the Meath Hospital I failed to detect any evidence of it. His pulse was 64, regular and strong; he had no pain whatsoever, no vomiting for several hours, the abdomen was soft and not at all distended. There was no tenderness anywhere. The hernial rings were free, and rectal examination did not give us any information. This was at 4 p.m. Nothing was given by mouth except very small quantities of milk and soda-water. He slept all night, had not a single spasm of pain, and did not vomit once. Next morning he felt quite well, wanted something to eat, and was very anxious to be allowed up. The examination of the abdomen was entirely negative; there was no distension. Having regard to the fact that Dr. Sandes, who had seen the patient in Cork Street Hospital, had diagnosed internal obstruction, I was careful to keep him in bed, but ordered a dose of oil, which I felt certain would precipitate matters if obstruction really existed. Orders were given to have everything in readiness for operation in case pain and vomiting recurred.

Some hours afterwards I received a telephone message to say the patient was in severe pain and vomiting profusely. I went across to hospital at once and proceeded to operate as soon as possible. The cause of the obstruction was found to be the passage of a loop of the lower portion of the ileum through a hole in the right side of the great omentum; the free end of the omentum beyond had become adherent to the mesentery of the small intestine close by, and in its turn was exerting further pressure on the herniated loop. The omentum was quickly separated and the strangulated loop easily reduced after enlarging the opening in the omentum. This opening was then closed by a couple of cagtut sutures, and the abdomen closed by suturing in tiers. The stomach was washed out and the patient put to bed. Except for an attack of pneumonia involving the upper lobe of the right lung, there was nothing in his subsequent condition to be apprehensive of. The bowels acted after a dose of calomel on the second day. He is now quite well.

Case XII.

Case XII was that of a man, aged 31 years, who was sent to me four weeks ago from Cork Street Fever Hospital, where he had been treated for the previous month for typhoid fever. On the night prior to being sent to me he was taken suddenly ill with pain in the abdomen and vomiting. Dr. Day saw him soon after, and believing him to be suffering from appendicitis sent him to me next morning. I saw him immediately on admission when the patient looked very seriously ill. The abdomen was slightly distended, and generally resonant on percussion. There was slight rigidity over the right lower quadrant of the abdomen. The bowels were confined and an enema had no effect. Rectal examination revealed nothing of importance. The pulse was about 120, but fairly strong. I felt doubtful as to the diagnosis, but as the aspect of the patient was that of one suffering from some severe peritoneal lesion I opened the abdomen as soon as possible by a small incision. On dividing the peritoneum a considerable quantity of serous fluid escaped. This fact coupled with the history of severe pain and vomiting coming on suddenly led me to form the opinion that the case was one of intestinal obstruction. This opinion was further confirmed by the appearance of a distended coil of small intestine, while the caecum was found to be empty. On passing my fingers down into the pelvis I immediately detected the cause of obstruction. The abdomen was then freely opened. The cause of the obstruction was found to be an adhesion between the left side of the great omentum and some inflammatory material in the right side of the pelvis, a coil of ileum being strangulated round the adherent omentum. The omentum was easily separated, thus liberating the strangulated coil. An enlarged and softening omental gland was removed from the omentum close to its attachment to the transverse colon on the left side. The adhesions in the pelvis were then separated, in the midst of which was found the appendix diseased. Its mesentery having been ligatured I removed the appendix in the ordinary way, after which the abdomen was closed. A small piece of gauze was placed in the pelvis where the adhesions were separated, as a couple of drops of pus were seen during the separation of the adhesions. The gauze was brought out through a small opening previously made in the appendix region. The stomach was thoroughly washed out immediately after the operation. The gauze was removed in twenty-four hours, and for about thirty hours everything went well, but about this time vomiting and hiccough of a distressing nature supervened. Examination of the abdomen showed that there was no reason to be apprehensive of peritonitis. There was neither tenderness, rigidity, nor pain. The epigastrium was greatly distended, indeed the stomach seemed almost outlined on the abdominal wall. The stomach was then thoroughly irrigated, a procedure which gave great relief from the sickness and hiccough for some hours, but eventually the vomiting returned worse than ever, being this time almost black or of a very dark brown colour. The bowels had meantime acted freely, and there was no colicky pain suggestive of recurrence of the obstruction. The stomach was again well irrigated with sodium bicarbonate solution, and orders were given to repeat the process as often as there was any recurrence of the vomiting. In all, the stomach had to be washed out four times after this with the result that the patient is now quite well. He suffered from an attack of parotitis which lasted for three days and then subsided.

Case XIII.

The last case is that of a gentleman aged 51 years, whom I was asked by Dr. Craig to see in Portobello Private Hospital on June 20th last. At that time he was suffering from a large abscess situated in the anterior abdominal wall. Under anaesthesia it was opened and an enormous quantity of very fetid pus evacuated. The cavity was well irrigated and its walls, which were in a sloughing condition, as thoroughly cleaned as it was possible to do. Two drainage tubes were passed into the cavity and the usual dressings applied. That night, for the first time for several days, his temperature was normal. His bowels were well moved by an aperient given the previous night and an enema administered a few hours before operation. On the fourth day he was so well and felt so hungry that he insisted on getting solid food; the bowels acted well during the night. The discharge from the abscess was still slightly fetid.

On June 24th—that is, the fifth day—he felt uneasy in the stomach, with an inclination to sickness, vomited once, and told me he knew he had eaten too much on the previous day. Solid food was stopped and an enema ordered.

On June 25th, at 3.30 a.m., I received a telephone message to say patient was vomiting enormous quantities of black material and was very weak. On arrival a few minutes later I found the abdomen greatly distended, the breathing very quick, and the pulse very feeble and irregular. At my request Dr. Craig was sent for, and in the meantime I proposed to wash out the stomach. The vomited material was so black that Dr. Craig and I were of opinion there must have been haemorrhage into the stomach. The stomach tube was then passed, and at least half a gallon of this black stuff removed. The gastric lavage was continued until the fluid returned quite clear. It was also seen that the irrigation had considerably reduced the distension of the upper part of the abdomen. Ten drops of adrenalin chloride were administered by mouth and one-thirtieth of a grain of strychnine was given hypodermically.

After some time, as there was no sign of returning consciousness, two compound salol pills were given. An enema was ordered to be given at 8 p.m. if the bowels did not act before that time.

At 8 p.m. when Dr. Crawford Renton and we saw him the only other change was the expression of more distress, the pulse remaining scarcely discoloured. The abdomen was somewhat more distended and tympanitic, especially in the epigastrium and umbilical region. There was no pain or tenderness on pressure, or vomiting. Patient informed us his bowels were at all times disposed to move, and that he was in the habit of taking at least two ounces of Apenta water for a dose every morning, and instructed that we should give him that amount as he knew it would give him relief. His temperature at 8 p.m. in the room was 97°, and the pulse was 120, regular and feeble. There had been no vomiting since the enema, only small quantities of tea and brandy were allowed.

At 9 p.m. his condition was unchanged. There was no return from the bowels. The passage of a small tube was the only object of an enema.

June 20th. No improvement; abdomen more distended; outline of large intestine very distinct; no tenderness; dulness over site of abscess unchanged. The vomiting [illegible] distressing, the discharge from the stomach had almost ceased and there was no action from the bowels. Opium was now administered hypodermically, and the patient was kept under observation. An enema of warm salt water was given but we did not consider it advisable to give any more nourishment by the mouth.

[illegible] and vomiting [illegible] with the exception of the enema and [illegible] had produced no effect. We decided on operative procedure, but the patient just as [illegible] there was no operating but [illegible]

[illegible] was that he ought to be watched [illegible] operation.

At 2 p.m. As the bowels had not moved we would allow us to operate, [illegible] what that [illegible] I opened the abdomen by a small incision [illegible] and tied a Paul tube into the first loop of gut that presented. This was done as he lay in bed without any general anæsthetic. A little enema was inserted into the tube if the patient felt [illegible] some serous fluid escaped, and a coil of intestine—but whether large or small we could not say—was protruded against the abdominal aperture of the abscess in the wound. The distension of the coil was so great that it was impossible to pass the finger round it or hook it up into the wound, but it seemed to be pressed with such force against the wound that I thought it was going to penetrate it where it lay. The edges of the small opening made by the knife in the gut were gaping widely with escape into the bowel pulled forward as the contents were forcibly ejected. When sufficiently marked to be still visible through the wound, a clamp was placed on the coil of the opening, and with three or four sutures the coils of the gut were sewed to the peritoneum and deeper structures of the wound. A Paul's tube was tied in with a purse-string suture and the wound around the tube and intestine loosely packed with gauze. A copious discharge took place from the bowel during the operation, lasting for half an hour, at the end of which time the patient [illegible] He was [illegible] somewhat collapsed, [illegible] pulse was scarcely perceptible. [illegible] but did not look at [illegible] Intravenous [illegible] was [illegible] told [illegible] that [illegible] and death very little hope [illegible]

At [illegible] this we were again sent for [illegible] with [illegible] or attempt [illegible] to which we answered [illegible] and upon this [illegible] to which we answered [illegible] never had a [illegible] and [illegible] way, between [illegible] [illegible] [illegible]

while of course all the septic decomposing contents of the intestines are completely washed out. If such a line of treatment has been proved beneficial in septic peritonitis, it should surely prove more so still in acute obstruction, for in this latter, after the relief of the obstruction, death is almost always due to the absorption of the poisonous products from the intestine. Prevent this by removing them completely as can be done by irrigation, and many lives should be saved.

ON CONGENITAL HOUR-GLASS STOMACH.

By W. F. BROOK, F.R.C.S.,
Senior Surgeon, Swansea Hospital

As Mr. Moynihan has shown in his able and most interesting paper on hour-glass stomach, published in the British Medical Journal of February 20th, this condition is almost invariably acquired; and no doubt many surgeons, bearing in mind their own experience, will be inclined to agree with him that its congenital origin is probably a myth.

This would certainly have been my belief after reading his paper had it not been for a case which I met with in June last. Prior to this, so far as my own experience went (but I do not for a moment suggest that it had been sufficient to warrant the formation of any independent conclusion), every case of hour-glass stomach which I had seen, whether on the operating table or *post mortem*, bore ample evidence of having originated in one of the three conditions which Mr. Moynihan mentions, but especially malignant disease and chronic ulceration. Where the latter had been the cause I had on two occasions met with perforation at the isthmus into the general peritoneal cavity. The first was in one of three cases ending fatally out of nine in which I had operated for perforate gastric ulcer. The other occurred in a patient while slowly recovering in the Swansea Hospital after an ovariotomy in which persistent oozing from the raw surfaces resulting from separation of very extensive adhesions had necessitated packing the whole pelvis with gauze. The patient died within three hours of the onset of symptoms, and before the house-surgeon had realized what had happened. The posterior wall of the constriction, which admitted three fingers, consisted of an old ulcer whose base was formed by adherent and eroded pancreas, the perforation being in front.

The following case however is, I think, clearly of congenital origin. I saw the patient with Dr. E. B. Evans, of Swansea. He administered the anaesthetic at the operation while his son, Surgeon Alban Evans, R.N., formerly house-surgeon at the Swansea Hospital, kindly assisted me. Unfortunately, no necropsy was obtained.

History.—The patient was a school-mistress, aged 50. She had been liable since girlhood to pain after food, which followed a fixed interval, followed and relieved by vomiting. At times she was very ill and unable to continue her occupation. Notably was this the case in 1902. In the early part of 1902 she was much reduced and in pain dictated by incessant vomiting; but between September, 1902, and the spring of 1903, she had been very much better and had gained weight. From this time she commenced to go down hill again, losing flesh, the pain and vomiting becoming worse and worse, until she, many took to bed early in June. There was no history of haematemesis or melaena.

Condition when first seen.—When I saw her she was extremely emaciated, everything, even peptonized food, being vomited, and she was rapidly going from bad to worse. The stomach did not appear markedly dilated. The diagnosis lay between pyloric or hour-glass stenosis. The general enfeeblement was so marked that it was decided before operating to endeavour to pick up the strength by rectal feeding. Under this treatment the vomiting ceased, the pulse became stronger and less rapid, and the general condition greatly improved, and had the operation been done at the end of five days it might have had a successful issue. On the seventh day the enemata were returned and retching and vomiting recurred, and it was decided to operate without further loss of time.

Operation and Result.—Upon opening the abdomen on July 1st the stomach, which was unusually thin-walled and could be easily withdrawn, was found to be divided into two pouches of about equal size by a narrow constriction. The peritoneum covering the isthmus was free from adhesions both in front and behind. It was as transparent, glossy and free from thickening as that covering either pouch and the omenta continuous with it above and below showed no sign of puckering. Palpated between the finger and thumb it showed no more thickening than a fold of the stomach wall at any other spot. The pylorus and both pouches were free from thickening and showed no external indication of chronic ulceration. Upon incising the isthmus, which would admit of a No. 7 or 8 catheter, both the mucous membrane lining it and that of either pouch to a distance of some two inches, was readily and carefully inspected. It was soft and velvety throughout, and showed not the slightest sign of cicatrix. The operation of gastroplasty was rapidly completed, but the patient unfortunately sank and died ten hours later.

It is obvious that so narrow a constriction in the stomach must be a very vulnerable spot, so that it is not improbable that congenital hour-glass contraction may actually lead to ulceration, when traces of the latter, if found, would be liable to be wrongly interpreted as evidence of a pathological origin of the deformity. A case referred to by Messrs. Robson and Moynihan,[1] although quoted as an example of the way in which an hour-glass stomach of chronic inflammatory origin, unless very carefully examined, may appear to be congenital, would seem to admit of such an explanation.

Reference.
[1] Robson and Moynihan, *Diseases of the Stomach and Their Surgical Treatment*, pp. 174-5.

CASE OF CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS.

By ARTHUR J. CLEVELAND, M.D.Lond., M.R.C.P.
Norwich.

There is little doubt that this condition is much commoner than was at one time supposed, and in view of the successful results that have of late attended operations for its relief, it is important to record cases of the disease verified by actual examination, in the hope that by so doing early recognition, and consequently early interference, may become easier. Unfortunately the two chief symptoms, vomiting and constipation, are by no means rare in infants, and may be due to faulty diet, while the peristalsis and other conclusive evidence of a dilated stomach may, as in this case, only become obvious when the general condition of the child is too bad to enable an operation to offer much hope of success.

A male child was first seen by me when two months old, for vomiting, constipation, and wasting. He was a fine baby at birth, but when 14 days old began to vomit and suffer from constipation. He took the breast well but returned what he got immediately after finishing a feed—sometimes the vomit was large in amount, but food was never retained but vomited an hour or so later. The bowels were very obstinate in spite of treatment, being opened on an average once a week, and on one occasion no motion was passed for thirteen days. The child had wasted rapidly, and when I saw it was little more than skin and bone with a pinched face, depressed fontanelle, and feeble cry.

There was no abdominal distension, and beyond a considerable increase of stomach resonance both to direct and auscultatory percussion, there was nothing to confirm my suspicion of the actual condition. A week later well-marked peristalsis was visible from left to right over the upper part of the abdomen, and I elicited a succussion splash. I could not feel any lump in the region of the pylorus. The question of operation was discussed, as the diagnosis now appeared certain, but the general condition of the child was very bad, and the parents would not consent to what was rather a hopeless remedy. He died of exhaustion three weeks later, when 3 months old, the pertinacity with which he clung to life being all the more astonishing as during that time he had frequent fits, passing from one convulsion into another, according to the mother's account. I never saw the child in one of these fits, which from the mother's description I took to be tetany.

The necropsy was limited to the abdomen. The lower border of the stomach reached to the umbilicus, and the viscus occupied the whole of the epigastric and left hypochondriac regions. The pylorus was hard and felt almost cartilaginous; it measured $\frac{3}{4}$ in. in length and was shaped like a bobbin, namely, with a constriction in the middle and a maximum circumference at either end of $1\frac{1}{8}$ in. It admitted an instrument with a circumference of $\frac{5}{8}$ in. The mucous membrane lining it was thrown into folds; there was no ulceration.

The stomach had lost its normal shape, its walls were thin, and the mucous membrane smooth. The intestines appeared almost empty, and there was scarcely any fat to be seen on the child.

Microscopically the hypetrophy was mainly in the circular muscle coat, with some increase of fibrous tissue.

Medical Magistrate.—Dr. Wm. Henry Lewis, of Llansantffraid, has been appointed a Justice of the Peace for the County of Montgomery.

A FOREIGN BODY IMPACTED FOR SEVEN MONTHS IN THE OESOPHAGUS.

By ANDREW FULLERTON, B.Ch., F.R.C.S.I.,
Hon. Assistant Surgeon, Royal Victoria Hospital and Belfast Hospital for Sick Children.

L. M., aged 7 years, swallowed a halfpenny seven months before being brought for treatment to the Belfast Hospital for Sick Children. It gave rise to no definite symptoms until three weeks before admission, when it was noticed that she was ill and that she brought up foul-smelling material at intervals.

State on Examination.—When admitted on August 17th, 1903, it was noticed that the child could not swallow ordinary diet, and a skiagraph showed a circular or slightly oval body lying almost in the middle line opposite the bodies of the third and fourth dorsal vertebræ. The upper margin reached to the level of the third ribs above and the lower margin to a point slightly above the level of the fifth ribs below at the costo-vertebral junction. The oval appearance from above down was due no doubt to the coin lying somewhat obliquely. After an unsuccessful attempt to remove the foreign body through the mouth the child became extremely ill, and brought up considerable quantities of foul-smelling, sanious, purulent matter, while the temperature varied from 99° to 100° F., and the pulse was weak and irregular, with a rate of 132 per minute.

Operation.—A week after admission œsophagotomy was performed on the left side, the skin incision being made from the level of the thyroid cartilage to near the sternum, a little anterior to the sterno-mastoid muscle. The œsophagus was exposed a little below the cricoid cartilage, as this portion was free from vessels and easily accessible. The trachea was drawn out and rotated somewhat to the right side, and the great vessels were well retracted to the left. A small opening was made into the postero-lateral region of the gullet (to avoid the fibres of the recurrent laryngeal nerve) and a long probe passed. It was not found necessary to cut the omo-hyoid muscle as good retraction exposed the posterior surface of the œsophagus to the necessary extent. The probe touched upon a foreign body about 4½ in. from the wound. The end of the probe was bent into a hook shape and passed beyond the body, which was thus hooked up, surrounded by foul-smelling greyish fluid, with a drop or two of blood. The odour was sickening, and was evidently due to ulceration at the point of impaction. When the coin reached the small aperture in the œsophagus it was grasped with spencer Wells forceps and the wound carefully enlarged so as just to allow of its removal. The halfpenny was covered with thick yellowish-brown muco-pus and was black at the periphery, but copper-coloured and polished in the centre of both surfaces. There was no erosion of the metal, the inscriptions on both sides being quite legible. The wound was well sponged out with a 1 in 1,000 solution of perchloride of mercury. The œsophageal wound was completely closed by a continuous formalin catgut suture for the mucous membrane, and a similar suture for the muscular coat. A small rubber drainage tube was introduced into the depths of the wound, and the skin edges brought together by silkworm gut sutures.

Progress and Result.—Shortly after the operation the child regurgitated some of the foul-smelling matter already referred to, stained with blood, but did not vomit. She was, however, very weak and collapsed on the table, with a pulse of 132. The temperature only once reached 100° F. No food was allowed by the mouth for nearly forty-eight hours, feeding with beef tea and brandy and milk and egg alternately being resorted to. On the second day the child looked blue and collapsed, with a very feeble pulse, although the wound was healing well. The drainage tube was removed, and mouth feeding begun, when the child immediately began to improve. Probably the collapse was due to starvation, as it had occurred on each feeding by the mouth, was relieved by rectal nutrition, but returned on each feeding by the mouth, was relieved by rectal nutrition, but returned on each feeding by the mouth. The pulse gradually improved, falling to 120 on the third day, and on the fifth some of the skin sutures were removed. The rest were removed on the following day, and the remainder a day or two later. Healing took place by first intention, and there was no sign of leakage from the œsophageal wound. The child gradually regained and soon exceeded her original weight, and left with a certificate given at the request of the parents. The after history of the case was uneventful. When last heard of a few months ago the child was in excellent health.

It is desirable to record in this instance the following particulars:

1. The length of time of impaction, 7 months.

2. The absence of symptoms until three weeks before admission, when ulceration of the œsophageal walls must have occurred.

3. The proximity of the coin to the arch of the aorta, into which ulceration would probably have taken place and in a few days would have caused death, had not the œsophagotomy been performed.

4. The ease of dealing with the œsophageal wound. The wound being a small one was completely closed by a row of sutures, which united by first intention and formed a row in the mucous coat.

5. No tube was passed down the œsophagus to feed the patient.

6. Rectal feeding was [illegible] and the rapid improvement after food was given by mouth.

A CASE OF MALIGNANT OBSTRUCTION OF OESOPHAGUS: GASTROSTOMY.*

BY
E. SOLLY, M.B., F.R.C.S., Harrogate, and H. I. DAGGETT, M.B., M.R.C.S., Boroughbridge.

THE operation of gastrostomy for œsophageal obstruction is neither sufficiently rare nor as a rule sufficiently difficult of performance to justify the publication of an isolated case—at any rate at length—but I venture to think that the following brief note may be of interest to many, not only on account of the result obtained, but as an encouragement to others called upon to deal with similar cases; and as a sort of moral to the end of my tale, I would add that the case is not without its bearings upon the much-discussed problem of the relation of the public hospitals to the private practitioner.

History.

The patient was a woman, aged 43, who had always been thin, but her friends had noticed for about twelve months that she was getting appreciably thinner. For many years she had a "peculiar throat," not being able to swallow certain articles of food, but pain was never complained of. About Christmas, 1902, however, her difficulty in swallowing began to increase, and she gave up trying to take solid food, especially meat. Pain was now felt, but it was never a marked symptom, and only came on in attempting to swallow. No medical man was ever consulted until July, 1903, when the patient was staying at Middlesborough. The trouble was at first thought to be spasmodic, but gradually the diagnosis became evident, as complete obstruction developed, with rapid loss of flesh. She returned to Boroughbridge in September, 1903, having been for a week fed entirely by nutrient enemata. Dr. Daggett saw her on September 12th, and immediately made arrangements for me to visit her with a view to operation. I cautiously tried to pass small bougies, but could get nothing beyond the pharynx.

Operation.

On September 24th I performed gastrostomy, using the method generally known as Frank's, but I believe more correctly attributed to Albert. Through an incision just internal to the left linea semilunaris, carried through the fibres of the rectus muscle, I drew out a portion of the stomach, which though small was not difficult to find, and showed no sign of disease. Having fixed this in position by catgut sutures carried through the peritoneal coat of the viscus and then through the parietal peritoneum at the edge of the wound, I made a second incision an inch higher up along the costal margin, this was only carried through the skin and fascia, and by blunt dissection the portion of skin between the two incisions was raised up, and under the arch so formed the portion of stomach already drawn out was pulled and held by passing hare lip pins through the serous and muscular coats. The lower wound was then closed by interrupted silkworm gut sutures and a dressing of cyanide gauze applied.

After Treatment.

An opening was made into the protruding portion of the stomach by Dr. Daggett after twenty-four hours, and through this the patient was fed. All went well except for a little leaking through the opening which, however, ceased after a few days, and at no time gave any serious trouble till the beginning of December, the patient gained strength was able to sit up, and once or twice was able to go out in a bath chair. The neck on the right side, however, became very much thickened and stiff, and not long afterwards swelling occurred on the left side, the whole enlargement being in the situation of the thyroid gland. An abscess containing fetid pus formed in the tumour, and was evacuated at the end of November, and another one early in December. About this time dyspnœa occurred at intervals, the first attack following a sudden movement of the head to one side. These attacks became more frequent and more urgent as time went on, and on December 22nd tracheotomy was performed by Dr. Daggett. This gave instant relief, but the patient gradually lost ground, and died from exhaustion on January 9th, 1904, nineteen weeks after the operation of gastrostomy. No necropsy was permitted, unfortunately, but I think the case was undoubted one of malignant disease of the thyroid gland, as [illegible] the larynx was noticed about from the first.

In estimating the value of the relief afforded by the operation of gastrostomy, one must recognize the fact that when it is performed for malignant disease one is fighting a losing battle, and in most cases the patients have no means of knowing the horrors of the starvation which they have escaped, but must all the same feel the depression accompanying the gradual failure of strength, they are apt, therefore, to be dissatisfied with the result. Our patient, having experienced a week of absolute starvation, was in no doubt as to the benefit she derived, and for the four months for which she lived after the operation constantly expressed her gratitude for the relief afforded by it. For us, there was the satisfaction of knowing that a minor operation could be successfully [illegible] the British Medical Association holds at Harrogate.

fully performed in a cottage, and the patient, who was unwilling to go away from her home to a hospital, was able to end her days among her own people.

One hears and reads much about the abuse of hospitals by those who can well afford to pay, but part of the blame for this lies at the doors of those practitioners who are too ready to shirk a little responsibility. Many of the better class poor prefer to stay at home if possible, and wherever the services of a good trained nurse are obtainable during the critical portion of the after-treatment, much can be done at home, and it is better for the position of the profession that it should be so done, rather than that people who can quite afford to pay a moderate fee should be obliged to resort to a hospital originally intended only for those in need of relief and unable to pay for it. And this brings me to what I alluded to as the "moral" of my tale—namely, that a partial solution of the problem of hospital abuse lies in the provision of facilities for the better nursing of the poor in their own homes. It is seldom necessary for the nurse to reside in the house; in an artisan's cottage there would not often be room; and operations requiring constant attendance afterwards had better be done in a hospital; but there remains a large class of cases where all that is required is for the nurse to exercise such general supervision as can be given by one or two visits during the day. Under aseptic or antiseptic conditions frequent dressings are rarely needed, and in my experience the poor are better at carrying out orders than the well-to-do, provided that the orders are given to them simply and in a form which will appeal to their common sense.

ON THE TREATMENT OF ACNE, FURUNCULOSIS, AND SYCOSIS BY THERAPEUTIC INOCULATIONS OF STAPHYLOCOCCUS VACCINE.

BY A. E. WRIGHT, M.D.,
Late Professor of Pathology, Army Medical School, Netley; Pathologist St. Mary's Hospital.

C'a été une chose curieuse que la faillite des antiseptiques dans le traitement des maladies dermatologiques parasitaires. On fondait sur eux des espérances colossales, ils n'ont presque rien donné.—SABOURAUD.

THREE and a-half years ago I was confronted with the following situation: I was consulted by a patient, 40 years of age, who was a prey to chronic staphylococcus invasions, and had for seven years suffered from severe and constantly-recurring furunculosis, complicated by sycosis, eczema barbae, styes in the eyes, and eczema tarsi. The boils, which occurred all over the body, occurred in two varieties—small superficial boils seated generally in the skin of the neck and face, and larger deep-seated boils occurring in the subcutaneous tissue of every region of the body, more particularly about the nates and thighs. His history was as follows:

Seven years previously, when engaged in clearing out a tracheotomy tube which had been removed from a patient who had been operated upon for acute laryngitis, he accidentally inoculated himself in the forefinger with some of the septic material, and in spite of three deep incisions made successively into the finger and palm of the hand, the infection spread upwards to the axilla, giving origin there to a bubo, and thence onwards into the blood stream, setting up high fever and septic peritonitis. The susceptibility to staphylococcus invasion had manifested itself immediately after the septic attack.

Immediately before the date at which the patient consulted me I had been engaged in following out the changes which are produced in the blood after the inoculation of antityphoid vaccine. I had ascertained in the course of that inquiry that the inoculation of a bacterial vaccine is followed first by a negative phase of diminished bacterial power, corresponding no doubt to the period of application of the vaccinal stimulus; secondly, by a positive phase of greatly increased bactericidal power, that is, a period of active response; and lastly, after the remission of the stimulus, by a comparatively durable period of increased resistance. I had further determined that the negative phase effect is directly dependent with respect to duration and intensity upon the dose of the vaccine, such negative phase being of only short duration when the dose of the vaccine inoculated is small and where the constitutional symptoms produced are slight. Reflecting upon these facts it occurred to me to break through conventional restrictions, and to exploit bacterial inoculations, not alone for the purpose of prophylaxis but also therapeutically, in the case of patients suffering from localized bacterial invasions. Giving effect to these considerations, I proceeded in a tentative manner—testing in each case the effect produced upon the blood by each separate inoculation—to experiment on the possibilities of applying inoculation of a staphylococcus vaccine in the treatment of furunculosis, sycosis, and acne. I published my first results obtained on a series of 6 cases in the *Lancet* for March 29th, 1902. I set forth in the paper in question in detail the method employed for the preparation of the vaccine and the course of the reaction of immunity as indicated by the phagocytic reaction of the blood before and after inoculation. It emerged very clearly that we have, in the case of the inoculation of staphylococcus vaccine, to deal with a precisely similar sequence of negative and a positive phase as in the case of antityphoid inoculation; and further, that, as in the case of antityphoid inoculation, the duration of the negative phase varies with the quantum of the vaccine inoculated; lastly, that the attainment of the desired clinical result depends on the cumulation of the effects of a series of properly interspaced inoculations. The clinical results achieved in the 6 cases here in question were very full of promise. The cases that were treated were, first, the case of severe and multiform staphylococcus invasion just described; secondly, a case of very severe sycosis, which had lasted for a period of years, and which had been intractable to all treatment; thirdly, a case of furunculosis in an old lady which had followed upon a surgical operation; fourthly, a case of acute furunculosis in a medical student; fifthly, a case of mild sycosis; and, lastly, a case of irritable furuncular pimples on the back of the neck.

I have since the date of the publication of the paper in question treated by the method of inoculation a further series of cases of staphylococcus invasion. These cases include: One case of severe generalized staphylococcus invasion characterized by boils, paronychia, and severe acne; three cases of severe and long-continned sycosis barbae, which had proved intractable to treatment by antiseptics; a further case of sycosic barbae, which had been treated by epilation for many years; six cases of moderate furunculosis; and seven cases of severe and very chronic acne. In nearly all these cases I have plotted out in the form of a curve the change produced by inoculation in the phagocytic power of the blood.

The following are brief particulars of some of the cases:

CASE VII.

The patient is a medical man, the curator of a pathological museum. He suffered more or less continuously for years from boils in all parts of the body, from severe facial acne, and from paronychia. We have here evidence of a susceptibility to every form of staphylococcus invasion. In April, 1903, after removal of four finger-nails for paronychia, he applied to me with a view to subjecting himself to staphylococcus inoculations. At the time the patient was suffering also from "a large crop of boils upon his neck." He writes, "after the first inoculation, these quickly aborted, and I remained in very good health until August, when a large furuncle formed in my right buttock." This furuncle aborted after undertaking a second inoculation. The patient reports (January, 1904) "that the facial acne has been considerably better since the inoculation, but I am," adds he "by no means cured, as I had another furuncle in the loin a few days ago, but I must say that I have had great benefit from the inoculations." Owing to the fact that the patient was treated in the provinces, no data are here available with regard to the condition of the blood before and after inoculation.

CASE VIII.

Patient, a labourer, 40 years of age, the subject of sycosis, gives the following history: He suffered as a child from severe pustular eczema and from deep-seated suppuration behind the ear, which continued for years and has left very deep scars. He has also suffered from time to time from boils and from a discharge from the ears. We have here probable evidence of a lifelong susceptibility to staphylococcus invasions.

Five months ago his head became very scurfy, and the inflammatory affection passed down from the head to the parotid region, and finally to the beard and to the whole hairy surface of the face and chin. The patient now presented himself for treatment as an out-patient in the Skin Department of St. Mary's Hospital, and was treated by the *x* rays and by antiseptics for two months without any improvement. It was now determined to try the effect of staphylococcus inhalations.

Condition of the Patient when the First Inoculation was Undertaken.

November 2nd, 1903. The patient was suffering from very aggravated pustular sycosis, each hair of the beard being surrounded by pus, while there was considerable induration and furuncular inflammation below the angle of the jaw of the whole anterior surface of the front of the neck. The patient's phagocytic index, taking unity as representing the phagocytic index of the normal blood, was 1·45. The patient was inoculated with a quantum of sterilized staphylococcus culture which contained 2,500 millions staphylococci.

November 5th. Sycosis is astonishly improved. The general health

...the patient was also much better, and the pain has entirely disappeared. ... estimation miscarried. The patient was inoculated with ... sterilized staphylococcus culture containing ... Culture obtained from the bacteria in the positive yielded ... cocci of the staphylococcus albus.

... improvement has been continuous. The ... new pustules. A ... weeping crusts, however, superseded ... the scalp region of the head. The patient was treated for this ... by Dr. Graham Little by the application of carbolic oil ...

... Improvement still continues, so far as the pustules ... of the beard is concerned, but there still persists the weeping ... over the whole region of the scalp. Local ... was inoculated with a quantity of ... culture which was de... and the quantity inoculated ... Pustules on the face, head and arms, and now com... is clear and the ... is rapidly ... and the ... the ... index, 2.5.

... A few ... seem on the ... index ...

... The patient has ... well with the exception ... index 2.5. The patient ... with ... staphylococcus albus ... index ...

... The patient appears well. Phagocytic index, ...

... The patient was ... to restate work. Phagocytic ...

... The patient was all but completely cured in ... a relapse as a consequence of the excesses at Christmas ... after a further series of inoculations, again practically well.

CASE IX

... following case was inoculated and examined by my friend, ... Royal Victoria Hospital, ... The patient, Private C. ... affected with sycosis of the beard ... ago when on service in South Africa, a crop of small ... developed in the beard and spread over the whole surface of his ... The patient has been in hospital under treatment for ... but his condition has undergone only temporary ... improvement.

... index, 0.8. ... Inoculated with a sterilized ... culture derived from the beard. The quantity inoculated ... corresponded to ... staphylococci.

... Phagocytic index, 1.1

... Phagocytic index, 1.0

... Related with a quantum of ... containing millions of staphylococci

... Patient ...

... Phagocytic index, ...

... Phagocytic index, 1.0

... Phagocytic index, 1.1

... Phagocytic index, 1.1

... Phagocytic index, 1.1

... and ... simultaneously with the rise in ... the pustules ... the number of the pustules was ... decidedly ... A ... the patient was practically ... [illegible] ... have been ... to be ... to ...

... patient, a ... university, had been ... complicated by abscesses in ... region. He ... a very ... ... any ... ... considerable ... and ... ...

... vaccine ... ...

CASE XV.

Patient, a professional man who has been invalided home from the East for general debility and boils, presented himself for treatment with a boil in each axilla.

October 5th, 1903. Phagocytic index, 0.4. The patient was inoculated with ... millions staphylococci.

October 11th. Patient reports improved health. The boils in the axilla have aborted without suppuration. He was reinoculated with ... millions staphylococci.

November 1st. Phagocytic index, ...

... Patient in good health, and has had no further boils.

CASE XVI.

Patient, a medical student aged 22, with a long history of acne, boils, and suppuration after an operation. Boils have occurred in every region of the body; they are at present in abscess. The face is a mass of scabs and old acne. There is at present, in comparison with what there has been, a trifling amount of active mischief.

December 1st, 1903. Phagocytic index, 0.6. Inoculated with a quantum of vaccine corresponding to ... millions staphylococci.

December 8th. Patient reports himself much better. Phagocytic index, 1.2. Reinoculated with ... millions staphylococci.

December 15th. Patient's appearance has improved in a wonderful manner, every large pustule having disappeared.

April 11th. Patient has, as a result of working for an examination, begun to relapse. He was reinoculated with ... millions staphylococci.

CASE XVIII.

Patient, 22 years of age, is engaged in the City. He has been the victim of pimply acne for many years. At present there are very few indications of suppuration. Phagocytic index, 0.4. Inoculated with ... millions staphylococci.

December 9th, 1903. Patient's condition seems to be a little reinforced, patient himself being uncertain whether this is to be attributed to the inoculation or to a sudden remission. Phagocytic index, 0.7. Reinoculated with ... millions staphylococci.

December 14th. No great change, save that the acne is somewhat clearer. Phagocytic index, 2.1.

... Hospital.—Patient presented himself two months after with an almost perfectly clear complexion. He expressed himself as satisfied with the efficacy of the inoculations.

CASES XVII, XVIII, XIX, XX. These were all cases of aggravated and very chronic acne, affecting respectively a young medical man, a young labourer, a spinster aged 23, and a married lady of ... The first two cases were characterized by marked pustulation and extensive scarring over the face, the upper part of the chest, and the upper half of the back. In the third case the most picture of the condition was the reddening and development of indolent pimples over the region of the nose and chin. The fourth case was characterized by the development of marked induration and scarring, particularly upon the chin. The pimples and pustules were kept under treatment by eliminating alcohol, chocolates and fats from the diet. In each of these cases very great improvement, and in three cases a practical cure, was effected by a series of three injections of the staphylococcus vaccine.

It may be noted that in none of the above cases was any antiseptic treatment combined with the inoculations. Further, in no case were any restrictions imposed in the matter of diet.

CONCLUSIONS.

It is, I think, satisfactorily established by the foregoing cases that chronic staphylococcus invasions, and in particular furunculosis, sycosis, and acne, can be treated in a very effective manner by inoculations of a staphylococcus vaccine. I have elsewhere[1] called attention to the broad principles of the therapeutic inoculation of bacterial vaccine the method which is here in question and to its wide sphere of application. It will therefore here suffice to call to mind that we do not in the case of these inoculations supply to the patient protective substances produced in the organism of an animal vicariously inoculated, but we induce the chemical machinery of the patient to elaborate by its own efforts the protective secretion which is required for the destruction of the invading bacteria. The elaboration of this protective secretion proceeds in accordance with the general law that a vaccine introduced into the organism will, given that it is introduced in appropriate doses and at proper intervals, call forth a production of the specific bacteriotropic substances which are required for the destruction of the bacteria against which protection is desired. To comply with the conditions just specified we must employ, as was done in the cases above reported, a vaccine of standardized strength. We must further, for the achievement of the best results, measure, before we proceed to reinoculation, the effect produced in each case upon the patient's blood by the previous inoculation. Lastly, it is advisable in obstinate cases to resort to a vaccine made with the particular strain of microorganism which has acclimatized itself to grow in the patient's organism. The scientific deductions which emerge from these observations are reserved for detailed discussion in another place. The reader will, however, note on reading over the cases that clinical improvement invariably went hand in hand with improvement in the phagocytic power, and that the negative phase which everywhere supervenes upon inoculation revealed itself to blood examination in the form of diminution of the phagocytic power and in some cases to clinical observation in the development of fresh pimples and boils. This transient and, from the clinical point of view, insignificant aggravation of the symptoms is full of instruction, inasmuch as it is indicative of the possibility of aggravating the patient's condition by the employment of excessive and too frequently repeated doses of vaccine.

REFERENCE.

[1] On Therapeutic Inoculations of Bacterial Vaccine. BRITISH MEDICAL JOURNAL, May 9th, 1903.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CASE OF APPENDICITIS COMPLICATED BY THE PRESENCE OF AN OVARIAN CYST.*

A. M., aged 23, an attendant at a refreshment bar, first complained of pain in the stomach on July 7th, 1903. On July 8th she went to work, but looked so ill that she was sent back and remained in bed. I first saw her on July 9th; she was in bed, with a temperature of 102° F., the pulse was 140, and there was acute tenderness over the appendix region, dullness on percussion, which extended across the median line and almost up to the umbilicus.

On admission into the Royal United Hospital all the acute tenderness seemed to have gone from the right inguinal region and lower part of the abdomen, and the abdomen, although not moving with respiration, could be palpated without discomfort. Fluctuation could be made out over the area of dullness. On rectal examination a fluctuating tumour was felt bulging into Douglas's pouch; the pulse was 160, and the temperature 102.4°. She was not operated on at once because it was felt that all this dullness and fluctuation could not be due to such a recent attack of appendicitis.

On July 10th the abdomen was more rigid and the tenderness and pain had returned; the pulse and temperature were still high. I opened the peritoneum in the median line. Some free turbid fluid escaped and an ovarian tumour was seen. After evacuating the cyst, as it was being drawn out a quantity of foul-smelling pus escaped, and it was seen that the cyst had formed one wall of a foul appendicular abscess. After the removal of the cyst an incision was made over the appendix, the muscles being divided and the appendix removed. The abdominal cavity was freely washed out and carefully dried. Drainage tubes were placed in Douglas's pouch and into the appendix region, and the wounds were sewn up in several layers and 2½ pints of normal saline introduced into the veins of the right arm.

The drainage tubes were swabbed out every three or four hours with gauze; a large amount escaped from the middle tube, not much from the side. The patient slowly but steadily improved; the pulse dropped to 84 by July 17th and the temperature to normal by July 19th. She remained in bed till September to allow of consolidation and complete healing.

The diagnosis in this case was not easy, but I record it chiefly because it affords much encouragement to hope for the best even in an apparently desperate case of fouled peritoneum.

T. D. RANSFORD, F.R.C.S.Eng.,
Honorary Surgeon, Royal United Hospital, Bath.

SPONTANEOUS RUPTURE OF THE SPLEEN.

IN view of its medico-legal importance I give here details of a case of spontaneous rupture of the spleen, of which occurrence only three cases are, as far as I can discover, on record. They are given in Lyon's *Medical Jurisprudence* (third edition) by Lieutenant-Colonel Waddell, I.M.S. The case I am about to record occurred in the Chumbi Valley, Thibet, early in February. The details are as follows:

Purbo Nowgali, a corporal-driver in a Government vak ... and a Nepalese by nationality, had been in Chumbi ... three weeks. He was employed at his ordinary duties up to

* Read before the Bath and Bristol Branch of the British Medical Association.

the time of his death, and he never complained of any disease whatever.

At 7 A.M. on February 8th, the havildar (native sergeant) in charge of a section of the yak corps gave some orders to him while he was lying in his tent. The deceased then came to the door of his tent and repeated the orders to the drivers. After having done so he lay down to sleep. He was alone in the tent at the time.

About twenty minutes later the deceased called to his brother, who was a driver in the same corps, saying that he had a pain in his side. The havildar and the man's brother then went to the tent. The man appeared to be in great distress, and complained of intense pain "near his heart." The havildar at once called a British officer, who came to the tent and looked at the man, who still complained of the pain and weakness. He made no accusation of any one having struck him, and could not in any way account for the pain, which he repeated was "near his heart." He grew rapidly weaker and died a few minutes before 8, about half an hour after the pain commenced.

I was sent to the camp to make a necropsy about 3 P.M. the same day, as though no suspicion whatever of foul play existed the cause of death was unknown. I found the body undisturbed, lying on its left side, the right arm bent at the elbow and lying over the left epigastric area. The left arm lay straight down by his side with the hand tightly clenched. His legs were slightly flexed at the knee. Rigor mortis was marked. I then removed the body from the tent and examined it. He appeared to be well developed and powerful, about 25 or 30 years of age. A minute examination of the surface of the body showed no sign of injury whatever. The only point that was noticed was a slight fullness of the abdomen.

On opening the abdomen a large quantity of blood under considerable pressure gushed out. The blood, which was dark and fluid, was evacuated, and the abdominal organs examined.

A large rupture was found in the spleen, extending through the anterior angle to the hilum. The organ was enlarged to about double the normal size, and very soft. There were no peritoneal adhesions. A minute examination of the rest of the body showed nothing abnormal except a very small right-sided hydrocele and a very slight amount of emphysema in the lungs. The heart was not dilated. Extreme anaemia was of course present, especially in the brain. Before the necropsy an inquiry made elicited not the slighest evidence of a fall or blow, and the deceased never made any complaint whatever of having been struck by any one. As shown, the necropsy revealed no evidence of external injury, and consequently I regard the case as an undoubted instance of spontaneous rupture of the spleen. It is a case of considerable medico-legal interest, especially in India where rupture of the spleen is often an important factor in criminal cases.

G. I. Davys, B.A., M.B., B.Ch., B.A.O., Lieut. I.M.S.
Chumbi. Tibet Mission Force.

HAEMOGLOBINURIC FEVER.

I seem to add my experience to that of Dr. Hearsey in strongly advocating that quinine be not exhibited in blackwater fever. I certainly have not had the same length of experience as Dr Hearsey but from such cases as I have had to deal with on Lake Nyassa, B.C.A., I have been led to feel as he does that quinine is contraindicated.

In some clinical respects there is little similarity between ordinary malaria and haemoglobinuric fever, and in the lack of bacteriological certainty we may well ask if blackwater is really a malarial fever. That of course, its geographical distribution is purely tropical for all practical purposes is evident, but then blackwater fever is by no means distributed equally, wherever one finds ordinary malaria. It would also appear very certain that malaria must precede blackwater fever, and that there is some mysterious intection plus some other unknown factor. In with cases of blackwater and to treat it correctly we do with an ordinary malaria case. It is to note that in few particulars do they coincide symptomatically, except a "dead" similarity points common to all fevers. The temperature is quite unlike malaria, seldom rising above 102° F. except in the dangerous hyperpyrexia. All the grave and dangerous symptoms both during and after the attack are almost entirely due to the destruction of the red blood corpuscles, the restlessness and fearful breathlessness [illegible] due to lack of haemoglobin, and remembering one forcibly of an acute and prolonged haemorrhage, the acute jaundice, the biliousness, are all due to the breaking-up of the corpuscles, and do not look at all like ordinary malaria. If the dissimilarity of the two conditions were all, still quinine might be given expectantly, but I have seen distinct rigors and exacerbation of the black urine follow exhibition of 5 gr. of quinine, and in reading cases treated by (say) 60 gr. quinine per diem (for example, Dr. Stendal's cases) one does indeed wonder how the patient managed to retain them, for the mucous membrane of the stomach is intensely sensitive and tends to reject anything given. Quinine given hypodermically to patients almost bloodless through blackwater fever is not satisfactory, the tissues are much below par, and I have seen the most troublesome subdermic fibroses and even necroses and suppuration follow quinine hypodermically, though until the skin broke these necroses were aseptic. I cannot recall any definite pathological assertion that during blackwater fever we have the same cyclic development of the plasmodium malariae as in malaria.

At present, then, my conviction is—Avoid quinine in blackwater fever and, indeed, avoid nearly all drugs until we know of some really trustworthy specific, except the most simple and gentle purgatives, the very simplest and easy in action, for example, calomel. As for food, I would almost recommend entire rectal feeding until the gastritis and intense biliousness is allayed. For patients in that state seemingly waste much, if not all, that is given them by the mouth, and time being of immense value it is as well that absorption should be taking place continually. Personally, I feel that the secret of successful treatment of blackwater fever lies not so much with us doctors as such as in skilful and tender nursing.

Ernest A. Boxer, L.R.C.S.Edin., etc.,
Edinburgh. Living-stonia Mission, Bandawe, B.C.A.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

EDINBURGH ROYAL INFIRMARY.

A CASE OF PARAPLEGIA OF SIXTEEN MONTHS' STANDING: LAMINECTOMY: RECOVERY.

(Under the care of J. M. Cotterill, M.B., C.M., F.R.C.S.E., Surgeon to the Infirmary.)

G. A., aged 36, a mason, was admitted on November 11th, 1903, having been transferred from the medical wards, where he was under the charge of Dr. Byrom Bramwell.

History.

Several years previous to admission the patient had developed spinal caries, and had suffered considerable pain in the back for three years past. He had first noticed loss of power in the legs about twelve months before admission. There was no family history of tubercle, nor had the patient previously suffered from any manifestation of the disease.

State on Admission.

The patient was a well nourished man, the muscles of the upper half of the body being well developed. The pulse was [illegible] and the temperature 98° F.

Nervous System.—He complained of heat and tingling in his feet and legs, both phenomena were more marked on the right than on the left side. He had incontinence of urine, complete paralysis of both lower limbs, and complete anaesthesia of both lower limbs, scrotum, and abdominal wall up to the level of the umbilicus. Sense of heat and cold was absent over a smaller area.

Deep Reflexes.—The knee-jerk and ankle-clonus were markedly increased, and adductor and cross-adductor jerks were present. The elbow jerks were normal. There was spinal epilepsy in the lower limbs.

Superficial Reflexes.—The plantar was markedly exaggerated, the cremasteric absent, the gluteal present.

Spine.—There was marked projection at the level of the 9th dorsal spine, but no pain on percussion.

The bowels were only moved after an aperient, and then involuntarily. The urine (drawn off by catheter thrice daily), had a specific gravity of 1021, was alkaline, and gave a copious

[1] British Medical Journal, March 5th, 1904, p. 510.

deposit of pus and some mucus. There was no albumen. There were bedsores on both hips.

PROGRESS.

For some months the effect of extension was tried, but as the condition remained highly unsatisfactory it was decided to perform laminectomy.

OPERATION.

On May 11th Mr. Cotterill operated by turning back a semicircular flap, exposing the eighth, ninth, and tenth dorsal spines. The laminae and spines of these vertebrae being removed, a bony tumour was found springing from the posterior aspect of the spinal canal. This bony outgrowth was surrounded by tuberculous granulation tissue, and caused very marked narrowing of the canal. The spinal cord was firmly gripped at the level of the outgrowth, and on removal of the laminae it was noticed that the cord was considerably indented. The constricting material having been freely removed, the soft parts were brought together over the cord, and the edges of the wound in the skin very accurately brought into apposition.

AFTER-HISTORY.

The wound healed by first intention, and the patient began to feel some improvement in sensation as early as the fourth day after operation.

The deep reflexes were noticeably less exaggerated fifteen days after operation, and at the same time slight improvement in the motor functions was observed. He could now feel the bowels moving, and was able to pass voluntarily a small quantity of urine. The bedsores began to heal.

Slight improvement continued till September, when he was sent home, wearing a poroplastic jacket. There was still a considerable amount of pus in the urine.

PRESENT CONDITION.

The patient has recently returned for inspection, and it is found that he is now almost entirely cured. He can walk five or six miles at a stretch, his sensation and reflexes are normal. His water is quite clear and is passed in a good stream. The bowels act regularly, and he is in excellent health.

REMARKS BY MR. COTTERILL.—The results of laminectomy for tuberculous disease of the spine are so frequently disappointing that it is satisfactory to have to report a case where recovery has been so perfect. This is all the more notable when one remembers the condition of the patient at the time of operation—paraplegia for sixteen months, purulent cystitis, and bedsores. In order to ensure an aseptic result, which is of such primary importance, the greatest possible care should be taken to sterilize the operation area for several days before operating, the skin wound should be most accurately closed by the finest silk stitches and then covered with collodion, all pressure on the part being prevented by a circular air pillow, and the use of thick dressings over the wound avoided. They tend to cause perspiration in the neighbourhood of the wound, and so conduce to sepsis. It is interesting to note that improvement was slow and continuous for three years after laminectomy, this time having elapsed before the patient reached his present satisfactory condition.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

B. A. WHITELEGGE, C.B., M.D., F.R.C.P., President, in the Chair.

Friday, April 15th, 1904.

ANTHRAX.

DR. T. M. LEGGE (H.M. Medical Inspector of Factories) read a paper on industrial anthrax, dealing with 211 cases reported during the five years 1899-1903. The case death-rate had been 26 per cent. and much smaller than formerly, and about the same as on the Continent, except in an outbreak in Austria reported by Eppinger, in which there were 78 fatalities out of 88 cases. As regards the seat of infection, in 5 it was internal, in 84 the neck, in 77 the face and head, in 16 the forearm, in 28 elsewhere, and on the fingers only once, and that doubtful. The death-rate was greatest when the head or neck was the point of entry. The diagnosis was confirmed bacteriologically in 155 cases. As regards treatment, 145 cases were treated in hospital and the rest at their own homes. In 143 cases the pustule was excised, but no general conclusion as to the best form of treatment could be deduced. As regards trade incidence, of the 211 patients, 72 were wool workers, 56 of these being employed on wools scheduled as dangerous; 58 were horsehair workers, and 69 hide and skin workers. The percentage of infection among those working on parcels known to be dangerous were, wool workers 1.3 per cent., and horsehair workers 1.5 per cent. Of the wool workers, 41 belonged to Bradford and 11 to Kidderminster; of the hide and skin workers, 38 to London and 18 to Liverpool; while 23 cases among horsehair workers occurred in London; London and Liverpool and the districts of Bradford and Worcester thus accounted for 131 of the 211 cases. Only 1 case was reported from Scotland and none from any of the West of England counties, where no wools scheduled as dangerous were used. Roughly, 34 per cent. of the wool cases were traceable to the so-called Persian wools, and 22 to Turkish and Van mohair. With horsehair, 28 per cent. to Chinese and 21 to East Indian importations. Many, however, could not be traced, and much that was entered as French, Belgian, or German was really Russian or Turkish imported through those countries. The lower the standard of the civilization of a people, the greater was the risk of its sending anthrax-infected material. The Chinese were among the worst, since they took no steps to exclude dead and diseased hides, and packed up filth to 20 or even 50 per cent. of the weight. The Kurds were no better; but so long as there was a demand for natural brown wools recourse must be had to those countries. The question of disinfection was beset with difficulties, chemicals being wholly inadmissible, and heat sufficient to destroy the bacilli being applicable to horsehair only. Experiments in this country, in Germany and Italy, had shown that horsehair could be effectually disinfected by current steam at a temperature between 200° and 225° F. at from 2 to 2½ lb. pressure. Beyond this little could be done except to protect the workpeople by supplying special close-fitting washable dresses, gloves, and veils when engaged in special work, and preventing diffusion of dust by manipulating the materials as far as possible in the wet state and burning the dust. The waste should not be used for manuring fields, this practice and the pollution of streams with the foul water being a cause of anthrax on farms.

Dr. ARNOLD EVANS (M.O.H. Bradford) had found all disinfection injurious to wools; he had no knowledge of formalin. There were dangerous wools other than those scheduled.

Mr. WEBB (Gloucester), a horsehair manufacturer, had for many years conducted experiments in conjunction with the county medical officer and analyst. Since 1897 he had passed all his goods through a Lyon's disinfector at the pressure and temperature mentioned by Dr. Legge; he found it at once the most effective and least hurtful measure. Signor Pachetti, of Milan, who employed 1,500 operatives and maintained a bacteriological laboratory, had come to the same conclusions as regards temperature and pressure of steam as himself. It was remarkable that spores which were not detached in the dry combing and were not to be detected in the dust, were separated by the moisture of the steaming process and could be cultivated from the washings.

Dr. FRANKLIN PARSONS, speaking of industrial anthrax, referred to the case of a heifer, the flesh of which was all, except the tongue, sold in the open market and could not be traced; no one seemed to have suffered, the bacilli being doubtless destroyed in cooking, but the farmer and butcher who killed the animal and dressed the carcass both died within the week.

Drs. KENWOOD. HAMER, BULSTRODE, WILLOUGHBY, and Mr. WOLF DEFRIES also made remarks.

Dr. LEGGE, in reply, said that of non-industrial anthrax 32 cases occurring among butchers had been reported, but there were, he believed, many more, though from the inoculations being confined to the hands and forearms, the fatality was very low. The disease was very frequent in South America, but of an extremely mild type, for he had read of 200 cases with scarcely a death. He hoped that the serum prepared by Professor Sclavo, and by which he had treated 164 consecutive cases with a mortality of only 6.09 per cent., would be shortly used in this country. The official regulations here applied to woollen works only, those adopted in some horsehair factories being voluntary, but in Germany the manufacturers had complied with the requirements or recommendations of the Government and had not experienced any loss.

LIVERPOOL MEDICAL INSTITUTION.

JAMES BARR, M.D., F.R.C.P., President, in the Chair.

Thursday, April 28th, 1904.

STRANGULATED HERNIA.

MR. K. W. MONSARRAT related a case of strangulated inguinal hernia with an unusual complication in a man aged 45 years. The operation took place twenty-four hours after the onset of symptoms.

The gut was intensely congested, but, except for a greyish purple patch on the entering coat at the neck of the sac, it did not show evidence of material damage. At the end of the following week the patient complained of some general abdominal pain, and this was accompanied by evening pyrexia. The pain became localized to the right iliac fossa and during the seventh week after operation symptoms of chronic intestinal obstruction developed. The abdomen was opened in the right iliac region, and a mass of coiled small intestine was found bound to the parietal peritoneum by a dense adhesion, while there were numerous other adhesions between the coils, one of which was causing a definite compression. The adhesions were divided and the omentum used to cover one of the raw surfaces, and the abdomen closed.

This operation was followed by subsidence of all morbid symptoms.

MR. LITTLER JONES related a case of Richter's hernia in a woman aged 73 admitted into the Royal Infirmary with a history of four days' pain and abdominal discomfort and slight distension, and with a small lump in the right femoral region.

There was no constipation or vomiting, neither was there a history of hernia. A strangulated femoral hernia being diagnosed, operation was proceeded with. The gut was adherent to the sac, which contained foul-smelling fluid, the protrusion was the size of an egg, in marble, of an ashy grey colour, but far gone for recovery. The constriction being divided, the gut was gently pulled down and the diverticulum invaginated into the lumen of the bowel. Lembert sutures of fine silk were used to secure the peritoneum. An uninterrupted recovery followed, the patient leaving the hospital in the fifth week.

This was the second case that had come under his care, the other requiring enterectomy and being in the inguinal region. The bud-like process in the latter case was about half the lumen of the bowel, 1½ in. were removed. The patient was a man aged 78, and also made a good recovery.

SWALLOWED FOREIGN BODIES.

DR. W. BLAIR BELL described his treatment of children, aged 18 months and 3 years who had swallowed foreign bodies, the one a brooch and the other a bed-knob. He had given absorbent cotton wool, teased finely, in their food. The result had been extremely satisfactory in each case, the swallowed body being passed in, at most, eighteen hours enveloped in the wool. So far as he knew, the method was a new one.

PLEURAL EFFUSION.

DR. H. J. M. MCHANAN read a paper on the interpretation of physical signs in pleural empyema. He considered Baccelli's sign untrustworthy. There was a distinction between serous and purulent effusion. The auscultatory signs of a purulent effusion resembled in his experience, those of consolidated lung more than those of pleural effusion. Serous effusion seemed to him to exercise a muffling, rather than a wholly inhibitive influence over the transmission of vocal vibrations. He pointed out the difficulty of diagnosis in the "acute pneumonic type" of empyema, and the probability that purulent effusion might be present from the onset and of the diagnosis dangerous. The careful study and interpretation of physical signs in pleural effusion was desirable, in order that the indications for exploration or puncture might be clearly established.

DR. A. G. GIBSON mentioned a case in which the vocal fremitus, breath sounds and vocal resonance were transmitted through a pleural effusion. The patient was a man [illegible] was engaged to play a blackened placard, [illegible] the back and front appearance were [illegible] the prominence of the chest due to large [illegible] After [illegible] days of the lungs were [illegible] the pleural [illegible]

DR. T. R. GRANGE [illegible] the importance of the deputy of the [illegible] pneumonia, even the patient was sitting up. He said that in some cases, though the clinical symptoms pointed to a large effusion being present, only a small quantity of fluid could be drawn off, the excessive dullness being due to consolidated pneumonia.

DR. W. E. WARR [illegible] thought the existence of bronchial breathing was independent of the serous or purulent nature of the material conducting the glottic sound. The chief difficulty was to explain its existence in some cases of pleural effusion, and in others the diminution of all normal auscultatory phenomena.

DR. HUBERT ARMSTRONG remarked that empyema, like enteric fever, was a disease which occurred with greatest frequency in children, and yet was generally discussed in the aspects which it presented in adults. A most important point in the diagnosis was the altered position of the apex beat. This and the extreme dullness with distinct resistance on percussion were the signs on which he placed most reliance when in doubt he never hesitated to explore, using a large needle.

DR. L. T. DAVIES said that in his experience the most reliable sign of pleural effusion was the absence of vocal fremitus, but the only certain evidence of pleural effusion was obtained by the exploring needle.

MR. LITTLER JONES, DRS. JOHN HAY, HULL ABRAM, and LLOYD ROBERTS also joined in the discussion.

At the same meeting DR. CARTER read a note on Some Experiments with Digestants and on the Influence of Antiseptics upon Digestion.

ROYAL ACADEMY OF MEDICINE IN IRELAND. At a meeting of the Obstetric Section on April 15th, DR. ALFRED SMITH, President, in the chair, the PRESIDENT read notes of a case of tuberculosis of the vaginal portion of the cervix uteri. The patient, aged 25, was admitted to St. Vincent Hospital in January last with a history of an incomplete abortion and foul-smelling discharge. The temperature on admission was 100·4° F., and was put down to septic absorption. On inspection a fungous ulcerating mass projected more or less uniformly around the os. It broke down easily on pressure with the finger, causing a well marked haemorrhage. Cancer was provisionally diagnosed, but the examination under the microscope of a piece cut out of the cervix showed it to be tuberculous. Both lungs were affected with tuberculosis, and large quantities of tubercle bacilli were found in the sputum. Hence palliative treatment was alone possible. The chief points of interest were the rarity of the affection, the source of infection, and the differential diagnosis. DRS. DARGAN, GLENN, TWEEDY, and NEVILLE also discussed the paper. DR. E. H. TWEEDY read a paper on some recent methods of opening and closing the abdomen.

[illegible]

DR. GLENN: Dermoid tumour of the ovary, sarcoma of the ovary, carcinoma of the ovary, and epithelioma of clitoris and labia minora. DR. R. H. PARRY: Sarcoma of the uterus. DR. GORDON [illegible] A tubo-ovarian cyst.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY. At a meeting on April 27th, DR. NEILL STARK, President, in the chair, DR. R. H. PARRY showed a dermoid tumour of the left ovary which had constricted the sigmoid flexure. The right ovary contained a number of small cysts. In the same patient there was a large cyst attached to the omentum and without any connexion with the pelvic organs. It proved on examination to be a multilocular ovarian cyst. DR. JARDINE read notes of a case of recurring eclampsia. First attack. Mrs. A., para aged 30, was admitted on April 23rd, 1903, under Dr. Black's care. She was supposed to be eight months pregnant. She was unconscious having had three fits before arrival. There was slight oedema of hands and feet and the urine was loaded with albumen. She regained consciousness under treatment on April 27th, and on the following day was delivered by natural effort of a [illegible] child. When she left hospital there was still a trace of albumen in the urine. Second attack. On December 3rd, 1903, the patient was again admitted to hospital in same unconscious condition, with a history of convulsions for twelve hours. The urine contained a large quantity of albumen, with granular and hyaline casts and degenerated blood cells. Saline solution was injected subcutaneously, the cervix dilated with Bossi's dilator, and a live child delivered with forceps. The tube casts disappeared, but there was still a trace of albumen in the urine when the patient left hospital. DR. JARDINE also read notes of a case of hydrocephalus with [illegible] haemorrhage. Mrs. G., 2 para, was admitted to hospital on October 12th, 1903 after two attempts had been made to deliver her with forceps. The uterus was firmly moulded round the child, but there was no special thinning of the lower uterine segment. The uterus was in a state of continuous tonic con-

traction. The large head could be felt to crackle under the fingers. Dr. Jardine perforated and delivered by means of a craniotomy. As profuse haemorrhage came on he cleaned out the placenta and compressed the uterus bimanually. An intrauterine douche (120° F.) was given, followed by a solution of suprarenal gland, 30 gr. to the pint. As the uterus still remained uncontracted it was plugged with iodoform gauze. Dr. J. K. KELLY read notes of two cases of primary carcinoma of the ovary: (1) Mrs. C., aged 45, was admitted to hospital on February 10th, 1903. Two months before admission she noticed a swelling in the lower abdomen, which had rapidly increased. On palpation the abdomen felt extremely tense, but no tumour nodules could be detected. The dullness on percussion varied with change of position. On opening the abdomen both ovaries were found to be cystic, that on the left side forming a considerable mass. The tumour on the right side was about the size of a small apple. The patient returned twice to hospital to be tapped, and died about nine months after the operation. The ovaries were both carcinomatous. (2) H. D., aged 30, unmarried, was admitted to hospital on February 19th, 1903, complaining of pain and swelling of the abdomen of two months' duration. On palpation, the whole left side of the abdomen was felt to be occupied by a firm tumour presenting ill-defined irregularities. Douglas's pouch was occupied by an irregular mass passing down into the right side of the pelvis. On abdominal section, the tumour was found to consist of one very large mass springing from the left ovary, and a smaller mass filling the hollow of the sacrum and the right side of the pelvis, and representing the right ovary. The patient was dismissed well seventeen days after operation. She died four months later from recurrence. Microscopic examination showed both tumours to be alveolar carcinomas.

ULSTER MEDICAL SOCIETY.—At a meeting on April 21st, Dr. JOHN CAMPBELL, President, in the chair, Dr. V. G. L. FIELDEN read a paper on ethyl chloride as a general anaesthetic. He had had experience of three inhalers: (1) Lucas's ether inhaler, from which he removed the sponge when ethyl chloride alone was to be given; (2) Luke's modification of Clover's ether inhaler; and (3) Field Robinson's "ideal inhaler." He preferred Lucas's or Luke's, by either of which excellent results might be obtained; and a point in their favour was that they avoided the necessity of carrying a special inhaler for ethyl chloride. Of somnoform he had had no experience, as it had little, if any, advantage over pure ethyl chloride, and was very disagreeable from the contained ethyl bromide. He had confined himself to pure ethyl chloride and narcotile, the latter being a mixture of the chlorides of methyl and ethyl, which the makers formerly labelled bichloride of methyl ethylene. After quoting the figures of various writers as to the duration of induction and available period of anaesthesia, he stated that he had found that anaesthesia could be induced in as short a time as twenty seconds in children, and that the average was from half a minute to one minute and a-half according to the age and condition of the patient. The duration of anaesthesia with 5 c.cm. in an adult or 3 c.cm. for a child he found to be on an average from a minute to a minute and a half. The available anaesthesia he found did not depend proportionately upon the duration of administration, for after some minutes inhalation for a minor surgical operation the patient was found to be able to answer questions three-quarters of a minute after removal of the inhaler from the face. He had noticed the fact on several occasions that if a second dose was necessary during, say, a dental operation, the anaesthesia from the second dose was generally longer than that from the first. He considered the drug safe and only once had any anxiety: that was a case of amputation of a toe in a tetanus case. Spasm of the jaw set in after six or seven minutes' inhalation. The mouth was opened with a gag as far as the condition of trismus would allow; breathing again began and inhalation was continued until the operation was concluded. He now used ethyl chloride as the routine anaesthetic in adenoid cases and for many dental cases. He had found it of great benefit in many minor surgical operations, and had had the opportunity of trying it in three cases of dislocation of the shoulder. The muscular relaxation was perfect and reduction easy. In one of the cases unsuccessful attempts at reduction had been made the previous evening under nitrous oxide. He had found, however, that general muscular spasm occasionally occurred even when the anaesthetic was pushed till corneal reflex was quite abolished. He considered it valuable as a preliminary to ether, and with a limited experience of about 250 cases altogether, he liked ethyl chloride the more he used it.

Mr. FULLERTON showed the stomach from a case of ruptured ulcer in an hour-glass stomach. After he had opened the abdomen for the perforation he found an hour-glass stomach with the perforation or tear near the narrow part; he performed a gastro-gastrostomy; and the patient was making an excellent recovery when a small abscess formed which opened into the pelvis; this was drained, and again the patient was doing well when lung symptoms supervened, and the patient rather suddenly died. Dr. CECIL SHAW showed microscopical preparations from some unusual cases of catarrhal conjunctivitis, of which he had seen several in the last two months. They were characterized by great swelling of the lids, profuse muco-purulent discharge, and secondary spots of impetigo on the arms and legs where the patients, who were all young children, had scratched themselves. The microscope showed a mixed infection of streptococci and staphylococci.

PATHOLOGICAL SOCIETY OF LONDON. Laboratory meeting at Guy's Hospital Medical School, Tuesday, May 3rd: Dr. BEDDARD in the chair. The following communications were made: J. FAWCETT, case of sarcoma of the pancreas associated with pseudo-lipaemia. A. E. BOYCOTT, some experiments on ankylostoma larvae. C. PRICE-JONES, a method of preparing microscopic films of bone marrow. J. W. H. EYRE, demonstration of a series of pathogenic intestinal organisms on nutrose plates.

BRADFORD MEDICO-CHIRURGICAL SOCIETY. At a meeting on April 19th, Dr. H. ANGUS, President, in the chair, Dr. VAUGHAN BATESON gave an address on Medical Customs of the Thibetans, illustrated by photographs and specimens of charms, etc. Thibetan medical men, he said, were priests, and drugs were very little used. Chief reliance was placed on charms which were in some cases objects of the nature of jewellery or in others inscriptions on paper which were worn on the person, different inscriptions being used according to the effect desired. Other remedial measures were bathing in waters which at certain times were supposed to possess healing virtues, and the use of musical instruments, drums and trumpets. Surgical measures were apparently never undertaken. In cases of snake-bite pieces of dry sandstone were applied to suck away the poison. Syphilis, at least in the familiar form, was rare. Leprosy was common, as also was apoplexy. In disposing of the dead, cremation was practised in the case of persons of peculiar sanctity, but it was not common owing to the scarcity of fuel. The usual practice was to expose the body to be eaten by vultures and wild animals. Sometimes bodies were thrown into rivers, etc.

REVIEWS.

GASTRIC DISORDERS.

THE essay upon gastro-succorrhoea, by Professor H. STRAUSS and Dr. ELEICHROEDER, is a careful and praiseworthy piece of work, although its results are not conclusive. The condition in question is not well defined and is regarded by many authorities as rather a symptom of many forms of stomach disorder than an independent condition. Professor Strauss therefore starts his inquiry from the beginning and seeks to lay down the conditions under which the presence of gastro-succorrhoea may be diagnosed. The presence of a certain amount of fluid in the fasting stomach is not in itself sufficient. He thinks that more than 10 c.cm. is abnormal and more than 20 c.cm. pathological, but less than 50 c.cm. is slight, and where the amount does not exceed 40 c.cm. it gives rise to no symptoms. But such fluid may be merely retained stomach ingesta. True gastric juice is thin, like water, or slightly greenish in colour, of a specific gravity of from 1004 to 1008; it contains free hydrochloric acid and a due proportion of pepsin. He attaches importance to the molecular concentration of the fluid and the amount of hydrochloric acid. The fluid should show absence of sugar and erythrodextrin, and he lays stress upon the absence of fermentation on the addition of a few grains of glucose. Another point is the proportion of sediment when the fluid is put to stand in a graduated glass; this in gastric juice should not exceed 4 or 5 per cent.: sarcinae and sprouting torulae

Untersuchungen über die Magensaftsecretion. Investigations Collecting Gastro-succorrhoea. Klinischer Teil, von Professor H. Strauss. Pathologe Anatom. Teil, von Dr. F. Bleichroede. Berlin: Louis Fischer. 1903. Demy 8vo, pp. 64. M.

should be absent. Having thus defined the condition he recognizes two main classes (1) the acute and intermittent; (2) the chronic. The acute and intermittent cases he attributes to nervous causes, sometimes associated with advanced organic disease (for example, tabes), though in other instances the nervous troubles appear to be merely functional. The chronic cases are usually attended by motor deficiency of the stomach and frequently with dilatation. This association is so common that some authors see in the irritation caused by retention of stomach contents the cause of the increased flow of gastric juice. Ulcer is another frequent factor, but the author does not think motor defect is an absolutely essential accompaniment. One argument he urges is that successful gastro-enterostomy does not always at once effect a cure. Nevertheless we understand him to admit that the irritation resulting from the retention may be the cause of the flow, and that changes set up by this retention may persist and maintain the irritation after the obstruction has been removed. The second or pathological part of the essay ought to throw light upon this question, but unfortunately fails to do so, and the result of Dr. Bleichroeder's investigations is mainly negative. The treatment recommended by Professor Strauss is the avoidance of starch and the use of a diet of albumen and fat. With this diet he combines the use of the stomach tube. He does not think silver nitrate deserves to be considered a specific, but he regards alkalies as useful and speaks well of Carlsbad salts and Carlsbad waters. In obstinate cases he recommends the operation of gastro-enterostomy. In the management of these cases the state of the general health is of importance and all means should be employed by which this can be improved.

In his monograph on the disorders of the stomach met with in chronic phthisis, Dr. Du Pasquier[2] gives a fairly complete account of a somewhat limited subject and one upon which it must be confessed that recent methods of examination throw no very great amount of light. As a pupil of Professor Robin he follows his methods and adopts his pathological doctrines. Robin's test breakfast consists of half the white of an egg cooked hard, 60 grammes of white bread, and 200 grammes of water, but it does not appear to possess any real advantage over the simpler meal of Ewald, composed of about the same quantity of bread, with tea without milk or sugar. The addition of the egg albumen is unnecessary as bread contains sufficient proteid matter to test the peptic digestion. In connexion with this part of the subject the author does not make it clear that the biuret reaction can only be regarded as an indication of the presence of peptone after the albumoses have been precipitated and removed. The dyspeptic disorders of phthisis are divided into three groups. The first, which occurs in the pre-tuberculous stage depends chiefly upon hyperchlorhydria. The patient complains of discomfort and distension; pain is rare and vomiting exceptional. If vomiting occurs he considers that it is due to irritation of the vagus. He finds the liver often swollen, though only to the extent of two finger-breadths below the false ribs; it is sensitive and tender, but this as well as the hyperchlorhydria and the vomiting is attributed to the influence of the vagus, which seems to be a favourite doctrine of the author's teacher, Professor Robin, who has also noticed that these symptoms may be associated with polyuria. The second group corresponds with the stage of the deposition of tubercle, and in this the symptoms are those of atonic dyspepsia with deficiency of hydrochloric acid and peptic ferments. The third group corresponds to the stage of cavity formation in which the stomach disorder depends upon chronic gastritis with deficiency or absence of gastric juice. He finds that fever does not influence stomach functions unless it is prolonged and continued, when it may diminish secretion. While stomach complications aggravate the progress of phthisis and are of primary importance in the plan of treatment they sometimes adopt, they do not indicate any modification in the primary rules by which they are to be met. It is, however, of importance, according to the author, to avoid stimulating treatment in the early stages and to reserve such means for the hyperchlorhydric conditions which occur later. He also points out the harm that may be done by the use of drugs and alcoholic remedies of an irritating kind, such as cinnamon and medicated wines, in the earlier stages when there is hypersecretion, while on the other hand cod-liver oil, as Pawlow has pointed out, tends to check this excessive action of the gastric glands, and therefore may be administered with advantage.

[1] *Des Troubles Gastriques dans la Tuberculose Pulmonaire (Gastric Disorders in Chronic Pulmonary Tuberculosis).* Par le Docteur Pasquier. Paris: G. Steinheil. 1904. (Demy 8vo, pp. [illegible].)

URINARY ANALYSIS.

The merit of Major Bedford's *Clinical Handbook of Urine Analysis*[3] is that it gives briefly and in clear language what are, on the whole, accurate directions for the best means of making clinical urinary examinations with special reference to the precautions needed by workers in a tropical climate where the temperature of the atmosphere is generally higher than in England and there is a greater tendency in organic fluids to undergo decomposition. It must not, however, be supposed that in a work of this kind the reader will find a complete or exhaustive discussion of pathological questions. The author's aim appears to be to describe the necessary manipulations, to point out which he thinks best, and to indicate the fallacies which lurk in them and the means by which these may be avoided. Within these limits we think Dr. Bedford has succeeded in producing a useful book, but it, perhaps, ought not to be compared with the larger works on the urine in general use. The directions given to aid the inexperienced operator are, as a rule, sensible, but we doubt whether it is wise to recommend that microscopic sediments should be examined with a high power, between 300 and 500 diameters, at any rate at first. It seems better to teach the student to examine a drop of the sediment with a lower power (100 diameters), with which he is more easily able to recognize the presence of casts, while he can see pus and blood corpuscles and the larger crystals quite sufficiently well. If there is anything which he does not make out clearly he may use a higher power, after he has got some idea of the nature of the sediment and the number of objects present. Under "Casts" Dr. Bedford repeats the doubtful statement, originally made by Sir George Johnson, that leucocyte casts occur in glomerulo-nephritis; nowadays nobody tries to diagnose clinically this form of kidney disease. Waxy or colloid casts can hardly be said "to occur in granular-contracted kidney" but are sometimes present in all forms of chronic renal inflammation, and are not characteristic of any one in particular. The statement is not wrong, but it looks as if they occurred more often in this form whereas they do not. In applying the heat test for albumen the author uses dilute acetic acid to acidulate the urine before boiling but adds strong nitric acid to determine whether the cloud produced is albumen or phosphates, and then points out that the nitric acid may dissolve a small amount of albumen if present. Would it not be better to boil the urine first without acidulation, having ascertained its reaction by litmus paper? If a cloud appears on boiling a few drops of dilute acetic acid will easily distinguish between albumen and phosphates without any risk of dissolving the former. If the cloud is dissolved the urine should then be heated again for a few seconds in order to see whether a cloud forms after acidulation, but the recognition of albumen by heat in alkaline urine is unsatisfactory, and in this case a second test is necessary. In ordinary clinical work, however, it is surely not always necessary to use three tests as the author proposes. We do not think observers in this country consider sanguine a better test for sugar than Fehling's solution; general experience with it has not been satisfactory. Le Nobel's test for acetone is not mentioned although it is very simple: add a few drops of a three or four per cent. solution of sodium nitro-prusside to a drachm of urine in a test tube, shake it up and then float upon the surface an equal quantity of strong liquor ammoniae; at the point of contact a brilliant amethyst colour develops and diffuses through the ammonia. In testing the permeability of the kidney by methylene blue it is usual and sufficient to give the methylene blue in a pill and not by hypodermic injection as here recommended. The book is illustrated by some rather poor lithographs, and we have noted several misprints.

Dr. Watson's little book, *The Examination of Urine*,[4] consists of 30 very small pages, and into these it is attempted to compress an account of the anatomy and physiology of the urinary apparatus, a description of the characteristics of

[3] *Clinical Handbook of Urine Analysis.* By Charles H. Bedford, D.Sc., M.D. Lond., Professor of Chemistry, Calcutta Medical College, Major, Indian Medical Service. Second edition. Edinburgh: Bell and Bradfute. 1904. (Demy 8vo, pp. [illegible].)

[4] *The Examination of the Urine.* By J. R. Watson, M.D. Edin. London: The Scientific Press, Ltd. (Fcap. 8vo, pp. 30. 1s.)

normal urine, to teach the reader how to detect abnormalities of all characters when present, and to measure in some cases their extent. The book is stated in the preface to be intended for the use of nurses but, nevertheless, tests are given for acetone and aceto-acetic acid, four tests for albumen and six for sugar. At the end of the description of the latter the nurse is told that she need not trouble herself about any others. We quite agree. The author has attempted a task in which he has not succeeded, and the book is not one to be recommended.

PATHOLOGY.

DR. EWING has spared no pains to introduce into the second edition of his *Clinical Pathology of the Blood*[5] references to the more recent investigations. The cryoscopic examination of the blood and urine is described; by this method of noting the freezing point of the blood and urine an effort is made to detect any deficient eliminative power of the kidneys; observers are not unanimous in their opinions as to the value of this test, but according to recent contributions, a good deal may be expected of the method as a guide in the surgical treatment of unilateral renal disease. The reader will be struck with the novelty of Plate 3, in which various forms of leucocytes stained by the Nocht-Romanowsky method are depicted; the granulations shown in the large leucocytes will cause considerable misgivings in the minds of those observers who attempt to draw sharp lines of distinction between granular and non-granular leucocytes; further, the nucleation of the blood platelets and their apparent formation within the red corpuscles, a view which is accepted by the author, will excite considerable interest. Dr. Ewing has introduced a discussion on Ehrlich's side-chain theory of immunity, and gives satisfactory diagrams to explain the relationship existing between cells, immunizing and susceptible, and the various forms of receptors, immune bodies, complements, etc. The clinical study of haemolysis is in its infancy at present, but, as most clinicians feel, very probably many of the complex problems, such as the laws controlling the action of isolysins, the nature of the group of cases known as "pernicious anaemias," or the petechial manifestations occurring in leucocythaemia and other diseases, will be elucidated by a development of research in this direction. Already we have the observations of Ascoli, Kraus, Clairmont, and others, which form a foundation for further research. The new volume retains its former character; it is a reliable clinical guide, and supplies valuable summaries on all the modern developments.

An examination of Professor MCFARLAND'S *Textbook upon the Pathogenic Bacteria*,[6] leaves a favourable impression, and, therefore, we have no particular wish to disparage the tone of confident satisfaction in which the author himself announces in his preface the especial merits of his book. These merits are, however, simply those of an ordinary, useful, students' textbook. The same ground has been covered quite as well by many other authors, and, by some, rather better. If an exception is to be made in favour of the present volume, it is that the timorous student may be inspired by it with a self-reliant enthusiasm which will enable him to grasp some difficult problems with a firmer hand than would be possible if he received his early impressions from a less confident writer.

That a further edition of *Dr. Stengel's Textbook*[7] *of Pathology* should be required within three years of publication of the third issue, is the best evidence of its usefulness to a considerable body of readers. Particular attention has been paid to the revision of such sections as those on "immunity" and the "bacterial diseases," but the feature of this edition is the inclusion of a chapter on technical methods; this change we do not view with favour, feeling sure the fifty pages would have been better employed in the expansion of such a subject for example as "diabetes." The author's account of this malady could afford but scant satisfaction to a student turning to his textbook of pathology for a more detailed description than the exigencies of space permitted in his textbook of medicine.

[5] *Clinical Pathology of the Blood.* By James Ewing, A.M., M.D. Second Edition. London: Henry Kimpton. 1904. (Demy 8vo, pp. 495. 21s.)

[6] *A Textbook upon the Pathogenic Bacteria.* By Joseph McFarland, M.D. Fourth Edition. London: W. B. Saunders and Co. 1903. (Medium 8vo; pp. 620; 153 illustrations. 15s.)

[7] *A Textbook of Pathology.* By Alfred Stengel, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Fourth Edition. London: W. B. Saunders and Co. 1903. (Demy 8vo, pp. 934. 394 illustrations. 21s.)

EXPERIMENTAL PATHOLOGY AND PHARMACOLOGY.

JUST as the science of the body in health is included under the three headings: (1) Physiology, (2) descriptive anatomy, (3) histology, so the science of the body in disease—for example, "pathology"—should include: (1) Experimental pathology, (2) morbid anatomy, (3) pathological histology. Unfortunately, the first, and surely most important, section has been very much neglected. Books entitled "Pathology" usually include sections (2 and 3), and are perhaps more than plentiful; but works dealing strictly with the experimental part, or even cursorily with it, are almost non-existent. It is, therefore, with much pleasure that we welcome the German manual of Dr. Heinz on *Experimental Pathology and Pharmacology*.[8] The first half of the first volume, which was published recently, is divided into five sections, each section being considered under three principal parts. The first gives a general outline of the subject of the section; the second involves a detailed description of the various methods used in investigation; and the third is composed of the principal results so obtained. These are in most cases carefully tabulated and the investigator's name given. A good bibliography accompanies each section. The first section deals very fully with the physical chemistry of the cell, and includes both "salt" and "ion" action. This section is perhaps the best one in the book; the subject is attacked in a methodical manner, the laboratory methods are clear, and the diagrams good. A large amount of space is occupied by giving, in perhaps too great detail, the results of individual investigators. Thus, under plasmolysis, the experiments of De Vries are tabulated in full, while sixteen pages are devoted to the theory of narcosis as advocated by Overton and Hans Meyer. The second section discusses corrosives, astringents and antiseptics. The first two of these receive comparatively little attention, thus the astringent action of the tannins is dismissed in a few lines. Under the heading Antiseptics are given the detailed experiments of Koch, Gepperd, Behring, and others, and the treatment of the subject as a whole, as has been elucidated by German investigators, is very complete. General protoplasmic poisons are considered in the third section, and are classified according to Löw's system. About eighty pages are devoted to the section on inflammation, including its excitement by drugs and other means. The phenomena of diapedesis, chemotaxis, phagocytosis, etc., receive ample discussion, and in each case the methods of investigation are lucidly expounded. The last section deals with the blood, and is the longest in the book. An account is given of its chemical and physical properties, the number and form of its corpuscles, and of haemoglobin and blood gases. The methods of examination are then described and illustrated by sketches when necessary. That part dealing with the principles of staining is particularly well done, but some simple methods such as that of Jenner are not described. In the special part the reaction of the blood to various abnormal conditions is dealt with. The main results are generally tabulated. Thus we find tables showing the toxic substances which destroy the corpuscles, which alter their form, or which produce changes in the haemoglobin. Space is also devoted to experimental work dealing with iron in blood formation, to the relationship of drugs to the white blood corpuscles in the circulation, and to the alkalinity of the blood. The volume, so far as it goes, gives a fairly complete account of the experimental methods involved and the results obtained in those branches of pathology and pharmacology upon which it touches. It is interesting and accurate throughout. The arrangement into sections is excellent, and reference to any particular work is easy. It is a matter for regret, however, that English work does not receive its proper recognition. Nevertheless, the book will prove valuable to all engaged in research, and as a work of reference should find a place in experimental laboratories.

[8] *Handbuch der experimentellen Pathologie und Pharmacologie.* By von Dr. R. Heinz. Erste Band, erste Hälfte. Jena: Gustav Fisher. 1904. (Demy 8vo, pp. 489, 34 illustrations. M.15.)

THE Chicago Board of Education has decided to establish medical inspection in all schools. Teachers are to report diseases and insanitary conditions where the general health is menaced.

NOTES ON BOOKS.

Forensic Medicine and Public Health.

The editors of the seventh edition of Husband's *Forensic Medicine, Toxicology, and Public Health*[1] have altered and improved the volume to so great an extent that it would have been better, we think, had they amplified it in certain respects still more and brought it out in their own names only. There are more pages than before; these are larger, the type is clearer, and a considerable number of excellent illustrations have been added. The more orderly arrangement of the subject matter and the greater completeness of the index also considerably enhance the value of the volume. It is still, however, rather too much like summarized lecture notes to make it easy or interesting reading to the student, and the almost complete absence of illustrative cases, especially in the part dealing with forensic medicine, is unfortunate. Here and there we find passages which are not in the best of taste—as for instance, when referring to inflation of the lungs in stillborn infants, the question is asked, "Who would inflate the lungs?" the answer given being, "Surely not the mother, who would be only too glad that the child was dead, and who would be in no hurry to resuscitate it." The section dealing with poisonous metallic irritants is one of the best in the book and has been materially altered from the last edition. Valuable chapters have also been added upon poisoning by foods and by putrefactive alkaloids. The public health part has been largely rewritten, and contains in a condensed form the most important facts relating to the subject. The illustrations here are well selected, clear, and numerous, and save much letterpress. The author wisely avoids entering into much discussion with regard to the many vexed questions, such as those associated with isolation hospitals, the best methods of dealing with sewage, etc., limiting himself in most cases to a mere statement of facts. The section dealing with hospital construction is especially interesting.

The Annual Charities Register and Digest,[2] of which the edition for 1904 has just appeared, is a work of great value to every one who takes an interest, whether active or passive, in legal, voluntary, and other means for the prevention and relief of distress or for the improvement of the condition of the poor. All institutions and associations having either of these objects in view receives notice, and, in order that matters may be more clearly represented, the register is subdivided into sections according to the specific work undertaken by the institutions included in them. Reference to these is facilitated by an exhaustive index and in addition a marginal menu by an expert is placed at the beginning of each section. Mr. C. S. Loch's "Introduction" is really a treatise upon the administrative and executive principles, and the difficulties, objects, and requirements of all charitable work whether undertaken by the State, by private individuals, or by voluntary associations.

The forty-first fascicules of the work published under the title of *Titles and Authors of Original Articles Printed in American and English Medical Journals with Complete Index Verborum*[3] brings up the index of the *Journal of the American Medical Association* to December 31st, 1903, and covers the last six months of that year. It consists of 141 four-column pages and is divided into four parts. The first is entitled a general index of subjects to the same subject may be frequently found under more than one heading. The second is a reprint of the table of contents of the *Journal* for the whole year. The third gives the titles of these articles in alphabetical order, together with references to the pages of the *Journal* on which further information about them will be found. The fourth is an index of the names of authors of articles published or abstracted in the *Journal* during the year mentioned therein. The list therefore practically includes the names of nearly all those who published original articles in the leading medical journals of the world throughout the period covered by the index. It will thus be seen that, though the publication will naturally be of most use to readers of the *Journal of the American Medical Association*, it is calculated to be of considerable use to other persons, and especially to those engaged in literary work or in writing or recording textbooks. Inasmuch, however, as the indexes supplied of foreign journals do not, as a rule, include reports of single cases, or purport to be entirely complete, the guide cannot take the place of the *Index Medicus* for those who are anxious to overlook nothing which has appeared on the subjects in which they are specially interested.

Among the more valuable of the original papers in the fourth volume of the thirteenth series of *International Clinics*[4] are one by Professor J. H. Musser on the treatment of pneumococcal infection of the lung, in which he wisely remarks that each case is a law unto itself, that there is therefore need for abundant resources to enable daily change to be made in the treatment if required, and also gives excellent indications for effecting such changes; one by M. Louis Julien, Surgeon to the Saint Lazare Hospital in Paris, on subcutaneous injections of mercury for syphilis; and one by Dr. F. J. Poynton on the parallelism between the clinical symptoms and the pathological lesions of rheumatic fever which, although hardly judicial, is suggestive, not to say inspiring. Among the less satisfactory papers is one by Professor D. R. Brower, of Chicago, in which there is, as far as we have seen, nothing new and something that is misleading. He, for example, diagnoses cerebral haemorrhage as the pathological cause in a case of hemiplegia which took two days at least to develop and in which there was no loss of consciousness, in a man, too, with very rigid arteries. He also gives as one of the diagnostic signs of tabes that are of "considerable value" that in a particular case he could squeeze the patient's testicles with all the force at his command without causing him any pain. Such statements excite reflections that are too deep for ordinary criticism.

That the interest of the subject matter of the volume of *Progressive Medicine*[5] for the last quarter of 1903 is not as great as that of some of its predecessors is no depreciation of the value of an important publication. It depends not on the compilers but on the activity, and, in a sense, the fortuitous success of the body of workers whose results they epitomize. In the present volume diseases of the digestive system are in charge of Dr. J. C. Hemmeter, surgery of Dr. J. C. Bloodgood, genito-urinary diseases in that of Dr. W. T. Belfield and diseases of the kidneys of Dr. Rose Bradford, while Dr. Bruballer epitomizes recent physiology, Dr. C. Harrington general hygiene, and Dr. H. R. M. Landis makes a selection of therapeutic advances. Whether of equal interest to former volumes or not, in reading such a quarterly digest continuity is of importance, and this volume should therefore be studied with as much care as its predecessors.

We have previously had occasion to speak in terms of approval of Kemp and Co.'s *Prescribers' Pharmacopœia*,[6] and the fifth edition is a further improvement. As a guide to the properties of all kinds of remedial agents it will no doubt be heartily welcomed again. Over 1,300 additions have been made since the last edition, and we have satisfied ourselves of its completeness, the very latest remedies being included.

Dr. J. Oberly Symes has to a large extent rewritten the second edition of *The Bacteriology of Every-Day Practice*,[7] and has added sections dealing with the preparation of blood films, enteric, typhus-simulans, influenza, and diseases of the alimentary system. A book of this sort is always welcome to help to serve as a reliable guide to bacteriological technique and diagnosis, but it may teach the unskilled where and how to put up material for examination by an expert and encourage him to attempt a little amateur bacteriology on his own account.

---

[1] *The Annual Charities Register and Digest*. London: Longmans, Green and Co. [2] Chicago: American Medical Association.

NOVA ET VETERA.

A YEAR'S ADVERTISEMENTS.

EVERY practitioner is probably annoyed or amused, or both, by the flood of advertisements of drugs and other commodities with which his letter-box is stuffed.

About a year ago it occurred to the writer that instead of summarily condemning these advertisements to the waste paper basket they might be collected say for one year, and that some statistics might thus be obtained which would not be without interest. The year's collection is now complete, and includes all the advertisements received by a London surgeon between April 1st, 1903, and April 1st, 1904.

The total number of packets (mostly postal) received was 300, weighing 57½ lbs. In this total such bulky packages as a case of mineral water, etc., are not included. Some of the larger packages were delivered by carrier. The postage paid on the remainder amounted to 19s. 8d.

As to the countries of origin of the advertisements, Great Britain is responsible for far the greater number, 102 packages. The United States came next with 50, while France and Germany sent almost equal numbers 34 and 35 respectively. Other countries were responsible for the remainder. The preponderance of Great Britain is not as great as it seems, as a large number of advertisements were sent out by the London branches or agencies of foreign manufacturers, but it is not possible to say how many these were.

The advertisements were in many instances accompanied by samples of the goods recommended, or by offers to send samples. None of these offers, it may be said, were accepted.

Various samples were received, ranging from a stout case containing four stone bottles of mineral water to a little box of tablets. Soap, ointment, tonics, purgatives, and analgesics formed the greater part, but lime juice, wine, and whisky must not be forgotten, nor last, but not least, the baby's feeding bottle, which an enterprising firm anxious for the future of the race presented.

Of diaries four were received, including, of course, that handsome volume which the medical profession has for some years past been accustomed to receive, together with much instruction, some samples, and "literature." The size and weight of this particular diary—it weighs 9 ozs.—prohibit its use in the pocket, and those practitioners who preserve it probably allow it to adorn their desks or carriage seats. From one of the diaries of American origin we glean the information that among English undertakers there are over a hundred graduates who are entitled to use the initials M.B.E.S." This does not mean, as may be supposed, "Bachelor of Medicine of England and Scotland, but "Member of the British Embalming Society." The instruments and fluids used are said to be made in America, and the diary, which for the rest is a neat and handy little book, obligingly furnishes the name and addresses of the "graduates," M.B.E.S. for ready reference.

Writing pads seem to be the form of advertisement favoured by vendors of drinkables. Wine, water, and beef tea were responsible for three received.

Five lists of medical and surgical appliances were received, including one from a well-known firm which weighs nearly 11 lb. and measures nearly 300 cubic inches, and which must surely contain the price, if not the picture, of every possible tool the surgeon can want.

From Continental health resorts come sundry tastefully-decorated and illustrated booklets, sometimes accompanied by a free pass to the local Casino, and the authorities of a French watering-place send coupons good for ten dozen of its agreeable table waters. The proprietors of hot-air baths and kindred cures send various booklets advocating their institutions where various light rays, x rays, and hot air may be applied to the sufferer.

The medical newspapers received were not many. They were of two kinds—genuine medical journals and so-called journals which exist only for the purpose of pushing the sale of certain nostrums. The United States is the usual habitat of this last kind of parasite.

Seventeen advertisements from fourteen firms of wine merchants were received during the year. The whisky dealers and the cigar merchant who send a pamphlet *Is Smoking Injurious?* are agreed in maintaining that good whisky and good tobacco are harmless. Only the wares of unscrupulous rivals are harmful.

Some of the American drug papers are remarkable owing to the letters which they say that they have received from practitioners and which they publish over the writers' names. If these are genuine it would appear that the standard of general education among medical men is even lower in the United States than in the United Kingdom, where unluckily it is not too high. The testimonials are not only of American origin; many purport to be given by practitioners in the United Kingdom, whose names and addresses appear in the *Medical Directory*.

Persistency is one of the chief characteristics of the modern advertiser, although no drug dealer seems to have approached the *Times* in that quality. Twenty-six advertisers sent more than one packet during the year, some sending as many as one a month. But while the Frenchman, who vaunts his cough mixture once a month, sends a copy of the same testimonials and "literature" each time, the more agile American sends twelve different advertisements a year, in the guise of a gratuitous medical journal. From this we may learn that uric acid causes all our ills, but that — will cure the diathesis. The "editor" and his correspondents furnish a plethora of instances narrated often in homely but racy language.

The proprietors of a notorious narcotic and sedative have taken the strange course of sending with each advertisement a coloured and enlarged copy of one of the well-known plates in *Gray's Anatomy* which illustrate the surgical anatomy of fractures. No acknowledgement is made to the proprietors of *Gray's Anatomy*, but, perhaps, this is hardly to be expected from a firm which hails from the land of Captain Kidd and of many other though more peaceful pirates. But these pictures seem somewhat irrelevant.

Our advertising friends contradict each other as might be expected. Rival panaceas are often incompatible. One firm sends us diet cards for the diabetic, while from the other side of the Atlantic we learn that diabetes mellitus can be cured by hypnotism without regulation of the diet.

As for gout, the theories of rival druggists are very contradictory. Once a month New England tells me to use certain salts of lithia, but, on the other hand, I am told to leave medicines alone, as a few alkaline baths (of secret composition) will remove the uric acid through the skin, and the patient "may eat and drink whatever comes to hand." Surely the *bon vivant* cannot resist the temptation to try this remedy.

It is impossible to estimate the amount of money which is spent annually in the attempt to bring to the personal notice of practitioners various nostrums. If, as is quite likely, the advertisements were sent to all the 30,000 medical men in the United Kingdom whose names are in the directory, the postage alone would amount to £29,500, to say nothing of carriage of non-postal samples. What the cost of the materials, printing and packing is it is not possible to say. But some of the boxes of drugs and toilet requisites and the catalogues and diaries must have cost a good deal. If it pays to bring such advertisements under the notice of an educated and intelligent class what wonder that advertising should pay in the case of the ignorant and credulous?

SMALL-POX PREVENTION IN GERMANY.

SLOW though we are to follow Germany's example, everything that relates to the prevention of small-pox there is of interest in this country, and the President of the Local Government Board is to be thanked for having sent Dr. Bruce Low last autumn to ascertain the facts on the spot. The results are now published in a very valuable and most interesting report.[1] The latter begins by stating that the inquiry was entered on owing to "conflicting statements having been made from time to time in the public press as to the methods employed in Germany in dealing with small-pox patients." The special subject of investigation has been the part played by isolation and the exact measures of isolation which are practised.

At the very outset the reporter met with a serious but suggestive practical difficulty. In Berlin, where he went first, he could hear of no small-pox in Germany. The Central Health Office knew of none, but to help him in his inquiry it was arranged that he should visit representative towns in the four chief States of the German empire—Prussia, Bavaria, Saxony, and Württemberg. The towns visited were ten in Prussia, Berlin, Cologne, Frankfort-on-Main, Wiesbaden, and Mainz; in Bavaria, Munich, and Nuremberg; in Saxony, Dresden, and Leipzig; and in Württemberg Stuttgart. And so Dr. Bruce Low started on his quest through these towns, with a total population of nearly 5 millions. But it appears

[1] Dr. R. Bruce Low's Report to the Local Government Board on the arrangements made in Germany for the isolation of small-pox cases.

that from beginning to end he could not find a small-pox case in any of them. As a matter of history, indeed, the disease was known. In Berlin there had been some 70 cases in seven years (1895-1901 inclusive); in Cologne one case in 10 years; in Frankfort, 9 fatal cases in 10 years; in Wiesbaden, 12 cases eleven years ago, but none since then; in Mainz apparently none during eleven years; in Munich, 7 cases in eight years; in Nuremberg, none for about eleven years; in Dresden, no deaths for the past ten years; in Leipzig, 8 cases in eight years; and in Stuttgart none in six years. The record is truly a wonderful one. There is nothing to be found like it anywhere else in Europe. In this country we have regarded ourselves as exceptionally free from small-pox—and especially from fatal types of the disease—in recent years, but our population of 32 millions has had 6,761 deaths from small-pox in the twelve years 1891-1902, whilst the 56 millions in Germany have had only 607 deaths.

As regards the small-pox which did occur in Germany, the amount of it due to foreigners is quite remarkable. Russia, Austria, and Italy are the principal contributors, and many of the outbreaks are near the Russian and Austrian frontiers. Dr. Bruce Low's notes on the ten towns he visited are very striking in illustration of the importance of foreign sources of infection. In Berlin it has been already stated that about 70 cases occurred in seven years. There were outbreaks in five of the seven years, and in every outbreak the origin of the infection was traced to foreigners Russians, Italians, Austrians, Portuguese, and in one case to a group of performing negroes from Togoland. In Frankfort the disease was twice introduced from Russia. Dresden is within thirty miles of the Austrian border, and thence receives its small-pox. Of 8 persons attacked at Leipzig in eight years, 2 were Russians and 4 Austrians.

Professor Weintraud, of Wiesbaden, gave Dr. Bruce Low an interesting instance of how small-pox differentiates between the revaccinated and the non-revaccinated. Some years ago Professor Weintraud was Resident Medical Officer at the Berlin Charité Hospital, when two small-pox cases were admitted. Naturally there was anxiety to show to the students these examples of so rare a disease. But it was thought quite unnecessary to revaccinate them, the operation being compulsory in Germany. And so no less than 260 students were admitted in detachments for clinical teaching. At the end of twelve days two of the 260 fell ill with small-pox. Both were Italians, and neither had been revaccinated. Revaccination in Germany, however, is not so absolutely universal as to furnish no control experiments among its own population, and various examples are given resembling our experience in this country in small-pox hospitals where occasional oversight and omission furnish to the small-pox poison opportunity of demonstrating its infectivity.

Coming now to the question of how this marvellous immunity from small-pox is produced throughout the German empire, the questions discussed are vaccination and isolation. The latter appears not to be seriously thought of in Germany itself as the explanation, though no doubt there are cranks there as here. Wherever he went Dr. Bruce Low was told that vaccination and revaccination are the safeguards on which reliance is placed. Small-pox when it occurs is "isolated" in the German sense of the term, unless the patient is too ill or in a remote country district. So also are other infectious diseases isolated. But small-pox isolation in Germany is a very different thing from small-pox isolation in England. In the domains of the Kaiser there are practically no small-pox hospitals as such. The rule is to treat that disease in a pavilion not of a small-pox hospital and not even of a fever hospital, but of a general hospital for medical and surgical [illegible] cases. Such a conception of small-pox isolation is rather difficult of mental assimilation by an Englishman, but the fact is so, and Dr. Bruce Low not only states it but illustrates it by block plans of nine of the hospitals which he visited.

The amount of small-pox hospital accommodation is really comical. In Berlin, with a population of 2,000,000, there are 12 beds reserved for small-pox. They constitute a pavilion of two small wards, part of the Royal Charité Hospital, the largest general hospital in the world, with 1,300 beds. The small-pox pavilion is about 24 ft. from a scarlet fever pavilion and about 120 ft. from a street bounding the hospital. An easily climbable open iron fence surrounds it. Though the nurse does not sleep in the general nursing block, the cooking for small-pox patients and nurse or nurses is done at the central kitchen, and soiled linen, after certain precautions are taken, is washed at the hospital central laundry. When a small-pox case is admitted the staff told off to attend to it are revaccinated, but there is no general revaccination either of nurses or patients. Needless to say, the general hospitals of Germany are not themselves isolated. They are situated to suit the convenience of the populations they serve, and the plans show them planted amidst busy streets.

The truth is that the whole German system of small-pox treatment and so-called "isolation" is dominated from beginning to end, and from centre to circumference, by the great fact of the vaccination and revaccination of the people. The population, as a whole, is practically insusceptible to small-pox, and this consideration is supreme in every step taken in dealing with the disease. It is vaccination and revaccination which make effective these laughable essays in small-pox isolation. This is fully recognized in Germany. Dr. Bruce Low states that the chief Medical Director of the Charité told him "that reliance is placed upon the previous vaccination and revaccination of the population, including the patients in the hospital, to protect them from the possible spread of the infection from small-pox cases treated on the site of the Charité." The same authority held that, were it not for vaccination and revaccination, small-pox would have to be isolated in the country, away from towns. "He was very strongly of opinion that it is the universal vaccination and revaccination of the community that prevents small-pox from spreading, and that without the practice in question the whole system of isolation of the disease in Germany would have to be completely changed, which would involve enormous expense to the ratepayers." The testimony of medical men in the other towns was practically identical.

It should be stated, however, that in one of the ten towns there really is a small-pox hospital. Mainz, with a population of 88,000, provided such an institution in the outskirts of the town about eleven years ago. Dr. Bruce Low, having received the necessary directions, went to look for it, and his search was successful. The hospital is situated in the grounds of a florist and nursery gardener, which contain, also, the gardener's cottage, greenhouses, and so forth. A wooden garden-fence surrounds it, with footpaths along the outer side. The buildings were erected about 1892 for cholera, but since then they "have been regarded" as for small-pox. It is in this sense that they constitute a small-pox hospital. So far as the gardener could recollect, there never had been any small-pox to put into the hospital. There seems no reason why the building should not also be regarded as the dwelling-place of the man in the moon when he visits this mundane sphere.

As in this country, so in Germany, small-pox is a notifiable disease; but notification is there made to the police authorities, who inform the medical officer of health, who visits and then reports to the police. There is power of compulsory removal to hospital for isolation of cases of small-pox or suspected small-pox, "if in the opinion of the medical adviser of the local authority the patient cannot be properly isolated at his home." Where removal is looked on as dangerous to life, the patient can be left at home, and also in rural districts remote from any hospital.

Such is the German isolation system, of which so much has been heard from antivaccinationists within the past year or two. The distinguishing features of it as recorded by Dr. Bruce Low, are quite Gilbertian; but, judging from experience, there seems no reason to doubt that members of the letter-writing ring of the Antivaccination League will continue to assert in newspaper correspondence that Germany owes its freedom from small-pox to its rigid system of isolation. In a recent publication one of the editors of the *Vaccination Inquirer* wrote: "As it happens, Germany's isolation arrangements are much more stringent than our own"; and in a leading article in its issue of October last the *Inquirer* discourses about "the drastic system of isolation in Germany," and goes on to say: "They have so little faith in their revaccination in Germany that they dare not let small-pox come near the revaccinated." What mischievous nonsense this is, and how strikingly untrue, is shown by Dr. Bruce Low's plain statement of facts regarding Germany's measures of isolation, the situation of its small-pox pavilions, their relation to the wards occupied by other diseases, and to public thoroughfares and dwelling houses. Small-pox cases indeed are simply surrounded by the revaccinated, and those who are placed in direct charge are differentiated from the rest of the population by getting an extra revaccination when they are about to enter on their duties.

But it is a poor achievement for a powerful Government merely to expose the character of antivaccination propagandism. That has been done by others a thousand times in the

past, and no doubt will be a thousand times in the future. The question is, what is Mr. Balfour's Cabinet going to do in addition? In face of what is now published as a result of its own investigation in Germany, what excuse or explanation remains if it still fails to bring in a revaccination Bill? Dr. Bruce Low's report ruthlessly exposes the latest sophistications of the Antivaccination League; but if legislative inactivity continues regarding this question, then the report will be far more condemnatory of the Cabinet than it is of the League. The Government knows the truth as to how small-pox can be prevented, and it will be hoist with its own petard unless it follows up the issue of the report by the introduction into Parliament of a measure for assimilating our vaccination law to that of Germany, so far as the differing circumstances and character of the two countries can reasonably permit.

THE RELATIVE SANITARY CONDITION OF DIFFERENT EUROPEAN ARMIES.

Dr. Lowenthal has contributed to a recent number of *La Revue* an important article on the sanitary condition of the French and German armies, which deserves more than incidental notice, especially as it helps to throw some light on our English army vital statistics. He points out that in the midst of all the attention which is being devoted to secure perfect armies, it is time that the soldier himself received attention, and that the "effrayante" mortality and morbidity of the French army should be carefully studied. This view is fortunately making headway. M. de Freycinet has crystallized it in the statement that "*la bonne santé d'une armée est la première condition de sa puissance*," and the French calamities of 1870 are ascribed in part to the deplorable state of its army and its decimation by infectious diseases, from which the Prussian army was relatively exempt.

An initial difficulty is how to state the extent of the evil numerically in a manner which will be accurate and at the same time comparable with the statistics of other countries. The facts adduced by Dr. Lowenthal indicate that an international agreement should be secured, ensuring that the vital statistics of the chief European armies should be so compiled as to be strictly comparable. Thus the French army statistics are calculated on total numbers, the German on effective numbers; the French statistics include officers with men, the German very wisely do not. But allowing for these sources of error, and for differences in the average ages of each army, it is instructive to contrast the experience of the French and German armies. The main results of this comparison, together with similar comparisons with the experience of the English army are here given. In making this comparison allowance needs to be made for the fact that the French and German armies are conscript, and it is possible that fewer exclusions for initial defects occur in these countries than in enlisting for the English army.

In 1846-59 the general death-rate in the French army was 16 per 1,000, in 1901 it was only 5.37 per 1,000. This appears to point to immense improvement, and the view that such improvement has occurred, as in the analogous case of the English army, is unhesitatingly taken by most writers. Dr. Lowenthal has, however, little difficulty in pricking this statistical bubble. Great alterations have occurred in the proportion put on half-pay and retired (*les réformes et les retraites pour maladies*). In 1863 these were 6.6, in 1895 they were 28.9 per 1,000. Those who formerly died in the army, now die after being dismissed or retired from it. Until or unless this source of error is eliminated, little stress can be laid on the lowered death-rate shown above. That this contention is correct is further indicated by the fact that the morbidity rate has slightly increased, while the death-rate has so remarkably declined. Thus it was 587 per 1,000 in 1862-9 and 631 in 1901. We are therefore driven to the conclusion that the greater part at least of the decline in the death-rate of the French army is due to sick men being more frequently retired.

Compare this with the reduction in the death-rate of the British army in the United Kingdom from 11.5 in 1870 to 6.2 per 1,000 in 1901. How much of this is due to real improvement in the conditions of life of the soldier, and how much to changes in length of service and in the system of drafting sick men out of the service? The contrast of the figures for the English and French armies with those for the German army is very striking, the death-rate (not including officers) being in 1901, 5.11 per 1,000 in the French and 2.23 per 1,000 in the German army.

Dr. Lowenthal then proceeds to compare the incidence of special diseases on the French and German armies respectively in the following tables.

Enteric Fever.

	Morbidity.	Mortality.
	Per 1,000 Men.	Per 1,000 Men.
French army at home	4.88	0.71
German ,, ...	1.60	0.17
British ,, ...	1.60	0.29

The figures as to small-pox are equally striking.

Cases of and Deaths from Small-pox.

	Cases.	Deaths.
French army	8,974	739 } in the period
German ,, ...	10	3 } 1875-1901.
British ,, ...	6	1 in the one year 1901.

The figures for scarlet fever and diphtheria are also suggestive:

	Scarlet Fever.		Diphtheria.	
	Morbidity.	Mortality.	Morbidity.	Mortality.
French army	5.98	0.24	2.05	0.08
German ,, ...	0.81	0.04	0.59	0.01
British ,, ...	4.50	0.03	0.70	0.02

But the most significant figures are those dealing with tuberculosis, and they confirm very strikingly the view that mortality statistics are very misleading as an indication of the true health conditions of an army. During 1877-80 the mean death-rate from tuberculosis in the French army was 1.35 per 1,000, in 1901 it was 0.98; but during the same period the morbidity-rate from tuberculosis rose from 2.37 to 7.20 per 1,000, an increase of 200 per cent.! The real increase is greater than these figures show, for as Dr. Lowenthal points out, an increasing number of tuberculous patients are eliminated from the army without passing through the hospital. That this is the true explanation is shown by the fact that the number put on half-pay and retired owing to tuberculosis has increased from 2.80 per 1,000 in 1877-87 to 6.91 in 1901.

Although the figures are perhaps not absolutely comparable the following table is most suggestive:

1901: Rates per 1,000: Tuberculosis.

	Morbidity.	Mortality.	Invalided.	Total Loss.
French army	8.30	1.05	8.15	9.20
German ,, ...	2.00	0.26	1.51	1.77
British ,, ...	4.90	0.71	0.59	1.30

The whole of Dr. Lowenthal's article will well repay study. In view of the figures from which we have made a few extracts, it is not surprising that Dr. Lowenthal concludes that in the present condition of things as to morbidity and mortality, the French army, which ought to be a school of sanitation and hygiene, as it is a school of courage and self-denial, constitutes on the contrary one of the most powerful factors for the physical enfeeblement and the depopulation of the country, owing to the excessive amount of sickness and mortality, and above all, owing to the number of moribund persons, of semi-invalids and invalids who leave it year by year.

The whole subject of army statistics needs co-ordination and reorganization. An international agreement is required as to the statistical methods to be pursued, in order that results may be compared. Above all, it is necessary, so far as England is concerned, that optimism should not be allowed to prevail as to the sanitary conditions in which our soldiers and sailors live, that careful investigation should be made and reforms instituted, in order that in the case of our own national forces it shall not be said that men are discharged in large numbers who subsequently become a burden

on the community owing to their health having been permanently damaged while engaged in the country's service.

MEDICAL NEWS.

Under the will of Mr. William Martin Eckerstall, of Roscott's Park, which was sworn at £82,250, the sum of £1,000 is left to each of the following institutions: St. Bartholomew's Hospital, the Bethlem Royal Hospital, the Royal Hospital for Incurables, and Earlswood Asylum for Idiots.

Earl Egerton of Tatton will take the chair at the seventh annual meeting of the Childhood Society for the scientific study of the mental and physical condition of children. The meeting will be held at 7, St. James's Square, S.W., on Wednesday, May 11th, at 3 p.m., and Dr. Shuttleworth will deliver an address on degeneracy, physical, mental and moral.

Dr. Angelo Mazzarelli, who has just died at the age of 71, at Venice, where he had resided many years, was born a Brescia, and practised his profession in that city for thirty five years. He has bequeathed to the municipality of Venice a sum of £800 towards the cost of erection of the proposed hospital for consumptives. To his family he has left estate estimated at £160,000.

The annual meeting of the Association of Asylum Workers will be held on Tuesday, May 17th, at the house of the Medical Society of London. The chair will be taken at 4 p.m. by Sir James Crichton-Browne, the President. One gold and three silver medals awarded by the Association for long and meritorious nursing service will be presented, and all interested in asylum work and workers are invited to attend.

The monthly meeting of the members of the Royal Institution was held on May 2nd, Sir James Crichton-Browne, M.D., Treasurer and Vice-President, in the chair. The annual report of the Committee of Visitors for the year 1903, testifying to the continued prosperity and efficient management of the Institution, was read and adopted, and the report on the Davy Faraday Research Laboratory of the Royal Institution, which accompanied it, was also read. Seventy new members were elected in 1903. Sixty-two lectures and twenty evening discourses were delivered in 1903.

The East London Medical Society, formed primarily to press for a reform of the abuse of hospital charity, will hold a meeting on Tuesday, May 17th, at 8.30 p.m., at the King's Assembly Rooms, Cottage Grove, Mile End Road, near Burdett Road, to which all medical practitioners in the L. or S.A. districts of London are invited to attend. The Honorary Secretaries are Dr. Edwin Hastings, 415, Mile End Road, E.; Dr. F. Harris White, Tredegar Road, E., and Dr. George Black, 230, Burdett Road, E.

The Alexandra Hospital for Children with Hip Disease, Cleve Road, Kilburn, received dinner on April 27th. The Duke of Marlborough, who presided, remarked that the hospital was the only one which dealt exclusively with hip disease in children, and that between [illegible] and 600 a year were admitted to the wards of the 80 beds. During the evening it was announced that £4000 had been collected towards the institution.

An inquest was held on April 28th on the body of a [illegible] had been cited upon to-day, after a view by a jury at Eastbourne, near Wantage. A verdict of death from [illegible] was returned in accordance with the evidence of the medical man who had attended the deceased during his illness. The cow in question had been stated by a veterinary surgeon to be suffering from milk fever, and its carcase was sent into Manchester. There the meat was pronounced to be unfit for food as animal infected with [illegible] and was ordered to be destroyed.

Welsh Medical Degree. It has been decided to hold a Welsh medical degree in Prince's Restaurant, Piccadilly, on May 9th, at 8 p.m., when Dr. Griffith Williams, Bart., will preside. A general meeting will be held to discuss the advisability of instituting a medical degree. Those wishing to be present at the dinner are requested to communicate with either of the Honorary Secretaries, Dr. T. P. Bedford or Dr. William Lloyd-Lloyd, Wimpole Street, London, W.

Medical Societies and Associations. The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 420, Strand, London, W.C., on April 25th, when the chair was taken by Dr. de Havilland Hall. The principal business of the Committee was the examination of the annual report of the Society, which, together with the quinquennial valuation report, will be distributed among the members before the annual general meeting to be held on May 19th. The records of the operations of the Society for last year are very satisfactory. A large increase has been made in the reserves, and although the sum disbursed in sickness benefits is the greatest on record, it is less than the amount expected and provided for. The number of members is increasing, and as their average age is still growing, the amount of sickness pay expected and provided for grows larger every year. The economy with which the operations of the Society have always been conducted has produced a large balance to the credit of the management fund, and the Committee will propose at the general meeting a method by which this surplus will be equitably divided amongst those members who have most largely contributed to it. A substantial bonus will also be allotted to those members who in the earlier years of the Society's business took out life assurance benefits. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

An Epileptic Colony in Texas. A fine institution provided by the State of Texas for the care of epileptics was formally opened a few weeks ago. The sum of £50,000 was appropriated by the Legislature for the purpose. The colony is situated at Abilene, Texas, and though not yet completed has sufficient accommodation for 250 patients. It is built on the cottage plan, a certain number of patients being allotted to each cottage, each of which is a complete household, with kitchen, dining room, servants, nurses, and vegetable garden all to itself. Dr. John Preston, formerly superintendent of the State Lunatic Asylum at Austin, has been appointed superintendent. The law stipulates that epileptics now cared for in the three insane asylums (Austin, San Antonio, and Terrell) shall be received first, and then those still unprovided for, at home or in asylums (as the case may be) are to be admitted in order of application as far as they can be received.

French Colonial Congress. It has already been announced in the British Medical Journal that a Colonial Congress is to be held in France from May 24th to June 5th. The meeting place is the College Sainte-Barbe, Place du Panthéon, Paris. One section of the Congress will be devoted to colonial hygiene and medicine, another to general hygiene and international prophylaxis. Professor Raphael Blanchard is the president of the former, Professor Charrin of the latter. Among the papers to be read in the section of colonial hygiene and medicine are the following: Dr. L. Brumpt, sleeping sickness; Dr. J. Guiart, the pathogenic action of intestinal parasites; Dr. Jeanselme, medical study of the Indo-Chinese peninsula and Yunnan; Dr. Le Dantec, phagedenism of wounds in the tropics; Dr. Leven-Lemaire, uncinariasis; Dr. Joly, medicine and hygiene in Polynesia, particularly in the New Hebrides; Dr. Camus, climatology and hygiene of the Eastern part of the Ivory Coast; Dr. E. Wurtz, tropical dysentery.

Small-pox and Chicken-pox. The following figures show the number of cases of chicken-pox notified within the metropolitan area in each week that has elapsed since the order of the London County Council came into force. First week, ending April 30th (two days only), 20 cases. Second week, 574 cases. Third week, 574 cases. Fourth week, ending April 30th, 350 cases. Last week the number of cases of small-pox notified was 12, or rather less than half the total of the previous period, the number of cases notified in the present week down to the evening of May 5th was 7. Medical men appear to be availing themselves of the arrangements made by the London County Council with a view to assisting them in the diagnosis of doubtful cases. [illegible] will be remembered were that Mr. S. Bingham and Mr. W. M. Wright, both of whom were especially engaged by the small-pox committee of the Metropolitan Asylums Board, showed [illegible] and [illegible] when required. The arrangement is working [illegible] and the results [illegible] which [illegible] can be answered promptly by telephone or other message to the Public Health Department of the London County Council, 8, St. Martin's Place, W.C. It [illegible] that of some 30 cases in which they had been called nearly one-half proved to be [illegible] cases.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MAY 7TH, 1904.

THE MEDICO-POLITICAL WORK OF THE ASSOCIATION.

THE SUPPLEMENT published this week affords striking evidence of the very large amount of work done by the British Medical Association for the profession at large. We venture to think that this fact should be recognized by those medical practitioners who still refrain from joining the ranks of the Association.

The annual report of the Council gives a general conspectus of the multifarious matters dealt with by or through the central executive during the past year, and it, together with the reports of the proceedings of the various Central Committees of the Association, ought to be read in full. We may, however, take this opportunity of directing attention to a few matters of outstanding importance.

It will be remembered that the annual Representative Meeting at Swansea instructed the Medico-Political Committee to investigate the economic conditions of contract practice as carried on in various ways in this country, and the Committee has now presented an interim report. With the co-operation of the honorary secretaries of Divisions a series of questions has been circulated to medical practitioners actually engaged in contract practice throughout the country. The Committee advises that no definite pronouncement should be made by the Association until the replies have been received, analysed, and considered, a process which must obviously take a good deal of time, but by collating information derived from the reports of various medical societies and of the Secretary of the Committee on the conditions that he found to exist in various Divisions he had been called upon to visit, the Committee found itself in a position to formulate at once certain propositions for the consideration of the Divisions. Starting with the proposition that under present conditions a contract medical service for the poor is a necessity in some parts of the United Kingdom, the Committee expresses the opinion that every medical practitioner in the district for which the service provides should have the right to be a medical officer of the service if he so wishes and undertakes to conform to its rules, and further that medical men should be adequately represented on the management of any department of contract practice relating wholly to medical work. With regard to fees, the Committee recommends that the minimum annual fee should be five shillings, and that children under the age of 5 should not be admitted at the minimum rate, but that these provisions should be subject to a local decision to accept a composition fee in the case of families having more than three children; it recommends that these fees should not apply to night visits, obstetric cases, operations, or serious accidents. Finally, the Committee recommends that there should be reserved to the medical officer the right, subject to a reasonable arrangement as to retrospective application, to decline to attend a member whom he may consider to be in a financial position unfitting him for membership. A recommendation by the Ethical Committee, that a list of places in which conflicts with regard to contract practice are known to exist should be published weekly in the BRITISH MEDICAL JOURNAL has been approved by the Council, and will be carried into effect as soon as the necessary information can be obtained. We would suggest to members who reside in localities where such conflicts are in progress to communicate with the Medical Secretary at the office of the Association in London.

The Medico-Political Committee has also made a report to the Council on the scale of remuneration offered by insurance companies for medical examinations and the character of the examinations required. The report of the Norwich Division on the subject was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, and the Committee concurs in the opinion that for every full and careful report upon the state of an applicant's health the medical referee should receive not less than one guinea, but adds that there are many cases in which one guinea is an inadequate fee. This matter is now formally before the Divisions, and it is essentially one upon which a clear expression of opinion from them is very much to be desired.

Another matter of considerable interest to practitioners generally is dealt with in the memorandum which the Council, on the recommendation of the Medico-Political Committee, has referred to the Divisions on the present position of registered medical practitioners in the matter of furnishing certain information to coroners. It is well known that the medical profession has fallen into the habit of supplying to a coroner particulars with regard to the deaths of patients under their care in order to assist him in deciding whether an inquest be necessary or the nature of the evidence to be called. There is no legal obligation upon the profession to do this, and not only is no fee as a rule paid for such information given to assist the course of justice, but some coroners fail to acknowledge the help thus given to them, and some have even accused medical men of neglect of duty in not supplying such information. The practice which has grown up is entirely informal and without any legal basis, and the memorandum points out that if a preliminary inquiry by a coroner is to be regarded as an integral part of the procedure sanctioned by the State, the Legislature should definitely prescribe the respective obligation of coroners and medical practitioners, and provide reasonable remuneration, as is already paid in a few districts. It will be noted that the Committee expresses the opinion that where the assistance thus voluntarily given is not duly recognized by a coroner members of the medical profession may find themselves compelled to refuse to continue to give it.

The inquiry entrusted to the reconstituted Hospitals Committee is still in a preliminary stage, but the report of its proceedings will, we believe, be read with general interest. It will be seen that the Committee has drafted a memorandum setting out the principles which should govern the admission of in-patients and out-patients, and has suggested that a conference with laymen possessing special knowledge of hospital management would probably be advantageous.

The Medico-Political Committee has had before it the resolutions of the Divisions with reference to the draft

Medical Acts Amendment Bill. These opinions are now being carefully considered by the Committee, and the Bill will be redrafted and submitted to the Divisions, it will then come up for discussion at the annual Representative Meeting at Oxford, when it is hoped that the opinion of the Association on the principles involved may be definitely ascertained.

The Council of the Association at its meeting last January adopted a resolution to the effect that it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented. This resolution was transmitted to the Board of Education by the Chairman of the Public Health Committee, Dr. Groves, with an explanatory covering letter and elicited a sympathetic reply. The memorial signed by over fourteen thousand medical men which is about to be presented to the central educational authorities of the three kingdoms cannot fail to confirm the Board of Education in its expressed intention to give the subject careful consideration and must help to guide it to a right decision. Upon the advice of the Public Health Committee the Council has resolved to represent to the Government that, having regard to the influence of the conditions of education on public health, it is advisable that the Board of Education and each local educational authority should be provided with a medical adviser. This important principle has already been acted on in some of the chief towns, but it is very necessary that it should become the rule and not, as at present, the exception.

The same Committee has presented a report on the two Nurses' Registration Bills in which certain amendments are suggested, and another in favour of the Revaccination Bill, the prospects of which are, it is to be feared, this session very unfavourable, though it is possible that if withdrawn in the House of Commons and introduced into the House of Lords, an opportunity would be afforded for a discussion of the important principle it embodies.

Upon all the matters here mentioned—and the list might be easily extended—it is clearly to the interest of the profession that its voice should be heard by the Legislature and the public; upon all the Association, through its Divisions and through its central Committees, is disseminating information, gathering and co-ordinating opinion, and presenting the result in an orderly and reasoned form. The medical profession has suffered in its public status and private interests owing to the insufficiency of the work hitherto done in political matters. The value of the services now being rendered by the British Medical Association to the profession at large must be self-evident even to those medical practitioners who still remain outside this great professional organization.

THE ATTITUDE OF THE MEDICAL PROFESSION TOWARDS THE TREATMENT OF DISEASE BY UNQUALIFIED PERSONS.

The question raised by Dr. Lewis Jones in the BRITISH MEDICAL JOURNAL of April 23rd, p. 956, is of great interest both to the profession and to the public, for it appears from what he says—and most of us can corroborate his statements—that in certain special spheres of practice the treatment of disease is with increasing frequency carried out by persons who possess no medical qualifications. It is clear, too, that the practice is to a considerable extent supported, and apparently approved, by many members of the medical profession. Dr. Jones complains that medical men who take up electro-therapeutics are not supported as they should be by their colleagues, but that the practical application of electricity, radiography, and x-ray therapeutics is entrusted to lay persons. This is the case at several of the London hospitals, and also at some hospitals out of London.

Dr. Jones says that he has recently seen a letter addressed by a chemist to a medical man asking for instructions as to technical details, and describing his methods of treating a case, presumably of uterine cancer, by a vaginal x-ray tube. In order to meet the demands for such treatment a well-known firm of chemists has lately added an installation of electro-therapeutic and radiographic apparatus to its business, and, we understand, receives a considerable amount of professional support. Nursing homes are following suit, and small institutions for electropathic treatment, managed by laymen or nurses, are springing up in many parts of London and in provincial centres. In addition to these institutions for electro-therapeutics there are several medico-mechanical institutes, while there has been a considerable invasion of England by Swedish masseurs and masseuses who profess to treat all sorts of diseases, from lateral curvature to appendicitis.

The chief cause of this state of things is that few medical men appear willing to devote themselves to this work while those who do so ask fees which are beyond the means of the majority of patients. It is within our knowledge that a patient recently sent to a medical electrician left him after two or three visits for an unqualified establishment where he got for 5s. treatment which he believed to be the same as that which had previously cost a guinea.

In what has been said we have not only described the cause, but hinted at the remedy. We do not for a moment suggest that medical practitioners should work for smaller fees. The work in question need not be actually done by the medical practitioner himself; all he has to do is to see that it is properly done by others under his supervision. All such work must be under the control of a medical practitioner, who should have a staff of nurses and male operators to carry out the necessary procedures in accordance with his directions. Therapeutic establishments of the kind required for the purpose need organization, and it is not every one who possesses this faculty. Where a medical man has this gift he may manage such an institution for himself, but where he cannot he must have the assistance of a business manager, who must on no account be allowed to interfere with the medical part of work. No establishment in which every detail of the treatment is not under direct and continuous medical supervision should receive the support of the medical profession. This is apparently the course approved by the Ethical Committee of the Association, which, in regard to the question whether a medical practitioner may properly become the managing director of a hydropathic establishment, passed the following resolution:

> That in the opinion of the Committee it would appear to be better that a medical man should become the directorate of such an institution than that the entire control should pass into the hands of laymen, who would be less likely to conform to what the medical profession would regard as sound principles of management; but a medical man who accepts such an office must equally accept responsibility to the profession for the mode in which the establishment is conducted.

This opinion has been approved by the Council of the Association.

The principle set forth in the resolution just quoted applies not only to hydropathic institutions, but to electro-therapeutic and mechano-therapeutic institutes, and every kind of establishment for the treatment of disease by physical methods. As an illustration of the actuality of the problem with which the medical profession is confronted, we may mention that we have received a copy of an invitation, signed by the Town Clerk of Leamington, inviting medical practitioners to demonstrations by a Dr. Rau, of Zurich, of the "arthromotor" which has just been added to the municipal establishment at the Pump Room in that town. We understand that the Corporation has already provided not only ordinary baths, but apparatus for giving radiant heat baths and a complete electrical installation. We have no fault to find with the enterprise shown by the Corporation in seeking to develop to the utmost possible extent the therapeutic resources available for visitors to the charming health resort of which it is the tutelary deity. For the sake of the town itself, however, as well as of the visitors, it would be satisfactory to have an assurance that the control of the new methods and appliances for the treatment of disease with which Leamington has been provided is under competent medical direction.

PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS.

We published last week a brief analysis of the report of the Departmental Committee appointed by the Board of Education last year to examine the model course now in use, to judge how far it should be modified or supplemented, and to consider what principles should be followed, in order to render a model course or courses adaptable for the different ages and sexes of the children in public elementary schools. The Committee was composed of the following members: Mr. J. Struthers, C.B., Assistant Secretary to the Scotch Board of Education, chairman; Colonel G. M. Fox, Inspector of Physical Training under the Board of Education, late Inspector-General of Military Gymnasia; Miss Deverell, one of His Majesty's Inspectors of Schools; Dr. Kerr, Medical Officer to the School Board for London; Dr. A. L. S. Tuke; two Scotch teachers, Messrs. J. Stewart and K. Whitton; and two English teachers, Messrs. J. F. Blacker and Marshall Jackman. Mr. Corner acted as secretary to the Committee.

As an outcome of personal investigations into the working of the existing systems of drill and physical exercises, the Committee rejected the Board of Education's model course as so unsuitable as not even to be amendable, chiefly because the course did not seem as a whole "to be constructed on well-defined general principles educed from a consideration of the function of physical exercise as a necessary element in a well ordered course of general education for children." It considered that the course consisted in too great a measure of military drill taken from the Infantry Red Book. In the new course recommended by the Committee the military element is for the most part excluded, and in its place a series of exercises is recommended intended to build up the physique of the children. The exercises are framed on a scientific basis, having for their chief aim their suitability to children of school age (from 7 to 12 years) and their simplicity, no special apparatus being required. Ornamental exercises and those likely to injure children of weakly physique are rigorously excluded. Certain movements styled "corrective" are introduced specially to correct bad positions and habits contracted by children suffering from defects, the Committee having noted in the course of its inquiry that many children suffer from bodily defects likely to be intensified by the artificial conditions of school life.

It is obvious that to draw up a scheme suitable to a large mass of children, including the healthy and vigorous as well as the sickly and deformed, and at the same time to keep it within the bounds of economy, is a task so full of difficulties that an ideal perfection is impossible. The chief difficulties are to deal with a mass of children if the vigorous and healthy are to exercise side by side with the sickly and deformed, and the necessity to draw up a scheme which will not immediately be rejected on pecuniary grounds. Bearing in mind these two salient points, it may be said that the Committee has acquitted itself very creditably of its task, and has succeeded in drawing up a workmanlike scheme. Colonel Fox, who has for a long time past taken an active interest in the physical training of school children under the London School Board, is doubtless responsible in a great measure for the wise and carefully selected course of exercises drawn out.

It is to be regretted that the Committee should not have put its foot down more firmly with regard to the question of medical inspection in schools, for until this is introduced the best possible conditions cannot be attained. As our Commissioner in the course of the inquiry into national deterioration pointed out some months ago, the first thing insisted upon in Sweden, America and other countries, is the medical inspection of school children, and it was shown that the cost was small. In America a practitioner living in the neighbourhood of a school attends for say an hour every morning, and at the opening of the school any child considered by the teacher to present any suspicious symptom, or not looking well, is sent to the medical officer's room, is examined and immediately sent home when necessary. In this way not only is the spread of infectious diseases checked, but underfed children can be singled out, and those suffering from deformities, or in any way delicate, can be classified and sent to special classes for physical training where special exercises would be practised. The Committee suggests that "When, from some malformation or for other reasons, many children are unable to perform the whole of the exercises with profit, they may be formed up behind the other scholars and allowed to take part in such exercises as will not prove injurious," but it is those very children suffering from special complaints and deformities who in many cases require the greatest care in exercise. To allow them to stand behind where they cannot be properly watched by the teacher, and leave them to take part in such exercises as will not prove injurious, does not solve the problem of improving the national physique. If these children are not taken in hand during the period of growth they will suffer in consequence all the days of their lives. We protest that there should be systematic medical inspection in schools, and that the unfit should be singled out and taken separately in one or more classes with special exercises. The sooner the necessity for this is taken to heart the sooner will increase of unfitness be checked.

Now is the moment for the matter to be represented to the new education authorities and for these to inaugurate their reign by this sorely-needed reform, and, as will be seen, the Council of the British Medical Association has

resolved to represent to the Board of Education that not only the Board itself but also every local educational authority should be provided with a medical adviser. This is the first step in advance, and the medical adviser would no doubt find it necessary to organize a system of inspection of schools in each district by medical men practising in the neighbourhood. As has been said, German and American experiments show that the expense happily need not stand in the way. The experience of American cities proves that it is almost nominal. It will be seen that by subtracting the vast amount expended on keeping at school miserable and unfit children who, owing to their physical condition, are unable to reap any benefit from their education, from the sum which it would cost to employ local physicians to attend schools for an hour every morning the educational authorities would be vastly the gainers. And so would the nation in the matter of physical fitness could it but be brought to recognize the unwisdom of the "penny-wise-and-pound-foolish" policy.

"ACCEPTED PROFESSIONAL OPINION."

AT the annual banquet of the Royal Academy last Saturday Mr. Arnold-Forster complained that he felt very strongly the absence of what he might call "accepted professional opinion" with regard to the great military problems of the empire. If, he said, Lord Rayleigh or Professor Dewar in the world of science were to express an opinion on argon or radium, and a halfpenny newspaper expressed the contrary view, public judgement would go in favour of the scientific authority. He could not pretend that a similar acceptance was always accorded to military judgements in questions which were clearly within the military province. We are by no means sure that in this free and enlightened country public judgement would in all cases go in favour of even the highest scientific authority against a halfpenny newspaper. But in regard to "military judgements," it is scarcely surprising that they are not always blindly accepted. Considering the frequency with which such judgements have in recent years been flagrantly falsified before all men, it would indeed be wonderful if they were not sometimes regarded with doubt and suspicion. We are glad, however, to find the Secretary of State for War pleading so strongly for the proper appreciation of "accepted professional opinion." We hope this may be taken as a proof that he has come to see the danger of ignoring such opinion as has been done so conspicuously, not to say defiantly, by Lord Esher's Committee in regard to the medical service of the army. We freely recognize the zeal and ability of that Committee, but we are sorry to be compelled to say that the part of its report which deals with the medical service is made practically valueless by its refusal to be guided by "accepted professional opinion." We need not repeat the criticisms already made in the British Medical Journal on its proposals. We think it [illegible] direct attention to the remarkable reply made by the Committee to the letter of the Chairman of Council of the British Medical Association which is published in the supplement to the present issue of the Journal (p. 1). The question of the representation of the medical profession on a medical advisory board to sit on the Army Council, which is considered of vital importance by [illegible] professional opinion, is simply left on one side, while the Committee quietly ride off on a side issue. After attempting to create a diversion by showing that no change of any kind has been proposed in the Army Hospitals Committee's report, except to carry that scheme into touch with the new Barrack Boards, it [illegible] to the personality of the reformers whose main idea seems to have been to alter everything that had been done before, to make changes in a Committee whose span of existence is measured only by months. Nor do we quite understand how Lord Esher and his colleagues can yet have sufficient grounds for describing it as "a valuable body." The point put forward by the Chairman of Council of the British Medical Association was that the Army Hospitals Committee is virtually a distinct branch of the Army Medical Service, independent alike of the Director-General and of the Advisory Board. This point, too, is simply evaded. In fact, the Committee's letter throughout is a fine example of the logical fallacy known as *ignoratio elenchi*. We may add that many who take an interest in the medical service of the army would be grateful for some further light as to the origin and constitution of the Army Hospitals Committee. The creation of this "valuable body" was as noiseless as the building of Solomon's temple, which, as Bishop Heber puts it, "rose like an exhalation." Even now nothing, as far as we know, has been officially divulged as to its composition. Why all this mystery? The children of light ought not to love darkness. We are quite willing to believe that the Hospitals Committee is in every way excellent, but we cannot help regretting the clandestine manner in which it appears to have been established.

CONVALESCENT HOMES IN LONDON PARKS.

WE are glad to know that this question again came up at the London County Council last Tuesday. The Council agreed to a recommendation of the Parks Committee to contribute £8,000 towards the purchase of eighty acres for the extension of Hampstead Heath. This arose out of a proposal made by the Hampstead Heath Extension Council, supported by Lord Meath, Sir Robert Hunter, Canon and Mrs. Barnett, and others. In an appeal issued on behalf of the proposal, it was urged with great force that this boon would be enjoyed not only by residents in Hampstead, but by the children of crowded Central London, and that by means of the tube railway, now approaching completion, even those resident in the East and South of London would be greatly benefited by the acquisition of the eighty acres. Curiously enough, however, later in the afternoon, the Parks Committee brought up a recommendation suggesting that some of the upper rooms in the beautiful mansion at Golder's Hill, formerly occupied by the late Sir Spencer Wells, should be utilized as a residence for the park superintendent, and that conveniences for both sexes should also be provided there. Sir William Collins thereupon proposed, and Mr. Jephson (Chairman of the Health Committee) seconded, a motion to refer the whole matter back to the Committee for further consideration. Sir William Collins pointed out, as has been often urged in these columns, that the Act which authorized the acquisition of Golder's Hill Estate distinctly provided that the mansion should be devoted to some public purpose, for the health or convenience or recreation of the people of London. It was true, he said, the Parks Committee had on his motion approved the principle of using mansions in the London parks as convalescent homes, but they had refused to apply this principle in the case of Golder's Hill House although its fitness for the purpose had been shown when it was used as a convalescent home for the Guards. He protested against using this beautiful mansion as a residence for a park constable. It was not in compliance with the Act. After a lengthy debate the reference back to the Committee was carried by a substantial majority. We trust we have now heard the last of the preposterous proposal of the Parks Committee. It will be observed that when it is sought to acquire fresh extensions of Hampstead Heath the Council is urged to contribute on the ground that those resident in the crowded slums of Central and East London will be greatly benefited. When, however, the practical proposal was made that salubrious Hampstead should extend its recuperative powers to the little denizens of the slums by using Golder's Hill House as a convalescent home, the very same persons wrote indignant letters to the *Times* protesting against such sacrilege. Let the house in question be devoted to some purpose of real public utility. For ourselves we cannot imagine a better purpose than that of a convalescent home for children.

THE RISKS TO LIFE IN LONDON.

THE risks encountered by those who frequent London streets whether on duty or for pleasure must be sufficiently obvious to every one. They have probably been increased by the growing use of tramways and automobiles, and few people will be surprised to learn that the average number of serious accidents in London amounts to as many as 15,000 a year. It is probable that a large section of the public complacently supposes that when an accident occurs the sufferer is removed for treatment in a well-arranged ambulance and under as favourable and comfortable conditions as possible. They may possibly be somewhat disturbed to learn that 70 per cent. of all cases of accident are as a preliminary to surgical treatment jolted in cabs or other unsuitable conveyances. It needs but little imagination to conceive how immensely the sufferings of a person with, for instance, a fractured limb must be increased by this process, while it requires no imagination at all, but merely a little common knowledge, to appreciate the fact that the chances of any given accident resulting in prolonged illness or in death are gravely and materially increased thereby. Probably no better general proof of the gravity of the evils to which every individual is at present liable, owing to the lack of an efficient ambulance service, could be quoted than that supplied by the existence of the Metropolitan Street Ambulance Association itself. This Association has objects with which medical men have no more direct concern than any other members of the community. Nevertheless, within a month or two of its organization by its present active secretary, Dr. Arthur James, over a thousand London medical men had joined it, while included in their number were the majority of those physicians and surgeons whose names are best known to the public. An account of its latest proceedings is given at p. 1101. The resolutions there mentioned were, it is understood, circulated beforehand, and it will be noted that, besides being unanimously accepted at a very influential meeting, they had the written approval of many of those who, like Lord Lister, were unable to be present in person. The resolutions include a record of opinion that a thoroughly organized ambulance service is necessary, and an expression of belief that such service could be better organized by the London County Council than by any other body. These resolutions will be submitted to the London County Council by a deputation on Monday next, and we hope that the reception accorded will be a favourable one. There can be no doubt whatever as to the correctness of the view expressed in the first resolution, while as for the second the Council is asked to do no more than what has already been done long ago by bodies of corresponding function and importance in America, Australia, Denmark, Austria, and France, not to mention Liverpool, Bootle, Manchester, Newcastle, Leeds, Sheffield, and other large towns in England.

INVESTIGATION OF SMALL-POX.

A PROLONGED discussion took place at the meeting of the Metropolitan Asylums Board on April 30th upon a proposal to authorize Dr. Ricketts, Medical Superintendent of the Joyce Green Small-pox Hospital, and Dr. C. J. Martin, F.R.S., Director of the Lister Institute of Preventive Medicine, to undertake experimental work respecting the causation of small-pox. Dr. Ricketts, in applying for the authority, referred to the need of such an investigation, and remarked that knowledge on the subject had advanced very little since the time of Jenner, notwithstanding much work both before and since bacteriology had become a science. He gave reasons for this barrenness of result, and thought that more laborious attempts to elucidate the natural history of the disease might prove less futile. He suggested that it was desirable to co-operate with such a scientific laboratory as that of the Lister Institute to make a joint investigation; and added that Dr. Martin was willing to co-operate in every way. Experiments on animals would be necessary, but these would be inoculations only. Nevertheless, it would be necessary for the Joyce Green Hospital to be licensed under the Vivisection Act. A letter was read from the Hackney Guardians protesting strongly against any use of the hospitals of the Asylums Board for such a purpose. The guardians of St. Pancras, Stepney, Chelsea, and Wandsworth sent letters supporting the Hackney Board; whilst the Strand guardians wrote, approving of scientific research being made into the origin of small-pox, and commending the managers for allowing investigations to be made into the matter. Mr. W. L. Beurle disapproved of the use of rate-supported hospitals for such a purpose, and proposed a resolution which was negatived. Dr. J. R. Hill moved the adoption of a recommendation by the Hospitals Committee "that they be empowered to sanction the investigations." Mr. Beurle, Mr. T. Bates, and the Rev. G. W. Pope opposed the resolution, which Sir E. Galsworthy, Mr. H. L. D'Arcy Jaxone and Professor W. R. Smith approved, and which was eventually adopted. The investigation in view is a most desirable one, and the Metropolitan Asylums Board must be warmly congratulated upon the strong common sense and enlightened spirit shown in its treatment of the question.

THE CANCER RESEARCH FUND AND QUACK REMEDIES.

THE authorities of the Cancer Research Fund have, as might be supposed, received an immense number of communications from all sorts of correspondents claiming to possess infallible cancer remedies. We are informed that all these cases are dealt with in the same manner; a letter is sent stating that no investigation into the claim can be made unless the composition of the alleged remedy is disclosed, and warning is given that, although no use will be made of any secret communicated, still there can be no guarantee that it may not be necessary to express publicly an opinion upon any specific claim made or the nature of a secret remedy. In the public interest it has been deemed advisable to deal with such claims in a most conciliatory spirit, and as a general rule no occasion has arisen to cause regret for the course followed.

SPOROZOA AND DISEASE.

PROFESSOR MINCHIN resumed his lectures on the sporozoa on April 25th, and dealt with the group of the myxosporidia. The myxosporidia belonged to the neo-sporous group, in which spore-formation began early in life and went on continuously during the trophic stage. Such spore-formation was not an interruption of the nutritive life-stage, whereas for the telosporidia and malarial parasite it marked the end of the trophic stage. The spores were formed in the interior of the body—endospore formation—in myxosporidia. The trophic stage was characterized by a large-sized amoeboid phase. The spores formed were large, and with rare exceptions each spore was provided with 2 or 4 "polar capsules." The myxosporidia were parasitic in fish and cold-blooded vertebrates; they occurred in two conditions—namely, free in the internal cavities of viscera (gall and urinary bladder) and in the tissue parenchyma of organs, the latter being the more dangerous and virulent form of infection of the host. Epidemics among the fishes in certain rivers in Germany had been lately studied by Döplein, who had found the disease to be due to species of myxosporidia—myxobolidae—affecting barbels and other river fishes. The myxobolus Lieberkunii was the common sporozoan parasite found in the pike's bladder, and occurred in about 50 per cent. of the fishes examined. Myxosporidia, said the lecturer, exhibit amoeboid movements; they are of an elongated worm-like shape, but some forms are disc-like and flat. The ectoplasm is very faintly granular; but a dense, coarsely-granular, yellow substance is found in the endoplasm. This consists of oil and pigment droplets and dark crystalloid bodies. A number of nuclei are present in the body. Reproduction of myxidium takes place in the winter months. A multinucleated bud is separated off from the parent body, and many such buds may be formed and separated off in succession. Another process of multiplication, namely, by spore formation (endospores)

occurs in the warmer months. A cell wall is formed within which the myxidium contracted to a spherical mass undergoes segmentation into a number of oval elongated protoplasmic bodies, each provided with a stinging cell and filament at the two poles. These sporoplasmic bodies, as they are called, form a double shell, like a pair of watch glasses, in the form of a convex lens. After a time, when the parasite is accidentally swallowed by an animal, the shell opens and the young amoebiform myxidium issues forth, the loosening of the shells being produced by the gastric juices of the host. Within the host the cycle of multiplication is reproduced. A calf fed upon the spores of myxidium or myxobolus will show parasites, some of which are in the renal tissue (epithelium), where they increase and multiply for some time, while others are met with in the eye muscles and skin. Four families of myxosporidia are recognized, for example, the disporea (parent form producing two spores), the polysporea, the chloromyxideae, and the myxobolideae.

TAXATION BY WEIGHT.

MANY suggestions for the relief of the over-pressed income-tax payer have been made to the Chancellor of the Exchequer, but he resolutely declines to accept cats or bicycles or bachelors as substitutes. We venture to call his attention to another source of revenue which in these days of overfeeding may be expected to yield a good return. It is an economic principle that luxuries should be taxed rather than necessaries. A superfluity of fat, which is mostly the result of luxurious living, may therefore not unfairly be regarded as a fitting object of taxation. The idea is not altogether original, for there is, we believe, an enlightened municipality in Sweden which levies a rate on all citizens over a fixed standard of weight. The weight of flesh which a citizen can decently carry about him is fixed at 135 lb. Persons exceeding this limit are taxed at the following rates: Up to 200 lb., about 12s. 6d. a year; from 200 lb. to 270 lb., approximately 25s.; beyond 270, about 7s. 6d. for every pound. The plan seems to us to have not a few advantages. The number of people in this country who bear the fat man's burden is so large that a Chancellor of the Exchequer who could get his "pound of flesh" out of each of them would be able to look forward to his budget without disquietude. A large financial deficit would be more than made good by the surplus of adipose tissue among the British people. There would be no difficulty, as in the case of the income-tax, about the graduation of the tax, nor could a man conceal his bulk so easily as he can minimize his income. This would tend to raise the moral tone of a community in which the payment of "conscience money" in respect of evaded income-tax is, we fear, regarded by many as a mark of imbecility. A tax on fat would also have an excellent effect on the health of the nation by bringing about a reform of unwholesome habits of eating and drinking. Falstaff's axiom "The more flesh the more frailty," though not exactly intended by the fat knight as a precept of hygiene, expresses a hygienic truth. Let the Chancellor of the Exchequer try the effect of the tax we have suggested for a few years, and he will do something to check the physical degeneration of the race with which we are threatened.

THE MEDICAL ARRANGEMENTS OF THE THIBET EXPEDITION.

The medical arrangements of the Thibet expedition are under the charge of Lieutenant-Colonel Waddell, who was selected for the post on account of his knowledge of Thibet. In addition to the military force there are many thousand coolies engaged in transport work on the 150 miles of mountain road over which all the supplies have to be carried up to the frozen heights now occupied by the force. The medical establishment consists of sixteen executive medical officers and thirty one assistant surgeons and hospital assistants, with a large staff of hospital orderlies and the usual equipage of field hospitals. The ambulance transport consists of eight stretchers per regiment, as well as about fifty dhoolies each carried by six bearers, also ambulance chairs and riding ponies, and bullock tongas for the Teesta valley road. As the Indian Kahars could not stand the extreme cold, Thibetan and Sikhamese coolies were employed, and, except for some desertions, they are doing well. There is a base hospital at Siliguri on the railway at the foot of the Himalayas, from which the invalids are sent back to their stations. At each chief stage of the road beyond this a section of a hospital has been established right up to the front, and at the smaller intervening posts a hospital assistant with medicines is placed. In each of these stages hospital huts are being built to replace the tents before the rainy season sets in among the lower valleys, and as a better protection against the cold and snow of the higher tracks. After the fight at Guru about 180 wounded Thibetans were attended to by our medical officers, and many of them were carried to the neighbouring villages, so as to be near our hospitals and thus receive further treatment.

A GERMAN ARMY EXPERIENCE.

THE members of the military force which Germany has had occasion to dispatch against the revolting Hereros in its South-West African Colony appear to be suffering very much more severely than might have been expected. On the morning before the encounter at Ovikokero, or on March 13th, the total strength of the expedition consisted of 22 officers and 476 non-commissioned officers and men. Telegraphing just six weeks later a correspondent of the *Lokalanzeiger* gave a list of the losses which had been incurred up to that date from sickness and from the enemy. These were 8 officers killed, 4 wounded, and two invalided; while of the non-commissioned officers and men, 56 had been killed, 18 wounded, 8 were dead from disease, and no less than 62 had been invalided through ill-health. Dealing with the non-commissioned officers and men these figures, represented in percentages of total strength, are: killed, 11.8 per cent.; wounded, 3.8 per cent; invalided for sickness, 13.0 per cent.; and dead from disease, 1.7 per cent: while, taking the officers, the percentages are: killed, 36.3 per cent.; wounded, 18.1 per cent.; invalided, 9 per cent. These figures are decidedly interesting. We doubt very much if they have ever been even approached in any corresponding English expedition within modern times, for they amount to a loss of practically one-third of the whole force in the short space of a month and a-half. The figures are all the more remarkable because German South-West Africa has what is in no way an unhealthy climate. It lies much upon the same level as the Transvaal, and it has proved very suitable for colonization by Europeans; nor was the season in which the operations were undertaken the warm part of the year, but the beginning of the African winter. It might, therefore, have been reasonably expected that it would prove easy to keep a small compact body of troops in the best of health. The expedition is the sort of military operation which the British army is constantly carrying on all over the world, and we are certain that a similar sickness-rate and death rate in a force of corresponding size, even under climatic conditions incomparably less healthy, would have caused a tremendous outcry. The incident tends to show that our own army medical officers have very much less to learn from their foreign compeers than we are constantly being told is the case. It is to be noted also that upon the day the correspondent dispatched his telegram there were, in addition to the losses already registered and given above, 44 other men in hospital with typhoid fever.

THE FUNCTIONS OF A HOSPITAL NURSE.

WHAT are the proper functions of a hospital nurse is a question which Mr. Troutbeck indirectly touched in some comments which he made at the conclusion of an inquest in connexion with the Bolingbroke Hospital. Of this an account was published on April 23rd, page 992, and basing his observations upon the inquiry, a correspondent directly raises the same question. Mr. Troutbeck found grave fault with the authorities of that hospital for per-

mitting a nurse to take, as he said, sole charge of a casualty patient and compared her employment in that respect to that of an unqualified assistant by a medical man. As regards that particular hospital, Mr. Troutbeck did some injustice, inasmuch as that the patient, a baby which had been badly burned, was seen by the medical officer of the hospital himself, not once as Mr. Troutbeck inferred, but upon four out of the seven occasions upon which it was brought up to have its dressings changed, so that the case cannot fairly be said to have been left to the sole charge of the nurse. Nevertheless, the general question as raised by our correspondent remains the same. He asks whether it is right that a nurse should give hypodermic injections, sew up small cuts, keep on dressing serious wounds day after day without the immediate supervision of a medical man, or even, in the case of a fever hospital which he apparently has in mind, administer a dose of antitoxin before the arrival of the visiting physician. These practices, he thinks, are the outcome of hospitals being too "exclusive," and he infers that they would not exist if more use were made of the services as out-patient honorary medical officers of young medical men in the neighbourhood. As regards the direct question raised, it would probably be undesirable to lay down any hard-and-fast rule, but it is quite certain that no nurse should be expected or allowed as a general rule to do any of the things specified in hospital work any more than in private practice. We are aware that in some of the smaller hospitals nurses do, more than occasionally, conduct such operations of minor surgery, and also have too free a hand left them in the after-dressing of casualty cases. Such practices, however, are usually due either to the slackness of the house-surgeons, or to the hospital accepting more work than its resident medical staff can properly perform. In either case they are equally undesirable and improper, and we doubt very much whether the authorities of any hospital openly countenance them. Whether additions to the honorary staffs of hospitals would stop them is not quite certain, though such additions might in some towns be desirable upon other grounds. The risk is that they might lead to the extension of general out-patient work, which in most places is already more considerable than it need be.

SICKNESS AND MORTALITY AMONG NURSES.

AT the seventeenth annual meeting of the Royal National Pension Fund for Nurses some remarkable figures were given by the distinguished consulting actuary of the institution, Mr. George King, F.I.A. The operations of the Royal National Pension Fund are on a sufficiently large scale to give trustworthiness to the actuarial results, so far at least as death-rates are concerned. Its capital, which in 1887 was £20,000, had increased in 1903 to £800,000. In the pension branch 10,764 policies have been issued from the commencement of the Fund in 1887, of which 953 were granted during the last year. The two marked features of the statistics are, first, the excessive amount of sickness, and, secondly, the exceptionally low death-rate experienced by the insured nurses. The number of policies issued in the sickness branch since the commencement of the Fund is 2,754; but this number, although representing a much smaller experience than that in the annuity or pension branch, is sufficient to warrant the general conclusion, now confirmed in a number of successive years, that nurses suffer excessively from disabling sickness. The sick pay in 1903 amounted to £1,764, the year's working of the sickness account showing a net loss of £255. To meet this loss £2,603 has been added to this account from the large general reserve fund of over £10,000 which the Pension Fund possesses. Contrasted with the excessive sickness claims, which are higher than the utmost sickness claims known to Mr. King in any other sickness tables, is the comparatively low death-rate. Government annuitants show a comparatively low mortality, but the mortality in connexion with this Fund is lower. It is shown by Mr. King to be lower also than the select mortality of British offices, which is more favourable than that of Government annuitants. Thus in the last quinquennial period the number of deaths in the sickness branch was only 21. The number expected according to the tables employed was 71, the number expected according to the Government Friendly Society tables was 69, according to the Government annuity tables 70, and according to the British offices tables 66. Thus the mortality among the nurses was less than one-third of the lowest estimate of other tables. These figures ought to encourage nurses to join the Pension Fund, as, according to the experience of the Fund, they are almost certain to live to enjoy their pensions. The association of excessive sickness with a low mortality remains to be explained. That there should be excessive sickness among nurses engaged in nursing the sick, often in ill-ventilated overwarm bedrooms, with long and irregular hours, often broken sleep, and much anxiety, is not surprising; but the compatibility of this excessive sickness with a marvellously low death-rate is difficult to understand. More information is needed as to the duration of the active part of a nurse's life before the reason of this apparent discrepancy can be stated. The occupational figures of the Registrar-General do not help us, as these relate only to males. May it not be that the withdrawals hold the key to the anomaly? During 1903 362 policies were surrendered against 392 in 1902. Thus in 1903 about 3.4 per cent. of the total policies issued up to that date were withdrawn. It may be that the weakly nurses are thus weeded out, drifting to other less trying occupations, and that the low death-rates of those remaining in the Pension Fund represent the experience of a specially selected number of nurses. Assuming that this suggestion explains part of the extremely low death-rate among nurses, it does not affect the great advantages which the current annuitants receive, which indeed are the greater in consequence of withdrawals. The point, however, raises the essential difficulty in all occupational statistics. It is not unlikely that the favourable mortality statistics of coal miners are in part at least due to a similar selection, in which those with weak chests or other tendency to disease have been eliminated. Whatever the explanation in the case of nurses, their excessive sickness experience calls for careful consideration; private nurses should have sufficient time allowed them for rest and recreation, and for as near an approach to a healthy life as is consistent with the daily care of the sick. Those nurses who surrender their policies in the Fund are very fairly, we may almost say generously, treated. After two years' payments, a nurse is allowed to receive back her premiums with 2½ per cent. compound interest, 5 per cent. being deducted for expenses of administration. If the policy has been in force for seven years no working expenses are charged.

TRUTH ON "CHRISTIAN SCIENCE."

OUR contemporary *Truth* in the course of its chronic campaign against imposition of every character, has recently had some hard things to say about "Christian Science." These drew from one who is apparently an adherent of Mrs. Eddy a strong protest, and in its further comments *Truth* sums up the general situation somewhat neatly. If, it says, a man suffering from pneumonia elects to dispense with medical treatment, which it would guess was in this case more a matter of nursing than anything else, there is some chance of his recovery; how much chance depends on various unknown circumstances. If he elects to be nursed and doctored by the light of existing knowledge his chance of recovery will be materially increased, to what extent again depending upon unknown circumstances. His recovery in the first case would not prove that he was wise to dispense with medical knowledge and skill, nor would his death in the second prove that the doctor killed him. But if a man with neither medical knowledge nor skill persuades a sick man to be treated by him upon principles derived from reading the Bible and the sick man dies, then that person should bear part of the responsibility for the death, even though it cannot be proved that the deceased would have recovered under medical treatment. The hold which Christian Science and other forms of quackery obtain upon

some people is explained by the fact that there are a great many people who suppose themselves to be ill, but who really have nothing whatever the matter with them, and that all that has to be done is to convince them of this. It is certain also that the mind has a real influence on the body, and can affect its health for good or ill without the assistance of a physical agent. This fact is as well known to medical men as to any other persons, but until perhaps recently and in connexion with hypnotic influence they have not given the subject as much study as it deserves. It is to these two facts that our contemporary attributes whatever popularity Christian Science may possess; and its adherents, when not engaged in "curing" people who are perfectly well, are playing with an obscure force of which they know as little as the "mesmerist" who cures toothaches and headaches at a country fair. Their creed, therefore, or whatever it is to be called, is distinctly mischievous, because it teaches people to discard the knowledge and skill in the treatment of disease that have been laboriously acquired by successive generations of mankind in favour of a precarious and doubtful substitute. This, says *Truth*, is quackery in its most pernicious form by whomsoever it be practised.

AMERICAN SCIENCE.

We have become so habituated to the assertion that the provision made for the advancement of science and for its teaching is immeasurably better in the United States than in the United Kingdom that the criticisms and suggestions which Mr. Carl Snyder has embodied in his volume entitled *New Conquests in Science* excite curiosity and surprise. The book gives a sketch of the recent progress of science, and its avowed object is to establish a comparison between men of science in Europe and America. The author asserts that the United States had a slight share only in the marvellous scientific advance of the past century: he endeavours to discover the reason for this and suggests remedies. "It is," he says, "certain we do not lack for colleges and institutions of 'higher culture.' The sums which our Croesuses scatter with lavish hand are the wonderment of Europe. We are a clever people undoubtedly.

We have done big things; and it is, perhaps, just for that reason, just because of the rich prizes of business, that the Faradays and Claude Bernards are not to be found among us. While alleging that America is left far behind in the scientific world, Mr. Carl Snyder is anxious that she should outshine every other country, and thinks that this end may be achieved by a great impulse to science. "It would require," he writes, "but the co-operation of those who are broadly interested in scientific progress, and who have a desire to keep abreast of the swiftly advancing knowledge of their day, to achieve the beginnings of a great institution which should be at once a scientific society, a forum where the chief notables alike of Europe and America might be gathered and heard, and a centre of scientific research. It would be a work worthy of any man to consecrate the founding of such an institution in the chief city of the New World." Mr. Snyder works on the principle of Hannibal and the mountain, but, although the temple may perhaps see the light of day, it would be a small work to America did she provide a temple [illegible] beyond description, with no gods of her own to [illegible] While it is true that America has not yet thrown up a Newton, a Darwin, or a Pasteur, we cannot believe that Mr. Snyder's grandiose suggestion is the way to produce such men. They are born, not made, and the United States, by cherishing and enjoying [illegible] are going the right way both to encourage, when [illegible] would have said, he gets himself born.

COMPANY LAW.

After some little negotiation a deputation from the Pharmaceutical Association and Sir Michael Hicks Beach, who received it, parted without any modification of their respective opinions. The deputation sought support for a clause in the Pharmacy Bill now awaiting its second reading which seeks to deal with the company form of infringement of the Acts by requiring that directors of pharmacy companies shall be qualified chemists. Sir Michael Hicks Beach withholds his support on the ground that it is enough for the protection of the public if a qualified person has charge of the shop. If there were no such thing as one-man companies, and if the bona fides of all such companies were beyond question his arguments might suffice, but, as things are, his attitude betokens small acquaintance with the real facts. Sir Michael at last stated that the Government was pledged to introduce a measure to deal with the subject, but, so far as reported, did not say whether he meant pharmacy law in general, or this company question in particular.

THE MIDDLESEX HOSPITAL.

The wisdom of festival dinners in connexion with charities, often disputed, seems at any rate to have been happily confirmed in the case of the Middlesex Hospital, which gave a dinner at the Hotel Metropole on May 3rd. A large number of influential persons accepted invitations, the officers—administrative and professional—had an opportunity of describing the many solid excellencies of which this institution can truthfully boast, and the net result was that the Chairman of the Weekly Board—Lord Sandhurst—was able, before the end of the proceedings, to announce a collection of nearly £[illegible]. One distinction of the evening was that the speeches were comparatively short and all (including those of the Chairman, the Lord Mayor) decidedly to the point. Lord Sandhurst gave a brief summary of the work carried on and an account of the structural and other improvements recently introduced; dealing with the cancer department of the hospital he made the interesting statement that the preliminary investigation of all the records of the hospital since 1746 had been completed, with the result that they were now in a position to analyse some 6,000 cases of malignant disease collected from the past. The cancer research work, upon which the hospital was engaged, was the natural outcome of its devotion to cancer treatment for so many years, was justified thereby, and was in co-operation, not in competition, with that of other investigating bodies. Mr Henry Morris and Dr. Kingston Fowler, who, as respectively Senior Surgeon and Senior Physician of the hospital, replied to the toast of "The Staff," both studiously avoided the temptation to make statements of a purely professional character, which in view of some passages in earlier speeches must have been considerable. Mr. Morris, while accepting that the credit given for philanthropy was no more than what was due to a body of professional men without whose assistance hospitals could not exist, yet disclaimed for medical men any specially innate philanthropical instinct: it was the sight of suffering, the constant appeals for assistance, which developed those charitable instincts with which all men alike were born, while the variety of the conditions with which they had to deal constantly stirred up medical men to endeavour to discover the causes of disease and to improve methods of treatment. He recognised that the demands made by modern surgery added no little to the cost of keeping up hospitals, but thought the results achieved proved that they were more than justified. Dr. Kingston Fowler thought that however gloomy the exterior of hospitals might be there was much more brightness and happiness within them than those who seldom visited them commonly believed. The character of the intercourse between patients, students, nurses, and the staff was excellent, and relations often grew up between the officers and those who endeavoured to relieve them which were of the nature of personal friendship. He would like to see all hospitals thrown open one day a week, under such regulations as were needful, to the inspection of the whole public: he was sure that it would lead to increased support. He alluded also to the need of endowments for the teaching of medical science in London: in default of these the patriotic spirit shown in provincial towns might in time lead to the vast clinical resources of the metropolis being comparatively neglected to the eventual detriment of the whole country.

THE SANITARY INSTITUTE.

THE annual dinner of the Sanitary Institute of Great Britain and the Colonies, held at the Whitehall Rooms on May 2nd, brought together about 150 members and guests under the chairmanship of Dr. Robert Farquharson, M.P., the Vice-President of the Institute. In proposing successively the usual loyal toasts, Dr. Farquharson on behalf of the Institute made graceful acknowledgement of the appreciation and encouragement always extended by the King and all the Royal Family to everything which contributed to the health, and hence to the wealth, of the people, and referred appropriately to the loss which the Institute had suffered through the death of its late President the Duke of Cambridge. The toast of "The Navy, Army, and Auxiliary Forces" fell to Sir R. M. Hensley, Chairman of the Metropolitan Asylums Board, who, in addition to the after-dinner compliments commonly paid to "our gallant defenders," alluded to their value as a standing example of the virtues and advantages of discipline in an age whose tendency was to dispute authority and to make each man a law unto himself. The toast was acknowledged by Lieut.-Colonel Firth, R.A.M.C., Professor of Military Hygiene in the Royal Army Medical College, and at one time co-editor of the work on hygiene founded on the treatise by the military surgeon in whose honour the Parkes Museum, now maintained by the Sanitary Institute, was established. He was followed by Sir R. Douglas Powell, who invited the company to drink to the health of Parliament, partly on the ground that a recent debate had apparently revealed that its members daily risked their lives in a microbe-infected atmosphere, and partly because Parliament deserved well of those present inasmuch as it had passed many measures calculated to further the interests which the Institute had at heart. Sir Francis Sharp Powell, M.P., in reply, detailed the principal measures which could be placed to the sanitary credit of more recent parliaments, claimed that in many respects legislation was in advance of administration, and urged that to secure true progress thoughtful legislation must march hand in hand with active local administration. Pursuing much the same line of thought, Sir J. Ure Primrose described the immense strides which practical sanitation had made in the past twenty-five years, and in proposing the toast of "The Sanitary Institute," justly credited it with much of the improvement which had been effected both in practical sanitation and in the mental attitude of the public towards questions of hygiene. Municipalities, he urged, should devote their energies to making the lives of the people healthier, brighter, and happier rather than to engaging in enterprises of a commercial character. In his reply on behalf of the Institute, Dr. Farquharson said that its work was the care of the human animal from the cradle to the grave: given a nation of healthy men and women, the difficulty of all other problems was immensely lessened. The Institute, having outgrown its premises, must move elsewhere, and as the London County Council was now the education authority, there was an opportunity for it to recognize the value of the Institute's work by affording it facilities for establishing a teaching school of hygiene.

CHANGES IN THE BLOOD AT HIGH ALTITUDES.

DR. C. FOA, of Turin, has published some interesting observations on this subject.[1] It is an old observation that blood counts made at high altitudes show an increase in the number of red corpuscles, and the objection at first raised—that the difference was owing to an error in the method due to the diminution of barometric pressure—has been shown to be invalid. Dr. Foa finds that this increase is not observable at a height of 1,200 metres and is only slight at 1,800 metres, but at an altitude of 3,000 metres is manifest within eight hours after arrival or even earlier. With the increase in the number of red corpuscles he finds that there is a commensurate increase in the percentage of haemoglobin. These changes are, in early periods of exposure to high altitudes, peripheral only, and are not found in the blood drawn from large arteries. But after animals have been kept there from eight to ten days a slight augmentation is observable in the number of red corpuscles found in the large arterial trunks; it is due to an increase in the haematopoietic activity of the bone marrow. Within thirty-six hours after return to lower levels the increase in red corpuscles has practically disappeared. Examinations of the urine do not afford any indication that this return to the normal is accompanied by a destruction of red corpuscles. Various explanations have been offered for these changes observed in the blood at high altitudes, and the matter is still the subject of controversy; the view which appears most probable is that at high altitudes there is a diminution of arterial blood pressure and a superficial vasodilation, and that under these conditions there is a congestion of red corpuscles in the superficial capillaries.

[1] *Archives Italiennes de Biologie*, Tome XII, Fasc. I, 1904.

WE understand that Mr. Chamberlain's visit to Egypt and Sicily has resulted in very satisfactory recovery from the effect of the prolonged overstrain to which he had been subjected.

THE next session of the General Medical Council will begin on Wednesday, May 25th, when the President, Sir William Turner, K.C.B., will take the chair at 2 p.m. The session usually begins on a Tuesday, and the postponement to the following day is due to the fact that May 23rd will be a bank holiday (Whit Monday).

THE Croonian Lectures before the Royal College of Physicians of London will be delivered by Dr. J. Rose Bradford on Tuesdays and Thursdays, June 7th, 9th, 14th, and 16th, at five o'clock on each day. The subject of the lectures will be Bright's disease and its varieties.

THE whole scientific world will hear with deep regret of the death of M. Emile Duclaux which occurred suddenly on May 3rd at the age of 64. He was the chief of the Pasteur Institute of Paris and one of the foremost among contemporary biologists. He was the author of a great work entitled *Traité de Microbiologie*. He was a member of the Académie des Sciences and of the Académie de Médecine.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Business of the Week in the two Houses has not brought up many points of medical interest. Monday was occupied by the Scotch Education Bill. On Tuesday the Budget resolutions were considered and finally disposed of after a sharp debate on the tobacco duties. Sir Walter Foster, while criticizing the increased duty on cigarettes as likely to take much from the public and give little to the Exchequer, said he could have gladly welcomed a duty of the kind if it had been devised to check the growing habit of cigarette smoking by boys. On Wednesday the Church occupied the day with the New Bishoprics Bill, and on Thursday Scotch Estimates were the subject for consideration. Next week the Licensing Bill will be taken.

The Irish Poor-law Medical Service.—Dr. Thompson asked the Chief Secretary to the Lord-Lieutenant of Ireland if his attention had been called to the report of the Special Commissioner of the British Medical Association, who had recently inquired into the grievances of the Irish Poor-law medical officers; and if, considering the allegations contained in the report against the whole administration of the Poor-law medical service, he would recommend the appointment of a Royal Commission to investigate the whole question. Mr. Wyndham answered that the recommendations contained in the report referred to, even if they were practicable, could only be carried out at an increased cost to the ratepayers together with a further large subsidy from public funds. The views of the Local Government Board on the question of the Poor-law medical service had been fully set out in its recently published annual report, and it was not considered that any new facts would be ascertained by an investigation of the character suggested.

The Sanitation of the House of Commons. Last week, when the vote for the Houses of Parliament buildings came on, there was an amusing debate, which lasted nearly five hours, on the ventilation and general sanitary state of the House of Commons. Mr. Wylie started with a long grumble, and amused the members by saying that if the building had been under the Factory Acts the Chief Commissioner of Works would have been fined long ago. Mr. F. Wilson followed, and described his investigations when member of the old Committee of three years back, and specially dwelt upon the waste of space in certain parts of the building while the members were cramped in their accommodation. He quoted the report of the recent Committee on Ventilation as showing the comparative purity of the air of the chamber as regards bacteria and the much larger number found in the badly-ventilated committee rooms. Mr. Richards and other members followed, and amused the House by references to the Ladies' Gallery and the grille, and by describing the arrangements generally as giving members the worst and the most expensive club in the metropolis. Sir Michael Foster, as Chairman of the Ventilation Committee, gave a very interesting account of the work done by himself and his colleagues, and interested the members by describing bacteria as being of two classes, friendly and unfriendly, yet often most difficult to distinguish. He described the defects of the present system of ventilation, and suggested that more extended experiments should be made with a view to its improvements. There was somewhat of a shudder among his audience at the idea that they and their Chamber should be used for experimental purposes. Dr. Farquharson afterwards restored the gay humour of the legislators by a sympathetic reference to the sufferings of the ladies in their small and stuffy gallery. Their lot was not a happy one, he declared, and he offered, if he were appointed a Committee with power to add to its number, to go and interview the ladies with a view to remedying their grievances. Later on Sir Walter Foster repeated his opinion, often expressed in previous debates, that the air of the Chamber was relatively very pure, and he claimed the results of the experiments made by the Committee as establishing this fact. He congratulated the Committee on having done a great work in making the Chamber and the House generally cleaner. It was really cleanliness that was most wanted, and he mentioned the disgracefully dirty condition of the windows and gas-lamps round the building as evidence of his contention. He also referred to the overheated condition of many parts of the House as dangerous to the members. Other speakers dwelt eloquently on the inconvenience of the smoke room, the need for better tea and reading rooms, and the strange fact that although a whole series of rooms had recently been added to the general accommodation, none of them had been given to the members, but all appropriated by the Ministry. Mr. Weir finally caused much hilarity by referring to the system of introducing the air into the Chamber through the floor and so driving upwards the dirt brought in on members' boots. He referred to the Eastern method of removing boots before entering a house, and suggested the employment of Japanese maidens to remove boots and supply slippers to members on arrival. The Commons thoroughly enjoyed the afternoon, and were not much disappointed when Lord Balcarres, speaking for the Commissioners of Works, made an official reply in the usual form. The vote was agreed to after a division.

Small-Pox in East London. Sir Thomas Dewar on Tuesday asked the President of the Local Government Board, in view of the recent outbreak of small-pox in East London, if he could state to what cause it was attributed, and how many patients had been removed for treatment from the various districts of London by the Metropolitan Asylums Board. Mr. Long said in reply that he was unable to specify the precise cause to which the outbreak was to be attributed, but he might state that several cases occurred in some common lodging houses and seamen's boarding houses at Stepney and Poplar, and the earliest of these cases seem to have been those of some sailors who came from America. The number of patients removed to the hospitals of the Metropolitan Asylums Board from various districts of London from March 1st to April 29th was 242.

The Cost of Vaccination at Belmullet. Mr. John O'Donnell asked the Chief Secretary to the Lord Lieutenant of Ireland, whether his attention had been called to the condition of things existing in Belmullet Union owing to an outbreak of small-pox in a neighbouring island, and to the bills for vaccination which had been incurred by the medical officers there, and which the Poor-law guardians were unable to meet owing to the number of persons in that union who had presented themselves for revaccination; and to the fact that no provision had been made for such a contingency when making out the rate estimate; and, if so, whether, in view of the poverty of the people in that part of the country, he would recommend the Government to make a grant sufficiently large to pay the amounts now due, and for which no provision had been made by the local bodies. The Chief Secretary replied that he was informed that the expense incurred by the Board of Guardians amounted to £272. There were no funds at the disposal of the Government for making a grant to defray this charge.

The Revaccination Bill does not gain favour, and in addition to others Mr. Coghill has given notice of his intention to move, on the second reading, that it be read this day six months. At present there is no chance of the Bill coming on for discussion.

The State Registration of Nurses.—Dr. Thompson asked the President of the Local Government Board on Monday if he would consent to appoint a small select committee to consider the advisability of the State registration of nurses. Mr. Long replied that the subject of nursing generally was not within the province of his department, which was only concerned with it as respected nursing in Poor-law institutions. He was not in a position to give the consent asked for in the question.

Poor-law Nursing.—Mr. Schwann asked the President of the Local Government Board what steps, if any, had been taken to deal with the reports of the Departmental Committee on Nursing which was made in November, 1902, and whether the recommendations of the Committee in that report were to be adopted as they stand. Mr. Long replied that, as stated in the reply given to the honourable member by his honourable friend, the Secretary to the Local Government Board, on April 21st, after the report of the Departmental Committee on this subject was made, he received a considerable number of representations on points relating to their recommendations. He had caused these representations to be brought before the Committee, who had duly considered them. He was now in possession of the views of the Committee, and would shortly decide precisely what course should be taken in the matter.

Army Nurses.—The Secretary of State for War, in reply to a question by Dr. Farquharson, said that a Royal Warrant would shortly be issued under which the salary of a nurse was fixed at £40 a year rising to £45, instead of £30 to £35 as at present; whilst the pay of the higher classes of sister, matron, and principal matron were correspondingly increased. Under the new regulations the matron-in-chief would receive £300 a year rising to £350. The pensions depended on the rates of pay, and were accordingly increased in proportion.

Rats on Shipboard and the Plague. Sir Thomas Dewar asked the President of the Local Government Board whether he was aware that vessels entering French ports from plague-infected ports were not allowed to load until the owners had had such vessels fumigated for the purpose of securing the destruction of any rats which might be on board; and, having regard to the remarks contained in the last annual report of the Medical Officer of Health for the Port of London and the prevalence of plague in the Far East, would the question of adopting regulations similar to those in force in France be considered. Mr. Long replied that he was aware of the decree made by the French Government with regard to this matter. That decree was, however, issued before the recent International Conference at Paris took place. The provisions on this subject included in the Convention and made as the result of the Conference were less stringent than those of the decree. It had been the practice of the Local Government Board to recommend the destruction of rats on board vessels coming from plague-infected ports when the vessels were empty, but it had not been thought necessary to make this compulsory

Canada.

Congress of French-speaking Physicians.

Among those who are to speak at the second Congress of French-speaking Physicians of North America are M. Paul Segond, Surgeon of the Salpêtrière, representative of the Faculty of Medicine of Paris, and Professor Pozzi, delegate from the University of France. The Congress is to be held at Laval University, Montreal, early in June.

A Medico-political Association.

A movement is now on foot in Toronto for the formation of a medical business society. At a recent meeting Dr. A. A. Macdonald was asked to act as a chairman of a committee which he is to select. This committee is to formulate a scheme for the organization of a business medical association. The object of the society is to oppose legislation which may threaten the welfare of the medical profession, to arrange for needed enactments, and regulate hospital practice, the attendance upon charity patients, fees for railways, insurance companies, friendly societies, and other matters of this nature.

Decapsulation in Bright's Disease.

Dr. Primrose, of Toronto, Professor of Anatomy and Clinical Surgery of Toronto University, read a paper before the Montreal Medico-Chirurgical Society upon operations upon the kidney in chronic and acute nephritis. The subject was considered under three heads:

1. Report of a number of cases of nephritis operated upon by the author, including chronic nephritis, calculous nephritis, and movable kidney complicated by nephritis.

2. Observations on the effects produced by the various methods of operating proposed for the relief of nephritis: (*a*) splitting the capsule; (*b*) decapsulation of the kidney; (*c*) nephrotomy; (*d*) nephrectomy. Experimental work upon dogs was also discussed in this section.

3. Discussion of the whole question as to whether or not operative interference is advisable in nephritis.

Under the first heading the most interesting case recorded was one in which the operation was done two and a-half years ago, with the deliberate intention of relieving the condition of a child aged 10 who was suffering from chronic Bright's disease with general anasarca. The capsules were removed at two operations with almost immediate relief of the acute symptoms. The patient had had several relapses since, but strict diet had so far been sufficient to restore health. The photographs shown with the report indicated a remarkable improvement.

Dr. Primrose advocated removal of half of the capsule, leaving the rest intact. Chloroform rather than ether was advised as an anaesthetic. In the experiments upon dogs it was found that after decapsulation the capsule began to be formed again in twenty-four hours, and that in three months it was as thick as ever, and in two layers as in the normal animal. Dr. Primrose thought that a certain number of selected cases were suitable for operation, but that a great many should not be operated upon. Cases in which there was increased tension with a fair amount of normal tissue, and movable kidneys with nephritis were the most favourable. Temporary benefit could unquestionably be obtained in cases in which medical treatment was of no avail but whether permanent benefit could be hoped for could only be determined by time and experience.

Gonorrhoeal Endocarditis.

Drs. Finlay and McCrae reported a case of malignant gonorrhoeal endocarditis. The patient was a sailor, aged 23, who had been infected with gonorrhoea nine months previous to his death. About three weeks before death the heart symptoms were noticed for the first time, accompanied by a musical diastolic murmur at the base. The character of the murmur changed from time to time, and a systolic murmur developed at the apex. *Post mortem* a tag was found upon one of the aortic cusps, and a pure culture of gonococci obtained from the heart blood and pericardial fluid.

Lung Capacity and Thoracic Type.

Dr. Tait Mackenzie, Medical Director of Physical Training at McGill University, and Lecturer in Artistic Anatomy of the Art Association, Montreal, delivered a lecture upon the Relation of the Thoracic Type to the Lung Capacity, illustrating his paper by means of a medical student whose chest expansion was 8 inches. He stated that two types of chest might be recognized, the broad and the deep, and that these types might be determined by calculating the relation of the depth to the breadth of the thorax when quiescent. Of 500 male candidates for athletic teams the average thoracic index was 68 per cent., and the average lung capacity 251.6 cubic inches. Upon taking examples of each class, that is, first, men in whom the breadth was greater and the depth less than the average, secondly men in whom the breadth was less and the depth greater than the average, it was found that the lung capacity of the broad-chested was 7.9 cubic inches under the average, and that of the deep-chested 7.7 over the average. These results were compiled from a record of measurements extending over a period of six years, and intended merely for university statistics. Dr. Mackenzie also measured a number of Grecian statues, and found that in general the ideals of manly beauty and symmetry thus portrayed called for a high thoracic index.

Ireland.

The Local Government Board on the Irish Poor-law Medical Service.

As will be seen from our medical notes in Parliament, Dr. Thompson on May 1st asked the Chief Secretary for Ireland a question with reference to the report of the Special Commissioner of the British Medical Journal, and inquired whether, in consequence of the allegations made therein, the Government was prepared to recommend the appointment of a Royal Commission to investigate the general question. Mr. Wyndham answered by a reference to the views of the Local Government Board for Ireland as set out in its annual report. He stated, further, that he did not consider any new facts would be ascertained by an investigation of the character suggested, and that the recommendations made in the report of the Special Commissioner of the British Medical Journal even if practicable could only be carried out at an increased cost to the ratepayers and the public funds. We naturally, therefore, turned with interest to the annual report mentioned. It states that the Local Government Board is aware of the dissatisfaction existing in the Poor-law Medical Service and that it is in complete sympathy with those Boards of Guardians who desire to improve the conditions of the Poor-law Medical Service; it is prepared, so far as lies in its power, to accede to any reasonable suggestions which may be put forward with that object, either by way of a general revision of salaries or otherwise. The Board considers that due regard should be paid not only to the admittedly just claims of many of the medical officers on the grounds of greatly increased expense of living, but also to the taxable capacity of the different parts of the country. Figures are quoted which show, so far as they go, that the number of cases attended during the decade 1893-1902 decreased to the extent of 20 per cent. as compared with the decade 1853-1862, or 50 years earlier, while on the other hand, the amounts paid for medical services increased by 53 per cent. Dealing with the individual medical officer it is pointed out that in 1853 each received out of union funds £73 8s., whereas now the average amount paid for the combined offices of medical officer and medical officer of health was £141 11s., exclusive of the fees for vaccination and for the examination of lunatics, and also exclusive of those received by a medical officer as registrar of births, deaths, and marriages, an office usually held by him. It is stated that the existing salaries are in many cases unquestionably small, especially in districts where little private practice can be obtained; but, on the other hand, it is pointed out that the salary of a dispensary medical officer was never intended as remuneration for his whole time, but given merely to secure a first claim upon his services. Unlike other officers of the union, he need not devote his whole time to the service in order to qualify for pension.

Much is made of the diminution in the population of the country, which it is shown amounts to rather over two millions since the year 1851; and this fact is made an excuse for supporting the opinion that a reduction of, and not an addition to, the medical staff is called for. It is suggested that such reduction would enable Boards of Guardians, without adding to the charges on the union funds, to deal more liberally with the remaining medical officers, upon whom increased duties would thus fall. As a proof that such additional work would be gladly accepted if carrying additional pay, it is pointed out that permanent medical officers are often

selected by their colleagues as temporary substitutes during absence. On this point it is finally stated that whenever a post becomes vacant the policy of considering whether it might not be abolished and the district thrown into a neighbouring one will be continued.

Dealing with the question of an annual vacation, the Board expresses a kind of Platonic approval of the principle that medical officers should be accorded an annual leave of not more than four weeks, and recalls the fact that in 1899 it included in a general order a provision intended to facilitate the granting of such leave by guardians. It is pointed out that under the Local Government Ireland Act, 1902, the guardians are entitled to be recouped, out of local taxation funds, one-half the remuneration paid by them with the Board's approval to medical officers employed as substitutes for those absent on vacation. It is further stated that there are still disputes on the question of the scale of pay for temporary substitutes in a few unions, but that this is a matter entirely one for amicable arrangement between the Boards of Guardians concerned and the medical officers. The same complacent attitude is adopted with regard to the question of remuneration for extra professional services; this, it is stated, is essentially a matter for amicable arrangement between the Boards of Guardians and the medical officers according to local requirements. Article 23 of the dispensary rules, it is stated, was framed to obviate disputes with regard to the fees for consultation and in 150 out of 159 unions the scale of fees adopted by the guardians under the provisions of that regulation have been approved. In illustration of its general views the Board refers to its correspondence with the Kilmakevoge Dispensary District of the Waterford Union; in this district difficulty had been experienced in obtaining a medical officer for a vacant post with the result that the guardians at a meeting on March 4th, 1903, adopted and transmitted to the Local Government Board the following resolution:

"That while the guardians are not prepared to accede to the demand [illegible] remuneration at £100 per annum for the dispensary medical officer's vacant district, they are willing that provision should be made for an annual holiday of one month, substitute to be paid by [illegible] personal receipts have been paid, [illegible] in accordance with the lines of the resolution that provision [illegible] for extra services rendered [illegible] and the guardians strongly urge the Local Government Board to take such steps as may be in their power to give effect to the [illegible]."

The reply of the Board as regards the annual vacation was in accordance with what has already been stated as to its views upon that point, namely, four weeks' holiday might be granted and half the cost recovered; as to superannuation the reply, in view of the Bill now before Parliament, is without special interest; while as regards the third question it was pointed out that the guardians were not precluded from having the right at their discretion rates of remuneration for extra services already approved, and that if they did not consider them sufficient it was within their power to sanction an amended scale.

From the above therefore, it may be noted that the reply to which Mr. Wyndham refers makes no special attempt to grapple with the difficulties of the situation, and that while pointing on the one hand to the increased remuneration recently [illegible] and the increased work that has to be done by the whole body, and laying stress upon the fact that medical officers are entitled to [illegible] employés it overlooks the essential point that these medical officers may be at liberty to receive [illegible] they can, as a matter of fact no question is to be put to patients and that the [illegible] dispensary medical officers are solely dependent upon the salaries which the Board itself admits to be in many cases inadequate.

Coombe Midwifery Hospital.

We have stated that at a meeting of the Local Medical Board [illegible] the difficulty of appointing [illegible] the Coombe Lying-in Hospital was discussed. Sir [illegible] Act in force [illegible] possible for [illegible] and he urged the Board to consider the [illegible] unfairly exclude women trained at the [illegible] midwives roll. He thought the best way [illegible] would be to suggest to the Privy Council the recognition of the excellent system of training of pupil midwives carried on at the Irish maternity institutions in lieu of the three months lying-in and personal attendance upon at least twenty women during labour, and also twenty women during the ten days following labour now required by the Central Midwives Board. Mr. Heywood Johnstone then proposed the following resolution, which was seconded by Mr. Ward Cousins:

"That in the certificates of personal attendance upon cases the Board may think fit to accept the certificate of the [illegible] resident medical officer of a hospital or institution where [illegible] it is stated that the candidate has attended the course of lectures prescribed for pupil midwives for the period and in accordance with the regulations in force in such hospital or institution."

The applications for the recognition of such certificates must be made by the matron or [illegible] resident medical officer of the hospital or institution applying and must be accompanied with a statement of the regulations for the time being in force, and of any special [illegible] which candidates trained in such hospitals or institutes [illegible] producing the ordinary certificates required by the Board.

After a long discussion the resolution was rejected by a majority of one. The question therefore remains unsolved, as the Central Midwives Board again refuses to recommend the admission of pupil midwives to the Board's examination who have been trained at the oldest and best-known midwifery schools of the United Kingdom.

The West Coast Islands.

The Board of Guardians of the Skibbereen Union has received an assurance from the Local Government Board that the difficulties and dangers connected with medical attendance on the inhabitants of Cape Clear and other West Coast islands are being considered by itself and the Congested Districts Board conjointly. These difficulties were described in the British Medical Journal of April 23rd, at page 975.

Death of an Old County Cork Doctor.

One of the very oldest members of the medical profession in Ireland died last week in Mitchelstown. He was born a few years before the battle of Waterloo, and was the last survivor in Mitchelstown of a family that for more than a century occupied a position of prominence and influence in the district. The late Dr. William O'Neill was in his time a noted practitioner who had a wide-spread reputation for his professional skill. He studied medicine and surgery in Paris and Edinburgh in the Thirties of last century, and obtained the degree of M.D. of the University of Edinburgh so long ago as 1840. During the entire course of his professional career he practised in Mitchelstown district, and was always highly esteemed. He was for a quarter of a century medical officer of Mitchelstown Dispensary District, and on resigning that office was appointed medical officer of Mitchelstown Workhouse, a post which he held till a dozen years ago, when he resigned. In the years of the famine of 1846-47 Dr. William O'Neill was assistant to his father, Dr. Eugene O'Neill, who was remarkable for his devotion to the duties of his profession. After the celebration of a solemn Requiem Mass in the parish church the remains were laid to rest in the family vault in Mitchelstown churchyard.

The Belfast Board of Guardians and the Local Government Board.

The Belfast Board of Guardians has deservedly gained the reputation of economising with the rates. Although the population of the city is comparatively low, yet enormous improvements have been made in the workhouse and the infirmary and hospital within the last fifteen years. Lately a resident medical officer was appointed to a second district to relieve the position at the house, this change was based on necessity on humanity and the guardians were mulcted an increase in salary from £100 to £120, but the Local Government Board, it is understood, has refused to sanction the increase. There is no dispute as to the [illegible] of the officer nor to the suitability of the change nor as to the [illegible] addition of the [illegible] to the Board of Guardians who supply their own beef, nor as to the [illegible] matter of the dietary nor the manner in which they have been discharged.

Dr. H. Macnaughton-Jones, M.A.O., Hon. Causa, R.U.I., formerly Professor of Obstetrics and Gynæcology in the Queen's University at Queen's College, Cork, and ex-President of the British Gynæcological Society, has been elected a Corresponding Fellow of the Munich Gynæcological Society.

Scotland.

The Edinburgh Harveian Festival.

The 122nd Harveian Festival will be held in the Hall of the Royal College of Physicians, Queen Street, on Friday, May 27th, when Dr. Somerville will deliver the Harveian Oration on the Edinburgh Medical School, 1855 to 1880. The oration will be given at 6.45 p.m. The dinner is at 7.30 p.m. Every Harveian is expected to let the secretaries know, by letter, whether he purposes to attend the festival or not.

General Council of the University of Edinburgh.

The statutory half-yearly meeting of the General Council of the University of Edinburgh was held in the Examination Hall on Wednesday, May 4th, at 3 p.m. Our report will appear in a future number of the British Medical Journal.

Small-Pox in Edinburgh.

During the week ending Saturday, April 30th, 3 fresh cases of small-pox were notified. No death was registered. Two further cases were reported on Monday, May 2nd.

The Edinburgh City Hospital.

The nurses' annual "At Home" took place in the Recreation Hall of the New City Hospital, on the evening of Wednesday, April 27th. A large company present included members of the Town Council and the Public Health Committee, members of the medical profession, personal friends of nurses, former patients, and nurses from the various nursing institutions of the city and district. The Lord Provost, the Convener of the Public Health Committee, and Sir Henry Littlejohn were present. The guests were received by the Matron (Miss Thomas), and by the Medical Superintendent (Dr. Claude B. Ker). There was music and dancing. On the following evening the domestic staff of the hospital was entertained at a concert party and by a cinematograph exhibition.

Edinburgh Royal Infirmary and an Age Limit.

The Committee appointed by the Court of Contributors to investigate and report on the question of an age limit for the ordinary staff and the University Professors has not yet concluded its labours, and has asked for a further remit of some six weeks.

Millport Marine Biological Station.

The West of Scotland Marine Biological Association continues to do good work at the Marine Station at Millport. This station forms an excellent practical laboratory for the staff and students of the Glasgow medical schools, and is largely used for research work, but in addition the Association has during the past few years conducted courses of study for school teachers, and in this has been very successful. The teachers' classes for the present summer were inaugurated on April 30th, when a number of interested guests were present to see the work of the station. The classes are held on Saturdays, and an advanced practical course will continue during May and June, while the elementary class will extend over July and August. Considerable improvements have recently been made in the equipment of the station, and extensions are still in progress. To give greater facility for research work the tank room is being increased, while a large new class laboratory with tables for about 40 students is being provided, and also a new dwelling house for the curator. The Association possesses an excellent steam yacht, in which frequent dredging excursions are made.

Congress of the Sanitary Institute at Glasgow.

The Health Exhibition which is to be held in connexion with the Congress of the Sanitary Institute at Glasgow in July next will include a municipal exhibit arranged by the different departments of the Glasgow Corporation. The Cleansing Department proposes to arrange for, amongst other things, exhibits of a model up-to-date destructor, and the globe fertilizer; the Gas and Electric Departments will show the latest developments in illumination, and the Sewage Departments what they can produce from what were formerly waste products. The other departments of the Corporation will also be well represented, and representatives of municipalities attending the Congress will welcome this opportunity of witnessing the progress that is made in municipal enterprises by the Glasgow Corporation. The social and holiday aspect of the Congress has not been overlooked, and excursions have been arranged to Loch Lomond, the Trossachs, and the Falls of Clyde, amongst other places.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

The general meeting of the Metropolitan Street Ambulance Association, to which reference was made in the British Medical Journal on April 30th, took place on Monday, May 2nd, at 20, Hanover Square. It was a very well-attended meeting, among the better known of those present being Sir Thomas Smith, Sir Dyce Duckworth, Sir William Church, Sir Alfred Cooper, Sir Thomas Barlow, Mr. J. Tweedy, Surgeon-General Keogh, Mr. Timothy Holmes, Mr. Alfred Willett, Mr. G. H. Makins, Dr. Rolleston, Dr. Marion Cox of New York, Dr. William Thorburn of Manchester, Mr. Noble Smith, and Mr. Durham.

Mr. Reginald Harrison, the President of the Association, took the chair, and letters of regret at being unable to be present, but expressing strong approval of the object of the Association, were read from a large number of persons. These included Lord Lister, Sir T. Lauder Brunton, Sir James Dick, Dr. Pye-Smith, Mr. C. T. Dent, Sir Henry Howse, Mr. Herbert Page, Sir Victor Horsley, Mr. Clement Godson, Sir James Reid, Sir Cooper Perry, Sir Felix Semon, and Sir Patrick Manson.

Mr. Harrison, in his opening speech, stated that the Association was founded in January, 1904, by some members of the medical profession, who appointed a president and council to initiate proceedings. Its object was to secure for London, and with as little delay as possible, an efficient street ambulance service for accidents and medical casualties. In undertaking this movement the Association in no way undervalued the importance of the work which was done by voluntary ambulance associations and by individuals, especially the St. John Ambulance Association and Mr. H. L. Bischoffsheim. It recognized, however, that the influence of a large and united body of the medical profession, practically acquainted by daily observation with existing ambulance arrangements, and holding definite views as to how these might be improved, was likely to afford valuable assistance to the authorities of the metropolis in bringing matters relative to this important matter to a definite issue. The Association thus initiated received very shortly the adherence of over 1,000 medical men. On the basis of some evidence given by Sir Cooper Perry before the London County Council it had been calculated that from 8,000 to 10,000 sufferers from severe accident were annually removed from the streets, for treatment in hospital or elsewhere, in cabs or other unsuitable conveyances. The majority of the sufferers thus affected naturally were persons belonging to the working classes, but it was not to be forgotten that any citizen of London, however well-to-do, might be the subject of an accident and thus be exposed to the greatly increased suffering and most gravely augmented danger incurred by transport in an improper conveyance; his attention to these points had been particularly directed by his early experience as a resident surgeon in a Liverpool hospital. The number of horse or motor ambulances required for London could not be definitely determined in advance, but some were certainly required; for though hand ambulances and litters were better than nothing, speed in transport was of importance in view of the antiseptic treatment which a wound might require. Many of the constituent parts of an ambulance service already existed and the time had come when they should be brought under one central authority. He then called upon Dr. Arthur James, the honorary secretary, to state what steps had already been taken.

Dr. Arthur James stated that after a valuable report on the ambulance requirements of London by a Subcommittee of the London County Council, under the chairmanship of Sir William Collins, had been published in 1902 nothing further was done, on account, it was suggested, of the indifference of the public to the matter. In anticipation, therefore, of the then approaching election the Association had been formed and took steps to secure the sympathy of candidates and arouse the interest of electors. Medical men to the number of 110 were appointed honorary local secretaries in the fifty-eight constituencies; they sounded the candidates as to their views and generally tried to create local interest in the subject of an ambulance service. The result had been that, of the 118 newly-elected councillors, 104 were well-disposed towards the movement, and knew, moreover, that they could rely upon the support of their constituents as well as practically upon the whole medical profession in the metropolis. The Association was confident that the London County Council could organize and control an ambulance

service better than any other central body, having already such an efficient emergency service as the fire brigade at its command. This brigade, with its ninety stations and resourceful staff of 1,350 men, already possessed almost all the administrative machinery necessary, and little more was needed to make an efficient ambulance service beyond the addition to the fire brigade department of the required ambulances, horses, and men. It was not proposed that the fire brigade as it stood should simply be further loaded with responsibility for the transport of sufferers from accidents, but that men added to the force for that purpose should be an addition to the ordinary complement and be so trained as to be interchangeable with its members. This was the system successfully adopted in many places, and in particular in Liverpool, the town which possessed the most efficient ambulance service in the kingdom.

Sir WILLIAM CHURCH (President of the Royal College of Physicians) then moved the first resolution, which read as follows:

That this Association having considered the present condition of ambulance provision in London for dealing with cases of accident and sudden illness in the streets and public places, is of opinion that there is urgent need of organization under one body of an improved ambulance service, summonable by telephone, and provided with more rapid transport.

In recommending the resolution to the meeting Sir William Church pointed out that the Association merely sought to combine existing agencies so that they might act under one central authority.

It was seconded by Mr. TIMOTHY HOLMES and duly passed.

The second resolution introduced by Mr. JOHN TWEEDY (President of the Royal College of Surgeons), seconded by Sir ALFRED COOPER (Vice-President of that College), and duly accepted was:

That having regard to the excellent ambulance services organized by municipal authorities elsewhere, this meeting is of opinion that the London County Council is the body by which such service should be provided and maintained.

Finally a resolution, moved by Sir THOMAS BARLOW and seconded by Mr. G. H. MAKINS, was passed, that the foregoing resolutions should be communicated to the London County Council by deputation with the co-operation and support of other bodies and persons interested in the matter.

LITERARY NOTES.

We understand that the eleventh edition of Martindale and Westcott's *Extra Pharmacopoeia* will be published by Mr. H. K. Lewis early next week. The text has been thoroughly revised by Dr. Wynn Westcott, and Mr. W. Harrison Martindale, Ph.D.

The long-expected biography of Sir Andrew Clark will, it is announced, be published in the early autumn.

The following translation of correspondence which passed between the late Mr. Herbert Spencer and the author of an anti-vaccination pamphlet was published in the *Vaccination Inquirer* of March 1st, 1904. Our contemporary states that the late Dr. Hubert Boens, of Charleroi, in 1884 dedicated a pamphlet to Mr. Herbert Spencer, entitled *La Variole, la Vaccine et les Lois Naturelles*.

Dear and honoured Master and Colleague—Science and Philosophy appeal to those who are endeavouring the errors of the past. Of these vaccinations [illegible] for the light against its precipice faces and [illegible] have been good enough to join us in [illegible] which makes vaccination obligatory. It [illegible] and the intervention of the legislature in this medical [illegible] of considerable revenue to the Faculty, [illegible] but also the practitioners; and that in the [illegible] to accept [illegible] and receive the dedication of the [illegible] the assurance of my most respectful regard.

H. BOENS.

[illegible]

Dear Sir,—I accept with pleasure the dedication which you offer to me [illegible] I will devote myself, with more [illegible] to undertake any [illegible] I will decide myself, with more [illegible] have read [illegible] and English friends [illegible] [illegible] [illegible]

which had formerly been employed in conveying water through the streets, etc.

When the receptacle was rendered as complete as possible, he then engaged some watermen to take by night a large quantity of the swallows that hang upon the reeds in the Thames about the time of their departure. They brought him, in a hamper, a considerable number, and had so nicely nicked the time of their capture, that on the very day following there were none to be seen.

He put the swallows into the room so prepared, where they continued to fly about and occasionally perch on the twigs, etc. But not one ever retired into the water, the caverns, holes, or wooden pipes, or showed the least disposition to grow torpid. In this situation he let them remain till they all died but one. This appearing to retain some vigour, was set at liberty, when it mounted out of sight and flew away. All the birds lay dead scattered about the room; but not one was found asleep, or torpid, or had, if I rightly remember, so much as crept into any of the receptacles he had so provided.

The idea that swallows hibernate under water seems to have been firmly held by some of the correspondents to the *Gentleman's Magazine*, and even so great an observer as Gilbert White seems in his *Natural History of Selborne* to incline to the belief that these birds sleep through the cold months of the year. But he made no such practical experiment in support of his views as that here described.

THE MANCHESTER MEDICAL GUILD.

THE Honorary Secretary of the Manchester Medical Guild writes as follows:

If any evidence were required that combination among medical men is effective in guiding public opinion and in protecting medical interests, the success of the Medical Guild in two directions recently is quite sufficient.

For some time past the Salford Corporation has paid medical practitioners a fee of 2s. 6d. for procuring specimens for bacteriological examination, especially in doubtful cases of diphtheria and typhoid. Such examination must be of great value to the community, as it ensures as far as possible correct diagnoses. But, for some reason, the Salford Corporation suddenly issued a notice that in future the fee would be discontinued. The Medical Guild then decided to send a deputation to represent to the Health Committee not only the value of such bacteriological tests, but also the unfairness of expecting medical men to procure such specimens, often at considerable risk to themselves, without adequate remuneration. The deputation was extremely well received by the Medical Officer of Health, and as a result of the interview the Health Committee reconsidered their circular, and have now announced that they will pay the fee of 2s. 6d. for all such specimens when procured at the request of the Health Department.

Again, the Manchester Corporation recently proposed to apply for parliamentary powers for the compulsory notification of phthisis. The Medical Guild thereupon made representations to the Health Committee that the time was not ripe for such a step, that the branding of subjects of early phthisis as suffering from infectious disease would make them practically outcasts, unable to procure employment, and would thus throw an onus of responsibility on medical men that would not be compensated for by any benefit to the community, and that until far more extensive facilities for isolation or sanatorium treatment were available, such compulsory notification would be unworkable. The Health Committee considered these representations of the Medical Guild, and as a result the proposed clauses of the Bill were abandoned.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ending March 26th and April 2nd the deaths from plague in India numbered 30,075 and 47,250 respectively. The latter figure is the highest ever recorded; in no week since 1896 have deaths from plague exceeded 30,000 until the third week of March this year, when 45,527 died of the disease. During the weeks ending March 26th and April 2nd the principal figures were: Bombay City, 7,[illegible] and 1,095, Bombay Districts, 7,176 and 5,470; Calcutta, 471 and 544; Bengal Districts, 4,169 and 4,8[illegible], North-West Provinces and Oudh, 2,571 and 3,420; Punjab, 12,504 and 12,332; Kashmir, 540 and 540; Central Provinces, 2,[illegible] and 1,968; Central India, 1,405 and 1,459. In Rajputana 1,335 and in Beluchistan 8 deaths from plague were reported during the week ending April 2nd. The city of Madras is threatened with plague for the first time. Although the disease has prevailed in the Presidency for some five or six years endemic cases have not been reported in the city itself. As yet the disease is chiefly confined to the suburb of Sembium, whence 10 cases are reported; but on March 19th an endemic case was stated to have developed within the city of Madras proper. Since April 6th no further cases have been reported from Sembium. It is improbable that at this late period of the plague season Madras will be further affected at present.

SOUTH AFRICA.

Cape Colony.

During the weeks ending April 2nd and 9th no fresh cases of plague were reported from any town or district of Cape Colony. Six cases of plague remained under treatment in the plague hospital during the week ending April 2nd, and 4 in the week ending April 9th. At Port Elizabeth rats and mice were found infected with plague.

Transvaal.—The total number of plague cases since the outbreak on March 20th amounted in the Transvaal up to April 16th to 150; to April 20th to 162; and to April 23rd to 170. Of these cases the Europeans attacked numbered 18 all told. The deaths from the disease were reported to amount to 75 up to April 16th, 77 to April 20th, and 80 to April 23rd. Of this number 8 were Europeans.

HONG KONG.

During the weeks ending April 16th, 23rd, and 30th, the fresh cases of plague in Hong Kong amounted to 3, 5, and [illegible], and the deaths from the disease to 3, 5, and 25 respectively.

MAURITIUS.

During the week ending April 21st no fresh cases of plague were reported in Mauritius.

CHILI.

The reported appearance of plague in Chili is officially denied.

THE HOLMAN TESTIMONIAL FUND.

THE Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
R. Clement Lucas, M.B., B.C.	2	2	0	Edred M. Corner, B.Sc., M.A. (Old Epsomian) ...	1	1	0
T. Armstrong Bowes, M.A., M.D.	0	10	6	M. Cecil Hayward, M.B. (Old Epsomian) ...	1	1	0
Guthrie Rankin, M.D. ...	2	2	0	T. Squire Sprigge, B.A., M.B.	1	1	0
G. H. Savage, M.D.	2	2	0	H. M. Stewart, M.B., M.A. ...	1	1	0
Arthur C. Latham, M.A., M.D.	2	2	0	Reginald Harrison, F.R.C.S.	1	1	0
Mr. E. C. P. Hull	2	2	0	Mr. W. Wilson Coltart ...	1	1	0

Subscriptions of any amount will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill.

In the list published for April 30th for W. B. Crossley read W. D. Crossley. In the note appended to the list "the name of only one old Epsomian" should be the name of only one sent in as old Epsomian. There are now nine old Epsomians in the published lists.

ASSOCIATION NOTICES.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The Honorary Secretaries will be glad to receive nominations for two representatives of the Branch as members of the Central Council of the Association on or before May 13th. The by-law governing the election is as follows: "(22) The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors, in writing, to the Secretary of the Branch, on or before an appointed day of which not less than fourteen days' notice has been given in the JOURNAL."—W. M. BEAUMONT, J. MICHELL CLARKE, Honorary Secretaries.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Bristol Division will be held in the Medical Library, University College, Bristol, on Thursday, May 19th, at 8.30 p.m., Dr. E. Markham Skerritt in the chair. The business of the meeting will be: (1) To elect officers, the Representatives of the Division on the Branch Council (the present Honorary Secretary resigns, and does not seek re-election). (2) To elect the Representative of the Division in Representative Meetings. (3) To receive annual report of Executive Committee. (4) To consider business of Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules. (6) Proposed inquiry into club practice. (7) Any other business.—J. MICHELL CLARKE, Clifton, Honorary Secretary.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—The annual meeting of this Division will take place at the Town Hall, Trowbridge, on Wednesday, May 11th, at 3 p.m. Business: 1. To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To elect the Representative of the Division in Representative Meetings of the Association. 3. To receive the annual report of the Executive Committee. 4. To consider the business of the Annual Representative Meeting. 5. To make new rules, or alter or repeal existing rules. 6. To transact any business that may be transacted at an ordinary meeting. To consider the advisability, and if necessary to petition to petition the Council, to alter and extend the area of the Trowbridge Division. To consider the following matters referred to the Divisions for their opinion thereon: (1) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (3) Shall medical defence be undertaken by the Association? As a poll of the Division on the latter question is asked for members of the Division who are unable to be present should inform the Honorary Secretary as soon as possible: (a) If it is their wish that the Association should take up medical defence as suggested. (b) Whether they approve of the general principle and details of the scheme. (c) If they are willing to join the medical defence department, in the event of such a department being formed. They should sign form of agreement enclosed herewith and return it to me at above address. The Executive would urge on members the importance of attending the meetings of the Division and taking part in the work devolving upon the Divisions, as the Executive and influential units of the Association, to which matters of great moment to every medical man may at any time be referred (by individual members or by the Central Council of the Association), and upon the vitality of which the successful working of the Association as a whole now so largely depends. JOHN TUBB-THOMAS, The Halve, Trowbridge, Wilts, Honorary Secretary.

BIRMINGHAM BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 19th.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 8 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. L. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham. J. T. J. MORRISON, F.R.C.S., 1, Great Charles Street, Birmingham, Honorary Secretary.

BERKSHIRE BRANCH. COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, May 17th, at 8 p.m., Dr. Milner Moore in the chair. Agenda. 1. Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 2. The question of the advertising of medical practitioners in connexion with hydropathic establishments. 3. The medical defence scheme of the Association. 4. The Committee will recommend the adoption of a new rule making a time limit for papers and speeches. 5. The election of officers, the Representatives of the Division on the Branch Council and the Executive Committee.—L. H. SNELL, Knightlow House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at Whitehaven on May 13th. The Secretary will be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. G. MATHEWS, 6, Scotch Street, Whitehaven, Honorary Secretary.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES COMBINED.—Notice is hereby given that the names of candidates for election to the Council of the Association for these Branches must be sent to the undersigned not later than Tuesday, May 24th next.—WILLIAM WYLDE LUSH, Weymouth, or W. B. WINGFIELD WORTH, Taunton, Honorary Secretaries.

DURHAM COUNTY BRANCH.—This Branch will meet on Friday, May 13th, at 8 p.m. The business of the Representative Meeting to elect the Representative and other officers and other business. Notices of motion to the Secretary before Friday, May 6th.—R. C. HALLETT, Durham, Honorary Secretary.

EAST FIFE AND STIRLING BRANCHES.—The combination of each [illegible] CARNEGIE, Cameron House, Leven, Dr. MACGREGOR, Glenfarg, [illegible] Dr. W. A. CAMPBELL, Milnathort, Perth, J. J. [illegible] Auchterarder, Stirling, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Ipswich on Thursday, June 2nd. Members wishing to read papers or show cases are requested to communicate with Dr. Cullum, Ipswich, as soon as possible. E. B. THOMPSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST KENTISH BRANCH.—Election of Members of Council. The nomination [illegible] Council. The meeting will be held in the Central Council Room of the Association, [illegible] Secretaries with Dr. Cullum, Ipswich, as the Central Secretary of the Branch, E. B. THOMPSON, M.B., East Lodge, Colchester.

EAST MIDDLESEX BRANCH: SOUTHERN DIVISION.—The annual meeting of this Division will be held at the Young Men's Christian Association, [illegible] May 12th, at 8 p.m. Agenda. 1. Report of Committee. 2. Election of Members of Council. 3. Election of Representatives on Branch Council. 4. Election of Auditor. 5. Any other business. Members desirous of bringing forward motions at the annual meeting must give notice to the Secretary not later than May 9th.—H. MORLEY FLETCHER, 149, Harley Street, W., Honorary Secretary.

EAST YORKSHIRE BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Hull, on Thursday, May 19th, at 8 p.m. Dr. [illegible] will read a paper on [illegible] Members wishing to read papers or show cases are requested to communicate with the Secretary. [illegible] Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: SOUTHERN DIVISION.—The annual meeting of this Division will be held in Lord Newton's Chambers, Parliament Square, on Thursday, May 12th, at 4 p.m. Agenda. Minutes of last meeting, annual report and financial statement for session. Election of Committee for ensuing year. Election of officers, members of Executive and Representatives. Consideration of various questions remitted by Council.—MICHAEL DEWAR, 24, Learmonth Place, Edinburgh, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Royal Infirmary, Glasgow, on Friday, May 13th. Programme: Statutory business meeting of Branch in the Board Room of the Infirmary at 3 p.m. Demonstration by Dr. John MacIntyre upon Recent Electrical Therapeutic Methods of Treatment in the Electrical Pavilion from 4 to 5 p.m. Dinner meeting dressed at 6 p.m. as intimated by post.—JAMES H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The annual meeting of this Division will be held at Altrincham on May 13th. Mr. J. Smith Whitaker, the Medical Secretary of the Association, will deliver an address at 8 p.m. (other particulars will be announced hereafter). Members of other Divisions are cordially invited to attend. The meeting will be followed by a dinner (3s. each, exclusive of wine), which will be open to all members who signify their intention to be present by enclosing postal order for 3s. to the Honorary Secretary of the Division on or before May 14th.—T. W. H. GARSTANG, Edge Mount, Altrincham, Honorary Secretary.

LEINSTER BRANCH.—The annual meeting of this Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Wednesday, May 11th, at 4 p.m.—ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, Honorary Secretary.

LINCOLN BRANCH.—Preliminary Notice.—A meeting of this Branch will be held on Thursday, May 26th.—L. M. SYMPSON, 2, James Street, Lincoln, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must be sent to me on or before May 7th. This notice should have appeared earlier, but as fourteen days' notice is necessary, it is hoped that no objection will be taken to the above omission of time.—GEORGE ROWELL, 8, Cavendish Place, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH.—WANDSWORTH AND CITY DIVISIONS.—A joint meeting of these Divisions will be held by the kind invitation of Dr. J. O. Adams, at Brooke House, Clapton, N.E., at 8.30 p.m. on Thursday, May 12th, when Dr. J. H. Sequeira will give a demonstration of cases of skin disease.—C. E. MORTON, M.D., Honorary Secretary, Wandsworth Division; I. W. COLLINS, M.D., Honorary Secretary, City Division.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—An ordinary meeting of this Division will be held in the Officers' Mess Room of the 4th V.B. East Surrey Regiment, St. John's Hill (opposite Clapham Junction Station), on Thursday, May 12th, at 8 p.m. Business: To discuss the scheme of medical defence submitted to the Representative Meeting of the Association by the Council. Is the Profession in favour of the Association taking up the general question of medical defence of its members? Is the scheme now submitted by the Association sound safely and efficiently carried out? The work of individual medical defence. Dr. Bevan, Dr. Theodore Dyke Acland, Medical Defence Union; Dr. Woods Hutchinson, Medical Protective Society, and Dr. Allan, M.P.A., will [illegible] N.B.—The annual meeting of the Branch will be held at the Clapham Junction Station on May 19th. Address: Lieut.-Colonel Lord Ashcombe. A paper will be read by E. RENDLE SHERGOLD, Torquay House, Southfields, S.W., Honorary Secretary.

MIDLAND BRANCH.—The last day for sending nominations of elective members of Council to the Branch Meeting, May 21st.—F. MOORE, 4, Friend Street, Leicester, Honorary Secretary.

MIDLAND BRANCH: DERBY DIVISION.—The annual meeting of this Division will be held on Wednesday, May 11th, at 4 p.m., at the Infirmary, Derby. Agenda. The election of Members of Council and other [illegible] Secretary. Other business. Members desirous of bringing forward motions at the annual meeting must give notice to the Secretary not later than May 9th.—ARTHUR V. CLARKE, M.B., London Road, Leicester, Honorary Secretary.

NORTH OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held in the Medical School, Marischal College, Aberdeen, on Thursday, May 12th, at 4 p.m. Agenda. Minutes of last meeting. Report of Committee. Election of Committee for ensuing year. Election of Representatives on Branch Council. Election of Auditor. Any other business. Members desirous of bringing forward motions at the annual meeting must give notice to the Secretary not later than May 9th. [illegible] Meeting [illegible] the following [illegible] the Branch [illegible] the Council [illegible] Medical Defence Union [illegible] the Association [illegible] Medical Defence Union [illegible] Medical Defence Union [illegible] Medical Defence Union

at the Imperial Golf Hotel at 1.30. By the courtesy of the Nairn Golf Club the golf course will be open to members of the Branch and their friends, and it is expected that a match will be arranged between medical men and the members of the Nairn Golf Club. The Secretary would feel much obliged if those who intend to play would kindly let him know, so that the necessary arrangements can be made. The Nairn Bowling Club also extend the courtesy of their green to the members of the Branch, and it is to be hoped that a match may be arranged. Members who wish to join in this should inform the Secretary. For those wishing it a drive to some place in the neighbourhood can be arranged, provided a sufficient number intimate their desire to do so.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH. In accordance with By-law 8 of the Constitution the election of a Representative in the Central Council of the Association must be made by voting papers sent to each member, and the candidate's names must be sent to the undersigned on or before May 28th, and the nomination paper signed by three members.—J. MUNRO MOIR, 4, Ardross Terrace, Inverness, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH. KENDAL DIVISION.—The annual meeting of this Division will be held in Kendal on Wednesday, May 18th, at the Secretary's house, at 3.30 p.m. Agenda: Election of officers for ensuing year. The following questions referred to this Division will be discussed: (1) The position of medical witnesses towards one another. (2) The Medical Defence scheme: answers to the following questions as to this scheme should be sent to the Secretary as early as possible: (a) Is it your wish that the Association should take up Medical Defence as suggested in the scheme? (b) Do you approve of the general principles and details of the scheme? (c) The position of medical practitioners in connexion with hydropathic establishments.—P. F. STURRIDGE, Stramongate House, Kendal, Honorary Secretary.

NORTH OF ENGLAND BRANCH. Notice is hereby given that nominations of Representatives for this Branch (two required), each signed by three members of the Branch, must be sent to me on or before May 14th, 1904.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION.—The annual meeting of this Division will be held at Wrexham on Friday, May 27th.—E. D. EVANS, Bodeirnan, Wrexham, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH. We hereby give notice that nominations for a Representative on the Council of the Association, signed by three members of the Branch, must be received not later than May 21st, by W. JONES MORRIS, Isy Coed, Portmadoc.—W. JONES MORRIS, H. H. B. MACLEOD, and H. JONES ROBERTS, Honorary Secretaries.

OXFORD AND READING BRANCH.—Notice is hereby given that nominations for a Representative Member of Council for this Branch must be sent to me on or before May 15th.—W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading, Honorary Secretary.

SOUTH-EASTERN BRANCH. The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative Meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larking gives notice that he will move, "That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Monday, May 16th.—T. JENNER VERRALL, 97, Montpelier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Croydon General Hospital, on Thursday, May 19th, at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the annual meeting officers for the ensuing year will be elected. 2. To arrange for the next meeting and to elect a Chairman. 3. Members will be asked to consider "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."—Medico-Political Committee. And also to give their opinion upon "The question of the advertising of medical practitioners in connexion with hydropathic establishments."—Ethical Committee. As a main feature of the hospital meeting is the exhibition of clinical cases, these questions may be put to the vote without discussion. 4. The exhibition of clinical cases. Members desirous of showing cases are requested to communicate with the Honorary Secretary at their earliest convenience, and not later than May 16th. Messrs. Down Bros. will show surgical instruments. The dinner will take place at the Greyhound Hotel, at 6 p.m. Charge 7s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By doing so they will materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—E. H. WILLOCK, 11, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH. FAVERSHAM, ISLE OF THANET, CANTERBURY, ASHFORD, FOLKESTONE AND DOVER DIVISIONS.—A combined meeting of these Divisions will be held at the County Hotel, Canterbury, on Thursday, May 19th, at 3.30 p.m., Dr. Gogarty in the chair. Members of the Faversham, Isle of Thanet and Canterbury Divisions will meet half an hour earlier (3 p.m.) to receive report and elect representatives. Agenda: An address will be delivered by Dr. Robert Boxall on the Relief of Dysmenorrhœa and Sterility. The following papers will be read: Dr. F. W. Richard Reid, on the Diagnosis of Intraperitoneal Haemorrhage. Dr. William Gosse, Rheumatism and its Treatment at Aix-les-Bains, and a paper by Mr. Hugh M. Raven. Dinner will be served at the Hotel at 6.15 p.m., charge 5s., excluding wine. Those wishing to dine are kindly requested to send a postcard the day previously to A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secretary.

SOUTH EASTERN BRANCH. HASTINGS DIVISION. The annual meeting of this Division will be held at the East Sussex Hospital, Hastings, on Thursday, May 12th, at 4.30 p.m. The chair will be taken by Dr. Frederic Bagshawe. Agenda: (1) Confirmation of minutes; (2) election of officers for ensuing year; (3) report of Executive Committee; (4) consideration of any business to be brought forward at the General Meeting of Representatives; (5) consideration of proposed scheme of Medical Defence; (6) letter respecting grouping of Divisions for election purposes; (7) Dr. Redmayne will show a case of Bronchiectasis treated by incision and drainage; (8) Mr. Christopherson will read notes on a case of Perforated Gastric Ulcer treated by excision.—J. W. BATTERHAM, 6, Grand Parade, St. Leonards-on-Sea, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH. REIGATE DIVISION. A meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 5 p.m., the President of the Division, Dr. John Walters, J.P., will take the chair. Agenda: Important Association business. By Mr. F. Curtis, F.R.C.S.Eng.: A Note on Freyer's Operation for Removal of the Prostate. Specimens kindly lent by Mr. Freyer will be shown. By Sir Dyce Duckworth, Physician to St. Bartholomew's Hospital: The Pursuit of Novelties in Medicine. Dinner at 7 p.m.—W. A. BERRIDGE, 158, Station Road, Redhill, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION. A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, May 19th, at 4 p.m., Mr. J. Sidney Turner, M.R.C.S., F.L.S., J.P., in the chair. Agenda: (1) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; (2) the question of the advertising of medical practitioners in connexion with hydropathic establishments; (3) the Medical Defence scheme of the Association.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN BRANCH. REIGATE DIVISION. The next meeting of this Division will be held at the White Horse Hotel, Dorking, on Thursday, May 12th, at 5 p.m., Dr. John Walters, J.P., in the chair. Agenda: Letter from Miss Oldman. Letter from Sir Trevor Lawrence, K.C.V.O., M.R.C.S.Eng. To elect a Representative. To consider whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation; also to give their opinion upon the question of the advertising of medical practitioners in connexion with hydropathic establishments; and other Association business. Mr. F. Curtis, F.R.C.S.: A note on Freyer's operation for removal of the Prostate; specimens will be shown, kindly lent by Mr. Freyer. Sir Dyce Duckworth: On the Pursuit of Novelties in Medicine. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. Dinner at 7 p.m.; charge 7s., exclusive of wine; morning dress. The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. All members of the South-Eastern Branch are entitled to attend and to introduce friends.—W. A. BERRIDGE, Redhill, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH. The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Winslow, Bucks., on Thursday, June 23rd, under the presidency of Dr. Kennish. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 16th.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held on Thursday, May 26th, at 2.30 p.m., at the Eight Bells Hotel, Bletchley. Agenda: (1) Minutes of the last meeting. (2) To consider and discuss the scheme of Medical Defence of the Association. (3) Resolution by Dr. Easte on the granting of Medical Certificates to school Children. (4) To consider any further business or communications. Attention is directed to the form of undertaking appended to the proposed scheme of Medical Defence, which, if approved, should be filled in and forwarded to the Secretary. Luncheon (at 2 o'clock) will be provided at the Hotel, price 2s. each. Members wishing to partake of the same should inform the Secretary not later than May 23rd.—HOLMAN ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, June 2nd, at 12 noon, under the presidency of Dr. Buzzard. Agenda: Minutes of annual meeting, 1903. Election

of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. The Divisional Medical Benefit Committee of the Association.—E. HARRIES JONES, 3, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two Central Executive Committee of the Central Council of the Association may be sent to the undersigned on or before May 21st.—Dr. R. PATERSON, 15, St Andrew's Crescent, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 111, Queen Street, on THURSDAY, May 12th, at 8 p.m. Agenda: (1) Minutes of the two previous general meetings. (2) To elect the officers of the Division, namely, Chairman, Vice-Chairman, and Secretary (to act also as Treasurer). (3) To elect the four representatives of the Division on the Branch Council. (4) To elect four ordinary members of the Executive Committee. (5) To elect the Representative of the Division in representative meetings of the Association. Note.—The elected members included in 1, 2, and 3 constitute the Executive Committee of the Division. (6) To receive the annual report of the Executive Committee. (7) To discuss the agenda of the annual representative meeting and to instruct the Divisional Representative thereon. (8) To consider other business which may be referred to the meeting by the Executive Committee. Members are specially asked to note the date of this meeting, and to do their best to attend and take part in the election of the various officers and representatives of the Division, and also in the discussion of the other important items of the agenda. Members will receive in due course particulars of the arrangements for a dinner to take place on the evening of the same date, May 12th.—LEWIS J. MACLEAN, 12, Park Place, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTHSHIRE DIVISION.—The annual meeting of this Division will be held in the Newport and County Hospital, on Friday, May 27th, at 3.30 P.M. Members wishing to bring any matter before the meeting will please notify the Honorary Secretary not later than May 14th. Members who intend joining the Dinner Department, and who have not yet sent in their applications, are requested to do so as soon as possible.—W. J. GREER, Newport, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH WEST WALES DIVISION.—The annual general meeting of this Division will be held at Swansea, on May 21st, at 3 p.m. Gentlemen who wish to read papers, or who have any communications to make, will please communicate at once with the Honorary Secretary, GLANVILLE MORRIS, Mardy, Glamorgan.

SOUTH WESTERN BRANCH: PLYMOUTH DIVISION.—A meeting of this Division will be held at the Rooms of the Plymouth Medical Society, Athenæum, George Street, Plymouth, on Friday, May 13th, at 4.30 p.m. Agenda: (1) Election of Divisional Representative for year 1904–5. (2) Election of Members of Committee for 1904–5. (3) To consider the following questions referred to the Division by the Council of the Association, and to answer thereto: (a) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. (b) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (c) whether the Association should [illegible] Defence on behalf of its Members. Any member of the Division attending the meeting is requested to communicate his views on the questions referred to.—W. WEBBER, M.S., 4, Queen Anne Terrace, Plymouth, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The consideration of candidates for the office of Divisional Representatives on the Central Council for the ensuing year must be made by three electors, and in writing, not later than May 21st, to the Honorary Secretary of the Branch, Mr. C. [illegible], Manchester Terrace, Torquay.

SOUTH-EASTERN BRANCH.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association for the ensuing year are due on Tuesday, May 24th.—E. PEYCKE JOHNSON, Honorary General Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at [illegible] on [illegible] at 3 P.M.—E. PEYCKE JOHNSON, Honorary General Secretary.

SPECIAL CORRESPONDENCE.

INDIA.

The Plague Commission at Mian Mir. Plague Inoculation in the Punjab. Report of the Indian Medical Service.

One of the most important results of the Malaria Commission of the Royal Society was the complete demonstration of anti-malarial measures in the very unhealthy cantonment of Mian Mir in the Punjab. The Commission set itself to determine what could be done to isolate the cantonment from the surrounding malarial area by destroying the mosquitoes which carried the infection. A report on the operations has been published by Captain S. P. James, I.M.S., who was specially lent to the Commission for the purpose and placed in charge of the operations. The object of the operations was to find out whether anti-mosquito destruction in the prevention of malaria, and Mian Mir was selected as a very malarious place in which it seemed probable that a marked reduction in the number of these insects could be effected, as the rainy season is a short one, the total annual rainfall averaging only about 20 in., while for several months in the cold weather no mosquitoes can be found in the station. On the other hand, owing to the extreme flatness of the place water easily stands in the drains, etc., while a series of irrigation canals run through the cantonment, and these form the principal breeding ground of the *A. culicifacies*, which is the common carrier of malarial infection in the Punjab. During the rainy season of 1901 careful observations as to the incidence of malaria and of the breeding places of *Anopheles* were made by the Commission, and it was found that from 20 to 50 per cent. of the children in different parts of the cantonment were infected with malarial parasites, while from 20 to 75 per cent. had large spleens. An examination in a similar manner throughout a year showed that both rates were much higher in the autumnal fever season than in the dry hot weather, the number infected in one bazaar falling from 52 per cent. in October to 8 per cent. in June, while the spleen rate in the same time fell from 80 per cent. to 20 per cent. Two-thirds of the infection was with malignant tertian and the remaining third with benign tertian parasites. In April, 1902, before *Anopheles* had begun to reappear, the operations of cleaning out the irrigation channels, filling up pools, and brick-lining the largest channel were begun in a selected part of the cantonment, and these measures were steadily continued under efficient supervision. The present report only deals with the results of the operations during one fever season and the following winter and spring. The results were as follows. Although the operations were begun under very favourable conditions the number of *Anopheles* mosquitos steadily increased in the houses of the area under treatment throughout the rainy season, and decreased in the cold weather although operations were then discontinued, just as in the untreated area. The numbers, however, in the houses of the treated area at any time of the year was not nearly as great as it would have been without the operations. Still specimens of both *A. culicifacies* and *A. rossii* could be easily caught in these houses at any time. During the winter months the *A. culicifacies* were found hibernating as partly-developed larvæ in the permanent pools, and these were all carefully destroyed over an extensive area during the cold months, when no adult insects could be found in the houses, with the idea that the area might be completely rid of the mosquitos in this way. Nevertheless, in the following May, *A. culicifacies* reappeared, and were almost as prevalent as at the same time in the previous year. The conclusion is that the problem of materially reducing the number of *Anopheles* in Mian Mir is very difficult, although a permanent diminution may in time be possible. Next, as to the reduction in amount of the malaria: the season was particularly healthy in all parts of the cantonment, which makes it difficult to judge. Yet the reduction in the treated lines in both the endemic index and the spleen-rate was distinctly greater than in the untreated, and Captain James concludes that "the experiment shows that even a slight reduction in the number of *Anopheles* mosquitos affects the amount of malaria to an extent which is quite measurable." In addition to the campaign against the *Anopheles*, two other experiments were carried out with greater effect. The inhabitant of one series of sycc lines were moved out into tents three-quarters of a mile from the nearest canal which harboured *A. culicifacies*, and 100 yards from the nearest pool. No adult *Anopheles* could be found in their tents during the rains, and no adult was attacked by malaria while the endemic index in the children fell in one year from 50·5 to only 4 per cent. In the hospital followers' lines all the children were treated systematically with quinine, but no other change made, and a similar method was carried out in one of the sycc lines. The result was that none of the sycc got fever that season, while both the infection and spleen-rates of the children were greatly reduced—a most important result. A study of this report only confirms the general opinion in India that destruction of *Anopheles* as a method of malarial prophylaxis is a most hopeless measure in this country even in naturally favourable conditions, while in such places as Lower Bengal it would be sheer folly and waste of money to attempt it. On the other hand, the last mentioned result suggests the hope that by a wide distribution of quinine, especially among children, very much may be accomplished in reducing the death-rate from malaria, and a practical scheme for such a distribution is a very urgent desider-

ratum. It should also have been mentioned that excellent results were obtained from the administration of quinine to the troops under efficient medical supervision, as suggested by the Nagpur Malarial Convention.

A resolution by the Lieutenant-Governor of the Punjab on plague inoculation in the Punjab has just been issued which throws some light on the question. The fluid supplied by the Plague Research Laboratory first incurred suspicion owing to the bad smell in a large proportion, its abnormal appearance, and the more frequent abscesses and insufficient reaction resulting from its use. The laboratory was asked to discontinue the supply, and operations were ordered to be continued with the old fluid as far as it would go. As this time the Mulkowal disaster occurred, 32 deaths from tetanus taking place. The circumstances point to the conclusion that the fluid was contaminated with tetanus before it reached the Punjab. The cessation of inoculation was at once ordered, but the people being still anxious for the treatment, inoculation with the old fluid only was resumed some months later, subject to careful tests in the laboratory and again in the Punjab.

It is satisfactory to be able to report that in the budgets recently brought forward allowance has been made for increased pay for the civil branch of the Indian Medical Service. In the case of Bengal, which has the largest number of such officers, the sum of 120,000 rupees has been set on one side for this purpose, which should allow of the new rates being made retrospective to some extent. It is expected that the announcement will be made shortly. It is fortunate that the Government of India has such a large surplus this year, as it can well afford to settle this question in a spirit sufficiently generous to ensure the maintenance of the high level of competition for the service which existed in the past.

MANCHESTER.

Contributions to Hospitals.—Post-graduate Courses.—Report on Unwholesome Dwellings. Tuberculosis and Imported Cattle.

IT is computed that the amount required annually to maintain the hospitals in Manchester is about £100,000, and of this sum last year the contributions from all sources fell short by £1,100. Last year the sum raised on Hospital Saturday was £4,536, and from both Hospital Saturday and Sunday £8,466.

The practice of holding post-graduate courses in certain departments of practical medicine and surgery has been revived this summer in Owens College. Courses—thirteen in number—ranging from cutaneous to nervous diseases, will be given by members of the staff of the College and Royal Infirmary. The courses commence immediately after Whitweek, and each will consist of six meetings.

The Citizens' Association for the Improvement of the Unwholesome Dwellings and Surroundings of the People was founded in this city in 1901, and the first-fruits of a house-to-house investigation of certain typical selected districts of Manchester and Salford have been made public. The investigations were carried out by the Association's secretary. The report embodying these results does not deal with the wide questions brought home to social workers by the books of Mr. Rowntree of York, or of Mr. Booth. The most thorough work was done in eight selected districts, and all were selected as being bad, that is, they were not all the bad areas but samples of them. The actual work was done in 1902-3, and some improvements have taken place since then; still, there are other areas equally bad. Some of the facts are very striking as to water supply. In one case one tap was shared by 40 houses, another by 30. In six cases 10, and in five cases 8 houses shared one tap. These and many similar cases occurred in crowded districts and in crowded houses, near the central and dirtiest part of the city, where there are many back-to-back houses. As to sanitary arrangements, they were hardly better. In four cases one closet was shared by 8 houses, in four by 7, in five by 6, in thirteen by 5, in twenty-seven by 4. When it is remembered that many of the houses contained several families, the case is seen to be even worse. The Association, in view of all the facts, lays stress particularly on the need for a system to work on, and makes a strong case against a patchwork policy. The municipality must face the problem as a whole, and determine beforehand how any given insanitary area is to be dealt with.

The Cheshire Chamber of Agriculture at its meeting on Monday, May 2nd, made an important suggestion in regard to the Tuberculosis (Animals) Compensation Bill, commonly called the Butchers' Bill. They are in favour of the Bill in cases in which cattle during life appear to be healthy, but, after slaughter, are found to be tuberculous, and the carcasses are condemned and confiscated. The Bill provides that the loss shall be charged against and paid by the council of the administrative county or of the county borough where such animals are slaughtered. Thousands of foreign cattle imported to this country are slaughtered on their arrival at the lairages in Wallasey. This place is in the administrative county of Cheshire, and it would be manifestly unfair to involve Cheshire farmers in liability for diseased foreign cattle. The difficulty only arises in one other place in the country, namely, Deptford. The Chamber accordingly, while expressing approval of the main provisions of the Bill, suggested the insertion of a special clause exempting the authorities from liability for compensation in the case of foreign animals that may be home-slaughtered. It was decided to ask Cheshire members of Parliament to support the Bill, subject to this amendment.

BIRMINGHAM.

Judgement Under the Workmen's Compensation Act.—Midland Counties' Asylum, Knowle.—The Dudley Guest Hospital.

AT the Dudley County Court, on April 28th, Judge Howland Roberts gave judgement in an important action under the Workmen's Compensation Act. The applicant, a signalman in the employment of the Great Western Railway Company, sustained a compound fracture of his right leg in 1902 by falling over an exposed wire while he was leaving his work. He was treated at the General Hospital, Birmingham, and the fracture completely healed, but the man is now totally incapable of doing his former work on account of lameness. This condition was shown to be due to locomotor ataxy, from which the man was known to be suffering four years before the accident. His Honour commented upon the conflicting statements made by the six medical witnesses, and said he was of opinion that the disease had developed very rapidly after the applicant had left the hospital, and that this acceleration in the progress of the malady was a result of the accident. He accordingly gave judgement in favour of the applicant, awarding him compensation at the rate of 13s. 10d. a week. He also declined to place any limit to the duration of the award, and gave costs on the higher scale.

The thirty-seventh annual meeting in connexion with the Midland Counties Asylum, Knowle, was held in the Council House, Birmingham, on April 29th. The institution is one for the care and training of feeble-minded children, and owes its existence to the energies of the late Dr. Bell Fletcher, of Birmingham. There was an adverse balance for 1903 of £368 5s. 9d., which was caused chiefly by the appointments of industrial trainers in tailoring, shoemaking, and carpentry, and by certain additions to the nursing staff. There were 106 cases under treatment in the asylum during the past year, and the average cost of each patient was £35.

The thirty-second annual concert in aid of the Dudley Guest Hospital took place on April 25th in the Park Lane Schoolrooms, before a large attendance. These concerts have been instrumental in handing over to the Hospital Committee sums amounting to upwards of £860. The hospital is doing excellent work, and last year dealt with 1,581 cases.

HONG KONG.

Bubonic Plague, Small-pox, and Cholera.

THE number of cases of bubonic plague recorded down to March 29th was 6. Disease has made its appearance later this year than last, though it is too soon yet to predict whether this will be a "plague year" or not. The cold season has continued longer than usual, and the rainy season has not yet set in. Every effort is being made to encourage the Chinese to cleanse their houses thoroughly.

During the week ending March 28th there were no cases of bubonic plague. Three cases of small-pox in Chinese were reported, and 2 were fatal. There was 1 fatal case of cholera.

SPECTACLE PRESCRIBING.—The practice of spectacle prescribing by opticians appears to be on the increase in France as in England, and is beginning to attract attention from medical men. Consequently the suggestion has been thrown out that a law should be introduced into the Senate with the object of assimilating opticians to chemists in the matter of serving out spectacles otherwise than on medical prescription.

CORRESPONDENCE.

THE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

SIR,—I have read with great interest Dr. Lewis Jones's article in the British Medical Journal of April 23rd on the intrusion of laymen into medical practice, and think with him that it is time something was done to put a stop to the present condition of affairs. Any one interested in this subject, and who has the interests of the profession at heart, need but refer to the columns of the London daily papers to see the extent of the evil to which Dr. Jones has drawn attention.

Here, in Italy, they manage things in this respect at all events better: for the unqualified medical charlatan is an unknown quantity, and in every large city fairly well educated physicians are to be found who devote themselves entirely to electro-therapeutics. They advertise, to be sure, in the daily papers, but it is done openly according to the custom of the country; and after all, when everything is said and done, it is perhaps moot point whether this constitutes the most objectionable form of advertising.

Recently, however, we have been threatened with an invasion of unqualified medical operators, all *forestieri*, and mostly hailing from England. They are certificated and "eminently qualified" to practise the art under medical supervision, but any one who has studied seriously this branch of medical science is fully aware of the value to be attached to this form of professional supervision.

Electricity has always been exploited by charlatans, and this will continue so long as medical men send them patients whom they are unable to treat themselves through sheer ignorance of the first principles of the science, and whom they will not send, through some occult reason, to their professional brethren, who are, of course, alone competent to treat such cases.

It is all very well to say that it is beneath the dignity of a physician to attempt to cure his patients by this method, but an educated physician should be above all this, and not hesitate to employ all and every means to cure or ameliorate the condition of those entrusted to his care.

Personally I would as soon place a patient of mine under the care of an unqualified medical electrician as I would send a prescription containing strychnine to a chemist who was known not to be possessed of the necessary scales and measures for accurate dispensing. To apply electricity properly and safely, a sound knowledge of its effects physical, chemical, and physiological are necessary, besides a good knowledge of anatomy and physiology. The charlatan, to do him credit, does not, I dare say, think he knows all this.

It was only quite recently I recommended a patient of mine for massage to one of these irregular practitioners. He had a gall-stone impacted in the left lobe of the liver, which I failed to do, and suggested electricity, being a certificated electrician. Fortunately the patient was gifted with a sense of humour, and so no harm was done. This is only one instance which could be easily multiplied. I am afraid that there is some truth in the statement that the equipment of the unqualified operator is superior to that possessed by the medical practitioner. Dr. Lewis Jones indignantly denies this, but I fail to grasp his meaning when he asserts in the same breath that the electrical departments of the large London hospitals are up to date. Of course any one who has visited Continental and American hospitals will [illegible] this statement, and naturally if the hospitals are badly equipped, it follows that the [illegible] to pursue the study of medical electricity [illegible] at the hospitals and receive imperfect [illegible].

Dr. Lewis Jones ought to be thanking this matter [illegible] the profession and it is to be hoped that he will [illegible] which he deserves.

I am, etc.,

T. Gerald Garry, M.D.

POOR LAW MEDICAL RELIEF IN SCOTLAND.

SIR,—I feel sure that all who are interested in the poor and the proper provision of suitable and early means for their medical relief, are deeply obliged to you for the long and interesting extracts published in the supplement to the British Medical Journal of April 30th, from the Departmental Report of the Scottish Local Government Board. They form an appropriate complement to the lurid picture of Irish Medical Poor-law grievances so graphically put before us a week or two ago.

Will you kindly give me a little space to protest, on the part of myself and the other medical officers of health in the Highlands of Scotland, against the remarks of the Departmental Committee that we do not appear to have drawn attention in our official reports to the subject of uncertified deaths. I have not the reports of my neighbours by me, but I feel sure that it is impossible for any one to have penned health reports without such a reference.

As for myself, while frankly giving the palm for literary power to the accomplished M.O.H. for Inverness-shire, I find on referring back that at page 18 of my first report (that for 1891) I enter fully into this matter of uncertified deaths. To quote a few sentences:

> This true fact of there being so many deaths uncertified is a great stumbling block to the statistician. . . Opinions may differ as to the real value of medical services in the way of prolonging life. But such help in serious sickness should be within the reach of every community, and in outlying districts the poor who could not, if they wanted, obtain such assistance.

Again, in my report for 1892 I say:

> In some places the majority of those who even after death have not had the advantage of medical help, at least to soothe the terrors of their last moments. . . It is sad to think that so proper a desire cannot be gratified. The great deterrent for poor people is the expense. I came across such a case in the course of my inquiries last summer, where the life of a fine boy might have been saved by medical skill being procurable and the comparatively simple operation of tracheotomy performed. But how could it be when the doctor was [illegible] miles distant and his fee prohibitive, though no lack of love, and so the poor child was allowed to die by suffocation.

Again, under the heading of the Western District, I say:

> I cannot look upon it as anything but a serious fact that nearly one-half of the total number of deaths is uncertified, or, in other words, that almost every second person dies in the Western District without receiving any medical assistance.

In the same year I note in the Black Isle District that it is "unfortunate that so many die without the advantage of medical aid, the proportion in Cromarty being nearly 60 out of 100 deaths."

The concluding words of my report for the same year are "unknown causes of mortality. I am sorry to repeat it the large number of uncertified deaths.

In short, in my reports for 1893, 1894, 1895, 1896, 1898, the subject is prominently referred to. And every year there has been given along with the usual official tables of mortality an additional column showing the percentage of uncertified cases, surely enough of itself to show that I, and doubtless others, are constantly drawing special attention in our annual reports to this disgraceful state of things in the Highlands.—I am, etc.,

William Bruce, M.D.,
Dingwall, May 2nd. County M.O.H. for Ross and Cromarty.

SALARY OF POOR-LAW APPOINTMENTS.

SIR,—In the advertisements of vacant appointments in the British Medical Journal of April 30th there is one for a medical officer and public vaccinator for a certain Union in a north-midland county, and it is instructive as giving a good idea of the value attached by public bodies to medical services.

A district having an area of over 70,000 acres and a population of 7,000 people, and which must contain a large number of paupers and other poor persons, requires a medical officer who must supply medicines, surgical instruments, and other medical and surgical appliances except cod-liver oil, quinine, and trusses. The salary offered is £30 per annum! As an extra bait to attract impoverished medical men, it is stated that extra fees (it omits to state that this means extra work) amount to about another £30.

It would be interesting to know the reason of this vacancy occurring, and why the Clerk to the Guardians should spend a sum amounting to at least one-twentieth of the annual salary in advertising for a successor.

Those who are familiar with the vagaries of relieving officers and others granting orders for midwifery cases, accidents, etc., and who know that in many cases these extras have a way of suddenly diminishing and disappearing, will be much surprised if the guardians have any applicants for this "eight shillings a week" appointment.—I am, etc.,

Folkestone, May 2nd. A. E. Larking, M.D.

BLOOD-PRESSURE INSTRUMENTS.

SIR,—I am indebted to Dr. Oliver for his courteous letter on blood-pressure instruments (BRITISH MEDICAL JOURNAL of April 30th, p. 1048). I can assure Dr. Oliver that I am entirely without prejudice in this matter, nay rather, I am extremely anxious to be convinced of the reliability of his instrument, and if a pilgrimage to Harrogate would convert me I would willingly undertake it. I have so often observed the periodic rise in blood pressure to be accompanied by symptoms of such a serious nature that I am continually on the watch for it in certain patients. But though this is so commonly recognized, we are yet in need of some authoritative method to determine the question. I have on several occasions met experienced consultants who asserted that my patients had an abnormal increase of blood pressure when I was as convinced they had nothing of the sort. It was to settle this difference of opinion that I turned hopefully to Dr. Oliver's instrument, and it was with a keen sense of disappointment that I abandoned its use. I am willing to admit that the failure was in myself and not in the instrument, and if Dr. Oliver can satisfy me that his instrument records nothing but arterial blood pressure I will gladly take it up again.

In Leonard Hill's admirable article in Schäfer's *Physiology* there is set out the results of experiments in measuring the ventricular pressure in certain animals. Unfortunately the results are so confusing that one is at a loss for a standard by which the human ventricular pressure can be measured. Thus in the horse Chauveau and Marey found the pressure in the left ventricle to vary from 95 to 140 mm.Hg., while Goltz and Gaule found it in the dog from 114 to 135. Assuming that in the human heart it rises as high as 200 mm.Hg., the following train of reasoning leads me to suspect that the pressure recorded by Dr. Oliver's instrument is not all blood pressure. In the passage of the wave of blood along the arteries a considerable amount of force is lost by friction against the walls, and by the distension of the arterial wall. Although this distension is extremely minute, yet in stretching the elastic coat a considerable force is required, a force which is stored up in the elastic coat, to be liberated during the ventricular diastole, and which keeps up a continuous pressure on the contained column of blood. Hürthle found that the systolic pressure taken at the central end of the carotid artery was 160 mm.Hg., at the peripheral end it was 117 mm.Hg., that is to say that the wave of blood in passing along 5½ in. of artery lost 43 mm.Hg. As the radial is four times that distance, the pressure is bound to be much lower than Dr. Oliver's instrument records—110-130 mm.Hg.

Apart from the actual number of mm.Hg., if we could get a reliable record of the arterial pressure, and could follow its variations the instrument would be of great use. The pressure recorded by these instruments is the product of two factors: (1) The force required to push the instrument down to the artery, and (2) the arterial pressure. If (1) were constant it might be neglected, but if we reflect for a moment it will be realized it cannot be constant. We all know how easy it is to palpate an artery that lies bare and visible, and how difficult it is sometimes to feel an artery in a well-padded wrist lying embedded in a firm layer of fat. In one individual the artery may be readily perceptible, large and forcible during a febrile attack. Next day with a fall of temperature it is small and shrunken, and can only be felt with difficulty. The force applied to reach it in the latter case is translated as blood pressure, and the observer beholds with wonder a rise of blood pressure so great that he never would have suspected it had his instrument not told him.

I am so ignorant of physical laws that in writing as I have done I am conscious that I may be exposing myself to the scoffs of the learned in these matters. Still, I trust Dr. Oliver will bear with me, and kindly help in smoothing the path of one who seeks the truth with faltering steps and who has so far failed to work out his own salvation.

From letters I have received I find there are others, ignorant like myself, who yearn for enlightenment.—I am, etc.,

Burnley, May 3rd. J. MACKENZIE.

PROPOSED STERILIZATION OF CERTAIN DEGENERATES.

SIR,—In the BRITISH MEDICAL JOURNAL of April 2nd Dr. C. Mercier asked for a definition of "degenerate" and degeneracy. In the succeeding JOURNAL I attempted to reply. Since then I thought it right to write to the author of that fine work, *Degeneration*, by Max Nordau, for a definition. He replies from Paris as follows:

Dear Dr. Rentoul, In my book *Degeneration* I adopt the very acceptable definition of degeneracy by Morel, which runs as follows (p. 1 of *Degenerations*). "The clearest notion we can form of degeneracy is to regard it as a morbid deviation from an original type." I may formulate now this definition in the following clearer and more concise shape:

"Degeneracy is a deviation from the generic type caused by the incapacity of the degenerate offspring to attain to its full development. This incapacity is a consequence of a weakening of the germ plasma, most probably by the effect of the intoxication of the parents. What differentiates degeneracy from other deviations of the generic type is this: the degenerates tend towards extinction by rapid diminution of the power of reproduction, while non-degenerate atypical formations are infinitely transmitted without interfering in any way with the normal vitality and fecundity of their bearers."

Yours faithfully,

April 24th, 1904. MAX NORDAU.

I think the above letter will help to elucidate the many points I have referred to in the above treatise.—I am, etc.,

Liverpool, April 28th. ROBERT R. RENTOUL.

SUDDEN ILLNESS AND ACCIDENTS IN THE STREETS OF LONDON.

SIR,—I quite agree with what has been written in the BRITISH MEDICAL JOURNAL *re* the ambulance system, but think it would be far more benefit to the public if the profession would at once agitate for some definite regulation as to the treatment of cases of illness and accidents in the streets.

At present the state of affairs is appalling, and it is far safer to be on a battlefield than to be unfortunately taken ill in the streets of London. The minute one is prostrate then every one thinks it their right to experiment upon you, some think you ought to be dosed with brandy, others that cold water should be dashed in your face, while a third party advise that your legs and arms should be nearly pulled out of their sockets. No one, of course, has any idea the reason they recommend their treatment.

The policeman since he has generally passed the St. John Ambulance is the more to be dreaded than the public, for he at once assumes authority and decides whether a doctor shall be sent for or not (more often not). Only last summer I had to fight for a poor young lady's life in Hyde Park who had fallen down in an epileptic fit. Some one wanted to give her brandy, another cold water, a nurse to extend her legs and arms, a policeman to stand her up erect. I could only stand over her and shout "Leave her alone," after having loosened all her things.

Surely, sir, some definite plain and simple rules could be devised to put a stop to all this, especially in a city that pretends to value human life; such as the following:

(*a*) It shall be criminal for the lay public to administer anything, or interfere with a person who is taken ill or meets with an accident in the streets, otherwise than place him or her in a place of safety.

(*b*) A person with a St. John Ambulance certificate or a nurse may render first aid until the arrival of a doctor, after which they must follow his instructions.

(*c*) The police must in all cases at once send for a doctor, but should there be a doctor in the crowd who offers his services they should be at once accepted. It should be an illegal offence for a policeman not to carry out the instructions of a doctor when he takes over the case.

(*d*) The police should always carry a piece of red cord with them, so that a space could be marked off, it being given to some willing hands to hold. Any one pushing their way through to be liable to immediate arrest.

By some such simple means as these many lives would be saved, the surgeon be able to make some kind of a diagnosis, and perhaps be able to relieve or alleviate the pain of the victim whilst he or she was being conveyed to the hospital or home. Many colleagues I am sure could record some painful cases in their experiences due to the present want of any law on the subject.—I am, etc.,

London, W., April 24th. THOMAS DUTTON.

TESTING THE EYESIGHT OF THE NATION.

SIR,—With reference to a note in the BRITISH MEDICAL JOURNAL of April 16th, page 926, under the heading "Testing the Eyesight of the Nation," I am authorized by my Council to state that the Optical Society, which is mainly a scientific society as I show in my subsequent quotation of its objects, does not at this stage commit itself to any definite opinion on the sight-testing question, nor can it accept responsibility for the views of individual members; moreover, it does not

organize or conduct examinations or grant "diplomas" of any sort whatever.

In the note I refer to you mention that the *Optician and Photographic Trades Review* is stated to be the official organ of the Optical Society. That journal is the official medium for the publication of the Society's notices and proceedings, but is in no sense authorized to voice independently the opinions of the Optical Society as a body. Moreover, I have the authority of the Editor of the *Optician and Photographic Trades Review* for the assertion that neither he nor the "Official Journal" had anything to do with sending out the so-called "circular communication."

As a matter of interest to your readers I shall be glad if you will permit me to state that the objects of the Optical Society (which was founded in the year 1899) are:

(a) To promote intercourse between those interested in the science of optics in the United Kingdom, the Colonies, or Foreign Countries.

(b) To foster and disseminate knowledge of optical matters among its members.

(c) To arrange lectures, discussions and demonstrations on optical science and optical instruments.

(d) To provide its members with information on all optical subjects of interest.

(e) To promote the establishment, adoption, and recognition of standard sizes, gauges, calibres, templets, and methods for universal use with all optical and other scientific instruments.

(f) To print, publish, sell, lend, or distribute the proceedings or reports of the Society, or any papers or communications on optical science or subjects connected therewith.

—I am, etc.,

W. Salt, Honorary Secretary.

The Optical Society, 20, Hanover Square, London, W., May 2nd.

THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—From the letters which have appeared in the British Medical Journal on this subject, it is, I think, clear that while there is a very general desire that the Association should take the matter up, there is also very general dissatisfaction with the scheme of defence which has been laid before the Divisions. It will be, I think, very unfortunate if this dissatisfaction with the scheme proposed should lead the Divisions, or any of them, to vote against the Association taking up the defence of its members—a result which can readily be avoided by such Divisions approving of the first clause only of the scheme, which provides for the confirmation by the Representative Meeting of the resolutions passed at Birmingham on July 13th, 1896, confirmed at Carlisle, July 28th, 1896, and registered at Somerset House, August 11th, 1896, altering the Memorandum of Association, and establishment of the same before the courts.

As one of the principal points which has given rise to difference of opinion has been the question where the funds for defence are to come from, I should like to point out that in the Supplement to the Journal of April 30th it is shown that there are a number of balances from Branch funds on the year's working, which amount to some £1,250, and that if these were "earmarked" for medical defence, and allowed to accumulate yearly until wanted, they would form the nucleus of a defence fund which at our present rate of progress since the matter was first formally brought before the Council of the Association at the annual meeting at Brighton in 1886, would gradually grow large enough to render any special subscriptions unnecessary; while if, on the other hand, the Representative Meeting desired to see medical defence undertaken within the next year or two it is quite within the power of the Association to have some of the £6000 annual profits of the year's working, added to the £1,250 savings by the Branches for the purpose. At present, however, it seems only necessary to take one step at a time, and that is to authorize the Council to do what it should seem they ought to have done in 1896, but did not, that is, get the alteration of the Memorandum of Association confirmed by the Court.—I am, etc.,

H. Nelson Hardy.

Sir,—I have much pleasure in adding a petting contribution to this discussion. If one may take the letters on this matter which have appeared in the British Medical Journal as an indication of the real feeling of the Association, there is no doubt that the present scheme has not been received with any enthusiasm. But nobody seems to take up the position that there is any *a priori* reason why the Association should not take up defence. It is taken for granted by most writers that defence is a proper thing for the Association to undertake. I hope that the Divisions will see that their votes and instructions to representatives leave no room for doubt after the Oxford meeting, that they intend that defence *shall* become a part of the work of the Association, whatever becomes of the present scheme.

Nobody has troubled to explain how matters are to be improved by delay. The vested interests connected with the present societies are hardly likely to diminish if we wait, nor are the personal prejudices likely to soften. It seems to me that at Oxford we should resolve that we must have medical defence and with as little delay as possible. If we get this position clearly laid down the exact details matter little at present.—I am, etc.,

Gateshead, May 2nd. Alfred Cox.

THE STATE REGISTRATION OF NURSES.

Sir,—Dr. Bedford Fenwick complains, none too civilly—but let that pass, rudeness is never worth replying to—that I have misrepresented the numbers of those who support the manifesto for the State registration of nurses. But if he had read my letter at all carefully he must have seen that I was merely comparing the signatures to that paper with those attached to the paper issued against State registration. I was answering a silly sneer that the opposition to State registration, as shown by the paper issued against it, "comes from certain hospital committees, the employers of nurses, and from some matrons."

In Mrs. Bedford Fenwick's newspaper the signatures in favour were published, and I have no reason to think that she would minimize their number or importance.

And—I must be short—Dr. Bedford Fenwick asks me why, if I am so sure that I am on the right side, I do not ask for a parliamentary inquiry, when I could state my reasons on oath? In passing I may remark that such an inquiry would not be "on oath"—there would be no swearing till the decision was given. But this is indeed a new form of test in the faith that is in one! Because some distracted mortals swear by homœopathy and at allopaths, do we turn round on the allopaths and say "You cannot be sure you are right, or you would ask for a committee of inquiry." Why, we should be doing nothing else all our lives but crying out for inquiries.—I am, etc.

London, S.W., May 3rd. Sydney Holland.

SCHOOL BABIES.

Sir,—In your excellent report of the sessional meeting of the Sanitary Institute at Cardiff, published in your issue of April 30th, I am credited with drawing exception to the school attendance of children under 4 years of age. There is a slight error in the matter, as I did not mention that age. What I objected to was the school attendance of children under 6 or even 7 years of age, and pointed out that the law did not require even at present that School Boards, etc., should spend money upon the so-called education of infants under 5 years.

As the age mentioned in your report of the proceeding is considerably under that at which I consider school attendance advisable, I trust you will correct the slight error in your next issue.—I am, etc., J. Howard Jones, D.Sc., M.D.

Newport, Mon., May 2nd. Medical Officer of Health.

OBITUARY.

AUSTIN MELDON, F.R.C.S., D.L.,

Dublin.

We have to record with very sincere regret the death of Mr. Austin Meldon, F.R.C.S.I., D.L., of Dublin, which took place on Thursday, April 28th. The end came with awful suddenness. He had been attending to his professional work during the day, and after dinner was dictating a letter which his wife was writing, when he suddenly expired.

Austin Meldon was born in 1841, and became a Licentiate of the Royal College of Surgeons, Ireland, twenty years afterwards. In 1865 he became a Licentiate of the then King and Queen's College of Physicians. His collegiate course was distinguished. He was double gold medallist in surgery and midwifery and first prizeman in anatomy in the Catholic University Medical School, where he was at once appointed demonstrator of anatomy. A little later he was appointed Surgeon to Jervis Street Hospital, a position which he held until a year ago, when he retired and was elected to the consulting staff.

He was a man of much industry, and he wrote papers on a

great variety of subjects. He obtained the Pathological Society's gold medal for his essay on diseases of the ovaries; and he wrote on such diverse subjects as cholera, gout, and rheumatic gout, diseases of the skin, the intravenous injection of milk, tetanus, lithotomy, transfusion, and two successful cases of tapping the pericardium. He was a bold and very dexterous operator, and he worked with admirable enthusiasm.

Mr. Meldon was a member of the British Medical Association, and took an active part in the annual meeting in Dublin in 1887. Socially, Austin Meldon was one of the most attractive of men. His remarkable bulk he was about 27 st. in weight—did not seem to interfere with his activity or industry. He played tennis and rode a bicycle with all the nerve and vigour of younger men, and there was no social function in which, if opportunity offered, he did not join with an almost boyish enjoyment. He had an enviable temperament. His fun was spontaneous and bubbling over; and it may be said of him truly that he never said an ungracious or unkind word regarding any one, so it resulted that Austin Meldon stood high in the esteem and affection of his professional brethren, who deeply sorrow that death has so soon removed him from their companionship.

Mr. Meldon was twice married. One of his sons is serving in Central Africa as a combatant officer; the second is in practice as a medical man in Dublin. A few years ago Mr. Meldon was greatly afflicted by the death of his only and charming daughter.

He was buried in Glasnevin Cemetery on Monday last. There was an immense attendance of his friends, who in this way tried to show how great was their attachment to a man who so deeply engaged their affection.

WE regret to record the death of Dr. WM. ALEXANDER HEPBURN, of Coxhoe, Durham, which occurred on April 15th. Dr. Hepburn took the diploma of L.S.A.Lond., and the degree of M.D.St.Andrews in 1880, and came into the district as assistant to the late Dr. Carnes, whose daughter he married, and whose practice he afterwards continued with great success. He had a very extensive colliery practice, being surgeon to five or six collieries. Along with this he combined several public appointments, being Medical Officer of Health for Cornforth Parish, the Southern District of the Durham Union, and the Eastern District of the Durham Rural District Council; he was also Public Vaccinator for the same districts, and Medical Officer of the Houghall Small-pox Hospital. Dr. Hepburn took considerable interest in ambulance work, being an examiner for the St. John Ambulance Association, and was well known in this connexion in the county of Durham. He was a member of the British Medical Association, but did not take any active part in the work of his Branch owing mainly to the busy professional life he led. He was a staunch Churchman, taking a particular interest in Church schools and being a representative on the Durham Diocesan Board of Education. His death at the age of 56 leaves a gap in the Coxhoe neighbourhood which will be hard to fill, as he was not only a trusted medical adviser, but a hard-working and respected citizen.

WE regret to announce the death, in his 71st year, of Mr. BULLIN of Chester, which took place on April 12th at Birkdale, Southport. Mr. Bullin, who was born in Bath, took the diploma of L.D.S. in 1861. He was for a quarter of a century Honorary Dental Surgeon to the Chester General Infirmary. In 1887 he was President of the Midland Branch of the British Dental Association. Mr. Bullin was the second senior magistrate in Chester.

MANY former students of Mason College will hear with regret of the death of Dr. LORENZO WHITFIELD, which took place at the early age of 29 years, on April 25th, at Monrovia, California, U.S.A. He was the elder son of Edwin and Mary Hannah Whitfield, of the Hollies, Coventry Road, Small Heath. At Mason College he won a medal in anatomy, and took the diplomas of M.R.C.S. and L.R.C.P. in 1898. He subsequently held the posts of House Physician at the Queen's Hospital, and House-Surgeon at the General Hospital, Birmingham.

THE announcement of the death of Dr. PIERLEONE TOMMASOLI, Professor of Dermatology and Syphiligraphy in the University of Palermo, who was recognized throughout the medical world as one of the leading authorities on these subjects, will be heard with regret. In his own country he was held in special respect as a highly successful teacher. He contributed largely to the literature of his speciality, being the author of books and papers on the classification of skin diseases, on gonorrhoeal affections, on renal syphilis, on keratosis, on pityriasis rubra, and many other subjects.

WE regret to announce the death of GEORGE WATSON BEATTIE, the Medical Officer of Health for Failsworth. Dr. Beattie graduated in 1870 in Aberdeen, and took the degree of M.D. in the same university in 1872. As showing the respect in which he was held, the funeral was of a public character, and the route along which it passed was lined by several thousand people. At the head of the procession was a detachment of police, behind whom were many of the principal inhabitants of the township, members of the district council, overseers and other officials, and many members of the medical profession.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. F. Jouon, Professor of Anatomy in the Medical School of Nancy; Dr. Bruchon, Professor of Anatomy in the Medical School of Besançon; Dr. J. K. Zarubin, sometime Professor of Clinical Surgery in the University of Charkoff; Professor W. J. Drobowolsky, one of the foremost of Russian ophthalmologists, aged 66; Dr. M. v. Strauch, a well-known gynaecologist of Moscow; Professor V. Ratimoff, a prominent surgeon of St. Petersburg; Dr. Louis A. Kengla, editor of the *Occidental Medical Times* (San Francisco); and Dr. J. B. Sanford, Speaker of the House of Representatives, Colorado, aged 35.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE MEDICAL PROFESSION AND LABORATORY REPORTS.

A CIRCULAR has been issued by the Clinical Research Association in which the Director asks the assistance of its members in a matter which becomes each year more pressing. He alludes to the fact that patients almost daily write asking for an examination to be made and a report to be sent directly to them. He says that it is the invariable custom of the Association to decline to do this, in the following terms: "I regret that, in accordance with our rule, we are unable to report on pathological specimens to any but the medical man in attendance on the patient. This is a rule from which we never wittingly depart. If you will kindly favour us with the name of the medical man in attendance we will at once forward the report to him." But he goes on to say that they are often met with the rejoinder that some medical man, even sometimes one of their own members, has instructed the applicant to take this course, and a tiresome and even acrimonious correspondence may result. We have had our attention drawn to this matter on more than one occasion, and it has been too often the fault of the patient's medical adviser. These reports ought to be used and their value can only be appreciated by the medical advisers. Laboratory reports have no absolute value, and they must be taken in connexion with the whole of the facts of the case. Unless this is done, they lead only to confusion and produce in the minds of patients or their friends those doubts which it is our duty to solve for them.

LIABILITY FOR FEE.

C. writes that a farmer brought one of his labourers to him with a lacerated hand, due to an accident occurring on his farm. C. attended to the case, and wishes to know who is responsible for his fee. He understands that the patient has received compensation, but has since disappeared. He also asks what would be a reasonable charge for amputating a finger, and dressing subsequently about half a dozen times.

*** Unless the farmer repudiated liability at the time of bringing the patient, or unless our correspondent has shown by his own action that he looked to the patient and not to the farmer for payment, the latter would be liable. Two guineas may be suggested as a reasonable fee, if all the attendance took place at our correspondent's surgery.

OBSTETRICUS.—A., who is in the habit of attending confinements for another practitioner, on the condition that he goes on with the case, and takes the fee, attended in this way the wife of an insurance agent. At the termination of the case no fee was paid, but shortly afterwards he saw the husband, who promised to come round with the fee. He has not done so, and A. wishes to know whether he can recover from the patient's husband. He has since learnt that the practitioner for whom he acted was in the habit of attending this patient gratuitously.

*** It is to be feared that the practitioner who asked A. to act for him is the only one who can sue the patient's husband, and if he had been in the habit of attending her gratuitously, his action might be defeated.

"THE BIOGRAPHIC PUFF."

MR. A. T. MANNING FOSTER, Editor and Managing Director of *Land and Water Illustrated*, writes to say that his attention has been drawn to a paragraph appearing in the BRITISH MEDICAL JOURNAL of April 9th, under the title of "The Biographic Puff." He explains that the circular letter of which Dr. Philip G. Graham received a copy was sent to him without Mr. Manning Foster's knowledge through the mistake of a clerk.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY INSPECTOR-GENERAL E. R. H. POLLARD has been promoted to be Inspector-General, March 28th. He entered the Royal Navy as Surgeon, March 2, 1881, became Staff Surgeon, November 28th, 1[illegible], Fleet Surgeon, April 11th, 1[illegible], and Deputy Inspector-General, August 1st, 1[illegible]. As Surgeon of the *Lancaster* he served with the Naval Brigade during the Soudan war of 1[illegible], and received the medal with clasp. He was also in the Egyptian war in 1[illegible], and was present at the battle of Tel-el-Kebir (promoted to be Staff Surgeon, medal with clasp and Khedive bronze star).

Surgeon G. B. BROWN has been placed on the retired list, April 27th. He was appointed Surgeon, May 23rd, 1[illegible].

The following appointments have been made at the Admiralty: GEORGE M. LEVICK, Surgeon, to the *Queen*, April 5th; GEORGE S. DAVIDGE, Surgeon, to the *Powerful*, additional, and on recommissioning, March 28th; ALASTAIR F. MACKAY, M.B., Surgeon, to the *Revenge*, April 5th; ROBERT H. ATKINS, Surgeon, to the *Trafalgar*, April 5th; ALOYSIUS F. FLAHERTY, Surgeon, to Chatham Yard, lent temporarily, May 10th; WILLIAM E. BENNETT, Fleet Surgeon, to the *Royal Sovereign*, on commissioning; JOHN MENARY, M.D., Fleet Surgeon, and HENRY HUNT, Surgeon, to the *Terrible*, on commissioning; JOHN A. KEOGH, M.B., B.A., Staff Surgeon, to the *Powerful*, on recommissioning; JAMES M. ROGERS, Fleet Surgeon, and EDWIN R. GRAZEBROOK, Surgeon, to the *Prince of Wales*, for three months' hospital course, May 2nd; J. H. THOMAS, Fleet Surgeon, to the *Good Hope*, April 5th; R. MILLER, Fleet Surgeon, to the *Europa*, May 15th, and to the *Terrible*, on recommissioning; A. E. KELLETT, Staff Surgeon, to the *Andromache*, May 14th; J. O'HEA, Surgeon, to the *Assistance*, for the *Columbine*, on recommissioning.

SENEX writes: The thanks of all those who have the welfare of the above service and the happiness of naval medical officers at heart are due to you for your admirable leading articles on the subject. The extremely fair and temperate spirit in which you have approached the question should certainly give your remarks great value with the authorities. Those who have personally suffered the indignities, and consequent heart-burnings, entailed by the present condition of things, find it difficult, nay, impossible, to put the matter in the impartial light which you have happily done. Now that the BRITISH MEDICAL JOURNAL has put its good hand to the plough naval medical officers will rest confident that that hand will not be removed before the work is done.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. W. KENNY, M.B., has been appointed Principal Medical Officer, Transvaal District.

Colonel G. D. N. LEAKE has been transferred from the Bombay and Nagpore Districts to the Oude and Rohilcund Districts.

EXCHANGES.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post-office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A MAJOR, recently arrived home, is willing to exchange to either South Africa or Egypt in about four months' time for either whole or portion of tour. Please state terms to Medicus, c.o. Holt and Co., 3, Whitehall Place, London.

HOUSEHOLD CAVALRY.

SURGEON LIEUTENANT R. M. COWIE, 2nd Life Guards, is promoted to be Surgeon-Captain, April 11th. He was made Lieutenant Royal Army Medical Corps, April 11th, 1[illegible], and was soon after attached to the 2nd Life Guards to which he was subsequently appointed Medical Officer, October 1st, 1[illegible].

CAPTAIN J. E. KELLETT, from the Royal Army Medical Corps, to be Surgeon-Captain, Royal Horse Guards, May 4th. He was appointed Surgeon-Lieutenant, 1[illegible], and Surgeon-Captain, July 4th, 1[illegible]. He was attached to the 2nd Life Guards, September 27th, 1[illegible].

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT G. E. WHITE, M.B., to be Surgeon-Captain, April 1[illegible].

INDIAN MEDICAL SERVICE.

Colonel C. E. BEADNELL, M.D., Medical Establishment, Principal Medical Officer, Medical Department, Bank of Surgeon-General while officiating as Director-General, with the Government of Madras, from March 1[illegible].

Colonel C. [illegible], M.D., C.I.E., Bengal Establishment, Professor of Medicine, Medical College, Calcutta, and First Physician, Medical Department, to be Surgeon-General, vice Beadnell, appointed to officiate as Director-General, Indian Medical Service, with the Government of Madras.

Lieutenant-Colonel [illegible], Medical Staff, Principal of the Medical School, Lahore, and Professor of Medicine, Lahore Medical College, and Physician to the Hospitals, Punjab, to be Principal Medical Officer, Medical Department, Bank of Surgeon-General while officiating as Director-General, with the Government of Madras, vice Beadnell, appointed to officiate as Director-General, Indian Medical Service, with the Government of Madras.

Lieutenant-Colonel [illegible], Medical Staff, Professor of Medicine, Medical College, Calcutta, and Physician to the Hospitals, Punjab, to be Principal Medical Officer, Medical Department, Bank of Surgeon-General while officiating as Director-General, with the Government of Madras, vice Beadnell, appointed to officiate as Director-General, Indian Medical Service, with the Government of Madras.

Lieutenant-Colonel [illegible], Medical Staff, Principal Medical Officer, Medical Department, Bank of Surgeon-General while officiating as Director-General, with the Government of Madras, vice Beadnell, appointed to officiate as Director-General, Indian Medical Service, with the Government of Madras.

Lieutenant-Colonel [illegible], Medical Staff, Professor of Medicine, Medical College, Calcutta, and Physician to the Hospitals, Punjab, to be

Analysis of the Vital Statistics of Seventy-Six of the Largest English Towns during the First Quarter of 1904.

Towns.	Estimated Population in middle of 1904.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns	15,271,287	113,[illegible]	71,[illegible]	29.7	18.7	1.66	6,3[illegible]	5[illegible]	1,74[illegible]	447	795	2,219	[illegible]25	742	14[illegible]	1.3
75 Provincial Towns	10,022,[illegible]	72,711	49,940	30.1	18.9	1.69	4,459	4[illegible]	1,27[illegible]	3[illegible]	595	1,61[illegible]	20[illegible]	4[illegible]	149	1.3
London	4,648,[illegible]	33,294	21,262	28.7	18.3	1.62	1,871	3	[illegible]76	91	[illegible]7	[illegible]60	56	24[illegible]	18[illegible]	0.2
Croydon	144,419	976	540	27.1	15.2	0.82	29	—	11	[illegible]	5	[illegible]	[illegible]	6	166	—
Willesden	132,566	1,0[illegible]4	427	32.2	12.9	1.48	49	—	[illegible]0	2	10	—	1	4	112	1.2
Hornsey	51,221	408	179	20.1	8.8	0.35	7	—	4	[illegible]	[illegible]	[illegible]	—	1	[illegible]1	—
Tottenham	11[illegible],[illegible]1	913	390	32.4	14.1	0.71	20	—	[illegible]	4	3	4	—	—	[illegible]5	—
West Ham	288,424	2,416	1,203	33.6	16.7	2.19	155	1	[illegible]0	5	15	[illegible]7	11	26	[illegible]0	0.2
East Ham	116,902	890	353	30.5	12.1	1.47	43	—	[illegible]2	[illegible]	17	11	4	1	[illegible]1	0.6
Leyton	11[illegible],344	735	3[illegible]	27.3	12.2	1.30	3[illegible]	—	[illegible]3	2	4	23	1	1	11[illegible]	2.1
Walthamstow	111,282	895	311	32.3	11.2	1.19	33	—	12	4	4	[illegible]	1	6	103	0.9
Hastings	66,503	[illegible]6[illegible]	252	10.2	14.0	—	—	—	—	[illegible]	[illegible]	[illegible]	—	—	112	—
Brighton	126,286	738	593	23.4	19.2	1.84	42	—	11	—	[illegible]	15	1	5	145	—
Portsmouth	19[illegible],38[illegible]	1,36[illegible]	920	27.7	19.[illegible]	1.78	56	—	[illegible]	7	15	[illegible]0	[illegible]	5	149	1.5
Bournemouth	64,645	303	250	18.[illegible]	15.5	0.36	[illegible]	—	[illegible]	[illegible]	2	[illegible]	—	4	129	—
Southampton	112,500	779	447	27.8	15.[illegible]	0.47	53	—	[illegible]	[illegible]	5	4	1	3	117	—
Reading	76,373	480	2[illegible]	25.2	15.0	0.74	24	—	[illegible]	[illegible]	3	[illegible]2	[illegible]	5	112	3.1
Northampton	91,146	543	3[illegible]	23.9	14.0	0.61	14	—	1	6	[illegible]3	—	—	4	110	4.1
Ipswich	6[illegible],[illegible]5	497	2[illegible]5	28.6	15.8	0.63	11	—	[illegible]3	1	2	1	1	3	127	9.4
Great Yarmouth	52,[illegible]9	[illegible]5	2[illegible]4	25.1	20.7	2.53	33	—	[illegible]	—	1[illegible]	5	2	2	101	—
Norwich	115,538	311	607	20.2	21.1	3.44	99	—	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	171	0.3
Plymouth	114,[illegible]03	747	5[illegible]2	26.3	20.8	1[illegible]6	[illegible]8	—	—	[illegible]	6	1[illegible]	[illegible]5	[illegible]2	1[illegible]4	0.2
Devonport	75,[illegible]34	505	2[illegible]1	[illegible]0.1	15[illegible]	1.16	[illegible]2	[illegible]	—	[illegible]5	5	[illegible]8	2	2	115	—
Bristol	3[illegible],[illegible]04	2,[illegible]90	1,4[illegible]1	26.8	17.4	1.25	1[illegible]7	[illegible]2	2[illegible]	2[illegible]	34	20[illegible]	[illegible]7	1[illegible]	115	0.2
Hanley	[illegible]8,[illegible]3	547	322	[illegible]4.3	20.2	1.[illegible]2	2[illegible]	—	[illegible]5	5	13	—	2	4	152	0.6
Burton-on-Trent	5[illegible],[illegible]44	3[illegible]0	206	24.7	15[illegible]	0.08	1	—	[illegible]	[illegible]	1	[illegible]	—	—	103	0.5
Wolverhampton	9[illegible],[illegible]4	805	4[illegible]7	[illegible]2.9	10.6	1.66	41	—	[illegible]5	2	2[illegible]	2	4	5	122	0.2
Walsall	91,432	[illegible]3[illegible]	441	[illegible]4.[illegible]	19.3	2.23	[illegible]1	[illegible]	[illegible]	[illegible]1	9	24	1	7	19[illegible]	0.5
Halesowen	59,634	339	204	22.8	13.[illegible]	1.[illegible]5	2[illegible]	—	1	[illegible]	4	9	2	2	1[illegible]7	2.9
West Bromwich	[illegible]7,[illegible]1[illegible]	[illegible]11	325	36.5	19.4	1.[illegible]5	2[illegible]	—	[illegible]	[illegible]3	1	4	3	12	1[illegible]	2.5
Birmingham	5[illegible],[illegible]75	4,492	2,946	33.5	22.0	2.57	345	—	[illegible]4	[illegible]1	40	12[illegible]	4	[illegible]2	1[illegible]4	[illegible]3
King's Norton	[illegible]7,[illegible]7	489	[illegible]3[illegible]	29.4	12.[illegible]	0.48	[illegible]0	[illegible]	[illegible]2	[illegible]1	1	2	1	1	92	1.1
Smethwick	[illegible]2,[illegible]1	4[illegible]1	216	[illegible]2.[illegible]	14	0.47	[illegible]	—	[illegible]1	[illegible]1	[illegible]2	[illegible]	2	1	142	4.1
Aston Manor	80,363	[illegible]5[illegible]	[illegible]86	27.[illegible]	15.4	1.[illegible]1	[illegible]	[illegible]	1[illegible]	1	[illegible]1	[illegible]1	[illegible]2	[illegible]1	13[illegible]	1.6
Coventry	73,[illegible]04	[illegible]0[illegible]	[illegible]04	[illegible]3.4	1[illegible].[illegible]	1.[illegible]9	[illegible]1	—	—	[illegible]	[illegible]	[illegible]7	—	[illegible]	[illegible]4	2.0
Leicester	224,[illegible]39	[illegible],474	384	26.4	15.[illegible]	0.82	46	[illegible]	—	[illegible]	[illegible]	32	[illegible]	[illegible]	[illegible]5	[illegible].0
Grimsby	[illegible],[illegible]48	484	295	[illegible].9	17.7	0.84	14	—	[illegible]	1	6	[illegible]	[illegible]	[illegible]	192	0.7
Nottingham	24[illegible],[illegible]11	[illegible],[illegible]03	1,249	[illegible]7	[illegible]0.1	1.[illegible]2	[illegible]2	[illegible]	[illegible]	[illegible]	[illegible]2	[illegible]1	24	7	[illegible]2	0.7
Derby	1[illegible],[illegible]46	[illegible]57	551	28.5	[illegible].[illegible]	0.45	14	1	[illegible]	1	4	7	1	—	147	—
Stockport	[illegible]7,[illegible]07	626	488	[illegible].[illegible]	20.2	1.44	[illegible]3	—	[illegible]4	[illegible]	[illegible]	[illegible]2	[illegible]	[illegible]	1[illegible]1	0.4
Birkenhead	11[illegible],[illegible]14	[illegible].7	595	[illegible].3.4	20.[illegible]	1.72	[illegible]	1	[illegible]	[illegible]	7	3[illegible]	3	[illegible]	143	—
Wallasey	[illegible]1,[illegible]4	[illegible].[illegible]	234	[illegible].[illegible]	17.[illegible]	2.19	[illegible]	—	6	[illegible]	[illegible]2	[illegible]2	2	1	14[illegible]	[illegible].[illegible]
Liverpool	[illegible],[illegible]4[illegible]	[illegible]7	4,[illegible]2[illegible]	[illegible].[illegible]	[illegible].[illegible]	2.04	[illegible]0[illegible]	—	[illegible]1	[illegible]7	[illegible]4	[illegible]1[illegible]	23	[illegible]	1[illegible]1	[illegible]
Bootle	[illegible]1,[illegible]3[illegible]	[illegible]47	[illegible]0[illegible]	32.3	[illegible].[illegible]	1.[illegible]8	[illegible]1	—	[illegible]	[illegible]	6	1	[illegible]	1	127	2.7
St. Helens	88,[illegible]46	824	47[illegible]	[illegible].[illegible]	21.[illegible]	[illegible].00	66	[illegible]	[illegible]	1	12	17	1	4	1[illegible]1	6.0
Wigan	[illegible]4,800	546	[illegible]04	[illegible].4	[illegible].[illegible]	1.07	[illegible]1	1	—	[illegible]	[illegible]	14	[illegible]	—	1[illegible]1	0.8
Warrington	[illegible]7,[illegible]31	[illegible]1[illegible]	399	36.5	23.8	4.41	74	1	[illegible]7	1[illegible]	[illegible]	[illegible]7	2	4	175	6.0
Bolton	17[illegible],744	[illegible],14[illegible]	[illegible]68	[illegible]2.[illegible]	19.[illegible]	2.15	94	—	[illegible]2	[illegible]1	[illegible]	[illegible]2	[illegible]	[illegible]	[illegible]74	0.2
Bury	[illegible],[illegible]43	[illegible]4[illegible]	[illegible]07	24.8	21.8	[illegible].5	[illegible]1	[illegible]	20	[illegible]	4	[illegible]1	[illegible]1	2	174	[illegible].7
Manchester	[illegible]37,[illegible]0[illegible]	4,[illegible]71	[illegible],[illegible]37	[illegible].[illegible]4	[illegible]2.[illegible]	1.90	264	[illegible]2	100	[illegible]5	[illegible]2	[illegible]5	[illegible]7	[illegible]7	1[illegible]7	1.1
Salford	[illegible],[illegible]2[illegible]	[illegible],[illegible]1[illegible]	1,[illegible]04	32.0	[illegible]1.1	[illegible].[illegible]	[illegible]2	—	[illegible]4	[illegible]1	[illegible]1	[illegible]2	[illegible]1	[illegible]1	1[illegible]5	[illegible]
Oldham	[illegible],[illegible]4[illegible]7	[illegible]1[illegible]	704	26.0	[illegible].2	1.[illegible]5	64	1	[illegible]2	[illegible]1	[illegible]1	[illegible]1	1	12	135	0.3
Rochdale	[illegible]5,[illegible]1	[illegible]1[illegible]3	[illegible]4[illegible]	[illegible].	20.9	[illegible].[illegible]4	[illegible]0	[illegible]1	[illegible]5	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]2	1[illegible]7	3.9
Burnley	[illegible],[illegible]7[illegible]9	[illegible]55	42	26.1	[illegible].3	2.[illegible]0	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]2	1[illegible]7	[illegible].1
Blackburn	[illegible]2,[illegible]1[illegible]4	[illegible]1[illegible]3	604	[illegible]4.[illegible]	[illegible].3	1.54	[illegible]1	[illegible]1	27	[illegible]2	[illegible]1	27	[illegible]5	[illegible]7	1[illegible]7	[illegible].1
Preston	[illegible]1,[illegible]1[illegible]	[illegible]1[illegible]3	[illegible]1[illegible]	30.1	24.9	[illegible].[illegible]3	[illegible]1[illegible]	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]2	[illegible]1	[illegible]1	[illegible]2[illegible]	[illegible].1
Barrow-in-Furness	[illegible]9,[illegible]4	459	[illegible]2[illegible]	[illegible].[illegible]	[illegible].[illegible]	0.46	[illegible]	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]2	[illegible]1	[illegible]1	[illegible]2	[illegible].1
Huddersfield	[illegible]4,[illegible]0[illegible]	[illegible]5[illegible]	[illegible]4[illegible]	23.6	[illegible].2	0.45	[illegible]1	[illegible]	[illegible]	[illegible]1	[illegible]2	[illegible]2	[illegible]1	[illegible]	[illegible]1[illegible]	[illegible].1
Halifax	[illegible]0,[illegible]3[illegible]	[illegible]1[illegible]	479	20.5	[illegible].[illegible]	0.64	[illegible]1	[illegible]1	[illegible]1	[illegible]1	[illegible]4	[illegible]	[illegible]1	[illegible]	[illegible]1	[illegible].1
Bradford	[illegible]1,[illegible]0[illegible]	[illegible]1[illegible]1	[illegible],[illegible]1[illegible]	22.6	[illegible].[illegible]	[illegible].[illegible]2	[illegible]3	[illegible]	[illegible]5	[illegible]1	[illegible]2	[illegible]	[illegible]5	[illegible]1	[illegible]1[illegible]	[illegible].2
Leeds	[illegible]8,[illegible]42	3,216	2,295	28.7	20.4	2.39	267	[illegible]	[illegible]1[illegible]	[illegible]1	[illegible]2	[illegible]2	[illegible]5	[illegible]1	[illegible]1[illegible]	0.6
Sheffield	[illegible]1,[illegible]4	[illegible],[illegible]4[illegible]	1,942	[illegible].	18.0	[illegible].11	[illegible]2[illegible]	[illegible]	[illegible]1	[illegible]1	[illegible]1	[illegible]2	[illegible]5	[illegible]1	[illegible]1[illegible]	0.3
Rotherham	[illegible]7,[illegible]4	[illegible]4[illegible]	[illegible]7[illegible]	[illegible].	[illegible].[illegible]	2.[illegible]5	[illegible]1	[illegible]	1	[illegible]4	11	[illegible]7	1	[illegible]2	[illegible]1[illegible]	4.1
York	[illegible]5,[illegible]1	[illegible]4[illegible]	[illegible]2[illegible]	28.5	[illegible].4	0.84	[illegible]1	[illegible]1	[illegible]	1	[illegible]2	[illegible]2	[illegible]3	[illegible]	1[illegible]0	2.2
Hull	2[illegible],[illegible]1[illegible]	[illegible]1[illegible]1	1,054	[illegible].	[illegible].7	[illegible].[illegible]5	42	[illegible]	[illegible]	[illegible]	[illegible]4	[illegible]1	[illegible]1	1	[illegible]1[illegible]	[illegible].6
Middlesbrough	96,084	962	[illegible]4[illegible]	[illegible].4	19.2	[illegible].50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]1	[illegible]1	3	4	122	[illegible].1
Stockton-on-Tees	[illegible]0,[illegible]1[illegible]	[illegible]41[illegible]	[illegible]3[illegible]	[illegible].1	[illegible].[illegible]	[illegible].[illegible]	[illegible]	[illegible]	[illegible]	[illegible]4	[illegible]9	[illegible]6	14	[illegible]0	1[illegible]0	[illegible].2
West Hartlepool	[illegible],[illegible]71	548	350	[illegible].7	20.[illegible]	1.46	[illegible]1	—	—	1	3	[illegible]2	2	—	1[illegible]7	0.8
Sunderland	1[illegible],[illegible]37	[illegible],[illegible]2[illegible]	[illegible]7[illegible]	[illegible].	[illegible].[illegible]	[illegible].72	47	—	[illegible]5	—	[illegible]4	[illegible]5	[illegible]	[illegible]	1[illegible]1	0.9
South Shields	[illegible]1,[illegible]4[illegible]	[illegible]1[illegible]	[illegible]7[illegible]	[illegible].	[illegible].[illegible]	1.67	[illegible]1	[illegible]	[illegible]	[illegible]	[illegible]1	[illegible]1	0	[illegible]	141	[illegible].
Gateshead	[illegible]1,[illegible]4	911	469	[illegible].0	17.5	0.67	[illegible]1	[illegible]	[illegible]	[illegible]1	[illegible]4	[illegible]3	[illegible]	[illegible]	1[illegible]1	[illegible].
Newcastle-on-Tyne	[illegible]1,[illegible]1[illegible]	[illegible],[illegible]1[illegible]	[illegible]1[illegible]	[illegible].7	21.0	[illegible].[illegible]3	[illegible]1[illegible]	[illegible]5	[illegible]	[illegible]	[illegible]	[illegible]7	2	4	1[illegible]	6.2
Tynemouth	[illegible]1,[illegible]0[illegible]	1,[illegible]4[illegible]	1,[illegible]1[illegible]	[illegible].	19.6	[illegible].11	[illegible]	[illegible]1	4	[illegible]1	[illegible]	[illegible]7	[illegible]	2	1[illegible]	4.2
South Shields	[illegible]1,[illegible]0[illegible]	498	[illegible]1[illegible]	[illegible].	[illegible].[illegible]	0.93	[illegible]2	[illegible]	[illegible]2	[illegible]1	[illegible]1	[illegible]	[illegible]3	[illegible]	1[illegible]	[illegible].2
Newport (Mon.)	[illegible]1,[illegible]40	[illegible]5[illegible]	338	32.3	18.9	1.40	[illegible]5	—	—	[illegible]	[illegible]	[illegible]1[illegible]	[illegible]	[illegible]	1[illegible]	2.9
Cardiff	1[illegible],[illegible]1[illegible]	1,[illegible]3[illegible]	774	30.3	17.6	1.[illegible]0	84	[illegible]	20	[illegible]4	[illegible]1	[illegible]1	[illegible]	[illegible]	1[illegible]7	0.6
Rhondda	[illegible]2,[illegible]1[illegible]	1,[illegible]74	634	[illegible]1.[illegible]	20.8	2.66	[illegible]1	—	25	[illegible]2	[illegible]1	17	2	12	1[illegible]1	[illegible].4
Merthyr Tydfil	[illegible]1,[illegible]3[illegible]	[illegible]1[illegible]	482	[illegible].	[illegible].[illegible]	2.60	47	—	[illegible]	[illegible]	[illegible]	[illegible]1	[illegible]	[illegible]	[illegible]	[illegible].
Swansea	95,93[illegible]	745	[illegible]4[illegible]	[illegible].1	[illegible].[illegible]	[illegible].1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]1	[illegible]	5	1[illegible]	1.1

among which the birth rates ranged from [illegible] in Hastings, [illegible] in Bootle, [illegible] in Halifax, [illegible] in Bradford, and [illegible] in Hudderfield, [illegible] in Warrington, and in West Bromwich, [illegible] in St Helens, [illegible] in Middlesbrough, [illegible] in Tynemouth, [illegible] in Merthyr Tydfil, and [illegible] in Rhondda.

In the [illegible] quarter under notice [illegible] deaths were registered in these towns corresponding to an annual rate of [illegible] per 1000, per cent living against a rate of [illegible] per 1000 in the first quarter of last year. In London the annual rate of mortality last quarter was [illegible] per 1000, while it averaged [illegible] per 1000 in the seventy-five other large towns and ranged from [illegible] in Hornsey, [illegible] in Walthamstow, [illegible] in East Ham, [illegible] in Leyton, [illegible] in Kings Norton, [illegible] in Willesden, and [illegible] in Handsworth, Staffs., to [illegible] in Birmingham, [illegible] in Liverpool and in Manchester, [illegible] in Wigan, [illegible] in Warrington, [illegible] in Preston, and [illegible] in Merthyr Tydfil.

The [illegible] deaths from all causes included [illegible] which were referred to the principal infectious diseases of [illegible] London, these [illegible] from scarlet fever, [illegible] from measles, [illegible] from whooping-cough, [illegible] from "fever" principally enteric, and [illegible] from diphtheria. The death-rate from principal infectious diseases was equal to [illegible] per 1000 last quarter against [illegible] in the corresponding period of last year. In London the death-rate from these diseases was [illegible] per 1000, while it averaged [illegible] in the seventy-five large provincial towns. No death from any of the principal infectious diseases was registered last quarter in Hastings; among the other towns the rates ranged from [illegible] in Burton-on-Trent, [illegible] in Hornsey, [illegible] in Derby, and in Huddersfield, [illegible] in Barrow-in-Furness, [illegible] in Southampton and in Smethwick, [illegible] in Kings Norton, and [illegible] in Bournemouth, to [illegible] in West Hartlepool, [illegible] in St Helens, [illegible] in Swansea, [illegible] in Norwich, [illegible] in Bury, [illegible] in Grimsby, [illegible] in Preston, and [illegible] in Warrington. The [illegible] fatal cases of [illegible] registered last quarter included [illegible] in Gateshead, [illegible] in London, [illegible] in Nottingham, [illegible] in St Helens, [illegible] in Hull, [illegible] in Tynemouth, and [illegible] each in Manchester, Sunderland, and South Shields. The [illegible] deaths from measles were equal to an annual rate of [illegible] per 1000, in London the death-rate from this disease was [illegible] per 1000, while it averaged [illegible] per 1000 in the seventy-five other large towns, among which measles showed the **highest proportional fatality in Norwich, St. Helens, Warrington, Bury,** Preston, Leeds, and Rotherham. The [illegible] fatal cases of scarlet fever corresponded to an annual rate of [illegible] per 1000 in London the scarlet fever death-rate was only [illegible] per 1000, while it averaged [illegible] in the seventy-five other large towns, and was highest in Northampton, Devonport, Batley, Walsall, Warrington, Oldham, Gateshead, and Merthyr Tydfil. The [illegible] deaths from whooping-cough were equal to an annual rate of [illegible] per 1000, in London the death-rate from whooping-cough was [illegible] per 1000, while it averaged [illegible] per 1000 in the seventy-five large provincial towns, among which the highest death-rates were recorded in Wimbledon, Liverpool, Warrington, Bolton, Bury, West Hartlepool, Gateshead and Swansea. The [illegible] deaths referred to different forms of "fever" [illegible] were equal to an annual rate of [illegible] per 1000, in London the rate was [illegible] per 1000, while it averaged [illegible] in the seventy-five other large towns, among which the highest proportional mortality from "fever" occurred in Nottingham, Burnley, Preston, Rotherham, **Middlesbrough, Sunderland, Tynemouth, Rhondda, and Merthyr Tydfil.** The [illegible] fatal cases of diphtheria corresponded to an annual rate of [illegible] per 1000, in London, the death-rate from this disease was [illegible] per 1000 among the seventy-five large provincial towns the highest rates were recorded in Hendon, West Bromwich, Birmingham, Oldham, **Middlesbrough, Rhondda, and Merthyr Tydfil.**

In London, the mortality, as measured by the proportion of deaths among [illegible] years of age to registered births, was equal to [illegible] per cent., while it [illegible] in London the rate of mortality was [illegible] per 1000, while it [illegible] in the seventy-five other large towns and ranged from [illegible] in Hornsey and in Kings Norton, [illegible] in Tottenham, [illegible] in Great Yarmouth, [illegible] in Walthamstow and in Barton-on-Trent, and [illegible] in Cheltenham, [illegible] in Bootle, [illegible] in Rhondda, [illegible] in West Hartlepool, [illegible] in Grimsby, [illegible] in Walsall, [illegible] in Preston, [illegible] in Swansea, [illegible] in Merthyr Tydfil.

The [illegible] per cent. of the deaths registered in the [illegible] were not certified, either by a registered medical [illegible] coroner. The causes of all the deaths [illegible] in Croydon, Hornsey, Tottenham, Hastings, Brighton, [illegible] Southampton, Great Yarmouth, Bootle, Birkenhead, and Merthyr Tydfil were certified in the [illegible] proportions of upwards [illegible] deaths in Northampton, Smethwick, St Helens, Warrington, Barrow-in-Furness, Oldham, Gateshead, South Shields, Sunderland and [illegible]

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD

[illegible] Medicine

The [illegible] Board of Medicine will consider [illegible] and [illegible] with the Title [illegible] University [illegible] by the proper [illegible] to the Secretary to the [illegible] at 10 on [illegible] at which [illegible] be held [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Convocation on Thursday, [illegible]

[illegible]

[illegible]

[illegible]

[illegible] M.D., F.A. [illegible] Clare, M.D. [illegible] M.D. [illegible] Clare, E. D. Smedley, Pembroke, S. L. O. Young, Christ Church, E. A. Wright, Oriel, Rev. F. E. Carroll, B.M. [illegible], S. L. O. Young, and E. A. Wright.

UNIVERSITY OF LONDON

MEETING OF CONVOCATION

A special meeting of Convocation is appointed to be held at the University on May 7th, at 4 P.M. The Chairman of Convocation, the Deputy Chairman, and the Clerk of Convocation will be appointed. For the three appointments the following graduates have been respectively nominated, namely: Sir E. H. Busk, Dr. T. L. Myers, and Mr. H. E. Allen, LL.B., B.A. The members of the Standing Committee of Convocation will be elected: three of the Faculty of Medicine who have been nominated are H. Burrows, M.B., B.S., Sir Lauder Brunton, M.D., B.Sc., and W. H. Wilcox, M.D., B.Sc. The report of the Standing Committee will be presented. This relates almost entirely to the regulations for the use of the library of the university, which are recommended by the Committee for adoption by Convocation. A resolution will be also submitted relating to the date of the L.R.C.P. examination.

UNIVERSITY COLLEGE

Neurological Lectures.—A course of advanced lectures on the Tracts of the Brain are being given by Dr. W. Page May, F.R.C.P., Lecturer in the College, on Wednesdays, at 3 P.M., in the Physiological Theatre. The first lecture was delivered on Wednesday, May 4th. The course will be comprised in ten lectures, and is open with fee to all Internal students of the University.

GUY'S HOSPITAL MEDICAL SCHOOL

A course of twelve lectures by the Gordon Lecturer, A. E. Boycott, M.A., M.B., B.Sc., on Experimental Pathology, was commenced in the Pathological Theatre on May 4th and will be continued on subsequent Tuesdays at 4 P.M. These lectures are open to students of the medical schools of the University and to members of the medical profession.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

AN ordinary quarterly comitia was held at the College on Thursday, April 28th, the President, Sir William S. Church, in the chair.

RETURN ON BERI-BERI

The President announced that a letter had been received from the Board of Trade asking permission for the report of the College on the subject of beri-beri to be printed and circulated amongst the responsible mercantile authorities. On the motion of the President, permission was granted.

DIPLOMAS AND LICENCES.

The following gentlemen were admitted Members of the College: **James Graham Forbes, M.A., M.D.Cantab.; Donald George Hall, M.A., M.D. Cantab., L.R.C.P., Charles Christopher Heywood, M.A., M.D.Cantab., L.R.C.P., George Mackay MacDonald, B.A., M.B.Cantab., L.R.C.P., David Somerville, B.A., M.D. Roy. Univ. Irel., Edward Tuttor, M.D.Viet., L.R.C.P.**

In connection with the Royal College of Surgeons Licences were granted to 9 gentlemen.

The quarterly report of the Examiners on the Licence was received.

MURCHISON SCHOLARSHIP.

On the report of the Examiners, the Murchison Scholarship was awarded to Mr. W. H. Harwood Yarred, a student of St. Thomas's Hospital.

ELECTION OF FELLOWS.

The following gentlemen were elected Fellows of the College on the nomination of the Council: Edward Johnstone Jenkins, M.D.Oxon., William John Gow, M.D.Lond., Thomas Robert Bradshaw, M.D.Lond., Edmund Henry Colbeck, M.D.Cantab., Arthur Hall, M.B.Cantab., John Francis Harpin Broadbent, M.D.Oxon., Bertram Louis Abrahams, M.B.Lond., Charles Arthur Mercier, M.B.Lond., William Cecil Bosanquet, M.D.Oxon., Arthur Carlyle Latham, M.D.Oxon.

COMMUNICATIONS.

Communications were received from:

1. The Secretary of the College of Surgeons reporting certain proceedings of the Council on April 14th.

2. Lady Clark, offering for the acceptance of the College a marble bust of the late Sir Andrew Clark, Bart., by H. Bain Smith, R.S.A. The gift was accepted, and a cordial vote of thanks passed to Lady Clark.

3. The Lister Institute, inviting the College to allow its President to be nominated, ex officio, a member of the Council. The invitation was accepted.

REPORTS OF COMMITTEES AND MEASURES.

The following reports were received from the Committee of Management:

1. A report, dated March 21st, regarding the desirability of ceasing to issue additional certificates of hospital practice to candidates rejected at the Third or Final Examination of the Conjoint Board. On the recommendation of the Committee it was agreed to insert the following note after Paragraph XVIII. Section II., of the Regulations: "A candidate who possesses a hospital qualification is ineligible to receive examination without producing evidence of attendance on additional hospital practice."

It was further agreed, on the recommendation of this Committee, that the Seamen Lascar Schools, Canterbury, be added to the list of institutions recognised by the Examining Board in England for instruction in elementary physics and practical chemistry.

2. Report, dated April 11th, recommending that the St. Paul's Eye and Ear Hospital, Liverpool, be added to the list of ophthalmic Hospitals recognised by the Examining Board in England. This was agreed to.

3. Report, dated April 11th, on the question of granting diplomas in Public Health. After a lengthy discussion, the recommendations of the Committee were agreed to.

[illegible]

The Committee [illegible] reported:

That during the three months ending December 31st, [illegible] doses of [illegible] were supplied to [illegible] applied for [illegible] the Metropolitan Asylums Board, making a total [illegible]

That during the same [illegible] of vaccine lymph supplied by Messrs. Parke, Davis [illegible] had been tested [illegible] the laboratory and [illegible]

certificate granted showing its strength, sterility, and freedom from excess of antiseptic.

(c) That Dr. Brodie had collected one volume of papers relating to researches carried out in the laboratories during the early period of his tenure of office, and hopes shortly to be in a position to issue a second volume containing the papers published during the later period.

(d) That as it had not been found possible to compile a volume of papers published during Professor Woodhead's term of office as director, the secretary has been requested to print an index of all papers issued from the laboratories, with references, where known, to the publications in which they appeared.

Library.

The books and other publications presented to the Library during the past quarter were received, and thanks returned to the donors.

VICTORIA UNIVERSITY OF MANCHESTER.

The Merging of Owens College.

THE University of Manchester Bill, an unopposed measure, which transfers the property and liabilities, and in fact merges Owens College in the University of Manchester, which has passed through the House of Lords, was before the Chairman of Committees in the House of Commons on April 26th. The necessary proofs were given by the Vice-Chancellor and by the Parliamentary agents. It was stated that certain minor amendments suggested by the Board of Education and by the Attorney-General had been adopted by the Council and Court of the University. The Bill was ordered to be reported for third reading.

The Medical School.

Dr. William Stirling, Professor of Physiology, has been appointed by the Council to the office of Dean of the Medical School.

The Professor Tom Jones Exhibition in Anatomy has been gained by G. T. W. Todd.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Election of Examiners.

AT a meeting of the President, Vice-President, and Council held on Tuesday, May 3rd, the following were elected to examine for the various Courts: In Anatomy, Ambrose Birmingham, Alexander Fraser. In Surgery, F. Conway Dwyer, Andrew Fullerton, Thomas E. Gordon, R. Lane Joynt. In Physiology and Histology, E. H. Ledwich, Charles Coppinger. In Biology, John J. Burgess. In Ophthalmology, Arthur H. Benson, Patrick W. Maxwell. In Pathology and Bacteriology, Arthur Hamilton White. In Pathology, Robert Allen. In Midwifery and Gynæcology, Frederick W. Kidd. In Sanitary Law and Vital Statistics, Caleb J. Powell. In Engineering and Architecture, J. Charles Wilmot. In Dental Surgery and Pathology, Daniel L. Rogers, William G. Story. In Mechanical Dentistry, George M. P. Murray, William Booth Pearsall. In Chemistry and Physics, Edwin Lapper, Robert J. Montgomery. In Languages, L. J. Woodroffe. In Mathematics, Physics, Dictation, and English Essay, J. W. Tristram.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer. Salary at the rate of £40 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer, resident. Salary, £100 per annum.

BEYROUT: LEBANON HOSPITAL FOR THE INSANE.—Medical Superintendent, resident. Salary for first year £250.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium, 52 guineas per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road.—Clinical Assistant.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—House-Surgeon, resident. Salary, £50 per annum.

LEEDS GENERAL INFIRMARY.—House-Physician, resident.

MANITOBA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and Physiology. Salary, £700 to £1000.

MOUNT VERNON HOSPITAL FOR CONSUMPTION, Hampstead.—Surgeon, Laryngologist.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—1) House-Physician. 2, Two House-Surgeons. Salary in each case at the rate of £60 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL. House-Physician; resident. Salary, £80 per annum.

OLDHAM INFIRMARY.—Senior House-Surgeon, resident. Salary, £100 per annum.

PERTH DISTRICT ASYLUM, Murthly.—Assistant Physician, resident. Salary, £110 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon, resident. Salary, £80 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—1) Clinical and Assistant Pathologists. 2, Junior Obstetric Assistant.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Clinical Assistants.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Medicine.

TOTTENHAM HOSPITAL.—House-Surgeon, resident. Salary, £60 per annum.

VALKENBERG ASYLUM, near Capetown.—Assistant Medical Officer, resident. Salary, £250, rising to £400 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Surgeon, resident. Appointment for six months. Honorarium, £25.

YORK COUNTY HOSPITAL.—House-Physician, resident. Salary, £100 per annum.

APPOINTMENTS.

ADAM, J. W., M.B., C.M. Glasg., Medical Officer of Health to the Aberdeen Town Council, *vice* William Findlay, M.D.

ALDRED, Wilfred A., M.R.C.S., L.R.C.P., House-Surgeon at the Kent and Canterbury Hospital.

CLARKE, William, M.B. Toronto, Clinical Assistant to the Chelsea Hospital for Women.

HARDY, F. S., M.R.C.S., L.R.C.P. Lond., District Medical Officer of the Sheffield Union.

HARMAN, Charles A., M.D. St. And., F.R.C.S.I., L.D.S.R.C.S., Assistant Dental Surgeon to the Bristol Royal Infirmary.

HINDS, H. A., M.R.C.S., L.R.C.P. Lond., District Medical Officer of the Bridge Union.

JACKSON, H. W., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H., Surgeon to the North Ormesby Hospital, Middlesbrough.

JAMES, F. C., M.B. Durh., D.P.H., Medical Officer of Health, Hon. Port, District and District Medical Officer and Public Vaccinator for the Lesser Ilford District, *vice* Samuel Kirby, M.D., resigned.

THOMSON, A., M.B., District Medical Officer of the Barnsley Union.

TURNER, P. D., M.D., Medical Officer of Health for the Borough of Ryde.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8 p.m.—General Meeting, Election of Officers and Council, Session 1904–1905, 8.30 p.m., Ordinary meeting. Dr. F. J. Poynton, A Study of a case of Typhoid Fever, with Lantern Demonstration. Mr. W. H. Clutton-Greene, The Operation of Early Operation on the Mortality and Results of Appendicitis.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Chalmers Watson, The Effects of a Peptid Dietary (raw meat) in experimental and clinical study. Dr. Herbert French, Consecutive Cases of Forty-three Cases of Appendicitis. The Limitations of Leucocytosis as an Indication for Laparotomy.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 8.15 p.m.—Demonstration of cases of interest.

South-West London Medical Society, Bolingbroke Hospital, Wandsworth Common, S.W., 8.45 p.m.—Dr. E. Furniss Potter, on Observations on the Removal of Adenoids.

THURSDAY.

Harveian Society of London, Stafford Rooms, Trebovir Street, Edgware Road, W., 8.30 p.m.—Dr. James Taylor, Combined Sclerosis of the Spinal Cord associated with Blood States. Dr. Edward Squire, Common Errors in the Physical Examination of the Chest.

British Gynæcological Society, 20, Hanover Square, W., 8 p.m.—Discussion on Dr. Macnaughton-Jones's paper, The Dangers of Pessaries. Specimens will be shown by the President and others.

FRIDAY.

Epidemiological Society, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.

British Laryngological, Rhinological and Otological Association, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Cases will be shown by Dr. Fred. Spicer, Dr. Kelson, and Mr. Mayo Collier. Continued Discussion on Mr. Mayo Collier's paper, Later or Intermittent Nasal Obstruction, to be opened by Dr. Sam Wallace and Dr. Hemmington Pegler. Communication on Packyderma Laryngis with Lantern Demonstration, by Dr. W. Johnson Horne.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Dr. Stanley Green and Dr. W. H. B. Brook, Cases Illustrating the Value of the Röntgen Rays as a Factor in the Diagnosis of Early Pulmonary Tuberculosis. Dr. F. A. Peters, introduced by Mr. C. J. Symonds, Notes on Two Cases Illustrating Some of the Advantages and Disadvantages of X Ray Treatment in Recurrent Breast Cancer. Dr. H. E. Thompson and Dr. C. U. Ashton, introduced by Dr. Percy Kidd, Two Cases of Tumour of the Left Auricle Simulating Mitral Stenosis.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Cerebellar Disease in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Lectures will be delivered at 5.15 p.m. as follows: Monday, Diseases of the Lymphatic System. Tuesday, the Relationship of Syphilis to Insanity. Wednesday, Personal Hygiene. Thursday, The Principles of Abdominal Diagnosis.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on the Physical Examination of the Chest.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Tabes Dorsalis; Friday, Paraplegia.

North-East London Post-Graduate College, Tottenham Hospital, N., Thursday, 4.30 p.m.—Lecture on Motor Paralysis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Sedatives in Mental Diseases. Tuesday, X Rays, illustrated by lantern slides. Wednesday, Disorders of Menstruation. Thursday, Affections of the Bronchi. Friday, Administration of Anæsthetics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

DENSHAM—SOPER.—On April 26th, 1904, at All Saints' Church, Devonshire Road, S.W., by the Rev. Canon Allen Edwards, Vicar of the Parish, and Rural Dean of Kennington, assisted by the Rev. T. W. Ketenlee, Vicar of St. Mark's, St. Helens, Lancs., Alec Densham, M.B. Lond., of Woodville, Worthing, son of Benjamin Densham, of Bramley Croft, Hindhead, to Alice Marian, daughter of William Soper, M.R.C.S., L.S.A., of 67, Clapham Road, S.W.

KELYNACK—MCLAREN.—On April 27th, at St. Stephen's, East Putney, S.W., by the Rev. Innes B. Wane, M.A., assisted by the Rev. Canon Barker, M.A., and Rev. A. Louise, M.A., T. N. Kelynack, M.D., M.R.C.P., of 150, Harley Street, Cavendish Square, W., eldest son of the Rev. N. Kelynack, to Clara Violet McLaren, M.B., B.S. Edin., only daughter of the late James Grieve McLaren, of Calcutta, and granddaughter of David McLaren, J.P., D.L., of Bydal House, East Putney, S.W.

PHILLIPS—GROMME.—On April 26th, at St. James's Church, Birch, Manchester, by the Rev. A. J. Scott, M.A., Canon of Manchester, assisted by the Rev. F. G. Millar, M.A., Vicar of Billinge, Wigan, and the Rev. G. P. Baller, M.A., Rector of the parish, Hugh Richard Phillips, M.D., of 28, Palace Court, London, E., only son of G. Turner Phillips, J.P., to Helen Minnie Nellie, youngest daughter of Louis Gromme, of Regent House, Victoria Park, Manchester.

SPURRIER—STOCKS.—On April 27th, at All Saints' Church, South Lambeth, by the Rev. Canon Allen Edwards, Rural Dean of Kennington, assisted by the Rev. Beaulieu Shewell, B.A., Steven Spurrier, only son of John Walter Spurrier, Esq., of Greenhithe, Kent, to Gertrude Stocks, eldest surviving daughter of Frederick Stocks, M.R.C.S. Eng., etc., of "Courland," 41, Wandsworth Road, Clapham, S.W.

WILSON—MILLER.—At the Grand Hotel, Glasgow, on April 26th, by the Rev. A. F. Robertson, D.D., Clackmannan, assisted by the Rev. J. D. Wilson, M.A., Perth, uncle of the bridegroom, John Hume Wilson, M.D., 67, Lauriston Square, W., to Christie, daughter of John Miller, Esq., Grassmarket, Edinburgh.

DEATHS.

WHITFIELD.—On April 25th, at Monrovia, California, U.S.A., aged 1, Lionel Stopford, M.R.C.S., L.R.C.P., eldest son of Edwin and Mary Hannah Whitfield, of The Hollies, Coventry Road, Small Heath. (By cable.)

MICKLE.—On April 24th, George Mickle, M.A., M.B., C.M., eldest son of the late Dr. David Mickle, of Kirkbampton, Yorkshire. (Peoples papers.)

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

[illegible] Letters, Notes, etc., should be addressed to the Editor, 7 Azar [illegible] W.C. [illegible] communications relating to advertisements, to [illegible] Subscriptions, and Non-delivery of the Journal, to the Manager at the Office, 429, [illegible]

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be* [illegible]

[illegible] the British Medical Journal [illegible] Editor will be glad to receive [illegible] proof. [illegible] necessarily [illegible]

[illegible] NOTICE TO THE OFFICE OF THE JOURNAL CANNOT UNDERTAKE [illegible] RETURNED.

[illegible] ALL letters [illegible] Office of the JOURNAL and not [illegible]

[illegible] Telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL [illegible] of the MANAGER [illegible] JOURNAL [illegible]

[illegible] GENERAL SECRETARY AND MANAGER, [illegible]

☞ *Queries, answers, and concise notices relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under those respective headings.*

QUERIES.

We would request correspondents who desire to ask questions in this column to [illegible] use of initials, such as 'A Member,' 'A Member, F.R.C.S.,' and so on. By attention to this request [illegible] would be avoided. Correspondents are asked to write [illegible] only.

[illegible] to be [illegible] include [illegible] boy aged 14 in a healthy [illegible] of liberal education and possessing a good [illegible] to be from 2 to 3 a year.

RESTORATION OF NAME TO "MEDICAL REGISTER."

[illegible] would be glad to know if the General Medical Council has a [illegible] upon practitioners desirous of "re[illegible] the provision respecting [illegible] Act, 1886, does not mention any [illegible] Council in respect thereto, and [illegible] to [illegible] restoration fee is illegal.

ANSWERS.

RAISED SPOTS AFTER VACCINATION.

[illegible] to the Editor of the BRITISH MEDICAL JOURNAL for Feb[illegible] [illegible] of [illegible] vaccination scars, presented by [illegible] [illegible] to the House alludes to the frequency of [illegible] [illegible] Articles. I have lately seen one case, a European [illegible] [illegible] every respect to those described by Dr [illegible] except that in her case what was at first a [illegible] [illegible] of [illegible] when the scars rubbed against [illegible] [illegible] were excoriated in places, and men[illegible] [illegible] who was vaccinated at the same time has a [illegible] [illegible] The eruption began on the [illegible] day. Calf lymph

Remarks
ON
THE INFECTIVE NATURE OF RHEUMATIC FEVER,

ILLUSTRATED BY THE STUDY OF A FATAL CASE.

Read before the Medical Society of London, May 9th, 1904.

By F. J. POYNTON, M.D., F.R.C.P.Lond.,
Assistant Physician, University College Hospital and Hospital for Sick Children, Great Ormond Street.

Mr. President and Gentlemen, I have the honour of bringing before you to night the results of an investigation into a fatal case of rheumatic fever in a child; I also wish to occupy some of your time in a consideration of the statement that rheumatic fever is an infective disease.

I. Case and Commentary.

The case is the twenty-fifth fatal one that I have investigated, 24 of which were studied jointly with Dr. A. Paine; it is a rare example of an illness, which it was possible to follow over a period of many months, to investigate carefully after death, and finally to elucidate by experimental research. I have to thank my colleague, Dr. W. S. Colman, as at one time or another I have had to thank all my medical colleagues at the Hospital for Sick Children, Great Ormond Street, for permission to make use of some of the notes of the illness. Let me first say that it is not my intention to weary you with irritating clinical or *post-mortem* details, and the descriptions that I shall give will only bear upon practical points, and upon facts which need due emphasis.

History of Early Attack.

In July, 1902, a delicate little girl, aged 9, was brought to my out-patient department suffering from chorea; the attack was moderate in severity, general in its distribution and ordinary in its type. Unfortunately there was active heart disease; the mitral valve was damaged, and the action of the heart was rapid and excited. It was clear that immediate rest was essential, and she was at once admitted into the hospital.

This was her first attack of rheumatic fever. It had commenced six weeks previously with vomiting and pains in the limbs; a week before admission there had been painful swellings of the wrist-joints, and the last symptom to make its appearance had been the chorea. There was no family history of rheumatism.

In the hospital a more detailed examination of the heart showed that there was considerable dilatation, and that there was also a to-and-fro murmur at the apex: the systolic element of this murmur was loud and blowing, and could be traced into the axilla. Her stay in the hospital was uneventful, and, with a further rest in a convalescent home, occupied fourteen weeks. After this she returned to me, and I found that the chorea was cured, but that the condition of the heart was unsatisfactory, its action was still rapid, and the systolic murmur was distinct. Rest and medical treatment were continued at home, with slow improvement, and the child reported herself to me at least once a month.

By May, 1903, the *bruit* had disappeared, and at the apex only a short first sound and normal second sound were audible. I mention this fact because the disappearance of this mitral murmur could neither have meant that the valve had completely recovered its natural state, nor could it have meant that the *bruit* was the result of dilatation of the left ventricle, and not the result of an endocarditis. The attack, I think, had been too severe and too obstinate for either of these explanations to be probable, and I had little doubt that the disappearance of the *bruit* was to be interpreted as the commencement of mitral stenosis. For this reason I watched her case with particular interest.

History of Fatal Illness.

Unfortunately, in June her mother fell ill, and did not bring the child again until August 17th. She was then so much worse that she was at once admitted into the hospital under Dr. Colman.

The history of this latter illness was as follows. Fourteen days previously she had complained of pain over the heart and in all the limbs; she had looked cyanosed, and had felt cold and shivery, and, as in the former illness, had suffered from attacks of vomiting.

On admission her temperature was 103.8°, her pulse 140, and her respirations 40. There was great cardiac distress, but, although the heart was greatly enlarged, there were no signs of pericarditis. The prominent feature on examination was a singularly loud systolic murmur in the mitral area. Examination of the lungs showed nothing definite. The spleen was enlarged and tender, the liver was enlarged, and the urine was albuminous. The temperature, in the two-hourly chart, showed irregular fluctuations; in the four-hourly, a continuous and moderate pyrexia. While in the hospital, the prominent symptoms were rapid anaemia, sweating, and abdominal pain. Ten days after admission she died suddenly.

This illness appeared to me to be an example of that form of endocarditis of rheumatic origin which is comparatively rare in childhood, and which may be called the malignant rheumatic form. For looking upon rheumatic fever as an infective disease, I recognize three types of endocarditis.

The first, simple endocarditis. In this the micro-organisms in the valve either cease to be active, or are destroyed by the living cells of the tissues.

The second, the fibroid type, as in mitral stenosis. In this the infection is persistent, but the resistance of the tissues is great. This type was greatly elucidated by a distinguished former President of this Society, Dr. Sansom.

The third, the malignant type. In this the micro-organisms grow in countless numbers in the valve; the vegetations may be either large or small, and the resistance of the tissues is feeble.

In this case the diagnosis of malignant endocarditis was based upon the presence of infarction with severe endocarditis, of irregular fever and rapid anaemia, and upon the absence of any true evidence of pericarditis.

Post-mortem Investigation.

I was fortunate enough to obtain permission to make an examination immediately after death, and I had the necessary apparatus at hand, and the assistance of Dr. Neave, the clinical pathologist, and Mr. Langmead, the house-physician. A bacteriologist will understand the real value of such an opportunity, which is only too rare.

The method of investigation will need only a very brief description:

1. The pericardium was exposed, dried, and seared, and two Pasteur pipettes were passed—one into the pericardial cavity, the other into the left ventricle. The pericardial exudation was clear. This and the blood from the heart were added to culture media of alkaline broth and milk.

2. The pericardium was opened. Then a thread was passed through the muscle at the apex, and the heart was pulled out and its posterior aspect exposed. This surface was dried and seared, and the left auricle and ventricle opened by one sweep of a heated knife. Assistants then held the walls open with sterilized forceps, and the mitral valve was exposed, covered with blot clot. The valve and clot were cut out and placed in the media, and another piece of the valve was put at once in fixative.

3. Cultures were taken from (*a*) the lungs, (*b*) the kidneys, (*c*) the spleen, (*d*) the gall bladder.

4. Films were made from these organs and the exudations.

Permission for examination of the brain was refused. The necropsy made it clear that there was no pericarditis, and showed that the mitral valve was the only one certainly diseased; this valve was much thickened, and upon the small piece which was placed in the fixative there were tiny vegetations. The heart itself was generally enlarged. The lungs showed patches of pneumonia and congestion. The spleen was much enlarged and contained white infarcts. The kidneys were very pale, and the transition from the cortex to the medulla was difficult to trace. The liver was large and fatty. There was no suppuration.

So far, then, as the gross lesions were concerned the diagnosis of malignant rheumatic endocarditis was upheld, and it was with much interest that I cut the fragment of the mitral valve, for small though the vegetations upon it were, the true interpretation of the case rested upon the demonstration in these sections of numerous diplococci. A section is under the microscope, and later will be thrown upon the screen. The enormous number of diplococci in the vegetation is very remarkable, and this specimen is a perfect example of a valve in the condition of malignant rheumatic endocarditis.

Bacteriological Investigation.

The bacteriological results from the cultures were as follows:

1. Pure cultures of the diplococcus were found in the tubes inoculated from the valve, the spleen, and the kidney.

2. The culture from the lung was not pure, but the diplococcus was present among other micro-organisms.

3. The tubes containing the pericardial fluid and the blood gave negative results.

The negative results obtained from the pericardial fluid emphasize a point to which, with Dr. Paine, I have already directed attention. It is that these micro-organisms, when they grow in the body, grow best in the local lesions, and although they are often present in the blood they do not thrive in it. Moreover, they are not easily found in recent exudations, for they lie in the synovial tissues, and not in the synovial fluid of the joint; in the pericardium itself, and not in the pericardial exudations. To reach these fluids they must destroy the phagocytic endothelia that line the synovial membrane and pericardium, and the reason why the micro-organisms are deposited in the tissues and not at first in the exudation is clearly because they are carried in the blood stream, and where they escape will find themselves in the connective tissues around the blood capillaries.

It is not, then, to be expected that in a slight attack of rheumatic fever, either examination of the blood or of the synovial exudation will often result in success. This is not strange, indeed it would be much stranger if one had only to take a minute quantity of blood from a finger or vein, in order to show the infective agent, or if the micro-organisms dropped into a synovial exudation like pepper from a pepper-pot. If that were the case rheumatic fever would indeed be a terrible malady.

Experimental Investigations.

One of the cultures was immediately sent to Dr. V. Shaw, who carried out experimental investigations upon rabbits and monkeys. The lesions of rheumatic fever resulted in both animals, and thus Dr. Shaw has shown that the monkey is susceptible to the infection. His paper, a valuable addition to the subject of rheumatism, was published in the *Journal of Bacteriology and Pathology*, December, 1903.

The inoculated rabbits died of arthritis, endocarditis, and pericarditis. One monkey died from arthritis, pericarditis, and endocarditis; another, after an attack of severe arthritis and the development of a mitral systolic murmur, recovered and was alive four months later. Dr. Shaw has kindly lent me the specimen of the heart of the monkey that died from rheumatic fever. It shows, you will see, well marked acute endocarditis, and also early mitral endocarditis.

I see that the hearts of two rabbits which were also inoculated. And as a contrast let me also show the heart of a monkey which died from a mixed infection of the rheumatic diplococcus and the staphylococcus aureus. The pyæmic abscesses, due to the staphylococcus, are distinctly seen in the cardiac wall, and form a striking contrast to the specimen of the pure rheumatic infection. The diplococcus was again isolated in pure culture from the tissues of the animals.

This experimental investigation by Dr. V. Shaw was an entirely independent one, which in my opinion adds very greatly to its weight.

This question is a striking confirmation of the infective nature of rheumatic fever. When I hear the great "if" with which this view is often prefaced, I sometimes feel inclined to say, "What more proof do you want?" The infective agent is present in all cases in which there is a reasonable degree of finding it, it is present in the local lesions; it produces similar lesions in animals, and is present in those lesions also. Scientific clinical physicians have for years thought that the diseases of the pyæmic or metastatic type; they have long referred to that group micro-organisms. Suppuration is rare in rheumatic fever. It is also rare in [illegible] rheumatic fever. [illegible] old friend "Acidity in the blood" [illegible] scientific refinement, for the micro-organism and the culture as witness, has [illegible] [illegible] though I do not suppose [illegible] in the blood.

II. Pathological Arguments in the Infective View of Rheumatic Fever.

In the first place, this view brings into prominence the [illegible] that must be attacked in the early stages of the disease. In those days when we dealt with tuberculosis, we knew that it was to detect the disease in the earliest stage, and when the tissues are attacked the infective agent is fortunately deposited at a point from which it is often coughed up and discovered in the sputum. This advantage we do not possess when dealing with rheumatic fever, but the principle of an early diagnosis equally holds good and when the medical profession seriously accepts the infective view it will be found to search for every shred of clinical evidence that can lead to the detection of rheumatic fever before it has produced gross lesions. Clinicians there are who have already done so. The gradual failure of health, the wasting, the vague epigastric and other pains, the nervousness, the night terrors, the anæmia, all these equivocal warnings, and others also, will require the closest investigation in the children of rheumatic stock. Among the hitherto unexplained pyrexial attacks of childhood rheumatic fever must be reckoned as a cause. In course of time the public will learn from the medical profession the value of this early diagnosis, and fewer cases will be brought to us already irretrievably damaged, and thus our opportunities for treatment will be improved.

Secondly, there are certain facts—none of them, I admit, new facts—which were formerly uncertain, but which now rest upon a sure basis, namely:

1. The existence of a true rheumatic broncho-pneumonia and a rheumatic pleurisy.

2. The existence of a true renal rheumatism.

3. The existence of a true rheumatic peritonitis.

Clinical, pathological, bacteriological, and experimental evidence can now be obtained in support of these statements, and although some of these manifestations may be rare, the proof of their occurrence must be of value.

The relation of tonsillitis to rheumatic fever has been recognized for more than a century, and at the present time the learned President of our Society has been among the foremost in insisting upon the importance of that relation. Now its true meaning is clear, for it is certain that one channel of infection is through the damaged tonsils in which the micro-organism is deposited. Almost as complete is the proof of the existence of a true rheumatic iritis and chorea.

Thirdly, it is now possible to produce with great constancy experimental heart disease. This I believe to be a step forward in the study of heart disease, and to be an event in the history of heart affections. Even if the accumulated evidence from all parts of the world upon the infective nature of rheumatic fever were swept away to-morrow, there would still survive after its destruction this fact which cannot be ignored. Already our practical knowledge has profited, for it has shown:

1. That simple and malignant endocarditis can be stages in the same process, and has demonstrated that they are not always essentially different, and that the malignant form does not always premise a secondary infection. It follows from this that if rheumatic endocarditis is infective it can be both simple and malignant in type.

2. It has shown that *ante-mortem* thrombosis may occur in the heart in rheumatic fever without any severe valvular damage. Although this was recognized, it could only be certainly proved by experiment.

3. Accurate knowledge can now be obtained upon the rapidity of the formation of vegetations and upon their actual structure, points which in the future must make our knowledge of the active heart diseases a more accurate one.

4. It throws light upon the formation of infarcts in rheumatic fever, which experiment shows may form without the presence of any visible valvular disease or clotting of blood in the chambers of the heart. The bearing of this fact on the pathology of chorea is manifest.

5. The myocardial changes in rheumatism which were suspected by the clinician and elucidated by the pathologist are absolutely proved by experiment, for they can be produced by this micro-organism.

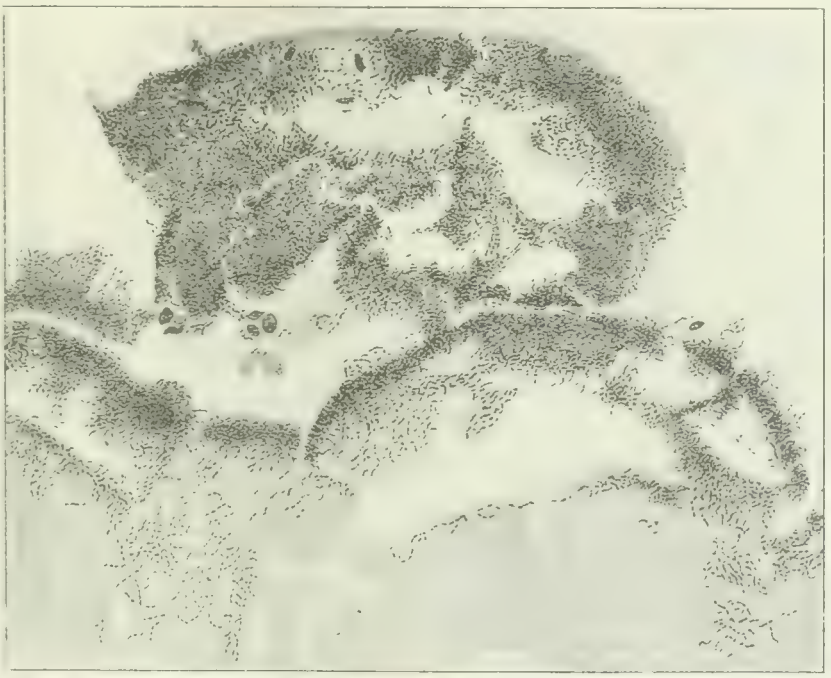
The ability to isolate an infective agent from rheumatic fever brings us one step nearer the proper understanding of the [illegible] problems of the disease. Triboulet, Walker and Reid, Shaw and Berger have already attacked this side of the question and have shown that the micro-organism can in different media produce such various acids as lactic, acetic, and formic. Walker and Lythgoe have demonstrated formic acid in the urine of the rheumatic patient, and have obtained the same acid from the bodies of the bacteria themselves a very interesting point. The fact that different acids are formed in different culture media should, I think, be a warning against any over hasty assumption that rheumatic fever is due to one special poison, to which salicylate of sodium is an antidote.

But not only does this view establish facts, it also throws out suggestions which have also a practical value. Is it not probable, for example, that the bacterium may sometimes

remain latent in the tissues, stunned as it were, but not really killed. Some years ago, with Dr. Paine, I showed that it might be found in the urine of the rabbit, ten weeks after inoculation, and the bearing that this has upon chronic rheumatic arthritis and any other form of chronic and relapsing rheumatic lesion needs no labouring. How suggestive, again, was the occurrence of a relapsing iritis in a rabbit as the result of intravenous inoculations with this bacterium, which was recorded by Dr. V. Shaw in the paper to which I have already alluded. May not this throw light upon that intractable relapsing iritis, which is met with now and again in those who come of a stock in which there is a history of rheumatic fever, rheumatoid arthritis, or gout?

Again, the demonstration of the infective nature of rheumatic fever is a powerful stimulus to a study of the action of bacterial poisons in the pathogeny of gout. It will help to rescue us—as have the writings of Woods Hutchinson and Chalmers Watson—from the slough of despond into which many have fallen, because searching in a swamp of facts for the explanation of gout they have rested all their weight upon some crystals of biurate of sodium.

Between rheumatism and gout there are great differences, but the acute outbreak, the attacks, are in some respects wonderfully similar. There are French writers—for example, Guyot who hold that gout is a result of the rheumatic infection acting in a special constitution, the gouty. This, as all other views upon gout, lacks proof, but my sympathies are with these French authors thus far, that they put forward a view capable of proof or disproof, and write upon the subject of gout with a freshness of thought which is exhilarating. I hold that the demonstration of the infective origin of rheumatic fever throws open a wide field for thought and suggestion upon the subject of gout. And I would again direct attention to the production of arthritis by certain sera—as, for example, by Marmorek's antirheumatic serum and by the the antitetanus serum, as recently reported by Mr. Annan in a case under the care of Dr. Rose Bradford. If any substances free from bacteria are likely to produce the arthritis of gout I hold that, on the evidence at present forthcoming, such substances are more probably of the complex nature of sera than of the simple nature of sodium biurate.



section through a vegetation on the mitral valve, showing numerous micrococci and bacilli in the tissue. (Zeiss objective, 1/12.)

Another application of the infective view is the one I hope to show more clearly by the aid of a short lantern demonstration. It is based upon the demonstration of the identity in structure of the cardinal lesions of rheumatic fever. This identity has been long surmised, and now it rests upon good evidence. Endocarditis, pericarditis, arthritis, pleurisy, and nodule formation are lesions of the same type, when due allowance is made for their anatomical surroundings. It is then I think reasonable to suppose that the cardinal deviations from this type will also be comparable. Thus, the chronic smouldering mitral stenosis becomes comparable to chronic indurative pericarditis and chronic periarticular arthritis. Malignant endocarditis is comparable to malignant subacute pericarditis, and to some forms of rheumatoid arthritis. That is to say, our ideas of the life-history of rheumatic fever will be cautiously enlarged, and the shattered fabric of rheumatism can be slowly rebuilt upon foundations which can be tested by accurate methods. The bearing of this upon rheumatoid arthritis is especially close, and may eventually lead to an agreement upon what is really to be understood by that condition.

The question of treatment appeals most forcibly to our profession and to the public. The truth of this I cannot put more tersely than did a doctor who looked at a section of a valve containing the bacterium, and remarked, "What is the good of it? it doesn't help us to treat muscular rheumatism!"

I think that this view *does* help us in treatment, and that our treatment *is* improved. I say nothing to-night of serum-therapy, because that method is in a very critical period of its development. With its discovery we hailed the advent of rational methods, but hasty conclusions and scanty knowledge of its difficulties and imperfections are fast making its use as empirical as that of any crude drug. But our treatment is advanced in two directions; first in its application to the individual; and secondly in its application to the community.

We can now see more clearly the two phases in rheumatic fever—the active, when the infection has the upper hand, and the reactionary, when the infection is being vanquished and the healing processes have commenced. Thus we see more clearly when to bring into action the assistance of hydropathic treatment, radiant heat, electricity, massage, climatic influence, and all those many aids to recovery. Such methods are no fetishes, and it is well to be able to see their functions more plainly. We see more clearly, too, when to use tonics and liberal diet, and what we can promise a patient in the way of cure. These are not little things: it is good for us and our patients that some of the mysteries surrounding the treatment of rheumatism should be cleared away.

Then, again, when surgical measures are considered, the indications are more certain. I hope I am among the last to approve of hasty appeals to surgery in rheumatic arthritis, or to think that the opening of a large joint is a light measure. But when occasion arises the procedure is surely a rational and proper one when we know that there is an infective agent to be dealt with. It is equally clear that, in early rheumatic arthritis, in order to rid the joint of this infective agent by surgical methods it would be necessary to remove the synovial membrane, and that, I feel, is a sufficient answer to any who would counsel such a measure. Surgery in these matters has a very definite limitation, and, as Mr. Howard Marsh stated in his recent Bradshaw Lecture, in many cases only partial success can be expected. Its position, nevertheless, is much strengthened when it is remembered that there are cases of arthritis and non-suppurative ones—in which literally thousands of micrococci have escaped the barrier of the endothelium and have made their way into the synovial fluid.

It is, however, in its application to the treatment of the community that I think the greatest hope lies.

Rheumatic fever in this country, and especially in London, must be looked upon as one of the most common and most damaging of all diseases. So far as the poorer classes are concerned it is as much to be dreaded as cancer, for it attacks the young, and though tuberculosis is more rapidly fatal to life, I doubt whether even it is a lesser evil. If rheumatic heart disease was not so often looked upon as heart disease, but rather as a mutilation from rheumatism, as phthisis is

looked upon as a mutation from tuberculosis, the true magnitude of the evil would, I think, strike home more forcibly. We should hear far more of efforts at prevention than of a host of discussions upon cardiac *sounds*, and of hopeless attempts at treating scar tissue. It is with this aim in view that I have again brought forward a study of the infective nature of the disease, so clearly foreshadowed in this country by Dr. A. Mantle nearly twenty years ago, yet then so little regarded. The logical step from a practical interpretation of these facts is the prevention of rheumatic fever. It matters not whether, as some hold, there is a specific microorganism or as others, that there are several different infective agents, the essential fact remains unaltered. Rheumatic fever is infective: much heart disease results from infection—the first step in treatment must be preventive.

The time, I believe, has come to study once again by the light of this view the predisposing causes of rheumatic fever. To trace once more the influence of climate of cold and damp, and of sudden changes in temperature. To inquire into the incidence of the disease on those who live in new and jerry-built houses, into the effects of overcrowding and malsanitation. To study epidemic outbreaks and cases of apparent contagion. To investigate the part taken by school life among the poor, with its outbreaks of sore throats and its strain upon the system of the ill fed and ill clothed. Surely there is hope from such investigations that the prevention of some of the rheumatic fever which causes such pitiable suffering among the children of the poor will be thus obtained.

ABDOMINAL PAIN IN ACUTE RHEUMATISM.

BY S. VERE PEARSON, M.B.CANTAB., M.R.C.P.LOND.,

Medical Registrar St. George's Hospital; Assistant Physician East London Hospital for Children, Shadwell.

Amongst the minor symptoms of acute rheumatism of frequent occurrence in childhood Still pointed out some years ago that pains in the epigastrium and about the bases of the axillae were of the first importance. Poynton,[2] too, refers to the frequency of "visceral abdominal pains" in the rheumatism of childhood, and gives it as his impression that they "are generally paroxysmal, and usually referred above the umbilicus to the epigastric region." Donkin, in his *Diseases of Children* (1895, p. 212), states that "the painful onset of rheumatic attacks is sometimes accompanied by rigors, occasionally by vomiting, and not very rarely, especially when there is cardiac involvement, by marked precordial or epigastric pain." Much might be said about each of these sentences, but it is to the pain in the upper abdomen that I wish to draw attention now, for having seen a good deal of rheumatism recently, especially in children, I have been much struck not only by the frequency of this symptom, but also by some other points not previously noted, so far as I know, which are present in a certain number of cases.

The manifestations of acute rheumatism in childhood are so numerous and so many that any one is so insidious and ambiguous, that it is rather surprising how little some of the rather symptoms of frequent occurrence have been studied and recorded. The epigastric pain is not peculiar among these [illegible] symptoms in copying a more thorough examination than has hitherto been granted them, but in [illegible] the my attention to this symptom arose. I found the frequency of these pains at the outset [illegible] interfered with the detailed examination of the [illegible] pain, and the common occurrence of [illegible] to a callousness on the part of clinical observers to any symptom [illegible] to the most striking symptoms [illegible] in the acute abdominal affections of children a point [illegible] symptoms [illegible] and treatment. [illegible] symptoms and [illegible] typical [illegible] investigation.

The Characteristics of the Pain.

The abdominal pain is usually always situated about the upper part of the abdomen. The frequency with which children are liable to [illegible] of intra-abdominal pain [illegible] cumstances [illegible] thinking that this pain [illegible] to that spot, for though occasionally it is said to run across the middle line a little above this landmark it is rare for the child to point there only. It usually seems to start from a point a little below the costal margin, close to the mid-clavicular line on either side, and to run from there either towards the umbilicus or straight across the epigastrium. At first I thought it was rather commoner on the left side than on the right, but recently I have seen a number of cases where it has been confined to the right side, and until I have collected a rather larger number of cases I am not prepared to say upon which side it is commoner for it to begin. It often occurs on both sides, and then may be either equally common on both sides, or more frequent on one than the other. Occasionally it is more purely epigastric, and about the middle line.

It is not a superficial pain, but is invariably said to be "inside," yet it does not go through to the back nor travel round the trunk. It is always described as being of a sharp nature, and in many cases that I could relate has been a persistently recurring symptom giving rise to considerable suffering. It is more acute than most of the ordinary stomachaches, but by those children who have experienced both this pain and a stitch in the side it is described as being less severe as a rule than the stitch. It is "quite different" from the pain that may be produced as the result of the administration of aperient drugs, but most children are unable to put into words the features upon which this difference depends. It is of short duration but recurs. Each paroxysm lasts from a minute to four or five minutes, though occasionally its duration is somewhat more prolonged than this. "Running," "crossing the street," and "going to bed" are the three commonest exciting causes of paroxysms. It appears to be brought on, in other words, most frequently by muscular exertion, by excitement, and by other factors the exact nature of which are somewhat obscure.

The pain is not associated with nausea or vomiting, nor with any of the ordinary symptoms of gastric derangement, except accidentally. It is not the result of any irregularity or indiscretion in the diet, nor does it appear to be in any way causally connected with either constipation or diarrhoea. There is no abdominal distension accompanying it, and as far as I can make out it is not associated with any gurglings or ordinary colics of the gut. Loss of appetite is not necessarily, nor usually, an accompaniment of it. The pain comes on independently of food, and the nature of the diet the child is taking does not generally influence its occurrence. It does not as a rule double the patient up, but should it come on during exercise it will most likely cause the patient to keep quite still, and often to sit down also. It does not appear to be associated with soreness of the abdominal walls nor with much tenderness, either superficial or deep. The attacks vary very much as to the frequency of their occurrence. I am inclined to think that a typical case would be one in which six or seven paroxysms occur daily for a few days, then three or four days come with fewer attacks, or perhaps none, followed by another period of increasing frequency culminating at about the end of a total of ten days in an illness that manifests itself as acute rheumatism by the occurrence of some of the well-recognized phenomena of that malady. But it is perhaps futile to talk of a typical case when the variability of the frequency of occurrence of these attacks is so marked and when the number of cases illustrating the feature is not yet very large.

This symptom is, I think, commoner in girls than in boys. The cases conforming most accurately to the above description have been mostly well-nourished girls of eight to [illegible]. When more accurate than this the patients are generally incapable of describing their symptoms with precision, and amongst patients older than this the symptom is not so common. It does occur more or less typically, however, in older children and probably occasionally in young adults. The phenomena of the rheumatism that are likely to be associated with this symptom [illegible] follow no rule. As far as I can make out any of the better recognized manifestations of acute rheumatism may occur in association with these paroxysms of abdominal pain, and [illegible] are not more likely to be associated with [illegible] manifestations than with [illegible] the other phenomena except [illegible] as is explained by the great frequency of [illegible] at this age. The pain does not appear to have any [illegible] connection with the severity of the rheumatic [illegible] as it affects the heart or as it affects other structures. The peculiar paroxysms [illegible] appear to be rare in [illegible] of rheumatic arthritis.

Etiology.

The question as to the cause of this pain about the upper abdomen is of great interest. Still says, "the 'pains in the stomach' may sometimes be in the abdominal muscles, but I suspect that it is usually gastric in origin, and is due to a catarrhal condition in some way dependent on the rheumatism." Any explanation of its causation must at present rest upon mere speculation, and I do not propose to enter now into the discussion of the various theories that could be propounded. But from what I have already said it is clear that I do not agree with the suggestion that these peculiar paroxysms of pain are dependent upon gastric catarrh.

Treatment.

The treatment of this symptom is the treatment of acute rheumatism often in children, especially when symptoms of but slight severity are present, a matter of considerable difficulty. Ordinary remedies directed to cure other kinds of recurring abdominal pains and to alleviate stomach-aches of more usual occurrence appear to have no influence upon the symptom, whereas if other indications of rheumatism arise and are such as to necessitate thorough treatment of the malady in bed, the pains will almost immediately disappear. This therapeutic test may be of diagnostic value. Like so many of the symptoms of acute rheumatism in childhood sodium salicylate, when given in moderate-sized or small doses to a patient who is allowed to go about and live on a more or less ordinary diet, will not infrequently alleviate this symptom and help to ward off its recurrence. But as a rule when the symptom is at all prominent, or when the urgency of other rheumatic manifestations demand, its cure is only affected by putting the patient to bed and insisting on full antirheumatic treatment. I may add that I have found aspirin very useful in one or two cases for which I have tried it.

Diagnosis.

This is not the only kind of abdominal pain that may be associated with the outburst of acute rheumatism. And even should pain having these peculiarities be present, it is hardly to be expected, considering the age of the patients and the variety and variability of the circumstances under which they are likely to be situated, that it is always possible to get a full and exact account of them. I have already indicated that other pains about the belly arise not infrequently in connexion with this malady. Sometimes they are the result of treatment, for large doses of alkalies and sodium salicylates are administered as well as active aperient drugs. But I am quite sure that the symptom I have described is not the result of treatment. Moreover, stomach-aches of an ordinary nature, usually dependent upon some gastric derangement arising from one cause or another, are occasionally prominent symptoms of the onset, or more rarely during the course, of an attack of rheumatism. Then there is rheumatic appendicitis, and a rare condition thought to be due to rheumatic affection of the fibro-muscular abdominal parietes which arises suddenly and is associated with "acute abdominal pain and tenderness so severe as to simulate peritonitis" (Dawson Williams).[4] But the point I wish to emphasize is that these pains that I have described are of fairly frequent occurrence and are more or less characteristic of acute rheumatism, for they have peculiarities that distinguish them from many of the other pains occurring about children's bellies. They are not absolutely pathognomonic of acute rheumatism, but when a definite account of them can be obtained and most of their typical features are present, they should arouse strong suspicions of the disease, and often their presence leads to a more careful search for indications of rheumatism than might otherwise be undertaken, and is a helpful feature in clearing up the nature of an otherwise doubtful case.

Much patience is required in investigating such symptoms in a child; one has to make friends with the patient first of all. Leading questions cannot be avoided altogether, but by careful and judicious questioning details as to special symptoms can be obtained. It is all too easy to get an account of a symptom out of children that conforms to the preconceived ideas concerning that symptom, the patient acquiescing too readily in any suggestions offered to him. I have tried to avoid such a source of error, and one reason why I have not delayed publishing these remarks for a longer time, during which I might have gathered more material, is that I might incite others to investigate this symptom and thereby remove the personal element from the investigation. If the peculiar abdominal pains I have described are not met with by other observers, I shall at all events have drawn further attention to the frequency of pain in the upper abdomen as a symptom of acute rheumatism in children, a frequency not yet, I think, sufficiently well recognized. But that there is some foundation for my description and that I have not drawn an altogether fanciful account of this feature can be seen by referring to the few cases I detail below. They are the most typical that I have seen during the past two months, and I have chosen them out of many that I have collected because they are fresh in my memory, and well illustrate many of the points emphasized above. For permission to make use of four of the following cases I am much indebted to the physicians of St. George's Hospital.

Case I.

G. A. was a well-nourished girl of —, who was seen by Mr. Fairley Clarke on January 7th on account of stomach-ache. He administered a purgative and gave her an ordinary mixture and instructions as to diet, but did not relieve the symptoms. A week later on examining her very thoroughly he discovered two small subcutaneous nodules close to the spinous processes of the upper lumbar vertebrae on the left side of the back. Not being sure as to whether these were rheumatic nodules or not, and being somewhat puzzled about the nature and treatment of the abdominal pain he referred the case to me. I saw the case on January 13th. I made the following notes at the time of my examination:

Family History.—Mother had acute rheumatism six years ago; in bed three weeks. Father well. One sister, aged 5, well. No other children.

Personal History.—Enjoyed good health up to about a fortnight ago, except for measles and whooping-cough in the past. About a fortnight ago started wasting, and having pains in her inside coming on suddenly when she walked quickly or when she stooped. Usually on starting to walk. They last a few minutes at a time, but were frequently repeated. No particular time of day. Not associated with any indiscretion in diet, and bowels always regular, no nausea or vomiting. Appetite poor for a fortnight. Three days ago had transient pain and slight swelling in the knees and lower parts of thighs.

Present State.—Looks rather pale. Tongue: Moist, yellowish fur, not thick. Rheumatic nodules on the back, none elsewhere. Joints: Nothing abnormal. Heart: No dilatation, no murmurs, first sound rather soft.

Course.—The child was put to bed and treated in the ordinary way for acute rheumatism. Well marked crops of nodules made their appearance, some arising about the spines of the scapulae and about the posterior parietal regions of the scalp, as well as in the commoner situations for them. There was no fever. The abdominal pains did not recur. Recovery was eventually satisfactory.

Case II.

C. A. was a girl, aged 10, who was admitted into St. George's Hospital on February 22nd under Dr. Ewart complaining of pains in the stomach, joints, throat, and head. Her temperature was 101°, pulse 112; slight dilatation of the heart; coated tongue. Abdomen: Slight tenderness and resistance to deep pressure over the upper part of the abdomen, especially about the middle of both hypogastric regions. No superficial tenderness, no distension, and movement good. Joints: Slight pain on movement of both elbows and knees. About the middle of both anticubital fossae there is a little fullness, pinkness, and tenderness. Tonsils appeared fairly normal, perhaps a little hyperaemic. Her history was as follows:

Family History.—Negative.

Past Personal History.—No previous rheumatism. Except for measles when 3 years old quite healthy.

History of Present Illness.—On February 18th she went to school complaining of pains about the abdomen; at midday was sent home on account of these becoming worse, and because slight headache and pain in the elbows were also complained of. Headache, pain on movement of the elbows, and "pains in the stomach" continued up to the time of admission into the hospital. On February 22nd pain in both knees and some soreness of the throat was added to the other symptoms. February 21st was the only day she was kept in bed.

She was a particularly bright and intelligent child, and though only 10, could define all her symptoms very clearly. I made the following notes about her abdominal pain on February 24th. "They are sharp pains of a severe nature situated about the upper abdomen on each side, lasting only a few minutes, but recurring several times during the day. These pains are brought out especially on walking fast, or when she goes to bed at night. They were the first symptoms present; they have been the worst symptom, the most distressing trouble throughout. They are not made worse on coughing or breathing deeply. They are situated in the right upper and left upper abdominal segments, more frequently on the right side than on the left. They have no association with the taking of food; they are not accompanied by any nausea. They 'seem to be inside,' and not superficial in the least. They have not been produced by the taking of any purgative, nor do they accord well with the pains due to intestinal colic. They run from the middle of the hypochondriac region from a point just below the costal margin to a point just below and outside the umbilicus on each side. The pain is often present on both sides at the same time. There appears to have been some soreness to the touch, but this was not a prominent symptom; rubbing the stomach was not thought of." Then follows an exact account of the action of the bowels and the administration...

some [illegible] for eliminating these as causes of pain, and a note. I was told nothing [illegible] the mother's account of the [illegible] the above details.

The [illegible] treated in the ordinary way. All her pains left her soon, and her recovery was satisfactory.

CASE II.

N. H. was [illegible] 12, whom I saw first of all on February 5th as an [illegible] at St. George's Hospital. The symptoms complained of were [illegible] and recurring paroxysms of abdominal pain. There was no family history of rheumatism, but a fortnight before the patient had had sore throat and pain all over. She was a well-nourished well-developed intelligent child. The abdomen was normal. Temperature 100.2°. Heart's impulse diffuse, action rapid, and double [illegible] left side of sternum. There were no [illegible] heard in the hospital that day, so she was given some [illegible] and sent home; but her symptoms were not relieved, and on February 19th a warning was found [illegible] and she was admitted into the hospital under the care of Dr. [illegible]. Her condition then was much the same as on admission, the temperature being [illegible], and the pulse [illegible], low tension, rather irritable and [illegible]. The left heart was [illegible], the area of cardiac dullness extending to just outside the left nipple. At the apex, the sounds were endocardial and rather abrupt in character, and the rhythm tended to alter on movement. There was a [illegible] heard in the third left space, and the pulmonary second sound was a little accentuated.

A few days after her admission I wrote the following note about her abdominal pain: "Nearly two years ago she saw a doctor in the country on account of recurrent sharp pains about the upper abdomen. In other respects her health was good. She was told that it was colic, and prescribing was probably in accordance with this diagnosis. But she was not relieved by the [illegible] since then attacks of the pain have recurred. They have sometimes been associated with growing pains in the legs, but these have not been sufficient to make her limp. The pain in the upper abdomen has occurred in short paroxysms lasting half a few minutes, but recurring frequently throughout the day. They come on especially when she runs or walks fast, and when they [illegible] she has to double herself up somewhat; she does not [illegible] sit or sit down. The pain comes in the right hypochondrium and runs across the epigastrium just above the umbilicus. It is not associated with tenderness or soreness of the abdomen. It has nothing at all to do with the ingestion of food; it is not relieved by vomiting or nausea. She distinguishes it also from a 'stitch in the side' which she has had on one or two occasions running and from [illegible] pain, such as that she has had [illegible] to the [illegible] probably due to the administration of aperients. Though the pains are in exactly the same situation as the last [illegible] described, they are both 'quite different.' She [illegible] to explain in what way they are different. She says that they are worse than the [illegible] pain she has had since admission, but not so bad as a stitch in the side. The pain does not go through to the back. [illegible] of the peculiar attacks of abdominal pain have occurred."

CASE III.

[illegible] was admitted into St. George's Hospital on [illegible] under the care of Dr. Isambard Owen. She was [illegible] and sweatings with sweating and headache [illegible].

[illegible] scarlet fever several years ago. Since the age [illegible] pain in the legs, never [illegible] enough to [illegible].

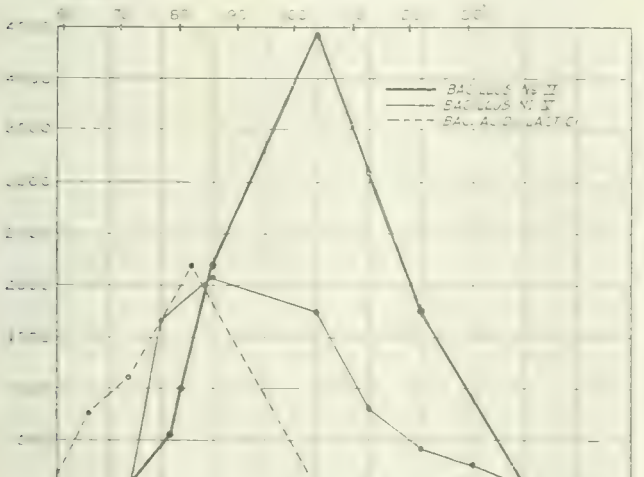
[illegible] pain in the left ankle [illegible] that of a [illegible] nerve; up [illegible] and [illegible] the [illegible] pains occurred about the upper [illegible] with vomiting not with [illegible] given on the [illegible] food. It seemed to [illegible] [illegible] [illegible]

wards), comparatively little growth taking place below 22° C. Their spores are more resistant than those of Group 2, most of them requiring an exposure of at least two hours at 100° C. to effect their destruction. It is to the importance of this third group of "peptonizing" bacilli in the causation of summer diarrhœa in infants that Flügge has called attention. Infantile diarrhœa, as measured by statistics of mortality, only occurs to any marked extent in countries where the mean summer temperature rises above 60° F. In these countries more than three-quarters of the deaths occur during the hottest quarter of the year—June to August. Also every rise of temperature is closely followed by a rise in infantile mortality. The mortality is practically confined to infants fed upon cows' milk, and occurs, according to Flügge, despite the fact that the majority are fed upon cows' milk which has been boiled. Suspicion is thus immediately cast upon the "peptonizing" bacilli, since these grow very rapidly at the temperatures in question and without producing much obvious change in the milk. The anaërobes, Group 2, are less likely to do harm, as they speedily curdle milk and render it obviously unfit for human food.

Flügge isolated twelve distinct species of "peptonizing" bacilli from samples of market milk. These are fully described (distinguished by numbers) in his article.[1] On account of their power to produce albumoses and peptones in milk all of these must come under grave suspicion. But three of them Flügge found to be definitely pathogenic to mice, guinea-pigs, and rabbits, when injected subcutaneously or intraperitoneally. When milk cultures of these bacilli were given by the mouth to young dogs the animals drank the milk readily, and immediately suffered from diarrhœa, which was followed by fatal results when the feeding was continued; recovery taking place when other milk was given. Similar experiments with the acid-forming anaërobes failed, because the dogs refused to drink the milk.

Flügge's investigations led him to the conclusion that most of the so-called "sterilized" milk on the market was quite unreliable and likely to cause harm. The labels attached to the bottles usually stated that the milk was "Sterilized" (*Sterilisirte Milch* or *Keimfreie Dauermilch*). In fact Flügge suggests, and we think the force of his suggestion is very strong, that it should be made compulsory to change the wording of the label to read "Heated Milk, not Sterile" (*Erhitzte Milch, nicht Keimfrei*). "Must be kept at a temperature below 18° C., or used within 12 hours."

The following diagram, taken from Flügge's article, shows the relative rapidity of growth at various temperatures of two of his "peptonizing" bacilli, and the *bacillus acidi lactici*.



Lubbert[2] made a closer investigation of the pathogenic properties of Flügge's bacillus No. 1. He confirmed Flügge's results, and came to the conclusion that the toxin is contained within the body of the bacillus and that only in its vegetative form, the spores being harmless. He found that by boiling the milk culture before use it was no longer pathogenic, either when injected or given by the mouth. This is very important from a practical standpoint. He also made the very interesting observation that while the milk culture caused fatal diarrhœa in young puppies when given by the mouth, it was harmless to older dogs even in large quantities (1½ litre per day for five days).

Weber examined 150 samples of "sterilized" milk from Berlin shops, finding only 54 per cent. sterile. He isolated and described 18 species of "peptonizing" bacilli, and investigated their pathogenic powers. In only three of the bottles did he find pathogenic bacilli corresponding to those described by Flügge. With these he was able to confirm the results of Flügge and Lubbert, with the exception of the feeding experiments. He considers that these bacilli (like all other members of this group) are only harmful in that they are capable of setting up fermentative changes in the milk, and not in virtue of the toxins contained in the bacilli. Whether these bacilli are only harmful when a weakened state of the body permits them to grow in the intestines to an abnormal extent and set up fermentation there (as Escherich and his pupils hold), or whether, when given in large quantities, they can set up intestinal disturbances even in normal circumstances, must at present be left an open question.

If Flügge be right in thinking that the bacilli of Group 2 play the most important part in the causation of summer diarrhœa among infants the reproach against partially sterilized milk is a very serious one. It means that the comparatively harmless bacilli of Group 1 are killed, while the spores of the putrefactive bacilli are left to flourish undisturbed by competition. It is a well-known fact that milk ordinarily turns sour without putrefying. In fact, the lactic acid bacilli may, from this point of view, be regarded as actually beneficial, since they inhibit the growth of the "peptonizing" or putrefactive bacilli.

At the same time, we think it will be agreed by most practising physicians in this country, at least—that many of the intestinal disorders of infancy may be prevented by boiling the milk, an indication that the bacilli of Group 1 are the real culprits. In any case, it behoves municipal authorities who supply milk which is called "sterilized," and which is believed by the public, and perhaps by not a few of the medical profession, to be sterile, to control the quality of that milk by frequent bacteriological examinations. Also to give their customers the necessary directions for its proper keeping.

Bacteriological Examination of the Milk Supplied to Infants by the Leith Corporation from the Infants' Milk Dépôt.

At this dépôt the bottles, fitted with ordinary spring stoppers, are placed, after being filled, in a sterilizer which is supplied with steam under a pressure of between 12 and 15 lb. The registering thermometer passes through the lid of the sterilizer into a conical vessel filled with milk. After this thermometer registers 212° F. the bottles are subjected to that temperature for half an hour.

It may be objected that from what we know of the powers of resistance to heat of the various organisms, nothing is gained by leaving the bottles in the sterilizer so long; that an exposure of from five to ten minutes would serve the same purpose. But preliminary experiments showed distinctly better results with an exposure of twenty minutes than with only five or ten minutes. It has therefore been considered advisable to give half an hour, that being the limit allowable without causing an alteration in the taste and colour (caramelization) of the milk.

All the bottles examined contained between 5 and 6 oz. of a mixture of three parts of milk to one of water, with the addition of some cream, sugar, and salt.

It was desired in the first place to ascertain how many of the bottles were actually sterile. On receiving the bottles from the dépôt they were placed in the incubator at 98° F. for two days. Those bottles which showed coagulation were tested for gas formation and reaction. Loopfuls from the remainder were taken with a sterile platinum needle and spread upon agar plates. The reaction was tested with litmus and the following tests made:

1. *Boiling Test.*—A little of the milk was put in a test tube and boiled. In some cases coagulation of the casein occurred.

2. *Alcohol Test.*—A little of the milk was put in a test tube, and an equal amount of alcohol (68 per cent. by volume) added. In most cases where the milk was not sterile a fine flocculent precipitate resulted. In no case was the reaction obtained with sterile milk. This test, originally used for fresh milk, has been shown by Weber to be equally applicable to "sterilized" milk, and to be much more sensitive than the boiling test. Our results confirm this observation.

It may be said that the agar plates were examined after incubation at 98° F. for twenty-four hours.

The subjoined table shows the results of the experiments:

Bottles Examined after Incubation at 98° F. for Two Days.

Date.	No. of Bottles.	Spontaneous coagulation.	Of remainder.			Not sterile	Sterile
			Boiling test	Alcohol test	Test negative but not sterile		
Nov. 2	8	2	1	2	1	7	1
,, 17	4	2	2	2	1	3	1
Dec. 1	9	9	—	—	—	9	0
,, 6	7	6	0	0	—	6	1
,, 7	9	4	1	3	1	5	4
,, 7	7	7	—	—	—	7	0
,, 13	7	2	0	1	1	4	3
,, 14	7	6	1	1	0	7	0
,, 15	7	5	—	1	1	7	0
,, 19	4	1	—	1	—	2	2
,, 24	7	7	—	—	—	7	0
,, 28	5	3	0	2	0	3	2
Jan. 7	4	3	0	0	1	1	3
Total ...	90	76				76	14
Per cent.	100					84.4	15.6

Thus it will be seen that only 15 per cent. of the bottles were sterile, and it is also to be noted that the percentage of sterile bottles varied largely from day to day. This can only be due to variation in bacterial contamination of the original milk. The majority of the bottles which coagulated showed strongly acid reaction, gas formation, and characteristic smell of butyric acid. The remainder gave a faintly acid reaction and uniform coagulum.

It was next desired to ascertain the number of bacteria present after two days at various temperatures. Various dilutions were made, and for the lower temperatures at least two agar plates were poured, each with 1 c.cm. of a 1 in 10 dilution of the milk. For the bottles exposed at the higher temperatures much greater dilutions were necessary. The plates were incubated at 98° F., and were counted from eighteen to twenty-four hours afterwards. The numbers must be regarded as only of approximate and relative value, since it was frequently impossible to make satisfactory estimations on account of the very rapid growth over the surface of the agar, even when only a small number of colonies were present. No attempt was made to count the anaerobes present.

Two series of bottles were exposed for two days at room temperatures ranging between [illegible] and 70° F.

Date.	No. of Bottles.	Not Sterile.	Sterile in 2 c.cm.	Average number of Bacteria per c.cm. of those not Sterile
[illegible]	[illegible]	1	5	1 [illegible]
[illegible]	7	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	5	2	1 [illegible]
25th ...	7	1	6	1 [illegible]

Two [illegible] were incubated for two days at 80° F., and the [illegible] kept at room temperature [illegible]

Date	No. of Bottles.	Not Sterile.	Sterile in 2 c.cm.	Average number of Bacteria per c.cm. of those not Sterile
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

It was found that [illegible] satisfactory. There were evidently very little [illegible] the organisms concerned at temperatures [illegible] 70° F. Twenty-one per cent. of the bottles were sterile [illegible] remaining 79 per cent. [illegible] Nine of the bottles gave the [illegible] reaction. We conclude from the above results that the milk is safe [illegible] when kept even in two days at temperatures below 70° F.

Of very different interest, however, are the [illegible] examined, which were incubated for two days at 80° F.

Bottles Incubated at 80° F. for Two Days.

Date	No. of Bottles.	Not Sterile.	Sterile in 2 c.cm.	Average number of Bacteria per c.cm. in those not Sterile
January 4th ...	4	4	2	5 [illegible]
,, 5th ...	6	5	1	1 [illegible]
,, 6th ...	3	[illegible]	[illegible]	[illegible]
Totals	13	12	6	
Per cent	100	[illegible]	[illegible]	1 [illegible]

Here, evidently, there has been very active growth, and the proportion of sterile to non-sterile bottles is almost reversed, while the average number of bacteria in those not sterile is no less than 100,000 per c.cm. Three of the bottles gave the alcohol reaction, all gave a faintly acid or amphoteric reaction to litmus. None were altered in appearance or taste.

Bottles Incubated at 90° F. for Two Days.

Date.	No. of Bottles.	Not Sterile.	Sterile	Average number of Bacteria per c.cm.
January 8th ...	6	[illegible]	[illegible]	[illegible]

One of these bottles showed a clear zone below the cream, indicating a separation of the casein. On shaking the bottle this abnormal appearance at once disappeared. The taste was only slightly bitter, and the smell unaltered. All showed faintly-acid reaction. The remaining bottles were unaltered in taste and smell. One of them coagulated on boiling, and two gave the alcohol reaction.

It will be observed that these results correspond closely with the curves shown in Flügge's diagram.

It would be very desirable to conduct similar experiments during the summer months, when milk is, for various reasons, much more liable to contamination with spore-bearing bacilli.

Conclusions.

The first and obvious conclusion arrived at is that the designation "sterilized" milk, as applied to that sold from corporation dépôts, is wrong and misleading, and we would suggest the substitution of the term "Milk Prepared for Infants." In this way there will be no sailing under false colours, nor will undue confidence be placed in the keeping qualities of infants' milk. From Weber's results it is obvious that the remark as to designation also applies to commercial "sterilized" milk.

Secondly, every customer should be carefully instructed as to the necessity for keeping the milk in as cool a condition as possible. This instruction will especially be necessary in summer, when the temperature often exceeds 70° F.

Thirdly, faith in the powers of our steam sterilizers should not be too implicit. Accordingly, in hot weather each day's supply ought to be sold as it is prepared.

Fourthly, as an additional precaution, all bottles, after being taken from the sterilizer, should be placed in warm water gradually cooled. To place the still hot bottles in cold water would lead to their bursting.

From the writings of Flügge, Lubbert, and Weber it is not difficult to understand why imperfectly sterilized milk may be the cause of diarrhœa and intestinal troubles. If imperfectly sterilized milk is allowed to stand in warm rooms it will soon become a source of danger to the consumer, and it behoves us to avoid this possibility by insisting that all "prepared" milk be stored in cool places.

There are those who, after reading what we have written, will come to the conclusion that the establishment by corporations of infant milk dépôts should neither be persevered with nor advocated. If our article leads one astray in that direction we take the early opportunity to say that our faith in providing milk for infant feeding is in no way weakened: but our attention has been forcibly drawn to one or two points the emphasis of which will, we trust, be a help to those [illegible] whose enterprise and foresight have led them to come to the aid of those infants who were being martyred at the shrine of economy.

The Corporation of [illegible] in the [illegible] Milk Supply of Large Towns, one of those who [illegible] at the principle of corporation dépôts to supply bottles charged with carefully regulated food for infants. He would, and we are thoroughly at one with him, prefer to have pure milk reach

the house from the cow. That is to say, there must be clean hands to milk the cows, whose teats, udders, and flanks must also be purified. In addition all milk after coming from the cow must be filtered and cooled and if possible sold from sealed cans or bottles. That we admit to be the ideal which we must all seek to achieve in our respective districts. But by way of corollary to his able articles there appeared the replies received from many medical officers of health regarding the enforcing of regulations under the Dairies, Cowsheds, and Milkshops Orders. The sad tale need not be retold, but these replies showed that in many districts regulations were not even framed, and that where they were in existence they were frequently not enforced. It is a knowledge of these facts, unfortunate as they are, that has urged some medical officers of health to advise their local authorities to adopt the principle of supplying milk in such a way that it will be safer to drink than most of the filthy stuff coming in from badly kept cowsheds and dirty cows.

Two years ago we instituted a crusade against these cow-feeders who did not keep their premises in conformity with the existing regulations. The cow-feeders in the district promptly formed themselves into an association, engaged a solicitor, and held an indignation meeting at which we were denounced as "hounds of officials" who were seeking to ruin an arduous and honest calling. Much was achieved despite the meeting and the declamations, but it had to be done at the point of the bayonet.

In some districts the cow-feeders are alive to the necessity for keeping everything clean, but that appears to be the exception to the rule. The cow is a machine which is depleted three times daily, and fed to give plenty of milk. There is no time to waste over the cleansing of hands or anything else. Moreover, the general public looks upon cold milk with suspicion. It requires much education on this point, for if milk be warm, though it be heated with the addition of hot water or skimmed milk, the consumer believes it must be fresh from the cow. Filters and milk coolers are slow in action, and the cow-feeder starting operations at 4 or 5 every morning, declares that he has no time to waste over details which he is pleased to call the "fads of health officials." The average cow-feeder refuses to be taught. He will not leave the path trodden by his predecessors. Force alone will compel him to adopt more modern and cleaner methods. That force must be applied from two directions. First, the general practitioner must take a keener and more active interest in the subject of pure milk supplies. If the family physician only knew it, many a patient of his drinks milk which in the language of the Public Health Acts is "unfit for human food." Were the doctor to teach his patients why milk, artificially cooled, is safer to use by reason of its better keeping qualities, the urgent demands from consumers would soon goad the milk seller to supply the want. Secondly, the power must be placed in the hands of the medical officer of health to say to a cow-feeder when his traffic is not being conducted on satisfactory lines. Analogous power is granted under the Factory and Workshop Act when dealing with bakehouses. The fact that the local authority comes in as a buffer between the health official and the cow-feeder makes the supervision of the milk traffic often extremely difficult, and in some places well-nigh impossible. That this anomaly should be remedied appears to us to be absolutely necessary.

While the foregoing remarks have taken us beyond the province of our paper, they go to prove that the medical officer of health is perfectly justified in advocating the establishment of infant milk depôts, and we speak from experience. It has been our constant aim to persuade and teach cow-feeders in our district the value and importance of cleanliness. We have made some progress, and have earned for ourselves a notoriety for hard heartedness and severity which few men possess, and all because we have tried to rouse the Rip Van Winkle cow-feeder out of his sleep. With that experience to guide us we had no hesitation in recommending the adoption of the principle of supplying infants with milk which had been filtered, mixed with cream, sugar, and water in definite proportions, put up in bottles which had been scrupulously washed, and finally subjected to a temperature sufficient to kill most of the micro-organisms present. We have been gratified beyond measure to see the good results, not the least valuable of which has been the education of the people. Many, indeed most, of those who come to our dépôt are drawn from that class which has been in the habit of feeding infants upon the rule of thumb principle. Dirty bottles, rancid teats and tubes, and extraordinary varieties of food have been supplanted by consistently good and wholesome nourishment at a very low cost. Already many mothers have come to appreciate the difference between the old and new method, and when we can say we have educated them to value the importance of sound infant feeding we have achieved much.

When the ideal milk supply of our large towns is universal the people may have no need of corporations to assist in the mixing up of food for the young. We cannot, however, wait for the mountain to come to us, so we must go to it by taking an immediate step in the direction of preparing milk for infants, thousands of whom, despite the purest milk supply in the world, would be fed upon mixtures of wonderful concoction.

[Note.—Since the above was written it has been decided to pasteurize the milk by subjecting it to steam at 170° F. for twenty minutes, and subsequently cooling the bottles.]

References.

1 C. Flügge: Die Aufgaben und Leistungen der Milchsterilisirung gegenüber den Darmkrankheiten des Säuglinge. *Zeitschr. f. Hygiene*, Bd. xv. u. xvi. 1894. 2 A. Lubbert: Ueber die Natur der Giftwirkung peptonisirender Bakterien der Milch. *Ibid.*, Bd. xx. u. 1896. 3 A. Weber: Die Bakterien der sogenannten sterilisirten Milch des Handels, mit besonderer Berücksichtigung der giftigen peptonisirenden Bacterien Flügges. *Arb. a. d. kaiserl. Gesundheitsamte*, Bd. xv. u. .

"GOUTTES DE LAIT ET CONSULTATIONS DE NOURRISSONS."

By G. VARIOT, M.D.,

Médecin de l'Hôpital des Enfants Malades, Paris.

In France rapid progress has been made in the scientific rearing of infants under a system of medical supervision. Midwifery doctors conceived the idea of having infants born in maternities brought back periodically to be weighed and inspected, and if need be that milk might be supplied for their nurture. Professor Hergott, of Nancy, founded in 1890 a charity in the maternity to encourage breast-feeding for infants. Mothers who suckled their children and who brought them back one month after birth in a satisfactory state received a monetary donation. Thus Dr. Hergott succeeded in materially stimulating the suckling of infants for the first few months of their lives, the most important period. In 1892 Professor Budin organized at La Charité in Paris a *consultation de nourrissons* for children born in his wards. He submitted the mothers to a weekly inspection during the whole period of nursing, and he also distributed sterilized milk to those who had an insufficient natural supply. Only 5 or 6 per cent. of the children were fed entirely from the bottle, 60 per cent. were breast-fed, and 35 per cent. received their nourishment partly from the breast and partly from the bottle, These are the most recent figures, and relate to cases which were attended to at the *consultation de nourrissons* at the Clinique Tarnier during 1903.

We physicians have adopted the method of watching our infants inaugurated by the accoucheurs, and have introduced it into a different sphere, into dispensaries for sick children situated in the poor quarters of Paris. In 1892 I established at the Dispensaire de Belleville, in one of the poorest districts of the French capital, a *goutte de lait*, and shall briefly describe the field in which it works and its methods. Children of the lowest and poorest classes are brought to us who are almost invariably fed artificially and rarely if ever breast-fed by their mothers, who are compelled to work hard to be able to rear their children. Most of the children are atrophic after illnesses such as gastro enteritis. They are not always brought by their mothers, but often by a grandmother, an elder sister, or an *éleveuse* (baby farmer). Bad rearing and the injudicious use of the feeding bottle are consequents of misery and pauperism. Such is the infant population of our *gouttes de lait* both in the poor quarters of Paris and in the manufacturing centres, where women are obliged to work in the manufactories or in the workshops. It is utterly impossible to resort to suckling to combat infantile mortality in such centres. The mothers have no longer any milk. We have therefore organized the scheme of distributing good sterilized milk, which we give gratuitously or at a reduced price according to the funds of the charity. This distribution of milk is of great value where the great majority of children have to be nursed artificially. For this reason we have adopted the apt title of *goutte de lait*, which was originated by Dr. Dufour in 1894 to designate the most interesting work he had organized at Fécamp.

It goes without saying that we watch these infants whom we are forced to nurse artificially, and of whom the overwhelming proportion are atrophic when they come into our hands. By distributing good milk, by graduating the feeding bottles, by weighing the children each week, by carefully watching the mothers, or *éleveuses*, and by distributing printed instructions for the nursing of children, we obtain most satisfactory results. We bring up artificially atrophic children who have been deficient in weight by one-third and sometimes by one-half of the normal. All these infants would have fallen into a marasmic state of atrophy and would have died if the neglect of hygiene requirements by the mothers and nurses had not been arrested. Our *gouttes de lait* thus become in the course of things schools for artificial nursing.

The comparison made by Dr. Peyroux between the mortality statistics of the *consultations de nourrissons* of the accoucheurs and the *gouttes de lait* of the physicians is manifestly unfair and calculated to raise false conclusions. The accoucheurs watch the rearing of children born in their wards mostly breast-fed: the *gouttes de lait* treat children of the poor and low classes, nursed artificially and usually brought in an atrophic state. The error into which Dr. Peyroux has fallen has come from lack of experience. He has neither founded nor directed any *consultations de nourrissons* or *gouttes de lait*, and he simply works statistics which are sometimes so deceptive. He has tackled a subject the complexity of which he has not appreciated.

Accoucheurs only lose 2 to 6 per cent. of the children who are put in their consultations, but this low figure is accounted for by the fact that they only accept a very small proportion of children artificially fed: 5 to 6 per cent. Never can one hope to see a reduction to such a percentage of infantile mortality, taking all children in any country into the reckoning. The practice of accoucheurs in accepting only a very small percentage of artificially-fed children for treatment influences their statistics, and gives them an apparent favourable showing.

Of the children who are brought to us we lose in our *gouttes de lait*, from all causes, from 20 to 25 per cent., but the mortality is at once when their treatment begins, and hereditary diseases account for a great number of deaths among the Parisian poor, where we work.

Those who wish to deprecate the *gouttes de lait*, and drag them into unfavourable comparison with the *consultations de nourrissons* of the accoucheurs completely ignore the fundamental principles of these two institutions, which, far from being antagonistic, are complementary one with the other.

At the beginning of this month (April, 1904) at the Congress of the Société de Pédiatrie at Rouen, the subject of *gouttes de lait* was the occasion of numerous interesting communications on the part of Monsieur le Docteur Brunon, Director of the School of Medicine at Rouen, Mme. Marie Roussel, Dr. Jeanne Leroux, Dr. Aussel, Lille, Professor Pinard, and others, and there were rather heated discussions on this topic. In spite of the zeal of the accoucheurs, who desire especially the *consultations de nourrissons* for the supervision of breast-fed infants, the tendency of the *gouttes de lait* is to control the artificial feeding of infants. Doctors naturally bring good milk, so that breast-fed children do not require such strict supervision as those fed artificially. Thus in his Dr. George Carpenter, in his editorial article in the *British Journal of Children's Diseases* has understood the working of *gouttes de lait*, and he recommends that institutions such as these should be established in all the large cities of Europe. Dr. Carpenter recommends depôts for purely cooking milk, supervised both by the municipality and by private people without the latter supervision of a medical man. But these depôts have absolutely nothing in common with the *consultations de nourrissons* as practised in Paris and in a certain number of towns in France, which are conducted by doctors who have specialised in diseases of infants.

THE OCCURRENCE OF PRIMARY TUBERCULOUS INFECTION OF THE INTESTINAL TRACT IN CHILDREN

By WILLIAM HUNTER, M.D., M.R.C.P.,
Assistant Physician, Hong Kong.

The statement made by Koch at the address before the Congress on Tuberculosis in London in 1901, regarding the identity of human and bovine tuberculosis and the manner of transmission of the infection have since been subjected to most careful and searching investigation without any definite solution of the problem being arrived at. In connection with [illegible] he carried out a number of experiments, the results of which led him to conclude that human tuberculosis is not identical with bovine tuberculosis, and that the former is not transmissible to the latter, and further that the lesions met with in the investigation of tuberculous material have been grossly exaggerated. As is well known, attacks of acute fatal tuberculosis in cattle are frequently met with in considerable numbers, and the quantities of such consumed by man daily would afford excellent opportunities for these animal tissues to infect man.

That, however, is not the case. According to Koch, tuberculous infection through the agency of food can only be suspected when the intestine itself is found affected. That is, when a case of primary intestinal tuberculosis is found. Koch found such a condition extremely rare; in fact, he only remembers having seen two cases during his many years' investigations into tuberculous pathology. He is supported in these conclusions by the results obtained by other Continental observers. In the Charité of Berlin, where an enormous number of necropsies are held, only 5 cases of primary intestinal tuberculosis were found in five years. Bienasky, working in the Kaiser and Kaiserin Friedrich Hospital for Children, found in a total of 933 cases of tuberculosis in children 20 cases of primary enteral tuberculosis with accompanying tuberculous changes in the lungs and bronchial glands. And Baginsky found only 11 cases of the condition out of 3,104 necropsies on tuberculous children.

These results appear to show the rarity of intestinal tuberculosis in children, and strongly support the dictum of Koch that the dangers of infection through tuberculous infected food are in no greater moment than that which obtains to hereditary transmission of the disease, and may be disregarded in any point of view of prophylaxis.

At the same time the observations of others must not be disregarded. Previous to the Congress on Tuberculosis a very general opinion was widely diffused that the tubercle bacillus most frequently gained an entrance into the body through the tonsils and the lower part of the small intestine. Such were the conclusions arrived at by Professors Sidney Martin and Stanley Woodhead, who conducted experiments on tuberculosis while engaged in the work of the Tuberculosis Commission in London. In their opinion invasion of the intestine by tubercle bacilli could take place without leaving any trace of a pathological condition.

Observations in Hong Kong.

During the years 1902 and 1903, 3,142 necropsies were held at the public mortuary in Hong Kong. The number of these performed on children under 5 years of age comprises about 35 per cent. The bodies came from all parts of Hong Kong and the adjoining newly acquired territory. Special attention was directed to the presence or absence of abdominal tuberculosis in its various forms, and the results were necessarily were amplified by microscopic and histological examination. Tuberculosis in all its varieties is widespread amongst the Chinese population in Hong Kong. All ages are affected, but children and young adults are responsible for the majority of the cases. The needs of the native population compared with the extraordinary overcrowding existing in the poorer parts of the city, are distinctly favourable for the rapid dissemination of the disease. The frequency of the affection in the Chinese would not appear to depend in any way on their personal peculiarity, nor would the course of the disease appear to be more rapid in Hong Kong than in Europe.

The results of my investigation into the frequency of intestinal tuberculosis show that out of 3,142 necropsies only 13 cases of the condition were found. In 8 of the cases the condition was regarded as secondary, the infection being derived from the presence of tuberculous foci in other parts of the body. Pulmonary tuberculosis was found in 5 and acute generalised tuberculosis with marked affection of the lungs in 3 cases. In these the infection of the intestinal tract was probably accustomed through the swallowing of infected sputum. In all of these cases the manifestations of intestinal tuberculosis were typical.

Only 5 of the cases could be regarded as instances of primary intestinal tuberculosis. They all occurred in children under 5 years of age. In these the tuberculous process had apparently commenced in the follicles of the small intestine. All stages of the lesion were usually present in each case. The

mucous membrane was studded with small nodular elevations, many of which were of a yellowish-white colour, and on section showed central necrosis and caseation. In the immediate surrounding ulcers of varying size were scattered about the mucous membrane. These had infiltrated and somewhat irregular edges, and their bases were composed of minute yellow caseous nodules. Crops of minute tubercles were found beneath the serous peritoneum, each surrounded by a hyperaemic zone, and the lymphatic vessels showed evidences of blocking by tuberculous infiltration. The mesenteric glands were found tuberculous in 3 cases.

These results bear out the observations made by pathologists on the Continent, and in the presence of so great a number of necropsies are of great importance in regard to the frequency of primary intestinal tuberculosis. They bear out, further, the views now generally recognized in regard to the invasion of the intestine by micro-organisms. The invasion of the alimentary canal under natural conditions by micro-organisms is by no means an established fact. In fact, there appears to be reason to doubt such an occurrence. Although the intestinal canal is the seat of election of the causal agents of a large number of diseases, yet the general results of all observations and experiments seem to show that under ordinary conditions the intestinal tract resists to a great extent the invasion of micro-organisms. The danger of auto-infection through the normal intestine appears to have been exaggerated, particularly in regard to the production of general disease in children. The researches of Czerny and Moser are confirmative of this, and, according to Fischl,[5] most generalized diseases in children do not take origin from the intestine but from the respiratory tract. That such a condition of affairs is met with in tuberculosis in children I have been able to convince myself. By far the majority of cases of tuberculous disease amongst children in Hong Kong arise in connexion with the lungs and mediastinum. The investigations of Nocard and Kaufmann[6], Lewin[7], Wassilieff Kliemann[8], and others, endeavouring to demonstrate the sieve-like structure of the intestine and its invasion by micro-organisms, would appear to be considerably weakened by the careful experiments of M. Neisser[9] showing the resistance of the alimentary canal to the invasion of micro-organisms during normal processes of digestion and even after severe mechanical and chemical injuries to the intestinal mucous membrane.

These results have been confirmed by Simoncini[10] and Tschistovitsch[11]. At the present time it would appear advisable to take up something of an intermediate position in regard to the invasion of the intestine by micro-organisms. At the same time, the conditions in the intestine are remarkable when one considers that there is no other part of the body which is so closely and permanently in contact with such a rich bacterial flora.

It is said that although primary intestinal tuberculosis is a rarity, primary tuberculous disease of the mesenteric glands is by no means uncommon. The results of investigations from English and German sources are forthcoming, showing that this condition is found in a small percentage of cases. Woodhead[12] found it in 14 per cent. of all cases of tuberculosis in children. Biedert[13] found it 40 times in 1,346 necropsies of tuberculous children; Carr[14] 5 times in 120; and Grawitz[15] in Griefswald 4 times out of 1,104 necropsies. Schlossmann[16] and some others, however, believe tuberculosis of the mesenteric glands to be quite as rare as primary intestinal tuberculosis. My own observations would seem to show that the mesenteric glands are more rarely the seat of tuberculous disease than is generally acknowledged. During the past two years, in the presence of an enormous amount of pathological material, the outcome of over 5,000 necropsies shows 5 cases only of this condition. In each case the naked-eye appearances were supplemented by histological examination. In all of the cases the presence of tuberculous disease was found elsewhere in the body, most frequently in the lungs or lymphatic glands in the mediastinum. In no case was there evidence of tuberculous infection through the intestinal mucous membrane. The intestines were normal to the naked eye in each case. In one case acute generalized miliary tuberculosis was present, and the peritoneum was found scattered over with small tubercles. In another case the peritoneum was also tuberculous, but here the process was accompanied by thickening of the membrane, and the viscera were covered with a pearly-coloured layer, in which were found caseous tuberculous nodules.

Again, on performing a large series of necropsies on children one frequently comes across enlargement of the mesenteric glands. The appearances in some of the cases are on superficial examination suggestive of the condition known as "tabes mesenterica." I have often experienced difficulty in regard to these cases, and had to resort to careful microscopic examination before pronouncing them free from tuberculous disease.

From my own cases one is hardly justified in concluding that the infection took place by way of the intestine. As has already been mentioned, the normal intestinal mucous membrane offers no great opportunities for the penetration of micro-organisms. The presence of tuberculous disease in other organs—for example, the lungs—allows of the possibility of the transmission of the causal agent from the latter to the mesenteric glands.

Conclusions.

My results would appear to justify the following conclusions:

1. That primary tuberculosis of the intestine is rare in children under 5 years of age.

2. That tuberculosis of the mesenteric glands is also rare.

3. That the results obtained amongst a native population where tuberculosis in all its forms is rife, and the conditions of life extremely favourable for the dissemination of the disease, point to the alimentary canal as a rare avenue through which infection in tuberculosis is conveyed in childhood.

References.

[1] R. Koch, Tub. Congr., London; *Deut. med. Woch.*, 1901, S. 840. [2] Baginsky, *Berl. klin. Woch.*, 1900, S. [illegible]. Biedert, *Munch. med. Woch.*, 1898, S. [illegible]; [3] Versl., *Deut. Naturforscher u. Aerzte*. [4] Czerny and Moser, *Jahrbuch f. Kinderheilk.*, 58, S. 4[illegible]. [5] Fischl, *Samalung klin. Vortrage*, N. F., No. [illegible]. [6] Nocard et Kaufmann, *Semaine Med.*, 1895. [7] Lewin, *Berlr. z. Infektionstherapie*, 1898. [8] Wassilieff Kliemann, *Arch. f. exp. Path.*, Bd. xxvii. [9] M. Neisser, *Zeit. f. Hyg.*, 1897. [10] Simoncini, *Ann. d'Igien. sperim.*, Roma, vii, 61, 1897. [11] Tschistovitsch, Baumgarten's *Jahresber.*, 1897. [12] Woodhead, British Medical Journal, 1899, ii, S. 618. [13] Biedert, *Deut. med. Woch.*, 1898, S. [illegible], and loc. cit. [14] Carr, *Lancet*, 1904, i, S. 1[illegible]. [15] Grawitz, *Deut. med. Woch.*, 1901, S. 711. [16] Schlossmann, *Cent. f. Bakt.*, Band xxxii, No. 1, p. 644.

INTUBATION IN LARYNGEAL DIPHTHERIA.

BY

JOHN BIERNACKI, M.D.Glasg., Medical Superintendent, Plaistow Hospital.

and

J. C. MUIR, M.D.Cantab., Assistant Medical Officer, Plaistow Hospital.

I.

Although a number of informing articles have appeared in recent years, notably one of great practical value by Goodall,[1] intubation of the larynx in diphtheria does not seem, in this country, to have received that recognition which, with due regard to its limitations, it deserves. A consideration of a series of cases is therefore perhaps permissible.

During the period covered by this paper, every laryngeal case requiring operation was treated, in the first instance at least, by intubation, and this absence of selection will, we believe, be of value in discussing the differentiation of cases suitable respectively for intubation and tracheotomy. In this connexion it should be said that intubation was not lightly undertaken; in almost every instance the obstruction was such that immediate interference was necessary. A few cases of a toxic and therefore unfavourable type were, however, intubated because, with only moderate obstruction, there was general loss of ground (see Group E).

We have thought it advisable to outline every case briefly as the best method of giving point to the principles considered in the body of the paper.

O'Dwyer's tubes, either all metal or vulcanite-coated, were used.

Approaching the cases from the point of view of the clinician, who has to decide whether an operation is necessary and also to choose between intubation and tracheotomy, we have arranged them in five groups. They are 70 in number. In stating the time during which the tube was worn, in every case the first day is counted as one.

Group A.

Cases not Intubated on Admission, but after a Variable Time for Progressive Obstruction: Twenty-three Cases, with Six Deaths.

Case I.—M. E. W., female, 17 months. Eighth day. Extensive membrane on tonsils, palate and uvula; profuse nasal discharge. Broncho-pneumonia (right). Antitoxin 12,000 units. Intubated twelve hours later; relief complete. Removed on fourth, fifth, and finally on sixth day. Death on same day from broncho-pneumonia and toxaemia.

Case II.—M. G., female, 10 years. Second day. Membrane both tonsils. Antitoxin, total dose 26,000 units. Intubated sixteen hours later. Relief not complete. Tube twice removed and cleaned. Death from broncho pneumonia thirty-six hours later.

Case [illegible] female, years. Third day. Extensive laryngeal membrane [illegible] Total dose of antitoxin [illegible] units. Intubated after twenty-four hours. Relief complete. Tube displaced by child. Replaced once, and [illegible] Removed sixth day. Convalescence after some weeks. From time used to attempt [illegible] expectoration. Tube frequently coughed up or swallowed and passed by rectum. Intubation [illegible] necessary. Tracheotomy could not be performed. Child died suddenly [illegible]

Case [illegible] years. Second day. Membrane on both tonsils. Glands enlarged on both sides. Total dose antitoxin [illegible] units. Intubated after five hours. Relief complete. Removed on third day. Recovery.

Case [illegible] W. B., male, 10 months. Third day. Membrane on both tonsils. Total dose antitoxin [illegible] units. Intubated after six hours. Relief complete. Extubated on fifth day. Suffered from laryngeal spasm. Nursing [illegible] patient developed [illegible] Re-intubated with complete relief. Extubated on twelfth day. Recovery.

Case [illegible] M., female, 3 years. Seventh day. Membrane on one tonsil. Enlarged glands. Antitoxin [illegible] units. Intubation after [illegible] Relief complete. Extubated on ninth day. Recovery.

Case [illegible] female, 3 years. Second day. Membrane on both tonsils. Antitoxin [illegible] units. Intubation after three hours. Relief complete. Extubated on fourth day. Slight recession for twenty-four hours. Recovery.

Case [illegible] S., female, 4 years. Second day. Membrane on both tonsils. Antitoxin [illegible] units. Intubation after three hours. Relief complete. Extubated on fifth day. Slight recession for twenty-four hours. Recovery.

Case [illegible] M., male, 12 months. Second day. Membrane on both tonsils. Antitoxin [illegible] units. Intubation after three hours. Relief complete. Extubated on fourth day. Slight recession for twenty-four hours. Recovery.

Case [illegible] S., female, 4 years. Seventh day. Membrane both tonsils. Antitoxin [illegible] units. Intubation after twenty-four hours. Relief complete. Extubated on fifteenth day. **Sudden cyanosis and collapse. Tube removed. Artificial respiration necessary. No further** [illegible] Death on eighteenth day after admission.

Case [illegible] W. H., male, 2 years. Third day. Membrane on both tonsils. Enlarged glands. Antitoxin [illegible] units. Intubated after eight hours. Complete relief. Extubated sixth day. Recovery.

Case [illegible] C., female, 3 years. Third day. Exfoliation on both tonsils. Total dose antitoxin [illegible] units. Intubation after three hours. Relief complete. Extubated on fifth day. Recovery.

Case [illegible] female, 12 months. Fifth day. Glands enlarged on both sides. Antitoxin [illegible] units. Intubated after ten and a half hours. Relief complete. Coughed up membrane and tube. Re-intubated [illegible] Extubated on fifth day. Recovery.

Case [illegible] female, 3 years. History vague. Nasal discharge. Antitoxin [illegible] units. Intubation after [illegible] Relief complete. Extubated [illegible] fifteen minutes. Recovery established.

Case [illegible] female, 3 years. Fourth day. Antitoxin [illegible] units. Intubated after two hours. Relief complete. Extubated on fifth day. Recovery.

Case [illegible] female, 3 years. First day. Membrane on one tonsil. Intubated after seven hours. Relief complete. Extubated on fifth day. Recovery.

Case [illegible] B., female, 3 years. Second day. Membrane on both tonsils. Antitoxin [illegible] units. Intubated after seven hours. Relief complete. Extubated on fifth day. Recovery.

Case [illegible] female, 3 years. First day. Membrane on one tonsil

recession. Tube removed complete membranous cast of trachea coughed up. Not reintubated. Recovery.

Case XLI.—R. F. W., male, 3 years. Seventh day. Complete relief. Antitoxin 20,000 units. Extubated on fourth day. Recovery.

Case XLII.—M. H., female, 2 years. Fourth day. Relief complete. Antitoxin 10,000 units. On second day colour bad, pulse and respirations increased in speed. Tube removed. Three hours later tracheotomy performed. Death three hours.

Case XLIII.—M. V., female, 2 years. Second day. Complete relief. Total dose antitoxin 6,000 units. On third day restlessness and some recession, then, during nasal feed, sudden cyanosis. Tube removed and tracheal cast 1½in. long coughed up. Recovery.

Note.—This case is interesting in view of the fact that in rare instances sudden death occurs during nasal feeding.

Case XLIV.—E. N., male, 12 months. Second day. Complete relief. Total dose antitoxin 4,000 units. Occasional slight recession. Extubated seventh day. Slight recession for twenty-four hours. Recovery.

Case XLV.—H. O., male, 4 years. Second day. Nasal discharge and glandular enlargement. Complete relief. Total dose antitoxin 12,000 units. Rather frequent cough. On second day urgent dyspnœa and recession. Tube removed and complete cast of trachea coughed up, including bifurcation. Same event on third day, the cast being less complete, but showing bifurcation. Removed on fourth day for same reason, and some large flat pieces of membrane coughed up. Extubated on fifth and finally on eighth day. Recovery.

Case XLVI.—M. A. S., female, 2 years. Sixth day. Broncho-pneumonia both sides. Relief complete. Total dose antitoxin 28,000 units. Extubated sixth day. Three days later some recession and restlessness passing off in a few hours. Recovery.

Case XLVII.—D. F. G., female, 4 years. History not known. Complete relief. Total dose antitoxin 30,000 units. Extubated fifth day. Some recession and occasional dysphœa for some days. Recovery.

Case XLVIII.—C. S., male, — years. Third day. Glands moderately enlarged on both sides. Relief complete. Total dose antitoxin 20,000 units. Extubated on fourth day. Recovery.

Case XLIX.—M. T., female, — years. Complete relief. Coughed up after eighteen hours. Replaced. Coughed up a few hours later. Recovery.

Case L.—R. F. B., male, 3 years. Third day. Diphtheria following measles. Complete relief. Antitoxin 12,000 units. Extubated on third day. Recession afterwards, gradually increasing. Steam for two days. Recovery.

Case LI.—B. S., female, three years. Duration doubtful. Relief not quite complete. Steam tent. Antitoxin 10,000 units. On second day tube coughed up with small piece of membrane. Reintubated. Still some recession, increasing on second evening. Tracheotomy. No membrane could be extracted at operation. Death seven hours later.

Case LII.—C. S., female, 4 years. Second day. Relief complete. Antitoxin 12,000 units. Extubated on sixth day. Recovery.

Case LIII.—H. P., female, 3 years. Second day. Relief complete. Antitoxin 12,000. Extubated fourth day. Recovery.

Case LIV.—J. P., female, 12 months. History vague. No pharyngeal membrane. First insertion gave no relief. On withdrawal complete cast of larynx found attached to tube. Relief complete on second insertion. Total dose antitoxin 24,000 units. Temperature, pulse, and respiration rose during day, and obstruction returned and increased. Tube removed, cleaned, and replaced without relief. Tracheotomy. On inserting tube respiration ceased entirely. By forceps, on second attempt, complete cast of trachea removed showing bifurcation and several secondary branchings, nearly 4 in. long. Artificial respiration; death fifteen hours after admission.

Case LV.—F. W., male, 3 years. Third day. Membrane on one tonsil. Relief complete: tube coughed up in a few minutes without return of obstruction. Total dose antitoxin 20,000 units. Reintubated six hours later. On second day obstruction returned. Tracheotomy. Death six hours later although relief complete.

Case LVI.—N. H., female, 3 years. Fourth day. Membrane on both tonsils. Relief considerable but not complete. Antitoxin 10,000 units. Recession increased on same day. Extubated and put in steam tent. On third day some obstruction still present. Tracheotomy. Complete relief. Tube worn for rather less than a month. Recovery.

Case LVII.—C. R., male, 3 years. Third day. Faucial congestion. Complete relief. Total dose antitoxin 23,000 units. After three hours tube blocked and removed. Reintubated six hours later. Cast of larynx found in mouth. Finally extubated on fifth day. Recovery.

Case LVIII.—L. A. B., male, 22 months. History doubtful. Membrane on right tonsil. Glands affected on both sides. Slight broncho-pneumonia. Relief complete. Total dose antitoxin 35,000 units. Tube coughed up on third day. Replaced. Extubated fifth day. Reintubated in three-quarters of an hour. Coughed up on seventh day twice and again on eighth day, when it was not replaced. Recovery.

Case LIX.—J. U., male, 1 year. Second day. Membrane on both tonsils. First insertion gave no relief. Stridulous sound suggested loose membrane below tube. Second insertion gave complete relief after about a quarter of an hour. Total dose antitoxin 20,000 units. Second evening obstruction returned, with rising temperature. Tracheotomy. Obstruction not relieved. No membrane could be extracted. Death twenty-six hours after admission.

Case LX.—H. D., male, aged 22 months. Third day. Complete relief. Antitoxin intravenously 10,000 units, subcutaneously 10,000 units. Extubated fourth day. Some recession and dyspnœa. Put in steam for three days. Recovery.

Case LXI.—G. T., male, 3 years. Sixth day. No faucial exudation. Severe broncho-pneumonia. Relief great but not quite complete. Tube removed after eight hours. Not found necessary to replace it. After four days slight obstruction, passed off in a few hours. Broncho-pneumonia gradually spread and caused death on sixteenth day.

Case LXII.—M. M., female, 3 years. Second day. Complete relief. Broncho-pneumonia. Total dose antitoxin 20,000 units. After twelve hours tube blocked; removed. Cast of trachea, which included bifurcation, found in mouth. Reintubated. Fourteen hours later tube blocked; removed; replaced in half an hour. Extubated on fourth day; reintubated in a few hours. Extubated on seventh day, reintubated in ten hours. Tube coughed up once on each of next two days. Next day (tenth) medical officer urgently summoned. Found patient apparently dead, tube having been coughed up. Tracheotomy. Artificial respiration. Recovery. Still wearing tube five months later, although there is some entrance of air by larynx and the voice is good.

Group D.

Cases of Relief in appearance: Six Cases with Three Deaths.

Case LXIII.—W. T., male, 6 years. Sixth day. Extremely toxic case; some laryngeal obstruction. Tube pulled out by patient immediately after first insertion. Replaced at once. Complete relief. Antitoxin 14,000 units. Death in eight hours from toxæmia.

Case LXIV.—J. B., male, 4 years. Third day. First insertion seemed to block the larynx entirely. Tube withdrawn. Second insertion gave complete relief. Extensive broncho-pneumonia on both sides. Total dose antitoxin 32,000 units. During next eighteen hours tube blocked with mucus and removed five times. During last reinsertion respiration stopped. Tracheotomy, artificial respiration, death.

Case LXV.—A. B., female, 4 years. Fourth day. Membrane on both tonsils. Relief complete. Total dose antitoxin 30,000 units. Tube coughed up once and removed once in the next twenty-four hours. Extubated on fifth day, reintubated in one hour. Finally extubated on ninth day. Recovery.

Case LXVI.—H. R. S., male, 15 months. Second day. Almost moribund. Relief on intubation not quite complete. Tube coughed up twice. Tracheotomy. Death sixteen hours after admission.

Case LXVII.—G. B., male, 4 years. Third day. Almost moribund. Respiration stopped a few seconds after first insertion of tube, withdrawn tracheotomy; artificial respiration. No membrane found in trachea at operation, but next day large sloughy mass withdrawn with forceps. Total dose of antitoxin 40,000 units. Recovery.

Case LXVIII.—E. A. J., male, 3 years. Second day. Slight faucial exudation. Almost moribund. Relief complete. Total dose of antitoxin 32,000 units. Tube coughed up on fourth day. Recovery.

Group E.

Cases with only Moderate Obstruction, but with Persistence Asthma, and especially a Tendency to Convulsive Failure: Two Cases, One Death.

Case LXIX.—H. C., male, 2 years. Fourth day. Extensive membrane, much pharyngeal swelling, profuse nasal discharge, glands much enlarged. Antitoxin 20,000 units. Some obstruction continued with general loss of ground till sixth day. Intubation on this day. Complete relief of obstruction. Extubated third day; immediately reintubated. From now till the twelfth day, especially after ninth day, frequent coughing up of tube, always with urgent obstruction within a few minutes. Tracheotomy. Seven days later death from syncope.

Case LXX.—M. K., female, 4 years. Fourth day. Very extensive pharyngeal membrane, profuse nasal discharge. Total dose antitoxin 36,000 units. Intubated after twenty-four hours. Complete relief. After eighteen hours tube blocked and removed. Same occurrence twenty-four hours later, distress developing quickly in each case. Extubated sixth day; reintubated in a quarter of an hour. Extubated three more times up to thirteenth day. From then till eighteenth day tube very frequently coughed up, urgent obstruction always quickly developing. Tube retained after this, but every attempt to leave it out failed. On thirty-second day removed under chloroform. After twenty-four hours gradual increase of obstruction. Tracheotomy on thirty-fourth day. Tube worn for four months. Recovery.

II.

It is unnecessary to enter into the ordinary clinical indication for operation: to them may be added those obtaining in Group E. It being decided that an operation is necessary, the question of the relative advantages of intubation and tracheotomy arises. It may be said at once that the choice primarily depends on the surroundings of the individual case, for the post-operative emergencies requiring the immediate presence of a medical man are far more frequent with intubation (see, for instance, Cases III. XLIII. XLV, LVIII) than with tracheotomy; difficulties following the latter can generally be dealt with, temporarily at least, by the trained nurse. Hence it is plain that tracheotomy is preferable in private practice. In hospital, where constant medical attendance is assured, intubation has the general advantage of throwing less work on the nursing staff, both in preparation and after-treatment.

Passing to the intrinsic value of the two operations, intubation is in our opinion easier to perform, after a little experience. Apart from secondary inflammatory conditions we have only failed to insert the tube in one case, which was not

diphtheria. It must be admitted, however, that in rare cases of diphtheria oedema may render intubation impossible; it is a cardinal rule that no force must be used when inserting the tube. Against the dangers of tracheotomy, which even the experienced operator may encounter, are to be placed, in the case of intubation, the partial asphyxiation from gagging and inserting the tube (see Case LXIV), and the possibility of actual blocking of the trachea by dislodged membrane (see Cases [illegible]). These exigencies are, however, rare, and when they occur seldom cause death. If necessary tracheotomy can be performed. The operator should see beforehand that the essential instruments are at the bedside. Case LXIV is the only one where death occurred at the time of intubation; it seemed to be due rather to cardiac failure than to obstruction, the more so as the previous insertions, excepting the first, had been effectual.

We do not propose to discuss the mortality of the two operations; it will suffice to say that at this hospital the death-rate for intubation, including cases subsequently requiring tracheotomy, is 30 per cent., against a somewhat higher rate for primary tracheotomies. In apprising the value of operation it must be remembered that even with the obstruction relieved death may occur from a variety of other causes (see, for example, Cases V, XI, XXXIV, etc.).

In view of the foregoing considerations we should ourselves, as a rule, choose intubation, in the absence of clinical contra-indications. Among conditions which at one time or another have been so considered are:

(*a*) *Severe Involvement of the Fauces and Nasal Passages.* The fact that enlargement of the cervical glands, tonsils and nasal obstruction may, in very exceptional cases, make tracheotomy necessary is recognized. That these may, however, be extensive pharyngeal and nasal involvement and intubation yet completely relieve is shown by Cases I, III, XXVII, XXXII, XXXVI, LXIX, LXX. Their subsequent history is, out of the 5 which survived the first few days, requiring tracheotomy under conditions pointing to obstruction nevertheless suggests that cases of this class may be unsuitable for intubation, not necessarily because the operation may fail to relieve, but rather owing to a special vulnerability of the tissues. We are inclined to believe that such vulnerability is a characteristic of septic cases in which the mixed infection extends to the larynx. The two last-named cases illustrate this. We do not think that in ordinary severe faucial and nasal cases intubation is often contra-indicated. If there be severe toxaemia, such as is marked by a general tendency to bruising on slight pressure, it is natural to suppose that the larynx will share in it and a liability to ulceration result. In such cases it will be necessary to weigh the risks of tracheotomy, with or without chloroform, against the possibility of ulceration from the intralaryngeal tube.

(*b*) *Polypoid Oedema of the Upper Part of the Larynx.* We have had no case, not in this series, in which a considerable amount was present. Intubation gave relief at first, but after a time, as the child was slowly losing ground, tracheotomy was performed with distinct benefit. Ulceration probably occurs, and must be admitted to be a danger in such cases.

(*c*) *The Presence of Membrane low down in the Trachea.* Since it is rarely possible to make a preliminary diagnosis of this condition with any degree of certainty, its significance as a contra-indication would remain in doubt. Thus, Cases [illegible] and [illegible] were completely relieved, although post-mortem examination showed the obstruction of the trachea was complete.

(*d*) *Unfavourable Conditions Referable to Obstruction.* Cases [illegible] admitted to hospital in which the necessary [illegible] and the temporarily increased asphyxia [illegible] are inadmissible. By a [illegible] desperate operation in the present [illegible] Case [illegible] most nearly [illegible] Case [illegible].

(*e*) *Intercurrent Complications.* [illegible] as a contra-indication. [illegible] suggests itself. This complication [illegible] death in fatal cases of intubation as [illegible]. The cause holds good, however, in non-operative cases of diphtheria in which the [illegible] are increased, and we have suggested intubation in them if [illegible] has any influence on the course of bronchopneumonia. It [illegible] there [illegible] such intercurrent [illegible] operation may be postponed indefinitely by constant [illegible] of the tube (see Cases [illegible]). Such a contingency cannot well be foreseen, and in point of fact [illegible] may do well with intubation alone, even though there be considerable pre-existing bronchopneumonia (see, for example, Cases [illegible]).

III.

Reference has already been made to immediate blocking during insertion. Of another kind are cases in which intubation only affords partial relief. If the obstruction remain severe tracheotomy will, of course, be required. Otherwise due time should be allowed for the child to settle down (see, for example, Case [illegible]). When slight obstruction continues the patient should be carefully watched. Gradual improvement may ensue (see Cases XIV, XXII). If, on the other hand, loss of ground continues, we are of the opinion that tracheotomy is sometimes advisable, even though the obstruction be slight.

Next fall to be considered cases in which intubation relieves completely, but only for a time. This may be due to extension of the membrane (see Cases XXX, LIV, LIX), repeated blocking of the tube, as already mentioned (see Cases IX, LXIV), or the development of definite intolerance (see Cases III, VII, LXIX, LXX). These are all conditions that demand tracheotomy. In the first-named condition this may or may not relieve, or the relief may be only temporary. In the second more or less complete relief of the obstruction is usual, but the prognosis remains bad. As regards the last, it cannot be doubted that frequent reinsertions are exhausting to the patient, and may possibly cause injury to the larynx.

IV.

The intralaryngeal tube having effectually relieved the obstruction, it will be the aim of the operator to dispense with it as soon as possible. On this point Northrup (Article on Diphtheria in Nothnagel's *Encyclopaedia of Practical Medicine*, English edition) remarks that "five days for a child over 2 years of age may be considered a fair average. At the Willard Parker Hospital the time allowed is four days; at the New York Foundling Hospital three days. According to Somerset a child under 2 years of age may require the tube intermittently during a period of two weeks or longer. He puts the limit of time during which the tube should be worn without removal at five days in primary intubations." In our series, excluding cases fatal during the first few days, the tube was coughed up or removed for the first time:

(*a*) In 9 cases within twenty-four hours; of these, 7 did not require reintubation.

(*b*) Of 7 cases on the second day only 2 did not require reinsertion.

(*c*) Of 7 on the third day, 4 did not require reinsertion.

(*d*) Of 11 on the fourth day, 10 did not require reinsertion.

(*e*) Of 5 on the fifth day, 5 did not require reinsertion.

(*f*) Of 7 on the sixth day, 5 did not require reinsertion.

(*g*) One case on the seventh day did not require reinsertion.

As to the day of final removal, this took place on the first day in 7 cases, on the second day in 2, on the third day in 5, on the fourth day in 10, on the fifth day in 9, on the sixth day in 7, on the seventh day in 3, on the eighth day in 2, on the ninth day in 1, on the tenth day in 1 tracheotomy. Case LXIX, on the twelfth day in 1 tracheotomy. Case LXIX, on the thirteenth day in 1 tracheotomy, Case III, on the fourteenth day in 1 tracheotomy, Case VII, on the sixteenth day in 1 (Case XXXIII) on the thirty first day in 1 (Case XXIX), on the thirty second day in 1 tracheotomy two days later, Case LXX).

We are of opinion that the tube should be removed on the fourth day at the latest, and left out if it is at all possible. Thus steam and sedatives may be used (for example, Cases XVIII, XXIII, etc.). If by the tenth day the tube cannot be dispensed with, we consider that as a rule tracheotomy should be performed. Of the above seven cases in which the tube was retained after the ninth day, five came to tracheotomy, and in the three which survived there was evidence of laryngeal obstruction for a considerable time. In one of the two which did not come to tracheotomy, there was an interval of four days, during which the tube was not worn. Especially should tracheotomy be done if there be definite intolerance.

A review of the cases with "retained tube" shows that they were initially of a severe type; two occurred in the first group, two in the third, and two in the fifth.

As to the method of extubation, we are in agreement with Fairbank that in most cases the thread should be left attached. It sometimes causes salivation, and may, of course, be bitten through. To prevent the tube being pulled out the hands may be tethered to the sides of the cot, but a better plan is to use cardboard elbow splints, so that the child can

move freely and play with toys. We also endorse Fairbank's objection to enucleation.

References
[illegible], March, [illegible] Lancet, June 25th, 1904.

A SUGGESTION FOR THE TREATMENT OF PUERPERAL CONVULSIONS BY SPINAL SUBARACHNOID PUNCTURE.

WITH NOTES OF A CASE SO TREATED.

By T. ARTHUR HELME, M.D., M.R.C.P.Lond., F.R.S.E.,
Honorary Surgeon for Women, Northern Hospital for Women and Children, Manchester

Our knowledge of the etiology and pathology of eclampsia of pregnancy and the puerperium is so unsatisfactory as to afford no rational basis for treatment. In the present state of affairs we must turn to clinical study and to the results of personal experience for guidance. No apology is needed, I think, for venturing to suggest any means of treatment which offers the possibility of relief in this distressing condition.

Whether of mechanical or chemical origin, it is now agreed that the phenomena of eclampsia are largely dependent upon the presence of toxic material in the blood, discussion still going on as to whether this accumulation is the result of deficient elimination, imperfect metabolism, or increased production, or of the introduction of some new toxin foreign to the non-pregnant state. The nature of the toxin is still unknown, nor is there more certainty as to the way in which it produces the eclamptic state.

In the matter of treatment it is agreed that there are three chief indications:

1. To prevent the accumulation and assist the elimination or destruction of the poison.
2. To deal with the pregnancy.
3. To control the convulsions.

And upon each of these there exists a diversity of opinion as bewildering as in the question of causation.

The first indication is scientifically the important one, but at present our methods are purely empirical. It is, however, to the last of these three principles that I wish especially to draw attention; but I may say that my experience coincides with what I believe to be the experience of others—namely, those cases have in my hands done best where the pregnancy has come to an end and the convulsions have been controlled; the worst cases have been those in which the convulsions could not be controlled, and where coma supervened; and I have come to regard the extent to which the nervous system is involved and the success with which this can be controlled as the key to prognosis.

The questions of the management of the pregnancy and of the toxaemia must be dealt with equally, whether we see the case before the occurrence of convulsions or afterwards.

1. *In the Pre-eclamptic Stage*, that is, the stage in which the albumen in the urine may be increasing, while the urea is diminishing in amount, and certain signs and symptoms are appearing, as, for example, headache, oedema, respiratory distress. The first indication is to combat the accumulation of the toxin by dietetic and hygienic measures, attention to the excretions, and possibly the administration of thyroid extract, based on the theory that, owing to thyroid deficiency, tissue metabolism is imperfect. In many cases treatment on these lines succeeds, and pregnancy may run to term; but the anxious cases are those in which the deficiency of urea excretion and albuminuria persist and untoward symptoms intensify; in these cases we have to face the important question of interfering with the pregnancy. If, on the one hand, it is the fact that there is deficient excretion or increased production of effete material directly dependent upon the pregnant state (that is, upon the fact that the maternal organism cannot meet the strain put upon her metabolic processes by the life and growth of the fetus and their consequences), and by appropriate means we are unable to restore the balance, we must consider termination of the pregnancy as an important and integral part of treatment; or if the toxin is some special toxin generated in the gravid womb from placental or fetal faultiness, or some toxin formed in association with the dissolution of deported placental cells (escaped into the maternal blood stream), the same rule holds, though possibly we must eventually rather look to serumtherapy or treatment by antitoxin injections. If, on the other hand, it could be shown that the fault lies in some distant organ, for example, the thyroid gland, and a remedy can be found by supplying some deficient element of its secretion, a great point would be gained, for interference with pregnancy would become unnecessary. If it should become necessary to terminate the pregnancy, the choice of method is of importance. Formerly I have induced labour by the introduction of bougies and also by the glycerine method of Pelzer, but recently I have employed the more rapid method of dilating by Bossi's dilator. The first and second principles of treatment are bound up together and are of special importance in the preventive treatment of eclampsia, but, once convulsions have set in, the third principle becomes of instant and of first importance.

2. *Eclamptic Stage*. The first principle of treatment remains in force: it is necessary to get rid of the toxin, and now more active measures must be taken: hot packs, saline injections, and rectal irrigation are of use. With regard to the second principle—the management of pregnancy—there is a great diversity of opinion. Looking upon the continuance of pregnancy as a vital factor in the production of the poison and the causation of this disease, my own practice is to end the pregnancy, whether labour has commenced or not. Truly, the onset and progress of labour by the unaided natural powers, involving much unwonted muscular work and nervous strain, must throw into the system an additional amount of effete material, with which the excretory organs, if already damaged, may be unable efficiently to cope, or the violent uterine contractions may conceivably give rise to further escape of placental cells into the maternal blood-stream, and so intensify the danger. And it is on this account that I personally am of opinion that the right course is not to leave the matter in the hands of the maternal powers, but to terminate the labour as expeditiously and as safely as possible by artificial means. Though much has been said, and possibly rightly said, in favour of abdominal or vaginal Caesarean section, my own practice is as follows: (1) Where labour has commenced and the os is dilating I chloroform and deliver, if necessary, completing dilatation artificially by hand or instrument. (2) Where labour has commenced and the os is not dilating, or where labour has not commenced, I chloroform and dilate by means of Bossi's dilator and deliver. Formerly I dilated manually, or by hydrostatic bags, but now I prefer Bossi's instrument, which I believe, if carefully used, may be safely used. Possibly the fact that my muscular development is not too great has preserved me from inflicting those serious injuries which apparently have been met with in its use. If dilatation be performed slowly and the cervix carefully watched there should be little danger. But, as I said before, when once convulsions have occurred, whether before, during, or after labour, the third principle becomes of instant importance. It is now essential to control the convulsions, and this is the special point to which I desire to call attention.

The Convulsions. How are the convulsions caused? Several suggestions have been offered: (1) That they are produced by direct action of the toxin upon the nerve cells, (2) by cerebral anemia, the result of constriction of arterioles, (3) by cerebral oedema, the result of increased arterial tension, (4) by coagulation and capillary thrombosis. A suggestion, which I now advance, is that the eclampsia is due to increased cerebro-spinal tension. If we look at the clinical aspect of a case, we see at once that this suggests intracranial pressure. The premonitory signs of headache, dizziness, irritability and sudden blindness, the clonic, tonic, and tetanic spasm, the stupor and coma, all are consistent with increased intracranial pressure. Whether this be the cause or not, the continuance of the violent convulsions will increase the pressure by causing congestion of the cerebral vessels, and if continued, serous effusion and even haemorrhages may occur. We have only to think of the picture of the eclamptic woman to see how grave must be the congestion resulting from each attack. If this intracranial pressure be present, and if it be allowed to continue unrelieved, or to increase, it will in all probability lead to death. If the convulsions continue unrelieved, small or large haemorrhages or other vascular disturbances may occur, and, once this state is reached, the patient will almost inevitably die—these are the cases that end in death, whatever treatment be adopted, and my experience has led me to the conclusion that the tendency to death is proportionate to the extent to which the nervous system is involved. Whilst therefore dealing with the questions of the toxaemia and the pregnancy, it is essential to control the fits.

What Means Have We?—Up to the present time we have

been dependent chiefly upon drugs. It has lately been suggested that saline injections may be of use by washing out minute capillary thrombi—an unsatisfactory theory. Venesection, too, has been thought to influence the fits by reducing arterial tension, but it is chiefly upon drugs that we depend. I must confess to employing drugs, especially morphia, with a feeling of anxious doubt. We have yet no rational basis for their use; we are acting altogether in the dark, and are introducing into the body, once and for all, substances which, whilst they may do good, offer for all we know an equal chance of doing harm. Most of the drugs are cardiac depressants, and their actions require to be carefully watched. Morphine, if given in sufficiently large amount, whilst certainly paralyzing the nerve centres, with equal certainty interferes with and checks metabolism, and arrests the excretions—the interference with the latter being the antithesis of what we want. To illustrate the difficulty of the present position it is only necessary to refer to the fact that whilst one school recommends morphine to control the fits and inhibit metabolism, another would exhibit thyroid extract because it enhances tissue change. If it could be shown, on the one hand, that the toxæmia *is not* due to the accumulation of effete materials usually present in the body, which are now in excess and capable of being eliminated by the natural channels, if these could be got to work, and, on the other hand, that the toxæmia is due to the presence of some new toxin entirely peculiar to the pregnant state, for example, a toxin formed during the process of dissolution of placental cells (syncytiolysin or syncytiotoxin), and that this toxin chiefly acts as a poison to the nervous centres; then, until the discovery of a specific antitoxin, there might be ground to encourage us to push the administration of morphine, even though it blocked the excretions. Recent experimental researches have been conducted in this direction. It has been shown by Schmorl and others that during pregnancy fragments of villi or syncytial cells escape into the maternal blood stream, and upon this fact has been built the following theory: These foreign cells act as a poison to the maternal system: they give off a toxin (cytotoxin), for the neutralization of which an antitoxin (cytolysin), which has the power of destroying these cells, is produced by the maternal tissues. Veit suggested that, if this antitoxin, which he named syncytiolysin, is formed in insufficient quantity, the placental cells are not destroyed and act as the direct cause of the eclampsia. Ascoli, as the result of experiments, concluded that the convulsions were due to over-production of this syncytiolysin whilst Weichardt propounds the theory that in the dissolution of the placental cells by the maternal antitoxin (syncytiolysin) a new toxin is set free, which, if not neutralized, will give rise to eclampsia, and this he calls syncytiotoxin. His conclusions are the result of experiments upon rabbits and guinea-pigs, in which he has induced all the phenomena of eclampsia. Recently these experiments have been repeated by Wormser, of Bale, who has failed to confirm the results obtained by Weichardt. Unfortunately, then, this interesting and promising theory remains a theory: we have no substantial evidence of the existence of this specific toxin and our hopes of a specific antitoxin are annihilated. We must return, therefore, to our present means of controlling the convulsions, for which as I have said, we are chiefly dependent upon drugs.

It would be of inestimable value if we had some means whereby we could control the fits without introducing into the system new substances or drugs, which may do harm—some means to control the fits with certainty, arresting as it were the immediate menace of death, and allowing time to bring the pregnancy to an end and to get the excreting powers to work.

If my view that the convulsions and rigor are dependent upon increased intracranial pressure be correct, we have most satisfactorily and certain means of obtaining immediate relief. In 1899 Quincke noted the free communication of the arachnoidal spaces of the brain and spinal cord, and again in 1901 he called attention to this fact and to the possibility of tapping the spinal cord in the lumbar region. Since that time many cases have been recorded, chiefly of meningitis in addition, but also some cases of pernicious headache, convulsions, and chorea, besides cases of disease in which the method has been employed as a relief for tension. It was in November of last year that I decided to apply this method of treatment to puerperal eclampsia.

The first two cases seen by me after coming to this decision I now record for the sake of contrast: in one the method was not employed in the other it was: both were cases of puerperal eclampsia, the convulsions following confinement. The question of treatment was simplified, for the first principle of the management of pregnancy was not involved, the pregnancy having already come to an end before the fits appeared. Treatment, then, lay in the direction of controlling the convulsions and eliminating the poison; it was a matter of energetic action.

The first case was that of a primipara, over [illegible] years of age, the wife of a [illegible] and [illegible] was [illegible] pregnancy [illegible] was [illegible] before confinement, [illegible] that her ankles were a little swollen, she called her husband's attention to the fact, he thought little of it, but examined the urine, which contained no albumen.

Labour was quite straightforward, but, as the perineum was somewhat resistent, chloroform was administered and low forceps applied. Everything appeared satisfactory, the only noticeable feature, to which no great importance was at the time attached, being that the patient was somewhat excited and hilarious. Delivery took place about [illegible] p.m., during the night the doctor was summoned because of some slight attack, the nature of which was not quite evident, this recurred two or three times. No urine was obtained.

In the morning the patient had a more definite eclamptic attack, and I was sent for. On my arrival I witnessed a most violent and prolonged eclamptic seizure. By catheter I obtained a very small amount of urine, a few drachms, which was deeply mixed with blood. Chloroform was administered and a pint of saline solution injected beneath each breast. Chloral and croton oil were given by mouth and hot saline solution injected into the bowel. The question of lumbar puncture was entertained, but, owing to its experimental nature and the surroundings of the case, was not employed. I remained with the patient for several hours, during which there were several convulsions. Then as the patient appeared to have settled down into a quiet sleep I left her, requesting that I should be sent for if necessity arose. The patient, however, as I subsequently was grieved to learn, died about twelve hours after the first violent attack.

The second case was one which I saw in consultation with Dr. Henry and Dr. McMaster, of Rochdale, on December 10th, 1903, and to the latter I am indebted for the notes of the case:

The patient was [illegible] and sleeplessness had persisted all through pregnancy, and from the sixth month onward the patient had suffered from headache and swelling of the ankles, the urine being scanty. Labour was natural, lasting only a few hours and a midwife being in charge. The child was born at [illegible] a.m., and the patient was then quite conscious, but two hours after she complained of headache, vomited, had a fit, and sank into [illegible] lost her sight, the blindness being complete. During the day the fits recurred with increasing severity and frequency. At first, during the intervals, the patient was irritable but the irritability gradually gave way to stupor, the stupor deepened until [illegible] p.m., when I first saw her, the patient was almost comatose between the fits. In the hours there were fifteen fits, and as the day advanced the patient was progressively becoming worse.

Treatment.—During the day chloral by mouth and a diaphoretic mixture were given by Dr. Henry and Dr. McMaster. At 1 p.m. Dr. Henry telephoned to me, and on my suggestion the chloral was repeated, gr. xx of thyroid extract and minims of croton oil were administered, and normal saline solution was injected into the rectum. At 4 p.m. I met Dr. Henry and Dr. McMaster in consultation. The patient was very ill, her condition had steadily got worse in spite of the treatment employed, the fits were very severe and prolonged, and in the intervals the patient presented a semi-comatose state. I looked upon it as she must die. We decided upon energetic action. The patient was put under chloroform by Dr. McMaster, and a pint of warm saline solution, made up with [illegible] grains and Wells's tablets, a most convenient preparation, was injected beneath each breast; Dr. Henry attended to this. I pushed a spinal subarachnoid puncture in the lumbar region and withdrew a few drachms and a little more spinal fluid. The fluid escaped by drops under considerable pressure and not drop by drop as is customary in health when the needle is inserted for [illegible] purposes. An injection of hot saline solution was also given. I started with the patient [illegible] p.m. and left her at [illegible] p.m. I returned at [illegible] p.m. and found the patient was perfectly quiet, she was left to [illegible] At 9 p.m. we again visited the patient, and were informed by the [illegible] that the patient had had two very slight fits during my absence. The patient was [illegible] and [illegible] the [illegible] and [illegible] the [illegible] of the [illegible] and [illegible] to drink [illegible] water and take the [illegible] as before. There was, however, still [illegible] but there were [illegible] the patient remained [illegible] well, and has completely recovered her [illegible] appearance [illegible] the [illegible] week after [illegible] effect [illegible] day was [illegible] [illegible] [illegible]

chloride of mercury solution (1 in 2,000). The highest points of the iliac crests being determined, an imaginary transverse line was drawn between these points: the left index finger was placed upon the point where this imaginary line crossed the spine, this point coinciding with the tip of the spinous process of one of the lumbar vertebrae. A hollow needle, 3½ in. long, held in the right hand, was made to pierce the skin ½ in. to the right of the point held by the operator's left index finger, and was then pushed onwards, being directed slightly upwards and towards the middle line, so as to pass beneath the lower edge of the vertebral lamina, and so enter the subarachnoid space.

Such is the history of these two cases, and the successful issue of the second case, which seemed quite hopeless, gives me a feeling of the deepest regret that lumbar puncture was not performed in the first.

I have only one case to record, and on that account I have hesitated to bring this matter forward. The importance of the subject, the peculiarly distressing nature of the occurrence, the absence of definite knowledge, and the feeling of uncertainty and semi-hopelessness in our present treatment, together with the hope that this suggested method may receive extended trial and prove of value, must be my excuse, if apology be required, for bringing the matter forward at this stage.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE PREVENTION OF BUBONIC PLAGUE.

MAY I, as one who has had a certain amount of experience of bubonic plague in China and South Africa, throw out a suggestion not for the cure but for the prevention of this terrible scourge? Let me first, however, draw attention to certain characteristic features of this disease.

1. Given similar conditions and environment, the "colcured"[1] and "white" races are equally susceptible.

2. The former races are attacked in overwhelming proportions to the latter owing to differences of condition and environment, the most important of which is that "coloured" people are almost invariably barefooted.

3. Plague is caused by the admission into the system of a specific micro-organism or its spore.

4. The means of entrance is most frequently (always?) by a solution of continuity of the skin or mucous membrane.

5. This is usually situated in the foot amongst non-Europeans.

6. The groin is the usual site of the bubo in such races.

7. Provided the manipulator has no abrasion about his person, cases of bubonic plague may be handled with perfect impunity.

8. In the comparatively rare instances in which "whites" contract the malady, the bubo exhibits a predilection for the axillary or pectoral regions. In descriptions of the "black plague" of London the pectoral bubo is vividly portrayed.

Taking the above points into consideration, why not compel all "coloured" people resident within or in the immediate neighbourhood of plague-infected areas to wear an adequate protective covering to their feet?

This suggestion is at any rate well worth a trial, and I feel confident that, were it enforced, a marked diminution in the bubonic plague-rate would ensue.

C. MARSH-BEADNELL,
Staff Surgeon, R.N.

Llanidloes.

SEPTATE VAGINA.

THE notes on septate vagina in a recent number of the BRITISH MEDICAL JOURNAL were interesting to me because of a case I met with three years ago. S. A., a maiden lady, aged 50, consulted me for obstinate constipation accompanied by abdominal pain, and in the course of a pelvic examination the following notes were made.

Per Vaginam.—The external genitals are normally formed; hymen present, though small; the finger can be introduced into the vaginal canal only a little over an inch; there the continuity of the canal is interrupted by a thin strong septum transversely placed, the centre of which is perforated by a small opening sufficient to allow an ordinary uterine sound to pass easily through.

Bimanual Examination per Rectum.—The uterus can be felt situated normally in pelvis, and is normal in size. On passing the uterine sound through the aperture in the vaginal septum with the finger at the same time in the rectum, the point of the sound can be felt free in the upper portion of the vaginal canal.

There was no history or sign of any inflammatory trouble that might produce cicatricial atresia, and the condition gave rise to no specific symptoms, its discovery being quite accidental.

GEORGE C. R. HARBINSON, M.B., B.Ch.

Matlock.

THE ETIOLOGY OF VARICOCELE.

I HAVE a case of ordinary varicocele (left) said to have been caused by a strain. The lad (aged 17) was lifting a heavy trough with his hands behind him, and he says he felt a sudden pain in the left groin and found his scrotum swollen. On examination I found a varicocele, and in addition swelling and discoloration around the ring. The lad denies having ever indulged in masturbation, and persists in his first declaration that there was no swelling of any kind before the accident.

Some recent authorities admit that a severe strain is one of the possible causes of variocele, and it seems reasonable that any severe intra-abdominal pressure might cause sufficient dilatation of the spermatic veins to overstrain their coats. The interesting question however arises: On which side would such a varicocele appear? The arrangement of the left vein at once explains why the dilatation appears on that side in ordinary cases, that is, there is obstruction to the upward flow in the surcharged vessel. But intra-abdominal check to the upward flow in the cava would surely cause distension on the side where least resistance exists, that is, on the right, where the spermatic vein joins the cava obliquely.

My point is that the fact of the varicocele being on the left negatives the contention that it was caused by the strain, and that the surrounding swelling and discoloration were caused by the crushing of a pre-existing varicocele against the lad's hard stiff trousers.

JNO. MACPHAIL, M.B., C.M.

Barnsley.

REDUCTION OF DISLOCATION IMMEDIATELY AFTER THE ACCIDENT.

IN reference to Dr. Walford's communication under the above heading in the BRITISH MEDICAL JOURNAL of March 19th, p. 664, I might be allowed to mention an accident which occurred in my own person some eight years ago, and due to a similar cause. I was riding a bicycle when I suddenly came upon a piece of sharp new road metal, and, jumping off rather awkwardly to save my tires, I fell with all my weight upon my extended thumb on the elevated edge of the metal before the rest of my hand reached the ordinary level of the road, the result being that my thumb was dislocated at right angles to its ordinary position, the base projecting down into the palm. With my left fist I at once hit the base a smart blow upwards and outwards, instantly restoring it to its normal position, and, seizing it, flexed it strongly into the palm, retaining it there with my handkerchief as a bandage; and as in Dr. Ward's case, this was all done without almost the slightest pain. The thumb remained swollen and stiff, and painful for two or three weeks, but I thereafter quite regained the use of it.

B. STRACHAN, M.B.

Sunderland.

STERILIZATION OF THE HANDS.

PROBABLY many surgeons who, like myself, possess a pretty sensitive skin have found many of the ordinary means of "sterilizing" one's hands before operating quite impracticable. The following has been arrived at after various experiments, and as it seems to keep one's hands in excellent condition even with operating six days a week it may be worth recording.

1. After paring the nails with a nail trimmer, they are carefully cleaned and the hands and arms scrubbed with a broad, fairly stiff nail brush, abundant hot water and soft soap, for ten minutes by the clock. The nail brushes are boiled daily for thirty minutes and kept in 1 in 2,000 corrosive sublimate lotion.

2. The nails are again thoroughly cleaned with bone or metal nail cleaner. Much material formerly irremovable is now softened and easily taken away. The hands and arms are again scrubbed as before, for five minutes. Then after rinsing in boiled water they are (3) scrubbed thoroughly with 1 in 500 corrosive sublimate lotion made with half alcohol and half water. This scrubbing is to take ten minutes. After this they are rinsed in 1 in 2,000 corrosive lotion, then in sterile

[1] All non-Europeans are included in the words "coloured" people.

salt solution and lastly sterilized glycerine is rubbed all over the skin.

The whole process takes twenty-five minutes. Our assistants go through the same process, except that between 2 and 3 is inserted a lathering of the hands for five minutes with chloronated lime and washing soda taken together in the hand and used like soap with water. This leads to a free evolution of chlorine, easily discernible by the smell, and is doubtless most powerful as a germicide, though to some skins it is somewhat irritating. Where the lime is used No. 3 lasts only five minutes, and the hands are also rinsed in formalin lotion for two minutes. The latter however, I have entirely abandoned as being extremely irritating and damaging to sensitive skins.

J. Rutter Williamson, M.D.

Miraj Hospital, Western India.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LOWESTOFT HOSPITAL.

JACKSONIAN EPILEPSY IN A CHILD OF 2 YEARS: OPERATION: COMPLETE RELIEF.

(By H. Muir Evans, M.D.Lond., Surgeon to the Hospital).

D. W., a little girl aged 2 years and 8 months, was brought to [illegible] September 28th, 1903, suffering from severe fits of an epileptiform character.

History.—The child was well nourished but pale; she had all her [illegible] up on the breast until 14 months old, she had cut [illegible] at 18 months, so that there had been no trouble with dentition. No evidence of rickets, congenital syphilis, hereditary tendency to epilepsy or of any ear trouble, could be obtained.

[illegible] by October, 1902, when 17 months old, she was seized with severe convulsions, which lasted from 12 mid-[illegible] the morning. There had been no known injury or fall. [illegible] the baby kept working all the time and after the convulsions ceased the child lay for fourteen days paralysed down the [illegible] side. From October to Christmas, 1902, there were no [illegible] at the end of December she had a few convulsive seizures, which consisted of a sudden ducking of the head. Then followed a period of quiescence until the spring of 1903, when the fits returned, and became more severe and more obviously left-sided. In the summer of 1903 the fits grew rapidly worse in character, and were unrelieved by [illegible].

Condition on admission.—In October I found that the fits were of two [illegible] the head and the other [illegible] the left side of the face and the [illegible] consecutively to the ground. [illegible] the muscles of the face and head [illegible] Between the attacks the child [illegible] which [illegible] the face [illegible] with [illegible] was also [illegible] combination [illegible] was [illegible] the [illegible] [illegible] [illegible]

motions were of normal size, shape, and colour. During Dr. Pettitt's holiday all apparently went well, but in the middle of September we saw patient together and found a soft red oedematous swelling all around the mass. A little later this swelling broke down and discharged thin blood-stained fluid, with a faecal odour during the last week; no faeces ever passed through it. From this time onward the patient slowly sank and died on November 15th, 1903, the bowels continuing to act healthily as before, while there was no symptom of obstruction right up to the very end.

REMARKS.—This case we take to be interesting; first, for the reason that we were able to relieve an impending intestinal obstruction; secondly, for the marked relief the operation gave the patient as regards the general discomfort from which she suffered before; thirdly, from the fact that her last days were free from all those distressing symptoms of intestinal obstruction which would have occurred but for the operation performed.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 27th, Dr. BARCLAY BARON, President, in the chair. There were fifty-five members and visitors present. Dr. HALE WHITE opened a discussion on forms of joint disease met with in medical practice, and the following speakers took part in it: Dr. CAVE, Dr. PRESTON KING, Mr. PAGAN LOWE, Dr. WILSON SMITH, Dr. MICHELL CLARKE, Dr. SYMES, Dr. SHINGLETON SMITH, Dr. BANNATYNE, Dr. WILLS, Mr. FLEMMING, Dr. WATSON WILLIAMS, and Dr. WALDO. A vote of thanks to Dr. HALE WHITE was moved by Mr. R. J. H. SCOTT, seconded by Dr. WALDO, and carried by acclamation.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of this Branch was held at Cheltenham on April 21st. Mr. E. C. CRIPPS, in the absence of the President through illness, occupied the chair.

Personal Hygiene and Prevention of Disease. Dr. ETTINGER read a paper on this subject. He said that prevention of disease was much more important than treatment of disease, and the healthy should always be considered before the sick. The cause of diseases must first be studied in order to find the means of preventing them; by far the larger number of named diseases were due to the presence of living organisms in the body. Since many diseases formerly supposed to be due to cold, etc., had been found to be really due to micro-organisms the probability was that many others whose etiology was still obscure would in course of time also be found to be caused by the presence of micro-organisms. Practically all the diseases were preventable in theory, and though the exigencies of life made it impossible to live ideally the majority of people could very well manage to live more healthily than they did, and it was very desirable that more attention should be paid to various personal details which had an important bearing on the maintenance of health. There was room for great improvement as regards both private and public sanitation, drainage, and the disposal of rubbish, etc., also laws should be made dealing with such dangers as spitting and the overcrowding and inefficient ventilation of churches, theatres, offices, etc. Further, the segregation of all infectious cases should be compulsory including cases of more chronic infections such as tuberculosis. Rooms should be furnished more simply in order that thorough cleanliness might be possible and windows should always be open in any room that was occupied and there should be better provision of closets, baths and lavatory basins in every house than was usual. Most people did not pay sufficient attention to the cleanliness of their own persons. Dirty clothes were often worn, the body was quite inefficiently washed, and sufficient care was seldom taken about the cleansing of the orifices of which the mouth was the most important. Regularity of life was essential to health and work and rest and nourishment should be taken in regular quantities at regular times and of regular kind. Attention to these points was necessary in order that the tissues might be maintained in good condition and so be able to resist disease.

METROPOLITAN COUNTIES BRANCH: CITY AND WALTHAMSTOW DIVISIONS.

(CONJOINT MEETING.)

Walthamstow, April 28th, 1904.

Dr. C. H. WISE, Chairman of Walthamstow Division, in the Chair.

JOINT DISEASE AS ENCOUNTERED IN MEDICAL PRACTICE. Dr. W. HALE WHITE read a paper on this subject. The difficulties in connexion with diseases of the joints met with in medical practice fell, he said, into two groups—one connected with acute diseases of joints, the other connected with chronic varieties. Among the acute conditions rheumatic fever naturally first engaged attention, and mistakes were not infrequent, since rheumatic fever was so common that one was liable to diagnose it too readily. A patient should never be said to have rheumatic fever so long as a solitary joint was affected. Early in the disease one joint only might be implicated, but as long as this was so the diagnosis should be left open. Fracture into a joint and osteo-myelitis of the end of a bone had been thought to be rheumatic fever from forgetfulness of this rule and this mistake had cost the patient his life. In the early stage of pleurisy or pneumonia on the right side referred pain in the right shoulder might be so severe that the patient would be thought to have rheumatic fever. This disease might be mistaken for almost any specific fever, perhaps the comparing it with influenza was commonest. A by no means rare but very serious confusion was that between pyaemia and rheumatic fever. Many instances of this might be quoted, but as an example the following would serve. A youth was transferred from the care of a surgeon because it was believed he was suffering from rheumatic fever; the discovery of some pneumonia made this diagnosis doubtful and a rectal examination revealed a prostatic abscess; this was the source of the pyaemia from which he died. The difficulty was very great when pyaemia took the form of malignant endocarditis, but it was very necessary to be careful since the prognosis was so different. The arthritis which sometimes occurred with secondary syphilis might closely resemble rheumatic fever, and failure to remember that meningitis due to the diplococcus intracellularis was frequently accompanied by effusion into joints had often led to error. Many cases of severe gonorrhoeal rheumatism, in which the temperature might reach 103°, were called rheumatic fever, and the mistake was particularly apt to occur when the disease existed in women. The great effusion in the joints, the affection of tendon sheaths and fasciae, the absence of sweating, and of a blush over the joint, together with the dry skin of gonorrhoeal rheumatism should prevent confusion. In very rare cases arthritis was prominent in typhoid fever, and a case was cited in which this had caused an erroneous diagnosis. Although pneumococcal arthritis from time to time occurred, yet mistakes between it and rheumatic fever were rare because actual pneumonia hardly ever occurred with rheumatic fever. Glanders, dysentery, Malta fever, and dengue all often showed arthritis, but they were so rare in this country that their diagnosis need not be considered. Among diseases which were not specific fevers gout was the one most often confused with rheumatic fever. This mistake nearly always arose from want of care; according to Fatchen it was a common error in America. It was excessively rare for rheumatic fever to leave permanent deformities; when it did so it was nearly always in the case of children. In considering the chronic diseases of joints met with in medical practice the first thing was to try to differentiate the diseases grouped together under the names osteo-arthritis, arthritis deformans, and rheumatoid arthritis. Three maladies at least were clearly distinct—there was the disease usually called osteo-arthritis and commonly seen in the hip of elderly men. Secondly, there was the disease for which arthritis deformans was a good name. It was usually met with in women of middle life; affected by preference the hands but also many other joints; the cartilage was eburnated and bony outgrowths form. Thirdly, there was a disease for which rheumatoid arthritis was a good name. It occurred mostly in young women; in a severe case all the joints in the body were quickly affected. They were uniformly distended by synovial effusion; there was some uniform periarticular swelling; the joints most characteristically affected were the proximal interphalangeal joints, which became spindle-shaped; the temporo-maxillary joints were often implicated. The affection of the joints was so serious that the patient

often quickly became bedridden; the arthritic muscular atrophy was especially well marked; there was some pyrexia, with a rapid pulse out of all proportion to the temperature; the feet and hands swelled profusely but the rest of the body hardly perspired at all, while several pigmented spots appeared on various parts of the skin. After the patient had been severely ill for a week or a fortnight the temperature fell, but the disease was very liable to relapse, and, if it was severe, fixation of joints rendered the patient a cripple. Sections of the joints showed that the disease was one of the synovial membrane, that new outgrowths of bone never formed, and that any erosion of cartilage was slight and only secondary to the pressure of thickened synovial membrane. The x rays always indicated that the bone was unduly transparent. With regard to the differentiation of the diseases comprehended under chronic rheumatic arthritis from other chronic diseases of joints it should be borne in mind that gout was frequently overlooked, while next to gout chronic gonorrhoeal rheumatism gave rise to most mistakes, and in association with this it was well to remember that flat-foot was often thought to be chronic rheumatism. A somewhat similar mistake was that of confounding sciatica and hip joint disease. It was probable that some cases of chronic tuberculous disease of joints were miscalled rheumatoid arthritis, and the difficulty was made greater by the fact that by the time there was an opportunity for examining the joints the tubercle bacilli were dead. Still more common was the mistake of calling chronic infective arthritis due to some chronic suppuration, as that about a tooth, chronic rheumatism. In all cases supposed to be examples of this disease a careful search should be made for some focus of suppuration. Other important errors referred to were the arthritic conditions met with in nervous diseases, in haemophilia, and in Henoch's purpura.

A discussion followed, in which the following members took part: Messrs. Wallace, Corner, Alexander, and Drs. Wise, Shadwell, Price, M. Greenwood, and Goodall; and Dr. Hall White replied.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISIONS.

At a meeting held at the Great Northern Central Hospital, Hadley, April 20th, at which fourteen members were present, Mr. Sydney Stephenson demonstrated the following cases: (1) Anophthalmos, or more correctly extreme microphthalmos, in a baby; (2) two instances of congenital opacity of the cornea in babies; (3) three cases of superficial scleritis, "episcleritis," in adult females; and (4) several cases to illustrate interstitial keratitis of specific origin.

Dr. Glover proposed a vote of thanks; it was seconded by Dr. W. W. Westcott, and most cordially carried.

OXFORD AND READING BRANCH.

The annual meeting of this Branch was held in the library of the Royal Berkshire Hospital on May 6th, Dr. G. H. F. Hodgson, President, in the chair.

Election of President Elect.—Mr. A. J. Drew was elected President Elect, and Mr. R. T. Doyne the first Vice-President.

Cases.—The President showed a case of acromegaly in a lad, of [illegible]. Photographs were shown. The etiology, pathology, and treatment of the were fully entered into. Dr. [illegible] and Dr. Pegler then showed a very well marked case [illegible] in a male, aged 34. Dr. C. W. Mansell Moullin read [illegible] and exhibited the patient. [illegible] Mr. W. J. Lester presented [illegible] Mr. W. J. Lester presented [illegible] patient ulcer, an epithelioma, [illegible] Dr. [illegible] successfully and a [illegible] Mr. Lester also exhibited another [illegible] by x rays. Mr. Hodgson showed an [illegible] and specimens. Dr. [illegible] showed a [illegible] tube [illegible] and [illegible] a [illegible] obtained.

Medical Secretary.—Mr. H. H. Waterfield was elected [illegible] to that office, vice Mr. [illegible]. The Hon. Curator showed specimens of [illegible] which he had himself removed.

Ectopic Pregnancy.—Dr. H. S. Whitfield remarked on some cases of ectopic pregnancy treated by operation. The President, Mr. J. H. Walters, Mr. Hutchison, Gilbard, and Mr. Symonds joined in the discussion. The question as to drainage or no drainage was fully entered into, as also the question of catgut or silk ligatures.—Dr. Whitelocke preferred the former, Mr. Walters the latter.

ULSTER BRANCH.

Portadown, Thursday, May 7th, 1904.

Thomas McLaughlan, M.D., President, in the Chair.

Rupture of the Uterus.—Dr. John Campbell (Belfast) read a paper on three cases of rupture of the uterus, and showed (1) two solid ovarian tumours removed from one patient; and (2) two cystic ovarian tumours removed from another patient. He also gave a preliminary report on the treatment of cancer of the uterus by radium.

Ruptured Extrauterine Pregnancy.—Dr. Hadden (Portadown) read short notes (1) of a case of ruptured extrauterine pregnancy, successfully operated on by Dr. Darling, Lurgan; (2) of a case of hyperpyrexia (109° F.) in an infant aged 5 months, with recovery.

Lithotomy.—Dr. Crooke (Derry) read notes and showed specimens of two cases of lithotomy, one of exceptional interest and difficulty in a female dwarf, both successfully operated on; and notes of a case of subdural haemorrhage, also successfully operated on.

Operation for Perforated Typhoid Ulcer.—Dr. Darling (Lurgan) read notes of a case of perforated typhoid ulcer, for which he had performed laparotomy.

Gastric Ulcer.—Dr. Calwell (Belfast) read notes (1) on some further statistics of gastric ulcer, and (2) on a form of apparently intermittent gastric dilatation in the neurotic.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, May 10th, 1904.

Effects of a Proteid Dietary.

Dr. Chalmers Watson gave a demonstration of the clinical and pathological appearances observed in an experimental research into the effect of feeding fowls on a diet of raw meat, and discussed shortly their bearings on disease in the human subject. The main facts to which attention was directed were: (1) The absence of any indications of gout (uratic deposits); (2) the variety in the clinical and pathological features observed in the different subjects, the lesions in the thyroid and parathyroid gland and bone marrow, the very favourable manner in which one fowl affected with well-marked tuberculosis was influenced by the diet. The application of these facts to disease in the human subject were shortly discussed under the following headings: The rôle of a proteid dietary, a diet rich in nucleins, in the induction of gout; and the dietetic treatment of tuberculosis with special reference to the use of raw meat as a curative agent. The research was begun with the object of confirming or otherwise the recent interesting research of Kronka on avian gout. The results obtained did not confirm those described in Kronka's record; the experiment was unsuccessful so far as the induction of gout was concerned. This negative result was of itself of much interest; the interest was enhanced by the changes incidentally observed in the thyroid glandular system, the bone marrow, and other tissues in the tuberculous fowls, and by the distinctive character of the lesions in the tuberculous subject. The investigation consisted in feeding eight fowls, six hens, and two cocks on a diet of raw lean meat and water. Four of the fowls were a year old, and four were just under 2 years of age. The observations lasted for 16 months. The history of the eight fowls was thus summarized. At the end of six months two of them were returned to the poultry-yard in apparent perfect health. Two had succumbed to acute nervous derangements at the fourth and seventh months respectively. The animals went off their food, showed symptoms of paralysis and incoordination, rapidly became anæsthesic and died. No gross lesions were observed at the necropsy; there was no trace of uratic deposits. Of the four remaining fowls which were fed on the dietary for thirteen to sixteen months three lost weight and showed marked disturbances of the cutaneous and nervous system, the fourth gained markedly in weight and generally thrived on the diet. The necropsy revealed no traces of gout in any of the subjects. The three

fowls in this group showed a remarkable hypertrophy of the thyroid and parathyroid glands, and in two of these subjects the bone marrow had almost entirely disappeared; in the fourth subject the thyroid and parathyroid glands presented a normal appearance, and the bone marrow was of a "leucoblastic" type; this fowl showed marked evidence of intestinal and hepatic tuberculosis. Other features of interest were the entire absence of renal disease and the healthy state of the blood vessels throughout the system. These points had significance in relation to the generally accepted view that a nitrogenous dietary led to vascular and renal disease. The facts recorded had an important bearing on some generally accepted views of the appropriate dietary in gout. Of late years there had been a tendency to abandon the long held "uric acid theory" of the disease. Coincidently with this change, however, the attention of many investigators and clinicians had been increasingly directed to the "nucleins" of the food, and the articles of diet allowed or forbidden had special reference to their richness or otherwise in nucleins or purin bases. The facts recorded suggested that this theory of the "nucleins" should also be abandoned. Some facts from comparative pathology bearing on the probable bacterial origin of the disease were advanced. In recent years special interest had been taken, especially on the Continent, in the question of the value of raw meat as a curative agent in tuberculosis. The interest in this subject had arisen mainly from the experimental researches of Richet and Héricourt on dogs which had been rendered tuberculous by intravenous injections of tubercle bacilli. These observers, as the outcome of a large amount of experimental work, demonstrated that feeding tuberculous animals on raw meat gave remarkable results; that cooked meat did not give the same effect as raw meat; that the muscle plasma and not the pulp contained the active principles of the meat. Their researches led them to conclude that raw meat as opposed to cooked meat had a specific effect in antagonizing the tuberculous toxin. In the discussion which followed Richet's paper, the objection was raised that as the animals had been artificially rendered tuberculous the conditions *re* treatment were hardly comparable to tuberculosis in the human subject. It was further argued that the results obtained might be peculiar to the more strictly carnivorous animals. The present record met these objections. The facts showed that in this case of naturally acquired tuberculosis the results of feeding with raw meat dietary confirmed those recorded by the French observers for the artificially-induced disease. It also showed that this favourable result was obtained in graminivorous animals. The negative results obtained in the experimental investigations of Fränkel and Sobernheim and Lawrason Brown were of great interest but did not minimize the importance of Richet's observations and deductions. There was yet much to be learned regarding the mechanism by which the raw meat diet overcame the disease. The remarkable hypertrophy of the thyroid and parathyroid glands in three fowls was apparently induced by the raw meat dietary. In the fourth fowl—a tuberculous subject—this same dietetic régime did not obviously disturb the functions of these glands, but in place of this it exerted an exceedingly favourable influence on the tuberculosis from which the animal suffered. These facts were extremely suggestive, not only with regard to the manner of action of raw meat on tuberculosis, but also regarding the probable explanation of the therapeutic activity of a milk régime in the treatment of a variety of affections—for example, eclampsia, chorea, and other diseases. Attention was also directed to the coincident changes in the bone marrow; these changes indicated the great importance of the study of the interdependence of various internal secretions. Reference was made to recent observations on the thyroid and parathyroid glands, which suggested that these structures played a more important rôle in the internal defences of the organism than was commonly suggested.

The President asked if in any of the fowls an examination of the excreta had been made; and as to the renal function in eliminating uric acid also there was reason for believing that a portion of the meat food had passed through the alimentary tract in a partially decomposed condition. Were there any signs of scurvy in the fowls? In regard to the meat diet in tuberculosis a certain increase in meat in the diet of tuberculous patients had been found useful, but an exclusive meat diet would presumably be detrimental.

Mr. Walter Edmunds, referring to the thyroid changes, said this was as far as he knew the first time in which an experimental enlargement of the thyroid had been produced without inducing symptoms.

Dr. Watson, in reply, said that the question of excretion had been carefully investigated by Kionka; fowls had an equal capacity he thought of dealing with an increased amount of uric acid to that which the human subject had in dealing with an excess of urea; there was no evidence of scurvy in the fowls.

Leucocytosis and Appendicitis.

Dr. Herbert French communicated a paper based on a study of the leucocyte counts in 83 consecutive cases of appendicitis in Guy's Hospital. The cases had been arranged in four main groups, the classification being based on the character and course of the disease in each case, and not on the leucocyte changes. The four groups were those with local signs, no tumour, spontaneous recovery; local signs, a definite tumour, spontaneous recovery; local signs, a definite tumour, evacuation of pus; and those with general peritonitis. It was found that many cases in which spontaneous recovery occurred, without clinical signs of rupture of an abscess into the bowel, gave leucocyte counts exceeding 20,000, a few exceeding 30,000. Many cases in which pus had to be evacuated gave low leucocyte counts. Therefore the leucocytosis alone could not be taken as a proof positive of pus, or of its absence, when it did not exceed 30,000. Many cases in which pus was present showed from 35,000 to 56 000 leucocytes, however, and no simple case reached these figures. A leucocyte count, therefore, of 35,000, or more, could be regarded as strong evidence of pus, though lower figures left the question doubtful. More important than the total count was the rising leucocytosis when counts were made at intervals. No such rising count occurred in any simple case; pus was present whenever successive counts showed increasing numbers. The reverse was not true; sometimes pus was present though successive counts showed progressive diminution. The sign, therefore, was valuable, but had great limitations; it might mislead if attention were paid to it alone. It must be taken into account, but only in association with pulse-rate and the general condition of the patient.

Dr. Dudgeon considered that both an enumeration of the leucocytes and a differential count should be made. The gradual increase in the number of cells was most important in diagnosing appendicitis. Even 10,000 or 15,000 was often suggestive, along with other signs. Over 30,000 was not by any means conclusive as to the presence of pus. The differential count was of great importance. In suppuration 80 or 90 per cent. of polymorphonuclear neutrophiles was often found. The absence of eosinophiles was probably of little importance. Ehrlich's method of staining the blood with iodine giving a brown colour or granules to polymorphonuclear cells had seemed to him a very unreliable method. There was no sign absolutely diagnostic of suppuration. The diagnosis of typhoid and intestinal obstruction were important; even 50,000 or 80,000 leucocytes had been found in intestinal obstruction. He asked if the gas in the abscess cavity described was really due to the bacillus coli communis.

Dr. G. Newton Pitt referred to a case associated with pylephlebitis due to B. pyocyaneus without any leucocytosis.

Dr. French, in reply, had not found the differential count in diagnosing suppuration of much value. The bacillus present in the case with gas was, according to the pathological report, the colon bacillus. In the two cases of pylephlebitis described in the paper without leucocytosis there was no blue coloration of the pus.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, May 4th, 1904.

Tuberculous Arthritis.

Mr. Robert Jones (Liverpool) read a paper on tuberculous arthritis in the young and alluded to his association with the late Hugh Owen Thomas. The latter was a warm advocate of the conservative treatment of tuberculous joints, and based his treatment on a theory of mechanical and physiological rest. Mechanical rest he attained by attaching the articulation to a rigid iron frame, holding that it was not obtained by extension. In fifteen years Mr. Thomas never excised a joint in a young person, and the speaker had never seen such consistently good results obtained as by Thomas. Early diagnosis of tuberculous lesions of joints was not easy, but there were two symptoms of considerable value—rigidity and de-

fixity. Rigidity generally preceded pain and muscular shortening and should extend to all normal movements of the joint before being accepted as proof of a joint lesion. Free movement even in one direction would at once exclude tuberculous disease. Deformity, another early symptom, was practically constant in character, and in nearly all cases could be avoided provided proper lines of treatment were followed. In hip disease natural processes might in time effect a cure, since movement became in time so painful that the patient took to bed of his own accord, when the leg assumed the position of greatest comfort, and muscular spasm protected and locked the joint. This position, however, resulted in structural shortening of the tissues and produced a deformed limb with impaired movement. Proper treatment immobilized the joint, saved the muscles from spasm and thus from contracture, relieved pain, and prevented the bone destruction due to attrition and pressure. For early hip disease in small children the speaker used a double splint which immobilized better, was easier to apply and keep in position. The child was kept in the open air continuously. Such cases, when seen early and treated on these lines, seldom exhibited complications; many recovered with movable joints, and rarely had flexion deformities of more than ten degrees. When the disease was more advanced and the deformity considerable he corrected the deformity under an anæsthetic in the following manner: A direct pull on the limb was obtained by means of a thick skin of wool, counter-extension being effected by a sheet between the limbs on the sound side; the adductor muscles were divided if tense. Flexion and adduction were corrected, and the pelvis on the diseased side lowered. The limb was then placed in the abduction frame and kept absolutely at rest. Experience had convinced him that in a large number of cases tuberculous abscesses should be treated by expectant methods. Generally speaking they were harmless, and became dangerous only when infected from within or without. It should be remembered that the tubercle bacillus was not pyogenic, and that the inflammation which it produced results in the formation of granulation tissue. In many cases an intra articular tuberculous abscess would become extra articular, travel a considerable distance from where it arose, and finally disappear. In those cases where the abscess did not disappear but invaded the skin, he abstained from interference until the skin became red, he then made a small puncture, half an inch in length, using at the same time the strictest antiseptic precautions, he did not interfere with the third sac wall, considering it to act as a barrier against infection. In cases where pain and a pyrexia were present together with loss of body weight, mixed infection might be assumed, and the abscesses should then be evacuated as soon as possible. It might also be necessary to evacuate tuberculous abscesses owing to the fact that their position rendered fixation splints impossible. Retropharyngeal abscesses should also be immediately opened preferably before they were matured. Speaking merely a joint could be established except where the range of movement did not diminish by two-thirds. In cases in which ankylosis resulted, a joint might be pronounced cured where the angle did not change after rest. The speaker then described his treatment of cases of tuberculous disease of joints, and concluded by laying stress on the responsibility of the general practitioner in cases of tuberculous disease of joints since it was then that the cases were seen in an early stage.

In the discussion which followed, the PRESIDENT, Messrs. DARBY, WALLACE, CATHCART, ALLEN THOMSON and Dr. [illegible] took part, the latter expressing a wish that surgeons would try a diet of raw meat in joint tuberculosis.

The discussion was concluded by Mr. CATHCART, Mr. A. A. SCOTT, Dr. J. WYLLIE and Mr. ALLEN THOMSON.

MEDICAL SOCIETY OF LONDON.

F. DE HAVILLAND HALL, M.D., F.R.C.P., President, in the Chair.

Monday, May 2nd, 1904.

STUDY OF A CASE OF LEUKÆMIC FEVER.

DR. I. J. [illegible] described a fatal case in which the blood were present small vacuolated cells which contained large numbers of diplococci but which were cultures were obtained. The [illegible] produced [illegible] in rabbits and guinea-pigs. From these lesions pure cultures were again obtained. Reference was made to the importance of the early diagnosis of the rheumatic state and the evidence of true rheumatic broncho-pneumonia, pleurisy, nephritis, and peritonitis; the formation of formic, lactic, and acetic acids by the same diplococcus in different media, a suggested similar toxic origin of gout; and the relation of acute rheumatism to chronic rheumatism and rheumatoid arthritis. In regard to treatment, the infective theory showed the time at which active or palliative or surgical measures were indicated and the prime importance of the prevention of rheumatic fever.

DR. A. E. GARROD still believed that uric acid had a good deal to do with the pathology of gout.

MR. MARMADUKE SHIELD alluded to the benefit of opening the joints in pyæmic and gonorrhœal cases with irrigation.

DR. A. PAINE advocated the disinfection of the urine in cases of malignant endocarditis, and, after remarks by Dr. B. L. ABRAHAMS, DR. POYNTON replied.

INFLUENCE OF EARLY OPERATION ON THE MORTALITY AND RESULTS OF ACUTE APPENDICITIS.

MR. W. H. CLAYTON-GREENE read a paper on this subject. Not only was the number of cases of appendicitis greater than formerly, but it was increasing in severity. It could not be dissociated from some degree of peritonitis. The results of early operation showed not only a diminished death-rate but also fewer sequelæ. The mortality, apart from the early operation, was probably not under 20 per cent.

The paper was discussed by MR. A. E. BARKER, MR. SHIELD, MR. MCADAM ECCLES, DR. H. A. CALEY, MR. J. D. MALCOLM; and MR. CLAYTON-GREENE replied.

ELECTION OF OFFICERS.

The following were elected the new officers of the Society for the ensuing year: *President:* Mr. John Langton. *Vice-Presidents*, Dr. E. J. Nix and Mr. Charters J. Symonds. *Honorary Secretary:* Dr. Risien Russell. *Members of Council:* Sir Hugh R. Beevor, Mr. Carter Braine, Dr. H. A. Caley, Mr. A. Carless, Dr. H. Corner, Dr. Lovell Drage, Dr. de Havilland Hall, Dr. A. H. N. Lewers, Mr. T. H. Openshaw, C.M.G.; Dr. F. S. Palmer, Dr. J. E. Ranking, and Mr. W. G. Spencer.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, May 5th, 1904.

THE RETINA IN ANENCEPHALY.

MR. STEPHEN MAYOU read a paper on the Retina and Optic Nerves in Anencephaly. He dwelt on the controversy which exists as to whether the axis cylinders of the optic nerve are developed from the brain or retina, or from both these structures, as is more usually held. The myeloine sheaths, however, seem to develop from the brain towards the retina. In the full-term anencephalic fetus which the author obtained there was an arrest of development at the stage when the primary optic vesicles are formed, and the nerve sheath differentiated, but before the development of the axis cylinders or chiasma of which no trace was found. The choroid was hypertrophied and the retina showed an excessive pigment layer. The layers of the retina were present except the nerve fibre layer which was completely absent. The author concluded that the development of the axis cylinders was directly dependent on the proper development of the cerebral centres.

PTERYGIA AND ASSOCIATED CORNEAL CHANGES.

MR. H. HERBERT, I.M.S., read this paper. He described some of the corneal changes seen in the acutely progressive forms of pterygium. In many cases the whole cornea stained with fluorescine showing this to be inflamed. When pannus was developing this part never stained, showing its essentially pathological nature. In old cases the author described "lymphoid granules"; these nodules were situated on the basis of the fibrous corneal opacity, some of them coalesced and their margins might overlap the corneal edge. The severe forms became progressively thicker, and ultimately pannus [illegible] was developed. Apart from the above the limbus might be thickened but this occurred almost exclusively in follicular conjunctivitis. The permanent resultant of pterygium was the slight extension downwards of the corneal margin. Indentations might be seen in mere exceptional cases, which were probably not due to ulceration but to a resorption of the lymphoid nodules.

THE OPERATION FOR TRICHIASIS.

MR. W. F. CANT (Shrewsbury) read a paper on this subject.

Trichiasis was so extremely common in the East that out of 68,000 cases treated in fifteen years 12,200 suffered from it. The great difficulty experienced in treatment was the shrinking of the conjunctiva and the great thickening of the tarsus itself: the latter might be five or six times its natural thickness. He discussed the various operations, and gave his preference to Snellen's, modified to suit individual cases, as this operation (removing a wedge-shaped piece of the tarsus) was easy of accomplishment; it turned the lashes well out; there was no raw surface left to heal. It was applicable to all cases, and could be extended in various ways to meet varying degrees of deformity. For the severe conditions in the East he suggested the following modifications: (1) Instead of the simple wedged-shaped piece of tarsus that was removed, an excision of a U-shaped piece of tarsus and tissue right down to the conjunctiva; (2) the sutures, instead of being entered above or in front of the lashes and out through the upper lip of the cut, were entered from the lid margin behind or beneath the lashes and out through the lower lip and then passed in and out of the tarsus high up, well above the upper margin of the cut, so that on drawing the ends together great eversion was produced; (3) when the entropion extended quite into the canthi, canthotomy and canthoplasty were employed as adjuncts.

Dr. ROCKLIFFE read short notes on the following cases:

1. *Atrophy of both Optic Nerves after Perforating Accident.*—This case had been under observation for six years, with steadily increasing atrophy, and no other special or general symptoms. There was deep blue cupping, but no neuritis or haemorrhage. The retinal vessels were not attenuated, and with the exception of an infantile uterus and undeveloped sexual organs, the remaining organs were healthy.

2. *Optic Neuritis [illegible] Concussion of the Eyeball.*—The patient received a severe blow on the eyeball right immediately followed by loss of vision, with intense optic neuritis. There was neither wound of the eyeball, traumatic cataract nor displacement of the lens, haemorrhage into the vitreous, ruptured choroid, nor detachment of the retina. There was, in addition to the optic neuritis, a haemorrhage into the yellow spot with iritis. Three months later the vision of the left eye failed (? functional). Six months later the vision of the left eye became normal, the right improved to $\frac{1}{2}$ and J. 1.

3. *Unusual Sequence to Ordinary Extraction.*—The patient, a decrepit old man, after an uncomplicated extraction developed on the fourth day a dense diphtheritic looking membrane of both lids and surrounding cornea. The pupil became blocked; there was no chemosis or pain, nor was there swelling of the lids. The corneal epithelium exfoliated and the eye was eventually excised, when the cicatrix appeared healthy and perfectly healed. The anterior and posterior chambers were normal, but the coloboma and iris were blocked with thick yellow membrane, with considerable iritic thickening.

4. *A Peculiar Outbreak of Ophthalmia.*—There were 7 persons, all of whom had been nursing a diphtheritic child. They each had an acute attack of granular ophthalmia without trachoma or membrane. It affected the lower lids only in [illegible] of the cases; both eyes were affected at intervals of a few days. In all there was a subnormal temperature, depression of spirits, and lassitude, but no other general symptoms. The attack ran a similar course in each case and lasted about fourteen days. The bacteriological examination was negative except in one examination where the bacillus xerosis in large quantities was present. The examination was carried out by the Clinical Research Committee.

CARD SPECIMENS.

Card specimens were shown by the following: Messrs. WHITEHEAD, HALMAN, BLONNEL, DOANE, PARSONS, LAWFORD, TAYLOR, BICKERTON MAYOU, PATON, BEALE, SILCOCK, and ANDERSON.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting held on April 15th, Dr. C. O. HAWTHORNE in the chair, Dr. JAMES TAYLOR showed a boy of 5 years with congenital proptosis and meningocele. The mental condition was defective, and recently his eyesight had been failing. Nystagmus and optic atrophy were also present. Dr. ANDERSON SMITH (introduced) showed a girl of five years who at the height of an attack of measles developed cerebral symptoms, namely, vomiting, squinting, head retraction, photophobia, and unconsciousness. At the end of five days the acute symptoms subsided, but she was found to be aphasic, resented being touched, and wasted rapidly. There was no optic neuritis or ear trouble. A month later she was still aphasic, could not sit up in bed, moved her limbs in an ataxic manner, and appeared to have general cutaneous anaesthesia. There was slight rigidity of the limbs, ankle clonus, and exaggeration of the knee jerks. More recently there had been gradual improvement in the motor power; she could say a few words, the ankle clonus had disappeared, and sensation was improving. Dr. HAWTHORNE thought the evidence of meningitis was not clear, and suggested that the symptoms might have been due to some form of toxin. He recalled a somewhat similar condition in an adult after influenza. Dr. FARQUHAR BUZZARD thought that all the symptoms could be attributed to a lesion of the cerebrum, without any involvement of the spinal cord, and that there had probably been encephalitis produced by the measles toxin. As the improvement had been so marked, there was reason to hope for a good ultimate result. Dr. JAMES TAYLOR agreed as to the good prognosis and as to toxaemia connected with the measles being the probable cause. In reply to questions Dr. ANDERSON SMITH said he had thought of the possibility of the rash and other symptoms being due to cerebro-spinal meningitis and had excluded that; further, another member of the family had measles at the same time.—Dr. S. VERE PEARSON showed a case of tuberculous nodule in the fronto-medullary tract. The patient was a boy, 2 years old, and was suffering from weakness in, and disinclination for, walking, with slight drowsiness and squint in the left eye. There had been occasional retching and difficulty in walking. Definite right-limbed paresis had developed later. Dr. Vere Pearson commented on the crossed paresis, and considered that there was a lesion in the pontomedullary tract, probably a tuberculous growth.—Dr. HAWTHORNE referred to a case of basal tumour in a child, who developed third nerve paralysis, and presented evidence of tubercle in other parts of the body. The tumour was found *post-mortem* to be tuberculous.—Dr. FARQUHAR BUZZARD referred to the rarity of tuberculous tumours in this region, and to the fact that they were usually discovered accidentally after death, having produced no symptoms during life. He was inclined to regard the case shown as one of pontine tumour, probably gliomatous.—Dr. C. O. HAWTHORNE showed a boy of 10 years, suffering from paramyoclonus multiplex. There were sudden, shock-like, clonic muscular contractions affecting both sides of the body at the same time. The bilateral and isochronous character of the contractions was well seen in the cremaster muscle. The muscles of the face, the trunk, and the thighs were also affected.—The following papers were read. Mr. LEONARD BIDWELL: A case of gonorrhoeal pyosalpinx in a girl of 6 years treated by removal of the tubes. Dr. GEORGE CARPENTER: A case of gonorrhoeal inflammation of the uterine appendages in a girl of 3 years, with spontaneous recovery. Mr. R. C. DUN (Liverpool): A case of post-hemiplegic chorea, *petit mal*, and mental irritability, treated surgically. Mr. LEONARD BIDWELL: Two cases of strangulated hernia in infants under 1 month, treated by operation.—Cases of microphthalmos were shown by Mr. SYDNEY STEPHENSON, of splenic anaemia by Dr. BAUMANN, and one of dactylitis with subcutaneous nodules in an infant by Dr. A. MONSON.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on May 3rd, Miss ALDRICH BLAKE, M.S., M.D., in the chair, Miss THORNE, F.R.C.S.I., read the notes of a case under her care of streptothrix infection in the right iliac fossa of a young woman aged 25. The nature of the disease was recognized when the abscess was opened and the characteristic granules were seen in the pus. On microscopic examination, the granules were found to consist of mycelial threads, but no clubs were discovered. Miss SIMPSON, M.D., described two cases of infantile tetanus, occurring in infants of 11 days old and 8 days old respectively. The first child was admitted on January 22nd, and the second on February 11th. The same nurse had attended both confinements and had used Fuller's earth for the umbilicus in each case. The father of the first child was a cab washer and ostler. All the symptoms of tetanus were present, and the umbilicus was very unhealthy in both cases. In the second child there was purulent discharge from both eyes which was examined for tetanus bacillus with negative results. Death followed in both cases on the day of the admission. Notes of a case of multiple polypi of the large intestine in a girl aged seventeen were read by Miss COCK, M.D.

THE NEW YORK STATE CANCER LABORATORY.—There was some difficulty about the renewal of the annual appropriation of £3,000 for the cancer research laboratory at Buffalo. The Finance Committee reported that it was convinced that no progress was being made in the laboratory. It added that the State would gladly spend its money in the effort to find a cure for cancer if it could be shown that any advance had been made. In deference to urgent representations, however, the Chairman of the Senate Finance Committee, who cut the item out, finally agreed that it should be retained in the supply bill. The laboratory will therefore receive the State grant of £3,000 which it has received for six years.

REVIEWS.

PUBLIC HEALTH.

PROFESSOR GUIRAUD, of Toulouse, and his *préparateur*, Dr. A. GAUTIÉ, have brought out a French edition of Smolensky's Russian treatise on public health, and have entitled it *Traité d'Hygiène*. More than half the book deals with nutrition and foods. The quantity and quality of various aliments necessary to individual health are discussed in detail, and then the chief chemical, physical, and physiological properties of various foods, such as meat, fish, milk, butter, cheese, fats and oils, eggs, bread, wines, beer, tea, coffee, cocoa, and conserves and condiments are dealt with in some twenty chapters. The origin, varieties, mode of preparation, methods of chemical and bacteriological examination are each treated in respect of all the chief varieties of food. In addition a number of practical points as to sanitary inspection and the examination of unsound food are discussed. The remainder of the book is concerned with air, water, soil, the dwelling-house, lighting, clothing, etc. These matters have been treated in a somewhat superficial and fragmentary manner. A book which devotes 41 pages to flour and 30 pages to water is likely to present the subject in a way lacking focus and proportion, and that is the chief complaint that must be made. Some of the methods of examination recommended are obsolete and some others are not sufficiently described or explained to serve as guidance to the investigator. The bacteriology also leaves something to be desired. Broadly, however, it may be said that Smolensky's work incorporates an immense body of useful facts for the sanitarian or public analyst.

The second edition of the Italian hygienist's *Manuale* has been thoroughly revised and brought up-to-date under the general editorship of Professor CELLI, assisted by numerous collaborators. The first volume is chiefly confined to laboratory work, and includes the microscopic appearances of meat, milk, farinaceous food, wine, etc., with their adulterations and diseases; this is followed by a section on protozoology. A very full account of bacteriology in its relation to hygiene occupies over 350 pages, and is followed by chapters on chemistry as applied to public hygiene. The last 100 pages are devoted to the hygiene of meat and milk. In the second volume general and special epidemiology are treated, and there are chapters on the hygiene of the soil, the habitation, water, habitat, the city, and special forms of houses, that is to say, hospitals and schools. Finally, the official and legal aspect of public health work is discussed. The illustrations which are scattered throughout the work are hardly up to the level of the letterpress. The type is small, particularly in the bacteriological section, so that it has been possible to convey a large amount of information in the space at the author's disposal, which is not only very full but includes the most recent and trustworthy work on the matters in hand. Only constant reference could test the real value of such a book; but, so far as we have been able to examine it, it appears thoroughly adequate and to be highly recommended.

We have received the second edition of Dr. R. B. FERGUSON'S *Aids to the Mathematics of Hygiene*, the first edition of which was reviewed in our columns in 1901. It fulfils a useful purpose as a ready reference book for the chief formulæ [illegible] in different branches of public health work, and its value is increased by the fact that examples are given throughout. It is important [illegible] the methods of meteorological measurement rather shaky. The different chapters deal in turn with problems relating to hygrometry, ventilation, rainfall and evaporation, clothing and exercise, hospital wards, [illegible] and insulation.

The concluding portion of the new edition of *Cassell's Family* [illegible] mainly with subjects that have received much attention from Parliament during recent years, in addition to [illegible] for the public health and well-being, and is in itself characteristic of the legislation of the latter part of the nineteenth century. The law of the sale of food and drugs is treated in considerable detail, and a very fair general idea of the subject may be gathered. The adulteration of food is dealt with at a length which might become wearisome in a popular work, were the monotony of a detailed examination of the regulations applying to the sale of particular foodstuffs not relieved by the quiet humour of many of the illustrations used by the author. One story will bear reproduction: "A Bill was once introduced into Parliament whereby it was proposed to impose a fine upon certain offenders, and that half the penalty should go to the informer. But the Bill was amended in its passage through the House of Commons, and instead of a fine, six months' imprisonment was made the penalty. They forgot, however, to strike out the clause awarding half the penalty to the informer. The author never heard of a common informer informing against anybody under this sapient statute. In connexion with the law relating to property owners and builders, the subjects of sanitary regulations, drains and nuisances, "obstructive buildings," and the powers of medical officers of health in regard to the improvement of unhealthy areas receive attention; and the chapters dealing with them will be of assistance to the seeker after the principles that underlie the law governing these much-regulated matters. There is one defect in a book of this kind, namely, that in endeavouring to traverse the wide field covered by his subject the author must necessarily include matter that can never concern any but a particular class; and therefore each of his readers will have to sift for himself the sections which interest him from the matter in which they are embedded; while the absence of any authority for the statements made, though one of the essentials of a popular work on law, prevents it from being of much value at a time when it is really needed. The author has performed his task well, especially in the bringing up to date of the present edition, which will no doubt be as widely read as its predecessors.

NEUROLOGY.

IN *Les Nerfs du Cœur chez les Tabétiques*, Dr. JEAN HEITZ gives us the result of an inquiry into the changes found in the nerves of the heart in cases of tabes dorsalis. Before entering upon the subject proper he gives a summary of the present state of knowledge in regard to the nerve supply of the heart, dealing with the subject from the points of view of the anatomy, histology, and physiology of the cardiac plexus and the constitution of the several neurones. This part of the volume is written in a most commendable manner, clear and concise. We note that the view insisted upon by certain clinicians that sympathetic fibres from the heart reached the spinal cord as far as the level of the upper dorsal and lower cervical nerves has evidently been established by the experimental observations of François-Franck. We also observe that the author continually refers to certain sympathetic nerves as being "sensitive," although no proof has been afforded that they are sensitive in the usual meaning of the term beyond the fact that they are afferent. This term has been so frequently employed, however, by physiologists that they have come to take the function for granted because they see certain analogies to sensory nerves in the course and constitution of these nerves. But surely it would further the ultimate end of science better if they frankly stated that they had as yet no absolute proof of the function of such nerves. In dealing with the symptomatology of heart affections the author omits to note the more recent observations in regard to the sensory symptoms, such as the striking and suggestive hyperæsthesia of certain muscles and the distinction between the [illegible] hyperæsthesia of the skin. The author is still in a state of bondage to his teachers, for he [illegible] unreservedly the ones in regard to the causation of [illegible] that will more extended experience be will certainly find untenable. From the few references regarding his own observations we think he would have added to the value of his book by increasing these and by omitting the [illegible] of the vast beginnings of many writers. Regarding the practical part of this work the author shows that there are undoubtedly numerous cases in which degeneration of the [illegible] of the vagus and sympathetic has been found, though the [illegible] to early symptoms is by no means clear, and

[illegible] Clinique et Anatomie [illegible] Hôpitaux de Paris [illegible] Fig.

the facts cited are too few and indefinite to establish any certain conclusion. That there may be some relationship appears possible, however, from cases in which extensive neuritis of the vagus was associated with attacks of tachycardia and respiratory difficulties. That there should be frequent changes in the heart and aorta in tabes is what might be expected seeing that the patients are mostly syphilitic, but that these changes are due to the tabes is a different question, and the author considers that they are concurrent and not dependent phenomena. If the posterior root ganglia of the lower cervical and upper dorsal nerves are affected by the tabes, and in consequence the afferent sympathetic fibres destroyed, then it is easy to conceive that no sensory symptoms would be provoked by the disease of the heart and aorta. But, seeing that so many people who suffer from grave affection of the heart and aorta present no sensory symptoms, it does not justify the view that the absence of symptoms in tabetics affected with disease of the heart and aorta is a proof of degeneration of the afferent sympathetic nerves of the heart. Why should Argyll Robertson be deprived of his patronymic? We observe that the author continually refers to the pupillary phenomena as the "*Signe d'Argyll.*"

As a succinct but sufficiently comprehensive introduction and laboratory guide to the subject, Dr. HARDESTY'S *Neurological Technique*[6] may be warmly recommended. The instructions are thoroughly practical and the methods given have stood the test of application in the laboratory. In the last part of the book the anatomical nomenclature for the nervous system and sense organs, the result of a convention of anatomists at Basle, is given, and the book in size and scope resembles that by Kahlden in common use in neuropathological laboratories.

Another addition to the ever-increasing number of small handbooks of nervous and mental diseases is Dr. PERSHING'S *Diagnosis of Nervous and Mental Diseases*.[7] It makes no pretence to originality or completeness, and is not intended to replace a systematic study of nervous and mental diseases, but aims simply at furnishing a guide to practical diagnosis for practitioners who have no special knowledge of the subject. The classification is therefore not based on neuro-pathological grounds, but is purely symptomalogical, and is composed of a series of tables and explanatory matter on the same method as the "keys" in common use in the practice of chemistry, botany, zoology, etc. The compiler has fulfilled this aim on the whole fairly well, but it is difficult to imagine how the use of such an aid could prove anything but unsatisfactory.

HYDROTHERAPEUTICS.

THE first edition of Dr. S. BARUCH'S volume on *Hydrotherapy* was reviewed in the BRITISH MEDICAL JOURNAL[8] November 24th, 1900, p. 1505. We now have a second edition, considerably enlarged, and likewise a German translation of the second edition by Dr. W. LEWIN, of Berlin. Amongst the additions to the present edition is a chapter on the results obtained in insanity based upon records in large asylums. The author insists upon the exact study of the technique of every hydrotherapeutic procedure and of the modifications rendered necessary by existing conditions, and contends that hydrotherapeutic means are capable of exact dosage, although he admits that by apparently similar uses of hydrotherapy opposite results have been reached. A good deal of space is devoted to the subject of baths in typhoid fever. He objects to the older teaching that cold baths in this disease act merely by reducing the temperature of patients for the curious reason that Hare and Hirshfeld in Australia, who employed baths of 80° to 90° F., had a mortality of only 3.4 per cent. He does indeed point out, however, that these baths are not warm for patients whose temperature is 104° F., and that reaction is produced by the difference of temperature between the skin and the water. The Australian records, however, seem to confirm his statement that in the aged and weak and in children a bath of 90° F. is more effectual than one of 85° F. The point is, however, far from being established, and readers would do well to consult the paper by Dr. Pembrey published recently in our columns. The book is to be accepted as a critical survey of the whole subject by one who, on account of his practical experience, is thoroughly qualified for the task. The German edition will rank with existing textbooks by German authors.

Dr. P. ROETHLISBERGER, in various pamphlets[9], describes his experimental research on the action of the hot sulphur baths of Baden, in Switzerland. About forty series of experiments on different persons proved that in the bath and for a considerable time afterwards the temperature of the rectum showed a marked diminution, whilst the superficial temperature increased or remained stationary in baths of 88° to 100° F. In baths of about 100° F. the temperature of the rectum decidedly rose, but dropped below normal after the baths. According to Stifler just the opposite effect is produced by simple water baths of corresponding temperatures. The author concludes that the Baden baths have such a decided influence on the metabolism, temperature, and circulation of the bather that the impartial investigator must admit their action as specific, that is to say, as different to plain water baths at the same temperature.

Dr. SCHWEINBURG'S *Handbook of Hydrotherapy*[10] is a carefully condensed account of the methods and rationale of this branch of therapeutics. The first part deals with general principles and embraces descriptions of the various methods of application, including ordinary baths of different temperatures, gaseous baths, hydro-electric baths, wet and dry packings, vapour baths, hot-air baths, electric light baths, douches, local baths and douches, hydrotherapeutic bandages and compresses, and various methods by special apparatus for the local application of heat and cold. In Part II diseases and morbid conditions are separately considered in regard to the possibility of help from some form or other of hydrotherapeutic treatment. Under diseases of the heart and circulatory organs the author points out that the old idea of heart disease forming an absolute contraindication for bath treatment is no longer held. Indeed, the organic lesions caused by endocarditis, when they have once become chronic, generally remain, and the hydrotherapeutic measures are directed not so much against these old lesions of the nature of scars, as against the disordered functions of the body which accompany them or are left behind by the original illness. In regard to the "hardening" of individuals by the use of baths, etc., it should be remembered that the powers of resistance of delicate children may be lowered instead of increased by too energetic attempts at "hardening" them by cold water and exposure to cold weather. For those familiar with the German language the book can take a place by the side of the other German textbooks on the same subject, for instance, that of Matthes, reviewed in the BRITISH MEDICAL JOURNAL, October 10th, 1903, p. 908. The portion devoted to gynaecology is from the pen of Dr. O. Frankl.

Mr. R. METCALFE'S *Essays and Notes on Hydrotherapeutics*[11] contains some interesting if not very novel information, some common sense, and a good deal of nonsense. As an appendix he gives an entertaining account of Richmond and its surroundings, illustrated by some excellent views of the neighbourhood, including one of a hydropathic establishment bearing the author's name.

NOTES ON BOOKS.

THE thirty-ninth volume of the *St. Bartholomew's Hospital Reports*,[12] 1903, edited by Dr. A. E. GARROD and Mr. W. MCADAM ECCLES includes certain communications relatively original in character. Dr. F. C. Shrubsall contributes a remarkable monograph, Physical Characters and Morbid

[6] *Neurological Technique.* By Irving Hardesty, Ph.D. Instructor in Anatomy, University of California, Chicago. University Press, and London: Wesley and Son. (Demy 8vo, pp. 122. 6s.)

[7] *The Diagnosis of Nervous and Mental Diseases.* By Howell T. Pershing, M.Sc., M.D., Professor of Nervous and Mental Diseases in the University of Denver. London, Rebman, Limited. (Demy 8vo, pp. 224. 7s. 6d.)

[8] *The Principles and Practice of Hydrotherapy.* By S. Baruch, M.D. Second edition. London: Bailliere, Tindall, and Cox. 1904. (Demy 8vo, pp. 506. 74 illustrations. 15s.) *Hydrotherapie.* A German translation of the above by Dr. W. Lewin. Berlin: A. Hirschwald. 1904. (Demy 8vo, pp. 512. M. 12.)

[9] *On Sulphur Baths.* By P. Roethlisberger, M.D. Reprinted from the *Journal of Balneology and Climatology*, January, 1904. Also articles dealing with the same subject in the French and German languages.

[10] *Handbuch des allgemeinen und speziellen Hydrotherapie.* Von Dr. Ludwig Schweinburg. Nebst einen Beitrage von Dr. Oscar Frankl. *Die Hydrotherapie in der Gynakologie und Geburtshilfe* [Handbook of general and special Hydrotherapy. By Dr. L. S. Together with a contribution by Dr. O. F. Hydrotherapy in Gynaecology and Midwifery]. Wiesbaden: J. F. Bergmann. 1904. (Demy 8vo, pp. 295; 45 illustrations. M. 6.)

[11] *Essays and Notes on Hydrotherapeutics.* By Richard Metcalfe. London: Simpkin, Marshall, Hamilton, Kent and Co., Limited. 1903. (Crown 8vo, pp. 254. 5s. 6d.)

[12] London: Smith, Elder and Co. 1904. (Demy 8vo, pp. 321. 7s.)

Proclivities, representing much labour and deep thought. The author enters into a close analysis of physical characters and geographical distribution, and concludes that there are indications that certain physical types appear with greater frequency among patients from certain diseases than among the general population. Fair complexioned types appear associated with acute rheumatism, heart disease, tonsillitis and osteo-arthritis, dark complexioned types with nervous diseases, pulmonary tuberculosis, and malignant disease. Dr. J. Cotham Forbes furnishes this volume with a Medical Report of the Anglo-French Boundary Commission on the Western Frontier of the Gold Coast Colony—January, 1902—May, 1903, with maps and photographs, and an additional article on Native Methods of Treatment in West Africa. Dr. Stanley Atkinson, Barrister-at-Laws short but interesting and amusing Forensic Physiology will repay perusal. Sir Lauder Brunton's paper On a Case of Staphylococcic Infection is autobiographical and includes a most graceful and well-deserved tribute of personal and professional admiration to the memory of his late colleague, Mr. Walsham. The obituary of the latter, by a member of the hospital staff who signs in initials, heads the volume, and his portrait appears as the frontispiece. Mr. Cripps's experience in Ovariotomy and Hysterectomy in Martha Ward includes excellent observations on the general treatment of abdominal cases and on certain matters of detail in respect to the two operations. Sir Dyce Duckworth supplies Observations on Chorea Gravidarum, Mr. D'Arcy Power Some Cases of Gastric Surgery, Dr. Herringham On Syphilis of the Heart, Dr. Calvert Hydatid Disease of the Heart, and Mr. Walter Jessop an article On the Prognosis after Operation in Glioma of the Retina. Two Intracranial Cases, by Mr. C. E. West, L.R.C.S., are of considerable interest; they occurred in the Aural Department of the hospital: in one of the cases cerebellar abscess was associated with chronic suppurative otitis media. Mr. Eric Young reports A Case of Senile Gangrene occurring in a Man aged 45, while Mr. D'Arcy Power and Dr. Jobson Horne write On some Cases of Malignant Disease from the Department for Diseases of the Throat and Nose. Dr. Arnold Izard's Cambridge thesis, Some Difficulties in the Diagnosis of Appendicitis, is included in this volume; the author treats with ability a subject always of interest to the surgeon; the same observation applies to Mr. Sydney Scott's Perforation of the Intestine in Typhoid Fever. A short note by Dr. Parkes Weber, On Action and Reaction in Pathology and Therapeutics, deserves consideration, as the author has evidently devoted much thought to his subject. Dr. G. G. Morrice's Two Illustrations of Nervous Diseases refer to a case of herpes zoster associated with Bell's paralysis and an instance of Basal Graves's disease. Altogether this thirty-ninth volume is decidedly above the average as regards articles of interest to the general medical public, whilst it is not deficient in papers and notes prepared by members of the staff. As usual, the annual Statistical Tables of Patients under Treatment in the Hospital are included in the volume.

In writing on vital energy in its significance for medical [illegible] Professor Leonard Hill touches upon that fascinating borderland which lies between the purely material and the psychical or non-material aspects of existence. Apart from the speculative interest, this subject has undoubtedly a very considerable practical importance; but it is so extremely difficult and obscure that no one can plunge into its depths with any certainty of being able to bring up to the surface any discoveries of substantial value. Therefore it is with a feeling of disappointment rather than of reproach that we express the opinion that Professor Hill has not been entirely successful in his attempt to apply philosophical principles to the discussion of vital phenomena. While admitting that we cannot tell him how he might have worked out his very ambitious project to a really satisfactory issue, we may point out that the danger of duality appears to be in the earlier and tentative stages of his philosophical conception. [illegible] of the will and [illegible] the general speculative tone of the whole book is inconclusive and lacks the snap of positive demonstration.

[illegible] and Vivisection.

The [illegible] attempt to [illegible] since the [illegible] of Dr. [illegible] Mr. Marshall's memorial on the subject was published [illegible] Medical [illegible]

lished has necessitated a new edition, in which much of the text has had to be rewritten and many of the diagrams redrawn. The plan adopted by Major Marshall of teaching drill by diagrams has been found useful, and all volunteer medical officers and stretcher bearers will find his *Stretcher Drill* helpful. Much trouble appears to have been taken to get the information up to date and with a great measure of success. The information as to dress seems unnecessarily complicated by details of the dress of all branches of the service and for campaigning as well as home duties, and one or two small errors could be pointed out but then changes in dress in the army may have taken place between the correction of proofs and the issue of the book. The book is well got up, and of a suitable size for the pocket.

The second issue of the *Volunteer Annual (Metropolitan Corps)* is brought up to date for the volunteer year ending October 31st, 1903. This is a book which all metropolitan volunteers should possess, and which all intending to become volunteers would do well to consult. It gives all information as to strength, uniform, and work of the various yeomanry and volunteer regiments in the metropolitan area, even going so far afield as Woolwich and Guildford. The appendices are also valuable, and give useful information as to the requirements for efficiency, the cost of uniforms and annual expenses for officers, the rules of the National Rifle Association, and a list of books on subjects which the volunteer requires to study including those relating to the medical service. At the end of the book is an alphabetical list of officers serving in different corps of which details are given in this volume.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Messrs. J. Swiger & Son, [illegible] our notice some sterilized surgical swabs and bandages prepared at his suggestion by Mr. W. Martindale. These swabs are of various sizes, and are made of two layers of sorting gauze stitched over absorbent wool in such a way that no frayed edges are exposed, and are packed in numbered batches of ten or twenty, tied up in a small gauze sack, and then placed in a

tin [illegible] and thoroughly sterilized. The lid of the tin is sealed on immediately at the conclusion of the operation, but the nurse is directed to moisten the outside of the tin with 1 in 20 carbolic solution, and then to turn the handle of the soldered strip of metal and the lid falls off. The surgeon then cuts the string which surrounds the neck of the sack, and the swabs are ready to his hand. Any swabs not used during the operation may be sterilized to the wound [illegible] dressing. By sending a prescription to a chemist a reliable set of swabs etc. may thus be readily obtained for any operation. The illustration shows the mode of opening a tin.

[illegible] By Major [illegible] Marshall. [illegible] Adam and Charles Black. [illegible] 1s. net.

The Survey of Chimney-sweeps.—A Bill providing for the establishment of a bureau and a laboratory for the study of the criminal, pauper, and defective classes has been introduced into the New York State Legislature. It is based on a similar Bill which has already been submitted to Congress. The work of the bureau would consist in the gathering of data of a sociological, pathological, and statistical nature.

The Galerie des Sources, Vichy Etablissement Thermal).

NOTES ON HEALTH RESORTS.

VICHY.

Of all the mineral springs of Europe probably none was so well known to the English in the middle of last century as Vichy. Later its popularity waned, and the English went or were sent more and more to other health resorts, mainly in Germany. This change was due to various causes, among which may be mentioned a certain change in the fashion of medical opinion, and a failure on the part of Vichy itself to keep pace with the times in its bathing arrangements and in the provision of ancillary methods of treatment.

The object of this article is to point out that in so far as Vichy may have at one time fallen a little behindhand in its pump rooms, baths, and so on, it has now more than made up leeway, and has for the last few years possessed one of the finest, most conveniently planned, and most complete mineral water establishments in the world. It need fear no rival on this score in Germany, and it is in some features modelled on Harrogate, though on a larger scale.

Vichy was known to the Romans, great amateurs of mineral waters, and its modern history dates back to the fifteenth century when Louis II founded a convent of Célestins who used the waters for treating the sick who asked their charity. Louis XIV completed a public hospital and towards the end of the seventeenth century Mme. Sévigné, who performed prodigies in the consumption of the waters, helped to make the place fashionable. The aunts of Louis XVI derived so much benefit from a course at Vichy that the erection of a big establishment was planned, but the Revolution stopped everything, and though Napoleon ordered the resumption of the works nothing was done until after the Restoration. The modern development of Vichy dates from 1853 when the State leased the waters to a company. A few years ago this company resolved practically to reconstruct most of the baths and pump rooms, and the new buildings have now been complete and in working order for two seasons.

Although Vichy had somewhat fallen out of fashion with the English it had steadily grown in popularity with the French, so that the number of visitors, which was in round numbers 25,000 in 1872 had risen to 42,000 in 1892, to 72,000 in 1900, and in 1902 to 82,000, among whom were to be numbered many English.

Vichy, that part of it which interests the invalid, is a very compact place. Most of the springs and bath-houses lie close together and are connected by covered ways, which lead also to the Casino, with its reading-rooms, restaurant, and theatre. The whole stands in a small park or large garden. There is another larger pleasure ground laid out on the banks of the Allier, a mountain river varying very much in volume. A movable barrage converts that part of its bed opposite Vichy into a small lake during the season.

There are both hot and cold springs at Vichy, some of which yield very large quantities of water. The principal spring is La Grande Grille, so called because it was once protected by a grating. The Source de l'Hôpital, which owes its name to the circumstance that the civil hospital once stood close by, is also a copious spring. The water from these two springs contains much free carbon dioxide, and is used both for drinking and for supplying the baths. The principal cold spring is the Source des Célestins, an agreeable sparkling water strongly charged with carbonic acid. The chemical constituents of these three springs are very similar, their chief character being the large percentage of sodium bicarbonate and the presence of free carbon dioxide. All three also contain magnesium carbonate and sodium sulphate, which, though present in small proportions may yet have some therapeutic importance. There are other springs in use, but these mentioned are typical, and the following analyses by Bouquet show their constitution:

Name of Springs.	Grande Grille.	Hôpital.	Célestins.	Chomel.
Free carbonic acid	0.378	1.067	1.149	0.768
Sodium bicarbonate ..	4.993	5.624	5.103	5.241
Potassium bicarbonate ..	0.352	0.440	0.315	0.371
Magnesium bicarbonate ..	0.368	0.400	0.328	0.338
Strontium bicarbonate ..	0.003	0.003	0.005	0.003
Calcium bicarbonate ..	0.434	0.473	0.492	0.427
Iron oxide	0.004	0.004	0.004	0.004
Manganese oxide	Traces	Traces	Traces	Traces
Sodium sulphate ...	0.271	0.271	0.241	0.291
Sodium phosphate	0.130	0.046	0.041	0.070
Sodium arseniate	0.002	0.002	0.002	0.002
Sodium borate	Traces	Traces	Traces	Traces
Sodium chloride	0.504	0.515	2.734	0.554
Silica	0.050	0.050	0.070	0.070
Organic matter ..	Traces	Traces	Traces	Traces
Total ...	7.514	8.222	8.244	7.959

There are four bath-houses at Vichy. The first-class baths, reopened in 1903 after reconstruction, are models of completeness and cleanliness. They contain 140 baths, 9 large douches, 24 massage douches, 32 ascending douches, large plunge baths, and a large well-equipped institute for mechanical and electrical treatment, under the direction of Dr. Vermeulen. The second-class and third-class baths are well but less luxuriously appointed; all under the direction of Dr. Lejeune, assisted by Dr. Pariset. The fourth set of baths, divided into three classes, are the Bains de l'Hôpital supplied by the spring of that name.

The diseases in which a course of Vichy offers most hope of benefit are those of the stomach, including dilatation; of the liver, especially congestion; of the intestines when attended by congestion, but including certain forms of mucomembranous colitis, urinary gravel and nephritic colic, and skin disorders associated with gout. A course is also reputed to be of advantage to patients suffering from diabetes or glycosuria, and in Bright's disease. About gout itself there is room for difference of opinion, but the baths and massage douches undoubtedly yield excellent results in chronic joint affections which the patient calls rheumatic and his friends gouty. The treatment by these means is often usefully supplemented in the mechano-therapeutic institution.

We are indebted to an English physician who has given special attention to gastric and metabolic disorders for the following notes:

"The merits of the springs of Vichy are undisputed, and the enormous sale of the water is sufficient evidence that they are without a rival in their class. With these extraordinary

advantages it is not surprising that Vichy is a very prosperous place which attracts annually some 70,000 visitors, many of whom are English; but these come for the most part in May and September, and are mostly persons who take the cure seriously. During these months Vichy is not seen at its best; August is probably the gayest time especially during the race week, but throughout the month the theatre is well supported by good companies, there are numerous excellent concerts, and the baccarat tables are crowded. English visitors who seem to prefer Homburg and Marienbad, would find that there are greater attractions at Vichy than at either of these places, and that every facility exists for carrying out any desired course of treatment. Unfortunately, Vichy has the reputation of being hot during July and August, and this is true, but there are many alleviations, and in many cases hydrotherapeutic treatment is most successful when the external temperature is high. Many persons for whose cure Vichy is most suitable have been used to a tropical climate and would feel no inconvenience from the heat, while the robuster type of gouty, dyspeptic or hepatic patients for whom treatment at Vichy is most beneficial would not find the temperature too trying. Debilitated persons of both sexes, but especially women, should not be sent there during July and August, and the delicate, irritable, nervous type of invalid does not do well at Vichy at any time.

"In these days, when at so many health resorts patients are allowed to eat very much what they like, Vichy deserves honourable mention for the attention paid to diet. It is of the utmost importance that the doctors should be agreed upon such a question in order that the hotel and restaurant keepers may know how to regulate their tables. For this purpose the recommendations of the Medical Society of Vichy have been printed and circulated, and these recommendations are simple and such as can be easily followed. In addition, in some of the best hotels special bills of fare are daily provided for certain classes of patients; for example, one for dyspeptics and another for diabetics; but in other hotels the proprietors consider it sufficient to inform their visitors that if any article upon the bill of fare is forbidden they may order something else which will be supplied without extra charge."

Vichy is reached in seven hours from Paris. The invalid on arriving should consult one of the physicians practising in the town, whose instructions as to baths, massage, etc., will be carried out at the bathing establishment under the direction of the medical staff. The town is well supplied with hotels, villas, and furnished rooms. It boasts that its arrangements are so varied that a visit need not be beyond the resources of a shallow purse.

All the greater watering-places possesses a characteristic physiognomy. Vichy claims to be *reine des villes d'eaux et des stations thermales*, and without doubt she possesses a certain feminine charm, though, on the serious side of her, without the capriciousness usually associated with her sex. About all her ways there is brightness and elegance as well as thoroughness. At the pump-rooms the visitor receives his morning glass from the hand of a neatly dressed young woman selected, as you may judge, not without regard to the aphorism that it is the first duty of a woman to be pleasant to look at. In the bath-house everything is managed with military precision and exactness. If the invalid be a man accompanied by wife or daughters, there must be few in general watering-places so likely to be agreeable to all members of the party as Vichy.

The Vichy Company carries on a considerable trade in bottled water as well as in the salts obtained by its evaporation. The natural waters of all the chief springs are bottled, but of the [illegible] bottles which may be filled daily some 30,000 contain the water of the Célestin spring. To obtain the salt the water is conducted in pipes at a low temperature by a special apparatus capable of dealing with 12,000 litres a day; this quantity of water would yield about ten kilograms of salts, but the total annual output is about twenty kilograms. Part of this large quantity of salt is put up in small packages of 6 grams, so that each package will yield about a litre of artificial Vichy water, ready bottled for export. The rest is employed in the manufacture of the well-known Vichy lozenges. The factory in which these processes are carried out is the particular care of M. Chevrel, and is a model of cleanliness.

THE DIRECTORS of the Imperial Ivor Clinic Society have appointed, appointed Miss Anita McGee, an American medical graduate, to take charge of the military hospital at Matsuyama. Miss McGee brought with her a staff of nurses who volunteered for the work.

THE HEALTH OF THE PORT OF LONDON.

THE annual report on the general conditions affecting the public health in the port of London during the year which ended on December 31st, 1903, was presented by the Medical Officer, Dr. Herbert Williams, on April 14th.

SANITARY INSPECTION.

The total number of visits of inspection made by the sanitary inspectors during the year was 35,485, an advance on the previous year of nearly 2,000 inspections and upwards of 3,000 above the average for the preceding five years. Of the total number of visits, 14,552 were to vessels lying in various parts of the river; 20,831 inspections were made in the docks and in the Gravesend district; while 102 vessels were inspected in the portion of the River Medway which is within the jurisdiction of the Port Sanitary Authority. Of the total number 3,133 or 9 per cent. required cleansing of the general kind, which is carried out on verbal representations being made by the inspectors. Of the total number of vessels inspected, 15,989 were from foreign ports, 5,338 arrived coastwise, and 13,204 vessels came with the description of "Inland Navigation," while 864 inspections were made of premises on shore. Of the nationality of vessels inspected 29,444 were British, equal to 82·97 per cent. of the total; Swedish and Norwegian amounted to 1,734 or 4·91 per cent., and German to 1,063 or 2·99 per cent. of the total. The number of seamen found by the inspectors on their visits to be suffering from sickness of a non-infectious character and referred to the Seamen's Hospital, Greenwich, was 40.

MEDICAL INSPECTION.

The total number of vessels medically inspected at Gravesend during the year was 2,552. This number is higher than any total for the preceding five years and considerably above the mean for that period. This means, says Dr. Williams, that increased vigilance has been necessary on the part of the medical officers in dealing with the possible introduction of cases of plague, as well as other infectious diseases into the country.

PLAGUE.

Six cases in all were reported by vessels on arrival; of these, 3 were admitted to the Port Sanitary Hospital, but in none of them did the disease prove to be really plague.

THE DESTRUCTION OF RATS.

The destruction of rats on board ships and ashore on the premises of the various dock companies has continued. The work is carried on by professional rat-catchers, who are paid by the dock companies and shipowners, and over whom the officers of the port have no control. In certain of the ports the dead rats have to be produced to some responsible person who keeps a record, but this is not done everywhere. The total number destroyed during 1903 in dock warehouses, on vessels while in dock, and on vessels during voyage is 76,000 which, with 185,982 brought forward from the last report, gives a total of 262,782.

Although the number of rats destroyed during the year is considerable, it is doubtful whether this represents even the natural increase of births over deaths. A large amount of money is expended annually by the dock companies in the destruction of rats, but Dr. Williams is sure that they do not get full value for the money spent, and he feels confident that if the same amount were expended by the authority the number destroyed would be considerably increased, as it would then be possible directly to control the work of the rat-catcher. It is pointed out that the French Government has decreed that all vessels coming from, or touching at, a plague-infected port must be fumigated with a view to the killing of all rats on board before any cargo is allowed to be landed in a French port, and the cost of this has to be borne by the shipowners. This rigorous procedure is contrasted with the practice in the Port of London, where shipowners are only invited to co-operate with the sanitary authority in preventing, as far as possible, rats from going on shore, and to capture as many rats as possible during the stay of the vessel in the port. The medical officer wishes it to be clearly understood that all rats captured are destroyed, and are not allowed to leave the jurisdiction of the authority.

YELLOW FEVER.

No cases have been reported on any vessel arriving at the Port of London.

Cholera.

The ss. *Royal*, which arrived on January 30th, 1903, reported 5 cases of cholera during the voyage between Alexandra and Malta. At Malta the forecastle and all living rooms were disinfected, and all infected beds, bedding and clothing were burnt. On arrival at Gravesend all was found well on inspection: the names and addresses of the patients were taken and notified in the usual manner. The vessel was kept under observation during her stay in London, and no further sickness occurred. The ss. *Wakasa Maru* arrived at Gravesend on December 16th, having left Yokohama on October 17th, and called at several ports. Four cases of cholera occurred between Yokohama and Singapore. Adequate measures of disinfection were carried out at the latter port and no further cases of cholera or of any disease or sickness resembling cholera occurred from the time the vessel left Singapore until her arrival at Gravesend, where the medical officer on examination found that all persons on board were in good health.

Small-pox.

The total number of cases of small-pox reported on vessels was 13; 11 of these were admitted to the Port Sanitary Hospital at Denton.

Enteric Fever.

In all 88 cases of enteric fever were reported during the year, of which 55 were treated in the Port Sanitary Hospital at Denton. A detailed account is given of the conveyance of the disease by infected blankets from the field of military operations in South Africa to the training ship *Cornwall* in the Port of London; and it is stated that the Committee, at the suggestion of the medical officer, sent a communication to the War Office authorities urging that no effects from deceased persons should be allowed to leave South Africa until they had been thoroughly disinfected. It is pointed out that if this representation had received the careful consideration of the War Office it is probable that the outbreak would not have occurred.

Enteric Fever and Sewage: Polluted Shellfish.

A prominent part in the investigation of the relation of outbreaks of enteric fever to the consumption of shellfish polluted with sewage was taken by the Committee, the Port of London Sanitary Authority having within its jurisdiction a number of important shellfish layings and fisheries. These are enumerated as follows: On the Essex shore—Leigh Creek, cockles; Hadleigh Ray, oysters, mussels, periwinkles; River Roach, oysters; Maplin Sands, cockles. On the Kent shore—The Swale, oysters; Blythe Sands, cockles. At the beginning of the year Dr. Williams received from the Medical Officer of Health for Wandsworth information that several cases of enteric fever which had occurred within his district were, in his opinion, traceable to the consumption of cockles from Leigh in Essex. The sewage of Leigh is filtered through coke breeze filter beds, the resultant effluent being discharged into Leigh Creek, about half-a-mile westward of Leigh Railway Station. Cockles are gathered from the Maplin and Blythe Sands, brought by boat to Leigh, where the practice is to place them in the creek for a variable period in order to "purge themselves of the sand." Assuming the original gathering ground to be free from sewage pollution, storage of the cockles in Leigh Creek points to an obvious result, namely, while purging themselves of the sand of the gathering ground, they fill themselves with the sewage-polluted mud and water of the creek. The medical officer collected samples of the cockles direct from the creek. These were submitted to Dr. Klein, who reported that he had found in them the typhoid bacillus, or, at any rate, a bacillus corresponding to it and answering all tests of the bacillus typhosus. These investigations were contemporary with others carried out on behalf of the Public Health Department of the City and the Fishmongers' Company. The results which have been published in every case pointed to the same danger, and immediate steps were taken to prohibit the sale in London of shellfish from this source. The Committee further personally inspected the various sewage outfalls in the Thames estuary subject to its jurisdiction, and observed the pollution in the immediate neighbourhood of some of them. The medical officer gave evidence before the Royal Commission on Sewage Disposal, and proposed that the Port Sanitary Authority should be granted powers to enter upon an inspection of shellfish ground, and, if polluted, to prohibit further laying of shellfish there. Except as to the constitution of the authority for the control of shellfisheries, the recommendations of the Royal Commission closely followed the suggestions made by Dr. Williams.

Typhus Fever.

One case was reported during the year.

CANCER RESEARCH IN LIVERPOOL.

The Committee of the Liverpool Cancer Research Fund has just issued its first annual report. The fund had its origin in the benevolence of Mr. T. Sutton Timmis, J.P., who wished it to be a memorial of his deceased wife. It was decided that the sum of £10,000 should be vested in two trustees and administered by a Committee consisting of Professor W. Carter, Dr. James Barr, Professors Rushton Parker, F. F. Paul, R. Boyce, and C. L. Sherrington. The Committee was empowered to spend it at the rate of £1,000 a year till it was exhausted or the cause of cancer discovered. Permission was subsequently given to make the sum £1,500 per annum if the Committee should think this amount desirable. As Mr. Timmis at the time of the gift was President of the Liverpool Royal Infirmary, it was thought desirable that an association should be established between that institution and the fund. This was accomplished, and a room to serve as a ward laboratory was assigned for the purposes of the research; a certain number of beds was also set aside for the purposes of clinical observation on cases of cancer. The Council of the University of Liverpool also granted the use of five large rooms in its laboratories for the prosecution of the inquiry. Dr. A. S. Grünbaum was chosen to be director of the research. That gentleman, in his interim report, which covers a period of something less than a year, states that in framing a plan of work he determined to proceed mainly along two lines—therapeutic and experimental.

Therapeutic Investigations.

Under this head it is stated that the cytolytic milk of a cow and, subsequently, when it yielded no more milk, its serum were tried. It was expected that it would have effect only on cancer of the breast, but it was also tried on two cases of cancer of the stomach and one of cancer of the rectum. One patient with cancer of the stomach took the milk constantly until death, the other two did not continue to send for it and their subsequent history is not known. Of two cases of cancer of the breast, in one the disease is apparently arrested; the other, which was really too advanced for fair trial, has died. Three cases of uterine cancer are being treated with the serum from a horse; they all show objective signs of improvement. Offers of infallible remedies were received from several people. They were informed that their remedies would be investigated if the composition were revealed. Only two replied, and the remedy of one is under investigation. Of the value of *x* rays as a curative agent in certain cases there can be no doubt, but at the present moment the clinical and pathological characteristics of such cases are not defined and require minute investigation. Radium has also been tried.

Experimental Work.

This branch of the inquiry has been directed towards the discovery of the causes of cancer. Dr. Grünbaum is of opinion that a combination, and perhaps not always the same combination of causes, is necessary. If once a strain of human cancer can be experimentally secured and continued, he says, we shall be appreciably nearer the goal. In carrying on the work both the developmental and the parasitic hypotheses have consequently been kept in view. The recent additional evidence obtained by the London observers towards the germinal theory raises the hope that a comparatively simple physiological cure may be possible, when we remember by what simple means experimental embryologists are able to alter the development of germinal cells. The occurrence of malignant disease in animals has also been under investigation.

In order to promote interest in the inquiry about 2,000 circulars were sent out to medical men in the north of of England, soliciting their co-operation, and about 1,000 to veterinary surgeons. The response to these appeals has not been very encouraging. A number of tumours has been received—about 57 per cent. from the Royal Infirmary, about 16 per cent. from the London Hospital, 1 per cent. from the Royal Southern Hospital, and about 26 per cent. from outside sources. Several tumours, mostly malignant, from animals have been received and examined; they include specimens from horse, cow, sheep, dog, pig, cat, mouse, and trout. This number does not include some specimens sent to the Department of Comparative Pathology which Dr. Grünbaum has also been afforded the opportunity of examining. A few interesting clinical and pathological variations from the conditions obtaining in man have been noted, but the resemblances are sufficient to justify the supposition that similar intrinsic and extrinsic causes exist for all.

MEDICAL NEWS.

A Bill for the registration of trained nurses, with the title of "R.N.," was recently introduced into the State Legislature of Maryland.

Pasteurism in Philadelphia.—The Pasteur method for the treatment of persons bitten by dogs has quite recently been employed for the first time in Philadelphia.

American Climatological Association.—The American Climatological Association will hold its twenty-first annual meeting at Philadelphia on June 2nd, 3rd, and 4th, under the presidency of Dr. J. C. Wilson of that city.

A Hypnotic Hospital.—Professor Hyslop, of Columbia University, has announced that a hospital for the hypnotic treatment of diseases will shortly be established at New York. A well-known millionaire has agreed to give a large sum of money for this purpose.

A meeting of the Ambidextral Culture Society will be held in the rooms of the Medical Society, Chandos Street, Cavendish Square, W., on May 18th, at 5 p.m., when a lecture on Ambidexterity from the Medical Point of View will be delivered by Dr. James Shaw.

It is announced that a performance in concert form of Gluck's *Orfeo* is to be given at Queen's Hall on June 3rd, in aid of the rebuilding fund of St. Bartholomew's Hospital, and under the patronage of Her Majesty the Queen and of their Royal Highnesses the Prince and Princess of Wales.

Royal Institution.—At a general monthly meeting of the members of the Royal Institution held on May 9th, the Duke of Northumberland, K.G., President, who was in the chair, announced that he had nominated the following among others Vice-presidents for the ensuing year: Sir Felix Semon and Sir James Crichton-Browne (Treasurer).

Dr. Koch has recently arrived at Cairo from West Africa, and is being consulted by the Egyptian Sanitary Department on the epidemic of bovine typhus which now rages in Egypt and as to the measures being taken for its suppression. It is probable that Dr. Koch will also be consulted regarding bubonic plague. He has had conferences with Sir Herbert Pinching, Director of the General Sanitary Service, and Dr. Bittar.

Special Pullman Cars for Consumptives.—In accordance with the recommendations of the United States Public Health and Marine Hospital Service, the Pullman Company has agreed to add to its equipment hospital cars to run on the Santa Fe Railway between Chicago and Kansas City to Colorado and New Mexico health resorts on certain days each week to be set apart for consumptives and other sick persons. Ordinary Pullmans are to be reserved for persons in health.

Medical Income in the United States.—According to *Leslie's Monthly* there are about 200,000 doctors in the United States, or about 1 per every 350 people. It has been approximately estimated that the average yearly income of these men is [illegible] that the American public pays $30,000,000 annually for medical attendance, omitting entirely the money spent for patent medicines which bring millions to manufacturers, or the money spent for doctors' prescriptions, or paid to quacks and [illegible] doctors. The preparation for the practice of medicine that gives a man a good standing in the profession means an expense of about $1,000 for four years in a reputable medical college, and two years of general experience during two years hospital service, and perhaps another year in setting up in practice.

Rats and Rabbits.—A curious and unpleasant discovery was made in the Central Meat Market at the end of last month. A consignment of rabbits attracted the attention of the sanitary authorities on account of the unusual number of heads in the carcasses. The latter found that the carcasses, although dressed in the manner in which rabbits are usually prepared for the market, were undoubtedly not rabbits at all, but immature animals of some other species. He consequently caused them to be examined by Dr. Shave, of the Royal Veterinary College, who pronounced that what it was endeavoured to pass off as rabbits were really the carcasses of newborn kids. Upon inquiry it was found that the lots in question had come from Nassau in Prussia, and that the consigner had expressed his readiness to send a hundred of these so-called rabbits to the London Central Meat Market weekly. Dr. Collingridge, in reporting the matter to the sanitary authority, pointed out that while the sale of kids for rabbits is a trade fraud, the use of the flesh of newly-born animals killed at birth, presumably for the sake of the mothers' milk supply, was a filthy and disgusting practice. These remarks are doubtless quite true, and the seizure and destruction of the shipment will probably deter the consigner from attempting the imposition again. It is remarkable, indeed, that it should ever have been attempted. One is accustomed to tales of the frauds of the restaurant cook upon his master's customers and of animals being served up under names which they never bore in life, but a corresponding imposition upon the cook himself seems a new idea.

West London Medical Chirurgical Society.—The members and friends of the West London Medical and Chirurgical Society met together on May 4th at the Trocadero, Piccadilly, on the occasion of the twenty-second anniversary dinner of the Society under the chairmanship of the President, Dr. S. Taylor. An interesting event which took place in the course of the evening was the presentation to Mr. Percy Dunn and to Mr. McAdam Eccles of a silver bowl each in recognition of the services they had rendered to the Society in connexion with the *West London Medical Chirurgical Journal*. The toast of "The Imperial Forces" was proposed by Mr. C. B. Keetley who secured the attention of those present by an earnest protest against the omission from the new War Office Board of the head of the Army Medical Department. Fleet-Surgeon French, who replied for the navy, described how in naval actions in the future medical officers would have to remain below and wait until the fighting was over before attending to the wounded. Colonel Hendley, I.M.S., who also responded to the toast, described his experience of the difficulties resulting from the want of proper representation of the Medical Service at the different centres of administration in India. He contended that the variety of work and responsibility which devolved upon medical men in India demanded wide powers of control and proper representation so that their views should be properly carried out in the interests of humanity. The toast of "The Kindred Societies and Guests" was proposed by Mr. Stephen Paget and acknowledged by Dr. de Havilland Hall and Dr. Theodore Williams. Mr. F. Swinford Edwards was entrusted with the toast of "The President and the Society" to which the President responded.

The Rural Midwives Association.—The first annual meeting of this Association, the object of which is to train and supply midwives for rural and provincial districts, to assist in starting local associations, and to obtain help and co-operation for the work through county councils, union infirmaries, guardians, and existing charities, was held on May 5th. Sir M. Foster, M.P., who presided, said, according to a report which appeared in the *Times*, that the Association had reason to be satisfied with the progress made during the year, though it had to contend with many difficulties. In the first place, it was stated that one effect of the Association would be to hinder the development of the thoroughly trained midwife but he was prepared to deny that it would have any such result. The object of the Association was really not so much to protect the midwife herself as to assist the rural poor by seeing that they were provided with proper attendance in the hour of need. It had also been stated that their efforts tended to put ignorant persons into a position for which they were not fitted by Nature; but the care that the Association was exercising in regard to the women selected for training was a sufficient answer to any objection of that kind. He denied also that there was any danger of the Association's encroaching on the duties of the local supervising authorities of county councils and other public bodies. Mr. Heywood Johnstone moved the adoption of the report, which stated that during the year 23 women had been sent to training institutions, and that the Association at present had ten midwives and several monthly nurses at work in nine counties. So far, however, the funds had not enabled the Committee to make any grants to very poor villages towards training and starting a midwife. The motion was seconded by Dr. Duvall, and adopted. The financial statement showed that the receipts for the year amounted to £720.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MAY 14TH, 1904.

OVERLOOKED FORCEPS.

EVERY surgeon who has performed abdominal operations knows how much anxiety they entail. There are dangers of haemorrhage, of the diffusion of sepsis, and of damage to important viscera. But the most harassing dread which besets him is the fear of overlooking instruments and sponges when he closes the abdominal incision. Under certain conditions this accident is exceedingly likely to occur; above all, in emergency operations where haemorrhage is placing the patient's life in immediate jeopardy, and where at the same time there is already such a degree of exhaustion that the operation must be completed as rapidly as possible. In a case which has recently been before the public the evidence showed that about two-dozen forceps had to be used, as is frequent under the circumstances. These instruments are most valuable for haemostasis, as if left on for a few minutes they entirely seal up small vessels in capsules and in vascular adhesions, and thus render ligature superfluous; or, to state the case more cautiously, they counteract the dangers of leaving vessels unligatured. For preventive purposes they are admirable, saving in many cases the loss of a drop of blood when a vessel is divided. But the free application of these instruments of necessity involves risk of some being left behind, especially, as we have said, in emergency operations.

The dread of leaving forceps in the abdominal cavity made the earlier ovariotomists think how they might counteract or avoid such danger. The long-shanked instruments which Koeberlé, Wells and Péan introduced and which remain in use were a great improvement upon appliances like Dieffenbach's little bulldog forceps, excellent for haemostasis, but so small as to be unfitted for intra-abdominal operations. Wells used to tie a long piece of wire or silk to them to avoid losing them in the peritoneal cavity, but the inconvenience of such an arrangement was evident. The introduction and development of the long-shanked pressure forceps with the catch at the handles is part and parcel of the history of the establishment of abdominal surgery.

Yet accidents of the kind which their contrivance was especially designed to prevent occurred very early after the introduction of the pressure forceps, and in the very hands of the designers of that instrument. Spencer Wells himself described how once he left a pair of forceps in the abdominal cavity after an ovariotomy, in his Hunterian Lectures at the Royal College of Surgeons in 1878. The oversight was rectified a few hours later by the removal of the forceps, and the patient recovered. Unfortunately in another case of the same kind the forceps was not missed. It ultimately found its way into the bladder, whence it was removed, the patient dying of the second operation. Since the early days of Sir Spencer Wells's practice this kind of accident has been reported nearly 200 times, including all cases where other objects besides forceps were left in the abdominal cavity. Von Neugebauer of Warsaw has been especially industrious in collecting statistics, on account of a judicial inquiry in which Professor Kosinski and Dr. Solman were implicated in 1899. He himself gave evidence, and a year later published his standard monograph *On the Accidental Leaving Behind of Foreign Bodies* (Forceps, Sponges, Pads, etc.) *used during Operations in the Abdominal Cavity, with Medico-legal Opinion.*[1] He collected 101 cases, yet by January 23rd, 1904, he was able to collect 87 more.[2] In this latter communication he quotes the words of Robert Weir: "I consider it almost impossible to guard against this contingency absolutely. We can only by great care reduce it to a minimum." Weir operated three times for the removal of sponges and gauze pads left in the abdomen. Von Neugebauer speaks of the importance of intelligent counting of forceps and sponges—as all must do who write on the subject—but he also dwells on other matters associated with these accidents. He considers that too many forceps and sponges are used, admitting that there is extreme variety in practice in this respect, for Schröder and Lawson Tait used a minimum whilst Péan employed dozens at a single operation, and living operators differ as much as to what is the necessary number of forceps and sponges. Von Neugebauer favours a minimum stock of forceps and sponges, but this practice may prove very inconvenient when a large vascular tumour has to be removed after separation of numerous adhesions. He speaks of the advantages of elevation of the pelvis and of a good light, and is very particular in insisting on perfect narcosis. All surgeons will agree with him that straining of the abdominal muscles and prolapse of coils of intestine through the wound are extremely disconcerting to the operator and assistant. The surgeon in the confusion may forget some of the important steps which he took at the beginning of the operation, and when he reduces the bowel forceps or sponges near the wound may be pushed far upwards or backwards into the recesses of the abdomen. When this operative complication occurs just at the time that the sutures in the abdominal wound are about to be secured—practically the end of the operation—the risk of the accident under consideration is considerable, especially should the operator have found it necessary to place a sponge or forceps in the abdominal cavity after the set had been counted by some responsible attendant.

Von Neugebauer includes in his valuable reports 27 cases where the foreign body left in the abdominal cavity was a pressure forceps; we may add another where a pair of scissors was forgotten and only detected by the pain they caused the patient when dancing a few months later. Nussbaum successfully removed the scissors. Ten out of the 27 forceps cases ended fatally, but in one instance amongst the ten a quack administered strychnine, contrary to orders after the operation, and the fatal result might have been due to the drug.[3] Sponges are much more to

[1] *Monats. f. Geb. u. Gyn.*, vol. xi, 1900, pp. 821, 935.

[2] "37 neue Beobachtungen von zufälliger Zurücklassung eines *post operatione* benutzten Fremdkörpers (Arterienklemme, Schere, Schwamm, Gazetupfer, Mullkompresse, u. s. w.) in der Bauchhöhle samt einigen anderen unvorhergesehenen Zufällen *intra operationem*," *Zentralbl. f. Gynäk.* January 23rd, 1904, p. 65.

[3] This was *l'affaire du Dr. Lassalette* (*Gaz. Méd. de Paris*, Vol. lxx, p. 21; Frommel's *Jahresbericht*, 1895, p. 350). An Italian surgeon was recently prosecuted, but acquitted; the foreign body in this case was a piece of gauze.

likely to cause fatal complications, whilst gauze pads, the objects which are more often left behind than any other, are less deadly than forceps, as they tend to find their way into the bowel. Cushing and Marey removed rings from the peritoneum, a signet ring in the first case, a diamond one in the latter; we regret to say that, according to Von Neugebauer, a well-known surgeon operates with a gold ring on his finger. Schachner[1] is uncertain whether several other reports concerning these trinkets may not represent one case that had received uncommon notoriety. We trust that his suspicion is true: the wearing of a ring during an abdominal operation is inexcusable.

It is quite clear that a forceps is a source of great danger as long as it remains in the abdominal cavity. Unfortunately it is doubtful whether the last accident of this kind has been recorded. The public surely cannot think that it occurs as a rule as the result of wilful negligence. Neugebauer's statistics include the names of operators of high renown, and indeed the majority of surgeons who have experienced this great misfortune were experts more or less. We admit that it is to be feared that many cases may remain unrecorded. The personal factor in individual cases is an uncertain element in an operation; some nurses we know do not assist so well as others, some cannot count many objects without becoming confused, and the same may be the case with the operator, the assistant, or with any medical officer or servant told off to count instruments and sponges. It would be unfair in the extreme to throw all the blame on the operator, just as it would be most unjust for the latter to endeavour to place all responsibility on the assistants and nurses. The truth remains that the responsibility must always be to a certain extent divided. In this most recent case, the one at the West London Hospital, the solicitor seemed to admit that the checking of instruments had not been well attended to, and one nurse is reported to have said that she never understood that it was necessary to count the forceps—a most grave admission. The operator fatigued by an emergency operation, which he has just concluded, is often not in a fit state to make sure about forceps and sponges without the intelligent aid of his assistants and nurses.

THE BACTERIOLOGY OF RHEUMATIC FEVER.

WE publish in another column an address delivered by Dr. [illegible] Poynton on the infective nature of rheumatic fever, illustrated by the study of a fatal case. With regard to the value of this case as evidence in support of Dr. Poynton's theory, attention may be called to the following points. In July, 1902, a girl aged [illegible] was admitted to hospital suffering from chorea and active cardiac disease. A week before admission there had been painful swellings of her wrist joints. The chorea was gone but the condition of the heart remained unsatisfactory after her discharge. She was readmitted in August, 1903, and died in ten days, the features of the case being clinically those of malignant endocarditis. This diagnosis was corroborated *post mortem*. The only heart valve diseased, however, was the mitral; this was much thickened and exhibited tiny vegetations. From these vegetations, and also from the spleen and the kidneys, pure cultures were obtained of a diplococcus resembling the diplococcus found, from previous investigations, Dr. Poynton regards as causative of rheumatism. The same organism contaminated with others, was obtained from the lungs. With one of the pure cultures Dr. V. Shaw produced in both rabbits and monkeys arthritis, endocarditis, and pericarditis. "This case, then," Dr. Poynton urges, "is a striking confirmation of the infective nature of rheumatic fever."

Taken purely on its own merits, it is a little difficult to see that the case fully bears out Dr. Poynton's conclusion. The vegetations on the mitral value which contained the diplococci were minute, and therefore it is reasonable to assume that they were of recent origin; nor is there any particular ground for believing that these organisms had resided for any longer period in any of the other organs in which they were found. The bacteriological investigations proved a generalized and terminal infection with a diplococcus which produced joint and cardiac lesions in experimental animals; but that is a very different matter from proving that this same organism was the cause of the chorea and morbus cordis which were clinically detected in the child more than a year previously.

It is only fair, however, to consider this case in the light of others which Dr. Poynton has previously recorded in conjunction with Dr. Paine. In 1900 these authors published an account[1] of the bacteriological and experimental investigations they had made with material from eight cases of rheumatic fever. From each of these cases diplococci were isolated which appeared to be identical with those discovered by Triboulet in 1897 and by Wassermann in 1899. Cultures of these organisms were obtained from the blood of living patients suffering from acute rheumatic pericarditis, from the fragments of granulations removed from the cardiac valves after death, and from the throat of a living patient suffering from rheumatic tonsillitis. Intravenous inoculation of the cultures into rabbits did not cause suppuration but produced morbus cordis, arthritis, coagulation necrosis in the liver and kidneys, plastic pleurisy and pneumonia. This investigation was continued, and in 1901 the authors were able to announce[2] that they had isolated the diplococcus from 16 cases of rheumatic fever. In one instance they obtained a pure culture from a rheumatic nodule, and with an intravenous inoculation of this culture produced in a rabbit valvulitis, pericarditis, and polyarthritis. In 1902[3] they isolated a diplococcus which was present in the synovial membrane of the knee-joint of a man, aged 67, several of whose joints showed the chronic destructive changes recognized as occurring in one type of rheumatoid arthritis. Pure cultures of this organism produced upon two occasions when injected into rabbits a severe arthritis but no cardiac lesion. And in more recent articles the authors have endeavoured to show that there is a group of cases of malignant endocarditis which is rheumatic in nature, that from these cases a diplococcus can be isolated in pure culture which will reproduce the disease in rabbits, and that the lesions produced by pyogenic cocci such as the staphylococcus aureus are essentially different.

It will be seen, therefore, that Dr. Poynton's researches provide many interesting reasons, which are supported by the work of others, for holding that there is an important association between a particular diplococcus and some of the clinical manifestations of rheumatism. Much the most valuable of his observations are those upon the infective organisms which are productive of endocarditis. He seems, in conjunction with Dr. Paine, to have established upon fairly substantial ground the fact that a

[illegible] September 2nd and 4th, 1903.
[2] [illegible] May 4th, 1901.
[3] *Trans. Path. Soc.*, vol. liv.

special type of non-pyogenic diplococcus is productive of a form of endocarditis which may be fatal, and which is not infrequently met with in cases which are clinically classified as rheumatic fever. But Dr. Poynton wishes to carry us much further than this. He claims to have shown that the entire clinical entity known as rheumatism is due to bacterial infection, and that the infective agent is in many cases the particular diplococcus which he describes, though he does not exclude the possibility that some instances of rheumatism may be due to other bacterial micro-organisms. Regarded as a working hypothesis, this view has two excellent justifications; it is the view to which many of our leading physicians incline on clinical grounds: and it is the hypothesis which best explains many bacteriological data recently placed upon record, not the least valuable of which are those for which we are indebted to Drs. Poynton and Paine. But when we are asked to travel beyond the stage of hypothesis and to accept it as an incontrovertible fact that rheumatism, in the wide clinical sense of the term, is proved to be due to bacteria, and that one at least of the organisms which causes it has been fully identified, then we feel that we are being invited to accept wider conclusions than are justified by the data hitherto available. The case of Dr. Poynton's which we publish this week (p. 1117) is an instance in point, and there are many others which our readers will find on consulting his previous articles. They will find, for example, that the diplococcus in question was in a very considerable number of the cases isolated after death from a patient who had succumbed to morbus cordis; and though this organism was undoubtedly associated with, if not causative of, the terminal infection, it is very far from being clear that this same organism was the efficient cause of the rheumatic symptoms which were manifest months, or even years, previously.

And with regard to the presence of the diplococcus in rheumatic nodules, on which some stress is laid, it will be noted that when a patient dies with this organism widely disseminated in his body, his rheumatic nodules may contain these diplococci without having been produced by them. The author's illustrations of histological preparations from human rheumatic nodules are particularly unconvincing on this point; they show, to quote their own descriptions, "retiform connective tissue with small clumps of diplococci scattered through it," and, in another instance, "groups of the diplococci lying in the interstices of the swollen connective tissue." It does not follow that because cocci occur within a tissue they are causative of its growth; we have no grounds for assuming that they are, unless we have some evidence of active tissue proliferation, of which, in the instances quoted, there is none.

The isolation of a similar diplococcus from a case of tonsillitis associated with rheumatic symptoms is also interesting, and has been corroborated by other observers; but it will be necessary for these experiments to be successfully repeated in a very large number of instances before it is satisfactorily established that the onset of rheumatic fever is determined by a specific organism which gains its first access to the body by absorption through the tonsils.

LIFE, BIRTH, AND LIVE-BIRTH.

DR. STANLEY B. ATKINSON, who is both a medical man and a barrister, has published in the *Law Quarterly Review* a medico-legal study on "Life, Birth, and Live-birth." Every lifeless child is, in the eye of the law, presumed to have been born dead unless there is evidence to the contrary. A person cannot be convicted of murdering it, nor can it inherit property, unless there is evidence that it existed separately from its mother. It is important, therefore, to know by what evidence such separate existence may be proved. There is no exact legal definition of a "child." From the point of view of the criminal law a fetus must be advanced enough in development to be capable of independent existence; but there is no ruling as to the period of gestation at which a child becomes capable of independent life. A monster incapable of separate existence is obviously not a "child," nor is a mole. There is one case on record in which a judge stopped a case on the ground that the alleged "child" was "a mass of corruption." But there is no definition of what kind or degree of deformity renders the product of conception not a "child." From the proprietary point of view a pregnancy is a potential child at any stage.

Should the proposed registration of stillbirths be carried out, it would become necessary to have some distinction between a fetus and an abortion, unless the suggestion made by Mr. Lowndes in 1872 were adopted—namely, that everything requiring burial, either fetus or abortion, should be registered. This would seem the most practicable way of avoiding the difficulty.

Birth, in a legal sense, takes place when the last part of the body of the fetus is wholly extruded from the body of the mother. The cord and placenta are not legally an essential part of the child. It follows from this that breathing is not a test of life, for a child may inspire before its legs or even before its body is born, and on this ground evidence to that effect has been in repeated cases held to be insufficient proof that a child had been born alive—cases which chiefly testify to the skill of lawyers in befogging juries into taking possibilities for probabilities.

To establish the fact of "live-birth" there must have been some token of vitality after the complete birth of the child. Most of the acquittals of the crime of infanticide take place because evidence is not procurable to prove a post-natal separate and independent existence in law. The principle we have just stated held good in English law till 1901, when Mr. Justice Wright laid it down that "the true test of separate existence in the theory of the law, whatever it may be in medical science, is the answer to the question, whether the child was carrying on its being without the help of the mother's circulation? If yes, then it had a separate existence even though it might not be fully born." Although this sounds well, and may seem to bring the law more into harmony with physiology, yet it makes practically no difference: for who can say that a child not fully born is "carrying on its being without the help of the mother's circulation?"

In criminal cases the only evidence of live-birth usually obtainable is circumstantial. The longer the child has lived the easier the task. If the child dies very soon after entering the world it will be almost impossible by *post-mortem* evidence alone to prove a very short post-natal life, an admission which will be early extracted from a medical witness by defending counsel, and when the labour has been secret and survival brief, indirect evidence is usually deficient. Cases of premeditated infanticide, however, usually do not occur at birth.

Cases in which evidence of live-birth is required in civil actions occur occasionally in connexion with birth insur-

ance policies, with compensation payable to a posthumous child, cases in which the birth of a child is disputed as against that of the age of the mother, and cases in which upon the birth of a living child depends the holding by a widower of his late wife's property. All such cases are rare. Dr. Atkinson points out that the logical post-natal life test is reduced to an examination of the organs concerned in the circulation of the blood. Crying after birth was the common law test of live birth. But children apparently dead at the moment of birth have survived for hours with an almost imperceptible beating of the heart. These feeble babes are at times laid aside as dead, when they are really only stillborn. Philip Doddridge, the hymn writer, was an instance. Therefore the persisting function of the heart is the real evidence of post-natal vitality.

The legal status of the child *in utero* is curious. To procure abortion is a crime; to kill a child in the act of birth and before it is fully born is not an offence. But if the child lives independently after birth and dies in consequence of wounds inflicted during delivery and before independent existence, this, it has been judicially laid down, is enough to constitute murder. The precept given in obstetric books, always to break up the medulla after perforating, thus becomes important, not only for the feelings of the mother but for the safety of the doctor. A child born on board ship cannot, in the absence of a special agreement, be charged as a passenger.

DISTRICT NURSING IN IRELAND.

Lady Dudley's scheme for the establishment of district nurses in the poorest parts of Ireland came into active being just a year ago, and after reading the first report of those who are charged with its administration it is impossible not to wish both continuance and increase of the success which it has so far achieved. The excellence of the objects in view, and of the means which have been taken to attain them are alike indisputable. As for the former, few people need to be told that the poorest parts of Ireland are very poor indeed, and that the dwellings, in many parts mere hovels scattered over desolate if picturesque hillsides, are tenanted by a race of infinite value to the empire, and one to be encouraged and fostered in every possible way from the point of view of medical economics. There are certainly many people to whom the benefits of district nursing would be more profitably extended. Those who have perused with any care the report of our Special Commissioner on the Poor Law System of Ireland need no argument to convince them that there must be many cottages and hamlets in Ireland which it must often be impossible for the district medical officer to visit [illegible] at all, with adequate promptitude, and that in default of the assistance of a trained nurse valuable lives must be lost from this cause alone. So far Lady Dudley and her fellow-workers have only been able to supply nurses where they have stationed in the most [illegible] districts. At least [illegible] cases will be reported before the needs of the [illegible] are adequately met. And many people may be disposed to assist in raising the supply to this standard by [illegible] considerations independent of those by which we have referred. One is that a fundamental part of Lady Dudley's scheme is a recognition of the fact that the functions of a nurse are not merely to mitigate existing suffering, but that she should be a person of such character, both real and apparent, that she can exercise an educative and civilizing influence upon those among whom she lives and works, and thus teach them to help themselves. This is a point which the initiators of many other rural nursing schemes have either left out of sight altogether or have rendered impossible of attainment by making the conditions of employment such as could not possibly meet the views and personal needs of any suitable woman. This error Lady Dudley has carefully avoided, with the result that, though the cost may be somewhat increased, the nurses employed are not only highly educated in ordinary and district nursing work, but are capable of fulfilling the functions of, so to speak, kindergarten mistresses in matters sanitary, and of recognizing instinctively where the work of a doctor begins and that of a nurse ends. The Secretary of the Fund by which the scheme is being carried out is Miss Keyes, Vice-regal Lodge, Dublin.

SMALL-POX AND VACCINATION AT GATESHEAD.

THE vagaries of public bodies with reference to local management of small pox are being curiously illustrated at Gateshead. It seems that within the past few months there have been some 500 cases of variola, and that recently the guardians adopted the very sensible course of empowering all registered medical practitioners to vaccinate or revaccinate at the public expense. But the Reading guardians have been sending round for support by other Boards a petition for presentation to Parliament setting forth that the practice of vaccination "is dangerous to life and limb, and useless as a preventive of small-pox;" and straightway the Gateshead Board have by a large majority decided to support the petition! They thus intimate to the public and Parliament that they have been offering payment to medical men all through their district for the direct purpose of maiming and slaying not merely the unfortunate paupers who have been committed to their sapient control, but all the inhabitants of the Gateshead Union who might be induced to accept their kind offers of possible mutilation and murder. Whether the guardians can best be described as Bedlamites or as Thugs would be a suitable subject for a debating society, but as to how much weight Parliament should attach to their petition there can be no debate at all. The resolution to support the Reading petition was, we observe, proposed by the Rev. A. B. Tebb. He is reported to have declared that "this was the most sensible petition he had ever heard," from which it may be gathered that his experience of petitions or else his views of what constitutes sense in such matters must be somewhat peculiar. In Gateshead, he pointed out, one medical man whom he named had received (for vaccinations) £250 in three months: but surely that only goes to show that a good many of the public have taken advantage of the Board's own offer of free vaccination. He also said that vaccinations had cost Glasgow £34,000 in four years, and that there had been 3,000 cases of small-pox and 300 or 400 deaths; but he entirely omitted the absolutely essential point as to whether the cases and deaths had occurred among those whose vaccinations had cost the amount stated or amongst those who had refused protection. As regards Leicester, to which he also referred, he did not state and perhaps he did not know that within the last month or so cases have been occurring at the rate of nearly 30 a week, and that the medical officer is being blamed for over-activity in pushing the claims of vaccination. When his discourse to the guardians was replied to by a medical member of the Board, the reverend antivaccinist declared, with fine Christian charity, that, "without imputing motives the medical fraternity could not clearly dissociate the fees from their consideration of the question. That is a kind of insinuation which naturally comes home to roost, and if Mr. Tebb chooses to attribute to others the considerations which determine his own conduct, the self-revelation cannot be without interest in the circles in which he moves.

THE JAPANESE SOLDIER'S FEET.

THE Japanese soldier has been well described by an officer of Indian experience as "a Ghoorka with brains," and there could be no higher praise. Like the Ghoorka, the Japanese soldier is short and thick set, with muscles developed to the highest point of efficiency and a system trained to endurance. He is sober, and he thrives on a

diet which would mean starvation for most white soldiers. He is, as all the world can see, a first-class fighting man. This high exemplar of all soldierly qualities, however, if we are to believe Dr. Matignon, who was for many years physician to the French Legation at Peking, and who has made a special study of Asiatic ethnology, has one weak point. As far as bodily strength goes he is of iron, but his feet are of clay. How vital a part the foot is in a soldier we may learn from that noted military expert, Terence Mulvany. Readers of *My Lord the Elephant* will remember his account of his own experience, but as the passage is a *locus classicus* on the subject we venture to quote it: "I had a boot-gall, but I was all for keepin' up wid the rig'mint and such like foolishness; so I finished up wid a hole in my heel that you cud ha' dhruv a tent-peg into. Faith, how often have I preached that to recruits since, for a warnin' to thim to look afther their feet! Our docthor, who knew our business as well as his own, he sez to me—in the middle of the Tangi Pass it was—'That's sheer damned carelessness,' sez he. 'How often have I tould you that a marchin' man is no stronger than his feet—his feet—his feet?' sez he." Dr. Matignon's view is that the Japanese foot is less adaptable to Western fashions than the Japanese brain is to Western ideas, and that it has suffered in consequence. European boots and shoes are endured in public as evils inseparable from a higher civilization, but in private the most progressive Japanese hasten to rid themselves of those instruments of torture. The Japanese recruit, whose foot has never known restraint or encumbrance, is made to wear thick leather boots which inevitably cause suffering and frequent disablement. In the war with China in 1900 the Japanese troops had little marching to do and consequently their boots did little mischief. In the Manchurian campaign of 1895, however, the number of men disabled by "boot-gall" was very considerable. There would doubtless have been many more but for the fact that both officers and men marched in sandals, a form of footgear excellent in summer, but ill-adapted to the terrible cold of a Manchurian winter. Dr. Matignon was told by Japanese officers who had been through the campaign that European boots had done more harm to their men than the Chinese bullets. Napoleon used to say that he won most of his battles with the legs of his *grognards*, and we cannot doubt that the military authorities of Japan, who have hitherto shown themselves so far-seeing and accurate in the adjustment of means to the end in view, will take care that the success of their armies in battle is not neutralized by any avoidable cause of failure in the marching power of their troops.

A CONGRESS FOR THE REPRESSION OF QUACKERY.

If safety from the evils that afflict mankind were to be found in the letter of the law, France would be excellently well protected against the pestilence of quackery. Only the other day a punctilious prefect refused to sanction the issue of a supply of serum for use in a case of diphtheria to a man who had held the post of *interne* of the Paris hospitals, and passed all the examinations for the doctor's degree except the final formality of the thesis, and who happened at a particular moment to be the only person possessed of medical knowledge accessible in a country district. Yet the country privileged to possess a law administered with such undiscriminating rigour appears to be scarcely less infested by quacks than our own land under a Constitution which jealously safeguards to every citizen the sacred right, in the words of Dr. Gregory, of going to the devil in his own way. Quacks of all kinds vaunt their unfailing skill and their thaumaturgic nostrums in the press and wherever there is space to stick a bill; they prey on their victims under the nose of the law which would seem to be as blind as Justice itself. Practitioners of mystic therapeutic rites find countless dupes in the towns, and bone-setters, herbalists, and spell workers swarm in the country. The clergy, who apparently cannot forget that medicine was in old days a part of their domain, are apt to supplement their ministrations to the spiritual needs of the devout with the prescription of remedies of a purely physical character for their suffering bodies. The law is, in fact, to a large extent made inoperative by the judicial authorities charged with its administration. Magistrates and judges seem to regard the law as being intended to protect the interests of the doctors rather than those of the public, and in this spirit they deal with the cases of illegal practice that are brought before them. In France, too, as everywhere else, there are many who have more faith in the big promises of quackery than in the modest claims of science. There is a story of a man, driving a busy trade in panaceas of various descriptions at a fair in a Paris suburb, who was invited by the police to show his diploma. To their surprise he at once produced the document which proved that he was an authentic doctor of medicine. He begged them, however, not to betray him, as if his customers learnt that he was properly qualified their belief in him would evaporate! Whether true or not, the story points an instructive moral. Quackery is so rampant in France that a Congress for the discussion of means to suppress or abate the evil is being organized by the Union des Syndicats Médicaux de France, and other kindred societies. The chairman of the Organizing Committee is Dr. Léon Duchesne, and the general secretary, Dr. Levassort, both of whom have given special attention to the question. The Congress, which is to be held in about a year, is not intended to be a strictly medical meeting; legislators, magistrates, members of the Bar, journalists and the general public are invited to take part in the proceedings. The programme of discussions is very comprehensive, including illegal practice by (*a*) persons who have nothing to do with the medical profession; (*b*) by persons who may be called parasites of the profession, such as druggists, nurses, masseurs, chiropodists, etc.; (*c*) by persons holding diplomas which give a limited right to practise—dentists, midwives. Illegal practice by foreign doctors, "covering" and medical columns in newspapers, will also be discussed. Last of all in the long list of subjects on the programme comes the question of the means of enlightening the public as to the dangers of unqualified practice. This we should certainly put first, for in the education of the public mind, in the creation of an intellectual atmosphere in which quackery cannot live, lies the best hope of freeing men from the humiliating bondage to the vilest imposture in which they are now held by ignorance.

THE REMOVAL OF KING'S COLLEGE HOSPITAL.

The anticipated opposition to the Bill authorizing the removal of King's College Hospital, to which we referred some time ago, did not prove very formidable when the Bill came before the Select Committee of the House of Lords for consideration. After evidence in support of the propriety of the removal of the hospital to Camberwell had been given by some of its officials and by Sir Edmund Hay Currie, Mr. Blennerhassett, K.C., who represented the Westminster City Council, informed the Committee that under the terms of the Pest House Charity certain obligations towards the inhabitants of Westminster were imposed upon the governors of the hospital in return for the income which the hospital received from that fund. If the hospital were moved the inhabitants of Westminster would be deprived of the advantages which they had hitherto enjoyed from its presence in their midst; he therefore asked the Committee to say that the governors of that institution should no longer be entitled to any part of the funds of this local charity. Unless some such provision were inserted in the Bill, the trustees of the charity would be debarred from going before the Charity Commissioners and asking for a new scheme to be framed in view of the altered circumstances brought about by the removal of the hospital from Westminster to Camberwell. The final upshot of the matter was that the Committee held that the desirability of moving the hospital was proved but consented to the introduction into the Bill of the following clause, and of the modification of such others as were not in accord with its sense: "At any time after the removal of the hospital from

the present site the trustees of the charity known as the Pest House Charity may, if they think fit, give notice thereof to the Charity Commissioners, who may, if they think fit, settle a new scheme for the administration of the said charity, but nothing in this section contained shall in any way interfere with the discretion of the Charity Commissioners as to the continuance of the present scheme or the settlement of a new scheme." The Pest House Charity, to which reference has been made, is derived from the sale of the site of an old plague hospital within the ancient city of Westminster. The income, it is understood, has been divided for many years past between King's College Hospital and Charing Cross. The share of King's College Hospital would appear to have varied between £200 and £500 odd during late years, in return for which the hospital has been under a nominal obligation to maintain 24 Westminster patients. Even £500 a year is a very poor return for the upkeep of 24 beds, and the hospital has probably done a very great deal more every year for the poor of Westminster than that for which it was nominally paid. The institution in its new home will not be very much less accessible to inhabitants of some parts of Westminster than at present, and its services not less at their disposition than at that of the rest of London, so it is to be anticipated that the Charity Commissioners will not see fit to authorize any variation in the administration of the trust.

THE RISKS TO LIFE IN LONDON.

THE deputation to the London County Council in respect of an ambulance service, to which under the above heading a reference was made in the BRITISH MEDICAL JOURNAL for May 7th, at page 1093, was received by the General Purposes Committee of the Council on Monday afternoon. An account of the proceedings will be found on page 1161 of this issue. It will be observed that the deputation was of a notably influential character, and that it had the advantage of formal introduction by Sir William Collins. The County Council, as represented by the General Purposes Committee, was, it is understood, much impressed with the views thus laid before it and by the answers to the questions which were put to the members of the deputation. An immediate and satisfactory outcome of the interview was that the Committee, on the withdrawal of the deputation, decided that it would be well to appoint a subcommittee to consider the whole question, and promptly put this view into execution. Everything therefore at present promises well for the success of a movement to the importance of which from the point of view of every member of the London public we have repeatedly drawn attention.

CAISSON OR DIVERS' DISEASE.

THE illness which is liable to occur in a person who, after exposure to increased atmospheric pressure, is too rapidly removed from it presents many and most varied symptoms. Of these, perhaps the most usual are pain, varying in degree, and especially affecting the limbs, head, and epigastrium; coma, vomiting, paralysis transient or permanent, and with or without pain, vertigo, and coma whilst comparatively sudden death is not rare. The number of deaths that have already occurred in the United States is authoritatively given as nearly 100. The duration of the illness varies from a few days to months, and when death supervenes it may occur within fifteen minutes and generally [illegible] within four or five days of the seizure. The lesions usually found post-mortem are congestion of brain and spinal cord and some of the viscera. In two of twenty-five cases [illegible] have been observed also in the veins. When death is delayed for some weeks the spinal cord is usually congested or inflamed, especially in the lower dorsal or upper lumbar region, and myelitis, cystitis and bedsores are not present. Dr. Leonard Hill many years ago suggested that the disease was due to the liberation of air from the blood when the pressure was reduced, and that it went off in bubbles which obstructed the smaller vessels. The opinion of Dr. Andrew H. Smith, of New York, however—and he is a leading authority on the subject—is that the "long-continued pressure produces changes in the distribution of the blood, especially in the closed cavities, such as that of the skull and of the spinal cord"....."perhaps also in the cavities of the long bones, which are so often the seat of exquisite suffering." "The sudden transition to a lower atmospheric pressure after prolonged exposure to a higher one" is, at any rate, the one essential cause of the disease, and it has been computed that the time which should elapse after leaving the caisson or deep water, and before passing to the open air, should certainly be not less than five minutes for each additional atmosphere, and each atmosphere in diving corresponds to a depth of about 33 feet of water. Various treatments have been suggested, but none is so efficacious as the immediate return of the patient into the compressed air either in the caisson or in a supplementary chamber constructed for the purpose, and in which the pressure may be very slowly reduced. If resorted to at once, this treatment apparently never fails. So much has been known on the subject for some years past; and it remained for Dr. Leonard Hill, F.R.S., who, with Professor J. J. R. Macleod, has been making experiments, to confirm what was before little more than surmise respecting the etiology of the disease and to show that its multiform symptoms are due to one cause alone. In his own words, "the real cause of the illness is the frothing-off of air in the blood, a frothing which takes place when a man after exposure to compressed air is quickly 'decompressed' or returned to the normal atmospheric pressure." Under ordinary air pressure each 100 c.cm. of a man's blood dissolves about 1 c.cm. of nitrogen; but under a pressure of four atmospheres, that is, at a depth of 100 ft., the same amount of blood dissolves about 4 c.cm. of nitrogen; and on rapid decompression 3 c.cm. of the gas escape from each c.cm. of blood as bubbles, as from soda water when the cork is drawn. These bubbles in the blood vessels obstruct the circulation and cause the diverse symptoms enumerated above, according to the position of the escaped air bubbles. Animals, Dr. Hill asserts, can be safely exposed to a pressure of eight atmospheres, or a depth of 230 ft., for four hours, if two hours be spent in gradual decompression. Moreover, recompression of any one showing signs of illness drives the free gas bubbles again into solution. He therefore emphasizes the injunction that divers from great depths, or men working in caissons under excessive pressure, should be decompressed slowly so that the redundant gas may escape from the blood slowly and gently. He has constructed a diving-bell in which the decompression may be slowly effected, and he asserts that by its means divers may safely work at depths up to 200 ft. below water. As few divers, except the strongest and most expert, exceed 100 ft. the extension of their range of work to double the usual distance for the visiting of wrecks and raising of oysters, pearls, sponges, etc., seems to be easily possible, and, further, to be capable of accomplishment with safety if divers will remain in the decompression chamber a sufficient time for it to perform its beneficial rôle.

PROFESSOR WILHELM HIS.

THE news which reached England early last week of the death on May 1st of Professor Wilhelm His, of Leipzig, was received with great regret in all scientific circles, and especially in those directly interested in anatomy and embryology. An opportunity for giving early expression thereto was seized at a meeting of the Anatomical Society of Great Britain and Ireland on May 6th, when a vote of condolence with Frau Geheimrat His and the other members of the family of the deceased was moved by Professor Symington, F.R.S., and seconded by Professor Thane. Professor Symington said that he felt sure that the members of the Anatomical Society would desire to place upon record their high appreciation of the eminent services to science rendered by Professor His as a brilliant investigator in almost every department of anatomy. His labours had ensured for his name a lasting and permanent position among the great masters and teachers of anatomical science. The Society was proud of the fact that his name had been enrolled upon its

list of honorary members for a great number of years, and that he had been present at one of its meetings and made a valuable contribution to the proceedings. With his death the branches of science to which he devoted himself lost one of their greatest ornaments, and while this fact naturally took the first place in their minds, his death must bring with it a sense of personal loss inasmuch as that his treatment of those members of the Society who had had the privilege of working in his laboratory had always been of the kindest and most generous character. Professor Thane, in seconding the resolution, referred to a visit which he had recently paid to Jena and to his presence at a meeting of the Anatomische Gesellschaft of that city. Professor His had promised to be present at the meeting and to support thereat the old view regarding the transitory fissures of the brain; he was, however, unable to come, and his absence was severely felt. Professor Thane said he would be greatly missed by the numerous workers who proceeded to Leipzig, for he was accustomed not only to place his time and laboratories at their disposal but to aid them with suggestions and even with valuable material. The regrets thus phrased will have a wide and appreciative echo and form a suitable epilogue on the life-work of this great anatomist, some details of which will be published in a later issue.

SPOROZOA AND DISEASE.

Professor Minchin dealt with the microsporidia and sarcosporidia in his seventh lecture on the sporozoa on May 2nd. The microsporidia were minute forms, distinct from the myxosporidia described in the previous lecture, and the spores produced by them were so small as to be barely visible. Microsporidia occurred in both invertebrates (for example, arthropods) and vertebrates (fish), but rarely in the latter. They were, however, absent from the higher or warm-blood vertebrates. The stickleback, angler-fish, and flounder were particularly liable to be infected by the spores. These parasites were sometimes very deadly to insects, the most notable instance of this being the glygea bombycis, or "disease" of the silkworm. Thelohan, who has investigated the matter very minutely and thoroughly, found that an epidemic of disease which affected crayfish in France, and almost exterminated them in certain rivers, was due to a microsporidium which infested the muscles of the crayfish and produced extensive destruction of the muscular tissue and death. The microsporidia multiplied by a process of merogony, producing a number of spores (four or eight) each of which was oval, with a vacuole at one end and occasionally with a "stinging-thread" at the other. The best known of the microsporidia was the glygea bombycis of the silkworm. The sarcosporidia were another class of sporozoa which infected warm-blooded animals such as the sheep, mouse, and pig. The first observer who noted their occurrence was Miescher who found them in the mouse; they were named "Miescher's tubes." They are present in the striped muscular tissue of the mouse, and if the conditions of life are favourable they multiply and increase in such numbers as to kill the mouse. They occur also as long fine whitish streaks in the oesophagus of the sheep and the pig. The life-history consists of a trophic stage (multinuclear) in which the parasite is found to swell within the substance of the muscle fibre. A limiting membrane radially striated with canaliculi forms the outside of the body of the parasite. Within this membrane a complicated process of spore-formation is undergone, the final product of which is the formation of numerous falciform or sickle-shaped bodies (gymnospores) which move above by a spiral or corkscrew-like motion, and cause disintegration of the muscles. In the pig and sheep the spores produced are sausage shaped with broad rounded ends. A clear region exists at one end, and from this area a "stinging-thread" is usually extended, the presence of which can be shown by special methods of staining (Laveran and Mesnil). Smith infected mice with sarcosporidia, and in turn fed other mice with the flesh of the infected ones. The result was the appearance of microsporidia in the (cannibalistic) mice after a long latent period. Professor Minchin is of opinion that infection from mouse to mouse may thus spread owing to the occasional cannibalistic habits of these rodents. Little was as yet known concerning the occurrence of sarcosporidia in man, though he believed that in the future the subject would probably assume as much importance as the question of the malarial parasite has to-day.

MEDICAL DEFENCE IN AMERICA.

Two years ago the New York State Medical Association was moved by the large number of blackmailing malpractice suits brought against medical practitioners of good repute to undertake the defence of its members against such action. The applicant was required to agree to fight each case through to the court of last resort. According to the counsel for the Association statistics show that, during the last five years throughout the United States, one practitioner in every one hundred and fifty has been sued each year for alleged malpractice. The activity of the Medical Association has already had the effect of decreasing the number of these actions. In most of the cases with which it has dealt no complaint has ever been served, and in only three has the action been put on the calendar for trial. Within the last year three of the representative organizations of other States have taken up a similar plan of defence.

TEMPERANCE WORK IN THE ARMY.

At the annual meeting of the Royal Army Temperance Association held at the Royal United Service Association under the presidency of Lord Roberts on May 10th, it was stated in the report that in the army there are 46,719 total abstainers, and honorary members bring up the number to 57,304; of these India contributes 24,000 total abstainers, 7,000 honorary members, and 123 juvenile members. This means that about one-fourth of the entire British army is enrolled in the ranks of the Association. The Rev. J. H. Bateson, who presented the report, said there was a time when the army was called the national school for intemperance. To-day there could be no doubt that it was the national school for temperance. Lord Roberts, who is the Chairman of the Council of the Association, expressed gratification at the success that had attended the Association. Sixteen years ago he started it in India. At that time there were several associations in existence which had done good work in the army. It occurred to him that an amalgamation of the societies would be beneficial. He received the greatest assistance from the clergy of all denominations and commanding officers. The Government of India not only promised an annual grant but enabled them to have a separate room in every barracks, and soon after his return to England eleven years ago he started an association on similar lines in this country. For all practical purposes it was one association for the United Kingdom and for India—in fact, for every place the army went to; and it had received the approval of the highest in the land, the King having graciously sanctioned the prefix "Royal" to the name of the association. He sincerely trusted that it would continue to grow in strength.

DO WE EAT TOO MUCH?

This question has been answered with an emphatic affirmative by nearly all writers on dietetics, and it is the experience of medical practitioners that a large proportion of the diseases which they are called upon to treat have their origin in overeating. The results of a series of experiments made under the auspices of the Sheffield Scientific School of Yale with the object of determining whether the average human being does not eat too much, afford decisive confirmation of this conclusion. Professor Russell H. Chittenden, Director of the School, who conducted the experiments, read a paper before the National Academy of Sciences at Washington on April 20th, in which he stated that, as a result of the investigations, the conclusion had been arrived at that the average healthy man eats from two to three times as much as he requires to keep him in perfect health and vigour.

The experiments were made on three classes of men—several professors of the school, some students, and a squad of United States soldiers. In nearly all the tests meat was gradually reduced, with little, if any, increase in starch and other foods. No fixed regimen was required in any case, the endeavour being to satisfy the appetite of each subject. The experiments, which lasted a period of from six months to nearly a year, ended a short time ago, when, according to Professor Chittenden, all his subjects were in the best of health. Their weight in some cases was almost exactly the same as when the experiments were begun, in some slightly lower. Their bodily vigour was greater and their strength was much greater, partly owing to their regular physical exercises during the experiments, and partly owing, Professor Chittenden believes, to the smaller amount of food eaten. The daily consumption of food at the close of the experiments was much less than the recognized standard, and from a third to half as much as the average man eats.

MORE MARVELS OF CHRISTIAN SCIENCE.

We might too remark of old be applied at present "O ye of little faith." Manchester under the guidance of Christian Science is doing its best to emancipate itself from this reproach. We cannot say how many faith-healers there are in that city, but any lack in numbers is made up by the intensity and tremendous amount of faith exhibited by its votaries. We give a few instances of more remarkable "cures." A lady who before she knew Christian Science was "a miserable girl—always seeking, never satisfied" came under its benign influence and grew so happy that "she hardly seemed to touch the ground." The science it appears, has a commercial as well as a spiritual value. Why does not overworked humanity at large hasten to embrace the cult? One lady "has almost forgotten what it is to feel tired." Tired Nature's sweet restorer is nothing to this new specific for all the ills that flesh is heir to. What a priceless boon is within the reach of all of us. By it pain is dispelled. It even cures irritability of temper and dispels unhappiness. Perhaps a course of instruction previous to matrimony or a decided dose when domestic storms arise might lighten the labours of our courts of law, and establish domestic felicity where none exists owing to irritability and incompatibility of temper. It even takes all ill temper out of business men, and frees them from all the worries and cares of business. Christian Science, then, if its claims are well founded, is a universal panacea for all ills spiritual and physical. But there's more virtue in an "if."

THE CURE OF LEPROSY.

Dr. Clarence Dyer, of New Orleans, has been credited recently by many papers with the assertion that he has discovered a means of curing leprosy, the nature of which is not disclosed. In twelve cases, it is stated, every trace of the disease has been eradicated, while all the cases in the Home Leper at which he has been medical officer for some years, with the exception of a few who were admitted in a hopeless condition, show distinct improvement. Doubtless we shall hear before long something more of this discovery since if Dr. Dyer has really made the assertions ascribed to him he will no doubt submit it to expert investigation at the hands of fellow-workers. In the meantime it may be pointed out that, as is well known to medical men in general and especially to those who have had any prolonged experience of the disease, leprosy in its more chronic and most common forms is a disease which, perhaps more than any other, tends to recover of its own accord. The life of an average leper is a comparatively long one, notwithstanding the obvious disfigurements which he suffers. Not infrequently members of the leprous community, immune in health and appearance when brought into hospital, are submitted to medical experiments. In any case there are distinct periods of repose, more or less independently of any medication or treatment, in which the disease remains stationary for the part of several years. As regards the effect of remedies tried, exceedingly easy. In some cases these periods of repose are prolonged, and in not a few a pause lasting for many years and coupled with general improvement in health may convey the impression of complete cure. It is, therefore, not difficult to account for the general amelioration stated to have been observed among all the unfortunate residents in this particular home, while the reputed cures may reasonably be ascribed prima facie either to the periods of prolonged arrest, of which mention has been made, or to those errors in original diagnosis, long undiscovered, examples of which could be culled from the records of many if not all leper institutions. What, however, renders the discovery more dubious than anything else is the statement that Dr. Dyer is convinced that owing to his treatment leprosy in another decade will not be considered more formidable than typhoid or yellow fever. The comparison thus established between short, sharp diseases such as those mentioned, and a slow, insidious malady such as leprosy, alike condemns itself and the statements which accompany it.

INCREASE OF VACCINATION.

With regard to a paragraph under this heading, which appeared in the BRITISH MEDICAL JOURNAL of April 30th (p. 1050), Dr. Monckton Copeman, F.R.S., asks us to state that the figures there given as to the number of primary vaccinations in certain years are inaccurate and misleading. The fact that there has been a great increase of vaccination year by year since the Act of 1898 came into force is true, but Dr. Copeman made no mention of the year 1898; neither did he give statistics for last year, as the figures are not yet available. We regret the inaccuracy into which we were led through reliance on the statements of a correspondent whom we had every reason to believe well informed.

CHOLERA IN PERSIA.

We learn from a medical correspondent at Kermanshah, Persia, that cholera has broken out in the province of Kermanshah, having been introduced by pilgrims returning from Kerbela. Thirty-five cases have occurred with 26 deaths. Quarantine and sanitary measures are in the hands of Mons. Molitor of the Customs, Dr. Lescuyer, Russian Consulate, and Dr. Scott attached to the English Vice-Consulate.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE next general or quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will be held, under the presidency of Dr. Ernest W. White, on Wednesday, May 18th, 1904, at the Langham Hotel, Portland Place, W., at 4 p.m. The following papers will be read: Quantitative and Qualitative Leucocyte Observations in Various Forms of Insanity, by Dr. Lewis C. Bruce, Physician Superintendent, and Dr. A. F. M. Peebles, Assistant Physician, Perth District Asylum, Murthly. A Statistical Note on the Social Causes of Alcoholism, by Dr. W. C. Sullivan. The Psychology of Hallucinations, with diagrammatic illustrations, by Dr. W. H. B. Stoddart. Notes of a Case of Combined Spinal Degeneration with Unusual Mental Symptoms, with microscopical sections of the cord, by Dr. J. Kennedy Will. The members will afterwards dine together at 7.30 p.m. at the Café Monico, 211, Regent Street, London, W.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

A clinical meeting will be held at 3 p.m. on Wednesday, May 18th, at 32, Hanover Square, W. An ordinary meeting will be held at 8.30 p.m., when an address will be delivered by Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., entitled "Some Observations on British Winter Resorts." The annual dinner will take place the same evening, May 18th, at the Criterion Restaurant, Piccadilly, at 7.30 p.m. The Fellows are invited by the President, Dr. Alfred J. Street, of Westgate-on-Sea, to be present at a smoking concert in the King's Room, the same Restaurant, at 9.30 p.m.

INDIAN MEDICAL SERVICE ANNUAL DINNER.

The annual dinner of the Indian Medical Service will be held at the Café Monico, Piccadilly Circus, on Thursday, June 9th, at 7.45 o'clock. The chair will be occupied by Surgeon-General Sir Colvin Colvin-Smith, K.C.B. Officers who intend to be present should communicate with the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, 46, Harley Street, W.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.

We are requested to state that the next meeting of the Otological Society of the United Kingdom will be held at the Glasgow University on Saturday, May 21st, the President, Dr. Barr, in the chair. The meeting will be opened at 10.30 a.m. Professors McKendrick and Cleland and others have promised to take an active part in the proceedings.

The estate of the late Sir Henry Thompson has been proved at £223,748.

The fifty-fifth annual meeting of the American Medical Association will be held in Atlantic City, New Jersey, on June 7th, 8th, 9th, and 10th.

At a meeting of the Court of Governors of St. Bartholomew's Hospital, held on April 28th, Dr. Morley Fletcher, M.A., M.D.Camb., F.R.C.P.Lond., was elected Assistant Physician to the hospital.

The Medical Society of London will hold a *conversazione* at their rooms, 11, Chandos Street, W., on Monday next. A reception by the President will take place at 8.30 p.m., and at 8.45 Sir Isambard Owen will deliver an oration on the Future Prospects of Medical Education in London.

The Bellevue Hospital, New York, is to be rebuilt by the City on a magnificent scale. It is estimated that the total cost may amount to £2,800,000. It will accommodate 2,500 patients. Quarters will be provided for more than 100 resident physicians and surgeons.

The Right Hon. Chas. Scott Dickson, K.C., M.P., Lord Advocate for Scotland, will preside at the dinner of the Glasgow University Club, London, to be held on Friday, June 3rd, 1904, at the Café Royal, Regent Street. Applications for tickets should be made to the Honorary Secretary, 63, Harley Street, W.

The opening lecture of the summer session at the Brompton Hospital for Consumption and Diseases of the Chest will be delivered by Dr. J. Mitchell Bruce on Wednesday, May 18th, at 4 p.m. The subject will be the Action of Digitalis in Cardiac Failure. The lectures are free to all qualified medical practitioners and to students of medicine.

A meeting of the Sociological Society will be held in the School of Economics and Political Science (University of London), Clare Market, W.C., on Monday, May 16th, at 5 p.m., at which a paper on "Eugenics: Its Definition, Scope, and Aims" will be read by Mr. Francis Galton, D.C.L., Sc.D., F.R.S. The chair will be taken by Professor Karl Pearson, F.R.S.

His Grace the Duke of Argyll, P.C., K.T., G.C.M.G., G.C.V.O., etc., will preside at the festival dinner of the Royal Waterloo Hospital for Children and Women, to be held on Monday, June 20th next, at 8 p.m., in the new rooms at the Savoy Hotel. The details are in the hands of the Social Bureau, 30, New Bond Street, but information can be obtained from the Ladies' Committee, the Managing Director of the Savoy Hotel, or at the hospital.

Mrs. Elizabeth Morton, widow of Dr. W. T. G. Morton, of Boston, whose name is so closely associated with the introduction of surgical anaesthesia, died on April 21st at New York. She was born in 1812, and was married to Dr. Morton in 1844. According to the *Boston Medical and Surgical Journal*, no recognition of any sort ever came to her from the American Government, although the reports of six Congressional Committees during her husband's lifetime had recommended an appropriation of several hundred thousand dollars in acknowledgement of the benefit derived from ether anaesthesia during the civil war. Mrs. Morton is survived by two sons, both members of the medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Death-rate in South African Mines. On Thursday in last week the adjournment of the House was moved by Major Seely "to call attention to the cruel and improper treatment of South African natives in the Witwatersrand mines." After quoting evidence as to flogging and other ill-treatment, he referred to the terrible mortality among the miners. For the last year the rate had averaged 80 per 1,000, and during the last six months it had increased to nearly 90 per 1,000. That was twenty times the rate of mortality in English mines, and there was no other employment in any part of the world so terribly fatal. Mr. Winston Churchill seconded the motion for the adjournment, and said that 80,000 people were concentrated within a restricted area under conditions that were almost unnatural, but that we were just as responsible for what occurred in the Goldfields as if the compounds were in Regent's Park. Mr. Lyttelton in the course of a long reply complained of the debate having been raised before he could master the voluminous papers he had only just received. He contended that the authorities in South Africa were doing their best, and quoted a telegram from Lord Milner in reply to a message calling attention to the excessive death-rate in the mines, in which it was admitted "that the high rate of mortality in the mines is the weakest point in our armour." (This admission was received with ironical cheers.) The Colonial Secretary continued, that as long back as 1896 a Commission of doctors had been appointed in the Transvaal, and they had made a most valuable report. The expenditure required to carry out their recommendations had been cheerfully borne. Medical experts were of opinion that the improvements widely adopted must tell in time. The recent high mortality was due to some extent to the scarcity of labour, as any labour was obliged to be recruited, and inferior physique increased the death-rate. He believed the mortality would be lessened by the measures taken. The Commissioner for Native Affairs quoted a report of a Commission of medical officers who made the death-rate 57 per 1,000. Curiously enough, the mortality of natives in the Kimberley compounds was 57.2 per 1,000 for 1902. For February the death-rate in the mines was brought down to 35 per 1,000, but he said the first three months of the year were the best months. He promised to consider the whole question, including the means taken to prevent lung disease from dust; and after further debate the motion for adjournment was rejected by a majority of 63.

The Royal Army Medical College.—On Monday last Dr. Farquharson asked the Secretary of State for War what progress was being made in the building of the Royal Army Medical College; and when the temporary arrangements for the instruction of lieutenants on probation and captains were to come to an end by being transferred to the new college. It was stated in reply that the building of the Royal Army Medical College was not yet commenced, but the plans had been prepared and the contract documents were being drawn up. Under these circumstances no reply could be given to the latter part of the question.

Vivisection.—Dr. Shipman asked the Secretary of State for the Home Department last week if he could state when the returns of experiments on living animals in 1903 would be published, and what was the number of dogs vivisected in 1903 in University College, London. Mr. Secretary Akers-Douglas replied that the return in question was now in course of being printed, and would be published as soon as possible. It would contain the usual full particulars, but he had no material from which to answer the second paragraph of the question. Dr. Shipman also asked the Secretary of

State for the Home Department whether his attention had been drawn to recent proceedings of the Metropolitan Asylums Board and whether he had yet received an application from the Board to register a place for the performance of experiments on animals living under the Cruelty to Animals Act, 1876, and if so whether he would give the House an opportunity of discussing the question before public money was diverted to such a purpose. Mr. Secretary Akers Douglas answered that he had been furnished with a report of the recent proceedings of the Metropolitan Asylums Board in the matter referred to, but he had received no application for registration or for a licence under the Cruelty to Animals Act in connexion therewith. If he received any such application it would be his duty to consider and deal with it in accordance with the ordinary practice in such matters. The registration of premises at a small-pox hospital for the investigation of small-pox by means of experiment would not be an unprecedented step, and he was not aware that honourable members would need any exceptional facilities for criticizing this particular item of administration. Mr. Weir took up this matter and asked how many dogs were to be inoculated with small-pox at the Joyce Green Hospital. Mr. Akers-Douglas said that he had not as yet received any application for permission to make the experiments referred to.

The Plague and Chinese Labourers.—Several questions were put on this subject on Monday last, and the Colonial Secretary, in reply to Mr. Buchanan, Sir Walter Foster, and Mr. Weir, said that the charter of the steamer to convey Chinese labourers to the Transvaal had not been cancelled. He had received a telegram from the officer administering the Government of Hong Kong on Saturday, stating that one case of bubonic plague had occurred in a lodging-house partly occupied by emigrants—the patient was a rejected emigrant; and that there had been no other case among emigrants up to the present time. He believed this was the case. So long as the medical advisers of the local government did not regard the conditions under which the Chinese labourers were introduced as involving undue risk, and subject to such precautions as they thought necessary, he did not, as at present advised, propose to interfere. He added that the length of the voyage from China was largely in excess of the period of incubation of the disease, and that very greatly reduced the risk of the introduction of plague. Mr. Lyttelton also said he was informed by the officer administering the Government of Hong Kong that intending emigrants, on arrival at Hong Kong during the last fortnight, had been accommodated in ordinary Chinese lodging-houses in Kowloon, of which a number had been hired and placed under special medical inspection; a permanent isolated depôt was being built four miles from Kowloon, and isolated temporary accommodation would be ready in two days; all emigrants who satisfied the emigration officer and passed strict medical examination would be sent there pending shipment, those rejected being sent home.

Punishment of Children. Sir Walter Foster asked the President of the Local Government Board whether, in view of the punishments inflicted on children who were withdrawn from public supervision and protection in Poor-law institutions, such as that inflicted on a boy in the St. Giles' Receiving House in January last, who was returned to the Westminster Union with both cheeks black, both arms black, and bruises on the legs, or that lately inflicted on a boy in the village community of the Wolverhampton Guardians, the Department would issue such regulations as would prevent excessive corporal punishment in the future by requiring the resignation of any officer guilty of such practices. In reply Mr. Long said: "The regulations in force in respect of workhouse schools rules which are intended to prevent excessive corporal punishment. They prohibit corporal punishment altogether in the case of a girl, and in the case of a boy, direct that the rod or other instrument shall be approved by the guardians or Visiting Committee. Two officers must, if possible, be present when the punishment is given, and it is not to be inflicted until two hours have elapsed after the commission of the offence. The particulars of the punishment are required to be entered in a book which has to be laid before the guardians. Similar rules are contained in the special orders issued for Poor-law schools and like institutions. Any officer infringing the rules or administering excessive corporal punishment is liable to censure or removal from office, as the case may require. The rules were, he thought, sufficient usually to prevent undue punishment, but where a case of excessive punishment is reported to him he was prepared to deal with any officer in fault in the matter, in such way as in the circumstances may be necessary. He might add that, as he understood, the bruises, etc., in the first case referred to in the question are not admitted to have been caused by punishment at all."

St. Bartholomew's Hospital Bill, intituled "An Act to empower the Governors of Saint Bartholomew's Hospital, in the City of London, to demolish the Church of Saint Bartholomew the Less and to use the site thereof and the burial ground adjoining thereto for the purposes of the said Hospital and for uniting for ecclesiastical purposes the Parish of Saint Bartholomew the Less with the Parish of Saint Bartholomew the Great: and for other purposes," came down to the Commons on Friday in last week in a message from the Lords, having passed the Upper House. It will now be proceeded with in the Commons.

The Scotch Estimates, when under consideration last week, led to a new public-health question being discussed—namely, the nuisance and injury caused to the people in Orkney and Shetland by the dead whales thrown upon their coasts. Mr. Cathcart Wason said that some Norwegians had established a fishing station, and caused this serious annoyance. Dr. Farquharson, Mr. Weir, and Mr. Asher also spoke on the subject, and the Secretary for Scotland, in his reply, admitted that from the public-health point of view there had been an intolerance nuisance. The companies concerned were prepared to destroy the carcasses altogether, and then the public-health objection would be met. It was impossible to prevent foreign fishermen from killing whales in non-territorial waters, however injurious the practice might be. He promised the institution of an inquiry such as had been asked.

The Meath Hospital, Dublin.—Mr. Clancy asked the Chief Secretary to the Lord-Lieutenant of Ireland whether, in view of the fact that the medical staff of the Meath Hospital (County Dublin Infirmary) claim the right to elect to vacancies in their own body, and that this right is claimed by the members of the staff elected since the passing of the Local Government Act, 1898, as well as by those in office before that date, he could state if it had been actually exercised on any occasion since 1898 by members of the staff elected since that date; and whether any representations had been received in reference to this matter from the Infirmary Committee. Mr. Wyndham answered that two gentlemen had been elected to the medical staff of this hospital since the passing of the Act of 1898 by the Medical Board under the 55 Geo. III. The answer to the last query was in the negative.

Ballinasloe Lunatic Asylum. Mr. Roche asked the Chief Secretary to the Lord Lieutenant of Ireland whether the election of Dr. Kirwan to the position of Resident Medical Superintendent of the Ballinasloe Lunatic Asylum has yet been sanctioned, and, if not, what was the reason of the delay? Mr. Wyndham replied that the appointment had not yet been sanctioned. The Lord Lieutenant was in correspondence on the subject with the Committee of Management of the Asylum. On the succeeding day Colonel Nolan asked the Chief Secretary to the Lord Lieutenant of Ireland if Dr. Kirwan had been elected Medical Superintendent of the Ballinasloe Lunatic Asylum by a majority of the joint Galway and Roscommon Committee, and if his appointment to this position had as yet been confirmed by his Excellency the Lord Lieutenant; Mr. Wyndham said that the reply to the first inquiry was in the affirmative. The appointment had not yet been confirmed by the Lord Lieutenant.

The Revaccination Bill came up as the last item of business on Friday in last week, and at the conclusion of the sitting the order for second reading upon Monday, May 16th, was read and discharged and the Bill withdrawn for this session.

Nurses' Registration Bills. These two Bills still remain on the order paper, but have no chance of passing this session. There is, however, much talk of a Select Committee being appointed to consider the proposals contained in the Bills as well as the general question.

Scotland.

Annual Report of the Sanitary and Markets Departments of the City of Edinburgh for the Year 1903.

The Chief Sanitary Officer, Dr. A. Maxwell Williamson, has published his sixth annual report to the Town Council. The main work of the sanitary staff has been given to the suppression and removal of conditions which are defined as nuisances within the meaning of the Public Health (Scotland) Act. Twenty-two thousand had been dealt with during the year. These included a large number of insanitary properties, in regard to which much improvement had been carried out. It is suggested that closing orders should be applied for against sixty faulty properties, as there are plenty of unoccupied houses in the city. In the past compulsory removal has resulted in greater comfort and improved sanitary conditions. Houses, stairs, and lobbies in crowded districts have been improved. Periodic night visits, to detect overcrowding, have been made.

Several old properties under the Corporation improvement scheme have been removed, thus allowing access of light and air. Systematic inspection of the sanitary condition of shops has been continued with good results. The ticketing of small houses has been completed to the number of 7,060, and a standard of cleanliness has been insisted on. In nearly 700 cases the papering and lime-washing of small houses has been seen to. The various cemeteries have been regularly visited, and their condition found satisfactory. The condition of the water supply has been inquired into, and cistern inspection has been systematically carried out. Stair-painting, common lodging-houses, farmed-out houses, ice-cream shops, dairies, cow-byres, Sale of Food and Drug Acts, Shop Hours Act, seats for shop assistants, meat inspection, tuberculosis in cows, and foreign meat brought into the city have all been vigorously dealt with. Dr. Williamson and his staff are to be congratulated on the vigour and efficiency with which they have carried out their trying duties. The report is worth careful perusal.

City of Edinburgh: Sir Henry Littlejohn's Annual Report for 1903.

Sir Henry Littlejohn's report for 1903 was laid on the table of the town council on Wednesday, May 4th.

Area, Population, Inhabited Houses, etc.

The area of the city is 11,416 acres; the population 327,441, or an increase since the middle of the year 1902 of 4,475 persons; the density of population was thus 28.68 persons per acre: the number of inhabited houses was 69,016, while the number of unoccupied habitable houses was 2,787. Between the middle of 1902 and the middle of 1903 there was an increase of occupied houses of 566.

Births, Marriages, and Deaths.

The number of births registered was 8,112, equal to a birth-rate of 24.77 per 1,000 of the population. Thus the continuous fall of recent years goes on. Of the largest English and Scotch towns, only Bradford with 23.3 and Perth with 24.39 are lower. The number of marriages was 3,041, a rate of 18.5, as contrasted with 19.4 in 1902. The number of deaths was 5,531, giving a death-rate of 16.89 per 1,000 of the population, but when "country deaths" were deducted the number was 4,963, or a death-rate of 15.5 per 1,000, the lowest annual death-rate ever recorded for Edinburgh. It had only been approached twice before—in 1902 and 1896 with 15.83 and 15.26 respectively. Of the total deaths, 1,471 occurred under 5 years of age, or 29.6 per cent. Of these, 952 were infants under 1 year. The death-rate of children under 5 years was 45.2 per 1,000, while the rate for all those above this age was 11.8 per 1,000.

Causes of Death.

The number of deaths due to zymotic diseases was 373, giving a zymotic death-rate (excluding diarrhoea) of 1.13 per 1,000 of the population, which was slightly below the average for the preceding five years. Small-pox caused 1 death, measles accounted for 91 deaths (a death-rate of 0.27 per 1,000 of the population), scarlet fever 53 deaths, diphtheria and membranous croup 59, whooping cough 148, and enteric fever 22 (the smallest annual number ever before recorded in the city). This low mortality from enteric fever was not the result of diminished prevalence of the disease, since 237 cases occurred, as compared with 192 and 215 cases in 1902 and 1901 respectively, during which years the deaths numbered 27 and 30. The small mortality was largely due to the fact that out of the total of 237 cases, 214 were treated in the City Hospital, where the conditions were much more favourable to recovery than in the houses of the majority of patients. This view was borne out by a comparison of the fatality of the disease in hospital and in home-treated cases. Among the former it was only 7 per cent., while amongst the latter it was 26 per cent. The next section of Sir Henry's report should be quoted in full:

> Puerperal fever was returned as the cause of death in only three women, a number which, in my opinion, does not represent the true mortality, and is much below the actual number of deaths of puerperal women from conditions which could be included by the term "puerperal fever." Until, however, there is a definite pronouncement as to the conditions which this term is intended to include under the Notification Act, there will be no chance of obtaining accurate statistics.

Diarrhoeal diseases: 7 deaths were attributed to epidemic diarrhoea or zymotic enteritis, while 28 were said to be due to simple diarrhoea. Sir Henry Littlejohn thinks the profession does not yet realize the importance of the distinction which the Registrar-General desires should be drawn between the epidemic variety of diarrhoea, which chiefly attacks infants, and diarrhoea due to other causes. For this reason he combines the figures given above, and sets down the total mortality from epidemic diarrhoea as 35, of which 25 occurred in infants under 1 year. Tuberculous diseases caused a total of 698 deaths (phthisis 467, tuberculous meningitis 89, tuberculous peritonitis 25, tabes mesenterica 12, tubercle of other organs 49, general tuberculosis 55, and lupus 1). Alcoholism was stated as the direct cause of 36 deaths, and rheumatic fever 43 (20 to the acute fever, 13 to chronic rheumatism, and 10 to rheumatic arthritis). Gout was only debited with one death. Cancer gave 316 deaths, developmental diseases gave 222 deaths, diseases of the nervous system 261, diseases of the heart and blood vessels 807, diseases of the respiratory organs 759 (of which bronchitis and pneumonia accounted for 693), diseases of the digestive system 299, diseases of the urinary and generative organs 170, accident and negligence 126, suicide 40, ill-defined and non-specified causes 508 (of which 152 were said to be due to "atrophy, debility, or inanition," while 352 were said to be due to "old age," of which 259 had exceeded the age of 75 years).

Mortality amongst Illegitimate Children.

The total number of such deaths in children under 5 was 149 last year, as compared with 113 and 191 in 1902 and 1901 respectively. Out of 601 illegitimate children born last year, 100 died, or a proportion of 106 per 1,000, as compared with a proportion of 113 deaths of illegitimate children per 1,000 legitimate births.

Notification of Infectious Diseases.

During the year 1 case of typhus was notified, 237 of enteric, 7 of puerperal fever, 575 of diphtheria, 5 of small-pox, 1,415 of scarlet fever, and 434 of eryipslas—in all 2,674 cases. Details are given of these cases.

City Hospital.

During the year 2,860 patients were treated, as compared with 2,310 the previous year. Of the cases of infectious diseases notified in 1903, 90.29 per cent. were admitted to hospital, by far the largest percentage on record. The total cost per occupied bed per annum was £44 19s. 2d.

Bacteriological Examinations.

Three hundred and twelve examinations were carried out on behalf of the Corporation by the Usher Institute of Public Health, as against 383 in 1902. In the year 1901, before the present arrangement with the Usher Institute was entered into, the number of examinations made at the request of practitioners was 630, so that it can only be concluded that a large portion of this work is now being performed unofficially in other laboratories.

The convalescent home, disinfection of schools and clothing, and report upon the inspection of workshops and bake-houses, form the concluding sections of a very interesting and valuable report, which extends to 91 foolscap pages.

National Association for the Prevention of Consumption: Glasgow Branch.

The third annual report of the Glasgow district branch of the National Association has just been issued and shows satisfactory progress. In it reference is made to the successful scheme of public lectures that was carried out in the poorer districts of the city during last winter, and the Council hope

to resume these on even a larger scale during the coming winter. Attention also is still given to the question of spitting and the dangers of infection arising therefrom, and the Council again offer to supply suitable cards prohibiting spitting for exhibition in public works and factories, as well as at railway stations and waiting rooms. Progress is reported in connexion with the construction of the Sanatorium at Lanark. Plans have been adopted and approved by the Lanark County Council for the erection of a pavilion and five double sleeping chalets, and these are now in the course of construction. In the pavilion will be five double bedrooms, and a ward containing ten beds, and these with the sleeping chalets will give accommodation for thirty men. It is hoped that at no distant date additional buildings will be put up. Meanwhile the erection of the first pavilion and chalets is being hastened on, and it is expected that they will be ready for the reception of patients in June. The Council report that the special sanatorium fund now amounts to about £17,000, and they record their thanks to the numerous contributors. In this connexion special reference is made to the spontaneous and invaluable services rendered by the proprietors of the *Glasgow Evening News*, for having not only established and wrought so successfully a "Peoples Fund" which now exceeds £7,380, but also by its articles and paragraphs awakened public sympathy and interest amongst all classes in the work of the National Association. The Council also specially acknowledge the very handsome and unanimous donation of £3,000 recently made by the Corporation of Glasgow for this work. It is hoped that the increased interest in the special objects of the Association that has recently been displayed in the city will be maintained and produce even better results in the coming year.

ABERDEEN UNIVERSITY SUMMER SESSION.

The summer session of the Medical School opened on Tuesday, April 26th. There was no formal ceremony, and no introductory addresses were delivered. The number of new students enrolled, while quite up to former years, shows no decided advance since the operations of the Carnegie Trust began. At the same time, the university has gained considerably as regards the fee fund, since the students now take out a larger number of classes. Last year the addition to the fee fund in this respect amounted to a very considerable sum.

THE GARIOCH AND NORTHERN MEDICAL ASSOCIATION.

The summer meeting of the above association was held at Inverurie on Saturday, the 7th inst., when the members dined together in the Kintore Arms Hotel, under the chairmanship of Dr. Angus Fraser, Aberdeen. This association must be one of the oldest provincial medical societies in Scotland at least. Founded in 1854 for scientific and social purposes, its career has all along been very prosperous, and meetings have been regularly held twice a year up to the present time. Besides practitioners from a wide area of the county, the membership includes many consultants and practitioners of the city of Aberdeen, and though the scientific side has been dropped for some years, certainly its success appears to grow steadily, the membership being larger at the present time than ever before. The society celebrated its jubilee in September last year, when about fifty medical men dined together at Inverurie, the principal guests being Sir Victor Horsley and Dr. William Bruce, of Dingwall. Those who were present will not readily forget the heartiness and spontaneity of this interesting meeting. During all those years the society had only had two secretaries—the first the late Dr. Mackie, of Insch, who held office for thirty-two years, and now the office is worthily filled by Dr. Paterson of Inverurie.

Bequests.—Mr. William Tailor, of Dunreggan, Londonderry, died at Dublin, March 8th last, left personal estate valued at £[illegible] 9d. Among other bequests are two of £500 each to the City and County Infirmary of Londonderry and the Londonderry District Nursing Society. Mrs. Gertrude Dempsey, of Milton Hall, Carlingford, has bequeathed £100 to the Carlingford Infirmary, Carlisle.

Intemperance.—The Committee of the House for Inebriates Act, 1898, in their annual report published March 5th, give a satisfactory account of the working of the Homes in which it is interested, and expresses the opinion that while the Inebriates Act of 1898, with the Licensing Act of 1902, makes a good step forward, the whole ground is as yet by no means covered. It urges therefore that all who possess influence should work to promote such legislation as would render compulsory the detention of all habitués whether criminal or otherwise.

Ireland.

THE IRISH DISPENSARY MEDICAL SERVICE.

At the spring meeting of the Ulster Branch of the British Medical Association, which was largely attended, held in the Town Hall, Portadown, on May 5th, the President, Dr. Thomas McLaughlin, of Londonderry, in the chair, Professor Byers, M.D., moved:

That the members of the Ulster Branch the largest in Ireland desire to express their very great satisfaction with the exhaustive report "on the Poor law Medical system in Ireland with special reference to the Dispensary Medical Service," which appeared as a supplement to the British Medical Journal of March 26th [illegible], and that they tender their best thanks to the Editor and to the Special Commissioner of the JOURNAL.

He said that at the last annual meeting of the Association in Swansea the grievances of the Irish dispensary doctors in respect of inadequate salary, superannuation, and annual holiday, had been brought before the first Representative Meeting, which unanimously adopted resolutions supporting the line of action taken by the profession in Ireland. The subject came the next day before the Central Council, and, as the only Council member present from Ireland, when the matter came up for consideration, he had very gladly supported the resolutions submitted from the Representative Meeting. The question was referred to the Medico-Political Committee (on which Dr. L. Kidd, President of the Irish Medical Association, was appointed a member), and as a result, in accordance with instructions received from the Editor of the JOURNAL, Surgeon-General Evatt, C.B., proceeded as a Special Commissioner to Ireland, to inquire into the Poor law medical service of that country, with special reference to the dispensary system in force there. He (Professor Byers) thought the selection of Surgeon-General Evatt was a most fortunate one, as his unique experience as an organizer and his high gifts as an administrator were exactly the qualities needed to investigate the question of the grievances so long complained of by their fellow medical men in the Irish Poor-law medical system. His report, so thorough in every detail, had placed the whole question on an entirely new platform, and he thought they would all agree with a statement in a resolution of the County Meath Branch of the Irish Medical Association recently published that this "report could scarcely be improved upon, even by any one who spent a lifetime in the Irish Poor-law service." The Commissioner of the JOURNAL had shown that an extensive reform of the present system of giving medical relief in Ireland and of granting pay and allowances to the medical officers was urgently needed, and he was glad to hear that the report was in the hands of every Irish M.P., of every chairman of the county councils, and of all the members of the Local Government Board. The daily newspapers had also published most sympathetic articles on the report, for which they were deeply obliged. He (Professor Byers) thought that the members of the Ulster Branch, who had on several occasions passed resolutions in support of the claims of their medical brethren in the Poor-law service, were more than satisfied with this admirable report, and accordingly they, in the above resolution, expressed the sense of the obligation they were under to the Editor and the Special Commissioner of the JOURNAL. He hoped that, with the valuable assistance and loyal aid of the British Medical Association, the Poor law medical system of Ireland would soon be placed in a proper position.

Dr. T. C. Thompson, M.P., one of the three Irish members who has backed the Bill to provide superannuation for Poor-law medical officers in Ireland, introduced into the House of Commons on April 18th, seconded the resolution, and referred to the great help and aid the British Medical Association had given to the agitation for improving the status of the Irish dispensary doctors. He hoped the time would soon come when the Irish and the British Medical Association would be united into one body.

Professor Thomas Sinclair, in supporting the resolution, referred to the services Professor Byers had done on behalf of the Irish Poor law medical officers, and hoped the members would bring Surgeon-General Evatt's valuable report before the editors of all the local papers which had not yet discussed the question. He said that report gave information even to those who thought they fully understood the question. The resolution was carried very warmly.

Ethics.—"The organ of the Ethical Movement," deals with

the report on the Irish dispensary system in its issue of May 7th in the following terms:

Another document that the King would do well to glance at is A report on the Poor-law Medical service in Ireland, which was issued some time ago as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL. Even those who cannot enter into the intricacy of Ireland's Imperial taxation may very easily see the great evil described in this report. The fees awarded to the medical men in the public dispensary service in Ireland are scandalously inadequate, the areas they have to serve scandalously large, the method of election open to serious abuse, and the suffering ensuing among the poor peasantry very great, in spite of the arduous labour of the doctors.

At a meeting of the County Wicklow Branch of the Irish Medical Association held at Shillelagh on May 4th, the following resolution was passed unanimously:

That the best thanks of the County Wicklow Branch of the Irish Medical Association be returned to Surgeon-General Evatt, C.B., Commissioner, BRITISH MEDICAL JOURNAL, for his able advocacy of the cause of the Irish dispensary doctors.

At a meeting of the Tyrone Branch of the Irish Medical Association held at Omagh, on April 30th, the following resolution, proposed by Dr. Lyle, seconded by Dr. Leitch, was passed:

That a vote of thanks be sent to the Editor of the BRITISH MEDICAL JOURNAL for reporting, and to the British Medical Association for sending such an efficient and painstaking Commissioner to report on the Irish Poor-law medical service.

At a meeting held in Claremorris on May 3rd of the Co. Mayo Branch of the Irish Medical Association it was unanimously resolved:

That the best thanks of this meeting be conveyed by our Honorary Secretary to the Editor of the BRITISH MEDICAL JOURNAL and to his Commissioner for the masterly report on the Irish dispensary system.

GUARDIANS' VIEWS OF SALARIES.

It will be generally admitted that our recent report on the Irish Dispensary Service has so explained the working of that system that medical men in England can now form a fair opinion on the Irish Poor-law Administration in its medical aspects. We would invite attention to the following very typical picture of the working of the Irish Poor-law system in the case of Dr. Donnellan who has for eighteen years held the post of Dispensary Medical Officer to the Castlerea District in Roscommon County. The facts are reported in the *Westmeath Independent*. The Castlerea Dispensary District is one of the largest and most populous districts in the West of Ireland: it is over 70 square miles in extent and has a population of 12,000 very poor people. There are in this district three separate dispensaries, far apart from each other, and needing visiting three days in the week, and there are in addition vaccination out-stations. The distances to be traversed by the medical officer run up to 200 miles a week, and could not possibly be managed with less than two horses. Dr. Donnellan's salary on appointment was £100 a year. In 1898 the Board of Guardians unanimously recommended the salary to be raised to £120 per annum. To this the Local Government Board officials in Dublin objected, and, after much wrangling, £10 a year increase was sanctioned. This is a lower sum than the salary paid for the post fifty years ago, although at that time a considerable annual salary was paid to the medical officer by a wealthy local landlord for the care of his establishment and labourers. Dr. Donnellan, on April 16th, 1904, addressed his Board of Guardians and asked for an increase of £20 per year. There was an animated discussion at the Board, and during the debate one guardian said "there was an increase proposed here to a certain man who could not claim to be a Nationalist, and it was barely by one vote I carried my point, disallowing that increase to a man who directly insulted us as a Nationalist body." Another said: "When they had a good Nationalist they should not lose him." While a third remarked: "They (the doctors) are all good Nationalists when they go in for increase of salaries." In the end the voting for the increase was even, and a deadlock ensued, and Dr. Donnellan remains with his huge district, his unceasing work, and a salary that does not maintain his horses, conveyances, and servants. The *Westmeath Independent* points out that quite recently the Roscommon guardians appointed a medical officer at £150 per year, and wonders why an old officer like Dr. Donnellan is not similarly paid. It considers "the action of the Castlerea guardians as one of the shabbiest and most ungracious that has come under public notice for some time." In this opinion all members of the British Medical Association and the public generally will, we make no doubt, agree.

THE KING IN IRELAND.

One of the most pleasing incidents of the King and Queen's visit to Ireland took place on May 4th at Mallow Railway Station, through which the Royal party had to pass on their way to Kingstown at the conclusion of their Irish visit. An enthusiastic greeting was accorded to their Majesties, who stood in the door of the Royal saloon and seemed immensely pleased with their reception. Before, however, the train steamed out of the platform, the King, who seems never to forget a service or to fail in tactful or gracious acknowledgement of it, inquired if Mr. Charles C. Haines, of Sunnyside, the father of Miss Haines, who acted as senior nurse during His Majesty's last dangerous illness, was present. On being informed that the gentleman was on the platform, Mr. Haines was brought forward and introduced to His Majesty. Both the King and Queen shook hands heartily with Mr. Haines and engaged in an animated conversation with him. Loud cheers greeted this manifestation of their Majesties' gracious recognition of the services rendered by a lady of whom Mallow is justly proud.

IRISH MEDICAL ASSOCIATION.

A meeting of the Co. Meath Branch of the Irish Medical Association was held on April 21st, at Navan. Dr. Ringwood of Kells was elected President of the Branch. Among the resolutions passed were the following:

That the thanks of this Branch of the Irish Medical Association be accorded to Sir Thomas Myles, Sir William Whitla, Surgeon Tobin, and Professor Kinkead of Galway, for the good work which they have done for our Association in showing the students of medicine and the general public the great grievances of the Irish Poor-law Medical Service.

That the Executive Committee of the Irish Medical Association be requested to formulate a scheme for the systematic instruction of the students of the various schools of medicine in Ireland upon the subject of the grievances of the Irish Poor-law Medical Services, as many of the students at present are not even aware that there are any grievances existing.

That the attention of the Executive Committee of the Irish Medical Association be called to the fact that in the opinion of the Co. Meath Branch of the Association the minimum salary of £120 per annum, fixed by the Association for workhouse doctors, is entirely inadequate, and that we consider the subject is deserving of their further consideration.

That members of the Branch are of opinion that there are grievances concerning the medical officers acting for the railway companies in this country, and they therefore resolve to give them every support in their power to obtain redress: and they will decline to accept any railway appointment rendered vacant by the dismissal or resignation of any medical officer in his efforts to obtain redress of the existing grievances, and that in case a red ticket is presented to a dispensary doctor for attendance upon a railway servant he shall apply to the Board of Guardians to have said ticket cancelled at their next meeting.

That the members of the County Meath Branch of the Irish Medical Association shall inform the Executive Committee of the Irish Medical Association they object in the strongest terms to having any consultation fee at a less sum than £2 2s. for any distance at any time, a fee of £2 2s. being always paid heretofore by the local Boards, the same being recoverable in a court of justice; and they thereby resolve that no member of this Branch shall accept a less fee than £2 2s. for any consultation.

That as the Local Government Board requires that they should nominate a medical substitute when on sick leave, vacation, or when for any other reason they are about to absent themselves from duty, and whereas the local Boards frequently refuse to accept the nominated substitutes for no valid reasons, placing them in an anomalous and unfair position, they resolve, therefore, that no member of this Branch shall accept any such appointment against the will of the doctor who has nominated another; and that they consider it as much to the advantage of the local Boards as to themselves that this resolution shall take effect.

That the members of the County Meath Branch of the Irish Medical Association express their disapproval of Clause 6 of the Local Government Act of 1902. Its narrowness in the treatment of the questions or salaries and superannuation being unjust both to the medical officers and to the ratepayers, and its effect must be entirely to the disadvantage of the sick poor, they therefore resolve that every effort should be made by them to secure the co-operation of their Parliamentary representative in the repeal of this clause.

DUBLIN HOSPITAL SUNDAY FUND.

The report of the Committee of the Dublin Hospital Sunday Fund for the year 1903 has been published. Since the fund was established in 1874, £123,225 16s. 3d. has been subscribed, and last year £3,600 was distributed among fifteen hospitals. The collections are made exclusively in 272 churches of the various Protestant denominations. The Roman Catholic Church does not take any part in the movement. The com-

mittee inspect the hospitals each year, and the sums awarded are in direct proportion to work done and to efficiency.

Richmond Hospital, Dublin.

H.R.H. the Duke of Connaught visited the Richmond Hospital on the day before he left Dublin. He was accompanied by General Sir John Maxwell, K.C.B., Colonel Congreve, V.C., Military Secretary, and Captain Hollond, A.D.C. He was received by the Governors and the medical and surgical staff and the lady superintendent, and was conducted through the wards, theatres, kitchens, laundry, power house, and the pathological department. On leaving he expressed high approval of the general arrangements and of the comfort of the patients.

The Lock Hospital, Dublin.

Mr. George Meldon, son of the late Mr. Austin Meldon, has been appointed one of the surgeons of the Lock Hospital, Dublin, in room of the late Mr. Michael Donnelly.

Meath Hospital, Dublin.

The governors of the Meath Hospital, Dublin, have unanimously elected Mr. Conway Dwyer to be one of the surgical staff, in succession to the late Sir Philip Smyly. Mr. Dwyer has been surgeon to Jervis Street Hospital for many years, and he is one of the Professors of Surgery in the School of the Royal College of Surgeons.

Royal College of Physicians.

The College has approved of the wearing of distinctive robes by its Fellows, Members, and Licentiates. Fellows may wear a black velveteen robe of shape similar to that worn by a Doctor of Medicine of a University, the collar and facings being of royal purple poplin, together with a velveteen cap and tassel. Members, a gown similar to that of Masters of Arts, the facings being 4 in. in depth, of royal purple poplin, and a collar of like material. Licentiates, a Bachelor of Arts gown, with 3-in. facings of royal purple poplin.

Royal College of Surgeons.

The annual meeting of the Royal College of Surgeons in Ireland will take place on Saturday, June 4th, at 1 o'clock. The election of President, Vice-President, and Council will be held on the following Monday, June 6th. Mr. Arthur Chance will be the new President, and so far the only candidate mentioned for the Vice-Presidency is Mr. H. R. Swanzy.

The Recent Appointment at Ballinasloe Asylum.

The Lord Lieutenant having requested the Asylum Board at Ballinasloe to inform him of "the reason for passing over the Senior Assistant Medical Officer, who was also acting Resident Medical Superintendent" a meeting was held to consider the matter. The Roman Catholic Bishop of Galway, Most Rev. Dr. McCormack, was in the chair. Mr. Byrne who originally seconded Dr. Kirwan's appointment, moved a resolution stating "that that gentleman was not selected on sectarian grounds, but because his testimonials, degrees, and honours were equal, if not superior, to those of the other candidate, and his college course was far more brilliant and distinguished: secondly, that his testimonials were exceptionally good and from the very highest and most eminent authorities; and for these good and cogent reasons we most respectfully ask His Excellency to sanction the appointment at his earliest convenience." He complained that the Committee had been lashed by the press. In Belfast and other places in the North of Ireland, where Protestants had the power, the fact that a man was a Catholic was taken into consideration against him.

A Member: You are going back on it again.

Mr. Byrne: I do not go into the religious principle, but we had a candidate of equal merit.

Rev. Canon Lynskey: Superior merit.

Mr. Doherty (to Mr. Byrne): That is the way you are putting your foot in it again.

Mr. Byrne said he would be in favour of challenging the authority of the Lord Lieutenant to repudiate their solemn bond in any manner.

Mr. Doherty then proposed a resolution denying the right of any one to question the decision of the Board. We may assure His Excellency that we were fully cognizant of the fact that Dr. Kirwan has eight years' experience as a registered medical practitioner and over eight years of the asylum service more than fulfilled the requirements of the Act of Parliament under which the appointment has been made. In connexion with the appointment made we may be permitted to say that Dr. Kirwan is a Co. Galway man of undoubted ability and administrative capacity, and under whose charge we feel confident that the welfare and comfort of the patients of this institution will be closely and conscientiously looked after, and the interests of the ratepayers whom we represent safely guarded, and his influential friends and supporters in the Counties of Galway and Roscommon largely subscribe as heavy taxpayers to the upkeep of this institution, and are naturally much interested to have the best man appointed to the important position of Resident Medical Superintendent of the Asylum."

The motion was seconded by the Chairman and carried unanimously.

The Governors appear to have completely forgotten the proceedings of a month ago. The majority then declared that the candidates were of equal merit and capacity, and the reason assigned for Dr. Kirwan's selection was that he was a Roman Catholic, while Dr. Mills was a Protestant.

Newry Fever and General Hospital.

At the annual meeting of the supporters of this institution the report of the Managing Committee was read. The Committee is satisfied that with the utmost economy the hospital cannot be managed on less than £800 per annum. The County Council is about to reduce its annual subscription of £400 to £300; and as the public subscriptions only amount to £310, it is felt that unless this second source of income is considerably increased operations will have to be largely curtailed. Already a debt of £182 17s. is due to the bank. It is felt that an excellent and useful institution, which indeed may be considered a necessity, should be much more liberally and heartily supported by the general public in a town of the size and importance of Newry.

The Derry City and County Infirmary.

The popularity of this institution, and the high appreciation in which the labours of the professional staff are held, was evidenced by the great success of a conversazione held on the evening of the 4th inst. in the Guildhall in aid of its funds. Like most up-to-date hospitals, the expenses are heavy; but it is hoped that a substantial sum will be gained, and the interest in a most deserving establishment will be more widely spread. All the medical and surgical staff gave their assistance.

Health of Belfast.

At the monthly meeting of the City Council on May 2nd the Medical Superintendent Officer of Health reported that 132 cases of zymotic disease had been notified; there were 4 of small-pox and only 10 of typhoid and 10 of simple continued fever; scarlet fever and erysipelas were more prevalent; the total births registered number 958, and deaths 688; the deaths from zymotic diseases were 70, from phthisis 111. The annual death-rate from all causes was 25, probably due to the large number of respiratory affections. No case of small pox had occurred during the past fifteen days, and there were no persons under observation.

As both the City Council and the Board of Guardians were considering the question of a sanatorium for consumptives, the following resolution was proposed and carried:

That it be an instruction to the Public Health Committee to co-operate with the guardians in electing a site for the sanatorium so as to avoid the expense of two sanatoria.

It was agreed that the two bodies should meet, so that they should not duplicate the work; legal or monetary difficulties should not be allowed to stand in the way of a common-sense agreement.

THE HOLMAN TESTIMONIAL FUND.

The Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
C. F. Fitzgerald, M.D. ...	1	1	0	Brig.-Surg. John Wales ...	1	1	0
Lev. W. A. Hudson ...	1	1	0	Prof. E. Sandby, M.D.	1	1	0
[illegible] A. Newell ...	1	1	0	Surg.-Capt. Fairbank, R.N.			
[illegible] N. Gardiner ...	1	1	0	(Old Epsom) ...	1	1	0
Mr. J. Neate	1	1	0	Mr. A. C. C. Parkinson			
Mr. [illegible] Wilson ...	1	1	0	(Old Epsomian) ...	0	10	6
Mr. H. V. Pleas ...	1	1	0	Bilson Bullard, M.B., B.S. ...	0	5	0
Mr. [illegible] Gardiner ...	1	1	0	H. Hervey, M.D. ...	0	5	0
[illegible] C. Knight ...	1	1	0	J. Percy A. Gale, M.D.	0	5	0
Mr. [illegible] Lee ...	1	1	0	Mr. A. Hope Walker	0	10	6
Mr. [illegible] Perry ...							

The amount at present subscribed does not nearly reach the sum required to carry out the projected scheme and further subscriptions of any amount will be received by Dr. John H. Gilton, Chumam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill.

THE METROPOLITAN STREET AMBULANCE ASSOCIATION.

A DEPUTATION from the Metropolitan Street Ambulance Association was received on May 9th by the General Purposes Committee of the London County Council for the purpose of discussing the best means of providing a more efficient ambulance service for the streets of the metropolis. The deputation from the Metropolitan Street Ambulance Association was important and influential, being composed of the following members of the Association: Mr. Reginald Harrison, the President; Sir William Church, President of the Royal College of Physicians; Sir Alfred Cooper, Vice-President of the Royal College of Surgeons; Sir Thomas Barlow, Physician to His Majesty's Household; Sir Cooper Perry, Superintendent of Guy's Hospital; Mr. Anthony Bowlby, Surgeon to St. Bartholomew's Hospital; Surgeon General Keogh; Mr. Raymond Johnson, Surgeon to University College Hospital; Dr. H. D. Rolleston, Physician to St. George's Hospital; Mr. Cuthbert Wallace, Surgeon to St. Thomas's Hospital; Dr. R. Dudfield; and Dr. Arthur James, the Hon. Secretary, by whose labours the Association has been founded and placed on a satisfactory footing, not only in regard to numbers but also in respect of the influence of its members. Lieutenant-Colonel Sir Richard Temple, Assistant-Director of the Ambulance Department of the St John Ambulance Association and Deputy-Chairman of the Committee of that body, together with Colonel Sir Herbert C. Perrott, Chief Secretary of the St. John Ambulance Association, accompanied the deputation from the Metropolitan Street Ambulance Association as official representatives of the St. John Ambulance Association. The deputation was introduced to the General Purposes Committee by Sir William Collins, and, on the invitation of the Chairman (Mr. T. M'Kinnon Wood), Mr. Reginald Harrison addressed those present. He began by thanking the Committee for receiving the deputation, and referred with satisfaction to the fact that they were supported by two influential representatives of the St. John Ambulance Association. He then read a letter from Mr. H. L. Bischoffsheim hoping that the result of the conference with the London County Council would prove satisfactory and regretting his inability to be present. Mr. Reginald Harrison next read a letter from the Right Hon. Viscount Knutsford, the late Director of the St. John Ambulance Association, who also regretted his inability to join the deputation, and expressed his entire sympathy with the objects they had at heart. Mr. Harrison then pointed out that the deputation attended there as representing public opinion on a matter of urgent importance to the whole population within the jurisdiction of the London County Council. Those of them who were members of the medical profession, of which the Metropolitan Street Ambulance Association consisted, desired to state that they had undertaken to draw attention to the subject under a strong sense of public duty arising out of a personal knowledge as to how accidents and casualties in the streets were at the present time transferred to hospitals and elsewhere. They were convinced that existing provisions in London for such casualties were quite inadequate, and compared unfavourably with other places. Further, they considered that the London County Council was the authority which should undertake the duty of making provision for a more efficient ambulance service for the streets. He expressed the hope that the London County Council might see its way towards endeavouring to obtain without delay Parliamentary powers for the purpose. Mr. Harrison emphasized the necessity for this last point, because without such powers no adequate ambulance service could be provided for the metropolis. The London County Council was undoubtedly the authority that could undertake the work of ambulance most efficiently and most economically, and it was desirable that the matter should be put through as quickly as possible so that when a definite scheme was decided upon all those who were interested in the project could bring it to a successful issue without any unnecessary loss of time. Turning to Sir William Church, who sat on his right hand, Mr. Harrison asked him to present to the General Purposes Committee the resolutions which had been unanimously adopted at the last general meeting of the Metropolitan Street Ambulance Association.

Sir William Church then proceeded to read the resolutions passed at the meeting of the Metropolitan Street Ambulance Association on May 2nd, to the effect that there was urgent need of organization in London of an improved ambulance service under one body, that the London County Council was the body to provide and maintain such service, and that the resolutions be communicated to the London County Council by deputation. He then proceeded to explain in detail the advantages to be derived from combining the proposed ambulance service with the fire brigade service, not only from the point of view of economy, but also from that of expediency. In replying to questions from members of the Committee, Sir William Church agreed that the suggested scheme would save life and alleviate suffering, especially in a district like that round the Poplar Hospital, where, according to figures quoted, accidents were received at the rate of four every hour day and night.

Sir R. Temple and Sir H. Perrott then promised every assistance possible from the St. John Ambulance Association, and they were followed by Dr. A. James, who was occupied for some time in explaining how the necessary men, horses, and ambulances could be added to the present strength of the fire brigade. Dr. James made it clear that by this strengthening of the fire brigade there would be at hand in case of unusual emergency an extra force. He advocated an addition of two men, one horse, and one ambulance to each fire station selected for the purpose. In the new scheme of ambulance service the police would afford first assistance to the fire brigade in the same way as they now helped the brigade in cases of fire.

The Chairman of the General Purposes Committee, in thanking the deputation for attending, declared that the views which had been put before them by the deputation would meet with careful deliberation and sympathetic consideration. The deputation then withdrew.

LITERARY NOTES.

AN issue of the *Autocar*, specially dealing with the subject of motoring for medical men, will appear on May 28th. The number will be copiously illustrated and will contain a large amount of information on motor cars in relation to medical practice.

We are requested to state that the *National Review*, beginning with the June number, will be published by the proprietor, Mr. L. J. Maxse, at his own office, namely, No. 23, Ryder Street, St. James's Street, London, S.W., to which henceforward all communications should be addressed.

On May 16th Messrs. Smith, Elder and Co., will publish a work entitled *Some Aspects of Social Evolution*, by Dr. Lionel Tayler. The author proceeds from a general review of heredity as the basis of physical evolution to the differentiation of special types corresponding to certain classes of the social organism. Accepting the principle of individual variation with unmodifiable structure, he rejects that of progress by use-inheritance, but finds in natural selection, which constantly accelerates the development of a given variation, a sufficient cause to produce new types of humanity. Dr. Tayler further discusses the question of typical temperaments, their physical bases and probable influence on the future of Society.

It is stated in an American medical journal that Mr. Rockefeller's recent munificent gift to the Johns Hopkins Hospital was the outcome of a perusal of Professor Osler's classic treatise, *The Practice of Medicine*. We congratulate the distinguished author on the stimulating effect of his teaching and the multimillionaire on his intelligence. The reading of medical works by laymen often produces undesirable results, and should as a rule be discouraged—unless they are millionaires. If, however, as free citizens they will insist on reading such literature, it is to be hoped that they may always choose for their edification in this direction works by authors of recognized scientific position.

Dr. Norman Moore contributes to the May number of the *St. Bartholomew's Hospital Journal* an interesting note on Rahere, the founder of that ancient institution. The article is illustrated by an autotype of Rahere's charter dated 1137, the original of which is still in the possession of the hospital. Two large seals of dark wax are attached to the document. On one is represented an edifice with three turrets, and on the other a tall figure with a slender rod in the right hand and something in the left hand, which is perhaps an alms-box. The building on the seal, says Dr. Moore, is probably the Priory of St. Bartholomew's as it looked in the first twenty years of its existence, for the surrounding inscription is sufficiently legible to show the words "sigillum conventus evvlesie dei et sancti bartholomei de smethefeld." This seal of the convent of the Church of God and of Bartholomew of Smithfield is nearly circular. The other seal is oval, and its inscription is less distinct, but "Bartholomie de Smethefeld" may be read on the right of the figure, while on the left an "o" is

discernible about the middle of the curve, suggesting that the whole formation is "sigillum hospitalis sancti bartholomei de smythefield."

The Rev. Robert Paul has, as we learn from Mr. A. Logan Stewart, recently edited for the *Miscellany of the Scottish History Society* a number of letters and documents respecting Dr. Robert Erskine, who was physician to Peter the Great. Erskine was a younger son of Sir Charles Erskine, of Alva, was born A.D. 1677, and studied medicine in Edinburgh and Paris. After graduation he went to Russia in 1704, and soon after his arrival he was appointed Physician to the Czar. Several Scottish doctors practised their profession in Russia in the eighteenth century. In 1728 Lewis Calderwood became surgeon to the Preobrajenski guards. Later James Mounsey became first physician to the Empress Elizabeth. Later still Dr. John Rogerson, of Dunrawes, as physician to Catherine the Second, was the depository of many curious Court secrets. The Empress gave him a magnificent collection of Russian medals. In 1732 Robert Simpson was chief surgeon at Cronstadt, Sir James Wylie, whose statue may be seen in St. Petersburg, was head of the Medical Department, and Sir Alexander Crichton was physician to the Czar Alexander the First. In 1698 Peter the Great secured the services of thirty surgeons from Great Britain, and during his reign he founded the Aptekarski Prikaz, or Ministry of Medical Affairs. In 1710 Dr. Erskine wrote to his brother from "Mosco" that Lewis was well and kindly entertained there. In 1716, by a charter dated at Dantzig, Robert Erskine was made by the Czar a Councillor of State. In 1717 he accompanied the Czar to Paris, assisting his Imperial Master to buy several anatomical collections and cabinets of natural history. Erskine died at Kenchesiski in 1718 at the age of 41. The Czar had his remains conveyed to St. Petersburg, and buried in the precincts of the Alexander Newski Monastery. Peter acted as chief mourner in the funeral procession. In addition to bequests to his brother, Dr. Erskine left money and jewels for the relief of necessitous families in St. Petersburg. To the Czaritsa Ekaterina Alekseivna he left "such of my linen as has not been used and the lace which is still entire and not torn, and all my porcelain ware." His library he left to be sold for the benefit of his heirs, and his curiosities, medals, and surgical instruments to be offered for sale to the Czar for the benefit of orphanages, hospitals, and almshouses in Scotland; and his country seat, Castel or Tussetz, to the Czar "in case he should wish to give it to Her Highness, the eldest princess" Elizabeth Petrovna.

In the *St. Thomas's Hospital Gazette* for March Dr. Herbert Hawkins gives an interesting account of James Ware, a medical student of St. Thomas's in 1753-6. After a brief apprenticeship to the surgeon of the King's Yard, Portsmouth, he entered at St. Thomas's. During his period of studentship he kept a diary which shows that his work was light compared with that of a modern student. He had only two lectures in the day to attend, and he seldom worked in the evening. He went to the play and was a regular attendant at debating societies. Among other amusements he goes to see monkeys fenced at Tyburn. He records the operations at which he was present—cutting for stone, amputations, "ye operation for ye empyema," etc. After attendance at lectures for two months he passed an examination at Surgeons Hall, which records that of Roderick Random. The only question he was asked was what dressings he would prepare for an amputation. On the strength of this he terms himself "qualified to act as Surgeon's second Mate of a third rate." A fellow student after an equally searching examination was forthwith appointed surgeon of the Dover. In 1755 Ware entered St. Thomas's as a dressing pupil to Cheselden. He spent most of his time in dissecting, varying his anatomical studies by occasional visits to the play-houses. He was called up at night every time a patient of interest was admitted into the hospital. The following is the operating theatre programme for one day: "December 1st. Mr. Lucas performed operation for recovering extravasated urine. Mr. Bell performed operation for removing cancerous tumour in the breast and a very large fungus on the tibia, when Mr. Warner performed a palliative operation on the hydrocele with the trocar, and Mr. Bell an operation at the wrist for a gunshot wounded in the hand, and Mr. Smith made punctures in the side of a man to discharge the air from an emphysema." In 1757 Ware became assistant to an eye surgeon with whom he later entered into partnership. In 1761 the partnership was dissolved and thenceforth Ware practised in New Bridge Street on his own account chiefly as an oculist. He did much to make ophthalmic surgery a recognised special branch, and wrote largely on the subject, his books being translated and used on the Continent. He was elected a Fellow of the Royal Society in 1759. He died in 1815. He was the founder of the Society for the Relief of Widows and Orphans of Medical Men in London and the Vicinity, and the School for the Indigent Blind.

CONTRACT MEDICAL PRACTICE.

A Burial Club.

At a special meeting of the No. 1 Central Burial Society of Macclesfield, held on April 26th, a letter was considered in which the two medical officers of the society conjointly asked for a material increase of salary and in default of its being granted tendered their resignations. From the proceedings at the meeting, as published in the *Macclesfield Times*, it would appear that this club numbers 6,000 members and that when ill they apply to the secretary for tickets, upon the strength of which the medical officer selected by the patient duly attends to his requirements; at the end of the quarter the notes are collected from the medical officers and the quarter's salary divided *pro rata*. As to the amount of this salary, the total expenditure of the society for the treatment of its members would appear to be not more than £1,000 a year, or £500 for the medical officers and £100 for the dispensing of medicines—in other words, something less than 2s. a year for each member. After a long discussion it was decided to refuse to make any increase and to accept the resignations tendered. Remarks such as the following were made at the meeting. "The work the medical officers did for their salary was not very much; they knew the society had some money in other funds, and their greedy eyes and minds were fixed upon getting it if possible." "The more money the doctors were paid the less respect was received from them by the members of the society." The amiable attitude of the members of this club towards its medical officers thus portrayed is worthy of careful note by any medical man who may aspire to the honour of becoming its paid servant.

A Joint Medical Scheme.

At a press meeting at Merthyr on April 26th of the Plymouth and Cyfarthfa Colliery workmen a scheme drawn up by a representative committee was presented for consideration. It provided for the appointment of two chief doctors and assistants, with all necessary medicines and appliances solely for the benefit of the men of those collieries. As an amendment it was proposed that each workman should be at liberty to engage his own doctor and to send the bills to the committee for payment. On a division the general principle underlying the scheme proposed by the committee was accepted by the meeting, but the scheme itself referred back to that body for amendment of details.

The Advantages of Union.

It would appear from the *North Mail*, a paper of influence in Durham and Northumberland, that the question of the fees to be paid to medical men in colliery practice is coming up again in an acute form in that neighbourhood. In some districts the medical levy is collected and in others a certain sum for medical attendance and medicines to the collier and his family. Seventeen Durham lodges, it is stated, have decided to ask the Executive Committee of the Miners Association to open negotiations for a reduction of all property to twopence bytes. The encouragement which the suggested movement receives from the *Mail* is not very great, and the observations made bring into strong relief the advantages of co-operation in getting medical attendance. It is pointed out that the colliery doctor is most appreciated by his toiling patients when an accident comes in the pits or sickness creeps into the homes. On other occasions he is often regarded as an official who draws a bigger salary than his merits deserve and one whose income ought to fluctuate with that of the men themselves. The doctor is essential to the well-being of every colliery even more so than blasting powder or expert hewers of the "Hetton seam." This being so, a stroke among the medical world, suggests our contemporary, speedily puts a stop to financial hostilities, for in the north nearly all of them belong to the British Medical Association, and it is regarded as doubtful whether even an organisation as powerful as the Miners Association could coerce the even more powerful medical association. An unnamed medical man who was interviewed upon the proposals seems to have given very judicious replies. He thought it possible that the medical

men might fall in with the wishes of the miners, but he did not think it very likely. If the men wanted efficient attendance they must be prepared to pay for it, as a sixpenny levy, especially in small collieries, was not an enticing sum. The men would be ill-advised to push matters to an extreme, and coercion was unlikely to succeed. Even if medical men were imported from the south the collieries would eventually have to fall into line again, since men who would accept service under such circumstances would be professionally ostracized and be unable to obtain assistance at operations or the advice of consultants.

THE MIDWIVES ACT.

LANCASHIRE.

At the quarterly meeting of the Lancashire County Council, held on April 28th, the Midwives Act Committee reported that with a view to bringing the Act to the notice of all persons desirous of practising as midwives in the administrative county, it had inserted an advertisement in 30 of the principal newspapers circulating in the county, inviting such persons to communicate with the county medical officer of health. Up to the present time 354 persons residing in the administrative county had applied to be placed on the register; 200 of these applications had been forwarded to the Central Midwives Board in London. A list of applicants submitted by the medical officer of health showed that from some of the districts comparatively few applications had been received.

NOTTINGHAMSHIRE.

The report of the county medical officer of health was considered at a meeting of the Notts County Council held on April 20th. The medical officer stated that since the beginning of this year he had received 60 additional names of women practising as midwives, making a total of 304. As one of the chief objects of the Midwives Act was to prevent the spread of puerperal fever, the Health Committee had approved of the suggestion of the city medical officer to pay 10s. 6d. to district medical officers of health for special reports upon cases of puerperal fever. The committee had also given power to the chairman of the committee and the city medical officer to suspend any midwife from practising if such suspension should appear necessary to prevent the spread of infection.

DEVONSHIRE.

At a meeting of the Bideford Rural Council held on April 26th, a letter was read from the County Council asking the Rural Council to reconsider its decision not to carry out the provisions of the Midwives Act. It was pointed out that most of the rural councils of the county had accepted the suggestion that they should undertake the duties connected with the carrying out of the provisions of the Act, and it was felt that the rural councils were more likely to carry out the duties efficiently than the county council. The Chairman said the Committee went into the matter very fully. Mr. Harris said he did not see how they could carry out the provisions owing to the district being so very scattered. The medical officer said he could not see how it was to be done. He had no doubt it would be a very good thing if they could get some good nurses into the district. The Chairman moved the medical officer should report on the matter at the next meeting, and this was carried.

HOSPITAL SUNDAY FUND. On May 10th a meeting of the Council of the Hospital Sunday Fund was held at the Mansion House, the Lord Mayor in the chair. Among those present were Sir William Church, President of the Royal College of Physicians, and Sir William Broadbent. A letter was read from Mr. George Herring, of Hamilton Place, Piccadilly, stating that he was willing, as on previous occasions, to give either £10,000 to the fund or to add one quarter to the amount collected in places of worship on June 12th, limiting this to a collection not exceeding £160,000. He made that offer, as he feared that the demands of the charitable for building, etc., might deprive many deserving hospitals of part of their present income and so compel the closing of some of the wards. Sir Edmund Currie stated that Mr. Herring in the past five years had contributed in all £53,000 towards the fund, namely, £10,000 a year for three years, and subsequently sums of £11,000 and £12,000, representing a quarter of the amounts collected in churches and chapels on Hospital Sunday. Prebendary Ridgeway proposed a cordial vote of thanks to Mr. Herring, and the Council accepted his proposition to add one quarter to the collections in places of worship.

ASSOCIATION NOTICES.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The annual meeting of the Bristol Division will be held in the Medical Library, University College, Bristol, on Thursday, May 19th, at [illegible] p.m., Dr. E. Mackin Sherrin in the chair. The business of the meeting will be (1) to elect officers, the Representatives of the Division on the Branch Council (the present Honorary Secretary resigns, and does not seek re-election). (2) To elect the Representatives of the Division in Representative Meetings. (3) To receive annual report of Executive Committee. (4) To consider business of Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules. (6) Proposed library rules. (7) Any other business. J. MICHELL CLARKE, Clifton, Honorary Secretary.

BIRMINGHAM BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 17th.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect (Dr. F. E. Underhill). The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, F.R.C.S., 3, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, May 17th, at 8 p.m., Dr. Milner Moore in the chair. Agenda: 1. Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. 2. The question of the advertising of medical practitioners in connexion with hydropathic establishments. 3. The medical defence scheme of the Association. 4. The Committee will recommend the adoption of a rule making a time limit for papers and speeches. 5. The election of officers, the Representative of the Division on the Branch Council, and the Executive Committee.—E. H. SNELL, Knighton House, Coventry, Honorary Secretary.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at the County Hotel, Carlisle, on Friday, May 20th, at 3.30 P.M. It is proposed to make a medico-ethical subject a leading feature of the meeting, and the Chairman has promised to open the debate by a paper on the Relations of Medical Men to Each Other. Members willing to contribute papers, etc., should communicate with the Honorary Secretary, NORMAN MACLAREN, Carlisle.

BORDER COUNTIES AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCHES.—Notice is hereby given that the nominations for (1) Chairman to preside over the Council for these Branches, signed by three members thereof, must be sent to me on or before May 25th.—FRANCIS J. HEAD, 22, Warwick Road, Carlisle, Honorary Secretary, Border Counties Branch.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—A meeting of this Division will be held on Friday, May 20th, at 3 p.m., in the County Buildings, Buccleuch Street, Dumfries.—GEORGE R. LIVINGSTON, 47, Castle Street, Dumfries, N.B., Honorary Secretary.

BORDER COUNTIES BRANCH: WEST CUMBERLAND DIVISION.—The annual general meeting of this Division will be held in the Board Room of the Whitehaven Infirmary on Tuesday, May 17th, at 3.45 p.m. Agenda: 1. To elect officers, the representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. 2. To receive the annual report of the Executive Committee. 3. To consider the business of the Annual Representative Meeting. 4. To consider a motion, of which Dr. G. J. Muriel has given notice, that Rule 11 shall be altered to read as follows: "Ordinary meetings of the Division shall be held at the discretion of the Executive Committee, and not less than two in addition to the annual meeting, etc." 5. Dr. J. W. Crerar: Blood examination in general practice. 6. Dr. G. B. Muriel: Notes on some of the uses of hyoscin. A dinner has been arranged for at the Grand Hotel. Members who intend to be present are asked to notify the Honorary Secretary, T. G. MATHEWS, 6, Scotch Street, Whitehaven.

DORSET AND WEST HANTS BRANCH.—The annual meeting of this Branch will be held at the Dorset County Hospital, Dorchester, on Wednesday, May 18th, at 1 p.m. Agenda: Business of the summer meeting. Address by the President. The Medical Aspect of the Poor Classes: Dr. Alderson to move. That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons. Vote of sympathy to the Irish Medical Service. Communication: Dr. Ramsay: Notes on a successful case of resection of bowel in a child aged 2 years. Luncheon at the King's Arms Hotel from 1 to 2 p.m. Dinner as usual. Members intending to be present are requested to communicate with Mr. W. E. Goad, 45, High Street West, Dorchester, by Monday, May 16th.—WILLIAM VAWDREY LUSH, 12, Frederick Place, Weymouth, Honorary Secretary.

DORSET AND WEST HANTS AND WEST SOMERSET BRANCHES COMBINED.—Notice is hereby given that the names of candidates for election as a member of Council of the Association for these Branches must be sent to either of the undersigned on or before Tuesday, May 17th next.—WILLIAM VAWDREY LUSH, Weymouth, or W. B. WINCKWORTH, Taunton, Honorary Secretaries.

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, June 3rd, to consider the business of the Representative Meeting, to elect the Representative and other officers, and other business. Notices of motion should be sent to the Secretary before Friday, May 20th.—R. C. BUIST and G. HALLEY, Dundee, Honorary Secretaries.

[illegible] AND SHEERN BRANCH.—[illegible] Meeting [illegible] Medical Society's Rooms, [illegible] May 19th, at 8 p.m. [illegible] Association [illegible] Members [illegible] Meeting [illegible] Members [illegible] Meeting [illegible] Members [illegible] Meeting

NORTH OF ENGLAND BRANCH.—Notice is hereby given that nominations of Representatives for this Branch (two required), each signed by three members of the Branch, must be sent to me on or before May 14th, 1904.—ALFRED COX, Cotwell House, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: DENBIGH AND FLINT DIVISION.—The annual meeting of this Division will be held at Wrexham on Friday, May 27th.—E. D. EVANS, Roderham, Wrexham, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH.—We hereby give notice that nominations for a Representative on the Council of the Association, signed by three members of the Branch, must be received not later than May 21st, by W. JONES MORRIS, Ivy-Cott, Penmaenmawr, W. JONES MORRIS, A. H. B. MACLEOD, and H. JONES ROBERTS, Honorary Secretaries.

OXFORD AND READING BRANCH.—Notice is hereby given that nominations for a Representative Member of Council for this Branch must be sent to me on or before May 14th.—W. T. FREEMAN, M.D., 20, Portland Place, London Road, Reading, Honorary Secretary.

SOUTHERN BRANCH: SALISBURY DIVISION.—The annual meeting of this Division will be held at the Infirmary, Salisbury, on Wednesday, May 18th, at 4 p.m. Agenda: 1. Minutes of the last meeting. 2. Election of officers. 3. Treasurer's account and balance sheet. 4. President's address: Cholecystectomy. Diabetes, to be followed by discussion. 5. Cases and specimens. The meeting will be preceded by dinner at the County Hotel at 7 p.m. Members intending to be present at dinner are requested to inform the Honorary Secretary not later than May 14th. Members wishing to show any cases at the meeting are requested to communicate with the Honorary Secretary as soon as possible.—J. E. COLTON, 21, Endless Street, Salisbury, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative Meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larkin gives notice that he will move, "That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each by three members in writing, may be sent to the Honorary Secretary of the Branch on or before Monday, May 16th.—T. JENNER VERRALL, 97, Montpelier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The next meeting of this Division will be held at the Croydon General Hospital, on Thursday, May 19th, at 4 p.m., Dr. Carpenter in the chair. Agenda: 1. This being the annual meeting officers for the ensuing year will be elected. 2. To arrange for the next meeting and to elect a Chairman. 3. Members will be asked to consider "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."—Medico-Political Committee. And also to give their opinion upon "The question of the advertising of medical practitioners in connexion with hydropathic establishments."—Ethical Committee. As a main feature of the hospital meeting is the exhibition of clinical cases, these questions may be put to the vote without discussion. 4. The exhibition of clinical cases. Members desirous of showing cases are requested to communicate with the Honorary Secretary at their earliest convenience, and not later than May 12th. Messrs. Down Bros. will show surgical instruments. The dinner will take place at the Greyhound Hotel, at 6 p.m. Charge 7s., exclusive of wine. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By doing so they will materially facilitate arrangements and promote the success of the meeting. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—E. H. WILLIAMS, 11, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: FAVERSHAM, ISLE OF THANET, CANTERBURY, SHEPPEY, FOLKESTONE, AND DOVER DIVISIONS.—A combined meeting of these Divisions will be held at the County Hotel, Canterbury, on Thursday, May 19th, at 3.30 p.m., Dr. Gregory in the chair. Members of the Faversham, Isle of Thanet and Canterbury Divisions will meet half an hour earlier, 3 p.m., to receive reports and elect representatives. Agenda: An address will be delivered by Dr. Robert Boxall on the Relief of Dysmenorrhœa and Sterility. The following papers will be read: Dr. T. Wrightson Reid, on the Diagnosis of Intraperitoneal Haemorrhage. Dr. William Gosse, Rheumatism and its Treatment at Aix-les-Bains, and a paper by Mr. Hugh M. Raven. Dinner will be served at the Hotel at 5.15 p.m., charge 5s., excluding wine. Those wishing to dine are kindly requested to send a postcard the day previously to A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The annual meeting of this Division will be held at Hotel Wampach, on Friday, May 27th, at 8 p.m. Agenda: To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. To receive the annual report of the Executive Committee. A meeting of the Folkestone, Ashford, and Dover constituency will be held the same day, at the same place, at 5 p.m. Agenda: To elect the Representative in Representative Meetings of the Association. To elect a Secretary. To consider the business of the Annual Representative Meeting. All members of the South-Eastern Branch are invited to attend the meetings and to introduce professional friends.—PERCY V. DOLD, 14, Manor Road, Folkestone, Honorary District Secretary.

SOUTH-EASTERN BRANCH: HASTINGS DIVISION.—The annual meeting of this Division will be held at the East Sussex Hospital, Hastings, on Thursday, May 19th, at 4 p.m. The chair will be taken by Dr. Frederic Barnshaw. Agenda: 1. Confirmation of minutes; 2. election of officers for ensuing year; 3. report of Executive Committee; 4. consideration of any business to be brought forward at the annual Meeting of Representatives; 5. consideration of proposed scheme of Medical Defence; (6) letter respecting grouping of Divisions for election purposes; 7. Dr. Redmayne will show a case of Bronchiectasis treated by incision and drainage. Mr. Christopherson will read notes on a case of Perforated Gastric Ulcer treated by excision.—J. W. BATTERHAM, 3, Grand Parade, St. Leonards-on-Sea, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: HORSHAM DIVISION.—The annual meeting of this Division will be held at the Parish Rooms, The Causeway, Horsham, on Wednesday, May 18th, at 5 p.m. Agenda: 1. The ordinary business of an annual meeting, such as election of officers, etc. 2. Any other business. 3. Election of new members. 4. Exhibition of cases of interest. 5. Dr. H. Lewis Jones (London) has kindly consented to read a paper, entitled, On Recent Advances in Electro-therapeutics. Any members wishing to show cases, etc., are requested to communicate with the Honorary Secretary at once, in order that arrangements may be made. All members of the South-Eastern District are entitled to attend and introduce medical friends. The Honorary Secretary will be pleased to see any of the members at his house to tea after the meeting.—I. M. SNOW, The Charnage, Horsham, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, May 19th, at 4 p.m., Mr. J. Sidney Turner, M.R.C.S., F.L.S., J.P., in the chair. Agenda: (1) Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation. (2) the question of the advertising of medical practitioners in connexion with hydropathic establishments. (3) the Medical Defence scheme of the Association.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—Notice is hereby given that nominations of Representative members of Council for this Branch must be sent to me on or before May 14th.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Wilslow, Bucks., on Thursday, June 16th, under the presidency of Dr. Kennish. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 6th.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH.—Notice is hereby given that nominations of a Representative member of Council for this Branch must reach me on or before May 14th, 1904.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held on Thursday, May 26th, at 2.30 p.m., at the Eight Bells Hotel, Bletchley. Agenda: 1. Minutes of the last meeting. (2) To consider and discuss the scheme of Medical Defence of the Association. (3) Resolution by Dr. Easte on the granting of Medical Certificates to School Children. (4) To consider any further business or communications. Attention is directed to the form of undertaking appended to the proposed scheme of Medical Defence, which, if approved, should be filled in and forwarded to the Secretary. Luncheon (at 2 o'clock) will be provided at the Hotel, price 2s. each. Members wishing to partake of the same should inform the Secretary not later than May 23rd.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, May 19th, at 12 noon, under the presidency of Dr. Bu-zard. Agenda: Minutes of annual meeting. 2. Election of officers. To receive Divisional report. To discuss (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 21st.—Dr. R. PATERSON, 15, St. Andrew's Crescent, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—The annual meeting of this Division will be held in the rooms of the Cardiff Medical Society, 131, Queen Street, on Thursday, May 19th, at 3.30 p.m. Agenda: 1. Minutes of the two previous general meetings. 2. To elect the officers of the Division, namely, Chairman, Vice-Chairman, and Secretary (to act also as Treasurer). 3. To elect (a) four representatives of the Division on the Branch Council, (b) four ordinary members of the Executive Committee. 4. To elect the Representative of the Division in representative meetings of the Association. [Note.—The elected members included in 1, 2, and 3, constitute the Executive Committee of the Division.] 5. To receive the annual report of the Executive Committee. 6. To consider the agenda of the annual representative meeting and to instruct the Divisional Representative thereon. 7. To consider other business which may be referred to the meeting by the Executive Committee. Members are specially asked to note the date of this meeting

and to do their best to attend and take part in the election of the various officers and members of the Executive, and also on the discussion of the other important items of the agenda. Members will receive in due course particulars of the arrangements for a dinner to take place on the evening of the same date (May 19th).—Lewis J. Mackean, 12, Park Place, Cardiff, Honorary Secretary.

South Wales and Monmouthshire Branch.—Monmouthshire Division.—The annual meeting of this Division will be held at the Newport and County Hospital on Friday, May 27th, at 3 p.m. Members who wish to bring any matter before the meeting are please to notify the Honorary Secretary not later than May 14th. Members who joined during the Defence Department and who have not yet sent in their applications are requested to do so as soon as possible.—W. J. Greet, Newport, Honorary Secretary.

South Wales and Monmouthshire Branch.—South West Wales Division.—The first annual general meeting of the Division will be held at Stepney Hotel, Llanelly, on May 21st at 11 A.M. Members who wish to read papers or who have any communications to make will please communicate immediately with the Honorary Secretary, Dr. Annable Morris, Mardy, Glamorgan.

South Western Branch.—The examination of candidates for the office of Vice-President, Council, Board of Representatives on the Central Council, and Secretary will take place on the first day of the meeting, viz., on Tuesday next, June 1st, when the three elected members of the Council will be declared to the Honorary Secretary of the Branch, Mr. C. Young, L.R.C.S., 4, Babbacombe Terrace, Torquay.

Staffordshire Branch.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association will be received at the office of the Branch, 17, Trinity Street, Hanley, up to the hour of 5 P.M. on Tuesday, May 24th.—E. Pierrepont Johnson, Brook Street, Stoke-on-Trent, Honorary General Secretary.

Staffordshire Branch.—The annual meeting of this Branch will be held at Wolverhampton on Thursday, June 9th.—E. Pierrepont Johnson, Brook Street, Stoke-on-Trent, Honorary General Secretary.

Worcestershire and Herefordshire and Gloucestershire Branches.—Nominations for the election of a Representative on the Central Council for these grouped Branches must be sent, signed by three members, to or before May 21st to Dr. G. W. Crowe, Worcester, Honorary Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

Société Médicale des Hôpitaux: The Treatment of Incontinence of Urine by Lumbar Puncture. The Death of Emile Duclaux. Magdeleine: The Translation of Music by Gesture under Hypnotic Influence. Typhoid Fever in Paris.

At a recent meeting of the Société Médicale des Hôpitaux Drs. Babinski and Boisseau made an interesting communication on the treatment of incontinence of urine by lumbar puncture. Two patients were presented who had been cured by this means. The first was a young girl of 17 years, who had suffered from nocturnal incontinence since the age of 7. After a lumbar aspiration of 15 c.cm. the patient had no incontinence for eight days; from the ninth to the thirteenth day she had incontinence twice. A second lumbar puncture was then made. The fifth and seventh day after this second puncture the patient again had incontinence, but from that time on for the past two months the patient had not had a single involuntary micturition. During three months, therefore, she only had incontinence on four occasions. These were during the first month, while in the last two months she had been perfectly free from her infirmity. The second patient was a syphilitic, who had suffered for two years from ataxic paraplegia and incontinence of urine, the incontinence being due to paralysis of the sphincter of the bladder. Eight days ago lumbar puncture was performed (15 c.cm. of fluid being withdrawn), since then the incontinence had disappeared. The patient felt the desire to urinate and was conscious of the passage of urine. Two other patients of the same class had been observed. One, a child aged 14, had incontinence of urine night and day for a month and a-half, which had resisted treatment with belladonna. On January 14th lumbar puncture was performed and the incontinence disappeared. From March 16th to April 15th nocturnal incontinence reappeared, but only every three or four nights, and had not appeared since this latter date, upon which lumbar puncture was performed a second time. The other patient, suffering for one year from paraplegia, had had incontinence of urine for one month when he was punctured. This incontinence yielded to a single puncture, and the patient had been able to retain her urine during the fortnight which had since elapsed. In an ataxic patient who had had incontinence for four years, lumbar puncture gave no result, but the incontinence had ceased for fifteen days three years previously after a puncture made on his entry into hospital for a cytological examination. Drs. Babinski and Boisseau, although being able to explain how lumbar puncture affects the incontinence, suggested it would form an excellent treatment for this affection, and that it was advisable to carry on further research in this direction.

French science has suffered a great loss by the sudden death on May 3rd of Emile Duclaux, Member of the Institute and of the Académie de Médecine, and Director of the Pasteur Institute, which position he was called upon to fill at the death of Pasteur in 1895. Duclaux was born June 24th, 1840, at Aurillac (Cantal), where, after brilliant studies at the local college, he had helped his father, a bailiff. He then went to the Ecole Normale, and it was during his studies that Pasteur remarked and chose him as his collaborator in his researches on silk-worm disease. After teaching chemistry at Clermont and at Lyons, Duclaux was appointed Professor of Physics and Meteorology at the Institut Agronomique in 1878. In 1888 he was appointed Professor of Biological Chemistry at the Sorbonne. The name of Duclaux will remain associated with a number of works on microbiology. As long ago as 1882 he wrote a book entitled *Ferments and Diseases*, which called attention to the approaching revolution of creed as to the etiology of infectious diseases. In 1887, under the patronage of Pasteur, Duclaux founded the *Annales de l'Institut Pasteur*, in which he himself wrote a series of critical articles and reviews. In 1898 he began to publish his chief work, the *Traité de Microbiologie*, in four volumes. In 1896 he published the interesting biography of his master, *Pasteur Histoire d'un Esprit*. Duclaux showed the same zeal as a citizen which he had shown as a scientist, in support of justice and truth. He took an important part in the Dreyfus affair, and in collaboration with Emile Zola, Trarieux, and Pressensé, carried on an active campaign; as one of the founders of the Ligue des Droits de l'Homme, he was tried on the charge of being a member of an unauthorized association. It was during one of the meetings of the League two and a half years ago that he was struck down by a first attack of apoplexy; gradually he got better, and was again able to attend to his multiple duties. He seemed to have entirely recovered when this second and fatal attack occurred.

At the Theatre des Mathurins recently Professor Magnin, of the Ecole de Magnétisme, presented to the public a very remarkable patient of his, Magdeleine who, while in hypnotic sleep, translates, as it were, by gestures the sense of music, either played or sung; she also acts when plays are read to her. There is an immediate correlation between her gesture, attitude, expression, and what she hears. The most notable point in her condition is the impression produced on her in so special a manner by music, her body becoming a sort of mechanism, responding to every emotion which the music conveys to her exaggerated nervous sensibility, and expressing by most striking poses every feeling of passion, pain, joy, grief, and voluptuousness. Her father is Swiss, and her mother a Caucasian. Having a superb voice, she studied singing, and obtained a first prize at the Conservatoire in Geneva. Her education, character, and temperament all indicated a theatrical career, but it is said that an invincible fear of the public and an awkwardness in her gait have hitherto prevented her appearing in public. She has always had excellent health, with the exception of persistent headaches, for which she consulted Professor Magnin.

The typhoid fever epidemic is now rapidly coming to an end. During the first week of March, when it was at its maximum, 158 fresh cases were notified. The following table shows the cases and deaths notified during five weeks:

	Cases	Deaths
Week ending March 26th	158	24
,, April 2nd	99	16
,, ,, 9th	77	14
,, ,, 16th	56	9
,, ,, 23rd	37	5

SYDNEY.

Leprosy in New South Wales. Purification the Milk Supply. The Endemic Plasmodium. The Declining Birth-rate. The New Guinea Expedition.

Dr. Ashburton Thompson, the Principal Medical Officer to the Government, has just issued his annual report (1903) on leprosy in New South Wales. During that year 10 persons were reported to the Board of Health as suspected lepers, and 9 of these were subsequently admitted to the Leper

lazaret under the usual medical certificates. At the close of the year 15 patients remained in the lazaret, of whom 9 were whites; of these 5 were natives of New South Wales, the remainder natives of different European countries and America. Of the coloured inmates of the lazaret, 4 were Chinese, 1 a Javanese, and 1 a native of the New Hebrides. Full reports of the history and condition of these patients on admission to the institution are appended to the report. The cost of maintenance amounts to about £142 a head per annum.

For some years past a careful watch has been kept on the milk supply of Sydney. During the last two and a-half years over 300 prosecutions have been instituted, with the result that the practice of putting preservatives into the milk is becoming less and less common. All the year round samples of milk are taken by the officers of the Board for analysis, and the milk vendors are entirely ignorant as to when the samples will be taken. While 44 per cent. of the samples taken in the year 1901 were found to be adulterated, in 1902 the percentage dropped to 22, whilst for the first ten months of 1903 only 4 per cent. of the samples were proved to be adulterated. Some forms of preserved milks are still adulterated with preservatives, and the Board are contemplating some action against the manufacturers.

After an interval of nearly eight months, bubonic plague has again appeared in Sydney. On March 7th a mouse taken from the neighbourhood of Darling Harbour was found to be infected with plague bacilli; two days later a rat found in the same district was also found to be plague-infected. On the next day a case of plague in a boy employed in a produce store in this district was reported to the Board of Health, and the patient was at once removed to the plague wards at the Coast Hospital. It appears that the patient had been employed in removing some dead rats from the premises to burn, and it is pretty certain that he received the infection directly from these infected rats. The place where the rats were found is close to a wharf where vessels trading to Queensland ports frequently berth, and large quantities of fodder and produce are handled on this wharf. Dr. Ashburton Thompson is of opinion that the infection has thus been reintroduced from Queensland by rats. As plague has been prevalent for some time past in Queensland, strict precautions have been taken in the case of vessels arriving with produce from Queensland ports, and a considerable amount of ill-feeling has been aroused in consequence of these restrictions on inter-State trade. The outbreak of plague in Sydney, in spite of all the precautions taken, shows how necessary it was to insist on the plague regulations being observed in the case of vessels arriving from the neighbouring State. So far no further cases have been reported, and every effort is being made to destroy the rats and mice in all parts of the city and suburbs.

The serious decline in the birth-rate in Australia, to which attention was drawn by Mr. Coghlan, the Goverment Statistician, some months ago, led to the appointment of a Royal Commission, consisting of the Hon. Dr. C. K. Mackellar (President), Sir Normand MacLaurin, Drs. Foreman, Paton, Maschi, and Nash, and seven laymen. Their report has recently been presented to His Excellency the Governor, and contains fifty-four pages of printed matter, exclusive of the evidence, diagrams, etc., which are to be published in a separate volume. The report shows that there has been a very marked and steady decline of the birth-rate since the year 1889. In that year there was a sudden remarkable fall, amounting to 2.23 per 1,000, followed by a continuous and rapid decline, until in 1902 the total decline had exceeded 10 per 1,000. During the period 1889-1902 there has been a rise in the marriage age, from which a very slight fall in the birth-rate might be expected to follow. But the principal cause is the deliberate interference with reproduction. Some important facts are given in this report as to the various effects of the use of preventive pessaries and similar practices upon the health of the woman, and the increase in the insanity-rate is shown to be coincident with the decline in the birth-rate. A large number of suggestions are offered by the Commission with a view to check this decline and to prevent the present high rate of infant mortality. Among these suggestions are: Increased public hospital accommodation, amendment of the Public Health Act in certain respects, licensing of all lying-in homes and private hospitals, making indictable the procuring of abortion, formation of an administrative body to be entrusted with the examination and certification of obstetric nurses, prohibition of the sale of all the various preventives and the suppression of all advertisements relating to the same, amendment of the Poisons Act so as to prevent the distribution and sale of abortifacient drugs, proper provision of sanitary accommodation in all buildings in which women are employed, prohibition of the sale or display of obscene or indecent literature and the publication of improper advertisements, and settlement of the people on the land, in order to check the tendency to the concentration of the population in the towns. In the section of the report dealing with infantile mortality a large number of valuable suggestions have been made in the way of instructing the general public as to the feeding and care of infants. Among these suggestions are the distribution of printed instructions on infant feeding, the instruction of girls at school in the same subject, the regulation and control of advertisements and sales of artificial foods, the prohibition of preservatives in such funds and also in milk, the establishment of municipal milk dépôts, increased hospital accommodation for sick infants, supervision of infants' homes and the reception of the mother as well as the child into such homes, control of persons taking charge of children under the age of 3 years for the purpose of gain or reward, and the compulsory registration of stillbirths. The Commissioners also lay stress on the necessity for a more satisfactory registration of births and deaths; and, in considering the relation of operative surgery to sterility, they conclude that while the advance in knowledge made by that branch of practice has made it more useful to society, it has not contributed to the decline in the birth-rate. The publishing of this report has given rise to an enormous amount of newspaper correspondence, the general tendency of which is to show pretty clearly that the Commissioners have hit the nail on the head in declaring that the deliberate prevention of conception is the main cause of the decline in the birth-rate. It remains to be seen what effect the report will have in checking this serious evil.

Dr. Seligmann, a member of Major Daniels's New Guinea expedition, contracted some form of malarial fever in the Fly River district of New Guinea, and has returned to Sydney to recuperate. He is at present under treatment in a private hospital, but is progressing favourably, and expects to return to New Guinea in the course of a few weeks.

MANCHESTER.

Relative Density of Population in Manchester and London Areas.—Owens College Bill Passed.—New Public Health Laboratory.—City Coroner's Court.

ON comparing the density of the population in and around London and Manchester, it appears that in 1901 about 6,500,000 persons were living within a thirty-mile radius of London, while within a similar radius of Manchester Exchange there were only about 5,500,000. If a radius be taken of forty-five miles, it gives 8,000,000 for the Manchester area and 7,000,000 persons within a corresponding area with Charing Cross as its centre. Brighton within fifty-one miles of London is the nearest single town of 100,000 inhabitants. Within a circle of forty-five mile radius round Manchester there are Liverpool, Sheffield, Bradford, Oldham, etc.

The Bill for merging Owens College in the Victoria University of Manchester has passed both Houses of Parliament, and now only awaits the sign manual of the King to become law. The name Owens College will still be retained for the buildings, and these will, as it were, be the habitat of the University.

Recent developments in connexion with the Infirmary on the one hand and with the University on the other have necessitated very considerable changes in the Public Health Department in connexion with the University. The Laboratory of Public Health, founded a few years ago, has to give place to the new infirmary, and already a new laboratory has been begun, which it is hoped will be ready for work in October. The increase in public-health work, both in connexion with the University and with the Corporation of Manchester and surrounding corporations, has made it necessary greatly to enlarge the laboratories. With a new degree in public health and the new diploma in veterinary medicine, much more space will be required, and this has been amply provided for in the new laboratory, which is being erected on a site close to the proposed new infirmary. Already a considerable sum has been obtained to pay for its erection.

At last it appears that the City Coroner is to have a more suitable room for his work. Proper accommodation will be found in the new fire and police station which is being erected in London Road.

CORRESPONDENCE.

QUEEN'S COLLEGE, CORK.

SIR,—My attention has been called to the report of observations made by me at a dinner of graduates of this College in London, which appeared in your issue of April 16th, to the effect "that the number of entries in the medical school of last year was larger than that in any other school in Ireland, save that of Trinity College, Dublin." I may at once say that the statements which, according to this account, I am represented as having made are inaccurate, and not in accordance with the views which I had on my own mind at the time, and which I intended to convey, but which possibly I did not express sufficiently clearly.

The shortest way to set the matter right will be if I furnish the annexed table extracted from those given by the General Medical Council in their annual lists:

	1902.	1903.
College of Physicians, Medical School, Dublin	70	61
Royal College of Physicians, College, London	42	43
Queen's College, Belfast	8	8
Queen's College, Cork	45	35
Royal College of Surgeons	23	27

At the time I made the observations in question the contents of the last column in the above table had not come to my knowledge, and when I spoke of "last year" I naturally referred to the session of College corresponding so far as these figures are concerned to the year 1902 of the General Medical Council lists and the idea I wished to convey was that in that session Cork occupied with Trinity College the second place in the list as I stated in my last report. I am, etc.,

ROLAND BLENNERHASSETT.

Cork, May 10th. President, Queen's College, Cork.

PROFESSOR DUNBAR'S ANTITOXIN AGAINST HAY FEVER.

SIR,—I receive so many inquiries with regard to the use of Professor Dunbar's hay fever antitoxin during the forthcoming hay fever season that you may, perhaps, accord me a short space to give general information so far as I am able to.

My paper on Impressions of the Efficacy of Professor Dunbar's Antitoxin in Hay Fever, which appeared in the BRITISH MEDICAL JOURNAL of July 18th, 1903, represented the sum of my observations during last year's hay fever season, and this year's season is not having yet begun. I can of course not add anything from personal experience to the statements then made. Meanwhile, however, Drs. Lüdtke and Pransnitz, Professor Dunbar's assistants, have published in the *Berliner Klinische Wochenschrift* of March 14th and 21st of this present year a paper in which they attribute the want of success of the remedy in the hands of several observers to the fact that it was not used nearly frequently enough during the hay fever season. They recommend that the remedy, in its distilled form for the eyes and in its new powdered form for the nose, should be used regularly as a prophylactic measure, the first application to be made immediately after waking, and further, more particularly, when the patient has been in the open air, at the least irritation is felt. The frequency of the applications [illegible] very considerably in every individual case, but it is obvious from the experience of last year, that [illegible] the eyes and nose dry and the mucous membranes [illegible] the fluid takes place.

The remedy [illegible] "pollantin" used by [illegible] Messrs. Duttlinger and Co., Hanover Square, W.

The result of which Dr. Dunbar and Professor Berry Hart report is that the patient should during the hay fever period keep [illegible]

With regard to further details I must refer you to the original. I am, etc.,

London, W., May 9th. LEIGH SEVEN.

THE FEE FOR RESTORATION TO *MEDICAL REGISTER*.

SIR,—In answer to your correspondent, "Index," who, in the BRITISH MEDICAL JOURNAL of May 7th, raises the question as to the legality of the fee of one pound which the General Medical Council charges for "restoration," I beg to reply as follows:

A member of the profession who for any cause ceases to be upon the *Register* is exactly in the same position as one who has never registered at all, and to gain access once more to the *Register* he has to make application for "restoration," which application however is really one for registration pure and simple.

Under Section xv of the Medical Act, 1858, the Council is empowered to claim a fee not exceeding £5 for registration and might if it so chose claim that full sum for "restoration," but fortunately for the members of the profession whose names have been erased, the sum fixed at present is the lesser amount of one pound, and that amount "Index" will find is neither illegal nor improper under the Act.—I am, etc.,

London, W., May 9th. A. GEORGE BATEMAN.

THE STATE REGISTRATION OF NURSES.

SIR,—It is somewhat strange that Mr. Sydney Holland, who commenced this correspondence by describing the observations made by certain ladies as "silly sneers," should be so tremulously anxious to be treated "civilly" himself. He opened a discussion in the BRITISH MEDICAL JOURNAL: he has been answered, and the only rejoinder he can make is to indulge in mock heroics over some imaginary "rudeness," and an equally irrelevant and equally imaginary conversation with a hypothetical homoeopath.

It is to be hoped that the few medical men who have been persuaded to give their honoured names as opponents of the registration of nurses will compare the powerful arguments advanced by Sir Henry Acland, Sir James Paget, Sir William Savory, and others in favour of that measure of protection to the public and of bare justice to well-trained nurses, with the sentimental suggestions and suppositions upon which the present opposition to it is apparently based. It is specially noteworthy that its opponents do not attempt to deny the very serious evils now prevalent in the nursing world, nor the consequent need for reform; and that they totally admit that they have done nothing to assist, but everything they could to retard, such reforms being effected.

Permit me to add that I yield to no one in admiration for the remarkable work Mr. Sydney Holland has done for the London Hospital, and this makes me regret the more that he has not fully appreciated the public importance and professional significance of this nursing movement. It has been in progress for seventeen years; those who have been directing it have deprecated undue haste and all needless publicity; there were many novel problems to consider, many facts too grave to lightly publish. But a steady organisation has been maturing these years, all over the world. In less conservative countries than this, Nursing Acts of Parliament have been already passed; and now it is believed that sufficient knowledge and sufficient support has been accumulated to render it advisable, says Mr. Holland, that a Parliamentary inquiry should be held into the whole nursing question, and to make it certain that such an inquiry will be followed by legislation. I am, etc.,

London, W., May 9th. BERKELEY FENWICK.

BLOOD-PRESSURE INSTRUMENTS.

SIR,—I have just seen Dr. Mackenzie's criticism of blood-pressure instruments in the BRITISH MEDICAL JOURNAL of April 23rd. Dr. Mackenzie says he never could make out "by what process of reasoning the force necessary to attain the maximal excursion of the Hill-Barnard sphygmometer is supposed to represent the mean arterial pressure." The theory that an artery passed upon will give a maximal pulse when the pressure applied to it is sufficient to empty it in diastole with all weight to fall in systole does not seem to me difficult to see and has not been questioned by physiologists. The only question is how far the instruments hitherto invented are capable of correctly indicating the maximal pulsation.

Dr. Mackenzie says "a little consideration will convince any one who thinks [illegible] that the tissues outside and [illegible] would be pushed in much as the pressure exerted would be reflected all over the body." This is an assertion

so contrary to physical ideas that I will leave it to Dr. Mackenzie to prove at his leisure.

Dr. Mackenzie say, "supposing one did get an accurate record of the pressure within an artery, what is its significance? Is it supposed to be a record of a pressure within the whole arterial system? An idea seems to be prevalent that if pressure within one artery, whatever its size may be, is obtained, the pressure within all the other arteries of the body must be the same." As to the significance of the arterial pressure, I must refer Dr. Mackenzie to the textbooks of physiology. Physiologists have proved by experiment that the pressure in all the larger arteries is practically the same so long as an animal is placed horizontally so as to cut out the influence of gravity. Friction has little effect in lowering the pressure until the arterioles are reached.

We tested the Hill-Barnard sphygmometer by applying it to the neck of a dog, while we recorded the arterial pressure in the ordinary way with a Hg. manometer. We found we could we tell the mean pressure by the index of the maximal pulsation correctly within a few millimetres.

Our smaller sphygmometer, applied to the radial artery, gave us the same readings as the larger instrument applied to the brachial artery. The interposition of layers of wool between the pad of the former instrument and the artery made no difference to the readings. We concluded from this that pads of fat made no difference. With our instruments we were able to detect changes in pressure due to gravity.

These are the experimental observations on which we based the accuracy of the instruments. Our experiments may have been wrong, and if so Dr. Mackenzie can repeat them and correct us, but I am not willing at present to accept his condemnation, which is largely based on physical misconceptions. In the clinical use of sphygmometers I have had no experience, but I can predict that in certain cases the instruments must fail to give accurate readings.

All such instruments have a certain period of action: a Hg. manometer, for example, has a very long period; it is too slow to record systolic and diastolic pressures. In cases of tachycardia with very rapid pulse the sphygmometers are probably too slow to follow the rapid variations in pressure. Again, the variations of pressure in aortic regurgitation are so great that the instruments would not have time to follow them. In both these cases the instruments would indicate a pulsation of equal height over a large area of pressure. Again, the sphygmometer cannot be used on rigid tubes, and therefore must fail in cases of sclerosed arteries, when the vessels cannot be swiftly compressed in diastole. Excluding such cases, I believe the maximal pulsation instruments properly used give fairly accurate readings.—I am, etc.,

Loughton, May 9th. Leonard Hill.

THE TREATMENT OF INEBRIETY BY DRUGS.

Sir,—I should be much indebted to any member of the Association who would tell me of a thoroughly well-managed home or institution where the treatment described by Dr. McBride is being carried out under constant medical supervision. The Legfield (Hayden) cure at Liverpool seems to have had considerable success, but the drugs used there are not, as far as I am aware, made known, and it is impossible to advise people to submit to treatment the nature of which is kept secret.—I am, etc.,

London, W., May 10th. E. Garrett Anderson, M.D.

Sir,—I have read with much interest the articles which appeared in the British Medical Journal dated April 30th upon the above subject. I do not wish to unduly disparage the opinions set forth, or to severely criticize the results stated: but, in order that the profession may not take too rosy a view of this method of cure, I would like to state the views I have formed after three and a-half years' experience of the treatment of inebriety, and to submit certain facts relating thereto.

Inebriety is essentially a disease in which the seat lies in the psychological part of the brain. The centres for self-control are degenerated, and the centres for desire react abnormally to alcohol; such being the case, it is absolutely impossible that a drug can act upon these centres to restore them to their natural functions. It is just as reasonable to expect a drug administered could produce a dislike to one's favourite author.

All, I believe, this drug treatment may do is, first, to assist to cure the effects of the disease by enabling to build up the patient's physical strength: and, secondly, to create a faith cure by trading on the patient's credulity.

In regard to the first effect, is not the treatment more rational if a patient by fresh air, nourishing and regular diet, and nerve tonics given him by the mouth, has his strength restored? There is certainly no risk of teaching a patient the habit of hypodermic injecting.

In regard to the second effect, this faith which is implanted in the patient's mind if shattered, is it not reasonable to suppose that the patient is left in a more helpless state than before his cure was thus attempted. This has certainly been my experience, gained from those who have undergone those cures.

Why is it necessary that the patient must be willing to be cured if atropine will cause an aversion to alcohol? Is the action of the drug dependent on the patient's will? If so, it is the first time I have found the physiological action of a drug can thus be interfered with. A great many inebriates and morphinomaniacs cannot tolerate atropine in the smallest quantity; they therefore I suppose according to this method must be termed incurable.

The foregoing are my opinions, gained by experience. Let me now give you a few facts. During the last three and a-half years I have had under my treatment 108 inebriates; eighteen of those had undergone previously one of the so called drug cures (16 per cent.); several of those cases had undergone the drug treatment more that once. On analysing these cases I find they were not all incurable under what I call rational treatment, as you will see by the following table:

Cured	... ...	4 = 22 per cent.*
Relapsed	... ...	4
Not traced	... ...	2
Died...	... ...	5 = 27.7 per cent.
Still under treatment	...	3

*By cured I mean they have been at least a year since leaving, total abstainers.

The notable features of this table are (1) that 22 per cent. were cured by another method than the drug method which had failed; (2) 27.7 per cent. had died. Of the 91 cases who have not undergone the drug treatment 7.3 per cent. have died. This is a remarkable difference.

Lastly, I would state that I believe there is no royal road or short cut to the cure of inebriety, but it takes a long time of patient perseverence on the patient's behalf. In a remark made in one of the articles the writer would lead one to believe that patients sent to a retreat are cooped up and confined until they leave, and then at once fly back to their old habit. In a well-managed retreat this is not the case. Patients are given, judiciously, opportunities of exercising their self-control, and, as they prove themselves able to resist temptation, perfect freedom is gradually restored to them.—I am, etc.,

John Q. Donald, L.R.C.P., L.R.C.S.Edin.

Colinsburgh, Fife, May 9th.

THE ASSOCIATION OF DIPLOMATES OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.

Sir,—May I ask you for space in the British Medical Journal to state that the general meeting of the above Association will be held at 20, Hanover Square on May 19th at 4 p.m. Circulars are being sent to diplomates in London and the provinces, but as some may not receive them will they kindly accept this as an invitation to attend?—I am, etc.,

C. St. Aubyn-Farrer,

London, W., May 10th. President.

THE ASSOCIATION AND MEDICAL DEFENCE.

Sir,—As a general practitioner and a member of the Association and the Medical Defence Union, may I be permitted to mention a few points in opposition to the Association taking on medical defence?

First, the funds of the Association would not be available, as some think they would be, for medical defence, but a separate fund would have to be created, such as money borrowed on the security of the guarantors, at interest, and the payment of such interest would be a serious loss to any defence funds.

Secondly, the Medical Association is all very well as a scientific body, and useful, further, in deciding ethical questions with regard to the conduct of its members and in setting an example of tone to the profession generally, and beyond that province it is doubtful whether it should seek to go.

Thirdly, by far the greater number of medical men in Great

Britain and Ireland are not members of the British Medical Association, and a large number of subscribers to the Medical Defence Union are not members of the Association. Would these not be cut down then, be without medical defence, or would they be driven thus into the Association? Such a course would be the result of unfair pressure and savour of trade unionism.

The Medical Defence Union has done and is doing excellent work. It is much respected and not a little feared in legal circles. Opposition is a good thing, and should a large body like the Medical Association by no means fail to do its best—its strike character—to organize medical defence, it is by no means sure that the humble medical practitioner would receive fair consideration—as he does at present in defence by a body governed to a great extent by consultants and specialists.—I am, etc.,

Bristol, April 28th. JOHN WM. TAYLOR.

P.S. It is worth remembering at this juncture that it was from the British Medical Association came the suggestion that medical men should be forbidden to dispense which would mean ruin to many of us. To prevent such a crisis the Medical Defence Union would have been of the greatest use.

*** The statement that "by far the greater number of medical men in Great Britain and Ireland are not members of the British Medical Association" cannot be allowed to pass unchallenged. According to the *Medical Directory* for 1904 the total number of practitioners resident in Great Britain and Ireland was 30,000, and from the statistics submitted by the general secretary to the Medical Defence Committee of the British Medical Association to the BRITISH MEDICAL JOURNAL, January 30th, 1904, p. 241, it was shown that the number of members of the Association resident in England and Wales was 11,000, in Scotland 1,812, and in Ireland 911, making a total of 14,723. Taking the crude figures it will be seen that of the total number of members of the profession shown in the *Medical Directory* as resident in the United Kingdom 48.4 per cent. are members of the Association. The *Medical Directory* contains the names of a considerable number of medical men who have only recently registered and are holding resident appointments in hospitals or for other reasons have not yet settled down in practice.

Our correspondent is further in error in stating that it was from the British Medical Association that "came the suggestion that medical men should be forbidden to dispense." The proposal was made at a meeting of the Central Division of the Metropolitan Counties Branch, held on February 17th, by a private member on his own responsibility. The proposal was seconded *pro forma* by the Honorary Secretary of the Division, and after discussion was lost by a large majority, only one person voting in its favour. Our correspondent might have seen this for himself in the BRITISH MEDICAL JOURNAL of February 20th, p. 429. May we hint that he will do well, before expressing himself on the region of controversy, to follow the advice of the venerable Oxford scholar and verify his references?

TESTING THE EYESIGHT OF A NATION.

SIR,—Your correspondent, Dr. Henry, commences his letter with an error in regard to the Optical Society which has already been pointed out by the *Times*, and perhaps you will allow me to do the same here. The "Optical Society" has nothing to do with diplomas or examinations, examinations of the nature quoted in the BRITISH MEDICAL JOURNAL of April 30th, under the above heading. The *Optician and Photographic Trades Review* has also pointed the impropriety of the name, and in a recent issue [illegible] stated that "used by the Worshipful Company of Spectacle Makers [illegible] for testing it was [illegible] unfortunate."

As a matter of fact, the Optical Society has no diploma, but a certificate of competency, which is granted to candidates who have passed the examinations of the Society. The diploma were largely [illegible] when the Society was first started, but [illegible] the Society [illegible] to have [illegible] the Society [illegible] the Worshipful Company of Spectacle Makers

CANCER RESEARCH.

SIR,—A paragraph in the BRITISH MEDICAL JOURNAL regarding the attitude taken by the authorities of the Cancer Research Fund in relation to quack remedies makes one think of what is the proper position to be taken by medical men who are experimenting with the hope of discovering a cure for cancer. My brother and myself, for example, have been experimenting for years before this Research Fund was even thought of, and it would never occur to us to take results anywhere but to the medical profession, but we would naturally test for ourselves before doing so. What is our position while experimenting? It is surely not reasonable to ask us to give details of an incomplete experiment, and if we do not do so, are we using a secret remedy? A very small number of the medical men we have spoken to on the subject ignore the incompleteness of the experiments and say publish, or at least tell us, what you are doing. By far the larger number of doctors, and, so far, every lay person, say that it would be more than foolish to publish prematurely. Lately an example of open-mindedness was given at several hospitals when the Schmidt treatment "an unknown serum" was given a fair but unsuccessful trial, and a similar experiment was tried some years ago with the Mattei treatment; yet we hear of medical men saying to patients, "Although I believe you to be beyond all hope, do not go to Dr. So-and-So, though you hear he is trying something new, because what he is using is a secret remedy." In effect the advice is, Better to die than try any experiment with something you do understand. I am, etc.,

London, W., May 10th. SKENE KEITH.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: REGINALD WALES HILL, Surgeon, to the *Wildfire*, May 3rd. CHARLES J. O'CONNELL, Surgeon, to the *Sutlej*, May 3rd. EDWARD A. G. WILKINSON, Surgeon, to the *Cressy*, May 3rd. ARTHUR F. FRASER, M.B., Surgeon, to the *Surprise*, April 23rd. ALFRED M. PAGE, Fleet Surgeon, to the *Sutlej*, on commissioning, May 31st. JONATHAN SHANE, Fleet Surgeon, to the *Glory*, additional, for West Hartlepool, May 7th. HENRY B. BEATTY, Fleet Surgeon, to the *Europa*, for the *Duncan*, May 7th. LANCELOT KILROY, M.B., Staff Surgeon, to Bermuda Hospital, May 6th; REGINALD H. ST. B. E. HUGHES, Surgeon, to the *Hecla*, May 6th, and to the *Sutlej*, May 31st. MONTAGUE H. KNAPP, Surgeon, to Plymouth Hospital, May 7th. NORMAN S. METAXA-JOHN, Surgeon, to the *Majestic*, May 7th. WARREN G. WESTCOTT, Surgeon, to the Dockyard, May 7th; GEORGE F. ALLERTON, Surgeon, to the *Victory*, May 7th. THOMAS D. LIDDLE, M.B., Surgeon, to the *Europa*, May 7th, and to the *Duncan*, May 31st. EDGAR F. MORTIMER, Staff Surgeon, to the *Pelorus*, May 11th. The appointment of JOHN A. KEOGH, B.A., M.B., Staff Surgeon, to the *Prometheus*, has been cancelled.

ROYAL NAVAL VOLUNTEER RESERVE.

PROFESSOR J. A. C. KNOCH, M.B., is appointed surgeon to the Clyde Division, May 3rd.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. W. KENNY, M.B., to be Colonel, on augmentation, April 1st. He was appointed Surgeon, August 4th, 1886; promoted to be Lieutenant-Colonel, August 4th, 1894, and made Brevet-Surgeon-Lieutenant-Colonel, August 24th, 1900. He was with the Ashanti Field Force, 1895-96, including the actions at Kokofu and Todzie, and the destruction of Toase (mentioned with two clasps, and received the Ashanti Star); and in the South African War in 1899-1900 (queen's medal with two clasps).

Lieutenant-Colonel W. L. LANE, M.B., retires on retired pay, May 11th. He entered the service as Surgeon, August 5th, 1881; became Surgeon-Major, August 5th, 1893, and Lieutenant-Colonel, August 5th, 1902. He is granted the honorary rank of Colonel in the Army.

Lieutenant M. F. HOUSTON is promoted to be Captain, from April 7th, his first commission dated April 7th, 1900. He was in the South African war in 1900-1902, and has the queen's medal with three clasps and the king's medal with two clasps.

Lieutenant T. E. CRAWFORD, M.B., is also promoted to be Captain, April 7th. He joined as Lieutenant, April 7th, 1900. He was in the South African war in 1900-1902, with the Imperial Yeomanry, and has the queen's medal with two clasps.

Lieutenant D. L. HARDING is likewise promoted to be Captain, April 7th, his first commission being dated April 7th, 1900. He served in Cape Colony, south of the Orange River, during the South African war in 1900, and has the queen's medal with three clasps.

Lieutenant-Colonel T. B. MOFFITT, who is serving in the Bengal Command, has been appointed to officiate as Principal Medical Officer, Allahabad and Nerbudda Districts.

Lieutenant-Colonel A. W. P. INMAN, M.B., also serving in Bengal, is appointed to officiate as Principal Medical Officer Oude and Rohilcund Districts.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN H. D. ERSKINE to be Surgeon-Major, April 23rd.

INDIAN MEDICAL SERVICE.

COLONEL D. WILKIE, M.B., Bengal Establishment, is confirmed as Principal Medical Officer, Assam District.

Lieutenant-Colonel R. D. MURRAY, M.B., Bengal Establishment, Professor of Surgery in the Medical College, Calcutta, and Surgeon to the College Hospital, is appointed to officiate as Inspector-General of Civil Hospitals, United Provinces, with the temporary rank of Colonel, from April 3rd.

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN R. WILLIAMS, Denbighshire Hussars, resigns his commission, May 7th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON LIEUTENANT P. J. S. BIRD, M.D., 1st West Riding (Yorkshire), to be Surgeon-Captain, May 7th.

VOLUNTEER RIFLES.

HON. LIEUTENANT IN THE ARMY M. J. MALONEY, M.B., late Captain, to be Surgeon-Lieutenant in the 7th Volunteer Battalion the King's (Liverpool Regiment), May 7th.

Surgeon Lieutenant G. F. WHYTE, M.B., 1st City of Dundee Volunteer Battalion the Black Watch (Royal Highlanders), to be Surgeon-Captain, May 7th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

WILLIAM M. YOUNG, M.A., to be Lieutenant in the Leeds Company, May 7th.

Captain J. B. MANN, the Manchester Companies, to be Major, May 7th.

BEARER COMPANY ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).—MR. JAMES A. ROOTH to be Lieutenant in the Sussex and Kent Company, May 7th.

CIVIL SURGEONS AND GRATUITIES.

A CIVIL SURGEON complains that on severing his connexion with the R.A.M.C. on March 31st last after having been attached to it for three years, he applied for but was refused the gratuity mentioned in Article 1241, Pay Warrant, on the ground that his contract being at the rate of £300 per annum "inclusive," he was ineligible for the grant. He considers he has been hardly treated.

*** We fear that on the technical ground mentioned our correspondent is precluded from the gratuity. At the same time, in view of similar services being probably required in the future, we think it would have been wiser policy to have exercised more liberality in the matter of such gratuities.*

THE STATION HOSPITAL SYSTEM IN INDIA.

DOCTOR SAHIB writes: So far as I have been able to find out from actual inquiry among other I.M.S. men, it is only a certain number of senior men who are in favour of the introduction of the station hospital system. The average man continues to hold what we have always hitherto held—that the existence of the regimental system has been our one great boon, the one thing that has made our social life a happy one and our professional life one worth living. We occupy a definite and comfortable position in military society. As independent units we should be no man's children, and our position as honorary members of the mess could never be the well-assured one it is now; we should always feel we were outsiders. It would be the breaking of a tie between ourselves and the staff corps, to give them their old name, such as binds together the two other branches of His Majesty's service.

As an ideal, the station hospital system, with its seniors ready to instruct and encourage the juniors, is splendid, as the real, with its military discipline always standing in the way of professional feeling and its seniors, whose position over the latter is independent in no way on their greater knowledge, the station hospital system is a blight on professional keenness. In this connexion the evidence of others who, like myself, have had a month or two's station hospital work before joining the native army, should be valuable. I joined a regiment on the first time my patients were brought to me I felt quite sure that I might do this or that, and I shall never forget the stimulus to professional keenness my new sense of responsibility gave me. Military discipline exerted in medical professional matters has a deadening effect on professional keenness, and the happy feature of the regimental system is that the only discipline exerted over the doctor is in purely military matters. His professional self-respect is left undisturbed and active. Conversely the best feature of the station hospital system is the introduction of that medico-military discipline for his freedom from which the I.M.S. man daily thanks heaven.

I suppose I ought to apologize for the fact that those who write these articles are the poorly-served men. The senior men have had more time and less trouble to decide for the service rather than against it; but the rest of us, but of the existence of which I suppose the Editor of the BRITISH MEDICAL JOURNAL is fairly well aware.

I do not deny we suffer from drawbacks and discomforts. I have been long enough in the service to be aware of them. But some of them are inherent in the position of a military medical officer with native troops, and especially a senior one. It is easy to fall into the fallacy of imagining that the abolition of a particular system would necessarily be the panacea for vaguely-felt discomforts.

If the station hospital system is ever introduced, then shall the sigh of the Indian Medical Service be heard in the land. Let the long-suffering Editor of the JOURNAL "Oh, for the good old days of the regimental system, when the doctor was master of himself in the mess and not the outsider he is now, when he was in touch with the sepoys and knew their wives, and when the regiment was proud of him." He was the "Doctor sahib then. And who is he now?

MEDICO-LEGAL AND MEDICO-ETHICAL.

BETTER CASE OF SCARLET FEVER.

ON April 25th and 26th an action by the guardians against the Metropolitan Asylums Board was heard before Mr. Justice Kekewich and a special jury in the King's Bench Division, of which the following is a condensed report.

The plaintiffs' case was that his son Arthur, who was removed to the Western Hospital, Fulham, on March 24th, suffering from a slight attack of scarlet fever, had been out of quarantine only three days under six weeks from the date of his removal. That he had a relapse, characterised by desquamating skin, on April 12th, that, as an analogous consequence of its return to infection, his mother sickened with scarlet fever on May 16th, and was removed to the Western Hospital, Fulham, two days later, that on May 19th another son, also sickened and was sent to the same hospital, and that the nasal discharge from which the original patient suffered lasted after about the end of June and that on the 7th of that month two other children, Edward Gus and Beatrice, were removed to hospital. That after the commencement of the actions the plaintiff and the patient were medically examined by a medical gentleman on behalf of the defendants, that no relapse had been shown to have occurred, and that any discharge could be fairly attributed to the negligence of the defendants. The alleged damage was that the plaintiff had been unable to work for a considerable time, and had incurred expenses through the illness of his children. The defendants denied negligence, and pleaded that the boy Arthur was suffering from a relapse of scarlet fever, and was therefore properly detained in hospital. They also pleaded that the plaintiff's wife had been suffering from scarlet fever when she left the hospital, and that the boy Arthur was suffering from the disease when he left the hospital. The defendants further pleaded that the plaintiff's wife had been suffering from scarlet fever when she left the hospital, and that the boy Arthur was suffering from the disease when he left the hospital. The defendants further pleaded that the plaintiff's wife had been suffering from scarlet fever when she left the hospital, and that the boy Arthur was suffering from the disease when he left the hospital.

Dr. Medical Officer of Health for the Borough of Wandsworth gave evidence as to the steps he had taken. He considered it quite possible that the patient Arthur infected the other persons. Slight desquamation was to evidence that the boy was infectious. It might go on for weeks. The doctor attending the patient in hospital was the only person who could say when he might be discharged.

Upon the conclusion of the evidence, the defendants' counsel said that in order facts were proved by the evidence given for the plaintiff from any medical difficulty in the case. The medical witnesses agreed that the child was cured. It was quite proper to let the boy go out of hospital. From that and it was clear that the boy was examined on March 24th and that all these dates in these cases, and that at the parents were examined. The boy himself admitted that his nose was not running the day he left the hospital, and the counsel submitted that in the case there could be an action on a day when an east wind was blowing nothing was more likely than that he should catch a cold and so on. The case had been carefully prepared into the matter, and having heard the statement had been made to the jury, the subject matter of the defence. It was quite clear, however, that when the patient left the hospital he had no nasal discharge.

Dr. [illegible] Superintendent, gave evidence in support of the defendants' case. He said that he stopped the case. The boy [illegible] and that in case [illegible] made out. Several witnesses were then called for the defendants.

RHEUMATISM CURE.

In the County Court on May 1st, the Health Cleansing Company, according to the Westminster Gazette, defended an action brought by [illegible] patients. It was stated in evidence that the [illegible] paid three guineas a pair of "Foot Battery" [illegible] Alfred [illegible] applied to his leg [illegible] and to the [illegible] Medical evidence was given that the [illegible] was worthless. The jury found for the defendant. His Honour [illegible] for the defendant. His Honour [illegible] Two medical witnesses [illegible] Judge [illegible] Appeal [illegible] being made to Scotland [illegible] and [illegible] to the [illegible] post [illegible] My first [illegible] such thing was a [illegible] in the local newspaper stating that Dr. [illegible] had been appointed by the Government to attend the Mira, for there were certain disease. It so happens that I live in a district with a good new name, post offices and other matters, who are at present dependent, and who are anxious to see there [illegible] get the appointment. We believe these appointments have been made [illegible] to be brought to bear on the Government, and I for one should like to see why any doctor should wish for such an appointment as [illegible] that many attendance [illegible] to a new district, to his [illegible] practice and patients. The payment is miserable, and will not reward a doctor for one visit and [illegible] for a year in some out of the way districts. On that account I am appointed has been refused by every medical man I think it would be [illegible] to be tempted by such a bribe. It reminds one of the hard battles which some of our forefathers who believe in the levelling up process try to make [illegible] the [illegible] members of the profession. The Government possibly want to have a list of information for nothing and if the profession, this little sop being thought sufficient for a great deal of red-tape work. What good is there in such appointments? None, at any rate to many of the men, many already [illegible] in societies, and very few will send for a stranger when they can get their own doctor passing every day. Is this sort [illegible] thing happening in many districts, and if so should we the [illegible] ones, as never yet, vote "again the Government" I have not made up my mind to do so.

MEDICAL FEES AT INQUESTS.

Mr. [illegible] The fee for attendance is 1 guinea for attendance with [illegible] examination [illegible] guineas. However many attendances may be required at adjournments there is no extra fee. A Bill has been prepared by the British Medical Association, which was printed in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for February 6th, 1904, p. 5. Should it become law, it will provide for the payment of 1 guinea for each attendance. The medical witnesses' fees are now regulated by statute law (see Coroners Act, 1887, Sec. XXII).

LEGAL CORONER'S DECISION.

A MEDICAL (Ireland) forwards us a copy of the *Dublin Evening Mail* from which it appears that at a recent inquest the coroner censured the medical witness because he would not state positively the cause of death of a person dead when he was called to see him. The report states that the coroner observed that if the doctor was not able to give an opinion he would do so himself, and that was that the deceased had died from heart disease. The deceased it appears was 55 years of age, a clerk, and died suddenly and unexpectedly at his office, and, as there was no evidence of foul play, the death must, in the coroner's opinion, be from heart disease, and he pressed the medical man to give it as opinion. The doctor very properly declined to say so without making a post-mortem examination. The coroner then observed that it was a monstrous thing that a post-mortem examination should be made, and that he was determined to put an end to such practice in his district.

We need hardly say that the coroner was a solicitor, and that if he continues in the course that he threatens to pursue a miscarriage of justice is likely to follow, and, possibly, an exhumation of the body. It is the duty of the coroner and any to establish by clear and undoubted evidence the true cause of death, and not to guess at it.

A FRIENDLY SOCIETY AND ITS MEDICAL OFFICER.

A CORRESPONDENT writes that he has been medical officer to a Friendly Society for twenty-four years, and that when elected he had a verbal agreement with the committee that, in event of relations between them being terminated, a three months' notice should be given on either side. He has lately been dismissed without receiving this notice, and is informed that the rules of the society state that the medical officer may be dismissed "at the pleasure of that body." He intends to consult a solicitor with the object of taking action at the county court, but he would be glad to be advised as to his position.

*** It is to be feared that our correspondent will gain nothing by taking the action he proposes. If the rule be as stated and was so at the time he was elected, it will be held binding, and the fact that he was unaware of its existence will not help him. The rule too, would outweigh the verbal agreement.

DOORPLATES ON DOCTORS' HOUSES OF CALL.

A. G. W.—We have [illegible] several previous occasions pointed out that in [illegible] places [illegible] the custom for [illegible] doctors to allow the putting up of a doorplate upon a house of call although [illegible] to medical attendance.

MEDICAL ETIQUETTE.

DR. FRANCIS H. STEARNS writes to us from New York in reference to a letter under this heading in the BRITISH MEDICAL JOURNAL for April [illegible] page [illegible]. The announcement of the specialty upon the door plate is not practised in [illegible] country, although common in Germany and America. I write to correct the statement as regards America. I have never seen such a door plate in this country, belonging to any member of the profession who was not a quack. We, as you know, applies only to [illegible] who, though [illegible] holding a degree [illegible] by [illegible] are not recognised by the leading [illegible] societies as [illegible] standing. Many [illegible] by the [illegible] as specialists in any branch of medicine [illegible] practice. For a physician to have such a door plate would stamp him [illegible] as an irregular.

PAYMENT OF DEBTS.

A CORRESPONDENT writes that [illegible] to be elected [illegible] to a [illegible] of a large railway company on the condition that he makes [illegible] by private practice in a certain district. [illegible] [illegible] [illegible]

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD

At a Congregation held on Thursday, April 28th, the following degrees were conferred:

[illegible] Thomas Edwyn Cecil Cole, Christ Church. Dr. Cole's dissertation was a written work upon "The Clinical Aspects of Syphilitic Affections of the Nervous System."

[illegible] William Edward Blackall, non-collegiate.

UNIVERSITY OF CAMBRIDGE

Third [illegible] The following have now satisfied the Examiners in all three sections:

A. E. Barclay, M.A., Christ's; H. J. D. Birkett, B.A., Trin.; E. M. Brown, B.A., Pemb.; S. Child, B.A., Pemb.; R. A. Clapham, B.A., Emm.; G. H. Colt, B.A., Sid. Suss.; A. W. D. Coventon, B.A., Trin.; W. L. Cripps, B.A., Trin.; H. M. Davies, B.A., Trin.; R. G. Elwell, B.A., Trin.; H. Falk, B.A., King's; R. R. Footner, B.A., Pemb.; **D. H. Fraser, B.A., Cai.; J. Goss, B.A., Jes.; C. F. Hadfield, M.A.,** Trin.; E. Harrison, B.A., Trin.; W. Hassall, B.A., Christ's; T. G. M. Hine, M.A., King's; H. F. Horne, B.A., King's; W. E. Hume, B.A., Pemb.; K. H. A. Kelke, B.A., Cai.; J. Lambert, B.A., Dean; R. O. Lee, B.A., Emm.; T. C. Lucas, B.A., Cla.; S. M. Mackenzie, B.A., Trin.; C. W. P. Mackie, B.A., Cla.; W. M. Mollison, B.A., King's; A. R. Moore, B.A., Cai.; R. F. Moore, B.A., **Christ's; W. V. Naish, M.A., Emm.; R. G. Northwanger, M.A., Joh.;** C. T. MacL. Plowright, B.A., Joh.; C. A. W. Pugh, B.A., Trin.; H. **Rischbeith, M.A., Trin.; R. H. Robbins, B.A., Trin.; B. H. Stewart,** B.A., Jes.; **C. Stiebel, B.A., Trin. H.; G. A. Ticehurst, B.A., Joh.;** R. E. Whitting, B.A., King's; R. A. Worthington, B.A., Cla.

Appointments.—Sir Michael Foster, K.C.B., has been appointed a Manager of the Balfour Fund for the Encouragement of research in Zoology. Mr. C. Parsons has been appointed an Examiner in Anatomy. Mr. T. C. Fitzpatrick, an Examiner in Physics for medical degrees. Mr. A. B. Hardy and Mr. F. G. Hopkins have been appointed Examiners for the Adeane Prize in Physiology.

Botany.—Mr. F. G. Smart, M.B., has offered to found in the University a Studentship of £100 a year for research in Botany. The offer has been gratefully accepted, and the first election will be made in July. The Studentship is ordinarily tenable for two years.

EDINBURGH UNIVERSITY GENERAL COUNCIL.

The statutory half-yearly meeting of the General Council of the University of Edinburgh was held in the Examination Hall on Wednesday, May 11th, the Rev. Professor Patrick in the chair. The minutes of meeting of October 28th last were read and approved. The report of the Business Committee was submitted, as was the report of the Subcommittee of Modern Languages and the report of the Finance Committee. It was reported that the total number of matriculated students in Science and Medicine was

	1898-99	1899-1900	1900-1	1901-2	1902-3	1903-4
Science	—	171	147	147	143	170
Medicine	1,663	1,852	1,878	1,855	1,868	1,854

UNIVERSITY OF LONDON.

CONVOCATION

A GENERAL meeting was held on Tuesday, May 10th.

Election of Officers.

Sir Philip Magnus, Deputy Chairman, at first occupied the chair, and stated that the only graduate nominated for the appointment of Chairman was Sir E. H. Busk, M.A., LL.B., who had filled the position for twelve years, and was now re-elected for another term of three years. Sir E. H. Busk, on taking the chair, said that the amount of work accomplished by the Senate of which he was officially a member had been particularly onerous since his election three years ago, and that the regulations were now settled for all the degrees except those of Law, which were nearly completed. Mr. T. L. Mears was elected Deputy-Chairman, and a vote of thanks passed to the retiring Deputy Chairman, Sir P. Magnus, for his services. In returning thanks, Sir P. Magnus spoke of the gifts to the University, and wished that some wealthy philanthropist would make a gift without conditions, as the fulfilment of the conditions often gave much extra trouble to the Senate. He referred to the generous gift by the Drapers' Company, the munificent benefaction of Sir Donald Currie, and the action of the Goldsmiths' Company in relation to the library, and said that the latter company had most generously placed at the disposal of the University their institution at New Cross, together with all buildings and freehold land and a conditional offer of £5000 a year for five years for its maintenance. Mr. H. E. Allen, LL.B., B.A., was reappointed Clerk of Convocation.

Standing Committee.

The election of members was declared; those nominated for all the vacancies were duly elected.

The report of the Standing Committee was on the motion of Mr. W. Blake Odgers, K.C., presented and received.

The Library.

The rules for the use of the library and reading room were considered section by section, and discussed at length, and on the proposal of Mr. Odgers, K.C., and Dr. R. M. Walmsley, they were approved as amended, and forwarded to the Senate with the request that they may be adopted for future use. Under these suggested regulations the library is to be open daily until 8 p.m., and on two evenings a week from 7 to 9. All graduates and Members of the University who have passed the examination in any Faculty next following the Matriculation Examination, and the recognized teachers and officers of the University, will be able to use the library, whilst members of the Senate and of Convocation and some other persons will have the additional privilege of borrowing as many as six volumes at a time from the library.

After the adoption of a resolution suggesting to the Senate the advisability of altering the date for the I.L.D. Examination to the third Monday in October had been unanimously passed, the house adjourned.

THE VICTORIA UNIVERSITY OF MANCHESTER.

At a meeting of the Court held on May 3rd a [illegible] of importance ordinances received the approval of the Council [illegible] with Veterinary State Medicine, Public Health, and Pharmacy. The University of Manchester will now grant a Diploma in State Medicine to duly qualified members of the Royal College of Veterinary Surgeons [illegible] to compete, into competition with any of the ex[illegible] Colleges who [illegible] gentlemen for the Membership of the College. [illegible] to take this diploma will be trained to deal with the preve[illegible] of [illegible] cases occurring in the lower animals and which are [illegible] to man, and also with the prevention and control of diseases [illegible] of domesticated animals with a view to diminish the losses caused [illegible] the agriculturalist by the prevalence of these diseases. In fact [illegible] is doing for veterinary medicine what it has already done for ordinary medicine when it instituted the D.P.H. It was stated that the scheme had the cordial support of the Lancashire Association of Veterinary Surgeons. Regulations will be framed to carry out the enactments of the Ordinances.

Ordinances for Diploma in Veterinary State Medicine:

1. The University shall grant a Diploma in Veterinary State Medicine (D.V.S.M.), which shall be awarded by the Senate.

2. The examination shall be in two parts, and shall be written, oral, and practical.

3. Candidates, before entering for the first part of the examination, must have held for not less than twelve months the Membership of the Royal College of Veterinary Surgeons, and must present satisfactory certificates:

(1) That, after obtaining the Membership of the Royal College of Veterinary Surgeons, they have attended an approved course of instruction in veterinary hygiene in the University, or in a college recognized for this purpose by the University.

(2) That, after obtaining the Membership of the Royal College of Veterinary Surgeons, they have during at least six months received practical instruction in laboratories recognized by the University in Chemistry, Bacteriology, and Pathology, as applied to Veterinary Hygiene.

4. Candidates, before entering the second part of the examination, must present certificates:

That, after obtaining the Membership of the R.C.V.S., they have during six months, of which at least three months shall be distinct and separate from the period of laboratory instruction required under 3 (2), been duly engaged in acquiring a knowledge of the duties of veterinary inspectors, under a veterinary surgeon holding a public appointment, to be approved of for that purpose by the University. This requirement may be dispensed with by the Senate in the case of Veterinary Inspectors who have held an appointment recognized by the University for not less than one year.

5. Candidates may present themselves for Parts I. and II. separately, or at the same time, provided that no candidate be admitted to Part II. unless he has already passed in Part I. No candidate's name will be published until he has satisfied the Examiners in both parts of the examination.

6. Candidates must satisfy the Examiners in the following subjects:

Part I.

(a) Practical Chemistry;
(b) Practical Pathology, Parasitology, and Microscopy; } With special reference to Veterinary Hygiene.

Part II.

(a) Comparative Pathology
(b) Hygiene, Sanitary Law, and Administration; } With special reference to Veterinary Hygiene.
(c) Sanitary Reporting;

Ordinances for degree of B.Sc. in Public Health:

1. Candidates must be graduates in Medicine of this University or of some other university recognized for the purpose.

2. Candidates must produce certificates of attendance at courses of study in the University extending over not less than two years subsequent to their graduation in medicine, and must have passed an Examination in the subjects prescribed by the Regulations.

Ordinances for ordinary degree of B.Sc. in Pharmaceutics:

The degree of Bachelor of Science is granted under the following conditions, after a course of study and examination suitable for Pharmaceutical students:

(1) Candidates must present themselves for the Intermediate Examination at the end of their first year of study after passing the Matriculation Examination.

The subjects of the Intermediate Examination are

(a) Physics with Practical Work.
(b) Chemistry with Practical work.
(c) Botany with Practical work.
(d) A Practical Examination in the Pharmaceutical Laboratory.

The subjects of the Final Examination are:

(a) Chemistry.
(b) Two of the following:
Materia Medica.
Botany.
Physics.
History of Chemistry.
Electro Chemistry.
Pharmacology.
Bacteriology.
Toxicology.
Analysis of Food and Drugs.

It was resolved to confer the honorary degree of D.Sc. on W. H. Perkin, Sen., F.R.S., the distinguished chemist, whose name is so well known in connexion with his researches in the Aniline Dyes. Mr. Perkin will open the Schuster Laboratory.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS

HEALTH OF IRISH TOWNS

HOURS OF RELIEVING OFFICERS IN EXCELLENCE TO THE CLEANLINESS OF ORDERS FOR MEDICAL AID

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

APPOINTMENTS.

[illegible] Medical Officer of the Royal Infirmary.

[illegible] M.B. Edin., C.P.H., Medical Officer of Health to the Hornsey Urban District Council.

[illegible] M.R.C.S., L.R.C.P. Lond., L.S.A. Lond., Certifying Factory Surgeon for the Bromley District of the Kent County Council, and Assistant Certifying Surgeon for the Orpington District of the Kent County Council.

[illegible] M.D., C.M., F.R.C.P.I. and Assistant Physician to the Belfast Hospital for Sick Children.

HUNTER [illegible], M.B., C.B.A.Berd., House-Surgeon to the Royal Infirmary.

[illegible] M.A., M.B., C.B.A.Aberd., Assistant Medical Officer, Kossuth Street Asylum, Budapest.

[illegible] W. Bruce Mackie, L.R.C.P., Medical Attendant, Murray's Royal Hospital, Perth, in succession to the late Dr. Hughes.

MACNAB, James, M.B., C.M.Aberd., House-Surgeon to the Royal Eye Hospital, Southampton.

MARSHALL, C. [illegible], M.R.C.S., L.R.C.P., late Medical Officer of the Tarporley Union, has been appointed Medical Officer of the Tarporley Union.

[illegible] JOHNSTON, James, M.B., C.M.Aberd., House-Physician to the Aberdeen Royal Infirmary.

[illegible] G. R., M.B., C.B.Aberd., Resident Medical Officer to the Royal Aberdeen Hospital for Sick Children.

[illegible] Edward M., M.B., B.S.Lond., Senior Resident Surgeon to the Victoria Hospital, Hull.

[illegible] C., B.A., M.B., B.C., M.A.O.R.U.I., Assistant House-Surgeon to the Staff to succeed Dr. [illegible], Stafford.

WARD, A. Hamilton, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lond., Honorary Surgeon to the North Orkney and Shetland Mariners' Society.

WILLIAMS, R. M., M.B., C.M.Edin., Certifying Factory Surgeon for the Melton Bridge District of the County of Leicester.

[illegible] E. P., L.R.C.P. Edin., L.F.P.S.Glasg., District Medical Officer of the Bridgwater Union.

[illegible] Dr. J. W. S. [illegible] has been appointed Medical Officer of Health and Public Analyst, and Dr. A. [illegible] M.C. [illegible] Lytes, and Dr. [illegible] M.O.H. and District Medical Officer.

DIARY FOR NEXT WEEK.

TUESDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W. At 8.30 p.m. Communications to be made. Report of the Council. Presentation of the Portrait of the President. Oration by Sir James Crichton-Browne, M.D., on the Evolution of Insanity.

Pathological Society of London, 20, Hanover Square, W., 8 p.m.—Dr. W. P. Dear to read a paper entitled Dr. J. H. Targett and Dr. G. Turner's Lectures on Disease Prepared for the Royal College of Physicians. Dr. Isidor Harper, Mr. Morgan and Mr. C. E. Wheeler, Mr. Mayo and Mr. [illegible], Mr. F. M. Corner, Sarcoma of the Ovary. Dr. E. L. Shattock, Sarcoma of the Stomach. Dr. E. P. Ramsbotham and Dr. J. G. Forbes, Primary Sarcoma of the Lung in a Male Infant. Dr. Dan's Weber, Leukæmia. Dr. C. E. Ransom, Cystic Disease of Liver and Kidney. Card specimens will be shown by Dr. J. Fawcett and Dr. E. P. Baumann.

WEDNESDAY.

Medico-Psychological Association of Great Britain and Ireland, 11, Chandos Street, Cavendish Square, W., 11 a.m.—Dr. [illegible] Hayes, Dr. [illegible] Pace, W. [illegible] Dr. [illegible] Christie and Dr. [illegible] M. [illegible] to read papers entitled Lessons to be Learnt from Various Forms of Insanity. Dr. [illegible] Smith, Dr. [illegible] Rogers, Dr. [illegible] Queen, Dr. [illegible] Dr. W. H. B. Stoddart, The Psychology of Hallucinations. Dr. [illegible] Lazarus-Barlow, Dr. [illegible] Kennedy, Mr. [illegible] Nesbitt, Dr. [illegible] Case of Chronic Mania. Dr. [illegible] Lewis, Dr. [illegible] Mental Symptoms, with Special Reference to Sections of the Brain.

British Balneological and Climatological Society, 20, Hanover Square, W., 8 p.m.—Sir Lyon Playfair, Some Observations on British Winter Resorts.

SATURDAY.

Otological Society of the United Kingdom, [illegible] Universities, [illegible] and Professors [illegible] Stoddart, Chevalier and others are promised to take an active part in the discussion.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Tuesday, 4 p.m.—Demonstrations of Medical Cases.

[illegible] Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Clinical Lecture.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstrations in Medicine and Clinical Lecture.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations and Lectures as follows: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 8.15 p.m. as follows: Monday, Diseases of the Lymphatic System; Tuesday, Scientific Basis of Clinical Medicine; Thursday, Anæmia; Friday, Sepsis, its Pathology and Treatment. To-day (Tuesday) the Practice of Medicine, Diagnosis.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 4 p.m.—Clinical Lecture on Pulmonary Lesions.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 5 p.m. as follows: Tuesday, Cerebral Abscess; Friday, Migraine.

North-East London Post-graduate College, Tottenham Hospital, N., Thursday, 4 p.m.—Lecture on Spinal Paralysis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 4 p.m. as follows: Monday, Affections of the Solitary and Bronchial Lymph Glands and their Treatment; Wednesday, the Pulses of Malnutrition. Thursday, Hæmoptysis. Operation Friday, Hæmoptysis and its Treatment.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

[illegible] on the 7th May, at [illegible] Paris Road, Forest Hill, S.E., the wife of Edgar [illegible], M.B., of a daughter.

[illegible] on May 3rd, at Nightingale Place, Woolwich, S.E., the wife of Major R. [illegible], R.A.M.C., of a daughter.

[illegible] Gray—On May 7th, at [illegible] Terrace, Jersey, the wife of Edward Le Gear, M.R.C.S. Eng., L.R.C.P. Lond.—a son.

[illegible]—On May 7th, at Arden House, Henley-in-Arden, the wife of W. Forest Nelson, M.A., M.R.C.S., L.R.C.P., of a son.

[illegible]—On the 8th May, at Friar Cottage, Manchester, the wife of Ernest S. Reynolds, M.D. Lond., F.R.C.P., of a daughter.

MARRIAGE.

SMITH—ROSS—On April 26th, at Hope Villa, Ipswich, by the Rev. R. S. Macgregor, M.A., assisted by J. W. Graves, William Smith, M.B. Lond., of Bury St. Edmunds, Kent, to Mary Jane, youngest daughter of J. C. Ross, Esq., of 4, Arlington Square, Greenwich.

DEATHS.

EAGAR—On the 21st of April at Lenny, Robert Taylor Sumner Eagar, M.D. son of the late R. [illegible] Eagar, Resident Magistrate, Ashanti, aged 41 years.

HILL—On May 9th, at 26, Clarence Road, Bristol, Thomas Hill, M.D.

WADE—On May 8th, at Dorchester, Walter Wentworth, younger son of Major and Mrs. G. A. Wade, R.A.M.C., aged 12 years.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS [illegible] to the Editor, 2, Agar Street, Strand, W.C., [illegible] to Dr. [illegible] at the Office, 429, Strand, W.C. [illegible].

ORIGINAL ARTICLES and LETTERS [illegible] intended to be [illegible] in the BRITISH MEDICAL JOURNAL [illegible] JOURNAL [illegible].

[illegible] should be addressed to the Manager [illegible].

CORRESPONDENTS [illegible] unauthenticated communications cannot be [illegible].

CORRESPONDENTS [illegible] ENCLOSED TO THE OFFICE OF THE JOURNAL [illegible] ANY CIRCUMSTANCES [illegible].

IN order [illegible] ALL [illegible] BUSINESS [illegible] BRITISH MEDICAL ASSOCIATION [illegible] MANAGER.

TELEGRAPHIC ADDRESS [illegible] Editor of the BRITISH MEDICAL [illegible] MANAGER of the BRITISH MEDICAL JOURNAL [illegible].

TELEPHONE NOS. [illegible] GENERAL SECRETARY AND MANAGER, 2684 Gerrard. EDITOR, 2654 Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

M. C. C. would like to hear of an institution where a [illegible] lady, aged 40, could be received to undergo Weir-Mitchell treatment. She suffers from no organic disease, but is very [illegible] and could only afford to pay the expenses of removal there.

DR. CHAS. A. DANIEL, Ramsey, Isle of Man, would be [illegible] readers would kindly give him their experience of the following proprietaries: "Ideal, made at Leeds;" "Humberette," "Thor," "Jackson," "Speed well," and which they would advise to get, and with the cost of upkeep.

"PANDEIA" would be glad to hear from any one who has tried the [illegible] drug "veronal." BRITISH MEDICAL JOURNAL of March 26th, p. [illegible] the prolonged use of "veronal" is [illegible] of any kind. A patient who has long suffered from insomnia, but [illegible] to take a dose, finds that [illegible] before bed time exert a most excellent [illegible] such as [illegible] with [illegible] sedatives and hypnotics, such as [illegible] potassium bromide [illegible] with good effect [illegible] lower. He agrees [illegible] evident will be [illegible] the treatment of the case.

REMEMBRANCE asks the name [illegible] publishers, and price of the [illegible] books on [illegible] referred to in the article on Hygiene and Temperance [illegible] in the BRITISH MEDICAL JOURNAL, April 9th, p. [illegible].

* *Physiology and Hygiene.* In three volumes. Edited by J. H. Butler and C. [illegible], and [illegible]. *The Temperance Text Book.* London: Church of England Temperance Society [illegible].

NEURITIS [illegible] whether the [illegible] used in any of the London hospitals, and whether it would be likely to relieve pains of neuritis.

* We believe that the [illegible] made from the system of the late Mr. Tallerman and supplied by him [illegible] at St. Bartholomew's and some other hospitals and it is [illegible] that they might do good in cases of peripheral neuritis.

ANSWERS.

RENAL CASE.—The [illegible] referred will be found in Dr. Denon Mallet's [illegible] Practice.

R. S. D.—Nothing is known [illegible] expert apply to the breasts. The only treatment [illegible] the early, either by [illegible] or, especially consult [illegible].

SENEX (Gaddis's [illegible] Practice [illegible] 4th edition (London: Baillière, Tindall, and Cox, 1900, 18s.), a review of which appeared in the BRITISH MEDICAL JOURNAL of February 26th, 1901, p. [illegible], will give the information required.

DR. G. A. FINLAYSON.—Signatures [illegible] Professor Mott's letters will not be published [illegible] any note or [illegible] present [illegible] letters [illegible] Mott's [illegible] Mental Physiology and Pathology, Part I. [illegible] Zurich, edited by Professor Lucke, [illegible] last year. Our correspondent will find in it all [illegible] the letters as given in the BRITISH MEDICAL JOURNAL, all the facts up to date.

FLY.—The only book specially devoted to [illegible] Hygiene is *Flies and their Relation to Disease*, by C. Hertzell Fitch and J. B. Bellinger Fish [illegible] Fly Week. We would refer [illegible] correspondent to obtain Mr. Sell's *Manual of Medical Jurisprudence* (London: Cassell and Co.) [illegible] 6s. 6d. On general public health subjects our correspondent might consult Parkes and Kenwood's *Hygiene and Public Health*, Second edition (London: H. K. Lewis, 1901, 12s.).

THE PICRIC ACID TEST.

F. W. A. E.—Picric acid is useful as a negative test for albumen in urine, but not as a positive test, since in addition to albumen it precipitates globulin, albumoses, compound proteids, alkaloids, and resins.

QUALIFICATIONS FOR PUBLIC ANALYST.

D.P.H.—The necessary qualifications for a public analyst are Associateship [illegible] Fellowship of the Institute of Chemistry and a certificate of pharmacology and microscopy from the Institute. Full [illegible] may be obtained from Mr. R. B. Pilcher, Secretary, Institute of Chemistry, 30, Bloomsbury Square, W.C.

LETTERS, NOTES, Etc.

VACATION COURSES IN BERLIN

THE [illegible] of vacation [illegible] to be given under the auspices of the Berlin Association. Private doctors will begin on [illegible] and end on [illegible]. A list of the courses will be sent [illegible] on application to Herr Meyer, Langenbeck Haus, 10, 11, [illegible] trasse, Berlin, from whom all information may be obtained.

THE JESSA FRAZER ARRAIS.

DR. PAUL C. FRANKE, Bad Nauheim, writes: I have read the excellent [illegible] of Dr. Macintyre in the BRITISH MEDICAL JOURNAL of April 23rd, [illegible] in the meantime happens to be the case of Jessa Frazer. In the [illegible] Association, Ltd., we owe many of the greatest improvements in *x*-ray application, namely, the Dessauer [illegible] are [illegible] considerations [illegible] the [illegible] of tubes and [illegible] [illegible] the Dessauer [illegible] be [illegible] [illegible] [illegible] the regulator [illegible] [illegible] [illegible]

Annual Oration
ON
THE FUTURE OF LONDON MEDICAL EDUCATION.

Delivered to the Medical Society of London.

BY SIR ISAMBARD OWEN, M.D., F.R.C.P.,
Vice-Dean of the Faculty of Medicine of the University of London.

SOME years ago I met a distinguished foreigner on his first visit to London. He said: "What a strange people you are in England! Your country has given birth to some of the greatest leaders of modern thought. Had we been fortunate enough to call them compatriots, their monuments would have been conspicuous in our towns, the public places of our capital would have borne their honoured names. I have traversed London," he pursued, "without once being reminded that I was in the country of Darwin and of Spencer; the name even of Newton met my eye only at the corner of a back street off Holborn."

I did my best to explain the apparent paradox. I traced in detail the principles of English street nomenclature; I urged the probability that the Newton of High Holborn was not the author of the *Principia*, but a local builder; I pointed out that a London statue was the very last form of memorial a philosopher would wish for; but my companion went away only half satisfied, and left me, to speak frankly, as unconvinced as himself.

One cannot in candour deny that the contrast is somewhat odd between the commanding position in the history of science which England owes to the labours of a few of her gifted sons and the attitude of comparative indifference which the mass of contemporary Englishmen display, I will not say merely to the personal fame of their illustrious pioneers, but in general to the entire question of the advance of scientific knowledge within their bounds, and to the development of the means of national education which that advance demands.

Elsewhere in civilized Europe we are made conscious of a franker public recognition of the change that the last century made in the conditions of the modern world; of the extent to which the cultivation of exact knowledge has revolutionized the requirements of public and private business; and of the obligations and necessities which the new order of things has imposed on the community. Elsewhere than among ourselves it is not thought a strange thing that the resources of a State should be employed to extend the bounds of abstract knowledge; elsewhere we see the organization of education no less an object of government than the ordering of the police or the control of the highway. Even in comparatively poor countries we find scientific knowledge and trained intellects regarded as sound public investments, and the popular voice applauding a liberal application of public money to secure them.

May we not say that the time has come when England should make up its mind whether the Continental view of the requirements of the age is right or wrong? If it be right, one cannot without concern view the extent to which this country has lagged behind. At present England speaks with uncertain voice and mind. She evinces no real conviction of the practical value of scientific knowledge or scientific training. Science is lauded to the skies in words and left to starve in fact. Research is commonly treated as though it were a matter of merely private ambition or concern. Commerce and industry are still in doubt whether any more scientific training is necessary for their employés than sufficed a century ago. In questions of public education, except as far as they may concern a point of religion, the generality of Englishmen hardly affect an interest.

The prevailing note of indifference belongs to no particular class or section. The country squire who regards schools as an insidious means of undermining agriculture may be matched by the industrial magnate who frankly despises all technical knowledge gained outside the workshop. The Minister who with difficulty consents to make a public grant for research has himself to wrap its object in some specious guise of "utility," lest the popular voice should condemn it as a dole to a privileged class.

In the matter of public education, half heartedness has led us into a course as wasteful as it is illogical. For thirty years past, at a vast expenditure, we have been educating the entire population up to a preliminary stage, and providing no means for those who show themselves capable of it to proceed further. If a national system of education is to produce a national advantage worth the money it costs, its aim must surely be largely a selective one. The ultimate object, from a statesman's point of view, of national education is to bring the best brains of the country, or, to speak more precisely, the best combinations of brains and energy, to the front; to bring them into the positions in which they can be turned to the best account in the national struggle for supremacy. In England we have stopped at the first stage, the most costly and least remunerative. We have produced year by year a mass of educable material and made nothing further out of it. Whatever individual talent the elementary school may have revealed, we have taken no care to ensure its after-development. We have laid a costly foundation and built nothing upon it. Can we wonder that so many Englishmen regard national education as a failure, and speak of it as a device to convert useful workmen into unnecessary clerks? If it be not so in fact, it is not the fault of the policy that has been followed.

To all this there is a significant exception. John Bull's carelessness about science and education stops with the shore. When he has to deal with his own chosen element, the sea, he is altogether another man. In nautical matters no one values exact knowledge more; no one, unless, perhaps, his recent pupil in the Far East, has more assiduously cultivated scientific methods, or been more careful of the training of the men to whom he entrusts his destinies. We need not, therefore, commit the absurdity of supposing indifference to science to be any permanent feature of the English character. It is but a passing phase, the origin of which we may discern in patent historical causes.

THE CAUSES OF NEGLECT.

Great Britain entered on the Victorian era under peculiar advantages. Previous rivals in Europe had been exhausted by long wars which had brought us no greater disaster than increased taxation; America was still almost a negligible quantity. Our early use of coal and the mechanical inventions to which it had given rise had aided in giving us a long start of our contemporaries in the modern world which those inventions were bringing into being. Other nations might claim superiority in the graces of life; in commerce, in industry, in material civilization generally, the United Kingdom for many years was easily ahead of them all. We fancied, perhaps, that this was to last for ever. Other nations had painfully set about the task of organizing their resources, systematizing their knowledge, trying to make the most of the human material they possessed; we had, we thought, no need to do the same; our natural energies and superior aptitude would always keep for us the supremacy we had gained. In matters of education England no less enjoyed during this period a pre-eminence it has been difficult for her to forget. The universities of the Continent had long been in a state of decay, material as well as intellectual. The last relics of the great mother University of Paris, that had once ranked in authority with Pope and Emperor, had disappeared in the Revolution; of her half hundred of colleges, nearly all had vanished. The collegiate foundations of Oxford and Cambridge, on the contrary, had steadily grown in opulence and lost nothing of external splendour. In the middle of the last century Oxford and Cambridge, to say nothing of Eton and Winchester, were as far in advance of anything of the kind elsewhere as the commerce of the Thames or the industries of Lancashire. As was natural, Englishmen grew to regard their two ancient seats of learning as the type-universities of the world, and the particular kind of education prevalent there as the ideal of what university education should be. Universities elsewhere have since multiplied and gathered resources; economic causes have diminished the income of our once wealthy colleges; but England is slow to realize the new situation. The appeals for help which Cambridge has been lately making to its wealthy alumni are passing almost unregarded, and the great majority of Englishmen would still, I believe, be surprised to be told that, measured by contemporary European, to say nothing of American, standards, neither Oxford nor Cambridge would be reckoned among first-class universities.

Whether it be that we forgot, in the later years of the nineteenth century, a familiar apologue, whether it be that we had grown into the habit of relying too much on our natural advantages and neglecting the means of improving them, or thought that the world would stand still for us, certain it is that of late we seem to have awoke rather suddenly to the disagreeable fact that in some of the departments of the

world's business in which we thought our supremacy most secure we are being overtaken, and possibly outstripped, by countries that we scarcely regarded as rivals a generation ago. It is not only that the tortoise shows signs of overtaking the hare; the new world, we begin to find, has bred a hare at once faster and more persistent than ourselves. Now perhaps one may hope that a hearing will be given to those who have long been speaking to unwilling ears and calling attention to the neglected state of national education in the heart of the empire. We have long had it pointed out to us with what heed these matters were regarded in Continental countries: how carefully their educational systems were thought out; how liberally even poor nations were voting money for educational purposes: but to all this little attention has been given, these things being apparently regarded as necessary only for the foreigner. Will Englishmen be equally careless of what is being done in the United States and in our own North American colonies? Americans can hardly be set down as a second-rate people, or an unpractical race, or an unsuccessful one. It may be that London will not disdain to learn something from them. There was published in London a few weeks back the report of the Mosely Educational Commission to the United States, the second of the two commissions which Mr. Alfred Mosely dispatched at his own expense to endeavour to trace the cause of the success of Americans in their competition with ourselves. The Commission included twenty-six men prominent in the British educational world. The reports they sent in run to 400 closely printed pages and every page is interesting reading. The contents may well startle this country, if anything can, out of its apathy with regard to the matter.

Everything, let me say at once, is not represented as perfect in American education. The Commissioners found much to criticize in American educational methods, in their lack of thoroughness in certain directions, in a general tendency to underpay the *personnel*, and in a certain disposition on the part of private benefactors to regard buildings and sites as of more importance than men. But these, it is frankly admitted, are faults of immaturity and over-rapid growth; the greater part of the American educational institutions are barely a generation old. Nor did the Commissioners find that thoughtful Americans were in the habit of looking on education as the source of their prosperity. That they were disposed rather to attribute to the inherent qualities of their composite and selected race. But, what was more significant, they regarded the national interest in education as the natural expression of the very qualities that made them successful, and were confident that if their public education had not been the cause of their prosperity, it was an essential condition of their prosperity being maintained.

American interest in education is not of recent origin. The practice of appropriation of public land to educational purposes by act of the Federal Government dates from the early years of American independence; and the most extensive measure of this kind was passed in the crisis of the civil war. Up to the year 1902 as may be learned from the educational reports prepared for the Paris Exhibition the United States government had in this way assigned upwards of eighty-six million acres, an area larger than the whole of the United Kingdom, out of the public domain for the support of education. The total value of federal education grants in land and money to the same year, the land being estimated only at its original selling figure, is stated by the same authority to be nearly sixty millions sterling. This, it will be understood, is the grant of the Federal Government alone, and has nothing to do with the contributions [illegible] of the separate states and their cities. Private [illegible] has been on a still more remarkable scale. [illegible] gifts and bequests for university education alone, says one of the Mosely Commissioners, have amounted to fifty millions sterling in the course of thirty years. [illegible] sterling is given by one of the [illegible] as the sum of the private benefactions of the year [illegible] to universities, colleges, schools and libraries. Mr. [illegible] and others are said to have spent [illegible] in the University of Chicago and other [illegible] institutions founded by [illegible] still more royally endowed. Harvard, [illegible] has [illegible] capital [illegible] it [illegible] [illegible] from private benefactions. Cornell [illegible] to [illegible] last December and one of the most impressive features of American education the special gifts to it are still far from contemptible. The medical department of the Columbian University of New York, for example, is quite well housed in [illegible] land and buildings, to the extent of £40,000, the site and buildings of the Jefferson Medical College of Philadelphia are valued at £120,000; and a recent benefaction to the medical department of Cornell University in the State of New York is rumoured to amount to £300,000. An imperfect return shows an aggregate of three million sterling of property employed by medical education throughout the States, and during the five years 1894-8 private gifts to medical schools are reported as exceeding half-a-million sterling, being about a sixth of the benefactions made to hospitals during the same period.

Of the universal American interest in public education; of the profound belief in the value of public education that possesses all classes in the States, every chapter of the Mosely reports is eloquent. Public bodies, we are repeatedly told, grudge no money spent on education, the claim of educational institutions to the best sites, the best buildings, the best appliances that can be obtained, is regarded as incontestible; moneyed men are everywhere prompt to recognize the needs of education, industrial concerns are eager to secure the most highly educated men for their employment. The development of public education in the States is still going actively forward, and by all appearance will do so for many years to come.

It is sad to compare with these glowing pictures of educational progress the history of the twenty years of wasted opportunity and effort we have lately known in London, the twenty years of wearisome agitation, of interminable inquiries, of reiterated deputations, of bland official replies, of municipal and public apathy, that we went through before we could get so much as the bare framework of a teaching university in this, the richest city of the world. May we hope that in the twentieth century London will turn its eyes to see what these vigorous young communities in America are doing, and that we shall not have to wait twenty years more before our hard-earned frame is clothed with living material?

The Special Classes of Medicine.

In this country, at least, no form of higher education can claim a stronger title to public support than medical education. Its purpose is the interest of all. Disease and accident are no respecters of time and place; the life of the wealthiest may at any moment rest upon the skill and knowledge of the humblest village practitioner; failure at any point of the sanitary guard which in times of danger preserves a nation from epidemic disease may let in an enemy that will cost the country more than it could ever spend upon its medical schools. The medical profession is not one that can be charged with making a selfish or illiberal use of its knowledge. In all things it has loyally consulted the public advantage first of all. It is a profession of whose voluntary generosity the public never scruples to make unsparing I had almost written unblushing use, a profession which meets the heavy demands made upon it with unfailing patience and public spirit. I shall hardly overstate the fact if I assert that a fifth of the entire population of London has at one time or another, in the hour of distress, learned to rely on the public or private charity of the medical practitioner. Medicine, which gives so much and so readily, may surely ask a little in return, and expect in all honour that its claims will be ungrudgingly met.

If the claim that medicine is about to make on the inhabitants of London has gone unrecognized till now it is not altogether the public fault. Medicine has perhaps desired too much to be independent and self-sufficing; we have not taken the public sufficiently into our confidence as to the needs of our art; we have troubled too little to see that it was adequately informed. The average non-medical person, it is safe to say, knows at the present day far less of what goes to the making of the medical practitioner than he does of almost any other form of professional education. The developments of medical education during the last quarter of a century have not been trumpeted abroad, "written up" in the press, or made the subject of magazine articles. Of the London hospitals the London public knows much; of the schools of medicine that have grown up alongside of them almost nothing. It would probably surprise the great majority of Londoners to learn that the mere buildings of these schools would in the aggregate suffice for the needs of many a renowned university, that upwards of four hundred teachers are actively engaged in connexion with them, and that the curriculum pursued in them is at once the most arduous and the most highly systematized form of education that exists in the country.

The foreigner would be no less astonished to hear that the entire system has been the result of private effort, and that until lately it has been entirely self supporting. The build-

.ngs appropriated to its use in University and King's Colleges are almost the only public assistance it has to acknowledge; private liberality has hardly gone beyond the foundation of prizes and exhibitions. With the exception of certain professorships at University College, there is not at the present moment a single endowed chair in any medical school in the metropolis. Like many other institutions in England the London School of Medicine was not founded—it grew spontaneously in response to a need. It grew up in close connexion with the twelve great general hospitals, but till lately it had cost them nothing; on the contrary, they were pecuniarily the gainers by it. I ventured some six years ago to estimate that the existence of the medical schools virtually added no less than £50,000 a year to the charitable resources of London, and I was not accused of exaggeration.

The endowment of a single professional faculty to the extent of some £24,000 a year, exclusive of premises and library, would seem in London the dream of a rather distant future; but that is the extent to which, in the neighbouring capital of France, the Faculty of Medicine appears to be subsidized from public sources. The statistics of higher education issued by the Ministry of Public Instruction for the ten years 1889-1899 show that in the last year reported on (1897-8) the sums assigned to the purpose of the Faculty amounted to 1,466,212 francs, of which only 859,302 francs were recouped from students fees, leaving 606,010 francs, say £24,276, to be provided from public sources, chiefly the coffers of the State. The expenses of the Paris Faculty do not, it may be added, include those of instruction in what we term the "preliminary sciences."

Modern Requirements.

A complete endowment of the Faculty of Medicine is not at present in question in London. We see no reason to apprehend that the schools of the London hospitals will be less able in the future than in the past to provide for their own resources for the professional education of as many students as their ample hospitals can accomodate, but there is a strong and growing sense of the need of relieving them from the increasing pressure of a burden which at the present they are under the obligation of supporting, but which is properly none of theirs to bear.

The medical curriculum has long since everywhere divided itself into two nearly separate portions, the one mainly professional, while the other tends more and more to become purely academic. It is within my own recollection and that of many here that the student of other days, while still pursuing his ordinary anatomical and physiological studies, in some cases while working only at the introductory physical and biological sciences, was expected or encouraged to spend a part of his time in the wards and out-patient rooms of his hospital, and to familiarize himself thus early with the aspects of disease. That is now virtually at an end. The increasing requirements of the earlier parts of the curriculum have rendered it impracticable. The contemporary pupil, though nominally attached to a hospital, pursues as a general rule the first two years, or three as the case may be, of his curriculum under almost purely academic conditions, and rarely enters a medical or surgical clinic for any serious purpose until he has surmounted the barrier of his anatomical and physiological examinations.

I need not stop to discuss whether the change of practice is of unmixed advantage or no. Something, it will doubtless be said, is lost in the present day which the older and less differentiated plan of education was able to impart; but this, I fear, is a profitless question to raise. The present system is universal, or nearly so; it has forced or is forcing itself by the logic of circumstances on every seat of medical education alike, and it must be taken as one of the facts of the case that we have to deal with.

In almost every place of medical education except London a further differentiation has already taken place. The responsibility of providing for the earlier portion of the curriculum has ceased to rest upon the medical school properly so called. In Lancashire and Yorkshire, in Birmingham and Newcastle, and in Wales, endowed universities and university colleges have taken this part of the work upon themselves, leaving the schools of medicine, in the strict sense of the term, to their proper task of teaching the theory and practice of medicine and surgery, and such of the more advanced branches of science as cannot conveniently be separated from clinical work.

In London, without a central teaching authority to assist, lead, or co-ordinate the scattered educational agencies at work in her vast area, this further step has till now been impossible. The medical schools, unendowed and without external aid as they are, have had to bear the burden of the preliminary education themselves. Each separate school, in order to maintain its position, has found itself obliged to offer a medical curriculum complete in all its parts, academic as well as professional, and to provide the buildings, laboratories, and external teachers necessary to make it so. Until London possessed a university in fact as well as in name, no practicable way out of the difficulty could be seen, and the difficulty has been a steadily increasing one. While politicians disputed whether five millions of population should have two titular universities or only one, whether professors of European fame should be dealt with as honourable men or objects of public suspicion, and how far the laying of academic hands on the London Matriculation Examination would endanger that palladium of British learning, the men who were actually doing the work had to strain every nerve to meet the constantly growing requirements of the long medical curriculum, and to keep the London schools of medicine on a level worthy of their historic fame. The work was done. It has, I venture to say, been well done; but the strain on the schools has been no light one, and its tendency is still to increase. Over the schools hangs the shadow of the ominous question, How long can the present strain be maintained? A limit will be reached, it must be plainly said, unless London awakes to some sense of its responsibility in the matter. And while London is asleep, the provinces are moving. I trust I shall not be understood as saying one word in dispraise of the excellent teaching given in many of the provincial medical schools, or in derogation of the highly distinguished physicians and surgeons who are working so ably in them; but the fact nevertheless remains, not only that London possesses an unexampled field of clinical instruction, but that, as long as the greatest prizes of the profession are to be found in the capital, the tendency must be for the best clinical talent in the profession to be attracted to the metropolitan hospitals and schools.

The Solution of the Question.

It would, I will not hesitate to say, be a disaster, not only to Londoners, but to England and Wales as a whole, if London should ever lose the position it has hitherto held as the chief seat of medical education in the country. It is to the grave discredit of so wealthy a capital that such an event should be even imaginable.

Thanks to the reconstitution of the University of London we have at last a definite plan to lay before the public. It is a plan which has been drawn up by the Faculty of Medicine of the University, a body fully representative of medical education in the metropolis, and which has been officially adopted by the Senate of the University as an integral part of its scheme of future development. It is proposed to found, as part of the University of London and under its direct control, a public Institute of Medical Sciences to undertake teaching in physics, chemistry, biology, anatomy, and physiology for the purposes of medical students. The classes of the institute will not be limited to those only who are undergraduates of the University and propose to take its degrees. Provision will equally be made by the University for the instruction of students who are aiming at the College diploma or the licence of the Apothecaries Society. Nevertheless, all who enter the institute will be studying in the University in fact as well as in name. They will be able to commence their career by entering directly at the University, and until they have completed their classes in the institute they will not need, unless they wish, to join a hospital at all. They can wait till they have finished the academic part of the curriculum and select their hospital when the time has come for them to begin their clinical work. No compulsion will, of course, be exercised by the University over existing medical schools. Any that may find it to their advantage still to carry on the earlier as well as the latter part of the curriculum will be at liberty to do so; those whose policy is otherwise will be able to receive their clinical students directly from the University of London Institute as now they receive them from the Universities of Oxford and Cambridge and the University College of Cardiff.

The University is willing and anxious to establish such an institute; but to do so funds are, of course, needed, and funds for the purpose the University as yet has unhappily none. How much, it will be said, will be required? That has been the subject of careful estimate. Assuming the institute to be started as contemplated for 500 students at

the outset, and assuming—as is not impossible—that a free site can be obtained, it is reckoned that £100,000 would be sufficient for the necessary buildings and equipment, and that the annual expenses on staff and service would not exceed £20,000, of which about two-thirds would be recouped by fees, leaving to be provided from endowment between £6,000 and £7,000 a year, which brings the total capital endowment estimated as required to £375,000.

To what quarter is the University to look for this necessary sum? On the Continent of Europe it would at once be recognized as a legitimate charge on the State. In our country that can hardly be. The tradition that professional education is no affair of the State is still deeply rooted in England. Even the modest subsidy annually granted by the Treasury to the English Colleges is given under the proviso that no portion of it shall be used for the purposes of the medical school. On State aid we can count but little. In America, if we may judge from the accounts lately brought back by the Mosely Commissioners, the matter would also be speedily settled. Our Chancellor would need but to sally out, pay some half dozen judiciously planned morning calls, exercise the persuasiveness which he is universally allowed to possess, and the thing would be done. Have we no wealthy men in London capable of being fired by emulation of transatlantic gifts to education, who will make this modest benefaction their peculiar care? As we lately learned with so much gratification, a most auspicious beginning, at least, has been made. May we trust that it will be followed by speedy fruition, and that the list of subscribers already privately started will be covered without needless delay? Among them, one may safely predict, will be found not a few members of our own profession; but it must be clearly remembered and understood that it is no personal interest or advantage of the profession that is being sought. The object is in the fullest sense one of public concern, and it is to the public, not to the medical profession, that the appeal of the University is particularly addressed.

It would be a poor compliment to a University destined, as we hope, to a great academic position to let it be supposed that this introductory work is all that the Faculty of Medicine will eventually expect from it. At present it is our most urgent need, but there are more ambitious fields of work awaiting the University later. The idea that the principal duty of a university is the education of undergraduates, and that a bachelor's degree is the climax of a university career, is among the fading traditions that the nineteenth century bequeathed to us. In the United States the more advanced school of educationists already begin to regard the teaching of undergraduates as but a secondary function of a university, if indeed they would admit it to be a university function at all. The preparation of candidates for initial degrees they are disposed rather to relegate to a class of institutions of subordinate rank which in America are called "colleges." The real work of a university, it is argued by many, is that to which the attainment of an initial degree is only an introduction. "Graduate study," as Americans call it, is already with them a prominent feature of higher education, and even [illegible] years ago, according to the reports I have already quoted, twenty-three American institutions were able to make up between them a total of 4,919 resident graduate students, an average of nearly 214 each. The medical world in England has long recognized the importance, and indeed the necessity, of graduate study, and the number of members of our profession pursuing [illegible] in London or elsewhere would probably exceed anything that is to be found in America; but the organization which we have been able to make for it would, I fear, be scarcely a flattering comparison. It is [illegible] to point out any serious difficulty in the way of the introduction into the organization of the University of the conception of a powerful university with its own [illegible]. With the aid of the Commission we may be said to have removed the weakness of the position which has been most apparent to [illegible], I mean the entire separation of the academic [illegible] from the hospital [illegible], with the consequent [illegible] of our greatest [illegible] to teach at the very time when the [illegible] is rapid and their influence at its greatest [illegible].

May I venture, in conclusion, to deprecate a certain note of impatience that occasionally makes itself perceived in the medical world because the development of our University is not proceeding with [illegible] speed? We must not expect impossibilities. To make up the arrears of two generations in a great capital was as huge a task as any university could have had committed to it, and some of the difficulties in the way have been very hard to surmount. That the constitution of our University is not an ideal one, that it may be open to the charge of cumbrousness, I, at least, am not concerned to deny; but machinery is of less importance than men; and we need not complain overmuch of a constitution that has committed the interests of our science to such strong and able hands as those of the representatives it has upon the University Senate, and placed at the head of our Faculty a man so singularly capable as its present Dean of grappling with the difficulties of the present situation. The best compliment we can pay to the statesmanship and the self-sacrificing labours of Mr. Butlin and his fellow-workers in our behalf is, I submit, to give them a patient as well as an earnest support.

HAEMATOMA AND HAEMATOCELE.

A STUDY OF TWO CASES OF EARLY TUBAL PREGNANCY.

BY ALBAN DORAN, F.R.C.S.,

Surgeon, Samaritan Free Hospital.

THE question of operative or expectant treatment in early extrauterine pregnancy is of high importance, but remains unsettled, for authorities are not agreed as to what is the best course to pursue when haemorrhage sets in and stops the early abnormal pregnancy. Haematocele, the result of intraperitoneal haemorrhage, may undoubtedly subside, as has been demonstrated by the experience of authorities to whom further reference will be made, and by a case in my own practice presently to be related. A majority of gynaecologists, however, hold that haemorrhage into the peritoneal cavity, even when due to a bleeding mole and not to rupture of the tubal sac, demands operation. On the other hand, all authorities appear to admit that haematoma, the result of haemorrhage into the pelvic connective tissue outside the peritoneal cavity, is far more likely to be absorbed, and therefore does not as a rule render operative interference urgent. Even Taylor, who insists that cases of intraperitoneal haemorrhage from a ruptured tube or tubal mole rarely recover without operation,[1] at the same time admits that when the tubal sac ruptures into the connective tissue space below the peritoneum a haematoma is the result, and in some instances the pressure and disturbance caused by this collection of blood is sufficient to stop the progress of the misplaced pregnancy. When this is the case the haemorrhage is slowly absorbed, and if the pregnancy be early and abortive, the products of conception undergo absorption also.

Roughly speaking, then, we are taught by certain living writers of repute that a haematocele implies great peril and demands operation, whilst it is generally admitted that a haematoma represents a far less dangerous ending to an interrupted tubal pregnancy and will subside if the patient be kept at rest.

The two following cases are of some interest because they do not support this teaching. For in the first there were all the signs of tubal abortion with haemorrhagic mole and pelvic haematocele, yet the patient recovered and the haematocele underwent absorption. In the second a haematoma developed, but though the patient was kept at rest in hospital the effusion of blood did not subside. On the contrary, it ruptured its capsule, so that intraperitoneal haemorrhage occurred, rendering immediate operative interference needful.

[illegible] was admitted into my wards in the Samaritan Free [illegible] with [illegible] for symptoms indicating ectopic gestation.

She had been married for [illegible] six years and had been twice pregnant. Her first child was five years and one months old, and was delivered at [illegible] in labour. The second one was one year and [illegible] old and was delivered by forceps at term. Both children were [illegible] and the puerperium was uncomplicated after both labours. At the end of [illegible] pelvic [illegible] had been under treatment for anaemia, but had never complained of pain or tenderness there.

[illegible] menstruated regularly and continued regular during lactation

after both labours, but the second child was only suckled for six weeks. There was scanty show every third week with much pain.

The last period occurred in the first week in December, 1[illegible]. On February 5th, 1[illegible], over two months later, some clots passed, and there was much pelvic pain. Haemorrhage continued, especially at night. Dr Williams of Connaught Street was called in on February 11th and found the patient in severe pain, with a temperature of 101° and a pulse of 1[illegible]. She complained of much bearing-down pain at night, and was at once sent to the Samaritan Hospital.

The patient was very anaemic and thin, but quite free from cachexia or depression of spirits. I detected much distension in the right iliac region, with tenderness on palpation and resonance on percussion. No hard body could be defined. The uterus was almost fixed, the right fornix was occupied by a tender mass of about the size of a walnut, hardly encroaching on Douglas's pouch, but connected with the swelling in the corresponding iliac fossa.

On February 13th the distension was more marked, very resonant, and much less tender. The uterus was more fixed and displaced forwards, the mass in the right fornix larger. In the afternoon the decidua, which I now exhibit, was passed. The temperature was 100.2°, the pulse 1[illegible]. There was absolutely no shock nor pain. The passage of the membrane afforded relief, and I decided to wait for a while before operating.

On the morning of February 14th I detected a firm mass in the right iliac fossa, cup-shaped, with the convexity upwards and extending across the middle line. The shrinking of the dimensions of this mass was very appreciable day by day. By the 20th it was quite hard and round, the show, for the first time since admission, was absent. By March 2nd the pelvic condition was more evident than before, for there was a firm, insensitive, convex body in the posterior fornix, continuous with the mass above the right groin. The uterus was drawn up in front of the mass, the cervix lying against the pubes.

The whole mass steadily contracted, and on March 23rd, when I discharged the patient, it projected 3 in. above the pubes, lying more in the middle line than before.

On April 7th I had an opportunity of examining her. The uterus now moved with a convex mass, which occupied the posterior and right formices. The fundus could be clearly defined, and the upper part of the mass did not extend above the level of the fundus.

On April 9th a true period with molimen occurred, lasting five days, and the show was rather free. A little powdery brownish blood was occasionally discharged until the end of April. Then the period became regular; by the end of June the mass behind the uterus had greatly diminished and the patient was in excellent health. I noted distinct pulsation at the base of the right broad ligament, as is observed in a tubal pregnancy still in progress. At the end of July the anaemia had almost disappeared and the pelvic pains had passed away. I afterwards heard that the patient was in very good health in October.

This case was to all appearances an instance of bleeding tubal mole* in the right side and development, subsequent to the expulsion of the decidua, of a pelvic haematocele. That haematocele was cup-shaped above and formed inferiorly a convex mass projecting into the posterior vaginal fornix (Fig. 1).

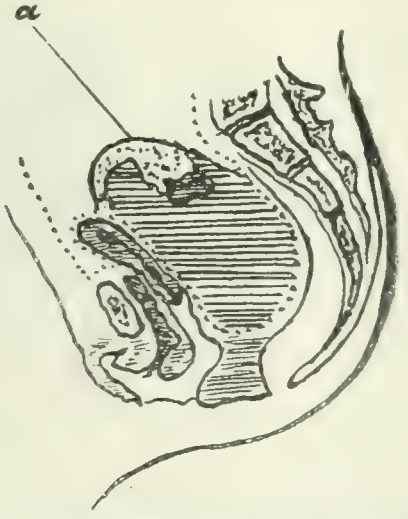


Fig. 1. Case 1. The dotted line shows the peritoneum of Douglas's pouch in normal position. The clot fills the pouch. (*a*) Fallopian tube, containing a tubal mole which caused the haemorrhage.

In other words, its lower part really occupied Douglas's pouch. This relation of the clot is of importance in association with the next case, where also a convex mass projected into the posterior fornix, but did not occupy Douglas's pouch, since that serous fold had been completely displaced by extraperitoneal haemorrhage.

I have repeatedly verified this combination of tubal mole and pelvic haematocele on the operating table; indeed, it must be familiar to all well versed in the surgery of the female pelvis. Masses of clot are discovered concealing the pelvic viscera. The uterus, the unaffected appendages, and the conspicuous tubal mole come into view when the clot is removed. Below and behind, Douglas's pouch is found full of blood, fluid or otherwise. Thus the effused blood, save that which is still inside the tubal mole, lies outside the uterus and appendages, which it covers up more or less completely. In the next case, on the contrary, the uterus, tubes, and broad ligaments completely covered the great collection of effused blood, only a small amount of which was beginning to escape into the peritoneal cavity by leakage from the broad ligament.

Taylor, whose demonstration of intraperitoneal haematocele is well known for its clearness, teaches that "in women it is almost always caused by tubal pregnancy, sometimes by rupture of the tube, and sometimes by bleeding from the fimbriated end without rupture. The latter is the more common cause of intraperitoneal haematocele, and this bleeding from the unruptured tube is usually set up by the presence of a haemorrhagic mole within it."[4]

Turning to treatment, the opinion of the same authority on that important matter is not so generally accepted as is his interpretation of the morbid anatomy of the condition in question. He maintains that an operation is always needed in cases of rupture of the tube and tubal mole,[5] where these haematoceles develop, the collection of blood being, in his opinion, "almost always" due to those complications.[6] He states that "occasionally, here and there," a patient recovers without operation, and admits that he has seen five or six such cases.[7] He declares that "natural cure is rarely satisfactory, and that it contrasts somewhat unfavourably with operative methods."[8]

Many gynaecologists follow Taylor's principles, but experience has shown that he has over-rated the perils implied by the development of a haematocele. I have had under my care a considerable number of cases during the last few years that have done very well without operation, though I, as well as certain more thorough advocates of expectant treatment, must make allowance for errors of diagnosis, the more so as I shall explain how another variety of haemorrhage in ectopic gestation, namely haematoma, may be mistaken for haematocele.

I admit that convalescence is without doubt more rapid after operation, but in my cases of spontaneous recovery the patients remain perfectly comfortable, with no abdominal cicatrix and with no ligatures on stumps—complications always to be dispensed with if possible. But several authorities are even more conservative than myself. My colleague, Dr. Lockyer, has published a valuable critical review on this question.[9] Champneys's statistics are familiar to us all,[10] but Lockyer also dwells upon the opinion of Veit. That gynaecologist lays down a principle in direct contradiction to Taylor's teaching. "We cannot assert," says he, "that when the ovum is dead dangers are absent. We can, however, state that subsequent to death of the ovum a favourable termination is much more probable. These cases will mostly recover without help." Lockyer himself concludes that the conservative treatment of ectopic pregnancy in the earlier months has established for itself a secure position in modern gynaecology. It is specially satisfactory in the treatment of tubal mole and diffuse haematoceles. Gossmann also believes in the frequency of spontaneous cure.[11]

When we turn to haematoma, sometimes called extraperitoneal haematocele, Taylor differs from many of us as to its relation to ectopic gestation. He demonstrates how a tubal sac may burst so as to discharge the ovum into a space which it makes for itself by forcing apart the layers of the broad ligament. In consequence an anterior or posterior tubo-ligamentary pregnancy develops. Taylor's theory is generally accepted, being based on sound anatomical and pathological evidence. In fact we all admit that the ovum may lie between the layers of the broad ligament. That being the case, we must further allow that blood from a ruptured tubal sac may also force itself into the broad ligament, in other words it will form a haematoma. Nevertheless, Taylor teaches that haematoma of the broad ligament is only in the minority of cases due to tubal pregnancy.[12]

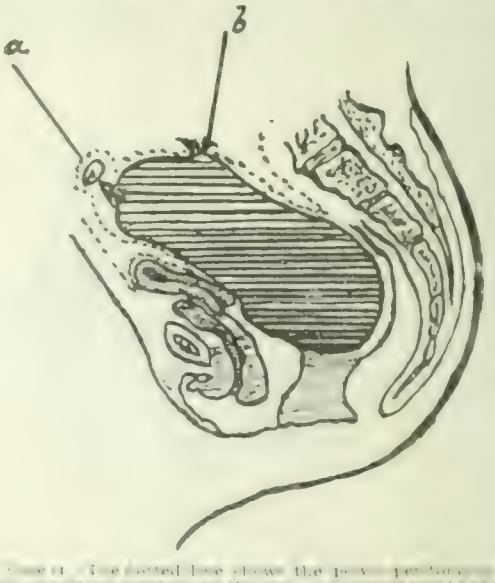
*I need not dwell on the pathology of this condition, on which so much light has been thrown by Cullingworth, Bland-Sutton, Lockyer, Handley, and others, as this communication deals with the question of intraperitoneal and extraperitoneal collections of blood rather than with tubal mole.

When the patient was put back to bed her condition was very unsatisfactory. At the end of three-quarters of an hour she seemed a little stronger, though there was no pulse at the wrist. Brandy and digitalis were given enemata of hot water could not be retained. At most the temperature had risen to 103·2°, and there was a rigor. I observed marked facial spasms which lasted for several minutes. Half an hour later the pulse could be felt. By 9 p.m., after free administration of digitalis and brandy, the temperature had fallen to 103° F., the pulse was 130, but distinct and regular. At 10 p.m. temperature 101·6° F., pulse 138, and the patient took barley-water. The absence of vomiting was remarkable.

Twenty-four hours after the operation the patient seemed much stronger and flatus passed naturally. I removed the gauze, and little or no oozing followed. A rubber tube was left in the lower angle of the wound for a few days. The cavity was washed out with antiseptic solutions for about four weeks, some sloughy tissue coming away. The anæmia was relieved by suitable treatment, and the patient left hospital with a sinus in the lower angle of the wound four inches deep. The general health was good.

I last saw the patient on March 8th, 1904; she had gained flesh and was much less anæmic. On August 6th she noticed a show of blood which lasted for two days, on October 13th a much more copious discharge set in and continued for four days. The show recurred with regularity every four weeks until February, when it appeared twice, and the patient suffered from flushings as though a premature menopause was impending. The sinus was 2 in. deep. The long cicatrix of the abdominal wound was firm. On vaginal examination the cervix was found to be quite movable. The fornices were free.

This case was clearly an example of hæmatoma caused by rupture of a tubal sac between the layers of the corresponding broad ligament (Fig 2). The accident must have occurred



February 11th, and the ovum was destroyed, else a pregnancy would have developed. The hæmatoma extended, as it always does, the whole pelvic cellular tissue was loosened up. That part which had formed the upper boundary between the anterior and posterior part of the capsule which enclosed the great mass of clot. The utero-pelvic plexus was carried up with the anterior layer of the broad ligament so as to constitute the anterior part of the

capsule. The lower part of the clot free in the pelvic connective tissue lay, not in Douglas's pouch, but in its site and could be detected by touch as a convex mass behind the cervix.

On the night of March 28th, nearly six weeks after the rupture of the tube, the capsule leaked a little posteriorly to its superior limits at the point of adhesion to the omentum.

On this occasion there was sharp pain, such as has been noted in intraperitoneal haemorrhage, but the patient's sufferings must have been largely due to the tension of the capsule of peritoneum, a necessary result of the renewed haemorrhage.

Had a fetus escaped through a rent in the capsule instead of a clot, then, granting that the patient and fetus had survived, a tubo-abdominal pregnancy of the fourth class, according to Taylor,[17] would have developed. Earlier writers believed that most abdominal pregnancies were established in that manner, which implied that abdominal was secondary to tubo-ligamentary pregnancy.[18]

The cause of the renewed haemorrhage in Case II was not clear. Most probably it was due to straining at stool. There were no solid motions in the intestinal canal at the time, but, on the contrary, looseness of the bowels following free purgation by magnesium sulphate which had greatly relieved the flatulence. In order to hasten the escape of flatus and liquid motion patients often strain at stool.

The most prominent physical sign, after the presence of a tumour in the hypogastrium, was the convex mass behind the cervix. A similar kind of swelling is to be detected when there is a pelvic haematocele and the blood in Douglas's pouch has coagulated; a tubal sac in the same position also forms a convex mass behind the cervix.[19] But there is no Douglas's pouch in this case—a fact which was made clear at the operation. All collections of clot, as well as all cysts and fibroids which burrow thoroughly into the posterior fold of the mesometrium, must, if they continue to grow, displace that portion of the peritoneum which constitutes Douglas's pouch, so that it will lie on the top and back of the clot or tumour. This displacement of the peritoneum is very plainly seen when a large fibroid of the broad ligament is exposed and enucleated from its serous investment. I have demonstrated at full length this displacement in the Harveian Lectures for 1902.[20]

Taylor,[21] in treating of broad ligament haematoma, observes that in some cases "by burrowing in front of the rectum low down in *(sic)* the pouch of Douglas it may produce a well-defined tumour behind the uterus that closely simulates inter-peritoneal swelling of a distended and adherent tube." But a broad ligament haematoma cannot be in Douglas's pouch, as it is essentially an extraperitoneal condition. Taylor illustrates the above remarks by a drawing from Hart and Carter's work,[22] on inspecting it that author's meaning at once becomes clear. The clot is represented behind the posterior layer of Douglas's pouch, being, in the case illustrated, insufficient in bulk to heave up the whole pouch in the manner which I have already endeavoured to explain. Thus the relations of one form of small haematoma are proved by Hart and Carter's section, whilst the relations of an unusually large haematoma were made evident by the condition of the affected parts which I detected when operating on Case II.[23]

Thus these two cases indicate, in the first place, that haematoma is not so rare a result of interrupted extra-uterine pregnancy as is generally taught, and that it may be mistaken for haematocele. Haematoma is, however, decidedly less frequent than haematocele in relation to ectopic gestation. For the tubal sac is more likely to discharge its contents through the ostium into the peritoneal cavity, or to burst into that cavity, than to rupture between the folds of the broad ligament. When the broad ligament is opened up in this manner experience has proved that, instead of a haematoma forming, the ovum not rarely continues to develop, constituting the tubo-ligamentary pregnancy, anterior or posterior, of Taylor. There remains a considerable minority of cases where the ovum is destroyed and a true haematoma develops and displaces the pelvic peritoneum upwards after the manner of a tubo-ligamentary sac. In such a case the lower part of the haematoma, bulging behind the cervix, may be mistaken for a haematocele occupying Douglas's pouch, though in reality that pouch no longer exists, its peritoneum lying above the haematoma.

Secondly, the haematoma of extrauterine gestation, even when developed early, is not so innocuous, as compared with haematocele, as certain authorities are inclined to believe. The peritoneal capsule may yield, so that dangerous intra-peritoneal haemorrhage ensues.

Thirdly, there can be no doubt of the truth of the prevalent theory that haematocele is a very frequent result of interrupted tubal gestation. At the same time, whilst the dangers of haematoma have been underrated, the perils of haematocele have been exaggerated, at least as regards the earlier stages of ectopic gestation. The haematocele often signifies that the issue of blood from a tubal mole has permanently ceased, nor is it certain that the same may not be said of many cases of early rupture of the tube.

In conclusion, we must admit that the importance of faithful clinical study of extrauterine pregnancy from its early recognizable stages cannot be over-estimated. There is much that we can safely teach, yet there remains more that we must learn about ectopic gestation; above all, as to the relation of prognosis to treatment.

NOTES AND REFERENCES.

[17] *Extrauterine Pregnancy*, p. 145. [18] Ibid., p. 144. [19] That is to say subperitoneal haemorrhage, as defined above. The term "tubal haematoma" applied to haemorrhagic mole is confusing, and is therefore not employed in this communication. [20] Ibid., p. 33. [21] Ibid., p. 148. [22] Ibid., p. 5. [23] Ibid., p. 147. [24] Ibid., p. 149. [25] "The Conservative or Expectant Treatment of Extrauterine Pregnancy," *Journ. of Obstet. and Gynaec. of the Brit. Empire*, vol. ii. p. 173. See also, for a recent instructive discussion on the same theme, Gustav Klein's "Operiren oder nicht Operiren bei Eileiter schwangerschaft und Haematocele." *Monat. f. Geb. u. Gyn.*, December, 1903, p. 807. The conflicting evidence of Klein and Gossmann deserves consideration. [26] "A Contribution towards the Study of the Natural History of Tubal Gestation," illustrated by a series of 75 original cases *Journ. of Obstet. and Gyn. of Brit. Empire*, vol. i, p. 525. [27] Gustav Klein, loc. cit. [28] Ibid., p. 5. [29] This symptom would favour the diagnosis of haematoma. [30] My thanks are due to my colleague, Dr. Lockyer, for examining and mounting the deciduae from these two cases. [31] No trace of a fetus could be detected. The pregnancy had been interrupted at a very early stage. [32] It is very doubtful if any ovarian tissue could have been left, as both ovaries were easily removed with the body of the uterus. In oöphorectomy for the cure of uterine fibroids it was quite otherwise. I have discussed this question in the Harveian Lectures (Lecture II, *Lancet*, vol. i, 1903, p. 415. [33] Ibid., p. 58. [34] Ibid., pp. 47, 48. [35] Taylor rightly lays stress on the fact that a swelling behind the cervix in these cases may be the gravid tube and not a haematocele or haematoma. For his view of the relations of the gravid tube to the haematocele, see ibid., p. 113, par. 10, [36] Lecture I, *Lancet*, vol. i, 1903, p. 350, Section, "The Surgical Anatomy of the Broad and Ovarian Ligaments." This heaving up of Douglas's pouch has recently been noted by Savariaud when operating upon a case of hydatid cyst burrowing in and beyond the broad ligament. "J'essaie en vain de luxer la tumeur hors du Douglas; *elle soulève le péritoine pelvien en s'en coiffant.*" (The term is most expressive; the clot in my case was *coiffé*, by the pelvic peritoneum). See Savariaud, "Kystes Hydatiques du Ligament Large et du Grand Epiploon," *Rev. de Gynéc. et de Chir. Abdom.*, November-December, 1903, p. 986. [37] Ibid., p. 65. [38] Ibid., Fig. 27, p. 66. [39] See Taylor, Ibid., Fig. 29, p. 68, where a broad ligament pregnancy has already begun to heave up Douglas's pouch. As that author justly observes (p. 69), this illustration is "exceedingly simple and intelligible." Lawson Tait's well-known "jelly-fish," convex above concave below, represents an intermediate or average type of haematoma.

A Clinical Lecture

ON AN EIGHTH SERIES OF CASES OF

TOTAL EXTIRPATION OF THE PROSTATE FOR RADICAL CURE OF ENLARGEMENT OF THAT ORGAN.

Delivered at the Medical Graduates' College and Polyclinic.

BY P. J. FREYER, M.A., M.D., M.CH.,
Surgeon, St. Peter's Hospital, London.

GENTLEMEN,—In a lecture delivered by me in this College about two and a-half years ago, and subsequently published in the BRITISH MEDICAL JOURNAL,[1] I had the honour of placing before you full details of my operation of total extirpation of the prostate for radical cure of enlargement of that organ. I have since then from time to time, here and elsewhere, lectured on several further series of cases of this operation, and published the lectures in the same JOURNAL.[2] In this manner complete details of my first 53 cases of this operation have been submitted for the consideration of the profession at large. I have now to bring to your notice a further series of 20 cases of the operation, carrying my work in this direction down to the end of 1903. I cannot inflict on you full details of these operations, even were it possible to do so in the limited time at our disposal. I shall therefore content myself with giving brief notes of the majority of the cases, dwelling more at length on those that illustrate some interesting or novel feature in connexion with the operation.

During the course of my remarks I shall have to dwell particularly on two facts: first, that I have latterly been extending the operation to the removal of much smaller prostates than previously attempted; and, secondly, to patients more advanced in life than I had at one time imagined it safe to deal with.

But let me, in the first place, introduce to you the patient, who was previously operated on before the students. This patient, a man aged 73, is the first on whom I performed this operation, on December 1st, 1900. He is, as you see, in perfect health, able to pass and retain his urine as well as he ever did. The most satisfactory feature of this operation is the complete and permanent cure that ensues, if the comparatively small mortality be eliminated.

CASE LIV.

[illegible] sent by Dr. W. [illegible]an, Alton, Hants, July 27th, [illegible]. Prostatic symptoms for four years during which blood passed occasionally. Urine pale and frequency of micturition. Residual urine 3 oz. Prostate much enlarged per rectum, lobulated, movable. Opened the bladder suprapubically August 1st, and found the right lobe of prostate prominent and rounded, but from the left lobe sprang a growth which filled the base and left side of the bladder. The right lobe was easily enucleated, but the left lobe and growth had to be removed piecemeal. The whole removed [illegible]. Passed urine naturally August 12th; wound closed August 25th. On September 10th he was well. The patient is going on nicely; passes urine without pain or [illegible].

It is impossible to say whether the growth had its origin in the left lobe of the prostate and extended to the bladder, or vice versa.

CASE LV.

[illegible] prostatic symptoms for ten years. Intense [illegible] month by day and night. Prostate not much enlarged, but [illegible] examination revealed a fungating [illegible] in the bladder from right lobe. Prostate, weighing [illegible] oz., enucleated [illegible] capsule August 3rd. Passed some water naturally August 11th; wound closed August 25th. I saw the patient in September [illegible] in excellent health, urine quite clear, and passed it [illegible] naturally.

CASE LVI.

[illegible] sent by Dr. Llewylyn Lewis, Neath, South Wales, [illegible] with prostatic symptoms gradually increasing for five years. Catheter employed [illegible] practically dependent thereon for four months. Cystitis, haemorrhage, rigors; much difficulty in passing catheter.

Enucleated the prostate as a whole, September 7th. Drs. A. Bestty, [illegible] and Hawkins were also being present. The prostate which consisted [illegible] outgrowth in the bladder was removed [illegible] and the lower part of the urethra was restored. Urine passed [illegible] the wound closed on the 20th. On December 9th the patient wrote that he was quite well, passing water as [illegible]. His urine being clear and free from albumen.

CASE LVII.

[illegible] St. Peter's Hospital September 1st, [illegible]. The bladder being [illegible] and containing [illegible] pus. [illegible] moderately enlarged per rectum, [illegible] by catheter regularly and [illegible] with [illegible]. Prostate [illegible] the bladder was opened and the general health [illegible]. The prostate was [illegible] catheter passed [illegible] urine [illegible] and shock. [illegible] Urine [illegible] 25th. Sept. [illegible] able to retain and pass his urine as well as he ever did.

CASE LVIII.

[illegible] The [illegible] fifteen years [illegible] [illegible] [illegible]

urinary apparatus became so wearing that complete removal of the prostate was contemplated. It was with this view that I was called in. I found the prostate considerably enlarged per rectum, bilobed, elastic, and movable, and I considered it one capable of being removed. The patient was of a nervous temperament, extremely thin and worn from his constant sufferings, but wiry.

For various reasons it was considered inadvisable to bring the patient to London, so on October 24th I operated at Birmingham—Dr. Haynes, anaesthetist, Dr. Hallwright assisting, and Dr. C. Nichols being present. Having opened up and enlarged the suprapubic fistula I found the right lobe of the prostate somewhat prominent in the bladder, and the enucleation of this portion was quite easy. The left lobe, however, was matted by cicatricial tissue with the bladder, the result of the previous operation, and the enucleation of this portion was effected with considerable difficulty, much force being necessary to separate it from the surrounding tissues. Eventually the prostate, or rather what remained of it from the previous operation, came away in one mass, weighing 1 oz. There was little bleeding or shock. I saw the patient with Dr. Hallwright several times during the ensuing three weeks. He continued to make favourable progress, though he had several rises of temperature. On November 15th patient passed 3½ oz. of urine naturally, and on November 22nd the wound was completely closed. On December 6th Dr. Hallwright wrote: "The patient is better than he has been for years and gains strength daily. He says the water is beautiful and takes no time in passing."

This gentleman is now in excellent health, interesting himself in his business as usual, and untroubled by any urinary symptom. I have to acknowledge the devotion and skill with which the after-treatment—not the least element of success in these cases—was carried out by Dr. Hallwright. In my last communication[3] I called attention to Case XLVIII, in which McGill's operation of partial prostatectomy had been performed a year previously with no relief, followed by complete cure when the entire prostate had been removed. The present case is a further illustration of the same sequence of events.

CASE LXIV.

Gentleman, aged 74, first consulted me in June, 1902, with the usual symptoms of prostatic enlargement, which had existed five years, superadded to which were those of stone in the bladder for one year. Catheter employed for three years, practically all the urine passing in this way. Prostate much enlarged, smooth, tense, bilobed, movable. Cystoscopy on June 19th revealed prominence of the right lobe in the bladder, and a smooth oval stone lying beneath this. Litholapaxy at once performed, the débris of the stone, which was uric covered by phosphates, weighing ¾ gr. A rapid recovery ensued, and the patient was enabled to pass about one-half of his urine naturally for some months. But as the prostate continued to grow he become entirely dependent on his catheter, in the introduction of which there was at times considerable difficulty; cystitis frequently. On October 29th, 1903, when he returned to have the prostate removed, the urine contained much pus, and the patient was very feeble.

On October 31st, Sir A. Fripp and Dr. Proust, of Paris, being present, I removed the prostate entire in its capsule; weight 3 oz. Time occupied from commencing the suprapubic incision till the prostate was delivered from the bladder, four minutes. Recovery uninterrupted, though slow. Passed urine naturally November 22nd; wound finally closed December 12th. Went home to the country December 20th able to pass and retain his urine naturally, and has since continued to put on flesh and improve in health generally.

CASE LXV.

Gentleman, aged 77, seen in consultation with Dr. W. Burgess, Streatham Hill, October 28th, 1903. Prostatic symptoms for seven years, the frequency gradually increasing till August last, since when the urine had dribbled away by day and night. Constant pain in the hypogastrium, very feeble; says he has been "going rapidly downhill" for two years, much loss of flesh during last fortnight, depressed, says he feels that he will not live long. A week previously Dr. Burgess had passed a catheter and drawn off 2 pints of urine and a trace of albumen. Drew off 3 pints of clear urine. Specific gravity, 1 . . ; albumen *nil*. Prostate enlarged considerably per rectum, bilobed, dense, movable.

On November 2nd, Dr. Burgess and Dr. R. Proust, of Paris, being present, I removed the prostate, weighing 1¼ oz., with ease, only four minutes elapsing till the gland was delivered from the bladder. There were several small calculi in a pouch behind the prostate. Scarcely any bleeding and no shock. Not a bad symptom for seventeen days, during which patient daily improved in strength, and latterly sat up daily. Some urine passed November 12th, and the wound had almost closed on the 19th. On this day he began to feel very low and lost his appetite. Next day the urine was very scanty and drowsiness set in. He died of uraemic coma on November 21st. Death in this case was obviously due to long-standing disease (insufficiency) of the kidneys rather than to the operation. Nevertheless it has to be accepted in connexion therewith.

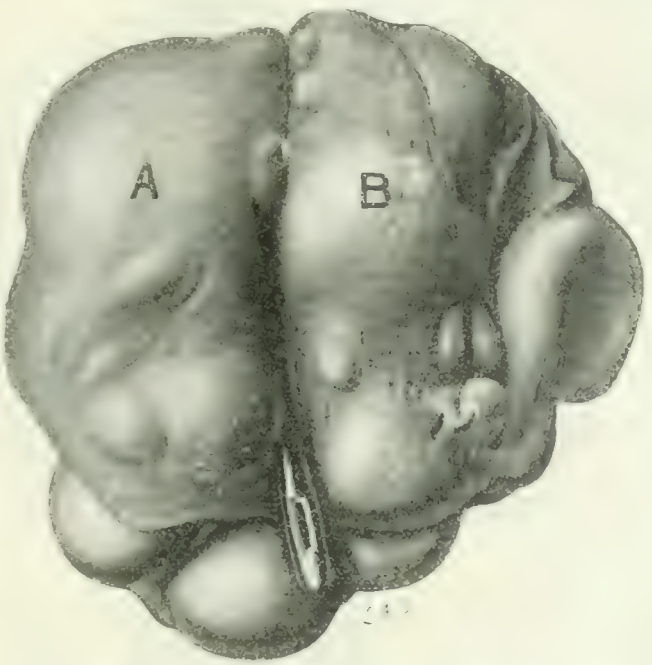


Fig. 2 (Case LXVII).—Prostate weighing 4½ oz. removed from patient aged 81. A, left lobe; B, right lobe.

CASE LXVI.

Gentleman, aged 56, seen in consultation with Mr. John Langton, Harley Street, November 6th, 1903. Prostatic symptoms for two years. Cystoscopic examination attempted a year previously, but unsuccessfully, owing to bleeding. Intense frequency of micturition by day and night, so that sleep impossible. Condition most miserable. Much averse to using catheter; in constant dread of retention. Residual urine only 2 oz., clear, healthy. Prostate palpably enlarged, bilobed, soft, movable. We made a cystoscopic examination, November 7th, with difficulty, as bleeding again set in; but the view eventually obtained revealed a finger-like outgrowth of the right lobe of the prostate in the bladder. I at first counselled postponement of operation till the prostate should have grown larger, and thus become more easy of removal; but Mr. Langton, who knew of the patient's sufferings both physical and mental, was averse to delay, and eventually it was decided to operate at once.

Operation, November 9th. On introducing my finger into the bladder the right lobe was found projecting inwards for ¾ in. The prostate was easily and rapidly enucleated, only four minutes elapsing from commencing the suprapubic incision till the gland was delivered from the bladder. Rapid and uneventful recovery, urine passing naturally November 27th, and the wound being dry December 1st. On December 3rd he left the home perfectly well, able to retain his urine for five or six hours, and to pass it naturally—"not so well since he was a boy," as the patient expressed it.

The prostate Fig. 2, p. 1185, which weighs 1 oz., is a pretty specimen, and shows the finger-like outgrowth from the right lobe in the bladder, which no doubt acted as a foreign body, giving rise to irritation, and acting as a ball-valve to the urethral orifice. This is the youngest patient on whom I have performed this operation. The ease with which the comparatively small prostate was enucleated is remarkable.

CASE LXVII.

Gentleman, aged 81, seen with Dr. Knox Shaw, Wimpole Street, October 29th, 1903. Prostatic symptoms for thirty years, gradually increasing. Catheter passed in June, 1903, showing 13 oz. residual urine. Cystitis in August, with much pus in the urine, and rigors. Catheter five or six times daily in November, 1902. Sounded under an anaesthetic in July, 1903, by another surgeon, but no stone found; entirely dependent on catheter since then, with much pain and occasional bleeding. General health bad. Prostate greatly enlarged per rectum, broad, soft, nodular, movable.

On November 19th, Dr. Knox Shaw and Colonel E. Little, I.M.S., being present, I removed the prostate entire in its capsule with several small calculi from the bladder. There was considerable bleeding, and the patient was feeble for some days after the operation.

By November 29th the suprapubic wound had closed so rapidly that it was necessary to reinsert a small tube to prevent spasm of the bladder. This was removed December 7th, and on the same day the patient began to pass urine naturally. Wound closed December 11th. On December 16th he went out for a walk. He is now quite well, and able to retain and pass his urine naturally.

The prostate (Fig. 2) weighs 4½ oz., and is irregularly enlarged and bossy, the left lobe having been more prominent in the bladder than the right.

CASE LXVIII.

Gentleman, aged . . . with . . . symptoms . . . years

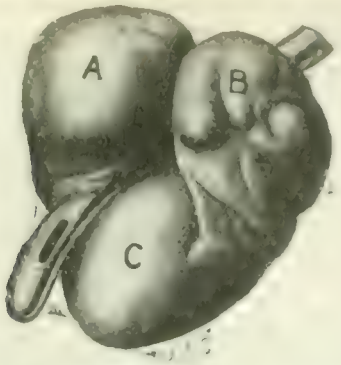


Fig. 1. Case LXXI. Prostate, weighing 1 oz., removed from patient, age [illegible]. A calculus is seen lodged in the outgrowth in bladder from right lobe. Catheter indicates course of urethra.

Catheter employed for four years; entirely dependent thereon for two [illegible] Much pain and hæmorrhage; urine fetid. Calculi felt by sound. Prostate enlarged per rectum.

On November 11th, [illegible] Catheter [illegible] being passed. I removed two large and twenty-[illegible] small phosphatic calculi, [illegible] and then enucleated the prostate, [illegible] bleed. [illegible] Catheter passed [illegible] to pass urine naturally December 3rd, wound [illegible] December 16th. I left her in [illegible] December 22nd, in excellent health, able to retain and pass urine as well as before the operation.

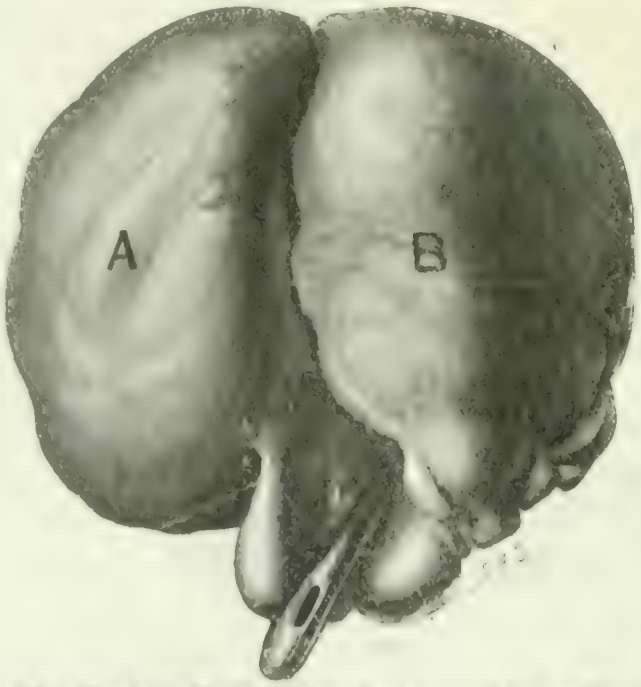


Fig. [illegible] (Case LXX.) Prostate weighing [illegible] removed from patient [illegible] A calculus [illegible] is seen lodged in the outgrowth in bladder from right lobe. Catheter indicates course of urethra.

[illegible] urine as well as he ever did.

[illegible] Dr. [illegible] Porter, [illegible] Prostate [illegible] catheter [illegible] for two years. [illegible] bleed and [illegible] [illegible] a bad symptom [illegible]

[illegible] operation, I said the patient [illegible] the last four days have been [illegible] days in [illegible] any year. [illegible] daily after December 11th, passed urine naturally; December 16th, passed [illegible] December 22nd, and [illegible] January 2nd, [illegible] travelled home to Windsor in good health and parts passing and retaining the urine naturally. I said that he [illegible] twenty years younger than his age [illegible] grand old man. In spite of the putrid state of the urine before operation the wound remained healthy and free from phosphates throughout.

The prostate (fig. 1), which weighs [illegible] oz., [illegible] the specimen of cystoscope, [illegible] present, with a small outgrowth to the left of a [illegible] below the [illegible] of the urethra. This is the oldest patient on whom I have performed this operation, and I submit that the result is a great [illegible] considering his age, the large size of the prostate, the weak state of the patient, the presence of chronic cystitis with formation of phosphatic calculi, the dilated condition of the ureters from backward pressure, and calling a probability that the kidneys were much diseased, and in spite of all this the complete restoration of health and function of the bladder.

CASE LXXI.

[illegible] gentleman, aged [illegible], with prostatic symptoms for ten years. Catheter not employed owing to case being complicated by the presence of stricture of the urethra. Great frequency of micturition, every two hours by day and night. Residual urine, 12 oz., contained much pus. **Patient extremely feeble, scarcely able to stand up.**

On December 11th, Mr. C. Braine anæsthetist, I performed internal urethrotomy and then opened the bladder suprapubically. The prostate presented a nipple-shaped projection on either side of the inner orifice of the urethra, which was stenosed. The bladder was extensively sacculated. The prostate, weighing [illegible] oz., was enucleated, the lobes coming away separately. On December 25th passed urine naturally, wound closed January 4th, 1904. The patient is now convalescent and able to pass and retain urine naturally.

CASE LXXII.

H. P., aged [illegible], admitted to St. Peter's Hospital December 7th, 1903, with the usual symptoms of enlarged prostate. This patient had been operated on by another surgeon in April, 1901, by Mc[illegible] method, an enlarged "middle lobe" of the prostate being removed. The suprapubic wound did not heal till January, 1903, when the sinus was excised and cauterized. Since then increasing pain and frequency of micturition. Catheter passed nightly, after which he got five or six hours sleep, at other times had to urinate over two hours. Residual urine 7 oz., alkaline, fetid, contained much pus. Prostate enlarged per rectum, rounded, tense, fairly movable. Cystoscopy on December 9th, 1903, showed the prostate enlarged and rounded on the left side, the gelatin urged on the right. A mass of [illegible] corpus covered the [illegible] and in this was embedded a [illegible] phosphatic calculus, which was

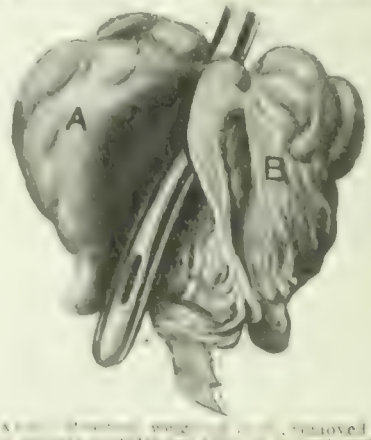


Fig. [illegible] (Case LXXII.) Prostate weighing [illegible] removed from patient [illegible] A prostatic calculus [illegible] is seen lodged in right lobe. The result of [illegible] previously removed by McGill's operation.

removed by lithotapaxy. The bladder was washed out daily, with the result that the urine became clear, but there was no diminution in the pus or frequency.

On December 16th Mr. Bickersteth, of Liverpool and others being present, I removed the prostate. There was considerable difficulty in opening the bladder suprapubically, owing to the scar tissues being matted together, and still greater difficulty in enucleating the prostate, owing to the inflammatory adhesions, resulting from the previous operation between the inner margins of the prostate and the walls of the bladder, though the gland came away readily from the triangular ligament. A portion of the prostatic urethra came away adherent to the gland. Uninterrupted recovery. The wound was closed December 29th, thirteen days after the operation. The patient is now quite well, walking about the wards, able to retain and pass his urine as well as he ever did.

The prostate Fig. 4, p. 1180, which weighs 1½ oz., is jagged along the posterior aspect of the right lobe, where it was adherent to and matted with the bladder wall. This is the third case in which my operation of complete enucleation of the prostate has been entirely successful after McGill's operation had failed. The previous operator in this case has persistently in his writings and otherwise minimized and misrepresented the nature and scope of my operation, as being identical with McGill's. It is the irony of fate that this case, in which McGill's operation performed by him had entirely failed to bring relief to the patient, should have fallen into my hands to be completely cured by total extirpation of the prostate.

CASE LXXIII.

A gentleman, aged 70, sent by Dr. T. D. Griffiths, Swansea, seen with Dr. Homerton, London, December 13th, 1903. Prostatic symptoms for three years: retention ten months ago, catheter employed since then with much pain in passing it; great irritability of the bladder, cannot sleep from the frequency of micturition, urine acid but contains much pus and mucus; prostate greatly enlarged, smooth, soft, movable, felt bimanually; patient's health much impaired.

On December 17th, Mr. Thomson Walker and Dr. Homerton assisting, I removed the prostate, weighing 4¾ oz., as usual. There was very little bleeding or shock. The patient has had no bad symptom, and is now convalescent.

NOTE.—During the period that has elapsed since this lecture was delivered on January 6th, 1904, I have performed this operation in a further series of 25 cases. Details of these operations will in due course be submitted for the consideration of the profession.

REFERENCES.

[1] July 20th, 1901. [2] February 1st, July 26th, and November 8th, 1902; April 18th, July 4th, and October 17th, 1903. — BRITISH MEDICAL JOURNAL, October 17th, 1903.

TOTAL PROSTATECTOMY:

DEDUCTIONS TO BE DRAWN FROM THE PRESENCE OF STRIATED MUSCLE FIBRE IN THE "CAPSULE" OF THE PARTS REMOVED.

By CUTHBERT S. WALLACE, B.S., F.R.C.S.,
Assistant Surgeon to St. Thomas's Hospital and the East London Hospital for Children.

MR. THOMSON WALKER, in a recent communication read before the Royal Medical and Chirurgical Society,[1] has drawn attention to the presence of striped muscle fibre on the anterior aspect of the prostate. He describes it as surrounding the apex of the organ and then as passing up on the anterior surface of the gland between the "capsule" and the posterior layers of the recto-vesical sheath of the prostate. (The prostatic plexus of veins lies between the layers of the recto-vesical fascia; consequently there will be a layer of the recto-vesical sheath between the veins and the layer of striped muscle.) In another part of the same paper, when describing the "capsule" on a specimen removed by prostatectomy, it was stated that striped muscle fibre was found in the anterior part of the "capsule." From this it was argued that the line of cleavage in the process of enucleation must have passed outside the confines of the gland, and that therefore the prostatectomy was complete.

In microscopic sections of the normal prostate made at right angles to the long axis of the urethra and midway between the extremities of the gland, the following features in the relation of this striated muscle may be noted.

At the most anterior part of such a transverse section the striated muscle fibres take a transverse or horizontal direction. The bundles are well marked and are separated from each other by a little fine areolar tissue. Near the urethra the bundles become more widely separated, and between them are seen to lie well-marked fibrous tissue and unstriped muscle fibres. Traced outwards towards the lateral parts of the prostate, the striped muscle fibres lose themselves in the substance of the organ. Passing inwards towards the urethra the striped muscle fibres become more and more widely separated by the fibro-muscular stroma of the gland until at last the latter predominates, the striped fibres becoming fewer and fewer until they cease altogether. Some time, however, before this happens the gland tissue makes its appearance, so that striped muscle fibre, fibro-muscular stroma, and gland tissue are found in the same field; and it is possible to see gland tissue with striped muscle fibres lying on both its central and peripheral aspect, so intimately is the striped fibre insinuated into the peripheral portion of the gland.

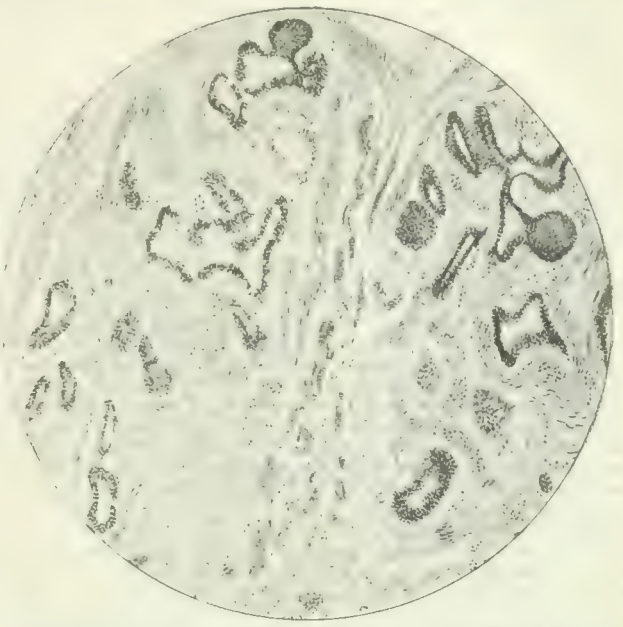


FIG. 1.—Showing a portion of the periphery of the prostate of a young adult. A group of striated muscle fibres is seen penetrating the stroma between the gland acini.

It thus follows that the presence of striped muscle fibre in the "capsule" of an enucleated prostate is not to be taken as an irrefragable proof that the line of enucleation has passed outside the confines of the gland, and that therefore the prostatectomy is complete. The completeness, as in other cases, can only be established by a microscopic demonstration of the absence of gland tissue in the parts left behind.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, March 26th, 1904, p. 728.

THE RELATIVE ADVANTAGES OF SUPRAPUBIC AND PERINEAL PROSTATECTOMY.*

By EDWARD DEANESLY, B.Sc.Lond., F.R.C.S.Eng.,
Honorary Surgeon, Wolverhampton and Staffordshire General Hospital

THE prostate must be regarded both anatomically and functionally as an accessory portion of the urethra, to which it is inseparably attached. Its relation to the bladder is much less intimate. The normal prostate is entirely extravesical, and its internal projection within the bladder is hardly visible when the bladder and urethra are slit open from the front. Seen in their normal relations in the living body by means of the cystoscope, the difference between the male and female bladders is much less than would be expected, and all that is seen of the prostate is a low median-grooved projection at the posterior part of the orifice of the urethra. The median groove corresponds to the anterior aspect of the projecting uvula vesicae, and in some cases the uvula itself is seen as a small round projection in the middle of the groove.

The prostatic urethra, 1¼ in. in length, is completely embraced by the prostate, but a much thicker portion of prostate covers it behind than in front. Moreover, the anterior portion consists mainly of unstriped muscular fibres, and in some cases no gland tissue at all exists in front of the urethra. The prostatic utricle and seminal ducts open into the projecting veru montanum near the centre of the prostatic urethra, and above the centre are the openings of the prostatic ducts. The connexion of the urethra with the surrounding prostatic

* Read before the Staffordshire Branch of the British Medical Association.

tissue is so intimate that it is impossible with the sharpest instrument by any ordinary means of dissection to separate the mucosal urethra from the prostate. When the prostate is enlarged the urethra participates in the process, and becomes distorted and elongated, sometimes to the extent of more than double its original length. To any one who examines an anatomical specimen showing this condition it is simply incredible that the prostate can be removed without removing, also, the whole, or practically the whole, of the prostatic urethra.

Another point in the surgical anatomy of the prostate which is of obvious importance, but which has received little attention in recent discussions on prostatectomy, is the relation of the prostate to the sphincters of the bladder. The muscles which, from their position and the arrangement of their fibres, may be presumed to have a sphincter action are three. First, the thicker portion of the circular muscular coat of the bladder which surrounds the neck and the orifice; next, the intrinsic muscle fibres of the prostate; and, lastly, the constrictor urethrae and a layer of circular fibres which extends upwards from it, and embraces the apex of the prostate. The first two of these are unstriped (involuntary) muscles; the last consists of ordinary striated muscular fibres. It was thought by Heidenhain that the muscular tissue of the prostate formed the effective sphincter of the bladder; but although, as already mentioned, the portion of the prostate in front of the urethra consists mainly of muscle fibres crossing the axis of the urethra and others similarly disposed are seen behind the urethra in transverse sections of the gland, their importance as sphincters cannot be great, in the first place because they are absent in women, and, in the second, because we know that practically the whole prostate can be removed without loss of control over the bladder.

There can be no doubt that the most important and effective sphincter is the constrictor urethrae and its upward extension on the apex of the prostate. This is a voluntary muscle and voluntary control must be effected through it, just as voluntary control of the anus depends on the external sphincter ani. In both cases of course there exists also an internal or involuntary sphincter muscle composed of a strengthened band of the normal circular muscular coat of the viscus. When a catheter is introduced within any part of the prostatic urethra no urine flows unless the patient strains—that is, unless the bladder contracts or is compressed by the abdominal walls. This shows that the prostatic urethra is normally closed, and is not, in fact, a portion of the bladder. The force closing it, however, presumably the contraction of the circular fibres of the neck of the bladder, is very small, for once the point of the catheter is in the prostatic urethra very little hydrostatic pressure suffices to overcome it and to allow fluid to enter the bladder. On the other hand, to inject fluid through the anterior urethra and overcome the resistance of the constrictor urethrae a much higher pressure is required.

The relation of the prostate to surrounding structures, especially to the pelvic fascia, has lately been the subject of much controversy, and is of great surgical importance. This [illegible] of the well-known operations of Mr. P. J. Freyer, to whom, whatever view we may take of his anatomical contentions, is due the credit of having demonstrated [illegible] from a surgical point of view [illegible] more accurately than had previously been [illegible]. Mr. Freyer's contentions were, first, that the enlarged prostate had a definite capsule of its own from which it could be enucleated with the finger; and, secondly, that in most cases, at any rate, it was possible to remove the [illegible] leaving an intact urethra [illegible].

I need not [illegible] who have followed the controversy [illegible] that the validity of these contentions has been [illegible] the experience of Mr. R. C. Shattock and of Mr. [illegible] Watson seem to me absolutely conclusive on the [illegible] points. How any question can exist to clear up the [illegible] I do not know, but I agree upon a common [illegible] to be agreed that after [illegible] of prostatic capsule is left behind [illegible] urethral capsule or a condensed [illegible] of the prostatic tissue compressed by the adenomatous [illegible] is immaterial from a surgical point of view. It is certain that the normal prostate has no such capsule and the investments of the enlarged adenomatous prostate may be described best as consisting of an outer fibrous sheath formed by the recto-vesical fascia and an inner capsule or cortex derived from the gland itself. Between these two investments lie the prostatic plexus of veins, which are not injured by the operation of enucleation.

It is obvious that the prostate may be approached surgically by two routes: (1) through the bladder, and (2) from without the bladder, through the rectum or perineum. The main object of this paper is to discuss the relative advantages of these two routes. At the present time, owing to the brilliant series of operations published by Mr. Freyer, the suprapubic route is that most generally adopted. Suprapubic cystotomy is a simple and familiar operation, and gives ready access to the prostate from within the bladder. The mucous membrane over the prostate is incised over one or both sides of the prostate, and the latter is then easily enucleated by the finger, aided by the fingers of the other hand in the rectum. I have performed this operation four times, and in three out of the four the prostate was shelled-out completely without difficulty and with little haemorrhage. In the fourth it was simply impossible to enucleate the prostate, which was of the hard fibrous variety, and the operation had to be completed by the perineal route. The recto-vesical sheath had, however, been opened, and the patient succumbed to pelvic cellulitis at the end of a fortnight. In this case there was nothing to distinguish the fibrous from the adenomatous variety of prostatic enlargement, either by rectal palpation or by cystoscopic examination. It was considerably enlarged, and projected within the bladder like a cervix uteri, just in the same manner as in the other three cases in which enucleation was easy. Had this case been operated on by the perineal method without the previous injury inflicted by the unsuccessful efforts from above, the whole or a sufficient amount of the prostate could have been safely removed under the guidance of direct vision. Or, if this had proved impossible, the operation could have been abandoned without inflicting any serious injury.

Another objection to the suprapubic route is the great depth of the prostate from the surface in stout subjects. Owing to this cause considerable laceration of the prevesical cellular tissue is difficult to avoid, and exposes the patient to two serious dangers—prolonged oozing of blood into the subperitoneal tissues and subsequent pelvic cellulitis. This occurred in one of my cases, and although the prostate was easily enucleated in two large smooth masses, death occurred on the third day.

Lastly, in the suprapubic operation the subsequent drainage of the bladder is effected against gravity, and is often a source of serious trouble. The pouch left in the bottom of the bladder is never completely emptied, the urine generally becomes ammoniacal, and the wound often becomes sloughy and coated with phosphates. Owing to these causes healing of the wound may be delayed for many weeks.

These objections to the suprapubic incision are so obvious that the alternative perineal route has been advocated and practised by many surgeons both before and since Freyer's cases were published. Mr. J. H. Nicoll, of Glasgow, in 1894 advocated a preliminary suprapubic cystotomy followed by a median perineal incision. The prostate was then pushed into the perineal wound by two fingers in the bladder from above, and a sufficiency of redundant prostatic tissue clipped away with scissors without opening the urethra or bladder. Bruce Clarke in 1900 advocated a very similar procedure, carried out in two stages. This operation has certain obvious advantages, especially in such a case as that I have already mentioned, where the prostate is so densely fibrous that enucleation is impossible.

A much superior perineal method, which I shall now describe, has been elaborated by M. Robert Proust, of Paris, and is described in detail in an admirably illustrated monograph published in 1903. After verifying the steps of the operation on the cadaver, I have employed this method on a man whom I show to-day and whose case I will first briefly relate.

[illegible] case of stone. In September, 1901, the late Mr. Vincent [illegible] removed a large stone by suprapubic cystotomy, and at the same time scraped away some small portions of the prostate which projected into the bladder. As a result of the operation he was much [illegible], and was able to dispense with the catheter on which he [illegible] previously been entirely dependent. Symptoms of [illegible] recurred, and in October, 1903, after an ineffectual attempt at [illegible], I opened the bladder and removed two large smooth [illegible] by a ragged-mouthed [illegible] at the base of the bladder, [illegible] to be greatly enlarged and projected like a cervix [illegible] the bladder. After the operation he remained well for [illegible] to this [illegible] gone as then found, and I advised prostatic [illegible]. He refused by the consideration already mentioned, and [illegible] by the presence of a considerable ventral hernia, the result of the

two previous suprapubic operations. I selected the perineal route and carried it out by Proust's method on February 15th, 1904. The operation proved rapid and simple in performance, and satisfactory in its result. Convalescence was rather slow, but unattended by any special difficulties, and the patient is now ten weeks after the operation in good health. The urine is acid and clear and micturition forcible and free from pain. There remains, however, some weakness of the sphincter of the bladder, and he is unable to retain urine beyond two hours.

M. Proust, in his work, makes no reference to Freyer's procedure; but I may point out that Freyer's discovery (for without disparaging previous operators it really amounts to a discovery), namely, that in the majority of cases of enlarged prostate the whole mass can be easily enucleated, is of equal value, whether the prostate is approached from above or from below. The final stage of the operation—the enucleation—is the same in both cases, except that by M. Proust's procedure the prostate is not only completely exposed to sight and touch but rendered quite superficial so that the whole operation can be carried out with precision and deliberation. The steps by which this is accomplished are as follows, and great importance is attached to the precise performance of each step before proceding to the next. These steps are illustrated by enlarged copies of Proust's illustrations here shown.

In the first place the patient is placed in what is termed the inverse perineal position—that is, the lithotomy position—with the pelvis raised by a special table or by blocks to such a height that the surface of the perineum is almost horizontal. A catheter is passed and left in the bladder. A curved incision with its convexity forwards is then made from one ischial tuberosity to the other, the summit of the curve meeting the middle line two fingerbreadths in front of the anus. The skin and fat are dissected back, and the bulbo-cavernosus and ischio-cavernosus are defined. A small muscular bundle, which Proust terms the superficial ano-bulbar raphe, passing from the hinder end of the bulb to the anus, is put on the stretch and divided transversely. The anterior end of this band being drawn upwards and forwards the bulb is lifted with it, and two important landmarks are now exposed and defined—the anterior edges of the levator ani on each side and in the middle line between them a band of muscular fibres uniting the membranous urethra to the rectum, called by Proust the recto-urethral muscle. The recognition of this structure is the most important step in the operation because it is the key to the recto-vesical space. It is divided transversely, keeping the scissors parallel to the membranous urethra so as to avoid wounding the latter. When this cut is made accurately it at once opens the retro-vesical space, and the prostate and bladder are easily separated from the rectum as high as the reflection of peritoneum by means of the two forefingers. If a suitable retractor is now inserted and the rectum and anus drawn strongly backwards, the posterior surface of the prostate is not only exposed to view but is dragged down into a quite superficial position, in which it can be easily handled. In order to make it project still more the prostatic urethra is opened at its apex and a sharply-curved sound passed into the bladder. If the beak of the instrument is now turned round so that it looks towards the operator, the prostate can be drawn down and steadied in any desired position.

It is now easy to open the prostatic capsule and by means of the finger and blunt elevators to enucleate completely the prostate on its peripheral aspect, leaving it attached to the bladder merely by the prostatic urethra. The latter is next incised along its floor throughout its whole length but without trespassing on the neck of the bladder. Inserting the finger inside the open urethra and using sharp scissors, each lateral half of the prostate, according to Proust, may be cut away from the urethra without wounding the latter, and the manner of doing so is clearly shown in one of his figures. By the use of sharp instruments and by making the incisions in the substance of the prostatic tissue itself, it is of course theoretically possible to remove the bulk of the prostate, and leave the prostatic urethra as a completely isolated tube attached to the membranous urethra at one end and to the neck of the urethra at the other. The mere description of the result of this procedure makes it difficult to believe that this is really possible, except, perhaps, in cases where the enlarged prostate projects but slightly within the bladder. Where it projects into the bladder, as it does in the great majority of cases, to the extent of one-third or even one-half of its bulk, I do not believe it is possible to remove the whole organ without taking away the greater part, if not the whole, of the prostatic urethra. Without, however, accepting the possibility of preserving the prostatic urethra as a normal procedure, it is one of the principal merits of the perineal method, as opposed to the suprapubic, that the whole operation is conducted with a full and clear view of the field of operation. It is for this reason much more adaptable to the varied conditions of particular cases. It is by no means certain that complete removal of the whole of the enlarged prostate is required in all cases, or is, indeed, possible in every case. Where, therefore, enucleation is found to offer unusual difficulty, such as that due to the densely fibrous form of prostatic enlargement, it would be easy by the perineal method to clip away with scissors the bulk of the gland without opening the bladder or the urethra, except by means of the median incision already described. This incision, however, should never be omitted, for the amount and character of the internal projection, even if previously determined by the cystoscope, as is always advisable, must be confirmed by a finger in the bladder. If by this means it is found that the removal of the portions of gland from outside the bladder has not sufficiently lessened the projection within it, or especially if any pedunculated projecting mass is felt, the projecting portions can be easily reduced or removed by suitable gouge forceps passed into the bladder.

The after-treatment is simple. The breach in the urethra or bladder is partly closed by sutures not passing through the mucous membrane, and a large rubber tube is brought out through the centre of the perineum; the rest of the perineal wound is sutured. The bladder is irrigated daily, the tube being removed as soon as the state of the urine and wound permits. The resulting perineal fistula then rapidly closes, and normal micturition is resumed.

In conclusion, I may briefly summarize the principal advantages which prostatectomy by the perineal method appears to me to possess compared with the more familiar suprapubic method. It is anatomically more direct; it does not inflict a double wound in the bladder, and does not open the prevesical cellular tissue. Again, the whole operation can be performed deliberately, and under the direct guidance of sight as well as touch; it permits, therefore, the operator to remove as much or as little of the prostatic overgrowth as the circumstances of the case or the nature of the enlargement render desirable or feasible. Lastly, the drainage of the bladder and subsequent wound treatment are much facilitated by the dependent opening. The conspicuous merit of Proust's operation compared with previous perineal methods is the accuracy and certainty with which each step of the operation is performed, and the admirable access to sight and touch which it gives to the prostate and base of the bladder. When the steps of the operation are properly carried out, the exposure of the prostate is extremely rapid and simple, and the whole operation occupies no more time than the suprapubic operation. Perhaps the greatest merit of the operation is that it permits a precise examination of the whole prostate both within and without the bladder before the question of removal of the organ is finally decided. The preliminary stages of the operation, indeed, offer a method of exploring the bladder which for many purposes is much superior to suprapubic cystotomy. In those common cases, for example, where stone and enlarged prostate coexist, and where lithotrity is either difficult or inadvisable, owing to the liability of recurrence, it is usual to remove the stone by suprapubic cystotomy. Of late years the prostate has often been removed at the same time. Most surgeons are aware that suprapubic lithotomy in adults, whether accompanied or not by prostatectomy, is attended with a considerable mortality, but the difficulties imposed by the enlargement of the prostate and the depth of the bladder have hitherto made lateral or median perineal lithotrity even more difficult and dangerous. The latter difficulties have been entirely overcome by Proust's method, by which the bladder and prostate can be easily and safely opened from the perineum, either for exploration, for removal of calculi, or for removal of the whole or portions of the prostate.

PRESENTATION.—Dr. W. Hooper Masters, on leaving Parkstone to take up his residence in Barnes, was presented with a walnut wood writing table, with desk and revolving chair, by the members of the Poole and Parkstone Natural History Society, of which he was president; he also received a silver matchbox and gold mounted cigarette holder from the Gardeners' Association.

REMARKS ON A SERIES OF 120 OPERATIONS FOR VESICAL CALCULI.

BY E. A. SOUTHAM, M.B. (Oxon.), F.R.C.S. Eng.,
Surgeon Manchester Royal Infirmary, Professor of Clinical Surgery Owens College.

HAVING recently completed a series of 120 operations for the removal of vesical calculi, a brief review of the cases met and an exhibition of the specimens will perhaps prove of interest.

SEX.

The operations were performed upon 110 patients, of whom 8 were females and 102 were males, illustrating the much greater frequency of calculus in the latter sex.

AGE.

Twenty-nine patients were under 10 years of age, and of these 6 were three years old, this being the youngest age at which a calculus was met with; 47 patients were between 10 and 50 years of age; 44 patients were over 50 years of age, namely, 17 between 50 and 60 years, 18 between 60 and 70 years, and 9 between 70 and 80 years; the oldest patient was 78 years of age.

NATURE OF OPERATION.

1. *Females.* In 7 of the 8 females the calculus was extracted through the dilated urethra. In the remaining case it was removed by vaginal lithotomy, this route being selected in preference to the suprapubic, as the bladder was extremely rigid and contracted, and the calculus, which consisted of uric acid, was of large size, measuring 2½ by 1½ in.

2. *Males.* In 40 patients the calculus was removed by lithotrity, this operation being performed in 14 of the 27 boys, who were under 10 years of age; of the latter, 4 patients were 3 years old, 2 were 4 years old, and 5 were 5 years old; 3 patients were between 5 and 10 years of age.

In 53 cases lithotomy was performed, the lateral operation in 17 patients, and the suprapubic in 46 patients.

MORTALITY.

In 12 patients the operation was followed by a fatal result, giving a mortality of exactly 10 per cent. in the total number of cases operated upon. The unsuccessful cases, all of which occurred in males, were as follows: In the 49 cases treated by lithotrity 1 case was fatal, giving a mortality of almost exactly 2 per cent. for the crushing operations.

The patient in this instance was a gentleman, aged 72 years, who had been a free liver and was of a very gouty habit. The calculus consisted entirely of uric acid and was about 1½ in. in diameter. There was considerable enlargement of the prostate, so that the operation was somewhat prolonged, lasting upwards of an hour. It was followed by coma and suppression of urine, and death took place on the second day from uræmia. No necropsy was made, but though the urine was normal, the kidneys were probably affected with gouty deposits.

In the 53 lithotomies there were 11 fatal cases; these occurred in the 46 suprapubic operations, the 17 lateral operations all proving successful. This gives a mortality of nearly 24 per cent. for the suprapubic operation, which at first sight seems unusually high. It must be remembered, however, that the cases so treated were all unsuited for lithotrity, the latter operation being contraindicated in each instance with one exception on account of the large size of the stone, associated either with enlargement of the prostate and an irritable state of the bladder and urine, or with a feeble condition of the patient, in consequence of which the shock of a prolonged crushing operation would not have been well borne.

The fatal results in these cases was due in several instances, where the patients were enfeebled by years to sudden heart failure coming on some interval after the operation, when all was apparently progressing favourably on them as regards the operation wound and the existing secondary septic changes, death being caused by suppression of urine and other complications.

The youngest patient was a boy, aged 3 years, upon whom I performed my first suprapubic operation in 1892. His case was recently fully explained, a photograph having been revived by Sir H. Thompson, and the result of the operation was as yet very healthy. The bladder was found to be healthy, after removing the stone, and the opening in the bladder and those about the external wound all went on satisfactorily for many days, when the bladder began to leak the urine being unable to escape externally, infiltrated the surrounding tissues, and the boy developed pelvic cellulitis which proved fatal. Such experience has taught us to leave the external wound open when the bladder is sutured, so that if any leaking should occur there may be an exit for the urine.

As regards the mortality after suprapubic lithotomy, I was somewhat surprised to find that it was so high, not only in my own practice, but also in that of other surgeons.

Jacobson mentions 14 cases of suprapubic lithotomy under his care of which 4 were fatal, giving a mortality of 28 per cent.

Barling collected 72 cases of suprapubic lithotomy performed in London and provincial hospitals between 1888 and 1892, the patients all being under 20 years of age, and in 15 instances there was a fatal result, giving a mortality of 20 per cent.

It is also interesting to note that in the practice of Freyer since he has performed lithotomy only in such cases as are unsuitable for lithotrity, lithotomy in the adult (21 cases, with 4 deaths) has been attended by a mortality of nearly 20 per cent.

RECURRENCE.

In 7 patients there was a recurrence of the calculus in the bladder, necessitating further operations. In 1 patient lithotomy was performed three times and lithotrity once in the course of eight years. In another lithotomy was performed once and lithotrity twice in the course of twelve years, an interval of ten years elapsing between the second and third operations. In 2 patients lithotomy and lithotrity were each performed once. In 3 patients lithotrity was performed twice, intervals of from two to five years elapsing between the different operations.

It is interesting to note that in the cases where the calculi recurred 1 patient was in his 50th year, and the others were all over 50 years of age when the first operation was performed. No instance of recurrence was met with in children or in adults under 50 years of age.

The 10 instances of recurrence were met with after five operations for lithotrity, and also after five operations for lithotomy, giving 10 per cent. of recurrences after lithotrity and 8 per cent. after lithotomy. In 2 patients nephrolithotomy was subsequently performed, and calculi were removed from the kidney on each occasion.

FOREIGN BODIES AS NUCLEI.

In 2 instances the nucleus of the calculus was formed by a foreign body. In 1 case a male, aged 28, it consisted of a piece of a glass rod, which he stated he had accidentally swallowed eight years previously. In the other—a female, aged 37—who had been operated upon three years previously for vesico-vaginal fistula, the nucleus was formed by a silver suture.

SPONTANEOUS FRACTURE.

In one instance there was a good example of this rare complication. The patient, a man, aged 58 years, had frequently passed by the urethra numerous irregular particles, some twice the size of a pea, evidently fragments of fractured phosphatic calculi. Suprapubic lithotomy was performed, and fourteen mottled phosphatic calculi were removed from the bladder, and in addition several fragments of other calculi, which had broken up in its interior, apparently as the result of "concussion" from contact with one another.

ENCYSTED CALCULI.

A typical example of this condition was met with, a number of small calculi being contained in a saccule the size of a pigeon's egg, situated at the base of the bladder, with the interior of which it communicated by an opening just large enough to admit the tip of the little finger. Calculi were twice removed at an interval of two years from the saccule by suprapubic lithotomy, and their subsequent formation was then prevented by establishing a permanent suprapubic fistula.

REFERENCES

[illegible] p. [illegible] BRITISH MEDICAL JOURNAL, [illegible] p. [illegible] BRITISH MEDICAL JOURNAL, 1892, i. 1185.

THE Royal Institute of Public Health proposes to entertain Mr. Chamberlain at dinner at the Criterion Restaurant, Piccadilly, on June 9th, in recognition of his eminent services to preventive and tropical medicine. Further particulars will be found in our advertisement columns.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

INVERSION OF THE UTERUS.

I was called to attend Mrs. F. in her confinement, a primipara 28 years of age. Having found the first stage had been tedious, as soon as the os was sufficiently dilated I applied the long forceps and delivered, and after waiting ten minutes and feeling the insertion of the cord, while external pressure was applied, I removed the placenta; with it followed the uterus completely inverted. The placenta was slightly adherent to the fundus, but was easily detached. I immediately pushed up the uterus, which readily reinverted itself. No haemorrhage or symptoms of shock followed, and my patient, except for some rather unusual weakness lasting a few days, is now in the fifth week from her confinement quite well.

I find the accident to be one of extreme rarity (it was only observed once in upwards of 200,000 cases at the Rotunda Hospital), and it may on this account prove interesting.

Pershore. MARTIN WOODWARD.

AN UNUSUAL DISLOCATION OF THE CLAVICLE.

THE following case is one of sufficient rarity to be worth recording: H. W., aged 33, when somewhat intoxicated was thrown from his bicycle on to his left shoulder and head. On recovering consciousness he complained of great pain and inability to move his left shoulder. When I saw him I found that his left clavicle had been dislocated backwards and torn from the acromion process of the left scapula, and that on dipping my fingers behind the acromial end of the clavicle with some force I could bring the acromial end forward and down into position, but that on releasing hold the acromial extremity, or, to be more correct, the whole clavicle, for there was no fracture, was immediately pulled backwards by the trapezius muscle. Two days later at the Victoria Cottage Hospital and under gas and ether given by Dr. Leon of Sidmouth, I got the acromial extremity down into position and kept it there in the following way: I placed a firm sponge over the acromial end of the clavicle and put on a Bavarian plaster-of-paris shoulder cap. By placing a large pad in the left axilla and the left arm in Sayer's position for treatment of fractured clavicle I managed to get my chief pressure over the left shoulder and under the left elbow. I kept the shoulder in this splint for five weeks, and when I took it off I found the shoulder perfectly symmetrical and in excellent position. I then employed passive movements with the rubbing in of liniments, and at the time of writing this—a fortnight later—the patient is able to use his arm well and has excellent mobility in his left shoulder joint. I take it that the left superior and inferior acromio-clavicular ligaments as well as the conoid and trapezioid ligaments were ruptured.

Sidmouth, Devon. ARTHUR C. BIRD, M.R.C.S.Eng., L.R.C.P.Lond.

A CASE OF ACUTE TETANUS: DEATH.

W. H., aged 23, was admitted into hospital under my care on March 18th, suffering from an injury to his right foot.

On admission he had an extremely anxious expression, and was suffering greatly from shock. His temperature rose at night to 102°, and his pulse was 126.

On examination of his chest a well-marked mitral murmur, systolic in time, was detected, and there were moist sounds over both lungs. The left foot was very swollen, and much discoloured, but no fractures could be made out. On the dorsum of the right foot there was a large lacerated wound, with comminuted fractures of the second, third, and fourth metatarsal bones. The sole appeared healthy. Owing to his condition I decided to delay any operative treatment until Saturday, when I performed a Lisfranc's (this was done because he would not consent to a Syme's). He recovered from the operation, and progressed favourably until Friday morning at 5.30, when he awoke complaining of a slight stiffness of his lower jaw, which never became fixed. He had his first spasm on Saturday, March 26th, at 3.30 a.m. This was followed at 5.10 a.m. by another slightly more severe; a third occurred at 5.25 a.m., which was a very bad one. He died at 5.30 a.m.

The stump looked healthy, and showed no signs of suppuration. It was dressed with hot boracic fomentations from the first.

I think the case of interest for the following reasons:

1. Short period of incubation—eight days.
2. Short period between the first symptoms and death—twenty-four hours. (This was probably accelerated by the condition of his heart.)

His abdominal muscles remained flaccid throughout.

ARTHUR DOBSON, Surgeon, Ilkeston Hospital.

REVERDIN'S CURVED NEEDLE IN CLEFT PALATE.

FOR the last three years I have regularly used this needle (made for me by Mr. Gardner, surgical instrument maker, Edinburgh) in passing the silkworm-gut sutures used in uniting the muco-periostal flaps, and the time saved and the satisfactory results obtained lead me to strongly recommend it to those performing such operations. It avoids the necessity of passing two sutures, and as Gardner has now made it with a spring catch similar to Reverdin's straight needle, a considerable amount of time is saved.

J. CRAWFORD RENTON, M.D., Surgeon, Western Infirmary, Glasgow.

RECURRENT HERPES ZOSTER.

REFERRING to Mr. Leopold G. Hill's communication on recurrent herpes zoster, I have a patient, a lady aged about 70, who had a severe attack affecting the right side of the chest about two years ago, and who has just developed a recurrence, the right side of the chest and abdomen being the selected part.

I have never before seen it occur more than once in the same patient, and I have heard Mr. Jonathan Hutchinson say that more than one experience of it is so infrequent that it is safe to tell patients with herpes zoster they will never get it again.

HENRY WALDO, Physician, Bristol Royal Infirmary, and in charge of the Department for Skin Diseases.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ANCOATS HOSPITAL, MANCHESTER.

CYLINDRICAL EPITHELIOMA IN THE CENTRUM OVALE.

[Reported by R. T. WILLIAMSON, M.D.Lond., F.R.C.P., Physician, to the Hospital; and Assistant Lecturer on Medicine, Owens College, Manchester.]

E. C., iron worker, aged 40, was admitted May 21st, 1903, on account of weakness of the right arm and leg.

History.—Five weeks previous to admission he had first noticed weakness of the right hand. The loss of power gradually increased. At the end of a week he could not use a hammer at his work, and he then first noticed loss of power in the right leg. The weakness in the right arm and leg gradually increased. There was no pain in the head and no vomiting. No history of syphilis or injury to the head could be obtained. In 1892 the right eye had been seriously injured at his work, and very soon afterwards it had been removed by an ophthalmic surgeon. (The patient states definitely that there was no tumour in the eye.)

State on Admission.—The right arm was paralysed. The right hand could not be moved, but very slight movements could be made at the elbow and shoulder. There was paresis of the right leg, the movements being much feebler than those of the left leg. The patient was able to walk alone, but there was scraping of the toes of the right foot in walking. The knee jerks were present. Ankle-clonus and the extensor (Babinski) type of plantar reflex were obtained on the right side, but not on the left. There was a slight diminution of tactile sensation all over the right side, most marked in the hand. Sensations of pain and temperature were distinctly felt on the right side. The tongue when protruded deviated a little to the right. The movements of the left eyeball were normal. The right eye had been removed in 1892. No signs of growth could be detected in the right orbit. In the centre of the left cornea was an opacity due to an old injury. There was no hemianopsia. The heart, lungs and urine were normal. There was no headache and no vomiting.

Progress.—A few hours after admission a right-sided unilateral convulsion occurred. Twitchings commenced in the right arm, then extended to the right leg and finally to the right side of the face. Consciousness was not lost during the fit. The left side was not convulsed. The duration of the fit was about five minutes.

Similar fits occurred on May 24th, 25th, 28th and 30th.

[illegible] There were two [illegible] there was [illegible]

[illegible] Vomiting [illegible]

[illegible] Speech thick and [illegible]

[illegible] There [illegible] convulsions [illegible] there [illegible]

[illegible] Slight [illegible] aphasia. No word deafness.

[illegible] One eye of the left cornea had hitherto prevented the optic [illegible] being seen with the ophthalmoscope but on [illegible] the pupil was dilated with atropine, and by careful examination a view of the optic disc was obtained. There was no optic neuritis. The disc was normal. The touch with the finger was not felt on the right hand and lower half of the arm. Above the inside of the [illegible] and on the [illegible] [illegible] side of the body the touch was felt but not localized correctly. The right arm was completely paralysed. The right side of the face was paralysed entirely the lower facial muscles. The right leg was very weak, but slight movements could still be made. There was [illegible] [illegible] "Yes" and "No" were the only words which [illegible] the patient. There was no word deafness.

[illegible] Slow [illegible]

[illegible] Yes" and "No" were the only words which the patient could say. In addition there was at this date complete word deafness. (The patient had never been able to read or write.) Paralysis of the right arm and leg was now complete. Paralysis of the right side of the face well marked.

The patient became very drowsy and semi-comatose in the early part of July, [illegible] the temperature rose to [illegible] on July 11th to [illegible] before death. The latter date.

[illegible] revealed no noteworthy changes in the organs [illegible] and ascending frontal convolutions of the left cerebral cortex slightly flattened. Medulla, pons, and cerebellum normal to the naked eye. On section of the brain a tumour was found in the middle portion of the centrum ovale of the left cerebral hemisphere, beneath the motor area of the cortex. The tumour was greyish red in colour, very vascular and soft, but clearly defined from the brain substance by its margins. The growth was roughly spherical; its diameter was about [illegible] in the sections through the ascending parietal and [illegible] convolutions the growth extended for a very short distance into the posterior part of the precentral region. It was separated from the cerebral cortex by white matter of varying amount, in most of the sections but in the sections through the ascending frontal and parietal convolutions the growth extended close under the grey cortex [illegible] the region of the arm and leg centres. At one point the growth extended into the cavity of the lateral ventricle. Other parts of the cerebral [illegible] presented no change of importance.

[illegible] showed that the tumour consisted of a connective tissue stroma in which were embedded gland-like structures and small cystic structures lined with epithelial cells. The cells of the larger tubules and cysts were cylindrical epithelial cells, the deeper cells were irregular in shape. In addition to the tubules and cystic spaces, strands of epithelial cells, [illegible] by Schmaus, were embedded in the connective tissue. Also at many parts were masses of irregularly-shaped epithelial cells. The cylindrical cells lining the tubules and small cystic cavities just mentioned, resembled those lining the central canal of the spinal cord. At some parts the cells were situated [illegible] spinal cord stained according to Marchi's method [illegible] of degeneration of fibres in the crossed pyramidal tract on the side opposite the growth and degeneration in the direct pyramidal tract on the same side. The degenerated fibres in these tracts were stained deep black). There were also a very few degenerated fibres in the direct pyramidal tract on the same side as the brain lesion.

[illegible] stained according to Van Gieson's method and also in sections stained according to the methods of Weigert and Pal, no [illegible] fibres could be detected in the crossed and direct pyramidal tracts. Degeneration could be detected in the [illegible] tracts of the cord, both by Marchi and Weigert methods of staining.

Remarks.—At the early period of the illness the case presented [illegible] difficulties as regards diagnosis. The absence of [illegible] and vomiting at first and the absence of optic neuritis when the optic nerves were examined on June 10th, [illegible] the diagnosis of cerebral tumour. The [illegible] the clinical history of the case was the [illegible] and the [illegible] gradual nature of the [illegible] This is perhaps [illegible] characteristic exception [illegible] [illegible] existence of the symptoms [illegible] [illegible] [illegible]

nurses were then sprayed with free chlorine spray twice a day for a week. We had then no more trouble with diphtheria. Before admitting any fresh children to the ward the throats of all the children were also sprayed for a few days.

This little epidemic seemed to be worth reporting as indicating the ease with which it was arrested when once the apparent cause was detected. That so many of the nurses should be walking about with the bacilli in their throats is also of interest.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Wolverhampton, Thursday, April 28th, 1904.

F. MILNES BLUMER, M.B., C.M., President.

Gastro-jejunostomy for Gastric Ulcer.—Mr. CHOLMELEY read notes of a case. A woman, aged 25, had suffered from symptoms of gastric ulcer off and on since the age of 14. She was first admitted to the Wolverhampton Hospital on April 28th, 1903, and discharged on August 10th. She was readmitted on January 18th, 1903, with all the usual symptoms of gastric ulcer and a good deal of tenderness in the epigastric region. Haematemesis had occured four days before readmission. On February 23rd she had symptoms very suggestive of perforation of stomach. As the pulse remained good it was decided to wait. On March 17th she was much better and was fed by mouth. At the beginning of April she became worse; there was more pain and vomiting. Temperature went up so it was decided to perform a gastro-jejunostomy on April 8th. The temperature the evening before the operation was 102.8°. The temperature had always gone up during her attacks of pain and vomiting. A posterior gastro-jejunostomy was done. The scar of a gastric ulcer was found on the anterior surface of the stomach close to the pylorus, and there were a number of adhesions between the pyloric end of the stomach and the transverse mesocolon in the lesser sac of the peritoneum. The patient at the date of the meeting, three weeks after operation, was taking chicken and fish without any discomfort. She was unable to walk owing to the condition of her feet, one which had no connexion with the operation.

Enterectomy: Removal of Uterine Appendages.—Mr. CHOLMELEY also related the following case: E. H., aged 21, was admitted to hospital on July 22nd, 1903. She had been married one month before. The present illness began four to five weeks before admission with pain and tenderness in the lower part of the abdomen. She vomited once. The pain got better but recurred. Leucorrhoea had existed for one month. On admission the temperature was 104°. The abdomen was retracted, rigid, and very tender, chiefly at the lower part. The pulse was rapid, and the tongue moist. Hardness could be felt in Douglas's pouch, but the patient was too tender for proper examination. On July 23rd she was examined under ether. Per vaginam the uterus was found retroverted, and what felt like an enlarged tube was found on the right side in Douglas's pouch, and an enlarged tube on the left side in front of the uterus. The abdomen was opened in the middle line. The right tube was found to be very enlarged and tortuous, and lay curled up in Douglas's pouch with the fundus of the uterus. The left tube was in a similar condition in front of the uterus, adherent to it and to the intestine. The left ovary was about the size of a hen's egg. The right tube and ovary were removed fairly easily, as the adhesions were not very firm. The left tube was cleared with difficulty, owing to firm adhesions between the ovary and the small intestine. While separating last coil of intestine some pus was let out from between it and the ovary, and a hole was torn or found in the small intestine, there being a loss of bowel wall of about 1 in. by ½ in. The bowel was clamped with two Doyen's clamps covered with a gauze swab and placed outside the abdomen until the left tube was removed and the uterus replaced. Four inches of gut were resected, end-to-end anastomosis effected with two continued silk sutures, and the abdomen drained with glass tube. The patient got on very well, and had no bad symptoms. The abdominal wound was slow to heal superficially, but was now sound. Both tubes were found to be much thickened, and their walls infiltrated with pus. The left ovary was suppurating. The infection was undoubtedly gonorrhoeal. The evening before the operation the temperature dropped suddenly from 104° to normal. This was possibly due to an abscess between the gut and the ovary bursting into gut. The patient at the present time was in perfect health, and had no trouble with her bowels or with the abdominal scar.

Amputation at Hip-joint.—Mr. CHOLMELEY also showed a case of amputation at the hip joint after unsuccessful wiring for fracture of femur due to hydatid disease of femur, the notes of which were published in the BRITISH MEDICAL JOURNAL of March 5th, 1904.

Carcinoma of Rectum.—Mr. E. DEANESLY showed several cases: (1) A man, aged 55, was admitted to the Wolverhampton Hospital in September, 1901. He had noticed bleeding from the bowel for ten months previously, and had lost much weight. The growth involved the anus and the anterior circumference of the rectum for some distance above it, and was deeply ulcerated. After removal of the coccyx and portion of the sacrum and slitting up the anus and rectum in the posterior middle line, the growth and the anterior portion of the rectum were freely removed, exposing the prostate and bladder, but without opening the peritoneum. The membranous urethra, which was accidentally divided, was sutured over a rubber catheter. The divided rectal wall was brought down and sutured to the skin. Recovery was slow, but complete. The anus being removed, loss of control of course existed, and there was slight prolapse of the rectum, but by emptying the bowel every morning with an enema syringe the patient kept himself clean the rest of the day with little trouble, and was now (two and a half years after the operation) in good health and at work. (2) A man aged 63, alive and well two years after removed of 5 in. of the pelvic portion of rectum for carcinoma by the sacral route. This was a typical case of Kraske's excision of the rectum performed in May, 1902. The operation was long and difficult, but the result satisfactory, the patient being in excellent health, with no sign of recurrence and little inconvenience from the sacral anus, which was easily controlled by a pad. Although the anus was not involved in this case it had not been found practicable to restore the continuity of the bowel, which indeed was seldom possible in advanced cases, such as was this. It had, however, been successfully accomplished in another case from which a specimen was exhibited.

Epithelioma of Rectum.—Mr. E. DEANESLY showed several specimens of epithelioma of the rectum removed by the sacral operation: (1) A small epithelioma with bleeding papillomatous villi situated on the anterior wall of the rectum immediately above the bladder. The portion of bowel removed consisted of 1½ in. of the anterior three-quarters of the circumference of the rectum, including the peritoneal coat. The gap was sutured transversely by sutures of silkworm gut passing through all the coats, including the peritoneum, and tied on the mucous surface. The sphincter and perineum were restored by a subsequent plastic operation, and at the present time the patient remained in perfect health and comfort. (2) About 5 in. of the middle portion of the rectum, with a hard epitheliomatous ulcer almost completely encircling the bowel and reducing the lumen to the size of one finger. This specimen was removed by Kraske's operation two years ago from the patient mentioned above.

Prostatectomy.—Mr. E. DEANESLY showed a man, aged 65, from whom an enlarged prostate had recently been removed by Proust's perineal operation. This patient had a somewhat eventful surgical career during the last few years. In September, 1901, the late Mr. Vincent Jackson had removed a large stone by suprapubic cystotomy, and had at the same time snipped away some small portions of the prostate which projected within the bladder. As a result of this operation he was much benefited, and was able to dispense with the catheter on which he had for some time previously been entirely dependent. Symptoms of stone recurred in October, 1902. Mr. Deanesly, after an ineffectual attempt to crush, reopened the bladder, and found two large smooth calculi embedded in a narrow-mouthed pouch at the base of the bladder. The prostate was greatly enlarged, and projected like a cervix uteri into the bladder. He recovered and remained well for a time, only troubled by frequency of micturition and a ventral hernia through the weak suprapubic scar. At the beginning of the present year another stone was found and prostatectomy was advised. This was carried out on February 18th by the method described in the paper read later. The result was very satisfactory. The patient had regained his health, his urine was clear and acid, and micturition was forcible and free from pain. The only drawback from which he at present suffered was inability to retain

his water for more than two hours at a time, and a weakness of the sphincter of the bladder, which was unable to resist the strain of a cough or extra exertion. This condition was still improving.

Suprapubic and Perineal Prostatectomy.—Mr. L. Dunsmure also showed several specimens illustrating his paper on the relative advantages of suprapubic and perineal prostatectomy, published at p. 1187. (1) Normal bladder and urethra laid open. (2) Greatly enlarged prostate and bladder, with dilated ureters and kidneys, from an elderly man who had died with obscure symptoms shortly after admission to the medical wards of the Wolverhampton General Hospital. (3) Bladder and urethra and prostate of a patient who died ten weeks after removal of a greatly enlarged prostate by Freyer's method. A considerable cavity still remained in the situation formerly occupied by the prostate. Death had occurred from chronic cystitis and exhaustion. (4) A similar specimen from a man aged 58 who died forty-eight hours after Freyer's operation from slow haemorrhage and pelvic cellulitis. In this case the prostate (also shown) was enucleated easily in two smooth masses each the size and shape of a hen's egg, the greater part of the prostatic urethra being attached to one of the lobes. A uric calculus measuring 1½ by 1 in., which had been diagnosed by the history and symptoms, but could not be felt by the sound owing to the great projection of the prostate, was also removed at the operation. (5) Enlarged prostate in two lateral masses, removed by perineal prostatectomy from the patient previously shown. A phosphatic calculus, necessitating cystotomy, removed at the same time, was also shown. (6) Fragments of large uric calculus removed by lithotrity from a man aged 55, together with portions of an enlarged prostate subsequently removed by suprapubic cystotomy, rendered necessary some months later by recurrence of stone. The last operation was performed in 1901, and the patient had remained well since.

Cases.—Mr. Dunsmure also showed the following cases: (1) A boy, aged 14, with a scapular dislocation of the left shoulder, apparently incurred during birth. The movements of the shoulder were limited, but there was no muscular paralysis, and the utility of the limb was not so much impaired as might have been expected. (2) A woman, aged 50, who was admitted to hospital on December 24th, 1903, with a femoral hernia strangulated for four days. A loop of gangrenous bowel was removed, about 6 in. in length, including the healthy portions at each end, and immediate circular enterorrhaphy performed. Although Poupart's ligament was divided and there was some suppuration of the wound, the operation for radical cure which was performed at the same time as the enterorrhaphy was quite successful and no truss was ever worn.

X Rays and High-frequency Currents.—Dr. Cope read a paper on the results of treatment by x rays and high-frequency currents with illustrative cases.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Dr. Theodore Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, May 13th, 1904.

A Rare Case of Intrathoracic Pulmonary Tuberculosis.

Drs. A. Stanley Griffin (Liverpool) and W. H. E. Brook (Lincoln) contributed a paper, illustrated by lantern slides. The authors had examined several cases during the past two and a half years, in nearly all of which the physical signs were carefully studied. Skiagraphs were shown illustrating the condition of many of the cases before and after sanatorium treatment, and taken by the plate-to-back method with the tube in front of the patient. The exposure varying from thirty minutes to two hours. In the early cases of pulmonary tuberculosis the skiagraph had proved of great value as a diagnostic agent, enabling it possible to see that significant limitation of movement of the diaphragm existed. The translucency of the lung, presence of shadows, areas of dullness were noted as signs of the health or disease of these organs. The shape and size of the heart and vessels, the intercostal spaces were also important points to note. The presence of cavities could be shown and even glands recognized under certain conditions. In bronchial cases the skiagraph was able to demonstrate the presence or extent of the disease in many cases before it was recognizable by ordinary methods of examination. Too high the full value of skiagraphy, however, one should regard it as an adjunct to the older methods of physical examination and microscopical examination of the sputum.

Dr. W. Ewart dwelt on the great value of the paper and the evidence it gave of the assistance obtainable from skiagraphy in the early diagnosis of phthisis. Doubtless the method would in future be far more generally employed.

Dr. Theodore Williams welcomed the x rays as affording assistance, but believed that micrescopical cavities could always be diagnosed by auscultation, when it was completely and thoroughly employed. Physical examination ran a risk of being less carefully studied at the present day than its merits deserved.

Dr. G. B. Batten agreed with the authors as to the value of x rays for the early diagnosis of phthisis, since more people realized a thing by looking at it than by listening. Further, many a patient would, upon seeing the photograph of his own case, be willing to undergo the necessary treatment without further cavil or delay. He had also used the method lately to show that a suspected case was not one of phthisis.

The President thought ocular demonstration of the morbid condition was most valuable; but shadows were not always infallible, and their interpretation required great care.

Drs. Herbert French, Cecil Lyster, and W. Pasteur asked for further information.

Dr. Griffin, in reply, said that medical men should develop their own plates. When cases of phthisis were diagnosed by physical examination they had, in his opinion, already passed the early stage; x rays detected the disease still sooner; whilst, if the picture were shown to the patient, he or she more easily recognized the necessity for the requisite open air treatment. Fibrous tissue was only present at a late stage of the disease. All his plates had been treated according to the same method, length of exposure, etc. The thickened pleura and enlarged bronchial glands could be photographed. Fluids in the pleura changed their position with the alteration of the patient's posture; and the picture and the percussion note were both thereby changed.

Dr. Brook, also replying, mentioned cases in which the plate had shown the presence of tubercle a month or more before physical signs were first distinguished by careful auscultators.

Recurrent Carcinoma Treated by X Rays.

Dr. E. A. Peters described two cases of cancer of the breast. In the first case the original operation had been performed by Mr. Charters Symonds. Radiography was pursued for twenty-two months. The subcutaneous nodules and ulceration disappeared under the treatment, but returned in a condition of diminished activity on its cessation. Eventually the growths appeared under the skin at the back of the thorax, and these nearly disappeared after exposure to the rays. The breast and glands of the opposite side became involved. Considerable relief from pain was experienced by the patient. In the second case both the subcutaneous nodules and pleuritic thickening improved greatly under a month's treatment, but the patient died shortly afterwards from thoracic involvement. A tendency for scar tissue to break down was also under the treatment was noticed.

Dr. Lewis Jones said that it was disappointing that whilst the superficial recurrences of cancer disappeared under x rays treatment the patient died of deep disease over which the rays had very little effect. Possibly better results might ensue if the x rays were tried soon after the surgeon's operation and before generalization of the disease began. x rays could change the characters of a growth, and even prevent its tendency to recur.

Dr. G. B. Batten referred to a case of cancer of breast in which nodules recurred and were removed. On the seventh occasion he applied x rays thirteen times for ten minutes each time, and the nodule completely disappeared. The x rays had apparently a selective effect both upon degenerating and actively-growing epithelial cells.

Dr. A. E. T. Lockhurst inquired whether the rays might not sometimes excite the local condition and so tend to the more rapid recurrence of the disease elsewhere.

Mr. Bishop considered x rays the most potent agent known for the treatment of recurrent cancer of the breast, but they sometimes started sudden and severe inflammatory conditions. He narrated a case in which acute cellulitis of the neck was thereby caused.

Mr. Lyster said that treatment by x rays was slow, and it would therefore be wrong to apply it at the earliest stage of

the disease and neglect the benefit that resulted from surgical operations. In inoperable cases, however, it relieved pain and removed recurrent nodules. To affect deep parts strong rays had to be applied, which inflamed the superjacent skin.

Dr. PETERS replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

Sir JOHN MOORE, President of the Section, in the Chair.

Friday, April 22nd, 1904.

POISONING BY CANTHARIDES.

DR. MARTLEY brought forward a case in which an elderly woman had been poisoned by this substance. About an ounce of the powdered drug had been administered to her in a glass of rum, but in spite of the amount having been so large she survived for thirty-one and a-half hours.

COAL-GAS POISONING.

Professor E. J. M'WEENEY, M.D., read a paper on this subject. Professor Emerson Reynolds, he said, in a paper read before the Royal Dublin Society in 1900, communicated the result of a number of analyses of Dublin coal gas made by him, which showed that the ordinary percentage of CO namely, 6 per cent.—had been more than doubled during February and March, 1900, and this increase he accounted for by the addition of carburetted water-gas. Some analyses similarly made for the speaker during the past few days by Mr. Holmes Pollok, of the Royal College of Science, showed 17.2, 16.8, and 14.6 per cent. of CO respectively. Seven fatal cases of gas poisoning had come under his notice during the past three years. In the first group a family of four lived in a house where gas was not used, and there were no fittings. The gas had penetrated into it from a broken main in the street, with the result that one of the persons was found dead and the others more or less collapsed. In the second group a clumsy attempt had been made to defraud the gas company by "short-circuiting" the gas into the house so as to eliminate the meter. The rubber tube used in the attempt had slipped off, with the result that the family of three persons were asphyxiated in their sleep. The third group of cases was that of a man and his wife, who were suffocated in their bedroom at a Dublin hotel by gas escaping from a wall bracket, the stopcock of which was half open. The last case was that of a young man who was asphyxiated in his bath by fumes containing CO escaping from a badly-constructed and unventilated "geyser." He had in each case applied the usual spectroscopic and chemical tests for CO with positive results. The findings at the necropsy on each case were typical. He had also made blood counts and differential leucocyte counts in the cases that had recovered, but the results were conflicting. In view of the deadly nature of the gas now supplied, increased caution in its use was necessary.

Professor TICHBORNE said that in the last case it was evident that the CO did not come from the combustion of the gas, as it would then have been converted into CO_2, but must have got into the room as CO. He suggested that, as the accident had happened about 9.30 p.m., a time when there was great pressure in the mains, the CO might have escaped through the air inlets in the Bunsen burners.

Dr. DELAHOYDE thought a good deal of the ill-health among the working classes was to be put down to the use of penny-in-the-slot meters and gas cooking stoves not connected with a flue.

Dr. KIRKPATRICK thought it remarkable that CO gas was escaping at such a rate as to poison a man, and yet that it did not explode, though the gas jet was alight all the time.

After remarks from DRS. CARRINGTON, BEVERIDGE, M'VITTIE, and BEWLEY: Professor M'WEENEY replied.

OBSTETRICAL SOCIETY OF LONDON.

EDWARD MALINS, M.D., F.R.C.P., President, in the Chair.

Wednesday, May 4th, 1904.

A DEGENERATING FIBROMYOMA.

DR. PETER HORROCKS exhibited a specimen which he regarded as a fibromyoma degenerating into a sarcoma. Abdominal hysterectomy was undertaken owing to rapid growth of the fibroid in association with menorrhagia in a patient of 46. Some authorities disbelieved in the possibility of sarcomatous change in a fibromyoma of the uterus. In similar cases previously published by Doran and Finlay and himself, there was one significant fact common to all of them—namely, that the tumour had existed for years in the usual state of slow growth, and that it began to grow rapidly shortly before operation or removal.

Dr. HANDFIELD-JONES doubted the possibility of deciding whether in the specimen shown sarcomatous degeneration had begun in the substance of the fibroid or had started in the endometrium and spread thence to the fibroid.

Mr. ALBAN DORAN doubted whether these tumours, said to be "sarcoma" histologically, were clinically malignant. He suspected that the cells, which were large and spindle-shaped, might be altered plain-muscle cells.

Dr. EDEN said he had been interested in the subject of sarcomatous changes in fibroids for some years. He had no difficulty in accepting the fact that a malignant growth might arise in a benign neoplasm just as easily as in healthy normal tissues. But the term sarcomatous or malignant "degeneration" as applied to this process was an unhappy one, because "degeneration" implied loss of vitality or death of cells, while a malignant new growth was characterized by extraordinary activity and proliferation of cells.

HAEMATOMA AND HAEMATOCELE.

Mr. ALBAN DORAN read a paper on this subject, which is published at page 1180.

Dr. PETER HORROCKS, discussing it, said that he believed that extrauterine fetation was much commoner than was supposed, and that many cases recovered without being diagnosed or treated. He had seen many cases recover without operation, though occasionally operation became urgently necessary even in cases in which resolution had been going on apparently normally for weeks. He regarded bleeding, severe pain and rise of temperature, either protracted or recurring, and the absence of efficient help within easy call as important factors in deciding on the necessity for operation. He had failed to discover in Mr. Doran's paper any indication which would serve to diagnose a haematoma such as the one described from an ordinary haematocele.

Dr. CULLINGWORTH thought the condition described in Mr. Doran's second case was rare. From his (the speaker's) own experience and from what he had gathered from reading, he regarded pelvic haematoma as a rare complication of interrupted tubal pregnancy, and an extensive haematoma such as Mr. Doran had described as exceedingly rare. With regard to treatment, the cases on record were at present far too few to justify them in formulating any conclusions as to the dangers incurred or any fixed rules as to the line of treatment to be adopted.

Mr. JOHN W. TAYLOR said that in one sentence in his book (which Mr. Doran quoted) he had said that a broad ligament haematoma due to tubal pregnancy might be absorbed and undergo a natural cure; but this was inserted rather in deference to popular teaching than as the result of personal observation. So far as his own experience went, the only recoveries without operation which he had himself observed were 7 or 8 cases of peritubal haematocele, most of which were referred to in his book. He had always held and taught that whereas haematoma due to other causes than tubal pregnancy was very generally easily absorbed, a broad ligament pregnancy and haematoma due to broad ligament pregnancy was specially dangerous. His opinion regarding the general danger of expectant treatment in tubal pregnancy and the advisability of operation was the result of personal observation and experience.

Dr. AMAND ROUTH thought a distinction should be made between encysted and diffuse haematocele. If the haematocele were diffuse bleeding was probably still going on, and if the severe pain felt in these cases was as high as the umbilicus, it was evidence of extensive haemorrhage into the peritoneal cavity. Such a case needed prompt abdominal section. If the haematocele was encysted operation was rarely called for.

Dr. BLACKER had met with two examples of haematoma of the broad ligament one of which was an interesting proof that a haematoma of the broad ligament could disappear entirely, leaving behind practically no trace of its existence. He thought that it was necessary to distinguish very carefully between the results to be obtained by expectant treatment in these cases and in cases of broad-ligament gestation in which the fetus was still alive; they were two entirely different classes of cases usually requiring quite different treatment.

Mr. ALBAN DORAN, in reply, observed that haematoma, haematocele, or broad ligament tumour, whether right or left, tended to push the uterus upwards, forwards, and towards the middle line when it grew big. A convex mass behind the posterior vaginal fornix was not necessarily in Douglas's

pouch. The rarity of haematoma, essentially intraligamentary, and the frequency of Taylor's tubo-ligamentary pregnancy implied that the ovum, when it was forced into the space between the layers of the broad ligament, usually survived and developed. The encysting of blood within intestinal adhesions was common in hæmatocele but great coagulability saved patients in cases of diffuse haematocele, the blood in such instances clotting into a ball lying loose in the peritoneal cavity.

EDINBURGH OBSTETRICAL SOCIETY.

N. T. Brewis, M.D., F.R.C.S.E., President, in the Chair.

Wednesday, May 11th, 1904.

Malignant Complications of Fibromyomata.

Dr. F. W. N. Haultain, in a paper on this subject, asked the question whether fibromyomata influenced or predisposed to malignant uterine changes. He had found 4 cases of malignant degeneration out of 1,200 collected cases of fibromyomata. A general review of the whole subject would appear to show that malignant uterine disease was but slightly affected by fibromyomata, and that their association was a pure coincidence. Thus, from this aspect, radical operative measures for the treatment of fibroids without symptoms could not be urged. The paper was illustrated by descriptive cases and by a large number of photomicrographs.

Professor A. R. Simpson, Drs. James Ritchie, J. W. Ballantyne, J. Haig Ferguson, and the President spoke; and Dr. Haultain replied.

The Obstetric Sachel: a Problem in Asepsis.

Dr. J. W. Ballantyne read a paper on this subject, which will be published in our columns.

Drs. Haultain, James Ritchie, M. Dewar, W. Fordyce, George L. Chiene, and Webster discussed the paper: and Dr. Ballantyne replied.

PATHOLOGICAL SOCIETY OF LONDON.

P. H. Pye-Smith, M.D., F.R.S., in the Chair.

Tuesday, May 17th, 1904.

The Glomerular Lesions in Diffuse (Parenchymatous) Nephritis.

Drs. W. P. Herringham and J. H. Thursfield gave a lantern demonstration of the histology of the above condition. The conclusion in regard to the cause of the exudative and other changes found in Bowman's capsule was that these were due most probably to a chemical agent.

The Cytology of Malignant Growths.

Professor Farmer, Mr. Moore, and Mr. C. E. Walker made a communication on the above subject, the main points of their observations having been communicated lately to the Royal Society. In malignant tumours the authors had described heterotypical mitoses in certain of the cells, the method resembling that which obtained in the sexual cells of the testes and ovary; it was otherwise known as "reduced," since the number of chromosomes was only half of those present in the ordinary cells of the body. No similar mitoses occurred in the tissues of benign growths. They regarded the recorded cases of nuclear fusion as too rare to provide a basis for generalization. The tissue for such observations should be fixed in acetic alcohol and after hardening embedded in paraffin. The examination could be carried out without much delay. The cause, in plants, that would lead to reduction division of the chromosomes were many [illegible] particular coloured light. [illegible] not regain the characters of the somatic cells without fertilization.

Mr. [illegible] that the authors were credited with [illegible] heterotypical mitosis was the explanation of the [illegible] phenomena. Upon such a view [illegible] The great feature of carcinoma was its [illegible] and the presence of heterotypical division did not by itself explain this. He referred to the case of [illegible] studied by Mr. Sedgwick and himself, where minute fragments of ruptured [illegible] became organized on the intestine, liver, and elsewhere. In these cases the condition was [illegible] before the advent of [illegible] and the cells here belonged to the particular type in question. Nevertheless not only did no carcinomatous disease ensue, but the growths that followed could not even be classed as adenomata; for the whole sum of the various grafts did not exceed the volume of the two normal testicles of the adult bird, and the case was evidently one only of the reproduction of the lost parts, as happened in the case of the spleen or liver after extensive yet not total extirpation. The grafts showed active spermatogenesis in progress. On the other side, if the phenomena of non-malignant invasion were considered, the presence of heterotype mitosis might with certainty be excluded in some cases. In the invasion of necrotic tissue, or of a thrombus by granulation tissue, all the invading cells were somatic, and to take a physiological instance, the same was true of the invasion of cartilage by connective tissue in the process of so-called intracartilaginous ossification. The speaker had referred to these various points in order to submit that the presence of "reduced" cells in carcinoma did not in itself explain the life-history of the disease; it did not *per se* explain its invasive character.

Professor Farmer observed that although the authors had been credited with the view that they had arrived at an explanation of the phenomena of carcinoma they disclaimed this; the relation between heterotype mitosis and the life-history of carcinoma they did not profess to explain. In plant tissues the common cells might pass over into the reproductive kind, and so in those of animals. As to the results furnished by incomplete caponization he would not have been prepared to say whether a carcinoma would have followed or not.

Mr. Moore spoke to the same effect.

Other Papers.

The following papers were taken as read owing to the curtailment of the meeting occasioned by the official business of the annual meeting: Dr. R. N. Salaman, Sarcoma of the stomach; Mr. E. M. Corner, Sarcoma of the alimentary canal; Dr. E. P. Baumann and Dr. J. G. Forbes, Primary sarcoma of the lung in an infant; Dr. F. Parkes Weber, A case of leukanaemia; Mr. E. M. Corner, Variations in temperature in the dying examined as to their physiological explanation.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Professor J. Symington, F.R.S., President, in the Chair.

Friday, May 6th, 1904.

The Localization of Abdominal Viscera.

A discussion on this subject was introduced by Dr. Addison, who recalled the main features of his method of division of the trunk for regional and topographical purposes. This was to divide it into four equal parts by three horizontal planes, through points a quarter, a half, and three quarters of the way from the upper border of the pubes to the suprasternal notch. These points were determined by drawing a tape from the pubes to the suprasternal notch and marking off the divisions on the surface of the body. The lowest or iliac plane practically corresponded with the intertubercular plane adopted by Professor Cunningham. The middle plane passed so regularly through some part of the pylorus that it might be called the transpyloric plane. The highest plane was the thoracic. The body was also divided by three vertical planes, the median and the right and left lateral, the two latter being taken, one on each side, through a point midway between the anterior superior iliac spine and the middle line. The speaker showed that the planes usually described in anatomical textbooks varied so greatly as regarded underlying viscera as to be useless. The essentials of any surface division of the body were that it should be (1) a reliable guide to underlying parts; (2) occupy a sufficiently constant position in any body, whether adult or otherwise; (3) be ascertainable with ease and certainty. The transpyloric plane met these requirements, being found in 80 per cent of the cases at or within 1.5 cm. of the disc between the first and second lumbar vertebrae. A point midway between the umbilicus and the infrasternal notch so constantly corresponded with this plane that it might be taken as identical with its level, and all exposure and measurement thus avoided. As regarded the effect of thoracic and abdominal disease upon the shape and position of the costal arch, the ribs might be high or low and the costal arch wide or narrow, in the presence of increased intra thoracic pressure however brought about. Its shape and

position, therefore, were no reliable guide, either as to the position or condition of the subjacent viscera. The pylorus, in 75 per cent. of the bodies which he had examined, was at or within 1.5 cm. of the transpyloric plane; any extreme deviations from this position could be ascertained beforehand by percussion of the liver. When the liver was displaced downwards through increased intrathoracic pressure, or was enlarged and more to the left than usual, the pylorus would then be lower than usual, and on the middle line, or even to the left of it. The reverse conditions would be found if the liver were pushed up under the diaphragm by intestinal distension below. Similar conditions were found to prevail with regard to the duodenum, which might be displaced from the right kidney by an enlarged liver. The duodeno-jejunal flexure was in general just below the transpyloric plane a little to the left of the middle line, and whilst subject to the displacement by an enlarged or low liver or a distended stomach above, or distended intestines below, the range of its movements was less than that of the pylorus. The hila of the kidneys were just below, and internal to the intersection of the transpyloric and right or left lateral planes. With regard to the movements of the right kidney, that organ was but little subject to displacement downwards by the pressure of an enlarged liver above, and was independent of support from the ascending colon below. When, however, the diaphragm was depressed through pleural effusion or other chest diseases, the kidney was uniformly lower than usual. Possibly pre-existing thoracic disease was an etiological factor in the occurrence of some cases of movable kidney. Owing to the normal strength of the attachment of the kidney to the diaphragm and posterior abdominal wall, he found it difficult to believe that the conditions usually assigned as precursors of movable kidney were of much significance under circumstances of normal anterior development. The same considerations as regarded parietal attachment applied to the left kidney. The upper border of the ileo-colic junction was just below and internal to the intersection of the iliac and right lateral planes. The root of the appendix being usually at the lower border of the ileo-colic junction its normal position was thereby sufficiently indicated. The commencement of the pelvic colon, or the place where the large intestine on the left side of the pelvis became somewhat abruptly possessed of a long mesentery, was shown to be almost without exception at the level of the anterior superior iliac spine in the left lateral plane. Finally, the speaker contended that by the proportional system of body division which he recommended important clinical points of the different viscera could be readily determined, and the organs grouped around them in a body of any size without burdening the memory with numbers or measurements which, being necessarily variable, were in consequence untrustworthy.

Dr. A. KEITH thought the point on the costal arch crossed by the outer margin of the rectus muscle was so definite as to be worthy of more extended use, and tentatively put forward the names of right and left rectal points to localize the areas in question. He also believed that the middle of the spino-umbilical line running from the anterior superior iliac spine to the umbilicus gave the ileo-colic junction with accuracy.

Professor G. D. THANE said that more information was wanted as to the range of variations in position assumed by the viscera under discussion, and also advocated the use of the spino-umbilical line for obtaining the position of the ileo-colic junction.

Mr. MCADAM ECCLES thought that the transpyloric line was not sufficiently stable to be satisfactory. The positions taken up by the caecum and appendix varied materially, the former often prolapsing. He believed that the excursions of all the viscera were very great.

Mr. STANLEY BOYD thought that in view of the liability to variation in locality of viscera, it was sufficient for clinical purposes to know where to place a hand or an incision with the greatest probability of finding the required viscus. If not at once successful the surgeon could search widely around along paths which experience might have shown the wandering viscus to follow. Practically localization of extreme accuracy was not necessary; but it was obviously of importance to know what reliance might be placed upon statements professing to give the "normal" position of organs, and this knowledge work such as Dr. Addison's would afford.

Professor A. ROBINSON thought the influence of age must be taken into account in localizing viscera, and agreed that the surgical and anatomical advantages of precise localization did not correspond. He had seen a displacement of the pylorus unassociated with liver enlargement

Professor SYMINGTON asked what was really meant by "low liver." A low chest wall went with an increased vertical extent of liver without enlargement.

EPIDEMIOLOGICAL SOCIETY.—At a meeting on May 13th, Dr. B. A. WHITELEGGE, President, in the chair, Dr. MORITZ PISTOR, Principal Medical Officer to the Prussian Ministry of Education and Public Health, read a paper on the prevalence of enteric fever in Prussia from 1892 to 1901, with remarks on its origin, spread, and control. After a brief retrospect of past theories as to its causes and relations, he pointed out that, though the registration of the causes of deaths was very unsatisfactory in many of the agricultural and mining districts, especially when the population was largely composed of Poles, Walloons, and other foreign elements, the effects of sanitary progress, improved water supplies, and better disposal of sewage had shown themselves in the reduction of the annual mortality from enteric from over 6 to under 2 per 10,000 for the whole kingdom, and in many districts to less than 1. The reduction was general, and the relative position of the districts little changed, but it was impossible to point to any conditions—geographical, climatic, or industrial—as determining the relative incidence of the disease. The highest mortality had always been in the district of Trier on the Moselle, near the French frontier, mountainous, with hot summers and mild winters; next came Dantzic, low-lying, with colder winters; and Arnsberg, in Westphalia, mountainous, mining, and industrial; then Marienwerder and Bromberg, in East Prussia, agricultural, and Erfurt. Other districts above the mean were the low-lying districts of Königsberg, Köslin, Stettin, Gumbinnen, east of the Elbe, with Aachen, Coblenz, Hildesheim to the west like islands in an area of low mortality. On the other hand, the districts with the lowest mortality included, besides the wealthy and in every way progressive city of Berlin, and the rich residential town of Wiesbaden, diverse districts and populations such as Schleswig-Holstein, with an oceanic climate and almost wholly agricultural population, Hanover, with the exception of Hildesheim, which, more industrial in the south, was agricultural and maritime in the north, Nassau adjoining Arnsberg, but with a highly intelligent population, and strange to say Lower Silesia, agricultural, and Oppeln, with generally a bad sanitary reputation and a large mining and manufacturing population in close intercourse with Russia and Austria. They were, however, extensively provided with good public water supplies, which Trier was not, and the same might be said of parts of Westphalia, where the wells had been fouled or drained by the mining operations. The most striking contrast in the mortality of otherwise similar districts was that between Arnsberg and Trier and Oppeln. In all the population was largely engaged in mining, and miners as a rule were neglectful of order and cleanliness, but in Oppeln the foreign element was not so strong as in the others, where the miners were 60 per cent. of the entire population and largely composed of Walloons, Italians, Poles, and even Roumanians. The rate was high in East and West Prussia and in Posen—agricultural districts with a Polish population indolent and dirty, and drawing their water from wells and water courses polluted with sewage. Pomerania, with similar climatic conditions and also agricultural, was more purely German, and the people remarkable for their cleanliness. Here Stralsund and Greifswald, with unimpeachable water supplies, had apparently higher mortalities, owing to the presence of large hospitals. After discussing the bacteriology of enteric fever and the several modifications of agglutination tests, the speaker summed up by expressing his belief that the B. typhi had a much shorter existence out of the living body than was commonly supposed, that it did not multiply in the soil, but was passed from one individual to another by means of water, milk, vegetables, or other articles of food recently contaminated by the excreta or the urine of affected persons, and by direct contact, epidemics being mostly due to water or milk, and mild unrecognized cases playing a most important part in maintaining a succession of sporadic cases, while overcrowding and general neglect of sanitation favoured its perpetration and spread.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—At a meeting on April 28th, Dr. STOWERS, President, in the chair, cases were shown as follows:—Dr. ALFRED EDOWES

(1) a patient aged 29, with lichen occupying nearly the whole of the body covered by clothing; (2) microscopical specimens from a case of acute eczema. Dr. F. Graham Little: (1) a case for diagnosis, a man aged 30 syphilitic; tuberculous? (2) tertiary ulcers multiple gradient. (3) lichen planus verrucosus. (4) lichen planus hypertrophicus with numerous fungoides; (5) chancroid on the lip, with secondary eruption and lymphadenoma, with leprosy. Mr. T. J. P. Hancock: Two specimens of the lobules of both ears, which were pierced twenty-four years ago. Dr. V. H. Kennedy: (1) Extensive pigmentosa. Dr. T. D. Savill: (1) A case for diagnosis, a pustular form of urticaria; (2) morphœa; (3) pemphigus vegetans; (4) erythema exudativum multiforme; (5) lichen planus verrucosus. Mr. A. Sellman: (1) A small papular syphilide; (2) a tuberculo-syphilide. Dr. E. Symes: Localized atrophy of the skin. Dr. J. H. Stowers: (1) Alopecia areata universalis. (2) pustular eczema of the hands; (3) photographs of herpetiformis hydrica. Dr. Wilfrid E. Wade: Persistent oedema of the hand and forearm.

REVIEWS.

NATURAL HISTORY.

Dr. Walter Kidd, in his book *The Direction of Hair in Animals and Man*[1] set out with a threefold purpose, his most important object being to show that acquired characters can be inherited. Dr. Kidd separates out regions of the head, trunk, and limbs peculiarly open to contact with opposing surfaces and others under the special influence of certain "habits of the particular animal forms, and calls these "critical areas." He shows that as a rule the hair-streams on the animal body run in the lines of least resistance, and that the critical areas are those which show the most notable deviations of the hair-streams from the primitive type, where the deviations encountered are mechanical. That is, he shows that the hair-streams in these areas are acquired, but he does not show that there has been any inheritance of these acquired characters. Like many other naturalists, Dr. Kidd does not always distinguish between characters once acquired and transmitted to successive generations, and characters reappearing generation after generation owing to the continuance of the cause which produces them. At page 78 he criticizes Professor Lankester's suggestion that the whorls and other arrangements of hair on the heads of mammalia may furnish data for systematists, and says: "Judging, however, from a study of the hair in other regions and numerous groups of mammalia, it is more probable that these facts of hair arrangement on the frontal, nasal, and parietal regions, when worked out, will indicate differences in habit and use in the animals concerned rather than contribute taxonomic distinctions." Surely if they were the outcome of characters originally acquired but now inherited they would be eminently suitable for systematic purposes. Referring to variations in the frontal border of the scalp, Dr. Kidd says (page 79):

> [illegible] was observed.

Surely children have their hair brushed before they attain the age of 6 years or even months, and how can Dr. Kidd exclude the effects of brushing from his records? He [illegible] a left lateral parting, 17 a [illegible] He then discusses the bearing of the [illegible] forming the eye [illegible] He incidentally discovered [illegible] We cannot think [illegible] Dr. Kidd's [illegible]

[1] [illegible] Reviewed by W. [illegible] M.B., [illegible] Lond.

[illegible] A [illegible] [illegible]

putting the hair the best way round on the arrangement of hair in the human species.

This looks like evidence against his contention, but he deftly turns it to his advantage thus:

> [illegible] as a general rule, borne out by observation in Nature that apart from variations of a [illegible] which are here being considered, the normal characteristics of an animal are not usually departed from as the result of mere habit, but as the outcome of the exercise in a very considerable variety of directions of certain or other forces are in operation [illegible]

It might, on the other hand, be argued that if acquired characters were inherited, such considerable variety of direction of acting forces should produce variability in direction not constancy of a primitive character. The only verdict at present possible on this most important point of the inheritance of acquired characters must be not proven.

THERAPEUTICS.

Martindale and Westcott's *Extra Pharmacopœia*[2] needs no introduction to our readers and we cordially welcome the advent of the eleventh edition. Since the last edition was published that gifted pharmacist, William Martindale, has passed away, and it has fallen to his son Dr. Harrison Martindale, to collaborate with Dr. Wynn Westcott in the production of the new work. At the outset we may say that the son has worthily upheld the best traditions of his father, and that the thoroughness and usefulness of the book are still its leading characteristics.

Its very nature renders constant revision necessary, and, when one notes the extent and character of the new matter introduced, and reflects that only three years have elapsed since the last edition was published, the progress in the use of remedial agents becomes very evident. Of special interest is the new section on Radiology, in which the Roentgen rays, Finsen lamp, high-frequency current, and radiant heat are discussed. The attention directed to radium is also reflected in a very interesting and exhaustive monograph, describing its preparation, properties, tests for purity, and its uses and methods of being used as a remedial agent; this is quite the best summary on the subject which we have yet seen, and, in addition to radium, other radio-active elements are dealt with. The chapters on Antitoxins and Organotherapy have been largely rewritten, and that on Analytical Methods has been carefully revised and brought up to date.

We note that, under the heading, Normal Saline Solution, it is remarked that surgeons differ as to the proportion of sodium chloride which ought to be present. "Some say 0·6 per cent. or even 0·9 per cent." We may point out that the latter figure is the correct one and is now generally employed by Continental workers; it is isotonic with the contents of human blood corpuscles, whereas the 0·6 per cent. solution is hypisotonic with them and causes them to swell visibly. Earlier experiments were carried out with frogs' blood, with which the 0·6 per cent. solution is isotonic, and hence this figure has crept into textbooks.

The index, which has been increased by more than 1,000 titles, forms a striking feature and now occupies no fewer than 138 pages. Special headings are employed in the text, however, by the omission of cross references, thus rendered unnecessary. Though the large amount of new matter has caused the addition of 112 pages, the size of the book has actually been reduced through the use of finer paper.

We have tested personally on the principal alterations and improvements effected, for their number renders more than an illustration of them impossible in the space at our command. No one engaged in medicine or pharmacy can afford to be without a copy of the latest addition of this valuable work of reference.

GYNÆCOLOGICAL TEXTBOOKS.

A [illegible] that has gone into its third edition does not demand very detailed notice. Dr. Bonney's *Manual of Modern Gynæcology*[3] is based upon the author's clinical lectures delivered at the London Hospital Medical College, and shows in every chapter that

[2] [illegible] Reviewed by W. [illegible] M.B., [illegible] Lond. [illegible] Lewis's Pocket Medical Formulary. London [illegible]

[3] [illegible] Reviewed by [illegible] M.D., [illegible] Lecturer on Gynæcology, Edinburgh School of Medicine for Women. Edinburgh: Wm. F. Clay. [illegible] (Crown 8vo, pp. [illegible] 10s. net.)

the author has a firm grasp of the subject in hand. In his modest preface he almost disclaims originality, and puts the credit of his clear and accurate work to the account of his Edinburgh teachers. But how far his knowledge has been communicated to him by them, and how far it has been gained by his own observation, reading, and reflection matters little; the result of it is that he has produced an original and good book, although its size prevents the subject from being very fully treated. This edition contains a coloured plate illustrating the newer views as to the formation of the amnion and the vascular connexion between the embryo and the chorion. It is, so far as we know, in this respect a pioneer among text-books. There are some points of practice upon which we might comment—for example, the suggestion of treating placenta praevia with a Barnes's bag in the vagina, as to which our idea would be that the Barnes's bag might as well be in the bed. Any sort of vaginal plug big enough to effectively compress the lower uterine segment causes the patient such pain that if she recover she will probably choose another medical attendant for her next labour.

DR. DENISON WIGGINS'S *Midwifery for Midwives* is designed to cover the requirements of the Examining Board authorized by the Midwives Act, 1902. It is a brief handbook of midwifery plus some information about general nursing, the Midwives Act, and examination questions for midwives. In a contemporary we have seen the statement attributed to the first Lord Tennyson, that in poetry it was not the thought that lived, but the expression. In the little work before us, if it lives, it will not be by the matter it contains, for it contains nothing that cannot be found elsewhere; but by the manner in which the facts it deals with are set forth. It is written in a clear and easy style, and there may be learners who will find it less difficult to understand and remember than any other book on the same subject written with a like intention. So we wish Dr. Wiggins's little venture a prosperous voyage.

DR. COOKE'S *Nurse's Handbook of Obstetrics*[5] is intended for the instruction of women engaged in nursing wealthy ladies in America. In addition to directions as to the duties which properly appertain to a nurse, a good deal of information is given about various diseases and operations, which no doubt the nurse will find interesting, but which some may think superfluous. Still, excess of knowledge will do no great harm; but we cannot say we think it prudent for a nurse to take upon herself the administration of chloroform for puerperal eclampsia, as is here directed. The utility of the book to English readers is lessened by the number of American trade names used in it. But it contains descriptions of some ingenious devices for the comfort of the lying-in woman. We must, with regret, say that it seems to us to offend good taste in the illustrations. Surely a nurse can understand what a vaginal examination is without a photograph of a doctor making one?

MENTAL DISEASES.

EVERY alienist, in taking clinical notes, must frequently find extreme difficulty in finding adjectival words in which fitly to describe the attitude and facial changes of his patients, and which, though felt to be departures from the normal, evade classification. Every attempt—and Dr. SHAW'S *Physiognomy of Mental Diseases and Degeneracy*, notwithstanding its small compass, is a very successful attempt—to arrange and systematize these nuances of expression and explain their mechanism, tends to clarity of thought, and is an aid to diagnosis. This little book, on which the author is to be congratulated, is the reproduction, with some additions and alterations, of those parts of Dr. Shaw's contributions to Medical Annuals for 1894, 1897, and 1903 which refer to physiognomy. The text is beautifully illustrated by photographs and drawings, which have evidently been carefully selected as typical of the various forms of mental disease.

After twenty-one years of Asylum work Dr. BARKER has compiled a little manual on *Mental Diseases*,[7] primarily for the use of Victorian students as "a simple, comprehensive and epitomized study of psychological disorders." Most so-called manuals are, in Dr. Barker's view, not sufficiently elementary and concise. Dr. Barker has been impressed both in England and Australia by the woful inexperience of general practitioners as a body in anything pertaining to mental diseases and their treatment. This may be so, but we cannot admit that this fault lies at the door of the authors of standard text-books. The classification adopted by Dr. Barker is broadly that recommended by the Medico-Psychological Association, the description of the various forms of mental disease is lucid throughout, and the treatment contains many practical hints taken from the author's own experience. The chapter on delusion, hallucination, and illusion is unfortunately not so clear as the rest of the book, and if it be true, as the author says, that these questions continue to be the cause of many an uncomfortable *quarte d'heure* to medical witnesses, we are afraid that the reading of this chapter will do nothing towards shortening their agony. "Delusion," says the author, "is a false interpretation or conception of existing and surrounding things." Again "an illusion, like an hallucination, is purely an intellectual creation, and requires no corresponding external reality for its production, as in the case of a delusion." This regrettable confusion of delusion and illusion runs through the whole chapter and detracts from the value of a book otherwise fitted to fulfil its author's aim.

The second English edition of WILHELM WUNDT'S classic *Outlines of Psychology*[8] contains all that the author has included in the fourth German edition. The English translation of the first German edition was reviewed in the BRITISH MEDICAL JOURNAL of May 14th, 1898. Since then numerous additions have been made to the text. The physiological symptoms and concomitants of feelings, intensive tonal fusion, spacial ideas, reaction experiments in volitional processes, consciousness and attention, and associations and memory are some of the subjects which receive important additions. Psychical states (sleep, dreams, and hypnotism) take up additional space, and are treated in a rather dogmatic manner. The general plan remains unaltered, but there has been a growth corresponding to the increase in physiological and psychological literature which immensely increases the value of the book and will assist it in retaining its high position as an indispensable textbook of physiological psychology. It is unnecessary to praise further a book which has won universal recognition, but the translator deserves thanks for the lucidity of style and the careful accuracy of this edition.

DR. DERCUM'S work on *Rest, Mental Therapeutics, and Suggestion*,[9] which forms one of the volumes of Solis Cohen's *System of Physiologic Therapeutics*, is largely devoted to the discussion of the so-called rest cure in its various aspects. He endeavours to distinguish between simple neurasthenia (fatigue neurosis), neurasthenoid states and symptomatic neurasthenia, hysteria, and hypochondriasis, and holds that modifications of the main methods of treatment by rest are required for each. Of hypochondriasis, he says that it is, like hysteria (from which, however, it differs radically in its symptoms), a psychoneurosis, occupying a position midway between mental and nervous diseases. During melancholic waves of true mental disease

> The picture is presented of intense psychic depression associated with ideas of sinfulness, spiritual ruin, or moral unworthiness. There is the great agony of the lost soul, the hopelessness of a wasted past, or the belief in some crime never to be atoned. In hypochondria, on the other hand, the patient's ideas relate solely to the conditions of the body. It is the somatic state and somatic impressions with which he is concerned.

The term "residual hypochondria" the author uses for a condition in which the patient, even after having made a recovery from some acute affection, persists for many weeks or months in believing himself to be ill. The author dis-

[4] *Midwifery for Midwives* By W. Denison Wiggins, M.R.C.S., L.R.C.P., D.P.H., Assistant Medical Superintendent of the Greenwich Infirmary. London: Bailliere, Tindall and Cox, 1904. (Crown 8vo, pp. 254, 44 illustrations. 3s. 6d.)

[5] *A Nurse's Handbook of Obstetrics*, for Use in Training Schools. By Joseph Brown Cooke, M.D., Lecturer on Obstetrics to the New York City Training School for Nurses; Surgeon to the New York Maternity Hospital, etc. Philadelphia and London: J. B. Lippincott Co. 1903. (Demy 8vo. pp. 321. 4s.)

[6] *The Physiognomy of Mental Diseases and Degeneracy*. By James Shaw, M.D. Bristol: John Wright and Co. 1903. (Crown 8vo, pp. 95; 72 illustrations. 3s.)

[7] *Mental Diseases: A Manual for Student*. By W. H. Barker, M.R.C.S. Eng., B.A.Cantab., M.A.Melb., London: Cassell and Co. (Crown 8vo, pp. 256).

[8] *Outlines of Psychology*. By Wilhelm Wundt. Translated by Charles H. Judd, Ph.D., Instructor of Psychology, Yale University. Second edition. Leipzig: Wilhelm Engelmann, and London: Williams and Norgate. (Demy 8vo, pp. 300. 8s.)

[9] *A System of Physiologic Therapeutics*. Edited by Solomon Solis Cohen, A.M., M.D. Vol. viii. Rest, Mental Therapeutics, Suggestion. By Francis X. Dercum, M.D., Ph.D. London: Rebman Ltd. 1903. Demy 8vo, pp. 340. 12s. 6d.)

cusses the application of physiological measures for these various affections, together with the correction of special symptoms, etc. The remaining chapter of Part I is devoted to the application of rest in chorea and other nervous diseases sometimes called functional, and in others generally recognized to be organic. Part II embraces the large subject of treatment of mental diseases. In Part III the author discusses the influence of the mind over the body, and gives his views on legitimate and illegitimate employment of "suggestion" in treatment. He is no enthusiastic advocate of hypnotism. He says:

In hypnotism, be at all applicable as a method of treatment, it is applicable to an exceedingly limited number of cases. Not even in hysteria is its use necessary or justifiable.

Hypnotic suggestion enormously exaggerates the suggestibility of the patient during the waking state.

Of a truth, hypnotism never cures any affections except those which are readily curable by other and physiologic means.

Hypnotism, he says, ranks of necessity with "mind cure" and the imbecilities of Eddyism. Some will not altogether agree with Dr. Dercum on this point.

NOTES ON BOOKS.

THE latest volume of the *Transactions of the Epidemiological Society* is the twenty-second volume of the new series, and contains an account of the proceedings of the Society during its forty-third year. It is worth reading even by those not specially interested in the general subject of epidemiology. Professor Delépine's reasoned indictment of boracic acid and formaldehyde as food preservatives is of permanent value, and the paper in which Sir Patrick Manson draws attention to the danger of importing yellow fever to which Asia will be exposed upon the completion of the Panama Canal is of the highest practical importance. Perhaps of still greater interest to the general reader will be the paper by Professor Delépine upon the bearing of outbreaks of food poisoning upon the etiology of epidemic diarrhoea. The discussion of this communication was introduced by Dr. Newsholme at a subsequent meeting in an especially careful paper, and the proceedings upon these two evenings taken together form an interesting summary of the views at present held as to the various etiological factors of a disease which influences the infant mortality rate to a greater extent than any other. Apart from differences of opinion in respect of contributory causes, all were agreed that, so to speak, one child's milk frequently proves the same child's poison in default of adequate care to protect it from contamination being exercised both at the dairy where it is drawn from the cow, during transport to the retailer, and in the house of the eventual domestic purchaser.

The fourth volume of the *Transactions of the Otological Society of the United Kingdom*, edited by Mr. ARTHUR DUNDAS GRANT, contains an account of the communications, specimens, and cases considered during the fourth session of the Society, 1902-3. Two out of the four meetings were given up to the discussion of tuberculosis of the ear. At the last meeting a brief note by Mr. Cheatle on quinine deafness revealed the fact that there is apparently room for difference of opinion as to the effect of this drug upon the auditory apparatus. That in large doses it was capable of producing permanent deafness of more or less marked degree seems to have been accepted by all, but while the general opinion was that it was a dangerous drug to give even in tonic doses to those whose hearing was in any way impaired, one member stated that [illegible] had come to the good in cases of [illegible].

Mr. MONTAGUE G. HOLE, M.A., LL.D., already known to our readers as a contributor to *The Country Gentleman* [illegible] golf, has written a book entitled *Golf*. It is, he says, essentially a game [illegible] the closest of classic outers but little [illegible] Hole is the opposite of the average golf of the day when he [illegible] golf [illegible] Dr. Hume would seriously rebuke this attitude of mind [illegible] [illegible] [illegible]

frame (or tightly stretched between hooks high above the foot of the bed), and into the lower hem the cane is to be inserted later. A strong hook having then been driven into each of the side walls, about 2 ft. away from the front of the top of the window, and a cord stretched across the room, a sheet is slung over the cord without being attached to it. A length of 1½ to 2 yards of wireless india-rubber gas tubing is then substituted for that part of the cord which supports the sheet. The cane is next provided at its middle with a cord sufficiently long to pass over the top rail of the bedstead and back into the patient's hand, and with this the punkah is ready for use. A cord and pulley may be subsequently provided to haul up the punkah when not required. One advantage of this exceedingly simple and light arrangement is that the elasticity of the indiarubber gives a maximum swing to the sheet with a minimum pull, the patient working the punkah for himself with zest and without fatigue. The medication of the air may be varied according to indications. Some time after this installation had been working satisfactorily I remembered the late Dr. Richard Neale's enthusiastic advocacy, long before the days of "open-air" treatment, of the "chemical lung" which he had invented for a different object. This was a punkah charged with an alkaline solution for the purpose of clearing the air of rooms and of tunnels of its SO_2. Full references will be found in Neale's *Digest*, under the headings "Punkah" and "Chemical Lung." Although devised for pulmonary consumption, the bed-punkah will probably be found a useful sick-room appliance in a variety of other cases, and also during the summer, when it can be made into a cooling as well as a ventilating agent. But its chief office is during spells of stagnant air; and its chief use for the present is for the thousands of poorer consumptives living in small town tenements, for whom there is neither sanatorium accommodation nor any artificial ventilation system such as that achieved by Dr. Glover Lyon, much less any artificial atmosphere, but who must be content with London air such as it is. It answers well in its rough original form, but I shall be glad to hear of any improvements likely to add to its usefulness.

A Pessary for Prolapsus Uteri.—Dr. HUGHES DAVIES (London) writes: I wish to call your attention to a "pessary for prolapsus uteri" which Mr. Derham-Reid, of Manchester, has had made, and the particulars of which you describe in the number of the BRITISH MEDICAL JOURNAL of April 23rd, p. [illegible]. If you will have the goodness to refer to the JOURNAL of January 12th, 1901, you will find that you published a description of a new prolapsus pessary of my invention, the principal feature of which is either a Hodge or a ring, supported upon a forked column and hinged. Messrs. Krohne and Sesemann have since, and previous to that date, manufactured and sold the "Hughes Davies pessary," essentially forestalling that now put forward by Mr. Derham-Reid as a "novelty." Besides this publicity, the pessary was exhibited before the Obstetrical Society by me. I may add that the "Hughes Davies pessary" was also described in the *Lancet* of October 6th, 1900.

An Aspirator and Insufflator.—Dr. Albert Rosenau of Kissengen, asks us to state that the apparatus for aspiration of the gastric secretion, a description of which was given in the BRITISH MEDICAL JOURNAL of April 3rd, p. [illegible], can now be obtained from Messrs. S. Maw, Son, and Sons, Aldersgate Street, E.C.

INFANT FEEDING: A FORMULA.—A great many more or less complicated receipts to determine the amount of milk which an infant should receive, and the frequency with which the meals should be given, have been devised, but it has been left to Mr. I. Stanley Kahn, of the Boston City Hospital, to propound a formula which, at the first glance at least, appears curiously complicated. He tells us that the amount of food required in twenty-four hours by the average healthy infant of various ages may be obtained by adding 11 to 5 times the square root of the age of the child in weeks. He is kind enough to say that the square root may be approximate. For instance, at 3 weeks the square root is 1, and the quantity obtained by the calculation is 20 oz. At 4 months the square root is 4, and the result of the calculation is 31 oz. In a table in the *Boston Medical and Surgical Journal* of March 17th, 1904, he shows that the results at various ages agree fairly closely with the quantities mentioned by Ladd, Oppenheim, Starr, and Holt, and the formula may therefore be of some use as a *memoria technica* to practitioners of the mathematical turn. With regard to the number of meals in twenty-four hours, his formula is 11 minus the square root of the age of the child in weeks; thus at 4 months the square root being 4 the number of meals will be $11 - 4 = 7$.

NOVA ET VETERA.

MANCHESTER MEDICAL WORTHIES.[1]

SOME time ago the Council of the University of Manchester resolved to issue volumes of special interest or importance, and we now have the opportunity of welcoming the first of the *Medical Series of Publications of the University of Manchester*. We congratulate both the author and the publishers, the former on the thorough and painstaking nature of his researches into the life-histories of the Manchester medical men of a bygone age, and the latter on the production of a handsome volume which will be the standard work on all that relates to the more intimate history of the medical past of the Royal Infirmary. The visit of the British Medical Association to Manchester in 1902, and the address given by Mr. Walter Whitehead, the President, on that occasion, did much to quicken interest in the history of medical Manchester.

Dr. Brockbank has written longer or shorter biographies of fifty-five medical men beginning with Thomas White (1696-1776), who "was the father of Charles White," and ending with Thomas Turner (1793-1873). Thirty-four were honorary physicians and eighteen honorary surgeons.

Of many of these worthies little is said or could be said. The longest memoirs are devoted to Charles White, Thomas Percival (1740-1804), Thomas Henry (1734-1816), John Ferriar (1761-1815), and P. M. Roget (1779-1869), who all left their mark either in deeds of well-doing, or in literature or in science. Of Charles White (1728-1776), one of the founders of the Infirmary—which began with "accommodation for twelve patients"—and of the Lying-in Hospital, "the originator of lectures to medical students in Manchester" (1783), we need say little here, for Mr. Whitehead in his presidential address at Manchester, Dr. Lloyd Roberts, and recently Professor Cullingworth, have borne tribute to his memory, to his work, and to his worth. We may recall that White suggested section of the ends of the humerus in a case of ununited fracture (1761). He performed excision of the upper head of the humerus with retention of entire motion of the limb (1769). His works on the management of pregnancy (1773) and phlegmasia (1784) are classical, and his use or "topical application" of the "spunge" in the stoppage of haemorrhages is not forgotten (1762). The surgeon who, it was stated, recently was charged with the duty of severing after death the trachea and carotids of a well-known lady, received no such reward for his labours as did Charles White. One of his patients had a great dread of being buried alive; she left White £25,000 on condition that she should remain above ground for 100 years. She died in 1757, and White took the practical method of embalming her body. The mummy had a varied history, and was at last interred in 1868.

A considerable number of the subjects of these biographies remained unmarried, and two at least died as the result of falling from horseback. The sister of Edward Hall left £11,000 to the infirmary; while Edward Holme (1770-1847), the friend of Dalton—even in death they are not parted, for they both repose in Ardwick Cemetery—left his fortune of £50,000 to University College, London. His large library was sold.

The volume contains accounts of the little disputes that took place from to time between these medical heroes, but these polemical questions may be left in oblivion. Nor need we do more than recall the story of Manchester as the first provincial school of medicine, and how from the first germ of medical lectures given in 1783 and the College of Arts and Science, there has by a slow process of evolution and absorption arisen the independent University of Manchester of to-day.

Here and there we get glimpses of the times and manners of the primitive state of hygiene, the Jacobite period, the prevalence of typhus, the earliest numeration of the people of Manchester and Salford in 1773—the expenses of which were largely defrayed by medical men, and of the apprentice-period and conditions of indenture. The closing years of the eighteenth century—1789, 1790, 1794—saw the outbreak of successive terrible epidemics of typhus, and no wonder. Young children operatives slept in the mills; Crompton's invention of the spinning mule in 1779, which was not patented, led to a great demand for labour, and the work was done under the most insanitary conditions; even the floors of the mills were filthy beyond belief. To John Ferriar and to Percival largely belong the merit of stirring up the authorities to do some-

[1] *Sketches of the Lives and Work of the Honorary Medical Staff of the Manchester Infirmary from its Foundation in 1752, to 1830, when it became the Royal Infirmary.* By E. M. Brockbank, M.D. Manchester: University Press. 1904. (Demy 4to, pp. xii. 158.)

thing to protect the people. In the end a Board of Health was established, and the New House of Recovery was opened in 1832, although previous to this a fever hospital had been established near the infirmary.

A reminiscence of 1814 recollected the time when there were only three private carriages in Manchester. White and Percival were responsible for two out of the three. We are told that the third was owned by a "Salford lady, whose name and fame have not been committed to cold print, though doubtless both were well known on both banks of the Irwell.

Leaving aside the mass of detailed biography, let us look at some of the achievements of the staff of the infirmary during these three-quarters of a century. Apart from the foundation of hospitals and allied institutions, we have the foundation of the Literary and Philosophical Society, the foundation of the first provincial school of medicine, at any rate of anatomy, and the Medical Society, in 1834; in medical ethics, the publication in 1803 of the famous work of Percival, the establishment of bills of mortality which helped to found the science of vital statistics, and paved the way for the Board of Health: in factory legislation, improvements for restricting the hours of labour of mill hands, especially of children; in science, new processes for the preparation of drugs, the enunciation of Henry's law, the analysis of coal gas, the foundation of anthropometry by White; in practical medicine, the use of cod-liver oil for chronic rheumatism (1772) by Samuel Kay of Bury (1728-1784), the formation of an artificial pupil and couching in infancy by Gibson. In 1794, S. A. Bardsley (1764-1850) stated that "it is highly probable that canine madness arises solely from actual communication of the virus, and that a proper system of quarantine, extending to dogs within the kingdom, and to such as may be imported, would be the most effective means of extirpating canine madness from the British Isles." This is exactly the practice adopted by the Legislature rather more than a century afterwards.

It appears that John Atkinson Ransome (1779-1834) was the first to suggest the use of silk or catgut ligatures for tying arteries, on the ground of their animal origin, as they would be more readily absorbed—exactly the arguments that were used when catgut came to be extensively used towards the end of the nineteenth century. The first systematic course of clinical lectures at the hospital was delivered by E. Carbutt in 1833. There is no desire to record of the surgical lectures.

The only one of the half-hundred on whom a title was conferred by the Crown (1815) was Sir James Lomax Bardsley (1781-1857). "He did not possess great intellectual attainments. What distinguished him was good common sense and sound judgement rather than deep learning." Let us recall his injunction from Cullen regarding the value of clinical instruction to the teacher and to the patients as well as to the students:

> [illegible] nothing which can induce the rich practitioner to pause. [illegible] expect, on the contrary, to seek for instruction. [illegible] experience [illegible] great [illegible] [illegible] [illegible] [illegible] well-educated medical [illegible]

Manchester is justly proud of the three Henrys—Thomas, William, and William Charles, the biographer of John Dalton in the Centenary Memoirs—father, son, and grandson. From 1775 to 1816 one or other was a Fellow of the Royal Society.

The work is illustrated by nearly thirty plates; some of [illegible] the influence of [illegible] period of its history, [illegible] portraits of the [illegible]. There are several good [illegible] letting lists of the honorary physicians and [illegible] the [illegible] medical students, apothecaries, physicians, [illegible] and [illegible] and [illegible] and useful [illegible]. There are a few [illegible] errors, obviously the [illegible] of the [illegible] by a society.

[illegible] reading made by Dr. T. W. Jordan [illegible] the *Life of Joseph Jordan*, which [illegible] an account of the [illegible] and progress of [illegible] with some particulars of Dr. [illegible] foundation for the [illegible] Manchester worthy [illegible] the [illegible] of [illegible] Dr. [illegible] [illegible] [illegible] [illegible]

NOTES ON HEALTH RESORTS.

NAUHEIM.

Nauheim is situated at the eastern point of the chain of the Taunus mountains, 480 ft. to 550 ft. above the level of the sea. The aspect is north eastern, so that a fresh breeze blows from the Wetteren plain, and it is seldom damp or foggy. The mean temperature from May 1st to October 1st the season is 62.24° F., rising in July to 66.2° F. But it is always possible to find cool and bracing air near the so-called Graduation House, which is provided with a covered promenade and surrounded by pleasure grounds. The house, which is a kind of summer-house, is built close by one of the evaporating walls, down which the water is allowed to trickle, and concentrates in its passage to form the mother-lye. A large evaporation thorn wall is shown in the illustration. The journey from London to Frankfort takes nineteen hours, and thence to Nauheim, by a branch line, less than an hour.

Nowhere can the influence of a physician make itself more felt than at a health resort and nowhere has that influence been more apparent than at Nauheim, where the Brothers Schott have been instrumental in elaborating Beneke's (1850) treatment of disorders of the heart and circulation with such conspicuous success that Nauheim has become the most renowned heart cure in Europe. The diseases of the heart which Nauheim professes to treat with success are valvular, and especially mitral, diseases, pericarditis and endocarditis and their sequelae, chronic endocarditis and myocarditis, nervous affections of the heart, weak heart, dilatation and hypertrophy, and vasomotor disorders. The cure is said to be useful also in disorders of the heart associated with obesity, in incipient arteriosclerosis, angina pectoris, and Graves's disease. Other conditions also treated are diseases of the peripheral and central nervous systems, organic or functional, particularly neuralgia, sciatica, chronic myelitis and chronic meningitis, that is, inflammation of the spinal cord and its membranes. In locomotor ataxia the baths are said to produce good results. Many cases of neurasthenia also derive benefit.

One of the evaporating walls for production of mother-lye, Nauheim.

The baths are divided into five classes:

No. 1. Brine baths free from carbonic acid, varying in temperature and containing from 1 to 10 per cent. of added brine. The greater part of the carbonic acid has evaporated, and the water is also cooled by being allowed to spout freely.

No. 2. Hot brine baths abounding in carbonic acid and differing in temperature. The salt obtained by evaporation of the mother-lye consists on an average of about 20 per cent. sodium chloride, 20 per cent. calcium chloride, 20 per cent magnesium chloride, and 10 magnesium bromide, 5 per cent potassium chloride, 1 per cent. chloride lithia, and 15 per cent. of water.

No. 3. Thermal stream baths or baths of flowing brine.

No. 4. Sprudel baths an effervescent bath. The brine contains its full complement of carbonic acid, and is at a natural temperature of 85.1° to 91.4° F.; it flows directly unaltered in quality into the baths through outlet pipes. The bath is filled, and then the tap is shut off, so that CO_2 is gradually evaporating while the patient is in the bath.

No. 5. Sprudel stream baths of flowing Sprudel water, an intensified form of sprudel. These baths are the great feature of Nauheim; the water comes straight from the spring into the bath through pipes, and the sprudel brine flows through the bath while the patient is in it; the continual flowing of the water causes the carbonic acid to be always acting because always arriving fresh. These baths are most stimulating.

The springs chiefly used for baths are Spring 12 (Friedrich Wilhelms-Quelle), which rises from a depth of about 600 ft., throwing up a great jet of water, and Spring 7 and Spring 14 Ernst Ludwigs-Quelle, struck in 1900.

The waters used for bathing, as will be seen from the analysis, contain about 2 to 3 per cent. sodium chloride, 2 to 3 per mille calcium chloride (this is considered very important), a great deal of carbonic acid gas, and a small quantity of iron bicarbonate. Two of the springs rise in great jets some 30 ft. high, one of them containing as large a proportion of carbonic acid gas as 1,340 c.cm. to a litre of water.

Seven bathing establishments contain 280 bathing rooms. In these are hip baths of brine, with or without carbonic acid gas; fresh-water baths, plain or medicated in various ways; shower baths, with brine; baths with douches of different kinds. The prices of the baths are as follows: Thermal or brine bath, 1.50 to 2.10 marks; ordinary sprudel, 2 to 4.10; stream sprudel, 5 to 6.

Patients can be taken, if necessary, to and from their baths in bath chairs, and there is a room where they can rest afterwards if they wish. The demand on the baths is so great during the season that they commence at 5 a.m., and continue all day. In 1902, 304,616 baths were taken. The new thermal spring baths constitute intermediate baths for patients dependent before on the thermal or the spring baths. These spring basins were constructed so that the waters might retain the carbonic acid gas and their heat until they flowed into the bathing tubs. The pipes and the basins are in underground ways, in which the air is kept at a temperature of 30° C. Four springs are used for drinking purposes, but these principally employed are the Kur-Brunnen and the Karls Brunnen, which contain 1 to 1½ per cent. common salt, 1 per mille calcium chloride, and are effervescent with free carbonic acid gas. The Ludwigs-Quelle is an alkaline, carbonated water, and the Schwatheimer-Brunnen is a mineral spring for drinking purposes only, containing 0.13 earthy bicarbonates, 0.01 iron bicarbonate, and a like proportion of common salt. This water is used successfully for anaemia.

The distinctive feature of the Nauheim method of treating heart affections and defective circulation consists, as is well known, in baths and resistive gymnastic exercises.

The sprudel stream baths can be taken at a lower temperature than other baths on account of the stimulation of the skin produced by the movement of the water as well as by the bubbles of carbonic acid gas formed in it and the action of the salts. In favourable cases the heart's action becomes more regular, while the pulse grows fuller and the breathing more even and quiet, food is better assimilated, and with the improvement in the general condition the heart grows stronger and healthier. The treatment must be commenced cautiously, and the baths should, of course, be taken only under the advice of one of the many local physicians. It is usually recommended that the baths at first should last not more than from six to eight minutes, and should be followed by complete rest. Even so, a day should be missed frequently until the stage arrives when the sprudel and finally the *Sprudelstrom* baths may be taken.

The exercises thought out by the Brothers Schott consist in "voluntary movements with resistance," the resistance

Quantitative Analysis of the Nauheim Waters.

(The amounts of Ingredients are given in Grams as contained in 1,000 Grams of Water.)

Constituents	Springs for the Baths				Drinking Springs		
	No. 1.	No. 5.	No. 7.	No. 8.	No. 10.		
	Analysed by Prof. Will	Analysed by Dr. Sonne	Analysed by Prof. Will	Kur brunnen analysed by Prof. Will	Kurhaus brunnen, analysed by Dr. Uloth	Ludwigsquelle, analysed by Prof. Will 1873	Ludwigsquelle, analysed by Dr. Sonne 1900	Schwalheimer Brunnen, near Nauheim, analysed by Prof. Liebig
Sodium chloride	4.[illegible]	4.[illegible]	[illegible]	[illegible]	[illegible]	0.411	[illegible]	[illegible]
Sodium sulphate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lithium chloride	[illegible]	[illegible]	0.0492	[illegible]	Traces	0.0012	Traces	[illegible]
Potassium chloride	1.1143	1.[illegible]	0.4273	0.5270	0.0731	Traces	[illegible]	—
Ammonium chloride	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium chloride	[illegible]	1.[illegible]	1.[illegible]	1.0349	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium bromide	[illegible]	[illegible]	41.2	0.7387	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium bromide	0.0083	[illegible]	[illegible]	[illegible]	0.14	[illegible]	—	[illegible]
Calcium sulphate	[illegible]	[illegible]	[illegible]	[illegible]	0.2277	0.0288	0.0248	[illegible]
Strontium sulphate	[illegible]	[illegible]	0.0399	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Calcium bicarbonate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Magnesium bicarbonate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sodium bicarbonate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
Potassium bicarbonate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.0098	[illegible]	[illegible]
Manganese bicarbonate	[illegible]	[illegible]	0.0065	0.0080	[illegible]	[illegible]	[illegible]	—
Ferrous bicarbonate	[illegible]	[illegible]	[illegible]	0.0070	[illegible]	[illegible]	—	[illegible]
Silicic acid	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iron arsenate	[illegible]	[illegible]	0.0004	0.0002	Traces	[illegible]	[illegible]	[illegible]
Iron phosphate	[illegible]	[illegible]	0.0005	[illegible]	0.0002	[illegible]	[illegible]	[illegible]
Absorbed carbonic acid	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total amount of all constituents	7.177	21.[illegible]	28.3520	21.0171	[illegible]	2.3023	[illegible]	[illegible]
Amount of solid constituents	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.0478	[illegible]	[illegible]
Specific gravity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Temperature Fahrenheit	[illegible]	[illegible]	[illegible]	70.52°	[illegible]	65.84°	62.96°	46.76°
Amount of free and half combined carbonic acid	[illegible] c.cm.	[illegible] c.cm.	[illegible] c.cm.	[illegible] gr.	1.[illegible] gr.	—	[illegible] c.cm.	

being against the hands of the person supervising the exercises. Some patients benefit more from the baths without the exercises, whilst to others the latter are of great use. Tricycle exercise is recommended by Dr. Siegfried, the treadles being made to revolve according to the requirements of the patient and in cases where passive movements of the lower limbs are useful the tricycle is pushed by an attendant. Climbing exercises are also employed as part of the treatment, and gradually ascending pathways are laid out with resting places here and there. A course usually lasts from five to six weeks, and the most satisfactory results are obtained in cases of dilated heart, the superficial area of cardiac dullness being diminished.

The benefit derived from Nauheim may be attributed mainly to the tonic effect of the gaseous baths on the circulation, the reflex stimulation of the vagi and the increased elimination of waste products of metabolism, which have accumulated owing to defective circulation.

Nauheim has a population of 5,000, and contains many villas and hotels, the most favoured being those looking on to the Park, which is larger than any other German spa possesses. The bathhouse and baths stand in the park. The former contains a fine concert and ball room as well as drawing and reading rooms, a billiard room and refreshment rooms. It is lighted by a large terrace. Every visitor physically capable must pay a Kurtaxe of 2 marks and a smaller fee each member of the same family. There is a large number of good boarding houses. Rooms can be had from 3 to 5 marks and upwards a week, while the Spa Board of Health has changed for the worse and is attached to the municipal hospital.

The [illegible] and indeed, [illegible] might apply to any [illegible] in the following words: "A Visit to [illegible]. Put [illegible] and enlivening, for it [illegible] the [illegible] also the majority of patients treated [illegible] death—many of them being [illegible] their wits' ends, and [illegible] they leave the [illegible] after arrival.

The treatment should be commenced before the evil [illegible] and indeed the patient should be sent there when the first symptoms are discovered on the doctrine that prevention is better than cure.

[illegible]

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ending April 9th and 16th the deaths from plague in India numbered 4,[illegible] and 4,[illegible] respectively. During the weeks the most affected districts were: Bombay City, [illegible] and [illegible]; Bombay Presidency, [illegible] and [illegible]; Calcutta, [illegible] and [illegible]; Bengal Districts, [illegible] and [illegible]; North West Provinces and Oudh, [illegible] and [illegible]; the Punjab, [illegible] and [illegible]; Rajputana, [illegible] and [illegible]; Central India, [illegible] and [illegible]; Central Provinces, [illegible] and [illegible]; Karachi, [illegible] and [illegible]; Hyderabad, the two weeks [illegible].

South Africa.

Cape Colony.

Cape Town.—During the weeks ending April 9th and 16th the number of fresh cases of plague amounted to [illegible] and [illegible] and the deaths from the disease to [illegible] and [illegible] respectively. Four cases remained under treatment in hospital on May 2nd. Many rats and mice were found infected with the plague bacillus.

Port Elizabeth.—No cases of plague in man were recorded during the weeks in question, but rats and mice were found to be infected.

No case of plague was discovered in Natal or Orange River Colony.

Transvaal.

During the weeks ending April 9th and May 2nd the only cases of plague [illegible] were [illegible] which [illegible] and the [illegible] in the week ending April 2nd and 4 which terminated fatally. On May 2nd the total number of [illegible] cases [illegible] was [illegible]. [illegible] May 2nd the [illegible] reported the presence of the [illegible] and [illegible] was unable to [illegible] the number [illegible] Dr. Wood [illegible] reported [illegible] plague [illegible] in the week ending April 9th, [illegible] the week ending April 16th [illegible] the week were [illegible] to be [illegible] the week ending May 2nd [illegible] cases were [illegible] [illegible] were [illegible] [illegible] [illegible] [illegible] [illegible] have been proved, [illegible] [illegible].

Hong Kong.

May 7th: [illegible] [illegible] cases [illegible] [illegible] [illegible] [illegible] [illegible]

CENTRAL MIDWIVES BOARD.

We have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, held at the Board Room, 6, Suffolk Street, S.W., on April 28th, and adjourned to May 11th, the following business was transacted:

Present on April 28th: Dr. Champneys, Mr. J. Ward Cousins, Dr. Cullingworth, Mr. J. H. Johnstone, M.P., Miss Paget Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

Present on May 11th: Dr. Champneys, Miss Paget, Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

1. Dr. Champneys was re-elected Chairman of the Board for the ensuing year.

2. Mr. J. H. Johnstone, M.P., was re-elected Honorary Treasurer for the same period.

3. Letters were read from the Secretary of the Rotunda Hospital, Dublin, the General Secretary of the Royal Academy of Medicine in Ireland, the Master of the Coombe Hospital, Dublin, and Dr Byers, Physician to the Incorporated Belfast Maternity Hospital, asking the Board to reconsider its decision as to an alteration of its rules, so as to allow pupil midwives trained in the chartered maternity hospitals of Ireland to be placed on the same footing as candidates for the examination of the Board producing the certificates prescribed by Forms III and IV in the Schedule to the Rules of the Board.

Resolved: That it is desirable to reconsider the rules, so far as regards the application contained in the letters now read.

It was moved and seconded: That in lieu of the certificates of personal attendance upon twenty cases the Board may, if they think fit, accept the certificates of the master or senior medical officer of a hospital or institution where midwives are trained that the candidate has attended the course of training prescribed for pupil-midwives for the period and in accordance with the regulations in force in such hospitals or institution.

All applications for the recognition of such certificates must be made by the master or senior medical officer of the hospital or institution applying, and must be accompanied by a statement of the regulations for the time being in force, and of any special circumstances which prevent candidates trained in such hospitals or institutions from producing the ordinary certificates required by the Board.

On a division there voted: For the motion, 3; against the motion, 5. The motion was accordingly lost. The further consideration of the matter was then adjourned to May 26th.

4. After consideration of applications for certificates the names of 1,037 women were passed under Section 11 of the Act, and ordered for entry on the roll.

The following table shows the separate numbers of the various qualifications at present appearing on the roll:

Royal College of Physicians of Ireland ...	1
Obstetrical Society of London ...	1,211
Rotunda Hospital ...	55
Coombe Hospital	23
Queen Charlotte's Hospital	73
Liverpool Lying-in Hospital	20
British Lying-in Hospital	3
Glasgow Maternity Hospital	57
St. Mary's Hospital, Manchester ...	—
Manchester Maternity Hospital	1
City of London Lying-in Hospital	7
Royal Maternity Hospital, Edinburgh	6
Salvation Army Maternity Hospital	4
National Maternity Hospital, Dublin	1
Women in bona-fide practice, July, 1901	2,928
Total enrolled	4,452

5. Resolved, that it is desirable to appoint an inspector to visit and report on institutions applying for recognition of certificates or approval as training schools, in cases where it so appears advisable to the Board.

6. The consideration of the scheme of examinations to be instituted by the Board was further proceeded with, and adjourned.

The Treasurer of the Epsom College, Royal Medical Foundation, begs to acknowledge with thanks a donation of £10 10s. from the Wimbledon and District Medical Society.

London School of Tropical Medicine. — Twenty-nine students have entered the school for the three months' course which began in May and ends in July. One lady is included in this number.

THE STUDY OF CHILDHOOD.

The annual meeting of the Society for the Study of the Mental and Physical Conditions of Children was held on May 11th, Earl Egerton of Tatton in the chair. Among those present were: Sir Robert Hensley, Chairman Metropolitan Asylums Board; Dr. Griffiths, President of British Medical Association; Dr. Hyslop, Superintendent Bethlem Hospital; Dr. F. Warner, Dr. Langdon-Down, Dr. Mott, Dr. Gladstone, and Dr. Robert Jones. The report of the Council recorded continued progress and activity in promoting the objects and work of the Society by (*a*) arranging lectures which assist the study of educational methods, and of the environment of children during school life best suited to ensure their mental and physical development; (*b*) publishing volumes of transactions, and disseminating the teaching and information contained in the lectures and addresses given before the Society; (*c*) memorializing the Board of Education on the necessity of the Elementary Education (Defective and Epileptic Children) Act of 1899 being made compulsory on all educational authorities, and the desirability of provision being made for the special training of teachers to qualify them for the care of defective children; (*d*) offering to give evidence before the Physical Deterioration Committee; (*e*) appointing representatives to attend the Congress of the Sanitary Institute at Bradford and the Conference of Special Teachers held at Manchester; (*f*) appointing representatives to the Joint Committee of the Teachers' Guild to consider the compilation of a pedagogical bibliography. For the first time in the history of the Society the Council had to report that the membership had reached 100, including 14 honorary corresponding members, 63 members, and 24 associates. The following were elected officers for 1904: *President:* Right Hon. Earl Egerton of Tatton. *Vice-Presidents:* Right Hon. Earl of Stamford; Lady Douglas Galton; E. W. Brabrook, C.B., F.S.A.; T. Bridgwater, LL.D., M.B., M.R.C.S.; Richard Biddulph Martin, M.P.; Rev. W. D. Morrison, LL.D.; J. W. Palmer, A.I.A.; G. H. Savage, M.D., F.R.C.P., M.R.C.S.; Rev. T. W. Sharpe, C.B.; Francis Warner, M.D., F.R.C.P., F.R.C.S. *Treasurer:* Richard Biddulph Martin, M.P. *Council:* Fletcher Beach, M.B., F.R.C.P., M.R.C.S.; Mrs. Dickinson Berry, M.D.; F. J. Campbell, LL.D.; R. P. Cockburn, M.D., M.R.C.S., L.R.C.P.; S. de Brath; M. Friedeberger, Ph.D.; Miss Hilda Gavin; W. Hamilton Hall, L.R.C.P., M.R.C.S., F.S.A.; C. W. Hole (Delegate from the National Union of Teachers); H. R. Kenwood, M.B., F.C.S., D.P.H. (Delegate from the Sanitary Institute); A. B. Kingsford, M.R.C.S., D.P.H.; R. Langdon-Down, M.A., M.B., M.R.C.P.; Sidney Spokes, M.R.C.S., L.D.S.; G. E. Shuttleworth, B.A., M.D., M.R.C.S.; E. White Wallis, F.S.S. An address on Degeneracy: Physical, Mental and Moral, was delivered by Dr. G. E. Shuttleworth, who disavowed the pessimistic views held by some as to the extensive prevalence of degeneracy in the nation. He was unable to accept all that Nordau had written as to genius being mainly degenerate, and Lombroso's and Benedikt's theories as to specialized criminal types of brain. Yet the subject was one calling for scientific observation and strenuous measures of counteraction where detected. How to detect early signs of deviation from the normal in physical and mental development was one of the questions which the Society had set itself to solve. The report on the examination of 100,000 children in schools, issued under its auspices in 1895, was a most valuable contribution to the problem. Anthropometric observations of the growing child were also of importance, and these unfortunately were too few. The child being "father to the man," such observations would have national value in relation to the alleged physical deterioration of army recruits; and it was only by combating adverse conditions in the incipient stage that good could be effected. Dr. Shuttleworth reviewed the alleged evidence of physical deterioration, and pointed out that even if it were proved it would apply only to the lowest stratum of the community. He referred to the inquiries made previous to factory legislation in 1832, and remarked that then, as now, unwholesome conditions of town life and of indoor labour were undoubted factors in physical deformity. The transmissibility of defects was next considered, and it was argued that much depended upon environment as well as upon heredity. Passing to the subject of mental degeneracy, its close correlation with physical degeneration was pointed out, and the coincidence of physical deformity with moral defect had been noted from the most ancient times. In conclusion, the causes and possibilities of prevention of

decrease in rates were briefly considered. The restriction of the number of the daily visits of district nurses formed a subject of practical importance, especially in relation to female labour and domestic maternal nursing instead of midwifery. The question of a legal duty to discover prostitutes suffering from syphilis was brought into harmony with physiological principles, and with this view all females should be treated in that part of physiology and pathology which has a direct bearing on their work. Growing children should be protected from overstrain, mentally, physically, and by the conditions of the workshop as much as possible by legislative restrictions of premature employment out of school hours, as well as in factories, sanitary schools and, if needs be, by supplementing scanty nutriment. The falling birth-rate was briefly alluded to, and a hope expressed that women, while aspiring to share what used to be considered the responsibilities and employments of men, would not forget that the sacred duties of motherhood must not be shirked.

MEDICAL NEWS.

Mr. [illegible] has been elected Honorary Member of the Royal Medical Society of Bartholomew and Cynick College.

The Duke of Norfolk has, in celebration of his recent marriage, given £1,000 to the Norfolk and Norwich Hospital, to establish an ophthalmic department.

International Conference on Tuberculosis.—The Conference will meet in Copenhagen on May 24th next. The National Association in England will be represented by Sir W. Broadbent, Bart., Dr. Nathan Raw, and Dr. Alfred Hillier.

Vivisection in the United States.—The Committee of the Massachusetts State Legislature which has had under consideration a bill for the regulation and control of vivisection has given leave to the petitioners to withdraw. This seems to be a polite expression for rejection of the measure, which has had the same fate for several preceding years.

A Congress against Drink and Consumption.—A Preventive Medicine and Anti-Alcoholism Congress is to be held at Dusseldorf on May 9th and 10th. The programme of the Congress includes reports and discussions on the relations between alcoholism and tuberculosis, to the University of Bordeaux, Lodge, and Shropshire, and the consideration of a scheme of united insurance against [illegible].

King Edward's Hospital Fund.—Sir John Aird has offered to increase his original subscription to the King Edward Hospital Fund for London by 10 guineas, this sum to be specially appropriated to endowment in order to raise the fixed annual income from investments and other sources to £10,000. There is a suggestion in the air of an anonymous donor to give a sum estimated to produce £5,000 a year if others will give the £15,000 necessary to produce double that amount by the end of the year.

The Composition of Proprietary Remedies.—The Legislatures of Massachusetts, Ohio, and New York have had Bills submitted to them during the present session providing for the publication of the formulæ of all proprietary remedies sold within the respective States. Each bottle or package must have a statement of the ingredients of [illegible] and the relative quantities [illegible].

Sir Edward Clarke's Proposals.—Dr. Reich, in the report concerning the results of the vaccinations carried out in the Transvaal, which was laid before the Ministry on May 19th, states that he considers that the plague is an epidemic [illegible] of influenza and one more allied to Typhus and Cerebro-spinal fever, the germ entering the intestinal tract and [illegible] to the parasite found in cases of Rocky Mountain fever. He recommends the Government to pursue the measures already adopted, such as the application of disinfectants and the isolation of infected animals.

Small-pox Inoculation.—At a meeting of the managers of the Metropolitan Asylums Board on May 11th the Clerk announced the receipt of letters from the guardians of Islington, Poplar, Westminster, Lambeth, Camberwell, Lewisham, and Holborn, protesting against the resolution by which on April 26th the Board determined to permit experiments with, in connexion with the vaccination of small-pox, to be carried out at Joyce Green. It was proposed that the letters should be referred to the General Purposes Committee for consideration and report, but the Board reaffirmed its previous decision in the matter by resolving to proceed with the next business; the letters therefore will merely receive formal acknowledgement.

University of Pennsylvania.—The new medical laboratory of the University of Pennsylvania, the erection of which has taken four years, is to be formally opened on June 24th. Exclusive of site and equipment the building has cost nearly £40,000. It is the first of a group of buildings which it is proposed to erect and which when completed will, it is hoped, form the largest system of buildings devoted to the teaching of medicine in the world. The laboratory, which is two stories in height above a high basement, has a front of 135 ft. and a depth of 200 ft. It contains, in addition to rooms for private research and a library, large laboratories of pathology, pharmacy and pharmaco-dynamics, two museums, three smaller laboratories for comparative pathology, neuro-pathology and surgical pathology, rooms for photographic work, twenty rooms for subsection teaching and two lecture rooms, two with sitting accommodation for 185 students each and two for 400 each.

Leeds Public Dispensary.—The new buildings of the Leeds Public Dispensary, an institution of great local importance, were opened on May 12th by Professor Clifford Allbutt, F.R.S. Very ample and excellently planned accommodation is provided for the following departments: Medical, surgical, ophthalmic and aural, casualty, and dental. A clinical laboratory is also installed, and in addition an isolation room for the immediate segregation of any case of infectious disease presenting itself among the out-patients attending. Nearly the whole of one floor is given up to the purposes of dentistry, the importance of which to the poor thus receives fuller recognition than that commonly accorded. Dr. Allbutt, whose connexion with the institution began forty years ago, gave an interesting sketch of its remarkable success in its work. To these Mr. C. G. Wheelhouse, who was also present, added some of his own. His knowledge of the dispensary's work went back to 1852, and as one of the honorary staff he co-operated in its work from 1853 to 1864.

City of London Hospital for Diseases of the Chest.—The Lord Mayor presided on May 13th at the festival dinner of the City of London Hospital for Diseases of the Chest at the Hotel Cecil, Strand. After the usual loyal toasts had been honoured the Lord Mayor, in proposing "Prosperity to the City of London Hospital for Diseases of the Chest," drew special attention to the welcome presence of the representatives from various working men's societies. It was, he considered, a matter for sincere congratulation that the funds of the institution were contributed to so largely by working men. In the course of the past year the number of attendances in the out-patient department amounted to 6,795, and in-patients to the number of 868 were admitted into the institution in the course of the same period. Unfortunately, owing to the lack of funds, 25 beds still remained closed. An annual income of £12,000 was required to keep the hospital going at its full efficiency, but the sums from donations and subscriptions fell far short of that. The Lord Mayor's speech was followed by an announcement from the Secretary of the Hospital, Mr. H. D. Ryder, who had the satisfaction of reading out a list of donations and subscriptions amounting to over £3,000. The toast of "The Medical Staff" was proposed by Alderman and Sheriff Sir John Knill and was replied to by Dr. Heron. In proposing the toast of "The Committee and Executive Staff" Sir William Church explained that his connexion with the Hospital Sunday Fund and with the King's Fund enabled him to judge of the efficiency of the Committee of Management and the executive body of the institution. The hospital was so well managed that amongst institutions of a similar kind it had come to be considered almost a pattern hospital. He had been a visitor to the City of London Hospital for Diseases of the Chest and he knew how well the patients were attended and how comfortable they were, and he was glad also to be able to state that that satisfactory result was reached at considerably less cost per head than at similar institutions. Alderman Sir G. W. Truscott acknowledged this toast, and a most successful evening was concluded by Sir G. W. Truscott proposing "The Health of the Chairman," to which a suitable acknowledgement was accorded.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MAY 21ST, 1904.

THE FUTURE OF LONDON MEDICAL EDUCATION.

Recent events in England and discussions which have arisen in connexion with them have created in the minds of many persons a kind of aversion towards every dissertation upon the subject of education. We hope, however, that this fact will not deter any of our readers from carefully perusing the oration upon the future of London medical education delivered before the Medical Society of London, and published in this issue. Distinguished physician and Deputy-Chancellor of the University of Wales, Sir Isambard Owen needs no introduction, and his oration is a singularly clear statement of the main facts of the whole question as it at present stands, having the advantage of being couched in simple language, and devoid of those minute details which are irritating to the general public and only of special import to those immediately concerned in their settlement. The question of medical education in general and of medical education in London in particular, though one which naturally interests medical men, nevertheless concerns them not more than it does the whole nation. The well-being of few, if any, medical men at present in practice will be affected, either favourably or unfavourably, by the solution of the difficulties which at present surround medical education in London. For good or bad, their education, so far as universities and schools can effect it, is complete, and how the education of the medical student of the future shall be conducted affects them not at all: the fact therefore that the present movement—one, indeed, which initiated the whole reconstruction of London University—should have been organized and is now being pressed forward by medical men who have been singularly successful in their own career should be sufficient proof in itself of the real existence of the needs upon which the claims made are based. The project in view, indeed, is, as Sir Isambard Owen points out, not in the interest of medical men in particular but in that of all men alike. Disease and accident are no respecters of time and place: the life of the wealthiest may at any moment rest upon the skill and knowledge of the humblest village practitioner; failure at any point of the sanitary guard which in times of danger preserves a nation from epidemic disease may let in an enemy that will cost the nation more than it could ever spend upon its medical schools. Finally, the medical profession is not one that can be charged with making an illiberal or selfish use of its knowledge, but one which has always loyally consulted the public advantage first of all. Of its generosity in labour the public never scruples to make unsparing use, and it meets the heavy demands made upon it with unfailing patience and public spirit.

The claims of medicine upon the public are so great that it would be the more peculiar that London medical education should not hitherto have received support from the public purse were it not for the fact pointed out by Sir Isambard Owen that the public has grown accustomed, and almost been taught, to regard medical education as a matter which concerns no one but medical men themselves. Whether from choice or necessity, medical education in London in the past has been conducted chiefly as a matter of private enterprise, and in this way enormous sums of private money have been invested in buildings and equipment, and the needs of the day have thus been met.

In the early future, however, such efforts will not suffice. At one time the whole education of the medical student could be conducted within the walls of a hospital with the addition of a very few tutorial buildings. This is no longer the case. The medical curriculum now is practically divided into two parts. Of these the later and more strictly professional should, and indeed can, be conducted only within the precincts of great hospitals situated within reach of vast populations and with unfailing sources of clinical material in the shape of cases of disease and injury of all characters. This part of medical education can continue to be conducted in the medical schools as they at present exist, but in spite of clashing interests which might have been expected to interfere it is an axiom accepted now by all London medical schools alike that the earlier or more academic studies could best be and should be conducted in a central institution devoted exclusively to those sciences upon which both medical and surgical practice depend.

It is the foundation and endowment of such a school upon an adequate footing, one which has been christened in advance "The Institute of Medical Sciences," which is now in question. It is a project of the highest importance, and one which should excite the enthusiasm of all those, whether rich or poor, who are interested in the well-being and progress of the nation. The metropolis of England, like those of many other civilized countries, is perhaps somewhat lacking in a spirit of local patriotism. In the matter of medical education, however, one explanation in addition to that to which we have already referred may possibly be that hitherto there has been no definite project or plan by which public interest could be aroused or the purses of rich men opened.

But this, again, is no longer the case. The object which the University of London has in view is a perfectly definite one, and at once local and national. The fact that provincial universities have sprung up and are doing all in their power in nowise affects its imperial importance. Apart from the fact that London possesses a field of clinical instruction unequalled throughout the world, the tendency must be for the best clinical and teaching talent to be attracted to metropolitan schools and hospitals so long as the greatest prizes of the profession are to be found in the capital. It follows, therefore, as Sir Isambard Owen has pointed out, that whatever the provincial universities may succeed in doing, it would be disastrous not only to Londoners, but to England and Wales as a whole, and, it may indeed be added, the whole empire, if London should cease to occupy the position, which it has held up to the present and should always retain, as the principal seat of medical education in this country. Of this, however, there will be no small risk if, owing to lack of public support, the desire of London University to establish a central

school of instruction in the preliminary sciences should fail to be early realized.

Nor, again, should the interests of individual institutions either from lack of sufficient study of the questions involved or from other cause, be allowed to interfere with the realization of the main object in view. Of this there must be always some risk and there would appear, indeed, to be some reason to suppose that some such clashing of supposed interests or misapprehension of the true position has already taken place.

The gift, for instance, of £100,000 by Sir Donald Currie to University College has been mistaken by many persons as a gift to the University of London, and from some of the terms employed in the deed of gift it appears possible that the munificent donor may have been under the same impression. This, however, as Mr. Butlin, Dean of the Faculty of Medicine, has pointed out, is not the case. It is a gift to University College, and as soon as the remaining sum of £18,000 is obtained, that College will become incorporated with the University. But this incorporation will not in any way diminish the necessity for the establishment of an Institute of Medical Sciences under the control of the Medical Faculty of the University of London, at which medical students in London can begin their studies, irrespective both of the hospitals at which they propose eventually to complete their education, and of the degrees or other medical qualifications which they aspire to obtain.

THE FOOD QUESTION IN HEALTH AND IN DISEASE.

The quantity and quality of the food daily consumed play such a large part in the maintenance of health and in the treatment of disease that it is rather remarkable that closer attention has not been paid to this important question. We are told by the physiologist that certain quantities of nitrogenous and starchy foods, of fat, sugar, etc., are necessary for healthy existence, the quantities varying with the waste of life, but an infinite difference of opinion is discoverable when we try to ascertain how this necessary material is to be taken in the form of the ordinary articles of diet.

On one point alone is there agreement; the general rules by which the feeding of infants should be determined are well understood although not by any means generally followed, as was pointed out in the BRITISH MEDICAL JOURNAL in the articles lately published on Physical Degeneration.

As regards the feeding of children of school age no such recognized system exists, and here there appears to be much room for improvement, as has been mentioned in the articles referred to, as well as in some others on the Food Factor in Education. Indeed the mere fact that the feeding or dieting in English boarding schools altogether differs from that of similar institutions in France and Germany is alone sufficient to impeach the good of some. Prevailing ideas which may tend to a diet [illegible] play, and there is no doubt that many [illegible] much, as exemplified by the saying that "man digs his grave with his teeth." But there can be little doubt that if graves be not dug, strength and usefulness are often impaired by giving too little occupation to the masticating organs. How often are insomnia and other neuroses due to the tea and egg for dinner so dear to the feminine heart, and how much brain fag may not be put down to the coffee and roll for lunch of a busy city man? On the other hand, it is quite true that too much is as bad as too little; and it is certain that frequent meat meals, washed down with copious draughts of alcoholic liquors, often impair the health of a man taking little or no exercise, and may be the very cause of the sense of lassitude and exhaustion which lead him to take more food or yet another pick-me-up. What is contended for is a closer study of this all-important subject, after which it should not be at all impossible to prescribe a diet based on scientific inquiry and exact knowledge.

It is, however, when we have to advise a dietary for persons whose health is impaired that we become most conscious of the difficulty of deciding among various systems, usually altogether empirical, and that we feel the need for some certain foundation on which to base our judgement. The chaotic state of professional opinion on this subject was clearly exhibited in a discussion which took place last year at the Balneological Society with regard to the best diet for gouty and rheumatic patients. Almost every possible different view found expression among those present, and there was no consensus of opinion either as to the number of meals nor as to the proportion which the nitrogenous or starchy constituents should bear to the other elements of the diet. In fact, as regards sufferers from these complaints, all shades of opinion can be found among medical men, some of whom advocate a diet consisting of lean meat and hot water, while others prefer a moderate mixed diet, and yet again others who prefer a diet from which nitrogenous food is as far as possible excluded.

To refer to only a few of the other cases in which a scientific feeding of the patient would be of the first importance, there may be mentioned the question as to the place of milk in the diet of typhoid, as to the quantity of food, and especially of liquids, in the treatment of some forms of cardiac disease, and the burning question as to the place of alcohol in the treatment of disease, whether chronic or acute.

As regards dyspeptics, very various diets seem to suit different cases of the complaint, and while the physician's advice rarely goes beyond the prohibition of a few especially indigestible articles, the sufferer mostly has to find out for himself what he should eat, drink, and avoid, and usually acquires that knowledge at the expense of much pain and discomfort.

It was said, twenty years ago, that a doctor was one who, to a body of which he knew nothing, administered drugs of which he knew little more. This taunt is hardly deserved by the profession to-day. But if for drugs we substitute the word food the accusation would not be without some point. It is probable that it will continue in some measure to be deserved until the food question is given its proper place in the medical curriculum. The study of dietetics should be looked upon as very nearly, if not quite, as important as the study of therapeutics.

The Treasurer of the Epsom College acknowledges with thanks the receipt of a cheque for £5 5s. 10d. in aid of the Epsom Medical Examination from the St. Andrew's Graduates' Association.

HEREDITY, TUBERCULOSIS, AND LIFE ASSURANCE.

DURING recent years the importance of a family history of tuberculosis in regard to life assurance has been variously estimated. Some have been inclined altogether to disregard it except in so far as there is obvious danger of infection for any one living in the same house with consumptive and expectorating relatives; but Dr. Finlayson, in an address delivered recently before the Insurance and Actuarial Society of Glasgow,[1] endeavoured to show that the discovery of the tubercle bacillus has not upset the principles which have been recognized and acted on by most life assurance medical officers.

Dr. Finlayson alluded to the work of Dr. Claud Muirhead, who in his survey of twenty-one years' mortality experience of the Scottish Widows' Fund, pointed out the curious fact that those who died of apoplexy during those years had given on the average a worse family history of consumption than those who actually died of consumption. On the other hand, it must be noted that, of the 254 consumptives, 80.70 per cent. were below the average weight, while of the 152 non-consumptives only 40.13 per cent. were under weight. Therefore 60 per cent. of the non-consumptives had weight of body in their favour although their family history in regard to consumption was worse. Moreover Dr. Muirhead recognized that 46 per cent. of the consumptives entered under 30 years and 88 per cent. under 40 years so that their family histories were very imperfect when they joined the Society.

In discussing the main facts of heredity in disease Dr. Finlayson pointed out the importance of obtaining data not only in regard to the diseases of the parents and brothers and sisters, but also in regard to the brothers and sisters of the parents and the parents' parents and their brothers and sisters. He maintained that, from the life assurance point of view, it comes to the same thing whether the tubercle bacillus itself is inherited (as undoubtedly it is in rare cases) or whether merely the disposition to infection and to succumb to infection is what descends to the offspring. In regard to heredity and infection with tubercle bacilli we have the old question of the soil and the seed. "If a youth attending some popular science classes in Glasgow goes home to the country he may hear his grandmother speaking of the mould on a pair of old boots, lying in a room, as a proof of damp; her grandson, full of pity for her antiquated notions, explains that mould is a vegetable growth, due to a living germ, which has infected, as it were, the boots and made them mouldy; he may offer to demonstrate the growth under the microscope, and ask triumphantly if damp can cause a vegetable growth." Yet, Dr. Finlayson remarks, the grandmother is just as near the truth as her grandson. Indeed, "the seed and the soil are equally important, and this is recognized in every insurance paper." The "seed" of tuberculosis is abundant enough, and the possibility of a special predisposition to tuberculous infection must always remain an important question in life assurance. A bad family history is particularly grave when the proposer shows poor physique, and the environment of the individual at his work or in his residence must naturally be considered together with his inherited constitution. An early age in the applicant before the family history is fully developed, and before the proposer's health and constitution are consolidated, ought, it is contended, to make us more cautious in dealing with those presenting tuberculous tendencies in their family history.

[1] *Tuberculosis: Infection and Heredity in Relation to Life Assurance, and Intermittent Albuminuria in relation to Life Assurance.* By James Finlayson, M.D., LL.D. Glasgow: J. Hedderwick and Sons. 1904. (Demy 8vo, pp. 25.)

THE NATIONAL ANTIVIVISECTION SOCIETY.

THE annual meeting of the National Antivivisection Society was held on May 17th, presided over by Lord Llangattock, and graced by the presence of the usual assortment of peers, peeresses, and parsons. This being the formal annual meeting of the year some reference could not be avoided to the speech made by Mr. Stephen Coleridge upon the last corresponding occasion, to the libel case in which it resulted, and to the crushing defeat and exposure which the Society had suffered in the person of its Secretary and Treasurer in the action of Bayliss v. Coleridge. This case and the verdict Lord Llangattock, however, with commendable discretion, refused to discuss in detail, and contented himself with denouncing as outrageous the damages awarded to Dr. Bayliss, and exacted in the form of voluntary contributions, together with the heavy costs, out of the pockets of the Society's friends. This done he passed on to ask those present to believe that the whole affair had really been a blessing in disguise, and that the Society and its influence had been marvellously strengthened thereby. In support of this cheerful, if inaccurate, view of matters he subsequently drew an impressive picture of the work done as that of a flourishing influential Society with fresh, new, offshoots built upon "sure foundations," and exhibiting useful activity of every kind. It was not the sort of representation of which Robert Burns was thinking when he expressed his longing for some means by which people could see themselves as others see them, but a looking-glass picture pure and simple. Such as it was, however, it must have been very exhilarating to those whom collectively it purported to represent. It was, therefore, somewhat of an anticlimax, and must have been rather a shock to his audience when Lord Llangattock admitted soon after that the Society, whose spreading influence he had just described, had, in spite of its most strenuous efforts, totally failed to prevent Birmingham University from being added to the list of places licensed under the Vivisection Act. He was followed by Mr. Stephen Coleridge, who was quite in his best form, and in no whit abashed by the damning exposure of his methods to which delicate if insufficient reference had just been made. He unctuously expressed his joy at finding himself in the same place as last year able to repeat what he is pleased to call his vindication of the justice of the cause of the Society. He was not ashamed practically to repeat his charges against scientific workers of practising meaningless and immoral torture, and said that vivisectors in his view represented the base forces of selfishness in the world, and that they were indifferent to faith, loyalty, steadfastness, generosity, self-sacrifice, and valour. Finally, in one of those flights of oratory in which he so entirely loses sight of the true bearings of the matter with which he deals, he concluded by proclaiming anathema against the Metropolitan Asylums Board, and threatening it with the pains and penalties which it will incur should it persist in its determination to permit of endeavours being made under its auspices to discover a sure means of abolishing small-pox. The means which are in view, it should be noted, are nothing more formidable than the inoculation of a few animals, inoculations precisely of the same general character as those by which thousands of human children have been protected against diphtheria during the course of the last few years. We need only add that the account given at this meeting of the general effects of last year's events upon the antivivisection movement seems to us, as to most people, in no way correct. The public is now well aware of the methods by which the campaign is pursued, and has some conception of the kind of confidence which it should place in the statements made by Mr. Stephen Coleridge and those who speak in the name of the Society. Nevertheless, we must congratulate

Mr. Stephen Coleridge and his friends upon the happy way in which they are able to bear up under sufferings which, if not so acute, must be at least as acute as those of the animals for whom they profess so much pity.

A DISCREET JURY.

It is satisfactory to be able to note that twelve men have for once in a way failed to exhibit the usual stupefying docility of Mr. Troutbeck's juries and refused to accept the invitation from him to add to their verdict a rider censuring a London hospital. The circumstances in this case were that a man, who had been knocked down by a runaway horse and carriage was brought to the West London Hospital where he was found to be suffering from shock, a broken leg, and some obscure injury to the pelvis. There was no bed vacant, but in view of his condition arrangements were made to keep him for nine hours upon an extemporised couch, during which time he received from the officials of the hospital every possible attention. Thereafter he was sent to his own home on a stretcher. His friends, however, strongly objected to his not being permanently admitted, and in reasoning with them the house surgeon in charge of the case seems to have mentioned the fact that the patient was a very well-to-do man, the manager of an ice-cream company. Reference was made to this fact not as a reason for refusing permanent admission but as a circumstance which rendered his return home less to be regretted, inasmuch as that being well-to-do the patient was in a position to secure every attention at home. The constable who accompanied the deceased to the hospital said he saw no want of attention whatever, but nevertheless at the inquest accusations were made of cruelty and neglect on the part of the hospital authorities. In summing up, Mr Troutbeck practically refused to accept the statement that permanent admission was refused because no bed was vacant, and attributed it to failure on the part of the hospital surgeon to diagnose the real gravity of the injuries, if, he thought, their serious nature had been recognised, a bed by some means or other would have been found for the man, the fact that a man was rich was no reason for leaving him uncared for. The jury, however, returned a verdict of accidental death, and added that they declined to express any observations on the complaint made against the hospital. Mistakes occur at hospitals as in every other sphere of human activity, but they are on the whole very rare. The campaign against hospitals which Mr. Troutbeck has been assiduously and, in our opinion unwarrantably, conducting for some time past cannot but do the great injury to these institutions, and consequently to the public whose interest Mr. Troutbeck presumably believes himself to be protecting. It is satisfactory, therefore, that one of his juries has at length proved intractable to dictation, and it is to be hoped that the first will not be last upon him.

THE RELATION BETWEEN INFANTILE MORTALITY AND BIRTH-RATE.

Mr. W. Matthews, the Government Statist of Victoria, has recently drawn attention to this important and often misunderstood relationship. He holds the opinion that infantile mortality in old and populous communities occupies the position of perhaps the most prominent determinant of the [illegible] and in support of this contention gives a list of twenty countries in which the two exceptions, a high infantile mortality is associated with a high birth-rate. The first and the last two of the countries on this list are as follows:—

	Infantile Mortality per 1000 Births.	Birth-rate per 1000 Persons.
Russia	274	49
Austria	229	37
Hungary	227	41
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

[illegible] Mortality per 1000 [illegible]

As a matter of mere chance the probability of the highest birth-rate being associated with the highest infantile mortality in the table of twenty countries is $\frac{1}{20}$ that the first and second in the one series would be associated with the first and second in the other series is $\frac{1}{20} \times \frac{1}{19}$, or $\frac{1}{380}$, chances against it, and the probability of the same fact being in the order given in both series is $\frac{1}{400}$ to 1. It is in view of these figures impossible to doubt the correlation which exists between the two series of events. This is a very different conclusion from the fallacious statement made many years ago by Dr Farr to the effect that the birth-rate is the controlling element in the death-rate. So far as the general death-rate at all ages is concerned, this is not true; for a high birth-rate continued over a considerable series of years means not only a large proportion of population living in the early years of life in which they are subjected to a high rate of mortality, but also a counterbalancing large proportion at the middle ages in which the death-rate is very low. The nature of the relationship between a high infantile mortality and a high birth-rate deserves further study. The same information which would give us the causes of low infantile mortality would doubtless give a partial clue to the cause of the correspondingly low birth-rate. There can be little doubt that infant feeding determines to an overwhelming extent infantile mortality. Thus, as Dr. Hugh Jones pointed out in [illegible], the lowest European infantile mortality (10 to 13 per cent.) is in Sweden and Norway, where almost every child is nursed by its mother; while it is highest in the countries where maternal nursing has become the exception. It is well known that maternal nursing postpones the recurrence of pregnancy; and we have in this fact a partial explanation of the common association between a high birth-rate and a high infantile mortality. It would be reassuring to all who have the highest interests of the community at heart could this be accepted as a complete explanation of the present decreasing birth-rate in England. The facts, however, show that it is not so. It is notorious that mothers have become less willing to perform their maternal function of nursing, and yet the birth-rate, which on the above supposition ought to become higher, is declining. It does not follow that the above explanation does not rightly explain much of the low birth-rate in Victoria. Let us hope that it does. Nor does it follow that the same cause is not operating in England and producing a normal and wholesome lowering of the birth-rate by increasing the intervals of child bearing. But we think there is overwhelming evidence showing that the cause seriously contributing to produce the decline in the English birth-rate is the use of artificial means of restricting the size of families: a line of conduct which there is every reason to regard as degrading to those who practise them, injurious both mentally and physically, and contrary to the highest interests and the moral standards of the community.

THE ROYAL SOCIETY.

The first conversazione of the two annually given by the Royal Society at Burlington House took place on May 11th, and as usual there were many exhibits which required some study for a just appreciation of their practical value, scientific novelty, or ingenuity in application of well-accepted natural laws than could possibly be given to them in the course of a short evening. Equally, as usual, the number of exhibits of special medical interest was few. Dr. G. H. F. Nuttall, F.R.S., had an exhibit dealing with ticks and tick-transmitted diseases; amongst the specimens shown were the piroplasma canis, a parasite living within the blood corpuscles of the dog, and the cause of a very fatal canine disease in Africa and some parts of Europe. In South Africa the disease is carried by a tick called the haemophysalis leachi. The parasite in question would appear to be similar, if not identical, with the one to which Texas fever or red water and Rhodesian fevers are due. The disease among human beings known as "rocky mountain fever" has also been ascribed to the same

organism. The spirochaete of Marchoux was also shown; this is a blood parasite transmitted by a tick called the argas miniatus, and is allied to the parasite of relapsing fever in man, and to that causing a fatal disease of geese in Russia, in neither of which has the carrier been yet determined. Professor J. B. Farmer, F.R.S., and Messrs. Moore and Walker showed a number of microscopic slides illustrating the cell divisions in malignant growths which were fully described by them some months ago in the pages of this JOURNAL. Professor H. Marshall Ward, D.Sc., F.R.S., showed a collection of microscopic preparations in illustration of rust fungi; it was interesting but required too much special knowledge to be attractive to the majority of those present. Dr. A. E. Wright showed the methods which he employs for measuring the agglutinating and bactericidal powers of blood: it was a very carefully prepared and most informing exhibit to those who gave themselves time to study it. Mr. J. W. Gordon showed a compound draw tube and oscillating screen built upon the lines put forward by him in a paper recently read before the Royal Microscopical Society; its object is to get rid of the blemishes incidental to extreme magnification and which Helmholtz proved to be due to the small diameter of a Ramsden circle. This object was accomplished by employing an oscillating opalescent screen in the view plane of the principal microscope, to serve as a secondary source of radiation and to expand the transmitted wave front. The test specimen shown was a diatome magnified about 10,000 diameters; the value of the invention was very evident. Dr. W. N. Shaw, F.R.S., showed a cleverly-designed sensitive barograph for the study of minor variations of atmospheric pressure: these are recorded by a lever which magnifies the vertical motion of an inverted cylinder floating mouth downwards on mercury. The interior of the cylinder is in communication with a sealed air chamber, and minor and passing variations of temperature are obviated by the use of non-conducting material; slow variations, on the other hand, both of temperature and of pressure are reduced to insignificance by a small leak between the chamber and the external air, with the general result that the details of comparatively rapid fluctuation of atmospheric pressure are clearly brought out. The most popular show of the evening perhaps was that given by Mr. Francis Fox in illustration of the operations at the Simplon tunnel, and of engineering work on the River Zambesi. In this was shown the Brandt hydraulic drill, by means of which rapid progress can be made in rock drilling without, it is claimed, the formation of dust. Further developments of colour photography were shown by Sir W. de W. Abney, K.C.B., F.R.S., and also by Mr. E. Sanger Shepherd; the exhibit of the latter was perhaps the more striking, being an example of the application of natural colour photography to the production of lantern slides of spectra for lecture and educational purposes. The result of the process used is a true natural colour photograph consisting of nothing but the colouring matter securely locked up in a single film of gelatine. Radium exhibits were for the most part conspicuous by their absence, but Dr. Alan B. Green had upon view some photographs illustrative of induced radio-activity in bacteria. They were produced by first exposing small masses of bacteria to the beta and gamma rays of radium bromide, and then placing them between two thin sheets of non-radio-active glass, bringing the latter into contact with a sensitized film, and then developing the negative upon ordinary lines. Any observation concerning radio-activity is in the present state of knowledge of interest, but what importance should be attached to this latest observation is not at present obvious.

THE PHARMACEUTICAL SOCIETY.

THE Pharmaceutical Society of Great Britain gave its annual dinner on May 17th at the Hôtel Métropole. Some 150 members and guests were present, and thanks to the able chairmanship of the President of the Society, Mr. S. R. Atkins, J.P., the toast list was worked through in a commendably short space of time. Himself an excellent speaker, Mr. Atkins set a good example of brevity and point, of which due note was taken by those who followed. Speaking of the Pharmaceutical Bill now before the House of Commons, Mr. Atkins remarked that as a corporate body, one of whose purposes was the protection and furtherance of the interests of its members, the Society would have been perfectly justified in endeavouring to effect legislation in the interests of chemists alone. This, however, it had not done. The Bill before the House was conceived in the interests of the public, and it was the desire of the Society that it should be examined and criticized both in and out of the House from that standpoint alone. He was followed by Mr. Thomas Lough, M.P., who, in returning thanks for the toast of "The Houses of Parliament," made humorous allusion to the respect with which chemists had ever inspired him from the days when, as a boy in a small village, he had looked upon the chemist as the most important person in the place, and at his shop as one of awe-inspiring mystery. He was a strong supporter of the Bill before the House, considered that it asked nothing which in the interests of the public should not be granted, and believed that if not accepted in the form of a private Bill the same clauses would necessarily be included in any Bill which the Government itself might be led to introduce. In proposing "The Health of the Medical Profession," the Chairman said that the desire of the Society was that its members should confine themselves strictly within the line which divided their duties from those of the medical profession. He was aware that there were certain free lances who overstepped it, but the Society did all in its power to frown such conduct down. After making happy allusion to the statement of Herbert Spencer that happiness was the great quest of mankind, to the connexion of happiness with health and of health with the efforts of medical men, he drew brief attention to the modern progress both of pharmacy and of those who practised it. He thought the time had come when the Pharmaceutical Society should be definitely invited to take part in the work of keeping the *British Pharmacopoeia* up to date. The sentiments expressed and the way in which the toast was received by those present met with due acknowledgement at the hands both of the President of the Royal College of Physicians, Sir William Church, and of the President of the Royal College of Surgeons, Mr. John Tweedy. The former made allusion to the growing importance of serumtherapy, to the failure of Government to institute any official supervision over the sera put upon the market, and to the efforts which the Royal Colleges of Physicians and Surgeons had made conjointly to meet the situation. He thought that the duty of standardizing sera should be the joint work of pharmaceutical and medical bodies.

ROCK DRILLING AND MINERS' PHTHISIS.

MR. E. L. CARLYON, one of the Cornwall coroners, has been conducting an interesting inquiry near Truro touching the death of a miner 60 years of age, which was stated to have been due to miners' phthisis. The inquiry was the outcome of a request conveyed to him from the Home Office that he should order a necropsy to be made in such cases, with the view of throwing some light on the nature of the malady. The deceased man had been formerly a tin miner, but had subsequently gone to South Africa, where he worked for only two months at rock drilling. He returned from the Transvaal about five years ago. At the necropsy made by Dr. Edwards, of Devoran, and Drs. Walters and Haldane, of Oxford, the lungs were found to be absolutely black from dust and smoke inhaled during life; in addition, they were consolidated. A microscopical examination of the diseased organs has yet to be made, but from the evidence tendered at the inquest the verdict that the deceased "died of pulmonary phthisis apparently caused by inhalation of stone dust during work underground as a miner in Cornwall, America, and the Transvaal," will presumably be merely strengthened thereby. The following rider was

added to the verdict: "that in order to deal with this great source of danger to health special legislation is urgently called for." In his evidence Dr. Haldane gave some very valuable information regarding the mortality returns of the miners who had died in the coroner's district, and who had worked in South Africa. The men had worked as rock drillers in the Transvaal, and had been much exposed to dust. Of these miners within the last three years 19 had died of lung disease, and all but one had been returned as having died of phthisis. The average age of the men was 36 years, and the average length of time they had worked on the rock drills was 5½ years. As an indication that even Cornwall miners who had never worked rock drills were nevertheless inhaling too much dust, Dr. Haldane stated that 37 such men had died, the average age at death being 56. Of these 37 miners, 25 had died of lung disease. In order to obviate the evil effects of dust jets of water were advocated, a recommendation which found warm support in the statement of a juror who had had experience of its beneficial effects when working in the Transvaal. Medical opinion is divided as to the real cause of miners' phthisis. The pathology of this disease formed the subject of a discussion which took place at the meeting of the British Medical Association in Swansea last year, and in which Professor T. Oliver of Newcastle-upon-Tyne, Professor Adami of Montreal, and Professor Hamilton of Aberdeen took part.[1] It was then contended that dust was the primary and most important factor in the causation of the malady. The coroner's inquiry to which we have alluded shows that the time has now come when steps should be taken to reduce the high mortality-rates of the Cornwall and Transvaal miners — or, in other words, that legislation and practical science should now do for these men what they have effected for coal-miners generally.

THE METRIC SYSTEM.

THE Bill dealing with weights and measures, the main features of which we published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, passed its third reading in the House of Lords on May 17th, after its return from the Select Committee to which it had been referred. The latter body introduced in it sundry amendments which had been proposed by various public departments. Lord Belhaven, who moved the third reading, mentioned that he had that day presented a number of further petitions in support of the measure from town, city, and county councils, chambers of commerce and of of agriculture, and from other bodies, together representing a very large proportion of the population. The general effect of the Bill, if it survives the ordeal of the House of Commons, will be to render the adoption of the metric system in the United Kingdom compulsory after an interval of about two years.

STATE REGISTRATION OF TRAINED NURSES.

The annual general meeting of the Society for the State Registration of Trained Nurses was held on May 19th, Miss Louisa Stevenson in the chair. The report stated that since the last annual meeting 961 applications for membership of the Society from matrons and certificated nurses had been accepted, making the total number of members at present [illegible]. Miss Stevenson said that the progress made during the past year had been such as to give them great hope for the future. She fully recognised the social, professional, and political opposition they had to contend against, but that opposition did not alarm her in the least. The objections to the movement were similar to those that were urged against the training and registration of medical women, and they would be overcome in a comparatively few years like them. She was convinced that, sooner or later, there would be for the whole British Empire a State register for trained nurses. It was resolved to make the following addition to the constitution of the Society: "That ladies and gentlemen not connected with nursing be eligible for election as Associates of the Society." Mr. H. J. Tennant, M.P., moved a resolution approving the Bill for registration introduced into the House of Commons by Dr. Farquharson, M.P., and declaring that it was desirable, in the public interest, that a Select Committee should be appointed to inquire into the whole nursing question. He pointed out that the Bill was intended for the protection of the public no less than for the protection of the nurses. Lady Helen Munro Ferguson seconded, and other ladies supported the resolution, which was adopted unanimously.

[1] BRITISH MEDICAL JOURNAL, [illegible]

PROFESSOR E. J. MAREY.

SCIENCE has suffered another loss this week by the death on May 16th of Etienne Jules Marey, Professor of Natural History at the Collège de France, and *doyen* of the Medical and Surgical Section of the Academy of Science and of the Anatomical and Physiological Section of the Academy of Medicine. He obtained his chair in 1878 upon the death of Claude Bernard, and was one of the last representatives of a brilliant school of which Brown-Séquard, Paul Bert, and Vulpian were prominent members. Famous for his many applications of precise methods to the study of physiology, he was best known, perhaps, to medical men in England from his introduction of the sphygmograph. Some details of his career will be given in a later issue.

THE UNIVERSITY OF WALES.

SIR ISAMBARD OWEN, Deputy Chancellor, presiding at the annual meeting of the Welsh University Court at Holyhead, raised the question of petitioning for a supplemental charter, including among other things provision for enabling the University to grant degrees in medicine, surgery, and obstetrics, excluded from the original charter. Sir Arthur Bigge, Private Secretary to the Prince of Wales, the Chancellor of the University, wrote from Marlborough House expressing His Royal Highness's approval of this proposal. Sir John Williams also strongly supported it. Students from Welsh medical schools were, he said, taking distinguished places in other universities, while the Welsh University was deprived of the credit. The Court resolved to include this provision in the application for a supplemental charter.

LADS' DRILL ASSOCIATION.

THE annual (1903) report of the Lads' Drill Association tells us of work done and of work contemplated. The Association has helped towards the formation of cadet battalions and corps throughout the country, and intends to work on until the rudiments of military training are brought within the reach of every able-bodied youth within the realm. Already military drill is part of the curriculum of a few schools in this country; and in many of the Colonies it has taken a much more prominent place in school training than in Britain. All are agreed that physical benefit is likely to ensue from some form of military drill, and as an asset in the direct defence of the Empire it is of considerable value. The number of men under arms and the number of men trained to bear arms are undoubtedly below the needs of the Empire to-day; and as a means towards removing this deficit it is essential that an opportunity should be afforded the youths of the country of making themselves familiar with military movements and military weapons if conscription is to be avoided. As a hygienic factor from the point of view of physique, military drill, as modified for boys, is a safe and useful form of exercise. Overstrain is well-nigh impossible, the evils of training to win prizes in sports are avoided, and the gain to the nation is considerably greater than proficiency on the cross-bar, weight lifting, mere dumb-bell exercises, or even success in high jumping, long jumping or sprinting. Military drill is conducted in large halls or in the open air, and is thereby calculated to do more good than training for show performances in the close air of crowded gymnasia. We congratulate the Lads Drill

Association on the good work it has already accomplished, and hope its efforts to benefit the physique of the youth of the country may find abundant support.

SPOROZOA AND DISEASE.

PROFESSOR MINCHIN delivered his eighth and concluding lecture on sporozoa on May 9th at University College, and having dealt with the remaining groups of sporozoa then drew general conclusions concerning the group of sporozoa as a whole. The doubtful groups which were difficult to classify included many isolated forms. The more important of these were (*a*) the actinomyxon of Stolc which was met with as a parasite in tubifex worms, and which were provided with three polar capsules, and (*b*) the haplosporidia (Laveran and Mesnil) which were simple uninucleate cells which grew and multipled into morula-like masses, which in turn broke up into numerous individual spores. The latter were met with as parasites in certain rotifers and belonged to the genus *Bertramia*, described by Bertram of America in 1892. Further, there remained a group called the exosporidia, which comprised two curious parasite organisms,—namely, amoebidium and siedleckia. Amoebidium occurred on the gills and antennae of fresh-water crustacea. It grew into tubes of many individual cells. From the structure and mode of development it was doubtful whether this organism could be regarded as a true sporozoon. The other form, siedleckia, was to start with also uninuclear, but by a process of multiplication it formed a large multinucleate elongated form with a pointed fore end and a rounded rear end which detached itself, while the rest of the animal grew and reproduced itself. By this form of growth, and under certain conditions by a process of zoospore formation this organism multiplied and grew. It was probably allied remotely to the gregarinae. The lymphosporidia were another small class of sporozoan parasites found in the coelomic fluid of crustaceae. Epidemics of fish disease attacking trout in America during recent years were traced to the presence of this organism. Finally, said Professor Minchin, isolated species of sporozoa were met with which could not be added to any of the existing genera. One such form, remotely gregariniform in appearance, affected the mesenteries, lymph glands, and subcutaneous structures of the flounder; this parasite encysted itself and could be easily seen surrounded by the connective tissue of its host. Schweiakoff had described a rare amoebiform sporozoon to which a name had not as yet been given. This also occurred in certain fishes. It differed remarkably from all other sporozoa in the fact that it possessed a contractile vacuole. It reproduced by the formation of numerous endospores, which in turn grew and aggregated into little plasmodia. The endospores were oval in form but devoid of a shell or coating. Professor Minchin concluded by pointing out that phylogenetically the sporozoa were not a homogeneous class, that they were the modern parasitic descendants of two lines of development, one originating from flagellate forms and giving rise to the telosporidia (gregarinae, coccidia, and haemosporidia, in which a trypanosome phase was observed), while the other arose from amoeboid or rhizopod forms and gave rise to the myxosporidia, microsporidia, and sarcosporidia.

INVALID CHILDREN'S AID ASSOCIATION.

A CONFERENCE has been arranged by the Invalid Children's Aid Association, and will be held at the Guildhall on June 7th and 8th. The object of the conference is to bring into communication those working to assist crippled and invalid children; to make known the various needs of this class and the agencies available for supplying them; and to consider the education of crippled and invalid children and the means of fitting them for future occupation and independence. The relation of this work to the Poor Law and to charity organization will also be discussed, as well as the possibility of preventive measures. The Lord Mayor will preside at the opening meeting, and at the four sessions of the conference the chair will be taken by the Earl of Aberdeen, Sir William Broadbent, the Duchess of Sutherland, and Lord Stanley of Alderley. Among the papers to be read are the following: The Social Aspects of the Prevention of Illness, by Dr. A. Newsholme; Cow's Milk as a Food in Infancy, by Dr. E. Cautley; the Prevention of Tuberculosis among Children, by Dr. Nathan Raw; the Results obtained in Cases of Joint Disease under the care of the Invalid Children's Association, by J. Howell Evans, F.R.C.S.; the Importance of Treating Surgical Tuberculosis in Children in Properly-equipped Establishments away from Large Towns, by Mr. A. H. Tubby; and the Educational Handling of Physically and Mentally Defective Children, by Dr. Eichholz. Programmes, tickets, and other information can be obtained of the Secretary, Invalid Children's Aid Association, 8, Henrietta Street, Covent Garden, W.C.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election for members of Council will be held at the College of Surgeons on Thursday, July 7th, at 2 p.m. There will be three vacancies; Mr. Bryant and Mr. Pick retire, having been re-elected in 1896, whilst, owing to the death of Mr. T. R. Jessop, re-elected in 1899, a vacancy exists for a substitute member to fill his place until 1907. The President, Mr. Tweedy, is substitute for Mr. Davies-Colley until July, 1904, but being in the chair does not retire. Mr. Pick really resigned altogether last autumn, whilst Mr. Bryant will not seek re-election. A blank form of the requisite notice from a candidate and of his nomination may be obtained on application to the Secretary of the College; it must be received by him, duly filled up, not later than Monday, June 13th. A voting paper will be sent by post to each Fellow of the College whose address in the United Kingdom is registered at the College on Monday, June 27th, and Fellows will not be required to apply for voting papers. We publish at p. 1231 our annual analysis of the Council, with the dates of election of the members and the proportionate representation of the schools in London and the provinces. Mr. Marsh, who, having been re-elected in 1902, holds his seat until 1910, now represents Cambridge, though elected as a surgeon to St. Bartholomew's Hospital. Mr. F. S. Eve, Mr. Bland-Sutton, and Mr. Gilbert Barling are among the candidates for the vacancies.

THE NATIONAL SANATORIUM FOR CONSUMPTION, BOURNEMOUTH.

THE annual general meeting of governors was held in London on May 12th. In the unavoidable absence of the President, the Earl of Eldon, the Right Honourable Arthur F. Jeffreys, M.P., occupied the chair. The annual report of the Committee of Management for 1903, which was unanimously adopted, stated that the accounts showed a deficiency of £305, as compared with a deficit of £540 the previous year. The Committee regretted that the income was still insufficient to meet the current expenditure. Owing to additional accommodation which was being provided new annual subscriptions to the amount of at least £500 were urgently needed. The report further stated that during the year 225 patients were admitted, of whom 182 were discharged improved, many being fitted to return to their occupations. Sixty-four patients remained from 1902, so that the total number under treatment last year was 289. The average length of stay in the sanatorium was 11.8 weeks. Mr. Robson-Burrows, a member of the Committee of Management, informed the meeting that the plans and specifications for the new extension of the sanatorium had been prepared, and tenders were being invited for carrying out the work. The new building will provide several additional beds for patients, and better accommodation for the nurses, the present quarters of the latter being very inadequate and unsuitable. Considerable alterations were also to be carried out in the present building, including the addition of several more baths and shower baths, the enlargement of the dining rooms, further improvements in the ventilation, the providing of a disinfector for disinfecting the bedding and clothing, etc. A portion of the cost of these works has been subscribed, but

£1,000 is still urgently needed to complete the required amount. It was unanimously resolved that the best thanks of the governors be given to the honorary medical, surgical and dental staff for their valuable services during the past year.

ASYLUM WORKERS' ASSOCIATION.

A meeting of members and friends of this Society was held at 11, Chandos Street, W., to receive the annual report, and to listen to the farewell address of Sir James Crichton-Browne, who is retiring after seven years' service as President. Amongst those present were Sir Robert Hensley (Chairman, M.A.B.), Dr. Farquharson, M.P., Dr. Sidney Coupland, Commissioner in Lunacy, Dr. Nicholson, C.B., Lord Chancellor's Visitor, and many members of the Medico-Psychological Association, together with a representative gathering of the various ranks in asylum service. The annual report presented by the honorary secretary, Dr. G. L. Shuttleworth, stated that though there had been a falling off in the number of ordinary members there had been an increase in income, owing to the annual subscriptions having been raised from 1s. to 1s. 6d. Receipts from all sources had amounted to £472, and payments to £305. Twenty-one nurses and attendants had received grants from the Homes of Rest Fund to enable them to get change of air and rest when "run down" or recovering from illness. The claims of mental nurses to registration had been successfully urged upon those promoting Bills on the subject, and the question of pensions had not been lost sight of. In conclusion, regretful reference was made to the approaching retirement of Sir J. Crichton-Browne from the presidential chair, which he had so ably occupied for seven years, and Sir John Batty Tuke, M.D., M.P., etc., was nominated as his successor. The adoption of the report was moved by Sir J. Crichton-Browne in an eloquent and interesting address, and this was seconded by Dr. Sidney Coupland. Dr. Farquharson, M.P., moved, and Sir R. Hensley seconded, a cordial vote of thanks to the retiring President, and Sir John Batty Tuke, M.D., M.P., was elected as incoming President, on the proposition of Dr. Nicolson, C.B.

EXPERIMENTS ON HUMAN METABOLISM.

THE United States Department of Agriculture has issued a report[1] by Drs. Atwater and Benedict on the metabolism of matter and energy in the human body. Their observations are derived from experiments upon young men in good health, who are placed in what is termed a "respiration calorimeter." This is a piece of apparatus which is designed to measure both the products of respiration and the heat given off by the body. It includes a chamber [illegible] ft. high, in which it has been found a man may spend a few days in comparative comfort. The room is lighted by a window and furnished with a folding chair, table and bed, and also with a stationary bicycle when the experiment involves muscular work. The heat is regulated by a measured current of air, samples of which are taken for analysis before it enters and after it leaves the chamber. So delicate are the measurements of temperature that the incoming air, the outside and regulating the changes [illegible] fall of even one hundredth of a degree in the temperature of the air [illegible]. If, for example, the man inside the calorimeter rises to move about, an increase of temperature is immediately recorded owing to the [illegible] of heat given off from the body through this [illegible]. Details are given of twenty-one experiments and with these are incorporated the results of thirty-four similar experiments previously recorded, making in all a period of 296 days during which the subjects had been under observation in the chamber of the apparatus. The amount of detail involved in the work is enormous, the tables of measurements and analyses alone occupy more than 150 closely-printed pages; and if we cannot say that any very striking or important discoveries concerning metabolism and the nutritive values of food-stuffs have been made, we can at all events congratulate the authors upon their inexhaustible supply of patience and perseverance.

A BILL TO AMEND THE LUNACY ACTS.

LEGISLATIVE crops are as a rule reaped by quite different people and Governments from those who sowed the seed, but the Attorney-General has taken good care that no jealous rival shall entice his one ewe lamb into an adjoining field. On Thursday, May 12th, we had a lunacy debate in the House of Commons, when Sir John Batty Tuke gave a quiet and thoughtful speech, pleading for reform, and Sir Michael Foster followed with some weighty and elegantly-phrased sentences, and on Wednesday, May 18th, Mr. Finlay introduced a Bill, which under the operation of a topsy-turvy rule, he was not allowed to explain to the House. Of this, however, we have obtained a copy, and find this most important clause:

> If a medical practitioner certifies that a person undergoing for mental disease is of opinion that the disease is not incurable, and that the said person's recovery will be expedited with a view to his recovery that he be placed under the care of a person whose name and address are stated in the certificate for a period to be therein stated, not exceeding six months then during that period the provisions of section three hundred and fifteen of the principal Act shall not apply.

One-fifth of the Scotch lunatics are thus boarded out among the peaceful and soothing influences of home and gheel. Scotland is gradually annexing England, and the Southerners are compelled to admit that in many matters of social safety and convenience things are managed far better north of the Tweed; and is it not a conspicuous instance of reasonable common sense that a case trembling on the border line of insanity can be treated domestically for six months instead of passing through the ordeal of certification, and being hardened and crystallised into permanent madness by the exciting and depressing surroundings of asylum life? Need we remind our readers that in England at present, if any one receives a domestic case for profit, however well he treats it, the law may be harshly, cruelly, and vindictively put in motion against him by interested common informers acting on secret information. Sir William Gowers gives numerous instances of this in the admirable address given by him before the Medico-Psychological Association, which we cordially recommend to the careful consideration of our readers.

REGENERATION OF NERVES.

Mott, Halliburton, and Edmunds have recently published the results of some experiments upon this subject. The old idea that when a nerve was bisected the axons grew out from the central end of the divided nerve was attacked some few years ago and considerable experimental evidence adduced to show that the new axons were formed by the peripheral elements of the divided fibre. Clinical observation of the rapid return of sensation after suturing of a divided nerve fibre as contrasted with the very slow regaining of motor powers lent considerable weight to the peripheral theory. The present communication, however, seems to foreshadow a return to the older views. It appears that at an early stage in the degeneration of nerve fibres, the neurilemmal cells at first multiply and later share with the phagocytes the removal of the myelin droplets. Still later they elongate, look as though they were connected end to end, and appear like embryonic nerve fibres; they are really situated outside the newly forming axis cylinder, either covering or concealing it. Histological evidence is not sufficient to supply data for the theory of nerve regeneration: a strand or tissue may look like a nerve, but unless it can be experimentally shown to be both excitable and capable of conducting nerve impulses it may not be regarded as such. The clinical statements as to the return

[1] [illegible]

of sensation must be accepted with some reserve; the process of "freshening up" the divided fibres may leave a stimulus lasting for a few days, and which may be easily referred by the patient to the usual terminations of the particular nerve endings involved. Experimental bisection of nerves was undertaken, and the upper end was enclosed in rubber caps to prevent the union of the peripheral to the central end. When 100 to 150 days had elapsed, the animal was anaesthetised and the nerves submitted to strong faradic currents. In all cases they were entirely inexcitable; even the wasted muscles barely responded to this type of stimulation. After division and resuturing of large nerves in the monkey and the cat, and when restoration of function suggested that regeneration had taken place, the nerve was again exposed. It was then found that the two ends were united, and that the nerve could be excited both above and below the junction. A piece of the same nerve was then excised an inch or so below the junction. On microscopical examination it was found to contain fine new nerve fibres, and all traces of the degenerative products had disappeared. The animal was killed ten days later. The peripheral portion of the nerve was quite inexcitable and showed Wallerian degeneration. Some evidence will be later produced to show that the more distant the situation from the original point of section the less perfectly are the new fibres developed. Further experiments were undertaken to investigate the influence of stimuli upon the regeneration of nerve fibres. The upper posterior spinal roots were divided on one side in a monkey. The operation resulted in paralysis of all movements except when some strong emotional tendency was manifested. A large nerve of the paralysed arm was then divided and sutured, the corresponding nerve on the healthy side being similarly treated. Sixty to seventy days later the animal was killed. Union of the divided nerves occurred in both sides of the body, and the nerves reacted equally to the faradic current. The fibres and lateral halves of the cord also presented the same histological appearances. These experiments apparently left open some paths for afferent stimuli, and the next line of inquiry is an endeavour to cut off all the afferent paths to the anterior cornual neurons in order to determine the extent of regeneration in the absence of external stimuli.

Fräulein Ida Szenes, M.D., has been appointed Assistant Physician to the State Asylum for Children at Klausenburg. This is said to be the first occasion on which a State appointment has been conferred on a medical woman in Hungary.

The International Congress of Physiologists will hold its sixth meeting at Brussels this year from August 30th to September 3rd. All communications relative to the Congress should be addressed to Dr. Slosse, Institut Solvay, Parc Leopold, Brussels, before July 1st.

Professor Howard Marsh, M.A., F.R.C.S., will deliver the Hunterian Lecture on (1) Intermittent Hydrops of the Joints, and (2) The Influence of Growth on Deformities, at St. George's Hospital Medical School on Wednesday, May 25th, at 8.30 p.m. The lecture is open to all members of the medical profession.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Lunacy Commission.—When the vote for the sum of £15,259 for the Lunacy Commission came on last week, Sir John Tuke took advantage of the opportunity to raise a very interesting discussion. After referring to the composition of the Commission in England, he pointed out that there were 114,000 certified lunatics in their charge, giving 38 000 lunatics for every Medical Commissioner, while in Scotland there were only 4,100. He showed the superiority of the Scotch system, and urged the necessity of more Medical Commissioners. The numerical inadequacy of the Commission grew worse and worse; there was only the same number now as in 1845, when there were only 25 000 certified lunatics to be supervised. He urged the division of England into four or five districts with a resident Commissioner in each. In respect to the rapid increase of lunacy, he referred it to the absence of treatment in the early stages and the want of proper care of cases discharged as cured. Glasgow established an institution thirteen years ago for the treatment of incipient cases, and 70 per cent. had been discharged cured. Similar institutions were required all over the country. Cases, moreover, when cured required care for some time to prevent relapses. He urged the appointment of a Select Committee to consider the whole question. Sir Michael Foster seconded the motion, and urged the necessity for amendment in the law. He dwelt on the fact that while medical science had greatly advanced the lunacy laws had practically stood still. More opportunity for the treatment of incipient cases was required, so that science could do more; and he suggested notification as in the case of infectious diseases and the treatment of early cases in private houses as in Scotland. Dr. Farquharson followed with a suggestion for a Royal Commission, and pointed out the inadequacy of the existing machinery for the enormous work to be done, and showed the superiority of the Scotch system as regards the treatment of less developed cases. Mr. Brigg followed from an administrative point of view, and showed the enormous cost now thrown upon the ratepayers for lunacy purposes. In one case, he said, an asylum would cost about £640 per inmate. Mr. Gibson Bowles made a strong protest against any change to lessen the security of the individual from being wrongly confined as a lunatic. Sir John Tuke vigorously challenged the speaker, and asked him to quote a single case; but Mr. Gibson Bowles could only refer to Charles Reade's novel as founded on facts. Dr. Hutchinson and Lord Edmond Fitzmaurice also spoke, and Sir John Dorington praised the work of the Commission, and said legislation went as far in 1892 as public opinion would allow. The Attorney-General, in reply, defended the existing state of things as regards the methods of the Commissioners, and thought the outcry about the increase in lunacy was not altogether well founded. The Lunacy Bill, which had twice come from the Lords, had been stopped in the Commons, and that Bill would in many respects improve the law. He could not agree with the suggestion of a Royal Commission or a Select Committee, and he could give no undertaking as to the Lunacy Bill being introduced this session. Dr. Farquharson and Sir E. Strachey protested against the unsatisfactory reply of the Attorney-General and divided the Committee, when the vote was carried by a majority of 90.

A Violation of the Lunacy Act.—Mr. Corrie Grant asked the Secretary of State for the Home Department on Wednesday whether he was aware that Mrs. Helen Meredith was detained in Bethlem Royal Hospital from August 17th to September 25th, 1903, without being taken before or visited by a judicial authority as prescribed by Section VIII of the Lunacy Act, 1890, although she signed, immediately on her admission on August 17th, 1903, a notice of her desire to be taken before or visited by a justice, judge, or magistrate having jurisdiction in the district within which she was detained; and, if so, if he would say who was responsible for this violation of the Lunacy Act, and what steps would be taken to prevent a repetition of it.—Mr. Secretary Akers-Douglas said that he understood on inquiry that the facts were as stated in the question, but that the delay was due to causes for which the hospital authorities were not responsible. They forwarded the notice given by the lady in question without delay to the clerk to the justices, and it was in his proceedings for securing the attendance of a justice that the difficulty and delay occurred. He was making further inquiries with a view to ascertain whether any steps could be taken to prevent the recurrence of such a case.

County Medical Officers of Health.—Mr. Frederick Wilson asked the President of the Local Government Board if he would grant a return specifying the counties which up to the present had appointed a whole-time medical officer of health under the provisions of the Local Government Act, 1888. Mr. Long answered that a return was obtained in 1896, "showing the salaries and other remuneration and the terms

of appointment of medical officers of health appointed by county councils in England and Wales." If the honourable member moved for a return in continuation of this, he should be happy to assent to its being granted.

Arsenical Poisoning and Pure Beer. Sir Cuthbert Quilter asked the President of the Local Government Board whether the conference between representatives of the Government departments concerned had yet taken place, and whether he was in a position to announce what course he proposed to adopt to give effect to the recommendations of the Royal Commission on Arsenical Poisoning, more especially for the protection of the public against the use of injurious ingredients in beer and the fixing of a standard of purity. Mr. Long replied that some preliminary questions had had to be considered before any conference could take place. These were now receiving attention, and he hoped to arrive at a decision upon them very shortly.

The Chinese Labourers and Medical Inspection. — Sir Walter Foster asked the Secretary of State for the Colonies whether any estimate had been made of the cost of housing intending Chinese emigrants for the Transvaal at Hong Kong during their detention, for the building and maintenance of the isolation cépot near Kowloon, and for the medical inspection; and by whom the charges for this system of isolation and inspection would be defrayed. Mr. Secretary Lyttelton replied that he was not aware what the cost of providing for the labourers during the sojourn at Hong Kong would be. It would be borne by the importer.

Vivisection and its Results.—Last Monday Mr. Weir asked the Secretary of State for the Home Department whether he could state what scientific results had been derived from the vivisection of dogs and other animals during the past year. Mr. Secretary Akers-Douglas replied that he thought the hon. member was asking rather too much if he expected him to compress into the form of an answer to a question the scientific results of a year's experimental research. He would refer him to the periodical transactions of the learned societies, to various essays, and other scattered publications, both past and future, for no doubt some of last year's results had not yet been published.

Uncertified Deaths in Ross-shire.—Mr. Weir asked the First Lord of the Treasury, in view of the fact that in some districts of Ross-shire half the deaths were uncertified and that similar conditions prevailed in other Highland crofting counties, if he would state whether he intended to propose legislation to deal with the matter. Mr. Balfour said in answer to the question that the Government did not propose at the present time to introduce legislation on the subject.

The Death-rate in the Transvaal Mines. Mr. Herbert Samuel asked the Secretary of State for the Colonies whether he could state the number of natives employed in the mines of the Transvaal generally and of the Rand in particular, or the number employed either in the Transvaal or on the Rand [illegible] in the year 1903, and if not, if he would say on what data the death-rates per 1,000 had been calculated. Mr. Lyttelton said in reply that the data on which were calculated the death-rate per 1,000 which he quoted in the House on Wednesday last, namely, 37 per 1,000 for the earlier months of [illegible] and the rate up to April, 1904, to per 1,000, were given at page 58 of Cd. 1897, and page 58 of Cd. 2025, last issued. The two sets of figures did not relate to exactly [illegible] the Blue Books showed that the deaths for August to December in the mines [illegible] Rietfontein, Heidelberg, and Vereeniging, the deaths were 2,313.

Miners' Phthisis in the Transvaal. Dr. Hutchinson asked the Secretary of State for the Colonies if his attention had been drawn to the observations of Dr. Haldane at an inquest held in a Cornish mine at Hayle, to the effect that rock drilling was dangerous and should be done by means of the water jet; and, if so, if he would take steps to make the use of the water jet compulsory in all metalliferous mines in the Transvaal. Mr. Secretary Lyttelton replied that he had not seen Dr. Haldane's observations referred to, but he had read an interesting paper by Mr. Francis Fox, M.I.C.E., on this subject; and he also learned from the Home Office that the inquiry which had been made into miners' phthisis in Cornwall by Dr. Haldane, Mr. Martin, and Mr. Thomas was now completed, and that their report which dealt with the precautions to be observed in the use of rock drills would be issued very shortly. He should at once bring it to the notice of the Transvaal Government. He would at the same time point out that the subject had for some time engaged the earnest attention of the Transvaal Chamber of Mines, who had offered prizes for the best practical suggestions and devices for dealing with the matter.

Poor-law Nursing. Sir Harry Samuel asked the President of the Local Government Board whether the Local Government Board had decided to issue a general order consequent upon the recommendations contained in the Report of the Departmental Committee upon the nursing of the sick poor in workhouses; if so, when such order would be issued and, before such issue, for what Parliamentary period would the order be laid upon the table of the House of Commons for its consideration. Mr. Long replied that this matter was receiving his attention with a view to the issue of an order as early as practicable. It would not be necessary, however, that the order should be laid upon the table of the House prior to its issue.

The Pollution of the Thames.—Sir Frederick Dixon-Hartland asked the President of the Local Government Board whether his attention had been called to the insanitary condition of the River Ray, a stream running between the town of Swindon and the Thames; and whether he would bring pressure to bear on the authorities concerned to undertake the duty of cleansing the stream, which did not come within the scope of the Thames Conservators' powers. Mr. Long said that his attention had been drawn to this subject. He had no power to require the local authorities to undertake the cleansing of the stream, but he was communicating with them on the subject.

The Sanitary Condition of Derrygonnelly.—Mr. Edward Mitchell asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that the sanitary and sewerage condition of Derrygonnelly, County Fermanagh, was in a condition dangerous to the health of the inhabitants, and that the medical and sanitary officers for the district had reported on the insanitary state of the village, and brought the matter to the notice of the Local Government Board; and, if so, if he would direct immediate steps to be taken to remedy this state of affairs. Mr. Wyndham answered that the defective sanitary condition of Derrygonnelly had engaged the attention of the Local Government Board, who had urged the Rural District Council to proceed with the necessary sewerage works, but so far without effect. Section xv of the Public Health Act, 1896, provided, however, that when a formal complaint was made to the Board that the local authority had made default in this respect, the Board, if satisfied, after due inquiry, that such defaults had been established, should enforce the performance of its duty by the local authority. The attention of the Council had been drawn to this enactment.

Business after Whitsuntide. As the holidays are to extend from May 19th to May 31st, the prospects of private members' Bills are more or less settled for the session. The third and fourth Fridays after Whit Sunday are the only private members' days left, and there are down for June 10th, the first of these days, the Musical Copyright Bill and the Weights and Measures Bill, both for consideration after amendment by the Standing Committee. The following Friday is taken up by the Railway (Private Sidings) Bill and two measures dealing with the Marking of Foreign Plate and the amendment of the Savings Banks Acts. Supply and non-contentious votes and the Penal Servitude and Dogs Bills will be taken on the first two days after the recess. The Pharmacy Bill is down for June 1st, and also the Nurses Bill, and the adjourned discussion on Sir F. Banbury's motion on the vivisection of dogs, but none of them are very likely to come on. Indeed, if the session is to end by the middle of August there will not be much chance for anything but the more important Government business, and as the Licensing Bill is so contentious some Bills will have to be dropped.

Ireland.

The Irish Dispensary Medical Service Report.

At a meeting of the Fermanagh Branch of the Irish Medical Association, held at Enniskillen, on May 10th, the following resolution proposed by Dr. Leonard Kidd, and seconded by Dr. Annesley, was unanimously adopted:

That the warmest thanks of this meeting be conveyed to the Editor of the British Medical Journal and the Special Commissioner for the great benefit rendered to the Irish Poor law Medical Service by the able and excellent report published in the Supplement of the British Medical Journal on March 26th, which this Branch regards as the best work yet done on behalf of the Irish Poor-law Medical Service.

Sir Charles Bent Ball.

The King has been pleased to appoint Sir Charles Bent Ball, M.D., F.R.C.S., Regius Professor of Surgery, University of Ireland, to be one of His Majesty's Honorary Surgeons in Ireland, in the room of Sir Philip Crampton Smyly, M.D., deceased.

A Dublin Coroner.

At a meeting of the Public Health Section of the Royal Academy of Medicine on April 22nd Dr. Martley drew attention to the action of a Dublin coroner at an inquest recently reported in the press. The circumstances were that the deceased had been brought dead to a hospital at which he had attended as an out-patient six months previously, and that the house-surgeon, being asked by the coroner to give his opinion as to the cause of death without making a necropsy, declined to do so; thereon the coroner directed the jury to bring in a verdict without further evidence. The Section determined by resolution, proposed and unanimously accepted, to communicate the facts to the Council of the Academy, and to recommend that they be brought to the notice of the authorities. The coroner in question would appear to be the same legal coroner unfavourable criticism of whose action upon a corresponding occasion has already appeared in the British Medical Journal.

Proposed Poor law Consumptive Sanatorium for Belfast.

At the last weekly meeting of the Belfast Poor-law guardians a letter was read from the Clerk of the City Council asking whether the guardians would co-operate with the Council in selecting a site and building a sanatorium. After some expression of opinion against the expense of two sanatoria, the principle of co-operation was unanimously agreed to without prejudice, however, to the scheme of the guardians now in progress for acquiring a site for the sanatorium for the poor.

Medical Benevolent Fund Society of Ireland: Belfast and County Antrim Branch

The annual meeting of the subscribers of this Branch was held in the afternoon of May 13th in the Medical Institute, Belfast. Sir William Whitla, M.D., President, occupied the chair.

Dr. Richard Purdon, Honorary Secretary and Treasurer, presented the annual report. The gross receipts amounted to £158 13s. 6d., and the total expenses were £11 4s. 7d. The receipts were £13 13s. 6d. less than last year, but the falling off was only apparent, as the contributions from the medical students had not yet been received; and there was a special contribution from the annual dinner of the Ulster Medical Society of £15 last year. Country members had increased and town members decreased; the latter had fallen by 15, and the amount by £6 5s. 6d; the former had increased from 42, contributing £31 12s., to 59 contributing £41 17s. 6d. Ten applications were carefully gone into, and nine forwarded to Dublin for favourable consideration, amounting to £142.

The Chairman, in proposing the adoption of the report, said that from one point of view it was extremely satisfactory; they were the premier branch of Ireland, and their contribution had shown a generous increase over that of a few years ago. On the other hand, it was deplorable that so many medical men failed to join with even the smallest subscription; he thought that this fund should take a leading place, indeed next to direct family claims, in the esteem of medical men.

Dr. Whitaker, whose membership extended over fifty years, seconded the motion; the fund was one of pure benevolence, above all sectarian or party differences.

On the motion of the President, seconded by Dr. Gibson, Dr. Joseph Nelson, Belfast, was elected President for the ensuing year.

On the motion of Dr. St. Clair Boyd, seconded by Dr. Fielden, the following were appointed the Branch Committee: Sir William Whitla, Professor Lindsay, Drs. Brice Smyth, Henry O'Neill, J.P., St. Clair Boyd, Dempsey, R. C. M'Cullagh, McKisack, J. W. Taylor, Whitaker, Leslie, Gibson, Macarthur (Greyabbey), St. George (Lisburn), Darnell (Bangor), Donnan (Holywood), Nolan (Downpatrick), and Gaussen (Dunmurry).

Dr. Gaussen proposed, and Mr. W. J. Shields seconded, Dr. R. J. Purdon as Honorary Secretary and Treasurer, with a warm vote of thanks for his great interest in the fund and his strenuous efforts to increase its benevolent efforts.

Professor Lindsay proposed, Dr. Leslie seconded, and Dr. Purdon supported, a vote of thanks to Sir William Whitla for his services as President during the last four years; throughout this time he had exhibited personal influence and energy which had been a strong factor in raising the subscription list to its present height.

An Operation Theatre for the North Charitable Infirmary, Cork.

At the monthly meeting of the Committee of Management of the North Charitable Infirmary, Cork, Sir Daniel Hegarty presiding, Professor Pearson, F.R.C.S., appeared before the meeting, and asked to be allowed to make a statement which was of great importance to the institution. After drawing attention to the many improvements that had taken place in recent years in the infirmary, he said that, as one of the surgeons of the institution, the want still appealing to him was that of an operation room thoroughly up to date, and in accordance with the modern requirements of surgery. In the present room much good work had been done, but at the same time, as an operation room of the twentieth century, it was not suitable. He came there in the happy position of being able to announce to the Board that a generous donor had, through him, been good enough to promise to furnish sufficient funds to construct an operation room, the name of the donor to remain, for the time being at least, anonymous; the conditions under which the operation room was to be constructed were:

1. That the plans for same meet with the requirements of modern surgery and with the wishes of the surgeons of the institution.
2. That they receive the approval of the medical staff and the approval and sanction of the Board of Management.
3. That they are carried out under the direction and supervision of the architect, who shall from time to time consult with the intern surgical staff with regard to any points of detail or alteration in the plans which may arise.
4. That the work shall be executed in strict accordance with the supervision and to the satisfaction of the architect.
5. That payments shall be made from time to time by the trustees of the fund which they shall appoint, and who will be the intern surgeons for the time being.

Speaking further on the point, Professor Pearson mentioned that at the time of the promise of funds he had been going to Dublin, and had asked the architect of the institution to accompany him, and had shown him the most modern operation rooms which had been constructed within the last few years. They had also visited Belfast and inspected the Royal Victoria Hospital, which cost £150,000, and had seen everything from which they could derive information.

Mr. Harding, on behalf of the Board, expressed the thanks of the members to the generous unknown donor of whom Professor Pearson had spoken, and also thanked Professor Pearson for being instrumental in obtaining the generous grant for the infirmary, and for the most business-like manner in which he had acted on the occasion of taking the architect to Dublin and Belfast in order to put him in the position of being able to procure information as regards the construction of an operation room that would be thoroughly representative of the twentieth century.

It was proposed and seconded that Mr. Hill, the architect, be instructed to prepare the plans and specifications for the construction of the new operation room in accordance with the conditions mentioned.

At the last quarterly meeting of the court of governors of the Newcastle Royal Infirmary the following resolution was carried: "That in recognition of the splendid services rendered to the institution by the vice-chairman, Sir George Hare Philipson, M.D., over a long period of years, he be elected President of the Royal Infirmary."

Scotland.

ABERDEEN UNIVERSITY: QUATERCENTENARY CELEBRATIONS.

Some months ago a large and representative Committee was appointed to make arrangements for the Quatercentenary celebrations, which had been provisionally fixed to take place in the autumn of 1905. This date was chosen in the expectation that the new buildings at present in course of erection would be completed, and that this would allow of the inauguration of several new departments forming an important part in the scheme of celebration. It has, however, been apparent for some time that there was little likelihood of the buildings being finished by the above-mentioned date, and at a meeting of the Committee, held on Tuesday, May 17th, it was unanimously agreed that it would be inexpedient to proceed with the arrangements for the ceremony for 1905, and that the entire celebrations should be postponed until the autumn of 1906. By this date the new buildings will undoubtedly be fully completed, and the departments fit for occupation. It was also agreed to continue the Committee as at present appointed, and to proceed to draw up a provisional scheme of arrangements for 1906. This scheme will, no doubt, be on an elaborate scale, as the town is heartily co-operating with the University in the endeavour to celebrate the historic occasion in a manner worthy the reputation of both. Meantime, favoured with better weather, the contractors are pushing on the work, and the beautiful outline of frontage to Broad Street is already attracting much attention.

THE OUTBREAK OF SMALL-POX.

Five weeks have now elapsed since the removal of the last case to the City Hospital so that the outbreak at Aberdeen may be safely assumed to be at an end. It has happily been limited to 3 cases.

THE KINGSEAT ASYLUM.

This asylum, which has been built by the Aberdeen Lunacy Board for the accommodation of pauper lunatics, was formally opened on Saturday, May 14th, after being duly licensed for the reception of patients by the General Board of Lunacy. The asylum, which is built on the detached villa system, is splendidly situated on rising ground near Newmachar Station on the Buchan Railway about twelve miles from the city. It has taken over three years to build and is said to have cost over £120,000, the furnishing and equipment being of the most modern description. Already 200 patients have been removed from the Royal Lunatic Asylum and from the two city poorhouses to the new institution, which is under the charge of Dr. Charles Angus, as medical superintendent.

PREVENTION OF CONSUMPTION IN GLASGOW.

An interesting function took place at the Broomhill Home for Incurables on the afternoon of May 14th in the shape of the opening by the Duchess of Montrose of the Lanfine Home for Consumptives. The Glasgow and District Branch of the Association for the Prevention of Consumption in addition to their work undertook to erect a sanatorium at Lanark for the treatment of early and hopeful cases, and in a few weeks this will be ready to begin receiving a small number of patients. Quarriers' Home at Bridge of Weir likewise provides an excellent sanatorium for female cases in the early stages. This new home at Broomhill is, however, supplementary to both of these, and is meant for those hopeless cases of which at present no prospect is open but that of terminating their existence in society either in overcrowded and ill-ventilated rooms in private dwellings, or in the wards of a poor-house. The new home is due to the generous bequest of Annette Lady Miss Martha Brown, who left £10,000 to the Association for the purpose, and £15,000 more was subscribed by the public on the announcement. The Duchess of Montrose, in handing the home over, drew public attention to the fact that such homes as the one just opened were urgently needed not only for the sake of the sufferers themselves, but also to diminish the danger of infection to their families and friends.

[illegible] Volunteer Artillery Competition.

The first shooting competition for the Scottish Volunteer Artillery Trophy took place on Saturday afternoon, May 14th, on the 1st L.R.V. Drill Hall, Govan. Twenty-four batteries, no fewer than fourteen teams having entered from different parts of Scotland taking part in it. The precision and skill displayed by many of the competitors in the stretcher drill and the transport of wounded were the subject of favourable comment. Surgeon-General Sir William Taylor presided over a distinguished audience of prominent officers and other interested spectators, while the Duchess of Montrose graciously handed over the trophy to the winning team, the 5th Glasgow Highlanders (V.B.H.L.I., with hearty congratulations to the most successful competitors. Details of the way in which this trophy and competition came into being were given in the BRITISH MEDICAL JOURNAL of April 30th, p. 1038.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

The annual general meeting of members of this club will be held in the Caledonian Station Hotel, Edinburgh, on Friday, June 10th, 1904, at 7 p.m., when the secretary's and treasurer's reports will be submitted. The tenth annual dinner will be held in the same place at 7.30 p.m., Sir William Mitchell Banks, president of the club, will occupy the chair. Members intending to be present should send their names to the Honorary Secretary, Dr. Claude B. Ker, City Hospital, Colinton Mains, on or before June 6th.

THE HOLMAN TESTIMONIAL FUND.

THE Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.		£	s.	d.
Chas. Gibson, M.D. ...	1	1	0	E. E. Wrigley, A.B., M.D.	1	1	
M. F. J. Watts ...	1	1		Mr. Geo. Rae, C.B. ...	1	1	
Mr. W. Wallis	10	6		Mr. Charles Lockwood, L.R.C.P.			
Mr. P. Purcell	1	1	0	Hawkes	2	2	
T. Bond Turner, M.B., Lond. ...				M. F. Rose, B. ...	1	1	
J. Ward Cousins, M.D., Lond.	1			Sir Geo. H. P. Epson, M.D.	1	1	

Further subscriptions will be received by Dr. John H. Galton, Chumam, Sylvan Road, Norwood, S.E., or by Mr. W. A. Berridge, Oakfield, Redhill.

CONTRACT MEDICAL PRACTICE.

WE have received the following communication with reference to the occurrences at Macclesfield, to which we drew attention in the issue of May 14th, page 1162:

We, the undersigned medical practitioners, desire to call the attention of the medical profession to the unsatisfactory relationship which exists between the Macclesfield No. 1 General Burial Society and its two medical officers who have recently resigned.

This society contains 6,400 members, and the remuneration paid is £250 per annum for medical attendance, an additional £50 per annum is paid to a local chemist for dispensing. The actual sum thus paid per head per annum is about 9d., and this, we are of opinion, is grossly inadequate.

The payments to the medical officers are based on the proportion of sick notes received by them, each note remaining valid for the current three months. This payment is made not on the number of members entitled to medical benefit, but each medical officer is paid according to the number of sick notes received by him from the members requiring medical attendance. In consequence of the resignation of the society's two medical officers an attempt is being made by advertisements extensively circulated in the lay press to fill the vacancy thus caused.

We are most anxious that intending applicants should be made acquainted with these facts, as we feel confident that no medical practitioner would accept the position which extensive experience has shown to be unremunerative, and which is in direct opposition to the strongly expressed opinion of the whole medical profession in the town.

(Signed),

JOHN L. ROBERTON, SENR.	ROBERT PROUDFOOT.
JAS. BERKELEY HUGHES.	JOHN BERKELEY HUGHES.
JOHN SOMERVILLE.	C. A. NEWELL.
C. A. [illegible]	JOSEPH WESTWOOD.
W. H. CLARKE	J. LATHAM ROBERTON.
C. A. [illegible]	L. T. FRASER.
W. H. [illegible] STORRS.	A. M. CLARK.
J. HUGHES MOORE.	

The annual banquet of the Association of British Postal Medical Officers will take place in the Whitehall Rooms, Hotel Metropole, London, on July 1st, at 7.30 p.m.

EPSOM COLLEGE. The London and Counties Medical Protection Society, Ltd., has kindly voted the sum of £111. 6s. 8d. to the funds of the Epsom College Royal Medical Foundation.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

Meetings of the Council will be held on Wednesdays, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 13th, at 8.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting. W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 13th, at 6 p.m., for the purpose of appointing a Representative of the Divisions to Representative Meetings of the Association. W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham. J. T. J. MORRISON, F.R.C.S., 5, Great Charles Street, Birmingham, Honorary Secretary.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—The annual general meeting of this Division will be held at the County Hotel, Carlisle, on Friday, May 27th, at 3.30 p.m. It is proposed to make a medico-ethical subject a leading feature of the meeting, and the Chairman has promised to open the debate by a paper on the Relations of Medical Men to Each Other. Members willing to contribute papers, etc., should communicate with the Honorary Secretary, NORMAN MACLAREN, Carlisle.

BORDER COUNTIES AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCHES.—Notice is hereby given that nominations for a representative member on the Council for these Branches, signed by three members thereof, must be sent to me on or before May 29th.—FRANCIS R. HILL, 62, Warwick Road, Carlisle, Honorary Secretary, Border Counties Branch.

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, June 3rd, to consider the business of the Representative Meeting, to elect the Representative and other officers; and other business.—R. C. BUIST and G. HALLEY, Dundee, Honorary Secretaries.

DUNDEE, PERTH, AND STIRLING BRANCHES.—The nomination of candidates for office of elective member of Council for the ensuing year must be made in writing on or before May 24th, to Dr Moorhouse, 1, Glebe Avenue, Stirling. Each member may nominate a candidate, but no name will be voted on unless supported by three nominations. R. C. BUIST, 166, Nethergate, Dundee: W. A. TAYLER, 10, Marshall Place, Perth; J. E. MOORHOUSE, Glebe Avenue, Stirling, Honorary Secretaries.

EAST ANGLIAN BRANCH.—**The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.**

EAST ANGLIAN BRANCH: NORTH SUFFOLK DIVISION.—The annual meeting of this Division will be held at the Young Men's Christian Association, London Road, Lowestoft, on Wednesday, May 25th, at 4 p.m. Agenda: (1) Minutes of last meeting. (2) Election of officers for ensuing year. (3) Notes on a case of Angioneurotic Oedema (Dr. Ransome). (4) Matters referred to the Divisions: (a) The scheme of Medical Defence as set forth in the circular enclosed: (b) whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT TO BRITISH MEDICAL JOURNAL, March 19th, 1904): (c) The question of the advertising of medical practitioners in connexion with hydropathic establishments (loc. cit.) Members are requested to take this opportunity of expressing their opinion on this important proposal by returning the form annexed to the circular to the Honorary Secretary of the Division, either before (if unable to attend) or after the meeting.—WILSON TYSON, Lowestoft, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION. The annual meeting of this Division will be held in the Council Chamber, Clarence Road, Southend-on-Sea, on Thursday, May 26th, at 4 p.m. Business: (a) Election of officers for ensuing year and matters submitted to Division for consideration. (b) Address by Mr T. H. Openshaw, C.M.G., M.S., F.R.C.S., on a New Method of Treating Hip Disease, Ankylosed Joints, and Fractures of the Lower Extremity. (c) Cases or papers by the Chairman (Mr. A. Clough Waters, M.B., J.P.), Lieut.-Colonel Westcott, R.A.M.C., M. H. Raper, M.D. Messrs. Allen and Hanburys, Limited, will show a selection of new instruments and drugs. The Chairman invites members and their friends to tea after the meeting.—CHARLES FORSYTH, M.B., Chellis House, Southend-on-Sea, Honorary Secretary (pro tem.).

EAST YORK AND NORTH LINCOLN BRANCH.—**The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.**

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on Thursday, June 16th, at 3 p.m. Business: (1) Election of office-bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawick) has given notice, "That the Division invites all the members of the Edinburgh Branch to meet at Hawick in July", and of a further motion, "That, alternately, the annual meeting of the Branch be held in one of the county towns within its area, and that it be held next year at Hawick." (3) Consideration of agenda of the Annual Representative Meeting to be held at Oxford, in order to instruct the Representative of Division what lines to follow when the various questions come under discussion. (4) Consideration of the Contract Practice inquiry issued by the Medico-Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Honorary Secretary.

EDINBURGH AND FIFE BRANCHES.—The names of candidates for election as members of Council to represent these Branches must be sent to Dr. Logan Turner, 27, Walker Street, Edinburgh, on or before June 1st. Each candidate must be nominated in writing by three members of the Conjoint Branches, which are entitled to elect two representatives.—NORMAN WALKER, 7, Manor Place, Edinburgh, and A. LOGAN TURNER, 27, Walker Street, Edinburgh, Secretaries of the Edinburgh Branch; R. BALFOUR GRAHAM, Sea View House, Leven, Secretary of the Fife Branch.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council (the Branch electing two), each signed by three members, must be in the hands of the Honorary Secretary on or before June 15th.—JAS. H. NICOLL, 4 Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BIRKENHEAD DIVISION.—The annual meeting of this Division will be held in the Birkenhead Medical Society's Room, 14, Hamilton Square, on Wednesday, May 25th, at 4 p.m. Agenda: (1) To consider matters referred to the Divisions. (2) To consider the scheme for Medical Defence. (3) To elect officers of the Division. (4) To elect Representatives on the Branch Council. (5) To elect a Representative of the Division to the Representative Meeting of the Association. (6) To consider the business of the Annual Representative Meeting. (7) To appoint a Subcommittee to consider means whereby the membership of the Division may be increased.—J. H. FARDON, 59, Grange Mount, Birkenhead, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVISIONS.—The annual meeting of the members of the above Divisions will be held at the Chester General Infirmary, in the Board Room, at 5 p.m., on Tuesday, May 31st. Agenda: (1) Minutes of the last meeting. (2) Annual report of the Committee. (3) Election of officers for 1904-5 (Rules 5, 6, and 9). (4) Election of the Representative of the Divisions of Chester and Crewe on the Branch Council. (5) Election of the Representative of the Divisions of Chester and Crewe at the British Medical Association annual meeting. (6) To make or alter any rules. (7) To consider whether medical witnesses should meet in consultation. (8) Any other business. Tea (provided by the Honorary Secretary) will be served at 4.30 p.m.—H. W. KING, M.D., 26, Nicholas Street, Honorary Secretary, Chester Division.

LANCASHIRE AND CHESHIRE BRANCH: SALFORD DIVISION.—The annual meeting of this Division will be held at the Palatine Hotel, Manchester, on Tuesday, May 31st. The business will include the election of officers and representatives and consideration of the notices of motion to be brought before the Annual Representative Meeting.—J. H. TAYLOR, 361, Eccles New Road, Salford, Honorary Secretary.

MALTA AND MEDITERRANEAN BRANCH.—The annual meeting of the Branch will be held at No. 70, Sda. Teatro, Valletta, on May 30th, at 5 p.m. Agenda: 1. Confirmation of minutes. 2. Correspondence. 3. Ordinary business. 4. Reading of papers. 5. Election of officers and members of Council. 6. Election of Representatives for Representative Meetings. 7. Annual report of Council. The Secretary would be pleased to receive communications from any member who wishes to read a paper or show cases or specimens.—T. M. ZAMMIT, Valletta, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual meeting of this Division will be held at the London Institution, Finsbury Circus, E.C., on Thursday, May 26th, at 4 p.m. Agenda: (1) Minutes. (2) Correspondence. (3) Election of officers. (4) Election of Representative in Representative Meetings of the Association. (5) To receive annual report of Executive Committee. (6) Medical Defence: To consider (i)

would be (1) the wish of members that the Association should take up Medical Defence as suggested in the scheme (2) whether the discussion approved of the general principle and details of the Scheme as set forth in the British Medical Journal of March 12th, p. 578. To consider the Notices of Motion for the Representative Meeting at Oxford that, May 25th, p. 1187. (3) To consider certain questions with regard to Contract Practice (ibid., p. 1188). (4) To consider the Report of the Council of the Association (ibid., p. 1189). (5) To consider the question of fees for medical examinations for matriculation (ibid., p. 1194). (6) To consider communications from the Council on the present position of medical practitioners with respect to Coroners (ibid., p. 1197). N.B.—It will be observed that several very important questions are to be brought up for discussion at this meeting. The Honorary Secretary begs to remind members that a quorum of twelve is necessary to transact business.—E. W. Goodall, M.D., The Eastern Hospital, Homerton, N.E., Honorary Secretary.

Metropolitan Counties Branch.—Hampstead Division.—The annual meeting of this Division will be held at the Hampstead Conservative Club, 3, Rosslyn Hill, N.W., on Friday, June 3rd, at 4.30 p.m. Dr. Ford Anderson will preside. Agenda: (1) Minutes. (2) Election of officers (Chairman, Vice-Chairman, and Secretary). (3) Election of two Representatives on the Branch Council. (4) Election of seven members of the Executive Committee. (5) Election of Representatives of the Division at Representative Meetings of the Association. (6) To receive annual report of Executive Committee. (7) To consider the business of the Annual Representative Meeting. Notices of Motion have been published in the British Medical Journal of April 23rd and 30th. Amongst these are the following: By the Hampstead Division.—"That it is advisable that all Association business notices be withdrawn from the Journal, and be collected and published in the Supplement to the Journal, to be purely medical." (2) "That it is advisable that the Medical Directory be developed, that it should contain the names and addresses of all members, medical regulations, and the duties of a general practitioner, to make it a real handbook of medical information." (3) "That it is advisable that, having regard to the purity and reliability of lymph supplied to public vaccinators by the Local Government Board, every practitioner should be placed on the same footing as public vaccinators in respect to the Government supply of vaccine lymph." (4) Alteration of Rules of the Division. Rule 5 to read: "The officers of the Division shall be a Chairman, Vice-Chairman, Secretary, who shall also act as Treasurer, and Assistant Secretary." Rule 6 to read: "The officers shall be elected annually at the annual meeting of the Division. The Committee, being eligible for re-election, for one year after which he may be elected to the same office within five years." (7) General business.—J. Dill Russell, F.R.C.S., Osmund House, Fortis Green, N., Honorary Secretary.

Metropolitan Counties Branch.—St. Pancras Division.—The annual meeting of the Division will be held at the Athenæum, Camden Road, N., on Friday, May 13th, at 4.30 p.m. Dr. Wm. Wynn Westcott, the Chairman of the Division, will preside. Agenda: (1) To confirm the minutes of the meeting held on April 29th, 1904. (2) To receive the annual report and accounts of the Secretary. (3) To elect the officers for the ensuing year, namely, a Chairman, Vice-Chairman, Secretary, a Delegate to the Representative Meeting of the Association, and seven members of the Executive Committee. (4) Dr. Francis John Bacchelli will open a discussion upon the Midwives Act, 1902, and the report of a Special Committee of the Association upon the regulations of the Central Midwives Board in regard to medical practitioners. (5) To consider the Medical Defence Scheme of the Association, on which Dr. F. J. Buckell will move the following resolution: "That this Division does not approve of the Scheme of Medical Defence as prepared by the Medical Defence Committee of the Association, and instructs its representative to vote against the same at the Representative Meeting." (6) To consider resolutions to be submitted to the Annual Representative Meeting at Oxford, and to transact such other business which may be brought before the meeting.—E. C. M. Pooley, M.R.C.P., 2, Highbury Grove, N., Honorary Secretary.

Metropolitan Counties Branch.—Tottenham Division.—There will be a meeting of this Division at the Infirmary Hospital, on Friday, May 13th, at 8 p.m. Agenda: Annual Meeting. Election of Officers. Adjourned discussion on Medical Acts Amendment Bill, etc.—Field Tresidder, White Lodge, Enfield, Honorary Secretary.

Metropolitan Counties Branch.—Wandsworth Division.—The annual meeting of this Division will be held at Criterion's Restaurant, Clapham Junction, at 8 p.m., on Thursday, May 5th. Agenda: 1. Minutes. 2. Correspondence. 3. Resolution relating to Central Council Meeting. 4. Election of officers. Representative and Committee. 5. Annual report. 6. Consideration of agenda for Representatives Meeting. Dinner will precede the meeting at 7 p.m. Evening dress optional. Charges 5s. each. Guests can be invited by members. It is hoped that a large number of members will show they wish to extend the usefulness of the Division by encouraging social development.—Edgar Fothergill, 100, Gray's Inn Road, South Lambeth, S.W., Honorary Secretary.

Metropolitan Branch.—The last day for receiving nominations of elective members of Council is May 21st.—F. M. Pope, 4, Prebend Street, Islington, Honorary Secretary.

Metropolitan Branch.—Islington Division.—The annual meeting of this Division will be held at the Lord Raglan Hotel, Upper Street, N., on Thursday, May 5th, at 8.30 p.m. Dinner at 7.30 p.m. Tickets, 5s. each. Dr. A. E. Wilson, Beech House, Highbury Grove, N., has been elected President for the year.

Metropolitan Branch.—Lewisham Division.—The annual meeting of this Division will be held at the Lewisham Hospital, on Thursday, May 5th, at 8.30 p.m. Dr. [illegible] will preside. Agenda: (1) To receive the annual report and accounts. (2) To elect officers for the ensuing year. (3) To elect representatives on the Council of the Branch, on the Executive Committee of the Division, and to the Representative Meeting. (4) To consider the Medical Defence Scheme. (5) To consider the Medical Acts Amendment Bill, and to take such steps as may be deemed advisable. (6) To consider the question of the advertising of medical practitioners in connection with hydropathic establishments, and to take such steps as may be deemed advisable. (7) To consider the question of the Medical Defence Scheme. (8) To consider the question of the Medical Defence Scheme. (9) To consider the question of the Medical Defence Scheme. (10) To consider the question of the Medical Defence Scheme.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Eastbourne on Wednesday, June 22nd. Mr. J. H. Ewart, President-elect. The following will be the agenda: 1. To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before Monday, May 16th.) 2. To receive the annual report of the Branch Council. 3. To consider the business of the annual Representative Meeting. 4. To make new rules or alter or repeal existing rules. Dr. Larking gives notice that he will move, "That in the opinion of this meeting the present South Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question." 5. To transact any business that may be transacted by an ordinary meeting. N.B. Three members to represent the Branch on the Central Council will also be elected by voting papers.—T. JENNER VERRALL, 57, Montpelier Road, Brighton, Honorary Secretary.

SOUTH EASTERN BRANCH: CHICHESTER AND WORTHING DIVISION.—The annual meeting of this Division will be held at the Infirmary, Worthing on Friday, May 27th, at [illegible] p.m. Mr. W. S. Simpson will preside. Agenda: (1) Minutes of the last meeting. 2. Election of officers. 3. To decide the place of next meeting. (4) To consider the proposed Medical Acts Amendment Bill adjourned from last meeting. (5) To consider suggestions of Ethical and Medico Political Committees. (6) Dr. Hinds and Dr. Morris will read papers. After the meeting a dinner will be held at Warne's Hotel.—H. C. L. MORRIS, M.D., The Steyne, Bognor, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—The annual meeting of this Division will be held at Hotel Wampach, on Friday, May 27th, at 4 p.m. Agenda: To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. To receive the annual report of the Executive Committee. A meeting of the Folkestone, Ashford, and Dover constituency will be held the same day, at the same place, at 5 p.m. Agenda: To elect the Representative in Representative Meetings of the Association. To elect a Secretary. To consider the business of the Annual Representative Meeting. All members of the South-Eastern Branch are invited to attend the meetings and to introduce professional friends.—PERCY V. DODD, 14, Manor Road, Folkestone, Honorary District Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at Kilkenny on May 25th. Agenda: 1. Minutes of last annual meeting. 2. Election of officers.—RAYMOND W. ORPEN, Bagenalstown, co. Carlow, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at Winslow, Bucks, on Thursday, June 16th, under the presidency of Dr. Kennish. Mr. Horace Savory, Bedford will read a paper on a Case of Benign Papilloma of Renal Pelvis. Haemothorax. Nephrectomy. Recovery. Members wishing to read papers or show cases or specimens must communicate with the Honorary Secretary not later than June 7th.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held on Thursday, May 26th, at 2.30 p.m., at the Eight Bells Hotel, Bletchley. Agenda: (1) Minutes of the last meeting. (2) To consider and discuss the scheme of Medical Defence of the Association. (3) Resolution by Dr. Easte on the granting of Medical Certificates to School Children. (4) To consider any further business or communications. Attention is directed to the form of undertaking appended to the proposed scheme of Medical Defence, which, if approved, should be filled in and forwarded to the Secretary. Luncheon (at 2 o'clock) will be provided at the Hotel, price 2s. each. Members wishing to partake of the same should inform the Secretary not later than May 23rd.—HORACE ROSE, Melrose, Aylesbury, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—The annual meeting of this Division will be held at the Library, General Hospital, Northampton, on Thursday, June 2nd, at 12 noon, under the presidency of Dr. Buszard. Agenda: Minutes of annual meeting, 1903. Election of officers. To receive Divisional report. To discuss: (1) The question of the advertising of medical practitioners in connexion with hydropathic establishments. (2) Whether it is desirable that the medical witnesses engaged on each side in legal cases should meet in consultation. (3) The formation of a Medical Defence Committee of the Association.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Nominations for two elective members of the Central Council of the Association may be sent to the undersigned on or before May 21st.—Dr. R. PATERSON, 15, St. Andrew's Crescent, Cardiff, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held in the Board Room of the Infirmary, Newport, on June 9th, at 4 p.m.—D. R. PATERSON, Cardiff, F. G. THOMAS, Swansea, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.—The annual meeting of this Division will be held in the Newport and County Hospital, on Friday, May 27th, at 3.30 p.m.: Chairman, Dr. J. W. Mulligan. Business: (1) Minutes. (2) To elect officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee. (3) To elect the Representative of the Division in the Representative Meetings of the Association. (4) To receive the annual report of the Executive Committee. (5) To consider the business of the Annual Representative Meeting. (6) To make new rules or alter or repeal existing rules. (7) Recommendation of the Medico-Political Committee: "Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation." (8) Recommendation of the Ethical Committee: That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions.—W. S. Hamilton: That all registered medical practitioners are entitled to use the title "Dr."—J. B. Coumbe: To call attention to the disadvantage to the profession and to the public of prescribing drugs under the protected titles "tribloid," "jelloid," "seacoal," etc.—H. W. D. Steele: To call attention to the poll of members of the Division on the question of Medical Defence. (12) Any other business.—W. J. GREER, 2, Chepstow Road, Newport, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH WEST WALES DIVISION.—The first annual general meeting of this Division will be held at Slipney Hotel, Llanelly, on May 31st, at 3 p.m. Gentlemen who wish to read papers, or who have any communications to make, will please communicate immediately with the Honorary Secretary, GLANVILLE MORRIS, Mardy, Glamorgan.

SOUTH-WESTERN BRANCH. The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council) for the ensuing year, must be made by three electors, and in writing, on or before May 21st, to the Honorary Secretary of the Branch, Mr. C. YOUNG EALES, 1, Matlock Terrace, Torquay.

STAFFORDSHIRE BRANCH.—Notice is hereby given that nominations of a Representative of this Branch on the Central Council of the Association must be sent to me on or before Tuesday, May 24th.—E. PETGRAVE JOHNSON, Brook Street, Stoke-on-Trent, Honorary General Secretary.

STAFFORDSHIRE BRANCH. The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 16th.—E. PETGRAVE JOHNSON. Brook Street, Stoke-on-Trent, Honorary General Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE AND GLOUCESTERSHIRE BRANCHES.—Nominations for the election of a Representative on the Central Council for these grouped Branches must be sent, signed by three members, on or before May 31st, to Dr. G. W. CROWE, Worcester, Honorary Secretary.

YORKSHIRE BRANCH. Preliminary Notice. The annual meeting of this Branch will be held at Leeds on Wednesday, June 22nd. Members wishing to read papers or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

YORKSHIRE BRANCH.—Notice is hereby given that nominations of Representative Members of Council for this Branch must reach me not later than June 6th.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

BERLIN.

Professor Lassar on Radium. Post-operative Sanatoria.—The Berlin Municipal Hospital.—The Institution of School Medical Officers.

AT one of the last meetings of the Berlin Medical Society, Professor Lassar, the well-known dermatologist, gave an account of some radio-therapeutic experiments and demonstrated a number of cases. He had found radium very valuable in the treatment of surface tumours, and his observations had brought to him the conviction that certain morbid new growths could be cured by its use. Further, radium treatment presented no special difficulties, nor was it accompanied by any untoward by-effects. Roentgen-ray treatment, on the other hand, required great precautions, in order to avoid destruction of healthy tissues. Provided these precautions were observed, he had found Roentgen rays of the greatest assistance in the treatment of inflamed and proliferating skin diseases. He had succeeded in curing a number of head, ear, throat, and hand inflammations solely by application of Roentgen rays without any other medicament or drug, and, finally, in cases of new growth following on successful cancer operation he had been able to save the patient from what would otherwise have been hopeless sepsis. Professor Lassar demonstrated several cases of this character.

A new society has been formed, the aim of which is the erection of sanatoria for the open-air treatment of cases of bone and joint tuberculosis. This class has found no place hitherto in the great German sanatorium scheme, though the results obtained by the seaside sanatoria in France have shown the great improvement that can be effected by post-operative sanatorium treatment. In the year 1902 there were no less than 1,300 children with surgical tuberculosis in the four municipal Berlin hospitals, of whom 600 were unable to walk. It is satisfactory to know that the new Society has received contributions sufficient to enable it to begin building a sanatorium in the neighbourhood of Berlin.

During the year 1902-3 the Berlin municipal hospitals had

charge of no less than 36,030 in patients, 2,740 more than in the previous year. There were 5,080 deaths during the year.

Interesting statistics concerning school children in Berlin have just been published statistics which show how crying was the necessity for the institution of school doctors. At the beginning of Easter term this year all the children entering school for the first time 15,000 in number were examined by school doctors no light piece of work, as there are only thirty-six medical men appointed for the purpose. About 10 per cent. of the children were set aside as mentally or bodily defective, and were returned to their homes, and had their school career deferred for half a year or a year. Of these defective children, 25 per cent. suffered from general debility, 16 per cent. had not sufficiently recovered from serious illnesses, 5 per cent. were tuberculous, 15 per cent. suffered from severe anaemia, scrofulosis, or rachitis. About 10 per cent. were mentally defective. In former times before the beneficent institution of school doctors all these little "incapables" would have been admitted to school, and forced to attempt to keep up with the other children, with resulting great disadvantage to the healthy children in the classes as well as to themselves.

MANCHESTER.

Auxiliary Fund for Children's Hospital. Sunday Hospital Fund. Water Filtration. Citizen's Association.—The Housing Question in Manchester and Surrounding Towns.—Nature Study for Poor Children. Industrial Oxygen.

Some eleven years ago the Ladies' Auxiliary Fund of the Manchester Children's Hospital was founded for the purpose of aiding the hospital by contributions from various districts. In all about thirty districts have been included in the sphere of influence, and this year £1,714 has been received from these districts. Annually for a number of years past there has been a large deficit in the income of the hospital, which has only in part been met by legacies and special donations.

The fact that many well to-do citizens are ceasing to reside in Manchester itself is having a considerable effect in diminishing the contributions to the Hospital Sunday Fund, which has been steadily showing a downward tendency. The Committee this year propose to make a special effort to increase the fund by appealing to those merchants and others who have their places of business in Manchester and Salford. It is hoped that this supplementary fund will rectify the balance.

Dr. Thresh, Medical Officer for the County of Essex, delivered at Owens College one of the lectures promoted in connexion with the Public Health Department, the subject being Water Filtration. The process of filtration for the purification of water seems he said to be of very recent origin. The remains of ancient aqueducts and reservoirs did not indicate that the engineers of Nineveh, Babylon, or Rome concerned themselves with this question. The first attempt to remove from water anything more than visible suspended matter appeared to have been made by one of the London water companies in 1829. The engineer of the Chelsea Water Company finding that the Thames water did not become clear by mere subsidence, experimented with sand filters. It was possible, however, that sand filtration had been used in Lancashire before that date. This simple sand filtration method was known as the English system. In America, where the water supply was chiefly from lakes, the deposits in the water soon clogged the filters so that coagulants and mechanical filters had been introduced. The outbreak of cholera in Hamburg led to more efficient study of the purification of water by [illegible] Mechanical filters had been greatly improved in recent years, but in the case of water to which [illegible] could even access we were not yet in a position to [illegible] could be trusted to [illegible] and filtration could be [illegible] absolute safeguard.

[illegible] was founded in Manchester a [illegible] for the improvement of the Unhealthy [illegible] and circumstances of the People. It works [illegible] in the publication of the causes [illegible] and the effect and character of [illegible] pulls to the offices of the whole [illegible] to what is being done elsewhere, more especially in Germany. An interesting address was given on May 11th by Mr. Charles Booth, the editor of "The Life and Labour of the People," on the housing question as it affects great towns. The first thing would be, he said, to induce the city authorities and the people. Essentially this is the advice of Marcus Aurelius, who said "You will do the greatest service to the State if you shall raise not the roofs of the houses, but the souls of the citizens.

In grappling with the overcrowding question Manchester is met by the difficulty created by what may be described as "crowding of towns. Not only are the people crowded in the houses, and the latter crowded on the ground, but, in addition, the ring of towns by which Manchester is surrounded renders access to rural districts difficult. Each town and each village in prosperous Lancashire requires "expansion." There should be a well thought-out plan for this expansion, and a comprehensive policy which will deal, *inter alia*, with the following problems. It should include extended inspection, fuller use of powers for municipal building, stimulation of private enterprise in the same direction, acquisition of as much land as possible, extended powers over and rating of unoccupied land: finally, though really first, greater permanence of position and more exact knowledge of the questions to be dealt with on the part of municipal officers, coupled with the appointing of special commissions to consider the needs of the locality and make recommendations. An important question is the provision of cheap means of locomotion. There is a very evident connexion between housing and locomotion. Only when there has been proper expansion on sites in the outskirts can the older parts be made really habitable.

In the poorer districts of Manchester there are at least 20,000 children of school age who, unless special provision is made, are not likely to get into the country for that refreshment of body and mind and that close touch with Nature which is recognized as an annual need. Already there is a partial provision by means of the various country or seaside camps. A new departure is being made whereby batches of 80 boys or girls will go to the country with two or three of the children's own teachers for a fortnight or three weeks. They will carry on a modification of their ordinary school work, giving much time to object lessons on their rambles and to open-air pursuits of various kinds. This is the first attempt, in England at least, to bring Nature and direct Nature studies to bear on the lives of poor school children. It is conceived on the right lines, and must prove, if the necessary funds are forthcoming, of both social and educational importance.

An important series of experiments is being conducted in Manchester as to the possibility of the industrial production of liquid air, according to the method proposed by Professor R. P. Pictet of Geneva, and the separation of its oxygen and nitrogen by fractional distillation. The experiments are at present incomplete, but from the results already obtained it seems reasonable to anticipate that the manufacture of liquid air may shortly be transferred from the laboratory to the ordinary workshop, and liquified air be thus put upon the market for the innumerable purposes to which it would lend itself.

CORRESPONDENCE.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—In your issue of May 14th Dr. Donald severely criticizes my article, The Treatment of Inebriety by Atropine, which appeared in your issue of April 30th. As I think it would serve no useful purpose to take up the implied accusations one by one I will pass these; I simply wish to reassert that I have given the results of an experience lasting over fourteen years, and I do not think that any *a priori* argument that such recoveries could not take place can alter the facts as they stand. Any medical man, of course, who is willing to take the trouble to give the treatment a fair trial can judge for himself.

I venture to think that the best reply I can give is to quote yet another case. Over three years ago Mr. H. entered my home for the treatment of inebriety. Family history extremely bad as regards inebriety. Owing to exceptional skill in his calling he had risen rapidly until he was the possessor of a large and lucrative practice at one time, but which was subsequently sacrificed by his intemperate habits. He was placed in a home of restraint for twelve months, where, according to his own statements, he was allowed no liberty whatever. He arrived home on his release in a state of intoxication, although the distance to be travelled was only a short one, and as a result of this outbreak attempted to take

his own life. From the moment of entering my home he enjoyed the fullest liberty and was subject to all the temptations of London's daily life during his six weeks' stay; his conduct throughout treatment and his subsequent career conclusively proved the efficacy of the drug. During the three years' interval he has suffered many domestic afflictions, the climax being reached about ten months ago when he lost a loving wife. During that wife's illness he lost many nights' sleep, although he was unable to absent himself from his daily arduous employment, consequently he became very exhausted, yet, although he had to administer the alcoholic stimulants prescribed by the doctor in charge, neither anxiety, exhaustion, grief, nor worry caused a relapse. Being now an employé it is part of his daily duty to provide alcoholic beverages for his employers' customers while transacting business in his private office. In a recent letter to me he makes use of this striking expression, "I thank God daily that the terrible craving for alcohol, which at one time I was totally unable to resist, was completely removed by your treatment." This is by no means an isolated case.

Surely any fair-minded man would hesitate before calling this a "faith cure," or speak of it as "trading upon a patient's credulity."—I am, etc.,

C. A. MCBRIDE, M.D., L.R.C.P.&S.Edin.,
May 1 th. Medical Superintendent, Norwood Sanatorium.

SIR,—In your article under the above heading which appeared on April 30th, you state that "in certain cases the treatment, of which atropine appears to be the essential feature, has been successful in weaning drunkards from their pernicious habit." Permit me, as one who has devoted twenty years to the clinical study of inebriety, to say a word on this important subject.

I have never known a single case of "inebriety" permanently cured by drug treatment. I can quite understand a "drunkard" being, as you put it, "weaned from his pernicious habit" by treatment made up of drugs and faith cure, but a drunkard is not necessarily an "inebriate." The terms are not convertible. A man may take alcoholic drink to excess for years and years without becoming an inebriate. It is satisfactory to find that by degrees the teaching of Sir Benjamin Richardson and Dr. Norman Kerr is beginning to bear fruit as regards this important differentiation.

Inebriety is a physical disease involving certain parts of the brain substance, the "will centre" being invariably one of the parts damaged. Drunkenness is a vicious habit which may lead to this result or it may not. In dealing with the mere drunkard you have only to think of a "pernicious habit" (to use your careful expression); but in the case of the inebriate you have to deal with a pathological condition.

No physician could be induced to believe that the functions of such centres as are involved in cases of inebriety were ever restored by the exhibition of gold or atropine, or any other drug.

The method of treatment which commends itself to the scientific mind and which, in my experience, furnishes the best results may be put shortly as follows: (1) Get your patient to realize that part of his brain substance is the seat of a definite disease, the result of alcoholic poisoning. Explain to him that the function of the portion so damaged must be taken up by a set of brain cells requisitioned for the purpose. Let him understand that the process by which this transference of function is accomplished is an extremely complicated one, and that Dame Nature works very slowly in effecting such a change. (2) Place him for at least a year where he will be constantly and systematically protected from his enemy, to avoid the slightest risk of Nature being interfered with in her work, as the taking of even the smallest quantity of alcohol will arrest the reparative process. See that while in these favourable surroundings (from which all alcoholic beverages are rigidly excluded) his general health is improved by the exhibition of tonics and other appropriate treatment, and that a higher moral tone is cultivated by elevating association in domestic life. (3) Enjoin upon himself, and with equal emphasis on his relatives, how necessary it is that he shall become an absolute teetotaller for the rest of his life.

Looking through the records of the last 200 cases treated at "Dunmurry," I find that 41 (upwards of 20 per cent.) had previously submitted to the "gold cure" or other drug treatment. Every one of these patients stated that the benefit derived had been of quite a temporary character.

In conclusion, I would urge upon my medical brethren to discourage in every way the use of "inebriety" and "drunkenness" as convertible terms. Disease and vice are found close together, but they should not be confounded the one with the other by the scientific physician.—I am, etc.,

Clifton, May 1 th. JAMES STEWART, B.A., F.R.C.P.Ed.

THE BACTERIOLOGY OF ACUTE RHEUMATISM.

SIR, I gather from Dr. Poynton's paper, The Infective Nature of Rheumatic Fever, Illustrated by the Study of a Fatal Case, that an essential part of his argument is, that the illness from which the patient suffered in July, 1902, was acute rheumatism as ordinarily understood. The facts of the case given in the History of the Early Attack are: (1) A girl, aged 9 years, was admitted into hospital in July, 1902, suffering from chorea and active heart disease; (2) a week before admission she had painful swellings of the wrist joints; (3) the attack commenced six weeks before admission with vomiting and pains in the limbs, and (4) this was her first attack of rheumatic fever, and there was no family history of rheumatism. This account is certainly highly suggestive of acute rheumatism, but I venture to think the facts stated in the history are not sufficiently conclusive to warrant a dogmatic assertion that it was so. A combination or sequence of endocarditis, arthritis, and chorea may be due to many other causes than rheumatism, and of these scarlet fever is the most frequent.

I have seen instances in children of apparently slight scarlatinal arthritis and endocarditis followed later by fatal malignant endocarditis. Suggestive features against the attack in question being true rheumatism are:

(*a*) The mode of onset. I have paid particular attention to rheumatism in children for a good many years, and I can certainly say that I have never come across a case beginning with vomiting.

(*b*) There is no history of pains or swelling in the joints until five weeks subsequent to the onset, when the wrist joints were found to be swollen.

It is unusual for the wrist-joints to be involved in first attacks of rheumatism in children; such justifies the inference that the patient has suffered from rheumatism before, or that other joints have been previously involved in the same attack; otherwise it arouses the suspicion that the arthritis is not true rheumatism.

In scarlatinal arthritis, however, the wrist-joints only are commonly attacked.

(*c*) It is very rare to meet with a case of true rheumatism in a child in which arthritis is at all marked, with no family history of rheumatism. It is to be regretted that fuller details of the previous history are not given, for without them it appears quite as justifiable an inference that this child had slight unrecognized scarlet fever, followed in the fifth week by endocarditis, arthritis, and chorea. If that is so, the "history of the fatal illness," the features of which were those of malignant endocarditis, falls into line.—I am, etc.,

Southall, May 16th. J. D. WINDLE, M.D.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—One of the original objects for which the British Medical Association was founded was "the maintenance of the honour of the profession." Surely this object cannot be better attained than by undertaking the defence of individual members when unwarranted and malicious attacks are made upon them; and I cannot agree with Dr. Taylor when he says that in doing this the Association is going beyond its province.

One great objection to the defence scheme is the question: "What is to become of the existing medical defence societies, and the defence of those who are not members of the Association?" If these societies are unwilling or unable to amalgamate with the Association, there still remain, roughly, 15,000 medical men for them to defend. If, on the other hand, these societies decide to merge themselves into the British Medical Association, would it not be possible to allow those medical men who are not members of the Association to avail themselves of the privileges conferred by the medical defence scheme on payment of an annual subscription of 10s.? Later on, when the Association is in a position to undertake the medical defence of all its members at the present subscription of 25s., these non-members would still continue to pay 10s. per annum.

It would be a simple matter to ascertain the feelings of members on this point by bringing it forward for discussion at the various Divisional meetings.—I am, etc.,

Putney, May 15th, S. VERDON-ROE, M.B.

THE FEE FOR RESTORATION TO *MEDICAL REGISTER*.

SIR,—Since I am responsible under the name of "Index" for raising the question as to the legality of the fee of £5 exacted by the General Medical Council, I beg permission to comment on the opinion given by Dr. Bateman on the matter in the BRITISH MEDICAL JOURNAL of May 14th.

I notice that he bases the legality upon the circumstances that restoration and registration are identical for the purposes of the Act. In doing so he practically commits himself to the fact that a medical man is liable to a loss of £5 for failing to answer a letter sent under the following Section XIV of the Medical Act 1858:—

It shall be the Duty of the Registrar to keep their respective Registers correct in accordance with the Provisions of this Act and the Orders and Regulations of the General Council and to cause the Names of all registered Persons who shall succeed, and shall not Time to Time make the necessary Alterations in the Addresses and Qualifications of the Persons registered under this Act, and to enable the respective Registrars duly to fulfil the Duties imposed upon them it shall be lawful for the Registrar to write Letters to any registered Person, addressed to him according to the Address on the Register, to enquire whether he has ceased to practise or has changed his Residence, and if no Answer shall be returned to such Letter within the Period of Six Months from the sending of the Letter it shall be lawful to cause the Name of such Person to be erased from the Register: provided always that the same may be restored by Direction of the General Council if they think fit to make an Order to that Effect.

Assuming for the moment that Dr. Bateman be correct, this liability of the practitioner to lose £5 may occur again and again, for there is no fixed period when any individual practitioner may expect to receive any said "letter;" nor, indeed, strange as it may seem, need so important a document be even registered through the post.

With the judgement of one so versed in legal matters as Dr. Bateman it is with great diffidence I disagree; but I must hold that to regard registration and restoration as similar from a legal point of view is, to my mind, unduly straining the significance of terms. At the time of registration a medical man pays, shall I say for clearness, purchases? certain State privileges. To promote the correctness of the *Register* he may in some time be sent the "letter" referred to in the section quoted. Should he fail to respond to so uncertain and fitful a communication—a communication which may be transmitted the day after, or ten years subsequent to his registration according to Dr. Bateman's reasoning, he forfeits the privileges he paid £5 for. Surely this is an unreasonable interpretation to put upon the Section: re-registration, not restoration, would then have been the term used, if such meaning were implied.

Is it not more logical to argue that, pending the practitioner's application for restoration and the production of evidence that the said candidate for restoration is the identical individual whose name originally appeared at a definite address on the *Register*, the privileges of the individual are merely suspended and not confiscated; in short, that his restoration is a restoration to the privileges conferred by the Act. Section XIV was clearly framed to enable the registrars to keep their respective *Registers* correct, and to me, at least, it appears guiltless of the penal intent which Dr. Bateman's reading would give it.

This view would seem to me to be the more reasonable, since no word is mentioned in the Act or as to the powers of the Council to levy a restoration fee, differing indeed from every other case such as primary registration and the registration of additional qualifications, where the powers of the Council are clearly defined as to its authority to impose fees.

While on this subject it is interesting to note that it was only last year that the General Medical Council raised the fee for the registration of additional qualifications from £2 to £5, and at a time coincident with its increased financial embarrassment, which it is passing on to the Universities and Licensing Bodies in connection with those of the Council's contribution to the improvement of its treasury at the expense of the practitioners' fee, with the result that the registration of additional qualifications under Section XV has practically ceased, as was easily to be realized, as the then fee was quite prohibitive of any further development.

What a pity it is that Dr. Bateman is not connected, as I am, with the Council's increasing enterprises. Perhaps then he would have directed immediate attention to the myth that I make the question of the legality of the General Medical Council in imposing the said fee.—I am, etc.,

London, May 17th. S. WESLEY WILSON,
Late Registrar Medical Council, Ireland.

THE MEDICAL PROFESSION IN PARLIAMENT.

SIR,—It has frequently been pointed out in the medical press how very deficient our profession is in regard to united action and political representation, particularly in reference to those hygienic questions which so closely concern the well-being of the State and upon which only medical men are able to speak authoritatively.

In almost every session of Parliament matters of public interest bearing upon the health of the people are raised, and, for want of expert representation, give only academic interest. It is often felt—and occasional advice in this direction is offered as year by year medicine becomes more a science for the prevention of disease than for its cure, that there should be numerically a more authoritative representation in Parliament than heretofore in regard to matters of State sanitation. It has even been suggested that there should be a Minister of Public Health. The questions of infant mortality, the prevention of infectious and contagious diseases, vaccination, the adulteration of food, the evil effects of overcrowding; also the care of the insane, the education of midwives, and the State registration of nurses—all these questions bear closely upon the greatest asset of the State—namely, the vigour, energy, and the health of its people.

The present medical members of Parliament have each and all rendered valued service to the utility as well as to the influence of medicine, and they have greatly tended to raise the standard of debates upon medical matters. Is it too much to hope that those occupying seats of distinction, such as the Presidents of our Colleges of Physicians and Surgeons, the Regius Professors of Physic at the universities—not to mention the illustrious men who, *facile principes* in their own special department, are enjoying a dignified retirement from active professional work—may be induced to sit in Parliament, as is done with so much good effect in some of the Continental Legislatures? Our universities which establish general curricula of education might well be proud of such representatives, and—if I do not anticipate the opinion of teachers—medical as well as general education needs revision. The London University and those of Edinburgh and St. Andrews are both honoured by their present distinguished medical representatives. The Universities of Glasgow and Aberdeen will at the next election need a new representative, and their medical graduates constitute a powerful and numerous class.

The general election is not far distant, and Parliamentary representation may be worthy of the consideration of the Council of the British Medical Association, which in the past has done so much, not only for the dignity of the profession as a whole but also for the interests of its members individually.—I am, etc.,

[illegible] A UNIVERSITY VOTER.

POOR LAW MEDICAL RELIEF IN SCOTLAND.

SIR,—A propos of Dr. Bruce's letter relative to uncertified deaths in the Highlands and Islands of Scotland, it may be well to indicate that if the Departmental Committee had felt disposed to interrogate the medical officers, who of necessity frequently come into contact with the registrars, they would have obtained evidence proving that expense and distance from the doctor were not the only reasons for the enormous number of uncertified deaths, many being registered where the fees were neither prohibitive nor the people unable to pay, and others when the deceased did not live far from the doctor.

In my own case expense is never thought of. Those who do not pay and never intend to pay are the readiest to demand my services, and get them, and from the farthest distances, too, the idea being that "the parish doctor is bound to attend when called upon."

The Committee would probably have found also that in a certain percentage of deaths, when the registered medical practitioner in the district had refused to give a certificate of death, the cases had been treated and supplied with medicine by "skeelful persons," men who have received no medical training whatever, and who take up such work as a pastime.

Cases could, I am sure, be instanced by parish councillors

where old people as soon as they get past work are "clapped on the Board" by their relations, who seem to lose all affection for these old people, and regard them as stumbling blocks in their daily life; so, when death claims them, it is looked upon as a "happy release" for all concerned.

Where the pauper is no relation to the custodians, one could go a little further and suggest that the carelessness is much increased; and if the pauper takes ill and seems likely to die, "Why, there's nae need to fetch the doctor: let he die in peace."

Fatalism, too, is strong in these remote parishes, and tends to develop the virtue of resignation somewhat too much. "It's the will o' the Almichty."

The evidence with regard to uncertified deaths is eloquent testimony, so far as it goes, and, being derived in part from exalted personages intimately connected with the parish council view of the whole question, will naturally be accepted with greater credence than that of officials who are closely in touch with the registration of deaths. But have these gentlemen probed the matter to the bottom? I fancy the medical officers and registrars could furnish evidence to corroborate what I have said.—I am, etc.,

May 16th. A PARISH DOCTOR.

THE INTRUSION OF THE LAYMAN INTO MEDICAL PRACTICE.

SIR,—I concur with everything stated by Dr. Lewis Jones and Dr. Gerald Garry. At the same time I wish to point out the fact that the medical profession have to contend with unqualified laymen in every branch of the healing art. A reference to a popular monthly magazine for the present month will prove that I am right in making that assertion.

A much-advertised saline is said to "rectify the stomach and make the liver laugh with joy"!

A tonic, named after one of our most celebrated hospitals, "actually assists in the digestion of food and quickly strengthens the organs concerned."

A company advertise that imperfect noses can be corrected by an absolutely painless method; that double chins, drooping cheeks, and wrinkles in the face about the eyes or mouth can be removed.

Another company states that drunkenness can be cured in a short time by taking its remedy in tea, coffee, or food. A manufacturing company recommends "vibration" as the greatest treatment in the world for nervousness, indigestion, constipation, rheumatism, gout, torpid liver, sluggish circulation, and lung troubles.

A "Doctor" Rice—whose name I have failed to find either in the *Register* or the *Medical Directory*—tells us how hundreds of sufferers have cured themselves of rupture at home at a slight expense.

A scientist, called Professor W. C. Wilson, has invented a "restorer" known as "Actina," through which all affections of the eye and ear, such as blindness, granulated lids, cataracts, sore eyes, deafness, etc., are cured without cutting or drugs.

The Dr. G. McLaughlin Co.'s "Electro-vigour cures nervous disorders, weak back, lumbago, rheumatism, stomach, liver, kidney, and bowel troubles, 'come-and-go' pains, and that tired feeling, after every other treatment has failed."

The Magic Foot Draft Co. profess to cure rheumatism through the feet without medicine.

The Surrey Treatment Co. says that alcoholic excess, narcomania, and resultant nervous diseases can be cured at the patient's own home by the now-recognized Surrey treatment.

The Antipon Co. say they permanently cure corpulence, and renew strength and vitality.

Pulvermacher's Galvanic Establishment say that their electric belt cures indigestion, constipation, biliousness, and all forms of liver complaint. Rheumatism, gout, sciatica, and lumbago are speedily removed by its use. It proves an unfailing remedy for kidney troubles, pain, and weakness in the back. Its use revives health in delicate women, while for every kind of nervous weakness or exhaustion and general debility in men and women it is a sure and certain cure.

The Trilene Company advise all fat people that they can be cured by taking their Trilene tablets, and state that they are the only cure for stoutness registered by Government!

One cannot help feeling, Sir, that a certain amount of responsibility rests on the managers of journals and newspapers in allowing such extraordinary statements to appear in their advertisements. The modern notion seems to be insert honest advertisements if you can, but get advertisements at any cost.—I am, etc.,

Cardiff, May 16th. T. GARRETT HORDER.

OBITUARY.

WILHELM HIS,

Professor of Anatomy, University of Leipzig.

THE brief announcement of the death of Professor His, in the BRITISH MEDICAL JOURNAL of May 14th, came as a shock and surprise to the majority of the scientific workers of this country; but to his more intimate friends his failing health had for some time been apparent, and he passed away after much suffering on Sunday morning, May 1st.

Wilhelm His was born at Basle in 1831, and in Basle commenced his medical studies in 1849. In the year following he moved to Berne, where he had some relatives connected with the university of that city. Here Theile taught anatomy, Valentin physiology, and Bernard Studer geology. From 1850 to 1852 he was at Berlin, and came under the influence of Johannes Müller and Remak. He was much impressed by the great biologist, whose lectures on human and comparative anatomy were at that time perhaps unequalled. Indeed, Professor His has left it on record that the first lecture of J. Müller which he attended was a perfect revelation in the way of teaching and erudition. It was, too, from Müller and Remak that he learnt the elements of embryology, and thus laid the foundation for the great work which he was destined to carry out in the future.

From Berlin he went to Würzburg, where he stayed three terms (1852-1853). Here he came under the notice of Virchow, and worked in his laboratories. Shortly afterwards in 1854 he returned to Basle to complete his examinations, and then proceeded to Paris. In Paris he met Claude Bernard and Brown-Séquard, and worked for some time in the laboratory of the Collège de France. In 1857 he became a Privatdocent under Professor Meissner, and in the same year, when only 26, he became, through Meissner's promotion to Freiburg, Professor of Anatomy and Physiology in his native town. Owing to his youth and natural modesty he was somewhat diffident of his powers for carrying on the work of the two subjects, but the Chancellor of the University, Herr Peter Merian, remarked to him, "Wir haben sie ins Wasser geworfen, sie mögen nun zusehen, wie sie schwimmen," or, "We have thrown you into the water, see to it that you now swim." It is well known how brilliant his career has been and how richly his labours have been rewarded in that realm of science over which he held almost sovereign sway, but Professor His has told us, however, in allusion to the remark of the Chancellor, that several times in the first year after his appointment, when day by day he was engaged in preparing for one or two lectures, demonstrations, and experiments, etc., that "Das Wasser ging mir allerdings weit an den Hals herauf," or that in other words he often felt like drowning.

He remained in the University of Basle until 1872, when he succeeded E. H. Weber as Professor of Anatomy and Director of the Anatomical Laboratories in the University of Leipzig. Simultaneously with his appointment W. Braune, Weber's son-in-law, became Professor of Topographical Anatomy in the same University. These two men, differing in age only by a few days, but differing markedly in their general temperaments, became very close friends, and on the death of Braune in April, 1892, the loss was felt by His to be well-nigh irreparable. His's work was done first in the old, then in the new, buildings of the institutes at Leipzig. The new buildings were erected under his supervision, and have become a model for successive generations.

With regard to his original work, it may be said at once that he contributed valuable papers to nearly every department of anatomy, but it is as an embryologist that he is best known in this country, where his name has been familiar to every medical student of the last twenty years.

In 1885 he completed the monumental work which he published under the name of *Anatomie menschlicher Embryonen*, and which has formed the basis of all subsequent textbooks dealing with embryology. His monographs and miscellaneous papers exceed one hundred in number.

In 1897 Professor His was present at the summer meeting in Dublin of the Anatomical Society of Great Britain and Ireland, and at the invitation of the Royal Academy of Medicine of Ireland delivered an address in the theatre of the Royal Dublin Society on the Development of the Brain. On

that could be summed up in a masterly manner the general principles underlying the organization of the brain, and illustrated his lecture by blackboard sketches, which were afterwards photographically reproduced in the *Transactions* of the Royal Academy of Medicine in Ireland. In July, 1901, Professor His celebrated his 70th birthday, and was the recipient of numerous congratulations and good wishes. A most cordial greeting was sent by the Anatomical Society congratulating him, and wishing for him a long continuance of health and strength.

Grievous though the loss of such a man must be, we have not to mourn in him a life cut short, for its promise has been amply fulfilled. Wilhelm His when he died had done his work, and has left a legacy of enormous scientific value behind him.

FRANCIS CUBBON ROGERS, F.R.C.S.Edin.,

Chairman of the Dartford Division of the South-Eastern Branch of the British Medical Association.

THE sudden death of Dr. Francis Cubbon Rogers, of The Firs, Belvidere, Kent, was a great shock to the neighbourhood and will be the source of continued regret to his very numerous friends. Born only forty years ago, Dr. Rogers enjoyed excellent health up to the beginning of this year, when he had an attack of influenza, and did not entirely shake off its effects. He had recovered sufficiently to resume active work, but the onset, a few days before his death, of some precordial pain, though quite of a passing character, had led him to speak of making arrangements to go away for a short change of air. The evening of the day upon which this project was seriously discussed he was, while engaged in his surgery, seized by an attack of angina pectoris. This, in spite of assistance immediately furnished by his friends, Drs. Good and Baddeley, terminated fatally in less than an hour.

Dr. Rogers was the son of Mr. Alfred Rogers, of Manchester, and received his medical education at Owens College in that city, and after becoming L.S.A., took work as assistant in Stockport. Afterwards he proceeded to Scotland, where in 1892 he received the diplomas L.R.C.P., L.R.C.S.Edin., and L.F.P.S. and L.M.Glas., to which in 1901 he added the Fellowship of the Royal College of Surgeons of Edinburgh.

For several years after completing his professional studies he practised in Stockport, having succeeded to the practice in which he commenced work as assistant. During this period he entered the Town Council of the Borough and helped to bring about some useful reforms. In 1901 he came south, and on December 10th of the same year succeeded the late Dr. John Elliot as Medical Officer of Health for the district of Erith. Upon the foundation of this appointment he soon built up a large general practice. He included therein a number of clubs, and was Honorary Surgeon to the Erith Cottage Hospital, Divisional Surgeon of the Metropolitan Police, and Medical Officer to the Royal Alfred Institution for Merchant Seamen. He also held a Surgeon-Captaincy in the 3rd Kent Artillery Volunteers. Being a man of great mental and physical activity, and possessed of a singularly genial disposition, his value and work were quickly recognised by his colleagues—a fact which, although he was, comparatively speaking, a newcomer, led to his election as Chairman of the Dartford Division of the South-Eastern Branch of the British Medical Association.

His funeral took place at Crossens, near Manchester, on the last day of April, and was attended by representatives from the Erith Urban District Council and the Stockport Medical Society. At a special meeting of the former body, held on April 29th, a resolution was passed recording the high opinion of the Council of the professional ability exhibited by the deceased in his service, and stating that his death was a loss to the whole district. Dr. Rogers left a wife and three little children, with whom very great sympathy is felt.

Professor [illegible] of University College, London, will [illegible] on "Methods of the Analysis of Proteins" at the Chemical Theatre of that College, on Wednesday, May 25th, at 5 P.M. Professor Alexander W. Williamson, formerly Professor of Chemistry in that school, Dr. Williamson was born on 15th May, 1824, was elected a Fellow of the Royal Society in 1855, and was Foreign Secretary of the Society from 1873 to 1878. He was a Past President of the British Association for the Advancement of Science.

The Treasurer of the Bristol Medical Relief Fund [illegible] Saturday, May 7th, [illegible] the receipt of subscriptions [illegible] Association Ball [illegible] of its dissolution.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

STAFF SURGEON C. M. [illegible] promoted to be Fleet Surgeon, May 14th. Surgeons [illegible] May 15th, and Staff Surgeons, May 16th. Mr. [illegible] served in the Naval Service in the American Philippine war, was with General Lord Algernon Gordon-Lennox, and was present at the battles of Caloocan and Malolos, in the latter of which he was severely wounded. He subsequently did duty at the Naval Hospital, Cavite, and in the Philippines, and was mentioned in despatches as having rendered invaluable aid to the wounded under fire. He is decorated with the Philippine Campaign Medal and Clasp, and the Surgical Work of the military hospital at Malolos. Mr. [illegible] passed the Staff Examination in 1901, and was at the battles of Belmont, Graspan, Modder River, Magersfontein, and Paardeberg, and was mentioned in despatches. He has received the Queen's Medal with three clasps, and the King's Medal with two clasps, and is under fire of Chinese, and has been promoted to be Staff Surgeon, with eight years' seniority, for services during the war.

Surgeons A. E. MELVENTHEL, M.B., W. S. H. SEGUEIRA, M.B., J. C. G. REES, and W. G. MATHEWS, whose first commissions are dated May 15th, 1899, are promoted to be Staff Surgeons May 15th. Staff Surgeon Reed, who was Senior Surgeon of the Alexandra, was at the taking of the Taku Forts in 1900, having charge of the wounded in a temporary hospital between the attacking ships and the forts. Chinese Medal with clasp. He was promoted for meritorious service in the field after the relief of Tientsin. The other officers mentioned have served in the Boxer campaign.

The following appointments have been made at the Admiralty: JOHN MENAILY, M.D., Fleet Surgeon, and JOHN A. KEOGH, F.A., M.B., to the *Victoria*, May 11th. HERBERT H. PEARSE, Surgeon, to the *Excellent*, additional, for Portsmouth Dockyard, May 5th. WILLIAM M. KEITH, M.B., Surgeon, to the *Sutlej*, May 20th. MALCOLM CAMERON, M.B., Surgeon, to the *Britannia*, May 22nd.

Fleet Surgeon S. S. O'GRADY has been promoted to be Deputy Inspector-General, from February 28th, 1904. His previous commissions are dated: Surgeon, March 1st, 1892; Staff Surgeon, March 1st, 1897; and Fleet Surgeon, December 31st, 1903.

ROYAL ARMY MEDICAL CORPS.

COLONEL (temporary Surgeon-General) W. F. STEVENSON, M.B., C.B., is confirmed on the active list as a supernumerary to the establishment, under the provisions of Article 473 of the Royal Warrant of October 26th, 1903.

The temporary rank of Colonel granted to Lieutenant-Colonel A. W. P. INGLIS, M.B., while officiating as Principal Medical Officer of a district in India, has effect from March 16th.

Lieutenant-Colonel J. G. MACNEECE, now stationed in Dublin, has been appointed Principal Medical Officer on the Dublin District Staff, vice Lieutenant-Colonel G. A. Hughes, D.S.O.

Lieutenant-Colonel C. E. BARTLETT has been appointed Senior Medical Officer, West Africa.

Lieutenant-Colonel J. MCANN, retired pay, has been appointed Medical Officer, Dublin Military Prison.

The undermentioned Lieutenants are confirmed in that rank: F. C. LAMBERT, B. G. PATCH, T. D. WRIGHT, A. C. OSBORN.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Lt.-Col. W. T. Johnston, M.D.	Dublin	Belfast.
[illegible] Maclean	Punjab	[illegible]
A. O. Goodbody, M.D.	Bengal	Chester.
C. G. D. Mosse	Southampton	Winchester.
[illegible] V. Lane	[illegible]	Glasgow.
[illegible] Carmichael	Punjab	Dublin.
C. E. Bartlett	Hong Kong	West Africa.
R. J. Cuthbert, M.B., D.S.O.	Edinburgh	Maryhill.
Major H. N. Thompson, M.B., D.S.O.	Bengal	Aldershot.
[illegible] N. Cox	Bombay	Portsmouth.
[illegible] Jewell, M.B.	China	Aldershot.
H. E. Cree	Madras	Dover.
A. P. H. Griffiths	Bombay	Chester.
H. Cooke, M.B.	Cork	Fermoy.
J. [illegible], M.B.	Bengal	York.
C. J. MacDonald, M.D.	Crete	Malta.
D. M. O'Callaghan	Bedford	Worcester.
H. C. Thurston, C.M.G.	Bermuda	Home District.
C. A. Young	Dublin	Enniskillen.
[illegible] C. West, M.B.	Punjab	Home District.
[illegible] C. Forbes	Gosport	Colchester.
[illegible] Gillett	Home District	Gravesend.
E. W. H. Jackson, M.B.	Dublin	Cork.
Captain J. M. [illegible], M.B.	Dublin	Curragh.
G. S. Maxwell, M.B.	2nd Gr. Gds.	Home District.
[illegible]	[illegible]	[illegible]
E. M. [illegible]	Curragh	Dublin.
[illegible] A. [illegible]	1st Gr. Gds.	Home District.
[illegible] Mills	[illegible] Gds.	Aldershot.
[illegible] Williams	Exeter	Bristol.
[illegible] Martin	Madras	Dublin.
J. [illegible], M.B.	Bengal	Shorncliffe.
G. B. Cole, M.B.	[illegible]	Aldershot.
R. A. Cunningham, M.B.	Malta	Crete.
[illegible]	[illegible]	Home District.
[illegible], M.B.	[illegible]	Aldershot.
[illegible]	[illegible]	[illegible]
[illegible] M.D.	[illegible]	South Africa.
[illegible]	Aldershot	Madras.

[illegible] to be Woolwich.

[illegible] to be Royal Warrant.

ARMY MEDICAL RESERVE.

[illegible] to be Captain. [illegible]

[illegible] M.B. to be Major. [illegible]

ARMY MEDICAL STAFF.

Surgeon John Millenan, M.D., died at Limerick on March 20th last. He entered the department as Surgeon, February 3rd, 1858, and retired on half pay, May 24th, 1865.

Assistant Surgeon Robert William Woolcombe died at Westbury-on-Trym, Gloucestershire, on March 5th. He was appointed Assistant Surgeon, March 25th 1845, and went on half pay, February 1st, 1850.

INDIAN MEDICAL SERVICE.

Majors J. H. T. Walsh, H. Hendley, and W. G. P. Allin, M.D., of the Bengal Establishment, and who entered the service as Surgeons, April 1st, 1885, are promoted to be Lieutenant-Colonels from April 1st. Their war records are as follows. Lieutenant-Colonel Walsh, Burmese Expedition, 1885-7 (medal with clasp). Lieutenant-Colonel Hendley, Soudan campaign, 1885, (medal with clasp, and Khedive's bronze star), and Burmese Expedition, 1887-8 (medal with two clasps). Lieutenant-Colonel Allin, Soudan Campaign in 1885, including the action at Tofrek (medal with two clasps, and Khedive's bronze star).

Colonel J. S. Wilkins, D.S.O., Bombay Establishment, Principal Medical Officer Aden District, has been granted leave out of India for six months on private affairs.

Civil writes: The pay and prospects of officers of the Indian Medical Service in civil employ still being "under consideration," it will perhaps not be out of place to once again bring to notice the improvements which must be introduced if the service is to be rendered content. They are:

1. That the Director-General India Medical Service shall be a member of the Viceroy's Legislative Council, and that the Surgeon Generals with the local governments shall be members of the local legislative councils.

2. That the pay (of course exclusive of any local allowance) of officers in civil employ shall under no circumstances be less than that which they would receive in military employ.

The appointment of the Director-General and of Surgeon-Generals to be members of the legislative councils of their respective governments must almost inevitably lead to a more effective medical department, and to a clearer understanding between the Government and its medical department. It is obvious that a man who has devoted his life to the study of medical matters is better able to advise the Government with regard to the technique of the medical department than any one else, but unless he be a member of Council his advice cannot carry due weight.

The importance of representing the various departments on the Council by an expert is recognized by Government, as indicated by the appointment of members of other departments, namely, Educational Department - to a seat on the Council. Why, therefore, is the Medical Department not similarly represented?

Respecting proposal No. 2, the improvements in the pay of officers of the Indian Medical Service in military employ, which were introduced in November last and took effect from September 14th, 1903, have led to the result that a medical officer in civil employ with a substantive charge may draw anything between Rs. 250 and Rs. 400 more than a selected Lieutenant-Colonel's a month—less than an officer of equal rank and service with a substantive charge in military employ. This inequality having already existed for over six months, it is to be hoped that the Government of India will see their way to remedy it and to introduce the other improvements which are still under consideration with as little further delay as possible; but, whatever these improvements may be, the service at large will not be satisfied unless the Director-General, Indian Medical Service, is given a seat on the Viceroy's Council and so enabled to efficiently represent the Medical Department.

IMPERIAL YEOMANRY.

Surgeon-Captain T. F. Dewar, M.B., Fifeshire and Forfarshire, to be Surgeon Major, May 14th.

ROYAL ENGINEERS (VOLUNTEERS).

Surgeon-Captain W. Sinclair, M.B., 1st Aberdeenshire, to be Surgeon Major, April 30th.

ROYAL JERSEY MILITIA.

The undermentioned supernumerary officers of Royal Jersey Light Infantry are absorbed into the establishment, dated April 8th: Surgeon-Major W. Falla, M.D., 1st or West Battalion; Surgeon-Captain F. N. Gaudin, 2nd or East Battalion; Surgeon-Major A. B. Voisin, 3rd or South Battalion.

VOLUNTEER RIFLES.

Surgeon-Captain J. Griffiths, M.D., the Cambridge University Rifles, to be Surgeon-Major, April 30th.

David Hepburn, M.D., late Major Edinburgh Company Royal Army Medical Corps (Volunteers), to be Surgeon-Major, 3rd Volunteer Battalion the Welsh Regiment, April 30th.

The following announcement is substituted for that which appeared in the *London Gazette* of April 22nd, under the heading of "Volunteer Officers' Decorations": Brigade-Surgeon-Lieutenant-Colonel O. Grant, M.B., 1st (Inverness-shire) Volunteer Battalion the Queen's Own Cameron Highlanders.

Brigade-Surgeon-Lieutenant-Colonel W. D. Waterhouse, 4th Volunteer Battalion the Royal Fusiliers (City of London Regiment), is borne as supernumerary whilst holding the appointment of Senior Medical Officer of the 2nd London Volunteer Infantry Brigade, May 14th.

Surgeon-Lieutenant J. G. Bain, M.B., 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry), to be Surgeon-Captain, May 14th.

Surgeon-Lieutenant-Colonel J. Mackay, M.B. 5th (Perthshire Highland) Volunteer Battalion the Black Watch (Royal Highlanders), resigns his commission, is granted the honorary rank of Surgeon-Colonel, and retains his uniform, May 14th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant J. C. French, 2nd Durham (Seaham) resigns his commission, May 14th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Lieutenant A. A. Ross, M.B., 1st Lothian Bearer Company, to be Captain, April 30th.

The resignation of Lieutenant E. B. Dowsett, the Woolwich Companies, which appeared in the *London Gazette* of March 15th, 1904, is cancelled.

Lieutenant E. C. Montgomery-Smith, 2nd London Bearer Company, to be Captain, May 14th.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The annual banquet of the staff and members of the school took place at the Trocadero on May 14th; Brigade-Surgeon Lieutenant-Colonel P. B. Giles, V.D., F.R.C.S., Senior Medical Officer, was in the chair. The official guests were Surgeon-General Sir William Taylor, K.C.B., Director-General Army Medical Department; Colonel A. T. Sloggett, C.M.G., Principal Medical Officer Home District; Surgeon-General Don; Lieutenant-Colonel E. M. Wilson, C.B., C.M.G., D.S.O., War Office; Lieutenant-Colonel G. Robinson, Commanding the Depot R.A.M.C., Aldershot; Mr. Jonathan Hutchinson, F.R.S.; and Dr. Galloway (Advisory Board).

The Chairman was supported by Brigade-Surgeon Lieutenant-Colonels Andrew Clark, Chairman Volunteer Medical Association; G. S. Elliston, J. Adams, W. Waterhouse, and many others.

The toast of the evening, "The School," was ably proposed by the Director-General, who laid great stress on the success of the staff, especially as regards the advanced or nursing class, the knowledge gained therein being of great use in the treatment of wounded after transfer to hospital.

Brigade-Surgeon-Lieutenant-Colonel Giles, in responding, thanked the commanding officers of the various metropolitan corps who had placed their headquarters at his disposal; he also thanked Major Machure, the President, for his present of a handsome challenge shield which he had devoted to the nursing class. The year had been a successful one, and the staff of the school was justly proud of the large class inspected by the Director-General. His thanks were due to the officers and non-commissioned officers instructors for the *esprit de corps* which they had shown. Nearly 600 medical officers had passed through the school. Referring to the Royal Commission, the report of which would shortly be published, Colonel Giles said that he had told the Commission that increased allowances for medical officers were necessary when attending camp.

Mr. Hutchinson, in returning thanks for the guests, said that the evening was the commencement of a new epoch in his life, for though he was once on the point of going out as pathologist to investigate the enormous mortality at Scutari during the Crimean war, he never had had any previous experience of military medical organization; he was reminded of the old Greeks who, when a gentleman was ill, called in the physician who was invariably accompanied by an orator whose duty it was to explain to the patient and endeavour to persuade him as to the virtues of the physician's prescription, and in this instance he would call upon the orator who was associated with him—namely, Dr. Galloway, who then also spoke.

The toast of "The R.A.M.C." was proposed by Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, and suitably acknowledged by Colonel Sloggett.

The attendance was a good one, and excellent arrangements were made by Surgeon-Captain E. M. Callender, the mess president.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CHARGE OF NEGLIGENCE.

On Monday, May 9th, the hearing of the case of Smith *v.* Pare was commenced before Mr. Justice Lawrance, sitting with a special jury in the King's Bench Division. The hearing occupied three days. The action was brought by Mr. Edward Arnold Cloete Smith, M.R.C.S., L.R.C.P., against a Mr. Pare to recover fees for attendance on the defendant's wife and for damages for assault. The defendant said that the fees claimed were exorbitant, and entered a counterclaim for negligence and extra expenses thereby incurred.

Mr. Duke, K.C., and Mr. Macpherson appeared for the plaintiff, Mr. McCall, K.C., and Mr. Bateson for the defendants.

It appeared that the plaintiff was called in in March, 1903, to treat Mrs. Pare for cancer by the "*x*-ray" and "high-frequency electric treatment." It was alleged that Mrs. Pare had been operated on four and a-half years before for cancer by Sir Victor Horsley, but there having been a recurrence of the disease, Mrs. Pare was advised by some friends to try combined *x*-ray and high-frequency treatment. The plaintiff's treatment was carried out at St. Leonards by an electrician named Mr. Chaplin, while a Dr. Inglis attended to Mrs. Pare's general health. It appeared that the plaintiff continued to attend Mrs. Pare until the end of April, when Mr. Pare wrote to ask him not to call again. In June the defendant assaulted the plaintiff on the steps of his private hospital. The plaintiff claimed £50 in respect of fees and damages for assault.

The plaintiff in the course of his evidence said that he had had four years' experience, and had studied the nature of *x* rays as a cure for cancer. After Mr. Pare consulted him he advised Mrs. Pare to try a combined treatment by *x* rays and high-frequency currents. Mrs. Pare was at St. Leonards, and the treatment was there carried out. Her glandular system was almost wholly affected by general poisoning from cancer. It was necessary to apply the treatment over the whole body. He gave directions for the application of high frequency current twice a day for two hours. The *x* rays were to be applied at a distance and for a longer time. He noticed an improvement on March 24th, but he was then informed that the high-frequency treatment exhausted Mrs. Pare, so that thenceforward only the *x* ray treatment was continued. The patient returned to London on March 27th. There was as yet no sign of dermatitis. The skin subsequently became irritable, and parts had to be protected by tinfoil. When he was dismissed from the case he saw no reason to suspect sloughing of the skin. The assault took place on June 9th in Palace Gardens Terrace.

In cross-examination, witness said that he had never recommended high frequency treatment alone, but in combination with *x* rays. Mr. Pare had never told him that he would not agree to any treatment which caused pain. He (witness) knew that *x*-ray treatment would be likely to cause dermatitis or burns. Sir Victor Horsley and Mr. Huxley were to give their consent to the treatment after being consulted. He (witness)

he could take a contract to the treatment. He had frequently said he did not expect to heal cancer, but it was certainly one of the most beneficial cases he had ever had in which to operate. He had told Mr. Greg to look after the patient and to watch her closely. Dr. Bell had not been called in for external cancer for twenty years. He was not aware that Mr. Pare had been in the habit of using Dr. Bell's name as a result of the meeting Mr. Pare had not been to see Dr. Bell either.

Dr. Inglis, of Hastings, was also called on behalf of the plaintiff.

Dr. A. H. Greg, superintendent of the X-ray department at St. Thomas's Hospital, said he examined Mrs. Pare and found a growth in the breast. He considered it necessary to remove the breast and the lymphatic glands in the axilla. He was of opinion that a year's delay would be dangerous.

Mr. McCall having concluded the case for the plaintiff,

Mrs. Treeder, who lived next door, stated that she visited Mrs. Pare and sometimes sat with her. Dr. Bell, she said, had told her that Mrs. Pare had cancer. She said that the latter continued to get worse after the treatment was over. She remembered a conversation between Mr. Greg and Dr. Bell to the effect that the patient's condition had improved but it was better not to say anything to her about it. Mrs. Pare's breast was very much inflamed and discharging when she saw it.

In cross-examination, she said that she disapproved of the treatment, but she regarded Mrs. Pare as a determined woman. She could not say that the treatment aggravated her.

Henry Huxley, M.R.C.S., L.R.C.P., next gave evidence for the defendant. He had been in attendance on Mrs. Pare for twelve years. She had been operated on in 1901 for growth in the left breast which was not cancerous. In September, 1902, he attended her for acute pneumonia. He never advised her to use the rays although he had agreed that the "high frequency" treatment would do no harm. In cross-examination, he said he had had no experience of the x ray treatment except for skiagraphs.

Sir Victor Horsley, F.R.C.S., F.R.S., etc., said that he had operated upon Mrs. Pare in 1901. The patient did not suffer from cancer. As to her condition in 1902 he agreed with Mr. Huxley. He had advised operative treatment for the lungs. He never consented to the treatment by high frequency currents. He never received Mr. Pare asking him whether "high frequency" should be used. The x ray treatment was not recommended. He read the defendant's letter of April 30th. He said he had never been asked about it. In his view no good purpose could have been served by the application of the rays to the abdomen. The rays could only affect external nodules of cancer. In certain cases of cancer of the breast there was evidence at the time of destructive change in the lungs, and that the patient was desperately ill. He did not agree with Dr. Greg (called on behalf of the plaintiff) that cases of cancer could be treated by application of x rays over the whole body. Personally he would treat application of the rays in cases of cancer. He was inclined to more cases than in others. Desperate cases were not suitable cases for operative disease.

Mr. Cuthbert Wallace, F.R.C.S., L.R.C.P., said that he agreed with the evidence given by Sir Victor Horsley. In the circumstances the x ray treatment applied could not be of any effect. In any event the disease had been stopped as much as the rays in any case could do. The heart of the patient was the most intractable of all organs to deal with.

The defendant in the course of his evidence said that he could not remember attending to Mr. Smith in connection with the case of Lloyd. He had never assaulted the defendant after he had been turned out of his wife's house.

Mr. McCall, in addressing the jury on behalf of the defendant, said that the latter had never consented to the treatment, but was under the impression that it was a kind of massage. That gave the plaintiff no right to bring an action for assault and battery. The defendant had acted in a manner that any husband would have done.

Mr. Lewis, Q.C., on behalf of the plaintiff, said that the true aspect of the case was that Mrs. Pare was alive to-day in spite of her desperate condition in March.

The learned Judge, after summing up, put two questions to the jury as follows: (1) Did the defendant consent to the treatment by x rays? (2) Was the treatment by the plaintiff negligence?

The jury, after a short absence, found that the defendant did not consent to the x ray treatment, but was not guilty of negligence. They gave the plaintiff 40s. for the assault committed on March 30th. Judgment was entered for the defendant, but upon the claim and counterclaim no order was made as to costs.

WORK OF INDOOR ASSISTANT.

A SUBSCRIBER writes: [illegible] work is usually done by an indoor assistant, and [illegible] made with the [illegible] and what percentage of the [illegible] would be [illegible] the assistant [illegible] the [illegible] assistant on [illegible]

*** The [illegible] under such circumstances [illegible] the latter has the remedy in [illegible]

PURCHASE OF PARTNERSHIP

[illegible] which has only been [illegible] the price is to be [illegible] and [illegible] the book debts [illegible] to know [illegible] years' [illegible]

*** [illegible]

MEDICAL MEN AND POLITICS

should not object to a medical practitioner appearing upon a political platform to make a speech, even possibly on the medical men in politics in order to obtain personal advertisement. We cannot attempt to analyze motives, and it is certainly the right, if not the duty, of every citizen to take his share and play his part in such discussions.

FEES TO ASSISTANT IN FULL CHARGE.

A SUBSCRIBER writes: Will you kindly let me know whether in the event of the principal going away for a few days it is customary for the assistant left in sole charge to be paid extra fees for the time of the chief's absence. What is the tradition?

*** It is not usual for the assistant to be paid extra when the principal goes away for a few days, leaving him in charge of the practice.

AN INFIRM *LOCUM TENENS*.

A CORRESPONDENT writes that he engaged a locum tenens through an advertisement, and on his arrival found that he was suffering from chronic hemiplegia. Before engaging him a letter had been written to a medical man whose name had been given as a reference. The answer received was that the gentleman in question was most trustworthy, and might be safely entrusted with the charge of a practice. Our correspondent would like to know if, in case of this type of case, to be allowed to undertake locum tenens work, what is to be thought of the conduct of the referee in this case.

*** (1) A medical practitioner, even if partially disabled by disease, must be permitted to get his own living. If he can do so, no other medical man has no right to recommend such a person to a brother practitioner, without informing him. If this obvious humanity. If the facts are as stated, our correspondent is entitled to consider that he has not been treated with the consideration he was entitled to expect from a professional brother.

CONSULTATIONS WITH HOMOEOPATHS.

J. H. FLYER. We would refer our correspondent to the answer given under this heading in the BRITISH MEDICAL JOURNAL for March 12th last, from which we quote the following passage: "It is felt in society that the physicians that the wide divergence of views as to the selection of remedies renders consultation with professed homoeopaths futile. It is, we believe, their general practice to decline to meet surgeons, on the other hand, do not hesitate to meet homoeopaths in consultation, probably because their distinguishing doctrines do not extend to surgical means."

MEDICAL EVIDENCE IN COURT OF PROBATE.

BEDFORD. A practitioner is requested to give evidence to the Court of Probate in respect to a patient with whom we were not connected in the case, stating the fees he demands for giving his evidence. Is only answer he can get is "That is proper charge, will be duly paid." He wishes to know (1) Whether they can subpœna him, and give him exactly what they think fit, if subpœnaed, (2) to be allowed to charge the expense he demanded and paid, (3) to demand reasonable sum if bound to attend the court on subpœna and not released, (4) that his expenses are guaranteed. (5) Is there anything further he can do.

*** (1) No, they must pay him the charges considered reasonable by the court. If subpœnaed he must attend and conduct money is paid him, namely first-class railway fare, and as he resides at a distance from the court, reasonable hotel expenses. (2) It is to be noted that the court would not consider the demand reasonable two to three guineas a day would be the outside amount to be allowed. (3) A refusal to be sworn out is a proper course as proper charges are guaranteed. (4) We do not know of anything further that he can do.

ADVERTISEMENT OF AMBULANCE LECTURES.

COTSWOLD. Our correspondent will find this question considered editorially in the BRITISH MEDICAL JOURNAL for January 9th, 1904. We direct attention to the financial prospects and the way in which lectures are delivered on behalf of the St. John Ambulance Association. Our correspondent expressed the opinion that the Central Committee of that Association should consider the question and place a stop to the advertisement which he used so freely throughout the country, in order that the evils of the system might be reduced to a minimum. The matter will be referred to the Medical Committee.

FEES TO MEDICAL WITNESSES.

KENT. Our correspondent has, we think, good reason to complain of the manner in which the large discretion left to the magistrate has been exercised in his case. On April 26th he attended the police court to give evidence in a medical assault case, and was detained two hours. The case was then adjourned for three days and he was again detained [illegible] he could be attended [illegible] and was kept [illegible] April before the case was heard. The prisoner pleaded guilty. He was fined under the new Act, 5s. and costs, including [illegible] attending on the first occasion. The police [illegible] and [illegible] with 5s. and railway fare [illegible] the case could [illegible] to the [illegible] which [illegible] the [illegible] and [illegible] the [illegible] Act [illegible] the [illegible] Act [illegible] the [illegible] Act

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

FACULTY OF MEDICINE.

Examinations for the Degrees of B.M. and B.Ch.

THE Board of the Faculty of Medicine gives notice that in the subjects of Human Anatomy, Human Physiology, Pathology, Medicine, Surgery, and Midwifery, in the examinations for the degrees of B.M. and B.Ch., the written part of the examination shall consist of one paper of six questions, only five of which may be answered; and that in the subject of Forensic Medicine and Public Health (the first examination in which, under the new statute, will take place in Trinity Term, 1905) the written part of the examination shall consist of a paper of six questions, of which three shall be allotted to each division of the subject. The Board of the Faculty of Medicine also gives notice that the regulations as to certificates to be produced by candidates before admission to the second examination for the degrees of B.M. and B.Ch. (*Examination Statutes*, pp. 192-4) have been struck out, and replaced by the following regulations, which will first come into effect in Trinity Term, 1905. Candidates for the several parts of the examinations for the degrees of B.M. and B.Ch. are required, at the time of entering their names with the Secretary to the Boards of Faculties, to produce to him the following certificates, namely:

FIRST EXAMINATION.

Human Anatomy.—Every candidate for the Examination in Human Anatomy must produce a certificate, signed by the proper authority, showing that he has dissected the whole body once. (See No. 1 below.)

Human Physiology.—Every candidate for the Examination in Human Physiology must produce a certificate (No. 2), signed by the proper authority, showing that he has attended a systematic course of laboratory instruction in Practical Histology and in Practical Physiology in the Physiological Department of the University, or an equivalent course in the laboratories of a medical school or schools approved by the Board of the Faculty of Medicine. The Board has approved for this purpose: The physiological laboratory of the medical school of any university in the United Kingdom which gives a medical degree, including the laboratory of any school of the University of London; the physiological laboratories of the medical schools of Yorkshire College, Leeds; University College, Bristol, and Firth College, Sheffield. In order that the course may be recognized as equivalent, the certificate must state that the holder has attended a course of Practical Histology for a period of at least three months and a course of Practical Physiology for a similar period, this latter including both Physiological Chemistry and simple experiments upon muscle and nerve.

SECOND EXAMINATION.

Pathology.—Every candidate for the Examination in Pathology must produce the two following certificates, namely: (*a*) A certificate (No. 3) of having attended a course of Laboratory Instruction in Practical Pathology which shall have included twenty meetings devoted to Morbid Histology and sixteen meetings devoted to practical instruction in Bacteriology. Such course may be taken in the Laboratory of the Department of Pathology in any university in the United Kingdom, or in that of any school of the University of London. (*b*) A certificate (No. 4) of having acted as *post mortem* clerk for a period of three months in any of the hospitals included in the following list. Any hospital connected with a school of the University of London, General Hospital, Birmingham; Royal Infirmary, Bristol; General Infirmary, Leeds; Northern Hospital, Liverpool; Royal Infirmary, Liverpool; Royal Southern Hospital, Liverpool; Royal Infirmary, Manchester; Infirmary, Newcastle-on-Tyne; Royal Hospital, Sheffield; Royal Infirmary, Aberdeen; Royal Infirmary, Dundee; Royal Infirmary, Edinburgh; Royal Infirmary, Glasgow; Western Infirmary, Glasgow; Adelaide Hospital, Dublin; City of Dublin Hospital, Dr. Steevens's Hospital, Dublin, Meath Hospital, Dublin; Richmond, Whitworth, and Hardwicke Hospital, Dublin; Sir Patrick Dun's Hospital, Dublin; St. Vincent's Hospital, Dublin; Mater Misericordiae Hospital, Dublin; Royal Hospital, Belfast.

Forensic Medicine and Public Health.—Every candidate for the Examination in Forensic Medicine and Public Health must produce the five following certificates, namely: (*a*) A certificate (No. 5) showing that he has acted as dresser for a period of six months in the surgical wards, and as clinical clerk for a period of six months in the medical wards of a hospital or hospitals approved by the Board of the Faculty of Medicine. The Board has approved for this purpose the hospitals enumerated in the list approved under the head (*b*) above. (*b*) A certificate (No. 6), signed by the proper authority, showing (i) that the holder has attended a course of lectures on mental disease, with clinical demonstrations, in connexion with one of the recognized medical schools; or (ii) that he has attended for twelve months the clinical practice of a lunatic asylum recognized by the Board of the Faculty of Medicine. With regard to (2), the Board will recognize for this purpose—In England and Wales: The county and borough asylums and public hospitals for the insane. In Scotland: The district and public asylums for the insane. In Ireland: The district asylums. (*c*) A certificate (No. 7), signed by the proper authority, showing that the holder has attended for not less than two consecutive months the clinical practice of a fever hospital or asylum recognized by the Board of the Faculty of Medicine. The Board will recognize for this purpose: In England: The infectious hospitals under the control of the Metropolitan Asylums Board. In Scotland: The Edinburgh Fever Hospital. The Glasgow Fever Hospital, Belvidere. In Ireland: The Dublin (Cork Street) Fever Hospital. (*d*) A certificate of proficiency (No. 8) from a public vaccinator appointed by the Local Government Board, and authorized by them to give such certificates. (*e*) A certificate (No. 9), signed by the proper authority, of (i) having attended twenty cases of labour in (*a*) the maternity department of a recognized medical school, or (*b*) the Rotunda Hospital in Dublin, or (2) of having attended thirty cases of labour (*a*) in Queen Charlotte's Lying in Hospital, or (*b*) under the superintendence of a duly-registered medical practitioner. The certificate to state that the holder has in all cases been present at the time of the birth of the child.

Medicine, Surgery, and Midwifery.—Every candidate for the examination in medicine, surgery, and midwifery must produce the six following certificates, namely, the five certificates Nos. 1, 2, 3, 4, 5, required from candidates for the examination in Forensic Medicine and Public Health, and in addition (6) a certificate (No. 10) showing that he has attended, during a period of two years, the medical and surgical practice of a hospital or hospitals approved by the Board of the Faculty of Medicine. The Board has approved for this purpose the hospitals enumerated in the list approved under the head (*a*) above.

Certificates (forms of which are obtainable from the Secretary to the Boards of Faculties) are required in the following subjects: 1. Human Anatomy. 2. Practical Histology and Practical Physiology. 3. Practical Pathology. 4. *Post mortem* Clerk. 5. (*a*) Hospital Practice Surgery. (*b*) Hospital Practice—Medicine. 6. Mental Disease. 7. Infectious Disease. 8. Vaccination. 9. Attendance on Labours. 10. Hospital Practice.

Nomination of Examiner in Medicine (pro hac vice).

Joseph Arderne Ormerod, D.M., Jesus College, has been nominated by the Vice-Chancellor and Proctors as Examiner in Medicine, *pro hac vice*, for the Final Examination for the Degree of Bachelor of Medicine in place of Frederick T. Roberts, D.M.Lond., who has been granted leave of absence.

(Dr. Payne, who had been appointed, is unable to serve.)

UNIVERSITY OF CAMBRIDGE.

Degrees. On May 12th the following medical and surgical degrees were conferred:—*M.D.*: A. E. Carver, Clare. *M.B.*: E. A. Ellis, Downing. *M.B. and B.C.*: B. Hudson, Clare; C. B. Goulden, non-coll. *B.C.*: W. M. Mollison, King's; E. M. Brown, Pembroke; W. V. Naish, Emmanuel.

Honorary Degrees.—In connexion with the meeting of the delegates in academies about to be held in London, the honorary degree of Doctor of Science is to be conferred on Professor Retzius, of Stockholm, and Professor Waldeyer, of Berlin. The ceremony will take place on Saturday, May 28th.

ROYAL UNIVERSITY OF IRELAND.

MEETING OF SENATE.

THE Senate met on Thursday, May 12th, Right Hon. the Earl of Meath, Chancellor of the University, presiding. The Secretaries reported the death of George Johnston Allman, LL.D., D.Sc., F.R.S. The following resolution was passed unanimously:

"The Senate desire to express their deep regret at the death of Dr. Allman who has been a member of their body from the foundation of the university; and they wish to place on record their sense of the great benefits which the university has derived from Dr. Allman's scientific attainments and wide educational experience, his strict integrity and his devotion to the interests of the university for so many years."

The reports of the Examiners upon the recent Spring Medical Examinations were considered and honours and exhibitions awarded.

It was resolved that the Degree of D.Sc. be conferred *Honoris Causâ* upon Sir William Crookes, F.R.S., and upon Professor James Dewar, F.R.S.

The following candidates have been adjudged by the Senate to have passed the undermentioned examinations:

Second Examination in Medicine.—Honours. First Class: *J. B. Butler, Catholic University School of Medicine. Second Class: †J. A. Shorten, Queen's College, Cork. Upper Pass: J. A. Black, Queen's College, Belfast; C. R. Crymble, Queen's College, Belfast; C. H. Harbinson, Queen's College, Belfast; J. F. Neary, Catholic University School of Medicine; J. J. O'Neill, Queen's College, Cork; Maria Rowan, Queen's College, Belfast. Pass: S. Acheson, Queen's College, Belfast; T. Arnold, Queen's College, Belfast; M. F. Caldwell, Queen's College, Belfast; J. P. Carolan, Catholic University School of Medicine; W. F. A. Carson, Queen's College, Galway; F. T. Dowling, Catholic University School of Medicine; E. FitzGerald, Catholic University School of Medicine; Jane M'C. Fulton, Queen's College, Belfast; J. W. Garry, Queen's College, Galway; C. E. L. Harding, Queen's College, Belfast; W. T. Henderson, Queen's College, Belfast; J. J. Hickey, Queen's College, Cork; J. Hughes, Queen's College, Galway; F. Keane, Queen's College, Cork; J. Kilgarriff, Catholic University School of Medicine; M. Leane, Queen's College, Cork; J. E. A. Lynham, Queen's College, Galway; J. S. M'Combe, Queen's College, Belfast; J. B. Murphy, Queen's College, Cork; J. F. O'Brien, Queen's College, Cork; J. A. O'Halloran, Catholic University School of Medicine; P. O'Hart, Charing Cross Hospital, London; H. H. Prentiss, Queen's College, Belfast; W. Riddell, Queen's College, Belfast; D. T. Sheenan, Catholic University School of Medicine; J. Sinclair, Queen's College, Belfast; W. M. Thomson, Queen's College, Belfast; S. J. Watson, Queen's College, Belfast.

* Exhibition of £25. † Exhibition of £15.

Third Examination in Medicine.—Honours. First Class: W. A. M'Keever, Queen's College, Belfast. Upper Pass: J. L. Dunlop, Queen's College, Galway; M. P. Scanlon, Catholic University School of Medicine. Pass: Madeleine S. Baker, Catholic University School of Medicine; J. A. Beamish, Queen's College, Belfast; J. A. Boyd, Queen's College, Belfast; G. F. Campbell, Queen's College, Belfast; H. Carson, Queen's College, Belfast; N. M. Donnelly, Catholic University School of Medicine; J. Finnegan, Queen's College, Belfast; H. J. Forbes, Queen's College, Belfast; J. Gaston, Queen's College, Belfast; J. R. Hackett, Queen's College, Cork; J. J. Hollywood, Catholic University School of Medicine; R. F. Kennedy, Queen's College, Belfast; D. T. MacCarthy, Catholic University School of Medicine; W. M'Kee, Queen's College, Belfast; A. V. M'Master, Queen's College, Belfast; T. Meagher, Catholic University School of Medicine; J. P. Moore, Catholic University School of Medicine; J. W. Murphy, Queen's College, Cork; Jeannie E. Murray, Queen's College, Belfast; Gabriel V. Ryan, Catholic University School of Medicine.

* Exhibition of £20.

M.B., B.Ch., B.A.O. Degree Examination.—Honours. First Class: *W. M. Crotton, B.A., Catholic University School of Medicine; †T. Lyle, Queen's College, Belfast. Upper Pass: L. Clements, Queen's

College, Belfast; P. T. Crymble, Queen's College, Belfast; H. P. Devlin, Catholic University School of Medicine, Marie E. Hayes, Catholic University School of Medicine, E. C. Mercer, Catholic University School of Medicine, S. Stockman, Queen's College, Belfast; Class A.—L. E. Adderley, Catholic University School of Medicine; A. P. Barry, Catholic University School of Medicine; J. Corker, Queen's College, Belfast; J. C. M'Hugh, Catholic University School of Medicine; J. C. M'Pherson, Queen's College, Belfast; P. Power, Queen's College, Belfast; W. H. Davis, Queen's College, Belfast; M. Fitzgerald, Catholic University School of Medicine; M. F. Gibson, Catholic University School of Medicine; D. Gleeson, Queen's College, Cork; J. C. M'Hugh, Catholic University School of Medicine; J. C. M'Pherson, Queen's College, Belfast; G. Madden, Catholic University School of Medicine; J. W. Pitt, Queen's College, Belfast; P. Power, Queen's College, Cork; P. Quinn, Catholic University School of Medicine; M. L. Stimas, Queen's College, Belfast; T. Thompson, Queen's College, Belfast; T. Walsh, B.A., Queen's College, Galway; Owens College, Manchester; and School of Medicine, Edinburgh; S. H. Wyte, Queen's College, Belfast; J. E. Wilson, Queen's College, Belfast.

Exhibitioners of the Exhibition of ...

The following candidates have passed the M.D. Degree Examination:—D. E. Cantlon, M.B., B.Ch., B.A.O., private study; A. McC. Liskine, M.B., B.Ch., B.A.O.; A. Welply, M.B., B.Ch., B.A.O., Queen's College, Cork, and private study.

The following have passed the M.B., B.Ch., B.A.O. Degrees Examinations as undernoted:

First Part.—E. Clements, Queen's College, Belfast; W. M. Crotton, L.A., Catholic University School of Medicine; P. T. Crymble, Queen's College, Belfast; H. P. Devlin, Catholic University School of Medicine; Marie E. Hayes, Cath. B. University School of Medicine; T. Lyle, Queen's College, Belfast; R. G. Meredith, Catholic University School of Medicine; S. Stockman, Queen's College, Belfast.

Part II.—Anna E. Adderley, Catholic University School of Medicine; A. P. Barry, Catholic University School of Medicine; J. Corker, Queen's College, Belfast; W. H. Davis, Queen's College, Belfast; Lillie E. Deane, Queen's College, Belfast; M. Fitzgerald, Catholic University School of Medicine; Mary K. Gibson, Catholic University School of Medicine; D. Gleeson, Queen's College, Cork; J. C. M'Hugh, Catholic University School of Medicine; J. C. M'Pherson, Queen's College, Belfast; G. Madden, Catholic University School of Medicine; J. W. Pitt, Queen's College, Belfast; P. Power, Queen's College, Cork; P. Quinn, Catholic University School of Medicine; Mary L. Stimas, Queen's College, Belfast; J. Thompson, Queen's College, Belfast; T. Walsh, B.A., Queen's College, Galway, Owens College, Manchester, and School of Medicine Edinburgh; S. H. Whyte, Queen's College, Belfast; J. E. Wilson, Queen's College, Belfast.

The following have passed the Third Examination in Medicine as undernoted:

First Part.—J. L. Dunlop, Queen's College, Galway; W. A. McKee, B.A., Queen's College, Belfast; and M. P. Scanlon, Catholic University School of Medicine.

Final.—Madeleine S. Baker, Catholic University School of Medicine; J. A. Beamish, Queen's College, Belfast; J. A. Boyd, Queen's College, Belfast; G. F. Campbell, Queen's College, Belfast; H. Carson, Queen's College, Belfast; N. M. Donnelly, Catholic University School of Medicine; J. Finnegan, Queen's College, Belfast; H. J. Forbes, Queen's College, Belfast; J. Gaston, Queen's College, Belfast; J. R. Hackett, Queen's College, Cork; J. J. Hollywood, Catholic University School of Medicine; R. F. Kennedy, Queen's College, Belfast; D. V. MacCarthy, Catholic University School of Medicine; W. McKee, Queen's College, Belfast; A. V. McMaster, Queen's College, Belfast; T. Meagher, Catholic University School of Medicine; J. P. Moore, Catholic University School of Medicine; J. W. Murphy, Queen's College, Cork; Eunice R. Murray, Queen's College, Belfast; and G. V. Ryan, Catholic University School of Medicine.

UNIVERSITY OF DURHAM

At a Convocation held on Saturday, April 9th, the following degrees in Medicine and Surgery were conferred, namely:

Doctor of Medicine.—C. Fisher, M.B., B.S. Durh.; R. B. Greaves, M.B., B.S. Durh.; J. McNaught, M.B., B.S., B.Hy. D.P.H. Durh.; M. F. Squire, M.B., B.S. Durh.; M. C. Wetherell, M.B., B.S. Durh.

Doctor of Medicine in Practice of Public Health and State Medicine.—J. Bradford, L.R.C.P.I., L.R.C.S.I., L.M.S.S.A.; M. A. Dutch, L.R.C.S.I., L.R.C.P.I., D.P.H.; G. B. Flax, M.R.C.S., L.R.C.P., H. Hendley, M.R.C.S., L.R.C.P., L.S.A.; A. Hooper, M.R.C.S., L.S.A.; A. Rigden, M.R.C.S., L.R.C.P.; W. Sinclair, L.R.C.S.I., L.R.Q.C.P.I.

Bachelor of Medicine.—T. E. Aynsley, College of Medicine, Newcastle-upon-Tyne; L. S. Brown, College of Medicine, Newcastle-upon-Tyne; [illegible] College of Medicine, Newcastle-upon-Tyne; [illegible] L.R.C.P.I., College of Medicine, Newcastle-upon-Tyne; [illegible] College of Medicine, Newcastle-upon-Tyne; A. H. Fatherley, College of Medicine, Newcastle-upon-Tyne; W. Gibbons, College of Medicine, Newcastle-upon-Tyne; A. A. Gutteridge, College of Medicine, Newcastle-upon-Tyne; W. Hayward, St. Thomas's Hospital; W. J. Hodgkinson, College of Medicine, Newcastle-upon-Tyne; J. M. Mackenzie, L.R.C.P., College of Medicine, Newcastle-upon-Tyne; W. F. Pringle, College of Medicine, Newcastle-upon-Tyne; [illegible] College of Medicine, Newcastle-upon-Tyne; [illegible] College of Medicine, Newcastle-upon-Tyne; [illegible]

success, and these thoughts descriptive of the great interest and importance it had been urged that the next Congress should be held in London in 1907.

A report from the Committee of Management, dated May 4th, 1904, recommending that the West Ham Municipal Technical Institute be added to the list of institutions recognised by the Examining Board in England for instruction in chemistry, physics, and practical chemistry, was adopted.

The regulations for the first year's study and first examination of the Conjoint Board, revised by the Committee of Management in accordance with the reports of July 2nd and 16th and March 22nd, 1904, of the Special Conjoint Committee, were discussed and adopted. The revised regulations apply to candidates who commence their professional study on or after June 1st, 1904.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND

At the statutory examinations for the licence in medicine and midwifery open to registered medical practitioners, held on Monday, May 9th, 1904, and the three days next following, the undermentioned candidates were successful, and have since been duly admitted by the President as Licentiates of the College: G. W. Chapman, M.B., C.M., Univ. Edin.; M. D. G. Fitzgibbon, M.B., B.Ch., B.A.O., Univ. Dubl.; M.D.

ROYAL COLLEGE OF SURGEONS IN IRELAND

A MEETING of the Fellows will be held on Saturday, June 4th, at 1 o'clock, to receive the annual report of the Council. A meeting will also be held on Monday, June 6th, at 1 o'clock, pursuant to the provisions of the Charters, to elect a President, Vice-President, Council, and Secretary of the College for the ensuing year.

CONJOINT BOARD IN IRELAND

CANDIDATES have passed the Third Professional Examination as undernoted:

In all Subjects.—1, Honours: P. V. Dolan. *Pass*: J. Bradley, M. J. Coyne, V. J. Cullen, Miss J. C. Hargrave, F. P. J. Leyland, L. Lucas, J. J. McNelis, P. J. Rockey, W. Walsh.

Completed the Examination.—I. Allaun, T. A. Bennett, W. W. Boyce, T. W. Browne, F. J. Cairnes, C. Cooper, F. A. Flynn, T. J. Gallighan, J. M. Hayes, F. W. Matthews, R. A. Murphy, W. T. Morton, S. C. Mulligan, D. de Courcy O'Grady, A. L. O'Keeffe, M. O'Keeffe, W. J. O'Sullivan, H. E. Redmond.

TRINITY COLLEGE, DUBLIN.

THE following have passed the Previous Medical Examination in the subjects undernoted:

Anatomy and Institutes of Medicine.—W. L. Hogan, J. Du P. Langrishe, W. J. Thompson, J. C. Ridgway.

Physics and Chemistry.—J. M. Harold.

Botany and Zoology.—J. D. K. Roche, G. N. Morphy, D. J. Millar, G. Meldon.

CONJOINT BOARD IN IRELAND.

THE following candidates have passed the examination for the Diploma in Public Health:

G. H. Carrington, M.R.C.S. (honours), Major S. F. Clark, M.B., P. A. MacDermott, F.R.C.S.I., B. M. M. Coffey, L.R.C.P. and S.I., W. G. Jordan, M.B., R.U.I., J. F. Hodgson, M.B., F. W. Martin, M.R.C.S.

The following candidates have passed the Final Professional Examinations:

J. S. Ashe, R. G. Griffin, S. B. Hanbury, R. E. Humfrey, T. C. C. Leslie, P. Maher, T. B. Moriarty, J. F. McMonagle, T. S. Reeves, J. M. Reynolds, J. Roberts, H. R. C. Rutherford.

CONJOINT BOARD IN SCOTLAND.

THE following candidates, having passed the requisite Examinations of the Conjoint Board, have been admitted Diplomates in Public Health: A. M. Barford, M.R.C.S.Eng., L.R.C.P.Lond.; A. M. Wood, M.B., Ch.B.; J. C. Thomson, M.D.; Margaret Merry Smith, M.B., Ch.B.; C. Bharadwaja, L.R.C.P. and S.E.; T. F. H. Blake, L.R.C.P. and S.E.; W. I. Dunn, M.B., Ch.B.; A. Grant, M.B., Ch.B.; J. L. Marjoribanks, M.B., C.M.; J. A. Hislop, L.R.C.P. and S.E.; J. H. Meikle, M.B., C.M.; D. Melville, M.D. and W. A. Reid, L.R.C.P. and S.E.

The following gentlemen have passed the First Examination in Public Health: H. de C. Woodcock, L.R.C.P. and S.E.; A. R. Maclurkin, M.B., Ch.B.; R. Staward, F.R.C.S.E.; A. F. Jack, L.R.C.P. and S.E.; and J. Allison, M.B., C.M. David Dryburgh Gold, M.B., C.M., has passed the Second Examination in Public Health.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on May 12th, Mr. John Tweedy, F.R.C.S., President, in the chair.

Diplomas of Membership.

Ninety-eight diplomas were issued to candidates found qualified at the April examination.

Court of Examiners.

Mr. A. Pearce Gould was re-elected on the Examining Board, and Mr. A. G. Silcock was elected in the second vacancy which had arisen by the retirement of Mr. Henry Morris.

Redemption of Land Tax.

In reference to reports of November 6th, 1902, and November 5th, 1903, the Finance Committee reported that the formalities for redeeming the Land Tax upon Nos. 37, 38, and 43, Lincoln's Inn Fields, and upon portions of the College premises in Portugal Street, have now been completed. The cost has amounted to £1,612, a reduction of £429 upon the estimate given by the Committee in their first report.

Degrees in Tropical Medicine.

The question of the granting of such a degree by the Royal Colleges was referred to a Special Committee of the Council to consider and report upon.

International Congress of Naval Hygiene held at Nuremberg.—Dr. Clement Dukes reported that as the delegate of College he had attended the Congress, which was held April 21st to 27th, 1904. The Congress is to be held at London.

Liverpool Hospitals.—The St. Paul's Eye and Ear Hospital, Liverpool, was placed upon the list recognised by the Conjoint Examining Board in England.

Examinations for the Services.—A letter addressed to the President) of April 22nd was read from Mr. F. W. Cornish, forwarding statistics relating to the examinations for admission to the Army, Navy, and Indian Medical Services, showing that candidates holding the L.R.C.P. Lond. and M.R.C.S. Eng. were (a) 27 per cent. more successful than candidates drawn from all other sources; (b) 15 per cent. more successful than the candidates holding degrees and diplomas from Scotch and Irish universities and colleges; (c) 3 per cent. more successful than the Scotch and Irish graduates; (d) 18·8 per cent. more successful than the Edinburgh graduates; and (e) 4 per cent. more successful than the Dublin graduates.

THE COMING COUNCIL ELECTION.

The Council is at present constituted as follows:

President.

Mr. J. Tweedy: C, (1) 1897, (2) 1900 (substitute for Mr. Davies-Colley 1 H 1904).

Vice-Presidents.

Mr. H. Morris: C, (1) 1899 (substitute), (2) 1902.
Sir Alfred Cooper: C, (1) 1895 (substitute), (2) 1900.

Other Members of Council.

Mr. T. Bryant: C, (1) 1888, (2) 1893, (3) 1897, P, 1900-2.
Mr. T. P. Pick: C, (1) 1888, (2) 1894.
Sir H. G. Howse: C, (1) 1889, (2) 1897, P, 1901-3.
Mr. J. Langton: C, (1) 1890, (2) 1896.
Mr. T. R. Jessop (*deceased*): C, (1) 1891, (2) 1899.
Mr. F. Howard Marsh: C, (1) 1892, (2) 1894, (3) 1902.
Mr. A. W. Mayo Robson: C, (1) 1893, (2) 1901.
Mr. H. T. Butlin: C, (1) 1895, (2) 1903.
Mr. Edmund Owen: C, 1897.
Mr. R. J. Godlee: C, 1897.
Mr. W. Watson Cheyne, C.B.: C, 1897 (substitute), (2) 1901.
Mr. F. Richardson Cross; C, 1901.
Mr. Herbert W. Page; C, 1899.
Mr. J. Ward Cousins; C, (1) 1895 (substitute), (2) 1897 (substitute), (3) 1900.
Mr. A. Pearce Gould: C, 1900.
Mr. R. Clement Lucas: C, 1901.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. H. H. Clutton: C, 1902.
Mr. C. W. Mansell Moullin; C, 1902.
Mr. Clinton T. Dent; C, 1903.
Mr. G. H. Makins, C.B.; C, 1903.

Thus Mr. Bryant and Mr. Pick retire, having been re-elected in 1896; we understand that neither will seek to be elected again. The President, Mr. Tweedy, being in the chair, does not retire: otherwise his term as substitute for Mr. Davies-Colley would expire in July. There remains a vacancy caused by the death of Mr. Jessop, who was re-elected in 1899, so that the substitute member elected next July will fill that vacancy until 1907.

The following list shows the proportional representation of metropolitan medical schools, of special hospitals in London, and of the provinces.

St. Bartholomew's	3
Charing Cross	1
Guy's	3
King's	1
London	1
Middlesex	2
St. George's	2
St. Mary's	2
St. Thomas's	2
University College	2
Total number attached to London schools	19
Members attached to special hospitals in London	1
Provincial members (Leeds 2*, Bristol 1, Southsea 1)	4
Total	24†

* *Minus* 1 deceased. † Including Mr. Howard Marsh, now of Cambridge.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

EPIDEMIC MORTALITY IN LONDON.

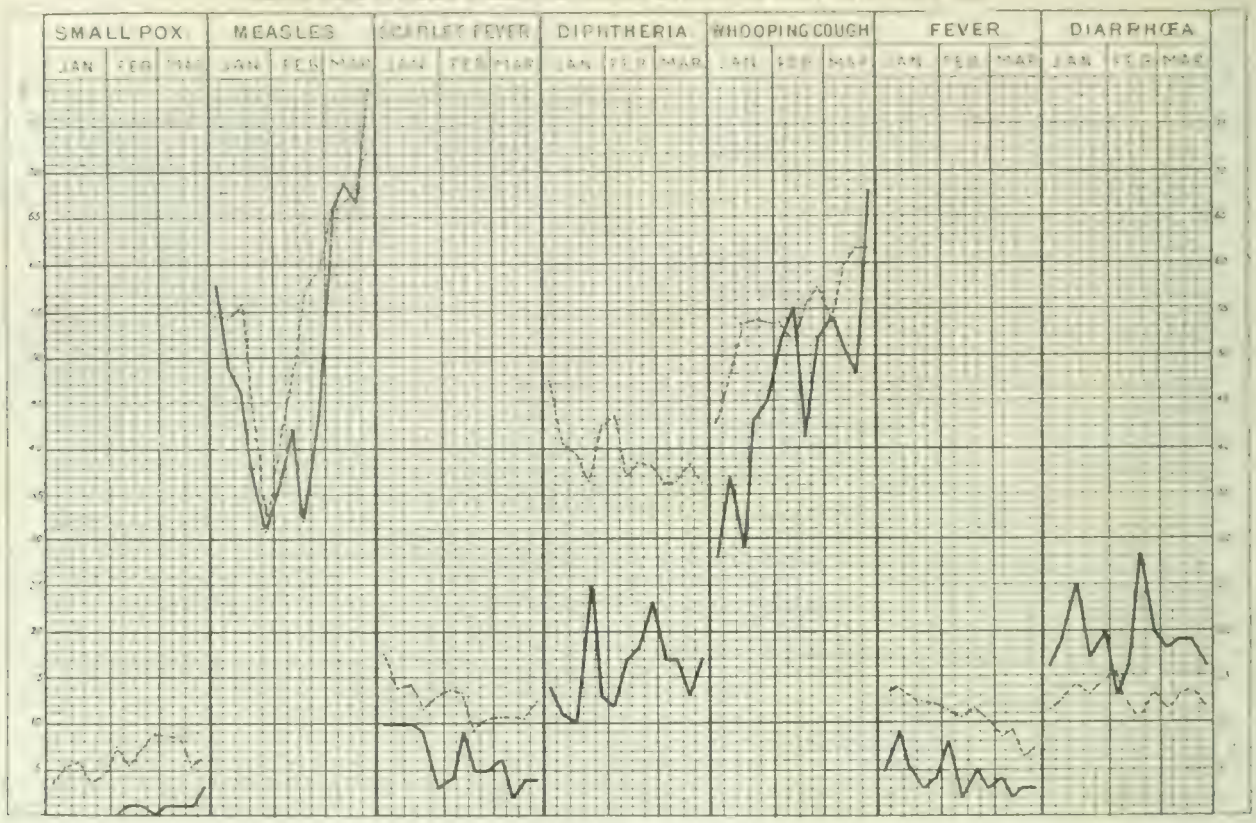
[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first, or winter, quarter of the year. The fluctuations of each disease, and its relative fatality as compared with that in the corresponding periods of recent years, can thus be readily seen.

Small-pox.—Eight fatal cases of small-pox were registered in London last quarter, against 2, 1, and 3 in the three preceding quarters. Of these 8 deaths, 4 belonged to Bethnal Green, and 1 each to Islington, Holborn, Poplar, and Southwark. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the quarter was 198, against 111, 120, and 204 in the three preceding quarters; 126 cases remained under treatment at the end of the quarter, against 57, 21, and 26 at the end of the three preceding quarters.

Measles.—The deaths from measles, which had been 759, 247, and 671 in the three preceding quarters, numbered 1,061 last quarter, and were 451 below the average in the corresponding periods of the ten previous years. Among the various metropoliton boroughs, measles showed the highest propor-

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1904.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years 1894-1903.

tional fatality in Paddington, Kensington, Hammersmith, Chelsea, Holborn, and Southwark.

Scarlet Fever.—The fatal cases of this disease, which had been 82, 91, and 96 in the three preceding quarters, further declined last quarter to 81, and were equal to only one half of the corrected average number. The highest death-rates from scarlet fever last quarter were recorded in Chelsea, St. Pancras, Stoke Newington, Finsbury, Bermondsey, and Deptford. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,614, 1,534, and 1,[illegible] at the end of the three preceding quarters, had further declined to 1,[illegible] at the end of last quarter; 2,14[illegible] new cases were admitted during the quarter, against 2,[illegible]71, 3,[illegible]6 and 4,[illegible]3 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 1[illegible]9, [illegible]0, and 1[illegible]3 in the three preceding quarters, further rose to [illegible]7 during the three months under notice, the average number in the first quarter of the ten preceding years having been 1[illegible]. Among the various London boroughs the greatest proportional mortality from this disease was recorded in Fulham, Hackney, Bethnal Green, Stepney, Poplar, and Deptford. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 721, [illegible]21, and [illegible]74 at the end of the three preceding quarters, had further risen to [illegible]2 at the end of March last. The number of new cases admitted during the quarter was [illegible]2[illegible], against 1,47[illegible], 1,[illegible]4, and 1,[illegible]3 in the three preceding quarters.

Whooping-Cough.—The fatal cases of this disease, which had been 445, [illegible], and [illegible] in the three preceding quarters, further declined last quarter to [illegible], but were below the corrected average number. Among the various London boroughs whooping-cough was proportionally most fatal in Poplar, Southwark, Bermondsey, Battersea, Deptford, and [illegible].

[illegible] deaths from typhus, from [illegible] and [illegible] in the three preceding quarters, further declined last quarter to [illegible], and were below the average number. The highest death-rates from typhus were recorded in [illegible], Poplar, and Southwark. The deaths referred to enteric fever, which had been [illegible], [illegible], and [illegible] in the three preceding quarters, further declined last quarter to [illegible], and were below the average number. The highest death-rates from enteric fever were recorded in [illegible], Poplar, Southwark, Bermondsey, and Battersea.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, [illegible] births and 4,[illegible] deaths were registered during the week ending Saturday last, May 14th. The annual rate of mortality in these towns, which had been 1[illegible]0, 1[illegible]3, and 14[illegible] per 1,000 in the three preceding weeks, rose again last week to 1[illegible]1 per 1,000. The rates in the several towns ranged from [illegible] in Smethwick, [illegible]9 in Barrow-in-Furness, [illegible]6 in Hornsey, 10[illegible] in Willesden, and in Hastings, 1[illegible]3 in East Ham, and 1[illegible]5 in Handsworth (Staffs.) to 1[illegible]5 in Derby, 1[illegible]5 in Coventry, 2[illegible] in Manchester, [illegible] in Birmingham and in Newcastle-on-Tyne, [illegible] in Rotherham, [illegible]8 in Burnley, and [illegible] in Warrington. In London the death-rate was 1[illegible] per 1,000, while it averaged 16[illegible] per 1,000 in the seventy-five large provincial towns. The death-rate from the principal infectious diseases averaged 1[illegible] per 1,000 in the seventy-six large towns; in London this death-rate was equal to [illegible]6 per 1,000, while among the seventy-five other large towns the rates ranged upwards to [illegible] in Rhondda, [illegible] in Hornsey, [illegible] in Bradford, [illegible] in Wallasey and in Manchester, [illegible] in Stockton-on-Tees, [illegible] in Birmingham and [illegible] in Warrington. Measles caused a death-rate of 1[illegible] in Brighton, in Ladbroke, and in Leeds, 1[illegible] in Hornsey, in West Ham, [illegible] in Rochdale, 1[illegible] in Halifax, 1[illegible] in Manchester, and [illegible] in Bradford. Scarlet fever died at a rate of 1[illegible] in Northampton, diphtheria of 1[illegible] in Bristol and 1[illegible] in Hanley, and whooping-cough of 1[illegible] in Hornsey, 1[illegible] in Coventry, 1[illegible] in Newport (Mon.), [illegible] in Rawtenstall (Lancs.), 1[illegible] in Bury, [illegible] in Eastbourne, Tynemouth, and [illegible] in Barrow, [illegible] in Wallasey, [illegible] in Birmingham, [illegible] in Stockton-on-Tees, and 1[illegible] in Warrington. The mortality from enteric fever and from diarrhœa showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Leicester, 1 in Northampton, 1 in Derby, 1 in Sunderland, 1 in South Shields, and 1 in Gateshead; no fatal case of any other of these diseases was registered in the seventy-six towns. The Metropolitan Asylums Hospitals contained [illegible] small-pox patients at the end of last week, against 1[illegible], 1[illegible]4, and 1[illegible]8 at the end of the three preceding weeks. [illegible] new cases were admitted during the week, against [illegible], 12, and 14 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,[illegible]4, 1,[illegible]40, and [illegible] on the three preceding Saturdays, had further risen to 1,[illegible] on Saturday last, the 14th; [illegible] new cases were admitted during the week, against [illegible] and 2[illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, May 14th, [illegible] births and [illegible] deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 1[illegible], [illegible], and [illegible] per 1,000 in the three preceding weeks, [illegible] declined last week to [illegible] per 1,000, but was [illegible] per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these

Scotch towns the death-rates ranged from 13 in Leith and in Greenock, to 20.0 in Perth and 22.1 in Dundee. The death rate from the principal infectious diseases averaged 2 per 1,000, the highest rates being recorded in Dundee, Aberdeen and Greenock. The 252 deaths registered in Glasgow included 3 which were referred to small pox, 2 to measles, 4 to scarlet fever, to diphtheria, 11 to whooping-cough, and to diarrhoea. Three fatal cases of whooping cough, 2 of measles and of "fever," were recorded in Edinburgh; 4 of whooping-cough, and of diarrhoea in Dundee; of whooping-cough in Aberdeen, and 4 measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 14th, 578 births and 38[illegible] deaths were registered in six of the principal Irish towns, against [illegible] births and [illegible] deaths in the preceding period. The mean annual death rate in these towns, which had been 22.8, 21.7, and 19 per 1,000 in the three preceding weeks, rose to 21.1 per 1,000 in the week under notice, this figure being 5.0 above the mean annual rate in the seventy-six English towns during the corresponding period. The figures ranged from 12.6 in Londonderry to 23.7 in Cork. The death-rate from the principal zymotic diseases during the same period and in the same six Irish towns averaged 1.4 per 1,000, or 0.6 per 1,000 higher than during the preceding week, the highest figure, 4.1, being reached in Limerick, while Cork, Londonderry, and Waterford registered no deaths under this heading at all. From measles 2 deaths occurred in Dublin and 1 in Belfast, from scarlet fever, 1 in Dublin and 1 in Belfast, from diphtheria, 1 in Dublin, and from enteric, 2 in Dublin and 1 in Belfast. Whooping cough once more assumed its prominent position, 18 deaths being ascribed to this disease in Dublin, 10 in Belfast, and 3 in Waterford.

LUNATICS AND IMBECILES IN WORKHOUSES.

MR. GEORGE ROOKE presided over a meeting of the Committee of the North Western Poor-law Conference held at Manchester on May 11th. The special object of the gathering was to receive a report of the sub-committee appointed November, 1903, to consider how practical effect could best be given to Mr. Cleaver's paper on combination and classification of workhouses, read at the annual conference held at Blackpool in September last. Mr. Hagger (Vestry Clerk of Liverpool) read the draft report of the Subcommittee, which was as follows:

1. That in our opinion it is desirable that in any scheme which may be adopted for the maintenance, apart from the workhouse, of harmless chronic lunatics, imbeciles, sane epileptics, and feeble-minded persons, chargeable to the rates in the county of Lancaster, the provision for harmless chronic lunatics and imbeciles should be made by the Lancashire Asylums Board, that for that purpose the Board should arrange for the erection of buildings of a plain and inexpensive character, to be used as asylums for the reception of harmless chronic lunatics and imbeciles, and we are further of opinion that such asylums could be so administered that the weekly charge for the maintenance of patients, including establishment charges, should not exceed 7s. 6d. per head.

2. That as regards sane epileptics and the feeble-minded, we are of opinion that the guardians of the several unions in the county should provide the accommodation required for such cases, apart from the workhouse, and we think this might be accomplished by groups of unions combining, under the provisions of Section VIII of the Poor law Act, 1899, to erect joint institutions, as has already been arranged between the unions of Chorlton and Manchester, whilst unions not in a combination might contract with the committee of one of the joint institutions to take their cases.

3. We are also of opinion that it is desirable that similar steps should be taken with the view to provide accommodation for the sane epileptics and the feeble-minded in the Cheshire unions, and that the Cheshire County Council should be approached on the question of providing separate asylum accommodation for chronic lunatics and imbeciles.

4. By these means many cases could be removed from the workhouse, and the existing county asylums would be relieved of a large number of cases not requiring costly asylum treatment.

5. We desire to add that the foregoing scheme could be brought into operation without the necessity arising for fresh legislation.

Dr. Rhodes, who moved the approval of Clause 1 of the report, said that anything involving legislation would mean that in view of the present congested state of business at Westminster it could not be put through under three or four, and perhaps five, years. It was a shame to house sane epileptics with insane epileptics. With the former class there was no doubt that by putting them to work on the land they could do something towards producing the food they ate. The proposals as to the feeble-minded would, he believed, be cheap and efficient.—Mr Cleaver (West Derby) who seconded the motion, said he was looking forward to the day when lunatics would be removed from all workhouses. They did not want to thrust the scheme down the throats of guardians in other unions, but they were only doing what was the desire of nine-tenths of the unions in the county.—Mr. D. S. Bloomfield (Chorlton) said there was not a union in Lancashire which had proper accommodation for the class whom they were considering. In Chorlton Union they had accommodation for something like 250 of such patients, and although perhaps no union in the country had better accommodation, he did not think there was a member of the Board who would say that it was proper accommodation. Mr. H. Jenner-Fust, Poor law Inspector, said that at 15 out of the 30 workhouses in Lancashire there were separate blocks for imbeciles. In the other cases such patients were in wards attached to other blocks or to the main building of the workhouse. He believed he was correct in saying that in every case the accommodation which was at present occupied by imbeciles would be immediately absorbed by other classes of inmates if it were vacant. Therefore, although there might be a feeling with some that it might be rather hard for them when they had made good provision for imbeciles that no compensation should be paid them in any way, still when they found that they were saved the expense of providing further buildings for other classes of inmates, a good deal of their objection would be removed.—The first clause was then adopted.—Dr. Rhodes, in moving the second clause, said that any one who studied the epileptic question must be convinced that the accommodation for epileptics was not of the proper kind; Germany, France, Switzerland, and the United States were all doing something for that class, and England ought to make proper provision. Unhappily the class comprised 1.5 per 1,000 of our population. There were about 70,000 of them in England.—The motion was seconded and adopted.—The third clause relating to Cheshire unions was passed on the motion of Rev. A. Symonds, seconded by Mr. George Leigh.—Mr Cleaver afterwards moved that the report be adopted as a whole. [illegible] referred to the Asylums Board. He appealed to guardians to deal with the question in a broad minded way, so as to prevent the bringing forward [illegible] another Bill something like the Valuation Bill. Dr. Rhodes seconded the motion. Mr Leach proposed an amendment to send the report to the individual Boards, in order to receive their views upon it before it was sent to the Asylums Board. The amendment was lost, 15 votes being recorded in its favour, and against it.

PROPOSED COTTAGE HOSPITAL AT CRIEFF.

FROM an article which appears in a local newspaper we gather that it is intended to erect a cottage hospital for the district of which Crieff is the centre. The site chosen is on some low lying ground, about a mile from the nearest doctor's house, circumstances which, in the absence of further details, do not commend the scheme, if a better placed and more accessible site can be found. The remarks of the chairman of the meeting of the General Committee called to consider the proposed site do not increase our confidence in its suitability. He is reported as admitting that the site "was far away from the doctors, but there was this consolation, that with a trained nurse in the hospital she would be able to diagnose cases, so that the services of the doctors would be less frequently called for." Along with this very ill-informed remark must be considered a somewhat similar remark of a medical member of the Committee to the effect that "the doctors would be very seldom called out, because there would be a trained nurse at the hospital." It should be noted that the cottage hospital is for general non-infectious diseases. The notion held out that nurses are competent to diagnose cases, and therefore presumably to decide whether medical aid is needed or not is one which is both foolish and mischievous, and it is of some importance as indicating a growing tendency in some quarters to place nurses out of their proper position and give them the serious and, in their hands, dangerous responsibilities of medical diagnosis. No hospital the patients of which are not daily visited by a medical man, and have not within easy reach medical advice in an intervening emergency, can be considered to be fulfilling its proper functions or to be worthy of public support.

NATIONAL REGISTRATION OF PLUMBERS.

PROFESSOR MATTHEW HAY, Medical Officer of Health for the City of Aberdeen, presided on May 5th at the annual meeting of the District Council for Aberdeenshire, Kincardineshire, and Banffshire for the National Registration of Plumbers at the Robert Gordon's College, Aberdeen. In moving the adoption of the report, Professor Matthew Hay expressed the greatest satisfaction that in connexion with the registration movement in Aberdeen they had been able to assist to a very large extent in the education of the younger plumbers in the district. The following resolution was passed unanimously:

"That this meeting records its emphatic opinion that the time has arrived when the voluntary system of registration for plumbers carried on in Aberdeen and in other large centres of population in the kingdom by the joint action of the public authorities and the plumbers, should be placed on a statutory basis, on lines already approved by the Local Government Board, in the interests of the public health and economy, and that such legislation is a necessary adjunct to the powers already exercised by sanitary authorities and the water undertakings of the kingdom, and resolves to transmit a copy of this resolution to the Prime Minister, the President of the Local Government Board and the local members of Parliament."

Speaking in support of the resolution, Mr. John Clarke, Lecturer on Education at the Aberdeen University, said he was prepared to urge that the Town Council should do what it could to enforce the employment of duly-qualified plumbers in any work that was to be carried out under their jurisdiction or to which their approval had to be obtained.

THE DETECTION OF ANKYLOSTOMA INFECTION.

A REPORT has recently been presented to the Home Secretary by A. E. Boycott, M.B., B.Sc., on an improved method of ascertaining the presence of the ankylostoma duodenale by an examination of the blood of workers in suspected mines. In this report, which has been published as a Parliamentary paper, Mr. Boycott points out that one of the constant effects of the presence of the worm is to bring about a considerable increase in the number of eosinophile leucocytes. Mr Boycott states that these leucocytes are present in normal blood in numbers ranging from about ½ per cent. to 4 or 5 per cent. of the total of white corpuscles, and that, when more than 5 per cent. are present, a probability of the presence of ankylostoma exists, a probability which would be raised to practical certainty by such an amount as 8 per cent. The blood is obtained from a needle-prick of the finger, and a single small drop is sufficient for the examination of an individual. By assembling the workers in any mine in which the presence of ankylostoma is suspected, the necessary drops of blood from a large percentage of them may be easily obtained upon microscope slides, and the subsequent examination of each slide may be quickly conducted with sufficient exactness to prove or disprove the necessity of further examinations of a less manageable kind.

UNDERGROUND BAKEHOUSES.

JUDGEMENT has now been given by the Bradford stipendiary in the case of Bradford Corporation *v.* Gallon and Sons, bakers, for using an underground bakehouse without a certificate under Factory and Workshops Act, 1901, Section 61, having been granted by the local authority. For the defence, it was apparently submitted that "the bakehouse in question was in existence before the passing of the Act, and therefore did not require a certificate." The stipendiary quoted the well-known case of Schwerzerhof *v.* Wilkins, and gave judgement for the defendants. We understand that the Corporation will appeal, and we hope they will succeed, for if we have been furnished with all the facts it would appear that the Corporation ought to have been successful.

DORCHESTER.

THE Medical Officer of Health for Dorchester (Dr. E. [illegible] Ray is) is able to present a very favourable annual report for 1903. The death-rate is 9.3 per 1,000, and the infant mortality-rate is only 91 per 1,000 births. Both these returns are lower than in 1902, and indicate a high standard of public health. During the year the most important sanitary [illegible] has been the completion of the town drainage scheme during the [illegible] by Mr. E. W. Kerry. A number of minor sanitary improvements have been carried out.

[illegible] TO MILE IN PHILADELPHIA

[illegible] Medical officers [illegible] to the [illegible] Contract [illegible] [illegible] contains a [illegible] that the [illegible] [illegible] [illegible]

241 remaining on the books. Owing to this large increase a plot of land with residence was purchased, and the first villa in connexion with the asylum duly opened in the month of May, and immediately occupied. This scheme of admitting and providing for private patients at the moderate rate of one guinea a week, not only meets a very pressing public want, but its success has been such as to leave in the hands of the Committee at the end of the year a profit of upwards of £3000. Dr Ernest W White, the physician superintendent, in concluding his annual report, writes as follows on this subject: I feel promoted to congratulate the Committee upon the position your institution has attained and upon its new extended sphere of usefulness opened out by the development of its private patient department.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ABERDEEN ROYAL INFIRMARY.—Second Assistant Anaesthetist.
BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—Honorary Medical Officer in charge of Electrical Department.
BRADFORD ROYAL INFIRMARY.—Dispensary Surgeon, resident. Salary, £100 per annum.
BRIGHTON: SUSSEX COUNTY HOSPITAL.—Second House-Surgeon, resident. Salary, £60 per annum.
CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon, resident. Salary at the rate of £50 per annum.
EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician, resident. Honorarium £25 for six months.
ETELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Surgeon, resident. Salary, £50 per annum. (2) Surgeon to Out-patients.
HEREFORD GENERAL HOSPITAL. House Surgeon, resident. Salary, £100 per annum.
HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician, resident. Salary, £50 for six months.
LANARK COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary, £140 per annum and travelling expenses.
LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.
LONDON SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Lecturer on Anatomy.
MANITOBA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and Physiology. Salary, 2,500 dols.
NORTH-WEST LONDON HOSPITAL.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. (3) Second Honorary Anaesthetist. Salary for (1) and (2), £50 per annum each.
NOTTINGHAM WORKHOUSE INFIRMARY.—Resident Medical Officer. Salary, £120 per annum.
OXFORD: RADCLIFFE INFIRMARY.—Honorary Assistant Surgeon and Registrar.
SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon, resident. Appointment for six months. Salary, £50.
ST. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—(1) Junior House-Surgeon, resident. Salary at the rate of £50 per annum. (2) Six Out-patient Clinical Assistants.
SHEFFIELD CHILDREN'S HOSPITAL.—Lady House-Surgeon, resident. Salary, £80 per annum.
SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeons. Salary commencing at £70 per annum.
WESTERN GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, resident. Salary, £50 per annum.
YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

BEVAN, Arthur, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Anaesthetist to St. Thomas's Hospital.
BENNETT, William Frederick Cockaigne, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., L.S.A.Lond., District Medical Officer and Public Vaccinator, Sheffield Union, *vice* J. W. Holmes, M.R.C.S., L.R.C.P., resigned.
BROWN, A. T. P., M.D.Durh., M.R.C.S.Eng., Certifying Factory Surgeon for the Chatham District, Kent.
COWBURN, A. Douglas, M.R.C.S., L.R.C.P.Lond., D.P.H., Medical Officer of Health to the Honourable Societies of the Inner and Middle Temple.
ELLIS, L. Erasmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., Clinical Assistant to the East London Hospital for Children, Shadwell, E.
FORBES, J. Granam, M.D.Cantab., M.R.C.P.Lond., Honorary Physician to the Farringdon General Dispensary.
GILMOUR, H. Morgan, M.R.C.S.Eng., L.R.C.P.Lond., House-Surgeon to the Bridgnorth and South Shropshire Infirmary, *vice* Dr. Milne.
GLEN, T. MacMaster, L.R.C.P.&S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Caundbeck District, Cumberland.
HAMOND, P. W., M.R.C.S., L.R.C.P.Lond., Resident Assistant Medical Officer at the Lewisham Union Infirmary.
HIGHET, John, M.D., D.P.H., Medical Officer to Post Office at Troon, Ayrshire, including Dundonald and Lymington.
HILL, Philip E., M.R.C.S., L.S.A., Medical Officer to the Post Office, Crickhowell.
HODGE, G., M.B., C.M.Glasg., Assistant Physician to the Dumfries and Galloway Royal Infirmary.
HORNER, W. E. L., M.D., B.S.Lond., M.R.C.S., L.R.C.P., Medical Officer of Health to the United Urban District of Wolstanton.
JOHNSTON, J., M.D.Edin., L.S.A.Lond., Medical Officer of the Casual Wards of the Bolton Union.
KENNEDY, A. J., L.S.A., Certifying Factory Surgeon for the Shepley District, Yorkshire.
MACGREGOR, D. A., M.B., C.M.Edin., Certifying Factory Surgery for the Denby Dale District Yorkshire.
MIDDLEMIST, G. E., M.B., District Medical Officer of the Caistor Union.
ORR, Robert, M.B., Ch.B.Glasg., Medical Officer to the Parish of Ceres, and Certifying Factory Surgeon for the Civil District of Ceres, Fifeshire, N.B.
PARSONS, J. Herbert, B.S., D.Sc., F.R.C.S., appointed Assistant Ophthalmic Surgeon to University College Hospital.
REID, J., M.B., C.M.Aberd., Certifying Factory Surgeon for the Portsoy District, Banffshire.
ROBERTS, T. M.B., C.M.Edin., Medical Officer to the Carnarvon Port Sanitary Authority and Isolation Hospital.
ROBERTSHAW, Wm., M.B., C.M.Edin., Certifying Surgeon for the Stocksbridge District, Yorkshire.
SPROAT, R. Douglas, L.R.C.P., M.R.C.S., Resident Surgical Officer to the Children's Hospital, Birmingham.
TETLEY, T. W., M.R.C.S., L.R.C.P., Medical Officer of Health for the Kirkby Moorside Rural District.
WILLIAMS, Chisholm, F.R.C.S.Edin., Surgeon to the City Orthopaedic Hospital.

DIARY FOR NEXT WEEK.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 8.30 p.m.—Annual meeting and conversazione. Oration by Dr. H. A. G. Brooke on The Clinical Relationships of Seborrhoea.

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers by Mr. W. Watson Cheyne, Dr. R. H. W. Wilde, and Mr. Lockhart Mummery. Cases will be shown by Dr. Edmund Cautley, Mr. Francis Jaffrey, Mr. Walter Edmunds, Mr. Hunter Tod, Dr. Walter Emery, Mr. Harold Barnes, Mr. A. D. Reid, and Mr. Thomson Walker.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—Annual general meeting. Election of officers for session 1904-5. The following papers will be read: Dr. David W. Finlay: A Case of Pyopneumothorax Treated by Incision and Removal of Ribs. Dr. H. E. Thompson and Dr. C. U. Ahlfeld: An Instrument for Introduced by Dr. Percy Kidd: Two Cases of Tumour of the Left Auricle Simulating Mitral Stenosis. Mr. H. B. Robinson, M.S.: Femoral Aneurysm in Hunter's Canal. Ligature of Superficial Femoral and Popliteal Arteries. Cure of Aneurysm. Death from Cardiac Disease ten weeks later. Mr. C. R. Keyser, F.R.C.S.: Case of Congenital Elevation of the Scapula.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.
Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Angina Pectoris.
Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on the Use of Sodium Citrate in Infant Feeding.
Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Wednesday, The Forms of Diabetes and the Differential Examination of Urine; Thursday, Purulent Endometritis.
Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on General Principles of Treatment of Respiratory Affections.
National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Anterior Poliomyelitis; Friday, Progressive Muscular Atrophy.
North-East London Post-Graduate College, Tottenham Hospital, N., Thursday, 4.30 p.m.—Lecture on Affections of the Cranial Nerves.
Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Tuesday, Puerperal Insanity (at the London County Lunatic Asylum, Hanwell); Wednesday, Practical Medicine; Thursday, Rectal Fistula; Friday, Surgical Cases.
St. Peter's Hospital, Henrietta Street, W.C.—Lecture, Demonstrations will be given as follows: Tuesday, 3.30 p.m., Surgical Diseases of the Kidneys; Saturday, 2.30 p.m., Diagnosis in Urinary Disease.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BIDWELL.—On April 20th, at Bloemfontein, South Africa, the wife of C. H. Bidwell, M.R.C.S., L.R.C.P., of a daughter.
FLEMING.—On May 11th, at 10, Chester Street, Edinburgh, the wife of Robert A. Fleming, M.D., F.R.C.P.E., of a son.
RAYSON.—On Friday, May 13th, at 80, Osmaston Road, Derby, the wife of H. Knights Rayson, M.D., M.R.C.S., L.R.C.P., of a daughter.

MARRIAGE.

MASINA—PARAKH.—On April 16th, at Bombay, India, Hormasji Manekji Masina, F.R.C.S., to Jerbai Burjorjee Ratanji Parakh, B.A.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

V. D. writes: Can any member tell me where I can obtain authentic information concerning the medicinal properties of panax ginseng and chionanthus virginica which are extensively advertised in this country by an American firm of druggists under the guise of a so-called medical journal.

*** Panax ginseng is the plant yielding the celebrated ginseng of the Chinese who use it as an aphrodisiac. It is also used as a heart-stimulant. It has not been chemically investigated. Chionanthus virginica is said to be diuretic and aperient and useful in chronic inflammatory state of the various viscera. It yields a glucoside which is probably a saponin.

ANSWERS.

D. C. E. [illegible] We should be obliged if [illegible] would be glad to receive [illegible] This should not be [illegible]

[illegible] The [illegible] would be [illegible] [illegible] Secretary, Mr. [illegible]

SEA. [illegible] be explained [illegible] [illegible] Mr. [illegible] Liverpool

M. [illegible] Warrington [illegible] [illegible] Mr. [illegible] Lord Lister [illegible] Mr. W. H. [illegible] Lime Street, Liverpool

SEA. [illegible] be explained attention [illegible] [illegible] [illegible] beds

VETERAN. [illegible] M. Warrington [illegible] repay to "Bardsea" [illegible] [illegible] untoward effects [illegible] [illegible] [illegible]

A Clinical Lecture
ON
COUGH AND ITS SIGNIFICANCE.

Delivered at the Medical Graduates' College and Polyclinic.

BY FRED. J. SMITH, M.D., F.R.C.P.,
Physician, the London Hospital.

THE subject that I have chosen to-day to talk to you about is an exceedingly common one, and I must admit, also very frequently troublesome to treat. When I first gave Mr. Pinch my subject I thought it would be a fairly easy one to bring into manageable proportions, but the more I looked at it the larger I found it was.

I would begin by remarking that cough is very like pain in one respect; it is a signal that something is irritating a nerve or nerves. In the case of pain the irritation may be anywhere. In the case of cough it is primarily an indication of irritation of a branch of the vagus nerve, though cough may arise occasionally from other sources, as we shall see. To get a sound basis for estimating what and where that irritation is it is necessary to analyse cough: first, in regard to its mechanism; and, secondly, in regard to its causation and treatment. Cough, then, may be defined as an abnormal respiratory process produced by a stimulus reaching a centre, a process which has, moreover, for its object the removal of the stimulus. The importance of this will be seen later in talking of treatment.

It is stated in works on physiology that such a centre has been localized close to the respiratory centre. It is tolerably obvious that such a centre does exist, for the process of coughing is a very complicated one, and there must, therefore, be a great saving in labour if the messages can be controlled by cells which are in close connexion.

THE PROCESS OF COUGHING.

The actual processes in the act of coughing are: (1) An inspiratory effort followed at once by (2) a closure of the vocal cords, in turn followed by (3) violent expiratory efforts in which (4) a sudden opening of the rima glottidis takes place. The chief difference between an ordinary deep respiration and cough lies in this approximation of the vocal cords till the air pressure in the lungs and bronchi reaches a considerable height, sufficient to suddenly force them open and thereby carry with the gust of air the offending material that excites the cough. How high this pressure may reach at times is shown by the lesions in the lung that may be produced by it, either by a sudden considerable increase in the pressure, or by long-continued slighter increase. For instance, sudden rupture of an air vesicle has been produced with consequent pneumothorax in an otherwise healthy chest, and emphysema occurs in the slighter forms of a cough which is long continued. How important this closure is, is seen in the ineffectual cough of cord paralyses which we shall mention presently.

COUGH AND THE VAGUS NERVE.

Cough may be and often is, as in the physical examination of the chest, when one asks a patient to cough, a purely voluntary procedure. But we must assume here either an abnormal stimulus from a surface or an abnormal condition of irritability of such surface. The palate, pharynx, larynx, bronchial tubes, and pleura are the usual seats of such stimulus or irritability, but other regions and even the skin may be at times the source of a cough. A complete analysis of all the possible sources of cough involves an examination of all the surfaces to which the vagus is distributed, and all the possible irritants to which those surfaces might be exposed. The branches of the vagus are as follows:

1. A small branch to the meninges, which has no interest for us at present because I know of no case of cough produced by such means. The vomiting which takes place in meningitis is probably produced through that same branch by stimulus of the vagus.

2. A small branch, Arnold's or the auricular branch, distributed to the back of the pinna of the ear and probably also to the external meatus in part, for a cough is certainly produced from an affection of the external meatus. All of you must likely have met with cases in which the removal of a plug of wax from the ear and the curing of a little external ear discharge has completely relieved a cough which has been a puzzle as regards its causation.

3. A branch to the pharynx joining with other nerves around the oesophagus. This nerve is certainly a source of cough in pharyngeal cases.

4. The superior laryngeal branch distributed as a sensory nerve to the base of the tongue, the epiglottis, and the larynx, irritation of which probably produces as many cases of coughing not due to distinctly pulmonary disease as all the others together. That is the most important branch to remember.

5. The inferior laryngeal branch supplying motor powers to the muscles of the larynx, and therefore implicated in carrying out the movements in cough, but it has also a few sensory fibres.

6. The cardiac branches, possibly of some interest to us, but cardiac cough is more probably due to muscle failure with back pressure and irritation to the lungs with excessive secretion.

7. The pulmonary branches concerned in the cough of gross pulmonary disease such as tubercle, growths, etc., and possibly in the cough of pleural disease in its visceral layer.

8 and 9. The oesophageal and pericardial branches not of much clinical interest, as cough in these diseases is due generally to pressure on the trachea and larynx or to associated pleurisy. I know nothing about oesophageal cough or pericardial cough.

10. The gastric branches and branches to other abdominal viscera. They come within our present purview because one is very definitely acquainted with the cough which arises from gastric disturbances in the shape of forms of dyspepsia.

COUGH IRRITANTS.

The irritants to which the surfaces may be exposed may be briefly classified into: (1) Foreign substances, such for instance as tobacco smoke, dust, etc.; (2) excess of natural secretion which is a very common event in inflammatory troubles; (3) pressures and inflammation; (4) acute, or chronic and simple debility, or increased irritability without obvious change in structure so far as the naked eye is concerned. This question of increased irritability is exceedingly important because there can be no doubt about it that many people coming to you would call themselves in perfect health except that they are troubled with "a beastly cough" every time of going out of or into a warm room, in fact with every change of temperature. Examine them as much as you like and you find nothing. The condition is simply one of increased irritability, and it occurs particularly after influenza and other debilitating diseases. Every now and again one sees some practitioner hopelessly at his wit's end to know what to do with such a case, and I do not know that I can give him anything that will cure such a case with ease and certainty.

COUGHS AND THEIR CAUSES.

Many classifications of cough might be given, but one of the simplest and most useful is to divide them boldly into two classes only, namely, (1) the cough useful and (2) the cough ornamental or useless. Provided we are aware of the causes which may be, or rather are, giving rise to a member of either class I know of no better classification. Indeed in dealing with the treatment of a cough this must be our guiding principle. The cough that is useless should if possible be checked, whereas the useful cough should be encouraged. In attempting to discover the cause of any particular cough we must, however, give a more systematic list of the possible causes to be looked for, that is, from a clinical point of view, a list of diseases. Keeping to an anatomical order we may then enumerate them.

1. *Ear.*—The principal causes of cough here are plugs of wax and chronic catarrh of the external meatus. If not complained of these are likely to escape notice unless a systematic examination of the patient is made, when they at once become obvious if an examination is made of the ear. As a direct cause of a cough they are, so far as my personal experience in practice is concerned, rare, but in talking with one's aural friends they are apparently not so rare as one would be led to suppose. Our aurist tells me he often sees patients whose principal complaint is first of all that of being a bit deaf, and then such a patient will say "It is not the deafness that worries me so much as that horrible cough.' And the cough ceases with treatment of the ear.

2. *Pharyngo-tonsillar Troubles.*—These include: (*a*) A long pendulous uvula; this is one of the most common causes of a cough that occurs with unfailing regularity when the patient lies down; (*b*) chronic catarrhal pharyngitis, with small nodules of adenoid tissue to be seen, and patches of excessive vascularity; (*c*) chronic tonsillitis or adenoids must not be forgotten in this connexion; and also (*d*) acute inflammation of some parts of the pharynx and palate. Inspection of the mouth with a simple spatula will commonly reveal any of these conditions: their presence is usually suggested by hawking being a prominent complaint with the cough. The patient coughs and hawks to get his pharynx cleared. A friend of mine is troubled in this way, and here I might mention that the only way of treating such cases is to have these

slight patches of adenoid tissue cauterized. Periodically about once a year, when he gets an extra bad attack, my friend goes to Sir Felix Semon, who kindly burns it for him. He is better for a few months, and then he begins to cough again. The sputum in these cases is usually rather characteristic. It comes up in small pellets not infrequently mixed with a little blood—an important point, because hæmoptysis in the mind of the public is almost synonymous with consumption. But it is our business to be aware that hæmoptysis is very frequently not due to tubercle. I think that not more than 10 per cent. of hæmoptyses are due to tubercle.

I put into this group the specific febrile diseases, because they belong to the same branch, namely, the pleuro-pneumonias of the organ. A sore throat with cough illustrates in an attack of measles or even of scarlet fever or of rheumatism, and in pertussis or whooping-cough the pharynx and upper air passages seem to be the seat of the infection. In the treatment of pertussis some methods are directed entirely to what we may speak of as antiseptic cleansing of the back of the throat, palate, and larynx, such as having an antiseptic gargle or mixture. Diagnosis here rests largely with the characteristic and other complaints of feverishness, with aching at limbs and head. In pertussis the evidence will rest on the age of the patient, or on a history of possible exposure to infection in an adult. One is rather apt to overlook whooping-cough in the case of an adult. I had a case not long ago in which a father and his three children were ill with whooping-cough, and really he was very ill with it, he could get very little sleep. When dealing with coughs in general it must not be forgotten that cough in the early days of pertussis has not yet acquired the characteristic whoop.

Diphtheria belongs to this class before it has attacked the larynx, and in young children who are hardly capable of complaining of sore throat this possible source of a cough must never be overlooked. A mother brings a child to you and says: "It has been coughing for the last day or two and I want you to examine it." The child does not appear to be ill, because diphtheria does not always start in a manner that way. But it is very necessary that you should look at the back of the throat. I know the difficulty of that in the case of the possibility of the case being one of diphtheria.

Laryngeal and Tracheal Troubles.—These form an extensive and very important class, and one which we must classify in some sort of way. I do not pretend to tell you that the following is the best way to classify them, but it is a very useful method. (a) A gross and visible lesion, such as gross loss of power in the vocal cords, or gross changes in very slight cases.

With regard to the first of these three groups, (a) a gross and visible lesion, you have tuberculosis, syphilitic, and new growth affection. Some of these are very rare, and all come to the laryngoscope. Then you have acute inflammations, which have a visible lesion; acute affection may be due to a simple cause, a simple laryngitis, or it may be specific—that is to say, either diphtherial, tuberculous, or syphilitic. Again, the inflammation may be due to a cough by irritation. I had an example only three days ago in the London Hospital. A girl of about 12 years of age had complained of a cough and the symptoms which she brought to me were very definite. She then developed pleurisy, and [illegible] in the corresponding lung. So the small [illegible] which had caused the irritation [illegible] gangrene. With regard to the appearance of the vocal cords in [illegible] common [illegible] but [illegible] The [illegible] probably has [illegible]

[illegible] tracheal troubles [illegible] the vocal cords [illegible] [illegible] [illegible]

much, then, for a clinical list of causes of cough. It is obvious that in the time at my disposal, even if I had two lectures, I could not pretend to discuss the differential diagnosis of all these numerous causes of cough individually.

The Diagnosis of Causes.

What I propose to do now is to suppose that we have a patient before us, and I shall go through an imaginary interview with him to show how one's field of diagnosis is narrowed down to probably a few only of the possible causes which may then be further investigated if necessary. I emphasise those words "if necessary." Just recently in the British Medical Journal there has been a considerable correspondence as to the treatment of pneumonia, and it struck me that all the correspondents who had ventured to criticize Dr. Ives (the original writer of the article) had left out the one point which seemed to me to be most seriously open to criticism in the whole article, and that is, the statement that you should examine the chest at least every day and sometimes even, he went so far as to say, twice or three times a day. I am certain that that is exceedingly wrong teaching. What I say is that when once you have got a definite diagnosis of pneumonia you can certainly inform yourself as to the progress of the disease by the temperature of the patient, by his statements, and by his general appearance. I am quite sure that the discomfort, to say nothing worse of it, to which you put him in making him sit up in bed whilst you examine the chest to see whether his pneumonia has gone another inch or two, is a bad thing for the patient, and is going a long way round to find out what can generally be ascertained by the shorter method of observation.

Let us see what aids we get toward diagnosing the cause of the cough.

The Age of the Patient.—In babies and quite young children most of the more unusual causes can be at once excluded by the mere fact of age. Bronchitis, broncho-pneumonia, tubercle, pneumonia, and whooping-cough are far and away the most likely causes, and if there be no temperature the last becomes at once the probable cause if we can exclude the presence of a foreign body: the possible presence of the latter is almost certain to be brought to the notice of the medical man by the mother, either with a direct history of her having seen the child put something in the mouth and start coughing or by a sudden fit of coughing in the midst of perfect health. A case which was brought to our notice the other day is rather apropos of this: A child perfectly well was left in the care of a man during the temporary absence of the woman who was nursing it, on her return she found that the child had definite laryngeal trouble with cough and it turned out that the man—he has got seven years penal servitude for it—had pushed a cork into the back of the child's throat. I have myself met with a somewhat similar case: A child was taken with violent fits of coughing after eating some soup. Inasmuch as what it had eaten was soup, I was misled and my experience may be of use to you, I said to myself the soup was probably too hot and the child had perhaps burnt its throat, and so excited a cough. It did not occur to me, I must admit, that here was a case in which there might possibly be a foreign body. The coughing was so paroxysmal and troublesome that I had the child taken to hospital, and there it died after tracheotomy, at which nothing was found, but *post mortem* I found a jagged bit of bone sticking in the child's larynx; this had come from the soup and had gone the wrong way.

In older children, from four years up to puberty, age in itself offers us but little guide, nor in fact do we get any assistance from age alone until, say, from 40 to 45, or from there onwards: at this period might fall persistent chronic bronchial troubles, quiet pleurisies and growths of all kinds, including aneurysms, come very much to the fore. One case made a very strong impression upon me in which a young fellow, aet. 20, had been playing football on a Saturday: he was seen by a friend of mine on the following Tuesday or Wednesday. The young man said, "I do not know why I have come to you; it is only to please the mother." He was ordered to be a little bit short of breath, and had slight cough, but beyond that nothing. One side of his chest was full of fluid, and several pints were drawn off; this is an illustration of quiet pleurisy.

Obvious Illness or Distress.—We may use the obvious illness to denote fever, loss of flesh, wasting, etc., and we may take distress to denote difficulty or rapidity of breathing and blueness of the face or lips. In the former case the cough will probably reveal itself by physical signs in the chest of some acute inflammatory trouble or very possibly an advanced phthisis. An especial caution must be given to carefully examine the throat for a membrane of diphtheria or for an acute tonsillitis in cases where there is distress in connexion with breathing. Actual dyspnœa or difficulty in inspiration—mere shortness of breath is not necessarily dyspnœa—in young subjects is strongly suggestive of laryngeal obstruction. A little child is in obvious distress with a cough if the ribs or supraclavicular parietes are sucked in during inspiration: in such a case do not forget to think of diphtheria as a cause of laryngeal obstruction. In older subjects actual obstruction is much rarer, but the blue lips and obvious panting are strongly indicative of cardiac weakness as the cause of the cough or chronic bronchitis with extensive emphysema.

How long have you had the cough?—This is probably the first question that you will put to your patient, and much information may be derived from the answer. A cough sufficiently severe to worry the patient so far as to take medical advice, and which has lasted only a few days, is practically sure to belong to the group of "acute obvious disease" either in the mouth or chest. The more obscure causes—pressure, chronic laryngeal irritation, etc.—commonly give rise to a mere tickling in the throat with slight cough at first, and it is only when it has lasted for some time that it has caused sufficient alarm to necessitate or render advisable, in the mind of the patient, medical advice. Hence the duration of the cough is a very important point in diagnosis. If the cough has continued only for a few days the group of acute inflammatory troubles is suggested: if it has lasted some months it is probably due to a cause with gross physical signs in the chest or to a growth that needs some care to find.

Did it come on after a distinct illness? Here we come to the group of infectious diseases—measles, influenza, scarlet fever—which are very liable to leave a cough: so also may broncho-pneumonia, pneumonia, or acute pleurisy. If you hear: "Yes, I have had pneumonia three months ago and have had the cough ever since," immediately you will say: "Has this pneumonia cleared up?" And you will examine the chest and listen to the area alleged to be infected. You may find some crepitations and perhaps tubular breathing. A differential diagnosis is then required between actual definite tuberculosis and the result of chronic pneumonia: this may mean that you will have to hunt for the tubercle bacillus. The cause of the cough, then, coming after a definite illness may be either chronic induration of lung or simple irritability of the larynx. I might mention here what I have found most useful in the treatment of laryngeal irritabilities left after infectious fevers. The following prescription I have found very successful: R Liq. morph. ♏x; syr. limonis, ♏x; glycerine, ♏x; acid. hydrocyan. dil., ♏iij; syr. scillae, ♏x; aq. ad ℥j, ℥j pro re nata. The lemon, I think, is important: it has a little sharpness and acidity which seems in some peculiar way to relieve the irritability. It is important also that you should tell the patient how to take this linctus. Do not tell him to take a teaspoonful and swallow it as a medicine at once. It is perfectly true that the morphine is a little bitter, but the glycerine, lemon, and syrup of squills disguise that bitterness and make the linctus pleasant to take. Tell him to dip the tongue into the linctus and to swallow it slowly. He thus takes it in tiny sips, and by this means it will hang about the palate and the upper part of the larynx much better. If the linctus be swallowed very slowly some of it may actually get on to the epiglottis and those parts which are so very irritable.

When does your cough come on: what excites it? A cough that only comes on when a patient is lying down is very suggestive of a relaxed uvula and laryngeal irritability. A cough coming on immediately he gets into bed at night is primarily suggestive of phthisis or of whooping-cough. But there is in addition a very important consideration to be here remembered, and one which has a strong bearing upon the treatment of cough in phthisis at an early stage: it is this. The temperature of a bedroom is usually much below that of the sitting room in which the patient has possibly spent his evenings: secondly, the patient undresses and exposes the skin to this lowered temperature; thirdly, he gets into sheets which are, and feel, much colder than the skin. Any one of these may, and frequently does, excite a fit of coughing which may last long after equilibrium of temperature between skin and bedclothes has apparently been established. Such a cough as this is usually caused by laryngeal troubles, acute or chronic. But, on the other hand, a cough which wakes

the patient up after he has got warm in bed possibly asleep is far more likely to be due to disease of the substance of the lungs. Malignant or other growths may do the same thing but tubercle is what you more especially suspect. Then in a little child whooping cough may be the cause of the cough, the paroxysms of which are more frequent at night.

A cough in the morning only is very suggestive of bronchial or laryngeal catarrh due to change in the temperature or a slight accumulation of secretion during sleep. A man jumps out of bed when warm, and begins to cough because the temperature of the room, unlike the temperature of the bed, is not the temperature of his body. A cough after meals suggests dyspepsia as the cause. A cough on smoking or talking is almost certainly due to laryngeal affections.

A cough only on exertion primarily suggests cardiac debility, but it must not be forgotten that exertion may lead to mouth breathing, with consequent cough. If one begins to put forth great exertion, one usually opens one's mouth and takes a deep breath, and thus irritates the larynx; so that it does not necessarily follow that the cough thus induced by exertion is a cardiac cough. The heart must, of course, be carefully examined, particularly to see if there is any undue frequency or irregularity of rhythm or beat, or if there is an insufficient difference between the first and second sound. *Breath*s are a point of difficulty, because many hearts with *breath* are working perfectly well, so that a *murmur* alone is of small consequence if the rhythm be not interfered with. If the heart be sound, then a cough on exertion probably means emphysema or chronic irritability of the larynx.

Do you sneeze up anything with the cough, and, if so, what? Is the cough relieved by bringing up something? You may derive a great deal of useful information from the answer to these questions. Take a typical example or two. The sputum from a cavity of any sort (phthisical or simple bronchiectasis) is commonly profuse in quantity with each act of coughing, or, rather, with each attack of cough, and the relief experienced is frequently quite complete for a time. The patient has emptied his cavity, has ceased coughing, and then goes on for several hours without any cough at all. The smell of the sputum will largely differentiate between the two conditions, simple phthisis and bronchiectasis. Phthisical sputum very rarely has any smell except a peculiar faint, sickly smell of its own. We all know how offensive a smell a bronchiectatic cavity may have. Again, the sputum of tubercle is nummulated, whereas that of bronchiectasis and other cavities is more homogeneous and watery as a rule.

The sputum of acute affections is thick and very viscid.

What do you bring up? If he replies to the effect that "It is very sticky," you know that the man has got some acute trouble in connexion with the mucous membrane, for it is only under such a condition that you get very sticky sputum. "Does that give you any relief?" "No. I want to cough again two minutes later." "Do you bring up any blood?" "No, I have never seen any." This negative reply does not [illegible]. If he says "Yes, I do bring up blood," one must admit that such a positive reply makes one suspect tubercle, but the affection is not necessarily tubercle all the [illegible] and laryngeal affections are often associated with streaks of blood, haemorrhage from tumours is generally [illegible]. You will then be careful to examine the back of the pharynx and his teeth to see whether the blood may not have come from the gums or posterior pharynx. If the case be healthy you will have to be careful in examining the apices of the lungs because of the possibility of the tubercle bacillus, but generally speaking the [illegible] tubercle [illegible], whereas in other conditions it is [illegible] in the sputum. If you see [illegible] you will find it to consist of [illegible]. The [illegible] very much except in quantity. Remember that a mucous membrane very easily [illegible] the natural result of inflammation of a mucous membrane; on the other hand, a mucous membrane [illegible] is not to be thought of [illegible] sputum is very characteristic.

If there is [illegible] information [illegible] very different [illegible] For example, in cases of early phthisis the cough is [illegible] failure [illegible] all [illegible] the tracheal [illegible] and the amount of cough [illegible] the larynx as well.

Is there pain with the cough? What is the locality of the pain if the patient complains of it. In laryngeal and pharyngeal troubles the patient correctly locates the trouble by the associated pain in most cases, though we must not make the mistake of assuming that no local pain in those organs necessarily excludes them as causes of the cough. In pleuritic troubles the patient again will locate the pain in the ribs or just under them. Aneurysm and growths are almost as often free from pain as associated with it. There is one form of pain that must be here alluded to as it is frequently a source of fallacy. In the act of coughing the recti abdominis are given very severe work to do, and the patient will often enough say "There is something the matter with my belly; that is where my pain is." But that pain probably comes from his coughing, and you will find it is so in a large number of cases by examining the abdomen and finding nothing.

Has the voice altered since the cough appeared? Ordinary laryngeal troubles, with acute or even chronic inflammation, are often accompanied by hoarseness. But the voice may alter in another direction; there may be feebleness of the voice, inability to sustain it, the patient cannot speak a long sentence without getting short of breath. That should put you on the track of the possibility of paralysis of one vocal cord, because the voice is produced by varying degrees of approximation of the vocal cords. If one of the cords is paralysed it will not approach the other, and then there will be an opening left through which the air escapes too rapidly, with the result that the patient will be short of breath, and the voice is not good.

These are, I am afraid, very scanty hints as to the possibility of diagnosing the cause of a cough. At the same time, when you have finished all these questions that I have suggested, it is more than probable that you will have eliminated most of the causes, and not only so, but you will probably have determined positively to what the cough is due.

TREATMENT OF COUGH.

It is a mere truism to say that the first point in treating a cough is to remove the cause if it can be found; it is here that a simple division of coughs into the useful with sputum, and the useless without expectoration is so helpful, for it may be impossible to discover the cause and we may then treat the symptom on first principles, namely, that a dry cough should be suppressed, if possible, and a cough with sputum should be encouraged.

Causes themselves may be divided into the removable and the irremovable, of the former, smoking, talking, exertion are external causes avoidable if not removable, cerumen in the ear, papillomata of the vocal cords, an enlarged tonsil, adenoids, are internal causes capable of mechanical removal, the treatment of both classes is obvious and need not be further mentioned; but the other causes which cannot be thus summarily avoided or removed require careful consideration. I cannot of course enter into a full discussion of the treatment of the diseases which give rise to cough so shall only attempt to lay before you a few hints which I have found very useful. First, the treatment of local conditions within reach of a brush or spray: the actual topical application of drugs to the interior of the larynx (lactic acid for instance in tuberculous ulceration) is rather too special a method for me to touch upon. For relaxed uvula and congestion of the posterior pharynx I have found nothing so useful as the [illegible] lozenge of the *British Pharmacopoeia* combined with [illegible] of course in each lozenge, and this more particularly the case when the trouble is a little further back behind the anterior pillars of the fauces.

For nearly everything except actual trouble in the mouth itself, I believe that gargles are practically useless; all a gargle does is to moisten the parts in front of the anterior pillars; indeed a patient is as skilled as some German ones are said to be who can allow a student to watch water brush their tonsil ends with a patient like these there may be some use in a gargle, but not for the ordinary patient. The glycerine lozenge and others must take the place of gargles unless you have time and opportunity to apply drugs with a brush to the posterior pharynx and top of the epiglottis. I have found that a 1 in 100 solution of carbolic acid thus applied occasionally would relieve what is termed relaxed throat, and in conditions of relaxed sub-acute inflammation not the posterior pharynx relieves pain and checks the cough.

As to the use of a spray apparatus my experience is that an [illegible] between the pump and the bottle is very necessary. It may be going back to the spray days for just the moment of time during which pressure is being exerted directly the pressure ceases. The

right way to use such an apparatus is for the patient to open the mouth wide, place the spray nozzle just within the lips, and then take several deep inspirations while the spray is still actively issuing forth; to enable him to do this it is necessary that the spray should issue for several seconds, and this can only be the case when the elastic reservoir is inserted in the pumping tube. An exceedingly useful mixture to place in such an apparatus is one composed of tinct. benzoin co. vinum ipecac. and a 5 per cent. solution of cocaine, in equal parts; used properly in spray this relieves the cough produced by all irritable conditions of the larynx such as acute and chronic laryngitis, even when tuberculous, and is very useful when nothing is to be seen and yet the patient complains of a tickling in the throat.

I have already drawn your attention to an important principle in the treatment of the useless form of cough in phthisis, namely, to avoid sudden changes of temperature in the air which is breathed or which comes in contact with the skin; a fire in the bedroom and a warm bed for the purpose need not be further alluded to. If, however, the cough, even in advanced cases of phthisis, be useful in clearing out a cavity or emptying tubes filled with muco-purulent secretion, such precautions need not be adopted, at any rate, so vigorously. In definite phthisis with a useful cough I have found nothing so efficacious as the following: Pot. iod., gr. viij; syr. tolu., ℥ss; aq. ad ℥ss, t.d.s.

In chronic and subacute bronchitis I have a little personal experience to offer you, which is that this is the condition *par excellence* in which smoking and excessive talking should be avoided; but, on the other hand, do not avoid or countermand the cold morning tub—during the night a good deal of secretion collects in the bronchi, and there is no better stimulant to help a cough to clear this out than that derived from the cold morning bath, personally I find it better than any drug. Of course, such a thing is only advisable for those who are accustomed to it; it would not do for those with weak heart or who are unaccustomed to it, and equally, of course, it will not do for bad acute bronchitis. If in such chronic cases cough is very troublesome I find the iodide prescription very useful and also the troch. glycer. et anisi of the Brompton Pharmacopoeia, which loosens the phlegm in a remarkable manner.

I am inclined to think that potassium iodide is much more useful for adults than for children in assisting cough. In the latter I find that belladonna pushed rather freely gives me better results than any other drug: by "pushed" I mean 5 or 6 minims for a child of 2 years, and that given four-hourly; such doses must be watched for dilatation of the pupil and for delirium.

Beyond these few—I fear very fragmentary hints—I have no special panacea for coughs to offer you unless it be that actual change of air—atmosphere—is a very excellent prescription for the cough of debility in those who can afford it.

COMMON CAUSES OF ERROR IN EXAMINATION OF THE CHEST.

By J. EDWARD SQUIRE, M.D.,

Physician, Mount Vernon Hospital for Consumption and Diseases of the Chest.

It is unfortunately true that even the youngest and most inexperienced amongst us may occasionally be mistaken. But even mature experience does not preclude the possibility of error, especially in the solution of problems involving the accumulation of evidence only to be obtained by skilled observation and deductions from signs which are capable of various interpretations. There is, perhaps, no form of medical examination in which constant practice is more necessary in order to detect signs and experience to interpret them than the examination of the chest. This is little realized by the student who has been taught his physical signs from well-marked cases of disease, and it is sometimes lost sight of by the practitioner. Most of us who have been connected with a hospital for chest diseases have watched with amusement the "cocksureness" of the new resident or student, and waited for the "humble mindedness" which comes after a few weeks of special experience. But though we cannot hope entirely to avoid error, we may minimize the chance of mistakes by studying the more common causes of error. I propose to mention some of these under the following headings:—(1) incomplete examination, including want of method; and (2) faulty interpretation of signs, and I shall confine myself entirely to such cases as have come under my own observation. I need not discuss the mistakes which arise from a routine treatment of symptoms without any attempt to investigate their cause, though this subject might be of value if we could speak to the prescribing chemist. We are justified here in excluding the possibility of carelessness or of ignorance.

In view of the short time at my disposal I shall aim at making my remarks suggestive rather than exhaustive. Let us, then, first consider

Errors arising from Incomplete Examination.

Although not strictly within the limits defined by my title, I may remind you that it is a serious mistake to neglect altogether to examine the chest when there are conditions which suggest the possibility of mischief within the thorax. I do not, of course, propose that the chest should be examined in all cases which present themselves for treatment, for I know that in general practice this is impossible as well as undesirable. Where, however, there is any ground for suspecting disease of the heart or lungs, examination should not be deferred for the symptoms to develop. We all know, for example, how insidiously tuberculosis of the lung may commence, and how much depends upon early treatment and consequently upon early recognition of the disease. When the family history, general condition, or personal surroundings of a patient point to special predisposition to consumption, a precautionary periodical examination of the chest—say once in six months—is desirable, especially for the few years just before and after puberty.

More definitely within the scope of my subject come those cases in which a partial examination of the chest is made to verify the existence of some conditions suggested by the symptoms for which the patient seeks relief, which being found, no further investigation is pursued. As an example of this, I may instance the cases in which the existence of anaemia has been verified by hearing haemic murmurs in the neck or over the heart, but where no examination of the lungs has been made and commencing tuberculosis has thus escaped detection. I have met with several such cases, in some of which the consequent delay in commencing special treatment has been disastrous to the patient.

Another somewhat similar source of error occurs from neglecting to carry out the examination further as soon as any evidence of lung mischief has been found in one part. In this way pleurisy at one base has been discovered, and tuberculosis at the apex of the same or the opposite lung has been undetected; pneumonia has been correctly diagnosed and pericarditis or endocarditis overlooked; a hydatid cyst in the lower lobe of the lung has been unsuspected, whilst some dullness at the apex was discovered. So also bronchiectasis or tuberculosis may be overlooked when associated with chronic bronchitis or with fibroid disease of the lung.

A curious example of what obvious conditions may be missed by incomplete examination came under my notice a few years ago. A patient was sent to me because of commencing tuberculosis in one apex, and immediately the chest was fully uncovered it was evident that the heart's impulse was on the right side of the chest. Further investigation disclosed complete transposition of the viscera, unnoticed by a man whose skill in physical examination was sufficiently developed to enable him to detect slight changes in the apex of the lung. Examination without removal of the clothing will frequently lead to error, To listen through clothing cannot furnish exact results, and even to leave the clothing over the neighbouring parts whilst the part being examined is bared may cause mistakes. I have been asked to explain the significance of a creaking *râle* which disappeared completely on removing the patients leather braces.

A not uncommon form of incomplete examination is that due to want of method. If you commence to examine the lung by putting your stethoscope to the chest and asking the patient to take a deep breath, you may at once obtain evidence of disease; but if the examination begins and ends with this you will obtain very incomplete information, and may miss much that is of importance. If on the other hand you develop the habit of systematic and methodical examination, the various stages of investigation—inspection, palpation, percussion, and auscultation—will follow each other as a matter of course in every case, and mistakes will be fewer. The stage which is perhaps most often neglected is that of inspection, yet there is much that is valuable which may be learned from this mode of investigation. I had, only a day or two ago, a very instructive instance of the value of

respiration. A patient was supposed to be suffering from early tuberculosis of the lung. Percussion over the upper part of the front gave hyper-resonance over the left apex, and comparative deficiency of resonance above the right clavicle. The breathing was weak at the left apex, and the bronchial sounds on the right side suggested harshness in comparison. Slight consolidation in the right apex was therefore suspected. Inspection, however, showed very marked retraction in the respiratory movements on the left side of the chest, especially in the lower part, which led to more careful examination, disclosing evidence of pleurisy of the left base. So too it is wise to listen to quiet breathing before making the patient to breathe deeply, and also to get the patient to cough and then to draw a deep breath. Crepitations, otherwise unheard, may be brought out in this way, and rales may be altered or may disappear on coughing.

We may include amongst the incomplete examinations those cases in which an examination, having been once made, is not repeated, so that the course of the disease processes is not followed, and complications may develop without our knowledge. In many lung diseases and in acute diseases of the heart or pericardium it is most necessary to examine repeatedly so as to follow the progress of the morbid processes. The development of a fresh centre of disease in another lobe of the lung already attacked by tuberculosis materially modifies our view of the patient's chances of recovery. The following figures, taken from the medical reports of the Mount Vernon Consumption Hospital, will serve to illustrate this fact. Of rather more than 1,400 cases, 19 per cent. had only one lobe affected, and of these 93.65 per cent. left the hospital improved; 40 per cent. had mischief in two lobes, and 73.57 per cent. of these were improved; 26 per cent. had three lobes affected, and 58.15 per cent. of these left improved; the remaining 15 per cent. had mischief in four lobes, and only 40.5 per cent. of these were classed as improved when they left the hospital.

By repeated examination it may be possible to detect the early signs of danger in some new situation in time to counteract it, a matter of much importance to the patient. As an example of the danger of neglecting to repeat the examination of the chest in lung disease, I select the case of a nurse who had an attack of acute bronchitis, and who, after the acute attack had passed off, still continued to cough. No further examination of the chest was made, however, until she came to London some few weeks later, when I found advancing tuberculous mischief in the lungs from which she died within a year.

Fluid may accumulate without our knowledge in the pleural cavity (for example, empyema in a child after an attack of pneumonia) if examination is not repeated after the original disease has been diagnosed.

Incomplete examination is clearly a preventible cause of error which should be avoided.

We come now to the

Faulty Interpretation of Signs.

This is a very common and more excusable cause of error. Although errors of interpretation are of course sometimes the result of ignorance, yet as a rule it is difficult to misinterpret the results obtained by physical examination. Nor is this in any way surprising to those with sufficient knowledge of the subject to appreciate the difficulties. In the first place we are confronted with the impossibility of fixing a standard whereby to measure the healthy conditions of sub-resonance, and thus of determining what in any case constitutes a lung unhealthy. We may have to put on a fact we do not exactly understand what constitutes the physical signs of a healthy lung; but no two individuals are exactly alike, and physical evidence must be interpreted in the light of personal experience. Again, the sounds heard over one part of the chest may be modified by those heard over another part. We call back to mind the difference from the healthy chest that we find in the case of pleurisy with effusion, and the difficulty we have in detecting the presence of fluid in the pleural cavity when the lung is also the seat of consolidation. It is essential, as a rule, that we should be able to detect the signs which tell that we have to do with a healthy lung, and that we should be conversant with the physical signs obtained on examination of the healthy chest.

I have recently compared the examination of the chest in a series of one hundred healthy persons of both sexes, carefully noting the differences over the apex of the lung between the two sides as regards percussion note, breath sounds, vocal resonance, and vocal fremitus. The result, briefly summarised, as to cases showing some difference in the percussion note, generally a slight deficiency over some portion of the right apex, is noted in 45 per cent. of the cases; some slight difference in the intensity or character of the breath sounds is found in 27 per cent.; vocal resonance is louder on the right side in 77 per cent., and vocal fremitus more marked on that side in 74 per cent. of healthy persons. Although, theoretically, we should expect to find the increase in vocal resonance and in vocal fremitus to be directly associated in all cases, practically I find that in a small number of cases these do not go together.

Differences in percussion note, vocal resonance, and vocal fremitus I find to be more often noted in men, while differences in the breath sounds occur more frequently in women. The figures are:

	Males	Females
Percussion note	45 per cent.	45 per cent.
Breath sounds	23 "	31 "
Vocal resonance	73 "	83 "
Vocal fremitus	74 "	74 "

Time does not allow of my pursuing this interesting subject more fully on the present occasion, but it will be observed that some deficiency of resonance is to be detected on percussion over a portion of the apex of the right lung in about half the healthy chests examined, and that increased vocal resonance and fremitus on the right side are to be noted in the majority of individuals in health. I have known the "flatness" on percussion over the right apex, which is quite compatible with health, attributed to commencing consumption, and, on the other hand, signs due to consolidation put down to the physiological condition. We must bear in mind that, along with the louder breathing sometimes heard on the right side, the expiratory portion of the sound will probably be more clearly heard, but it will not in health equal or exceed the inspiratory sound in length. If with a slight deficiency of resonance, louder breath sounds, and increased vocal resonance and fremitus, there is a noticeable prolongation of the expiratory portion of the breath sound, the inference of disease is not only justifiable but almost convincing.

Another difficulty I have occasionally met with, also depending on the want of a definite normal standard, is somewhat curious. I have known careful observers rightly express the opinion that a patient has early tuberculosis of one lung but locate the lesion on the wrong side. At first sight this seems almost impossible, but a moment's consideration will suggest the explanation. A sufficiently well-marked difference between the two sides is noted, which is too great to be physiological; but without some standard to guide the observer it is evident to say which is the normal for that individual, all that is certain is that if one lung is normal the other cannot be so. It is true that with more care in noting the various details of the breath sounds etc., it should generally be possible to avoid such an error, but I have known competent observers differ as to which was the affected lung, whilst agreeing as to the presence of disease. Another cause of mistake as to the side affected in tuberculosis is the presence of emphysema around a patch of consolidation, making the percussion note and breath sounds seem clearer on the affected side than on the other. Whilst on the difficulties met with in cases of tuberculosis of the lung, I may refer to another and unusual cause which would be avoided if the general condition of the patient were duly considered, namely, mistaking signs of a scar, or of obsolescent tuberculosis for active disease. I have also known compensatory (puerile) breathing mistaken for tubular breathing with consequent misapprehension as to the condition of the lung. Such mistake could hardly be misleading if the relation between the length of the inspiratory and the expiratory portions of the breath sound were noted, or if the impression produced by the quality and pitch of the breath sound were further tested by the absence or presence of pectoriloquy. This error exemplifies a fault which is not unknown among the less experienced observers, namely, that of noting not only of the characteristics of the breath sounds, for example, pitch, intensity, etc., and omitting to note the quality of the sound or the relation which the expiratory sound bears to the inspiratory in regard both to intensity and duration.

The signs of a cavity in the lung are sometimes misleading. It is not always easy to detect a cavity of moderate size, and it is often difficult to locate even a large cavity. At a meeting of the Harveian Society some years ago I showed a youth with signs of a bronchiectatic cavity which

seemed to be quite near the surface, and the situation and extent of which appeared to be clearly defined. Yet attempts to drain this cavity were made at several different hospitals without success, and when I saw the patient again twelve months later he had numerous scars on his back, but no operator had found the cavity.

The explanation of the above difficulties is that, though we may rightly attribute certain physical signs to the presence of an air-containing space of comparatively large size, we cannot always say that it is an excavation of the lung tissue. The signs may be produced in an undilated bronchial tube, and be conducted to the ear by solid tissue between the tube and the surface of the lung. So, too, in the localization of cavities the sounds produced in the cavity will be conducted in the direction of the adjacent consolidation, not necessarily by the shortest route to the surface. Thus the signs of a cavity may be best heard not immediately over the nearest portion of the chest wall, between which place and the cavity there may be air-containing lung, but at some more distant part of the chest where consolidated lung reaches the surface from the neighbourhood of the vomica.

Let us now pass to another error in a different kind of disease: the failure to detect the presence of fluid in the pleural sac, or the mistaken diagnosis of effusion. Although the classical description of the signs which indicate the presence of fluid in the pleural sac—dullness on percussion, absence of breath sounds, absence of vocal resonance and fremitus, and displacement of organs—furnishes such a distinct chain of evidence that mistake seems impossible, the definite detection of fluid is, in many cases, a matter of great difficulty. Breath sounds may be clearly though not loudly heard when there is a considerable quantity of effusion, and if the pleura be thickened vocal resonance and fremitus may be present, and the heart sounds be conducted over the dull area. The displacement of organs, even with a large effusion, may be prevented by adhesions, or counteracted by the traction of a contracted lung—as when pleural effusion occurs with a contracted tuberculous lung above, and the heart has been displaced by the older lesion. In young children the signs of fluid are often indefinite or misleading. I have been asked to see cases said to be pneumonia with delayed resolution, in which I have found the signs supposed to indicate solid lung to depend upon fluid in the pleural cavity, and to disappear on aspiration. The mistake may perhaps sometimes have occurred from insufficient examination, but in other cases it has certainly been due to faulty interpretation of the physical signs noted. It is by no means easy in some cases to determine the presence of pleural effusion, apart from those cases in which the fluid is pent up between two lobes, or otherwise localized by adhesions.

As a further illustration of a class of cases where faulty interpretation of signs may occur we may meet occasionally with cases in which fluid is found in the pleural cavity secondary to some morbid condition below the diaphragm, or where the fluid is not due to pleural inflammation. Here the physical signs may be rightly referred to fluid in the pleural cavity, but the true nature of the disease is not diagnosed. I have known the pleural sac to contain fluid poured into it by the bursting of a hydatid cyst in the lung, and a case where a pleural effusion was supposed to be purulent, but was found to consist of clear serum, the symptoms indicative of the presence of pus being due to a subphrenic abscess from a perforated gastric ulcer.

Many of us have experienced the difficulty in distinguishing in children between a broncho-pneumonia and disseminated pulmonary tuberculosis, or in adults between an apex-pneumonia and tuberculosis. This is, however, not a matter of mistaking the physical signs, for tuberculosis produces a broncho-pneumonia in children or a pneumonia in the adult. The physical condition of the lung is the same whether the exciting cause be the tubercle bacillus or the pneumococcus: it is by the course and development of the lesion that the effects of the different causes may be distinguished.

With regard to the heart, as with the lungs, errors may arise from incomplete examination or from faulty interpretation of physical signs. Enlargement of the heart is sometimes inferred from the apex beat being lower or further to the left than its normal position. The heart may, however, in such cases be of normal size, but displaced. So, too, an apparent increase in the area of cardiac dullness may indicate, not an enlarged heart, but a retracted lung. In palpation pericardial friction may be mistaken for a thrill, or pleuro-pericardial friction may be confused with a pericardial rub.

In auscultation an "accidental," "functional," or "haemic" murmur may be taken for an organic murmur, and vice versa. The first and second sounds of the heart may be mistaken one for the other, and similarly an obstructive murmur may be supposed to indicate regurgitation.

Sometimes a murmur produced outside the heart is mistaken for one originated at one of the cardiac orifices. Thus pericardial friction or a cardio-respiratory murmur may be so misinterpreted. The cardio-respiratory murmur is occasionally very misleading. This is a "whiffing" or blowing sound produced by the impulse of the heart, or the pulsation of one of the large arteries, forcing air out of an adjacent portion of the lung. It is usually heard during expiration and gets its rhythm from the beating of the heart, being thus cardio-systolic in point of time; it may disappear when the patient holds his breath. I have known such a murmur, produced in the tongue of lung between the apex of the heart and the chest wall, mistaken for a mitral regurgitant murmur, and when heard over the second right intercostal space aortic obstruction has been erroneously diagnosed.

I described this murmur at some length in the British Medical Journal of December 10th, 1898, and need not refer more fully to it here. This murmur has, in several instances which I have met with, caused difficulty in cases examined for life assurance.

I trust I have not been wearisome with this tale of pitfalls which may cause trouble to the investigator of chest diseases. The mere enumeration of such difficulties in the examination of the chest as have caused errors within the knowledge of a single observer is sufficient to show that the examination of the chest is no simple matter. The possession of a stethoscope does not in itself indicate an adequate equipment for the investigation of chest diseases. The detection of the various physical signs requires careful training and constant practice, their interpretation demands special knowledge.

The man who is conscious of the most mistakes is not necessarily the one who has made the most, but I am not so sanguine as to imagine that those errors which I have recognized, and which have prompted this paper, are either so numerous or so serious as those which I may unconsciously have committed.

TUBERCULOSIS IN THE SOUTH OF IRELAND.*

By J. DARLEY WYNNE, M.B., M.R.C.S., D.P.H.,

Honorary Secretary of the Waterford Division of the South Eastern of Ireland Branch.

Owing chiefly to improved methods of modern sanitation and to the increased attention which is now given to education in hygiene, and especially to the value and importance of fresh air, the mortality from tuberculous diseases in England, Wales, and Scotland has been greatly reduced in recent years.

Excessive Mortality from Phthisis.

Unfortunately, across the Irish Channel the same happy condition of things cannot be said to exist, as I will now endeavour to show by an examination of figures taken from the annual reports of the Registrar-General of Ireland for the years 1901 and 1902, and from an investigation of the death returns of the Registrar of the Clonmel Urban District.

In the Registrar-General's report for 1902 (page 16) there is a most interesting and instructive diagram, which shows at a glance how, while in England and Scotland the death-rate for all forms of tuberculous disease has fallen to a remarkable degree in the 39 years from 1864 to 1902, yet in Ireland it has actually increased.

In Scotland in 1864 the tuberculosis death-rate was 3.6 per 1,000, rose to 3.8 in 1870 and 1871, and then gradually fell to 2.3 in 1900. In England the death-rate from these diseases was 3.3 in 1864, 3.4 in 1866, and has since gradually fallen to 1.8 in 1900, and in 1902 the phthisis death-rate in London was as low as 1.04 per 1,000. But in Ireland the rate, which was only 2.4 in 1864, has since gradually risen to a maximum of 2.9 in 1900, and was as high as 2.7 in 1902. While this was the death-rate from tuberculous diseases for the whole country, in those urban districts having a population of 10,000 and upwards the rate was 3.2 per 1,000 in 1901, and 3.1 in 1902. The highest death-rate from tuberculosis in these towns was in Clonmel (population of urban district 11,232) where it was [illegible]

* Read at a meeting of the South Eastern of Ireland Branch of the British Medical Association.

and 3.9 in 1902. Last year (1903) the rate was rather lower, but stood as high as 4.1 per 1,000.

The following tables, calculated from the Registrar-General's annual reports, clearly show the bad pre-eminence of the town of Clonmel in regard to its mortality from phthisis (pot-monary tuberculosis).

TABLE I. *Comparison of the Phthisis Death-rate of Clonmel with that of Dublin, of Five of the other Large Towns in the South, of the whole of Ireland, and of each Province.*

Town or Province	Phthisis Death-rate per 1,000		
	1901	1902	1903
Whole of Ireland	2.14	1	—
Leinster	2.50		—
Ulster	1	2.1	—
Munster	2.10		
Connaught	1.60	1	
Dublin		3.1	—
Cork	2.80		
Limerick		1.70	
Waterford		3	
Westport	2.30	2.7	
Killarney	1		
Clonmel	5.08	5.40	4.

TABLE II. *Showing the Proportion of Deaths from all Causes to Deaths from Tuberculous Phthisis in the Superintendent Registrars' Districts of Clonmel, and those of several neighbouring Districts.*

Superintendent Registrars' District.*	Phthisis Death-rate, 1902	Total Death-rate, 1902
Carrick-on-Suir	As 1 to 14	As 1 to 1
Ramelton	,, 11.2	,, 7.
Callan	,, 11.4	,, 21.0
Nenagh	,, 12	,, 8.40
Dungarvan	,, 1	,,
Listowel	,, 1	,,
Tipperary	,, 1	,, 1
Mallow	,,	,, 1
Fermoy	,, 8.20	,, 11
Bandon	,,	,, 1
Dundalk	,,	,, 1
Youghal	,, 7.00	,, 1
Clonmel	,, 1 4	,, 1
Kilkenny	,, 6.10	,, 1
Clogheen	,,	,,
Clonmel	,,	,,

*The Superintendent Registrar's district is the same as the Poor law Union, and includes the urban district of the town mentioned, together with the rural district in the Union.

From Table I it will be seen that while the phthisis mortality of the neighbouring district of Carrick-on-Suir was in 1902 one-eighth and in 1902 one-tenth of the total mortality of the district, and in Tipperary in each year about one-tenth, in the Clonmel district the phthisis mortality was as nearly as possible one-fifth of the total mortality in 1902 and one-sixth in 1903. As a contributory cause of the disproportionately high phthisis death-rate in Clonmel, it is necessary to point out that there are in the town two institutions (the county asylum and the military hospital into which patients are admitted from various parts of the County Tipperary, and that a considerable number of deaths from phthisis occurs in these institutions, and it requires allowance to be made before the tuberculous death-rate in any way higher than it should be.

In the three years 1900, 1901, and 1902, excluding all persons admitted from other parts of the country to the asylum and the military hospital, there have been in Clonmel from pulmonary phthisis [illegible] deaths, of which [illegible] were males and [illegible] were females. The proportion of deaths from phthisis to the total deaths in the three years was [illegible] per cent., and the proportion of deaths from phthisis to the total deaths in the male sex was [illegible] per cent. Only 2 were over 65 years of age, and only 2 were under 5 years of age. The

the population have the benefit of the water-carriage system of sewage disposal. One end of this system, namely, the water supply, is excellent, being taken from a gathering ground in the mountains near the town and at a good height above it, and being efficiently filtered in accordance with modern principles. When we come to the middle of the system the most important part in many respects—we are not treading on such safe ground, as many of the waterclosets are defective in various ways and most inefficiently ventilated.

There are a large number of cesspools in the town, and I believe that many of the town sewers are, owing to faulty construction, little better than cesspools. The crude sewage is run straight into the river, in the middle of the town, without any attempt at purification. Fortunately, the forces of Nature have provided us with a fine river, whose current is rapid, and for the most part of the year runs with a large volume of water, otherwise we might suffer more than we do from inefficient drainage.

There are two other things which I must allude to as no doubt in some measure contributory to the excessive phthisis mortality in Clonmel. The first is the condition of the slaughterhouses. Several of these are at the back of the butchers' shops, close to dwelling houses, and are not kept in a proper sanitary condition. It is also a very common custom in the town to keep pigs in close proximity to dwelling-houses.

The second matter I refer to is the horse and cattle fair, which is held every month in the main streets of the town. When numbers of cattle are herded together for hours all over the principal streets and up against the shop fronts, and when, as so frequently happens, the fair day is wet, it is hardly necessary to describe the filthy condition of the thoroughfares, which, in fact, are rendered almost impassable for decently-clad pedestrians. It is possible that some of these thousands of cattle may have tuberculous disease of their intestines, in which case, if we assume as proved the identity of human and bovine tuberculosis, their excreta would tend to spread the disease. I do not wish to lay too much stress on this probable cause of phthisis prevalence, but it is at least worth considering.

There is very little, if any, supervision of the cows which supply milk to the inhabitants of Clonmel and of their surroundings. I indeed fear that many of the milk vendors are quite indifferent to, if not ignorant of, the necessity for scrupulous cleanliness in all the details connected with the supply of milk to the public. Recent epidemics of enteric fever have been traced to the milk supplies, the probable source of origin being infected water used to wash milk cans. In particular I may instance the condemnation, by Professor O'Sullivan, F.T.C.D., of the milk supplied by one of the contractors to the county asylum, in the recent investigation into the origin of an epidemic of enteric fever in that institution. If enteric fever is spread in this way it is more than likely that many cases of tuberculous disease may have a similar origin.

There is another possible factor in the etiology of phthisis which prevails in Clonmel, as well as in all parts of Ireland. I refer to the dampness of the climate caused by the high rainfall. The average annual rainfall of Clonmel for the last twelve years was 41.45 in., and in 1902 it was as much as 50.8 in. and 53.91 in. in 1903. Although I think there can be little doubt that the damp climate of Ireland has some connexion with the excessive prevalence of phthisis, yet it is important not to exaggerate this connexion.

As I mentioned before, in 1864 the death-rate from tuberculous diseases was 3.3 in England, 3.6 in Scotland, and only 2.4 in Ireland. The decrease in the death-rate in the two former countries during the last 50 years, coincidentally with its increase in Ireland, is to be attributed rather to better sanitary administration than to any change of climate.

Again, in spite of the very high rainfall in 1903 the phthisis death-rate in that year was lower than it has been for some years. All over the kingdom the general death-rate for 1903 was below the average, a fact attributed by some authorities to the excessive rainfall preventing the dissemination of the germs of disease by dust to the same extent as in drier years. The rainfall in Carrick-on-Suir for 1903 was 63.5 in., and yet the phthisis death-rate in that town was much lower than in Clonmel.

The town of Clonmel is situated in a valley on the river Suir, which overflows its banks several times every winter, so that many houses near the river have their basements constantly flooded. There is a mountain range close to the town to the south with high rising ground to the north, so that the town is situated in a sort of cup. The prevailing wind is south-west, and the climate is generally considered very relaxing.

Remedies.

I will conclude with a brief consideration of some possible remedies for the conditions I have described.

As it is impossible to alter the laws of Nature and of meteorology, one potent cause of high phthisis mortality will always exist in the large rainfall of Ireland. But that is no reason why those which are remediable should not be remedied.

Obviously the first thing to do is to see that the towns are administered, as far as sanitary matters are concerned, in accordance with the first principles of hygiene.

A proper system of disposal of excreta and refuse should be adopted, and whenever it is impossible to adopt the water-carriage system the yards of all houses should be properly paved and the privy-middens and ashpits constructed in accordance with the model by-laws of the Local Government Board, which should be enforced by all sanitary authorities. The provisions of these by-laws should also be enforced with regard to slaughter-houses and the keeping of pigs in proximity to dwelling-houses. I notice that the Corporation of Clonmel is just introducing a certain number of automatically-flushed public closets which is undoubtedly a step in the right direction.

There should also be a more efficient control of the premises and cows of milk purveyors. The cattle fair should be relegated to a proper fair green at a suitable distance from the town.

Under the Irish Poor-law system the dispensary medical officer is *ipso facto* also medical officer of health. The average dispensary doctor has neither sufficient time nor independence to deal adequately with important problems of public health, which are accordingly either allowed to go to the wall or dealt with by the sanitary inspector, an individual who, though in many instances an excellent official according to his lights, yet is not qualified either by education or by position to form a thoroughly independent judgement in all questions of sanitary reform.

Of course the medical inspectors of the Local Government Board do a great deal in the way of investigating epidemics and making recommendations for the good of the public health; but they have not time to attend to many necessary details. I think that if it were possible to appoint independent and properly qualified medical men as medical officers of health for each county they would bring the sanitary administration of Ireland more into line with that prevailing in England, and would give the smaller Irish towns a chance of being led into the ways of sanitary righteousness.

I have no doubt that the attention which is now being given to the open-air treatment of phthisis, and the steps that are being taken in different parts of the country to erect open-air sanatoria for the treatment of consumptives, as well as the efforts being made to educate the public as to the infectiousness of phthisis and the proper methods for its prevention, will in time greatly diminish the mortality from that dread disease.

PRIMARY INTESTINAL TUBERCULOSIS IN CHILDREN: PERFORATION OF ULCERS.

By NATHAN RAW, M.D., M.R.C.P.Lond.,

Physician, Mill Road Infirmary and Sanatorium for Consumption, Liverpool.

Primary tuberculosis of the intestine is, in my experience, a very rare condition to meet with in the *post-mortem* room. I have personally conducted over 600 necropsies on persons dying from tuberculosis, and have only seen 3 cases which I could unhesitatingly say were primary intestinal ulceration, the remaining cases of tuberculous ulceration being always secondary to lung infection. These 3 cases occurred in children aged 2½ years, 1½ year, and 2 years respectively. With regard to the significance of primary intestinal ulceration as a factor in the spread of the disease, Professor Koch, in his famous lecture in London in 1901, said:

> If the bacilli of bovine tuberculosis were able to infect human beings, many cases of tuberculosis caused by the consumption of alimenta containing tubercle bacilli could not but occur among the inhabitants of great cities, especially the children, and most medical men believe that this is actually the case.
>
> In reality, however, it is not so. That a case of tuberculosis has been

...tuberculosis can be diagnosed with certainty when the tubercle bacilli are found in the sputum, when so-called primary tuberculosis of the lungs is found, and when the secondary glands are not affected. Many cases examined after death proved tubercles in the lungs, but no trace of the intestine or mesenteric glands. Dr. Cornet, of Berlin, took cases of primary tuberculosis of the intestine and mesenteric glands, and found in seventy-two cases only one case of primary tuberculosis of the intestine. Hitherto nobody could decide with certainty in such a case whether the tubercle of the intestine was of human or of animal origin. Now we can distinguish them. So that it is necessary to cultivate in pure culture the tubercle bacilli found in tuberculous material and to ascertain if they belong to bovine tuberculosis by inoculating cattle with them.

The question whether human and bovine tuberculosis are the same or different diseases has exercised the minds of scientific and clinical workers since 1901, when Koch made his famous declaration. Two Commissions were appointed to investigate this question. The work of the Imperial German Commission was purely experimental, portions of tuberculous material being used from different parts of the body with special reference to the organs of children affected by tuberculosis. The report is unanimously in favour of Koch's contention that the bacilli from human and bovine sources have distinct morphological and bacteriological characters, which are sufficient for their easy differentiation.

This is of the highest importance, and confirms the observations made by me in the BRITISH MEDICAL JOURNAL of February, 1903. In addition, the German Commission has clearly proved that bovine tuberculosis is conveyed to children, and also particularly emphasizes the fact that tuberculosis is often primary through the intestines and mesenteric glands. From three cases of miliary tuberculosis in children they found the disease to have been introduced through the intestines, and in one case the infection was bovine from milk.

If we exclude the rare cases of primary tuberculosis of the intestines or the mesenteric glands with these recognized as *Perlsucht* infection, we have certain cases of primary infection of the digestive organs, of which I have considered as infection of *Perlsucht* or bovine tuberculosis origin.

The result, then, of the work of the German Imperial Commission is to establish (1) that there is a distinct difference between the bacilli of human and bovine origin, and (2) that bovine tuberculosis is conveyed to children by means of infected milk, although they add not to any great extent. My own clinical and experimental work is in entire agreement with these results, excepting with regard to the amount of bovine tuberculosis conveyed to humans, which I consider is considerable. I believe that man is attacked by two distinct varieties of tubercle, one conveyed by infection from one person to another, the other by receiving into the body bovine bacilli from infected milk.

It is important to bear in mind that although primary intestinal tuberculosis is extremely rare, yet primary infection of the mesenteric glands is comparatively common; in children the tubercle bacilli pass readily through the walls of the intestine and are conveyed by the lymphatics first to the mesenteric glands and then by direct extension throughout the abdomen, and in many cases through the diaphragm to the pleurae, lungs and bronchial glands. This process of extension to the lungs I have met with in many cases, and numerous feeding experiments on animals have confirmed it.

During the last seven years I have had under my care 300 children suffering from what I have diagnosed as "tabes mesenterica," meaning by this tuberculosis of the mesenteric glands. A large proportion of these children were covered under the term, but whilst of the total number I had an opportunity of making a necropsy in [illegible] cases. There can be no doubt that the mesenteric glands and organs may be infected from the intestinal contents as well as from the intestine. In [illegible] I was convinced that the primary infection was through the intestine, and that the child by swallowing the sputum had infected the mesenteric glands. On the other hand, I have met with several cases of well-marked primary infection of the glands associated with secondary infection to the lungs, pleurae, and bronchial glands. My cases of undoubted primary infection of the intestinal organs [illegible] were of bovine origin.

[illegible] primary infection [illegible]

[illegible] was [illegible] was [illegible] the [illegible] was [illegible] the [illegible] was [illegible] the

his medicine on January 7th to extract hydrastis canadensis. [illegible] and took [illegible] ic. as the bleeding was a little severe, and gave him [illegible] hypodermically at bedtime.

The bleeding between the gums seemed to go on intermittently until February 1st, when it was [illegible] and a specialist was called in. He was very much alarmed at the condition [illegible] by this time, and afterwards [illegible] the evening [illegible] by Messrs. [illegible] and [illegible] the usual treatment [illegible]

[illegible] ... [illegible]
[illegible] do.
[illegible] ...
[illegible] do.
[illegible] night do.
[illegible] ...
[illegible] ...

During this time the [illegible] very little cough and the temperature remained normal. Morphine [illegible] with the exception of the [illegible] and [illegible] the oral haemorrhage [illegible] and [illegible] the case in a [illegible] [illegible] The treatment of the case [illegible] perfect success in the [illegible] [illegible] and [illegible] and exercise of all [illegible] and taking

Remarks.

Suprarenalin in this case evidently did no good so far as the ultimate issue of the case is concerned. Indeed, owing to its raising the blood pressure its use seemed rather contraindicated than otherwise; still, after reading the results obtained and looking to the hopelessness of the case I felt justified in giving it a trial. That suprarenalin increases the blood pressure was evident from the marked extra tension in the pulse after administration. Twice when given frequently in one day I noticed profuse perspiration following its use. It did not interfere with the patient's digestion in any way, and gave rise to no discomfort of any kind. He always expressed himself as [illegible] nothing from taking it. Any little effect it had seemed to be more marked when the morphine was given at the same time. As to whether its exhibition delayed the final haemorrhage terminating the case I cannot say.

In this case evidently a large branch of the pulmonary artery must have ruptured, probably as the result of aneurysmal dilatation into a phthisical cavity, and probably no medication of any kind would have proved ineffectual, but in less severe cases I should be inclined to try the results of suprarenalin again. After the first slight haemorrhage in this case I gave a hypodermic of ergotine, but as it made the patient feel very sick and faint I did not repeat it.

References

1 [illegible] the British Medical Journal, December 12th, 1903, p. [illegible]
2 [illegible] British Medical Journal, February 6th, 1904, p. [illegible]

A CASE OF HAEMOPHILIA TREATED WITH ADRENALIN CHLORIDE.

By Ernest Francis, M.R.C.S.Eng., L.S.A.Lond.,
Chief Medical Officer, Assam-Bengal Railway.

On February 23rd, 1904, I was urgently summoned to see a patient who was said to have been bleeding from the mouth for about six hours. I found a young man, blanched and anxious-looking, his pulse too rapid to count, feeble and fluttering. A large quantity of coagulated blood was in a basin at the bedside and blood was being expectorated at frequent intervals.

The view of the mouth and pharynx being obscured by blood and blood-clot, a Cowan's gag and tongue depressor was introduced and the pharynx and mouth cleaned out. I was then seen that there was deep purple ecchymosis of the right side of the hard palate, sharply limited by the [illegible] line. The soft palate was [illegible] and bleeding [illegible] rapidly; the uvula was engorged, about [illegible] the long, and bleeding freely. The uvula was seized by [illegible] and [illegible] with scissors, the whole of the pharynx swabbed out with sponges saturated with adrenalin chloride solution [illegible] (Parke Davis), and a sponge saturated with the [illegible] held to the stump of the uvula. On its removal after several minutes all haemorrhage was found to have completely ceased. All the treated parts were completely blanched, with the exception of the ecchymosis on the right palate, which remained a dark purple and appeared extraordinarily strongly defined, presenting a striking contrast to the adjacent mucous membrane.

Adrenalin chloride solution [illegible] was given by the mouth. The urgent haemorrhage having been arrested, I had leisure to obtain the history of the case:

The patient was a male Hindu (Brahmin), aged 22. At the age of 12 years he received a blow on the right temple from a tennis ball. He bled from both nose and mouth for [illegible] days afterwards.

At the age of 15 years he fell from a [illegible] sustained no apparent injury, but on the following [illegible] to bleed from the nose and mouth and to pass blood with both urine and faeces. This lasted five days. On the present occasion no blow or injury had apparently been sustained.

A puncture caused by a hypodermic injection was oozing freely. Adrenalin solution was applied to it, and [illegible] oozing took place.

At 10 P.M. the patient vomited a large quantity of blood (probably swallowed earlier in the day). He passed a stool containing much black blood, and his urine was dark port-wine coloured. There had been no recurrence of bleeding from the mouth. There was a large, tender, and obscurely-fluctuating tumour in the right iliac fossa. The temperature was 98.4° F., and the pulse 134, regular, and much improved. The face was less anxious. He was ordered a mixture containing adrenalin solution [illegible] and [illegible] citrate [illegible] gr. by the mouth every four hours.

February 24th, 7 A.M. Condition improved; no bleeding from mouth; appearance less anxious. Temperature 98° F.; pulse 118; urine black; faeces black. Adrenalin and ergotine citrate mixture continued.

February 25th, 9 A.M. Much better. No external bleeding. Swelling in right iliac fossa less. Pulse 112, good; temperature 98.8° F.; urine clear, but slightly blood-stained; faeces black. Able to sit up in bed and talk. Adrenalin mixture discontinued, and full doses of iron and arsenic substituted.

February 26th, 9 A.M. Appearance very anxious; very restless; no external bleeding; urine port-wine coloured; has passed a copious stool consisting almost entirely of fresh blood; pulse 132, fluttering, and intermittent; breathing shallow and sighing; a hypodermic injection of ergotine [illegible] and strychnine [illegible] gr. was at once given, and a rectal injection of 1 pint of saline solution at 100° F. The adrenalin mixture was again ordered by the mouth.

February 26th, 6 P.M. Less anxious; breath fetid; pulse 135, non-intermittent; temperature 100.2°; evacuation of the saline rectal injection stained black; urine clear, no visible blood; no external bleeding. Another saline rectal injection given and mixture continued.

February 27th. The patient became very restless, and his temperature rose to 103° F. on the night of the 27th. I was called to him at 2 A.M., and found him extremely restless, semi-conscious; temperature 104° F.; respiration very hurried and shallow; pulse 150, failing. At 2.15 A.M. the patient became completely unconscious, the pulse imperceptible, and the respiration more rapid and shallow. Respiration ceased at 2.20 but the heart continued to beat irregularly for nearly a minute afterwards.

Remarks.

The patient's family being wealthy and high caste Hindu no family history was obtainable, nor for the same reasons was a necropsy possible. Had I at the time been aware of the patient's previous history I should not have removed any portion of the enormously enlarged uvula. It is of interest, however, that the bleeding from the stump was at once controlled, and that there was no recurrence of the haemorrhage from the pharynx.

ON THE PHYSICAL EXAMINATION OF 1,580 GIRLS FROM ELEMENTARY SCHOOLS IN LONDON.*

By F. MAY DICKINSON BERRY, M.D., B.S.Lond.,
Medical Examiner, Technical Education Board, London County Council.

The girls mentioned in this paper are pupils in elementary schools who have obtained scholarships from the Technical Education Board of the London County Council to enable them to continue their education in higher-grade schools. The conditions under which the scholarships are given the same for the girls as for the boys were as described by my colleague Dr. Leslie Thorne Thorne in his paper in the BRITISH MEDICAL JOURNAL of April 9th, namely:

"Junior scholarships are given to pupils in elementary schools in London whose parents' income does not exceed £[illegible] per annum, and intermediate scholarships to those whose parents' income does not exceed £[illegible]. Candidates for these scholarships are required to produce a medical certificate that they are in good health, and free from any disease likely to interfere with their attendance at school. The cases given a year. Almost every child before taking up the scholarship has to pass a medical examination, partly in order to ensure that none shall receive a scholarship who is not in a state of health to profit by it, and partly that any cases of physical defect may be reported, so that the necessary treatment may be obtained or recommendations be forwarded to the parents which the child is to attend."

The physical examinations which I now summarize have been held twice yearly during a period of five years, and it is not without interest to note how far the results of the examinations of the two sexes correspond.

General Appearance.—The girls were arranged in three classes as regards general appearance—good, 60 per cent.; fair, 34 per cent.; delicate, 6 per cent.

Height and Weight.—The following tables show the average height and weight of 1,385 girls from 11 to 15 years of age. The girls examined the first year are not included, as the examination was conducted somewhat differently; girls of 10 and 11 have also been left out, the numbers being too small to be of statistical value. The average weights and heights of the boys, taken from Dr. Thorne Thorne's table, are added by way of comparison.

TABLE I.

Age	12		13		14		15	
	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.
Total number examined ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Average height	ft. in. 4 7	ft. in. 4 9	ft. in. [illegible]	ft. in. [illegible]	ft. in. [illegible]	ft. in. [illegible]	ft. in. [illegible]	ft. in. [illegible]
Average weight	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]	st. lb. [illegible]

In the preceding tables the average heights and weights of the girls examined are given in centimetres and kilogrammes, and are compared with similar statistics in the case of boys in various European countries (see page 1249). Dr. Axel Key's *Investigations of School Children* in Sweden, 1899, has shown that the London girls compare favourably in regard to height with all others, as regards weight they are slightly below both the Scottish and the American girls. The latter, however, appear to have been made up in higher grade schools and therefore would represent a wealthier class than that from which our scholars are drawn.

TABLE II.—*Average Height in Centimetres.*

Age	London (Present Investigation)	Edinburgh (Boarding Schools)	Edinburgh (Public Schools)	Sweden.	Denmark.
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	160·0	[illegible]	[illegible]	[illegible]

Tables IV and V refer to the circumference of the chest on forced inspiration to the degree of possible chest expansion, that is, the difference between forced inspiration and forced expiration. Dr. Thorne Thorne's tables regarding boys are given for comparison.

TABLE IV.—*Chest Circumference on Forced Inspiration.*

Inches.	Number of Cases (Girls).	Percentage of Total Number of Cases.	Percentage (Boys).
[illegible]	0	[illegible]	[illegible]
[illegible]	55	[illegible]	[illegible]
[illegible]	47	[illegible]	4·8
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	92	[illegible]	[illegible]
[illegible]	[illegible]	2·3	[illegible]
[illegible]	[illegible]	0·8	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
35—36	[illegible]	[illegible]	[illegible]

TABLE V.—*Degree of Chest Expansion.*

Inches.	Number of Cases (Girls).	Percentage of Total Cases.	Percentage (Boys).
[illegible]	42	4	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	53·5
[illegible]	45	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Examination of the Chest.—There was no case of serious lung disease of any kind among the girls.

Heart.—Out of the 1,580 children examined, there were 13 cases (about 8 per cent.) with cardiac murmurs indicative of organic heart disease; 4 of these children had suffered from rheumatic fever, and the cardiac condition was doubtless due to this; the remaining 9 were all children of perfectly healthy appearance, with no further symptoms of cardiac trouble and with no idea whatever that there was anything wrong about the heart. One had had scarlet fever; in the others no history of any disease to which the cardiac condition could be attributed was elicited. In all these cases the murmur was mitral regurgitant. In 32 children (about 2 per cent.) a basal systolic murmur was present, doubtless functional in character and in most cases due to anæmia. The anæmia was in nearly all the cases of but slight degree.

Spine.—Out of the total 1,580 girls 12 per cent presented some degree of lateral curvature of the spine. The percentage in the last two examinations was considerably higher, being as much as 22 per cent. I attribute this largely to the fact that at these examinations my attention was specially directed to this point, and that all cases were reported in which when the girl was told to stand perfectly upright any degree of scoliosis was observable, whereas, in the earlier examinations, the slighter cases were not included. It is true that in a considerable proportion of the cases the curvature was slight and could be made to disappear by rectifying the position; but even in a large number of these there was already some rotation of the vertebræ, shown by greater prominence of the ribs on one side. There were 5 cases of lateral scoliosis with definite bony deformity. One of these was due to shortening of one thigh from old hip disease.

In most of the cases the general muscular development was poor, there was frequently a tendency to anæmia, and many were below the average in weight. It is noteworthy that among the boys very few cases of scoliosis were found. I am of opinion that the poor muscular development of so

* This paper [illegible] at a meeting of the Section of Public Health at the Annual Meeting of the British Medical Association held at Leicester in July, 1903. A paper on the [illegible] was read before the Section of Public Health at the Annual Meeting of the British Medical Association held at Cambridge in July, 1902, and published in the BRITISH MEDICAL JOURNAL of August 9th, 1902.

many of the girls is the chief cause of the curvature of the spine, and that it calls very strongly for more attention to physical education, and especially for more provision for gymnastics than is found at present in elementary schools for girls. Girls, too, of the lower classes do not as a rule play the same vigorous games as do the boys, or as are played now by girls of the higher classes of society.

Eyes. There was no case of colour blindness or even of "confusion of colours" among the girls.

Acuteness of Vision. Out of the total number, 202, nearly 13 per cent. had errors of refraction requiring the use of glasses. Only 39 per cent. of these were already provided with any glasses.

Hearing.—Out of 1,400 cases 117, 8.3 per cent., had defective hearing to some extent. In 80 of these the defect was slight, a watch normally heard at 18 in. being audible at distances varying from 6 in. to 12 in. In 37 cases the defect was considerable, the watch being heard only at less than 6 in., in many cases at less than 2 in. In nearly all these, however, one ear only was affected. In several there was a history of otorrhoea. In no case was the deafness noticeable in ordinary conversation. Contrary to my expectation I found but few of the cases of defective hearing associated with enlarged tonsils or adenoids, they were 13 in all, or about 11 per cent.

Throat and Nose.—Enlarged tonsils, adenoids, or both, were found in 148 cases, nearly 10 per cent. Many of the cases were slight and no treatment was advised. Fifteen cases of adenoids were recommended to undergo an operation. The association with deafness was, as remarked above, very small, being limited to 13 cases. The percentage of enlarged tonsils and adenoids was very much less in the girls than the boys, namely, 10 per cent. instead of 34 per cent. It may be suggested that cases were allowed to pass undetected in the former, but I do not think that this was the case. There was undoubtedly a striking absence among the scholarship girls of the facial signs of adenoids so common in our elementary schools and especially so in the classes for mental defectives—but there too I think more frequent on the whole in boys than girls.

Urine.—Among the 1,380 cases examined 131, or nearly 10 per cent., had albuminuria. This percentage is almost exactly the same as that found among the boys. Only those cases are included in which there was both a distinct cloud on boiling and a definite ring on treatment with cold nitric acid. The amount of albumen varied from a slight cloud to, in a few cases, as much as one-fifth solid albumen. In as many cases as possible the urine was examined a second time at a few days' interval: 82 cases were thus re-examined, in 67 albumen was present on both occasions. I have endeavoured as far as possible to keep the albuminuria cases under continued observation. This has not been always easy, as they are under no obligation to attend any subsequent examination, and opportunities for further investigation can only be obtained as a favour. I have, however, succeeded in making over 300 examinations of the urine in old cases.

Seventy-Three Cases were Examined Three Times. In 180 (83 per cent.) of the examinations albumen was found. In 9 cases albumen was present at every examination.

Forty-One Cases were Examined Four Times. Albumen was found in 93 of the examinations (70 per cent). In 10 cases there was albumen at every examination.

Fourteen Cases were Examined Five Times. In 57 of the examinations (81 per cent.) albumen was found. In 6 cases albumen was present on each occasion.

The longest time any case has been under observation is five years; 23 cases have been under observation for periods of from three to five years. Of these 23, 10 had albuminuria at every examination, 12 had no albuminuria the last time they were examined (3 of these also had none the last time but one), 1 case was found to have no albuminuria at an intermediate examination, but albumen was present again when last she was seen. The amount of albumen was found to vary a good deal in the same individual at different times. On the whole, the tendency certainly was for the amount to diminish at each subsequent examination, but this was by no means invariably the case.

Causation of the Albuminuria and Health of the Girls.—The majority of these girls were of good general appearance, several were indeed among those who were noted as being specially robust and healthy-looking; 10 were somewhat anaemic, and were among those who were classed as delicate. Albuminuria is said to be common in children of a neurotic temperament, subject to night terrors, somnambulism, or other symptoms of an unstable nervous system. Certainly by far the larger number of the girls I examined were by no means of this type.

There was a history of scarlet fever or diphtheria in a certain number of cases, but not in a greater proportion than among the whole number of girls examined. In no case was any history of kidney disease given, and in none had the existence of any kidney trouble been suspected. I did not find among them any cases with further symptoms of kidney disease or circulatory disturbance. Enlarged tonsils were present in somewhat greater proportion than among the girls in general, but not to any great extent.

In a few of the cases where the amount of albumen was largest a microscopic examination of the urine was made. No casts were found. I have not as yet found evidence of deterioration of the general health among the girls who have been kept under observation. One girl has had scarlet fever since she was first examined, and informs me she was then told that it was complicated by inflammation of the kidneys. As she appears to have been but slightly ill, the diagnosis was probably due to the pre-existing albuminuria.

The conclusions I have drawn from the very imperfect observations I have been able to make are as follows:

1. In the majority of the cases in which albuminuria was found the condition was not merely accidental and transitory, but was more or less permanent, at any rate for a few years.

2. I find no evidence of consequent deterioration of health so far as I have been able to watch the cases.

3. On the whole the albuminuria tends to diminish, and in more than half the cases had disappeared when they were last seen.

Unfortunately the time during which it has been possible to keep the girls under observation is too short to throw much light on the subject of the ultimate prognosis in these cases of albuminuria. That some will result in nephritis is probable, but the large number of cases in which the albumen has disappeared after persisting for some months or years certainly appears to me to afford some evidence against the theory that albuminuria in the apparently healthy is to be considered in all, or nearly all cases, an early stage of interstitial nephritis. It is, of course, impossible to say that some of the albumen may not have been due to leucorrhoea. The urine in all the cases reported was, however, quite clear, and there was no signs of leucorrhoeal discharge—cases in which there was merely a faint trace of albumen present were on this account not included.

As regards the condition of the girls generally as brought out in these examinations, I think this may be considered satisfactory. The girls as a rule were healthy. Although a considerable proportion might have been better developed in many ways, and a variety of defects were discovered, these were generally not serious, and the falling below the standard of health was not great. The candidates were the picked scholars of the elementary schools; they had all worked hard, and had had to pass a fairly severe competitive examination. The medical examination was interesting in regard to the question as to whether such application to work had injured the health of the scholars, an accusation not infrequently made concerning work in Board schools. In the case of those who came before me—the girls who succeeded—I think the answer was in the negative.

NOTE ON THE OCCURRENCE OF LEISHMAN-DONOVAN BODIES IN "CACHEXIAL FEVERS," INCLUDING KALA-AZAR.

By LEONARD ROGERS, M.D., M.R.C.P., I.M.S.,
Acting Professor of Pathology, Medical College, Calcutta.

THE work of Donovan in showing the above parasite-like bodies to be commonly present in chronic fevers in Madras, following very closely on the first description of them by Leishman,[2] has raised the very important question as to whether some of the cases hitherto known as "malarial cachexia," including the Assam epidemic form of the disease kala-azar, might not be caused by the new parasite. On my recent return to India I was fortunate enough to be placed on special duty to inquire into the prevalence of fevers in Dinajour (which is one of the districts in which I showed some years ago[3] that the Assam epidemic fever took its origin in the early Seventies, owing to five out of six successive years of deficient rainfall). I have, therefore, been able to examine for the new parasite by spleen puncture, with some

results which appear worthy of record. As my object was to find out how to differentiate the cases with the new parasite from chronic malarial fevers, all cases with enlargement of the spleen before the kala-azar fever were excluded. In the little operation, which was rendered painless by spraying the skin first with ether, [illegible] All except [illegible] were operated on in this way in small dispensary [illegible] the result obtained. The duration of the cases varied from [illegible] months, as will be seen from the following table. Most of them presenting very marked enlargement of the spleen, accompanied by darkening of the skin, anaemia and considerable emaciation; that is the typical picture of "malarial cachexia." In short, these were just the cases which I pointed out some years ago as individually indistinguishable from kala-azar in Assam, but which differ from that disease, when the family history is [illegible], in that more than one death in a family within a year or two is very exceptional in the sporadic form of kala-azar in Lower Bengal; while it is the rule in the epidemic form of Assam, where many [illegible] dispensary [illegible] had lost half, a third, or more than half of their [illegible] from the disease. Further, in the worst part of the Dooars district I could obtain no evidence of malaria being connected by the disease, and as the people resisting there always occurred in the affected tracts in Assam. Yet, even in such cases of the two forms, there is no means of distinguishing them, except, perhaps, by the greater rapidity of the occurrence of the cachexial stage in the epidemic form.

With regard to the present series of cases malignant tertian malarial parasites were found in seven, Leishman-Donovan bodies in eleven, while in the remainder no parasites could be detected, although in most a film prepared from the [illegible] blood was examined, as well as that of the spleen [illegible] the Romanowsky and Leishman's stains being used. It will be [illegible] to [illegible] for purposes of comparison, the two [illegible] of cases in which parasites were found. The remaining cases which constituted just one half [illegible] were precisely similar in nature to those given in the tables.

white corpuscles, and also a large proportion of lymphocytes and [illegible] of polymorphonuclears just as I have previously shown occurs in chronic malarial fevers as well as in cases of malignant tertian and estivo-autumn, so that if the new bodies are [illegible] of malarial organism they [illegible] a [illegible] nuclear increase is not diagnostic of malaria, but rather of an indication of the presence of a [illegible] invasion of the system. It is also significant to find that even spleen puncture fails to differentiate all the cases in [illegible] cases, but better results may be obtained by repeating the procedure, as a second puncture was successful in one case.

Thus, from [illegible] it is reasonable that all these chronic cases may be due to the new parasite-like bodies, and the presence of malarial parasites in many of them also may be a coincidence. If the new parasites do not form melanotic pigment, though it is clear that the great majority of these chronic cachexial fevers are complicated by malaria, for I have shown on more than one occasion that both in kala-azar and also in "malarial cachexia," as seen round Calcutta, recent [illegible] pigment is nearly always met with in the liver, spleen, etc., after death, while during the [illegible] high rises of temperature which occur during the course of the low fever of the cachexial stage of the disease malarial parasites can frequently be found. On the other hand, against the view that the new bodies are a late secondary infection frequently occurring in the subjects of chronic malarial fever are the facts that these new parasites were found after only one month's fever in two of the cases recorded above; while it will be shown presently that they are also to be met with in fairly early stages of kala-azar; so that, on the whole, it appears to be more likely that they are a new form of parasite very closely allied to the malarial parasites, and producing a very similar train of symptoms, but with a greater tendency to bring about a cachexial state very rapidly, and a greater resistance to the action of quinine in small doses. In view of the above results, it is clear that the differentiation of the new fever from chronic malaria by purely clinical means, apart from spleen puncture, will be an extremely difficult

Table of Cases in which Parasites were Found.

No.	Sex	Age	Duration of Fever	Temperature	Skin	Spleen.	Liver.	Blood	Parasites
1	F.	[illegible]	[illegible]	Very [illegible]	[illegible]	A S S	1	Very marked	Numerous
2	M.	[illegible]	[illegible]	Marked	[illegible]	[illegible]	1	[illegible]	[illegible]
3	M.	[illegible]	Slight	[illegible]	[illegible]	[illegible]	Nil	Slight	Numerous
4	M.	[illegible]	Daily	Slight	[illegible]	[illegible]	Very marked	Very marked	Scanty
5	[illegible]	[illegible]	[illegible]	Slight	[illegible]	[illegible]	Nil	[illegible]	Numerous
6	M.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]
7	M.	[illegible]	[illegible]	Very marked	[illegible]	[illegible]	Very marked	Very marked	Scanty
8	[illegible]	[illegible]	[illegible]	Marked	[illegible]	[illegible]	[illegible]	[illegible]	Numerous
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	A S S	4	Extreme	Scanty
10	M.	[illegible]	Not taken	Marked	[illegible]	A S S	1	Very marked	Scanty.
					Malignant Tertian Parasites.				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	A S S	1	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	Marked	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	Marked	[illegible]	[illegible]	Nil	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	Very marked	[illegible]	A S S	1	[illegible]	[illegible]

[illegible] the spleen [illegible] that there is no point of [illegible] between the two cases, for in both the [illegible] of the [illegible] is evident, and [illegible] the [illegible] in this to the [illegible] with the [illegible] of the [illegible] with the [illegible] of the [illegible] before they were [illegible] of the [illegible] and [illegible] of the [illegible] in both [illegible] of the [illegible] parasites.

matter, and will require a far larger series of cases than the present one. Yet if the new bodies prove to be the cause of all the chronic fevers in which they are met with a great advance will have been made, and a new field of research opened up.

Leishman-Donovan Bodies in Kala-azar.

In December last a letter appeared in the *London Medical Record* from Major Donovan pointing out that the cases in which he found the new parasites resembled kala-azar in type, and suggesting that the latter disease might also be due to them. Dr. Ross has also made a similar suggestion. I [illegible] the kindness of my old friend Dr. Dodds Price, of the Nowgong district of Assam, whose experience of kala-azar is absolutely unrivalled at the present time, in sending me some [illegible] blood obtained during life by spleen puncture, in every case of undoubted kala-azar, the [illegible] of which extended over five months to two years and a half. I have been able to search for the new bodies. The results may be very briefly summarised by saying that in numerous [illegible] these were totally absent, while in three of the cases, while in two more they were more

sparingly met with. In one case none could be found, but the notes of the case reported that the patient was improving and was expected to recover. In the remaining case the slide was spoilt in trying a new fixing agent. Since these results were obtained, Dr. Bentley of Assam has announced in the *Indian Medical Gazette* that he has also found these bodies in kala-azar cases, and has therefore abandoned his recently-expressed Malta fever theory of the disease which I showed was based on serum tests with too low dilutions to be of any value, while in two series of cases I got partly negative results, since which similar negative reactions have been obtained at the Army Medical School laboratory in another series of kala-azar bloods sent by Dr. Price. These parasites, then, are certainly to be found in kala-azar, and should they prove to be the actual cause of this disease the matter will be one of great practical importance, for the measures recommended by me, and very successfully carried out by Dr. Dodds Price and others, both for the suppression of the disease by segregation measures, and , and the very marked lowering in the mortality produced by more efficient treatment with quinine, should be equally valuable in the treatment of the sporadic form of the affection. Still more important from this point of view is the demonstration beyond the possibility of dispute by Dr. Price[5] of the certain action of quinine as a prophylactic against kala-azar, for when he first put into operation the segregation measures he lost hospital assistants and menials of the infected camp from the disease with great regularity, until he started, now several years ago, dosing them all regularly with quinine, since which he has not lost one, except a man who had already contracted the disease before this measure was started. A drug which is such a perfect prophylactic can hardly fail to have some curative action, although it often fails in advanced cases, and must be pushed in early ones to be effective, as I urged several years ago in my original report on the disease. I lay stress on this point because Major Donovan says that quinine is of little use in the disease. Now that we have a method of diagnosing the affection in the earlier stages quinine should be pushed as soon as possible before the patient reaches a cachexial state, and his total leucocytes, and still more the phagocytic polynuclears, are reduced to but a small fraction of their proper numbers, as I have previously pointed out, is so commonly the case in the most hopeless of these chronic fevers.[4] and .

With regard to the bodies themselves, I can find no difference between those seen in the sporadic form in Dinajpur, and I also quite recently in Calcutta in cases admitted to the Medical College Hospital as "malarial cachexia," and those I have found in kala-azar, while both agree clearly with specimens kindly shown me by Major Leishman in London, and sent me by Major Donovan from Madras, as well as those depicted by Manson and Low still more recently in a case from Sylhet.[7] In view of the great differences of opinion as to the nature of the parasites among leading medical authorities, it is useless to add any more to those already expressed, especially as further forms doubtless remain to be discovered before the life-history of the organism can be made out fully. That an asexual form of sporulation goes on in the spleen appears certain, but more than that I am not prepared to say at present. Nothing resembling an adult trypanosoma has yet been been seen.

I have also recently visited the Kola-Lukh area but found the outbreak had died out, only recovering cases being seen. It is worthy of note that nearly all the Dinajpur cases were found only about forty miles from the Kola-Lukh area. I would also like to point out that the discovery of a slightly different form of protozoan parasite than the present known malarial ones in both "malarial cachexia" and kala-azar does not *per se* clear up the mystery of the origin of the spreading epidemic form of the disease in Assam from the endemic form in Lower Bengal.

In my original report I stated that I had expected to have met with a different form of plasmodium from those of ordinary malarial fevers, and for this purpose examined a series of cases of commencing fever in kala-azar-infected houses so as to get them in the earliest stages, but failed to find any differences in the parasites met with in the peripheral blood from those of malaria (spleen puncture, unfortunately, not having been done), except in kala-azar they "appeared to be less frequently pigmented, but the difference was not sufficiently striking to allow of there being differentiated by it." Further, "I never came across any crescent forms." If the new organisms are piroplasma, as suggested by Laveran, then some of the parasites I saw in the peripheral blood may be an intracorpuscular form of the parasite, although many of them were undoubtedly pigmented malarial organisms, which were met with throughout every stage of the disease in different cases, although often absent for a considerable time during the occurrence of the low form of fever in individual instances. In several of the Dinajpur cases recently examined the peripheral blood has showed unstained amœboid-like bodies, usually situated in red corpuscles, which present a purple stippling with Leishman's stain, the exact nature and significance of which I am uncertain about. As I worked in Assam mainly with unstained specimens fixed with osmic acid vapour (Romanowsky and Leishman's stains not then being in general use), some of the intracorpuscular unpigmented forms then seen may possibly have been of this nature.

Of the forms met with in blood withdrawn from the spleen during life, the commonest is a small oval body slightly longer than it is broad and measuring about one-third the diameter of a red blood corpuscle in its longest axis. It has two nuclei, one of which is small and often rod-shaped and stains deeply, while the other is larger, more rounded, and less darkly stained. They are usually situated opposite each other, close to the capsule and in close contact with each other. These bodies are free in the blood and may be very scanty, but in cases with actual fever when the blood is obtained they are not infrequently very numerous, being met with in numbers in a single field of the microscope. In addition to this form, small groups of similar bodies are met with clumped together so as to closely simulate a quartan sporulating malarial parasite, while in others these are seen in the act of breaking up into the small forms. A still earlier stage of this sporulation is seen in which pairs of unequal-sized nuclei are grouped within a single cell, but no signs of subdivision are yet apparent. These last forms are somewhat larger than the longest of the single forms, and appear to be produced by a subdivision of the nuclei of the latter. I have not yet found this form in the peripheral circulation, but possibly it may be present in small numbers. I have also seen them within polynuclear white corpuscles, where they may show degenerative changes.

In conclusion I would suggest as a suitable provisional term for the chronic fevers showing Leishman-Donovan bodies in the spleen the term "cachexial fever" until further advances allow of a more accurately descriptive name being agreed upon.

NOTE. Since this paper was written it has been pointed out by the editor of the *Scientific Memoirs of Army Medical Officers* that the bodies recently described by Majors Leishman and Donovan were first recognized and described by Lieutenant-Colonel D. D. Cunningham, I.M.S., as occurring in Delhi boil as long ago as 1885 in a paper in Part I of the *Scientific Memoirs*. If these bodies are to be called by any one's name it should, therefore, be by that of Cunningham.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, [illegible] [2] BRITISH MEDICAL JOURNAL 1903, vol. I, p. [illegible] Report on Kala-azar, [illegible] [3] *Ind. Med. Gaz.*, November, 1903. [illegible] [4] *Ibid.*, October, [illegible] *Med. Chron. Trans.*, 1903, and *Journ.*, vol. [illegible] [5] BRITISH MEDICAL JOURNAL, January 3rd, 1903. [6] BRITISH MEDICAL JOURNAL, vol. II, [illegible] *Ind. Med. Gaz.* March, [illegible] [7] BRITISH MEDICAL JOURNAL, September 4th, [illegible] [8] *Med. Chron. Trans.* [illegible] *Med. Gaz.*, October, [illegible]

THE LEISHMAN-DONOVAN BODY.

SIR PATRICK MANSON, K.C.M.G., F.R.S. and GEORGE C. LOW, M.B.

So far the peculiar parasites associated with splenomegaly in India and other places have been found in the spleen, liver, and bone marrow, in the former two by puncture during life, and in all three *post mortem*. Lately having made sections of some of the other organs of a case which died of kala-azar in the wards of the London School of Tropical Medicine, and which presented many Leishman-Donovan bodies in the spleen, liver, and bone marrow, we have found the same parasite in the lymphatic glands from the mesentery.

Sections of the pancreas, kidney, and large and small intestine have so far shown nothing.

We record this fact now as it may be of importance in the further elucidation of the disease. We hope to publish shortly a full account of the case with photographs, and details of the arrangement of the parasites in the different organs.

"LEISHMANIA DONOVANI" IN THE SOUDAN.

By SHEFFIELD NEAVE, M.R.C.P.,
Khartoum.

The following instance of *Leishmania donovani* found by me at the Omdurman Civil Hospital is, I believe, the first case found in Africa except that occurring in Tunis on November 3rd last, and reported by M. Laveran. The case was under the control of Dr. J. B. Christopherson, and it is by his kind permission that I publish this account.

On March 19th I examined H. E., a boy aged about 8 or 9 years, who had just been moved from the hospital at Khartoum as a matter of convenience. He had come from Mesharareck in the Bahr-el-Ghazl, some 80 miles up the river, to be treated for chronic diarrhoea, and had recovered from this, but had a daily rise of temperature, usually remitting to normal, and commonly rising to 101° at night. This has continued till the time of writing. He was very emaciated, and his spleen was enlarged down to the level of the navel, but well to the left of it. The glands in both axillae and groins were also enlarged. Subject to the above, there were no abnormal signs or symptoms; he complained of no pain, and expressed himself contented with his lot.

Examination of the blood showed no malarial parasite either in the splenic or peripheral blood, but the former was full of *Leishmania donovani*. At the time I had unfortunately broken my haemocytometer, and had to put off a corpuscle count until April 5th, when the following was the result:

Erythrocytes	...	4 [illegible]
Leucocytes	...	[illegible]
Large mononuclears	.. ..	20 per cent
Small mononuclears	..	41 per cent.
Polymorphs	..	7 per cent
Eosinophiles ..	... ...	[illegible] per cent.
Myelocytes	..	1 per cent
		69 per cent

The enormous percentage of large mononuclears points to malaria, but no parasite of any kind was found, possibly owing to the quinine he had been taking.

On April 14th I communicated the discovery to Dr. A. Balfour, when visiting his Gordon College laboratories. He deemed it of much more importance than Dr. Christopherson and myself. He agreed with the identification, and at once telegraphed to Major Ross (who, it appears, had already instigated a search for this organism here) and it was through his kindness that I was enabled to inject some of the spleen blood into the vein of a rabbit, under the the skin of another, and into the spleen of a monkey, as well as to inoculate a number of media, with however, so far, negative results.

The history given by the mother is that the spleen began to enlarge while the boy was being suckled, but never gave any trouble. This may have some connexion with the fact that the case described by M. Laveran was a baby aged 7 months, and I would suggest that children may prove a happy hunting ground for this organism. If this proves to be the case it would appear to throw some light on the present theories of origin.

The cerebro-spinal fluid was examined for trypanosomata, but [illegible]. The urine was centrifugalized, but nothing abnormal found, nor did it contain albumen.

When separate the individual units appear to have a somewhat [illegible] something like a grain of wheat, and to contain a [illegible] and a small rod-like body. They may, apparently, be of very varied size, the largest about one-half the [illegible] of the average red corpuscle. They occur singly, or may [illegible] in twos or threes, or again aggregated in large number without arrangement while imbedded in [illegible] material. Further, they may appear to be [illegible] enclosed [illegible] often about the size of a [illegible] but [illegible] also larger and some resembling [illegible] there are often spaces as if individuals had disappeared. [illegible] to be observed on the edge of the [illegible] which may be seen to have [illegible] round those of the [illegible].

These bodies stain purple on [illegible] Leishman's stain. I have not been successful in staining both the [illegible] as it is covered with the [illegible] so if it is removed into the ultimate [illegible] the [illegible] appear to disintegrate. All these points require [illegible] further investigation [illegible] which would tend to show that the next step [illegible] at any rate [illegible] and that they [illegible] by the urine. With the view of possibly differentiating [illegible] in the life-history of the organism, about 60 c.cm. of blood were dropped without mixing into sterile broth, and the clot allowed to stand for twenty-four hours, but in this case none of the bodies nor anything else abnormal were seen on examination.

A gland was excised from the groin, and some smears made, but [illegible] normal was found. Sections have not yet been made.

NOTE ON THE LYMPHATIC GLANDS IN SLEEPING SICKNESS.

BY
CAPTAIN L. D. W. GRIG, I.M.S., and LIEUT. A. C. H. GRAY, R.A.M.C.

Communicated to the Royal Society by Colonel BRUCE, F.R.S., *at the desire of the Sleeping Sickness Commission. Received and read May 5th, 1904.*

CAPTAIN GRIG in a letter dated March 17th, 1904, writes that, following a suggestion of Dr. Mott, they have examined the contents of lymphatic glands during life from fifteen sleeping sickness patients. In all of them actively motile trypanosomes were very readily found in cover-glass preparations taken from the cervical glands. They were also present in other glands such as the femoral, but were not nearly so numerous.

They found the trypanosomes to be far more numerous in the glands than in the blood or cerebro-spinal fluid, and believe that the examination of fluid removed from lymphatic glands will prove to be a much more rapid and satisfactory method of diagnosing early cases of sleeping sickness than the examination of the blood.

At first the glands were excised, but this was soon found to be unnecessary, as it is easy to puncture a superficial gland with a hypodermic syringe and suck up some of the juice into the needle and blow this out on a slide. The actively moving trypanosomes were readily found after a short search in these slides, when a prolonged search in similar preparations of the blood from the finger failed to discover them. In stained specimens, in addition to well-formed trypanosomes, there exist many broken-down remains which suggests that a destruction of the trypanosomes takes place in the glands.

The authors also examined the cervical lymphatic glands of the five natives suffering from trypanosomiasis who have been under observation for the past year, and found actively motile trypanosomes in the liquid withdrawn from the glands in all of them. Tabuka, one of these patients, is employed in the hospital, and the dispenser reports he is getting very stupid.

The lymphatic glands were also examined for streptococci by staining and culture, but in every case were found to be sterile. Some of the cases, the glands from which were examined for streptococci, were very far advanced. The streptococcus invasion must, in the opinion of the authors, be a very late one, and only occur shortly before death.

Observations made upon the blood showed a constant increase in the percentage of lymphocytes, but the total leucocytes are not increased. The authors consider that these observations throw a new light upon the glandular enlargements which have been so constantly noticed in sleeping sickness, and that the disease is essentially a polyadenitis brought about by the arrest of the trypanosomes in the glands where many of them are destroyed, but whence some escape from time to time into the blood stream, and thus occasion the increase which has been observed in the peripheral circulation.

They regard their observations upon the presence of trypanosomes in number in the lymphatic glands of both early cases of trypanosomiasis and advanced cases of sleeping sickness, as affording important evidence of the unity of these diseases, and further proof that the trypanosomes are the essential cause of sleeping sickness.

The Marquis of Salisbury will take the chair at the forty-fourth annual dinner of King's College, London, which will be held at the Hotel Cecil on Monday, June 20th.

The Post-Graduate College and Past and Present West London Hospital dinner will take place at the Empire Rooms, Trocadero Restaurant, Piccadilly Circus, W., on Saturday, June 25th, when the chair will be taken by Dr. J. Barry Bull at 7 p.m.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CROUPOUS PNEUMONIA TREATED WITH ANTIPNEUMONIC SERUM: RECOVERY.

THE patient, a fragile boy of 7 years, became ill on April 8th. I was called in on April 9th. He complained of earache and pain in the left hypochondriac region; the temperature was 105° F., the pulse 120, and the respirations 60 per minute. On examination of the chest the only change to be made out was coarse vesicular breathing all over. There was no cough. I ordered ice to the head, and a mixture containing sodium salicylate, caffeine, and tincture of convallaria. Next morning the temperature was 104.5 F., and pulse and respiration very quick; the pain in the ear and abdomen was relieved. Thinking the condition was probably of an influenzal origin, I ordered ammoniated tincture of quinine, half a teaspoonful every two hours; in the evening the condition was the same. On the following morning (April 11th) the condition was unchanged, and in the evening the temperature was still 104.5° F.; the pulse and respiration were very fast; there was slight broncho-vesicular breathing in the left scapular region passing upwards to the apex; a slight cough: cupped (dry). Ordered two leeches over the left lung and injected hydrochlorate of quinine (Aufrecht's method). On the morning of April 12th the temperature was still 104.5° F., the pulse still quick, there was bronchial breathing and dullness over the left apex and slight broncho-vesicular breathing on the right side, and slight expectoration of rust-coloured sputum. In this a few pneumonococci, but no tubercle bacilli or streptococci were found. In the evening the temperature was 103° F., the pulse 130 and very feeble; I decided, therefore, to inject antipneumonic serum. Of this 6 c.cm. were injected in the abdomen. The tension of the pulse at once improved, and next morning the temperature was 103° F., pulse 110 and much stronger. The general condition of the patient was much improved. In the evening the patient was sleeping peacefully and manifestly better. On April 14th the temperature was 101° F., the pulse 100 and much stronger. On April 15th pulse, temperature, and respiration were normal. The patient made an uninterrupted recovery.

Notwithstanding the fact that my patient had all the usual remedies—alcohol, ammonia, digitalis, etc.—his condition remained serious, and it was only after the serum had been injected that any improvement could be observed. The effect of the serum showed itself chiefly on the pulse, which at once improved in tone. This is what one would expect in a case where toxin poisoning was obviously present. I consider the serum saved the boy's life by antagonizing a sufficient quantity of the toxin, and so allowing the failing heart to regain its tone until the crisis occurred.

Leith. A. COWAN GUTHRIE.

A METHOD OF ARRESTING AN EPILEPTIC FIT.

NOTHING brings home to a medical man his helplessness more than to be called upon to treat an epileptic fit. What can he do? Loosen all tight clothing, put a pillow when procurable under the head, and force the jaws apart to keep the tongue from being bitten, generally at the expense of breaking the patient's teeth, but still the horrible contortions continue before the inevitable interested and gaping crowd. Consequently any method that will put a stop to the fit needs no apology for its publication.

Passing one day into the Female Epileptic Ward I found the nurse, who lives in the constant dread of losing one of her charges through suffocation during the fit, vigorously shaking and slapping on the back a patient who was in the clonic stage of an epileptic fit. When questioned as to her strange behaviour, she stated that "she was stopping the fit," and proceeded to explain: One day when rushing to the assistance of a patient in a severe fit she happened to trip and fall over the patient, and much to her astonishment the fit ceased immediately. Following up the hint, I drew up a chart containing the names of several patients who have severe fits, and instructed her to turn the patient on to the left side immediately the fit commenced, and to hold them in this position, and to record her results. I have also personally tried the method with complete success on several occasions. Nearly all the cases recorded were treated in the "tonic spasm" of the fit, and in most cases directly the patient was turned on to her left side the muscles all became flaccid and the colour of the face improved; they still breathed heavily and remained unconscious for some time, but no "clonic spasm" supervened. I have also tried the effect of turning the patient on to the right side, but with less satisfactory results.

What is this result due to? Can it be due to some circulatory change produced in the brain by rapidly turning the patient on to the left side and thus stimulating the heart? Now when I am in the neighbourhood of a patient who is seized with a fit I rapidly turn them on to the left side and do nothing more but hold them in that position. The effect is generally quite startling, and does away with any risk of injury to the tongue as there is no clamping of the jaws and the breathing is at once eased. Most of the cases so treated if left to themselves had very severe fits and invariably passed into a violent convulsive state. The simplicity of the method recommends itself.

While on the subject of the treatment of an epileptic fit, the following case may be of interest, although the method has often before been advocated, as showing the efficacy of tying a ligature round the limb from which a "sensory aura" takes its origin: J. L., a male patient, aged 24, was admitted into the asylum some weeks ago; he is fairly intelligent and gives the following account of himself: Two years ago he was camping out with his militia regiment when, after a heavy day in the ranks under a hot sun, a thunderstorm came on and he got soaked to the skin; he went back to his tent and changed, shortly afterwards he became hot all over and perceived a dull aching pain on the outside of his left ankle. This gradually spread up his left leg and the left side of his body, and on reaching his left temple in about a quarter of an hour he fell down unconscious. He had never had any fits previously and no history of syphilis can be obtained. On admission it was suggested that he should tie a ligature round his leg just below the knee when he first perceived the pain in his ankle. The result has been completely successful; he now always carries a piece of stout string in his pocket, and directly he gets the warning he ties it tightly round his leg and the pain does not spread beyond the ligature and gradually dies away, and no fit results.

Macclesfield. J. C. MCCONAGHEY, M.B., Ch.B.Edin.

AFTER-HISTORY OF A RUPTURED TUBAL GESTATION.

THE following case shows what Nature can do when aided by careful management. Some twenty-two years ago Mrs. H., aged 36, engaged me to attend her in her fourth confinement which she expected in May 1882. Two months before that date I was summoned and on entering the room was shown a placenta with about a foot of cord attached, the membranes broken off. I was informed that about an hour previously she had been taken with labour pains, that considerable bleeding had occurred and that about quarter of an hour before I arrived the placenta had been born and the cord broken without being pulled on (which I very much doubted), the haemorrhage was not then excessive and there was very little shock. By external examination a body the size of an ordinary child could be felt in the right iliac region. Internally the finger failed to find any rupture or remains of the cord. The uterus was fairly contracted. I advised absolute rest and gave an opiate. In the evening she was comfortable, and for the next three or four weeks she progressed satisfactorily, the temperature never rising above 101° F. After the second day I ordered a vaginal carbolic injection. Some clots and pieces of membrane came away on, I believe, twenty-two different occasions. The mass in the right iliac gradually contracted until at the end of three months it felt about the size of a football. I could not when I examined her at first hear the fetal heart sounds, but as she was a big, fat woman, it would probably have been impossible to detect them even if the child were alive. In five or six weeks she was about as usual doing her housework. Six months later on I examined her and could still find a round hard mass in the right iliac region bigger than a cocoanut and tender on pressure. Exactly two and a-quarter years afterwards she was confined of a full-time child and had an uneventful labour, and two years after another baby was born, and three years after that she had another child—all natural labours—although the hard tender lump in the right iliac region still remained. The menopause came on at the age of 51. It was possibly a little more troublesome than usual, but since it was completed there has been no symptom which could be ascribed to the continued presence of the large tender lump. She has had a good deal of bronchitis and influenza, but, apart from this the only inconvenience that she suffers is that she cannot bear to

pull in her rather large figure, and that she has to go up and down stairs in child fashion, one step at a time, but I think her strength is plainly there.

Looking back on the history the question arises, Was I justified in advising her to go on as she was or submit to an operation? I feel I did the right thing, as twenty-two years ago the death-rate from abdominal section was very high, I think quite 33 per cent. died, and removal to hospital would probably have been fatal. Had she been operated on she would not probably have been alive and fairly well now at the age of 58 years, although if the operation had been successful she would no doubt have been spared a certain amount of pain.

Chelsea. JAMES HAMILTON, M.D. Q.U.I.

SUPERNUMERARY DIGITS.

The genealogical tree which follows is that of a patient of mine who has supernumerary fingers:

[illegible] grandfather.—S.T.

[illegible]

[illegible]

N. N. N. N. N. N. N. N.

S.F. S.F. S.F. S.T.

In the above figure N represents normality, S.T. supernumerary toes and S.F. supernumerary fingers. The distribution is curious, the defect usually skips two generations to reappear in the number of the third, and in five of the fourth. In this latter it will be noted supernumerary fingers also [illegible].

H. DARWIN HEY.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BRISTOL ROYAL INFIRMARY.

A CASE OF [illegible] PERITONITIS.

(By HENRY WALDO, M.D., M.R.C.P., Physician, Bristol Royal Infirmary.)

History.—A girl, aged 15, looking older, partook of a hearty [illegible] and new bread on October 20th, 1903, and retired to bed feeling perfectly well. During the night she awoke with severe pain over the left hypochondriac region and vomited.

State on Admission.—She was admitted to the Infirmary under my care on November 4th, 15 days having been attended at home for the first 5 days by a medical man. The abdomen was very tender and hardly moved during respiration, but only tender over the left hypochondrium. The spleen could just be felt. Bowels [illegible] since the onset. Intermittent vomiting throughout, slight attacks of hiccough. Tongue dry and brown, and lips and teeth covered with sordes. Fine râles heard at both bases. Pulse 140. The patient presented all the appearances of [illegible] in the third week.

Course of Events.—Death occurred 10 days after she had been in the Infirmary, and during these 10 days three negative Widal tests were obtained. The urine was examined on the day of admission by the [illegible] staff, but they decided not to operate. There was a continuous [illegible] some severe attacks of retching occurred. A few ounces of fluid nourishment were taken daily.

Post-mortem Examination.—On opening the abdomen there was a thick layer of [illegible] lymph [illegible] and covering the viscera, which were adhering very firmly by the Fifth Digit. By [illegible] to enclose [illegible] in [illegible]. Free in [illegible] cavity of the stomach was a little [illegible]. The intestines and appendix were healthy.

Remarks.—It is important that up to the day of [illegible] patients admitted with [illegible] had been [illegible] pneumonia in the infirmary for some long time. But [illegible] the day of her entry we took in seven.

PRETORIA HOSPITAL.

CEREBRO-SPINAL MENINGITIS: LATE DEVELOPMENT OF HEAD RETRACTION: LONG ILLNESS: RECOVERY.

By PERCY STEWART, L.R.C.S.I., Assistant Medical Officer to the Hospital.

The following case of cerebro-spinal meningitis under my care in the Pretoria Hospital seems worth recording:

G. D., [illegible], aged 23 years, was admitted June 3rd, 1903, complaining of severe headache and pain in the back of his neck and down the spine for two days.

State on Admission.—Marked rigidity of the neck was observed but retraction of the head was not present. The knee-jerks were exaggerated, [illegible] was well marked, but Kernig's sign was absent. No ocular paralysis or optic neuritis existed. Temperature 104°, pulse slow.

Course of Events.—During the first week his temperature was irregular [illegible] to 105°, and the pulse varied between [illegible] and [illegible] beats a minute. Intermittent [illegible] existed.

June 7th.—Complaint was made of severe rheumatoid pains in [illegible] knees, [illegible] need persisted with pain on [illegible] movement. No [illegible] of the medicated [illegible] was given. [illegible] below. During the second week the temperature was irregular with two [illegible] but [illegible] normal. The patient was very restless, could not sleep, and every night was slightly delirious. Clonic and [illegible] were [illegible] with [illegible].

June 11th.—The patient was put in a hydrate [illegible].

June 12th.—The [illegible] be persisted, and relieved by [illegible]. The patient complained of severe pains radiating downwards.

June 13th.—[illegible] was present, and the [illegible] out [illegible].

June 14th.—The general condition has grown much worse, [illegible] temperature [illegible]. Pulse 140. Continuous pain [illegible] and the patient cried out every few minutes unless relieved by [illegible] of chloral hydrate, in very large doses. He was [illegible] restless delirium, and swallowing [illegible] difficulty. Injection of [illegible] hydrate [illegible] substituted by hydrate per [illegible].

June 15th.—The following notes were made: Patient semi-comatose. Temperature normal. Retraction of head present, pupils widely dilated, no optic neuritis, knee-jerks absent, [illegible] sign present. A [illegible] lumbar puncture having been made, [illegible] escaped freely. A specimen kept for examination and [illegible] half an ounce was allowed to escape.

June 16th.—The patient was semi-comatose.

June 17th.—Slight [illegible] was observed, but the pupils [illegible] widely dilated. The knee-jerks were absent, and ankle clonus could not be produced, while Kernig's sign was strongly marked. The patient gradually improved during the following week, the temperature remaining practically normal, and the mental [illegible] gradually [illegible], declining extremely slight.

July 1st.—The symptoms and [illegible] pointed to paralysis was present, but the patient was [illegible]. After this the general condition improved steadily, but was interrupted during the last week of July by a return of the headache and pain in the neck, [illegible] disappeared in two days.

August 1st.—Internal [illegible] was noticed two days, with paresis of the right [illegible] external rectus muscle.

August 3rd.—The patient was discharged from hospital. The [illegible] was [illegible] and [illegible] [illegible] by Dr Fabris, [illegible] Analyst. The [illegible] was the cerebro-spinal [illegible] was present and contained [illegible] [illegible]. No [illegible] examination, [illegible] could be found either by [illegible] examination [illegible].

Remarks.—The points which seem of most interest are the [illegible] that retraction of the head came on so late in the disease; the primary exaggeration and subsequent loss of the knee-jerks, the wide dilatation of the pupils, which persisted throughout the attack, the duration of the illness (two months), and final recovery after such marked purulent infection of the meninges.

UNION INFIRMARY, LEICESTER.

POST-PARTUM HÆMORRHAGE TREATED BY ADRENALIN.

(Reported by C. DOUGLAS BRYAN, M.R.C.S., L.R.C.P.)

E. F., aged 35 years, was admitted into the Union Infirmary, [illegible] on November 23rd, 1903, suffering from puerperal [illegible] of a fortnight's duration, and was at the same time about 8½ months pregnant.

[illegible] she had been suffering from [illegible] of the [illegible] and vagina as well as [illegible] abscesses [illegible] these [illegible] some parts of the [illegible] these latter having extensive [illegible] [illegible] [illegible]

given by the mouth. At 5.15 the membranes were ruptured, and the child was born normally at 6 p.m. A certain amount of haemorrhage occurred between the pains, as evidenced by clots expressed with every pain, especially after rupture of the membranes. The uterus contracted after delivery, and another drachm of the liquid extract of ergot was administered. The placenta was expressed easily after waiting ten minutes; no haemorrhage of importance occurred, the uterus remaining contracted. The pulse was 100 per minute.

Puerperium.—In about 15 minutes the uterus relaxed, and the patient began to bleed severely. A hot douche was immediately given, but the bleeding continued, so ice was applied to the vagina, and ergotin given hypodermically, but though the uterus became fairly contracted the haemorrhage persisted. The patient's condition was now serious. Pulse 132, small and feeble, face blanched, restlessness, etc. The hand was now introduced into the uterus, and all clots rapidly cleared out, and with a large pledget of wool soaked in a solution of adrenalin chloride, 1 in 1,000, the interior of the uterus was swabbed, a douche of 1 in 4,000 of the same being given at the same time.

RESULT.—The haemorrhage ceased immediately, the uterus contracted firmly, and the patient's condition rapidly improved, the pulse falling to 112 per minute. Next day the patient was given adrenalin chloride sol. 1 in 1,000 in 10-minim doses every four hours, by mouth, in order to control the purpuric condition, but on the third day the haemorrhage again commenced from the mouth, so the adrenalin was discontinued, and the ergot mixture (as above) again resorted to, with satisfactory results. The lochia became offensive on the fourth day, but never excessive. The patient's temperature rose on the third day, and took an up-and-down course for about a week, the highest point reached being 102°. The child was not suckled. The patient is now quite well, and all the purpuric spots have disappeared.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH: BRADFORD DIVISION.

Dr. GOYDER, Chairman of the Division, in the Chair.

Bradford, May 10th, 1904.

A SPECIAL meeting of this Division was devoted entirely to scientific subjects.

Specimens.—Mr. BASIL HALL showed the following specimens: (1) Carcinoma of colon removed by colectomy. (2) Some specimens from cases of nephrectomy. (3) Ovarian cyst with twisted pedicle, and gall stones from suppurating gall bladder removed from the same patient. (4) Specimen from a case of thyroidectomy. (5) Cases of carcinoma of the body of the uterus removed by pan-hysterectomy.—The specimens were discussed by Mr. MOSSOP and Mr. HORROCKS; and Mr. HALL replied.

Gastric Ulcer and High-frequency Currents. Dr. METCALFE read a paper on this subject. The results produced on muscular contractions, if stimulated beyond 5,000 per second, decreased in direct ratio to the increased number of alternations. Respiratory combustion was stimulated, more oxygen being absorbed and more carbonic acid gas given off. Motor and sensory nerves lost their sensibility to excitations. He then described the following case:

The patient, a woman aged 60, after complaining of dyspepsia for several years, began fourteen months ago to suffer from great pain after eating. It was of a "boring" character, going through to the back. The bowels were usually active, but she began to have attacks of sickness. She frequently vomited up blood, either in its fresh condition or as a coffee-grounds-looking material. Often she had melaena. The pain became almost constant, and, as she asserted, "she had never been without pain and sickness one day for twelve months." She was under constant medical treatment and had had the best advice as to diet and drugs that it was possible to obtain. But she obtained no relief, rapidly growing worse and losing flesh. She suffered from constant insomnia. The stomach was dilated to below the umbilicus. Anteriorly the pain was chiefly localized to the epigastrium below the ensiform cartilage, but she had also a good deal in the middle of the back between the sixth and eighth dorsal vertebrae. The diagnosis of the case was that of a chronic ulcer of the haemorrhagic type—possibly malignant. At first Roentgen rays were tried by applying them directly over the epigastrium. They appeared to help the patient to sleep better, but did not relieve the pain or sickness. High-frequency currents were then resorted to. A tee-condensation on the couch for ten to fifteen minutes three or four times a week was used, and local applications by glass electrodes directly over the stomach area. She soon began to obtain relief. The sickness diminished, the pain got less, and in four to five weeks she was nearly well again. Four months afterwards she was in excellent health. She lived on an ordinary diet, had no discomfort in her stomach, and assimilated her food perfectly.

The action, said Dr. Metcalfe, was probably due to a toning of the unstriped fibres of the muscular walls of the stomach, either directly or indirectly through the vagus. This improvement in muscular tone probably stimulated a general contraction of the whole organ. The stomach would be enabled to empty itself thoroughly after each meal, and the retention of imperfectly-digested food would be abolished. Absorption of irritative material would not take place, tension on the ulcer would be lessened, and healing promoted. The case was discussed by the CHAIRMAN and Drs. JOHNSTON, HORROCKS, BASIL HALL, and MILLSON; and Dr. METCALFE replied.

Porro's Operation.—Mr. HORROCKS read a paper on two cases of this operation. They were undertaken on account of general pelvic contraction in a somewhat dwarfed woman. In each case there had been no living child born previously. Full time labour had resulted in destruction of the child before delivery was effected. The operation was performed by ligaturing the ovarian and uterine arteries before opening the uterus. The uterus was removed and the pedicle treated by the intraperitoneal method. Pelvic drainage was used. In both cases the mother and child survived the operation.—Mr. HALL was much more in favour of Caesarean section. Porro's operation became common at a time when the mortality from Caesarean section was very high. But that mortality had steadily but slowly diminished, until now it was only from 3 to 6 per cent., whereas that from Porro's operation was 10 to 14 per cent. To remove the uterus increased the shock and also the length of time required to perform the operation. The mutilation of the patient was also much greater. Mr. HORROCKS, in reply, said his operation was not quite the same as Porro's, as in that operation the stump was treated outside the peritoneum. Caesarean section was only undertaken when labour had commenced, the uterine walls not being healthy and the interior discharges somewhat unsafe from a surgeon's point of view. The stitches, too, in friable tissue easily gave way, and a fatal result might be precipitated. The length of time occupied in performing this modified form of Porro's operation had not exceeded one hour.

METROPOLITAN COUNTIES BRANCH: WALTHAMSTOW AND CITY DIVISIONS.

AT a conjoint meeting of the above Divisions, held, by the kind invitation of Dr. J. O. Adams, at Brooke House, Clapton, on Thursday, May 12th, Mr. FREDERICK WALLACE, Chairman of the City Division, presiding, the following cases were exhibited and discussed by Dr. J. H. SEQUEIRA: (1) Two cases of lichen planus; (2) a case of lupus erythematosus affecting the face and fingers, which had been submitted to light treatment; (3) a case of extensive psoriasis in which the hands were involved; (4) a case of rodent ulcer on the front of the thorax treated by *x* rays; (5) a case of rodent ulcer on the eyelid of a young woman, aged 20, treated with radium; (6) a case of pigmented mole on the face treated by electrolysis; (7) a case of xeroderma occurring symmetrically in patches; (8) a case of psoriasis and lupus vulgaris coexisting in a child; (9) a case of morphoea occurring on the leg; (10) a case of tuberculide with keloid.

SOUTH-EASTERN BRANCH: CANTERBURY DIVISION.

A COMBINED meeting of the Old East Kent Division, consisting of members from Faversham, Thanet, and Canterbury with Ashford, Folkestone, and Dover was held at Canterbury on May 19th. Some thirty-five members and visitors were present, and Dr. GOGARTY presided. The following papers were read and discussed: Dr. ROBERT BOXALL: The treatment of dysmenorrhoea and sterility.—Dr. T. WHITEHEAD REID: The diagnosis of intraperitoneal haemorrhage.—Dr. WILLIAM GOSSE: The treatment of rheumatism at Aix-les-Bains, being the personal experience of the writer.—Dr. HUGH RAVEN: Graves's Disease.—A dinner was afterwards held at which twenty-seven members and visitors were present.

MEASLES AND WORKSHOPS.—On the recommendation of the Medical Officer of Health, Dr. F. W. Alexander, the Public Health Committee of the Borough of Poplar decided to draw the attention of the central authorities to the fact that, under the law as it at present stands, home work in places infected by measles cannot be prohibited, inasmuch as Section CX of the Factory and Workshops Act only applies to infectious diseases subject to compulsory notification. The home work which the section has in view is the making, cleaning, washing, altering, ornamenting, finishing and repairing of wearing apparel, and any work incidental thereto, together with such other work as may be specified by special order of the Home Secretary.

REPORTS OF SOCIETIES.

Edinburgh Medico-Chirurgical Society.—At a clinical meeting on May 18th, Professor Chiene, President, in the chair, the following cases were shown: Dr. Burns Murdoch: (1) Infantile scurvy in a child, aged 10 months, fed on milk sterilized at a temperature of 212° F. Periosteal haemorrhages most marked at the upper ends of the femorae, and distinctly shown by skiagraphs, had occurred; (2) two cases of cerebral tumour. One of the latter had fibrosis of the left lung, suffered from paroxysmal headaches, and had double optic neuritis.—Mr. Stiles: (1) Congenital elevation of the scapula, due to a piece of bone connecting the spine of the scapula to the transverse process of one of the cervical vertebrae: full elevation of the arm was thus rendered impossible; (2) a patient, aged 9 years, from Shetland, with a hydatid cyst of the liver containing about ½ gallon of fluid; (3) a case on which cuneiform osteotomy of the femur for coxa vara causing marked adduction had been performed: (4) a child, aged 2½ years, from whose kidney a large sarcoma had been removed. At the operation some enlarged glands were observed, but up to the date of exhibition, four months later, the child had remained well and shown no signs of recurrence; (5) a child in whom he had produced ankylosis of the knee and ankle-joints on account of infantile paralysis. Before operation the limb was quite useless, but it was hoped the child would now be able to walk; (6) a girl with ununited fracture of the humerus. The fracture being compound, the broken ends had been united by an aluminium plate kept in position by screws. Owing to sepsis and necrosis this procedure was not successful. After an interval of three months the fractured surfaces were rawed and again united in the same fashion. A successful result now appeared likely.—Dr. John Thomson: (1) Congenital cerebellar ataxia, a condition first described a short time by Dr. F. E. Batten: the patient showed bilateral conjugate nystagmus and lateral head nodding; the reflexes were normal; the condition did not appear to be hereditary; (2) an imbecile child, aged 8, with peculiar congenital deformity of the frontal, nasal, and superior maxillary bones (rhinodymus); a groove was present between the frontal bones: the nose also showed this mesial groove: the premaxilla was almost absent: the eyes were very far apart: the patient's mother was likewise imbecile.—Drs. Thomson and Mr. Stiles: Three cases of congenital hypertrophy of the pylorus. All had been operated on, one by the procedure first recommended by Loreta, namely dilatation of the hypertrophied pylorus, another by joining the small intestine to the stomach, and the third by this method after Loreta's operation had been performed three weeks previously and had failed.—Dr. [illegible]: (1) Cretinism; (2) spastic rigidity with a low grade of idiocy and very severe rachitic deformity. The latter was due in large part to the action of the spastic muscles on the rachitic bones.—Dr. Drummond: Meningocephalus in a child, aged 3 years. The patient began to suffer from fits when aged 2 years. These numbered eight or nine each day, and led to his death. Mr. Scott Carmichael: A boy suffering from congenital deformation of the bones of one forearm (congenital displacement of the upper end of the radius was present). One thumb was very rudimentary and the third metacarpal bone and phalanges absent. Card specimens and photographs were exhibited by Drs. John Thomson, Burns Murdoch, and Batten, and by Messrs. Stiles and Scott Carmichael.

Obituary Society of Medicine in Ireland.—At a meeting of the Obituary Society of Medical Practitioners in Ireland, held in the Medical Library, Trinity College, Dublin, Mr. Isaac Lewis Ashlin in the chair, the various epiphyses, and pointing out their manifestation and final union, especially in relation to fracture. The epiphyses presented were mostly those of the long bones of the human skeleton. Of these the sternal epiphysis of the clavicle, which unites with the shaft at the age of 25, while the sternal epiphysis was usually the last to become united with its shaft. This epiphysis was also distinguished by its peculiar thickness, making it the strongest support of the sternal attachment of the clavicle, and placing it quite beyond the possibility of [illegible] recurrence of injury to the epiphysis of the humerus, which usually included the head and tuberosities, had long been faultlessly known; but the lesson had, till very recently, been always misrepresented. The best English textbooks of surgery used to represent an "epiphysary fracture" as including both condyles in the lower fragment. The specimen exhibited showed that the epiphysis was a mere osseous crust, the removal of which hardly diminished the prominence of the condyle. The upper end of the ulna presented a supplemental epiphysis, placed on the top of the recognized one, which had remained hitherto undescribed, except by the exhibitor at a former meeting of the Royal Academy of Medicine. The upper end of the femur presented three epiphyses for head and either trochanter approximately in the same stage of fusion with the shaft. That for the head was thinner than was usually believed; when detached it was but a concave shell of bone. That for the lesser trochanter was very seldom found, its abrupt prominence and small surface of junction causing it to be almost always lost. The epiphysis of the lower end of the femur was of immense importance in connexion with growth and development. As its centre of ossification appeared immediately before birth, its presence constituted the best test of the maturity of the fetus, no other epiphysis of the skeleton developing an osseous centre during intrauterine life. Future gigantism or dwarfism depended more on this epiphysis than on the whole of the rest of the skeleton. Most anatomists placed its junction with the shaft at the age of 20, which was too early for many cases. Till it fused with the shaft, growth continued, and the height of a giant would be found to depend very largely on the length of the femur. The terminal epiphyses of the tibia, being thin, called for great care on the part of the surgeon in the operation of excision. Those of the fibula presented no peculiarity, except the well-known one of the early ossification of the lower one. Mr. Alexander Blayney detailed the notes of a case sent to him with symptoms resembling those of recurrent appendicitis. A tumour could be felt somewhat above the appendix region, which proved to be a malignant growth infiltrating the beginning of the ascending colon. The caecum with a small portion of the ileum and the greater part of the ascending colon were removed, the lower end of the ileum being implanted on the transverse colon by a Murphy button. The patient recovered rapidly, and was quite well six months afterwards when the paper was read. At a meeting of the Pathological Section on April 29th, Dr. Earl, President, in the chair, Dr. T. G. Moorhead showed three slides in which the Leishman-Donovan bodies appeared, giving a description of the cases from which they were taken, and a history of the discovery of the bodies and of their relation to malaria. Professor E. J. McWeeney showed specimens of blood from a case of pernicious anaemia exhibiting punctate basophilia. Many of the red corpuscles were thickly sprinkled with granules of strongly basophilic character, which could be detected in preparations stained by Jenner and Prescher's modifications of Romanowsky's stain, as well as in fixed preparations. He was inclined to look upon the granule as due to karyorrhexia. He also showed slides of rabbits' blood containing the nagana parasite, and human blood containing the parasite of sleeping sickness. These latter had been given him by Dr. MacCarthy, travelling scholar in pathology of the Royal University, who had obtained them from the Pasteur Institute, where he had been working. The nagana of surra disease had been propagated for a number of generations in the exhibitor's own laboratory, starting with a white rat brought from Paris by Dr. MacCarthy. He showed, too, the trypanosoma lewisii, which he had found in 6 out of 13 ordinary Dublin sewer rats. The morphology of the parasite was demonstrated by means of screen projections. Dr. Nolan showed the following specimens, giving a description of each: (1) Sloughing fibromyoma of uterus; (2) tuberculous cyst; (3) tubal pregnancy, showing decidual cells and hydatidiform degeneration of villi; (4) sarcomatous degeneration of fibromyoma.

Glasgow Medico-Chirurgical Society.—At a meeting on May 6th, Dr. Newman, President, in the chair, Dr. T. K. Monro showed a boy, aged 9, whose health was good till the beginning of 1902, when he had scarlet fever. In the second week of the fever he began to have convulsive attacks. In April, 1902, his eyesight commenced to fail, and he had severe occipital headaches and ataxia. His eyesight gradually became worse, and he passed evacuations in bed. In June, 1902, he had convulsions, involving the face and the limbs, accompanied by loss of consciousness for ten minutes. After this his condition improved; he walked better, and he got almost completely rid of his incontinence. Dr. Monro described the condition as probably due to a tuberculous growth

in the cerebellum.—Dr. A. A. Young read notes of some cases of carcinoma mammae illustrating certain characteristics of the disease: (1) A case where the left mamma was removed and axilla cleared out on account of a small carcinomatous tumour in the outer aspect of the breast, not involving the skin. (2) A case where a small cancerous nodule appeared on the surface of the right mamma eighteen months after the left mamma had been removed for carcinoma. This was considered as an extension of the primary disease through the superficial lymphatics. (3) A case of duct cancer of the mamma where a very small tumour had been present for fourteen or fifteen months, but had been ignored by the patient, and medical advice was first sought on account of symptoms referred to the stomach. There appeared to be undoubted signs of secondary cancerous growths in the abdomen. (4) A case of diffuse and more or less acute carcinoma of the mamma. The whole breast was much swollen and ulcerated, and it was said to have followed an abscess during lactation. He mentioned a case where a recurrence in the skin over the pectoral region had occurred eleven years after the removal of the primary growth.—Dr. James Galbraith Connal read a paper on the treatment of dullness of hearing and subjective noises in the ears by high-frequency currents. Before trying high-frequency, other methods had been tried, but found ineffectual. In chronic dry catarrh of the middle ear, with in some cases secondary labyrinthinic involvement (20 cases), 10 patients reported that the tinnitus was improved, 2 being much better. In 2 of the cases a fractional improvement in the hearing was noted, and believed to be due to lessening of the subjective noises. In post-suppurative conditions 5 of the 7 cases reported the tinnitus as much better. Five cases of sclerosis of the middle ear all reported an improvement in the hearing; testing failed to show this in 1 case, but confirmed it in 4, while the tinnitus was lessened. In 1 case where tinnitus had been persistent there had been no noises for three months. In 1 case of primary labyrinthitis (traumatic) and 1 of tinnitus without marked dullness of hearing the high-frequency currents had no effect. Dr. J. R. Riddell described the apparatus employed.—Dr. Walker Downie showed portions of the seed capsule of an apple which had been impacted in the larynx of a child, and removed by operation.

Laryngological Society of London.—At a meeting on May 6th, Mr. J. Charters Symonds in the chair, the following cases were shown: Dr. StClair Thomson, complete submucous resection of a deflected septum; Dr. L. H. Pegler: 4 cases showing results of Moure's operation for deflected septum shown as a contrast in methods of operation to the series recently shown by Mr. Tod; the general opinion was that different cases required different operation and that no one operation suited all cases; Dr. H. W. Kelson: Ulceration of the epiglottis and vocal cord in a boy, aged 12, and a parotid swelling in a boy, aged 14; Dr. H. J. Davis: (1) A woman, aged 39, with linear perforation of the left vocal cord, a condition looked upon as one of great rarity; (2) a woman, aged 40, who had suffered from chronic cough for eight years and had marked pharyngitis atrophica with hypertrophic glandular patches; (3) globular swelling of the right side of the larynx in a man of 29; (4) partial paralysis of the soft palate with paralysis of the left vocal cord; Dr. A. Bronner: Angioma of the maxillary antrum in a woman of 60; Dr. Scanes Spicer: (1) Soft vascular growth (angeio-sarcoma) attached to the cartilaginous septum nasi in a woman, aged 38, with recurrence six weeks after removal; (2) sarcoma (? endothelioma) of maxillary antrum and ethmoid with empyema and cholesteatoma in a woman of 50; since the performance of operation six months before there had been no recurrence; (3) epithelioma of the soft palate in a man, aged 84, which had been excised five months before, there had been no recurrence; Dr. F. Potter: Fixation by infiltration of the left vocal cord in a man of 60 with a history of syphilis; Dr. H. Tilley: Lupus of palate, pharynx and larynx—a case brought forward for discussion of the treatment to be adopted; Dr. J. Donelan: Tumour of palate in a woman, aged 33, for diagnosis; in the general opinion it was of a mixed character, probably fibro-sarcoma, and its removal was advised; Mr. P. de Santi: (1) A man, aged 63, with paralysis of the left vocal cord, a history of hoarseness and of difficulty of swallowing of one month's duration only; physical examination of the chest revealed nothing abnormal, but a skiagraph showed marked dilatation of the aorta; (2) bilateral haematoma of septum nasi in a child, aged 7; Dr. W. Bennett: Post-pharyngeal swelling and doubtful infiltration in the upper part of the larynx; the diagnosis was open to question, but it rested between post-pharyngeal abscess and tuberculous trouble.

Pathological Society of Manchester.—At a meeting on May 11th, Dr. Reynolds, President, in the chair, Professor J. Dreschfeld and Dr. F. Craven Moore described 3 cases of primary sarcoma of the liver: (1) A female, aged 56, who suffered for four months from gastric disturbance, pain in the hepatic region, jaundice, abdominal tumour, loss of weight, and, towards the end, from ascites. At the necropsy the liver was found to be occupied by a large single mass of new growth; the peritoneum and the coeliac and mediastinal lymph glands were the seat of metastases. In structure the new growth was a sarcoma, round and spindle-celled, arising probably from the endothelium of the portal capillaries. (2) A male, aged 23, who suffered for five months from weakness, wasting, and abdominal tumour; no ascites, no jaundice. The necropsy revealed a diffuse infiltrating new growth of the liver, with metastases in the portal glands. In structure it was a typical endothelioma of the portal capillaries. (3) A male, aged 61, who suffered for five months from weakness, wasting, and abdominal tumour; no jaundice; ascites occurred towards the end. At the necropsy the liver was found to be occupied by a number of nodules of new growth, the larger being cystic. In structure they were angiosarcomata undergoing myxomatous degeneration.—Dr. Charles Melland and Dr. Orr gave a lantern demonstration of coloured photomicrographs illustrating the morphology of the malaria parasite.—Dr. R. T. Williamson showed (1) specimens of a small sarcoma of the cerebellum affecting the left amygdala only. The symptoms had been chiefly headache, vomiting, double optic neuritis, and ataxia with a tendency to fall to the left. Marchi's method of staining revealed marked degeneration of the posterior root fibres in their intramedullary course in the upper half of the spinal cord. There was marked degeneration in Burdach's columns in the cervical region; but Goll's columns were unaffected. (2) Specimens from the brain of a patient who had suffered for twelve months from intense headache. There had been no optic neuritis until the last four days of life. Four tuberculous masses were present in the cerebrum, all of which were surrounded by a thick fibrous capsule. The masses resembled gummata, but their tuberculous nature was shown conclusively by the presence of numerous tubercle bacilli. — Dr. I. Walker Hall showed an intrapericardial aortic aneurysm communicating with the pulmonary artery and left auricle. —Other preparations were shown as card specimens.

Glasgow Pathological and Clinical Society.—At the concluding meeting of the session on May 9th, Mr. A. E. Maylard, President, in chair, Dr. G. B. Buchanan showed the sac and coverings of an umbilical hernia with omentum adherent round a large part of the wall, from a patient of 71 years of age, operated on for strangulated hernia.—Dr. Alex. Napier showed a patient, the subject of an extensive lupus verrucosus, who was under treatment by curetting, actual cautery and injections of tuberculin: there had been marked improvement since the treatment was commenced.—Dr. G. B. Buchanan showed an epithelioma of the oesophagus which had penetrated into the larynx.—Dr. Napier read notes of a case of acromegaly in a woman, aged 34. The condition had been slowly advancing for five years. A series of photographs and the patient were shown.—Dr. J. Wainman Findlay read notes of a case of chronic lymphatic leukaemia and demonstrated the condition of the blood in a patient aged 60. The enlargement of the glands under the chin had been noticed two years ago, and when shown all the superficial glands were greatly enlarged. The proportion of leucocytes to red corpuscles was about 1 to 2.5, the small lymphocytes forming 96 per cent. of the former. Red corpuscles 1,424,000 per c.mm. White corpuscles 568 660. The patient had syphilis thirty-five years ago and malaria sometime later.—Dr. T. K. Monro and Dr. J. Archd. Campbell reported a case of splenic abscess and empyema due to the bacillus typhosus, and associated with a positive Widal's reaction, but without intestinal lesion. Except fever the case showed none of the signs of enteric. It terminated fatally in about three weeks. —Mr. R. H. Parry showed a case illustrating Brophy's operation for cleft palate.

The next meeting of the International Congress for the Study of Tuberculosis will be held in Paris in 1905 from October 2nd to 7th.

REVIEWS.

THE PATHOLOGY OF SLEEPING SICKNESS.

The Portuguese Commission which was sent out to the West Coast of Africa to study sleeping sickness has now published the results of its researches in a voluminous report entitled *La Maladie du Sommeil*. The work shows evidence of care and scientific accuracy, and contains some very useful and important information. There is not much to note in the first chapters, which deal with the history, geographical distribution, and etiology of the disease. In the discussion of the clinical symptoms, however, special stress is laid on the enlargement of the lymphatic glands, this being looked upon as a constant symptom, the authors even believing it very probable that the pathological process starts in the lymphatics which drain the head and neck. No special attention appears to be made of the extreme frequency of adenitis in natives not suffering from sleeping sickness, and this rather minimizes the importance of the observation. Somnolence in the cases met with by the Commission, was not the principal manifestations of the disease; perhaps the term lethargy is more strictly correct, and describes more accurately the condition seen in those suffering from this complaint. The number of examinations of the blood is hardly large enough to give much value to the estimation of the red and white corpuscles, and no data being given of the stage and tense of the disease in the table, it is difficult to draw conclusions. The muscular tremors and the other symptoms, now so well described in textbooks of tropical medicine, are duly noticed. As regards the histological pathology, Manson's original observations are confirmed. The chapter on the bacteriological researches is the most important and interesting part of the report, especially as more recent researches have attempted to show that trypanosomes are to be regarded as the sole cause of the pathological changes characteristic of sleeping sickness. After a careful perusal of this part of the work one is led to the conclusion that the peculiar coccus found by the Commissioners constantly in a large series of cases is, as they state, identical with that found by Castellani in Ceylon, and that it does play an important part in the production of the perivascular, meningeal, and other infiltrations. Apparently this coccus if properly looked for is always to be found even at a considerable period of time before the fatal termination. Unfortunately, the experiments in animals are not sufficiently exhaustive to decide definitely what part the organism may play in the etiology of the disease. Microscopically the lesions found in monkeys [illegible] with a pure culture of the coccus are suggestive of those found in sleeping sickness; but as no microscopic examinations appear to have been made of the brain or other organs it is impossible to determine whether perivascular infiltrations were present. In addition to this, the number of experiments on monkeys was very limited. The second part of the report is devoted to a clinical description of 66 cases with [illegible] In this again, there is a lack of microscopic details. Inoculations, either as taken of Castellani's theory of trypanosomes or the coccus, in the cerebrospinal fluid of sleeping sickness patients in Uganda. The Commissioners admit that no trypanosomes were found in their specimens they have [illegible] These two conclusions are that [illegible] to determine the parts played by the [illegible] respectively causative agents in the [illegible] of sleeping sickness. The report is illustrated by [illegible] and numerous charts; and [illegible] of the perivascular infiltrations of the [illegible] conclude the [illegible]

DISEASES OF THE STOMACH.

[illegible] that makes the [illegible] of Professor [illegible] of the [illegible] on the [illegible] of the stomach, the large volume [illegible] and may differ [illegible] from [illegible] It is made up of [illegible] parts, of which the first is devoted to the method of examining patients and the physical and chemical exploration of the stomach; the second and longest to a consideration of dyspepsia; the third to organic diseases of the stomach; the fourth to the causes of diseases of the stomach and their effects on other organs; and the fifth to the influence of other diseases upon the stomach.

In the first part we notice that while the author gives a fairly full account of modern methods for examining the stomach, he entertains by no means an exaggerated opinion of their value. He states, for example, that the chemical examination of the stomach is useful as a means of study, and in exceptional circumstances for diagnosis, in which opinion we entirely agree with him. But his method of examination might be more exact; for example, few modern authorities on the stomach will agree with him in attributing so much value to *clapotage* as an index of motor defect, and we hold that his defective procedure is entirely accountable for the opinion he entertains of the rarity of dilated stomach. His views of dyspepsia are that it consists of two types, which he calls hypergenetic and hypogenetic respectively. In the former secretion and motion are in excess; in the latter both are defective. He believes that the former is the most common form and that its results are successively, hyperchlorhydria, pyloric spasm, permanent pyloric obstruction with dilatation, and in certain cases ulcer. The hypogenetic form, on the other hand, develops gastritis, achylia gastrica, and atonic dilatation. We understand the author to contend that these conditions are never dissociated; increased secretion always goes with excessive muscular activity, diminished muscular activity with decreased secretion, and therefore he objects to such clinical names as hyperchlorhydria and achylia gastrica, because they describe only a symptom or a part of the disease. It is, of course, possible that the prevailing type of dyspepsia differs in different countries owing to variations in race, temperament, food, and habits. Certainly we do not recognize hypergenetic dyspepsia as he describes it to be the common type here. His clinical descriptions are not the only parts of the book which seem to be local. For example, in this country there is no occasion to protest against the use of sodium bicarbonate in quantities of 20 grams to 30 grams (¾ oz. to 1 oz.) in a few hours, nor do we find that coprostasis is often mistaken for movable kidney. He believes in pyloric spasm as a functional condition causing obstruction which may be relieved by medical means, the chief of these being absolute milk diet. He has a very copious collection of drugs, such as atropine, cannabis indica, solanine, picrotoxine, veratrum viride, and nux-vomica as stomach sedatives. We are inclined to consider the whole of this teaching respecting dyspepsia as too theoretical; it looks too much like an attempt to fit the facts into certain neat pigeon-hole arrangements; and when we come to treatment there is the same disposition to put forward a plausible "rational" plan based on theory rather than to give the results of experience. It is true that so much is included that it is hard to say that anything important is omitted, but it is side by side with much of doubtful value, and the good is not distinguished from the bad. M. Robin recommends pepsin as an aid to digestion, apparently mainly on the ground that a considerable amount of pepsin can be found in the urine in certain cases of dyspepsia. He certainly states the fact that pepsin can only act in the presence of hydrochloric acid, and when arguing against the use of hydrochloric acid he urges that in order to supply sufficient to favour peptic digestion an impossible quantity would be required, moreover, he shows elsewhere that he is fully aware that pepsin is rarely absent from the stomach, and that when all acid hydrochloric acid is also deficient; yet in spite of these considerations he recommends it as a remedy, although he does so in a different part of the book from that in which he objects to the use of hydrochloric acid on the grounds given above. Moreover, while disapproving the use of hydrochloric acid he recommends sulphuric acid to be taken in precisely the same manner and supports this practice by purely empirical considerations.

In discussing the dyspepsia of phthisis he argues that digestion is retarded rather than helped by the administration of hydrochloric acid in the gastric juice, taken in health accidentally and not being destroyed, but later on he quotes the work of his pupil, du Pasquier, who showed that in the early stages of phthisis patients can take excess of hydrochloric acid, up to one drachm daily, and 12 per cent. the normal amount. These examples illustrate the way which M. Robin uses or

ignores facts according to the conclusions he desires to draw at the moment.

The section on gaseous fermentation has a great deal in it with which we agree and which should be better known. In the first place he does not consider fermentation to be so common or so important as is often supposed. Gas in the stomach is for the most part air swallowed with the food. This is shown by the rapidity with which it is developed after eating, and the nature of the gas in many examples that have been examined chemically. Lactic acid fermentation is undoubtedly common; in fact, this acid is so common that it was for a long time supposed to be physiologically present, but it does not form gas. There is some confusion in the author's mind when he speaks of fermentation in the stomach as the cause of foul breath, for he admits that the eructated gases do not, as a rule, have a bad odour, and in another place he shows that he is quite well aware that the cause of foul breath is buccal fetidity.

Over and over again he repeats the assertion that small quantities of alkalies stimulate the gastric secretion although he adduces no fresh evidence, and the well-known experiments of Pawlow prove the contrary. This view leads him to express unusual opinions as to the use of mineral waters: small doses of Vichy water are, in his opinion, contraindicated in cases of excessive secretion of gastric juice, while they may be useful where this secretion is defective. He seems to think all cases of chronic gastritis smoke or drink to excess, which is neither charitable nor true.

His view of the etiology of gastric ulcer is (1) excessive secretion of gastric juice, (2) gastritis acida, and (3) an occasioning cause which permits the already weakened mucous membrane to be attacked by the hyperacid and hyperpeptic juice. But latent ulcer of the stomach is more frequent than the author admits, and occurs in persons who have not suffered from any stomach trouble such as the above suggested series of events would imply. In the treatment of gastric ulcer he speaks highly of the "absolute rest" method, by which he means the plan by which the patient is fed exclusively by the bowel, the stomach meanwhile being kept entirely empty, but he is at first vague as to its duration and ultimately states the average time for which it is possible to maintain this treatment as nine days, too short a period if it is intended to keep the stomach empty until the ulcer is completely healed and too long if, as we think can be abundantly shown, suitable food taken by the stomach only does harm when taken within forty-eight hours of an attack of haemorrhage, and recovery depends upon improving the patient's nutrition. He admits that during rectal feeding the patient invariably loses weight. Hyperchlorhydria plays a very extensive part in the author's pathology, for example, to it he attributes mucous colitis, appendicitis, chronic constipation, and dipsomania!

Throughout these lectures Professor Robin, while quoting largely from contemporary literature, shows little respect for the opinions he finds there. Indeed, he states them in such a way as to allow him a comparatively easy victory. The book may be regarded as an encyclopædia of information on the subject of diseases of the stomach, but we dissent from many of its teachings and conclusions.

THE EXAMINATION OF THE URINE.

MOST of the books that have been written on the urine and its examination have dealt with the subject too much from the chemical point of view, and consequently there has been for a long time a want felt by medical men for a book on the urine which should be a clinical guide in the diagnosis and treatment of disease. To produce such a book a somewhat rare combination is required in the writer, for he should be both a practical and practising physician and a scientific chemist whose knowledge is abreast of the many advances that have been made in the domains of physiological and pathological chemistry. Fortunately, in Dr. DIXON MANN these two attributes are pre-eminently combined, and it would be difficult, if not impossible, in this country to select a man better qualified to discharge successfully the task he has undertaken. In his volume on the *Physiology and Pathology of the Urine*,[3] Dr. Dixon Mann has produced a book which, we venture to predict, will be welcomed alike by medical men and by students of medicine, and which will prove most helpful in solving many of the problems that are met with in connexion with the diagnosis and treatment of disease. It is only possible to give a very cursory description of the various sections of this admirably compiled and written book. One useful and practical feature of it is that the urinary constituents are not necessarily grouped together according to their chemical constitution, but according to their physiological and pathological associations—a grouping which, from the clinical point of view, is of immense use. A section that will especially appeal to the practising medical man is that devoted to the effects produced on the urine by the principal diseases and to pathological deviations attended by distinctive changes in the urinary secretion. In connexion with the application of Fehling's test, stress is very properly laid upon the point that the mixture of Fehling's solution and urine should never be submitted to prolonged boiling, as several substances (apart from sugar) may be present in the urine which are capable of reducing copper salts with the aid of prolonged heat. The sections on the occurrence and detection of acetone and diacetic acid in the urine and their relationship to diabetes are especially clear and good, and will prove of great value to the clinician. The book contains a masterly review and criticism of the occurrence of uric acid and its salts in the human organism. The section on urinary pigments is one of the best we have met with, and very good illustrations accompany the article on urinary sediments. The author wisely states that too much stress should not be laid on differences in the size of casts, and reference is made to the important fact that exceptionally casts may be found in the urine in the absence of disease and when no albumen is present in the urine, a condition which is explained as being probably due to the fugitive presence in the blood of some toxin. The illustrations of the various forms of casts are very clear. The book concludes with a chapter on urine in its pathological relations, which is perhaps, from the point of view of the practising physician, the most valuable of all. Dr. Dixon Mann is to be congratulated on having produced a work which cannot fail to be of inestimable value alike to medical men and students, and which is in every respect worthy of his high reputation.

PATHOLOGY.

WE are glad to see a second edition of Dr. LAZARUS-BARLOW'S excellent work on *General Pathology*.[4] It has been thoroughly revised and partly reconstructed, and much additional matter has been introduced in order to bring it up to date. The author's great merit is his wide grasp of physiological principles and his appreciation of their importance for the study of morbid processes. His treatment of oedema is particularly valuable from the way in which it incorporates important experimental work by physiologists on the lymph flow; and the pathology of heat regulation is treated with equal success. Work of this kind provides a useful and much-needed object lesson, showing the immense advantage which both the physiologist and the pathologist may derive by bringing the study of the normal and the morbid into a close relationship. Whilst thoroughly approving of his general method of dealing with his subject, we are not quite sure that Dr. Lazarus-Barlow fully realizes the standpoint of the average reader. The medical student who reads the book in order to learn, however enterprising he may be, is not possessed of unlimited powers of assimilation. There is, therefore the danger that if we give him too wide a range of epitomized opinions from leading authorities with whom he is hitherto unacquainted, we may induce mental dyspepsia. Of course, the intention of widening a student's view in order to stimulate him to seek wider acquaintance with the literature of his subject is most excellent; but the author, whilst still providing this very desirable stimulus, might secure a wider audience if he recognized the narrower limits of the learner's horizon as compared with his own. We also think that bacteriology and immunity might with advantage have been omitted. These matters are best dealt with in special works, and are rather an encumbrance on the main purport of the present volume.

Dr. WALKER has issued in a book his Gordon Lectures, delivered at Guy's Hospital in 1902, on inflammation, infec-

---

[3] *Physiology and Pathology of the Urine, with Methods of Examination.* By J. Dixon Mann, M.D., F.R.C.P., Physician to the Salford Royal Hospitals; Professor of Forensic Medicine in the Victoria University of Manchester. London: Charles Griffin and Co., Limited. 1904. (Demy 8vo, pp. 272, 29 Illustrations. 7s. 6d.)

[4] *A Manual of General or Experimental Pathology for Students and Practitioners.* By Walter Sydney Lazarus-Barlow, B.A., B.C., M.D., F.R.C.P. Second Edition. London: J. and A. Churchill. 1902. (Royal 8vo, pp. [illegible], 258.)

The General Pathology of Inflammation. By E. A. Ainley Walker, M.A., M.D. London: H. K. Lewis. 1904. (Demy 8vo, pp. 272, 4s. 6d.)

tion, and fever. Treating his subject from the standpoint of recent discoveries in the science of immunity, he has provided a digest of what is known about infective processes which ought to be useful to medical students preparing for the higher examinations and to others who desire to obtain a general and easily comprehended outline of the phenomena dealt with. There is evidence throughout the book that the author has obtained his information by direct references to the original authorities: he consequently writes with a freshness and force not otherwise attainable. This is a welcome feature, and stands in pleasing contrast to the habit of compilation from second-hand sources, which is only too common nowadays. The number of misleading statements which are perpetuated in this way is a serious evil and is largely due to busy lecturers and others who publish as new textbooks what are really nothing more than patchwork transcriptions from a variety of other textbooks not much more trustworthy than the new production. We may cite as an example the agglutination phenomenon in the blood of typhoid patients. Every student is familiar with this and calls it Widal's reaction. Very few of them know that the true credit of the discovery belongs to Gruber and Durham. If they consult Dr. Walker's textbook they will find this matter placed in its proper light by means of a simple and concise statement of the nature of the discoveries made and the investigators who made them.

In his book on the Functions of the Leucocytes, Dr. Jacques Carles ascribes to these cells a variety of properties and a degree of importance which are only likely to gain full acceptance from those who have been brought up to an implicit belief in the teachings of the French school on this subject. In addition to their phagocytic action on bacteria, leucocytes are regarded as possessing special selective properties which enable them to take up into their protoplasm a variety of substances which are useful to the organism, such as lecithin and compounds of iodine: these materials the leucocyte then digests by means of its ferments and then distributes to the parts of the body where they are needed. Leucocytes are also thought to play an important part in the absorption of metallic drugs; this is ascribed to their peculiar richness in nuclein and to the readiness with which nucleic acid forms metallic compounds. Thus, for example, the action of mercury on a syphilitic lesion is explained as due to the absorption of the mercury by the leucocytes, which are then attracted by chemiotaxis to the lesion and there discharge the mercurial compound which exerts a specific action. In short, such is the importance of these cells that in dealing with disease generally the doctor is urged to investigate the condition of his patient's leucocytes with as much care as he bestows on their heart, kidneys, and nervous system. We may commend the book as an interesting amplification of a certain point of view, but it should be pointed out that many of the experiments quoted in support of its doctrines are the work of pupils of Metchnikoff who have not achieved in their observations the same degree of accuracy as their master. [illegible] it to be forgotten that properties demonstrable in the leucocytes of animals, such as frogs, are not necessarily present in the leucocytes of man.

In the preface to his book on *Rabies* Dr. Semi expresses his indebtedness for valuable criticisms to the scientific expert who read the manuscript for the Syndics of the Cambridge University Press. We have no doubt that these criticisms have increased the value of the work, but even as it stands it is [illegible] Some opinions fall to impress us as being [illegible] exhaustive. He tells us that the [illegible] and expounded the modern views of rabies as a preventive rather than a prophylactic disease, being described as the two great orders of the [illegible] disease. Rabies is also described as [illegible] of the intensifying rather than of the attenuating [illegible] of the animal kingdom. [illegible] and the exposition which is intended to [illegible] result to understand, and, [illegible] Ardour, [illegible] is a belief that his work is likely to [illegible] in the [illegible] scientific [illegible]

[illegible] By [illegible] M.D. Cantab. [illegible] Derby. 1904.

NATURAL HISTORY.

Three years ago Dr. Gerald Leighton published a book on British serpents. A wish was expressed that he would write a treatise on lizards, and in accordance with that wish the present work *British Lizards*[1] was prepared; the two together complete the account of the British reptiles, snakes and lizards, from the point of view of the field naturalist. In an introduction the author points out that for outdoor work the physiological and geographical, and the specific characters are the most important aspects to study, for it is impossible for any one man to make himself familiar with all that is known of all the aspects even of a very few animals. Each aspect is a study so far-reaching in itself that one is more than most of us can manage to learn thoroughly. The main questions a field naturalist has to study are: What animals live in a given region? What characters make them the species they are? How are they related to other living or extinct forms? How do they live their life? The object of the book is to give the field worker just sufficient information on those points on which he himself does not work to enable him more thoroughly to understand the phenomena which come under his observation out-of-doors. The British lizards are described, and the counties and localities arranged according to the areas defined in the "County and Vice-county divisions of the British Isles." For biological purposes the book is clearly and concisely written, and students wishing to take up the subject seriously will find it of the greatest assistance. Specially interesting are the illustrations by Mr. Douglas English taken from living lizards by the "control method." Mr. English, whose skill in photographing small animals, reptiles, and birds is well known to all those interested in natural history, photographs his subjects in captivity. The illustrations in the book convey a much better idea of the appearance of the lizard than coloured plates, which are often misleading.

It is not surprising to find that Mr. Douglas English's book has already run into a second impression for the charming collection of stories concerning small animals entitled *Wee Timorous Beasties*[2] appeals alike to grown-ups and to children. Not only are the stories attractively written, but each one is in reality an object lesson, full of information as to the ways and habits of the tiny animals dealt with. Mr. English's methods of studying the beasts he writes about are original. Whereas Mr. Kearton employs all sorts of stratagems such as hiding for hours in a stuffed cow which he carries about with him in order to photograph birds too timid to approach a human being, Mr. English's method is to capture small wild animals, birds and reptiles, and while taming them to study their habits. When they are sufficiently tamed he photographs them. There are 130 illustrations in the book, all done in this way from living creatures, and to say that they are done by Mr. English himself is to say that they are admirable.

PHYSICAL REMEDIES.

Dr. A. Béclère explains, in the introduction to his work on the *Remedies Rays* that it was first presented in the form of a report to the second International Congress for Medical Electricity and Radiography at Berne in September, 1902, and that one of his objects was to show that although the rays have proved of great service in surgery, physicians will also find them of service in medicine. In support of this he quotes the conclusions reached by Professor Bouchard as early as 1899. Dr. Béclère makes no attempt to compete with the larger and more important works, such as the *Traité de Radiologie Médicale* recently produced under the editorship of Professor Bouchard. On the contrary, in a simple, readable, and concise way he describes the methods of exploring the chest, a few of the best forms of apparatus for clinical purposes, and the principal affections. The apparatus described is just such as an ordinary physician would require in his room for genuine diagnostic purposes, either by means of the screen or photography. After describing the importance of examining the normal thorax and the interpretation to be put on the dif-

[illegible] By [illegible] M.D. F.R.S.E. Edinburgh: [illegible] and London: Simpkin, Marshall and Co. 1904. Crown [illegible]

[illegible] (Studies of Animal Life and Character) By [illegible] London: [illegible] Limited. Cr. [illegible]

[illegible] *Maladies Infectieuses.* Par A. [illegible] Paris: J. B. Baillière et [illegible]

ferent shadows representing the organs, he proceeds to describe the pathological changes which can be determined. Changes due to mischief in the pleural cavity, the lungs, heart, pericardium, aorta, and oesophagus occupy the most important clinical part of the work, as might be expected. He thinks that the *x*-ray examination of the thorax should never be omitted; indeed, he recommends that it should be the first thing done by the physician. The second part of the work treats of the examination of the digestive organs, the diagnosis of calculi, and shows how valuable *x*-ray work may be in the hands of an expert. A third very short chapter is devoted to the examination of the cranial cavity and upper part of the spine. As a result of his investigations, Dr. Béclère concludes that in some conditions of the central nervous system we have a useful help in the *x* rays for the examination of the abdomen: they constitute a valuable method of procedure, principally in the diagnosis of urinary calculi, and as a means of giving additional information in the exploration of the stomach. For the thoracic organs he makes the claim that the rays will rank in medical practice along with auscultation and percussion, and that their importance is becoming greater from day to day. The work is more than an introduction to the subject. It is well written, the illustrations are practical, and Dr. Béclère's excellent clinical study will doubtless meet with a favourable reception from the profession.

A large number of treatises on the medicinal value of light, heat, and electricity have been published within recent times both in Europe and America. The latest comer is a volume on *Natural Physical Remedies*,[11] from the pen of Mr. H. H. Hulbert, Lecturer on Health and Voice Production to the Guildhall School of Music. Like many of its predecessors, this book errs in claiming results from the application of physical methods which can only be designated as extravagant and in excess of any legitimate deduction from the evidence that is so far forthcoming. The forces enumerated in the title play an important part in the cure of disease and, in all probability, the measure of their usefulness is yet imperfectly appreciated, but neither any one of them, nor all of them combined, can be regarded as a universal panacea, such as the general tenor of Mr. Hulbert's book would suggest as being possible. The author quotes long extracts from various writers—Douglas Kerr, Knowsley Sibley, Bezly Thorne, Hedley, Herschell, and others—but he gives no detailed record of any personal experience confirmatory of the generalized statements in which he indulges. Thus, in speaking of the treatment of phthisis by high-frequency currents, he says:

> All the patients gain in weight, and nearly all derive great benefit if the treatment is continued for a period of not less than three months; the consensus of medical opinion seems to be that recoveries may reasonably be expected in at least 50 per cent. of the cases treated.

This a mere assertion unsupported by proof, and one, moreover, which is not in agreement with every one's experience. Many other similar examples might be quoted of the somewhat loose way in which the virtues of physical remedies are proclaimed. Mr. Hulbert is not without imaginative powers, for he tells us that:

> It is not difficult to picture Adam, after the Fall, suffering from his first experience of a "chill," and instinctively creeping forth so as to expose his back to the genial influence of a semi-tropical sun.

Good descriptions are given of various forms of electrical and other apparatus, and the book is illustrated by several well-executed plates. It contains also a considerable amount of useful information as to methods of application and details of management, but it dwells with unnecessary emphasis on the Dowsing system of treatment. The radiant heat and light baths which are arranged on this system constitute, doubtless, a convenient and readily adaptable electrical method of bringing the body under the influence of two great natural forces, but it is sufficiently advertised throughout the press of this country to make a volume mostly devoted to its glorification a redundancy.

[11] *Natural Physical Remedies: Light, Heat, Electricity, and Exercise in the Treatment of Disease.* By H. H. Hulbert, B.A. Oxon., M.R.C.S., L.R.C.P. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1903. (Demy 8vo, pp. 286. 2s. 6d.)

The Council of the Association for Promoting the Training and Supply of Midwives has decided to arrange for a large public meeting to be held in the autumn in furtherence of its objects.

Sir Lauder Brunton has been elected Consulting Physician to the Infants' Hospital, London.

MEDICAL SICKNESS ANNUITY AND LIFE ASSURANCE FRIENDLY SOCIETY.

Annual Report and Quinquennial Valuation.

The twenty-first annual report of the Medical Sickness Annuity and Life Assurance Friendly Society presented to the annual general meeting on May 19th embodied a special report on the quinquennial valuation of the business made by the Secretary of the Society, Mr. Francis Addiscott, F.I.A., in conjunction with the consulting actuary, Mr. George S. Crisford, F.I.A., actuary of the Rock Life Assurance Company and Public Valuer under the Friendly Societies' Act.

For the sickness benefits, which formed the largest part of the business of the Society, the rate of interest assumed was 2½ per cent., while in the annuity and life assurance branches, in which no new business had been taken since 1894, the rate assumed was 3 per cent. Mr. Addiscott's report stated that the same bases of calculation had been used as in 1898, namely, the Institute of Actuaries' H^{m} Mortality Table and the sickness experience of the Manchester Unity of Oddfellows.

Sickness Fund.—At the date of the valuation, December 31st, 1903, the number of members assured for sickness benefit was 2,231, the total weekly sick benefit secured was £8,453 11s., and the gross annual premium income payable to the Society in respect of these benefits was £15,151.

Calculated upon the basis indicated the funds showed a surplus of £2,742. Only 90 per cent. of the premiums actually receivable by the Society were valued, 10 per cent. being reserved for expenses of management, although a smaller proportion had hitherto been found sufficient.

Life Assurance Fund.—At the date of valuation there were 191 members assured for an aggregate sum of £33,400, and paying an annual premium income of £919 6s. The life assurances had been valued by the H^{m} tables at 3 per cent., and 10 per cent. of the gross premiums had been reserved. The fund showed a surplus of £1,921.

Deferred Annuity Fund.—On December 31st last there were 435 members assured for deferred annuities, commencing at age 65, or for endowments payable at the same age. Of these 188 contracts were on the plan of returnable premiums. Under this arrangement, should the member die before attaining the age of 65 years, three-fourths of the premium paid by him for this benefit were returned to his representatives. The remaining annuity benefits were on the non-returnable system. Annuity benefits had been converted by 113 members into endowments payable at the age of 65, and as the Society now granted no further annuity or assurance benefits the annuity and life assurance branches were being slowly reduced in size. During the quinquennium the number of annuity contracts was thus reduced from 502 to 435, and with each succeeding quinquennium a large proportionate decrease may be anticipated. The funds showed a deficit of £702. Since 1894, when this department of the work was given up, annuity or assurance benefits could be secured by members through the agency of the Society from the Rock Life Assurance Company.

Surplus.—The sickness experience of the Society during the five years was less than the expected sickness by 739 weeks, or about 6 per cent.; the ratio of the actual to the expected sickness, however, had a tendency to rise with the age of the Society, and during the last quinquennium the margin in favour of the Society was not so great as in the previous five years, so that the surplus in the sickness fund was smaller. It was insufficient to enable a cash bonus to be paid on all the existing contracts. The Secretary proposed that every sickness member reaching the age of 65, at which he would go out of benefit, during the current quinquennium, should be allowed from a surplus in the management fund a bonus of 10 guineas for every guinea per week of sick benefit he had secured during his membership with a proportionate amount to those who during their membership had increased the amount of their sick benefit. The management fund surplus arose from the economical working of the Society's business, and had been largely produced by the contributions of those older members who would at once benefit under the proposed plan of bonus.

Mr. G. S. Crisford in his certificate stated that he had carefully considered and examined the particulars and methods of the valuation, and was of opinion that the methods employed in the valuation of the funds and liabilities were satisfactory, and that the basis adopted was one which properly

represented the true financial position of the Society. He approved of the recommendations made by the Secretary.

The annual report contained the following statement:

The amount paid during the year for sickness and accident claims was £[illegible], and the following statement shows the amount paid away in sick benefit during 1903 and in each of the preceding five years:

Year.	Members.	Payments.
[illegible]	[illegible]	[illegible]

The amount of [illegible] was less than the amount expended in [illegible].

The report further stated that since the Society was started in 1884 £[illegible] had been disbursed in sickness benefit and letters received from members in benefit left no doubt that in many cases the sickness pay had prevented inconvenience and in some actual privation.

ANNUAL MEETING.

The CHAIRMAN (Dr. de Havilland Hall) in his customary address congratulated the Society upon the year's work. The number of new members elected during the year was 176, the largest for some years past, bringing the total membership of the Society up to 2,274. He urged members to enlist new members, not for the sake of the Society, which had a sufficient number of members to ensure its stability, but for the future of members, and therefore for the general good of the profession. Referring to the work of the year he said that the annuity branch showed a small deficit, thus preventing any bonus being awarded to annuitants, while in the life assurance branch the Committee were able to declare a bonus of 10 per cent. on the sum assured. Turning to the sickness fund, which he regarded as the most important branch of the Society's work, he said that during the year £[illegible] 12s. had been paid away in sickness benefits, which was a record for the Society. They had had twenty-five members on the fund for the whole of the year and there was but little prospect of many of them being able to resume work. The principle adopted by the Society of making permanent provision for members at the age of 65 was unique. The large saving effected on the management fund had led to a considerable surplus, and the Committee recommended that when a member reached the age of 65 he should be allotted a bonus of [illegible] per cent., for every 21s. per week of sick benefit he had received during membership. As a large amount of the profit had been derived from the contributions of older members, they were only right that when they went out of benefit under the age limit they should receive something. The number of members who would attain the age of 65 during the next five years amounted to 13, and the bonus payable to these members would amount to £[illegible]. He hoped the meeting would also agree that the [illegible] should be allotted to the 22 members who had attained the age limit during the quinquennium just concluded, this would entail a further sum of £[illegible] 10s. The question of providing sick pay for members after they had reached the age of 65 had been [illegible] by the Committee, and the Committee had come to the conclusion that it was a practical impossibility. He moved that the report of the Committee and the audited accounts for the year ending December 31st, 1903, be received and adopted.

The resolution was seconded by Dr. BRINDLEY JAMES, and carried.

The CHAIRMAN next moved that the proposal to grant a bonus to members on attaining the age of 65 should be made retrospective to those 22 members who had attained the age-limit in the last quinquennium.

This was seconded by Dr. BRINDLEY JAMES, and carried.

On the motion of Dr. DE HAVILLAND HALL the valuation report was received and adopted.

The list of officers of the Society, as submitted to the meeting, was, on the motion of Dr. LESLIE THORNE THORNE, seconded by Dr. WINSLOW HALL, adopted.

A vote of thanks to the Chairman for presiding at the annual meeting of the Society and at the meetings of the Executive Committee during the last year brought the proceedings to a close.

CONTRACT MEDICAL PRACTICE.

POST-OFFICE MEDICAL APPOINTMENTS IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

"MEDICUS," who is a parish medical officer in the Highlands of Scotland, informs us of the terms offered to him by the Postmaster-General to attend two rural postmen who reside 12 and 15 miles from his residence. The duties are as follows: (1) To examine candidates for appointment; (2) to attend at the office or at their house, and to supply with medicine all officers on the list supplied to the medical officer; (3) to visit, on requisition of the postmaster, any one absenting himself from duty on the plea of illness; (4) to certify as to the unfitness or otherwise for future duty all applications for superannuation; (5) to attend specially to sanitary condition of the post office. The remuneration is 8s. 6d. per annum for each person on the list furnished, and in addition a fee of 10s. for each candidate examined for appointment to established service, this amount covering all examination of candidate, either on nomination or probation.

"Medicus" replied, thanking the postal authorities for giving him an opportunity of applying for the office, but pointed out that the remuneration offered was totally insufficient to induce a medical man to take up such work in a wide-spread parish. With regard to the list of duties, he considered (1) the examination fee was inadequate; (2) the fee offered per man was absurd, considering the distance to be traversed, and in the two cases mentioned, as both men are and in very good health, they might require a good deal of medical attendance. Further, he would be reluctant, for the remuneration stated, to render himself liable to be summoned by the postmasters to go such distances for any slight ailment the men might suffer from. With regard to (3), (4), and (5) he pointed out that no remuneration is offered for services rendered to the Department in these cases, and that the Department has to obtain information from a medical man without paying for it, and, as he can get a reasonable fee from the men on private practice, he does not feel justified in giving services to a wealthy Department at a less figure.

We congratulate "Medicus" on the stand he is making, and we trust that medical men practising in the Highlands and Islands will unite under similar conditions not to be bullied into by combined action that this, and similar attempts to get medical practitioners to do work without reasonable remuneration can be frustrated.

FEMALE DENTISTS IN PARIS. According to recently published statistics there are in Paris 24 female practitioners of dentistry. Of these, 20 hold the diploma of the Paris Faculty. The total number of dentists in Paris is 450.

MEDICINE AND MATRIMONY. A Bill providing that every intending candidate to matrimony should appear before some official practitioner for instruction, with a view to reduce the number of defective children, was not long ago introduced into the Iowa State Legislature. It was thrown out by a unanimous vote on the ground that its provisions were contrary to the constitutional guarantee of liberty and the pursuit of happiness.

NOTES ON HEALTH RESORTS.

SCHWALBACH, NASSAU.

Schwalbach, properly known as Langenschwalbach because of its long narrow shape, and to distinguish it from other Schwalbachs, is a small town of some 3 000 inhabitants situated on the north-western slope of the Taunus mountains in a deep valley at an altitude of 950 ft., in the Prussian Province of Hesse-Nassau. The spa is situated in the upper or south-western part of the town, where there are good shops. The springs lie in two valleys stretching east and west: they are separated by a mountain ridge, and enclosed by wooded hills and woods of pines and beeches. Schwalbach is only fifteen kilometers from the Rhine and not far from Wiesbaden, and the journey from London via Cologne takes about twenty-one hours.

Schwalbach: Bath house and pump room

As far back as 1511 a doctor named Tabernaemontanus, a native of Worms, wrote a treatise upon the waters in which, from an experience of many years, he called the Winebrunnen "the most excellent and beneficial of all springs," while the praises of the Stahlbrunnen were sung by the physician Schweizer.

But Schwalbach, like every other "cure," has had its palmy and its bad days. In the seventeenth and eighteenth centuries it was a most aristocratic bathing place, then went out of fashion to be brought into vogue again in the nineteenth century by the Empresses of France and Russia. Most of the visitors are German, but it is also much frequented by English and Americans, and to a less extent by Dutch and Italians.

The climate is invigorating but not too cold, as the hills form a protection from the winds, and variations in temperature are small owing to the shape of the mountains, the mean from May to September inclusive being 15.5° C.

In Langenschwalbach there are eight mineral springs. The principal of these are the Stahlbrunnen and the Winebrunnen for internal use, the Stahlbrunnen containing more iron than the Winebrunnen (0.08 per mille of the bicarbonate to 0.06 per mille). The waters also contain a very slight proportion of magnesium bicarbonate; the stronger, Stahlbrunnen, according to Fresenius, contains only 0.02, or less than Spa.

He writes:

> The springs are well set, the water rising in stone basins, in which it is colourless and clear. In the Winebrunnen it is considerably agitated, in the Stahlbrunnen not quite so much, and in the Paulinenbrunnen in a still less degree. This agitation is caused by the stream of carbonic acid gas which issues with the water. If a white glass bottle be filled, from a hitherto undisturbed Brunnen, the water appears extraordinarily clear, and only when closely examined the very minute ochre-coloured flakes, which precipitate themselves on the glass, can be observed. The water taken from the wells continues to sparkle in the glass, and if a half-filled bottle be shaken a considerable quantity of carbonic acid gas escapes, together with an exceedingly small quantity of sulphuretted hydrogen, but sufficiently to be detected by the smell. The water is cold, refreshing, sharp to the taste, soft, and with a flavour of iron. The iron taste is most strongly perceptible in the water of the Stahlbrunnen. The temperature of the wells having been taken at different seasons and at different temperatures of the air, it is proved that it is not constant, but varies from 7 to 12 degrees R.

The specific gravity of the waters of the wells is as follows:

Stahlbrunnen	1.000638
Winebrunnen	1.000[illegible]
Paulinenbrunnen	1.000684

The constituents of the Stahlbrunnen, Paulinenbrunnen, and Rosenbrunnen are practically the same. The Stahlbrunnen is richest in iron and carbonic acid, while the Paulinenbrunnen contains a little less of magnesium bicarbonate, and a little more lime bicarbonate.

The Winebrunnen possesses considerably more lime bicarbonate and sodium bicarbonate.

According to Fresenius, the water in the reservoir contained 80 per cent. of the original quantity of protoxyde of iron in solution and that of the baths 08 per cent.

The Stahlbrunnen contains, according to Fresenius, the following constituents in

(a) Weighable quantity the salts of carbonic acid calculated as simple carbonates

	In 1,000 parts.
Sodium carbonate	[illegible]
Sodium chloride	[illegible]
Sodium sulphate	0.003746
Potassium sulphate	[illegible]
Lime carbonate	0.153087
Magnesium carbonate	[illegible]
Carbonate of protoxide of iron	[illegible]
,, ,, manganese ...	0.013327
Silicic acid	0.032070
Total solids	0.432[illegible]
Half combined carbonic acid	0.17[illegible]
Free carbonic acid	2.981672
Sulphuretted hydrogen	[illegible]
Total	3.588601

And [illegible] in unweighable quantities sodium phosphate, traces boric acid, minute traces; organic substances, minute traces.

II. *Winebrunnen.*

The Winebrunnen contains the following constituents in [illegible] weighable quantities: the salts of carbonic acid calculated as simple carbonates:

	In 1,000 parts
Sodium carbonate	0.173377
,, chloride	0.008640
,, sulphate	0.006193
Sulphate of potash	0.037466
Carbonate of lime	0.398312
,, ,, magnesia	[illegible]
,, ,, protoxide of iron ...	[illegible]
,, ,, ,, mangan. ...	0.006574
Silicic acid	0.046500
Total solids	[illegible]
Half combined carbonic acid	[illegible]
Free carbonic acid	[illegible]
Sulphuretted hydrogen	[illegible]
Total	[illegible]

(b) In unweighable quantities: sodium phosphate, traces: sodium borate minute traces: organic matter, minute traces.

The principal bath-house is the Royal, situated near the Winebrunnen. It contains over ninety bathing-rooms. The iron-water flows into the reservoir and thence into the bath by gravitation. The baths are made of copper with double bottoms, and into the space between steam is conveyed and the water in the bath raised to the desired temperature. By this system there is a decrease of at least 25 per cent. in the loss of carbonic acid. The rooms are fitted up with

douches, shower-baths and apparatus. The effect produced by these baths is attributed to the mechanical stimulation to the skin by bubbles of carbonic acid gas.

Peat baths are a feature of Schwalbach. The peat is obtained from the Winebrunnen valley and is the product of decaying plants acted upon by large quantities of water and different mineral precipitates. The fresh peat is exposed, heaped up for six months in the winter, and the chemical decompositions which occur are held to enhance the therapeutic value of the peat. The following is the analysis of Schwalbach peat

[illegible] parts of peat dried at 100 degrees of C[illegible] Grammes

A. Constituents soluble in water:

1. Organic

Ulmic acid, pit acid, and pit salt acid	...	[illegible]

2. Inorganic:

Lime sulphate	[illegible]	
Sodium sulphate	1.47	
Potassium sulphate	traces	
Ammonia sulphate	traces	
Sodium chloride	[illegible]	
Potassium chloride	traces	
Silicic acid	[illegible]	[illegible]
Total soluble in water ...	...	[illegible]

B. Constituents not soluble in water

1. Organic

Sebaceous matters	4.744	
Waxlike substances ...	[illegible]	
Resinous substances	4.675	
Ulmic acid and [illegible] acid	[illegible]	
Ulmine and [illegible]	[illegible]	
Remains of plants and chemically bound water	[illegible]	
Total of the substances insoluble in water ...		[illegible]

2. Inorganic:

a. Soluble in hydrochloric acid

Oxide of iron	26.512	
Alumina	44.277	
Magnesia	[illegible]	
Lime	8.824	
Soda	1.417	
Potash	1.178	
Sulphuric acid	4.354	
Phosphoric acid	1.676	
Carbonic acid ...	[illegible]	
Silicic acid ...	[illegible]	
... ...	4.274	
		100.760

b. Not soluble in hydrochloric acid:

Clay	[illegible]	
Sand and small stones	[illegible]	398.465
		[illegible]

Before employing the peat it is passed through sieves and then mixed with mineral water in a tube and stirred, being heated by steam until it assumes the consistency of thin paste. The mixture is regulated by the physician's prescription as to the consistency and temperature suited to individual patients, there being three degrees of thickness. The baths are then rolled on rails into the bath rooms and placed beside a bath of fresh water for rinsing. Peat baths are often recommended for use before the iron baths are taken, but rest is necessary after taking them. The price of an ordinary bath is from 1 to 2 marks, according to its situation and time of day, while the price of a peat bath is 4 marks.

The waters are taken early in the morning, before breakfast or at noon after the bath, and again at meals, mixed with wine if they are found too gaseous alone. They are sometimes warmed, mixed with milk or whey, or followed by a small quantity of bitter aromatic tea. The whey is prepared from goats' milk, and is found useful as an addition to the water of ferruginous acidulous springs not easily digested by patients. In fact, in the treatment of all cases care should be taken to prescribe the waters for each patient according to his powers of digestion, but to attempt more than can be easily assimilated is apt to cause headache. The iron waters, it is asserted, are not injurious to the teeth, nevertheless many patients use tubes for drinking. The usual course consists of twenty-five baths spread over a period of six weeks. If the treatment is continued for long it does the patient harm. Moderate exercise is specially recommended, and a simple wholesome diet from which fresh vegetables and raw fruit and very rich dishes are excluded. The cure is usually followed by an after cure in good mineral waters.

The diseases treated at Schwalbach are: Chlorosis in girls of from 14 to 20 years of age, when a carefully regulated drinking and bathing cure carried out in fresh mountain air, together with a nourishing diet, produces excellent results; anaemia, and those disorders of the [illegible] system partially or wholly dependent on a general condition of anaemia or debility, and retarded convalescence in men and women, when a bathing and drinking cure combined with a strengthening diet and much exercise in the mountain air, is often successful; in leucorrhoea and chronic inflammatory conditions of the female pelvic organs vaginal douches of the mineral water in addition to the baths are efficacious.

In cases where other springs are in the first place desirable, but where a supplementary course of ferruginous waters is necessary, Schwalbach is recommended, and it is often used as an after-cure for patients who have been to Nauheim, Kreuznach, Ems, Schlangenbad, Wiesbaden, and other places. The season is from May to October, and visitors find good hotels.

PREVENTION OF CONSUMPTION.

BRISTOL.

THE annual meeting of the Gloucestershire, Somerset, and Wiltshire branch of the National Association for the Prevention of Consumption was held in the Council Chamber in Bristol on May 13th. Sir John Dickson Poynder, M.P., presided, and referred to the fact that at the last annual meeting it was decided to begin building the sanatorium at Winsley, near Freshford, and to erect sufficient accommodation for 24 patients and the necessary staff. During the year the funds that had come in had allowed the Executive Committee to extend the work so as to receive an additional 34 patients. The report, read by Dr. Lionel A. Weatherly, stated that the sum of £16,660 had been collected or promised, out of which £8,750 was for 35 beds, with a promise of £2,275 per annum to maintain them. This showed a great increase on the figures given at the last annual meeting, when it was announced that £9,762 had been promised, his including £3,250 for 13 beds and £845 per annum for maintenance. This increase was largely due to the action of the Bristol City Council, who had asked for 10 more beds. The Committee, recognizing that the chief principle of the scheme was self-help and that so many towns in the three counties had not applied for beds at all, considered they were justified in acceding to the City Council's request. Two rural district councils had applied for beds the first of such councils, it was believed, that had applied in the country and this application had been sanctioned by the Local Government Board after due inquiry. According to the original scheme, only 5 beds now remained for private or public bodies to build and maintain. The Committee had felt justified when the Bristol City Council applied for the additional 16 beds and contributed £4,000 to extend the work of construction to the full number of 60 beds. Several matters, namely, additional heating, difficulties over foundations, etc., had increased the expense of erection, and certain difficulties had arisen over drainage, but this latter was now being considered. It was not thought advisable to open the sanatorium for patients before November, when the whole building would be complete. During the summer a fete will be held in aid of the funds at the Clifton Zoological Gardens. The report gave details of the expenditure up to date, and stated that an additional £6,250 were still required. Dr. Weatherly, in a few explanatory remarks, said that the Rural District Councils were allowed to borrow the sum available for beds, the amount to be paid back within a period of ten years, while the cost paid for maintenance would be a saving in the rates. The additional heating apparatus had cost £1000, but it was the experience of those conducting similar institutions that at least double the apparatus was required to that needed in other places. The meeting concluded with the appointment of a Board of Management and the usual vote of thanks.

YORK.

The third report of the York Branch of the National Association for the Prevention of Consumption deals with the work done during 1902 and 1903. The report commences with an account of the second annual meeting in February, 1902, and refers to the meetings of the council during that year and to lectures given under the auspices of the Branch during 1902 and 1903. It would seem, therefore, that no general meeting has been held and no report issued for two years. The twelve months from September, 1902, to September, 1903, was marked by the practical trial, on a small scale, of the scheme announced at the last meeting for treating York cases of consumption at the Groteforth Sanatorium. Two beds have been retained in the sanatorium, and in these 8 cases have been accommodated during the year—4 slight and 4 more advanced. Of these, the slight cases have been apparently cured, whilst the more advanced cases have extended since

leaving the sanatorium. Much of the report is taken up with a copy of a leaflet on "The Evil Habit of Spitting," an extract from the report of the medical officer of health for the city, and reprints from the *Yorkshire Herald* giving abstracts of two lectures delivered under the auspices of the Branch. The York Branch of the National Association is undoubtedly doing good work, though the report of the Council hardly shows this to advantage.

NOTTINGHAMSHIRE.

The Nottingham and Nottinghamshire Association for the Prevention of Consumption has issued its fourth annual report dealing with the year 1903. The main interest in the year's work centres round the Sherwood Forest Sanatorium, founded by the Association, which has been enlarged and now provides accommodation for 26 patients. The Committee make a similar complaint to that coming from other institutions as to the class of cases sent for treatment. In spite of the expressed opinion of the "imperative necessity of early treatment" of cases of consumption, something like three-fourths of the applicants for admission only came before the consulting physicians when their malady had already reached a hopeless stage.

The medical report of the sanatorium shows that 93 patients have been admitted to the institution during the year, of which 24 remained under treatment at the end of 1903. Of the 69 patients discharged, in 17 cases the disease was arrested, 19 cases were much improved, 19 improved, 4 stationary, and 10 worse. The average stay in the sanatorium was about four months. Not quite half of the patients were early cases.

An interesting note as an appendix to this report states that out of 42 patients who left the sanatorium before the end of 1902 it has been ascertained that 16 are well and at work, 5 are fairly well but not at work, 5 are worse, and 16 are dead. Experience has proved that the site at Ratcher Hill is admirably suited for a sanatorium, and the building continues to give satisfaction.

CANADA.

A deputation from the Association for the Prevention of Tuberculosis waited on the Prime Minister, Sir Wilfrid Laurier, at Ottawa, in the early part of the present month, and asked for the establishment of a sanatorium for the treatment of consumptive patients in each of the provinces of the Dominion. It was pointed out to the Premier that there are annually 8,000 deaths in the Dominion from this disease. The Prime Minister replied that the British North America Act provided for provincial jurisdiction over hospitals, but he would consult with the Minister of Justice to see whether a point might not be stretched in this particular instance so as to provide for the Dominion aiding such institutions.

NATAL.

The prevention of consumption in South Africa is a problem of increasing urgency and importance, and there is evidence of a desire to lose no time in commencing the attack both in Cape Colony and in Natal. At the Durban Town Hall a meeting was held on March 4th, under the auspices of the local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis, at which a lecture was given by Dr. Jaspar Anderson, Medical Officer of Health for Capetown. A large and representative assembly attended to hear the lecture, which was illustrated by lantern slides. Dr. Anderson explained at some length and in simple language the nature of consumption and the manner in which it spreads through a community, and showed in what ways preventive measures may be usefully employed. Incidentally Dr. Anderson pointed out that there is reason to suppose that consumption is on the increase in South Africa, especially amongst the coloured population. The immigration of consumptives into the colonies in the past has much to do with the prevalence of the disease now, and this immigration is still going on. It is proposed to amalgamate the Durban and Pietermaritzburg branches of the National Association into a Natal branch, thus constituting a powerful organization for the whole colony.

UNITED STATES.

Illinois.—An order has recently been issued by the Chicago City Council ordering the police to arrest all spitters in public places. More than three years ago an ordinance was passed prohibiting spitting on the floors of public conveyances or public buildings. It is still theoretically in force, but is practically a dead letter.

Pennsylvania.—The Philadelphia County Medical Society has voted against the compulsory registration of tuberculosis as a contagious disease. By rules recently made by the Altoona Board of Health, Pennsylvania, barbers are no longer permitted to shave consumptives in the communicable stage of the disease. The Philadelphia Bureau of Health, as a part of its crusade against tuberculosis, has undertaken to disinfect all unoccupied houses on the request of intending tenants. The work will be carried out at the expense of the city, provided the tenant will agree to clean the building thoroughly before taking possession. By this means it is hoped one not infrequent cause of the spread of the disease, especially among the poor, will be removed.

Ohio.—The Ohio House of Representatives passed a Bill providing for a Commission to select and purchase a site and erect a State sanatorium for the care of incipient pulmonary tuberculosis. The Bill carries an appropriation for the purchase of a site. The hospital will cost about £35,000 more. About 1,000 persons will be treated per year.

THE HOLMAN TESTIMONIAL FUND.

THE Treasurer of this Fund acknowledges the following further subscriptions:

	£	s.	d.
Fred. Taylor, M.D.	1	3	0
Mr. J. W. Lowder Cooper (Old Epsomian)	0	10	6
Mr. A. B. McCarthy, M.B. (Old Epsomian)	0	10	0
Mr. Harold Lawton, (Old Epsomian)	1	1	0
Mr. H. Martin Francis, (Old Epsomian)		10	6
Mr. Percival E. Francis, (Old Epsomian.	0	1	0
Mr. Geo. Stawell (Old Epsomian)	1	1	0
C. M. Chadwick M.A., M.D. (Old Epsomian)	1	1	0
Mr. G. H. Makins, C.B.	2	2	0
Mr. Stamford Felce	1	1	0
Balance of Council's Testimonial to Dr. Holman (1903) per Mr. Stamford Felce	7	3	0
Mr. A. Kelsey	2	2	0
Alfred Hillier, B.A. (Cape), M.D., M.S.	1	1	0

Further subscriptions will be received by Dr. John H. Galton, Chunam, Sylvan Road, Norwood, S.E.; or by Mr. W. A. Berridge, Oakfield, Redhill, and a further list will be published in a month. The amount at present subscribed is £353 3s. 6d.

LITERARY NOTES.

MR. JOHN MURRAY has published this week a work on *Physical Deterioration* by Mrs. Watt-Smyth. The book discusses within a moderate compass and from an independent point of view problems which are now much exercising the public mind. It traces the steady trend of the population of the country into towns, and discusses the conditions of town life inimical to the healthy development of children. The defects in the methods of education in public elementary schools are criticized, systems of physical education in use in this and other countries are described, and the importance of medical inspection of school children insisted on. Various remedies for the evil influences shown to exist are suggested, and the inducements which may serve to retain the country population on the land described. The book appears at an opportune moment, and will be found to contain much of great interest in the medical profession.

Do we often think of the heavy toll we pay to India by giving up to it so many of the brightest and best intellects in each generation, whence those who do not fall victims to the climate retire too often to the obscurity of Bath or Cheltenham with the C.I.E. and a pension? It is therefore all the more pleasing to welcome such a book as Colonel D. D. Cunningham's *Some Indian Friends and Acquaintances*, which is one of the most delightful works about Indian birds and beasts that has ever been written. In a country like India, where boys are not given to birds-nesting, and the instinct to destroy life has been checked by thousands of years of religious insistence upon its sanctity, birds and beasts are less shy than they are with us, and therefore lend themselves more readily to observation. Taking advantage of these opportunities, the author amused himself by keeping a journal wherein he noted the ways and habits of various animals, and he has used these observations to enliven his description of the commoner forms of animal life in India. Nothing could be more simple than the subject matter, but the stories of bird and beast life are told with great literary charm and considerable sense of humour, so as to be most delightful reading. We should like to place a copy in the hands of every young officer going to India, as from it he may learn many things which will make him wise with a wisdom not otherwise quickly acquired, and perchance he may gain some

of the author's sympathetic interest in the animal life about him that will go far to alleviate the tedium which modern writers insist upon with undue emphasis as oppressing the exile in India.

Messrs. Baillière, Tindall and Cox announce for publication this week a translation by Dr. Thomas Johnstone of Professor Kraepelin's *Clinical Psychiatry*: a new work on *Organic Nervous Diseases* by Professor M. Allen Starr, which will contain 24 coloured plates, besides 275 drawings in black: and a second edition, revised and enlarged, of Dr. Baruch's *Principles and Practice of Hydrotherapy*. The same firm have also nearly ready for publication the ninth edition of Dr. H. Macnaughton-Jones's manual on *Diseases of Women*. The book, which has been entirely re-written, will contain new plates, and will be issued in two volumes instead of one in the popular "University series."

It is announced that Messrs. Routledge are about to publish a book entitled *Confessions of a Fashionable Physician*. The author is described as "a London doctor," and the purpose of the book is, we gather, to furnish an answer to the question, Is the public at large supplied with a satisfactory medical guardianship and if not, who is at fault, the doctors or the public?

In his recently-published *Autobiography* Herbert Spencer records that at the age of 30 he "turned vegetarian." He described the first effects of his new dietary as follows in a letter to his mother dated May 6th, 1850:

> As I have felt no inconvenience during these first few weeks I do not suppose I shall now do so. I think I have felt the cold more keenly than I should otherwise have done and I find others who are trying the experiment make the same complaint. I believe, however, that this result is merely temporary. Meantime I am in all respects well and strong.

He states that from the phrasing of these statements it is clear that he was willing to persist in vegetarianism had he been encouraged to do so by further results. His scepticism was first aroused, however, by the fact that after six months' abstinence from animal food the friend whose example he had followed in the adoption of a Pythagorean diet gave evidence of a lowered condition. His voice became extremely mild and feeble, and he had partially lost power over one of his feet in walking. Writing again towards the end of May, Spencer says:

> I have ceased to regard the vegetarianism, at any rate for the present. I think this cessation under the circumstances due to it.

He adds that the clearest evidence that he had been suffering from the diet was disclosed afterwards. He found that he had to rewrite what he had written during the time he was a vegetarian, because it was so wanting in vigour.

The late Miss Frances Power Cobbe was a professional philanthropist as well as a philozoist, but her excessive love of animals seems to have caused a certain degree of atrophy in her feeling for her own kind, at least in one direction. This is amusingly illustrated in the following passage which we find in vol. ii., p. 247, of Sir Mount Stuart Grant Duff's recently-issued *Notes from a Diary, 1892-1901*:

> [illegible] and Paul the late C. Kegan Paul said "I got into a terrible trouble with her once, in the most innocent way. I [illegible] 'The Lower animals.' 'Lower animals!' she said, 'I remember no such distinction unless indeed you refer to [illegible]'"

A correspondent of the *Westminster Gazette* reports a good thing said by Charles Darwin, which he heard from Huxley some twenty years ago. At that time the late Mr. R. H. Hutton, of the *Spectator*, had taken up the cudgels rather warmly against vivisection. "Who is this Mr. Hutton [illegible]?" Darwin is reported to have asked in a kind of French Miss Cobbe's [illegible]. Huxley described it as the most beautiful double-barrelled "bosh" he ever remembered.

The following is a translation of a circular which was addressed to the leading journals of Paris by the Prefect of Police in February, 1803:

> [illegible] journals [illegible] who have so far [illegible] to the [illegible] when [illegible] with the [illegible] We [illegible] persons

Although this edict does not seem to have produced any lasting effect, it is interesting to note that there were public authorities in France enlightened enough to take such a step a hundred years ago. The root of all quackery is advertisement, and the evil can never be eradicated until newspapers come to see the immorality and disgrace of acting as decoys in the most heartless form of fraud.

MEDICAL NEWS.

A NEW CHILDREN'S CRUSADE. In San Antonio, Texas, a new hero has been introduced in the warfare against the mosquito. Dr. Kolinke, the health officer of New Orleans, has met with great difficulties in his endeavours to "organize victory" against the baleful *Anopheles*, and this led him to conceive the idea of enlisting the aid of schoolboys in the work. He preached his new children's crusade at Laredo, San Antonio, Houston, and Galveston, and with the co-operation of the superintendent of the Board of Education of San Antonio, he enrolled a number of the school children in his antimosquito army. It is proposed to carry on the fight on the same plan in New Orleans. It is certainly a happy thought to utilize the natural destructive tendencies of schoolboys for the extermination of these pestilent insects.

WHOLESALE ABORTIONMONGERING IN FLORENCE. Last summer a singular nest it might almost be termed a limited liability company of malefactors was discovered by the police in Florence. The discovery culminated in twenty-seven persons being tried at the assizes last week. Of these eight were licensed midwives, one a student-midwife, two chemists, one a chemist's assistant, three keepers of disorderly houses, and the rest apparently for the cases were very properly heard *in camera* girls and women upon whom abortion had been procured. In the result five midwives were convicted and sentenced to various terms of imprisonment varying from four years four months and fifteen days to three years eight months. The chemists got two years and eleven months, except one who was fined £12. The girls convicted were sentenced to ten months' imprisonment each. The midwives were also suspended for an indefinite term from the practice of their art. Of the procuresses, one was acquitted and two put back for trial under another form of indictment. One midwife and several girls were acquitted.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN. The annual general meeting of the Society was held on May 18th at 11, Chandos Street, W., the President, Mr. Christopher Heath, being in the chair. From the report read by the Secretary it appeared that 12 new members had been elected during 1903, 4 had died, and 3 resigned, leaving 237 members at the end of the year. Two widows were elected and 3 had died; 53 were in receipt of grants on December 31st, 1903. Six orphans had been granted assistance, 1 had become ineligible, leaving 15 receiving grants. A sum of £3,308 10s. had been distributed during 1903. The expenses of the year had been £244 19s. The receipts available for payments had been £3,302 1s. 10d., a deficit of £251 17s. 11d. on receipts and payments, owing to change of investments and half a year's interest only paid on the new stock. A small legacy of £25 had been received. A vote of thanks to the editors of the medical journals was passed unanimously. The following gentlemen were elected to fill the vacancies in the Court of Directors: Mr. A. W. Green, Mr. E. G. C. Snell, Mr. E. H. May, Dr. C. Godson, Mr. W. J. N. Bell, Dr. W. C. James, and Dr. Samuel West. A vote of thanks to the Chairman closed the proceedings.

THE BIRMINGHAM MEDICAL BENEVOLENT SOCIETY. The eighty-second annual meeting of the Medical Benevolent Society of Birmingham was held on May 10th at the Grand Hotel, Mr. M. A. Messiter, of Dudley, presiding. The annual report showed that the amount of funds invested was over £15,000 and that there was, in addition, a balance of £49 at the bank. The annual value of the grants varied from £20 to £50, and the sum expended in this way was £755. The directors regretted that owing to the large number of annuitants they were unable to give any donations at Christmas, as had been done in previous years. Eighteen annuitants were on the books at the commencement of last year, one of whom had died, and five new annuitants had been added to the list. The total number of benefit members of the Society at the end of the year was 414, which was a slight decrease on the previous year. The retiring president, Mr. M. A. Messiter, in proposing the adoption of the report, pointed out the great necessity of increasing the membership of the Society, in order that the directors might be able to meet all the cases of genuine distress that were brought before them. Dr. Mathias was elected president for the ensuing year.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, MAY 28TH, 1904.

FRIENDLY ADVERTISEMENT.

A GOOD many people who pride themselves on their knowledge of the world and of human nature fondly imagine that they display their shrewdness by deriding the rules and prescriptions of the medical profession which forbid its members to advertise. It is jealousy they say, jealousy of an enterprising rival, a love of mystery and a desire that medical knowledge should not be too widely distributed. They see no professional jealousy in the rule of the Stock Exchange which forbids its members to advertise and would be shocked if their family solicitor took to touting for clients by delivering circulars from door to door. But by some obscure psychological process which we cannot attempt to explain they would apply a different standard to the profession of medicine. The British Medical Association has been accused of attempting to establish "a new tyranny" because it has expressed the opinion that medical men should be as reticent in this respect as stockbrokers, and should not enter into competition with the lithographed circulars of the money-lenders, the neatly-printed quarto epistles of the spirit dealers, or the grimy card of the chimney sweep.

We have said again and again that medical men who respect themselves do not advertise, and the patient who commits his health and life to the care of an advertising practitioner shows no wisdom, or shrewdness, or knowledge of the world, but rather folly, stupidity, and credulity. The restrictive rules have been framed, or rather, they have grown up by the operation of long experience through many generations, in the interest of the public quite as much as of the profession. The settled country of every profession is surrounded by a borderland inhabited by folk who live in bucket shops, and into this marsh land wander some members of the regular profession who have found efficiency and steady industry beyond their capabilities or too slow in yielding results.

The practice of advertising may take many forms, and we are constantly consulted on points occasionally of some nicety but more often of obvious simplicity. We can only answer that anything which savours of an advertisement is to be avoided. It is, we are glad to admit, only in rare instances that the advertisement to which attention is called is of the barefaced kind in which successful novelists and tea-dealers indulge. Even when the advertisement partakes of this character inquiry usually elicits an assurance that the publication was due to injudicious friends, and that the practitioner was not directly responsible. This was the explanation offered by Mr. Cloete Smith when charged last year before the General Medical Council with having systematically sought to attract practice and patients by means of circulars, circular letters, and inspired articles in the lay press, the circulars and circular letters printing his name, and in some cases his address, and publishing his name as surgeon of an institution called the Free Hospital for Medical Treatment of Cancer by Electricity, which publicly advertised treatment of cancer by electricity.

It appeared that a lady had contributed to the *Pall Mall Gazette* in February, 1903, an article entitled "A Triumph of Electricity," in which the doctor who was interviewed "in a handsome house not a hundred miles from Hyde Park," is said to have informed the writer that "electricity is the elemental force that controls all nature for good or for ill," and added that the main fact to be brought before the public was that there had been and were a sufficient number of cases of different varieties of cancer cured, improved, or held in check to prove the efficacy of the new electrical treatment, and to induce certain persons pecuniarily uninterested to open a small hospital where patients suffering from inoperable or otherwise incurable cancer, and unable to afford treatment, could be taken in hand immediately free of charge. Subsequently this article was reprinted and issued with a covering letter signed by the lady. This letter asserted of the high-frequency current that "by the exceeding force and strength of its oscillations (120,000 per second, equal to 1,000 volts) it kills the germs of the disease, causing the fibres and feelers running to the cells to, so to speak, lose their hold or grip, thus preventing them from sucking up fresh nourishmen and generating new life." The letter went on to say very few private doctors had yet been able to go in for this treatment not only because the complete apparatus was enormously expensive but also because very few medical men were deep students of electricity. The writer added that one of the first and foremost of these few was Mr. E. Cloete Smith, whose address was given. Sir William Church, President of the Royal College of Physicians, wrote as Chairman of the Executive Committee of the Cancer Research Fund to the *Pall Mall Gazette*, pointing out that the article headed "A Triumph of Electricity" was calculated to mislead the public, and the reprinted article and circular letter were brought to the notice of the General Medical Council by the Medical Defence Union. Mr. E. Cloete Smith denied that he was responsible for the letters issued or had inspired the article, and the authoress also denied that the circular referred to Mr. Cloete Smith. The Council after deliberation appears to have accepted these statements, which were not made on oath, for it came to the conclusion that the facts alleged against Mr. Cloete Smith had not been proved to its satisfaction. One result of the inquiry, however, was, we understand, that the so-called hospital was shortly afterwards closed.

As will have been seen by a brief report published in the BRITISH MEDICAL JOURNAL of May 21st, Mr. Cloete Smith has since made a somewhat unfortunate appearance in the King's Bench Division. It appeared from the evidence given that a lady who had been for twelve years a patient of Mr. H. Huxley was operated upon about five years ago by Sir Victor Horsley. The operation was successful and the growth did not recur; but in September, 1902, the lady suffered from pneumonia. As convalescence was delayed she was advised to go to St. Leonards in February to undergo the open-air cure. The lady's husband, while in a state of great anxiety with regard to his wife's health, was shown by her sister the circular about the wonderful results of the high-frequency currents administered by Mr. Cloete Smith. The husband, apparently under pressure from his wife's family, had an

interview with Mr. Smith. The evidence was that at this interview high-frequency treatment was alone mentioned. The husband consulted Sir Victor Horsley and Mr. Huxley, who gave the opinion that while it could probably do no good it was probably equally powerless to do harm. Shortly afterwards Mr. Cloete Smith visited the patient at St. Leonards and arranged for apparatus for administering not only the high-frequency current but also *x* rays, which he alleged he had mentioned to the husband at the interview; this treatment was carried out by an electrician of St. Leonards. At the patient's instance the high-frequency current was given up after a short time and *x* rays persisted in. Though the patient lost weight she was said to have improved generally under the treatment, but eventually developed severe *x*-ray dermatitis, which proved intractable under treatment. The husband, when he realized the very extensive injury which had been inflicted upon his wife by the *x*-ray burns, assaulted Mr. Cloete Smith, and for this assault the jury gave damages to the amount of forty shillings, but upon the main issue they not only declined to find that Mr. Cloete Smith was entitled to his fees, but gave damages against him to the amount of £100. They awarded these damages because they found that Mr. Cloete Smith's treatment was improper, negligent, and unskilful. This finding of the jury, after a patient hearing extending over four days, is in somewhat striking contrast to the adulatory phrases contained in the article and circular letter in praise of the treatment administered at the Free Hospital for the Medical Treatment of Cancer by Electricity, to which Mr. Cloete Smith was, we believe, the sole medical officer. The exact nature of the illness from which the patient was suffering when she was treated by Mr. Cloete Smith at first with high-frequency current and *x* rays combined, and afterwards with *x* rays alone, was not disclosed during the hearing of the action, but apparently it was not cancer but some general condition of debility due to, or associated with, pulmonary disease.

Now, whatever the excellence of the effects produced by the *x* rays in the treatment of external affections, such as rodent ulcer, they are not credited by those who have given special study to the subject with any noteworthy influence on diseases of internal organs or on general debility. Nevertheless Mr. Cloete Smith treated this patient for six or seven weeks by the repeated application of the *x* rays, which, according to the article in the *Pall Mall Gazette* [illegible] triumph of electricity, [illegible] that they "excoriate and injure the [illegible]." Unfortunately in this instance they did produce severe dermatitis, and a jury has found that the treatment was improper, negligent, and unskilful, so that the administrator was not only disentitled to a fee, but liable for damages. In this case, then, the result of weighing the preposterous claims put forward in the advertisement was that the patient was not subjected to the treatment there advocated, which might have done no harm, but to other treatment which was clearly [illegible]. On the whole, therefore, it would seem that it would have been better for the patient had the advertisement never been published, and better also for Mr. Cloete Smith, who was brought into relation with the patient by the advertisement which he told the General Medical Council did not refer to him, but which he admitted in the High Court through his counsel, applied to him and his treatment of cancer with high-frequency currents.

DEMENTIA PRAECOX AND SIMULATION.

There are few problems in practical medicine so inherently difficult to determine as that of estimating the accountability of any malefactor for his actions. In important cases, where expert opinion is procurable, the risk of punishing an irresponsible individual is reduced to a minimum, but it is to be feared that in a certain number of the large class of mentally-deranged delinquents, civil and military, various punitive measures—dietary punishments, close confinement, and even flogging—have been repeatedly and uselessly resorted to before their true mental state has been understood. That this number is in all probability small we are glad to believe, but the bare possibility of such an occurrence is enough to make the most careful scrutiny of all questionable cases by specially-qualified men a necessity. That such cases should occur is from the very nature of things inevitable, and it must lie within the experience of many an alienist to have had under treatment individuals, drawn mainly from the lower strata of society, who have been frequently punished for civil or military offences for which, viewed in the light of their subsequent development, they should not have been held responsible. Some cases of epilepsy, in which the attack takes the form of a merely momentary loss of consciousness, are extremely difficult to recognize, but may be followed, as Hughlings Jackson and many others have pointed out, by a post-epileptic vesania lasting it may be several days, in which criminal acts may be perpetrated. In confinement, too, for what reason we do not know, paranoia and high-grade imbecility approaching the normal, and not easily recognizable as such, appear to become accentuated and obscure the diagnosis; and further, there appear to be criminal lunatics, as Rüdin[1] has recently shown, who are extremely difficult to place within the usual categories. A manifest complication, of course, is due to the fact that whilst in ordinary life it is rarely advantageous to feign insanity, in prison successful simulation may be the means of evading punishment.

The danger therefore of treating as a malingerer the subject of one of the obscurer psychoses is obvious, and indeed at times unavoidable. These points are treated at considerable length in an important publication on the psychoses of military prisoners by Professor Schultze, of Bonn. He was struck by the disproportion between the large number of military prisoners who were sent into his asylum for treatment and the number of lunatics given in the statistics for the State of Prussia as occurring in military hospitals and prisons, and on communicating his views to the Society of Alienists of the Rhine Province was induced to publish the result of his investigations.

Certainly the most interesting part of this book, which in addition treats of imbecility, hysteria, and those psychoses Kraepelin terms maniacal-depressive insanities, is that dealing with dementia praecox and its differentiation from simulation. This disease, dementia praecox, about which there has been the liveliest discussion for some time, is almost as protean in its forms as hysteria, and includes, according to Kraepelin and many Continental authorities, hebephrenia, catatonia (*Spannungs-Irresein* of Kahlbaum) and paranoid dementia. There is, says Professor Schultze, scarcely a psychosis which gives so many

[1] [illegible]

different clinical forms, which are only united in their final and inevitable dementia. It is a markedly chronic process, of which the onset may be so mild that it remains for long unnoticed as a morbid condition. The patient may complain of pains in the head and back and be treated as a neurasthenic; by his associates and superiors he may be considered a dissembler, lazy, insolent, spiteful and obscene, and as a soldier be punished many times for disobedience, negligence in service, mutiny, and desertion. During some imprisonment, suddenly and with no history of antecedent mental affection, he may become either stuporose or wildly excited. When placed under medical observation he may exhibit the most extraordinarily contradictory phenomena. He may lie in bed absolutely apathetic and indifferent to his surroundings, deaf to all questions, apparently insensitive to pin-pricks, and refuse all food, and yet secretly steal a fellow inmate's food and show by his subsequent behaviour that he has a complete appreciation of his surroundings. Asked simple questions, his answers—if he answers at all—are often irrelevant and ludicrously incorrect, and yet there may be well-grounded reasons for the belief that the correct answer was on the tip of his tongue. He may appear intellectually well endowed, and at the same time there may be for him no antic too absurd, no conduct too bestial. Objective signs are frequently entirely wanting, with the possible exception of persistent ptyalism. We have no intention here of giving a complete clinical picture of any form of dementia praecox, and have merely selected from Professor Schultze's book a few points to illustrate the difficulty of diagnosis at times encountered, and to demonstrate the urgent necessity of a special training in mental diseases for all medical men who may be officially required to decide the question of an offender's responsibility and fitness for punishment.

The conditions of military service in the German and the British armies are so different that the recommendations of Professor Schultze—amongst others a two-years' training in mental diseases for all army medical men—may be inapplicable in this country, but we hold it eminently desirable that there should be an investigation of the mental history and character of all recruits and candidates for the army, a period of mental observation for all persistently refractory soldiers, and adequate provision for the employment of mental experts in all doubtful cases.

THE GOVERNMENT LUNACY BILL.

AN interesting debate was raised in the House of Commons by Sir John Batty Tuke on the vote for the expenses of the Lunacy Commission. A brief summary of the discussion was given in the BRITISH MEDICAL JOURNAL of May 21st, p. 1215, and a full report will be found at page 1279 of this issue. Among the several points discussed by Sir John Tuke in supporting his demand for a Select Committee to inquire into the whole subject of lunacy, the most important was the treatment of incipient and curable insanity. He maintained that there was not full provision in England for dealing with cases of this description in the pre-asylum stage, and he drew a contrast between the practice of Scotland and England, much in favour of the former. The Attorney-General made a neat retort. He said that the Government had introduced a Lunacy Bill containing the very machinery necessary for bringing English procedure up to the level of Scottish perfection; but the House of Commons had more than once neglected to pass that Bill. However, the Government has promptly given the House an early opportunity of remedying the defect by producing a short Bill, the text of which will be found in the SUPPLEMENT.

Beyond containing a few provisions of minor interest, the Bill deals only with the foregoing subject and with one other matter of importance. The clause which relaxes the present law in favour of the less formal regulation of early mental disease is the one which has appeared in the Lunacy Bill in several sessions. It was in the first instance suggested to the Lord Chancellor by the Joint Committee of the British Medical and Medico-Psychological Associations. It enacts that if a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding six months, then during that period no offence under the Lunacy Act shall be created by the patient's reception, as would be the case now, and until this clause becomes law. Regulations follow for ensuring the due notification to the Commissioners of the reception, discharge, or death of the patient. It further provides that after the lapse of the six months specified in the certificate no fresh certificate of the same nature shall be granted for the patient until the expiration of two years therefrom.

As will be seen by the interesting letter from Professor Clifford Allbutt printed in another column, the principle embodied in the clause does not command absolutely unanimous support, but it has, we believe, received the general approval of the majority of those concerned, whether authorities or lunacy practitioners, or those practitioners who are habitually consulted about early cases. The reference to the need for such provision made during the debate raised by Sir John Batty Tuke in the House of Commons appears to have been favourably received, and it is hard to resist the evidence of success in the sister kingdom.

The other important provision (Clause 3) aims at affording protection to those who often need it, and can find none at present in any department of lunacy practice. It should have a far-reaching and beneficial effect. It is probably not generally known to the public that, though the Court of Chancery may have control over the property of a minor of feeble intellect, it must resign that control on the owner arriving at majority if there be no sufficient ground for certificates of insanity. It is the want of that continued control which leads to the dissipation of fortunes or the snapping-up of feeble heiresses by adventurers. The section of the Lunacy Act which it is proposed to extend to such cases gives the Court full powers for the administration and management of the estates of the insane. This proposal, also, should speedily find its way into actual law with general acceptance.

Though the passing of this short Bill will gratify those who are interested in the welfare of the insane, it must not be forgotten that it embodies an instalment only of those suggestions which have for some time past been pressed on the authorities by experts. The law will without doubt be beneficially relaxed by the contemplated legislation, but it should be made possible for a weak-minded person to reside with a friend or other person voluntarily without having to undergo certification, for which, in many cases, there is no justification;

yet such residence is a breach of the law if the head of the house receives a penny towards the expenses of the household. The law as it now stands is so inconveniently harsh that if Miss Betsy Trotwood received the smallest possible remuneration for Mr. Dick's board, she would be liable to prosecution for a misdemeanour in harbouring him unless he had been certified by two medical men to be fit for detention and treatment as a person of unsound mind. Could Mr. Dick have been certified in these terms? The expression "lunatic" should also be caused to disappear altogether as offensive and frequently harmful.

THE GENERAL MEDICAL COUNCIL

The General Medical Council assembled for the summer session on Wednesday last, when the President delivered an address, which is printed at page 1285. The second day of the Council was devoted to a consideration of cases which had been before the Penal Cases Committee, and the President was able to express the hope that the Council would find it possible to deal with all the cases on a single day, leaving it free to proceed to the more general business, which, as will be seen from his address, will probably consist mainly of the reception and discussion of the reports of the various Committees. The President announced that the Executive Committee had appointed Mr. Bryant until recently the representative of the Royal College of Surgeons of England on the Council to succeed the late Sir George Duffey as Inspector of Final Examinations. The manner in which this appointment was made led to some discussion, as the Council generally does not appear to have understood that the matter had been remitted to the Executive Committee. Sir Victor Horsley also expressed the opinion that it would have been wiser to have appointed a surgeon still actively engaged in teaching, but the selection of Mr. Bryant was defended on the ground that it was desirable to appoint some person possessing a knowledge of the resolutions of the Council as well as familiarity with the conduct of examinations. The appointment was approved, and after receiving the statistics annually furnished by the Directors of the Navy, Army, and Indian Medical Services, the Council spent the rest of the first day of the session in considering *in camera* certain questions with regard, as it would appear, to a proposed sale of its house in Oxford Street.

ST. BARTHOLOMEW'S HOSPITAL.

The authorities of St. Bartholomew's Hospital have just received the welcome announcement that the King will lay the foundation stone of the new buildings some time during the first week in July, the precise date to be fixed later. On the retirement of the King from the office of President the Governors decided to commemorate this illustrious Presidency, which had extended over a period of thirty four years by procuring by subscription among themselves a portrait of His Majesty. That portrait, with His Majesty's gracious permission, has now been painted by Mr. Luke Fildes, R.A. It is a replica of that artist's well-known picture exhibited in the Royal Academy in 1902 and has been placed in the Great Hall of the hospital.

WELSH MEDICAL DINNER.

The first Welsh medical dinner was held on May 19th at the Pall Mall Restaurant, Piccadilly, when Sir John Williams took the chair and members and friends of the Welsh colony in London attended in full force, and many Welsh medical men from the provinces and the Principality itself were also present. After the usual loyal toasts had been duly honoured, Sir John Williams proposed the toast of "The Welsh Medical Profession." He commenced by congratulating the Honorary Secretaries, Mr. T. Bodfan and Mr. W. Lloyd, and those who with them had organised that union of Welsh medical men. He passed rapidly in review the societies of Welshmen that had been formed in London from time to time, and expressed the opinion that much might be expected in the future as a result of the gathering formed that night. The object of the movement was to form a bond of union between Welshmen in the metropolis and elsewhere, so that the scattered individuals should be gathered together into one coherent whole to exercise an influence on the prospects in life of the Welsh in England and more particularly in London. He advocated that in the future a Welsh club should be formed in London. This toast was responded to by Dr. A. Garrod Thomas, who was loudly cheered when he declared that the foundation of the University of Wales marked an era in the progress of the Principality. Already a movement was on foot to enable the University to give a degree in medicine. He urged that the University should direct the attention of those in the profession of architecture to improving the sanitary condition of the Welsh cottages and places of worship. Dr. Thomas roundly declared that the latter were monotonous in their ugliness and ugly in their monotony, and referred to the number of colds that had been caught in their comfortless and grey interiors. Mr. Robert Jones, of Liverpool, who also responded to the toast, said that the new University must have the power to grant degrees not only in arts, but also in medicine. Sir R. Douglas Powell proposed the toast of "The University of Wales." The University had already the power to grant degrees in arts and music, and he had no doubt that it would soon—perhaps next year—have the power to grant degrees in medicine. The claims of ladies were well cared for in the new University, and perhaps in time to come some gifted lady would hold the office of Vice-Chancellor. Sir Isambard Owen, Deputy Chancellor, who responded, detailed the difficulties experienced ten years ago in procuring from Parliament the charter for the new University. Ten years ago there was reason to apprehend that if application had been made for the power of giving degrees in medicine much opposition would have been excited, and at that time even a little extra opposition would have been fatal to the chance of the charter getting through Parliament, and as a matter of fact it only got through by the skin of its teeth. It was now proposed at the first convenient time, which he hoped would be in a few months, to fill up the gap left ten years ago, and to apply for the powers omitted from the original charter to give degrees in medicine and surgery. It was high time to do this: the power was needed because in the interest of the University of Wales it was necessary to retain the capable medical students educated there. He did not see why these students should not be granted degrees in medicine and surgery in the University of Wales. Mr. Edmund Owen, in a racy speech, proposed the toast of "The Guests," which was replied to by Mr. J. Tweedy and Mr. W. Gorcombe John, A.R.A. Dr. F. T. Roberts was received with much applause on rising to propose the health of "The Chairman," which he did in a charming speech. Sir John Williams, in acknowledging the toast, was evidently touched by the warmth of the reception accorded to him by his compatriots. The evening concluded by the singing of the Welsh National Anthem.

RADIUM AND RADIO-ACTIVITY.

On May 20th Professor Rutherford, Professor of Physics in the McGill College, Montreal, whose researches on radium were described in our columns last July by his former assistant, Mr. Soddy, gave an evening lecture at the Royal Institution on radio-activity. He devoted the earlier part of his lecture to a discussion of radium, describing the properties of the alpha, beta, and gamma rays, and the effects produced upon them when brought within a magnetic field. He illustrated by experiments the power of radium to excite phosphorescence, and to discharge a charged electroscope and then discussed the emanation given off, which behaves like a gas and could be condensed by cold. Though exceedingly minute in quantity it possesses all the properties and most of the characteristic

power of radium. If it were possible to collect a cubic inch of it, the tube in which it was contained would probably be melted, while a few pounds would supply enough energy to drive a ship across the Atlantic, though seventy pounds of radium would be required for each pound of emanation. He advanced the theory that radium was continuously producing the emanation, which was itself continuously being changed into something else. This was due not to atomic but to molecular changes, the immediate result being the formation of a series of transition elements, and Sir William Ramsay had shown that it was able to produce helium. The mass of radium was therefore constantly wasting itself away, and probably in about 2,000 years its radio-activity would fall to one-half, and after some 50,000 years it would cease to exist. As, however, radium was produced from minerals which must be assumed to be more than 50,000 years old, it must itself be produced from something else, and was thus a transition element. Radium was very widely distributed, in fact it was present everywhere, though in exceedingly minute quantities. The question as to the amount of heat these minute quantities of radium were able to provide then arose, and gave grounds for the further question whether the gradual increase of temperature found in the deeper strata of the earth could thus be accounted for. He believed that the amount of radium present, if uniformly distributed, would be sufficient to account for all the heat lost from the earth, and would explain the temperature gradient as measured to-day. Lord Kelvin had calculated that the earth, allowing for the rate at which a white-hot globe would cool, could not be 100,000,000 years old, and was probably not more than 20,000,000 years old. This period was not enough to satisfy the geologists, and Lord Kelvin in making public his calculation had qualified his estimate of the earth's age by using the phrase "unless some new source of energy were discovered." Lord Kelvin had thus shown his foresight, and Professor Rutherford believed that in radium the new source had been found. The theatre of the Royal Institution was crowded, and Professor Rutherford was much applauded.

CANCER RESEARCH AT THE MIDDLESEX HOSPITAL.

THE second report[1] of the Cancer Research Laboratories of the Middlesex Hospital is edited by Mr. A. G. R. Foulerton, who until recently was Director of Research under the Cancer Investigation Committee. It contains papers by workers in the laboratories and tables relating to cases of malignant disease admitted during the years 1900-02. There is also a paper by Professor Pearson, of University College, London, dealing critically with statistics supplied to him from the hospital. It is stated that all the alleged discoveries of a causative parasite of malignant disease have been carefully considered and fully tested by experiment, and that of the several claims not one has appeared to present such an element of inherent probability as to demand detailed notice in the report. There is consequently no account given of the nature, extent, and results of these negative researches, an omission which appears to us to be a matter for regret as they would undoubtedly have been useful to others engaged in cancer research. The subject of the first paper is the Pancreas in Cases of Carcinoma, by Mr. W. T. Hillier and Mr. J. Strickland. After giving an account of the structure of the normal pancreas, primary carcinoma is then considered, though the disease, as a rule, runs a rapid course, but in many cases is preceded by symptoms that suggest some form of chronic local irritation which may be etiologically related to it. The symptoms are accounted for rather by the position of the growth and its physical effects than by any physiological action on the part of the neoplasm. A rare type of the disease arises in the islands of Langerhans; in the ordinary types these structures show a remarkable persistence, though they may be completely surrounded by the disease. In malignant disease not affecting the pancreas, the organ exhibits no constant pathological change; secondary infection of the organ with carcinoma is not less common than the primary disease. Mr. J. W. Glenton Myler contributes a highly-interesting paper on some empirical methods in the treatment of inoperable cancer. The methods passed in review are oöphorectomy, thyroid extract, high-frequency currents, *x* rays, cancroin, violet leaves, marigold ointment, liquor ammon. fort., molasses, chian turpentine, and aniline chloride. With the exception of the first four these "cures" appeared to exercise no influence on the disease. Four cases of oöphorectomy for breast cancer are recorded and two for uterine cancer; the operation had no good effect at all on the latter, in the former slight but temporary improvement was noted. Thyroid extract alone or in conjunction with oöphorectomy produced no beneficial effect; high-frequency currents have not given the results anticipated, and the method will probably be abandoned; in the *x* rays, however, we have an agent capable of doing more for superficial cancer than any other hitherto known. The report on these various measures is followed by a section on the general management of inoperable cancer, full of valuable suggestions for the alleviation of symptons. The third paper is by Mr. W. T. Hillier and Mr. J. Tritsch on Heredity in Cancer, and is based on cases collected from the records of the hospital from 1856 to 1902. A historical review is given of opinions as to heredity in malignant disease, and as to its relationship to tuberculosis. Three thousand cases are tabulated, and the figures obtained are analysed by Professor Karl Pearson, F.R.S., with very interesting results. It would appear from these statistics that the age of modal incidence of cancer is rising in women and falling in men; that the age of cancer incidence is more variable in men than in women; that the disease is more likely to occur in childhood in the male than in the female, and is more common in very old women than very old men. Most important was the discovery that the figures pointed to the conclusion that cancer was largely free from any hereditary influence. With regard to tuberculosis, the conclusion drawn from the data was that there is little or no relation between the presence of cancer and a tuberculous family history, but that there is a relation between the presence of cancer and the presence of tuberculosis. A paper by Mr. Cecil R. C. Lyster gives some clinical histories illustrating the beneficial effect of the *x* rays on ulcerating carcinomata. The last paper is is by Mr. A. G. R. Foulerton on the treatment of carcinoma with subcutaneous injection of fresh extract of thymus and thyroid glands. In seven squamous-celled growths the results of the treatment were on the whole negative; on the other hand, in four out of seven cases of breast cancer an improvement was obtained, which suggests that further tests of the method should be undertaken. The appendix to the report consists of statistical tables of the cases admitted to the hospital during the period 1900-2; it is compiled by Mr. A. G. R. Foulerton and Mr. W. T. Hillier. The cases of carcinoma and of sarcoma are separately tabulated according to site, age, and sex; and the other tables show the frequency and site of secondary deposits corresponding to the various primary growths, and give outlines of the clinical course of each case.

[1] *Archives of the Middlesex Hospital*. Vol. II. Second Report from the Cancer Research Laboratories. Edited by Alexander G. R. Foulerton, F.R.C.S. London: Macmillan and Co. 1904. (Demy 8vo, pp. 239. 5s.)

WHEN IS A BANANA RIPE?

IT is not infrequently asserted that as a nation we are not sufficiently appreciative of the value of fruit as a food, and that in consequence our ordinary diets are often defective in this respect. Some years back the grounds for this charge were greater than at the present time, for there can be no doubt that there has been a marked increase in the consumption of fruit by all classes. In proof of this we need only point to the now immense and still increasing use of the banana. Not long ago it was only occasionally seen on the tables of the well-to-do, but now it is universally sold on the humblest barrows and stalls, and forms a not inconsiderable item in the diet of the poor. In spite

of vast additional quantities of the fruit having been imported during the last three years from places as far off as the West Indies and Costa Rica, the supply in no way meets the demand. Added to its pleasant qualities to many as a fruit, it is credited, and no doubt correctly, with nutritional properties of a high order. Considering this, and the proportions to which the use of the fruit has attained, it is a matter of no small importance to settle not only when bananas are in the best condition for consumption, but also as to when they have passed the stage at which they are fit for human food. In their native countries they are seldom eaten before the skin is discoloured and the pulp of so soft a consistence that it can be scooped out with a spoon. Under the artificial conditions they are placed in in these climes they undergo somewhat rapid changes, and the times at which they are best suited for consumption may be short and difficult to predict with any degree of precision. Authorities, however, claim that they are habitually eaten here before they have reached their most suitable stage. Before they are thoroughly matured, moreover, they are apt to be insipid in flavour, and to cause dyspepsia and other forms of intestinal disturbance. They should not be eaten before the skin is blackened in places, or when there is any reluctance in the skin to separate from the pulp. Housekeepers know how bananas will change in the course of a single night from a manifestly sound condition to one in which the skin is blackened and the pulp soft and slightly discoloured. Now, children infinitely prefer these last bananas to those that are apparently sounder, although their elders may hesitate to gratify their taste in this respect from a fear as to the wholesomeness of such fruit. Attacks of gastric or intestinal disturbance from the use of unsound bananas are far from common, and it may well be that in this instance the natural inclination of the child covers more wisdom than the caution of its elders: in fact, experts say that the banana, like the medlar, can hardly be in too ripe a condition for eating. With the rapid changes the fruit undergoes it is hardly surprising that cases of friction between the sanitary authorities and the vendors should be of frequent occurrence as regards the fitness, or not, of the fruit for sale or consumption. A case lately brought to our notice will serve as a type of numerous others that we are informed occur almost daily. Here, on the one side, the sanitary inspector and medical officer of health swore, honestly enough no doubt with present convictions, that certain bananas were unsound, decomposed, and unfit for consumption. On the other side, one of the firm of the largest importers gave expert evidence that the condemned bananas were perfectly sound and in the very primest condition for eating. In proof of the correctness of this opinion it may be pointed out that the condemnation of the sanitary authorities was restricted to only a few bananas in each bunch, whilst the rest were admittedly sound and wholesome. In the conflict of testimony the magistrate had no option but to convict and impose a small fine. It would seem to us that in many such cases the importers and retail dealers have a possible grievance, and their contention that sanitary inspectors require a more thorough knowledge of the different phases bananas undergo is a valid one. The general public too would seem to need enlightening that at present they habitually eat their bananas in far too hard and immature a condition.

THE DEVON AND EXETER BENEVOLENT MEDICAL SOCIETY.

This Society was founded in 1788 for the benefit of the widows and orphans of medical men who have practised in the County of Devon and who have failed adequately to provide for their families. The annual subscription is small, and the benefits in proportion are large. There is no canvassing for votes necessary, all urgent cases being immediately relieved, until the next annual meeting, when their claims are considered and a yearly grant made, which is regulated by the available funds of the Society. At the annual meeting held at Plymouth on May 12th, under the presidency of Dr. E. B. Thomson, grants were made to four widows who applied for assistance. The honorary secretary is Mr. G. Fortescue Webb, of Moretonhampsted, Devon, who will give all information respecting this valuable Society. It is to be regretted that comparatively few medical men in the county think it worth their while to subscribe to this Society, which combines in a unique manner philanthropy and self-help. There is a considerable funded property (over £3,000), the interest of which, together with the subscriptions, is divided between the beneficiaries. Those who do not require the help offered have the satisfaction of assisting their more needy brethren. Those who require it, either for themselves or those they leave behind them, are assured of having made at a small cost to themselves some provision for a rainy day.

MINERS' ANAEMIA AND ANKYLOSTOMIASIS.

At a recent meeting of the Academy of Medicine, Paris, M. A. Manouvriez contributed a very interesting paper upon the anaemia of miners and its possible causes. Anaemia in epidemic form occurred among the miners at Anzin in France as long ago as 1803-4, and from this date onwards to 1820 it was sometimes epidemic and at other times endemic. An acute abdominal type of the malady was mentioned, in which the onset was sudden, there were violent abdominal pains, dark stools, and oedema of the limbs. In the chronic abdominal form colic, with constipation, digestive derangements, and sallowness of the skin were prominent symptoms. Between 1872 and 1882 Manouvriez had experience of a form of miners' anaemia in which the skin was pale and transparent and there were headaches, syncope, dyspnoea, palpitation of the heart with functional murmurs, colic, pains in the limbs, drowsiness, and great muscular weakness. These symptoms might continue for years, and occasionally there were skin eruptions resembling urticaria or eczema. Thirty years ago miners' anaemia was fairly well distributed through the mining districts of France. Various causes were assigned to it, such as the elevated temperature found in the mines and the vitiation of the atmosphere by the gases given off from the coal. In 1880, during the tunnelling of the St. Gothard, Perroncito of Turin demonstrated that the anaemia of miners was due to a parasite—the ankylostoma duodenale. On Perroncito's recommendation, Lesage sought for and found the ova of the ankylostoma in the faeces of miners at Anzin. Miners may be infested by other parasites—for example, the anguillula intestinalis and the larva of the pseudo-rhabditis stercoralis; but usually there is very little difficulty in detecting the ova of the ankylostoma in the stools by mixing a small quantity of faeces with weak salt solution (1 in 100) and examining microscopically. While many of the symptoms are directly traceable to the presence of the worm in the intestine, some are probably the result of the toxins which it forms. The parasite effects an entrance into the body by the mouth and through the skin. Ankylostomiasis is prevalent among miners in Belgium, Germany, and Hungary; it also exists among the tile and brick makers in the neighbourhood of Cologne. It is an interesting fact that although negroes in South America may be the subjects of ankylostomiasis they do not suffer from anaemia, a circumstance to be explained either by an immunity to the toxins of the parasite or the supposition that the ankylostomes which infest them are less virulent than in the case of white men. The physical conditions in coal mines—a fairly high temperature and moisture—are such as favour the development and spread of ankylostomiasis. The presence of one infected workman, if he be careless in the disposal of his faeces in the mine is sufficient to contaminate all the men who are working therein. By means of personal cleanliness on the part of the miners and the fulfilment of hygienic requirements in the mines by the proprietors, ankylostomiasis can be completely got rid of.

HOSPITALS IN NEW YORK.

There are, according to the *New York Medical Journal*, 100 hospitals in Greater New York, exclusive of nearly 200

asylums and homes maintained by public and private charity. These hospitals have a capacity for nearly 12,000 beds. Nevertheless, the provision for the care of the sick in New York is inadequate at certain seasons of the year. During the visitations of influenza that sweep over the city in the early spring every hospital, with the exception of those designed for special cases, is overcrowded. In the hot weeks of the summer the capacity is taxed to the utmost. Even now the city has but scanty provision for the care of special cases. Patients suffering from delirium or alcoholism and requiring isolation cannot find accommodation.

INFLUENZA IN THE HORSE.

MR. HENRY GRAY, M.R.C.V.S., has recently delivered an address[1] on some of the phases of influenzal complaints of the horse. The disease is attributed to a cocco-bacillus which has been found experimentally to produce death in the guinea-pig, rabbit, and horse by subcutaneous inoculation. It exhibits the following bacteriological characters: It is decolorized by Gram's method of staining; it never forms streptococci when grown in liquid media, and it is aërobic. It grows well upon gelatine, but neither acidifies peptone broth, nor coagulates milk, nor ferments lactose. The disease appears to be highly contagious, and may manifest itself clinically by the appearance of either pulmonary, cardiac, renal, or intestinal symptoms, or it may attack the central nervous system. Specific sera have been employed both for prophylactic purposes and to diminish the severity of the disease after its onset.

THE USE OF CHLOROFORM IN THE PREPARATION OF VACCINE.

A YEAR ago[2] we commented upon a paper read before the Royal Society by Dr. Alan B. Green in which he described his observations on the use of chloroform as an agent for the elimination of the extraneous organisms of vaccine lymph. By the use of a solution of chloroform in distilled water extraneous organisms were, as he showed, eliminated in from one to six hours, whilst the specific element remained fully potent for vaccination. Only the non-spore-bearing bacteria were killed by the process; but, as the author pointed out, the spore-bearing organisms found in thousands of vaccines in the Government lymph laboratories were non-pathogenic varieties. Lastly, vaccinations performed with the lymph thus prepared had produced excellent results. In a second communication on the subject, recently read before the Royal Society, Dr. Green states that his further experience is that the use of the lymphs, thus freed from non-spore-bearing extraneous bacteria, has resulted in high "case" and "insertion" success. He has further investigated the effect of temperature in the elimination of extraneous micro-organisms from crude calf vaccine by the chloroform process by two sets of experiments, and finds that the temperature at which the bacteria in question are killed most quickly, the specific germ being left meanwhile in state of full activity, lies probably between 18° C. and 23° C. He has also experimented with several other species of bacteria, which have never been found in calf lymph at the Government laboratories, and finds that in every instance the bacteria of experiment were killed by exposure to the chloroform vapour and air, whether the experiments were made by inoculation of broth emulsions or vaccine emulsions. Lastly, the keeping properties of chloroformed vaccines have been tested in various ways, and their use for vaccination has been attended with results showing high "case" and "insertion" success. Moreover, it is demonstrated that "chloroformed calf vaccine, if originally of sufficiently high potency, will, when prepared and stored under suitable conditions, retain for a considerable time a high degree of potency, and this notwithstanding that the extraneous organisms had been rapidly eliminated from it in an early stage of its preparation.

[1] *Veterinary Record*, 5 a. ch. 15th, 1904.
[2] BRITISH MEDICAL JOURNAL, May 23rd, 1903, p. 1 25.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

IT may be remembered that Sir Francis Lovell, C.M.G., Dean of the London School of Tropical Medicine, who, in the early part of last winter undertook an expedition to the tropics for the purpose of enlisting support on behalf of the school, was prevented by illness from carrying out his intention at the time appointed. We are pleased to be able to state that he is at present discharging his public-spirited mission. He left England on February 9th, and spent a few weeks in Burmah, where he succeeded in arousing interest in the aims of the school. He received very valuable assistance from Lieutenant-Colonel Dantra, M.D., I.M.S., now retired and practising in Rangoon, who has been appointed the local representative of the school. From Rangoon Sir Francis Lovell went on to Singapore, where he has been able to interest the Chinese in the object of his mission. His efforts have been greatly assisted by Mr. Barnes, the Protector of Chinese, and by Dr. Lim Boon Keng, who has been a Member of the Legislative Council of Singapore for several years and is also a prominent member of the medical profession. Two other members of the Council, the Honorable Seah Leang Seah and the Honorable Tian Jack Kim, were very helpful to Sir Francis Lovell in bringing the object of his mission to the notice of the Chinese in Singapore and inducing them to contribute to the funds of the school. Considering that it is only two years since a similar appeal was made to them their contributions must be regarded as generous. There is a strong feeling among the European merchants in Singapore that the school should be supported by the Home Government, and there is much to be said in favour of this contention. Sir Francis Lovell paid a visit to the Federated Malay States and to the Institute for Medical Research at Kuala Lumpur, of which Dr. Daniels is the Director, and with his help he succeeded in holding several meetings which were well attended by the various sections of the community. As a result of these meetings a substantial amount was contributed towards the school. During his stay at Singapore Sir Francis Lovell attended two meetings of the Malaya Branch of the British Medical Association, of which Dr. Kirk is President and Major Ritchie, R.A.M.C., Secretary. At one of these, held in March, he brought the work of the London School of Tropical Medicine before the Branch, and the members expressed themselves as being entirely in sympathy with the objects of the school and ready to assist in obtaining support. A committee of the Branch was appointed which will from time to time endeavour to obtain contributions for the school. Dr. McDowell, C.M.G., Principal Civil Medical Officer of the Straits Settlements, has been appointed local representative of the school in the Straits Settlements, and he will convene the meetings of the committee when necessary. It may be mentioned incidentally that the Malaya Branch is very active and flourishing; the attendance at the monthly meetings is large, and much useful scientific work is done. Sir Francis Lovell had intended to proceed to China, but as the present unsettled condition of affairs in the Far East renders the time unpropitious for appeals for scientific purposes, he will probably return to England early in June.

THE ROYAL MILITARY TOURNAMENT.

THE Royal Military Tournament, which opened at the Agricultural Hall on Thursday, promises to be at least as great a success as any of its predecessors. An entirely new feature, and one which will certainly prove most attractive to young and old alike, is pushball. This is a species of football played by horses under the guidance of their riders. The ball has the shape of that used at the Association game, but is some 6 ft. in diameter and weighty in proportion. The human players, three a side, ride without saddles and are not allowed to touch the ball, the whole of the work being done by the horses, who push the ball in front of them with their chests and fore legs or stop it with their haunches. It is really a most attractive and humorous exhibition alike of horse intelligence and horsemanship. Another excellent item of the daily programme

is a pageant in which the rise of the Royal Artillery is traced from the days of Crecy to the South African war. The ventilation of the hall and its annexes which upon some previous occasions has not been beyond the reach of criticism, appears this year to be very good, a number of electric fans having been introduced into corners in which before air was liable to stagnate. The medical arrangements are, as they have been for several years past, under the care of Surgeon-Lieutenant Colonel Crooke Lawless of the Coldstream Guards, whose experience enables him to judge exactly what is required for the due care of the score or more men who reside at the hall during the fortnight which the tournament lasts.

The Harveian Festival of the Royal College of Physicians of London will be held this year on June 21st. Dr. Richard Caton of Liverpool will deliver the Harveian Oration on that day at 4 p.m.

In addition to Mr. Eve, Mr. Bland-Sutton, and Mr. Gilbert Barling, whose names were mentioned in the British Medical Journal of May 21st, Mr. Bruce Clarke is also a candidate for one of the vacant seats on the Council of the Royal College of Surgeons of England. We may remind our readers that the election will take place on July 7th.

At the meeting of the Royal Medical and Chirurgical Society on Tuesday next, at 8.30 p.m., Drs. Herringham and Wills will read a paper, to be followed by a discussion, on the elasticity of the aorta, being a contribution to the study of arterial sclerosis.

We understand a Committee has been appointed by the Army Council to consider the whole subject of antityphoid inoculation. It consists of Dr. J. Galloway and Colonel David Bruce, F.R.S., of the Advisory Board of Army Medical Services; Dr. Bruce Low, of the Local Government Board; Dr. A. E. Wright, Pathologist to St. Mary's Hospital; Dr. Cagney, Medical Superintendent of the South-West Fever Hospital; Major W. B. Leishman, Professor of Pathology, R.A.M.College; Dr. C. J. Martin, Director of the Lister Institute (Chairman); Professor Macfadyen, Lister Institute; Dr. William Bulloch, Bacteriologist to the London Hospital. Lieutenant-Colonel B. M. Skinner, A.M.C., is the secretary to the Committee. The Committee, which has already begun work, is to consider the question not with reference to any particular serum but from the broadest point of view.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondent.]

The Adjournment for Whitsuntide. The debate last Thursday week on the motion to adjourn for the Whitsuntide holidays was one replete of medical interest. Mr. Balfour opened that the real pain of having a short sitting on Wednesday was the fact that it was very much curtailed. The week-end plan is now existing [illegible] Mr. Balfour thought it would be [illegible] Mr. Asquith [illegible] Mr. Balfour [illegible] Mr. Asquith [illegible] Mr. Balfour [illegible] Mr. Asquith [illegible] Mr. Balfour

Scotland.

LUNACY IN SCOTLAND.

THE Forty-sixth Annual Report of the General Board of Commissioners in Lunacy for Scotland contains 92 pages, in fifteen sections. There are 181 pages of appendices.

Present Number of the Insane.

At January 1st, 1904, there were in Scotland 16,894 insane persons of whom the Board had official cognizance, including the inmates of training schools for imbecile children and of the lunatic department of the General Prison at Perth. Of these, 2,532 were maintained from private sources, 14,309 by parochial rates, and 53 at the expense of the State. This was an increase of 236 over the previous year.

Increase of Lunacy in Proportion to Population.

Since 1858 the number of lunatics under the jurisdiction of the Board had increased 190 per cent. The increase of the population during the same period had been 52 per cent. In 1858 the total number of lunatics per 100,000 of the population was 132. The average for the five years 1870-74 was 215, for 1876-80 248, in 1886-90 it had risen to 290, for 1891-5 it was 313, for 1896-1900, 337, while in 1904 it had reached 351.

Statistics of Lunacy for 1903.

On January 1st, 1904, there were 3,035 lunatics in Royal asylums, 7,910 in district asylums, 125 in private asylums, 508 in parochial asylums, 1,152 in lunatic wards of poorhouses, 1,785 in private dwellings, 53 in the lunatic department of the General Prison, and 426 in training schools. During the past year there had been an exceptionally small increase of pauper patients and a large increase of private patients in establishments. Of registered lunacy as a whole the increase of 205 (excluding the General Prison and training schools) was the smallest increase recorded since 1891. Of the 205 only 80 were pauper patients, the smallest increase of this class during the past nineteen years. This may be a mere passing phenomenon or it may mean that the great increase of pauper lunacy in proportion to the population has at last reached a point beyond which it will not materially rise.

Want of Accommodation for the Poorer Class of Private Patients.

As in the thirty-ninth annual report this defect is again strongly urged, and the opinion repeated that permissive power should be given by statute to District Lunacy Boards to provide accommodation for private patients under certain conditions. Legislation in the direction indicated would tend to relieve the rates and would be approved of by District Lunacy Boards. These views are strongly supported by the statistics of the past year.

Lunacy in North and South Uist.

Section IX deals with this subject and is of great interest. The area is limited and the figures small on which to rest general conclusions, but the lunacy statistics of these two parishes show such remarkable contrasts persistently throughout a long period as to make them an interesting record. The points are best brought out by two tables:

TABLE I.

	Population at Census of 1901.		Pauper Lunatics on January 1st, 1904.		Proportion of Pauper Lunatics per 1,000 of Population.	
	Males.	Females.	Males.	Females.	Males.	Females.
North Uist ..	[illegible]	2,127	1	1	[illegible]	4·7
South Uist ..	[illegible]	2,827	1[illegible]	[illegible]	[illegible]	[illegible]
Scotland ...	2,173,755	2,298,348	[illegible]	7,285	1	3·2

It will be seen from these figures that while both parishes, unlike Scotland as a whole, show a preponderating proportion of male pauper lunatics, this preponderance is slight in South Uist, but so marked in North Uist as almost to be the reverse of what is found in Scotland generally.

The following table shows the number of females to every 100 males in the population as at census 1901, and of female pauper lunatics to every 100 male pauper lunatics at January 1st, 1901, in the two parishes, in Shetland (the county in which, owing to migration of males, the disproportion between the sexes is greatest), and in Scotland:

TABLE II.

	Number of Females to every 100 Males in the Population.	Number of Female Pauper Lunatics to every 100 Male Pauper Lunatics at January 1st, 1901.
Shetland	127	111
North Uist ...	105	[illegible]
South Uist	133	114
Scotland	1[illegible]	1[illegible]

In all these cases the larger female population produces a larger number of female pauper lunatics, except in North Uist, in which, though the proportion of females to males is larger than in Scotland or in South Uist, the proportion of female pauper lunatics is not much more than half that of male pauper lunatics.

Finance.

Section X deals with this question, and comparative tables are given in illustration. Three sentences will show the drift of the section: "We have for long urged upon District Lunacy Boards that all asylum buildings should be of the utmost simplicity compatible with efficiency for their special purpose, and that no expenditure should be incurred on external ornament or in other similar directions which are contrary to a strict economy, and which in no way contribute to the amelioration of the condition of the insane." "On the whole, there is no better method of showing the comparative cost of asylums than by measuring such cost by the amount which the ratepayer has to pay to meet the entire outlay. The cost of an asylum can thus be traced from year to year, and it forms a perfectly reliable measure of cost, because it is wholly real and omits nothing."

The remainder of the report deals with expenditure for pauper lunatics, dangerous lunatics, alien lunatics (36 were removed from Scotland during 1903), lunatics under judicial factors, and the question of protection of establishments for the insane from fire suggested by the calamitous event at Colney Hatch.

FORTY-NINTH ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR SCOTLAND.

This Report has just been issued. It falls into two parts. The first is concerned with Scotland as a whole. The second part, which is more detailed, relates to eight of the principal towns of Scotland.

I.—*Scotland as a Whole.*

Population.

The population of Scotland at the middle of 1903 was estimated at 4,579,223, the males numbering 2,229,414, the females 2,349,809. Of the total population 44.29 per cent. were in the Principal Town districts; 12.99 per cent. in the large town districts; 20.10 per cent. in the Small Town districts; 20 10 per cent. in the Mainland Rural districts; and 2.59 per cent. in the Insular Rural districts.

Births.

133,499 births were registered during the year 1903. This is equivalent to a birth-rate of 29.2 per 1,000 of the estimated population, and is the same as the birth-rate for 1902, and is smaller than that for all other preceding years. Of the births, 68,074 were males and 65,425 were females, which is equivalent to 104 male births to 100 female births. The male birth-rate per 1,000 of the estimated male population amounts to 30.5; the female birth-rate per 1,000 of the estimated female population amounts to 27.8. The birth-rate was highest in the Large Town districts and smallest in the Insular Rural districts; 6.13 per cent. of the total births were registered as illegitimate. This is the smallest rate of illegitimate births recorded for Scotland.

Deaths.

75,973 deaths were registered in Scotland during 1903, which is equivalent to an annual mortality of 16.59 per 1,000. The actual number is less than in any year since 1886, and the mortality-rate is the smallest recorded since the opening

of the office of the Registrar-General for Scotland, now nearly fifty years ago. The rate of mortality was, as usual, highest in the Principal Town districts, where it was 17.7, and smallest in the Mainland Rural districts, where it was 15.2. Compared with 1902, the mortality in the Principal Town districts shows a decrease of 0.8, or 4.3 per cent., that of the Large Town districts 3.6 per cent., that of the Small Town districts 1.3 per cent., that of the Insular Rural 5.9 per cent. The greatest mortality was in the first quarter (18.5) of the year, and the least (14.4) in the third quarter. The daily average number of deaths for the entire year was 208. In January it was highest with 261. The mortality of males per 1,000 living was 17.1, and of females 16.1.

Marriages.

32,320 marriages were registered, a marriage-rate of 7.06 per 1,000 of the population, nearly the same as in 1902.

II. *Eight of the Principal Towns of Scotland.*

The following statistics refer to eight of the principal towns of Scotland, namely, Glasgow, Edinburgh, Dundee, Aberdeen, Paisley, Leith, Greenock, and Perth, which had a combined population, estimated to the middle of 1903, of 1,702,912. As fully 37 per cent. of the population of Scotland live in these towns, and fully 37 per cent. of the births and 40 per cent. of the deaths occur in these towns, it may be assumed that the conditions observed in them fairly accurately indicate those of Scotland.

Births.

The births of 50,697 living children were registered, equivalent to a birth-rate of 29.8 per 1,000, practically the same as for 1902 and 1901. From 1856 to 1884 the birth-rate exceeded 35, from 1885 to 1900 it was between 30 and 35, and since 1901 it has been below 30. The highest birth-rate (31.9) was registered in Glasgow, and the lowest in Edinburgh (24.8), and Perth (24.4); 6.6 per cent. of the births in these towns were illegitimate. Of the total births there were 102.5 boys born for each 100 girls.

Deaths.

30,863 deaths were registered in these towns during 1903, equivalent to a death-rate of 18.1 per 1,000 of the estimated population, the lowest death-rate recorded for these towns since these reports were started. The lowest previous record was in 1894 and 1897 with 18.9. The highest death-rate was in Glasgow (19.2 per 1,000), and the lowest in Leith (16.2). In Edinburgh it was 16.9, and in Perth 16.7. There was, as compared with 1902, an increased mortality in Leith, and a decreased mortality in the other seven towns.

Infant Mortality.

The total number of children under 1 living in these towns was estimated at 150,340, while the number of deaths was 19,217, equivalent to a mortality of 55.7 per 1,000. The number of deaths of children under 1 year was 5,476, equivalent to an annual mortality of 137 per 1,000 living births.

Proportion of Deaths Generally.

In these eight towns from all causes, there were 1,812 deaths to every 100,000 persons living. In Glasgow there were 1,911 to every 100,000 living, in Edinburgh 1,687, in Dundee 1,805, in Aberdeen 1,715, in Paisley 1,720, in Leith 1,611, in Greenock 1,591, and in Perth 1,625.

Deaths from the Chief Epidemic Diseases.

The deaths from epidemic diseases in these towns caused 148 deaths per 100,000 of the population, and this amounts to 815 deaths out of the 30,863 deaths registered. The absolute number of deaths from these epidemic diseases was 2,521. Compared with the previous year, the absolute number is found to be 2,521, the rate per 100,000 of the population to be 148 less, and the proportion per 1,000 total deaths to be 9 more. The rate was highest in Glasgow (182 per 100,000 of the population), and lowest in Perth (133) and Dundee (141). Of these epidemic diseases, scarlet fever was the most fatal, causing 63 deaths, being equivalent to a mortality of 37 per 100,000 of the population, and accounted for 78 out of every 1,000 deaths. Next to scarlet fever, whooping-cough was the most fatal of the infectious diseases causing 60 deaths, equivalent to a mortality of 35 per 100,000 and 1.94 per 1,000 of the total deaths. Scarlet fever accounted for 63 per 1,000 of the total deaths, diphtheria 72, influenza 68, and "fevers" 54.

Deaths from other Diseases.

To pneumonia 916 per 10,000 of the total deaths in these towns was due. All tuberculous diseases gave 1,358 per 10,000 deaths, and phthisis alone 899 pr 10,000. The relative mortality from all tuberculous diseases was highest in Perth, with 290 (out of a total of 4,149), and lowest in Paisley, 205. Diarrhoea (infective enteritis) accounted for 194 per 10,000 deaths from all causes, malignant diseases 482, developmental diseases of children 476, inflammation of brain 222, convulsions 159, cerebral haemorrhage 528, bronchitis 750, diseases of stomach (not malignant) 163, enteritis, gastro-enteritis 209, all liver diseases 90, Bright's disease 136, and old age 337 per 10,000 deaths. One female died at the age of 103, another 101, and another 100. Deaths from violence numbered 1,251, equivalent to a mortality of 74 per 100,000 of the population. There were no deaths by execution.

Marriages in these Towns.

The total number was 15,074, equivalent to an annual rate of 8.8 per 1,000 of the population. The rate was greatest in Edinburgh (9.3) and least in Leith (7.0).

Weather and its Influence on Mortality.

The year 1903 was characterized by a subnormal mean temperature and by a very excessive rainfall. The average of the mean annual temperature of the last twenty years is 46.2, the mean temperature of 1903 was 45.9. The average rainfall of the last twenty years is 39 in.; the rainfall of 1903 amounted to 51.5 in. During the last twenty years there have been five years with excessive rainfalls, but in no other has there been excessive rain combined with a low mean temperature. Of the previous wet years, two had a mortality less than the average, one a mortality of average amount, and one of more than the average. In 1903, with its very excessive rainfall, the mortality has been considerably less than the average. It would thus appear that recent experience tends to show that an excessive rainfall is not of necessity an unfavourable weather condition, and does not necessarily mean a large mortality.

GLASGOW AND WEST OF SCOTLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The annual meeting of this Branch of the British Medical Association was held in the Royal Infirmary, Glasgow, on May 20th. After the statutory business meeting and afternoon tea, the members attended an interesting demonstration by Dr. John Macintyre, the President-elect, on Recent Electro-therapeutic Methods of Treatment.

The same evening the annual dinner took place in the St. Enoch's Station Hotel, the guest of the evening being Mr. Andrew Clark, F.R.C.S., the Chairman of the Council of the British Medical Association. Dr. J. C. McVail, the President of the Branch, was in the chair, and the croupiers were Dr. William Findlay and Dr. Ebenezer Duncan, Vice-Presidents. After the toast of "The King" had been honoured, Dr. Duncan proposed "The British Medical Association," and after referring to the objects of the Association as social, ethical and scientific, he welcomed Mr. Andrew Clark as their guest and one to whom the Association was much indebted for his labours in connexion with the new constitution.

Mr. Andrew Clark, in reply, gave a historical account of the Association, and pointed out the recent rapid development, till at the present time there were 15,000 members. He referred to certain public questions in which the Association was interested, and in regard to which the public, and even members of Parliament, needed further education. Many of the schemes which medical men advocated would bring more work to the profession, but they were mainly for the public good and not for the enrichment of medical men.

Professor MCALL ANDERSON acknowledged the toast of "The Glasgow University," and in referring to the present extension of the University Buildings he pointed out that the enlarged and additional laboratories being provided would cost a considerable sum of money for upkeep, and that further generosity on the part of the friends of the University would be required in addition to the grants from the Carnegie Fund.

Dr. D. C. McVAIL proposed "The Other Scottish Branches," and in doing so suggested the question of quackery in medicine as a subject which the Association ought seriously to consider. As an indication of the extent to which quackery flourished he pointed to the advertising pages of every newspaper in the country and to the fact that last year the Govern-

ment pocketed £330,000 for quack medicine stamps. There was too little publicity about medical matters, and the public must be educated to know the difference between the methods of true medicine and of quackery.

Small-pox in Scotland.

During the period from April 16th to May 15th inclusive 252 cases of small-pox have been intimated to the Local Government Board. These were distributed over 16 counties. Prior to the period of this report no cases of small-pox had been intimated to the Board this year from no less than 17 localities. During the period in question the local incidence was greatest in Falkirk, being 11.95 per 10,000 of the population as compared with 6.44 in Bo'ness, 2.78 in Ayr, 2.37 in Port Glasgow, 2.14 in Clydebank, 2.05 in Greenock, 1.26 in Glasgow, and 1.22 in Hamilton. As to actual number of cases Glasgow heads the list during the period in question with 96 cases, Falkirk 35, Greenock 14, Edinburgh 13, Ayr 8, Govan 8, Paisley 7, and Bo'ness 6. During the week ending mid-day of Saturday, May 14th, only one fresh case was notified to the public health authorities.

The Indian Medical Service.

The Secretary of State in Council has been pleased to appoint Dr. F. W. N. Haultain, F.R.C.P.E., Examiner in Midwifery and Diseases of Women for the Indian Medical Service.

Ireland.

The Medico-Psychological Association.

At the spring meeting of the Irish Division of the Medico-Psychological Association of Great Britain and Ireland, after the completion of election of officers and other formal business, Dr. Drapes read a paper on a Case of Acute Hallucinatory Mania of Traumatic Origin. The patient, a man aged 36, healthy save for some left-sided deafness and otorrhœa (the result of accident), received a blow on the head while playing hockey. He experienced difficulty in walking next day and began to suffer from severe occipital headache, with rise of temperature. These passed off in a few days, and about a fortnight later he was able to go into the country. He at once became worse, the headache returned, he was restless, and in a week was delirious, with hallucinations, though all through he was rational at times. He gradually recovered, and was mentally well about six weeks after the onset of mental symptoms. He was able to give a most vivid account of his hallucinations, which assumed the shape of orderly sequences of events, somewhat like dreams but more vivid. The latter took the form of startling adventures, mostly terrifying and unpleasant, which involved combined hallucinations as real to the patient as the events of ordinary life. Dr. Drapes was of opinion that the pathological condition was a slight meningo-cerebritis, which acted by abolishing the higher mental centres, while the lower were irritated into increased activity. The prevalence of delusions of persecution and suspicion he considered to be explicable as a reversion to primeval conditions.

Dr. Conolly Norman considered that the fact that the patient was able at times to concentrate his attention and reply rationally when addressed was incompatible with Dr. Drapes's theory of the genesis of the hallucinations. It was interesting that some of the hallucinations so strongly resembled those of toxic origin.

The paper was also discussed by Drs. Rainsford, Eustace, and Leeper; and Dr. Drapes replied.

Dr. Rainsford described two cases in which epileptiform seizures had occurred. The first was that of a lady, aged 57, suffering from attacks of recurrent mania at intervals of three or four months. In one of these epileptiform seizures appeared, and she had 282 in all, and was thought to be dying for four days. The fits ceased under hypodermic injections of morphine, but were followed by a six weeks' attack of acute mania. Since then she had remained physically well for three years, but was slightly demented. The other case was that of an imbecile boy aged 13½, who suddenly developed fits at school. He was sent to hospital, where the fits continued, but he was so troublesome and insubordinate that he had to be discharged. At the Stewart Institution, to which he was then admitted, the reality of the fits was doubted, and the threat of being douched with cold water put an end to them. The boy was now doing well.

Dr. Drapes regarded the second case not as one of malingering, but as due to a neurotic condition.

Dr. Norman considered the treatment of mania and pseudo-epileptic states with morphine to be dangerous.

Drs. Woods and Fitzgerald also joined in the discussion.

Dr. Rainsford, in replying, said that he considered the second case to be one of hysteria.

Dr. Eustace read an account of a case of dementia praecox. The patient was a boy aged 20, with some neurotic heredity, who had always been excitable, idle, and conceited, a confirmed masturbator, and very eccentric. He became restless six weeks before admission, and then maniacal, with quick pulse and high temperature. Delusions, chiefly of a religious and grandiose type, were present. In about three weeks stupor appeared, and from that time had alternated with excitement, while various katatonic symptoms—verbigeration, catalepsy, "jargon aphasia," mannerisms, etc.—developed from time to time. Thyroid administration proved of no value, and after about seven months the patient was no better mentally, though his memory, understanding, and perceptive powers were good. He therefore was an excellent example of this form of mental disease.

Dr. Leeper was strongly of opinion that the disease was incurable. His experience with thyroid had also been unfavourable.

Dr. Norman thought that too many cases had been classed as dementia praecox, and therefore as of bad prognosis, but cases showing an alternation of excitement and stupor were unfavourable. He considered cases of the melancholic type more likely to recover.

Dr. Drapes also spoke, and Dr. Eustace replied.

Dr. Conolly Norman exhibited two patients suffering from unilateral deafness, with auditory hallucinations of the same side.

Sewage Purification Scheme for Belfast.

A second or *ad interim* report by Dr. Letts, Professor of Chemistry in the Queen's College, Belfast, on the scheme of sewage purification has been printed in pamphlet form. It occupies 57 pages, and contains, as a frontispiece, a coloured plate, shewing some of the seaweeds which Dr. Letts thinks play a not unimportant part in the problem of sewage purification. There are also diagrams showing the effects of the contact bed and of the contact bed preceded by septic tank, and a sketch map of Belfast showing sewers, rivers, etc.

The first report furnished in 1901 discusses several important questions involved in the scheme of purification then proposed, and Dr. Letts was empowered by the City Council to make the necessary experiments.

These problems were, first, the very serious nuisance which occurs annually in the upper reaches of the Lough from June to November, traceable to the decomposition of certain varieties of seaweed, chiefly the ulva latissima, which are driven ashore by the winds; the decomposition of this seaweed is marked chiefly by the evolution of sulphuretted hydrogen, and the growth of such immense quantities depended upon the large volume of sewage in the Lough. The next problem was to ascertain the extent to which the sewage could be purified by the scheme then proposed, and the probable effects on the Lough. The "contact," "bacteria," or "Dibdin" bed treatment was explained and the method of treatment examined. Laboratory experiments on growing seaweed in sea water artificially polluted were also detailed; these showed the remarkable power of the kinds of seaweed found of assimilating nitrogen in the form of ammonia or nitrates.

Dr. Letts also showed that the effluent from the bacteria beds which should contain nitrites and nitrates equivalent in amount to the unoxidized nitrogen, actually showed a comparatively small amount of nitrite or nitrate in relation to the unoxidized nitrogen disappearing; and that this phenomenon was due to the fact that a considerable quantity of nitrogen was evolved in a gaseous state, appearing in solution in the purified effluent or diffused in the atmosphere, and so escaped detection; and also that a considerable quantity of nitrogen passed into the tissue of the swarms of minute insects (podura aquatica) and of worms which were very abundant. He finally recommended that the effluent should flow into ponds containing sea water, and the growing ulva, where it would lose much of the excess of nitrogen, being allowed to remain only four or five hours, so that the ponds could be tidal, or to use the language employed before the Royal Commission on Sewage Disposal, Dr. Letts advocated an "aquatic or marine sewage farm."

New contact beds have been added in 1902 and 1903, so that at present there are twelve large and fourteen small experimental beds, which are able to treat the sewage equivalent to a population of over 50,000, or about one-sixth of the total population. Nine complete series of analyses were made of the screened and settled sewage, and of the resulting effluents from the septic tank and the upper and lower series of contact beds, and from the Stoddart filter: the results of these experiments are given in Tables I to V; the most important and noteworthy feature is the high purification indicated as regards the free ammonia, the actual purification effected being on an average 87 per cent., as compared with 51 per cent. previously found in treatment by contact beds only. Dr. Letts draws the important conclusion that it will be possible to reduce the effects of Belfast sewage on the Lough, so far as the foreshore nuisance is concerned, to practically one-tenth of its past amount. The loss of albuminoid ammonia was 73 per cent. The reduction of the free ammonia is much the more important, as the ulva cannot absorb the albuminoid.

The results as regard the Stoddart filter were not as favourable as expected. As regards the nitrogen appearing as the salts of nitric acid, Dr. Letts finds that the nitrates are increased from 8.04 per cent. to 21.68 per cent. after treatment in contact beds preceded by septic tank. This is of little moment in the problem of sewage purification in an inland town, but has an important bearing in Belfast owing to the seaweed question, as these salts furnish a food for the seaweed. A series of experiments were made with regard to the decomposition of nitrates when added to the effluent from a septic tank, and to the cause of these changes. It was found that a certain quantity of nitrates is decomposed, but not when added above a relative proportion; and the decomposition is effected in twenty-four hours. This decomposition is caused entirely by the vital processes of certain micro-organisms and not by enzymic or chemical action, as it did not take place when the microbes were removed by means of Chamberland filter.

As far as the experiments have gone it would appear that the bacillus coli communis liberates nitrogen from a nitrate in broth culture; but that the bacillus lactis aërogenes does not do so.

Two most interesting facts are brought to light by Dr. Letts's experiment. From an excess of chlorine in the sewage he pointed out that there must be some leakage of the river water, which is tidal, into the main sewer. Some 17 samples were taken at different places at exactly the same time, and it was found that the high-level sewage does not vary to more than a very slight extent; the average is seven parts per 100,000; with the low-level system the case is different; it is normal at the extreme end or beginning, but suddenly rises to nearly thirty times the normal amount, at three falls gradually again owing to dilution with sewage, and near the end it is [illegible] parts per 100,000.

A second interesting phenomenon is in connexion with the seaweed. Several small experimental sewage ponds or "[illegible] farms" had been constructed to test the purifying [illegible] seaweed; these showed that the ulva would grow for months in a mixture of sea water and effluent containing 20 per cent. of the latter; but in the meantime patches of a green growth had made their appearance on some of the lower contact beds, and later on in a marshy pool at the pumping station into which the effluent from the septic tank and experimental contact beds passed. These growths soon developed into ulva latissima and two species of enteromorpha, the spores of which had evidently found their way from the river Lagan by the leakage into the low-level sewer and so to the experimental beds. An examination of these forms of seaweed from the contact beds, Belfast Lough, and from [illegible] showed the change is relatively small, gave the following results:

[illegible]

[illegible] Company.

The report closes with some general conclusions and a summary. There is an appendix on the value of the ulva latissima as a manure and as a source of commercial ammonia. The experiments are being continued.

Canada.

Sanatorium in Southern Alberta.

A sanatorium for the treatment of pulmonary diseases is being erected in Calgary by Dr. Wills. The climate of Southern Alberta is particularly salubrious, and life on these plains has been effectual in curing many cases of phthisis in the past.

Snow and Lake Water.

The immense increase in surface drainage consequent on the rapid melting of the snow and the breaking up of the ice on the lakes seriously affected the purity of the lake water for some distance from the shores. In a series of sixteen tests of Toronto city water the colon bacillus was found five times, and doubtless an increase in the number of cases of typhoid reported was due to this cause.

Canadian Medical Association.

The thirty-seventh annual meeting of the Canadian Medical Association will be held at Vancouver, B.C., on August 23rd, 24th, 25th, and 26th, 1904. The railway fares from Montreal are $58 and from Toronto $52.40. Dr. Simon J. Tunstall, Vancouver, is President, and Dr. George Elliott, 129, John Street, Toronto, is Secretary.

Leprosy.

The annual report of Dr. A. C. Smith, Superintendent of the Leper Hospital at Tracadie, N.B., seems to support the opinion of Mr. Jonathan Hutchinson that the disease is due to the eating of badly-cured or decayed fish. The former states: "I am informed by some of our older people that in former days, and even as late as thirty years ago, the inhabitants living along our shores would not eat fresh or well-cured fish, but laid it aside until tainted. They wished to have some taste to it."

Imperial Service Order.

An interesting ceremony took place at the Province building at the end of March, when Lieutenant-Governor Jones presented the Imperial Service Order to Dr. Edward Gilpin, Deputy Commissioner of Works and Mines, as a token of His Majesty's recognition of his quarter of a century in the public service.

Toronto University.

A deputation of the alumni of Toronto University which waited on the Premier of Ontario to petition for the erection of a new laboratory for physics and the establishment of a department of forestry did not receive much encouragement to hope that assistance in the matter would be accorded.

The Senile Insane.

The buildings at Penetanguishene, until recently occupied as a reformatory for boys, are being altered and improved for an asylum for the senile insane; it is expected that accommodation for 500 will be provided in this way. The inmates of the reformatory have been provided for, partly in foster homes and partly in the Blairtyre Home and Industrial School, to which commitments of juvenile delinquents will hereafter be made.

Kidney Decapsulation.

In a paper read before the Montreal Chirurgical Society the results of some interesting experiments on dogs were given, which tend to show that after decapsulation the kidney becomes surrounded by a new and probably more unyielding covering than before. They would seem, however, also to support the contention that the effects of operation on healthy kidneys may differ from those in diseased kidneys, and we must guard against too readily drawing conclusions with regard to the latter from the former. The opinion to which the experiments inclined was that a partial stripping of the kidney only should be performed, so that while tension was relieved the formation of a new and complete capsule would be avoided.

The Treasurer of Epsom College Royal Medical Foundation acknowledges, with grateful thanks, the receipt of an anonymous donation of £25, through Messrs. Coutts and Co.

LUNACY LEGISLATION.

The Debate in the House of Commons.

The Government Lunacy Bill introduced into the House of Commons on May 18th by the Attorney-General and backed also by the Solicitor-General is printed in the Supplement to this issue, page 140. Before proceeding to consider its provisions it will be desirable to refer somewhat more at length than has yet been possible to the debate raised in the House of Commons on the vote for the Lunacy Commission by Sir John Batty Tuke on May 12th.

Sir John Batty Tuke, in moving a reduction of the vote in order to call attention to the constitution of the Lunacy Commission, said that the Commissioners were hard-working officials, eminent in their profession, who were not responsible for the faults of which he complained. The Commission consisted of one unpaid chairman, three or four unpaid commissioners, and three medical and three legal commissioners, each receiving £1,500 a year. While the duties of the unpaid commissioners were confined to the office, the paid commissioners visited and reported on 114,000 certified lunatics in England; there was only one medical commissioner to every 38,000 lunatics, while in Scotland there was 1 to every 4 100: thus the supervising power was ten times as great in Scotland, yet from his own experience of forty years he could assert that the Scottish Lunacy Commission was not overmanned. In Scotland every patient was visited by a medical commissioner twice a year, in England only once. The result was that in Scotland none of those scares and scandals took place which were of such frequent occurrence in England. The numerical inadequacy of the English commission was growing worse: while the number of its members was the same as in 1845, the certified lunatics had increased from 25,000 to 114,000. While he admitted that lawyers were absolutely necessary to the Commission he held that their duties should be confined to the Board room; they were useless for inspection, and two standing counsel would do all the work required at a much lower cost. A Commission so undermanned on the medical side must necessarily work unsympathetically and without elasticity. The first step to establish public confidence in lunacy administration in England was to establish thorough supervision by dividing the country into four or five districts with a resident medical commissioner in each. At the present day medical men were precluded from treating lunacy adequately during its two critical stages, the beginning and the end. Among the moneyed classes in whom these stages could be properly treated lunacy had not increased, but among the poorer classes it was necessary to wait until the case was sufficiently pronounced to warrant certification before anything could be done. Of the patients treated in the institution for incipient cases, established by Glasgow thirteen years ago, 70 per cent. had been discharged cured. With regard to the final stage he pointed out that when a patient was discharged from an asylum he was relegated to the miserable condition in which he was first attacked by insanity, no term of convalescence was allowed, and the percentage of recoveries obtained in the asylums was reduced by relapses from 40 to about 35 per cent. He urged the appointment of a Select Committee to consider the question, and pointed out that during the last twenty-five or thirty years the conception of insanity had undergone a great change. The insane person was no longer regarded as a psychological curiosity, but as a pathological study.

Sir Michael Foster supported this contention, and said that a large increase in the number of the medical commissioners in lunacy was an urgent necessity, whether the increase should be by way of the appointment of assistant medical commissioners was a matter of detail. In no branch of science had there been greater progress during the last generation than in the knowledge of the brain and the central nervous system, and whereas when the lunacy laws were framed they were based more or less on the view that the case of a person of unsound mind was hopeless, and their main purpose was to protect the lunatic from ill-treatment and the public from the lunatic, now medical science was daily gaining a greater command over the treatment of brain diseases. Yet though medical science had reduced other diseases, notably tuberculosis, lunacy, if anything, was on the increase. One main reason was the present state of the lunacy laws, which, if they did not hinder, certainly did not facilitate, the application of science to lunacy, especially in the early stages. At present an insane person could not be brought adequately under treatment without the certificate of two medical men, a petition and a declaration and a magistrate's order; that was an advertisement of insanity, and stood in the way of the application of medical science to the cure of insanity in its early stages. In Scotland, on the certificate of a responsible medical man an insane person could be kept in a private house under proper treatment. On the analogy of the notification of infectious diseases there would be no difficulty in the notification of a change in the central nervous system, and notification would be a very different thing to the advertisement under the present system.

Dr. Farquharson said that in a Bill introduced in the House of Lords four years ago there was a provision to carry out the beneficent arrangement in force in Scotland, which allowed cases on the borderland to be taken into the house of a private person, and treated there for six months during the period when treatment gave the best hope of a successful result. Insanity should be looked upon as a disease, and studied as such in special hospitals or special wards with special pathological institutions; there should be a notification of lunacy to the local authorities with power to the medical officer to visit the lunatic, and, if he thought it necessary, to appeal to the Commissioners for a further opinion. The number of commissioners in England was altogether inadequate to the enormous increase in the work; a single commissioner was often supposed to inspect 800 or 1,000 persons in a day which was a farce.

After Mr. Brigg had referred to the increasing charges placed upon the ratepayers for lunacy purposes, and Mr. Gibson Bowles had deprecated any change in the law on the ground that it might involve a certain deprivation of the liberty of the subject,

Dr. Hutchinson said that a decrease in the number of legal commissioners and an increase in the number of medical commissioners was urgently needed. Medical science had made rapid progress, and the legal members were no longer so necessary.

After Lord E. Fitzmaurice had asked whether there had not been inquiries and commissions enough, Sir J. Dorington, senior commissioner, said that the Commission was shorthanded, and had memorialized the Lord Chancellor on the subject. He thought that the arrangement by which medical members had the assistance of legal members was a happy one, and believed that the Commission worked extremely well.

The Attorney-General (Sir R. Finlay) said he could not agree with all that had fallen from Sir John Batty Tuke. He was not satisfied that an actual increase in the amount of lunacy had been proved, and he thought that it was too much to say that there was in England an atmosphere of distrust in regard to the administration of the Lunacy Law; on the contrary he believed there was very general and well-founded confidence. With regard to the increase in the number of commissioners he thought that the first point would be to ascertain whether the work of the existing staff could not be rearranged with advantage. He believed that a great deal could be done by relaxing the provision of the law as to the association of a legal and medical commissioner when visiting; he knew that strong objection had been taken to legal commissioners visiting the houses and lunatics in company with the medical commissioners, but he believed the association was useful. With regard to the question of incipient or threatened lunacy he was disposed to think that the jealousy for personal liberty, in its origin noble and honourable, had been pushed to an extent which interfered with adequate steps being taken to prevent a patient from being stamped as a lunatic. The Bill, which had passed more than once through the House of Lords, and had been prevented from passing through the House of Commons, contained clauses dealing with that very matter. It would relax the provisions of the law in a way which he believed would be found to give facilities for preventing insanity, while yet providing adequate security against abuse. That proposal had been made by the Government, and it was very much to be desired that something of the kind should be carried out, but he did not admit that a case had been made out for the appointment of a Royal Commission or a Committee. Finally, in reply to Dr. Farquharson, he said he was unable to give a pledge that the Lunacy Bill would be introduced this session.

The Committee divided, when there were for the reduction 126, against 216; majority against, 90.

The Government Lunacy Bill.

In spite of the guarded answer which the Attorney-General gave on May 12th, he found an opportunity on May 18th, as already stated, of introducing the Bill, which is printed in the Supplement, p. 140.

Following hard upon this useful debate, with its various alarums and excursions, came the short Bill to Amend the Lunacy Acts, introduced into the House of Commons by the Attorney-General and the Solicitor-General. Of this the main and by far the most important feature consists of the provisions modifying the existent means—or rather for supplying non-existent facilities—for the temporary care of incipient lunatics.

Divested of part of its legal phraseology, the clause in the short new Lunacy Bill to which we refer is to the following effect:

For the temporary care of incipient lunatics it is provided that if a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period also stated, but not exceeding six months, then it shall be lawful. The medical practitioner signing such certificate shall, within one clear day after signing, send a copy of it to the Commissioners in Lunacy, who may visit the patient. The medical practitioner who signs cannot receive the patient under his own care. The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception; and there are further provisions for giving due notice of the death of the patient, or of any change in the place of residence of the person receiving, or of cessation of his care of the patient; and also for making report, on expiration of the period mentioned in the certificate, as regards the recovery or not of the patient, and in what manner he was dealt with at the end of that period.

Default in sending any notice or report, as above, makes the party guilty of misdemeanour, and liable to penalty not exceeding £50.

Not more than one patient may be received under this provision at the same time by any one. Another certificate under this section shall not be given in respect of the same patient within two years of the date of the expiration of the previous certificate.

In general tenour this is by no means either a new proposition or policy; it is not even new as a provision of a drafted Lunacy Bill. Its bearing is practically the same as that of the provision so long contended for by the Conjoint Committee of the British Medical Association and the Medico-Psychological Association. Formed some seven or eight years ago, this Conjoint Committee expended much labour on this subject, and was successful in inducing the Lord Chancellor to introduce into his Lunacy Bill adequate provisions covering the ground. But other and contentious matter [illegible] prevented the Bill of Lord Halsbury from passing through the House of Commons and finding place on the Statute-book.

[illegible] have worked on that Conjoint Committee, and to [illegible] it is certainly pleasing and satisfactory to [illegible] that the Government, by a probability of securing the passage of [illegible] short Bill, the ninth and merest of which is the [illegible] temporary care of incipient cases.

[illegible] the labours of the Conjoint Committee had been [illegible] embodied in [illegible] legislation [illegible] with [illegible] knowledge of what [illegible] involved.

[illegible] Bill is practically an [illegible] [illegible] years ago [illegible] Bill may give [illegible] [illegible] in the present [illegible] Parliament [illegible].

[illegible] Examinations. At the opening [illegible] Public Health [illegible] Act [illegible] the Sanitary Inspector's [illegible] Board [illegible] were [illegible] [illegible] [illegible] at the Sanitary Institute, [illegible] at the Royal College of Physicians, the National Health Society, and one each at University College, King's College, and the Royal Free Hospital, Edinburgh, while one candidate was in office.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

The seventy-ninth session of the General Medical Council was commenced at the offices of the Council in Oxford Street, on Wednesday, May 25th, 1904.

President's Address.

Changes in Council.

Gentlemen, When I delivered the address at the commencement of our last session, I stated that the newly-established University of Liverpool had obtained an Act of Parliament, which entitled it to choose a representative to be a member of the General Medical Council, but that we had not received intimation of the election by the university of a representative. Two days after the termination of the session the Vice-Chancellor of the university intimated the appointment of Dr. Richard Caton, and we welcome him to-day at the Council Board. I may perhaps be permitted to say that it is especially gratifying to me to receive as a new colleague a former pupil, who now occupies so important a position in the youngest of the two vigorous universities in the great county of Lancaster.

We shall miss at our Council Board a member who for many years has taken a prominent part in our work. As one of our Treasurers, as Chairman of the Examination Committee, and as a member of the Executive Committee, Mr. Bryant has been active in our deliberations and in the discharge of our administrative duties. Every member of Council is familiar with his unfailing geniality: but those of us who are more specially engaged in the executive work of the office, both during session and in the interval between sessions, can speak from direct personal knowledge of his loyalty to the Council, and can testify that he spared neither time nor labour in the transaction of its business. Personally, I wish to express my thanks to him for the invariable courtesy shown me, and the support which he has given me during my occupancy of this Chair. Mr. Bryant's period of office as representative of the Royal College of Surgeons of England expired in the month of March, and as he did not seek re-election, the Council of the College has appointed as his successor Mr. Henry Morris, one of its distinguished Fellows. The representatives of the English College of Surgeons on this Council have, from our foundation by statute in 1858, taken an active interest in our proceedings and work, and we look to Mr. Morris to maintain the honourable tradition of his College.

Inspector of Examinations.

The Council will recollect that the severe illness, followed by the death, of Sir George Duffey, prevented the inspection during last year of the final examinations of the universities in Scotland, and delayed the completion of the series of inspections in which the Council was then engaged. The arrangement for the appointment of an inspector to succeed Sir George Duffey was referred to the Executive Committee. I may remind the Council that the office of inspector of final examinations, since it became statutory in 1886, has been filled by a Fellow of a Royal College of Physicians, and that on several occasions it has not been possible to arrange for the association with him as a visitor of a member of the Council representing the surgical side of our profession. The final examinations therefore of some of the bodies have been reported on by medical rather than surgical experts. But another aspect of the subject also presented itself. It was advisable, seeing that we had lost an inspector of great and varied experience, that the work of inspection should preferably be entrusted to one who was familiar with the conduct of examinations, and had a knowledge of the resolutions of the Council bearing on them. The retirement of Mr. Bryant from the Council, assuming that he were disposed to undertake the duties, seemed to give us the opportunity of obtaining the services of an inspector who, both on general and on professional grounds, was admirably fitted for the office. I accordingly put the matter before him on behalf of the Executive Committee, and after giving it consideration he consented to undertake the duties during the present year, and the commission of appointment as inspector has been issued to him. It has also been arranged that at each final examination he will be accompanied by a Fellow of a College of Physicians as visitor, and the reports for the present year will thus be framed by experts in the two great branches of our profession.

Preliminary Scientific Examinations.

At the meeting of Council on November 25th, a Committee was appointed to consider the report of the Examination Committee on the questions raised in the reports of the Inspector and Visitor of the Preliminary Scientific Examinations of the three Conjoint Boards and the Apothecaries' Society of London. Before the termination of that session the Committee adjusted the terms of a letter which I addressed to all the licensing bodies in the United Kingdom, and to the scientific teaching institutions recognized by them and approved by the Council. During the winter replies were received from the great majority of the bodies and institutions. These replies were summarized in the office by the Registrar, assisted by two of the clerks, and a proof in type was submitted to me early in April. It was obvious, if a report were to be drawn up by the Committee, circulated amongst members of Council, and properly considered during the present session, that it would be necessary to call the Committee together before the meeting of Council, and to frame a report in which should be embodied the recommendations to be submitted to the Council. This was accordingly done, and the report has been for some days in your possession. As two or three additional replies have been received since the report was circulated, I propose to hold a meeting of the Committee this afternoon, when the Council rises, to make a final adjustment, but I do not think that any material change will be made in the character of our recommendations. All the licensing bodies have now sent in answers to the questions.

Conjoint Board in England.

Having an intimate bearing on this report is the amended scheme of professional study for students of the first year, and the subjects of and mode of conducting the First Professional Examination of the Conjoint Board in England, which has been adopted by the Royal Colleges of Physicians and Surgeons in London, and was intimated to the Council three weeks ago. I do not propose to anticipate the statement which the representative of the two Colleges intend doubtless to make on the amended scheme, further than to say that the report of the Council's visitor to the first professional examination of the Conjoint Board has obviously been carefully considered by the Colleges, and that the suggestions made therein have been in several particulars adopted.

Bills in Parliament.

Certain Bills have been introduced into Parliament which bear on the Medical Acts. More than once I have referred in my opening address (*Minutes*, vol. xxxix, p. 107, 1902, and vol. xl, pp. 5, 106, 1903), to the attempts made to promote the establishment of reciprocal relations between the Dominion of Canada and the United Kingdom in regard to practice and admission to their respective Medical Registers. Up to this time, notwithstanding the efforts that have been made both in Canada and in the Parliament at home, a working scheme has not been arrived at. General Laurie, whose name is associated with the attempts at legislation in question, has this session introduced into the House of Commons a Bill to meet the difficulty occasioned by one of the provincial legislatures in Canada declining to renounce its present power of independent legislation and to consent to the formation of a register for the whole Dominion, as is provided for, subject to the consent of the local legislatures, in the Canada Medical Act, 1902. This Bill provides that His Majesty may, if he thinks fit, declare by Order in Council that where any part of a British possession is under a central and also a local legislature, as is the case in Canada and some other Colonies, the part under the local legislature shall for the purposes of the Medical Act, 1886, be deemed a separate British possession. Should General Laurie's Bill become law, Part II of the Medical Act, 1886, could be applied to any province in Canada which, in the opinion of His Majesty, should afford to registered medical practitioners of the United Kingdom such privilege of practising in the province as to His Majesty might seem just.

Bills have also been introduced during the present session of Parliament to facilitate the adoption of metric weights and measures in this country in substitution for our present methods. The interest which, as a Council, we have in such Bills is in connexion with the *British Pharmacopœia*, and it is not unlikely that the Pharmacopœia Committee may refer to the subject in their report. Mr. Jackson has also given notice of a motion calling the attention of the Council to this matter.

Leasing of Premises.

Members of Council will doubtless have observed as they came to the office this morning that the adjoining building on the east has been taken down and operations for the erection of a new building, several stories, it is understood, in height, have been commenced. In consequence of this, of the completion of the lofty pile of premises on our immediate west, and of an offer respecting the Oxford Street portion of our freehold property, I propose that the Council should consider this afternoon *in camerâ* the offer in question. In order that the Council may have before them such information as I possess, I have circulated as highly confidential documents the minutes *in camera* on this subject of February 22nd, 1904, a resolution of the Executive Committee, and a memorandum by our Solicitor of date March 28th, 1904.

I wish to ask attention to a statement relating to the financial position of the Council which I made to the Executive Committee on February 22nd, and which is embodied in the *camera* minutes of that date. These have been circulated by my direction, and the Council will doubtless desire to express an opinion on the matter.

The Companies Acts.

Copies of a decision of the High Court of Justice in Ireland on a question submitted to the Court, whether the word "person" in Section III of the Dentists Act, 1878, means exclusively natural person or includes an artificial person, such as a corporation or company, have, I understand, been sent to each member of the Council. The question arose in connexion with the case of O'Duffy *v.* Jaffe, when it was contended that the practice of dentistry could not be pursued by a company entitled Jaffe, Surgeon Dentists, Limited. The Court decided that the Dentists Act as worded is directed against a natural person only and not against a company. The effect of this judgement is to show that a company practising dentistry cannot be prosecuted under the Dentists Act.

Since the judgement in the case of O'Duffy *v.* Jaffe was given, another case relating to the practice of dentistry by companies has been before the High Court of Justice in Ireland. The case arose on an application for the issue of a mandamus to compel in Ireland the Registrar of Joint Stock Companies to register under the Companies Act, 1862, the memorandum of a company to be styled "S. G. Rowell, Dentist, Limited." An elaborate judgement on the case was was delivered by Chief Baron Palles, who, with his colleagues, declined to grant the mandamus.

The questions involved in these cases before the High Court of Justice in Ireland will be brought before the Council by Sir Charles Ball, who will move that the Council take action in terms of his motion.

Reports.

The Council will receive during the session reports from the Executive, Education, Finance, Public Health, Pharmacopœia, and other Committees. Thursday, May 26th, is set aside for the consideration of cases which have been before the Penal Cases Committee, and it is satisfactory to note that in all probability they will not occupy more than one day of our sitting.

INTERNATIONAL MEDICAL CONGRESS.

THE fifteenth International Congress of Medicine will be held at Lisbon, April 19th to 26th, 1906, under the august patronage of Their Majesties the King and Queen of Portugal.

EXECUTIVE COMMITTEE.

The Executive Committee is composed as follows: President, Councillor Costa Alemao; General Secretary, Professor Miguel Bombarda; Treasurer, Dr. Alfredo Lopes; Secretaries, Drs. Antonio de Azevedo, Mello Breyner, Azevedo Neves, Mattos Chaves; Members, Drs. Annibal Bettencourt, Professor Clemente Pinto, Professor Daniel de Mattos, Professor Ricardo Jorge, Dr. Silva Carvalho, and Dr. Zeferino Falao.

SECTIONS.

The scientific work of the Congress will be distributed among seventeen Sections as follows:

I. Anatomy (Descriptive and Comparative Anatomy, Anthropology, Embryology, Histology).
II. Physiology.
III. [illegible].
IV. Therapeutics and Pharmacology.
V. Medicine.
VI. Paediatrics.

Military Medicine

LANGUAGES.

English is the official language of the Congress. In the general meetings, and in the Sections, German, English and French may be employed. In the Sections any other language may be used, provided one of the members present supplies an immediate translation, of what is said into one of the languages officially recognized.

NATIONAL COMMITTEES.

The following is the list of National Committees so far constituted:

France

Germany

Greece

Spain

National Committees are being organized for Great Britain by Dr. E. W. Pavy, for Spain by Professor Julian Calleja, of Madrid; for the United States by Dr. J. H. Musser, of Philadelphia; for Australia by Dr. Cravelli, of Melbourne; for Argentina by Dr. Emilio Coni, of Buenos Ayres; and for Egypt by Dr. Hassan Mahmoud Pacha, of Cairo.

ASSOCIATION NOTICES.

THE COUNCIL OF THE ASSOCIATION.

In the list of Members published in the Supplement of May 14th, which included the names of members of the Council, the names of the following members were unfortunately omitted, namely: The Chairman, A. H. Trehl, C.B., M.D., D.C.L., Oxon., Mr. Edmund Owen, Professor R. Saundby, and Dr. J. Nicholls Thomson.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

Meetings of the Council will be held on Wednesday, May 25th, and October 26th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

Any candidate for election should forward his application [illegible] to be transmitted by the General Secretary of the Association, etc., Strand. Applications for membership should be sent to the General Secretary and have been therefore days prior to the date of a meeting of the Council.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—BATH AND THORNBURY DIVISIONS.—A meeting [illegible] will be held at the Royal United Hospital, Bath, on Monday, June 6th, at 4 p.m., for the purpose of appointing a representative to the Council, and to report the Annual Meeting. A. M. BEAUMONT, Bath, J. TOMS, Thornbury, Honorary Secretaries.

BIRMINGHAM BRANCH.—The Sixth Annual Meeting of this Branch will be held at the Medical Institute, Birmingham, on Thursday, June 9th, at 4 p.m. The Right Hon. President Professor Sir Clifford Allbutt, K.C.B., M.D., F.R.S., will be present. The Annual Dinner will be held at the Grand Hotel, Birmingham, at 7 for 7.30 p.m. T. J. MORRISON, F.R.C.S., 9, Great Charles Street, Birmingham, Honorary Secretary.

BORDER COUNTIES AND NORTH LANCASHIRE AND SOUTH WESTMORELAND BRANCHES.—Notice is hereby given that the Annual Meeting of the Council of the Border Counties Branch will be held at the Grand Hotel, Carlisle, on Wednesday, June 8th.—FRANCIS J. HOWE, 31, Warwick Road, Carlisle, Honorary Secretary, Border Counties Branch.

DUNDEE DISTRICT BRANCH.—This Branch will meet on Friday, June 3rd, to consider the business of the Representative Meeting, to meet the Representative and other officers, and other business. J. C. BRIS, and D. HALLEY, Dundee, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Ipswich, on Thursday, June 2nd. Members wishing to read papers or show cases should communicate with Dr. Gulch, Ipswich, as soon as possible. B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH SUFFOLK DIVISION.—The annual meeting of this Division will be held at the Crown and Anchor Hotel, Ipswich, on Thursday, June 2nd, at 4 p.m., for the business of Adoption of Annual Report, Election of officers of the Division, Election of Representative on Branch Council, Election of Executive Committee, Election of Branch Committee, Election of Representatives at Representative Meetings, Arrangements for the Executive Committee, to consider the business of the Annual Representative Meeting as published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 7th. To follow the Meeting there will be a Dinner at 7 for 7.30 p.m. JOHN GULCH, 2, Fonnereau Road, Ipswich, Honorary Secretary.

EAST ANGLIAN BRANCH: SOUTH AND WEST SUFFOLK DIVISION.—A joint meeting of these two Divisions will be held at the Crown and Anchor Hotel on Thursday, June 2nd, at 4 p.m., to elect the Joint Representatives of the two Divisions to the Representative Meeting of the Association. JOHN GULCH, 2, Fonnereau Road, Ipswich.

EAST YORK AND NORTH LINCOLN BRANCH.—The Annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the Annual Dinner the same evening.—E. M. HAINSWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH AND SOUTH EASTERN COUNTIES DIVISIONS.—The annual business meeting will be held in the Lodge, Alnwick, on Thursday, June 2nd, at 3 p.m. Business: (1) Election of officers; (2) Consideration of motion of which the Branch has given notice: "That the Division, having established Cottage Hospitals at Berwick, Kelso, and at Jedburgh, Duns, and at Hawick, the next meeting of the Branch be held in one of the towns where the above, and that it be held next year at Hawick." (3) Consideration of agenda of the Annual Representative Meeting to be held in Oxford in July next. The Representative of Edinburgh and South Eastern Counties under the Conjoint Scheme will be elected by the Members present at the Clinical Meeting to be held in the Cottage Hospital, Alnwick, on the afternoon of June 2nd.—W. HALE CALVERT, The Ladies, Melrose, Honorary Secretary.

ESSEX AND ESSEX AND HERTS EXTENSION.—The names of candidates for election [illegible] Committee [illegible] must be sent to [illegible], Walthamstow, E., on or before [illegible]. [illegible] will be elected in writing to all members of the Committee who are entitled to attend the Representative Meeting. Members [illegible] and A. LOCKE TURNER, Walthamstow.—Members [illegible] and A. LOCKE TURNER, Walthamstow, E., Lloyd's Surveyors, 2, The Exchange, Bishopsgate Street, E.C., Lloyd's Surveyors, 2, The Exchange, Bishopsgate Street, E.C., and ARTHUR GRAHAM, Sea View House, Leven, Secretary of the Fife [illegible].

GLAMORGAN AND WEST OF SCOTLAND BRANCH.—Nominations for the [illegible] Representative [illegible] Committee [illegible] should be sent to the Secretary [illegible] to be received not later than [illegible] June 1st. Voting papers will be issued to the Members of the Committee [illegible] June 4th, and must be returned [illegible] June 11th. Members [illegible] Meeting [illegible] Cardiff [illegible] June 15th.—[illegible] Wyndham Place, Cardiff, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: CHESTER AND CREWE DIVISIONS.—[illegible] Committee [illegible] Annual Meeting [illegible] Annual Dinner [illegible] Members [illegible] Meeting [illegible] Chester [illegible] Meeting [illegible] Chester [illegible] Meeting [illegible] Chester

...and proposed ... and consideration of the duties of matron to be ... Annual Representative Meeting.—J. H. TAYLOR ... Leeds New Road, ..., Honorary Secretary.

MALTA AND MEDITERRANEAN BRANCH.—The annual meeting of the Branch will be held at ... Valetta, on May ... 1 p.m. Agenda: ... Correspondence ... Ordinary business, ... election of officers and members of Council. ... Election of officers and members of Council. ... Annual Representative Meeting. ... Secretary would be glad to receive ... cases, specimens, ... M. ..., Valletta, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—The annual meeting ... will be held at the Hampstead Conservative ... Square, N.W., on Friday, June 3rd, at 8 p.m. Dr. F. J. Anderson will preside. Agenda: ... Members ... Election of officers, Committee, Vice-Chairman, ... Secretary. ... Reports of the Representatives on the Branch Council ... Report of the Executive Committee ... Election of Representatives to the Annual Representative Meetings ... Election of Members of Executive Committee ... Report of the Hampstead Division ... Motion to alter the date of the Annual Representative Meeting. Notices of Motion have been published in the BRITISH MEDICAL JOURNAL of April 2nd and 9th. Any other business. It is hoped that a ... Members will ... the JOURNAL and the Year Book ... GENERAL ... papers ... The Year Book does not ... Members ... resolutions, and ... of the Hampstead Division ... Members ... Annual Representative Meeting ... Members ... Hampstead Division ... Members ... Hampstead Division ... Members ... Hampstead Division

is perfects the most eminent authorities in the German world now Virchow and His have gone. He struck a terrific number of boring snakes his words the more valuable since there is not a single unnecessary syllable used. He teaches and taught his pupils to make their remarks into facts, saying only what is absolutely necessary, and relying only upon facts visible and demonstrable to all. His main work is the anatomy of the brain, which owes much to his classical studies of the cores of nerves and nervous tissue from the point of view of comparative zoology. President of the Anthropological Society, he has also been a great advocate of the International uniform terminology in medical works throughout the world. Professor Zuckerkandl is the very reverse of his countrymen. Quick wit, along with excellent observation and love of the humorous side of things make his lectures a brilliant series of ingenious remarks. He is the idol of the younger students, and has way of bringing home to them commercial facts in connexion with its practicalness. His best known works are *The Anatomy of the Senses of the Nose*, *The Histology of the Ear*, *The Histology of the Mucous Membranes of the Digestive Organs*, and the well-known *Anatomical Atlas*, which has been translated into several different languages.

The question of dealing with tuberculosis in Austria has been the subject of a brilliant gathering, where a number of professional men together with influential politicians and leaders of society, listened to an address delivered by Dr. L. w. He referred (1) to the critical need of Government supervision over the milk supply; (2) foundation of "homes" for diseased children on our warm seacoast; (3) regular examination of the school children by specially appointed qualified men; (4) reforms in the housing of the poor. A certain number of sanatoria for poor tuberculous patients have already been created by the principal towns in Austria but mostly on private initiative, and their annual reports show the benefit of such institutions to the general public.

For the last fourteen years it has been a legal obligation on all trades-unions to make arrangements for contract medical attendance and so many evils have resulted to medical men that resolutions condemning it are constantly being passed. The present pay is ridiculously low, a doctor receiving often not more than £100 a year, and for that sum having to treat all cases of sickness among three or four thousand members. Druggists' assistants, tailors, shoemakers, front-runners, labourers—in short every class of workers has a sort of "provident society" to which they are bound by law to belong, and they have the benefit of free professional advice, medicine, and sick pay of between 1s 6d. and 3s. Thus a great part of the population does not require the help of private practitioners, whilst those under contract are overworking themselves. The present Bill of Doctors [illegible] in what way the evil can be met.

MANCHESTER.

Lectures and Instruction in Cookery—Duty of Public Authorities—Science Lectures at Owens College—Supporting Convalescent Homes.

Many months ago the committee had arranged for the lectures on cookery, but Sir James Hoy, in moving the adoption of the Education Committee in the City Council, made the suggestion that a large part of the money could be better spent in the matter of provision of meals for children. It was believed the committee would have to face a large expenditure, but as it was necessary, but for the teaching of the necessary and necessary, for which the ratepayers would not object. There was nothing [illegible] which could be done in the schools, but it was hoped that the committee would be able to do something in the matter of the provision of meals for children. This is a question which [illegible] they voted the [illegible] Bill.

[illegible] coalition of [illegible] of the [illegible] This statement made recently by the Lord Mayor, in [illegible] "The mortality [illegible] Salford is [illegible] a [illegible] the children's [illegible] dealt with the [illegible] deaths in the warmer half of the year."

A short time ago Manchester through Roscoe felt itself in touch with Bunsen, of Heidelberg; on July 1st the association between Liebig, then of Giessen, and H. E. Schunck will become a tangible reality. The secret of coloration and colouring matters has hidden in the recesses of the lower organisms or leaky cells. It is the same story in vegetable and animal function. Dr. Schunck made his first investigations on the colouring matters obtained from certain lichens. Schunck's first paper dates back to 1841. From the indigo plant he isolated the glucoside, which he named indican. During his lifetime he made arrangements for carrying on the work that lay near his heart. He set aside money for the endowment of chemical research in Manchester, and bequeathed his laboratory and library to Owens College under certain conditions as to site. Conditions have been arranged between Dr. Schunck's executors and the College under which the whole "laboratory and library" are now about to find themselves transported and, phœnix-like, resuscitated on new ground, where they will prove accessible and fulfil in the highest degree and to the fullest extent the desire and lifelong wish of the generous and distinguished donor. It is a happy augury for their success that Dr. Perkin, senior F.R.S., one of the oldest friends of Dr. Schunck, has been asked and has consented to open the transported Schunck Laboratory.

The desirability of providing self-supporting convalescent homes for the working people of Greater Manchester was considered at a meeting held on May 19th, and a resolution was adopted approving such provision. A sum of £10,000 is required for the first home, and this it is proposed to raise by a bazaar. The contributions made to medical charities by the working classes in Manchester are greatly behind those collected in Leeds and Birmingham. In Birmingham last year the amount collected by the Hospital Saturday Fund was £18,603 and in Leeds £11,136, but in Manchester and Salford the "two cities" it was only £4,530.

HONG KONG.

Bubonic Plague During the First Seven Months of the Year 1903.

THE report of the Acting Medical Officer of Health on the epidemic of bubonic plague during the first seven months of 1903 has been published in the *Government Gazette* of March 5th. The period dealt with extends over seven months, namely, January to July inclusive. The following table shows number of cases, nationality, and sex:

Nationality	Sex	Per Cent.	Total.
Chinese	Male	[illegible]	[illegible] Chinese
	Female	[illegible]	
Europeans	Male	[illegible]	24 Europeans
	Female	[illegible]	
Indians	Male	[illegible]	41 Indians
	Female	[illegible]	
Portuguese	Male	[illegible]	2 Portuguese
	Female	[illegible]	
Japanese	Male	[illegible]	14 Japanese
	Female	[illegible]	
Others	Male	[illegible]	5 others
	Female	[illegible]	
			[illegible] total cases

The typhoon plague returned from the public mortuary are shown in the following table:

—	[illegible]	Sept.	Previously	Total
[illegible]	[illegible]	224	[illegible]	324
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]

From the first table it will be seen that the percentage of [illegible] females is still very high, being 33.8 per cent. of the total Chinese cases. Of children under 15 years of age 112 females and 153 males have been attacked, showing a very high figure for females.

The total number of known deaths has been 1,260, which gives a mortality rate of 88.4 per cent. If this be analysed with regard to sex it is seen that out of 922 male cases there were 792 deaths, giving a male mortality of 85.9 per cent.,

and out of 441 female cases there were 414 deaths, giving a female mortality of 93.8 per cent. The death-rate for this year is therefore the smallest since the outbreak of plague in 1894.

The following are the death-rates for each epidemic since 1894:

Death-rate per Cent.

1894.	1895.	1896.	1897.	1900.	1901.	1902.	1903.
92.7	89.5	[illegible]	97.1	98.5	98.2	97.5	88.4

The hospital death-rate is 60.6 per cent., which is also the lowest on record in the Colony. In a table Dr. Pearse shows that the highest death-rate was amongst Chinese females, and was 95.72 per cent.

The following table shows the number of cases which have occurred, grouped into different age-periods both for males and females, with the number of deaths, recoveries, and rate of mortality for each group:

Age and Sex Distribution of Plague.

Age Period.	Total Cases.	Per Cent.	Sex.	Cases.	Per Cent.	Deaths.	Recoveries.	Death-rates. Per cent.
Under 1 year	[illegible]	2.1	M.	12	4.4	12	Nil	100
			F.	17	5.8.6	17	Nil	100.0
1 year to 5 years ..	[illegible]	[illegible]	M.	[illegible]	[illegible]	51	Nil	100.0
			F.	41	44.5	38	3	92.6
5 years to 15 years ..	[illegible]	[illegible]	M.	92	[illegible]	89	5	94.5
			F.	104	53.0	104	Nil	100.0
15 years to 25 years ..	[illegible]	[illegible]	M.	221	70.7	170	51	76.9
			F.	[illegible]	29.3	81	11	88.0
25 years to 45 years ..	5[illegible]	38.80	M.	411	77.[illegible]	346	65	84.2
			F.	133	22.4	110	9	92.4
45 years to 65 years ..	[illegible]	[illegible]	M.	97	77.6	89	8	91.7
			F.	31	22.4	28	Nil	100.0
Over 65 years	5[illegible]	4.10	M.	30	83.[illegible]	30	Nil	100.0
			F.	[illegible]	4.4	24	2	92.3
Age unknown	[illegible]	[illegible]	M.	8	[illegible]	7	1	87.5
			F.	14	3.0	12	2	85.7
Total	1[illegible]	[illegible]	M.	922	67.6	792	130	85.9
			F.	441	32.4	414	27	93.8
						1,206	157	

The lowest figure is that for European females, in which class there were 5 cases but no deaths. The rate for European males and females is still the lowest (11.76). The Chinese community show not only the highest percentage mortality (93.25 per cent.) but also the highest figure for each sex, the male mortality being 91.9 per cent. and the female 95.7 per cent.

Four hundred and thirty-three bodies have been found in the streets or on the hillsides, no doubt having been placed there to avoid the disturbance caused by disinfection of the house in which a case is found. A great many houses, therefore, which ought to be disinfected escape this precaution, and of course the undoubtedly infected clothing and the personal effects of the dead person made use of straight away by other people may be a ready means of spreading the disease. The percentage of bodies found in the streets and hillsides for the past six years has been:

Year 1898.	Percentage of bodies found	23.1
,, 1899	,,	,,	4.[illegible]
,, 1900	,,	,,	2[illegible]
,, 1901	,,	,,	19.7
,, 1902	,,	,,	34.[illegible]
,, 1903	,,	,,	31.7

Dr. Pearse has shown by a special diagram that a definite relationship exists between rat plague and human plague.

Looked at closely it will be noticed that the first notable rise in the rat infection at the sixth and seventh weeks is accompanied by a sudden rise of human plague in the sixth week, followed by a sudden fall in seventh week. The next rise of note in the rat plague in the ninth and tenth weeks is accompanied by a continuous rise in human plague from the ninth to eleventh weeks, and again the rise in rat plague in the twelfth and thirteenth weeks is accompanied in the twelfth and thirteenth weeks by a high rise in the human plague curve and followed by a great rise in the fourteenth week. The fall in rat plague of the fourteenth and fifteenth weeks corresponds to a heavy drop in human plague during the fifteenth week. The sudden rise again in the sixteenth week of rat plague accompanies a corresponding rise in the human curve, but the sudden fall again in the rat curve for the seventeenth week is not answered by a fall in the human curve. It is interesting to note that whereas the rat plague curve continues to ascend, reaching its maximum at the twenty-fourth week, yet the human curve reaches its maximum in the twenty-first week, and after that, with the exception of a slight rise in the twenty-third week, very rapidly falls, so that by the twenty-sixth week the human curve is lower than it was in the thirteenth week, although the rat curve is nearly 50 per cent. higher than it was at the thirteenth week. From the behaviour of the curves at the rise of the epidemic one would have expected to see the human curve keep up with the continued high level of the rat curve during the twenty-third to twenty-sixth weeks inclusive, but the fact that this is not the case must not be ignored. The epidemic of plague amongst rats evidently follows very much the same curve as does the human epidemic, but it seems to begin earlier and to endure longer, as though there were some factor or factors in the shaping of the epidemic which affected the rats earlier, and of which the influence passed off later from these animals than in the case of human beings. It is highly probable that rats have been imported into the Colony, but the price paid has been the same throughout the year (5 cents per head). Although the figures for the percentages of rats infected with plague may not represent the numbers of such rats properly belonging to the city, yet it is probable that the general trend of the rat curve is correct.

During the height of the epidemic it was discovered that poultry were being found dead in the markets more frequently than usual, which on bacteriological examination were found to have died from plague. The district from which these fowls were obtained could not be definitely ascertained, but they were probably bred around Canton. Two cats sent from houses where human plague had occurred were returned as plague-infected.

The preventive measures taken with a view to check the course of the epidemic have been: (1) The disinfection of houses in which plague has occurred; (2) the closure, especially at the beginning of the epidemic, of various blocks of houses where the disease had broken out, until such time as the houses could be disinfected and rendered rat-proof; (3) rat-preventive measures. The Sanitary Board offered shelter to the people turned out of the blocks, but very few availed themselves of the offer.

This year 352 men were inoculated (between March 11th and June 19th) with Haffkine's prophylactic fluid. Five men who had been inoculated afterwards developed plague. One was a European inspector, 2 were engaged in rat-catching work, 1 was an artisan in the Board's employ, and 1 a disinfecting coolie. The 2 former died, while the 2 latter recovered. The European inspector recovered.

On April 18th a gentleman requested that his house might be cleansed because he had noticed rats dying there. This was done and the family all removed to another house, all being apparently in good health. On April 20th the gentleman's mother died of plague. On April 21st the house where she died was disinfected, as well as the house from which the family had removed. The family in the meanwhile removed to a third house. In this house a daughter of the family was taken ill on April 24th and died in Kennedy Town Hospital on the 27th. This third house was disinfected on the 28th. After disinfection the family reoccupied this house, but on May 3rd removed to a fourth house, when another daughter was taken ill with plague on May 5th, but had felt indisposed from May 3rd. From this fourth house on May 21st the gentleman himself (the son of the family) was admitted to hospital with plague. From inquiries it was found out that the first case in this household was that of an amah who, however, left the family on first feeling unwell, and died two days later in the house of her own friends on April 16th. When cleansing the original house of the family on April 19th a dead rat was found under the bed which had been occupied by the amah, and on again cleansing and disinfecting the house after the report that the mother was suffering from plague, three more rats were found dead. These rats were not proved to have died of plague on examination, but it is possible that they may have done so, and that decomposition prevented a positive diagnosis.

In every case the disinfection was as thorough as possible, the gentleman's clothes which he had on being even disin-

fected (other clothes having been lent him for the time). It seems probable that the source of case was found shortly by personal contact. The sixteen days elapsing between April 28th and May 14th are more than the generally accepted incubation period, but the fact that the daughter reported on May 11th had been in contact since May 3rd reduces the time elapsing between the two cases to nine days. The gentleman also was unwell for several days before he finally went to hospital on his own initiative to be examined.

CORRESPONDENCE.

THE GOVERNMENT LUNACY BILL.

In a disliked and very obnoxious perhaps pusillanimous, I am apt to shrink from private criticism. But certain letters and comments in the Journal (Medical Journal of May 21st on a Bill to amend the Lunacy Acts seem to me to call on further consideration, and to invite dissent. You may recollect, in the interest of early inspection, I was invited to read the Bill in proof. Certain points seemed to me doubtful or dangerous: "asylum life" was described as depressing; by it "patients trembling on the borderline of insanity may be" hardened and crystallised into permanent insanity: moreover, it might be "disastrous" to the chances of the law to assert itself against those who, for their own satisfaction actively or passively resist its working. Perhaps when these statements are put with less asperity, and are brought into harmony with many other important considerations, they may prove to have some truth and perspicuity in them. My excuse for troubling you in the matter is that my experience of the treatment of the insane is intimate and yet detached from all or any personal or official tie. Although I never had charge of an insane person, I know the inside of every asylum and "licensed house" in England; I have had little experience in mental disease, yet my attention has not been restricted to these maladies. So far, then, as my capacity goes, I should be able to look at the matter intelligently and impartially.

My first difficulty is to understand what is meant by a "borderline case," how to define it even in the rough practical way that one separates, let us suppose, insanity from sanity. For the phrase may mean an incipient case, or it may be applied to a patient who is perpetually a little crazy. For instance, a man almost from influenza complains for a few days of intense depression, the cause he is sane enough: yet in a few days more he is shot himself. Another young man suddenly devotes himself inordinately to prayer; and a few days later runs naked into the market to proclaim the Coming of Christ. For these expert readers I will forbear to [illegible] such cases [illegible] as blackberries, of [illegible], and usually could but yet wayward and [illegible] insanity. Are these borderline cases? If [illegible] on the other side of the border [illegible] delusion, remaining otherwise fairly sensible. Is this a borderline case so long as the delusion [illegible] but [illegible] when her friends [illegible] philanthropist. Another [illegible] the [illegible] but these people [illegible] drop [illegible] and, whenever [illegible] depressed recipient [illegible] the large proportion [illegible] at the [illegible] and the [illegible] and [illegible] and [illegible] and

"put away somewhere" where or how, no matter; their affair is with the substance not with the form.

The force of your criticisms, Sir, lies in this that the prevalent methods of treatment of insanity are not even yet individual enough. County asylums have too much of the barrack, retreats for the wealthy too much of the hotel. For the poorer we want the village system; for the richer a farther extension of the villa system which of late years has made much way. Public authorities have now powers to provide retreats for the wealthier insane. How great a work might they do if, instead of regarding insanity as a disease to come and go as incomprehensibly as sunshine and cloud, they would lay out for the patients villas and bungalows in a park about a central provision of all that science and art can conceive for the amelioration of their estate, all that skill and variety can adapt for each, all the means and conditions which correspond to particular frailties. If such resorts were legally invested with exceptional powers of control, exercised under the eye of justice and commissioner, no certification would be necessary; every case would be investigated officially on application, and the patient detained or dismissed on the merits. Moreover, many nervous maladies not mental, or but such in part only—such as hysteria, neurasthenia, chorea, insomnia, and so forth—would also be admitted to the advantages of electrical means, massage, hydrotherapeutics, music and the drama, arts and crafts, games and sports, and many other such influences: so that residence in such parks would not necessarily denote an attack of mental insanity itself. This is no impracticable notion; as things now are, the mere cost of such an establishment is incurred over and over again.

In conclusion, if we are satisfied that all organization of means for the cure of diseases of the mind are vain, we may return to consignments of patients upon whom has fallen the first shadow of the most appalling of bodily calamities to the neat homes, occasional bismuth mixtures, and friendly insignificance of us country doctors—though, for my part, I should feel very helpless in dealing with my charge; but if, on the other hand, we hope that, however painfully and imperfectly, invention and organization of mental, moral, and physical agencies for the cure of insanity are making some considerable advances, such obscurantist proposals must be either a counsel of despair or pills for an earthquake.—I am, etc.,

Cambridge, May [illegible] T. CLIFFORD ALLBUTT.

THE ASSOCIATION AND MEDICAL DEFENCE.

SIR,—Dr. Verdon-Roe's suggestion that non-members may join the medical defence scheme of the Association, on payment of 10s. per annum, is a sound one, although little sympathy need be felt for those who refuse to join an Association which is now actively endeavouring to defend the interests and honour of the medical profession. This extension of the privileges of the scheme at any rate removes one and the only forcible argument against it.

The amalgamation of existing defence unions and the cessation of the present undignified competition between them are urgent needs, and if the officials of the Medical Defence Union succeed in wrecking the present attempt at amalgamation under the aegis of the Association, it is their obvious duty to use their best endeavours in the immediate future to join hands with the other defence societies, and to put an end for ever to the unseemly bickerings which have marked the past relations of the two leading societies.

Although in the past the Medical Defence Union has rendered good service in the promotion of union among us, it is now doing us great disservice by sowing dissension and by opposing amalgamation.

If we listen to officialdom, and are so foolish as to persist in maintaining several societies, with councils, secretaries, offices and other costly appendages, to do the work of one, we shall deserve the taunt so often levelled at us that in business matters we are but as little children. On those who think for themselves, and who assess at their proper value the arguments of officialdom, I urge the acceptance of the present medical defence scheme, not because it is perfect or because it fulfils all our requirements—for in my opinion it is incomplete—but because it is a fair workable compromise, and because it is a first instalment and "an earnest of a further good." Let us for once combine and get the scheme through. There will be plenty of time after for improving, altering, and amending it.—I am, etc.,

Hemel Hempstead, May 23rd. A. G. WELSFORD.

SIR,—At the meeting of the Wandsworth Division on May 12th, when this subject specially came under discussion, it was argued by Sir Victor Horsley that the superior financial position of the British Medical Association, as compared with the medical defence societies, must necessarily make medical defence by the former preferable to the present system. Demurring to this, I contended that it had not been shown that the amount available for medical defence out of the Association funds was greater than the income of the two defence societies. Sir Victor Horsley at a later stage said that my objection was an "obvious truism," and that I had entirely misunderstood his argument. I fear I am still in the same predicament. He continued, "that he was only quoting the turnover of the Association to show that a body with a large financial income and expenditure was a stronger body than one with a smaller income and expenditure." I must confess I fail to grasp the argument.

If the expenditure in the two cases were for the same objects, no doubt a comparison might be drawn: but where they are in no way comparable, it seems to me that the turnover of the larger Association is nothing to the point. If there is an underlying assumption that the British Medical Association is going to obtain in addition to its ordinary turnover a special income for medical defence equal to that of the existing defence societies, then it might fairly be argued that medical defence under the auspices of the former would rest on a firmer basis. But that is assuming that the proposed scheme must be successful, a very big assumption.

If the Medical Defence Union and London and Counties Medical Protection Society persist in continuing their corporate existence, I do not think any scheme instituted by the British Medical Association involving an extra subscription from members would be likely to succeed. Even if the London and Counties Medical Protection Society were willing to wind up—which I doubt—the result would be, in my opinion, more in favour of the Medical Defence Union than the British Medical Association, that is, more of its old members would join the former than the latter.

There is also one other point. Medical defence is essential to the welfare of the whole profession. The British Medical Association, although no doubt by far the largest professional body, cannot fairly be said to be identical with the profession. Is it desirable—nay, is it right—that every medical man should be compelled to join the Association to obtain the advantage of medical defence?—I am, etc.,

London, N.E., May 21st. MAJOR GREENWOOD.

APPENDICITIS AND OVARIAN CYST.

SIR,—The interesting case mentioned in the BRITISH MEDICAL JOURNAL by Mr. T. D. Ransford, F.R.C.S., to-day, entitled Case of Appendicitis complicated by the presence of an Ovarian Cyst, may make one wonder whether the diagnosis of trouble in an appendix from trouble in an ovary is quite as easy a matter as one is almost led to believe in the present day.

Some years ago I had a patient, a lady, who for a long time had suffered from frequent attacks of pain in the right iliac region, which had been diagnosed by an eminent obstetric surgeon as an ovaritis; she eventually died from suppurative peritonitis from a ruptured appendix!

Once I was removing a large ovarian cyst when I found attached to it, by firm adhesions, a large and long appendix, which I removed at the same time. This possibly may have accounted for the right iliac pain suffered from previously.

About two years ago I was removing an appendix in a woman who, from the history given, frequent attacks of pain, and a high temperature, had suffered from several attacks of appendicitis. On opening the abdomen, not thinking that the appearance of the appendix sufficiently accounted for her symptoms, I felt into the pelvis, and found a small ovarian cyst about the size of a walnut, and this I removed at the same time. It always seemed to my mind that this woman's symptoms may have been as much due to the small cyst as to the trouble in the appendix.—I am, etc.,

York, May 7th. W. H. JALLAND.

"TESTING THE EYESIGHT OF A NATION."

SIR,—I cannot permit Mr. Aitchison's letter in the BRITISH MEDICAL JOURNAL of May 14th to go unchallenged.

Is Mr. James Aitchison the person who has half a dozen shops in various parts of London? If so I would ask how can he guarantee to the public anything approaching personal superintendence?

Next, as a complaint against the whole class of prescribing opticians, I beg to state that in most instances in which a

patient has applied to me for advice as to simple errors of refraction, having previously gone to some prescribing optician. I have found that the charge made by the shopkeeper for the glasses has been more than my fee plus the charges of a firm like Curry and Paxton (who do not prescribe glasses) for the glasses they supply. When once a patient realizes this fact, and that there is no guarantee that the testing was done by a qualified man, his feelings towards the shopkeeper undergo a considerable change.

Where, as is often the case, the refractive trouble is simply presbyopia, these enhanced prices for rule of thumb prescriptions are downright robbery. In cases of astigmatism, on the other hand, inasmuch as thyroid enlargement, cardiac disease, and other troubles so often underlie the error of refraction, the routine prescription of spectacles is an offence against the patient, even if the prescribing shopkeepers have done the work accurately, which is often and often not the case. Progressive myopia even less fit for such treatment, demanding as it does the most careful consideration of the general health.

To sum up: Of all medical impositions on the public that of the shopkeeper dealing with glasses is probably the most pernicious. A few bottles of some quack remedy do little harm, but a few months of improper or incomplete treatment of eye troubles may mean, and do mean, in many cases, irreparable disaster.—I am, etc.,

London, E.C., May 14th. A. OLIVER WARD, M.D.

CONGENITAL HOUR-GLASS STOMACH, ETC.

SIR,—I have read with considerable interest the paper by Mr. W. F. Brook upon this subject in the BRITISH MEDICAL JOURNAL of May 7th. The case which Mr Brook relates undoubtedly furnishes strong evidence of the existence of this deformity as a congenital condition. In none of the cases whose records I have read is the likelihood of the congenital origin of the deformity so apparent as in this. There are several points, however, upon which further information would have been desirable, the relative thickness of the walls in the two cavities, for example, and the condition of the mucous membrane in each. In spite of the naked-eye appearance it is possible that ulceration had been present and had caused the constriction. After carefully considering the case I am inclined to agree with Mr. Brook that the condition was congenital. Dr. Batten has recently told me that there is a specimen in the museum of the Children's Hospital in Great Ormond Street showing an hour-glass stomach in a child. I have not yet had an opportunity of seeing the specimen, but it seems more than likely that it affords positive proof of the congenital origin of the deformity in some cases. In the paper to which Mr. Brook makes such kind reference I remarked that there was no inherent improbability in the congenital origin of the condition, but that no specimen and no record of which I had knowledge furnished any conclusive evidence upon the point. In my own [illegible] undoubted fact that in the very great majority of instances the deformity is acquired, and is the result of chronic ulceration or of malignant disease.

In Mr. Gilbert Barling's paper upon gastro-jejunostomy there are several points which call for comment. The method of anastomosis used by Mr. Barling is almost precisely the same as that which I have described in papers before the Clinical Society and elsewhere, and in my judgement it is without doubt the best of all methods. In my early cases I used the Murphy button and Laplace forceps, but I entirely agree that these or all other mechanical appliances have any advantage when compared with the [illegible] With the [illegible] there is nothing to [illegible] in the method, provided the [illegible] In studying the after-results in the [illegible] I have described, it is essential that all the cases should be [illegible] The second after-result of the operation is [illegible] that the [illegible] is not the only one [illegible] that it is [illegible] I [illegible] to draw right across the [illegible] the vessels at the [illegible] it is [illegible] necessary to ligature any vessel, though [illegible] is often interrupted at one [illegible] to avoid. The method of [illegible] described in the paper I had mentioned, so I feel very similar to that practised by Professor Hartmann in Paris. I had recently the opportunity of seeing him perform a gastro-enterostomy for simple stenosis of the pylorus, and I find that his method and mine are in principle very much the same. In both there is an inner haemostatic suture and an outer supporting suture. The difference is that I make each stitch continuous throughout, whereas Professor Hartmann has several points of fixation.

I do not quite agree with Mr. Barling as to the point on the jejunum which should be chosen for the anastomosis. Five or seven inches from the flexure seems to me to be quite low enough. The jejunum from the flexure to the anastomosis should form a straight line, not a loop. The loop is probably the chief cause of regurgitant vomiting, as it induces the formation of a kink at the new opening. The jejunum should be pulled tightly from the flexure, and the point which reaches the lowest part of the greater curvature chosen for the position of the new opening. If this is done, regurgitant vomiting does not occur. In 142 cases of gastro-enterostomy for simple diseases I have had 2 cases of regurgitant vomiting, and in each a loop was, I think, the cause. In my last 90 cases I have performed the operation as I have described, and no regurgitant vomiting has been seen. Patients after gastro-enterostomy indeed vomit less than any other patients upon whom abdominal operations have been performed. Regurgitant vomiting is a thing of the past. The fact that Mr. Barling selects so low a point on the jejunum would seem to me to account for the frequent reference he makes to regurgitant vomiting. It is certainly not the fact that the suture method is "more apt to be followed by regurgitant vomiting." The fault is not in the suture line, but in the selection of the wrong place for the anastomosis. A point about 4 to 6 or even 7 in. from the flexure upon the jejunum and the lowest part of the greater curvature of the stomach should be united, and I have found it an advantage to make the opening oblique.—I am, etc.,

Leeds, May 21st. B. G. A. MOYNIHAN.

THE OLIVER-SHARPEY LECTURE.

SIR, In my address to the Royal College of Physicians on March 28th I inadvertently spoke of Dr. George Oliver, who recently founded and endowed the Oliver-Sharpey Lectureship at the College, as formerly of Harrogate—an expression which may, I am afraid, lead the Fellows of the College and others who may see my address to conclude that Dr. Oliver has left Harrogate. He informs me that he has no intention of leaving, and that he will in the future, as during the last fifteen years, reside and practise as a consulting physician in Harrogate during the summer months from June to October. Regretting the mistake I made and the annoyance I fear it has occasioned to our benefactor.—I am, etc.,

Bellerd, Northumberland, May 24th. W. S. CHURCH.

X RAYS IN THE DIAGNOSIS OF PULMONARY TUBERCULOSIS.

SIR,—In your report of the last meeting of the Clinical Society, in the discussion on Dr. Stanley Green and Mr. Brooks's paper on X Rays in the Diagnosis of Pulmonary Tuberculosis, I am represented as saying "that microscopical cavities could always be diagnosed by auscultation," which is the very opposite of my meaning. I intended to convey that auscultation, when properly applied, ought to detect all cavities except (1) microscopical ones, and (2) those where, for some reason or other, the bronchus was blocked. I also dwelt on making the patient cough before auscultating cavities.—I am, etc.,

London, S.W., May 21st. C. THEODORE WILLIAMS.

PUERPERAL SEPSIS.

SIR,—I was greatly interested in the letter on this subject in the BRITISH MEDICAL JOURNAL of April 30th, as there is nothing which causes more worry to the general practitioner than cases of septicaemia after confinement. I think the number of cases can be greatly minimized if attention is paid to the following two points, as my experience and observation convince me that one of the two factors can always be found in cases of puerperal sepsis. The first is that there is some tear of the perineum which, of course, may be of the slightest, and not requiring any stitching, but which, if overlooked, as the cause of septic matter being absorbed, giving rise to temperature, etc. This source can be prevented if the parts are kept thoroughly cleansed and a little boracic acid dusted on

daily. The other source is retention of some of the secundines, and no matter how careful one may be in expressing the placenta, sometimes a portion of membrane may be cut off, and to prevent this I advocate, in every case where there is the slightest suspicion of a portion of the membrane being retained, exploring the uterine cavity to make sure. I know many medical men object to this procedure as being dangerous and possibly a source of infection, but I think with due antiseptic precautions there need be no fear, and I venture to say that if these two points are carefully looked after in cases of confinement the cases of puerperal sepsis will be considerably diminished.—I am, etc.,

Mountain Ash, May 7th. ARTHUR T. JONES.

OBITUARY.

ETIENNE JULES MAREY,

Paris.

Professor in the Collège de France and Member of the Institut.

WE have to deplore the death of the distinguished occupant of the Chair of "Histoire Naturelle des Corps Organisés," Professor of the Collège de France and Member of the Institute—Etienne Jules Marey, which took place at Paris on May 16th. Like many who brought lustre to the Collège of François I. by their works, investigations, and discoveries—to mention only recent names associated in the great discoveries in biological science, Magendie, Bernard, and Ranvier—Marey was born in the Sunny South in the wine district of Beaune, in the Department of the Côte d'Or, on March 5th, 1830, just two years before the death of the illustrious Cuvier, and one before Magendie was nominated Professor in the Collège de France, as successor to Laennec.

So well known are some of Marey's investigations, and so familiar are their applications in practical medicine, that it seems almost unnecessary to narrate them. It is just because the name of Marey is so intimately associated with physiological research and with discovery that it is well to recall the results of his labours, and to point to his life of strenuous endeavour and successful achievement as a beacon light to illumine the path of the younger generation, and encouragement to go on in well-doing and diligent devotion to research. Marey pursued his medical and scientific studies in Paris. After a brilliant career he gained the bronze medals awarded by the hospitals in 1854 and again in 1858. During his residence as *interne* in various hospitals in Paris he directed his attention more particularly to the study of the functions and diseases of the circulatory system, so that on graduating in 1859 he presented a thesis entitled *Recherches sur la Circulation du Sang à l'Etat Physiologique et dans les Maladies.* The copy of the thesis now lying before the writer of this article is the one presented by the author to "Claude Bernard de l'Institut." Marey dedicated his thesis to his father, mother and friends, to Velpeau, Trousseau, Civiale, Milne-Edwards, Ricord, Malgaigne, Maisonneuve, Nélaton, and others. These names mark a great period in the history of medicine in the Parisian capital; it was also the period of Cruveilhier in pathological anatomy and of Piorry in clinical medicine. The thesis itself is divided into two parts, one dealing with the elasticity of the arterial wall, the other with vascular contractility, and these two properties of the vessels along with the beat of the heart were held to explain the movement of the blood in the vessels. Some of the diagrams, experiments, and schemata frequently repeated in his later works are to be found here. In fact, the study of motion and movement in every form and modification was the life-work of Marey, and the phenomena connected with the circulation of the blood remained throughout life a subject of enduring interest, always studied from the mechanical point of view and its phenomena explained by ascertained physical laws. Precision with regard to all these processes, both as regards form and time, was the dominant note of Marey's work.

After visiting Germany and making the acquaintance of Ludwig in Leipzig, Marey returned to France. In 1860 he invented his well-known sphygmograph.[1] Marey was not the first, however, to invent a "pulse writer." Vierordt of Tübingen in 1851 invented a rather clumsy form of this instrument, quite useless for the clinician. Marey used a light lever which was kept pressed on the artery by means of a spring. Breguet, the famous mechanician in Paris, made a clockwork arrangement to move the recording surface, and practically the handy sphygmograph as he knew it for clinical and other purposes was complete. In 1862 Marey gave a public course on the experimental physiology of the circulation and diagnosis of diseases of the heart and blood vessels. In 1864 he fitted up a small private laboratory where he carried on his researches chiefly on the circulation.

In 1867 Marey was appointed to the chair of "Histoire Naturelle des Corps Organisés," the chair of Cuvier and Duvernoy in the Collège de France, as successor to Flourens, who had died in the previous year, but who had ceased to lecture for many years previously—indeed, since 1848. The whole aspect of the subject of the chair changed under Marey. Flourens, although his name is associated with researches on bone and on the effects of removal of the brain, was also Perpetual Secretary of the Institut, was essentially a historian. His history of the circulation of the blood is well known, and so is his work on longevity and the discovery of the so-called "noeud vital." Marey, indeed, in 1868, in his first lecture on *Du Mouvement dans les Fonctions de la Vie*, specially points out that Flourens in his discourses had passed in review the life works of the "Naturalists" of the sixteenth, seventeenth, eighteenth, and nineteenth centuries. Marey proposed another course. The titles of Marey's works indicate the scope of his labours:—*Physiologie Médicale de la Circulation du Sang, basée sur l'Etude Graphique des Mouvements du Coeur et du Pouls Artériel* (1863); *Etudes Graphiques des Battements du Coeur et des Mouvements Respiratoirs* (1865); *La Machine Animale* (1874), translated into English under the title *Animal Mechanism: A Treatise on Terrestrial and Aërial Locomotion* (1874), *La Méthode Graphique principalement en Physiologie et en Médecine* (1878). The second edition in 1885 had this addition amongst others—*Sur le Développement de la Méthode Graphique par la Photographie. La Circulation du Sang a l'Etat Physiologique et dans les Maladies* (1881). In 1876 there appeared the first of four volumes, *Physiologie Expérimentale*, being reports of some of the work done in Marey's laboratory. Only four volumes appeared and the series closed in 1880. Marey along with Chauveau, d'Arsonval and Gariel was one of the directors of the recent *Traité de Physique Biologique*, to which he contributed the article on Animal Locomotion. To grasp fully the significance of Marey's work one must cast a glance at the times. Ludwig was born in 1816, Bernard, Donders and du Bois-Reymond in 1818, Brücke in 1819, Helmholtz in 1821, Pasteur in 1822, Chauveau in 1827, Fick in 1829, Marey himself in 1830. Of all these great men the veteran Chauveau, the co-worker and friend of Marey, alone survives. Already before Marey's first publication the basis of the graphic method had been laid and the method itself applied to the study of physiological problems by the German school of physiologists. Ludwig invented the kymograph in 1847, and recorded the blood-pressure with its cardiac and respiratory variations. Helmholtz in 1850 invented a simple form of myograph by means of which he recorded a muscle curve and determined its extent, duration, and time relations, and by the same means he measured the velocity of the excitatory change propagated along a motor nerve of a frog—a problem which his master Johannes Müller only shortly before declared to be incapable of solution. Du Bois-Reymond had for years been studying the electro-physical phenomena of living tissues and was busy with his "Frosch-strom," while in 1862 Fick in Zurich had invented his pendulum myograph. These and the work of E. H. Weber are the chief investigations cognate to the work of Marey. In his preface to his work on movement Marey justly claimed that he had introduced into France the graphic method as applied to biology. But Marey did more: he did much to extend its domain, and above all by the invention of mechanical appliances he enormously increased the armamentarium of the physiologist and also of the clinician. By using light recording levers, and by the application of various forms of tambours, receiving and recording, whereby movements could be transmitted by air pressure in tubes to any distance, and by applying, along with Chauveau, balloons containing air in inaccessible regions—for example, the cavities of the heart, the movements of organs both invisible and inaccessible by ordinary means, were accurately recorded. The most striking example of this is the cardiographic records of the classical experiments made by Marey and Chauveau in 1863 on the heart of a horse when Chauveau was Professor in the Veterinary College in Lyons. Chauveau gave a demonstration of this classical experi-

[1] *Recherches sur le Pouls ou Moyen Appareil Enregistreur: Le Sphygmographe*, 1860.

meet at the Ilème meeting of the Physiological Congress six years ago. The original tracings were shown at the International Exhibition in Paris in 1900. It was but a step from the study of the phenomena of the circulation and respiration by means of sphygmographs, cardiographs, and stethographs, to the study of muscular phenomena. With the aid of scientific and yet eminently practical mechanical ingenuity new forms of recording apparatus were devised, so that the duration, form and extent of any movement could be accurately recorded and measured in all their relations. The recording drums of Marey are known and used everywhere. He adapted the regulator of Foucault to vary the speed; the speed itself was measured by electrical time-recorders or electric signals, of which Marey invented several varieties, all based on the vibrating tuning fork first used for this purpose by Thomas Young. Then followed the researches on the movements of man and animals on land, in water, and in air. To his aid Marey summoned the photographic camera with magazine plates, so as to take a series of instantaneous photographs which could be combined to represent the actual movements. In his later years the City of Paris erected a laboratory for Marey just outside the fortifications, where the movements of man, horses, and other animals could be studied. In the *Travaux du Laboratoire* of 1876 we find Marey's important researches on the electrical phenomena of the torpedo, and also in 1875 under the title *Du Mouvement dans les Fonctions de la Vie* the account of what is known as the "refractory period" of the heart during systole; thus, during systole the excitability of the heart is greatly lowered, and it does not respond to stimuli that are adequate during the phase of relaxation or during the pause. The interesting existence of this phenomenon is obvious, and involves the conclusion that the heart cannot be tetanized as is the case with a skeletal muscle. This work was the complement to the researches of Bowditch made in Ludwig's laboratory on adequate and inadequate stimuli applied to the frog's heart, and to the further discovery the phenomena of the "staircase" or "treppe" of the heart. In the same year (1876) he published his important memoir "On the Means of Studying the Motor Work of Man and Animals," in which he showed the important part played by elasticity in storing the expenditure of energy as in traction, and other processes. Indeed, the value of elasticity in saving energy is a subject that early attracted his attention and there are several most useful models and schemata invented by him by which this fact can be readily demonstrated to students. He made a profound study of the rate of propagation of waves in tubes filled with fluids as a basis for the study of the pulse waves. Amongst Marey's pupils are to be mentioned Franck in France, who for many years acted as Marey's assistant at the Collège de France, and delivered lectures on Hughes; Tarchanoff and Mendelssohn in St Petersburg, who researches on the flight of birds are known generally, the Lehmanns at Bonn, Bernard at the Collège de France, and Salathé who studied specially the cerebral circulation.

In the latter years of Marey's health was indifferent, and more serious illness subsequently left its mark. Latterly [illegible] the years and through [illegible] at Meudon, [illegible] and management of the [illegible] were [illegible] and Paris. He [illegible] to the chair in the [illegible] death as [illegible]. Only a year previously [illegible] with an address, and in his honour a medallion [illegible] quality a plaque designed by [illegible]

and endeavour to fill in the gaps or lacunae which his science presents: "Il doit avouer ses vrais maîtres ceux qui font avancer." In the highest regard Marey, like Pasteur, fulfilled this idea of the generous founder of this unique institution.

Marey possessed a charming personality, modest and unassuming, but endowed withal with a gracious, stately, and unfailing courtesy. He was gifted with a ready power of utterance, his thoughts were always expressed in graceful and choice language, and with a precision that left no doubt as to his meaning. He did much work in connexion with the Academy of Sciences, in whose business he ever took an active part. Marey remained unmarried, travelled a good deal, and was a welcome guest on the occasions of his all too rare visits to our shores. Like many of his countrymen, he dreaded the *mal de mer* and all its attendant evils, and for him unpleasant consequences. It may be said of him, as Bernard said of Magendie, that he was "l'une des gloires de la médecine et de la physiologie française. To know his work was to respect and honour the man; to know the man was to love him. Used in a physical sense "equity to the line, and justice to the plumb-line" might serve as the motto to be written large over the works of Etienne Jules Marey.

We are indebted to Sir Lauder Brunton for the following personal note:—

The death of Professor E. J. Marey will be felt by many as a personal sorrow. For he had the faculty of endearing himself to all who knew him by his modesty, courtesy, and kindness, at the same time that he compelled their admiration by the greatness of his talents. I first made his acquaintance in 1867, four years after the publication of his epoch-making work, *Physiologie Médicale de la Circulation*. He had then his laboratory in an attic in the Rue de l'Ancienne Comédie, and there had an old mechanician at work making various instruments for examining the circulation. Although I was little more than a student, he received me with a kindness which won my heart, and as years went on I only learned the better to know how kind he was. To Marey clinical medicine owes an immense debt of gratitude, for he introduced self-recording instruments to the bedside. Vierordt had invented a sphygmograph several years before Marey, but it only recorded on a large cylinder, and its use was consequently confined to the laboratory, while by attaching a small clockwork to his instrument Marey rendered it available everywhere. Marey's investigations into the movements of the limbs in animals and man, and of the wings in birds and insects, are of the greatest possible interest and value as physiological studies. But it is by his work in the circulation that he is known best, and deserves best of the medical profession. Perhaps a hundred years hence, when the facts he discovered have become so much a part of general knowledge that it will be forgotten who discovered them, he will be best remembered as the inventor of the method of registering movements by pneumatic transmission, and the introducer of recording instruments at the bedside. For his method I owe myself a deep debt of gratitude, for it was by means of Marey's haemodynamometers that I examined the action of digitalis on blood pressure, and by one of Marey's sphygmographs, kept to me by my friend Professor Arthur Gamgee, that I was able to ascertain the action of nitrous ethers on the circulation, and to show that amyl for its relief.

P. J. HAYES, M.D., [illegible], Dublin.

We have to record with regret the death of Mr. P. J. Hayes of Dublin, who until a year ago was in the active practice of his profession, qualified in surgery a Licentiate of the Royal College of Surgeons in Ireland by examination in 1874, and of the Royal College of Surgeons of Edinburgh. In that year he was elected surgeon to the Mater Misericordiae Hospital and retained that until his recent retirement from practice through ill-health. He held various appointments, the most important being that of Professor of Surgery in the Catholic University Medical School. This position brought him within the unpleasant contest between the Royal University and that body, and he was made a Fellow and Examiner in Surgery. Mr. Hayes was a most retiring man, but he was an enthusiastic and most competent surgeon, and his work in the Mater Hospital was of a high class. Not being a Fellow of the Irish Colleges, he never reached the presidential chair, a honour which has fallen at such

regret to his friends. His kindliness was proverbial. A [illegible] of years ago he showed symptoms of nephritis, and a severe attack of [illegible] but he rallied after some time. The disease, however, continued its progress, and ended in his death, to the great regret of a large circle of patients and friends.

ROBERTS BARTHOLOW, M.D., LL.D.,

We regret to announce the death of Dr. Roberts Bartholow, late Professor of Materia Medica and Therapeutics in the Jefferson Medical College of Philadelphia, and recognized throughout the medical world as an authority in therapeutics. He was born in Maryland in 1831, and, after graduating in arts at Cokesbury College, he studied medicine in the University of Maryland, taking his doctor's degree in 1852. He joined the medical staff of the United States army in 1856, and after serving for eight years accepted the professorship of the practice of medicine in the Medical College of Ohio at Cincinnati. In 1874 he migrated to Philadelphia and was appointed to the Chair of Materia Medica and Therapeutics in the Jefferson Medical College. Dr. Bartholow was the author of *A Practical Treatise on Materia Medica and Therapeutics* and of a treatise on *Diseases of the Heart*, both of which were very successful and brought him wide reputation. The former of these works is now in its eleventh edition, while the latter has been translated into Japanese. He was also the author of lectures on the *Antagonism between Medicines and between Remedies and Diseases* delivered in New York in 1880, of a treatise on hypodermic medication, etc.

DR. GEORGE KARAMITSAS, Professor of Medicine in the University of Athens, died on May 2nd. He was born at Mitylene, in the island of Lesbos, in 1832, and studied at the University of Athens. After completing his studies he proceeded to Würzburg where he graduated in 1858. In 1870 he qualified as Lecturer in Pathological Anatomy, and in 1875 he was appointed Professor of Neurology and soon afterwards head of the Municipal Hospital of Athens. In 1883 he was appointed head of the Medical Clinic of the University. He founded a medical journal entitled *Asklepios*. He translated Niemeyer's treatise on *Special Pathology and Therapeutics* into Greek, and was the author of a number of original works on malaria, blackwater fever, and leprosy.

WE regret to have to record the death of DR. GILLES DE LA TOURETTE, which occurred a day or two ago at Lausanne. About four years ago he was disabled by a stroke of apoplexy brought on, it was considered, by overwork. He has since lived in the greatest retirement, but has succumbed to a further haemorrhage. He was a pupil and friend of the Paris Faculty, and a hospital physician. He was a favourite pupil of Charcot, whom he assisted for many years at the Salpêtrière. He had won for himself a high reputation as a neurologist, and was the author of many valuable contributions to medical literature and the author of the superb *Iconographie Photographique de la Salpêtrière*.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Camille Miot, of Paris, one of the pioneers of otology in France and author of numerous writings on subjects pertaining to that department of medical practice; also Dr. W. F. Holbrook, sometime Professor of Ophthalmology and Otology in the University of New York; Dr. A. B. Arnold, formerly Professor of Medicine and Neurology at Baltimore; Dr. Francis Jousset, Professor of Anatomy in the Medical School of Nantes; and Dr. C. Russel, Emeritus Professor of Physiology in the University of Manchester.

A CORRECTION.—Fleet Surgeon C. Marsh Beadnell, R.N., writes to point out some errors in a notice appearing in the BRITISH MEDICAL JOURNAL of May 21st, p. 1226, relative to his promotion. (1) He entered the navy medical service on May 13th, 1890, not 1891. (2) He was correctly promoted to staff surgeon on May 2nd, 1900. (3) His staff surgeon's commission on May 2nd, 1900, was antedated in 1903 to May 2nd, 1896. (4) By a special Order in Council the antedated staff surgeon's commission was altered from May 2nd, 1896, to May 13th, 1896, the date of his entry into the service. It was said he could not have his commission dated on a date prior to his entry into the service. (5) He was promoted to fleet surgeon on May 13th, 1904.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon JOHN [illegible] is placed on the Retired List May 14th. He was appointed Surgeon, Fleet Surgeon, [illegible] and Fleet Surgeon, February 11th, [illegible].

Fleet Surgeon HENRY HARRIS [illegible] is placed on the Retired List at his own request, May 21st. He entered as Surgeon [illegible], 1884, and was made Fleet Surgeon, February [illegible]. He served with the Naval Brigade in the expedition against the Soudan in 1885, in Egypt, 1891, was the Senior Medical Officer of the [illegible] during the night attack on [illegible] and was mentioned in despatches for his treatment of the wounded [illegible]. He received the Egyptian medal and bar.

The following appointments have been made at the Admiralty: JAMES D. C. MILNE, Surgeon, to H.M.S. Hospital Ship *Maine*, May [illegible]; HUGH W. MACNAMARA, Fleet Surgeon, to the Royal Naval Hospital, Chatham, May [illegible]; ARTHUR W. VASEY, Fleet Surgeon, to the Royal Naval Hospital, Haslar, May [illegible]; EDWARD C. CALLAND, M.B., Staff Surgeon, to the *Duke of York*, May 19th; WALTER J. BEALL, Staff Surgeon, to the Admiralty, May [illegible]; HUGH L. NORRIS, Surgeon, to H.M.S. Hospital Ship *Maine*; HENRY WOODS, M.B., Surgeon, to the Royal Naval Hospital, Haslar, May [illegible].

ARCHIBALD J. PENELLATORE-SMITH, L.R.C.P., practitioner, has been appointed Surgeon and Agent at Lhe, May 14th.

ROYAL NAVAL VOLUNTEER RESERVE.

ROBERT M. LITTLE, F.R.C.S., has been appointed Surgeon, and attached to the Mersey Division, May [illegible].

Honorary Surgeon C. O. B. HARDING to be Honorary Staff Surgeon, and attached to the Thames Division, May [illegible].

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The [illegible] Principal Medical Officer, Allahabad and Nerbudda Districts, Bengal Command, to officiate as Principal Medical Officer, Bengal, with the temporary rank of Surgeon-General, from March [illegible].

Lieutenant-Colonel T. B. MOFFITT is granted the temporary rank of Colonel while officiating as Principal Medical Officer, Allahabad and Nerbudda Districts.

Lieutenant N. E. DUNKERTON, from the Seconded List, to be Lieutenant, May 2nd.

Lieutenant-Colonel W. KEAST has been selected for the appointment of Principal Medical Officer, Third Division, First Army Corps, vice Lieutenant-Colonel H. C. Kirkpatrick.

Lieutenant-Colonel W. L. LANE, M.B., whose retirement was announced in the BRITISH MEDICAL JOURNAL of May 14th, holds the Queen's medal for service in South Africa, with three clasps.

INDIAN MEDICAL SERVICE.

GOVERNMENT RESTRICTIONS ON MEDICAL FEES.

THE following extraordinary order has just been issued by the Government of India:

The Governor-General in Council is pleased to direct that the following shall be substituted for paragraphs [illegible] of the Home Department Notification No. 437, dated July 25th, 1893, amended by the Home Department Notification No. [illegible], dated [illegible], regarding the rewards to be granted to medical officers for [illegible] and have granted on certain prescribed scale. The name of no person may be [illegible] the [illegible] regarding [illegible] as he is [illegible] and [illegible] the medical officer in charge of the [illegible] or the Government [illegible] to the [illegible] of the [illegible] of the Government [illegible] to the [illegible] of the [illegible] of the [illegible] of

The absurdly low fee allowed to be paid by a native chief with a huge income, of £3 6s. 8d. for a single visit, however many hundred miles the doctor may have travelled, except by special sanction of the local government (which means an officer of the Indian Civil Service, the notorious jealousy of which is well known to the cause of these absurd rules) is sufficient to reveal the spirit in which the rules have been framed. There is, however, nothing new about this part of the ruling, which was recently characterized by the Naval and Military Committee of the British Medical Association as "an insult to the medical profession." A case recently occurred in which it is said that a medical officer performed a successful operation for cataract on a native chief, but the very moderate fee offered by the patient was materially reduced by the civilian officer to whom it had to be reported for sanction. On the patient requesting the surgeon to operate on the other eye he declined on the ground that the local government would not allow him to take a fee which would compensate him for the loss of time in going to the native State in question and remaining for several days to ensure the success of the operation. He was then ordered by the local government to go and do the second operation for the fee fixed by them. Such a condition of affairs is intolerable and reveals the petty spirit in which the rules are carried out in practice.

In the new rules, however, a more serious question than the mere monetary one crops up, for under these new rules the medical officer is compelled to report the details of his patient's illness and of his treatment to a civilian non-medical man, the latter will then assess the amount of the fee to be received, for it will be observed that it is stated that the reference to the administrative officer is not obligatory, but will only occur when the civilian officer considers it to be necessary to do so, and in any case the final orders are issued by the civilian officers. In the first place, this order raises the very important question as to whether a medical officer is justified in revealing professional secrets as to his patients to any one even under the orders of the Government. The inquisitorial nature of the whole proceedings is also most objectionable, and these orders may very well result in a self-respecting medical man refusing to attend any native chief except one of whom as he may be in medical charge as part of his routine duties. Whether a medical officer would be justified in refusing to furnish any information as to the condition of his patient or the fee received by him on the grounds that he cannot reveal professional secrets is a delicate one, but such a course of action, whether right or wrong, would only lead to his being severely punished by the Government by being removed from his appointment, and sent to some undesirable station.

[illegible] with regard to the above orders. In [illegible] order in question is a [illegible] to the native [illegible] a complete violation [illegible] medical man to respect the [illegible] whatever high degree. It is surely [illegible] full [illegible] to the Local Government [illegible] The latter [illegible] medical [illegible] grudgingly and [illegible] the State [illegible] the State [illegible] A person even [illegible] the present [illegible] except [illegible] with [illegible] order [illegible] The principle of [illegible] and [illegible]

[illegible] Medical Officers [illegible] Surgeon [illegible] Surgeon [illegible] Surgeon

sate the patient. The farmer was charged 5s. for this certificate, but declined to pay on the ground that he was not liable. Is he liable?

*** If our correspondent was called in by the farmer then the latter would be liable, but not otherwise. As, however, our correspondent resides in Scotland, it might be well for him to consult a Scotch solicitor, as the law of England is not quite the same as that of Scotland.

THE TREATMENT OF DISEASE BY UNQUALIFIED PERSONS.

A CORRESPONDENT encloses a card which has been left at his house by a person who apparently expects to be patronized by the medical profession. The card describes her as "Miss —— Hygienic Face Treatment, Manicure, etc." In one corner is, "Special facial and neck treatment by electricity"; in another, "Electrical treatment of the hair by new method"; and in another, "Rapid, safe, new and rapid treatment for the removal of superfluous hairs. Consultations free by appointment." Then follow two addresses and the hours of consultation.

*** We can only say that if medical practitioners lend themselves to the support of such persons they must be regarded as giving direct encouragement to encroachments on medical practice by unqualified persons.

MEDICAL ETHICS.

P. W. submits the following case: A. sells his practice to his partner B. J., a former patient of A.'s does not wish to employ B., and calls in C. to attend his child of 2½ years. C. finds a very loud mitral *bruit*, and on learning from the parents that they have never been told of the existence of this *bruit*, asks the father of the child to find out from A. if he had noticed it, and, if so, whether it was congenital or not. A. refuses to answer this question, as it would be a breach of his contract with B. not to practise; then B. writes to C. and says he will waive his right with regard to A., and will allow A. to meet C. in consultation on payment of a fee of five guineas. C. answered that no consultation was suggested or desired, and he thinks that A. could, and should, answer the question, especially as A. and B. had both been in attendance on the child, and the answer could have no bearing on the medical treatment of the child. Were A. and B. justified in the course taken by them?

*** A. was under no obligation to answer C.'s question. If the answer "could have no bearing on the medical treatment of the child," A. might fairly say, Why was the question asked? C. was, in fact, asking a favour from persons who doubtless considered themselves injured by him; hence the refusal.

REPRINTS OF MEDICAL PAPERS.

WE have received the following communication from Mr. J. Burlbert, Pegg, European and Colonial Manager of the Denver Chemical Manufacturing Company:

"Dr. Colin Campbell has called our attention to the fact that our Company has attached to a reprint of his article in the *Medical Press and Circular* the letters L.R.C.P., and 'Late Surgeon to the Tamworth Cottage Hospital.' Apparently these have been used by our Company through error or inadvertance. As a matter of fact, we reprinted the articles without Dr. Campbell's knowledge, in New York; and, equally, as a matter of fact, I did not know of the reprint until I received 40,000 or 50,000 copies from our house there, and, like Dr. Campbell am not responsible for any inaccuracy that may have occurred in the printing.

"I am sending to-day to New York, requesting the proper correction to be made; and am writing to you to advise you in this matter, because Dr. Campbell seems to be somewhat troubled over what he regards as our delinquency, and attacking something 'de trop' to the pamphlet."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths during the first quarter of this year, and to the marriages in the three months ending December last. The marriage-rate during that period was equal to 16.7 per 1,000 of the population, and was 0.9 per 1,000 below the average rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending March last numbered [illegible] and were equal to an annual rate of [illegible] per 1,000 of the population, estimated by the Registrar-General to be 33,763,434 persons in the middle of the year. In the first quarters of the ten preceding years the birth-rate had averaged [illegible] per 1,000. The birth-rates last quarter ranged, in the several counties, from 27.0 in Sussex, 22.5 in Cornwall, 22.8 in Herefordshire, 23.1 in Leicestershire, 23.2 in Bedfordshire, 23.5 in Hertfordshire, and 23.7 in Oxfordshire, to 32.1 in Nottinghamshire, 32.2 in Warwickshire, and 32.6 in Northumberland. In Staffordshire, 33.0 in Durham, and 33.5 in Monmouthshire.

In seventy-six of the largest English towns, including London, the birth-rate last quarter averaged 29.7 per 1,000, being slightly in excess of the general English birth-rate. In London the rate was 28.0 per 1,000, while it averaged 30.1 per 1,000 in the seventy-five other large towns, and ranged from 19.2 in Hastings, 19.3 in Hornsey, 19.8 in Leyton, and 20.3 in Halifax, to 39.4 in Middlesbrough, 39.6 in Tynemouth, and 40.1 in Merthyr Tydfil, and 41.1 in Rhondda.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 63,914; this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 70,441 emigrants embarked during the three months for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 32,445 emigrants, 31,292 were English, 1,151 Scottish, and 4,652 Irish, while 32,412 others were of foreign or unknown nationality. Compared with the averages in the corresponding quarters of the ten preceding years the proportion of emigrants to the population of the several parts of the United Kingdom showed an increase of 17.5 per cent. English, 4.2 per cent. Scottish, and 6.8 per cent. Irish.

During the first quarter of the year the deaths of 153,255 persons were registered, equal to an annual rate of 18.2 per 1,000 persons living. This rate was 1.2 per 1,000 below the mean rate in the corresponding periods of the ten preceding years. The lowest county death-rates last quarter were 14.4 in Middlesex, 14.7 in Bedfordshire, 15.1 in Essex, and 15.2 in Kent, 15.2 in Surrey, 15.4 in Northamptonshire, and 15.5 in Sussex, while the highest rates were 20.4 in Glamorganshire, 20.5 in Lancashire, 20.7 in Cumberland, 21.5 in Monmouthshire, 21.8 in Carmarthenshire, 22.2 in Herefordshire, and 22.6 in Denbighshire. In seventy-six of the largest towns, with an aggregate population of more than seven millions, the mean rate of mortality was 18.7 per 1,000, in 142 smaller towns, containing in the aggregate upwards of four and a half millions, the death-rate averaged 17.7 per 1,000, while in the remaining and chiefly rural parts of England and Wales the rate was 15.1 per 1,000. In London the death-rate was 18.3 per 1,000, while among the seventy-five other large towns the rates ranged from 9.2 in Hornsey, 11.2 in Walthamstow, 11.1 in East Ham, 11.2 in Leyton, 12.8 in King's Norton, and 13.1 in Wednesbury, to 22.0 in Liverpool and in Manchester, 22.1 in Wigan, 23.2 in Warrington, 24.1 in Preston, and 25.0 in Merthyr Tydfil.

The 153,255 deaths from all causes registered in England and Wales last quarter included 11,364 which were referred to the principal infectious diseases, of these 3,231 were attributed to whooping-cough, 2,[illegible] to measles, 1,551 to diphtheria, 1,261 to diarrhœa, 1,145 to scarlet fever, and 376 to "fever" (principally enteric), and 95 to small-pox. The mortality from diarrhœa was equal to the average, that from whooping-cough was in excess, while that from each of the other principal infectious diseases showed a decline. Of the 376 fatal cases of small-pox registered last quarter 18 were returned to Gateshead, 16 to London, 12 to Nottingham, 11 to Felling, 11 to Ashton-under-Lyne, 9 to St. Helens, 8 to Hull, and 8 to Tynemouth.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 143 per 1,000, against an average rate of 142 in the corresponding quarters of the ten preceding years. In the several counties the rates of infant mortality ranged from 108 in Middlesex, 111 in Dorsetshire, 113 in Bedfordshire, 117 in Surrey, 118 in Gloucestershire, and 117 in Sussex and in Essex to 168 in Cumberland, 176 in Glamorganshire, 181 in Monmouthshire, 188 in Denbighshire, and 221 in Carmarthenshire. In the seventy-six large towns the mean rate was 145 per 1,000; in London the proportion was equal to 136 per 1,000, while it averaged 149 in the seventy-five large provincial towns, among which the rates ranged from 81 in Hornsey, 98 in King's Norton, 98 in Tottenham, 101 in Great Yarmouth, 101 in Walthamstow, and 111 in Burton-on-Trent to 191 in Rhondda, 192 in West Hartlepool, 196 in Grimsby, 197 in Walsall, 198 in Preston, 219 in Swansea, and 224 in Merthyr Tydfil.

The mortality in England and Wales during the three months under notice among persons aged between 5 and 15 years was equal to an annual rate of 3.7 per 1,000 of the population estimated to be living at this group of ages, and was 1.0 per 1,000 below the mean rate in the ten preceding first quarters. In the seventy-six large towns the death-rate at this group of ages averaged 3.8 per 1,000, in London this death-rate was 3.4 per 1,000, while among the seventy-five large provincial towns the rates ranged from 3.2 in Hornsey, 3.1 in Walthamstow, 3.6 in King's Norton, 3.7 in Hastings, 3.8 in Wednesbury, and in Leyton, and 4.1 in East Ham, to 7.4 in Manchester and in Preston, 7.5 in Wigan, 7.8 in Merthyr Tydfil, and 14.0 in Warrington.

Among persons aged 65 years and upwards the death-rate last quarter was equal to 85.3 per 1,000 of the estimated population at this age-period. In the seventy-six towns the death-rate at this age-group was 89.6 per 1,000, in London the rate was 88.1 per 1,000, while among the seventy-five other large towns the rates ranged from 56.1 in Leyton, 63.7 in Devonport, 63.8 in Bournemouth, 68.2 in Hornsey, 71.8 in East Ham, and 71.9 in Hastings, to 110.1 in St. Helens, 111.4 in Bury, 115.7 in Manchester, 121.1 in Preston, 122.6 in Hanley, and 127.3 in Wigan.

The mean temperature of the air during last quarter was slightly below the average, the highest shade readings of the thermometer varying at most stations from 55° to 60°, and the lowest being about 20°. The amount of rainfall measured in London was 6.8 in., being 1.4 in. in excess of the average. The duration of bright sunshine in London during the quarter was 197 hours, being 18 per cent. of the possible amount, and 47 hours less than the average.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,[illegible] births and 4,532 deaths were registered during the week ending Saturday last, May 21st. The annual rate of mortality in these towns, which had been 16.[illegible] 14.3, and 16.1 per 1,000 in the three preceding weeks, declined again to 15.[illegible] per 1,000 last week. The rates in the several towns ranged from 7.6 in Northampton, 7.1 in Hornsey, 7.[illegible] in Handsworth Staffs., 8.[illegible] in Walthamstow, 9.4 in Kings Norton, 9.6 in Reading, 10.1 in Preston, 10.5 in Croydon, and 10.7 in Wednesbury, to 17.6 in Manchester, 17.[illegible] Leeds, 20.4 in Preston, 21.[illegible] in Blackburn, 21.6 in Tynemouth, 21.7 in Sunderland, and in Birmingham. In London the death-rate was 15.1 per 1,000, while it averaged 17.[illegible] per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.7 per 1,000, while it ranged upwards to 3.4 in Birmingham and in Leeds, 3.5 Manchester, 4.[illegible] in Salford, 5.1 in Blackburn, 5.2 in Burnley, in Warrington, and 5.8 in Brighton. Measles caused a death-rate of 1.[illegible] in Croydon, 1.2 in Hull, 1.4 in Walthamstow, 1.5 in Manchester, 1.[illegible] Leeds, 2.1 in Burnley, and 5.1 in Brighton. Scarlet fever of 1.[illegible] in Warrington and 1.6 in Hanley, diphtheria of 1.4 in Merthyr Tydfil, 1.[illegible] in Great Yarmouth, and whooping-cough of 1.2 in Leicester, Derby, 1.[illegible] in Grimsby and in Salford, 1.8 in Bury, 2.1 in Burnley, 2.[illegible] in Coventry, 2.3 in Birkenhead, 2.9 in Blackburn, and 3.[illegible] in Warrington. The mortality from enteric fever and from diarrhœa showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Nottingham, 1 in Oldham, 1 in Gateshead, and 1 in Cardiff, but none in any other of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 2[illegible] small-pox patients at the end of last week, against 104 and 92 at the end of the three preceding weeks.

of new cases were admitted during the week, against [illegible] and [illegible] in the three preceding weeks. The number of scarlet fever patients in the Belvidere and in the London Fever Hospital were [illegible] and [illegible] on the three preceding Saturdays, but on Saturday last the [illegible] new cases were admitted during the week, against [illegible] and [illegible] in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, May [illegible], the births and deaths were registered in each of the principal Scotch towns. The annual rate of mortality in these towns, which had been [illegible] and [illegible] per 1000 in the three preceding weeks, [illegible] to [illegible] last week, [illegible] per 1000 over the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from [illegible] in Aberdeen, to [illegible] in Perth and [illegible] in Greenock. The death-rate from the principal zymotic diseases in these towns averaged [illegible] per 1000. The highest rates being recorded in Glasgow and Greenock. The [illegible] deaths registered in Glasgow included 2 which were referred to [illegible], 1 to measles, [illegible] to scarlet fever, [illegible] to whooping-cough, and [illegible] to diarrhœa. [illegible] which [illegible] and [illegible] in Edinburgh, [illegible] in Glasgow, [illegible] in Aberdeen, and [illegible] in Greenock.

[illegible] MEDICAL OFFICERS AND HOLIDAYS.

[illegible] to know the [illegible] and position as to [illegible] [illegible] to [illegible]. Last year [illegible] were [illegible] the week, [illegible] were [illegible] the week, [illegible] to the [illegible] decay.

[illegible] any law or regulation on the point in [illegible] we believe, [illegible] (Consolidated) Order, July [illegible], [illegible] to [illegible] for leave of [illegible] a month at the period which usually inter- [illegible] and [illegible] however, be held with [illegible] permission to [illegible] [illegible] [illegible]

HOSPITAL AND DISPENSARY MANAGEMENT.

THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

The report of the Hospital for Diseases of the Skin, Blackfriars, London, for the year 1903 shows that the ordinary expenditure exceeded the income by some £45, while the patients numbered 1,736, against 1,812 in the preceding year. The light department was in constant operation, and its outfit has been improved. In the laboratory an endeavour is being made to acquire a representative collection of diseases of the skin for teaching purposes. To render the hospital still more useful to the working classes the hospital is to be open on one evening in the week. The number of beds available is considered inadequate, and donations are asked in order that their number may be increased. To encourage a feeling of self-dependence and to relieve a class of persons above the necessitous poor, the Committee, with the consent of its medical officers, has determined to admit such persons to the privileges of patients on payment to the hospital funds of from one to ten shillings for four weeks' attendance.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ABERDEEN: CITY FEVER HOSPITAL.—Resident Physician. Salary, £100 per annum.

BOURNEMOUTH: ROYAL VICTORIA HOSPITAL.—Honorary Medical Officer in charge of Electrical Department.

BRIGHTON: HOVE AND PRESTON DISPENSARY.—House-Surgeon. Salary, £100 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident. Salary, £80 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon, resident. Salary at the rate of £100 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Resident House Surgeon. Salary, £100 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—Surgeon to Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Physician, resident. Salary, £25 for six months.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon, resident. Salary, £80 per annum.

MANITOBA UNIVERSITY.—Professorships of Botany, Physics, Chemistry, and Physiology. Salary, £1000.

OXFORD RADCLIFFE INFIRMARY.—Honorary Assistant Surgeon and Registrar.

ROCHDALE INFIRMARY.—Resident Medical Officer. Salary £100 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary, £100 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Salary, £100 per annum. Clinical Assistants.

ROYAL LONDON OPHTHALMIC HOSPITAL, Hatton Garden, E.C.—House-Surgeon, resident. Salary, £100 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Senior Resident Assistant Medical Officer at the Infirmary. Salary, £150 per annum.

SUSSEX COUNTY HOSPITAL.—Second House-Surgeon, resident. Salary, £60 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House Surgeon, resident. Honorarium £25 for six months.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Second House-Surgeon, resident. Salary, £50 per annum.

WEST RIDING ASYLUM, Wadsley.—Fifth Assistant Medical Officer, resident. Salary, £180, rising to £200 per annum.

APPOINTMENTS.

BADELOW, George W., M.B., M.R.C.S. Eng., L.R.C.P. Lond.—Resident Medical Officer at the Lock Hospital, Golden Square.

CRAMER, Miss B. M., M.B., C.B. Lond.—Assistant Director of Cancer Research, Liverpool University.

CURRAN, J. Jackson, M.B. Lond., F.R.C.S.—Surgeon to the Northwest London Hospital.

FISHER, W. E., M.R.C.S., L.R.C.P.—District Medical Officer of the Flegg'ld Union.

GRANT, P. M., L.S.A.—District Medical Officer of the Marazion Union.

HART, J. P. I., M.B., B.C. Cantab.—District Medical Officer for the Halifax Union.

HARRISON, I.S.A. (Lond.)—Inspector to the Board of Health appointed to Suez Canal Mercantile Service, vice Apps., dec.

HINDS, H. E., M.B. Lond., F.R.C.S. Eng.—Honorary Assistant Medical Officer of the Newark Union.

MACKENZIE, Duncan Alexander, M.B., B.Ch. Aberd.—Resident Medical Officer at the Oldham Consumptive Hospital.

MORRIS, D., L.R.C.P. & S.E'd'n., Certifying Factory Surgeon for Dist. 1, County Durham.

OSBORNE, E. M., M.B., B.C. Camb., B.A. Oxon.—Medical Officer for the Cinderella and Wapping Divisions of the Metropolitan Asylums Board, and Medical Officer of Health for Limehouse and Bethnal Green Police Stations.

SPRATT, C. H. M., M.R.C.S., Certifying Factory Surgeon for the Rothwell District, County Yorks.

STILES, W. Kingsley, M.D. Camb., M.R.C.P. Lond.—Physician to the North-West London Hospital.

SUTHERLAND, A., M.D. Edin., F.C.P., Physician to the North-West London Hospital.

THOMSON, George, M.B. Edin., F.R.C.S.—Surgeon to the North-West London Hospital.

WILLIAMS, A. M. M. (Cantab.)—Clinical Assistant to the Chelsea Hospital for Women.

WILSON, Francis Kennedy, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond.—District Medical Officer and Public Vaccinator, Wadsworth, Walkden, Worsley District of the Stow Union, vice Dr. Lee, resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Cases to be shown by Mr. William Brown. Paper by Mr. Leonard Matheson.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. W. B. Herapath and Dr. W. A. Wilson on the Elasticity of the Aorta, being a contribution to the study of Arterial Sclerosis.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Short communication. Dr. J. M. Munro Kerr: Certain points regarding the operation of Caesarean Section. Cases of Contracted Pelvis treated on a series of Occasions. Papers: Dr. T. W. Eden: A case of Primary Hydatid Disease (Hemorrhoeum) of the Fallopian Tube. Dr. C. J. Cullingworth and Mr. H. H. Cuthbert: Notes of a case of Hydatids of both Ovaries, Right Broad Ligament, Liver, Omentum, Mesentery, and other parts. Specimens by Dr. Lockyer, Mr. Bland-Sutton, and Dr. Herbert R. Spencer.

THURSDAY.

North-East London Clinical Society, Tottenham Hospital, 4 p.m.—Clinical Cases.

FRIDAY.

West London Medico-Chirurgical Society, West London Hospital, Hammersmith, W., 8.30 p.m.—Mr. J. Jackson Clarke: Objects and Limits of the Surgical Treatment of Paralytic Deformities. Dr. C. H. Fenton: A Paper.

Laryngological Society of London 20, Hanover Square, W., 5 p.m.—Cases, specimens, etc., will be shown by Dr. St. Clair Thomson, Mr. Wingrett, Dr. Kelson, Mr. Cresswell Baber, Dr. Scanes Spicer, Dr. A. Brewis, Key, and others.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital: Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Pleurisy, its Causation and Treatment.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Mastoid Disease in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 as follows: Monday, Diseases of the Lymphatic System. Tuesday, the Treatment of Infirmity in Relation to Insanity; Wednesday and Thursday, Pulse Tracings and their Clinical Significance.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.: Lecture on Nervous Affections of the Respiratory System.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday and Friday, on Neuritis.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery. Tuesday, Dyspepsia; Wednesday, Practical Medicine. Thursday, Drugs which act on the Pupil, their Effects and Uses. Friday, Measles.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.: Thursday, 6.15 p.m.: Lecture on Eczema.

St. Peter's Hospital, Henrietta Street, W.C.—Wednesday, 4 p.m., Lecture-Demonstration on Cases in the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

DENT.—On Thursday, May 26th, at 12, Bayshill Terrace, Cheltenham, the wife of Ernest A. Dent, M.B., C.M. Edin., of a son.

GILLIOTT.—On April 15th, at 22, College Street, Hyde Park, Sydney, N.S.W., the wife of Meridan Gillett, M.D., of a son.

HEIST.—On May 20th, at Mayfield, Park Mar, Chester, the wife of T. Arthur Heist, M.D., M.R.C.P. Lond., F.R.S.E., of a daughter.

TURNER.—On May 20th, at Oak House, New North Road, Huddersfield, the wife of F. Longas Turner, M.B., of a son.

WEBSTER.—On May 18th, at Westfield, Longford, Coventry, the wife of Harold C. Webster, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

MARRIAGE.

BLACKALL—ELDRED.—May 24th, at New Road Baptist Church, Oxford, by Rev. J. Parry, assisted by Rev. E. Bicknell, uncle of the bridegroom, William E. Blackall, M.A., M.B. Oxon., to Ethel Gray, eldest daughter of Ernest Eldred, both of Oxford.

DEATHS.

BEER.—On May 21st, at 11 Warkworth Street, Cambridge, Thomas Greer, M.A., M.D., eldest son of the late Rev. Thomas Greer, M.A., Annahilt, county Down, aged 64 years.

MOORE.—On the 19th inst., at Warmfield House, Moreton-in-Marsh, John Newman Moore, J.P., M.R.C.S., L.S.A., aged 61.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London. All communications respecting Advertisements, etc., should be addressed to the Advertisement Department of the JOURNAL, 429, Strand, and not to the Editor, Manager, or Office, 2, Agar Street, W.C., London.

ORIGINAL ARTICLES and LETTERS forwarded for publication in the BRITISH MEDICAL JOURNAL are understood to be offered to that publication alone, unless the contrary is stated.

AUTHORS desiring REPRINTS of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Publishing Manager, 429, Strand, W.C., before publication.

CORRESPONDENTS who require REPLIES to their communications must send their names and addresses, not necessarily for publication.

CORRESPONDENTS are requested to keep their letters as short as possible, as the Editor's space is limited.

MANUSCRIPTS intended for publication in the BRITISH MEDICAL JOURNAL cannot be returned.

INQUIRIES as to the Publication, Price, and Sale of the BRITISH MEDICAL JOURNAL, Back Numbers, Issues of Supplements, Binding Cases, Missing Numbers, Delivery, etc., should be addressed to the Office of the JOURNAL, and not to the Editor.

THE ANNUAL SUBSCRIPTION to the BRITISH MEDICAL JOURNAL, including postage, is £1 1s. Od. Cheques and Post Office Orders should be made payable to the MANAGER of the BRITISH MEDICAL JOURNAL, and crossed "London and County Bank, Strand Branch."

TELEGRAPHIC ADDRESS.—EDITOR, 2631, Gerrard. GENERAL SUBSCRIPTION AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

L.R. will be glad to have a reference from any service member to a military dictionary giving information as to technical military terms, as is done by Young's *Nautical Dictionary* for the sister service.

SOUTH AFRICA would be glad of any information with regard to the possibility of bilharzia haematobia being communicated from urine to wife, also as to whether the uterus would form a suitable medium for the parasite, and whether it would be likely to affect the ovum.

R[illegible] asks for [illegible] to the treatment [illegible] with [illegible] has been treating [illegible] and [illegible] to the [illegible] and [illegible] but the [illegible] to appear [illegible] that the prostatic portion of the [illegible] with the rest of the [illegible]

F C F asks for a book on [illegible] with arguments for and against vaccination, which would help [illegible] own [illegible] work.

*** We are aware of [illegible] and [illegible] recent [illegible] The information [illegible] in the Reports of Medical Officers of Health [illegible] Liverpool, London and elsewhere. Also the Metropolitan Asylums Board reports may be consulted. In the case of [illegible] little volumes by Dr. [illegible] on the [illegible] and [illegible] small-pox and vaccination [illegible] the Council of the Anti-Vaccination League, and [illegible] the Public Health Committee of the London County Council [illegible]

LARGE CHALAZION.

DR SIDNEY H. CARR, of [illegible], writes: I recently [illegible] a chalazion [illegible] Would any of your correspondents inform me as to what is the largest amount of fluid [illegible]

A CANCELLED TICKET.

MEDICUS asks whether there is any legality [illegible] on Irish guardians who [illegible] a ticket which was afterwards cancelled by order of the Board of Guardians. The patient refuses to pay any fee.

*** It may be possible to claim and obtain by law a fee from the person who [illegible] the ticket but it is very doubtful whether it would be in either way desirable to adopt such a course.

OEDEMA AFTER PROBABLY.

S. [illegible] a lady [illegible] of protracted oedema of both legs [illegible] Both legs [illegible] The patient is an elderly clergyman [illegible] she was knocked down by a bicycle [illegible] and sustained [illegible] with [illegible] of brain and spine. [illegible] The right leg in November and the left leg in December. There is no albuminuria in the urine. The case had [illegible] suggested a gonorrhoeal origin, but massage was not tolerated.

ETHER VAPOUR.

H. D. [illegible] asks [illegible] to the advantages and disadvantages of [illegible] the vapour of boiling ether as an anaesthetic for [illegible] He [illegible] devised a safe, simple, and effective [illegible] for the production and administration of the vapour.

[illegible] to the physiological effects of [illegible] vapour. Ether vapour [illegible] by passing through a hot [illegible] is [illegible] and rapid [illegible] and [illegible] We believe, attended [illegible] The [illegible] to [illegible] would have [illegible] to [illegible] before [illegible] Ether [illegible] and [illegible] the [illegible] and [illegible] [illegible]

ANSWERS.

[illegible]

LETTERS, NOTES, ETC.

[illegible] appears [illegible] writer speaks of the [illegible] as the most [illegible] In my experience [illegible] I have not found it [illegible] at first I [illegible] and [illegible] by using these, but since I have used the following ointment I have found them unnecessary. It [illegible] and [illegible] of chloroform adapsbenzoli 5 M. Ft. ung. To be applied [illegible]

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. F. S. [illegible] Surgeon [illegible] Dr. J. A. Arkwright, St. Margaret's at Cliffe; Mr. G. A. Arnison, Leeds; Mr. H. G. Armstrong, Crowthorne; Archaeus; Mr. W. A. Aveling, Canterbury.

B Messrs. Bailliere, Tindall, and Cox, London; Mr. E. Bardge, [illegible]; Mr. W. A. Berridge, Ledbury; Sir Lauder Brunton, London; A. H. Burgess, M.B., Manchester; B.R.; Dr. C. Bulmer, London; Mr. J. B. Bamford, Leeds.

C Miss A. M. Clark, Marnhull, Dorset; Chichester; Dr. J. A. Colt, Wolverhampton; Mr. W. R. E. Coles, London; Mr. H. E. Carr, London, Consultant; Dr. S. H. Carr, Hanwell; J. J. Cranage, M.R.A.S., Leeds; S. Carr, M.B., Peru, Spanish Main; **D** Mr. H. Dyas Cassels, Messrs. Down Bros., London; Dr. F. Dare, Scarborough; Dr. H. Davy, Exeter; Sir P. Duckworth, London; Mr. H. Downes, Hereford; **E** J. Erskine, M.B., Gosforth, Lancashire; Mr. G. Y. Eales, Torquay; **F** Dr. M. Favre, Paris, Farmacia; Par[illegible]; [illegible] Fletcher, M.B., London; **G** Dr. J. H. Galton, London; Mr. G. L. Gomme, London; G. B. B.; Mr. H. W. Gall, Exeter; Mr. E. Glenny, Dublin; Messrs. F. Gould and Co., London; Dr. G. Gellies, Heywood; Mr. E. F. Gueppert, London; Mr. T. W. H. Gerstaing, Accrington; Mr. V. P. Gonsalves, Harwich; Dr. A. E. Garrod, London; **H** Dr. F. H. [illegible]; Dr. [illegible], F.R.H.S., M.B., Carlisle; H. L. D.; Mr. F. Hayden, London; Dr. A. [illegible] Hegarty, Canterbury; Dr. G. Halbert, Constantia House, Surbiton; Dr. F. C. Ha[illegible], Parramatta; **I** In Boniface; I.M.S.; **J** Mr. H. James-Roberts, Penzance; J. H. [illegible], M.B., Northampton; Mr. J. Jackson, London; J. D.; **K** Mr. Lyle, M.B., Newcastle-upon-Tyne; Dr. W. Lloyd, London; Laryngologist, Secretary of; London; Dr. W. A. Lush, Weymouth.

M Dr. R. C. L. Morris, Bognor; Mr. J. H. Macmurray, London; Mr. W. Mason, London; Dr. J. Metcalfe, Bradford; Mr. W. J. Morton, London; Materiel; M.R.C.S., L.R.C.P.; Mr. F. Meres, London; Dr. J. McCaw, Belfast; H. M. Laren, M.B., Glasgow; Dr. S. G. Morris, Maerdy; Mr. J. MacMunn, London.

N Dr. D. Newman, Glasgow; Dr. P. A. Nightingale, London; J. H. Nicol, M.B., Glasgow.

O One Who has Suffered.

P Dr. A. Pick, Karlsbad; Dr. D. R. Paterson, Oxford; Mr. P. H. Pares, London; Pet.; Dr. J. P. Pye, Galway; P. A. Power, M.B., London; Mr. J. B. Pegg, London; Dr. G. N. Pitt, London; Dr. C. B. Plowright, Kings Lynn; Mr. H. J. Pruigney, London; W. Philip, M.B., Inverkeithing.

R Dr. N. Raw, Liverpool; Dr. J. Ross, London; R. B. Robson, M.B., Alnwick; Mr. H. N. Robson, London; Rusticus; Mr. F. L. Robson, Guernsey.

S Dr. I. M. Symson, Lincoln; Dr. G. A. Sutherland, London; S. South Africa; St. Pancras; Mr. A. W. I. Street, London; Dr. E. H. Snell, Coventry; St. Just: Sussex; R. H. J. Swan, M.B., London; Mr. R. H. Sers, Brighton; Mr. J. C. Shaw, Brentwood; Seraph.; Stephanotus Hospitalus; Messrs. G. Street and Co., London.

T H. P. Taylor, M.B., Mod. Vol.; Mr. T. J. Tonkin, Chard; Tee, Uniformia.

V Mr. T. J. Verrall, Brighton.

W Mr. T. M. Watt-Grabil; Dr. O. Watmers, Sale; J. S. F. Weir, M.B., London; G. B. Wood, M.B., Sanderson; W.; Dr. C. W. Whitsor, Royston; Mr. C. H. Whitefield, Plymouth; Dr. H. W. Webber, Plymouth; Mr. T. G. Wales, Beaminster; Mr. W. E. Williams, Carlton; J. W. I. Walker, M.B., Leeds; Dr. F. Whitcocks, London; Dr. A. G. Wolsford, House, Hempstead; Mr. G. P. Webb, Merton Hampstead.

BOOKS, ETC., RECEIVED

[illegible] and Acute Glaucoma. By Mary [illegible] Illustrations. By Professor Dr. G. [illegible] Nach Angeln Unsere Special in Praeparate. Mit [illegible] Englisch, Edition Enthalt [illegible] Wright, B. Jaques, M.D. Autorisirte Uebersetzung. Von [illegible] Edited by August Stengel, M.D. [illegible] Illustrations. New York, and London: W. B. Saunders and Co. 1904. 25s.

University of Manchester. Public Health Laboratory. Industrial Physiology. Researches into Characters of the Vessels of Respiration. Lancing Materials and the Tannery Process. Reports by J. B. Cohen, M.D., D.P.H., Manchester: Department of Public Health. 1904. 2s.

How to be Happy though Married. By a Graduate of the University of Matrimony. London: T. Fisher Unwin. [illegible]

Manual of Surgery. By Alexis Thomson, M.D., F.R.C.S. Edin., and Alexander Miles, M.D., F.R.C.S. Edin. Volume [illegible] Surgery of the Head and Neck. Second Edition, Revised and [illegible] Edinburgh: Oliver and Boyd. 1904. 15s. net.

[illegible] A. and J. Koch, A.M., M.D. Vol. 10th Series, 1904. London: J. B. Lippincott Co.

[illegible] By J. Herbert [illegible], B.S., D.Sc. Lond., F.R.C.S. Eng. [illegible] Physician [illegible] Surgeon to the Samaritan Free Hospital for Women and Children. [illegible] Illustrations. London: Baillière, Tindall and Cox. 1904. 7s. 6d. net.

Diseases of the Eye. By J. Herbert [illegible], B.S., D.Sc. Lond., F.R.C.S. Eng. [illegible] Physician [illegible] Surgeon to the Samaritan Free Hospital for Women and Children. [illegible] Illustrations. London: Baillière, Tindall and Cox. 1904. 7s. 6d. net.

Outlines of Physiology. By E. H. Starling, London: W. Heinemann. [illegible]

Stereoscopischer Gross-Atlas der Ohrkrankheiten. Von Dr. Adolf Lesser. Dritte, [illegible] Auflage. Leipzig: Breitkopf und Härtel. 1904. 20m.

Elements of General Radio-Therapy for Practitioners. By Dr. Leopold Freund. Translated by C. H. Carmalt, M.D. Brux. M.R.C.S. Eng. L.R.C.P. Lond. New York and London: Rebman, Limited. 1904. [illegible] leather. 15s.

On the Dangers Arising from Premature Birth. Address delivered before the Bristol Gynaecological Society, February 3rd, 1904. By J. Jaffe Taylor, M.Sc., F.R.C.S. Eng. London: Baillière, Tindall and Cox. 1904. 1s.

Die physikalische Therapie in Lehre der Neurasthenie und [illegible]. Von Dr. Willy Meyer. Jena: Gustav Fischer. 1904. M. 2.6.

Manuel d'Orthopédie Vertébrale. Par Dr. A. Cotrel. Paris: A. Maloine. 1904.

Sur Lésions et Affections [illegible] Leur Mode de Production. Par [illegible] Paris: A. Maloine. 1904.

Vers [illegible] Paris: A. Maloine. 1904.

*** In forwarding books the publishers are requested to state the selling price.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

[illegible]	[illegible]	£ 4 0
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
A Page	[illegible]	[illegible]

[illegible] Manager, at [illegible] preceding [illegible]

[illegible] Medical [illegible] Letters, Parcels, Amounts may [illegible]

N.B.—It is against the rules of the Post Office to receive letters at [illegible] Addressed either in initials or numbers.

An Address

ON

ARTERIAL SCLEROSIS AND HYPERTONUS IN THEIR RELATION TO DIET AND TO THE DIGESTIVE SYSTEM.

BY WILLIAM RUSSELL, M.D., F.R.C.P.EDIN.,
Assistant Physician, Royal Infirmary, Edinburgh.

PERMIT me at the outset of my remarks to indicate to you the meaning I attach to the term "arterio-sclerosis." Clinically, the word means a thickening or induration of the arterial wall, perceptible to the sense of touch, the ordinary clinical method of examining vessels.

My own observations on persons who have shown the existence of this condition during life, and whose bodies I have examined after death, have led me to the conclusion that the changes present are (1) a hypertrophy of the middle or muscular coat, and (2) a fibrous hyperplasia of the internal coat. These changes are present in the radial arteries, and, more or less, in the arteries in all the more important situations in the body. The thickening in the radial arteries is very commonly spoken of as atheroma; but it differs from atheroma as entirely as other morbid processes differ from one another.

TONUS.

In the next place you must bear with me while I deal with certain elementary phenomena connected with the arteries. We all know the word "tone" as applied to the radial pulse. Tonus, or tone, may be used as indicating, or as including, the actual degree of contraction of the muscular coat. There is an average or normal tonus which in its sustained rhythmical response to the rhythmical flow of the blood resembles elasticity, such elasticity as is manifested by the walls of the pulmonary alveoli in stretching during inspiration and retracting during expiration. The arterial movement, however, is not a mere mechanical one of that kind; but is, on the contrary, presided over by a tissue—involuntary muscle fibre—which has the power of active contraction and relaxation, and even initiates these movements under the influence of stimuli of one kind or another. This continuous and unceasing rhythmic movement of involuntary muscle is only seen in heart and vessels. Emphasis has to be laid on this property in arteries because of the tendency to regard circulatory phenomena from the purely physical side—the heart a pump and the vessels a mere system of elastic tubes. While this purely mechanical conception is applicable, as I have said, to the vesicular movements in respiration, it leads to serious misapprehension if undue prominence is given to it when dealing with circulatory conditions. In the consideration of circulatory manifestations—manifestations which lie at the very foundation of such a large part of our professional work—it cannot be too strongly insisted on that this active and sensitive responsive power of the living muscle fibres of the arterial wall must be given a place second only to the driving power of the left ventricle.

While an average tonus may be postulated, the average is a variable measure, varying within considerable limits, varying from day to day, and even from hour to hour. Some of the influences which determine the tonus will be considered presently.

The next point is that the degree of tonus affects the lumen of the vessel. Any over-tonus—hypertonus as I have called it elsewhere—necessarily means diminution of lumen. You cannot have the muscular coat contracting without a corresponding constriction of the tube it embraces. This further point may, I think, be accepted as incontrovertible.

BLOOD PRESSURE AND HEART POWER.

We turn now to the question of blood pressure or arterial tension, and the effect which alterations of tonus have upon it. Whenever the question of blood pressure or arterial tension is raised the driving power of the left ventricle at once becomes the factor of supreme and determining importance. In this connexion the heart of average vigour has a fairly wide margin. The existence of this reserve of force is fully recognized as enabling the average organ to respond to the strain of sudden and of varying degrees of physical effort. This margin of reserve, however, diminishes with the advance of years in the vast majority of people. This is the explanation of the breathlessness which impedes and finally limits within narrow bounds the physical activities of advancing years. You must not regard my insistence on this as the assertion of a mere platitude, for I shall show you presently that it has a practical significance and application which is by no means universally recognized.

THE RELATION OF TONUS AND TENSION.

As to the relation between tonus and tension, there is what may be called the physiological aspect and the clinical aspect. The physiological aspect is based on experimental data which are doubtless correct so far as they go, and so far as they go they guide us, but they do not cover the whole ground, although this is what sometimes seems to be claimed for them. In the average normal or healthy animal the arterial tension is mainly determined by two factors—the power of the left ventricle and the measure of contraction, that is the tonus, of the arterial walls. We have postulated an average arterial tonus, and we may postulate an average ventricle power, both tonus and power possessing a considerable margin. Experiment shows that if the tonus is artificially increased the blood pressure or arterial tension at once rises. The explanation is that any diminution in calibre of arteries acts as an obstruction, and requires more power on the part of the heart to carry on the circulation. This increase of power is available in the average heart in virtue of its margin of reserve power in the first instance. If continued long enough it leads to hypertrophy of the ventricle.

This broad physiological law, that if the arteries contract the blood pressure rises, has quite properly been accepted by the clinician, but it has been applied with much too little reserve in practical medicine. One of the curious outcomes of this has been that there is often a want of clearness in the conception of and distinction between the terms "tonus and tension" and "tonus and blood pressure." I certainly frequently find the terms "high pressure" and "high tension" applied to a radial artery which is only unduly thick in its wall either from excessive contraction or from permanent structural change, and the use of the term is justified by the argument that such changes in arteries lead to the raising of blood pressure.

This brings me to the practical application of my argument and it is this: That, while the broad physiological law is correct, so long as you are dealing with average people in early life, it is not true, or only partially true, of people below average vigour, and of many persons after middle life.

There is, however, an important number of persons in whom the physiological law is strictly and clearly illustrated through middle life, and on into later life, if they escape for so long a time the vascular dangers to which they are continuously exposed.

If we seek, as we all do, to interpret aright, and thereby to utilize aright the indications afforded by the phenomena of the circulation in individual cases, we must keep rigidly apart the two factors, (1) the arterial contraction or tonus, and (2) the blood pressure, and yet both must be recognized and estimated. A third point is in some respects the most difficult; it is the determining whether a thickened artery is thickened from hypertonus or from arterio-sclerosis. The age of the patient and the character of the symptoms help in the differentiation. For practical medical work it is indeed of the utmost importance to be able to recognize hypertonus, and it is especially, often urgently, important when we are dealing with people in and beyond middle life; not that it is confined to that period of life, for it occurs frequently in early life, but adaptability, elasticity, and endurance are greater then, and there may be no symptoms complained of.

HYPERTONUS: VISCOSITY.

If I have made my argument so far clear, it will be understood that hypertonus in vigorous people leads at once to heightened blood pressure and raised arterial tension. This active response on the part of the heart to increase of peripheral resistance to the blood flow may be continued into and beyond middle life. Degenerative changes in cerebral arteries are often present—indeed, are prone to be associated with this ready production of increased tension. This combination occurs in the persons who supply the examples of early cerebral haemorrhage. But hypertonus also occurs in people whose hearts are not vigorous, and such people may or may not have degenerated arteries. In them thickened arteries are associated with a low blood pressure, for they have no sustainable margin of reserve in their hearts. A temporary excitement gives increased cardiac action and raised blood pressure, but as soon as the one subsides the other disappears.

This point of the existence of hypertonus without increased blood pressure is dealt with more fully later.

Those thickened vessels present another difficulty: the thickened artery is looked upon as arterio-sclerotic, and this is not uncommonly regarded as a condition requiring no further serious consideration as a structural change for which we can do nothing.

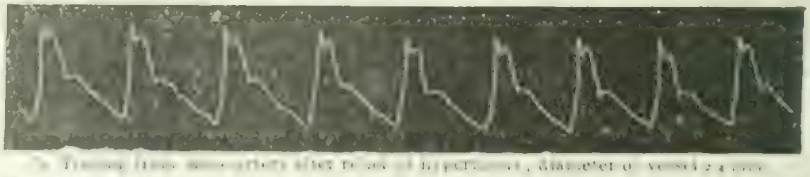
I need not dwell upon the prevalence of thickened arteries during and after middle life; but I desire very strongly to impress upon you the fact that those thickened vessels may owe much of what may appear to be structural thickening to what I have called hypertonus. Whatever of true structural thickening may be present cannot be removed, but whatever thickening is due to hypertonus can be removed.

The acceptance of the occurrence of hypertonus as I have defined it, and the recognition of it, either with or without a raised blood pressure, enables us to do more for our patients than perhaps the recognition of any other single phenomenon in practical medicine.

I must, however, support this thesis by further fact and argument. Take a simple and commonly recognized type of case—the person with good appetite, the hearty and large feeder, who partakes freely of proteid food two or three times a day and drinks wine, spirit, or malt liquor regularly. When a person of this type gets a "bilious attack" it is well known that his arterial tension is raised; but this arterial tension is usually, probably always, associated with hypertonus. Mark the significance of this latter; it means that the heightened tension is not due to deleterious substances acting directly on the heart, stimulating it to more powerful contraction, with a consequent overfilling of the arterial system. The primary and initial influence is on the vessels. The arteries are irritated or stimulated, and become hypertonic; this calls out increased cardiac action, which is in reserve, and increased tension results. Does this point require to be argued? Is the truth of it not apparent as soon as it is expressed?

One argument appeals to us—the effect of mercury on the condition is universally recognized; it promptly lowers the arterial tension, not by acting on the heart and diminishing its vigour, but by relaxing the hypertonus. I need not at present discuss how the mercury has this effect. It is the power of producing this effect that makes the drug a dangerous one to give in many conditions; it is this which makes it specially dangerous in hypertonic vessels where the blood pressure is not raised, and where the heart has largely lost the power of easily and promptly adapting itself to vascular changes.

Pulse tracings of hypertonic arteries and of the same arteries after the hypertonus has been removed show that there is not only a marked difference in the swing of the needle of the sphygmograph but that the hypertonic vessel has a smaller diameter than the same vessel when its hypertonus is relaxed. The two tracings given below illustrate this. In my opinion this persistent continued hypertonus leads to the hypertrophy of the middle coat, which is one of the changes present in arterio-sclerosis, as that term is used in this communication.



terms of uric acid, of purins, or of something else, must be left for the future to determine. There is, however, a sidelight from which we can take some assistance. I refer to our knowledge of the influence of the secretion of the thyroid and adrenal glands respectively on arterial tonus and tension.

The Influence of Blood Conditions on Tonus.

The first point I have sought to establish is the active response of the arterial wall to impressions and influences, which places it in a totally different position to that which it occupies if it is regarded solely or mainly as an elastic tube.

The second point—that blood conditions are amongst the influences which so act upon the arterial wall—I wish to examine more fully. We may, I think, assume it to be generally accepted that generous feeding, and the free use of alcoholic and malt liquors, lead to high arterial tension, especially if there is not full, free, and daily evacuation of intestinal contents. I include under the phenomena of arterial tension the important part taken by arterial contraction or hypertonus. This is the gross type, and I think it is more common in some parts of this island than in others; and it occurs without doubt more commonly in some classes than in others. This type is so prominent that it seems to me as if other types were so overshadowed by it as to be overlooked: and yet there are other types. One of these is found in persons who are moderate or even spare eaters and very moderate drinkers, but who in later life present sclerosed arteries, and from time to time an unsafe measure of arterial tension. This increase of arterial tension is in my experience always due to hypertonus. I have had the opportunity of watching for years a case of this kind in a gentleman, in easy circumstances, who ultimately died well on in the seventies. My main work for several years for this old gentleman was the restraining of a marked tendency to hypertonus, and along with that a corresponding raising of arterial tension. The case illustrated several points of great practical interest: the first I may mention was the marked effect the hypertonus produced on the brain. It is, indeed, the symptoms referable to the cerebro spinal system which often lead to medical opinion and counsel being sought for in such cases. The patient to whom I am referring became unusually somnolent after meals: his speech became a little thick and blurred; but what annoyed him most was that he began to spell words incorrectly in his letters, a thing he had never done before; his gait also became slightly unsteady. In fact his condition at the time to which I refer, and some years before he died, was such as to suggest rapid cerebral degeneration. I was, however, satisfied that the symptoms were due to hypertonus of cerebral vessels curtailing local blood supply. I knew that in eating and drinking he was very moderate, as judged by ordinary standards, yet after careful consideration I strongly advised him to give up the glass of claret he took at lunch and dinner. Fortunately my patient and his wife, when they saw I was in earnest, at once fell in with my advice; and we were rewarded by the disappearance in a very short time of the symptoms which had given us so much concern, and along with this there was a corresponding reduction of hypertonus and arterial tension. I mention this case because it is illustrative of a type, and because it was my privilege to watch this patient very closely, and to be allowed to regulate his living as I deemed expedient.

There was in this case a very marked readiness on the part of the arteries to tighten up a little, and for long periods a small quantity of potass. iod. was sufficient to control it. After the continuance of such a period there would be some deviation from the ordinary austerity, some proteid added to the dietary, or some small measure of alcoholic fluid taken at lunch or dinner, and as sure as this occurred there was a threatening of the former symptoms. The total quantity of proteid ingested, of every kind of food taken was

relatively small; and the same was true of the amount of wine or of spirit. A more regular and temperate man could hardly be found, and yet he was constantly threatened with dangers more associated with the opposite habit. How are we to look at a patient of this kind? Are we to be content to regard him, as is not unusual, merely as an old man whose "strength" has to be kept up? This view, when acted upon, ends speedily in disaster. I submit that this man showed in later life in a concrete form what had been his physiological standard during life. There was in him a physiological barrier to his being a large feeder or a big drinker. We all know such persons—persons who cannot eat big dinners daily, or take alcoholic liquor of any kind regularly save in small quantity. This may have no more virtue in it than the declining to do what experience soon teaches brings about unpleasant results. The barrier is really a physiological one; the organs concerned are not capable of dealing with the amount or kind of work thrown upon them, and auto-intoxication or toxaemia of one kind or another results. Fortunately it is not a question of first-rate importance what the precise composition of the auto-intoxicant is, but I believe it is of great importance that we should recognize that, whatever its name, it has the power of acting upon the blood vessels—tightening up arteries and arterioles, modifying the capillary circulation, and affecting renal function. Neither is it necessary to dwell upon the varied symptoms which can be manifested during the intoxication. Recent observations suggest that we may have to alter what has hitherto been our standpoint as to what the primary and initial defect may be, in some at least of our patients. The possibility that thyroid secretion, on the one hand, or, on the other hand adrenal secretion, may be materially influenced by the quantity of proteid in our food puts the whole matter a step further back; for were this fully established it only gives a fuller explanation, a more detailed account of the physiological steps by which the auto-intoxication is brought about. In the patient to whom I have particularly referred it may be that the small doses of potassium iodide given to him acted by helping the thyroid secretion to counteract the adrenal secretion, a too active condition of the latter being, perhaps, the constitutional basis for the prolonged continuance of phenomena which ended in arterial thickening, in kidney changes, and in a final upsetting of equilibrium that we endeavoured in vain to restore. Be this as it may, it is to my mind clear that it is primarily to the feeding and to the gastro-intestinal tract that we have to look for the explanation of the vascular phenomena and the conditions associated with them, with which I am dealing. I think it probable that the kind and quantity of food taken may produce evil effects owing to deficient thyroid secretion; but also that under corresponding conditions the adrenal secretion may be over-stimulated. I can, however, hardly believe that all auto-intoxications following upon dietetic errors act through those special glands, although the cases where vessel changes are pronounced may always have a close relationship to a constitutional, congenital, or inherited tendency on their part. We fortunately can wait for the final solution of those most interesting problems; and meanwhile, we can move forward.

HYPERTONUS WITHOUT INCREASED BLOOD PRESSURE.

Now I wish to draw your attention to a class of person in later life who also has sclerosed arteries, whose arteries still retain a measure of adaptability, and are not mere tubes retaining a degree of elasticity, but in whom hypertonus does not lead to a rise in blood pressure. I deliberately distinguish this class of case, and it comprises a large body of persons, although to some of my clinical friends my position appears to be heterodox. I am physician to an institution where I see scores of old and feeble people of the respectable artizan class. It is half a paying home and half a hospital. The feeding is simple and spare. From my observations there, as well as in other directions, there can be no doubt that hypertonus occurs without increase of the blood pressure; that is, no increased sustaining of the column of blood in the hypertonic artery, but the reverse. This hypertonic condition of arteries leads to a number of interesting manifestations in those old people; it may give rise to insomnia and nocturnal restlessness; it may render an inmate who was moving with freedom about a ward yesterday unable to get out of bed to-day without being lifted or greatly helped by the nurse; and it may lead to hemiplegia or to aphasia. When these things occur the diet is carefully regulated, the gastro-intestinal condition is attended to; drugs are given in some instances to relieve arterial spasm; whisky is given in some, in others strophanthus. These cases return to their ordinary routine in due time as a rule. The condition is most commonly the result of gastro-intestinal auto-intoxication due to error in diet. The quantity of food taken is not large as measured by ordinary or popular standards, but it is over the limit for the individual, and the boundary is easily passed. Practically it is not of much importance what particular share of responsibility can be attached to the various organs for the production of the symptoms; but it is of essential importance that the condition be recognized as an auto-intoxication, caused by overfeeding or wrong feeding, by the absorption of the products of intestinal decomposition, or by the slow eliminating power of deteriorated kidneys; these act and react on one another, and the two last can in a measure be influenced by the first, can even be determined by it. The recognition of the condition puts the remedy in our hands, although it is not always easy, or indeed possible, to apply it thoroughly, owing to popular ignorance and prejudice.

The interest of these cases is not, however, confined to this aspect of them. As has been already indicated, the arterial hypertonus does not lead to an increase of cardiac power; in fact, it is often associated with, or followed by, a definite threatening of heart failure. It becomes, indeed, in some of these cases, somewhat of a fine art to determine which is the best line of treatment, or, it would be more correct to say, the lines of treatment to adopt, for diet, gastro-intestinal condition, hypertonus, and threatening cardiac failure are collectively presented for consideration and decision; and that in persons who are at best living on a narrow debit and credit account from the physiological or metabolic standpoint. The ledge is sometimes so narrow that even the measures adopted may precipitate the end. If the art is a fine one, is it not art growing out of knowledge which makes our work so attractive? Sometimes it is asked, "Is the result worth the trouble?" To the physician it certainly is, for it gives him an understanding which is an invaluable possession, while the acquiring of the skill is an education which moulds every side of his professional work. Other aspects of the question I readily leave for others to determine.

GASTRO-INTESTINAL DISORDERS CAUSING HYPERTONUS.

I seek in the next place to refer more directly, than I have so far done, to the influence of gastro-intestinal disorder, including of course food, in causing arterial changes. I have referred to the big feeder and free drinker, with his recurring attacks of "biliousness," and to the condition of his vessels. He often dies in comparatively early life from the result of vascular changes in his brain or kidneys. Now this gross type is readily accepted in all its bearings, but there is often a failure to recognize that there are minor degrees of the same class of phenomena as those presented by it. I have also referred to phenomena of this nature in persons with already sclerosed vessels. The point I would now specially submit to you is that in many persons in early and middle life suffering from one or other form of gastro-intestinal functional disorder—some form of dyspepsia or of constipation—there occurs an auto-intoxication of long duration, but relatively mild in its manifestations. It may manifest itself by a variety of subjective symptoms; it may be recognized by urine reaction. In a considerable proportion of cases of this class arterial hypertonus is to be noted. Very commonly the thickened arterial wall is regarded as a sclerosis occuring in early life, while as a matter of fact it is a hypertonic vessel and not a permanent thickening. That it is so is shown by the disappearance or diminution of the thickening under treatment, a result which could not follow were the thickening due to hyperplasia or hypertrophy of the tissues of the arterial coats. I am not prepared to say that all gastro-intestinal morbid conditions cause hypertonus, but when they do I believe we are face to face with the first step in the development of the sclerotic changes which are so common in middle and later life, and which materially determine the duration of individual life. I have seen vascular degeneration in persons who in early manhood had been martyrs to dyspepsia; such marked degeneration of the cerebral as well as of the general arterial system that by the age of 60 years repeated local brain softenings had rendered them physical and mental wrecks. This in persons who were moderate eaters, practical abstainers, and who neither in themselves nor in their children suggested any suspicion of syphilitic taint.

A measure of indigestion and constipation rank in the public mind as such commonplace conditions that the one is accepted as an inevitable accompaniment of life in the present time, with its buzz of mental activity and strain, and the other as only demanding alleviation after prolonged intervals of neglect by a dose of cascara or of some widely-advertised liver pill. It is my conviction that this combination of conditions, common though it be, leads slowly, insidiously, and surely to vascular changes in a great number of people.

The problems surrounding indigestion and constipation are too large to be entered upon fully at present; they are **intimately bound up with the problems connected with food,** and the general attitude of the medical and the lay mind to food problems. It may, however, be noted that the raising of the standard of comfort has, as has been shown by official returns, led to a great increase in the consumption of flesh **amongst all classes. Along with this has unfortunately come** the fixed popular idea that flesh is the only strength-giving food, that it is the essential part of the daily dietary. Now, there is no question that an excess of proteid food throws a strain upon excretory functions, it does not as a rule favour free bowel action; **it becomes, in fact, a potent source** of auto-intoxication. In some persons living on ordinary and very simple food, yet suffering from marked and even grave symptoms of auto-intoxication, you will find that by [illegible] **reducing the proteid element and increasing the carbohydrate** you remove those symptoms, and in addition you will arrest arterial changes and remove much of what appeared to be established. You are often in such cases met with the cry that you are reducing strength. **People seem to** have forgotten that the stalwart men who were to be found on every farm in Scotland fifty years ago were reared and maintained on carbohydrate food and milk for breakfast, dinner, and supper. Fancy constipation was not then a common complaint, and judging from some of those who remain, vascular degeneration was not an early development.

Indigestion, constipation, and feeding are so interwoven that we hardly see their relations until we induce some of our patients to submit to a revolution in their diet habits. The reduction in quantity of the more pure proteid food with **an increase in the more pure carbohydrate food is** the change which has to be effected. The latter, that is, the carbohydrate food, is mainly provided by the cereals. **The true place for cereals in a rational and healthy dietary** begins to be recognized in some measure, if we can estimate it by **the number of these introduced to the public** within the last few years. It is, however, a matter for surprise that all the enterprise in supplying us with novelties in the way of ready or partially cooked, or of partially digested, cereals is supplied by our friends across the Atlantic.

[illegible]

ABSTRACT OF

Two Lectures

ON THE

ESSENTIAL SIMILARITY OF INNOCENT AND MALIGNANT TUMOURS.

Delivered before the Royal College of Surgeons of Edinburgh on March 3 and 10th, 1904.

BY CHARLES W. CATHCART, F.R.C.S. Ed., F.R.S.E.,

[illegible]

Mr. Cathcart pointed out [illegible] important bearing on [illegible] under discussion with regard to [illegible] He held that the differ[illegible] between the [illegible] and that the [illegible] between the [illegible] and one who had given him [illegible] up to [illegible] that taken up the position which Mr. Cathcart proposed to defend, long before he did. There were still a large number who opposed the view either directly or indirectly, and there were possibly a larger number who were unable to make up their minds definitely on the subject. It seemed therefore worth while to try to concentrate attention on this proposition and to bring all the arguments in favour of it together, so as if possible to establish it as a recognized principle in pathology. Instances were given of pathologists opposed to and of those uncertain as to this view, while those in favour of it would be mentioned in the course of the lectures. In order to have a clear understanding of what was meant by innocent and malignant tumours reference was made to Mr. Bland-Sutton's discussion of the subject in the recent edition of his book on *Tumours*. The key to the difference is, as he expressed it, that "the baneful effects of innocent tumours depend entirely upon their environment, but **malignant tumours destroy life whatever their situation." Mr. Bland-Sutton describes the characters of malignant tumours** under the following five heads: (1) Infiltration, (2) gland infection, (3) recurrence, (4) dissemination by the blood, (5) inevitable destruction of life. If those characters, which are accepted by all, are analysed, the lecturer thought they might be stated in tubular form as follows:

Growth...		Type retained.
		Indefinite size.
Without capsule ...	...	Local tissues infiltrated.
		Local Recurrence.
		Gland dissemination.
		Blood dissemination.

Recurrence due either to [illegible]

An explanation of this table may be made shortly as follows: Malignant tumours follow the structure of the tissue or organ **in which they originated, in the majority of cases so closely** that the similarity is quite recognizable, both in the primary **and secondary deposits. This may be taken as sufficient** illustration of the view that they are modifications of growth. But that they are not under the restraining influence that the normal tissues are, is indicated by (1) their continuous growth, leading to an "indefinite size." This local overgrowth many call "local malignancy," and although some people object to **the latter expression, it seems a perfectly satisfactory one to** explain one of the ways in which these tumours "inevitably destroy life." (2) By their cells leaving the original mass so **as to produce secondary growths in the neighbourhood, even** when the original mass seems encapsuled. This is what is meant by "local dissemination," and the same breaking-free tendency is shown by (3) infiltration of the surrounding tissues where there is no capsule, and by (4) dissemination through the lymphatic system, or (5) through the vascular system in the epithelial and connective tissue types of malig**nant tumour respectively. Recurrence could in some cases** be traced to local dissemination where a capsule was present, in others to infiltration of the surrounding parts where the knife had passed through the actual extension of the tumour, or in others to involvement of glands.

The lines of argument which were to be followed out in support of the view taken by the lecturer were indicated as:

1. The presence of gradation in malignancy as shown in a series of specimens selected and arranged to illustrate different degrees of malignancy in the same kind of tumour, taken from different individuals.

2. Transformations in character, where a tumour of a certain kind had changed from innocent to malignant in the same individual.

3. Combinations of characters where tumours otherwise innocent have shown certain characters which are generally believed to belong only to the malignant forms.

These lines of argument were supported by appeals to specimens examined both by the naked eye and microscope, and illustrated by lantern slides thrown upon the screen; by reference to published cases, and by reference to published opinions of well-known pathologists. The greater number of the specimens illustrated were in the museum of the Royal College of Surgeons of Edinburgh, some had been selected from other museums in Edinburgh, and one from the Hunterian Museum in London. It had been impossible to cover all the ground that might have been covered, but it was hoped that the specimens were sufficiently illustrative for the purpose in view.

1. GRADATION IN MALIGNANCY.

The gradation series specially worked out were those of the tumours. The museum of the Royal College of Surgeons of Edinburgh is relatively rich in this class of tumour, and the latter is also one which lends itself to lantern illustration.

(1) Cartilaginous tumours formed the first series; innocent forms were shown first and then microscope characters illus-

trated. Afterwards specimens were shown which illustrated in succession local overgrowth, recurrence with apparent encapsulation, and at the end of the series local overgrowth with dissemination by the blood.

(2) Bony tumours were then taken up and were followed out in the same way, illustrations being given of local overgrowth and local recurrence, until the tumours were reached which are usually described as sarcoma, where malignancy manifests itself with such marked features.

(3) Central tumours were next taken. These showed the easily recognized character of myeloid cells not only in the simple forms, but in others which had malignant characters, and the similarity was traced on as in the previous class till the undoubted sarcoma group was reached, where the presence of malignancy was beyond dispute.

In reviewing the three series, the lecturer drew attention to what might be called the milder stages of malignancy, or half-way characters namely, local overgrowth, and local dissemination with the presence of a capsule, the latter being apparently present before definite infiltration took place, although it was no doubt present, also, along with infiltration. Attention was also drawn to the similarity of structure, not only of the various tumours which formed each series, but also of the various parts of the individual tumours, the importance of the latter point being that a tumour which had some parts resembling an innocent, and some parts resembling a malignant, tumour showed a gradual transition from the one to the other, and not a mixture of two kinds, distinct from one another.

Gradation in malignancy in other forms of tumour were briefly indicated, thus:

(4) *Fibrous Tumours.*—Illustrations of semi-malignant forms of fibrous tumour were taken from "recurrent fibroid tumours," also from those fibrous tumours which, although apparently encapsuled, returned locally after removal, while their structure had in some places the naked-eye and microscopic characters of an innocent fibroma, but in others those of a sarcoma. Allusion was also made to Virchow's remark in connexion with these tumours, where he says: "It is a matter of great importance to remember that the boundaries" of what he calls "tuberous fibroma are not clearly defined from those of other tumours, especially those of sarcoma, there being undoubtedly transition forms which exist between them."[1]

(5) *Renal Growths.*—The following quotation was made from Dr. Kelynack's work on *Renal Growths*, as supporting the possibility of a gradation series of renal growths:

No very definite line can be drawn between the various forms of adenomatous growth. They shade off one into another. Some, especially the "tubular cystomata," as they have been termed, with papillary ingrowths, are particularly prone to take on indefinite growth and to manifest malignant characters. This seems to have been recognized by several pathologists.

Delafield has pointed out that sometimes adenomata behave like malignant growths, especially those forms which are very vascular. As he well says, "The adenomata, which run a malignant course with the formation of mestatic tumours, are often called carcinomata." Ricker has also met with a malignant form of trabecular cystoma. It is of very great practical importance to remember that, although from their microscopical characters they might be considered simple, yet frequently they prove malignant. This was well illustrated in a case recently recorded by Willet

(6) *Sebaceous Adenoma.*—Illustrations of various degrees of malignancy in this type of tumour were given in specimens in the museum of the Royal College of Surgeons, Edinburgh, where the tumours, all having the same microscopical character, showed various degrees of malignancy from simple pedunculated forms to those in which there was local dissemination and infiltration of surrounding tissues.

(7) *Breast Tumours.*—Allusion was made to Professor Halsted's paper in vol. xxviii of the *Annals of Surgery*, where he described a series of cases of what he called adeno-carcinoma of the breast, which he showed to stand half-way between adenoma and carcinoma. A paper by Mr. Thorburn in the *Illustrated Medical News* for September 15th, 1899, was also referred to in support of the possibility of finding specimens which bridged the interval between innocent and malignant forms of breast tumour.

(8) *Cystic Tumours of the Testicle.*—The opinion of Mr. Eve was quoted when, after a careful examination of many tumours of the testicle, he came to the following conclusion: "There is no genetic difference between the innocent and malignant cystic tumours of the testicle; they are merely varieties of the same form of tumour."[2]

(9) *Multilocular Cystic Epithelial Tumours of the Jaw.*—Mr. Eve was again quoted as having come to a similar conclusion with regard to this class of tumour, to which he had given special attention, and the exact nature of which we owe to his careful work. He says:

The general impression formerly existing, that all the multilocular cystic tumours are innocent, is entirely unfounded. Recurrence has taken place in many recorded cases after the cysts have been opened and their contents sponged or imperfectly gouged out . . . . Recurrence sometimes takes place after the complete removal of the affected portion of the jaw. . . . . In completion of the evidence showing the truly malignant nature of some of the cystic tumours I am able to quote the following case, for the notice of which I am much indebted to Mr. H. W. Parker, who also gave the microscopical sections of the morbid growths

(10) *Chorion-epithelioma.*—Dr. Teacher, whose work on this kind of tumour has entitled him to speak with authority, states in his monographon the subject:

It seems at present impossible to draw a sharp distinction between the simple moles and the malignant moles and chorion-epitheliomata, either in respect of their early clinical history or the histological appearances.[3]

(11) *Tumours of the Bladder.*—Mr. Hurry Fenwick, in his work on *Tumours of the Urinary Bladder*, makes the following allusion to villus-covered malignant growths:

On examining the cystoscopy of villus-covered malignant growths, and on analysing their clinical and operative histories, we cannot avoid the inference that they form an intermediate class between benign papilloma on the one hand and malignant infiltrating growth on the other. They resemble the former in their comparative indolency and in their superficial structures when they are in their earlier stages, whilst they are akin to the latter in their basal tissues when far advanced.

In concluding the exposition of the first line of argument the lecturer drew attention to the way in which various workers had independently come to a conclusion similar to that which was embodied in the gradation series of bone tumours which he had brought before the audience by means of the lantern.

2. TRANSFORMATION OF INNOCENT INTO MALIGNANT TUMOURS.

(*a*) The transformation of innocent into malignant tumours in the same person, and, what may be considered as a part of the same argument, (*b*) the simultaneous presence of innocent and malignant growths of a similar kind in the same individual.

(*a*) A number of specimens were shown, and others alluded to, which illustrated this transformation.

1. Fibroma of scalp becoming malignant. Museum Catalogue of R.C.S.Edin., 12, 1[illegible]. This was one of many soft fibrous tumours which had been present from infancy in this patient. It had only begun to increase when the patient was aged 4[illegible], but it had then grown rapidly, and had broken down and ulcerated. It had been removed, and showed fibrous tissue well developed in some places, but in an early stage of development in others.

2. Cast of a sebaceous cyst having become malignant. Museum Catalogue, R.C.S.Edin., 12, 1[illegible]. This was one of many wens which had been present on the scalp of a woman, aged [illegible], for about thirty years. One of these had begun to enlarge about three months before the patient sought advice, and had rapidly involved the surrounding tissues, and caused enlargement in the glands. The case was inoperable, and the patient died in a lunatic asylum, not long after having been discharged from the infirmary.

Epithelioma of the hand following a congenital wart. A case recorded by Oliver Pemberton on page 11[illegible] of his large book on *Cancerous Growths*. Several similar cases recorded in the same book were also referred to.

3. Melanosis. Museum Catalogue, R.C.S.Edin., 12, [illegible] and 1[illegible]. A specimen was shown of melanotic tumours which had originated from a mole on the back of a woman's loin. Several had been removed, but with recurrence. Patient died with symptoms of diffusion of the tumour. This case was, however, complicated by the presence of scirrhus of the breast, which had developed between two of the operations for melanotic recurrence.

Reference was made to Oliver Pemberton's statement that 15 out of 34 cases of melanosis which he had investigated had developed in or near a congenital mole.[4]

4. Tumour of the parotid becoming malignant (Museum Catalogue, R.C.S.Edin., 17, 45.) The original tumour had been for many years of small size but had begun to grow a few months before the woman sought advice. It had increased rapidly, was removed by Sir Patrick Heron Watson but returned in eighteen months. On section, some parts seemed to be of a simple and others of a more rapidly growing and malignant character.

5. Uterine fibroids becoming malignant. Reference was made to Mr. Bland-Sutton's account of this occurrence, and the case described on p. 1[illegible] of his book was quoted. Reference was also made to Professor Senn's account of a similar case on page [illegible] of his work on *Tumours*. Attention was also drawn to the fact that Senn, although admitting that tumours may become transformed in character from innocent into malignant, was yet an opponent of the view that there could be any transition stage between them.

(c) Benign adenoma transforming into rectal cancer. Reference was made to Professor Ball's lecture in the BRITISH MEDICAL JOURNAL, vol. i. for [illegible], where he mentions a case of this sort.

(d) Simple villoid tumour becoming malignant. An illustrative case was referred to which is quoted in Mr. Hutchinson's [illegible], vol. iv., p. [illegible].

(e) Bladder tumour of simple nature becoming malignant. What seems to be a good illustration of this is quoted by Mr. Fenwick in his work on bladder tumours, p. 41.

(f) An instance of a simple form of nevus (hæmatosis) becoming malignant was quoted from Mr. Alexis Thomson's *Manual of Surgery*, vol. [illegible], p. [illegible].

(g) Illustrations of the simultaneous presence of innocent and malignant tumours of a similar kind, were taken from the multiple polypoid growths which are found in the rectum and colon. These might, perhaps, be taken as illustrations of the transformations from simple into malignant tumours if the full history of the cases were known. It is obvious, however, that it would be impossible to say whether the malignant specimens of such tumours had been innocent at first, or whether they had been malignant from the first, when it is remembered that they can only be examined after death. Abstracts of such cases are recorded in the *Annals of Surgery*, vol. xxvi., p. 328, and in the LETTSOMIAN in the BRITISH MEDICAL JOURNAL for April, 1899.

3. COMBINATION OF CHARACTERS.

The presence, in certain otherwise apparently innocent tumours, of characters which are usually believed to belong only to malignant tumours. Such characters are (*a*) local overgrowth, (*b*) local, and (*c*) general infectiveness. Of these the first had been illustrated in the gradation series, the second was undoubted, but had not been generally appreciated in its bearing on the present subject, while the third might be open to question.

(*b*) *Local Infectiveness.*—(1) Ruptured dermoid cysts producing secondary dermoids throughout the peritoneal cavity. Mr. Bland-Sutton describes such cases; one especially was referred to on page 418 of his book on *Tumours*.

(2) Leaking parovarian cysts spreading warts all over the peritoneal cavity, which subsequently disappeared. These also are described by Mr. Bland-Sutton on page 469 of his book. A specimen from a case of the kind operated upon by Mr. Caird was exhibited, where, eight years ago, when such a cyst was removed the whole pelvic peritoneum was found studded with warts, but where the patient had recovered and was now well without any symptom of trouble.

(3) *Venereal Warts.*—The lecturer alluded to his paper published in the *Journal of Pathology*, 1896, where he brought forward arguments to show that venereal warts are really a contagious form of innocent tumour, and he also referred to drawings in the museum from a case where warts had been transferred from the anus to the penis by scratching, there having been apparently no history of venereal affection of any kind, and certainly no such disease present.

(4) The contagious tumours in dogs which had been described by Dr. Washbourn, Dr. White, and others were considered to be illustrations of a similar phenomenon.

(5) The ingrafting of an abdominal wound by innocent ovarian adenomata which is described by Mr. Bland-Sutton on p. 239 of his book seemed to be a further illustration of the malignant power of certain tumours which were otherwise simple.

(6) As an illustration of the possible general infectiveness of an innocent tumour, attention was drawn to what has been called general thyroid malignancy, where apparently innocent tumours of the thyroid had been associated with multiple thyroid tumours in the lungs. The secondary deposits showed no signs of malignancy, although the structure and clinical behaviour of the original thyroid tumour seemed [illegible] from that of an innocent tumour. Even although it could not actually be proved that in such cases the original thyroid tumour was really not innocent but malignant in [illegible] sense, the discovery would only shift this phenomenon of general malignancy from the third line of argument back to the second.

(*c*) With reference to the local infectiveness of certain epithelial tumours attention was drawn to the peculiar circumstances which permitted of the spread of the disease. The cells in these cases have the opportunity of escaping on to a free surface, and then of [illegible] on which they may develop. It was thought right to consider such cases along with those of local dissemination which had already been pointed out as "halfway" in character in various forms of connective-tissue tumour. From the fact that these connective-tissue tumours were embedded in the tissues it was not difficult to see that if they manifested this character of local dissemination it was in spite of there being less facility for it than in the epithelial tumours in question. Consequently a greater degree of malignancy might be presupposed in them than was present in those locally contagious superficial epithelial tumours.

Attention was drawn to the fact that in each line of argument evidence had been brought forward from many different and independent observers; and, further, that the three lines of argument mutually supported one another. It was therefore considered right to conclude:

1. That innocent and malignant tumours are essentially similar to one another.

2. That both forms of tumour might equally be considered as due to growth broken free from normal restraint.

CONCLUSIONS.

A plea was then made for accepting these conclusions without fear of the deductions which naturally followed from them. The lecturer believed that many pathologists had not the courage of their opinions in regard to this question, because the conclusions, if logically carried out, seemed to antagonize many of the views which might be called fashionable at the present time. He ventured, however, to indicate some of these deductions as follows:

(1) That every type of tumour has associations with malignancy, no class being exempted. The general principle, however, might be stated that the more highly organized and formed the tissue of a tumour, the more it belonged to the simple class, and vice versa. All forms of connective-tissue tumours seemed to converge to the round-celled sarcoma type, and all forms of epithelial tumour to converge to the encephaloid cancer type, there being, however, many tumours which were quite characteristically malignant although considerably removed from the extreme malignant structure.

(2) Attention was drawn to the difference that exists between the behaviour of the developing cells of a tumour and that of an embryo, although under the microscope their appearance might be indistinguishable. The caution was therefore thrown out that mere structure did not necessarily indicate clinical behaviour.

(3) With regard to the etiology of tumours, the general principle was enforced that no theory of tumour growth could be considered satisfactory which would not apply equally to innocent and malignant tumours. The bearing of this on the parasitic and other theories was shown.

(4) With regard to treatment, it was pointed out how the view as to the similarity of all forms of tumour would put the surgeon always on his guard, while the views of those pathologists who held that certain kinds of tumours were invariably innocent would have an opposite effect. Further, with regard to the search for a cure for cancer, it was shown how the view of abnormal growth was consistent with many apparently inexplicable statements as to the behaviour of malignant growths. Thus it made it more easy to understand that the life of the tumour cells might be more precarious in some ways than those of the normal tissues, and thus that spontaneous subsidences might occur, or, again, that the cells of tumours might be injured by toxins, x rays, or even by mental influences. The lecturer thought that mental influence might explain the effect of many vaunted cancer cures, all probably useless in themselves except so far as they might affect the mind of the sufferer.

(5) With regard to the influence of this view on classification of tumours, the opinion was expressed that it was undoubtedly best to divide tumours primarily according to the type of tissue or organ from which they arose, and in each class to arrange the individuals according to the degree of malignancy which they manifested. In cataloguing the museum specimens in the Royal College of Surgeons of Edinburgh the lecturer had adopted this method, and was convinced that although from the absence or imperfection of clinical histories the proper position of the tumours was often difficult to determine, the results were much more satisfactory as a help for clinical work than those given by any other method of arrangement with which he was acquainted.

REFERENCES.

[illegible]

THE OBSTETRIC SATCHEL: A PROBLEM IN ASEPSIS.

By J. W. BALLANTYNE, M.D., F.R.C.P.E.,
Examiner in Midwifery, University of Edinburgh.

THE speed of a fleet of ships is the rate at which the slowest vessel in that fleet can sail. The measure of the strength of a defence is found in its weakest point. The degree of immunity from septic infection in obstetric practice depends upon the completeness of the aseptic precautions adopted; the precaution which fails determines the quality of the success of the prophylaxis. If the fleet is to sail faster it is useless to accelerate the swift cruisers and destroyers to thirty knots while the other vessels can only do fifteen or eighteen; if the defending wall is to stand sure it is the weak part that requires to be strengthened and not the strong: and if obstetric asepsis is to be perfect it is the defective detail that must be corrected. To condense this wide argument down to a single point: I am hesitating about the adoption of rubber gloves in obstetric practice because I am not sure about the state of my midwifery bag. The meaning of this somewhat cryptic statement will become clear as the discussion advances.

To understand the position of aseptic midwifery at the present time it is necessary to cast a glance backward: it need not be a long look, but it is essential. In 1867 a new word began to be seen in the medical literature of the day: that word was *antiseptic*. It was not truly a new word (new things being altogether rare things in this world now so old), but it began to carry to the hearer's mind a new idea and to have new and beneficent associations. It was really an old word, for it was in use as far back as 1751 in the sense of "antiputrescent"; we can read in the *Gentleman's Magazine* of that time that "acids *per se* are most powerful antiseptics." It was employed figuratively, also, as something preventing moral decay; and Thomas Carlyle, in his *Latter-day Pamphlets*, published in 1850, characterized certain individuals as "not divine men, yet useful antiseptic products of their generation," a characterization which we obstetricians might well strive to earn for ourselves. Be this as it may, in 1867 Lister published his articles on A New Method of Treating Compound Fracture and On the Antiseptic Principle in the Practice of Surgery,[1] and launched the word afresh on its voyage down the stream of time with a new significance attached to it. I need not relate how Lister had grasped the all-important result of Pasteur's research on the microbic causes of putrefaction, "a secret wrung from Nature's close reserve," and had translated it into the practical everyday work of the surgeon; the marvel of thirty years ago has become the commonplace of to-day and requires no re-telling by me. It is well, however, for us to remember that during the decade that followed Lister's discovery surgeons relied upon the antiseptic rather than upon what we now call the aseptic principle in their management of wounds; the microbes that ventured near the operator perished (or were supposed to perish) in the noisome spray or were killed by strong carbolic lotions in the incision, and the tissue of the wound themselves did not always escape the fate prepared for the invading hordes of bacteria.

In the year 1868 carbolic lotion was being employed in Glasgow for the washing out of the uterus in puerperal septicaemia, as we learn from Professor J. G. Wilson's short note in the *Glasgow Medical Journal* (i, p. 322, 1869), and about the same time Bischoff paid a visit to Lister and took back with him to Basel the idea of obstetric antisepsis. In 1870 Stadtfeldt of Copenhagen systematized the new plan of conducting midwifery cases, and it is worth while remembering that the Danish obstetrician emphasized personal disinfection, the washing of the hands in carbolic lotion, and the daily bathing of the genitals with the same during the puerperium, as well as the employment of vaginal douches. Although this was so, yet there can be no doubt that during the ten or fifteen years that followed 1870 the outstanding feature of the treatment was the *post-partum* and puerperal vaginal douche. As we now know, this was not so essential a part of obstetric antisepsis as was thought, and was founded upon imperfect knowledge of the bacteriology of the vagina and uterus; more than this, it became in the hands of some a real danger. Nevertheless, much good was done by the new departure in the management of midwifery cases, how much Sir (then Dr.) Halliday Croom demonstrated in a paper which he read before the Edinburgh Obstetrical Society in November, 1880;[2] the mortality in obstetric practice fell rapidly and the morbidity also decreased, sure indications of the success of any method of treatment. Still better things, however, were yet in store for the parturient and puerperal patient.

Asepsis is a newer and a better thing than antisepsis, for prevention is better than cure, and is very much better than a cure that brings dangers with it inherent in it. In a sentence, it is better to prevent the access of pathogenic organisms to the uterus than to pursue them there with strong antiseptics, which seriously reduce the vitality of the uterine tissues themselves and may do harm also in other ways. Chiefly through the painstaking investigations of the Germans a knowledge of the bacteriology of the genital tract from uterine fundus to vulva was built up during the last two decades of the nineteenth century, and the information thus obtained is being applied to the elaboration of a more perfect system of dealing with the risks of septic infection in labour and the puerperium. Under normal circumstances the uterine interior in pregnancy and labour is sterile; the cervical plug of mucus, while it does not kill bacteria, makes it at any rate difficult for them to pass in: by a germicidal action of the vaginal mucus, and possibly by other protective mechanisms of a more complex kind, microbes introduced into the vagina from without are rendered innocuous; the gush of liquor amnii—practically a normal saline solution—which takes place at the close of the first stage of labour, and which is to some extent repeated at the end of the second, helps to wash away any microbes which the vaginal mucus, perhaps becoming scanty, has failed to kill; and finally, the placenta, like a huge sterilized sponge, sweeps through the passages, carrying clots, shreds of membrane, meconium, vernix, and all such putrescible matters before it. Outside the vaginal orifice, however, a very different state of matters exists; there are congregated multitudes of pathogenic and pyogenic organisms which may be carried in on examining finger, on instrument, and on douche nozzle; near the anus in particular there lurks, in all probability, the bacillus coli communis, more to be feared in its later developments than all the rest, because not vulnerable to the antistreptococcus serum.

As soon as the new conception of the bacteriology of the genital tract in labour began to become the common possession of obstetricians, so soon the methods of management of parturient patients began to undergo revision. The idea of a genital tract sterile in its upper (uterine) part, with self-protecting microbicidal mechanisms in its middle (vaginal) portion, and with a lower (vulvar) part swarming with dangerous micro-organisms—this idea revolutionized obstetric practice. If mischief had its abode outside the vagina, then it behoved the obstetrician to keep it there or to remove it further off. It was obvious that the examining finger of the attendant passing in and out over the vulva might carry in bacteria with it. These might, it was true, be rendered innocuous in the vagina, but there was, of course, a limit to the microbicidal powers of that canal, and there was no certainty that in the uterus any protective mechanism at all existed. The same conclusion applied to instruments or to the douche tube introduced over the vulva. The finger, douche, or forceps blade might all be aseptic when they reached the vulva and might yet be contaminated by contact with the skin over the perineal body and at the sides of the pudenda.

The attention of the careful obstetrician was now concentrated upon the vulva. Thorough cleansing of the external genitals and surrounding parts from before backwards began to take the place of importance formerly occupied by the vaginal douche; soap and water and an antiseptic lotion (sublimate, carbolic, lysol, creolin) were brought into operation, and special care was taken to remove sources of danger from the neighbourhood of the anus. Further, the obstetrician, when introducing his fingers or any instrument into the vagina, was careful to hold aside the labia so as to avoid contact therewith. The number of vaginal examinations was also reduced to a minimum, and careful abdominal palpation in great measure replaced the vaginal touch. All these precautions are wise, and must, to my mind, be in no way altered; they are essential to the safe practice of obstetrics. Further developments of the aseptic system soon appeared. More and more rigid methods of hand sterilization were adopted, culminating in the wearing of rubber gloves, and the care of the finger-nails was made almost a science. In maternity hospitals, at any rate, and to some extent in private practice, the boiling of instruments before their introduction into the vagina and uterus became a matter of routine. Operating coats began to be worn, and in this connexion I may say that since about 1894 or 1895, when

I commenced wearing an ovariotomy apron at my private cases, I have used this precaution. In all these ways the technique of obstetric asepsis was elaborated and established. Now, having very rapidly and cursorily enumerated the precautions usually taken at a midwifery case at the present time, I may proceed to discuss the question of the midwifery bag.

The midwifery bag is, to my mind, the weak point in the obstetric defence of the woman in labour against the assaults of sepsis. The bag is, indeed, no worse than it was years ago, in some respects it is, perhaps, a little better; but in its evolution it has not kept pace with the progress of the technique and armamentarium of modern obstetrics. While danger has been largely excluded from many directions, the midwifery bag still brings it to meet a few cases of confinement. Edgar says that "the ordinary obstetric leather bag which has been from one case to another, in cabs and street cars, which of necessity has had its interior soiled by bloody fingers and instruments, green soap, ergot, or other drugs, has no place in the lying-in room in the present age of aseptic surgery." The words are strong, but I do not think they overstate the facts. Some years ago the contrast between the aseptic precautions I was adopting for abdominal sections and other gynaecological procedures and those with which I was contented at an instrumental delivery began to come home to me with some force; and it was not long before I began to try to bring the two groups of cases more into line. It was comparatively easy to approximate the protective procedures in most of their details; but I still found myself starting off to do, say, an ovariotomy with all my instruments, swabs, and ligatures sterilized and in a metal sterilizer, while, when the call to a forceps or craniotomy case came, I picked up my midwifery bag and trusted that I should be able to sterilize its contents at the patient's house.

I do not think my methods differed much, if at all, from those in use by my medical brethren, but in obstetrical literature, and more especially in that of Germany, there began soon to be indications that the consciousness of the profession was being exercised about the safety of the midwifery bags in common use. As far back as 1890 Professor Simpson showed to the Edinburgh Obstetrical Society a German midwives' obstetric bag, in which there was an attempt to overcome some of the more obvious risks; and in 1892 Veit demonstrated to the Gesellschaft für Geburtshilfe und Gynäkologie in Berlin his obstetric and gynaecological operating bag, containing a metal carrier for instruments which could be sterilized. In 1895 Professor Von Hoff brought out a somewhat complicated instrument-holder or sterilizer, and Fehling a midwifery bag (*Geburtstasche*) of the same metal about the same time. Towards the close of 1897 Alfons Schönberg described his new obstetric bag, "made like a portmanteau, and covered with canvas." Recently (October of last year [1903]) Dr. R. de Sergneux proposed to obtain an aseptic system by placing all the [illegible] in little sterilizable bags inside an ordinary [illegible] bag. And in the late work on obstetrics of Professor Edgar, of New York, published a few months ago, a good midwifery bag, consisting of a double [illegible] containing the various instruments in canvas bags, by Edgar's bag I shall return immediately.

Meanwhile the midwifery bag was, so to say, following in the wake of the operating [illegible] of Germany and America. At first it was doubtless rather [illegible] to the casual man then it was a [illegible] for one of the same kind but with a sterilizable and washable lining a step in the right direction. I began to do this when I remember [illegible] the idea of the lining of the midwifery bag after some [illegible] I was satisfied for some time with such a [illegible] that way not a success as it proved to be, the idea of a surgical operation in [illegible] a midwifery bag by which all the [illegible] might be given to the attendant in bulk [illegible] and was very [illegible] Professor [illegible] with the [illegible] bag [illegible] and [illegible] York. I thought that it had [illegible] might be improved with advantage. What these [illegible] I shall mention immediately after I have stated very briefly where the bag still [illegible] The complete description is to be found in Edgar's *Practice of Obstetrics* (p. 502), and I need only refer to its general characters. The bag consists essentially of two trays or vessels with a leather cover of a portmanteau shape fitting over them both. The trays are of sheet iron, enamelled in white; one of them, the female, is shallower than the other, but slightly longer and broader, and in it the deeper but shorter and narrower male tray rests when the bag is ready for transportation. The male tray does not pass entirely within the female, a small space being left in the latter, in which is a canvas tray for the accommodation of the glass ware of the bag. The deep male tray contains the obstetrician's operating coat or apron, his douche, his dressings (iodoform or sterilized gauze, etc.), and his instruments (forceps, scissors, needles and needle-holder, etc.). Over the two metal trays, fitted together as above, there is pressed the leather skeleton of a portmanteau of an extinguisher shape, and the whole is held together by two strong straps. The bag is 18 in. long, by 9 in. high and 8 in. wide, and it weighs when empty between 10 lb. and 11 lb. I may add that the instruments and other things in the deep tray are contained in small canvas bags. The bag, without the canvas tray, cases, and contents, can be obtained through instrument makers on this side of the Atlantic for about £3 3s.

Now, it seemed to me that the principle upon which Professor Edgar had proceeded was perfectly sound. The bag as a whole was simple; it did not contain the elaborate and complex arrangements sometimes seen for holding the various parts of the armamentarium. It was also sterilizable by boiling in all its parts except the cover; and it consisted of trays in which the various instruments might be sterilized beforehand or at the confinement. Further, it had a sufficient resemblance to the ordinary bag not to offend against the conventional. It appeared to me that if it could be made lighter and cheaper, and if a washable cover could be devised for it, there was the possibility of obtaining a bag which might be useful to the general practitioner and specialist alike, and yet fulfil all the requirements of the strictest aseptic regimen. Accordingly I asked Mr. Young to make for me the model which I now exhibit.

In the first place it seemed to me that it was necessary to give a name to the new bag which would denote that it differed essentially from the old one. I therefore propose that the name "obstetric satchel" be set aside for any form of metal sterilizer contained within a washable or leather cover, while the old name "midwifery bag" be retained for the ordinary bag closing with a lock or clasp. The word "satchel" has already been used in several slightly different senses, as any bag or sack or other means of carrying books or papers and there is no violent dislocation of its significance in employing it in the way I suggest.

In the second place it was obvious that the satchel, if it were to become anything else than the appanage of the obstetric consulting physician, must be procurable at a lower price, and this suggested whether the material of the trays might not be advantageously altered. Cheaper and lighter were the essentials which were present in my mind. Aluminium was mooted to Mr. Young and myself, but this metal, although light, has the disadvantage that it requires to be beaten out to the form needed for the trays, as it cannot be soldered together easily, and this would, of course, increase the cost. Copper was thought of, but was abominable on account of its weight. Finally, it struck me when I happened to look at my ordinary small sterilizer (Cumb's pattern), which had been in use for several years, and was looking none the worse, that tinware after all the material we were in search of. That is, therefore, I may add that my objection to enamelled ware as used by Edgar is not only the price and weight, but the liability to chipping. In the bag which we got from New York the enamel was already badly chipped when it reached this country, and the possibility of keeping it quite aseptic is very [illegible].

In this way the price of the satchel was cut down and its weight lessened. In the next place it seemed to me that the trays were unnecessarily wide, and that they might fit more closely to each other. So instead of having the trays [illegible] by 4½in., and 1½in. by 8in. by 6in., I got them to be 4in. by 3in. and 1½in. by 7½in. In this way the weight was further diminished and the satchel was narrowed slightly, approximating its form to that of the ordinary midwifery bag.

[illegible] Messrs.

A minor modification was the abolition of the cross bar rests in the corners of the female tray, which seemed to prevent the easy cleansing of the tray, and to provide awkward sharp edges in manipulation. Instead of them, external brass ribs or flanges, four in number, were fixed (soldered on) to the exterior of the male tray: these prevented the male tray descending too far into the female, and so preserved the space in it for the canvas holder for the glass ware. They also provided us with a means of lifting the male tray out of the female, which is a distinct convenience (Figs. 1 and 2).

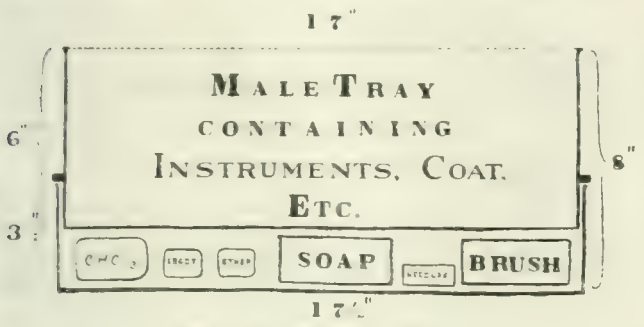


Fig. 1.—Longitudinal section.

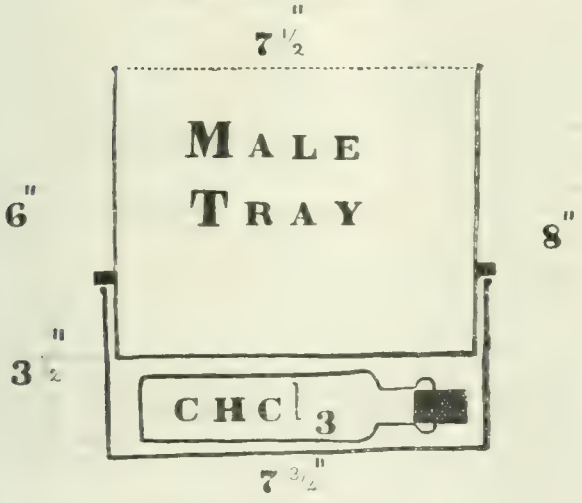


Fig. 2.—Transverse section.

The satchel has a cover of washable brown canvas, which I regard as an advantage, for it also can be thoroughly cleansed now and again by boiling and is at the same time lighter than leather. Instead of having it fit over the trays like an extinguisher, an arrangement which almost necessitates a second pair of hands to hold it in order to extract the trays from it, it is so constructed that it opens at the side (not below), and easily allows the contents to be withdrawn or replaced. A single leather strap with a handle traverses its upper surface longitudinally, and surrounds it (Fig. 3).

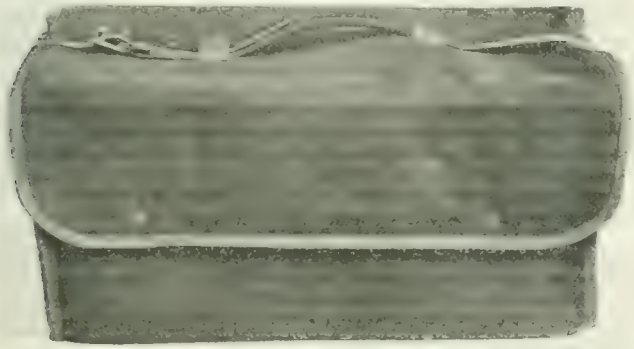


Fig. 3.—External appearances.

A Young and Son, Forrest Road, Edinburgh, have the satchel in both sizes. I may add that at a recent labour with grave complications I found the satchel most serviceable.

By these modifications the weight of the empty satchel and cover is reduced from 10½ lb. to 8 lb., and the cost from £3 3s. to between 35s. and 30s.; the cover also can be easily washed. Further, when it is placed on a hard surface, being surrounded on all sides with canvas, it does not rattle, and so gives no audible indication that it is aught else than a conventional bag. I may add that the glass ware inside as well as the instruments, being enclosed in canvas sacks and in sterilized towels, make no noise, and are ready for use when needed.

The advantages of such a satchel as I have described are many, but chief among them is its cleanness. After a case is over everything can be put into the tins and taken home; the instruments can then be boiled and put ready for the next case; the coat or apron can be washed and boiled and dried by ironing; so can the towels or canvas bags and cases: the tins also can be thoroughly sterilized. Then when another confinement comes on we can go to it with clean things in a clean bag; that at any rate is made certain; but if we are still in doubt as to the condition of any parts of our armamentarium we have a ready means with us to sterilize any or all of them afresh.

Then, at the confinement, as Edgar well points out, there is much to be gained. The deep tin, for instance, may be used for washing the hands in, and it is large enough to admit the whole forearm, which is useful when such an operation as version is in contemplation. The shallower female tin tray may be used as a sterilizer; the forceps pinned up in a towel may be placed in it and sent to the kitchen to be boiled; the water can be poured off and the tray and forceps still in its cover can then be brought back to the bedroom and used if occasion should arise. In an emergency, the two trays, deep and shallow, may be employed as baths with hot and cold water for the resuscitation of an asphyxiated infant. The canvas tray in the inside of the shallow tin has the advantage of keeping all the bottles and glassware together in a noiseless fashion. As a rule only the forceps need be carried, but if we suspect a serious operative labour the deep tin is large enough to contain a basilyst, a Braun's cranioclast, and a Bossi's dilator as well. Finally, the satchel has a perfectly conventional appearance and can be carried through the streets without attracting any attention, as I have personally proved.

It may be objected that there are disadvantages connected with its use. So there undoubtedly are. It is rather large in size; its contents are not so easily got at as when they are in a bag which opens in a second of time with a catch arrangement (which, I may add, sometimes does not catch, with unhappy results); the tins may rust or leak (an ordinary bag may also get a hole in it); and the price is a little above that of the small leather midwifery bag. But what do all these amount to? Simply this; We are taking more pains in order to get a better result. The best results are built up upon attention to details; detail, in the long run, here, as elsewhere, overcoming dash. Doubtless it is easier for the surgeon to do an operation with a scalpel taken out of his waistcoat pocket; but the surgeon does not on that account neglect to boil his instruments nor to study with painstaking exactitude all the minutiae of aseptic technique. The surgeon has accepted the principle of asepsis in surgery, and he tries to carry it through in detail; in obstetrics we obstetricians have also accepted the aseptic plan, and we must likewise be thorough in the carrying of it out. At present the midwifery bag is the weak point; I hold it to be our duty to strengthen this point. After it has been dealt with, I am ready and willing to consider whether I ought to wear rubber gloves.

It may be objected that midwifery is not surgery, and that a confinement differs from an abdominal section. There is some force in this objection; at the same time, the obstetrician has often to be the chirurgeon, if we will keep in mind the etymology of that word; and further, although a labour may not resemble an ovariotomy or hysterectomy, yet it has much in common with any operation performed within a mucous cavity, such, for instance, as the removal of adenoids, and every one knows that such internal operative work requires asepsis as well as that in which the incision is a skin one. There is perhaps another objection that may be urged: Some one may say, "I have been carrying an ordinary midwifery bag for twenty years and have never lost a mother in labour in my private practice, and why should I change now to a more complicated method?" My reply is that this is not a question of mortality, but of morbidity. I do not hold that absence of mortality is cause for boasting, but rather for deep thankfulness; further, can it be said that there has been no morbidity, no slight attacks of cellulitis, no subinvolutions,

no salpingitis, no threatenings of phlegmasia alba dolens? Is it not possible that with a more rigid system of sterilizing our instruments, our hands, and our midwifery bag, we might reduce that troublesome morbidity also to a vanishing point? Credo.

REFERENCES

1 [illegible] 2 [illegible] 3 [illegible] 4 [illegible] 5 [illegible] 6 [illegible] 7 [illegible] 8 [illegible] 9 [illegible] 10 [illegible] 11 [illegible] 12 [illegible] 13 [illegible] 14 [illegible] 15 [illegible] 16 [illegible] 17 [illegible] 18 [illegible] 19 [illegible] 20 [illegible] 21 [illegible] 22 [illegible] 23 [illegible] 24 [illegible] 25 [illegible] 26 [illegible] 27 [illegible] 28 [illegible] 29 [illegible] 30 [illegible] 31 [illegible] 32 [illegible] 33 [illegible] 34 [illegible] 35 [illegible] 36 [illegible] 37 [illegible] 38 [illegible] 39 [illegible] 40 [illegible] 41 [illegible] 42 [illegible] 43 [illegible] 44 [illegible] 45 [illegible] 46 [illegible] 47 [illegible] 48 [illegible] 49 [illegible] 50 [illegible] 51 [illegible] 52 [illegible] 53 [illegible] 54 [illegible] 55 [illegible] 56 [illegible] 57 [illegible] 58 [illegible] 59 [illegible] 60 [illegible] 61 [illegible] 62 [illegible] 63 [illegible] 64 [illegible] 65 [illegible] 66 [illegible] 67 [illegible] 68 [illegible] 69 [illegible] 70 [illegible] 71 [illegible] 72 [illegible] 73 [illegible] 74 [illegible] 75 [illegible] 76 [illegible] 77 [illegible] 78 [illegible] 79 [illegible] 80 [illegible] 81 [illegible] 82 [illegible] 83 [illegible] 84 [illegible] 85 [illegible] 86 [illegible] 87 [illegible] 88 [illegible] 89 [illegible] 90 [illegible] 91 [illegible] 92 [illegible] 93 [illegible] 94 [illegible] 95 [illegible] 96 [illegible] 97 [illegible] 98 [illegible] 99 [illegible] 100 [illegible] 101 [illegible] 102 [illegible] 103 [illegible] 104 [illegible] 105 [illegible] 106 [illegible] 107 [illegible] 108 [illegible] 109 [illegible] 110 [illegible] 111 [illegible] 112 [illegible] 113 [illegible] 114 [illegible] 115 [illegible] 116 [illegible] 117 [illegible] 118 [illegible] 119 [illegible] 120 [illegible] 121 [illegible] 122 [illegible] 123 [illegible] 124 [illegible] 125 [illegible] 126 [illegible] 127 [illegible] 128 [illegible] 129 [illegible] 130 [illegible] 131 [illegible] 132 [illegible] 133 [illegible] 134 [illegible] 135 [illegible] 136 [illegible] 137 [illegible] 138 [illegible] 139 [illegible] 140 [illegible] 141 [illegible] 142 [illegible] 143 [illegible] 144 [illegible] 145 [illegible] 146 [illegible] 147 [illegible] 148 [illegible] 149 [illegible] 150 [illegible] 151 [illegible] 152 [illegible] 153 [illegible] 154 [illegible] 155 [illegible] 156 [illegible] 157 [illegible] 158 [illegible] 159 [illegible] 160 [illegible] 161 [illegible] 162 [illegible] 163 [illegible] 164 [illegible] 165 [illegible] 166 [illegible] 167 [illegible] 168 [illegible] 169 [illegible] 170 [illegible] 171 [illegible] 172 [illegible] 173 [illegible] 174 [illegible] 175 [illegible] 176 [illegible] 177 [illegible] 178 [illegible] 179 [illegible] 180 [illegible] 181 [illegible] 182 [illegible] 183 [illegible] 184 [illegible] 185 [illegible] 186 [illegible] 187 [illegible] 188 [illegible] 189 [illegible] 190 [illegible] 191 [illegible] 192 [illegible] 193 [illegible] 194 [illegible] 195 [illegible] 196 [illegible] 197 [illegible] 198 [illegible] 199 [illegible] 200 [illegible] 201 [illegible] 202 [illegible] 203 [illegible] 204 [illegible] 205 [illegible] 206 [illegible] 207 [illegible] 208 [illegible] 209 [illegible] 210 [illegible] 211 [illegible] 212 [illegible] 213 [illegible] 214 [illegible] 215 [illegible] 216 [illegible] 217 [illegible] 218 [illegible] 219 [illegible] 220 [illegible] 221 [illegible] 222 [illegible] 223 [illegible] 224 [illegible] 225 [illegible] 226 [illegible] 227 [illegible] 228 [illegible] 229 [illegible] 230 [illegible] 231 [illegible] 232 [illegible] 233 [illegible] 234 [illegible] 235 [illegible] 236 [illegible] 237 [illegible] 238 [illegible] 239 [illegible] 240 [illegible] 241 [illegible] 242 [illegible] 243 [illegible] 244 [illegible] 245 [illegible] 246 [illegible] 247 [illegible] 248 [illegible] 249 [illegible] 250 [illegible] 251 [illegible] 252 [illegible] 253 [illegible] 254 [illegible] 255 [illegible] 256 [illegible] 257 [illegible] 258 [illegible] 259 [illegible] 260 [illegible] 261 [illegible] 262 [illegible] 263 [illegible] 264 [illegible] 265 [illegible] 266 [illegible] 267 [illegible] 268 [illegible] 269 [illegible] 270 [illegible] 271 [illegible] 272 [illegible] 273 [illegible] 274 [illegible] 275 [illegible] 276 [illegible] 277 [illegible] 278 [illegible] 279 [illegible] 280 [illegible] 281 [illegible] 282 [illegible] 283 [illegible] 284 [illegible] 285 [illegible] 286 [illegible] 287 [illegible] 288 [illegible] 289 [illegible] 290 [illegible] 291 [illegible] 292 [illegible] 293 [illegible] 294 [illegible] 295 [illegible] 296 [illegible] 297 [illegible] 298 [illegible] 299 [illegible] 300 [illegible] 301 [illegible] 302 [illegible] 303 [illegible] 304 [illegible] 305 [illegible] 306 [illegible] 307 [illegible] 308 [illegible] 309 [illegible] 310 [illegible] 311 [illegible] 312 [illegible] 313 [illegible] 314 [illegible] 315 [illegible] 316 [illegible] 317 [illegible] 318 [illegible] 319 [illegible] 320 [illegible] 321 [illegible] 322 [illegible] 323 [illegible] 324 [illegible] 325 [illegible] 326 [illegible] 327 [illegible] 328 [illegible] 329 [illegible] 330 [illegible] 331 [illegible] 332 [illegible] 333 [illegible] 334 [illegible] 335 [illegible] 336 [illegible] 337 [illegible] 338 [illegible] 339 [illegible] 340 [illegible] 341 [illegible] 342 [illegible] 343 [illegible] 344 [illegible] 345 [illegible] 346 [illegible] 347 [illegible] 348 [illegible] 349 [illegible] 350 [illegible] 351 [illegible] 352 [illegible] 353 [illegible] 354 [illegible] 355 [illegible] 356 [illegible] 357 [illegible] 358 [illegible] 359 [illegible] 360 [illegible] 361 [illegible] 362 [illegible] 363 [illegible] 364 [illegible] 365 [illegible] 366 [illegible] 367 [illegible] 368 [illegible] 369 [illegible] 370 [illegible] 371 [illegible] 372 [illegible] 373 [illegible] 374 [illegible] 375 [illegible] 376 [illegible] 377 [illegible] 378 [illegible] 379 [illegible] 380 [illegible] 381 [illegible] 382 [illegible] 383 [illegible] 384 [illegible] 385 [illegible] 386 [illegible] 387 [illegible] 388 [illegible] 389 [illegible] 390 [illegible] 391 [illegible] 392 [illegible] 393 [illegible] 394 [illegible] 395 [illegible] 396 [illegible] 397 [illegible] 398 [illegible] 399 [illegible] 400 [illegible] 401 [illegible] 402 [illegible] 403 [illegible] 404 [illegible] 405 [illegible] 406 [illegible] 407 [illegible] 408 [illegible] 409 [illegible] 410 [illegible] 411 [illegible] 412 [illegible] 413 [illegible] 414 [illegible] 415 [illegible] 416 [illegible] 417 [illegible] 418 [illegible] 419 [illegible] 420 [illegible] 421 [illegible] 422 [illegible] 423 [illegible] 424 [illegible] 425 [illegible] 426 [illegible] 427 [illegible] 428 [illegible] 429 [illegible] 430 [illegible] 431 [illegible] 432 [illegible] 433 [illegible] 434 [illegible] 435 [illegible] 436 [illegible] 437 [illegible] 438 [illegible] 439 [illegible] 440 [illegible] 441 [illegible] 442 [illegible] 443 [illegible] 444 [illegible] 445 [illegible] 446 [illegible] 447 [illegible] 448 [illegible] 449 [illegible] 450 [illegible] 451 [illegible] 452 [illegible] 453 [illegible] 454 [illegible] 455 [illegible] 456 [illegible] 457 [illegible] 458 [illegible] 459 [illegible] 460 [illegible] 461 [illegible] 462 [illegible] 463 [illegible] 464 [illegible] 465 [illegible] 466 [illegible] 467 [illegible] 468 [illegible] 469 [illegible] 470 [illegible] 471 [illegible] 472 [illegible] 473 [illegible] 474 [illegible] 475 [illegible] 476 [illegible] 477 [illegible] 478 [illegible] 479 [illegible] 480 [illegible] 481 [illegible] 482 [illegible] 483 [illegible] 484 [illegible] 485 [illegible] 486 [illegible] 487 [illegible] 488 [illegible] 489 [illegible] 490 [illegible] 491 [illegible] 492 [illegible] 493 [illegible] 494 [illegible] 495 [illegible] 496 [illegible] 497 [illegible] 498 [illegible] 499 [illegible] 500 [illegible] 501 [illegible] 502 [illegible] 503 [illegible] 504 [illegible] 505 [illegible] 506 [illegible] 507 [illegible] 508 [illegible] 509 [illegible] 510 [illegible] 511 [illegible] 512 [illegible] 513 [illegible] 514 [illegible] 515 [illegible] 516 [illegible] 517 [illegible] 518 [illegible] 519 [illegible] 520 [illegible] 521 [illegible] 522 [illegible] 523 [illegible] 524 [illegible] 525 [illegible] 526 [illegible] 527 [illegible] 528 [illegible] 529 [illegible] 530 [illegible] 531 [illegible] 532 [illegible] 533 [illegible] 534 [illegible] 535 [illegible] 536 [illegible] 537 [illegible] 538 [illegible] 539 [illegible] 540 [illegible] 541 [illegible] 542 [illegible] 543 [illegible] 544 [illegible] 545 [illegible] 546 [illegible] 547 [illegible] 548 [illegible] 549 [illegible] 550 [illegible] 551 [illegible] 552 [illegible] 553 [illegible] 554 [illegible] 555 [illegible] 556 [illegible] 557 [illegible] 558 [illegible] 559 [illegible] 560 [illegible] 561 [illegible] 562 [illegible] 563 [illegible] 564 [illegible] 565 [illegible] 566 [illegible] 567 [illegible] 568 [illegible] 569 [illegible] 570 [illegible] 571 [illegible] 572 [illegible] 573 [illegible] 574 [illegible] 575 [illegible] 576 [illegible] 577 [illegible] 578 [illegible] 579 [illegible] 580 [illegible] 581 [illegible] 582 [illegible] 583 [illegible] 584 [illegible] 585 [illegible] 586 [illegible] 587 [illegible] 588 [illegible] 589 [illegible] 590 [illegible] 591 [illegible] 592 [illegible] 593 [illegible] 594 [illegible] 595 [illegible] 596 [illegible] 597 [illegible] 598 [illegible] 599 [illegible] 600 [illegible] 601 [illegible] 602 [illegible] 603 [illegible] 604 [illegible] 605 [illegible] 606 [illegible] 607 [illegible] 608 [illegible] 609 [illegible] 610 [illegible] 611 [illegible] 612 [illegible] 613 [illegible] 614 [illegible] 615 [illegible] 616 [illegible] 617 [illegible] 618 [illegible] 619 [illegible] 620 [illegible] 621 [illegible] 622 [illegible] 623 [illegible] 624 [illegible] 625 [illegible] 626 [illegible] 627 [illegible] 628 [illegible] 629 [illegible] 630 [illegible] 631 [illegible] 632 [illegible] 633 [illegible] 634 [illegible] 635 [illegible] 636 [illegible] 637 [illegible] 638 [illegible] 639 [illegible] 640 [illegible] 641 [illegible] 642 [illegible] 643 [illegible] 644 [illegible] 645 [illegible] 646 [illegible] 647 [illegible] 648 [illegible] 649 [illegible] 650 [illegible] 651 [illegible] 652 [illegible] 653 [illegible] 654 [illegible] 655 [illegible] 656 [illegible] 657 [illegible] 658 [illegible] 659 [illegible] 660 [illegible] 661 [illegible] 662 [illegible] 663 [illegible] 664 [illegible] 665 [illegible] 666 [illegible] 667 [illegible] 668 [illegible] 669 [illegible] 670 [illegible] 671 [illegible] 672 [illegible] 673 [illegible] 674 [illegible] 675 [illegible] 676 [illegible] 677 [illegible] 678 [illegible] 679 [illegible] 680 [illegible] 681 [illegible] 682 [illegible] 683 [illegible] 684 [illegible] 685 [illegible] 686 [illegible] 687 [illegible] 688 [illegible] 689 [illegible] 690 [illegible] 691 [illegible] 692 [illegible] 693 [illegible] 694 [illegible] 695 [illegible] 696 [illegible] 697 [illegible] 698 [illegible] 699 [illegible] 700 [illegible] 701 [illegible] 702 [illegible] 703 [illegible] 704 [illegible] 705 [illegible] 706 [illegible] 707 [illegible] 708 [illegible] 709 [illegible] 710 [illegible] 711 [illegible] 712 [illegible] 713 [illegible] 714 [illegible] 715 [illegible] 716 [illegible] 717 [illegible] 718 [illegible] 719 [illegible] 720 [illegible] 721 [illegible] 722 [illegible] 723 [illegible] 724 [illegible] 725 [illegible] 726 [illegible] 727 [illegible] 728 [illegible] 729 [illegible] 730 [illegible] 731 [illegible] 732 [illegible] 733 [illegible] 734 [illegible] 735 [illegible] 736 [illegible] 737 [illegible] 738 [illegible] 739 [illegible] 740 [illegible] 741 [illegible] 742 [illegible] 743 [illegible] 744 [illegible] 745 [illegible] 746 [illegible] 747 [illegible] 748 [illegible] 749 [illegible] 750 [illegible] 751 [illegible] 752 [illegible] 753 [illegible] 754 [illegible] 755 [illegible] 756 [illegible] 757 [illegible] 758 [illegible] 759 [illegible] 760 [illegible] 761 [illegible] 762 [illegible] 763 [illegible] 764 [illegible] 765 [illegible] 766 [illegible] 767 [illegible] 768 [illegible] 769 [illegible] 770 [illegible] 771 [illegible] 772 [illegible] 773 [illegible] 774 [illegible] 775 [illegible] 776 [illegible] 777 [illegible] 778 [illegible] 779 [illegible] 780 [illegible] 781 [illegible] 782 [illegible] 783 [illegible] 784 [illegible] 785 [illegible] 786 [illegible] 787 [illegible] 788 [illegible] 789 [illegible] 790 [illegible] 791 [illegible] 792 [illegible] 793 [illegible] 794 [illegible] 795 [illegible] 796 [illegible] 797 [illegible] 798 [illegible] 799 [illegible] 800 [illegible] 801 [illegible] 802 [illegible] 803 [illegible] 804 [illegible] 805 [illegible] 806 [illegible] 807 [illegible] 808 [illegible] 809 [illegible] 810 [illegible] 811 [illegible] 812 [illegible] 813 [illegible] 814 [illegible] 815 [illegible] 816 [illegible] 817 [illegible] 818 [illegible] 819 [illegible] 820 [illegible] 821 [illegible] 822 [illegible] 823 [illegible] 824 [illegible] 825 [illegible] 826 [illegible] 827 [illegible] 828 [illegible] 829 [illegible] 830 [illegible] 831 [illegible] 832 [illegible] 833 [illegible] 834 [illegible] 835 [illegible] 836 [illegible] 837 [illegible] 838 [illegible] 839 [illegible] 840 [illegible] 841 [illegible] 842 [illegible] 843 [illegible] 844 [illegible] 845 [illegible] 846 [illegible] 847 [illegible] 848 [illegible] 849 [illegible] 850 [illegible] 851 [illegible] 852 [illegible] 853 [illegible] 854 [illegible] 855 [illegible] 856 [illegible] 857 [illegible] 858 [illegible] 859 [illegible] 860 [illegible] 861 [illegible] 862 [illegible] 863 [illegible] 864 [illegible] 865 [illegible] 866 [illegible] 867 [illegible] 868 [illegible] 869 [illegible] 870 [illegible] 871 [illegible] 872 [illegible] 873 [illegible] 874 [illegible] 875 [illegible] 876 [illegible] 877 [illegible] 878 [illegible] 879 [illegible] 880 [illegible] 881 [illegible] 882 [illegible] 883 [illegible] 884 [illegible] 885 [illegible] 886 [illegible] 887 [illegible] 888 [illegible] 889 [illegible] 890 [illegible] 891 [illegible] 892 [illegible] 893 [illegible] 894 [illegible] 895 [illegible] 896 [illegible] 897 [illegible] 898 [illegible] 899 [illegible] 900 [illegible] 901 [illegible] 902 [illegible] 903 [illegible] 904 [illegible] 905 [illegible] 906 [illegible] 907 [illegible] 908 [illegible] 909 [illegible] 910 [illegible] 911 [illegible] 912 [illegible] 913 [illegible] 914 [illegible] 915 [illegible] 916 [illegible] 917 [illegible] 918 [illegible] 919 [illegible] 920 [illegible] 921 [illegible] 922 [illegible] 923 [illegible] 924 [illegible] 925 [illegible] 926 [illegible] 927 [illegible] 928 [illegible] 929 [illegible] 930 [illegible] 931 [illegible] 932 [illegible] 933 [illegible] 934 [illegible] 935 [illegible] 936 [illegible] 937 [illegible] 938 [illegible] 939 [illegible] 940 [illegible] 941 [illegible] 942 [illegible] 943 [illegible] 944 [illegible] 945 [illegible] 946 [illegible] 947 [illegible] 948 [illegible] 949 [illegible] 950 [illegible] 951 [illegible] 952 [illegible] 953 [illegible] 954 [illegible] 955 [illegible] 956 [illegible] 957 [illegible] 958 [illegible] 959 [illegible] 960 [illegible] 961 [illegible] 962 [illegible] 963 [illegible] 964 [illegible] 965 [illegible] 966 [illegible] 967 [illegible] 968 [illegible] 969 [illegible] 970 [illegible] 971 [illegible] 972 [illegible] 973 [illegible] 974 [illegible] 975 [illegible] 976 [illegible] 977 [illegible] 978 [illegible] 979 [illegible] 980 [illegible] 981 [illegible] 982 [illegible] 983 [illegible] 984 [illegible] 985 [illegible] 986 [illegible] 987 [illegible] 988 [illegible] 989 [illegible] 990 [illegible] 991 [illegible] 992 [illegible] 993 [illegible] 994 [illegible] 995 [illegible] 996 [illegible] 997 [illegible] 998 [illegible] 999 [illegible] 1000 [illegible]

A Lecture

ON

THE VALUE OF THE IMPERFECTLY-DESCENDED TESTIS, THE ADVISABILITY OF OPERATION, AND THE VALUE OF THE OPERATIONS PERFORMED FOR ITS RELIEF.

A Post-graduate Lecture delivered at the Hospital for Sick Children, Great Ormond Street.

By EDRED M. CORNER, B.Sc.(Lond.), M.A., M.B., B.C. (Cantab.), F.R.C.S.(Eng.),

[illegible] Hospital [illegible] Children, Great Ormond Street; Surgeon to Out-patients; Thomas Henry Burgess Erasmus Wilson Lecturer, Royal College of Surgeons of England.

GENTLEMEN. It is my intention to put before you as clear an account as is possible of the physiological value of the imperfectly-descended testicle, both before and after operation. The more common name of "undescended testicle" has been discarded as clumsy and inexact, and the above one has been employed in its stead. The lecture naturally falls into the three parts indicated by the title, the intermediate section dealing with the advisibility of operation so leading from the one to the other of the above divisions. The first section on the value of the imperfectly-descended testis cannot be anything like adequately treated in the scope of this lecture, and an attempt only has been made to place before you some of the grounds which lead to the belief that the imperfect descent of the testicle is only the outward, anatomical and visible sign of an inward and much more extensive physiological defect. In order to estimate the value of the testis it is necessary to make inquiries along two lines: first, the capacity of the gland to produce spermatozoa, and, secondly, its effect on the perfection of the so-called secondary sexual characters of the organism, of which two the latter is by a very long way the more important with regard to the imperfectly-descended testis, and will naturally be considered first.

THE VALUE OF THE IMPERFECTLY-DESCENDED TESTIS.

It has been the custom of late to regard the testes and ovaries as responsible for the differences that exist between the sexes and to overlook the more obscure and probably more fundamental processes which have led to the differentiation of those glands themselves, and which may have given rise also to other sexually distinctive formations. On this latter view the testes or ovaries become merely incidents, though by far the most important, in the sexual development of the individual.

To [illegible] the great importance of this more underlying and general factor in the sexual development of the individual [illegible] examples of very early sexual differentiation will be brought to your notice. The endothelium from which these glands are developed has been called the germinal epithelium, and is situated along the inner [illegible] Wolffian body or primitive kidney. The cells first [illegible] subsequently by division two [illegible] further multiplication results in the production of [illegible] The endothelium is [illegible] and [illegible] to grow [illegible] forming the genital cord. At this stage, early in fetal life and before the [illegible] are discernible, the [illegible] can be found. In the female the [illegible] epithelium [illegible] the [illegible] is [illegible] the [illegible] epithelium is not nearly so thick and [illegible] cells grow [illegible] the tissues. It must be remembered that the distinction between testis and ovary is not in reality [illegible] property that guarantees the [illegible] of the other external and internal [illegible] it is very doubtful if the [illegible] anything to do with influencing these formations, which apparently arise independently. A good deal later, both glands undergo considerable changes in position. The ovary descends only as far as the side of the uterus, very occasionally it reaches as far as the groin. The testis, during the sixth month of fetal life, is at the internal abdominal ring, during the seventh month it is in the inguinal canal, and in the eighth month it enters the scrotum. These facts clearly indicate that the cause of the primary sexual characters of the organism are the results of inherent tendencies of the ovum, and are not due to any action of the ovaries or testes. Professor Arthur Thomson, of Oxford, emphasizes this early differentiation of sex by showing that sexual distinctions can be found in the pelves at an early date when presumably the generative glands or gonads are as yet inactive. "My results, obtained independently, strikingly confirm what I believe is Fehling's main contention, that the differences of form and appearance are such as enable the observer to discriminate between the pelves of the male and the female as early as the third month" of fetal life.

Nowadays a gland is looked upon as having both an internal as well as an external secretion. And it has been supposed that the secondary sexual characters are developed as the result of the action of the former. As yet we know nothing of the possible action of internal secretions during intrauterine life. But as in that period we are supposed to climb up our anatomical genealogical tree, so may we also ascend a similar physiological staircase. But, at least, it is unlikely that a gland can accomplish much before it is fully differentiated and functionally active. It may be further pointed out that some of the so-called secondary sexual differences exist at birth. For instance, male infants are already heavier and taller than female, their chest girth is greater; later they show more variations, different rates of growth, different ages for the incidence of puberty, etc. It may in consequence be suggested that many, if not all, of these so-called secondary sexual distinctions are independent for their origin of the testes and ovaries. Rather do they give the idea of being dependent on some innate property of the ovum, being found early and probably before those glands are active. At puberty all sexual differences are exaggerated and some new ones initiated, such as the growth of hair on the face, the breaking of the voice, etc. If the testes are removed before puberty many of the male characters do not appear to develop at all. But if a careful examination is made it will be found that these features are not absent, but are only very slightly developed. For example, one may instance the outward bodily form of the eunuchs of the East, or the more familiar bullock. But we are not interested at this moment in cases of absence of the testes, but rather in poorly-developed ones. For their origin the secondary sexual features are most probably dependent on the same obscure cause that brings about the advent of puberty, as well as the changes in the testes themselves; but, for their perfectation the good development of those generative glands is necessary. When, however, these secondary characters are once established they seem to be independent of the integrity of those same glands. Now, by far the most important point in the treatment of imperfectly-descended testes is how to make the best of this factor for the development of manly characters, or how to estimate the value of the internal secretion of the testes. That an imperfectly descended testis can so bring about the acquisition of manly beauty is certain. For instance, in its widest sense, one sees many and widely varying degrees in the sexual development of cryptorchids. But this may be more readily illustrated in animals than in man. A horse when young had had its only descended testis removed. The animal soon displayed the so-called ugly or vicious and troublesome tendencies. Mr. Hobday, the veterinary surgeon, explored the inguinal canal and removed a mass at the top, which he thought might the missing testis. For two years the animal remained fairly tractable, but then recommenced his rig habits. Mr. Hobday opened the abdomen and successfully removed the hidden testes. After this the animal became quiet and was no longer subject to attacks of sexual excitement.

The above must suffice for the subject of the internal secretion of the testicle and serves well enough to indicate that both primary and secondary sexual characters probably originate independently of the growth of the testes, though for their perfect development that growth is necessary. Again, the value of an imperfectly-descended testis depends almost entirely on this internal secretion and it must be our foremost duty to do our best to foster it.

The most important function of the normal testis is that of producing spermatozoa and so ensuring the perpetuation of

the race. In this respect an imperfectly-descended testis is practically lacking. Few, if any, absolutely authentic cases of an imperfectly-descended testis producing spermatozoa have been recorded. But a few instances of cryptorchids becoming parents have been reported. These and some like cases go to show that although the imperfectly-descended testis is sufficiently highly developed to subserve this function in rare instances, one can never deny the possibility of the rare occurrence of such an event. The evidence in favour of the existence of such a period of prosperity or activity goes to prove also that it is only of very short duration as the organ speedily undergoes retrograde changes.

I would therefore look upon the descent of the testis as the necessary accompaniment of the proper or full development of that organ. And that its imperfect descent is like a cleft of the palate in the development of the upper jaw, or the dislocation of the hip in the evolution of the thigh, or talipes equino-varus in that of the foot. The simile is added to by the fact that any of these errors in ontogeny may be unilateral or bilateral. Although the testis is sometimes atrophic or imperfectly developed when fully descended, perfect development never goes with imperfect descent. There seems to be no obvious reason for this: and the fact still further strengthens the idea that in these cases an anatomical and a physiological malformation go together.

To sum up, the imperfectly-descended testis can very rarely or practically never produces spermatozoa, though there is a faint possibility of this occurring about the age of twenty and lasting a year or two. But it is endowed with very various capabilities with regard to assisting the development and perfectation of other sexual features. The extent of these powers it is impossible to estimate, as the failure of the testis may be due to the same fundamental cause that has led to the absence of beard, male voice, etc. When the condition is bilateral the outlook is bad, as there is no known remedy for errors of development. But, if the failure is only unilateral, there need be no alarm for the perpetuation of the species and the assumption of manly grace.

THE SIGNIFICANCE OF PAIN IN THE IMPERFECTLY-DESCENDED TESTIS.

The symptom of pain in these cases is one on which I believe a good deal of reliance may be placed. The most obvious cause of pain is a direct injury to the organ, either from a blow or sudden and violent flexion of the thigh. Except that they may cause orchitis these are not very important or far-reaching in their effects. Often-repeated slight injuries are much more important in leading to sclerosis of the organ. But when one considers the matter quite dispassionately, it is hard to conceive that the imperfectly-descended testis is really more liable, if indeed it is not less liable, to slight injuries than the gland that is normally situated. One is therefore inclined to give up this most popular notion of the cause of the sclerosis and atrophy of the imperfectly-descended testis. Now, it is perfectly well recognized that fibrosis is no congenital abnormality. How then does this condition come about and also so quietly? I believe that an explanation can be offered for this. At St. Thomas's Hospital, Great Ormond Street, and in practice I have done exactly 30 operations for this condition. And in no less than 16 I have noted that the testis had undergone some torsion of the cord. More than this, it was noted that a distinct history of attacks of pain, frequently on exertion, was almost always accompanied with the discovery of the torsion at the operation; and one cannot help correlating the two things and inferring that the pain was due to an increase of the twist. And the very anatomical causes that would bring about the torsion, namely, "movements and exertion," are the very ones that have been employed, and so are most likely to have increased the twist.

If one considers the course that far the majority of imperfectly-descended testes take at the groin, it will be seen that, lying on the external oblique, they tend to ascend towards the anterior superior spine of the ilium on account of the movements of the flexion of the thigh, like a femoral hernia does. Such a course will lead to the formation of a more or less of a fixed point for the cord at the external abdominal ring, and the movements of the thigh will tend to roll the testis on the abdomen, so producing torsion, which a sudden violent exertion may increase sufficiently to beget a stound of pain. If one examines the recorded cases of torsion of testis, it is found that a number of the cases give a history of many previous attacks of pain. And finally the last attack brings about an acute strangulation. At the operation, one finds perhaps as many as three or four complete twists of the cord. Yet one cannot suppose for a moment that the testis suddenly spun round giddily four times, but rather that these turns represent the total aggregate of many twists, spread over a long period of time. Imperfectly-descended testes seem very prone to suffer torsion, and the majority of cases of acute torsion of the testis have occurred in this variety. I would therefore like to put this hypothesis forward to explain the occurrence of attacks of pain in the testis, and also the frequency of fibrosis of the organ as a result of the twist interfering with the venous return from the imperfectly-descended gland.

The presence of the twist is usually easily noted if the tunica vaginalis is opened at the earliest opportunity at the operation and the position of the testis and epididymis noted. A little care is necessary to check any errors that a superficial examination sometimes leads one to make. On this hypothesis, pain takes a somewhat more serious appearance, as it indicates that there is in all probability a mechanism at work which will sooner or later bring about physiological destruction of the already under-developed gland. Its presence, even in a mild form, should raise the question of speedy operation.

The significance of pain in these cases leads to the question as to whether an "undescended" testis should ever be left alone. And it seems, in the present state of our knowledge, that only harm is likely to accrue to the organ from its remaining in such a position. Exception must be made of those instances in which the gland is nearly at the bottom of the scrotum. On the whole, it seems that the imperfectly-descended testis has a better chance of developing to the fullest extent of its limited capacity by being returned to the abdomen. And though direct proof is wanting, the sooner that this is done the better. From experimental knowledge it does not seem that it will even then progress to the extent of becoming spermatogenetic, this function seems, in almost all cases, quite beyond its capacity. As has been already said, the most important power of the imperfectly-descended testis is that of ministering to the development of the secondary sexual characters, and beyond this no more can be expected. The whole question is, "Is this best obtained by protecting the organ from pathological change such as in the abdomen?" For my own part I think so. It is very difficult to obtain direct proof in support of this on account of the long time that must elapse before results show themselves. There is no evidence that the testis develops any further or any less far just outside the abdomen than it does just inside. And the latter position has the advantage of being, so far as we know, more or less out of the way of harm. There is certainly no evidence that the retained testis is more liable to undergo malignant change than the fully-descended and developed organ. Therefore, it seems best to return them to the abdomen.

There is also another and a very important factor in deciding on the performance of an operation. This is the presence or not of a hernia. Out of the 30 cases on which I have operated no less than 22 had communications between the tunica vaginalis and the peritoneal cavity. In some it was found that a hernia had previously come down. The presence of this communication is found the more frequently that it is looked for. The presence of an imperfectly-descended testis in almost every case contraindicates the use of a truss, if it does not do so in every case on account of the injurious pressure that is exerted on the vessels of the spermatic cord.

It is almost needless to point out that some of the most serious cases of the strangulation of a hernia occur in conjunction with imperfect descent of the testis. The presence of a hernia is in consequence a most powerful incentive to operation. And as it occurs in so large a percentage, in reality or in potential, there really seems but little more needed to urge the need of operative interference. Beyond what has been said of the significance of the pain and the nearly universal presence of a hernial sac, potential or otherwise, no more will be added.

To sum up, if the testis is allowed to remain long in its imperfectly-descended position it will become largely functionless on account of undergrowing sclerosis, which may be hastened by torsion of the cord. Attacks of pain probably indicate spasmodic increments of that torsion, and abortive suicidal attempts at strangulation by the organ. Also, a hernia sac is found in about 70 per cent. or so of the cases. Hence operation should be considered in every case of imperfectly-descended testis and adopted in a large number.

OPERATIONS.

Before considering the various operations that have been performed for the relief of this condition, let me again recall to you the fact that we are dealing with an organ which can practically never become spermatogenetic, certainly for more than a year or two, but whose internal secretion may be of the greatest value to the organism.

Orchidopexy or Orchidorrhaphy.

By these terms are meant the fixation of the testis at the bottom of the scrotum. The chief reasons that have given rise to this practice are, first, the organ is placed in the natural anatomical position; and, secondly, in such a position it is hoped that it may develop properly and also cease to worry the patient. Unfortunately, after the operation, the testis often does not remain in the new position, but reascends; again, it never attains the size and development of the normal organ, but becomes smaller and harder from fibrosis probably secondary to the operative measures. Fortunately I have had the unique opportunity of examining microscopically a testis which had been successfully settled in the scrotum two years previously. There was hardly a trace of testicular tissue left. It is therefore a great deal more than doubtful if a physiological triumph can be obtained by these means, that is, orchidopexy. Neither can an intelligent patient's mind be soothed by the presence of a small hard mass in one side of his scrotum, in striking contrast to the healthy testis on the other side. The presence of tissues, such as demands the employment of some rack or mechanical contrivance, to retain the organ in position, is far more likely to do harm than good, and is a distinct contraindication to the operation.

The most favourable case of case that can be selected for this operation is that in which a fairly large hernia coexists with an imperfectly-descended testis and the tissues have been slowly stretched by the hernia. When the sac has been divided and freed, it is extraordinary with what ease the testis can be brought sometimes into the scrotum. In these cases the testis seems also to be the best developed. The next best case is that in which the testis has been driven far up the groin in the direction of the anterior superior spine, much the same as the femoral hernia is. Unfortunately in this position the testis is frequently sclerosed, although there is sometimes ample length of cord for an easy transplantation. And still more unfortunately, the more size or consistence of the organ, it is no good at all as to its functional capacities.

[illegible] operation necessitates considerable dissection for freeing the cord sufficiently to allow of the [illegible] of the organ, with it is bound up the question of the section of the testis to interference with its blood supply and duct, the vas deferens.

[illegible]

In the operation for the relief of varicocele, the spermatic [illegible] the pampiniform plexus of veins are resected, apply the cords with the vas left. During my tenure of the office of [illegible] Assistant [illegible] attention was attracted to [illegible] in which the veins had been at all extensively [illegible] in size of the testicle on that [illegible] Microscopical [illegible] the organ [illegible] the [illegible] [illegible] [illegible]

spermatozoa are accordingly not forthcoming." "The testicle remains in this state, at least we have no evidence that it undergoes further change." A fully-grown testis replaced in the abdomen undergoes retrograde changes until it becomes similar in structure. This structure is precisely similar to that found in imperfectly-descended testes. Therefore, from the point of view of procreation, no harm is at all likely to be done by returning the testis to the abdominal cavity, whilst its subsequent growth and the presence of apparently functional cells points to the probable value to the organism of its presence, as for the perfection of the secondary male characters.

Last, I have left the selection of cases which do not need operation. In primis, the extremely difficult task of excluding the co-existence of a hernia must be accomplished. Secondly, in our present state of knowledge it may be taken that the less imperfectly the organ is descended the more likely is it to develop satisfactorily at puberty. That is to say, those cases in which an orchidopexy seems most likely to be successful are the very ones in which the testis may be left alone, for if this operation is to be successful the testis will most probably be close to the scrotum. At the other extreme of the serial degrees of the descent or imperfect descent of the testis, that is, when it is abdominal, it should be left alone.

Summary of Operative Procedures.

1. Orchidopexy is only applicable in mild cases of imperfectly-descended testis, and perhaps even then it may not often be called for.

2. Orchidectomy is only justifiable under special pathological conditions, for example, torsion, severe neuralgia, extreme atrophy and so forth, and in older cases, that is after the occurrence of puberty and a possible and problematical period of testicular activity and spermatogenesis has passed, say from 23 upwards.

3. Replacement in the abdomen is indicated in far the majority of cases, and should be always done before puberty and, perhaps, up to the age of 20 or thereabouts. It would appear that the earlier the operation is performed the better should be the result.

4. No operation may be called for in mild cases when the testis is close to the bottom of the scrotum, or when the testes are abdominally retained.

5. Operative interference is demanded in most cases on account of the secondary changes of an inflammatory and sclerotic nature in the testis, which the position of imperfect descent leads to. Again, there is the frequent coexistence of a hernia with this condition. And in cases where it does not often or has never previously come down, the narrow opening or neck of the sac may cause one of the most dangerous varieties of strangulation.

The Acquired Imperfectly-descended Testis.

As an appendix to the foregoing part of this lecture, it seems advisable to attract attention to the various ways in which an imperfectly-descended condition of the testicle can be acquired. This is almost always the result of an operation for the radical cure of a hernia. Previous to that operation the testis was at the bottom of the scrotum. There are three ways in which this may be brought about. In the first, the testicle was originally imperfectly-descended, but owing to the propulsion of a hernia behind it, the organ has assumed a lower or more descended position. It therefore appears to be fully descended. When at the operation the hernia sac has been freed and divided, ligatured, etc., the testis is apt to resume its original position, so reproducing its imperfect descent. Secondly, if the hernia sac is not sufficiently freed from the cord, and after ligature the sac has been reduced into the abdomen, it will pull the testis up into a higher position. Thirdly, in bandaging up a case after an operation, as for instance the radical cure of a hernia, the organ may become adherent to the seat of the operation. By this is meant the internal rather than the external cicatrix. I do not believe that this last is anything like so frequent as the two former factors in the causation. Similarly the second factor can be excluded in the hands of competent surgeons. And one is led to look upon the first cause, original imperfect descent, as the most important. And also to a very general conclusion, namely, we recognize that imperfect descent of the testis is frequently accompanied by a hernia: and we may now recognize that a hernia may be accompanied by an imperfectly-descended testis, especially so in children and when the sac is a congenital one. A further generalization may be made. The proper closure of the processus vaginalis that leads to the congenital discontinuity or separation of the tunica vaginalis and the peritoneum is dependent, wholly or in part, on a perfect descent of the testicle and that the failure of this procedure very likely represents one of the earliest and smallest developmental defects, which in a more severe form is recognized as an imperfectly-descended testis. The presence of a congenital sac should always place the surgeon on his guard for the presence of a testicular anomaly. The imperfect descent of the testis is merely an example of a series of degrees of developmental errors.

A great deal of harm may result to the individual from this oversight on the surgeon's part, on account of imperfect maturation of the gland, which becomes exposed to all the changes that result from its position. The condition should be recognized and treated *secundum artem* at the first operation, and it is merely necessary that attention should be called to it for this to be done. Clinical experience emphasizes this point. The consequent healing of the wound with matting of the cord may lead to interference with the blood supply and to impoverishment of the nutrition of the gland. Also the same process does bring about a more or less complete fixation of it, so that later operations for transplanting the organ to the scrotum or the abdomen cannot be carried out, and one is left with the choice of protecting or excising the gland. Recurrent attacks of pain and orchitis usually precipitate the latter procedure. Or the organ wastes and becomes practically a mass of fibrous tissue.

FOUR ABDOMINAL CASES.

By DAVID MACEWAN, M.D., C.M.,
Professor of Surgery, University College, Dundee (University of St. Andrews).

THE following cases which lately came under my care in the Dundee Royal Infirmary are of sufficient interest to make it desirable that they should be recorded:

CASE I.—*Acute Intestinal Obstruction. Enterectomy. Recovery.*

Mrs. F., aged [illegible], admitted December 3rd, 1903.

History.—Illness commenced five days before with abdominal pain and vomiting. The vomiting was incessant for twenty-four hours and then abated somewhat after a slight movement of the bowels. It only troubled her occasionally for the next three days and then again became very frequent, and continued so till her admission thirty hours later. There was no further movement of the bowels or passage of flatus.

State on Admission.—She was very exhausted; pulse weak, temperature 99°. Complained of abdominal pain, chiefly about umbilicus. Abdomen was distended and tympanitic all over. There was pain on palpation, but no localized tenderness. In the left groin at the femoral opening there was a small tumour of doughy consistence and without impulse on coughing. Soon after admission she had two attacks of faecal vomiting.

Operation.—An incision was made down to the tumour in the left groin to determine its nature. It was found to be, not a hernia but an enlarged gland, and was removed. The abdomen was then opened by a median incision below the umbilicus. The intestines were distended and congested. The obstruction was found to be due to the engagement of a loop of the small intestine in a peritoneal pouch, the mouth of which lay to the inner side of the caecum and appendix. The loop, which was about 2 in. in length, was so constricted that the mouth of the sac had to be incised in order to disengage it. It was distinctly gangrenous, particularly at the constricted parts, which were of an ashy-grey colour, and there was a perforation through which some faecal matter escaped. The displaced bowel was then withdrawn from the abdomen, enterectomy performed, and the ends brought together by means of a Murphy button. About 8 in. of bowel was removed. As the pulse was very weak at the end of the operation, 2 pints of saline solution were infused into the median cephalic vein, and a hypodermic injection of strychnine given. The patient made a satisfactory recovery, and the button was passed on January 14th, six weeks after the operation.

REMARKS. I used a Murphy button in this case in preference to suture, on account of the very unequal size of the two openings, due to the dilated state of the bowel above the obstruction; and also because the exhausted state of the patient necessitated as speedy a termination of the operation as possible. Varied descriptions have been given of the peritoneal fossae in the region of the caecum. The three principal fossae are the ileo-colic, the ileo-caecal or ileo-appendicular, and the subcaecal or retro-colic. They are rarely the seats of hernia, and in the cases which have been recorded the condition has usually been discovered on *post-mortem* examination. Hernia into the ileo-colic fossa has not been observed. Moynihan in his work on retroperitoneal

hernia states that four cases of hernia into the ileo-cæcal fossa have been published. Of the retrocæcal form he has discovered eleven cases, but the majority of these he does not accept as authentic examples. Treves states that "about twelve cases in all of pericæcal hernia have been published." From the position and relations of the sac, the case which I have related evidently belonged to the ileo-cæcal variety. There is no recorded instance in which that form of hernia has been treated by operation.

[illegible]

I. M., aged [illegible], admitted January [illegible].

History.—During the past eight years she has had attacks of pain in the right iliac region, generally lasting a fortnight, but sometimes only a few days, and sometimes for a month or more. These attacks occurred at irregular intervals, varying from a few months to [illegible] years, and terminating sometimes suddenly, at other times gradually. [illegible] was followed by a free motion, which passed [illegible] after some hours. The existing attack was the eighth. It began in the usual way three days ago. The pain, which was very intense at first, continued [illegible] severe, but was never absent. [illegible] August 4th, was caused by [illegible] and that [illegible] in the region of the [illegible]. She vomited frequently [illegible] the pain. [illegible] was constipated and was given the [illegible] purgative [illegible] and [illegible] night, and had mental wandering at times during the day."

[illegible] was very prostrate and markedly jaundiced. In the [illegible] typical [illegible] there was bulging, [illegible] tenderness [illegible]. The [illegible] to the [illegible] nearly [illegible] the [illegible] and [illegible] the right [illegible] line. [illegible] during the [illegible] the temperature [illegible] pulse was very rapid and [illegible] was restless and [illegible].

[illegible] was operated on the morning of January [illegible] by a [illegible] incision [illegible] the [illegible] of the tenia [illegible] the gall bladder was not visible, and the colon, [illegible] was not adherent to [illegible] several [illegible] of the liver. Upon gently separating the adhesions there [illegible] a [illegible] of dark-coloured fluid. I arrested it temporarily by [illegible] pressure in order to start off the [illegible] particles [illegible] by the insertion of gauze compresses. On [illegible] the pressure [illegible] and continued [illegible] wiping [illegible] the [illegible] and [illegible] two [illegible] drainage-tubes, [illegible] the [illegible] and [illegible] the [illegible] nerve. From the upper wall of the space I removed [illegible] which appeared to be embedded in the orifice of the [illegible] duct. [illegible] this by tying in the cystic duct. The wall of the gall bladder was undefinable. I then proceeded to examine the [illegible] and it [illegible] there was a small movable calculus. [illegible] [illegible] after [illegible] the duct and closed the opening by [illegible] [illegible] was [illegible] intestines, but no evidence of any general peritonitis. A counter-opening was made in the [illegible] and a drainage-tube passed through into the [illegible] the ileum. Another drain was inserted through the abdominal wall down to the seat of disease in the [illegible] and [illegible] [illegible] passed through the wound. The patient survived the operation and [illegible] [illegible] [illegible]

round to the back. The abdomen was moderately distended and showed marked bulging in the iliac regions. It became tense during the attacks of pain and peristalsis was visible. There was tenderness on deep palpation, but no tumour could be detected. After admission large enemata were tried, but without result.

Operation.—On March 18th the abdomen was opened by a mesial incision below the umbilicus, the intestines were distended and congested, and in the right iliac region a loop of bowel was found to be snared under the appendix vermiformis, which was firmly adherent by its free extremity to the mesentery, close to the ileum, and about 3 in. from the lower end of the latter. There were no signs of recent inflammation of the appendix. The implicated portion of bowel was easily liberated and the appendix was then removed. The latter was above the average length, and for about an inch at its extremity it was impervious and cord-like. On the evening after the operation the bowels moved several times and the patient made an uninterrupted recovery.

REMARKS.

Although there was no distinct history of appendicitis the adhesion was evidently the result of some previous inflammatory condition. Such an adhesion of the appendix is a recognized but extremely rare cause of intestinal obstruction.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ATMOSPHERIC PRESSURE AND APOPLEXY.

ON page 835 of the BRITISH MEDICAL JOURNAL for April 9th, Dr. Walter suggests that atmospheric pressure plays an important part in determining attacks of cerebral haemorrhage. It is worth while to consider how far this theory is correct. His argument is as follows:

1. At certain times cases of cerebral haemorrhage are in excess of the average.

2. These occurrences are coincident with a marked rise in the barometer, showing increased atmospheric pressure.

3. Therefore the increased atmospheric pressure is probably the cause of the excessive number of cases of cerebral haemorrhage.

Most medical men will, I feel sure, agree with the first two of these statements, and will also go further and say that at the same time many cases of cardiac and renal disease tend to become aggravated.

It is with the third statement that I venture to differ. Without going into meteorological statistics, which any one can ascertain for himself, in the British Isles a cyclonic disturbance with a low barometer is coincident with a warm, moist south-west wind. With a rising or high barometer the wind will always veer to the north-west, north, north-east, or east, with less humidity and a lower temperature. The cold and comparative dryness of the atmosphere cause contraction of the peripheral vessels, and a larger amount of blood is driven into the internal circulation, so causing greater strain on the heart, and the blood pressure is raised in all the internal arterial system. Hence the efficacy of Dr. Walter's suggestion as to treatment by suitable purgatives, that is bleeding, as a relief.

Sidmouth, Devon. G. A. LEON.

I have frequently noticed the same thing as that to which Dr. Hensleigh Walter referred in the BRITISH MEDICAL JOURNAL of April 9th, and quite expect to be called to a case of cerebral haemorrhage when the barometer has risen high and become anticyclonic. This high pressure is known to cause a feeling of exaltation, similar to what is frequently noticed (after the event) when an old man or woman has a stroke. How frequently one is told that the patient was never better in his or her life than just before the occurrence. Let the man of 65 to 70 with degenerate vessels be cautious, as Dr. Walter suggests, when the glass rises sharply to a high point.

I have often thought that very little attention is paid to atmospheric conditions as possible causes of various ailments such as rheumatism, asthma, croup, etc. How often it happens that all asthmatics are bad at the same time, and worse on certain evenings, notably still, damp evenings before rain.

I feel sure that if time could be spared from the modern rush for new things, some useful lessons might still be learnt from Nature, did we but try to understand her moods.

Cirencester. CHARLES P. HOOKER, L.R.C.P.Edin.

Like Dr. Hensleigh Walter, I have for may years looked upon sudden changes in the weather as very likely to produce cerebral or other haemorrhages in persons otherwise predisposed thereto. My feeling, however, has always been to look to a rapid rise of temperature after a long continuance of cold weather as the more common exciting cause. This, of necessity, applies to the winter time.

On the other hand, I can call to mind epidemics of minor haemorrhages like epistaxis or haemorrhoids when keen cold weather supervenes on great heat. Sudden changes in temperature are sure to be accompanied or preceded by rapid changes in barometric pressure. Changes of temperature must involve great differences in blood pressure on account of the large surfaces of skin and mucous membranes affected thereby; and in those who have diseased blood vessels it is this sudden alteration in pressure which causes the rupture. I think it quite likely that the barometric pressure may affect arterial pressure more than the venous or capillary vessels; also that great changes in temperature affect more these latter.

It is very evident that two independent observers have noticed the connexion between sudden changes of weather and cerebral haemorrhage. What is required is a little more extended study of physiological physics to explain the exact details of the changes in the various parts of the vascular system that may be expected to take place when there is rapid change in temperature and of atmospheric pressure.

London, S.W. J. KINGSTON BARTON.

NON-PERFORATING WOUNDS OF THE ANTERIOR CAPSULE OF THE LENS.

I CANNOT help thinking that, contrary to the views of some ophthalmic surgeons, the anterior capsule of the lens (although a bloodless but not a serumless structure) can be wounded (not perforated) without traumatic cataract resulting. I have just seen a case bearing this out, the injury having occurred to his eye twelve months before, for which he was also under my care. A year ago the cornea was perforated by a blunt piece of sheet-iron which was thrown by another boy, and a bead of lymph appeared on the front of the lens corresponding in position with the corneal perforation.

No traumatic cataract appeared, though the lenticular capsule was wounded and now, twelve months after the accident, the lens is present and is not damaged, though a posterior synechia is present at what was the bead of lymph. From this I conclude that the anterior capsule covering a soft and slightly moveable (very) lens was wounded but not perforated. And this, I take it, is the cause of some cases of so-called pyramidal cataract. The theory putting pyramidal cataract down to corneal ulcer (which has perforated and so led to collapse of the anterior chamber) or inflamed cornea does not explain all cases of pyramidal cataract which are not congenital and is unsatisfactory. Some pyramidal cataracts are, I believe, due to wound of the anterior capsule itself.

Forest Gate. ALBERT CORNER.

PULMONARY HYDATID.[1]

ON February 2nd a girl, aged 7, was brought to my consulting-room from the country. She had a hectic appearance, frequent short "unsatisfactory" cough, and was very emaciated. I diagnosed empyema before examining her. On examination I found the right side of the chest quite dull, no expansion, no vocal fremitus, no breath sounds; the apex was displaced to the left; no medical man had seen her.

The condition had come on gradually with dyspnoea, great wasting and sweats, etc. The previous day she had coughed up phlegm with great fetor. There had never been any pleuritic pains. I sent her into a nursing home and operated on her at 5 p.m. the same day under chloroform. I introduced a hypodermic needle and drew out pus. I made an incision far back and pus came freely, then shreds of hydatid membrane, and finally several large sheets of adventitious membrane as big as large sheets of notepaper. The fetor was horrible. When I opened the pleura the trachea became flooded with pus, and she was nearly asphyxiated by it. There was not much haemorrhage as frequently happens in operations on pulmonary hydatid. The patient vomited a little blood when back in bed. Judging from the amount of adventitious membrane I extracted and which came out quite easily the cyst must have been a large one and evidently communicated with the bronchial tubes.

[1] From notes of cases read before the Canterbury New Zealand Section of the New Zealand Branch of the British Medical Association.

The patient is now taking nourishment well. There is not much discharge and it is not offensive. There is very little cough and no expectoration. The temperature is normal. The lung has evidently been severely compressed for some considerable time, but there is every indication that the patient will do well.

This was evidently a large "barren" cyst as there were no "daughter" cysts in it. March 10th. The patient is now convalescent. The wound is quite healed. Air enters the lungs freely. She has gained seven pounds in weight since the operation.

Pulmonary hydatids are not very common here. According to London, hepatic hydatids are met with in the proportion of five to one as compared with pulmonary. The absence of pleuritic pain in this case was of great interest. Dr. Deagin Bird suggests that the embryo reaches the lung by way of air being inhaled intact; its shell is digested by the warmth and moisture of the air cells aided by the mucous secretion, or the embryo may reach the lung by way of the portal and pulmonary veins and burrow into the cavity of an air cell.

New Guinea. RICHD. W. ANDERSON.

ADRENALIN CHLORIDE IN HAEMORRHAGE.

HAVING had to deal with a case of severe haemoptysis just lately, and having employed the usual remedies without satisfactory result, I tried adrenalin chloride. After three minim doses at three-hour intervals, the haemoptysis ceased, and for two months has not recurred. I, of course, kept the patient quiet for some days after.

In a case of severe menorrhagia, having tried, as in the above case, the usual methods without having recourse to plugging, I prescribed adrenalin, ergot, and strychnine, with the most satisfactory result, as after twenty-four hours the haemorrhage had practically ceased. As this had proved a most obstinate case, I consider the action of the drug most encouraging.

A third case was one of haemorrhage from the lower bowel; in this case, also, the beneficial result of adrenalin was immediate.

Adrenalin seems to me a most valuable addition to the remedies for haemorrhage. In none of the three cases quoted were any ill effects observed from its use.

Sao Paulo, Brazil. A. ST. LAURENCE-BURKE.

SOME SUGGESTIONS IN ADRENAL DIAGNOSIS.

THE presence in Professor Kerr's wards of two patients suffering from conditions in which adrenal involvement is a possibility has led to an almost fruitless search of adrenal literature in hope of obtaining useful diagnostic aids. The following facts and suggestions are offered as perhaps being of some service in the diagnosis of adrenal growths.

1. That owing to the very close proximity of the right adrenal to the infra-hepatic vena cava a tumour of that body is more likely to [illegible] the flow of blood in that vessel than any other intra-abdominal tumour, that the latter class of tumours pressing upon the lateral abdominal veins, and in such cases the current of blood in the enlarged superficial veins over the tumour is from above towards the femoral veins and the ankles [illegible] veins, this being the most convenient [illegible] ascites due to cirrhosis of the liver, [illegible] the other hand, when we have an adrenal growth we find the tendency to engage the inferior vena cava, and the current of blood in the superficial veins and lateral anastomosing veins is directed towards the superior [illegible] and [illegible] upwards.

2. That on the possibility of [illegible] adrenal growths [illegible] to exhibit [illegible] clinical evidences of [illegible] [illegible] [illegible]

but showed no abnormal variations. Quinine was entirely withheld from the mothers while these observations were being made. It would seem probably that the infants on which Dinstl and others made their observations were bitten shortly after delivery by infected mosquitos, although it is conceivable, in view of the success of inoculation experiments, that haemorrhages may take place in the placenta and let loose a number of parasites into the fetal circulation.

Jamaica. M. GRAHAM, M.A., M.B Cantab.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

SHEFFIELD ROYAL INFIRMARY.

RUPTURED GASTRIC ULCER.

By ARTHUR CONNELL, F.R.C.S.Edin., Surgeon to the Infirmary; Lecturer on Operative Surgery, University College, Sheffield.)

H. S., aged 44, a circular-saw grinder by trade, was admitted into the infirmary on December 23rd, 1903, suffering from acute pain in the abdomen.

History.—Two years ago he was treated by my colleague, Dr. Porter, in the medical wards for an attack of haematemesis from which he quickly recovered. During the last three or four months he had had pain referred to the stomach after each meal, but did not pay any attention to it, in spite of his previous experience. On the day of admission he was at work as usual, and had his dinner between one and two o'clock. This, he said, was a very hearty dinner of half a pound of rump steak with a pint of tea. Immediately after this meal the pain in the stomach came on and gradually grew worse, until about half-past five o'clock it was so severe he was compelled to go home. On arriving he was violently sick, the pain at this time being at its worst. He was given some hot cocoa, with a view to relief, but only swallowed a mouthful when he vomited a second time. As the pain seemed to grow worse his medical attendant was sent for who, recognising the gravity of the case, sent him into the infirmary.

State on Admission.—I found the patient, a short rickety man, lying on his back with blue lips and a more or less pinched expression of face. He however answered my questions in a strong voice and with intelligence. The pulse was small and 120 to the minute. The temperature was 98° F. On inspecting the abdomen it was found to be quite flat, the lineae semilunares were most evident, and the muscles well developed. No movement of the abdominal walls could be made out, but the downward or inspiratory effort of the diaphragm was clearly evident and jerky in character. The most gentle palpation of every part of the abdominal surface gave pain, and it was easy to elicit that most important of all physical signs in acute lesions, namely, pronounced rigidity of the abdominal muscles. The liver-dullness was not obliterated, nor was it encroached upon. There were no signs of dullness in the flanks or in the hypogastrium.

Operation.—The diagnosis of a ruptured gastric ulcer having been made he was taken to the theatre. As soon as he was sufficiently anaesthetised the skin was thoroughly prepared by an assistant and the man wheeled into the operation room. An incision 4 in. was made above the umbilicus and on opening the peritoneum a milky-looking fluid with a sour smell immediately made its way out of the wound. The left lobe of the liver having been hooked up by the assistant's fingers the right portion of the stomach including the lesser curvature was displayed, and revealed a spot through which the stomach contents were issuing with each descent of the diaphragm. On mopping this region quickly the perforation was definitely located and steps were taken to deal with it promptly. The perforation was situate near the lesser curvature and about 2 in. from the pylorus in the midst of a patch of considerably thickened sero-muscular wall. There were no signs of adhesion between the anterior surface of the stomach and the liver. Excision of the ulcer was decided on and an elliptical incision was made around the ulcer and carried through all the coats of the stomach. The mucous membrane was closed by a continuous catgut suture whilst the sero-muscular coats were closed by fine silk. This part of the operation occupied fifteen minutes. The next step was to make an opening above the pylorus sufficient to admit a full sized Keith's glass tube. On the introduction of this tube a large quantity of the milky fluid escaped. The glass tube of the irrigating apparatus was then introduced into the peritoneal cavity through the upper wound and with it the left hand, which, carried down into the pelvis, lifted and drew upwards the small intestine. This manipulation was immediately followed by a rush of more of the milky fluid through the Keith's tube. The intestines were set free once more and the irrigating tube was made to search all possible points such for example as the foramen of Winslow, the under-surface of the liver and of the stomach, the renal and splenic pouches. Finally the pylorus was treated in the manner described above. As the fluid was returning clear at the end of fifteen minutes it had been for a few minutes previously, the wound was closed with through and through silkworm sutures. The solution used for irrigation was sterile salt solution at a temperature between 105° F. and 110° F.

Result.—He was taken back to bed, and the head of the bed-stead was raised on blocks, as there was little or no shock the pulse being of good volume and only 120 per minute. He passed a restful night, and had no vomiting. There is nothing of importance to note in the after-condition; the temperature reached its highest point during the illness at 5 o'clock the next day, when it was 100° F. and the pulse 120 per minute. Convalescence was rapidly established, and he returned to his work at the end of six weeks. He was seen on April 20th, and assured me that he was quite well and had had no inconvenience after food. He has been warned that if he has any pain or vomiting he is at once to present himself, as the expediency of gastro-jejunostomy must be considered.

REMARKS.—There are some points in the case which are doubtless open to criticism. It is partly on this account and partly from the point of view of statistics that it appears desirable to publish the case. That immediate operative interference was essential few can deny. Excision of the ulcer was practised owing to the unhealthy immediate surroundings of the perforation, for had the ulcer been turned in it would probably have added to the increasing obstruction at the pylorus, for a very much larger piece of stomach wall must have been included between the sutures than was actually used. Again, flushing was resorted to in this case owing to the universal soiling of the abdominal contents. The success of the case is in all probability due to the following facts as far as one is able to judge: (1) The short interval between perforation and operation, namely, five hours; (2) the absence of marked shock, dependent on the short time occupied by the operation and the stimulating effect of the irrigation; (3) the personal idiosyncrasy of the man, for he never appeared one atom concerned about his illness, and was most exemplary in carrying out the after-treatment. Whether or not the fact that he is a total abstainer played any considerable rôle must remain a moot point. That he was given half an ounce of brandy in a rectal saline injection before being wheeled into the theatre is on record in the sister's report as having been ordered by myself.

I must express my best thanks to the house-surgeon, Mr. Rupert Hallam, and to the sister for their assiduous care and attention in carrying out the details of the treatment.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

OSTEO MYELITIS: AMPUTATION AT THE HIP-JOINT: RECOVERY, WITH NEW BONE GROWTH.

(By Deputy-Inspector-General Cox.)

[Forwarded by the Director-General, Medical Department, Royal Navy.]

H. N., aged 16, a delicate-looking lad, was admitted October 31st, 1900, with considerable swelling and deep-seated pain in the right thigh. His temperature in the morning was 99.4°, and in the evening 104°. Under chloroform an exploratory incision was made down to the femur, but no pus was reached. From November 5th till November 11th, temperature ranged from 101° to 104°, and the patient went through an attack of pneumonia involving both bases.

November 12th.—Temperature: Morning, 102° F.; evening, 103° F. There was much tenderness over the lower third of the femur, so an incision was made on the outer side of the quadriceps extensor down to the bone; no pus being found the femur was trephined, and 4 or 5 drachms of pus evacuated.

November 25th.—The patient losing ground. Discharge of varying extent. Femur again trephined higher up, and a large drainage tube passed through the popliteal space.

Operation.—On December 17th the patient's condition was most unsatisfactory, so it was decided to remove the limb. Under chloroform amputation at the middle of the thigh was rapidly performed by anterior skin and posterior transfixion flaps; the bone was found to be extensively diseased right up to the trochanter major, so after the vessels had been secured the upper half of the femur was removed at the hip-joint by the Furneaux Jordan method, the periosteum being divided but not removed. The patient lost but little blood, and the amount of shock was not so great as might have been expected in his low state.

A dissection of the limb afterwards showed that besides the whole shaft of the femur the knee-joint was extensively involved.

December 18th.—Temperature: Morning, 99° F.; evening, 99.4° F. The patient passed a fair night, but showed some tendency to collapse some hours after the operation. The

pulse, however, responded to stimulants given per rectum. He was now cheerful and free from pain. Pulse 120, fair volume.

Result. From this date the lad slowly recovered, and beyond suppuration of the edge of the posterior flap the stump gave no trouble. On March 4th, 1901, while waiting discharge invalided, the patient drew my attention to a central induration of the stump, which latter he could move at will. He was discharged to his home on May 20th, prior to which a radiograph, taken showed that what was apparently a new bony growth had developed from the periosteum. He was subsequently fitted with a substitute for the limb, and can get about very well without a crutch, and has been earning his living by office work ever since.

Remarks. The interest in this case lies, of course, in the new bone growth, which converted a fleshy stump—which in time would have contracted into one that enables the patient to be independent of crutches. As far as I am aware the case is unique. I have recently heard from the man, who continues to do well, over three years having elapsed since the amputation.

COLONIAL HOSPITAL, FREETOWN, SIERRA LEONE.

A CASE OF POISONING BY THE FRUIT OF THE CHAILLETIA TOXICARIA (RATSBANE).

(By Dr. W. Renner, Medical Officer).

J., a Mendi labourer, aged about 24 years, was admitted on the morning of November 18th, 1903, at 10 a.m. He could not speak English fluently, and the following history was obtained from his friends.

On the morning of November 18th, 1903, some fish, on which had been sprinkled the powdered fruit of the ratsbane for the purpose of killing rats, having been given to him to throw away he ate the largest portion of it. In about half an hour afterwards he had vomiting followed by looseness of the bowels and general trembling. On his admission into hospital about 10 a.m. he again vomited, and his condition then as described by himself through an interpreter was as follows: "He was feeling very weak and unable to walk, his legs were dead, he was losing power over his arm and he was feeling very bad. On examination in the ward it was found that the patient was suffering from paralysis of the lower extremities. The tendon reflexes were abolished. There was marked hyperaesthesia of the inner side of the thigh and legs. Firm pressure of the muscles of the calves gave unusually severe pain. The action of the bladder and rectum remained undisturbed. Although the pupils were normal yet the patient's vision was not acute. There was some want of co-ordinating power in the muscles of the upper extremities. The power of deglutition was not affected. The patient's condition was stationary for about a fortnight when signs of improvement began, and this continued gradually until January 22nd, 1904, when he was discharged with only a slight inability to walk.

The case is unique, as it is, I believe, the first instance of poisoning by ratsbane in man which is recorded. The symptoms observed in this case have been observed in sudden cases of paralysis of the lower extremities in young persons of both sexes and of various ages, but especially in those between the ages of 10 to 25.

The origin of this disease has been veiled in great obscurity, even superior medical men have been baffled in their efforts to discover it. The disease has generally been regarded as myelitis by the people. But the country doctors, who have the true knowledge of the cause of the disease, keep it a secret attributing it to some mysterious influence of the devil or witchcraft, something occult and thereby make much profit from both the victim and would great power over the [illegible]

[illegible] is my mind that the many cases of sudden illness resulting in paralysis are due to poison by the [illegible] and the mysterious white substance reported to be [illegible] attributed to the use of this [illegible] of the fruit in the domestic economy [illegible] of the poison are the same as in [illegible] CHAILLETIA toxicaria does not appear to be poisoned by eating [illegible] first class in a boy [illegible] [illegible] [illegible]

disease. The movements were limited to one-third of the normal. He walked very well.

Tuberculous Knee: Excision.—A girl aged 12. Four and a-half years ago the joint was excised for disease involving the bone. There was now a small tuberculous focus about the centre of incision. The bones were firmly ankylosed in a slightly flexed position. She was able to walk well; shortening was very slight.

Tuberculous Ankle: Excision of Astragalus.—A man aged 25. Five years before admission the right ankle-joint became swollen and painful sinuses appeared for which he was twice operated on in different hospitals. During the two months preceding admission he lost flesh rapidly. He looked thin and ill and there were the signs of tuberculous disease of the ankle with sinuses. Four years ago the astragalus was excised and all diseased tissues removed. When shown he was fat and strong. There were no signs of disease, the movements of the new joint were normal, he could run and walk perfectly well. A girl of 3. Four years ago she was admitted to hospital with advanced tuberculous disease of the ankle with a septic sinus on the outer side. The astragalus was excised and the joint thoroughly erased. After this two further operations were necessary on account of persistent high temperature. When shown the new joint was quite sound. The foot had assumed the position of talipes varus. Movement was limited but she could walk fairly well.

Tuberculous Disease of Spine: Psoas Abscess: Radical Operations.—A girl of 9, for two years before coming to hospital complained of pain in back. When admitted, four years ago, there was rigidity and slight angular deformity in the lower dorsal spine, together with two large psoas abscesses. Both abscesses were opened by incisions extending from either loin forwards to the middle of Poupart's ligament. The whole cavity was thus exposed, and on the right side the focus in the vertebra was scooped out and swabbed with iodoform. The incisions were sutured in layers without drainage. Beyond some tuberculous infection of the scar the patient made a complete recovery, and was sent home wearing a poro-plaster spinal jacket. At the present time the patient was quite well. Both incisions were sound, and all signs of active disease had disappeared. She still wore a jacket.—A man, aged 43. He was admitted to hospital with a large psoas abscess extending below Poupart's ligament. There were the signs of caries of lumbar spine. Four years ago the same operation was carried out as in the previous case. The incision extended from the right loin behind downwards and forwards to below Poupart's ligameni. Several sequestra were found—a focus in the vertebra was scooped out. At the present time the scar was perfectly sound; there were no signs of active disease. Patient had worked for some time at a colliery. He had gained 3 stone.

Tuberculous Disease of Palmar Bursa.—A lad, aged 19. Was admitted with disease of bursa extending into little finger and above wrist. In latter situation there were sinuses leading into the sheaths. Three years ago as much of the diseased synovial membrane as possible was dissected away; the remainder was swabbed with pure carbolic and iodoform, the hand being kept on a splint for seven months. He had now perfect use of the hand, and there was no disease evident, working regularly as a fisherman.—A man, aged 24. Six months before admission a swelling appeared in the palm; four months later an incision was made into it. The palmar bursa, with its extensions to the thumb and little finger, was involved. A similar operation to that described above was carried out. Some time later the extension to the little finger had to be separately dealt with. Now, four years after operation, he had perfect use of the hand and there were no signs of disease. Several other cases were also shown.

Ruptured Duodenal Ulcer: Laparotomy.—Mr. H. B. ANGUS related the following case: R. E., aged 56, was admitted into the Royal Infirmary, suffering from severe abdominal pain, on April 12th, 1904. History: April 11th, at 11.30 p.m., when working in the pit, he was seized with severe abdominal pain, accompanied by slight vomiting. He was brought home and suffered great pain all night; April 12th, pain severe; bowels slightly moved. Previous history: Five years ago had indigestion, which lasted three years and then passed off till the present illness. Condition on admission: Collapsed and cyanosed. Pulse 96 and compressible (complained of general abdominal pain). Nothing found in the chest. Abdomen: Inspection: Slight distension, limited abdominal breathing. Percussion: Liver dullness gone, flanks resonant. Palpation: Board-like muscles, nothing felt, very tender. Diagnosis: Ruptured duodenal ulcer. Operation: April 12th (fourteen hours after rupture) Mr. Angus performed median laparotomy. Rupture of the anterior wall of the first part of duodenum was found just beyond the pylorus. The whole pyloric area was infiltrated and friable. One suture (catgut) approximated the hole, and the omentum was stitched over the top, as no Lembert suture would hold. The abdominal cavity was washed clean with normal saline solution. Drainage tubes were placed in both flanks and the suprapubic parietes closed with through-and-through silk, supplemented with silkworm gut for skin. Subsequent progress: The man went on all right till the second week, when he got some superficial pyaemic abscesses, from which he was recovering. A point of interest in the after-treatment was the fact that the house-surgeon gave him hypodermics of tinct. digitalis ♏xx, liq. strychninae ♏vi, every hour for three days.

A Case of Post-operative Myxoedema with Tetany. Dr. GEORGE MURRAY showed a woman from whom a goitre had been removed three years previously by Mr. A. Martin. A portion of the goitre left at the time of the operation had proved to be functionally inactive, and soon after the operation symptoms of tetany and myxoedema had rapidly developed. These had disappeared under treatment by thyroid extract. The patient, who was seven months pregnant, had ceased to take thyroid extract for a time, and symptoms of myxoedema and tetany had both reappeared.

Extensive Cavernous Angioma.—Mr. A. M. MARTIN showed a man, aged 50, who had as a child a small naevoid swelling on the tongue. During the past few years this swelling had increased very rapidly. Now the naevoid condition involved the whole of the tongue, the lower lip, and the left cheek. It extended down the front of the neck as far as the sternum, and passed backwards in the mouth into the left anterior pillar of the fauces. The tongue was so swollen and heavy that when it was protruded it could not be replaced by the use of its own muscles. The lower lip was drooping and everted. Several smart haemorrhages had occurred as the result of injuries from the teeth, etc., and lately the size of the tongue had caused some difficulty in swallowing. As regards treatment, it was difficult to say what had best be done. Electrolysis had been tried on the lip with temporary benefit. Anything such as excision was, Mr. Martin feared, out of the question, as it would be impossible to get beyond angiomatous tissue. The patient was extremely anxious to have the size of the tongue reduced and was willing to face any risks of treatment.

Congenital Dislocation of Hip.—Mr. A. M. MARTIN showed a girl, aged 5, who did not walk until she was over the age of 2 years. It was then noticed that she had a distinct limp, going down on the right side when the weight of the body was transmitted to the right leg. On examination shortening to the extent of 1 in. was found, the trochanter was 1 in. above Nélaton's line, and there was some limitation of abduction and evertion. No pain or tenderness was complained of. On fixing the pelvis and pulling downward the right foot the trochanter could be felt to move downwards. The head of the bone could be felt lying beneath the anterior superior spine. The condition was therefore one of congenital dislocation of the right hip-joint. As regards treatment after preliminary extension Mr. Martin proposed to replace the head of the bone by the open operation with every hope of a successful result.

SOUTH-EASTERN BRANCH: SEVENOAKS DIVISION.

Infantile Paralysis.—At a meeting held on May 26th, Mr. TUBBY gave a lecture on infantile paralysis with reference to its treatment in the early and late stages. He regarded the probable cause of the disease as a toxin manufactured in the alimentary canal. In the early stages the patient should lie prone to diminish the hyperaemia of the anterior cornua. For this purpose also ergot, or ergot and bromide, were useful. To prevent deformities the affected muscles should be determined by the reaction of degeneration, and they should be put at rest by means of splints to neutralize the action of their antagonizers. He particularly recommended splints of malleable iron. The circulation in the muscle should be stimulated by massage, and the nutrition improved by vigorous tapotage with a muscle beater. He had little faith in electricity. In advanced cases great improvement could be effected by judicious muscle grafting, and lost movements restored. In selection of muscles for this purpose there was much room for surgical ingenuity. For example, in paralysis of the deltoid part of the pectoralis major could be used, and a portion of the triceps might replace the lost action of the biceps. Several cases of this treatment with most gratifying results were quoted.

Lancashire and Cheshire Branch. At a meeting held at Liverpool on May 18th, Mr. Alex. Hamilton, President, in the chair, Dr. Grossmann demonstrated the following cases of disease of the eye: (1) Congenital unilateral anophthalmos and colobomatous cyst in the lower lid, with colobomata of the choroid in the other eye, (2) synchysis scintillans, (3) retinitis proliferans, (4) luxation of lens into vitreous, (5) albuminuric retinitis, (6) human lens with double locus detached retina in the other eye. Dr. Barendt showed the following cases of disease of the skin: (1) Xerodermia, (2) scrofulodermia, (3) varicella prurigo, (4) lichen ruber planus, (5) lichen urticatus. Mr. Barr showed the following cases of disease of the larynx: (1) Hemilaryngectomy for epithelioma, (2) thyrotomy for epithelioma (seven years after operation), (3) frontal sinus after operation. Dr. Barr showed cases of disease of the spleen and heart, and demonstrated the following instruments: (1) A new recording cardiograph, (2) the latest model of his aspirator and injector, (3) Leonard Hill's sphygmograph. Dr. W. E. Washington showed the following cases of disease of the nervous system: (1) Myasthenia gravis with ophthalmoplegia. Rapid fatigue of most of the body muscles without wasting and with normal reflexes. Facial paresis especially in the muscle used in smiling. Ptosis and paresis of external eye muscles greatly increased by voluntary action. (2) Paralysis of the lower part of brachial plexus. Result of blow on the back about a year ago: paralysis of the sympathetic for the eye, of the small muscles of hand and of all muscles moving the wrist except the radial extensor and flexor. Marked analgesia and thermo-anæsthesia of the whole inner side of upper limb. Mr. R. A. Bickersteth read a paper on the intravesical separation of the urines coming from the two ureters, as an aid to diagnosis in surgical diseases of the kidneys. The principle underlying the construction of the instruments for this purpose was the temporary establishment in the bladder of a vertical watertight septum. Mr. Bickersteth explained the instrument constructed by Dr. George Luys of Paris, and demonstrated its mechanism. Specimens of urine thereby obtained of the two different sides were exhibited; also urine from a case where one kidney had been excised. Dr. Alexander commented in the high praise of the instrument. Dr. Alexander read notes of a case of colectomy for obstruction of the bowels caused by malignant disease. Colotomy was first performed to relieve the obstruction, and then the piece was cut out of the colon and the cut ends stitched together. Afterwards the colotomy wound was closed.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, K.C.V.O., President, in the Chair.

Tuesday, May 31st, 1904.

The Elasticity of the Aorta.

Drs. W. H. Hamilton and W. A. Wells communicated this paper as a contribution to the study of arterial [illegible] of the aorta examined all recoiled to their original length when the pressure was removed, but they varied greatly in the degree to which they stretched. The [illegible] was found equally distributed among all ages over 20. The following conclusions were drawn. The aorta followed the law laid down by Wertheim for the elasticity of organic tissue. It yields increased with age as the result of the internal pressure exercised upon it by the natural forces of [illegible] action. The more it thus became dilated the less [illegible] further stretched. When stretched [illegible] beyond [illegible] even when dilated, [illegible] to their original volume. No [illegible] dilatation and [illegible] in that most [illegible] the [illegible] arches. There [illegible] the [illegible] tissue. The amount of [illegible] probably, [illegible] the same in [illegible] This [illegible] to the [illegible] It was [illegible] of great importance to take into account the *post-mortem* contraction of the aorta, which might last six or seven days. He had long held that the changes in the aorta were secondary to hypertrophy of the heart, and this the paper tended to bear out. The aorta did not shorten as it dilated during the systole, and in their elongation the closed arteries did not obey the laws of the elasticity of the excised vessel wall. A relaxed artery lengthened more than a contracted artery. If there were universal contraction it would be anticipated that much tortuosity would not occur.

Dr. Allen said that with the late Professor Coats, some years ago, he had made histological researches on the aorta which confirmed in every particular but one the results of the paper. They had clear evidence that the elastic lamina in some cases underwent a granular degeneration. This seemed to have a bearing on the loss of elasticity. Such changes, although not seen in all cases, would yet suggest functional changes in all. An increase of connective tissue would also produce stiffening of the vessel wall.

Dr. Alexander Morison wished to have a definition of the term "tunica media," and suggested the synonym "submuscular coat." He had also seen degeneration of elastic fibres, but the loss of elasticity probably depended, not on this, but on the bulk of the produced tissue.

Professor Finlay said he would welcome similar observations on the arteries of syphilitic and alcoholic patients.

Dr. Seymour Taylor said he would like similar observations made on arteries naturally tortuous. A tortuosity which probably depended on supplying parts of the body subject to movement, and did not seem to be concerned with the resistance of systolic shock.

The President alluded to the observation that cardiac hypertrophy had no connexion with loss of elasticity of the aorta. This seemed to be borne out clinically. It was an interesting fact that the widening of the aorta reached its acme about the age of 40. The varied pressures due to condition of stress, as was known clinically, began to tell about that period of life.

Dr. Herringham replied.

CLINICAL SOCIETY OF LONDON.

Frederick Taylor, M.D., F.R.C.P., President, in the Chair.

Friday, May 27th, 1904.

Pyopneumothorax.

Professor D. W. Finlay (Aberdeen) read notes of the following case:

The patient was a boy, aged 15, admitted into the Aberdeen Royal Infirmary suffering from tuberculous pneumothorax on the left side, the apex of the right lung also showing the ordinary signs of tubercular [illegible]. Effusion was present, at first serous, but later on becoming purulent. After preliminary tapping, free incision, with removal of portions of two ribs, was practised, the signs at the right apex having subsided, and a large quantity of pus was evacuated. On two occasions subsequently considerable portions of the fifth, sixth, seventh, and eighth ribs were resected, and the boy was treated for many months in the open air on the balcony of the ward. The result had been that a condition of health was regained whereby he was enabled to resume his occupation of gardening. But there was still a discharging sinus and a cavity of the capacity of a pint, the daily discharge of pus being about a drachm. The tuberculous process at the right apex had been completely arrested, but for some time the same had remained active, and at the necessity for further operative procedure.

Professor Finlay put forward the view that the radical treatment of such cases offered a fairer prospect of benefit, as in cases of ordinary empyema, than the practice hitherto generally adopted of leaving the fluid alone or of removing it by repeated tappings, having regard more especially to recent improvements in the mode of treatment of pulmonary tuberculosis. Two other cases were referred to in which free evacuation of pus was practised. In one of these the patient seemed to be neither better nor worse for the operation; in the other such an improvement was obtained that he was able to return to his employment.

Dr. J. Porter Parkinson remarked that the late Dr. Lange had related several cases of recovery from pyopneumothorax without operation. Was it worth while going through such an ordeal to obtain comparatively little benefit?

Dr. Percy Kidd considered that medical practitioners should not be unduly influenced by older methods of treatment. The difficulty often was to determine the amount of disease present.

Professor Finlay replied.

Tumour of Left Auricle.

Dr. H. T. Thrombosis and Dr. C. H. Aitchison communicated

details of two cases. The first was that of a girl aged 15, under the care of Dr. Percy Kidd in the London Hospital, into which she had been admitted for pains in the chest and dyspnoea.

She had had good health until twelve months before admission, when pain and shortness of breath appeared, afterwards followed by occasional vomiting and oedema of the legs. There was no history of rheumatism or chorea. On examination the heart was enlarged, and presystolic and systolic murmurs were heard at the apex. The liver was enlarged and tender. The case was considered to be one of mitral stenosis, and was treated accordingly. An attack of thrombosis of the left subclavian vein occurred two months after admission, followed by symptoms of obstruction in the right dorsalis pedis artery. Six months later she died of subacute nephritis. The presystolic murmur disappeared towards the last. At the necropsy a pedunculated tumour was found hanging from the auricular septum and protruding between the cusps of the mitral valve. Microscopically it was a fibroma.

The second case was that of a woman, aged 51, under the care of Dr. Warner.

She had suffered from dyspnoea for five years. The heart was much enlarged, and a presystolic and a systolic murmur were heard at the apex. Ascites and albuminuria were present. A week after admission to hospital she was seized with right-sided hemiplegia and died. At the necropsy a rounded mass was found attached to the auricular septum in the situation of the fossa ovalis, which microscopically consisted of myxomatous tissue.

Several cases had been recorded, some of which showed how tolerant the heart was of these tumours. By Dr. Léon Berthenson the following points were regarded as suggestive of an intra-cardial tumour: (1) Absence of rheumatic history and of evidence of progressive endocarditis; (2) signs of cardiac failure together with embolic symptoms. A well-marked presystolic murmur had been observed in the case reported by Sir W. T. Gairdner, in which a fibroma of the right auricle was found at the necropsy.

Dr. W. PASTEUR remarked that the condition was rare, and that Dr. K. Fowler had reported a case to the Pathological Society in 1803. A large pedunculated clot was found in the left auricle attached close to the foramen ovale, the usual situation of these tumours.

Dr. C. W. CHAPMAN suggested that the vomiting was due to the condition of the kidneys.

Dr. W. EWART described a similar case. The clot, which was found in the left auricle, had caused during life an intermittent blocking action of the mitral valve.

Dr. J. PORTER PARKINSON had exhibited to the Society for the Study of Disease in Children a case in which three organized thrombi existed in the right auricle, one of them being pedunculated.

OSTEITIS DEFORMANS.

Mr. STEPHEN PAGET exhibited a case of this disease.

ANNUAL MEETING.

The report of the Council and Treasurer's statement of accounts were read: the election of officers and Council took place, and votes of thanks to the retiring officials were passed. The following officers were elected, namely: Dr. Frederick Taylor, as President; Mr. G. H. Makins, C.B., as Treasurer; and Dr. W. Pasteur and Mr. W. G. Spencer, M.S., as Honorary Secretaries.

REVIEWS.

PHYSICAL DETERIORATION.

LORD ROSEBERY, with his happy knack of suggestive phrase, once said, "An empire is but little use without an imperial race," and Mrs. WATT SMYTH has very appropriately quoted the saying as the final moral of her book *Physical Deterioration, its Causes and the Cure*,[1] in which she has brought together a great mass of information, and pointed out with much acumen and ability the conclusions to which the facts bring an impartial student.

The subject is one which has attracted a great deal of attention in this country during recent years, and more especially since the emergency of the Boer war revealed the fact, to quote the words of the book before us,

That of those who wished to serve their country in her day of trial a startling number were found physically unfit to carry a rifle, and that even of those who passed the recruiting officer a large proportion were deficient in the physical stamina and the moral qualities which go to make a soldier.

After rendering due honour to Major General Sir Frederick Maurice's early writings on the subject, and after analysing the report of the Royal Commission on Physical Training in Scotland, the Director General's Memorandum on the recruiting statistics for 1902, and the recent reports of the Royal Colleges of Physicians and Surgeons on the subject, Mrs. Watt Smyth goes on, in her third chapter, to examine the nature of the evidence that the population of Great Britain shows signs of physical deterioration. In spite of the impressive facts set out in official statistics and reports there are those who maintain that the existence of physical deterioration has not been proved. Some who lean to this opinion have asked for anthropometrical statistics, while others have argued in the high *a priori* style that as improved sanitation means better health, and a great chance that children shall develop normally, and, as attention to sanitation was one of the dominant notes of the later Victorian era, therefore an improvement in the national physique must have occurred. Those who would argue thus are met by the writer of this volume in their own vein by reference, first, to the statistics of the Registrar-General, showing the enormous growth of the urban as compared with the rural population, and the continued heavy infant mortality; and, secondly, to the fact that compulsory education, which has swept all children into schools, has added a new factor to the problem, the full force of which is only now beginning to be perceived. The fact that the urban population has increased out of all proportion to the rural is well known, but it may not be so generally understood that the rural population of England and Wales enumerated at the census of 1901 was less than in 1881, and practically the same (7,471,242) as in 1861 (7,369,704), whereas the urban population had nearly doubled (in 1861 it was 12,696,520, and in 1901 it was 25,054,268). Again, it is pointed out that "the ratio of town to country residents, which was 212 to 100 in 1881, and 258 to 100 in 1891, was found at the last census (1901) to have risen to 335 to 100." These facts are illustrated by some very striking diagrams which are among the most convincing we have ever seen. The rates of mortality among infants and children in town and country are then compared, and tables are given, founded on the returns of the Registrar-General; it is shown that the excessive mortality among children bred in towns does not cease with the first year, but is very clearly to be perceived when the rates for children under 5 years of age in urban and rural counties are compared. It is seen that a large part of the excess is due to diarrhoeal diseases. This part of the subject is summed up as follows:

It is seen, therefore, from the evidence of vital statistics, that town conditions are, as compared with country, inimical to the survival of infants and young children. Surely no one will have the temerity to deny that this terrible toll of infant life means also a corresponding toll on the health of those infants who live on into childhood. We know that the diseases causing the greater part of this mortality are of a kind which produce a lasting effect on nutrition, impairing digestion, deforming the skeleton, and stunting growth generally.

For our part we are prepared to uphold the conclusion here implied and to maintain that the onus of proving the contrary lies on those who would contend that town conditions producing, as they do, increased morbidity and mortality among infants and children, do not tend to produce likewise a low standard of physical development. The point might be settled by anthropometrical statistics of school children, but none exist on a scale to convince those who do not wish to be convinced. The statistics tabulated by the Anthropometric Committee of the British Association in 1883, and those collected last year by Dr. William Hall, of Leeds, are quoted as showing that the average town child is inferior in height and weight to the country child, and that a similar contrast is to be observed between the well-cared-for child in a large town, and the neglected offspring of impoverished parents in the same town. But statistics which would enable a comparison to be made between the physical development of the average child, youth, or adult of to-day and of twenty years ago do not exist. Mrs. Watt Smyth pleads forcibly for the organization of a system for recording at least the height and weight of all school children twice a year, and has devised a plan by which the observations might be quickly made and recorded by the school teachers. The introduction of compulsory education just a generation ago has altered the conditions of child life, and its effect on growth has not been adequately studied. We may quote the following passage, which sums up the position very fairly: "Broadly speaking, the answer to the question whether, in respect to physical development, the good or evil prevails, depends on the degree of wisdom and public spirit shown by the local educational authorities. Overcrowded, ill-ventilated, ill-lighted

[1] *Physical Deterioration: its Causes and the Cure.* By A. Watt Smyth. London: John Murray. 1904. (Cr. 8vo, pp. 324. 6s. net.)

schools; want of a well organized system of instruction in physical exercises, cookery and domestic hygiene; and inadequate playgrounds, can only aggravate other injurious influences which the town child has to encounter. Well-constructed school buildings, intelligent teaching in drill and gymnastics, and open-air games, on the other hand, must tend to healthy growth, and help to make up to the town child for the loss of the free life enjoyed by the country child."

The injurious influence of overcrowding and all that it implies on the health of mothers during pregnancy and lactation, and on the health and growth of infants and children is next discussed, and the authoress displays much practical knowledge of existing evils and a keen insight in suggesting remedies; we must, however, pass on to the chapter on the medical inspection of school children, which is of particular interest to the medical reader as containing the conclusions of a thoughtful lay writer upon a matter in which the medical profession is directly concerned. The opinions expressed are very much in advance of those commonly held or acted upon in this country. It is difficult to do justice by an abstract to the argument which is fortified by references to what is done on the Continent and in the United States, and we must refer our readers to the book itself, but its main outline may be thus stated. The State having decreed education compulsory, it is the interest and duty of the State to see that the children are in such a state of physical health as to profit by the education, and to prevent the occurrence of epidemic diseases, which interrupt the attendance of individual children at school, and may cause permanent injury; while failure to detect early cases may lead to a great fall in the attendance of children from the whole district, and even to closure of schools. It is not reasonable to rely upon school teachers to diagnose the early stage of, for example, measles or scarlet fever; the most they can be expected to do is to detect at the opening of the class that a child is not well. It follows that arrangements should be made for a medical man to attend the school every morning, and that the class teachers should be required to refer every child who seems out of sorts to him. He would, of course, do a great deal more than merely detect infectious diseases, but, as we have said, the scheme ought to be studied in the original; it may alarm our conservative educational authorities, but they may find comfort and encouragement in the facts given as to the ease and economy with which similar systems work in the United States and Germany.

The topics to which we have alluded, together with the discussion of the effects of underfeeding and of labour out of school hours and its regulation, occupy about two fifths of the [illegible] and prepare the way for suggestions for the remedy of the evils described. Before describing the systems of physical training followed in this and other countries, an account is given of the methods of the ancient Greeks, who are [illegible] masters in this respect inasmuch as they were deeply imbued with the idea that education meant the cultivation of the whole man—body, mind, and character. Of the modern systems that followed in Sweden is singled out for special [illegible] but the great features of that adopted in London under the direction of Mr. Chesterton are described, it is pointed out however, that

[illegible]

[illegible] system introduced into elementary [illegible]

In the next chapter it is pointed out that a large proportion of the children living in the poorest quarters of large towns have no playground but the streets, where they may be seen even up to midnight waiting for their parents to open to them the apology for a home which is all these unfortunates know. The efforts of Mrs. Humphry Ward to establish recreation classes are praised, and a most encouraging account given of the success of those conducted under her personal supervision at the Passmore Edwards Settlement.

A chapter is given to the question of the milk supply of large towns in which the defects of the existing systems are unsparingly laid bare. The milk depôts under strict medical supervision, which have yielded such excellent results in Paris, are described as models to be imitated in this country. In a concluding chapter the general argument of the book is summed up, and the volume closes with a series of appendices in which certain officials documents referred to in the text are set out in full.

The book is well planned and the writer's style is direct and concise, so that the reader gains a clearer view of a complex subject than can be obtained from any other publication with which we are acquainted. The book is, indeed, unique in its conception, and its execution leaves nothing to be desired. We would commend its perusal to all our readers, and it is well worthy of the careful study of persons interested in education, whether as teachers or as members of education authorities.

Mr. J. B. Atkins has reprinted in a small volume, entitled, *National Physical Training: an Open Debate*, a series of papers and "reports of conversations" which appeared in the *Manchester Guardian* some months ago. Among the contributors were Mr. R. B. Haldane, M.P.; Dr. Macnamara, M.P.; Mr. John Burns, M.P.; Dr. Newsholme, Sir Lauder Brunton, and Mr. Eustace Miles. To some of the articles we called attention at the time, and it will be found when the whole series is read together that the writers differ among themselves on not a few points. Mr. Atkins has added a chapter headed "Conclusions" which may be regarded as the most valuable part of the book. The discussion, as often happens, did not follow exactly the lines proposed at the beginning, for such subjects as food, housing, open spaces, and alcoholism interested the contributors more than systems of physical exercise or drill. At the present stage this is not altogether to be regretted, although, as Mr. Atkins observes, reform in all these particulars will not exempt us "from the duty of putting straight our lop-sided system of education," and by lop-sided he means directed solely to the mind while neglecting the body. Mr. Atkins recognizes clearly that the question is bound up inseparably with the other question of feeding, and makes the suggestion that simple food should be provided by the schools, and that parents should pay the cost price of it, unless they can prove that their child is having adequate food at home. Finally, we may express our agreement with his conclusion that "the whole question of physical education is largely a woman's question." This, he says, is one of the things brought out most clearly by the discussion, and it is to be hoped that if the Physical Improvement League, a draft scheme for which Mr. Atkins publishes in an appendix, comes into existence, women may be encouraged to become its most active members.

SURGERY.

Mr. Mayo Robson, in the latest edition of his well-known book on the *Diseases of the Gall Bladder and Bile Ducts*, has found it necessary, in consequence of the rapid progress in the pathology of these affections, and of recent improvements in the technique of the various operations on these organs, to present in the place of a mere revision of previous issues, a much enlarged and almost new work. Several new chapters have been added, many additional cases furnished, and the whole book has been brought up to date. This edition, in the preparation of which Mr. Robson has been assisted by Mr. J. P. Dobson, may be regarded as the best and most authoritative work on the subjects with which it

[illegible]

deals, and is most valuable in being the personal record of the clinical and scientific research of one who has done so much towards developing and perfecting this now important branch of practical surgery. Of the many instances of real advance in surgery of the gall bladder and biliary passages discussed, the most important, it seems to us, is that of the addition of choledochotomy to the class of practicable, safe, and indeed, relatively simple operations. The mortality of this procedure, owing to the method for complete exposure advocated here, has in Mr. Robson's practice been reduced in the course of the last three years from 10.2 to 1.9 per cent. Uncertain methods, such as needling and crushing, are held to be quite unnecessary in most cases, and in his experience of 88 cases of choledochotomy for the removal of stones from the common and hepatic ducts Mr. Robson has never found need to use the instrument known as Halstead's hammer. The long record of cases in the appendix, showing the results of so much brilliant and successful practice would, we are disposed to think, be found more interesting and instructive if arranged in distinct groups of biliary affections, rather than in chronological order.

The subject matter of the third volume of the thirteenth series of *International Clinics*[1] is classified into four groups—six papers on diseases of the gall bladder and gall ducts, of which that by M. Lejars of Paris, on the value of and indications for surgical intervention in cholelithiasis is worthy of special mention—four papers on treatment, of which the most remarkable is one by Dr. Albert Robin on the medical treatment of cancer, by which he means effort to lessen the patients' sufferings, to feed them and prolong their lives, an effort he would always make if the case were too far advanced for pylorectomy, and before the operation of gastro-enterostomy was seriously considered—five on general medicine, of which that by Lieutenant C. F. Craig, of the United States Army, on malarial infections, their parasitology, symptomatology, diagnosis and treatment, based as it is on a study of 3,000 cases in which the parasites were discovered in the blood, is worthy of most careful attention—and six papers on general surgery, including local and general anaesthesia, and a paper on asepsis and antisepsis by Professor Lucas-Championnière in which he argues for simple aseptic methods in abdominal surgery but for antiseptic in all other.

Mr. G. GREY TURNER'S essay on *Some Surgical Aspects of Appendicitis*[5] is really a welcome and instructive continuation of a subject which it is acknowledged in the preface is a well-worn one. It presents in a readable form the results of much conscientious work in the surgical wards and in the *post-mortem* room, and throws some light on certain complications of appendicitis—intestinal obstruction, for instance—to which but little attention has hitherto been given.

Mr. F. G. LLOYD'S little book on *Diseases of the Appendix Vermiformis and their Treatment*,[6] which is a reprint of papers previously published in medical journals, is a much-compressed and not very satisfactory compilation on a subject of which the author's experience is, as he acknowledges, comparatively limited.

The *Manual of Operative Surgery*, by Professor E. VON BERGMANN and Dr. H. ROCHS,[7] was designed in the first instance for the use of army surgeons taking out the course of operations on the cadaver which the writers conduct. It is divided into two parts; the first treats of the ligature of arteries, amputations and resections, the principles of plastic surgery, and a few of the more frequently-performed special operations. The second part is a new feature in this, the fourth, edition, and deals with operations on the skull, spine, thorax, and abdomen. By the addition of this part the book has become a complete handbook of operative surgery. Part I, published in 1901, followed the familiar lines of similar publications; in each instance an operation of choice is fully described, and the comparative advantages of the various recommended procedures are examined. The descriptions are clear, and the illustrations sufficient and good. As the writers state, the performance of operations on the brain, thorax, and abdomen of the cadaver is of little practical value, and in this respect Part II stands on a different footing from the first. The book has suffered from this attempt to fulfil two functions, and the compass of the second part is not sufficient to permit of an adequate description of the numerous procedures mentioned. As a rule, however, these descriptions are excellent; especially good are those of operations on the gall bladder and ducts, on hernia, and on the branches of the fifth nerve; but renal operations are too briefly considered, the ureter is barely mentioned, the prostate not at all. As in the first part, the illustrations are good, particularly those of abdominal operations, and although unequal, the whole book is well up to date, serviceable, and accurate.

Dr. GUNNING'S *Aids to Surgery*[8] is an instance of much industry and skill in the condensation of the surgical teaching of some of the best modern authors, but represents a type of work which any advanced student should be well able to prepare for himself, and which is not likely to do much service to any one save the author.

In the second edition of his *Manual of Operative Surgery*[9] Mr. WARING has, by careful revision of the original issue, and by the addition with the help of colleagues, of many new sections, successfully maintained the practical utility of this work. Many additions have been made throughout the volume by the author himself, and important changes have been made in the special chapters on ophthalmic and gynaecological operations, and on the operative surgery of the thyroid gland, by those who have ably assisted in the preparation of both editions. The book thus carefully revised and improved, may be regarded as a good and useful handbook for the surgical student, and an efficient guide to instruction in both general and special operative work. The technical details of each operation are, as a rule, full and accurate, and the illustrations, though not of the artistic excellence of those usually found in works on this subject, are abundant, and on the whole sufficiently clear and helpful. The small and convenient compass of this volume adds much to its utility, but it would have been well, we think, had its bulk been still further reduced by the omission of clinical matter which, in a work intended exclusively for classwork and for students instructed in operations on the dead body, might be considered as unnecessary. Whilst acknowledging the decided value of this work as a practical manual for the use of surgical students, we regret to note in this edition a tendency to hold by old and obsolete methods and to ignore recent modifications in certain operative procedures. For instance, no mention is made of Kocher's latest operations for the removal of the tongue and for the radical cure of inguinal hernia, which in this surgeon's practice have, it seems, superseded the older methods exclusively described by Mr. Waring. The section on gastro-enterostomy is not quite satisfactory, as it contains no allusion to the methods of intestinal anastomosis practised for the prevention or relief of the evils of the "vicious circle." We find no reference to the simple but really important and useful modifications that have been made by Mr. Mayo Robson in the technique of operations on the gall bladder and the biliary passages.

DISEASES OF THE HEART AND LUNGS.

DR. LINDSAY'S *Lectures on Diseases of the Lungs and the Heart*[10] are well worth reading carefully, for they bear on every page the stamp of practical experience as opposed to the mere reproduction of textbooks. The lectures are in substance those delivered to the clinical classes at the Royal Victoria Hospital, Belfast, and are framed throughout from the clinical standpoint. Each chapter commences with a summary of its

[1] *International Clinics*. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. Edited by A. O. J. Kelly, A.M., M.D. Volume III. Thirteenth Series. London: J. B. Lippincott Co. 1903. Demy 8vo, pp. 314. 10s. 6d.)

[5] *Some Surgical Aspects of Appendicitis*. By G. Grey Turner. Newcastle-upon-Tyne: Daily Journal Office. 1903. Crown 8vo, pp. 76. (For private circulation.)

[6] *Diseases of the Appendix Vermiformis and their Treatment*. By F. G. Lloyd, M.R.C.S.Eng., L.R.C.P.Lond. London: John Bale, Sons, and Danielsson, Ltd. 1904. (Fcap. 8vo, pp. 37. 2s.)

[7] *Anleitung zu Operationen an der Leiche*. (Handbook of Instruction for a Course of Operative Surgery on the Cadaver.) Von Professor E. von Bergmann und Dr. H. Rochs. Fourth edition. Parts I and II. Berlin: A. Hirschwald. 1903. (Crown 8vo, pp. 478. M. 7.)

[8] *Aids to Surgery*. By Joseph Gunning, M.B., B.S., F.R.C.S.Eng., Senior Resident Medical Officer, Royal Free Hospital, London: Bailliere, Tindall and Cox. 1904. Foolscap 8vo, pp. 304. 4s. 6d.)

[9] *Manual of Operative Surgery*. By H. J. Waring, M.S., M.B., B.Sc.Lond., F.R.C.S., Assistant Surgeon, Lecturer on Surgical Anatomy, and Demonstrator of Practical Surgery, St. Bartholomew's Hospital; Consulting Surgeon, Metropolitan Hospital; Member of the Board of Examiners, Royal College of Surgeons, England. Second edition. Edinburgh and London: Young J. Pentland. 1904. (Crown 8vo, pp. 659, 472 illustrations. 10s. 6d.)

[10] *Lectures (Chiefly Clinical) on Diseases of the Lungs and the Heart*. By James Alexander Lindsay, M.D., F.R.C.P., M.A. London: Baillière, Tindall, and Cox. 1904. (Demy 8vo, pp. 457. 9s.)

contents, so arranged as to facilitate reference and to allow a rapid survey of the essential points discussed in the texts. The opening chapters on diagnostic methods and physical examination are excellent. Here, as elsewhere throughout the book, there is no lack of references to other writers, but their opinions are subjected to well weighed criticism and not accepted indiscriminately. In discussing the difficult subject of the variations in the percussion note in different morbid conditions of the chest, the addition of some further reference to the variations in resistance would sometimes be of value and assistance. There are chapters relating to the diagnosis, prognosis, and treatment of pulmonary phthisis, the causes and management of hæmoptysis, and some of the rarer forms of pulmonary disease. The second half of the book is devoted to diseases of the heart and blood vessels, and here, also, there are chapters on physical examination, the study of cardiac symptoms, diagnostic problems in connexion with heart disease, prognosis, and, finally, treatment of valvular disease of the heart. In every subject discussed in these lectures the practical rather than the academic view is kept prominently before us. The chapters on the early diagnosis of pulmonary phthisis, and on conditions which simulate pulmonary phthisis, are of special interest in view of the importance of the early detection of pulmonary tuberculosis. Dr. Lindsay points out that to withhold a diagnosis until either bacilli are found in the sputum or definite physical signs are detected in the lungs means in many cases the sacrifice of the patient's best, perhaps his only, chance of recovery. So also the use of such euphemisms as "a delicate chest," "weak lungs," or "a tendency to consumption" tend to work a similar unfortunate result. With regard to treatment Dr. Lindsay records that to withhold a diagnosis until either bacilli are found in the sputum or definite physical signs are detected in the lungs means in many cases the sacrifice of the patient's best, perhaps his only, chance of recovery. So also the use of such euphemisms as "a delicate chest," "weak lungs," or "a tendency to consumption" tend to work a similar unfortunate result. With regard to treatment Dr. Lindsay's experience with tuberculin has been unfavourable, and treatment with antiseptics has appeared to him, after a somewhat extensive trial, to be futile. The hygienic treatment is the most satisfactory in its results, but Dr. Lindsay enters a *caveat* against two common features of sanatorium treatment—overfeeding and the frequent taking of rectal temperatures. A very good summary of the essential features of different climates and their suitability in the treatment of various classes of phthisical cases is given at the end of the lectures on therapeutical problems. The same careful review of the clinical problems which is the notable feature of the chapters on pulmonary diseases characterizes the lectures on diseases of the heart. We agree with Dr. Lindsay's remark that it is good to have these lectures in a permanent form, and their publication will extend the number of those who will be able to profit by his teaching.

Professor Romberg of Bonn has published an essay on the general principles of treatment appropriate to failure of the heart's circulation, in which he insists on the necessity of considering the other factors, besides the heart, concerned in supplying the circulation, when the symptoms of failure are to be treated. He summarizes the chief symptoms as enlargement of the liver through stasis, oedema of the feet in the form of malleolar oedema, shortness of breath without lung disease, albuminuria, and a rapid, unequal, irregular pulse. The general treatment given includes an attempt to explain how the methods recommended act. He sets out with a discussion of the subject of rest in bed, and explains how it is that compensation for failure cannot be had on these terms. One factor is that the abdominal contents fall back and interfere with the play of the diaphragm, and embarrass the heart's action. Another factor is the pressure that a dilated heart may cause on nerve structures, while the action of the heart may interfere with the flow of blood to the brain. He insists on starting the treatment by limiting the amount of food to from eight to ten ounces of milk daily, afterwards gradually increasing the quantity. The question of diet is considered in detail, and the author insists upon the advantages of diaphragmatic breathing. He passes in review the various drugs to be obtained from plants, and deals in particular with digitalis. The cardiac drug are discussed, and the author's views are somewhat different from those generally held in this country. He also deals with the treatment of the arrhythmic heart, and concludes his lectures with a discussion of the treatment of the various forms of valvular disease. The book is one which will be found useful by teachers and by practitioners.

Dr. Emil Grube of Breslau has published a book on the treatment of heart disease, in which he deals with the question of the use of digitalis and other cardiac drugs. He points out that the drug is not a diuretic, but that it acts by increasing the force of the heart's contraction, and thus causing the kidneys to secrete more urine. He also points out that digitalis is not a cardiac tonic, but that it is a cardiac drug. He discusses the question of the use of digitalis in the treatment of heart disease, and points out that it

tion. The Society meets only once a year, the session lasting three days and being held in various cities in successive years. Full notice of all communications to be made at these meetings has to be given in advance, and, consequently, the discussions and the papers which introduce them are all, so to speak, of the full-dress order. The volume contains twenty-four papers, many of which are well illustrated. One is a detailed record of a curious and apparently entirely successful effort to convert a pseudo-hermaphrodite of feminine general characteristics, but with a very well developed male organ, into a normal female. The volume is well worth the attention of those interested in gynaecology and abdominal surgery.

The Dental Annual made its first appearance last year, and the favourable reception then accorded to it is more than justified by the second edition. The editor, whose name does not appear upon the title page, has taken advantage of the comparatively liquid stage of the book's existence to introduce several new features. One of these has led to an addition to the formal title of the book, and converts what was merely a dental year book into a Dental Directory. The names of all registered practitioners of dentistry now appear arranged topographically according to the towns in which they reside. English dentists established in foreign countries being included. The general scheme of the book is to arrange the whole of the subject matter in alphabetical order. In this way it is easy to hunt up any information required as to dental education and organization, and as to the actions of the General Medical Council in respect of dentistry. With equal ease may be discovered summaries of recent dental work and research, references to journals, the transactions of societies, lists of manufacturers, dealers, and dental depôts. A further useful feature of the volume is the inclusion of a diary in which the dates of meetings of all scientific societies are recorded, space being left for notes as to those in which the user of the book may be specially interested.

[1] *The Dental Annual and Directory, 1904.* A Year Book of Dental Surgery. London: Baillière, Tindall, and Cox. (Demy 8vo, pp. 522. 7s. 6d.)

LITERARY NOTES.

THE *University of Pennsylvania Medical Bulletin* for March contains an article entitled "Medical Paris during the Reign of Louis Philippe," by Professor Chalmers Da Costa. In the time of the bourgeois King medical students flocked to Paris from all parts of the earth. The Quartier Latin was then the combination of Grub Street and Alsatia so vividly depicted in *La Vie de Bohème* by Henri Murger, who, however, repudiated his own creation with his dying breath. It is more realistically described by Dr. Gibson, a former Professor of Surgery in the University of Pennsylvania, as a quarter

> where the streets are so narrow and filthy, and without pavements or sidewalks, as to endanger life at every corner; where the houses are so high, end-on-end, and gloomy as to resemble cells of penitentiaries, and nearly shut out the light of Heaven; where the catacombs—those vast depositories of human bones, the accumulated collection of ages, lie beneath the feet, extend unknown distances, and seem to respond by hollow groans to the tread of the foot passenger and rumble beneath the jar of cumbrous vehicles and the tramp of clumsy animals that are incessantly threading the narrow defiles above their desolate but populous domains; where innumerable smells of concentrated vigour and activity and varied odour assail the olfactories from every quarter; where loud and discordant cries of wandering tribes of vagabonds vending their peculiar animal and vegetable productions fall upon the sensitive and startled tympanum of the stranger like strokes of the sledge hammer or harsh gratings of the saw-pit, where the barking of dogs, the screams of parrots, and the chattering of monkeys are mixed with the gabble of old women and men; where the bowing and nodding, and scraping and salutations, and recognitions of street passengers bobbing against and shouldering each other, followed by the incessant and everlasting apology . . . . afford the most amusing and melancholy mixture of pleasurable and disagreeable sensations that can possibly be conceived.

Dr. T. Mason Warren found the students of the Thirties, as a rule, seditious, coarse, licentious, extravagant, and not over clean; they were free from the slightest check of public opinion, and could without criticism indulge to the limit in every pleasing vice. As a New England Puritan Dr. Warren felt out of place in this society, and viewed his associates with considerable suspicion. That there was good reason for this attitude is shown by the fact duly noted in his journal, that a medical student stole his umbrella. In 1837 his father, Dr. John C. Warren, paid a visit to Paris, and records that Roux warned him under no circumstances to leave his cloak in any room or ward. During the reign of Louis Philippe Paris contained the best organized hospitals in the world. The death-rate in the hospitals was extremely high, varying from 1 in 15 in some of the smaller hospitals to 1 in 8 in the Hotel Dieu. Among the great names which made the period illustrious are those of Cruveilhier, Andral, Trousseau, Dubois, Chomel, Louis, Gay-Lussac, Roux, Cloquet, Velpeau, Dupuytren, and Lisfranc. The spirit of brotherly love did not reign among these famous men. Warren wrote in 1837:

> The jealousy and hatred among the medical men of Paris are excessive. It is dangerous to speak of one in the presence of another.

The younger Warren in his memoir says:

> A lecture by Lisfranc is a fourth of bludgeons and daggers. He lashes Velpeau and Roux, and even stabs Dupuytren . . . in his sheet, but he has as many lashes in return.

In a public lecture Lisfranc gracefully alluded to Dupuytren as "le brigand," and he was wont to call him "le grand boucher du bord de l'eau." Dupuytren retorted with remarks to the effect "que sous une enveloppe de sanglier on portait parfois un coeur de chien couchant." Victor Hugo relates that Lisfranc and Récamier once had an argument in the arena of the Medical School concerning the divinity of Christ and almost came to blows in the presence of the students. There was much brilliant operating, but it was largely a matter of art for art's sake, and the patient fared somewhat badly. Warren says:

> More than two thirds of their patients die after amputation. It seems to be rather an object to study the natural history of disease and to perform an operation beautifully than to save the life of the patient.

Referring to Dupuytren, he says:

> His operations are always brilliant and his diagnoses sometimes most extraordinary. He is one of the most suspicious persons that I have ever encountered. He is continually seeking to convince us that he is a great man, and that we do not sufficiently value his talents. He likes much to make a show, and generally talks during the whole operation.

Elsewhere Warren says in regard to the same surgeon:

> For brutality I do not think his equal can be found. If his orders are not immediately obeyed, he makes nothing of striking a patient and abusing him harshly. A favourite practice of his is to make a handle of a man's nose, seizing him by it and pulling him down on his knees where he remains, half in sorrow and half in anger, until he is allowed to rise and describe his symptoms.

Sir Astley Cooper informed J. C. Warren in 1838 that a short time before he had been going through the Hotel des Invalides with Larrey, the surgeon-in-chief of that institution, who informed him that he had never in his life lost a case of amputation at the shoulder-joint. They soon afterwards entered the deadhouse, where there was a dead body upon which amputation at the shoulder-joint had recently been performed. Sir Astley asked Larrey the cause of the man's death, and the latter calmly and without a smile replied "Inflammation of the lungs." Lisfranc used to go to the hospital early in the morning, and would pass through the wards arrayed in a blood-stained white apron and wearing upon his head a black skull cap like that of a hanging judge. He was an extremely large and powerful man, and wore a long-waisted, snuff-coloured coat, with a long tail reaching to his heels and shaped like the tail of a kite. His pantaloons were baggy about the hips and fluttered in the wind as he walked. His shoes were always large and ill-fitting, and he used to stride like a burly, careless giant through the streets of Paris. His voice was loud and his accents emphatic, and he denounced in unsparing terms every human being who ventured to differ with him in the slightest particular. His hand was against every man, and every man's hand was against him; and he seemed thoroughly to enjoy the situation. Of the surgeons of that time the most honest and probably the most truly scientific was Velpeau. There is a charming description of him in Daudet's *Rois en Exil* under the name of Buchereau.

THE MEDICAL DEFENCE UNION.

THE annual general meeting of the Medical Defence Union was held on May 20th at 11, Chandos Street, Cavendish Square, with Mr. M. A. MESSITER, the President of the Union, in the chair.

The annual report and statement of accounts for 1903 were presented.

REPORT OF COUNCIL.

The report stated that the addition of an entrance fee had made for increased strength, and had not prevented members of the profession from seeking the protection of the Union, and, from a financial point of view, it had increased the assets of the Union to no small degree. Over 1,000 cases had been brought before the Council of the Union for consideration, and, in addition, a number had been dealt with by the General

Secretary directly. The Council had continued the same principles which guided the policy of the Union in the past—that is to say, to deal with all cases involving professional principle promptly, and to take legal action in defence of members, regardless of cost, in all cases in which evidence was presented and obtained justifying in the opinion of the solicitor recourse to the courts. In addition to the large number of cases in respect of individual defence, the Council had also undertaken what was termed collective defence, such as prosecutions of unqualified practitioners. Although there had not been many prosecutions under the Medical Act, more cases would be undertaken if the Medical Act were amended so as to make convictions certain, and the Council hoped that the British Medical Association, which had a Medical Acts Amendment Bill in preparation, would be able to carry it through the Legislature; every possible help and assistance would be afforded by the Union. **The Medical Defence Union could not attempt by itself to promote Bills in Parliament, as its means were not sufficiently great; but in the opinion of the Council the work could and should be done by the British Medical Association, and to accomplish this duty would add to its prestige and power. In reference to the draft scheme for medical defence prepared for the consideration of the Divisions of the British Medical Association the report of the Council of the Union contained the following passages:**

"The Council, after carefully considering the scheme in all its details, decided unanimously, at a meeting held February 18th last, to do all in its power to maintain the integrity of the Medical Defence Union as at present existing, and trusts that it will receive the full support of its members in so doing. . . . The Council has received a very large number of letters from members in all parts of the United Kingdom, in which cordial expressions of support and agreement with the action taken by the Union are to be found. The Council has in this instance only adhered to the opinions expressed in 1898, when the British Medical Association, at the annual meeting held at Edinburgh, decided by a considerable majority that medical defence should not be undertaken by the Association, and this decision rested almost entirely upon the fact that the work of defence was carried on so ably by the Union that there was no necessity to alter the Memorandum and Articles of Association in order to provide for such work."

SOLICITOR'S REPORT.

The Solicitor to the Union, Mr. W. E. Hempson, prefaced his report for 1903 with a brief retrospect and analysis of the legal work during the last eight years.

The following paragraphs contain some of Mr. Hempson's observations on his work:

I said that within the space of eight years there have been placed in my hands [illegible] cases to be dealt with in my official capacity as the solicitor to the Union, separate cases, which work out at an average of [illegible] cases for each of such years.

The [illegible] was reached in the year [illegible], the total number of legal matters arising in that year in behalf of members and involving [illegible] unauthorized practitioners and the suppression of [illegible] practice being [illegible], and this notwithstanding the fact that [illegible] that year [illegible] less than for the past year [illegible] were received to me to be legally dealt with.

[illegible] I said, that the full strength of the [illegible] had not been realized, that there had been little appreciated [illegible] the speculative [illegible] to the prosecution of [illegible] and [illegible] the medical man [illegible] less important [illegible] preceding year [illegible] testimony to the respectful regard and [illegible] people of the class to [illegible].

[illegible] eight years men[illegible] upon their [illegible] the [illegible] against them [illegible] has [illegible] by [illegible] and the [illegible] whose [illegible] [illegible] with public bodies of members [illegible] under the new [illegible] officers Superannuation Act, the solution of questions connected with the application and working of the Midwives Act, and the defence of members in a multiplicity of relationships and positions in which professional principle was involved.

[illegible] the [illegible] figures which I have given above it will be observed that the greatest risk and danger to which the medical man is exposed is that of libel and slander as the assistance rendered to members during the eight years with which I am dealing extends to [illegible] cases of the total of 1,124, thereby forming upwards of a fourth of the entire cases as attributable to this particular defence. It is now, I think, generally appreciated throughout the profession that in the suppression of this evil the Union has rendered better service than perhaps in any other branch of its work. In each and every one of these 322 cases the honour and interests of the medical man who has been involved have been vindicated, and never in any single instance have offers of compromise, which have been made, been entertained unless and until the reputation of the member concerned has been fully and thoroughly cleared.

The report of the Solicitor also contained an account of the legal work of the Union for the year 1903. The number of cases referred to him for prosecution and defence on behalf of members and in connexion with the prosecution of unauthorized practitioners and the suppression of unqualified practice was 165. Of these, 47 fell within the category of libel and slander actions, malapraxis actions numbered 27 as against 36 for the year 1902, and falling within the description of personal and miscellaneous actions there were 75 cases; 16 cases were attributable to the prosecution of unauthorized persons and the suppression of unqualified practice.

STATISTICS.

The following statistics for the year 1903 showed the position of the Union at the end of that year:

Number of members on register, 5,[illegible].
Number of new members from January 1st to December 31st, 4[illegible].
Number of members deceased, 48.
Number of resignations and erasures, [illegible]4.
Number of life members, [illegible]3.
Amount of guarantee fund, £8,344 14s. 7d.

ANNUAL MEETING.

The CHAIRMAN, in moving the adoption of the report, said that the great characteristic of the Medical Defence Union was promptitude. The best talent it was possible to get was employed to do the work of the Union without consideration of cost. The Union never compromised an action and that taught people to fear it. Another characteristic was that the Union hit hard; it did not hesitate to put any one into the Bankruptcy Court if necessary, and by so doing the Union became a power in the land. Referring to the British Medical Association scheme for medical defence, he said that the advocates of that scheme ought to show that it was something better than they had got already. The Medical Defence Union possessed stability and age, and that meant experience. The Union was quick to act, and undoubtedly in the minds of the legal profession the name of the Union was a great tower of strength. There were various reasons why it would not be wise for the Union to dissolve. It had 1,500 members who did not belong to the British Medical Association, and if the Union could fall in with any offer to merge itself in the Association those 1,000 men would have to be considered; they would have to pay for medical defence an annual subscription of £58. The Union was the pioneer of medical defence, and in nineteen years had enrolled practically 6,000 members. The Union could not be taken over *en bloc* by the British Medical Association, because the Union would have to dissolve and get rid of all its money and start *de novo*.

Dr. J. G. GLOVER, in seconding the motion, said that to dissolve the Union would be a suicidal mistake. It would be a hardship on the 1,000 members. The sentiment of the medical profession was overpoweringly in favour of continuing the existence of the Medical Defence Union.

Dr. VINRACE suggested that there should be a strangers' gallery for those who wished to hear the discussions at the meetings of the Council of the Union.

Dr. WALTER SMITH explained the necessity of the Council working with closed doors.

The adoption of the report was then put to the meeting and carried.

Dr. F. J. BUCKELL moved the following resolution:

That this meeting of the members of the Medical Defence Union cordially approve of the action taken by the Council of the Union in reference to the scheme proposed by the British Medical Association in respect of medical defence, and agrees to aid the Council of the Union in maintaining the integrity of the Union in its entirety as at present existing.

Mr. P. MACLEOD YEARSLEY, in seconding the resolution, said he was one of the 1,600 members of the Union who did not belong to the British Medical Association. If the Union were dissolved it would only mean that another medical defence society would have to be started.

Dr. E. R. FOTHERGILL said that he could not see why medical men could not join together to form one society for medical defence.

Mr. W. S. NOCKOLDS suggested that the members of the British Medical Association should join the Medical Defence Union.

Mr. J. T. MACNAMARA observed that if one medical defence society was formed there was no guarantee that at the end of twelve months another would not be formed because it was open to any one to do so.

The resolution was then put to the meeting and passed.

Mr. T. G. ALDERTON proposed and Dr. M. BEVERLEY seconded the adoption of the accounts, and this was duly carried.

Mr. S. FELCE proposed and Mr. J. ROCHE LYNCH seconded the usual resolution authorizing payment of the railway fares of provincial members attending Council meetings, which was carried.

Mr. M. A. Messiter, Dr. M. Beverley, and Mr. M. Hallwright were re-elected members of Council.

A cordial vote of thanks was passed to Dr. Bateman, the General Secretary, and to Mr. W. E. Hempson, the Solicitor; and, after these gentlemen had replied, the meeting ended with a vote of thanks to the Chairman.

EPSOM COLLEGE.

THE annual general meeting of the Governors of Epsom College was held at the office in Soho Square on Friday, May 27th, Dr. HOLMAN, Treasurer, in the chair. Amongst others present were Dr. Galton, Mr. Felce, Rev. E. W. Northey, Dr. Thomson, Mr. Geo. Croft, Sir R. Douglas Powell, Mr. George Eastes, Mr. Kiallmark, Sir W. S. Church, Dr. Baines, Mr. Propert, and Mr. Reginald Harrison.

THE LATE SIR EDWARD SIEVEKING.

In moving the adoption of the report of the Council for 1903 the TREASURER referred to the fact that since the last annual general meeting the Council had suffered a great loss in the death of Sir Edward Sieveking, M.D., a Vice-President and one of the Honorary Consulting Physicians. Sir Edward was the first Honorary Secretary of the College, and for many years was a member of the Council. His interest in the College was unbounded, and at meetings of the Council and of Committees he was a regular attendant.

THE FINANCIAL POSITION.

The TREASURER also called attention to the satisfactory character of the financial statement. This showed a surplus of income over expenditure of £2,763: but it had to be borne in mind that this was entirely owing to the most successful festival dinner which was held in June, under the presidency of His Royal Highness the Prince of Wales, when the record sum of about £7,000 was collected.

THE CHANGE OF NAME.

An extraordinary general meeting was held in November last, at which it was unanimously decided to change the name of the institution from "The Royal Medical Benevolent College" to "Epsom College," under the powers given in the amending Act of Parliament. Few objections were raised to the proposed change, and some of those who were opposed to the alteration had been amongst the first to accept loyally the decision of the governors expressed at the general meeting. The Council believed that the school would greatly benefit by the change, and they had no reason to fear that the benevolent side of the institution would suffer.

SCHOOL STATISTICS.

The numbers of the respective classes of boys in the school were as follows: Forty-nine Foundation scholars, 9 Council exhibitioners, 133 other boarders in the College, 34 boarders in masters' houses, 10 day boys.

DISTINCTIONS WON BY PUPILS.

The value of the training given at the College was shown by the fact that since the last report G. E. Neligan had gained an open Exhibition for Natural Science of £70 at Exeter College, Oxford: and C. E. Seccombe, a Foundation Scholar had gained the first open Scholarship for Classics at Keble College, Oxford. Nine boys had passed the whole or a part of the Preliminary Scientific Examination for the degree of M.B. of the University of London: four boys had passed the University of London Matriculation Examination in Division I, and two in Division II: nine boys had gained the higher certificate of the Oxford and Cambridge Schools Examination Board, seven distinctions being obtained, and thirty-six had gained the lower certificate.

ADMISSION OF ROMAN CATHOLIC BOYS.

The report stated that Roman Catholic boys had been admitted to the College in the past as paying scholars, when permission to attend the local Roman Catholic church had, of course, been granted. Since the last annual general meeting the question had been submitted to the Council whether, in the event of the election of a Catholic Foundation Scholar, facilities would be afforded for the practice of, and for instruction in, his religion. This was the first time such an application had been made, and after careful consideration the Council decided that such facilities should be afforded, as was the case at Eton, Harrow, and other public schools.

DONATION FROM MR. THOMAS MORETON.

The TREASURER announced that Mr. Reginald Harrison had just handed him a munificent donation of £500 from Mr. Thomas Moreton, J.P., who was Honorary Local Secretary and Treasurer for Northwich. Mr. Moreton had made no reserve in giving this donation, so that the Council could use the money as it considered best.

A vote of thanks to the Chairman, proposed by Sir R. DOUGLAS POWELL, Bart., and carried unanimously, brought the proceedings to a close.

CENTRAL MIDWIVES BOARD

WE have received the following report from the Secretary of the Central Midwives Board:

At a meeting of the Central Midwives Board, held at the Board Room, 6, Suffolk Street, S.W., on May 26th, the following business was transacted:

Present: The Chairman (Dr. F. H. Champneys), Mr. J. Ward Cousins, Dr. Cullingworth, Miss Oldham, Miss Paget, Dr. Sinclair, Miss Wilson, Mr. E. Parker Young.

1. The further consideration was resumed of letters from the Royal Academy of Medicine in Ireland, the Rotunda Hospital, Dublin, the Coombe Hospital, Dublin, and the Belfast Maternity Hospital, asking for a modification of the Board's rules so as to facilitate the admission of Irish-trained pupil midwives to the Board's exnminations.

After discussion it was resolved that the Privy Council be asked to sanction the appending of the following Note to Rule C. I (2):

NOTE.—A certificate to the effect that the candidate has nursed 20 lying-in women during the eight days following labour will be accepted in place of the above in cases 1 where the course of special training in a hospital has extended over a period of six months, or 2 where a course of three months' special training in a hospital has been preceded by a full course of training in general nursing.

It was also resolved that the Privy Council be asked to sanction an alternative form of certificate under Form IV in the Schedule, to meet the modification contemplated by the above Note.

2. Resolved that the reporters of the recognized medical and nursing journals be invited to attend the meetings of the Board.

3. The following institution was approved as an institution for the training of Midwives under Section C of the Rules:

Chester Benevolent Institution.

4. The following were approved as teachers under Rule C.I. (3):

P. E. Barber, M.R.C.S.
Robert Boxall, M.D.
H. Spencer Browne, M.R.C.S.
H. Caudwell, L.R.C.P.
Francis Crown, M.B.
F. W. Culhane, M.R.C.S.
J. W. Fordham, sen., M.R.C.S.
G. R. Harcourt, M.B.
David Charles Rayner, F.R.C.S.
William Shaw, L.R.C.P.
A. L. Hall Smith, M.R.C.S.

5. The following were approved as certified midwives for the purpose of signing Forms III and IV under Rule C. I. (2):

S. A. Messenger.
Katherine Twining.
M. A. Webster.
L. E. Young.

6. After consideration of applications for certificates the names of 878 women were passed under Section II of the Act and ordered for entry on the Roll.

The following table shows the separate numbers of the various qualifications at present appearing on the Roll:

Royal College of Physicians of London ...	1
Royal College of Surgeons of England ...	1,434
Society of Apothecaries of London ...	1
Royal College of Physicians of Edinburgh ...	1
Royal College of Surgeons of Edinburgh ...	28
Royal Faculty of Physicians and Surgeons of Glasgow ...	99
Royal College of Physicians of Ireland ...	1
Royal College of Surgeons in Ireland ...	1
Royal Faculty of Physicians and Surgeons of Ireland ...	1
Royal Maternity Hospital ...	1
Royal Victoria Hospital, Manchester ...	1
Royal Infirmary, Manchester ...	1
Royal Infirmary, Edinburgh ...	1
Royal Infirmary, Glasgow ...	1
Royal Victoria Infirmary, Newcastle-on-Tyne ...	1
Royal Maternity Hospital, Belfast ...	1
Queen's College, Birmingham ...	1
Queen's College, Liverpool ...	1
Queen's College, Manchester ...	1
Queen's College, Glasgow ...	1
Queen's College, Belfast ...	1
Queen's College, Cork ...	1
Queen's College, Galway

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JUNE 4TH, 1904.

DETERIORATION AND DEVELOPMENT.

THE book on physical deterioration which is reviewed in another column suggests certain reflections of a speculative kind which it may not be unprofitable briefly to pursue. The very suggestion that the British race, or perhaps, as the condemnation is one in which the Celtic members of the nation will not wish to share, we may be permitted to say the Anglo-Saxon race, is deteriorating, while it has made many anxious for the truth and for a remedy if the truth be as suggested, has roused in others a passion of protest which has not yet perhaps found full expression in print.

There are people of intelligence unable to resist the evidence, statistical and other, that the proportion of individuals of inferior physique in our population is unduly large, who appear disposed to argue that the stream of tendency is towards a race physically inferior, but intellectually superior, to the average of to-day. This has been a favourite theory with romance writers of a certain type. They have imagined the man of the future a diminutive creature, with a preposterous head, lean shanks, and an atrophied abdomen. If this be, indeed, the increasing purpose which runs through the ages one may very well exclaim, What a thing is man! But is there a tittle of evidence in favour of this view? Is there any ground for believing that modern Europe has produced men of greater intellectual endowments than ancient Greece, or that there is a higher average mental calibre in the people? The sum of human knowledge has increased, but that is a very different matter. The human form now is, at its best, what it was, at its best, in ancient Greece: and the Sandows of to-day reproduce the extravagant muscular development of the athletes of old. What period of time, then, do the upholders of this hypothesis require? Apparently they will need all that Professor Rutherford can give them to the utmost powers of radium or its progenitor.

By others it seems to have been assumed that the acceptance of the opinion that physical deterioration exists involved the belief that the deterioration was progressive from parent to offspring, and that this belief ran contrary to the theory, or, rather, the hypothesis, of Weismann, now so generally accepted by biologists. But assuming for the moment that the increase in the number of individuals of subnormal physique in the population alleged to exist is due to parents of such quality producing children of like inferiority, this is not exactly the same thing as the transmission of an acquired deformity. It would be the transmission of deficient cell energy, a quantitative and not the qualitative change which we must conclude that Weismann and his followers have in view.

But there is no need to assume a progressive deterioration by transmission from parent to offspring to bring the subject within the sphere of practical politics. It is sufficient to show that the conditions making for physical inferiority are affecting a progressively-increasing proportion of the population. That this is the case in Great Britain must be evident to any one who will compare the distribution of population forty years ago and now, and those who do not like statistics may consult the graphic diagrams in the admirably comprehensive work to which we have referred. The remarkable influence which environment and nurture exercise on the development and growth of the child, as well as upon the standard of physical excellence attained by the adult, has been established beyond all question by the reports of the Anthropometrical Committee of the British Association, and the investigations reported to the Royal Commission on Physical Training in Scotland by Professor Matthew Hay and Dr. Leslie Mackenzie. A pure atmosphere and proper food are the chief essentials for the building up of a good physique, but those who would seek to enforce these facts upon public attention are not able to appeal to comparative statistics, because the school authorities have not hitherto recognized the importance of making anthropometrical observations upon their charges.

Professor D. J. Cunningham and Mr. J. Gray, the President and Secretary of the Anthropometrical Committee of the British Association, have suggested in a memorandum submitted to the Physical Deterioration Committee now sitting a very elaborate scheme for an anthropometric survey of the United Kingdom. They propose that the country should be divided into 200 districts, each containing on an average 100,000 persons; they estimate that there would be about 80,000 adults available for measurement in each district. It is proposed that 2,000 adults should be measured in each district as a sample, and that from 1,000 to 2,000 children in each year of school life should likewise be measured, that is to say, practically the whole of the children in the primary schools. Altogether, the scheme proposes the measurement of 800,000 adults and 8,000,000 school children.

To do this it would be necessary to have a staff of twenty surveyors working 250 days a year for ten years. Without questioning the value of the results which may thus be obtained, it may yet be said that the scheme is open to the obvious objection that the period over which the work must extend would be far too long. The record which it is proposed should be made of each person examined would imply nine separate observations: (1) Height, (2) chest girth (maximum and minimum), (3) weight, (4) length, breadth, and height of head, (5) breadth of shoulders, (6) breadth of hips, (7) vision tested by Snellen type, (8) colour vision, and (9) degree of pigmentation. It is also suggested that information regarding parentage, district of birth, conditions of life, etc., should also be obtained. Even so Professor Cunningham appears to consider that the observations might be made by school teachers, one for each school, or one for each sex, specially instructed in the methods of measurement and observation, were it not that he holds that if precise information is to be obtained regarding the national physique and its tendencies it will be necessary to measure large samples of the adult people every ten years or so. He rejects the employment of school teachers in favour of specially educated and selected "surveyors," and argues that the cost of this alternative would be less than the cost of employing teachers. We shall be curious to see what view the Committee on Physical Deterioration takes of this

proposal; for our own part we believe that the rejection of school teachers is a fatal defect. As Sir John Gorst pointed out, there would be great advantage in interesting class teachers in the physique of their pupils, and we cannot see that there is any insuperable difficulty in training school teachers, or the great majority of them, to make simple anthropometric observations.

HOME DEFENCE AND COMPULSORY SERVICE.

The report of the Royal Commission on the Militia and Volunteers, of which an abstract will be found on p. 1348 of this issue, is a document of much interest, for it is the first time for very many years that any responsible body of men of the stamp and experience of those who formed this Commission has admitted the necessity and suggested the introduction of any element of compulsion into our military system; this principle has the support of nine out of the eleven Commissioners, including one of those who refused to sign the general report. The Commissioners were handicapped in their work by the failure to supply them with a clear statement of all the indications which the forces under consideration were to fulfil. They were thus under the necessity of putting forward alternatives to meet the needs of two possible contingencies, and it is this alternative of suggestion which has prevented the Commission from throwing the whole weight of its influence into one scale or the other.

The lessons of the present war prove that even the best of navies may not constitute a line of defence which can be thoroughly relied on; with submarine boats, torpedoes, and mines even the most perfectly-equipped navy may fail. The Japanese, with all their audacity, all their keen intelligence, all their skill and watchfulness, lost in a moment, without previous warning of any sort and without any fault or indiscretion of their own, one of their finest battleships. Submarine boats are yet in the experimental stage, but those who are in a position to know believe that they will be even more terrible in their results than mines. The necessity for an efficient force for home defence becomes, then, more apparent than ever, but the problem must be thought out calmly and quietly. The report of the Royal Commission is the result of the first public inquiry made into the subject since the conditions of modern warfare have been altered, and it is not necessary to assume that its recommendations contain the only possible solution of the problem.

In the first place, the suggestion that the age of 20 should be that at which military training should be made compulsory is one which would be likely to be accepted by the people of this country only if they were thoroughly assured that some great war would take place within a year or two. The age of 17 or 18 would be at once more popular and more practical. A year taken out of a youth's life at this period would not affect his career as seriously as a little later, and the drill and discipline would do him great both morally and physically. It would take him away from the street, would have a steadying effect upon his character, and would probably nourish him. The suggestion that military education should be commenced in the schools is one to which we cannot subscribe. The plan was tried in France with much enthusiasm after the Franco-German war, but its general effect upon the boys was found to be so disastrous that the whole scheme has now been definitely abolished. Brigades for boys between the ages of 14 and 17 would be a different matter. They would be useful in gradually preparing them for their definite military training if it began at the age of 17.

The conclusion of the Commission that compulsory service should be enforced upon all young men of 20, excepting only the sons of widows and those unable to pass the medical examination, is too off-hand and the details have not been considered with sufficient care. Some scheme might be drawn up by which young men who could produce evidence of exceptional brain work done, or who are likely to shine in civil employments, would be allowed to continue where they were instead of being taken into uncongenial surroundings where they would not only become unsettled, but where they would never do much good. They might be required to produce teachers' certificates showing that they were likely to become useful civilians. It would be the worst policy to try to make soldiers of plodding studious citizens, and it seems madness to take away youths of 20 from an employment at which they have been working steadily and well for several years. The Boer war proved only too clearly how difficult and often impossible it was for reservists to find employment when they returned. They left good situations to fight for their country, and found them filled up when they came back.

The War Commission reported last year that "no military system will be satisfactory which does not contain powers of expansion outside the regular forces of the Crown." There can be no doubt, therefore, that something will be done, and there seems every likelihood that this something will take very much the form of the suggestions put forward on his own behalf by Sir Ralph Knox. These suggestions, whatever their military value may be, have a distinct and very desirable bearing upon the health and physique of the nation, for they advocate the encouragement of cadet corps and of all forms of military exercise among the general population, the confinement of Volunteer enlistment to youths between the ages of 18 and 20, and the administration to every recruit of three months' continuous instruction upon his first joining the Volunteer force. Finally, it is suggested that unless thus managed the Volunteer and Militia forces can be maintained at the desired combined strength, the Militia ballot shall come into action automatically, and apply to all men of the age of 21, the Volunteer force being allowed to drop. With this possibility held over their heads, it will be to the interest of employers and employed alike to foster volunteering in every possible way, and with this must come a spirit which cannot but make for good as regards the physique and healthy amusement of the whole youth of the country.

HUMAN AND BOVINE TUBERCULOSIS.

The Royal Commission to inquire into the relations of human and animal tuberculosis which was appointed in August, 1901, immediately after Professor Koch had delivered to the International Congress of Tuberculosis in London the address in which he maintained that the bacillus of tuberculosis in the bovine animal is specifically distinct from the bacillus of human tuberculosis, has presented an interim report which was published on June 1st. This course has been taken because the Commission has obtained striking experimental results which controvert Professor Koch's hypothesis.

The experiments were made by feeding or inoculating bovine animals (calf, heifer, cow) with tuberculous material of human origin containing living tubercle bacilli. More than twenty different strains of tuberculous material were used, that is to say, material taken from more than twenty cases of tuberculous disease in human beings, including sputum from phthisical patients and the diseased parts of the lungs in pulmonary tuberculosis, mesenteric glands in primary abdominal tuberculosis, tuberculous bronchial and cervical glands, and tuberculous joints. The effects were compared with those produced by several different strains of tuberculous material of bovine origin.

The results are, as the Commissioners say, striking. Of the twenty strains of human origin, seven gave rise at once in cattle to acute tuberculosis with widespread affection of lungs, spleen, liver, lymphatic glands, etc. In some instances the disease was of remarkable severity. The other strains, with two exceptions, produced a more or less localised lymphatic infection, with at most a very small amount of tubercle in the lungs and spleen. Tuberculous material, however, taken from the bovine animals thus affected and introduced successively into other bovine animals, or into guinea-pigs from which bovine animals were subsequently inoculated has, in the case of five of these strains, ultimately given rise in the bovine animal to general tuberculosis of an intense character. In the case of two strains the tuberculous disease produced by the inoculation was limited to the spot where the material was introduced. This occurred in two instances only at the very beginning of the inquiry. The disease thus set up in the bovine animal by material of human origin was compared with that set up in the bovine animal by material of bovine origin, and the Commissioners report that the one, both in its broad general features and in its finer histological details, was identical with the other. They have failed to discover any character by which the one could be distinguished from the other, and state that their "records contain accounts of the necropsies of bovine animals infected with tuberculous material of bovine origin which might be used as typical descriptions of ordinary bovine tuberculosis."

Having obtained such results the Commissioners were no doubt fully justified in making them public. The fact that tubercle of human origin can give rise in the bovine animal to tuberculosis identical with ordinary bovine tuberculosis is, as the report points out, sufficient to make it clear that it would be most unwise to frame or modify legislative measures in accordance with the view that human and bovine tubercle bacilli are specifically different from each other, and that the disease caused by the one is a wholly different thing from the disease caused by the other. The Commissioners have used over 200 bovine animals in the course of the experiments, the results of which they now report, so that though the details of the experiments are not given, the results may be accepted with considerable confidence. These details, as well as others with regard to the influence of dose and of individual and racial susceptibility, the specific virulence of the different strains of bacilli, and the relative activity of cultures of bacilli and emulsions of tuberculous organs and tissues, are promised in a further report.

We are told also that the question why the Commissioners' results differ from those of some other observers will also be discussed in the further report. We venture to hope that this part of the coming report at least will not be long delayed. The Commissioners are Sir Michael Foster, K.C.B. (Chairman), Professor Sims Woodhead, Professor Sidney Martin, Professor J. McFadyean, and Professor Rubert Boyce. Their names will command respect, but their present report would carry still more conviction if we were told why their results differ so remarkably from the conclusions of Professor Koch. We should then be better content to wait another period of three years for the details of the experiments.

THE IRISH POOR-LAW MEDICAL SERVICE.

THE British Medical Association has reprinted in a quarto pamphlet the reports which have appeared in the pages of the BRITISH MEDICAL JOURNAL during recent years, showing the serious defects in the present system of giving medical relief under the Poor Law in Ireland, and embodying suggestions for reform. In a general introduction the action which the Association and its Irish Branches have taken in the past is recalled, and it is pointed out that at the annual Representative Meeting at Swansea last summer resolutions which had been passed by the Dublin Branch of the British Medical Association and by the Irish Medical Association were unanimously adopted. These resolutions expressed the opinion that the conditions of the Irish Poor-law Medical Service require amendment in the following respects: (1) the provision of adequate salaries for Irish Poor-law medical officers; (2) a proper system of superannuation; and (3) the recognition of the right to an annual holiday. During last autumn Surgeon-General Evatt, C.B., who had recently retired from the Army Medical Service after serving for several years as Principal Medical Officer of the Second Army Corps, was commissioned to visit Ireland, and to make a very thorough inquiry into the present condition of the Irish dispensary system. His report, which pointed out many defects and suggested certain remedies, was published as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 26th, 1904. This report is now reprinted as the first part of the pamphlet; the second part of the pamphlet consists of the report on the case of the Irish dispensary doctors which was made by Sir William Thomson, C.B., in 1891, as the result of special inquiries made at that time. It contained a summary of the views of the sufferers themselves upon those grievances which were most pressing. It was widely noticed in the Irish press, and the British and Irish Medical Associations sent deputations to the Local Government Board and to various Chief Secretaries. The Local Government Board, while expressing its sympathy, pleaded inability, mainly on financial grounds, to remedy the grievances, but eventually issued an order directing the guardians to grant the dispensary medical officer a holiday and to pay a substitute; this order gave great offence in some quarters, and has not been universally acted upon, but we believe that distinct improvement in this respect has occurred, and that the greater unity displayed by the medical officers themselves, supported as they are by the whole of the profession in Ireland, is resulting in the establishment of the principle. The third document in the reprint is a condensation of a series of reports on the nursing and administration of Irish workhouse infirmaries made to the JOURNAL in 1895 by Miss C. J. Wood, formerly Lady Superintendent of the Hospital for Sick Children, Great Ormond Street, and now Superintendent of the Nurses' Hostel, London. Miss Wood's inquiry was directed to the nature of the hospital system under the Irish Poor Law, to the methods of nursing the sick, to the conditions of the lunatic class, of the aged and the infirm, and to an examination of the sanitary appliances, domestic furniture, and the care of infants. The report was founded upon personal inspection of twenty-eight unions in various parts of Ireland, the selection being made at random except that it included workhouses in each of the four provinces. It showed that in all the respects mentioned the administration of these institu-

tions as a rule, to which there were few exceptions, left very much to be desired. The reports as now reproduced are abridged by the omission of matters not directly bearing upon the question of medical administration. As is pointed out in the concluding note to the pamphlet an effective system of superannuation can only be provided by Act of Parliament, and it is hoped that the reports which have now been placed in the hands of members of Parliament, will enable them to realize the necessity for the adoption of such provisions as are contained in the Poor-law Medical Officers (Ireland) Superannuation Bill introduced into the House of Commons by Mr. T. W. Russell on April 8th, 1903, and backed also by Mr. Harrington and Dr. Thompson. In order that the salaries of Irish Poor-law medical officers may be made adequate it is necessary to procure the co-operation of the Irish Local Government Board and Boards of Guardians in Ireland, for, whereas in many districts Boards of Guardians have refused to pay suitable salaries, in others a proposal to increase the salary made by a Board of Guardians has been negatived by the Local Government Board in Ireland. The British Medical Association will give its cordial support to the movement in favour of an amelioration of the present unsatisfactory conditions, but the tone of the reply of a former Chief Secretary of Ireland to a deputation must be remembered: he argued that the conditions of the service could not be so unsatisfactory as was represented, seeing that there was no dearth of candidates. This official view clearly places upon the members of the medical profession at large the duty of supporting the British Medical Association, acting in co-operation with the Irish Medical Association. Medical practitioners would do well, we believe, to decline to enter the Irish Poor-law Medical Service while conditions incompatible with efficiency are maintained. The title of the pamphlet is *Reports on the Poor-law Medical System in Ireland*, and a large number of copies have been issued to persons interested in the questions involved. Further copies can be obtained on application to the office of the Association, 429, Strand, London, W.C., price 6d., post free.

MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

On May 5th the Departmental Committee of the Home Office, appointed to inquire into the working of the Workmen's Compensation Act, 1897, heard evidence from representatives of the British Medical Association as to those clauses of the Act in which the medical profession is especially concerned. The members of the Committee present were Sir Kenelm Digby, K.C.B., late Permanent Under-Secretary of State at the Home Office, Judge Lumley Smith, K.C., Judge of the City of London Court, and Mr. G. N. Barnes, the General Secretary of the Amalgamated Society of Engineers. The witnesses on behalf of the Association were Dr. H. Langley Browne, a member of Council and of the Medico-Political Committee of the Association, and a medical referee appointed under the Act, and Mr. Whitaker, the Medical Secretary of the Association. The latter gave evidence based upon the information supplied and suggestions made by medical referees in response to the enquiries addressed to them by the Medico-Political Committee in February last, while Dr. Langley Browne testified as to his personal experience as a referee and the results of his study of the matter as a member of the Medico-Political Committee. The evidence given was directed chiefly to the following points: (1) Out of 315 referees, 61 replies to the enquiries of the Committee of the Association stated that they had been employed to give certificates under Schedule I, Section XI, while under Schedule II, Section XIII, only 11 had been required to furnish reports to judges, probably [illegible] to questions with judges. (For the information of those who have not studied the Act it may be stated that under Schedule I, Section XI, a workman who is dissatisfied with a claim under the Act is dissatisfied with the report of the medical practitioner engaged by his employer to examine him, may call in the official referee whose report is conclusive under Schedule II, Section XIII, a judge or arbitrator, in a case under the Act in which conflicting evidence on medical points, has been given, may call upon the referee to furnish a report based upon notes of the evidence given, or to sit with the judge as assessor in the further hearing of the case. (2) The special causes of the non-employment of referees under Schedule I, Section XI, were believed to be ignorance of workmen concerning the protection offered them under this clause, and defects in the provisions of the clause, namely, that the workman is required to pay the fee of the referee (a State official), that the employer has no power to call in the referee, and that the workman can only call in the referee on appeal from an opinion previously given by a doctor engaged by the employer. It was suggested that either party should be free to call in the referee, and at any stage—that is, immediately after the accident if desired—and that his fee should not be paid by one party only. (3) The special difficulties under Section XIII of Schedule II appear to be the disinclination of many judges to employ referees, and that a judge can only call in the referee after the case has been partly heard, and a conflict of evidence has arisen. (4) That in some districts the formation of Conciliation Boards and other systems of contracting out have apparently fulfilled the intention of the Act in another way, and to that extent have rendered the employment of State referees unnecessary. (5) That many referees have suffered serious loss through accepting the appointment on account of the requirement that they should give up other appointments, and should refuse private work of kinds which might be held to prejudice the impartiality of their decisions as referees. On the other hand, their remuneration as referees being entirely dependent on the amount of work done in their official capacity, they had received little or no compensation for the sacrifices made. (6) If the office is thought to be worth continuing in the public interest, then it will be found necessary to modify the conditions of appointment, or the service will cease to attract medical men whose experience and professional character will command the respect which the position demands.

THE NEW EDUCATION AUTHORITY FOR LONDON.

The presentation of degrees at the University of London was this year shorn of some of its usual interest by the self-restraint exercised by the Chancellor and the member for the University who have generally utilized the occasion to address to the newly capped, and through them to the world at large, some academic reflections upon education in general and the work of the University of London in particular. The only address at the recent function was accordingly that of the Principal. In his opening remarks he justly emphasized as the most important event in the past academic year in London, the constitution of the London County Council as the education authority for the metropolis. He added that the Chairman of the Education Committee of the Council (Sir W. J. Collins) was and had been for many years a senator of the University, and that there was every reason for believing that the harmonious relations which had existed between the late Technical Education Board and the University would continue under the new regime. It is well to bear in mind that under the Education Act of 1902 and [illegible] the London County Council is now free to supply, or aid the supply, of education in the widest sense and with no limitation on the money it may raise by rate for the purpose. Primary, secondary, technical, and higher education may now for the first time be systematized and co-ordinated, as one organic whole, through the agency of the one authority. The work is vast and most attractive, and the London County Council through its Education Committee has lost no time in addressing itself with its accustomed energy to this new department of municipal activity. In view of the great work of elementary education which has now passed from the late School Board to the Council,

and of the system of technical education fostered by the late Technical Board during the last ten years both going concerns which are now combined under the Council, the immediate work in hand has been to effect the necessary transition with as little disturbance of the work as possible. The task is no light one, and we have refrained from comment or criticism because we realize its magnitude and administrative complexity. Later on the organization of secondary education will, we understand, be seriously grappled with, and we also have ground for believing that the needs of higher education and research will receive appropriate attention. The London County Council has insisted that for the present, at any rate, all the decisions of the Education Committee shall be reported to the Council and full opportunity there afforded for discussion and approval, or modification, of the policy laid down by that Committee. On the other hand, the Education Committee has wisely devolved the detailed consideration of the various branches of its work to some eight relatively small subcommittees, and during the month of May these subcommittees and their parent Committee have been in almost constant session. A certain section of the press has urged that the Education Committee should sit in public, but having regard to the fact that little or no executive power has been delegated to the Committee (which is required to report all its proceedings), and in accord with the habitual practice of the Council this has not been agreed to. We have sometimes had occasion to regret that the Senate of the University of London has not permitted greater publicity to its proceedings than is vouchsafed in the rather fragmentary records which are permitted to appear in the *Gazette*. In all that concerns public education, whether higher or lower, full publicity is clearly demanded, and if we had or have reason to believe that due publicity is not to be secured by the method adopted by the County Council, we shall have no hesitation in proclaiming our opinion. In last Saturday's *Times* appeared an article dealing in a somewhat critical fashion with the Council's educational work. It was suggested that there was a disposition on the part of the County Council to undervalue the ripe experience of many of the old officials of the late School Board, and even to lose the benefit of their continued service. From inquiries we have made we understand there is little or no basis for such criticism, and we observe that our contemporary especially exempts the case of the medical officer from its indictment. The able medical officer of the School Board is, we gather, to be associated with the medical officer of the county in a combined Health Department. We can recall in years gone by some rather unedifying reports to rival authorities on the influence of school life on the incidence of diphtheria and other infectious diseases. Opportunity for such official warfare will now cease, and we can see great advantages both to public health and to school hygiene in an efficient combination under one authority of the administration concerned in each, and which, from a sanitary point of view, ought never to have been separate.

POST-OFFICE MEDICAL APPOINTMENTS.

MANY of our readers are probably aware from personal experience that the Post Office authorities are at the present time seeking to extend very considerably the system of contracting with resident practitioners for medical attendance which has been in force for a good many years in most large towns. Originally the contract included practically nothing beyond medical aid in sickness; but gradually the Post Office has imposed fresh duties on the medical officers, and has, in fact, sought to create a postal medical service the members of which would be directly responsible to the Postmaster-General not only for attendance on the sick, but also for giving certificates, detecting malingering, and supervising the sanitation of each office. At the present time medical men who accept these Post-office appointments are required to examine candidates for appointment, to attend either at the office or at their own homes, and to supply with medicines, all the servants of the Post Office whose pay does not exceed £150 a year, while with regard to those whose pay exceeds this amount the medical officer is required to give advice to them during an epidemic. A servant of the Post Office is held to include not only a person holding an established appointment, but others, provided that they are continuously employed, and in particular all rural postmen who reside in the town or start from it. The medical officer is required, on the application of the postmaster, to visit any one absenting himself from duty on the plea of illness, and to give a certificate; he is also required to certify as to the unfitness or otherwise for further duty of all applicants for superannuation, and to attend "especially" to the sanitary condition of the post-office. For these services the remuneration offered is at the rate of 8s. 6d. a year for each man placed under the care of the medical officer, whether medical attendance is given or not; in addition a fee of 10s. is paid for each candidate examined for appointment to the service, but this is held to cover all examinations either on nomination or during probation. In making his application the attending medical officer must undertake to attend personally to all Post-office cases, and to give the same attention to them as to private patients. These terms and conditions when applied in a town where many men are employed by the Post Office have been accepted in the past by many medical men, but when it is sought to apply the same conditions to small towns and villages, where the Post Office employs only a few men, the terms become much more onerous. It should be understood that the shortest absence from work on the plea of illness must be verified by a certificate given by a medical officer, and this must often mean a special visit to the officer perhaps, at night. Altogether we gather that the postal authorities are disposed to take a very high hand with the medical officers who accept these appointments, and to make exactions of an irritating nature which are unnecessary to the attainment of the object in view and savour too much of red tape. The way in which the regulations may work to the disadvantage of the medical officer was shown in a note published in the BRITISH MEDICAL JOURNAL on May 28th, page 1292, and the letter from a well-informed correspondent which we publish at page 1346 will satisfy readers that the case has been by no means overstated.

A SIDELIGHT ON MEDICAL EDUCATION.

A SERIES of tables which commence on the first page of the SUPPLEMENT will be found interesting by those who take an interest in the comparative results of medical education as carried on in different parts of Great Britain, and as represented by competition among those who hold the diplomas or degrees of different licensing bodies. It is an analysis of the results of the examinations for admission to the Royal Navy, Army Medical and Indian Medical Services communicated by the Directors of the three services to the General Medical Council; it is drawn up upon the same lines as that which we published on December 5th last year, but covers three examinations only instead of five. It is of interest as showing the extent of the competition for each service, the divisions of the country which are now supplying the majority of the candidates, and also because, since these examinations are the only form of general post-graduate competitive examination which exist, the results throw a light not otherwise obtainable upon the comparative powers shown by candidates of different classes. It will be observed that in spite of the discontent at present existing in the Indian Medical Service and of the comparative content now reigning in the Royal Army Medical Corps, the competition for vacancies in the former, though diminished, remains considerably higher than that for vacancies in the latter. The competition now is twenty-one for every ten posts in the Indian Medical Service against five competitors for every two posts last year, and nineteen for every fifteen vacancies in the Royal Army Medical Corps instead of nine for every five as last year; while the competition for admission to the Royal Naval Medical Service is reduced

from three competitors for every two posts to nearly *nil*. It will be noted, too, that the extent to which the candidates were supplied by English colleges and universities was even greater than last year, and equal to 50 per cent., while they carried off between them nearly 60 per cent. of all the vacancies. Of more particular interest in this direction, however, is the fact that taking the men who failed totally, that is to say, who were successful neither in competition nor in reaching the qualifying standard, only 10 per cent. held English diplomas or degrees as against 27 per cent. of all Irish candidates, and as many as 37 of all Scotch candidates. A point of further interest is the continued success of candidates holding the Conjoint diploma of the English Colleges alone. As last year they compare very favourably with the candidates from Scotch and Irish universities and colleges, 85 per cent. of all of them being successful in competition. Moreover, they show well as compared with the whole of the candidates, since they occupy the higher places in all the examinations, carrying off all but one of the first six places in the naval examination and the first in the army medical: while in the examination for the Indian Medical Service out of the forty-two candidates the first held the English Conjoint diploma and the L.S.A., and the second the English Conjoint diploma alone. Of the English university candidates, there were six from London University and one each from Oxford and Cambridge. They all held other diplomas and were all successful. Of provincial universities, Durham won two places with four candidates, and Manchester one with two candidates.

THE LAW OF NEGLIGENCE.

A case which was heard in the Hammersmith Coroner's Court recently naturally turns attention to the law of negligence as it affects members of the medical profession. It was established by His Majesty's judges over half a century ago that a surgeon does not impliedly undertake to perform and cure, nor does he undertake to use the highest possible degree of skill. This view has been reaffirmed on several occasions since, but the action of Lamphier *v.* Phipos still, perhaps, remains the leading case. In this Tindal, C.J., used the following words: "Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill....There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a fair, reasonable, and competent degree of skill; and the question is, whether the injury must be referred to the want of a proper degree of skill and care in the defendant or not." In another case, which was an action against a surgeon for unskilful treatment, the plaintiff, a whitesmith, walked into the surgery of the defendant and asked to be bled, saying that he had found relief from it before, and was thereupon bled by the defendant's apprentice in the basilic vein where there was an old cicatrix. The plaintiff's arm afterwards became considerably swollen and discoloured, whereby he was rendered sick and was confined to the house for a month. Tindal, C.J., in summing up, said: "A surgeon does not by any means undertake that he is only bound to display sufficient skill and knowledge in his profession. If, from accident or misapprehension in the frame of a particular individual, an injury happens, it is not a fault in the medical man. It does not appear that the plaintiff consulted the defendant as to the propriety of bleeding him. He took that upon himself, and only required the mechanical operation to be performed. The plaintiff must show that the injury was attributable to want of skill: you are not to infer it. If there were any indications in the patient's appearance that bleeding would be improper, the defendant would not be liable for the bleeding [or affecting the same result as at other times, because it would depend upon the constitution of the plaintiff]." The question is whether the plaintiff has proved that the injury resulted from the inexperience or want of previous knowledge on the part of the apprentice. Verdict was given for the defendant.

THE INFANT ORPHAN ASYLUM.

Most people would be surprised to learn that at this date it was possible to find any institution designed as a home for large numbers of young children, and yet unprovided with suitable arrangements for the isolation of cases of infectious disease, or with a staff of trained nurses to take charge of its infirmary. This, however, is the case at the Infant Orphan Asylum, a place no further off than Wanstead, which purports to take full charge and give every attention to upwards of five hundred orphan children, and which up to the present has been able to claim that the welfare of the children was supervised by a medical staff of distinguished consultants in London. The failure to make those provisions for sickness which, even by the majority of laymen, have long since been recognized as absolutely essential in any institution devoted to children, would alone be sufficiently remarkable, and but for the letter which we publish to-day in our correspondence columns it might be deemed incredible that any responsible committee should omit to make the necessary arrangements not simply from ignorance but deliberately after full warning. Under the circumstances detailed in the letter, the signatories have taken the only possible course open to them, and we learn that the Consulting Aural Surgeon, Mr. A. E. Cumberbatch, and the Consulting Ophthalmic Surgeon, Mr. Holmes Spicer, have handed in their resignations upon the same grounds. The institution is one which depends for its existence mainly upon voluntary subscriptions and public support, so that the conduct of the Committee is not only in itself a grave dereliction of an obvious and elementary duty, but absolutely suicidal. Nowadays the public is sufficiently enlightened to refuse its support to any charity the affairs of which will not bear the most minute scrutiny; and though it is possible that the need for proper medical arrangements in a home for children may not be so immediately obvious to the general public as it is to the medical profession, the simultaneous resignation of a staff of well-known medical men cannot but convince the public that there is something seriously amiss with the administration of this institution.

WHAT IS BRANDY?

The case of the Islington Borough Council *v.* Hillyer and others, which was decided on May 30th by Mr. Fordham at the North London Police Court, raised a point as to the definition of the term "brandy." A wine and spirit merchant of Hornsey Road was summoned for selling a bottle labelled "Fine old pale brandy," which was not of the nature, substance, and quality demanded by the purchaser. This constitutes an offence under the Sale of Food and Drugs Acts. According to the evidence of Dr. Teed, upon which the prosecution was based, analysis of a sample from the bottle which was found in the possession of the defendants showed that the alleged brandy contained 60 per cent. of spirit not drawn from the grape, whereas pure brandy should be derived entirely from the grape. It appeared that the analyst arrived at this conclusion by an estimate of the amount of so-called impurities in the sample which was before him. While it is of course impossible to say whether the ethyl alcohol which forms the chief ingredient of every spirit is derived from grape or grain, it appears to be recognized that brandy derived from the grape should contain ethers in the proportion of 80 parts in 100,000. The analyst found that the alleged sample of brandy contained only 40 parts of ethers, and he apparently deduced from this that the spirit must have come from grain and not from grape. The magistrate said: "It is not necessary for me to rule as to whether highly rectified spirit flavoured with grape spirit is brandy or not. It is enough for the purposes of this case for me to hold that brandy is an alcoholic liquid, the spirit of which is obtained by the distillation of wine from the grape." In giving this definition the magistrate appears to have been influenced by the *British Pharmacopœia*, which states that brandy is exclusively derived from the spirit of the grape. This, said the magistrate, was important, because it was common

knowledge amongst buyers, sellers, and consumers that brandy is largely used as a medicine. In the event the defendant was convicted and was ordered to pay a fine of £5 and £50 costs. This case is likely to have far-reaching consequences. It is an authority for the proposition that the consumer is entitled to have what he asks for. It is to be observed, however, that for a prosecution under the Sale of Food and Drugs Act to be successful the sale must be to the prejudice of the purchaser. Thus it was found in a case tried in 1901 that it was not an offence to sell marmalade which contained a certain amount of glucose.

INFANTILE MORTALITY.

DR. H. MEREDITH RICHARDS, Medical Officer of Health for Croydon, has recently published a useful essay on the causes and prevention of infantile mortality in an interim report to the sanitary authority of the borough based upon a special inquiry into the subject. Croydon, with its mixed population and extensive area, or rather aggregation of areas, presents none of those extremes in the matter of population and general sanitary surroundings which are to be found for instance in Hampstead on the one hand, and in Shoreditch on the other. It is an excellent locality, therefore, in which to carry on a study of a very complex problem, some factors of which are apt either to be brought into undue relief or robbed of their real importance in localities at one or other extreme of the hygienic scale. Whatever assistance Dr. Richards may have derived from this fact, his study of the problem in Croydon has enabled him to produce a report which is noteworthy for its clear recognition of the possible value of each one of the many factors concerned, and though there is nothing very original in the conclusions at which he has arrived the considerations relating to them are stated very clearly, and much care is exercised to avoid drawing himself or tempting others to draw any deductions more sweeping than those which the figures given absolutely justify. His general views are that the chance of any average child surviving for one year from its birth depend on the character and intelligence of its mother, on the general sanitary and other conditions under which it lives, and on the food-supply available for its nourishment. As regards the second point, the maleficence of overcrowding, domestic uncleanliness, municipal neglect in the way of street and other cleaning, atmospheric temperature, and employment of mothers all receive due notice, and it is suggested that the death and sickness returns of recent years supply ground for the assumption that wet scavenging is preferable to dry, leading as it does to the subdual of dust. As regards the nourishment of infants, the views advocated by Dr. Richards are practically identical with those advanced by us a year ago in an exhaustive series of articles on the milk supply of large towns, which have since been published at this office in pamphlet form. Dr. Richards suggests that in default of mother's milk efforts should be made to obtain a supply of naturally sterile cow's milk, milk that is brought from controlled dairy farms, and drawn, transported, sold, and kept under such conditions as shall preclude contamination by dust, dirt, or any foreign body whatever. He recognizes that absolutely sterile natural milk cannot be obtained in practice, but considers that if milk be drawn with adequate care, rapidly cooled, and kept at a low temperature, it forms a suitable basis for preparing food for children. Of ordinary milk sterilization he recognizes the disadvantages as far as babies are concerned, and in any infant food dépôt formed in Croydon he would employ milk treated as above and not heat sterilized except when the earth temperature reaches 56°. He is also careful to point out how great a part intelligent care plays whatever food a child be fed on, and reminds his readers that in comparing the mortality of differently fed infants it is the food which they were taking when they fell ill and not that which was used towards the last which must be kept in view. Upon the education of actual and possible mothers he does not say much and his views are probably summed up in the concluding paragraph of a quotation from Herbert Spencer which he uses as a preface. It is so very much to the point that it may well be reproduced here for the convenience of medical officers engaged in the same kind of crusade. "Seriously, is it not an astonishing fact, that though on the treatment of offspring depend their lives or deaths, and their moral welfare or ruin; yet not one word of instruction on the treatment of offspring is ever given to those who by and by will be parents? Is it not monstrous that the fate of a new generation should be left to the chances of unreasoning custom, impulse, fancy—joined with the suggestions of ignorant nurses and the prejudiced counsel of grandmothers?"

THE INTERNATIONAL CRUSADE AGAINGT TUBERCULOSIS.

THE Council of the International Association for the Prevention of Tuberculosis held its spring meeting at Copenhagen last week, concluding its proceedings on May 29th. It was attended on behalf of the National Association for the Prevention of Consumption in England by Sir Wm. Broadbent, Dr. Nathan Raw, of Liverpool, and Dr. Alfred Hillier. The delegates from all the different States were entertained at dinner by King Christian, and the general proceedings were presided over by Professor Brouardel, of Paris, telegrams being sent to and received from the various rulers of Europe who are honorary presidents of the Association. A good deal of work of work was got through in the three complete days which the conference lasted. A proposal made by Dr. Hillier that the police should in all countries co-operate in putting a stop to the practice of spitting in public places met with a good deal of opposition, especially from the German and Austrian delegates, and was eventually referred to a committee. Finally, upon the report of that body a resolution was adopted that the police should interfere in the case of spitting in covered places, but not as regards spitting in the streets or open air. Among other resolutions adopted was one, upon the motion of Dr. Heron, appointing one delegate for every State to urge the introduction of instruction in elementary hygiene into all schools, with an examination therein at the end of the school course, and also an examination in hygiene at the various universities and other places of higher education. A proposal to urge upon each Government the compulsory notification of tuberculosis also met with approval, and was duly converted into a resolution. Finally, it was determined to form a special subcommittee to consider the question of hereditary predisposition towards tuberculous disease. At the concluding meeting reports were read as to the progress of preventive measures in all the countries represented at the conference. In the course of the proceedings Dr. Nathan Raw read a paper, in which he briefly sketched out what could be, and to some extent was already being, done in certain places in England to prevent the spread of phthisis. He described the action which should be taken by the central Government, health authorities, county councils, Boards of Guardians, education authorities, and by the people themselves. He maintained that infection was mainly acquired from direct contact with advanced cases and from the consumption of the milk of tuberculous cows. Consequently he advocated isolation of cases of advanced disease from healthy persons, the formation of consumption colonies in the neighbourhood of all large towns, the steady education of the people as to what they could themselves do to avoid infection or to cure themselves when only slightly affected, and the elimination of all tuberculous cows from dairy farms.

THE BIRMINGHAM CONSULTATIVE INSTITUTE.

THERE has been some attempt to rake over the extinct ashes of this institution in the *Birmingham Daily Mail*, which asks what has become of it and of the assertion of Mr. Arthur Chamberlain that it was not dead but sleeping. We do not of course know what may be the intention of Mr. Arthur Chamberlain and his friends, but we are informed that the item has been dropped as an asset from

the accounts of the Birmingham Hospital Saturday Fund, and that the consulting rooms occupied in Newhall street have been let to a consulting physician and a dentist, who presumably would not have accepted their tenancies with the liability to be turned out whenever the Institute desires to resume business, or the possible alternative of sharing the tenancy with such an occupant. The article in the *Mail* has drawn forth a few letters, of which one is from a correspondent who complains that a shop assistant acquaintance of his was refused consultation at the reduced fee of half a guinea, although he pleaded that a promise to this effect had been made by Dr. Saundby on behalf of his professional brethren. It may, however, be pointed out that a shop assistant as such does not necessarily come into the category of those for whom such a reduction was promised. The arrangement entered into with the Birmingham Ebenezer Provident Sick Society, which was made public in the press two years ago, shows that Dr. Saundby was able to carry out his promise, for he announced that no less than fifty-three of the consultants of Birmingham agreed to see working-class patients for half a guinea. That this promise is being kept is shown by a letter in the following issue of the *Mail* signed "Verax" the writer says that he is a working man, and expresses his gratitude for the kindly manner in which he was received by a throat specialist who saw him for half a guinea, and he testifies that he could not have been treated with greater consideration if he had paid four times the fee. However, a more important contribution than either of these is made by a correspondent who signs himself "Lozells," who urges that a society should be formed to create a fund for the payment of occasional consultation and operation fees for its members. He makes no proposal to ask for reduced fees, and this plan seems to be based on the sound prudential principles of foresight and co-operation.

THE FIFTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

At a recent meeting of the National Committee for Great Britain and Ireland, Dr. Payy, F.R.S., in the chair, Sir William Church, Bart., Sir Dyce Duckworth, Mr. Reginald Harrison, and others were present. It was resolved that "in view of the confusion and disorder attending the last assemblage of the Congress—attributable it is considered to the deviation from former procedure in admitting as members of the Congress others than members of the medical profession and savants—this Committee deems it important in order to avert threatened disastrous consequences to call the attention of those entrusted with the organization of the forthcoming Congress at Lisbon to the matter and to urge that no departure from the rule relating to membership in force at the Paris Congress in 1900 should be permitted to occur." This resolution was forwarded to the President and Secretary-General of the fifteenth Congress, which will be held at Lisbon in April, 1906. The rules governing the Congress have just been issued, and it is satisfactory to find that the rule as it stood at the time of the Paris Congress has been restored. The recommendations of the Committee as to the future constitution of the National Committee were agreed to, and it was decided that in future the Committee should consist of a President and ten members who should invite the co-operation of (*a*) the Director-General of Medical Services in the Army, the Senior Lunacy and Local Government Boards, the President for the time being of each medical corporation in the United Kingdom and the President of the General Medical Council; (*b*) a Professor of the Faculty of Medicine from each University in the United Kingdom, the President for the time being of the Royal Medical Society of Edinburgh, the President of the Academy of Medicine in Ireland, and of the Medico-Chirurgical Society of Edinburgh, (*c*) the President for the time being of the Incorporated Society of Medical Officers of Health, (*d*) a representative of the National Medical Press Association (available persons practising medicine and surgery in England, or Wales, four general practitioners practising in Scotland, and four general practitioners from Ireland; (*e*) such other persons as it may be found desirable from time to time to invite to the National Committee. Dr. Payy was asked to continue in the office of President and Mr. D'Arcy Power as Secretary. Dr. Horton-Smith regretted that he was unable to act as Secretary to the Committee. His resignation was accepted with regret, and a cordial vote of thanks was tendered to him for his services. Dr. Clive Riviere was nominated in his place. It was proposed by Dr. Sutherland that, "in order to allay the feelings of irritation and disappointment rankling in the minds of those who attended the Madrid Congress and to reassure those and others who may contemplate attending the Lisbon Congress the Honorary Secretaries be instructed to send a note to the British Medical Journal and the *Lancet* to the effect that the British National Committee intend to take steps by which they hope to prevent or reduce to a minimum at the Lisbon meeting the annoyance, discomfort and disappointment experienced in Madrid in regard to travelling facilities, lodging accommodation, etc., and to attain this end it is desirable to have a local British Committee at Lisbon to keep in touch with the executive of the Lisbon Congress." The proceedings terminated with a vote thanks to the Medical Society for its kindness in putting the Society's rooms at the disposal of the National Committee.

POST OFFICE CENSORSHIP OF ADVERTISEMENTS.

It is stated that the New York Post Office Department has decided to establish a censorship over newspaper advertisements in an endeavour to prevent the publication of those of an offensive or fraudulent character. Newspapers printing such advertisements will be barred from the post. The advertisements aimed at are said to be chiefly those of the lowest class of patent medicines, about twenty of which are being examined by the Bureau of Chemistry to see if they correspond with the claims of their proprietors.

Members intending to visit Oxford on the occasion of the annual meeting are informed that a full list of lodgings available will be published in the next issue of the British Medical Journal.

We are asked to state that Mr. Golding Bird, Surgeon to Guy's Hospital, is a candidate for election to the Council of the Royal College of Surgeons of England. Mr. Golding-Bird became a Member in 18— and a Fellow in 1874.

The Queen has consented to become President of the London Hospital. Her Majesty has on previous occasions shown her interest in the hospital, and especially in its light department, the establishment of which was, in large measure, due to her influence.

It has been presistently rumoured during the last few months that Professor Koch intended to take up his permanent abode in South Africa. A question was recently asked by Count von Oppersdorff in the Prussian House of Lords. The Cultus Minister, Dr. Studt, in reply, said that the Prussian Government will continue to have the advantage of Professor Koch's valuable services. He declared that the rumours referred to were absolutely unfounded. Professor Koch, who is at present in Rome, will shortly return to Germany.

The monument to Benjamin Rush, for which funds have been collected for many years, is at last an accomplished fact. President Roosevelt has consented to accept the monument on behalf of the United States as a gift from the American Medical Association. The ceremony, which will take place at Washington on June 11th, will consist of an introductory address by the President of the American Medical Association, an oration on Benjamin Rush by Dr. J. C. Wilson, Philadelphia, and finally an address by the President of the United States.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

After the Recess. The attendance was small when the House met on Tuesday, less than 200 members being present, even at 5 o'clock. In the early part of the sitting several uncontentious Bills, mostly private measures, obtained a third reading, and among these was the Leeds University Bill. The business of the day was the consideration of Civil Service estimates, and the first vote taken was for the Customs. A debate was raised on a motion for the reduction of the staff, but the motion was defeated by a majority of two to one; 110 to 55. The grievances of the Customs boatmen were afterwards considered, and eventually the vote was agreed to before six o'clock. The vote for the Inland Revenue Department was then taken, and after a long discussion on the income-tax difficulties of Friendly Societies, the vote was carried. Later when a grant of £290 000 for sundry public buildings was reached, Mr. Weir discovered that a sum of £28,000 was for new buildings for vaccination purposes. This was a great opportunity for starting a conversation on vaccination, and Mr. Weir proceeded to develop his case. This alarmed the chief Government Whip, Sir Acland Hood, who prudently suggested that the vote should be postponed. The Committee agreed to this, progress was reported, and the House adjourned at 7.30, making only half time on the first day after the holidays.

Tuberculosis in Animals.—The Tuberculosis (Animals) Compensation Bill was ordered after the second reading to be referred to a Select Committee, and Sir Acland Hood, on behalf of the Government, nominated Mr. Barran, Dr. Farquharson, Mr. Field, Mr. Ernest Gray, Dr. Hutchinson, Captain Jessell, Mr. Kilbride, Mr. Grant Lawson, Mr. A. K. Lloyd, Mr. Price, Mr. Spear, Sir John Stirling Maxwell, Sir E. Strachey, Sir Mark Stewart, and Mr. Austin Taylor, to form the Committee. Mr. Channing has put down a motion for an instruction to the Committee to consider from what sources compensation can be given to owners of stock condemned to be slaughtered on account of tuberculosis. This instruction will necessitate a debate, and the appointment of the Select Committee is consequently in some jeopardy. The interim report just published by the Royal Commission on the relations of human and animal tuberculosis gives additional interest to the subject, inasmuch as the Commissioners advance strong proofs from a large number of experiments that human and bovine tuberculosis are identical. The evidence of the transmissibility of human tuberculosis to the cow seems conclusive, and has caused much interest among members.

Antitoxin and the Lister Institute.—Mr. Robert Cameron asked the Secretary of State for the Home Department on Tuesday whether his attention had been called to the report of the Lister Institute of Preventive Medicine, in which it was admitted that the injection of antitoxin caused a large number of rashes, inflammation of joints (ascribed to something inherent in the serum of the horses or other animals), and also an increased number of cases of paralysis; and whether, in view of this statement, he would consider the advisability of taking steps to prohibit the manufacture of serum in laboratories licensed under the Vivisection Acts. Mr. Secretary Akers-Douglas answered that the manufacture of serum was a procedure outside the scope of the Cruelty to Animals Act, and he was not prepared to act on the suggestion of the hon. member. As regards the first part of the question, he presumed the hon. member referred to a pamphlet which the Lister Institute had thought it right to issue by way of a warning, in order to prevent unnecessary alarm, that in some cases certain results, such as rashes and joint pains, might follow the therapeutic use of serums. These results, it was stated, were of a temporary nature, and caused no bad after-effects. The words of the pamphlet with reference to diphtherial paralysis did not convey to his mind the meaning attributed to them by the hon. member.

The Shop Hours Bill.—Soon after seven on Wednesday this Bill came on for second reading, and gave rise to a long and interesting discussion. Sir Charles Dilke, who has another Bill dealing more drastically with the subject, moved an instruction declaring that the Bill hampered local authorities unnecessarily, and moreover failed to provide for the regulation of the hours of labour of shop assistants. Captain Norton seconded the instruction, and on it the debate mainly turned. Sir Francis Powell, Mr. Robertson, and Dr. Farquharson supported the Bill and argued against the instruction, while Sir F. Banbury supported it. Mr. Cochrane, the Under-Secretary for the Home Office, quoted the Lords' report on the hours of shop assistants, and said the Bill was an earnest attempt to deal with a serious evil. Sir Walter Foster pointed out that the evil was admittedly great and that the Bill was small and weak, and on that account he should vote for the instruction as a protest. The evils reported by the Committee were grave enough to justify a Bill more drastic in its provisions. The debate was continued by Mr. Ernest Gray, Mr. Theodore Taylor, Dr. Macnamara, and others, and finally the instruction was defeated by 130 to 42. The Bill was then read a second time, and referred to the Standing Committee on Trade after another division.

GENERAL MEDICAL COUNCIL.

NOTES.

THE session of the General Medical Council, which began on Wednesday, May 25th, was brought to a conclusion on Tuesday, May 31st. This is, we believe, the shortest general session which the Council has held for a good many years; and this brevity was in part due to the relatively small number of penal cases which had to be considered. Some of the matters before the Council were of first-rate importance to medical education, and on the whole they were discussed with greater brevity and in a more business-like way than has sometimes been the case. Some members of the Council, however, seem to believe that there is room for still further improvement in this respect, and Dr. Payne has given notice that at the next session of the Council he will move a resolution to put a time limit upon speeches.

The Royal Colleges in England.—A good deal of the time of the session was occupied by the consideration of the position of the Royal Colleges of Physicians and Surgeons in England. The Colleges submitted conjointly new regulations and synopses for the first year of the medical curriculum of professional study. Sir Victor Horsley, who, in a previous session had moved a resolution to the effect that the courses then in force were insufficient, on this occasion brought forward a similar motion with regard to the new courses of study. The regulations state that the minimum courses specified need not run concurrently nor be completed in one year, and Sir Victor Horsley argued that this ran contrary to the resolutions of the Council, and would, in fact, permit a boy at school to begin the course at any age; the Council, he pointed out, had also decided against the proposal that the courses might be commenced or attended before the preliminary examination in general education. He contended that the only concession the Colleges had made was in the regulation which provided that study in an institution other than a recognized medical school could not be counted for more than six months, but he argued that this practically reduced the medical curriculum to four years and a-half. He urged that the curriculum of education should be divided in an orderly manner, and that the principle applied to anatomy and physiology should be applied also to the preliminary sciences. Dr. Windle, however, argued that a boy who had spread his courses in the preliminary sciences over five or six years would be very unlikely to pass the examination, and also contended that though it would be possible under the new regulations for a student to obtain his diploma in four years and six months after leaving school, it was very unlikely that many would do so. The Council did not adopt Sir Victor Horsley's resolution, and it would appear therefore that it has again given way to the Royal Colleges in England; but upon another point it took a very distinct stand, and the speech made by Dr. Norman Moore can only emphasize the fact that in determining to seek statutory powers to establish and maintain registers of medical and dental students the Council was in reality taking another step in its long contest with the English Colleges. The statutory power to establish and maintain registers of medical and dental students, and to impose a fee not exceeding £1 for registration therein, would give the Council the necessary control it should possess over the preliminary

education, examination, and courses of study of medical and dental students. The Council therefore decided to request the Lord President of the Privy Council to introduce into Parliament a Bill to confer upon it such statutory powers. Dr. Norman Moore saw in this reasonable proposal a dark and insidious plot to undermine the charter rights of the Royal College of Physicians of London, and he roundly declared that the proposition was in reality a move on the part of the Council to secure more power for the satisfaction of its insatiable greed in that respect. Sir John Batty Tuke in introducing the subject to the Council was applauded on all sides when he said that it was a measure in the interest of the public. But, according to Dr. Norman Moore, such a plea was but an empty pretence to wring more money out of the public for the use of the Council. As Sir William Thomson said, in an able and temperate speech, there was neither justification nor reason for attempting to brand the members of the Council as bandits thirsting for illegal wealth and greedy for tyrannical rights and powers. In the debate on this subject Sir William Turner, the President, spoke last; without the slightest trace of bitterness but nevertheless in an extremely incisive manner he caustically pointed out what the consequences would be if all the bodies interested in medical education held fast to their uttermost rights under their several charters. The common aim of all concerned should be for the advancement of the cause of medicine, and he invited the representatives of the Royal Colleges of Physicians and Surgeons to remember that charters drawn up many generations ago could not possibly be expected to contain provisions suitable for the complex conditions of modern methods of thought and scientific progress. The General Medical Council has seldom heard a speech so earnest and convincing.

Biology. The existing courses of study in the branches of elementary biology are to be considered by the reappointed Preliminary Scientific Committee of the Council and to be reported upon next session, that is to say, at the end of the year. Under one guise or another the question of the teaching of biology and its value to the medical student has been under discussion for a considerable number of hours during this session of the Council. Dr. Mackay unsuccessfully tried to induce the Council to refer to the Preliminary Scientific Committee a suggestion that biology should be retained in the curriculum, but that it should not be regarded as necessary that a professional examination in the subject should be demanded, provided the student had attended and duly prepared the work of a satisfactory course of instruction in the subject as a part of the curriculum of a university or duly-recognized college or school of medicine. It is improbable that Dr. Mackay expected to carry this motion as he was practically suggesting a principle new to [illegible]. The idea that a student could receive instruction without examination was evidently disquieting to many members of the Council and when Professor Wirgman proceeded to dilate on the virtues of a system whereby the teacher and his methods of instruction should be submitted to examination rather than his students, the far-reaching consequences of Dr. Mackay's motion suffered [illegible] a considerable amount of hostile criticism and opposition. The [illegible] that has been often passed on the Council that it is opposed to all new ideas was shown in connexion with this matter at any rate, to be undeserved, for Dr. Mackay succeeded in passing a resolution requesting the Preliminary Committee of the Council to collect information and report on the question of the possibility of including certain subjects in the curriculum without requiring examination thereon.

The Metric System. That the metric system of weights and measures should [illegible] to be used by law in the [illegible] for the preparation and dispensing of [illegible] by the authors of the Cornish Medical Council and the Council has been requested by them to [illegible] Privy Council to that effect. The General Medical Council would also [illegible] the results of the motion and Measures (Metric System) Bill now before Parliament and would be prepared to [illegible] Bill, which was printed in the British Medical Journal of March 19th, 1904, page 621, [illegible] state that to take all necessary steps to make the [illegible] modifications in the [illegible] Pharmacopœia. The motion dealing with this matter was introduced to the Council by Mr. Jackson, who had the satisfaction of securing a unanimous vote in favour of his views. The question was also before the Council in the report of the Pharmacopœia Committee. In the *Pharmacopœia* of 1898 a transitional method is adopted. Doses are expressed in the familiar Imperial system only, the directions for pharmaceutical processes are given in both the Imperial and the metric system, whilst the directions for analytical operations are expressed in the metric system only. In the opinion of the Pharmacopœia Committee if the metric system were to become within a few years the one legal system in this country the work of the Committee would be simplified, though it would probably still be necessary to insert, in reference to doses at least, the equivalents expressed in the old Imperial terms. In other words, the report intimates that in this matter the physicians would probably lag behind the chemists.

Practice by Companies. The use by companies of titles which would be likely to lead the public to believe that the members of such companies were registered dentists or medical practitioners when such is not the case is an evil that can, according to Sir Charles Ball, be met in two ways, either by applying to the Courts of Law to restrain companies from thus acting unlawfully or by causing the Registrar of Joint Stock Companies to refuse to register any company seeking to deceive the public in this manner. On the motion of Sir Charles Ball, the Council has decided to send to the Lord President of the Privy Council for his information copies of the judgements of Chief Baron Palles restraining the Registrar of Joint Stock Companies from placing certain companies on the register. The General Medical Council has decided, also, to express to the Privy Council the hope that the Government will take such steps as may be necessary to restrain the Registrar of Joint Stock Companies from registering any new company unlawfully using the term "dentist" or any similar title which would be likely to lead the public to believe that the members of such company were registered dentists when such is not the case. It appears that it is unlawful for any company to adopt a title which will tend to deceive the public, and it is open to any of the dental societies to apply to the Courts to prevent companies already registered from continuing unlawfully to use the terms dentist or any similar title which would be likely to lead the public to believe that the members of such companies were registered dentists when such is not the case. The only disturbing element of doubt in regard to all this is whether the judgement of Chief Baron Palles in Ireland can be considered as binding in English and Scottish Courts, but in any case the judgement would receive very full consideration from these Courts. To make the judgement really binding in England and Scotland it appears that an appeal must be carried to the House of Lords, and at present there seems to be no probability of this being done. Great expectations have been based upon this judgement of Chief Baron Palles, and many hope that by its means the necessity for any further legislation in regard to societies and companies carrying on dental and medical work will be rendered unnecessary.

Ireland.

THE IRISH POOR-LAW MEDICAL SERVICE AND THE GRADUATES' ASSOCIATION.

A special general meeting of the Irish Medical Schools' and Graduates Association was held on May 28th at 11, Chandos Street, London, W., to consider the disabilities of the Irish Poor-law Medical Service.

The chair was taken by Dr. Macnaughton Jones, who said that he was qualified to speak on the subject, as he had been for several years a Poor-law medical officer both in a large city and in a country district, and nearly lost his life in the discharge of his dispensary duties. The complaints of the dispensary doctors might be classified as follows: (1) The abuse of dispensary tickets. (2) No allowance for travelling expenses. (3) No definite arrangement for annual vacation. (4) No superannuation or pension for the widows and orphans of those officers who lost their lives in the discharge of their duties. (5) No arrangement for extra professional service. The Chief Secretary for Ireland had taken a definite stand on the recent

report of the Local Government Board for Ireland, and in reply to a question asked by Dr. Thompson in the House of Commons stated that the report contained all the information required, and there was no occasion to appoint a Royal Commission. There was evidence that the Local Government Board was aware of the disaffection existing in the medical service, but while it did not venture to express its sympathy with the medical officers, it was in full sympathy with those Boards of Guardians who might desire to improve the condition of the medical officer. The Board proposed to meet the demands of the officers by reducing their number and uniting the dispensary districts, thus increasing the duties and responsibilities of the few remaining officers. As regarded the salary, one was tempted to think that the Board believed the medical officer could find in the poor cabins throughout his district, in tracts of uncultivated land, and in depopulated areas patients wealthy enough not only to pay for all the expenses connected with his profession and the support of his family, but to provide for him in his old age, and enable him to leave enough to prevent his widow and orphans from being dependent upon charity.

The Chairman then proposed that "this special meeting of the Irish Medical Schools' and Graduates' Association having before it the recently issued Report of the Local Government Board for Ireland on the Irish Poor-law Medical Service, desires to express its opinion that the attitude of the Board as expressed in that report does not adequately deal with the reasonable demands of the Poor-law medical officers, and offers no permanent settlement of the difficulties now disturbing the relations between the public and the Poor-law Medical Service."

Surgeon-General Cuffe, C.B., seconding, said he felt strongly on this subject, and after reading the recently-published report of the Commissioner sent by the British Medical Association was indignant when he considered the manner in which his brother medical officers in Ireland were treated by the administrators of the Poor-law Medical Service. This service would never be efficient until made a State service and the admission regulated by competitive examination. At present medical officers served under persons who were entirely out of sympathy with their work. Then as to private practice in remote districts, he considered it a farce to make such a suggestion, as there was either none to be obtained or so much time was occupied in travelling over the district that the medical officer could not undertake whatever practice there might be. He could not understand why medical men entered this service, and considered it ought to be boycotted by all the medical schools in Ireland, and all students discouraged from joining it until the present conditions were improved. It was undignified for any medical man to accept £100 a year for his services when the cost of living and education had increased so much. The medical officers had his sympathy, and he would support the resolution.

Dr. Tabuteau stated he had been medical officer under the Local Government of Ireland for nine years, and considered his circumstances were more satisfactory than the great majority of his brother medical officers. He went to this appointment full of enthusiasm for his work, and fresh from his hospital, willing to do his best for the poor people. He soon found his efforts frustrated, and that amidst conflicting interests he could neither do justice to his patients nor credit to himself. He did not know of any service which was more likely to sap the strength morally and physically of any young man than the Poor-law Medical Service of Ireland. The resolution was then put to the meeting and carried unanimously.

Mr. P. J. Freyer then moved the following resolution:

That this special meeting of the Irish Medical Schools' and Graduates' Association desires to express its hearty sympathy with the laudable efforts of the Irish Poor-law medical officers to improve the present condition of the Poor-law Medical Service in Ireland.

In speaking to this resolution Mr. Freyer said that the recent report of the Commissioner revealed facts which formed pathetic reading and moved one to tears. The position of the Poor-law medical officer was a disgrace to humanity, and no man ought to be placed in such a position—one in which it was impossible to perform his duties to his patients, who were of the poorest and most destitute class. The amount of salary allowed was about equivalent to that given to a constabulary officer for the keep of one horse, and no one could efficiently serve the sick poor under such circumstances.

Dr. Hugh Woods supported the resolution, and said the grievances of the medical officers were obvious while the pay was totally inadequate. The remedy, however, seemed to him to be evident, and that was combination and co-operation among the medical men themselves. This would place the medical officers in the position of being able to refuse to accept an inadequate salary and also of knowing that no other medical man would accept it either. If under these circumstances the guardians would not increase the salary, then by the dismissal of a few police sufficient would be obtained to pay a medical man a reasonable salary.

The resolution was then put and carried unanimously.

Mr. John Murray then proposed that copies of the foregoing resolutions be sent to the medical press, the Chief Secretary for Ireland, and the President of the Irish Medical Association.

IRISH MEDICAL ASSOCIATION.

At the recent annual meeting of the Belfast and District Branch of the Irish Medical Association, held in the Medical Institute, Belfast, the following were elected office-bearers for 1904-5: *President*, Professor J. W. Byers, M.D. *Vice-Presidents:* Dr. S. B. Coates and Dr. H. C. Manley. *Secretary and Treasurer:* Dr. A. G. Robb. *Council:* Dr. H. D. Osborne, Dr. R. Hall, Dr. St. C. Boyd, Dr. J. C. Ferguson, Dr. R. J. Munn, Dr. W. R. Davison (Ballymena), Dr. A. Mussen (Glenavy), Dr. J. G. Jefferson (Lisburn), Dr. D. Gaussen (Dunmurry).

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The election of officers of the Royal College of Surgeons in Ireland will take place on Monday, June 6th, between the hours of 1 and 3 o'clock. The new President will be Mr. Arthur Chance and the new Vice-President Mr. H. R. Swanzy. For the Council the following new candidates appear: Mr. J. W. Hillis, Mr. Hugh Auchinleck, Mr. J. G. McArdle, Mr. L. A. Byrne, Mr. A. J. M. Blaney, Mr. Denis Kennedy, Mr. A. W. Oulton, Mr. R. Charles B. Maunsell, and Mr. R. J. Harvey.

A meeting of the Fellows will be held on June 4th, at 1 p.m., when the annual report of the Council will be submitted by the Secretary and the President of the College will make some explanatory remarks on the report.

THE LATE PRESIDENT OF QUEEN'S COLLEGE, CORK.
Proposed Memorial.

No President, since the Queen's College, Cork, was established in 1849 did more to advance the educational status of the institution over which he presided than the late President Sullivan. For seventeen years he watched with almost paternal solicitude over its welfare, and when his death occurred in 1890 it was felt that the College had met with an irreparable blow. Not alone was his death felt in the immediate vicinity of his college, but education in Munster, and indeed in Ireland, lost in him one of its most worthy exponents. He had an almost European reputation, not merely as a man of science, but also as a great educational organizer and reformer. He did much to bring his college into touch with the active life of the city of his adoption, and as the result of his efforts he was able to secure the interest of the late Mr. Crawford in the great work he was carrying on. As a consequence Mr. Crawford presented a valuable library and botanical gardens to the College, besides other gifts. His influence was also exerted in securing from the Government monetary concessions for the better equipment in arts and sciences. His annual reports to Parliament contained powerful and weighty arguments in favour of the educational claims of Cork and Munster. It is therefore with pleasure that his old students and the people of Cork view the proposal of those who have inaugurated a fund to perpetuate his memory and his work. That memorial is, we understand, to take the form of a portrait to be painted for presentation to the College and a scholarship to bear his name for competition amongst the students of Queen's College, Cork.

CONSULTATION FEE IN A DOUBTFUL CASE OF SMALL-POX.

Some few weeks ago Dr. Donnan, Medical Officer of the Castlereagh Dispensary District, was called to a dispensary patient suffering from signs and symptoms strongly suspicious of small-pox; he immediately called in consultation Dr. Robb, Physician to the Poor-law Fever Hospital for Belfast, who has been commissioned by the Belfast City Council to take charge of the temporary small-pox hospital at Purdysburn, and to see any doubtful case occurring in the city. The Castlereagh District is about four miles from Belfast, and is outside the city boundary, although included in the Poor-law district. Small-pox was present in Belfast at the time, and every one was charged to keep the keenest

...ut for suspicious cases. Immediately afterwards Dr. ... wrote to the Board of Guardians detailing the circumstances and asking for the fee of 2 guineas for Dr. Robb. But the request was refused, and the Chairman said that Dr. Donman had acted with great audacity. Dr. Donman then wrote to the Local Government Board, and a copy of his letter was forwarded to the guardians. At the next meeting of the guardians, on May 24th, the Chairman said that this was a misrepresentation, and that his words were that "the request for the payment of 2 guineas was an audacious one." He ended his speech by saying "The dispensary doctors complain of their salaries being too low, but the members of the profession meet in the Medical Institute to play billiards, smoke cigarettes, drink champagne, and so on." Dr. Marshall, a medical member of the Board, promptly contradicted this statement, and said that no intoxicating liquors were procurable inside the Medical Institute. But the Chairman would not be hoaxed, repeated, "Well they adjourn to some place." Statements so palpably and absolutely groundless make one feel sad that the chairman of an important public Board should so far forget dignity and fairness. Although several members refused to fall in with his views, the Chairman at the end of the discussion said that Article 21 of the regulations under which the claim was made, stated that the guardians could refuse to pay the fee, if they were not satisfied that the extra assistance was necessary, and finally it was agreed to reply to the Local Government Board, that "the dispensary doctors should be of such experience in their profession as to be able to diagnose the diseases of the poor who might require their professional care. We further say that where a dispensary doctor has doubts as to the disease from which a patient is suffering, he should have such a person sent into this house." This extraordinary resolution appears all the more extraordinary when it is recalled that in the 2 months' cases out of a total of thirty in the whole town reported in the Union Infirmary from the very commencement of the epidemic, the diagnosis of which is now urged, namely, a doubtful case being sent in, not diagnosed. At the time the whole place was in a ferment; students and visitors were stopped from entering, resolutions were passed in sheaves. It is scarcely necessary to add that Dr. Donman has the unanimous and complete approval of the whole profession and educated public for his very wise action in a case of doubt of the kind.

Scotland.

Annual Meeting of the United Kingdom.

... to meet in Glasgow on May 21st under the presidency of Thomas Barr. There was a numerous attendance ... members with representatives also from London, Manchester, and Belfast. The forenoon meeting ... in the hall of the Faculty of Physicians and Surgeons ... were read by Professor Cleland, of Glasgow University, Dr. McBride, Edinburgh, Mr. Parry, Glasgow, and Dr. H. Nicoll, Glasgow. Important cases and ... were likewise exhibited and discussed. Later ... the University, where Dr. Colquhoun, in the absence of Professor McKendrick, gave an interesting ... in the physiology class-room on the nature of ... and their action upon the organ of hearing.

THE PLAGUE.

Prevalence of the Disease.

...

...

...

vide for the Revaccination of Children after the age of Twelve."

2. The object of the Bill is to apply to revaccination the provisions of the Vaccination Acts, 1867 to 1898, subject to the same safeguards, penalties, and exemptions, and subject in particular to the provisions of the first paragraph of Section 11 of the Vaccination Act, 1898, exempting the "conscientious objector" from penalties.

3. Your petitioners believe that it will be to the advantage and benefit of the community if revaccination is made obligatory as proposed in the Bill.

Your petitioners therefore humbly pray your Honourable House that the said Bill may pass into law.

And your petitioners will ever pray, etc.

The Common Seal of the County Council of Salop was hereunto affixed in the presence of:

(Signed) J. BOWEN-JONES, Chairman.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, July 6th, and October 19th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 6th, at 4.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting. W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 6th, at 6 p.m., for the purpose of appointing a Representative of the Divisions to Representative Meetings of the Association.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH.—The fiftieth annual meeting of this Branch will be held in the Medical Institute, Birmingham, on Thursday, June 9th, at 3.30 p.m. The retiring President, Professor Jordan Lloyd, will introduce the President-Elect, Dr. T. E. Underhill. The annual dinner will be held on the same date at the Grand Hotel, Birmingham.—J. T. J. MORRISON, F.R.C.S., 5, Great Charles Street, Birmingham, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—The annual meeting of this Division will be held in the Board Room of the West Bromwich District Hospital on Wednesday, June 8th, at 4 p.m. Business: To elect officers. 2. Two Representatives on Branch Council. 3. Ordinary members of Executive Committee. 4. Representative in Representative Meetings of the Association. To receive report from Executive Committee. To consider the business of Annual Representative meeting. To consider Memorandum from Exeter Division. Other business. H. B. W. PLEMMER, 42, Birmingham Road, West Bromwich, Honorary Secretary.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch will be held at Cambridge on Thursday, June 9th. Members desiring to make communications should write to the Honorary Secretary as soon as possible.—F. E. ARTHORPE WEBB, 22, Newmarket Road, Cambridge, Honorary Secretary.

DORSET AND WEST HANTS BRANCH: WEST DORSET DIVISION.—The annual meeting of this Division will be held at the County Hospital, Dorchester, on Wednesday, June 8th, at 3 p.m. Business: To elect officers and Representatives of the Division. To consider the business of the Annual Representative Meeting of the Association, to be held at Oxford. [The notices of motion for discussion at this meeting were published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 28th, 1904, p. 11.—To consider the following matters referred to the Divisions for their opinion thereon:—1. The advertising of medical practitioners in connection with Homœopathic establishments. 2. The advisability of consultation between medical witnesses engaged on each side in legal cases. To discuss the proposal for establishing Medical Defence by the Association. General business.—T. HENRY JONES, Oriel, Weymouth, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at Lowestoft, on Thursday, June 23rd. Members wishing to read papers or show cases should communicate with Dr Gutch, Ipswich, as soon as possible.—B. H. NICHOLSON, M.B., East Lodge, Colchester, Honorary Secretary.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The annual meeting of this Division will be held in the Card Room, Town Hall, King's Lynn, by permission of the Mayor, on Thursday, June 9th, 11 a.m.—General Meeting of the Division. Agenda: 1. Election of Chairman. 2. Election of Vice-Chairman. 3. Election of Secretary. 4. Election of a Representative of the Division on the Branch Council. 5. Election of Members of the Executive Committee. 6. Election jointly with Norwich of a Representative at the Representative Meeting of the Association. 7. Annual Report of the Executive Committee. 8. To consider business for the Annual Representative Meeting. 12 noon. Public meeting, to which all medical practitioners are invited, when an address will be given by the Chairman on Some Survivals of Mediæval Medicine in East Anglia. 1 p.m. Luncheon, by invitation, of the Chairman. 2 p.m. Conference on Contract Practice, to which all medical practitioners in the district are cordially invited. Dr. A. Gardiner will move a resolution. 3 to 5 p.m. Garden Party and *al fresco* musical and dramatic entertainment, by invitation of Dr. and Mrs. Plowright, in the High School Garden, King Street, by permission of the Directors. A. GARDINER, M.B., King's Lynn, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting of this Branch will be held at the Royal Infirmary, Hull, on Saturday, June 4th, at 4 p.m., to be followed by the annual dinner the same evening.—E. M. HAINWORTH, 16, Albion Street, Hull, Honorary Secretary.

EDINBURGH BRANCH: NORTH-EAST EDINBURGH DIVISION.—The annual meeting of this Division will take place on Tuesday, June 14th, at 5 p.m., in the Royal College of Physicians, 9, Queen Street. G. KEPPIE PATERSON, 19, Albany Street, Edinburgh, Honorary Secretary.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISIONS.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on Thursday, June 16th, at 3 p.m. Business: (1) Election of office-bearers. (2) Consideration of motion, of which Dr. Hamilton (Hawick) has given notice, "That the Division invites all the members of the Edinburgh Branch to meet at Hawick in July"; and of a further motion, "That, alternately, the annual meeting of the Branch be held in one of the county towns within its area, and that it be held next year at Hawick." (3) Consideration of agenda of the Annual Representative Meeting to be held at Oxford, in order to instruct the Representative of Division what lines to follow when the various questions come under discussion. (4) Consideration of the Contract Practice inquiry issued by the Medico-Political Committee.—W. HALL CALVERT, The Laurels, Melrose, Honorary Secretary.

EDINBURGH BRANCH: SOUTH EDINBURGH DIVISION.—The adjourned annual meeting of this Division will be held in Room 5, Oddfellows' Hall, Forrest Road, Edinburgh, on Tuesday, June 7th, at 8.15 p.m. Business: The further consideration of the scheme of Medical Defence. Dr. Cullen's motion regarding the administration of the out patient department of the Royal Infirmary. Any other competent business. Members are requested to inform the Honorary Secretary whether or not they are in favour of the Medical Defence Scheme proposed by the Council of the Association.—MICHAEL DEWAR, 24, Lauriston Place, Edinburgh, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Nominations for the office of Representative of this Branch on the Council (the Branch electing two), each signed by three members, must be in the hands of the Honorary Secretary on or before June 15th. JAS. H. NICOLL, 4 Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of Thursday, June 30th. The Honorary Secretary will be pleased to hear from any member desirous of reading papers, etc.—T. ARTHUR HELME, 3, St. Peter's Square, Manchester, Honorary Secretary.

LEINSTER AND SOUTH-EAST OF IRELAND BRANCHES.—Nomination of candidates for election as members of the Central Council must be in hands of undersigned on or before June 18th. ARTHUR H. WHITE, Derrybawn, Rathgar, Dublin, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of this Division will be held at the Kensington Town Hall, High Street, Kensington, at 5 p.m., on Wednesday, June 15th, Dr. H. Campbell Pope in the chair. Business: (1) To elect officers for 1904 as follows: Chairman, Vice-Chairman, Secretary and Treasurer, four Representatives of Division on Branch Council, seven Ordinary Members of Executive. (2) To elect the Representative of the Division in Representative Meetings of the Association. (3) To receive the annual report of the Executive Committee. (4) To consider the business of the Annual Representative Meeting. (5) To make new rules, or alter or repeal existing rules. (6) To receive—(a) Result of voting for Medical Defence Scheme. (b) Communication from Medico-Political Committee. (c) Communication from Ethical Committee.—G. CRAWFORD THOMSON, M.D., 111, Sinclair Road, West Kensington, W., Honorary Secretary.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at The Exchange, Nottingham, on Thursday, June 9th. The President-elect invites members to luncheon at the above place at 1.30 p.m. The Branch Council will meet at 2.30 p.m. The meeting of the Branch will be held at 3 p.m. Agenda: Minutes. Resolution of sympathy with Mrs. Newman, of Stamford, on the death of Dr. Newman. Report of Branch Council. New rule proposed by Branch Council: Add to Rule 70: Each candidate for membership shall be proposed by two members of the Association to whom he is personally known. Election of Branch Officers. Resolution inviting the Association to hold its annual meeting in Leicester in 1905, under the presidency of G. C. Franklin, Esq., F.R.C.S., and nomination of deputation to the annual meeting at Oxford in July next. Any other business. Address by new President. The following communications, etc., are promised: Dr. Ransom: The Sanatorium Treatment of Consumption. Is it worth while? Mr. Anderson: Note on Case of Pancreatic Cyst. Mr. C. J. Bond and Dr. Frank Pope: A Case of Papilloma Coli and of Colitis Polypora (?). Dr. Jacob will show a series of cases illustrating *x*-ray treatment of skin disease. Dr. Pratt will show stereo photographs of medical interest. Other exhibits will be welcomed. A meeting of the new Branch Council will be held after the annual meeting. The annual dinner will take place at the Victoria Hotel at 6.30 p.m. Price 7s. 6d. each, exclusive of wine. FRANK M. POPE, 4, Prebend Street, Leicester, Honorary Secretary and Treasurer.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting of this Branch will take place at the County Hotel, Ulverston, on June 14th, at 3 p.m. There will also be a joint meeting of the Business and Medical Divisions to elect their Representative. Members wishing to show cases specimens, etc., are requested to communicate as early as possible with the Honorary Secretary, A. S. BALLING, High Street, Lancaster.

NORTH OF ENGLAND BRANCH.—The annual meeting of this Branch will be held at South Shields on Wednesday, June 8th, at 2.30 p.m. Further particulars will be given by circular. ALFRED COX, Cotsfield House, Benshaw Road, Gateshead, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH. SHROPSHIRE DIVISION.—The next meeting of the Clinical and Pathological Section of this Division will be held on Tuesday, June 7th, at the Salop Infirmary, at 3 p.m.—FRANCIS H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretary.

PERTH BRANCH.—The summer meeting of this Branch will be held in the Club House, Moncreiffe Island, on Friday, June 10th, at 3.45 p.m. Business: (1) Appointment of Representative of the Branch to Representative Meetings. (2) Discussion on Medical Defence. (3) Any other business. WILLIAM A. TAYLOR and ALEXANDER TROTTER, Perth, Joint Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The sixteenth annual meeting of this Branch will be held at Cornhill Hotel, Deal, on Wednesday, June 22nd, at 2.30 p.m. Mr. J. H. Ewart (President-elect) kindly invites members to lunch at the hotel at 1.30 p.m. Agenda: In addition to the business of the ordinary meeting: To receive the report of the election of new officers, who shall thereupon take office. To receive the report of the Council on the affairs of the Branch, and the annual financial statements. To make new rules or alter or repeal existing rules if so desired. Dr. Lett to give notice that he will move: That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the consent of the Divisions concerned be obtained on the question. After the meeting drives will be arranged to Beachy Head and Pevensey Castle. Dinner at the hotel at 6.30 p.m., charge 6s. 6d., to which ladies are invited by the local members. Those who propose to be present at the meeting and dinner are requested to signify their intention to Dr. Mercer, Clarendon Place, Folkestone, not later than Monday, June 13th. T. JENNER VERRALL, 72, Montpellier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH. CANTERBURY DIVISION.—The annual meeting of the Division will be held at the Kent and Canterbury Hospital, on Thursday, June 16th, at 4 p.m. Dr. Gogarty in the chair. Agenda: To read the minutes of the last meeting. Election of officers. Chairman. (a) Councillor Representative on Branch Council. (b) Honorary Secretary and Treasurer; (c) Executive Committee (additional member). (2) To consider the proposal of Dr. Gogarty. To consider the proposal of Dr. Gogarty. To consider the proposal of Dr. Gogarty.

sodium sulphate containing a molecule of oxygenated water in its composition to obtain simultaneously the evacuation of the intestine and its antisepsis. Dr. Robin then spoke of the metallic peroxides which give off nascent oxygen when they come into contact with the tissues and in which the metallic molecule plays a secondary rôle.

The peroxides of calcium and magnesium liberate all their active oxygen in the presence of the gastric juice; given in keratine capsules they become remarkable intestinal antiseptics. They diminish the fetidity of the stools and the diarrhoea better than any other drug, but on the condition that this diarrhoea is caused by fermentation. This fact may even serve as a means of diagnosis, having no effect in tuberculous, bilious, nervous, and other diarrhoeas not of fermentative origin. Sodium peroxide, which acts in the same way, is recommended by Unna for the treatment of sebaceous acne of the face. Zinc peroxide can be used, say Fromayer and Morré, as a purifying antiseptic in dermatology, and recently Chaput before the Société de Chirurgie recommended its use to replace iodoform in dressings for uterus and vagina, and to treat infected and torpid wounds. All these salts owe their activity to their nascent oxygen, but the value of the nascent state in therapeutics may be shown by other synthetic drugs. Thus monochloral antipyrin or hypnol of Bordet is composed of a molecule of chloral hydrate and a molecule of antipyrin, which in the organism breaks up into its components, each in the nascent state. It is an analgesic of the central nervous system by its antipyrin and hypnotic by its chloral. Moreover, a dose of 1 gram is enough to almost always induce sleep and calm the pain, and weight for weight is more active than its two components.

Aspirin breaks up into acetic acid and salicylic acid in the intestine. It is more active and has a greater analgesic action than sodium salicylate.

Rheumatine gives salicylic acid and quinine in the nascent state. As an antirheumatic agent it is more powerful than salicylate of sodium, and it is also an antiseptic. It is thus indicated in the grave, hyperpyretic, or very painful forms of acute articular rheumatism, as well as in its visceral complications.

Uricedin is a combinate of piperazine, nowadays used in the treatment of gout and the uric acid diathesis. By its lysidine acid, which breaks up in the organism into quinone and benzoic acid, it combines with glycocoll, thus slowing down the formation of uric acid. By its piperazine, which forms with uric acid the most soluble urate known, it favours the elimination of this salt. This double effect is obtained with relatively minimum doses of sidonal, which frees its component parts in the nascent state. With 1 gr. of sidonal daily, taken in two doses, the production of uric acid is sensibly reduced, and this dose can be continued for some length of time without causing any injury.

Dr. Robin has introduced two agents into therapeutics which are remarkable examples of this exalted action of drugs in the nascent state, that is, iodized sulphur and erythrol, or the double iodide of bismuth, of bismuth, and cinchonidine.

Iodized sulphur was discovered by L. Prunier, and its ready dissociation led Dr. Robin to employ it in the treatment of gastric fermentations. Prunier advised him to use the form with the formula S_2I_2, which gives off in the nascent state iodine and sulphur of such great chemical activity that doses of 1 centigr. to 2 centigr. given in a cachet in the middle of meals produces excellent effects without any drawbacks. It has but little action on acid fermentation, and should be given for gaseous fermentations with flatulence. It may also be employed in keratin capsules for gaseous fermentations of the intestine. It can replace iodoform in surgery; its action is more powerful and it is much cheaper, but the dose must be a small one on account of the strong action of iodine in the nascent state.

Erythrol also owes its value to the action of nascent iodine. Dr. Robin first used it for putrid ulcerating surfaces. The cinchonidine is a stimulant of the spinal cord and medulla, and it is probable that this stimulating action is also effective on the nerve terminations with which it is in direct contact which would explain the tonic action of erythrol on wounds which look more healthy and heal rapidly. Dr. Robin has also used it for gastric and intestinal fermentations, and it has given good results in cases accompanied with fetid breath. He gives it in doses of 5 centigr. to 1 gr. in a cachet with 1 gr. of precipitated carbonate of lime.

Professor Budin made a communication on the practical means of fighting infantile mortality by making it possible for mothers who work in manufactories giving the breast to their infants. Thus recently Messrs. Bhir and Bhir, large manufacturers at Elbeuf, in order to encourage their employés to feed their own children, have advised them to place them at the *crèche* of the municipality which is close to their works. Every facility is given to the mothers to get away at regular intervals for the purpose of giving the breast to their infants, and in addition Fr. 100 will be placed in the savings bank in the child's name in every case where the mother shall herself have thus brought up her infant. Professor Budin called on the Minister of Finance, and explained to him the situation. The Minister said that in nearly all the manufactories under his control, such as the tobacco and match factories, the mothers were authorized to give their infants the breast, the latter being collected in *crèches* either inside or outside the factory, or else are placed in a room set aside for this purpose. The Under-Secretary of State, who has charge of the postal telegraph and telephone services, has promised as soon as possible to take the necessary steps that all mothers in his employ may be able to give the breast to their infants.

The President of the Académie, Professor Tillaux, eloquently traced the scientific career of the late Professor Marey, who had been President of both the Académie de Médecine and the Académie des Sciences.

Dr. Netter has been elected to the Académie de Médecine to fill the vacancy in the Section of Hygiene caused by the death of Professor Proust. Dr. Netter is Professeur Agrégé and Physician to the Trousseau Hospital and a member of the Comité Consultatif d'Hygiène Publique of France.

MANCHESTER.

Removal of St. Mary's Hospital.—Other Changes in Hospital Distribution.

QUAY Street stands in the midst of unattractive and gloomy surroundings. It was the cradle of the present Owens College over fifty years ago: it was also for forty-eight years the site of St. Mary's Hospital for Diseases of Women and Children. St. Mary's was housed in a building ill-adapted to the modern necessities of a hospital, but it was only at the end of last week that the old unattractive, warehouse-like building was emptied of its patients, who were transferred to the new wards prepared for their reception in the new building, which has been erected at a busy corner in Oxford Street. The new out-patient department was open for the first time for the reception of patients on May 30th. The history of this institution goes back to 1790, when its site was on Salford Bridge—now Victoria Bridge; and, after several removals, its *locus* in and after 1856 was in Quay Street.

A few years will see great changes in the hospital accommodation of Manchester. Already along the length of Oxford Street we have St. Mary's with about one hundred beds. A couple of years will see on a better site the new Southern Hospital for Women and Children. These two hospitals, situated in the same street and not far apart, are doing the same kind of work, so that it is difficult to see why there should not be some common action between them, either by a division of labour or other arrangement whereby all unnecessary expenses connected with management may be saved. Then there will follow the erection of the buildings of the new Royal Infirmary on the Stanley Grove Estate, in close proximity to the Southern Hospital. The Medical School of the University will then stand in the centre between this congeries of hospitals. Such a condition of affairs should greatly improve the already large facilities afforded by the Manchester School of Medicine. Co-ordination is a great agency for efficiency in the biological world, and so should it be in connexion with those institutions which exist for the prevention and cure of disease. It is as necessary in the one case as the other.

SYDNEY.

The Plague.—Boracic Acid in Milk.—Queen Victoria Homes for Consumptives.—Annual Meeting of Branch.—The Hospital for Sick Children, Sydney.—The Prince Alfred Hospital.—Death of Dr. Blaxland.

Two sporadic cases of bubonic plague have recently occurred in Sydney in the neighbourhood of Darling Harbour, the main centre for the reception and distribution of produce of all kinds. Only a day or two before the last case was reported the City Health Officer, Dr. W. G. Armstrong, reported to the City Council that the plague prevention gang of ten men had been engaged in a thorough and systematic search of the produce stores in Sussex Street, with results that up to that time had been entirely negative so far as the discovery of plague-stricken rats or mice was concerned. During the course of the work over 4,400 bags of grain, 5,500 bags of chaff, 700 bags of bran, and 1,900 packages of miscellaneous produce had been moved and handled. The stores examined had been found to be particularly free from rats and mice, especially the former; only 152 rats and 549 mice had been captured by the gang. The rigid clearance of all premises in the neighbourhood of the infected locality of rats and mice harboured by them and the non-discovery amongst those animals of any

infection by plague made it highly probable that all fear of an outbreak was at an end. It was only a day or two after this report that a case was discovered in the person of a man who worked in this district. The premises in which he worked were found to be in very good condition, and the source of the infection appeared to be doubtful until the discovery of a plague-infected rat in a store on the opposite side of the street cleared up the source of the infection. No further case has been reported, and in view of the strict precautions which are being constantly taken by the Board of Health and the City Health Authorities it appears extremely unlikely that anything like a severe outbreak will recur again.

The Board of Health some time ago passed some stringent regulations prohibiting the use of more than the one thousandth of a grain of boracic acid to a pint of milk as a preservative. These regulations were opposed by a concentrated milk company, which succeeded in getting a Select Committee of Parliament to draw up a report favourable to their practice of using a much larger quantity than this in the preparation of their concentrated milk. The Board of Health has declined so far to act upon this Parliamentary Report, and the manager of this company was recently prosecuted in the police court, for a breach of the public health regulations, and fined £2 or seven days' imprisonment. As the fine was not paid, the prosecuting officer applied to a magistrate for a warrant of commitment. This the magistrate declined to grant, stating that he was acting under instructions from the Minister of Justice. Further action was then taken, and the matter was brought before a Supreme Court judge, an application being made for a rule nisi to call upon the magistrate to show cause why he should not do what was required of him as to the issue of a warrant. This will show how hard a battle the Board of Health has to fight in the interests of the public health against powerful companies with vested interests.

The sixth annual report presented to the subscribers to the Queen Victoria Homes for Consumptives Fund gave some interesting details as to the present position of these homes and the work accomplished in them during the year. There are two homes in the country, the one a recently-built sanatorium on the Blue Mountains, which is reserved for male cases in the very early stages, and the other a hospital at Tuncurry, which accommodates both men and women to the number of 42. This hospital is reserved for cases a little more advanced, but only those who are likely to be sufficiently improved to be able to resume light work are admitted. The sanatorium on the Mountains was only opened in February last year, and the first report of Dr. McIntyre Sinclair, the Resident Medical Superintendent, stated that the available accommodation (20 beds) had been fully taxed. Fifty cases had been admitted to this institution, and of these 25 were discharged with the disease either completely arrested or greatly improved, and 20 of them were able to return to ordinary occupations, and 5 to selected light employment. The average residence required to effect complete cure was one hundred and twenty-eight days. Of the 50 cases admitted 41 were from the metropolis and 9 from the country. Sixty-eight per cent. of the cases were between the ages of 20 and 35 years; and of the patients employed indoors all day, the remainder spent out of doors. The average number of patients resident and the annual cost per bed for maintenance have been £—. Of the 50 cases admitted 30 were natives of New South Wales, 6 of other parts of the United Kingdom, 1 China, 1 Chile, and Italy. All but three had contracted the disease in New South Wales, and the majority of those who were not natives of New South Wales had been resident there for the greater part of their lives. Australian has now been passed three years (at present) in New South Wales. Of these 50 patients admitted to the Sanatorium 4 died. Of these 4 deaths 3 occurred within the first month of residence, and 1 died [illegible]. The cost of maintenance of the Sanatorium for the year amounted to £—, and the public had donated £— [illegible]. The Committee [illegible] a balance of £— to be carried forward to the [illegible].

At the annual meeting of the New South Wales Branch of the British Medical Association, the retiring President, Dr. A. J. Brady, was unfortunately unable to be present, as private business had called him away on a trip to England. His address was read by the Acting Secretary, Dr. G. H. Abbott. The following officers have been elected for the ensuing year: President: Dr. A. MacCormick; Vice-President: Dr. Beeston; Councillors: Drs. Hankins, Crago, Rennie, Abbott, Maitland, Newmarch, Hinder, Pockley, Hood, Dick, Worrall, and Brady. Dr. Hankins has been re-elected Honorary Secretary, but during his absence Dr. Abbott has been elected Acting Honorary Secretary. Dr. W. H. Crago has been re-elected Honorary Treasurer of the Branch, and Manager of the *Australasian Medical Gazette*. Dr. G. E. Rennie has been re-elected Editor of the *Australasian Medical Gazette*.

At the annual meeting of the subscribers to the Hospital for Sick Children, the twenty-fourth annual report was read. The statistics of the work done during the year showed an increase in the number of in-patients of 53. The diphtheria cottage has now been closed, as it was impossible to carry on the work in it owing to the state of disrepair into which it had fallen, and the large amount of money which would be required to put it into a fit state. The committee had secured a site for a new hospital, and the floor plans of the proposed new building had already been prepared and approved by the building committee, as well as by several medical men and hospital experts to whom they had been submitted. The building, which has been designed as a pavilion hospital, would provide eventually for 175 cots with all necessary administrative requirements, and with an entirely separate nurses' home, though it was proposed at present to erect sufficient for 115 cots. The cost of the whole building, it is estimated, will be about £55,000, of which from £25,000 to £30,000 are required at present. A donation of £5,000 has been given by Mr. Todman, and this with previous donations brings the building fund up to £15,600, and it is hoped that it will shortly be sufficiently augmented to allow of an immediate commencement being made with the building.

This year is the twenty-first anniversary of the opening of Prince Alfred Hospital. The Chairman of Directors, Professor Anderson Stuart, is at present away on a six months' tour of England and America, and the Acting Chairman, Sir James Fairfax, at the annual meeting dwelt at some length on the history of the hospital and the progressive work done in it, especially in the number of surgical operations performed as compared with twenty years ago. It was pointed out that with the additional beds provided in the new Queen Victoria Pavilions the annual expenditure will be considerably increased, and the Directors will be hard pressed to find the necessary means to carry on the hospital. The relative amount contributed by the general public is much less than it was several years ago.

Much regret is felt at the sudden death of Dr. Herbert Blaxland, the Medical Superintendent of the Hospital for the Insane at Gladesville, and the Senior Medical Officer in the Lunacy Service. He was a native of Sydney, and studied medicine at University College, London. He took the diplomas of the Royal Colleges in 1878, and was House-Surgeon to Mr. Christopher Heath. He returned to Sydney shortly afterwards and entered the Lunacy Service, in which he remained up to the time of his death. He died in his 52nd year of cerebral haemorrhage, and leaves a widow, three sons, and one daughter. His funeral was largely attended by a representative gathering, which testified to the personal esteem in which he was held.

CORRESPONDENCE.

THE ANNUAL MUSEUM AT THE OXFORD MEETING.

Sir,—Our Association is to hold its annual meeting this year in Oxford. This brings to my memory the fact that it was in Oxford thirty years ago that the Annual Museum, which has since grown into such a large affair, was initiated. Like many similar undertakings the development of this museum has not been exactly on the lines which some of those who took an active share in its formation hoped for. It was designed chiefly to collect together what the year afforded of novelty in reference to the observation of disease and its treatment. Not without a little misgiving did we admit the exhibits of drugs and food-stuffs, which latter, as is well known, soon swamped the more strictly professional part of the scheme. At present those who contribute their drawings, models, photographs, or specimens are but a small minority of the British profession, and a very large amount of material

of this kind which would prove most instructive if brought forward into the light remains stowed away in the private portfolios on the shelves of hospital museums. Year by year I observe with much regret that our annual collection is more and more left to depend for its contents upon the efforts of the Local Committee. This ought not to be, and I should like to suggest that it would be appropriate this year, when we again meet in the city which saw its birth, that an effort should be made to restore this department of our museum to something more nearly approaching the original conception of its scope. No one can doubt that it would aid greatly to the advance of knowledge if in this annual collection there were really brought together the sum of the pictorial medical work of the year. The art of photography has much developed during the long quarter of a century which has elapsed since the date referred to, and the use of the rays has opened to us a quite novel and most productive field. It might perhaps not be unsuitable to make, at our coming meeting, radiographs a special feature. If that be thought too large an order, I would suggest that a few subjects in connexion with it, say of fractures and dislocations, be taken. There are various practical questions which wait solution by this means.

The last fasciculus of the New Sydenham Society's *Atlas* concerns itself, amongst other topics, with the question whether in ordinary forms of Colles's fracture splints are of any use. In connexion with this, it becomes necessary to decide whether under the methods of treatment now pursued any real rectification of the position of the fragments is usually effected. To determine this point we want radiographs taken (1) before any attempt at reduction, (2) after such attempts and when the limb has been put up in splints or in a plaster case, and, lastly, at the conclusion of the treatment. Although thousands of radiographs of Colles's fracture have been taken, any one who should make inquiry on these points will find exceedingly little material ready to his hand. If we could have a collection at Oxford bearing upon this special point it might go far to settle some most important practical questions, and might, perhaps, prevent many stiffened wrists.

Other special subjects suitable for collective demonstration, some, perhaps, better ones, will I am sure occur to others. My object in the present letter is not to go into any detail, but merely to suggest that at the Oxford meeting a little extra effort should be made by the profession generally to develop the medical and surgical department of our Annual Museum. Let those in authority give for it some good rooms, with plenty of space and in an accessible position, and let it be a matter of duty to us all to see that they are creditably filled.—I am, etc.,

London, W., May 28th. JONATHAN HUTCHINSON.

*** It is much to be hoped that Mr. Hutchinson's appeal will meet with success. We shall publish an article on the arrangements made for the Pathological Museum in our next issue, but we may say at once that good rooms, with plenty of space, and in an accessible position, have been provided. A great many valuable exhibits have been promised, but we understand that the response, so far, from London has been disappointing. The Secretary of the Pathological Museum Committee is Dr. Ainley Walker, University College Oxford.

THE CENTRAL MIDWIVES' BOARD.

SIR,—It will be satisfactory to many of your readers to learn that at a meeting of the Board held on Thursday, May 26th, a resolution was carried to the effect: "That reporters of the recognized medical and nursing journals be invited to attend the meetings of the Central Midwives Board." But for the adoption of this resolution I should have felt compelled to raise the veil which has so long concealed proceedings affecting so many important interests, and to assume the duties of descriptive writer until relieved by professional reporters from the self-imposed but ungrateful task. Now that reporters are to be admitted, it seems to me to be sufficient to state, with your permission, my estimate of the existing position of affairs, while explaining some facts and recent incidents which have produced the present situation. In future your readers interested in the administration of the Midwives Act will be able to follow events by the perusal of what they can confidently assume to be incontrovertibly accurate and unbiassed reports of proceedings.

The "Midwives Act, 1902," was a sadly defective piece of legislative work. It incorporated in an Act of Parliament the policy of the Midwives Institute as distinct from, and even in opposition to, the interests of the medical profession, and, as I strongly believe, the interests of the working class public of England and Wales. The amendments suggested by the medical profession of Great Britain could be safely ignored by the sponsors of the Bill, while for reasons transparently clear at the time of the final Parliamentary struggle, the opposition of the Irish members was weakened by illusory and temporary concessions to the Irish schools of midwifery.

One of the obvious defects of the Act, which at the same time clearly revealed the influences at work, was the constitution of the Central Midwives Board created to administer the Act. The Board proposed in the Bill of 1900 would have been representative, strong, and efficient; the most zealous partisan supporter of the Act of 1902 could hardly say the same of the now existing Board. This Board, created to control purely medical affairs, was so constituted that three at least of its members must be non-medical women, and of the total of nine members five might not belong to the medical profession. For purposes of representation, the "Incorporated Midwives' Institute" was placed on a footing of equality with the Royal College of Physicians; and the Universities whose medical graduates engage to a large extent in general practice were not represented at all.

The Act contains provisions which imply the most tender solicitude for the midwife; it is ominously silent where the interests of the medical profession are concerned. The midwife, having made her own arrangements with her client, is required to send for medical assistance under certain contingencies, but there is not a word about the remuneration of the medical practitioner who responds to the summons and comes to the rescue. Contrast this with the explicit enactment with regard to legal expenses incurred in the administration of the Act (Clause 15).

Again, the authors and sponsors of the Bill obviously contemplated that the Central Midwives Board should consist of merely a London coterie, for there is no provision for the payment of expenses incurred by members, as in the case of the General Medical Council; and no regulations with regard to meetings of the Board are even hinted at. Consequently the two country members must submit to mere harassment or fail to perform the duties which they have undertaken. They are required to attend once a month, or oftener, meetings of the drawing-room type, with afternoon tea, for a short time after lunch, to sacrifice a day's work when called upon, and to pay all contingent expenses. It may be objected that these are paltry domestic details, any reference to which should be beneath the notice of a member of the Board. I hold a different opinion, else I would not mention them. They seem to me to be of the essence of the efficiency of a Board created to administer on Act of Parliament affecting the whole of England and Wales; and I maintain that the proceedings of a Statutory Board ought to be arranged for and conducted in a manner adequate to the dignity of its origin.

When the Board, thus constituted, commenced to frame rules and regulations for midwives the policy underlying the Act soon became apparent. The fee for the enrolment of certain classes of midwives was fixed at the paltry sum of 10s., the fee for examination at one guinea. This decision was certainly in the spirit, and partly in compliance with the letter, of the Act; but it should be remembered in judging Act or rules that these sums represented the total expenses of obtaining a privileged position which was to secure special advantages for earning a professional income.

Let us now look to some of the evidence of a policy contained in certain rules which were framed by the majority of the Board, even if some of them had to be greatly modified or abandoned before the completed rules were sent to the Privy Council for approval. The majority refused to sanction any rule requiring pupil midwives to prove the possession of some definite minimum standard of common school education; fixing any minimum period for training; specifying the minimum number of lectures or lessons comprised in a course of systematic instruction; or giving clear and exact instructions with regard to the contingencies which demand an appeal for medical assistance during parturition or in course of the puerperium. On this last head the matter was to be left to the judgement of the midwife; she was to send for a medical practitioner only when, in her opinion, the progress of the woman or child was "not satisfactory." Under such loosely-framed regulations it would have been next to impossible to make the most ignorant and negligent midwife answerable for her conduct. On the other hand, some regulations originally framed to

magnify the office of midwife were definite enough. She was, for example, to be required to baptize feeble babies in certain events, and she must always produce conjunctivitis by irritants, introduced if possible even before complete birth, as a prophylaxis against gonorrhœal ophthalmia.

Several of the worst defects in the rules were removed owing to the acceptance by the Privy Council of certain suggestions embodied in a "minority report" signed exclusively by medical members of the Board. But still the rules are stamped with the policy of the Midwives Institute: it is to be made cheap and easy for a humble illiterate class of female persons to become midwives, when so disposed; and they are to be relieved, as far as a sympathetic and benevolent interpretation of the Act will permit, from irksome restrictions inserted in the interests of mere child-bearing women of the working classes.

Owing to an accidental interruption at this stage of my letter, I have had the timely opportunity of reading in the *Lancet* of to-day (May 28th, p. 1543) a concise report of the Proceedings of the "Association for Promoting the Training and Supply of Midwives." Kindly permit me the liberty of making a few short quotations from this instructive report.

The chair was taken by Miss Wilson, President of the Midwives Institute and member of the Central Midwives Board.

Free [illegible] was given by the Association.

Reference was made to the Training Home at East Ham in connection with the Preston Maternity Charity started by the Association last year.

The sum of £[illegible] would train 20 midwives.

This report is to me a curious revelation of fact explaining the working of principles in the Central Midwives Board, which has been to me hitherto only a distressing and inexplicable phenomenon—on the one hand, the benevolence of a largely non-medical contingent towards illiteracy and inefficiency generally; on the other, the latter struggle of a medical minority to raise the standard of education so as to secure a better quality of midwife in the future. During the long agitation to obtain an Act of Parliament for the education, registration, and medical supervision of midwives who ever heard a complaint about the lack of women ready to assume the name and functions of a midwife? Every argument in favour of every Bill was founded tacitly or explicitly on a promise to eradicate or even the ignorance and consequent incompetence which were the roots of all the worst scandals arising or arising from the practice of midwives. But the policy and methods of the Midwives Institute do not possess even the germs of progress. What good to the community can result from encouraging to leave their suitable occupation a class of women who develop a thoughtful turn of mind only because they have never learned to read? We may well despair if the midwife of the future is to be turned out in fourteen weeks at the average cost of £20 a head!

Coming, now, to the present situation as far as the actual [illegible] of the Central Midwives Board are concerned, it [illegible] that the first question demanding attention [illegible] is the dispute between the Dublin lying-in hospitals and the Central Midwives Board. There are two points [illegible]: (1) The efficiency of the practical teaching of pupil [illegible] reduced to a question as to the number of patients to be personally and exclusively delivered by the in[illegible] pupil who is to receive certain certificates, and (2) the number of days after labour during which the pupil must have the patient under observation, so as to gain sufficient knowledge of the puerperium.

In [illegible] understanding of this difficulty the wording of the rules of the Central Midwives Board must be kept in [illegible] the certificates which the candidate must put in to the examination is to the effect that she has attended and watched [illegible] not fewer than twenty labours, making abdominal and vaginal examinations during the course of labour, and [illegible] the patient [illegible] Rules, Form iii.).

[illegible] apparent as it has been to the executive [illegible] of midwifery, as in my opinion it [illegible] most unfortunate. It has been interpreted [illegible] that each candidate must attend twenty cases of which she has conducted the [illegible] after birth. It has been contended that this condition has been "framed and interpreted and enforced by a Board consisting of medical men of women experienced in the details of the training in obstetrics of [illegible] midwife and midwife pupils, and capable from [illegible] experience of appreciating the requirements [illegible] Such a rule, interpreted literally, is not in force in any school of midwifery in Europe or America: it almost compels evasion, or at least interpretation according to the dictates of practical common sense. Every one engaged in the actual clinical teaching of midwifery must know that two, or even three pupils, learn more individually from a single case than the solitary student; they sharpen one another's wits by conversation about the case, and by comparison of observations, and there is consequently constant exact sustained attention, and no shirking or apathy.

The training of midwives at the Dublin lying-in hospitals is notoriously the best in the United Kingdom. The pupils "reside for a period of six months in the hospitals" and receive systematic instruction during the whole term of residence far superior to the requirements of the Central Midwives Board. Probably, in the consciousness of this superiority, the Master of the Rotunda Hospital replied to interrogatories in a frankly truthful fashion; and the consequence is, that on this narrow technical point in a rule recently formulated, the Dublin hospitals are declared by a majority of the Central Midwives Board to be disqualified from granting to their pupils the certificates necessary to enable them to enter for examination. The unfitness of the Board as at present constituted to exercise judicial functions is well illustrated by the somewhat irrelevant but suggestive remark of one of the members during the discussion of the question to the effect that the Dublin people send out too many midwives, and by the rhetorical question in the course of a formal speech by another member, "Are we going to climb down?"

2. The second point to which I wish to call attention in the difficulty with the Dublin institutions is a very attenuated difference indeed. The Central Midwives Board in drafting its rules thought that ten days was a reasonable time for a pupil midwife to be required to nurse her twenty patients in the puerperium. As all medical practitioners know there is no special scientific sanction for ten days. The period finally fixed was the result of a compromise. Accordingly, the candidate before admission to the examination must send in a certificate that she nursed twenty lying-in women during the ten days following labour" (*Rules*, Form iv.). Now, this rule was framed in blank ignorance of an important fact with which the Board became acquainted for the first time only on hearing a letter read from the Master of the Rotunda Hospital, writing in his official capacity. He stated *inter alia*: "It would be impossible for our resident nurses to follow the course of the puerperium for ten days, as Irish women will not remain in the hospital for more than eight days." I cannot believe that a single medical member of the Central Midwives Board would have voted in favour of fixing ten days as the minimum period of nursing in the puerperium if it had been known at the time of framing the rules that the Dublin hospitals would have been excluded in consequence.

The Dublin grievances were discussed after the reading of a letter from the President of the Royal Academy of Medicine in Ireland at a meeting of the Board held on February 25th, when eight of the nine members were present. To a *non possumus* resolution to the effect that "the rules having been approved by the Privy Council, it is impossible for the Board to alter them," one of the usual minority proposed, and another seconded, an amendment regretting that the Board was not made aware of the circumstances of the midwifery training schools in Ireland before the rules were sent to the Privy Council, and stating "that this Board sympathizes with the Irish institutions in their difficulties, and will give every assistance in order to obtain a revision of the rules by the Privy Council." For this amendment only the proposer and seconder voted, against it five members. For the "it is impossible" resolution then put substantively there voted six, against it the same two.

Owing to the persistence of the authorities of the Dublin lying-in hospitals the question came up again on April 28th, and although an excellent way out of the difficulty was proposed in a resolution by one of the lay members, the result was practically the same. The subject was again under consideration on Thursday last (May 26th) on a motion which appeared to indicate weakening on the part of the opposition, but in reality offering no practical help to Ireland. For an amendment once more offering sympathy and assistance, there voted the same two—all the rest were opposed. That is how the question stands at the present moment. Yet the Central Midwives Board is not always so pedantically exact in guiding its conduct by its own rules. In the minutes of the meeting of March 24th, which I was unable to attend, I

read the following record. "Mrs. H. stated that she had not undertaken cases without doctors, but had been advised by a medical man that she need not be afraid to do so, and added that she herself did not feel in any way afraid of so acting." Curious and by no means lucid as the diction is, the Board appears to have grasped the intention of the applicant, and "Resolved that in the opinion of the Board it is desirable that Mrs. H. should be certified, as it appears from her letter that she is quite prepared to take a case alone." An example of the proverbially fatal mistake of assigning the reason for a judgement! What untrained midwife was there ever yet who was not "quite prepared" to undertake any case, and preferably alone?

This episode appears to have taken its origin and reached its conclusion under "Correspondence" on the agenda paper. "A letter was read from the Deputy Clerk" of a county council enclosing an inquiry from this Mrs. H., and the resolution quoted above was at once passed.

The printed minutes received a month later afforded me the first and only information regarding this almost incredible violation of the rules. One of the certificates which such an applicant for admission to the Midwives' Roll is required by the rules to send in with her application is according to Form viii: "I hereby claim to be certified under Section 11 of the Midwives Act, on the ground that I have been in bona-fide practice as a midwife since"—one year at least before July 31st, 1902; and the application must be supported by a certificate in Form ix that she "has, to my personal knowledge, been in bona-fide practice as a midwife since"—one year at least before the 31st of July, 1902—"and that she is trustworthy, sober, and of good moral character." But this applicant appears to have produced no evidence whatever except a statement as to her own mental condition—that of self-confidence and a secondhand opinion from an anonymous medical man; and she also testified to the Board against herself to the effect that she was practising as a monthly nurse, and had not been at any time in bona-fide practice as a midwife.

Contrast the levity and inconsistency of the resolution of the Board in this case with the persistently correct and severe attitude towards the Dublin lying-in hospitals.

The resolution of the Board to dispense with certificates when the applicant is avowedly a monthly nurse who is "quite prepared to undertake a case alone" is a breach of its own rules; it contravenes or evades the intention of the Act; and, but for the imbecility of the definition of a "midwife" contained in the Midwives Act, it would have been obviously in direct contravention of the Statute.

To another grave decision of the Central Midwives Board I desire to call the attention of the medical profession without delay. At the meeting of the Board on April 28th a resolution was introduced by a lay member to the effect that the Board consider it desirable "to appoint an inspector to visit institutions applying for recognition and to report thereon." The proposer of this resolution explained that by the term inspector she meant "a trained woman." It is fair to assume that the intention was to appoint a midwife. A few months ago it was proposed from the same quarter that midwives be authorized to give the courses of systematic instruction to pupil midwives. This proposal was not carried, and consequently no one can be authorized to give the systematic instruction in midwifery except a registered member of the medical profession. But by the recent resolution "the trained woman" who is to be appointed and sent to inspect, will have, no doubt, to report on the efficiency of the teaching of those qualified men and women who are engaged in giving systematic instruction to midwives in our lying-in hospitals, on the character of the equipment and organisation for systematic and clinical teaching, the sufficiency of the staff, the sanitary arrangements of the hospitals, including the air space per bed and other cognate matters. It was strongly objected by one of the minority that such an appointment was not likely to result in efficient inspection and reliable reporting, that it would be a slight to the medical profession generally, and an insult to the individual lecturer to have an inferior order of non-professional person thrust upon him or her as a reporter. It was also pointed out, in opposition to the resolution, that the county councils and county borough councils have almost universally appointed their medical officers of health as executive officers for the administration of the Midwives Act, and, considering the local knowledge and the independent position of such medical officers, confidential reports from them concerning institutions within their areas could be entirely relied upon by the Central Midwives Board as unbiassed and accurate and trustworthy. On the other hand, the irresponsible report of the "trained woman" could not be relied upon unless it was intended for publication, and probably not even then. On a vote being taken with seven members present, three voted for the resolution, two of them being non-medical members, and one voted against it. Three members, two of them medical men, declined to vote, so the resolution was carried. None of the proceedings of the last eighteen months more thoroughly demonstrates the defective composition and the consequent bias and sort of moral incompetence of the Central Midwives Board. On an important question of principle like this, involving a suggestion of degradation of the medical profession, and magnifying the office of midwife, three men out of five present, not taken at unawares, because the motion had been repeatedly on the agenda paper, refused to vote, and so this serious decision was carried by the votes of one-third of the whole Board, only one of the four medical members present recording his vote against it.

But there appears to be even a worse thing in store for us. Probably at the next meeting in June the report of the Standing Committee on the examinations to be instituted by the Board will come up finally for consideration. The meeting of the Standing Committee, which sent its unanimous recommendations to the ordinary meeting of the Board, consisted of four London members, two only being medical men. There are still two non-medical members in reserve, so that at a full meeting a majority supporting the Standing Committee will be almost certainly secured. *Inter alia* they recommend under the head of "examinations" that "one or more women who hold or have held the post of matron of a lying-in hospital or midwife, if otherwise qualified, may be appointed examiners." The only reason for this decision that I have heard stated in the Board is that it will be necessary to include "bedmaking" among the subjects of the examination. So at the beginnings of the administration of an Act of Parliament, which was brought into existence because of the notorious ignorance and incompetence of English midwives, it is seriously proposed to grant to the Midwives Institute the privilege of nominating as examiners its own protegés, women with untrained intellects, and equipped with only midwife, *Scottice*, "howdy," experience, to set the standard of examinations, and take their places on Examining Boards on equal terms with qualified practitioners and teachers of midwifery. Surely the Examining Boards and reporters on examinations ought, in the early stages at least, to be exclusively composed of medical men and women.

The professors of bedmaking might gracefully postpone the assertion of their claims, and wait a bit until the system of examination in mere midwifery has been set on its legs and had a fair start.

The medical profession should keep a critical eye on the recognition, by the Central Midwives Board, of institutions as training schools and of members of the profession as teachers of midwife pupils. An abuse of considerable magnitude appears to be in course of creation. To the credit of the Board it may be recorded that there is some hesitation with regard to workhouse infirmaries; but, on the other hand, it seems that hardly any of the "ladies' charity" type of institution is too ill-organized and inefficient and untried and paltry to escape recognition as a school.

As to the professional instructors or lecturers for the training of midwives in midwifery, I have so far failed to discover any principle of action guiding the Board either in the recognition or rejection of applicants. As matters are shaping at present, there must at no very distant time be a teacher of midwifery in every township. The only satisfaction in contemplating extravagant proceedings is the rather remote prospect opening out behind them, that a reconstituted Board must act on diametrically opposite principles, and reverse the policy of their predecessors by compelling aspirants for privileges, which will secure them a professional income for life or good conduct, to seek their professional training within efficiently equipped institutions in the great centres of population and of intellectual activity.

There is still, however, some room for hope that wiser counsels may yet prevail under the enlightened and benevolent criticism of the medical profession, now at last enabled to watch events and by unofficial advice and assistance to minimize the injury to the public interests resulting from the inadequate representation of their profession on the Central Midwives Board.—I am, etc,

Manchester, May 28th. W. J. SINCLAIR.

THE GOVERNMENT LUNACY BILL.

SIR,—Professor Clifford Allbutt's letter on this subject in the BRITISH MEDICAL JOURNAL of May 28th seems to be unanswerable. I have felt very strongly the objections which he urges to the legalization of the Scotch practice in this country. Yet, in spite of those objections, I allowed myself to be placed on the joint Committee which urged the Lord Chancellor to legalize the practice. I did so with many misgivings, and only because I recognized that the advice, to treat in institutions all persons of unsound mind, as a counsel of perfection which will not be followed. When we cannot do the best thing, we must be content to do the best practicable thing; and it is on this ground alone that I have given the proposal my support. The statement that "asylum life . . . excites and depresses incipient lunatics into permanent madness" is stigmatized by Professor Allbutt as a "grievous charge." A writer with less self-restraint and less polished courtesy might call it a vulgar error. Nevertheless, it is an error that is widely spread and firmly held, even by those who should know better. Professor Allbutt's assertion that the hardship to the patient lies, not in the certificates, nor even in the institution, but in the terrible nature of the misfortune itself, is true through and through. But the public does not think so, and cannot yet be made to think so. Until the public is educated out of the fatuous beliefs that residence in a curative institution, under curative circumstances, will of itself render a patient worse; and that the "stigma" of insanity lies, not in the insanity itself, but in the name by which it is called and the means taken to deal with it; until then, we must be content to see a large number of cases of insanity treated by means which are not the best: until then, we must be content to accept, and even to support, makeshift legislation.

For what are the circumstances? Fathers, mothers, husbands, wives, are so steeped in prejudice against the "asylum" and the "certification" that, law or no law, they will not send their relatives to the institutions in which the patients would have their best chance of recovery. The consequence is that, in hundreds of cases, the only course to which consent can be got is to place the patient in private care, without legal formality. This is what is done, and this is what will continue to be done, whether the course is legalized or not. Is it then not better—this is the question that I put to myself—is it then not better that a course, which will be followed whether we allow it or not, should be legalized, and at the same time hedged about with some safeguard, however incomplete, rather than that the law should be continually violated? It seemed to me that I must answer this question in the affirmative, and I supported the proposal.

But it must be understood that the legislative change cannot end here. If the law formally permits persons of unsound mind to be placed for a season in private care without the customary safeguards which are required in cases in which guardianship in gravity from theirs, then it must, sooner or later, provide that the persons, in whose care the patients are placed, are fitted by training and special knowledge to undertake the task. No one has more reason than I to speak with respect and admiration of the knowledge and skill of the general practitioner, in whose ranks I served my time; but he, like the rest of us, has his limitations. We do not lay upon him the responsibility of an operation for cataract [illegible] a knowledge of tropical diseases [illegible] for a lack of knowledge in a [illegible] from his daily practice [illegible] not to recognize the lack which he [illegible] We cannot [illegible] patient is [illegible] those whose lives are [illegible] must at least secure a [illegible] at the centre at the most [illegible]

CHAS. MERCIER.

[illegible] Professor [illegible] Section of Medicine, [illegible] Lunacy Act proposes, if the disorder is "not confirmed," is "incipient," to allow it to be treated, with the absence of the formalities now necessary, for six months under the care of a "person" with a stated name and address, "with a view to recovery." *Per contra*, if it is confirmed, pronounced, then it may be looked upon as a case for the asylum, there to be relegated, not specially with a view to recovery. This latter may not be the view of the law, but will come to be the view of perhaps a growing section of the public. Yet some of us, with a view to promoting earliest possible admission, have been spending years in the endeavour to soothe the fears, allay the apprehensions, and overcome the repugnance of the public in respect of and towards the institutions with which we are associated, in face of the difficulties unnecessarily created and perpetuated by lawyers by the employment of such terms as "lunatic," "lunacy," "asylum," which are as antiquated and discredited as the system of weights and measures. And we have further struggled to impress on asylum governing bodies the "hospital" conception, the desirability of thoroughly-equipped "acute blocks" for reception and treatment of early recoverable cases: whereby, when our representations have been successful, no little expense has been caused to ratepayers. Nay more, many of us consider the establishment of psychiatric cliniques and wards for early and acute cases in connexion with our leading teaching hospitals very desirable, alike in the interests of patients and lunacy specialists: and we shrink from comparison in this regard with Continental towns of second and third rate importance in size, but of the first rank in intelligence.

Perhaps it is time to have done with all such vaulting ambitions and extravagant aspirations, and to remodel our asylums on the corridor-barrack principle, and place our population of irrecoverables under the Poor Law, to be supervised by a disciplinarian "master," and visited by the union medical officer. May we expect to find the budding Griesingers and the future Kraepelins under the guise of "persons" with a stated name and address? They may, indeed, hereafter loom out of the "obscurity" of Professor Allbutt's "English homes."

Sir M. Foster is reported as having said in the recent debate in the House of Commons that the present state of the lunacy laws did not facilitate the application of science to lunacy, especially in the early stages. However that may be, are we to understand that the contemplated amendment is calculated to facilitate this? It would be pleasing to find that the promotion of facilities for the application of science to any purpose is a matter near to the hearts of our legislators.

The new amendment may be regarded as a suave attempt on the part of the law to bring within its fold those erring and wayward sheep which have so long eluded its grasp. There is, perhaps, some risk lest the latest compromise, known as the six-monthly certificate, should create a modified species of conscientious objector, who will avail himself thereof to avoid placing those for whom he is responsible under the organized and elaborate system of care provided with so much pains, but unfortunately endowed with an appellation so repellent as to give him the basis for his conscientious scruples.—I am, etc.,

Carlton Club, May 23. EDWIN GOODALL.

WHAT IS DEGENERATION?

SIR,—Dr Mercier asks for a definition of "degeneration." Surely it means that condition which is not capable of being raised to the ordinary standard. There are numbers of people who have fallen from the standard, but are yet capable of reclamation. There are others who, though not up to the standard owing to want of proper conditions, are still quite capable when placed in suitable environment. Neither of these classes can properly be said to be "degenerate." When the question is such that no amount of care and training can elevate a given subject to the standard, then one may be truly said to have a "degeneration." The "degenerate" or the "deteriorate" is past improvement or elevation to the normal.—I am, etc.,

T. C. S.

THE INFANT ORPHAN ASYLUM, WANSTEAD.

SIR,—The Infant Orphan Asylum at Wanstead is a charitable institution, supported by the public, containing over 500 children of both sexes, all of whom are of an age when they are particularly liable to infectious diseases, and, even more

[illegible] MEDICAL [illegible] ASYLUM [illegible]

than adults, require skilled nursing when attacked by illness.

The Committee have lately, by refusing to make arrangements for the proper isolation of infectious cases, and still more by dismissing their staff of trained nurses, taken so retrograde a step that we think it our duty to draw the attention of the public thereto.

We ask you, therefore, to find space for the following letter conveying the resignation of our respective positions as consulting physician and consulting surgeon to the asylum. We are, etc.

W. P. HERRINGHAM.
ANTHONY A. BOWLBY.

London, W., May 30th.

May 3rd, 1904.

To the Chairman of the Infant Orphan Asylum.

Dear Sir,—Three years ago your Committee requested one of your Consulting Medical Staff to report upon the arrangements for the care of cases of sickness occurring at the asylum.

The report advised:

1. That certain alterations should be made in the existing infirmary.
2. That adequate provision should be made for the isolation of infectious cases, and for the disinfection of clothes and bedding, by building an isolation block and by purchasing a steam disinfector.
3. That the infirmary and isolation block should be under the charge of a trained nurse of the status of a hospital sister, with at least one trained nurse under her orders.

That report was approved by your Committee at the time. Within the last month your Committee has decided

1. "That an isolation block will not be provided."
2. "That trained nurses will be abolished as permanent staff, and the infirmary will be under the charge of an untrained head nurse."
3. "That the mild cases now composing and termed out-patients will be treated by their own nurses in the main building."

All these decisions have been arrived at without asking the opinion of any of your medical staff.

We have informed you that we consider that these arrangements do not make adequate provision for the health and treatment of the children. These number more than five hundred, many of them are babies, and all are of an age at which they are specially prone to many infectious disorders.

We consider that so long as our names appear as members of your consulting staff we may be held responsible for these arrangements. We have asked for an opportunity to meet your Committee in company with your local medical officer that we may state our opinion and discuss the questions that have arisen.

Our request has not been granted, and we have therefore no alternative but to tender you our resignation.

We reserve to ourselves the right to publish this letter.

We remain,

Yours faithfully,

W. P. HERRINGHAM, M.D., F.R.C.P.,
ANTHONY A. BOWLBY, C.M.G., F.R.C.S.

"TESTING THE EYESIGHT OF A NATION."

SIR,—Dr. Ogier Ward, in the BRITISH MEDICAL JOURNAL of May 28th, shows himself to be under so much misapprehension that I, also, am constrained "not to let his letter go unchallenged." He asks how Mr. Aitchison can guarantee to the public anything approaching personal superintendence? As there is nothing in Mr. Aitchison's letter offering or implying such a system as his personal attention to every case the question seems futile. As a matter of fact, the refractionist at each establishment is thoroughly qualified by training and experience as much as Mr. Aitchison himself.

With regard to the fees charged, Dr. Ward evidently does not know the facts. Having sent a good many patients to Messrs. Aitchison for the correction of errors of refraction, I found that the fee charged included the supplying of suitable glasses on the first visit, but it also included retesting the sight once or twice a year afterwards, and the supply of fresh glasses whenever necessary, and this for an indefinite period, with no further charge. Had Dr. Ward know this he would have to admit that Messrs. Aitchison's charges were perfectly reasonable.

It seems to me that the position of the optician, having a *clientèle* between the hospital patients on the one hand and that of the consulting ophthalmic surgeon on the other, is analogous to that of the general practitioner in our own profession, who has his *clientèle* also, between those who frequent the hospitals and those who go to consultants. It is quite clear to my mind, that there is a large class of individuals who are not poor enough, or do not wish to go to hospital for errors of refraction simply, and on the other hand cannot possibly afford two guineas for a visit to an ophthalmic surgeon.

More especially is it the case, so frequently cropping up, when a patient is presbyopic or hypermetropic and of course requires the refractive error to be re-estimated and stronger lenses supplied at constant intervals. My experience is that the refraction is corrected perfectly by the competent optician and the medical man seeing the prescription and also the patient from time to time, afterwards, can soon see if all is as it should be.

The "improper and incomplete treatment of eye troubles," by the optician, mentioned by Dr. Ward, could thus never occur if medical men knew as much about the eye as they should, because they would only send cases to the optician suitable to his attainments, namely, the correction of refractive errors only and not those with underlying disease, which, after all, form but a small proportion of the total number of cases of defective eyesight.

Finally, I might add, that it would probably surprise Dr. Ward and many others if they knew what a number of medical men are sending patients to opticians in this way with complete satisfaction to all concerned.—I am, etc.,

London, S.E., May 31st. F. DUGON.

SIR,—The following may be of interest to your correspondents as throwing a light on the methods of "prescribing opticians."

Quite recently a lady at a fashionable seaside town on the South Coast lost her glasses and consulted an optician in the place, who professed to know a good deal about sight testing. She told him her lenses were numbered "D. something," and were supplied by Messrs. Curry and Paxton, who had registered the prescription. He replied each firm had its own method of numbering glasses, and one would not recognize the system of another. She was, unfortunately, induced to buy a pair (at a high price considering the quality of the goods) which did not suit her sight at all.

As I happened to be in the place for a few hours, I went with her to the shop, explained to the man that the glasses were not suitable, and from a trial set I made a proper selection. When I remarked there was a system of nomenclature for lenses well known throughout the civilized world, the assistant behind the counter promptly took me to task, and said I was wrong. He insisted that the inch-system was in use. I then informed him he was speaking to a medical man who understood sight-testing, and was aware of the British and French systems, the latter being universally adopted. He replied he did not care who I was or what my qualifications were, but that he knew just as much about it as I did, and he asked me to correct my statement, adding at the same time there were three systems in use—the inch, millimetre, and dioptre! On being asked what he meant by the word "dioptre," he was unable to explain; he knew nothing about the focal length of a lens, yet he insisted I was wrong. His insolence was so outrageous that I told him he deserved a box on the ears, which I was very willing to administer. He toned down somewhat when a threat was made to report him to the owner of the shop.

The prescribing optician and the prescribing druggist (the word "chemist" is a misnomer and should be applied only to analytical chemists) should be prevented from trading on the ignorance of their customers. Unfortunately, they are patronized by people in the upper circles of society who ought to know better. Only the other day I saw in an optician's shop in Oxford Street a private letter, from a well-known Admiral on the active list, thanking him for glasses supplied. This letter was placed in the shop-window as a profitable advertisement.—I am, etc.,

May 29th. B.Sc., M.D.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—I have read with much interest the correspondence that has appeared in the BRITISH MEDICAL JOURNAL on the subject of the Treatment of Inebriety by Drugs. Like Dr. Donald and Dr. Stewart, I find it impossible to conceive how any known drug can act upon the condition scientifically recognized as inebriety.

The vendors of sundry secret remedies have been telling us for upwards of fifteen years that their medicines, which include many preparations of strychnine or chloride of gold, are practically specifics, and more than this, perfect cures for inebriety.

At the present time, when quackery in drink cures is so rampant, I think it behoves us to express ourselves carefully, so that we may not seem to give colour to the quack contentions, or in any way that we can help, play into their hands.

Of course strychnine, as well as numerous other drugs and methods of treatment, are in every day use by medical men,

not as "cures" but as valuable means for combating various morbid physical symptoms of inebriety. Their action is pretty well known to us and their use needs no apology so long as we do not claim them as cures.

The chloride of gold and sodium may be a valuable drug; it is interesting to hear from medical men that they have found it so. Those whom I have asked about it tell me that they consider it has valuable alterative and tonic properties.

I have only come across one definite account of the action of the drug and in that account it is stated that its therapeutic and toxic effects are precisely analogous to the corresponding salt of mercury.

A word about that blessed word "cure." Dr. Backwell Fenn and Dr. McBride do not actually use it but it does not seem to me that they are sufficiently careful not to imply it. Dr. Backwell Fenn says: "In the great majority of cases four weeks is sufficient to transform the drunk sodden victim of intemperance into a healthy and sober man or woman."

Now "healthy" is a big word, but I suppose when a man is not drinking we are justified in calling him sober. If he never relapses again we may call him cured of his drinking, but not necessarily of his inebriety.

If we speak of recovery, restoration, or cure with regard to that condition I think we justify Dr. Donald's and Dr. Stewart's suggestion that we are failing to appreciate the real character of the disease. It is important never to speak as though our treatment could impart to a man even one day's immunity from the possibility of relapse. To do so would only be to discredit ourselves, for we all know that relapses are of deplorably common occurrence. The problem is surely not how to "put a man up" and knock off his drinking bout: that kind of success is by no means difficult to accomplish. The problem is how to keep the lifelong inebriate from touching his lifelong stock-in-trade, how to make him grasp the fact that he can never be restored insusceptible to this one particular poison.

It is certainly remarkable that a man may be an inebriate all his life and yet, after one particular "pull up," not again relapse. It is just as remarkable that a man may drink all his life and never be or become an inebriate. But a long period of isolation in a home is something very different from the treatment by drugs given in the acute physical stages of the disease. It is an advisable treatment in order to deal not with a mere drunkenness (for he cannot get drunk there), but with his inebriety. The superintendent of such a home once put the matter very well to me. She said, "My patients are here to rest, to get strong, to have the opportunity for undisturbed reflection, to learn about themselves, their social responsibilities and about their inebriety. They come here to think and I see that they do it. But I do not find them capable of much steady thinking until they have been here six months. I am disposed from my own experience to agree with this conclusion. Even if Dr. McBride and Dr. Backwell Fenn find their patients able to take a share and welcome some few of their condition during the three or four weeks following a drinking attack, still, there does seem to be rather a lot for the most willing patient to do during this time. I have always found myself that even very intimate personal reforms have a way of taking me longer than that.

As regards treatment by drugs my own experience has been that patients who have been to homes nearly always ask me for a tonic, and, when they do, invariably specify strychnine. Ladies, who have been relapsed, have asked me for it at intervals even the last time after six years respectively. I never give it unless they ask for it, for they own that they ask because they believe it to be a "stimulant." I encourage them to resist it and the desire for it, after doing as part of their medical treatment, and I believe that they do very much better without it.

I am, etc.,

M. GORDON.

DIMINISHED CARDIAC DULLNESS IN CANCER PATIENTS.

In a recent communication to the Medico-Chirurgical Society Dr. W. Cecil Bosanquet called attention to the diminution of the cardiac dullness in cancer patients and suggested that it might be due to changes in the lungs involving loss of elasticity, etc. This is evidently a factor that must be taken into consideration, but of 115 necropsies on the bodies of women who had died of abdominal cancer, I find that there were signs of pulmonary emphysema in 35, or 1 in every 3½.

[1] BRITISH MEDICAL JOURNAL, vol. [illegible] p. [illegible].

A still more important item, probably, is the great diminution in the size of the heart, aorta, and large arteries, that nearly always takes place in the course of this disease. It has been pointed out by Beneke that cancer patients, in the earliest stage of the disease or prior to its onset, have large hearts and wide arteries, with small lungs; and this quite accords with what I have myself observed. Yet, in cancer cases that have run their natural course, the necropsy nearly always reveals a small heart, with corresponding diminution in the aorta and chief arterial trunks. These changes seem to be secondary to alterations in the blood, which take place during the course of the disease; for not only are its morphological, chemical, and physical properties changed, but, as the experiments of Louis show, its total quantity is notably diminished.—I am, etc.,

Clifton, Bristol, May 21st. W. ROGER WILLIAMS.

POST-OFFICE MEDICAL APPOINTMENTS.

SIR, A most important point in connexion with these positions which does not come out in the letter of your correspondent "Medicus" (BRITISH MEDICAL JOURNAL, May 28th, p. 1262) which has come to my knowledge, and which cannot I think be too widely known, is that these remotely-placed postal officials if absent from their work on the plea of illness for only one hour are required to have that time covered by a medical certificate, and in order to be in a position to grant that certificate it is compulsory on the medical officer, on pain of dismissal, that the man should be actually seen during the time of absence by the official doctor. There are, I have found, many other equally harrassing regulations which do not appear to have been disclosed to "Medicus." The fact is, the Post Office appears, from what I can learn, to be an institution run on the lowest type of commercial lines, which consists in the payment of huge salaries, inclusive of sick leave, holiday leave, and pensions to a select few whose duty it is to run the show at the lowest possible cost by availing themselves of the lowest market price of labour, skilled or unskilled: consequently, so long as there is disunion and internecine strife amongst the members of the medical profession, and it is publicly known that one medical man is only too glad to accept what another man has refused, so long may we regard it as hopeless to expect any better terms to be offered to medical officers of the Post Office than those referred to by your correspondent.—I am, etc.,

MULTUM IN PARVO.

MEDICAL ACTS AMENDMENT BILL.

SIR, If this is the right time, there are two remarks to be made on the new edition, less by way of criticism than of suggestion.

1. The University of Birmingham is to elect a member. But the twelve medical schools associated with the great London hospitals have no representative. Surely one or two members should answer for them. The constituency, of course, would be the governing committees of the metropolitan hospitals, perhaps with the addition of the members of the staffs. For the Universities are to be represented surely as centres of education, and no one will place Birmingham or Liverpool before any one of the metropolitan schools.

2. Some not all of the subsequent proposals are such as should be properly decided by the General Medical Council and ratified by Parliament, the one-portal system for instance, or the £1 fee for annual registration. If, after a trial of a few years, it seemed advisable to reduce the annual fee to 1s., which is quite enough, you could not do so without again appealing to Parliament, which is absurd. Suppose a grant of £200 were given from the Exchequer, then there would be on the Estimates a yearly discussion of the Council's proceedings, which would keep us in touch with the Legislature.—I am, etc.,

London, W., May 21st. G. CREIGHTON.

THE FEE FOR RESTORATION TO *MEDICAL REGISTER*.

SIR, I am afraid that even after reading Mr. Wesley Wilson's letter criticizing my interpretation of Section XIV of the Medical Act 1858 I am unable to alter my original statement. Fortunately for the profession generally there is a High Court of Justice which can decide matters in dispute legally when laymen disagree. I venture to think, however, without, I trust, any egoism, that my reading of the Act would be supported by the learned Judges on the point that restoration is practically the same as registration, and that a medical man

who has been removed from the *Register* for any reason whatever is placed in a similar position to an unregistered person. Mr. Wesley Wilson may rest assured that the General Medical Council will never administer the clause in this respect with any injustice to any individual, and that the fears which he expresses are not justified. I am, etc.,

London, W., May 27th. A. GEORGE BATEMAN.

THE IRISH DISPENSARY SERVICE REPORT.

SIR,—I beg you will allow me, as your late Special Commissioner deputed by you to report on the condition of the Irish Poor-law Medical Service, to place on record the great help and sympathetic support I received throughout my Irish tour from Dr. Leonard Kidd of Enniskillen, the President of the Irish Medical Association. Although not himself a member of the important Poor-law Service, he has for these officials the warmest sympathy and the fullest feeling of comradeship: and throughout my tour I received unceasing guidance and help from his local knowledge. My tour was sketched out by his own hand, and I feel that, without his ready help, I should not have achieved whatever measure of success may have attended my tour. From each and all the members of the Irish Infirmary Medical Service I received the most kindly help; but I should fail in my duty if I did not specially place on record my debt to Dr. Leonard Kidd. —I am, etc.,

SPECIAL COMMISSIONER, BRITISH MEDICAL JOURNAL, REPORTING ON IRISH POOR-LAW MEDICAL SERVICE, 1903-1904.

May 28th.

THE SO-CALLED "PANCREATIC REACTION" IN THE URINE.

SIR,—In the BRITISH MEDICAL JOURNAL of April 2nd, 1904, Dr. P. J. Cammidge gives the substance of his Arris and Gale Lecture on The Chemistry of the Urine in Diseases of the Pancreas. Therein he describes a reaction in the urine obtainable in all cases of pancreatic disease, and occasionally in other diseases "where active tissue-change is taking place." This reaction, taken in conjunction with the physical signs and the symptoms, he considers of great aid in the diagnosis of pancreatic cases, and even as yielding a means of differentiating the various forms of such disease one from another.

As far as we can discover from the Arris and Gale Lecture, the reaction was based on the fact that fat necrosis, sometimes seen in certain diseases of the pancreas, was due to the splitting up of neutral fats, in certain situations, into glycerine and their corresponding fatty acids. It was supposed that the glycerine so liberated entered the circulation, was eliminated by the kidneys, and might in the urine be detected by conversion into glycerose, testing for this latter with phenylhydrazine. The scientific basis for the above seems to us rather doubtful, but in view of the importance to be derived from a reliable test for pancreatic disease, we submitted the reaction to careful investigation.

The urines experimented on were those of normal persons, and of patients in one of the general wards of this hospital, who, as far as we could ascertain, were not suffering from any pancreatic disease.

Our experiments were as follows:

All the urines were tested for the two reactions "A" and "B," and the method described by Dr. Cammidge followed in exact detail, with the exception that the flask was heated over asbestos gauze instead of in a sand-bath, the result being that a slightly more concentrated solution would probably result than if the latter had been used.

We found that in all the cases thus examined the typical yellow crystals in rosettes and sheaves were obtained, provided the solution was sufficiently concentrated; and, even if rather too dilute, a deposit was generally found on leaving for twenty-four hours—the presence or absence of the crystals to be obtained therefore depending on the concentration of the fluid. Continuing our observations, we were led to think that the reaction we obtained might be connected with the presence of a lead salt, and, to see if this were so, the following experiments were undertaken:

First, the same urines were used as before, only this time, after the solution had been neutralized with lead carbonate and filtered, ammonium sulphide was added to the clear filtrate, and a black precipitate of sulphide of lead was obtained. This was filtered off, and the filtrate, now free from lead salts, was heated to drive off the ammonia and sulphuretted hydrogen, and the precipitated sulphur then separated off by filtration. To this solution was now added the requisite amount of sodium acetate and phenyl-hydrazine hydrochlorate. Under these conditions no rosette-shaped crystals appeared, no matter how great the degree of concentration.

Secondly, distilled water was used to replace the urine, and the test carried out exactly in the same way as Dr. Cammidge described in reaction "A." Similar rosettes of crystals, only paler in colour, were obtained unless the lead had been previously removed by ammonium sulphide.

Thirdly, lead acetate solution was treated with sodium acetate and phenyl-hydrazine hydrochlorate, and again the typical fine needle-shaped crystals in rosettes and sheaves were found. Similar crystals were, of course, not obtained if sodium acetate and phenyl-hydrazine hydrochlorate were heated together alone.

The addition of a saturated solution of perchloride of mercury to the urines had, so far as we could discover, no effect on the formation of the crystals. And, indeed, we fail to see why, in pancreatic cases, this test should be of any use in distinguishing between crystals found in cases of acute pancreatitis and those in cases of chronic pancreatitis or malignant disease of that organ.

We have unfortunately not had the opportunity of examining many urines from patients known to be suffering from pancreatic disease as proved *post mortem*, but those we have tested did not give the typical rosettes of crystals, as described by Dr. Cammidge, if the lead salts had been carefully removed.

To sum up, then. We have always been able to find, in any urine examined by us, yellow needle-shaped crystals in rosettes and sheaves, apparently identical with those described by Dr. Cammidge as being frequently associated with pancreatic disease.

In view of the importance of the test, we should be very glad if these points above referred to could be cleared up.—We are, etc.,

CHAS. E. HAM, M.B.Lond.
J. BURTON CLELAND, M.D.Sydney.
(From the Pathological Institute, London Hospital.

THE NECESSITY FOR IMPROVING THE TEACHING OF MASSAGE IN ENGLAND.

SIR,—As massage and exercises are now recognized in England as valuable therapeutic agents, it is time that something was done to improve the training of the English masseur or masseuse. This is the only way of stopping the "invasion of England" by the Scandinavian "medical gymnast."

The mechanical manipulations that are now taught to nurses under the name of "massage" are useless for the treatment of local affections. I have seen massage carried out in large London hospitals in a way that has been nothing but an often elegant and intricate but useless playing about on the skin. Beyond a slight stimulation of the superficial nerve endings, the effect of such a massage must be absolutely *nil*.

The French and the Germans have attempted to make an "art" of massage, and have invented an enormous number of complicated movements that can only appear ridiculous to an intelligent practitioner. As a handicraft, massage is very simple and can be learnt in a few days, but it is absolutely necessary that the masseur should have a knowledge of the muscles and their actions and the position of the principal blood vessels and nerves to be able to carry out instructions intelligently.

The treatment must necessarily differ according to the structure one wishes to reach. For instance, the emptying of the superficial blood vessels is effected by means of a superficial "effleurage;" a wasted muscle is kneaded or "pétrissaged" in its whole extent, and the breaking down of adhesions or muscle infiltrations is effected by means of a localized friction over the affected area. Suppose I have a patient suffering from the common affection of supraorbital neuralgia with palpable thickening of the nerve sheath, and wish to cure this by massage, how is the masseur to carry out my instructions if he does not even know the position of the nerve? For the proper giving of exercises—and without additional exercises massage is not often indicated—the knowledge of the action of the muscles is essential, as every one knows that the number of muscles implicated in any muscular action varies with the primary position of the

patient. The correct giving of the exercises is of special importance in the treatment of lateral curvature.

The superiority of the Swedish masseur does not depend on the knowledge of any specially effective manipulations, but simply on the fact that he is taught the necessary anatomy and can therefore intelligently carry out one's instructions.

At the two chief gymnastic institutes in Stockholm the training extends over two years, but this includes the teaching of drill and some theoretical teaching that would be considered unnecessary in England. I believe that a years, or even a nine-months, training would be sufficient for an intelligent person to become a useful masseur or masseuse, especially as massage has at present only a limited use in in England.

If the medical profession object to this training from the fear of turning out yet another set of unqualified practitioners it will be necessary for them to self-undertake cases of local massage if they wish to obtain such good results from this treatment as is obtained on the Continent. I am, etc.,

G. B. JACOBI.

London, W.

ROYAL ARMY AND NAVY MEDICAL SERVICES.

THE ROYAL COMMISSION ON MILITIA AND VOLUNTEERS.

THE Royal Commission on Militia and Volunteers—the report of which was issued on May 27th—was appointed just a year ago, its duties, briefly summarized, being to consider what changes, if any, were required to secure the military efficiency and adequate strength of these two forces. The Commission, with the Duke of Norfolk as its President, included eleven persons, and, amongst others, four colonels in command of auxiliary forces, and the late permanent Under-Secretary for War, Sir Ralph Knox.

This constituted the Commission sat eighty-two times, and in addition to hearing some hundred and thirty-four witnesses received replies to questions addressed in writing to every Militia and Volunteer unit.

The final report is signed by eight out of the eleven Commissioners while of the others Sir Ralph Knox appends a a memorandum conveying certain views of his own, while two of the auxiliary colonels sign a minority report. The contents of these latter documents will receive attention later on.

THE PROBLEM.

The report of the majority states that it first essayed to determine what constitutes adequate strength and military efficiency as regards the forces named. Failing to obtain any clear definition of these from the Committee of Defence or elsewhere, it formed its own conclusions upon the following [illegible] grounds. The conditions in the way of home defence which may have to be met now are materially different to what they were formerly. The standing armies of foreign Powers are much larger than they used to be, their armaments are much more formidable, and rapid concentration of troops and transport of the same by land and sea [illegible] The Commission recognizes that the country has an implicit confidence in the Navy as it had in days gone by, but while glad to state this to be so it considers that the growth of foreign navies should be borne in mind, and the fact not forgotten that there is a good deal of uncertainty as to the way in which a war might begin and under the conditions of a great naval war. It does not think it safe, therefore, to take as a principle that the navy would constitute an absolute guarantee against invasion under all the conditions in which the country might be attacked. It is assumed, however, that the Army and home forces should be capable of repelling not merely a small force of, say, 10,000 men but such an invasion as may take place [illegible] and various other considerations [illegible] that the auxiliary forces required [illegible] of Militia and Volunteers at present exist [illegible]

THE MILITIA.

The Militia [illegible] at the establishment already equal the number stated to be required [illegible] at which, according to [illegible] training too is insufficient, the strength of the different battalions very unequal, and many of the officers merely join in order to qualify for commissions in the regular army. Other defects also exist, and after considering all of them the Commission concludes that the Militia at present is, from causes beyond the control of the officers and men, unfit to take the field in defence of the country.

THE VOLUNTEERS.

Much the same considerations apply, and, if anything, with increased force to the Volunteers; their numbers may be sufficient but apart from their training being insufficient to put them on fair terms with the regular forces of foreign countries, the whole force is to a great extent a paper one: from age and other causes a very large proportion of the men would prove ineffectives if the regiments were called up for active service in the field. Of the officers, moreover, although there are many who have taken such pains with their work that they would be considered most useful officers in any army in the world, this is not the case with all; many are absolutely incompetent both as regards theory and practice, and the general result is that there is such inequality in the efficiency, not only of different corps, but amongst the officers of the same regiment, that under the conditions of war that cohesion which is absolutely essential would be entirely lacking.

REMEDIES.

The Militia equally with the Volunteers are at present voluntary soldiers, for though a Militia Ballot Act exists no use is ever made of it. Their function is to serve either within or out the country as circumstances may require, and the force forms a recruiting ground for the regular army to the extent of some 16,000 men every year. The function of Volunteers is purely home defence; the force has had a great effect in educating the people of Great Britain to think of the army as a national institution, and at the same time has enlarged the ideas of professional soldiers as to the means and methods of military training. The Commission would deprecate any modification of the conceptions which underlie the organization of these two bodies unless it formed part of a scheme which led to the formation of an entirely new body. Whether such a new body is essential depends upon whether it is reasonably conceivable that circumstances might arise in which the internal defence of the country would depend mainly, if not entirely, upon the auxiliary forces. If this question be answered in the negative, no responsibility would rest upon the Militia and Volunteers, beyond that of supplementing the efforts of the regular forces: in this case the Commission thinks that the remedy for the present inefficiency might be found in increasing the length of the training and in improving the organization of the auxiliary forces. While not quite certain of this point the Commission conceives, however, that circumstances might arise in which attack might have to be met when the country was practically denuded of regular troops or that the latter might intentionally be sent out of the country with the intention of meeting attack by counter-attack. If this be possible the remedy lies quite in a different direction.

To improve the Militia as it at present stands, the Commission suggests that Militiamen should be enlisted for eight years, receiving six months' continuous training at the hands of regular officers during the first year of service and six weeks at the hands of their own officers in the second, third, and fourth years, and a fortnight's training only for the remaining four years. The officers also should attend for training six weeks every year instead of for a month, and on first receiving commissions should, like the men, receive six months' continuous instruction.

The difficulties as regards increasing the efficiency of the Militia are largely financial; those in respect of the Volunteers depend entirely upon the fact that Volunteers are men who earn their own living, generally in permanent situations, and that it is impossible to make any prolonged demands upon their time. No suggestions, therefore, are put forward for increasing the length of training, and those made merely deal with the formation of a central and special administration, modifications in the way in which capitation grants are paid so as to remove the temptation now offered to commanding officers to secure the paper efficiency of large numbers of men rather than real efficiency on the part of a few, and the concentration of all training upon duties which each portion of the battalion may expect to have to carry out in war.

THE ALTERNATIVE.

The report does not say so in so many words, but it is obvious that the Commissioners have no faith in the virtue

of any of the remedies which they suggest, and which lie in the way of improving the existing forces, and as an alternative to all of them it suggests the formation of a home army. To create this it is advanced that every man on arriving at the age of 21 should be liable to be called up for a year's military instruction, followed by a fortnight for two or three years after. In this way it believes every need of the country as regards home defence would be efficiently met, and in a way which would do neither the young men themselves nor any body else any harm: that it would prove, in short, less expensive than the present arrangements, and not interfere materially with the labour market. As regards the force in which it would result it is calculated that when all due exemptions on account of health, etc., have been made there would be some 300,000 young men to train every year.

The Commission concludes its report by a statement that, while the remedies suggested would improve the efficiency of the auxiliary forces, a home defence army capable of protecting the country against invasion in the absence of the whole or greater portion of the regular forces can be raised and maintained only on the principle that it is the duty of every citizen of military age and sound physique to be trained for the national defence and to take part in it should the emergency arise.

THE MINORITY REPORTS.

Of the reports put in by those who did not sign the general report of the Commission, only that of Sir Ralph Knox appears worth notice. Like the majority of his fellow commissioners, he believes that the time has come for the introduction of some element of compulsion in raising and training the troops needed to form the second line of the military forces of the empire. He also agrees that circumstances may arise in which the country may have to rely for home defence entirely upon the auxiliary forces. He thinks, however, that provided the anterior training of these were good there would always be time to bring them into thorough fighting condition between the time that war was declared and the time that the need for repulsion of an actual invasion became a possibility. By way of securing this anterior sufficient training he would lengthen the first and subsequent training of the Militiaman and limit enlistment in the Volunteers to young men between the ages of 18 and 20, and in his first year give the Volunteer recruit three months' continuous training, to be reduced to two if, before enrolment, the recruit should have reached a stipulated standard in musketry. The Volunteer recruit would be enlisted for five years, and in the two years following the first he would attend camp for fourteen days, and also do twenty drills, attendance at everything except musketry being voluntary in the two final years as regards both volunteers and militia. At the same time Sir R. Knox would encourage everything in the way of military exercises and musketry on the part of the general population. At the age mentioned he believes that young men could be spared from their ordinary vocation for volunteer work for the necessary time quite easily. The element of compulsion he would introduce in the following way:—He would fix in advance the number of Volunteers and Militia required for the defence of the country, and limit voluntary enlistment to those between the ages of 18 and 20 who possess the necessary physique, and who in addition, as regards the Volunteers, have attained a certain standard of education, say the sixth standard of an elementary school. If in any year the total quota for either force was not made up by a given date he would put the Militia Ballot Act into operation and raise the necessary number from men in their twenty-first year, the Volunteer force thereafter ceasing to exist. He believes that in this way a strong stimulus would be brought to bear both upon employers and employed not only to maintain the number of Volunteers but to keep up those of the Militia also.

ROYAL NAVY MEDICAL SERVICE

The following qualified candidates for the Naval Medical service have been entered as Surgeons on His Majesty's Fleet and appointed to the Royal Naval Hospital, Haslar, and to Marlborough: HARRY A. KELLOND-KNIGHT, HUGH B. GERMAN, DOUGLAS D. TURNER, ALFRED B. COX, M.B., GORDON MOOR, BRITON S. ROWSON, M.B., ALFRED A. CHANCELLOR, M.B., NORMAN B. V. JACOB, HERBERT STONE, M.B., B.A., GERALD NUNN, BRYAN POOK, WILLIAM L. HAWKINS, JOHN B. MACDOWALL, M.B., GEORGE E. HAMILTON, M.B., JOHN D. KEIR, GEORGE O. M. DICKENSON, M.B., ALEN B. MARSH, B.A., JAMES M'CUTCHEON, M.B., B.A., JOHN M. GORDON, M.B., WILLIAM C. B. SMITH, THOMAS E. BLUNT, LESLIE C. ROBINSON, M.B., FRANCIS E. M'CUNE, FRANK R. FLEET-STONE, WALTER T. HALTON.

WILLIAM M. HORSFALL, M.B., is also appointed Surgeon in H.M.'s Fleet, May 23rd.

The following appointments have been made at the Admiralty: DAVID H. VICKERY, Surgeon, to the Assistant Inspector-General, Home Ports; HENRY B. BEATTY, Fleet Surgeon, to the Queen, May 25th; HENRY W. M. REES, Surgeon, to the *Enchantress*, May 25th; ROBERT HICKSON, Fleet Surgeon, and A. H. S. RICHARDSON, Surgeon, to the *Majestic*, June 4th; JOHNSTON H. ACHESON, M.B., Fleet Surgeon, to the *Prince George*, June 4th; EDWARD W. LUTHER, Fleet Surgeon, to the *Duncan*, June 4th; WILLIAM G. H. BARNES, M.D., Fleet Surgeon to the *Crescent*, June 4th; WILLIAM R. WHITE, C.B., M.B., B.A., Fleet Surgeon, to the *Fire Queen*, June 4th; CHARLES E. GEOGHEGAN, Fleet Surgeon, to the Portsmouth Division Royal Marines, June 4th; GUY L. BUCKERIDGE, Surgeon, to the *Resident*, June 4th; JOHN C. FERGUSON, Fleet Surgeon, M.B., B.A., to the *Bacchante*, additional, for the *Bacchante III.*, June 3rd; FRANCIS J. GOWANS, Surgeon, to the *Latona* (dent), May 21st.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN AND BREVET-MAJOR A. F. TYRRELL, from temporary half-pay, to be Captain and Brevet-Major, May 11th.

INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL ALFRED SANDERSON, M.D., late of the Madras Establishment, died recently at Douglas, Isle of Man, aged 72. He was appointed Assistant Surgeon, October 25th, 1855, and Deputy Surgeon-General, December 25th, 1881, when he retired from the service.

LANCASHIRE FUSILIER VOLUNTEER INFANTRY BRIGADE BEARER COMPANY.

THE KING has been pleased to approve of the Bearer Company of the Lancashire Fusilier Volunteer Infantry Brigade being formed into an Independent Unit to be designated the "Lancashire Fusilier Bearer Company, Royal Army Medical Corps (Volunteers)."

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ADVERTISING IN LAY NEWSPAPERS.

WE have always maintained the principle that medical men should not advertise for patients in the lay press (see BRITISH MEDICAL JOURNAL, June 26th, 1897, p. 1721, July 4th, 1903, p. 29, etc.). The matter will be referred to the Ethical Committee.

NEWSPAPER NOTICES OF MEDICAL PRACTITIONERS.

A CORRESPONDENT sends us a cutting from the *Westminster Gazette* for May 31st containing a notice headed "Studies in Personality" by Harold Begbie, of a well-known medical hypnotist. We regret that the *Westminster Gazette* should publish such notices, as they are generally distasteful to the public and disapproved by the medical profession, but, however much the article to which our attention has been drawn may suggest that the author had lent himself to its publication,

MEDICAL CONTRIBUTIONS TO THE LAY PRESS.

J. F., M.B.—We [illegible] with the general [illegible] correspondent complains to the BRITISH MEDICAL JOURNAL or *Westminster Gazette*, in the other case under the heading of "The Remunerative Art of Puffing." We do not think we could express ourselves more plainly respecting [illegible] than we did in that [illegible].

"FACE TREATMENT."

LAURA would like to have an expression of opinion as to whether a medical man should continue to employ a masseuse who has done good work under various members of the profession, on her purchasing and becoming personally connected with an establishment for the practice of "face treatment," the latter including massage and the selling of various compositions for the complexion.

*** In our opinion much would depend upon the way in which the business was carried on; but, on the whole, it might be more desirable to avoid any appearance of giving support to such an establishment.

THE ATTITUDE OF THE MEDICAL PROFESSION TOWARDS UNQUALIFIED PERSONS WHO PROFESS TO TREAT DISEASE.

M. S. sends us a type-written letter addressed to him by the International Vibro-Massage Company, which is stated to be "commanding attention generally in the medical profession." Enclosed are illustrations of the appliances used, and a list of over thirty diseases for which it is stated to be beneficial, among which we notice paralysis agitans and sterility!

*** We may remind our correspondent that the question of the relation of the medical profession to such institutions was raised recently in the BRITISH MEDICAL JOURNAL, p. 986, by Dr. Lewis Jones, and dealt with in a leading article on p. 1030. We regret that there should be any ground for the accusation which our correspondent repeats that such unqualified persons are patronized by even well-known physicians and [illegible] and that there is some combination for this object. The principle we have laid down is that the application of these physical remedies must be under the direction of a registered medical practitioner.

MEDICAL ETIQUETTE.

L. L. writes that he has bought a practice, being third in descent from the vendor, who sold it four years ago and who still practises five miles away, but who agreed in the contract of sale to observe a line of demarcation drawn between the two practices. He says that the vendor has given him notice that he no longer intends to be bound by the [illegible].

*** The question appears to be one which can only be determined by legal means, as it depends upon the wording of the contract. If the covenant not to practise within a certain area has been legally determined we do not think it would be possible to maintain that there was any breach of medical ethics.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

HONORARY DEGREES.

At the special Congregation held at Cambridge on May 26th for conferring honorary degrees on delegates from foreign academies, two of the six honorary degrees in science were conferred on the distinguished anatomists undermentioned.

The following are the speeches delivered by the Public Orator, Dr Sandys, in presenting them for their degrees:—

Faciatis Professor Retzius et Stockholmiae.

Scandinavia, cuius etiam Regem inter doctores nostros numeramus, auspicus primus ad nos misit anthropologiae physicae conditoris insignis filium illustrem, qui anatomiam cum praeclare professus, eadem scientiae cultum sancte et amore emeritos destinavit. Pectus nota sunt exercita illa maxima, cadentique et typorum et imaginum splendore praeterma et cerebri ipsius et sensuum omnium anatomiae et physiologiae explorandae dedicata. Iuvat, patriae vestrae memoriae, etiam Scandinaviae picturae [illegible] arte examina depicta, in cuius singulari ordine [illegible] O terram beatam, quae eodem modo regia in artibus et scientiis tot cultores tot patronos, numerat, sed etiam inter professores suos virum habet centum paene regia insignem honoribus academicis.

Sweden, whose King we also number among our doctors, has sent to us under the learned auspices the illustrious son of the famous founder of physical anthropology, who, after teaching anatomy with brilliant success, has devoted his years of leisure and retirement to the same science. Specialists are well acquainted with those magnificent volumes, most exquisite in their typography and in the beauty of the plates, devoted to the exposition of the anatomy and physiology of the brain itself, and of all the senses. Not unmindful of his country he has also classified the antiquities of primitive Sweden, in a monograph illustrated with countless [illegible] happily joined to the land that not only numbers so many scientists, so many patrons of the arts and sciences in its Royal house, but even among its professors not undeservedly admires a man distinguished by royal merit.

Magnus Gustaf Retzius is the son of the famous anatomist Anders Adolf Retzius, and was born at Stockholm on October 17th, 1842. He studied at the Universities of Upsala and Stockholm, and took his Doctor's degree at Lund in 1871. In the same year he was appointed Extraordinary Professor of Histology and in 1877 Ordinary Professor of Anatomy in the Carolinian Institute. He resigned his Chair in 1889, in order to devote himself to research. For purposes of anthropological investigation he travelled much in Europe and America. He has been the recipient of many distinctions, among others the Montyon Prize of the Institute of France. He is the author of works on the organs of hearing in cetaceans, studies on the Anatomy of the Nervous System, in collaboration with Axel Key, and *Finska Kranier*. The Organs of Hearing in Vertebrates, and *Biologische Untersuchungen*. The work especially referred to by the Public Orator are Professor Retzius' *Das Menschenhirn* [illegible] and his Crania Suecica Antiqua.

Facultatis Professor Bostoniae.

[illegible] Boston, [illegible] praised by the orators who preceded me, [illegible] adhibere. Neque [illegible] magnarum in [illegible] praeterea [illegible] Medicinae Doctor honoris causa creatus est. Praeterea [illegible] Academiae Regiae Medicinae Berolinensis [illegible] Academiae Regiae Medicinae Hibernicae [illegible] Academiae Regiae Medicinae Belgicae [illegible] Academiae Regiae Medicinae Romanae [illegible] Academiae Regiae Medicinae Parisiensis [illegible] Academiae Regiae Medicinae Londinensis [illegible] Academiae Regiae Medicinae Edinburgensis [illegible] Academiae Regiae Medicinae Dublinensis [illegible] Academiae Regiae Medicinae Glasguensis [illegible] Academiae Regiae Medicinae Aberdonensis [illegible] Academiae Regiae Medicinae Cantabrigiensis [illegible] Academiae Regiae Medicinae Oxoniensis [illegible] Academiae Regiae Medicinae Manchestriensis [illegible] Academiae Regiae Medicinae Liverpolitanae [illegible] Academiae Regiae Medicinae Birminghamensis [illegible] Academiae Regiae Medicinae Leodiensis [illegible] Academiae Regiae Medicinae Sheffieldensis [illegible] Academiae Regiae Medicinae Bristolensis [illegible] Academiae Regiae Medicinae Nottinghamensis [illegible] Academiae Regiae Medicinae Cardiffensis [illegible] Academiae Regiae Medicinae Swanseaensis [illegible] Academiae Regiae Medicinae Portsmouthensis [illegible] Academiae Regiae Medicinae Plymouthensis [illegible] Academiae Regiae Medicinae Exoniensis [illegible] Academiae Regiae Medicinae Torquayensis [illegible] Academiae Regiae Medicinae Bournemouthensis [illegible] Academiae Regiae Medicinae Southamptonensis [illegible] Academiae Regiae Medicinae Brightonensis [illegible] Academiae Regiae Medicinae Eastbourneensis [illegible] Academiae Regiae Medicinae Hastingensis [illegible] Academiae Regiae Medicinae Folkestonensis [illegible] Academiae Regiae Medicinae Margatensis [illegible] Academiae Regiae Medicinae Ramsgatensis [illegible] Academiae Regiae Medicinae Broadstairensis [illegible] Academiae Regiae Medicinae Deal [illegible] Academiae Regiae Medicinae Dover [illegible] Academiae Regiae Medicinae Sandwichensis [illegible] Academiae Regiae Medicinae Rochesterensis [illegible] Academiae Regiae Medicinae Chathamensis [illegible] Academiae Regiae Medicinae Gravesendensis [illegible] Academiae Regiae Medicinae Tilburyensis [illegible] Academiae Regiae Medicinae Southendensis [illegible] Academiae Regiae Medicinae Colchesterensis [illegible] Academiae Regiae Medicinae Ipswichensis [illegible] Academiae Regiae Medicinae Norwicensis [illegible] Academiae Regiae Medicinae Yarmouthensis [illegible] Academiae Regiae Medicinae Lowestoftensis [illegible] Academiae Regiae Medicinae Cambridg

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 28th, 958 births and 582 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.0, 17.0, and 17.7 per 1,000 in the three preceding weeks, declined again last week to 17.0 per 1,000, but was 2.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 14.9 in Paisley and 15.2 in Aberdeen, to 20.0 in Edinburgh and 21.5 in Perth. The death-rate from the principal infectious diseases in these towns averaged 1.9 per 1,000, the highest rates being recorded in Dundee and Paisley. The 262 deaths registered in Glasgow last week included 9 which were referred to whooping-cough, 5 to diarrhoea, 2 to measles, 2 to diphtheria, 1 to small-pox, and 1 to scarlet fever. Five fatal cases of whooping-cough, 5 of diarrhoea, and 2 of measles were recorded in Edinburgh, 3 of whooping-cough, 3 of measles, and 3 of diarrhoea in Dundee; 4 of whooping-cough and 2 of diarrhoea in Aberdeen, 3 of measles in Paisley, and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 21st, 561 births and 370 deaths were registered in six of the principal Irish towns, against 578 births and 382 deaths in the preceding period. The mean annual death-rate in these towns, which had been 21.5, 19.6, and 21.2 per 1,000 in the three preceding weeks, rose to 22.4 per 1,000 in the week under notice, this figure being 6.0 above the mean annual rate in the seventy-six English towns in the corresponding period. The figures ranged from 15.0 in Limerick and 16.4 in Cork to 23.2 in Dublin and 24.1 in Waterford. The death-rate from the principal zymotic diseases during the same period in the same six Irish towns averaged 1.4 per 1,000, or the same as during the preceding week, the highest figure, 2.2, being reached in Belfast, while Limerick registered no death under this heading at all. From measles 2 deaths were recorded in Belfast and 1 in Dublin; from scarlet fever, 1 in Dublin and 2 in Belfast; from whooping-cough, 7 in Belfast, 5 in Dublin, and 1 each in Cork and in Londonderry. Diphtheria caused 1 death in Dublin, and enteric 2 in Dublin, 1 in Belfast, and 1 in Cork.

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM CITY ASYLUM.—Junior Assistant Resident Medical Officer. Salary, £150 per annum.

BRIGHTON: HOVE AND PRESTON DISPENSARY.—House-Surgeon. Salary, £150 per annum.

CAMBRIDGE UNIVERSITY.—John Lucas Walker Studentship, annual value, £90.

CANCER HOSPITAL, Fulham Road, S.W.—Assistant Anæsthetist. Honorarium, 25 guineas per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident. Salary, £90 per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon, resident. Salary at the rate of £50 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park.—Pathologist. Salary, 50 guineas per annum.

CUMBERLAND AND WESTMORELAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, resident. Salary, £120 rising to £150 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

HEMEL HEMPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £40 for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon.

HULL ROYAL INFIRMARY.—Fourth House-Surgeon, resident. Salary, £90 per annum.

LEICESTER INFIRMARY.—Assistant House-Surgeon, resident. Salary, £80 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, resident. Salary, £100 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon, resident. Salary, £100 per annum.

LONDON HOSPITAL.—Cancer Research Scholarship, value £100.

RAINHILL: COUNTY ASYLUM.—Assistant Medical Officer as locum tenens, resident. Salary, £3 3s. per week.

ROCHDALE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Salary, £100 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL.—Third House-Surgeon, resident. Salary, £60 per annum.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—House-Surgeon for the Branch Hospital, resident. Salary, £100 per annum.

STAMFORD, RUTLAND AND GENERAL INFIRMARY.—House-Surgeon, resident. Salary, £80 per annum.

SWANSEA AND GENERAL EYE HOSPITAL.—Resident Medical Officer. Salary, £75 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS AND EPILEPSY, Welbeck Street.—Honorary Assistant Physician.

WEST LONDON HOSPITAL, Hammersmith Road.—House-Physician resident for six months.

WEST RIDING ASYLUM, Wakefield.—Fifth Assistant Medical Officer, resident. Salary, £80 rising to £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Physician, resident. Honorarium at the rate of £50 per annum.

APPOINTMENTS.

BOWES, John, M.D. Edin., C.M., Medical Officer and Public Vaccinator for the Farnsworth District of the Prestwich Union.

CARSON, Herbert W., F.R.C.S. Eng., Surgeon to the Tottenham Hospital.

CONSTELLOE, John, M.B., C.M. Melb., Government Medical Officer and Vaccinator at Babinda, N.S.W., vice D. Moffit, resigned.

ELLIS, L. Erasmus, M.D. Brux., M.R.C.S. Eng., L.R.C.P. Lond., L.S.A. Lond., Clinical Assistant to St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.

FLORANCE, E., M.D., Visiting Surgeon to the Gaol at Cootamundra, N.S.W., vice Dr. W. Hull.

FROGGATT, Geo. E., M.B., B.S. Durh., Medical Superintendent of the Shore-bush Workhouse and Infirmary, vice E. Norton, M.R.C.S., L.R.C.P., D.P.H., resigned.

FULLER, A. Leonard, M.R.C.S. Eng., L.R.C.P. Lond., Honorary Assistant Surgeon to the Royal United Hospital, Bath, vice H. L. Brownlow, F.R.C.S., resigned.

WILLIAMS, O. T., M.R.C.S., L.R.C.P. Lond., Resident Medical Officer, West Derby Union Infirmary.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford On Bright's Disease and its Varieties (Croonian Lecture I.).

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.—Demonstration of cases of interest.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford On Bright's Disease and its Varieties (Croonian Lecture II.).

South-West London Medical Society, Municipal Buildings, Lavender Hill, Clapham Junction, 8.45 p.m.—Bolingbroke Lecture by Dr. W. H. Allchin on Some Special Features of Diseases of the Colon.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Specimens and Cases by Dr. Louis Werner, Mr. E. E. Henderson, and Mr. G. W. Roll. 8.30 p.m.—Papers: Mr. S. Snell: Optic Atrophy from Lead. 2. Optic Atrophy from Uterine Haemorrhage. 3. Glioma in Each Eye. 4. Two Cases of Glioma in One Family. Mr. S. Mayou: On Microphthalmos.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Dermatological Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on the Diastolic Murmurs of High Tension in the Pulmonary Artery.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Demonstration of Dental Cases.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5.15 as follows: Monday, the Treatment of Malignant Diseases of the Large Intestine; Tuesday, Epistaxis, its Causes and Treatment; Wednesday, on Affections of the Eyelids: Thursday, Glaucoma.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Nervous Affections of the Heart.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Some Forms of Paralysis in Children; Friday, Sclerotic Diseases of Spinal Cord.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on Some Common Affections of the Scalp.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Pelvic Haemorrhage; Wednesday, Dyspepsia; Thursday, Insanity and the Neuroses at Hanwell Asylum; Friday, Typhus Fever.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Lichen.

St. Peter's Hospital, Henrietta Street, W.C., 1.30 p.m.—Lecture-Demonstrations will be given as follows: Monday, Cases in the Wards; Thursday, Electro-Illumination of the Urethra and Bladder.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

ELKINS.—On the 30th May, at Leavesden, Herts, the wife of Frank Ashby Elkins, of a son.

WAKLEY.—On Friday, May 27th, 1904, at 16, Hyde Park Gate, S.W., the wife of Thomas Wakley, Junr., L.R.C.P. Lond., of a son.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London. Letters concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish a fee to be taken at the time of their visit to a patient should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to prevent delay, Contributors are requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL and not at his private residence.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR is "Articulate, London," that of the BRITISH MEDICAL ASSOCIATION is "Association, London," and that of the BRITISH MEDICAL JOURNAL is "Medical Press, London."

TELEPHONE NOS.: GENERAL SECRETARY AND MANAGER, 2630, Gerrard. EDITOR, 2631, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

TREATMENT OF WHOOPING-COUGH.

P. asks for advice in the treatment of pertussis. Bromoform, sodium benzoate, belladonna, creosotes alone and in combination, incorporated with linctus, externally, have been tried, but no one line of treatment appears satisfactory.

SYPHILIS AND PREGNANCY.

S. writes: A man who has had syphilis and undergone thorough mercurial treatment for one and a-half to two years married about one year after the last appearance of any symptoms. Ten months later one testicle became affected in apparently late secondary or early tertiary manner, the epididymis being especially affected. For this he was treated with potassium iodide. Just at this time his wife became pregnant for the first time. (1) Is there any likelihood of the child being contaminated with the disease? (2) Is it advisable for the wife to undergo any specific treatment?

*** (1) It is likely that the child will show signs of disease. (2) The wife should be treated with mercury throughout pregnancy.

INCOME TAX

MEDICINE

ANSWERS.

MOTHERS AND MATRONS

J. B. C.

ARTIFICIAL EYE FOR A CHILD

LETTERS, NOTES, Etc.

was [illegible] "epileptic aura," and the legislature [illegible] preventing [illegible], but "Lucia is nothing new under the sun."

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Dr H C Allen, London; Dr H Arnstein; [illegible] Mr J B Ovens, London; Mr J Atkinson, Leicester; Mr H Brown, Portsea; Mr I A Lewis, London; Dr A G Bateman, Mr E Lewis, London; Mr W C Bennett, London; Dr W Bain; Mr T Bond, [illegible]; Mr W Berry Wood; J F Burton; Mr E Lewis; Mr J Bond, Birmingham; Westport; F M A; C Mr B W Cameron, London; Consul-Surgeon W S Church; Bart K C B, London; Dr J B Cameron, London; Mr H F Carpenter, Oxford; Dr J M Clarke, Colonel Colonel A Cox M [illegible], Gravesend; Cowes; Cal; Dr G Crawford, London; Dr W H Dawson, England; Mr J Jordan Rees, Rhosllanerchrugog; H Davies, M P, Rhondda; Dr M Dawe Fitzpatrick; Dr P R Dolan, Chief [illegible]; Mr W T Dyson, Liverpool; Surgeon J A Dykes, M B, Salisbury; Messrs Duncan, Flockhart and Co, London; Dr P V Ellis, Penzance; Mr G W Duncan, London; E Messrs F Mr A A Fenwick, Leeds; Mr H Freeman, Hartlepool; Dr L [illegible], London; Mr [illegible], Isle of Wight; G Mass G E, London; Dr J Cantlie; Dr H Gervis, London; Mr C D Gaskell, London; D M Greig, M D, London; Mr H Gordon, London; Mr W J Gordon, Newcastle-upon-Tyne; Dr J Gardiner, London; Mr T Grey, Cambridge; V H Gerrans, M B, London; Messrs Gillett, London; G Dr [illegible], Cambridge; Dr C Gordon, Harrogate; Mr J Gee, Cheltenham; Dr J Galloway, London; Mr J Hutchinson; Dr C Gordon, Harrogate; Mr J Gee, Cheltenham; Dr J Galloway, London; H Dr J Harrison, Hanley; Mr T L Hall, Liverpool; Mr J Hutchinson, London; Messrs Hewitt and Young, London; Dr W P Herringham, London; Mr [illegible], Greenwich; Dr G V Harrison, St Leonards-on-Sea; Mr J W Hinchliffe, Exeter; H B; Dr T A Fenton, Manchester; I S T, Swan, M B, London; Inverness; [illegible]; J M S, Messrs Ingram and Royle, London; J Dr [illegible], London; Jenkins; J C; J E S; H E Jones; M E Gaskell; K Dr W H [illegible], London; Leicester Medical Society, Secretary of; Kensington, Mr K [illegible], London; Leicester Medical Society, Secretary of; Kensington, Mr W J C Kent, Bristol; L London; Mr H Lyon, Liverpool; F H Lee; M B, London; Messrs Lewis's Agency, London, Manager of London; R G Lucas, M B, Cardiff; Mr J B Lamb, London; Medical Secretary of; Leicester, Little; Lee; Mr J B Lamb, London; M Mr C Mercer, London; Mr W J Mercer, London; M A, Mr F C Mackenzie, London; Mr W J D Moore, London; Mr W F Mansell, Cardiff; A Messrs, M B, London; A Mercier, M B, London; Medical; Mr G Mercer, Bristol; Dr F S Mumford, Cardiff; E C Mayo, M B, London; Dr G V Mercer, Swansea; Town; Mr A J Mackenzie, H Messrs, London; N J H N, M B, Glasgow; O and Rees; P G H Parry, M B, Swansea; Dr Mr G S T P, Middlesbrough; Portsmouth; Dr T D P, London; W Messrs, London; Dr [illegible], Leicester; Portsea; Dr C E P Wilson, Kew; London; Dr Evan Jones, Mr J Prichard Evans, Carmarthen; A F H Dyke, London; Dr W F Evans, London; R Mr J Eccles, Knutsford; V H Rawlinson, M B, London; Dr W F Stirling, Bradford; Mr F H Ross, London; Mr H M Rainy, Edinburgh; Mr J Rees Stephens; Dr J Ross, London; S A M C, J Rochester; Mr C Sworn, Dr M A Smith, Aberystwyth; A W E, M B, Glasgow; Mr G H Saunders, Bangor; Mr H J Somerset, Inverness; S W, London; Mr T Nixon; Mr C Sworn, Kingsbridge; Dr S Sanderson, London; Dr J P, London; Mr [illegible], London; Dr Sequeira, Clapham; L S Stewart, M B, London; Mr [illegible], Sunderland; Dr G H Simmonds, Chicago; M Stuart, M B, London; Mr M Stanley Snow, London; Dr E M Symes, London; Dr W H Symes, London; Mr J H Swayne, London; Dr F H Sykes, Cheltenham; Mr A W Sworn, London; Mr R D Spence, M B, Penzance; Dr W J Sinnatt, Wakefield; Mr A St Leger, Newcastle; T Mr P Turner, Wolverhampton; Dr A M [illegible], Mr A Sworn, Wakefield; Vernon W Thomas and Co, London; I Dr J [illegible], Mr W Thomas, Bristol; Mr J Wesson, London; V Mr S Vincent, Swansea; W Mr B W [illegible], Bristol; Dr T [illegible], Mr W Thomas, Bristol; Mr J Wesson, London; Mr W B Wilson, Leicester; Dr F W [illegible], London; Mr F Wilson, [illegible]; Mr A B Wells, Leicester; Dr F W [illegible], London; Mr [illegible], Dr Walter Edmunds; Z.

BOOKS, Etc., RECEIVED.

[illegible] Bd. 2s. 6d.

*** [illegible]

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

[illegible] £ s. d.
[illegible] 0
[illegible]
[illegible]

All communications relating to the Publication of the British Medical Journal should be addressed to the Manager, at the Office, 429, Strand, London, W.C.

N.B.—It is against the rules of the Post Office to receive letters at Telegraphic Addresses addressed either in initials or numbers.

A Clinical Lecture
ON
CANCER OF THE PANCREAS.

Delivered at St. Bartholomew's Hospital,

BY SIR LAUDER BRUNTON, M.D., F.R.S.

THERE are two cases to which I wish to draw your attention to-day because they are both of extreme interest, and they both presented the common features of jaundice, pain, and emaciation.

CASE I.

The first case was that of a woman aged 44. When admitted she complained of pain in the chest and back and abdomen. Five months prior to admission she had been suffering from dyspepsia, and three weeks before admission she took to her bed for weakness, pain in the back, and sickness in the morning. When admitted she was very pale, there was a slight systolic murmur over the pulmonary artery and another limited one over the left nipple. Both of those seemed to be simply anaemic, very soft and of limited distribution. On examining the abdomen the stomach was not found to be dilated because, although you might almost imagine from the drawing which I have made, and in which you see the stomach reaching nearly to the umbilicus, that it was dilated, that is not so. I have made many hundred observations on the position of the lower margin of the stomach in women and have found that in the great majority it reaches down to the umbilicus. So I should regard this as the normal position of the great curvature of the stomach in women, although in men such a position would indicate a very considerable amount of dilatation. On palpation distinct resistance was felt a little above the umbilicus in the middle line. I was uncertain at the time whether this was due to some tumour in the stomach itself or simply to the hardness of the recti contracting so as to shield a tender spot in the stomach below. But Mr. Von Bergen was more fortunate, and he was able to find a distinct nodule in the stomach. As I have had occasion to show you before, the pylorus varies very much in its position from time to time, and a pyloric tumour may be felt in almost any part of the epigastric or in the umbilical regions, or on either side of the middle line as far as the ribs on the left side. Some days afterwards this swelling had not only changed its character but it was felt much more distinctly to the right. Those symptoms I have described led one naturally to the diagnosis of cancer of the stomach. But after a little while longer the patient began to get jaundice and the jaundice became very deep and the emaciation exceedingly rapid, so much so that I was inclined to think we had to deal here not with a case of simple carcinoma of the stomach but one in which cancer of the pancreas was superadded. The emaciation was progressive and rapid, and finally the patient died. On *post-mortem* examination cancer was found in the stomach, forming a large ulcer near the pyloric orifice with somewhat thickened edges but without any great thickening The floor of the ulcer was smooth, and then came the explanation of the intense jaundice which the patient presented. The glands about the pancreas and in the hilum of the liver were invaded by new growth, forming a very firm mass. The pancreas itself was not involved.

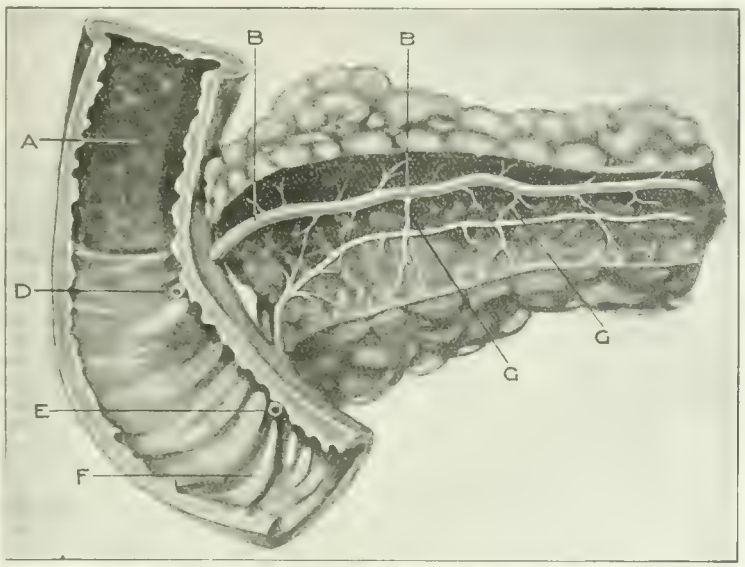


Fig. 1. Portion of human pancreas and duodenum from a person who had been executed (after Claude Bernard, *Physiologie Expérimentale*, 1856, Tome ii, p. 185), showing a condition in which pancreatic juice may enter the intestine, although the gall duct is obstructed. A, Duodenum showing the projections formed by Brunner's gland. B, B, The large pancreatic duct. C, C Anastomoses between the small pancreatic duct and the large pancreatic duct. D, Opening of the superior pancreatic duct into the intestine. E, Opening of the small inferior pancreatic duct into the bile duct. F, Ampulla of Vater.

The fact was that the mass of glands invaded by cancer was firmly pressed against the pancreas and had no doubt caused obstruction of the common bile duct; whether it entirely prevented the flow of pancreatic juice into the bowel I cannot say, but I am inclined to think that it must have done so to a great extent judging from the very rapid emaciation of the patient. Here, then, we have to deal with a case of cancer of the stomach in which the glands were so much involved secondarily as to bring about the symptoms of pancreatic cancer, although the pancreas itself was absolutely free from the disease.

CASE II.

The next case is one of cancer of the pancreas. H. B., aged 54, a porter, admitted complaining of pain in the abdomen. Twelve weeks before admission he had pain in the epigastrium and in the back, with a feeling of weight after his meals. Two days after the commencement of this pain his eyes became yellow, and in three more days his skin was yellow. He noticed also that his motions were light coloured. He had no vomiting and no diarrhoea. When the patient was admitted he looked thin and rather emaciated. His chest was somewhat barrel-shaped and the costal angle was very wide. There was accentuation of the second sound over the aortic orifice. The apex beat was in the normal position, the first sound was slightly prolonged, but there was nothing amounting to a real murmur. The liver was very large, and the edge of it was quite smooth. But the feature which most attracted one's attention was that under the ribs, on the right side, was a rounded boss circular in outline. It was not tender on pressure and there was no rise of temperature, the patient's temperature being normal. That seemed to dispose of the idea that we might have here a case of abscess in the liver. The surface of the liver was so smooth that at first the thought occurred to me that although the general appearance of the patient suggested malignant disease, it might possibly be a case of hypertrophic cirrhosis. But a few days afterwards a projection was found from the lower part of the liver, which was hard and triangular; indeed, it felt exactly like a nodule of malignant disease. Then I had no doubt that the liver was affected by cancer. A few days after this the patient passed a dark tarry motion, and the pain continued very severe, and was only alleviated by the use of morphine. He lost strength rapidly and then had a one-sided convulsion and died about a fortnight later, his temperature for the two days before death having risen to 100°F. and 101°F.

There is very little doubt that the convulsion was due to a uraemic condition; the kidneys were not excreting the waste products of metabolism.

THE DIAGNOSIS OF PANCREATIC CANCER.

Now, in a paper written by Dr. Herringham, and published in the *St. Bartholomew's Hospital Reports*, vol. xxx, 1894, he lays down these conclusions:

> That when a patient who suffers from deeply-seated pain in the epigastric or the hepatic region, along with progressive emaciation, but without signs definitely indicating gastric cancer, has jaundice and dilatation of the gall bladder without a history of biliary colic, by far the most probable diagnosis is that he has primary cancer of the pancreas.

Here then we have the symptoms indicated by Dr. Herringham: (1) The deeply-seated pain, which in this case was very severe; (2) the progressive emaciation; (3) the absence of signs indicating gastric cancer, there having been

no vomiting in this case: and (4) the jaundice occurring without a history of biliary colic. Those are the symptoms. In looking up the subjective signs as given by Fitz in Clifford Allbutt's *System of Medicine*, I find that he says that the "most characteristic sign of cancer of the pancreas is a tumour in the epigastric or umbilical region, which is to be observed as a deep-seated rounded or elongated, sometimes nodulated, swelling varying in density and defined with difficulty."

Now we had here, as a very striking feature of the case, a tumour in the epigastric region, but it differed from the tumour as described by Fitz in several respects. It seemed to be higher up than one would expect any tumour of th pancreas to be, and instead of being deeply seated it seemed to be quite superficial. What we felt was almost certainly not the pancreas itself but the liver, which was raised over a large mass of pancreatic cancer. The specimen is here. The pancreas was infiltrated with new growth throughout its whole structure, part of it was soft and part was hard, and the hard part at the head of the pancreas had pressed upon the bile ducts so as to completely obstruct their course, and, indeed, the bile duct seemed to pass into the mass. You will notice that the liver is deeply stained with bile, and the ducts are much distended throughout the organ. At the necropsy these ducts, on the slightest pressure, exuded a very thick and very dark bile, almost like tar, and the ducts, for some considerable distance up, were very largely dilated. You see that the liver itself seems to be free from infiltration by new growth, and the new nodule that we felt really appears to have been the enlarged gall bladder which was extremely tense, and projected beyond the edge of the liver. It was so tense that it gave one's fingers the feeling of not being a soft elastic structure such as the gall bladder usually feels to be, but to be a hard nodular growth. The other organs were very fairly healthy. The mitral valves were slightly adherent together, and to this was no doubt due the somewhat prolonged first sound. This specimen is particularly interesting in regard to the methods of diagnosis which have been proposed by Fitz, because it dismisses a number of things that have been supposed to be methods of ascertaining the presence of cancer of the pancreas. For example, it has been supposed that in cancer of the pancreas you would find glucose in the urine. Such was not the case here. But Fitz has proposed, as the surest way of ascertaining the presence of cancer of the pancreas, alterations either in the food or physic introduced into the intestinal canal, and he mentions that in cases of cancer of the pancreas, if the patient be fed upon meat, large quantities of undigested muscular fibre are to be found in the stools, the reason being that if the pancreatic juice does not enter the intestine the muscular fibre will remain undigested. Another method that he proposed is for salol to be given in doses of one drachm per diem in divided portions. The effect of the pancreatic juice upon this drug, which is a salicylate of phenyl, is to split it up, forming salicylic acid and phenol. The phenol is excreted in the urine, and there its presence can be ascertained by bromine water. Now, these tests were not applied in this case, and it is a pity they were not, but if we had applied them we should in all probability have come to a wrong diagnosis, because, oddly enough, although the hard nodule in the head of the pancreas presses upon the gall ducts, and these are completely prevented from emptying themselves yet a duct of the pancreas remains free (cf. Fig. 1) and some pancreatic juice entered the intestine, for you see here a certain amount of *post-mortem* digestion by the pancreas. In this case, then, if we had applied these tests we should have found evidence of the presence of pancreatic juice in the intestine, and we should have come to the conclusion that there was in all probability cancer of the liver but no cancer of the pancreas. So that at present you see that the tests which were the right to be reliable cannot be implicitly trusted, and we must fall back upon the symptoms that I have mentioned to you before—deep-seated pain, progressive emaciation, jaundice, and distension of the gall bladder. The epigastric swelling may or may not be there, and the presence or absence of sugar in the urine does not help very much. But excessive pain in this case was a very marked symptom, and the difficulty in such cases is to distinguish between the pain due to pancreatic disease and pain due to perihepatitis. Of course in perihepatitis you may hear a friction if the part of the liver affected happens to be under the abdominal wall, but if the upper surface of the posterior surface of the liver be affected with perihepatitis there may be a great deal of pain and yet no friction. The difficulty is so great in distinguishing between the pain due to perihepatitis and cancer of the liver and pain due to cancer of the pancreas, that I suppose we have practically to fall back to a great extent upon the very rapid emaciation. In cases of cancer of the liver without cancer of the pancreas the malignant disease may be present for many months together, sometimes I believe for years together. But in cancer of the pancreas the course of the symptoms is very rapid, and you will have noticed that the present one only lasted four months from the first symptom to the fatal termination.

As far as treatment is concerned, medicines are of little good except in so far as you are able by them to relieve the pain by sedatives, such as morphine. Operation, as you will have seen, would be out of the question.

I have brought those cases before you because, meeting a medical colleague a little while ago, he seemed to doubt whether cancer of the pancreas could be, with any degree of certainty, diagnosed during life. I think that although these cases show how some of the signs upon which the greatest amount of reliance can be placed are not trustworthy, yet by attending to those rules which Dr. Herringham laid down, we may come to a fairly accurate diagnosis. Still the case which I have put before you of cancer of the stomach shows you must be on your guard against assuming the presence of cancer in the pancreas if you have already got indications of cancer in the stomach, because the glands there may become so much affected as to simulate the presence of cancer of the pancreas.

[NOTE.—Since this lecture was delivered a new method of examining the urine which seems likely to be of great service in the diagnosis of cancer of the pancreas, has been described by Cammidge, *Lancet*, March 19th, 1904, p. 782, and Abstract in BRITISH MEDICAL JOURNAL, April 2nd, 1904, p. 771.]

An Address

ON

THE MODERN PURSUIT OF NOVELTIES IN MEDICINE.

Delivered before the Reigate Division of the South-Eastern Branch of the British Medical Association at Dorking.

BY SIR DYCE DUCKWORTH, M.D., LL.D., F.R.C.P.,
Physician and Lecturer on Clinical Medicine, St. Bartholomew's Hospital

GENTLEMEN,—You are aware that the changes in medical education which have gradually come about in the last half of this century are numerous, and some of them so radical that they amount to a complete transformation of the student's curriculum. There are many reasons for these changes. Not the least of them is the general and astounding advance in all the sciences, and in those especially on which the art of medicine is based, by which I mean those of biology.

I hope you have no misunderstanding with respect to the position of medicine itself. It never was, and it never will be, a science; yet it is scientific, and its foundations lie, and must ever lie, on the bedrock of many sciences. Medicine, as physicians understand it, is an art, and all good physicians are good artists. It is possible to be a great medical scientist, and an inferior medical artist. We may hold that true physicians, like true poets, are born and not made, if we safeguard the assertion by adding that their best qualities do not come by instinct, ready-made, but are reached only by assiduous study and unceasing accurate observation. There is no royal road to their attainments, however keen their wits or precise their logic. The mental temper which alone befits the pure scientist would never quite become the investigator of disease, or the student of clinical problems, and for this reason, that the latter has to act promptly and make the best of the facts before him, often without attaining the certainty and exactness of the requirements of the physicist. The difficulties and abstruseness in the particular case before the physician may never be entirely cleared up, and these constitute distressing factors which sadly exercise the purely scientific mind and tend to avert it from the practice of our art. This has indeed often happened, and men who have eagerly taken up our work have found themselves unable to combat with the oft-recurring uncertainties which are inevitable in practice. They have gone off into other fields of research for which their mental qualities were better fitted. We cannot afford to sit down and bewail our inabilities, or shrink from the alluring problems which await us. For what is the reason of our existence in the body politic? Is it not

promptly to combat these difficulties, to do our best by the light of fully-trained experience to meet them, and to try to bring comfort, relief, and restored vigour to the sick and suffering? Are we to look on or pass by and do nothing, waiting till we can fully disentangle all the problems which present themselves? That cannot be, and so we have to act while we toil on, thinking, trying, studying, comparing, and hoping, too, for that fuller light which is dawning and drawing us on; and assuredly, gentlemen, that light is ever waxing day by day; we are working by its luminous beams, all of us, whether we realize it or not. We enter into other men's labours, even if we labour not ourselves. We cannot stand still. We are in our day the products of our age, and hence our thoughts and practice differ a good deal from those of our predecessors of some fifty years since.

When progress is active in any department of life, we are always apt to think that we have reached a standpoint which puts our forefathers very much into the shade. We regard them as worthy, and as having acted up to their knowledge, but we are prone to believe that we possess higher attainments than they did, that now the meridian is above us, and that we should mightily astonish them if they could now return to the scenes of their former labours and see us at work. Gentlemen, I believe we should indeed astonish them, but I for one should be sorry to be the performer before some of them.

By way of contrast to the plan of study which was pursued forty or fifty years ago, we may note the great increase not only in the subjects to be studied now, but the greater minuteness and elaboration of these subjects themselves. Gross human anatomy was practically perfect at the earlier period, and is hardly more exact now, but histology has become a considerable addition to it, and must be mastered. And what shall I say of physiology as it is recognized to-day, in comparison with that taught even in my time? I am I know skating on thin ice now, but I will not hesitate to say that this subject now bulks so largely that, for the actual possibilities of the student, to say nothing of his comfort and assiduity, it has become a burden very hard to bear. Art is long, and a five years' curriculum too short to enable the increased outspread of this subject to be soundly grasped. We may ask, can nothing be done to adapt the teaching of it more precisely to the actual needs of the majority of future practitioners of medicine? Fifty years ago physiology was taught by the practising physician or surgeon, but now it is rarely if ever treated from their standpoint, and is in the hands of pure professors of the subject.

I am none the less of the opinion that physiology is one of the great foundations of our art, and must always be so, but we have seriously to bear in mind that medical students are not all preparing to be scientific physiologists. The development of the biological side has been great during the time of which I speak, but I regret to find that the study of botany is now hardly reckoned within the compass of modern medical education. I rarely come across a pupil who knows the natural order of plants or could name properly any six of our common hedgerow flowers. I regard this as a lamentable decadence, and a distinct loss, since I have always reckoned a training in botany as one of the very best for the future medical man. The mere names and details may be safely forgotten, but the study of specific distinction and differentiation is invaluable as a mental training for future clinical work. So I feel thankful that I had three courses of botanical lectures in my time, and spent some of the happiest days of my life in filling my vasculum in the glorious Highlands of Scotland under one of the greatest masters of his time. These happy chapters of student life are now almost unknown. Fifty years ago botany was held to be of importance, and its study, no doubt, did much to encourage accurate appreciation and clearmindedness.

Chemistry was at that time a comparatively simple science. The development of it in respect of organic matters has been unceasing, and even small departments of it now constitute studies for a lifetime. It is strange to think that the importance and significance of albuminuria were hardly recognized half a century back by the rank and file of the profession, though Bright, Prout, Christison, and a few pioneers of animal chemistry were then disclosing the meaning and associations of it. The stethoscope was scoffed at by many of the foremost men of that day, and pulmonary tuberculosis was still diagnosticated by the pulse, and the tendency of the sputa to float or sink when poured into water. Cardiac hypertrophy, which we regard as a kind act of nature, was then attacked as an enemy, and its vehemence reduced by prostrating drugs. Clinical thermometry was hardly recognized and its significance unknown. Every hard pulse afforded an indication for venesection. Leeches were used by the hundred. Blistering and counter-irritation were in daily use. An inflammatory process anywhere was the signal for the free use of mercury. People were regularly bled every spring. Aperient doses were copious, nauseous, and drastic. Fever patients were usually starved. Graves, of Dublin, however, remonstrated against the practice, and deserved for his epitaph the simple sentence—"He fed fevers." I might add to this list did time permit, but I have stated enough to convince you of the mighty changes in the outlook of to-day. And all that I have mentioned went on in the great schools of medicine at the time I speak of. What shall we say of it? While we venerate our predecessors who carried out these practices, we think we have fallen on better times, and know much that they did not and could not know. This is the case. Times have changed and we have changed with them. Are we then to believe that much was wrong in medicine in the lifetime of our fathers and that all is right to-day? Some ardent and sanguine spirits among my auditory and elsewhere may affirm this, but I am prepared to join issue with them. I propose to state my position, therefore, and to do so by laying down and contending for two main propositions: first, that our predecessors in the profession were not all ignorant, unobservant, or unwise men; and secondly, that the constant pursuit of novelties in medicine is beset with snares, and that a practice rapidly accommodated to such pursuits is not that of the wise and rightly trained physician.

First, then, it is not to be supposed that the great physicians of the earlier part of this century were ignorant of many of the great truths in medicine. They used the light and the opportunities they had. The plentitude of knowledge that has come to us in the recent past has tended to obscure the fact that many of the clinical problems presented to them were apparently simpler and more readily unravelled than they now appear to us. They set themselves to question these by their unaided senses and well-trained wits, and they did so with an assiduity of observation and attention to details which we are perhaps too apt now to discard. We are almost debauched, if I may say so, by the number of revealing instruments and methods which are available to-day for the prosecution of clinical research, and we are rather too ready to apply these and too little disposed to use our wits and unaided powers of observation in individual cases. We make short cuts with instrumental aids to arrive at a diagnosis, and do not always reach the real inwardness of things even then. The experience of the older physicians was great, and they set themselves to forward Morgagni's dictum: "*Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.*" We are too apt to forget that many of the practices I have just enumerated, and which are flippantly condemned to-day, contain germs of truth. They were certainly somewhat blindly followed, often in obedience to traditional authority which is apt to be dangerous. But it is certain that germs of truth may long lie dormant, and but slowly develop, and their full growth may be reached in very different circumstances from those in which the genius of the discoverer first detected them. Indeed, what is true, was, is, and ever will be true, and no time or fashion of a day can alter it. Moreover, that which is likely to endure is commonly of slow growth, and, not seldom, he who sets forth an original idea to-day may never see the ultimate outcome of his discovery. Again, new ideas, as they are conceived, must always be enshrined in the current thoughts and language of the time they are disclosed. The latter inevitably change with the progress of time. The setting of the jewel may be varied and beautified, but the gem itself remains unaltered.

Hence, we have often but to reset the ideas of our predecessors in physic, and to accommodate them to the mode of our own time, or perhaps to recast them, and so render them available for to-day's use. Our temper should then not be that of the relentless iconoclast. If we intrude into the old shrines, and break up the images, we should look carefully for the hidden gems they almost certainly contain. Let me apply these views and deal with some concrete instances to make clear my meaning. We find that abuses in practice crept in owing to routine habits, false doctrines, and the tyranny of tradition. The practice of bleeding so prevalent early in this century fell into disuse, and five-and-twenty years ago was practically abolished. The lancets rusted, and

the trade in leeches greatly declined. But, gentlemen, there is a time to bleed and a time to abstain from it. The prudent and observant physician knows this, and he is quite unmoved by any prevalent fashion which either encourages or discourages the practice. The oculist, who sees what he is doing better than the physician, never gave up the practice in deference to those who condemned it as an enfeebling procedure. There were, and there are, and always will be, cases in which it is proper to employ abstraction of blood. There was, therefore, a not inconsiderable measure of truth underlying this practice of our predecessors. Many of them outran discretion, and the knowledge of their time forbade their recognizing the exact conditions in which alone bleeding was a sound practice.

Again, the hard, or, as we should say, the tense pulses, which to them always indicated venesection, are now recognized by us as sometimes salutary, or as demanding more benign eliminative methods of treatment. But some of the conditions thus manifested were clearly appropriate for the lancet, and were wisely thus treated, and with benefit; and the same holds good now, albeit, I think there is still too much hesitation to bleed, owing, not a little, to prejudices on the part of the patient or his friends.

With respect to the employment of mercury, we find much the same comment to make. It is true that the great value of this drug has been rediscovered in recent years. It was certainly grossly abused, as was bleeding; and equally stormy disputes occurred regarding its value, especially in relation to its power of reducing inflammatory processes. It was credited with virtues it did not possess, but it did unquestionable good in many cases. We now recognize its usefulness in reducing pulses of high tension, and know that no agent so well and so promptly relieves gastric and biliary catarrhal states. The disuse of mercury led to much contempt suffering on the part of patients, and so its several compounds had to be brought back into use by those who had been diligently instructed not to employ them. This was my case. In my student days mercury was largely out of fashion for all ailments, and was, in the Edinburgh school especially, denounced at that time as a remedy for [illegible] vexation. With many others I had quickly to unlearn this teaching, and to discover how very wrong it was. So here, as in other cases, we find that a reformation is attended with much that is wrong in itself and undesirable, but good comes of it in the end when the pendulum swings calmly once more. Our predecessors then were not altogether in error. They had a modicum of the truth of these matters, and we have been, with further light and experience, enabled to find more clearly wherein the truth lies. (I might here throw out a suggestion that the calomel of our predecessors' days was a more efficient drug than the chemically, perhaps too chemically, pure salt used to-day. It appears to have been more purgative [illegible], more aperient, than ours, possibly owing to some admixture with bichloride of mercury.)

Again, it was formerly the practice to employ purgative medicines to a far larger extent than is now done. We may recall the famous prescription of Mr. Abernethy, of blue pill and black draught, which was greatly in vogue, and which has not been neglected, often incidentally as I believe, by many of special eminence. The fashion set in against purgatives, and especially against many of them were [illegible] griping and lowering. Modern pharmacy has, however, removed many of the crude qualities of the drugs which were used fifty years ago, and it may therefore now employ them with more certainty, and, as the old doctors [illegible] the same purposes our predecessors were used to employ.

[illegible] proclivities which they [illegible] particular families or individuals [illegible] fashion of [illegible] conditions or [illegible] [illegible] [illegible]

have vanished; how strange remedies and curious dietaries—which were always useful, we were told, while they were in vogue—have been forgotten. Hence, I often ask myself, when a new drug or a new method is in repute, How will it be in three years' time with it?

But we have novelties even in the matter of ailments and alleged morbid states. These come, and they go. To-day we find weak hearts asserted to be very prevalent; lately gastric dilatation was perpetually before us: then neurasthenia; next, phimosis became of extraordinary frequency, while typhlitis and naso-pharyngeal adenoid growths are heard of on all sides in society. To-morrow there will be something else. What, then, are we to do in these hurrying, feverish days? I will tell you, as I conclude. We are to be calm, and we are to keep our heads, to be level-headed, to see all things in due proportion, to hold fast by all we have learned to see as most certain and dependable in medicine. We are to expect difficulties, to be patient in our failures, to seek alone for what is true, to be as accurate as we can, and in and through all to have cheerfulness and strong hope. On these lines we shall do best, and we shall at least not be in danger of frittering away our time and energies in the empty pursuit of novelties. We are now often told that the young diplomates sent out from the schools are ill equipped for the duties immediately awaiting them. If this is true, it constitutes a serious reflection on the teachers in these schools. There can be no doubt that too much of the average student's time is now spent on biological and chemical studies and in efforts to pass examinations on these subjects, and that too little time is thus left for clinical study and observation. The fifth year of the modern curriculum, which was designed for the latter purpose, has been captured by the chemists and the physiologists, who now tyrannously override the course of ordinary medical study. I hold that this is not fair to the average student who has perforce to make his way as soon as possible to a daily practice of his art. It may be demanded for aspirants to a degree in medicine, or from those who seek to attain a leading place as teachers or consultants. We recognize that the best knowledge for practice comes solely from practice, and we have to resist this tendency to overload the earlier studies beyond what is absolutely necessary.

Lastly, I will urge very strongly the value and importance of practitioners acquiring a full knowledge of the *British Pharmacopoeia*, and of the art of prescribing appropriately. As an examiner, I am constantly aghast at the ignorance displayed by candidates of these subjects. Few matters are of greater importance to the successful practitioner than a good knowledge of pharmacy, and of the action of our best and most reputed old remedies, but now we find that more attention is paid to drugs and preparations which have no place in our pharmacopoeia, and are urged upon our attention by persons who know little or nothing of their properties. Some amongst us are for ever experimenting with these, and all the while neglecting remedial agents of long approved value. Of many of these our younger men know little or nothing. They either ignore them, or only venture feebly and ineffectively to use them. The untidy, inadequate, and inappropriate prescriptions which are now commonly written readily display the imperfect knowledge respecting our best remedies which is widely spread. They not seldom excite the contempt and pity of the well-trained pharmaceutical chemists of to-day, as I well know, and we cannot rest content to merit such opprobrium from that quarter.

Let us then see to it, that we be rather less keen in the pursuit of new remedies, and more careful to learn what is known of the older ones. If we do this, we shall certainly benefit our patients, and acquire in our practice such fixed principles as shall guide us both safely and more successfully in our daily duties.

In expressing these sentiments, I decline to be regarded as an old Tory in medicine, or a pre-scientific fossil. As a clinical teacher I have to teach all parts of medicine, and must not fall behind the best knowledge of the day. The new views and theories, and the fresh acquirements in our art have all to receive our attention, and no less the most careful scrutiny, but we do ill if we at once proceed to adopt them, and replace our best acquired clinical experience by methods of which we know little, and whose solid value is still to be proved. Much of our work at the best is sufficiently experimental. We need be in no hurry to wander away in deeper experimentation. We have always to bear in mind that we have to treat patients and not diseases.

The modern tendency is to produce remedies for diseases. This is the Continental method, but it is not the fashion in the more humane and sensible practice of the best British practitioners. That practice is hardly to be found recorded in books. It is best learned at the feet of those who, by long and mature experience, with full responsibilities, have gone through the chastening fires of daily and anxious practice, who have little time to record their experiences, but are ever the best masters of our art.

An Address

ON

THE ORGANIZATION OF THE HOME TREATMENT OF PULMONARY TUBERCULOSIS.

Delivered before the Fourth International Home Relief Congress at Edinburgh on June 9th, 1904.

BY R. W. PHILIP, M.A., M.D., F.R.C.P.E.,
Senior Physician, Victoria Hospital for Consumption, Edinburgh.

AMONG the important subjects which will occupy the attention of the present International Congress there is probably none of more immediate significance to our communities than the organization of the home treatment of pulmonary tuberculosis. The home treatment of tuberculosis occupies a different platform from the home treatment of most other diseases. In the case of acute illness poor patients—if they have been reasonably provident—can generally face the situation, including enforced cessation from work, without serious inconvenience either to themselves or their household. Moreover, in the case of fevers, where the danger of communication to other members of the household is recognized, municipal and other authorities have made provision for the isolation, maintenance, and treatment of the individual while the disease runs its course.

THE EXTENT OF THE ISSUE.

In respect of persons affected with pulmonary tuberculosis—more especially when belonging to the poorer classes—the conditions are very different. In the first place the disease is more disastrous in its effects, both physical and pecuniary. At the best the illness must be a long one. It reduces the patient frequently from the state of an able-bodied to a more or less disabled working man. For months or years the individual may be unable to work, or may have to limit himself to part time, or may have to take to a less remunerative occupation. Further, his medical treatment, if it is to be effective, is relatively costly. Continued, as it must be, for long, it forms a serious drain on the individual's resources. All the time, moreover—or at least during a large part of the illness—the patient is a source of danger, more or less pronounced, according to the relative care or carelessness exercised, to those living under the same roof or coming into close contact with him. The risk of infection, comparatively slight as it may be in large, well-ventilated houses, becomes accentuated in the contracted dwellings of the poor. The danger of communication is enhanced by the short commons which advancing poverty brings to the household and the physical strain put on delicate dependents in their effort to undertake work for which they may be unfit.

The picture is sufficiently wretched. And yet those who have been brought into intimate relationship with the disease and its effects among the poor will be the first to admit that it is far from overdrawn. The distress is in many cases infinitely greater than I have outlined. The miserable drama drags its weary course, it may be, for two, three, five years or longer.

HAS THE ISSUE BEEN ADEQUATELY CONCEIVED AND FACED?

It may well be asked whether we have seriously faced the problem. Have we really attempted to deal with the issues as they deserve? Have not communities, more especially our larger centres, a distinct responsibility in the matter, (1) in respect of the individual sufferer, and (2) in respect of those who are dependent upon him, and who are so closely associated with him as to be necessarily exposed to risk?

There appears to exist at the present time a popular notion that the solution of the tuberculosis problem has been found

in the establishment of sanatoria for consumption in different parts of the country. It is far from my wish to suggest for one moment that sanatoria do not play an important part. On the contrary, it has been my lot to have had something to do with the foundation of such an institution for the poor of this district. The establishment of sanatoria in different countries has been an immense step forward. An increase in their number, proportionate to the needs of communities, on sufficient and inexpensive lines, is certainly to be desired. None the less, it must be frankly admitted that the establishment of sanatoria and hospitals meets only one aspect of the question. Pulmonary tuberculosis is a disease of extremely varying complexion. Only a certain number of cases, and those preferably the early cases, are suitable for sanatorium treatment. In respect of such patients, existing sanatoria can undertake the care of a small number only.

I greatly doubt if the frequency of the disease is distantly realized by most of our citizens. Have you ever asked yourself how many cases of pulmonary tuberculosis exist in any large city with which you may be acquainted? Take, for example, Edinburgh. On an average some 500 persons die annually of the disease. This in no sense represents the number of persons affected by the disease during that period. Is it possible to make an estimate? Certain contributions towards an estimate are available. Taking a wide statistic, the average duration of a case of pulmonary consumption may be reckoned at, say, five years. This is probably within the mark. That means accordingly that in such a city as this there are at least some 2,500 persons presently affected who will finally die of the disease. It is to be kept in view also that a large proportion of persons die of pulmonary tuberculosis whose death is, from one cause or other, recorded in other terms, such as pleurisy, broncho-pneumonia, bronchitis, debility, childbirth, and the like. Were the necessary correction made it would probably increase the figure at least 25 per cent., making the total some 3,125 cases. Further, it is well known that vast numbers of persons who actually die of other diseases are or have been affected more or less seriously with pulmonary tuberculosis. At least one-third and probably one-half of all persons dying bear traces of the disease in one or other stage. The approximate total mortality per annum of the city of Edinburgh amounts approximately to 5,600. Deducting 600 for the already reckoned tuberculosis mortality, and taking one-fourth of the remainder as representing the number affected by pulmonary tuberculosis not already included in the estimate—say 1,250, and adding it to the 3,125 already quoted—we have a total of 4,375. This figure may be taken as much within the mark. I believe that it might be added to largely. Accepting the figure, however, for the purpose of the present argument, and seeing in view that the great majority of the persons thus affected belong to the poorer classes of the community, what possibility exists for the adequate treatment and supervision of the disease either in sanatoria or hospitals for the dying?

[illegible] were it possible, as it from the condition of things [illegible]. One must, keep in view that the disease is a [illegible] and that for months perhaps for years, the patient may be able to do a fair day's work, or part day's work, or undertake some lighter occupation, such as [illegible] or the like. Admitting that he may [illegible], and in many cases must remain at home, the problem is [illegible] to afford him relief from suffering and [illegible]. How best are we to [illegible] the risk of his [illegible] to others?

[illegible] is the problem we must practical and [illegible]. How are we to prevent or limit the ravages of the [illegible] which, unless [illegible] from a state of comparative comfort to that of absolute poverty. From the other point of view the question is: How to limit most effectively the contamination of the disease from the already affected person to [illegible] to the dwelling itself (which [illegible] to compare with [illegible] disinfection) as compared with [illegible] persons brought into contact with the affected person at work or elsewhere. When regard is had to the wide bearings of the subject it will be admitted that a community can ill afford to trust to haphazard handling of the problem—a handling which, in most instances, amounts to little or no.

Supervised Home Treatment Essential.

It is eminently worthy of the best efforts of such an International Congress to discuss and plan out some scheme by which the present hopeless state of affairs may be corrected. I believe that *in the solution of the tuberculosis problem a plan of supervised home relief must play a chief part.* Such relief must be based on an exact knowledge of the facts, a clear conception of the necessity and the possibilities and must be well organized. What I have to submit in the way of a practical proposal is the outcome of considerable experience and thought in relation to the practical solution of the question in Edinburgh.

In the foreground I must ask the Congress to excuse me if I introduce a certain element of narrative, which I do so in order thereby better to illustrate some of the points and to explain that the conclusions submitted are not those of the mere doctrinaire.

Experience in Edinburgh.

Up to 1887 there was in Edinburgh no central or concerted action in relation to the treatment of pulmonary tuberculosis. Patients were received and excellently treated in the Royal Infirmary and other hospitals, so long as it was possible to keep them. The general dispensaries of the city received and prescribed medically for those consumptive patients who presented themselves for treatment. Such treatment necessarily consisted largely in the prescription of some form of cough mixture. The duration of the patient's treatment depended on the continuance of the more aggressive symptoms and his faith in the prescriber or prescription. Consumptive patients, when too ill to come to the dispensary, were commonly relegated to the list of chronic or troublesome patients, visited occasionally by a frequently changing series of medical students whose conceptions of treatment, doubtless excellent as far as they went, did not extend very far. As an officer of the Royal Infirmary and a large public dispensary, one felt frequently heart-sick at the evident ineffectiveness of the assault made on so tremendous an evil. Such considerations led naturally to the practical question whether some more definite and organized effort might not be made. Accordingly, in the autumn of that year, having satisfied myself that a well-directed movement towards the end in view would have the approval of those who might take the trouble to think of the matter, I succeeded, with the help of a few kind friends, in establishing the Victoria Dispensary for Consumption in the heart of Edinburgh. Its object was to afford a central institution towards which all poor persons affected with consumption might be directed. The scope of the institution was a large one, and included:

(*a*) The reception and examination of patients at the dispensary, and the keeping of a record of every one thus received, with an account of his illness, history, surroundings, and present condition, the record being added to on each subsequent visit.

(*b*) The instruction of patients how to treat themselves and how to prevent or minimize the risk of infection to others.

(*c*) The dispensing of necessary medicines, disinfectants, and sputum bottles, and, where the family conditions seemed to warrant it, of food stuffs and the like.

(*d*) The visitation of patients at their own homes, more especially of patients confined to the house or to bed, and this for the double purpose of treatment and of investigation into the state of the dwelling, the general conditions of life, and the risk of infection to others in the neighbourhood.

(*e*) The selection of more likely patients for hospital treatment—either of early cases for sanatoria, or of late cases for some accessible institution.

(*f*) The guidance generally of patients and friends of patients and other inquirers on questions related to consumption.

The programme as rapidly sketched above has been carried out during the past seventeen years by a staff of willing colleagues, nurses, and a Samaritan Committee of ladies, all of whom have taken part, not merely in the general work of the dispensary, but have especially undertaken the surveillance of consumptive patients at their own homes. Altogether, up to the present time over 13,300 patients are on our books. As many as 87 patients have attended on one day. The majority of these have paid many attendances to the dispensary. Some have attended for many years. A very large number have been supervised at their own homes.

In addition to the routine work of the institution, more detailed investigations have been carried out from time to time with a view to ascertaining the distribution of the disease in the city. These investigations include at the present time a systematic record as to the home conditions of the patient

according to the accompanying schedule, the inquiry being carefully undertaken at the patient's home by a trained nurse, who visits, with a view to assist the patient, under the superintendence of one of the medical officers.

VICTORIA DISPENSARY FOR CONSUMPTION.

SCHEDULE OF INQUIRY REGARDING DISPENSARY PATIENTS.

No. on Ledger ..... *Date of Report*.....

Name — Age

Address — Married or single?

Occupation — Has patient changed occupation

Able to work full time — or part time?

If unable, confined to bed

How long ill?

Situation of House (area, ground floor, 1st, etc.

Number and Ages of Inmates

Number and Description of Rooms

General aspect of House (clean, damp, dusty, smelly?

Number of Windows? — Can they open?

Are they kept open (*a*) by day?

(*b*) by night

Have they always been kept open

Does Patient sleep alone (*a*) in Bed

(*b*) in Room?

How is Washing of Clothes done

How long in present House?

If has moved within two years, previous Addresses?

Have there been illnesses or Deaths in House

(*a*) In own time

(*b*) In previous occupancy

Exposed to infection (*a*) at home?

(*b*) at work

(*c*) among friends?

Present health of other members of household?

What precaution taken to disinfect

T. B. in sputum?

T. B. in dust of room?

General dietary? — Teetotal?

General condition (well-to-do, badly off)?

Proximate income of household?

Assisted by Societies, Church, Friends, Rates?

Signed ... ... *Reporter.*

.... *Medical Officer.*

We have now a considerable mass of such records containing most valuable statistics and information regarding the disease. These are being steadily added to from day to day. I may say that we have found no difficulty whatever in obtaining the desired information.

The dispensary, as at present arranged, contains two consulting rooms (with a dark room for laryngoscopical examination), one large waiting-room two dressing rooms, a general office where names are entered, a laboratory for bacteriological examination, and a drug and food store. An officer lives on the premises, to afford information when the dispensary is not formally open, and to receive requests from patients for medical attendance in the absence of the doctors. The same officer receives and enters the names of patients in the afternoons when the dispensary is open. This officer is conversant with the home and work conditions of many of the patients. The staff further consists of two honorary visiting physicians, who attend when the dispensary is open and supervise the work, two qualified assistant medical officers, who devote a large time to the work, receiving a small honorarium, a nurse trained in modern open-air methods, who visits the homes and makes most of the inquiries under the superintendence of one or other of the medical men, and a volunteer Samaritan Committee of ladies who, in conference with the doctors, take in charge the more distressing cases with a view to assist in any way that seems proper. The operations of this Committee are regulated in fortnightly meeting and a minute of the business is kept.

TUBERCULOSIS DISPENSARIES.

So far as I am aware, this was the first attempt to deal in more systematized fashion with the great crowd of tuberculous city poor. During the 17 years which have elapsed since its foundation, it has been my lot to be in constant touch with every department of the work. There can be no doubt that through the operations of the institution a propaganda of considerable importance has been established, and not a little contributed towards the relief and prevention of consumption in the city. It is from the experience obtained by close participation in the work of the institution that I venture to recommend the system, in its main features, as one worthy of development in every large centre.

It must be kept in view that the institution which I propose is something much more elaborate than at present exists in relation to the out-patient departments of many consumption hospitals or general dispensaries. These doubtless do excellent work so far as their arrangements permit. My contention is that their plan of operation has not been sufficiently developed and systematized, and that their efforts have been limited too much to the medical treatment of the individual applicant.

Within more recent years the idea of tuberculosis dispensaries has, it would seem, occurred independently to workers in other countries. Dispensaries, resembling more or less that which I have described, have been founded by voluntary effort, especially in France and Belgium. Here I would desire to pay a special tribute to the work effected in this direction by Professor Calmette of the Pasteur Institute, Lille, to whom the establishment of the Emile Roux Anti-tuberculous Dispensary (founded in 1900) is due. Regarding this and other forward movements in the same direction in France and Belgium, and the special characteristics of these, I hope the Congress will have the opportunity of hearing directly from Professor Calmette and others. In Germany a movement, though of somewhat different conception, is on foot. The various aspects of the subject were considered at the Tuberculosis Congress held in Berlin in November, 1903. It would appear from the discussion, however, that the recently-established Polyclinik for Tuberculosis partakes rather of the character of the ordinary out-patient department of one of our consumption hospitals, largely restricting its operations to the medical treatment of the individual applicant. There was expressed a strong feeling in favour of the development of institutions of the dispensary type, the name, *Wohlfahrtstelle für Lungenkranke*, being suggested as a fitting description.

RELATION TO LOCAL AUTHORITIES.

If we are to make a serious forward movement against tuberculosis, it seems to me essential that the organization should expand on all the lines I have indicated. We must go even further. We cannot afford to trust to individual effort or even to wider benevolent enterprise. The evil to be faced is one of vast proportions, and affects the best interests of the community. There exists a clamant need that each community should face the question for itself, in the interests of the public health no less than in the interests of the affected individual.

On whom then should fall the responsibility of such an organization? The answer seems to me emphatically, on the the local authorities, municipalities, parish councils, Boards of Guardians, and the corresponding bodies in different countries. In our cities the institution should be municipal. The tuberculosis dispensary or bureau, or whatever it is called, should be placed under the medical officer of health. It should, however, form a *separate* department of his activity.

PLAN OF OPERATIONS.

The department should include a dispensary to which consumptive patients of the poorer classes and patients with chronic colds or persistent ill-health should be invited to come. Consumptives presenting themselves at other dispensaries, infirmaries, and hospitals should be directed to the consumption dispensary. At the dispensary such patients should receive information regarding the prevention and treatment of the disease. Printed instructions of a clear and practical sort should be issued to every patient, and distributed freely in all likely places. Spitting flasks and disinfectants should be also freely dispensed.

By means of one or several visiting medical officers charge should be taken of patients too ill to attend the dispensary and too poor to pay for sufficient medical attendance at their own homes. By means of the dispensary, the disinfection and cleansing of infected houses and patients should be carried out. At the laboratory of the dispensary the bacteriological diagnosis of the disease should be undertaken. By means of the addresses communicated by the patients to the authorities, a system of voluntary notification would be immediately established which, pending the institution of compulsory notification, would afford much valuable information regarding the distribution of the disease. This would be further enhanced by a systematic inquiry regarding the home conditions of the patients on the lines I have proposed. Not the slightest difficulty need be feared in relation to the carrying out of this, if the matter be gone about in a commonsense and sympathetic fashion. Up to the present, in the experience of the Victoria Dispensary, no case of refusal has occurred. Contrariwise, the patients visited have welcomed the nurses and doctors and facilitated the inquiry in every possible way.

The dispensary should be in relation, or at least in close touch, with the various hospitals prepared to receive cases of pulmonary tuberculosis, and would direct suitable patients, on the one hand, to sanatoria, and, on the other hand, to hospitals for incurable or dying cases.

If the proposal were more practically realized (which I made some half-dozen years ago in the BRITISH MEDICAL JOURNAL) that tuberculosis colonies should be established where poor patients might be enabled for long periods and under hygienic conditions to maintain themselves honourably by contributing to the common good of the residents, it would be a further function of the dispensary to select suitable patients for the colony, explaining to them its advantages in the shape both of physical and pecuniary benefit. Our experience for many years at the Victoria Hospital—where the conception has taken practical shape—abundantly proves that the idea of a tuberculous colony is a practicable one. At the present time the major portion of the non-medical staff of the hospital, including garden workers, engineer, carpenter, bath attendants, maid servants, and other workers, is constituted by tuberculous patients who have been restored to health at the hospital but whose chances of permanent cure would have been prejudiced by an immediate return to their previous employment.

The dispensary would also play an important part in the relief of the pecuniary distress which the disease so often entails. The families and dependents of affected persons must not only be safeguarded in respect of their health, and thus kept fit for work, but where necessary—as when the chief wage-earning member is affected—the dispensary should take cognizance of the household means and, if desirable, put the household in touch with one or other public or charitable fund. Reference to the inquiry schedule at present used at the Victoria Dispensary will show that it includes inquiry on such lines; nor has any inconvenience been found in obtaining the information.

Another valuable aspect of the dispensary's operations would be the determination of suitable lines of employment of a light and open-air kind for consumptive patients not requiring hospital treatment. This has been found in my experience one of the most valuable if sometimes a difficult part of the dispensary's operations. Many families have been saved from destitution by the timely suggestion of such work. Were tuberculosis colonies only more widely developed, a large part of the difficulty would be removed. To the care of the dispensary would naturally return patients who, after sanatorium treatment, remained still on doubtful ground in respect of permanence of cure. These would be similarly advised as to occupation, residence, continuance of treatment, and from time to time would report themselves for fresh examination.

School children already affected with the disease would be removed from the pernicious influences of school life, and their education supervised on physical lines. This would constitute an important move in preventive medicine in the interest both of the infected child and of the other school children.

Cost of Maintenance.

As to cost, I feel [illegible] from experience that in a town of the size, say, of Edinburgh, a sufficient organization of the kind sketched for an annual outlay of about £1,000. [illegible] the institution is necessarily capable of wide extension [illegible] accordingly greater outlay. I am confident that [illegible] the essentials of the scheme could be carried out effectively [illegible] outlay is trifling as compared [illegible] the cost of permanent maintenance of [illegible] in many instances to the individual would be incalculable, and [illegible] would be incalculable, and [illegible] saving the necessity of public money for [illegible].

Co-operation of Associations.

I have [illegible] that a complete organization against pulmonary tuberculosis must include for our large cities:

1. A home for dying patients, chiefly in the interests of other persons.
2. A sanatorium or sanatoria for selected [illegible] with a view to the cure of the disease, [illegible] not procurable in their own homes.
3. Colonies for the after-life and supervision of patients in whom the disease has been sufficiently arrested to make selected open-air employment feasible and desirable.
4. A tuberculosis dispensary with the functions and relations I have attempted to outline.

In the conflict with tuberculous disease, which every progressive community is called on to wage, each of these factors will play a part. They should be in close organic connexion. They will all be found serviceable. Resting on experience gained in the gradual evolution of a plan of campaign during the past seventeen years, my belief is that an *officially recognized* tuberculosis dispensary is essential as the base for further operations. In this belief, I recommend to every considerable community the establishment of such an institution which will serve at once as the developmental centre and uniting point of all other agencies.

REFERENCES.

[1] On the Universal Applicability of the Open-air Treatment of Pulmonary Tuberculosis, BRITISH MEDICAL JOURNAL, July 23rd, 1898. [2] Loc. cit.

PREGNANCY AFTER REMOVAL OF BOTH OVARIES FOR DERMOID TUMOUR.

BY W. A. MEREDITH, F.R.C.S.ENG.,
Senior Surgeon, Samaritan Free Hospital.

DURING the course of the past few years a certain number of instances of pregnancy originating subsequently to the removal of both ovaries have been reported in medical literature. The conditions requiring operation have generally been described as chronic inflammatory disease of the uterine appendages, or occasionally as cystic disease of the ovaries; and in most of the cases the subsequent occurrence of pregnancy has been explained on the supposition that some portion of one or other ovary was left behind at the operation usually by accident, but in some instances intentionally with the object of avoiding interference with the menstrual function. The following case illustrates the possibility of pregnancy after double ovariotomy for advanced dermoid disease under circumstances admitting of no doubt as to the complete extirpation of both ovaries, and seems therefore worthy of being recorded.

History.

The patient, 35 years of age and recently married, was first seen on May 14th, 1901, in consultation with Dr Godson, whom she had visited with a view to securing his attendance at her confinement. She was well nourished, and had always enjoyed good health, having been accustomed to lead an active out-of-door life up to the time of her marriage about two months before. She had not noticed any recent loss of flesh, and had been quite unaware of the existence of any abdominal enlargement until within a week or so of her visit to London. Menstruation had always been regular, the flow usually lasting for six days without suffering. The last period had terminated seven weeks before, the loss at this occasion having been scanty in amount and accompanied by a good deal of pain. For some eight weeks she had been troubled by nausea, and she believed herself to be pregnant.

[illegible]

The abdomen was found to be moderately distended by a somewhat irregular and obscurely fluctuating tumour extending upwards on the right side to within two fingerbreadths of the costal arch, and to a somewhat higher level on the left of the middle line. This latter portion was apparently separated by a definite sulcus from the main mass of the tumour, and gave the impression of an independent growth. The base of the larger tumour, a more solid consistence than its abdominal portion was found to be firmly wedged in the pelvic cavity, which it partially filled, displacing the cervix upwards and to the left. The enlarged body of the uterus was situated above and to the left of the pubes, and the tumour, where its dimensions could be pretty accurately determined on manual examination.

[illegible]

Double ovarian cystoma probably dermoids, complicated by early pregnancy of some eight weeks' duration.

[illegible]

May 15th, 1901. On opening the abdomen, the omentum was found firmly adherent to the parietes from the umbilicus to the pubes, overlying a small collection of free fluid which had evidently prevented its adhesion to the adjacent intestines. The upper cavity of the main cyst on the right side having been emptied by aspiration, the lower portion of the growth, which, although too adherent, was so firmly lodged in the pelvis as to render its extraction without previous puncture a troublesome business, was brought up and the whole was removed, after clamping of a pedicle measuring nearly 4 in. in length. The tumour on the left side, a smooth pyriform cyst of the size of a cocoa-nut, with a pedicle only 2 in. long, was removed unpunctured. The peritoneal cavity was then freely flushed out with sterilized water and closed without drainage.

Both tumours were found on examination to be typical examples of dermoid growth, containing abundance of fatty material and hair. In both instances the elongated pedicle, including the Fallopian tube and ovarian ligament, was purposely tied and divided as far as possible from its uterine extremity, in the hope of avoiding subsequent miscarriage. On the third day after operation, however, uterine haemorrhage began, and after persisting for forty-eight hours culminated in the expulsion of a vesicular mole. The patient's convalescence was somewhat retarded by a well-marked attack of influenza, but was otherwise uneventful.

After-history.

In the following April (1902) I saw this lady in excellent health shortly after her return from the Riviera. She then informed me that in January and February she had noticed a coloured "show" lasting on each occasion for forty-eight hours, and that in March, after travelling through from Nice to London, she had seen a normal "period" of four days' duration. On pelvic examination I found the uterus perfectly natural as to size, position, and mobility; the sound passed readily 2½ in., and caused no bleeding. No trace of any pelvic deposit or thickening could be detected.

During the next eleven months from the beginning of April, 1902, until the end of February, 1903—menstruation continued regular with but two exceptions in the course of the summer and autumn of 1902. On each of these occasions the flow recurred somewhat profusely the following month, but did not exceed the usual five days' duration.

Pregnancy.

In 1903 the February period ended on March 1st and failed to reappear towards the end of that month, when she began to be troubled with nausea, which persisted for the next twelve weeks. No return of menstruation occurred in April, May, June, or July, and towards the end of this latter month she began to feel movements at intervals. In the end of August she slipped and fell on a hard wood floor, an accident immediately followed by severe pain and haemorrhage, which in the course of a few hours resulted in the birth of a well-developed fetus at about the fifth month. She made a perfectly smooth recovery from this mishap under the care of her usual medical attendant. Menstruation recurred two months later in October, 1903, and has since then continued regular.

In 1902 Mr. Alban Doran[1] read before the Obstetrical Society an interesting paper founded upon a case which had been under his own care. The patient in question, having had her left ovary removed for cystoma by Dr. Robert Barnes in 1880, developed a cystic tumour of her right ovary some thirteen years later, which was taken away in 1894 by Mr. Doran, who noted at the time the absence of any remaining trace of the left ovary. This second operation was followed by a recurrence of normal menstruation, and two years later by the birth of a child. The tumour removed by Mr. Doran is described as a true multilocular ovarian cyst, of which the base burrowed to some extent between the layers of the right broad ligament. The author concluded that some detached area of ovarian tissue must have escaped removal during the enucleation of the deeply-seated base of the growth, a view which offers a sufficient explanation of the subsequent history of the case. Some doubt existed in his mind as to the inclusion of the right Fallopian tube in the ligatures applied to the main vessels at the base of the cyst; but this question does not materially affect the possibility of conception, as proved by the well-known fact of pregnancy following the attempted sterilization by ligature of both tubes after Caesarean section.

In my own case, the re-establishment of menstruation, followed by pregnancy, is of course to be explained only by the theory that some portion of ovarian tissue capable of maturing follicles was left untouched by the operation, and, further, that the patency of one or other Fallopian tube was subsequently restored. The possibility of this latter occurrence has been fully established, and need not, therefore, be discussed. On the other hand, the question of the probable site of the oöphoritic tissue which escaped removal requires some brief consideration.

The supposition that some portion of one or other ovary was accidentally left behind at the operation, as may well happen during the removal of small adherent ovaries or of a sessile or burrowing cyst, may, I think, be entirely discarded in the present instance. Both tumours, as already stated, were connected with the uterus by long and exceptionally well-defined pedicles, which, although purposely secured at some distance from their uterine extremity, afforded ample space on the distal side of the ligatures for the avoidance during division of any interference with the base of the tumours.

The possible existence of a third ovary has been often conjectured, and the occurrence of such an abnormality has been actually recorded in German literature[2]; but in every such instance the presence of a third Fallopian tube would appear to have been also noted—a condition in accord with what might be expected under such circumstances. Now, although one might well overlook the presence of an accessory ovary in the course of an operation, it is unlikely that a third Fallopian tube would escape notice, and I feel certain that no such abnormality existed in the case under consideration.

The only alternative supposition is that the ovarian tissue in question consisted of an outlying portion in connexion with the uterine extremity of one or other ovarian ligament. Such a condition—originally noted by Dr. Lockyer, and referred to by Mr. Doran in his Harveian Lectures[3] as having been discovered in a specimen of uterine tumour removed, with both appendages attached, by abdominal hysterectomy, would fully account for the return of menstruation followed by pregnancy in the case of my patient; and this I believe to be the true explanation of it.*

A point of considerable importance to be here noted is the general advisability of a guarded prognosis as to the possibility of pregnancy after double ovariotomy. Until recently the consideration of such a possible sequence to the operation in question had been practically set aside; but this can no longer be the rule, as recorded cases, although few in number, are sufficient to establish the fact of its occasional occurrence under favourable circumstances.

So far, the majority of instances would appear to have followed upon the removal of chronically inflamed appendages where some small portion of one or other ovary has been accidentally left behind, presumably on the proximal side of the ligature; and it should be borne in mind that this same thing may occur during the removal by enucleation of any sessile or intraligamentous growth.

The so-called conservative treatment of diseased ovaries, originally advocated with the view of avoiding interference with the menstrual function and the consequent disadvantages of a premature menopause, has recently been practised on the Continent and elsewhere with the further object of avoiding subsequent sterility, and with occasional success.[5] That the general adoption of such treatment is invariably judicious admits, I think, of considerable doubt, since it may well expose a patient to a recurrence of disease in the remaining portion of ovary without necessarily affording her a prospect of motherhood. At the same time, however, I am inclined to believe that in young women suffering from double ovarian cystic disease of a simple type, one is justified in purposely leaving a portion of normal ovarian tissue connected with the pedicle when possible to do so. On the other hand, in cases of rapidly growing adenomatous tumours, of colloid or papillomatous cysts, and of dermoid growths, no such attempt should be made, as the risk of recurrence in these conditions far outweighs any possible benefits to be derived from such treatment.

Finally, bearing in mind the occasional existence of follicular elements in connexion with the ovarian ligament, it is advisable, I think, in any case involving removal of both ovaries for cystoma of a non-malignant type to aim at transfixing the pedicles at a point sufficiently remote from the uterus to ensure non-interference with the root of the ligament, since by so doing one may afford the patient a possible chance of subsequent maternity, as was unwittingly done in the case here related.

REFERENCES.

1 *Trans. Obstet. Society*, 1902. 2 Thumin, Ueberzählige Eierstocke, *Arch. f. Gyn.*, 1895. 3 *Lancet*, February 7th, 1903, p. 352. 4 *Amer. Journal Obstet.*, December, 1902. 5 Condamin, *Annales de Gynec. et d'Obstet.*, March, 1904.

NOTES OF EXPERIMENTS TO DETERMINE THE RELATIVE EFFICIENCY OF SOME SURGICAL DRESSING MATERIALS.

BY

A. N. M'GREGOR, M.D., Assistant Surgeon, and R. RAMSEY, M.B., Ch.B., Late Senior House-Surgeon, Glasgow Royal Infirmary.

THE experiments were undertaken for the purpose of determining the relative absorptive power of the commoner surgical dressing materials. The need for some such experiments was suggested by the unsuitability, in practical clinical work, of the materials for drainage purposes in general use. The earlier experiments showed that a wide

* A similar abnormally situated mass of ovarian tissue, in close relation to the base of the ovarian ligament, has been described by Dr. Baldwin,[4] who discovered it during a second operation undertaken for the relief of persistent menorrhagia in a patient, both of whose ovaries he had previously removed.

range of materials and a variety of tests were essential. It soon became evident that dressings must be examined, first, to discover their absorptive—perhaps better called hygroscopic—powers; secondly, their powers of conveying fluid to a distance by capillary attraction; and, thirdly, the spreading or dispersive properties—presumably a combination of the previous two—by which fluids are conveyed from the point of contact and spread over a larger area.

The inception of these tests was due to the observation that on the withdrawal of a gauze drain from a discharging cavity a gush of fluid frequently followed the gauze. The gauze in these cases had acted as a cork and had bottled up the discharge instead of conducting the fluid to the surface dressing. It became necessary to find out, if possible, the cause or causes of the cessation of action of the drainage materials. It is a common experience that many conditions exist in which a cavity containing pus, blood, or other fluid has to be drained in such a way that gravitation is of no assistance—that is, where an opening cannot be made at the most dependent part. Where tubes alone are used in these cases only the overflow discharge reaches the dressing. Under these circumstances the general practice nowadays seems to resolve itself into the use of iodoform or other gauze drains with or without a rubber or glass drainage tube for the purpose of conveying the contents of the cavity to the covering dressing. It may be noted here that we do not refer to cavities of small size which are filled with packing material for other purposes than drainage.

A preliminary investigation by the simple means of dropping strips of dressing materials on to the surface of a basin of water evinced the fact that some samples of iodoform gauze failed to absorb water to any appreciable extent while other samples became saturated quickly. There were decided variations in many of the other materials.

Experiment 1.

The first experiment had for its object the determination of the amount of water that each material was able to hold in suspension when saturated and when compressed "dry."

A quantity, 20 gr. by weight, of each variety of the commoner surgical dressings was dropped into a basin containing a large quantity of water. On complete saturation each piece was picked out separately with artery forceps and allowed to drip until the drops ceased. The pieces were then weighed and it was found that the absorbent wool had increased to 413 gr., wood wool wadding to 413 gr., cellulose wadding (Tillman's paper dressing) to 290 gr., plain gauze to 176 gr., boracic lint to 150 gr. They were squeezed dry, and again weighed to show the amount of retained moisture. A full list of results is shown on Table I.

TABLE I.—*Showing the Amounts of Water, by Weight, Absorbed by the Various Materials when Saturated, and with the Losses on Squeezing Dry.*

Material.	Dry.	Soaked.	Squeezed Dry.	Total Increase of Weight of Material.	Weight when Squeezed Dry.	Weight of Water retained.
	gr.	gr.	gr.	gr.	gr.	gr.

Experiment 2.

The next experiment was devised to determine the rate of conveyance of water through a given length of material of approximately the same breadth and thickness. In other words, to find the rate of capillary attraction for water.

Strips of the various materials were cut as nearly as possible of the same bulk, and then each piece was simultaneously put in a basin of acidulated water. The strips dropped perpendicularly, and free from a ledge, 3 in. above the water, at which point a piece of blue litmus paper was attached to each strip. The acid solution travelled up the 3 in. of cellulose wadding in three minutes, boracic lint in four and a-half minutes, and plain gauze in six minutes. In the absorbent wool and wood-wool wadding the water had only travelled 1 in. in fifteen minutes—showing that these latter, though very hygroscopic (see Experiment 1) were markedly deficient in capillary attraction. Though plain gauze and MacFarlane's No. 1 iodoform gauze carried up the water in six minutes, other gauzes were very much slower, and some specimens would not absorb at all. The full results are shown in Table II.

TABLE II.—*Showing the Rates of Conveyance of Water and Pus through 3 in. of Various Materials of Approximately the same Breadth and Thickness.*

Material.	Water.	Pus.	Time taken to Absorb 1 drachm of Pus.
Cellulose wadding ...	3 minutes	5 minutes	4 hours.
Boracic lint McF	4 ,,	8 ,,	1 ,,
,, Baird	5 ,,	9 ,,	2 ,,
Gauze plain	6 ,,	8 ,,	2 ,,
,, Baird ...	7 ,,	12 ,,	2 ,,
Iodof gauze McF No. 1	7 ,,	8 ,,	2 ,,
Chromat. catgut ...	8 ,,	8 ,,	2½ ,,
Lint	10 ,,	20 ,,	7 ,,
Cyanide gauze ...	15 ,,	not tested	not tested.
Salicylated gauze	18 ,,	,, ,,	,, ,,
Lister mercuric gauze	22 ,,	15 minutes	4½ hours.
Gauze with dry iodol crystals	23 ,,	24 ,,	4 ,,
Ribbon iodol gauze	23 ,,	4 ,,	4 ,,
Absorbent wool	approx. 1 hr.	nil.	not tested.
Wood wool wadding	1 hr.	,, ,,	,, ,,
Iodol gauze Baird	1 hr.	practically none	6 hours.
Iodof gauze McF No. ...	none	none	none.

Experiment 3.

Recognizing that in the actual conditions of surgical work the carriage of water is not the only desideratum, and that the removal of pus cells, fibrin, and débris is also necessary, the third experiment was carried out on the following lines:

An acid pus with a specific gravity of 1010 was used to test the capillary attraction of dressings for a fluid containing solids in suspension. 2 drachms of this pus were put into each of a number of urine glasses, and strips of the various materials loosely packed down narrow glass tubes were simultaneously lowered, one into each urine glass. Three inches above the surface of the pus was placed, as before, a piece of blue litmus paper. The acid pus travelled up the 3 in. of cellulose wadding in five minutes, plain gauze in eight to fifteen minutes, boracic lint in eight and a-half to twenty minutes. The cellulose wadding absorbed 1 drachm of pus in four hours, then stopped, when it was transferred to a glass containing water it did not absorb any of that fluid. The plain gauze absorbed ½ drachm of pus in four hours, after which it absorbed neither pus nor water. The boracic lint absorbed 2 drachms of pus in four hours, and though it would absorb no more pus it absorbed 2 drachms of water when transferred. In the latter half of this experiment the tops of the tubes were covered with cotton-wool.

Microscopic examination of the fluid at different levels of each tube revealed pus cells and débris in the boracic lint fully 3 in. above the original level of the pus, but in the other materials these were only found in that part of the dressing which had been actually immersed in the pus. From this it would seem that a factor in the stoppage of the drainage was a blocking of the meshes of the drain by solid matter. In order to see if this was the only factor another experiment was performed.

Experiment 4.

The drains were used as in Experiment 2, but in this instance their free ends were allowed to hang over the edges of the urine glasses. It was found that as soon as the drain became saturated with water the capillary action in all cases ceased. No drops fell from the free end, thus showing that saturation of the material stops capillary action.

On consideration of the results of the foregoing experiments it was manifest that the materials most suitable for capillary action were not those of the highest hygroscopic quality, and it was also seen that when pus was used the

point of saturation in a 3-in. drain of average thickness was reached in four hours when no covering dressing was used.

Fig. 1 (Experiment 5). Photograph taken an hour after the start of an experiment. 1. Cellulose drain and cover. 2. Boracic lint drain and cover. 3. Plain gauze drain and cover. 4. Iodoform gauze drain and cover.

Experiment 5.

Inasmuch as the saturation of a drain depends on the rapidity with which the covering dressing removes the fluid from the drainage material, a number of samples of marked hygroscopic power were employed as covering materials in Experiment 5. Half an ounce of methyl blue solution was put into various urine glasses; 3-in. strips of materials were then lowered into each through glass tubes, and covered with the same or other material. The length of time taken by each combination to remove the ½ oz. of fluid was noted, and the following are the principal results:

Cellulose wadding drain with cellulose wadding cover took half an hour.

Plain gauze drain with cellulose wadding cover took an hour and a-half.

Plain gauze drain with plain gauze cover took three hours.

Boracic lint drain and boracic lint cover took an hour and a-half.

Where absorbent cotton or wood-wool wadding was used as a covering material the whole of the ½ oz. of fluid was not absorbed, showing that the power of the material to convey the fluid from the point of contact with the drain is not dependent on the hygroscopic power alone. (Fig. 1 from a photograph shows four of these tests in process.) For this purpose a spreading or dispersive quality is most suitable, and this seems to be a combination of capillary attraction and hygroscopic power.

Experiment 6.

In order to measure this quality the sixth experiment was undertaken. Pieces of the different materials were cut into squares of nearly the same size and thickness. On the centre of each square, from a height of 3 in., 10 drops of a coloured solution were allowed to fall from a pipette. The following are some of the results:

Boracic lint, plain side up, stain on proximal side 1 in. in diameter; distal ½ in.

Boracic lint, lace side up, stain on proximal side ¼ in. in diameter, distal ½ in.

Wood-wool wadding, stain on proximal side 1 in. in diameter; distal ½ in.

Cellulose wadding (Tillman's paper), stain on proximal side ¾ in. in diameter, distal ½ in.

Plain gauze, stain on proximal side 1 in. in diameter, distal ½ in.

In the second photograph the upper row shows the stain on the proximal side; the under row shows the stain on the distal side.

CONCLUSIONS.

To recapitulate these results shortly, it has been found:

1. That the most suitable drainage material for the conveyance of fluids with solids in suspension is dry boracic lint; cellulose wadding is almost as efficient, but its friability renders it unsuitable for drainage purposes, unless enclosed in a gauze envelope.

2. That the best covering materials for the speedy removal of the discharge from the distal end of the drain are cellulose wadding and gauze.

3. That the covering material should be sufficient in amount to continue in action as long as the drain, and prevent saturation of the latter.

4. That, as the blocking of the drain takes place in four to eight hours, a more frequent dressing than usual is indicated.

It should be stated that the variations in the iodoform gauzes were probably due to the preparation of the material, and certainly not to the influence of the iodoform, as the specimens used were all 10 per cent., and some of them acted as efficiently as plain gauze.

In reviewing the conclusions of these experiments the obvious objections arise that the influences of temperature, surface evaporation, coagulation of fibrin, and drugs will all modify the results. Since it is practically impossible to test all the materials for every varied condition, and as it is likely that the modifying circumstances will give proportionately similar results, it is hoped that the above experiments will be of use in actual practice.

In the search for a suitable drainage material many substances have been tested, those noted above being only a few of the best. It is hoped that a more efficient drain may yet be discovered, and to this end we shall be glad to receive suggestions as to materials and references to other researches.

Our thanks are due to Messrs. Baird Brothers and others who have supplied us with samples.

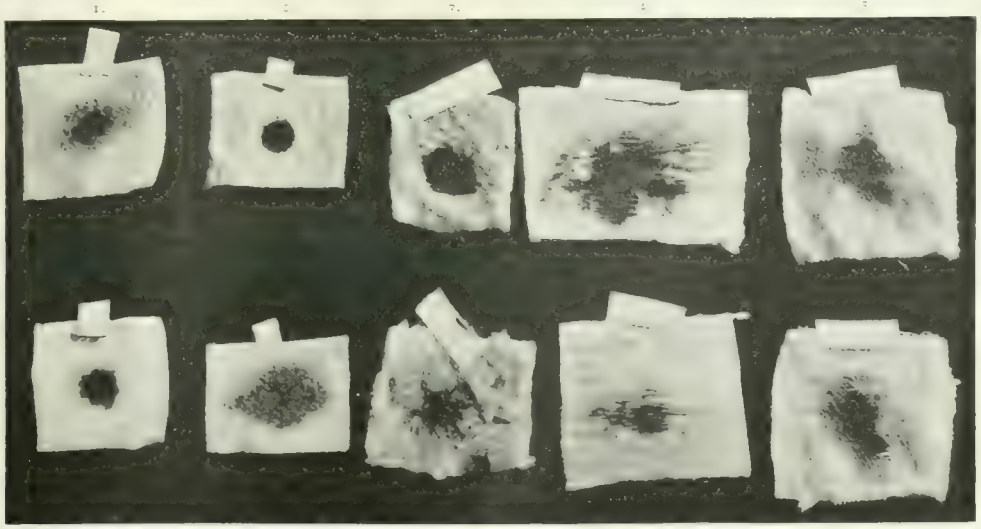


Fig. 2 (Experiment 6).—1. Boracic lint, back upwards. 2. Boracic lint, face upwards. 3. Wood-wool wadding. 4. Cellulose. 5. Plain gauze.

A BACTERIOLOGICAL INQUIRY INTO THE STERILIZATION OF HANDS.

By J. RUPERT COLLINS, M.D., B.Ch. (Univ. Dubl.),
Surgeon in Charge of the Branch Dispensary, Cheltenham General Hospital.

There exists still a remarkable uncertainty as to the best method to be used for disinfecting the skin. At a recent meeting of the Gloucestershire Branch of the British Medical Association opinions ranged from the use of very strong chemical solutions to the opinion, skilfully maintained, of using no chemical whatsoever for the preparation of the hands before an operation.

In the simple experiments given here an attempt has been made to represent in a practical way the changing bacteriological picture presented by the hands of the surgeon in the successive stages of the ordeal through which they pass prior to an operation.

Sterile Petri dishes with a layer of agar-agar at the bottom were prepared in the usual way. An imprint was then taken on the surface of the agar-agar of Plate I. of the first three fingers of the unwashed hand. The hands were then scrubbed and dried in the usual way with a sterilized towel or by holding them in front of the fire so as to avoid any liquid, septic or antiseptic, coming on the plate, and an imprint of the same six fingers was taken on Plate II. The hands were then soaked in an antiseptic solution, dried as before, and an imprint of the same fingers was taken on Plate III. The three plates were then placed in the oven and the number of the colonies which grew counted. In the washing each side of both hands and the arms up to the elbows were washed, the finger imprints representing six separate samples of the area of skin cleansed.

The effects on the skin of a chemical antiseptic were found to persist for a considerable time, for this reason each of the experiments recorded was performed at intervals of, usually, twenty-four hours, no antiseptic being applied to the hands in the interim.

In the first two experiments, the nail-brush employed was one which was kept in the scullery in the surgery. After these two experiments the brush was promptly seized and burnt by the house-surgeon, and the nail-brush was in future kept in carbolic acid 1 in 40.

With this sterilized brush the remainder of the experiments were performed. When washing in plain water, filtered water was used. After washing in antiseptics two changes of water were used, the soap used throughout the entire series was Pears'.

Number of Colonies.

Plate I. Unwashed	Plate II. Washed 5 min. in tepid water	Antiseptic	Plate III. Antiseptic used.
4	51	—	Carbolic acid 1 in 40, 5 min.
2 + over-growth	61	—	Carbolic acid, 1 in 40, 5 min.
—	over-grown	—	Carbolic acid, 1 in 40, 5 min.
over-growth	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
29	1	—	Perchloride of mercury, 1 in 1,000, 1 min.
1	2	—	Perchloride of mercury, 1 in 1,000, 1 min.
3	7	—	Perchloride of mercury, 1 in 1,000, 1 min.
17	—	1	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
	Washed 5 min. in very hot water.		
1	3	—	Carbolic acid, 1 in 40, 5 min.
40	5	—	Carbolic acid, 1 in 40, 5 min.
1	1	—	Carbolic acid, 1 in 40, 5 min.
over-growth	1	—	Carbolic acid, 1 in 40, 5 min.
over-growth	7	—	Carbolic acid, 1 in 40, 5 min.
1	11	1	Carbolic acid, 1 in 40, 5 min.
over-growth	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.

The effect was now tried of introducing an antiseptic into the first scrubbing and shortening the final soaking to one minute, making thus a period of six minutes for the entire process.

Number of Colonies.

Plate I. Unwashed	Plate II. Washed 5 min. in tepid water	Antiseptic	Plate III. Antiseptic used.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 500, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
—	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
74 + over-growth	—	—	Perchloride of mercury, 1 in 1,000, 1 min.
	Washed 1 min. in very hot water.		
—	—	—	Carbolic acid, 1 in 40, 1 min.
—	—	—	Carbolic acid, 1 in 40, 1 min.
over-growth	—	—	Carbolic acid, 1 in 40, 1 min.
over-growth	—	—	Carbolic acid, 1 in 40, 1 min.
—	—	—	Carbolic acid, 1 in 40, 1 min.
—	—	—	Carbolic acid, 1 in 40, 1 min.
—	—	—	Carbolic acid, 1 in 40, 1 min.
—	—	—	Carbolic acid, 1 in 40, 1 min.

The precise nature of the micro-organisms present is not given as it is of no importance to the main point at issue. They were those usually present on the skin.

When the phrase mentioned in the above tables as being over-grown is used that a rapidly growing mould had spread over the surface of the agar-agar. It will be noticed that the organisms in only one case after washing, apparently as they do not penetrate the skin as deeply as do bacilli and

A brief consideration of the structure of the integument which has to be cleansed will show that we might have arrived, reasoning *a priori*, at the same conclusion as we are led to by practical experiment.

The skin presents a surface of superposed, flat, horny, scale-like cells; loosely attached and overlapping one another. The more superficial cells are continually undergoing desquamation, while fresh cells are thrust up in their place from the deeper layers as they pass through the successive stages from stratum Malpighii to stratum corneum. There is thus a thin outer porous coating on the epidermis, the interstices of which are swarming with micro-organisms. If the hands be placed in an antiseptic solution for a short time the micro-organisms on the surface are killed, but any friction removing these outer cells will lay bare the remainder of this porous coating rich in micro-organisms. The following experiment exemplifies this. The unwashed hands gave a growth of seventeen colonies on agar-agar; the hands were then immersed for three minutes in 1 in 1,000 perchloride of mercury solution, dried in front of the fire, and an imprint taken on a second plate. This second plate showed a thin lineal growth along one finger print. The hands were then rubbed on a sterilized towel and an imprint was taken on a third plate. This third plate showed all the finger prints rich in growth, and from them a large part of the surface of the agar-agar was overgrown.

The first step to be taken in the cleansing of hands is to remove by friction this outer coating of feebly adherent cells with the contamination they enclose. Strict asepticians maintain that they can perform this without any chemical disinfectant whatever. My experience is against this, and if the washing is not prolonged it probably only aggravates matters by simply ploughing up without detaching the coating of loose cells. It is important to dissolve off the outer layer of the soap which must be considered septic. When this is done the soap is probably aseptic, inasmuch as it has to be boiled in the making; and such tests as I have done on the interior of an unmedicated soap prove it to be so.

At the same time I believe that people vary much in the septicity of their skins. The frequent use of antiseptics renders the skin hard and glazy, and in that case the hands are more easily sterilized. Mr. Curtis, late house surgeon to this hospital, very kindly performed for me some experiments under precisely the same conditions as I employed on my own hands, with, as will be seen, very different results.

Number of Colonies.

Plate I. Hands unwashed.	Plate II. Washed 3 minutes in hot water.	Plate III.	Antiseptic used.
1:4		o	Perchloride of mercury, 1 in [illegible] min.
Overgrown	2	o	Perchloride of mercury, 1 in [illegible] min.
[illegible]4			Perchloride of mercury, 1 in [illegible] min.
Overgrown	8		Perchloride of mercury, 1 in [illegible] min.
2:4	1[illegible]		Perchloride of mercury, 1 in [illegible] min.

His duties necessitated frequent scrubbing of his hands and the use of strong chemical antiseptics, with the result that the septic porous layer was reduced to a minimum, and the deeper layers of the skin were probably imbued to a considerable extent by chemical substances. The penetrating power possessed by these chemical agents is shown by the cases of poisoning arising from the external application of strong mercurial and carbolic lotions. The following experiment indicates the durative of the effects of antiseptically cleansing the skin.

After performing a *post-mortem* examination lasting some hours the hands were cleansed in lysol 1 per cent. and then soaked in perchloride of mercury 1 in 1,000. The exact duration of the washing was not timed but the whole did not, I think, exceed five minutes. Three hours later when examined in the usual way by plates the result was:—

Number of Colonies.

Plate I. Hands unwashed.	Plate II. Washed 3 minutes in hot water.	Plate III. Carbolic acid 1 in 40 for 3 minutes.
Lineal growth along one finger print.	o	o

The use of very hot water in scrubbing the hands is important. In the first place it softens and removes the outer layer of skin more easily than tepid water. In the second place, passing through the skin are the ducts of sweat and sebaceous glands. The heat and increased circulation will aid in squeezing out the possible septic contents of these glands, and if the hands are then immersed in a cold antiseptic solution the physical result must be to suck up some of this solution into the ducts and thus seal them off from all fear of their contents doing harm.

As surgeons are naturally anxious to cleanse their hands rapidly, not to use an antiseptic miscible with soap in the preliminary washing, seems, to say the least of it, an unnecessary waste of valuable time, inasmuch as the final soaking in an antiseptic must be in that case longer.

To test the genuineness of the sterility of the hands produced by the last two methods adopted, lysol, followed by corrosive sublimate and biniodide of mercury, followed by carbolic acid, the following experiments were performed. A sterile jar containing sterile nutrient broth was prepared. After the completion of one out of each of the series of plate experiments recorded in the above tables, the whole hand and wrist was inserted in this jar so that the entire surface of the hand and wrist was submerged in the broth and was kept there for one minute. The jar was then closed and incubated. The broth remained sterile in the case in which lysol and corrosive sublimate had been used, in the case of the other jar where biniodide of mercury and carbolic acid had been used to cleanse the hands, a fungus growth formed on the surface of the broth. The opportunity for aërial contamination in the passage of the hands from the lotion to the broth is very great, and the fact that the infection was a mould renders it likely that this was the cause of the failure of the hands to stand the test in this instance. I hope, however, to repeat this experiment which, I think, must be regarded as a stringent test.

As it has been definitely established that some micro-organisms have relatively a selective tolerance for certain antiseptics a different antiseptic was used in the final soaking from that which was used in the primary scrubbing. There are, of course, many other antiseptics which would act as well, but those mentioned were selected as being the commonest of the two great groups of tarry extracts and mercurial compounds. They also have the advantage of costing little.

The biniodide of mercury solution was an aqueous solution of the potassio-mercuric iodide, HgI_2, 2KI., prepared by the interaction of perchloride of mercury and potassium iodide. I think it is worth mentioning that there are three solutions of biniodide of mercury in common use, a solution in potassium iodide and water, a solution in 90 per cent. of alcohol, and a solution in ether. The alcohol and ether solutions have the objections that in the first place they cannot be used with soap, in the second place they readily evaporate, leaving solid particles of the red mercuric iodide which is excessively irritating to the skin and, being practically insoluble in water, is not readily washed off. The addition, also, of more than 10 per cent. of water will cause precipitation of HgI_2, from even an absolute alcohol solution.

One of the factors which has delayed the determination of the best method of sterilizing the skin more than anything else is the extraordinary power healthy tissues possess of overcoming and apparently killing micro-organisms. The result is that good and even brilliant results have been obtained with faulty methods; and when in a weak individual suppuration takes place after an operation performed under similar conditions as provided at the previous successes, the tissues of the patient are blamed, and not the technique of the surgeon. I believe that when surgeons operate with the same scientific accuracy in every detail of an operation as must prevail at any bacteriological experiment, he will be as little inclined to blame the tissues of his patient for post-operative suppuration as is the bacteriologist to blame his culture media and not technical error for any contamination taking place during his experiments.

I think the above experiments, as far as they go, at least point to, if they do not justify, the following conclusions:

1. The nail-brush used should be either boiled before use, or better still, kept always in an antiseptic solution.
2. Vigorous scrubbing is required for at least five minutes.
3. The water should be as hot as can be comfortably borne.
4. Chemical antiseptics of efficient strength should be used for cleansing the skin, and it is preferable that they should be used in the primary washing as well as in the final soaking.
5. With sufficient time and care sterilization of the skin is not impossible.

The mode of preparing the skin of the patient for operation will be similar to that found best for sterilizing the hands of the surgeon, though probably less friction will be required in cleansing the skin of other parts of the body than is required in the cleansing of the hands and feet.

Besides the skin, there exists as a source of infection the instruments and dressings, and the air of the operating theatre. The instruments and dressings can be sterilized by heat. There remains the air of the theatre, the importance of which as a septic agent and the adequacy of the methods adopted to meet it I hope to show by experiments shortly, together with further investigations on the question of skin sterilization.

FURTHER OBSERVATIONS ON THE THERAPEUTIC VALUE OF RADIUM AND THORIUM.

By J. M. H. MacLEOD, M.A., M.D., M.R.C.P.,

Assistant Physician for Diseases of the Skin, Charing Cross Hospital; Physician, Skin Department, Victoria Hospital for Children.

In January of this year my colleague, Mr. Mackenzie Davidson, contributed a paper to the British Medical Journal on some cases treated by exposure to radium bromide. The results obtained in two of these cases which I had the opportunity of watching while under treatment were so striking that I was induced to try the effect of this powerful salt in a number of cases under my care at Charing Cross Hospital. I have employed this treatment in suitable cases since last autumn, and though sufficient time has not yet elapsed to be certain with regard to the permanence of the results, still brief notes on a few of these cases and a record of my experience of radium as a local therapeutic agent may be of some interest.

The principal cases in which I have tried the effect of radium bromide have been lupus vulgaris, both the nodular and verrucose varieties, lupus erythematosus, rodent ulcer, and epithelioma, and, with the kind permission and under the supervision of my colleague, Dr. Amand Routh, two cases of cancer of the cervix uteri.

The radioactivity of the radium bromide which I employed has been estimated at 100,000 units, taking the activity of uranium as the unit. It was put up in quantities of 5 mg. in sealed glass tubes. I also used a tube containing the same quantity of radium bromide of two or three times the activity of the other tubes. In this communication I will designate the two types of tubes as "strong" and "weak" tubes.

Mode of Application.

The fact that the radium bromide was contained in a sealed tube made of glass has been considered as interfering with the full activity of the salt. Various forms of apparatus have been introduced to obviate this, in which the radium is enabled in a small metal capsule with a platinum end, which is supposed to be more transparent to the rays than glass, or in capsules of aluminium foil covered with mica and enclosed in a tube of brass with a central aperture. Practical experience, however, has shown that the rays which penetrate the glass are sufficiently powerful to leave a therapeutic effect on the skin, but, unless their action is carefully limited, to produce a serious burn. I will not attempt to discuss the question of the various types of rays which are given off by radium or the special rays, or of the relative value of the different varieties. These problems I must leave to the physicist, stating only briefly that the general consensus of opinion seems to be that it is the so-called beta rays which have the chief therapeutic value and that these readily pass through glass. Recent researches have shown that radium has the power of inhibiting the growth of various bacteria, and certain experimenters, such as Doyen and Wyglasinski, consider it probable that it is to the beta rays that radium owes this inhibitory power.

Another obvious criticism of the method of application of radium bromide in a sealed glass tube of about 1½ in. in length is that such a small quantity as 5 mg. of the salt is apt to get spread about the tube, and will not keep in one position. This is a just criticism, and though in most cases the radium may be satisfactorily applied in such a tube with care, still it is practically impossible to do so when it has to be applied in situations such as the inside of the nostrils. To obviate this difficulty I have had a special tube made with an hour-glass constriction at one end containing the salt. This small tube can be easily inserted into the nostrils, and with the patient in the recumbent position can be retained there with no difficulty or discomfort.

At first I was in the habit of fixing the tubes in position on the skin by means of adhesive plaster. This necessitated considerable handling of the tubes, and, to minimize the risk of breaking them, I now place them in a metal tray (Fig. 1) on a bed of sterilized cotton-wool and fix them by a bandage. The tray and the tube are contained when not in use in a metal box, as shown in the diagram.*

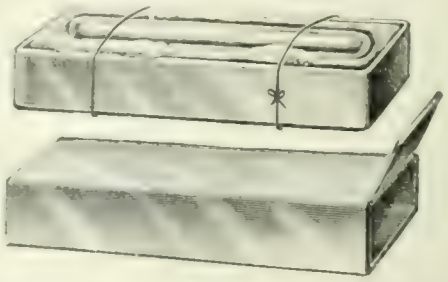


Fig. 1

For the purpose of applying the tubes in cavities such as the throat and vagina I have also had a catheter-like holder made with a malleable metal extension on which a piece of indiarubber can be fixed for the teeth to bite against (Fig. 2).

Fig. 2

Every part of the diseased area was exposed *seriatim* and then at least a week was allowed to elapse. If no inflammatory reaction occurred daily exposures were given for a week, and then the treatment was intermitted for a fortnight and followed by a second cycle of exposures, and a third if necessary.

The length of time of the exposures depended chiefly on the purity and activity of the radium bromide in the tube, and also on the characters of the diseased area. With the strong tube exposures of ten minutes duration were ample, but to get the same effect with a weak tube an hour or more was required. Where there was much thickening of the epidermis, as on the border of a rodent ulcer or in the verrucose type of lupus vulgaris, longer exposures could be given with safety than in the case of a nodular lupus where the epidermis was thin. Every precaution was taken to under-expose rather than over-expose the lesions, as the best results were

* For the tube-holder and for the plan of the box I am indebted to Mr. W. Martindale.

obtained when the exposures were stopped as soon as any sign of a reaction appeared. In several instances, before the importance of avoiding a reaction was recognized, where too long or too frequent exposures had been given, burns which developed into indolent ulcers were produced, and these took several weeks to heal. The action of the rays from radium, like that of the *x* rays, appears to be cumulative. They cause a cellular degeneration of weakly resistant diseased cells, and when this reaches a certain degree an inflammatory reaction is secondarily induced, and, as this occurs in an impaired tissue, an indolent ulcer is the result.

The application of the radium was associated with no discomfort at the time. As a rule, a slight sensation of prickling or burning was felt next morning, and this persisted for a day or two. In a number of the cases subjective symptoms were wholly absent. There seemed to be a certain amount of idiosyncrasy with regard to the sensation produced by the rays on different individuals. In a few cases neuralgic pains followed the exposures, but whether they were *post hoc* or *propter hoc* I was unable to decide.

NOTES OF CASES TREATED BY RADIUM BROMIDE.

CASE I.—*Lupus Verrucosus of the Back of the Left Hand.*

The patient was a boy, aged 14 years, who came under my observation at the Victoria Hospital for Children in October of last year. The diseased patch was situated on the ulnar aspect of the hand and extended from the metacarpo-phalangeal joint of the fourth finger up to the wrist. It was bounded externally by the ulnar border of the hand and centrally by an irregular warty border about 6 mm. in width and raised about 2 mm. above the level of the surrounding skin. This border was the most marked portion of the lesion, and was deep red in colour and covered by adherent scales. Above the wrist several brownish-red nodules about the size of a split pea were present. A glance at the photograph (Fig. 3) will show the extent and general characters of the lesion.

FIG. 3.—Lupus verrucosus; before treatment by radium bromide.

FIG. 4.—Lupus verrucosus, after treatment by radium bromide.

The boy was otherwise healthy, and there was no history of tuberculosis in his family. The disease began when he was about 2 years old. Soon after this he came under the care of my colleague, Mr. H. F. Waterhouse, who treated him by cauterization and salicylic collodion and greatly improved the condition, but when treatment was remitted it slowly recurred.

Since he came under my charge he has been treated with radium bromide, and the result so far has been most satisfactory, though it is impossible to tell if it will be permanent. The treatment was begun on October 25th, 1903, and the condition at that time is shown in Fig. 3. A series of exposures to a weak tube were given, the tube being applied to different parts of the lesion for an hour at a time. The exposures were continued twice a week till February of this year, when the second photograph was taken. He had had at that time 45 exposures. The subjective symptoms produced by the rays were slight, and consisted of itching or prickling sensations which came on soon after the exposure, and lasted for about 24 hours. After the first few exposures the thickened skin began to feel soft, and the warty patch gradually faded without the production of any marked inflammatory reaction, except on two occasions when exposures of two hours were tried, which resulted in causing inflamed and painful spots, and these ulcerated and took about a fortnight to heal. On several other occasions equally long exposures were given to the indolent warty lesions with no serious sequelae, but with considerable benefit. The second photograph (Fig. 4) shows the great improvement produced by the treatment. The raised patch which limited the lesion hardly that time became flattened down to the level of the rest of the skin, and with the exception of a certain amount of atrophy of the skin, the result was eminently satisfactory. I think, however, that an equally good result might have been obtained by means of the *x* rays.

Note.—This case was demonstrated at the Dermatological Society of London in December, 1903, and a description of it may be found in the *British Journal of Dermatology*, January, 1904, p. 23.

CASE II.—*Lupus Vulgaris: Patch involving the Skin of the Junction of the Lobule of the Ear and the Cheek.*

The patient was a healthy-looking woman, aged 25, and there was no history of tuberculosis in her family. The lesion was a patch of nodular lupus and had a smooth non-ulcerated surface. Besides this patch there was the scar of an earlier lesion on the left malar eminence which had been treated.

Treatment with radium bromide was begun on October 15th. Exposures were given once a week and afterwards at intervals of a fortnight or three weeks. After the third exposure the lesion became sore and smarted, but did not become much inflamed. On May 18th after 18 exposures the lupus had almost completely disappeared, but she is still having an occasional exposure to minimize the risk of a recurrence.

The result in this case was satisfactory, but slow. An equally good result and in a shorter time might have been obtained by a few exposures to a Finsen lamp followed by the cauterization of the remaining deep-seated nodules by a fine pointed actual cautery.

CASE III.—*Lupus Vulgaris extending over the Right Temple.*

The patient was a little girl, aged 11, and the disease began when she was 5 years old. The lesion was about the size of half-a-crown and involved the outer half of the right eyebrow, from which the hairs had disappeared, and it spread down on the upper eyelid and upwards on the temple for about ½ in. It was a patch of ordinary nodular lupus, the infiltration being most marked at the margins, while in the centre the disease had partly been replaced by scar tissue as the result of having been scraped. When she first came under observation at Charing Cross Hospital she was treated by Finsen light and the diseased area improved, but owing to the situation on the eyelid it was difficult to get sufficient pressure, and exposures to radium bromide were substituted. She has had a large number of exposures to the radium salt, about 70 in all, and though it has not yet entirely disappeared the raised borders have flattened down and the improvement is most marked, hardly any trace of the granuloma being left and only a certain amount of redness which is the result of the action of the radium.

Soon after the treatment was commenced, and before there was any sign of a reaction, the raised border began to flatten appreciably. Then the lesion seemed to become very sensitive, and even a short exposure to a weak tube caused a slight reaction. On one occasion a severe reaction took place almost immediately after exposure to the upper eyelid; this was associated with smarting, redness, and swelling of the lid, which did not subside for 48 hours. On another occasion a reaction occurred, which culminated in the formation of a small ulcer, which took a fortnight to heal, but as it was situated in the diseased tissue it did no definite harm.

CASE IV.—*Rodent Ulcer situated at the Junction of the Nose and Forehead.*

The patient was a strong looking man, aged 56 years, and the ulcer was first noted at 32 years of age. It began as a small lesion midway between the supraciliary ridges. He sought relief at St. Mary's Hospital, where the lesion was cauterized and finally excised under an anaesthetic by Mr. Malcolm Morris; but owing to the position of part of the lesion on the left eyelid a total extirpation was not advisable, as he was a sculptor, and it was feared that the consequent contraction produced by a complete excision would have interfered with his eyesight; the part of the lesion on the eyelid was treated at that time by the cautery.

Before coming to Charing Cross Hospital he had had no treatment for seven years. When he came under observation there was an irregular scar about the size of a shilling above the root of the nose. Extending from the inner canthus of the right eye, across the nose and on to the left upper eyelid, there was an ulcerated patch covered by a haemorrhagic crust, and associated with this were several small nodules about the size of a split-pea and covered with a scab. The ulcerated area was gradually spreading, and the lesion was accompanied by itching, burning, and occasional shooting pains. Treatment by radium bromide was begun on February 12th, 1904, when the first of the two photographs was taken (Fig. 5). Exposure of half an hour with the weak tube or about ten minutes with the strong tube were given, and the second photograph was taken after 40 exposures on April 27th (Fig. 6). At that time the ulceration had healed, and the crusts had entirely disappeared a smooth scar had been produced, and the subjective symptoms had gone. The exposures caused him no discomfort, and he was only aware of a slight feeling of warmth soon after them. An inflammatory reaction was carefully avoided.

CASE V.—*Rodent Ulcer on the Left Cheek.*

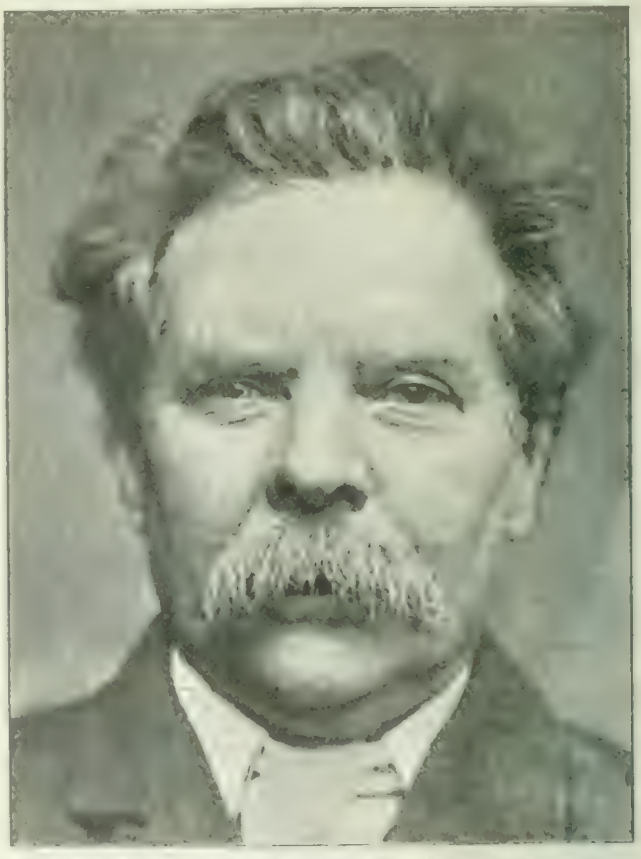
The patient was a healthy woman, aged [illegible] years, who came up for treatment to Charing Cross Hospital suffering from a small rodent ulcer about the size of a threepenny piece, situated on the left cheek immediately below the left eyelid. The lesion was a typical rodent ulcer with the characteristic rolled "cartilaginous border" which was incomplete and a depressed excoriated centre (Fig. [illegible]). It began when she was [illegible] years of age and had had no treatment till she came to the hospital. **The ulcer was treated by radium bromide. She had altogether 18 exposures, the length of time depending on the activity of the tube employed.** An inflammatory reaction was carefully avoided, the only approach to one occurring after the third exposure, when an intermittent pricking sensation and some redness was produced which lasted for about a couple of days. Soon after this the rolled edge and the central portion came off like a crust of impetigo, leaving a denuded surface which soon healed over. As the scar tissue presented a glossy appearance **and was slightly thickened, the exposures were continued until it** appeared to be healthy (Fig. [illegible]).

In this case the radium acted brilliantly. Doubtless the Roentgen rays would have given a good result also, but the simplicity of the radium applications recommended itself. The position of the lesion, im-

[illegible] Case V.—Rodent ulcer before treatment by radium bromide.

[illegible] portress at Covent Garden Market. On examination, however, it was **found that the disease had been spreading rapidly and had involved the anterior vaginal wall, and that posteriorly there was a hard mass** apparently about to infiltrate into the rectum. In this case the number of exposures had been insufficient to produce any effect in preventing the extension of the disease.

CASE VII.—The second case was that of a married woman, aged [illegible] years, who had suffered from haemorrhage for about fifteen months before coming to the hospital. On examination the uterus was found to be fixed and the cervix to be involved in a mass of growth, with a large crater-like cavity. On March 11th a portion of the growth was removed and the cervical canal was scraped and sufficiently enlarged for the insertion of the radium tube. A microscopical examination showed that the lesion was an alveolar carcinoma. Radium treatment was tried from March 14th to April 14th, and 12 exposures of half an hour each to the strength to were given. On March 29th the uterus was found to **be slightly more movable, and the cavity in the endocervix was distinctly larger and extended higher up into the uterus, owing to a** destruction and absorption of part of the growth. After April 14th the patient failed to appear again. The result in this case was more **encouraging than in the last, and the exposure seemed to have had a**



[illegible] Case [illegible] after treatment by radium bromide.

[illegible] in breaking down and diminishing the amount of [illegible].

Among the other cases in the treatment of which radium bromide was employed reference may be made to the following.

In another case of rodent ulcer, in which the lesion was about the size of a crownpiece, treatment was begun with **radium bromide, but though improvement did take place,** especially at the rolled edge, it was so slow on account of the size of the diseased area, that it was discontinued in **favour of the *x* rays.**

In a superficial epithelioma about 3 m. in diameter, situated on the side of the neck, radium exposures were tried, but they were followed by no distinct benefit, and on several occasions severe neuralgic pains resulted, which **prevented the patient from sleeping.**

In two cases of lupus erythematosus of the discoid type a series of exposures to radium bromide were employed, but these were discontinued as they did not appear to be in the least degree beneficial.

In three cases of lupus vulgaris, involving the mucous membrane of the nose, considerable benefit was derived from

[illegible] m indebted to Mr. C. L. Lakin,

exposures of half an hour to a weak tube inserted in the nostrils. After two or three exposures the patient felt more comfortable, could breathe more easily through the nostrils, and where a discharge was present, the rays appeared to dry it up. This is a field of utility for radium which merits an extended trial. In a very large percentage of cases of lupus vulgaris of the face, the nasal mucosa is involved, and the treatment of such cases is specially difficult. It is impossible to apply Finsen light to the inside of the nostrils, and it is difficult to get a good result with the *x* rays, and though excellent results may occasionally be obtained by experts, by scraping and canterization, in many instances a recurrence takes place in spite of the most careful treatment. Exposures to radium bromide furnish a valuable adjunct to the surgical procedure, and it is possible that further experience may prove them to be a reliable substitute. In the case of a large vascular naevus of the face (port-wine stain) radium bromide was applied a number of times with no distinct benefit. In describing the effects of radium bromide in these cases I have

Fig. 7.—Case V: small rodent ulcer before treatment by radium bromide.

tried to be as critical as possible and have felt the importance of negative evidence, for on account of the mystery and romance associated with the discovery of radium and the exaggerated reports of its powers which have appeared not only in the lay press but occasionally in the medical journals there is a tendency to be carried away with the glamour of it and to overestimate its value.

General Conclusions.

In conclusion my experience of the therapeutic value of radium bromide, so far, may be thus summarized:

Its chief utility is in the treatment of rodent ulcer, and in the case of small rodent ulcers it acts almost like a charm. In rodent ulcers of a diameter larger than that of a shilling treatment by the *x* rays is more practical, as the whole of the ulcer can generally be exposed at once and not piecemeal as with the small quantities of radium at present at our disposal. In some cases of rodent ulcer, however, which have been subjected to a long series of exposure to the *x* rays, the rays seem to lose their effect and the healing process becomes stationary; then exposure to radium may be used with advantage and the healing again stimulated. With regard to epithelioma my experience is disappointing, but it is insufficient to base any definite conclusion upon. I am inclined to regard it of little value and to urge again the necessity of immediate excision and the postponement of treatment by the various radiations till after operation. In the case of cancer of the uterus further experience is necessary before any definite statement can be made; it is possible that the radium may prove a useful adjunct to the surgical treatment.

In lupus vulgaris radium causes the disappearance of the granuloma and a replacement of it by healthy scar tissue, but except in very small lesions this treatment is not at present practical. It is a useful adjuvant to the Finsen light and *x* rays, however, as it can be applied to positions which are difficult to get at, such as about the eyelids and the mucous membrane of the nose. In the verrucose type of lupus vulgaris, however, it is superior to the Finsen light.

In lupus erythematosus its value seemed to be negligible.

Fig. 8.—Case V: small rodent ulcer after treatment by radium bromide.

Note on Thorium.

I have tried the effect of thorium on two cases of lupus vulgaris. A quarter of a pound of hydroxide of thorium was sealed up in a flat rubber bag. It was thought that as the thorium was radio-active, though its activity was only 1 in 1 000,000 of that of radium, still the large quantity used and long exposure might have an appreciable effect. In one case in which it has had an extensive trial, namely a case of tuberculosis cutis in which there was an ulcerated patch about 2 in. in its long diameter, situated above the left heel in a young girl, the thorium did not seem to produce the slightest effect, even though it was worn bandaged over the part every night, while the girl was sleeping, for a fortnight. She was then seen, and the bag applied each night for another fortnight, and so on. It did not even set up an inflammatory reaction, and it produced no impression in reducing the hyperaemia or in healing up the lesion. Nor did it seem to be the rubber of the bag which prevented the thorium rays from causing changes in the diseased tissue, for during one of these fortnights the bag began to leak, and the ulcerated surface was found to be dusted over with thorium each morning without any appreciable effect.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

FIRST MANIFESTATION OF HEART SYMPTOMS ABOUT THE AGE OF 50.

At the meeting of the Royal Medical and Chirurgical Society on May 31st, the President, Sir R. Douglas Powell, in his concluding remarks on Dr. Horrocks's paper on the elasticity of the aorta, observed that varied arterial pressures usually began to tell on patients about the age of 50.

The truth and practical aspect of this observation seem to me to have been illustrated many years ago in the matter of death of that distinguished man, Dr. Thomas Arnold, at Rugby, in the year 1842.

Dr. Arnold was 47 years old at the time of his death, and always had much pressure in active muscular exercise. He retired to rest in perfect health on the night of June 11th, and early next morning died in his first attack of angina pectoris.

The remarkable fact disclosed at the necropsy by Dr. Bence Jones was the presence of only one coronary artery: this was of unusually small calibre, and very slightly atheromatous. The walls of the heart were thin, and a few atheromatous patches were found in the aorta. Thus one small coronary artery had kept the heart going until the age of 50 was well passed over.

Regent-street, W. JAMES C. THOROWGOOD, M.D., F.R.C.P.

AN OBSCURE CASE OF SCARLET FEVER.

An able seaman, aged 20, serving as one of the crew of the Admiral's galley of H.M.S. *Alacrity*, reported himself ill on February 9th, 1903, when the ship was at Sandakan, on the east coast of Borneo. On examination his temperature was found to be 104.2°, pulse 120, eyes suffused, his tongue looking like a white strawberry, the pillars of the fauces and soft palate inverted and swollen: a red rash composed of small red spots scattered over a subcuticular flush was uniformly spread over the trunk and upper extremities. He complained of a heavy feeling in the head. There had been no vomiting, and he only felt ill the day before placing himself in the sick report. I thought the case would probably turn out to be one of scarlet fever, and decided to land him at once.

Causation.—I went into the history of the case to find out how he could have contracted the disease, and found that (1) he had not been on shore since January 14th, except alongside jetties in his boat; (2) he had had no washing done on shore; (3) he received a letter (English) once a month, but in these letters no mention had been made of any illness among his relatives. The incubation period of this disease is so well known to be less than a week, in fact often two days, that it is usually an easy matter to trace the infection.

Differential Diagnosis.—(1) He had eaten no tinned foods, (2) he had been taking no drugs, (3) in dengue fever, [illegible] like this do not occur.

I expected from the authorities on shore if there would be any cases to land as cases of scarlet fever, but as the disease had not been heard of in the Colony, no objection was offered. I saw him the same forenoon, and the principal medical officer, Fleet Surgeon H. Meredith Harrison, of the British Naval Hospital, Singapore, agreed with me that the case presented the features of a typical one. He stated he did not know if he had suffered from the disease before or not.

After-history.—He remained in hospital at Sandakan forty-[illegible] days, and left convalescent at the end of the [illegible] desquamation followed. Dr. Harrison reported [illegible] to be quite free. During convalescence he complained [illegible] attack of sciatica or rheumatism in the [illegible].

He rejoined the ship in April 1903, and I examined him [illegible] and found no evidence of valvular disease.

I think this case [illegible] fever is rare in the [illegible] and I have been unable to trace how the infection can have been [illegible] The disease remained in the ship.

Haslemere. EDWARD J. MACNAMARA, Surgeon, R.N.

DIGITAL DEFORMITIES.

The genealogical tree of the family with supernumerary digits mentioned by Dr. H. D. Hey in the BRITISH MEDICAL JOURNAL of May 28th reminds me of a family, five members of which in three generations I was able to show at the Liverpool Medical Institution a year ago. In them the deformity was a duplication of one, two, or all of the phalanges of one or more digits. In the cases seen the deformities were symmetrical in the different individuals, but were only the same in two; the thumbs were always unaffected.

The family came originally from Norfolk, and the old lady who headed the group told me with pride that their case had often been reported (I gathered to the lay press), and ascribed their plight to a curse laid involuntarily by her grandfather upon his wife then pregnant. In a rage at some trivial theft he had invoked Heaven that the thief's children might be tainted from generation to generation, and the culprit being his own wife, he was subsequently satisfied, if not gratified.

Which of the two, the curse or the deformities, is cause and which effect may be open to doubt. The more interesting point is whether such cases show true heredity, or whether maternal impressions, despite the discredit thrown upon their probability, may play a part in their production. The following is the tree:

Father
[illegible] mother and their offspring

only daughter

[illegible] Grandson. Grandson. Granddaughter. Granddaughter.

[illegible] Grandson. [illegible] Grandson.

There were several others in the third generation unaffected, while the last three were unmarried. The fourth generation were children.

Liverpool. HILBERT ARMSTRONG, M.D.Viet.

TREATMENT OF OPHTHALMIA NEONATORUM.

A TREATMENT of this disease which does not get the attention amongst the profession it deserves is the instillation of one drop of nitrate of silver solution (gr. j ad ʒj) each hour in the daytime, and every two hours of a night, into the eye, the discharge having first been gently washed away with boracic lotion, and the edges of the eyelids anointed with weak boracic ointment before the child is put back to bed.

I consider that this treatment would cure most of the cases of this disease, and is greatly to be preferred to the painting of the conjunctiva with strong caustic solutions (generally sol. argent. nitrat. gr. x to gr. xx to the ounce), which leaves behind it intense congestion of the eyelids, caused by their manipulation, the baby's crying, and the application of a great irritant (which causes too much reaction).

Should the eyelids be actually everted for the painting, it does not harm by causing secondary congestion.

[illegible] ALBERT CORNER.

THE EARLY DETECTION OF *RÂLES* IN PHTHISIS.

The first sign of commencing phthisis consists often of fine *râles* in the supra-spinal region. As in this situation the breath sounds are harsher than in any other, and adventitious sounds are correspondingly difficult to hear, I have frequently, with great success, tried to verify the presence of doubtful *râles* by the simple device of making the patient lie on the affected side, with the arm drawn downwards and forwards so as to leave as large a space as possible above the scapula. I have never seen mentioned the fact which will be obvious to every observer who will make the experiment—that in this position the breath sounds, and with them the adventitious sounds, are very much louder over the lung in the inferior position than over the other. Only to-day I found I heard the finest *râles* over the left apex posteriorly while the patient was sitting up; but the respiratory murmur was not heard in this situation, and the supposed *râles* were faintly [illegible]. I laid the patient on her left side and listened again; the inspiration was quite loud and clear. There were no *râles*, and I enjoyed confidence instead of suffering the fear that on my next examination the fact that my patient had phthisis would be manifest.

The same method may be applied to crepitation at the base in early pneumonia, but does not in this case supply such a felt want.

[illegible] CHARLES HAZLITT URHAM, M.R.C.S., L.R.C.P.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

NORTH LONSDALE HOSPITAL, BARROW-IN-FURNESS.

PRIMARY QUADRUPLE AMPUTATION: RECOVERY.

(Under the care of J. T. WILLIAMS, M.R.C.S., Honorary Surgeon to the above Hospital.)

W. W., aged 28 years, was admitted to the above hospital on September 15th, 1898. He was working on some iron ore trucks; in crossing some points there was a jerk and he fell between the wagons. The wheels passed over both elbow-joints, completely smashing the articulations and the bones both above and below for some 2 in. The left foot was quite pulpified and the right nearly separated from the posterior half and reduced almost to powder.

There had been great loss of blood, but happily there were several ambulance men amongst his comrades and tourniquets were soon applied, and he was accompanied to the hospital by two first-aid men who found it necessary to apply digital pressure as well. I saw him almost immediately after his arrival. Shock was not so great as might have been expected. Brandy had been freely given at the works.

Chloroform was very carefully and sparingly administered. I removed the arms first, one by the circular method and the other by flap operation as the local condition required. The foot on the left side was removed by Syme's operation and in the case of the other by the excellent plan of Chopart. As each member was removed, after bleeding had been controlled, the stump was enveloped in gauze and I went on to the next. After the removal of all the injured parts, it was found necessary to give brandy enemata and hypodermics of strychnine.

Under these remedies he quickly rallied and his condition thenceforward was quite uneventful. He left the hospital on December 16th in excellent health, having put on flesh to a considerable extent.

It is gratifying to relate that his fellow workmen took the case in hand, provided him with artificial substitutes for his mutilated extremities, bought him a house and set him up in business. These contributions, added to what he got from the works and under the Workmen's Compensation Acts, render his future in a pecuniary aspect pretty easy. The accompanying photographs give a good idea of the appearance of the injured parts, and will form a sort of companion picture to the case published by Dr. Harrison, of Hull, in the BRITISH MEDICAL JOURNAL of February 20th, 1904.

MARGATE COTTAGE HOSPITAL.

REMOVAL OF UTERINE FIBROID WITH A GANGRENOUS OVARIAN CYST.

(By W. GREENWOOD SUTCLIFFE, F.R.C.S.Eng., Honorary Surgeon to the Hospital and the Royal Sea Bathing Hospital.)

THE following case illustrates the difficulties of diagnosis in acute abdominal inflammatory conditions:

The patient, a very stout widow of 56 years, was first seen by me in consultation with Dr. Watts, of Minster, on December 26th, 1903. She had a history of severe abdominal pain, with constipation and vomiting, attacks of which had been in progress for more than a week. A slight improvement had taken place two days before I saw her as the result of several enemata partially relieving the obstruction, but the pains had returned at intervals and the temperature had throughout the attack been up to 101° at night. On examination, the abdomen was tender and distended, and a hard solid tumour could be felt springing from the pelvis, rising nearly to the umbilicus, while the pelvic cavity could be made out to be blocked by a tumour obviously a uterine fibroid. The diagnosis was that the fibroid was causing pressure symptoms; its removal was decided on, and the patient was brought into the Cottage Hospital.

The operation was performed on December 31st, Dr. R. Thomson kindly acting as assistant. Under the anaesthetic palpation of the abdominal walls revealed a second tumour the size of a fetal head in the splenic region; it was freely movable and apparently unconnected with the uterine growth, it was thought at the time to be a subperitoneal fibroid, the removal of the first tumour was proceeded with in the usual manner. Owing to its size great difficulty was experienced in delivering it from the pelvic cavity, but it was eventually brought out and removed after securing the broad ligaments and uterine arteries, the peritoneal flaps over the uterine stump being sewn up in the usual way. An investigation of the left broad ligament then revealed a long pedicle passing upwards to the splenic region ending in an ordinary multilocular cyst which, owing to the pressure of the fibroid on its root, was in a nearly gangrenous condition. The pedicle was tied and the cyst removed without rupture, it being fortunately free from adhesions.

The patient was much collapsed after the operation, but soon rallied, and eventually made a sound recovery in spite of the reappearance of the ligature placed on the infiltrated and half-crushed pedicle. A Keith's drainage tube was used for the first forty-eight hours, but with the exception of some difficulty in re-establishing regular actions of the bowels the convalescence was uneventful.

Fibroids associated with ovarian cysts are, of course, not uncommon, but pressure on the pedicle sufficient to produce gangrene is I think rare, and in this case sufficed to explain the febrile symptoms associated with the chronic obstruction noticed before operation.

REPORTS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor John Chiene, C.B., President, in the Chair.

Wednesday, June 1st, 1904.

The Anatomy of the Prostate.

Mr. Alexis Thomson, in a paper on the anatomy of the enlarged prostate and its relation to the operation of prostatectomy (with lantern demonstration) said that prostatic hypertrophy was due to diffuse hyperplasia of the gland tissue, hyperplasia of the fibro-muscular stroma being exceptional and usually very limited in extent. The glandular hyperplasia was most marked in the lateral and retro-urethral portions of the gland. There was apparently both a new formation of gland epithelium in the shape of buds extending outwards from the acini into the surrounding stroma, and also a dilatation of the existing gland spaces which were occupied by granular débris and corpora amylacea. The fibromuscular stroma frequently suffered from the hypertrophied gland tissue, becoming rarefied and to a large extent absorbed. In a series of forty prostates he had never met with an encapsulated tumour either adenomatous or fibro-adenomatous, and he doubted if such existed. At the periphery of the gland the fibromuscular stroma was condensed and formed a definite laminated capsule. This was least developed on the vesical aspect of the gland. The outer layers of this capsule were chiefly composed of non-striped muscle fibres. In the normal prostate the capsule was so intimately and firmly united to the general stroma of the organ that their separation was possible only by cutting. But in the common glandular hyperplasia the peripheral stroma was so thinned out that the capsule could easily be separated by the finger. When the gland was then enucleated the line of separation was within the proper capsule. The line of cleavage might pass between the layers of the capsule or through the peripheral zone of the parenchyma, leaving a variable amount of this behind. If enucleation were effected within the capsule, there was no risk of injury to the peri-prostatic plexus of veins or to the seminal vesicles. When the gland was enucleated *en masse* the prostatic urethra was also necessarily removed, but when the organ tore along the mesial plane into two lateral masses, the wall of the urethra might remain in a more or less intact state. In a patient who died suddenly on the eighth day after suprapubic prostatectomy he had found that a considerable amount of prostatic tissue had been left behind on those aspects of the organ which were in relation to the seminal vesicles and rectum, whereas little, if any, remained on the vesical and pubic aspects.

Dr. Watherston also gave a demonstration of the surgical anatomy of the prostate (with lantern illustrations) in which access to the organ through the perineum was considered. Some photographs of formalin preparations showed that the superficial layers of the triangular ligament was not intimately related to the urethra, but was attached round the margin of the gland and that Cowper's glands lay in intimate relation to the under aspect of the latter, and were not separated from it by a strong membrane. This explained the course followed by the urethra in cases where the membranous urethra was torn. He next considered the musculature of the prostate as a result of the complex nature of its arrangement. He still considered it was omitted from most anatomical textbooks. The most important practical point in operative work in this region had been described by several writers of structures which were of surgical importance, such as the muscle passing from the triangular ligament to the membranous urethra. This muscle was first described by Wilson, and attention was directed to the thick anterior part of the prostate which was formed by the strong anterior fibres of the triangular ligament which passed behind the urethra and supported the prostate.

[illegible] the prostate [illegible] from the [illegible] could be [illegible] from the [illegible] to the [illegible] described by Dr. Stoney. In [illegible] enlargement of the gland, it was [illegible] the urethra [illegible] of the prostate, carrying with it [illegible] it would be quite [illegible] part of the gland, leaving the [illegible] When the gland was enucleated from its [illegible] a certain amount of tissue was left behind. [illegible] consisted of [illegible] and [illegible] tissue, and was [illegible] part of the gland [illegible].

The President spoke of the [illegible] which existed between the terms "sheath" and "capsule" of the prostate, and suggested that the sheath should refer only to the covering which the gland received from the pelvic fascia, and the term capsule to the fibro-muscular coat.

Professor Cunningham considered that the President's suggestion was a good one. He mentioned that five-sixths of the organ was composed of gland tissue and one-sixth of muscular tissue, which was chiefly found round the gland, and by its contraction expressed the prostatic fluid.

Mr. Nichol considered that two types of prostatic hypertrophy existed—one a glandular type, which could be easily enucleated; and the second a hard tough type, which often was very difficult to remove.

Mr. Stiles and Mr. Wallace also spoke.

Cases.

The following cases were shown: Dr. Norman Walker: (1) Three cases of lupus complicated by epithelioma, all had been treated for lupus by the *x* rays, the epithelioma developed when the treatment had been applied for a considerable time; special attention was drawn to the circumstance that the malignant changes had occurred under a line of treatment now frequently employed for their cure; (2) psoriasis treated by the *x* rays, rapid improvement was occurring in a case of widespread character. Mr. George Chiene: (1) A patient after operation for rupture of the middle meningeal artery and laceration of the temporo-sphenoidal lobe resulting from an accident, hemiplegia and aphasia developed on the fifth day; the skull was trephined, the dura opened, and as oozing of blood persisted, the middle meningeal artery was ligatured; (2) two cases of intussusception in one of them the patient had been operated on for this lesion when 4½ months old, and again when 11 months old. Dr. Allan Jamieson: (1) Keloid on the breast treated by the *x* rays; forty-four exposures of about five minutes' duration had been made, and the keloid had almost disappeared; (2) case of naevus pylosus, in which a good result by treatment with the *x* rays was anticipated.—Dr. John Stevens: A case of infantile paralysis. The muscles of the shoulder girdle were completely atrophied, and little remained of the biceps and triceps muscles.—Dr. Edwin Bramwell: Case of Klumpke's paralysis, resulting from an accident. The muscles of the upper arm were practically intact, but there was marked atrophy of the muscles on the inner side of the arm and hand, and also of the flexors and adductors of the thumb. The lesion was one of the eighth cervical and first dorsal nerve roots.—Mr. Clutterbuck: A patient on whom he had operated for a large lipoma nasi; a most excellent result had been obtained.—Dr. Gibson: A case of hypertrophic pulmonary osteo-arthropathy. The metacarpal bones were slightly enlarged, and also the ends of the phalanges of the fingers and toes.

Card Specimens.

Mr. Scott Skirving: A prostate successfully removed by Freyer's method in a patient aged [illegible] years.—Mr. Clutterbuck: (1) Amputation at the shoulder joint for spontaneous fracture of the humerus due to a [illegible]; (2) tuberculous testis from a child aged 2 years.—Dr. [illegible]son: Skiagraphs from the case of hypertrophic pulmonary osteo-arthropathy.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Medical Section.

Sir A. V. Macan, President, in the Chair.

Friday, May 13th, 1904.

Myxoedema.

Dr. Drury read a paper on a fatal case of this disease:

A woman aged 42, the mother of ten children, had been ill for a period of [illegible] months, but had been confined to bed at home for four and a half months with [illegible] medical treatment. She was admitted to the Adelaide Hospital on February 27th in a condition of [illegible] although conscious, neither pulse nor heart sounds could be made out, and no available clinical thermometer would register the temperature. She presented unmistakable signs of advanced myxoedema. On the second day a suitable thermometer showed her temperature to be 94° F.; the pulse and heart could with difficulty be made out, the rate being 52 per minute. Slight wheezing was noticed in the lungs. This developed during the next two days to general bronchitis, and she died early on the morning of the fifth day. The highest temperature recorded was 97°, the lowest 93·4. She was put on thyroid extract, 1 gr. twice a day at once. The immediate cause of death was considered to be bronchitis, induced by the extreme [illegible] of the weather in the first half of February, when she was removed to hospital. No necropsy could be obtained.

Dr. James Craig was interested in the lumbar pain complained of by Dr. Drury's patient. He had seen a gentleman, aged 42, who suffered great pain in his back at the onset of acute myxoedema. Though the case was severe and acute a good recovery was made on thyroid extract. Possibly sufficient thyroid extract in the fatal case recorded had not been given.

Radium in Therapeutics.

Dr. C. M. O'Brien exhibited two cases of lupus treated by radium bromide.

1. A male, aged [illegible], with a small patch over the eyebrow of two years' duration cured after twenty applications of ten minutes each, extending over six weeks.

2. A female, aged [illegible], with a patch on the cheek of seven years' standing, similar in size and depth to the preceding. She had received already sixty-one applications extending over twelve weeks, twenty of ten minutes without any perceptible change, twenty of half an hour with slight redness and itching, and six of one hour's duration. Her condition was improved, but not cured.

The same specimen of radium was employed in each case and under like conditions. The exhibitor thought that personal susceptibility of patient, so important a factor in both the Finsen light and *x* rays, might also have to be reckoned with in treatment by radium rays. He preferred detailing what had been achieved and how he achieved it, rather than expressing an opinion on the merits of the metal which might in any way prevent other workers from putting it to the test. Radium, to be of practical use in medicine, must be forthcoming in larger quantities of a guaranteed standard of activity, and at a very much cheaper rate. By way of comparison he exhibited a number of lupus cases treated by the Finsen light and *x*-ray methods, some of which he had shown as cured twelve months ago, and which had remained so without any treatment meantime. He also exhibited cases of lupus erythematosus, psoriasis, and verruca plana, treated with gratifying results. His experience of the *x* rays in rodent ulcer and large tracts of ulcerated lupus, and in lupus of the nares, was very encouraging. For superficial circumscribed lupus, and finishing off after *x* rays, the Finsen method was supreme, but sittings of not less than an hour's duration must be enforced.

Dr. KIRKPATRICK had seen good results from the radium treatment of lupus. He thought it more efficient when used in larger quantity than Dr. O'Brien had done.

Dr. WALTER SMITH recounted his experience of the use of radium in cases of rodent ulcer. The result was good in all his cases.

REVIEWS.

THE STRUCTURE AND FUNCTIONS OF THE CENTRAL NERVOUS SYSTEM.

THE new edition of the well-known lectures by Dr. L. EDINGER[1] the fifth edition of which was reviewed in the BRITISH MEDICAL JOURNAL of July 6th, 1901, is now appearing in a somewhat altered and to our mind improved form in two volumes. The first, which was issued recently, deals with the structure of the mammalian brain, and especially with that of man, and is arranged for medical men. With this object in view, the important relation of structure to practical and clinical medicine is more fully discussed than in any previous editions. The results of experimental investigations and pathological anatomy are co-ordinated with the results obtained from anatomy. In the successive lectures—after the general introduction—this applied knowledge is given in italics. Very considerable improvement is also made in the illustrations, and a method is adopted whereby the position of any section in relation to the external form of an organ or part thereof is admirably shown. The second volume will deal with the anatomy of the brain of the lower vertebrates.

The general introduction—Lectures I to IV—remains largely unchanged. One of the most thoughtful early lectures deals in part with the "neuron" theory. While admitting that many facts support the view of the "neuron" as the histological unit of the nervous system, there arises the question, Are the several neurons actually always anatomically distinct units, or are there actual fibrillar bonds of union between neurons? The researches of Apáthy on the *Vermes* have shown that fibrils pass from nerve cell to nerve cell. This leads to the view that the essential part of the nervous system is composed of a complex fibrillar network, while the ganglion cells are the areas of intercrossing and exchange. Although this view was primarily put forth in connexion with the extra-ganglionic networks found in invertebrates, it is capable of extension to vertebrates. The ganglionic cells are represented as the "dépôts" of "areas as aggregation" of innumerable nerve fibrils which pass into them, or meet in them—a view supported by Nissl and Bethe.

Nineteen out of the twenty-three "*Vorlesungen*" are devoted to the "special anatomy of the mammalian brain." The lecture form makes the work far more agreeable for the reader than a didactic systematic description, however terse. The importance of the precise topographical origin of the various spinal nerves is fully dwelt on (Lecture VII), and justice in this regard is done to the work of Gowers, Bruns, and Horsley. As an example of the new method followed throughout these lectures, the lecture on conduction in the cord may be taken. After a clear exposition of the anatomical tracts there follows a special terse, short chapter on "Function and Diagnosis."

In the lectures dealing with that Clapham Junction of the central nervous system known as the "bulb" some excellent new figures are introduced. The schemata showing the connexions of the peripheral end-organs, such as the eye, semicircular canals, organ of Corti, with their lower centres are admirable. The movements of the eyeball in relation to their innervation and focal disease are specially studied and exemplified by references to the results of pathological anatomy and clinical observation. Physiologists who have to teach the course of the higher sensory paths will find an excellent and clear description of the course of the fillet—a subject not always made clear in works on anatomy.

Perhaps the following may be taken as a sample of a terse and pregnant summary regarding the functions of an organ:

> To the cerebellum are conducted by well-known paths impulses which arise in muscles, joints, tendons, etc. To these must be added those connected with static equilibrium and which arise in the labyrinth. In the cerebellum there is generated the necessary regulation of the tonus of the muscles, and of their finer motility. There also are regulated those movements of the eyeballs which are so necessary for static equilibrium. Probable all these co-ordination processes take place simultaneously, and these are to a small extent crossed in their action. The cortex of the cerebrum and the thalamus act upon a motor mechanism, already in part under a regulative mechanism. The cerebellum is specially concerned in regulating the tonus and the co-ordination of the neck and trunk, and thus is intimately associated with the regulation of the erect attitude and with progression.

Equally good is the summary of the relations and probable functions of the thalamus, which is such an important part of the brain of the lower vertebrates (p. 284).

The sections on the external form of the brain (XVIII) and on the pallium (XIX) contain the latest results derived from comparative anatomy and the most recent methods of histological investigation. The relative importance of experiments on animals and the careful study of a human being with certain limited areas of the cortex cerebri diseased are admirably contrasted. The limits and advantages of both methods are fairly indicated. We hope it will not be long before Dr. Edinger's new edition appears in an English garb, for we are sure it will be welcomed by the anatomist, physiologist, clinician, and practitioner who may not be able to refer to it in the original. Although Frankfort, the Free City on the Maine, never was the seat of a university, it rejoices in its Senckenberg Institute, wherein work together Edinger and Weigert, whose researches have done so much to illumine the dark thicket of the central nervous system.

[1] *Vorlesungen über den Bau der nervösen Zentralorgane des Menschen und der Tiere.* Von Dr. L. Edinger. Vol. I. Seventh edition. Leipzig: F. C. W. Vogel. 1904. (Roy. 8vo, pp. 398, 268 illustrations. M.12.)

THERAPEUTICS.

IN the third edition of his well-known work on *Materia Medica, Pharmacology, and Therapeutics*,[2] Dr. C. D. F. PHILLIPS has made extensive alterations in the text, as well as certain changes in the general plan of the different articles. The descriptions of the processes used in manufacturing drugs have been entirely omitted, and much of the materia medica has been relegated to a less prominent position than it previously occupied. It is scarcely necessary to remark that these changes are in conformity with the trend of present-day opinion, and that they are decided improvements in a work so distinctly therapeutical in its main aim. The text has been so thoroughly revised in many parts that the labour and pains spent on the revision of these cannot have fallen much short of what would have been necessary to rewrite them entirely, and much credit is due to the author for his accurate review of recent literature. The section on baths and waters has always been an important feature of the book, and in the present edition the latest scientific and clinical observations have been incorporated, including radiant heat and light baths, open-air baths, and an account of helium and argon in this relationship. The light treatment of lupus has also received notice. The most recent additions to our knowledge of the important remedies iron and arsenic have

[2] *Materia Medica, Pharmacology, and Therapeutics.* Inorganic Substances. By Charles D. F. Phillips, M.D., LL.D., F.R.S.E., F.R.C.S.E. Third Edition. London: Longmans, Green, and Co. 1904. (Demy 8vo, pp. 921.)

been fully considered, and there is an excellent critical account of the therapeutical value of cacodylic acid and its compounds. The newer preparations of iodine and silver are also described, and several non-official remedies such as gold, uranium, barium, and a few others are fully discussed as regards their actions and clinical applications. The author shows a wide acquaintance with therapeutical literature, but the work has an added value from its being so largely the reflection of his own experience. In many instances, however, there is a marked tendency to describe methods of treatment which are no longer in use or which have been replaced by newer and better procedures. Some of these were never of much value, others have at best only a historic interest at the present time, while others, again, are mentioned only to be condemned. The use of antimonials in such conditions as melancholia, puerperal eclampsia, and puerperal mania, and the value accorded to phosphoric acid in certain conditions, or to iodoform in gout, hardly accord with present usage or experience. The preparations and doses are given with great attention to detail and accuracy, and there is a very excellent index of diseases and remedies, which should prove a most useful addition to the volume and enhance its practical value in furnishing suggestions for treatment.

The ultimate therapeutical value of the organic compounds of phosphorus has yet to be proved, but in his short treatise on *Phosphorus Medication*[1] M. Labbé has produced a very interesting and suggestive contribution on the question. Starting with the statement that phosphorus and the ordinary salts of phosphoric acid have had a very mediocre success as remedies, he holds that phosphorus must nevertheless play an important part in the physiological processes of the healthy body, and that the forms in which it exists in the tissues—glycero-phosphates, lecithins, and nucleins—may have important therapeutical applications. The chemistry, physiology, and distribution of these substances in animals and plants are discussed at length, and their stimulant action on the growing organism is described. They have been recommended and used in such conditions as rickets, phosphaturia, diabetes, neurasthenia, anaemia, and similar diseases of altered metabolism and malnutrition. A chapter is devoted to the best methods of prescribing them. The book may be strongly recommended to those interested in the subject.

The French translation of Dr. Mortimer's large and comprehensive work on the *History of Coca*[2] presents the original in a greatly abridged form. The translator states, however, that while he has eliminated a great deal of matter regarding the Incas and the history, customs, and antiquities of ancient Peru and its inhabitants, he has endeavoured to retain the spirit of the original text, and to incorporate into a much smaller compass all that is of scientific and medical interest regarding the coca leaf. In the process the book has lost its distinct characteristics, but has gained considerably in [illegible] and usefulness to those desiring information regarding coca in its various aspects. The history of the plant is [illegible] from earliest times, and includes the methods of using it, the attitude of the Christian missionaries towards [illegible] of its active principles, and other matters of [illegible]. Its botany, culture, chemistry, and physiological [illegible] are dealt with a wealth of detail and citation of authorities which seem exhaustive, and which leaves little [illegible] for succeeding workers in the same field. Its uses [illegible] are discussed at great length, and there is a [illegible] and good index. As a book of reference [illegible] to consult either the present volume [illegible] in medical libraries.

NOTES ON BOOKS.

[illegible] for the monthly [illegible] The health is [illegible] in the [illegible] subject of perfect health.

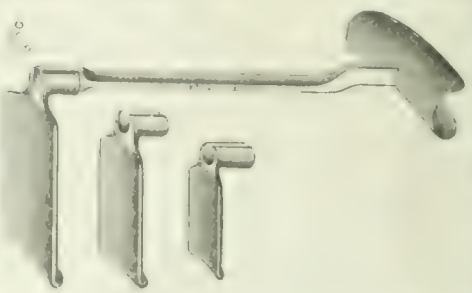
labour is not a physiologic process, and is always beset with dangers of no little gravity to both mother and infant." The most rigorous antiseptic precautions are detailed. Labour is to be preceded by a thorough soaping and a shower bath; the pubic hair is to be clipped, or, if an operation is expected, shaved, and then the patient is to be dressed in sterilized underclothing. This is very thorough and laudable, but there are always with us a majority of the population who cannot afford shower baths and sterilized underclothing, and who, like the whole animal world below mankind, are compelled to regard parturition as a physiological process. For those who have to attend the poor this book is unpractical; for those who want to make a fuss to impress rich ladies with their skill and knowledge it is excellent.

The *Reports* of the Registrar, Resident Medical Officer and the Pathologist of University College Hospital, which have recently been published, cover the work of the year 1901 and are therefore rather belated. Nevertheless, something has been gained by the delay since thereby it has been possible to include details of the after-history of some of the cases recorded. The information given in the classified returns of abdominal operations, and of strangulated hernias will make this part of the report of distinct value to those who desire to weigh the comparative value of different operations while the abstract which the pathologist furnishes as to the work done by him is sufficiently detailed to be really informing. An unnecessary difficulty in referring to the volume is, however, introduced by paging each of the reports separately and we have also been unable to find any reference to the occurrence or otherwise of deaths from anaesthetics, information upon which point should be included in every report of this character.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS

MEDICAL AND SURGICAL APPLIANCES.

A Set of Portable Retractors.—Mr. Brennan Dyball, M.B., F.R.C.S. (Exeter) writes: The set of retractors illustrated will, I think, be found useful in dealing with deep incisions or in abdominal work. The object of the set is to obviate the necessity of having several different sizes of retractors of the ordinary handled patterns, and, by having various size retractor blades made to fit a common handle, economize space and weight. The set, as made for me, consists of three retractor blades, which fit on to one handle, on the same lines as Bozemann's vaginal specula. The blades are slightly curved transversely, and measure 2½ in., 1½ in., and 1 in. deep by 2 in., 1¾ in., and 1 in. wide respectively. At the lower and posterior edge of each is a blunt ridge to give a better hold on the tissues. The handle is T-shaped, the stem (with the exception of the male part of the joint) is merely a flat smooth bar 5½ in. long, while the cross piece (2½ in. in length) is a hem. cylinder 1 in. in diameter, forming a surface which provides a good grip, and which in actual use has proved most comfortable to hold. The joint by which the retractor blades engage with the handle is similar to that now made for some sets of Bozemann's specula, and will be best understood by reference to the illustration. Both male and female halves of the joint are slightly coned, giving a joint as firm as if the blade and handle were forged in one piece, but disengaging and changing the blades is a matter of a few seconds only, while there are no catches or corners to harbour dirt. I am much indebted to Messrs. Down Brothers, St. Thomas Street, S.E., for the care and trouble they have taken in carrying out my suggestions.



[1] London: H. K. Lewis. 1904. (Demy 8vo, pp. [illegible])

TUBERCULOSIS IN CHILDHOOD.

PREVENTION AND TREATMENT.

INTRODUCTION.

THERE is perhaps no disease in the prevention and cure of which general hygiene plays so large a part as in tuberculosis. Neglect of the natural laws of health predisposes the organism to the attacks of the tubercle bacillus, which finds in debilitated constitutions conditions favourable to its evolution. Want of fresh air and sufficient food, dirt, and all that overcrowding in houses and workshops mean, are chief among the conditions which produce the predisposition.

From the medical and surgical staffs of all the hospitals and sanatoriums about to be described comes the same demand—that cases should be admitted in the earliest stage. The work of such institutions should be to a large extent preventive. Unfortunately in this country, where the importance of preventing the zymotic diseases was first recognized, and where public health legislation was first put into force, there has been a singular slowness in applying the same principle to tuberculosis. Even at the present time, when we see open-air sanatoriums springing up all over the three kingdoms for adults suffering from pulmonary tuberculosis, very little is being done for children, although they suffer in large numbers from tuberculosis, not alone of the lungs, but of joints and bones, which, even when recovery eventually takes place, generally leaves them crippled for life. The Seabathing Hospital at Margate is the only institution of its kind in the United Kingdom, and even this institution receives adults as well as children. Moreover, the children are usually admitted in so late a stage that recovery, or at any rate a valid cure, cannot be expected. Dr. Ménard, whose long experience at the large hospital for children, maintained by the city of Paris at Berck-sur-Mer, enables him to speak with authority, declares that a period of three years' systematic treatment by good food and fresh air is necessary for the cure of an established case of tuberculosis of bones or joints, and that every large city with slums, such as exist in London and Paris, ought to have a thousand beds for children at seaside hospitals for every million of population. Speaking of the relative numerical importance of diseases in relation to child-life, he said, with a forgivable epigrammatic exaggeration, that there were but two which counted—alcoholism in the parents and tuberculosis.

Fig. 1.—Berck-sur-Mer: Hôpital Maritime, sea front.

The medical profession have, we conceive, a duty to perform in instructing the public as to the importance of treating tuberculosis in children in its earliest stage, not merely by operative measures, but by the application of sound hygienic principles which have both preventive and curative effects. This principle has been recognized in France as we now propose to show.

The Assistance Publique of Paris is responsible for all the hospitals of Paris, with the exception of those, few in number and small in size, which are maintained by private benevolence, and for a system of dispensaries, for the care of the aged and infirm paupers, and for destitute children. The children alone number some 30,000, and in addition to the Hôpital des Enfants Malades with 750 beds and the Hospice des Enfants Assistés with nearly 1,000 beds, it maintains certain other hospitals for children at the seaside, the most important of which are the Hôpital Maritime at Berck-sur-Mer on the English Channel about 20 miles south of Boulogne, and the hospital at Hendaye on the Bay of Biscay close to the Spanish frontier. A very large proportion of the children received at Berck and Hendaye suffer from tuberculosis. At Berck all the tuberculous cases are suffering from what is commonly called surgical tuberculosis, that is to say, tuberculous, or so-called scrofulous disease of the glands, joints, and bones including the spinal column, while Hendaye is used rather as a prophylactic hospital for cases suspected of tuberculosis of internal organs. In addition to the institutions maintained by the Assistance Publique, which derives its funds partly from the Municipality of Paris and partly from an annual State grant, there are two philanthropic organizations devoted to the prevention and treatment of tuberculosis—the one is the Oeuvre Générale des Dispensaires Antituberculeux founded in 1900 by Dr. Bonnet-Léon to establish in every populous centre, not only in Paris but also in the provinces, dispensaries which shall search out workpeople threatened with, or suffering from, tuberculosis, and provide the treatment and food necessary, together with instructions for the prevention and cure of the disease. This organization has nine dispensaries in Paris, and, so far, two in provincial towns. The other organization in the Oeuvre des Enfants Tuberculeux d'Ormesson, which was recognized by the State in 1894. Its General Secretary is Dr. Léon-Petit, and its object is to treat children of both sexes suffering from pulmonary tuberculosis.

The great manufacturing localities in the north-east of France, of which Lille is the centre, have felt the necessity for special seaside hospitals for children suffering from tuberculosis, and a few years ago a sanatorium at St. Pol-sur-Mer, near Dunkirk, was recognized as a public institution. It contains over 400 beds, and is about to be replaced by a larger sanatorium to contain 900 beds.

THE HÔPITAL MARITIME AT BERCK-SUR-MER.

The Maritime Hospital of Berck-sur-Mer (Pas de Calais), established in 1861, is situated on the North Coast of France, and is maintained by the Assistance Publique of Paris, the patients received being chiefly recruited from the children's hospitals in Paris, where they have been previously inmates. The hospital, which is an old three-storied building, built in two wings, facing the sea (Fig. 1), contains 716 beds, which are usually full. The patients are received in batches of about thirty twice a month from Paris, whence they are conveyed in a special ambulance carriage, the convalescents being sent back in the same carriage. The period during which they are kept at the Berck Hospital varies according to the case, some being allowed to remain four or five years. Of the 716 the great majority (over 600) are suffering from tuberculosis of the bones and joints or glands, cases of pulmonary tuberculosis not being admitted. About 10 per cent. are suffering from rickets, and a few from anaemia or syphilis. The two wings of the hospital, which stands in its own not very extensive grounds, are divided into two equal parts for boys and girls respectively, each section being again roughly divided into two parts containing patients who can get up and go out and those who are confined to bed. Among the latter the majority are suffering from tuberculous disease of the hip-joint or vertebral column; but there are also many cases of disease of the ankle and knee. These are, as a rule, treated by plaster-of-paris

splints, and the patients get up as early as possible. The routine treatment of hip joint disease is by weight extension, while cases of spinal caries are put into plaster jackets; cervical caries is treated by a plaster jacket without gallows. Most of the cases of psoas abscess appear to be treated by aspiration, which may have to be performed four or five times. But in disease of the hip and other large joints Dr. Menard, the surgeon in charge of the hospital, is opposed to operated operations, and after the initial operation, usually necessary when a patient arrives, he is prepared to wait patiently for results. With the exception of the slighter affections of the extremities, in which there is a single focus of disease, he estimates that, for the cure of a large joint or of vertebral caries, a period of three years continuous treatment is necessary. The progress of cases with multiple lesions, as of both ankles, or, as in one or two cases we saw, with lesions of both ankles and both wrists he considers not unfavourable, even with prolonged treatment at Berck. When the acute stage is past the patients are shifted into other wards, where they are allowed to be more out in the open air. So much importance is attached to the air at Berck as a curative measure that it is regrettable that the wards could not be more amply ventilated, especially at night. During the day patients enjoy an open-air life when the weather permits. Those patients confined to bed are conveyed in special tramways from the house to a portion of the grounds in which there is a large pavilion covered overhead but open in front, facing the sea, and at the sides. Under this are disposed wooden frameworks upon which mattresses are laid, and where the patients may lie from 9 in the morning till 5 in the afternoon (Fig. 2). Those who are well enough to walk with or without the aid of crutches, go down on to the beach when they only come in for meals. Much stress is also laid upon food, four meals a day being given. Breakfast at 7, consists of sport and milk; dejeuner at 11 (when the patients are given soup, meat or eggs with vegetables and dessert. The children drink milk, since they have [illegible] At 3 there is a [illegible] bread and butter and jam. Tea [illegible] consisting of [illegible] and milk or cocoa and bread and butter. Dr. Menard has three [illegible] suggested from among the successful candidates at the Paris examinations. The usual time they remain at Berck hospital is one year, but they sometimes remain longer. On the side of the experience. Most of the cases at this hospital are serious and in an advanced stage, and it is admitted that the majority of them are incurable. There are numbers of cases of lameness through tuberculous disease of the hip, knee, and ankle, and nearly all the patients look ill. The change of air and good diet benefits them, but so many have to return to unfavourable conditions that in many cases the final result is far from satisfactory.

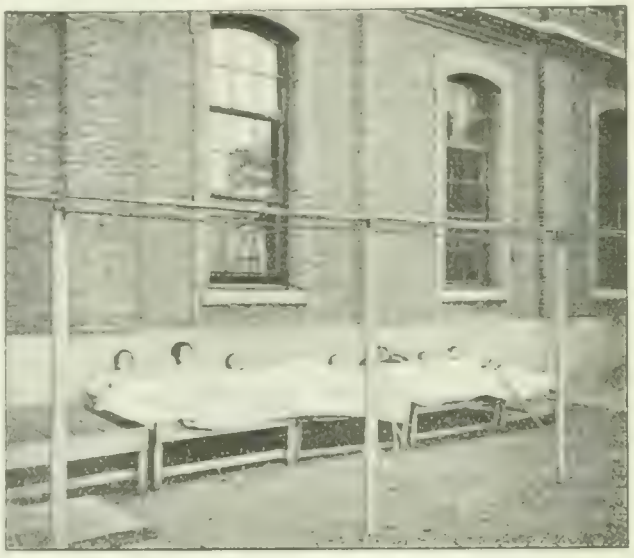


Fig. 2.—Berck-sur-Mer. Patients in a verandah.

Some of the nurses are from Paris hospitals; others—and these stay longer and are more contented—are from the neighbourhood.

There is a large bath supplied with water from the sea, and in this those children not bedridden or suffering from infectious complaints are bathed in relays. It is to be doubted whether this plan is as wise as single bath-rooms.

Another point which seems open to debate is whether the sand, which on windy days blows in blinding sheets along the beach, can be good for any one, and more especially for delicate children.

Nevertheless much good is done by the air, feeding up, and plenty of sleep; and although perhaps as many complete cures as could be desired by enthusiastic surgeons are not obtained, much good must be done to the general health of the patients.

The Hôpital Rothschild at Berck.

The Hôpital Rothschild at Berck for children suffering from tuberculosis of the bones, joints and glands, contains 100 beds for boys and girls respectively. The hospital was founded by Baron James de Rothschild in memory of his father, and it is maintained by Baron James's widow out of her private purse. Each ward contains about twenty beds, and at one end of the ward is a cubicle where the nurse on duty sleeps; at the other end is a well-appointed lavatory. The bath-rooms, in which hot and cold sea water is laid on, are downstairs, where also are the consulting-room, a well-equipped operating room, the dining rooms, and the kitchen. There are also school rooms for the boys and girls respectively who are well enough to do lessons. There is no limit to the age at which girls are received, but no boy is kept on after 13.

The hospital is a model of its kind in every respect except one. Sufficient importance indoors does not appear to be attached to fresh air, and at night no windows are open. We even remarked that the windows were double: another drawback, in our opinion, is the accumulation of drifting sand formed into a high bank and greatly interfering with the ventilation and the view of the sea from the lower windows.

These are not mere details in a cure which admittedly depends in a large measure upon an open-air treat-

ment. A great many of the patients are said to be cured at the hospital, but the permanence of the cure depends upon their surroundings after they leave the hospital. As is to be expected in a work of private philanthropy, the hospital is thoroughly well appointed, and, although the children are from the poorest quarters of Paris, no rich child could have better treatment or more comfort.

THE SANATORIUM AT ST. POL-SUR-MER.

The sanatorium at St. Pol-sur-Mer is situated on the north coast of France, three miles from Dunkirk. Two classes of children are received at this hospital, (1) *enfants hospitalisés*, that is to say, children sent from the hospitals of Lille or other manufacturing towns in the north, suffering from surgical tuberculosis, rickets, or other definite diseases, and (2) children for the *colonie scolaire*, that is to say, convalescent or debilitated children who are admitted during the summer months for one month, either to complete their recovery or as a prophylactic measure.

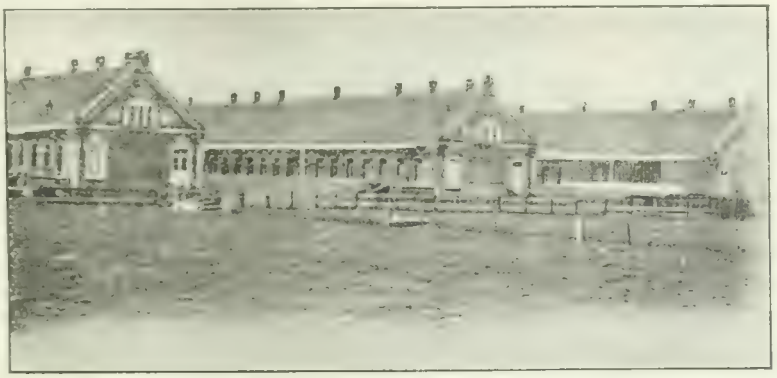


Fig. 4.—Sanatorium of St. Pol-sur-Mer. General view of pavilions.

The sanatorium is thus a combination of hospital and convalescent home, though the departments are distinct. The surgical wards, which are open all the year round, have a consulting staff composed of members of the faculty of Lille. There are three surgeons, each of whom visits the hospital once a week, and specialists for diseases of the eyes, nose, ears, and throat; there is also a resident surgeon.

History.

It will be interesting to follow the history of the sanatorium. The numbers of children suffering from tuberculous affections of the bones was alarmingly large in the northern industrial region of France, and it became recognized that sea air had an extraordinarily beneficial effect upon patients suffering from tuberculous affections of the bones and glands. An attempt was therefore made to send a certain number of children to Gravelines and St. Pol, to be boarded and looked after in fishermen's houses. It was found that this plan was unsatisfactory, inasmuch as the people tried to make money our of their charges, and further because the patients did not receive proper surgical attention. In spite of this the results were relatively so good that it was judged advisable to establish a sanatorium near the sea, where the children would receive skilled attention. Thanks to the untiring exertions of M. Vancauwenberghe, the Mayor of St. Pol-sur-Mer, who is not only a philanthropist but a very wealthy and enlightened man, the sanatorium, from small beginnings in 1888, has grown into a large, well-equipped hospital of 450 beds.

The New Sanatorium.

When scarcely finished, however, the ground upon which the sanatorium is situated was required by the State for an extension of the docks of Dunkerque, and a new sanatorium is in course of erection and will be opened next year at Zuydcoote, a few miles north of Dunkerque, planned by MM. Maritiane and Berger, architects to the Paris Municipality, under the immediate supervision of M. Vancauwenberghe. This hospital will have the advantage of being planned and completed under the eyes of men who have watched for nearly twenty years the administration of the present buildings, instead of being added to bit by bit as is the case with most hospitals where the large sums necessary are to be had only by degrees. Much the same plans will be adopted with regard to the buildings, one-storied pavilions being everywhere used, but more room will be given, for the site is ample, extending for a kilometre along the sea front. Here all overcrowding will be avoided, and wards which at present have three rows of beds for want of adequate space will there only have two. Dr. Le Fort, of Lille, who courteously conducted us over the sanatorium, explained that this expedient had been adopted in view of the largely-increased demands for admission. The new sanatorium will contain 900 beds, and a feature of it, as in the Hôpital Maritime de Middelkerque in Belgium, will be that there will be day wards, connected with the sleeping wards by a covered way, to which those patients confined to bed may be wheeled during the day, and have absolutely fresh air night and day. The day wards will have long windows facing the sea, so that the patients will get plenty of light and air. This plan cannot be too highly commended, for with every admiration for the splendid work done in French sanatoriums, it is impossible to deny that the ventilation is insufficient at night for all the patients, and inadequate by day for those too ill to leave the sleeping wards. Plenty of windows exist, but they are usually shut at night, and only small upper windows opened. This is insufficient.

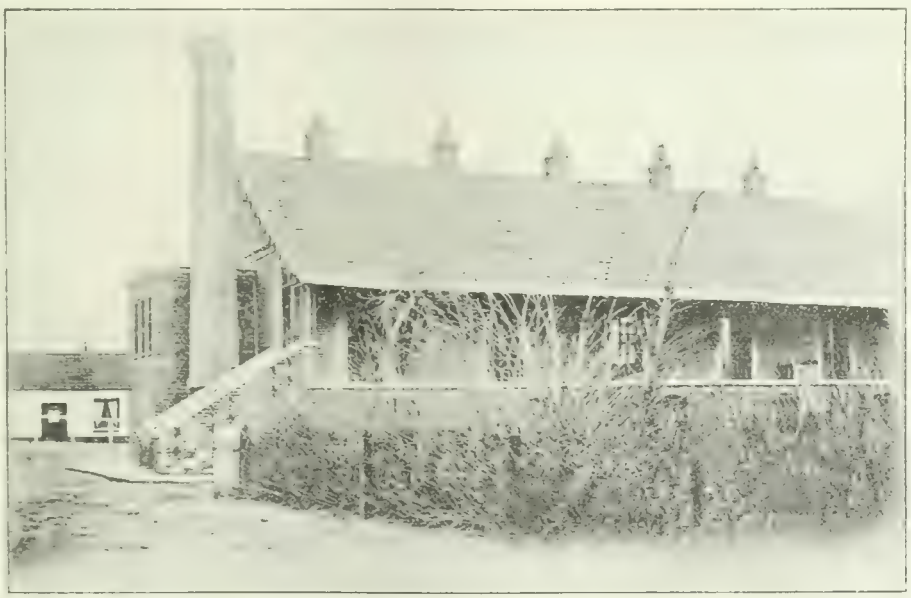


Fig. 5.—Sanatorium of St. Pol-sur-Mer. Pavilion for young children.

The Existing Buildings.

While erring in this probably from over-care, the sanatorium of St. Pol-sur-Mer is in every other respect a model of excellent organization. The buildings, in pavilion style of

one story only (Figs. 4 and 5), with the inner roof dome-shaped like a ship turned upside down, are constructed of wood inside, and outside of brick and tiles, with a space between containing a volume of air. By this means the extremes of heat and cold are avoided. Each large pavilion is 50 metres long, 9 metres wide, and 7 metres in height, and is raised 80 centimetres above the ground.

Besides the wards for the patients, there are two large wards containing 100 beds each for the colonies scolaires, or children waiting for convalescence or for prophylactic reasons; there are also two rooms for the boys and girls respectively, refectories, kitchen, bath-room, and wardrobe room. Here the children's clothes are stored and mended—no light task, for the institution does not supply a distinctive dress, except for Sunday wear, and as the children come from poor homes their clothes are often very scanty or worn. Each ward has a room for dressings, and in addition, there is a well-appointed operating theatre. Here is an electric steriliser for instruments, dressings are placed in tins and sterilized in an oven in the entrance hall, as also the water used for operations. The establishment possesses its own laundry, a bakery, a brewery where excellent beer is brewed, for those patients to whom it is ordered, as well as a poultry and dairy farm.

The Farm and Milk Depot.

A double responsibility attaches to the farm, inasmuch as it not only supplies the hospital with milk, it also sends out milk daily to the largely attended infant milk depot in Rue Vaneau. Nevertheless, in the new buildings at Berck-sur-Mer importance will be given to the scientific management of the dairy farm, which at present is somewhat of a failure, partly because the authorities are obliged to keep too large a number of animals. As a matter of fact, it is proposed that at Berck-sur-Mer the older convalescent children shall be trained and encouraged to become farm hands and agricultural labourers, in order to keep them away from their unhealthy surroundings at home, chiefly in mining or industrial districts. Most of the children come from Lille, Roubaix, Tourcoing and other manufacturing towns of northern France, where extremes of the most abject poverty or great wealth are practically the only existing classes.

Results.

Although the general health of the children on admission is usually very bad, improvement is rapid for not only are they removed from pernicious air into the sea air so favourable to those suffering from tuberculous disease in childhood but they have plenty of nourishing food and plenty of sleep. Dr. Le Fort is of opinion that the sea air is of great assistance in the treatment of surgical tuberculosis, and that the patients derive much greater advantage there than in city hospitals. The number of operations necessary is reduced and the proportion of recoveries increased. He is opposed to operating unless when absolutely necessary, but to obtain good results patience is shown, many of the cases being kept in for several years. No patient is discharged by the surgeons' orders or on the demand of the parents, but the latter must undertake in writing not to withdraw their children before a certain time. Under these conditions 90 per cent. of the patients treated successfully, while even the incurable cases are much relieved. There is a room for rays, the apparatus being attached to the skiagraphic table. There is also a small apparatus for the treatment of lupus by means of concentrated light. Patients suffering from [illegible] are treated in the hospital.

Tuberculous disease of the joints and spinal caries, many of which are treated without operation, are supposed to require sufficient patience to induce them to lie still. Here, with comparative success, the [illegible] and operations are rendered unnecessary. It may be mentioned that boys from 2 to 14 years of age [illegible] and girls from 2 to 12 years of age are received. It is calculated that [illegible] in cases of [illegible] and [illegible] frequently, when the case is [illegible] a [illegible] is [illegible] that there are [illegible] hospital cases in the sanatorium. At the moment of visiting the patients are engaged for [illegible] when they are paying [illegible] to their special duties in the sanatorium. At first they are given light, unimportant duties; they are allowed to assist at the bandaging and dressing of wounds by the surgeons, and then gradually allowed to do it themselves. We were told that the nursing done by these women is beyond all praise, that they attach themselves to their patients, are careful, and gentle, and perform their duties skilfully.

The colonies scolaires are an interesting feature of the sanatorium. Boys up to 12 and girls up to 18 suffering from debility, weakness, or predisposition to tuberculous affections of the joints, or convalescing after acute illness, are received during the summer for periods of four weeks. They are out on the beach all day, and are given a nourishing and plentiful diet. Often by these preventive means disease is arrested and great benefit derived. Unfortunately, owing to want of space and the numbers of applications, it is impossible to keep them longer than one month. In summer all those who are able bathe, while in cold weather warm sea-baths are administered in bath rooms.

For those patients who are necessarily obliged to remain years in the hospital, and not too ill to attend, there are school-rooms where they do lessons for short periods, and the elder girls are allowed to assist in the kitchen and thereby learn cooking, besides helping in the sewing and housework.

Much importance is attached to the weighing and measuring of the patients. The chest measurements are carefully noted, and it is found that after a year's treatment the average chest gain is 29 millimetres, just double the development of ordinary children. This is attributed to the continual inspiration of sea air. The gain in weight and height is proportionately large. Patients are photographed on arrival and departure. In short, in every detail the sanatorium is managed with skill and care, and may well serve as a model. Indeed, were the hospital destined to receive the afflicted children of rich parents instead of the poor and starving, nothing further could be done to cure them *tuto et jucunde*.

THE SANATORIUM FOR TUBERCULOUS CHILDREN AT HENDAYE.

The Sanatorium de la Ville de Paris at Hendaye is a prophylactic home maintained by the Assistance Publique of Paris.

The sanatorium is situated in a bay on the seashore three miles from Hendaye, the frontier town between France and Spain, and facing the picturesque old Spanish town of Fontarabia, which still gives a vivid impression of a fortified Spanish town of the Middle Ages. For the purpose of a convalescent home for children suffering from tuberculosis the situation, by the edge of a sandy bay with fields and woods running down to the beach, is ideal. The hospital is built in a series of pavilions six in number. Four of these buildings, divided into fourteen wards, are used for boys and girls respectively; one is used as an infirmary for children suffering from any definite illness, while the sixth pavilion is an observation ward for the reception of children on first arrival. Here they are kept under observation for three weeks to ensure that they are not in the incubation stage of any of the infectious diseases. If at the end of this period they have not developed symptoms, they are registered and allowed to mix with the other patients.

The staff of nurses consists of three trained nurses for the boys' wards, and three for the girls', with four *filles de service* (ward maids), two nurses and one *fille de service* for the infirmary, and one nurse and three *filles de service* for the observation pavilion. The sanatorium contains 250 beds, and in the course of the year an average of 475 children are received, some 35 a month arriving in batches, and staying five months.

The pavilions (Fig. 6) are built of wood, and have long French windows. These have upper parts which can be opened at night and regulated according to the temperature. The children received have all applied for medical relief at the Paris hospitals or dispensaries, and are all of the poorest classes. They are chiefly those who have been treated for pulmonary tuberculosis and anæmia, although rachitic cases are also received.

The treatment consists in an open-air life and good nourishing food. Patients who on arrival have no appetite, after a few days in the sea air become hungry, and quickly begin to pick up. Four meals are given—bread and milk, chocolate or coffee, at 7 a.m.; lunch at 11.30, consisting of soup, meat, and vegetables, with some fruit; a goûter at 4, when the children are given bread with some dry chocolate or fruit, and finally at 6 dinner, soup, meat, vegetables, and

dessert. The patients get up at 6, and go to bed at 7 or 7.30, according to their ages, which varies from 3 to 17.

Although five months is the time prescribed for the cure, if it is thought wise to extend the period patients are kept on longer. If after their return home they have a relapse, they are received back again for further treatment. Most of the children, however, are sent home completely cured, and while at the sanatorium they put on weight so quickly and look so healthy that it is sometimes difficult to believe they have been ill. When the weather permits they are out all day long, and batches of them (boys and girls separately) may be met along the road, or seen resting on the beach or on grassy slopes, in charge of nurses. A certain amount of discipline is kept up, but the nurses are bright and cheerful and enter into the games of the children, who are sorry when the time comes to go back to their homes.

The cases are followed up as much as possible by district visitors, and most of them seem to be completely curable. It is when the conditions of home life are bad that relapses occur. A boy put to work in the close and vitiated air of a workshop suffers, but those who lead moderately healthy lives keep well.

Fig. 6.—Sanatorium of Hendaye: the pavilions.

The floors of the wards are of polished boards, the beds of iron, and there is no superfluous furniture. At the end of each ward is a small room in which a night nurse sleeps, and attached to each pavilion are bath rooms and lavatories. As the children's heads are shaved before they are admitted, much trouble is avoided and it is easy to keep them clean. During the summer months they bathe in the sea, for which purpose there is a special bathing house on the sandy beach below the sanatorium. All expenses are borne by the Assistance Publique, even to the railway fares and clothing of the children, and the institution does admirable work for the poor classes utterly unable to afford to give their children the necessary change of air and proper care. The visitor is struck by the strict simplicity of everything about the sanatorium. All the arrangements are most complete, but there is no superfluous luxury or unnecessary expenditure. The object of the institution is to check by care, pure air and proper feeding, tuberculosis in children whose condition, if they were sent straight home from hospital would, in all probability, gradually become worse until all hope of cure would be past. As the majority of patients taken in at Hendaye are sent straight from hospital, and are usualy in the early stages, the percentage of deaths is infinitesmal while there is every chance of cure.

Fig. 7.—L'Oeuvre des Enfants Tuberculeux d'Ormesson: garden front.

L'OEUVRE DES ENFANTS TUBERCULEUX.

L'Oeuvre des Enfants Tuberculeux is a Society in Paris, founded by Dr. E. P. Léon-Petit, who is now its secretary-general.

Except for two grants of 130,000 francs and 130,000 francs respectively, made by the Ministry of Agriculture, and that the Assistance Publique pays for children sent by it to its sanatoriums, the work is entirely maintained by private benevolence.

The Society has for aim to receive, in convalescent homes, children from 2 to 14 who have been treated in hospitals in Paris, or at home, for tuberculosis (of the lungs chiefly) and who require special conditions for their convalescence, impossible to be obtained in a town. The principal of these is fresh bracing air and the Society has been fortunate in securing ideal sites for its sanatoriums on the plateau of Ormesson and Chennevières, 120 metres above the level of the sea, overlooking the great battlefield of Champigny and the valley of the Marne. Here within a few miles of each other are the sanatoriums of Ormesson, Villiers-sur-Marne and Noisy-le-Grand, all belonging to the Oeuvre.

In 1888 a small house was taken at Ormesson, and the first twelve patients received. But little money was forthcoming, and in order that the public should become familiarized with the new idea of convalescent homes for tuberculous children, series of lectures were given by the medical staff, while Sisters of Mercy set themselves to do the practical work of organizing and nursing. The following year two wooden pavilions were purchased at the Paris Exhibition and set up at Ormesson. These pavilions held 100 beds. The next step was to buy the land the buildings stood upon. This the committee was enabled to do by the generosity of benefactors who had already taken the scheme to heart.

The next step was to establish a small dispensary in Paris, which in 1896 was transferred to large premises at 31, Rue de la Boëtie. Here not only do consultations take place every Monday, but every effort is made to instruct mothers on the measures to be taken in order to combat tuberculosis by hygiene and the physical education of children. Here also Sisters of Mercy are instructed in simple hygiene.

The Central Committee, with Dr. Blâche as President and a small secretarial staff, receives applications and employs voluntary workers as visitors to find out cases and to follow them up afterwards.

After six years the wooden pavilions, being found inadequate, were pulled down and in their place large substantial buildings were erected.

The ground plan of the Ormesson hospital covers 1,956 metres, or ten times the extent of the original building. The work grew so rapidly in popularity that in 1891 a second hospital was established at Villiers-sur-Marne, close to Ormesson; and finally another at Noisy-le-Grand close by.

Ormesson.

Ormesson receives boys only, from 3 years to 8½ years of age. Sometimes children under 3 are taken in, provided they can walk and do not require constant attention, but 8½ is the outside limit of age.

The hospital (Fig. 7) is built in the shape of the letter H—two parallel wings connected by a central hall, which is used in wet weather as a play-room. In one wing is the chapel and

the administrative block, while the other is divided into two large wards containing 74 beds—to be shortly increased to 100. There are seven Sisters of Mercy, trained as hospital nurses, in charge. All the work in connexion with the hospital, such as cooking, cleaning, etc., is done by Sisters, as well as the nursing, but there are few serious cases, and the children, living an open air life, soon recover their appetite and strength. The cure really consists in an outdoor life and good nutritious food. The majority of patients come from the poorest quarters of Paris and react to the treatment with astonishing rapidity, and it is only when admitted in the most advanced stages that they are incurable; this, happily, is the exception.

The wards are lofty rooms, with French windows, having smaller windows immediately over them. Some of these are opened at night according to the temperature, but the larger windows are kept closed. This seems inadequate for an open air cure, or even for ordinary purposes of ventilation, for some forty children are congregated together in one ward. At either end of the ward is a small room in which a Sister sleeps with her door open and a curtain drawn, so that should a child require attention she at once hears its call. The wards are absolutely free from all furniture except beds, which are of iron, with a mattress and white coverings. The floors are of pitch pine, paraffined in such a manner as to fill up all the interstices, so that it is impossible for dust to accumulate. Instead of sweeping, cloths dipped in antiseptic are carefully passed over the floors every day, and once a month they are thoroughly scrubbed. Dust is considered the chief foe to be combated. The cost of paraffining the floors is estimated at 1s. 6d. the square metre, but in the long run it saves much labour. Opening out of each ward is a small room in which cases considered to be contagious are isolated. Those too weak to run about lie during the daytime on long couches in the central hall or in the garden; the majority of the children spend the day playing in the grounds, which are large enough to allow them sufficient liberty without disappearing too far out of sight.

There are four meals a day: breakfast, consisting of bread and milk or chocolate or coffee and bread at 7.30; déjeuner at 11.30: soup, meat, vegetables, and fruit; goûter at 3 of bread and chocolate or fruit; and dinner at 6.30, which is a repetition of the déjeuner—soup, meat, vegetables, and fruit. The children are given wine and water to drink at meals, and between meals are allowed to ask for milk. They rise early and go to bed early. There is no systematic instruction: they are merely given a little religious teaching. They are treated for five months, no charge of any kind being made to their parents. Before being received their heads are shaved and they are supplied with clothes at the hospital. It was formerly necessary to have their heads for hygienic reasons and to prevent the spread of ringworm. The children all seem happy and contented: they attach themselves to the Sisters, and are very sorry to go back to their homes.

If the Assistance Publique sends patients to Ormesson, [illegible] Noisy it pays for their keep, and on one occasion the Conseil-général de Seine-et-Oise voted a sum to meet capital expenditure. Others of these admirable institutions are maintained by voluntary effort. The cases discharged as cured [illegible] by voluntary workers who are employed for the purpose. It is found that [illegible] children keep well unless they are put to work in [illegible] daily workrooms in which they [illegible] fatigue. As a rule the cases discharged [illegible] in good health. For voluntary [illegible] who pay for their keep, and for other patients [illegible] recommended to them. The hospitals [illegible] gratuitous to the neighbouring [illegible] dwelling-place.

[illegible] Villiers [illegible] three miles [illegible] and is [illegible] the [illegible] The [illegible] [illegible] open [illegible] large windows. [illegible] for the air cure [illegible] strong enough to keep [illegible] The hospital, which [illegible] when the extension [illegible] [illegible] there will be [illegible] beds.

The right wing of the building is divided into small wards reserved entirely for the worst cases, so that they may be as quiet and isolated as possible. The left wing on the contrary, is one enormous double-storied ward, containing eighty beds. The hall is surrounded by windows opening on to the gardens, and the beds are disposed round the ward, while the centre is railed off as a hall, in which are tables and chairs and a number of green plants that give it a cheerful appearance. Running round this ward is a wide gallery, and in this is disposed a second series of beds. There is an elaborate system of ventilation, including a large skylight with perforated panes of glass, and it is calculated that each child has an allowance of 120 cubic metres of air, but the advisability of this double dormitory may be doubted, especially as there can be no question of scarcity of building land. There is not even a saving of staff, for upstairs and downstairs at opposite corners small rooms opening into the wards are occupied by male superintendents.

This great ward is called "Pavillon des Enfants de France," and its history is touching, inasmuch as the funds for its construction were chiefly subscribed by healthy children for the sick and poor. Bricks were sold at 1 franc each; by giving 100 francs the title of "bienfaiteur" was earned, and for 1,000 francs that of "fondateur." A stirring appeal was made by François Coppée in the *Figaro*, with the result that within a few days more than 100,000 francs were subscribed.

The floors of the hospital are all paraffined, and nothing is seen in the wards but beds. The adjacent bath rooms and lavatories are on the latest principles, with a constant water supply. As at Ormesson, the nurses are Sisters of Mercy, and open air, good plentiful food, and long hours of sleep are relied on for the cure much more than drugs. Indeed it is curious to note that drugs are given only in the most serious cases, hygiene working miracles for children transplanted into the real country from the poorest quarters of Paris. Children who have never seen a bath are regularly bathed, and in order to harden and strengthen them they are thoroughly rubbed after bathing, and in some cases are given cold douches. By this means the circulation is improved, the skin acts better, and night sweats are checked. The treatment also strengthens the nervous system. Coarse woollen garments are worn next the skin. The food is plain but excellent; patients get meat twice a day, milk and eggs, with plenty of vegetables and fruit. Care is taken to accustom the children gradually to the open-air cure, for at first it has the effect of exciting them, producing headache and insomnia. It has been found by experience that it is best in all cases to keep the patients lying down on couches during the first few days; the excitement is then less marked, digestion and appetite improve, and the fever or cough diminish. As soon as the general condition is bettered, short walks are commenced, during which breathing exercises are done five or six deep breaths every 100 paces. Patients lying down are taught to take ten or twelve breaths every five minutes. This soon becomes a habit, and the lungs are well filled with pure air. Care is taken not to overtax the strength at first, but gradually the walks are lengthened, until the patient after a time falls into a healthy ordinary life. The cure of a child in the early stage from pulmonary tuberculosis depends much in breaking it of bad habits and in teaching it good ones which will serve as a guide for its future life. Thus every child is trained not to cough unless it wants to expectorate; thus cures with marvellous rapidity the nervous habit of constant coughing, which retards the process of healing in the lungs.

The Clinic recognizes the possibility that patients who return to unfavourable surroundings will develop again the symptoms they had lost. A colonie sanitaire has therefore been established where convalescents are admitted and taught gardening and farming. Great hopes were entertained that this would be a means of attaching young lads to a country life and of getting them away from hurtful town surroundings. Unfortunately, it is found almost impossible to retain them; the town influence is too strong in them, and they never settle down happily to country life. This is very unfortunate, but it is to be hoped that the effort will be continued, as it would be a most valuable factor in the eradication of pulmonary tuberculosis, not only tending completely to cure the patients themselves, but, by removing them from healthy subjects, preventing the risk of the contamination of others.

The Sanatorium of Villiers, on account of its closeness to the station of Villiers on the main line to Paris, serves as a commencement for the sister institutions of Ormesson and Noisy-le-Grand. Here the beds are made a right undertaking, for

the children are on their feet in the grounds all day long. Here it is that all the clothes are washed, and great importance is attached to the disinfecting of linen by steam. As much work is done by machinery as possible, not only to diminish labour but to avoid chances of infection. All the clothes worn by the patients of all three hospitals are made by tailors on the premises, the clothes in which the children arrive being disinfected and put aside until they are leaving.

Fig. 8. Margate, Royal Sea-bathing Hospital. Patients in the verandah.

Noisy-le-Grand.

Noisy-le-Grand is the hospital for girls suffering from pulmonary tuberculosis. The building is really a very large country house which has been adapted as a hospital. It stands in a large beautifully-wooded park, where the children live during the daytime, only going in for meals. There are 60 beds disposed in two dormitories; but here again, unfortunately, we noticed that the beds were arranged in three rows, which amounts to overcrowding, especially as at night the windows are only opened slightly at the top. The floors here also have gone through the process of paraffining. There are six Sisters in charge who do all the work, including cooking. The same *régime* of open air during the daytime and feeding is pursued here, and the children react very satisfactorily to the treatment. They are periodically weighed and measured, and are found to gain rapidly. There is a dairy farm of fifteen cows, which not only supplies this sanatorium, but also those of Ormesson and Villiers. Vegetables and fruit are supplied from a well-stocked kitchen garden, as also fresh eggs. Here also an endeavour has been made to interest the elder children in outdoor occupations, but with small success. Town instincts are as firmly rooted in the girls as in the boys.

Fig. 9. Margate, Royal Sea-bathing Hospital. View from one of the wards, showing general situation, and one of the airing grounds.

It is interesting to learn that more children pass through the sanatoriums now than formerly, inasmuch as it shows that the endeavour to get children in the earliest stages is attended with more satisfactory results, enabling them to be dismissed as cured much more quickly than those in a more advanced stage. The importance of preventive measures is thus strikingly emphasized. The cases are followed up by district visitors, and it is found that in 25 to 27 per cent. the cures are absolute, but that relapses occur when the children go back to really bad surroundings, such as dusty and close workshops and great overcrowding. It has been found advisable, since the beginning of this year, to alter the system of examining the patients at a dispensary in Paris to one of visitation in the home. The name and address of a patient seeking admission to one of the hospitals is sent in to the central office with a medical certificate. An inquiry by a lady inspector is made at the house of the child, where an insight is gained into its surroundings, parentage, etc. This is found of great assistance, and much expense and fatigue to the patient is saved, while much sound instruction is indirectly given to the parents of deserving children, and abuse of the institutions by parents well able to pay is avoided. In visiting these sanatoriums, one cannot but be struck by the healthy appearance of the majority of the children and by their gaiety. With the exception of those in a stage too advanced to warrant any hope of recovery, the patients look so happy that it is difficult to imagine that the germs of the fell disease are lurking in each small frame. The admirable work done by the Oeuvre des Enfants Tuberculeux is worthy of all praise and imitation.

The Royal Sea-Bathing Hospital, Margate.

The Royal Sea-Bathing Hospital, Margate, founded in 1791, is the only institution in the United Kingdom comparable to those at Brighton and St. Pol. inasmuch as it is not a convalescent home, but a hospital for the treatment of tuberculosis, especially tuberculosis of bones, joints, and glands, by appropriate surgical means. The hospital contains 150 beds, and the average daily number of patients is 135·0, the total number of in-patients in 1903 was 559. Of these 127 suffered from diseases of the joints, 191 from caries of the bones, 104 from tuberculous disease of the lymphatic glands (in most cases cervical), and 131 from tuberculous lesions of other organs, including 21 cases of phthisis. The number of operations was 224, 95 being for removal of lymphatic glands. Of the 530 patients treated during the year, the report states that 77 were cured and 223 were greatly benefited, so that about 50 per cent. were treated successfully. The mean duration of residence for each patient in the hospital was seven weeks (seventy-six days). The by-laws state that the usual term of residence of an in-patient in the hospital shall be four weeks, but the visiting surgeon has power to extend the term in suitable cases. This **power is commonly exercised and patients kept on for five** or six months, and even for a year or more. There are some free patients, but the majority (called ordinary patients) must be provided with a subscriber's letter, and must pay, adults 12s. and children 8s. a week. Full-pay patients are charged 21 guineas a week, and the average cost of an occupied bed, calculated on the ordinary expenditure, was in 1903 £1 11s. 1d. At the end of eight weeks an ordinary patient must present a fresh letter or pay the charges of a full-pay patient.

Half the patients are adults (men and women) and half are children (boys and girls). Patients who are confined to bed are, as far as possible, kept in a verandah, with a freely open front (Fig. 8) the beds are only taken into the wards **in the very worst weather. The verandah forms three sides of** a square in the middle of which there is a garden, the men, women and children being separated by screen partitions.

The needs of the patients are carried out to them, and they never leave the verandah except for bathing purposes. There are seventeen bath rooms with hot and cold sea water, and in summer convalescents bathe in the sea. When in bad weather they have to sleep in the wards, all the windows on both sides **are left open, so that there is a thorough draught.** This open-air treatment is considered very beneficial. The patients get five meals a day: **early morning breakfast with tea or milk** and eggs or bacon, lunch of bread and butter, dinner of meat, vegetables, and pudding, tea with bread and butter, and supper of bread and cheese and beer.

The hospital is an old-fashioned stone house surrounded by grounds of 8 acres and is situated at the edge of the sea with the beach immediately beyond (Fig. 9). Those patients able to leave their beds, sit out in the garden or on the beach all day long. Owing to the beds being moved out into the verandah, the wards have an unusual appearance, and the white bed-hands, which have recently been washed and disinfected, add to this impression. Still the great importance of fresh air to the patients is recognized as paramount to every other consideration. The honorary staff consists of three surgeons and an assistant surgeon. There are two resident officers. There is a general staff of fifty persons.

The general results of the treatment vary with the stage of disease at which the patient enters the hospital, the earlier the better the result, and the proportion of cases in which complete recovery is obtained would be largely increased if patients could be induced to enter during the early stages. In some cases of tuberculosis [illegible] instituted concerning the [illegible] of the patients were sent in during the [illegible] of their illness while 11 were admitted [illegible] years after the first symptoms of tuberculosis [illegible] patient.

The [illegible] to the hospital reports that after fifteen years' [illegible] with the needs of the hospital he is convinced that the [illegible] plays a very subsidiary part to climate and general [illegible]. In every case the wounds [illegible] and the operations [illegible] and enabled to start fresh [illegible] elsewhere. When circumstances [illegible] absolutely necessary [illegible] to such cases [illegible] when patients can [illegible] the sea-side [illegible] principle to insist [illegible] the public [illegible] patients should [illegible] the hospitals soon [illegible] the very earliest [illegible] of the disease are observed. This applies [illegible] to pulmonary tuberculosis and [illegible] of the joints, bones, and glands.

The hospital is not open to children under 6 years of age, and in this we think it errs on the safe side. At the French hospitals they are received as early as 2, and it is at this age that so many children with diseases of the joints or rickets may be saved permanent deformity by speedy operation and after-treatment in good surroundings. **At 6 years a child** with tuberculous disease is often past cure. If preventive measures were taken and if children in the earliest years were admitted, the hospital would eventually be able to dispense with its grown-up patients, for there would be none, and, indeed, in England, where so much is done for adult sufferers from tuberculosis and little for children, it seems regrettable that the whole of the accommodation at Margate should not be devoted to them. Great improvement in the physique of the nation might thus be effected. At present the hospital is handicapped by the beds being blocked by a large proportion of chronic and unameliorable cases (patients, as the report states, who could be equally well cared for at many other institutions for incurables and convalescents.

It is time that the public, who, with the worthiest intentions, yet tie the hands of the hospital authorities by the letter system, should be educated to know that there are such things as prophylactic measures, and that by prophylactic means a hundredfold more good can be done than by tinkering cases already past permanent cure.

MEDICAL NEWS.

The annual dinner of the Poor Law Officers Association of England and Wales will be held at the Trocadero Restaurant on June 28th at 7.30 p.m.

The Prize Distribution of the Medical School of St. Thomas's Hospital will be held in the Governors' Hall of the Hospital on Friday, 24th June, at 3 p.m. Sir Thomas Barlow, Bart., K.C.V.O., M.D., will give an address, and a garden party will follow in the grounds.

Northampton General Hospital. Two new wings of this hospital were recently declared open by Earl Spencer, Lord-Lieutenant of Northamptonshire. They replace portions of the fabric dating from the eighteenth century. Towards the cost of the new additions, which amounts to £32 000, donations of £1000 each have been received from Lord Spencer, the Marquess of Northampton, Lady Wantage, Sir Henry Burdett, and several others.

The Vivisection Question in Germany. On the occasion of the presentation of the Budget for the Universities in the Bavarian Chamber of Deputies, the Minister, Dr. Von Wehner, referred to a petition which had been addressed to the legislature, asking for the suppression of vivisection. He pointed out that experiments on animals were necessary for purposes of medical research. His statement was received with approval on both sides of the House.

Homœopathy in Bavaria. It may be remembered that some time ago the Bavarian Chamber of Deputies made a movement to [illegible] in favour of the establishment of a Chair of Homœopathy in one of the Universities. Recently, in the course of a discussion on the Education Estimates, the Cultus Minister took occasion to point out that as homœopathy [illegible] scientific foundation, there is nothing in it that can suitably be made the subject of instruction. The medical [illegible] at all the Bavarian Universities expressed [illegible] strongly adverse to the proposal.

International Congress on Tuberculosis. The fifth meeting of this International Congress will be held at Paris from [illegible] to 7th, 1905. It will comprise a medical and a social section. In each of these three subjects will be proposed for discussion. The programme of the medical section is as follows: The treatment of lupus by the new methods; the early diagnosis of tuberculosis by the new methods; comparative study of the different forms of tuberculosis. The social section will discuss: **The etiological factors** of tuberculosis, the value of the different methods of treatment of tuberculous patients, optional assurance and mutual aid in relation to the struggle against tuberculosis. There will also be a medical section of museum in which will be exhibited histological, pathological, and bacteriological specimens and preparations, statistics, plans of hospitals, sanatoria, and dispensaries, pictures and documents relative to anti-tuberculosis leagues and institutions.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JUNE 11TH, 1904.

THE OXFORD MEETING.

THE SUPPLEMENT for this week contains an illustrated article on Oxford, and full particulars of the arrangements made for the annual meeting which will begin there under the presidency of Dr. William Collier, Physician to the Radcliffe Infirmary, and Litchfield Lecturer in Medicine in the University, on Tuesday, July 26th. Oxford is a name to conjure with among all English-speaking people. The influence which she always retains over her pupils, so strikingly illustrated by the provisions of Mr. Cecil Rhodes's will, is felt, perhaps unconsciously, even by those who have never looked on the tower of Magdalen or rested in the shade of College gardens. We make no doubt that a very large number of members of the British Medical Association will take this opportunity of learning to understand something of her charm, and we feel sure that by so doing they will best show their apppreciation of the hospitable welcome offered by the University and its Colleges.

As will be seen from the programme of business, the annual general meeting of the Association at noon on Tuesday, July 26th, will be preceded by a service in Christ Church Cathedral, and in the evening the President will deliver his address. It will describe the growth and development of the Oxford Medical School, and will contain references to some of the eminent medical men who have been connected with the University. The Address in Medicine will be delivered by Sir William Church, Bart., K.C.B., President of the Royal College of Physicians of London, on Wednesday evening, and that in Surgery by Sir William Macewen, Regius Professor of Surgery in the University of Glasgow, on Thursday afternoon. All these addresses will be given in the Sheldonian Theatre of the University. On Thursday evening Dr. G. Bagot Ferguson, who was President of the Association in 1901, when it met in Cheltenham, will give a popular lecture in the Town Hall.

The SUPPLEMENT also contains a full statement of the arrangements for the scientific work of the meeting, and in many instances it has been possible to publish abstracts of the papers which will be read by those who have undertaken to introduce the subjects selected for special discussion in the Sections. As will be seen, these discussions will cover a very wide field, and it will go hard if every member of the Association does not find in them something of special interest to him. Thus the Section of Medicine will give particular attention to the treatment of tuberculous pleural effusion and pneumothorax (to be introduced by Professor Osler), the serum treatment of disease, and the treatment of chronic renal disease. In the Section of Surgery the subject of the present aspects of asepsis and antisepsis (to be introduced by Professor Watson Cheyne) will doubtless lead to a lively debate, while the discussion on the indications for and methods of performing hysterectomy will raise a matter of great importance to all abdominal surgeons. There will also be this year for the first time a Section of Dental Surgery, which has been organized in response to the request of members of the Association engaged in the practice of dentistry. The Section of Obstetrics and Gynaecology will discuss the highly practical subjects of accidental haemorrhage and of so-called ovarian pain. In the Section of Pathology the subject of immunity will be discussed, as well as that of the part played by lymphocytes, and the chemical pathology of gout, and some distinguished foreign guests have expressed their intention of taking part in both these discussions. Special efforts have been made this year to increase the general interest and value of the pathological museum, and the comprehensive notice of the special committee of the museum, of which Dr. Ainley Walker, University College, Oxford, is secretary, will be found at p. 18c of the SUPPLEMENT. In the Section of Physiology there will be discussions on colour vision introduced by Professor Gotch of Oxford, and on chloroform anaesthesia, introduced by Sir Victor Horsley, while the Section will hold jointly with that of Anatomy a discussion on the thalamic region. Demonstrations will be given in this Section, and it is also intended to hold an exhibition of apparatus and objects of physiological interest. The subject of giants and dwarfs will be introduced by Professors Cunningham and Windle in the Section of Anatomy, which will also hold an exhibition of anatomical and histological preparations and of apparatus. In looking over the programme of the Sections devoted to the special departments of medicine it will be observed that in most instances the subject selected for discussion have a direct bearing upon general medicine and surgery, thus in the Section of Ophthalmology Mr. Marcus Gunn will open a discussion on retro-ocular neuritis, and Dr. Hill Griffith will raise the subject of intra-ocular haemorrhage and systemic disease. In the Section of Dermatology the subjects selected are the treatment of pruritus ani, the comparative value of old and new methods of treating lupus and other skin diseases, and the relative importance of the bacterial and other factors in the causation of skin diseases. This Section also will form a collection of recently-executed drawings and photographs of cutaneous diseases. The Section of Laryngology and Otology will discuss such practical subjects as the etiology and prognosis of innocent growths of the larynx, intranasal disease as a determining factor in producing laryngeal and pulmonary affections, spasmodic and catarrhal, and the treatment of non-suppurative disease of the middle ear. In the Section of Tropical Medicine the principal discussions will be concerned with matters which have recently been engaging the attention of workers in this department of medicine. The subjects selected include trypanosomiasis, to be introduced by Colonel Bruce, F.R.S., the prophylaxis of malaria, introduced by Dr. J. W. W. Stephens, and the significance of the Leishman-Donovan bodies introduced by Major W. B. Leishman. This Section also hopes to make a collection of pathological specimens, drawings, photographs, and microscopic preparations, and to hold demonstrations. There remain three Sections which deal with subjects on the borderland between medicine and sociology, and here persons of authority not members of the medical profession have been invited to take part in the discussions

Thus in the Section of State Medicine a discussion on poverty and public health will be introduced by a paper on pauperization by Mrs. Bosanquet and one on alcohol by Mr. T. P. Whittaker, M.P.; the President, Dr. J. S. Haldane of Oxford, will bring forward the subject of standards of ventilation, while a discussion on the control of the milk supply will be opened by Dr. Newman. There will also be on this occasion for the first time a Sub-section of Forensic Medicine, over which Dr. Stevenson will preside. In the Section of Psychology, Dr. Max Nordau has promised to take part in the discussion of criminal responsibility and degeneracy, to be opened by the President, Dr. Mercier, while the subject of heredity will be introduced by Dr. J. Beard and Dr. König of the Dalldorf Asylum, Berlin. This Section also will hold microscopical demonstrations upon subjects connected with the pathology of insanity. Lastly, in the Section of Navy, Army, and Ambulance, the question of the organization during peace of civil, medical, and ambulance aid to ensure an immediate reserve of trained assistants on the outbreak of war will be opened by Colonel J. Sandie V.H.S.A.M.C. (Vol.), and may be expected to lead to a discussion of interest not only to the profession but to the public.

The Annual Representative Meeting, which will assemble immediately after the conclusion of the annual general meeting on Tuesday and will adjourn from day to day as may be necessary, will have a great amount of important business to transact. It will receive reports from the Council and the Medico-Political and Ethical Committees, and will have before it the report and minority report presented by the special Medical Defence Committee. The report of the Council[1] is necessarily, in the main, historical, a record of work done, but the other reports and the notices of motion given by Divisions[2] will raise many matters affecting the regulations or working of the Association or its policy in matters concerning the profession generally, upon which a definite formal expression of the opinions and wishes of the Association are required. Upon the principle of the Medical Acts Amendment Bill, the preparation and revision of which has been among the most onerous duties of the Medico-Political Committee during the year, there is apparently very general agreement, but its details will no doubt be found to offer opportunities for discussion.[3] In this connection [illegible] also the draft scheme drawn up by the Committee in compliance with the instruction of the last Representative Meeting for the nomination by the Association of candidates for the office of direct representative England and Wales on the General Medical Council, as well as the notice of motion given by the Devonshire Branch Council to the effect that the representation of medical practitioners in Parliament is at present inadequate to the interests of the public and the profession, and instructing the Council to consider how an improvement may be effected. The proposal that the Association should determine the medical referee of its members will [illegible] the Representative Meeting, and the arrangements will [illegible] the special committees appointed by the Council last year [illegible] before the Divisions, together with the minority report signed by Mr. Messiter and Dr. Beverley.[4] The result of the poll of the Divisions will be submitted to the Annual Representative Meeting, which will also have to consider a resolution sent up by the Gateshead Division instructing the Council to take the necessary steps to obtain the alterations in the Memorandum of Association, which is not only a condition precedent to the adoption of any scheme of individual medical defence, but also appears to be necessary to enable the Association to carry out to the full its task of defending the interests of the profession at large. The working of the new constitution is being tested in an interesting way by the Nurses Registration Bills. Although the Bills do not, like the Midwives Act, propose to create a new class of practitioners, their provisions cannot fail to affect the medical profession. The profession failed to influence midwives' legislation as fully as was desirable, mainly owing to the great differences of opinion disclosed during the prolonged discussion of successive Bills and the absence of any machinery for bringing the internal conflict to an issue. The Association now possesses the necessary machinery, and if the Divisions instruct their representatives the opinion of the Association may be obtained at the meeting in Oxford.

We have here touched only upon a few of the more striking matters of business which must come before the Annual Representative Meeting, but the mere enumeration of all the matters would carry us beyond our present limits. It is greatly to be hoped that every member of the Association will take his share in its work by attending the meetings of the Divisions shortly to be held, at which the business for the Annual Representative Meeting will be further discussed.

EUTHANASIA.

THE *Daily Express* may be called the Fat Boy of journalism, for it seems to be always on the outlook for an opportunity of making the public's flesh creep. With this form of enterprise in a general way we have no concern. We think it unfortunate, however, from every point of view that the materials of cheap sensationalism should so often be sought for in the hospital ward or the pathological laboratory. From day to day the reader's nerves are racked with accounts of horrible and mysterious ailments and highly-coloured descriptions of surgical operations, or his imagination is morbidly excited by the announcement of discoveries of infallible cures. In nothing does the new journalism better deserve the epithet of "feather-brained" given to it by Matthew Arnold than in its manner of dealing with medical work and research. It is a small matter that panting science toils after the inventive reporter in vain; but it is a most serious thing that people should be misled and false hopes excited in the breasts of the victims of incurable disease. A newspaper which does this seems to us to have an imperfect sense of its responsibility as the instructor and guide of public opinion within its sphere of influence.

A particularly offensive example of the sensationalism against which we protest is afforded by some articles which recently appeared in our contemporary under the heading "Merciful Murder." It was there stated as a fact that several medical men in the United States openly advocated the view that in certain stages of hopeless suffering it was permissible to hasten the patient's death if he expresses a wish to that effect. It was added that although this view

was not likely to find much public support among members of the medical profession in this country, "the private conviction of English doctors that such measures would in reality be desirable and humane seems to be gaining ground." The ground for this statement is said to be that "several well-known physicians who are specialists on lingering and painful diseases" had confided to a representative of our contemporary that "this growing conviction" is kept private because "they hesitate to jeopardize their careers by suggesting an innovation which would certainly bring them into conflict with various authorities, and which would possibly result in a great public outcry that they were, or wished to become, murderers." In reading the reports of interviews of "well-known physicians," which from time to time appear in the newspapers, we often find ourselves harbouring a suspicion that if their names were given they would prove to be those of men who are little known—or perhaps too well known—to the profession. But whoever the "specialists on lingering and painful diseases" referred to may be, we have no hesitation in saying that the utterances attributed to them are absolutely opposed to the general sentiment and conviction of the medical profession not only in this country, but throughout the civilized world.

If it be true, as alleged by the *Daily Express*, that the practice of euthanasia is advocated by some medical practitioners in the United States, it may safely be assumed that they are not men to whom the profession looks for light or leading. It happens that the question has recently been raised in more than one quarter in America, but in each case the suggestion that euthanasia should be made lawful in certain circumstances has been put forward by some irresponsible person outside the medical profession, and has been strongly condemned by the representative medical journals. The opinion of our American brethren on this subject was well expressed by Dr. Dock in the Oration in Medicine delivered by him this week at the annual meeting of the American Medical Association. "Every few months," he said, "some one—usually not a physician—proposes that people with incurable diseases should be killed by some painless method. The plan offers so many opportunities for crime that it would be difficult to carry out, but aside from that it involves important principles. The difficulty of telling when the proper time had come would often be insuperable. Aside from examples of fortitude and other virtues exhibited by the dying, how much the world would have lost if a chronic invalid like Stevenson had had the cord of his life snapped at one of the times when the *æs triplex* of his soul seemed battered through! To take a less selfish view, we can think of the 'pictures of human patience, the visions of ripened character, which have been revelations and inspirations to generations of mankind' (Phillips Brooks), and see these repeated daily in sickrooms of all degrees, while the self-sacrifice and kindness developed in others at such times cannot but be of untold benefit to the race. To most physicians the suggestion of any planned shortening of life must be abhorrent. For countless generations they have been doing their utmost to lengthen life and lessen disease. They have shown how to prevent the plagues that formerly made life almost as bad as a perpetual illness for the survivors, and they have also shown how many deaths can still be prevented. On the other hand, they can in most cases so treat the dying man that the bitter anguish often associated with death is absent, that life is not only less painful but actually longer, so that they will continue to follow the rule of the Father of Medicine, and 'give no deadly medicine to any one, even if asked, nor suggest any such counsel.'"

These words put the case in the true light, and will be accepted by the whole medical profession as expressing what is not merely a noble sentiment but the very law of its being. As Desgenettes told Napoleon when he suggested that the plague-stricken soldiers should be "mercifully murdered" and as Sir Henry Holland told Mehemet Ali when he asked for a sure poison for his enemies, the business of a physician is to heal not to kill. It would be dishonourable to the profession and dangerous to the public if any departure in practice from this clear principle were sanctioned.

It is true that legalized euthanasia has been advocated on humanitarian grounds by some men entitled to be heard with respect. Sir Thomas More, *vir pietate gravis* if ever there was one, and a practical statesman besides, speaks with no uncertain sound. "Such as be sicke of incurable diseases they comforte with sittinge by them, with talkinge with them, and to be shorte, with all maner of helpes that may be. But yf the disease be not onelye uncurable, but also full of contynuall payne and anguishe: then the priestes and the magistrates exhort the man, seinge he is not hable to doo anye dewtye of lyffe, and by overlyvine his owne deathe is noysome and irkesome to other, and grevous to himselfe: that he wyl determine with himselfe no longer to cheryshe that pestilent and paineful disease. And seinge his lyfe is to him but a tormente, that he wyl not bee unwillinge to dye, but rather take a good hope to him, and either dispatche himselfe out of that payneful lyffe, as out of a prison, or a racke of tormente, or elles suffer himselfe wyllinglye to be rydde out of it by other. And in so doinge they tell him he shall do wysely, seing by his deathe he shall lose no commoditye, but ende his payne. And because in that acte he shall followe the counsel of the pryestes, that is to saye of the interpreters of goddes wyll and pleasure, they shewe him that he shall do lyke a godly and a vertuous man. They that be thus persuaded, finyshe theire lives willynglye, either with hunger, or elles dye in theire sleape without anye fealing of deathe. But they cause none suche to dye agaynste his wyll, nor they use no lesse dilygence and attendaunce aboute him, belevinge this to be an honourable deathe. Elles he that killeth himself before that the pryestes and the counsel have allowed the cause of his deathe, him as unworthy either to be buryed, or with fier to be consumed, they caste unburied into some stinkinge marrish."

It may be questioned how far this view represented More's serious opinion. In any case the euthanasia which he describes is carried out under the eye of the law and the Church with every safeguard against abuse.

In an essay entitled The Cure for Incurables, Mr. Lionel Tollemache, who admits that he holds a brief for euthanasia, pleads strongly for its adoption. After describing the lingering agony of certain modes of death, he proceeds: "If a summary remedy could be applied to this suffering, there would be the further advantage that persons of a morbid and brooding nature might gain confidence through life, and that, knowing that death would be deprived of its sting, they would have a sort of negative stimulus, or (if I may so say) an antipreventive to exertion. Then, again, we must consider the friends, who, besides the immediate suffering of nursing the sick man, often

permanently impair their constitutions and nervous systems, and who, moreover, are thus exposed to a sort of moral suicide: I mean they curtail their own powers of usefulness far more than a dose of laudanum would curtail those of their dying friend. It should also be observed that if, on these accounts, the legislating of a modified *harikari* in England be reckoned a good, the good would in each case be much increased by the force of example: each person who availed himself of the new method of giving relief to himself and his friends would be doing what in him lay to break down the old prejudice and to make the proceedings, so to speak, fashionable, and would thus be a public as well as a private benefactor. On the whole, it cannot be doubted that the benefits resulting from a change in the law would be simply enormous; so that, unless a yet more enormous advantage can be shown from obliging the sufferers to die in agony, the Euthanasiasts must be admitted to have gained the day.

It is not clear by whom the euthanasia contemplated by Mr. Tollemache is to be carried out, but from the expression "modified *harikari*" it may perhaps be gathered that it is by the patient. This is an altogether different thing from "merciful murder," with the doctor playing the part of murderer. If Mr. Tollemache's argument is held to justify *harikari*, however modified, as a means of escape from physical pain, it would equally justify suicide as a cure for the pangs of despised love or as a protest against the law's delay. An unhappy sufferer who, worn out by pain and hopeless of relief, seeks to hasten the inevitable end, is morally scarcely to be held accountable for his action: in any case it is not for us to judge him. But a medical practitioner who should make himself the instrument of carrying out such a wish would be guilty of a crime against his patient, against society, and against his profession.

THE MEDICAL SERVICE OF THE NAVY.

The articles on the medical service of the navy which were published in the British Medical Journal of March 12th and April 2nd have been received with approval by those best able to judge of the accuracy of the statements therein made. The only note of criticism that has reached us comes from a correspondent who is altogether unconnected with the navy. As, however, he professes to be in a position to speak from "first-hand information," we feel it our duty to take some notice of his remarks. We may begin with a confession of error: by a slip of the pen we spoke of the Secretary of State instead of the First Lord of the Admiralty. The more serious statements of our critic may be summarised in the following propositions:

1. It is "unthinkable nonsense" that the Director-General has not full power within his own province; "the Board holds the Medical Director-General as much responsible for the health of the navy, and in such matters he is never overruled by the opinion of Naval Lords or commanding officers."

2. It is "really untrue" that cabins are assigned to medical officers in a capricious manner; "an excellent cabin is allotted and set apart from the first for the medical officers, just as one is set apart for the navigating officer or chief engineer."

Our correspondent is good enough to add that he thought we might like to hear all this, "as the British Medical Journal ought not to be misled or to mislead." On the last point it is, we hope, needless to say that we fully agree with him. In dealing with the question our endeavour has been to state the case fairly and temperately in exact accordance with the information which we have been at considerable pains to collect from all available sources. Our correspondent must pardon us if we decline to accept his description of his information as "absolutely first-hand": it so faithfully reflects the official view that we cannot help suspecting that it is inspired. Now, the official view at best can only be taken as representing what ought to be or was intended to be; it cannot be accepted as showing what is. The official naturally shares the complacent belief of Pangloss that all is for the best in the best of all possible worlds: it is from the painful experience of Candide that we learn how little this belief is justified by the hard facts of life. Our correspondent's letter affords an excellent illustration of the great gulf that is fixed between official theory and actual practice.

It is true that the Director-General could probably see the First Lord if he wished. But what would be the result? His opinion would have little chance of prevailing against that of the Second Lord on any question concerning *personnel*, or against that of the Junior Lord on the supply of stores or any other matter connected with *materiel*. It is more than probable, too, that the days of his further tenure of office would be few and evil.

With regard to the posting of officers, our correspondent's knowledge does not go very far if he has not heard of appointments being cancelled against the wish of the Director-General. For obvious reasons we cannot cite specific instances, but the fact is notorious. It may be added that cases have been known in which officers have been specially promoted, though not qualified, without the superior authorities even thinking it necessary to go through the ceremony of consulting the Director-General.

It is also true that the Director-General and no one else is held responsible for the health of the navy. This is just what we complain of in view of the fact that he has no corresponding authority. It is very far from the truth that he is never overruled in matters belonging to his special province by Naval Lords or commanding officers. So little is he master in his own house that he has no control whatever over the sick berth staff, and knows nothing of their capabilities or requirements. The whole management of the sick berth staff is nominally in the hands of the Commander-in-Chief at the Nore; in reality it is under the control of a Commander for Drafting Duties at Chatham, who obviously cannot have the special knowledge required for the proper discharge of such a duty. The Director-General cannot even inspect a ship in commission unless he is granted special permission for the purpose by the Board of Admiralty. He can indeed inspect naval hospitals, but only in a strictly medical sense.

We take this opportunity of pointing out that according to the terms of Paragraph 1,113 of the King's Regulations the sick berth itself and the sick berth staff on ships are entirely under the direction of the medical officer. This "direction," however, is nominal rather than real, and

unless the medical officer is an exceptionally strong man, the authority given him by the Regulations is apt to be usurped by executive officers.

Our correspondent says that he cannot understand why a medical officer "having work of the utmost importance to do in connexion with the care of health should desire to have his time wasted with administrative details and petty matters of discipline." If he had any practical knowledge of the requirements of the service, he would readily understand how much the work of the medical officer may be hindered by the vexatious interference of the executive officers in petty matters of discipline and detail.

Again, it is true that a cabin is set apart for the senior medical officer; it is not true, however, that the cabin can by any stretch of the official imagination be described as "excellent." As a rule it is the worst cabin in the ship in regard to position, size, and ventilation. The senior medical officer may indeed think himself fortunate if one of the soil pipes of the ship does not run through his cabin. As showing the absurdity of the present system of allotting cabins, it may be mentioned that it occasionally happens that the senior medical officer is much worse accommodated than his own junior, who may perhaps have just entered the service. We are aware that some improvement has lately been made in regard to this matter in the case of ships fitted as flag-ships but not having an admiral on board. But this arrangement even if loyally carried out—always a matter of doubt in the navy—applies after all only to a limited number of ships.

The remedy for the existing anomalous state of things is that a cabin should be specially allotted to the principal medical officer in every new ship on the advice of the medical department, and should remain allotted for that purpose throughout its existence. We have dwelt on this question at some length, because it is one of the greatest importance to the comfort and health of medical officers. It is justly felt to be intolerable that an officer who may be not only the oldest man on the ship, but probably the senior as regards rank of the ward room officers, should systematically and apparently of malice aforethought be condemned to live in a cabin which is little better than a horse-box when it is not a sewer. The First Lord might with advantage make personal inquiries into this matter; we are sure that if he knew what the state of things really is, he would lose no time in removing a crying grievance.

On the general question of the reforms necessary to make the medical service of the navy what it ought to be, we have nothing to add to what has been said in previous articles. The suggestions which we have made on behalf of the medical officers resolve themselves into this: that it is absolutely necessary for the efficient discharge of the important work which they have to do that they should be unhampered in its performance by executive officers; and that they should have control over the sick bay staff in ships, and over nurses and other attendants in hospitals. In a word, if the service is to be thoroughly efficient, the medical officers must, within their own province, have authority commensurate with their responsibility.

WE understand that a special Committee, comprising representatives of the Naval, Military, and Colonial Medical Services, has been formed under the auspices of the Royal Society for the purpose of investigating Mediterranean fever.

THE TREATMENT AND PREVENTION OF TUBERCULOSIS IN CHILDHOOD.

MORE than a year ago Mr. A. H. Tubby, Surgeon to the Westminster Hospital and to the Evelina Hospital for Children, published in the BRITISH MEDICAL JOURNAL a paper on the Urban Hospital Treatment of External or Surgical Tuberculosis, founded upon an inquiry which he had been good enough to undertake on behalf of this JOURNAL. He showed that the results of treatment in urban children's hospitals were for the majority of patients unsatisfactory, and pointed out that there was great lack of system in the present method of treating these cases, so that money is now spent and hospital accommodation used in giving relief which was in too many instances only temporary. He estimated that the cases of external tuberculosis constituted one-tenth of the total number of children admitted to urban children's hospitals. At that time there was some hope that the London County Council might see its way to devote some of the mansions in the midst of parks recently acquired by it to the purpose of branch hospitals for the treatment of tuberculosis in children. Although for reasons which we need not now discuss this hope has not been realized, it has not altogether been abandoned. At present the only hospital in a country place which is devoted to the treatment of tuberculosis in this country is the Royal Seabathing Infirmary at Margate, although the regulations of the Liverpool Country Hospital have been framed on lines sufficiently comprehensive to allow it eventually to treat both internal and external tuberculosis in children. In France this question has attracted far more attention than it has here, and the city of Paris has long maintained at Berck, on the north coast of France, a large hospital for children, the great majority of whom are suffering from external tuberculosis. In view of the importance of the subject from the view not only of treatment but of prevention, we publish this week an article which contains a description of the hospital at Berck, and of another, and, as we conceive, better designed institution at St. Pol, near Dunkirk, in which tuberculous children from the manufacturing districts of north-east France are received. A description is given also of the sanatorium at Hendaye, on the Bay of Biscay, near the Spanish frontier, maintained by the city of Paris for the reception of children suspected to be suffering from the earliest stage of pulmonary tuberculosis or predisposed to the affection. We are also able to give an account of the organization of the Oeuvre des Enfants Tuberculeux. This is doing work of a kind which might well be imitated in London and other large towns in this country; it maintains three sanatoriums in an elevated and healthy situation a few miles from Paris. One of these was once a private house, so that the analogy to the mansions in the parks of the London County Council is here very close. The majority of patients treated by this philanthropic organization suffer from internal tuberculosis, and the results obtained are remarkably good. This is in a large measure due to two facts: first, the patients are admitted in an early stage, and secondly, they are kept in the sanatoriums until, in the opinion of the medical staff, they are cured of their disorder. The baneful system of letters which does so much to diminish the usefulness of British sanatoriums has not been permitted, for the enlightened directors of the Oeuvre recognize that it is better from every point of view to cure one patient than to give temporary relief to half a dozen.

THE CAUSES AND PREVENTION OF MINERS' PHTHISIS.

AT a recent meeting of the Institute of Mining and Metallurgy, held in Burlington House, Piccadilly, a paper on the Causes and Prevention of Miners' Phthisis, by Dr. John Haldane, F.R.S., Oxford, and Mr. Thomas, Manager of the Dolcoath Mine, Cornwall, was read. The paper, it was stated, had been kept back for a few months on account of

the report prepared by the authors, with the assistance of Mr. Martin, H M Inspector of Mines, which although presented to the Home Secretary, had not yet been published. For the reading of the paper the Home Secretary, however, had given permission. Dr. Haldane and Mr. Thomas drew attention to the high rate of mortality in metalliferous miners (excluding iron-stone miners) compared with men employed in coal mines, a circumstance which the late Dr. Farr, in his evidence before the Royal Commission in 1864, attributed to the dust of metalliferous mines being harder and therefore more likely to irritate the lung when inhaled. The various supposed causes of miners' phthisis were enumerated and discussed, while stress was laid upon the two most likely causes—dust and the tubercle bacillus. In about 70 per cent. of samples of sputum examined Dr. Ritchie of Oxford had found the microbe of tubercle. Nevertheless, Dr. Haldane and Mr. Thomas attach importance to the part probably played by dust in the inception of the malady. The statistics they quoted showed how fatal the disease was at the age of 35 to miners who had been rock-drillers. Many of the men who had died in Cornwall had worked as rock-drillers in the gold mines on the Rand. At the conclusion of the paper the President of the Institute, Mr. Hennen Jennings, called upon Dr. Oliver, of Newcastle-upon-Tyne, who in the main supported the views put forward by the authors of the paper. Dr. Oliver stated that he attributed very little importance, so far as the causation of miners' phthisis was concerned, to the influence of gases in the mine, but he thought that fatigue and rapid variations of temperature made the miners subject to pulmonary catarrh, and that this probably paved the way for the dust in the mine, when breathed, acting harmfully upon the lung. Dr. Oliver, who has written upon the subject of miners' phthisis and whose opinion is based upon clinical experience of the disease, is in favour of the dust theory of the malady and, like Dr. Haldane and Mr. Thomas, has recommended the play of jets of water during the operation of rock drilling. Dr. Harrington, in criticising the various theories advanced in the paper, expressed the opinion that the tendency of the times was to regard tubercle as playing too great a part in miners' phthisis. Dr. E. H. Bremridge, who had just returned from the gold mines in India, stated that he had gone to the Mysore district in the expectation of finding a large amount of phthisis among the natives employed in the mines. His expectations, however, had not been realized. He believed that there was something peculiar about the dust itself that caused the disease. Several mining engineers and managers of mines abroad took part in the discussion. Mr. Thomas, joint author of the paper, was invited to demonstrate the means employed at Dolcoath for settling the dust during rock drilling. The discussion, which was continued throughout was kept up until a late hour, when it was agreed to adjourn so as to give [illegible] the opportunity of speaking and Dr. Haldane the right to reply.

THE NOBEL PRIZE, 1902.

[illegible] problems [illegible] to man, [illegible] to [illegible] the [illegible] to the [illegible] [illegible] [illegible]

surgeons is simply false: and the statement that it has its origin in mere love of gain is a calumny as foolish as it is malicious.

ATHLETICS BY PROXY.

WE understand that when Owens College is merged in the University of Manchester, as will shortly happen, the University authorities will appoint a President of the Victoria University of Manchester, and that the Duke of Devonshire, who is now President of Owens College, has consented to accept election to the new office. Earl Spencer is Chancellor of the University of Manchester. The Duke of Devonshire, as President of the College, attended the athletic sports of the College at Manchester on June 4th, and, in responding to a vote of thanks to the Duchess, his Grace made some interesting remarks about athletics, and spoke of what some regarded as the undue attention which was paid at our schools and colleges to games and athletic exercises, to the disparagement of intellectual work. He was one of those not at all disposed to grudge the time given to healthful athletic exercise. But "what perhaps was somewhat to be regretted was the immense amount of time and attention now given by a large section of the public to the performances of other people in the matter of sport. There were many who imagined that by looking at cricket or football matches or at athletic sports, or even by reading about them in their newspapers, or even by betting about them, they were themselves indulging in healthy and useful exercises." The Duke also spoke of the excesses, and perhaps somewhat absurd excesses, to which attention to such sports was carried in some quarters.

TRAINING AND NATIONAL DEGENERATION.

MR. W. BEACH THOMAS, who has contributed an article on Training and National Degeneration to the June number of the *Monthly Review* (John Murray) while admitting that the recruiting statistics suggest cause for alarm, thinks that this may perhaps only mean that a lower stratum of society has been tapped, and that, inasmuch as Waterloo was not won by giants, so our present recruits may very well achieve victories as brilliant. This is surely a mistaken view, for to rest satisfied with men of inferior physique does not mean merely standing still, but that progressive deterioration shall be allowed to go on. Rather should we aim at the very highest standard in order at any rate to secure a fair approximation to it. Mr. Beach Thomas recognizes that much of the physical deterioration due to the migration to towns of the rural population is associated with diminished mental initiative. In illustration of this point he quotes the experience of a builder who during a business career of thirty years never had a foreman in his works who had not been born and bred in the country. The stock of country apprentices has diminished or run out, and good foremen or leaders are now difficult to find. If the country population cannot be prevented from migrating to towns Mr. Beach Thomas suggests that they should be trained to adapt themselves to town conditions in such matters as diet and exercise. He truly says that inasmuch as freedom of action is removed from individuals by parents, schoolmasters, social reformers, and the State—thus making deterioration inevitable by failing to discover for urban citizens common and sensible means of adaptation to their surroundings—compulsion should be put on the school child to take the right sort of exercise, the right sort of food, and attend to the seeing of his eyes, the hearing of his ears, and the cleanliness of his teeth. Children should be taught to breathe and walk and to be natural. The bulk of the population should be taught how to train. Not only proper food and exercise are necessary but also interest in the training, so that physical deterioration may be due to want of interest in physical exercises. Mr. Thomas declares that no manner of interesting children has been found so effective as some form or other of military organization, as conducing to smartness, and indirectly to self-respect. "The brigade," he says, "should be made a centre of a wider education, the excuse or occasion for lessons in hygiene, for testing the adequacy of the senses and muscles, for providing units for competition, it may be, for taking holidays in the country, or even, on the analogy of the Naval College at Greenwich, for teaching that handiness which is at the root of success in many trades. From the brigade may issue instruction, more effective than that of the class room, for teaching children regularity in the smaller concerns of the physiology of daily life, from the neglect of which deterioration most directly springs. It may teach every form of neatness, even to the mending of clothes." There is equal need for some organization which shall give girls "interest in making a home—the necessity of exercise, of regularity, of conservation of the senses, and especially of clean cooking"—in short, personal training should be made an integral and interesting part of daily education, and in this conclusion the medical profession will, we believe, unanimously concur.

ADVERTISING BY RETAIL OPTICIANS.

THE *British Optical Journal*, in commenting upon the correspondence between the Medical Secretary of the British Medical Association and the Clerk of the Worshipful Company of Spectacle Makers, admits that advertising which conveys the suggestion that there are no causes of defective sight lying outside the scope of those remedial measures available to opticians, is "misleading to the public." The article goes on to say that "even a fully qualified oculist would be going to an unjustifiable length, we think, in offering a guarantee to correct *all* errors of refraction, and the optician who does so not only traverses the regulations of the Company, but offends against the canons of good taste," and although the editor of the *British Optical Journal* is so charitable as to think that such advertising is probably due to nothing worse than thoughtlessness, he points out that now attention has been drawn to the matter there will be no excuse for such announcements in the future. We are glad to find that the *British Optical Journal* has got so far at this, and we trust that the advertisements of the diplomates of the Spectacle Makers' Company will in future be free from those objectionable features to which correspondents have repeatedly drawn our attention.

DR. EDWIN RICKARDS OF BIRMINGHAM.

AT the monthly meeting of the General Hospital, Birmingham, on Friday, June 3rd, the resignation of Dr. Edwin Rickards, Senior Physician, was received with every expression of deep regret. Dr. Rickards has been for thirty years physician, and has served the hospital altogether for thirty-four years. This long service, which has been rarely equalled in the history of the hospital, and exceeded only in one or two instances, will probably, owing to recent changes in the laws, never again be attained. Dr. Rickards, who is a graduate in Arts and Medicine of the University of Oxford and a Fellow of both the Royal Colleges, went to Birmingham in 1868 as Resident Pathologist to the General Hospital, and was subsequently appointed Resident Medical Officer. In 1874, as it became necessary to increase the staff of the hospital, owing to the growth of the outpatient department, Dr. Rickards was appointed an additional Physician. This arrangement not proving sufficient to cope with the growing magnitude of the practice of the hospital, three years later the posts of Assistant Physician and Assistant Surgeon were created, and the number of Physicians again reduced to four. Dr. Rickards has been Senior Physician to the hospital since the retirement of Sir Willoughby Wade in 1892, and his resignation is greatly regretted by his colleagues, with whom he has always worked in a loyal and sympathetic spirit. He has abundantly earned the right to seek relief from the responsibilities of hospital practice, and carries with him the hearty good wishes of his colleagues for his health and happiness. A Committee has been appointed to collect a fund to found a memorial of Dr. Rickards's services to the hospital, and to give him personal testimony of the appreciation with which those

services are regarded by the governors of the hospital. By this resignation Dr. Saundby becomes Senior Physician, and the post of Physician has been declared vacant. It will be filled up by election on Friday, June 24th. The Assistant Physicians are Dr. T. S. Short and Dr. J. Russell, from one of whom the selection will probably be made, although external candidates possessing the necessary qualifications may apply.

ST. BARTHOLOMEW'S HOSPITAL.

As announced by us some three months ago, His Majesty the King has promised to lay the foundation stone of the new St. Bartholomew's Hospital, and though the date of the ceremony is not yet definitely fixed, it is now expected to take place in the second or third week of July. A leading principle of the scheme upon which this great hospital is to be rebuilt is that the whole of the new institution shall be completed without interruption of current work. This will of course to some extent hamper the building operations, but the object in view, namely, that the poor shall not be deprived even temporarily of the advantages which they at present derive from the hospital, is excellent, and there is every reason to believe that the idea is one capable of being carried out, for apart from the feats of which modern engineering skill is now capable, many of the new buildings will occupy sites other than those filled by the present blocks. The building which is first to be taken in hand is the new out-patient department, the need for which is admitted on all sides to be the most urgent, and by laying the foundation stone of this department His Majesty will initiate the realization of the whole scheme. It is a matter for general congratulation that His Majesty has been pleased to undertake this office, since his doing so cannot but help to open the purse-strings of the richer folk in London, and stimulate the efforts of those who are engaged in raising a rebuilding fund.

THE INFANT ORPHAN ASYLUM.

In our last issue we drew attention to the striking fact that the consultants who have hitherto given their services to the Infant Orphan Asylum, Wanstead, had resigned in a body as a protest against the action of the Chairman and Committee of the institution, first, in refusing to introduce those arrangements for the isolation and treatment of infectious disease now universally recognized to be essential in any institution intended as a home for hundreds of children of tender age, secondly, in abolishing the staff of trained nurses which had been established in the general infirmary of the institution. Upon being apprized of these remarkable resolutions the Consulting Physician and the Consulting Surgeon asked for an opportunity of laying their views personally before the Committee of Management, and this not being granted they, together with their colleagues, relieved themselves of further responsibility in the matter by resignation of office. It would appear that the question of putting the internal arrangements of the asylum in proper order has not now come up for the first time, for at least three years ago the Committee [illegible] officially received a medical report which [illegible] suggestions regarding the arrangements necessary for the treatment of sick children in general and [illegible] in particular. [illegible] having their suggestions received [illegible] the interests of the [illegible] the management during the [illegible] This question arises [illegible] the duties of those who [illegible] to the support of the institution [illegible] with the governing body, to investigate. It is to be noted that this is not the first occasion upon which the management has come in for unfavourable public criticism, for in the published report of the medical officer of health for the district in which the asylum stands we find the following statement: "I visited this asylum in October, 1903, after the reconstruction of drains and before the children were allowed to return. I then reported that the infirmary was not finished and that there was no disinfector. I am of opinion that the present infirmary accommodation is quite inadequate for the requirements of such an institution, containing, as it does, nearly 600 inmates. My main point is this: That even apart from the ordinary beds, where cases of ringworm can be treated, there is no separate block where infectious diseases can be isolated. The disinfector which is now relied upon is useless for the purpose." The report from which this passage is quoted refers to the events of the year 1903 and from the tables which it contains we gather that 25 per cent. of all the cases of scarlet fever and diphtheria within the district were in this asylum, while the cases of chicken-pox in the asylum exceeded those of the whole of the rest of the district.

THE SCOTTISH POOR-LAW MEDICAL SERVICE.

The Report of the Departmental Committee of the Local Government Board of Scotland on the Scottish Poor-law Medical System, a long notice of which appeared in the Supplement to the British Medical Journal of April 30th, p. 80, has been the means of giving rise to an interesting discussion on the subject in the *Scotsman*. "W. B.," who states that he held for twenty years the post of Poor-law medical officer in the Highlands, agrees with "One of Them," who also writes on the subject, that to make the position of medical officers in the Highlands of Scotland satisfactory, it is necessary to improve their pay, assure them of good and rent-free houses, enable them to have holidays, the parish council paying for a substitute, and give them security of tenure. "W. B." suggests that the parish Poor-law medical officer should be made a local assistant medical officer of health and receive a liberal salary for attending to the public health work of the parish, and also that he should medically attend all notified cases of infectious sickness, and grant the necessary certificate for closing and opening schools. It is to be hoped that the medical profession in the Highlands will use every endeavour to get the recommendations of the Departmental Committee carried into effect. A deputation to the Secretary for Scotland might help to expedite legislation on the subject.

METROPOLITAN HOSPITAL SUNDAY.

Every contributor has the happy assurance that Mr. George Herring will lay a five-shilling piece on the top of every pound which reaches the coffers of the Metropolitan Sunday Fund from the churches and chapels in London which hold hospital collections on Sunday, June 12th. It is, indeed, a princely game which Mr. Herring has invented and which he is ready to play against the whole of the metropolis, only limiting his opponents' stake to £10,000. Up to the present he has been the winner, for so far very much, we feel sure, to his regret the public has not succeeded in making him pay more than £12,852. The utility of Mr. Herring's offer, however, does not end with the amount which he invites the world to extract from his pocket. A greatly increased value must attach to it when it is adequately recognized that it is not the offer of a mere millionaire philanthropist, but that of a business man, who, as the long-time treasurer of the North West London Hospital, really understands what hospital work is and should be, and who at the same time has the same knowledge of general hospital finance questions as other men have of stocks and shares. That a layman of this description, and one, moreover, who in other respects is believed to be of an unusually retiring disposition, should feel the recurring need of making a picturesque offer by way of stimulating the public to subscribe freely towards one of the two great collections of the year, is as striking a proof of the need for that collection as could well be given. It is true that the great extension of hospital work which the last quarter of a century has witnessed is not regarded by all members of the medical profession with unqualified approval, and we have no wish to pretend that everything in the hospital world

is precisely as it might and should be. There is a strong feeling, for instance, that out-patient administration stands in need of reform, and that as at present conducted at many hospitals the out-patient work encroaches upon the possibilities of private practice in a fashion which is immediately detrimental to the well-being of many medical men and not to the eventual benefit of the public itself. The recollection, however, that such questions exist need not deter any medical man from doing whatever lies in his power to help to gain financial support for the institutions themselves. They are places for which, apart from a recognition of their utility, of the essential need for their existence, and of the good which they effect, medical men must feel a kind of affection for old association's sake, and those upon whose toes they sometimes seem to tread may remember that it is usually poverty, and not wealth, which is the cause of hospital doors being sometimes thrown open more widely than they should be, for it is the hope of the managers of some of the hospitals that, by showing great numbers of out-patients treated, they may obtain the more readily the support which they certainly require, and on other grounds deserve to receive.

PATHOLOGY AT THE VICTORIA UNIVERSITY OF MANCHESTER.

THE evergrowing complexity of the subjects included in medical education, and the increasing application of medical science to practical affairs, is well illustrated by the decision of the Council of the Victoria University to divide the Chair of Pathology into two. The Proctor Chair in Owens College, to which Professor Delépine was appointed in 1891, included general pathology and morbid anatomy, but the Professor was also expected to give the necessary pathological and bacteriological instruction to public health students. The work of the Chair on this side has greatly increased during the last twelve years, and although the staff of assistants and servants has also been increased it has outgrown the present arrangement. A Committee of the Council, appointed at Professor Delépine's request, came to the conclusion last summer that the best solution would be to divide the Chair, giving the teaching of medical students preparing for medical qualifications to one professor, and that of public health students and advanced or post-graduate students to the other, who would also be director of the public health laboratory. Professor Delépine has selected the new Chair, and a vacancy in the Chair of Pathology and Pathological Anatomy is now advertised. It is hoped that the incumbent of this Chair will in future act also as pathologist to the Royal Infirmary, since it is felt that the professor who gives instruction in morbid anatomy should be in a position to teach in the *post-mortem* room. The increase in the number of students working in the pathological department has been rapid, thus in the session 1901-2 there were 128 students, many of whom took more than one class, and of this number 28 were working in public health subjects. In the session 1902-3 the total number was 173, of whom 45 were working at public health subjects and 20 at clinical pathology. Thirteen years ago the whole department consisted of one classroom, two rooms for practical work and a part of the medical museum; at the present time it consists, in the first place, of laboratories in the medical school, which include two large laboratories for morbid histology and bacteriology respectively, one chemical laboratory, three private laboratories, two animal rooms, two preparation rooms, collection room, one room for experimental pathology, and a lecture room. In the second place, there are in the public health section three large laboratories for bacteriology, chemistry, and research respectively; one experimental room, one private research room, a large library, and offices. We understand that among the candidates for the new chair are Dr. I. Walker-Hall, at present Professor Delépine's assistant, and Dr. F. C. Moore, a former assistant. The Council, however, wishes it to be understood that the appointment is quite open.

AT a meeting of the Senate of the University of London on June 8th Dr. Philip Henry Pye-Smith, F.R.S., was re-elected Vice-Chancellor for the year 1904-5.

DR. SHERRINGTON, Professor of Physiology in the University of Liverpool, has been elected a member of the Imperial Academy of Medicine, Vienna.

THE Cavendish lecture before the West London Medico-Chirurgical Society will be delivered by Professor von Mikulicz at the Town Hall, Hammersmith, on Friday, June 24th, at 8.30 p.m. The subject selected is experiments on the immunization of operation wounds.

WE learn that the Police Committee of the Corporation of the City of London, which has had before it for some time the question of introducing a horse ambulance system into the City, will receive a deputation from the Metropolitan Street Ambulance Association on June 29th. The representations of this Association will, we understand, have the support of the St. John Ambulance Association.

SIR SAMUEL WILKS announced his recovery from the operation which he underwent not long ago in a charming letter, which was published in the *Guy's Hospital Gazette*. We are glad to be able to state that he is now restored to his former vigour of body and mind. The whole profession will join with us in wishing him many years of pleasant life.

INSPECTOR-GENERAL HERBERT MACKAY ELLIS, R.N., has been selected for the appointment of Director-General of the Medical Department of the Royal Navy, in succession to Inspector-General Sir Henry Frederick Norbury, R.N., K.C.B., Honorary Surgeon to His Majesty, who will shortly resign the office. Inspector-General Ellis is an officer with a distinguished record of service in various parts of the world. He is personally popular with all branches of the service, and the appointment will, we believe, give great satisfaction to the medical officers of the navy.

WE publish at page 1395 an interesting letter dated Tokyo, May 1st, from Sir Frederick Treves. In the course of a tour round the world during which he has travelled some 4,000 miles by rail in India and visited Burmah, Ceylon, China, Hong Kong, Penang, Singapore, he found himself in Japan at the date mentioned. Sir Frederick Treves has, we understand, visited many hospitals in all the countries mentioned, and is now on his way home by way of America, where, by the way, we observe he is to receive an honorary degree from the University of Pennsylvania next week. He will probably reach this country at the end of the month, and we may hope that he will find some opportunity of giving a fuller account of his surgical pilgrimage.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Local Government Board Vote.—On Thursday last week, the vote first taken in Committee of Supply was that for a sum of £227,089 for the Local Government Board. The taking of this vote is the occasion on which a general criticism is made of the administration and policy of the Board. This year the debate was less productive of criticism than usual, for the vote came on somewhat unexpectedly. After some conversation about the working of the Motor Car Act of last year, Sir Ernest Flower called attention to the barrack-school system. He said that since the condemnation of the system by the Departmental Committee's report of 1895, interest in the question had steadily grown. The schools that still remained had improved, but there were some still that ought to be abandoned. It was a mistake to allow guardians to create large central institutions, which were more costly and less efficient than scattered homes, or the boarding-out system. Mr. Herbert Samuel called attention

to the emigration of Poor-law children to Canada, and urged the advantages of the system as long as there were no special institutions there to mark the children as Poor-law children. He condemned the proposal to establish homes or certified schools in Canada for these children, as virtually the creation of a wing of the English Poor-law system in a Colony, and a means of perpetuating the pauper taint, of which it was most important to free the children. Sir John Gorst supported this view, and then went on to complain that there were now, ten years after the report of 1895, 10 per cent. more children in metropolitan workhouse infirmaries than in 1895. Taking the whole country, one-third of the Poor-law children were still in workhouses. He referred to the school at Hanwell as an old building, ill suited for the purpose, which was still in use, and contained 817 children although certified for 746 only. He urged the adoption of the scattered home or the boarding-out system, and advocated improved methods of inspection by inspectors with some medical knowledge. The Local Government Board ought not to check local authorities in experiments in these directions, by giving official preference to the system of grouping in village communities. The question of dealing with vagrants was most urgent, and should be attempted next session. He commended the methods of the Salvation Army for dealing with tramps. Mr. Crooks followed, and specially urged the claims of pauper children to education, and especially to education in elementary schools outside the workhouse influence. He pointed out some of the difficulties in connexion with boarding-out, and congratulated the Board on its action with regard to mentally defective children. Mr. Hutton referred to the condition of many of the rural workhouses as disgraceful, and asked for a Committee to visit country workhouses, and report on the condition of the inmates, especially the imbeciles and weak-minded. Sir A. Hayter, Mr. W. Russell, Mr. Claude Hay, and Mr. T. Taylor also spoke and Mr. Long replied. He said that for the first time the attack on the Department had been very much pressed, and there had been generally satisfaction at the improved treatment of pauper children. The whole energy of the Department would be devoted to this object. As between one system of treating children outside the workhouse and another the Board must be neutral, but he agreed that the appointment of a medical inspector for pauper children might be desirable. As regards the Hanwell school, the figures were not so bad as had been stated, and the Board had in no case sanctioned any extension of a barrack school, except to improve existing accommodation. He said the Government had set up a Departmental Committee to consider the vagrancy question. The condition of the rural workhouses, he thought, could be dealt with without a Committee, and he spoke favourably of the work done by some Poor-law consumption hospitals at Liverpool and Skipton. Mr. Kearley afterwards called attention to the [illegible] of milk, the prevalence of which was steadily increasing. The percentage at present was 11.6 for the whole country, in London it was 13.5, and for the 20 next largest towns 13.3. In 5 of the leading metropolitan boroughs it was 25 per cent. He asked what the Local Government Board intended to do to enforce the Adulteration Acts. Mr. Grant Lawson described the metropolitan boroughs, and pointed out that the number of samples taken in different places [illegible] widely unless made general conclusions misleading. The Board of Agriculture was taking great interest in the matter. Mr. [illegible] expressed himself satisfied with the reply and [illegible] Mr. Weir raised the question of the milk supply of the [illegible] Mr. Long declined to undertake [illegible] for any Government to undertake [illegible] and he saw no reason to [illegible] it, as the [illegible] Mr. Weir [illegible] but when it [illegible] the Chairman asked the [illegible] who challenged [illegible] [illegible] were in the [illegible] [illegible] was also [illegible] of the opposition of the [illegible] that [illegible] the difficulties to be met [illegible] the necessity in favour of a policy [illegible] adequately represented by those standing up in the chamber. The vote was then agreed to.

The Registration of Nurses. Mr. Lyttelton asked the First Lord of the Treasury, on Monday, whether he was prepared to set up the Select Committee on Nursing and the State Registration of Nurses, and to state what would be the reference to the Committee. Mr. Balfour replied that he hoped the Committee might be set up shortly. He did not think there ought to be any difficulty as to the terms of reference, but he was not yet in a position to state them to the House. He did not know whether it might be worth while adding, that there were two Bills now before the House dealing with the subject, which, if the House were content to read them formally a second time, might be referred to the Committee. In answer to a further question as to whether the Government would assist the two Bills, Mr. Balfour said they would not put any obstacle in their way, but he did not think he could promise Government time.

Antityphoid Inoculation.—Mr. E. Wason asked the Secretary for War whether the Committee appointed by the Royal College of Physicians of London to investigate and report upon the efficacy of antityphoid inoculation had completed their inquiries and made their report. Mr. Arnold-Forster replied that the Committee appointed by the College to consider and report on the safety and prophylactic value of Dr. A. E. Wright's antityphoid inoculation had made their report, but the whole question of antityphoid inoculation was being considered by a body of experts.

Nursing at Military Stations.—Sir John Colomb asked the Secretary of State for War whether any communications had been issued from the War Office containing proposals to provide military stations with a nurse trained in maternity and general nursing to attend the wives and families of soldiers without expense to them; and, if so, to whom were such communications made, and what was their general purport? Mr. Secretary Arnold-Forster answered that letters were sent to all General Officers Commanding asking for an expression of opinion as to the best means of providing nursing for the wives and families of soldiers in places where hospitals were not provided. The replies had not yet been received from all the officers concerned.

The Army Medical Vote.—On Thursday in last week Dr. Farquharson asked the Prime Minister to give an assurance that an early opportunity would be given to discuss the army medical vote in view of the great interest taken in the question, and the possible effect of delay on the supply of suitable candidates. Mr. A. J. Balfour said in reply that no doubt more time would have to be devoted to the army estimates, but several days had already been occupied by them, and he could not at the present give any promise as to when the consideration of them would be resumed. The Army Estimates are to be taken again next Thursday, and an opportunity may then arise for discussing the new scheme in relation to the Army Medical Service.

Poor-Law Medical Relief in Scotland.—Mr. Tennant asked the Secretary for Scotland whether the Local Government Board had considered the advisability of holding an inquiry into the system of boarding-out pauper children in Scotland, and if so whether they would appoint a Committee. The hon. member also asked if a Bill was to be introduced to prohibit pauper nursing in Scottish poorhouses. The Lord Advocate replied that the Local Government Board were at present considering the report of the Departmental Committee on Poor Law Medical Relief, with a view to having effect given to such of the recommendations as were advisable which did not require legislation, and to proposing legislation so far as may be necessary. It was impossible to say if legislation could be proposed this Session.

The Water Supply of Scotch Schools. Mr. Weir asked the Secretary for Scotland, in view of the statement contained in the last report of the medical officer of health for Ross and Cromarty in regard to the necessity for a suitable supply of pure water for the public schools, would he state how many of the 138 public schools in Ross-shire have a water supply laid on to the premises. Mr. Graham Murray replied that he had not the details of all the schools, but of 53 schools on the mainland, 13 had water laid on, and 40 were supplied from wells and streams. In the Lewis almost every school had a supply laid on. In reply to a separate question put by Mr. Weir, Mr. Graham Murray said that the water supply for Edderton School, Ross-shire, thought ample at present, was conducted into the premises from a shallow surface well, and was liable to be affected by drought. A plentiful supply of good water was, however, always obtainable within 80 yds. of these buildings.

Scotland.

AN OUTBREAK OF SORE THROAT COINCIDENT WITH A TEAT ERUPTION IN A HERD OF COWS SUPPLYING MILK.

BETWEEN April 23rd and May 28th a series of cases of sore throat occurred among the staff of the Belvidere Fever and Small-pox Hospital, Glasgow; the cases included 17 nurses, 8 cleaners and maids, 4 patients, 3 storekeepers, 2 physicians, 2 members of the dispensary staff, an assistant matron, and 2 members of the steward's household. On investigation by Dr. A. K. Chalmers, medical officer of health, it became clear that in a few instances only could a suggestion of direct secondary transmission among persons closely associated in work be entertained. Assuming the outbreak to be due to an infective process, it appeared that the explanation was more likely to be found in a distribution of infection direct to each individual from a common source, and the circumstances that cases were occurring in the small-pox hospital and also in the house steward's family, the milk supply in both cases being the only circumstance in common with the fever hospital, suggested that this point should be the next investigated, although the fact that the children in the hospital and the children of the house steward and his wife (who were both affected) escaped militated against the hypothesis. The milk supply for the fever hospital was scalded from May 17th onward, and no cases occurred there subsequently: but owing to an error in the transmission of instructions a portion of milk delivered to the small-pox hospital was not scalded till May 23rd, and on May 27th one other case occurred there.

Dr. Chalmers visited the farm accompanied by Dr. Buchanan and Mr. A. M. Trotter. It was ascertained that, after a considerable interval without change among the stock, a new cow was added to the herd, which numbered 72, on April 23rd; each milker is given a separate group of cows, and the new animal was first added to one group, and then in a few days transferred to another. Towards the end of April the group to which the new cow had first been added began to suffer from a teat eruption, and very shortly afterwards a similar affection broke out in the second group and spread until about 30 per cent. of the herd were attacked. The outbreak reached its height about May 6th, and it was in the following week that 19 of the hospital cases occurred; during the course of the outbreak the hands of four out of the eight milkers were affected. About one-seventh (20 gallons) of the total supply of milk was sold in a neighbouring village, and although it was not possible to trace the particular cows which supplied this milk, it was ascertained from the medical practitioner in the village that he had under his treatment 4 cases of sore throat, in 3 of whom, on bacteriological examination, evidence of septic infection was found. The two physicians of the Belvidere Hospital who suffered were both in charge of diphtheria wards, and in one of them the symptoms were frankly those of diphtheria. In the other physician, and in certain other cases, an organism was recovered which had some of the morphological and cultural characters of the diphtheria bacillus, but it was not fatal to animals.

Dr. Chalmers has no hesitation in regarding the majority of the cases of throat affection at the hospital as directly due to septic infection arising from the growth of secondary organisms on the affected teats and conveyed to the patients by the milk. All the cases were mild, and 13 of them did not seek medical advice. Mr. Trotter reports that the duration of the disease in the cows, as judged by the time during which they gave trouble in milking, was about three days; in other respects the animals appeared to be in good health. In concluding his report Dr. Chalmers writes:

> Although the outbreak is now over, there is an obvious administrative lesson in the incident which should not be overlooked. A similar outbreak occurring elsewhere than in a selected group of population such as the hospital afforded might readily escape notice. Yet teat eruptions among cattle are of fairly frequent recurrence. Section LXXXIV (3) of the Burgh Police (Scotland) Act, 1903, provides for notification by the dairyman of tuberculosis of the udder, and it would be to the interest of the consumer were epizootic teat eruptions added thereto. The clause is one of several dealing with milk infection which are included in the adoptive portion of the Act.

CONGRESS ON HOME RELIEF AT EDINBURGH.

The Fourth Annual International Home Relief (Assistance Familiale) Congress began its sittings at Edinburgh on the evening of Tuesday, June 7th, when the President, the Right Hon. Lord Balfour of Burleigh, K.T., gave the opening address at 9 p.m., in the Assembly Hall of the United Free Church. The sectional meetings on Wednesday, Thursday, and Friday took up the subjects of children (the feeding of infants and school children, the prevention of cruelty to children, the boarding-out of pauper children, and the methods of organising home-relief for cripples); old age (old-age pensions, the general question, old-age pensions from the point of view of Friendly Societies, the Danish and German systems of relief and their moral and economic effects, the Scottish practice and experience of boarding-out aged paupers); able-bodied adults (hereditary paupers, compulsory detention of in-door poor or vagrants, the domestic conditions which affect the prison population, the punishment of crime, prisoners' aid societies, the treatment of the habitual offender, model lodging-houses, inebriates, and Le Foyer du Buveur); sick adults (parturient women in large centres, pulmonary tuberculosis, relation between hospital and home relief of sick poor); insane and epileptics (home care, after-care of those from asylums, epileptic colonies).

GLASGOW'S SEWAGE SCHEME.

Another step has been taken towards the completion of the great sewage scheme by which all the sewage of Glasgow and district is to be purified before passing into the river. This is a matter of great sanitary importance, as may be best understood by those who have seen the river on a hot summer day. For some years the eastern district of the city has been served by the sewage works at Dalmernock, which have given great satisfaction. The rest of the city north of the Clyde is now connected with large new sewage works at Dalmuir, the western district section. These works have been five years in construction, and were formally opened on May 31st. The whole of the district south of the Clyde is being dealt with at present, though it will be some time before the work there can be finished. By the time all these works are completed the city will have spent on them about £1,000,000. The method of sewage purification adopted in Glasgow is that by chemical precipitation, the principal difficulty in dealing with which is the disposal of the sludge, which has little commercial value, and has to a large extent to be taken down the river in steamers, and deposited in the Firth.

The opening of this western district section at Dalmuir marks the completion of the major portion of the whole scheme for the city, which, next to the undertaking of the London County Council, is the largest of its kind in the world. A large and representative company was present at the inaugural ceremony; the extensive works were inspected, and then the four sluice valves were opened simultaneously by the Lord Provost and other prominent officials. At a luncheon held afterwards various interesting speeches were made, the growth of the scheme being sketched and the hope held out that soon the river would be so much improved that the Clyde might regain its ancient reputation as a salmon river. Ere this occurs, however, much will need to be done by the cities on the higher reaches of the river, which must also adopt purification measures such as Glasgow has faced with so much energy and skill.

ABERDEEN STUDENTS' MEDICAL SOCIETY.

The Students' Medical Society of Aberdeen University held its last meeting for the session 1903-4 on June 3rd, when a lecture on the Application of Electricity to Medicine and Surgery was delivered by Dr. Levack, medical electrician to the Royal Infirmary. Professor Cash, Honorary President, occupied the chair. The lecturer dealt in a most interesting and able manner with his subjects under the heads of Static, Galvanic, and Faradic Electricity, describing succinctly the production and uses of each. He then went on to consider the *x* rays, Finsen light, and high-frequency currents, and in the course of his remarks gave expression to the opinion that the *x* rays were quite as useful and beneficial in the treatment of lupus and rodent ulcers as was the Finsen light. The lecture was fully illustrated by the exhibition of electrical apparatus, and by a number of experiments. By means of the lantern the value of *x* rays in the diagnosis of fractures, of the presence and location of foreign bodies, of pulmonary tuberculosis, of aneurysm, etc., was demonstrated.

On the motion of the Chairman, Dr. Levack was accorded the hearty thanks of the meeting for the manifest care and trouble he had taken in the preparation of his experiments, and for his excellent and instructive lecture.

Under the new constitution formulated some six years ago, by which the Society's membership is confined to students of medicine and to graduates of not more than two years' standing,

the Society continues to flourish. During the past session the papers by students have been, many of them, of high merit and vigorous discussion has been the rule.

SMALL-POX IN EDINBURGH.

In the week ending midday, May 28th, two cases of small-pox were intimated to the Public Health authorities, while in the week ending June 4th, five cases were intimated. On the latter day thirteen cases of small-pox remained in the City Hospital at Colinton Mains, as against fifteen cases on the former date.

Ireland.

THE IRISH MEDICAL ASSOCIATION.

THE annual general meeting of the Irish Medical Association was held at the house of the Royal College of Surgeons of Ireland on June 7th. At the opening of the proceedings the chair was occupied by the retiring President, Dr. L. Kidd, of Enniskillen, who after a few words introduced his successor, Mr. Tobin. His presidential address dealt with the Irish Poor-law Medical Service, but we are compelled by pressure on space to defer a full report of the meeting. In the evening the members to the number of over one hundred dined together in the College.

THE MIRUS BAZAAR.

During the past week, and on Monday of this week the great Mirus bazaar in aid of the funds of Mercer's Hospital has been in full swing in the premises of the Royal Dublin Society. Thousands of people have visited the beautiful scene and have contributed to the success of the enterprise. The Committee has left nothing undone to secure success, and it is believed that the hospital will benefit to the extent of several thousand pounds.

VISIT OF THE LORD-LIEUTENANT TO BELFAST: INSPECTION OF HOSPITALS.

On June 3rd His Excellency the Lord Lieutenant visited the Royal Victoria Hospital, Belfast; he was received by the Lord Mayor, who introduced the Chairman of the Board of Management, Mr. William Crawford. Mr. Crawford subsequently introduced some other members of the Board and several members of the staff. His Excellency was accompanied by his host, the Earl of Shaftesbury, and first visited the Shaftesbury Ward, so called in recognition of the generosity of the late Countess, who, with the consent of the present Earl, gave the site of the old hospital free to the Hospital Corporation. Subsequently other wards, clinical rooms, and operating theatre were inspected, and the various points of novelty in the construction, warming, and ventilation of the building explained. His Excellency spoke to several patients and inquired kindly after their condition. Before leaving a visit was paid to the electric department, where the Rontgen rays and Finsen light were explained. A large number of medical students who had just finished the clinical work of the morning helped to add to the spontaneity and warmth of a loyal welcome.

In the afternoon His Excellency, with Lord Shaftesbury, visited the Male Infirmorum Hospital; they were received by the Roman Catholic Bishop, the Most Rev. Dr. Henry, and the medical staff. The passages were beautifully decorated with flowers, and "Cead Mile Failthe" placed within the entrance hall. The principal wards were displayed in orchids of white, yellow and purple. The wards, operating theatre, [illegible] and numerous patients were [illegible]. A handsomely bound copy of the [illegible] and illustrated album of interesting photographs [illegible] presented by the Lady Superioress. In [illegible] His Excellency expressed his and appreciation of the [illegible] general management, and of the [illegible] of the buildings.

[illegible] ASYLUM.

At the meeting of the Committee of Management of the [illegible] held on June 2nd, Dr. Woods, Resident Medical Superintendent, presented his report. The admissions [illegible] largely exceeded the average and notwithstanding that [illegible] have been removed to the auxiliary asylums during the month the numbers are three more than a month ago. Altogether 121 patients have been sent to the auxiliary asylums, but the population is only 61 less than it was on January 1st of this year, and is [illegible] than it was in January, 1903. The continued overcrowding is affecting the management of the asylum very seriously, the want of sufficient hospital accommodation being especially felt. He regretted that there was no room for the numbers of epileptics in the different union hospitals of the county, and that the Youghal auxiliary was unsuited for their treatment. The overcrowding in the parent institution was so great that there were 350 inmates more than accommodation was provided for.

THE ECONOMIES OF THE LOCAL GOVERNMENT BOARD.

The Limerick Board of Guardians passed a resolution some time ago requesting the Local Government Board to allow the increase of salary sanctioned by them to Dr. Shanahan, Medical Officer of No. 3 City Dispensary District, to take effect from January 1st, 1900, the guardians drawing the attention of the Board to the fact that in the case of the medical officers of the other two unions to whom increases had been granted in 1901, they were permitted to date them back to 1880. In this case the guardians voted an increase of £50 a year, but the Local Government Board cut down the amount to £30.

CONJOINT BOARD OF MANAGEMENT.

Mr. Greenwood Pim having retired from the position of Secretary to the Conjoint Board of Management, owing to ill-health, the Committee met on June 4th to appoint a successor. The salary is £250 a year, and there were very many candidates. After careful consideration the Committee appointed Dr. Trevor Smith to fill the position.

HOSPITAL APPOINTMENTS.

Mr. Francis T. Heuston, M.D., F.R.C.S.I., Senior Surgeon, Adelaide Hospital, has been appointed Consulting Surgeon to the Rotunda Hospital in succession to the late Sir Philip Crampton Smyly. Mr. Denis Kennedy, F.R.C.S.I., has been appointed Visiting Surgeon to Jervis Street Hospital; Mr. Kennedy is Surgeon to the Children's Hospital, Temple Street.

BALLINASLOE ASYLUM.

The Lord Lieutenant has assented formally to the appointment of Dr. Kirwan to the position of medical superintendent of Ballinasloe Asylum. The circumstances are already well known. There is a good deal of hostile criticism of the action of the Government. It is felt that it was a great mistake to make any inquiry as to the reasons for the selection of Dr. Kirwan instead of Dr. Mills, unless there was an intention to act firmly. The only result has been a rude snub to the Castle authorities and the complete triumph of the asylum committee.

HEALTH OF BELFAST.

At the monthly meeting of the City Council, held on June 1st, the Medical Superintendent Officer of Health reported the notification of 150 cases of zymotic disease, including 4 of small pox. There were 948 births and 501 deaths. The total deaths from zymotic affections were 61, of which 36 were due to whooping-cough; 113 deaths were due to phthisis. The average annual death-rate was 21.6. In proposing the adoption of the report, the Chairman of the Health Committee, Dr. King Kerr, urged strongly on the public the necessity of revaccination and the wickedness of concealment of cases.

Canada.

QUALIFICATION BY PRIVATE BILL.

THE Taschereau Bill brought before the Quebec Legislature in the past session has raised a storm of protest from the members of the medical profession of the province. That doctors can be made by law, and granted licences to practise, when positively disqualified by a Board elected for the purpose of regulating medical affairs, is scandalous. Nevertheless, year after year, attempts are made, too often successfully, to pass unqualified men by means of a private Bill in the Legislature. In 1890 Lieutenant-Colonel Pinault introduced a Bill to allow a number of men, who had commenced their medical studies without taking the matriculation examination, to enter the profession. It was understood that this was to dispose of the matter for ever, but at the very same session several private Bills were passed allowing other men to enter.

In 1900 Mr. Roy passed a measure of a precisely similar nature, and, as a result of this, in 1902 a safeguard was placed in the general law, to the effect that the King's printer must

not accept a notice of a private Bill for publication, nor the Clerk of the House accept notice of such, unless the controlling body of the profession endorse the application. Now Mr. Taschereau appears with a Bill which provides that all students enrolled before September, 1903, in any university of the province, shall be admitted to practise and be licensed by the College of Physicians and Surgeons. This would have admitted 250 men who had not thought it worth while to conform to the requirements, or who had been unable to meet the established tests.

In explaining his Bill Mr. Taschereau said that there were many medical students both at McGill and Laval Universities who had been led by prominent members of the profession to believe that if they continued with their medical studies the Legislature would regularize their original failure to qualify as students, provided they passed their finals in medicine satisfactorily. He contended that after years of study given by students it would be manifestly unfair to refuse them the right of admission to the profession and to apply rigorously to them the decision arrived at last session to pass no more Bills of this nature. The whole question hinges upon the matriculation examinations, upon entering the course of study, and Mr. Taschereau's contentions are inaccurate, for the regulations are printed and in the hands of the McGill students, and are well known by the Laval men. Further, one-fourth of those who are following the medical course at McGill are above the provincial regulation, in that they have taken a B.A. degree, and of the remainder those who intend to practise in Quebec have taken the necessary examinations.

The medical societies, French and English, of Montreal, Quebec, and Sherbrooke held special meetings and sent delegates to the Legislature, headed by Dr. Lachapelle, President of the Board of Physicians and Surgeons, and as a result the Bill was modified to pass those men who, having made a complete course of classical studies before November 1st, 1903, and having passed the required examinations for the Baccalaureate, had obtained an average standing of 50 per cent.; or, if having only one of the above inscriptions, had passed the examination for the other before the College of Physicians and Surgeons. This change was quite as much as could be expected, for it is understood that the candidates most interested had a very influential political backing—at all events it disqualifies over two hundred of those seeking a short cut to medical practice.

CANADIAN MEDICAL ASSOCIATION.

Arrangements for the thirty-seventh annual meeting of the Canadian Medical Association, to be held at Vancouver on August 23rd to 26th, are almost complete, and the reduced railway rates have just been published. From Halifax to Vancouver the fare will be 81 dols., with intermediate places in proportion. Special inducements have been held out to members wishing to see the Exposition at St. Louis. Mr. Mayo Robson will be a guest of the Association, as well as Dr. J. W. Mayo, of Rochester (Minn.), and probably Professor Marmorek, who is to be in Montreal during the summer.

QUEEN'S UNIVERSITY, KINGSTON.

At Queen's University, Kingston, 37 students have passed their final medical examinations, and have been granted the degree of M.D. The Medal in Medicine was won by H. Tandy, B.A., and that in Surgery by W. Gibson. The number of students enrolled in medicine was 216, and of these 37 held the degree of B.A. upon admission. The results of the London Medical College have also been announced. Eighteen graduated with the degree, and E. Spence received the gold medal; A. J. Manard, who was a close second, obtained the silver medal.

WATERBORNE TYPHOID.

The most interesting instance of an epidemic due to water pollution that has come to the notice of public health officials in Canada for a long time occurred in the city at Kingston, where typhoid was rife for some weeks. The Kingston city water supply is derived from the St. Lawrence river by an iron pipe, whose intake is 1,500 ft. from the shore, and this pipe is laid simply on the bottom of the river, passing as it does through a zone where the water is contaminated by the outlet of the city sewage system. Samples of water taken from the tap on analysis showed colon bacilli and streptococci in many samples, giving presumptive evidence of sewage contamination. Samples of water taken from the river at the intake and for some distance inland were innocuous, but nearer the shore showed the organisms. Acting on this evidence the pipe was examined, and after careful search a large opening was found some 500 ft. out from shore. On inquiry it was found that during the previous fall a vessel had had its anchor foul there and had attempted to pull it up by tugs, but the cable had broken and the anchor was left and was found at the leak. The break allowed a comparatively large quantity of inshore water to enter the conduit. The opening was stopped up and in a couple of weeks the new cases of typhoid became much fewer, while the analysis after the repair showed almost complete absence of the colon bacillus. This incident shows the importance attaching to the discovery of this bacillus under such circumstances in drinking water.

TINNED FOODS AND "IMPROVED" MILK.

During the month of April a series of thirty-four examinations were undertaken by the Laboratory of the Provincial Board of Health of Ontario; twenty-three of these were on canned vegetables, fruits, and jams, and all were the product of Ontario canneries and of the cheaper grades, for example, those which sell for ten cents a jar. None of them showed poisonous metals in harmful quantities; metals, indeed, were present, especially zinc and copper, but these are incidental to the process of manufacture, namely, the preserving in cans. None of the ordinary preservatives were found. Seasonings and flavourings were few. The cheap jams were filled with apple or turnip pulp, only enough of the fruit being present in some cases to give a seed here and there throughout the mass. Aniline dyes were used for colouring purposes.

A specimen of "cream albumenoid" "1 lb. of which added to 28 gallons of thin cream will produce 32 gallons of thick cream" was sent by the Medical Health Officer of Hamilton. It was found to contain cane sugar, lime, and gelatine, and was used to "improve" milk.

BACTERIOLOGICAL DIAGNOSIS.

Dr. W. T. Connell, of Kingston, has been appointed Assistant Bacteriologist for Ontario, and will undertake the examination of specimens from the eastern part of the province, thus permitting more rapid returns. At the central laboratory 344 specimens were examined in April.

MEDICAL ASPECTS OF THE RUSSO-JAPANESE WAR.

By Sir FREDERICK TREVES, Bart., K.C.V.O.

Tokyo, Japan, May 1st, 1904.

WOUNDED RUSSIAN SAILORS AT HONG KONG.

DURING my stay at Hong Kong I visited, with Dr. Atkinson, the principal medical officer of the colony, the wounded Russian sailors who had just come down from the action at Chemulpo. They were in the General Hospital and were all doing well. Their injuries were mostly shell wounds and wounds from splinters. One case only was serious, and in this instance the tissues of the forearm had been much torn up by a flying fragment. The men were all of exceptionally fine physique, and they lost no opportunity of expressing their satisfaction with their surroundings. The sisters said they made excellent patients, and it was wonderful how easily everything was managed, considering that their language was intelligible to none. I also saw, at the request of the Italian commander, a young Russian officer who had been wounded in the same engagement, and who was lying on board the Italian cruiser *Elba*. He had a severe lacerated wound from a shell fragment over the front of the knee, but the joint had fortunately escaped. He was doing well, and was moved to the Colonial Hospital at Hong Kong as soon as the necessary permission was obtained. At Hong Kong I had an opportunity of seeing the very ample and admirable arrangements made by Dr. Atkinson for the treatment of infectious disease and for meeting the annual visitation of plague. In addition to a very large new hospital, there is an excellent hospital ship.

A new military hospital is in process of building on the hillside at Hong Kong, and it promises, when completed, to be one of the finest hospitals of its size in the service.

Mobilization in Japan.

In Japan there is very little evidence that this wonderful nation is at war. Steamers have to be piloted into the harbours of Nagasaki and Yokohama on account of the mines laid in those places. In the inland sea transports passed us all laden with troops, and the strange wooden erections which hamper the decks of such vessels were precisely similar to those which were so very familiar at Capetown and Durban in 1899. All over the country mobilization is being carried on, but very quietly and methodically. As the railways are very largely taken over for military purposes, travelling for the ordinary person is slow and uncertain, and a journey of 100 miles may very easily take fifteen hours. Moreover, all sleeping and dining carriages have vanished since the war began.

Most excellent arrangements are made by the Red Cross and other societies to secure every possible comfort for the soldier on his way to the transport, and no opportunity is lost to give him a good "send off." At a level crossing on the railway, as it passes through a small town, will often be a placard to indicate at what hours trains with soldiers for the front are passing by. When the train does pass, the little town turns out with flags of all kinds, and very hearty cheering and expressions of good wishes, so that the soldier—on what may possibly be his last journey through Japan—has a very royal reception the whole way, from the depot to the sea. Seeing a train off, full of men for the front, is much the same, whether the station be at Kyoto or at Wakamatsu.

The Japanese Medical Service.

Thanks to the kindness of Surgeon-General Koike, the Director-General of the Army Medical Service, I was able to visit military hospitals and to learn something of the organization of the service by which they are so ably controlled. There is at Tokio also Lieutenant-Colonel Macpherson, R.A.M.C., who is the medical attaché appointed by the English War Office, and his report of the condition of the Japanese Army Medical Service will be of great value and interest. Nursing sisters are not employed by the Japanese Medical Corps, nor indeed have female nurses any part in the organization of the department. The field equipment of the Army Medical Corps in Japan is excellent, being simple, inexpensive, and full of ingenious devices in almost every department.

The military medical officers of the corps there are practically commissioned officers who act as house surgeons, the duties performed by the officers in the R.A.M.C. being carried out in the hands of male sick attendants. They are not soldiers, and do not therefore correspond to the soldiers in an English military hospital. To each regiment a certain number of recruits is attached, the number in small units corresponding rather to the regimental recruits in the home service. Their duty is chiefly with the horses and transport.

The Japanese Red Cross Society.

In these days the Red Cross Society supplements the medical work of the army. This society is extraordinarily strong in its aims, its many branches all over the country, its imperial head, and its very admirable organization. It is a thoroughly efficient auxiliary service. Close official connexion with the Army Medical Corps for the object now in view is secured by special provision.

It not only maintains hospitals for soldiers in Japan, but it supplies an immense staff of civil surgeons and nurses. More than that it concerns itself in every way with everything that relates to the comfort of the soldier in times of war. The officers, non-commissioned officers and male sick attendants accompany the troops of the front. The military hospitals in Japan are thus emptied of their staff and are taken over by the Red Cross Society. That Society provides civil surgeons for these hospitals and female nurses. The nurses are, of course, Japanese, and are well trained. Three years' training is required. The Red Cross Society is able to supply through its various branches no less than 3,000 female nurses and 2,000 male nurses. Female nurses will not be sent to the front but will undertake duty in Japan in the military and Red Cross hospitals in various parts of the country. It is needless to say, therefore, that the military authorities need neither surgeons nor nurses and it is difficult to understand how foreign nurses with no knowledge of the language and little insight into Japanese modes of living could be made use of. Pecuniary support to the Red Cross Society is the most practical way of helping the Japanese in their efforts to provide liberally for the sick or wounded soldier.

The Attitude of the People.

During a residence of two months in Japan I have been greatly struck by the admirable bearing of the people—in all classes of society—in connexion with the war. The Japanese are intensely patriotic, but their patriotism is a solemn sentiment and not a temporary neurosis. There is no boasting and no bragging, and no symptom or trace of 'Mafficking." In discussing their successes they are always modest, and their attitude towards an enemy who has experienced a temporary reverse is almost sympathetic. If the attitude of a people during a time of war can be discussed as a matter of taste, it may be appropriate to say that the attitude of the Japanese has been characterized by such good taste that it is worthy of imitation.

CONTRACT MEDICAL PRACTICE.

Post Office Medical Appointments.

We are requested to publish the following letter, which has been addressed to the Medical Secretary of the British Medical Association by the Honorary Secretary of the South Manchester Division:

Dear Sir, I am instructed by the Executive Committee of the South Manchester Division of the Lancashire and Cheshire Branch to acquaint you with the results of their discussion of the medical appointments recently offered by the Postal Authorities in various parts of the country.

The Committee is of opinion that the fees should be raised from 5s. to 10s. 6d. in case of war, and that special fees should be paid for special visits under the following paragraphs relating to (1) vaccinating, (3) and (4) special examinations, (5) supervising, (6) sanitary reports upon Post Office buildings.

The gross remuneration in each district is very small, and the Committee thinks that the rate of payment should be at least as high as the rate for attendance upon the police force, as the amount of sickness is likely to be proportionally greater.

The Committee suggests that you should make suitable representations to the Postmaster-General in furtherance of these changes in the scale of remuneration.

I am, dear Sir, for the Committee,

Percy M. Dodgall, M.B.,
Honorary Secretary and Treasurer.

Medical Attendance on Friendly Societies.

A Correspondent writes that he has been engaged by a Friendly Society to attend its members and their families for three years. He was paid on the capitation system at the rate of 6s. per annum per member resident in the district. He and his wife have now found work in another Friendly Society established in the same district, the members of which have elected him their doctor. He wishes to know whether he can claim compensation from the first Society for the loss of his office, or only arrears of salary up to the time of dissolution with an allowance in lieu of notice.

*** The correspondent has no legal claim to compensation. He will be entitled to arrears of salary and to such notice as corresponds with the agreement on which he was elected.

NOVA ET VETERA.

SOME SURVIVALS OF MEDIAEVAL MEDICINE IN EAST ANGLIA.

An Address delivered before the West Norfolk Division of the East Anglian Branch of the British Medical Association,

By C. B. PLOWRIGHT, M.D., F.R.C.S.(Hon.).

SURVIVALS OF WITCHCRAFT.

CHRONIC diseases are more frequently assigned to this cause than acute ones. I have met with cases of dyspepsia, melancholia, general paralysis, and hemiplegia. One of the commonest remedial measures is to burn a phial full of the patient's urine at night; the bursting of the bottle or blowing out of the cork signalizes the expulsion of the devil or witch and his or her exit up the chimney.

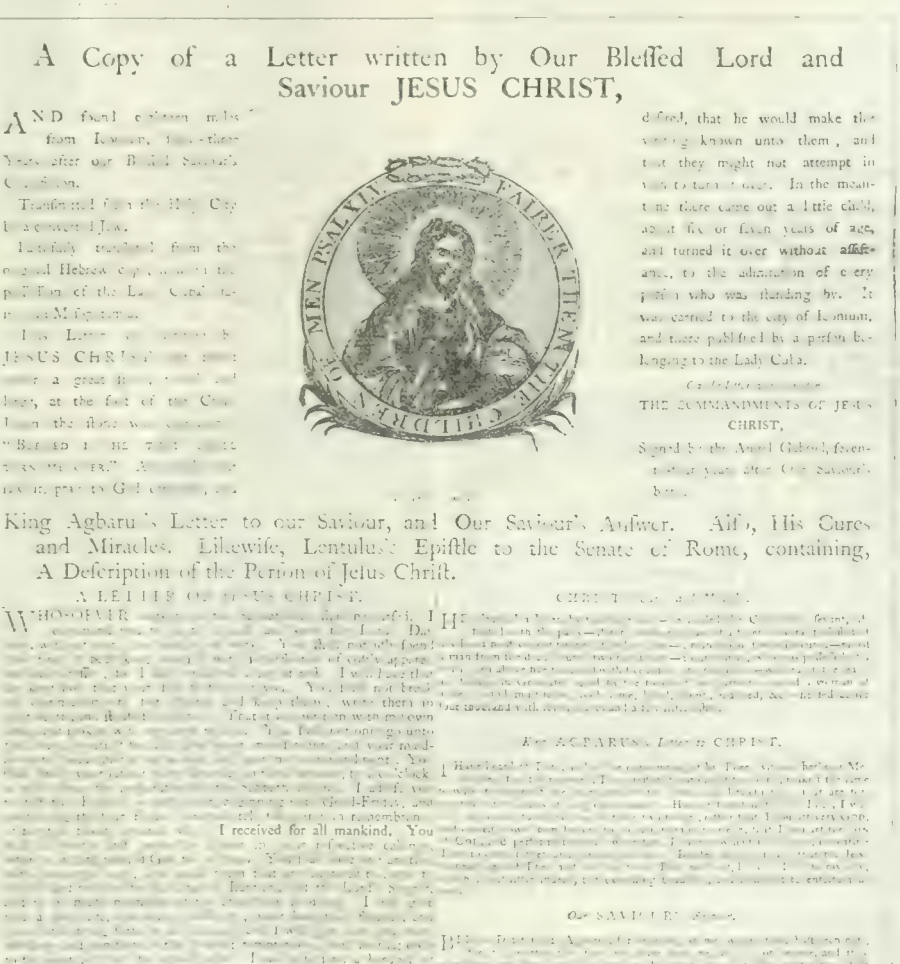
A case of hemiplegia was cured, after forty weeks medical treatment had failed, by sticking the back of a toad full of pins, arranged in the form of a circle and double curved line. It was then buried while still alive in a wide-mouthed bottle, near the window of the patient. A case of dyspepsia was treated by eating a quantity of bran which had been tied up in a cloth and boiled for many hours. These cases contain numerous points of great folk-lore interest, but we have no time to discuss them. It is, however, extremely wonderful that such superstition should exist in a country where compulsory education has been the law for the last quarter of a century.

The practice of burning the placenta is a witchcraft survival. This is always done, as you know, at night, by the nurse alone. Its origin is not difficult to trace: it is a protective measure. The bewitchment of a person is greatly facilitated if something belonging to him or intimately connected with his personality can be obtained upon which to operate. This same explanation applies to the custom of burning hair clippings, nail parings, but especially in Norfolk of throwing an extracted tooth of the first dentition into the fire "lest a dog's tooth should come in its place." The rag with which the umbilical cord is dressed is always first purified by fire.

SURVIVAL OF AMULETS.

Carrying camphor about the person is much in vogue as a protection from infectious disease. Chemists sell small boxes for the purpose. "Galvanic rings" are frequently worn as amulets against rheumatism by persons in all ranks of life—the poor have a simple zinc and copper ring, the rich use one with an outer casing of gold. Rings have been used as amulets from very early times. To go no further back than the fourteenth century, we find Edward II blessed rings, *Annuli medicinales*,[2] which were worn as preservatives against cramp and epilepsy. Very numerous are the amulets now in use against rheumatism, such as mole's feet, hare's feet, pieces of sealing wax, bones, sulphur, alum, etc. One of the most interesting as a survival is carrying a stolen potato in the left hand trouser pocket. Years ago it was the root of the mandrake (mandragora officinalis, a member of the same natural order) which served the purpose. The mandrake legend is thus told by Mr. Andrew Lang.[3]

> If an hereditary thief who has preserved his chastity gets hanged, the broad-leafed, yellow flowered mandrake grows up in his likeness beneath the gallows from which he is suspended. He who desires to possess a mandrake must stop his ears with wax so that he may not hear the dreadful yells which the plant utters when it is being dragged out the earth. Then before sunrise on a Friday morning with a dog the would-be gatherer must make three crosses round the



A Copy of a Letter written by Our Bleſſed Lord and Saviour JESUS CHRIST,

AND found [illegible] from Jerusalem, [illegible] Years after our B[illegible] Saviour's Co[illegible]

Tranſlated [illegible] the Holy City [illegible] Jew.

Faithfully tranſlated from the original Hebrew copy, now in the poſſeſſion of the Lady Cobb [illegible] Middleſex.

[illegible] Letter [illegible] JESUS CHRIST [illegible] a great R[illegible] [illegible] kings, at the foot of the Cr[illegible] [illegible] theſe words, "BLESSED [illegible] THAT [illegible] THIS LETTER." A[illegible] [illegible] to GOD [illegible]

[illegible] deſired, that he would make the [illegible] known unto them, and that they might not attempt in [illegible] to take [illegible] him. In the meantime there came out a little child, about ſix or ſeven years of age, and turned it over without affectance, to the admiration of every perſon who was ſtanding by. It was carried to the city of Edeſſum, and there publiſhed by a perſon belonging to the Lady Cobb.

Containing the

THE COMMANDMENTS OF JESUS CHRIST,

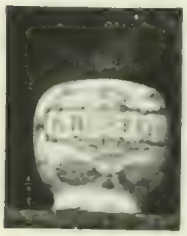
Signed by the Angel Gabriel, ſeventeen years after Our Saviour's birth.

King Agbarus's Letter to our Saviour, and Our Saviour's Anſwer. Alſo, His Cures and Miracles. Likewiſe, Lentulus's Epiſtle to the Senate of Rome, containing, A Deſcription of the Perſon of Jeſus Chriſt.

A LETTER OF JESUS CHRIST.

WHOSOEVER [illegible] I [illegible] Do [illegible] You [illegible] of God's [illegible] I [illegible] I will [illegible] You [illegible] not [illegible] [illegible] that [illegible] [illegible] [illegible]

drake, loosen the soil about the root, tie the root to the dog's tail and offer the beast a piece of bread. The dog runs for the bread, draws out the mandrake root and falls dead, killed by the horrible yell of the plant. The root is taken up, washed with wine, wrapped in silk, laid in a casket, bathed every Friday, and clothed in a little new white silk smock every new moon.



1.

The possession of a mandrake shielded the owner from various ills and especially protected him from disease. In the nineteenth and twentieth centuries the potato has taken its place.

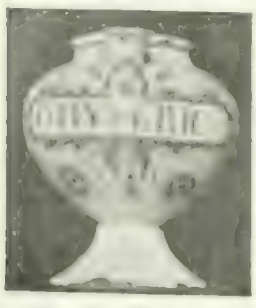
Personally I am inclined to believe that the above amulets do alleviate the sufferings of those who carry them, otherwise they would not be in such general use. Their action—if they have any—can only be through the central nervous system, an influence of the mind over the body, a state of credulity which is lacking in most of us to whom they would be perfectly useless, but akin to the credulity which some centuries ago afforded a ready credence to the miraculous. In other words the wearers are in a state of chronic hypnotism.

An amulet now seldom seen, but not uncommon some years ago, is a printed copy of the apocryphal letter of Our Lord to Abgarus, King of Edessa. It conferred many blessings on its possessor, but it was principally used in Norfolk as a protector against ague. It was commonly fastened to the walls of the kitchen or living room for the benefit of the whole household. The suspension of roots rounds the necks or bodies of young children to protect them from disease is a very widespread practice. Professor Elliott Smith of Cairo, who very kindly made some inquiries amongst his Egyptian pupils about the mandrake, finds that the above custom is prevalent in that country "as a protection against, or as a cure for, diseases of all kinds," roots or twigs of the "mandoorah" (zizyphus spini Christi) or "mokhayt." The last named must be cut before sunrise on one particular day in the year Shamel-Nasim—a spring festival when every one goes out into the fields "to smell the breezes."

In West Norfolk we tie a penny "violet root," the rhizome of the Dioscorea, round our babies' necks with a piece of tape, in the hope that the infant will bite it, and so help his teeth through, but the practice is none the less a survival which owes its existence as such to a real or fancied benefit.

SURVIVALS OF CHARMS.

A disease often cured by charms when the methods of the regular practitioner have failed is that causing warts on children's hands. The charms are numerous and diversified, but it matters little which is employed, the warts generally take their departure. I am now speaking of the clusters of warts which disfigure the hands usually just prior to puberty, not of the isolated warts on the hands of adults due to local irritation, which are practically identical in pathology with corns. Who ever heard of a corn being charmed away? Children's warts, popular belief in Norfolk has long told us, are contagious, they may be caught by washing in the same water or wiping on the same towel as a previous subject. Further, if a wart be injured the blood from it, as every school boy knows, excites fresh warts to grow wherever it happens to fall. As it has been recently said "they, as a rule, disappear spontaneously as if by magic. They are due to "bacillus parti" described by Majocci, Cornil, and Babes. Their disappearance is in reality due to an autoimmunization of the patient, as Sabouraud has shown occurs in ringworm, leaving the child immune for the rest of its life. These wart charms are survivals from very remote times, but they are not now applied until the warts have become so numerous as to cause disfigurement, and the patient well on the high road to immunity.



3.

A similar explanation holds good in the case of whooping-cough, for which many charms are employed.

2

SURVIVALS OF SAXON MEDICINE.

Among our Saxon ancestors from whom many of us here derive our surnames as well as our fair hair, medicine was at low ebb. The herbal of Apuleius, the writing of Sextus Placidus, and a portion of Dioscorides exist in Anglo-Saxon. These, as well as three Leech books, have been translated from an Anglo-Saxon MS. of the tenth century.[7] In them we find a mass of superstition and absurdity. The most diverse properties are assigned to plants now regarded as inert. For instance, the common betany (betonica officinalis) is credited with being of use in no less than twenty-nine different ailments, such as the prevention of frightful visions and dreams, sore eyes, constipation, vomiting, adder bite, gout, etc. Vervain (verbena officinalis), or, as the Saxons called it, "ashthroat," is recommended as a charm, the dried root being tied round the neck for strumous ulceration. This is a common Norfolk plant, and its use as a charm for strumous ulcers still survives.[8] In the same work[9] we learn that "for oppressed hard-drawn breathing, a fox's lung sodden and put into sweetened wine and administered wonderfully healeth," which credence still survives in the "syrup of foxes-lungs," so commonly given to the children of the poor. This syrup as now supplied by chemists needless to say contains nothing of the fox, which was at one time replaced by lung-wort (pulmonaria officinalis), but even that has disappeared from its composition. We do find, however, that colchicum autumnale is recommended for "sore of joints," and in the Leech books warm "henbane juice dripped into the ear" for earache, but these are almost the only rational remedies in the book.

4

SURVIVALS OF ARABIAN MEDICINE.

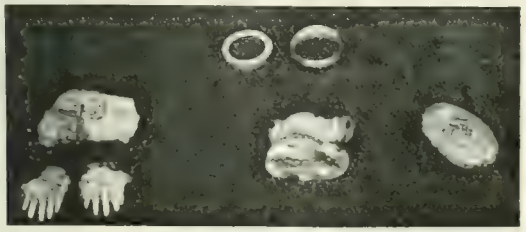
At the time our ancestors were living in thatched mud huts under the Saxon kings, the great Arabian University at Cordova was at its zenith. We hardly appreciate how much medicine owes to the Arabian schools. Of these there were two more or less antagonistic, the Western and the Eastern. The latter had its centre at Bagdad in the time of Haroun-al-Raschid of *Arabian Nights* fame, although there were schools at Damascus and elsewhere. To these belonged Rhazes, the first writer to differentiate small-pox from measles, and Avicenna, whose works were translated into Latin and formed for many centuries the textbook of medicine. Both these were Persians by birth. To the former we owe hiera picra pills and to the latter our present pil. aloes c. myrrha.

5

The Western or Hispano-Moorish school had centres at Seville, Cordova, and Granada. At El Zahra, near Cordova, Alcasis was born. He wrote a medical encyclopaedia—*Altasrif*—the surgical portion of which was for several centuries

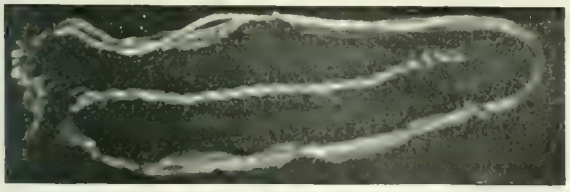
the textbook of surgery in Europe. Avenzoar was considered to show more practical knowledge in his writings than Avicenna. He was the first to recommend rectal feeding for stricture of the oesophagus. Averroes of Cordova, his contemporary, was an eminent physician, as well as the founder of the Averroist school of philosophy. Both these writers were followers of Galen and Hippocrates and lived in the twelfth century.

The Arabians were great pharmacists, and introduced from the East several valuable medicines, such as opium, camphor,



and the pomegranate. The first *London Pharmacopoeia* was largely based upon a treatise on the subject by Mesua the younger, of Damascus. It is to him we owe the Syrupus Rosae *B.P.*, Pil. Aloës et Assaf. *B.P.*, Diachylon Plaster and Basilicon Ointment.

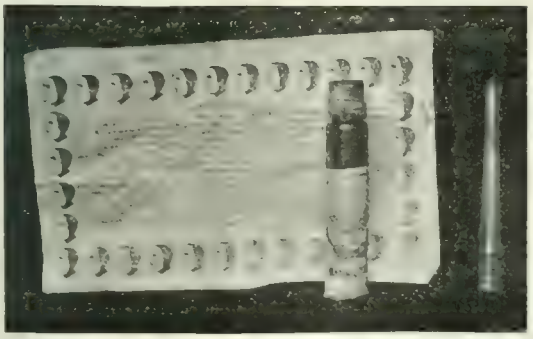
To show the influence the Arabians had upon pharmacy witness the number of pharmaceutical terms derived from their language still in use: Alcohol, Alkali, Alembic, Amber, Ambergris, Attar, Camphor, Chemistry, Civet, Elixir, Jar, Lemon, Lime, Mattress, Musk, Naphtha, Opium, Orange,



Saffron, Syrup, Tamarind. So that when we speak of a syrup jar or camphor julep, we are using the language of our Arabian predecessors. The signs ℈, ℥, and ℨ have the same origin.

SURVIVALS FROM THE FIRST "LONDON PHARMACOPOEIA" (1618).

These are too many for enumeration. Some have come down almost unchanged—for example, Aqua Cinnamoni, Oxymel Scillae, Vinum Antimoniale, etc.; while others have had their names changed and their compositions modified—



for example, Pil. Cochiae is now Pil. Colocynth. Comp. Pil. Ruffi is now Pil. Aloes c. Myrrhâ, Ung. Basilcon Flav. is Ung. Resinae, etc. Some very remarkable survivals from this *Pharmacopoeia* are still in use among the poor. Of these the Oil of Swallows (Oleum Hyrundinum) is one; this was originally made by boiling young swallows in oil with certain herbs, wine, and May butter. It is used externally in rheumatism in the hope that the stiffened and distorted joints of the sufferer may become as lithesome as those of a swallow. Oil of John, or Oil of St. John's Wort as it should be called, probably owed its place in the *Pharmacopoeia* in the first instance to the beautiful red colour the yellow flowers of *hypericum perforatum* impart to oil.

Oil of worms, Oleum Catellorum, was made by boiling earth worms, live puppies, and Venice turpentine in oil. It is interesting to the surgeon because it was with this oil that Ambrose Parey[12] dressed the gunshot wounds received by the French soldiers during the Continental wars of the sixteenth century. Prior to this all gunshot wounds were cauterized either by the actual cautery or boiling oil.

Several of the syrups survive, as those of orange, lemon, poppy, rhubarb, and squill. In fact, syrups were much used in bygone times. It was about this period that certain Dutch artificers settled in Lambeth, and manufactured those interesting blue Delft pharmacy pots that are still to be seen in some old country surgeries. Delft or faience ware is made of a soft earth covered with a thick tin glaze. The latter varies from white to greenish. Some consider the colour of the glaze to be an indication of the pottery at which the ware was made—pure white at Lambeth, bluish or greenish at Bristol, Leeds, or Liverpool.

These pharmaceutical vessels vary in form as they were intended for oils, syrups, conserves, ointments, pills, etc. They are found not only in England but also in the Netherlands, in France, Italy, and Spain, differing somewhat in form and composition.

SURVIVALS OF ASTROLOGY.

Considering the close connexion this subject had with medicine in bygone days the survivals are comparatively few. In common with all professional men we still put the crossed ℞ at the top of our prescriptions. A survival of the time when the planet Jupiter ♃ was the "Great Benefic," and when it was all important to have him "well placed" in the "decumbature" or horoscope constructed for the time the physician first saw the patient. We speak of lunatics or moon-struck people, and some consider the waxing and waning of the moon influence the condition of such patients. We further speak sometimes of the "moon getting on its back," a sad and serious portent for the afflicted. The temperaments have retained their association with the planetary influences, inasmuch as we say a man is mercurial, jovial, saturnine, or martial. We speak, too, of venereal diseases.

SURVIVALS OF ALCHEMY.

These are fewer still. We, like other people, call the metal mercury, and the caustic "lunar," but we have practically ceased to designate the preparations of lead, saturnine, or or those of iron, martial as the last generation did. There is, however, a secret remedy still, I believe called solar elixir. Dissolved gold *aurum potabile* was thought by the alchemists to be the elixir vitae; the idea probably survives in the double choride of gold and sodium.

DOMESTIC REMEDIES.

Domestic remedies still in use are many but decreasing. Some of the more important may be enumerated:

Black beer	internally	for bruises.
Dutch drops	externally	,, cuts, internally for gravel.
Cow-dung poultices	..	,, boils, whitlows, and suppuration generally.
Barberry bark	internally	,, jaundice.
Celandine	..	.. ..
Rosemary	externally	as a hair wash.
House leek	..	with cream for erysipelas.
Sage	internally	for sore throat.
Nettle tea	,,	.. urticaria.
Dock tea	..	,, acne.
Twitch tea	,,	.. vesical irritation.
Parsley tea	,,	.. .. ..
Venice turpentine	..	.. kidney discomfort.
Lily leaves	externally	.. cuts.
Agrimony tea	,,	.. ..
Pile wort	..	,, piles.
Syrup of foxes' lungs	internally	,, coughs.
Cochineal	..	with potassii subcarb. for whooping-cough.
Saffron tea	,,	for measles.
Puff ball	externally	as a haemostatic.
Bramble leaves	internally	for diarrhoea and piles.
Plantain leaves	externally	fresh for cuts.
Viper fat	..	for viper bite.
Eel fat	..	,, deafness.
Poppy-head tea	internally	,, catarrh.
Tansey tea	..	as a stomachic.
Balm tea	,,	for fever.
Snails	,,	,, phthisis, externally for weak muscles.
Elderberry wine	,,	,, catarrh.

Certain of the foregoing owe their origin to the "doctrine of signatures"—that is, to some resemblance, fancied or otherwise, to the disease for which they are employed. The barberry (*Berberis vulgaris*) has a yellow bark and the celandine (*Chelidonium majus*) a yellow juice; therefore they are good for the yellow disease jaundice. The sting of the nettle (*Urtica dioica*) produces a rash resembling urticaria, therefore nettle tea is good for that disease. Haemorrhoids resemble the little tubers of *Ranunculus ficaria*, therefore they are indicated in this disease. The fox is a good runner and "long-winded," so his lungs are good for shortness of breath and coughs.

Dated drops and black beer are foreign remedies; the former, a very typical survival of the past, comes from Hamburg, the latter from the Baltic ports.

The use of the cow-dung poultice, although not readily acknowledged, is common enough; testimony is strong in favour of the relief to pain it affords and the rapid maturation it causes when applied to a boil. The only feasible explanation apparent is that, being a highly septic application, it acts as the septic tank does upon sewage—the saprophytic organisms destroy the pathogenic.

Fire-balls are without a dried puff-ball (*Lycoperdon*) [illegible] use in case any member of the family cuts himself in a locomotive which, once fairly introduced into a wound, effectually prevents union by first intention.

For the photographs with which this paper is illustrated thanks are due to Mr. Basil H. Pain, M.R.C.S., House-Surgeon of the West Norfolk and Lynn Hospital.

DESCRIPTIONS OF PLATES.

[illegible]

EXPERIMENTS ON LIVING ANIMALS.

A RETURN showing the number of experiments performed on living animals during the year 1903 under licences granted under the Act 39 and 40 Vict., c. 77, has just been issued as a Parliamentary paper.

ENGLAND AND SCOTLAND.

The Home Office Inspector, Professor G. D. Thane, in his report states that the total number of licensees in England and Scotland during 1903 was 347, of whom 97 performed no experiments. These numbers include 28 licensees, whose licences expired on February 28th, 1903. None of these performed experiments in 1903.

The total number of experiments—other than those of the nature of simple inoculations, hypodermic injections, or similar proceedings—was 2,171. Of these there were performed:

Under [illegible]	...	...	...	[illegible]
" Certificate C.	...	...	...	153
" Certificate B	...	...	...	721
" Certificate B + E1	...	...	...	34
" Certificate B + F.	...	...	...	1

The experiments of the nature of simple inoculations, hypodermic injections, and similar proceedings performed without anaesthetics was 16,913. Of these there were performed:

Under Certificate A.	...	...	...	[illegible]
" Certificate A + E	...	...	...	17
" Certificate A + F	...	...	...	2

The total number of experiments performed during the year was therefore 19,084, an increase of 4,178 as compared with the number returned for 1902. The increase in the number of experiments other than inoculations, etc., was 41, and in that of these latter, 4,137.

With regard to the operations involving a serious operation it is pointed out that in the larger number, 1,295, all performed under licence alone and under Certificate C., no pain was felt by the animal which is kept under an anaesthetic during the whole time; moreover, if the pain is likely to continue after anaesthesia has ceased or if any serious injury has been inflicted, the animal must be killed before it recovers from the influence of the anaesthetic. The number of experiments performed under Certificate B. or B. linked with E1., or with F., was 908. In these experiments the initial operations are performed under anaesthetics, from the influence of which the animals are allowed to recover. The operations are performed aseptically, and the healing of the wounds, as a rule, takes place without pain. If suppuration occurs, the animal must be killed. In the event of a subsequent operation being necessary, a condition is attached to the licence requiring all operative procedures to be carried out under anaesthetics of sufficient power to prevent the animal feeling pain. In no case has a resulting operation more severe than a superficial venesection been allowed to be performed without anaesthetics.

The other experiments were mostly inoculations, but a few were feeding experiments or the administration of various substances by the mouth, or the abstraction of a minute quantity of blood for examination. All these were performed without anaesthetics. In no instance has a certificate empowering the use of anaesthetics been allowed for an experiment involving a serious operation. Inoculations into deep parts, involving a preliminary incision in order to expose the part into which the inoculation is to be made, must be performed under anaesthetics. The experiment [illegible] lasts during the whole period from the administration of the drug, or injection, until the animal recovers

[illegible]

from the effects, or dies, or is killed, possibly extending over several days, or even weeks. The substance administered may give rise to poisoning, or set up a condition of disease, either of which may lead to a fatal termination. To administer to an animal such a poison as diphtheria toxin, for example, or to induce such a disease as tuberculosis, although it may not be accompanied by acute suffering, is held to be a proceeding "calculated to give pain," and therefore experiments of the kind referred to come within the scope of the Act. In cases of prolonged action of an injected substance, even when ending fatally, the animal is generally apparently well, and takes its food as usual until a short time before death. The state of illness may last only a very few hours, and in some cases it is not observed at all.

In a very large number of experiments of the nature of inoculation, etc., the results are negative, and the animals suffer no inconvenience whatever. In the event of pain ensuing as the result of an inoculation, a condition attached to the licence requires that the animal shall be killed under anaesthetics as soon as the main result of the experiment has been attained.

The considerable increase recorded in the number of inoculations and similar proceedings is attributed mainly to the progressive importance attached to biological tests generally in practical medicine for the diagnosis, treatment, and prevention of disease, and to the more widely recognized need for such experiments on the part of those responsible for the care of the public health. Several county councils and municipal corporations have their own laboratories in which bacteriological investigations are carried on, including the necessary tests on living animals: and many others have arrangements by which similar observations are made on their behalf in the laboratories of universities, colleges, and other institutions.

A sewage farm is registered as a place in which experiments on living animals may be performed in order that the character of the effluent may be tested by its effects on the health of fish. The Board of Agriculture has two places which are registered for the performance of experiments having for their object the detection and study of the diseases of animals. In other laboratories experiments have been made on behalf of the Home Office, the Local Government Board, the Board of Agriculture, and the Dangerous Trades Committee. A very large proportion of the experiments have thus been performed either on behalf of official bodies with a view to the preservation of the public health, or directly for the diagnosis and treatment of disease. Seventeen licensees return together 3,617 experiments, nearly the whole of which were performed for Government departments, county councils, or municipal corporations; 1,313 experiments were made by four licensees for the Royal Commission on Tuberculosis; and six licensees performed 4,776 inoculations for testing antitoxic sera and vaccines. The number of injections made during the year 1903 for the diagnosis of rabies in dogs was 88.

During the year the usual inspections of registered places were made by Professor Thane and Sir James Russell. They found the animals everywhere suitably lodged and well cared for, and the licensees desirous of acting in every way in accordance with the letter and spirit of the Act. Only two cases of irregularity were noted, neither of them involving any cruelty to animals.

IRELAND.

Sir William Thornley Stoker, the Inspector for Ireland, reports that the certificates in existence or allowed were:

A. to 3 licensees.	E. to 6 licensees.
B. ,, 16 ,,	[illegible]
C. ,, 3 ,,	F. ,, 1 licensee.

The experiments performed were 172: 113 being under licence alone, and 59 under certificates. Three licensees performed no experiments. The animals experimented on were: Rabbits, 76; guinea-pigs, 47; mice, 18; dogs, 11; goats, 6; calves, 6; birds, 5; cats, 2; horse, 1.

The experiments performed have been of the nature of inoculations or injections with the exception of 18 of a physiological character. Of these seven were done in illustration of lectures under Certificate C. All the inoculations and injections seem to have been of a useful pathological character. Some were done in pursuance of the study of the nature and causation of enteric fever, of pneumonia and its treatment, and of the nature of tuberculous diseases. The physiological experiments dealt chiefly with the localization of the functions of the brain and with considerations regarding blood pressure. Many of the investigations bore on questions concerning diseases of cattle and dogs and the economic conditions of live stock.

The inspection of licensed places showed that in Dublin their condition was satisfactory and the provisions of the Act observed. In Belfast and Cork inspections have been made by the Medical Inspectors of the Local Government Board. In Cork no experiments were performed, and in Belfast the conditions of the Act were properly complied with.

LITERARY NOTES.

MESSRS. J. AND A. CHURCHILL have ready for immediate publication a work by Dr. Thresh entitled *The Examination of Waters and Water Supplies*. According to the preface, "the chief object of the work is to show how to examine sources of supply, and how to use the information thus acquired in the interpretation of results obtained from the examination of the waters yielded by these sources, and to demonstrate that it is more important to consider the quality than the quantity of the organic and inorganic constituents found in waters from whatever source derived."

M. Jules Clarétie states in the *Temps* that the late Dr. Gilles de la Tourette took a scientific interest in the stage. For years he had closely studied the manifestations of mental disorder in plays, and he published in the *Revue Hebdomadaire* a series of articles on the subject, which it was his intention to gather into a book, to be entitled *La Folie au Théatre*. It is to be hoped that the essays will be published, as the judgements of so competent an authority as Dr. Gilles de la Tourette would make his work especially interesting and valuable. It may be mentioned that he took a leading part in the movement for the erection of a statue to Théophraste Renaudot, a physician of the seventeenth century, who was the founder of modern journalism and of the system of out-door relief for the sick poor, which, in the form of the out-patient department, has grown into a considerable abuse. M. Clarétie recalls the fact that he dined with Dr. Gilles de la Tourette at the Salpétrière, and that he drank wine which was the produce of a vineyard that had belonged to Rabelais.

In his preface to the pretty little edition of Oliver Wendell Holmes's *Autocrat of the Breakfast Table* recently published by Messrs. Blackie and Son, Mr. G. K. Chesterton calls attention to the influence which the author's profession had on his literary work. A good doctor, he says, is by the nature of things a man who needs only the capricious gift of style to make him an amusing author. A doctor is alone in combining those verbally similar but profoundly diverse things, a knowledge of the cosmos and a knowledge of the world. The result of this fusion is a certain quaint wisdom, a certain variegated experience which is characteristic of Holmes, and of the one other man in literary history who bears a curious resemblance to him, to wit, Sir Thomas Browne. In both we have the same bewildering ingenuity of allusion and comparison, the same saturnalia of specialism, the same topsy-turvydom of learning. Holmes, as fully as Browne, has the notion that these scientific minutiae, and these physical ingenuities with which he has become acquainted as a doctor, are symbols of a certain rude and awful benevolence in the nature of things, a Providence that speaks like a candid doctor.

Professor Fournier presented to the Paris Académie de Médecine, at its meeting on May 31st, a booklet by Dr. P. Rodet, bearing the cryptic title *Por nia filoj kiam ili estos dekokaraj*. This, being interpreted, is said to mean "for our sons when they are 18." It is a translation into Esperanto of Professor Fournier's Guide to Youth, the French title of which is *Pour nos fils quand ils auront dix-huit ans*. It is said to be the first medical book published in Esperanto. We are tempted to say that we hope it may be the last.

The House Beautiful, the first number of which we noticed favourably a few months ago, has already gained for itself the *droit de cité* in the journalistic world. The contents are varied and interesting, and the illustrations are excellent. The current number contains an article by Miss Annie A. Smith on left-handed drawing, a note on Nuremberg by Mrs. Ernest Hart, who edits the journal, an article by Mr. B. Wyand, C.E., on building a house, and others on lost and vanishing London, and rambles through London streets in search of the beautiful. A feature of special interest to medical readers is a series of recipes for dishes for diabetics, contributed by Mrs. Ernest Hart, whose book *Diet in Sickness and Health* is well known to the profession.

ASSOCIATION NOTICES.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1904.

MEETINGS of the Council will be held on Wednesdays, July 6th, and October 12th, in the Council Room of the British Medical Association, 429, Strand, London, W.C.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are open for the accommodation of the members in the Chandos apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION.—The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 13th, at 4 p.m., when Mr. E. J. S. SMITH will read a paper on "Cases of Abdominal Operation in which Drainage was Employed." The paper will be followed by a discussion, and the Division will then resolve itself into the annual meeting. W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BRISTOL AND THORNBURY DIVISIONS.—A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 13th, at 4 p.m., for the purpose of appointing a representative of the Divisions on the Council of the Association. A. M. BEAUMONT, Bath, J. T. H. THOMAS, Trowbridge, Honorary Secretaries.

CAMBRIDGE AND HUNTINGDON BRANCH: CAMBRIDGE AND NEWMARKET DIVISIONS.—These Divisions will be held at [illegible] on Wednesday, June 15th, at 4 p.m. Business: To receive Report of Representative Meeting; to elect Representative on the Council for the ensuing year; to receive Report of the Representative Meeting. These matters are [illegible] F. J. HALL, Cambridge, Honorary Secretary.

CHESHIRE AND NORTH WALES BRANCH: CHESTER DIVISION.—The annual meeting of this Division will be held at the Council Room, Town Hall, Chester, on Wednesday, June 15th, at 4 p.m. Business: To receive Report of Representative Meeting; to elect Representative on Council for ensuing year; to receive Report of Representative Meeting. [illegible] H. B. [illegible], 3, Watergate Row, Honorary Secretary.

[illegible] BRANCH: [illegible] DIVISION.—This Branch will be [illegible] Wednesday, June 15th, at 4 p.m. [illegible] Honorary Secretary.

EAST ANGLIAN BRANCH: NORTH-EAST NORFOLK AND NORTH SUFFOLK DIVISION.—A meeting of this Division will be held at the Royal Hotel, Yarmouth, on Wednesday, June 15th, at 4 p.m., when Dr. [illegible] will read a paper on "Some Points in the Treatment of Acute Rheumatism." Members wishing to read papers at this meeting are requested to communicate with the Honorary Secretary. [illegible], 29, Albany Street, Regent's Park, N.W.

EAST ANGLIAN BRANCH: SOUTH-EAST NORFOLK AND SOUTH-EAST SUFFOLK DIVISIONS.—The annual meeting of this Division will be held at the King's Arms Hotel, Melrose, on Thursday, June 16th, at 4 p.m. Business: To receive Report of Election of officers; to elect Chairman for ensuing year, of whom Dr. Hamilton Hawick has been nominated; to receive Report of the Representatives of the Division; to receive Report of Representative Meeting; and to transact [illegible] business. The Chairman will read a paper on "Cancer," and will move a motion, "That, as the next Annual Meeting of the Branch be held in one of the [illegible] towns, and that it be held next year at Hawick." Communications are expected from [illegible] the Annual Representative Meeting to be [illegible] to those Representatives of Divisions who [illegible] to be under discussion. The [illegible] Council Practice Report issued by the Medico-[illegible]. —W. HALL CALVERT, The Laurels, Melrose, Honorary Secretary.

EDINBURGH AND WEST OF SCOTLAND BRANCH.—Nominations for the [illegible] Council of this Branch to elect [illegible] Branch Council for 1904-5, must be in the hands of the Honorary Secretary [illegible] not later than June 14th.—JAS. H. NICOLL, 4 Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of [illegible]. The Honorary Secretary will be pleased to hear [illegible] intending to be present.—J. ARTHUR HELME, 8, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER AND DISTRICT DIVISIONS.—A meeting has been arranged to be held at the Medical Institute, Mayfield, Manchester, on Monday, June 13th, at 8.30 p.m., when Dr. [illegible] will read a paper on "Some Points in the Treatment of Acute Rheumatism." Members desirous of joining the party will meet at the Library, Crowes Street, Manchester, S.E., before proceeding to the [illegible]. Members intending to be present are requested to communicate with the Honorary Secretary, Dr. [illegible], 3, Crowes Street, Manchester, S.E., before Tuesday, June 7th, as [illegible] Council is the [illegible] leaving London Road [illegible] Great Western [illegible].

LANCASHIRE AND CHESHIRE BRANCH: ROCHDALE DIVISION.—A meeting of the Rochdale Division will be held at the Dispensary, Drake Street, Rochdale, on Thursday, June 16th, at 4 p.m. Business: To receive Report of Representative Meeting; to elect Representative on the Council for the Annual Representative Meetings; Consideration of notices of motions to be discussed at the meeting; Consideration of the proposed draft of Medical Practitioners Bill as published in the Supplement of the BRITISH MEDICAL JOURNAL of May 28th.—W. C. BURNS, M.B., A. B. MASON, M.D., Joint Honorary Secretaries.

LEINSTER BRANCH: DUBLIN DIVISION.—The annual general meeting of this Division will be held at the Royal College of Physicians, Ireland, on Wednesday, June 22nd, at 4.30 o'clock, when Dr. [illegible] will read a paper on "Pneumonia in Infancy." F. TRAVERS SMITH, M.D., Honorary Secretary and Treasurer.

LEINSTER AND SOUTH EAST OF IRELAND BRANCHES.—Nomination of candidates for election as members of the Central Council must be in the hands of the undersigned on or before June 20th.—ARTHUR H. WILDE, Derrylaws, Carlow, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—The annual meeting of this Division will be held at the Kensington Town Hall, High Street, Kensington, at 8 p.m., on Wednesday, June 15th, Dr. H. Campbell [illegible] in the chair. Business: (1) To elect officers for [illegible] as follows: Chairman, Vice-Chairman, Secretary, and Treasurer; two Representatives of Division on Central Council, seven on Library Committee of Division, Members of Executive Committee, Representatives to the Divisional Representative Meetings, Representatives to the Representative Meetings of the Association. (2) To receive the annual report of the Executive Committee. (3) To consider the business of the Annual Representative Meeting. (4) To make new rules or alter or repeal existing rules. (5) To receive Report of working of Medical Defence Scheme. (6) Communications from Medical Political Committee and Committee on Medical Legislation. (7) Communications from Chelmsford Division. (8) Election of Delegates to Annual Representative Meeting. (9) Any other business. CRESSWELL THOMSON, M.D., 111, Sinclair Road, West Kensington, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: RICHMOND DIVISION.—The annual meeting of this Division will be held at the Castle Hotel, Richmond, on Thursday, June 16th, at 4 p.m. Agenda: To elect officers for the Branch Council and Representatives of the Division on the Council and Representatives of the Division on the Branch Committee. To elect the Representatives of the Division on the Executive Committee. To elect the Representatives of the Division at the Representative Meetings of the Association. To receive the Report of the Representative Committee. To consider the business to be brought before the Representative Meeting. To consider the business to be brought before the Annual Meeting. R. JOHNSON, Lincoln's Gate, Richmond, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—A meeting of this Division will be held at Hall's Restaurant, Haymarket, on Tuesday, June 14th, at 8.30 p.m., when Dr. [illegible] will read a paper on "Some Points in the Treatment of Acute Rheumatism." Agenda: Minutes of the last meeting; Report of the Executive Committee; To consider the business to be brought before the Annual Representative Meeting; notices of motion and resolutions for the Annual Meeting. [illegible] BRITISH MEDICAL JOURNAL of May 7th, page [illegible], the Committee of the Association adopting a scheme of [illegible]. Any other business. W. KNOWSLEY SHEILL, M.D., Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting of this Branch will take place at the County Hotel, Ulverston, on [illegible] at 4 p.m. There will also be a joint meeting of the Furness and Kendal Divisions to elect their Representative. Members willing to show cases, specimens, etc., are requested to communicate as soon as possible with the Honorary Secretary, A. S. BARLING, High Street, Lancaster.

NORTH WALES AND SHROPSHIRE BRANCH.—The annual meeting will be held at Newtown on or about the 7th day of July. Members having papers to read or cases to communicate are requested to notify either of

the Secretaries on or before June 25th.—W. JONES MORRIS, Portmadoc; H. JONES ROBERTS, Penygroes; and H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretaries.

SOUTH-EASTERN BRANCH.—The sixtieth annual meeting of this Branch will be held at Grand Hotel, Eastbourne, on Wednesday, June 22nd, at 2.15 p.m. Mr. J. H. Ewart (President-elect) kindly invites members to lunch at the hotel from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: 1. To receive the report of the election of new officers, who shall thereupon take office. 2. To receive the report of the Council on the affairs of the Branch and the annual financial statements. 3. To make new rules or alter or repeal existing rules (if so desired). 4. Dr. Larking gives notice that he will move: That in the opinion of this meeting the present South-Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question. After the meeting drives will be arranged to Beachy Head and Pevensey Castle. Dinner at the hotel at 7.45 p.m., charge 6s. 6d. (wine will be provided by the local members). Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Merry, 2, Chiswick Place, Eastbourne, not later than Monday, June 20th. T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

SOUTH-EASTERN BRANCH: CANTERBURY DIVISION.—The annual meeting of this Division will be held at the Kent and Canterbury Hospital, on Thursday, June 23rd, at 4 p.m., Dr. Gogarty in the chair. Agenda: 1. To read minutes of the last meeting. 2. Election of officers, (a) Chairman; (b) Vice-Chairman; (c) Representative on Branch Council; (d) Honorary Secretary and Treasurer; (e) Executive Committee (additional member). 3. To consider a communication from Dr. Gosse. 4. To consider the proposed resolutions and other business for the forthcoming Representative Meeting at Oxford (vide SUPPLEMENT, May 7th, 1904). 5. To consider existing rules and discuss whether any alterations are necessary. 6. To consider a communication from the Exeter Division of the South-Western Branch. 7. Any other business. 8. Possibly an address by Mr. Smith Whitaker, Medical Secretary of the British Medical Association.—A. R. HENCHLEY, 1, London Road, Canterbury, Honorary Divisional Secretary.

SOUTH-EASTERN BRANCH: FAVERSHAM DIVISION.—The annual meeting of this Division will be held at the Cottage Hospital, Faversham, on Thursday, June 16th, at 4 p.m. Agenda: 1. Confirmation of minutes of last meeting. 2. Time and place of next meeting. 3. Annual report of the Honorary Divisional Secretary. 4. Election of the following officers: Chairman, Vice-Chairman, Secretary and Treasurer, Member of Branch Council, Executive Committee. 5. A communication from the Exeter Division. 6. To consider the business of the Annual Representative Meeting. 7. Paper by Dr. S. R. Alexander. 8. Any other business. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends.—WILLIAM GOSSE, Westdene, Sittingbourne, Honorary Divisional Secretary.

SOUTH MIDLAND BRANCH.—The annual meeting of this Branch will be held at the New Schools, Sheep Street, Winslow, Bucks, on Thursday afternoon, June 16th, under the presidency of Dr. Kenrick. The President requests the pleasure of members' company to luncheon at the Bell Hotel, Winslow, at 1.30 o'clock, and will be obliged by the favour of a reply, addressed to himself, not later than the morning of June 15th. Agenda: Minutes of autumnal meeting. New members elected by Council. Letters and communications. Papers and cases. President's address. Mr. Whitelocke (Oxford): Some Cases of Ectopic Gestation treated by Operation. Mr. Savory (Bedford): Case of Benign Papilloma of Renal Pelvis, Haemothorax, Nephrectomy, Recovery. Dr. Milligan (Northampton): Case of Acute Perforative Appendicitis in which Abdominal Section had to be performed a second time, with remarks generally on Appendicitis.—E. HARRIES JONES, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held on Tuesday, June 21st, at the Public Hall, Paignton, at 3 p.m., when Dr. Thompson will resign the chair to Dr. J. Alexander, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1903-4 will be presented to the meeting, and the officers of the Branch be elected for the year 1904-5. The Branch Council will submit to the meeting for approval a code of rules to regulate procedure in ethical matters, and will propose the following alterations in Rule 15, Sections C and D: Section C to read—Exhibition of Clinical Cases. Section D to read—Reading of Papers. Luncheon, by kind invitation of the President elect, will take place from 1 p.m. to 2.15 p.m., at the Public Hall. After the meeting a garden party will be held at the Queen's Park, when the President and Mrs. Alexander will receive members and their wives. The annual dinner will be held at the Public Hall at 7.45 p.m. Tickets, exclusive of wine, 5s. each, after which a short play by amateurs will be given. All members who wish to stay over the next day have leave to play golf on the Churston Links by the kind consent of the Committee of the Churston Golf Club. All members attending the meeting will be honorary members of the Paignton Club by kind consent of the committee. The Esplanade and Gerston Hotels afford good accommodation for members wishing to stay the night. The Honorary Secretary will be obliged if those members who purpose attending the dinner will inform him on or before June 14th, and at the same time forward the amount of the dinner ticket.—G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at Wolverhampton, on Thursday, June 16th.—E. PRITCHARD JOHNSON, Brook Street, Stoke-on-Trent, Honorary General Secretary.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 12.30 p.m., under the presidency of Mr. A. W. Sinclair. Agenda: Minutes of last meeting. Annual report of Council. Treasurer's report. Election of President-elect. Election of other officers. Election of Ethical Committee. Ethical case: Report of Committee on case recently before them. Resolution: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second-class return railway fare." President's address on Neurasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m. W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice. The annual meeting of this Branch will be held at Leeds on Wednesday, June 22nd. Members wishing to read papers or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

The Chair of Pathology and Pathological Anatomy in the University. Royal Infirmary. Citizens' Life-Saving Classes. Insanitary Houses in Salford.

LESS than a quarter of a century ago in 1881 Dr. Julius Dreschfeld, the present Professor of Medicine in Owens College and in the University, was nominated Professor of Pathology, and many who were students at and after that period remember with what success that important department of medicine was taught. In 1891, the Proctor trustees, by a timely gift, enabled the Council of the College to endow the Chair, and Professor Delépine was elected. Since then much has happened. The subject has greatly extended. Bacteriology has made great strides, both in its application to disease and to the prevention of disease. Moreover, the subject of public health has grown greatly and demands much time on the part of those who have to teach it and to meet the requirements of corporations. The Council of the University has now taken a step of great importance in the interest of the College and the University on the one hand and certain corporate institutions on the other. A new Chair of Comparative Pathology and Bacteriology has been founded, and Professor Delépine is the first occupant. He is also Director of the new public health laboratories which are being erected near the new site of the Royal Infirmary, as he was of the older public health laboratory on the Stanley Grove Estate. This arrangement still leaves the subject of pathology and pathological anatomy, as it is taught to students of medicine, to be provided for. It is proposed to appoint a Professor of Pathology and Pathological Anatomy. There is more, however, it appears, in contemplation. Should an agreement be come to between the College and the Royal Infirmary, the professor would have certain duties in connexion with the pathological department of the infirmary, whereby he would be responsible for the conduct of necropsies and other matters incidental thereto.

Progress is reported in respect of the new infirmary. The Board of Management has referred the tenders for the work of clearing the Stanley Grove estate to the Estates Subcommittee to accept a tender and proceed with the operations. The Board has accepted estimates for a chapel to be built in connexion with the hospital at Cheadle at a cost of £3,122. The infirmary has received a legacy of £1,000 under the will of the late Mr. Frederick Midgley, of Manchester and Huddersfield, and another of £500 under the will of Mr. James Jewitt.

It appears that the Manchester Corporation was the first, and is still the only corporation which has arranged citizens' life-saving classes. The number of pupils exceeds 500, and the tuition has been given at the public baths. Instructors and books are provided free by the Corporation. Nearly 300 of those who were trained acquitted themselves successfully. The object of the training is to encourage the cultivation of the art of swimming. The Corporation offers special inducements to scholars, and awards a free ticket to those who succeed in gaining the Life-saving Society's proficiency certificate. Special advantages are also offered to policemen and firemen—qualification for the Life-saving Society's proficiency certificate entitles them to free admission to the baths as long as they remain in the employment of the Corporation.

The past has an inveterate tendency to remain in the present, and of this there are few more striking examples than those that exist in connexion with insanitary property, which is not only an evil in itself, but a source of danger to the community. The Health Committee of Salford recommended the Council of the borough to issue a closing order in respect of certain dwelling-houses, on the ground that they were unfit for human habitation. A sharp distinction must be drawn between a "closing order," and one for demolition. What was asked for was a closing order to

compel the owners to put the houses into a sanitary condition. This is the condition of the houses as set forth by the advocate of the motion—which seems to afford ample justification for the recommendations of the medical officer and his staff.

The houses in certain streets were of the back-to-back type, and to these two houses there were only nine closets. Ten of the houses were not supplied with internal water fittings, and the houses were very old. In Frederick and Lord Frederick Streets the houses were also back to back, and two closets served for twelve houses. Access to these closets was by a covered passage and along with the ashpits they were placed under the bedrooms. Other of the houses were back to back and had ashpits under the bedrooms.

If confirmation be needed it is supplied by the remarks of another councillor, who stated that in the districts concerned the death-rate was 30·7 per 1,000, as against 14·7 in Brighton; whose the death-rate for infants under 1 year of age was 223 per 1,000, as compared with 123 in Broughton. In one of these houses lived a man and his wife and his four children in the "accommodation" consisting of a kitchen and one bedroom. "The water tap was under the stairs, and it dripped on the flags placed beneath it, causing a bad smell." The motion was carried.

LIVERPOOL.

Post-graduate Courses. Proposed Appointment of an Assistant Gynæcological Surgeon to the Royal Infirmary.—Doctors' Nursing. The Liverpool Expedition to the Congo for the Study of Sleeping Sickness.

The Faculty of Medicine of the University has issued a prospectus of two comprehensive courses of post-graduate lectures and demonstrations, one of which will be given in June and July and the other in August. Both courses will comprise laboratory and clinical work, and practitioners can take out as many of the subjects as they desire. The first course is arranged to meet the convenience of practitioners in the holiday season, and the second is intended especially for practitioners who may desire to spend some time in Liverpool for the purpose of study. The laboratory work, which will be carried out in the laboratories of the University, will include practical anatomy and general pathology, bacteriology, bio-chemistry, haematology, parasitology, electrical methods and ophthalmoscopy; the clinical work, which will be carried out in the general and special hospitals recognized by the University for clinical instruction, will consist of lectures and demonstrations by members of the various staffs. The classes in June and July will meet once or twice a week, but in August the courses will run on from day to day, so as to cover as much practical work as possible in a short space of time. The laboratory work will run from August 2nd till August 13th inclusive and the hospital course from August 1st till August 27th inclusive. Further information may be obtained on application to the Dean of the Faculty of Medicine.

A proposal is on foot to increase the staff of the Royal Infirmary by appointing an assistant gynæcological surgeon. When the present building was opened, in 1892, there was only one honorary officer—an assistant surgeon. Next year an assistant physician was appointed and two more physicians, and a few years later a second assistant surgeon. The work of the institution has kept pace with the increase of the staff, which has always abundance of work to do. The extra-hospital department, internal and external, has shared in the general growth of the hospital, and the time has arrived when it is considered desirable to provide [illegible] The Medical Board and the Committee of Management are in favour of the appointment, but before this can be carried out the consent of the subscribers must be called to make certain [illegible] of the institution.

[illegible] new special [illegible] Liverpool in the early [illegible] the late Mr. William [illegible] Queen Victoria [illegible] Hospital [illegible] Dean [illegible] Medical [illegible] Medical [illegible] Medical

regret, not only on account of the great skill he has shown and the attention he has devoted to the patients under his care, but also on account of his ever-courteous manner and the untiring interest he has shown in the welfare of the institution. A resolution was unanimously passed, expressing the regret of the members of the Board of Management upon the resignation of Dr. Rickards, and it was further resolved at the next meeting of the governors to recommend, in consideration of the eminent services rendered to the institution during the last thirty years by Dr. Rickards, that he be appointed Consulting Physician to the hospital.

The Queen's Hospital has received a sum of £230 from the National Trades Exhibition, which has been held in Bingley Hall during the last ten weeks. The gift is 5 per cent. of the gross gate money, and is slightly more in amount than that received from this source by the hospital in 1903. During the last six years similar sums have been given to the hospital by the manager of this exhibition, the total amount received being nearly £1,600.

NEWCASTLE-UPON-TYNE.

New Infirmary Buildings.—Durham College of Science.—New Laboratories, College of Medicine.—Death of Mr. Weston, Royal Infirmary Dispenser.—Death of Dr. Mann, of Washington.—Bridge Construction and Caisson Disease.—Extensions of City Infectious Hospital.

THE building of the new infirmary on the Leazes continues to make satisfactory and rapid progress. For the last few months the Nurses' Home has been roofed in, and it was hoped that the home would have been ready for occupation next month, but a good deal of internal decorative work must be done and fittings put in before the nurses can occupy the building. The five pavilions of the infirmary proper are roofed in, and at the present time the administrative block is being rapidly proceeded with. It will, however, be fully eighteen months yet before the infirmary will be ready to receive patients. It is a matter of regret that the Corporation and Freemen of Newcastle did not give a larger piece of ground. The want of this to some extent mars the effect of the building,

Within a stone's throw of the new infirmary, and commanding an admirable view of the Leazes, is the University of Durham College of Science. Extensions are at present in progress which will cost nearly £70,000. When the final wing is completed the College will, so far as structural appearances and internal accommodation are concerned, compare most favourably with other similar institutions in the country. It says much for the position which the College occupies in the world of science that its professors and teachers should be so frequently called upon to occupy chairs in the older universities of England and Scotland.

A decision has not yet been finally arrived at in regard to the plans for the new wing at the College of Medicine in which the physiological and bacteriological laboratories are to be accommodated, and in which the Students' Union is to be housed. It is the wish of the College of Medicine to provide laboratories built on the most modern lines which will fulfil all teaching requirements for many years to come. With these objects in view the architects have visited the laboratories of other schools.

Old students of the Royal Infirmary will read with deep regret the announcement of the death of Mr. Weston, who for the last twenty-two years has occupied the post of head dispenser at the Infirmary. He was a faithful servant to the committee, courteous to the patients, and kind and helpful to the students when learning their practical pharmacy. For the last few months he had been in indifferent health, and had been under the care of Dr. Beattie and Dr. Limont. The cause of death was uraemic coma.

A well-known figure in the county of Durham has just been removed by the death of Charles F. G. Mann, M.B., C.M., of Washington, at Craig Lutha, Dulnain Bridge, Strathspey, N.B., whither he had gone on account of his health. Energetic, and always fully occupied in the large practice—private and colliery—which he had made for himself in Washington, Dr. Mann's health a few months ago became a cause for some anxiety. On consulting his medical friends, Professor Oliver and Mr. Walter Ridley of Newcastle, who found evidence of tuberculous throat and lung disease, he was advised to relinquish his practice and seek rest and life in the open air. He did not long survive his retirement from practice. Dr. Mann was in his 39th year when he died. He will be much missed in the neighbourhood where he worked, for he was an enthusiastic Volunteer, a good ambulance instructor, and could always be relied upon to support the various sports in his district. Few local charitable objects were ever brought before him without receiving his financial help. Dr. Mann leaves a widow, but no family.

With the new high-level railway bridge which is to span the Tyne rapid progress continues to be made. At the present time the foundations of the principal pier are in course of progress. Considering the large number of men that are employed, the depth at which they are working below high-water level mark, and the pressure employed, it is to the credit of the Cleveland Bridge Company that there have been so few cases of caisson disease and ordinary surgical accidents. There have been no fatal cases of caisson disease; of the half a dozen patients admitted into the infirmary, only in one man were the symptoms at all severe.

Small-pox lingers on in Tyneside. From time to time patients are still being sent into the small-pox hospitals in Newcastle, Gateshead, and elsewhere. The difficulty of stamping out the disease is greater than was at one time anticipated. In connexion with this and with infectious diseases generally the subject of hospital extension was discussed by the Newcastle City Council last week, and a decision of great importance to the district was reached. Alderman Henry Newton, who is a medical practitioner, in moving the adoption of the report of the Sanitary Committee recommending an extension of the hospital for infectious diseases at Walker, pointed out that when in 1888 the present hospital was built the population of the city was 159,000; today it is 220,000, and the prospects of a considerable increase are immediate, as it is proposed to incorporate some of the outlying townships. It is desirable to bring the hospital accommodation up to 208 beds and to provide in addition accommodation for 38 nurses. Dr. Adam Wilson, in seconding the motion, wisely remarked that, while there would be no financial return for the expenditure, the citizens of Newcastle would have one of the best assets possible. The proposal was unanimously adopted by the City Council.

SOUTH WALES.

The Housing Question in Merthyr.—Infectious Diseases.

THE Merthyr Board of Guardians have decided to call the attention of the Merthyr District Council to what they consider to be the frightful state of housing of the poor of the parish. It was stated that the parish was the worst slum district in Wales. We do not believe that this is so, nor that the District Council is so utterly indifferent to its responsibilities, as some of its critics try to make out. It has been doing excellent work for some time past, in the matter of the conversion of unwholesome dens into habitable dwellings. It is important that medical officers of health in counties and county boroughs should emphasize to their respective authorities the urgent need of putting into force the means at their disposal for remedying this evil, which causes such terrible loss of life and impairment of the physique of workmen and their children. Some, and amongst these, the Medical Officer for Merthyr, have been very active in this direction; but others content themselves with pressing forward substitutes for healthy houses in the form of isolation hospitals, sanatoria, etc. The action taken by the Merthyr Board of Guardians may be advantageously followed by other local bodies, and by the members of the Glamorgan County Council in particular. The Sanitary Committee of this body meets this week, and on the agenda, strange to say, there is no reference to housing questions, but the provision of isolation hospitals—as to the value of which eminent experts are, to say the least, extremely doubtful—occupies a very prominent place. This is by no means worthy of a body possessing such a preponderating progressive majority as the Glamorgan County Council.

Two cases of small-pox were notified at Cardiff during the week ended June 4th. A few weeks ago five cases were notified during one week; these were isolated and one proved fatal. All the cases were traced to the same source, and it is hoped that through the incessant vigilance of the sanitary officials the outbreak is now at an end. A localized outbreak of typhoid fever occurred some time ago at Fochriw, a parish of Gelligaer, which the medical officer of health attributed to the exposure of infected blankets contaminating the milk in a house.

CORRESPONDENCE.

THE ANNUAL MUSEUM AT THE OXFORD MEETING.

SIR,—I read with much pleasure the interesting letter of Mr. Jonathan Hutchinson on the Annual Museum at Oxford. For several years it has appeared to me that this scientific and instructive exhibition has not received that amount of attention which its importance warrants. On one or two recent occasions the room, or rooms, devoted to this Section have been out of the way and difficult to find. I have always thought that the addition of one or two permanent officials to the Local Committee would be a distinct advantage, inasmuch as the experiences of one year would prove valuable upon the next occasion.

There is undoubtedly a very large amount of valuable material in the keeping of private individuals, apart altogether from museum specimens. A register of members of our profession who take an interest in the application of photography to medicine would prove of great service. It is a well-known fact that for every voluntary exhibitor ten could be induced to add their mite by means of a little pressure. I think the suggestions of Mr. Jonathan Hutchinson are admirable, but would go a step further. I would advocate the inclusion of a collection of up-to-date apparatus used in all branches of pathological research, including photography. Demonstrations of methods might also be given with distinct advantage.

In the practical application of photography to medicine we have at hand perhaps the most useful method of disseminating knowledge, and increased knowledge of its capabilities would undoubtedly induce fresh workers to apply it. A demonstration of up-to-date colour photography would impress many with the vast field of possibilities which might accrue from an extended application of this branch of science to medicine.

If the space available at Oxford is sufficient I would further suggest that a lantern room be provided which can be used for the exhibition of slides independently of those which are shown as illustrations to the papers read before the Sections.

I am, etc.,

JOHN HALL-EDWARDS.

THE GOVERNMENT LUNACY BILL.

SIR,—Dr. Clifford Allbutt, in his letter which appeared in the BRITISH MEDICAL JOURNAL of May 28th, does not appear to me to have treated the subject he discusses with that clearness and cogency which we are accustomed to expect from him.

He fails to understand what is "incipient" mental case, and attempts to clear his views by comparing it with a border-line case of typhoid, thus, I venture to suggest, contrasting a matter of fact with a matter of opinion. The typhoid bacillus is demonstrable, but the question whether a case of insanity is likely to be altogether restrained of his liberty is a matter of opinion in respect to which in a given case two persons may entertain, one very, and the other not.

Then Dr. Allbutt appears to urge that there is no possibility of [illegible] incipient case of insanity which is probably curable from ever [illegible] likely to need absolute restraint. He exemplifies this by the case of a convalescent from influenza who, [illegible] shoots himself. But influenza and the operation [illegible] only factors in such a case. Was not the patient predisposed by heredity, by [illegible] to such an act, to his fatal loss of self-control by the presence of a sense of [illegible] the possibility of shrinking from [illegible] Dr. Allbutt I am sure, [illegible] that every case of [illegible] depression [illegible] and [illegible] asylum.

[illegible] asylums are [illegible] of treatment and [illegible] that the case of incipient insanity is supposed must [illegible] only to have [illegible] unnecessarily imposed with the [illegible] treatment [illegible] [illegible] entirely [illegible] [illegible] condemns the [illegible] [illegible] which [illegible] [illegible] I wish to [illegible] [illegible] [illegible] single case [illegible] I have had many satisfactory cases and that I could [illegible] [illegible] many medical and lay persons who have devoted themselves to this work.

Dr. Allbutt recognizes the importance of individuality of attention in the treatment of the insane, and I venture to assert that in no asylum, or at least in only a few of the best type of private houses can such an amount of individual attention be concentrated on the patient as in a suitably situated and arranged private house, with thoroughly qualified nurses and companions, under an experienced medical man acting under the direction of an able physician. As I have said elsewhere, single care may be the very best or the very worst form of treatment.

If this Lunacy Bill becomes law, it will ultimately necessitate the restriction of single care to persons and conditions that are suitable for carrying it out. At present any one, be he an ex-convict, habitual drunkard, insane fanatic, or ex-pugilist, may undertake the care of a single case, and under the present state of the law, and especially in regard to the incipient cases, it is the persons who have least to lose who are most ready to undertake this most important duty.

I am glad to see that Dr. Allbutt, in his asylum Utopia, contemplates the possible abolition of the lunacy certificate. I have for many years expressed my conviction that it is the greatest curse of the modern lunacy system, but hitherto I have felt its abolition to be beyond the range of practical possibilities. With his concurrence I shall indulge in a hope of seeing the question at least brought under discussion.

In conclusion, I would add that the proposed clauses so far from increasing the number of incipient cases treated in private homes will, I believe, considerably diminish them. There will no longer be half a dozen of such cases to be found in a single so-called nursing home, nor can they be kept on for years in the genteel back parlour of the reduced gentlewoman.—I am, etc.,

[illegible] H. RAYNER.

SIR,—Dr. Mercier and Dr. Goodall correctly appreciate the scope of this subject from the point of what is best for the patient, and they naturally take the view which as physicians to asylums they might be expected to do. The legal authorities, whilst having doubtless the interests of the patients at heart, introduce the element of regard for the susceptibilities of the relatives as well. On many occasions a bias in favour of the sanity of the patient is shown by exponents of the law, even when medical experts have been quite clear that insanity was actually present, and that the rules for care and detention as laid down in the Lunacy Acts were being violated. How often have prosecutions, even by the Lunacy Commission, failed, not out of consideration especially for the patient, but because the Bench and the public have ideas of their own as to what constitutes insanity, and also because they have considerable regard for social eccentricities.

It may be a pity that the public have such unreasonable notions about the "stigma" incurred by certification and asylum treatment, but it is a fact that families where such processes have been carried out are viewed askance both in matrimonial and other social functions, whilst no notice is taken of any one who has lived away from home, even in a doctor's house, for a short "nervous" attack.

There are many patients now under private treatment who would be better in institutions, but there are also many for whom institutional treatment is not necessary, and I cannot but think that, following the opinion of the majority, a wise concession has been made by the Government, backed up as it is by medical men of position, not all of them lunacy experts.

I am not apprehensive of risk to the patients from the want of proper qualifications in the receiver, for the medical man who is mainly responsible, the consultant, will in his own interests be careful whom he selects. Moreover, under the new rule something will be gained in the way of supervision, for all who are temporarily removed must come under the cognizance of the Lunacy Commission. Up to now the law has been broken with impunity. The new arrangement is not likely to be expensive, and most private institutions can compete successfully in point of cost with other methods of treating the insane, and I do not anticipate that there will be any lessened demand for accommodation in the private asylums. Both systems appear to be required, and the one is not antagonistic but complementary the one to the other.

I am, etc.,

[illegible] T. CLAYE SHAW.

THE CENTRAL MIDWIVES BOARD.

SIR,—The members of the medical profession are much indebted to Professor Sinclair for his letter in your issue of

June 4th on the proceedings and conduct of business of the Central Midwives Board, and no time is to be lost before entering our protest against this method of interpreting an Act of Parliament which was intended to improve the education and to provide suitable medical supervision of midwives.

It was hoped and confidently expected that the Central Midwives Board would so frame their regulations as to admit only the more intelligent of the class of women who seek a midwifery training, and that the instruction and training required should tend to an increase of efficiency, and thus be of material value to the poor women whom they would be called upon to attend. Apparently the policy is the reverse of this, and we are to add registration to inefficiency, unless the policy is altered.

It is hardly necessary to encroach upon your space by discussing the absurdity of the latest propositions as to the appointment of midwives as inspectors of training institutions and as examiners, but it is of such gravity as to at once call for a protest from those of us who are interested in carrying out the Act for the improvement in training and consequent benefit to the poor.—I am, etc.,

J. E. GEMMELL,
Honorary Medical Officer, Ladies' Charity and Lying-in Hospital, Liverpool.

June 4th.]

SIR,—It is sincerely to be hoped that the members of the medical profession will not interfere with the squabbles of those who are engaged in the administration of the Midwives Act.

The profession as a profession opposed the legislation, but as respectable citizens its members, when the proposed Bill became law, have accepted the situation. It appears to me that it is desirable, if the best interests of the profession are to be consulted, for its members to do so much as lies within their power to assist the authorities in carrying out the provisions of the Act. The taking part in a faction fight, as suggested by Dr. Sinclair, is certainly bad policy, and will possess the appearance of impropriety.

The promoters of the legislation never intended the medical profession to have effective control, and the Legislature has not conceded such control; it is therefore absolutely a waste of time to attempt to minimize the injury to public interests alluded to in Dr. Sinclair's letter by enlightened, benevolent, or any other sort of criticism.—I am, etc.,

Hatfield, June 6th. LOVELL DRAGE.

THE IRISH DISPENSARY SYSTEM.

SIR,—The annual report of the Irish Local Government Board is a most misleading document, and one which gives a very false idea of the state of affairs with which it professes to deal.

The alleged reduction of 20 per cent. in the number of cases for the decade 1893-1902 as compared with that of fifty years before is merely a reduction on paper—there is no real reduction—and had the Local Government Board, instead of going back half a century for their comparison, confined themselves to modern times, they could not have shown a reduction even on paper. Fifty years ago, and even more recently, it was the rule in practically every dispensary district to attend once upon each red ticket, and few men went oftener unless in exceptional cases, with the result that the doctors habitually received and registered several red tickets for one and the same case. Now, on the contrary, all dispensary patients, guardians, and wardens know that one red ticket covers a case until the patient is either better or dead, and a second ticket is practically never tendered to the doctor. As a matter of fact, the dispensary doctors are doing more work now than ever before, in spite of the diminution in the population, because the people now look for treatment to the dispensary doctor for trivial ailments for which some years ago they would not have sought his advice, and they also expect to be, and are, visited much more frequently than was formerly the rule.

In this district, and no doubt in many others, the decrease in the population has been most marked in the small and middling farmer class—a class which pays fees; these men have emigrated, and their farms have been absorbed by their more prosperous neighbours, with the result that all over the district one can see a large farm owned by a farmer who employs several labourers (dispensary patients) in place of two, three, four, or even five small farms, each of which formerly supported a family who paid for their medical attendance. Result—increased dispensary or unpaid work and diminished private practice. If the average salary is larger now than fifty years ago (and I am not quite satisfied that it really is) so also are the extra duties and also unfortunately the cost of living and expenses of practice. Horses and vehicles are dearer and more of them required owing to increased work, and wages are much higher.

I was told the other day by a patient that he remembers when a labourer's daily wage was fourpence, now it is two shillings or more. The standard of living has in every class in the community been raised very much since 1853. Is the dispensary doctor to be content to live as his predecessor of fifty years ago lived—in hopeless misery and grinding poverty? But as a matter of fact he is worse off than his predecessor, because fifty years ago the greater number of the dispensary doctors were subsidized directly by the landlords for attendance on their labourers, and also attended these landlords and their households at £1 1s. per visit. Now owing to the reduced circumstances of the landlord class generally these subsidies are in practically every case discontinued and the labourers attended as dispensary patients, and the landlords are either out of the country or are keeping much smaller households, and have in many cases reduced the fee which they pay from £1 1s. to 10s. 6d.

The suggestion of "Ethics" that the report on the Irish dispensary system should be brought under the notice of the King is an excellent one, and by whom could this be done more fitly than by a prominent member of the British Medical Association at the request of the Association?—I am, etc.,

Newtownstewart, May 10th. W. LYLF.

MESSAGES TO MEDICAL MEN.

SIR,—In reference to the above question, on which there is an annotation in the BRITISH MEDICAL JOURNAL of April 16th, I have been in the habit for some years past of trying to educate the public in my immediate neighbourhood, in the great importance of sending proper messages—especially in urgent cases. This I have tried to do by relating one or more of the following incidents in my ambulance lectures:

1. A little girl called one morning with the message: "Please will you call and see Ma this morning." On taking down the name and address it appeared most convenient to me to make that my last visit, as the message was not urgent. The patient was nearly dead from haemorrhage when I did arrive; but fortunately made a tardy recovery.

2. I received a telegram while at dinner one day to the following effect: "Please come as quickly as possible." I left the table, got a bicycle, and rode my hardest for three miles; arriving breathless and perspiring I met the sender of the wire strolling slowly back from the office, and in response to my rapid inquiries as to what had happened was told that his sister had been ill in bed for a week, and they wanted my opinion before post time—some hours later.

3. One night I answered a ring at my night bell by the usual inquiry down the speaking-tube: "Who's there?"; in response an agitated voice shouted up: "I think he's dead." Failing to get any further information I hastily dressed; but on arriving in the street there was no one about; shortly, however, a policeman strolled up, but he had not seen the messenger. I went back to bed, and learned next day that a child had died suddenly within five minutes' walk of my house. In this case, though, it is doubtful if my services would have been of any avail; and the ambiguous message was due to the natural agitation of the father at the loss of his only son.

These cases—or similar ones which could doubtless be matched in the experience of any man in practice—I have found to considerably impress my audiences at ambulance lectures, and have, I think, had a beneficial effect on the kind of messages I have received of late.—I am etc.,

Newark-on-Trent. PERCY SHARP.

FOUL CONVALESCENT HOMES.

SIR,—Within the last few months patients of mine, who had been sent to different convalescent homes, have complained that dormitory windows were never opened at night, notwithstanding that several patients were sleeping in one room. It seems astounding that the managers of such homes could tolerate such a preposterous obstacle to quick and satisfactory recovery from any and every kind of ailment as to poison their inmates during at least one-third of their stay. But it is well for medical practitioners to be aware that a

convalescent home may be a place where convalescence is practically impossible. I am, etc.,

W. RUSHTON PARKER, M.D.

TREATMENT OF INEBRIETY BY DRUGS.

SIR,—I am certainly in agreement with your correspondents in discussing the reported cures of drunkenness. I know of four cases in the immediate neighbourhood that have been treated away, and each without exception has relapsed into its former habits of intemperance. I am, etc.,

CHARLES HARRIS, M.D.

Whitehaven, June 4th.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

CHARGE ALLOWANCE FOR STATION HOSPITALS IN INDIA.

We have received vigorous protests against the following recent ruling regarding charge allowance for station hospitals: it is dated May 7th, 1904.

The attention of the Government of India has been drawn to cases in which officers of the Royal Army Medical Corps transferred to stations carrying a higher rate of charge allowance than that to which they were entitled at the previous station, have been required to refund the difference between the two rates of allowance drawn by them. Under Army Regulations India, vol. x.

The paragraph in the regulations above quoted runs as follows:

[illegible] three months' service and upwards are entitled to the [illegible] allowance . . . transferred to [illegible] appointments, or with the view to succeeding to one about to become [illegible]

The scale of charge allowance is as follows:

[illegible]	...	...	rupees per month
[illegible]	...	...	.. .. ..
[illegible]	...	...	.. .. ..
[illegible]	...	...	.. .. ..
[illegible]	...	...	.. .. ..

It is argued that by the ruling any officers transferred from one charge allowance to the lowest rate, or to specialist pay; or from the lowest rate of charge allowance to a higher, will have to pay for the passage of his wife and family.

Concrete examples of the effect of the ruling on the pockets of medical officers are given, whereas those with families moved between stations probably many hundreds of miles apart, will have to spend hundreds of rupees in travelling, for the small fact that they may take up, for ever so short a time, a charge allowance of perhaps Rs. 60 per month!

One of our correspondents says that those experienced in the ways of the Indian Government had been wondering how the charge allowance would be evaded, or the recommendations of Mr. Brodrick's Committee nullified, and here it is!

Many an injustice and absurdity has been perpetrated with regard to the regulation upon which the ruling is based. [illegible] officer, just at the time of his promotion to [illegible] rank, was ordered post-haste by rail to a cholera [illegible] was refused travelling allowance, on the ground that he was [illegible] proceeding on promotion to take up a lucrative appointment!

There can be no doubt the ruling in question will operate [illegible] and unfairly in many instances, as it is not [illegible] a whole year's charge allowance may be thus [illegible] in a single move. We trust the ruling may be [illegible] equitably modified.

ROYAL NAVY MEDICAL SERVICE.

[illegible] has been selected for the [illegible] M.D., [illegible] Surgeon, dated June 1st, 1904.

[illegible] Surgeon

quently performed at a nursing home belonging to a Mrs. Palmer. The operation was successful, but subsequently the patient experienced further discomfort. Being then at Brighton, she consulted Dr. Calvert, who advised another operation, which was performed at the Sussex Hospital. It was then found that an abscess had been caused by a mattress sponge which had not been removed after the first operation. After this operation the plaintiff rapidly recovered. She now brought this action to recover the expenses to which she had been put and for damages for the alleged negligence.

After the plaintiff had given evidence, Dr. Calvert was called. He was of opinion that sponges should be counted both before and after the operation by the surgeon as well as the nurse. This was the practice at the Sussex Hospital. In cross-examination, he said that he understood that many surgeons accepted the counting of the nurse, but this was not his practice.

At the conclusion of the plaintiff's case, Mr. Dickens submitted that there was no evidence of negligence to go to the jury. The Judge having ruled that the case must proceed, Mr. Dickens, in opening the case on the part of the defendant, drew attention to the fact that although on September 30th the plaintiff had written to the defendant expressing gratitude and thanks, a solicitor's letter asking for damages was sent on November 9th. It was clear that the defendant had performed a very difficult operation with a satisfactory result, as the plaintiff's medical witnesses had admitted that she would have died if the operation had not been performed. Coming to the alleged negligence, the suggestion was that the defendant should have counted the sponges herself. He submitted that an operating surgeon was not called upon to perform this part of the work, as his attention should be concentrated on the operation and condition of the patient. He would call evidence in support of this view. Here the defendant had left the counting of sponges to a skilled nurse, and he would submit to the Court at the proper time that the defendant was not responsible for the acts of the nurse.

At this point his Lordship intimated that this was a question for the jury.

Miss Mary Thorne gave evidence in support of counsel's opening statement. She said that she had held various hospital appointments between 18— and 189—, and since 189— had been in private practice at 16, Nottingham Place. She had a cheap day for poor patients, and it was on one of these days that Miss Byrne visited her in April, 1903. She found that Miss Byrne was suffering from a large tumour in the pelvis. On April 16th defendant saw Miss Byrne in consultation with Miss Aldrich-Blake, when it was considered justifiable to operate. The patient was sent to a home belonging to Mrs. Palmer, in whom the defendant had confidence. The defendant asked Mrs. Palmer to make arrangements as she had done for previous operations. The operation involved the removal of a large abscess which was adherent to the uterus and the tube leading to one of the ovaries. Two large mattress sponges and twenty four swab sponges were provided. Mrs. Palmer was in charge of the sponges, and handed them as required. After the operation defendant twice asked Mrs. Palmer whether the sponges were correct. Receiving satisfactory answers she closed the abdomen in the usual way. The plaintiff made an excellent recovery. In defendant's view it was sufficient to leave the counting of the sponges to a competent nurse. She had never seen it done by the surgeon, though she had seen it done herself during the last few months. She had received no fees for the operation, but had charged Miss Byrne 17s. 6d. for three prior attendances.

In cross-examination, witness said that she left the conduct of the case to the Medical Defence Union. She had checked the number of instruments used, but not the number of sponges. She took out all the sponges which she saw. It was difficult to distinguish sponges in the abdominal cavity when they were wet.

In re-examination, defendant explained that Mrs. Palmer carried on a perfectly independent business as superintendent of a nursing home. She had no idea until she came into court that the sponge left in was a mattress sponge.

By the Court: The surgeon has control of every one in the operating room. The sponges would be counted by the nurse when put into the sterilizer.

Dr. W. S. A. Griffith, who had heard Miss Thorne's evidence, said that the operation was one of unusual difficulty. The practice as to counting sponges varied. Sometimes, where an emergency operation was performed, and the operator had assistants to whom he was unaccustomed, he would have to count the sponges himself. In other cases, however, it was to the interest of the patient to delegate the duty to an experienced nurse. In cross-examination he said that a sponge left behind would be likely to cause injury. The duty of putting the sponges in position was discharged either by the surgeon or the assistant-surgeon. A skilled surgeon could not say whether sponges had been removed or not unless part of the sponge was protruding from the wound. A sponge of the kind produced might easily lie unnoticed in the abdominal cavity. In his view there was no carelessness on the part of the surgeon if he delegated the duty of counting to a competent assistant. It was usual for the operating surgeon or his professional assistant to perform all the vital parts of the operation. The head nurse employed at a private operation was usually selected by the operator.

Counsel here read an extract from Sir Frederick Treves's book, in which the author described the leaving of a sponge in the peritoneal cavity as "an unfortunate lack of care."

Dr. Walter Tate said he had performed about 1,000 abdominal operations. It was quite possible for the sponge produced to lie hidden in the abdomen. He had never counted the sponges in any of his own cases: he had always left it to the nurses. In cross-examination, he said it was a serious matter for a person to have a sponge left behind. The operator was always justified in leaving the counting to the nurses. In the witness's view it was undesirable that the operator or his assistant should leave the patient to handle septic sponges. It was only by means of the fingers that it would be possible to make the count, as the sponges were often stuck together. There was nothing to prevent the surgeon standing over and checking the nurse except the delay.

Mr. Douglas Drew, F.R.C.S., and Miss Aldrich-Blake, M.B., etc., also gave evidence on the part of the defendant.

Mrs. Palmer, the proprietress of the nursing home, said she had counted the sponges before and after the operation. There were twenty-six sponges used. It was her practice to count and recount in threes. On the occasion in question she had made a note of the figures on a piece of paper. She was positive that she had made a correct count.

Counsel having addressed the jury, the learned Judge, at the conclusion of the summing-up, asked the jury to answer the following questions: (1) Was the defendant guilty of a want of due and reasonable care in the counting or superintending the counting of the sponges? (2) Was Mrs. Palmer employed by the defendant as assistant during the operation? (3) Was Mrs. Palmer negligent in counting the sponges? (4) Was the counting of the sponges a vital part of the operation which the defendant undertook to see properly performed? (5) Was Mrs. Palmer under the control of the defendant during the operation?

After an absence from court for an hour and a half, the jury answered all the questions in the affirmative, but stated that it was not a case for damages, which they assessed at one farthing.

Mr. Dickens having asked for judgement, the Judge directed that the jury should again consider the question of damages. They then left the court. Upon their return the foreman announced that, "in the opinion of the jury, the plaintiff was entitled to not more than £25 for pain and suffering." Judgement accordingly.

His Lordship said he was glad to find that by their verdict the jury made no imputation upon the skill of the defendant as a surgeon.

A stay of execution was granted on the usual terms.

PROSECUTION OF AN UNQUALIFIED DENTIST IN SCOTLAND.

ON May 26th, at Stirling Sheriff Court, Robert Robertson, 50, Tillie Street, Glasgow, and Denny, Stirlingshire, was charged at the instance of the Medical and Dental Defence Union of Scotland, Limited, that he did, by public advertisement in the newspapers "pretend to be or take or use the name or title of surgeon-dentist." This was the first prosecution at the instance of the Defence Union, which was represented by Mr. Findlay, of Turnbull and Findlay, solicitors, Glasgow.

Mr. J. C. Muirhead, solicitor, Stirling, appeared for the accused, who intimated a plea of not guilty. Mr. Muirhead also took three objections to the relevancy of the complaint: First, that the Defence Union had no title to sue; secondly, that it was no contravention to pretend to be a surgeon-dentist; and thirdly, that no alternative to the fine that might be imposed in case of conviction was stated in the complaint.

The Sheriff held that the Union was entitled to prosecute, and that it was not necessary to state in the complaint, seeing that it was under the Summary Jurisdiction Act, the alternative penalty if a fine was not paid. In the case of the other objection, however, that it was no offence to "pretend to be" a surgeon-dentist, the complaint was bad on this point, as undoubtedly it was not a contravention to "pretend" so long as nothing else followed. The complaint, however, might be amended by deleting the words "pretend to be" a dentist, and the charge restricted to "using the name or title of a surgeon-dentist."

Mr. Muirhead said, to save the time of the Court, he would admit the publication by the accused of the advertisements complained of. This had gone on for a long time, and the accused's attention was never before called to its being wrong.

Mr. Findlay: The accused has been moving about from place to place, doing this though he gave me a personal undertaking in January last to cease the practice.

The Sheriff: There is no question he represented himself to be a surgeon-dentist.

The plea of not guilty was then withdrawn, and one of guilty made.

The Sheriff said that the maximum penalty was £20, but, as the accused had given the undertaking to withdraw the circulars and advertisements complained of, the fine would be modified to £5, with £1 2s. 6d. expenses, or thirty days' imprisonment.

VALUE OF PRACTICE.

M.A. writes: A. and B. are practitioners in the same village. A. has much the larger practice, which he has held for nearly twenty years. B. has only recently acquired the smaller practice, but is better qualified than A., and has every possibility of cutting into A.'s practice. A. is prepared to negotiate with B. for the sale of his practice, and B. wishes to know whether it would be unreasonable on his part to demand two years' purchase on the present value.

*** A. could not be advised on business principles to give as much as two years' purchase for such a practice.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Representative on the General Medical Council.—Joseph Frank Payne, D.M., Magdalen College, has been re-elected a member of the General Medical Council.

Appointment of Examiners.—Sir Arthur V. Macan, B.M., M.S. Dub., has been appointed an Examiner in Midwifery; William Williams, D.M., D.P.H., non-collegiate, has been appointed an Examiner in Preventive Medicine; Marcus Seymour Pembrey, D.M., Christ Church, has been appointed to examine in physiology in the First B.M. Examination *pro hac vice*.

UNIVERSITY OF CAMBRIDGE.

Professor of Surgery.—Professor Howard Marsh, M.A., Fellow of King's College, has been approved for the degree of Master of Surgery.

Gift of Drawings.—Two portfolios of drawings, one of diseases of the eye, the other of diseases of the ear, have been presented to the University by Dr. Ole Bull, of Christiania. They will be exhibited by Professor Clifford Allbutt at the meeting of the British Medical Association to be held next month in Oxford.

Appointments.—Dr. W. H. R. Rivers, Fellow of St. John's College, has been appointed a member of the Special Board for Moral Science. Dr. Humphry, Dr. S. West, Dr. W. Hale White, and Dr. J. Rose Bradford have been appointed Examiners in Medicine, Dr. Handfield-Jones and Dr. Berman, Examiners in Midwifery, Mr. C. T. Dent, Mr. F. Owen, Mr. C. W. Mansell Moullin, and Sir Hector C. Cameron, Examiners in Surgery, for the ensuing academical year.

UNIVERSITY OF LONDON.

THE following candidates have passed the M.B. Examination:

First Division.—H. H. Greenwood, Yorkshire College; Beatrice Mary Field, London School of Medicine for Women; L. C. Price, St. Bartholomew's Hospital; P. Rees, B.Sc., Charing Cross Hospital; H. T. Smart, Guy's Hospital; S. M. Smith, St. Mary's Hospital.

[illegible] F. B. Alexander, University College; J. E. Arthur, London Hospital; O. E. H. Arkey, [illegible] College; J. Abercrombie, St. Bartholomew's Hospital; Sophie Bertha Bell, London School of Medicine for Women; Alice Maria Benham, London School of Medicine for Women; Edith Lewis M. Bennett, London School of Medicine for Women; Bath Lewis Bensusan, London School of Medicine for Women; A. Bickerdike, University College; Agnes Maud Boyd, London School of Medicine for Women; H. H. Carter, Guy's Hospital; J. B. Cartwright, Guy's Hospital; E. L. Cary, University of Birmingham and Queen's Road General Hospitals; Jessie Mary Cooke, London School of Medicine for Women; J. M. Corbett, St. Bartholomew's Hospital; P. C. Dentor, Owens College; J. P. Dwyer, Victoria University; T. Davy, University College; J. P. Dwyer, Victoria University; Laetitia Nora Fry, University of Durham; R. L. N. Mallock, London Hospital; J. A. Fraser, University College; W. F. London Hospital; P. A. M. Green, London Hospital; P. W. Harland, Guy's Hospital; G. M. Harrison, Charing Cross Hospital; E. Holt, University College; W. H. Howard, Yorkshire Post; Miss L. Jevons, University of Birmingham and Queen's Hospital; Miss C. S. Hall, University College; C. E. Heldewell, University College; Margaret Hughes, B.A., London; Head of Department for Women; C. E. Ireland, Guy's Hospital; J. Jones, Medical for Women; C. F. Jones, London Hospital; St. John's College; F. A. Jones, London Hospital; St. John's; Miss Mary Hospital; C. F. Jones, Charing Cross Hospital; F. W. Jones, University of Birmingham and Queen's Hospital; F. W. Jones, B.Sc., London Hospital; H. Jones, Guy's Hospital; R. M. Jones, Kalgoorlie, St. [illegible] Hospital and Royal Medical College; H. R. Carter, F.R.C.S., St. Bartholomew's Hospital; Eliza Lamb, London School of Medicine for Women; Kate Lamb, London School of Medicine for Women; Jessie Augusta Lawrence, London School of Medicine for Women; A. Lawrence, London School of Medicine for Women; Miss Lawrence, Guy's Hospital; C. E. W. Lyth, [illegible] University College, Sheffield; F. C. Mackenzie, King's College; N. Macfadyen, St. Bartholomew's Hospital; H. C. C. Mann, St. Bartholomew's Hospital; H. C. C. Mann, St. Bartholomew's Hospital; A. M. Lee, London Hospital; B. Meiser, Guy's Hospital; E. C. Mott, Guy's Hospital and Victoria University; P. A. Peat, Guy's Hospital; C. E. Perry, Guy's Hospital; F. B. Pierce, Charing Cross Hospital; Lois Anne Platt, London School of Medicine for Women; Marian Teresa Pool, London School of Medicine for Women; J. C. Rainforth, London Hospital; E. [illegible], Charing Cross Hospital; C. M. Roberts, St. Thomas's Hospital; W. Rowland, Guy's Hospital; A. C. Stark, Westminster Hospital; [illegible] Graham Tucker, London School of Medicine for Women; E. F. Turner, St. Bartholomew's Hospital; Laura Sabey Veale, London School of Medicine for Women; C. R. Verling, St. Bartholomew's Hospital; Ada Mabel Wadlock, London School of Medicine for Women; S. E. Williams, University College Hospital, Bristol; W. E. Wynter, B.Sc., St. Thomas's Hospital; R. S. Wyatt, London Hospital; F. R. E. Wright, St. Thomas's Hospital; [illegible] Dental College.

[illegible] List, published for the convenience of candidates, is issued [illegible] approved by the Senate.]

ROYAL COLLEGE OF SURGEONS IN IRELAND.

[illegible] in Ireland was held [illegible] Lord [illegible], President, in the chair [illegible] [illegible] [illegible]

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician, resident. Salary, £50 per annum.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, resident. Salary, £80 rising to £150 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—Clinical Assistants for the Out-patient Department.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road.—(1) Second House-Surgeon. (2) Third House-Surgeon. (3) Junior House-Physician. Salary at the rate of £30 per annum each.

HEMEL HEMPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Ophthalmic Surgeon.

KNIGHTSWOOD HOSPITAL.—Resident Medical Officer. Salary, £120 per annum.

LIVERPOOL: DAVID LEWIS HOSPITAL.—(1) Second Honorary Anaesthetist. (2) Junior House-Surgeon. Salary at the rate of £20 per annum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon, resident. Salary, £100 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon, resident. Salary, £100 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s. per week.

LONDON HOSPITAL.—Cancer Research Scholarship value £150.

LONDON LOCK HOSPITAL, Harrow Road.—Registrar.

MANCHESTER: VICTORIA UNIVERSITY.—Professor of Pathology and Pathological Anatomy.

METROPOLITAN ASYLUMS BOARD.—Two Male Assistant Medical Officers for the Asylum at Darenth, resident. Salary £150 per annum, rising to £170.

NORTH STAFFORDSHIRE INFIRMARY, Harlaston.—Assistant House-Surgeon, resident. Honorarium, £25 for six months.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—House-Surgeon for the Branch Hospital, resident. Salary, £80 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon. Salary at the rate of £70 per annum.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS AND EPILEPSY, Welbeck Street.—Honorary Assistant Physician.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Ophthalmic Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Physician, resident. Honorarium at the rate of £75 per annum.

APPOINTMENTS.

BAKER, A. E., M.B.Lond., M.R.C.S., District Medical Officer of the Hastings Union.

BETHELL, A., M.R.C.S.Eng., District Medical Officer of the Hungerford and Ramsbury Unions.

BURKE, P. H., L.R.C.P.I., L.F.P.S.Glasg., Certifying Factory Surgeon for the Newbirmingham District, County Tipperary.

CRICHTON, Harry, M.B., B.S.Durh., Assistant Surgeon to the Ingham Infirmary, South Shields.

CUSACK, R., L.R.C.S.I., L.A.H.Dub., Certifying Factory Surgeon for the Cashel District, County Tipperary.

ELLIS, L. Erasmus, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., Clinical Assistant to the National Hospital for Diseases of the Heart, Soho Square, London, W.

EVANS, R. D., M.R.C.P., L.S.A., J.P., Medical Officer to the Blaenau Festiniog Postal District.

FENNELL, Charles H., M.A., M.D.Oxon., M.R.C.P.Lond., Second Assistant Medical Officer at Tooting Bec Asylum, Metropolitan Asylums Board.

FINNEY, C. E., M.D., B.S.Lond., District Medical Officer of the Saffron Walden Union.

FITZGERALD, J., L.R.C.P. & S.Edin., Certifying Factory Surgeon for the Cappawhite District, County Tipperary.

GLEN, T. MacM., L.R.C.P. & S.Edin., L.F.P.S.Glasg., District Medical Officer of the Wigton Union.

GREEN, T. A., M.D., C.M.Edin., Surgeon to the Out-patients at the Bristol Royal Hospital for Sick Children and Women.

HEUSTON, Francis T., M.D., F.R.C.S.I., Consulting Surgeon to the Adelaide Hospital, Dublin, *vice* Sir Philip C. Smyly, deceased.

HUNT, T. H., M.D., B.S.Lond., Honorary Medical Officer to the Royal Halifax Infirmary.

HUNTER, James H., M.D., B.S., B.Hy.Durn., Assistant Surgeon to the Ingham Infirmary, South Shields.

JEFFERISS, F. D., F.R.C.S.Edin., L.R.C.P., District Medical Officer of the Medway Union.

KEOGH, S., L.R.C.S.I., L.A.H.Dub., Certifying Factory Surgeon for the Dundrum District, County Tipperary.

LAWSON, T. C., M.R.C.S.Eng., District Medical Officer of the Parish of Alcester.

LINDSEY, Eric C., M.R.C.S., L.R.C.P.Lond., House-Surgeon to the General Hospital, Hereford.

MACDONALD, John, M.B., C.M.Edin., Assistant Surgeon to the Ingham Infirmary, South Shields.

MACMANUS, Hugh, M.R.C.S., L.R.C.P., Senior Resident Medical Officer of the Nottingham Union Workhouse Infirmary.

MITCHELL, G., M.O., M.Ch.R.U.I., Certifying Factory Surgeon for the Templemore District, County Tipperary.

MITCHELL, M., L.R.C.P. & S.I., Certifying Factory Surgeon for the Tullaroan District, County Kilkenny.

MUIR, J. M. M., M.B., M.S., Port Health Officer for Wynyard and Table Cape, Tasmania.

NICHOLSON, T. D., M.B., C.M.Edin., Medical Officer of Health, Strap Urban District.

OWEN, Arthur Dudley, M.R.C.S.Eng., District Surgeon, Barryvale, Cape Colony.

POWER, J., L.R.C.P.Edin., L.R.C.S.I., Certifying Factory Surgeon for the Borrisoleigh District, County Tipperary.

ROBERTS, Edward J., M.B., B.S., Senior House-Surgeon to the Hobart General Hospital, Tasmania. (*vice* Dr. Lines resigned.)

SMITH, Malcolm A., M.R.C.S., L.R.C.P., Medical Officer to H.B.M. Legation, Bangkok, Siam.

SMYTH, J., M.B., C.M., Clinical Assistant to the Chelsea Hospital for Women.

STOBBS, E. G., M.R.C.S., L.R.C.P., D.P.H., Certifying Factory Surgeon for the Overton District, County Flint.

TETLEY, T. W., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Kirby Moorside District, County York.

THOMSON, Eric M., M.A., M.B., Ch.B.Aberd., Senior Resident Medical Officer, Government Lunatic Asylum, Kingston, Jamaica.

THORNE, J. M., M.R.C.S., L.R.C.P., Clinical Assistant, Chelsea Hospital for Women.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

House-Physicians: J. de V. Mather, M.B., Ch.B.Vict., and H. Hodge, M.B., Ch.B.Vict.

House-Surgeons: H. Buck, M.B., Ch.B.Vict., and L. Clay, M.B., Ch.B.Vict.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House-Officers from June 7th, 1904:

Resident House-Physicians.—H. C. Lecky, M.A., M.B., B.Ch.Oxon., C. H. Latham, M.R.C.S., L.R.C.P.

House-Physicians to Out-patients.—B. Higham, M.R.C.S., L.R.C.P.; W. Haward, M.B., B.S.Durh., M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—Senior: C. N. Sears, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; Junior: J. P. Hedley, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

Special Departments: Throat.—G. B. Rickett, M.A., B.C.Cantab. Skin.—G. B. Rickett, M.A., B.C.Cantab.

Several other gentlemen received extensions of their appointments.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CORNER.—On June 2nd, the wife of Edred M. Corner, F.R.C.P., of a daughter.

DEVITT.—On April 21st, 1904, at her residence, Ravenswood, North Queen Sand, the wife of Richard E. Devitt, M.B., B.Ch.R.U.I., J.P., Government Medical Officer, etc., of a daughter.

HODGENS.—May 15th, at Newcastle, Jamaica, the wife of Captain C. O. Hodgens, R.A.M.C., of a daughter.

MARRIAGES.

KNIGHT–VERDON.—At Christ Church, Streatham Hill, S.W., on June 1st, by the Rev. C. Nicoll, George David Knight, M.D.Aberd., to Dorothy Lescombe, only daughter of H. Walter Verdon, M.D., of Streatham, S.W.

MORRIS–HARBOTTLE.—At Trinity Wesleyan Church, Whitley Bay, on June 1st, by the Rev. J. Harrymans Taylor, M.A., the Chairman of the District, assisted by the Rev. Bruce W. Rose, Robert Alexander Morris, M.B., B.S., M.R.C.S., L.R.C.P., to Constance Margaret, youngest daughter of the late Anthony Harbottle, of Newcastle-upon-Tyne. At home, West End, Bedlington, July 20th and 21st. No cards.

PRESTON–CAIRNS.—At University Road Methodist Church, Belfast, on June 1st, Charles Edward Preston, B.A., M.B., Ch.B., to Elizabeth Cairns.

DEATH.

IVES.—On May 31st, at 61, Belmont Road, Portswood, Southampton, Robert Ives, M.R.C.S.Eng., L.R.C.P.Edin., second son of the late Dr. Charles James Ives, and grandson of Dr. Thomas Ives, both of Chertsey, Surrey.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford: On Bright's Disease and its Varieties (Croonian Lecture III.)

Medico-Legal Society, 20, Hanover Square, W., 8.15 p.m.—Mr. R. Henslowe Wellington: Suicide whilst Temporarily Insane—a Fallacy. Dr. W. McCall: A Note on Legal Procedure in Lunacy. Earl Russell: The Limitations of Medical Evidence.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Arthur Newsholme: Protracted and Recrudescent Infection in Diphtheria and Scarlet Fever.

THURSDAY.

Royal College of Physicians of London, 5 p.m.—Dr. J. Rose Bradford: On Bright's Disease and its Varieties (Croonian Lecture IV).

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital: Thursday, 4 p.m.—Demonstration of Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Aortic Dilatation, its Causes and Treatment.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Resting Deformities in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures will be delivered at 5.15 as follows: Monday, the Relation of Fibrosis to Tubercle. Tuesday and Wednesday, Diseases and Injuries of the Female Bladder and Urethra, Thursday, Some General Principles of Local Treatment in Dermatology.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Lecture on Aortic Stenosis, illustrated by cases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Diagnosis of Tumours of Spinal Cord; Friday, Syringomyelia.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on the Various Types of Eczema and their Treatment.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, The Summer Diarrhœa of Children and its Treatment; Tuesday, Pelvic Suppuration; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, The Administration of Anæsthetics.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 6.15 p.m., Lecture on Skin Diseases.

St. Peter's Hospital, Henrietta Street, W.C., 3 p.m.—Lecture-Demonstrations will be given as follows: Tuesday, Surgical Diseases of the Kidneys; Saturday, Diagnosis in Urinary Disease.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London. Those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary is stated.*

AUTHORS are kindly requested to communicate with the Manager, at 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish replies to be sent by telegraph or letter should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is "Articulate, London." The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is "Associate, London."

TELEPHONE NUMBERS:—EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

QUERIES.

DISINFECTION AFTER DIPHTHERIA.

M.D. asks: What steps ought to be taken to disinfect a cottage or that part of a cottage occupied by a case of diphtheria where there are several children in the house?

*** Fumigation with sulphur or formic aldehyde is the usual practice. Probably spraying the walls, floors, etc., with chloride of lime (1 to 2 per cent.) or formalin is preferable. Thorough cleansing is also essential.

Examination for F.R.C.S.I.

A. E. would be pleased to have advice respecting the examination for F.R.C.S.I. for practitioners of over ten years standing. What are the best books to read in surgery, surgical anatomy, and surgical pathology? Is it necessary to read a special work on surgical pathology?

*** As ordinary textbooks such as Erichsen's *Surgery* will be sufficient. Any of the smaller books on surgical anatomy and pathology would suffice.

ANSWERS.

E. M. A.—The term "pterion" is used as a name applied by Broca to the region of the angle of the lower jaw, and is so used by Topinard.

Treatment of Whooping-cough.

Dr. Fitzgerald, Leeds (Lincoln, W.C.), writes: In reply to "P." I have found carbolic acid almost a specific for most severe cases of pertussis and the same need only be small. For instance, a May-month baby, aged 11 months, who had had the complaint about a fortnight and was just beginning to whoop badly. I prescribed acid carbol gr. ½ in thirty minutes every four hours, the child not to be disturbed when asleep. In four days the attacks were only a quarter as frequent. Of course the spasm would lessen the violence of the attacks, but by itself would probably not cure the malady.

Dr. Seymour Taylor, London, W., writes: If "P." will try the effects of suprarenine in whooping-cough he will probably be surprised and gratified. They are given in the same manner as ordinary. Let "P." begin with 1 gr. and gradually increase the dose, and in my experience the patient is cured in two weeks. Of course, I anticipate that the patient is free from adenoids.

G. writes: In reply to "P." I can say that since adopting Niemeyer's treatment for pertussis, by carrying acid potassium bicarbonate, I have hardly ever had a case go beyond the fortnight or develop any complication. Where there has been a longer duration of the disease, it has been because the treatment was not given a fair chance.

Large Ovarian Cyst.

Dr. A. J. Marchneat (Hove) writes: In answer to Dr. Sidney H. Carr, I find there is a case recorded in the *Transactions*, vol. lxxiv., by the late Mr. Philip Meadows Martineau, who was Surgeon to the Bristol and South-West Hospital. The patient in the course of twenty-five years was tapped eighty times, a total amount of 670 pints being removed. The greatest amount taken away at one time was 120 pints. The figures for the last year of her life are instructive as showing the rapidity with which the fluid collected:

1876. February 14th, tapped	8½ pints.
May 16th, "	10 "
July 25th, "	8 "
August 11th, necropsy	78 "

The specimen which showed a cyst of the left ovary with two loculi, was sent to John Hunter for his museum.

LETTERS, NOTES, Etc.

When is a Banana Ripe?

Mr. A. Tucker Ackerley (London, W.C.) writes: Referring to the able article published in the British Medical Journal of May 14th and being the expert whose evidence was quoted therein, you will perhaps excuse me if I draw attention to the fact that it still leaves one somewhat in the dark as to when a banana really is ripe and therefore edible for man. The test given by the general public is, to my mind, a most unsatisfactory one, for it is quite common to see bananas with the least trace of green at either end literally "torn" by the public and dealers, and the result to the purchaser is practically the same as the experience of the man who eats a half-ripe potato, instead of one properly cooked and steamed right through. Many times I have had bananas given me which were a little but not quite ripe, and I have found that the actual low

Letters, Communications, Etc., have been received from:
A. Messrs. Arnold and Sons, London; Mr. J. Abraham, London; Mr. A. Ackerley, London; L. E. Adams, M.B., Southampton; Dr. Allbutt, Leeds; Dr. A. Anderson, Dublin; Dr. Appleton, Bristol; A. B., Bristol; A. B. Bennett, M.B., Dublin; Messrs. H. K. Bewley, Dublin; Dr. Bidwell, London; Dr. Bond, Bristol; Dr. Bowlby, London; Dr. Bramwell, Edinburgh; Dr. Brodie, London; Dr. Brown, Bristol; Dr. Bruce, Edinburgh; Dr. Buchanan, London; Dr. Burghard, London; Dr. Burnett, Washington; Dr. Burrell, London; Dr. Burton-Fanning, Leeds; Dr. Byrom Bramwell, Edinburgh; C., Bristol; Dr. Cameron, Glasgow; Dr. Campbell, Bristol; Dr. Carmichael, Dublin; Dr. Carpenter, London; Dr. Carter, Liverpool; Dr. Cassidy, Dublin; Dr. Chaplin, Bristol; Dr. Chapman, Bristol; Dr. Chapple, Bristol; Dr. Clarke, Bristol; Dr. Clayton, Bristol; Dr. Cleaves, Bristol; Dr. Cobbett, Leeds; Dr. Coghill, Bristol; Dr. Colman, Norwich; Dr. Cooke, Bristol; Dr. Cooper, Bristol; Dr. Corbett, Bristol; Dr. Cotton, Bristol; Dr. Cowell, Bristol; Dr. Cox, Bristol; Dr. Crawford, Bristol; Dr. Crawfurd, Bristol; Dr. Cullingworth, Manchester; Dr. Cumberbatch, Bristol; Dr. Cuthbert, Bristol; Dr. Dalton, Bristol; Dr. Davies, Bristol; Dr. Davies-Colley, Wellington, N.Z.; Dr. Dawson, Bristol; Dr. Dawson Williams, London; Dr. Dean, Bristol; Dr. Dickinson, Bristol; Dr. Dixon, Bristol; Dr. Dobell, Bristol; Dr. Donkin, Bristol; Dr. Dowse, Bristol; Dr. Drysdale, Bristol; Dr. Duckworth, London; Dr. Dudfield, Bristol; Dr. Dunlop, Bristol; Dr. Eccles, Bristol; Dr. Edwards, Bristol; Dr. Elliot, Bristol; Dr. Ellis, Bristol; Dr. Elmslie, London; Dr. Evans, Bristol; Dr. Fagge, Bristol; Dr. Fairbank, Bristol; Dr. Farquharson, Bristol; Dr. Fenwick, London; Dr. Fiddes, Bristol; Dr. Fisher, Bristol; Dr. Fitzgerald, Leeds; Dr. Fletcher, Bristol; Dr. Fox, Bristol; Dr. Fraser, Bristol; Dr. Freeman, Bristol; Dr. Gabbett, Bristol; Dr. Gaskell, Bristol; Dr. Gaskoin, Bristol; Dr. Gibbons, Bristol; Dr. Gibson, Bristol; Dr. Gilbert, Bristol; Dr. Gillespie, Bristol; Dr. Gillespie, Dublin; Dr. Gilmore, Bristol; Dr. Gimlette, Bristol; Dr. Gladstone, Bristol; Dr. Glover, Bristol; Dr. Godlee, London; Dr. Goodall, Bristol; Dr. Gordon, Bristol; Dr. Gordon, Dublin; Dr. Gordon, Bristol; Dr. Gosse, Bristol; Dr. Gow, Bristol; Dr. Graham, Bristol; Dr. Graves, Bristol; Dr. Gray, Bristol; Dr. Green, Bristol; Dr. Greenfield, London; Dr. Greenish, London; Dr. Gregory, Bristol; Dr. Griffiths, Bristol; Dr. Gunn, Bristol; Dr. Hadden, Bristol; Dr. Hall, Bristol; Dr. Hamilton, Bristol; Dr. Hamilton, Edinburgh; Dr. Hamilton, Bristol; Dr. Hamilton, Dublin; Dr. Hamilton, Bristol; Dr. Hamilton, Bristol; Dr. Hamilton, Bristol

SCIENTIFIC GRANTS COMMITTEE

OF THE

British Medical Association.

REPORT LXXXVI.

THE REACTION OF PROTOPLASM IN RELATION TO CHEMIOTAXIS.*

BY J. O. WAKELIN BARRATT, M.D., B.Sc.LOND., F.R.C.S.ENG.,
British Medical Association Research Student.

[From the physiologisches Institut, Göttingen.]

THE present paper deals with the influence exerted upon cell protoplasm by acids and alkalies acting under conditions which imitate or exaggerate those under which the phenomena of chemiotaxis are produced. If any relationship exists between chemiotaxis, in respect of acids and alkalies, and the staining and chemical reaction of protoplasm, it appeared not improbable that it would be found on further investigation to be a determining factor in chemiotaxis, and to throw light upon the essential nature of this phenomenon. As the work progressed, it was found that it extended beyond the original scope of inquiry, but it has been thought better to publish an account of the investigation in its present form, apart from its later developments, which are not yet ended. Only such experiments as have been made in respect of paramoecium aurelia are here described, and only such changes produced by acids and alkalies as affect living protoplasm come within the range of investigation.

The term reaction in the strictly chemical sense refers to the presence of free acid or alkali, and indicates the relative preponderance of hydrogen or hydroxyl ions respectively in the fluid tested. In an acid it is to the concentration of the H^+ ions that the potentiality of the fluid for catalytic action is due, and similarly, an alkaline fluid is strong or weak according as the concentration of its OH^- ions is great or small. The chemical reaction of protoplasm was investigated by means of indicators, use being made of the results arrived at by Friedenthal.[1]

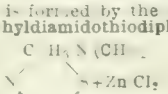
In the second meaning in which the term reaction is employed we are dealing with a different phenomenon, namely, the action of so-called acid and basic dyes, a phenomenon dependent upon the side groups which the molecules of stainable tissue constituents possess. When the latter have salt building side chains which react with dyes possessing an opposite acid or basic character, then the tissue constituents themselves are described as basic or acid. Reaction of protoplasm in this sense can be investigated only when such staining processes are employed as can be regarded as of the nature of a chemical reaction between two salts. Purely physical staining methods cannot be employed.[2]

THE DETERMINATION OF STAINING REACTION.

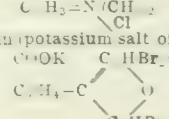
The basic (oxyphile) and acid (basophile) character of cell protoplasm was studied by means of methylene-blue-eosin,[3] which affords a delicate test of the reaction of tissue constituents, and offers a much simpler means of differentiating between acid and basic characters than the successive application of methylene blue and eosin. Moreover, the use of methylene-blue-eosin, consisting of a salt† possessing specific characters and not being a mixture of two dyes, renders it certain that the resulting red and blue staining are brought about by a chemical combination of cell constituents with the acid and basic radicals of the dye, a purely physical explanation of the differentiation obtained being excluded.

* This work is here given in abstract. The full paper will be found in the *Zeitschrift für allgemeine Physiologie*, 1904, s. 1–154.

† Methylene blue-eosin is formed by the reaction of two molecules of methylene blue (tetramethyldiamidothiodiphenylamin)



with one molecule of eosin (potassium salt of tetrabromfluorescein)



The Action of Acids.

The action of acids upon the cell protoplasm of paramoecium differs in its effect in respect of the staining reaction according as the concentration employed is the minimal lethal concentration or is of considerably greater strength. If a paramoecium is placed in a solution of hydrochloric, nitric, sulphuric, tartaric, formic, lactic, citric, oxalic, carbonic, or boric acid, sufficiently dilute to kill in ten to thirty minutes, and is then washed in distilled water, it stains with methylene-blue-eosin like a normal paramoecium. There is no intensification of the blue staining, nor is any tendency exhibited by that portion of the cell which normally stains red to take on a purple tint, nor do any of the constituents of the cell which are achromophile become coloured. Thus dilute acids, the duration of whose action is limited to the time necessary to kill the paramoecia, do not alter the staining reaction. Repeated experiments have shown that no difference can be recognized between stained specimens of paramoecia, so killed, and paramoecia untreated with acids.

If, however, a stronger concentration of acid is employed for a somewhat longer period of time, then a different result is obtained. To produce this a 0·02N concentration of sulphuric, nitric, or hydrochloric acid must be used. A solution of a weaker acid of greater molecular concentration may also be employed, but it is not quite so effective. The protoplasm of paramoecia, so treated, when stained with methylene-blue-eosin, exhibits the change familiar to histologists in tissues whose staining characters have been "accentuated" by acids. The nucleus stains deeply blue, and the cell protoplasm takes on a diffuse blue or purple colour close to the periphery of the cell. In the cytoplasm a slight tendence to granularity is observable, but the oxyphile granules, normally present, are not recognizable. The cell pellicle, trichocysts and cell crystals, normally unstained, are unchanged in aspect. The cilia, which remain free from colour, are frequently unrecognizable; sometimes they are so changed as to be individually indistinguishable, but are fused together so as to form a broad layer round the periphery of the cell. The change induced by the prolonged action of acids, which persists after thorough washing in distilled water and in alcohol, consists therefore in an intensification of the normal combination with the blue radical of the dye, while the cell constituents which normally stain red become purple or bluish in colour, the basic radical of the dye tending to replace the acid radical.

The Action of Alkalies.

The influence of alkalies in respect of the staining reaction of the protoplasm of paramoecia differs according as the action is or is not limited to that affecting living protoplasm only. Thus if the hydrates of sodium, potassium, lithium, calcium, strontium, barium, or ammonium are employed in strength sufficient to kill paramoecia in ten to thirty minutes, and the organisms before disintegration takes place are rapidly washed in alcohol, and then stained with methylene-blue-eosin no definite change in staining reaction is observed. The behaviour of protoplasm in respect of alkalies of minimal lethal concentration is therefore similar to that of acids under the same conditions. No tendency to intensification of the redstained constituents of the cells is present, nor does basophile material show any diminution of staining capacity.

A marked alteration in staining reaction is produced by the prolonged action of a solution of sodium or potassium hydrate considerably above the minimal lethal concentration. If paramoecia are put for two hours into a 0·02 N solution of alkali, to which 50 per cent. or more of alcohol has been added in order to prevent the occurrence of disintegration, and are then thoroughly washed in alcohol, the organisms, on staining with methylene-blue-eosin, exhibit a weakening of the combination of the cell constituents with the basic radical of the dye, while the combination with the acid radical is intensified. Thus the basophile material in the cell is but faintly tinted blue, the nucleus and basophile granules being indistinct, while the cell protoplasm takes on a diffuse red tint. The staining characters of the rest of the cell remain negative. In other words, an "accentuation" of acid staining occurs, forming the complement of that produced by the action of strong acids.

The Action of the Constant Current.

It is a point of considerable interest to ascertain how far the staining reaction of paramoecium, changed by the action of the constant current, is in harmony with the staining response of this organism when submitted to the action of acids and alkalies. Verworn[4] attributed the galvanotaxis

of paramoecia to an attempt to escape from a stimulus applied to one end of the organism. Loeb and Budget attempted to carry this explanation a step further, putting forward the hypothesis that the constant current produces a development of acid and alkali at the pointed and swollen extremities of the organism respectively.

It was found when paramoecia were submitted to the action of the constant current until the cathodic end had become swollen and was commencing to disintegrate, while the anodic end had become pointed, that on subsequent treatment with methylene-blue-eosin, the staining reaction of the organism was only affected quantitatively in so far as it was weakened or strengthened by the swelling and condensation of the cell protoplasm, but that no qualitative change occurred. At the pointed end the oxyphile granules were numerous and the cytoplasm appeared deeper in colour, while at the swollen extremity these granules were separated by fluid and the tint of the cytoplasm was correspondingly lighter. The staining of the basophile constituents of the cell protoplasm and nucleus was similarly unaltered. The constant current thus resembles that of acids and alkalies in minimal lethal concentration in the negative character of its influence upon the staining response of the protoplasm of paramoecia.

Before concluding this section the following commentary on the preceding observations may be offered.

In considering the relation of chemiotaxis, in respect of acids and alkalies, to the staining reaction of cell protoplasm, we are concerned only with such action as is exerted upon living protoplasm. When, however, acids and alkalies considerably above the minimal lethal concentration are employed, their action is no longer exerted solely upon living, but, on the contrary, is essentially exerted upon dead protoplasm, and this action has no direct bearing upon chemiotaxis. In the latter process, that is to say in the prolonged action of strong acids and alkalies upon paramoecia, producing an intensification of basic and acid staining respectively, a chemical combination of protoplasm with acids and alkalies occurs which influences the affinity for dye radicals of such of the constituents of the cell whose molecules bear appropriate basophilous or oxyphile groups. When, on the other hand, acids and alkalies of minimal lethal concentration act upon living paramoecia, the condition of the basophilous groups remains unaltered. In this case, either no combination of protoplasm with acid and alkali occurs, or, if such takes place, it must be of a different character to that exerted by strong acid and alkali upon dead protoplasm.

If instead of employing staining methods to dead protoplasm, living protoplasm is employed, the results obtained are similar to those enumerated. Thus, when paramoecia are put into a dilute solution of methylene-blue-eosin, intra vitam staining with the basic cell of the dye takes place. If previous to staining the organisms are placed for some hours in dilute acid sufficient to cause death, it is then found that the staining reactions stain in the same way as paramoecia killed with acid or alkali.

THE CHEMICAL REACTION OF PARAMOECIA.

As already stated, the chemical reaction of paramoecium was determined with the aid of indicators, these being employed in the form of solutions, possessing the advantage of containing no solid particles capable of causing mechanical irritation of the living protoplasm. The delicacy with which different indicators will indicate the presence of free acid or alkali in watery fluids, has been found to vary considerably, the thickness of cell protoplasm traversed by colourless rays of light in order that the colour of the indicator employed may be recognised being found to be of importance. Further, in order to determine the reaction of the protoplasm of living paramoecia, it was necessary that the fluid in which they were suspended should contain neither free acid or alkali, although a certain amount of dissolved carbonic acid was permissible. If, on the other hand, the fluid contained free acid or alkali, even in minute quantity, the protoplasm of the paramoecia became permeable to the indicator employed, and the latter passed into the cell, staining it. In addition to the above conditions, it was found necessary that the indicator employed should not be precipitated by the salts present in the fluid in which the paramoecia were suspended, for the reason that the precipitate was found to be taken up by the protoplasm of the paramoecia, and thus to stain the cell. Finally, it was found necessary that the indicator employed should not be affected by the presence of dissolved carbonic acid.

When paramoecia are placed in a solution of methylene-blue for periods of time extending to twenty-four hours, no red tint is observable in the organisms on subsequent centrifugalization. In a solution of phenolphthalein of the same concentration paramoecia cannot be kept alive so long, owing to the presence of alcohol necessary to keep the indicator in solution, but, during the period preceding death, no red tint is developed. If the indicators are used in 0·001 N concentration, there is still no appearance of colour. From these experiments it follows that the reaction of the living protoplasm is less than that of a 0·001 N concentration of H or OH ions.

The Action of Acids.

If paramoecia are immersed in hydrochloric, nitric, or sulphuric acid of 0·01 N concentration, in which they will usually live for periods of five to thirty minutes, and before death occurs are rapidly removed by centrifugalization, washed in distilled water, and transferred to a solution of methyl-orange, no red tint is observable in the protoplasm, though the liquid in which the organisms are contained may, as the result of imperfect washing, assume a red colour. From this experiment it may be inferred that either acid is not absorbed by living protoplasm, or that if it is taken up it does not exist in the free state or in the form of a loose, reversible combination, but, on the contrary, forms a firm, irreversible combination. These observations can only be made with strong acids; with weak acids methyl-orange is not available.

The Action of Alkalies.

When similar experiments are made with the bases employed in the previous section, phenolphthalein being employed as indicator, the protoplasm of paramoecia fails to assume a pink tint, so that here again, as when acids are used, it is permissible within the limit of observation given by the indicator to infer that the alkali either enters into a firm combination with protoplasm or is catalytic in its action, but that no loose combination occurs.

The Action of the Constant Current.

A number of experiments were performed to investigate the action of the constant current upon the chemical reaction of paramoecia. The usual method employed consisted in passing the constant current through a solution of methyl-orange or phenolphthalein, and then observing the appearance of the paramoecia singly under the microscope or in bulk after centrifugalization. The experiments were varied by soaking dead paramoecia in methyl-orange or phenolphthalein, and then submitting them to the action of the current. In each case no evidence was obtainable of the presence of free or loosely-combined acid or alkali in the protoplasm of paramoecia either when examined in bulk, or when the pointed and swollen ends of the organism were observed under the microscope.

SUMMARY.

1. Exposure of paramoecia to acids or alkalies of concentration sufficient to kill in twenty to thirty minutes does not affect the staining reaction of the organisms.

2. Prolonged exposure of paramoecia to acids or alkalies of higher concentration causes the well-known appearance of 'accentuation' of basic and acid staining respectively, but this is a change affecting the protoplasm after death, and therefore of a different order from that occurring in relation to chemiotactic phenomena.

3. Paramoecia killed by the constant current resemble paramoecia killed by acids and alkalies of minimum lethal concentration in respect of the absence of any alteration of staining reaction.

4. The chemical reaction of the protoplasm of paramoecia cannot be determined by means of indicators in respect of a concentration of H and OH ions, which is less than 0·001 N. Within this limit the protoplasm, living or dead, gives no evidence of acid or alkaline reaction.

5. The protoplasm of paramoecia killed by mineral acids or by alkalies of low concentration gives no evidence of acid or alkaline reaction with methyl-orange or phenolphthalein.

6. Paramoecia killed by the constant current do not exhibit any acid or alkaline reaction.

In conclusion I gratefully express my indebtedness to Professor Max Verworn, in whose laboratory this work was carried out, for his kind assistance and advice throughout the course of the investigation.

REFERENCES

[illegible]

UNIQUE CASE OF "FLOATING KIDNEY," IN WHICH NEPHRORRHAPHY WAS SUCCESSFULLY PERFORMED:

THE KIDNEY WAS WITHIN THE PERITONEAL CAVITY AND HAD A MESONEPHRON.

By DAVID NEWMAN, M.D., F.F.P.S.G.,
Surgeon, Glasgow Royal Infirmary.

DISPLACEMENTS of the kidney may be divided into three kinds: simple misplacements without mobility of the organ, "movable kidney," where the kidney is perceptibly mobile behind the peritoneum, and "floating kidney," where the peritoneum forms a mesonephron which attaches the kidney loosely to the spine. The terms "movable kidney" and "floating kidney," as used by most writers, are synonymous. Morris, in his excellent work on *Surgical Diseases of the Kidney and Ureter* (p. 95), remarks: "A 'floating kidney' is one which, whether it possesses a mesonephron or not, moves freely forward, so as to rise or 'float' towards the anterior abdominal wall, as well as vertically and laterally. This 'forward' movement or 'floating' makes the distinction between it and the 'movable kidney.' It is not possible to distinguish until the abdomen is opened or the kidney is exposed through the loin, whether a 'floating kidney' has a mesonephron or not." And again, at p. 97, he says: "For convenience of description the terms 'movable' and 'floating' kidney will be used indiscriminately, except when one or the other type is specially referred to. It will then be designated by the term 'movable behind the peritoneum,' or 'floating kidney without a mesonephron,' or 'floating kidney with a mesonephron,' as the case may be."

The distinction between "movable kidney" and "floating kidney" is clearly an anatomical one. Clinically the two conditions cannot be distinguished, although it may be said that in all cases of "floating kidney" the mobility is great. Still, it must be admitted that in cases of "movable kidney"—that is to say, kidneys without a mesonephron—the mobility may be equally extensive. It is to be regretted that a writer of Morris's distinction has chosen to perpetuate the confusion in the minds of the profession in this matter. In order to have a clear understanding of the pathology of the subject, as also for the sake of treatment, it is well to have an exact mode of expression and an accurate knowledge of the varieties of the malpositions which may be met with in practice. In cases of "movable kidney" the organ is mobile behind the peritoneum, either within its adipose capsule or in a sac formed behind the peritoneum and the muscular wall of the abdomen, whereas in cases of "floating kidney" the kidney moves about within the cavity of the peritoneum, and is attached by a mesentery to the spine.

In my book on *Surgical Diseases of the Kidney* (p. 72) I observed, in regard to "floating kidney," "objections may be raised to this division on the subject, seeing that, as a matter of custom, both the terms are used synonymously by most writers, and that, clinically, the diseases are not distinguishable from one another. It is only after the abdomen is opened that the presence or absence of a mesonephron can be demonstrated. It is necessary, however, from the surgical standpoint, particularly when operative interference is contemplated, carefully to separate the two conditions from one another. In "movable kidney" the organ can be exposed without opening the peritoneum, whereas in "floating kidney" it cannot. These varieties of displacement are recognized, not only by being distinct anatomically, but also by their etiology being different. "Floating kidney" is always a congenital condition, whereas movable kidney is usually acquired. The earlier writers on the subject looked upon elongation of the renal vessels as a proof of the affection not being acquired. They, however, did not distinguish between the two forms, but grouped all displacements of the kidney associated with mobility in one class.

It would, indeed, be difficult to explain how a mesonephron, properly so-called, could be formed otherwise than congenitally, unless by supposing that the displaced kidney has pushed before it a fold of peritoneum, the surfaces of which have become adherent around it and united to each other along the line of the renal vessels. That such a condition might arise as a result of localized peritonitis seems possible. There are, however, no cases recorded where there is any evidence of this having taken place. When inflammation has occurred in cases of movable kidney it has in most instances led to an adhesion of the layers of the peritoneum, not only to the kidney and to one another, but also to the surrounding parts, the result being that the kidney ceased to be movable, and became fixed in an abnormal position.

The point of importance to be attended to in connexion with floating kidney is that it cannot be reached by an operation from behind without opening the peritoneum, and is therefore not so favourable for nephrorraphy as movable kidney. This should be borne in mind while operating. It is not possible, however, previous to the operation, to differentiate by physical examination the two conditions.

Some authorities have expressed the opinion that floating kidney is more freely movable than movable kidney, and use this as a basis for diagnosis. This is an error. In not a few cases of movable kidney the organ can be pushed with perfect freedom up under the ribs, down into the pelvis, and for a short distance across the middle line. What greater freedom of movement could be shown? It is true that in some instances of movable kidney the excursion may be limited to an up-and-down motion in a plane parallel to the lumbar muscles, as is seen when the sac in which the kidney moves is formed by the adipose capsule, without the capsule being detached from its seat behind the peritoneum. Where, however, the peritoneal covering has become raised from the posterior abdominal wall less impediment is offered to movement, and so what was clearly at first a case of movable kidney gradually may assume the physical signs of the more mobile form, and may pass, according to some observers, from the class of movable kidneys into that of floating ones.

Fortunately, floating kidney is a very rare condition, but nevertheless it must not be entirely overlooked where an operation is contemplated for the cure of the more common variety of displacement with mobility.

As far as I can ascertain, the case about to be described is the first one in which nephrorrhaphy was performed for a mobile kidney with a mesonephron, and to this condition I would like to see the term "floating kidney" limited.

The patient, C. A., was advised to consult me by Dr. Patton Petrie, of Strathaven.

History.

In his account of the case he informs me that the patient is aged 2-, single, housekeeper in her father's house. Her general condition of health was never quite satisfactory, and during the past three years she has been getting steadily worse, and within the last three months she became unfit to perform her household duties. There was considerable abdominal disturbance, characterized by a feeling of distress rather than of pain, and at times considerable quantities of mucus were passed per rectum, evidently due to a subacute colitis. On examination of the abdomen there was distinct tenderness along the course of the transverse and descending colon, and Dr. Petrie, on palpating in the right renal region, found the kidney to be freely movable. The pulse was very feeble, and the patient suffered from great "nervous prostration." At this time Dr. Petrie kept her in bed for three or four months with considerable advantage, so that she was able to be removed to Dunblane, where she remained a fortnight. During her residence at the hydropathic establishment there she was subjected to high frequency electrical treatment with the view of improving the condition of the bowel, but owing to the mobility of the kidney the treatment was not pushed, and she returned home for the purpose of consulting me as to the question of operation.

In her school days the patient suffered greatly from headache, the attacks sometimes lasting for two or three days' duration. They were always preceded by a very uncomfortable feeling about the waist, which passed up her back, and culminated in a severe headache. She was very fond of active exercise in childhood, but if this was indulged it was certain to be followed by sudden and violent reaction, so as to make her feel completely exhausted, and the attacks of headache were certain to follow. When 1- years of age she had abdominal swelling of a few days' duration—at first at irregular, but afterwards at regular intervals—shortly after this, on account of her mother's death, she, being the eldest daughter, had to undertake the household duties of the family consisting of father and six brothers. After eight years of this work, with occasional complete breakdown, her health became so much impaired that she was quite unfit for any kind of work, and on account of [illegible] kidney she found it necessary to wear her corsets both night and day. She also suffered from sleeplessness. At this time she was advised to remain in bed for three months, and [illegible] that treatment considerable improvement occurred. Since that time she enjoyed rather better health than previously, until within three years ago she was always [illegible] guard against the slightest over-exertion or sudden excitement.

[illegible] When I saw the patient on the 2-th inst., I found her pale and [illegible], and hardly "herself." She complained of what she described as "abdominal distress," which really meant a sense of weight, dragging in the right loin, with occasional attacks of severe sickening pain, which was induced by any exertion or sudden movement of the body. Digestion was very feeble and appetite poor, but she told me that she was now rather better than before she went to Dunblane.

On examination of the abdomen I found the right kidney freely movable, it could be pushed well beyond the middle line in front and down into the pelvis, and upwards under the ribs, but when it was replaced in its normal position it returned there, and could not be readily disturbed unless the patient walked about for some time. Deep inspiratory efforts forced it downwards and then I would suddenly shoot from the fingers of the thorax towards the umbilicus. On palpation the kidney could easily be caught up in the hand and its form traced. The kidney was unusually firm, a little smaller than normal and the deepest pressure of the hand caused sickening pain. Such as it was it pushed under the costal margin it could be pulled down again, and very often suddenly slipped out of the hand in a downward direction. The percussion over the kidney gave a dull tympanitic sound, and in the loin, where the kidney was replaced, a tympanitic note. There was a tendency to resistance on pressure over the opposite side.

Progress of the Case.

On June 14th the ordinary test-examination for albumen in the urine was made through the catheter in the usual manner, but the kidney could not be found in its normal position, and when pressed up to the depth of the wound by the hand it was found that in order to reach the organ the catheter required to be pushed. On opening the bladder a careful examination was made, but the kidney was found to have undergone complete retraction, and shortly after was accompanied by post-mortem changes. An incision was made through the wound over the kidney, the [illegible] was split, and the kidney was pulled up to the surface. There was a fatty capsule [illegible] and the kidney and the depth of the wound was packed with iodoform gauze. The patient made an uninterrupted recovery, gained rapidly in strength, the appetite soon increased and she was discharged from the hospital on August 20th.

Dr. Petrie, writing to me on October 1st, says "that since the patient returned home she has gradually improved, is sleeping better than she has done for years, and the right kidney seems securely anchored. She is looking altogether healthier and plumper, and is able to take a short walk daily without discomfort."

A CASE OF LEUKANAEMIA

WITH [illegible] HYPERPLASIA OF THE SPLEEN AND PRAEPERITONEAL [illegible] GLANDS AND WITH INCREASE OF CONNECTIVE TISSUE IN THE BONE MARROW.

By F. PARKES WEBER, M.A., M.D., F.R.C.P.,

Physician, German Hospital.

By leukaemia (W. Von Leube) I understand a morbid condition in which clinical symptoms found in pernicious anaemia are combined with blood changes and anatomical changes in the organs characteristic of leukaemia or pseudo-leukaemia, whether of the "lymphocytic" or "mixed-cell" type. The present case seems to combine certain features of [illegible] with those of a "mixed-cell" pseudo-[illegible]. I intend first to give an account of the case, [illegible] the clinical pathological findings, and then to [illegible] as to its pathological nature.

[illegible] was admitted under [illegible] suffering from progressive pernicious anaemia.

[illegible]

[illegible] later note.

[illegible] abdominal pain [illegible]

[illegible]

[illegible]

[

bone marrow which was paler than the rest, and contained less blood. In this portion (see Fig. 1) the bone marrow had

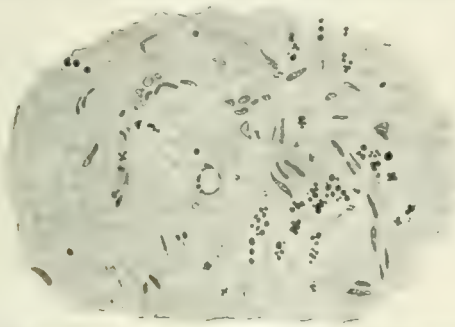


Fig. 1.—Illustrating the connective-tissue change in a portion of the bone marrow. The nuclei and fragments of nuclei of erythroblasts are represented by deep black dots. × 22.

been practically converted into a kind of loose connective tissue containing conspicuous groups of erythroblasts. I regard this connective tissue change in the bone marrow as one of the most remarkable features in the case.

The Liver. Microscopic examination revealed a very remarkable condition, which, however, was not equally well-marked in all parts of the organ. The columns of hepatic cells were separated and seemed to be pressed on by groups of cells which on the whole were similar to those described later on as forming peculiar "clumps" in the spleen. The groups of cells which thus separated the columns of hepatic cells, were chiefly composed of myelocytes, non-granular large mononuclear cells and erythroblasts (or the nuclei only of erythroblasts), but scattered about here and there were likewise coarsely granular eosinophile cells, and (in some parts) giant cells. The presence of these giant cells in some sections of the liver (they were not found in the spleen) formed one of the conspicuous features of the case (see Fig. 2). The cell accumulations just described occupied the

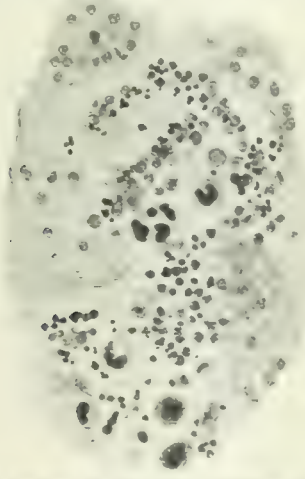


Fig. 2.—From a section of the liver, showing erythroblasts, their nuclei and fragments of nuclei are represented by deep black dots; giant cells, and white corpuscles accumulated together in an irregular space between the hepatic cells. × 220.

positions normally occupied by the intra-acinous hepatic capillaries. In some places the cells seemed to be actually within the walls of capillaries, but in other places they seemed to form regular "growths," and that they could not have been in the circulating blood stream at the time of death is proved not only by the examination of the blood shortly before the patient's death, but also by the appearance of the blood as seen in rather larger blood vessels in the microscopic sections. Moreover, no similar accumulations of cells were present in or about the capillaries of the pancreas and liver. It is difficult to imagine how the circulation in the liver could have been carried on during life, seeing that the spaces normally occupied by the hepatic capillaries were stuffed by the cell accumulations of which I have been speaking. This difficulty was especially noted by Mr. S. G. Shattock, whom I have to thank for kindly looking through the microscopic preparations of the case with me. It must be remembered, however, as I have already stated, that not all parts of the liver were affected to the same extent.

The Spleen. In regard to the small infarct, I need not add anything to what I stated in the account of the necropsy. The Malpighian corpuscles (and the lymphocytes in them) appeared normal. The splenic pulp, however, was permeated with erythroblasts and mononuclear cells similar to those found between the columns of hepatic cells. Here and there were coarsely granular eosinophile cells. All these kinds of cells were fairly equally distributed throughout the splenic pulp, just like the red blood corpuscles were, excepting at certain spots where they occurred, without admixture of erythrocytes, crowded together in dense circular or elongated clumps. Some of these "clumps" were evidently within splenic capillaries and blood sinuses (see Fig. 3) whilst others appeared to be filling up mere clefts in the splenic stroma.

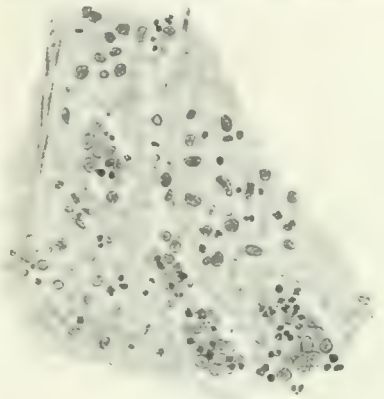


Fig. 3.—From a portion of the splenic pulp showing erythroblasts (deep black nuclei) and other cells (nuclei only represented) occupying a splenic capillary or sinus. To the left of the capillary is one of the small "clumps" referred to in the text. Red corpuscles are only faintly indicated. × 220.

The sections of the kidneys showed nothing noteworthy beyond what has already been mentioned. The pancreas appeared not to be diseased. The haemolymph glands resembled lymph glands in structure excepting for the presence of blood in the sinuses. Besides lymphocytes and erythrocytes they contained erythroblasts and large mononuclear cells apparently similar to those permeating the splenic pulp; also a few coarsely granular eosinophile cells and a few giant cells.

Sections of the different organs were also stained with methyl-violet for amyloid changes, but with negative result. Microchemical tests failed to show the presence of free iron in sections of the spleen, liver, and kidney.

REMARKS.

The main features of the case may be summed up as follows:—

1. Progressive waxy pallor and asthenia with maintenance of subcutaneous fat.

2. Changes in the red blood corpuscles rather similar to, but not so extreme as, those met with in true pernicious anaemia.

3. Absence of true leukaemic changes in the blood, but presence of slight myelocythaemia and presence of the inverted proportion of lymphocytes to polymorphonuclears which is found in cases of lymphatic pseudoleukaemia (Hodgkin's disease, etc.).

4. No abnormal amount of pigment in the urine.

5. Changes found after death in the haemopoietic tissues similar to those which occur in cases of "mixed-cell" leukaemia or pseudoleukaemia.

6. Abnormally firm consistence and increase of connective tissue in the bone marrow from the shaft of a long bone.

7. Absence of enlargement of the ordinary lymph glands, but great hyperplasia of the spleen (haemal gland) and prevertebral haemolymph glands.

8. Absence of any reaction in sections of the spleen, liver, and kidneys for free iron such as is found in pernicious anaemia.

Charcot-Leyden crystals were not noticed in the bone marrow, etc., but were not specially looked for.

In spite of the poikilocytosis the disease in the present case

seems not to have been secondary to any excessive haemolysis, but to have been primary in the bone marrow, and I would regard it as a myelogenic form of splenic anaemia of adults. Leubtless allied to what French authors have termed "anémie splénique myéloïde." Therefore the case cannot be adduced as an example of pernicious anaemia being replaced by or becoming transformed into leukaemia, though it is probable that similar cases have been erroneously supposed to illustrate such a course of events. It is also highly probable that similar cases, owing to enlargement of spleen and liver, have been clinically regarded in spite of the poikilocytosis as examples of Banti's disease.

In the German cases I believe enlargement of lymphatic glands was not noted.

It is very tempting to suggest that in the present case both the spleen (haemal gland) and the peripheral lymph glands were actively engaged in supplementing the erythrocyte-forming functions of the diseased bone marrow, but I have no conclusive evidence to support such a supposition. From what has been lately written on the subject[6] it seems that no really satisfactory evidence has been brought forward to show that adults ever do manufacture red blood corpuscles in the spleen and lymphatic glands, either in health or in disease.

[illegible]

NOTE ON THE ANTI-HAEMOLYTIC (HAEMOSOZIC) PROPERTIES OF NORMAL URINE.

BY

MARC ARMAND RUFFER, M.D., and M. CRENDIROPOULO, Medical Director of Customs, Medical Director of Customs, Sanitary Department of the Government of Egypt.

(From the Cairo Laboratory, Alexandria.)

[illegible] urine does not, as a rule, dissolve haemoglobin or blood corpuscles, even when the mixture of urine and blood corpuscles is kept for many days at the temperature of the room (20° C. to 30° C.). The red blood corpuscles of many pathological urines also sink to the bottom of the vessel and there remain apparently intact, even when no [illegible] the turbidity of the urine. In a previous paper we showed the serum of rabbits which had received injections of human urine dissolved human red blood corpuscles [illegible]

We were then led to inquire whether normal urine contained an anti-[illegible] [illegible] neutralizing the haemolytic power of the sera of animals previously injected with urine.

Experiments showed that a serum markedly haemolytic for human red blood corpuscles is obtained by injecting doses sometimes as large as 100 c.cm. of the urine of the same individual. The haemolytic [illegible] in this laboratory, has been that the injection of urine [illegible] with the production of haemolytic sera, and that, consequently, the [illegible] of the blood, and that, consequently, the [illegible] of normal urine [illegible] the serum of that animal to [illegible]

In connexion with this [illegible] it must be remembered that [illegible] blood corpuscles, and that frequently it happens that [illegible]

In order to demonstrate [illegible] of normal urine, we [illegible] quantities of haemolytic serum, previously tested, with a given quantity of [illegible] and [illegible] with a given quantity of a 5 per cent. emulsion of human red blood corpuscles in normal salt solution, and [illegible] to 37° C. for one hour. In order to avoid errors due to greater or lesser dilution, physiological salt solution or normal rabbit's serum was added whenever necessary, so that each tube contained exactly the same quantity of fluid. The following experiment may serve as an example.

[illegible] rabbit No. [illegible] received on the first, fifth, and tenth days [illegible] c.cm. of human urine (total, 2 c.cm.). The serum was found [illegible] to human corpuscles. The serum of this animal we call serum [illegible]

	Serum.	Serum of normal (rabbit).	Human urine.	Red corpuscles of man	Result
Tube I.....	[illegible] drop	[illegible]	drops	2 drops	+ [illegible] hours
II. ..	[illegible]	[illegible] drop	[illegible]	"	++++ "
III...	[illegible]	0	2 drops	"	∞
IV	[illegible]	[illegible] drop	[illegible]	"	+ + [illegible] hours

N.B.—[illegible] complete haemolysis; [illegible] means slight haemolysis, the red corpuscles remaining unhaemolysed at the bottom of the tube, the supernatant serum being slightly tinged with haemoglobin; and [illegible] are intermediate stages. ∞ indicates that no haemolysis has taken place.

Haemolysis, therefore, was only very slight or totally absent in the tubes to which urine had been added.

Similar experiments made with various samples of haemolytic sera (produced by the injections of urine) always gave the same results.

The haemosozic property of the urine of the same individual varies, for whereas 20 drops of urine passed by one individual at 9 a.m. may prevent the haemolysis of a given quantity of haemolytic serum, the same quantity of urine of the same man passed at 11 a.m. may no longer prevent the haemolysis of the same serum, though all the other conditions of the experiment remain the same.

The red corpuscles remaining in contact for some hours with urine, when removed from the medium, washed and suspended in haemolytic serum are haemolysed just like those which have never been in contact with urine, and the urine in which such corpuscles have been suspended for two or more hours loses none of its haemosozic properties. The red corpuscles, therefore, do not absorb in that time any haemosozic substance present in urine. The haemosozic substance or substances have not been isolated from the urine, but the following properties have been ascertained.

First, the haemosozin is practically destroyed by heating to 120° C. or to 100° C. for 30 minutes.

Secondly, the haemosozin is precipitated almost completely by absolute alcohol, but a slight quantity of haemosozic substance is always found in the filtrate. One may argue, either that the haemosozin is slightly soluble in alcohol, or that there are two haemosozins one of which is soluble in alcohol, and the other is not.

Thirdly, the haemosozin is precipitated almost entirely by saturating the urine with ammonium sulphate. The precipitate dialysed until it is entirely free from salts has marked haemosozic properties.

THE DETERIORATION OF VISION DURING SCHOOL LIFE.*

By ETTIL SAYER, M.B., B.S.,

Assistant Medical Officer, Education Department, London County Council.

[illegible] nearly a million children attending the Board schools in London and such a large number of these had defects of vision that two years ago the Board decided thoroughly to investigate the condition of the children's eyesight. The children in our schools are divided into three departments:

1. Boys [illegible] between 8 and 14 years of age.
2. Girls [illegible] " 8 " 14 "
3. Infants [illegible] " 5 " 8 " both sexes.

The work was carried out on purely scientific principles. A child was taken to have normal vision who distinguished objects subtending an angle of one minute, this being determined by the ability to recognize letters 5 millimetres square [illegible] Only children in the boys and girls departments were to be included in the test, and it may

[illegible] Congress of School Hygiene at Nuremberg.

be stated briefly that 10 per cent. of boys and 11 per cent. of girls on an average throughout school-life were found to have such serious defects of vision that their visual acuity was $\frac{1}{2}$ or worse.

In addition to this I last summer very carefully tested the visual acuity of 1,864 infants between 6 and 8 years old, 100 of each sex for every three months increase of age. With children younger than this it was impossible to get trustworthy results.

As a large number of these infants did not yet know their letters, the letter E was made in various sizes and positions to correspond with Snellen's test types $\frac{5}{5}$, $\frac{5}{6}$, etc. The infant was placed six metres away, given a large E to hold, and told to turn it in the same direction as the one indicated—upwards, downwards, backwards, or forwards—and rewarded with a sweet every time it got it the right way upon the first trial.

The results were very surprising, for it was found that at exactly six years of age 81 per cent. could read $\frac{5}{5}$ with each eye separately, and only 3·5 per cent. had such serious defects that they could only see $\frac{5}{18}$. The defects, however, steadily increased with every quarter of a year of age, until at 8 years old only 77 per cent. could see $\frac{5}{5}$ with each eye, whilst 8 per cent. had serious defects.

These results were so contrary to statistics published hitherto that Dr. Kerr, the Principal Medical Officer to the Board, suggested submitting a large number to re-examination by the ordinary methods, and he and I together went over them. It was now found that when tested with the ordinary Snellen's test types a much larger number apparently had bad vision, but with this method of E the vision of infants was as is stated above.

The reason for this difference I shall endeavour to prove is simply that the higher brain centres are as yet undeveloped, and that the methods hitherto employed for testing the eyesight of very young children have been at fault. Defective visual acuity, in short, has been confused with want of perception by the brain and the serious defects among children aged 6 years are only 3 per cent., a percentage which steadily increases until at 11 years old it reaches 11 per cent., and then gets somewhat better again.

This great deterioration is extremely serious. The eye being the chief inlet for knowledge it means that at least 25,000 children are being seriously handicapped in all their pursuits. The shortsighted child cannot see the blackboard, a ball in play comes suddenly out of nowhere, a human face is an expressionless patch, and, never seeing its expression, he grows up without any power of estimating character from observation. As he does not care to look at what he cannot see his chief delight is to pore over a book. This, as I shall show, only increases his defect of vision, and, moreover, since he sits all doubled up with his head bent low over the book, the movements of respiration are hampered, which predisposes him in after-life to organic diseases of the heart and lungs.

Therefore, it is of the utmost importance to discover what is the cause of the deterioration of vision, and to prevent it or cure it as the case may be.

Normal Changes in the Eye from Birth to Old Age.

A normal eye is one in which the focal length of the lens at rest is equal to the axial length of the eyeball posterior to the lens, and in which the retina is of normal structure and sensitiveness to receive the disturbances and vibrations of ether known as light. Given these conditions a perfect image is thrown on to the retina from every object which is placed in front of it at a sufficient distance for rays of light from it to arrive on the front of the eye practically parallel. In order that correct images of near objects should be accurately focussed on to the retina the normal eye possesses three faculties: (1) Adaptation, (2) accommodation, (3) convergence. The intelligent appreciation and interpretation of things visible, however, is a function of the very highest order, necessitating not only that the eye should be perfect as an optical instrument, but in addition that the higher visual centres situated in the occipital cerebral cortex and elsewhere in the brain should be fully developed and in good physiological working order.

The changes which occur in the eye itself during life are chiefly concerned with accommodation which depends partly on muscular contraction and partly on the elasticity of the lens. If, therefore, that elasticity is diminished (as it is in old age) beyond a certain point, accommodation will fail. The eyeball in infancy is short or flat and hypermetropic, but the lens is relatively larger, more hemispherical, and much more elastic than it is in after-life; therefore its amplitude of accommodation is greatest at birth so much so that the shortness of the eyeball is then more than compensated. By about 11 years of age the eyeball has grown and elongated so as to be emmetropic—that is to say, the focal length of the lens equals the length of the posterior chamber. Throughout life the elastic tissue in the whole of the body gradually lessens, and the elastic tissue in the coats of the eyeball shrinks, causing it to become somewhat flatter again. The lens itself loses its elasticity most markedly and steadily, and with this loss the amplitude of accommodation gradually diminishes until by the age of 50 the normal eye is incapable of accommodating for objects nearer than 10 in.

Changes during Life in the Visual Centres of the Brain.

The dissociation between the reception of visual impressions by the eye and the perception of them by the brain is a matter of everyday experience. Who is there amongst us that has not at some time or other pulled out a watch, looked at it, and after replacing it in the pocket realized that the time had not been noticed? There is a distinct remembrance of the facepiece having been impressed upon the retina, but owing to the ultimate visual cerebral centres or the passages to these centres having been obstructed by thoughts or cerebration on other subjects the details of the facepiece of the watch passed unnoticed, and failed to arouse any consciousness of their significance.

Somnambulism is another familiar example of the cutting off of these higher from the lower centres. Here all actions are performed automatically, visual impressions being received and acted upon without the concurrence of conscious thought. The young infant, whose higher centres are only partially developed, will be unable to explain which letter is D and which is G and to give a name to them, but yet the eye may be capable of receiving a perfectly accurate visual impression, and by exercising the faculty of mimicry (which is developed extremely early and is present in several of the lower animals), it may copy the position of an E held up to it every time it receives the impression; especially will it do this if its sympathies are engaged by its being rewarded every time it gets the position right on the first trial.

The progress of the development of these higher centres is best watched by noting the development of the fusion faculty—that psychical blending of the two sets of visual impressions when the two eyes act together as a pair which produces binocular vision. A newborn child fixes a light from a mirror flashed into its eye only momentarily, therefore the fixation must be purely reflex. In two or three weeks it fixes it for two or three seconds, but does not converge accurately. It is only by the fifth or sixth month that experiments with prisms show a distinct desire for binocular vision.

During the first few months want of control by the higher centres resulting in muscular inco-ordination causes the movements of the eyes to be uncertain, the slightest disturbance, even a little flatulence, causing one or other eye to deviate. But by the end of the first year the desire for binocular vision is so strong that unless there is some insuperable obstacle the vision of one eye will be suppressed in preference to enduring diplopia. Experiments with Worth's amblyoscope prove that this fusion faculty is not fully developed normally until the sixth or seventh year. Therefore the higher centres cannot be developed until then.

The Cause of the Rapid Deterioration of Vision during School Life.

At 6 years of age 3 per cent. have seriously bad vision, and 88 per cent. can see $\frac{5}{5}$ with each eye; at 11 years of age 11 per cent. have seriously bad vision, and only 58 per cent. see $\frac{5}{5}$ with each eye. The rest have slight defects.

In farming districts, where vocations demand no accurate vision, no necessity for care of the eyes arises; but if children from these communities are sent to school the problem of how to prevent injury to the eyes soon obtrudes itself by the appearance of headache, pain in the eyes, impaired vision, undue sensitiveness to light, and increased lachrymation. Examination reveals tonic cramp of accommodation and hyperaemia of the optic nerve, choroid, and retina. These symptoms subside under rest, and recur when work is resumed.

If accommodation and convergence are not sufficient to overcome the hypermetropia of infancy, the child brings its eyes very low down on to its work, as the larger retinal image and increased illumination more than compensate for the less

accurate definition and the muscles of accommodation are strained to their utmost. A sustained and strenuous effort is demanded of all the ocular muscles. The continuous contraction of the internal recti renders them liable to overpower their antagonists and become a factor in the causation of squint. More important is the pull which the muscles of accommodation exert upon their points of insertion, they distort the eyeball and tend to lengthen it antero-posteriorly. This elongation produces myopia, which when caused in this way is more likely to attain a high degree and become ultimately perilous than when it existed as an original proportion. All recorded cases which have passed from hypermetropia to myopia have done so by astigmatism, no one having been emmetropic at any stage.

The small or hypermetropic eye is always found in animals, in infants, in uncivilized races, and in those who pass their lives in employments of the grosser sort, whilst myopia is almost unknown under these conditions of life. It is with the greatest rarity that the adult Indian outgrows his hypermetropia. Unfortunately I did not take statistics, but, when doing a large practice amongst Kaffirs, I was never once consulted about short sight, or even asthenopia.

Myopia results only under the stress of those employments which require the protracted use of the eyes for near work. Half a century ago Professor Donders laid down the law that "the myopic eye is a diseased eye." Myopia increases steadily with the progress of pupils in school; it is the characteristic of the student or of the artizan who began accurate near work early in life. Among the compositors of Breslau, Cohn found that no less than 51 per cent. had myopia. Risley found the same great percentage among the compositors and brass-founders of Philadelphia. Among the students in various German universities Cohn found 22 per cent. to 28 per cent. were myopes. Erisman showed that among 1,245 myopic children in St. Petersburg only 5 per cent. were free from pathological conditions of the choroid. Horner kept 1,875 myopes under observation, and no less than 34 per cent. developed the gravest complications later on, such as haemorrhages into, or detachment of, the retina, optic atrophy, etc.

Indications for Treatment.

A child compelled to struggle with a sign is negligent of the thing signified. Its nervous energies cannot be directed into two channels at the same time. Therefore if its senses are defective it cannot take the full advantage of its education.

The public duty of providing an education which is to be the preparation for the child's after-life should include the duty of ascertaining whether that education is likely to inflict serious and permanent physical injury upon it.

It is very hard to expect some degree of physical deterioration will not result from depriving the child of its free play and confining it to lessons, and since the eye is the organ upon which the greatest strain falls, it will be the eye which is most likely to suffer.

All eyes should be tested immediately on the child beginning its education. (1) As to visual acuity, (2) as to rapidity of perception (vide Colour Blindness).

All children whose visual acuity is subnormal should be [illegible] at once, and if there is any excessive degree of hypermetropia or myopia glasses should be worn until it is outgrown. Spectacles for these should be regarded not as an evil, but as a temporary protection against the evil of defective vision.

With regard to continuing myopes, it is very questionable whether the child should be allowed to continue its studies at all. Certainly no more work should be done than is absolutely necessary. A special curriculum should be devised for them which will fit them for a normal career in after life, but not involve any strain on the eyes.

Children with errors of refraction should get as near to their work as possible. The hypermetrope, to get a larger image, the myope, to get an image at all. Spectacles may do away with the necessity, but the directions hold true. The thing to be aimed at is a near point which will keep the type at least 12 in. off the book. Kollmann's of Brixton is the best.

Never rest when there is an error of refraction combined with a defect in the fusion faculty. I have found it present in 42 per cent. of children under 8 years of age. It is of the utmost importance to cure squint with the greatest speed as early as possible. Before the child is 6 years old it is easy to do so by correcting the refraction and exercising the fusion faculty with Worth's amblyoscope. After that it is a matter of considerable difficulty. Only 30 per cent. of squints can be cured by glasses alone, the rest requiring operative treatment, etc. Squinting eyes become amblyopic from continued suppression of vision to prevent diplopia.

Colour sense is as often untrained as absent, therefore attempts should be made to develop it.

The Type of Children's Books. It has already been most ably pointed out by Dr. Kerr that pens, pencils, paper, etc., are utterly out of place in an infants' school. They are much too minute. Infants should only be allowed chalk on cardboard. Reading should be learnt from the blackboard. Every child in a 6-year-old class should be able to print its name in 6 in. letters on the blackboard with a free arm. Fine writing should be absolutely forbidden. In order to be distinguished, letters must subtend an angle of at least five minutes, and the lines of which they are composed at least one minute. This requires the utmost endeavour of an emmetrope, being the limit of normal acuity of vision. Therefore it is obvious that a hypermetropic infant should not be set to small print. At no time during school life should type smaller than pica be used.

Parents among the lower orders are so astoundingly ignorant with regard to the care of their children's eyesight, that it is impossible to rely on them to get defects attended to. They invariably imagine the child will in time "grow out of" any defect. Glasses they regard as a disfigurement worse than sore eyes, or else as an adornment for Sundays. Many children also run grave risks by their parents taking them to sight-testing establishments, certified opticians, etc., who are rightly prevented by law from using atropine, and who therefore prescribe wrong glasses.

Conclusion.

No child's eyes were intended by Nature to undergo the strain of accommodating over lessons for six or seven hours every day of their lives between 4 to 14 years of age.

If, however, compulsory education enforces it, it becomes the duty of the Board of Education annually to separate those 20,000 children or more whose vision is so defective that they are unfit physically, to devise for them a specially modified curriculum, and to provide them with glasses if their parents are too poor or too ignorant to do so. This is the type of case, common enough, I am referring to.

Boy, aged 11, rest of his class I examined yesterday, but he was absent, as he stopped at home to help his mother, who is a widow with five younger children, do the washing. He suffers from headaches, squints, sees double, and has blepharitis. His class is at present doing algebra, a subject in which he makes no progress, as sometimes the figures are all a blur and at others they jump about.

Such children are as unfit to become students as cripples are to become soldiers.

There is plenty of skilled manual work to be done by the class which is so poor that the public has to pay for their education, and they should be taught from their earliest infancy to regard this as their special lot in life.

For if the child with defective vision has its weak eyes overstrained, not only does he as an individual suffer, but also future generations, to whom the welfare of the nation is to be entrusted, it being a well-proved fact that there is no defect more likely to be transmitted from parent to child than that of defective eyesight.

OBSERVATIONS ON AN EPIDEMIC OF SCARLATINA.

By BERTRAM THORNTON,

Senior Surgeon, Royal Sea Bathing Hospital, and Medical Officer of Health, Margate.

The following notes on a recent epidemic of scarlatina will be of interest on account of the mildness of the symptoms in a large proportion of the cases, only 31 children out of a total of 90 showing any signs of a rash.

The not infrequent occurrence of very mild cases of scarlatina, with little or no perceptible rash or indisposition, is not dwelt upon with sufficient emphasis in the usual textbooks.

The epidemic occurred in a school of 300 children (boarders), to which I am medical officer, and was a source of much anxiety on account of the absence of all symptoms of illness in a large proportion of cases and the consequent difficulty of selecting cases for isolation. At the outset I may note that the milk supply was above suspicion, and that there was no scarlatina in the neighbourhood.

Early in October, 1902, my attention was called to a child

who was clearly peeling after an undiscovered attack of scarlatina; the child had apparently been in the best of health, and, as far as was known, had not been in contact for at least six or eight weeks with any but her fellow school children. As I anticipated from an exactly similar experience on a former occasion, this case was soon followed by others, and the outbreak continued till June, 1903, before it was stamped out.

Before dealing with statistics, I will note the following particulars relating to examination and isolation.

On the discovery of the first case, all the children were examined by myself, and subsequently, twice daily, by the matron and two nurses, who had all had considerable experience of scarlatina, for the slightest evidence of any rash, sore throat, or peeling; cases of the least suspicion were detained for my inspection. All cases of sore throat were specially isolated, however slight. Undoubted cases were immediately sent to the District Fever Hospital till it was unable to take any more. The remainder were nursed in the institution infirmary, an isolated building in the school grounds. The Committee engaged a large empty building outside the town, and to this house all the convalescent cases were drafted till the peeling stage was accomplished.

All the children who were peeling had a daily hot bath with carbolic soap, and were subsequently rubbed with carbolic oil; some of the more obstinate cases of feet peeling were subjected to the more heroic measures of strong soda water and pumice stone. The usual precautions were taken on sending the children back to school.

The total number of cases was 96; this number includes 3 children who had two distinct attacks.

E. S., October 15th to April 15th, rash etc.; June 12th to October 4th, peeling.

A. W., December 15th to February 15th, rash, etc.; May 20th to October 3rd, peeling.

N. M., October 15th to December 15th, rash, etc.; June 11th to October 3rd, peeling.

One boy sent to the District Fever Hospital with rash and other typical symptoms on May 27th developed another attack with rash, sore throat, and temperature of 104° F., while he was still in hospital on August 7th—that is, seventy-two days after admission; this boy did not return to school for eighteen weeks.

The cases may be divided into three classes:

Class I (31 cases). Typical cases, with rash, sore throat, and elevation of temperature, usually not more than one or two degrees.

Class II (19 cases).—Children who had no observable rash, but only slight redness of tonsils and from one to two degrees of fever, with characteristic peeling beginning during the second or third weeks. These were all isolated on suspicion.

Class III (46 cases).—Children who simply peeled, and although specially examined daily, showed no signs of the slightest indisposition.

With reference to the cases under Class I, I may add that they were all fairly typical, though most of them were not at any time really ill. Nearly all of these were sent to the District Fever Hospital and mixed with scarlatina cases from other sources, as well as a large proportion of cases from Classes II and III; none of them contracted a fresh attack after admission, except the boy mentioned above. This fact may be taken to prove that all the cases were bona-fide cases of scarlatina. My diagnosis was also in all cases confirmed by Dr. Lorimer Sawers, the acting medical officer to the Fever Hospital.

One remarkable feature of the epidemic was the unusual length of time occupied by the process of desquamation. It will be seen from the subjoined table that the mildness or absence of symptoms was not necessarily followed by a shorter period of peeling, but if anything the process of desquamation was prolonged in the cases which showed no initial symptoms of illness.

For precautionary purposes, I considered cases were unfit to return to school in which there was any appearance of ragged skin about the hands and feet, but I did not regard a fixed patch of hard skin on the sole of the foot as technical "peeling," and therefore infectious, after eight or nine weeks from the beginning of the disease. Doubtless, infection had ceased in many instances before I felt justified in permitting them to return to school.

It is not improbable that some of the cases of prolonged peeling were due to reinfection without general symptoms.

In a few instances the children discharged from the District Fever Hospital with desquamation apparently quite accomplished, started peeling again a few days after admission to the convalescent house to which I sent all children previous to allowing them to return to school.

Duration of the Disease till the End of Desquamation.

Weeks ...	...	...	...	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Class I. cases ..	...	...	..	1	—	7	2	1	—	1	1	—	1	4	—	1	1	1	—	—	—	—	—	—	—	—	—	—
Class II. cases	...	...	..	1	—	2	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class III. cases	...	...	..	4	4	21	2	—	1	2	—	9	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—

* Portions of weeks omitted.

Although a large staff of teachers and servants were exposed to infection no adult contracted the disease. There was no case of serious illness except one boy who developed an attack of acute tuberculous pneumonia (Osler), and died after his return home, about four months after he contracted scarlatina. There was one case of suppurative adenitis.

The main school buildings were fumigated by the local sanitary authorities and by the school staff two or three times during the outbreak, but as the exposed surfaces of the school rooms, dormitories, corridors, etc., amounted to several acres of wall, floor, and ceiling, it was not possible to be certain that every corner of the building was efficiently disinfected.

My own view, however, was that the children themselves were chiefly instrumental in passing the disease from one to another before they showed any symptoms which justified their isolation.

The total extra cost to the institution of house hire, nursing, and disinfection was approximately £950.

This sum does not include the cost of feeding the children, the cost of maintenance at the Fever Hospital, or the provision of a new supply of school books, etc., to replace the whole outfit which the Committee ordered to be burnt.

It is unnecessary to comment on the appalling cost to a public institution of such an epidemic, but in the present state of public and professional opinion, it is not possible to relax any of the usual precautions; the well-known fact that scarlatina varies so much in virulence in different epidemics makes it compulsory to treat the disease with respect. In conclusion, I would suggest that from a financial point of view, it is most desirable that an attempt should be made to come to some definite conclusion as to the duration of the period of infectivity in scarlatina.

Dr. Klein and Dr. Mervyn Gordon have been making investigations on the bacteriology of scarlatina, and have, I believe, come to the conclusion that the micrococcus scarlatinae is the active agent in this disease, that it can easily be found in the throat secretions, and is rarely to be found in the nose, in the ear discharges or in the cuticle. If these observations are correct, the time is approaching when it may be possible to materially limit the detention of scarlatinal cases in quarantine, and the present rule-of-thumb method of detaining patients till desquamation and ear discharges have ceased may be superseded by the more precise and scientific proceeding which now obtains in diphtheria. The saving in time and money to the community if it is possible to shorten the time of isolation and limit the number of return cases will be enormous.

Health authorities might also take into consideration the possibility of economizing public funds by providing, on the sites of fever hospitals, an annexe for convalescent desquamating patients, which need not be constructed on such expensive lines as is necessary for the treatment of the disease in its acuter stages.

THE SURGICAL TREATMENT OF ABDOMINAL ANEURYSM.

BY R. CHAS. B. MAUNSELL, M.B.UNIV. DUB., F.R.C.S.I.,
Surgeon, Mercer's Hospital; University Examiner in Surgery, University of Dublin, &c.

IN discussing the subject of abdominal aneurysm I will not refer specially to aneurysm of the iliac arteries, as I think that ligature or possibly Matas's operation, referred to later on, would be the only methods of operative treatment considered at the present day. With regard to aneurysm of the other smaller abdominal vessels, ligature or excision appears to be indicated if a surgeon should meet with one of these rarities. Henry Morris states that there are only 21 cases of

aneurysm of the renal arteries on record. Caton could only find 11 cases of aneurysm of the hepatic artery, whilst aneurysm of the splenic and mesenteric arteries are merely pathological curiosities.

Aneurysms of the abdominal aorta are not common; they form but 5 to 10 per cent. of all aortic aneurysms; men are about seven times more subject to them than women; they occur most frequently between the ages of 25 and 50, chiefly, if not altogether, in those who have suffered from syphilis some years previously.

With regard to the syphilitic origin of non-traumatic aneurysms in general, Heenie states that in 376 cases collected by him 70 per cent. had syphilis. Heller strongly upholds the view that the disease begins as a syphilitic process in the tunica media.

Within the last few years I have seen 6 cases of abdominal aneurysm, five men and one woman, the ages varied from 24 to 37 years; four of the men stated positively that they had suffered from syphilis; one man, the case related in this paper, had a chancre and a bubo eight years previously; the woman had a history of miscarriages and dead-born children which pointed strongly to syphilitic infection, also the necropsy showed extensive arterial disease.

It is generally estimated that at least 70 per cent. of abdominal aneurysms arise from the aorta above the superior mesenteric artery, the origin of the coeliac axis being the part usually most involved, about half the sac arising at the apex of the anterior wall of the aorta, the remainder growing backwards, eroding the vertebræ or ribs. The aneurysm may be fusiform, sacculated, or dissecting, or may present a combination of these primary forms.

It is important to remember that general arterial disease frequently coexists, and that in many cases intrathoracic aneurysm may be present. It is beyond the scope of this communication to enter into a discussion on symptoms and diagnosis, but I would point out the frequency of stomach symptoms, constipation, obstinate constipation and pains referred to the bladder or back, which often lead to an erroneous diagnosis, and to the fact, pointed out by Foot,[9] that in women the symptoms may be few and the disease entirely overlooked.

Spontaneous cures are not unknown and from time to time small aneurysms are found in persons dying from some other complaint, but the ordinary termination of the disease is death from internal or external hæmorrhage, either a period varying from a few months to three years or more elapsing under observation.

The treatment of Bellingham and Tufnell by absolute rest and starvation, etc., is now rarely used in abdominal cases, as patients recover, if cure by it is extremely doubtful and the mortality is unimproved by it, it is however frequently used in a modified form in connection with any of the more modern methods. The administration of large and increasing doses of potassium iodide appears to be quite unnecessary, except and it have been used in many cases, but is probably worthless in establishing itself in the system, but the gelatine treatment of Lancereaux and Bertrand is hardly yet worthy of consideration, though further experience may lead us to suppose it has great [illegible].

In the [illegible] surgical procedures we need merely consider the [illegible] of Macewen, or the galvanopuncture of Vella and the ancient measure of Valsalva, namely, the [illegible] and the [illegible] of using them would be after laparotomy [illegible].

Dr. [illegible] of the Middlesex Hospital [illegible] cases [illegible] of the [illegible] leading on the second and [illegible] years of [illegible] by [illegible] whilst [illegible] much relieved, [illegible] the [illegible] in the [illegible].

[illegible] operation. Both [illegible] and [illegible] up to [illegible] were [illegible] with [illegible] fatal cases a necropsy was obtained, and all showed that the presence of the wire had induced firm clotting.

In a search through surgical literature I have been able to find eight cases of abdominal aneurysm treated by Moore's method, with three cures of the aneurysm. The operators were Loreta, Morse, Pringle and Morris, Lange, Stevenson, Langton, Parham, and D'Arcy Power. The cases which did best were those in which from 3 ft. to 6 ft. of wire were used, and Moore himself considered that he had used too much wire in his thoracic case.

In 1879 Corradi modified Moore's method in a case of aneurysm of the ascending aorta, by passing 17 in. of annealed wire through a cannula, passing a current from a galvanic battery of 12 cells for 25 minutes, the anode being attached to the wire which was subsequently pushed under the skin. The patient improved, but died thirteen weeks later. No necropsy was obtained. G. L. Hunner[15] has collected 23 cases of thoracic and abdominal aneurysms treated by this method with 4 cures, 1 considerably benefited and life prolonged, and 10 in which death was probably hastened.

I have been able to find 7 cases of abdominal aneurysm treated by the Moore-Corradi method, which I think represents all cases published up to the present date. The operators were Stewart, Noble, Halsted, Finney, Reeve, Finney, and Matas, which, with the present case, brings the total to 8.

In this list we can only claim one cure, which compares badly with Moore's method, but the cases are too few for definite conclusions, and careful study of all cases, both thoracic and abdominal, besides experimental data and scientific reasoning, lead steadily to the opinion that Corradi's modification is the better operation. D. D. Stewart, who has written a most valuable article on this subject, thinks highly of the method. He considers that the wire should be fine drawn, so that it will tend to coil spirally, and should be made of silver, gold, or platinum, not of steel or hard iron, as it may snap or perforate the sac; not of soft iron, as it will be decomposed by the electric current, leading to embolism. In his opinion too much wire is used by most operators. In a sac of 3 in. diameter 3 ft. to 5 ft. of wire is sufficient, and for a very large sac 8 ft. to 10 ft. He recommends that the anode should be connected to the wire, and the cathode connected to a clay plate applied to the patient's back or abdomen, a current of 40 milliampères to 80 milliampères being passed for forty-five minutes to an hour and a half.

Rudolph Matas[17] is very despondent; he says that, if thorough clotting were to take place in the coeliac region, the blood supply would be cut off from the abdominal viscera; that there is a danger of throwing extra strain on weak spots in the sac; the sac may be perforated by the wire, or the wire may travel up the aorta to the heart. Gangrene may follow clotting; rupture of the sac may follow diminished pressure when the abdomen is opened, etc.

He thinks that the operation should only be performed when the patient is young; when the sac is small and thick walled, arising below the superior mesenteric, or, if above this, when on the side or posterior aspect of the aorta. G. L. Hunner is more enthusiastic and hopeful; he advocates using 15 to 20 ft. of fine-drawn wire, 75 parts copper to 25 silver, passed through a cannula insulated by French lacquer. He says that on no account should both poles be connected with the sac, nor should the cathode be connected with the wire, as gas would be evolved with the formation of soft clots, and not firm clot such as is formed around the anode. He says that clot is formed better on silver than on steel, as it presents less resistance, and also is more corroded by the current. Twenty to two milliampere currents were used by him in experiments upon dogs, the clotting being as good with the smaller current, whilst the stronger current distinctly injured the aortic wall, where the wire came in contact with it; therefore he advocates comparatively weak currents. His reasons given by him in favour of the copper and silver alloy are that it is finer and coils better than silver; it coils [illegible] and is more easily corroded than steel, thus affording a good clotting surface.

I will now briefly relate the history of my case, and describe the technique of the operation as carried out on it.

[illegible] stated that eight years ago he was [illegible] but he does not appear to have been [illegible].

About a year ago he began to [illegible] pain in [illegible] and shooting pains in his back, he some [illegible] and vomiting occurred [illegible]. During the past six months he had wasted considerably.

State on Admission.—He was sent to hospital as a case of gastritis or gastric ulcer, but my colleague Dr. Lumsden, under whom he was admitted, found upon examination that there was a distinct pulsating tumour in the left epigastric region. Upon closer examination this tumour appeared to be about the size of an orange, was firm, and pulsated in an expansile manner; it descended slightly upon inspiration, and then appeared to be connected with a larger mass which descended from beneath the left costal margin. The apex beat of the heart was situated outside the nipple line in the fourth intercostal space, but there was a diffused pulsation all over the lower part of the left chest. The second sound of the heart was accentuated over the aortic area, and a rough systolic *bruit* could be heard over the tumour and lower left chest, but could not be heard behind. The patient was kept under medical treatment for a month, but as the tumour rapidly increased in size and pulsated more vigorously, Dr. Lumsden requested me to take charge of the case, with a view to operative treatment, as the patient and his relatives were extremely anxious that something should be done, no matter how risky the procedure might be.

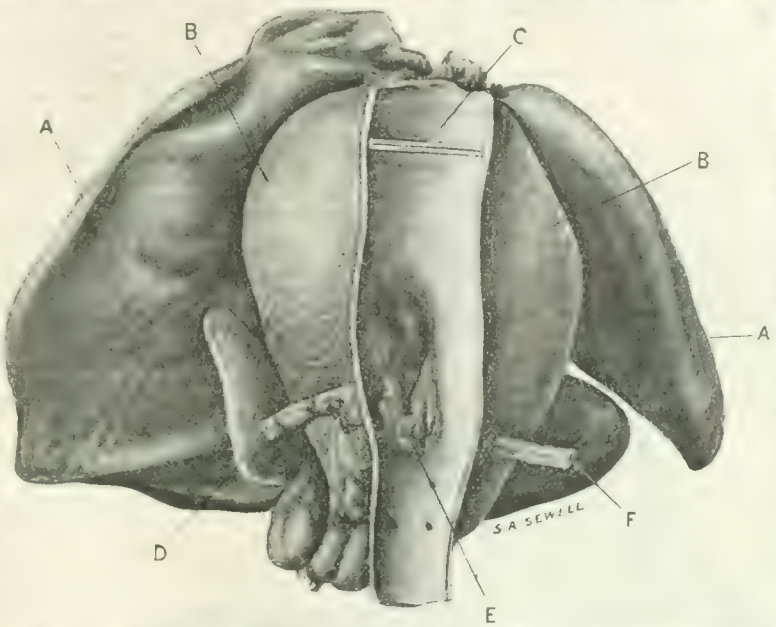


Fig. 1.—A, stomach; B, aneurysm; C, aorta; D, pubes; E, superior mesenteric artery; F, renal artery.

Operation.—On July 22nd, 1903, ether having been administered, the abdomen was opened by an incision extending from the ensiform cartilage almost to the umbilicus. The aneurysm was found to be very large, filling the whole left cupola of the diaphragm, pushing the liver over to the right; the stomach was stretched like a strap across its lower and left aspect, the gastro-hepatic omentum was incorporated with its anterior wall. No aorta could be felt above the tumour, which appeared to insinuate itself between the crura of the diaphragm, but below the transverse mesocolon the aorta could be easily made out. The small tumour, felt clinically, was the overhanging lower margin of the large aneurysm, which at this point appeared very thin-walled and progressive. A pursestring suture of No. 3 plaited silk was now passed enclosing an area the size of a shilling on the anterior aspect of the tumour, and the ends were clipped in a forceps. The peritoneal cavity was packed off with gauze pads, and a fine trocar and cannula plunged through the sac in the area surrounded by the suture, the point of the trocar being directed towards the left and upwards. The cannula had been previously insulated by coating it with ordinary sealing wax. There are some practical points which might be here mentioned. The trocar and cannula should be sterilized by boiling, then the operator or his assistant, having sterilized his hands, holds the cannula in the flame of a spirit lamp until it is fairly hot, next he places a few drops of previously melted sealing wax on the cannula, and, by alternately rotating it and passing it through the flame, forms a thin even coat of sterile wax, which is now hardened by placing the cannula in cold sterilized water until needed at the operation. The cannula should not be placed in carbolic lotion, as this softens the wax and renders it useless. Having withdrawn the trocar only a drop or so of dark blood came through the cannula, and now a piece of No. 22 silver wire, previously sterilized by boiling, was passed into the aneurysm, always keeping the cannula pointed to the left so that the wire might not enter the aorta. The wire passed freely through the cannula, and when six yards had been introduced the remaining portion of the wire was removed from the reel, passed through a sterilized rubber tube, and attached to the anode of a galvanic battery, the circuit was completed by attaching the kathode to an electrode which rested on gauze pads, soaked in salt solution, which were placed on the patient's sternum. During the first five minutes the current was increased from 1 to [illegible] milliamperes, at which strength it was maintained for thirty minutes and then again brought to [illegible]. The battery should be fitted with a collector which prevents the shock of make and break whilst increasing or diminishing the current. The wire was now cut short, the end pushed home, and the cannula withdrawn. Early smart haemorrhage came from the cannula puncture but was easily stopped by tightening the purse string suture. The abdomen was closed in layers by sutures of silk and silkworm gut. During the passage of the current the tumour became firmer, smaller, and pulsated much less distinctly.

After Progress.—After the operation the patient's pulse was 112, and respirations 42, but in a few days both resumed a perfectly normal rate. The temperature throughout remained normal, except on the eleventh day after operation when it reached 101° for a few hours, owing to a superficial infection of the scar which had been healed and without dressing for some days. The after treatment consisted of fluid in small quantities for the first ten days, then a special amount of bread and milk puddings until the thirtieth day, when he was allowed chicken, etc. For the first few days rectal injections of gelatine solution were given, but they irritated the bowel and were stopped. After the first week he was given 30 gr. of calomel chloride three times daily, but this seemed to cause dryness and itching of the skin, with branny desquamation and was stopped in a fortnight. The patient periodically suffered from pain in the abdomen and back, for which morphine was given, but he expressed himself as feeling better than he had been for the past year, and he certainly looked well and enjoyed life very much. For a fortnight after the operation the aneurysm appeared bigger than before, and the heaving of the left side of the chest was very marked, but from that period onwards it grew smaller and smaller, the pulsation ceased in the chest, the heart resumed almost a normal position, and the impulse felt in the epigastrium was no longer expansile in character.

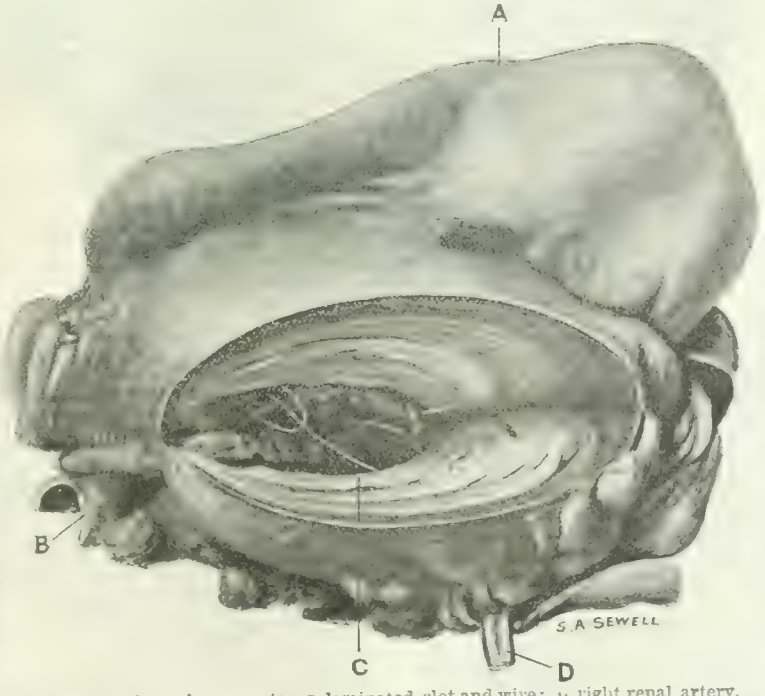
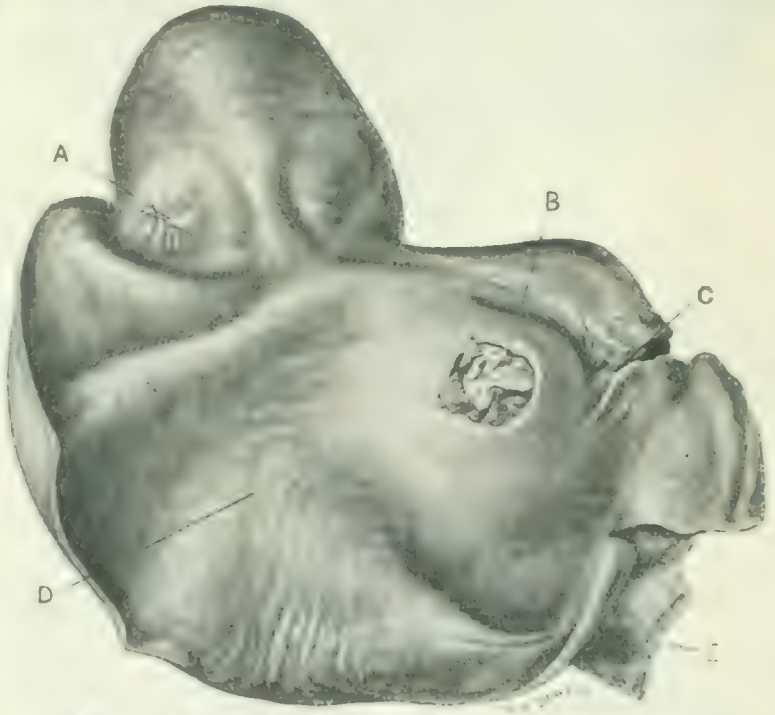


Fig. 2.—A, stomach; B, aorta; C, laminated clot and wire; D, right renal artery.

Result.—About forty days after the operation he complained of pain in the point of his left shoulder, which became constant and severe, needing repeated injections of morphine for its relief. On the forty-fifth day he vomited several times; on the forty-sixth day he vomited blood and became weak; on the forty-seventh day he became progressively weaker and died.

Necropsy.—Leave was with difficulty obtained to reopen the abdominal wound and examine the aneurysm. The stomach and intestines were



has since made experiments upon dogs, and suggests that temporary proximal clamping of the aorta could be used, and has devised an instrument for this purpose. He states that, in dogs, the aorta may be clamped for as long as twenty-four to one hundred and ten hours without causing permanent changes in the parts below the obstruction. More lately Robert T. Morris[22] records a case in which he used a distinctly new procedure, namely temporary distal ligature by means of a rubber catheter passed around the aorta, at a point 2 in. below the aneurysm and 1½ in above the aortic bifurcation. He removed the constricting band in twenty-seven hours, the aneurysm being completely consolidated, but unfortunately the patient died three days later from sepsis due to sloughing of a piece of intestine which had been injured by the clamp which secured the catheter. This method seems well worthy of further trial.

R. T. Stratton[23] records several experiments made upon dogs, and advocates the gradual occlusion of large arteries by means of a waxed tape, worked on the principle of an *écraseur*, being tightened or rendered slack by means of a special instrument. The latest suggestion which has been made is that of Rudolph Matas,[23] who has devised—and practises—an operation in which, during proximal control of the circulation, the sac is laid open, cleared of clot, a portion isolated to represent the original vessel, and the rest of the walls infolded by means of several layers of sutures. He has performed this operation successfully four times in aneurysms of the extremities. R. T. Morris[22] has used this method in a fusiform aneurysm of the popliteal artery, and thinks that it could be easily applied to abdominal aneurysms. Doubtless many abdominal aneurysms are beyond receiving benefit from any form of treatment, but I think that, with a careful choice of one of the methods of operation mentioned in this communication, we may yet save a fair proportion of these cases which are by many considered doomed to certain death.

REFERENCES

THE UNITED STATES AND UNDESIRABLE IMMIGRANTS.—A Bill is now before the New York State Legislature which provides for a State Board of medical experts to be stationed at [illegible] Island to inspect immigrants, for the purpose of excluding those who exhibit such evidences of mental [illegible] as would warrant the probability of their becoming public charges. It is believed that the United States Commissioner of Immigration favours the proposition, and that the necessary sanction can be obtained from the Govern-

A CASE OF PERMANENT CLOSURE OF THE JAW RESULTING FROM INFANTILE PARALYSIS.

BY W. EDWARD MEADS, L.D.S.ENG.,
Bexhill-on-Sea.

ON July 12th, 1903, I was consulted dentally by a patient, Miss E. B., aged 28, to know if I could do anything to relieve her acute toothache. Upon examination, I found the case was one of permanently locked jaws, and the following is the history and particulars of the case:

History.—The patient gave me the following history of her case. When about 18 months old she had a severe attack of whooping-cough, and during convalescence she was given a hot bath. This was followed by two fits in quick succession, and she was taken to St. Mary's Hospital, Paddington, where it was found she had considerable paralysis upon the right side, affecting the lower jaw and the right leg. She remained at that hospital about eighteen months and the lower jaw became firmly closed. From that time to the present the patient had never opened her mouth. The patient had at various times been to several hospitals and seen many medical men. Besides St. Mary's Paddington, she had attended as an out-patient at The Children's Hospital, Great Ormond Street, Paddington Green Hospital, St. George's, St. Thomas's, and the Middlesex. She had also attended the West London Hospital, Hammersmith, for two months in each of three consecutive years. Last time she went there she was told that nothing more could be done except a general operation (I presume from the patient's remarks either excision of the condyle or Esmarch's operation was contemplated). Other medical men had confirmed this opinion. At one hospital they made seven attempts under chloroform presumably to break down adhesions surmised to exist at the articulation of the mandible. The patient had during these years eaten most usual foods, cut up finely, and with pepsinogen; and for years she had fed herself by pushing the food up between the upper and lower incisors (the former I conclude being somewhat anteriorly protruded), and had worn down her finger nails in the process. Some five years before I saw the case a dentist had operated under gas, and had broken off the crowns of three upper and three lower incisors, leaving the roots still in. Through the aperture thus gained the patient had since fed herself with more ease and comfort.

Condition on Examination.—The patient, small and somewhat fragile in appearance, but otherwise apparently healthy, had her lower jaw almost immovably fixed, with the lower teeth in close contact with the upper teeth. The patient possessed a complete set of permanent teeth, which were interlocked and the jaw firmly fixed. On the right side the whole of the upper and lower teeth and the outer gums were covered by a shield-like mass of tartar, which the patient imagined was some bony development on her jaw. Most of the teeth were more or less carious, and the immediate cause of the patient coming to me was pain in or about the second upper right molar. The whole mouth was in most septic condition, with much tartar, spongy gums, and some pus exudation, while the breath of the patient was so offensive that it was becoming more and more detrimental to her in her business that of a lady's hair-dresser and wig-maker. The patient had the crowns of three upper and three lower incisors missing, but the roots were still remaining. These were the roots left in from the operation referred to above. The patient had no temporary teeth or roots remaining, though how these were disposed of I could not ascertain. The patient informed me that her temporary teeth were quite close together, though she thought not so locked as the permanent teeth. She had never had any temporary teeth extracted. There was no trismus of the muscles, and the jaw could be moved to the smallest possible extent by the patient. This movement was at the most not more than ⅛ in. between the front teeth, and, though this was perceptible, for all practical purposes the lower jaw was immovably fixed. This slight movement, however, seemed to indicate that the muscles were not in a state of trismus or tension, and also that the fixture of the jaw was not due to ossification of the mandibular condyle. Beyond this very slight movement referred to no further movement of the mandible could be obtained by passive manipulation. Owing to the mandible never having been used it presented a remarkable example of non-development from non-use. The mandible was narrow, thin, and apparently fragile, the horizontal ramus passing almost imperceptibly into the ascending ramus without the development of much angle. Neither was the general contour of the chin developed, there being practically no chin apparent, but passing from the neck to the face gradually. Both these abnormalities were more conspicuous on the right, the paralysed side than on the left, where more development of the angle had taken place. This atrophy, or rather non-development, of the lower jaw, the patient informed me, was not noticeable in earlier life, and did not become so till she was about 12 years old. Although the proper contour of the lower part of the face was thus altered, especially on the right side, the angles of the mandible could be felt in their undeveloped state. At the angle there appeared to be either a nodule of bone or a groove on the lower edge slightly anterior to the angle, probably caused by the lack of development in this locality. The centre of the chin and lower part of the face were displaced towards the left side apparently about an inch—although this appearance was increased by the non-development of the right side—and the left corner of the mouth was slightly drawn downwards. On the face the masseter muscle, though small, showed some development owing to the slight active movement the patient could obtain in this muscle, but most of the other muscles in that region of the face and neck were in an undeveloped condition. Two points of considerable significance were that there was no loss of sensation anywhere, either in the mouth or on the face, and no loss of hearing, and although I inquired I could not find there ever had been any such loss. The paralysed right leg was affected only from the knee downwards. Every other part of the body, except the right lower jaw, was normally developed, and there had been no deformity or loss of power in the right arm or hand. In early years the patient had walked with the right foot very much on one side and had worn leg irons for some time. These, however, were discarded owing to constant breakages, and since then the leg had developed much more rapidly. When I saw the patient she was able to walk well in ordinary boots, though, the right leg being somewhat shorter, there was a limp. One other point was noted. For years before I saw the patient she had had a bilious attack on an average about once in one to two months. When her teeth had been extracted these ceased.

Diagnosis.—I had before seeing the case thought that some trismus of the muscles might have been set up by irritation from an impacted wisdom tooth or some such cause. This, however, was negatived by the extreme fixture of the jaw, even under passive manipulation, and the history of the case. I concluded that central paralysis had occurred as a result of the fits, and had caused paralysis of the right side. During the years that followed, owing to the non-use of the lower jaw, it had become firmly fixed by fibrous adhesions at the mandibular articulation, but without ossification, thus allowing the very slight amount of movement that was perceptible.

Treatment.—Till I saw the patient except for the attempt, apparently, to break down the adhesions above referred to, no general treatment appeared to have been carried out, and the only suggestion was that mentioned by the patient, probably excision of the right mandibular condyle which for financial reasons the patient was unable to carry out. Dentally the only treatment appeared to have been the breaking off of the six incisors also referred to above. Owing to the septic condition of the patient's mouth and the increasing liability to dental trouble from the carious teeth it seemed to me that, if possible, the first treatment was to remove all the teeth, which were not only useless for mastication, but most septic and unsightly. The patient had already suffered a great deal from toothache, sometimes acutely, and the prospect of the increasingly frequent dental trouble in any or every tooth in her mouth was a source of considerable anxiety to her, since she had so repeatedly been told that no further treatment for this could be given, and it was impossible to treat it in the ordinary dental way. With the patient's consent, therefore, I proceeded to attempt the extraction of all the teeth. During a succession of visits I scaled the teeth, as far as possible prescribing antiseptic mouth lotions from the commencement, and I extracted all the front teeth and the roots which which had been left in. This I carried out with a local cocaine solution anaesthetic hypodermically injected as far as possible. The difficulty was considerable, as I could only inject the outer alveolus for the first extractions, and further I could not properly grasp the teeth with the forceps, but had to exercise a forward levering movement, breaking down the outer alveolus. This treatment I carried out with all the anterior teeth back to about the first bicuspids on either side. Then I found myself unable to extract the teeth further back owing to the pain the required leverage gave the patient in the right condyle when forcing the teeth from their occluded position. In consultation with Dr Deck, of St. Leonards, I decided to try and extract the remaining posterior teeth under a general anaesthetic.

On September 28th Dr. Deck administered A C E to the patient, and in the course of an operation lasting over an hour I managed, with considerable difficulty, to extract about ten teeth by taking out the anterior teeth and then levering the next tooth forward and outwards into that socket. Owing to the haemorrhage and the condition of the mouth I left four of the posterior and most difficult teeth for a future operation when the mouth should have healed, and more space would have been obtained by absorption of the alveoli. On November 4th Dr. Deck again administered A C E, and later chloroform, and I operated and removed the remaining four posterior teeth. These operations became increasingly difficult as I came to the posterior teeth since the upper and lower second molars on either side were tightly fixed, crown to crown, with a space of not more than half an inch between the upper and lower alveoli. The difficulties were also increased by the risk of dropping a tooth on to the patient's glottis when in a recumbent position, since the space available rendered this more difficult to avoid and the ordinary methods of recovery almost impossible.

RESULT AND OBSERVATIONS.

The teeth were all of good size originally, but almost all were decayed. Several of the roots of the teeth tended to be slightly bulbous, probably owing to pressure while developing and erupting. This pressure also accounted for the interlocking of the teeth and the slightly forward direction of the anterior ones.

The patient's mouth in the course of a month had very satisfactorily healed and the gums were in a healthy condition, with the alveoli absorbing. The jaw, however, remained still firmly fixed without any further ability to close than to

operation, either actively or passively. The health and comfort of the patient had also considerably benefitted by the operation.

The patient was instructed to exercise the muscles actively as far as she could by contracting them regularly and systematically for a few minutes several times a day. This she could do moderately well as regards the masseter and some of the infra-mandibular muscles. In this way, with the help of massage, etc., it was considered that in course of time, having some more radical treatment, some movement of the muscle might be obtained.

On December 20th I requested Dr. Lee to give his opinion on this case, and he kindly wrote a short statement of his views as follows:

"As you say, in addition to the symptoms your patient is also in the state of hemiplegia, she has two attacks of convulsions, which are the characteristics of infantile paralysis. The spasticity was confined to the right leg, and there was a difference in temperature and in touch between the right and left leg, and the right leg is partially paralysed. There is no doubt of the nature of the convulsions, but I suppose [illegible] can be associated with paralysis of the masseter muscles of the same side as the paralysed limb. I have always learned from [illegible] that the lesions which cause paralysis of the right leg are below the corpora quadrigemina of the right side. The [illegible] of your case would exclude the difference between the two sides of the face, and the paralysis that apparently has affected the muscles which are supplied by the seventh nerve. The [illegible] are supplied in the right lower limb seem to be present on the right side of the face. As the sense of hearing on that side is perfect, and the sense of taste is not [illegible] conclude that the auditory branch of the eighth nerve, and the facial branches of the fifth nerve have not been affected. It would be well to ascertain if you can whether the two attacks of convulsions followed very closely on one another, or were separated by [illegible] if one, and probably the first, was due to the pressure of the tumour, while the second may have been caused by [illegible] the seventh nerve and causing the facial paralysis which has made your case one of great interest. It is probable that by gentle and continued treatment greater movement of the lower jaw may be obtained."

It seems to me that possibly the original tumour may have been the chief cause of the jaw-sprain of which you speak. From a dental point of view the [illegible] is important as [illegible] improvement can be greater in proportion as the [illegible] and strong muscles of the jaw.

I am, etc.,

(Signed)

Edward Lee.

I thought that the [illegible] not.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

APPENDICULAR COLIC.

[illegible] by a [illegible] in my room, [illegible] I had kept [illegible] [illegible] [illegible]

tory expansion of the thin parietal and frontal bones. Bristowe says children are born cretins, or with that peculiar coalescence of the bones at the base of the skull which necessitates the gradual development of cretinism in childhood. In connexion with this, Virchow points out the close proximity of the base of the skull and the thyroid body in the fetus, that arrest of development in one organ might, also, mean an arrest of development in the other.

WILLIAM TEBBLES, L.R.C.P., M.R.C.S., L.S.A.

Nottingham.

ACUTE OR PERNICIOUS BERI-BERI.

IN 1891 I had experience of a case of beri-beri of a similar acute type to that described by Dr. A. Jubb, in the BRITISH MEDICAL JOURNAL, April 9th, 1904. The patient was one of a party of Chinese firemen, shipped, I believe, at Shanghai, men picked to work out a ship from England. At Acheen, Sumatra, about a fortnight's sail from Shanghai, the patient was brought to me with a history of a few days' pains and weakness in his feet and legs, and previous good health. He was a well-built young adult, somewhat anaemic and languid, with some flattening of plantar arches and tenderness of soft parts of feet and legs.

There was no oedema, no ankle clonus could be elicited, and no knee-jerks. Fever, cramps, paresis, and finally paralysis of limbs and lower trunk muscles supervened and the patient died at Port Said after about three weeks' illness, from respiratory and cardiac paralysis. There was much wasting of leg and arm muscles; the phrenic and vagus nerves were markedly affected, but there were no trophic bladder or rectal disturbances. No necropsy was allowed.

I have seen other cases, but never such a rapid one as this, which compares with that quoted by Dr. Jubb. It was associated with overcrowding and the heat of August in the China seas. The isolation of the patient in a well ventilated part of the ship is indicated.

F. G. BUSHNELL.

Plymouth.

LOCAL TREATMENT OF SPECIFIC CUTANEOUS ULCERS.

HAVING seen some striking cases of clearing up of ocular inflammations following subconjunctival injections of mercury cyanide I think it may be interesting to draw attention to a method of treating syphilitic ulcers of the skin, which invariably healed them in a few weeks, even when they had been treated in vain with iodoform treatment for months or years.

The method consists in first dabbing the ulcer with a lotion of mercury perchloride (2 gr. ad. ℥j) and then applying a dressing of silver nitrate (5 to 10 gr. ad. ℥j). Although I never tested the part played by the latter there is little doubt that the principle of the treatment is the local attack on the morbific agent by the mercurial salt. Mercury must have been freely administered internally in many of the cases treated with iodoform, but apparently without effect. In this connexion it is necessary to warn the military surgeon that among soldiers invalided from the tropics there are many cases of a solitary large ulcer just above the ankle. These disappear with marvellous rapidity when hot boracic fomentations are constantly applied, and are evidently not of specific origin, although commonly assumed to be so. Where I learned the above-described method of treating the specific ulcer I cannot remember, but must have read it in some textbook when a student.

M. KELLY, Major, R.A.M.C. (Retired).

Wiesbaden, Germany.

HYDATID CYST IN THE ABDOMINAL WALL.

J. D., a male, aged 25, was admitted into the Lincoln County Hospital, under the care of Dr. W. H. B. Brook, to whom I am indebted for permission to record the case.

In the anterior abdominal wall, above and to the left of the umbilicus, was a circular, flattened, and rather nodulated swelling, about 3½ in. in diameter. The swelling was adherent to the skin over it, which was red, and at one place had given way to allow a little sero-purulent discharge to escape. The patient had only noticed the swelling for a month, during which time it had gradually increased in size. He stated that he rather avoided green vegetables than otherwise, and had no special association with dogs.

I incised the swelling and evacuated pus from a multilocular cyst situated in front of and to certain extent embedded in the muscular wall of the abdomen. From one loculus a piece of hydatid membrane with the typical laminated structure was removed, but no scolices or hooklets could be found in the pus. Between the loculi were thick worm-eaten septa, and upon these Mr. Targett (for the Clinical Research Association) reported:

A number of giant cells re-sembling those of tubercle are present, but as no bacilli can be found, they are probably phagocytes, such as are likely to be present in a suppurating lesion.

The abscess cavities were swabbed out with pure carbolic, and sutures inserted and tied in a few days.

W. P. GOWLAND, M.B., B.S.Lond., M.R.C.S.,
Late House Surgeon, Lincoln County Hospital.

Lincoln.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

SUPRAPUBIC PROSTATECTOMY IN A MAN, AGED 84 YEARS.

(By Mr. J. LIONEL STRETTON, Senior Surgeon to the Infirmary.)

M.B., within a month of his 84th birthday, was admitted on September 21st, 1904, suffering from complete retention of urine which had existed for forty-eight hours.

History and State on Admission.—He was a well-nourished intelligent old man and had suffered from symptoms of prostatic obstruction for several years. A catheter was passed and two and a-half pints of fetid urine drawn off. This had a specific gravity of 1.015 and contained a trace of albumen and pus.

Per rectum, the prostate was felt to be considerably enlarged. He continued in a very miserable condition, constantly wet from dribbling urine and requiring regular catheterism. As diet, medicine, and antiseptic treatment of the bladder failed to relieve him he consented to operation.

Operation.—October 3rd. Under ether a suprapubic incision was made into the bladder. On introducing the finger the left lobe was felt to be considerably larger than the right. A snip was made, with a pair of scissors, through the mucous membrane covering its most prominent part and through this the finger was able to separate both the lobes and shell them out. The separation of the deeper portions was much facilitated by the finger of an assistant in the rectum. The bleeding, which was not excessive was easily controlled by hot water irrigation. A large soft rubber drainage tube was fixed in the bladder. A considerable thickness of fat over the abdomen increased the difficulty of the operation, but in spite of this it did not occupy more than a quarter of an hour. The gland removed weighed 3 oz.

Result.—There was nothing remarkable in the after-history of the case. The tube was removed on the second day, he was up and dressed on the ninth day. He passed water naturally for the first time on the thirty-ninth day, and was discharged cured on November 15th. He then had complete control and was able to empty his bladder.

REMARKS. This case appears to be worthy of record because, so far as I can ascertain, he is the oldest patient who has had the operation performed upon him, and the result was entirely satisfactory. Dr. W. Miles of Bewdley, who sent him to me, reports that he died from "decay" in the middle of January without suffering any recurrence of his bladder trouble. The operation is exceedingly simple, and the rapidity with which it can be performed is a most important factor in old and feeble people. Elaborate details which would increase its length are therefore to be avoided. When the miserable condition of such patients is considered, the pain they suffer, how they lie in a cesspool of fetid urine which sooner or later will lead to excoriation and bedsores, to say nothing of the nuisance they must be to those who are obliged to attend to them, an operation which will entirely remove their distressing symptoms must be a welcome blessing; and, even if they only live for a short time afterwards, that time must be infinitely more pleasant both to them and their friends.

Since writing the above I notice that Mr. Freyer has successfully operated on a man aged 84.

THE King of Spain recently presided at the ceremony of the reception of Dr. Huerta as a member of the Royal Academy of Medicine of Madrid.

BEQUESTS. Under the will of the late Mr. Edward Hulton, newspaper proprietor, of Manchester, the Manchester Children's Hospital, Pendlebury, and the St. Mary's Hospital and Dispensary for Diseases of Women and Children, Manchester, are to receive the sum of £1,000 each.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. DOUGLAS POWELL, K.C.V.O., President, in the Chair.

Tuesday, June 14th, 1904.

PROTRACTED AND RECRUDESCENT INFECTION IN DIPHTHERIA AND SCARLET FEVER.

DR. ARTHUR NEWSHOLME read a paper on this subject, in which he gave instances of protracted or recrudescent infection when there had been contact or no contact with other acute cases of the same disease; when there had been several weeks' interval between the occurrence of the "return" case and the latest exposure of the infecting patient to the infection of other patients; and when the patient had been treated alone at home. The various explanations of "return" cases were considered. Instances were given of infectivity continuing over 100 days, and of the infectivity of ear discharges in diphtheria. "Return" cases were relatively rare, and did not seriously invalidate the utility of isolation hospitals. They occurred generally in connexion with rhinorrhoea and otorrhoea. Post-isolation supervision of both home-treated and hospital-treated cases of scarlet fever and diphtheria was required. In some instances dormant infection was again roused into activity by catarrhs, etc. The close analogy between diphtheria and scarlet fever, as regards both protracted and recrudescent infection, was urged. Protracted infection probably explained the persistent belief in the infectiousness of late desquamation. The bearing of these considerations on the hospital treatment of these diseases was discussed. It was reasonable to believe that the specific germs multiplying in the patient himself, and collecting on the rhinological lesion with which the patient was usually admitted, would be in larger numbers and more efficient to produce secondary infection than the relatively minute number that could obtain ingress from other patients. The notion that increased infectivity was caused by hospital aggregation was borrowed from the like theory for small-pox, and in both instances was a theory to support a theory. The bearings of relapses of scarlet fever on this theory were discussed, and the analogy of enteric fever, in which such relapses could not be caused by fresh external infection was pointed out.

Dr. E. W. GOODALL said that the Asylums Board had been investigating this subject of protracted infection for two or three years, and gave instances from the evidence already collected. The infectiousness was not, he believed, due to hospitalism. Information was wanted as to the frequency of return cases in private practice. Of 300 cases recently under his care, 24 per cent. had some complication on admission, such as severe discharge: this was rhinorrhoea in 15 per cent., and 12 per cent. more got it while in hospital. Instances had been known of mild cases of scarlet fever developing into severe cases while under strict isolation. It might be that ordinary inflammations of the mucous membranes could set up the virus proper. It was probable that [illegible] were more carriers of the infection. Return cases were more common from hospitals for [illegible] than from the convalescent hospitals. Reference was made to the French method of placing each patient in a [illegible]. He had a large percentage of return cases, but a large number of these [illegible] only met with one home [illegible] all of these were treated at home. [illegible] to avoid the frequent [illegible]

[illegible] paper. It [illegible] the hospitals, [illegible] wards. In [illegible] of the [illegible] illustrated by [illegible] in [illegible] the [illegible] and [illegible] They were [illegible]

[illegible] paper was [illegible] for hospitalism, [illegible] was [illegible] [illegible] [illegible]

ing had led to no improvement. Microscopical examination showed only a hyperplasia of the endometrium. (2) Uterus removed for menorrhagia and metrorrhagia. The organ had been curretted on two occasions, but no improvement followed; it was then removed by panhysterectomy. Subsequent examination did not reveal any malignant changes. (3) Myoma and adenoma separate in a uterus which had been removed.—Dr. BALLANTYNE: (1) Obstetric satchel of a small size, suitable for ordinary use. (2) Fetus with apparently a large cystic kidney; no anus existed, the penis was small and hypospadiac. (3) Fetus showing exomphalos.—Professor KYNOCH: (1) Microscopical section from a case of epithelioma of the clitoris. (2) Two vesical calculi, the nuclei being formed by hair from a perforating dermoid tumour of the left ovary.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

J. NIGEL STARK, M.D.Edin., President, in the Chair.

Wednesday, May 11th, 1904.

SPONTANEOUS RUPTURE OF THE UTERUS.

DR. MUNRO KERR read notes of a case of spontaneous rupture of the uterus during pregnancy through the cicatrix of a Caesarean section wound. Mrs. M., 3-para, was admitted on October 28th, 1901, to the Glasgow Maternity Hospital. In both the previous labours the children were dead. On the last occasion craniotomy was done. On this occasion Dr. Kerr performed Caesarean section, employing Fritsch's fundal incision. The patient was not sterilized. On her second admission the patient was judged to be in her thirtieth week. After an enema given about midnight she complained of pain in the epigastrium, but shortly afterwards fell asleep. Next morning the pain had spread over the whole abdomen, but there was no vomiting and the pulse was not accelerated. Later in the day tenderness became more marked; the pulse rose to 90, the temperature became subnormal, and the breathing more rapid. The patient lay with her feet slightly drawn up, and, on palpation, the fetal parts could be made out with great readiness. There was some blood-stained vaginal discharge. Laparotomy was performed the same day. On the abdomen being opened a large quantity of dark-coloured blood escaped, and the intact membranes and placenta with the enclosed fetus presented. The uterus lay retracted behind, and was found to have a transverse rupture through the cicatrix of the previous Caesarean section. The uterus was removed by supravaginal hysterectomy. The patient was dismissed well a month after operation.

MESENTERIC CYST.

Professor MURDOCH CAMERON read notes of a case of large mesenteric cyst. The patient, aged 32, was admitted to the Western Infirmary on September 26th, 1903, with the history of swelling of the abdomen of twelve years' duration. The swelling had given no trouble until a fortnight before admission, when the patient had an attack of severe pain in the region of the umbilicus. Fluctuation was very distinct, but no nodules could be made out. Examination per vaginam was negative. On September 29th abdominal section was performed and thirty-three pints of thin greenish yellow fluid were evacuated. The cyst was very thick-walled and adherent over the whole surface; it seemed to be entirely encircled by omentum. The ovaries were quite healthy. The patient made a good recovery. The fluid from the cyst was slightly alkaline and of specific gravity 1011. It contained considerable numbers of exceedingly fatty leucocytes and larger cells resembling endothelial cells. Free fat globules were also present, as well as a small number of red blood corpuscles. The fluid also contained a small amount of albumen. The cyst was practically unilocular, although partial septa existed. The thickness of the wall varied from 1 cm. to 1 mm. Microscopical examination of the cyst wall showed that the thin portion consisted entirely of finely fibrillated connective tissue with no trace of a specialized lining. The thicker portion of the wall proved to be kidney tissue, interrupted here and there by connective tissue and leucocyte infiltration.

DIAPHRAGMATIC HERNIA.

Drs. LINDSAY and TAYLOR read notes of a case of diaphragmatic hernia in a seven-months fetus. Twelve months previously the mother had given birth to an eight-months child. The doctor in attendance stated that the heart was beating on the right side. The same thing was noted with the specimen shown. Dissection of the fetus demonstrated that the right half of the diaphragm was complete; there was a large round opening in the left half of the diaphragm. The stomach, duodenum, most of the small intestine, the caecum and appendix, the ascending and transverse colon, the spleen and the left lobe of the liver, were thrust through the diaphragmatic opening, carrying before them the pleura and peritoneum, which together formed a complete hernial sac. The left lung was crowded into the upper part of the thorax. The heart and pericardium were normal, except that the apex of the heart lay to the right of the middle line.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

JOHN TWEEDY, P.R.C.S., President, in the Chair.

Thursday, June 9th, 1904.

PRIMARY OPTIC ATROPHY DUE TO LEAD.

MR. SIMEON SNELL (Sheffield) related a case occurring in a boy aged 16. The sight had commenced to fail for rather more than a year before the patient was first seen in October, 1903, and had rapidly become worse during the past three months. The vision was: right, $\frac{1}{60}$; and left, $\frac{1}{5}$; both optic papillae were white and atrophic, but did not suggest preceding neuritis. The family and personal history were good. For two or three years the boy had worked as a file cutter, which exposed him to the influence of lead, and he had the ordinary symptoms of lead poisoning. The optic atrophy was, in Mr. Snell's opinion, due to this cause, and all other causes had been eliminated. Mr. Snell, after mentioning a similar case, stated that among file cutters he had observed several instances in which the optic nerves were affected either directly by the lead or in association with kidney or brain disease.

OPTIC ATROPHY AFTER POST-PARTUM HAEMORRHAGE.

MR. SNELL related the following case, in a lady, aged 28, who was seen last February a few days after recovery from puerperal mania. Both papillae were atrophied but there was no evidence of past neuritis. There was no perception of light, and the pupils were dilated and motionless. On October 3rd, 1903, she was delivered of her first child at full term, but an hour afterwards she had considerable haemorrhage, and although the amount lost was not very great yet she had never seemed to have really recovered from it. It was doubtful when the failure of sight had commenced, but it had been suspected for some time. She had probably not seen at all for two months. There was no albumen nor throughout the pregnancy anything to suggest kidney disease. Mr. Snell referred to a previous case he had seen in which the sight was greatly affected by the same cause, and he also alluded to cases collected by Chevallereau.

OPTIC GLIOMA.

The following case was narrated by Mr. SNELL. In a baby, aged 1 year and 10 months, first seen on April 1st, 1897, glioma of the retina was diagnosed. One eye was excised on April 7th, and the tumour found to be confined to the globe, but was rather large. On January 7th, 1899, the child was again seen with a similar condition in the other eye. This was excised on March 1st, and at the present time the child was alive and well. Mr. Snell referred to the small number of cases in which both eyes had been removed for glioma without a fatal result. Other cases related were as follow: A girl, aged 4½ months, was sent to Mr. Snell on December 18th, 1903, with glioma of the right eye; the eye was removed on December 22nd, and the growth found to be confined to the globe, which it nearly filled; there was no recurrence. Another member of the same family had suffered from glioma of both eyes, which had proved fatal, the parents having refused to allow the removal of both eyes; there was one other child between these two who was alive and healthy. Mr. Snell mentioned that until recently no instances had been published in which glioma had occurred in more than one member of the same family. Up to the present time three observers, besides himself, had recorded cases.

The PRESIDENT, Mr. STANFORD MORTON, and Mr. DEVEREUX MARSHALL mentioned cases they had had of glioma bearing on the points brought forward by Mr. Snell.

ON MICROPHTHALMOS.

Mr. STEPHEN MAYOU gave a lantern demonstration of the anatomy of three cases of microphthalmos which he had examined.

CARD SPECIMENS.

Card specimens were shown by Dr. LOUIS WERNER, Messrs. E. E. HENDERSON, G. W. ROLL, E. W. BREWERTON, and Dr. D. RAYNER BATTEN.

OBSTETRICAL SOCIETY OF LONDON.

EDWARD MALINS, M.D., F.R.C.P., President, in the Chair.

Wednesday, June 1st, 1904.

PAPILLARY CARCINOMA OF THE OVARIES.

Dr. CULLINGWORTH LOCKYER showed a specimen of carcinoma of both ovaries removed by operation from a woman 47 years of age. Both Fallopian tubes, though apparently normal, under the microscope were found to be infiltrated with cancer elements. On this account, Dr. Lockyer suggested that in similar cases the tubes, even though apparently healthy, should be removed along with the ovaries.

Miss THORNE, F.R.C.S.I., described a case in which the left ovary was removed by operation in a patient aged 26, the other at the time of the operation being apparently healthy. The patient died four months later, when a deposit was found in the right ovary, the tumour had been implanted by recurrence at the original site of operation, and secondary nodules had formed in the liver.

CANCER OF THE BODY OF THE UTERUS.

Dr. HERBERT SPENCER showed a uterus removed by combined vaginal and abdominal hysterectomy from a woman aged 56. Adhesions existed in the case. He remarked on the slow growth of the tumour and the fact that the patient still remained free from recurrence six and a-quarter years after the operation.

Dr. J. F. TAYLOR advanced the reasons which led him to regard the growth as having originated in a diffuse adenoma in one of the lobes of the uterus.

The specimen was referred to the Pathological Committee.

FIBROIDS COMPLICATING PREGNANCY.

Mr. J. BLAND SUTTON showed a fibroid uterus and its contents removed by panhysterectomy at the sixth month of pregnancy. An interstitial fibroid occupied the anterior wall near the fundus, and a larger fibroid grew from the posterior aspect of the cervix and almost completely occupied the cavity of the true pelvis. Both fibroids showed signs of degeneration.

Dr. HANDFIELD JONES remarked on the manner in which fibroids in the cervical area were drawn up and elongated so as to render the passage of an infant possible even in the most unpromising cases. He narrated a case in point.

Dr. EDIS, who had seen the patient before the operation was performed by Mr. Bland-Sutton, found one arm of the foetus presented with the hand outside the vulva, and a large swelling behind almost filling the pelvis. Moreover, the uterus was easily retracted. He regarded attempts at version as impracticable, and he judged that there was considerable risk of spontaneous rupture of the uterus if the latter were allowed to continue.

HYDATID DISEASE IN THE PELVIS.

Dr. T. W. EDIS recorded a case of primary hydatid disease of the Fallopian tube.

[illegible]

[illegible]

[illegible]

of 29, in 6 there was illness in the house, and in 7 cases no history was obtained as the people had left. A control experiment at Frizinghall School, where there has been no diphtheria lately, gave a negative result in all of the 30 persons examined. The following propositions were submitted: (1) Diphtheria is seriously on the increase at Bradford. (2) Bacilli indistinguishable from B. diphtheriae are said to occur in the throats of persons who are healthy, and who are not known to have been in contact with diphtheria; such an occurrence is probably very rare. The presence of B. diphtheriae in the throats of 42 out of 93 scholars at St. Stephen's Schools points to this as being a very important factor in the continuation of the epidemic. (4) From the above facts, indirect means of infection at once suggest themselves, for example, the use of slates and pencils in common. (5) The removal of bacilli from such throats is readily effected, but to take the necessary steps when the epidemic is advanced is not practicable. (6) Whatever is done there will always be two classes of cases causing danger, the first being those who pass through an attack without receiving medical attention, the second consists of those in whom the disease is of an aberrant type and has assumed characters usually associated with other less serious throat affections. In times of epidemic it is highly advantageous to submit all the inflamed throats to bacteriological investigation. (7) If every child suffering from diphtheria, and attended by a doctor, were refused permission to return to school until the throat was free from diphtheria bacilli, and if every other scholar in the same house were similarly treated, the chances of an outbreak of diphtheria would be greatly diminished.—The PRESIDENT and Drs. BAMPTON, CAMPBELL, BRONNER, and S. JOHNSTON discussed the paper, and Drs. EURICH and CROWLEY replied.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—At a meeting on May 20th, Mr. WATSON CHEYNE, C.B., F.R.S., in the chair, a case of congenital dilatation of the colon in a boy 6 years old was shown by Dr. GEORGE CARPENTER, in order to obtain an expression of opinion as to the advisability of surgical interference. The child, which had suffered from chronic constipation from its birth, had an abdomen 27 in. in circumference, the movement of coils of intestine being plainly visible. Mr. WATSON CHEYNE was in favour of simple colotomy.—Mr. HAROLD J. STILES (Edinburgh) and Dr. STUART MCDONALD (Edinburgh) contributed a paper on delayed chloroform poisoning, a condition to which attention in this country had first been drawn by Dr. Guthrie. In his latest paper Dr. Guthrie contended that the fatty liver changes observed *post mortem* were not due to chloroform poisoning alone, and that the latter merely set up functional inadequacy and consequent accumulation of toxins in a subject already the subject of a fatty liver. The new cases brought forward by the authors were two children, one of whom died three days after operation for the radical cure of hernia, the other twenty-six hours after an osteotomy for knock-knee. It was shown that death could not have resulted either from carbolic-acid poisoning, from fat embolism, or from sepsis. In the osteotomy case the fat emboli in the lungs were only present in the smallest vessels, and were so scarce that death could not be attributed to them. Some of the sublobular and hepatic veins contained a considerable amount of oil, for the most part in free droplets, but occasionally in the interior of what were evidently disintegrated liver cells. No fat was demonstrated in branches of the hepatic artery, nor could any be discovered on the aortic side of the circulation. It was evident, therefore, that the fat in the lungs was derived from that which had gained access into the hepatic veins from the disintegrated liver cells. The pathology and symptoms of delayed chloroform poisoning had, up to recently, been either overlooked or wrongly interpreted, so that the mortality could not be estimated until the condition had become generally recognized by surgeons and pathologists. With one exception the cases recorded in this country had all occurred in children while under treatment either in the Paddington Green Children's Hospital or in the Royal Edinburgh Hospital for Sick Children, these being two hospitals where special attention had been directed to the condition. In Germany, on the other hand, almost all the reported cases had been in adults, and the greater proportion of these had occurred after a somewhat severe operation for infective abdominal conditions such as suppurative salpingitis, appendicitis, etc. The element of sepsis with which these cases were complicated rendered it difficult, in the present state of knowledge, to say how far they helped to solve the problem of delayed chloroform poisoning. If it could be shown that the critical condition (persistent vomiting of a more or less haemorrhagic type; small, rapid, and often irregular pulse; extreme restlessness, collapse, etc.), in which patients were occasionally found forty-eight hours or so after operation was in any way brought about by degenerative changes set up by the chloroform, the question of substituting ether would have to be seriously considered even in the case of children. Unfortunately, however, the mortality in children from the effects of ether on the respiratory tract would probably be as great, if not greater, than that due to the after-action of chloroform. As regards the treatment the authors agreed with Guthrie in strongly condemning the use of morphine. Rectal and subcutaneous injections of normal saline solutions and, if necessary, intravenous injections must be employed. If the vomiting were copious the stomach should be washed out and an endeavour made to get it to retain some calomel or grey powder. Cardiac stimulants must be used, but in moderation. The paper was discussed by Mr. WATSON CHEYNE, Dr. GUTHRIE, Dr. HEWITT, Mr. BURGHARD, Dr. SILK, Dr. NOBLE, and Mr. MCCARDIE (Birmingham).

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At an extra-metropolitan meeting held at Glasgow on May 21st, Dr. THOMAS BARR, President, in the chair, Professor CLELAND gave a demonstration of the development of the mastoid and the tympanitic plate. He showed that the external surface of the mastoid was not formed by a descending plate of the squama, and that the so-called squamo-mastoid suture was produced by the entrance of branches of the posterior auricular artery into the mastoid bone.—Notes of a case of otitic cerebellar abscess in which absence of the mastoid antrum from pathological causes was observed were read by Dr. PETER MCBRIDE. A discussion followed on the occasional absence of the antrum. The general opinion expressed was that in the healthy state the antrum was always represented, but that prolonged osteitis might lead to its obliteration.—Dr. R. H. PARRY had performed section of the eighth nerve for severe tinnitus aurium, after prolonged treatment by several aural surgeons. The route chosen was the upper or anterior surface of the petrous bone. In dividing the eighth nerve the seventh was also injured. The result of the operation was partial relief of the tinnitus, while facial paralysis and complete deafness were caused. It was explained that the patient had refused to submit to any operation short of the most radical. "Facial-accessory" anastomosis was performed with the usual result.—Mr. C. A. BALLANCE advocated the cerebellar fossa route for section of the eighth nerve; and remarked that facial-hypoglossal anastomosis gave better results than the one chosen.—A successful case of removal of all the semicircular canals on one side for the relief of vertigo was reported by Mr. RICHARD LAKE. Shock lasted for one hour after operation; cerebral irritation, nystagmus and inability to turn to one side continued for a few days. In four weeks the patient was able to do anything without fear of falling. Fourteen weeks had elapsed since the operation without any return of the vertigo. Tinnitus was not affected by the operation.—Dr. MILLIGAN mentioned three cases in which he had performed this operation, one of which was completely successful.—Dr. NICOLL discussed the indications for operative interference upon the lateral sinus and internal jugular vein. He classified the operations as follows: (1) Obliteration of the sinus: (*a*) On account of some involvement of the walls or contents of the sinus itself; (*b*) on account of some affection of the jugular vein. (2) Ligation of the vein with or without excision: (*a*) On account of some affection of the vein itself, wound of the vein, involvement in a mass of cervical glands requiring removal; (*b*) disease or injury of the lateral sinus. (3) Ligature of the vein as a preliminary to mastoid operations: (*a*) tuberculous cases with enlarged cervical glands; (*b*) where it was probable that the disease extended to the lateral sinus.—Cases were shown by the PRESIDENT, Dr. NICOLL, Dr. GALBRAITH CONNAL, Dr. BROWN KELLY, Dr. W. S. SYME, and Dr. FULLERTON; and specimens by Mr. ARTHUR CHEATLE, Dr. KERR LOVE, Dr. ALBERT GRAY, and Mr. MACLEOD YEARSLEY; and the following gentlemen took part in the various discussions: The PRESIDENT, Professor URBAN PRITCHARD, Messrs. BALLANCE, CHEATLE, YEARSLEY, and HUGH JONES, and Drs. TILLEY, KERR LOVE, and MILLIGAN. In the afternoon Dr. COLQUHOUN, in the absence of Professor MCKENDRICK, gave a demonstration at the

University on recent researches on the physical nature of vowel tones and their bearing on the movements of the tympanic membrane.

REVIEWS.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

In the *Medical Inspection of School Children* Dr. W. Leslie Mackenzie and his colleagues, on a basis of the work done for the Royal Commission on Physical Training (Scotland), have produced a book in which all is set down and nothing omitted, and although the infinitude of detail makes it difficult to read, yet the index and contents make the information its pages contain very accessible.

In Part I the report of the Commission is used extensively to demonstrate the need and form of medical inspection. The powers available and the organization of such inspection are also set out. Dr. Mackenzie is rather in favour of tacking this work on to the medical officer of health. It might be useful to do this in smaller districts, and only the other day it was decided to pay £15 per annum at Accrington, whilst Chester can afford £45, for the effective carrying out of medical supervision of schools by the medical officer of health. For larger districts he suggests whole-time assistants to the medical officer of health; but why not medical officers for schools at once? The work of school supervision is so different from that of the medical officer of health that it would be best left to the educational authorities to make their own arrangements, and to provide for the satisfactory carrying out of this work as part of the school duty which the Board of Education supervises as a condition for grant. By appointing ten inspectors of medical conditions in schools the Board of Education could effect all the changes desired slowly, surely, and without disturbance.

A high standard of what is possible in the way of medical supervision of schools is set up, but it is doubtful whether, even with the present interest in the physical welfare of the nation, any considerable public opinion would support such extensive medical inspection of school children as is sketched; neither teachers nor parents can be said to be ready to take advantage of it. A chapter on what the teacher can do to assist in medical inspection considerably over-estimates the teachers' abilities in this direction, although there is little doubt that the provision of a reasonably cheap and efficient medical inspection can only be obtained by using trained teachers for much preliminary work and by insisting, as has been done in a recent official report, on the necessity for a preliminary training of the teachers in school hygiene.

Part II, which is concerned with the practice of medical inspection in school work, might be abbreviated, as it gives much detail with which any one fit to be trusted with the responsibility of medical inspection should have familiarity. [illegible] typography, for instance, takes up four pages. Treatment [illegible] and also for separate skin disorders; but it is necessary to understood that the school medical officer should take no part in actual medical treatment, and this we think is the only safe rule.

Part III, dealing with school anthropometry, gives the [illegible] and instruments likely to be useful. Half a dozen pages are given to head-callipers and four more [illegible] Nevertheless, the authors "hesitate to recommend that the ordinary health inspection schedule [illegible] head measurement [illegible]

[illegible] scientific [illegible] reference, but the form of the [illegible] that it is also practically a [illegible] the Royal Commission. With [illegible] by that report, and still [illegible] windows have long at will be until [illegible] in the state-boats [illegible] the [illegible] the misery that [illegible] in over [illegible] in the [illegible] and [illegible] Un- [illegible] and [illegible]

[illegible] by medical inspection that they will be remedied unless it directs attention to the land laws which make healthy lives so impossible to many. The book can be commended to all who are interested in medical knowledge as a sociological factor.

MEDICINE AND DIETETICS.

Dr. Apert's book is an interesting, though unequal, summary of present knowledge regarding gout. Among the subjects which are well treated is the question of the symptomatology of gouty predisposition in children. The author states that infants with a prolagric taint are often big and heavy, with a high colour, which is a source of parental pride. As a rule, too, they eat and drink too much, and are frequently constipated: later on they become subject to various paroxysmal affections, of which the most striking are migraine, nocturnal dyspnœa, intractable vomiting, and enterocolitis. Any of these affections may appear in violent bouts, the patient appearing perfectly well in the intervals. Another subject upon which Dr. Apert is instructive is the radioscopic diagnosis between chronic forms of rheumatism and gout. He states that when examined by the x rays tophi are transparent, while osseous and cartilaginous proliferation is opaque; in gout, therefore, the tophi throw a faint and diffuse shadow, while in chronic rheumatism exostoses and enchondroses give one which is dark and well marked. With regard to abarticular gout, he has little which is new to say, but he lays special stress upon the liability to renal colic. From the prognostic point of view, he states that the more painful gout is the less it threatens life. This statement is more epigrammatic than accurate. The account of the etiology of the disease is by no means up to date. Due stress is laid upon the three chief factors heredity, overfeeding and insufficient exercise but a sketch of the dietary conditions which the author imagines to obtain in England is ridiculously inaccurate. With regard to treatment, the author is, on the whole, sound. He permits the use of a sound light wine of medium age diluted with three volumes of water, but it is curious that he should allow kidneys, liver, brains, and oysters to be eaten while forbidding sweetbreads. With respect to drugs, he describes both the alkali treatment and that by means of phosphoric acid devised by Joulie, but is unable to decide as to their respective merits. He points out that the modern tendency is to withhold colchicum during the acute attack, and that the uric acid solvents have not as yet won a permanent place in the treatment of the disease. The book is clearly written, and forms an excellent specimen of the series to which it belongs.

The issue of a fresh edition of Sir James Sawyer's *Contributions to Practical Medicine* only two years after the last publication indicates that there has been no lack of appreciation of the practical suggestions contained therein, which are the outcome of careful observation and ripe experience. Several of the articles are reprints of lectures which were published in this Journal at the time of their delivery. Among these are the chapters on the value of inspection in the diagnosis of diseases of the lungs and pleurae, on the accentuation of the pulmonary second sound of the heart, and on intestinal obstruction. When dealing with the question of obstruction, Sir James Sawyer lays great stress upon the necessity of early resort to surgical interference and deprecates wasting time in the vain expectation of spontaneous recovery. In an earlier chapter valuable advice is given as to the management of extreme faecal retention. Some advantage would apparently be gained if in a future edition these two articles were to be combined so that the conditions might be compared and the symptoms indicating the need for immediate surgical treatment pointed out. Sir James Sawyer has frequently written on the value of arsenic in chorea and once more points out that the drug is usually administered in doses too small to be effective. The book concludes with a carefully arranged dietary for diabetics. The author considers with Mosse that potatoes far from being harmful, may form a useful food for sufferers from this malady. Altogether the book will be found to contain many useful hints both as to diagnosis and treatment.

Sir James Sawyer has also issued the first two chapters of this book (those dealing with *Insomnia*) as a sepa- [illegible]

[illegible] Treatment. By Dr. L. Apert. [illegible] de Paris. By J. E. Barlow [illegible] (Crown [illegible]

[illegible] By Sir James Sawyer M.D. Fourth [illegible] By Sir James Sawyer M.D. Forming [illegible] (Crown 8vo, pp. [illegible])

rate volume). It is founded on two clinical lectures published in the BRITISH MEDICAL JOURNAL in 1900. Cases of insomnia are divided into two groups called by the author "symptomatic" and "intrinsic" respectively. The various forms of intrinsic insomnia are very fully analysed and the importance of noting the temperament of the sufferer is pointed out. Under the head of toxic influences the effect of tobacco and alcohol in the production of sleeplessness are noted, while many persons are in the habit of taking a little alcohol as a nightcap. Every one must have met with cases in which an unaccustomed glass of whisky and water is sure to be followed by a bad night. In the treatment of insomnia Sir JAMES SAWYER finds the bromides occupying the most useful place although he recognizes that many cases require more potent hypnotics. It is doubtful whether tincture of hop has ever cured any sleeplessness deserving the name of insomnia, and the same may perhaps be said of the various medicated pillows offered to the public.

It is a little difficult to say for what class of reader Dr. VALENTI'S book on *Aromatics and Nervines in Alimentation*,[1] the latest of the excellent series of Hoepli manuals, is intended. It attempts too much to be satisfactory to the student; in the space at the author's disposal it would be almost impossible to do adequate justice to the subject on the lines laid down, and for the general reader too many technicalities are introduced. Under the term aromatics he discusses such things as salt, vinegar, sugar, pepper, ginger, mustard, cloves, saffron and mace, giving in each case a brief account of their source, mode of preparation, character, and physiological action. The nervines are alcohol in its various forms, coffee, tea, and its congeners (guarana, kola nut, and cacao), and tobacco. Out of the twenty chapters into which the book is divided no less than eleven are given up to the discussion of alcohol, its mode of preparation, sources, action, use, and abuse. Beyond the fact that it may, when well diluted and taken at meal times, be of some assistance to digestion, he can find no scientific ground for the use of alcohol in dietetics. Practically all the substances discussed in the book would be treated in the ordinary course in a manual of dietetics, and it is questionable whether anything is gained by separating this particular group and giving it special treatment.

PHYSIOLOGY AND HISTOLOGY.

"WRITTEN at the solicitation of students who have attended my lectures for the past eight years" are the first words of the preface to Dr. OTT'S *Textbook of Physiology*[2]. This is rather an ambiguous statement, but, leaving that point aside, we may say the book professes to be an "elementary work containing the chief facts of physiology which are necessary for the student who wishes to apply them in the practice of his profession." Twenty-one chapters, making up over three-fourths of the book, deal with the cell, chemical constituents of the body, digestion, absorption, the blood, and the nervous system, and its sense organs in regular order. The text is essentially elementary and contains a good deal of anatomy with little of histological detail. We are told that peptones give a pink colour with potash and a trace of cupric sulphate, "all other proteids give a violet colour." What about albumoses? We also meet with a not uncommon change from the descriptive to the assertive. "As you go down the small intestine you find," etc. The description given of an intestinal villus would not suffice even for a South Kensington standard. Actually, the obsolete diagram of Fünke is reproduced (p. 104) to show the relation of the epithelium to the lacteal. That the "large intestine encircles the abdomen in its course." The bile ducts have their origin "in the cement-substance joining the hepatic cells" are curious statements. We are afraid little success would attend any one who attempted to perform Pettenkofer's experiment according to the directions given. No mention is made of the fact that the bile pigments do not exist as such in the bile. We are also told that "the plasma of the blood is constantly osmosed through the capillary wall." "Each cell is bathed in a plentiful supply of plasma." Surely well-defined terms ought to be properly applied. The muscular fibres of the auricles of the heart are said to be of two kinds, while the author only means that they are arranged in two different ways. A curious function is attributed to the auricles themselves. In the experiment of Stannius the record reads as if the frog's heart had only one auricle. The account of the nervous system and its sense organs leaves very much to be desired. Diabetic puncture is said to be made in the "median line." The account of the topography of the motor areas of the cerebrum is innocent of the researches of Sherrington. A couple of pages suffice for the lymphatic system, and these are given chiefly to anatomical details. No doubt the work has some merits, but it has many shortcomings, and it is not likely, at least in this country, to supplant or even act as an adjuvant to well-known textbooks already in the hands of the medical student. Most of the illustrations are taken from well-known textbooks and their source duly acknowledged.

Professor LOEWENTHAL"S *Atlas* of the comparative histology of vertebrates[3], is an evidence of his industry, and of a capability of producing excellent black and white drawings of histological preparations. When the science of microscopic anatomy was in its infancy as when Dr. Klein produced his famous histological atlas, the utility of such a production would have been obvious. The early drawings of histologists showed what was possible in the way of technique, and formed a permanent record of the structure of tissues and organs. Nowadays, when so many excellent atlases already exist, it is difficult to see any reason why another should be added to the list. If any important new truths or even new methods were illustrated, there would be a justification for the issue of such a book. But we have failed to discover anything new or striking in the present work, and would undertake to produce from any ordinary class of English medical students, many drawing books of equal, or nearly equal merit. The teacher of naked-eye anatomy very properly obliges his students to study that subject by actual dissections, and not from the contemplation of drawings or museum specimens, however excellent. The teacher of histology pursues the same method, and the only drawings to which he attaches importance are those which his students themselves make of their preparations. These may not be artistically so perfect as those which he will find in atlases, but they are infinitely more useful. It is difficult to see where purchasers of such works come from; the present atlas is far too expensive for the student, and as for the teacher and researcher, he no doubt already has a sufficient number of atlases to satisfy his needs.

NOTES ON BOOKS.

THE *City of London Directory*,[4] which has reached our hands recently, is the thirty-fourth annual edition of a work which probably suffers somewhat from its title. The average Londoner who does not happen to be in the habit of using the book is apt to take for granted that it is much the same thing as the *Post Office London Directory*, but on a smaller scale, as being applicable only to a part of the whole subject. This, however, it is not, but a work which, while it covers the same ground as does the *Post Office London Directory* so far as the latter relates to the City, goes far beyond it in many directions. Thus, in the alphabetical section, not merely the name and address but also the occupation of every person mentioned is given. The official section is also unusually informing. The sections, which deal with the educational establishments connected with the City, the livery companies (their histories, powers, privileges, and incomes), the public companies section (with information as to purpose, capital, administration, and latest financial statements), contain much detail not easily to be found elsewhere. Another feature of the work is an excellent map, in which by the use of various colours the boundaries of the various wards and parishes are clearly defined. Altogether, therefore, the book stands by itself, and will be of value to those whose work requires that they should have full and accurate information as to the City ready to hand. That the book is up to date is shown by the fact that the successor of the late Duke of Cambridge as president of one or more charities is duly named.

We have received the *Reports* of 1903 and 1904 of the

[1] *Aromatics and Nervines*. Aromatics and Nervines in Alimentation. Dott. Adrian Valenti. Milan: Ulrico Hoepli. 1904. (Fcap. 8vo, pp. 354. L.)

[2] *A Textbook of Physiology*. By Isaac Ott, M.D. Philadelphia: F. A. Davis and Co. 1904. (Demy 8vo, pp. [illegible], 178 illustrations. 20 dols.)

[3] *Atlas zur vergleichenden Histologie der Wirbeltiere, nebst erläuterndem Text*. (Atlas of the comparative histology of vertebrates, with explanatory text) Von N. Loewenthal, Professor der Histologie an der Universität Lausanne. Berlin: S. Karger, and London: Williams and Norgate. 1904. (Royal 8vo, pp. 109, 51 plates, containing 318 illustrations.)

[4] *City of London Directory*. Thirty-fourth Edition. London: W. H. Collingridge. 1904.

Oxford Eye Hospital. In the former is a review of the work by Mr. R. W. Doyne, and in the latter the corresponding article is by Mr. Ogilby. The new apparatus has been obtained and is now in full use. The Oxford Eye Hospital has this great advantage that it is not too near any of the large towns, so that the patients attended would not be a source of danger to the hospital, as is so common in London and other large centres, remain to be seen and watched for years, and this greatly enhances the value of the work from a scientific point of view. The hospital also possesses the other advantage in having linked with the surgery the Margaret Ogilvie Readership in Ophthalmology, established in 1902 for the purpose of encouraging research in ocular matters. Mr. Doyne at present holds this office. It was at Oxford that Mr. Doyne first tried the administration of retinal extract for the treatment of certain diseases of the optic nerve and retina; these investigations are still being carried on, and we are looking forward to hearing the results of the more recent cases as well as the later results of those whose early history has already been published. The report is interesting, and the work will bear comparison with that done at any British hospital.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Expectoration.—Dr. Sydney R. Williams (London, W.) writes: The numerous and weighty objections to the bedside spittoon in common use have been apparent for long, especially to those who have the care of phthisical patients. In the ordinary earthenware pot with a loose funnel some of the sputum usually dries on the latter and becomes a source of danger, in addition to presenting an unsightly appearance. The glass slides

usually supplied for examining sputum are also unsightly and dangerous. The difficulty of keeping them clean is the chief objection to the bowls with funnel-like sputum lodges and discs in the latter, which it is necessary to have boiled if attempts are made to sterilise the sputum by boiling. The various spittons with loose paper funnel lining are admirable, but their cost prevents their extensive use in hospital practice.

While Assistant Medical Officer at the Mount Vernon Hospital for Consumption and Diseases of the Chest, Northwood, Middlesex, I had to devise a suitable inexpensive spittoon, and as the one which I then used has been found by Messrs. Down Bros., of 21, Bedford Row, London, W.C., and 1, Bedford Street, Strand, to be of service in many institutions, I have asked them to manufacture it for sale. It is strong, easily made aseptic, and not unsightly. It is simply a wide-mouthed bottle, with a flat disc of metal, which, so far, has been found most comfortable and perfectly self-retaining. It is attached by a straight probe with at any bulge on the end, and is easily withdrawn by the finger-nail slipped under the edge of the flange. So far I have not used it for very large perforations, but for such as are made by an ordinary dentist's burr it has answered admirably. The plugs are made for me by Messrs. Pettie and Whitehall, surgical instrument makers, Aberdeen. A thin open grain is preferred to a plug in operating can be made with a scissors on the side of the plug at any point.

[illegible] Dr. [illegible] London [illegible] doors writes: I [illegible] Mr. [illegible] of May 21st [illegible] [illegible] [illegible]

NOTES ON HEALTH RESORTS.

KREUZNACH.

KREUZNACH is situated on the Nahe, a tributary of the Rhine, a few miles from Bingerbrück. The town, consisting of an old and a new part, is built on the banks of the Nahe, and connected by bridges. On an island between the two is the Kurhaus standing in charming gardens. There also is the principal spring the Elizabeth-Quelle—used chiefly for drinking purposes. The baths in the Kurhaus are supplied by the Nahe and Victoria-Quellen, and are very well fitted up, though the yellowy brown colour, which they are painted to disguise the brown stains made by the brine water, prevents them from looking as tempting as they otherwise would. There are thirty-four baths only in the Kurhaus, but all the hotels and lodging-houses are supplied with water from the springs—indeed, it is impossible for love or money to get any other.

The water used for bathing purposes from all the springs (including the Oranien-Quelle, which supplies the Oranien-Hof, and the Karl's Halle, which supplies the houses in the town) is simply brine water. A warm salt-water bath, besides having a stimulating effect upon the skin, also, it is asserted, causes the breathing to become deeper and quieter and the pulse stronger and more regular, effects which are not produced by a tepid fresh-water bath. The salt baths increase by metabolism, and also improve the appetite, so that the general health and appearance of the patient are benefited. In suppurating wounds compresses of brine water are believed to diminish the pus and assist quick healing. Whereas it is easy to follow the effects of brine upon diseases of the skin or open wounds when it comes in direct contact with the tissues, it is less easy to understand how it acts upon healthy skin. This, according to the latest opinions, is not penetrable by water or the minerals contained in water. Nevertheless, for some days and even weeks after the brine bath, a fine deposit of salts has been found covering the whole skin, and it has been supposed that the particles in a state of solution penetrating the external parts of the skin are, after the evaporation of the water, left as fine crystals, and exercise a chemical and physical stimulus on the nearest nerve terminals, affecting the whole nervous system.

As a matter of fact, very little seems to be known, and up to the present physiological investigation has failed to establish a logical connexion between curative methods and results.

One of the features of the Kreuznach cure is the addition of "mother-lye" to the ordinary brine baths by means of which the strength of the water can be increased by degrees according to the requirements of the patient. The quantity of sodium chloride in the springs is so large that salt can be extracted in bulk from the brine. "Gradier" houses have been established, where the brine is evaporated until it contains from 14 to 16 per cent. solid constituents. The brine is slowly boiled in large pans, and the salt is in great measure extracted by crystallization. The yellowish-brown fluid which remains after the salt has been extracted is called Kreuznach mother-lye. About 350,000 litres of mother-lye are produced annually. A good deal of this is evaporated and the salt sold; the rest is used in the baths.

Invalids suffering from various disorders of the throat or chronic catarrh of the mucous membranes of the nose, larynx, and bronchi receive benefit apparently from inhaling the salt air. For this purpose there is a thorngradier house roofed over to enable people to take advantage of it on wet days.

Besides this, there is in the Kurhaus building an inhalatorium capable of holding forty people, where the Wasmuth system is in use. In the roof are two pulverizing machines which expel a fine briny mist which is breathed by patients, who, on entering the room, remove their hats and coats and put on a large mackintosh cloak and hood to keep them dry. The atmosphere is so dense that one cannot see a yard in front of one. There is also special apparatus in another room for individual inhalation.

Besides these there are the Roman, Irish, and Russian baths, and many kinds of douche baths and electric baths. In the Russian bath the patient lies on a wooden couch with a wooden pillow, and the room is heated to a very high temperature by steam. The principal drinking fountain is the Elizabeth-Quelle in the Kur Park, although some patients are ordered the stronger water of the Oranien-Quelle in the Louisen Promenade. A third drinking spring is the Theodor's Halle. The springs contain an important amount of calcium and sodium chlorides, not in quantities likely to induce acute diarrhoea, in proportion to be absorbable by the stomach, and cause a gentle stimulus. The appetite and digestion are improved, the solid constituents of the urine, especially the urea, increased, and the bowels act more regularly. As a consequence, the general health improves and weight and strength are gained.

Kreuznach. The Elizabeth-Quelle and Park from the River.

The water of the Elizabeth-Quelle is cold, and contains 10 per mille common salt and 1.9 per mille calcium chloride. The water is drunk cold as a rule, and is not so unpalatable as many mineral waters. It is usually taken before breakfast, but is also ordered sometimes to be drunk at meals. The baths are exhausting and rest is desirable after them.

The diseases chiefly treated at Kreuznach are rheumatic and gouty disorders, and uterine affections, while chronic catarrh of the throat, larynx, bronchi, and nose are often treated successfully: some obese subjects derive benefit from the vapour and hot-air baths. In the park the band plays three times a day in the season to soothe breasts rendered savage by a rigorously carried-out cure, and walks may be taken to picturesque places in the immediate neighbourhood. There is a grape-cure at Kreuznach and the hillsides are covered with vines, while fishing may be had in the river Nahe. About a mile up the Nahe is the village of Münster-am-Stein, where patients anxious for extreme quiet and seclusion may drink waters and take baths similar to those of Kreuznach in all respects, except that they are hotter.

Kreuznach is about nineteen hours from London via Cologne

and Bingerbrück to Bad Kreuznach station. There are excellent hotels and particularly good lodgings supplied with mineral baths, and so many doctors that it is a case of "Choisissez il n'y a pas de choix."

The following analysis by Mohr shows the composition of the principal springs.

Kreuznach.

In 1000 Parts	Elisabethen Spring. Temp. 48° C.	Victoria Spring. Temp. 34° C.	Oranien Spring. Acidulated Water.	Chief Spring. Cool Shaft	Drinking Spring of the Gabelweil
Sodium chloride					
Potassium chloride					
Lithium chloride				With bicarbonate of calcium	small amount.
Ammonium chloride					
Calcium chloride					
Barium chloride					
Strontium chloride					
Magnesium chloride			Mg Br		0·3898
Sodium bromide					0·0052
Sodium iodide			Mg I		slight traces
Sodium fluoride		0·000383			
Disodium phosphate					
Aluminium phosphate					
Ferric oxide and alumina					0·0033
Manganese oxide					
Oxide of iron	0·007052			With alumina and silicic acid	
Barium sulphate					
Barium carbonate	0·000455				
Ammonium carbonate					
Carbonic acid					
Silicic acid					
Total solid residue					
Free and half-combined carbonic acid					
Temperature Celsius		0·344496	12·5°		

STATE EXAMINATION IN THE UNITED STATES.

FROM A CORRESPONDENT.

Recent issues of the British Medical Journal have shown a considerable amount of interest in the conditions of practice in the United States. The impressions of an English practitioner recently settled there may, therefore, be not ill-timed or unacceptable. The burning question is that of the licence to practise in any particular State, and it is a question which [illegible] the medical emigrant from the old world [illegible] from one State into another. I am told that only Nevada [illegible] grants a licence without examination [illegible]. A licence is necessary to enable a practitioner to practise legally, no matter what his diploma may be. In San Francisco, for example, the University [illegible] entitles its possessor to practise until he has also passed the examination of the State Board of Medical Examiners. This Board is elected from among the [illegible] and is totally unconnected with [illegible] at the capital of the State. The [illegible] are held three times a year, [illegible] candidates [illegible] the fee is twenty dollars (£4 1s. 8d.) [illegible] the examinations [illegible] of the State University [illegible] the same examination is [illegible] graduates of medical [illegible] years standing. The [illegible] from the practitioners of [illegible] a marked tendency [illegible] [illegible] [illegible]

the State of the practitioner's new place of abode. Considering the immense stress and strain of a modern practice and the by no means large pecuniary returns, it seems foolish for us who see daily the effects of nervous wear and tear to be the ones to urge on the feverish desire for constant re-examination.

AMERICAN MEDICAL ASSOCIATION.

The Fifty-fifth Annual Session of the American Medical Association, opened at Atlantic City on June 7th.

THE ORATION IN MEDICINE.

THE Oration in Medicine was delivered by Dr. George Dock of Ann Arbor, Michigan, who took for his subject—Diagnosis, its Theory and Practice. He said the older prognosis was based on the observation of symptoms alone, and, consciously or unconsciously, took the standpoint of humoral pathology or some equally imperfect theory. It was almost wholly lacking in anatomical, and totally without chemical, basis. Whatever shortcomings medicine might have, it must be admitted that diagnosis was much more certain than ever before. In proportion as diagnosis had become subdivided, specialized, and enlarged, and as knowledge of morbid processes had become more complex, so prognosis had become more intricate. It was probably true that some prognostic aids furnished by the patients, such as changes of the physiognomy, were now unduly neglected. On the other hand, much more accurate methods of ascertaining the constitutional factor were available than formerly. The physician had more accurate means of determining the condition of the heart, arteries and veins, and the force of the circulation than before. He could usually estimate fairly well the efficiency of the blood-forming organs; he could determine with reasonable accuracy the capacity for work of the stomach and intestines, as well as a few details of nutrition and metabolism; he was rapidly getting beyond the limitations of Falstaff's doctor in fixing the anatomical and functional ability of the kidneys, and he was working towards methods of testing the functions of liver, muscles, and nerves. When all these factors were thoroughly investigated it was probable there would be little need of the *vis medicatrix naturae*, now an essential part of prognosis. With an accurate prognosis based on exact and thorough examinations, knowledge of the natural course of the disease and of the patient, the physician foresaw the course of the malady and was prepared for changes, emergencies, and complications. It was not easy to say how much the patient should share this foreknowledge, and how it should be conveyed to him. In many cases the patient did not ask an opinion, and in many others, either because the present disease seemed too slight or for other reasons, the physician did not proffer one. Yet it was good mental discipline to work out the prognosis in every case, as a complement to the diagnosis, and in many the results should be stated to the patient. No disease should be looked on as insignificant. In acute diseases the best general rule was still that of Hippocrates (*Prognostics:* 19, Sect. II): "In acute disease it is not quite safe to prognosticate either death or recovery." A case of this kind, however, should not be considered likely to die unless from a complication or from the effect of a pre-existing disease, though in certain diseases, such as scarlet fever and diphtheria, the danger of a sudden change and of death should be made known in the beginning. In some other acute diseases the study of prognosis prepared the physician not to be unduly elated by the remissions that were so reassuring to relatives. The temporary amelioration in meningitis and peritonitis, in which the patient seemed almost free from symptoms, might be mentioned. Less disappointing, but still ominous, was the occasional lull in broncho-pneumonia. In such cases, however, it was rarely advisable to bring the unfavourable probabilities too strongly before the patient. On the other hand, it was a serious error not to point out, after recovery from certain acute diseases, the possibility of sequels, sometimes months or years afterwards, and the advantage of examinations at intervals for the purpose of detecting them before they become manifest. In chronic diseases there were few exceptions to the rule that the patient should be told the nature of his case as fully as possible. Patients with tuberculosis, heart disease, kidney disease, and disease of the alimentary tract could not get the best possible results unless they understood why they should do certain things and avoid others. It was much easier to advise in cases that had a strong tendency to recovery than in those that had not; and there was room for difference of opinion and of practice in the latter, because the conditions varied with patients according to individuality and accidental factors. In hopeless cases it too often happened that treatment was abandoned too early in the case. Patients with cancer of the stomach or other inoperable tumours, cirrhosis of the liver, and many other diseases were permitted to drag out their existence without relief. Sometimes families, having been told the truth about such a patient, refused all further medical aid, even when the conscientious physician who gave the information pointed out what could still be done. Improvement in methods of treatment had an important relation to prognosis, in that many diseases considered hopeless at one stage of knowledge, might in another offer many chances for recovery or alleviation. Therefore, it was necessary for the practitioner to keep up with the advance of medical science. The physician who did not inform himself quickly of the value of surgical treatment in various disease as it was developed—in pelvic diseases, brain diseases, diseases of the appendix, biliary tract, stomach and pancreas—came very near deserving the reputation of an unscrupulous practitioner. But could one always act from the standpoint of simple diagnosis and prognosis, or must not the weakness, fears, and prejudices of people be at times taken into consideration? In trying to get the best light on this subject he had for many years noticed the opinions of patients and their relatives, as well as of non-medical writers, and it was instructive to learn how those who were not physicians approached the subject. Many physicians had been influenced by the views of Percival, from whose work on *Medical Ethics* some of the best parts of the old Code of the Association were taken. Percival[1] said:

> A physician should not be forward to make gloomy prognostications, because they savour of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely warning of danger when it really occurs, and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy, for the physician should be the hope and comfort of the sick; that by such cordials to the drooping spirit he may smooth the bed of death, revive expiring life and counteract the depressing influence of those maladies which rob the philosopher of fortitude and the Christian of consolation.

In general this furnished a useful guide to conduct, nevertheless required some examination. In the first place, the truth was not always so alarming to the patient, painful as it often was to the physician. To the sick man, whose thoughts had been turned toward the end longer than others suspected, intimation of a fatal end often brought no shock, but rather relief from the ending of a painful uncertainty. According to the rules of the Roman Catholic Church, a timely announcement should always be given, and those who had witnessed the last days of members of that faith could confirm the statement that good often followed, speaking merely from the medical standpoint, and rarely harm. The same thing was true of many of other faiths or of no faith. The rule in regard to giving the patient a good prognosis and the relatives a bad one, could often be followed, but was a very fallacious one on the whole. In cases where the patient should know the truth, the physician was often the best one to state it, and he should see that this was done before it was too late. Exceptions to the rule of candour might occur in the case of children, in women with no spiritual obligations or business responsibility, or in exceptional cases in men. The discussion might be indefinitely prolonged, but one could never get far away from the principle intimated in the beginning that in practical prognosis one must individualize, just as one had to in therapeutics, with the patient's welfare ever the object of our activity.

ADDRESS ON STATE MEDICINE.

The address on State Medicine was delivered by Dr. Hermann M. Biggs, General Medical Officer, New York City Department of Health, and Professor of Therapeutics and Clinical Medicine, University and Bellevue Hospital Medical College, New York. He said that a high morbidity and a mortality in any urban population depended largely on some remediable feature of an insanitary character, such as the

[1] *Medical Precepts and Rules of Conduct*, or a Code of Institutes and Precepts adapted to the professional conduct of physicians and surgeons, with an appendix containing a discourse on the spiritual duties of the profession. Edited by Thomas Percival, M.D., M.R.I.A. [illegible]

For advanced proofs of the oration and the addresses which follow we are indebted to the courtesy of the Editor of the *Journal of the American Medical Association*.

sewerage of the city, the occupations, habitations, food and water supplies, and the habits of the inhabitants—all factors which lay to a great extent within their control. Hence, when any city in modern times had a high annual death rate, for example, 30 or 35 per 1,000, as was formerly the case in New York, Liverpool, and other cities, instead of a death-rate of 17 to 18 (or 19 per 1,000 as now existed in London, Berlin and New York, it was because conditions were permitted to exist partly from the neglect, indifference, and ignorance of the people, and partly from the lack of proper facilities and necessary efficiency on the part of the authorities. It had long seemed to him that the work of the sanitary authorities was too much restricted, and the general conception of the scope of their functions was too narrow. Until in very recent years the operations of the health officers had been almost solely confined to the measures adopted for the prevention of the more readily communicable diseases commonly called contagious. These usually included only small-pox, diphtheria, and scarlet fever, and at intervals yellow fever, cholera, epidemic dysentery, and typhus fever. More recently typhoid fever and measles, and indirectly the diarrhoeal diseases of infants, had been generally added to this list. But even in regard to the disease restricted to, the measures adopted had been of a most unsatisfactory character. General prophylaxis should include the supervision, not only of those diseases which had generally come within their surveillance, but also all the infectious diseases which from their nature were to a greater or less extent preventable, in addition to all other forms of disease which were the result of insanitary living conditions, habitations, or surroundings, including those arising from manufacturing, mining, or other industries. It should also include, with greatly increased powers and breadth of jurisdiction, the surveillance of the food and water supplies and the sewage disposal. There was a large class of different types of the infectious diseases well recognized as being more or less preventable which were not included in the registration returns. Next on might be made in this connexion of consumption or tuberculosis in all its forms, whooping-cough, mumps, chickenpox, and cerebro-spinal meningitis which had been included in the registration returns by some authorities but had not generally dealt with by them, but also of erysipelas, pneumonia, the diarrhoeal diseases of infants, dysentery, malarial fever, influenza, the contagious diseases of the eye and certain parasitic diseases of the skin, as well as some of the other diseases occurring in both animals and man, such as rabies, tetanus, anthrax, and glanders. Pulmonary tuberculosis was included in the list of communicable and preventable diseases by the New York City Board of Health two years ago, and the measures adopted for its surveillance had been gradually extended and the lines for its restriction had been drawn closer and closer as each year had passed. During the past year measures to ensure the registration of [illegible] had been adopted in New York. The importance of registration of epidemic cerebro-spinal meningitis was also noted because of the evidence of its communicability, in some of the importance of fuller investigation of the conditions under which it arose and became epidemic. The infectious diseases of the eye, trachoma and conjunctivitis, should be included because of the importance of the adoption of preventive measures in the public schools. Puerperal septicæmia should be included in the registration returns because modern aseptic methods have proved that in most instances this was a strictly preventable disease. Measles, it could be thought, would be worthy of inclusion in the list of communicable diseases. So far as the registration returns are concerned, that typhus fever, relapsing fever, and yellow fever were diseases [illegible] the isolation of cases of [illegible] instituted for the collection of data bearing on the modes of infection and the sources and causes of their prevalence and their distribution. He firmly believed that these diseases could be to a very considerable extent prevented, but the means and the methods were yet to be determined. A large new field had just been opened by recent observations with regard to the specifically infectious character of many of the cases of summer diarrhoea and dysentery, both of infants and of adults. The results of the investigation of the sanitary authorities in recent years in many large cities had shown that these diseases were to a very large extent preventable; and it seemed probable, from recent investigations, that some forms at least were preventable and curable by the use of a specific curative serum. These diseases should be made notifiable. Notification of the parasitic diseases of the skin should be required chiefly because of the liability to the spread of these diseases among children in the public schools. The annual cost of typhoid fever in sickness and death throughout the United States would be computed in terms of tens of millions of dollars. All of this loss was certainly preventable. Unfortunately the city sanitary authorities were often almost powerless, as their jurisdiction did not extend over the watersheds which supplied with water the people under their care, and a supervision by them of the sources of the milk supply was also frequently absolutely impossible. Some more comprehensive measures were urgently demanded to extend the jurisdiction of the authorities in the supervision of the supplies of milk and oysters and other foods. What were the possibilities of preventive medicine as concerned the larger centres of population? In New York City it might be assumed that the present tuberculosis death-rate of 2.7 might under proper surveillance with certainty be reduced to 1.2. The diphtheria death-rate should certainly be reduced to one-third of what it was at present (0.6 per 1,000 population). Similar reductions should be possible in the death-rate from typhoid fever, measles, and scarlet fever. The diarrhoeal diseases of infants had already been reduced in the last twelve years to one-half of their former prevalence, and should still be reduced more than 50 per cent. The most fatal affections with which they had now to deal in New York were the acute respiratory diseases, including influenza, lobar pneumonia, broncho-pneumonia, and acute bronchitis. The average death from this group now exceeded 3 per 1,000 of the population and in years when there was an epidemic prevalence of these diseases the death-rate might be 4 or more. The advances in preventive medicine had as yet not only had no influence in reducing the death-rate from this group of diseases, but, on the contrary, there had been a slow but continuous increase. He could not at that moment point out the method or means by which a reduction was to be brought about, but he firmly believed that with fuller knowledge such a reduction would become possible in the great cities where these diseases were so prevalent. Something could be accomplished through the closer sanitary surveillance of the occupations and conditions under which the lower classes worked, especially the noxious trades. His investigations had shown that in New York City a large increase had taken place during the last twenty years in acute respiratory diseases, cancer, and diseases of the circulatory apparatus and the kidneys. The increase in cancer amounted to about 15 per cent. A very important sanitary problem was here presented to the health authorities. What were the factors in the lives of the inhabitants of large cities which had caused such a remarkable increase in the prevalence of these affections, and how were these factors to be removed? Some of the directions in which the scope of preventive medicine could be extended had been indicated. With such extensions, and many others not mentioned, the future possibilities of preventive medicine seemed to be even greater than the past achievements, for almost every development in bacteriology opened up a new field of work for the sanitary authorities.

THE ORATION IN SURGERY.

The Oration in Surgery was delivered by Dr. W. J. Mayo, Surgeon to St. Mary's Hospital, Rochester, Minnesota, who took as his subject the Association of Surgical Lesions in the Upper Abdomen. He said the surgical borderland of to-day was in the upper region of the abdomen, a locality until recently considered almost purely medical. Surgery must be judged in this region: first, the mortality of the operation itself and the question whether this was greater than under the expectant plan; secondly, the permanence of cure compared with medical treatment; thirdly, the question of deaths after introduced by the operation itself or

the natural length of time which the healing process involved. On each one of these considerations they could say that earlier operation would reduce the mortality and increase the permanence of cure and lessen the disability. In the upper abdomen they had attempted to study the stomach independent of the associated organs, the liver and bile passages, the duodenum and pancreas. The result had been a confusion in diagnosis and treatment. The palm of a hand might cover a serious lesion of any one of these organs, and that, too, at the point of greatest liability. Not only so, but any one of this group might start a pathological process which might extend to any of the others. As illustrations he pointed to the disturbance of the stomach which occurred with gall-stone disease, the adhesions to the duodenum, and the pancreatitis, an association direct as it was vital, and chronic ulcer of the stomach with adhesions adherent to the bile passages or gall bladder. With an operative experience of over 1,000 cases of this description he had no hesitation in saying that mistakes in diagnosis were still common, and in many instances unavoidable. In the majority of cases a pathological diagnosis was possible, and one could say with certainty, "This is gall-stone disease," or "This is ulcer of the stomach, but in a considerable minority they could only say: "In this locality is a diseased process which requires operative treatment, the exact nature of which must be determined by incision." Anatomical considerations taken in conjunction with the embryological origin justified the grouping of the surgical lesions of the upper digestive tract, and at once enabled the diagnostician to associate the symptoms and the surgeon to direct his attention, not to one, but to the entire group of organs. The art of the diagnostician lay in the proper valuation of the signs and symptoms of disease in organs of associated function and pathology. For instance, let the value of the colic in the diagnosis of gall stones be noted. The typical attack came on and stopped abruptly, was relieved by vomiting or a feeling of movement of gas, was irregular in time, in regard to food, and not accompanied by temperature or pulse elevation, and left the patient able to attend his duties almost immediately after cessation of the pain. While the pain lasted it was excruciating, felt in its greatest intensity in the epigastrium, radiating upward behind the sternum and into the back. The distress penetrated to the right side, but occasionally to the left, and lasted from a few minutes to six or eight hours. When the patient came for advice it might be years since the typical attacks: he might have forgotten them, the present trouble complained of being pain, digestive disturbance, and tenderness on deep pressure over the gall-bladder region. The history of the early attack was worth more than the physical examination in many cases. The pain in gastric or duodenal ulcer might be just as severe, but lasted a day or two longer, especially when due to regional peritonitis, and was accompanied by gastric symptoms and local tenderness. The symptoms lasted more or less for some days or weeks, and the interval of apparent cure gave some weeks or months of comparative health. Acute perforations of the organs of this group were relatively common and gave rise to symptoms which would be at once recognized if they occurred in the region of the appendix, but occurring in the upper abdomen too often went to a fatal issue unoperated. The initial symptoms, whether of the gall bladder, the duodenum, stomach, or acute perforation of the pancreas with fat necrosis, were remarkably alike. The onset was essentially the same in each. Sudden extreme epigastric pain with collapse ushered in the attack, and muscular rigidity, as a rule, came on early. In 811 operations on the gall bladder and bile tract there were 4 acute perforations of the gall bladder, with but 1 recovery, although the average mortality in the benign series was but 4.47 per cent. In 45 operations for duodenal ulcer, 4 acute perforations occurred, with 2 recoveries, while in 41 operations for subacute and chronic ulcer there was only 1 death. In 469 operations on the stomach, 5 perforations occurred, with 2 deaths. In 32 operations for diseases of the pancreas, there was only 1 operation for acute pancreatitis and fat necrosis, with recovery. This gave 14 cases of acute perforation, with a mortality of 50 per cent., and why? Because the operation was usually too late. The death-rate in over 1,150 operations for subacute and chronic benign conditions of this group of organs averaged a little less than 5 per cent., counting as a death from operation any patient dying in the hospital without regard to cause or time elapsed between the operation and the fatal issue. If there were added to this mortality of 50 per cent. in operations for acute perforation, the cases seen in a moribund condition beyond even attempt at relief, and the still larger number in which death occurred without an *ante-mortem* diagnosis, one got some idea of the appalling nature of the disaster. To be successful operation must be immediate. Few operated on later than ten hours after perforation recovered. As a rule the history and location of the early acute pain would furnish evidence as to the origin of the trouble. Preceding perforation of the gall bladder there were often symptoms of several days' duration, with a history of gall stones. The acute pain occurred in the gall-bladder region. Early drainage with removal of the gall-bladder should give a mortality not exceeding 10 per cent. Duodenal perforation usually occurred in cases of chronic ulcer with years of symptoms preceding, but the immediate onset was exceedingly acute. The location of the early pain was just to the right of the median line. Operation for acute perforation of the duodenum was rarely successful after eight hours. Suture of the perforation with suprapubic pelvic drainage, and after-treatment in the sitting posture in early cases should give 80 per cent. or more of recoveries. Gastric perforations occurred on the anterior wall, according to Brunner, 7 times to 1 posterior, and near the cardiac ends 5 times to 3 times in the pyloric portion, and near the lesser curvature 122 times to 16 times near the greater curvature. The initial pain was usually to the left of the median line. Only 10 per cent. occurred without previous symptoms of chronic ulcer. The symptoms of perforation of the pancreas from inflammation with resulting fat necrosis, were sudden pain in the epigastrium, collapse and early extreme distension of the abdomen. On opening the peritoneal cavity, free fluid, often of a haemorrhagic character, was evacuated. The little fatty masses in every direction and the enlarged pancreas called attention to the source of the trouble. The group of acute perforations gave an unsatisfactory mortality, with a prolonged period of disability from drainage, and without a certainty of permanent cure of previous underlying conditions. This would not long continue. Like acute gangrenous appendicitis, the condition would be recognized early with corresponding improvement in results. The diagnosis of the chronic infective lesions of the organs of this group was in a far more satisfactory condition. The general mortality of gall-stone operations was not above 5 per cent., taking the cases as they came, but even this was too high. Grouping the cases in which the entire process was limited to the gall bladder, the mortality was from 1 to 2 per cent., and depended to a large extent on the general condition of the patient. Secondary complications, chiefly those which involved the hepatic and common ducts with resultant cholangeitis, pancreatitis, and so forth, were responsible for the death-rate. As practically all the patients had symptoms on which a diagnosis could be based previous to the complications it would not be long before early operation in patients otherwise in good health would be the rule as it was now in chronic and relapsing appendicitis. The average stay in the hospital for uncomplicated gall-stone patients was slightly less than seventeen days; the convalescence of the complicated duct cases was prolonged one or two weeks. Chronic infections of the pancreas were usually secondary to gall-stone disease, and, as a rule, did not occur excepting where the common duct had been directly irritated by the presence of calculi. The results of drainage of the gall bladder and bile ducts were extremely satisfactory. In their series of 32 cases there were but 2 deaths; these patients had coincident suppurative cholangeitis. The primary mortality of operations for chronic infective lesions of the stomach with ulcer was in a fairly satisfactory condition, but as to ultimate results nothing definite could be said. The dilated stomach with retention or stagnation of food suggested at once drainage operations with gastro-jejunostomy as the type. They had patients of this description alive and well more than twelve years after operation. Chronic ulcer without mechanical obstruction gave a less promising outlook. Their results in operations of this kind of lesion furnished a considerable percentage of secondary operations and failures to relieve. In briefly calling attention to the malignant diseases of this group of organs, Dr. Mayo emphasized the possibilities of cure by means of operation. In the gall bladder he found 4 per cent. of cases at the operating table had malignant disease, and all these had gall stones present, or evidence that they had been present at one time. Since it had become the practice to remove all thick-walled gall bladders as useless and a possible source of future trouble, many cases of malignant disease in an early stage had been in this way, it might be said, accidentally cured. He had met with several such instances. The radical

treatment of gastric carcinoma was now on sure ground, with a mortality of 10 per cent., or less in favourable cases, to 30 per cent. in late but still operable disease. The only necessary thing for success was an early diagnosis, and this must be on clinical grounds supplemented by early exploratory incision. In 46 gastric resection for pyloric cancer they had 7 deaths.

FOURTH INTERNATIONAL HOME RELIEF CONGRESS AT EDINBURGH.

The fourth International Home Relief (Assistance Familiale) Congress held its sittings in Edinburgh on Tuesday, June 7th, and the three following days.

Inaugural Meeting.

The first meeting was at 8 p.m. on Tuesday, in the Assembly Hall on the Mound, when the President, Lord Balfour of Burleigh, was called to the Chair by the Lord Provost of Edinburgh, who, on behalf of the City Corporation, extended to those not resident in the city a most cordial welcome to Edinburgh and an assurance that the municipality would do everything possible to make their visit a pleasure and the Congress a success.

After letters of apology had been read by the Secretary, Sir John Sinclair made a statement explanatory of the steps which had led to the Congress. He said they had to thank Her Majesty Queen Alexandra for her gracious kindness in allowing the Congress to be held under her Royal patronage. They were glad to have as President of the Congress Lord Balfour, the most representative of living Scotsmen. They had to thank the Marquis of Lansdowne for having helped them in their communications with foreign Governments. The Local Government Board had given generous and valuable help. The Conseil du Département de la Seine had sent Dr. Marie, who was the Secretary and the inspiring genius of the first Home Relief Congress which met in Paris in 1901, and who had now organized the contingent of guests from France and had superintended the French papers to be submitted to the Congress. They had to welcome Dr. Peeters, delegated by the Belgian Minister of Justice; M. Sano, delegated by the municipality of Antwerp; M. Deferon, by the Government of the Province of Liège; and Mr. W. L. Micks, the Chairman of the Irish Poor Law Commission.

President's Opening Address.

Lord Balfour expressed his thanks for the compliment done to him in asking him to act as President, and welcomed those members who had been good enough, at considerable expense both of time and money, to come to attend the Congress.

Relief of the Poor.—Scotland had always taken an independent line in all matters pertaining to relief of the poor. She had worked out her own problems in a way suitable to her needs and her circumstances, but now would suggest that she had nothing to learn from the other great nations of Europe and America. Such conferences as this led to greater friendliness between one another, and so tended to promote friendly international relations.

Object of the Congress.—The general object of the Congress was to discuss those methods by which help could best be given to the weaker and less fortunate brethren, without relegating them to special institutions where relief was administered together, but its motive was to point to that important branch of charitable work carried on in hospitals and similar institutions.

Foreign Systems.—The international character of the Congress gave special interest to what was said. It was impossible to appreciate the points of view of different countries regarded from the standpoint of the laws in each country regulating the giving of help to the destitute except by way of the [illegible] which contrasted in summary form the systems of different countries. They were not [illegible] present [illegible] and in order to [illegible] separating the [illegible] they [illegible] at least as many systems as nations represented in that hall. Perhaps it would not be going too far to say that there were more systems than there were national representatives, and few things would probably surprise some of those present so much as to discover what great differences existed in these islands between the different systems of poor relief adopted in England and in Scotland respectively, and this in spite of the fact that we had been one kingdom for three centuries, and under one Parliament for nearly 200 years. Lord Balfour then referred to some of the differences between the English and the Scotch systems. The English system dated from the well-known Act of Elizabeth in 1603; while in Scotland they had no recognized system—at any rate, they had none involving compulsory contribution till the middle of last century. Up to that time the Scottish system was in the main voluntary and in the hands of a parochial ecclesiastical body. It might have been, as was alleged, inadequate, but it never was so extensive, so ubiquitous, so absolutely without proper safeguards, as was undoubtedly the case in England, more particularly in the southern parts, before the great reform of 1834, and it was certain that Scotland had never had to discuss the question of pauperism as a great national question. For full discussion, however, of the subject in all its bearings in these islands it was necessary to go to England. The independence of the individual citizen in his own home was the ideal organization of a nation, and any system of public relief ought to interfere as little as possible with that organization. The effect of relief on the habits of the people was largely influenced by the source from which it was drawn. Therefore it was impossible to exaggerate the importance of utilizing, so far as possible, the agency which brought the least danger in its train. The old English Poor Law ignored this consideration altogether, and with disastrous consequences, and the real problem that had to be solved by the reformers of 1834 was how to apply in practice the maxim that Poor-law relief should not be indiscriminate.

The Scottish Ideal.—The Scottish ideal was always different from the English. The foundation of the Scottish law was that against ordinary pauperism—that was, pauperism other than that of the able-bodied; it was not thought necessary to institute a test. The Scottish law simply ignored the able-bodied pauper. It altogether prohibited relief to him, and they had not in their system, as originally designed, the poorhouse as a test, but as an asylum. Later, to some extent the English use of the poorhouse as a test had been forced on the Scottish administration in self-defence. But the Scottish system had always been, and would probably always be, mainly an outdoor system. The abstract legal right to relief was better defined in Scotland than in England, but always with the limitation that able bodied persons were not only not entitled to relief, but the administrative authority was not allowed to give it.

Children.—It would, then, appear to be indicated that the case of children would first claim the attention of the Congress. All matters respecting the treatment of those who in early life became dependent on public support presented very special difficulties of their own. Apart from the general question how far was it right to relieve parents of their responsibilities, it was probably true that many things could be attempted by private or voluntary action which it was less easy for the State to do. The care of the children should obviously be the responsibility of their parents. It was better for the children that this principle should be maintained even when their parents were not as wise or as fit for the responsibility as they might be, and except in extreme cases, or cases where the children must be removed to a special institution, it was better to make every effort to teach the parents to perform their duty rather than to relieve them of those duties altogether.

Orphans.—They might, Lord Balfour thought, claim that the care of orphans, and children deserted and separated from their parents, had always been a special feature of the Scottish system. In May, 1903, there were of all these classes taken together 7,110 children chargeable on the rates, of whom no fewer than 6,15[illegible], were boarded out, or 87 per cent. of the whole number. The figures of the last ten years showed that the number of orphans and deserted children had slightly decreased, while those separated from their parents had increased from 1,258 in 1893 to 2,925 in 1903. There were more orphans than ten years ago, but their relatives and private charity were doing more than was formerly the case, though it might perhaps be said that the increase in the number of children separated from their parents included many who

would have been deserted if the law had not stepped in and removed them from their parents before actual desertion. Probably some share in contributing to this result might be referred to the operation of the Prevention of Cruelty to Children Act which was passed in 1894.

Boarding-out System.—Two efforts had been made to gauge the results of the boarding-out system, one by Sir John Skelton in 1880, and a second by Mr. Peterkin in 1892. Sir John Skelton dealt with the twenty years preceding the date of his paper, and came to the conclusion that the proportion of failure was under 3 per cent., and that the boarding-out system, by enabling children to lead a healthy life, produced a finer and manlier type of character than was the case of those who had been from their earliest infancy shut up in large institutions. Mr. Peterkin's results practically confirmed the figures and inferences of Sir John Skelton. In Edinburgh, of 4,563 adult poor chargeable in March last, only 5 per cent. were known to have been previously chargeable as boarded-out children; in Dundee only one case of a former boarded-out child was now chargeable; and in Glasgow, between 1882 and 1903, 1,372 boarded-out children were taken off the roll of the inspector of poor and absorbed in civil life, and only 52 were known to have turned out badly, and had entered the poorhouse. Forty-one others had become chargeable, either on account of ill-health or insanity, but in many cases the failure was due to constitutional incapacity.

Young Widows with Children.—Lord Balfour thought that in the case of young widows with children there was no special hardship in removing the boys from such a home.

Old-Age Pensions.—He asked why old age was specially selected as the risk from which individual responsibility was to be relieved at the public expense. It was not a sudden or unexpected misfortune. It was in the individual discharge of this and similar responsibilities that the economic competence of a nation was learnt and established as a character and habit. These obligations could not be remitted to the individual without shifting the centre of gravity of the community at large and probably with disastrous effect. Contributory schemes were also referred to.

Able-bodied Adult Paupers.—On the question of able-bodied adult paupers, he thought that in many cases the authorities did not use sufficiently the powers which they already possessed.

Treatment of the Sick Poor.—In dealing with this subject, Lord Balfour said:—"The whole question of the treatment of the sick poor is a most important one, and is well worthy of the serious attention of those who are here assembled. It has recently been made the subject of a most exhaustive and useful inquiry by a Committee of the Local Government Board under Mr. Patten Macdougall, one of the members, but I cannot go at length into the conclusions at which they have arrived. I venture only to say that I regard the tendency in this country, which is, I am afraid, a growing tendency to put the whole treatment of the sick poor on an eleemosynary basis as both impracticable and mischievous. Do I go too far when I say that the whole practice of our hospitals, infirmaries, provident dispensaries, friendly society, insurance, and even the work of the private medical practitioner amongst the humbler classes of our population is in a hopeless state of disorganization? Is it too much to hope that the treatment given by hospitals, if properly organized, could be made supplementary to the treatment of the sick poor by their own friendly society doctor or their own medical adviser, who, inasmuch as he knows the home and habits of his patient, is better qualified to advise than the over-worked medical attendant in the out-patient department of a great hospital. If a second opinion, or it may be an operation, is required, the privilege of obtaining this might be put at the disposal of the friendly society or the club, and those who are deserving might be referred to the hospital, or, in the last resort, to the Poor-law authorities. Everything should be done to encourage the head of the family to become a subscriber of some form of medical insurance. I urge the discussion of whether some such division of work might not be made. I dread the direction in which we are tending, and I believe our hospitals can never obtain enough money to meet the growing demand which the present policy seems to invite. It may be said, and perhaps with truth, that the tendency to which I have alluded is less marked in Scotland than in England. It is in the metropolitan area that it has come most prominently within my notice, but it is not confined to that area, and I am satisfied that those who look below the surface of things would acknowledge that a great and serious reform is needed if things are to be placed on a really sound and proper footing. If the Congress can do anything to educate public opinion in this matter it will have well justified its existence. I do not think I go too far when I say that there is no settled organization at the present time, and the work will have to be begun from the foundation."

Co-operation between Voluntary Agency and Public Relief.—On the question of co-operation between voluntary agency and public relief he thought that no system for relief of the poor would ever be really satisfactory unless there was full and organized co-operation between the two.

Family Life.—One of the most valuable elements in the social constitution of a nation was family life. Let them then cherish what there was of healthy home life in the community. Even among the rich this should not be forgotten. It was a fine and useful feature in a man to try to acquire a home of which he should be proud, for which he would have an affection, in which he would see a family grow up for whom he would be responsible. It elevated his tone of thinking and feeling not only in regard to private conduct, but also in regard to social and political duty, and it tended to produce the mental and moral conditions in which the highest form of patriotism would flourish.

Dr. MARIE (Physician to the Ville Juif Asylum, Paris), who was the originator of the first Congress, then spoke.

The EARL OF MANSFIELD moved a vote of thanks to Lord BALFOUR, who replied.

SECTIONS.

The business of the five sections (Children, Old Age, Able-bodied Adults, Sick Adults, and Insane and Epileptics) was begun on Wednesday, June 8th.

Section I. Children.—The EARL OF MANSFIELD presided, and there was a large attendance of persons of note. Miss M. HORN, of the London School Board, read a paper on Home Relief in Relation to the Feeding of Infants and School Children. Her object was to show that from the experience of the managers of Tower Street School the feeding of children from the school as a centre was an essentially bad method of relief, but that many other modes of home relief which tended to induce self-respect and independence on the part of parents could be successfully carried out by capable managers with the intelligent co-operation of the teachers. Experience went to prove that where they had carried out energetic and enlightened home visiting no child need fail to obtain relief if it required it; and, secondly, that private charity was sufficient to meet the demand for relief in schools. The demand for help was largely an artificial one, and was created in schools where it was known that relief was likely to be freely given. The parents were the proper persons to feed them, and the proper place to feed them in was the home. More systematic teaching was advocated in schools, girls' clubs, and mothers' meetings, of girls and women in the care of infants, young children, and the hygiene of the home. Managers should interest themselves in the housing condition of their districts. Charitable committees might be established in every school to promote hygiene, thrift, etc.

Dr. H. WRIGHT THOMSON, Assistant Surgeon, Glasgow Royal Infirmary Ophthalmic Institute, read a paper on home relief in relation to certain eye diseases in children.

Dr. SANDWITH, delegate from the Infants' Health Society, London, described the objects of that organization, which had been called into being because "of the physical deterioration of the British race" and the enormous infantile mortality.

Dr. ROBERTSON, Medical Officer of Leith, urged the importance of the due feeding of children, and the education of the very poor in the up-bringing of their children. At present between 70 and 80 infants a day were being fed from their local milk dépôt, and it was found that at the end of the year the death-rate among children so fed was practically *nil*.

Dr. RONALDSON (Haddington) made a plea for something being done to see that the feeding of children attending country schools, who had to walk several miles, was properly looked after.

Dr. CHALMERS (Medical Officer of Glasgow) also urged the desirableness of the proper feeding of children.

Dr. LESLIE MACKENZIE, of the Local Government Board, said if they were to make anything of the race at all they must begin with the child.

Dr. CAVERHILL (Edinburgh) urged co-operative societies to undertake the distribution of milk in rural districts.

Miss FLORA STEVENSON (Chairman of the Edinburgh School Board) wrote from London, enclosing a statement as to the

meals adopted by a committee of the City for feeding and clothing poor children, with the view of aiding the School Board in securing the more regular attendance of the children at school.

Miss FRANCES ROBERTS, Inspector of the Chorlton Union, Manchester, read a paper on The Protection afforded to Children by existing Poor Laws, and the necessity for further legislation. The amendment of the Infant Life Protection Act was also urgently needed, in order to bring under inspection every case in which children were received or maintained apart from their parents for hire or reward.

Mrs. IRWIN, one of the Directors of the Edinburgh Committee, read a paper on The National Society for the Prevention of Cruelty to Children (Scottish Branch) and its Relation to the Home, the Law, and the State. Prevention was its aim. Its object was to find out and check the beginnings of evil that waited for cruelty and neglect. Home life was respected by the Society; parental control was strengthened, not weakened.

Dr. CRICHTON spoke on the medical and scientific side of cruelty to and neglect of children. Continued excess in the use of alcohol weakened the moral faculty, and thus suspended and grieved the great fidelity of the love of offspring. He moved

[illegible]

Mr. H[illegible] HESLOP, F.R.C.S., seconded, and the motion was carried.

The Chairman afterwards proposed the following two motions:

[illegible]

Mrs. GRIER seconded the first motion, which was supported by Mr. ROSS MACDONALD, W.S., and adopted.

Mr. H. O. HESLOP, Inspector-General of Militia, [illegible] which was supported by Dr. [illegible], and was adopted.

MEDICAL NEWS.

The Rev. Dr. ALEXANDER J. SCOTT, of Bath, has been appointed Chaplain to the British Medical Benevolent Fund.

WARRINGTON CRICHTON-ARMSTRONG will present the prizes to the students of the Hospital School of Medicine to-day (Saturday, June 18th), at 3 p.m.

The annual meeting of the Royal Children's Association will be held on Wednesday next, at 4 p.m., at the Caxton Hall, Westminster, when the Earl of CROMARTY will preside.

The annual meeting of the Medical Society of London will be held on Wednesday, July 6th, at 8.30 p.m., when the Oration will be delivered by Dr. [illegible], the new President of the Society. The evening will be devoted to [illegible].

Dr. [illegible] has been appointed Physician to the Private and Provincial Wards [illegible] Hospital. He succeeds [illegible] who has been appointed Consulting Physician to the Hospital.

Mr. [illegible] has been appointed Dental Surgeon to the Hospital. He succeeds [illegible] who has been appointed Consulting Dental Surgeon to the Hospital.

A special general meeting of the Association of Public Analysts will be held at the Chemical Society's Rooms, Burlington House, on Wednesday, June 22nd, at 8 p.m., when the following resolution will be moved by the President, and if passed will be submitted to a special general meeting for confirmation: [illegible]

Dr. D. HARVEY ARNOLD, Director and Principal Medical Officer of the Sanitary Service Office, has received the King's Medal for Service in the Field, and was the Imperial Ottoman Order of the Osmanieh, Fourth Class, conferred upon him by the Khedive.

At a recent meeting of the Health Committee it was unanimously resolved that an honorarium of £50, together with an expression of thanks, should be offered to Mr. John Holt Mason, Medical Officer of Health for Macclesfield, in acknowledgment of the great services rendered by him last year in connexion with an outbreak of small-pox.

Professor ARTHUR HEGAR of Breslau, who is now in his 77th year, will at his own wish resign his chair on October 1st. In recognition of his great services as a teacher and practitioner of obstetrics and gynæcology, the distinction of Privy Councillor of the First Class, with the title of Excellency, will be conferred upon him.

A FRENCH COMMITTEE OF MILITARY HYGIENE.—The President of the French Republic has signed a decree constituting a Superior Committee of Military Hygiene and Epidemiology. The Committee consists of Professor Brouardel (Chairman) and Drs. Blanchard, Cornil, E. Roux, Chantemesse, Chauffard, Kelsch, Claudot, Deldre, Catteau, Vaillard, and Kermorgant.

THE annual meeting of the Poor-law Medical Officers Association of England and Wales will take place on Tuesday, June 28th, at the Trocadero, Regent Street, W., at 6.30 p.m. At 7.30 the members and their guests will dine together, Dr. Farquharson, M.P., the President, being in the chair. Among the guests are expected to be present Dr. Hutchinson, M.P., Dr. Clement Dukes, F.R.S., the Hon. Claude Hay, M.P., and Surgeon-General Evatt, C.B. Any Poor-law medical officer wishing to be present is requested to communicate with the Honorary Secretary, Dr. Major Greenwood, 9, Copthall Avenue, London Wall, E.C.

THE new Nurses' Home in connexion with the North Staffordshire Infirmary was formally opened at the end of last month. Its foundation met at first with a good deal of opposition, but the view was successfully urged that the interests of patients demanded that they should be tended by healthy and happy nurses of the best class, and that to secure these fresh accommodation was essential. The appeal made was so successful that the home has been started free from debt, and with something in hand by way of endowment. The movement was initiated by Mr. W. H. Folker, who, [illegible] as house surgeon, has now been connected with the Infirmary over fifty years.

CHELSEA CLINICAL SOCIETY. The seventh annual dinner of the Chelsea Clinical Society was held at the Criterion Restaurant, Piccadilly Circus, on June 9th, with the President of the Society, Dr. Vincent Dickinson, in the chair. After the usual loyal toasts had been duly honoured, the Chairman proposed the toast of The Chelsea Clinical Society. He said that for the first time in the history of the Society their Honorary Treasurer, Dr. Cooper, was able to report that there was a small balance. This was due to the increase in the number of members, and that increase he ascribed to the [illegible] attended the debates of the Society, especially the [illegible] debate. He then referred to the fact that some of the large medical journals had been compelled through want of space to forgo [illegible] their debates. But he was glad to expect that one of the monthly medical journals would in future publish a report of their proceedings, and the Council had appointed Dr. Foster Palmer as Honorary Secretary for the purpose of preparing such reports. Dr. Bousfield Cash responded to this toast, and explained that the pressure of his work had prevented him [illegible] he had wished at the meetings of the Society. The toast of The Visitors was entrusted to Dr. [illegible], and was responded to by the Mayor of Chelsea and by the Coroner, Dr. Wynn Westcott proposed the health of the President and Officers of the Society, which was responded to by the Chairman, who concluded [illegible] the health of Dr. Foster Palmer, [illegible] Robinson Saunders, who in his reply [illegible] Society was [illegible] to attend the meetings. [illegible] The musical features of the evening was [illegible] contributed by the Rev. Dr. [illegible].

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JUNE 18TH, 1904.

THE HOME TREATMENT OF POOR CONSUMPTIVES.

THE treatment of the consumptive includes much besides the endeavour to improve the health of the individual. In tuberculosis, as in all communicable diseases, treatment must aim at protecting others as well as at relieving the patient. The treatment of tuberculosis is, in its wider aspect, a matter of public health, and the proper provision for treating consumption becomes thus a concern of the community.

In preventive medicine incomplete measures are a source of danger since they give a delusive sense of security. It is well, therefore, to inquire whether our provision for the treatment of consumption is adequate to meet the requirements of all classes and of the different stages of the disease. Unfortunately, it is a disease which especially affects the poorer classes, who are the least able to afford either the money or the time requisite for its treatment. For these, therefore, some provision is needed to make proper treatment possible. The establishment of consumption hospitals and sanatoriums, important and useful as these institutions are, fulfils a part only of the requirements. Only a minority of the consumptives who would be willing to enter these institutions can be admitted, and many prefer, for various reasons, not to seek admission. Even those who obtain treatment in a hospital or sanatorium cannot remain more than a comparatively short time, and the treatment of consumption must generally be continued for months, and possibly years. Thus a large proportion of the sufferers from consumption must be treated in their homes for at least part of their illness, and supervision is desirable throughout. Amongst the well-to-do this is not unattended with difficulty; amongst the poor supervision is too often entirely absent.

The organization of home treatment for the poorer consumptives is a matter which demands more attention than has so far been accorded to so important a prophylactic measure, and from the point of view also of the patient's well-being supervision of home treatment is necessary. It is well recognized that patients who leave a sanatorium much improved frequently relapse on return to their homes and former occupations, and the sanatorium treatment of consumption is already being discredited by some because of this relapse of cases after discharge. It is not, however, that sanatorium treatment is less satisfactory than was anticipated by those who had studied the possibilities. The incompleteness of the results is due to the incompleteness of the treatment, which requires a longer time than most of the poorer patients are able to spend in complete cessation from work. That the public has been brought to see the need for sanatoriums is a great thing, but already people are beginning to realize the limitations of the sanatorium treatment, and to express disappointment that the results are not so great as they had hoped. This attitude of the public makes the time most opportune for insisting on the necessity for more complete provision for ensuring home treatment amongst the poor.

The address on the Organization of the Home treatment of Pulmonary Tuberculosis, by Dr. Philip of Edinburgh, published in last week's issue of the BRITISH MEDICAL JOURNAL, draws attention to a scheme which has been in active operation in Edinburgh for the past seventeen years with marked success. The essential feature of the scheme is the establishment of dispensaries for consumptives, such as have more recently been founded by Professor Calmette, of Lille, and others in various places abroad. The scope of the Victoria Dispensary for Consumptives in Edinburgh, which may well serve as a type of what is needed, goes beyond the mere examination of patients at the dispensary. Careful records are kept of every patient, and visits are paid to the patients at their homes for the double purpose of treatment and of investigation into the state of the dwelling, the general condition of life, and the risk of infection to others. All who have visited the poor consumptive at home in any large town will recognize the need for some supervision of the kind indicated.

In Edinburgh the staff of the dispensary is assisted by nurses and a Samaritan Committee of ladies, who undertake the surveillance of the consumptive patients at their own homes. Although over 13,000 patients have been attended from the Victoria Dispensary there has been no refusal on the part of the patients to give all information that was sought, and the visits of the medical officers and nurses to their homes have been welcomed by the patients. This speaks well for the tact of those engaged in the work of the institution, and disposes of the possible objection to the scheme that the patients might resent or refuse the visits.

Some such scheme for the organization of home treatment of poor consumptives is greatly needed in London and other large centres of population, but it is doubtful whether we can rely on voluntary benevolent enterprise for the required organization. Local authorities—municipalities and Boards of Guardians—have already interested themselves to some extent in the matter of sanatoriums for the treatment of poor consumptives. Such bodies might well take into consideration the provision of consumption dispensaries and the organization of home visits to consumptives. The advantage to the community would more than justify the expense involved, and in all probability more valuable results would be obtained for a given sum in this direction than could be obtained for a like amount expended on a sanatorium.

The organization of home treatment of consumptives does not in itself form a complete plan of campaign against the scourge of tuberculosis any more than does the provision of sanatoriums. Both are needed, as well as homes for the advanced cases and colonies for the employment, under supervision, of the arrested cases until these may safely be left to themselves.

The provision of consumptive dispensaries with home supervision would, however, be a great step towards the more efficient control of tuberculosis, and the time is ripe for entering with energy on this further stage of the campaign.

THE PROPHET OF THE NEW ZION.

If the secret of greatness lies, as one is often tempted to think in these days, in notoriety, John Alexander Dowie may justly be looked upon as one of the greatest men of this or any other century. Even Barnum was not more widely advertised. Barnum, however, paid for the advertisements of his show, whereas the newspapers seem to vie with one another in advertising Dowie for the pure love of the thing. That the doings of a man, the least offensive part of whose vulgar personality is that he is a blatant quack, should for days fill columns of our principal papers, suggests the reflection that our race is undergoing moral as well as physical deterioration. Dowie's "descent" on London, his visit to Berlin, and his "invasion" of New York a year or two ago, are like nothing so much as an immensely-enlarged reproduction, with the humour left out, of the chapter in Henri Murger's *Vie de Bohème*, in which the thrilling story of the hunt of the Exotrane piece is told. It is pitiful, however, to read of the paralysed men and ailing women and children waiting in vain in simple faith for the coming of the Prophet whose precipitate Hegira must have been felt by them as an abandonment. The whole career of the man is a striking illustration of the ease with which an impudent impostor can make the world his oyster. The qualities needed for success are in the words of Danton, *De l'audace, de l'audace, toujours de l'audace*.

Dowie's theological pretensions as founder of the "Christian Catholic Church in Zion" and "Elijah the Restorer" do not concern us, but as one of the chief professors of the faith-healing which now finds so many devotees among people who call themselves educated some account of him may not be out of place in a medical journal. He was born at Edinburgh in 1847. When he was thirteen he went with his parents to Adelaide, South Australia. He was in no way remarkable as a boy. For seven years he earned his living as a clerk in a store. At the age of twenty he returned to Edinburgh and studied for the ministry. In due course he was ordained in Australia, and was called to the Congregational Church at Sydney. In 1882 he succeeded in building a tabernacle for himself in Melbourne, and there, founding himself on the promise made to those who have faith that "they shall lay hands on the sick and they shall recover," he claimed the power of healing. His first patient was his wife, whom he cured of bronchitis by the laying on of hands. Encouraged by this success, he at once began the war against scientific medicine which he has continued to wage ever since. He denounced all the quacks against medicine that he could find and practised them differently on material with which he was fairly familiar. He founded a Divine Healing Association of which he made himself the President. His antics disgusted the sedate Presbyterians, and at a short time his Association and Church left the International Divine Healing Association, of which Dowie had separated himself President during his absence on an evangelising tour, he received "Elijah-revelations." He was particularly successful in one of the centres of missionary enterprise—the collection of funds. In 1893 he pitched himself near the Chicago Fair gate in Chicago. There he preached day and night, seven days a week. And while not preaching he was healing the sick. It is estimated that hundreds of thousands of persons must have gone to him during the World's Fair. Sometimes he laid his hands on more than a thousand persons in one week, and by hundreds of these his praises were sounded all over the States. His success, it is said, was not confined to cases of hypochondriasis. Cripples came to him on crutches and went away cured; paralytics were borne in on litters and took up their beds and walked. Each of these cures was advertised by Dowie as a direct testimonial from God. At the back of his pulpit he put up crutches and other *ex-votos*, and by means of these he worked on the minds of the people. Contributions flowed in from the faithful, who rapidly increased in number. Then came "persecution" to put the martyr's crown on the Prophet's popularity. In 1895 he was arrested about a hundred times for violating ordinances as to the care of the sick, but he managed always to get bail in time to avoid being locked up. When fines were inflicted he appealed, and before the end of the year he had spent £4,000 in lawyers' fees and costs. But he defeated the ordinances and won his cases, and the advertisement was doubtless worth the money.

The International Divine-Healing Association becoming too narrow for his expanding genius, he formed a larger organization, the Christian Catholic Church in Zion, and appointed himself General Overseer, a position which gives him absolute control not only of the faithful but of the funds. Under the business-like direction of its astute pontiff Zion prospered exceedingly. But after a time his "healing" practice made Chicago too hot to hold him. The authorities showed so great a disposition to bring him before the grand jury on a charge of malpractice whenever his patients died—as they sometimes had the bad taste to do—that he found it convenient to seek fresh fields and pastures new. He collected money sufficient to purchase six thousand acres of the finest land in Illinois on the shore of Lake Michigan, forty two miles north of Chicago. There he built Zion City, which has now ten thousand inhabitants. Of this city Dowie is not only the spiritual head but the absolute autocrat. The curious spectacle is thus presented of a community forming part of the great Republic of the West living under the despotic sway of one man. The use of alcohol, tobacco, pork, and oysters is strictly forbidden to Dowie's subjects, and medical practitioners are excluded from Zion City, in the terse formula of the prophet there must be "no pigs, no pills, no physicians." It is not only practitioners of rational medicine that he denounces; he is just as fierce in anathematizing rival faith-healers. At New York he called Mrs. Eddy an anti-Christian impostor.

It is claimed that Zion is an exceptionally healthy city, and as vaccination is made compulsory and the rules of natural hygiene are enforced, we are willing to believe that there is a corresponding absence of preventable disease. As quack medicines are prohibited as strictly as scientific remedies, a fertile source of ill-health in America is closed to the citizens of Zion. Dowie's son is reported to have stated not long ago that during the previous two months not a single death had taken place in Zion City among persons under 15 years of age. He added that plenty of babies had been born during that period, but "doctor's medicine or instruments played no part in childbirth, the mothers being attended by competent maternity deaconesses." A very different version of the mortality rates in Zion City was, however, given by a person who had visited the cemetery in that place, and who reported that the death-rate was something over 8 per 1,000, a very large proportion of the deaths being of infants under 1 year.

However this may be, it is certain that, although Dowie's

hold over his followers may be primarily due to belief in his spiritual powers, it has been immensely strengthened by his supposed gift of healing. It need not be doubted that "cures" of functional diseases have been cured by faith in him, as they are known often to yield to suggestion from the most diverse sources. Naturally organic diseases defy his praying machine, but he shows wonderful ingenuity in explaining away his failures, even when they are, like Falstaff's lies, gross as a mountain, open, palpable. The death of his own daughter was attributed by him to her "sin" in using a spirit lamp in order to curl her hair; in other cases the misadventure is said to be the result of want of faith. One notorious case may be cited, as it well exemplifies the subtle quality of Dowie's logic. A woman, supposed to be actually in childbirth, who had been vigorously prayed for by the Prophet, died. An inquest was held, and the medical evidence showed that there had been no confinement, but that death had been caused by cerebral haemorrhage. As it was admitted that her life could not have been saved by medical treatment, Dowie was acquitted. He was challenged, however, to explain how it was that his prayers had failed. He replied, "If one has not sufficient faith, God cannot cure him. Mrs. —— had not, and she died." To a further inquiry, "How do you know she had not?" he calmly answered, "Because she died." The most extraordinary part of the story is that the woman's husband, a hard-headed man of business, was perfectly satisfied with this explanation.

Another excuse frequently put forward for failure to cure is that the patient has not paid his tithes. Every member of Dowie's church must contribute a tenth of his income. The amount thus given into his hands is enormous, but no account of it is vouchsafed by the Prophet. For his "cures" no fee is charged, but he does not refuse offerings from grateful patients. There have been many rumours of financial embarrassment in the Church of Zion, and there can be little doubt that the object of Dowie's "invasions" of London, New York, and other places, has been not so much the spread of his evangel as the collection of funds. Dowie's personal property is estimated at £3,000,000.

The combination of religiosity and quackery is always especially repugnant to persons in whom the sense of honesty, which is an elementary instinct of normal humanity, is not obliterated; and this combination has never been exhibited in a more loathsome form than by the impostor who calls himself "Elijah the Restorer." The British people is to be congratulated on the good sense which it has shown in decisively rejecting him and his evangel and his pretended gift of healing.

THE EDUCATION (SCOTLAND) BILL.

THE Education (Scotland) Bill, a measure from which great results are anticipated, has been passing through the Committee stage in the House of Commons this week. Broadly, the Bill proposes to abolish the parochial school areas of the past, and to substitute therefor much larger areas of administration, including four very large "enumerated districts"—Glasgow (including the contiguous burghal areas of Govan, King's Park, Partick, and Rutherglen), Edinburgh (with Leith), Dundee, and Aberdeen. For the rest, it is proposed that the rural Local Government "districts," formed under the Local Government Act of 1889, with any burghal areas that may lie within their borders, shall form the units of administration both for primary and secondary education. It is provided, however, that on the appeal of any of the parties concerned, the Secretary for Scotland may unite "districts" into county units of administration. All this implies something of the nature of a revolution in matters educational in Scotland, and the provisions of the Bill are at the moment the subject of animated discussion over the breadth of the land.

While the purely educational aspect of the Bill has been exposed to a quite microscopical review, it contains provisions having great potentialities in relation to the physical well-being of the nation, which have almost escaped attention. One clause provides that School Boards may expend money in providing for the physical training and recreation of the pupils within their education district, and for their medical examination and supervision. Another clause empowers the Education Department, out of a central fund, to undertake "such sanitary or medical or other special examination or supervision of schools under the inspection of the department, as the department may from time to time see fit to undertake."

At the first blush these proposals appear deserving of all praise. Indeed, they mark a great advance in public sentiment on the subject of physical training and medical inspection. More closely examined, practical difficulties and objections begin to appear. In the first place, it is seen that the establishment of a system of medical inspection and physical training is not obligatory upon the new educational authorities. They "may" carry out such a system. Again, no uniform standard or system of medical inspection and physical training is suggested. Under the Bill each educational authority would be a law unto itself. In this way a fine opportunity is likely to be lost of establishing a scientific system of physical examination of children upon uniform and comparable lines over the whole country. This examination might not enter into detail in the same degree all over the land, but up to a certain point of detail it ought to be possible to compare the results of the physical examination of children in every parish from the Solway to John O'Groats. In time this would result in a large collection of illuminating facts.

Again, under the Bill as it stands it is possible for the following complication of jurisdiction to arise: First, the sanitary authority and the medical officer of health will continue, under the Public Health Act, to deal with the plans of new schools so far as health conditions are concerned, with the sanitation (heating, ventilation, sanitary conveniences, cleanliness, etc.) of existing schools, with infectious diseases amongst children, and in connexion with schools (there are special powers in Scotland dealing with this subject). Secondly, it will be open to the Education Department to appoint inspectors to cover exactly the same ground; and, in the third place, the educational authorities may appoint medical inspectors for the medical examination of school children, and to deal with suspected cases of infectious disease amongst the children and in the households from which they come. In all this there are possibilities of endless trouble and friction between the sanitary authority, the local educational authority, and the Education Department, and more particularly between the officers of these various bodies.

We are very clearly of opinion that while the Education Department may require the services of a medical officer to advise them in supervising and co-ordinating a system

of medical inspection of school children and schools; for the [illegible] the best results would be obtained by developing the existing local machinery in connection with the work of the educational authority. We trust that it may yet be found practicable to formulate a scheme under the Bill which will secure a national and uniform system of medical examination and physical training for school children over Scotland, without the creation of rival and clashing jurisdictions.

THE LOCAL GOVERNMENT BOARD IN ENGLAND.

The Committee appointed by the Treasury on July 29th, 1903, to consider the position and duties of the Board of Trade with the Local Government Board and whether any and if so what alterations could be made in the constitution and status of these offices, whether in the interests of administrative efficiency or any rearrangement of duties between them and other Government departments is desirable, has presented its report. The Committee considered that by the terms of the reference its attention was confined to the consideration of the departments as constituted by the position of their political chiefs, and to certain other aspects has taken a somewhat narrow view of its functions. The Committee reports that Sir Michael Foster, who appeared before it on behalf of the Public Health Committee of members of the House of Commons, suggested that the duties of the Local Government Board in the matter of public health could be separated from the other duties of the Board and entrusted to a distinct staff, under the control of a Parliamentary Secretary for Public Health. The proposal was advocated principally on the ground that the work of the Department was so heavy that the staff had no time to "look adequately ahead." The Committee also had before it a Memorandum from the British Medical Association urging, first, that the President of the Local Government Board should be a secretary of state, and that the department in all matters of state enrolments should be placed on an equality with the departments of secretaries of state; secondly, that the President should be assisted by a Board, meeting for the transaction of business and containing expert members, one of whom at least should be a registered medical practitioner, in accordance with the precedent established by the recent creation of a Scottish Local Government Board; thirdly, that the duties of the Local Government Board should be extended so as to embrace those in respect of the administration of the Medical Acts, the Midwives Act, and the Pharmacy Act now imposed upon the Privy Council. It was further pointed out that the propriety of transferring the duties under the Adulteration Act and Factory Acts to the same Board called for consideration. The Committee in dealing with the Local Government Board has practically confined itself to the question whether the duties of the President should be those of a Parliamentary Secretary or those of the Permanent Secretary. With regard to the duties of other officers of the Local Government Board the Committee merely points out that certain departments [illegible] but states that it does not think that any modification is required to the present distribution of the various duties. With the exception of a recommendation that a Committee should be appointed to consider the question of the Treasury control of the Board, the Committee reports against proposals to transfer business from other departments to the Local Government Board, on the ground that it would be undesirable to add to its labours. Practically the Committee has left matters very much as they were and it will therefore be necessary for the Association to continue to bring to public notice the reasons which have led to the conclusion that the reorganization of the Local Government Board in England is necessary in the interests of public health.

THE RESPONSIBILITY OF A SURGEON FOR HIS ASSISTANTS.

The case of Byrne v. Thorne, reported in the British Medical Journal for June 11th, page 1281, raises certain points of interest to the medical profession, especially to operating surgeons. The case was one in which a sponge, left behind in an abdominal operation, subsequently gave rise to an abscess, and was extracted at a second operation by another surgeon. The first operation was performed in a nursing home, and the duty of keeping a tally of the sponges was delegated to the superintendent of the home, who is a trained nurse. The operation was complicated and difficult, and no question arose as to the skill with which it was performed. It may be noticed in passing that the surgeon received no fee for the operation. The questions left to the jury were: (1) Was the defendant guilty of a want of due and reasonable care in the counting or superintending the counting of the sponges? (2) was the nurse who counted the sponges employed by the defendant as assistant during the operation? (3) was the nurse so employed negligent in counting the sponges? (4) was the counting of the sponges a vital part of the operation which the defendant undertook to see properly performed? (5) was the nurse under the control of the defendant during the operation? The jury found a verdict for the defendant on all these points. The form in which the questions were left to the jury appeared to show that the judge in this case held that the question whether the operator is to be held liable for every accident that happens, and responsible for every slip on the part of assistants and nurses, is one to be left to the jury in actions of this nature. If this principle had been followed in this case in the spirit as well as in the letter the pecuniary consequences to the defendant would have been less serious, and the importance of the case to the medical profession at large would have been much smaller. The jury, after prolonged consideration, while answering in the affirmative all the questions above enumerated stated that in their opinion it was not a case for damages, which they assessed at one farthing. We are probably right in assuming that the jury intended it to be understood that the term "negligence" could be applied to Miss Thorne's conduct only in a technical sense; and we shall perhaps be correct in concluding that the jury were influenced by the consideration that the surgeon who has to perform a long and difficult operation may justifiably delegate to an experienced assistant or nurse such a detail as that of counting sponges and instruments, and that it would not be to the ultimate advantage of the patient that the surgeon's mind should be distracted by the added source of anxiety. In cases which have been decided in the High Court it has been laid down that a surgeon is liable only for the natural and reasonable consequences of the proper carrying out of his directions, and not for injuries which are the result of the negligence of other people in improperly carrying out his instructions. The judge, however, who appears to have made up his mind at an early stage of the case, refused to accept the opinion of the jury that the damages should be nominal. He stated that the finding with regard to damages was inconsistent with other findings and sent the jury back to reconsider the matter; they returned into court and expressed the opinion that the case was not one for damages, the operation having been performed without fee, but were again sent back to consider to what extent the plaintiff was damaged. The defendant's counsel made an

ineffectual protest against the intervention of the judge. When the jury eventually returned into court they said that the plaintiff ought not to have more than £25 for pain and suffering. This verdict, of course, carries costs, and while the Medical Defence Union, of which the defendant is a member, bears all the charges of the defence, the damages and the costs of the plaintiff fall upon the defendant personally. If Mr. Justice Bruce, who has since retired, is to be followed by other judges in the view he took of the responsibility of a surgeon for every detail, and for the act of every person engaged in or about the operating room, the result of this action must eventually have a serious influence on operative surgery. Apparently Mr. Justice Bruce would have held that if, for instance, a surgeon directed a lotion to be prepared of a certain strength, and an assistant made a mistake so that some injury was done to the patient, the surgeon should be held responsible in damages. The case, indeed, opens up an unpleasant vista of possibilities, and it is not surprising to hear that surgeons are seriously considering whether it may not be necessary to take an indemnity from the patient. It is not to the interest of the public that legal technicalities should be permitted to intrude between the patient and the relief which surgery can now give in so many cases formerly condemned to hopeless suffering or early death. A generation ago in all probability no surgeon would have ventured to operate on this patient at all. To-day she is alive and well and her surgeon is mulct in damages and costs to the amount of some £250. The only satisfaction which Miss Thorne can obtain from this verdict is that both the judge and jury found that she had shown herself to be a most skilful and accomplished surgeon. With this we fear she must be satisfied as we hear that, owing to certain circumstances in connexion with the judge's ruling rendering it unlikely that an appeal would succeed, the verdict must be accepted. As we have said, Miss Thorne becomes liable for the damages awarded and also for the plaintiff's costs, which together are estimated to amount to about £250. As will be seen from a letter published in another column, a fund is being raised to assist Miss Thorne in meeting this expense, and subscriptions will be received by Dr. Walter Tate, 32, Queen Anne Street, London, W.

THE PATHOLOGICAL MUSEUM AT OXFORD.

As will have been gathered by those who have read the notices which have appeared in our columns at various dates since last December, the Committee which has undertaken the duty of collecting specimens and exhibits for the Pathological Museum to be held during the annual meeting of the British Medical Association at Oxford at the end of July has made great efforts to render the collection interesting and useful. Apparently the suggestions made by Mr. Jonathan Hutchinson in a letter published in our columns on June 4th were all more or less anticipated by the Committee, which issued a circular[1] last November explaining the arrangements it was proposed to make. As will be seen by the article published in the SUPPLEMENT to the JOURNAL last week (p. 180), the exhibits will be classified under seven headings, and in addition to microscopical preparations, photographs, drawings, and skiagraphs, there will be an exhibition illustrating colour photography, and of apparatus in use in pathological and clinical laboratories. Special collections of specimens bearing on the discussions in the various Sections will also be arranged. The Committee has now issued a further circular embodying the facts contained in the article published in the BRITISH MEDICAL JOURNAL of June 11th, and stating that the Museum will occupy the dissecting room at the Department of Human Anatomy, University Museum, Oxford, which is in close contiguity to the meeting places of all the Sections. It is hoped also that it will be possible to arrange for demonstration of specimens and instruments by the exhibitors at stated times. The circular contains the additional statement that, as the preparation of the museum catalogue will shortly be begun, notices of the exhibits must be received by Dr. Ainley Walker, Secretary of the Committee, University College, Oxford, not later than June 20th. There is, we understand, every promise that the museum will be a great success.

[1] BRITISH MEDICAL JOURNAL, December 12th, 1903.

THE RISKS TO LIFE IN LONDON.

THE Police Committee of the Corporation of the City of London, which is to receive a deputation from the Metropolitan Street Ambulance Association on June 29th, will have an advantage not always possessed by official bodies which are called upon to accord interviews. To a considerable degree it will be able to meet the expert deputation on its own ground, and the chances of a happy outcome to the interview should be thereby greatly enhanced. In spite of the fact that over fifteen hundred and more street accidents happen within the City boundaries every year, there has never yet been any organized method of removing the sufferers to the hospitals, and it is frankly recognized that this state of affairs is not only dangerous to the individual, but not altogether creditable to the greatest and otherwise one of the best managed cities in the world. No definite step towards remedying matters was taken for a long time, but early last year the Police Committee called upon its principal executive officer to consider the matter, and to put in a report as to what might be done. This instruction was duly carried out, and Captain Nott-Bower presented an elaborate review of the whole question, which contained a detailed scheme by which both the needs of the City as regards ambulance work and its needs as regards a small body of mounted police were met by the same organization. So far the City, though it requires and uses horses for a variety of purposes connected with the police, has never had a mounted force of its own, but when mounted men have been required for escort or street clearing has either borrowed or hired them from other corporations. The scheme to which reference has been made will, if carried out, put the City in advance of the rest of London as regards ambulance work and make it self-dependent for mounted police duties, and, while the nett cost is estimated at considerably less than £1,500 a year, it would appear, from a medical point of view so far as we are acquainted with its details, to be everything which could be desired. Thus two definite ambulance stations are provided. One worked in connexion with St. Bartholomew's, and the other, situated midway between Guy's and the London Hospital, each with a horse ambulance summonable, either by private telephone or from street call boxes, and placed in constant day and night medical charge of a fourth-year medical student. Fresh from its consideration of this report, the Police Committee will be in a position to discuss the matter with the deputation in all its bearings and in sympathetic vein. A favourable ending to the interview would, indeed, appear inevitable, for, with public opinion at its back, a complete scheme ready to hand, and an executive officer of special experience in this connexion, in the person of the Commissioner of Police (Captain Nott-Bower, formerly of Liverpool), at its command, the Police Committee is not likely to refuse to face the situation.

VISION OF UNIVERSITY STUDENTS.

AT a meeting of the Aberdeen University Anatomical and Anthropological Society, recently held under the presidency of Professor Reid, Dr. Stoddart read a paper on "statistics obtained from observations of the eyes of 400 students." The observations had been made in the Anthropometrical Laboratory at Marischal College for the most part by Dr. Usher, and with his assistance Dr. Stoddart compiled the statistical results, a compilation unique in the history of British university anthropometry. Dr. Stoddart reviewed the subject under the following heads. As regards acuteness of vision, the statistics obtained compared favourably with those obtained by other observers. The proportion of Aberdeen students with short sight was shown to be much smaller than that found by similar observations in German and American universities. In the Aberdeen University the proportion of short-sighted

students was only 11·7 per cent., compared to 38 per cent. in some American universities and 59 per cent. at Breslau University. Another point brought out was that short sight was much more frequently found in students coming from towns than in those from country districts. The present idea that in short-sighted eyes the pupil was usually larger than in eyes with normal vision was contradicted by these observations, which showed a larger average pupil in long sight than in short sight. With regard to the colour of the eye, it was shown that dark eyes were much commoner in those with dark hair and skin. In the group of those with red hair a larger proportion of the eyes were of a grey colour than in the other groups. A keenness of vision was found to depend little, if at all, on the size of the pupil or the colour of the eye. Light-coloured eyes were found to have a slightly larger pupil than dark or grey-coloured eyes. Three per cent. of the students were found to be colour-blind.

FORMALIN AND SKIN DISEASE.

Dr. Morrison Cameron's Report to the Local Government Board on an Outbreak of Epidemic Skin Disease at the Central London Sick Asylums, Hendon which has recently been issued points to a danger from the employment of certain preservatives in milk, and possibly in other articles of food. In September last an outbreak of dermatitis occurred in the Hendon Hospital of the Central London Sick Asylum District which Dr. Copeman was instructed by the Local Government Board to investigate. The malady appeared to be the same as has been noted in various metropolitan infirmaries, and which was described in 1901 and 1902 as "epidemic skin disease." In the Hendon epidemic the type of the disease was less severe than in previous outbreaks, and though 3 persons were attacked there were no deaths. In previous outbreaks there had been reason for suspecting that the milk supply had played some part in the causation of the disease. In this instance suspicion pointed to the milk as a probable cause, and on those suffering from the malady being put on Swiss milk they all began to improve. Samples of the milk remained good for so long (three or four days), in spite of unfavourable weather, that there was consequently strong presumption that some preservative had been added, though this was denied by the contractor. A subsequent analysis of some of the milk showed the presence of formalin. The presence of formalin in milk is undesirable for reasons apart from its possible connexion with epidemic skin disease. It is stated that 1,000 gallons of formalin (a 40 per cent. solution of formic aldehyde) have been sold to dairymen in this country, and it may be taken that the use of this preservative in milk

WAR AGAINST CANCER.

Dr. H. Leo, of Hamburg, in an article published in a German journal on the detection of cancer, says that the only method of treatment which can be relied on is the complete removal of the morbid growth. The author deprecates the use of caustics, and says that the best results are obtained by the knife. He also deprecates the practice of operating on patients who are suffering from cancer in the last stages of the disease, and says that in such cases the operation only hastens the end. He is in favour of operating in all suitable cases, and says that the best results are obtained when the operation is performed at the earliest possible moment after the disease has been discovered. He also recommends that the operation should be followed by a course of treatment with the Röntgen rays. The objection that the unnecessary removal of a healthy breast or other organ is a mutilation is met by the argument that it is better to lose a healthy organ than to run the risk of losing a life. Dr. Leo also recommends that the operation should be performed by a specialist who has had experience in the treatment of cancer.

In the Province of East Prussia the Government has taken steps to educate the people in the early symptoms of cancer, and to induce them to seek medical advice at the earliest possible moment. Pamphlets and notices have been published in the leading East Prussian newspapers. The text of these pamphlets and notices is given in full in Winter's monograph on the subject. The results of his efforts, now published in the *Zentralblatt*, include reports of 84 cases under observation in 1903. Even quacks were consulted, for there seem to be "cancer curers" in Tilsit as elsewhere, and Winter mentions incidentally that they have been the cause of litigation. But they have not, it would appear, condescended to reply. The legitimate practitioners and midwives have been very careful in looking out for haemorrhages and other familiar primary symptoms, and they as well as the women of East Prussia seem to have recognized the importance of an early examination. Indeed, 25 cases of cancer were first detected by the patients' usual medical attendant, and Winter shows that the practitioner is much more on the alert now than he was a few years ago, so that soon he will insist on an early examination as a matter of course. In the present group of cases no less than twenty-five pieces of doubtful tissue from the cervix, fragments procured by curetting and other suspicious structures were sent to him and one-fifth showed undoubted signs of malignancy. It is highly advisable that medical men should be encouraged to send histological samples of this kind to experts. Winter's statistics, resulting from one year's work, are of high interest. He registered under each case the space of time between the day that the patient noticed the first symptom and the day that she sought medical advice, and also the time between the reception of medical advice and the operation. The conclusion is that women in East Prussia submit much more readily to operation than they did a few years since, and seek medical advice much more frequently and earlier, thanks it would appear to the judicious alarm inspired by the exhortations in the East Prussian press. Winter considers that his campaign against uterine cancer has proved highly successful. It is certainly of interest to us, especially in relation to the efforts of the Cancer Research Associations in London, Liverpool, and elsewhere.

THE FISH THEORY OF LEPROSY.

It will be remembered that a few months ago the *Times* took the fish theory of leprosy under its wing in the shape of a leader couched in very decided terms. Apart from the fact that the leading newspaper has no medical authority to speak on the subject in such a dogmatic way, it may have been remarked that apparently no contagionist was permitted to express the generally accepted opinion of the medical profession on the point at issue. The contributions, lengthy and frequent, of Mr. Hutchinson to the *Times* have brought as a letter, also lengthy, from Dr. W. P. Rodrigo, of Bangkok, Siam, whose experience of leprosy in Ceylon is in opposition to the fish theory. He points out that even among the poorest in Ceylon there is a greater loathing for decomposing fish and only that in England, and no one eats fish that is not thoroughly cooked. He insists further, that this is a fact nobody can gainsay, and yet leprosy is common. On the other hand, Dr. Traill Shaw has recently stated in these columns that much unsalted fish is still consumed in Shetland and Orkney; he is not aware of any case of leprosy occurring in those islands within living memory. As far as Dr. Rodrigo is concerned it may be added that he considers that leprosy has a telluric existence outside the human body, much like the bacillus of tetanus, and has a predilection for the clay soil. He is of opinion, however, that the bacillus even dies outside the human body; he is of opinion, also, that the microorganism is introduced into the human body by inoculation and not by ingestion. Some of the objections brought forward by Dr. Rodrigo have been made [illegible] the foregoing is merely the gist of his lengthy communication. It should be pointed out here that Continental [illegible] have long ceased to discuss the fish theory, and they are a little astonished to see so much

[illegible]

attention given to it in this country. Practically the only upholder of it is Mr. Hutchinson himself, and he has admitted that there is good reason for believing that the disease is communicable from person to person. This he calls "commensal communication," which is merely another name for contagion.

A PARADISE OF REST IN THE PACIFIC.

DR. NICHOLAS SENN, the well-known American surgeon, has been holiday making in Tahiti, and records his experience in a recent number of the *Journal of the American Medical Association*. From his description Tahiti might be the land in which it seemed always afternoon, where the lotus-eaters forgot the weariness of the oar and the hardships and dangers of their wandering life. Dr. Senn thinks that, notwithstanding all that has been written of the beauty of the island, justice has not been done to its manifold charms. The peaceful, sleepy little island is, he says, an ideal place for physical and mental rest. Nature has provided so bountifully for the wants of the natives that there is no need for them to toil or to spin. The climate of Tahiti, though tropical, is favourably influenced by the trade winds and frequent showers; the breezes from ocean and land keep the heated atmosphere in motion most of the day and night. The whole island, from the shore to the highest mountain peaks is covered with forests and luxuriant vegetation which retain the moisture and attract the clouds, securing throughout the year a sufficient rainfall to feed the numerous streams, and to water the rich soil of the mountain sides and valleys, and the lowlands along the shore. The temperature seldom exceeds 90° F., and during the coldest months, March and April, it occasionally falls as low as 65° F. For a winter holiday Tahiti offers special attractions; the best time to go is January and February, which are spring months there. To those who are in need of rest and are fond of a long ocean voyage and enjoy tropical scenery, Dr. Senn strongly recommends a visit to the island, which he calls a little paradise in the vast expanse of the Pacific. The invasion of the island by Europeans during the last century has done much to destroy the original Polynesian type of native. Dr. Senn thinks that the beauty of the Tahitian women has been exaggerated by impressionable writers. Robbery and murder are almost unknown, but petty thefts are common. The morality of the natives has deteriorated since they have come into close association with white men, and civilization has, as usual, brought disease and death in its train. The island has been depopulated by measles, whooping-cough, influenza, and tuberculosis. The people, who, according to Cook, numbered 200,000 in 1767, were less than 20,000 in 1797, and about 5,000 in 1803: now the population is about 11,000. The French Government has recently sent three physicians, armed with full powers to enforce all the sanitary regulations which they may deem necessary. Malaria is rare, although plasmodium-carrying mosquitos are numerous. No case of typhoid has been known to originate in the island; this exemption is attributed to the abundant supply of pure drinking water from numerous mountain streams. Varicose veins, varicocele, and hydrocele are very common. Venereal diseases are widespread, but syphilis runs a mild course. Leprosy is not so prevalent as in the Hawaiian Islands; segregation has never been attempted, and sufferers are not shunned. Those of them, however, who are much disfigured by the disease usually withdraw to an island where a leper colony has been formed. Elephantiasis in its worst forms has taken a firm hold on the natives, and Europeans become susceptible to the disease after prolonged residence. The military hospital at Papeete is the only one in the French Colonial possession of the Society Islands which have a population of 30,000. As some of these islands are more than 100 miles apart, the natives have no help in sudden illness or injury, and transportation of the sick by small schooners or canoes to Tahiti from far-off islands is slow and sometimes dangerous. The hospital admits about 350 patients each year. There are only two educated doctors in Tahiti, the Government physician and a retired medical officer of the French navy, who is the only private practitioner in the whole group of islands. The Tahitians pin their faith on the native doctors, who are to be found in nearly every village, and who are important members of the community in which they practise. They make use of roots, bark, and herbs, which together with advice are given freely to all comers without charge.

MISSIONARIES AND MEDICINE.

LIVINGSTONE COLLEGE, Leyton, held its annual Commemoration Day on June 9th, the special feature of this year's meeting being the installation of some new laboratories. We discussed the objects of this institution and the general subject of missionaries and the practice of medicine at considerable length last year,[1] and have little to add to what was then said. We believe that the education given in elementary medicine and tropical hygiene at this College is sound, and that so far as the object in view consists in teaching the future missionary how to take advantage of modern science and guard himself and his dependents from the risks to which he and they will be subjected in tropical countries it deserves the fullest approbation. It is indeed a self-evident proposition that men intended to work in isolated positions in the tropics should be taught how to keep themselves in reasonable health, and it is not a little surprising that the great missionary societies make so little use as they do of the facilities offered by this College. Any approval, however, accorded to the second object of the instruction given at this College must be of the most qualified nature. This is to help the missionary to take advantage of the confidence which the "native" all over the world shows in the white man as a doctor. The only thing in this respect which can be said in favour of the College is that possibly those who have been taught there for the full term of nine months may be more ready to recognize their own limitations than the ordinary run of unqualified practitioners. The general principle, however, remains the same. As to the individual missionary who tries, as far as he can, to relieve the sufferers whom he encounters, or who occasionally yields to the temptation to take advantage of the influence which an assumption of a knowledge of medicine will give him among the natives whom he is trying to convert, we have nothing to say. But the conduct of those who are responsible for the general administration of missionary enterprise is a different matter. It cannot be right that missionaries should be encouraged to buy the confidence of the native with coin which he believes to be gold, but which is really base metal. As we suggested last year we believe that a very strong indictment might be brought against missionary enterprise in this respect, and in this Livingstone College might have to be included, especially as it no longer adheres to the principle which it originally laid down, and now accepts students for a shorter period than the full session of nine months.

THE SANITATION OF THE PANAMA CANAL.

COLONEL WILLIAM C. GORGAS, of the Medical Department of the United States Army, chief of the sanitary staff of the Panama Canal, has sketched out a plan of campaign to be followed in the attempt to lessen the unhealthiness of the isthmus. He says that, including the two cities of Colon and Panama, there is at present a population of about 40,000 people along the canal strip. The great majority of these people suffer from malaria, and should a large force of foreign labourers be sent to the isthmus now they would eventually be infected, just as the French were. In order to give time for the establishment of a better state of things, Colonel Gorgas thinks it likely that a year will be allowed before any large force of labourers is thrown into the isthmus. He has no fear of yellow fever, as the same principles that were so successful in extirpating the disease in Havana will be applied to the Isthmus of Panama. Quinine will be used universally among the infected population, and a

[1] BRITISH MEDICAL JOURNAL, vol. i., 1903, p. 1274.

system of hospitals will be established capable of accommodating about [illegible] patients. All breeding grounds of mosquitos will have to be destroyed and this will require a competent inspecting force. Two hundred medical men will be needed along the line of the canal to care for the sick. The sanitation problem, such as street cleansing, sewerage, and water works, will be solved in the same way as in American cities. Colonel Gorgas speaks with the authority of experience, for it is to him that is largely due the transformation of Havana into a comparatively healthy city.

CREMATION IN FRANCE.

The Société pour la Propagation de l'Incinération held its annual meeting at Paris recently. The proceedings opened with a funeral oration in honour of the late Sir Henry Thompson, delivered by the General Secretary, M. Georges Salomon. Dr. Beaurieille, President of the Society, stated that the number of cremations in Paris during 1903 amounted to [illegible] as against [illegible] in 1902. He expressed a confident hope that when the fine crematorium in the Père Lachaise Cemetery is complete, as it will be at no distant date, the number of incinerations will largely increase. The General Secretary then read a report on the progress of cremation in various countries. In the United States the number of bodies disposed of in that manner has increased from [illegible] in 1901 to [illegible] in 1902. Great Britain has nine crematories in which [illegible] bodies were incinerated in 1902 [illegible] In Germany there are 37 crematories existing among them 2[illegible] members: there were [illegible] cremations, and the number of bodies burnt was [illegible] in 1901, and [illegible] in 1903. These figures are the more noteworthy since cremation is still forbidden in Prussia, Saxony, Bavaria, Wurtemberg and some other parts of Germany. In Italy there were 340 cremations in 1903. In Switzerland there are crematories at Zurich, Berne, Lucerne, Bâle and Saint-Gall. Denmark has 1, Sweden 2. There are crematories at Montreal, at Buenos Aires, and at Adelaide in Australia. In Japan there are 7. Dr. Beaurieille was re-elected President, M. Salomon, General Secretary, and among the Members of Council are Professor Grasset, M. Camille Flammarion, and Yves Guyot.

POST-GRADUATE CLINICAL TEACHING IN GERMANY.

A new ordinance has lately been promulgated in Germany granting to towns which have hospitals of fair size the power to create in connexion therewith institutes of post-graduate clinical teaching. Every newly qualified practitioner must serve [illegible] after graduation in a hospital fixed by the superintendence or in one of the hospitals with a teaching institute attached. The teaching staff of those institutes will be supplied by the nearest universities, the institutes in return paying the university the cost of maintenance of a certain number of patients sent to its clinics by the town. For instance, the city of Cologne will have to pay the University of Bonn the equivalent of a fixed number of days of maintenance up to [illegible] a year. The new system will, it is hoped, afford a wide field for [illegible] the rising medical graduates, and will enable [illegible] to utilise the vast material [illegible] to medical teaching.

THE EDUCATIONAL WORK OF THE LONDON COUNTY COUNCIL.

[illegible] together with the [illegible] by the recent [illegible] Act, are gradually and systematically being [illegible] Education Committee of the London County Council. [illegible] of report [illegible] that Committee was presented to the Council at the meeting on Tuesday and was duly discussed and passed. The new [illegible] officers are being appointed. Dr. Garnett, originally Secretary to the Technical Education Board, was elected Educational Adviser before the Council rose for the Whit-suntide recess, and on Tuesday Mr. R. Blair was elected Executive Officer. Mr. Blair, who is M.A. of Edinburgh and B.Sc. of London, has recently been successfully engaged under Sir Horace Plunkett in organizing technical education in Ireland. We understand that the duties of the Executive Officer will consist in seeing that all the decisions of the Council relating to educational matters are duly carried into effect. He will superintend the administrative work of the Council's inspectors, will advise the Education Committee in regard to sites, new buildings, alterations of existing buildings, and transfer of school buildings. He will see that all by-laws and regulations are duly promulgated and enforced, and in consultation with the Educational Adviser he will exercise a general supervision over the Council's schools and colleges. His salary is £1,000 per annum. Much will depend upon the energy and capabilities of this new officer, and the past career of the candidate selected justifies the belief that he is well equipped for this most onerous and important position.

TUBERCULOSIS IN CHILDHOOD.

The Secretary of the Royal Sea-Bathing Hospital, Margate, informs us that good results have followed the issue last year of a circular to some 10,000 practitioners of medicine, inviting their co-operation in rendering the hospital more useful. The circular pointed out that septic, profusely suppurating, or incurable cases are not admissible, and that most varieties of tuberculosis, if sent early enough, were treated with advantage in the dry bracing air of the Isle of Thanet. The Secretary adds that children under 6 years of age are not absolutely excluded, but as there are no separate wards for them they can be received only when there is no great pressure on the beds. In the article published on this subject in the British Medical Journal of June 11th, it was suggested that it would be desirable to devote the whole of the Margate Hospital to children, but the Secretary informs us that it has frequently been necessary to fill several of the children's beds with adult patients simply because there were no children applicants. For some time past nine beds intended for girls have been occupied by women and there are at present twenty-nine approved adults waiting for admission but no children. We hope, with the Secretary, that the additional publicity which has been given to the object of the hospital by the article published in the British Medical Journal of June 11th may have the effect of preventing such a state of things recurring in the future.

YELLOW FEVER IN TEXAS.

A strong effort is to be made to prevent the reappearance of yellow fever on the Texas-Mexican border. Laredo in Texas, where the disease prevailed last autumn, is the geographical centre of operations. A house-to-house inspection has been maintained there for more than two months with the result that no case of yellow fever has been found. The city council has made ordinances embodying provisions recommended by the Public Health and Marine Hospital services. Every patient suffering from fever discovered by the inspectors is immediately covered with mosquito netting until the case is proved not to be yellow fever. The Government furnishes netting to persons too poor to buy it. At the same time, the water barrels in common use in Laredo are either treated with petroleum or covered with a close wire screen, the Government also furnishing this screen when necessary. Laredo itself is at the present time considered to be free from yellow fever infection. From that place as a centre inspections have been made of all towns along the lines of railway from Laredo to San Antonio, from San Antonio to Corpus Christi and from Corpus Christi back to Laredo. Several working parties composed of surgeons who have had experience in sanitary work in Laredo have been sent out along the lines, each being in charge of a medical man. These parties are visiting towns along these lines of railway, disinfecting places where

yellow fever prevailed last year, and demonstrating the method of destroying mosquitos. They are organizing in each town a citizens' league to continue the work; they are also circulating short but comprehensive leaflets of instruction describing the method and calling attention to the necessity of its being enforced. In the Republic of Mexico, where there was so much yellow fever last year, the Superior Board of Health is actively engaged in sanitary measures. As the result of an understanding entered into between the Public Health and Marine-Hospital Service of the United States and the Superior Board of Health of Mexico, not only has the Superior Board of Health agreed to give prompt notification of the reappearance of yellow fever, but it has cheerfully acquiesced in visits of inspection being made from time to time by Public Health and Marine Hospital Service officers to the districts where the disease prevailed last year. All places, almost without exception, where yellow fever prevailed in Mexico, north of the City of Mexico, have been inspected and reported on by the United States Public Health Service.

DESTRUCTION OF THE MOSQUITO IN AMERICA.

MR. SCRIBNER introduced, on April 25th, into the National House of Representatives a Bill providing for the appointment of a Commission to investigate the question of redemption of swamps and marshes in New York and New Jersey with a view to improve sanitary conditions and exterminate the *Anopheles* mosquito. The measure provides that the Commission shall be appointed by the President, and shall serve without remuneration.

AN ANTIDOTE FOR RATTLE-SNAKE BITE.

WE learn from the *Medical News* that at the annual banquet of the Association of American Physicians held in Washington on May 10th, it was announced that as the result of researches by Dr. Noguchi, of Japan, working under a grant from the Carnegie Institution, a positive antidote for rattle-snake venom had been discovered. The announcement was made by Dr. S. Weir Mitchell, of Philadelphia, who read a letter from Dr. Noguchi, who is now at the Serum Institution in Copenhagen, where he has been making his researches for several months past. From the nature of the announcement it is believed by the medical practitioners who were present that the serum which Dr. Noguchi says he has discovered will prove to be of great value in human therapeutics. The fact that the announcement of the discovery was made by Dr. Weir Mitchell is of particular interest, as more than forty years ago that distinguished physician worked long and unsuccessfully at the problem which Dr. Noguchi now claims to have solved. The Japanese investigator found that guinea-pigs that had received injections of rattle-snake poison up to twelve times the amount necessary to produce death and had then received injections of the anticrotalic serum experienced no evil effects from the poison. Dr. Noguchi also believes that this discovery will lead shortly to the discovery of serums for other poisons, and that it will not be long before the serums will be placed on the market, particularly in regions where venomous snakes lend variety and excitement to life.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MONDAY last being the latest day on which the applications of candidates for election to the Council of the Royal College of Surgeons of England could be received, the list is now complete. Seven Fellows will present themselves on July 7th, and as there are only three vacancies the competition seems relatively active. The seven are Mr. Golding-Bird (Guy's, F. June, 1874), Mr. Harrison Cripps (St. Bartholomew's, F. June, 1875), Mr. T. S. Eve (London, F. December, 1878), Mr. Bruce Clarke (St. Bartholomew's, F. June, 1879), Mr. Bowlby (St. Bartholomew's, F. June, 1881), Mr. Gilbert Barling (Birmingham, F. December, 1881) and Mr. J. Bland-Sutton (Middlesex, F. June, 1884). The most remarkable feature in the list is the presence of three names from one metropolitan school. All these belong to surgeons of deservedly high repute. Mr. Golding-Bird is also a distinguished member of a great school. Mr. F. S. Eve is known as a teacher equally strong in pathology and in surgery, whilst Mr. Bland-Sutton, relatively young, has gained a high reputation and many friends. Mr. Gilbert Barling, also a surgeon of wide reputation, is the only candidate from a provincial medical school, and on this ground alone his claims upon the suffrages of the Fellows appear to be strong.

PROPOSED VISIT OF FRENCH MEDICAL MEN TO LONDON.

A NUMBER of French medical men who take an interest in English medicine and surgery propose to visit London next October in order to see something of the hospitals and laboratories. An influential committee has been formed in Paris, and a small organizing committee, of which Dr. Triboulet is President. It has been felt that some arrangement should be made in London in order to make the visit of our French colleagues instructive and agreeable, and Sir William Church, President of the Royal College of Physicians, has consented to take the chair at a meeting at the College on Thursday next, June 23rd, at 5 p.m. It is hoped that members of the staffs of the London hospitals, who may not have received a private communication, will nevertheless find it convenient to be present at this meeting, when it will be proposed to appoint an executive committee. Among the senior members of the Paris faculty who have expressed their intention of joining the party are Professors Bouchard, Lucas-Championnière, Chauffard, Landouzy, Lermoyez, Marie and Sebileau.

ON June 9th the Administrative Council of the Pasteur Institute in Paris appointed Dr. Roux Director in the room of the late Dr. Duclaux. At the same time Drs. Chamberland and Metchnikoff were appointed Sub-directors.

WE are informed that cholera is spreading to a serious extent in the province of Kermanshah, in north-western Persia. At the end of May there was an average daily mortality of 30 in the town of Kermanshah, and the districts of Maidasht, Songur, Sarat, and Hamadan are infected. Quarantine measures applied on the Turkish frontier and at Bisitun are seriously interfering with trade through Bagdad.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENT.]

The Business of the Week.—The first three days of this week were occupied by the Education Bill for Scotland. Thursday had been set aside for the army estimates, and the expected statement of the Secretary of State on the changes in the War Office. On Wednesday the Prime Minister said that the statement must be deferred as Mr. Arnold-Forster had been unable to get his statement ready. Under these circumstances the opportunity of discussing the position of the Army Medical Department under the new scheme is indefinitely postponed. Next week the Finance Bill will occupy the early days and Irish estimates will be taken on the Thursday.

Infant Mortality and Medical Relief.—Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to the high infant mortality in the large towns of the kingdom; whether, with a view to lessening this mortality, he would inquire whether the facilities for granting outdoor medical relief were sufficient in the great provincial towns and in districts like St. George-in-the-East, Whitechapel, Limehouse, and Stepney; and, if not, whether he would take steps to improve the methods of grant-

in medical out relief. Mr. Long replied that he was aware of the figures referred to as to infant mortality. Except that in some places additional relieving officers might be appointed he had not at present seen any reason to suppose that the existing facilities for granting outdoor medical relief were insufficient, but so far as the metropolis was concerned, a special investigation was at this moment being made by one of the assistant inspectors of the Department, as to the arrangements for outdoor medical relief. Sir Walter Foster also asked whether some Boards of Guardians had largely reduced the number of applications for medical out relief, by means of giving all medical out-relief on loan in the first instance (subject to subsequent canceling of the loan if the guardians thought fit), or by compelling parents to appear before the Board or a committee; and, if so, whether he proposed to take any action in the matter. Mr. Long answered that his attention had been called to one instance in London, where a system of the kind above-mentioned had been introduced, and where it was said that the result had been to reduce the applications for outdoor medical relief. But as he had stated in reply to another question that day by the hon. member, a special investigation was being made by one of the assistant inspectors of the Department as to the arrangements for outdoor medical relief in the metropolis.

Nursing in Workhouses. In reply to Sir Harry Samuel, the President of the Local Government Board on Tuesday said that he had received a large number of representations from Boards of Guardians on the report of the Departmental Committee on Nursing which had led to the proposal to issue an order, and these representations had been duly considered. He could not undertake to afford to Boards of Guardians generally any further opportunity of making representations on the subject, but he would consider the suggestion to furnish a draft of the Order to the Poor-law Unions Association.

Ringworm and Ophthalmia among Poor-law Children.—Sir Walter Foster asked the President of the Local Government Board on Monday if he would state the number of Poor-law children of the metropolis who were at present suffering from ringworm and ophthalmia respectively, differentiating between those housed in the Metropolitan Asylums Board special homes, those in workhouses and workhouse infirmaries, and those in the district and separate Poor-law schools. Mr. Long replied that he was informed that the number of metropolitan Poor-law children at present suffering from ringworm and ophthalmia respectively in the special homes and institutions under the control of the Metropolitan Asylums Board was as follows:

	Ringworm.	Ophthalmia.
[illegible]	[illegible]	345

The following was the number of these children in workhouses and workhouse infirmaries and in district and separate Poor-law schools on April 23rd last, which was the latest date for which he could give the figures desired:

	Ringworm.	Ophthalmia.
Workhouses and workhouse infirmaries	184	239
District and separate schools, including [illegible]	133	124

Alcohol as a Cause of Insanity. Mr. Hunter Craig asked the Secretary of State for the Home Department whether he would state the number during the last twelve months of persons admitted into the Scottish asylums for the treatment of insanity; and how many of these had been certified to be suffering from insanity caused by alcoholism. Mr. Secretary Akers-Douglas replied that the returns to be furnished by the Commissioners in Lunacy for Scotland would not be available for some months, but he would endeavour to obtain the information for the hon. member. Mr. Secretary Akers-Douglas subsequently stated that the information had been supplied to the Home Department and would be laid upon the table of the House.

Phosphorus Necrosis. Mr. Craig asked the Secretary of State for the Home Department whether his attention had been called to the fact that [illegible] suffering from phosphorus necrosis had been admitted to the Glasgow Royal Infirmary during the present year; and whether he would cause inquiry to be made into the circumstances of the case, with a view to the prevention of the disease. Mr. Secretary Akers-Douglas replied that the case had been reported to the Home Office by the certifying factory surgeon. There seemed to be no doubt that the case was one of phosphorus necrosis, but nothing was elicited at the inquiry or at the inquest showing how or when the disease was contracted. It appeared that the woman, who died on May 15th, 1904, had not worked at Bryant and May's factory since the autumn of 1902, except for one short period of three days. There did not appear to be any further action that he could take.

The Registrar-General and the Supply of Information to the Press.—Sir Walter Foster and Mr. Mansfield both asked the President of the Local Government Board last week why the local Registrars of Births and Deaths had been ordered to cease to supply a list of deaths to provincial weekly newspapers. Mr. Long replied that he was aware that in a certain number of cases lists of deaths had been supplied to the press by registrars. This, however, had been done in contravention of the regulations on the subject. The Registrar-General had received complaints as to the publication of particulars which might lead to the identification of individuals, and he considered that any such publication tended to make persons unwilling to give information for registration purposes, and consequently to impair the reliability of vital statistics. He had recently issued a circular with a view to the strict observance of the regulations in the future.

The Use of Humanized Vaccine Lymph in Scotland.—Mr. Weir asked the Secretary for Scotland, having regard to the fact that the medical officers for the nine parishes in Scotland who applied last year for humanized lymph in preference to glycerinated calf lymph based their preference on the assumption that the former lymph was more potent, if he would state whether the Local Government Board for Scotland had taken steps to point out to these officers that statistics showed the percentage of successful vaccination with glycerinated calf lymph to be distinctly higher than the percentage of successes with humanized lymph. Mr. Graham Murray said he was informed that the reason given by the medical officers referred to for preferring humanized to glycerinated calf lymph was not that the former was more potent, but that it kept its potency for a longer period. The Local Government Board for Scotland saw no reason for directing the attention of those officers to the statistics of relative success of the two varieties of lymphs. Mr. Weir also asked the Secretary for Scotland whether Dr. Cadell, as superintendent of vaccination at the new town dispensary, Edinburgh, still collected vaccine lymph from the arms of children vaccinated by him, and thus supplied humanized lymph to the Central Vaccine Institution for Scotland, and, seeing that the last report of the medical superintendent of that institution showed that the percentage of successful vaccination with glycerinated calf lymph was higher than the percentage of success with humanized lymph, would the question of using glycerinated calf lymph for the whole of the work of parochial vaccinators in Scotland be considered, especially having regard to the fact that the use of humanized lymph had been widely condemned? Mr. Graham Murray said that he was informed that Dr. Cadell still supplied humanized lymph to the Central Vaccine Institution of Scotland. The difference in the percentage of successes between glycerinated calf lymph and humanized lymph did not appear to constitute a sufficient ground for ceasing to supply humanized lymph, which was still in demand.

Epidemic Sore Throat in Glasgow. Mr. Weir asked the President of the Local Government Board whether he was aware that the epidemic of sore throat which recently broke out at the Belvidere Hospital, Glasgow, was, like that at Woking last autumn and at Finchley early this year, attributable to the milk taken from cows out of health; and, seeing that Dr. Chalmers, the Medical Officer of Health for Glasgow, stated that the outbreak in that city was due to teat eruption in the stock at the farm from which the milk supply was obtained, he would consider the expediency of introducing at an early date such legislation as might be necessary to insure the periodical examination by a veterinary surgeon of all cows kept for the purposes of a public dairy. Mr. Grant Lawson, who replied, said that the President of the Local Government Board had no jurisdiction in Scotland in regard to factory matters. With regard to the suggested legislation, he could only repeat the answer given on March 29th, that he could not promise to introduce legislation.

Canada.

SANATORIA FOR CONSUMPTIVES.

DIFFICULTIES surround the establishment of the sanatorium for tuberculosis in Toronto. The city has voted 50,000 dols. to aid in establishing it, but is unwilling to undertake it as a municipal enterprise, which would render it responsible for its maintenance and possible deficits; and it suggests that private benevolence should establish such an institution as would recommend itself to the city as deserving of this grant, and likely to use it wisely and successfully. This is the position at present, and it is hoped that the Anti-Consumption Leagues, or some other of the organizations at present in existence, may evolve a scheme that will command support.

The last published report of the British Columbia Board of Health advocates the establishment of a sanatorium for consumptives at or near Kamloop. The situation on the North Thompson River fills all the requirements of an ideal site at an altitude of 1,100 ft., in what is known as the dry belt, with a rainfall as low as 1.55 in. and in a wet season a maximum of 6.25 in. The extremes of temperature are 93.4° and 10.1°, but both are exceptional. The soil is dry and porous, and pine forests abound.

NOTIFICATION OF TUBERCULOSIS IN ONTARIO.

Dr. Hodgetts, Secretary of the Provincial Board of Health, is quite determined that the notification of tuberculosis shall be made compulsory, and will, if necessary, seek legislation. In Quebec a statute was passed making obligatory the notification of all cases which have reached the suppurative or expectorative stage.

ANTHRAX.

An interesting investigation of a very long-continued series of anthrax cases has been made at Ancaster, Ontario. In the summer of 1902, on a farm adjoining the village, some cattle died after very short illnesses, pronounced to be anthrax by the veterinary surgeon; a necropsy was performed on one of them on a barn floor, and a good deal of bloody fluid from the serous cavities ran over on the floor and down into the basement cellar below. The lesions in this case did not seem conclusive, and while the other bodies were burned, this one was dragged to the opposite side of the road and buried in an oat-field. Mangolds were stored in this cellar, and when later in the year those in contact with the ground where the fluids had run were fed to the cattle, three died with all the symptoms of anthrax. About April, 1903, an animal died that was quartered in one of the stalls where earlier the others had died. The carcass of this animal was put in a shallow hole and covered with lime, but one foot stuck out from the lime. Dr. Amyot, Provincial Bacteriologist, on examination later found anthrax bacilli in material from this foot, from the walls of the barn basement, and from the carcass that had been buried the previous fall. On following up the history of this case, it was found that cattle and horses had died on this farm, and a couple to the east of it (all the farms were situated on the low land to the west of a small stream which ran north across the main street of the village) from time to time for thirty years or more at intervals of a year or two in batches of three or four from short illnesses. The farms were situated to that side of the stream over which flood water passed, and the outbreaks usually took place in seasons when, on account of the failure of pasture at other places, the flat lands were in greater demand for grazing. During the spring of 1903 an animal died on a neighbouring high land field with symptoms of anthrax, but it was found that earth had been brought from one of the infected fields to this one.

Near where the stream crossed the road were the runs of an old tannery, which had been burned some twenty-eight years previously, but which had tanned only local hides; the tan bark had been drawn to the fields in the neighbourhood, but none had shown anthrax except these low-lying fields mentioned. Near the main road on the stream extensive ruins exist at an old woollen mill, which had been burned down twenty-five years before, after running for many years; and it was found that foreign as well as domestic wool had been used in it, and it is thought probable that the original infection is to be traced to this mill and not to the tannery.

This outbreak is of interest in showing the longevity of anthrax, each new outbreak giving it renewed life, and it is ominous in the evidence of its gradual distribution, and of the danger of infection from foreign wools, reinforced by the evidence of another case in the province, where the infection originated from a similar cause.

Six of the large tannery districts have anthrax in them, and all of these use foreign hides. Some action would seem to be indicated to prevent further importation of this dread disease into the country.

A case in the human subject came under observation a short time ago—a freight handler employed in sorting and loading foreign hides. The lesion was local, and yielded to excision and disinfection.

SEWAGE DISPOSAL IN TORONTO.

The Provincial Board of Health of Ontario has under discussion a number of schemes for the disposal of sewage in Toronto. Several schemes are proposed, one of which—the carrying of the sewage to a point nine miles east of the place in the lake where the intake for the water supply is situated—has received considerable support; but a series of experiments which have been conducted seem to give ground for apprehension that, under certain circumstances, the lake currents would render this distance an inefficient protection. The other plans suggested are methods of sewage treatment and filtration. A new aspect of the water supply problem has arisen since the recent disastrous fire, and it is probable that a separate system for pumping water for fire-protection purposes will be required; the ordinary system, with the great and constantly increasing demand for ordinary use, does not give sufficient pressure.

INSTRUCTION IN PUBLIC HEALTH.

The Ontario Board of Health has appointed a Committee to combine with a Committee of the University of Toronto in the discussion of a scheme for the establishment of a course in public health to be given in the laboratories of the University and of the Board. It is the intention of the promoters that this course shall be made available, not only for medical men with a view to work as public health officers, but also to persons who wish to qualify themselves as sanitary inspectors for service under these officers.

MUNICIPAL SUPPLY OF DIPHTHERIA TOXIN.

A decidedly progressive action was taken by the town of Brockville when they decided at the beginning of 1903 to supply antitoxin free to all cases of diphtheria, and also in immunizing doses to those exposed. The amount paid out by the corporation was during the year 277 dols. for a total of 186,500 units. The object of so doing was to ensure the use of this treatment in as many cases as possible and so accustom people to its use: the results shown by the vital statistics were very gratifying. From January 1st to the October 23rd 82 cases were reported with a mortality of 4.

COMPARATIVE PATHOLOGY.

The museum of the McGill Medical College has received a a valuable addition to its collection of anatomical and pathological specimens from Dr. McEachran, Dean of the late Veterinary Faculty. This gift comprises the entire museum of the recently disbanded Faculty of Comparative Medicine. A very complete set of skeletons and preparations of normal animals, together with examples of diseases and malformations of bone in the horse and cow, make up the main body of the collection, but in addition there are a number of rarer conditions, including monstrosities, and parasites of domestic animals. Although the museum has been recently improved and enlarged there is already some mention made of still further increasing its capacity, on account of this acquisition. The library of the old Veterinary College has also been presented to the McGill Medical Library, making a substantial addition of several hundred volumes.

HOSPITALS, REFUGES, AND ORPHANAGES OF ONTARIO.

The thirty-fourth annual report of the hospitals, refuges, and orphanages of the Province of Ontario has just been issued. Many improvements in the hospitals are noted, but the Inspector, Dr. Chamberlain, points out that in some cases proper attention is not paid to the poor patients, the management devoting more consideration to the care of private patients who pay for their accommodation, and spending too much money on elaborate private wards. The number of patients treated during the year was 35 912, not including outdoor cases. The number of deaths was 1,997, and the total number of days' stay of patients in the hospital was 882,200. The provincial grant to total expenditure was 14 per cent., the remaining amount being obtained from the other sources of income of the hospitals. At the recent session the Govern-

...power to alter the law in such a way that the income of the hospitals would be helped very materially.

Notification of Births.

A by-law has recently been passed in Montreal, enacting that physicians are to report all births occurring in their practice. An attempt to enforce a similar enactment at St. John, N.B., met with such strong opposition that it was withdrawn. No such trouble seems to be anticipated in Montreal, and the physicians appear to regard it as a measure which will remove a difficulty in the way of the Board of Health, which has had some trouble in obtaining a reliable birth registration up to the present time.

Scotland.

Edinburgh Harveian Festival.

At the annual Harveian Festival, held in the Hall of the Royal College of Physicians of Edinburgh, Dr. Somerville, of Galashiels, gave the Harveian oration.

The Edinburgh Medical School from 1790 to 1815.

Dr. Somerville said that it was not too much to assert that the reputation of the Edinburgh Medical school was higher at this period than that of any other medical school at that time existing either at home or abroad. None of the teachers in those days impressed Dr. Somerville more than Dr. Gregory. He had been a pupil of Dr. Knox, that extraordinary man of whom Dr. Lonsdale has written:

> "... was as gay in dress, and considered gentleman-like and correct in personnel, and dandyism ... a sneer at slovenly students. And dramatist in action and ... wonderfully theatrically."

Dr. Somerville said Gregory was the opposite of all this. He had a massive and rather expressionless ... and suffering from locomotor ataxia. But once ... in his chair and surrounded by his class, with a ... to discourse on he was no ordinary man. I ... him yet, a preparation of the knee joint and its liga... in his hands, pointing out the anatomy and beauty of ... joint, warning us against over-stating that the con... were semi-lunar, and showing that their curvature ... really that of a spiral, and indicating the admirable way in which the ligaments regulated and checked the movements ... The dissection of the arrangements was ... accurate, and entirely to enthusiasm. Nor was he less ... in describing a microscopic structure such as the ... of the liver. Huxley once wrote of Goodsir that he could not write intelligible English, and it must be ... that his published papers are some of them not very easy reading. But his students had no reason to com... of being unable to understand him. When he deposited ... liver, every word he uttered had its share ... in the minds of those who listened, and ... to the structure. I have heard some ... say that they got on better ... But it was his constant ... anatomy that made his lectures so ... It was a great delight to himself to trace the ... the various organs and tissues ... histological ... At that time, Dalrymple, Sanders, ... and Laycock were ... and they had ... of the types. But Goodsir ... types, and on the ... that ... to those who had ... to play.

> ... Professor of the Institutes of Medicine. His career from his student days had been most brilliant. He did much to bring the microscope into general use and to develop the study of histology. But it was as a clinical teacher that he was most distinguished. No physician had as large a following in the wards of the Royal Infirmary as he. The thing he combated most was the influence of authority in medicine. He would have nothing but facts and legitimate deductions therefrom. He was very sceptical as to the good done by drugs. He thoroughly believed in cod-liver oil, which, indeed, was introduced by him into medical practice in this country. He was far in advance of his medical contemporaries in his views as to the proper treatment of phthisis, and as to the benefit to be obtained by the enfeebled lung from the inhalation of fresh, pure, outside air: if he could now come back and visit our medical institutions, our sanatoria for the treatment of consumption, the open-windowed wards and the outside shelters would not be a great surprise to him. He was an excellent and eloquent speaker, with much dramatic power, and I can never forget a clinical lecture he gave in the pathological theatre of the old Royal Infirmary, in which he enforced his views as to the open-air treatment of consumption in contrast to the prevailing custom of shutting up the invalid and destroying his appetite; afterwards trying to restore it by the administration of nauseous drugs, quassia for instance. Bennett became an active and uncompromising opponent of blood-letting in febrile conditions. There had, it is true, been previously a considerable modification of the practice, mainly brought about in Edinburgh by the late Dr. George Balfour.
>
> "Dr. Christison, afterwards Sir Robert, was a man of whom the Edinburgh medical school had reason to be proud. Physically, intellectually, and morally, he was a man every inch of him. He was devoted to the interests of the University, and no man did more for its prosperity. He was one of its Professors for more than half a century, and it was disappointing that the distinguished services he rendered it were not crowned by his being elected to the Principalship. He laid great stress on the physiological action of medicines, arguing that unless we had clear ideas as to their effects upon persons in health we could not adequately understand their influence upon disease. His prescriptions were simple compared with those of many of his contemporaries. He was acknowledged by the Scottish judges of his time to have been the best medical or scientific witness that ever came before them, the most upright and unbiassed, and, at the same time, clear and definite as to what he had to testify.
>
> "As Christison was the first of Scottish physicians, James Syme was the chief of Scottish or rather of British surgeons. Sir Alexander Grant calls him the Wellington of surgery. He had not the prepossessing appearance of his friend, Dr. Christison. They were very unlike. But if Syme's greatness was not visible at first sight, it was apparent enough in his life and work. He was, at this time, at the zenith of his fame. Like most great surgeons, he had devoted his early years to the study and teaching of anatomy. In the Royal Infirmary wards he taught surgery as it had never been taught before. Syme was not a good speaker—a great loss indeed for he never in his life uttered a word that was unnecessary. He was a sceptic as to the action of medicines. It was Syme who got Lyon Playfair made Parliamentary representative of the Universities, foreseeing, as he did, that once in Parliament Playfair was bound to take a most distinguished place in the political world. Lister in those days was Syme's assistant.
>
> "Simpson, too, was at the height of his reputation, and at the busiest period of his busy life at this time. Eight or ten years previously he had introduced the inhalation of sulphuric ether in obstetrical practice. He was not satisfied with it. Leather search in the chemical laboratories found ... He was an interesting lecturer. He began to speak as soon as he entered the lecture room and he was ... sometimes his first sentence before he got to the reading ... He spoke with great fluency and punctuated his ... with numerous anecdotes.
>
> "The Chair of Pathology was occupied by Dr. Henderson ... who afterwards became a homœopathist, and Gregory was ... of Chemistry. Then came Laycock, who was ... at his time with James Miller and James ... late admirable surgeons. Matthews Duncan, ... Goodfellow and Warrington Haden. Such then were ... the Edinburgh Medical School, most of ... of mark. Their pupils were proud of them. But

some of those gifted men were not faultless in this respect, that they failed to show becoming esteem and honour for each other. Rumours reached us that all was not harmony in Mount Olympus. But in our after-lives we were thankful for having had the privilege of being taught by such instructors. The study of medicine and surgery in their hands was a living and progressive thing, and the advancement of medicine since their time has in no inconsiderable measure been due to their work and to the spirit in which they carried it on."

The Dinner.

After the Oration dinner was served. "The King, Queen, and Royal Family" were given by the President, "The Imperial Forces" by the Vice-President (Dr. Underhill), "The Immortal Memory of Harvey" from the Chair, "The Guests" by Dr. Joseph Bell, and "The President" by Dr. Crawford Renton. "Floreat res Medica" concluded a very successful festival.

EXTENSION OF CHALMERS HOSPITAL, EDINBURGH.

The Faculty of Advocates, on consideration of a requisition from the Directors of Chalmers Hospital for a grant of £3,000 from the capital of the Trust to enable them to carry out certain extensive alterations and improvements with the view of renovating and modernizing the hospital, unanimously granted the requisition. It was pointed out that sufficient legacies had been received in the past to justify the Faculty in permitting this encroachment on the capital of the Trust. It is understood that the directors intend to construct a new out-patient department and an operating-room with every modern appliance. They have resolved to close the hospital on the 30th June to allow of the work being done. The hospital will probably remain closed till 1st October, when Mr. Harold J. Stiles will enter on duty as surgeon to the hospital with Mr. C. Balfour Paul as assistant surgeon.

THE GLASGOW SANATORIUM FOR CONSUMPTION AT BELLEFIELD.

The establishment of the Bellefield Sanatorium marks another stage in the warfare against consumption in the Glasgow district. Mr. Quarrier's sanatorium at Bridge of Weir has for many years given accommodation for female cases. Males of the humbler ranks of society have been so far unprovided for, but Bellefield will supply the want. Though some few weeks will elapse before the sanatorium will be ready for the reception of patients, the formal opening ceremony was performed on the afternoon of June 7th. A large company of ladies and gentlemen travelled from Glasgow by special train. The Lord Provost of Glasgow, Sir John Ure Primrose, presided, and in a few appropriate remarks commended the work. Lady Primrose performed the opening ceremony, and expressed the expectation that the new institution would bring much hope and comfort as well as physical strength to the patients. The sanatorium is beautifully situated within a mile of Lanark, and on the opening day was seen in glorious weather at its best. The original mansion house of the estate will be used as the main administrative quarters, in which the matron, the medical officer, and the general staff will be accommodated. The new buildings, which will provide for thirty patients, and have just been completed, have been erected by Messrs. Speirs and Co. on their patented system, a combination of iron and wood, which has the important advantage of being comparatively inexpensive. A handsome pavilion with a southern aspect will provide a ward with ten beds, five double-bedded rooms, and a commodious dining-room, with, in addition, the necessary kitchen, lavatory, and other accommodation. Besides this, there are five double roomed wooden châlets in the grounds for open-air sleeping purposes. The drainage system for the new buildings is being arranged on the septic-tank principle. Similar sanatoria have been in use for consumptive patients at the Glasgow District Board asylums at Woodilee and Gartloch for some time, and have given great satisfaction. It is hoped that before long the Bellefield Sanatorium Committee will be in a position to double the accommodation they are at present supplying.

THE GLASGOW INEBRIATE REFORMATORY.

The third annual report of the "Girgenti Home" for inebriates has just been issued and is rather a discouraging document. This home was established as an experiment by the Glasgow magistrates for female cases coming under the Inebriate Acts, and especially for cases that gave some prospect of cure. During the three years the home has been open 78 cases have been dealt with, and of 35 inmates who have passed through the home and ... only 17, or less than 50 per cent., may be said to be doing well. That is a somewhat disappointing record, although of course it must be remembered that the people dealt with are of the criminal class and at the very bottom of the social scale. There were 45 people in the home at the end of 1902, and during 1903 there were 12 admissions, and 39 inmates remained on December 31st, 1903. The expense of the undertaking is considerable being £1 5s. 3d. a week for each person, of which the Government pays 10s. 8d. and the Corporation 14s. 7d. The farm and gardening work were not so successful last year, owing to the wet season, but these departments supply suitable work for many of the inmates. An unfortunate circumstance mentioned in the report is the persistence of efforts to escape. During the year, of an average daily number of 42·07, no less than 24 were concerned in escaping or attempting to escape. The managers again bring before the Secretary of Scotland the question of what provision can be made for inmates whose sentences will shortly expire. Any good they may have derived from the treatment in the home may be undone unless some employment or permanent detention is found for them after their discharge. The managers suggest that it might be advantageous to give them some control over the inmates after the expiry of their term.

ANNUAL REPORT OF GLASGOW SANITARY DEPARTMENT.

The sanitary report for the year ending December 31st, 1903, has just been issued by Mr. Fyfe, the Chief Sanitary Inspector of Glasgow. It is interesting to note that last year's death-rate was the lowest in the history of the city, being only 18.4 per cent., instead of 20 and 21.2 for 1902 and 1901 respectively. There were 1,049 fewer deaths during the year than in 1902 in a population estimated by the Registrar-General as 11,460 more. It is reported that 13.4 per cent. of the total deaths were from zymotic diseases. The total number of zymotic cases registered during the year was 16,487, or 3,055 more than in the previous year, and of these, as usual, measles furnished the greater number, no less than 9,161. The report also deals with the question of the clearing away of uninhabitable areas and overcrowding. The number of "ticketed" houses is now reduced to 19,145, and regular visits of inspection are paid to these and to some extent also to the larger working houses where overcrowding is suspected. It is hoped that the authorities will soon have powers to "ticket" houses up to 2,600 cubic feet, instead of 2,000 as at present, so that they may have a better grip of this growing evil. Inspection of factories and workshops is carried on in co-operation with the inspectors of factories. The markets are supervised, and much unsound fish and game were destroyed during the year. Considerable improvement is reported in the matter of the smoke nuisance, many of the offending manufacturers having improved their furnaces, and greater care is being exercised by the workers. Continued attention to this department, with persistent use of the legal powers the authorities possess, should effect considerable progress towards a purer atmosphere.

ABERDEEN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The summer meeting was held at Edzell, Forfarshire, on Wednesday, June 8th. Some fourteen members left Aberdeen by train in the morning and drove from Laurencekirk to Edzell, where the meeting took place in the Glenesk Arms Hotel, Dr. Henry, Kemnay, President of the Branch, in the chair. The business was mainly the question of what resolutions were to be supported by the representative of the Branch at the Oxford meeting. Thereafter Professor Stephenson was reappointed Branch representative. The members then lunched together, and the afternoon was spent by some in visiting places of interest in the neighbourhood and by others in golf matches, for which the excellent links at Edzell provides good scope. In the evening at dinner several of the local medical men joined the company, and an exceedingly interesting social hour was spent.

ABERDEEN HOSPITAL FOR INCURABLES.

The annual meeting of the managers and subscribers of the above hospital—which in future is to be known commonly as Morningfield Hospital—was held on June 8th, when the report for the past year was submitted. The average number of patients in the hospital during the year was 77, and these were maintained at an average daily expenditure of 1s. 7d. per patient, a slight increase on the previous year. Lit[illegible]

of the other charitable institutions in Aberdeen in recent years there is a considerable deficit in the income as compared with the expenditure. This has been entirely made good, however, by special legacies—one donation of £4,000 having been given by Mr William Knox, of Craigton. The Primrose Trustees, who have done so much recently for many important charities in Aberdeen, have also subscribed to this hospital the handsome sum of £3,000 to be devoted to capital expenditure. Taken as a whole therefore, the report was looked on as satisfactory.

ABERDEEN ROYAL INFIRMARY.

Mr. Thomas Fraser, M.B., Ch.B., M.A., D.P.H.Aberd., has been appointed Second Assistant Anaesthetist to the Royal Infirmary. During the last few years there has been a very great increase in the amount of work done on the surgical side in the above hospital. To facilitate matters somewhat the staff recommended the appointment of a third anaesthetist, and this recommendation was accepted by the directors at a recent meeting.

Ireland.

IRISH MEDICAL ASSOCIATION.

Annual Meeting.

The annual general meeting of the Irish Medical Association was held on Tuesday, June 7th, in the College of Surgeons, Dublin. **Dr. L. Kidd occupied the chair, and there was a** large attendance.

The adoption of the report of Council and financial statement for the past year was proposed by Mr. Tobin, seconded by Dr. [illegible], and adopted.

The Chairman said he had received a resolution which had been adopted by the Irish Medical Schools' and Graduates' Association in England, expressing their view on the recently issued report of the Local Government Board for Ireland, that the attitude of that Board, as expressed in that report, did not adequately deal with the reasonable demands of the Poor-law medical officers, and offered no permanent settlement of the difficulties now disturbing the relations between the public and the Poor-law Medical Service. They also expressed their sympathy with the objects of the Association.

The newly elected President, Mr. R. F. Tobin, then took the chair.

Dr. Hercules M'Donnell, J.P., of Dundalk, proposed, and Dr. Lankford, of Galway, seconded, a vote of thanks to the outgoing President for the manner in which he had filled that office during the past year, and for the valuable assistance he had given in the furtherance of the Poor law medical reform.

Mr. Tobin delivered an address which will be published in full.

A vote of thanks was passed to the British Medical Journal, on the motion of Dr. Donnelly.

On the motion of Sir William Thomson, seconded by Dr. [illegible], a vote of thanks was passed to the Irish Medical Benevolent Association.

Dr. Thompson, M.P., of Omagh, moved

[illegible]

Dr. [illegible] seconded the resolution which was passed.

The meeting then resolved itself into Committee for the purpose of considering the Scale of Salaries and Fees fixed by the Conference on the 11th June, 1903.

It was subsequently agreed that the following resolutions [illegible]

[illegible]

Dr. [illegible] seconded by Dr. [illegible]

[illegible]

Dr. [illegible] seconded the following resolution which was carried:

[illegible] Medical Officers [illegible] be found by the Guardians [illegible]

[illegible]

Dr. [illegible] seconded by Dr. [illegible]

[illegible]

Dr. [illegible] seconded the following resolution which was carried:

[illegible] Medical Officer of this Union on the matter of the proposed Poor-law Medical Service [illegible] the Local Government Board [illegible] inadequate to the responsibilities incurred and the trust reposed therein:

That the Boards of Guardians be served with notice to that effect, and informed that no member of the Irish Medical Association will act as consultant in such cases until the scale of fees is amended to enable the consultant to be paid what to him seems a fair and reasonable fee in proportion to the services rendered, taking the [illegible] and the distance at which such services are rendered, as well as all the circumstances of the case, into consideration;

That the Boards of Guardians be respectfully informed that the responsibilities arising in default of consultations arising in such cases rest entirely with them.

Proposed by Dr. Hamilton, seconded by Dr. Hennessy, and resolved

That all efforts to induce candidates to abstain from seeking vacant dispensaries have in almost every case been unsuccessful, that the Council of the Irish Medical Association be requested to take into their earnest consideration the question of appointing paid organizers for this purpose.

Proposed by Dr. Delahoyde, seconded by Dr. Murphy, and resolved:

That a Committee be formed, consisting of the President, Vice Presidents and the Honorary Secretary, with power to add to their number, to confer with the Local Government Board and Boards of Guardians, etc., to bring about a settlement on the lines laid down by the Dunsheaden meeting, with power to negotiate for such terms as to that meeting may seem necessary, and to report same to the Council.

The proceedings concluded with a vote of thanks to the President.

The Dinner.

In the evening the members, to the number of over a hundred, dined in the College. **The speakers were the President,** the President of the Royal College of Physicians, the President of the Royal College of Surgeons, Surgeon-General Evatt, C.B., Colonel Crimmin, V.C., I.M.S., Colonel Rogers, Mr. O'Connor, K.C., and Dr. Leonard Kidd.

The toast of "The Irish Bench and Bar," given by the Chairman, was acknowledged by Mr. Charles O'Connor, K.C.

Surgeon-General Evatt, C.B., proposed "The President, the Out-going President, and Officers of the Irish Medical Association. He spoke of Mr. Tobin's devotion to the cause of the Irish dispensary medical officers, and felt sure he would leave his mark during his year of Presidency. Surgeon-General Evatt said he was much indebted to Dr. Kidd for arranging the itinerary which he should follow for the purpose of the report published as a SUPPLEMENT to the BRITISH MEDICAL JOURNAL, and said that the Editor of that JOURNAL desired him to say that his efforts were entirely at their service. England, Surgeon-General Evatt believed, was anxious that this blot on the medical organization of the three countries should be removed.

The toast was duly honoured, and the Chairman, Dr. Kidd, and Dr. Donnelly responded.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY, IRELAND.

The sixty second annual meeting of the Royal Medical Benevolent Fund Society was held on June 8th in the Royal College of Surgeons, Dublin. The President of the Royal College of Surgeons presided.

The report of the Central Committee regretted the great loss sustained by the deaths of Mr. H. Gray Croly, Sir Philip Crampton Smyly, and Sir George J. Duffey. Dr. Conolly Norman and Dr. Richard Hayes had been elected to fill the vacancies on the committee. Ten applications for grants were considered in anticipation of the regular annual distribution. Three were ineligible. Grants amounting to £[illegible] were made. [illegible] applications were considered during the year, of which [illegible] were [illegible] widows of medical men. £[illegible] was the amount recommended since last distribution. The amount given in grants was so large that the resources were strained.

The Honorary Secretary's report showed that during the year the grants made by the Central Committee were £[illegible], which was less by £[illegible] than the last amount previously distributed. More than half the annual income was derived from investments. The Society's accounts were [illegible] overdrawn, and except there was a definite increase in subscriptions it would be impossible to continue distributing grants at the same rate. The subscriptions paid through the Central Committee were £[illegible], and the branch treasurers forwarded £[illegible], which was £[illegible] less than that of the previous year.

The President of the College of Physicians moved the adoption of the report and statement of accounts, and announced his intention as President of the College of Physicians of subscribing 20 guineas to the fund.

Mr. R. F. Tobin, President of the Irish Medical Association, seconded the resolution and pointed out that religion never entered the minds of the executive when considering the applications. He would be glad if it were generally known that while the majority of subscribers were Protestants the majority of the recipients were Catholics.

The resolution was adopted.

Dr. Leonard Kidd, Enniskillen, moved a resolution conveying the warmest thanks of the meeting to the committee and officers of the parent society, as well as those of the provincial branches, for their zeal in the society's beneficent work, and also to those of the students who had contributed. He said there were 2,500 registered practitioners in Ireland, and if each only subscribed 5s. annually it would put £600 at the disposal of the society.

Sir Thornley Stoker, in seconding the resolution, said an applicant's religion was not even known to the committee. The only questions ever considered were the necessities of the applicants and their want of means.

On the motion of Dr. Denham, seconded by Dr. Ringwood, the Central Committee and officers and honorary secretary and treasurers of branches for the ensuing year were elected.

Dr. Tweedy was moved to the chair, and a vote of thanks was passed to Mr. Chance for presiding.

A "Rest for the Dying," at Dublin.

On June 10th His Excellency Earl Dudley opened a 'Rest for the Dying" in Camden Row, Dublin, for the use of Protestants suffering from incurable diseases. The Archbishop of Dublin conducted the dedication service, and explained that the home had been established through the benevolence of a gentleman who gave £5,000 towards it. The Roman Catholics had a hospice for the dying, and it was felt that the Protestants should have a like institution under the management of their own Church. Dr. Little and Sir John Moore are the Consulting Physicians, Sir Charles Ball and Sir Thornley Stoker Consulting Surgeons, and Dr. W. A. Winter and Dr. George Peacocke Medical Superintendents. The building will accommodate twenty-four patients.

Degrees for Women in the University of Dublin.

The Senate of the University of Dublin at its meeting on June 11th gave effect to the new policy of admitting women to degrees by conferring the honorary degrees mentioned in our University Intelligence (p. 1468). The Provost referred to the King's letter by which they were enabled to open the degrees of the University to women. The resolution to apply for permission was carried by 77 to 11. They had now a perfectly free hand for treating women in this regard on terms of perfect equality with men as to degrees in Arts and Medicine, with the exception that they cannot become members of the corporate body of Fellows and scholars. They can, however, be made non-foundation scholars. In the case of women studying elsewhere, but who have been hitherto excluded from the University of Dublin, they will get credit as far as possible for the work so done, and will not be compelled to begin *de novo*. Those educated in Oxford and Cambridge will be treated (subject to a time limitation) as if they had been admitted to the academic status in those universities corresponding to their educational exercises.

Dublin Hospitals.

The Board of Superintendence of Dublin Hospitals have presented to Parliament their report for the past year. The number of patients admitted for treatment during the year was 11,732, or, adding those in hospital at the close of the year, 12,753. The mortality amounted to 477, or 5.43 per cent. on 11,373 cases. The total daily average of beds occupied in the nine hospitals which received aid from the annual grants was 960.52, and the time spent in hospital by each averaged 23.88 days. Clinical teaching continues to be as vigorous and successful as ever. The Board suggest that grants in aid, not to exceed one-half, ought to be given for the installation of *x* ray, radium, and Finsen light apparatus. The Governors, in speaking of the Rotunda Hospital, enter a protest in reference to the action of the Central Midwives Board.

As a training school for maternity nurses the most thorough and careful instruction is given, which makes them welcome and helpful aids at all obstetric cases. It was, therefore, with surprise that we learned that the "Central Midwives Board," in framing their rules, took no account of the Rotunda and Coombe Hospitals, and passed through the Privy Council a set of rules which exclude all Irish trained midwives. We trust that the objectionable clauses that bear on this subject may soon be deleted, and we cannot help observing that it would have been more courteous and wise for the "Central Midwives Board" to have first communicated with the masters of our maternity hospitals, and elicited their opinion on the rules that had been drawn up before presenting them to the Privy Council for approval.

Ballinasloe Asylum.

At the meeting of the managing committee of the Ballinasloe Asylum on Monday last, Right Rev. Bishop McCormack in the chair, Mr. Millar moved that the salary of Dr. Mills, who was passed over in the recent election of medical superintendent, be increased from £233 6s. 8d. to £333 6s. 8d. The principle of granting an increase was adopted by 11 to 6: but although it was mentioned that the Roman Catholic archbishop was the first to suggest a substantial increase the sum ultimately agreed upon as an addition was only £50. It was further stated that Dr. Mills had not applied for any increase.

Alcoholism in Ireland.

Dr. T. J. O'Meara at the request of the Irish Temperance Association gave an interesting address on the causes, effects, and prevention of alcoholism in Ireland at a recent meeting in Skibbereen. There were, he said, three principal causes of alcoholism in Ireland: First came the excitable, high-strung, nervous temperament of the Irish race, next the erroneous views of hospitality which prevailed, and, finally, the widespread and mistaken idea that the consumption of alcohol was positively beneficial to health. In addition to these principal causes, contributing but minor causes doubtless existed, such as the wretched and uncomfortable homes of the poor, the excessive number of public-houses, the late hours to which the latter remained open, the insufficient punishments meted out by the courts for drunkenness and crimes arising therefrom, and the lethargic, compassionate tolerance with which drunken men were regarded even by temperate persons. The Irishman was essentially neurotic and mercurial, easily overjoyed and as easily depressed, and accustomed to treat both conditions by whisky. Hospitality was widespread, and it was barely possible to enter an Irish home without being offered a drink. The beneficial effects of alcohol were altogether over rated. In disease the people regarded it as nourishment: but there was no nourishment in whisky, for alcohol was not a food but merely a fuel. A certain amount could be absorbed by the system, and upon certain occasions it might be desirable to administer it to stimulate vital processes, but never except under medical direction. In most cases it was harmful, and in many directly poisonous even in small quantities. There were four mental results from alcohol—simple acute drunkenness, the alcoholism of the chronic degenerate soaker, the state of the man with delirium tremens, and of him who had passed into a condition of alcohic insanity.

It was alcoholism which helped to fill the asylums, for, besides its direct effects, it helped to bring out latent insanity from other causes. As regards its effects on the body, abuse of alcohol caused or predisposed to apoplexy and to inflammation (whether acute or chronic) of the stomach, liver and kidneys; also to bronchitis, pneumonia and consumption, not to mention neuralgia. The pneumonia of alcoholics was peculiarly fatal. Finally, the children of drunkards were more delicate than those of other people. To lessen alcoholism in Ireland, the first thing was to develop in an excitable people a more reasonable condition of mind, and, at the same time, remove the subsidiary causes which had been mentioned. People should recollect that there was no nourishment in alcohol, and that its stimulating effects were but transitory. Further, the Government should make it a duty to see that all whisky sold was really pure. The mistaken ideas of hospitality should be amended, and amongst other things wakes should not be permitted except in very few cases. Apart from the whisky-drinking to which wakes led they were dangerous in themselves, for it was now recognized how many of the common diseases, such as pneumonia, influenza, consumption, acute rheumatism, measles, and whooping-cough were infectious. Wakes no longer served the purpose for which they were initiated. Finally, keeping in mind the excitable temperament of the race, a higher standard of morality in respect of the drink question should be developed. People should be taught to keep ever before their eyes the dire effects of excessive drinking upon their bodies and minds and on future generations. Each one should endeavour to exert his will power, and refuse to drink except in extreme moderation. No one should drink except at meals, and then take only such a quantity as the body could consume by way of fuel. That was about one glass of whisky or two bottles of porter in twenty-four hours. More than this would do great harm, and less would be all the better. The average Englishman drank more than the average Irishman, but he drank at his meals, and frequently, also, ate with his drinks. Thus, therefore, he suffered from alcohol in body and mind less than did the Irishman. The man who was ruining himself fastest was he who began the day with alcohol, and continued to take drinks during the day on the slightest pretext.

At the conclusion of this address, the Bishop of Ross expressed the hope that the newspapers would give a full account of what Dr. O'Meara had said, in order that the people might assimilate the valuable information conveyed at their leisure, and bring it to the notice of their friends.

CONTRACT MEDICAL PRACTICE.

A Burial Club.

Some account of certain incidents which had occurred recently in connexion with a burial club at Macclesfield and led to the resignation of the medical officers connected with it, was published in a recent issue; subsequently we published a letter signed by some fourteen of the leading medical practitioners of the town in which, our account of the incidents was confirmed and the hope expressed that no medical practitioner would be found to accept the positions vacated. The matter seems to have attracted a good deal of notice in the local press, but though a great deal of space has been devoted to a general account of matters and to more or less unreasoning letters from members of the burial club, the medical men have not, so far as we are aware, taken any public steps to influence the possible trend of public feeling in the matter. The question of the conditions of contract practice is one in which the general public of any comparatively small locality may be considered to have considerable interest, even though the majority of its members may not form part of any society which has the provision of contract medical attendance in view.

These societies were originally brought into existence for the benefit of the poorer classes, and their continued existence may legitimately be defended upon the ground that the working classes are thereby enabled to provide for themselves while in health the medical attendance which in misfortune they would have to seek from medical men remunerated out of the public purse. These societies are, however, open to grave abuses, and when either large numbers of well-to-do persons for whom they were never intended are allowed to creep into them, or the fees paid to the medical officers are cut down below a certain level, the general balance of the public interest is entirely against their continued existence. In such case there is a danger that medical men of the best stamp may cease to find it worth while to continue to work in the town. It is contrary to the public interest that in any place a large section of the working class should be enabled to set local medical opinion at defiance and say We will pay you as little as we please. This fact has been recognized in the majority of cases at which contests have occurred, such as that which appears to be threatened at Macclesfield, and we are also bound to admit that where contests have been in any way successful it has been the fault of the working man himself than of those whom he has permitted to fight on his behalf. While individual members of the working classes may be ready to recognize their obligations, their united action is usually dominated in such cases by the personal element of collectors who have either crept into the [illegible] who already well-to-do people or who, from these [illegible] have grown [illegible] but not refuse to [illegible] medical attendance [illegible] to them under [illegible] contract.

[illegible] all the difficulties [illegible] have at some time to [illegible] and the medical profession [illegible] to them that the conditions of the [illegible] may have been [illegible]. [illegible] Macclesfield [illegible] the present the services of Mr. [illegible] Mr. [illegible], Mr. [illegible], the Friendly Societies Medical Association of that [illegible] Society, therefore, will have the medical men [illegible] in other towns in Macclesfield will be practically [illegible] the [illegible] men [illegible] easy to [illegible] the capacity to [illegible] medical [illegible] and [illegible] [illegible] [illegible] will be available in [illegible] [illegible] [illegible]

recommended that three puppies should be split up and applied hot to the diseased surface. The arm got well in spite of the treatment. Within the last few months Dr. Rorie came across a boy suffering from enuresis to whom was being administered thrice daily a tablespoonful of liquor in which a mouse had been boiled. Another method is to roast the mouse after decapitation, and reduce it to powder. A sovran thing for the prevention of cramp is a piece of sulphur sewn in a garter and worn round the leg. Dr. Rorie has seen a portion of sulphur candle left by a sanitary inspector used for this purpose—a curious victory of superstition over science. Black slugs "masked in a teapot with water and salt supply an oil which makes an excellent application for rheumatism." White slugs placed in a flannel jelly bag with a handful of salt furnish an oil which is given to consumptives. The bedding and clothes of a patient who has died of consumption are burnt, but it is a popular belief that the infection cannot be conveyed from a younger to an older person. The specific for whooping cough is "change of air," but this term is sometimes apt to be interpreted in a startling sense. Dr. Rorie tells of a father who took his young child down a pit and held it for ten minutes in a strong draught in an air course, with the result that it died in two days of pneumonia. The idea of getting rid of disease by transference to another lies at the bottom of a good deal of folk medicine. This belief, it is well known, often leads to criminal assaults on young children. Dr. Rorie lately saw a case in which a nursemaid had deliberately infected a child with the object of curing herself of impetigo contagiosa. A relic of the belief in demoniacal possession is found in the fear which prevents many sufferers from eating lest they may feed the disease. "He's burst himself," explains all skin eruptions, from "plooks" to pemphigus. The usual cause of a "burst" is a chill following sweating, but it may also be the consequence of a "rash drink o' water." Boils are looked upon as a sign of rude health, and the presence of pediculi on the head is regarded as a proof that a child is strong. A woman has been known to collect these parasites and transplant them to the head of a sickly child in the fond belief that they would give it strength.

In a communication presented not long ago to the Société Médico-Chirurgicale de Brabant, Dr. Dubois-Havenith, the well-known dermatologist of Brussels, pointed out that Voltaire had partly anticipated the crusade undertaken by the Ligue Internationale pour la Prophylaxie de la Syphilis. In his short story *L'homme aux quarante Ecus* there is a chapter devoted to the subject. From the description of the disease it is evident that in his day it was of a type the reverse of mild. Mercurial treatment was employed with a vigour unknown nowadays: the two pretty cousins of the man with forty crowns got rid of the affection at the cost of heads swollen like balloons during six weeks, the loss of half their teeth, and great enlargement of the tongue, only to die of lung disease. The diffusion of syphilis is shown by the fact that when two Christian armies of 30,000 men take the field against each other it can safely be wagered that 20,000 on each side have syphilis. The only way to lessen the ravages of the scourge is said to be that all the kings of Europe should band themselves together in a new crusade against syphilis. "It would be much more reasonable to unite to fight the common enemy of the human race, than to be continually watching for a favourable opportunity of laying waste territory and covering the fields with dead, in order to rob one's neighbour of two or three towns and a few villages.

The Warren Triennial Prize of the value of £100, in the gift of the Massachusetts General Hospital, has just been awarded to Dr. Max Borst, Extraordinary Professor of Pathological Anatomy in the University of Wurzburg, for a dissertation entitled Neue Experimente zur Frage der Regenerationsfahigkeit des Gehirns, in which the regeneration of medullated nerve fibres in the central nervous system after injury is demonstrated. The prize was founded by the late Dr. J. Mason Warren in memory of his father. His will provides that the accumulated interest of the fund shall be awarded every three years for the best dissertation on some subject in physiology, surgery, or pathological anatomy. The number of essays received was larger than on any previous occasion; they came from widely-distant parts of Europe as well as from America.

Messrs. Longmans, Green, and Co. have in the press a *Textbook of Medical Practice* edited by Dr. William Bain.

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING AT OXFORD.

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Oxford the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 22nd to August 2nd, both dates inclusive.

Members attending the annual meeting, but staying at places outside Oxford, may, on production of cards of membership, obtain return tickets at a single fare and a quarter (minimum charge 1s.), from Oxford to any station not more than fifty miles distant to which through bookings are in operation; these tickets will be available to return on the same or following day. Members availing themselves of this privilege should use the original return ticket for the first journey to and the last journey from Oxford. The member's ticket which is obtained at the Reception Room, when registering attendance, will enable members to get the reduced fares from Oxford to places within the fifty-mile radius for any intermediate journeyings.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 6th day of July next, at **2 o'clock** in the afternoon.

June, 1904. GUY ELLISTON, *General Secretary.*

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH: BATH DIVISION. The annual meeting of this Division will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6.15 p.m., Mr. R. J. H. Scott in the chair, for the purpose of electing officers, members of the Branch Council (there are five vacancies), and for such other business as may be done at an annual meeting.—W. M. BEAUMONT, 4, Gay Street, Bath, Honorary Secretary.

BATH AND BRISTOL BRANCH: BATH AND TROWBRIDGE DIVISIONS. A meeting of these Divisions will be held at the Royal United Hospital, Bath, on Monday, June 20th, at 6 p.m., for the purpose of appointing a Representative of the Divisions in Representative meetings of the Association.—W. M. BEAUMONT, Bath, J. TUBB THOMAS, Trowbridge, Honorary Secretaries.

BIRMINGHAM BRANCH: COVENTRY AND TAMWORTH AND NUNEATON DIVISIONS.—The joint annual meeting of these Divisions will be held at the Coventry and Warwickshire Hospital on Wednesday, June 29th, at 8 P.M. Agenda: 1. Election of a Representative for the Annual Representative Meeting. 2. Instructions to be given to such Representative on the matters arising at the Representative Meeting. (These matters are fully set out in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th; members will probably find it convenient to bring that SUPPLEMENT with them.) F. L. HAGMAN BROWN, Clive House, Warwick Road, Coventry, Honorary Secretary.

[illegible] BRANCH. DUDLEY DIVISION.—The annual meeting of this [illegible] will be held in the Board Room of the West Bromwich [illegible] on Wednesday, June 22nd, at 4 p.m. Business: To elect officers. 2. Two Representatives on Branch Council. 3. Ordinary business. 4. Election of Committee. 5. Representative to represent the Branch at the Association. To receive report from Executive Committee. To consider the business of Annual Representative meeting. To consider any other business. Dinner Arrangements. H. B. W. PEMBREY, 4, Birmingham Road, West Bromwich, Honorary Secretary.

[illegible] COUNTIES BRANCH.—The annual meeting of this Branch will be held on Thursday, June 30th, at the Central Hotel, Carlisle, at 3 p.m. Business: 1. Election of officers for ensuing year. 2. President's address.—FRANCIS S. HILL, [illegible] Warwick Road, Carlisle, Honorary Secretary.

[illegible] COUNTIES BRANCH. SOUTH DIVISION.—A meeting of this Division will be held at Stockton on Saturday, June 25th, at 3.45 p.m. [illegible] R. LEES, [illegible] Honorary Secretary, 47, Castle Street, Darlington.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of this Branch will be held at Caius College at 7 p.m. on Tuesday, June 28th. Members desiring to read papers are requested to give the Honorary Secretary notice of the same. F. E. ARTHOLLS WEBB, [illegible] Newmarket Road, Cambridge, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting of this Branch will be held at the Hospital at Lowestoft, on Thursday, June 23rd. Agenda: [illegible] Meeting of Council at the Royal Hotel. 2. Business Meeting [illegible] Report of Council. 3. Election of officers. 4. The following motion will be proposed by Dr. [illegible] BAKER: "That in view of the [illegible] and Suffolk East Anglian Branch be [illegible] with the following Divisions on the Western Side of the Branch." Dr. [illegible] will read a paper on "Some Observations on Cases of Puerperal Eclampsia." Dr. [illegible] will show a series of [illegible] with notes. 7 p.m. Dinner at the Royal Hotel. Tickets 5s. each, including wines. Members intending to dine are requested to inform the President, Mr. H. E. Wacker, [illegible] Lowestoft, or Mr. A. E. Lyster, [illegible] Road, Lowestoft, not later than Monday, June 20th. [illegible] the retiring president Mr. H. E. Wacker [illegible] Mr. A. E. Lyster, Mr. W. [illegible] Mr. W. [illegible] Mr. A. E. Lyster [illegible] Road, Lowestoft, Honorary Secretaries.

[illegible] BRANCH.—The annual meeting of this Branch will be held [illegible] on Thursday, June 23rd, at 4 p.m. The following business will be transacted: [illegible] Election of officers. 2. Representatives on Council. 3. Representatives on Executive Committee. 4. Representatives to represent the Branch at the Annual Representative Meeting. 5. To receive the Annual Report of the Executive Committee. 6. To consider the business of the Annual Representative Meeting. 7. Any other business. Dinner at 6.30 p.m. [illegible] Honorary Secretary.

[illegible] BRANCH.—The annual meeting of this Branch will be held at the Grand Hotel, Scarborough, on Thursday, July 14th. The Business Meeting will be held at 4 p.m. The following resolutions will be submitted: That Dr. [illegible] be elected Chairman for the ensuing year. That each candidate for election to the Association by the Council of the Southern Branch excepting officers of Volunteer Medical Services, the Active List, shall [illegible] two members of the Association, to whom he is personally known. That a grant of £5 5s. be made to the Library Committee. That the Association will [illegible] the Branch to vote at the next election of Representatives and Executive Committee. Members intending to dine are requested to inform the Hon. Secretary [illegible] As an address will be delivered by Mr. J. F. [illegible] M.B., Chairman. After the dinner a smoking concert will be held. Tea will be served at the Hotel [illegible] Members intending to be present at the dinner are requested to [illegible] Wade, 7, Cambridge Crescent, Scarborough, or to J. MANNING, Lavender Hill House, [illegible] Honorary Secretaries.

[illegible] BRANCH.—The annual meeting of this Branch will be held at the Public Rooms, Eastgate, at 3 p.m., when the President, Dr. [illegible] Alexander, who will deliver an address on [illegible] will be proceeded to the election of officers for the ensuing year. 2. The Branch Council and annual meeting will be held at 3 p.m. 3. To receive the report of the Branch Council and annual meeting. 4. To consider the following motion: [illegible] Section C and D Sections C to read [illegible] Papers. [illegible] by [illegible] 1 p.m. to [illegible] 3 p.m. [illegible] Dinner will be held at 7 p.m. to [illegible] Dr. Alexander will receive [illegible] after which a short [illegible] will be given. All members who wish to stay over the [illegible] Tuesday are invited by the kind consent of the Chairman of the Chariton Golf Club. All members attending [illegible] will be honorary members of the Paignton Club by kind con-

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Tuesday, June 28th, at 7 p.m. The annual dinner (exclusive of wine) will follow the meeting at 8.15 for 8.30 p.m., Dr. H. Radclyffe Crocker, President, in the chair.—G. ROWE, 1, Cavendish Place, W.; F. J. SMITH, M.D., 18, Harley Street, W., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH. RICHMOND DIVISION.—The annual meeting of this Division will be held at the Greyhound Hotel, Richmond, on Wednesday, June 22nd, at 8.45 p.m. Agenda: 1. To elect officers, the Representatives of the Division on the Branch Council, and the members of the Executive Committee. 2. To elect the Representatives of the Division to Representative Meetings of the Association. 3. To receive the financial report of the Executive Committee. 4. To consider the business of the Annual Representative Meeting.—J. R. JOHNSON, 2, Ellerker Gate, Richmond, Honorary Secretary.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—**The annual meeting of this Branch will take place at the County Hotel, Ulverston, on June 29th, at 3 p.m. There will also be a joint meeting of the Furness and Kendal Divisions to elect their Representative. Members willing to show cases, specimens, etc., are requested to communicate as soon as possible with the Honorary Secretary.** A. S. BARLING, High Street, Lancaster.

NORTH WALES AND SHROPSHIRE BRANCH.—The annual meeting will be held at Shrewsbury on or about the 27th day of July. Members having papers to read or cases to communicate are requested to notify either of the Secretaries on or before June 25th.—W. JONES MORRIS, Portmadoc; H. JONES ROBERTS, Penygroes; H. H. B. MACLEOD, Clive House, Shrewsbury, Honorary Secretaries.

SOUTH-EASTERN BRANCH.—**The sixtieth annual meeting of this Branch will be held at Grand Hotel, Eastbourne, on Wednesday, June 22nd, at 2.15 p.m. Mr. J. H. Ewart (President-elect) kindly invites members to lunch at the hotel from 1 to 2 p.m. Agenda:** In addition to the business of an ordinary meeting: 1. To receive the report of the election of new officers, who shall thereupon take office. 2. To receive the report of the Council on the affairs of the Branch and the annual financial statements. 3. To make new rules or alter or repeal existing rules (if so desired). 4. Dr. Larking gives notice that he will move: That in the opinion of this Meeting the present South Eastern Branch should be divided into two Branches separated by a line running roughly between London and Hastings, and that the opinion of the Divisions concerned be obtained on the question. After the meeting drives will be arranged to Beachy Head and Pevensey Castle. Dinner at the hotel at 6.45 p.m., charge 6s. 6d. wine will be provided by the local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. MERRY, Chiswick Place, Eastbourne, not later than Monday, June 20th.—T. JENNER VERRALL, 37, Montpelier Road, Brighton, Honorary Secretary.

SOUTH EASTERN BRANCH. CANTERBURY DIVISION.—The annual meeting of this Division will be held at the Kent and Canterbury Hospital, on Thursday, June 23rd, at 4 p.m., Dr. Gogarty in the chair. Agenda: 1. To read minutes of the last meeting. 2. Election of officers. (a) Chairman, (b) Vice-Chairman. 3. Representative on Branch Council. 4. Honorary Secretary and Treasurer. 5. Executive Committee (additional members). 6. To consider a communication from Dr. Gosse. 7. To consider the proposed [illegible] and other business for the forthcoming Representative Meeting at Oxford on St. Clement's, May 9th, 1905. 8. To consider existing rules and discuss whether any alterations are necessary. 9. To receive a report from the Ladies' Division of the South Western Branch. 10. Any other business. Possibly an address by Mr. Stanley Williams, Medical Secretary of the British Medical Association.—A. B. [illegible], 2, London Road, Canterbury, Honorary Divisional Secretary.

sent of the committee. The Esplanade and Gerston Hotels afford good accommodation for members wishing to stay the night. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Wednesday July 27th. Any member having any communication to made or any business to bring before the meeting should kindly inform me on or before July 20th. Nominations for the offices of President, Representatives on the Council of the Association (two when combined with Connaught Branch), Honorary Treasurer, and Honorary Secretary should reach me not later than June 20th. WILLIAM CALWELL, M.D., 1, College Square North, Belfast, Honorary Secretary.

WEST SOMERSET BRANCH. The annual meeting of this Branch will be held at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 12.30 p.m., under the presidency of Mr. A. W. Sinclair. Agenda: Minutes of last meeting. Annual report of Council. Treasurer's report. Election of President-elect. Election of other officers. Election of Ethical Committee. Ethical case: Report of Committee on case recently before them. Resolution: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second class return railway fare." President's address on Neurasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m. —W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of this Branch will be held at the Infirmary, Hereford, on Friday, June 24th, at 4 p.m. Business: To elect officers for the ensuing year. Dr. Fitzsimons: President's Address.—The Influence of Hospital Isolation upon Scarlet Fever in Hereford. A discussion will take place on the question of the Association undertaking medical defence. Mr. Edgar Morris: Notes of some recent operations for Appendicitis. Dr. Paul Chapman: Demonstration on the Administration of Chloroform by Dubois's Method.—GEORGE W. CROWE, 41, Foregate Street, Worcester, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH. HEREFORD DIVISION.—The annual meeting of this Division will be held in the Board Room of the Herefordshire General Hospital, Hereford, at 5 p.m. on Friday, June 24th.—HERBERT JONES, Barkside, Hereford, Honorary Secretary.

YORKSHIRE BRANCH.—Preliminary Notice.—The annual meeting of this Branch will be held at Leeds on Wednesday, JUNE 22ND. Members wishing to read papers or show cases or specimens are requested to communicate with the Honorary Secretary as soon as possible. Annual dinner at 6.30.—ADOLPH BRONNER, 33, Manor Row, Bradford, Honorary Secretary.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Greater Manchester.—Cost of Epileptic Homes.—Physical Degeneration in Prussia. Largest Reservoir for Water Supply in the Country. Post-graduate Courses.

WITH the passing into law of the Manchester Corporation Bill, which is now in sight, a very considerable increase will be made in the size of the city. With the incorporation of the large Withington district and the smaller but even more closely-related and densely-populated area of Moss Side the area of Manchester will be about 19,000 acres, an increase of nearly 30 per cent. The population will be increased by about 60,000, and the rateable value by nearly £400,000. Manchester itself was incorporated in 1838, when its area was 4,293 acres. A gradual process of absorption has gone on, and township after township has been taken in, and now there is a real "Greater Manchester." Immediately after incorporation (in 1841) the population was 242,983. In 1871 it was 351,489. In 1881, by additional absorption, it reached 462,303: while in 1904 the population of Greater Manchester, it is calculated, will reach 604,000.

Epileptic homes are being erected at Langho, near Clitheroe, by the Cheriton and Manchester Joint Asylum Committee at a cost of £78,500. Of this sum Manchester's contribution will be £41,210. The Local Government Board must first give sanction for an application to borrow this sum. It is suggested that of the amount required by Manchester £30,343 should be repaid in thirty years, and the other £10,687 in fifteen years.

Manchester is deeply interested in the question, now so acutely discussed, regarding physical deterioration. An extremely important communication has been made to the subject by Mr. T. C. Horsfall, who takes so deep and practical an interest in the housing problem. From Mr. Horsfall's communication we gather that in 1824 the attention of the Prussian Minister of State was called to the fact that the work in mills was seriously affecting the physique of the population, and a few years later General von Horn reported to the King of Prussia that the inhabitants of the manufacturing districts could not supply their due proportion of soldiers to the army. This led to factory legislation and a series of efforts to improve the condition of the people in the manufacturing districts and those in the poorer quarters of the towns. At a meeting held last month, the Secretary of State, Count Posadowsky, when calling attention to the urgent need for getting rid of the causes of tuberculosis stated the striking and indeed appalling fact that in 1902 of the young men who in Berlin reached the age at which they ought to serve in the army only 33 per cent. were physically fit for service, while in the German empire, as a whole, 57 per cent. of the men of that age were unfit for service. In Germany a very complete system of weighing and measuring the growing youths is in operation, and this system makes it possible to discover the shortcomings, and in most cases to indicate the remedy. In 1877, it was found from statistics collected by the Prussian Statistical Bureau that out of 17,246 young men who were entitled by education or other satisfactory circumstance to spend only one year with the colours, only 20 per cent. were fit for service, while of ordinary recruits who belonged to less well-to-do classes and whose health had not been injured by excessive study, 50 to 55 per cent. were fit for service. The immediate effect was a reform in the curriculum of the secondary schools. In the Kriegsschulen at the present time great attention is given to daily outdoor physical exercises, and timely daily pauses for recreation are sandwiched between the hours of study. "The future will belong to the nation which keeps itself most able to resist disease, and therefore to resist its its foes. He, therefore, who struggles to maintain life and health for the masses, struggles also for the strength and the future of his Fatherland."

Not long ago Manchester acquired a great open park—Heaton Park—which is situated some distance beyond the city boundary. The General Powers Bill promoted by the Corporation provides for the construction of an extensive reservoir in Heaton Park. The storage and service reservoir will be one of the largest in the country. It will take several years to complete it, at a cost estimated at £1,215,000. It will hold 500,000,000 to 600,000,000 gallons, or about eighteen days' supply for the city and the extensive area of surrounding townships which are supplied by the Manchester Water Department. A storage system is necessary to meet contingencies under which the supply from Thirlmere might have to be temporarily cut off. A considerable area of low-lying land in the park has been selected for the site of this new artificial lake, which will be over half a mile long and about one-third of a mile broad. There are at present reservoirs at Prestwich, but they only contain 41,000,000 gallons.

For many years Owens College offered courses of post-graduate instruction in various branches of applied medicine, then followed a few years when no courses were given. This summer post-graduate courses have been resumed, a wide choice of subjects being offered. Some are carried on at the College and others at the Royal Infirmary, or institutions devoted to special branches of medicine. Each course consists of six meetings, and deals with a limited range of selected subjects.

SANATORIUM FOR NEWCASTLE AND NORTHUMBERLAND. The Newcastle and Northumberland branch of the National Association for the Prevention of Consumption is at length, after many difficulties, in a position to commence the building of the sanatorium which it was proposed to found in commemoration of the Coronation of His Majesty. The public meeting for giving effect to the project had to be postponed in consequence of the King's serious illness two years ago, and the arrangements for the postponed meeting had to be modified at the last moment. The selection of a site was rendered more difficult in consequence of the exaggerated fear of infection which prevented the committee from obtaining sites which seemed suitable. A site, has, however, now been obtained in the North Tyne district, about three miles from Barrasford Station. The sanatorium is planned for 100 patients, and the estimated amount wherewith to build, equip, and endow was £50,000. Between £12,000 and £13,000 has been actually received, and the committee propose, therefore, to commence building. The administrative block will be made capable of serving the full number of patients, but provision for only half—fifty patients—will be made at first. A site, liberally offered by Lord Armstrong, the president of the branch, on his estate could not be utilized because of the absence of an adequate water supply.

CORRESPONDENCE.

THORNE DEFENCE FUND.

Sir,—Every medical man engaged in surgical work must feel sympathy with Dr. Mary Thorne in the recent action which she has been called upon to defend, and which resulted in an undesirable verdict against her. Although the expenses of Miss Thorne's defence were defrayed by the Medical Defence Union, of which she is a member, she is herself responsible for the damages awarded against her, and also for the plaintiff's costs, which together amount to about £[illegible]. It has therefore been decided to raise a fund to assist Miss Thorne in meeting this expense and as a means of showing the practical sympathy of the medical profession with her. We are, etc.,

Walter S. A. Griffith,
Wilmer Tate,
Percival Drew.

[illegible]

THE POWERS OF THE GENERAL MEDICAL COUNCIL.

Sir,—Many of your readers may not have realized the importance of the recent decision of the General Medical Council to apply to Parliament for power to compel all students of medicine to be registered in a register under their control. Such a power would be far-reaching, since it must necessarily carry with it the right to refuse registration to the student of any university or licensing body which would not be prepared to modify its requirements in the precise way in which the Council might choose to demand.

The great services rendered by the Council are recognized by all members of the profession, but there can be little doubt that its present legal powers, taken together with the moral weight which it derives from the fact that eminence in the profession is usually sufficient to elect the ends it has in view. Already it exercises as if it claimed to be possessed of such powers as the following:

1. The right to inspect any examination which forms a necessary part of the medical curriculum, including even the subjects in which it does not examine, and to report upon such changes as seem to it desirable, and to refuse to recognize any examination unless they think fit.

2. The power to prescribe the precise order in which the different examinations shall be taken, and to require that certain examinations shall not be taken before others.

3. The power to prescribe the precise length of time which must elapse between the passing of one examination and the taking of another.

4. The power to prescribe the precise length of time which must be spent in attendance upon certain courses of study.

5. The power to require that certain courses of study shall be taken in certain places.

6. The power to require that certain courses of study shall be taken from certain teachers.

7. The power to require that certain courses of study shall be taken in certain institutions.

8. The power to require that certain courses of study shall be taken in a particular manner or order.

9. The power to require that certain courses of study shall be taken in certain subjects.

10. The power to require that certain courses of study shall be taken in certain subjects.

11. The power to require that certain courses of study shall be taken in certain subjects.

fact that other acids and neutralizing agents than hydrochloric acid and lead carbonate give precisely similar results to those I have described. For instance, by using a ½ c.cm. of sulphuric acid to 10 c.cm. of urine and, after boiling for from five to ten minutes, neutralizing with barium carbonate typical crystals can be isolated in pancreatic cases, while normal urines give no result.

The fact that they have obtained crystals from normal urines and distilled water is conclusive evidence that their technique is at fault, and suggests that some oversight in their manipulation of the lead carbonate or lead chloride precipitate is the source of their difficulties. The lead salt crystals obtained by your correspondents are in no sense identical with the "pancreatic" crystals. The latter have definite melting points and other characters which clearly show that they are osazones derived from carbohydrate bodies.

Their method of removing lead from the solution by means of ammonium sulphide, with subsequent heating, introduces new factors into the operation which are calculated to interfere with the succeeding stages of the "A" reaction. It is to this that their failure to obtain crystals in pancreatic cases is, I believe, to be ascribed and not to the absence of the lead, which, as I have pointed out above, does not influence the result one way or the other.

My own experience with a considerable number of cases, both pancreatic and non-pancreatic, since the publication of my lecture, and various communications I have received from other observers, has only served to strengthen my conviction that in competent hands the test is a useful aid in diagnosis when considered in conjunction with the clinical symptoms.

In my lecture it was distinctly stated that the theory concerning fat necrosis was only a working hypothesis, and whatever the doubts of Drs. Ham and Cleland may be as to its scientific basis it has provided a useful starting point for a most interesting series of observations.—I am, etc.,

London, W., June 11th. P. J. CAMMIDGE.

SIR,—The microscopical and chemical characters of the crystals ("yellow needle-shaped crystals in rosettes and sheaves") obtained by Dr. P. J. Cammidge in the urines of patients the subject of pancreatic disease[1] require more exact definition. Doubtless fuller details, as promised, will be given as knowledge of the reaction accrues, beyond the interesting and extended observations already made by Dr. Cammidge.

I have been fortunate enough to carry out the test, on April 6th, on a man aged 55, suspected to be suffering from pancreatitis, in addition to hepatic and splenic enlargement (of doubtful origin) with jaundice, under the care of Mr. W. L. Woollcombe, F.R.C.S.Edin., and Dr. E. L. Fox, at the South Devon and East Cornwall Hospital, Plymouth; and to verify the condition by *post-mortem* observation on May 3rd.

On two occasions I obtained yellow needle-shaped crystals in rosettes and sheaves by method "A." (in which the urine is treated with hydrochloric acid, neutralized with lead carbonate and tested with sodium acetate and phenyl hydrazin hydrochlorate); and by method "B" (in which, in additon, a saturated solution of perchloride of mercury is previously added). This is to be interpreted, I believe, as evidence of the absence of pancreatic inflammation. I may add that the appearance, numbers, and size of the crystals differed quantitatively only, being fewer, shorter, stouter, and less markedly yellow in method "B." The similarity in grouping, etc., was such as to make exact discrimination difficult or impossible to me, though I am familiar with osazone crystals, and I returned the urine as negative "pancreatic reaction" (so-called).

Post mortem the pancreas was found to be hard and enlarged to about 8 oz., without abscess, haemorrhage, or calculi. There was no fat necrosis. There was general interlobular fibrosis with some intralobular increase of connective tissue and round-celled infiltration about certain of the ducts, which showed desquamative catarrh under the microscope. The islands of Langerhans appeared normal. There was tubular nephritis, and the kidneys weighed 8½ oz. and 9 oz. on right and left sides. The liver weighed 7 lb. 8 oz.; the hepatic ducts contained several gall stones and were inflamed (cholangitis); the gall bladder (which had been drained) was shrunken and contained no stones; no calculi were present in any of the ducts of liver or pancreas, and these were patent. Cocci and bacilli were demonstrated in the perivascular lymphatic spaces of the pancreas and in the portal lymphatic glands in places by carbol thionin staining method, but no bacilli were seen by Gram-Weigert stain.

Similarly I have obtained crystals as described above by carrying out Dr. Cammidge's test with a normal urine from a healthy subject, but I did not obtain any yellow crystals when distilled water was substituted for the urine.—I am, etc.,

Plymouth, June 4th. F. G. BUSHNELL.

[1] Arris and Gale Lecture on the Chemistry of the Urine in Diseases of the Pancreas.

"TESTING THE EYESIGHT OF A NATION."

SIR, I see that Mr. Dugon espouses the cause of the prescribing optician. It seems strange in these days, when cries are heard on all sides against poaching on medical preserves, that any member of the profession should assume this attitude, and especially in the case of Mr. Dugon, whose letter implies his full ability to deal with refractive troubles, and who is, I see, also a "member of the Optical Society."

As to fees, I can only repeat that I know for a fact that presbyopics have in many cases been charged by vendors of spectacles more than they need have paid in fees to a doctor and for glasses to a dispensing optician. Only last week a patient remarked to me that she had found one optician, "one of a hundred" as she said, who had advised her to consult an oculist.

But I am bewildered by one thing. Since Mr. Dugon is capable of prescribing glasses, why does he delegate the work to any optician? It is surely better for him to prescribe the glasses than to risk any chances and involve his patient in the double cost of his own fee and the high charges of the prescribing optician.

With all respect to Mr. Dugon I must decline to accept his statement that the fee charged by Mr. Aitchison "included retesting the sight once or twice a year afterwards and the supply of fresh glasses whenever necessary, and this for an indefinite period with no further charge." It is not the experience of my own patients.—I am, etc.,

London, E.C., June 15th. A. OGIER WARD.

SIR,—Dr. Ward's letter in the BRITISH MEDICAL JOURNAL of May 28th, commenting upon mine in that of the 14th, is further evidence, if any were needed, that greater freedom of intercourse between the medical man and the optician would be to their mutual advantage.

One of the principal grievances which the optician has against the ophthalmic surgeon is that the latter does not utilize to its fullest extent the whole art of the former. It is a most lamentable fact that spectacle glass work is the crudest and commonest work in the whole of the trade. This is not altogether the fault of the opticians who work for the oculists. The surgeon sets the standard and his optician is quite content to let things slide, because it pays. The surgeon only requires a moderate standard of excellence, and very rarely appreciates the difference between a pitch polished and a cloth-polished surface lens; he never requires the most mechanically hard or the most transparent glass to be used for his spectacle work, and through being out of touch with modern optical science and methods, he does not avail himself of the advantages to be obtained in many cases by the use of high refractive index glasses to reduce curvatures in high power lenses and so reduce spherical aberration and improve the definition. How many medical men will understand what I refer to when I speak of the interference method of checking curvatures as practised in my own workshops? In fact, I think I may claim that the method of working to test plates is almost unknown in the spectacle trade, and is certainly not practised anywhere else for spectacle work.

These questions will never be settled until the medical profession know more of what the first-class optician is doing. Sarcasms, recriminations, and personalities will not remedy the matter. Personally I do not make any secret of my optical work. In my workshop at 428, Strand, next door to your own offices, is in progress every day some of the finest optical glass work which can be produced; lenses are made in which an error of radius of curvature of one-thousandth part of a millimetre would ensure condemnation. Any medical man, on presentation of his card, can at any time inspect what we are doing, and, if it helps to convince him that the sight-testing optician is not a mere money-grabbing shopkeeper, I shall not begrudge the interruption of work which is one of the slight penalties of entertaining visitors.—I am, etc.,

London, W.C., June 7th. JAMES AITCHISON.

POOR LAW MEDICAL RELIEF IN SCOTLAND.

SIR,—In reply to Mr. Weir's question in the House of Commons *re* uncertified deaths in the Highlands of Scotland, the Lord Advocate is reported to have said that the people in the Highlands made no grievance of this matter.

I do not think this question is one at all likely to disturb the minds of the laity in the Highlands, but it is surely one calling for immediate inquiry.

Unqualified practice, sale of dangerous drugs and scheduled poisons by small shopkeepers, interference with the doctor's orders by busybodies, and want of trained nursing, are the chief causes of uncertified deaths in remote parishes. I speak from experience gained after many years' work in the Highlands.

The medical officers dare not raise their voices against these practices, as the chief offenders are in many cases parish councillors, and the doctors would very soon be dismissed if they were the means of bringing their masters into trouble. The Departmental Committee have suggested the appointment of additional medical officers to meet the difficulty. These doctors no doubt will be invited to court poverty on the "supply and demand" principle, like so many navvies, scavengers, or coolies to be obtained at the lowest rate of pay.

Would it not be wisest for the Local Government Board to get the Irish dispensary ticket system under way as soon as possible, and then no one need die for want of a parish doctor?

This would fit in well with the "supply and demand" idea, as any medical officer who presumed to object to be imposed upon by a parish councillor could easily be sent about his business and another man appointed. The present "emoluments" (an alluring word that) of parish doctors can hardly keep body and soul together, so the men to be appointed will have a happy time of it.

However, any medical officer, when he found that the dimensions held out in the specious advertisement of the parish council were illusory, as they usually are, might start horse dealing, or take a croft, or even set up a shebeen, all of which are particularly lucrative undertakings in most Highland parishes. The latter occupation especially would give him a *locus standi* in the parish to which he would never attain as a parish beck, and further be a stepping stone to a seat on "The Council."—I am, etc.,

Another Parish Doctor.

[illegible]

COTTAGE CONVALESCENT HOMES.

SIR,—Dr. Rushton Parker does well to draw attention to the defective ventilation of convalescent homes, particularly during the night hours. In a recent article by a nurse entitled One Day in a Children's Convalescent Home, published in a weekly contemporary there is a description of how the day begins, when "some draws up the blinds and opens the windows. In comes the sun [illegible] the ward in a blaze of light, while across the floor moving on bringing the smell of new-mown hay and [illegible] and wild roses. Presently the windows are closed at night excluding the [illegible] and the curtains [illegible] shutting the [illegible]."

[illegible] startling statements [illegible] the public generally would do well if medical men were more actively and personally interested in the importance of [illegible] getting out of [illegible]. A walk up Bexley Hill [illegible] would reveal a remarkably [illegible] in most [illegible] the window [illegible] the door is carefully pulled down [illegible] the free circulation of air [illegible] [illegible] [illegible]

the infectious diseases so terribly prevalent in India under greater control. He stated that Surgeon-General Colvin Smith, C.B., should have presided at that banquet, but was unable to be present, and he concluded by proposing the toast of "the Hon. Secretary," who organized and kept up these pleasant annual meetings.

Lieutenant-Colonel P. J. Freyer responded, and mentioned the great benefit conferred on the Indian Medical Service by the editors of the BRITISH MEDICAL JOURNAL and the *Lancet*.

The following is the list of the officers present:

Surgeon-Generals.—W. W. Beatson, A. M. Branfoot, C.I.E., Sir A. C. C. De Renzy, K.C.B., Sir J. Fayrer, Bart., K.C.S.I., F.R.S., C. Sibthorpe, C.B., P. W. Sutherland.

Colonels.—C. W. Carr Calthorp, W. E. Cates, W. Gray, D. Erskine Hughes, C. H. Joubert, Sir George King, K.C.I.E., F.R.S., M. D. Moriarty, G. S. Sutherland, W. A. S. Wynne.

Lieutenant-Colonels.—J. Anderson, M.L. Bartholomeusz, S. Biggar, R. H. Charles, A. Crombie, C.B., E. F. Drake-Brockman, A. O. Evans, P. J. Freyer, T. Granger, P. de H. Haig, J. B. Lyon, C.I.E., R. W. S. Lyons, C. P. Lukis, D. P. MacDonald, J. Moorhead, T. R. Mulroney, D. Mullen, P. F. O'Connor, C.B., W. A. Sykes, W. H. Thorpbill, J. F. Tuohy.

Majors.—A. Buchanan, W. S. Caldwell, F. Carter, G. A. W. Hall, C. Herbert, C. Mactaggart, R. C. MacWatt, J. Penny, W. H. B. Robinson, R. Ross, C.B., F.R.S., S. Browning Smith.

Captains.—H. Burden, E. M. Illington, F. O. Mell, Hayward Pinch, C. E. Williams.

Lieutenant.—F. W. Sumler.

ROYAL NAVY MEDICAL SERVICE.

FLEET SURGEON W. S. LIGHTFOOT is placed on the retired list, with the rank of Deputy Inspector General, June 6th. He was appointed Surgeon, March 31st, 1880; Staff Surgeon, March 1st, 1892; and Fleet Surgeon, March 31st, 1899. He was Surgeon of the *Dragon* at the bombardment of the Alexandria forts in 1882 and during the Egyptian campaign (medal with clasp, and Khedive's bronze star), and during the operations in the Eastern Soudan in 1884 (clasp).

Inspector-General MAXWELL RODGERS, M.D., died at Southsea on the 5th instant, aged 71 years. His commissions were thus dated: Surgeon, December 28th 1857; Staff Surgeon, December 8th, 1869; Fleet Surgeon, March 6th, 1872; Deputy Inspector-General, May 4th, 1885; and Inspector-General, on retirement, May 7th, 1894. From the Royal Navy List we learn that as Assistant Surgeon he served in the *Belleisle*, and attended on wounded during the operations at the Peiho forts in 1858 (medal). was Acting Surgeon of the *Assurance* during an outbreak of cholera and fever on board in 1863 when in the River Danube and Black Sea; Fleet Surgeon of the *Monarch*, at the bombardment of Alexandria in 1882, and at the occupation of Port Said (medal with clasp and Khedive's bronze star). He was awarded the Greenwich Hospital Pension in 1894.

The following appointments have been made at the Admiralty: RICHARD A. ROSS, M.B., Surgeon, to Portland Hospital, June 14th. JAMES G. WALL, Surgeon, to the *Ariel*, June 14th. HUBERT HOLYOAKE, Fleet Surgeon, and FRANK E. BOLTON, Surgeon, to the *Sapphire*, June 21st; ROBERT H. NICHOLSON, Fleet Surgeon, and JOHN K. RAYMOND, M.B., Surgeon, to the *Terrible*, undated. ROBLEY H. J. BROWNE, Staff Surgeon, and ALEX. T. WYSARD, Surgeon, to the *Terrible*, June 21st, and to the *Albion*, undated. PERCIVAL M. MAY, Staff Surgeon, and WILLIAM N. BEATCHORD, Surgeon, to the *Terrible*, June 21st. THEODORE M. THOMAS, Surgeon, to the *Royal Sovereign*, June 21st, JAMES G. WALLIS, M.B., Surgeon, to Chatham Hospital, June 22nd. GEORGE ROSS, M.B., B.A., Surgeon, to the *Albion*, on recommissioning. ALOYSIUS F. FLEMING, Surgeon, to the *Empress of India*, June 21st. CHARLES G. GODDING, Inspector-General to Haslar Hospital, July 1st. PERCIVAL T. NICHOLLS, Surgeon, to the *Mutine*, April 28th. JOHN H. JONES, Surgeon, to the *Lizard*, April 28th.

ROYAL ARMY MEDICAL CORPS.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 2s. 6d., which should be forwarded in stamps or postoffice order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

JUNIOR LIEUTENANT-COLONEL R.A.M.C. due for foreign service early next trooping season, desires exchange. Communications, giving terms and date of return home, to be sent to "Exchange," c/o Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

NURSING REGULATIONS.

It is notified in Army Orders that the following will be inserted after Paragraph 1 of the Regulations for Army Medical Services "1A. As regards medical and sanitary matters and work in connexion with the sick, the matrons, sisters, and staff nurses are to be regarded as having authority in and about their hospitals next after the officers of the Royal Army Medical Corps, and are at all times to be obeyed accordingly and to receive the respect due to their position."

Lieutenant-Colonel W. KEAYS, F.R.C.S.I., retires on retired pay, June 11th. He was appointed Surgeon, February 3rd, 1872; Surgeon-Major, February 3rd, 1884; granted the rank of Lieutenant-Colonel, February 3rd, 1893; and selected for increased pay, April 14th, 1901. He received the thanks of the High Commissioner of Cyprus for his services to the Civil Government during a virulent epidemic of fever in Nicosia in 1881. He was in the Egyptian war in 1882 (medals and Khedive's bronze star), and in the Soudan campaign in 1885, being present in the engagements at Hasheen and Temai (clasp).

Surgeon-General W. F. BURNELL, Principal Medical Officer, Bengal, has been appointed Honorary Surgeon to the Governor-General of India, from May 1st.

Brigade-Surgeon WILLIAM FFOLLIOTT, F.R.C.S.I., died at Hove on June 8th, aged 65, from heart failure following an attack of influenza. He entered as Assistant Surgeon, October 1st, 1862; became Surgeon, March 1st, 1872; Surgeon Major, April 28th, 1882; and Brigade-Surgeon on retirement, September 25th, 1889. He served in the Afghan war of 1878-80, receiving the medal

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From.	To.
Lt.-Col. H. C. Kirkpatrick, M.D.	Bordon	Southampton.
,, W. Keays		Bordon.
,, C. Seymour, M.B.	Southampton	Chelsea Hosp.
,, C. R. Woods, M.D.	Cork	Dublin.
,, W. Heffernan	Limerick	Fermoy
,, L. W. Swabey	Fermoy	Limerick.
,, J. Carmichael	Dublin	Warley
Major N. Manders	Devonport	Salisbury Pl'n.
,, J. J. O'Donnell, M.B.	York	Leeds
,, B. J. Inniss	Cork	Limerick.
,, C. W. Reilly	Newbridge	Dublin.
,, A. Wright	Portsmouth	Halifax, N.S.
,, A. L. Borradaile, M.B.	Bodmin	Brecon.
,, W. E. Hardy	Dover	Shorncliffe.
,, H. N. Dun, M.B.	Abyssinia	Woolwich.
Captain H. W. H. O'Reilly, M.B.	Dublin	Limerick
,, A. E. Master, M.B.	Bristol	Devonport.
,, P. H. Collingwood	Bombay	Cork.
,, R. L. Popham	Halifax, N.S.	Victoria, B.C.
,, O. Challis	Aldershot	Colchester
Lieutenant M. G. Winder	Dublin	South Africa.
,, J. E. Skey	Woolwich	Salisbury Pl'n.
,, B. G. Patch	,,	,,
,, H. H. J. Fawcett	Netley	,,
,, N. D'E. Harvey, M.B.	Curragh	Cork.
,, C. R. Bradley	Netley	Salisbury Pl'n.
,, G. S. Mackay, M.B.	,,	,,

Lieutenants T. J. Wright and A. C. Osburn appointed on probation August 31st last, are stationed at Woolwich and Netley respectively.

The undermentioned officers on retired pay, have been placed in medical charge of troops at the stations specified: Lieutenant-Colonel J. E. Nicholson, Fleetwood; Lieutenant-Colonel J. T. Carey, M.B., Manchester; Lieutenant-Colonel W. L. Lane, M.B., Hamilton; Major E. H. Myles, M.B., Guernsey.

Lieutenant Colonel G. E. Twiss has been selected for increased pay under Article of the Royal Warrant.

ROYAL ARMY MEDICAL CORPS (MILITIA).

A MODIFICATION of the nomenclature of some of the militia companies of the Royal Army Medical Corps is being effected with a view to bringing their titles more into accord with those of the districts to which they are allotted, the general idea being that each military district shall have a militia medical company in its service. Now therefore, without any change in the personnel of the companies themselves, No. 2 South-Eastern District Company will become the Thames District Company with head quarters at Chatham, and No. 1 South Eastern District Company will be known as the South-Eastern District Company with head quarters at Dover, while the Southern District Company will have head quarters at Portsmouth instead of at Netley. The 2nd Dublin District Company similarly will be known in future as the Curragh District Company. Titular changes of the same nature were effected some little time ago in the case of the present Woolwich and Aldershot Companies.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

CONSEQUENT upon the division of the 1st Cheshire and Carnarvonshire R.G.A. (Vols.) into two corps, designated respectively the 1st Cheshire R.G.A. (Vols.) and the 1st Carnarvonshire R.G.A. (Vols.), the undermentioned officers are transferred as shown below, with effect from June 4th, and are considered to have received, in their new corps, commissions of the same rank and date as those previously held by them in the consolidated corps:—1st Cheshire: Honorary Assistant Surgeon R. E. OWEN. Surgeon Major A. M. ARCHER, M.D., Surgeon Captains R. B. WRIGHT and T. G. LUNN, M.B. 1st Carnarvonshire: Surgeon Lieutenant-Colonel E. J. LLOYD, M.D., Surgeon Lieutenant C. W. OWEN. The foregoing announcement is substituted for that which appeared in the *Gazette* of June 7th, under the heading of the "1st Carnarvonshire R.G.A. (Vols.)."

Surgeon-Lieutenant-Colonel E. J. LLOYD and Surgeon-Lieutenant C. W. OWEN are transferred from the 1st Cheshire and Carnarvonshire Royal Garrison Artillery Volunteers to the 1st Carnarvonshire, June 4th.

IMPERIAL YEOMANRY.

SURGEON CAPTAIN A. BROMELL, Northumberland Hussars, is promoted to be Surgeon Major, June 4th.

Surgeon-Lieutenant Honorary Captain in the Army E. HOPKINSON, M.B., D.S.O., Oxfordshire (Queen's Own Oxfordshire Hussars) resigns his commission, June 4th.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT G. R. LIVINGSTONE is promoted to be Surgeon Captain, June 5th.

VOLUNTEER RIFLES.

SURGEON-LIEUTENANT-COLONEL D. E. FLINN, 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, and is granted the honorary rank of Surgeon-Colonel, May 28th; he retains his uniform.

Surgeon-Lieutenant J. G. MOYLES, M.B., 5th (Irish) Volunteer Battalion the King's Liverpool Regiment, resigns his commission, May 28th.

Lieutenant H. M. BAYER, 5th (Irish) Volunteer Battalion the King's (Liverpool Regiment), resigns his commission, and is appointed Surgeon-Lieutenant, May 28th.

Captain and Honorary Major J. C. NICHOL, retired, to be Surgeon-Lieutenant in the 4th Volunteer Battalion the Manchester Regiment, May 28th.

Supernumerary Brigade-Surgeon Lieutenant-Colonel D. COWIE, M.P., Senior Medical Officer, Highland Light Infantry, Volunteer Infantry Brigade, resigns his commission, is granted the honorary rank of Surgeon-Colonel, and retains his uniform, May 28th.

Surgeon-Lieutenant-Colonel A. NAPIER, M.D., 3rd Lanarkshire, to be Brigade Surgeon-Lieutenant, and is borne as supernumerary while holding the appointment of Senior Medical Officer of the Scottish Rifle Volunteer Infantry Brigade, May 28th.

Surgeon-Lieutenant H. S. RAPER, 2nd Volunteer Battalion, the South Staffordshire Regiment, to be Surgeon-Captain, May 7th.

Surgeon-Captain (and Brevet-Lieutenant-Colonel) EDMUND FLETCHER ISAACS, 2nd Volunteer Battalion, the Middlesex, is permitted to retain his present rank on retirement.

Surgeon-Captain W. F. O'GRADY, 1st Volunteer Battalion, the Manchester Regiment, to be Surgeon-Major, June 4th.

Surgeon-Major (temporary Lieutenant-Colonel) SAMUEL MACARTHUR, 2nd Volunteer Battalion, the Manchester Regiment, resigns his commission and is granted the honorary rank of Surgeon-Lieutenant-Colonel on retirement, June 4th.

Surgeon-Lieutenant A. C. ELLIMAN, 1st Cadet Battalion, the Queen's (Royal West Surrey) Regiment, is promoted to be Surgeon-Captain, June 4th.

Temporary Surgeon-Major A. D. MACALISTER, of the Inns of Court Volunteer Battalion, the Middlesex Regiment, Light Infantry, is appointed to command the Inns of Court Volunteer Battalion, the Middlesex Regiment, Light Infantry, with the honorary rank of Surgeon-Lieutenant-Colonel, vice Surgeon-Major (Honorary Lieutenant-Colonel) [illegible], Volunteer Battalion, the Highland Light Infantry, who resigns his appointment, June 4th.

Surgeon-Major O. CHALMERS, M.B., 1st Volunteer Battalion, the Highland Light Infantry, to be Brigade-Surgeon-Lieutenant-Colonel, vice [illegible], Brigade-Surgeon-Lieutenant-Colonel, who resigns the appointment of Senior Medical Officer of the 1st Lanarkshire Royal Garrison Artillery Volunteer Infantry Brigade, and retains his honorary rank, June 4th.

Surgeon-Major A. M. D. ROSS, Royal Highland Volunteer Battalion, the Black Watch, to be Surgeon-Lieutenant-Colonel, June 4th.

Surgeon-Lieutenant [illegible], M.B., 1st Volunteer Battalion, the Gordon Highlanders, to be Surgeon-Captain, June 4th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Captain (Lieutenant) [illegible] LEIGH-CLARE, to be Major, May 28th.

Captain (Lieutenant) CHARLES EVANS, to be Lieutenant in the Gloucester and Somerset Royal Garrison Artillery, May 7th.

Captain M. H. MORRIS, M.D., Nott. (Lieutenant, Hire Bearer Company, to be Major, May 7th.

Mr. [illegible] to be Lieutenant in the 5th (or City of London) Bearer Company, May 7th.

Major C. [illegible], Ayrshire Bearer Company, to be Brigade-Surgeon, May 7th, retaining the appointment of Senior Medical Officer of the Ayrshire Brigade Royal Garrison Artillery Brigade, and retaining his honorary rank.

Captain L. [illegible], 1st London Bearer Company, to be Major, May 7th.

Surgeon-Major [illegible], M.B. (late the 2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry, Militia Reserve), to be Major, Wilts and Dorset Companies, June 4th.

Surgeon-Captain [illegible], 1st Volunteer Battalion, the Gloucestershire Regiment, to be Lieutenant, to be Captain (Wilts and Dorset Companies), June 4th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE POSITION OF THE MEDICAL ATTENDANT IN CRIMINAL CASES.

We have received from the President and Secretary of the Midland Medical Union the following note, prepared by Mr. W. [illegible], M.B., of Clay Cross, near Chesterfield, on the question of the medical attendant in criminal cases.

[illegible] namely, in those cases where a crime is being committed under his nose, and in which an attempt is being made to use him as a covering instrument.

In other cases where he is consulted openly and straightforwardly, and where no attempt is being made to interfere with the medical man's first duty—the care of the sick or injured—any information gleaned in a professional capacity would be under the seal of professional secrecy, as at present.

We are informed that the following resolutions have been passed by Branches of the Midland Medical Union:

Chesterfield and Mansfield Branches.

That a statement setting out the unsatisfactory position of the medical attendant in criminal cases be submitted to the British Medical Association and the General Medical Council, together with a suggestion that a memorial be presented to the Home Secretary that Crown consultants be appointed and paid by the Home Office, the duty of such Crown consultants being to undertake the responsibility of examining in cases of suspicion and of reporting to the police authorities.

The Nottingham Branch.

That (a) the Nottingham Branch of the Midland Medical Union is of opinion that the note prepared by Dr. W. Duncan is worthy of consideration, but the Branch does not definitely adopt his particular suggestion. (b) The Branch is further of opinion that the whole question of the relation of medical men to criminal cases needs investigation, and is specially drawn to this conclusion by observation of the alarming increase of the practice of using preparations of lead such as diachylon for the purpose of procuring abortion.

The Secretary of the Midland Medical Union is Mr. G. S. O'Rorke, M.A., LL.D., Albion Chambers, King Street, Nottingham.

ACTION AGAINST SIR PATRICK HERON WATSON FOR ALLEGED SLANDER.

In the Outer House of the Court of Session at Edinburgh actions have been raised, and will be tried by jury, in which a married woman living apart from her husband claims two sums of £2,500 each for alleged wounding of feelings and injury of character on the one hand, and alleged slander on the other. The father of the woman also claims £1,000 for alleged slander. The actions arise out of proceedings in the Divorce Court in which Sir Patrick Heron Watson, who had previously seen the plaintiff professionally, in October, 1903, gave evidence on the side of the defender. It is understood that Sir Patrick Heron Watson's action against the husband to sue for £500 in the action against Sir Patrick Heron Watson's actings.

FEES TO MEDICAL WITNESSES.

We understand that at the recent assizes at Wells medical men residing over three miles from the assize town were allowed fees for professional attendance at the rate of two guineas daily. The correspondent who sends us this information thinks it will be of general interest to know that some officials are less disposed to act in accordance with the spirit of the recent order.

EXEMPTION OF MEDICAL PRACTITIONERS FROM JURY SERVICE.

M. G. [illegible] DYE writes: The Juries Act, 1870, all registered medical practitioners actually practising as such are exempt from being returned or serving upon any juries or inquests whatsoever. It is necessary, however, that a person whose name may be in the jury book should claim exemption at the revision of the jury lists by the Justices of the Peace, for if the name is returned, the person will be liable to serve.

FRIENDLY ADVERTISEMENTS.

Mr. J. CLIFFE SMITH writes with reference to an article under this title [illegible] BRITISH MEDICAL JOURNAL of May 7th, saying that the advertisement referred to was not necessary in such a case as Mrs. [illegible] had applied to him [illegible]'s remedy for cancer of breast [illegible].

A correspondent writes: [illegible] statement that family [illegible] by delivering circulars from door to door [illegible] is a statement by the universities [illegible] property sales, and which [illegible] appear [illegible] two [illegible] and a case were brought [illegible] the Law Society, it would, we believe, [illegible].

MEDICAL ADVERTISING.

A [illegible] in the neighborhood announced [illegible] even [illegible] who occupies premises [illegible] the name of the medical attendant [illegible]. Although it is possible [illegible] to the press, in the absence of any [illegible] in law, and we trust [illegible] do their best to avoid this kind [illegible].

MEDICO- [illegible] we had recently express[illegible] to be a du[illegible] correspondents to object to the [illegible] a letter to any notice an[illegible] the [illegible] attempt [illegible] practice. We regret [illegible] that [illegible] instances [illegible] practice. Courage [illegible] it is [illegible].

MEDICAL ETIQUETTE

X Y X.—A disposes of his practice to B, giving several months introduction. On hearing the rumour that A is leaving the town, another practitioner, C, applies to the superintendent of police for the police appointment held by A, although A had not resigned or any vacancy been declared.

*** It is usually considered improper to apply for or make any open effort to obtain an appointment until a vacancy is formally declared, and such action usually prejudices the applicant.

THE ADVERTISING OF HEALTH LECTURES

A CORRESPONDENT sends us a leaflet, copies of which, he says, were distributed in all the pews of the parish church announcing a series of lectures on the feeding and treatment of infants by a local practitioner. These lectures deal not only with the feeding of infants but with their diseases and treatment.

*** The object of the lectures is undoubtedly excellent, but it is evident that the practice of distributing leaflets of the kind referred to is open to abuse.

THE DISABILITIES OF A CONSULTANT

C. D. We have never heard that a consultant was disqualified from examining cases for life assurance. On the contrary, such work in London and other large centres of population is for the most part in the hands of this class of practitioner.

INSPECTION OF BOOKS AFTER SALE

In further reply to the correspondent whose question was published in the BRITISH MEDICAL JOURNAL, March 5th, p. 612, we can only say that it is not clear that the books do belong to the vendor. There is no doubt he can claim to inspect them and to make copies if necessary. It is quite possible they might be included in the "stock in trade." That would be a matter for a court of law to decide.

A QUESTION OF FEE.

BADGERED asks for our opinion as to what is a fair fee to charge the owner of a factory for complying with his request that he should write a letter to a newspaper stating that he had attended a fever patient who worked at a certain mill, and also that the epidemic had ceased in the locality. A letter was duly drafted in consultation with the owner and sent to the editor, apparently in reply to a previous letter which had appeared in the same newspaper, and required contradiction. "Badgered" has evidently had some difficulty about payment of a fee, and wishes to know what would be a reasonable fee to charge for his services in connexion with the matter—such a charge as would be upheld in a court of law.

*** It is not advisable for a medical attendant to send a letter to a newspaper on behalf of a client, except under very exceptional circumstances. This case, however, appears to be an unusual one. It would have been better for "Badgered" to have arranged about the fee to be paid before the letter was written. We are afraid that if the case went to court only a small fee would be allowed, probably not more than a guinea, and it may be argued that the charge is not a legal one. If "Badgered" had examined all the workers in the mill, and had given a certificate that he had done so, and found them free from infection, he could have charged a fee for each individual examined.

SALE AND SUBSEQUENT PRACTICE.

A CORRESPONDENT writes that, owing to pecuniary difficulties, he sold his practice some years ago for a very small sum to a rival practitioner. The latter has since gone away after selling the practice to another, who has become unpopular in the district. Our correspondent is invited to return, and wishes to know whether he can legally do so, and whether such return would be in accordance with medical etiquette.

*** If no agreement was entered into at the time of the sale as to future practice in the district, our correspondent could not be restrained from again practising there. But it is never in accordance with medical etiquette for a practitioner after sale of his practice to another to endeavour to recover it again either from the latter or his successor. It would be certainly better, as he suggests, to come to some terms with the present owner of the practice.

EMPLOYERS' LIABILITY.

CYMRO writes: A practitioner was called in to attend a labourer who had met with an accident, by his employer. The latter, he believes, is insured against such accidents, and our correspondent wishes to know whether to send his account in to the employer or to the insurance company.

*** Our correspondent should send his account to the person who called him in, that is, the employer. He has no claim on the insurance company.

CHARGES FOR ACCIDENT ASSURANCE CERTIFICATES.

A CORRESPONDENT writes that after being recently called to attend a patient for an accident which was [illegible] a week, he was asked by two insurance societies. During the illness he was required to fill up six certificate forms, each of which was very complicated and necessitated a special visit. He charged a guinea for each visit, but his patient refuses to pay. He wishes to know (1) whether his charge is reasonable or (2) whether it is customary to make charges for such certificates.

*** (1) Our correspondent is entitled to charge his ordinary fees for the visits; but the patient's guinea cannot be for these visits alone; somewhat high. [illegible] (2) It is not usual to make a charge.

CHARGES AGAINST A HOSPITAL STAFF.

LANCASHIRE.—Such allegations as those contained in our correspondent's letter amount to charges of want of [illegible] against the staff of the hospital. We think our correspondent is bound to accept the invitation given him by the Medical Board to meet and discuss the matter with them in the hope that they may be able to give a satisfactory explanation. Should he not be satisfied he can apply to the Managing Committee, but we would remind him that he is making very serious [illegible], and he proves his charges the members of the staff concerned can hardly retain their posts, and he may find himself involved in serious difficulties.

CONSULTATIONS WITH HOMOEOPATHS.

A CONSULTANT writes: Many members of the profession take an entirely different view on the subject of consultations with [illegible] to that expressed on p. 1265 of the BRITISH MEDICAL JOURNAL of May 21st. The question is not in the sense quoted practice, but principles. The average general practitioner takes a much more correct view of the matter than many consultants, and the latter are much to blame for the countenance which they have given to homoeopaths, and thereby to homoeopathy. A man who gives himself out to the public as practising a special system of therapeutics is to me that an consultant who has the honour of his profession at heart should be willing to meet. There is a sordid aspect of this question given by consultants to homoeopaths which all the sophistry talked on the matter cannot hide. The profession of homoeopathy [illegible] probably have vanished at this time if the attitude of consultants towards those who practise it had been correct.

(1) Our correspondent forgets that practice and ethics are not so entirely opposed as he thinks, and (2) that the foundation of medical ethics is not the good of the profession or a section of it, but the good of society, and especially of those members of it who are sick and in need of medical and surgical assistance. Rules forbidding consultations with individuals who have rendered themselves objectionable to the general body of the profession for any reason can never be enforced absolutely. It is always necessary to allow for those cases in which in the interest of the patient, such objections must be waived. Operating surgeons are particularly liable to be summoned to cases in which their prompt attendance is necessary if life is to be saved: and it would be a grave scandal to the medical profession if a patient's life were to be sacrificed to a scruple respecting the therapeutic doctrines held by the medical practitioner in attendance.

PARTNERSHIP INTRODUCTION.

FAIRNESS asks if it is usual where the vendor of a practice gives an "At Home" to further the introduction of his successor to the neighbourhood, to require the latter to pay half the expenses.

*** It would not be customary to ask the successor to share such an expense, unless the "At Home" had been mutually arranged on that basis.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

THE Board of the Faculty of Medicine gives notice that the examinations for the Degree of Bachelor of Medicine, which will commence in the Examination Schools in Michaelmas Term, 1904, on Thursday, December 8th, and in Trinity Term, 1905, on Thursday, June 22nd, will be held in accordance with the following time table:

First Examination.—Thursday, December 8th, 1904: June 22nd, 1905. Examination Schools—9.30 a.m., human anatomy; 2 p.m., physiology. Friday, December 9th, 1904: June 23rd, 1905, Examination Schools—9.30 a.m. materia medica; 2 p.m., organic chemistry. Saturday, December 10th, 1904: June 24th, 1905, Department of Chemistry or Pharmacology, Museum—2 p.m., practical examination in materia medica, and viva voce. Department of Chemistry, Museum—2 p.m., practical examination in organic chemistry, and viva voce. Monday, December 12th, 1904: June 26th, 1905, Department of Physiology, Museum—9 a.m. practical examination in physiology and histology. Tuesday, December 13th, 1904: June 27th, 1905, Department of Human Anatomy, Museum—9 a.m., practical examination in human anatomy, and viva voce. Department of Physiology, Museum—2 p.m., viva voce examination in physiology.

Second Examination.—Thursday, December 8th, 1904: June 22nd, 1905. Examination Schools—9.30 a.m., pathology; 2 p.m., principles and practice of surgery. Friday, December 9th, 1904: June 23rd, 1905. Examination Schools—9.30 a.m., principles and practice of medicine; 2 p.m., midwifery and diseases of women. Saturday, December 10th, 1904: [illegible] Examination Schools—9 a.m., forensic medicine and [illegible] Department of Pathology, Museum—2 p.m., practical examination in pathology. Monday, December 12th, 1904: June 26th, 1905, Medical Department, Museum—2 p.m., viva voce examination in pathology; 2 p.m., practical examination in chemical and microscopic methods of medical diagnosis. Tuesday, December 13th, 1904: June 27th, 1905, Radcliffe Infirmary.—10 a.m. and 2 p.m., clinical examination in medicine; written [illegible] cases, and viva voce [illegible] beside. Thursday, December 15th, 1904: June 29th, 1905, Radcliffe Infirmary.—10 a.m. and 2 p.m., clinical examination in surgery; written reports on cases and viva voce [illegible] Friday, December 16th, 1904: June 30th, 1905.—Radcliffe Infirmary.—[illegible] examination in ophthalmology and [illegible] Medical Department, Museum—2 p.m., viva voce [illegible] medicine, surgery, and midwifery.

UNIVERSITY OF CAMBRIDGE.

[illegible] Dr. D. MacAlister and Mr. St. George's [illegible] to be [illegible] Mr. W. Jackson and Mr. [illegible] H. Fenton have been appointed University

Lecturer in Chemistry, Mr. S. Judd Lecturer in Physiology, Mr. A. E. Shipley, University Lecturer in Animal Morphology, Cambridge; Mr. W. L. H. Duckworth, University Lecturer in Physical Anthropology. Mr. R. C. Punnett has been elected Balfour Student in Animal Morphology. Mr. C. Shearer and Mr. W. E. Agar have been appointed to the Table at the Naples Zoological Station respectively. Dr. F. C. C. Gardiner and Dr. A. Mayall have been appointed members of the Board of Anthropological Studies.

Degrees.—At a Congregation on June 11 the following degrees were conferred:—M.D.: W. F. S. Bracey, Trinity; A. E. M. Eberle, Trinity; E. S. Tebbs, Queens'; M.C.: Professor Howard Marsh, Kings'; M.B. and B.C.: C. L. Sedgwick Minchin, Trinity; C. R. Howard Pembroke; W. Hastings, Christ's; C. B. Burrows, Emmanuel; M.B.: H. E. Fisher, Emmanuel; A. C. Ogle, Trinity; T. C. M. Hare, Kings'; E. L. Whitting, Kings'; E. N. Tebbs, Kings'.

UNIVERSITY OF LONDON

Conjoint Medical Examinations.—The Senate has resolved that the Examinations in Organic Chemistry and Practical Chemistry for students in the Faculty of Medicine shall be placed at a later stage in the Preliminary Scientific Examination for the Degrees of Bachelor of Medicine and Bachelor of Surgery. It was also resolved that the Examinations in Physiology and Pharmacology for students in the Faculty of Medicine shall be held at the end of the year in which the candidates have attended the courses of instruction in those subjects. It was also resolved that the Examinations in Anatomy and Physiology for students in the Faculty of Medicine shall be held at the end of the year in which the candidates have attended the courses of instruction in those subjects. It was also resolved that the Examinations in Anatomy and Physiology for students in the Faculty of Medicine shall be held at the end of the year in which the candidates have attended the courses of instruction in those subjects.

Courses of Lectures.—Dr. J. S. Bradbury will deliver a course of lectures on Diseases of the Nervous System, and Dr. Bradbury, F.R.S., Professor of Physiology in the University of London, will deliver a course of lectures on Physiology.

UNIVERSITY OF GLASGOW

Professorship of Geology.—At a meeting of the Court last week, Mr. John Walter Gregory, D.Sc., F.R.S., Professor of Geology in the University of Melbourne, was elected Professor of Geology in Glasgow University. Professor Gregory succeeds Professor Grenville A. J. Cole, who was elected by the Senate of the University of Dublin, in which he took the degree of B.A. with honours in Geology, and the Diploma in Geology, and the Diploma in Agriculture. He was appointed Professor of Geology at Melbourne in 1900. He has been appointed Director of the Geological Survey of Victoria. He has been engaged in geological work in Australia, and has published a number of papers on geological subjects. He is a member of the British Association, and has been a member of the Council of the Royal Society of Victoria. He has done important work in the Australian colonies, and has been a member of the Royal Society of London.

UNIVERSITY OF DURHAM

Degrees for Women.—At a meeting of the Senate held on June 11, the following degrees were conferred on Miss Jane Harrison, Litt.D., Principal of the South London Association for Women: Miss Ethel Bickerton, Miss Edith Bickerton, Miss Ethel Bickerton, Miss Edith Bickerton, Miss Ethel Bickerton, Miss Edith Bickerton,

Barclay, Cambridge University, Owens College, and Royal Infirmary, Manchester, and London Hospital; S. Bazalgette, St Thomas's Hospital; H. O. M. Beadnell and J. Bromley, Guy's Hospital; H. D. Bell, St. Bartholomew's Hospital; A. E. Blackburn and C. H. Booth, Yorkshire College, and General Infirmary, Leeds; J. C. O. Bradbury, Cambridge University and Guy's Hospital; W. G. Cheatle, St. Mary's Hospital; R. A. Clapham, B.A.Camb., Cambridge and London Hospital; J. A. Cowie, B.A., B.Sc. New Zeal., New Zealand and Glasgow Universities; A. H. Curtis, University College Hospital; H. de Brent, St. Thomas's Hospital; K. A. C. Doig, Westminster Hospital; P. T. Drabble, Sheffield and University College Hospital; T. Drysdale, B.A. Camb., Cambridge University and St. George's Hospital; J. J. T. R. Felix, Middlesex Hospital; W. H. Flint and C. K. Gettings, Birmingham University; C. A. Flintoff, Charing Cross Hospital; G. R. Footner, Cambridge University and St. Thomas's Hospital; H. P. Gibb, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; K. M. Gibbins, St. Mary's Hospital; C. A. Godson, St. George's Hospital; R. H. C. Gumpertz, B.Sc. Lond., King's College Hospital; J. F. Goodchild, M.D., C.M. Canada, B.Sc. Edin., Queen's University, Kingston, Ontario, and Glasgow University; F. W. Goonetilleke, L.M. and S. Ceylon, Ceylon Medical College and King's College Hospital; A. A. R. Green, Birmingham University; F. R. Harris, St. Mary's Hospital; H. F. Hatfield, Guy's and St. Bartholomew's Hospital; W. Haward, Durham University and St. Thomas's Hospital; V. G. Heseltine, St. Bartholomew's Hospital; N. W. Hill, London Hospital; D. A. Hingston, B.A., M.D. Laval, University of Laval and King's College Hospital; C. D. Holdsworth and R. E. Humphry, University College Hospital; H. F. Horne, B.A. Camb., Cambridge University and London Hospital; A. C. Hudson, M.A., M.B., B.C. Camb., Cambridge University and St. Thomas's Hospital; J. G. Ingoldsby, St. Bartholomew's Hospital; N. B. V. Jacob and D. G. Lloyd, London Hospital; W. H. Kaye, Owens College and Royal Infirmary, Manchester; W. N. Kingsbury, Middlesex Hospital; J. Lambert, B.A. Camb., Cambridge University and London Hospital; W. K. Legassick, University College Hospital; H. C. Ling, L.R.C.P.Edin., University College and Royal Infirmary, Glasgow and Yorkshire College and General Infirmary, Leeds; J. T. Lloyd, University College, Liverpool; D. MacBane, M.B. Toronto, Toronto University and Middlesex Hospital; S. M. Mackenzie, B.A. Camb., Cambridge University and London Hospital; C. W. McLeay, B.A. Toronto, M.D. West Univ., Western University, London, Ontario; F. McTavish, Toronto University; N. G. Maitland, Birmingham University; P. A. Mansfield, B.A.Oxon., Oxford University and King's College Hospital; H. S. Marson, St. George's Hospital; B. Moiser, G. Nunn, and C. S. Morris, Guy's Hospital; A. R. Moore, B.A. Camb., Cambridge University and London Hospital; R. F. Moore, B.A. Camb., Cambridge University and St. Bartholomew's Hospital; S. Murray, M.B., Ch.B. Vict., Owens College and Royal Infirmary, Manchester; B. R. O'Reilly, M.D., C.M. Trinity, Toronto, Trinity College Toronto and University College Hospital; F. Paine, Middlesex Hospital; F. H. Parker, B.A., M.B. Camb., Cambridge University and Guy's Hospital; J. S. Pascoe, Charing Cross Hospital; S. G. Penney and B. Pick, St. George's Hospital; W. C. Pickering, St. Bartholomew's Hospital; H. F. Powell, University College Hospital; J. M. B. Rahilly, St. Mary's Hospital; J. V. Rees, University College, Cardiff, and London Hospital; G. R. Rew, King's College Hospital; C. S. S. Rigby, Birmingham University; F. E. Roberts and M. W. Shutte, St. George's Hospital; E. W. Routley and H. L. Shelton, Guy's Hospital; F. H. Rudge, University College, Bristol; A. Schapiraff, M.D. Geneva, University of Geneva and King's College Hospital; J. C. Smyth, M.B., Ch.B. Vict., Owens College and Royal Infirmary, Manchester; W. G. Speers, St. Mary's Hospital; R. D. Sproat, M.B. Toronto, University of Toronto and University College Hospital; J. K. Syms, University College Hospital; J. B. Taylor, B.S., M.D. Michigan, Michigan University and University Hospital; W. T. Thomson, King's College Hospital; C. E. Tible, M.B. Toronto, Toronto University and University College Hospital; L. H. Tietch, B.A. Camb., Cambridge University and University College Hospital; H. J. D. Walker and L. Warren, London Hospital; J. Ward, L.S.A. Lond., University College, Sheffield; J. D. C. White, Cambridge University and London Hospital; E. K. Williams, B.A. Camb., Cambridge and St. Andrews Universities and St. Bartholomew's Hospital; H. W. Wiltshire, M.A. Camb., Cambridge University and King's College Hospital; R. S. Woods, Queen's College, Belfast, University College, and London Hospitals; H. M. Woodward, B.A. Oxon., Oxford University and Guy's Hospital; H. F. Woolterden, University College, Liverpool; G. P. Young, King's College Hospital.

TRINITY COLLEGE, DUBLIN.

THE following candidates have passed the Final Examination in Medicine:

J. G. Wallis, G. B. M'Caul, H. Stewart, W. M. Wade, W. P. Tate, T. Wilson, C. J. Coppinger, H. T. Marrable, E. G. Scroope.

The following candidates have passed Section A of the Final Examination in Medicine:

W. G. S. Haughton (high marks), J. D. Sands, P. B. Egan, T. T. H. Robinson, W. F. Samuels, W. J. Tighe, C. L. F. J. Usher, W. C. MacFetridge, T. B. W. MacQuaide, A. C. Elliott, E. D. Atwell, G. Dougan, J. M. Harold, E. C. Phelan.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Barker Anatomical Prize.—A prize of £21 is offered for competition, and is open to any student whose name is on the Anatomical Class List of any school in the United Kingdom. The prize is offered for a dissection of the left pneumogastric nerve, limited to its pharyngeal and laryngeal divisions, and following their connexions. The preparation must be sent to the Curator of the Museum, Dr. A. H. White, Royal College of Surgeons, Dublin, from whom further particulars can be obtained.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, May, 1904.—The following candidates passed in:

Surgery.—C. W. S. Boggs (Section I), Leeds; E. Morris, St. Bartholomew's Hospital; M. B. Potts (Sections I and II), Leeds; F. P. Rose, London and St. Mary's Hospital; J. P. B. Snell (Section I), Middlesex Hospital; M. C. Vivian (Sections I and II), Royal Free Hospital; P. B. Whittington (Sections I and II), London Hospital.

Medicine.—A. J. Ambrose (Sections I and II), Westminster Hospital; W. S. Gibson (Sections I and II), Manchester and Middlesex Hospital; F. W. Higgs (Sections I and II), St. George's Hospital; M. B. Potts (Sections I and II), Leeds; G. W. Rogers (Sections I and II), Cardiff and St. George's Hospital; A. B. S. Todd (Section I), Leeds.

Forensic Medicine.—A. J. Ambrose, Westminster Hospital; J. B. Barnes, Manchester; L. F. Cope, St. George's Hospital; A. Lazar, Vienna and St. Mary's Hospital; M. B. Potts, Leeds; G. W. Rogers, Cardiff and St. George's Hospital; H. P. Shanks, St. Bartholomew's Hospital; A. B. S. Todd, Leeds; S. H. E. West, Charing Cross Hospital.

Midwifery.—T. R. Roberts, London Hospital; L. Sells, St. Thomas's Hospital.

The diploma of the Society was granted to W. S. Gibson, F. W. Higgs, and F. P. Rose.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,488 births and 4,130 deaths were registered during the week ending Saturday last, June 11th. The annual rate of mortality in these towns, which had been 15·5, 15·4, and 14·9 per 1,000 in the three preceding weeks, further declined last week to 14·1 per 1,000. The rates in the several towns ranged from 7·0 in Walthamstow, 7·1 in Willesden and in Aston Manor, 7·7 in Hornsey and in Smethwick, 8·1 in Great Yarmouth, 8·3 in Leyton, 8·7 in Newport (Mon.), 9·0 in West Hartlepool, and 9·2 in Plymouth, to 18·9 in Middlesbrough and in South Shields, 20·0 in Stockton-on-Tees, 20·4 in Sunderland and in Newcastle-on-Tyne, 20·5 in Liverpool, 22·1 in Tynemouth, and 25·6 in Warrington. In London the rate of mortality was 13·8 per 1,000, while it averaged 14·2 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1·7 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1·5 per 1,000, while it ranged upwards among the seventy-five other towns, to 3·0 in Ipswich and in Rhondda, 3·2 in Norwich and in Salford, 3·5 in Walsall, 3·6 in Blackburn, 4·0 in Warrington, 5·0 in Birkenhead, and 5·7 in Hanley. Measles caused a death-rate of 1·8 in Croydon, in Norwich in Salford, and in Rotherham, 1·9 in Walthamstow, 2·1 in Rhondda, 2·4 in Hanley and in Rochdale, 2·6 in Wallasey, and 3·2 in Birkenhead: diphtheria of 1·5 in Hanley, whooping-cough of 1·6 in King's Norton and in Grimsby; 2·2 in Swansea, 2·4 in Warrington, and 3·2 in Blackburn; and diarrhœa of 2·0 in Reading. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. Two fatal cases of small-pox were registered in Bradford, and one each in Leicester, Derby, Manchester, Newcastle-on-Tyne, and Tynemouth, but none in any other of the large towns. The Metropolitan Asylums Hospitals contained 95 small-pox patients at the end of last week, against 96, 118, and 92 at the end of the three preceding weeks; 21 new cases were admitted during the week, against 18, 23, and 10 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 1,630, 1,577, and 1,623, at the end of the three preceding weeks, had declined again to 1,549 at the end of last week; 178 new cases were admitted during the week, against 202, 194, and 227 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 11th, 1,014 births and 599 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18·7, 17·6, and 18·1 per 1,000 in the three preceding weeks, declined again last week to 16·8 per 1,000, but was 2·1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11·0 in Greenock and 13·9 in Leith, to 19·3 in Paisley and 23·1 in Perth. The death-rate from the principal infectious diseases averaged 2·0 per 1,000, the highest rates being recorded in Paisley and Greenock. The 247 deaths registered in Glasgow included 8 which were referred to small-pox, 8 to measles, 10 to scarlet fever, 9 to whooping-cough, and 11 to diarrhœa. Four fatal cases of measles and 4 of whooping-cough were recorded in Edinburgh, 2 of diphtheria, 2 of whooping-cough, and 3 of diarrhœa in Dundee, 9 of whooping-cough and 3 of diarrhœa in Aberdeen, 2 of whooping-cough and 2 of diarrhœa in Leith; and 2 of measles in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 11th, [illegible] births and 325 deaths were registered in six of the principal Irish towns, against 542 births and 377 deaths in the preceding period. The mean annual death-rate in these same towns, which had been 22·4, 16·9, and 20·1 per 1,000 in the three preceding weeks, fell abruptly to 18·4 per 1,000, this figure being 4·3 per 1,000 above the mean annual rate registered in the seventy-six English towns during the corresponding period. The figures ranged from 7·6 in Waterford to 24·7 in Limerick. The death-rate from the principal zymotic diseases during the same period and in the same six Irish towns averaged 0·8 per 1,000, or 0·7 per 1,000 less than during the preceding week, the highest figure, 2·0, being registered in Belfast, while Limerick and Waterford recorded no deaths under this heading at all. The whooping-cough rate fell considerably, only 1 death from this cause being registered in Dublin and 4 in Belfast. Scarlet fever caused 1 death in Dublin and 1 in Belfast, and measles 4 in Belfast and 1 in Dublin. To enteric fever death was ascribed in Dublin, and 2 in Belfast. From diphtheria the only death was in Londonderry.

POPULATION OF THE UNITED KINGDOM.

A. F. M. P.—We understand that the Registrar-General estimates the population of the United Kingdom at the middle of this year at 41,765,266.

REGULATIONS AS TO PUBLIC VACCINATORS' CONTRACTS WITH GUARDIANS.

A CORRESPONDENT writes to ask: (1) Whether it is compulsory for a public vaccinator to reside in the district and (2) whether he can be dismissed without an appeal by the guardians to the Local Government Board.

*** It is not necessary for a public vaccinator to reside in the district. The contract made between the guardians and the vaccinator is a private one, and the Local Government Board has no power to interfere in the matter. The Board has, however, the power to settle any question which may arise between the parties respecting the interpretation of the contract, if both parties consent to refer the matter to the Board. This consent of the contractors does not confer the power of the Local Government Board.

VACCINATION FEES.

DELTA.—The Local Government Board will not interfere with the Local Government Board which has fixed the fees at 1s. for each successful vaccination. The Board would be glad to receive a copy of the scale of fees which has been approved by the Board.

VACCINATION OF CHILDREN.

[illegible] he obtains [illegible]

DUTIES OF GUARDIANS UNDER SUPERANNUATION ACT.

duties by reason of sickness or accident.

*** It is not [illegible] the Act is [illegible] to claim superannuation in the event of inability to perform his duties by reason of sickness or accident. The Act [illegible] from being the age of sixty-five, and the [illegible] years' service [illegible]

OBITUARY.

LOUIS [illegible], M.B., B.C.(Oxon.).

We regret to announce the death of Dr. Louis Leopold Jenner, which took place at St. Thomas's Hospital on June 11th from [illegible]. He was the fourth son of the late Sir William Jenner, Bart., and was educated at Marlborough and Trinity College, Oxford. He entered as a student at St. Thomas's [illegible] and after obtaining his degree of Bachelor of Medicine [illegible] Physician [illegible] the post of Medical Registrar [illegible] appointed Superintendent of the Clinical Laboratory and Museum. He was also Assistant Medical Officer of Health [illegible] Hospital. During this period he published [illegible] and [illegible] of the blood and [illegible] and [illegible] of [illegible] and [illegible] Pharmaceutical College and [illegible] Under [illegible] he [illegible] [illegible] [illegible]

HULL ROYAL INFIRMARY.—Casualty House Surgeon, resident. Salary, £50 per annum.

LIVERPOOL: DAVID LEWIS HOSPITAL.—1. Senior Honorary Anaesthetist. 2. Junior House-Surgeon. Salary at the rate of £70 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s per week.

LONDON LOCK HOSPITAL, Harrow Road.—Registrar.

MARGATE ROYAL SEA BATHING HOSPITAL.—Resident Surgeon to act as junior and senior for six months each. Salary at the rate of £80 and £120 per annum respectively.

MIDDLESEX COUNTY ASYLUM, Upper Tooting.—Third Assistant Medical Officer, resident. Salary, £120 per annum.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—(1) Assistant Surgeon. (2) House-Surgeon, resident. Salary at the rate of £60 per annum.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—Assistant House-Surgeon, resident. Honorarium, £25 for six months.

ST MARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.

STOCKTON-ON-TEES: STOCKTON AND THORNABY HOSPITAL.—House-Surgeon. Salary, £250 per annum.

THROAT HOSPITAL, Golden Square, W.—Honorary Anaesthetist.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Ophthalmic Surgeon.

APPOINTMENTS.

BARROW, G. A., M.R.C.S., L.R.C.P. Lond., Honorary Anaesthetist to the Manchester Northern Hospital for Women and Children.

BARWELL, Harold, M.B. Lond., F.R.C.S. Eng., Surgeon Laryngologist to the Mount Vernon Hospital for Consumption.

DAVIES, H. E., L.R.C.P., M.R.C.S., Certifying Factory Surgeon for the Lutterworth District, Leicestershire.

FOGGIE, W. McAdam, M.B. Lond., F.R.C.S. Eng., Examiner in Anatomy for the Fellowship of the Royal College of Surgeons of England.

FELDMAN, W. M., M.R.C.S., L.R.C.P., Surgeon to S.S. "Merion" American Line.

FLETCHER, R. B., M.B., Ch.B. Vict., reappointed Senior Resident Medical Officer at the St. Mary's Hospital for Women and Children, Manchester.

HEATON, A. F., L.R.C.P. M.R.C.S., District Medical Officer of the Malmesbury Union.

MASON, S. Herbert, M.R.C.S., L.R.C.P. Lond., Honorary Anaesthetist to the Manchester Northern Hospital.

SCOTT, Sydney, B.S. Lond., F.R.C.S. Eng., Chief Assistant in the Aural Department, St. Bartholomew's Hospital, London, and Surgeon to Out-patients, Evelina Hospital for Sick Children, London.

WILLSON, W. H., M.D., B.Sc. Lond., D.P.H., Medical Registrar to St. Mary's Hospital.

DIARY FOR NEXT WEEK.

TUESDAY.

Royal College of Physicians of London, 5 p.m.—The Harveian Oration, by DR. Richard Caton.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Cases in the Wards. Pneumothorax, Carcinomatous Pneumonia, Mitral Stenosis, etc.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Chorea.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures will be delivered at 5.15 as follows: Monday, Some Remarks on the Symptoms and Treatment of the Intracranial Complications of Middle-ear Disease. Tuesday and Wednesday, Degenerative Diseases of the Spinal Cord and some Unusual Forms of Nervous Disease. Thursday, Prolapse of the Uterus.

Mount Vernon Hospital for Consumption and Diseases of the Chest, 7, Fitzroy Square, W., Thursday, 5 p.m.—Asthma: its Pathology and Diagnosis.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 3.30 p.m. as follows: Tuesday, Some Ocular Symptoms of Disease. Friday, Ocular Paralyses.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on Diseases of the Skin attacking the Face.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Heart Disease in Children. Tuesday, High-frequency Currents illustrated by lantern slides. Wednesday, Practical Medicine. Thursday, Hernia. Friday, Surgical Cases.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 5.15 p.m., Lecture on Syphilis.

St. Peter's Hospital, Henrietta Street, W.C., Wednesday, 3 p.m.—Lecture-Demonstration on Cases in the Wards.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BAYLISS.—On June 12th, at 5, Gay Street, Bath, the wife of Richard Arthur Bayliss, M.R.C.S. Eng., L.R.C.P. Lond., a son.

COOKING.—On Wednesday, June 1st, at [illegible] Grosvenor Road, Sheffield, the wife of W. Tasting Cooking, M.D. Lond., of a daughter.

GORDON.—On June 11th, at 1, Barnfield Crescent, Exeter, the wife of W. Gordon, M.D., F.R.C.P., of a son.

HEYS.—On June 14th, at Derwent House, West Bromwich, the wife of Raymond Meredith Heys, L.R.C.P. Lond., M.R.C.S., of a son.

MACKINTOSH.—On Friday, May 27th, at Corner House, Platt's Lane, Hampstead, N.W., the wife of J. S. Mackintosh, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

MARRIAGES.

CAMPBELL—TAYLOR.—At St. Thomas's Episcopal Church, Edinburgh, on June 7th, by the Rev. H. J. Cheyne, assisted by Edward Campbell, M.B., C.M., of Oxshott, Surrey, to Edith, second daughter of W. R. Taylor, Esq., Preston House, Prestonpans.

ROSS—FELTON.—On June 7th, at Bradford, Richard Alexander Ross, L.R.C.P. & S.I., youngest son of the Rev. James Ross, to Lucia Sarah, youngest daughter of the late Captain Felton.

WESTMACOTT—HOWDEN.—On June 14th, at Holy Trinity, Paddington, by the Rev. J. W. Cogswell, Rector of Christ Church, Moss Side, Manchester, assisted by the Rev. J. Harcourt, Curate of the Parish, Frederic Hibbert Westmacott, B.Sc. Vict., F.R.C.S. Eng., L.R.C.P. Lond., of 5, St. Thomas Street, Manchester, second son of G. H. Westmacott of Crampsea, Grove, Maidstone, to Margaret Carlotta Hood, daughter of the late Alexander Howden, and of Mrs. Alexander Howden, of 125, Gloucester Terrace, W.

DEATHS.

ANDERSON.—On March 12th, 1904, at his residence, Hamilton House, Church Walk, Ulverston, John Anderson, M.D., aged 71 years, born at Hamilton, Lanarkshire, N.B.

JENNER.—On Thursday, June 9th, at St. Thomas's Hospital, Louis L. Jenner, M.B.Oxon., the Lister Institute of Preventive Medicine, fourth son of the late Sir William Jenner, Bart., G.C.B., and of the Lowaged Lady Jenner, of Greenwood, Bishop's Waltham, Hants, aged 35.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London. All communications, advertisements, to be delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429 Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *intended for publication are requested to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary is stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429 Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish to have letters or enclosures forwarded to them should authenticate them with their names or initials, not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London*. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London*.

TELEPHONE.—National 9— EDITOR, 2631, Gerrard. GENERAL SECRETARY AND MANAGER 2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

E. M. asks whether mud baths are obtainable anywhere in England.

ANSWERS.

IGNORANT will find information on the clothes which should be prepared for an expected baby and many other related points in Ashby's *Health in the Nursery*. (London: Longmans, Green, and Co. 1895. 3s. 6d.)

J. E. S.—Metropolitan police surgeons are appointed by the Home Secretary on the recommendation of the Chief Surgeon. Their salaries vary with the number of police under their care. There is no way to find out when there are vacancies. Appointments in connexion with the Post Office are made by the Postmaster-General.

B.—The only advice we can prudently give our correspondent is to apply to some lunatic hospital, such as Bethlem (just now closed), or some large private asylum receiving cases at cheap rates, such as Bethnal Green House, Bethnal Green, London, E.

TREATMENT OF WHOOPING-COUGH.

DR. DOUGLAS MACDONOGH (Bettws-y-Coed) writes: In reply to "P.'s" query in the BRITISH MEDICAL JOURNAL of June 4th, I would recommend him to try formalin tabloids burnt in the room. I had a most inveterate case which yielded rapidly to this treatment, and I think it worth a more extended trial. Drugs are all more or less unreliable.

THE EXAMINATION FOR M.D. EDINBURGH.

O. R.—We understand that the examination for the degree of M.D. at the University of Edinburgh under the new regulations is a searching one. Partial or slipshod knowledge will not secure a pass. Fairly good men have been rejected. Full and accurate knowledge of recent methods of examination and analysis of urine, excreta, blood, etc., both macroscopic and microscopic is insisted on. A sound working knowledge of the use of the laryngoscope, ophthalmoscope, sphygmograph, and other instruments is necessary. Probably the wisest course for "O. R." would be to attend some of the coaching or tutorial classes in Edinburgh or elsewhere. "What reading is necessary in general and special work" is difficult to answer. In general work some such good textbook as Osler's *Medicine*, and on special work some of the larger textbooks such as Clifford Allbutt's *System* would be necessary. On clinical methods such a book as the last edition of Hutchison and Rainy should be read. On bacteriology Professor Muir's book. Whether a very busy practitioner can prepare himself in six months must depend on how much he now knows. If he is busy he would have to give a fair amount of time daily.

ETHER VAPOUR.

MR. C. W. KROHNE (London) writes: The query put by "H. L. D." in the BRITISH MEDICAL JOURNAL, May 28th, p. 1270, was definitely answered by Dr. John Snow at the Westminster Medical Society, January 16th, 1847. Dr. Snow said that the great effect of temperature over the relations of atmospheric air with the vapour of ether had apparently been overlooked in the construction of the instruments hitherto used for its administration. This circumstance would explain, in some measure, the variety of the results, and account for some of the failures. The administrators did not at present know the quantity of vapour they were exhibiting with the air. It would vary immensely according to the temperature of the apartment, as would be seen by some calculations he had made and suspended in the room. One hundred cubic inches of air, saturated with the vapour of ether at the temperature of—

34°	F. contain	4·3	cubic inches of the vapour	
44°	,,	4·7	,,	,,
54°	,,	5·6	,,	,,
64°	,,	10·7	,,	,,

being doubled by a rise of only 10°. On January 23rd, 1847, Dr. Snow exhibited before the same Society an inhaler for inhaling the vapour of ether, from very little upwards to 40 per cent. with which he never failed to produce perfect and safe anaesthesia in patients of all ages and conditions. Dr. Snow spoke of the necessity of being able to regulate the proportion of ether vapour and of air. At 60° F. 100 cubic inches of air take up 26 cubic inches of vapour, and become 126 cubic inches; at about 80° they take up 100, and are expanded to 226 cubic inches. Above this temperature the quantity of vapour increases with enormous rapidity, till at 100° it excludes the air entirely. With an apparatus consisting of glass and sponges, the quantity of vapour could not even be ascertained, for the air was very much cooled in passing through

work as a sweater. The use of hot or even warm water was very improper after an inhaler, and by it a risk was incurred that the patient might get an abscess and no air.

PROSTATORRHŒA

C. W. L. writes: In the absence of any local irritation, "Rasenault" (British Medical Journal, May 28th, 1904) should seek carefully for the patient's general health. Of three similar cases I have met with, one had slowed heart, aortic incompetence, and dilated stomach. The second had been long resident in India and had enlarged liver; the third was a sensitive, timid and hasty irritable brain and nervous system. Any defect would tend to engorge the lower abdominal or pelvic with blood would give rise to the symptoms. The first of the above cases was the most troublesome, and derived most benefit from regular long walks, dry meals, brushing the skin, especially practising breathing slowly, small doses of tincture of hyoscyamus and digitalis, an occasional grey powder and Epsom salts in the evening, with encouragement to keep at work and not surrender his case as serious. A local general bath, as possible, with a pint of tepid water containing a tablespoonful of common salt, and an occasional glass of good wine at meals was the only alcohol the patient could tolerate, while tea, coffee, and tobacco must be given up entirely. He got rid of his symptoms gradually and with steady and persistent adherence to general rules of health, cold sponging, and early hours in the morning, &c.

Dr. ALFRED M. THOMAS (Penarth) considers the case is neurotic. He advises [illegible] to be kept away from sexual matters, and to be taught how to [illegible] Nature.

LETTERS, NOTES, Etc.

INFECTION OF THE JAW IN SEA SICKNESS

Dr. [illegible], R.M.S. [illegible], writes: I beg to report a case of infection of the jaw in sea sickness, [illegible] dislocation of the lower jaw. The patient was a young Scotchman of about [illegible] years of age, who was returning to Canada for the first time. He was a native of Wick, where I was born, and we had a little talk together on that account. He was [illegible] a little bored by the result of a dentist extracting some teeth a few days previously. In the course of conversation I noticed that [illegible] I have seen a good deal of sea sickness, but never heard of a similar case.

LITHIUM POISONING.

Dr. WILLIAMSON (Upper Norwood, S.E.) writes: A few days ago I prescribed [illegible] for an old lady suffering from [illegible] for at least [illegible] years. After [illegible] she was taking [illegible] grains of the salt [illegible] daily. [illegible] I considered it advisable to [illegible] for a considerable length of time with [illegible]

A FATAL CASE OF THROMBOSIS AFTER SNAKE BITE.

[illegible] Orange River [illegible] Medical Journal, of April 30th, 1904, [illegible] I have observed [illegible] the case was that of a native [illegible] bitten by a snake [illegible] the left [illegible] the bite [illegible] the left [illegible] the bite [illegible] the left [illegible] the bite

The Harveian Oration

ON

I. I-EM-HOTEP, THE EGYPTIAN GOD OF MEDICINE; EGYPTIAN VIEWS AS TO THE CIRCULATION.

II. REST IN INCIPIENT VALVULAR DISEASE.

Delivered at the Royal College of Physicians of London on Tuesday, June 21st.

BY RICHARD CATON, M.D., F.R.C.P.,
Consulting Physician, Liverpool Royal Infirmary.

MR. PRESIDENT AND GENTLEMEN,—The officials, Fellows, and friends of this College assemble to-day, as we and our predecessors have assembled year by year for two centuries and a-half, to commemorate the services which William Harvey has rendered to mankind, and in order to keep alive in our minds the wise counsels which he addressed to us, the memory of which he desired us ever to renew at the festival which he founded. We are to honour our great profession, to continue in mutual love and affection among ourselves, and to search and study out the secrets of Nature by way of experiment, in order to prevent suffering and ameliorate human life.

In commencing the pleasing duty which the kindness of our President has placed in my unworthy hands, it is needful to comply with the desire of our founder that we commemorate the names of benefactors of this College. The lengthy and honourable roll was so fully dealt with by the learned orator of last year, that I shall merely add to his recital the names of those who since that time have given of their substance for the advancement of medicine. Dr. Horace Dobell, of Parkstone Heights, Dorset, gave the sum of £500 to encourage research into the ultimate origin, evolution, and life-history of bacilli and other pathogenic micro-organisms: Dr. George Oliver, Fellow of this College, of Harrogate, and Farnham, Surrey, has given £2,000 to found the Oliver-Sharpey Lectureship or Prize, in memory of William Sharpey of University College, and to encourage the application of physiological knowledge, for the prevention and cure of disease, and for the prolongation of life: Lady Clarke has presented to us a bust of our revered and lamented former President, Sir Andrew Clark.

No student of the works of Harvey can fail to bear in mind the great loss we have sustained this year, in the decease of Sir Edward Sieveking, who in his Harveian Oration, drew special attention to the Prelectiones Anatomiae, and in conjunction with Dr. George Johnson and other Fellows of this College, arranged for the admirable autotype reproduction of Harvey's Manuscript, which we possess.

Desiring to render this address as little wearisome as may be, I propose to divide it into two parts: the first archaeological, dealing with Egyptian medicine, the god of medicine, and the earliest inquiries known to have been made concerning circulation and the circulatory diseases—namely, those of the physicians of ancient Egypt, a department of pre-Harveian work, and perhaps the only one which has not been dealt with in this room. Secondly, I wish to speak with great brevity on the more practical subject of the preventive treatment of certain forms of circulatory disease.

FIG. 1.—Ancient bronze of I-em-hotep, Egyptian god of medicine.

I.

ANCIENT EGYPTIAN RESEARCHES ON THE CIRCULATION.

To all who love our venerable and beneficent profession the spectacle of our predecessors in early ages striving in darkness and difficulty to acquire that hidden knowledge to which we have partially attained is interesting, and should awaken our sympathy. As was remarked by the learned Harveian Orator of 1850, "The past is worth our study, and ever more so the further we advance."

The information which archaeological research has of late afforded, though in a fitful and partial manner, as to the earliest history of medicine, and particularly in regard to that department in which our founder laboured, is not unworthy of our attention.

The first evidence of definite inquiry, in any degree worthy to be called scientific by a body of men specially educated for and devoting their lives to medical service, occurs in the early history of Egypt. The ability, learning, and artistic skill shown during the early dynasties, which all Egyptologists recognize, is paralleled by the remarkable interest then manifested in medicine. Works on anatomy and medicine are stated to have been written even by the early Sovereigns of Egypt. Athothis, the son of Menes, who lived 6,000 years ago, is stated in the Berlin Papyrus to have written a book on medicine, and I shall soon have to quote from the anatomical writings of the Pharoah Usaphais, one of his successors: Semti, the seventh monarch of the same dynasty, pursued similar investigations. It is clear, that, like the Greeks, these men in the childhood of the world believed that *ὑγιαίνειν μεν ἀριστον ἐστιν*. Sanitation was to them the first of the sciences.

The Medicine God, I-em-hotep.

During the third dynasty, about the year 3500 B.C., there lived a learned physician, probably a priest of Ra, the sun god, the founder of a cult, whose eminence was such that in course of ages he is deified, and becomes for later generations the special god of medicine.

His temples were places of healing for the people. His name is I-em-hotep, meaning "he who cometh in peace." According to ancient inscriptions he was the son of a certain architect named Kanofer, but when raised in popular esteem to the rank of a demi-god he is called the son of the supreme god Ptah, the Hephaistos of Egypt, and he becomes one of the great god-triad of Memphis. I-em-hotep is described as the good physician of gods and men, a kind and merciful god, assuaging the sufferings of those in pain, healing the diseases of men, giving peaceful sleep to the restless and suffering; he is called the creative god who giveth life to all men, who comes unto them who call upon him in every place, and who gives sons to the childless. He was great in magic and all learning. He and his followers had to do with the embalming of the body, and he protected the soul of the dead man from all spiritual enemies after it had left the body. In the ritual of

breath of life goes through them, two go to the left ear and through them passes the breath of death, they all proceed from the heart. The concluding sentence is the earliest example I know of the ancient superstition that the left side of the body is sinister and evil. This is very early anatomy professing to be at least 6000 years old, we must not expect it to be quite accurate. Turning to a comparatively recent period, the only copy existing of Ebers's papyrus (found in a tomb at Thebes) was written in or before the sixteenth century B.C., no doubt most, if not all, its contents are much older than that date: the passage which I am about to read commences thus, "From the secret book of the physician. A description of the action of the heart and of the heart itself. From the heart arise the vessels which go to the whole body: if the physician lays his finger on the head, on the neck, on the hand, on the epigastrium, on the arm or the leg, everywhere the motion of the heart touches him, coursing through the vessels to all the members" (the reference is clearly to the pulse), "thus the heart is known as the centre of all the vessels. Four vessels go to the nasal chambers, of which two convey mucus and two convey blood; there are four vessels within the temples or skull, from these the eyes obtain their blood the four vessels divide inside the head and spread towards the hinder part." The Berlin papyrus speaks of the division into thirty-two vessels within the skull, and implies that air traverses, at any rate, some of them. Returning to Ebers's papyrus: "When the breath enters the nostrils it penetrates to the heart and to the internal organs, and supplies the whole body abundantly, this idea that certain of the vessels convey air you will observe is identical with the Greek conception and probably was its source. "Three vessels traverse the arms and extend to the fingers: three vessels also pass down the leg and are distributed to the sole of the foot: a vessel goes to each testis, and one to each kidney. Four vessels enter the liver conveying fluid and air; these may be the seat of various diseases, as they are mixed with the blood. Four vessels convey fluid and air to the intestine and spleen; two go to the bladder, and from them the renal secretion is produced. Four vessels convey fluid and air to the lower abdomen, going to the right and left sides, from them is formed the alvine excretion." These vessels here described are clearly the iliac arteries and veins. "When the heart is diseased its work is imperfectly performed: the vessels proceeding from the heart become impure, so that you cannot feel them" (no doubt this is a reference to changes in the pulse); "they become full of air and water. When the heart is dilated the vessels from it contain chyle matter. If a suppurative or putrefactive process occurs in the body" (abscess, I imagine, for which various localities are suggested) "then the heart causes it" (apparently the septic material) "to traverse the vessels. In fever or inflammation of various kinds occurs in the body the heart is in a morbid state while the fever continues. In heart disease there is either disturbance of the pulse in the heart, or the heart is congested or overfilled with blood: the heart is moved downwards, causes heart throbbing and sudden weakness and nausea. When the person feels the rise or lower mass of the heart causes shortness of breath, the heart is displaced on account of the retention of blood from the abdomen" (probably the old idea of the vessels of blood entering the heart from the liver). "There may be fever or inflammation of the heart." Now comes a passage of some therapeutic interest. "The heart [that is, its diseased state] must be made to rest to some extent if it be possible. Here we have wise advice from the ancient Egyptians, advice the importance of which we have proved as yet imperfectly, and which we may to-day follow with great benefit. (If the heart is atrophied or wasted itself) there will be an accumulation of blood within it. When the disease of the heart is accompanied by dropsy [that is, swelling in the stomach probably] in the ventricle or cavity [that is, the weakness of the heart is due to old age] there is dropsy. When there is raising or increase of the heart, it presses toward the left side, it is increased in size and is depressed, there may be [something] within its covering or pericardium. If in [dropsy] the heart is pushed forward, it floats or rises in the chest and is depressed. Here we surely have a reference to pericardial effusion. "If the heart trembles in the chest [that is, the apex-beat] sinks downwards, the disease is increasing. When it is pushed [beating] at the precordia, with feeling of weight, when the mouth is hot and languid [and] the eyes [are] inflamed, the disease is fever or inflammation." In another place, where the heart is spoken of as

being full of blood, which comes or flows from it again. In folio 39, after a description of symptoms, follows a statement to the effect that the heart is distended, the sick man is short of breath, because the blood has stagnated and does not circulate.' This is an interesting expression, but judging from other parts of the papyrus the word translated circulate can only have a vague meaning, implying movement to and fro, just like the expression "[illegible]" in the Hippocratic writings, which seems to imply the circuit of the blood, but in reality has only a similar indefinite meaning. It is evident that the Egyptian knew that blood flowed from the heart, but like the Greeks they never seem to have realized that the heart is a pump, nor did they recognize valves.

Fig. 2.—Step pyramid of Sakkara, tomb of Tosorthros, supposed to have been built by I-em-hotep.

The Leyden medical papyrus speaks of a paralysis or disturbance of some sort in the blood vessels of the head, causing blindness and disorder in the body and in the limbs: this seems to be a description of the results of cerebral haemorrhage. Remedies are suggested to subdue the vascular activity occurring in certain diseases.

The various papyri from which I quote deal, of course, with practical medicine, and not with physiology: no distinct definition as to structure or function is to be looked for in them, only as associated with diagnosis, prognosis, or treatment do we get statements as to the nature of the heart, the vessels, and the movement of the blood.

Importance of Medicine and Sanitation of Ancient Egypt.

It is clear from the study of these medical papyri that medicine advanced considerably among the Egyptians, and from them medical and sanitary knowledge has descended to us by two channels, namely, by the Greeks and through the Jewish race, while probably much of it was lost irrecoverably. Josephus quotes from Manetho a statement that Osarsiph, who Josephus says was the great Hebrew leader Moses, was a priest at Heliopolis, where medicine was taught. It is highly probable that the sanitary laws of the Jews were derived from the Egyptians. Just as the Jews remembered the diseases of Egypt (Deut. xxviii. 60) so they also remembered the sanitary and remedial measures they had learnt there.

Those of us who have seen in the later excavations at Knossos the evidences of sanitary knowledge of a somewhat high type possessed by the Cretans at a remote period, exemplified by drainage pipes scarcely excelled by our own to-day, knowing, as we do, the close connexion between Crete and Egypt, may well believe that here we have an example of sanitation carried from Egyptian sources.

Fig. 3.—Temple of Edfu, founded by I-em-hotep.

In England we have overlooked the importance of Egypt as a primary source of the science and art of medicine. If we regard with reverence the dim traditional form of Asklepios as a founder of our art, and the Asklepieia where throughout Greece and Magna Graecia medicine was practised and taught, in greater degree should we reverence the much more veneerable I-em-hotep, and view with interest the primaeval medicine temples and hospitals of Egypt. In the ancient writings of the Pseudo Apuleius, Hermes is described as speaking to the youthful Asklepios as follows: "Thine ancestor the first discoverer of medicine hath a temple consecrated to him in the Libyan mountains near the Nile where his body lies, while his better part, the spiritual essence, hath returned to the heavens, whence he still by his divine power helps feeble men, as he formerly on earth succoured them by his art as a physician."

Probably many of the present audience have seen in the Cairo Museum the sepulchral stele of Shemkhetnankh, a great physician of the fifth dynasty, who was contemporary with King Sahura, and who is described in the stele as the Principal Physician of the Royal Hospital. His name, which is doubtless a title given to him by the monarch, means "Lo who possesses the things that give life." It is interesting to find that five thousand years ago a hospital should exist associated with and under the patronage of the Pharaoh, and having its own staff of physicians. And it is manifest that our calling held a distinguished position at the time when art and learning in Egypt were at their zenith.

Testimonies as to I-em-hotep.

I-em-hotep rises before us as one of those intellectual giants who take all knowledge for their province. In his comprehensiveness he surpasses Leonardo da Vinci, or our own Linacre. He is distinguished as a physician, a minister of the king, a priest, a writer, an architect, an alchemist, and an astronomer; great in all, but greatest in medicine, in the view of Egypt he is a god. In the reign of Tosorthros, of the third dynasty, some five thousand years ago, we meet with the wise I-em-hotep in an inscription referring to the seven years of famine which befell Egypt in consequence of a succession of low Niles. He is there the adviser of Pharaoh, to him the king applies in his trouble for counsel and help. In the inscriptions in the temple of Edfu he is described at length as the great priest I-em-hotep, the son of Ptah, who speaks or lectures, perhaps his discourses or lectures were on medicine. Elsewhere he is described as the writer of the divine books. It may here be remarked that probably Ebers's papyrus was one of the six divine books attributed to Thoth ceremonially, but not improbably in large part the work of I-em-hotep. Manetho, while speaking of his eminence as a physician, refers to him also as an architect, the first to build with hewn stone. Not improbably he built the step pyramid of Sakkara, the tomb of his patron Tosorthros. Manetho also suggests that I-em-hotep improved and completed the hieroglyphic script of Egypt. In the Hermetic literature he is famous for his knowledge of astronomy or astrology; the Westcar papyrus describes him further as an alchemist and magician. These powers were always associated with medicine, and even to-day in the popular view are not entirely dissociated from it.

What share Leonidotop may have had in these early discoveries it is impossible to say, but it does, however, seem clear that the Egyptians had discovered certain elementary facts, and knew as much as the Greeks, as much as we find in the Hippocratic writings or in the works of Aristotle and the later Alexandrian school, and the hypothesis seems a natural one that the knowledge possessed by the Greeks was acquired from Egypt.

Methods employed by the Egyptian Physician.

I may mention, in passing, that although the medical papyri which have come down to us are no doubt only an incomplete selection of those possessed by the Egyptians, we nevertheless find in them a distinct reference to medicine and surgery. In the Kahun papyrus obstetrics is dealt with, gynæcology also, ophthalmology, veterinary medicine and dentistry are dealt with in others, and even veterinary medicine was treated of in the papyrus a fragment of which was found by Professor Flinders Petrie.

As regards materia medica the Egyptians possessed the following drugs: Various mineral salts of iron, such as the sulphate, with the action of which in staying local inflammation they were well acquainted; peppermint, sulphate and acetate of copper, oxide of antimony, sulphide of mercury, petroleum, nitrate of potash, castor oil, opium, coriander, absinthe, juniper (much used as diuretic), caraway, lotus, gentian, mustard, ox gall, aloes, garlic, and various bitter infusions; honey, linseed, spikenard, saffron, resin and various fragrant gums, cassia, certain species of cucumis, cedar oil, yeast, coriander, nasturtium, myrrh, tamarisk, powdered lapis lazuli, vinegar, indigo, the oasis onion, mastic and various gums, mint, fennel, hebanon or hyoscyamus, magnesia, sebeste (a tonic and a cough medicine), lime, soda, and a good number of other agents the names of which we cannot at present translate.

Surgical instruments and the actual cautery were in use, also steam inhalations, massage, ointments, plasters, poultices, suppositories, injections, and emetics, and the importance of temperature in disease was recognized to some extent.

Prescriptions were written out in due form, and sometimes at great length, fully equalling those of the most enthusiastic therapeutist of our own day. The longest prescription I have read contained thirty five ingredients. To read it was a formidable task; to take it I should think a perilous one. Some prescriptions are wise and rational, a few strange and repulsive; some are associated with charms and spells, though naturally the same in all ages; hence one was not surprised to meet with hair invigorators, hair dyes, cosmetics, pain killers, insect powders, and a soothing syrup containing opium, for small children, in use 3,000 years ago. It was also interesting to find that the symbol for a prescription, often used in their prescriptions, is identical with that meaning a recipe for us, though the amounts are not the same. I must confess that will soon be as obsolete as the tenat.

II.

A SUGGESTION IN REGARD TO PREVENTIVE TREATMENT OF VALVULAR DISEASE.

I have referred to certain facts, mostly of recent discovery, bearing on the existence of our profession, in the remote past, and to the special knowledge to which the priests of Egypt attained as to the circulation of the blood, a subject which, to a certain extent, but the advances of that knowledge practically which have come to more than one generation, those now making and those yet to be made in the future are of more practical importance to us. Harvey first clearly unfolded the great secret of the circulation, thus opening a wide field for the study of many physiological and therapeutic problems. The discovery of blood pressure, the action of vasomotor nerves, and other discoveries have followed, and we have attained to a knowledge of the circulation which, though yet by no means perfect, is a fairly accurate one. As such we shall regard the circulation of the blood the great miracle in all those fields that of bringing the truth already attained to the physician that nothing remains behind. Our father Harvey has exhorted us to search and to study out the secrets of Nature in the way of experiment. Will you permit me to bring the remainder of this paper to a brief discussion of an experiment dealing with a yet unsolved problem in the pathology of the circulation, by which I have devoted twenty five years of my life? It is better to speak on a novel point, with which one is fairly well acquainted, though it be of minor importance, rather than to utter commonplaces on greater questions with which every one is familiar. Valvular defect is one of the most important and perhaps the most common of circulatory diseases. It is one which probably we shall never be able to cure, and is thus one of the opprobria of medicine; is it possible to treat it by prevention? This is the problem upon which I wish to speak a few words. I am the more encouraged to do this because I know that various Fellows and Members of this College hold similar views to those I desire to unfold.

Acute Rheumatism: Why does the Endocardium Fail to Resist?

There are in this as in hence many who have treated cases of acute rheumatism and cases of valvular disease in hundreds of instances. We are all aware that in acute rheumatism, however severe the joint lesion may be, however great the swelling, the pain, the local pyrexia, and the effusion, yet in the large majority of cases after the usual treatment all these grave symptoms subside, or if they linger in any joint many of us know how certainly they will vanish if we stimulate the trophic and vasomotor nerves by small blisters applied to the adjacent skin, the final issue in most cases being the restoration of every joint to a normal condition.

But alas, we also know that when the endocardium covering the mitral or aortic valve cusps is in like manner attacked, a like restoration does not take place spontaneously, excepting in few and rare instances. When regurgitation through the valve, shown by an apex *bruit* with accentuation of the second pulmonary sound has occurred in acute rheumatism, if, after treating the rheumatism, we leave the affected heart to its own course, and the patient to his, persistent *bruit*, persistent pulmonary accentuation, hypertrophy, dilatation, in fact lifelong heart disease, and its train of attendant evils follow in a large majority of cases, and mar or shorten life.

Why should the rheumatic heart be so much more intractable than the rheumatic joint?

The Rheumatic Joint Rests but not the Rheumatic Heart.

No doubt the reason is that the joint can rest. The merciful influence of pain in the part affected insures repose for each affected joint. Suppose it were otherwise, imagine pain absent, and conceive for a moment that we could flex and extend an acutely rheumatic knee or elbow sixty or eighty times per minute continuously, what would be the fate of the joint? Is there any probability that restoration would follow? Few of us I think would expect it, for it is a physiological law that repair in a diseased organ cannot coincide with full functional activity. When the endocardium and valve cusps are inflamed, pain does not give the signal for rest, for indeed, pain or no pain, the toiling heart cannot intermit its labours.

Disastrous Results of Endocarditis if not Specially Treated.

During my thirty five years of experience as a hospital physician and in private I have watched with special interest the fate of the numerous cases of endocarditis which came under my charge, endeavouring, as far as possible, to trace the later history of such cases for a lengthened period. During the earlier years I merely treated the rheumatism, believing, as I had been taught, that little or nothing could be done to prevent disaster to the heart. I had the pain of discovering that many, indeed, most of these cases merged into permanent valvular disease. This distressing experience induced me to experiment on various methods of preventive treatment. Of these, one has apparently proved successful and has been constantly employed by me for twenty years.

The method is very simple; it is merely to give the heart the same advantages, the same opportunities for repair, so far as we can, as the joints enjoy; in other words, the most absolute quiet is ordained, the patient lies with head at a low level, pain and fever are subdued; no excitement is permitted. The patient is made as comfortable as we can make him, and sleep is encouraged; in fact, we seek to attain physiological rest. We follow the precept of our ancient Egyptian brother declared so many thousand years ago: we give the ailing heart the nearest approach to quiescence that is practicable. In addition, we administer sodium or potassium nitrite, partly to help in the absorption of morbid exudations, but chiefly to lower vascular tension, just as we give those drugs in cases of internal aneurysm. Lastly, we endeavour to

influence the cardiac vasomotor and trophic nerves reflexly by gentle and almost painless stimulation of those cutaneous nerves which we know from physiological data and from the evidence of the referred pains of angina to be in close relation with the heart, namely, the first four dorsal nerves.

I believe, however, that by far the most important factor in the abortive treatment of endocarditis is rest, rest for many weeks, the slowing of the heart, the lengthening of the diastole, which is the only rest-time possible, the careful avoidance of high blood pressures, which the weakened and softened valve cusps cannot sustain without peril, and the diminution of the volume of blood to be moved. Only then, when functional activity is minimized can we hope for repair of mischief, reformation of destroyed endothelia, and absorption of effusion in the valve cusps. Moreover repair is only possible during the early stages of endocarditis, later the mischief is permanent, unalterable by any form of treatment.

I submit that these measures are rational, their objects being, by affording rest, to give opportunity for the exercise of the *vis medicatrix Naturae*, which is our sheet-anchor: nay, indeed, to stimulate that natural reparative process which alone can effect restoration.

Two Objections to the Proposed Method.

It may be objected that there are two difficulties in our path. First, in regard to diagnosis: How are we to distinguish the signs of commencing endocarditis from those of mere dilatation?

In the great majority of instances in which marked and continuing *bruit* occurs endocarditis is present, and not mere dilatation, but I admit that in some cases discrimination is difficult. The wisest course is, if in doubt, treat as endocarditis. Secondly, some physicians complain, as those at the Johns Hopkins Hospital have recently done, that they find difficulty in inducing private and hospital patients to submit to a sufficiently long period of rest. Occasionally that is so in the case of foolish or thoughtless persons, but in general, if the danger to which the heart is exposed be calmly and plainly stated to the patient, and also if the hope of perfect recovery be held out to him through the agency of prolonged rest, he will agree to give this method a fair trial. Such at least has been my experience.

Successful Results Obtained.

For twenty years continuously this method has been carried out. The results have been striking. The comparative absence of permanent heart disease after endocarditis has been in marked contrast to its frequency prior to the adoption of the treatment by rest. So striking, indeed, is the change that I confess it now seems to me that it would be an immoral act on my part to omit these measures in any recent case of endocardial disease.

If we make it a rule to watch carefully for incipient valvulitis, and, if when we find it we secure for the heart prolonged rest, I believe it is in our power to diminish in a most material degree the frequency of chronic valvular disease of the heart.

An Address

ON

THE IRISH POOR-LAW MEDICAL SERVICE.

Delivered at the Annual Meeting of the Leinster Branch of the British Medical Association.

BY JOSEPH O'CARROLL, M.D., F.R.C.P.I.,
Physician to the Richmond, Whitworth, and Hardwicke Hospitals, Dublin; President of the Branch.

THE LEINSTER BRANCH.

GENTLEMEN,—I thank you for electing me to the honourable position of President of the Leinster Branch of the British Medical Association, though I profoundly regret the sad occasion of my promotion. By the death of Sir Philip Smyly the medical profession in Ireland has lost one of its chief ornaments and most respected members, and you have lost a President whose skill in public affairs and invariable courtesy in dealing with men of all opinions would have lent dignity to your deliberations. During the past year also we have had the misfortune to lose Sir George Duffey, the founder of this Branch. He was a tower of strength to any cause which he embraced. Men felt that he was single-minded and safe to follow, and so this Branch rapidly became a success. Still more recently we have lost a former member who had also been President of the Irish Medical Association, in the person of Dr. Austin Meldon, who to great ability and great interest in the welfare of our profession joined a geniality of disposition which fitted him to be a connecting link between the most discordant elements. It is largely to men like Smyly and Duffey and Meldon that the profession in Ireland owes the social and academic position which it has so long enjoyed, and which it must be our aim to assure in the future.

My position is not made easier by the fact that my immediate predecessor has been Dr. Finny. No more earnest President has ever occupied your chair, none who has more fully sacrificed his time to your business. His year of office has been an exceptionally busy one, inasmuch as it has witnessed the reconstruction of the British Medical Association, a new birth which has entailed a vast amount of labour on all who were concerned in it. I confess that I would have striven to direct your choice of a president in succession to him to other shoulders than mine, but that I thought it would be a discourtesy to you not to take up the honourable burden entailed by having been one of your vice-presidents. I am encouraged by the hope that I may rely for help in my difficulties on Dr. Craig, our able representative on the General Council of the Association, and on our secretary, Professor White, whose untiring energy and tact are only equalled by the skill with which he manages to persuade us that it is we, and not he, who are doing all the work.

THE MAYO RESOLUTIONS.

The British Medical Association is at once a scientific society and a political organization. Its work in science is attested by the production every week of a JOURNAL which is one of the best exponents of medical progress in the world. In politics it confines itself to forwarding and defending the interests of the profession, not as a trade society or a social caste, but as an important and necessary member of the body politic, whose mutilation or restricted growth would mean detriment and often more than detriment to the whole community. Thus it has ever been foremost in advancing questions of sanitation and preventive medicine, and when it has pushed what seemed special professional interests, as in its advocacy of improvement in the Army Medical Department, it has been proved by subsequent experience to have been doing a great public service.

In April last year this Branch issued a circular to all of its members who were in the Irish Poor-law service inviting them to a conference on the grievances under which that service confessedly labours. As a result of that conference we adopted what are known as "the Mayo resolutions," thus bringing ourselves into line with the Irish Medical Association in demanding for the Poor-law medical officer a fair return for his labour, an annual respite from toil, and a pension for his declining years. The movement for the amelioration of the Poor-law Medical Service, already far advanced in Ireland by the energy of the Irish Association, was thus formally put in train for discussion at the Annual Meeting of the British Medical Association at Swansea. Transferred to an arena that could not be suspected of local bias, the statement of the grievances of our Poor-law Service made by Dr. Frederick Kidd so impressed the Representative Meeting that the Mayo resolutions forwarded by us were adopted with enthusiasm, and Dr. Leonard Kidd, the President of the Irish Medical Association, was elected by a large majority to represent our views on the Medico-Political Committee of the Association.

THE REPORTS OF SURGEON-GENERAL EVATT AND SIR WILLIAM THOMSON.

At this juncture the Editor of the BRITISH MEDICAL JOURNAL, who had attended and spoken at our Annual Meeting last year, with something of that reasoned precipitation which so often wins battles, sent over a Commissioner on the part of the JOURNAL to inquire into the conditions of the Poor-law Medical Service and the measures necessary for its amelioration. The result of that inquiry has been a report which to my mind is one of the most valuable documents ever presented to the public on an Irish social question, and is equalled only by the report on the same subject prepared by Sir William Thomson for the BRITISH MEDICAL JOURNAL in 1892. The labour undertaken at that time by Sir William Thomson can hardly be fully estimated now. To read hundreds of replies from men who

tell that time had groaned under their burden, but hardly to affect where it hurt, entailed an amount of work which would have deterred almost any man whose own withers were unwrung. That report has this enduring merit that for the first time it formulated, even to its own members, the grievances and the injustice of the present Poor law Medical Service, and may fitly be styled its first declaration of rights. The recent report of the British Medical Journal Commissioner add to and reinforce all Sir Walter Townsend's report, besides dealing with some matters which were not within its purview.

Of course such declarations of rights are much pooh-poohed by Government and Government departments. A word of approval of whatever is said in favour of its perpetual maintenance constitute for the most part the science and art of Irish government. Thus did Lord Carlisle forty years ago congratulate the country on the emigration statistics of that period and speak with elegant, if vapid, eulogy of the approaching millennium when this country should be "the fruitful mother of flocks and herds." One finds a similar example of this frame of mind in the Report of the Local Government Board for 1903 just issued.

As a contrast to this method the Commissioner compels my admiration. Right to the heart of things he goes, and he tramps it hard with him. You have all, I know, read his report, and therefore it needs no analysis at my hands. No one could read it without recognizing that he puts the case of the Poor law medical officer on a plane which it hardly occupies to-day. It is not the latter's case he advocates; it is that of the people of Ireland. What are his conclusions as to their medical treatment? That their dispensaries throughout the country for the most part are little better than comfortless barns; that their medicines must be "stock" medicines, because the doctor has no time for individual prescribing; that in their houses, over the western half of Ireland at least, there is neither bed nor air-space sufficient; that the poorer are the doctor and the poverty of the doctor, and the distances are for the most part often over long distances, cause such loss of time in the treatment of any serious disease that it is a wonder that people in outlying districts send for the doctor at all. They see their doctor ever on the road, tender of his meals, coal, bottle-washer, apothecary, physician all-in-one; ill-paid, over-worked, dying early, or breaking down in harness, the servant of many masters, pestered by some. It is any wonder that between the long distances and the loss of time on the one hand and an intelligent dread of medical treatment on the other, the number of deaths of persons reported as not having received any medical treatment in many districts has a shocking figure? A Kerry doctor informed me that in his district by no means very large but yet a very wild one, the number of such deaths reached 15 per cent. of the total registered.

The Local Government Board.

"All men are liars," says the British Medical Journal Commissioner, "and everything is ill, and that 'there is but Heaven and the present in his home and his wife and children crying to the hereafter.'" Sentimental bosh! Turning to the recent report of the Local Government Board

from

that the greater the

will

which could be [illegible] to an [illegible] document. The [illegible] will be found [illegible] to the [illegible] their [illegible] to the [illegible] are each worked [illegible] Yeats of the Nancy brig" applied in political administration. You remember Coleridge's shipwrecked mariner who had eaten up his companions and who ever afterwards sang:

> oh! I am a man, and a captain bold
> And the mate of the "Nancy" brig,
> And a lovely sun light, and a moonlight night,
> And the crew of the captain's gig.

Do I belie the Local Government report when I summarize its last work on the question of salaries thus: "Gentlemen, you shall dine off one another"? I can imagine the dispensary doctor of the future reporting himself thus to the Local Government Board:

> I drive all day, and I drive all night.
> And I sleep in my motor car
> My patients are few, but I've much to do,
> For the roads so very far.
>
> And I never laugh, and I never smile,
> And I never have time to rest
> But as on I rush I cheer my soul
> With this Local Government jest
>
> Oh, we're the dispensary doctors band
> Of three-score counties three
> And all were the rest the fellows are
> Why bless you, they're inside me!

I wonder has the Local Government Board itself acted on this policy? Has it reduced its staff as the population fell away; and have the improved conditions of salary and superannuation scheme also been secured only on the Nancy brig principle?

I am quite at one with the British Medical Journal Commissioner when he suggests that the Nancy brig principle, though he does not call it by that name, should be put in operation with the judiciary, the magistracy, the police, and, I would add, the officials who suggest that the dispensary doctor's salary should not be doubled till the population has fallen to half what it is at present. It is hardly worth while to discuss the shortsightedness of the political economy which lies at the bottom of such a suggestion. Suffice it to say that it is quite on a level with that of Lord Carlisle's dictum already quoted.

The uncertainty of superannuation when broken down by a life of ill-paid hardship is the second serious grievance of the Poor law medical officer. Superannuation is permissible but not compulsory, the local rates bearing the whole burden.

In those unions where it has been customary to grant superannuation to officers (says the Local Government Board Report), the Boards of Guardians have not, as a rule, acted ungenerously towards their medical officers, and have often awarded them better terms than those admitted to the scale of the Treasury for civil servants. The refusal of pensions has always entailed much hardship on officers who are compelled to resign their posts although weakened by age or the active discharge of their duties, and I should be glad to see a general agreement arrived at between boards of guardians and their officers, whereby the latter would be able to all dispensary medical officers who would in due course be entitled to pensions under the existing law.

I take up the report at an earlier page in order to complete this set of "focus opinions" on superannuation.

It was [illegible] however, that the salary of a dispensing [illegible] should be a certain ratio to the whole time [illegible] was [illegible] and that [illegible] services for a [illegible] year or [illegible] superannuation. A [illegible] the other officers of [illegible] the Board [illegible] that he should [illegible] duties [illegible] in order to [illegible] [illegible] years [illegible] [illegible] [illegible]

is only 12*d.* while the rates are 1*s.* 1*d.* on houses and 1*s.* 3*d.* on lands. In many parts of the district the people have to journey a whole day across the bogs to obtain medical relief.

It was never intended, says the Local Government Board, that the doctor of a Poor-law dispensary district should regard his salary as a remuneration for his whole time; it was given only to secure a first claim upon his services for the sick poor of his district, the greater part of his income to be provided by his private practice.

Gentlemen, Knocknalower, so far as private practice goes is not very exceptional. Speaking a day or two ago to the widow of a dispensary doctor, who was thrown from his horse and killed last year, I asked her what had been her husband's total income; £100 from all sources, out of which he had to provide the horse which killed him—"he could not afford a car"—pay boat hire, and support a wife and three children. His orphans are now dependent upon charity, his wife is a nurse. The doctor who brought the corpse home to his wife has since died of typhus fever. The BRITISH MEDICAL JOURNAL Commissioner has shown that the average salary of the dispensary doctor is only a few pounds over the amount allowed to a constabulary officer for the keep of a horse and the wages of a groom. Lady Dudley estimates the average expense of maintaining a nurse and providing her with a bicycle at a sum within a few pounds of the average salary of a dispensary doctor. May I read you a letter which I came across by accident in a country paper of the 16th April? I recognise the writer of it as an old class fellow of mine for whose professional ability and honour I can vouch.

To the Guardians of Castlerea Union.

Gentlemen, It is now close on eighteen years since I was appointed Medical Officer of Castlerea dispensary district. Previous to my appointment there were two dispensary districts to be attended to—each one day in the week—on my taking up duty a third district was established fourteen miles distant from me, and which I have to attend one day in each week. The salary then allowed was the reduced one of £100 per annum, and this remained my salary down to the year 1898, when my then committee strongly recommended me as a matter of justice through largely-added work, an increase of £20 per annum. This increase the Local Government Board refused to sanction, but ultimately after the guardians repeatedly sent to them nothing forth the justice of my claim the Local Government Board sanctioned just thus leaving my salary £120 per annum—a sum less than my predecessor enjoyed fifty years ago, when he had much less work to do, less expense to incur, and when the working expenses and the expenses of living were 40 per cent. less than they are to-day. Added to this I may mention that my predecessor of fifty years ago received a considerable annual salary from the late Mr. Sackville for attendance on the inmates and employés. Through additional work and largely-increased duties enforced under the Act from the appointments I have held I have been compelled to decline—as a matter of fact I have found it impossible to undertake all my additional duties, and I am now three years in arrears with the duties of my latest appointments. It seems I must resign one or other of them. I work one of the largest and most populous districts in the West of Ireland, and the statute area, population about 12,000. And it is absolutely necessary for me to keep two horses. After defraying the keep and maintenance of two horses, assistant, trap, and harness, etc., out of my salary I am left with little more than one-half remains to my credit. I have for the past nineteen years done my best to discharge duties which I personally consider of paramount importance, travelling from 12 to 30 miles per day, ministering to the sick poor, endeavouring to improve the situation of my district, battling with epidemics and endemics, notably typhoid fever, the worst outbreak of the kind in Ireland, and to the best of my ability discharging duties of the first importance to the State and people at large. I could often earn by bare working expenses. I ask you, therefore, gentlemen, to take my case into consideration and to grant me such an increase in salary as will give me some reasonable remuneration for my services over and beyond my bare working expenses.

I remain, Gentlemen,

Your obedient servant,

[illegible]

In connexion with this question of increasing the salary of dispensary doctors the following facts are of importance. Half the salary of the doctor was paid by the Union, and half by the Treasury, up to and subsequent to the passing of the Local Government (Ireland) Act, 1898. By that enactment a large amount of power passed into the hands of local elective bodies, and one object of this was that of increasing the salaries of their officers. The Local Government Board actually insisted on the salaries of some of the county or district officers being raised, but, because the Treasury was partly responsible for the doctors' salaries, all attempts on the part of the local bodies to raise them was, as in the case I have related, either negatived by the Local Government Board or cheeseparingly sanctioned. Finally when the Local Government Board saw that the local bodies—to whom I think the BRITISH MEDICAL JOURNAL Commissioner hardly does justice—were likely to go in for raising the doctors' salaries as far as they could afford, the Local Government Board caused a clause to be inserted at the last moment, when there was no opportunity for debating it, in the Local Government Amendment Act, 1902, by which the Treasury is freed from obligation to pay any part of such increases in the future. I have no doubt the Local Government Board will now, with a show of economic hesitation, permit the guardians to give my friend another £20 a year out of the rates.

THE THREE P'S.

So much for the claims of the Poor-law Medical Service for better pay and guaranteed pension. I cannot help that the statement of the Commissioner has authoritatively exposed his readers as to the necessity for some natural promotion within the service. The three P's—pay, promotion, and pension—are the present declaration of rights. Two forms of promotion seem to be possible and desirable: first, the natural movement from a less lucrative or more difficult district to one of richer population or easier work; and second, the movement from executive to administrative positions. Here I must to some extent join issue with the Commissioner. In order to facilitate this system of promotion, and for other reasons as well, he suggests that the Irish Poor-law Service should be entered by a Government examination, and should be practically a Government department. I am afraid that that suggestion savours too much of an Indian habit of thought to be quite acceptable in this country. I have no objection to the establishment of a one-portal examination, subsequent to the taking of university or college diplomas, for all Irish medical students. But I believe there would be a very general objection to making the medical profession in Ireland the creature of a Government office, and this not more on the part of one section of Irishmen than of another. The Commissioner himself, coming over here untainted by local bias, speaks of the present Government system as "generally mistrusted by all classes in Ireland." "Ireland," he says, "has not been governed by Irish ideas, but by a body of officials who are members of these statutory and almost independent Boards, and these really carry out a species of Castle Home Rule, which is neither English nor Irish, but bureaucratic."

I am pretty sure that the Poor-law Medical Service is not likely to desire a transformation into a purely Government department. The Council of the Irish Medical Association has very definitely stated its hostility to such a proposal. I suspect that apart from other considerations, they have not found the Local Government Board so sympathetic in the past that they are in any hurry to throw themselves helplessly into its arms for the future. They recognise that the first duty of an Irish department is to safeguard the Treasury, and that the Treasury has been the real sweater of the Poor-law Medical Service. It is with the Treasury that the real battle for better conditions will have to be fought. However it may be possible for about one quarter of the unions in Ireland to improve the pay of their medical officers out of local resources, in the remaining three-quarters it is almost out of the question. As for superannuation, it is evident that over a large part of the country it will be practically impossible that the existing clause of the Act of 1902 is not merely repealed, but amended so as to make the Treasury responsible for half the pension as well as half the salary. Nor, even if this were achieved, do I think that the Poor-law Medical Service would be wise in accepting the Treasury as its direct employer. If a strike against injustice be difficult now, it would be ten times more difficult when the Treasury—its Irish agent would be the sole employer, and could keep on its pay roll the names of hundreds of men, perhaps not Irish at all, willing to do "blackleg" or emergency duty for it, in Ireland.

The second form of promotion, requisite for the Poor-law service, is that of a larger admission to administrative posts. In the inspection of union administration in Ireland, largely conducted as it is with questions of sanitation, lunacy, workhouse structure, and workhouse management, I know no class in the community more fit for such work than those who have had experience of local Poor-law administration, and I include not merely the medical officers, but the lay officers of the Poor-law system. It is from these two classes that the inspectorial staff of the Local Government Board should be mainly if not entirely chosen. No doubt such knowledge of Poor-law as is gained by sitting in the Irish Petty Sessions Courts, no knowledge of militia tactics, however these qualifications (!) may be backed by social or political influence, or of any value in enabling a man [illegible] Irish Poor-

law administration with sympathy, so as to relieve its many grave problems with efficiency. I hope I shall have your support then, when I say, that the highest administrative posts in the Poor law service should be opened to the Irish Poor law doctors in much larger proportion than is at present the case, and that the inspectorial staff as at present constituted, is not the best, either for the service or the country.

THE FINANCIAL QUESTION.

I come now to a matter which I believe lies at the bottom of all this question. It is the question of pauperism. I have said that in at least three-quarters of the country it is difficult to procure further pay for the doctors out of districts which are undergoing a progress to improvishment. Opinions as to the cause of the decay of this country may differ as to the fact there can be no doubt. The Local Government report gives some distressing figures. The population has fallen from over 6 millions in 1841, to under 4 millions in 1901. The total number of dangerous lunatics certified from 1853 to 1862 inclusive was 5,240. The total number from 1893 to 1902 inclusive was 21,314, more than four times the number. The number of persons resident in the workhouses at the beginning of 1871 was 43,531; at the beginning of 1903, the population having fallen to a million in the meantime, the number was 42,781. The total number of admissions to the workhouses in the year 1871 was 241,382; in the year 1902 it was 333,127. The marriage rate in this country is the lowest in Europe, the average age of marrying is the highest. [illegible] Mr. Fitson Young] in a recent number of Hibbert to a marriage among the poor. In the year 1901, 35,750 young persons emigrated permanently from this country, or more than 100 more than emigrated from it a century ago when the population was [illegible] times greater.

In contrast to this picture look on this. Some eight years ago a Royal Commission, having among its members representatives of the Treasury, after a long inquiry, in which the Treasury was fully heard, reported that Ireland was being [illegible] capacity in proportion to the rest of the United Kingdom, the actual amount of money extracted being estimated at 3 millions yearly. Any inequality, far from being lessened during the period which has elapsed since then, has been magnified by the increased taxation of the past three or four years, probably to close on 4 millions a year. That report has been a dead letter ever since. That it should be so depends entirely upon opinion. If Ireland is not entirely to blame, there is no matter of party politics or [illegible] social necessity not common to both. It is a matter which has been [illegible] at the bottom of party discussion, by a verdict from which there has been no appeal by any party. We are asking for a revision of the verdict, we are asking not [illegible] but for justice. In this connection was the last Royal Commission [illegible] in this country. What [illegible] the Poor law Medical Service [illegible] will have to [illegible] that I say it [illegible] the [illegible] Guardians of each individual [illegible] to pay [illegible] their medical officers in proportion to their [illegible] Ireland [illegible] in [illegible] Treasury in a position [illegible] against any claims [illegible] [illegible] Treasury [illegible] Medical [illegible] [illegible] [illegible]

at our hands, or which we consider ourselves as above giving. We surrender ourselves in a most complete way to the service of humanity, and for us there is no high or low in what we do.

Now there are many minds who cannot rise to this conception of work, and they naturally classify us by the things they find us doing, not realizing that the more complete the work the more complete the mastery. Consequently we are relegated to a position to which we object, and which we shall struggle against for one reason only, namely, that it limits in a most serious way our field of usefulness.

I dwell on this point because I think it throws light on the pathology of the case we are considering. It is particularly clear to me because I have personal knowledge of a similar condition of things in the Army Medical Service. You all know how army medical officers struggled against ignorance and prejudice to improve the health and condition of the British soldier. When I entered the service and was sent to Netley, I found there Parkes, whose name is synonymous with hygiene, battling with problems the answers to which are now current coin. Inspired by him, his successors made themselves unpopular by carrying on a determined war with the military authorities insisting on the enforcement of the laws which govern health. The result of their work is to be read in the health statistics of the army. Now, how was, till lately, this achievement appreciated? You may judge from one instance, for it is notable. At page 208 of the *Story of a Soldier's Life* Lord Wolseley states:

> No one ever fell sick (on the Red River Expedition). I was asked to have our senior doctor promoted when the expedition came to an end, but refused because he had nothing to do, there never having been any sick for him to cure.

Do not think, however, that this attitude is a monopoly of the military mind. Look round and consider; the air is full of cries of "forward"—literary education, technical education, industrial enterprises, agricultural development, and so on. But where in all this clamour does the great question that affects them all come in—the question of public health? That is left to the medical officer of health—a man located in a hovel and paid like a sweep. Only the doctors, and even not all of them, give the matter a thought and raise a voice of remonstrance.

Three men of note have recently given us books on matters calling for criticism and reform in Ireland. In *Ireland at the Cross Roads*, Mr. Filson Young's clear vision sweeps the country from north to south, noting the domes of the churches, the cells of the monks, the empty halls of the gentry, the full asylums; but it never lights on the wretched cabin which stands in most villages, with "Medical Officer of Health" in letters over the door, where the medical science of the twentieth century reaches its culminating point for the people of the district.

The next book is by one who has, in a most thorough and noble way, devoted his thoughts and energy to the betterment of Ireland. Able, enlightened, practical, inspiring, he stands out as an excellent illustration of the point before us, and therefore he must excuse me if I bestow a few words of criticism on his *Ireland in the New Century*. I read it with interest from cover to cover, pencil in hand. I noted his keen inclusive view, his courage in giving expression to his thoughts, and yet, to my amazement, I found him too—though also with an eye for architecture—leaving unnoticed our village halls of science; and silent on all that is meant to a people by a neglect in the past and present of the physical laws governing their development.

Does the apostle of what Mr. Filson Young calls "The New Economy" entertain, with public purse-opening force, my estimate of the economic value of health? This term "public purse-opening force," you will find a no bad test of a man's sincerity in this matter. Does he know that the science of public health is now fixed on sure foundations, that its teachings are clear and explicit, and could, if properly applied, wipe out one of the great causes of inefficiency, misery, and sorrow? Does he know what a properly paid, properly-equipped medical officer could effect in a poor district? Does he know the present position of the medical services of Poor Law and Public Health, and, if he does, will he excuse my asking him why there is no mention of anything bearing on these important questions in his book? I trust it is not any feeling of goodwill to the ministers of health that has kept him silent. Surely when such great interests are at stake it would be a greater compliment to arraign than to ignore us.

The third book is a "Report on the Poor-law Medical System in Ireland," by Surgeon-General Evatt. You know it from cover to cover; it needs no eulogy from me. If Sir Horace Plunkett is wise he will, with Surgeon-General Evatt's leave, which I know will be readily granted, include this excellent report in the next edition of his work. He owes some such reparation to what will be, before the new century is old, the most important service in the State.

Gentlemen, had I time to continue the study of the lay mind I would make plain to you two lessons. First, the necessity of educating the educated public; secondly, that if we are to play in life the part it behoves us to do in the interests of ourselves and the public, we must not calmly accept any position assigned to us, but we must formulate, as I am now trying to do, what our true position is, and by every means in our power try and attain that position, and, having attained it, worthily live up to it.

When a body of men are about to move in any effort, the question of organization should first claim attention. For this purpose the Irish Medical Association exists, and our first act at every meeting should be to number our ranks till we find that they include every registered practitioner in Ireland. To do this effectually we should, I think, be better acquainted than we are with the names of those who are in the Association and of those who are not. I would suggest, therefore, that our Secretary issue each year a small medical directory for Ireland, in which the names of our members would be entered in a particular type. He need not burden it unnecessarily with other qualifications. There should be a general list, as well as one arranged by counties, and it should contain the name of every practitioner. Such a book lying on one's table might be found useful when rival candidates, of whose personality one knew but little, were seeking votes. Some such action, backed by gentle, persistent remonstrance, will, I hope, soon put us all in one fold, and enable us to move forward as one body to the ends we have in view.

There is, I think, unanimity amongst us that the first question for consideration is, how we can increase the efficiency of the Poor-law Medical Service. It is important that we should put the question in this way. Let there be an end to medical officers' grievances, the grievance is the public's, not ours, and by any practical scheme that will give us an efficient service we are ready to abide.

Let us define the pathology of the ailment. First, does it lie in the inefficiency of the doctors as they are when appointed to the service. To this I say an emphatic "No." Let any committe you like to select take a list of those appointed by the old Poor-law Boards and those by the new up to the period of "the strike," and it will be seen that while both are good, the latter day men, judged by prizes, diplomas, and other qualifications as set forth in the *Medical Directory*, are in no way inferior to those who have gone before them. Of these I and many others here can speak from our own knowledge. For myself, I stand grieved at men of ability, promise, and enthusiasm whom I have known the Poor-law Service swallow up. Many have, thank God, survived its blighting influences, but others have gone under as they would not have gone under happier conditions.

Were I a Poor-law guardian, and were I asked to substitute competitive examination for the existing system, I would reply somewhat as follows:—"Here are men who have gone through a five years' medical curriculum, been examined and found qualified by colleges whose standards are second to none in the world; holding credentials telling me what their teachers think of them; some of them personally known to me. The points to be estimated are individuality, tact, good sense, rectitude, and fitness for the district. Under these circumstances the present system, that is selection by those most directly interested, is that by which I shall abide."

At the same time it is no doubt quite true that as things now are, what goes on at the election of candidates often leaves much to be desired; but it is due to a national characteristic. When we take a man up we fight for him to the death. Why, gentlemen, a certain amount of commotion has not always been absent from the presidential elections of the Royal College in the hall of which we are assembled, nor nepotism from high appointments in the State, yet no one proposes to open these positions to competitive examinations. I pass from this point, asserting that, in my opinion, the Poor-law Medical Service by the present system gets good men suitable to the district in which they have to live.

The next point is, do they, after entering the service, maintain their efficiency? And if not, what is the cause? My answer to this is—That in the majority of dispensaries, once

a man has started on his career, it is a question of survival and development. A strong man combats his surroundings, or ordinary circumstances himself to them. We have strong men in the Irish medical service, not a few of whom are present in this hall; we have others who go with the tide, or who ply only a flagging oar against it. Quite lately I asked a man, than whom no one knows more of the conditions under which dispensary doctors do their work and who from its own strength is given to make light of difficulties, to tell me briefly the necessity of these conditions. He used but one word—Stagnation.

Our immediate business to-day is with two of these conditions, the gas and superannuation of medical officers. I shall chiefly concern myself about the former, as there are differences of opinion. Let us tackle it and see what we can make of it. Two years last June, or thereabouts, the moderate demand for a salary of £100 a year was advanced by us. We saw that there would be difficulty in getting the guardians to vote this amount, because (owing to the Local Government Act) it involved the Local Government Board which pays half the medical officers' salary) in sharing this increase. We hoped that this Act would be altered, but we have hoped in vain and I believe will continue to do so until we get some force other than we have to bear upon Parliament.

This brings us to the question: Shall we proceed with the Irish Association resolution in its present form, or shall we alter it to meet the position raised by the present impossibility of getting Chancellors vote? I can imagine men pressing this demand for quite different reasons; some with the bona-fide intention of getting increased pay; others in order to bring about an inquiry and so force a Civil Service on the country all is fair in war.

To the best, having carefully watched the signs of the times, I say emphatically: **You will get much more speedily** and certainly the increase in question by **separately asking** the guardians and the Treasury to do their parts than by **pressing for it indefinitely, since when you so proceed both** bodies can decide you by stepping in turn one behind the other. You should first formulate your demand to the guardians. I put it in this way. The average salary of dispensaries in County Dublin is £150, a difference of £50, which is paid to get in the shape of £45 10s. from the rates and £4 10s. from the Treasury. Now, by adding £45 10s. to £100 we arrive at £145 10s., and if we knock off the £4 10s. (which as we approach the enterprise in the first instance, we cannot have) of £141. This we might make, as an initial step, an average maximum salary in every Ireland. If this be considered extravagant I contend that we should ask for a grant in order to amend dispensaries, but we should confine ourselves to getting an immediate increase in every case in the land.

I would begin with the local committee, form a Committee of our Association to get in connection with local committees and bring our whole force to bear on the guardians of our respective districts. I would approach the leading and influential persons of influence in each district and demonstrate to them that it is to the interest of the public interest that the efficiency of the Poor-law Medical Service be increased, then by letter to the press by whom we hope to sustain that end. We would promise that if this end that we would do nothing more, and that all other matters be excluded. We would say the time and energy of the Association is being frittered away on matters which, though important, are not vital, and that all other matters to agitate be excluded. This is the essential point, the only point that when secured justifies the time men cannot [illegible] Poor-law service cannot be [illegible] to my extent of [illegible] I feel myself unable to [illegible] but if I could I think there would be [illegible] extreme attitude [illegible]

[illegible] that it is possible [illegible] large [illegible] of which the [illegible] large majority of the [illegible] and a [illegible] could only be [illegible] with power to get [illegible] to the end of time.

But supposing it is [illegible] Then I contend [illegible] Chancellor [illegible] I was all in favour of a Civil Service, but [illegible] to change my mind. **The position of an officer of health, like** that of a priest, must be founded in the respect and estimation of the people. You cannot improve a man's body, any more than his soul, against his will. The first condition in carrying out our work is that the people believe in us. Which of us ever received views of health, even on a friend whom we sought to benefit, with satisfactory results. **The position** of our profession must stand on the broad base of the people's goodwill. As things are now in Ireland that is not compatible with a Civil Service, I do not consider why, but I state a fact. It may not be always so. A time may come when the policeman will be honoured in the streets of every village.

I pray for that time and also for that when the peasant will think so highly of the blessing of health that the getting of it will weigh down all other considerations. He may then **turn round and say—This thing may better be worked as a** State service than as it now is.

An ideal state of things, in my mind, would be one in which there was no more a question of a doctor's fee from the sick man than there is of a policeman's fee from the malefactor. In that good time the doctor paid by the State will rule a district, and every case of illness not due to age will be an offence for which somebody will be called to account; but these days are not yet, and so we have to make our way into the minds of the people, and centre ourselves on their good **judgement. This being so, it seems to me that in matters affecting public health and Poor-law relief, the Government** is wise in doing as it does in matters of agriculture, namely, allowing the people to work out their own salvation, at the same time advising them and giving the pecuniary help.

But why go on discussing an impracticable alternative? Let me, therefore, **as time is pressing, give you a summary of** my views. I think we should ask the guardians at once to level up from the rates the salaries of all dispensary doctors to a maximum of £150 a year, and of infirmary doctors to a relative sum, except in very poor districts, where we should ask the Congested Districts Board to give the necessary increase. This accomplished, **or well on foot, we should, with the help of the guardians and the Parliamentary representatives, press forward and insist on the Treasury completing** what the people have begun for themselves. **I should prefer** that that demand be for quinquennial increases, graduated to the requirements of the case, and given under conditions that **would insure efficiency and zeal in the recipients. Let us** formulate no more at present. This question, once the shell is broken, will assume divers shapes, little thought of at present, for it is a young and great one.

With those prefatory remarks I leave it in your hands. I be one to need afraid to entrust our cause to the good sense of the people. Why? Because I judge, as perhaps also can some of you, by taking a line through one sprung from them and myself because our interest and theirs in this matter are one; because our cause is true, and they are quick to grasp a great truth if properly put to them; because on them only can our profession rest in safety, honour, and strength. Let us not thank, however, that we will have our way by just gracefully turning towards them. We must first educate them, but they are quick at a lesson when it is properly put. Let me give you an instance. A doctor living in the country I don't see if he is here present, but he is a member of our Association was awakened one night by a knock at his door. He went down and found two men standing outside, one of whom said to him: "I want you to come to see my son." "All right," said my friend, "I'll be with you in a minute."

But you must come for the same fee as Dr. So and So," mentioning the name of a new arrival who had started a low scale of fees and who happened not to have been very successful with the first few cases. "No, thank you," said my friend, and having shut the door, he turned into his study to get a book. The window was open, and he could hear the two men talking outside. "What would you do?" said one. "Faith, says the other, I'd giv him what he asks. Shap, the Liverpool and coot more than the ditther." With this they came back, knocked again, and the difficulty was at an end.

This is the lesson in a nutshell: the costliness of death, the economic value of health, the progress of medicine, the interest of the people in its progress, the fact that sanitary science is in great measure preventable; let us teach them, and believe me there will soon be a change [illegible] necessary [illegible] instead philanthropic undertakings will be relegated to [illegible] Mutual lessons such as [illegible] and an efficient medical service for the poor

and an efficient public health service for all will become a first charge on the public purse.

In the meantime rest assured that you will have the teachers in every school in the three kingdoms with you.

Let us not be afraid of beginning with small demands, lest these being granted there be an end. You do not think the men assembled in this room have come together to wring a few pounds out of the ratepayers, and that we are organising the whole profession for such a paltry end. No. Our end is a position in which we can efficiently and honourably do the work to which our lives are devoted. When that is attained we shall rest, but not till then.

Let it not be thought, however, that because we are making these efforts for our efficiency we are not grateful to our fellow-countrymen for what they have done for us in the past, and for what many of them are still doing. Things are out of shape, but that is due to the fact that medical science has grown fast of late, and society has not yet adjusted itself to the new condition

> The old order changeth, yielding place to new,
> And God fulfils Himself in many ways.

We have come in rather suddenly for a great inheritance. Our claims are undoubted, and we are a little irritated because there is some hesitation in these claims being allowed. However, if we press forward temperately and firmly all will come right, because although we may differ as to details we are all animated by the same spirit and striving for the same end; because hearts are hearts, and Irishmen are Irishmen, and because we belong to a profession which, while it recognizes neither north nor south, nor upper class nor lower class, should make us at one and the same time the servants and the masters of all.

CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS: PYLOROPLASTY: RESULT.

A CONTRIBUTION TO THE ETIOLOGY AND TREATMENT OF THE AFFECTION, WITH NOTES OF A CASE.

BY

JOHN McCAW, M.D., L.R.C.P., Senior Physician, and ROBERT CAMPBELL, B.A., M.B., B.Ch., F.R.C.S. Eng., Surgeon,

Belfast Hospital for Sick Children.

To those who are brought much into contact with the ailments of infants it is a matter of common knowledge that failure to make satisfactory progress after the first few weeks of life is not very infrequent, and this, too, in spite of the fact that the child draws its nourishment from the breast of the mother. Suspicion naturally falls upon the secretion, and it is decided to abandon the breast in favour of an artificial mixture. From this time forward the art of infant feeding is taxed to the utmost to find a substitute for the breast that will be taken and retained, and the various cream mixtures, the proprietary foods, and lastly peptonized milk, are given a trial in turn, with the uniform result that the infant not only does not make progress and gain weight but actually loses ground steadily from day to day, and scales at the end of the first six weeks a pound or so less than it did at birth. It soon becomes apparent, not alone to the medical attendant, but also to the mother, that the unsatisfactory condition of the child is due not to any inability on its part to take nourishment, for it seems always ready and eager for its feedings, but to the fact that the greater portion of what it takes into the stomach is returned after a varying interval. Vomiting, therefore, becomes one of the earliest, as it is also the most prominent and persistent, symptom of congenital stenosis of the pylorus, and the characteristics of it merit the most careful attention; but before considering these the following short statement regarding the stomach of the infant may not be out of place. The stomach is very small at birth, its capacity being about one fluid ounce. It increases steadily in size, so that by the end of the first month it will contain three, and at the sixth month six ounces of fluid. Its position is nearly vertical, the fundus being but slightly developed. Owing to the weakness of its muscular layers dilatation is readily induced and gases are apt to accumulate. Gastric digestion is at this early period only a partial one, the stomach serving more the function of a reservoir from which the food is passed on into the intestine. To return now to the symptom of vomiting, we find that it possesses some peculiarities in congenital stenosis of the pylorus. At first the quantity brought up is not very large, an ounce or so, but this amount is vomited at frequent intervals, for the reason that dilatation of the stomach to any considerable degree has not as yet taken place. Gradually, however, with increasing dilatation, larger quantities are brought up, and the intervals between the vomitings are increased, until in a well-marked example of this affection the child takes and retains several feeds, and ejects a large portion of them at one time. Such a sequence of events is very characteristic of pyloric obstruction and should direct attention to this condition. The vomiting is unaccompanied by nausea or sign of collapse, and the fluid returned is never seen to contain bile—a further evidence of the condition of the pylorus. The vomited matter consists largely of a fluid resembling whey, and contains some flocculi or small curds. The tongue is usually clean and raw looking; the breath is sweet, and not rarely the buccal cavity is affected with parasitic stomatitis. Where large quantities of fluid are vomited at one time dilatation of the stomach is assumed, and the condition may be verified by inspection, palpation, and percussion. With the infant stripped and placed in a good light the outline of the dilated stomach can be clearly defined, and it will be seen to extend downwards as far as, or it may be to beyond, the umbilicus. Visible peristalsis of the stomach is generally well-marked, the contractions passing across the abdomen in waves from left to right. It is most important to palpate the pylorus if this is possible, but it is not always practicable, owing to its deep position, to the struggles of the child, and to the resistance of the abdominal muscles. A few whiffs of chloroform may be given, and under its influence it can, as a rule, be located. It is generally felt as a hard nodule about the size of a hazel nut but more elongated, and it gives one the sensation of a firm, fibrous body. This pyloric tumour, then, which consists of hypertrophy of the circular muscular fibres, is undoubtedly the prime factor in the causation of this affection, but that it ever gives rise, of itself, to complete obstruction to the passage of the food out of the stomach we have good reason to doubt. In a paper published in the *Lancet* of March 5th, 1904, in which Dr. Cautley gives a detailed account of a case that ended fatally "from marasmus, induced by starvation, from insufficient food passing through the pylorus," the necropsy disclosed the fact that while a probe could be passed through the pylorus it was not found possible to squeeze any of the contents of the stomach through this opening, and he therein expresses the view that the obstruction was due "to hypertrophy with secondary contraction of the hypertrophied muscle." This view may be correct, and with it we have no fault to find, but examination of the stomach immediately after death in our case has convinced us that there is another and most important factor at work which is of paramount importance in making the incomplete pyloric obstruction absolutely complete, and this fact or is the condition of the gastric mucous membrane. With a condition of more or less stenosis of the pylorus the efforts of the stomach to overcome the obstruction lead to hypertrophy of the muscular and mucous coats, and the longer such obstruction remains unrelieved the greater this hypertrophy becomes. In our case life was prolonged sufficiently for quite an astonishing degree of hypertrophy to develop, the stomach walls having become very thick and the mucous membrane abundant and corrugated. On testing the patency of the pylorus by filling the stomach with water, not a drop passed through in spite of pressure made to force it along, although the pylorus admitted an ordinary cedar pencil, and on examination this very effectual obstruction was seen to be caused by two folds of the much hypertrophied mucous membrane falling down over the pyloric orific in a way that vividly recalled the action of the mitral valve. We are, therefore, persuaded that this hypertrophied condition of the mucous membrane becomes a most important factor in these cases, inasmuch as we believe it effectually blocks the already contracted pylorus, and whatever form of operation is adopted it should be done with the object of, first, relieving the obstruction; and secondly, of dealing with the mucous membrane in such a way as would prevent the possibility of the valve-like action referred to. The condition of the bowels in pyloric obstruction in infants is one of constipation as a rule, but the character of the motions will vary with the amount of nourishment that finds its way out the stomach. Speaking generally, the motions are small, infrequent, and dry, and scybalae may be felt in the colon, but it is by no means unusual for two or three small and fairly normal motions to be passed daily.

The following statement gives the most important points in the history and course of our case:

L. G. C., was born at full term, was healthy and well developed in all

There was a rather copious eruption of thrush over the

the diapers a brick-red colour. Stenosis of the pylorus was diagnosed,

DISCUSSION OR OPERATION BY MR. CAMPBELL.

Dr. [illegible] Hospital. The Farnham Weils Hospital has received donations of £1 each from Miss Stanley Pinkie and Mr. Stanley Pinkie, of Tunbridge Wells.

ACUTE DERMATITIS PRODUCED BY SATIN-WOOD IRRITATION.

By H. E. JONES, M.B., C.M.Glasg.,

Ibrox.

In 1895 an outbreak of acute dermatitis occurred amongst a number of joiners and cabinet makers employed in the joiner's shop of a Govan shipbuilding yard. At that time I saw several of the patients and made a careful study of the cases.

The first of the patients who consulted me at that time was a cabinet maker about 35 years of age. He called to see me regarding the condition of his face and neck, hands and wrists, which were all in a state of acute inflammation and much resembled that of erysipelas, so much so that I called the following day at his house to satisfy myself on that point. His face, neck, and ears were very red and swollen: his eyes were almost closed, his skin was hot, yet he was not fevered. He had no pain and no sickness. He said that for five weeks his skin had been, on and off, in a condition such as when I saw him, and in consequence he had to cease working from time to time. He had on several occasions during that period been well or almost so, but whenever he commenced his work the inflammation almost immediately reappeared in all the exposed parts—face, neck, ears, hands, and wrists, and soon again compelled him to leave off work. The inflamed area became moist, and this was followed by desquamation.

He told me that several of his fellow-workers were similarly affected. I saw a number of them and found exactly the same state of matters. In each case improvement followed cessation from work, and in each case the illness reappeared when work was resumed.

The history of the illness was sufficient to satisfy me that the cause was some irritant in the dust arising from foreign wood with which the men were working at the time—East Indian satin wood.

I consulted an eminent professor interested in diseases of the skin, and he corroborated my previously-expressed opinion that the cause was due to something connected with the wood, and suggested that the men should paint the exposed parts with a preparation of gelatine. Some of the men preferred going idle; one or two went to work elsewhere and got along without any further trouble.

Within the last few weeks another outbreak, almost identical with the foregoing, has come under my notice. It occurred in another Govan joiner's shop where five of the men working with satin wood have been affected. Three of these have had to cease work; the other two, not being so bad, are still at business.

As in the first outbreak, so with this, the exposed parts are those affected. The men state that they first experience a feeling of irritation on the skin, that later on the parts become hot and red, and subsequently become swollen and uncomfortable, and although not painful, sufficient to keep them off their shop. This is followed by moisture and complete desquamation of the skin over the affected parts.

The first attacks are rather slow in its onset, but relapses come on with great rapidity.

One of the men, a joiner of about 40 years of age, tells me that he was handling satin wood for about six weeks before he had to discontinue his work. Having remained off work for some time he made a fair recovery and again made a start, but was only able to remain at work for three days. He kept off work for eleven days more, and then made another attempt, but was only able to continue on duty for two days. After another interval of ten days' illness he again resumed his work, but had to discontinue in two days. For ten days more he went about idle, then entered the shop once more, but had to cease work after three and a half days. Since then he has remained idle.

Another subject, 30 years of age, stated that he commenced to feel uncomfortable one month ago, but was able to continue at work for two weeks, after remaining off duty for nine days he made a start, but was compelled to cease in seven hours, and has not since tried to resume his work.

Assuming that the satin-wood dust be the cause of the dermatitis the question may be asked: Why are not all the men who work with it similarly affected? My answer is, that some skins are more easily irritated than others, and that probably those affected were of that type. This is practically borne out by the fact that three of the subjects who came under my notice showed slight traces of eczema.

The speedy recurrence of subsequent attacks is accounted for by the fact that the skin having desquamated, the new skin would be more easily irritated than its predecessor. And as this occurred again and again the parts would be more easily irritated with each subsequent attack.

As regards treatment, it has been suggested that the men should remain off duty till the epidermis is fairly strong, and that then vaseline or some oily substance should be smeared over hands and face, and allowed to remain there while the men were at work in the joiner's shop.

As an alternative, the men might seek a job in the open air or else in another establishment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

INTRAUTERINE INFECTION OF THE FETUS IN SMALL-POX.

IT is stated that children born of mothers suffering from small-pox usually show signs of the disease at birth or so soon after birth as to warrant the conclusion that they received the infection while still *in utero*. Of the former none have come under our observation; of the latter we have seen the following three cases:

No. 1. The child was born on December 24th evening, 1902, and the eruption of small-pox appeared on the morning of January 3rd, 1903. The attack was confluent, and the child died on January 11th. It was unvaccinated. The mother had an overlooked attack of small-pox, having sickened on December 2nd, and the eruption having appeared on December 24th.

No. 2.—The child was born on June 25th, 1903, and was vaccinated the same day. The mother had sickened with a discrete attack of small-pox on June 25th, date of rash being June 26th. The child's vaccination took well, but on July 3rd the rash of severe discrete small-pox appeared, and the child died on July 15th.

No. 3.—The child was born on April 14th, 1904. The mother sickened on April 12th and died on April 16th, the dark purpuric rash of purpura variolosa having appeared on April 14th. The child was vaccinated on April 16th, but although this was successful the rash of discrete small-pox appeared on April 21st.

Taking the interval between infection and the appearance of the rash as the usual one of fourteen days, it follows that in the first case the child must have been infected on or about the date of onset of the mother's illness and three or four days before birth; in the second case six days before the onset in the mother and seven days before birth; and in the third case five days before the mother sickened and seven days before birth. These children were all born about full time.

Two other cases are of interest in this connexion. One was that of a woman in the seventh month of pregnancy who developed a discrete attack of small-pox. She was discharged from hospital about a month after admission. The child was born about a month after discharge, and showed no signs of having had small-pox, and in addition it was successfully vaccinated. Thus there was no immunity conferred on the child by the mother's attack. The other, a 5-months fetus born in the fourth week of the mother's illness, showed no signs of small-pox.

The five cases mentioned above include all the cases of which we know, in which variola attacked pregnant females. They seem to bear out McCombie's statement that the liability of the fetus to small-pox appears to increase directly with its age.

JAMES M. COWIE, M.D., D.P.H.,
DUNCAN FORBES, M.D., B.Sc.,
Assistants to the Medical Officer of Health, Manchester.

EMPHYSEMA IN A CHILD.

ON February 2nd, 1904, I was called to see D. E. F., a child aged 1 year 10 months, which had been ill for three days with sickness, rapid breathing, and occasional cough.

No food had been retained, but the bowels had acted once or twice since the commencement of vomiting, and the stools were normal. The first glance at the patient gave the impression that she was suffering from pneumonia with a failing heart, and death appeared to be imminent. Temperature was subnormal; respirations about 40 per minute; the pulse 160 per minute; there was little or no movement of the ribs, though the diaphragm was moving freely, and there was marked epigastric pulsation. The face and lips were pale and cyanosed, the expression anxious, and the eyes dim. On examining the chest I found to my surprise that the lungs were everywhere fully resonant, and the cardiac dullness imperceptible over the ordinary area. Some fine crepitations could be heard at the bases of the lungs, but no rhonchi. Strychninæ gr. $\frac{1}{30}$ with 1 m of brandy was at once injected hypodermically, and the child rallied somewhat, the pulse becoming fuller, while the pallor gave place to a cyanotic flush. Thinking there might be some bronchial obstruction, I then gave two teaspoonfuls of ipecacuanha wine and placed a mustard poultice over the cardiac area with a view to relieving pressure within the right ventricle. The child then coughed and vomited freely, but the respirations did not change in rate or character. The temperature was subnormal. The following treatment was ordered: Peptonized milk 1 oz with brandy 1 drachm by rectum every two hours, and one teaspoonful of peptonized milk by the mouth every quarter of an hour unless the child slept. On the following day the condition appeared somewhat better; the pulse had improved, being only 140 per minute, but respiration continued as before and the physical signs were unchanged. The child had spoken one or twice, and nearly all the food had been retained, while she had slept a little at intervals. Food was now given more freely by the mouth, and the rectal feeding was ordered at four-hour intervals.

Necropsy.—On the following morning, February 4th, at about 9 a.m., the child died, and in the afternoon of the same day a necropsy was made. On removing the sternum the lungs bulged forward and were seen to be pale and typically emphysematous in appearance a lobule of the left lung overlapping the upper part of the pericardium. Further examination showed that the emphysema involved the whole of both lungs except for a few patches of collapse. On pressure with the hand they were found to be soft, non-elastic, and slightly crepitant. There was no marked oedema at the bases, nor was there any pleuritic or pericardial effusion. The bronchi contained a little muco-purulent material, but there was no sign of tracheal obstruction, nor were the bronchial glands enlarged. The right auricle was distended and contained *ante-mortem* clot, but the ventricle was contracted and empty. The heart in all other respects appeared to be quite normal.

REMARKS.—So far as could be ascertained the sole cause of death appeared to be the extreme condition of emphysema from which the child was suffering, rendering impossible, as it did, any effective interchange of air in the pulmonary alveoli. There was no subcutaneous emphysema. I had attended the child on two previous occasions when it was suffering from bronchitis with blocked bronchial tubes, and on each occasion an emetic of vin. ipecac. had relieved the symptoms immediately, while during the interval the child had seemed strong and healthy. I have ventured to report this case, as it seemed a very uncommon one, and I do not remember seeing or reading of any other exactly similar. What should have caused so extreme a degree of emphysema is difficult to conjecture. The elasticity of the pulmonary tissue must doubtless have been below normal, but it can scarcely be supposed that the degree of dilatation found at death had existed for more than a few days. Idiopathic emphysema is a strange term, but there is certainly a temptation to apply it in this case.

Felixstowe. G. J. CONFORD, B.A., M.D., B.Ch.Oxon.

ECTOPIC GESTATION: EARLY DIAGNOSIS: OPERATION: RECOVERY.

MRS. A., aged 23, married early in August, 1903, was quite regular up to the middle of September. About the middle of October, at the usual time, she was unwell, but only for one day. I saw her first on October 30th, when she complained of flatulence and other symptoms of dyspepsia. On November 8th I was called to see her, because, while taking supper, she was seized with a sharp pain in the lower abdomen, and felt rather faint. I saw her half an hour after this; she was not faint at that time, but complained of a good deal of pain. The next day she said that she was unwell and had passed several clots of blood. I examined all that had passed, but could find nothing particular. I also made an examination of the patient, but as she was very sensitive I could not make out anything unusual in fact, I could only just reach the os. She continued to pass blood for about five days. At the end of ten days she got up, feeling quite well.

On November 25th, that is to say, seventeen days after her first attack of pain, I was sent for to see her as she, whilst walking quietly with a friend, got a very sharp pain in the lower part of the belly and felt and looked very faint, and had to be driven home (less than half-a-mile). I arrived at the house before she did. On arrival she had quite got over the faintness, complained of pain, not acute, in the belly, and was able to walk upstairs and get into bed unaided. I examined her but could detect nothing, but urged that she should be examined under an anaesthetic.

The next day, November 26th, Dr. F. Carey having got her under chloroform, I was able to make a careful and thorough examination. The os was rather high up and the uterus pushed rather to the right side. A small round tumour about the size of a large walnut was felt to the left of the uterus, and quite distinct from it; it was quite movable. I diagnosed

[illegible] the pains to relieve and [illegible] I would be inclined [illegible] Mrs. A. was removed to the Coffee Hospital, and the [illegible] I was assisted by Dr. [illegible] and Dr. Percy. On opening the [illegible] nearly a small quantity of serum had escaped, slightly tinged with blood. I then passed the [illegible] with forceps in an oblique position. The [illegible] point of opening was at the upper part, in fact it protruded [illegible] was presenting. The cyst was situated at the inner [illegible] of the left fallopian tube, and was quite [illegible] from [illegible] uterus and the outer end of the tube. The [illegible] progress of the case was uneventful.

[illegible] diagnosis of extra-uterine gestation to [illegible] to diffuse. One great difficulty in this case was the fact that the patient was quite unaware that she was pregnant, as she had been regular until up to the time of the first attack of pain. My suspicions were first aroused by this attack, and I feel sure that if I had given her an anæsthetic at that time that I should have diagnosed the case eighteen days earlier than I did.

[illegible] E. Lavarie Robinson.

HYPODERMIC INJECTION OF QUININI SULPHAS.

It may interest some to know that I find that ordinary quinine sulphate mixed with about one and a half times its own weight of cocoa makes a suitable mixture to inject under the skin of the natives here to lessen the malarial [illegible]. A mosquito biting it to get a drop of quinine after injection takes about three and a half months to absorb. During that time I have failed to find malarial parasites in the children on whom I have tried this mixture.

I have asked Messrs. Allen and Hanburys to make a suitable syringe, as certain difficulties arise with an ordinary syringe, especially in the tropics. But an ordinary metal hypodermic syringe will suffice.

The mixture of quinine and vaseline should be pressed into a glass tube of the same calibre as the syringe, the tube then sealed and placed in boiling water for fifteen minutes; the mixture can on cooling be easily pushed into the syringe. A screw to close down the piston of the syringe is an advantage.

The whole proceeding must be done under aseptic precautions, and the puncture closed with collodion or some similar substance. It is wise, I think, to give at the same time a dose of quinine by the mouth or an intramuscular injection of the same drug. A quantity 5 c.c. is the maximum at which the mixture can be used. I have used doses to be kept most slowly, when passing from a liquid to its semi-solid condition. A small amount of blackening of the subcutaneous tissue is left after injection.

I have not at present sufficient data to say to what extent the mixture would act as a preventative of malarial [illegible]. The left side of the abdomen near the [illegible] is the most convenient position.

C. F. Dawes, M.R.C.S. Eng., L.R.C.P. Lond., [illegible]

PUERPERAL ECLAMPSIA TWICE IN THE SAME PATIENT.

I was [illegible] on Mrs. A. E. When [illegible] I found her in a [illegible] and drowsy condition [illegible] unconscious. Her history [illegible] when pregnant by the [illegible] had been [illegible] difficulty [illegible] urine for three [illegible] had passed almost [illegible] had [illegible] excellent health [illegible] felt perfectly well [illegible] going to bed that night.

[illegible] about seven [illegible] pregnant [illegible] Mr. [illegible] to have about the [illegible] difficulty [illegible] chief [illegible] off [illegible] the [illegible] of [illegible] dose [illegible] and [illegible] opened the [illegible] bottle [illegible] While I was examining the patient she was seized with a very severe attack of [illegible] so I gave her a hypodermic [illegible] as soon as possible placed two drops [illegible] on the tongue, and prepared to give a wet pack. While the necessary things were being got ready she was again [illegible] so chloroform was administered. I forgot to say, however, that whenever the patient came from under the influence of the anæsthetic she became very restless, and was with great difficulty controlled; moreover, the attacks followed each other rapidly. Dr. Rice, for whom I had sent, now arrived, so we kept the patient fully under the chloroform, and, after some trouble, delivered her of a stillborn baby. Shortly after the placenta was expelled, and the effects of the anæsthetic had begun to pass off, she was seized with a most severe fit, the heart's action apparently ceasing [illegible] for several seconds we thought she was dead. However, she rallied, and from this on there was no repetition of the attacks. Her after-progress was all that could be desired, and the albumen disappeared at the end of three weeks.

I have to thank Dr. Rice for his kind assistance in this case, in which, although the attacks were not excessively numerous, still each seizure was a terribly severe one.

I need only add that there was no uncertainty about the nature of the previous illness. The patient's mother gave me such an accurate description of her daughter's former confinement as to leave no room for doubt regarding the genuineness of the convulsions. The case seems worth reporting because it has been stated, and I believe on good authority, that one attack of puerperal eclampsia confers future immunity.

A. E. McCann, L.R.C.P.I. & S.I.

[illegible] Queen's Co.

"KIDNEY COUGH."

Whilst reading Dr. Smith's interesting paper on Cough and its significance, in the British Medical Journal of May 28th, there was one sentence which particularly arrested my attention, namely, "I know nothing about the kidneys or organs below the stomach giving rise to cough."

I should like to complete the anatomical picture, as I had a case of "kidney cough" some time ago. The patient, a female, aged 35, came to see me for pain over the lower ribs, on the left side, and cough. The pain was not severe, but the cough—which had lasted for six weeks—was one of such intensity and severity that it made a marked impression on the patient's mind, as well as on the mind of those who saw her. It literally never ceased night or day.

On examining the patient nothing was found wrong with lung or pleura; there was a mass in the left loin. I performed nephrectomy, and evacuated a very large primary abscess (18 oz. pus), still surrounded by kidney tissue and capsule. There was a great mass of sound kidney remaining. The sinus closed, and there was no more trouble with the cough.

The cough had its anatomical explanation in the fact that the right pneumogastric sends numerous branches to the left renal plexus.

[illegible] J. Stewart.

HEREDITARY DEFORMITIES.

Dr. Hill's interesting contribution on supernumerary digits reminds me of an infant born here a year ago—a female—minus the left hand and lower third of forearm, whose great-grandmother was born with the same deformity, the males and females of intervening generations being in every way normal.

[illegible] D. S. Macdonald, M.B., C.M.

Life on the West Coast of Africa.—The climate of the West Coast of Africa has always been renowned for its deathliness, and much has been written concerning it in the medical and lay press. The Gold Coast Leader has recently published an article by a correspondent on the life and its risks there. Special emphasis is laid on the poor condition of the dwellings in which Government officials have to reside, and the want of opportunities for relaxation and amusement. There is a considerable amount of truth in some of the statements, but after all, one must remember that the pay is high and leave is better than in other tropical colonies. Much of the disease which used to exist can now be avoided if people will follow out a careful system of prophylaxis based on the recent researches into the etiology of malaria, and there is not the slightest doubt that the salubrity and health of the coast is increasing year by year.

[illegible] British Medical Journal, May 28th, 1904, p. [illegible].

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

LAWRENCE MILITARY ASYLUM, SANAWAR, PUNJAB.

CASE OF CONTINUED FEVER WITH LEISHMAN-DONOVAN BODIES.

(From Notes by the Medical Officer, Captain J. G. SWAN, I.M.S.

THE following are the notes of a case of splenomegaly with continued fever, in which Leishman-Donovan bodies were found in the spleen and liver. The patient was a boy 8 years old, who was born in Calcutta, and had lived most of his life in Lower Bengal. He had had several attacks of supposed malarial fever previous to admission to this asylum; the last attack in September, 1903, lasted for six weeks altogether: since then he has been quite well. I was unable to ascertain if the diagnosis of malarial fever was confirmed by the finding of malarial parasites in the blood. I admitted him into hospital on January 20th, and examined his finger blood several times, but found no malarial parasites.

At intervals of seven days that is, on February 28th, March 5th, and March 12th, I tested his blood serum by Widal's reaction for both typhoid and Malta fever, with negative results. I then punctured his spleen four times—on February 23rd, February 27th, March 8th, and March 10th: on the last occasion I drew off some blood from the liver also. The films were stained by Leishman-Romanowsky stain. I also inoculated one agar tube with blood the second time I punctured him; no growth resulted. On the first occasion no bodies were found in the film: on the other occasions numerous bodies were found. They were oval in shape, with a distinctly marked capsule; the matrix stained a faint blue, the spherical nucleus a ruby red, and the rod-shaped centrosome ruby red also. They were of different forms: (1) Discrete bodies resembling Fig. 1 of Manson and Low's diagram in the BRITISH MEDICAL JOURNAL of January 23rd, 1904, with the rod-like centrosome at right angles, or parallel to the spherical nucleus, which was at one side of the capsule: (2) a few were joined in groups of two and three: (3) in one spot I found about 20 of these bodies lying in a granular mass of faintly-stained protoplasm; (4) four of the bodies were lying around, and seemingly attached to, the outer membrane of a pale blue cell, in which no bodies were present: this, I take it, was a later stage of the rosette form depicted by Manson and Low in Fig. 5 of their paper; in several cases the bodies were found contained in phagocytes, in one phagocyte I observed 11, in another 9, and in another 3. In the liver films the bodies were all separate. The puncture of the spleen seemed to have a beneficial influence in reducing temperature for about twenty-four hours.

History.—The father of the patient died last year, cause of death unknown; the mother is a Eurasian. Personal history: the patient has had several attacks of malarial fever, the last terminated in October, 1903. He was admitted to the Institution on January 18th. He was very anaemic and badly nourished; there was no oedema of extremities, the skin was harsh and dry, his temperature on admission was 101°, the tongue clean at tip and edges, dirty at centre, the bowels regular: the liver extended 2 in. below the margin of the ribs, this enlargement, which affected chiefly the right lobe, was smooth and not painful, the spleen reached to within 1 in. of the umbilicus, and was not tender; the heart and lungs were quite healthy.

The patient was kept in bed, and put on milk diet, his temperature remained above normal for about twenty days, so quinine was given by the mouth, but without effect: it was then given hypodermically, still with no effect; then sodium salicylate was tried. On February 23rd his temperature fell to normal for the first time for five weeks. His blood count on March 12th was as follows:

Red corpuscles, [illegible] per cmm.	Large mononuclear, [illegible] per cent.
White corpuscles, [illegible] per cmm.	Lymphocytes, [illegible] per cent.
Haemoglobin Fleischl's hemoglobinometer, 20 per cent.	Coarse-grained eosinophiles, [illegible] per cent.
Polynuclear leucocytes, 2[illegible] per cent.	Basophile, [illegible] per cent.

In conclusion, I have to express my thanks to Lieutenant-Colonel Semple, R.A.M.C., and the staff of the Pasteur Institute, Kasauli, for kindly looking over my films and confirming my diagnosis of the presence of these bodies in the blood.

LEICESTER INFIRMARY.

A CASE OF RUPTURED BLADDER AND EXTRAPERITONEAL HERNIA.

(By F. BOLTON CARTER, M.S.Lond., F.R.C.S., House-Surgeon.)

A MAN, aged 34, was brought from Market Harborough (eighteen miles) to the Leicester Infirmary on April 27th, 1904, about 11 p.m., with the history that a sack weighing about 2 tons had fallen on to his left side about 6 p.m. the same day.

Condition on Admission.—He was very collapsed and complained of pain about the sacrum and coccyx. He had passed no urine since the accident, but a little dried blood was present at the end of the penis. There was a simple fracture of the upper end of the right tibia. No mobility or crepitus could be made out on careful palpation of the pelvic bones, and this caused no pain, although marked tenderness was present over the lower part of the back. There was some dullness above the pubes and a desire to micturate, which patient was told to repress. A ruptured urethra was suspected, and a catheter was carefully passed with slight difficulty and tied in, having drawn off several ounces of blood-stained urine.

Progress.—The next day the catheter was not draining the bladder properly, the eye constantly getting blocked with blood clot, and dullness above the pubes resulting. An extraperitoneal rupture of the bladder was now diagnosed, and a suprapubic opening was made under ether by Mr. C. J. Bond, under whose care the case was admitted, when a good deal of blood-stained urine was found in the prevesical space, issuing from a rent in the anterior surface of the neck of the bladder. The urethra was opened in the perineum by cutting on to a metal catheter passed from the suprapubic wound and a small lithotomy tube introduced into the bladder, while the prevesical space was freely drained. No crepitus or undue mobility of pelvic bones was detected at the operation.

Progress.—The bladder drained well, and next day patient seemed better, although during the night he had much pain, necessitating the administration of morphine. On the following day, April 30th, his condition appeared greatly improved, but on May 1st, about 8 a.m., he had sudden acute pain in the left side of his chest and abdomen, followed by collapse, cyanosis, and death at [illegible] a.m.

Necropsy.—Marked hyper-resonance was noticed over the left side of the chest, with absence of cardiac dullness. On opening the abdominal cavity there was a small quantity of free blood in the peritoneum, and the left side of the diaphragm was seen to be bulging down tensely in front. Neither stomach nor transverse colon could be seen. The sternum and costal cartilages being carefully removed the left pleural cavity was found to be occupied by the stomach, transverse colon and [illegible] of jejunum, the left lung being pressed up into the apex of the cavity, and quite collapsed, while the pericardium and heart were pushed over to the right. In the diaphragm was a rent extending from the oesophageal opening forwards and somewhat to the right, large enough to admit the closed fist, through which the abdominal viscera had passed. Careful examination of the pelvis disclosed a fracture through the distal end of each pubic ramus, so that the entire pubes was completely separated from the rest of the pelvis. No fracture of the posterior part of the pelvis could be discovered. The other organs were uninjured.

REMARKS.—Whether the catheter passed on admission went into the bladder or into the prevesical space is difficult to say—probably the latter from its constant blocking with blood clot. The effusion of blood and urine in front of the bladder gave all the signs of a distended bladder. The abdominal viscera could only have passed into the pleural cavity shortly before death, but the tear in the diaphragm was probably made at the time of the injury, although possibly the rent was not complete, but gave way later during some straining effort of the patient. No signs of intestinal obstruction were ever present.

RAILWAY HOSPITAL, NAIROBI, EAST AFRICA.

A CASE OF LIVER ABSCESS.

(By A. R. SILVERING, L.R.C.P. and S.Edin., late Senior Medical Officer, Uganda Railway.)

K., an Indian coolie, was admitted into the Railway Hospital at Nairobi, East Africa, on April 16th, 1903, complaining of "fever" and of pain in the hepatic region.

Condition on Admission.—His tongue was covered with fur. There was tenderness over the whole of the anterior surface of the liver. This viscus was enormously enlarged downwards and to the left, a tumour being easily reached on the splenic region. Slight jaundice was present. The spleen was slightly enlarged. Pulse 120, thready and intermittent. Temperature normal. He had had two attacks of dysentery, three months and three months ago respectively, and recently he had been in another railway hospital for malaria. He was evidently very ill

[illegible] was ordered a tonic [illegible] with [illegible] and [illegible] to be applied to the abdomen. The temperature [illegible] and remained above [illegible] for the next few days. There were [illegible] against [illegible] and [illegible] was given by the rectum. During the [illegible] the [illegible] the left costal margin. The [illegible] and [illegible] was [illegible] was [illegible] and the [illegible] was [illegible] and [illegible] was [illegible] and [illegible] was [illegible] and

is found to spread upwards to the peritoneum is not more than about 5 per cent. Still, shrieks which call attention to an evil are sometimes useful, even if their shrillness and repetition are out of proportion to the magnitude of the damage. Dr. Morrow's book may do good in preventing those who read it from forgetting the latent possibilities of gonorrhoea and syphilis.

A review of the first edition of *Practical Gynecology*[1] appeared in the BRITISH MEDICAL JOURNAL for November 23rd, 1901, and we may congratulate Dr. MONTGOMERY on the publication of a second issue within a relatively short space of time. It is a very solid treatise of high value to specialists and teachers. The arrangement of the text is original, division into chapters is avowedly discarded, and in this edition many changes have been made in the separation of subjects into sections, which experience has led the author to believe to be beneficial to the student. One of these alterations consists in placing the injuries incidental to parturition under the heading of "traumatisms," so strong is the tendency amongst contemporary writers on gynaecology to amalgamate obstetrics and surgery. The illustrations, good in the former edition, have been greatly improved, several errors being corrected, whilst the microscopic drawings are far superior to those which appeared in the first issue. The new technical methods of illustrated journals, well suited for portraits of celebrities and beauties, are not always so satisfactory when applied to the teaching of normal and morbid histology; the author was therefore judicious in preferring good drawings. We agree with him in commending the excellence of Miss S. L. Clark's and Miss Karin M. Hall's drawings of microscopic sections. They "show," as a tutor or demonstrator would say; many photomicrographs in current textbooks show nothing owing to defective printing and not to faults in the original block. Educational diagrams like Nos. 421 and 422 are of importance and in these two instances fairly instructive, but we hope that in a future edition the author, instead of importing drawings from the works of Auvard and Courty, will replace them by original sketches from his own preparations. It is highly advisable that the student should thoroughly master the distinction between intraperitoneal and extraperitoneal pelvic haemorrhages. Illustrations of Doyen's hysterectomy have been introduced; it is rather a dangerous operation to teach, but this work is largely for experienced gynaecologists. Lastly, our readers will be interested in Dr. Montgomery's opinions about ventrifixation "and ventrisuspension" in respect to recent correspondence in our columns. He admits that the operation is not without danger, and refers to cases of fatal strangulation of intestine. Ventrifixation certainly gives benefit when properly done, but as to what is the best method authorities differ.

The first edition of Dr. JELLETT'S *Short Practice of Midwifery*[2] was noticed in the BRITISH MEDICAL JOURNAL of January 19th, 1901. The main features of the book remain as they were. It is clear and readable, but the author has not yet reached the point of deciding for himself between different "authorities;" he is still under the influence of his teachers. He still talks about the uterine canal being flexed at an angle, although no such thing has ever been seen except in a diagram, and he thinks the effect of adhesions in pulling the uterus this way or that is important. Nearly half the book is descriptive of operative methods, and the author describes different ways of doing the same thing, labelling each by a special name. Thus he gives three ways of mending a ruptured perineum, all essentially the same, differing only in trifles; and two ways of amputating the uterine body, which differ only in the order in which the different steps of the operation are taken. We would suggest that in his next edition he should give one method only, and that the method which he has himself found best.

[1] *Practical Gynecology. A Text-book for Practitioners and Students of Medicine.* By E. E. Montgomery, M.A., LL.D., Professor of Gynecology, Jefferson Medical College; Consulting Gynecologist to the Philadelphia Lying-in Charity. Second edition. London: Bailliere, Tindall, and Cox. (Demy 8vo, pp. 900, with 525 illustrations. 20s. net.)

[2] *A Short Practice of Midwifery.* By Henry Jellett, M.D., etc., Ex-Assistant Master, Rotunda Hospital; Examiner in Midwifery, Royal University of Ireland and Royal College of Physicians, Ireland. Second edition. London: J. and A. Churchill. 1903. (Demy 8vo, pp. 400; 225 illustrations. 10s. 6d.)

[3] *A Text-book on Gynecology.* Edited by Charles A. L. Reed, A.M., M.D., Professor of Clinical Gynecology in the Medical Department of the University of Cincinnati, etc. Second edition. New York and London: D. Appleton and Co. 1904. (Demy 8vo, pp. 1000, with 926 illustrations. 21s. net.)

The *Textbook of Gynecology*[3] edited by Dr. CHARLES A. L. REED, is, as we observed in a notice of the first edition, a "system" made up of essays by the author and thirty other contributors. The book has proved a success; one peculiarity about it is the practice adopted by the editor of placing a full quotation from the text under each drawing. Thus, under Fig. 145, instead of the simple inscription "Perforation of Uterus," we find: "W. E. Ashton reports an interesting case in which . . . . a false passage was made from the internal os through the anterior uterine wall." The inverted commas applied to a passage taken from the writer's text close by seem unfamiliar in a scientific book, though often seen in works of travel and fiction; but passages explain better than titles. Myomectomy is not recommended, but there is little new matter in the present issue excepting revised details about treatment and methods of operating. The edition has not been made too bulky. Altogether the *Textbook* deserves the success which it has attained.

FORENSIC MEDICINE.

IN *Les intoxications*,[4] by M. BROUARDEL, arsenical, phosphorus, copper, mercury, and lead poisoning are discussed at considerable length. The subject of poisoning generally—criminal, accidental, and industrial—is fully reviewed. The author devotes 176 pages of the 516 in the book to arsenical poisoning. In the historical account he mentions that arsenic was not employed by the Greeks and Romans, and that it was in the Middle Ages it first came to be used as a poison. The metal has long been employed as a vermin destroyer. An interesting point is that rats seem to take cognizance of their diminishing numbers when thus poisoned, and emigrate into other parts of a town not so infested. In dealing with the channels by which arsenic gains entrance into the human body the alimentary canal is usually that which is resorted to for criminal purposes. It is also that by which accidental poisoning may occur, as witness the contamination of bread at Wurzburg, where 373 cases of poisoning occurred in consequence of the addition of arsenious acid to flour, also the cases reported by Taylor, in which 340 pupils were poisoned by eating bread. Mention is made of the epidemic of acrodynia in Paris in 1828, during which 40,000 persons are said to have suffered. Acrodynia is a painful affection of the extremities accompanied by swelling, and while at the time the malady was not explained it was subsequently demonstrated to have been due to drinking wine contaminated by arsenic. The epidemic resembled that which broke out in the Midlands in 1900, and was shown to have been due to the presence of arsenic in beer. It is seldom that we hear of arsenic being used for the purposes of procuring abortion, but Brouardel states that in Austria it has been resorted to by the laity for this purpose, and as the method consisted of inserting arsenious acid into the vagina, it is at once apparent how serious must have been the effects, both local and general. The genitalia became swollen and gangrenous, uncontrollable vomiting was induced, followed by enteritis, and death occurred before abortion could take place. The subject of industrial poisoning by arseniated hydrogen is dealt with, and the symptoms of haematuria and haemoglobinuria to which Dixon Mann and Clegg drew attention are mentioned, as well as jaundice due to the breaking-up of the red blood cells. The three cardinal symptoms of acute arsenical poisoning are vomiting, diarrhoea, and abdominal pain. Vomiting has supervened as early as five minutes after the drug has been swallowed. The lesions of the skin and nervous system are all fully dealt with, and a differential diagnosis is made between alcoholic, lead, diphtherial, and arsenical paralysis, while the various medico-legal questions that may arise in arsenical poisoning are carefully considered and ably handled. This part of the book is an important contribution to our knowledge of the subject. In dealing with phosphorus poisoning Brouardel observes that everything that is phosphorescent is not phosphorus, and mentions that decomposing animal tissues may become luminous, adding that this is prevented in the bodies exposed to public view in the Morgue by refrigeration. Industrial phosphorus poisoning and necrosis of the jaw receive adequate consideration. Acute poisoning by phosphorus is not always easily recognized when jaundice has developed, although by some physicians a diagnosis is attempted on the depth of the tint of the jaundice. In acute yellow atrophy of the liver it is well to remember that this organ is small from the first, whereas in phosphorus poisoning it is primarily

[4] *Les intoxications.* Par P. Brouardel. Paris: J. B. Bailliere et Fils. 1904. (Demy 8vo, pp. 516. Fr. 12.)

enlarged and then undergoes contraction. Extreme fatty degeneration of the liver is revealed by the microscope as not always a proof of phosphorus poisoning, although admittedly the usual consequence for in diphtheria the hepatic cells may undergo a similar change. Several pages are devoted to the study of copper and mercuric poisoning, but it is to lead poisoning that most of the remainder of the text is devoted. Poisoning by metallic lead is not very frequent, and yet the author gives some very interesting examples of it. The methods of absorption and elimination of lead compounds as well as such chemico-pathological questions as the organs of the body in which lead is found after death, are fully discussed. The chapter devoted to the symptoms of saturnine poisoning is an excellent piece of work. The evil effects of lead upon maternity, and upon the human offspring are stated. In a Prussian valley where the parents are employed in pottery works many of the children are said to suffer from saturnine cachexia. During the first five or six years of infantile life the mortality reaches as high as 8 per cent., and of the children who survive some are the subjects of hydrocephalus or micrencephalus. Brouardel, like his compatriot Constantin Paul, and our own countryman Thomas Oliver, is of opinion that those industries which expose to lead poisoning are not only unhealthy for women, especially when pregnant. The book closes with an appendix, in which illustrative cases of poisoning by the metals discussed are given in detail, also a table of the trades wherein lead is employed, the special process stated in which the metal is used, the mode of entrance into the human body, and the name of the lead compound. Altogether *Les Intoxications* is an interesting work, and a comprehensive study of metallic poisoning. It fully sustains the reputation which M. Brouardel has gained, not only in his own country but on the part of the Continent as well.

Both volumes of the *Text-book of Legal Medicine*, edited by Drs. Dwight and Haines,[1] have now been issued and form a substantial and well-printed book. The illustrations are not so numerous as is frequently the case in works coming from the other side of the Atlantic, but they are quite sufficient, and have been well selected, being chiefly drawn from Hofmann's *Atlas of Legal Medicine*, issued by the same publishers. The scope of the editors has evidently been to provide a book which should be equally useful to both the legal and medical professions, not only as a text-book, but also as a work of reference, and one of the most interesting chapters is that written by the editors upon expert evidence. This is, in fact, a philosophical essay in which the authors discuss the difficulties and dangers that beset the path of the witness, and the many pitfalls and difficulties that lie in wait for those who have to hear and decide weighty matters upon the evidence that the expert gives. The following list of the chief causes of error is interesting and suggestive: (1) Deliberate fraud in the form of quackery; (2) wilful perversion of facts to support a foregone conclusion; (3) subjective errors through limitations and defects of the senses; (4) limited horizon through defective experience and education; (5) insufficiency of the data; (6) faulty examination of evidence under influence of the emotions; (7) the human tendency of the mind to complete its impressions; (8) the tendency of the mind to consider coincidence as necessarily implying causality in interesting a mystery. The examination of the dead body is complete and comprehensive, special attention being given to the importance of making sufficient search for the restoration of the body when it has been concealed. Questions concerning rigor mortis, post-mortem lividity, and cadaveric changes all receive full attention, the phenomena accompanying putrefaction being carefully described. The impression of wounds and marks resulting from shooting is perhaps somewhat perfunctorily dealt with, though it is true that large amounts of this practice are not to be found in reality in the courts of law, and other facilities seem to afford sufficient opportunity for the student to acquire experience in the matter. The chapter dealing with poisons is very complete, and it is to be regretted that more space was not devoted to the consideration of the physiological action of the various drugs. The chapter on death and its causes caused by lightning and electricity is excellent, and is the fullest account we remember to have seen of this subject upon legal medicine. Another subject which is extremely well handled is that of the general appearances, special attention having been devoted to the importance of [illegible] Information as to the proximity of the weapon is obtainable from the character of the wound and the burning and tattooing of the skin. The different cases that so constantly arise in connexion with railway and other accidents, and the thorny subject of traumatic hysteria, are fully considered, and the conclusions drawn are for the most part sound. Life and accident insurance receive full and necessary attention, and such matters as the disorders of speech, the relationship of insanity to will-making power and crime, and the medico-legal aspects of degeneracy, are thoughtfully discussed, and insanity, obscure and mental perversions are adequately dealt with. Much consideration is naturally given to subjects, the importance of which is greater in the United States than in England; thus malpractice, the law of divorce, and the varying statutes in the different States regarding lunacy are all dealt with at length and with a fullness of detail which would be quite unnecessary in a book written in this country. On the other hand, the sections treating of pregnancy, abortion, infanticide, and rape, though containing the essentials, might be amplified with advantage. The second part of the work occupies rather more than two-thirds of the second volume, and deals with toxicology and the examination of blood stains. The more important poisons are discussed, and in most instances fairly fully, this part, however, is by no means exhaustive, and in some cases there are even somewhat surprising omissions with regard to important facts. The illustrations in this section are exceptionally good and interesting. Chapters are included on the *post mortem* imbibition of poisons, on death from pounded glass, and other mechanical irritants, and on the responsibilities of pharmacists and their agents. On the whole the work is comprehensively planned, carefully arranged, and well executed, and will form a valuable addition to the already somewhat large number of books that at present exist on the subject of forensic medicine.

Dr. Lesser, the well-known Professor of Medical Jurisprudence in Breslau, has now issued two more series of plates, each consisting of fifty stereoscopic photographs in illustration of medico-legal cases. They fully maintain the high standard of the first fifty; they are well selected, carefully photographed, and, when viewed through the stereoscope, present most vivid and realistic pictures of various conditions met with in suicidal and homicidal injuries to the regions dealt with, the tongue, the larynx, the neck, the chest, the blood vessels, and the abdomen. The earlier plates represent marks on the neck, which have been produced by hanging, scratching, and stabbing; injuries to the tongue are next dealt with, then those affecting the larynx and the neighbouring parts are portrayed. Finally, there are a series of most interesting and valuable photographs of conditions in the heart and lungs, resulting from wounds, embolic infarction, and malignant endocarditis, injuries to the heart and large vessels, and to the abdominal and pelvic organs, including the uterus. Increasing use is being made of stereoscopic plates in the illustration of subjects, in which the opportunities for actual observation are of necessity limited, and when the photographs are as well executed as are those in Dr. Lesser's *Atlas*, important help to the student is undoubtedly afforded in enabling him to gain a more realistic impression of the subjects depicted than would otherwise be possible. The value of the illustrations is enhanced by brief descriptions of the important features of the cases from which the photographs have been obtained.

About fifty pages have been added to the third edition of Dr. Chapman's *Manual of Medical Jurisprudence, Insanity and Toxicology*, but it is still far too brief to be of any great practical value either to the medical or the legal practitioner. It may be of service to the American student in giving him a general idea of the principal facts of the subject, but it cannot be recommended to Englishmen, for legal practice in the United States differs in so many respects from that in either England or Scotland, that its perusal would only lead to confusion and uncertainty in regard to important matters of detail. In many respects, too, there is a singular absence of perspective, for whilst the methods for the measurement of blood corpuscles and the early stages of development of the embryo are treated at some considerable

[1] *A Text-book of Legal Medicine and Toxicology*. By Thomas Dwight, M.D., and W. S. Haines, M.D. In two volumes. Philadelphia and London: W. B. Saunders and Co. 1904. [Demy 8vo, II [illegible]]

[2] *Atlas der gerichtlichen Medizin*. Von Dr. August Lesser. Zweite Auflage. Mit fünfzig Tafeln in Lichtdruck. Leipzig: Georg Thieme. 1904. [Fcap 8vo, II [illegible]]

[3] *A Manual of Medical Jurisprudence, Insanity and Toxicology*. By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. Third Edition. London: W. B. Saunders and Co. 1904. [Demy 8vo, pp. 720. 18s.]

length, insanity is dismissed in eighteen pages and the whole of toxicology in seventy-seven. The latter subject is, indeed, most inadequately considered, even allowing for the necessity of condensation in so small a manual. At times, too, the statements made are incorrect, as for instance, when Marsh's test is recommended as the most trustworthy for the detection of arsenic, Reinsch's being said to be of value only for a preliminary investigation.

DERMATOLOGY.

THE second volume of Dr. SABOURAUD's work on diseases of the scalp[9] is a bulky tome containing a number of figures, mostly reproductions of the author's preparations. It represents a vast amount of personal labour and research. The scope and extent of the task which Dr. Sabouraud set himself may perhaps best be said to be a disintegrating criticism of the so-called eczema seborrhoicum, which has been made to include all sorts of morbid conditions. The author certainly shows that pityriasis capitis is distinct from seborrhoea, eczema, and psoriasis. As to the last-named, it is an entity and not one end of the eczema seborrhoicum chain. Sabouraud's conclusions, which are based on actual investigation, are very convincing, for he has attacked the problem most thoroughly, and from all sides. He deserves great credit for the exhaustive way in which he has dealt with a variety of skin conditions of everyday occurrence. The book appeals specially to those engaged in dermatological practice, and touches on points which have led to endless discussion. An alphabetical index would have been of great assistance to readers, but unfortunately it is lacking.

The third and fourth parts of the English edition of Professor JACOBI's *Portfolio of Dermochromes*[10] have now been issued in one volume. The first volume, consisting of Parts 1 and 2, was reviewed in the BRITISH MEDICAL JOURNAL of October 17th, 1903, pp. 990, and it may be said at once that the two concluding parts now before us are well up to the standard of the former. Part 3 is made of 48 plates devoted to non-venereal diseases, whereas Part 4 contains but 21, which represent venereal affections, mainly syphilitic. The illustrations are reproductions from models in Paris, Berlin, Breslau, Vienna, Freiburg, etc., and not from actual living subjects; this does not destroy the value of the present work, for the models are well done, as every one knows who has visited, for instance, the Hôpital Saint-Louis, or gone through the collection of the Royal College of Surgeons of England. This atlas must prove of great use to those whose work is not specially dermatological. Moreover, the quality of the illustrations, taken in conjunction with the reasonable price at which the work is published, will no doubt recommend it to many. Although praise must be given to the plates and also to the way in which they have been selected, the letterpress, on the other hand, is inadequate and weak, especially as regards treatment. It would be well, therefore, to read up the various diseases in some standard book on the subject with the drawings before one.

PROSTATIC HYPERTROPHY.

AT the present time Dr. CIECHANOWSKI's book on prostatic hypertrophy[11] is of more than usual interest, dealing as it does with the problem of the causation of prostatic hypertrophy, atrophy, and of those complex symptoms that make up the clinical picture of enlarged prostate. The earlier part of the work deals with the relation of atheroma and arterial sclerosis to the condition known as "prostatismus." The views of the older French school are discussed, after which the author gives the results of his own laborious investigations. These may be summarized as follows: (1) The changes found in the urinary bladder, in the prostate gland, and in the kidneys are, in cases of "prostatismus," neither synchronous with nor stand in any relation to arterial sclerosis"; (2) the anatomical basis of the "bladder-insufficiency" is to be sought in a quantitative change of the component parts of the bladder wall at the expense of the muscle tissue; (3) this quantitative change is found without mechanical obstruction to the outflow of urine, but in more marked degree in cases of prostatic hypertrophy, and in most marked degree when the bladder has been the seat of a chronic inflammation. The disturbance of the "vesical sphincter" and the causation of prostatic incontinence are discussed, but nothing new or of particular interest is offered. A chapter is devoted to the pathological histology of prostatic hypertrophy, and the opinions of many observers on the interpretation of the appearances presented by microscopic sections are passed in review. The author then states his own interpretation of the histological appearances, laying special stress on the dilatation of the alveoli, the occurrence of areas of round-celled infiltration and of connective-tissue proliferation. It is contended that the latter, by its contraction, produces a blocking of the glandular channels and a consequent dilatation of the gland alveoli. It is therefore argued that prostatic hypertrophy is a question of the formation of a series of retention cysts, and has nothing in common with the formation of adenomata such as occur in other organs. It is admitted that well-defined nodules can be enucleated from the enlarged organ, but, since these are nothing more than dilated glandular acini, the name "pseudo-adenomata" is suggested as a convenient term by which to describe them. In short, the author believes that the enlargement of the prostate is not of a neoplastic nature. A chapter is devoted to etiology, and the author states his conviction that the causation of enlarged prostate and of certain forms of atrophy must be attributed to a latent chronic inflammatory process.

Dr. OVERALL of Chicago has "devised and perfected instruments with which to apply the combined properties of medicines, electrolysis, and cataphoresis for the purpose of stimulating vasomotor contraction, relieving thereby congestion and inflammation, dissipating morbid tissue, and chemically decomposing or breaking up lime or earthy concretions that form in the ducts and follicles of the prostate." The results of more than twenty years' experience of these methods, together with illustrative cases, are now given in *A Non-surgical Treatise on Diseases of the Prostate and Adnexa*.[12] Subacute or chronic prostatitis, "congested enlarged prostatitis," and senile hypertrophy of the prostate, as well as some affections of the seminal vesicles, all come within the scope of one or other of Dr. Overall's modes of treatment, for the carrying out of which he has invented special electrodes whereby the prostate can be attacked from the urethra or from the rectum, or from both. In certain cases of senile enlargement that refuse to yield to the milder measures an instrument similar to Bottini's, except that the cauterizing part is flat instead of a blade, is used to sear the indurated surface. This operation, Dr. Overall states, converts the hard tissue into a soft granular surface, which "admits the action of cataphoresis and atrophy of the obstruction without danger to life." The majority of men who suffer from hypertrophy of the third lobe require treatment for at least a year, when the gland, he asserts, becomes reduced to such an extent that they are rendered comfortable for the remainder of their lives. Those who wish for details should consult the book itself, which also includes an appendix on electrophysics.

NOTES ON BOOKS.

IT is with more than ordinary satisfaction that we have this year received the two volumes of *Saunders' Year Book*[13] which, as in previous years, has been compiled under the general editorship of Dr. George M. Gould. A new and admirable feature of the issue is an endeavour (which, unfortunately, has extended only to the volume dealing with medicine) to place at the head of each chapter a summary of the more noteworthy advances and discoveries made during the year under review. By this plan, which we hope will be continued, attention is directed to those points which either promise to be of permanent importance or are at the time of

[9] *Maladies [illegible]*. II. Les Maladies Desquamatives. Pityriasis et Alopécies Pelliculaires. Diseases of the Scalp. II. Squamous Diseases. Pityriasis and Desquamative Alopecias. Par le Dr R. Sabouraud. Paris: Masson et Cie. 1904. Roy. 8vo. pp. [illegible] illustrations. Fr. 12.)

[10] *Portfolio of Dermochromes*. By Professor Jacobi of Freiburg-im-Breisgau. English adaptation of the Text by J. J. Pringle, M.B., F.R.C.M. Parts 3 and 4. London: Rebman, Limited. 1904. [Demy 4to. coloured and one uncoloured plates, pp. [illegible]. Parts 1 to 4 in leather, 4os.]

[11] *Anatomy and Pathology of the so-called Prostatic Hypertrophy and Allied Processes in the Bladder and Kidneys*. By S. Ciechanowski. Authorized translation. Edited by R. H. Greene, A.M., M.D. London; Henry Kimpton. 1904. [Demy 8vo. pp. [illegible]

[12] *A Non-surgical Treatise on Diseases of the Prostate Gland and Adnexa*. By O. W. Overall, A.B., M.D., formerly Professor of Physiology in the Memphis Hospital Medical College. Chicago: Marsh and Gould Co. [Demy 8vo. pp. [illegible] illustrations. 2 coloured.]

[13] *Saunders' Year Book of Medicine and Surgery*. Edited by George M. Gould, M.D. In 2 volumes. London: W. B. Saunders and Co. 1904. [Demy 8vo., pp. [illegible]

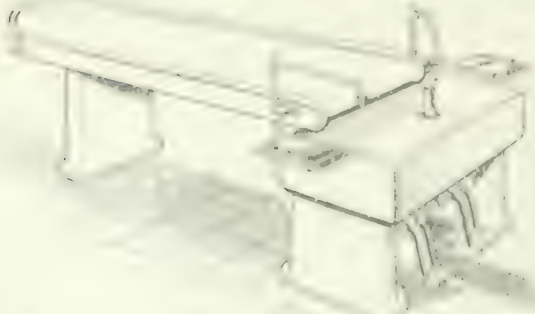
special interest, and in this respect the device will be an undoubted boon to the busy man. Of such matters to which special notice is directed may be mentioned paratyphoid infections, the inter-communicability of human and bovine tuberculosis, metabolism and diet in nephritis, the parasitic theory of cancer (the papers summarized, it may be remarked strongly emphasizing its inconclusiveness), the communicability of syphilis to monkeys, and the occurrence of cell changes in multiple neuritis. In the first volume, in addition to medicine and children's disease, materia medica and pharmacology, physiology, forensic medicine and public health are included. The second volume which, besides surgery proper, includes obstetrics, gynæcology, ophthalmology, and diseases of the nose, throat, and ear, does not seem to contain too much recent matter of outstanding interest. Among the surgical questions to which special prominence is given are the surgery of the stomach and intestinal tract, in which the treatment of appendicitis ranks largely, and diseases of the bladder and rectum, including the burning question of prostatectomy. The defects of the book are mainly trivial; indeed, mostly in the matter of inaccuracy of names, as far as we have observed, for example, a paper on stammering is attributed to a Dr. Langwell, meaning Langwill, and an H. D. Rolleston is credited with the record of two cases of hereditary ataxia. A large proportion of the abstracts are from papers published in the BRITISH MEDICAL JOURNAL and other British periodicals devoted to medicine, while a large number of those of papers from foreign sources have had a counterpart in the former. The worst of the best of this Year Book is that it creates a desire to read it through from beginning to end, which may be considered a most reprehensible object for any busy man of the sort to pretend in these strenuous days.

The A. B. C. Holiday Guide for 1904 is a little book likely to prove of service to the seeker in search of a new place at which to spend a holiday. It contains succinct accounts of several hundred towns, villages and districts in England, Scotland, Wales, and Ireland which have attractions for visitors, together with information as to how to reach them.

A new edition of the *Pharmacopœia of University College Hospital*, which has just appeared, is a neat little work, for which Mr. Harold Wilson, L.S.A., is responsible. Dr. F. H. Edgecombe contributes the notes on urine and blood testing, and certain useful and ordinary reagents are given in the directions for dispensing the special preparations in use at the hospital.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.



At the foot the table rests upon a sink fitted with a vulcanite standing waste removable for sterilizing purposes. Attached to the sides of this sink are slides for the examination and weighing of viscera, and made of ground glass in order that detection of abnormalities may be facilitated. At either corner of the sink is a jet and spray fitted with universal joint and operable by a pedal arrangement. The advantages noted by Dr. Lloyd Smith are that everything required for a necropsy is provided at one table, that the latter can be kept sweet and clean without trouble, that it is durable and not expensive, and that, as no viscera need be carried about the room cleanliness is ensured, while owing to the water arrangements all unnecessary wetting of the body or anything else may be easily avoided.

An All-rubber Ormsby Inhaler for Ether and Ethyl Chloride.—Mr. W. J. MCCARDIE, B.A., M.B., B.C.Cantab. (Anæsthetist to the General, Dental, and Ear and Throat Hospitals, Birmingham) writes: There is no better inhaler than the Ormsby for maintaining ether or inducing ethyl chloride narcosis, hence it is admirably suited for the ethyl chloride ether sequence, which is certainly the quickest, and perhaps the most convenient, method of anæsthesia known for severe operations. The Ormsby inhaler is very simple in form, but thinking that it could be made even more convenient for carrying about and packing in the anæsthetic bag, I have had one made altogether of red rubber, and therefore absolutely flexible, so that it can be crumpled up in the hands and carried in the pocket or packed away in any corner of the bag. It has no valves, wire cage, or hot water chamber. The rubber is of the red variety, and therefore will stand boiling for a few minutes. I have used the Ormsby largely for the administration of ether, ethyl chloride, somnoform, and ethyl bromide, and think that for this purpose it cannot be excelled. Messrs. Weiss and Son, of 287, Oxford Street, have made this inhaler to my order, and have produced a most handy article.

FOURTH INTERNATIONAL HOME RELIEF CONGRESS AT EDINBURGH.

Section II. Old Age.—This section was presided over by Mr. A. W. BLACK, M.P., when papers were read on The Decision of Age in Modern Industry, Old-age Pensions, The General Question, Prospect of Old-age Pensions in the United States, and these were followed by a general discussion, the drift of which was plainly antagonistic to the provision of old-age pensions by the State.

Section III. Widows and Adults.—Sir CHARLES CAMERON presided over a large attendance and gave an introductory address, referring to a few facts which were brought under the notice of a Departmental Committee (over which he presided) appointed to inquire into and report on habitual [illegible] beggars, and inebriates in this country.

Mr. HARRIS LAWSON MORRIS, Chairman of the Poor-law Reform Commission, Ireland, read a paper on hereditary pauperism and the means of checking it; Mr. J. R. MOTION, Inspector of Poor, Glasgow, a paper on compulsory detention [illegible] beggars; Lieutenant-Colonel M. HARRY, C.B., Chairman of the Prison Commissioners for Scotland, [illegible].

Section IV. Sick Poor.—Mr. MALCOLM MORRIS, F.R.C.S.E. [illegible] and in his introductory remarks said that in the question of the disease which the home treatment of the sick poor in existing circumstances was likely to be most useful for. In spite of all that had been done in the past few years in the matter of the scourge, they seemed to be very [illegible] the campaign. Sanatoria [illegible] over the country, and municipalities were [illegible] to the duty incumbent on them of providing for the consumptive poor. That provision, however, [illegible] cases still in the early stage, where the chances are favourable, while the advanced cases, which formed a large majority of the whole mass of [illegible] there was little or no provision. Consumptives [illegible] could do comparatively little in the way of the necessary [illegible] of infectious sick. The problem of tuberculosis was therefore essentially a question of home [illegible]. The most important way to stamp out the disease was to [illegible] the sick poor at home [illegible] and then [illegible] by removal to some [illegible] of the modern treatment [illegible] be provided [illegible] the [illegible] circumstances. The people

should be educated in the laws of hygiene. Drugs were of little use. Compulsory notification was as necessary as the work of the Intelligence Department was in a campaign.

Professor W. JAPP SINCLAIR (Victoria University, Manchester) introduced a discussion on the means of home attendance on parturient women in large centres, and a communication from Mrs. SCHARLIEB, M.D., London, was read. Professor STEPHENSON (Aberdeen), Dr. D. BERRY HART, Dr. JARDINE (Glasgow), Dr. ELSIE INGLIS, Dr. JESSIE MACGREGOR, Mrs. CHALMERS WATSON, M.D., Dr. OLIPHANT NICHOLSON, and Madame BOULIER (Paris) spoke, and the CHAIRMAN wound up the discussion.

Section V. Insane and Epileptics. The MASTER OF POLWARTH presided and made some introductory remarks on the boarding-out system for the insane, and deprecated the building of huge and magnificent buildings to be pointed out as show places.

Dr. ALEXANDER ROBERTSON (Consulting Physician Glasgow District Lunacy Board) read a paper on the Scottish system of boarding-out the insane poor in private dwellings; and Dr. CHARLES MACPHERSON (Deputy Commissioner in Lunacy for Scotland) a paper on the boarding-out of the insane poor in Scotland.

The Rev. Canon O'REILLY (Glasgow) gave his experiences of the boarding-out system. It was not the heaven-born one that had been represented.

Dr. CONOLLY NORMAN (Medical Superintendent, Richmond Asylum, Dublin) spoke on the subject of the need of family care of persons of unsound mind in Ireland.

Dr. PEETERS (Superintendent of Gheel, Belgium) gave an account of the Belgian system; and Dr. FALIBOIS (Nice) of the French system.

In the subsequent discussion, Dr. J. F. SUTHERLAND (Deputy Commissioner of Lunacy), Dr. MARIE (Paris), Dr. PAPERON (France), Dr. W. R. TURNBULL (Springfield, Cupar, Fife), Dr. JULES MOREL (Inspector of Asylums, Belgium), and Dr. SPENCE (Secretary of the General Board of Lunacy for Scotland), spoke.

SECOND GENERAL MEETING.

A general meeting of the Congress was held at 3 o'clock in the afternoon, for a discussion on Labour Colonies. Sir CHARLES CAMERON, Bart., occupied the chair, and there was a large attendance.

Reception.

In the evening the Executive and Ladies' Committee gave a highly successful reception in the Hall of the Royal College of Physicians. The guests were received by Sir JOHN and Lady SIBBALD, the DOWAGER COUNTESS OF MORAY and Lady GRAINGER STEWART.

SECTIONS.

The Sections met again on Thursday, June 9th.

Section I. Children.—Dr. LESLIE MACKENZIE presided over a large attendance.

Mr. J. PATTEN MACDOUGALL, a member of the Local Government Board for Scotland, opened a discussion on the boarding-out of pauper children. He said it was a spontaneous growth without statutory basis. Its aim was to relieve the children of the stigma of pauperism, and to bring them up and provide them with the surroundings of home life, so that when they went out into the world they should go untainted with the poor-house.

Miss AIKMAN, a member of the Glasgow parish council, also read a paper on the boarding-out of parish children.

Miss MASON, Senior Inspector of Boarding-out of Children, Local Government Board (England), gave an account of the boarding-out system in England.

M. L'Abbé TOTTON also contributed a paper.

A long discussion followed.

Section II. Old Age.—Mr. A. W. BLACK again presided. Old-age pensions from the point of view of Friendly Societies was the subject under consideration, and it was started by a paper of Mr. CLAVERHOUSE GRAHAM, Past Grand Master of the Manchester Unity of Oddfellows.

Section III. Able-bodied Adults.—Sir CHARLES CAMERON, Bart., the President, was again in the chair, and the CHAIRMAN OF THE PRISON COMMISSION FOR SCOTLAND began the proceedings with a paper on the domestic conditions which tend to produce prisoners in Scotland. Papers on the punishment of crime, discharged prisoners' aid societies, and the treatment of habitual offenders were also read, and a general discussion followed.

Section IV. Sick Adults.—Mr. MALCOLM MORRIS again presided, and Dr. R. W. PHILIP, Senior Physician to the Victoria Hospital for Consumption, Edinburgh, read the paper published in the JOURNAL of June 11th, page 1357, as an introduction to a discussion on The Organization of Home Treatment of Pulmonary Tuberculosis.

One of the SECRETARIES read a paper by Professor CALMETTE (Lille) describing the work of the Pasteur Institute in that town. Professor LINDSAY (Queen's College, Belfast), Dr. JANE WALKER (Physician to the New Hospital for Women, London), Dr. G. LOVELL GULLAND (Junior Physician to the Victoria Hospital for Consumption, Edinburgh), Dr. OGILVIE GRANT (Medical Officer of Health, Inverness), Dr. CAVERHILL (Edinburgh), Dr. STIRLING (Perth), and Dr. FRASER (England) spoke; and in closing the discussion Dr. PHILIP moved the following resolution, which was unanimously carried:

That in the opinion of this section an organized effort against consumption is required. The Section believes that this will be best effected by the establishment of a properly equipped tuberculosis dispensary under the direction of the municipality or the local authority.

Section V. Insane and Epileptics. The MASTER OF POLWARTH again presided, and Dr. CARLYLE JOHNSTONE, Roxburgh District Asylum, Melrose, read a paper on "The after-care of friendless patients discharged from asylums, as provided for by the Scottish probationary procedure."

Dr. JULES MOREL, Inspector of Asylums, (Belgium): Dr. CLOUSTON (Edinburgh): the Chairman, Dr. JOHN CARSWELL (Glasgow); Dr. J. F. SUTHERLAND, Edinburgh; Sir JOHN SIBBALD, Miss LINCOLN (Massachusetts), the Rev. H. HAWKINS (London), Dr. VAN DEVENTER (Holland), Dr. GIRVAN (Maybole), and Dr. FRITZ SANO (Antwerp) took part in the proceedings.

Receptions.—In the afternoon an "At Home" was given by Mr. and Mrs. T. A. Nelson, St. Leonards, close by Arthur Seat and the Salisbury Crags. In the evening a reception was given by the Lord Provost and Magistrates in the Museum of Science and Art, at which there was a large attendance.

The Sections met again on Friday, June 10th.

Section I. Children.—Miss E. S. HALDANE (Cloanden) presided, and the subject of discussion was the organization of relief for cripples. Four papers were read by ladies, and a discussion followed. About a hundred ladies and gentlemen were present.

Section II. Old Age.—Mr. A. W. BLACK, M.P., again presided. "The Danish and German systems of relief and their moral and economic effects," was the first subject for the day, and four contributed papers were read by the SECRETARY. Discussion followed. "The Scottish practice and experience of boarding-out aged paupers," was the next subject discussed by paper and otherwise.

Section III. Able-bodied Adults.—Sir CHARLES CAMERON, Bart., again presided. Sir SAMUEL CHISHOLM, Glasgow, opened the proceedings with a paper on "Model lodging houses, *pro* and *con*." "What to do with our inebriates," was the next subject under consideration. Both were discussed.

Section IV. Sick Adults.—Mr. J. B. SUTHERLAND, S.S.C., one of the Vice Presidents, was in the chair. In the absence of Sir Henry Burdett, K.C.B., Dr. BRUCE (Dingwall) introduced a discussion on The Relation between Hospital and Home Relief of Sick Poor.

The CHAIRMAN gave an account of the progress, aims, and methods of the Royal Society of Home Relief to Incurables, Edinburgh.

Discussion followed, and the proceedings concluded with the following motion proposed by Dr. R. W. PHILIP, which unanimously carried:

That, in the opinion of this Congress, the time has now come when, with a view to the proper direction of charitable effort and the prevention of hospital abuse, close relations should be established between the hospitals, dispensaries, the medical profession, and the public for the regulation of indoor and outdoor relief of sick poor by the institution in every populous centre of a general hospitals committee, composed of representatives of (1) hospital, dispensary, and nursing boards, (2) hospital and dispensary staffs, (3) general practitioners, (4) philanthropists, and (5) wage earning members of the community, for the purpose of determining, (a) the conditions of admission to hospital and other medical relief, (b) the collection of revenue, (c) the prevention of overlapping, and (d) such other questions as experience may suggest.

Section V. Insane and Epileptics.—The MASTER OF POLWARTH presided, and epileptic colonies and the Chalfont Colony for Epileptics, were the subjects of consideration.

Professor REID (Glasgow) thought that Scotland was shamefully behind in the way of provision for the treatment of epileptics.

Dr. MARIE (Paris) suggested that a committee should be

appointed to report to the next Congress the steps taken with reference to epileptics.

Closing General Meeting.

The closing general meeting of the Congress was held at 3 p.m. to discuss the question of the "Home care of mentally defective and backward children. The Master of Polwarth presided. Miss Mary Dendy, Joint Secretary of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, Dr. Henry Ashby (Manchester), Dr. Fletcher Beach (London), Dr. Carswell (Glasgow), Dr. J. F. Sutherland (Edinburgh), and Dr. John Thomson (Edinburgh) took part in the discussion.

It was agreed that next year's Congress should be held at Liege. Votes of thanks closed the proceedings.

Congress Dinner.

In the evening about a hundred ladies and gentlemen attended the Congress dinner in the Royal Hotel. Sir John Sibbald presided, and Drs. R. W. Philip and James Crawford Dunlop were Croupiers.

LITERARY NOTES.

Mr. A. Forbes Sieveking intends to write a life of his father, the late Sir Edward Henry Sieveking. For that purpose he will be grateful to friends in England and abroad for the originals or copies of any of Sir Edward Sieveking's letters, and for notes, memoranda, or anecdotes throwing light on the character or career of the distinguished physician, "not excluding criticism of, or dissent from, any of his acts, opinions, or conclusions." Mr. Forbes Sieveking (whose address is 12, Seymour Street, Portman Square, W.), intends to preface the memoir with some account of his grandfather's ancestry and relatives, who as citizens and senators of Hamburg, helped to make the history of the famous Free City.

In a thesis for the degree of Doctor of Medicine recently presented to the University of Paris, M. Jean Barrier has embodied the results of a historical research on the therapeutic preparations of animal origin employed by the ancients. In the Asclepeia of Greece bull's blood and ass flesh were prescribed for consumptives. Preparations of serpent were also largely in use. Hippocrates, although he mostly used simples, occasionally prescribed ox-gall, human placenta, the dung of asses and goats, etc. Celsus recommended fox's liver or lung in asthma and the hot blood of a newly-killed gladiator in epilepsy. Pliny's *Natural History* is an encyclopaedia of organotherapy. From him we learn that the ancients used the testicles of the hare, the stag, the horse, the pig, and the hyaena, as aphrodisiacs, and as remedies for epilepsy, a disease for which the human brain was also employed. Renal colic was treated with hares' kidneys, bear's bladder was in repute for dysuria, the hyaena's heart for cardiac palpitation, the partridge's stomach for colic. Similar medication found favour with the Arabian physicians. Albucasis taught that the human brain could be nourished and strengthened by eating cocks' brains; hen's gizzard was excellent for the stomach; in short each organ could be kept in order or functionally improved by the administration of the corresponding organ of an animal. The principle was formulated by Jerome Cardan as follows: *Omne simile a similibus conservatur*. M. Barrier traces this therapeutic method through the Middle Ages to the beginning of the nineteenth century. In 1801 Bouvard collected a number of formulæ in a work in which he sees "the beautiful and divine harmony found among the plants already considered as suitable for the relief of the same ailments, and the same part, proves how evident and certain it is that very effective remedies can be got from the human body, the existence of which is perceived by means of like." In 1837 Desbois de Rochefort, [illegible] of the Paris Faculty of Medicine, published in 1837, we find "the testicle, lungs, liver, etc., of animals" recommended "in general for juvenile and engorgements of the lymphatic system," and "the spinal marrow and oil extracted from the human skull is said to be very efficacious and antiepileptic."

Professor Byers has collected into a booklet published by William Strain and Sons, Belfast, the sayings and proverbs and illustrations of the humour of Ulster. "The northern Irish are," he points out, "a mixed people, and the Ulsterman from his heredity, is a puzzle to himself. Through his veins there courses a stream of Scottish, English, French Huguenot, and Irish blood, and so in the same individual you may sometimes find the pawkiness of the Scotsman, the tenacity and forethought of the Scot, the industry of the Huguenot, with the keen sympathy, pugnacity, and ready wit of the native Irishman." The predominant element in this racial amalgam is Scottish, but the Ulster race is now, and has long been, as distinct from the Scotch as the American race is from the English. The late Lord Dufferin, himself an Ulsterman, said Ulstermen were Scotchmen improved by three hundred years' residence in Ireland. The characteristics of a race so constituted naturally find expression in quaint sayings and proverbs, and in a kind of humour inspired by shrewd observation of men and things. Clergymen and doctors who are brought into intimate contact with the people in country districts hear them most frequently. Among the forms of superstition which still survive in some parts of Ulster is the use of "cures" and charms for disease. There are special charmers credited with the power of conjuring away erysipelas, which is believed to be a result of fairy malice. Professor Byers remembers, when a boy, seeing children with whooping-cough passed three times under and over a donkey's body. Another cure for that complaint was the giving of two articles of food, such as bread and milk or bread and cheese, obtained from two first cousins who were married. A cure for mumps is to place a donkey's bridle or winkers on the child's head and the bit in his mouth. The child is then blindfolded with a handkerchief and led to a stream or well, of which he is made to drink three times in the name of the Trinity, the charmer repeating his incantation the while. He is then led back, the bridle or winkers and the handkerchief are removed, and he is pronounced to be cured. The Ulster proverb, "He's getting long in the teeth and short in the steps," gives a graphic description of old age. A mother harassed by the constant crying of a child will say she is "heart-scalded"; another will say of a weakly child that she could "lap" it round her little finger. Of a woman who is constantly complaining, unsympathetic neighbours may say, "Och! she's like a layin' hen, more onaisy than sick." A person on whose face small-pox has written its mark is said to be "pock-arr'd," "arr" being an old word of Scandinavian origin meaning a scar. A person with a harelip is "hare-scart" (hare-scarred). One who talks through a cleft palate is said to "sneevle" (an obsolete form of "snivel.") Going into hospital one day Professor Byers overheard one patient say to another, "Is your chicken soup thin?" The reply was, "Ay, the bird only walked through it," which brought the retort, "Maybe it was on stilts." Dr. Byers's little book is full of the most interesting things. Not only the lover of folklore, but the philologist, the archaeologist, and the general student of mankind will find matter in it to his particular taste. It may be said of it with perfect truth that there is not a dull page in it.

Herr Reiser, a German dentist whose hobby is palaeontology, has, from a study of a number of prehistoric skulls, come to somewhat remarkable conclusions. Unlike most other observers, he holds that dental caries was largely prevalent among our forbears of the stone and bronze ages, the incisors being in many cases worn away to the root. The "dining-room furniture" of primeval man was, in fact, in Herr Reiser's experience, as scanty and dilapidated as it is in his civilized descendant. He says he has found traces of filing on teeth which he examined, from which he infers that there were dentists in prehistoric times. It may be pointed out that the wearing down of the teeth frequently seen in primitive skulls is not generally believed to be due to caries.

The *Boudoir*, a new "magazine for gentlewomen," is beautifully printed and illustrated, while its literary contents are of a quality much superior to what we are accustomed to find in periodicals of the class to which it belongs. In the June number Lady Frances Balfour discusses the question, which is of special interest at the present day, "What should our spinsters do?" She says that women, for want of a definite occupation, sink into depression and eccentric ways, and too often take to drink. A woman nowadays has no excuse for being unoccupied. They teach "from women's colleges, down through all the grades of the profession, to the simplest infant school. No avenue of learning but is manned by some women. Horticultural colleges send out a swarm of qualified and expert gardeners. Their brass plates are on the doors of streets where doctors most do congregate. They seem to hold the Post Office in their right hand. Journalism in all its branches is open to their energy, and no woman can feel any bar is erected against her effort to earn a living wage." Nevertheless, though many are called, few are chosen. What is to be done with those who cannot find work? Lady Frances sees

a field for them in the Colonies. In the Greater Britain across the foam there is work of all kinds, for all classes; besides there are prospects of marriage, which is the fulfilment of woman's destiny in this world. Lady Frances Balfour suggests that our superfluous spinsters might carry the ideal of family life to "those dominions which are ours only in name if they are not filled by what is best and truest of our own institutions."

We hear a good deal in these days of "degenerates" a term of opprobrium which has not even the merit of clearly denoting what is meant. Would it not be simpler as well as less offensive to call those unfortunate persons "deviates?" Mr. William A. Hovey, at a meeting of the Boston Society of Psychiatry and Neurology read some verses on the subject. After pointing out that

> This deviation is a thing
> Heredity alone can bring

and that

> It comes because you're built that way
> And when it comes, it comes to stay

he goes on to say

> It isn't nice at any rate
> To call your friend "degenerate"
> Because his hands are large or small,
> Because in height he's short or tall,
> Because his eyes, one brown, one blue,
> To normal standards are not true
> And if he be much bigger, stronger,
> With every chance of living longer,
> Than any man you've seen or known,
> A man with powers all his own,
> You may call him a "deviate"
> But surely not "degenerate"

After describing supernormal and what might be called subnormal types of man, he proceeds:

> Another man I have in mind
> A doctor of the country kind
> He practises among the lowly
> And criminals, and men unholy
> Quite frequently his talk reverts
> To curious cranks and queer perverts
> And, nothing strange, he holds the view,
> And some of you may hold it too,
> That too much smoking, too much drinking
> And toxic drugs of which I'm thinking
> Will make men take to dreadful things
> Whose very names would make you cringe.
> No doubt he's right. But these he'll rate
> As men who are degenerate.
> In other words, he'll say to you,
> And this is quite a common view,
> That when you say "degeneration"
> You mean a moral degradation.
> Now that's not what you mean to say
> And yet, there is the deuce to pay
> If you call one "degenerate"
> Who really is a "deviate"

We have received a reprint of an interesting paper by Dr. Robert Jones, of Claybury, on the psychology of Jane Cakebread, which appeared in the *Journal of Mental Science* for April. The name of Jane Cakebread was long familiar to readers of police reports. Her tale of nearly three hundred convictions for drunkenness must be almost a "record" in the long and complex annals of the police-court. But her life was not altogether a failure, for she was, we learn from Dr. Jones, the proximate cause of the passing of the Inebriates Act of 1898. For many years the intervals of enforced sobriety which diversified her normal existence were passed alternately in prison and in the workhouse. At last she drifted to the Claybury Asylum, where she found rest for three years till her death. She had delusions of an exalted and grandiose character, and was a difficult patient to manage. She was vain, jealous, untruthful, and deficient in self-control; "her inhibition was so affected that she passed suddenly and almost instantaneously from blandness and graciousness to blasphemy, vituperation, and abuse." She had few greater joys than to read cuttings or extracts about herself in the police news, but if this is to be taken as a mark of insanity, it is indeed a mad world, my masters. She had a decided *penchant* for the opposite sex, but it was, Dr. Jones says, an impersonal love, and more an æsthetic interest in those about her than a romantic emotion. "During her whole residence in the Claybury Asylum no suggestion or suspicion ever arose that her life had been sexually perverted, and no reference to immoral conduct was ever known to have passed her lips." She was given to hymn singing and to copious quotations from the Bible, and was looked upon as eminently religious. Dr. Jones believes, however, that this emotion in her was built on egotism and selfishness. She could brook no contradiction, and Dr. Jones seems inclined to connect this with her religiosity, for he says, "We know that the authority of the Church is often such that its apostles will brook no contradiction, and there is no more intolerant class than belongs to the religious hierarchy." We venture to think that the scientific hierarchy could run the Church pretty close in the matter of intolerance; fortunately, however, it has never yet had much chance of persecuting heretics on a large scale. Jane Cakebread was also a liar, but so was Pagett, M.P., and so, according to a venerated authority, are all men. Her case would, indeed, appear to show that the line of demarcation between soundness and unsoundness of mind is that the lunatic, having lost the power of self-control, which is the cloak of virtue which we wrap around us, shows himself naked and unashamed as he really is, making parade of all the bad qualities which the sane man is able to hide. In the case of poor Jane Cakebread a very small amount of drink was enough to bring all the evil of her nature to the surface.

THE HEATHERSIDE SANATORIUM AND CONVALESCENT HOME OF THE BROMPTON HOSPITAL FOR CONSUMPTION.

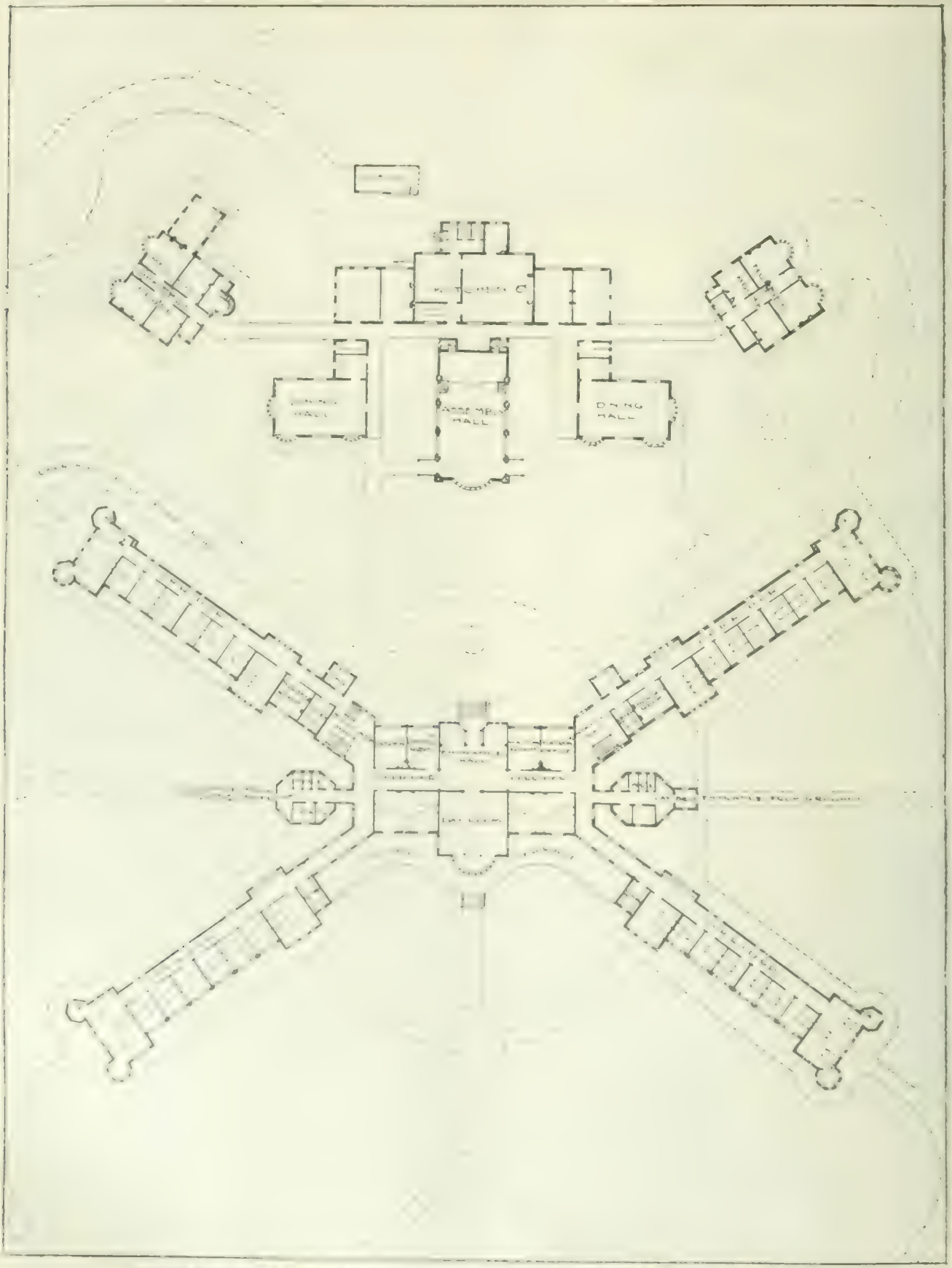
THE want of a convalescent home in the country which had long been felt by the management of the Brompton Consumption Hospital has latterly been made more urgent by the unwillingness of the general convalescent homes to admit consumptive patients. The development of the principle of open-air treatment emphasized the importance of a country branch, and the Committee has been well advised to make the institution near Camberley, which is to be opened by the Prince and Princess of Wales this day (June 25th), a sanatorium and convalescent home combined.

The site in the neighbourhood of Bagshot Heath, notorious in the days of highwaymen, is in the midst of some of the most beautiful country to be found in the South of England. On the crest of the Chobham Ridges it overlooks the wild common land round Aldershot, the view extending over miles of pine woods and heath to the Hog's Back and Crooksbury Ridges in the distance. Standing 400 ft. above sea level the building is surrounded by the pine woods of the Heatherside Estate, of which the twenty acres acquired by the Brompton Hospital formed a part. These pine woods afford shelter from the winds from the north and north-east.

No better place could be imagined in which to place the town dweller, pulled down by illness, to regain his strength, or for the early consumptive to pass the weeks of enforced idleness which are necessary at the commencement of treatment. The building itself, which has taken two years to complete, has been designed by Mr. Edwin T. Hall, F.R.I.B.A., who has kept in view throughout the idea of making the institution appeal to the inmates as a holiday home rather than as a hospital. He has aimed at making the sanatorium bright, cheerful, and comfortable, and appears to have succeeded in his object. The plan of the main building is stellate in form, like a St. Andrew's cross, with a central administrative block, from which the four arms containing the patients' bedrooms run in such a manner that all the rooms face S., SSE., and SSW., and no portion of the building is shaded by another. The administrative block is of three stories—the wings of two stories only.

There are no balconies, but the lower rooms open on a terrace which can be shaded by sun blinds. Every attention has been given to the various details required for the health of the inmates, whether patients or staff. Most of the bedrooms are for single patients. Free ventilation is provided by large windows opening on the French plan, and with falling lights above, which can remain open if the other part of the window has to be closed. The heating is by hot water radiators, and the institution is lighted throughout by electricity generated on the premises. A separate block of buildings contains two dining-rooms, the kitchens, and a large recreation hall, the medical officers' and the nurses' quarters being on either side of these. A machinery block at some little distance from the sanatorium and close to the road comprises the engine house, the electric plant, laundry, and disinfecting room.

The institution is arranged for the accommodation of 100



Ground Plan of the Hampshire County Council Consumptive Home, Heatherside, Camberley

patients. In order to minimize the risk from fire each wing of the building is provided with an emergency staircase at the end furthest from the main staircase, and two of the wings are cut off from the rest of the block by a corridor of fire-resisting construction with a glass roof. Nothing seems to have been neglected which could in any way add to the comfort of the patients or which is needed for the treatment of early consumption. This addition to the Brompton Consumption Hospital will enable the charity to increase still further the benefits which it has been able to confer on the consumptive poor since its foundation seventy years ago.

PREVENTION OF CONSUMPTION.

CANADA.

Association for the Prevention of Tuberculosis.—At a recent meeting of the Executive Council of the Canadian Association for the Prevention of Tuberculosis, a Committee consisting of Dr. P. H. Bryce, convener; Dr. J. D. Lafferty, Calgary, N.W.T.; Dr. C. J. Fagan, Victoria, B.C.; Dr. Gordon Bell, Winnipeg, and several laymen, was appointed to take steps to secure the co-operation of municipalities and of the governments of the several provinces, and of the Government of the Dominion of Canada, for the establishment of one large sanatorium in each province for the treatment of consumption. The Secretary of the Association was instructed to visit Prince Edward Island, Nova Scotia, and New Brunswick in August and September to lecture on the cause and prevention of consumption, and to lecture in Ontario during June and July; and, in addition, a special Committee was appointed of all members of Association resident in Ottawa, with Dr. H. B. Small as convener, to take steps to organize for the work in that city.

Nova Scotia. The Province of Nova Scotia, by an Act passed March 30th, 1903, appropriated a sum of money for the erection of a sanatorium for tuberculous disease of the lungs. The institution has been formally opened, and will be ready for patients on July 1st. The sanatorium is situated about three-quarters of a mile from the town of Kentville, about 70 miles from Halifax. The building, which cost £4,000 exclusive of furniture, has accommodation for 20 patients. The Act provides that there shall be appointed two examining physicians, and that both shall be residents of Halifax, but these have not as yet been selected. There will be no resident physician, but one of the practitioners of Kentville will pay frequent visits to the institution.

UNITED STATES.

Massachusetts.—We have received a reprint of a paper by Dr. S. W. Abbott, Secretary of the Massachusetts State Board of Health, on the Decrease of Consumption in New England. He says the six adjoining States (Vermont, Connecticut, New Hampshire, Maine, Rhode Island, Massachusetts) known as New England, form a distinct division of the United States, having the advantage of a fairly accurate system of vital statistics, extending over a period varying from 1842 in one State and from 1892 in another, down to the present time. The populations of these States present variable conditions as to density, occupations, the people, and other social conditions. His conclusions are: (1) The death-rate from consumption in New England at the present time is somewhat less than 20 per 10,000 living inhabitants. (2) The death-rate from this cause has diminished largely in all the New England States, in some, with fairly accurate registration, as much as 50 per cent. in the half century; and this decrease appears to be going on now more rapidly than in earlier years. (3) The death-rate of women from consumption has decreased more rapidly than that of men, and is now less than that of men; while in earlier years it was greater. (4) The death-rate from consumption at every age of life has also decreased, but more at higher than at lower ages.

A MEDICAL DIPLOMATIST.—The statements which have recently appeared in various quarters that there is some chance of an agreement being come to between the Pope and the King of Italy recalls the fact that a similar arrangement was contemplated in 1860 by Cavour. The negotiations were conducted by Dr. Diomede Pantaleone, a physician of Rome. There is said to be still extant a minute of the proposals revised and corrected by Cavour himself. Owing to his sudden death the negotiations came to nothing. It may be added that Dr. Pantaleone was a strong advocate of professional representation in legislative assemblies.

PROPOSED REMOVAL OF ST. GEORGE'S HOSPITAL.

A SPECIAL Court of the Governors of St. George's Hospital was held at Westminster Palace Hotel on June 21st to receive the report of the Committee appointed at a special Court held on March 20th, 1903, to consider the desirability of removing the hospital to a larger site.

The chair was taken by Lord WINDSOR, and the reports of the majority and the minority of the Committee were presented by Mr. A. W. WEST, the Treasurer of the hospital. The majority report was in favour of leaving the hospital on its present site, the minority report in favour of removal.

A memorandum circulated at the meeting contained the following summary of arguments in support of the opinion of the Medical School Committee, that it is not desirable to move the hospital from Hyde Park Corner:

1.—The hospital only possesses a fraction over two fifths (25,115 sq. ft. out of 61,645 sq. ft.) of the present site.

2.—It is assumed by the Financial Sub-Committee of Governors appointed to consider the question that £325,000 to £425,000 might be obtained for our interests. Even if this assumption prove correct the sum is quite insufficient to justify removal.

3.—As no offer is before us after sixteen months' publicity of the fact that the Governors are prepared to receive offers, we are justified in assuming that even this sum is not likely to be forthcoming in the immediate future.

4.—St. George's Hospital is wanted where it is. The demand for admission and the number of out-patients treated at the present time are as great or greater than ever. The number of accidents and emergencies treated in 1903 was 7,381.

5.—The position and accessibility of the hospital cannot be equalled in London.

6.—The removal of the hospital would be a hazardous experiment, and as a result the financial position of the hospital and the welfare of the school might be wrecked.

Mr. C. G. HEATHCOTE then moved:

That it is not desirable at the present time and under existing circumstances to remove St. George's Hospital from its present site.

He said the Governors of the hospital were asked to give up a position at Hyde Park Corner the surroundings of which were unequalled in any large town in the world for healthiness, convenience, and access. The position filled so large a space in the public eye that the hospital had great benefactions in the past and might expect them in the future. Mr. Heathcote concluded a long speech by appealing to those present not to sacrifice for a shadow or a dream the great advantages which the hospital possessed in the finest site in the world.

Mr. C. T. DENT, in seconding the resolution, said that the three cardinal points to be considered were: First, was St. George's Hospital to be moved or not? secondly, it was essential that the matters in dispute should be definitely decided at that meeting; and, thirdly, it was of importance to avoid arriving at any sort of compromise. Mr. Dent explained that at the outset of the discussion some time since he thought that it might be advantageous to move the hospital, and he was at any rate wholly in favour of ascertaining if such were the case, but he had been forced step by step to the conviction that it was impossible, and that if it were possible it would be unwise; in fact it would be almost fatal to the institution to do anything in the way of removing the hospital from its present site. He had been forced to that conviction not only by the arguments of those who thought the hospital ought to remain where it was, but also by the arguments of those who considered that the hospital ought to be removed. Referring to the criticisms of Sir Henry Burdett, every one admitted that the criticisms themselves contained their own refutation and contradiction. It was like putting an acid with an alkali, so that the result of Sir Henry Burdett's criticisms was a "fizzle." He pointed out, with regard to moving the hospital from its present site, that the wards of a hospital were filled more in consequence of its reputation than because of the site it occupied. No one would be more pleased than the medical staff to work in an up-to-date hospital, but experience taught them that in the course of a few years the medical staff would not be satisfied, because more improvements would then be obvious. While, however, the medical staff would be very pleased to have an entirely new hospital, nevertheless by a majority of 21 to 3 the medical staff were in favour of remaining as they were. Mr. Dent considered that the burden of proof rested on those who said the hospital ought to be moved. He believed that any endeavour to remove the hospital as suggested would be prejudicial to the interests of the institution. It was said that the hospital occupied too valuable a site, and Mr. Dent asked for proof that it was of such value. There had been much

talk about the price to be given, but no offer had ever been received. Referring to the proposal to extend the present hospital buildings at Hyde Park Corner, Mr. Dent said that experience in the past showed that money could be got from the public if the necessity for help was made manifest.

Mr. R. H. C. Harrison, who had signed the minority report, then spoke in favour of the hospital being moved from its present site, and in this he was supported by Mr. R. Tooth, who had also signed the minority report.

On the resolution against the removal of the hospital being put to the vote, the Chairman declared that it was carried by a large majority.

The following was next moved by Mr. Heathcote, and seconded by Mr. Dent:

That the present is a very favourable opportunity to appeal to the public for funds to rebuild the hospital on the present site.

Sir Lawrence Owen said he thought the proposition was premature. The Governors had decided that they would not have the hospital removed. They must therefore, at once face the question of rebuilding it at Hyde Park Corner, and it would not conduce to the successful raising of the necessary funds if the resolution put forward was passed. They must appeal to the public on the very first opportunity. The state of the hospital was urgent. Certain extensions were required if the work of the hospital was to be carried on properly. These could not be properly considered until the whole question of rebuilding the hospital had been thought out. He opposed the resolution, because it was useless. There was no conceivable object to be gained in passing it, and it could only prejudice the Governors in their future work.

The resolution was put to the meeting and lost.

The following resolutions were moved by Mr. Heathcote, seconded by Mr. Dent, and carried:

That early consideration be given to the question of the immediate improvement of the hospital as soon as occasion shall arise, a building be commenced and placed on the land which might be sold across the building as soon as such a contract will leave a definite and convenient part of a new hospital complete, and that this new hospital when completed be entirely devoted

That the Governors negotiate with the Duke of Westminster for the land required on the terms proposed in the letters from the Duke's agents of March 11th, 1902, and January 8th, 1904, and that the Governors be empowered to take all steps necessary to carry out the above resolution.

A letter was then read from Dr. Robert Barnes, who considered the hospital had fulfilled its purpose on the present site, and proposed to subscribe £100 towards the improvement of the Medical School. After this announcement had been received a vote of thanks to the Chairman concluded the meeting.

MEDICAL NEWS.

The Lord Chief Justice will preside at the annual presentation of prizes and certificates to the students of St. Mary's Hospital Medical School on Wednesday, June 29th, at 4.15 p.m.

Dr. P. M. Sandwith has resigned the teaching staff at the London School of Tropical Medicine, and is returning thereon to Buenos Ayres, Venezuela, and Barbados.

Efforts are being made to celebrate at Gerbersdorf on June 2nd, which will be the fiftieth anniversary of the well known sanatorium founded there by Dr. Brehmer.

Mr. J. Cantlie will deliver the prizes to the students of the Imperial Dental Hospital, London, at a reception to be held at the Royal Institute Galleries, Princes Hall Piccadilly, W., on Wednesday, July 13th.

The Society of Medical Officers of Health will hold its annual dinner on Tuesday next, June 28th, at the Hotel Cecil, London, under the presidency of Mr. E. H. Makins, C.E., at 7 for 7.30 p.m. Further information can be obtained from Dr. J. Spottiswoode Wallace, 11 Hinde Street, Cavendish Square, W.

The annual meeting in support of the collection on behalf of the Metropolitan Hospital Sunday Fund will be held at the Mansion House on Tuesday morning, June 28th, at 11.30 a.m. As many [illegible] is coming in [illegible] that the total will not fall [illegible] last year.

Dr. [illegible] in succession to A. E. Barron, resigns the Lectureship of Pathology at Guy's Hospital, has [illegible] appointments to the charge of his [illegible] Dean Hospital. The Guy's Hospital Gazette [illegible] position to state that [illegible] to the report and that [illegible] Dr. Roy [illegible] in perfect health.

The St. Petersburg Institute of Experimental Medicine has received an order from the Russian Ministry of War for the delivery of 2,000 tubes of antidysentery serum by July 1st. The serum is being prepared in the laboratory under the direction of Dr. A. Wladimiroff.

M. Doyen, the well-known surgeon, is a candidate for a seat in the Chamber of Deputies as representative of one of the arrondissements of Paris. He has stated to an interviewer that he is not a politician and intends if elected to take an independent line, giving his attention mainly to social and hygienic questions.

We are asked to state that a meeting will be held at the Westminster Palace Hotel at 4.30 p.m. on this day, Friday, June 24th, under the auspices of the East India Association, to discuss the salt tax in India. The chair will be taken by Mr. Jonathan Hutchinson.

A Memorial Commemoration.—The fortieth anniversary of the introduction of subcutaneous injections of calomel in the treatment of syphilis was celebrated recently in Italy. A Committee, consisting of Drs. Domenico Maiocchi, Ambrogio Bertarelli, and Marco Truffi, with Professor Camillo Golgi, Rector of the University of Pavia, as Honorary President, presented a gold medal to Dr. Angelo Scarenzio, to whom is attributed the invention of the method.

Royal Statistical Society.—The seventieth annual general meeting of the Royal Statistical Society was held on June 21st, when Sir Francis S. Powell, Bart., M.P., was elected President for the ensuing year. It was announced that the subject of the essays for the Howard medal to be awarded in 1905, with £20 added, was "A Critical Inquiry into the Comparative Prevalence of Lunacy and other Mental Defects in the United Kingdom during the last fifty years."

A provincial meeting of the Society of Medical Officers of Health will be held in the Town Hall, Newcastle-on-Tyne, on Saturday next, when a paper will be read by Dr. John J. Boyd, M.O.H. South Shields, entitled, Observations on the Incidence of Scarlet Fever in different Districts of the same Town. In the afternoon a visit will be paid to the Newcastle Isolation Hospital, where Dr. Armstrong will show the Newcastle excreta sterilizer.

The annual general meeting of the Brussels Medical Graduates' Association will be held at the Trocadero, Regent Street, W., on Tuesday, July 5th, at 6.30 p.m. At 7 p.m. for 7.30 p.m. the members and their guests will dine together, Dr. Major Greenwood, the President, being in the chair. Among the guests expected to be present are Sir Hugh Beevor, Bart., Sir Isambard Owen, M.D., and Dr. F. de Havilland Hall. Any Brussels medical graduate wishing to be present is requested to communicate with the Honorary Secretary, Dr. Edwards, Camberwell House, Camberwell, S.E.

The annual conference of delegates of charity organization societies was held last week in Kendal. The principal business on the first day was a discussion of the paper by Dr. W. Rushton Parker on consumption. He urged that in order to abolish tuberculosis it was necessary to attend to general sanitation, to isolate cases in infectious stages in refuges and sanatoria, to establish notification, to suppress spitting, and to prevent the consumption of tuberculous meat and milk. Dr. Paget Tomlinson dwelt on the necessity of sanatoria for consumptives in the early stage, and of isolation homes for advanced cases. He also advocated home visitation by members of charity organization societies. Mr. Raiton spoke on the necessity for providing healthy occupation for convalescents.

The annual meeting of the State Children's Aid Association was held at 19 Carlton House Terrace, on June 21st. The Earl of Crewe, who presided, said that while there was a general desire that every child should have an equal chance in life those who were brought up in workhouses were handicapped. It was estimated that of the 61,000 children dependent on the State about 20,000 were in state-supported institutions; the Association favours the system of scattered homes and had done much useful work in securing the adoption of the principle by Boards of Guardians. Mr. R. B. Haldane, M.P., also insisted upon the advantages of homes in place of large institutions for Poor-law children, and Mrs. S. A. Barnett, Honorary Secretary, dwelt on the desirability of establishing separate courts of justice for children such as were established many years ago in Massachusetts and subsequently in other parts of the United States.

BRITISH MEDICAL ASSOCIATION.

Subscriptions to the British Medical Association for the year 1904 are now due and should be forwarded by postal order or cheque to the amount of 25s. to the General Secretary, 429, Strand, London, W.C., or, in the case of Colonial members, to their Branch Treasurer.

British Medical Journal.

SATURDAY, JUNE 25TH, 1904.

THE IRISH POOR-LAW MEDICAL SERVICE.

THE problem of betterment for the Irish Dispensary Medical Service is week by week coming more fully under discussion, and lights are breaking in on the subject from various sources. It is now evident that for several years to come this important element in the very existence of the Irish people must claim a large share of medical attention, and no British statesman can afford to pass the subject lightly by.

Happily the report of our Special Commissioner, issued on March 26th last, offers so clear a statement of the needs of the case, and so stimulating a summary of proposals for betterment, that all utterances on the subject can now be more fully understood by readers outside Ireland than has heretofore been possible. What was until a few years since purely of parochial importance has now, after passing through the stage of national discussion in Ireland, well nigh assumed the position of an Imperial question, for the well-being, progress, and happiness of the Irish people is becoming day by day a growing factor in English political problems.

The aim of the report on the Poor-law Medical Service of Ireland was primarily to supply information, and we feel that the more the subject is studied and the more opinions are put forward on suggested methods of betterment the greater will be the gain not for Ireland only but for the Empire.

This week we present to our readers two important addresses devoted entirely to the Poor-law medical betterment question in Ireland. It happens that both the President of the Leinster Branch of the British Medical Association, and the President of the Irish Medical Association have recently been installed in their office, and have devoted the usual annual addresses to this subject.

It would be difficult in Ireland to find two medical men more thoroughly representative than the two whose addresses deal so fully with the subject before us. Dr. O'Carroll and Mr. Tobin are both recognized as leading minds in the Irish medical world. Both belong to that creed which is professed by the great mass of the Irish people, and both possess that sympathy for their native land which is so strong a characteristic of those who claim Ireland as their motherland. Dr. O'Carroll is the physician of a great Dublin hospital, and his representative position amongst his professional brethren in Ireland is shown by his election to the Presidency of one of the largest Branches of the British Medical Association in Ireland, which has a *personnel* of 350 members, in itself a very high honour.

Mr. Tobin occupies an almost similar position in the esteem of the medical profession. The Irish Medical Association, numbering upwards of 800 medical men, has this year elected him as its President. Before settling in Dublin he had for twenty years served the State in the military profession, and held important positions in the medical staff of the army. In peace and war he had varied experience, and his tact and clear insight into medical questions combine to make him a model President of the Irish Medical Association in this crisis of its history. Both these gentlemen, it may further be added, agree in looking on the report of our Special Commissioner as of great value. Dr. O'Carroll considers the report to be "one of the most valuable documents ever presented to the public on the Irish social question." Of the Commissioner he writes, "right to the heart of things he goes and brings a heart with him." "He puts the case of the Poor-law medical officers on a plane which it hardly reached before." Mr. Tobin calls it "an excellent report, known by his audience from cover to cover," and needing no eulogy from him, and proposes that Sir Horace Plunkett should include it in his next edition of *Ireland in the New Century*.

Thus far both speakers are in complete unison, and both speak forcibly of the need of betterment for their bretheren of the Poor-law Medical Service. When however we come to study the remedial measures which they favour, we do not find the same accord of ideas, and the point of divergence is, now as ever, whether remedial measures are to be sought from the local authorities in each union or from the State. This is the classical division of opinion which arises in all public questions. Dr. O'Carroll speaks in a tone of marked and indeed pathetic sympathy with his native land. He mourns over her declining population, the grave extent of pauperism, the appalling growth of lunacy, the long-deferred age of marriage, and the apparent decadence by emigration of the race. He pierces through and through with the rapier of his satire the blundering and unsympathetic defence by the Local Government Board authorities of the *status quo* in Ireland, and is even tempted to indite some witty verses on the wretched proposals of the same Board to combine the dispensary districts and so crush out the agitation, but the keynote of his address is the clear fixation of the financial responsibility for betterment on the central authorities of the State, and his reiteration of the view that the great majority of the local authorities are unable, owing to the poverty of their districts, to deal suitably with these proposals. After dwelling on the heavy weight of imperial taxation, he asserts that any undue pressure on the local guardians might drive them into unison with the Treasury in a combined refusal to consider the dispensary medical officers' demands.

Mr. Tobin, however, does not rely on this direct frontal attack on the Imperial Treasury as the main line of assault. Undismayed by the past he still has hope to move the hearts of the guardians. He thinks that by the aid of the clergy and of the educated public opinion of Ireland the Irish Medical Association may induce the guardians to respond to the demands for the betterment, and that then the Treasury, for very shame's sake, will wake up and do its duty. He says, "I think we should ask the guardians at once to level up the salaries to £150 a year and the infirmary doctors to a relative sum, except in the very poor districts, where we should ask the Congested Districts Board to give the necessary increase."

Our readers, looking on as it were from the bench and hearing the arguments of both advocates, will draw from the different suggestions the conclusion that there is much to be said for both lines of advance. Mr. Tobin, who is not

himself a Poor-law medical officer, having just become President of the Irish Medical Association, may, perhaps, have more optimistic views as to the effect of private influence in moving the hearts of the Irish guardians than those who have fought in the past in this most difficult fight but there is no reason whatever why he should not move all the forces of his Association and its friends in the direction he suggests, and so perhaps make some advance. Assuredly no case in Ireland is more likely to capture certain positions in such a fight than is Mr. Tobin himself so far as moderation of demands, clear-sightedness and definite views as to what is needed are concerned, and we are sure all will wish him the fullest success in his efforts. Dr. O'Carroll has, however, much in favour of his more drastic proposal. He can probably unite behind him the whole force of Irish opinion in impressing on the Government authorities in Ireland the need of doing their share in the much needed sanitary improvements. He can, we know, reckon on the friendly and sympathetic assistance of the whole British Medical Association. For let it be remembered that this is not merely an Irish question. The authorities locally responsible to the empire for the well-being of the remaining millions of the Irish people are not merely the local guardians of far-away and isolated Irish unions, remote from educated public opinion, without a full knowledge of all the facts and their imperial bearings, and even a measure hemmed in by the limits of the existing powers. These guardians, pressed by electors suffering themselves from grinding poverty and with little hope of immediate betterment, are not likely to be ready to increase their own local taxation, with the very remote hope that one day, from the example of their self-sacrifice, the far-away Imperial authorities will have the true duty of a civilized State. The existing system of dispensary action in Ireland is not, unhappily, such as to justify to the people of an Irish countryside the idea that by further contributing to the relief of the poor they will please the Imperial authorities over the water. The Irish guardians of the Irish poor ought to be the central governing authorities of the empire, who presumably have the facts before them, who have highly-paid officials in the full enjoyment of all the conditions of the case, and should, but for their sympathetic hearts to appreciate the intolerable conditions around them. To them in high authority we must look for an example of humane sympathy that will by its contagion react on the local people as a guiding force and so tend to draw into closer union the English and Irish people.

If the statesmen standing behind to-day will on the highest Imperial grounds face Carrickon in the problem of the backward peasantry in the extreme south of Ireland to raise them to the conditions of Ireland, to all appearance the most favoured portion of Ireland [illegible] land marked with the brand of a special inferiority. Within this region, which can be reached in three hours from London by the Irish mail, there is a population as positive and as needful to be recognized as any in the United Kingdom. Their claims are founded more on the officials to have paid their special grants of money are not made for their benefit, and special sections of the "Church Fund" are available for them. In these little districts a body of public servants are entitled to justice and full consideration and carrying out their humane duties as medical men with as much as possible as they well can be, and ridiculous in their grotesque inefficiency.

If poverty such as this clearly exists, why are the dispensary medical officers not specially dealt with and specially paid—not by the districts, but by grants in aid from the State? If to-morrow £15,000 was set aside by the state, grants of [illegible], £150, and in certain cases of £200 could be made within these impoverished districts, and a hundred medical officers greatly benefited, given some hope in their trying lives, and enabled to do better work for the relics of the disappearing peasantry that remain in the extreme West of Ireland.

When this is done by the State, it is then and then only that the State will fulfill its highest functions as a Government, and then too the Irish Poor-law guardians, struck by the generosity and the justice of the State, may perhaps in their own districts carry out a similar reform.

It is thus by the example of the State and the co-operation of the districts that the hopes of Dr. O'Carroll and Mr. Tobin may best be realized, and the dreams of the Irish dispensary medical officers slowly fulfilled, and none will rejoice at their betterment more than the members of the British Medical Association scattered everywhere throughout our Empire.

THE FUTURE OF ST. GEORGE'S HOSPITAL.

The meeting of Governors of St. George's Hospital held on Tuesday last at the Westminster Palace Hotel will hardly, we apprehend, augment the reputation of that aristocratic body for business qualities. In March, 1903, a special court was convened at Grosvenor House to decide whether, in the event of a sufficient sum being offered for the hospital's interest in its present site, the Governors would be willing to dispose of it and to use the proceeds to establish the hospital elsewhere. After a protracted debate the meeting resolved that the Governors would be ready to consider the removal of the hospital if a suitable site could be found within the area ordinarily served by St. George's Hospital, and if the interest of the Governors in its present site and buildings could be disposed of to such advantage as to enable them to acquire a new site, and to erect thereon a complete modern hospital of not less than the present number of beds, and to meet all contingencies connected with the removal. A Committee was then appointed to examine and inquire into all the facts and questions involved and to treat with intending purchasers of the present site and buildings, and to negotiate for the purchase of a new site accordingly, and to take any other steps that might be necessary in the matter.

What the Committee had been about in the interval between March, 1903, and May, 1904, is a little difficult to make out from the report finally issued to the Governors. The two members of the staff originally appointed on it withdrew, for some reason not stated, and their place was taken by four others, apparently of an opposite way of thinking. After eight months of deliberation the Committee as now [illegible], had advanced to the point of appointing a subcommittee "to consider the financial aspects of the question." At the end of seven months more a report is issued of a curiously futile character. We look in vain in it for any sign that the Committee had endeavoured to bring itself into relation with any possible purchasers. It is frankly admitted that no inquiries as to fresh sites had been made. The lengthy document submitted to the Governors is made up of

(1) the report of the above-mentioned Finance Sub-committee; (2) a letter from one of the Deans of the Medical School, setting forth with considerable ability the assumed disadvantages of removal; (3) a letter from Mr. Timothy Holmes to the Chairman of the Medical School Committee; (4) a couple of resolutions of the Medical School Committee objecting, for reasons not stated, to the removal of the hospital, and urging the imminence of the need of rebuilding the whole of it on the present site: and, finally, the sole contribution of the Committee itself in the shape of four resolutions, only one of which has any relevance to the matter contained in the terms of reference. The resolutions were to the effect: (1) That it is not desirable at the present time and under existing circumstances to remove St. George's Hospital from its present site; (2) that the present is not a favourable opportunity for an appeal to the public for funds to rebuild the hospital on the present site; (3) that the newly-acquired site in Knightsbridge should be utilized for the immediate requirements of the hospital as soon as occasion shall serve; and (4) that it is desirable at once to negotiate with the Duke of Westminster for the purchase of certain leaseholds at the price of £23,700.

This remarkable hotch-potch, however, seems, as will be seen from the report published at p. 1497, to have been quite sufficient for the majority of the Governors who assembled at the second meeting held this week. The adoption of the first resolution having been duly moved and seconded, a well-known financier rose to state the case on the other side, but was listened to with unconcealed impatience; a second opponent was granted a hearing only on the personal appeal of the Chairman. All further opposition was formally closured, and the motion was rapidly carried by a large majority. The meeting was proceeding placidly to adopt resolutions 2 and 3, when certain members of the staff came energetically to the rescue, and by getting the former negatived and the latter amended, succeeded in practically pledging the meeting to an early consideration of a complete scheme for rebuilding on the present site. The cost of such a scheme, it appears, is estimated at £340,000, for which an appeal will have to be made to the public. While it would be churlish not to wish the Governors of the hospital every success in raising this sum, we confess that such a method of dealing with a question of great complexity and profound gravity as was displayed at the meeting on Tuesday does not seem to us likely to inspire the business-like portion of the public with any profound faith in the present mode of managing the affairs of the hospital.

THE PREVENTION OF OLD AGE

PROFESSOR ELIE METCHNIKOFF of the Pasteur Institute is, as may be gathered from the title-page of a recent work,[1] an optimist; we may, indeed, go farther, and say that he is an enthusiast. Some years ago there appeared in a Paris newspaper an article in which it was not obscurely hinted that he had discovered the elixir of life. The professor explained that the report was, as Mark Twain said of a premature announcement of his own demise, "greatly exaggerated." Within the last week or two, however, he has again confided to various interviewers his belief that old age is a chronic disease, not in its nature incurable. This is so startling a doctrine that most medical practitioners will doubtless be disposed to dismiss it at once as a figment of the scientific fancy. Any opinion deliberately expressed by so distinguished a scientific authority as Professor Metchnikoff is, however, worthy of serious attention, and we think many of our readers may be interested by a summary of his views on the prevention of old age as they are put forward in the work to which reference has been made.

After a review of senile degeneration, as it is seen throughout the animal and vegetable kingdoms, Professor Metchnikoff points out that the pathological change characteristic of old age in man is sclerosis, which may affect the liver, the kidney, and other organs, but which is mostly seen in the arteries. Some pathologists have attributed all senile changes throughout the body to arterio-sclerosis, but as Professor Metchnikoff points out, this is an exaggeration inasmuch as the condition is not seldom absent in old people. On the other hand, the bones, instead of becoming harder and more solid, grow thin and brittle with advancing age. Professor Metchnikoff, who has given much attention to the pathology of senile decay, has found that it consists essentially in atrophy of the "noble," that is to say, specific elements of the tissues, and the replacement of them by hypertrophied connective tissue. In the brain the nerve cells subserving the intellectual and sensori-motor functions disappear, giving place to lower elements or neuroglia. In the liver the hepatic cells recede before the invasion of connective tissue. In the kidney a similar process occurs. In the ovary the specific elements which serve for the propagation of the species are in like manner replaced by cells of the granular layer. In short, old age is a struggle between the "noble" and the simple or primitive elements of the organism, in which the latter are always the conquerors. The effects of this victory are seen in weakening of the intelligence, disturbances of nutrition, difficulty in purifying the blood, etc. The battle, according to Professor Metchnikoff, is no figure of speech. The phagocytes—erstwhile the guardians of the bodily commonweal—become its undoers. In the kidneys they gather around the tubules, and absorb them, leaving connective tissue in their place. An analogous process takes place in other organs. The part played by phagocytes in the process of decay is well exemplified in the whitening of the hair, which is often the first visible manifestation of old age. The normal hair is full of pigment granules, scattered through the two layers which constitute its substance. At a given moment the cells of the medulla of the hair are aroused to new activity and devour the pigment within their reach. The hair thus robbed of its colouring matter becomes grey and then white. Professor Metchnikoff thinks it likely that the porosity of the bones of old people depends on a similar absorption of the osseous lamellae. This activity of the phagocytes in old age is closely related to the phenomena observed in certain chronic diseases, such as interstitial nephritis and general paralysis.

Old age is therefore, according to Professor Metchnikoff, a pathological, not a physiological, process, but he sorrowfully admits that no remedy for the disease has yet been found. He suggests, however, that something may be done towards its prevention by strengthening the most valuable elements of the organism on the one hand, and on the other, weakening the aggressive tendency of the phagocytes. Although the problem has not yet been solved the solution is not, in Dr. Metchnikoff's opinion, impossible. He points out that the properties of cellular elements easily become altered under various influences. There is therefore

[1] *Études sur la Nature Humaine. Essai de Philosophie Optimiste.* Paris, 1903.

nothing unreasonable in seeking for means of re-enforcing them. There are serums that dissolve only the red corpuscles of certain animal species leaving the other elements untouched. It is possible also to prepare a serum capable of stopping almost instantaneously the movements of human spermatozoa, while it has no influence on those of other mammals. The principle of the preparation of these serums is the same. A cellular element, hepatic or renal, a blood corpuscle or a spermatozoon, is injected into an animal of a different species. After several injections the serum of that animal becomes toxic in regard to the cells that have been introduced into its organism. It has been established that small doses of those "cytotoxic" serums, instead of killing or dissolving the specific elements of tissues, strengthen them, somewhat in the same way as digitalis, which in large doses kills, in small doses improves the condition of certain elements. It has been observed that small doses of a serum capable of dissolving red blood corpuscles increase the number of those elements in a man to whom they are given.

Professor Metchnikoff sees in these facts an indication of the way to be followed in the endeavour to re-enforce the "noble" elements of the human organism and prevent them from being clawed in the cruel clutch of age. All that has to be done is to inject into horses or other animals human organs, such as the brain, heart, liver, or kidney, pounded to a pulp, and a few weeks later serums, capable of acting on those organs, would be obtained. There is, he admits, a difficulty in procuring the organs required from the human subject and even when they can be procured it will be difficult to test the efficacy of different doses of cytotoxic serums. Diseases, especially syphilis and alcoholism, which have a tendency to produce arteriosclerosis, are factors in the production of senile decay. Rheumatism, gout, and infectious diseases play an altogether secondary part. Taking it that syphilis and alcohol account for 25 per cent. of cases of arteriosclerosis, what is responsible for the rest? Professor Metchnikoff finds the deteriorating agency in poisoning by the countless hosts of microbes which swarm in the intestinal canal. Among these, though there are many that are harmless, perhaps even useful, there are unquestionably a very large number which are noxious to health and dangerous to life. He quotes Strasburger who estimates the number of bacteria that may be found in the contents of one day at [illegible]. Of these, comparatively few inhabit the parts of the intestine where digestion goes on. Most of them haunt the large intestine where the products of digestion [illegible] the mucous secretions and the [illegible] contents [illegible] a very favourable medium for their multiplication. These microbes give rise to the formation of many poisonous substances which may cause the most serious disturbances of health. The large intestine itself is, we are assured, a useless legacy from our remote ancestry, and is now simply a cesspool, which is a continual menace to the well-being of the economy. Professor Metchnikoff does not go so far as to suggest the removal of the large intestine, but he hints that perhaps this operation will at some future time be undertaken [illegible] [illegible] [illegible]

strictly economical. Its continued usefulness is now seriously threatened by the consequences of bad workmanship on the part of those responsible for its original construction. They did not work in the spirit of the old builders, who

> Wrought with the greatest care
> Each minute and unseen part;
> For the gods see everywhere.

The asylum was built on clay without any proper foundation; the walls were mere shells filled with rubbish. The wonder is that so jerry-built a structure stood so long as it did. The pitiless rainfall of the last three years has, however, sapped the insecure foundation; subsidence of the whole building followed, the walls cracked, and it seemed as if the asylum would fall about the ears of the inmates. Immediate action had to be taken, and the expense so far incurred has swallowed up the available funds, while the work is still far from being completed. The total cost of the necessary repairs is estimated at £30,000; a sum of £12,000 has already been spent, and £300 has to be found weekly to meet the labour bill. The men responsible for all this have long been beyond the reach of human law. The Asylum Committee has therefore only the charity of the public to look to for means to enable them to tide over the sea of financial troubles that threatens to overwhelm an institution which has done excellent work in the past, and which, if freed from its present embarrassment, is certain to do much more in the future.

The Earlswood Asylum has a special claim on the benevolence of those who recognize the duty which the kinship of humanity lays upon them. There is no more terrible affliction than the total absence of intelligence, or such defect in its development as practically cuts a child off from the human family. It was for the care of idiot and imbecile children that Earlswood Asylum was founded in 1847. Its benefits have been confined to no class. The policy of its managers has been based on Napoleon's principle of making war support war; that is to say, the payments made for the children of the rich have gone to the maintenance of those of the poor. Each class has been tended with equal care as regards the essentials of medical and hygienic treatment. The asylum has a twofold function: it relieves the home of a child which is a burden to those about it, and which cannot be properly looked after even by the tenderest mother; and it gives the child a chance of mental and moral improvement. Defective children are not infrequently epileptic, and in such cases removal from the home is imperative in the interest of the other children. Idiots cannot be cured, but their lives can be to a certain extent brightened by the wholesome influences with which they are surrounded at Earlswood. Imbecile children are often greatly benefited; the dormant mental faculties are awakened, not indeed to the full light of intellectual day, but to a degree sufficient to make the patient capable of taking some interest in his environment and sometimes of pursuing a useful occupation.

In the great work of rescuing imbeciles from the darkness of mind to which, in the absence of proper care, they are doomed, and of making the lives of idiots comfortable and harmless, the founders of the Earlswood Asylum were the pioneers in this country. For fifty-six years the work has been carried on, notwithstanding many difficulties, with a success that has earned for the institution the confidence of the medical profession, and fully deserved that accorded by the public. It exists for the succour of the most helpless members of the community, and any interruption or crippling of its work would be a widely-felt calamity. We commend the appeal of the Committee to all philanthropists who in the multiplicity of calls on their benevolence may find a difficulty in selecting the most deserving object for assistance. The need of the Earlswood Asylum is great and urgent; and at the present moment there is no direction known to us in which charity could be bestowed with greater certainty of its proving fruitful of good.

THE MEDICAL SERVICE OF THE ARMY.

If it be true that the Government intends to shelve the question of army organization till next session, no opportunity will arise for the discussion by Parliament of the recommendations of Lord Esher's Committee as to the Medical Service. At present the position of the Service is not altogether unlike that of the subject of Mr. Montagu Tiggs's famous riddle, "When is a man in gaol like a man out of gaol?" We have it on that gentleman's authority that the answer to this riddle has never been found; but we hope that a solution of the medico-military problem may soon be forthcoming. In the meantime, it may be worth while to review the actual situation. According to the letter of the War Office Reconstitution Committee, which was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 7th, p. 115, the health of the army is now in the care of three distinct and more or less independent authorities, the Director-General, the Advisory Board, and the Hospitals Committee. The Director-General, who is nominally the executive head of the Army Medical Service, is *ex officio* Chairman of the Advisory Board. He is to some extent under the control of that Board, but, according to the recommendations of Lord Esher's Committee, he can be summoned independently of the Board to the Army Council "whenever his advice and specialist knowledge are required." With the Hospitals Committee he has nothing to do. The Director-General may possibly find it as easy to separate his different capacities as Harpagon's servant found it to divest himself of the character of cook and assume that of coachman. To the ordinary mind, however, his complicated official personality is a mystery almost theological in its subtle elusiveness. In the letter to which reference has been made, it is stated that the Advisory Board "remains unaffected," except that the Director-General—"if necessary associated with a Civil representative of the Board"—may be invited to advise the Army Council independently of the Board. This practically gives the military authorities the power of dispensing with the counsel of the Advisory Board, or of going behind its decisions whenever they please. Again, the Board, which used to make its recommendations directly to the Secretary of State for War, is now under the Adjutant-General, among whose multifarious functions the supervision of "medical and sanitary matters" occupies a relatively insignificant place. As soon as the third part of the Report of Lord Esher's Committee was issued direct communication between the Advisory Board and the Secretary of State was cut off, and it was ordered to send its recommendations to the Adjutant-General. This at once reduced the Board to the position of a Greek chorus—a fate which, at the time of its formation, we predicted would be likely to befall it. As long as Mr. Brodrick remained in office, however, he loyally gave effect to his professed intention, and the Board exercised a real controlling influence, and its work, on the whole, made for efficiency. But under the new arrangement the Board was made directly subordinate to a purely military authority. The Adjutant-General could deal pretty much as he pleased with its recommendations, and there was no security that they would even reach the Army Council. We understand that this system, which obviously tends to neutralize whatever power for good the Board might have, has been so far altered that instead of the recommendations being submitted to the Adjutant-General, they are now sent to the Secretary of

the Army Council. This at least affords assurance that the recommendations will be brought to the knowledge of the superior authority of the army. But how can a Council on which medical science has no representative profitably discuss the recommendations of a medical Board? That, as has more than once been pointed out in the JOURNAL, is one of the weak points of the system proposed by Lord Esher's Committee. Another is the independent position given to the Hospitals Committee, which is in organic relation with the Works Branch, and reports upon all plans for new hospitals and standard plans for barracks and standing camps, and selects sites for new hospitals—without reference either to the Director-General or the Advisory Board. Here, then, we have three authorities without a co-ordinating centre. The medical service has, in fact, three arms without a head. This is not reform but retrogression, and we fear that if it is put to the test of war it will break down even more disastrously than the old system which was abolished by Mr. Brodrick.

THE HARVEIAN FESTIVAL OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The Harveian oration before the Royal College of Physicians of London, which used to be delivered on St. Luke's Day, October 18th, was given this year on June 21st a date thought likely to be more convenient to the majority of those who might desire to attend. The interesting oration given by Dr. Leonard Caton of Liverpool is published in full in this issue. As will be seen, Dr. Caton selected as his main topic a discussion of the views as to the circulation held in ancient Egypt. Dr. Caton has found relaxation from the more serious labours of an arduous life in the study of certain departments of archaeology nearly related to medicine, and our readers have already had the opportunity of reading the results of some of his researches in Crete. Dr. Caton on the present occasion takes us much further back in an era long before Hippocrates or the fourth millennium B.C., when there lived at Heliopolis a physician who was in after-ages deified and whose great temple stood outside the eastern wall of Heliopolis. At this temple it would appear that the priests of Ptah-Sokari not only prescribed daily for the sick persons, but also performed many surgical and other manual operations. Dr. Caton believes that they possessed a partial knowledge of the circulation, and approached it from the standpoint of the pulse, as easily as the Greeks, although they do not seem to have realised the existence of the heart as a pump, they seem to have known that blood flowed from the heart, and, apparently from the pictures quoted by Dr. Caton, they recognised the part played by the circulation in pyrexia. Dr. Caton adds that not only must the Egyptian priest-physicians have had considerable practice in the treatment of wounds, but there is evidence that some of the Egyptian surgical instruments were considered to be of such excellent temper that they were sent to Greece to be used by the Greek surgeons. Through the kindness of physicians and surgeons in Egypt, Dr. Caton has been able to examine many of the instruments used by the ancient Egyptian physicians and surgeons, and has had them reproduced for the purpose of his lecture. He has presented a series of these instruments to the Royal College of Physicians, and they will be found in the museum of the College. In this meeting the Fellows differ largely from the Harveian audience of bygone days, when the College was the training-ground for the London physicians, and when the Harveian oration was the occasion of a meeting of the whole profession. Now the Fellows are scattered in London throughout the period of the great season, and whose name is familiar to all students of medicine.

O'DWYER THE MAN.

An interesting feature of this address to the profession of London, which was largely attended by Scottish and Irish physicians, was the sympathetic sketch of the attractive personality of the inventor of intubation. He [illegible] life story well illustrates the struggles and possibilities of the general practitioner. The germ of the idea of intubation slowly developed in his mind while he was harassed with the cares of 3,000 obstetric cases in poor surroundings. Time had to be snatched to make observations on cadavers under disadvantageous conditions. The first instrument designed for insertion in the larynx was like a bivalve uterine speculum, about an inch long. Even when the tube form had been evolved from this, O'Dwyer worked on its development for five full years. We must remember that he knew of no predecessor in the work, that it required much courage to initiate what must at first have appeared a risky, and even brutal, treatment, and yet that what he has given to the world was so complete, so careful, and so long thought over, that little has since been added to it or taken away. No one disputes his sole ownership of his invention. What did O'Dwyer reap from it? Apart from a name amongst the heroes of medicine, his only rewards were worry, anxiety, and early death. He died a poor man at the age of 57, of arteries older than his years. Whatever the cause may have been—excessive modesty, great diffidence, or physical languor—he seemed unable to "grasp the skirts of happy chance" although it was no chance in his case when Fortune swept past him. He had not the business capacity to achieve position and money. He was offered opportunities of giving lectures, but declined to continue them. He did get some consulting practice in connexion with intubation, and then found it necessary to let some of his general practice go. For a time there was some compensation. Then came antitoxin, and with it there was less need of intubation and fewer consultations in diphtheria cases. Finally, others acquired the facility for intubation, and many of these were bustling and pushful, so that intubation first sank and then killed the modest O'Dwyer. It would appear that a more modest man never lived. At gatherings in his honour he was diffident and shrinking. Like many such characters he had, to reverse a well worn phrase, the good qualities of his defects. No man lives, says Dr. Northrupp, who can come forward and say O'Dwyer did an unmanly act, made knowingly an untrue, unwarranted, or unkind statement. He left a memory among his colleagues of a purity of character, an uncompromising honesty and uprightness which is almost child-like. His word once given constituted an obligation which no circumstances could weaken. He had no enemies. The proof of this is that although he left no fortune to educate his three boys, he left so many friends bound to him with such imperishable bonds, that all the boys have had the best training, and are equipped for their life-work. Dr. Northrupp describes intubation as an operation supplanting tracheotomy, gaining ground every year and never losing it. We cannot speak of the progress of intubation in America or other countries, but we very much doubt if it is gaining ground in Great Britain and we are inclined to think its sphere of usefulness has been somewhat circumscribed lately. We are averse to contrasting it with tracheotomy as if both were applicable to similar conditions. Intubation has certainly proved its worth in certain cases of laryngeal diphtheria under certain conditions. The chief of these conditions is the [illegible] accessibility of a medical man. Hence with us at least, intubation has its chief sphere of usefulness in the wards of fever hospitals. In other directions it appears to have gained little ground. It is seldom seen in general hospitals, the subject is rarely discussed at medical societies, and many laryngologists do not even [illegible] from time to time we have [illegible] by members of the staff of fever hospitals [illegible] in advocating the indications for intubation in diphtheria. We have sometimes, also, it must not be forgotten, to record the troubles or disasters [illegible] prolonged intubation or from [illegible] But we cannot say that intubation is [illegible] in it appears to be languid. [illegible] a suitable subject for general discussion at [illegible] Congress. No one can peruse the literature of various countries without being struck by the

unequal prominence given to the consideration of intubation. Do other countries claim too much for it? Are we backward in taking full advantage of it? Whatever fate may be in store for intubation in the evolution of medicine, the memory of Joseph O'Dwyer will still be that of an honourable man.

QUINTUPLE TWINS.

A GENUINE case of quintuplets has recently been reported before the Berlin Obstetrical Society[1] by Professor Nijhoff, of Groningen. The mother was 34, and came of what may be called a very twin-bearing stock. Her own mother had once borne twins, the wives of two of her maternal uncles had each borne twins once, and one maternal aunt had been the mother of triplets. Twin pregnancies were unknown in the patient's father's family. The patient herself had given birth to a healthy boy seven years before. She believed that she aborted at the second month in 1902, then she menstruated once, on January 20th, 1903, and immediately afterwards became pregnant. During gestation she felt well, but the abdomen grew unusually large. After the beginning of May a little blood and serous fluid occasionally escaped from the vagina, quickening was noticed early in June, and on July 12th she gave birth within an hour to the five twins and the placenta. None survived their birth. The first and second child were female, the third a male, the fourth and fifth females. The first and third fetuses were enveloped in their membranes when delivered. The first and third were head presentations, the others footlings. The placenta followed the fifth child within a quarter of an hour, after gentle pressure. There was a considerable amount of flooding, and many coagula came away during the puerperium, but recovery was rapid and complete. The obstetrician, Dr. De Blécourt, who delivered the children, took care to invest each fetus at once with a band on the arm bearing a number and to mark its funis. The quintuplets and placenta were preserved in formol, each child being re-united to its funis. The placenta was single, but divided into three unequal parts, with irregular disposition of the chorion and amnion. Professor Freund, in discussing Professor Nijhoff's case, noted that he had attended one case of quadruplet pregnancy where two of the children were living, and one was a fetus papyraceus. Holländer, he added, had observed an authentic case of quadruplets, but the alleged sextuplets born in Silesia proved to be spurious, which we can well understand. Olshausen remarked that the Dutch were a prolific nation, as Nijhoff's case helped to show. He himself knew of a family where the women had on three occasions borne triplets, and had no less than twenty-five times given birth to twins. Nijhoff expressed his intention of shortly issuing a monograph on quintuplets. He shows that the only preparations illustrating the condition which have been preserved are in the Museum of the Royal College of Surgeons of England, and in a Dublin collection, though in neither is the placenta preserved. We understand that an illustrated clinical report of Professor Nijhoff's case will be published in an early number of the *Journal of Obstetrics and Gynaecology of the British Empire*. We find that there are two specimens of quintuplets in the Museum of the Royal College of Surgeons, neither with the placenta. The first (No. 3,681, Physiological Series) is Hunterian; the second (No. 3,681A) was presented by Dr. Arthur Farre in 1877. All the fetuses are females.

THE BOOM OF THE BONESETTER.

THE apostolic succession of bonesetters seemed to be interrupted by the recent death of "Professor" Atkinson, but certain newspapers are doing their best to supply the missing link in the chain of continuity. A few days ago, as if at a signal given, they broke forth in a choral chant of "Ducdame" (Jaques's invocation to call fools in a circle), proclaiming to the world the coming of a new healer of cripples. The wise men of the London press somehow saw the star of the unknown bonesetter in the North and found him at Blantyre, a little village near Glasgow. The thaumaturgist's name is William Rae. For thirty years he worked as a miner, but one day accident revealed to him that he possessed the gift of bonesetting. He then, we are told, "set himself to study anatomy and physiology, and with characteristic determination he conquered his difficulties." But surely a heaven-born bonesetter has no need of such futilities as anatomy and physiology, and as the skill which he is supposed to possess is a "gift" it is not easy to see what "difficulties" there could have been in its acquisition. If the account of his method given by a sympathetic interviewer is to be believed, his scientific studies have no influence either on his theory or his practice. His doctrine appears to be that bone disease is an invention of the doctors; the proof of this is that neither he nor any one else has ever seen a diseased bone in a living man! The secret of spinal curvature, hip disease, and every other condition causing deformity or lameness, is contained in the single word "Bluid." "Where that's wrong," says this pathological oracle, "aw the rest's wrong." As to his method, we are told by a learned Theban who writes in the *Daily News* that "he does not follow the prevailing practice of breaking deformed limbs and resetting them by a liberal use of finger and thumb." He straightens them out by the simple process of pressing the spine or pulling the leg. It is admitted by one of the sacred bards whom he has found in such numbers to hymn his praise that "in no case was the cure instant. There always seemed to be a little lameness after the operation." We are rather surprised to hear this, for we have no difficulty in believing that if the gifted one occasionally fails in straightening a crooked back, he is most successful in leg pulling. A sapient person informs the readers of the *Daily Express* that Rae's treatment is "that known as bloodless surgery," while another states in the *Daily Chronicle* that Rae's "methods in bloodless surgery are proving more successful than those of Professor Lorenz." A like claim was put forward by "Professor" Atkinson and his numerous admirers in the press. That such "odorous" comparisons should be possible is surely a most striking proof of the discredit brought on the medical profession by newspaper publicity. The "boom" touches nothing without soiling it. The Blantyre bonesetter, however, doubtless finds some compensation for the evils of the "boom" in his fees, which are said to amount to £100 a day. It may here be said that the element of myth seems to enter into statements as to the enormous earnings of bonesetters. "Professor" Atkinson, whose practice was so large that he had, we believe, to employ a dozen assistants working in separate consulting-rooms, and who had hosts of what Warburton called "the better vulgar," and even royal personages among his clients, left less than £900. It is noteworthy that nearly all Rae's patients come from a distance, Lancashire and Bolton furnishing the largest contingent. No one in Glasgow appears to have heard of him. This may perhaps be explained by the fact that no man is a prophet in his own country; we prefer, however, to see in it a proof of the hard-headedness which is characteristic of the Scot. There is nothing in this wondrous tale of the "collier surgeon" that will surprise those who know how little Education Acts have done to dissipate the clouds of ignorance and credulity which darken the public mind. The really interesting point to know would be how so foolish a thing was made the subject of a successful "boom."

[1] [illegible] p. 730.

AUTOMOBILES FOR MEDICAL MEN.

THE *Autocar* published on the last Saturday of May a special number devoted to the subject of automobiles for medical men. While it is in many ways interesting it is in others disappointing, and this opinion, it would appear, is shared by some of our own readers who have come across the number. Like them we had hoped that it would throw some fresh light on a problem of considerable difficulty and anxious thought to many medical men. The number is worth the perusal of those who have already practically

made up their minds, and who only want a good excuse to throw aside further consideration of the pros and cons, and at once exchange from horses to a car. To such the matter may be thoroughly recommended inasmuch as that they will find pages and pages of letters from enthusiastic motor automobilists. Apart however, from the fact that the experience of many of the writers is obviously very limited no one's views are more dangerous to accept than those of an enthusiast even though he really knows his subject well. Motoring is doubtless a delightful pastime, but, when regarded from the point of view of the most satisfactory way of getting through the work of a busy practice there is a good deal to be said upon both sides. In such case it is a question to be approached in a perfectly cold blooded fashion, strict utility and the balance of profit and loss in pounds shillings and pence being alone kept in view. Those of our readers, therefore, who are at present debating the problem of cars versus horses we advise not to be influenced by the paeans of praise which this number of the *Autocar* contains, should it be brought under their notice but instead to study the articles in the Journal to which reference has already been made and which appeared on January 16th, p. 121 and January 23rd, p. [illegible]. During the months which have since elapsed, no developments in manufacture have occurred which make any modification of the views then expressed upon the general subject desirable. A great many cars of sufficient power and moderate cost are now upon the market; choice between them is not easy, and the results of the Reliability Trials, of which we published a carefully-compiled analysis in the articles mentioned, still form the safest guide in default of private trials of a more special character. The cars which figured specially well at these trials were, in the class for cars sold at £400 or less, the 5-h.p. Baby Peugeot, the 6-h.p. de Dion, the [illegible]-h.p. Century, and the [illegible]-h.p. Oldsmobiles. In the class for cars sold at £600 or less, the correspondingly successful vehicles were the 8-h.p. M M C, the [illegible]-h.p. Swift, the 9-h.p. Argyll, the 9-h.p. Beaufort and the [illegible]-h.p. Darracq. We are far from saying that there are not many equally good cars to be had at corresponding prices, but these are the cars about which the public has at present the most favourable information from authoritative and impartial sources. It may be noted that motor manufacturers are now quite awake to the big market which wealthy, hard-driving medical men, and cars, such as de Dion, for instance, may now be found specially fitted out with a view to the needs of medical work. We may, at the same time, offer a respectful hint and word of warning in the subject of second-hand cars. Owing to slight changes of pattern and to the fact that automobiles, so far, have been mainly the plaything of the rich, there are already an enormous number of second-hand cars upon the market. Their appearance and power are often tempting to the buyer, and there is no doubt worth the price asked. In a general way, however, it is even more risky to buy these cars than horses, and at a public auction [illegible] is a temptation to which medical men in the country should rather pay a penalty than succumb. Only cars which possess all the most modern improvements, with the results of which the owner is thoroughly familiar, should be got if quality and power are to be obtained for the original outlay.

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association met in Atlantic City, New Jersey, on June 21st, 22nd, 23rd and 24th, with the President, Dr. John H. Musser, of Philadelphia, in the chair. [illegible] having completed [illegible] of the annual address, at least one hour was [illegible] for the subject at the address [illegible] Dr. Musser [illegible] that there was [illegible] at a degree of MD in a [illegible] the medical profession would be [illegible] from the report of the Minority Education Committee, the latter [illegible] the purchase of the [illegible] medical school by the University was the most substantial [illegible] inasmuch as a thorough education at first is a saving of time in later years and the money outlay is returned more quickly in immediate work and larger pay. Dr. Musser pleaded strongly for greater facilities for clinical study in hospitals. He pointed out that in hospitals in which teaching was carried on the patients seldom complained. With the object of removing the suspicion which still existed in the public mind he suggested the organization of associations of prominent people in the leading centres of the United States who should agree to have any operation, any feature of disease, witnessed by medical students, according to the judgement of their physician. It would be well, he added, if the members of such an association would agree first to undergo hospital treatment; secondly, to be the objects of observation by students; thirdly, in case of death to have a necropsy performed. "Such associations would rob hospitals of their terror and teaching of its dread." By the courtesy of Dr. George H. Simmons, Editor of the *Journal of the American Medical Association*, we were enabled to publish abstracts of the Orations in Medicine and Surgery and the Address in Public Medicine in our last issues. We hope to publish in the [illegible] abstracts of the more important papers read in the Sections. The report of the Secretary showed that the membership of the Association in June, 1903, was [illegible] during the past year 2,413 new members had been added, and 1,116 had been dropped on account of death, non-payment of dues, etc. The membership at present was [illegible]. The total membership of the State societies was about [illegible]. The report of the Board of Trustees showed that the Association owned real estate valued at £20,000, and that it had other investments in more convertible securities, to the amount of £8,000, which also provided for the reserve fund of £30,000, which the Association desired should be set aside for use in emergency before any change should be made in its fiscal policy. This fund, however, was not to be made up at the expense of the [illegible] that was by curtailing in any way that which would effect its ideals. This report also showed that the average weekly circulation of the *Journal of the American Medical Association* was [illegible],615 copies, which indicated an increase of 3,613 copies for the past year. Among the resolutions passed by the Association was one approving the recent action of the Postmaster General in checking the transmission of quack remedies and fraudulent and obscene advertisements through the post.

A GOOD EXAMPLE.

The United States Post Office Department is making a commendable effort to acquit itself of any complicity in the distribution of advertisements which are either indecent or fraudulent. All drugs and nostrums will be referred to the Department of Agriculture for analysis in order to determine the genuineness of their medical claims, and the data in all cases will be finally referred to the Law Department for final action. The action of the Post Office has received the approval and the co-operation of the American Newspaper Publishers' Association and a large number of medical men and scientists. The attorney for the Post Office Department has held that any contract for [illegible] such objectionable matters is void when [illegible] in an adverse sense on the character of the advertisement. We commend the example of the United States Postmaster General to our own postal authorities as one they might imitate with great advantage to the people.

ST. BARTHOLOMEW'S HOSPITAL.

[illegible] the ceremony of the laying of the foundation stone of the new out-patient department for St. Bartholomew's Hospital [illegible] Their Majesties the King and Queen will arrive in state and will be received [illegible] the arrival by the President of the hospital H.R.H. the Prince of Wales. The procession will enter the hospital premises through a new entry at the corner of the [illegible] Hall buildings to Giltspur Street, and after com-

pletion of the ceremony will drive across the ground acquired from Christ's Hospital to the Little Britain Gate of St. Bartholomew's, enter and transverse the quadrangle between the four principal ward blocks, and leave by the old gateway in Smithfield. A very large number of patients, students, and other persons will therefore have an opportunity of seeing some part of the proceedings in addition to those for whom special provision is being made. A tiered stand built round three sides of the site of the foundation stone will provide three thousand seats. For these no charge is to be made, but it is expected that those who accept invitations to occupy them will make suitable donations. One part of the ceremony will be the reading to Her Majesty the Queen the charge always addressed to those who are elected to the office of a Governor of the institution, one which Her Majesty has recently accepted. Instead, however, of the long white wand of office which must be familiar to old "Bart.'s" men, a small model will be tendered for Her Majesty's acceptance. The religious part of the proceedings will be conducted by the Bishop of London, and Madame Albani will be present to sing Elgar's setting of the National Anthem with the assistance of other artistes.

GUARDIANS AND TUBERCULOSIS.

DR. LIONEL A. WEATHERLY has recently printed a very full and interesting paper on the subject of Boards of Guardians and the crusade against consumption in *Tuberculosis*, the organ of the National Association for the Prevention of Consumption. The paper has been compiled by Dr. Weatherly from the answers received in reply to a circular sent out to all the Boards of Guardians in this country, to whom the following questions were addressed: "Have you made separate provision for the treatment of consumptive cases, and what?" "Have you made provision for isolating them?" Replies came from 608 out of a total of 695. They show that, in spite of the lectures which have been delivered through the help of the National Association for the Prevention of Consumption and its many branches, no less than 576 Boards are doing nothing whatever in this great crusade against one of the worst enemies of mankind. This is the more regrettable as only recently, in a paper on the subject of the Boards of Guardians and consumption in Ireland, it was shown that 50 per cent. of the Irish unions are taking active steps to combat this foe, while in England and Wales the percentage of Boards doing anything is under 18 per cent. The paper is full of valuable information and suggestions, and we strongly recommend it to the perusal of Poor-law medical officers throughout the country. The paper has been reprinted in a pamphlet of twenty pages, and copies can be obtained from the National Association for the Prevention of Consumption, 20, Hanover Square, London, W., price 2d.

THE PRESIDENCY OF THE GENERAL MEDICAL COUNCIL.

WE hear a rumour that Sir William Turner, K.C.B., contemplates resigning the presidency of the General Medical Council at the November session, and we understand that the names of Dr. Donald MacAlister and Dr. Pye-Smith have been mentioned in connexion with the presidency should the vacancy occur. Some members of the Council, however, we believe would like to see the chair occupied by an Irish member.

OXFORD MEETING: VICE-CHANCELLOR'S SOIREE.

MEMBERS of the British Medical Association who have exhibits of exceptional scientific interest, and who would be willing to show the same at the Vice-Chancellor's *soirée* on Wednesday evening, July 27th, are requested to communicate as early as possible with Mr. D. H. Nagel, Trinity College, Oxford, who, in the event of their acceptance, will make the necessary arrangements for having them exhibited. Academic robes will be worn on this occasion.

SIR ANDERSON CRITCHETT has been elected an honorary member of the Gesellschaft der Aerzte of Vienna.

THE Emperor Francis Joseph on June 21st laid the foundation stone of the New General and University Hospital for Vienna, to replace the old general hospital built 120 years ago.

PROFESSOR ROBERT KOCH, who has been absent from Germany prosecuting scientific researches in South Africa and elsewhere, has returned to Berlin, and has resumed charge of the Institute for Infectious Diseases, of which he is Director.

AT a meeting of the Paris Académie de Médecine on May 31st a paper was read by Madame Macaigne. This is said to be the first time that the Académie has extended such a privilege to a lady.

A MEETING of the Pathological Society of London will be held at the Lister Institute, Queensberry Lodge, Elstree, on Saturday, July 2nd, in the afternoon. A train leaves St. Pancras at 1.50 p.m. and returns from Elstree at 6.27 p.m., reaching St. Pancras at 7 o'clock. The station is Elstree and Boreham Wood on the Midland main line.

DR. A. P. LUFF has resigned his appointment as Scientific Analyst to the Home Office, owing to the increasing demands of practice, and, as already announced, Dr. W. H. Wilcox, also of St. Mary's Hospital, has been recommended by the Council of the Royal College of Surgeons of England, as his successor.

MR. TRIMMER, of whose life we are enabled to give some account in another column, was at the time of his death in his 78th year, and had served the Royal College of Surgeons for forty-two years—for thirty-six as Secretary. He was a very capable officer, and, though he sometimes had unpleasant duties to perform, his genial manner made it easy for every one to distinguish between the official and the man. He was well known to most Fellows and Members now living. Closely associated with him was Thomas Madden Stone, who was attached to the College as Assistant Librarian and then Clerk in the Secretary's office for exactly half a century, dying in 1894, aged 79, whilst Mr Searle, nephew of Professor Kiernan, also a former clerk in the Secretary's office, is still living.

MEDICAL NOTES IN PARLIAMENT.

The Revaccination Bill.—Last week the Duke of Northumberland moved the second reading of the Revaccination Bill in the House of Lords. The Bill, he said, dealt solely with revaccination, which experience had shown to be necessary for complete protection. He referred to the report of Dr. Low, of the Local Government Board, on the practice in Germany, where small importance was attached to isolation, and reliance was placed on vaccination and revaccination. In Germany the deaths from small-pox during the last twelve years had been less than 13 per million living, while in England they had been 267 per million. If revaccination were insisted on in this country the difficulties of supplying glycerinated calf lymph to meet the sudden demands at the time of epidemics would be removed, and the need for isolation hospitals would disappear. This would be a great saving to the ratepayers. The Bill proposed to revaccinate all children within twelve months after they were 12 years of age. This, it was believed, would give protection till middle life. There would be no interference with adult labour as now, when the breadwinner had to be revaccinated. The Bill threw the responsibility on parents of having their children revaccinated, and obliged local authorities to supply the vaccination authority with a list of all children of 12 years of age. Lord Lansdowne said the Government was in no way hostile to the principle of the Bill; the Government considered revaccination a desirable thing. The evidence seemed conclusive; it showed that in Germany in twelve months there were only 667 deaths from small-pox in a population of 56 millions, while in this country during the same period there were 6,750 deaths in a population of 32 millions. The Royal Commission had stopped short of recommending compulsory revaccination, and the Government had accepted their view. They had done all in their power to encourage and facilitate revaccination. He could not help thinking that the Local

Government should not have been wise in attempting to hurry matters then since the people towards vaccination. He was told that whereas in 1885 there were only 14 per cent. of the births unsuccessfully vaccinated, that is, the proportion was no less than 75 per cent. The Government had not thought it desirable to legislate for compulsory revaccination, and obviously it was impossible to contemplate the passing of such a measure during the present session. Being in favour of revaccination the Government intended to pass the second reading but it must be understood that they did not in any way commit themselves to the details of the measure. Lord Newton remarked the Government that when in 1898 they established the existence of the present epidemic the Bill was only passed on the understanding that the Government would subsequently bring in a Vaccination Bill. He could not on this account regard the statement of Lord Lansdowne as satisfactory. Lord Lanserville, who made his maiden speech, expressed very strongly his belief in the compulsory system and opposed the appointment of a Committee to examine the evidence. It seemed contrary to natural laws that the inoculation of human pus with human flesh could produce health. He did not support a division on the second reading, but did not persist and the Bill was read a second time. The Committee stage was formally fixed for Thursday, June 23rd.

The Mortality in South African Mines. Last Monday Lord Cromer, in the course of a speech on Chinese labour in South Africa dwelt on the high death-rate among the miners in the Transvaal. He quoted from Mr. Cook's official report the statement that there was steady and uninterrupted progress in the treatment of the natives, and yet in that very year the death-rate had been 69 per 1,000. In May it was 72, in June 90, and in July the month after the report it was 112. For the six months ending December, it was 81 per 1,000. The high mortality had been referred to influenza, but the Commission of Inquiry appointed to examine the causes of the mortality had not mentioned influenza. In some mines the death-rate varied from 102 to 137 per 1,000, while in other mines it was only 24 to 31. This proved that the sickness was largely preventible. The deaths occurred among men in the prime of life, the corresponding death-rate in English cities being only 6 per 1,000, and in the Colonial mines which most nearly resembled those in the Transvaal, it was only 19 per 1,000. He contended that before any Chinese were admitted the conditions should be examined to reduce the death-rate. Lord Elgin, speaking as one interested in South African mining, said that he admitted the high death-rate and deplored it. The rate of the past decade in Cornish mines had been 18 per 1,000 deaths from phthisis. The Transvaal mine-owners had offered prizes for the best means of preventing the dust caused by drilling and were anxious to introduce the system of labour to the natives, but the difficulties in the way of introducing machinery would not cease. The high mortality from pneumonia was one he thought to eliminate. The Duke of Marlborough, speaking for the Government, explained that the state of the natives working in the mines as regards food and sanitation was carefully looked after. The high mortality was largely due to pneumonia which occurred soon after the Kaffirs had arrived at the mines, while they were unaccustomed to the climate. He concluded by expressing the optimistic attitude of the Transvaal Government. He showed by figures that there was reason to hope that the steps taken by the Transvaal Government would have effect, as after the first year the death-rate had been considerably reduced. Lord Dunboyne and the Marquis of Londonderry also spoke, and the debate then ended by the withdrawal of Lord Dunboyne's motion.

Beri-beri and the Coolies. There was quite a lively scene in the House of Commons over the subject. Mr. Hutchinson asked the Secretary of State for the Colonies whether he had received information that beri-beri was prevalent among the Chinese coolies employed in the Transvaal mines; whether the Chinese coolies were not in the habit of bringing with them their own rice; and whether, in view of the introduction of this disease into South Africa, he would take steps to prevent the importation of rice into the Transvaal except under such conditions as would prevent the spread of beri-beri. Mr. Lyttelton said that he had received information to the effect that beri-beri had appeared among the Chinese coolies employed in the Transvaal mines, and that the Chinese coolies were in the habit of bringing with them their own rice. He was not aware that the importation of rice into the Transvaal was prohibited, and he did not think that any steps could be taken with regard to the importation of rice which would not be open to serious objection. Mr. Hutchinson then rose and said that after the extraordinary statement which had been made he must move the adjournment of the House, in order to call attention to the imminent danger which arose from the introduction of a most highly infectious and very fatal disease known as beri-beri into South Africa. The Deputy Speaker said that notices of motion on the paper covered the notice, and he therefore could not put the adjournment. Quite a storm of protest arose from Mr. John Redmond, Mr. Lambert, Mr. Sydney Buxton, Mr. Bales and others. Mr. John Redmond appealed to the Prime Minister to prevent the House of Commons being reduced to a state of impotence by an obscure individual putting down a notice wide and vague enough to cover anything. Mr. Balfour said that the House would recognize that it was a matter of great difficulty for him to exercise any influence in the direction of limiting notices of motion. He thought the subject of the outbreak of beri-beri could be much better discussed on the Colonial Secretary's salary, because the Government had no information on the subject. Dr. Hutchinson said it was a matter of great urgency and appealed against delay. The matter finally dropped and the motion for adjournment was not allowed.

Cholera in Persia. Sir Walter Foster asked the Under-Secretary of State for Foreign Affairs whether he had received information of a severe outbreak of cholera at Kermanshah, and of the infection of the districts of Mardasht, Soegur, Sarat, and Hamadan, in Persia; and whether he would take care that the quarantine arrangements at Bisitun, and on the Turkish frontier, were not unnecessarily injurious to British trade through Bagdad. Earl Percy answered that the Foreign Office was aware of the existence of cholera in all the districts except Sarat, as to which no information had been received. His Majesty's Minister at Teheran had reported that the measures taken by the Persian authorities did not appear to be in excess of those allowed by the Venice Convention. Sir A. Hardinge had asked for the suspension of these measures in the interests of trade when cholera seemed to be dying out at Kermanshah about a month ago, and would no doubt renew his endeavours when circumstances permitted. The Turkish authorities at Bagdad had imposed 5 days' quarantine at Khanikin on arrivals from Kermanshah.

The Distribution of Poor-law Children.—Sir Ernest Flower asked the President of the Local Government Board if he would state the number of children at present accommodated in metropolitan district and separate Poor-law schools, metropolitan workhouses, and metropolitan infirmaries, respectively. Mr. Long replied that the numbers on June 4th were as follows:

In district and separate schools (including 827 in scattered homes and 278 in separate receiving homes)	10,902
In workhouses	1,342
In infirmaries	1,080

Out-relief for Children. Sir Walter Foster asked the President of the Local Government Board whether Boards of Guardians had printed or written scales of relief which provide for outdoor relief in money and bread according to the number of children needing relief; and, if so, whether the Local Government Board would either direct their inspectors to withdraw, or issue a circular advising, an allowance of milk in the case of young out-relieved children needing milk, and also to nursing mothers in receipt of out-relief. Mr. Long replied that he understood that some Boards of Guardians had scales of relief of the kind referred to. He thought Boards of Guardians must be trusted to use their discretion as to the granting of allowances of milk in the cases mentioned in the latter part of the question; but he would bring the matter under the notice of the inspectors.

The Registrar-General and the Supply of Information to the Press. Sir Walter Foster returned to this subject last week and asked the President of the Local Government Board whether he would communicate with the Registrar-General with a view to the issue of an order to the registrars of births and deaths to place every week in a convenient position at their offices, accessible to the public, a list of deaths registered by them with the date of death in each case, but not specifying the causes of death, so that the public might be informed of the names of persons whose deaths were registered in each registration district. Mr. Long replied that he had communicated with the Registrar-General in this subject and he found that it would not be practicable to give effect to the suggestion of the hon member, apart from any question of the expediency of so doing.

The St Bartholomew's Hospital Bill which had come down from the Lords was read a third time and passed with slight amendments on Tuesday last.

Scotland.

EDINBURGH ROYAL INFIRMARY RESIDENTS' CLUB.

THE tenth annual meeting of the Edinburgh Royal Infirmary Residents' Club was held in the Caledonian Station Hotel, Edinburgh, on June 10th, Sir William Mitchell Banks presiding. Over seventy members of the Club were present. The Secretary reported that there were now 399 ordinary and several honorary members. Professor Annandale was appointed President for the coming year, and Dr. Edwin Bramwell was unanimously elected Secretary in the place of Dr. Claude B. Ker, who had resigned. It ought to be said that the origin and the vigour of the Club were mainly due to Dr. Ker. The dinner after the meeting was a great success. Among those present were Professor Chiene, C.B., Dr. Yellowlees, Dr. David Christison, Dr. Byrom Bramwell, and Dr. McBride, while apologies were received from Sir J. Halliday Croom, Professor A. R. Simpson, Dr. P. H. McLaren, and many others. Sir William Mitchell Banks made a most genial Chairman, and gave many amusing reminiscences of his time as a resident. The present Royal Infirmary residents gave a highly successful orchestral performance, and songs were contributed by Drs. Kennedy and H. P. Thomson, and by Messrs. F. M. Caird and George Chiene. A very clever hit also was Dr. Robert Hutchison's suggestion for a special diet for resident medical officers.

ABERDEEN COMPANIES R.A.M.C. (Vols.).

The annual inspection of this corps was held on June 18th within the grounds of the Aberdeen Grammar School. Major Scott Riddell, in the absence of the Commanding Officer, Major Mackenzie Booth, was in command, and the parade numbered considerably over two hundred, including the *personnel* of two field hospitals with transport, and the Gordon Brigade Bearer Company, which is now attached to the Aberdeen Companies R.A.M.C. (Vols.) for purposes of organization, discipline, and finance. The inspecting officer was Major Scott, R.A.M.C., Edinburgh, representing the P.M.O. of the Scottish District. During the two hours of inspection a great variety of work was shown, including march past in quarter column, infantry drill, stretcher drill, Yeomanry foot drill by unmounted portion of transport section, and mounted drill by the others. The Brigade Bearer Company established collecting and dressing stations, and brought in wounded from the field, and were then submitted to stringent oral examination. At the close Major Scott addressed the officers and men, and was highly complimentary in his remarks on the standard of efficiency exhibited in the work of all sections. In the evening the officers dined together in the Grand Hotel, under the presidency of Captain Lister, Mess President, and among the guests were Major Scott, Captain Boyle, R.A.M.C., Brigade-Surgeon-Lieutenant-Colonel McConnachie, I.M.S. (retired), Surgeon-Captains Edmond, Williamson, and Christie, 1st Volunteer Battalion Gordon Highlanders, etc. The Aberdeen Companies go into camp at Netley on July 16th for a week.

ST. ANDREW AMBULANCE ASSOCIATION.

The year 1903-4 has been one of marked activity in ambulance work in the district which has Aberdeen as its centre. In the city at least five large classes have been held, with medical practitioners as instructors, including one under the auspices of the School Board—an evening class for ladies, conducted by Dr. Anne Mercer Watson—first aid and home nursing both being taken up. In the country districts the session has been no less successful, and the classes held at Inverurie, Turriff, Maud, Huntly, Kemnay, Kintore, and other places have all been well attended, and the examinations showed good results. One very striking and immediately useful development of this excellent work has been the union of several country parishes or districts for the purpose of obtaining and keeping up a thoroughly equipped ambulance carriage for the comfortable conveyance of accident cases to hospital or to their homes. The Garioch district was one of the first in this respect, and a week or two ago a first-class ambulance was handed over to a committee of management representative of the districts which had subscribed. The need for such a vehicle and its usefulness have been amply demonstrated, for in the first few weeks it has traversed several hundred miles. The annual meeting of the Local Committee was held on June 17th, Professor Ogston presiding. The accounts and reports for the year were submitted, approved, and considered very satisfactory. Colonel Douglas Duncan was appointed chairman for the ensuing year and Professor Finlay vice-chairman. Thereafter the following medical men were appointed to act as examiners during the year 1904-5: Drs. W. Irvine Fortescue, Thomas Fraser, A. Henderson, J. Innes, F. Kelly, W. R. Pirie, A. Ogston, J. Smart, and J. A. Watt (all in Aberdeen); Drs. D. G. Campbell (Elgin), P. Claron Carson (Huntly), and D. D. Macintosh (Aboyne).

MEDICAL WOMEN PRACTITIONERS IN SCOTLAND.

A private conference of medical women practising in Scotland, on the suggestion of Dr. Emily Thomson, met in Edinburgh on June 18th. Women from all the large centres of Scotland, many from country districts, fifty-three in all, were present. The questions under discussion were (1) the lines on which the future medical education of women should be carried on in Scotland; and (2) the possibility of obtaining for medical women admission to the Membership and Fellowship of the Royal Colleges of Physicians and Surgeons.

INFANTS' MILK DÉPÔT AT GLASGOW.

The scale of charges to be made for milk supplied by the sterilized milk dépôt of the Glasgow Corporation was fixed at a recent meeting of the Committee on Infantile Mortality. For infants under 3 months the price will be 2d. for the nine bottles, which constitutes a day's food. From 3 to 6 months the price will be 2½d., from 6 to 8 months 3d., and from 8 to 12 months 4d. The 2d. milk will be two-thirds water, the 2½d. milk half-and-half, the 3d. milk two-thirds milk and one-third water. Cream will be added to all the qualities in varying proportions. The charge of 2d. is 1d. under that which similar dépôts in other towns receive, but the Committee wishes to popularize the supply, especially for the youngest children.

LEITH AND CONSUMPTION.

At the last meeting of Leith Town Council, Dr. Robertson, Medical Officer of Health, submitted a report on the subject of consumption in which he advised that the Council should aid the medical practitioners of the burgh in the diagnosis of cases of phthisis pulmonalis by making, when necessary, bacteriological and microscopical examinations of specimens of sputa; that the medical practitioners should be urged to make full notification in a voluntary way, and with the consent of their patients, of cases of phthisis occurring in their practice; and that steps be taken for the isolation and treatment of early cases which the medical officer of health might consider suitable. As regards the last point, he suggested that they should meanwhile limit the numbers to 12 patients, 6 male and 6 female. Each patient would remain in hospital on an average about six weeks, and the cost to the burgh would be comparatively small. He did not at present advise the Council to accept the suggestion of the medical practitioners at their meeting in January last, when they urged upon the local authorities the advisability of adopting some method by means of which suitable and especially advanced cases of phthisis pulmonalis might be isolated and treated. The Council decided to delay consideration of the medical officer's report.

SMALL-POX IN SCOTLAND.

During the period from May 16th to June 15th, 199 cases of small-pox were intimated to the Local Government Board. These were distributed over eleven of the counties of Scotland. Glasgow burgh heads the list with 102 cases. Edinburgh burgh stands second with 11 cases. Govan burgh had 7 cases; Dundee, Greenock, and Falkirk had each 6 cases; and Rutherglen 5 cases. During the period in question small-pox appeared in fifteen districts where no previous cases had been intimated to the Board during this year. In the week ending Saturday, June 11th, only two cases were intimated to the Public Health authority of Edinburgh, while in the week ending Saturday, June 18th, not a single case was notified. As the period of incubation from the last cases that had occurred, and even from those last placed in quarantine, is now more than covered, Edinburgh may be said to be meanwhile at the end of the outbreak of small-pox. But with the disease at 42 different localities in Scotland in the month ending June 15th, and especially in view of the continued prevalence of the disease in Glasgow, there will be no relaxation of vigilance on the part of the Public Health and sanitary authorities of the city. On Saturday, June 18th, there remained 5 cases in the small-pox pavilion of the City Hospital at Colinton Mains.

Ireland.

Adelaide Hospital, Dublin.

The report presented to the annual meeting of the supporters of the Adelaide Hospital, Dublin, which was held on June 14th under the presidency of Lord Langford, stated that the number of out-patients treated was 15,300. The admissions numbered 1,431, and 750 operations were performed. The mortality was 8·3 per cent. The sum of £1,413 10s. 2d. is due on building, and on the general account £1,513 11s. 3d., or in all £2,667 0s. 5d. The speakers were the Chairman, Dr. William Beatty, Rev. Charles Dowse, Mr. W. C. Stanley, Mr. S. S. Bewley, Dr. James Little, Captain R. Wade Thompson, and Mr. Ormsby.

Cork Branch of the National Association for the Prevention of Consumption.

The first annual meeting of the Cork Branch of the National Association for the Prevention of Consumption was held on June 11th. The President, the Earl of Bandon, K.P., assisted the meeting of the great pleasure it was to be at the first annual meeting of so useful an Association. A letter was read from Dr. Browne, Bishop of Cloyne, regretting his non-attendance, and suggesting that the Association should solicit the practical help and co-operation of the Board of National Education. Some of the excellent pamphlets on this subject ought to be embodied in the reading-books of the national schools, and a direction given to the teacher to see that these lessons were read by the pupils in the course of the year would not be out of place.

Alderman Lane, in proposing the adoption of the annual report, congratulated the President on the fact that the Branch had been already established. He might also thank their Chairman, Dr. Cremen, for the untiring energy he had shown in bringing this Branch of the Association to its present position. One of the objects of the Association the better housing of the poor and the improving of the sanitary conditions of their dwellings. The Corporation, he was glad to say, had taken it in hand with a good deal of determination. The work specially engaging the attention of the Association during the past year was the providing of a sanatorium in which curable cases of consumption might be treated. The members of the Committee had gone round the county from district council to district council, and all the authorities throughout the county and city of Cork had agreed to tax themselves to the extent of a penny in the pound to defray the cost of the sanatorium. Another matter to which the Association devoted attention was the project of providing a home for incipient cases of consumption—a home where those cases could be isolated, and where they would cease to be, as they had been, centres of infection to those around them, and where by proper care and nourishment they might be cured at comparatively little cost as was possible under the circumstances. The dissemination of knowledge and the question of notification were two important points and in reference to the latter he thought Dr. Browne's suggestion a valuable one—that the rising generation might grow up with knowledge of the means by which disease was fed and the steps that ought to be taken to prevent its spread. Donations were solicited to the extent of £1,000 to meet the expenses connected with the dissemination of knowledge and appeal to the philanthropic public of the city and county of Cork to provide money to carry on the good work.

Mr. [illegible] seconded the adoption of report and [illegible] Mr. [illegible] proposed the second resolution [illegible] that a sum of £114 odd had been subscribed, and the amount of work the Association had done for such a small amount of money was marvellous.

Mr. Stanley Harrington, J.P., in seconding the resolution, drew attention to the fact that the expenses of the Association were quite distinct from the money that had been voted by the various public bodies. He appealed to the general public to help to promote the establishment of the splendid institution by giving moderate subscriptions, which were necessary—absolutely necessary—for carrying on the work. He did not think the meeting could sufficiently thank Dr. Cremen and the other gentlemen who were associated with him on the Committee for the really efficient and splendid work they had undertaken and were carrying out so well.

The Bishop of Cork (Dr. Meade) having been moved to the second chair, Dr. Cremen proposed that the best thanks of the Association be tendered to their respected President, the Right Honourable the Earl of Bandon, for the interest he had taken in promoting the success of the Association. Personally, he wished to thank his lordship for the able and willing assistance which he had so readily given when he had to be consulted with reference the many difficulties that had to be encountered in providing funds for the working and the maintenance of the proposed sanatorium. The interest which his lordship took in these matters was ably seconded by the Countess of Bandon.

The motion was seconded and passed by acclamation. Lord Bandon duly returned thanks.

Cork District Lunatic Asylum.

Dr. Woods's Annual Report.

The annual meeting of the members of the Committee of Management of the Cork District Lunatic Asylum was held on June 14th. Dr. Woods read his annual report, which, both as regards the increase in insanity and the overcrowding in the Cork Asylum, was rather depressing. There were in the asylum on January 1st, 1903, 871 males and 742 females total, 1,613; while there were admitted 185 males and 174 females total, 359. The whole number under treatment was 1,056 males and 916 females total 1,972. The number of patients discharged recovered was 115, relieved 29, not improved 4, not insane 2. There were 109 deaths. At the end of the year there were 1,711 inmates (810 males and 808 females), with a daily average number resident of 1,650 (883 male and 767 female). From these figures it will be seen that there has been a total increase of 105 patients during the year, the increase for the previous year having been 23. The total number under treatment was 74 more than in 1902, and the daily average number resident 37 more. On January 1st the asylum was overcrowded by 432.

Dr. Woods calls attention in the report to the number of admissions, 359, as being much the largest in the annals of the asylum and 51 over the average of the past ten years. The discharges, 148, were below the average, and Dr. Woods accounts for this by the recoveries being slightly less than usual, and by the fact that no patients were discharged as "relieved" to the workhouses, owing to the completion of the Youghal Auxiliary Asylum. The death-rate has remained low, but 42 per cent. was due to pulmonary tuberculosis, and with the continued overcrowding it has been impossible to isolate these infectious cases in a satisfactory way. Dr. Woods also lays stress on the fact that hospital accommodation has not been increased for the past twenty-five years, although the patients have more than doubled, and patients have daily to be removed from hospital and acute wards to other wards of the asylum before they are fit in order to make room for more urgent cases, while space has been reduced by night from 800 superficial feet to 80 and in most of the wards of the main building from 600 superficial feet to 90. Although the death-rate has not been high, dysentery, which is almost always present, and typhoid fever show the congestion of the wards. Dr. Woods urges that steps to reduce the overcrowding should be taken at once. In 1898, when the number of patients was 1,400 less than it is at present, it was decided to increase the hospital accommodation by 185, but this has not been carried out, the auxiliary asylum being built instead.

As to the causes of insanity Dr. Woods remarks that there is little new to record, heredity and intemperance stand out prominently as the main causes. He says:

> Although we do not see it, the more I inquire into the facts the more I am convinced that [illegible] The decrease in the population [illegible] an important influence, but this will [illegible] every year since. The proportion

[illegible] was [illegible] for the whole of Ireland in [illegible] for the County of Cork it was in proportion to the population [illegible] in 1874. The [illegible] shows an increase of [illegible] scarcely the present generation appears less capable of battling with the severe [illegible] epidemic in Ireland at a similar [illegible] the sick down [illegible] season, I believe, are [illegible] for the early [illegible] removal [illegible] rest out of the country, leaving a [illegible] behind a [illegible] stock to propagate a [illegible] more feeble than themselves. These facts [illegible] a very serious question for the future of this country.

SMALL-POX IN BELFAST.

Within the last week several new cases of small-pox have been discovered in Belfast. There were on June 15th 28 cases in the special Small-pox Hospital at Purdysburn, of which 7 had been admitted within the week; they were from the Ballynacarrett district. The utmost care was taken to disinfect the houses and burn the furniture, and 60 persons were detained as suspects in the intercepting hospital at the Twin Islands. On June 16th 3 more patients were removed from the same district—all women—and all those who had come into contact were put under observation as suspects, and since June 17th 3 more cases have been removed from the same district. Another case, a man recently arrived from Ayr, was sent from the Belfast Union Workhouse, and a fifth, a woman from Lisburn Workhouse, and her sister on June 17th. Notices have been again issued by the Health Committee as to the necessity of revaccination and as to the importance of immediately reporting every case when there is the slightest suspicion. The authorities have been most successful during the last few years in stamping out threatened epidemics, which have been all traced to imported cases, and are again adopting the same vigorous measures. As the accommodation for females is now filled several of the special hospital tents designed by Messrs. S. Wilson and Sons have been ordered, and are in readiness. The disease is not of a virulent type. Some cases have been discovered near Limavady, Co. Derry, and prompt measures adopted to stop the disease spreading.

DISPUTED CONSULTATION FEE IN A CASE OF SMALL-POX.

It is interesting to report that the Local Government Board has issued an order to the Belfast Board of Guardians to pay the fee of 2 guineas applied for by Dr. Donnan for Dr. Robb, who saw with him in consultation a suspicious case.

ROYAL VICTORIA HOSPITAL: EXPENSES OF WORKING.

Mr. James Davidson, the Honorary Treasurer, made an interesting statement on the finances of this hospital at the last meeting. Considerable interest has been taken as to the cost of the plenum system, and now experience for both winter and summer months has furnished data for a fairly accurate estimate. With the three units, or six wards, still unused, the expenditure runs to nearly £14,000 in round numbers for a whole year; the expenditure for a unit, or 32 beds, is calculated at £1,100 a year, so that the total cost of running the full 300 beds would be £17,000 per annum; the estimate before the hospital was opened was £18,000; so that the year's expense will probably be within the estimate. This works out at between £55 to £60 a bed per annum, a not extravagant figure. As regards ventilation, the pleasantness of the plenum system in summer is beyond doubt. In winter, if the temperature is raised above 60° F. or 62° F., some complaints are made of a slight stuffiness.

CONTRACT MEDICAL PRACTICE.

FEES FOR OPERATION.

A CORRESPONDENT writes that he recently performed an [illegible] operation on a club patient on the understanding that he was to receive a special fee. On his convalescence the patient refused to pay on the ground that he was entitled as a member of the club to all medical and surgical treatment. Our correspondent subsequently sued him in the county court, but the judge decided for the defendant, and said that there was nothing in the rules of the club showing that operations were to be paid for, and even refused to order the defendant to pay the guinea fee that had been paid by the plaintiff to an anaesthetist. The plaintiff produced a letter from the secretary of the club stating that the list of [illegible] operations were not included in the contract with the medical officer, but the judge refused to admit the letter as evidence, and asked why the secretary had not been called personally.

*** It is to be feared that the judge's decision was strictly in accordance with law. In accepting contracts at inadequate rates practitioners should not forget the responsibilities they may unwittingly incur. Our correspondent might have refused to operate, for although it is clear that he could not recover a fee from a club patient, it is unlikely that his patient would compel him to operate. Even if the patient does voluntarily pay a fee it is usually very inadequate and more often than not is sooner or later brought up against him before the management of the club.

[illegible] CONTRACTS

E. R. B. The [illegible] [illegible] [illegible]

Oxford ... on production of ... members hip. ... tickets at a single fare and a quarter for distances ... 15 miles from Oxford by the Local Lent Day Excursion ... to ... fifty miles distant to which the ... reduction ... these tickets will be available to return on the same or following day. Members availing themselves of this privilege should use the original return ticket for the first journey to and the last journey from Oxford. The necessity to wait ... at the Reception Room after registering ... will enable members to get the earliest trains from Oxford to London and to places within the fifty mile ... by any intermediate route.

ASSOCIATION NOTICES.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at 429, Strand (corner of Agar Street), London, on Wednesday, the 6th day of July next, at **2 o'clock** in the afternoon.

GUY ELLISTON, *General Secretary.*

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

... BRANCH. ... Members will be held at ... Medical Society's Rooms, Chaucer ... on Monday, June 27th, at 3.15 p.m. ... Members ... Election of Delegate to Oxford ... Annual Representative Meeting. ... Members ... Election of Representatives on Council and Members of Executive Committee. ... Election of two Representatives of the Division ... Branch Council. ... Election of Representatives of the Division at ... Annual Representative Meeting at Oxford. ... Members are requested to notify the Honorary Secretary as soon as possible. C. H. WATTS PARKINSON, St. Margarets, Whalley Range, Honorary Secretary.

EDINBURGH BRANCH. NORTH-WEST EDINBURGH DIVISION.—The annual ... will be held on Tuesday, June 28th, at 4 p.m., ... the Royal College of Physicians, Queen Street. Business: ... Members ... Election of Officers and Members of Executive Committee. ... Election of two Representatives of the Division ... Branch Council. ... Election of Representatives of the Division at ... Annual Representative Meeting at Oxford. ... Annual Report of the Executive Committee. ... To consider the business of the Annual Representative Meeting at Oxford. Notices of motions have been published in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 7th). (2) To consider the following resolutions referred to the Division for discussion thereon at Annual Meeting: "That the medical witnesses engaged on each side in legal cases should meet in consultation (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, March 12th, 1904). (3) The question of the advertising of medical practitioners in connexion with hydropathic ... (4) What steps, if any, shall be taken by the Association ... in connexion with this question. The Honorary Secretary would be ... to receive from members who approve of the scheme ... a signed letter to that effect immediately the form of agreement enclosed ... Medical Journal of May 21st. Those disapproving of the scheme ... the Secretary before the date of meeting. (5) To consider a ... in the Edinburgh Southern District regarding the ... and representation for admission to the out-patient departments of the Royal Infirmary and any other competent business.—T. F. S. CATHERWOOD, Major, Edinburgh, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—Preliminary notice. The annual meeting of this Branch will be held in Blackburn on the afternoon of ... June 28th. The Honorary Secretary will be pleased to hear from any members desirous of reading papers, etc.—T. ARTHUR HELME, 3, St. Peter's Square, Manchester, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER AND LIVERPOOL DISTRICTS.—Arrangements are now being completed with the Great Western Railway Company to attach a special car to the ... train for Oxford on Monday, July 4th, from London Road, Manchester. Members will leave Liverpool Great Western about ... and join the party at Crewe about 1 p.m., due at Oxford at 5.4 ... Members will return by the train leaving Oxford at 11.15 p.m. on Saturday, July 9th. Members at Leamington or Warwick who have availed themselves of the invitation by the Corporation of Leamington and the Committee of Warwick, as mentioned on pages 1511 and 1512 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of June 18th, will join the train at Leamington. Members intending to join this party should send word as early as possible to Dr. Bayley, 70, Crewe Street, Manchester, S.E., so that he may know how many will be going.

METROPOLITAN COUNTIES BRANCH.—The annual meeting of this Branch will be held at the Hotel Cecil on Tuesday, June 28th, at 4 p.m. The annual dinner (ladies and gentlemen exclusive of wives) will follow the meeting at 7.15 for 7.30 p.m., Dr. H. Radcliffe Crocker, President, in the chair. G. DAWES HICKS, Cavendish Place, W., F. J. SMITH, M.D., 18, Harley Street, W., Honorary Secretaries.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—The annual meeting of this Branch will take place at the County Hotel, Ulverston, on ... at 3 p.m. There will also be a joint meeting of the Furness ... to elect their Representative. Members willing to ... are requested to communicate as soon as possible with the Honorary Secretary, A. S. BARTLETT, High Street, Lancaster.

SOUTH WALES AND SOUTH-WESTERN BRANCH.—The annual meeting will be ... on the 5th day of July. Members having ... are requested to notify either of the Secretaries, W. JONES MORRIS, Portmadoc, or H. H. B. MACLEOD, Clive House, Shrewsbury.

... BRANCH.—The annual meeting of this Branch will be held ... Hotel, Southport, on Thursday, July 7th. The ... at the Hotel at 4 p.m. ... The following resolutions will ... That each candidate for election to the ... Branch, excepting officers of ... Medical Service on the Active List, shall further ... Two members of the Association, to whom he is ... a guinea be made to the ... The business will enable the Branch to vote at ... and Foundation Scholars. Dr. Ward ... the Midwives Act of 1902 contains no pro... the members of the ... Association will take steps ... the purpose of pressing for ... to cases of ... Captain Lewis to read a paper. Mr. Claude Lucas ... to read Cases. The Treasurer ... Three Recent Cases of ... An address will be delivered by Mr. J. F. ... After the dinner ... will be held to places of ... Tea will be served at the hotel ... be present at 3.45 ... Ward, 21, Cambridge Crescent, Southport, or H. J. MANNING, Liverstock House, ... Honorary Secretary and Treasurer.

ULSTER BRANCH.—The annual meeting of this Branch will be held in Belfast on Wednesday, July 27th. Any member having any communication to make or any business to bring before the meeting should kindly inform me on or before July 12th. Nominations for the offices of President, Representatives on the Council of the Association (two when combined with Connaught Branch), Honorary Treasurer, and Honorary Secretary should reach me not later than June 30th.—WILLIAM CALWELL, M.D., 1, College Square North, Belfast, Honorary Secretary.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Crown Hotel, South Petherton, on Tuesday, June 28th, at 12.30 p.m., under the presidency of Mr. A. W. Sinclair. Agenda: Minutes of last meeting. Annual report of Council. Treasurer's report. Election of President-elect. Election of other officers. Election of Ethical Committee. Ethical case: Report of Committee on case recently before them. Resolution: The following will be proposed: "That members of the Council attending ordinary meeting of the Council at Taunton shall receive their second-class return railway fare." President's address on Neurasthenia. Luncheon will be served at the Crown Hotel at 1.30 p.m.—W. B. WINCKWORTH, Sussex Lodge, Taunton, Honorary Secretary.

SPECIAL CORRESPONDENCE.

VIENNA.

Statistics as to Small-pox and Diphtheria.—The Fight against Tuberculosis. Foundation of New Clinics.

STATISTICS are now available in regard to the proportion of morbidity and mortality in the part of Lower Austria under the jurisdiction of the General Health Council. Not a single case of hydrophobia, small-pox, or anthrax has came to the knowledge of the medical officers in 1903, a record of immunity of which there has been no previous example in the last ten years. Small-pox is practically stamped out throughout the greater part of Austria, an area nearly of the size of the United Kingdom. Only in some districts bordering on the Balkan States and Russia, a case is now and then reported, but an outbreak is quickly suppressed. This result is to be attributed to the enforcement of compulsory vaccination; children must bring a certificate of revaccination before they are admitted to any school, and it must be remembered that school attendance is compulsory. Moreover, every man entering the army for his period of compulsory service is revaccinated. The result is, that amongst the younger members of the medical profession there are very few if any, who have seen a case of small-pox eruption, except in the pictures of an atlas of dermatology. The report of the Council, however, shows a very high prevalence of measles and whooping-cough, especially in Vienna. The present epidemic of measles is of a mild character, though likely to lead to complications of the ear and joints. In regard to whooping-cough, experiments on a large scale have been conducted by Professor Monti in the Poliklinik, with the object of shortening and mitigating the disease. The children are brought into rooms where the air is charged with special gaseous substances. The results are said to be encouraging. Diphtheria is no longer the dread of medical practitioners, thanks to Behring; whilst the number of cases is not much smaller than in the corresponding years of the previous decades (1880-90, 1890-1900), the mortality is markedly lower—lower even than two years ago (10.75 per cent. to 14 per cent.). It must be kept in mind that these reports represent chiefly the results of private practice in rural and county districts, where parental carelessness makes it difficult to adopt stringent measures enforced in hospitals. In the large hospitals the mortality from diphtheria is even lower than that shown by the figures just quoted.

An interesting chapter in the report deals with the question of fighting tuberculosis. As yet there are only a few sanatoriums in which the open-air treatment is carried on, and they are in need of funds. But a great deal of propaganda work has been done by means of handbills, posters, lectures, and pamphlets, in which the nature of the disease, the means of prevention, and the chief lines of treatment are set forth in plain language. In a number of trades in which dusty material has to be handled or much dust is produced (iron-grinders, builders, scavengers, street-sweepers), instructions have been given that dust should be as far as possible laid with water. Spitting has been forbidden in public streets and buildings, and a number of towns, especially the numerous health resorts, have issued laws against ladies using gowns with trails.

The foundation stone of the new clinics, which are to take the place of the present antiquated General Hospital, was laid last week by the Emperor Francis Joseph in the presence of a brilliant gathering of scientists and Government functionaries. The Lord Mayor of Vienna, the Rector Magnificus of the University of Vienna, the Prime Minister and his colleagues, the chief magistrates, along with the Archbishop and Grand Rabbi of Vienna, witnessed the scene. An address was presented to His Majesty by the Director of the present hospital, to which His Majesty graciously replied that it was a pleasant duty of the wealthy to help suffering mankind. The hospital to be erected will be the largest of its kind in the world, providing ample room for all branches of the art of healing, together with laboratories and other institutions of scientific research. The entire teaching staff of the Medical Faculty in this city will find there accommodation for its needs.

MANCHESTER.

A Memorial Portrait of the late Dr. Sam. Woodcock. Neglect of Children.—Clearing the Site for the Infirmary.

FOR many years the late Dr. Sam. Woodcock was honorary superintendent of a mission in the district wherein his practice lay. Sir James Hoy recently unveiled a memorial portrait which is to be hung in the mission hall which was the scene of his Sunday labours on behalf of the youth of the district. He preached there every Sunday night for years, he managed all its affairs, and smoothed away all its difficulties. He was a grand man, a true friend, and a shining example of what a good citizen ought to be. Sir James Hoy recalled his gifts as a witty conversationalist and as a ready public speaker, his unfailing urbanity, his kindliness of manner, his robust manliness, and his love of work, political and social, which counted for the common good. Dr. Woodcock's example stood out, he said, with singular brilliance in Manchester life as that of a busy professional man who yet found time ungrudgingly to give much service to his fellow-men. He was actuated by a deep-seated love of the old straight Puritan life, the principles of which he endeavoured to work out and develop in a variety of ways for the common good. He hated humbug, pretentiousness, and flunkeyism; he had a real love for common folk and a continuing sympathy with them in their hard struggles. In his intercourse with his fellow-men he showed how a close study of the literature of Hood and Waugh and the utterances of John Bright might shape and develop the keenest human sympathies and the surest bonds of a common brotherhood.

At the annual meeting of the Manchester and Salford Branch of the National Society for the Prevention of Cruelty to Children, which was held on June 17th, it was stated that the inspectors do not merely enter a house and, if they find ill treatment and neglect, warn the parents or guardians, but they keep on paying visits, either until there has been an improvement, or until the parents have been prosecuted and some provision made for the children. During last year the officers of the Society investigated 1,711 cases, affecting the welfare of 4,796 children, 2,399 of whom were insured for a total of £14,000. There were 1,607 instances of neglect. In 1,443 cases warnings were given. There were 117 prosecutions, and of the 138 persons prosecuted 112 were sent to prison and four were fined. The inspectors come across a great many cases due to poverty. "The principal causes of cruelty and neglect of children other than drink—which still remains responsible for nearly all cases in which the Society's supervision is required—are ignorance and laziness. It is in dealing with this class of cases that the Society shows the best results."

The contract for clearing the site of Stanley Grove for the erection of the new infirmary has been let to a contractor, and workmen are busy demolishing the houses and putting everything in readiness for the builders when the plans have been passed—which will necessarily be a long and anxious task—and other arrangements completed.

LIVERPOOL.

The Consumption Hospital and the Delamere Sanatorium.—The Isolation of Measles and Whooping-cough. Epileptic Home, Maghull.—Health Report for Bootle.

ON the occasion of the annual meeting of the Hospital for Consumption and the Delamere Sanatorium a visit was paid to the latter institution by the Lord Mayor and a large party of subscribers and others, who were shown through the wards

BRISTOL.

[illegible] Meeting of the Society of Diseases of Children. Election of Officers.

The annual general meeting of the society for the transaction of business was held on June 15th at the Victoria Rooms, Clifton, under the presidency of Dr. Frederick Taylor. About thirty members and visitors were present, and in spite of a lengthy menu and a more lengthy toast list, the secretary managed to leave the premises by 6 o'clock. The dinner was a successful ending to a very pleasant meeting.

The Medical Officer of Health, in his report of June 21st, among other matters, refers to the several introductions of small-pox that have taken place during the past months. The disease has been introduced four times into the city. The first case occurred at Avonmouth. It was immediately recognised and reported. The second, a mild form, occurred in Bedminster, and resulted in 10 cases in the city and 12 in the neighbouring county. All these cases had been followed up, and it is believed that further trouble from them is at an end. On May 29th a tramp with the disease came to Bristol, and infected several others, and on June 16th another tramp with it visited several common lodging houses and infected an unknown number. In all 37 cases are now under treatment in the hospital ship. Dr. Davies called the attention of the Health Committee to the very inadequate accommodation for small-pox in the city. Taken as a whole Bristol is not a well-vaccinated city, for according to Dr. Davies, there are more unvaccinated here than in Leicester. It is true that there has been little of the disease for some years, but the recent occurrence of mild and often unrecognized cases constitutes a grave danger and should an epidemic of even small proportions arise the resources of the city for nursing the cases would be seriously tried.

For some time the district of Fishponds has been greatly troubled with diphtheria. For the past nine weeks special precautionary measures have been carried out, not without considerable interference and passive resistance from the residents. There still appear on Dr. Davies's showing to be a large number of cases, as many as 165 suspicious ones alone being dealt with at the out-patient hospital.

SOUTH WALES.

Glamorgan County Council and the Training of Midwives. Scarlet Fever. Small-pox. Hydatid Disease. Abergavenny Water-Supply.

The Education Committee of the Glamorgan County Council on June 21st received a deputation of medical men, all members of the South Wales and Monmouthshire Branch of the British Medical Association. The deputation consisted of Professor Hopkyn, Drs. E. J. Maclean, D. R. Paterson, Alfred Rees, and Dr. W. Williams, County Medical Officer. Dr. Williams, in introducing the deputation, gave an account of the action taken by the County Council under the Midwives Act 1902. He explained that the Council had delegated its powers under the Act to an Executive Subcommittee, with himself as Executive Officer. The objects of the Act were (1) to secure better training of midwives, and (2) to regulate their practice; but it contained no suggestions or provision for securing this better training. He felt confident that supervision and the existing work would be well carried out, but the question of the better training of midwives was the question which it was before the Committee to consider. Dr. Maclean dwelt at some length upon the mortality in childbirth among mothers and infants in South Wales, pointed out its causes, and emphasized the urgent importance of having in the county centres and elsewhere trained and skilled midwives. He suggested the establishment in connexion with the County Medical School of a training home for young women attending to become midwives, and pointed out that the Committee could do a great deal to help on this good work by assisting the training of midwives under the best technical instruction. After some discussion the Committee delegated the consideration of the matter to a sub-committee of six members, representing each division of the county, together with Mrs. D. E. Williams, the Chairman, and the County Medical Officer. It is felt that the Committee, acting on the advice of their Chairman

(Dr. T. H. Morris), will take up the question in their usual whole-hearted manner and set an example to other county councils.

One case of small-pox was notified in Cardiff in the week ending June 11th. With this exception the whole of the administrative county and South Wales were free. Dr. Walford, Medical Officer of Health, reported to the Cardiff Health Committee on Tuesday, June 14th, that there had been 8 cases of small-pox in the borough since May 18th. They were all infected by one person, who had been ill some weeks before the disease was recognized. The last case occurred on June 5th. Councillor Dr. Smith expressed the opinion that the Committee was in an invidious and inconsistent position, because it notified employers of labour that a certain employé had small-pox in his house, but it allowed the man to use its tramways to go about the streets without let or hindrance. He was also of the opinion that if workmen were kept from work during the quarantine period, or any portion of it, they should be compensated.

On Tuesday, June 14th, Mr. H. Ross Hooper, A.M.I.C.E., on behalf of the Local Government Board, conducted an inquiry at Ely into the application of the Llandaff and Dinas Powis Rural District Council for sanction to borrow £7,000, for works of sewerage and sewage disposal for Ely and Fairwater Grove. The Corporation of Cardiff opposed, and the Deputy Clerk and County Medical Officer watched the proceedings on behalf of the Glamorgan County Council. Great interest was evinced in the proceedings, there being a heavy attendance of large ratepayers and others from the district.

At the meeting of the Highway Committee of the Aberavon Town Council on Tuesday, June 14th, Dr. J. Arnallt Jones, Medical Officer, mentioned the adverse report from the County Bacteriologist on the quality of the town water, and said he had conferred with the Borough Surveyor, who informed him that the carcasses of sheep in varying stages of putrescence had from time to time recently been found in the water courses feeding the reservoir. A bi-weekly or tri-weekly inspection of the gathering area was desirable. The Surveyor undertook to exercise a close supervision over the area. The Council desired it to be known that there was not a water famine at Aberavon as had been reported.

CORRESPONDENCE.

EARLSWOOD ASYLUM.

SIR,—More than fifty years ago the need of an institution to provide for idiot and imbecile children was keenly felt, with the result that the asylum at Earlswood was founded. Since then the institution has been open to the children of all classes; the rich have been enabled to pay for that efficient care and proper tuition which only such an asylum can provide, and the poor have been relieved of a burden which weighs heavily on a hard-worked woman—the charge of a useless, perhaps noisy, uncleanly, or mischievous child. The incubus becomes even greater when the child is also an epileptic, when the scenes witnessed by the other children in the home are very demoralizing. The founders of the Asylum were the pioneers in this work, and a great want has been supplied. To curtail the numbers of the inmates—nearly 500—would be to inflict a great social, one could fairly say a national, injury.

Now, however, a crisis has occurred in the history of the Asylum, owing to considerable structural defects which call for immediate attention. These, as in the case of other similar institutions, are the result of faulty work in the erection of the original buildings, in times when the supervision of local authorities was not as it is now. The Asylum stands upon the Wealden clay. Practically no foundation was provided, and the walls were filled with rubbish; hence, owing to successive wet seasons, the whole building began to subside, with the result that the walls cracked. Eminent architects were at once summoned, and they insisted that, for the safety of the inmates, the repairs should be immediately taken in hand, at an estimated cost of £30,000.

The funds available for these necessary operations are practically exhausted, so that, unless immediate substantial help is forthcoming, the progress of the work must be stopped. In this case the Committee will have to do what they can to make the buildings secure for the approaching winter, and the cost of resuming the work next year will be greatly increased, for it must be done. Already a sum of £12,000 has been spent, and the labour bill is still £300 a week. No legal redress is possible after such a lapse of time. The asylum had been placed in a position of comparative financial security, but now all available securities have been sold and the institution is heavily in debt to the bankers. The public must at times experience difficulty in deciding which charitable institutions to select for their beneficence, but surely no eloquent voice is needed to plead for those who cannot plead for themselves. As the institution is open to all classes, and as no question is raised as to denomination, or even nationality, the Committee has confidence in appealing to the public in general.

No one can deny that the immediate good done by the asylum in the past has been great; and it is difficult to estimate the potential good done to the community at large in fostering any germs of intelligence that may be found in the patients, with the result that many children who were worse than useless at home have been returned in the course of a few years to prove a comfort to the family, and even to become breadwinners.—We are, etc.,

C. C. P. HULL, J.P., C.C.,
Chairman.
C. HOLMAN, M.D.,
Member of Medical Management.
H. HOWARD,
Secretary.

36, King William Street, E.C., June 20th.

POOR-LAW MEDICAL REFORM IN SCOTLAND.

SIR,—I am sure that every one acquainted with the working of the Poor-law system in the Highlands and Islands of Scotland will endorse what "A Parish Doctor" says.

Many a tale could be told of how the medical officer is hampered in his work by these same "skeelful persons," who are often parish ministers and merchants, and who from their training must have a good knowledge of medicine!

These persons are in the habit of visiting patients after the medical attendant has made his call; they will look at and taste the medicine supplied, feel the pulse and take the temperature, criticize the treatment and advise something quite different, and because it can be shown in the "Incomplete Herbalist" that so-and-so is good for this or that symptom which "you have," the doctor must be wrong.

I have known a patient to take five different patent medicines at the same time that he was supposed to be following the advice and taking the medicine prescribed by a qualified practitioner.

Newspaper advertisements of patent medicines, etc., are also directly responsible for much of the sickness and consequent "uncertified deaths." When these medicines fail to cure, as they generally do, the poor parish doctor is called, or rather ordered to visit when it is too late to be of any use, but of course it is his blame if the patient dies, he is "nae doctor ava," and he is criticized by the gangs of idlers who love to congregate at the local merchants' shops for the sake of the latest gossip and scandal.

There has been a great deal said about medical men dispensing, but has anything been done in Scotland to prevent merchants prescribing and dispensing?

A few raids into merchants' shops in the outlying districts of Scotland would reveal a very curious state of affairs which would no doubt be of great interest to the Pharmaceutical Society, and a cause for at least some "uncertified deaths" might be found in the shape of scheduled poisons sold under no restrictions.

It is no use to say that people in the Highlands and Islands cannot afford to pay the doctor's fees. I cannot believe that many medical men would refuse to attend a poor person because he knew there was no fee to be got.

The people who complain most about the doctor refusing to attend are those who are well enough off always to have their "wee drop" in the house in case of an emergency, ye ken," who summon the doctor many miles by wire after this fashion: "Come immediately, just living," the case may only be a gumboil, and who never have the slightest intention of paying. I myself have walked a distance of nine miles, in a blinding snowstorm, to find when I got there that nothing was the matter but a slight pain in the back, but "we never expected you on such a night"—and that was the only fee I ever got for my trouble.—I am, etc.,

A PARISH MEDICAL SLAVE.

Ma[illegible]

THE MODERN PURSUIT OF NOVELTIES IN MEDICINE.

SIR,—Let us hope that you will soon publish another charming, honest address such as Sir Dyce Duckworth's.[1] It

[1] BRITISH MEDICAL JOURNAL, June 11th, 1904, p. 1274.

is refreshing to those of a conservative turn of mind to hear the old and tried men of medicine speaking out fearlessly now and again. Some of your readers who have been assistants to medical men of the old school value very much the very useful things they have learnt from them. I remember well treating a man for severe lumbago in the usual way, not even forgetting antipyrin. "Dry-cupping will" said Dr. Wallace, of Tarbolton, N.B., and the man was cured.

As regards new "cures," I remember a medical officer of health in Aberdeenshire asking me if I knew of the new cure for consumption. I blushed, ashamed of my ignorance, thinking calcium carbonate was what he had up his sleeve. What of it now?

One is often asked, "Have you tried Dr. ——'s metanddelesticke in Esther tablets?" If you honestly say "No," a look of pity meets you. If one could read thoughts, they are wondering how you possibly could make a living at all.

One often sees a reliance upon laboratory diagnosis. For example, a medical man refused to report a case as enteric fever when it had all the cardinal symptoms, including severe haemorrhage, till he had the report as to the agglutination test.

Speaking of the growth of biological science, Professor Ogston recently said at Aberdeen that the medical student was seriously overburdened nowadays. How much of it all will "bring comfort, relief, and restored vigour to the sick and suffering"? It would take a seer of the first water to say how much preliminary science is necessary for the practice of medicine, surgery, and midwifery, but too often the lecturers seem to think they are teaching B.Sc. students alone.—I am, etc.,

ROBERT TURNER, M.A., M.D.Aberd.

ATMOSPHERIC PRESSURE AND APOPLEXY.

SIR,—The observations of your correspondents on this subject are well worthy of more careful attention and discussion, but at the outset it is advisable to bear in mind the results of much valuable experimental work performed more than twenty years ago by Jourdanet and Paul Bert, as well as that of late years by Mosso, von Liebig, Paul Regnard, Kronecker, and others, and, in our own country, by Professors Hill and McLeod, which establish more or less definite points from which to draw any conclusions.

In the first place, there is very much to be said in favour of the theory that the mechanical influence of changes of pressure (whether increase or decrease) do not affect the body in any way except in so far as they alter the volume of the gases contained in the blood.

Experiments have been repeatedly performed on men and animals showing that a rapid change from 760 mm. to 400 mm. or even 300 mm. (equal to about 11·75 in. and 12 in. fall of the barometer respectively) can be endured while at rest, with very little change in the respiratory and circulatory functions and without the appearance of any symptoms.

In dealing with higher pressures than that of the ordinary atmosphere it has been shown, especially by Professors Leonard Hill and McLeod in their recent experiments, that the most important effect of pressures up to even three and a half atmospheres (equivalent to an increase of 60 lb. to the square inch) is a greater volume of gases in the blood, and that the ease with which, after enduring this pressure for a certain length of time, the restoration to the normal atmospheric pressure can be rapidly, practically [illegible]

When we consider these points it is a little difficult to attribute the severe symptoms produced in the case of [illegible] to any consequences resulting directly from the [illegible] pressure. [illegible] [illegible] [illegible]

transition to the new sizes of bottles. There are several minor advantages which are soon perceived when the method is tried.—I am, etc.,

C. M. H.

FOUL CONVALESCENT HOMES.

SIR,—Dr. Rushton Parker's letter under the above title, which appears in the BRITISH MEDICAL JOURNAL of June 11th, calls attention to a state of matters for which his adjectives "astounding" and "preposterous," though of unequal applicability, are not one whit too strong. They are indeed, in my judgement, not strong enough.

It is surely nothing short of "preposterous" that patients who, being sent to homes situated in the country and at the seaside in order that they may enjoy the hygienic and climatic advantages which there obtain, should be forced to spend the whole night, or about half their time, in inhaling the excreta from the air passages of other invalids: for apart from the disgustingly unclean aspect of the question, it would be difficult to imagine anything better calculated to retard, or even altogether to check, the convalescence which is the object of their sojourn.

That the behaviour of the managers in permitting such a state of matters is "astounding" is, however, a proposition to which it is more difficult to subscribe. In one sense it is truly astounding that any body of enlightened and educated men can be found to tolerate anything which falls short of the highest obtainable degree of atmospheric purity; but, having regard to the lukewarm attitude of the profession generally towards this matter, one can hardly be surprised that the laity should still tarry in the tents of the ungodly.

It may be that the majority of the members of the profession preach the advantages of the open window. That they do not practise it, however, is immediately brought home to any one who endeavours to obtain adequate ventilation at meetings of societies, hospital dinners, and the like; and I am told (I admit the general tendency towards exaggeration) by people of ordinary veracity that the atmosphere in the "tube" during the five o'clock rush represents a refinement of purity when compared to that of some of the Harley Street consulting rooms towards one o'clock in the afternoon.

Lying at the root of this deplorable apathy in the cause of one of the most important elements in prophylaxis and therapeusis is the ignorant, pernicious and wholly indefensible fear of draughts and chills; and until the profession purges itself of the senseless and monstrous heresy which these terms represent, it is idle to expect the laity to cultivate, or even to understand what is meant by, atmospheric cleanliness.—I am, etc.,

London, W., June 14th. LEONARD WILLIAMS.

"TESTING THE EYESIGHT OF A NATION."

SIR,—Mr. Aitchison, in his letter dated May 15th, writes that the objection of ophthalmic surgeons to sight-testing by opticians "is based upon insufficient knowledge of what is being done; they do not come in contact with the sight-testing optician, know little of his ways . . . etc., etc." I can assure your correspondent that our objection to the prescribing optician is not based upon ignorance of his ways, but upon positive knowledge of them. Take such an instance as this, which has recently occurred in my own practice. A young fellow of 20 consulted me in respect of some eye symptoms, for which he had been to a prescribing optician. He had been told by the latter that the condition of his right eye was serious, and that he must wear glasses. The glasses supplied were 0.25 D cylinders, axes vert. The cost of them was 25s., and when my patient expressed surprise at the price, he was told they were very special ones, involving great difficulty in the grinding. It is true that he was informed something about having the lenses changed, if required, free of cost, or about being subsequently tested without further payment. But my point is this. A young fellow, whose refraction was such that no glass was needed (and the shopman evidently recognized this from the lenses supplied), was frightened into purchasing a pair of glasses at a price much above their value, while being told the advice given was free.

This is one of the ways of certain opticians which the surgeon objects to. But, secondly, he objects because he considers—and he is the highest authority upon the subject—that the optician has not the requisite knowledge to enable him to deal fully with the subject of the sight. Sight-testing is not merely a question of optics. The surgeon may grant that many opticians have considerable knowledge of optics, but his view is this, in following his pursuit as an optician, the best man has not had opportunities for getting the necessary experience required for dealing fully with errors of vision.

Dr. Dugon, though he be ill-advised to send his patients to opticians, has put his finger on the weak point in our system of sight-testing, namely, the high fees charged by most ophthalmic surgeons.

A small tradesman or clerk—or, indeed, the great mass of the lower middle class cannot afford a fee of 2 or 3 guineas. I have been told that the Civil Service Stores, Whiteley's, and other large establishments make arrangements with surgeons to see their customers for a guinea. But the man in the street has the notion that an eye specialist's fees are prohibitive, and to the persons I mention, they are.

If an authoritative opinion could be obtained for a guinea fee, I feel certain we should hear less of the prescribing optician.—I am, etc.,

June 8th. OCULUS.

MEDICAL PRACTICE IN BUSSORAH.

SIR, We, the undersigned managers of the principal British firms doing business in Bussorah, Turkish Arabia, have had our attention drawn to a letter written by Dr. W. R. Scroggie to you, entitled "Medical Practice in Bussorah," which was published in the BRITISH MEDICAL JOURNAL of September 26th, 1903; and, as we consider that this article is misleading, we therefore beg that you will in the interests of the community here give this, our reply, a space in your valuable and influential columns.

The four firms whom we represent guarantee to pay the doctor for his services £150 sterling per annum for attendance on our several staffs (this sum does not include cost of medicines). Further, H.B.M.'s Government, through the consul here, pays the doctor a sum of £80 sterling as consulate doctor, and again the sea steamer agents pay the doctor a retaining fee of £2 2s. for each sea steamer that comes into this port to load. The number of steamers that were liable for this amount from January 1st to December 31st, 1903, were 52, making a total amount of £109 4s. sterling, and as we can see no reason why the trade of this place should decrease, but very great probability of its increasing, we consider that the above may be considered as practically a regular income. Furthermore, there are a large number of wealthy and intelligent natives who live in Bussorah and its suburbs, who quite well appreciate the value of a European doctor's advice and are perfectly willing to pay liberally for same. And on the whole, although we cannot guarantee the same (for the obvious reason that a medical man must depend upon his own skill, tactfulness, and energy to work up an outside practice), we believe that we are giving a very conservative estimate when we say that a European doctor here makes at least £600 or £700 per annum from all sources and probably much more.

With regard to Turkish doctors and the American medical missionary, we would say that the doctor employed by the European firms, provided his charges are not exorbitant, is always preferred to the Turkish doctors by the wealthy and influential natives, and the American missionary doctor has his hands quite full enough with the conduct of his mission work, mostly amongst the poorer classes, so that he does not enter materially into competition.

With regard to house rent, a very comfortable and convenient house can be rented in the centre of the doctor's district for from £50 to £60 per annum. Outside this, the expense of living, including a sufficient number of servants, food, and contingent expenses, should not exceed £150 per annum, and can be done for less.

With regard to the climate, on the whole we consider it healthy, so far as Eastern cities go. We have very hot and dry weather for about five months, and the remaining seven months are very pleasant indeed, and quite like the weather in the late autumn in England (without the excessive rainfall).

So far as amusements go, we have a club-house, centrally situated, where billiards, etc., can be had; and also a golf links, and as ships of His Majesty's Navy are frequent visitors to this port, we think that we can safely say that the life here from a social point of view is much more healthy and bearable than in a majority of the Indian and other East-n. stations, and in support of this we can also point to Dr. Scroggie's recent application for a two years' extension of his

agreement, which, however, we could not see our way to extend for more than one year from December 25th, 1903, when we will be prepared to consider further applications.

Apologizing for the length of our letter, which we consider necessary in order to receive any comments that our readers may have regarding the terms stated, particularly of this proviso. We are, etc.,

W. FORBES GARRISON,
J. L. MACRAE,
L. D. MARSHALL,
W. F. HAVEMEYER,

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN OMINOUS OLD WOMAN

AN UNFAITHFUL AGENT

A CHARLATAN

THE METHODS OF SOME SPECIALISTS

A patient who was consulting a specialist in regard to his throat, and who had previously obtained medical advice, received a letter from the specialist's brother, who professed a belief in spiritualism and clairvoyance, and who stated that A was dying, and that the patient received a card in the following letter:

"Telephone ... 9 Piccadilly Square, W.
May 24th, 1904.

DEAR SIR,—I have seen Mr [illegible] Pegg. Our correspondence will be quite open, and we are not afraid to let the public see it, as we have avoided personalities and disliked several proceedings.

*** We sympathize with our correspondent's protest, but fear that these little arts are beyond the range of ethical censure. We believe that those specialists who render themselves obnoxious by such methods are condemned by the loss of professional esteem and support.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE

ROYAL ARMY MEDICAL CORPS

EXCHANGE.

ARMY MEDICAL RESERVE

IMPERIAL YEOMANRY

TERRITORIAL FIELD

ROYAL ARTILLERY

OBITUARY.

SIR DAVID PALMER ROSS, M.D., F.R.C.S.Edin., C.M.G.,

Late Surgeon-General of British Guiana.

SIR JAMES CRICHTON-BROWNE writes: Those who were medical students in Edinburgh in the early Sixties will have pleasant recollections of David Palmer Ross, whose genial disposition made him a universal favourite and, who without aiming at academic honours, won for himself a distinctive place in the University by his lively fancy, his urbanity, and his unfailing good humour.

Born in Penang, where his father enjoyed a large medical practice, Ross was sent home at an early age and confided to the care of a lady in Dumfries, who had superintended the education of other members of his family, and became a pupil at the Academy there, which has been the nursery of many eminent men. Translated from tropical sunshine and the luxurious ease of an oriental home into a sombre climate and the austere discipline of a Presbyterian school, he bated no jot of his natural vivacity, but was ever blithe and affable, and succeeded in taking a good place in his classes, making up for lack of diligence by quickness of apprehension. It seemed to be Ross's fate to be placed in circumstances antithetical to his temperament, for when, having completed his education at Dumfries, he went to Edinburgh he became a boarder in the house of Mr., afterwards Professor, James Spence, who was popularly known as "dismal Jimmie." But here again his sprightliness was sustained and triumphed over difficulties, for instead of being subdued by the solemnity of his preceptor, he communicated to him some of his own gaiety. Those who "walked" the Edinburgh Infirmary in these days must well remember how the worthy and able surgeon of the glabrous wig and patent leather boots relaxed his dismality when Ross approached him, and took complacently from the perky dresser comments and hints which had they come from a house-surgeon or junior colleague would have been received with stern reprehension.

At the Royal Medical Society of Edinburgh, which he joined and attended regularly, Ross was fortunate in being associated with a brilliant group of young men, many of whom have since climbed high in their profession. He counted amongst his friends Professor Crum Brown, Sir Thomas Fraser, Sir Dyce Duckworth, Professor Chiene, Professor Pettigrew, Sir Robert Bannatyne Finlay, Sir William Mitchell Banks, Dr. Eddison, and the late Professor Rutherford and Dr. John Duncan. He rarely intervened in the debates, but when he did so it was always with some sound practical observation, and in the library downstairs, where frugal refreshments, coffee and bread and butter were dispensed—smoking was forbidden in the premises in these days—he was invariably the life of the party. He has often acknowledged the debt of gratitude he owed to the Royal Medical Society which supplied much that in the ante-tutorial and ante-union times the University did not offer, and set him thinking and working. Whether under its influence or impelled by his own growing sense of responsibility, he did set himself to work and to think, and took his degree with credit in 1863, when only 22 years of age.

With no family ties in this country, and with predilections born of childhood's memories, Ross resolved to seek service abroad, and soon after his graduation settled in Kingston, Jamaica, where, as medical officer to the Public Hospital and in private practice, he won golden opinions, and attained a position of great usefulness and influence. He was skilful and cheerful, kind and firm, attentive not less to the poor than to the rich, and became a most successful and esteemed practitioner. He married there a lady whose family came from near that part of Scotland in which he had himself been brought up, and children arrived, and then he took a step which revealed the strength and bravery of his character. He had reached the summit of his possible earnings in Jamaica, but his income was insufficient to provide for his children the education he desired for them, so he determined that he would double his income by taking the risks of the deadly West Coast of Africa. He knew these risks none better; he knew, apart from these risks how tedious and trying his life there would be, but under a sense of duty and with a strong faith in his power to grapple with malaria, he accepted the post at which so many good men have fallen—that of Colonial Surgeon at Sierra Leone. His devoted wife insisted on accompanying him, and for nine years with intervals they lived at Freetown that death-trap for Europeans—keeping the enemy at bay and enjoying good health all the time. These were pre-*Anopheles* days, but Ross was a keen sanitarian, and insisted on surface drainage and domestic cleanliness, and by these means as well as by the timely and copious use of quinine, he notably diminished the mortality of the district. He totally abstained from alcohol, avoided going out after dark as much as possible, and always slept under a mosquito net, and to these precautions he attributed his immunity from disease. By his vigilant watchfulness over the health of the community, by his unstinted attention to the sick and suffering of all classes, and by his ever-cheery and hopeful demeanour, Ross made himself beloved on the West Coast. He was not only consulted, but deferred to by the Civil authorities on all hygienic questions, and his departure was regarded as a public calamity.

When last on leave in this country Ross suffered severely from rheumatic gout, which was somewhat relieved by a sojourn at Harrogate, but before he had fully recovered he had to proceed to British Guiana, where he was Surgeon-General, to complete the term of service entitling him to a retiring pension. That term would have been completed in August next, and in anticipation of his freedom he had planned a visit to Scotland, so that with the attached friend, who writes these lines, he might renew his acquaintance with the scenes amongst which his boyhood was spent. But a larger freedom has come to him; and worn out before his time, he rests in one of those Crown Colonies for which he has laboured so long and so well. He was a light-hearted, valiant, faithful man, and his works do follow him.

There is not much to add to what Sir James Crichton-Browne has written, but we may say that Sir David Ross graduated M.D.Edin. in 1863, became M.R.C.S.Eng. in the following year and in 1875 F.R.C.S.Edin., and in the same year that he was admitted to the English College of Surgeons he entered the medical department of the army. His army career was brief, for he was sent at once to Jamaica and two years later married the daughter of the Hon. Alexander Heslop, then Attorney-General of the island, and accepted a small appointment under the Civil Government. He rose so rapidly that the year 1872, when he was still barely 30 years of age, found him holding an acting appointment as Superintending Medical Officer of the island. During the following thirteen years he occupied one or other of the principal medical posts in the island. He was then offered the appointment of Colonial Surgeon of Sierra Leone. This he accepted and held for nine years when he was selected for the Surgeon-Generalship of British Guiana, a position which he occupied up to the time of his death. The rapidity of his moves in the early part of his service gave him an immense fund of valuable experience in all forms of work required by Government; in Jamaica he organized the Lock and Small-pox Hospitals, institutions the foundation of which was much opposed but which the circumstances of the time made very necessary, and when Chief Medical Officer of the public hospital did much to put its work upon a proper footing.

In Sierra Leone again he managed to get a large number of sanitary reforms carried out, his task in this respect being materially helped by the fact that he was selected by Government as an official member of the local legislative body. It was this work which brought him, in 1892, the decoration of C.M.G. Five years later he was selected to succeed Dr. Robert Grieve as Surgeon-General of British Guiana at a time

when the medical department of the Colony was considered to be working unduly upon its finances. After spending a year or so in examining matters, he recommended extensive changes which reduced the annual cost by some ten thousand pounds. Five years after his arrival in the Colony the success of his work as an administrator was acknowledged by the Home Government creating him a Knight Bachelor. The reconstruction of the medical service of last year was not effected without a good many hard words, but he pursued unswervingly what in his judgement was the right course. Two days after his death the Government Gazette of British Guiana contained the following tribute to his memory:

By the death of Sir [illegible] the Colony has been deprived of a [illegible] Department [illegible] expenses of the [illegible] for the great [illegible] and [illegible] Sir David [illegible] number of years, having joined it almost as soon as he graduated. At the time of his death he was a Vice-President of the British Guiana Branch. The year after his arrival in the colony he was elected President, an honour which, in virtue of a local custom, he might have continued to hold three times in succession as Surgeon-General. It is however perhaps typical of the man that he thought it right to refresh the system and so throw the post of President open to other members of the Branch.

Sir David Ross lost his wife in 1878 but he is survived by a daughter and four sons. The former is the wife of Mr. Justice Lopdell-Smith, with whom Sir David Ross was staying at the time of his last illness; and of his sons, one holds a medical appointment in Jamaica, another is a magistrate in Lagos, and a third is in the service of the Gold Coast Government. The remaining son, Dr. Forbes Ross, is in practice in London.

We are indebted to Sir Dyce Duckworth for the following: My recollections of Sir David Palmer Ross relate exclusively to the time of our undergraduate life in Edinburgh, for I have never had the happiness to meet him since we parted in 1864. He was there universally beloved, bright, frank, and clean-minded. We joined the Royal Medical Society in the same year. There was nothing about him at that time to lead me to forecast any specially brilliant career for him, or to distinguish him in respect of high professional attainments, but he was steady, diligent, and dependable, well grounded in all parts of his profession, and therefore well equipped for any line of duty that might open before him. His after-career showed that he always carried with him a high sense of the dignity and usefulness of the medical art, that he commended himself by his tact and upright-mindedness to his superior officers, and that he left an honourable record and example behind him. He has accomplished what we should all strive to attain to—viz. so to live and secure the respect and affection of those we live amongst, that we may be regretted and much missed when we are gone. I feel sure that a similar testimony to this would be borne by many of his old fellow students and brother graduates. *Requiescat in pace.*

EDWARD TRIMMER, M.A.

[illegible] of the Royal College of Surgeons, England

It has [illegible] this year, Mr. Edward Trimmer, formerly the well-known Secretary to the Royal College of Surgeons, has passed away after [illegible] months of illness. His death was due to [illegible]

It [illegible] the other day that we published a notice of his retirement [illegible] health from the office he had held for so many years and he had lived to enjoy only three years to enjoy the liberal pension granted to him by the College. Mr. Trimmer leaves a widow to mourn his loss, and we feel sure that in her bereavement she has the sympathy of his many friends.

Mr. Trimmer possessed a great, open and strong personality. He was an authority on all matters of medical education, [illegible] and [illegible] with a wonderful memory. Not only could he tell without reference the year in which any event took place, but he would frequently say, "You will find the record [illegible] on the [illegible] hand page in volume [illegible] of the minutes," perhaps ten or fifteen years back. Mr. Trimmer has had a distinctly legal turn of mind to know the charters and by-laws of the College and the Medical Acts almost by heart, and his opinion on all such matters was generally found to be correct. He was very conservative and somewhat old-fashioned in his views, but on the other hand, he was always ready to consider any new proposals with an open mind. As Secretary to the College he had on several occasions to bear the brunt of events, which at the time caused a certain amount of excitement; as a case in point it may be remembered that when an attempt was made by certain Fellows and Members to meet at the College without the authority of the Council, Mr. Trimmer had the unpleasant task of seeing that the meeting did not take place within the College precincts. That he was a loyal and conscientious officer of the College every one who knew him will unhesitatingly admit.

Mr. Edward James Alfred Trimmer was born on January 14th, 1827, at Turnham Green. He was the son of the Rev. Edward Trimmer, and great-grandson of the authoress, Mrs. Sarah Trimmer. He was educated partly at a school at Hammersmith and at his father's school at Putney. Later he entered Jesus College, Cambridge where he graduated in arts. Soon after leaving Cambridge Mr. Trimmer entered the India Office, where he remained some years, until, on [illegible] in the office of the Royal College of Surgeons he joined the staff and was appointed Assistant Secretary in 1859 under Mr. Edmund Balfour. In this position he remained until Mr. Balfour's death in 1865, when he became Secretary. He was also Secretary to the Hunterian Trustees. In 1872 he was appointed Joint Secretary, with Dr. Pitman, of a committee consisting of representatives of the various universities and medical corporations in England appointed to draw up a scheme for conducting a conjoint examination of all the Bodies for a licence to practise. Few now remember this attempted scheme, but Mr. Trimmer was, with Sir James Paget, Dr. Pitman, and Dr. Acland, of Oxford, most energetic in his endeavour to bring the negotiations to a successful conclusion. The attempt, however, failed, and in 1879 the committee ceased to exist. When later on the suggested combination with the Royal College of Physicians of London was under consideration, Mr. Trimmer acted as secretary to the delegates, and on the establishment of the Conjoint Board in 1884 was appointed Secretary to the Committee of Management, and this appointment he held until in 1887 the Examination Hall on the Embankment was opened, when all the examinations, and the business connected with them, were transferred to that department.

Mr. Trimmer was a good French scholar, a keen Freemason, an entertaining companion, an excellent "raconteur," and to those who knew him intimately, a kind and genial friend. He was rather fond of the old-fashioned pun, and could not resist making one even in the presence of Royalty. On the occasion of His Majesty's visit to the Museum, as Prince of Wales, after his return from India, when he was shown the skeleton of the tiger presented by himself with the fatal bullet shown in the neck Mr. Trimmer remarked that it was "the last Royal bullet-in."

For forty two years Mr. Trimmer served the College faithfully under thirty two Presidents: his name is signed on many thousands of Fellows' and Members' diplomas, and his memory will be held in respect by all who knew him.

The death of Mr. H. Selby Little, which occurred on the last Saturday of May under somewhat sad circumstances, will continue to be a cause of deep regret to many persons both in Reading where his practice lay, and elsewhere. On the Wednesday preceding his death he was found on a road near Finchampstead under his bicycle in a semi-conscious condition and it was at first thought that he had had an accident. It was afterwards however, found that he had probably attempted to lie down on account of a sudden attack of giddiness and and without ever recovering full consciousness he passed away quietly three days later. His medical attendant was able to certify that the death was due to natural causes and consequently no inquest was necessary. His friends from the first had little hope that he would recover, for he had been in bad health for some time and had been very much overworked. Mr. Little was born in Hampstead in 1848, and received his medical education at St. Bartholomew's Hospital. He became M.R.C.S. and L.S.A. in 1870 and took the degree of B.A. in the University of London four years later. Upon leaving St. Bartholomew's he was elected assistant house surgeon at the Metropolitan Hospital, and after fulfilling this office went to Ryde as Resident Medical Officer and Secretary of the Royal Isle of Wight Infirmary

Later he joined his father in practice at Reading, becoming medical officer of the Reading Dispensary and of the St. Giles's district of the Reading Union. He was a member of the Reading Division of the Oxford and Reading Branch of the British Medical Association, and at the time of his death one of the oldest members of the Reading Pathological Society. Both as a man and as a medical practitioner he enjoyed the highest esteem of all who knew him, and eloquent testimony to the regard felt for him was afforded by the attendance at the funeral; it comprised numbers of the poorer classes, who rightly feel that they have lost in Selby Little an untiring, kindly friend. Mr. Little was married and is survived by his wife, but left no family.

M. JEAN DAVID, of Montpellier, the oldest member of the medical profession in France, died last week in the 104th year of his age. He was born at Murviel-les-Montpellier on February 3rd, 1801, qualified as an *officier de santé* in 1824, and up to a very advanced age he practised his profession at Grubels near Montpellier. He retired in 1892. Up to that time he had led the hard life of a country doctor, making his rounds, winter and summer, on horseback. His sphere of practice covered a very extensive and mountainous region. He was for many years Mayor of his commune. He was a man of vigorous constitution and very temperate habits. During the last few years of his life he suffered from blindness, caused by cataract, but his mind remained perfectly clear to the end. M. David was the author of an essay on the efficaciousness of emetics in whooping-cough, and had a great local reputation for his special skill in the treatment of malignant pustule.

Dr. L. A. JOSEPH MICHON, who died recently, was for many years physician to several members of the Orleans family, with the heads of which he was on terms of close intimacy. When Marshal Macmahon was President of the French Republic, he was Prefect of the Loiret and the Puy-de-Dôme Departments. He took his medical degree at the Paris Faculty in 1860, his thesis being entitled Unpublished Documents relative to the Great Plague of 1348. Dr. Michon was also a Doctor of Letters, a degree for which he presented, in 1859, a French thesis entitled *Des Céréales sous les Romaines*: and a Latin one entitled *Quid Lybiae geographiae auctore Plinio Romani contulerint*. Dr. Joseph Michon was a son of Dr. Louis Marie Michon, Surgeon to the Paris hospitals, and a Member of the Académie de Médecine, who died in 1866.

Baron ANTONIO EVARISTO D'ORNELLAS, sometime Minister Plenipotentiary of Portugal in France who died recently, was a Doctor of Medicine of Paris and Oporto. He took his degree at Paris in 1854, the subject of his inaugural thesis being the morbid anatomy and treatment of the fibrous polypi of the base of the skull known as naso-pharyngeal. He was also the author of a monograph on the physiological action of emetine which was published at Paris in 1854 and of a paper on vomiting which appeared in the *Bulletin Thérapeutique* (1873).

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD

Examiner in Medicine.—George A. Gibson, M.D.Edin., has been appointed an examiner in Medicine.

Representative on the General Medical Council.—The announcement, made on the authority of the University Gazette, of the election of a representative on the General Medical Council was erroneous. No election has taken place.

Degrees.—In a Congregation held on Thursday, June 16th, the following degrees were conferred: Doctors of Medicine, Gustave Isidore Schorstein, M.A., B.M. Christ Church, F.R.C.P., and Arthur Edwin Boycott, M.A., M.B., Brasenose College.

The following candidates have passed the First M.B. Examination in the subjects indicated:

Organic Chemistry.—M. Bates, St. John's College; S. Nockolds, Keble College; W. W. Wells, Merton College.

Materia Medica and Pharmacy.—M. Bates, Exeter College; M. Bates, St. John's College; C. N. Binney, Corpus Christi College; L. C. Bridgstocke, Jesus College; A. W. Bunyeat, Queen's College; H. G. Butterfield, Wadham College; R. Evans, Jesus College; N. Flower, Exeter College; P. H. C. Fowell, St. John's College; M. H. Nash, Exeter College; S. Nockolds, Keble College; E. A. Ramsden, New College; A. H. Savage, New College; P. T. Spencer Phillips, New College; B. W. Stone, Brasenose College.

Anatomy and Physiology.—H. H. Carleton, Keble College; E. A. Cockayne, Balliol College; E. P. Cumberbatch, Keble College; M. Davidson, Trinity College; M. W. Flack, Keble College; N. Flower, Exeter College; J. F. Hornsey, Wadham College; G. R. Hughes, Exeter College; S. E. Whitnall, Magdalen College; W. C. Wigan, St. John's College; A. P. Yonge, Exeter College.

The following candidates have passed the second M.B. Examination in the subjects indicated:

Pathology.—F. E. H. Adams, Exeter College; O. F. Berkeley-Hill, Trinity College; H. W. Bramwell, University College; F. Burstall, Trinity College; H. E. [illegible], New College; P. J. Dean, Lot collegiate; J. Freeman, Pembroke College; J. H. Hebb, St. John's College; J. C. Priestley, Christ Church; E. H. Saukey, Christ Church; H. G. F. Spurrell, Merton College.

UNIVERSITY OF CAMBRIDGE

THE following candidates have passed the First Examination for medical and surgical degrees in the subjects indicated:

Part I. Chemistry and Physics.—C. W. Archer, Trin.; G. R. Batterbury, Cai.; R. L. Barker, Cai.; J. P. Brooksbank, Christ's; J. Brierley, Cai.; J. S. Burn, Trin.; A. S. Cane, King's; H. G. P. Castellain, M.A., Trin.; H. F. Comyn, King's; C. H. Cox, Jes.; J. H. Cumming, Pemb.; C. C. Dobell, Trin.; E. A. Dyson, Jes.; A. Fearing, Pemb.; J. Ferrar, Sid. Suss.; R. H. W. Fisher, Emm.; R. Gamlin, Pemb.; R. W. B. Gibson, Jes.; P. K. Gilroy, Pet.; H. Selw.; S. Gordon, Pemb.; A. R. Hargreaves, Trin.; T. W. Hawkins, King's; C. B. Hawkins, Cla.; G. Holmes, Cai.; B. Hughes, B.A., H. Selw.; J. M. Jarvie, Emm.; A. P. Methuen, Trin.; G. W. Mitchell, Cla.; P. Nowell, Cai.; J. L. Osmond, Emm.; G. M. Parker, Emm.; W. M. Pooley, Cai.; H. J. Perceval, Trin.; F. H. Robinson, Queen's; E. M. Russell, Cai.; J. N. Russell, Trin.; J. H. Ryffel, M.A., Pet.; J. G. Saner, Cai.; M. R. Sawhny, Down; H. Scott, Trin.; R. M. R. Thursfield, H. Selw.; R. H. Vercoe, Joh.; P. B. Wallis, Pemb.; E. P. W. Wedd, Cai.; J. M. Wedderell, Christ's; M. M. Woods, Cai.

Part II. Elementary Anatomy.—J. W. Adams, Cai.; F. S. Adams, Christ's; G. C. Alderson, Cai.; W. B. G. Angus, Christ's; C. W. Archer, Trin.; H. L. Attwater, Pemb.; H. J. Baldwin, B.A., Emm.; R. L. Barker, Cai.; G. R. Batterbury, Cai.; J. P. Brooksbank, Christ's; A. S. Cane, King's; H. G. P. Castellain, M.A., Trin.; F. G. Cawston, Cai.; H. F. Comyn, King's; C. H. Cox, Jes.; J. H. Crotton, Pemb.; J. H. Cumming, Pemb.; C. C. Dobell, Trin.; C. A. Dottridge, Cla.; A. Feiling, Pemb.; R. H. W. Fisher, Emm.; R. Fisher, Sid. Suss.; R. Gamlin, King's; G. Gamlin, Pemb.; W. Gillison, Pet.; P. K. Gilroy, H. Selw.; S. Gordon, Pemb.; A. H. Gosse, Cai.; C. C. Harrison, Cai.; R. H. P. Hick, Christ's; R. F. Higgin, Cai.; S. J. Higgins, Cai.; B. Hughes, B.A., H. Selw.; J. M. Jarvie, Emm.; J. S. Jobson, Sid. Suss.; H. D. Lander, Cai.; A. C. C. Lawrence, Trin.; J. C. Marklove, Cai.; C. C. Messiter, Cai.; B. L. Miles, Pemb.; G. W. Mitchell, Cla.; H. G. Monteith, Pemb.; V. H. Mottram, Trin.; C. J. Nicholson, Cai.; H. M. D. Nicoll, Cai.; T. E. Osmond, Emm.; G. M. Parker, Emm.; F. H. Robinson, Queen's; E. N. Russell, Trin.; J. H. Ryffel, M.A., Pet.; J. G. Saner, Cai.; M. R. Sawhny, Down; H. Scott, Trin.; A. S. Seabrooke, Christ's; I. Singh, Pemb.; R. M. R. Thursfield, H. Selw.; R. H. Vicary, Cai.; E. T. Willans, Emm.

The following candidates have passed the Second Examination for medical and surgical degrees in the subjects indicated:

Human Anatomy and Physiology.—P. H. Bahr, B.A., Trin.; G. G. Butler, B.A., Emm.; R. N. Chopra, Down.; E. B. Clayton, B.A., Cai.; G. G. Collett, Trin.; A. F. Comyn, B.A., Pemb.; A. J. W. Cunningham, Trin.; H. E. T. Dawes, B.A., Joh.; G. W. Dryland, B.A., Cai.; H. G. Earle, Down.; T. G. Elger, Cai.; D. Embleton, B.A., Christ's; G. B. Fleming, B.A., King's; C. L. Forde, B.A., Cla.; T. R. Glynn, B.A., Cla.; J. W. Grice, B.A., King's; R. E. V. Hale, B.A., Cai.; P. Hamill, Trin.; G. A. F. Heyworth, B.A., Trin.; F. H. Holl, Trin.; W. D. Hopkins, Trin. H.; A. F. Jackson, Pet.; W. M. Jeffreys, B.A., Trin.; R. P. Lamb, B.A., Trin.; K. A. Lees, B.A., King's; S. G. Luker, B.A., Pemb.; B. K. Nutman, B.A., Jes.; M. W. B. Oliver, B.A., Trin.; J. H. Pratt, B.A., Trin.; C. E. Redman, B.A., Pemb.; A. C. H. Rothera, B.A., Emm.; C. E. F. Salt, B.A., Pemb.; H. A. Smith, B.A., H. Selw.; H. H. Taylor, B.A., Pemb.; C. H. Treadgold, B.A., Cla.; P. J. Verrall, Trin.; T. N. Wood, B.A., Pemb.; O. K. Wright, B.A., Christ's.

The following candidates have passed the Third Examination for medical and surgical degrees in the subjects indicated:

Part I. Pharmacology and General Pathology.—R. A. Clapham, B.A., Emm.; S. W. Cole, M.A., Trin.; A. I. Cooke, B.A., Cai.; W. D. Coplestone, B.A., Jes.; A. W. D. Covenden, B.A., Trin.; G. W. Craig, B.A., Emm.; H. P. Crampton, B.A., Cla.; W. L. Cripps, B.A., Trin.; L. G. Davies, B.A., Trin.; G. B. Davis, M.A., Corp. Chr.; A. N. Dixon, Down; L. Dukes, B.A., Trin.; A. C. D. Firth, B.A., Trin.; D. H. Fraser, B.A., Cai.; H. P. Gibb, B.A., Sid. Suss.; G. F. Greenwood, B.A., Sid. Suss.; C. F. Hadfield, M.A., Trin.; E. Harrison, B.A., Trin.; N. G. Harry, B.A., Jes.; E. C. Hughes, B.A., Cla.; R. O. Lee, B.A., Emm.; W. B. Marshall, B.A., Joh.; T. M. Neatby, M.A., Joh.; W. H. Newton, B.A., Emm.; R. G. Nothwanger, M.A., Joh.; S. A. Owen, B.A., Trin.; G. G. Packe, B.A., Trin.; C. H. W. Page, M.A., Corp. Chr.; P. N. Panton, B.A., Trin.; D. G. Pearson, B.A., Pemb.; C. T. M. Plowright, B.A., Joh.; R. H. Robbins, B.A., Trin.; O. L. Scarborough, B.A., Joh.; F. Shingleton-Smith, King's; H. F. Skrimshire, B.A., Jes.; W. H. R. Sutton, B.A., Down.; C. B. Ticehurst, B.A., Joh.; W. S. Tresawna, B.A., Sid. Suss.; S. L. Walker, B.A., Sid. Suss.; B. Wallis, B.A., Trin.; H. P. Weaver, B.A., Trin.; H. W. Wiltshire, B.A., Cla.; L. Worrall, B.A., Christ's.

Prize.—The Raymond Horton-Smith Prize, for the best M.D. Thesis of the year, is awarded to Dr. F. A. Bainbridge, M.A., Trinity; Dr. B. N. Tebbs, Queens', receives honourable mention.

Surgery.—Dr. H. B. Roderick, M.A., Emmanuel, has been appointed Demonstrator of Surgery to Professor Howard Marsh.

Botany.—An election to the Frank Smart Studentship in Botany, value £100 a year, will take place in July. It is open to graduates of the University of less than fourteen terms' standing. Application is to be made to the Vice-Chancellor by July 14th.

Tropical Medicine.—The examination for the University Diploma in Tropical Medicine and Hygiene will take place on August 9th and 10th in Cambridge, and on August 11th in the Dreadnought Seamen's Hospital, Greenwich.

Degrees.—On June 14th the following degrees were conferred: *M.D.*: H. W. Attlee, St. John's. *D.Sc.*: Professor C. S. Sherrington, F.R.S., Caius. *M.B.*: C. Stiebel, Trinity Hall. *B.C.*: C. A. W. Pope, Trinity. On June 15th the following degrees were conferred: *M.D.*: C. R. Slade, Trinity; E. E. Prest, St. John's. *M.B.*: H. F. Horne, King's; A. S. Bradley, Caius; E. Gardner, Caius; E. T. Harris, Christ's; C. A. Wright, Christ's. *B.C.*: H. F. Horne, King's; H. Raschbeth, Trinity; A. E. Barclay, Christ's; J. Lambert, Downing; H. L. Wilson, Hoststelwyn.

UNIVERSITY OF ABERDEEN.

UNIVERSITY COURT.

The late Sir William Henderson.

Before the ordinary business of the University Court, on June 14th, Principal Laing made fitting reference to the death of Sir William Henderson, one of the most useful and honoured citizens of Aberdeen. He was connected with and was the promoter of all the benevolent and useful institutions in the city. The University knew him as one of her honorary graduates, and this distinction had been conferred on him on account of his services, the width of his sympathies and his interest in all matters connected with the University. He was a liberal contributor to the extensions of the buildings which were now proceeding towards completion, and by deed he had gone with the Principal to various friends in the city, and his representations and by the assurance of his co-operation very large gifts were secured for the University. Sir William Henderson was also the chief promoter of the scheme to commemorate the jubilee of the Incorporated Medical Practitioners by the erection of the surgical block in the Royal Infirmary, a matter which he carried to a most successful issue, and in this regard his great services were commemorated by the ward which is named after him. The Principal then moved that the University Court record its grateful appreciation of the services rendered by Sir William Henderson as a benefactor of the University, as an active member of the Court, as a liberal promoter of the welfare and progress of the University, as an earnest friend of the students and as a generous contributor to all the deserving charities of the city, and that an expression of deep regret on account of the death of Sir William Henderson at a comparatively early age

MEDICAL VACANCIES AND APPOINTMENTS.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

IRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon, resident. Salary £50 per annum.

BRIGHTON THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Salary at the rate of £50 per annum.

BOURNEMOUTH ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon, resident. Salary, £100 per annum.

CANTERBURY: BOROUGH ASYLUM.—Assistant Medical Officer, resident. Salary, £100 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Assistant House-Surgeon, resident. Salary, £60 per annum.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, resident. Salary, £100 rising to £150 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Senior House Surgeon and Assistant House-Surgeon. Salary at the rate of £100 and £80 per annum respectively.

DOWNPATRICK: DOWN COUNTY INFIRMARY.—House-Surgeon, resident. Salary, £100 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—Clinical Assistants for the Out-patient Department.

FARRINGDON GENERAL DISPENSARY, 17, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £120 per annum.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon, resident. Salary £80 per annum.

HULL ROYAL INFIRMARY.—Casualty House Surgeon, resident. Salary, £50 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Ambulance Surgeon. Salary, £1 1s. per week.

LONDON TEMPERANCE HOSPITAL, Hampstead Road.—Resident Medical Officer. Salary, £50 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—House-Surgeon. Honorarium at the rate of £50 per annum.

MARGATE, ROYAL SEA BATHING HOSPITAL.—Resident Surgeon to act as Junior and Senior for six months each. Salary at the rate of £60 and £100 per annum respectively.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART, Soho Square, W.—Assistant Physician.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—Assistant Surgeon.

POPLAR HOSPITAL FOR ACCIDENTS.—Assistant House-Surgeon, resident. Salary at the rate of £50 per annum.

ST MARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Lecturer on Chemistry.

STAMFORD, RUTLAND AND GENERAL INFIRMARY.—House Surgeon, resident. Salary £100 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon. Salary at the rate of £70 per annum.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon, resident. Salary at the rate of £60 per annum.

STOCKTON-ON-TEES: STOCKTON AND THORNABY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Junior House-Surgeon. Salary, £80 per annum.

APPOINTMENTS.

FEVERS, EDWARD C. M.A., M.B., B.Ch. Oxon., M.R.C.S., L.R.C.P., Honorary Assistant Surgeon to the Eye Infirmary, Oxford.

BRYAN, J. M., M.R.C.S., L.R.C.P. Lond., Public Vaccinator for St Giles and St Andrew's District of the Northampton Union.

COPPER, Arthur B.A., M.B., B.Ch., Honorary Assistant Anæsthetist to St John's Hospital for Diseases of the Skin, Leicester Square.

CRAWFORD, W. F., M.B., Medical Officer to the Workhouse Union Infirmary.

DAVIS, Henry J., M.A. Cantab., M.R.C.P. Lond., Assistant Physician in charge of the Electrical Department, West London Hospital.

EDISON, E. R., M.R.C.S., L.R.C.P. Lond., Medical Officer of Health, Bedale Rural District.

FLETCHER, Ollé Robert, M.A., M.D. Oxon., Pathologist to the Cancer Hospital, London.

FRASER, K., M.B., Certifying Factory Surgeon for the Orrell District, Lancashire.

HEWITT, H. Eyre, M.D., Deputy Medical Superintendent Inspector to the National Sanitorium Association, vice W. Parr May, M.D., D.P.H., F.R.C.P. Edin., resigned.

LESLIE, G. S., M.B., C.M. Edin., Medical Officer of Health to the Pallsworth Urban District.

MACKAY, F. H., M.B., B.S. Durh., Resident Assistant Medical Officer to the Bradford Union Workhouse.

MACKENZIE, J. S., M.B., C.M. Edin., Honorary Physician to the Hospital for Sick Children, Newcastle-upon-Tyne.

MONTGOMERY, W. W., M.B., D.P.H. Camb., District Medical Officer of Health for the Eastern Transvaal.

MOORE, D., L.R.C.P. & S. Edin., L.F.P.S. Glasg., District Medical Officer of the Durham Union.

NASH, H. R. G., L.R.C.P. & S. I., Medical Officer of Health to St Just District Council.

RICHARDS, T., L.R.C.P., M.R.C.S. Eng., District Medical Officer of the Carlisle Union.

THOMSON, George W., M.B., C.M. Edin., F.R.C.S. Edin., Surgeon to the Western Ophthalmic Hospital, Marylebone Road.

WEALES, J. R. Hay, M.D. Edin., Medical Officer and Public Vaccinator for the Fourth District of the Risbridge Union.

WILLIAMS, R. M., M.B., District Medical Officer of the Bungay and Beaumaris Districts.

WORSTER, W. L., Assistant Physician to the Metropolitan Hospital, London.

WRIGHT, J. Hamilton, L.D.S., R.C.S., Honorary Dental Surgeon to St John's Hospital for Diseases of the Skin, Leicester Square.

DIARY FOR NEXT WEEK.

MONDAY.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Address by the President. Cases communicated by Mr Vernon Knowles and Mr E. Preedy, and Mr J. F. Colyer.

SATURDAY.

Pathological Society of London, 1, Stratford Place, Queen's Gate, Long Entrance, Prince's Gate, 4 p.m.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital, Thursday, 4 p.m.—Demonstration of Operative Surgical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, Wednesday, 4 p.m.—Lecture on Clinical Cases and Post-mortems.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Lecture on Cases in the Wards. Demonstration of Surgical Instruments and Appliances.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—Demonstrations will be given at 4 p.m. as follows: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures will be delivered at 5 p.m. as follows: Monday, Obstetrics; Tuesday, Diseases of the Ear; Thursday, Clinical Lecture; Wednesday, Short Course of Practical Instruction in the Use of the Laryngoscope, Rhinoscope, and Otoscope; Saturday, Short Course of Practical Instruction in the Administration of Anæsthetics. Special Arrangements can be made for Instruction in Electrical Methods, Bacteriology, Clinical Microscopy, Post-mortem Pathology, Operative Surgery, Medical Gymnastics, Massage, Diseases of Women, Diseases of Children, Diseases of the Throat, Nose, and Ear, Diseases of the Skin, Dental Surgery, Ophthalmology, Anæsthetics, Administration of Electricity, Radiography, Radiotherapy, Post-mortem Pathology, Bacteriology, Clinical Microscopy, Operative Surgery, Medical Gymnastics, Massage, Diseases of Women, Diseases of Children, Diseases of the Throat, Nose, and Ear, Diseases of the Skin, Dental Surgery, Ophthalmology, Anæsthetics, Administration of Electricity, Radiography, Radiotherapy.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Fitzroy Square, W., Thursday, 5 p.m.—The Treatment of Advanced Cases by Artificial Pneumothorax.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Lectures will be delivered at 5 p.m. as follows: Tuesday, Syphilis: Diseases of the Nervous System; Friday, Cerebral Surgery.

North-East London Post-Graduate College, Tottenham Hospital, N., Wednesday, 4.30 p.m.—Lecture on the Indications of General Anæsthesia.

Post-Graduate College, West London Hospital, Hammersmith Road, W.—Lectures will be delivered at 5 p.m. as follows: Monday, Practical Surgery; Tuesday, Theory and Impotency at the Asylum; for Idiots; Ear Surgery; at 2.30 p.m.; Wednesday, Development of the Teeth; Thursday, Hernia; Friday, Purpura Hæmorrhagica; Lecture on Tuberculosis of the Skin.

St. John's Hospital for Diseases of the Skin, Leicester Square, W.C.—Thursday, 4.15 p.m., Lecture on Tuberculosis of the Skin.

St. Peter's Hospital, Henrietta Street, W.C.—Lecture-Demonstrations will be given at 2 p.m. as follows: Monday, Cases in the Wards; Thursday, Electric Examination of the Urethra and Bladder.

Samaritan Free Hospital for Women, Marylebone Road, N.W.—Thursday, 3 p.m.—Lecture on Inflammation of the Uterus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

FAIRLEY.—On June 7th, at West Bank, Gravesend Hill, Burnham, Bucks, Fanny, L.R.C.P.S., wife of S. B. Fairley, M.D., of a daughter.

GRIFFITH.—On June 9th, at 3 Hargrave Terrace, Terenure Road, Dublin, the wife of Albert E. Griffith, L.R.C.P. & S.I., of a son.

MURRAY.—On June 15th, at 6 Cowgate, Musselburgh, Fast Court, Square, S.W., the wife of William Murray, M.B., Ch.B. Edin., D.P.H. Lond., of a son.

TURNER.—On the 10th, Northamptonshire, June 15th, the wife of E. Rowland Turner, M.B., of a son.

VEST.—On June 11th, at 2 High Street North, East Ham, the wife of J. Nicole Best, M.R.C.S., L.R.C.P. Lond., of a son.

MARRIAGES.

SAWARD—WHITTEN.—On June 18th, at St George's Hanover Square, W., by the Rev. F. F. W. Saward, M.A., assisted by his brother, Arthur Saward, M.R.C.S. Eng., L.R.C.P. Lond., of Redhill, Surrey, Violet, eldest daughter of the late A. J. Whitten, J.P., of Upper Norwood.

STILL—RANSOME.—On June 21st, at Holy Trinity, Marylebone, by the Rev. H. O. Hall, the Master of the Temple, assisted by the Rev. W. S. Kay, M.A., Percy Frederick Still, M.B., B.Ch. Cantab., of 2 Bentinck Street, W., to Florence Gertrude, second daughter of James Edward Ransome, of Holmwood, Ipswich.

WILL—FLETCHER.—On June 23rd, at St Andrew's Presbyterian Church, Upper Norwood, by the Rev. John Hall, B.D., Christian, M.B., M.R.C.S., L.R.C.P. Lond., of Fernbank, Upper Norwood, eldest son of Ernest Will, Esq., of Finsbury Park, to Jessie, daughter of the late Patrick Fletcher, Esq., of Streatham Hill.

DEATHS.

BOWEN.—On June 15th, at Bedford Park, Middlesex, Edward Bowen, M.D., aged 74.

CLARKE.—On June 16th, at Bedford Park, Middlesex, Edward Bowen, M.D., aged 74.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the EDITOR, 2 Agar Street, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS forwarded for publication are understood to be offered exclusively to the BRITISH MEDICAL JOURNAL.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, Mr. [illegible].

CORRESPONDENTS should write on one side of the paper only, and must authenticate their letters with their names.

CORRESPONDENTS who desire answers are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THE JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN ORDER TO AVOID DELAY, it is necessary that ALL letters on the business of the JOURNAL should be addressed to the Office of the JOURNAL, and not to the private residence of any of the Staff.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is [illegible]. The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is [illegible].

TELEPHONE NUMBERS.—EDITOR, 2331 Gerrard. GENERAL SECRETARY AND MANAGER 2630 Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

WE would request correspondents who desire to ask questions in this column but to make use of such signatures as "A Member," "A Member B.M.A.," "Reader," and so on. Attention to this request which constantly would be avoided. Correspondents are asked to write upon one side of the paper only.

L. H. would be glad to hear suggestions as to the cause of three cases of [illegible] occurring at [illegible] the children of a household. The [illegible] were all strong and healthy and the cases followed one another, and all happened within a month.

VETERINARY SURGEONS' CHARGES.

H. R. who has received a bill from a veterinary surgeon [illegible] attending a horse for ten days, asks whether the charge is reasonable. The owner for whom it was treated lived at a distance, and was three miles from the veterinary surgeon.

We have made inquiries and are informed that the charge [illegible] varies [illegible] according to the [illegible] and the [illegible] regarded as very cheap, even though the [illegible] surgeon lived quite close by. The daily average for the attendance of a [illegible] including [illegible] would be [illegible] while [illegible] the daily [illegible] would be [illegible] when [illegible] the [illegible] would be [illegible].

...would feel extremely obliged to any member who will suggest ... in the Midlands suitable for permanent residence of ... and gouty subjects. A large town preferred, but not ... and sheltered from cold winds. Any hints will be highly appreciated.

A PARASITIC TICK

DR ARTHUR COX (Long Buckby, Rugby) writes that a patient residing in the country felt an itching under the knee at tea-time on a Saturday, and on Monday or Tuesday showed her knee to a neighbour, who proceeded to feel it to be a wart, but on Thursday a creature came out of the leg. It caused some swelling of the leg, which had gone when examined on the following morning, but there was still a small hole left.

MR S. G. SHATTOCK, Pathological Curator Royal College of Surgeons of England, who has kindly examined the specimen, writes: The object sent to the College is a tick, the head of which is bored into the skin till the head is practically out of sight. The small wound left after its removal would, of course, have resulted from the cause mentioned.

DEGENERATION OF MUCOUS-SECRETING GLANDS

CAUTIOUS would be much obliged for the following information, in reference to some observations he is making on the processes which precede local polypous formations: (1) Would the degeneration of the mucous-secreting glands in the mucous membrane (say of the middle turbinal and middle meatus) cause oedema of the submucous tissue in that region? (2) Is there a constitutional tendency to degeneration of minor mucous-secreting glands in certain individuals, for example, Yorkshiremen? (3) Can mucous-secreting glands degenerate without an antecedent inflammation of the mucous membrane?

*** (1) There is no reason for thinking that oedema of the surrounding tissue would follow a degeneration of the mucous glands of the middle turbinal, etc. (2) There is no reason for thinking that there is any constitutional tendency to degeneration of mucous glands. (3) There are many examples pointing to degeneration of mucous glands except such degeneration as arises in the course of the different varieties of inflammation. It would appear, therefore, that if our correspondent has any evidence upon the point it would be worth while to pursue the subject.

ANSWERS.

INCOME TAX AND LIFE INSURANCE

D. F. O. (Correspondent should have forwarded his premium receipts to the surveyor who, calling for their production, was following the usual practice of the Inland Revenue Department. If the tax has been paid, and the receipts sent at once to the surveyor, the allowance can still be obtained. If, however, the duty has been paid, repayment can be obtained on the amount of the premiums, declared at 4*d.* in the £, deducted from the surveyor, and forwarded together with the receipts to Somerset House.

LETTERS, NOTES, Etc.

THE Report of the *Lancet* Commission on Milk and Its Relation to Epidemic Disease is published in an ... pamphlet, which can be obtained by post 2*d.*, and ... of it are printed on thicker paper of the report.

THE RESPONSIBILITY OF A SURGEON FOR HIS ASSISTANTS: A CORRECTION

... unfortunate oversight ... was left in one place in the article on ... published in the BRITISH MEDICAL JOURNAL of June 18th, ... that the jury ... the defendant of the first two charges ... The report ... appeared in the text and ... of the Editor of the Journal had on ... all ... was that ... was found for the plaintiff.

MEDICAL GOLF MATCH

... between the Northern ... and Medical Golf Club ... College, Edinburgh, was played at Alnmouth ... with the following result:

...		Northern England Golf Club.	
...		Walter Bisbey	...
...		C. L. Lyster	...
...		H. Lamb	...
...		R. S. Robson	...
...		M. Oliver	...
...		J. T. Thomson	...
...		W. B. Mowbray	...
...		R. Anderson	...
...		Adam Watson	...
...		A. C. Hudson	...
...		T. ...	...
...		E. Lovelace	...

... CHEMICAL ...

LETTERS, COMMUNICATIONS, ETC., have been received from ... A. ... M.B. London; B. ... M.B.; ... Mr. R. J. ... Dr. T. ... M.B.; ... M.B.; ... Mr. ... Dr. ... Mr. ... Mr. ... Dr. A. ... Mr. L. ... Mr. ... Dr. ... C. ... M.B. London; Sir F. H. ... London; Dr. W. ... and Messrs. ... and ... London; Dr. C. ... Bristol; Dr. W. H. ... Mr. ... L.R.C.S. Edinburgh; C. M. H. ... Bart., K.C.B. London; A. ... M.B. Newcastle-on-Tyne; D. Dr. M. ... Edinburgh; Dr. D. ... London; A. ... M.B., Newcastle-on-Tyne; Sir D. ... London; Messrs. ... Dundee; and Co., Derby; E. Mr. G. H. Edwards, London; Executors of Mr. F. H. Edwards, London; F. Dr. E. J. Farmer, Carshalton; Mr. W. Fairbank, Windsor; Dr. R. Forsyth, Leeds; Mr. H. W. Fagge, Littlemore; D. Fines, M.B. Bristol; G. Mr. ... Greenwell, Bart.; Mr. W. P. Gardiner, Kirkintilloch; Mr. G. P. Gaskell, London; Miss L. M. Grant, London; H. H. R. ... M.B., Carlisle; Mr. R. Harrison, London; Mr. F. Hodges, Bourne; Humber, Limited, Manager of, London; Dr. G. Herschell, London; I. Mr. W. R. V. ..., Southampton; Independent; J. Mr. H. ..., Romford; Dr. J. H. J. ... Tamworth; J. F. B. C., Mr. R. D. Jayne, Devizes; Dr. R. J. ... Rawtenstall; J. G. K. Dr. J. Kerr, London; Mr. W. G. King, London; Mr. ... W. ... Kendal; Horsham; Mr. O. P. Kerr-Wear, Castleton-le-Dale; Grange; R. ... Kay, M.B. Cockermouth; L. Mr. E. M. ... Leith, London; Dr. B. Lauder, Wrotham; ..., Edinburgh; Dr. A. W. H. ... Haslar; L. H., Messrs. ... and S. L. ..., Castlegate, Edinburgh; Dr. A. W. H. ... Haslar; M. B. S., C. G. MacVicker, M.B., Street; D. S. Macdonald, M.B., Jersey; C. B. Mayhew, M.B., London; E. R. Mew, M.B., Surbiton; Dr. G. S. Meaden, London; Messrs. Maclehose and Co., Glasgow; Messrs. Macmillan and Co., London; Mr. G. A. Myrtle, Harrogate; Mr. D. Massy Barnstaple, Brynmawr; Dr. J. Mackaye, Bradford; Messrs. Macvicar, Anderson and Macmillan, Limited, London; Messrs. Macvicar, Anderson and Macmillan, Limited, London; Messrs. Macvicar, Anderson and Macmillan, Limited, London

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

A REPORT

ON THE

POOR-LAW MEDICAL SYSTEM IN IRELAND

WITH SPECIAL REFERENCE TO

THE DISPENSARY MEDICAL SERVICE.

BRITISH MEDICAL JOURNAL, *MARCH 26th, 1904.*

London:

PRINTED AND PUBLISHED AT THE OFFICES OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

MCMIV.

CONTENTS.

PAGE

I. INTRODUCTORY 49

(A) Nature of Complaints Made.—(B) Action by Teachers of the Medical Schools.—(C) Action of the Irish Medical Association.—(D) Action of Guardians of Poor-law Unions.—(E) The Public Press and Public Opinion generally.—(F) Action of the Local Government Board to meet the above Conditions 49

Nature and Scope of the Inquiry 50

II. HISTORIC EVOLUTION OF THE IRISH POOR-LAW MEDICAL SYSTEM . . 50

The Establishment of County Infirmaries . . . 50
The Poor Law and the Workhouse 51
The Establishment of the Dispensary System . 51
The Establishment of the Local Government Board 52
The Local Government Act, 1898 52

III.—THE EXISTING CONSTITUTION OF THE IRISH POOR-LAW MEDICAL SERVICE 52

The Local Government Board 52
The Distribution of Poor-law Medical Officers 53
Medical Officers of Workhouse Infirmaries.—Dispensary Medical Officers.—Number of Dispensaries in each Dispensary District 53
The Dispensary Organization in a Typical County 54
Typical Unions and Dispensary Districts . . 54
County Antrim.—Glenties Union, Donegal.—County Wicklow, County Wexford . . 54
Summary 55

IV.—THE ELECTION AND APPOINTMENT OF THE IRISH DISPENSARY MEDICAL OFFICER 55

V. THE DUTIES OF THE DISPENSARY MEDICAL OFFICER IN IRELAND . . 57

Medical Duties 57
Sanitary Duties 57
Registration Duties 58
Vaccination Duties 58
Constabulary. 58
Certifying Factory Surgeon 58
Coastguard 58
Lighthouse Staff 58
Summary 58

VI.—THE DISPENSARY—DISPENSING AND THE DISPENSARY RESIDENCE. . . 59

The Dispensary 59
The Dispensing. 59
Need for Standard Plan of a Dispensary . . 60
The Dispensary Residence 60
Branch Dispensaries 61

VII.—SUBSIDIARY ASSISTANTS TO THE MEDICAL OFFICER. 61

Midwives 61

VIII.—THE DAILY ROUND—THE COMMON TASK 61

IX. THE BLACK TICKET AND THE RED. 62
Private Practice 65

X.—THE PAY SALARY OF THE DISPENSARY MEDICAL OFFICER 66

Size of Districts 66
Improved Pay Necessary 68

XI.—SUPERANNUATION 69

XII.—LEAVE OF ABSENCE. 70

Holidays.—Locum Tenens.—Sick Leave.—Study Leave 70

XIII.—THE MEDICAL SERVICE OF THE "CONGESTED DISTRICTS." . . . 71

XIV. THE ORGANIZATION OF AN IRISH MEDICAL SERVICE. 72

XV.—THE PAY-RATES OF IRISH PUBLIC OFFICIALS 73

The Resident Magistracy.—The Constabulary.—Other Services 73

XVI. THE FINANCIAL ASPECT OF THE QUESTION OF BETTERMENT. . . 74

Rough Estimates of Reorganization Cost. . . 75

XVII. CONCLUSION 75

A REPORT

ON THE

POOR-LAW MEDICAL SYSTEM IN IRELAND

WITH SPECIAL REFERENCE TO

THE DISPENSARY MEDICAL SERVICE.

(By Our Special Commissioner.)

I.—INTRODUCTORY.

In accordance with instructions received from the Editor of the British Medical Journal, I proceeded to Ireland to inquire into the Poor-law Medical Service of that country, with special reference to the dispensary system in force there.

I was instructed further that so far as they affected the dispensary system, I was to report on the workhouses and workhouse infirmaries, county infirmaries, and lunatic asylums of Ireland; but the inquiry was to be mainly directed to the dispensary system, including the duties, pay, allowances, and and general condition of the dispensary medical officers.

On reaching Ireland I found myself face to face with the following conditions:

(A) *Nature of Complaints Made.*

The medical press of the United Kingdom and of Ireland from week to week contained letters of complaint from medical officers of the Dispensary Medical Service, complaining of their defective pay rates, the entire absence of promotion, the heavy and exhausting character of their duties, the want of clear and definite regulations as to leave of absence, and the uncertainty attending their claims for superannuation when old and worn out. They further complained generally of unsympathetic treatment by their Poor-law guardians, and want of due protection by the Local Government Board of Ireland.

(B) *Action by Teachers of the Medical Schools.*

The professors and teachers of the medical schools of Ireland, with practical unanimity, were in their lectures advising young medical men to avoid the Public Dispensary Service owing to its defective prospects. Not only in Dublin was antagonistic lecturing going on, but in the Colleges of Belfast, Cork, and Galway the same general line of action was being taken, and a practical unanimity existed amongst the medical profession in Ireland as to the undesirability of young medical men joining the service under existing conditions.

(C) *Action of the Irish Medical Association.*

This body, which represents some 52 per cent. of the medical profession in Ireland, had taken very definite action in this matter. It had at its conferences and meetings put forward a series of resolutions as to:

(1) Fixing a minimum salary of £200 a year for each dispensary as a fundamental principle.

(2) A demand for one month's holiday annually, with pay for the *locum tenens* at £4 4s. a week.

(3) The necessity of superannuation being granted as a right and not as a favour.

This Association had in recent years become an important element of medical union in Ireland, and its members had so far combined as to agree to place outside the bounds of their Association and outside ordinary professional intercourse any of their members who accepted dispensaries at terms that did not include these fundamental proposals, Several members had been so ostracized.

(D) *Action of Guardians of Poor-law Unions.*

While this grave condition of affairs was going on amongst the medical men and the professional medical leaders of the country, the guardians of the poor were in almost all unions hardening their hearts against the medical officers' claims, and efforts had even been made to bring over from England and from Scotland medical men who would accept the dispensaries on the conditions and salaries stated to be impossible by the representatives of the medical profession of Ireland.

Certain dispensaries were in this state of affairs left permanently in the hands of *locum tenens* at a weekly salary.

(E) *The Public Press and Public Opinion generally.*

While this condition of war existed between the medical profession and the local guardians of the poor, the public press generally admitted the reasonableness of the medical men's claim. It is no exaggeration to say that by every section of society in Ireland from the highest to the lowest—including the higher and junior clergy of all denominations, the country gentlemen, and the people generally, and many of the guardians in their individual capacity—opinions were expressed generally favourable to the claims for betterment of the medical officers. This I will deal with more fully later on.

(F) *Action of the Local Government Board to meet the above Conditions.*

From the foregoing statements it is evident that a grave crisis had arisen in medical affairs in Ireland, and any person taking a statesman-like view of such a condition of practical medical anarchy must have seen that the movement was not a mere flash in the pan due to a number of thoughtless young men, but that a grave and level-headed profession was directly mobilized against the existing condition of Poor-law medical matters in Ireland, and that the very greatest efforts would be needed by the authorities to deal with the whole question in a full and statesman-like way.

So far as could be seen, no action of any importance had been taken by the Irish Local Government Board to deal with the main questions of pay and superannuation: the Board seemed unaware of the gravity of the crisis, thought little or nothing of the expressed opinions of the organized profession of medicine in Ireland, and continued, as a rule, in the same manner as heretofore, lightly to refuse to sanction increases of pay when voted in rare cases by the local guardians. The only sign of any real action being taken was the extremely dubious, and often most injurious, system of abolishing a dispensary district for which no medical officer appeared, and attaching its two or three segments to the two or three neighbouring dispensary districts, often themselves of considerable extent—practically a policy of coercion. It seemed, therefore, that the Local Government Board in Ireland had failed to grasp the importance of the question was unable or unwilling to deal fully with a grave crisis and like an inefficient War Office in face of a great campaign, or a Board of Admiralty out of touch with public opinion as to the need of keeping up an efficient fleet, was wanting in that spirit of appreciation of an important national question which is the first and most essential qualification of a great public office.

To this official body the movement of the medical profession in Ireland apparently seemed to be the mere ebullition of a few dissatisfied dispensary doctors, and they seemed to ignore altogether the self-evident facts that the movement was really a natural evolution towards medical betterment based on the new and more thorough five years' curriculum of medical study, the greater stringency of medical examinations for diplomas or degrees, and the expulsion in England of several hundred unqualified assistants, heretofore existing, under the order of the General Medical Council. These conditions had already acted fully within the empire, with the result that the War Minister had been compelled to issue new and liberal warrants of increased pay to the Army Medical Service; the Admiralty had similarly in a liberal manner dealt with the Naval Medical Service; the conditions of the Indian Medical Service had been greatly improved, and the pay of *locum tenens* and assistants employed everywhere in England had been greatly bettered. To all these facts the Irish Local Government Board seemed to have been practically blind, and the whole subject remained in a state of drift very injurious to the Irish medical profession, but more still to the Irish people at large.

The grievances put forward by the medical officers appeared on the surface, and without full inquiry not difficult to deal with, if only the whole field of view of the evolution of the education and pay rates of the medical profession was before the minds of those dealing with the question: but on looking deeper into this tangled question it was evident that the few complaints put forward by the medical officers were but small matters by comparison with the radically defective condition of the service as a whole. A study of the question showed that even if the matters complained of had been patched up and temporarily adjusted, the ship of Irish Poor-law medical administration was in sore straits, leaking badly, unable to keep her place in the medical fleets of the world; that her equipment was old and defective, and her *personnel* to a man dissatisfied and hopeless, and that the very existence of the ship herself as an effective structure was at stake.

The least inquiry showed that radical defects in the Poor-law medical organization existed: the whole system was in a great measure obsolete, wanting in modern spirit, and was really a relic of bad days in Irish history, and called loudly for reform.

It was evident that the few points put forward by the Irish Medical Association were but those of acute and grave urgency calling loudest for consideration, and it was apparent that a far fuller inquiry into existing conditions was needed if any permanent benefit was to result. While all the thinking members of the medical profession in Ireland saw the need of a newer method of organization more in accordance with the scientific views of the present day, amongst the lay community of every rank and class and of every shade of politics or creed the opinion largely prevailed that something more was needed than a mere superficial binding up of the wounds complained of, and that what was really needed was so thorough a remodelling of the conditions of the service as would induce the best type of medical men to enter it, and that once entered the service should afford to all its members fuller facilities than hitherto for keeping abreast of modern science.

NATURE AND SCOPE OF THE INQUIRY.

To understand these matters fully it therefore became necessary to discover how the existing unsatisfactory conditions could have developed, to trace out the history of the evolution of these defective methods, to study the methods of entry into the service, to visit personally the districts and see the duties actually performed, to inquire into what stimulus existed to develop the scientific efficiency of the whole body of the Poor-law medical service, to see what relation it bore as a career by comparison with other official medical employments in the Empire, to see what its official recognition was and what was the guiding principle of those in authority over it, to inquire into the pension system by which old and worn-out members of the body could retire from the service—all these matters had to be discussed not with medical men only but with every class of person able to give information, and such information needed to be again checked by inquiry outside purely medical or purely official circles of those able by their knowledge of the country to give information.

With this view all classes of the Irish community have been interviewed, from peer to peasant—many bishops of the churches in Ireland, parsons and priests in very considerable numbers, landlords and tenants, and police. No class of person, high or low, who could give opinion or conclusion or suggestion was omitted so far as was reasonably possible.

The aim has been to present to the members of the British Medical Association—numbering 19,000 medical men scattered over the empire and largely ignorant of peculiar and special local Irish conditions and surroundings—such a clear picture of this important question as would enable them to form a just opinion of the complaints of the Irish medical profession concerning the general organization of the Poor-law medical service of Ireland.

I propose to place before these readers as clearly as I can the tangled question of the evolution and condition of Irish medical administration and organization, and to array before them a number of statements and facts that will, I hope, enable them to form a fair opinion of the whole question.

I trust that all statements made will be accepted as written in good faith and with the desire above all things to arrive at a just conclusion. To do this with any Irish question is a task of exceeding difficulty, for the sea of Irish public opinion is terribly vexed by cross-currents, by the stormy winds of differing politics, varying races, hostile creeds, and social conditions of extreme disparity.

II. HISTORIC EVOLUTION OF THE IRISH POOR-LAW MEDICAL SYSTEM.

To understand existing conditions in Ireland it is essential to have a general view of the history of their growth. Englishmen, accustomed to the study of the gradual evolution of English institutions, find it difficult, as a rule, to understand Irish problems. The Poor-law medical system forms no exception to this rule. We must remember the long and sad history of Ireland. If we take the great Desmond rebellion as a starting point we have the terrible history of the suppression of that rebellion, with the confiscations of Munster and the resulting English plantations in the south of Ireland. We have then the wars in Ulster and the Scottish plantation of that province. Next we have the great Irish rebellion of 1641, and the Cromwellian wars and their confiscations; then the Williamite wars and their heavy confiscations; the penal laws against the Catholics, absentee landlordism; a famine of great severity, and an emigration of very great extent: we have the unceasing struggle of the Irish people against all these conditions, and in the end a gradual understanding by England of the points at issue, and a yielding to Irish national ideas on many points.

THE ESTABLISHMENT OF COUNTY INFIRMARIES.

If I am asked what is the first landmark of medical aid to the Irish people, I at once point to the action of the national Irish Parliament in 1765 and the following years. The foundation of the county infirmaries in Ireland began in that year by direct Act of the Irish Parliament (5 George III, cap. 20). By this Act the grand jury of each county was allowed to found a county infirmary, and to pay towards its upkeep sums not to exceed £700 a year, with £100 a year and other advantages for the surgeon.

I regard this Act as one passed in the interest of the then

governing body the landlords. By it they were enabled to form a hospital for their bailiffs, gamekeepers, and employés, and by the salary given to the surgeon, together with a house worth £80 per year, and also the charge of the prison which went with it and gave him some £50 a year, they succeeded in placing in every Irish county an efficient medical man, receiving at the same time from the State such a grant in aid towards his support as tended to overcome the one unyielding difficulty in Irish medical practice—namely, the factor of distance in a country difficult to travel in, and where it was difficult for a doctor to develop a paying practice.

This infirmary surgeon with an income all told of some £250 from State funds, and the assured practice of the landlords' family and surroundings is, to my mind, the primary type of the State-aided physician installed by the governing class of the period. The infirmary surgeons are, and always have been, medical men of the best type, not to be excelled in any country for efficiency and skill, and have always held an excellent position.

The Poor Law and the Workhouse.

The next phase in the evolution of medical aid in Ireland followed the great English reform movement of 1832, which placed the middle classes in power in England. The Poor-law Acts of the post-Reform era of 1834 in England were followed by a similar Act for Ireland in 1838 (1 and 2 Vict., cap. 56), and indeed the Irish Poor-law system was for several years entirely administered from England, and it was not until ten years afterwards that the Irish Poor-law Board was formed as a Statutory Board in Dublin (10 and 11 Vict., cap. 90).

The whole Poor-law idea of 1838 was repulsive in a most marked degree to the Irish peasant, but it was installed by law, and it seems to have been the middle-class attempt to deal with poverty, and the sickness of the absolutely poor. Its watchwords were, alike in England and in Ireland, "abolish outdoor relief," "all paupers into the workhouse," and "all sick poor into the workhouse infirmary." Indirectly it really gave to all the middle-class people in Ireland a State-aided doctor to live in their midst, and to be partly paid by State funds. In theory he was the medical officer of the newly-constructed workhouse infirmary, in practice he was the doctor of the country town receiving a fixed State-paid stipend, and therefore able to a certain extent to survive in Irish medical practice with its unceasing distance factor always waiting to be dealt with by some aid from national sources. It is quite impossible to state the absolute hatred with which the Irish Poor-law system of the 1834 régime was received by the great mass of the Irish people.

Over the door of all Irish workhouses is found the date "1841," the year of the practical introduction of these unpopular institutions into Ireland. The unexpected that always happens in Ireland suddenly brought these institutions into a pathetic prominence. A dark cloud was brooding over Ireland, and after a few premonitory warnings came the terrible famine of 1847-8. During the two years of its existence some 2,000,000 of the people disappeared from Ireland by death and emigration, and the attention of the civilized world, shocked by the harrowing story, was drawn in a special manner to Ireland and her griefs. As a result a new step was taken in 1851 by the issue of the Medical Charities (Ireland) Act, 1851 (14 and 15 Vict., cap. lxviii), a most important enactment in its effect on the medical care of the Irish people.

The Establishment of the Dispensary System.

Up to this date no medical official help was available in the rural districts of Ireland for the great masses of the people. It is true that provident dispensaries may have existed on certain estates and in a few localities supported by private subscriptions, and helped at times by grants in aid from county funds, under the control of the then governing body of the county—the grand jury—composed of the landlord class. In county Mayo, in 1836, only one provident dispensary existed in a distance measuring 72 miles by 58. By the Medical Charities Act, 1851, however, the Poor-law Commissioners of Ireland, acting through the local Boards of Guardians, were authorized to divide up the whole of Ireland into "dispensary districts," "with due regard to the extent and population of the districts," and to employ a medical officer for the care of the poor in these new subdivisions of the hitherto huge unions called, then and now, dispensary districts. The actual body which governed this dispensary district, chose the medical officer, and decided on the fitness of cases for such relief, was the "dispensary committee" incorporated by the Act. In view of later portion of this report it is vital to remember that the dispensary committee was essentially a committee of the local guardians, and *ex-officio* guardians—that is, nominated magistrates living within the dispensary district together with a certain number of ratepayers rated for property to the net annual value of £30. This committee of management was the governing body of the dispensary. As they lived in the actual dispensary district they were presumably personally interested in the efficiency of the medical officer, and as they knew the residents of all ranks and classes thoroughly they presumably knew who were entitled and who were not entitled to Poor-law medical relief at the cost of the ratepayers and the State.

These facts must be clearly borne in mind as the Local Government Act of 1898 abolished this dispensary committee and changed entirely the mode of election of the dispensary medical officers.

The authors of this Act of 1851 seem to have aimed at making the newly-appointed "dispensary doctor" a kind of medical maid-of-all-work for the district in which he served, and really laid the foundations of what might be called an "Irish Medical Service." I say this because by Clause 13 of the Act the dispensary medical officer was bound "without further fee or reward" to vaccinate all persons in his district. He was also under Clause 15 without extra pay to certify all dangerous lunatics, and by Clause 19 to assist in carrying out the "Nuisances Removal Act of 1848," a kind of feeble attempt at sanitary reform for Ireland: he was ordered also to visit the local Bridewell or House of Correction and care for its sick—all "without extra pay," a well-known expression in Ireland. It is important to note that this Medical Charities Act of 1851 the real outcome of the appalling famine destitution of 1847-8—placed in every outlying portion of the country a State-aided medical man; and so the landlord and comfortable classes in power gained probably in reality more than did the masses of the people. It brought to their estates and to their doors a trained medical man, and the general funds of the country paid him a grant in aid. To my mind this was an attempt to deal with the unceasing factor of "distance," which has ever and will ever complicate the question of medical aid for the widely-scattered population of Ireland.

The dispensary districts thus formed by the Act of 1851 were in the main without any geographical unity, method, or system. Wherever a provident dispensary existed on a landlord's estate it was apparently accepted as a going concern and made into a dispensary district, and the intervening irregular spaces that lay between these districts were made into new dispensary districts without any apparent regard to the convenience of the peasant, or least of all for that of the doctor in the discharge of his duties. These districts extended, and still extend, in extraordinary manners, interlocked with each other in hopeless confusion, enclosing lakes, mountains, bog and hilly country in a way to render the giving of medical aid to the mass of the people in many cases a matter of great physical difficulty apart from all questions of pay for the medical officer. Still by this measure medical aid was in theory brought to the homes of the people by dispensaries built or hired in every district. By a system of special summons or tickets (the historic red ticket) the medical officer was required to visit at the cottage of the small farmer, and visit, wherever placed, the cabin of the peasant and labourer, the "poor person" of the Act of 1851. Up the rugged mountain side, down the deep glen, across the trackless bog, often crossing tidal inlets of the sea, running along rocky tracks of inhospitable shore, as well as extending over the wide meadow lands of Ireland, these medical parishes are the ground over which this priesthood of humanity—the Irish dispensary doctors—travel night and day on their unceasing mission to the suffering.

As a rule, whenever a Government has to deal with the medical profession it endeavours to wring a full and exhausting service out of the unlucky doctor. In this Act of 1851 the medical officer was made to act as vaccinator, lunatic certifier, Bridewell surgeon, and sanitary officer, all for his dispensary pay; and it required years of struggle to get these duties disentangled from the ordinary dispensary medical work, to be paid for separately. Gradually this was done, and now the duties of vaccinator, registrar of births and deaths, Bridewell surgeon, or health officer form separate items of the

medical officer's duties, and also form separate elements of his pay.

The same Act, Medical Charities (Ireland) Act of 1851, established two extra Commissioners for the Irish Poor-law Board, one of whom was to be named "Medical Commissioner," and was to be a medical man. This "medical commissioner" on the Local Government Board is practically the responsible head of this weakly-organized body, the Poor-law Medical Service.

THE ESTABLISHMENT OF THE LOCAL GOVERNMENT BOARD.

In 1871 the powers of the Poor-law Commissioners passed, under 34 and 35 Vict., cap. 109, into the hands of the Local Government Board for Ireland—practically the same body as the old Poor-law Commissioners.

In 1878 the Public Health (Ireland) Act (41 and 42 Vict., cap. 52) was passed, and the dispensary medical officer became a health official, recognized, and in a very minor degree paid; he acted under the urban or rural sanitary authority, practically in the rural districts the same Board of Guardians whom he had served as a dispensary medical officer.

By the 43 and 44 Vict., cap. 13 (Registration of Deaths, Births, and Marriages Act) the Irish dispensary medical officer has the option of being the registrar for his district, and receives 1s. each for birth entries and death entries, and 6d. each for marriage entries. I shall deal with this matter later on.

THE LOCAL GOVERNMENT ACT OF 1898.

We now come to a highly important epoch in the history of Ireland, and one very specially important to the Poor-law medical service.

When the Local Government (Ireland) Act, 1898 (61 and 62 Vict., cap. 37) came into force, the democracy of Ireland became charged for the first time with the management of its county and district affairs. Up to this date the management of county affairs in Ireland had been entirely in the hands of the landlord class, sitting as grand jurors of counties. They practically controlled all county action.

In 1898 the centre of Irish local power was shifted, and a county council, elected on a very democratic suffrage, took over the county control. At the same time a great change took place in the *personnel* of the local Boards of Guardians. These Boards—practically the same as the rural district councils—had up to this date consisted in equal proportions of "*ex-officio* guardians" chosen from the justices of the peace of the county—chosen largely from the landlord party—and elected guardians chosen by the Irish democracy on a very wide franchise. By the new Bill all *ex-officio* guardians disappeared, and practically with them the landlord representatives.

It is difficult for Englishmen accustomed to the gradual evolution of all English institutions to understand the effect of this swing of the pendulum. It was practically a social revolution in Ireland. Its effects are as yet not worked out, and it is impossible to say what it may eventually lead to. The solution is still fluid and has not crystallized. The Act at once threw out of office the landlord class, and a democracy not well trained in medical, sanitary, or other administration and certainly without any practical experience came at once to the throne. So far as the medical profession was concerned the county council change did not have much effect. Its principal result was the removal of the county infirmary from the control of the grand jury to the practical control of the county council, certain subscribers having a voice also in the management.

But when we come to the district council, practically identical with the Board of Guardians, we find a thorough and in every way a radical change. Not only are the guardians elected on a very democratic franchise, but the whole of the *ex-officio* guardians drawn from the county magistracy class were struck off the Board. This threw out of office a certain number of members who brought to the Board as a rule a large experience of public affairs than the existing elected members. No similar change in England and Wales so marked a difference in personnel, for in England the experience of the democracy in local matters, and there is less cleavage between the classes and the masses on questions of creeds or politics. The visiting committee at once acted on the medical officer of the workhouse infirmary, who is an officer of the workhouse staff and works directly under the eyes of the guardians.

The effect of the Act of 1898, however, was still more direct on the dispensary medical officers. Before the Act came into force these officials were elected by the committee of management of each actual dispensary district. This body had the checking power over the red tickets, and the committee could no doubt be a great help to the medical officer. It was at any rate supposed to see his daily work, and presumably to defend him if attacked. In theory at least they were his friends, and could be his protectors. This body was wiped out at a single stroke, and the medical officers of each of the five or six or more dispensary districts of the union were thrown at once into direct touch with the whole Board of Guardians of the union. Their election passed into their hands. The "red tickets" were issuable by every guardian in the union, as opposed to the small number of guardians in dispensary districts who heretofore alone had this power. Their conduct might be impugned by any member of the Board of Guardians as a whole, and they had no one to speak for them, for no one was specially cognizant of their work.

This new democracy, then, placed without much experience of men in a position of great power, is to-day ranged apparently in an unsympathetic phalanx against the medical officers' claims. This democracy, as the years go on, will learn more fully how to deal with those serving under its inspection, and the whole hope for Ireland is that it will learn wisdom and consideration and discretion.

The medical profession in Ireland—not well organized for its own defence, and as yet only feeling its way towards a closer union within itself—has before it a trying task, but no reasonable doubt can exist that it will gain all its legitimate demands, and no one will gain more than the democracy itself from the concession of these reasonable claims.

III.—THE EXISTING CONSTITUTION OF THE IRISH POOR-LAW MEDICAL SERVICE.

THE LOCAL GOVERNMENT BOARD.

THE Chief Secretary for Ireland, usually a member of the Cabinet, is the Minister responsible to Parliament for the management of Irish national affairs. The Lord Lieutenant is the head of the Irish Executive Government, and, may be, and often is, a member of the Cabinet.

The Chief Secretary for Ireland is *ex officio* the head of the many Boards which form what is called the "Irish Government," or what has been in the past universally known and generally mistrusted by all classes in Ireland as "Dublin Castle," so called because some of the offices of these Boards are located in that edifice. The Chief Secretary cannot be everywhere at once, and as there are many Boards in Dublin, and as he has also to be in his place in Parliament in London, the supervision he can exercise over the action of these many Boards cannot be very thorough. The result is that Ireland is not governed by English ideas and certainly has not been governed by Irish ideas, but by a body of officials who are members of these Statutory and almost independent Boards, and these really carry out a species of Castle Home Rule which is neither English nor Irish but bureaucratic.

A single Minister, however humane, sympathetic, or devoted to the best interests of Ireland, cannot be ubiquitous. This is the weak point of Irish government and of the Irish Chief Secretary's position. Although he may come over from the House of Commons in London charged with a humane message of peace and happiness to Ireland, that message has to be put into force in Ireland by impersonal Boards which have never felt the passion of political conflict nor had ringing in their ears the shouts of the victory of a great reforming party in the courts of the Imperial Parliament. These Boards, which do not change though Ministries perish, well know that the vigorous red blood of some new political or social idea of reform which a powerful Minister may endeavour to infuse into the frigid veins of Irish administration can be diluted until it becomes the mere ethical red ink of a bureaucracy.

The Irish Chief Secretary may be compared, when endeavouring to govern Ireland, to a Prime Minister of England, placed single-handed to control the action of the many Boards of departmental and administrative Boards in London, without any trusted and reliable members of his own political party occupying official positions at the head, and acting as parliamentary chiefs of these powerful bureaucracies. Even the Under Secretary of State for Ireland—the permanent head as it were of the Irish bureaucracy—has in the past come up from the Treasury bureaucracy himself, or has been so long

associated with it as to have absorbed all its special characteristics. Yet even his power, when looked into, will be found to be extremely limited over what is called the "Castle" government that is to say, the Statutory Boards which so largely govern Ireland. These Boards remain with all the traditions of the past and accept with a bad grace any new theories of administration meant by England for Ireland.

The Chief Secretary for Ireland is the titular President of the Irish Local Government Board, but the working head is a Vice-President, drawing £2,000 a year, and with him are two other members, one of whom must be a medical man the Medical Commissioner. I doubt if anywhere else in the civilized world any three individual officials have more real power or are more able to keep their hand on the steam valve of a nation's life than here.

This Board has a large control over local Irish life, and, so far as the medical profession in Ireland is concerned, it controls it to a very great extent, owing to the large proportion of members of the profession employed either as medical officers of the workhouse infirmaries, which number 159, or of the dispensaries, which numbered, in 1902, 810—a total of at least 960 out of 2,000 medical men in Ireland.

If we add the various medical officers employed as prison officials and in the lunatic service we see of what serious importance the question of the composition of the Irish Local Government Board is to the very existence of the medical profession in Ireland.

If we strike out the number of medical men engaged in Dublin, Belfast, Cork, and Galway in academic and educational positions in medical schools, and the number of retired medical men we see at once that in Ireland more than in most countries the relation of medicine to the State is exceedingly important. On the bearing of the State to medicine, in regard to sympathetic treatment, stimulating control, and inducements to scientific efficiency, evidently much more depends in Ireland than in richer and more thickly-populated countries, where a profession like medicine may exist absolutely free from State control, and may rise to a high state of efficiency by its own unaided efforts. Such a country is England. We must never forget that the very reverse is the condition in the impoverished, isolated, thinly-populated, and, for centuries, gravely-handicapped nation of Ireland.

With these remarks we now turn to the purely medical side of the Local Government Board of Ireland. Below the Medical Commissioner—who is in reality the Director-General of the Irish Medical Service with a seat on the Local Government Board—come the medical inspectors, chosen usually from the medical men employed under the Local Government Board of Ireland; the appointments are often open to political influence, and medical men have been brought in from England or from outside the service on special occasions.

There is no scientific test, no examination or barrier from a proficiency point of view, and personal favour may be, and no doubt often has been, at the bottom of these important appointments in the past days of irregular Irish administration. While several really able men hold these inspectorial appointments, the officials have not in all instances commanded the respect of the inspected medical officers, and it is difficult to see from what source any special efficiency can come as the experiences are largely local experiences, and the conditions in which men are trained up in a feebly organized service may make them tolerant of defects with which they have become familiar. Five of the seven medical inspectors are engaged in the inspection of dispensaries, combined with sanitary inspection work in the towns and districts. They reside in five centres in Ireland and make tours of inspection through their districts. Until within recent years there were only four such inspecting officers, one for each of the four provinces; an extra inspector has now been appointed and resides at Derry. They are paid from £500 to £700 a year, and devote their whole time to their official work. Although these officers inspect the dispensaries and the sanitary conditions of the towns and country districts, they do not visit the workhouse infirmaries, which are inspected, as a matter of routine, by lay or non-medical inspectors, but occasionally by two special medical infirmary inspectors who are detailed for this work alone and who, between them, inspect the 159 union workhouse infirmaries of Ireland. I am unable to see the meaning of this system of divided inspection. A layman is the frequent inspector of the infirmary of the workhouse, a special medical inspector at distant intervals inspects the same infirmary, and independently of both the ordinary medical inspector is inspecting the sanitary condition of the town and its dispensaries in the scattered countryside. The system, no doubt, grew up haphazard like many Irish systems, and is not defensible on any scientific scheme of administration. It will, no doubt, have to be remodelled at an early date.

If the ordinary medical inspector is not able to inspect a workhouse infirmary it seems to me that the sooner inspectors so qualified are appointed the better will it be for all concerned. Moreover, the general inspectors would thus be increased to seven each with smaller districts, a reform greatly needed.

The Distribution of Poor Law Medical Officers.

Medical Officers of Workhouse Infirmaries.

Below these seven inspectors come, first of all, a special body of 159 medical men in charge of the Union Workhouse Infirmaries. These gentlemen, although medical officers under the Poor Law, are not dispensary medical officers but serve under the original Poor-law Act of 1841, while the dispensary medical officers are controlled by the post-famine Medical Charities Act of 1851. The system is haphazard and devoid of symmetry. Sooner or later it will be dealt with as a whole to the benefit of the entire medical profession in Ireland, and certainly to the benefit of Ireland as a nation.

Dispensary Medical Officers.

We put aside now the special corps of 159 workhouse infirmary medical officers and we deal with the great mass of infantry of the line, as it were, who compose the solid mass of the dispensary medical service in Ireland. They are all registered medical practitioners, and constitute a corps of 810 officers, who may be divided for convenience into four provincial groups or divisions. The province of Ulster employs 238 medical officers, Munster 232, Leinster 228, and Connaught 112.

These provincial divisions may again be subdivided into local sections, corresponding to "Poor-law Unions." There are 45 such sections in Ulster, 49 in Munster, 39 in Leinster, and 28 in Connaught. There is an average of five officers in each section, or if the medical officer of the union workhouse be included, as he should be, the average is six.

In studying the distribution of medical officers by county groups, a unit of much importance in any future reorganization of the Poor-law Service, we find the medical officers grouped as follows:—

Province of Ulster, 9 Groups.

County of.	D.M.O.	W.H.I.	Total.
I. Antrim	53	7	60
II. Armagh	12	[illegible]	16
III. Cavan	[illegible]	4	24
IV. Donegal	[illegible]	[illegible]	44
V. Down	53	5	[illegible]
VI. Fermanagh	[illegible]		17
VII. Londonderry	[illegible]	4	[illegible]
VIII. Monaghan	[illegible]	4	19
IX. Tyrone	[illegible]	[illegible]	35

Province of Munster, 7 Groups.

I. Clare	[illegible]	7	[illegible]
II. Cork	84	17	101
III. Kerry	[illegible]	6	40
IV. Limerick	[illegible]	[illegible]	34
V. Tipperary, North Riding	[illegible]	4	24
VI. ,, South Riding	[illegible]	5	[illegible]
VII. Waterford	[illegible]	4	[illegible]

Province of Leinster, 12 Groups.

I. Carlow	[illegible]	1	[illegible]
II. Dublin	[illegible]	4	[illegible]
III. Kildare	26	3	[illegible]
IV. Kilkenny	[illegible]	5	[illegible]
V. King's County ...	[illegible]		21
VI. Longford	[illegible]		15
VII. Louth	[illegible]		[illegible]
VIII. Meath	[illegible]	[illegible]	[illegible]
IX. Queen's County	[illegible]	[illegible]	18
X. Westmeath	[illegible]		[illegible]
XI. Wexford	24	4	[illegible]
XII. Wicklow	[illegible]	[illegible]	17

Province of Connaught, 5 Groups.

I. Galway	[illegible]	[illegible]	[illegible]
II. Leitrim	[illegible]		14
III. Mayo	[illegible]	[illegible]	37
IV. Roscommon	16	4	[illegible]
V. Sligo	[illegible]		17

Total, [illegible] Counties, one with two Ridings.

D.M.O.—Dispensary Medical Officer. W.H.I. Workhouse Infirmary Medical Officer.

It will thus be seen that the county of Cork employs 1/1 one-eighth of the whole of the Poor-law medical officers of Ireland. Antrim following with 69, Tipperary with 59, Galway coming next with 53, and Dublin with 51, Donegal 44, and Mayo 37. It ought to be possible with such county corps as these to build up a county *esprit de corps* of a very strong character: all counties with below 20 medical officers might be grouped together in couples for promotion or inspection purposes.

Number of Dispensaries in each Dispensary District.

It has to be borne in mind that there are often two or more dispensaries in charge of a single dispensary medical officer. These out-stations are often colloquially called dépôts, but officially they are dispensary stations. Thus Ulster, with 238 medical officers, has 344 dispensary stations. The province of Munster has 361 stations to 232 medical officers. Leinster has 335 stations to 228 medical officers, and Connaught 150 such dépôts for 112 medical officers. As dépôts were probably only formed because the distance from the central dispensary was considered too great for the sick folk to travel, the question arises why the medical officer has to travel such a long distance to see sick patients who cannot attend. If a medical officer were posted for each out-dépôt the corps of dispensary officers would be increased by 387 medical men, or nearly 100 officials for each province more than at present. This very important question should be borne in mind in any reconstruction of the Irish dispensary system.

Such an increase would raise the dispensary staff, now quite insufficient, from 810 to 1,197 medical men. At the very least 100 extra medical men should be employed.

THE DISPENSARY ORGANIZATION IN A TYPICAL COUNTY.

Let us now take a typical county and see how its dispensary system is organized. Antrim, as it stands alphabetically first in the reports of service, may be chosen as the type county. It covers 787,866 acres, and has a population of 418,190 people. For Poor-law purposes it is divided into seven unions or county sections, viz.:

I. Antrim	...	...	[illegible] Inhabitants
II. Ballycastle	...	...	[illegible] ,,
III. Ballymena	...	...	53,082 ,,
IV. Ballymoney	...	...	28,267 ,,
V. Belfast	...	...	368,266 ,,
VI. Lorne		...	33,629 ,,
VII. Lisburn		...	[illegible] ,,

Each union is an administrative centre of the Poor-law service generally of the surrounding districts, and at each of the centres an elected Board of Guardians meets. The guardians are elected for electoral divisions marked out by the Local Government Board; each division returns two guardians. There may be 18, 20, or more such divisions in a union, and the Board of Guardians would then consist of 36, 40, 50, 60 or even more members. The average is 42 guardians. There are no nominated members. There is a permanent clerk of the union and the Board elects its own chairman: it meets at the workhouse, which is or may be at the centre of the union, and encloses within its walls amongst other institutions for paupers aged and children, the workhouse infirmary and fever hospital, the former originally intended as the infirmary for the pauper workhouse inmates only, but now gradually becoming by stress of circumstances the district hospital for many non pauper cases also. The guardians meet, as a rule weekly, and supervise the work of the union. The workhouse infirmary medical officer is an official under the Poor-law Act, and is therefore at present in no way connected with the dispensary medical officers of the union who serve under the Medical Charities Act of 1851. The guardians now govern the whole of the dispensary medical officers in the union, replacing the special dispensary committee swept away by the Local Government Act of 1898.

TYPICAL DISTRICTS AND DISPENSARY DISTRICTS.

County Antrim.

Let us now take the first union (Antrim) of this first county (Antrim) and notice its elements. This union contains six dispensary districts, very arbitrary divisions of the union. The districts are often ludicrous in shape and without logical geographical boundaries. They grew up haphazard after the famine and have never been fully and systematically considered.

The dispensary districts in the Antrim Union are as follows:

1. Antrim Dispensary District.
2. [illegible]
3. Crumlin ,, ,,
4. Doagh ,, ,,
5. Randalstown ,, ,,
6. Templepatrick ,, ,,

For each of these dispensary districts a medical officer is appointed, and must live within his dispensary district. We will examine the six districts separately:

The Antrim Dispensary District contains 21 square miles of territory and a population of 5,356 persons. The area is quite below the average size, which is, for all Ireland, 42 square miles. The population (5,356) is slightly below the average, which is just 6,000 persons. There is but one dispensary and no out-stations or dépôts. There is a single medical officer and no midwife, compounder, or district nurse. The medical officer, in the year 1902, saw at the dispensary 648 new cases, and these he treated as out-patients, over and over again, until they got better—that is to say, he passed through his hands the strength of an average battalion of infantry as fresh cases at his dispensary. For these he made up with his own hands all the medicines, and kept the many statistical records. He drew the drugs on requisition from Dublin; checked them, unpacked them, and made out the various receipts. He attended the dispensary twice weekly, and he also acted as registrar of births, marriages, and deaths, receiving 1s. an entry for the births and deaths and 6d. for marriages. He attended at their own far-scattered homes over this 21 square miles of territory 321 fresh and separate cases of illness so serious as to be unable to attend at the dispensary for out-door treatment.

If we estimate the average number of visits to each case at six—a very small number—he paid 1,920 visits at patients' homes over his district, and for these visits he also made up the medicines at the dispensary, where the State supplies the drugs. He vaccinated at various centres of his district 60 cases, and drew from the State some £6 12s. as pay for this duty. The rent of the dispensary building, paid by the State, was £10 per annum. The drugs and appliances cost £53 10s. annually. For these duties the medical officer drew £100 a year from the guardians, and one-half of this cost was repaid to the guardians by the State from the central fund for reducing the cost of local taxation. The medical officer employed a *locum tenens* for a time at a cost of £9, and of this the State paid half. Roughly, then, the district, 21 square miles in extent, and with 5,356 inhabitants, paid the medical officer from the rates £50 for his year's medical work. The medical officer, to do this work had to keep a horse and trap and servant. The Royal Irish Constabulary officers have fixed allowance for a horse £30 a year and for a man servant £25 a year. If we calculate the up-keep of the trap and harness for the year at £5, we discover that this medical philanthropist did this onerous and exhausting work and received actually no wages for his labours, his pay being but £10 a year the cost of his car and horse.

In the next district in the same union, Connor, which is 32 square miles in extent, the medical officer received £92 10s. for the care of the poor of a population of 3,630, so that the salary he received did not even maintain the horse, trap, and servant, used in the practice. Another "Antrim philanthropist".

The third district thus chosen on chance is Crumlin Dispensary. It is 33 square miles in extent, with a population of 3,852 scattered over it. The medical officer saw 339 new cases of sickness at the dispensary, and carried their treatment through there, and, in addition, visited at their homes 293 new cases of disease, whom he treated throughout their illness. Again using the very low estimate of six visits, he paid 1,758 visits to the far-scattered houses of the peasantry throughout the year. Pay £81 12s. 0d., cost of horse, etc., 100. A third "Antrim philanthropist."

The fourth dispensary district is Doagh. It is quite small, only 23 square miles in extent. The medical officer saw 444 cases at the dispensary and treated them there as out-patients, and visited at their homes 230 new illnesses, and received as pay £92 10s. He is fourth of the Antrim brotherhood of philanthropy.

The fifth district of this union is Randalstown. It contains 31 square miles of territory and 7,157 people. The medical officer saw at the dispensary 524 fresh cases, and visited in their homes over the district 256 distinct cases of illness, carried the patients through their illnesses and received as

pay £100 for the year. Cost of the horse, trap, and servant, by official calculation, £100.

The last district of this union is Templepatrick. It is 32 square miles in extent, and contains 4,132 people. The pay of the individual officer is £92 10s.

Total salaries for the Antrim Union 20,470 people £362. Total cost of drugs, £103. Total cases of illness attended, 3,659.

Glenties Union, Donegal.

Let us turn now from a well-settled county like Antrim to the western highlands of Ireland, and take as a sample of the unions of Donegal county Glenties Union, which contains six dispensary districts:

I. *Ardara*, which has 68 square miles of territory, population 5,000. Pay of dispensary medical officer, £96 7s. 4d.

II. *Carrick*, 70 miles square; population, 5,344; pay, £100.

III. *Doocharry*, 76 square miles; population, 3,819; pay, £100.

IV. *Dungloe*, 80 square miles; population, 11,000; pay, £200 for two medical officers, £103 each.

V. *Glenties*, 67 square miles; population, 3,015; pay, £100.

VI. *Killybegs*, a mere patch of 34 square miles, with 3,700 people; pay, £100.

In this Glenties Union, the care of a territory covering nearly 400 square miles, and actually proclaimed as a specially poverty-stricken district, the total pay of the medical officers is £702, population 33,191. The seven medical officers work between them 14 different and far-apart dispensaries, and the question must arise whether detached dispensaries are needed for those able to attend, separate medical men also are not needed at such dispensaries to afford medical aid in their extremely distant homes to the sick too ill to attend the dispensaries as out-patients.

County Wicklow.

If we come to Leinster we find in the Baltinglass Union of the county of Wicklow four medical men responsible for twelve separate dispensaries, scattered over a territory of 234 square miles and inhabited by 16,000 people. How difficult it must be to afford suitable aid to the sick in so wide a territory and with so short a staff, and where does private practice come in? In the Arklow Dispensary district of the Rathdrum Union in the same county, which is 26 square miles in extent, with a population of 6,379, the medical officer saw 662 cases of illness at the dispensary, and attended 389 patients at their homes—pay £120 per annum.

County Wexford.

In the neighbouring county of Wexford we find at New Ross Union and New Ross Dispensary district a population of 6,289 with 992 cases of illness at the dispensary, and 372 visited at their homes—pay £100 a year.

Summary.

It will be necessary later on to deal more in detail with the question of the size of districts and rates of pay. The purport of this section has been to show in outline the existing constitution of the Irish Poor-law Medical Service.

We have thus roughly traced the framework of this important national medical service of Ireland from the single central Director-General in the Dublin head quarter office through the five provincial medical inspectors and the two medical inspectors inspecting Irish workhouse and infirmaries only, to the medical officers of the 159 central district hospitals of the unions, and finally to the great body of the dispensary medical service to the number of 810 officers. We see in it, as it were, the elements of a first-rate national service, but at present the component parts are not fitted together by a master hand and the machinery creaks and groans at every move. The problem of the administrator is out of these elements to build up an efficient national service for a country greatly needing such a help towards betterment.

The question which every medical man in the empire will ask himself is, How is a medical man with only £100 a year to maintain himself by private practice and, at the same time, do his duty fully by the far scattered population living in every possible condition of difficult approach—over high hill ranges, down long valleys, by rocky shores of the sea, round long lakes or impassable bogs. With such conditions as these how are we to estimate the amount of attention that can be given to the sick peasant when we remember the ever-present time and distance factor, everywhere appearing and never by any possibility eliminated in all Irish medical practice outside the large towns.

IV.—THE ELECTION AND APPOINTMENT OF THE IRISH DISPENSARY MEDICAL OFFICER.

It has been shown that the dispensary medical officer was, to a certain extent, evolved from the provident dispensary doctor engaged by philanthropic individuals in various parts of Ireland to afford dispensary relief to the poor. The grand juries who, down to 1898, did everything in the Irish counties, allowed at times in the far away past a sum of money to be paid out of the county-cess to supplement the pay of the doctor so chosen. It has been stated, also, that in the huge county of Mayo in 1839 only a single dispensary of this kind existed, that the events of the famine and the fever no doubt aroused public responsibility in the matter, and that the Medical Charities Act of 1851 gave official existence to the dispensary system.

It would seem as if the landlords and the middle-class determined, after the terrible experience of 1847-48, to throw the cost of such dispensaries and their maintenance entirely on the rates. In fact, they created the germ of a national medical service. It has been shown that the Medical Charities Act placed the choice of the dispensary medical officer then established in the hands of the locally chosen "dispensary committee"—a purely local body—composed of the guardians of the union living within the dispensary district, the smaller resident landlords (*ex-officio* guardians), always a powerful body, and such highly rated taxpayers as were chosen by the guardians of the union, as members. This entirely local body then chose a local medical man for a local duty, in which no one intervened but the local residents and local landlords.

In those days the local power of the landlord in Ireland dominated everything in his district, and largely dominated the election of the dispensary medical officer. As a rule the man backed by the local territorial magnate got the local appointment. Nominally chosen as the physician of the poor, the medical officer really was, in my opinion, the State-aided medical man whose main business was to practise amongst the local paying classes, while to afford medical aid to the sick peasant was in those days merely a side duty. The appointment was never a very brilliant one; but agriculture was not in so low a plight then as at present the landlord class had money, and often paid a yearly sum to the doctor for the annual medical care of their households and retainers. Nor were there the same ailing people in Ireland, the débris, as it were, left after the unceasing emigration of the fit and strong. Life assuredly was pleasanter for the "classes," though not for the "masses" in Ireland—more of the smaller landlords existed, and the amenities of life were greater. Moreover, medical men were then more easily made—technique was simpler and methods more primitive than to-day—science had not seized on medicine so fully. The lot of the then dispensary doctor, though by no means a rosy one, had not reached the acute condition now existing, and men were found to take the appointments.

Year by year in the past forty years things have altered. The three-year curriculum was lengthened to four—the four years became again lengthened to five—the standard of knowledge was varied, the examination became harder, fewer men came to medicine, and fewer graduated.

The action of the General Medical Council, in dismissing unqualified assistants to the number of 800 in England, crowned the edifice and gave hope of better pay for medical men. The Secretary of State for War knows this well in his Army Estimates in the increased cost of the votes for the upkeep of the Military Medical Service. It has penetrated into the inner chambers of the Admiralty Office, and they know how difficult it is to enlist medical officers for the navy; India knows it, and every medical man practising in England who needs an assistant in his practice knows it well. Every one knows it but an Irish Local Government Board, whose word of command would be: As you were in 1851, and "no forrader."

Synchronous with all these movements began the growth of the Irish democracy, and that ultimate peasant heretofore beneath notice became a definite entity in Irish life. Enfranchised in 1886, he took his seat on the throne of Irish local life and administration in 1898. The medical profession in Ireland, badly organized, unready for the fight, and without political influence, was to the extent of 50 per cent. or more of its numbers handed over by the Bill of 1898, almost completely to the control of the local body of Poor-law guardians, that is to say, largely to the peasantry whose long years of suffering had, it is said, undermined their native good qualities, and who, in many cases, looked on the doctors

generally as a portion of the ascendency army now wholly out of power and authority. They constituted, as it were, the rear guard of the ascendency army retreating off the battle-field of Irish public life. The members of the new Boards of Guardians which, under the Act of 1898, came into power, are numerous, in fact double the number of the former guardians, for each electoral division sends two representatives, and all classes of all creeds in Ireland complain that they are too numerous for the work.

The election of the medical officers now rests with the whole body of the guardians of the union; this has killed out all the former definite local responsibility in the choice. The election of the medical officer for the Milltown Dispensary in the county of Westmeath, for instance, was formerly in the hands of the representatives, such as they were, of the 2,300 inhabitants of Milltown. It is now thrown into the hands of the whole body of Milltown Union guardians who represent the 27,000 inhabitants of the entire union of Milltown. Formerly in the Rathdowney Dispensary district of the Abbeyleix Union the *ex-officio* guardians, representative guardians and the ratepayers of Rathdowney to the number of 2,800 people chose the Rathdowney medical officer, now he is chosen by the guardians of the whole of the Abbeyleix Union of 17,500 people. The medical officer for Granard is not chosen by the representatives as formerly of the 5,200 Granard inhabitants but by the guardians of the Granard Union representing 23,000 people who may care nothing for Granard's local wishes.

The election, thus wide ned out, has lost all scientific, medical, or professional element. All classes in Ireland of every creed and politics, of every rank or class, from the highest to the lowest, cleric and lay, all see this—and many lament it. What the ultimate sick peasant in his cabin thinks of it seems to be a matter of no importance, for under the democracy as under the ascendency régime the value of the ultimate humanity in Ireland seems still a low one.

To be clever surgeon, or sympathetic physician, or active sanitarian, anxious to remove the scandalous sanitary condition of Irish towns and villages, such qualifications are never mentioned. The question is, Is the candidate a sound Orangeman? Is he a good Presbyterian? Is he a good Tory Catholic, or is he a Democratic Catholic of the United Irish League? From the wild Inishowen in the north to the Head of Kinsale in the south, and from Dingle to Dundalk, the same principle everywhere extends. No one ever attempts to deny it. I saw the obsolete and inefficient doctor of a country-side, out of date and out of mental fitness for the work of a great profession, but he was a blatant Orangeman, and that sufficed. I saw the worn-out, ignorant, and entirely unsuitable district doctor—a very blunderbuss of the past, instead of being a breech-loading arm of precision. Nobody dreamed of calling him in. He lived in a wretched way, shut off from all stimulating surroundings. The parish priest told me he was of no use to the district. The gigs of the neighbouring doctors drove into his district and took up the little paying private practice that there was. Thus the paying patients did not suffer much, but of that ultimate Irish peasant, stricken with disease on the hillside, or far down the valley, of his wife in labour, of his child in deadly sickness, of these no one thought. I say here over and over again I said in Ireland. But where does Ireland come in in all this? You see this man is a keen Nationalist and the other was a keen Orangeman, but what would he in the cottage, so humble in its surroundings, so hopeless in its helplessness, so poverty-stricken, as the husband [illegible] what does the wife say of the [illegible] who came to that scene of misery [illegible]

I saw how that it was a sin of the gravest nature not to elect [illegible] Every one knew this unfitness, but no one dare incur the enmity of his supporters by endeavouring to have him superseded. I saw a man [illegible] Protestant doctors told me was brought down before [illegible] a very good dispensary. The man was [illegible] for these statements, in the lowest state of [illegible] physically, [illegible] and clothes [illegible] a hat, a coat, a shirt, and [illegible] and [illegible] Board of Guardians, and without an [illegible] [illegible] His political power was secure.

It is sad to see the north as in the south, [illegible] the east as in the west. Everywhere the very idea of fitness is ignored and everywhere the democracy is accepted if the politics are right. The democracy that does this work is now a cross-platform make stirring speeches about the many injustices to Ireland, and exhaust their vocabulary of invective against their opponents, while quite forgetting their own unjust acts. So much has this been the rule in elections for medical officers that the whole professional reputation of the dispensary doctor class is threatened with serious injury, and all who can afford it are endeavouring to get medical advice from other than dispensary medical officers. But the Irish peasant—the last rear guard, as it were, of the labourers, who have escaped from the country—is without a thought consigned to the defective care of a person who is unworthy of the honoured name of physician.

This is not a question of Catholic and Protestant. I saw myself the whole Catholic community of a town split into two hostile factions of Catholic Tory and United Irish League, and, for pure party sake, choose the least efficient of the opposing candidates for a Poor-law medical appointment. All knew it, and all regretted it. I said then to the local people, as I now say to a wider audience and a less passion-ridden and more even-minded people, where does Ireland come in in all this struggle, and what of the ultimate Irishman on the hillside—sick to death with disease? Is it any wonder that still the best of the race throng from Queenstown on the Atlantic steamers to happier surroundings?

I have referred to the very large number of guardians in each union. The Local Government Bill of 1898 greatly increased them, causing two such representatives to be sent from each local electoral division of the country. The unions are large and scattered, the roads are few and bad, the communications not easy, the farmers are poor, and it costs money and time to attend the unceasing guardians' meetings. Many do not attend. At the meetings of the Boards I saw only a small proportion of the crowd of guardians were present. But when a dispensary medical officer is to be elected there is a regular gathering of the clans, and the fiery cross penetrates down the deep valley and up the mountain side, and the market town is filled. The scene is one of excitement in a land where other excitements are few. The young candidates for the post have, for the previous weeks or months, been regularly attending all the local fairs and markets, and have been treating and drinking with the guardians and endeavouring to win their votes. They have to expend money also on travelling round the widespread country-side to catch the guardians in their homes, for all the guardians of the union vote in this matter so that while the Ballybot dispensary district of the Newry Union contains only seven square miles of district the voting guardians come from a territory covering 218 square miles of broken country. The people of Westport, county Mayo, covering 62 square miles of country, need a medical officer, and he is voted for by the guardians gathered in from 526 square miles of very difficult country. The population of the Powerscourt Union of the Rathdown Union, county Wicklow, numbers 1,820, but the guardians who elect the medical officer represent 57,000 people.

It is evident, then, that the Local Government Bill of 1898, while wiping out as with a sponge the power of localities to choose their own medical officers, placed a real difficulty on the shoulders of all future medical dispensary candidates in having to canvass a mass of outside and greatly scattered guardians, to drive far and wide over the country to canvass the electing guardians personally at great expense. Furthermore, it is impossible to overlook the constantly reported charges of bribery mixed up with these elections. Considerable sums of money it is alleged pass to those who are wire-pullers, and the price of the votes, at times considerable and at times small, are matters of common gossip. A medical man, whose people had, it was said, paid freely for his election told me, like scores of others, that so hopeless was the work he would be glad to get away to England if he saw any opening there. The young medical officer elected in his native county complains that the fact ruins his practice as people presume on his power as quantities up and prefer no fee.

It has been pointed out to me by very high Catholic authority that lying, deception, and intimidation are mixed up with all the elections.

Through all this state of affairs the words science or efficiency are never mentioned. The only query is, Is the candidate Presbyterian or Episcopalian, or is he Orange Conservative or Orange Redmond in the north or is he Tory Catholic, or United Irish League in the south, and thus the election is determined.

The medical officer chosen by a political faction, which faction itself may at any moment again split into rival contending parties, comes into office with a party of guardians

pledged to support him, and any individual bringing forward complaints would have to face the attacks of all his friends before he could secure inquiry. This makes the Irish countryside tolerant in many cases of defective medical conditions unlikely to be encountered in most civilised countries. No one can be found to bell the cat.

Gathered in for the election from remote country-sides, the guardians themselves have the vaguest ideas as to what progress medicine has made or what influences control the supply of doctors. What wonder then that when they hear of a medical man asking for a salary that shall be a living wage they exhaust their vocabulary of invective against him, and just as the landlords of old drove their farmers to emigrate to avoid oppression, or the farmer later on drove the labourer to America to escape his grinding control, so this very guardian, who last Sunday made a glowing speech on the evils of emigration, to-day in the Board of Guardians spoke so intemperately, so degradingly, so insultingly of the medical officer who asked for more pay, that every intelligent young doctor arranges to emigrate anywhere out of Ireland. Just as the general emigration from Ireland is leaving behind a population of maimed and halt, and physically or mentally handicapped, so assuredly the medical profession in Ireland, if this rule continues, will consist in a large proportion of a defective class as far adrift from scientific efficiency as their countrymen will be from physical or mental efficiency. Lunacy, tuberculosis, and defective medical aid, and hopelessly bad sanitation may kill out a nation, but far more surely will ignorance, injustice, and incapacity to govern.

So long as so defective a system of election exist it seems hopeless to expect scientific efficiency for this important body of medical men.[1]

As soon as the election is over the clerk of the union notifies the Local Government Board of the result, and this Board is the final approving authority on behalf of the State as laid down by the Medical Charities Act of Ireland, 1851, the charter of the Irish dispensary medical officers. It is essential to emphasize the very large powers possessed by the Local Government Board in these appointments. Moreover, it alone has the power of dismissal. The Board of Guardians can only suspend. This large power in the hands of the Local Government Board shows that, however it may desire to minimize the fact, the medical officers of the Irish dispensaries are not the servants of the Board of Guardians but that, as under the old Irish land system, there is a dual control part being exercised by the Board of Guardians, but quite the larger part being in the hands of the national or State authorities (the Local Government Board). These points must ever be borne in mind in all consideration of the Irish medical service and its grievances.

V.—THE DUTIES OF THE DISPENSARY MEDICAL OFFICER IN IRELAND.

The election is over and the medical officer takes up his appointment in the far-away country village where, without hope of promotion and with a paltry income, he is to spend the remainder of his life. The duties required of him are laid down in a book published by the Irish Local Government Board called *General Rules for the Government of Dispensary Districts*. The following is a summary:—

Medical Duties.

I. To attend the dispensary or dispensaries under his charge on such days and hours as the Local Government Board may approve or direct, and there to afford outdoor medical relief to all "poor persons" presenting the "black ticket" (Form E 1) for dispensary treatment. He is also vaccinator for his district at 2s. a case vaccinated.

II. When he receives the red ticket (Form E 2) he shall attend at the patient's residence and afford aid until the patient recovers, or the case terminates otherwise.

III. If he considers that tickets have been wrongly issued he reports the case to the issuer of the tickets and to the Board of Guardians who may cancel the ticket.

IV. He is to give a certificate, if needed, of the state of health of any dispensary patient if called upon to do so by the guardians.

V. He is to keep a register of all patients attended either at their homes or at the dispensary, and send the book monthly for inspection by the guardians.

[1] A woman could [illegible] officer.

VI. Every three months he requisitions for medicines. The Irish Poor-law Regulations arrange for the supply of drugs from other sources than the medical officer himself.

VII. He receives, checks, and cares for the drugs and instruments, and if no compounder exists he compounds all drugs. Only 47 compounders are employed in all Ireland to meet the demands of 1,197 dispensaries. He sends samples out of each consignment of drugs to be tested. He packs up and returns all empties.

VIII. He reports to the guardians monthly his hours of attendance daily, and the duration of his stay at the dispensaries.

IX. Curiously enough he is the official medical officer of the Bridewell—the house of correction of his district, if any exist, and he reports, still more curiously, to the Board of Guardians his visits and the drugs he uses there.

X. He sends quarterly to the Local Government Board, and sends a copy to the Board of Guardians of a Form (L.), which deals with the number of tickets, number of sick-tickets cancelled, vaccination statistics, lunatics certified, cases attended at the Bridewell, and cases of typhus fever, small-pox, enteric fever, scarlet fever, and diphtheria, and answers a series of questions about drugs, value of vaccine lymph, dispensary arrangements, birth of children, and reports on the midwife's efficiency. A series of questions on the public health of the district must be answered, and a report made as to how the sanitary inspector—called in Ireland sanitary sub-officer—performs his duties.

It will be seen here that there is a considerable amount of purely clerk's work to be done in making out these returns, and, especially in the matter of drugs, the Local Government Board is very exacting. As there is no compounder the medical officer has himself to make out all the many drug returns and reports, as well as to compound all the prescriptions for his patients. The exceptions to this rule are quite few; the matter is considered a grievance by the medical officers, and could easily be remedied.

Sanitary Duties.

We now turn to the other duties of the dispensary medical officer. He is practically two gentlemen rolled into one, so far as sanitary and medical duties are concerned. The local Board of Guardians sits also as a District Council—urban or rural. In its first capacity it deals with poor relief, in its second with local administration and sanitation. The truth is that not only in Ireland, but in England, the Board of Guardians and the district council should be absolutely amalgamated into a single district council.

The Irish Public Health Act (41 and 42 Vict., cap. 52) 1876, makes the dispensary medical officer *de facto* sanitary officer or medical officer of health for his district. He has under him, as a rule, the relieving officer as sanitary sub-officer, or, what would be called in England, sanitary inspector. In the larger cities like Dublin, Belfast, Cork, Limerick, or Londonderry, a superintending medical sanitary officer may be appointed, to whom the other dispensary medical officers acting in their sanitary capacity, report, and there may be, as in Dublin, a consulting sanitary officer. The dispensary medical officers, as a rule, perform the usual duties of medical officers of health for their districts and from time to time present various reports.

For this duty they receive a wretched salary varying from £5 to £25 yearly, and the workhouse medical infirmary officer receives some £10 to £15 yearly as superintending medical officer of health for the union. In Dublin, Belfast, Londonderry and Cork, the superintending medical officer of health is a special appointment and fairly paid.

In the smaller towns and the rural districts the whole thing seems a farce. The salary does not induce any medical man to begin sanitary work, and the opposition is so great and the help of the Local Government Board so defective that practically all medical officers of the dispensary service in Ireland whom I met treated the whole of the sanitary duties as a huge joke—the saddest of jokes I imagine, for the sanitary condition of Irish towns and villages is only on a level with a Chinese village which has for long centuries been considered the highest expression of sanitary shortcomings.

There is no county medical officer of health as in Scotland, and the sanitary inspections made by the Local Government Board inspectors, who only appear every now and then, are said to be perfunctory, perhaps necessarily as they have large districts to inspect.

I met throughout my Irish tour numbers of active-minded dispensary medical officers who were able sanitarians, quite

fit to give advice, or to cope with an insanitary condition, and they one and all groaned over the deplorable conditions around them. With these gentlemen I traversed the wretched slums of the streets of the Irish towns, and saw the nameless state of filth of these places: the miserable cottages, the haunt of the phthisical patient, the home of that tuberculosis germ which is doing such damage amongst the remains of the Irish people. All the medical officers saw the evil and fully recognized it, but they had all lost hope, and took the most despondent views of the future.

I visited towns in Ireland which benefit, owing to their proximity to delightful scenery, by the influx of tourists from England, and the unutterable condition of these towns, as regards sanitation, if known, would surely prevent tourists of any intelligence coming within their boundaries.

So far as I could see, the sanitary inspectors were untrained and unlectured, and took up their job as a side show. If an officer did his duty and reported, no action followed. The letter lay on the table, and a condition of housing and sanitation, and in certain towns of water supply, existed which must act on every intelligent young man or young woman as a great incentive to emigration to escape from the loathsome and degrading surroundings.

Few, if any, of these medical officers of health had any diplomas in State medicine. The majority had not the means to go anywhere for instruction in sanitary work. The Local Government Board inspectors were not in all cases equipped for sanitary inspection, but were promoted from the dispensary medical officers, not necessarily for sanitary knowledge.

Tuberculosis is still rife amongst the peasantry, and typhus fever, evidence of the very climax of filthiness, still claims many victims. Of the increase of lunacy a very sad fact I need not speak. No sanitary lectures or sanitary public opinion seem to exist, and the Irish democracy, which claims to be one of high intelligence, has yet to learn the very A B.C. of sanitary science.

There does not seem to be any sanitary expert of distinguished reputation at the Dublin office of the Local Government Board. Doubtless one should be appointed there to aid, by his special knowledge, the general supervision of the sanitary branch of the medical side of that most important governing body which can make or mar the Irish people.

Further, whenever the provincial Local Government Board inspector is chosen, not specially for sanitary knowledge, a sanitary specialist should be attached to his office to collate the reports, advise the medical officer, and keep up the tradition of the office at the change of inspectors by retirement, promotion elsewhere, or death.

Every facility should be given by the Local Government Board by sending round lecturers to instruct the group of Poor-law medical officers in a union in sanitary matters, and short courses of sanitary instruction should be available for them in Dublin, Belfast, or Cork, so as to keep up their knowledge and enthusiasm for this work so needful in a land far behind most other civilized countries in sanitary matters.

But above all the question of the need of a county medical officer of health rising out of the Poor-law service, shut off from private practice, and well rewarded for the life-saving labour of sanitation in Ireland is fundamental and vital. I would still preserve the sanitary initiative of the dispensary medical officers who see much of the people and can teach them; and I would raise the sanitary factor in their pay by a certain amount, and let them report all sanitary shortcomings, but once reported all precautions and final remedies should be in the hands of the county medical officer of health who, although the paid and independent servant of the central government would be able to influence both the county and the district authorities.

After much experience of the world, east and west, I know no land so wanting in sanitary improvements as Ireland.

Registration Duties.

We are gradually building up the dispensary medical officer's various duties. We have shown him as giving medical relief at the dispensary, visiting physician to the poor, vaccination officer, bridewell or house of correction doctor, then medical officer of health. He now appears in a new character. He is also registrar of births, deaths, and marriages for his district, which is also called a "registrar's district" the various districts in the union being grouped into a superintendent registrar's district under the clerk of the local Poor-law guardians. The Registration Act Ireland, 26 Vict., cap. 11, gives to each dispensary medical officer the option of accepting the post of "district registrar." It gives to the medical officer 1s. a head for each birth, 1s. for each death and 1s. for each marriage, and it certainly keeps him in touch with the vital statistics of his district.

In the days of a crowded population and with many births the registration fees were of some importance, but to-day, with a waning population, with marriages rarer and postponed to a later age, the fees are of little importance, except in the cities and larger towns. In Belfast the irony of the situation was striking, the medical officer of one of the dispensary districts received £120 a year for his medical duties of a very extensive and exhausting character, and £16 a year for the registration of births, deaths, and marriages.

The fact is, the registration of births and deaths was thrown to the doctors as a penny is given in charity to a poor man in the street, as a mere sop to terribly badly paid men. I am still of opinion that the medical officer should be the district registrar and be paid a retaining fee plus the actual entry fees. The dispenser needed in every dispensary should act as his clerk for registration purposes.

Vaccination Duties.

In the early days of the Medical Charities Act this duty was supposed to be done without extra fee, now 2s. is paid for the operation.

The falling off of the rural population has greatly reduced these fees, although a few medical men in the towns have gained by the population crowding in to them.

Constabulary.

The dispensary medical officer is generally, but not always, the medical officer of the Royal Irish Constabulary in the district. The appointment is in the hands of the Inspector-General in Dublin, and although the payment is 2s. a member a month, no payment is made for the officers, nor for the women and children. The Constabulary are growing fewer in number, and will certainly be much reduced as time goes on. The absence of any pay for the care of women and children is a distinct grievance; no payment is made even for obstetric cases amongst the women. For all distances over three miles from the dispensary a mileage rate should be paid by the State for all visits to the Constabulary.

Certifying Factory Surgeon.

Where no certifying surgeon under the Factory and Workshop Act is appointed the dispensary medical officer of the district acts. It is a badly-paid duty, and it is only in the north of Ireland that it is of any appreciable importance.

Coastguard.

At times on the coast, the charge of the coastguard falls to the dispensary medical officer. The payment is 2s. 6d. a visit, with mileage one way.

Lighthouse Staff.

The medical care of the lighthouse staff falls to the dispensary medical officer in the sea-coast districts. It is work often irksome and dangerous in the wild storms that rage round the Atlantic seaboard, and any fees paid by the Corporation of Irish Lights are well earned.

Summary.

It is to side payments like those for coastguard and for lighthouses that the wretchedly-paid dispensary medical officers of the wild western Atlantic coast-line have to look for some small help to eke out their defective salary. The coastguard, paid for by the British Admiralty come as a rainer kind of financial help. It has been jokingly said that if it lay with the local dispensary medical officers no shore in the world would be better supplied with lighthouses, nor any coast line better patrolled by coastguards. The pathetic side of the story is that a body of physicians living lives of risk and loneliness, should be permitted to remain in so underpaid a condition as to have to look to such payments like these to maintain their existence. Such conditions are similar to the wretched migration of Mayo agricultural labourers, who annually leave their own inhospitable land for the north of England for temporary work on English farms, to endeavour to raise money to pay rents in Ireland for their defective and uneconomic holdings. It may be compared also to the similar migration of the Donegal peasantry to Scotland for work at agriculture, or that curious emigration of the Arklow Island peasant-girls, who every summer leave their romantic island to gather in the potato harvest in southern Scotland, and return in the winter. In every

one of these cases Irish men and Irish women, like Irish doctors, should be able to live fairly in their own land without extraneous aid from any source—a condition quite possible to realize with just laws, justly administered, a rare combination in Ireland.

Many of the medical officers on the west coast of Ireland, an inhospitable shore on which the full force of the Atlantic storms spend themselves, have to visit the poor on the islands, and those located on the main islands have to visit the smaller inhabited islands in their vicinity by boat. My heart failed me when I was told that no allowance is made, and, that out of his wretched salary, the medical officer has to provide boat-hire. This seems monstrously unjust. Not only should all visits by boats to islands off the coast receive a special rate of extra pay to cover the risk and loss of time, but reasonable boat-hire should be paid.

Every detail of the life and duties of those unfortunate public servants who are dispensary medical officers in Ireland needs to be studied, and each detail, when looked into, will fill the inquirer with surprise that such things are permitted to exist.

VI.—THE DISPENSARY—DISPENSING AND THE DISPENSARY RESIDENCE.

The Dispensary.

The actual dispensary in Ireland is generally a room hired in some small house in the village, and consists of an apartment fitted with shelves for the drugs, and a waiting-room for the out-patients who attend between certain hours on fixed days.

In the Antrim Union in Co. Antrim, already referred to, the rent of the six dispensaries varies from 10 guineas a year in Antrim town to £5 annually in the Templepatrick dispensary district of the same union.

The average annual rental for the dispensary fabrics throughout Ireland is £12. A caretaker, generally an old woman, living near the premises, keeps the keys, lights the fire on dispensary days, and acts as general caretaker. Anything more cheerless than the average Irish dispensary fabric it is difficult to imagine even in the towns, but the outlying dépôts in dispensary districts in the remoter parts of the unions are, as a rule, wretched, comfortless, and unfit for the examination of patients. Any sort of building, derelict and valueless for any other purposes, may be turned into a dispensary, and it is pitiful to see their air of discomfort. It greatly tends to break down the self respect of the medical officer, and without doubt it prejudices him in the eyes of every patient who ventures to consult him. I saw the damp and cheerless rooms, the cold, wet, sodden earthen floors; at times the thatched roof, the hopeless attempt at a waiting-room, the air of shabbiness and neglect that hung over many of these places—the smoky, broken stove, too small to warm the room, the dirty whitewashed mud walls, the dim and dirty windows lighting the room so defectively as to render it difficult to examine the patients fully.

The medical officer stood by the dispensary table on which the bottles and all the paraphernalia of dispensing were littered in the medical dispensary room itself, and he seemed again to be the reversion to those far-away days when the whole surroundings of the mediaeval medical art were poor and defective. Never was the beautiful science of medicine presented to the people of a country in a more wretched or a more untempting form than in Ireland, nor with more depressing surroundings.

Here in this chill and dank chamber, where the very medicines themselves ranged on the shelves lost their energy and their virtue from damp and unsuitable storage, the delicate Irish peasant girl, sinking into that dreaded tuberculosis which ravages the badly housed peasantry, bared her white bosom for the doctor's medical examination in an atmosphere so cold that she shivered as she stood before him. To the same cold and cheerless apartment came from miles away the weary mother carrying her ailing child or waited in the sordid waiting-room until the medical officer, tired and spiritless, became again the apothecary and dispensed the prescribed medicine for her child.

Here to this defective outpost of that great force of curative medicine came the aged peasant with his hoarse cough, and waited his turn in this chill chamber where medicine, under the coarsest surroundings, came into touch with the imaginative and sensitive Irish people. I saw many such dispensaries in out-houses, converted stables, disused dairies, in the backyard of the medical officer's house, rarely comfortable and constantly below the standard needed for the humane and efficient treatment of the people. No surgeon, well educated and properly trained, would in these wretched rooms willingly attempt any minor surgery, and the whole surroundings carried us back to the days after the famine when anything seemed good enough for that unfortunate peasant who, whether under the rule of the ascendent minorities of the bitter past, or the militant democracies of the present time, counts of less value in Ireland than in most other countries of the world.

Frequently the medical officer, to eke out his wretched stipend, himself offers to give up a room in his house to gain the £10 a year rent as a grant towards his own house rent, and here to his house come twice a week the troop of ailing people and the daily stream of prescriptions for the distant sick. The doctor's wife tells me with regret that the patients had brought scarlet fever to her child, and that on cold winter mornings the poor crowded into her kitchen and she could not say them nay.

The Dispensing.

The dispensing for the outdoor and sick patients itself is a very fatiguing duty. There is no bottle-washer, no dispenser, no assistant, no one to write a label or do the commonest work of help. In all Ulster, with 168,972 new cases in a year, each needing at least six or eight separate compoundings of drugs and all the tiresome routine of dispensing detail, there are only seven dispensers, and these are mainly in Belfast or other large centres.

In Munster, with 144,553 new cases during the year, not new attendances, but absolutely new cases of illnesses, there are only 21 dispensers, and these again are in the large towns or the workhouse infirmaries. In Connaught only four dispensers exist, or in all Ireland, with 588,347 new cases of disease annually, each requiring, say, six separate compoundings, there are only 47 dispensers, and the average cost for them in the workhouse infirmaries is £20 a year, and in the dispensaries 4s. 8d. a year. The medical officer goes eight miles to see a very severe case of pneumonia, the wife of the patient has first had to summon the doctor, then to send in eight miles to the dispensary for the medicine, but the medical officer has had to visit other cases on the other side of his huge district, and does not reach the dispensary again until nightfall, and as there is no dispenser to compound, all this time the wife has waited for the medicine, and the medical officer, chilled to the bone after the long drive, has then in the dark dispensary, without any trained assistance and with defective light, to make up the medicine, and eventually, well on to midnight, the weary wife again reaches her distant home. What wonder that these public servants curse their ill-luck and bitterly lament the day that chained them to such galley-slave labour, under harsh masters like the Board of Guardians, or under far away unsympathetic order issuers like the Local Government Board of Ireland.

Without exception the medical officers complain of the unceasing orders about the custody of the drugs, the quarterly requisitions, the sending away of samples, the amount of writing, the checking and counter-checking of the drugs, the drudgery of the packing and unpacking, the difficulty of getting special medicines quickly, and the inconsiderate references to the Board of Guardians to sanction drugs of the technical value of which they know nothing. These orders issued by the central authorities in Dublin about the purely material and absolutely second-rate questions of the custody of drugs and the checking of their quantity could not be more definite nor more exacting if there were specially paid dispensers with nothing else to do but carry out these orders. To exact such service from the physicians is greatly to injure their efficiency. If they neglect any of these details the Local Government Board at once reports them to the guardians and may even cause surcharges to be made, while the very dispensary fabric itself may be of the most defective character as to comfort, the medical officer himself careless and neglectful, and the medical attention given to the peasant in his lonely cabin may be of a poor quality without eliciting any protest. All these things are as nothing, but the empty bottles must be carefully packed by the medical officer's own hands, and he must weigh out and check the quantities of scores of drugs. This is the making clean the outside of the cup and platter, well-known in all old-fashioned branches of the British public service. It is "the polishing of the brasswork on the man-of-war whose guns miss every mark they are fired at; it

is the pipe-claying of the soldier's belt while neglecting to teach the man to shoot; it is the glorification of ritual over doctrine and the mistaking of the commonplace and non-essential for the vital and essential points of medical duty.' The town was filthy in its hopeless insanitary condition, but the bottles in the dispensary were carefully counted. The hapless phthisical patient sat in the chilling air of the damp, cold waiting-room and no one said a word, but no samples of the drugs were sent to the analyst, and the forked lightning of Local Government Board played round the head of the offending drug-compounding physician.

Under this system of administration no wonder the peasant learns to despise the dispensary treatment because he thinks that no efficient, no self-respecting member of the medical profession would work under such conditions, and that if the surroundings of the dispensary are like the better type of cattle-shed, the medical advice given will also be of poor quality. The sense of degradation that hangs over many of these places is very noticeable, and probably no peasantry would appreciate this defect sooner than the Irish. What must be the effect on the young medical man, fresh from the colleges and hospitals in the cities. What value can he attach to patients brought before him under such pitiless arrangements. I maintain that the proper value is not attached to human life when it is so dealt with, and that the best medical man must break down in surroundings that so undermine their ideals as to the value of human life. While Sunday after Sunday passionate appeals may be made by individual guardians to the people on national questions, and maledictions are called down on the authors of the bitter sufferings of Ireland in the past, the medical officer tells me that the very same guardians refuse to sanction improvements, scoff at suggestions, allow his letters to be marked "read," and let them lie on the table, while far away in the distant office of the Local Government Board a new order is issued about the packing of empty bottles, and the due labelling of "returned empty hampers" to the wholesale chemists.

It should be possible in most towns for the guardians to make contracts with local chemists for drugs needed to be compounded for the poor. If not, there should be appointed to the central workhouse infirmary of the union, which is the centre of the medical life of the union, a dispenser for duty there, who should in addition once each fortnight at least visit the outlying dispensaries, make up the stock mixtures, prepare the requisitions for drugs, check and weigh the incoming drugs, correct and record the returned supplies, clean up and place in order those rough-and-tumble dispensaries, and in every way free the medical officer from the useless mass of materializing duties which weigh him down, distort his true views of the sick under his care, and blind him to his higher duties. I do not know any minor reform, for after all it is a minor reform by comparison with the great reforms the Poor-law medical service needs, which would be more warmly welcomed by the harassed officers of the Irish Poor-law medical service. In the same way, the district inspector should have power to sanction any new drugs without reference to the Poor-law guardians, who know nothing of their therapeutic value.

NEED FOR STANDARD PLAN OF A DISPENSARY.

What is further greatly needed is a standard plan of a dispensary building with good waiting-rooms, proper lavatory arrangements for patients waiting, proper consulting-rooms for the medical officer, and a compounding-room with the most modern appliances for compounding in it. No such standard plan of construction is to be seen and everywhere the medical officer prescribes for the sick in the midst of bottles and drugs. There is no attempt at refinement, and the whole place is below the standard of accommodation of eastern countries which we so much despise. Facilities for examination of the eye and for minor surgery should also exists; some attempt at arrangements for gynæcological examinations are needed. A couch for patients to lie on is required, and an effort should be made to give the whole standard of refinement of the place. There should be proper accommodation for the caretaker, who perhaps recently has been pensioned sergeant compounder of the Royal Army Medical Corps, and to compound the prescriptions of the medical officer, act as sanitary inspector of the district and sanitary clerk for compiling returns, and who, when an accident happened, would be able to render first aid to the sufferers, and to help at urgent operations. Such a standard, together with a midwife for obstetric work and a district nurse for ordinary sick nursing, would not only be an enormous help to the medical officer, but a real blessing to the Irish peasant, who up to the present hour has shared but little in modern social improvements.

THE DISPENSARY RESIDENCE.

But while I write thus of the dispensary buildings what shall I say of the actual domestic housing of the medical officer himself. Here again how can I with magic carpet carry the average Englishman from his comfortable surroundings and cultured home to the average Irish village, with all its defective sanitation and decadent housing?

Again there rises before me the long unlovely Irish village street, lined with the paltry, defective and badly-repaired houses. Here and there are ugly gaps where four or five houses have fallen completely to decay, the wet, dank thatch covered with the green moss that flourishes in this rainy island. The long succession of the low type of public-houses, which everywhere degrade the Irish towns and villages, line the streets in infinite numbers and seem to lie in wait for the farmers and the labourers who, every market day, crowd into the town. There is the ugly Protestant church, the well-designed and often indeed splendid newly built Catholic church rising in beauty amidst the most wretched cabins of some of the poorest people in the world. The well built convent stands forward on the sloping hillside, perhaps the modern Christian Brothers' school, and now and then the Catholic bishop's palace, but always one sees the union workhouse of 1841 a mixture of the prison and the barrack, the only asylum waiting for the aged poor.

The village streets, foul and dirty, seem never to be cleansed; the keen young sanitary medical officer tells me the cleaning of the streets is fairly paid for, but no one has the courage to cause the work to be done. I follow him down the side lanes where cabins at 6d., 9d., and 1s. a week are taken by the labouring class. The grimy mistress of the house receives us with kindness; she knows the doctor well, for in the corner sits the daughter whom he so often visits but his medicines are powerless against surroundings so ruinous to health and a poverty which is pitiable. How can people exist in such a land, and what wonder every one looks to the west for hope and refuge? "It is the one dream, of my life," said the husband when I mentioned America, "it is the one dream of my life to get there, from this hell of bad surroundings and degrading poverty, where no one is well fed but the two fat policemen slowly lounging down the unsavoury streets." Cabins like this are plenty, but houses of a decent modern type suitable for the medical officer are rarely found. It is a distinct grievance of the medical officers, their inability to obtain at a suitable or indeed any rent a proper, comfortable house for themselves and their families.

In spite of the fact that a special Act of Parliament to deal with the question exists, I found the medical officers often defectively housed in houses unsuitable for their position, and calculated to injure their standing amongst the surrounding people. Many have to live in country inns where much drinking goes on, and the surroundings are quite unsuitable for any self-respecting professional man.

This matter was specially brought to my notice by some of the Catholic clergy who pointed out that in the struggle for betterment in Ireland it was very important that the medical officer should be so fairly housed, so respectably lodged, that his home would act as a model and a pattern to those of the village who desired to erect new houses to replace the wretched buildings of the bad times in Ireland. I fully and entirely concurred with them in all that was said. The medical officer was living in the village inn, and I have found them in condemned houses in rooms in the tenement where the dispenser was housed.

The Dispensary Houses (Ireland) Act, 1878 (42 and 43 Vict., cap. 52) enables the guardians of a union to borrow money from the Commissioners of Public Works for the construction of dispensaries for the actual housing of the medicines, the waiting-rooms, etc., before referred to, but in addition at all we sent to money to be borrowed to build the "dispenser's residence" dwelling house for any such medical officer. Under this Act houses have been built in various parts of the country, quite suitable for the medical officers to reside in, with some agricultural land.

The object of the Act, as I was informed by the medical officer that this scheme might in its processes for the repayment of the cost of the house. The State lends the money for construction to the guardians at 3½ per cent., but requires the whole amount of principal and interest to be repaid in 25 years, and therefore requires 5 per cent. on the whole sum to be repaid annually. The guardians, it is alleged, throw the whole

cost on the medical officer, who has to pay a rent equal to 5 per cent. on the outlay for the building of the house; and many resent this, as in 35 years the house becomes the property of the guardians, at the expense of the unfortunate medical officer. The irony of the whole thing is that the guardians are the very men who in their frequent harangues quote the bygone injustice of the landlord class in confiscating their improvements, while they themselves, when they become the landlords, can be as hard and as unjust as any Irish landlord ever was. The Act of Parliament should be modified so as to allow a period of 60 years for repayment of the loan at a lower annual rate. The question, however, arises whether the medical officer should not have a house given to him rent-free; this I will refer to later on when speaking of the Congested Districts in Ireland.

If the house is to be paid for the rent should be cut down to £20 or so as a sum suitable to the medical officer's earnings, and a standard plan of residence, dispensary, midwife's house, nurse's home, compounder's house, ambulance wagon stables and, perhaps, a disinfecting house, should be laid down and gradually extended to every district centre needing such an installation. Later on, when the workhouse infirmaries are more decentralized, a small cottage hospital will, I hope, also form a part of this medical settlement in each dispensary district.

Much of the improvement proposed could be accomplished by a sympathetic Local Government Board ever aiming at the betterment of Ireland and by the medical profession in Ireland using its political power to urge the matter on the Government of the day. If a wealthy philanthropist of the type of Mr. Carnegie would in the counties of Donegal, Mayo, Galway, Kerry, or Cork, build and hand over to the guardians such a settlement untold blessings would flow from such a gift to the Irish peasant.

Branch Dispensaries.

However defective may be the central dispensary in the village where the medical officer resides the outpost dépôts, or branch dispensaries which he visits more rarely are infinitely worse. It must be borne in mind that the 810 dispensary medical officers of Ireland visit at frequent intervals 1,197 dispensaries, so that there is an excess of 387 dispensaries to officers. It is to the reduction of this great excess of dispensaries, which also means excessively large districts, that the attention of the Irish Local Government Board should be directed.

So far from breaking up dispensary districts and adding them to districts already poor and large, the aim should be to reduce the size of the district so that it shall not be larger than 10,000 to 12,000 acres, or say 15 to 18 square miles. Certainly 100 medical men in Ireland could be employed in addition to the existing number with great benefit to the Irish people.

Complaints are constantly made of the distance people have to travel to summon the doctor, of the distance he has to proceed to the call, then of the second long journey to get the drugs ordered. The complaints are fully justified when we see the great excess of the outlying dispensaries over the number of the medical officers.

A single model medical settlement, let us say at Achil Sound in Mayo, where for 10 miles in one direction and 15 in another no medical man lives, and where human life has been lost by such a condition, would be a far greater blessing to humanity than any lending library in a country town. This would be an ideal work for a great philanthropist, but it is a "positive duty" for any administration claiming the name of a civilized government.

VII.—SUBSIDIARY ASSISTANTS TO THE MEDICAL OFFICER.

Midwives.

It has already been pointed out that the medical officer has no compounder or dispenser, and no clerk or subordinate to assist him in his duties. There is no district nurse, and the country is too poor, as a rule, to maintain such a nurse by private charity or subscription. The Queen's Jubilee Institute of Nurses provides by private charity in certain districts trained general nurses who do excellent work, but the cost is about £100 a year, a sum quite out of the power of the Irish country side to supply. The Countess of Dudley, wife of the Lord Lieutenant of Ireland, has started a fund for the provision of district nurses in certain parts of Ireland. In her report she says truly:

> In many of the very poor districts there are no well to-do inhabitants of the middle classes, and because of their poverty the people themselves are not able to make any contribution.

These words should be placed in brazen letters over the meeting place of every Board of Guardians, and over the Council chamber of the Local Government Board in Ireland. They are the key-note to the whole question of the efficiency of the medical relief of the Irish people. "Because of their poverty the people themselves are not able to make any contribution."

Happily, in respect of obstetric nurses better conditions exist, and in 551 out of the 1,197 dispensary districts there are midwives who are in receipt of a retaining fee from the Poor-law authorities. These women must be trained midwives with a certificate from a lying-in hospital. They must be over 25 years of age, and they must reside at a convenient place within easy access of the medical officer. I have seen them occupying rooms near the dispensary building. They are under the control of the medical officer. There is a midwifery relief ticket (Form E 3) directing the midwife to attend the named patient. It can be signed by any guardian, relieving officer, or warden of the district. She reports the termination of each case to the medical officer; she keeps a register of all cases attended by her under the orders of the medical officer on a relief ticket, and she records the fact in a visiting book. She is prohibited, under penalty of dismissal, from taking any fee for assistance in any such midwifery case.

If a red ticket (Form E 2) is issued for the medical officer in a midwifery case it is laid down that the full and undivided responsibility for the case remains with him even if the midwife attends; she is placed at his disposal to relieve him of attendance only in natural labour. Cases of abortion and miscarriage are regarded as midwifery cases.

The number of the obstetric nurses, which in 1853 was only 11, has now as above stated risen to 511, and there can be no question that the appointment of such a midwife is a boon to the district.

The falling away of the marriage-rate and the postponement of marriage to a later age has much reduced the number of births, and it is difficult for a midwife to find remunerative employment in many districts. The small annual stipend makes it worth while to remain. In some of the north of Ireland dispensary districts the medical officer's application for such assistance is refused by the hard-hearted guardians of the Ulster unions. The reason constantly assigned is that such women were not wanted in the past, and that no reason exists for their appointment now. As a result the medical officer may have to remain all night with a simple case of natural labour, losing his rest, getting no food, and constantly urged by the friends and relatives to sustain himself by drinking whisky.

The Local Government Board, which, when it suits it, issues the most despotic orders dealing with the fullest discharge of the medical officer's duties, apparently takes no further action when a body of guardians thus decide. The unfortunate medical officer is thus between the devil and the deep sea, as it were. The Local Government Board, under Clause 20 of the Rules for Dispensary Management, throws the full and undivided responsibility on the medical officer, but shirks the full and undivided responsibility which should lie on it of requiring the guardians to maintain a midwife. This method of procedure is well-known in all feebly-organized government departments. The controlling body, strong to harass and oppress its subordinates and compel them to undertake impossible responsibilities, is at once silent when brought face to face with any refusal on the part of those in authority to comply with its requests or recommendations.

It is evident in all phases of the medical, sanitary, dispensing, and midwifery duties of the medical officer of the Irish Poor-law service that had they been drawing splendid salaries, with the smallest possible districts, and leading lives of utter idleness no more stringent, thorough-going, and carefully-worded orders could be issued than are now issued to them by the Local Government Board. Had these unfortunate officers been entirely public servants, relieved of the demands of private practice, no more stringent orders could be issued, and I say this with full knowledge of the official routine of the other national services.

VIII.—THE DAILY ROUND—THE COMMON TASK.

The reader of this report, ignorant of the actual facts, would at once conclude that the medical officer whose duties have been enumerated was a well-paid state official, giving his

whole life to his purely official and State duties; quite the reverse is the truth. The dispensary medical officer this grist, of which, ground between the upper millstone of the Board of Guardians and the nether millstone of the Local Government Board, must a thousand times a day ask himself the question, But where in all this round of Poor-law duty does my private practice come in, and how am I to keep up my private home and rear my family under such conditions, and why am I thus in thraldom? It is quite evident that neither of his masters has ever considered that the medical officer was apparently for a salary so wretched that work was rather pure charity rendering an essential national service and discharging most anxious duties, and that therefore he should be dealt with from the highest philanthropic standpoint by both parties, and treated as an educated man of wide sympathies and cultivated intelligence. As a matter of fact he is treated as the football in a game between the Local Government Board in Dublin and the Board of Guardians of his district, and deprived of all the rights and privileges of average manhood that could make life worth the living. To be worked by unsympathetic masters all his days of health and strength for a wretched salary, and then when old and worn out in the national service to be flung aside unprovided, with a pension at the whim of the moment or political opinion make him obnoxious to the body of local guardians is a deplorable fate. These guardians may have only just come into office, they may neither know nor care anything for excellent work done in years gone by for the people of the district, yet at this critical moment, so important to his old age, the Local Government Board, under whose direct orders he did his duty by the poor, and who by its definite instructions forced him into opposition with his guardians with regard to sanitary questions, now stands by absolutely neutral in the conflict for a pension, and says no word and raises no finger to help him.

That such a condition of affairs should be possible in any public service is almost laughable in its grotesque absurdity, but in its ill effects on the Irish Poor-law medical service, on the whole profession of medicine in Ireland, and ultimately, worst of all, on the Irish nation, it is sad in the extreme.

Let us now glance at the daily round of duties of the new dispensary medical officer of Drumbocht, the lonely village well called in the Gaelic tongue the "hill of poverty." He has won his election, and has taken a room at the local inn in the absence of any suitable house in the village. He attends at the dispensary up one of the side streets for two hours on Mondays and Thursdays, and drives over on Wednesdays to the dispensary station at Carrigmore by 11 a.m. and remains for two hours there. Fresh from the Dublin hospitals he feels a rude shock when he sees the draughty waiting-room and the untidy dispensary, and the smoky stove, and the room looking like an old bottle store where he is for the term of his natural life without hope of promotion or reward to attempt to afford medical aid to the poor of the Drumbocht country side.

The deaf old woman who looks after the dispensary has failed to light the fires in time, and all the out-patients are sitting in the chilly waiting room as he arrives. For two hours he deals with all these ailing people, the poor human debris, male and female, of the poverty-stricken village where the night of the whole winter there is no work to be found, and that for want of work the place is sinking to decay.

He endeavours to be sympathetic, to take an interest in the poor creatures, to hear their story and to do his best for them, and before he knows how the time passes it is noon. Then he has before him many "red tickets" waiting for him to visit all over his thirty square miles of district. He soon sees that if he is to get through his work at all he must hasten on with the patients and stop their long stories. He must hurry over his physical examinations, and his diagnosis must be cursory and rapid.

How unutterably tragic are the poverty-worn aged, who will not go into the workhouse, the delicate anæmic girls who work by the "sprig with" cottage industry, and never stir out of the house the whole day until their health breaks down, and they fade away in consumption. The old men, the delicate children, the whole of the people hungry for bread, and wanting not so much physic as food. Amongst these he spends his morning giving out a written prescription as in the Dublin hospital.

The outside car hired from the local inn comes for him to go out to see his scattered patients by half-past twelve, and before he can leave the dispensary he must make up the patients' medicines and has to stop to do this weary work. The deaf old woman who cannot bring any hot water worries his soul, and at length by one o'clock or after he gets away. He would fain have lunched at the inn but there is no time, and the innkeeper suggests a glass of whisky instead, and in the rain and mist he begins his drive through the country side. He drives five or six miles, perhaps eight or ten, often in blinding rain, and then, after ascertaining the neighbourhood where his patient is supposed to live, leaves his car and finds that he has to walk a mile across the broken hillside, down the rough boreen or narrow road that leads to the cabin where his patient may be.

At length he reaches the place to find the husband ill with pneumonia in the wretched cottage. Fowls are perched over the bed, under the bed is the pig, the calves are in the house, even the cow may be there. Here in this poverty-stricken home, with no one to help, no one to understand his orders, no medicines to be obtained save by the wife herself returning on foot to the distant dispensary, from which she cannot get back before the night has fallen, and then only if the medical officer has returned from his round of visits over a scattered and difficult country side: here he deals with the life of the bread-winner, the ultimate peasant, head of the family crowded into the single room with the animals and the poultry.

Dismay strikes him as he sees the surroundings, and reflects that it is in such a life as this he is to spend all his future years. He may give instructions but who is to carry them out, and the day is passing over, and he has still many "red ticket" patients to see, and he must hasten away. He drives miles again in another direction, he skirts the tall mountain, he drives round the head of the misty lake, he visits the lonely cottage deep down below the road, and nightfall catches him before his work is done and he is hungry, and everywhere whisky, always whisky, is offered him by the kindly peasantry to whom he gives his medical aid.

So the day has passed and it is seven or eight o'clock before he returns to the inn where he resides. He returns to find a censuring letter from the Local Government Board dealing with the packing up of medicine bottles, another directing him to visit daily for the next month the lonely hamlet up the mountain side where typhus fever has broken out, and to make sanitary recommendations to the local guardians to prevent the further spread of the disease. While he is reading the police sergeant calls for him to come with him to certify a dangerous lunatic and dinner is waiting for him, the lonely dinner in the third-rate country inn. The sanitary inspector comes to make sanitary reports of the district, and then comes on the night, the dark and anxious night of the Irish dispensary doctor. The call to the wretched cabin and the far-away case, the call to the tedious midwifery case, to the lonely cottage of the poverty-stricken peasant, no midwife, perhaps, no one to help but the husband who, while the doctor with both hands binds up the wife, presses the dirty cup full of whisky, his only possible gift, to the doctor's lips; then the long drive back in the cold over the rugged road and through the blinding rain, and this is not a single experience for a few days and weeks, but quite his routine work for ever. No hope of better things, no one to speak to, none to encourage him, no one with whom to interchange a thought save the chance commercial traveller who comes to sell whisky to the landlord of the inn or show samples of drapery to the local haberdasher of the paltry village.

He opens the weekly paper of the neighbouring town to find himself spoken of at the Board of Guardians in the roughest terms because he proposes to close the foul well beside the typhoid-stricken home, because he tries to have the manure heap removed from the door of the mother struck down with puerperal fever. He asks for a nurse to visit the cases, loud laughter is the reply, and the letter is marked "read" and "the subject dropped." He asks for a midwife for his district: the ignorant guardians scout the idea and say their mothers never needed anybody of the kind, and why should these people want one, forgetting the empty country-side, the ruined homestead, the fuller population of the past, that fuller population, who to-day in Glasgow slums, in the Irish quarter of Liverpool or in the East End of London are far away from their own land, or who better still and happier in that "Odeen Dy," that "New Island," that new "Tir nan og," across Atlantic from the happy paradise of the Kelt, in far away America, are living fuller, freer, and happier lives under American skies and more straddling surroundings.

The country talk [illegible] that a kind and sympathetic doctor has reached the Drumbocht Dispensary, swarm in on him, and the "red tickets" flutter round him. He soon finds

that he has not one moment to spare. The private practice, that is to say, the private practice which would pay him, is practically non-existent, and he finds that because he is "merely a dispensary doctor" the one or two families that do employ and pay a doctor bring out the medical officer of the workhouse infirmary or the county infirmary to attend them, or, using the light railway, go in themselves to the town. His income is so small that he cannot take in a medical journal, nor a sanitary review, nor attend any medical society, nor dream of going to a congress on medical matters; vaccination in distant villages, the unceasing fight for sanitary progress, the never ending worry of the Local Government Board about drug-and-bottle expenditure and the official returns it requires all weigh upon one who has neither clerk nor compounder, nor nurse, nor midwife. All this combines with the loneliness to break his spirit.

Wearied by the mental isolation, the comfortless home in the village inn, the unutterable sadness of his daily life without one ray of sunshine in it, he thinks of marriage, and after a time he brings down to the lonely countryside the girl who has thrown in her lot with his. He makes for her a home as best he can, and the realities of married life, its anxieties, its expenses close in around them both. Children come and expenses rise, but not so the income; work how he may or how he will the pay is still and for ever the same. Be he kind and sympathetic, wearing out his life with his solicitude for his huge poverty-stricken district, or be he rough and bearish, with a "coarse dispensary manner" to drive away the people from calling him in, the pay and income are still the same, and there is no hope for betterment now or ever. When after years of anxious labour he did apply for a small increase to the guardians the letter was received with bitter laughs and sneers, ordered to be marked read and "the matter dropped."

Once when, after more than ordinary effort, he carried through a typhoid epidemic which wore out his spirits and his life, even the guardians, stony-hearted though they were, gave way, and in a moment of extraordinary sympathy they voted him an increase of £20 a year for his specially good work in the district. He and his wife rejoiced, for £20 to a dispensary medical officer may at times make the difference between actual want and mere existence. The local guardians' proposal passed up through the official channel to the great central Local Government Board office in Dublin, and this Board refused its sanction of the increase unless a similar rise of salary was given to all the other medical officers of the same union. It thought the proposal a mere "job," and interfered to prevent a "job"—the same Board which never interfered to protect the officer in his sanitary struggle, never helped him with the "sealed order," it had power to issue compelling the guardians to employ a midwife—the Board which injured his self esteem with routine orders about bottle counting and drug duties.

To find fault and to refuse concessions to the medical officer, to work in unison with the guardians in every matter which weakens his prestige or influence—this is the practically universal opinion held by the Irish medical service of the aim of the Local Government Board. The idea seems to be, whenever the guardians coerce the medical officers, to say "most wise local self-government," and whenever the guardians aim at improvement of the medical officer's position, to say "a mere political and partizan job," and thus to snuff it out.

When the reply at length came officially that the Dublin Board refused the sanction to the wretched increase of pay, the hapless medical officer and his helpmate in his many anxieties lost heart entirely. The future seemed so dim, the outlook so hopeless, the children's expenses so heavy, and the father, from exposure to cold and wet, was breaking down in health, and despair settled on the home. When next the doctor went to the midnight call and sat by the peasant's fire and waited for the birth of another unfortunate Irish peasant, when the kindly-meaning peasant took from his little cupboard the whisky he had kept ready for the doctor's refreshment; he, broken and aged and weary, and hopeless, the despairing victim of iniquitous neglect, did not refuse the hope inspiring but fatal draught, and when he came back in the early morning to his distant home a new grief had stabbed his anxious wife to the heart, and the gossip of the countryside whispered that the doctor, "even our doctor," had fallen away from his own eternal preaching of temperance. He fell, as a certain percentage of these medical officers do fall, from a hopeless life, an unsympathetic surrounding, the want of just treatment, the want of a stimulating central controlling Board that valued its officers and stood by them to the last, their best and truest friend, guiding them to mental and physical betterment, not for their own sake only but for Ireland's sake. Despised and wretched, these medical officers lost heart in their grinding life, and which of us so placed would not have done the same? Let those that think they would come out of the struggle unscathed cast the first stone.

But another phase is also not uncommon. The young medical officer, fresh from the college life, felt keenly the lonely life and the weary evenings. He saw in the village the girl whose kindly manner caught his heart, she certainly knew little, and was unable to enter into his anxieties and his hopes. Her mental outlook and his were far apart. He had hoped to do great things. She felt she had done great things in marrying him and was satisfied. When I saw her she was distraught and ill at ease; she knew nothing of his work, of his hopes and his fears, and she was certainly no companion to him. I sat by the fire and heard him speak of his lonely life and his poverty that cut him off from science, from books, from the contact with his fellow doctors. I saw the comfortless home and I felt for the unhappy fate of another wise able man. When I left the house he said to me, "I feel I am breaking down; the loneliness, the poverty, the absence of outlook in this wild country-side is hard to bear. If only I could get away to England I would be happy; but how can I move with my family?" What can be said in such a case? only "duty and hope"! When once the facts become known, when England and not Ireland only knows the story, betterment will surely come. For England will put aside the question of creed and class and warring factions and ignorant raw democracy and icy cold bureaucracy, and she will do right for justice's and for Ireland's sake.

Some medical officers find other ways of making enough money to maintain their existence and educate their children. The horse is a noble animal, but the surroundings of the animal are not always noble. A certain number of the medical officers become horse breeders and dealers. They attend the race meetings, they hunt, they first take up the horse gently and gingerly, later on the horse is master and the scientific and painstaking medical life is not evident. These men live for the horses they breed, for the horse means money and food and education for the children, and a home for the wife, and science and sympathy for the Irish peasant means poverty and a hopeless old age and despair for the medical officer who does his duty.

To become a successful horse-dealing doctor in that Ireland, whose moderate climate, limestone soil, and good pasturage are so favourable to these splendid animals one must first develop in a marked degree the hard "dispensary manner" well known in Ireland. This chills off the peasantry and checks the black tickets and the red. This reduces the night calls. This gives time to go to the near and the distant races and the local hunt. This gives a better superannuation than such a paltry pension as the guardians offer and the Dublin Board with heedless heart refuses. This pays for the children's education and makes the eldest son a doctor who may in his turn again breed horses, despite Boards of Guardians who do not sympathize, or Local Government Boards which does not understand. And all goes well, and there are no sanitary recommendations and no worry to the guardians, and no Local Government queries about anything. All seems well, only one thing is ill, and that "thing" so valueless, so unimportant, so carelessly thrown aside is but "Ireland," in the shape of the peasant in his home and his wife and his children dying on the hillside.

The well-to-do folk, who are few, do not suffer, for the medical officer of the workhouse infirmary drives from the distant town to see them, and he may carry off the fees, the few fees, of that country-side; but for the Irish peasantry, and the Irish people who cares? No one cares, for the medical officer with the horses is a "good fellow" and stands well in with his Nationalist or his Orange friends on the Board of Guardians, and who shall then attack him? and as he ruffles no one's ideas about health or sanitation he lives out his life, hurting none, wounding none, but only stabbing Ireland to the heart in the shape of her sickly sons and daughters. Who is to be blamed in all this? Not the medical officer only. He has been forced into this line of existence because the system he serves is bad, and no one really cares. The whole future is to teach the Irish democracy how to care and what to care for for Ireland's sake. The horse-dealing medical officer accurately gauged the powers that be, and he saw that neither guardians nor central authority really knew the value of the ultimate Irish life, and that they and not outer forces were tyrants, more bitter than Saxon conquerors or landlord oppressors, or far away England that

never fully understood the facts. The facts they, the local people, knew, but knowing still they cared not.

Quite as dangerous to the State is the surgeon farmer who ignores his work and lives entirely to farm. He, too, needs the "dispensary manner," he needs to kill off sympathy and to check kindness. He has other interests more important in turnips and oats. To him all science that he knows is agricultural science. He knows more of turnips than of tourniquets, of parsnips than of Pasteurism, of lettuces than of Listerism. He, too, has the cunning mind to see how the wind blows, and behind the blatt manner and agricultural dress, and the apparent *bonhomie* he, too, stabs Ireland to the heart and leaves a country-side in need of the commonest medical or sanitary attention. He may belong to the local farmer class, and live them he, too may despise the labourers and may neglect them. And nobody cares.

This enemy of Ireland would repudiate the application of such a title, for he stands well with the local guardians, or speaks at the Orange lodge or the United Irish League meeting, but so surely as the raw democracy tramples on the heart of Ireland, or so surely as a non effective Dublin Board holding office without protest, and allowing defective conditions to exist crushes out the Irish life so does he. He is to be forgiven because he is the creation of a system which is radically defective and calls aloud for reforms, but forgiveness is not for the others.

Just election, just pay, just duties, just control, just pension, all these things kill out horse-dealing doctors and farmer-surgeons, and this is an urgent need of Ireland, and the cry is How long are these things to last?

The raw democracy acts only as it has seen all governing forces in Ireland act without the faintest sympathy with the governed, and who can deny that government by central Dublin Boards is exactly the same Both alike are killing out the life of Ireland.

IN THE "BLACK" TICKET AND THE "RED."

THE forms here printed are the tickets authorized by the Medical Charities Act of 18[illegible] and 15 Vict., cap. 68 to be issued for use in the dispensary relief of the sick poor of Ireland. Form E 1 is the black ticket, Form E 2 red ticket.

FORM E 1.

TICKET FOR ATTENDANCE AT DISPENSARY.

To Dr. , Medical Officer of Dispensary District, in Union.

SIR,

You are hereby directed to afford Medical Advice and any necessary Medicine to , aged , residing at , in the above Dispensary District, who is by occupation a

Dated the day of 1 .

(Signed) ,

Guardian, Relieving Officer, or *Warden,* as the case may be.

FORM E 2.

TICKET FOR ATTENDANCE AT THE PATIENT'S HOME.

To Dr. , Medical Officer of Dispensary District, in Union.

SIR,

You are hereby directed to visit and afford Medical Advice and any necessary Medicine to aged , residing at , in the above Dispensary District, who is by occupation a

Dated this day of 1 ,

(Signed) ,

Guardian, Relieving Officer, or *Warden,* as the case may be.

The [illegible] this ticket entitles the person who holds it to receive [illegible] the dispensary building, it is really an out-patient relief ticket.

Formerly, these tickets were issued only by the members of the committee of management of the dispensary committee of the actual local dispensary district, but the Local Government Act of 1898, which abolished the local dispensary committee and placed in the hands of the guardians of the union, gave power to all the guardians of any electoral division of the whole union to issue these tickets for the dispensary district within that union. As the Irish unions are very large this places the giving of these tickets in the hands of a large and very scattered body of persons.

Further, in addition to the actual guardians of the whole union, a number of persons are nominated by the whole body of the guardians as "wardens," really "ticket issuers" for each dispensary district. They are a very numerous body, consisting of, at times, the clergy and a great number of the small shopkeepers within the dispensary district.

In most of the villages and small towns every third or fourth shopkeeper along the street has the power of issuing "red" or "black" tickets. Very great objection is made by all classes and grades of the people to this power being given to the small, publican class who swarm in all the Irish villages and towns, doing an incalculable injury to Ireland. Clerics of the highest standing of the Catholic church in Ireland have drawn my special attention to this defective system.

The publican can extract the last shilling from the peasant, can reduce him to physical and mental decadence, and can then issue a ticket for free medical attendance. Attendance, however, at a dispensary for advice and medicine, while undoubtedly has the weak points indicated, is not complained of by the dispensary medical officers in the same unceasing and bitter way as the "red ticket. In the one case the sick attend at a dispensary at a fixed place and at a certain hour, there is some element of order and regularity: but there is no limit to time or place within the dispensary district as to the issue of the "red ticket, and very often no limit as to the fitness of the receiver.

The red ticket (Form E 2) can be issued under Section IX of the Medical Charities Act (Ireland) 1851, Act to any "poor person" by any of the many persons, guardians and wardens, referred to above as issuers of the black ticket (Form E 1.) An unceasing warfare is carried on in Ireland over the question of who are fit and proper persons to receive this ticket. The wording of the Act "poor persons" is essentially vague, and on its real construction and intention many pages have been written and unceasing discussions held, but the solution of the problem is as far away as ever. On the back of this ticket is printed the following memorandum:

This ticket may be presented to the medical officer at the dispensary at such hours as his attendance there may be required to attend, or left at his residence or may be presented to him at such other place [illegible] This ticket should be presented as soon after it has been issued as practicable, with such information as can be given regarding the nature of the case. A guardian, warden or relieving officer before issuing a ticket shall exercise due diligence in ascertaining whether the applicant is a "poor person" and entitled to gratuitous relief.

These rules are very clear in enforcing the responsibility of the medical officer and leave him no possible loophole of escape, but they are, like the Act itself, entirely vague as to what a "poor person" is.

The whole of the Irish population, from the highest to the most humble, know the weakness of the parliamentary phrase "poor person," and admit freely the many loopholes the Act allows, and the frequency with which the ticket is issued irregularly to cases apparently quite unsuited, but Irish opinion is not one whit nearer a working solution of the problem of what constitutes a "a poor person" than it has been at any period since the Act for the relief of the poor came into force in 1851.

One school of thought in Ireland produces case after case of apparently gross injustice to the medical officers and the public purse, by the issue of tickets to those well able to pay for attendance, others speak of the waste of the ratepayers money of the shameful want of principle of the apparently well-to-do recipients of the red tickets, and, shutting their eyes to the very many other weak points of the medical relief system, are pleading entirely on the need of a rigid tightening up of the regulations for the issuing of tickets, and desire a great limitation in the number of the issues often demanding that the power to issue tickets shall be limited to the relieving officer only. They ask for power to prosecute those issuing the tickets liable to pay, the striking off dispensaries of the issuers list, and demand, indeed, every possible limitation of the granting of these tickets to all save real pauper class. The people who think thus belong to every class and grade of society, of creed, of politics. The cleavage line depends not on any apparent political or social differences, but on the character or mental type of the people concerned. Peer and peasant, bishop and layman, police inspector and police constable, class man or mass man all divide on this question without reference to position.

In all Ireland I only met one district where the practice of ticket issues was rigid. The medical officer there, the only one I met in Ireland, had no grievance against the issuers, the vague words, "poor person," was rigidly construed and limited actually to the veritable pauper class. The district was north of the Boyne. The medical officer significantly added: "It has not in any way increased my paying practice I am called in now only to certify the deaths." To all who can read between the lines it is easy to see what had happened. A great misery had been inflicted on a large body of the Irish people who happened to be poor.

Let us now turn to the other side. The other half of the Irish people stand opposed to the class of restrictionists above dealt with. They hold that a mere tightening up of the ticket-issuing rules would not be a real cure for the difficulties of medical attendance for the Irish people, for this is in truth the real question at stake. It is not the mere question as to whether Farmer McKeon of an Ulster dispensary district rightly or wrongly got a red ticket to have a medical officer to visit his ailing child. It is a far larger question for Ireland. However much the rule is tightened up in individual cases, still the problem of how the Irish people are to receive efficient medical care is not solved. This class then favour existing methods of issue until something better takes its place, holding that no hard-and-fast rule is possible, and that it passes the wit of man to devise a working rule to govern such issues.

The young medical officer fresh from the colleges resents the liberal issue of tickets to the small farmer. The older officer, who has seen much of Irish sorrow and trouble and bad harvests, and sickness and famine amongst the people is far less sure of a remedy, and in the end the older men are willing to admit that the cases of apparent wrong are few, and that a fuller study of the problem shows that to understand everything about it is largely if not altogether to forgive everything about it.

To hold land in Ireland in a small way is a most precarious venture, to own cattle in a small way is no guarantee of a power to pay an "economic fee" to the doctor—that is to say, a fee that compensates him for his scientific knowledge and for his heavy long distance posting charges.

Private Practice.

The two factors of distance and time enter into all problems of Irish medical attendance on the people. English practice and Irish practice differ so much in character that it is dangerous for the English and Irish people to commence any argument or discussion without first defining clearly and accurately the terms used. The conditions in the two countries are quite different. In England, with a fuller population, with rich and poor in closer contiguity, the factors of time and distance fall greatly into the background.

In Ireland they stand in the very forefront of the question and can never by any reasonable person be ignored. If by some miraculous force I could say to the people of an Irish countryside "On the centre close," and so compel the far-distant and scattered population, rich and poor, to close in on a given centre and leave all the far-away outlying districts to forest and fen, one would greatly diminish the Irish medical problem so far as distance and time is concerned, but this solution is impossible, and the problem still remains unsolved by any "red ticket" rules. In Ireland the medical man is called to a case eight miles away, and he spends, perhaps, half an hour in examining the case and giving advice, but while the patient might, if well-to-do, pay an "economic fee" for the time spent in the scientific examination of the case, who is to pay for the two hours or more spent on the journey there and back? This matter cannot be ignored. In England the population is thick on the land; the medical visits are made in a kind of circular tour, and the distance factor in each case melts away by the many cases seen on the route. In Ireland, with a small and scattered people, it is commonly a direct and special journey for each case to a different point of the compass on each occasion over a far scattered badly-roaded country-side. A mere tightening up of the "red ticket" system would never act as a full and final remedy of this condition; it might lower the "red tickets" in number, and this might entail great suffering and misery on the Irish people, but it alone without other remedy can never cure the evil or remedy the ever-present and unceasing difficulty of distance. After inquiry and discussion in Ireland with all classes and grades of the Irish people, I felt in the end that a rigid legal definition of a "poor person" was impossible. Agriculture is a very precarious employment, and especially so in Ireland with its variable climate and uncertain conditions. The "weather board" of the West of Europe, it catches every cloud from the Atlantic, and tillage greatly suffers by wet seasons.

Where there are great cattle ranches as in the central counties there is a very sparse population; in fact, the country seems half deserted, and fees that pay a suitable return for the doctor's scientific attendance, plus the time and distance factors in going to and from the patient, cannot be obtained. Again, the small farmer with some cattle may be quite unable to pay an economic fee, or series of fees in a long illness. I use the word "economic fee" to define a fee that pays the doctor's scientific advice, plus the posting charges for conveyance to and from the patient's abode.

In some unions the medical officers have been practically compelled by the guardians and the Local Government Board to make a scale of small fees for the poorer folk. But this simply makes confusion worse confounded without bringing a solution of the real question any nearer. To the thoroughly non-economic Poor-law salary that is not a living wage for the medical officer is added a series of new non-economic fees gathered in, nay even wrung, from the poor, and while it may be a great strain on them the doctor is still underpaid, for in any single call the very posting charges are not covered by the fee paid, and the districts are so large and extend so far to all points of compass as to render it difficult to link the visits into any regular orbit or circular tour that might pay and yield in truth an "economic fee." In all thinly-populated countries such as Ireland the roads are also, as a rule, few, and crossing by conveyance from one part of a district to another is difficult and tedious. In Ireland the journeys off the main roads and up into lonely mountain districts are very trying and very common. Bogs and lakes also intervene, and hills and valleys, and the whole question of time and distance is thus complicated.

The rigid curtailment of the "red ticket" issue to the pauper class only would lower, no doubt, the apparent sick calls on the medical officer to attend pauper cases, but it would also weaken his claims for a further inquiry—an extremely needed inquiry—by the State into that larger question so often obscured as to how the Irish people as a whole shall secure efficient medical attendance in outlying parts if the State do not as now intervene—very defectively and ineffectually it is true—but still, nevertheless, intervening by its unfortunate Poor-law medical service.

Club practice and the combination of the people for associated medical help by private union is practically non-existent in Ireland. It is, in fact, impossible on account of the distance factor and the many conflicting elements of creed and politics which, for some time to come, must interfere with Irish union. If this union or combination is to take place it must be in a national combination under State control and fixed by law. Such a service would practically be a well-paid and well-organized Poor-law or civil medical service for Ireland, the salaries of its officers would overcome the ever-present distance factor, and render it possible for all classes, rich and poor, in Ireland to receive efficient medical aid at a reasonable rate. The State-paid salary of the Poor-law or Civil service medical officers would render it possible to consider that salary as a factor in the cost of his maintenance enabling him to take lower fees from patients above the actual pauper class.

Of course, I am not dealing now with what may be called disciplinary irregularities in the issue of "red tickets" such as where people not ill—or not seriously ill—get tickets, or where medical officers are called out long distances for trivial causes. Such abuses ought, of course, to be put down with a just hand; unfortunately, they often occur and tend to prevent the doctor doing his duty fully by the really ill. What I desire to maintain is that in the consideration of Irish medical practice and the medical care of the Irish people as a whole, a proper medical service, supported reasonably by the State, is a positive necessity. By constituting such a well-chosen, fairly-paid, efficiently-educated, and justly-pensioned medical service, a great boon would be conferred, not on the impoverished peasant class only, but on every man, woman, and child in Ireland, be their class or grade or status what it will. There are many tracts that could never support a doctor at all were it not for the existing defective, badly-paid, badly-governed, and justly-dissatisfied

Poor-law medical service, and just as that service is after all a real boon to tens of thousands of people in Ireland, because it exists even in its defective creaking way, so an efficient, happy, contented, and justly-governed medical service, controlled by the State, nominally in the interests of the poor of Ireland, but really in the interests—the best interests—of all classes of the community in Ireland, would confer a very great and urgently-needed benefit on the whole Irish people.

If the 1,000 medical men of the existing Poor-law service in Ireland, who are half the medical profession in Ireland, are to be badly-recruited, underpaid, defective, and dissatisfied where are the other 50 per cent. of efficient and scientific medical men to come from? The cry should be efficiency for all, good recruiting, good training, good secondary teaching, just, fair, and liberal payment, and reasonable pensioning.

I feel certain that the moment the Irish people know that the medical service of the Poor Law is fairly paid and trained and treated, so far from claiming medical treatment without fees from the medical officers the very reverse will be the case, and reckoning on the State-paid factor in the doctor's salary they will make such annual or periodic payments to the medical officer as will help him to exist. But the State must pay the medical officer a living wage, and such a contribution to the cost of his existence in Ireland as will practically conquer or wipe out the difficulties created by the factors of time and distance. Any attempt at betterment that does not deal with these factors will certainly fail as they are at the root of the existing evils in Ireland. The Irish administrative officials have endeavoured to fasten on the shoulders of a badly-paid body of private medical men working as practitioners independently in civil practice the whole burden and deadweight of the underpaid duties of a national medical service, and have presumed on their political helplessness to load them with practically unpaid national and public labour, with the result that they have well-nigh destroyed independent civil practice, and have not provided an efficient public service.

The badly-paid-for pauper, ignored and forgotten by the governing class at all times in Ireland, has dragged down with him as he sank a great part of the medical profession in Ireland, and it will take some years to put things firmly on a sound basis. Underpaid and harshly governed when employed by the State, the medical officers have been compelled, as it were, to make bricks without straw, and forced to carry out duties and undertake responsibilities that practically ruined their existence as professional men. A revolt—a most just revolt—has now taken place, and after years of suffering redress must come or no profession of medicine worth speaking of will remain in Ireland.

Unjust, harsh, and absolutely unsympathetic regulations have broken the spirit, or at any rate greatly weakened the self-esteem of the Irish medical profession—a fatal thing to any medical body whose morale should ever be of the highest.

Pushed into the thickest of the fight for sanitation they have received neither help nor protection from the State, and while an Irish people has escaped from such surroundings by Queenstown to their paradise in America the Irish doctors will escape from Kingstown, and thus the memory of two sovereigns will unfortunately be linked with two wounds in the side of Ireland. But just as remedial agents are dawning on Ireland so reforms will dawn on its medical profession when their case is fully understood, not only inside, but also outside Ireland.

I hope and believe that the achievement of this urgent reform will fall to a united Irish people, and that the masses of the people of Ireland will have the insight to perceive that medical services for the treatment of Irish paupers cannot be made to interfere with education endowments, or attainments without surely injuring the Irish medical profession as a whole, and through them the whole community of every rank and class in the country. It is an example of the solidarity, the absolute unity for good or ill that affects all human life. No one class of any community can exist for itself alone, or for its own selfish professional benefit without eventually dragging down all other classes with it. Had the pauper class been always thought of fully the present conditions would never have arisen in Ireland.

Feeling the need for this medical solidarity in Ireland I am opposed entirely to a special rural medical service in Ireland dealing solely with the poor and shut off from general private practice, because if it were forced to narrow with ample pay and the best of treatment and consideration, its existence would not solve the problem of the medical care of the Irish people.

X. THE PAY SALARY OF THE DISPENSARY MEDICAL OFFICER.

No section of this report could be of more importance than that dealing with the pay of the Irish dispensary doctor. It is a fundamental question which cannot be ignored, whatever may be the contrary efforts of either Boards of Guardians or of the Local Government Board in Ireland.

It is necessary to clear the field of all side issues before coming to the definite central fact that there is no pay for the dispensary medical officers of Ireland in the same way that there is pay for the constabulary officers in Ireland, for resident magistrates, for other officials who perform duties out of doors and indoors like the daily work of the dispensary medical officer.

It is, I think, most essential that the dispensary medical service of Ireland should keep its eyes incessantly fixed on the pay, allowances, pension rates, and leave rules of other Irish official services. Ireland bristles with officials, well-paid, well cared for, with justice fully done them, because largely they are the representatives of the old order of things now passing away in Ireland, that is persons engaged in the maintenance of order—the police force, the resident magistrates, the profession of law, and the central bureaucratic officials of the so-called "Castle" administration of Ireland.

By quoting regulations in force in other sections of Irish official life the dispensary services will be able to show contrasts of pay and general treatment which gradually affect even the casual man in the street, and which certainly act definitely on the English mind with its general desire for just treatment of all classes whose grievances it fully understands. These last few words are of great importance—"whose grievances it fully understands"—and the whole aim of the Irish dispensary service should be a policy of education as to their grievances, which only need to be known to be in time redressed. The Army Medical Service has always advanced along the line of general army rules and regulations, and so has had a logical basis for its efforts at betterment, and the Irish medical men will be wise to copy that military movement in its patience, in its unceasing activity, in its firm conviction that redress can be obtained by just statement of grievances but, above all, by its clear declaration that its aim, above all and before everything, is efficiency and scientific advance. This was the whole aim and object of the reforms of the military medical service which have, to so large an extent, redressed its grievances and have gained efficiency. Twenty-five years were required to carry these reforms through, and it may take a not shorter period to place the Irish medical service fully and finally on a sound basis.

SIZE OF DISTRICTS.

It is necessary to put in the very forefront of the inquiry the size of Irish dispensary districts. They are very large, and a fair idea can be got of that size by remembering that the average size of these districts as laid down in the Local Government official statements is 27,273 statute acres, which being converted means 42 square miles, but taking the Clare dispensary districts we find:

[illegible]ughan	...	...	...	210	square	miles.
Corrofin	...	...	...	98	..	..
[illegible]een	..	..	..	..	..	..
[illegible] ...	..	..	..	..	..	..
[illegible]	..	..	..	51	..	..
Newmarket	...	...	...	45	..	..
[illegible]ycastle	...	...	...	34	..	..
Miltown Malbay	..	...	..	33	..	..
[illegible]land	..	...	..	46	..	..
[illegible]ally	..	..	..	52	..	..
[illegible]ra	...	..	..	49	..	..
Carrigaholt	...	...	..	..	..	..
Cragaknock	..	..	..	32	..	..
[illegible]	..	..	..	32	..	..
[illegible]	..	..	..	42	..	..
Kilrush	...	...	...	58	..	..
[illegible]	...	..	..	35	..	..
[illegible]	...	..	..	35	..	..
[illegible]cannon	...	...	...	50	..	..
Tulla ...	..	..	..	49	..	..
[illegible]	..	..	..	54	..	..
[illegible]kbeg	..	..	..	39	..	..

These are the areas of the districts in the sole medical charge of a series of single dispensary medical officers. I quote these enormous districts several of which contain two, three, or even four sub-dispensaries under the same medical officer, because I wish in the first instance to clear off the question of the allowance for horse or forage, and the groom or male servant who cares for the horse and trap. It will be at once admitted that without a conveyance and one, if not two, horses these medical men cannot do their duty by the sick.

Happily, we have a clear official ruling laid down in Ireland as to the cost of upkeep of a horse. It is laid down in unquestionable official documents to be seen at the office of the Royal Irish Constabulary in Dublin Castle. The upkeep of the horse is £50 per annum. The charge for a servant is £45 per annum to cover food and pay. We have here at once an incontrovertible sum of £95 a year for the upkeep of horse and man, and if we add £5 for the purchase and upkeep of the car or conveyance, we arrive at a clear sum of £100 a year. In a matter so clearly fixed it is on these lines of existing official rules the Irish medical service should advance.

As affording an illustration from another part of Ireland, the salary of the first seventeen appointments in dispensary districts in Co. Antrim may be quoted: –

£	s.	d.	£	s.	d.
100	0	0	90	0	0
92	10	0	100	0	0
84	10	0	90	0	0
92	10	0	90	0	0
100	0	0	90	0	0
92	10	0	90	0	0
155	0	0*	90	0	0
120	0	0	97	0	0
108	0	0			

* 7 square miles of district.

We may therefore at once wipe out all salary or pay for professional medical work as absolutely non-existent, for this devoted band of Co. Antrim philanthropists of dispensary districts who are doing an important national service for Ireland at a positive annual loss to themselves. One might write pages on this matter, but the plain statement is more eloquent than words. It is a typical case in Ireland where a weakly-organized medical profession, without Parliamentary representatives or professional cohesion of a rigid type, are being exploited by the State and the local guardians in a barefaced manner. Who can wonder if such men lose heart and, at times, break down under their grievances?

In all this discussion of pay questions it is essential to keep close to the line of purely medical duties—that is, the care of human life. No side issue must be allowed. The medical officer is to be paid for his medical curative work for the poor a living and sufficient progressive wage, and all side employments of registration work, vaccination work, and sanitary duties are, each on their own special basis, to be made individually remunerative.

A fatal system of doles for other side duties has weakened the fight for the main and central principle of the proper remuneration for the medical officer's work, the curative physician's duty day and night amongst the poor; for this, apart from every other duty, he must receive a reasonable and progressive pay. To consider the payments for registration of births, deaths and marriages, or as sanitary officer or public vaccinator—elements in the pay of this wretchedly-paid official—is to lose sight of the main central and absolutely vital point that the sick man is to be cured and attended to in sickness. This is the key of the whole position, all other public services and private employments are organized on this system, and to break away from it is to materialize the great curative art in medicine.

If the medical profession ignores this central fact what wonder if a lay public, ignorant of the anxieties, the responsibilities and the true inwardness of the physician's training and aspirations also throws it aside, and, in reply to the physician's cry for bread, offers him the stone of registration of births and deaths, or anything that diverts him from the main current of his life's work.

If we take 28 dispensary districts in Co. Cork we find the salaries, as a rule, £120 a year; in two cases they rise to £130 a year, and in one of these, Newmarket, in the Kanturk Union, the district is 96 square miles in extent, while in the Kilshannig Dispensary district of the Mallow Union the district is 67 square miles in extent. All such districts require, of course, two or more horses to do the work, and this soon eats up the extra £10 a year. If we take the county of Mayo as a type of distance and pay we find the facts to be as follows:—

Pay in 1875.	District.	Square miles.	Pay in 1903.
£			£
120	Ballina	111	120
[illegible]	Crossmolina ...	119	120
2 M.Os. at [illegible] = 200	Ballinrobe ...	114	2 M.Os. at 90 each
100	Cong ...	[illegible]	100
100	Hollymount ...	[illegible]	100
125	Bangor... ...	[illegible]	100
100	Bunghamstown	[illegible]	100
	Knockalower	[illegible]	100
110	Balla ...	7	110
2 M.Os. at [illegible] = 220	Castlebar ...	[illegible]	2 at 110 each
100	Ballindine ...	53	100
125	Ballyhaunis ...	[illegible]	125
100	Claremorris ...	[illegible]	100
125	Ballycastle ...	123	125
110	Killala	[illegible]	[illegible]
100	Foxford ...	32	100
100	Kilkelly ...	[illegible]	100
100	Kiltamagh ...	34	100
100	Low Park ...	94	100
100	Swinford ...	46	100
2 M.Os. at 100 = 200	Achill	100	100
—	Budoragha ...	43	30
100	Irlandeady ...	80	100
115 10	Louisburgh ...	109	100
-	Newport ...	100	85
2 M.Os. at 122 10	Westport ...	65	100

In each of these huge districts the need of a second horse or a second medical officer is evident, and with so low a pay rate it is evident that even the cost of conveyance is not met by the salary.

The importance of the question of horse allowance to the medical officer if he is to do his duty fully is thus evident. There can be no doubt that in districts over a certain size a second horse allowance should be made at constabulary rates (£50 per annum). This is better than mileage rates, always difficult to fix, and open to much discussion by auditors or paymasters.

But, reply the officials who administer the Irish Medical Service, we only ask the medical officers to take up the Poor-law work as a side matter, and as a mere aid or element in their income. I reply, Look at the size of the districts, the demands on their time, the constant exacting orders issued to them by the central authorities converting them into State servants. While the Local Government Board would perhaps loudly protest against a purely State service, it is forcing on such a service by encroaching year after year on the medical officer's time by killing out his leisure for practice.

Every time a new return is called for, every time new reports are wanted about bottles and drugs, every time a new order is made about public health, a further movement is made towards a State service, with this important difference, that the State which makes the new demand not only does not add new pay, but is, in the opinion of the whole Irish Medical Service, a great obstructive and unsympathetic force, acting against the medical officers' betterment. The autocratic methods of this governing Board are based apparently on the traditions of a militarism or rigid officialism long since removed from the army itself, but lingering in full force in some Irish offices.

Such orders are in every service likely to be issued by controllers who have never been fully through the mill themselves. Orders are easy to issue, but often difficult to obey. The great check on all such order-issuing is to put in authority only people who know from practical experience how difficult it is to perform such duties when ordered.

The official governing body say: "The medical officers have their private practice, we only ask them to take up our work as a side matter." To speak thus is to be blind to the whole history of Ireland; to her poverty, to the absence of manufactures, save in a small part of Ulster; to the absence of coal and iron, and all that these things mean; to the absence of a middle class able to pay for medical attendance at its market value; to the absence of a considerable retired, or pensioned, or annuitant class able to pay a medical man a reasonable fee.

Let us look at the landlord class alone. Many are either absentees or have disappeared from the country. The smaller landlords as well as the larger have had their rents greatly reduced to meet the universal fall in land values which even in England has left house after house belonging to the landed class empty and waiting to be rented by tenants.

If all land has fallen in value even 30 per cent. on an average, and far more in certain cases, how does Ireland

escape, whose whole fortune is closely involved and built up with the agricultural industry. While land has fallen in value, the cost of labour—"the labourer wage"—has risen. Emigration has greatly raised the cost of labour on the Irish lands and left less money available to pay reasonable medical fees.

In the days of a flourishing landlord class, who drew from the farmers an ample income, it was customary for the larger landlords to pay a yearly lump sum to the local doctor to cover all cost of medical attendance to the big house and its occupants and retainers; that £50 or even £100 a year has gone, and the fall in land values has prevented any one else appearing to pay the medical officer that very £100 a year which was the raft to save him from perishing in the waves of financial ruin.

Furthermore, every new railway, light railway, steam tram, or new road enables the people who never travelled in old days to get away to England and the Continent: and many people have thus left Ireland, or leave it annually for a time. Concomitantly with the fall in land values, the disappearance of many of the landlords, and a marked reduction of rent, the Local Government Board is making new demands on the medical officers' time, over and over again striving to break up districts for which no medical man will apply, and adding on the parts of these districts to other districts already of huge size, making the medical officer more of a clerk, a compounder, and sanitary officer than before.

With this coincides an increased period of study for medical students, more difficult examinations, more candidates rejected, and a striking out of some 500 unqualified assistants by the General Medical Council. These conditions combine to make medical services dearer, so that new warrants are issued improving the position of the army and navy medical officers, and the cost of *locum tenens* and assistants has risen everywhere in England; yet in the face of all this the Local Government Board want men to pack up empty bottles, to send larger returns, and to take over divided pieces of districts in addition to former charges. But, further, the private practice of dispensary medical officers is being undermined by the fact that the public know well how Poor-law medical elections are conducted, and that in the bitter contests science counts for nothing, and politics and creed and party for much. It must with regret be admitted that notwithstanding that many officers of the dispensary medical services are men of the first quality, and many of good average ability, a residuum has formed, and is daily forming, who do not command the confidence of the public aged men who have remained in their appointments because they fear that if they applied for a pension or superannuation they would be contemptuously refused because they differed in creed or politics from their Poor-law guardians. I know personally of a good many such men who remain in the service and cannot, through want of means, retire.

Confidence thus undermined, the people avail themselves of every new train or railway to go into the towns and to consult the county infirmary or workhouse infirmary medical officer, and these gentlemen drive out into the country and often take away even the few paying patients that are left to the unfortunate dispensary medical officer.

Unjust rule, unintelligent control, bad pay, the absence of facilities for continued study of medicine, and the grinding rule of a clique very ignorant of the changes in the medical profession have broken down the efficiency of the dispensary services, and now a heavier expenditure and a more drastic reform will be needed for its betterment.

A prelate of the Catholic Church in Ireland who knew fully the whole sad story of the dispensary medical officers, pointed out to me with regret that their narrow incomes prevented them buying books or scientific papers, or attending [illegible], or in any way keeping touch with scientific progress, and [illegible] for [illegible] sake it was that ample [illegible] should be maintained for this service.

I was greatly surprised to find that many medical men in Ireland [illegible] in any medical journal or sanitary review, but at the bottom of much of this apathy lay absolute want of money. While every one of them desired a post-graduate course, few were able to arrange for it at their own expense, and the controlling guardians and Local Government Board thought apparently more of secondary matters [illegible] All the circumstances diminish the chance of private practice for the outlying dispensary medical officers even in the best counties, but there are in Ireland, to wit, in the north-west, west, and south-west, tracts of country officially recognized as poverty-stricken, where a doctor's private practice may be £10 a year or so. In many there is not a penny to be made by private practice, and it is the merest sham to talk of these men taking up the Poor-law work as a side duty to their private practice when it is well known no such private practice exists. This condition of things in certain districts led a Catholic prelate to speak to me in feeling terms of the "grave moral deterioration" resulting to some medical officers who endeavoured to wring out of a poverty-stricken peasantry some trifling fee for their services. Such men are happily the merest stragglers in that great army of dispensary medical officers, probably as a body the most humane men in the world, doing a great service for the empire without payment or sympathetic control, and doomed to decadence from sheer official failure to see along what lines the medical profession is developing. Although every class of the Irish people agreed that betterment for the Irish dispensary medical officer was essential, yet in every case amongst the lay population of every rank and class there was a demand for a more scientific service and one better fitted for its important duties.

I feel therefore that in any real scheme of betterment there must be provision made for a higher scientific life, a better mode of entry into the service, a full post-graduate course, a more thorough and educating inspection, and some rewards available for scientific efficiency quite apart from political or religious influences.

We have thus far considered the cost of conveyance and the defective amount of private practice generally available in Ireland. We have now to ask what pay should be given.

Improved Pay Necessary.

I accept at once and without any comment, save an expression of wonder at its moderation, the £200 a year pay asked for on entrance by the Irish medical service. But such pay would only be at all like a living wage for the first year or two, and I am of opinion that £10 each year should be added up to 10 years' service, but that no further increase should take place without a post-graduate course and examination; this passed, the pay should rise to £350 a year at the end of 25 years' service and there remain for the average officer. This pay would include attendance within a certain radius from the centre of the district, but in all districts over a fixed area a second horse allowance of £30 a year should be allowed automatically.

I think that in all existing appointments the State factor in the pay should in the average districts be raised at once to £100 a year, and all restrictions imposed by Section VI of the Local Government Act of 1902, which protected the Treasury against having to pay half of any increase voted by the guardians, should be removed. Whatever opinion the guardians may form about the pay, the State should take the lead and raise its proportion of the pay at once. But here again I would limit this automatic rise to those now in the service, and then only up to the tenth year of service. If before that time no post-graduate course and examination were successfully passed, the pay-rate should remain there until such course was passed.

As to candidates entering the service, I consider that after a certain time of warning there should be an entrance examination to secure the full Government grant, but if guardians were unwilling to accept this, then the old or existing 50 per cent. rule should remain for officers so appointed.

With regard to the other factors in the pay-rate:

1. There should be a retaining fee of £15 to £20 per annum for the registration duties in addition to the fees now available, and clerical help is greatly needed.

2. In all sanitary appointments the minimum pay should be reasonable, not having regard to the fact that the officer may not be specially trained, say, £25 rising to £50 annually, but if the medical officer obtained the diploma of D.P.H. [illegible] should be the pay-rate, and it should rise gradually by periodic increases to £100 a year as best.

These pay rates should apply to all districts and all appointments in the ordinary counties the extra horse allowance being payable for districts over a certain number of square miles. This would be a special allowance, and not a pay-rate.

But these pay rates would be quite unsuitable for the poverty-stricken congested counties and the "Wild West" of Ireland. There it is admitted that life is hard and private practice little or none. A more definitely official service

would be needed. A service with a salary beginning at £250 a year, and rising in the course of twenty years to £450 a year, is essential to secure good men: in addition, a free house—or rent allowance, as in the Irish Constabulary—should be provided, and in the larger districts, over a specified reasonable fixed acreage, extra horse allowance. No restrictions whatever should be placed on private practice, but the dispensary medical officer should be free, as at present, to accept private practice fully.

These pay-rates should apply also to the medical officers of the workhouse infirmaries, and, in return, the workhouse infirmary medical officer should be available for consultations for the union at a mileage rate, so as to act as a district consultant for the poor, as he is now very nominally, I fear, a consulting sanitary officer for the union.

It will be necessary to sketch later a scheme of a medical service for Ireland, but it may here be stated that no plan will be effective that does not hold out some good appointments. Such appointments are needed for Ireland's sake, and foremost amongst them is a county inspector of the Irish medical service. He would need a salary of £500 to £700 a year—this is the very keystone of the arch of county efficiency of the medical service of Ireland. With county inspectors in each full-sized county—and one common to certain smaller counties—much of the inspection now done by the inspectors of the Local Government Board would cease, and an inspector-general for each province—with a sanitary adviser or staff officer—subordinate to the Commissioner in Dublin. The county infirmary should be merged into the local district hospital—that is, the existing workhouse infirmary, and the whole form part of an Irish medical service.

XI.—SUPERANNUATION.

We have seen in the preceding chapters how often dispensary districts are of huge size, roads bleak and exposed and difficult, how often it is necessary to walk considerable distances up the mountain side or down the valley, to use boats or coracles, frail canvas canoes on the wild Atlantic seaboard of the western coast.

Such work as this needs men in the full vigour of life. Soldiers in the battle of humanity against suffering, the combatants should not be broken-down veterans, wounded already or stricken with ailments from the rain and storms of a country exposed in a special manner to the gales that come from the ocean.

It is a positive sin against Ireland and the Irish race to keep as medical men in employment of the State for a very special and harassing duty—more trying than any war campaign—a number of old and worn men mentally and physically exhausted, and to send those men, broken in spirit and in ambition, to be fighters against disease in this much-handicapped land. When it is remembered that officers in the army are retired in the executive grades at 55 years, the following brief list of superannuation cases is striking, showing to how aged a body of medical men this harassing work of the Dispensary and Poor-law Medical Service has at times been entrusted. The report is official, and shows the age at which officers have retired:

Name of Poor-law Union.	Age of Doctor on Retirement.	Service Years.	Superannuation granted.
			£
Ardee	70	40	120
Armagh	66	30	50
Ballinrobe	70	42	42
Ballymahon	70	40	90
... ...	77	43	114
Ballymena	63	1	25
Balrothery	72	37	92
Banbridge	68	43	102
Belfast	73	31	21
... ...	71	32	50
Carrick-on-Shannon	67	34	67
Carrick-on-Suir	72	44	...
Clonmel	72	45	112
Coleraine	69	37	74
Castlehill	74	35	49
Downpatrick	69	41	82
... ...	71	45	112
Dublin South	63	24	58
... ...	68	27	54
Dundalk	70	33	82
Dunfanaghy	74	24	72
Gorey	70	...	80
Kilrush	73	...	...

Name of Poor-law Union.	Age of Doctor on Retirement.	Service Years.	Superannuation granted.
Loughrea	70	33	117
Lurgan	70	37	145
Mitchelstown	70	37	69
Monaghan	70	36	86
Tralee	72	45	81
Urlingford	70	54	92

No one studying such a list of medical superannuation pensions actually granted in recent years can fail to recognize that some fixed age of compulsory retirement is essential for the Irish Dispensary Service. This list does not show the number of present holders physically handicapped by age and ill-health who can not even hope for a pension. Here, as everywhere through this report, it has to be said that while the State, through its agent the Irish Local Government Board, comes down with a heavy hand on the defenceless medical man to carry out heavy duties for it, it makes little attempt to repay the medical officer for faithful service, but leaves him defenceless and unhelped at the hands of unsympathetic local authorities.

There is no compulsory rule granting Irish medical officers any superannuation however long may be their services. Further, if superannuation is granted by the local guardians the charge falls entirely on the local rates, although, during the whole time the official is actually serving, the State pays 50 per cent. of his salary. This is a state of things both surprising and indefensible, but perfectly in unison with the whole tendency of State action in Ireland with reference to the Poor-law medical officers.

The action of Parliament as to Irish medical superannuation is briefly as follows. In 1865 the Union (Ireland) Officers Superannuation Act was passed granting officers whose whole time have been devoted to the union services superannuation, at the discretion of the guardians. This effectually shut out the medical officers of the union workhouse and the outlying dispensary districts of the union. Four years afterwards, in 1869, this injustice was remedied by the Medical Officers' Superannuation (Ireland) Act, (32nd and 33rd Vict. cap 50) which did away with the limitation as to whole time employment, but left the granting of superannuation optional with the local Board of Guardians, subject to the approval of the Local Government Board but with the fatal proviso "that no contribution shall be made thereto out of any moneys voted by Parliament." The whole cost of superannuation was thus thrown on the local rates, although the medical officer had served the State authorities perhaps for thirty or forty years, during which 50 per cent. of his salary was paid from State funds and not from local funds. Thus, in the case of an officer drawing a salary of £130 as dispensary medical officer, the State paid, while he was on the active list, £65 a year, but, when retired, the full charge for his superannuation allowance came to £70 a year, that is to say, the guardians were called upon to pay £5 more each year for their officer when retired than when serving. Such a plan was not likely to find eager and ready acceptance with the Irish guardian class when medical officers were concerned.

It appears that under the second clause of the original Superannuation Act of 1859 the Treasury has a final deciding authority as to what are the claims of any class of persons to be admitted to superannuation from funds paid by the Imperial Parliament; and, acting under this section, the Treasury excludes medical men as not giving their whole time to the service of the State, although there is no difficulty made in placing such a charge on local rates, which in districts so poor as those in many parts of Ireland forms a great barrier to progress, and a never ending source of complaint.

The argument about "full time" when used against giving a medical officer a grant towards his pension is a very weak one. The Civil servant, working seven hours on five days in the week and four on Saturday, gives the State thirty-nine hours' weekly service, and is free all night and all Sunday. The medical man is ever on duty, and if the number of hours' work were added together it would usually much exceed in duration, and certainly in anxiety, wear and tear, and exposure, the average labours of any class of the Civil Service. What is wanted, therefore, is a cancellation of the clause in

the Medical Officers' Superannuation Act of 1860 which saddles the local rates with the whole of the superannuation charges: and, secondly, a reversal by the Treasury authorities of any ruling given by them excluding medical officers of the Irish Dispensary and Poor-law Services from participation in Parliamentary funds to help their superannuation allowances.

If this reform were carried out, the superannuation would be more likely to be granted by the local guardians, as the State would pay half the amount, as it pays half the salary of the medical officer while serving on active duty.

Unless the State, through its representative the Irish Local Government Board, takes early action in this and like matters from a more statesmanlike and humanitarian point of view, there can be no hesitation in predicting that in a few years such a crisis will come in Irish official medical affairs as will greatly increase the pressure on the imperial funds, and that in the end the charges for the Irish Medical Service will be gravely increased. But in the intervening years—years of incessant strife and struggle about pay and betterment, what will happen to the Irish peasant in the hands of a defectively equipped, dissatisfied, and decadent medical service? Had there been any real care for the Irish peasant and his family, all these wretched and easily remedied conditions would long since have been removed.

But there is another regulation checking the application of medical officers for pension, which seems to me so unfair that when once mentioned all will unite in condemning its inhumanity and impolicy.

No officer can have his application for superannuation even considered until he has actually resigned his appointment. Could any rule more old-world, more tyrannical, more positively cruel be in force in any official service under the English Crown, and especially in a land like Ireland, greatly torn by political and religious differences? It is difficult to conceive how so unfair and so hopeless a regulation has been tolerated so long, and one feels that it is only in Ireland, and in a land schooled in injustice for centuries, that so impossible a regulation could exist. Fancy the old veteran of the warfare against disease and insanitation waiting with anxiety the decision of the Board of Guardians as to his fate of pension or no pension, which, to those badly-paid officials, who rarely have a penny of money saved, means the question whether their declining years shall be spent in abject poverty or no. I feel that the moment this rule comes before the medical public of England it will be straightway rescinded by the action of the British Medical Association.

We now approach the most difficult and delicate part of the superannuation question. It is the fact that the Irish Boards of Guardians are greatly swayed by creeds and political differences, and are likely to split up at any time into hostile sections in a very unexpected manner.

The Orange section, apparently strongly united, cleaves suddenly into an Orange democracy and an Orange Conservative party: the Catholic party cleaves into Conservative Catholics who are Tories, and United Irish Leaguers who are democratic. These last cleave again into parties following one politician or another.

Presbyterian guardians will not pension Episcopal doctors, Churchmen look askance at Nonconformists, and thus the medical profession in Ireland, probably the most rational-minded body of men in Ireland, the least swayed by religious animosities, the soundest element of hope for the future of Ireland, are trampled on by a democracy new to its work, without let or hindrance from a State department absolutely out of touch with the new conditions of life in the medical world, and with that desire for betterment which has affected every the lowliest paper in England but has not yet entered an Irish official bureau.

The following point is also very important: The guardians of a union in Ireland are an elected body; they exist as a body for three years only—then there is a new election. Their memories are simply the memories of their three years' actual experience of official life. They know little or nothing of the history of the good work or past services of the medical officers of the union: the guardians, therefore, should be unable to deal with any refusal of pension save only for the three years of their office if at all. The past services of the officer should be accepted as good service for pension, unless where dismissal for the very gravest offence becomes necessary. The truth is the pension for such the superannuation allowance really is should be at a fixed age or service, compulsory, given automatically because earned, so that the Poor-law medical officer should be able to reckon on it just as an army medical officer can reckon on his pension after efficient duty done for the State. The State of course should pay its full share. When it is remembered how important it is for the efficiency of the Irish medical service that medical men should retire before being physically unfit, it becomes clear that the pension should be automatic and quite beyond the reach of Local Government Board or guardians. At 60 years of age every medical officer should appear before a Medical Board of three members of his service of high rank, and they should decide if he is physically fit to serve on until 62, at which age he should be compulsorily retired on a pension.

I gravely doubt if after 60 many men are fit to stand the wear and tear of Irish dispensary medical duties by night and day; and while it is cruelty to the medical officer to keep him on the active list, it is really a greater cruelty to a countryside to retain in employment a medical officer physically worn out, as is now so often the case. A very painful element in the matter of superannuation is the system of preventing a pension being given to an aged medical officer while the guardians hold back permission to retire in order to give the appointment to some young medical men they are interested in. They refuse, or let it be known that they will refuse, a pension until some young man who has influence with their leaders is ready for the post. This can be very unjust to the poor.

Compulsory retirement at a fixed age would do much to limit this wire-pulling. I do not propose to burden these pages with the painful stories of individuals who have suffered under this defective pension system. Suffice it to say that in the past individuals in Ireland have been treated with great cruelty, and to-day there are men who have done excellent service who are awaiting with anxiety their fate at the hands of guardians who know nothing of the long bygone years of good service done by them, but who only know that some wretched difference in creed or politics exists between them, and will determine how they will vote on the matter of pension.

Of all the matters in which the Irish governing body is to blame in reference to the medical profession no one phase can be so culpable, so difficult to forgive, as this question of not securing the free right to a pension. Had the medical profession in Ireland been organized when the Church surplus was going a-begging it would have received a sum of money to form an official retirement fund absolutely free from interference by the local Boards of Guardians.

The following quotation from an address given in 1902 by Sir T. H. Ormsby, President of the Royal College of Surgeons in Ireland, entitled "The Two Careers," in which he compares the Royal Army Medical Corps and Irish Poor-law medical service, will show how things actually are at the present day:

> Your [illegible] year old and worn-out dispensary medical officers who ought to have received their just pensions long ago are to be seen at all hours [illegible] and night [illegible] pursuing their beneficent work [illegible] there is no more sad and ill-regulated system in any department of the public service.

Again, Sir William Thomson, C.B., has said:

> The [illegible] question [illegible] of the medical grievances from which the dispensary medical officers suffer. It is not strange that doctors of [illegible] are to be found in the dispensary service striving to do the work [illegible] large district.

XII. LEAVE OF ABSENCE.

Holidays.

There is no definite regulation in the Poor-law medical service in Ireland about leave of absence for recreation. It is left to the decision of the local guardians, and over and over again it has led to friction between the medical officers and the guardians. A definite decision fixing the amount of leave is needed, and one month a year should be fixed.

In the military medical service the amount of leave is defined, and there is no reason why it should not be so in the civil medical service of Ireland.

Locum Tenens.

A very fertile source of friction in Irish unions is the question of the payment of a *locum tenens*. Until recently there was no authority to pay any portion of the salary of a *locum tenens* out of the State funds, the whole fight was to get the guardians to pay the amount or some amount out of the rates. The guardians constantly refused, and as the medical officers

were usually unable to pay substitutes, they got no leave to their physical and intellectual detriment. Some medical officers never left their districts for year after year.

Happily by section v (1) of the Local Government Ireland Act, 1902, the half of the salary of the medical man acting as *locum tenens* is paid by the State, and the Local Government Board has ruled that this pay should not exceed four guineas a week.

This remedies the financial difficulty, but it does not give the medical officer the right to his leave, and in a certain number of unions friction still occurs, as the guardians refuse the four weeks' leave.

All the sources of friction arise from the failure of the Local Government Board of Ireland to see ahead and anticipate its troubles. The old methods of dealing with the medical profession are dead and gone, and a useful step for this Board to take would be to copy all the royal warrants for the medical service of the army and navy and apply all the conditions as far as may be to the Irish corps of Poor-law medical officers. There will never be satisfaction otherwise, and the sooner this is recognized the sooner will peace and progress come. The Irish Dispensary Service, formed in 1851, may be looked upon as a survival existing into modern times of a body still retaining in its organization the defective conditions of the obsolete Army Medical Service of that far-away pre-Crimean period, with its feebleness, its defective status, its paltry pay, its want of subordinates trained to relieve the highly-trained scientific medical officer of the materializing drudgery of clerical and compounding work; its want of stimulus from within towards a higher scientific technical life due to official neglect, apathy, and failure to apply modern conditions to human life, such as great administrators who endeavour to control a corps should have.

It will take years of anxious care to build up the prestige of this important national service, but no one doubts for a moment that this prestige will surely be built up, for all the elements for it exist in the *personnel* of the dispensary service if only they get considerate treatment from the State. They may have figuratively to pass through a Crimean campaign of suffering, through an Egyptian campaign of hostile criticism, and may have to struggle against a South African campaign of ignorance and apathy in high places; but if they stand true to science and the interests of the Irish peasant and his betterment victory must be theirs.

Sick Leave.

If a dispensary medical officer becomes ill he may receive sick leave on full salary for six months. If he needs leave beyond six months he can get it for a further six months with the loss of half his salary. If he still continues unwell he may, under special sanction, retain his appointment for a further period of six months without pay.

The limit of six months' leave with full pay is an old rule made in the army in bygone days. It is now the rule to give a medical officer one year's leave on full pay, and in all cases where the illness is owing to exposure or contagion, or illness contracted on duty, the full pay should be continued for one year. A medical officer who contracts enteric or typhus fever can rarely be fit for his work under many many months, and a half salary of, say, £50 a year is too small to maintain him.

Study Leave.

No arrangement exists for granting the medical officers study leave apart from recreation leave. Nowadays it is essential to have such leave, and four months should be allowed in the first eight years' service to enable him to go to a medical centre to study at a post-graduate course. If this is not done the scientific life of the service cannot be maintained, and it pays the nation well to develop the scientific readiness of her servants.

In regard to all these proposals it is necessary for the administration to have eyes open and think ahead as to the needs of the service, or such a condition as now exists will surely recur to Ireland's real detriment.

XIII.—THE MEDICAL SERVICE OF THE "CONGESTED DISTRICTS."

IT is necessary briefly to explain a special condition of poverty existing in certain parts of Ireland, and its important influence on the Irish Dispensary Medical Service. If a line be drawn from north to south a little to the west of a central line, it will divide Ireland roughly into two portions, one part being a country not rich, but less poor, while the western section will contain the definite recognized poverty of the congested districts. These districts are to be found in Donegal, part of Sligo, part of Leitrim, Mayo, Galway, Kerry, and Cork.

These districts are officially proclaimed as poverty-stricken, and a special Board, the Congested Districts Board, sits in Dublin, and has special Parliamentary grants and capital to deal with the poverty of these districts, covering 3,608,000 acres, and containing a population of 549,000. In these districts the poverty is extreme: the people cling like limpets to the rocks and hills of the most inhospitable portions of these counties. The general poverty may be imagined when we see that in Galway the Poor-law valuation is about 17s. 10d. a head, in Donegal 18s., in Mayo 18s. 3d., in Kerry £1 1s. 7d., and in Roscommon £1 2s. 9d. A district cannot be proclaimed as a "congested district" unless more than 20 per cent. of the population live in districts where the total rateable value divided by the total population comes to less than 30s. a head.

We have thus a definite standard of poverty based on Poor-law valuation fixed in certain parts of Ireland, and it is important to bear the fact in mind with reference to what follows. The Congested Districts Board that governs the special administration in these poverty-stricken districts has a capital sum of £1,500,000 (yielding £41,000 a year) from the surplus left when the Irish Episcopal Church was disestablished, and other sums amounting to about £84,000.

No Board could be more useful—none more humane, none more free, as far as Irish Boards can be free, of bureaucratic influences of the old, bad type of Irish administration. But, although the State has been compelled to recognize the special poverty of these large districts and to institute special legislation for them, nothing was done to benefit the unfortunate dispensary medical officer on whom, in these poor districts, the wear and stress of medical work falls heavily. The districts are large and greatly exposed, the roads few and difficult, and the peasantry have a bitter fight against want and distress.

Since 1867 half the cost of the medical officers' salary in the Irish Poor-law service is paid from the Imperial, State, or central funds, and half only from the local rates. This rule applies all over Ireland, and the principle is of course of fundamental importance in building up the pay-rate of the Irish dispensary service—now and in the future.

It seems impossible to explain how it has come about that in the wilds of Mayo or Donegal or Galway the grant in aid from the State to the medical officer's salary should be in the same proportion as in the most prosperous district in the east or north of Ireland. This rule should be altered, and while keeping 50 per cent. as the State contribution to the salary in the best districts, this should be accepted as the minimum State grant, which should be raised in the west to such an amount as will pay the medical officers in the congested districts an adequate salary.

If at the present moment a medical officer in a Galway dispensary district recognized officially to be poverty-stricken receives £100 a year salary, and if in future the local rates continue to pay £50 as now, the State pay should raise the salary to the scale proposed for the special poor districts—£250 to £450 per annum.

If, then, we hold on to the 50 per cent. grant in the best districts of Ireland it is possible to construct a "sliding scale" of State grants, say in three or four categories, running from £50 paid by the local rates and £50 paid by the State, to £50 paid by the rates and £100, £150, or £200 paid by the State. Always providing that no diminution of the 50 per cent. rate in the best districts is made.

It is universally admitted that the poor-rates of these distressed districts are unable to contribute in any further marked degree to the medical officer's salary, and the only refuge then is in the central funds of the State, the State recouping itself by cutting down other less-needed services, as will be dealt with in the section on finance.

Let it be assumed that there are 100 appointments in the congested districts which ought to be scheduled as "special grant districts." The Lord-Lieutenant of Ireland, who can now proclaim a district anywhere in Ireland as congested if its valuation falls below a certain standard, should in the same way have power to schedule any dispensary district as a special district for the higher rate of grant in aid in any part of Ireland, not only within but also outside the congested districts. The State should recoup itself by cutting down all

useless expenditure within these special districts. With four grades of Government grant—say, £30, £100, £150, and £200 a year—it would be possible to classify all Ireland with reference to the £50 charged to the rates in each case. Roughly, it would mean that each dispensary medical officer must manage, speaking financially, to eat up three Irish police constables—a most easy meal to digest.

XIV.—THE ORGANIZATION OF AN IRISH MEDICAL SERVICE.

In dealing with the problem of the organization of the Poor-law dispensary system it is necessary to say that no solution will be full and final that is not liberal in its conception, just in its pay rates, and so mouldable as to fit into all the varying details of Irish life. Any mere patchwork scheme of a small increase of pay and a small pension will never be a final solution. The dissatisfaction which now exists will be far greater in five years' time, and it is essential that the question be fully dealt with not only for the sake of the medical officers, but for the sake of the Irish people. There is not a man in Ireland who understands the problem who, while he agrees as to the definite grievances of the dispensary medical officers and asks for betterment for them, does not in the same breath ask for an improvement in their scientific efficiency and a levelling-up to more modern scientific standards. It was often said to me: "I quite agree with the need of better pay and prospects, but there is also need of more professional efficiency," so that even if the medical officers were to-day satisfied with a small pay increase, and a pension, the public would in a few years call for reform. It is wiser to grasp the nettle boldly and ask for a final settlement that will last for many years before needing review.

All paltry reforms would be a mere patching up of the defective and obsolete schemes of the Medical Charities Act of 1851. Ireland wants an Irish medical service with all the equipments of such a service, and some means of inducing good medical men to remain in Ireland. In 1841 physicians and surgeons in Ireland numbered 3,871; in 1881 there were 2,470 males in the medical profession in Ireland (physicians and surgeons) in 1901 the number of males as physicians and surgeons was 2,201, and of these 333 were over 65 years of age. There was an increase in certain city centres but a decrease of 10 to 30 per cent. in the country districts. In 1891 the number of medical students was 1,615, in 1901 the number had fallen to 1,285. The Roman Catholic medical men in 1881 numbered 968; in 1901, 948; and the Catholic students in 1891 numbered 949, but in 1901, 575. The young men of Ireland go largely to the Catholic priesthood and the Bar. Thus, in 1891 there were 16,155 persons, male and female, in the clerical profession in Ireland, namely:

Catholic element	[illegible]
Non-Catholic	[illegible]
Total	[illegible]

In 1901 there were in the same profession:

Catholic element	[illegible]
Non-Catholic	[illegible]
Total	[illegible]

Being an increase of 2,222 in the Catholic element and of 30 in the non-Catholic element.

Putting aside the increase of nuns, which amounted to over 1,300, and the Catholic clerical students, which amounted to over 300, the actual increase of secular priests was 200, and of monks 250—a decrease of 350 clerics of this church. In the same decade barristers and solicitors rose from 848 to 971—an increase of 123 persons. It would be interesting to know accurately the numbers of medical men in Irish rural districts to-day and fifty, forty, and thirty years ago. A considerable decrease would be apparent.

A profession thoroughly badly treated in Ireland and exposed often to salary increases is replying in a very sure way to ill-treatment and ill-paid success—namely, in the emigration from Ireland. Politics and religion mixed up in elections to appointments are doing great damage to the medical profession in Ireland, and all apart this. It is for these reasons I think a rather urgent inquiry is needed into the whole matter, and I suggest the following measures of reform.

1. *Medical Commissioner.*

This official, who is the head or Director-General of the State Medical Service of Ireland, should receive a salary of £2,000 a year, and in his Dublin office there should be a sanitary specialist and a medical specialist, with adequate salaries, to act under his orders. He further needs a general secretary, also a medical man, to keep him in touch with the medical service and with medical opinion.

2. *Provincial Inspector-Generals.*

Four officials are needed as provincial inspector-generals, to be located at Dublin, Cork, Belfast, and Galway. They should make inspections and be vested with certain powers delegated from the Local Government Board in Dublin. These gentlemen should receive salaries of from £1,000 to £1,200 a year, with travelling allowances.

3. *County Inspectors.*

Twenty county inspectors are needed in Ireland—twelve for the twelve largest counties, and eight for the twenty smaller counties. They should be paid from £600 to £800 a year, and live in constant touch with their counties, inspecting all medical and sanitary work, and knowing all the district medical officers intimately from constant association.

4. *Workhouse Infirmary Medical Officers.*

They should be amalgamated with the dispensary medical officers into one service. The workhouse medical officer should be consulting medical officer for the whole of the union, and should have the same gradations of pay as the dispensary medical officers, whether for medical or sanitary duties. No medical officer should be appointed to charge of a workhouse infirmary under seven years' dispensary service. The title of the workhouse infirmary should be changed to district hospital or other title, omitting the word "workhouse." The fabric should in any case be removed as opportunity offers from the workhouse enclosure, and made a separate institution. The county infirmary medical officers should also belong to the Irish medical service, and to share in all pay advantages, pensions, etc.

5. *Dispensary Medical Officers.*

The medical officers for the dispensary districts should be chosen by competition at an examination held periodically in Dublin under the control of an Advisory Board of 10 members, four being medical men nominated by medical bodies, four being Members of Parliament for Ireland, four being members of county councils, one from each province, and four being chosen by the Lord Lieutenant. This Board would publish the lists of successful candidates in order of marks gained, and candidates should have choice of counties or provinces in order of their success at the examination.

6. *Preliminary Period.*

Every successful candidate should be required to go through a three months' course of sanitary science, and to see the workhouse organization of Belfast or other central town, and the actual practical routine of sanitary work in a large city under the official health officer.

Probationers should be employed at £200 a year, as *locum tenens*, or to act for medical officers detached for post-graduate study, and should have the right to remain on as probationers until a vacancy occurred in the province or county they desire.

The right of exchange from county to county should be recognized, but a medical officer exchanging into a county should become junior in the list of medical officers in the county.

7. *Post-graduate Course.*

All medical officers should have a post-graduate course before completing eight years' service. The course should be of four months' duration at a recognized school and should be followed by an examination, on the passing of which the receipt of any increase of pay should depend. An officer not passing before the twelfth year should be required to retain his appointment. Five shillings a day extra pay should be allowed during the post-graduate course, and the lectures should be free.

8. *Increase in Dublin Hospitals.*

Every officer obtaining the D.P.H. should have his pay as health officer raised to a minimum of £50 with yearly increments till it reached £300.

9. *Workhouse Infirmary.*

The post of medical officer to the workhouse infirmary

should be open to all medical officers serving in the county by seniority, unless grave reasons to the contrary existed.

10. *Retirement by Age.*

All medical officers should be required to appear before a Board at 60, and, if found fit, be allowed to serve on to 62 years. Retirement should be compulsory at 62 from all medical executive appointments.

11. *County Inspectorship.*

All medical officers of the county or grouped counties in the smaller units should be eligible for the county inspectorship by seniority, unless special cause existed to the contrary, and this appointment should be the prize or reward open to the county unit of medical officers of the Irish medical service.

12. *Leave.*

Every officer should be entitled to one month's leave with full pay yearly, and his substitute should be paid.

13. *Horse Allowance.*

The £200 a year pay on entrance should include the keep of one horse, to be used for distances within a certain circuit of the dispensary. If the district exceeded fifteen square miles a second horse allowance of £45 a year should be paid automatically,

14. *Annual Reports.*

The Board of Guardians should be required to report annually to the Local Government Board as to satisfactory discharge of duties of all officers serving in their districts, and the officer should have the right to see the report. The county inspector should also report, and the provincial inspector-general should express an opinion.

15. *Provincial Inspector-Generals.*

These officers to be chosen from the whole of Ireland by special selection.

16. *Registration Duties.*

The dispensary or district medical officer should be *ex-officio* registrar of his district, and receive pay of not less than £15 a year in addition to his registration fees.

17. *Private Practice.*

There should be no limitation of private practice, nor of charge of troops, coastguard, or lighthouse employés. The medical officer in charge of police should be paid a mileage-rate by the State for police visits made over three miles from his dispensary, as if he were a constabulary officer.

18. *Medical Officer of Health.*

The district dispensary officer should be the medical officer of health for his district, but all executive action after report should be taken by the county medical officer and his executive staff.

19. *Increase of Corps Officers.*

A gradual increase of the dispensary medical staff by two extra officers should be considered, so as to reduce the size of districts and do away with out-dispensaries and dépôts.

20. *Clerk, Dispenser, and Registry Clerk.*

A body of men should be formed out of army and police pensioners to act as dispensers, sanitary and registration clerks, and to live at the dispensary as caretakers. Until such a class of men is developed one such clerk should be employed as dispenser at the district workhouse infirmary, and should visit the out-stations every month, and keep charge of all medicines and medical documents. Pensioner sergeants of the Royal Army Medical Corps should be considered in making such appointments.

21. *Fees from Private Patients.*

In consideration of the increase of pay the medical officers should agree as to a reasonable rate of fees to all classes of private patients in their districts.

22. *Congested Districts and Specially Scheduled Districts.*

The pay-rates should be on the higher standard £250, rising to £450 a year in the congested districts. Within these districts a house should always be included in the allowances, or in its absence an allowance made for house rent at Royal Irish Constabulary rates. The constabulary rates should be the guide in all new decisions as to forage, rent, and servants' charges.

23. *Dispensary Buildings.*

A better type of dispensary buildings should be built and a standard plan competed for and issued as a guide to Boards of Guardians. In it an office for the medical officer separate from the drug-compounding room would be an essential.

24. *Cottage Hospitals.*

A cottage hospital adjacent to the dispensary and dispenser's quarters should be a definite part of each dispensary district equipment, with residence for hospital nurse, district nurse, and district midwife.

25. *Attendance at Congresses.*

A certain number of medical officers should be sent as delegates to Medical Congresses annually, and medical journals and the means of forming libraries for the district should exist at each workhouse infirmary.

26. *Workhouse Infirmary to be the Scientific Centre.*

This district hospital should be the scientific centre of the district, and have a suitable laboratory and instruments for bacteriological and clinical inquiry. The fever hospital should be the infectious disease department of these hospitals.

(*a*) The appointments of honorary physicians and honorary surgeons to the Lord-Lieutenant of Ireland should be open to a certain number of Poor-law medical officers, say six in each class, medical and surgical.

(*b*). The Order of St. Patrick should be widened out in its organization like the Order of the Bath, so that special services to the State in Ireland may be rewarded.

XV.—THE PAY-RATES OF IRISH PUBLIC OFFICIALS.

It is essential to discuss briefly the pay-rates and salaries of other branches of the public service in Ireland, so as to form a just idea of how the State deals with its Irish servants, always excepting its dispensary medical officers.

It is a trite saying that Ireland is a poor country. It has no coal to speak of, no iron, little manufacture, a precarious business like agriculture carried on in a very defective workshop—namely, an open country swept by Atlantic storms. But trite sayings do not at all times apply all round, and Ireland, certainly so far as the salaries of its official classes are concerned, does not appear to be a poor country either as regards the number or the pay of these officials. It must be stated that the officials referred to are mainly those employed in the maintenance of law and order. While everywhere in Ireland one hears complaints as to the burden of imperial taxation and the need of reconsidering the financial relations with the "predominant partner" England, there is a general agreement that in the cost of the maintenance of the heavy judicial establishments a definite cutting down of expenditure is not only possible but desirable.

The dispensary medical officers see this very clearly, and it is probably from such retrenchments that money will be in part obtained for their ultimate benefit. The opinion seems to be that, with the hoped-for dawn of a new era of progress and order in Ireland, the law establishment can be reduced. If the dispensary medical officers really desire such economies in the hope of future benefits to themselves, it seems clear that they must ally themselves with some political party which has these aims; they cannot stand neutral in such a struggle without falling between two stools in the end.

The Resident Magistrates.

These are a very numerous and well-paid body—some 70 in number. They draw excellent salaries and just allowances. Their pay is about £700 a year, and the general opinion is that their duties are extremely light. Better days are in store, it is said, for Ireland, and with the settlement of the land question crime, always so largely agrarian in character, will disappear. If the number of resident magistrates were reduced by one-third money would be obtained to build up the body of county medical inspectors of the Irish Medical Service, so needful in the Irish counties, who would act as medical officers of health in the counties.

The opinion that retrenchment in respect to these officials

is desirable is very generally held. Story after story is told of the easy-going life they lead, and the painful contrast their leisure shows to the night and day duties of the unfortunate Poor-law medical officers.

The Constabulary.

Then comes the great armed military police of Ireland—the Royal Irish Constabulary—with some 250 well-paid officers and a force of 10,570, with 252 head constables alone each paid like a dispensary medical officer and with a definite and more liberal pension.

The county inspectors draw salaries of from £350 to £450 a year with £50 forage for horse, £45 for servant and £50 for house rent. There are 36 county inspectors. Then comes a great army of 211 district inspectors with pay rising from £125 to £300 a year with forage, servants' allowance, and house rent. Then come the 252 head constables with £100 a year, uniform, and house accommodation.

Below these come the great army of constables drawing excellent salaries, £60 and £70 a year, with house accommodation and uniform, and assured pensions. It is evident that very considerable reductions can be made in the officers and men of this service who are everywhere in evidence in Ireland, but who seem not to have very onerous duties.

If each medical officer managed in his own dispensary district to reduce the police force, say by three constables, the means to give him a fairer pay would be found.

Other Services.

Comparisons have also been made of the pay given to the Crown and sessional Crown solicitors with that of the medical services. It is also pointed out that the State-paid teachers of national schools receive an income better than the medical officer, who has in addition to keep a horse and car and man servant to do his work.

There can be no doubt that in the very near future a change in the character of Irish State expenditure will take place. The moneys expended on force and order and law will decrease, and the great body of the people will gain by the expenditure so saved being diverted to medical and sanitary help and fuller educational facilities.

If the Irish medical men think in this direction then the sooner they arrange amongst themselves to combine and send to the Imperial Parliament a certain number of representatives to urge forward these views the nearer will the day of their betterment be. To stand waiting for the political Jupiter to pull their wagon out of the mire while they themselves give no help is a false position to occupy.

XVI. THE FINANCIAL ASPECT OF THE QUESTION OF BETTERMENT.

It was most unfortunate that when the Irish Protestant Church was disestablished at least two millions of the money which then became available was not devoted to medical and sanitary work in Ireland. This sum at 2½ per cent. would have given some £54,000 a year to increase the efficiency of the Poor-law Medical Service and to improve the well being of its medical officers.

When it is remembered that £1,000,000 was granted for educational purposes and £1,300,000 to the national school teachers to form a pension fund, it is astonishing that no one spoke a word for the Poor-law and Dispensary Services—a weakly organized, badly disciplined profession, unable to combine for its own benefit, which, in the end is the benefit of the public—was unready at that epoch to urge its claim; and [illegible] golden opportunity is gone, and we are reduced to expedients more likely to encounter opposition.

I [illegible] facts should be borne in mind throughout this chapter:

(*a*) *The Valuation of Ireland.*—The Poor-law valuation of Ireland is [illegible] (*Local Taxation (Ireland) Returns* 1901-2, p. 17).

(*b*) *Value of a Penny Rate in the Pound on above Sum.*—£52,230.

(*c*) *Total Cost of Dispensary Medical Officers, including Payment for Dispensary Stores and Extra Duties*—£49,146.

(*d*) *Total Cost of the Medical Officers' Salaries that of the Medical Officers of the Workhouse Infirmaries added*—£117,334.

(*e*) *Amount that above Cost expressed in Farthings in the Pound of Valuation*—1·87d.

(*f*) *Cost of each £10 added to the Salary of Every Workhouse Infirmary and Dispensary Medical Officer in Ireland Yearly.*—0.16d. Thus the rate after adding £10 to each medical officer's salary, whether workhouse or dispensary, would be 2.03d. With an annual increase of £50 the rate would be 2.67d. in £, and with an increase of £100 it would be 3.47 in £.

(*g*) *Payments from State Funds.*—But the State already pays 50 per cent. of the cost of the sums referred to in Par. (*c*) cost of dispensary medical officer, and (*d*) cost of dispensary medical officer and workhouse medical officer, reducing the cost of the dispensary medical officer to £49,573 yearly, and the total sum to £58,667 yearly, so that the total cost to local rates of all medical officers workhouse and dispensary comes to less than 1d. in the £ on the valuation (by some £4,000).

(*h*) *Section VI. of the Local Government Ireland Act of 1902.* (2 Edward VII, cap. 7). Up to the date of the passing of the above Act amending the Local Government Act of 1898, the State paid 50 per cent. of all medical officers' salaries, and all increases in those salaries proposed by the guardians, if approved, were also paid to the amount of 50 per cent. by the State, but the Act of 1902 stopped this and fixed the payments to be made at the amounts paid in a fixed standard year 1902. As a result of this rule all increases of pay sanctioned by the guardians have now to be paid in full out of the local rates. This greatly checks increments. This section (VI) then of the Local Government Act of 1902 needs to be repealed in justice to the medical officers and the rates. At once on its repeal the amount of any increase of the medical officers' salary would become as to 50 per cent. a charge on the State, and in the same proportion 50 per cent. on the rates, provided the Treasury sanctioned the increase, or that the Local Taxation (Ireland) account, practically a sub-fund of the Consolidated Fund, was increased to meet these estimated pay increments.

(*i*) *Indefiniteness of Present Estimates.*—Owing to the want of definite fixed rules as to the payment of salaries of the Poor-law medical officers of both the workhouse and the dispensary sections, and the constant changes arising in these rates from the variation in the views of each Board of Guardians, it must be difficult for any State department to estimate in advance the cost of Poor-law Medical Services, since the increase is largely produced by uncertain and varying causes.

(*j*) *An Apparently Easy Solution.*—Looking back to Par. (*b*), in which it is stated that an increase of 1d. on the rates would bring in £62,820 a year, and assuming that Section VI of the Local Government Board Act, 1902, was cancelled, it is evident that at a cost to the State of £58,667, and the cost to the country of 1d. increase in the rates, the pay of the whole body of the workhouse, infirmary and dispensary medical officers would be doubled. This seems on the surface an easy solution, but in reality it would only hide the wound and not deal fully with it. It does not deal with superannuation, which if rigidly enforced must cost money. It does not deal with the gradual annual rise of the medical officers' pay to a suitable standard, it omits any action about the county medical officers of health, a vital and fundamental question, and it leaves untouched the whole burning subject of the congested and poverty stricken districts of the north west and west of Ireland. It may be accepted, and probably many of the guardians would advance thus far, but as a cure for Irish medical grievances it would, in my opinion, be futile.

(*k*) *Cost of Post-Graduate Course.*—Every medical officer should pass through a post graduate course of at least three months before the termination of his eighth year of service. The teachers of this course would need salaries, and the medical officer would need a grant of about £25 for three months' extra expenses of living at a collegiate centre. His place in the country district would also need to be filled at a cost of 4 guineas a week or, say, 52 guineas and this would be needed by from 30 to 50 officers yearly, and would cost the country some £3,000 a year, if we take an estimate of 50 officers and of £1,000 for professors' fees and teaching charges.

(*l*) *Revision of Financial Relations between England and Ireland.*—There is no doubt that, considering the relations of England and Ireland and the constant discussion as to financial relations, it would be a statesman like act of the Treasury to deal favourably with the position of the Poor-law medical officers. There is not in Ireland a class who do harder work for the State nor is there a class more level headed, less given to religious bigotry or national prejudice. Educated men, they see through much of the sectarian bigotry that curses Ireland and in their houses one seems to have reached a quiet haven after the stormy sea of bitter disputes and angry passions. The effect of making such a body

of Irishmen contented and happy would be far-reaching, and would well repay the indicated expenditure. With a thorough devotion to Ireland, they are in touch with the empire and the world through their profession, and the more they study that the wider will still be their outlook, and the better element they will be in the country they have served so well.

Rough Estimates of Reorganization Cost.

Nothing final can be done for these officials without disbursement of public money.

1. If we add the 130 workhouse medical officers to the 810 dispensary medical officers we have, say, 940 officials. Their cost to the country, whoever pays, will not be much under £300 a year each. This is equivalent to a sum of £282,000 yearly.
2. If Ireland be asked for a 1d. rate it will produce £94,000.
3. This leaves £188,000 to be met by the State, but teaching the officers will cost £5,000 a year, and it may be estimated that 100 officers in the congested districts need each £150 expenditure above the average countryside. These two sums equal £20,000, and raise the cost £208,000 a year.
4. But the service is notoriously undermanned, and will need 100 officers at £300 each yearly, say £30,000. Twenty county inspectors at £600 each will cost £12,000, and the head-quarters and provincial staff will cost £5,000. This raises the expenditure to £253,000.
5. If we estimate superannuation as costing one-tenth, it will be necessary to add £25,000, which raises the total to £278,000.
6. But the State already pays £58,667 yearly as the 50 per cent. proportion of existing charges, and, deducting this, we find a final charge of £219,333 to be met.
7. To balance this expenditure let other items of Irish expenditure be reduced as follows:
8. Let the expenditure on the Judicial Bench be reduced by £5,000, and so pay for the head-quarters and provincial staff we have asked for.
9. Let 20 resident magistrates at £600 each be reduced: this pays for the 20 county inspectors needed, namely, £12,000.
10. It will be necessary to reduce the constabulary officers by 100 at £200 each; this will produce £20,000 as a help to pay for 100 medical officers at £300.
11. As the country is now much quieter, let the constabulary be reduced by 3 men for every medical officer employed, say, 960. This implies a reduction of 2,500 constables at £70 a year each, which produces £185,000. If we add these sums together we obtain £223,000, which more than pays the extra cost.

It may be anticipated that it will be on lines like this that one day the Irish Medical Service will be put on a definite footing. Of couse, we must ever bear in mind that a 1d. rate produces in Ireland £62,829, so that by raising the rate another 1d. it would be easier still to meet the cost of the medical service.

Whatever scheme is introduced it is improbable that it could be made effective at much less cost than is proposed here. And the proposal that Ireland should pay a heavier rate in the pound is merely an attempt to make all Ireland combine into a kind of sick club for her own benefit. It is impossible without State aid to form such a co-operative union; but a State medical service on the lines proposed is practically such a union or club. It would induce a number of efficient medical men to remain in Ireland: it would offer them a progressive salary and a pension on retirement. It would institute an inspectorial system and a discipline based on a corporate service. It would arrange for systematic facilities for study and the provision of laboratories, etc.

XVII.—CONCLUSION.

This report may now be brought to a conclusion. At first, on visiting Ireland, the matter seemed to be a small affair, easily dealt with. After travelling through the country, and meeting many people, the magnitude of the question was clearly perceived.

It is not a mere question of the well-being of a group of dispensary medical officers. The very existence of the medical profession as an effective factor in the national life of Ireland is at stake. The Poor-law medical officers are so considerable a body in Ireland that anything that affects their well-being affects the medical profession as a profession more than in most countries. The State is brought into closer relations with the medical profession in Ireland than in most countries.

From the statements made in the report the reader can form an opinion of how far the State through its responsible officials has understood its duties and its responsibilities towards that profession.

It has not understood the responsibility aright, and hence it stands blamable for the existing conditions in Ireland, conditions of great gravity and highly injurious to the Irish people as a nation.

Personal inquiries were made of all classes of the community. Many Bishops of the Protestant and Catholic Church, landlords and tenants, guardians and electors, priests and parsons, officials and non-officials, the chance visitor met in the railway carriage or at the hotel table, the views put forward are the result of conversations with these many men. The leaders of the medical profession have been fully consulted in all the centres where medical men form any important group of the profession. They all agree as to the need of reform.

With the medical officers of the workhouse infirmary and the dispensary relations have been close and thorough. I have seen their devoted services and driven with them in the storm and the rain round the battlefield of their splendid struggle against disease and insanitation.

I have learned to respect them deeply, and I can never forget their many grievances, their splendid devotion to Ireland, their humanity, their broad views in the land of narrow views. The medical profession in Ireland contains the most level-headed, the least bitter in religious animosities, and the most just-minded men in the land, and with just treatment they must come to the front. The struggle will be long and trying, but they must never despair, and as the years go on victory will surely come if they stand up as they do for humanity, progress, and all that means betterment for the Irish people.

In all my efforts to see correctly in the land where vision is liable to constant error I have had before me only one hope, but that is a splendid hope: that as the result of this inquiry some help may come to him—the ultimate Irish peasant—who has suffered in the past and still suffers so much. If my work tends in any way to his betterment I shall not have laboured in vain. I say with fervour "God save Ireland!"

Printed for the Irish Government by Eyre & Spottiswoode, Printers to the King's Most Excellent Majesty, and Published at the Offices of the Stationery Office, No. 550 Strand, or the Parliament Square, Dublin.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

PROCEEDINGS OF COUNCIL

REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

MEDICAL BILLS IN PARLIAMENT

PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL

REPORT ON THE POOR-LAW MEDICAL SYSTEM IN IRELAND,

ETC.

VOLUME I 1904.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

INDEX TO SUPPLEMENT FOR VOLUME I, 1904.

A.

Aberdeen Branch. See Branch
Abstracts of papers introducing discussions at annual meeting, previous publication of, 120
Act, the Midwives, payment of fees under 106
—— the Pharmacy, proposed amendment of, 5
—— Workmen's Compensation, proposed extension of, 111
Address on medical organization by Mr. J. S. Whitaker, 21
Advertisements, trade, the General Medical Council and, 8, 111; in the BRITISH MEDICAL JOURNAL, 20
Advertising of medical practitioners in connexion with hydropathic establishments, 9, 44, 83, 84, 85, 86, 133, 134, 135, 162, 164, 186, 187, 188
Amendment of Articles and By-laws, 16, 18
Announcements, medical, 8
Annual meeting. See Meeting
——— Meeting (Sections) Committee. See Committee
Articles, amendment of, 16, 18
Assistant Secretary Committee. See Committee
Association, British Dental, and the Medical Acts Amendment Bill, 4
——— British Medical, direct representation of on the General Medical Council, 5, 162, 186; memorandum on receipts and expenditure of, 9

B.

Balance-sheet for 1903, 98
Bath and Bristol Branch. See Branch
Bayliss, Professor, congratulations of Council to, 2
Bill to amend constitution of Local Government Board, draft of, 7
—— to amend Vaccination Acts, text of, 41
—— the Coroners', the Coroners' Society and, 4, 6
—— Death Registration Acts Amendment, proposed provisions of, 4
Local Government Board, text of, 35
—— Local Government (Scotland) Act 1894 Amendment, text of, 92
—— Lunacy Acts Amendment, text of, 140
—— Medical Acts Amendment, the British Dental Association and, 4; text of, 40; explanatory memorandum on, 125; revised draft of, 127; schedule, 131
—— Pharmacy, text of, 42
—— Poor-law Medical Officers (Ireland) Superannuation, text of, 92
—— for Registration of Nurses and of Private Nursing Homes, text of, 37
—— to Regulate the Qualification of Trained Nurses and to Provide for their Registration, text of, 38
—— Revaccination, text of, 40; report to Council on, 103
—— Weights and Measures (Metric System), text of, 41
Bills, Nurses Registration, memorandum on, 106
Birmingham Branch. See Branch
Board of Education, the, and instruction in hygiene and temperance, 115
——— Local Government, proposed deputation to on vaccination legislation, 2, 6, 7; the reconstitution of, 7, 103; draft of Bill to amend constitution of, 7
Border Counties Branch. See Branch
Boundaries of Divisions and Branches, 15, 112
Branch, Aberdeen, annual report of, 77
——— Bath and Bristol, annual report of, 77
——— Bath and Bristol, Bath Division, consultations between medical witnesses, 83; medical practitioners and hydropathic institutions, ib.; new member, ib.
Branch, Bath and Bristol, Bristol Division; annual meeting, 188; election of officers, ib., annual report, ib.; alteration of rules, ib.
——— Bath and Bristol, Trowbridge Division, paper, 19; letters of apology, ib.; a question of ethics, ib.; election of officers, 190; area of the Division, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, 191; the Association and medical defence, ib.
——— Birmingham, confirmation of minutes, 19; inclusion of Walsall in the Central Division, ib.; annual report of, 78
——— Birmingham, Coventry Division, annual meeting, 133; matters referred to Divisions, ib.; new rule, ib.; election of officers, ib.
——— Birmingham, Nuneaton and Tamworth Division, consultation between medical witnesses, 191; the Association and medical defence, ib.; medical practitioners and hydropathic establishments, ib.
——— Border Counties, meeting of, 27; annual report of, 78
——— Border Counties, West Cumberland Division, the late Dr. Ormerod, 19; next meeting, ib.; communications, ib.; Medical Acts Amendment Bill, 20; annual meeting, 83; election of vice-chairman, ib.; communications, ib.
——— Brisbane and Queensland, annual meeting, 20; election of officers, ib.; report of council, ib.; presidential address, ib.; vote of thanks, ib.
——— British Guiana, financial statement of, 83
——— Burmah, financial statement of, 118
——— Cambridge and Huntingdon, annual report of, 78
——— Cape of Good Hope, financial statement of, 83; the late Sir W. Fergusson, 197; proposed chairs of anatomy and physiology, ib.; amendment of Medical Acts, ib; paper, ib.
——— Cape of Good Hope (Eastern Province), confirmation of minutes, 197; purchase of microscope, ib.; communications, ib.; new rules, ib.; area of the Branch, ib.; name of the Branch, ib.
——— Colombo, Ceylon, paper, 27; specimens, ib.; confirmation of minutes, ib.; letter from General Secretary, ib.; clinical cases, ib.; vote of thanks, ib.; the notification of infectious diseases, ib.; the late Dr. T. Morgan, ib.; colonial medical library, ib.; the BRITISH MEDICAL JOURNAL, 27; communications, ib.; financial statement of, 83
——— Dorset and West Hants, annual report of, 78; annual meeting of, 133; vote of thanks, ib.; vote of condolence, ib.; address, ib.; vote of sympathy, ib.; communication, ib. summer meeting, ib.; luncheon, ib.
——— Dundee, annual report of, 78; the Association and medical defence, 196; election of officers, ib.; annual representative meeting, ib.; International Congress on Home Relief, ib.; vote of thanks to president.
——— East Anglian, annual report of, 79; spring meeting of, 117
——— East Anglian, Norwich Division, report of, on medical examinations for life assurance, 83
——— East Anglian, South Essex Division, annual meeting, 188; medical practitioners in hydropathic establishments, ib.; consultation between medical witnesses, ib.; election of officers, ib.
——— East Anglian, North Suffolk Division, annual meeting, 191; confirmation of minutes, ib.; election of officers, ib.; report of Executive Committee, ib.; paper, ib.; matters referred to the Divisions, ib.
——— East Anglian, South Suffolk Division, annual meeting, 193; election of officers, ib.; ethical rules, ib.; annual representative meeting, ib.; medical certificates, ib.; election of representative, ib.
——— East Anglian, West Suffolk Division, election of representative 193
Branch, East York and North Lincoln, annual report of, 79
——— Edinburgh, annual report of, 79
——— South-Eastern Counties Division, annual meeting, 195; confirmation of minutes, ib.; letters of apology, ib.; election of office-bearers, ib.; executive committee, ib.; meeting of Branch, ib; annual representative meeting, ib.; contract practice, ib.
——— Edinburgh, South Edinburgh Division, annual meeting, 133; confirmation of minutes, ib.; report of Council, ib.; treasurer's statement, ib.; amendment of rule, ib.; re-election of officers, 134; executive committee, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, 133, 195; the post of medical officer of health, Edinburgh, 133; the out-patient department of the Royal Infirmary, 133, 195; vote of thanks, 133; adjourned annual meeting, 195; contract practice, ib.; letters, ib.; vote of thanks to chairman, ib.
——— Fife, annual report of, 79
——— Glasgow and West of Scotland, annual report of, 80; annual meeting, 188; introduction of new president, ib.; reports, ib.; election of officers, ib.; vote of thanks to retiring president, ib.; Mr. Andrew Clark at, ib.; demonstration, ib.; dinner, ib.
——— Glasgow and West of Scotland, Glasgow Southern Division, medical practitioners and hydropathic establishments, 134; consultation between medical witnesses, ib.
——— Glasgow and West of Scotland, Lanarkshire Division, annual meeting, 192; confirmation of minutes, ib; election of officers, ib.; vote of thanks to retiring honorary secretary, ib.; the Division and representative meetings, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; ethical rules, ib.; contract medical practice, ib.
——— Gloucestershire financial statement of, 118; confirmation of minutes, 134; the Association and medical defence, ib.; medical practitioners and hydropathic institutions, ib.; medical witnesses, ib.
——— Grahamstown and Eastern Province, special meeting of, 28; the admission of visitors, ib.; proposed medical library, ib.; new members, 28, 117; annual meeting, 28; confirmation of minutes, 28, 117; secretary's report, 28; reports of meetings, ib.; financial statement, ib.; election of officers, ib.; vote of thanks to retiring president, ib.; the annual meeting at Oxford, ib.; the South African Branches, ib.; revision of rules, ib.; annual report of, 80; Branch library, 117; draft rules, ib.
——— Hong Kong and China, annual meeting, 28; confirmation of minutes, 28, 196; financial statement, 28; election of office-bearers, ib.; new members, 28, 196; by-laws, ib.; election of representative on General Council, ib.; retiring president's address, ib.; introduction of new president, ib.; dinner to Sir F. Treves, ib.; financial statement of, 83
——— Lancashire and Cheshire, annual report of, 80
——— Lancashire and Cheshire, Altrincham Division, confirmation of minutes, 20, 29; reports of officers and committees, 20, 29; financial statement, 20; matters referred to Divisions, 20, 29, 84; Education Committee, 20; dinner, 20, 29; boundary, 29; circular letter, ib.; ethical rules, ib.; alcoholic poisoning, ib; Pharmacy Act, ib., work of the Division, ib.; annual meeting, 134
——— Lancashire and Cheshire, Blackburn Division, annual meeting, 135; annual report, ib.; meeting of Branch, ib.; election of officers, ib.; resolutions, ib.; vote of thanks, ib.; committee meeting of, 190; confirmation of minutes, ib.; excursions, ib.; club practice, ib.; entertainment of Branch ib.; annual representative meeting, ib.

Branch, Lancashire and Cheshire, Blackpool Division, special meeting, 28; circular to non-members, ib.; rules of the Division, ib.; matters referred to Divisions, ib.; annual meeting, 188; confirmation of minutes, ib.; report of Executive Committee, ib.; election of officers, ib.; matters referred to Divisions, ib.; annual representative meeting, ib.; contract practice, ib.

Lancashire and Cheshire, Burnley Division, annual meeting, 192; election of officers, ib.

Lancashire and Cheshire, Chester Division, annual meeting, 17; confirmation of minutes, ib.; committees' report and financial statement, ib.; election of officers, ib.; consultation between medical witnesses, ib.; other business, ib.

Lancashire and Cheshire, Liverpool Border Division, annual meeting, 189; election of officers, ib.

Lancashire and Cheshire, Liverpool (Western) Division, annual meeting, 189; report of executive committee, ib.; election of officers, ib.

Lancashire and Cheshire Branch, Preston Division, annual meeting, 189; confirmation of minutes, ib.; election of officers, ib.; the Association and medical defence, ib.; the Medical Acts Amendment Bill, ib.; medical practitioners and hydropathic establishments, ib.; consultation between medical witnesses, ib.; Conjoint Board Examinations, ib.; new members, ib.; Council of Association, ib.; annual representative meeting, ib.

Leicester, annual report of, 89; annual meeting of, 135; report of council, ib.; election of officers, ib.

Mid and Mediterranean, consultation at [illegible] vote of thanks, ib.; annual report of, 89; financial statement, ib.; election of officers, ib.; representative on Council, ib.; delegates to annual meeting, ib.; grievances of Medical Officers of Health, ib.; meetings, ib.; compulsory vaccination, ib.; prizes, ib.

Metropolitan Counties, Division and [illegible] Inspectorships, ib.; reports, ib.

Metropolitan Counties, Central Division, matters referred to Divisions, advertisements, &c., in the British Medical Journal, ib.

Metropolitan Counties, Chelsea Division, financial meeting of, 24.

Metropolitan Counties, City Division, annual meeting of, 24; election of officers, ib.; report of executive committee, ib.; medical defence, ib.; representative meeting, ib.; medical practice, ib.; Medical Acts Amendment Bill, ib.; vote of thanks, ib.

Metropolitan Counties, Hampstead Division, [illegible] matters referred to Divisions, ib.; letters, ib.; business, ib.; election of officers, ib.

Metropolitan Counties, Marylebone Division, annual meeting, 24; election of officers, ib.; report of executive committee, ib.; the Association and medical defence, ib.; Medical Acts Amendment Bill, ib.; representative meeting, ib.; Medical Council, ib.; medical practice and hydropathic establishments, ib.; consultation between medical witnesses, ib.; annual meeting, ib.; election of officers, ib.; vote of thanks, ib.

Metropolitan Counties, St. Pancras Division, medical men in Parliament, 24; annual meeting, ib.; election of officers, ib.; report of executive committee, ib.; the Association and medical defence, ib.; Medical Acts Amendment Bill, ib.; representative meeting, ib.; Medical Council, ib.; medical practice and hydropathic establishments, ib.; consultation between medical witnesses, ib.; vote of thanks, ib.

Metropolitan Counties, Westminster Division, annual meeting, 24; election of officers, ib.; report of executive committee, ib.; the Association and medical defence, ib.; Medical Acts Amendment Bill, ib.; representative meeting, ib.; Medical Council, ib.; medical practice and hydropathic establishments, ib.; consultation between medical witnesses, ib.; vote of thanks, ib.

Midland, Leicester Division, annual meeting, 192; advertising, ib.; medical witnesses, ib.; vote of thanks, ib.; election of officers, ib.

Midland, Lincoln Division, confirmation of minutes, 124; balance-sheet, ib.; election of officers, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; associate members, ib.; votes of thanks, ib.

Munster, financial statement of, 52; confirmation of minutes, 52; medical practitioners and hydropathic establishments, ib.; Bill Registration of Nurses, ib.; memorandum of Exeter Division, ib.; new members, ib.; Council of Association, ib.; annual representative meeting, ib.

Natal, financial statement of, 52.

New Zealand, financial statement of, 52.

Northern England, election of members, 52, 161; deputation from the Northumberland and Newcastle Medical Association, 52; reports from Divisions, 52; financial statement, ib.; annual report of, 52; date of annual meeting of, 161; combination of Divisions for annual representative meeting purposes, ib.; resolution of the Northumberland and Newcastle Medical Association, ib.; Irish Dispensary Service, 162.

North of England, Tyneside Division, annual meeting, 192; confirmation of minutes, ib.; annual report, ib.; election of officers, ib.; clinical meeting, ib.; medical liability, ib.; medical defence, ib.; Hydropathic establishments, ib.; Canadian Medical Association, ib.; consultations between medical witnesses, ib.

Northern Counties of Scotland, annual report of, 52; financial statement, ib.; confirmation of minutes of the late Dr. Mackay, ib.; election of officers, ib.; representatives, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; Paul memorial fund, ib.

North Lancashire and South Westmorland, annual report of, 52.

North Lincolnshire and South Westmorland, Leicester Division, annual meeting, 161; election of officers, ib.

North Wales and Shropshire, financial statement, 52.

North Wales and Shropshire Denbigh and Flint Division, annual meeting, 52; election of officers, ib.; the Association and work of the Association, ib.; report of executive committee, ib.; annual representative meeting, ib.; Medical Acts Amendment Bill, ib.; paper, ib.; vote of thanks, ib.

North, Wales and Shropshire, North Carnarvonshire and Anglesey Division, annual meeting, 124, 161; election of officers, 124; report of executive committee, 124; annual representative meeting, ib.; the Association and medical defence, ib.; contract practice, ib.; Medical Acts Amendment Bill, ib.; dispensaries, 125; next meeting, ib.; vaccination laws, ib.; representative of Welsh Medical Association on the General Medical Council, ib.; medical practice and hydropathic establishments, ib.; consultation between medical witnesses, ib.; annual meeting, ib.; by-laws, ib.

Oxford and Reading, annual report of, 52; annual meeting, 52; financial statement, ib.; district, ib.; the Association and the profession, ib.

Perthshire, annual report of, 82.

South Eastern, Canterbury Division, combined meeting, 52; annual meeting of Branch, ib.; resignation of Divisional Secretaryship, ib.; Vaccination Bill, ib.; Medical Acts Amendment Bill, ib.; Conjoint Medical Council, ib.; hydropathic establishments, ib.; medical witnesses, ib.; medical defence, ib.

South Eastern, Cardiff and Welsh Valleys Division, confirmation of minutes, 52; annual meeting, ib.; matters referred to Divisions, ib.; district, ib.

South Eastern, Croydon Division, annual meeting, 52; election of officers, ib.; vote of thanks to retiring president, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; associate members, ib.

South Eastern, Eastbourne Division, annual meeting, 52; election of officers, ib.

South Eastern, Faversham Division, Medical Acts Amendment Bill, ib.; case for the Association, ib.; the Association and medical defence, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; paper, ib.

Branch, South Eastern, Folkestone Division, confirmation of minutes, 52; Vaccination Bill, ib.; Medical Acts Amendment Bill, ib.; representation on the General Medical Council, ib.; hydropathic advertisements, ib.; medical witnesses, ib.; medical defence, ib.; dinner, ib.; annual meeting, ib.; election of officers, ib.

South-Eastern, Hastings Division, annual meeting, 52; election of officers, ib.; case, ib.

South-Eastern, Horsham Division, annual meeting, 52; confirmation of minutes, ib.; election of officers, ib.; new members, ib.; medical practitioners and hydropathic establishments, ib.; consultation between medical witnesses, ib.; address, ib.

South-Eastern, Isle of Thanet Division, confirmation of minutes, 52; proposed combined meeting, 52; finances of Branches and Divisions, ib.; case, ib.; the Association and medical defence, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; vote of thanks, ib.; dinner, 52; annual meeting, 125; various business, ib.; election of officers, ib.; annual report and financial statement, ib.; annual representative meeting, ib.; additional meetings, ib.; executive committee, ib.

South Eastern Maidstone Division, annual meeting, 186; election of officers, ib.

South Eastern, Reigate Division, election of Dr. Hillman as honorary member, 52; vote of thanks, ib.; representative of Division, ib.

South Eastern, Sevenoaks Division, consultations between medical witnesses, 52; medical practitioners and hydropathic establishments, ib.; the Association and medical defence, ib.; conduct of [illegible] practice, ib.; standing orders, ib.; election of officers, ib.; medical examinations for school charges, ib.; district, ib.

South Eastern and Imperial, financial statement of, 52; annual meeting, 52; election of officers, ib.; address by chairman, ib.; luncheon, ib.

Southport, financial statement of, 52.

Southport and Ormskirk Division, annual meeting, 52; election of officers, ib.; medical defence, ib.

South Indian and Madras, financial statement of, 52.

South Midland, annual report of, 52.

South Midland, Aylesbury Division, annual meeting, 52; election of officers, ib.

South Midland, Bedford and Herts Division, annual meeting, 52; confirmation of minutes, 52; election of officers, ib.; Ethical Committee, ib.; vote of thanks to Dr. Rees, ib.; matters referred to Divisions, 52.

South Wales and Monmouthshire, annual report of, 52.

South Wales and Monmouthshire, Cardiff Division, local administration of the Midwives Act, 52; standing orders, ib.; the Midwives Act, ib.; annual meeting, 52; confirmation of minutes, ib.; election of officers, ib.; vote of thanks to retiring chairman, ib.; report of executive committee, ib.; annual representative meeting, ib.; the Bill of Dr. ib.; proprietary titles of drug preparations, ib.; private practice, ib.; consultation between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; vote of thanks, ib.; members present, ib.

South Wales and Monmouthshire, South West Wales Division, president's address, 52; confirmation of minutes, ib.; the work of the Division, ib.; election of officers, ib.; annual meeting, ib.; the Association and medical defence, ib.; consultations between medical witnesses, ib.; medical practitioners and hydropathic establishments, ib.; conduct of practice, ib.; the Midwives Act, ib.; University of Wales, ib.; Conjoint Board examinations, ib.; votes of thanks, ib.; [illegible], ib.

South Western, annual report of, 52.

South Western, Truro Division, annual meeting, 52; election of officers, ib.

Staffordshire, annual report of, 52; meeting, 52.

Staffordshire North Staffordshire Div

sion, annual meeting, 19 ; election of officers, ib.
Branch Stirling, annual report of, 82
——— Sydney and New South Wales, confirmation of minutes, 31, . lodge practice, ib., new members, , communications, 4
——— Ulster, confirmation of minutes, 31, 164 ; report of Council 1 , annual report of, 82 , the late Dr. Donaldson, 194 , new members, ib ; Irish dispensary doctors, ib , tea, ib
——— Ulster Belfast Division, annual meeting, 193 , exhibits, ib ; papers, ib , matters referred to Divisions, ib , election of officers, ib.
——— Ulster, Derry Division, annual meeting, 193 ; confirmation of minutes, ib ; election of officers, ib , the Association and medical defence, ib. ; consultation between medical witnesses, ib. ; medical practitioners and hydropathic establishments, ib ; treasurer's statement, ib.
——— West Somerset, annual report of, 5 ; confirmation of minutes, 5 , introduction of Mr. Parkinson, ib , hydropathic establishments, ib. : consultations between medical witnesses, ib , clinical cases, ib papers, ib.
——— Worcestershire and Herefordshire, medical defence, 118 ; consultations of medical witnesses, 118 , certificates C in cases of cremation, ib. ; clinical cases ib. : financial statement of, 115
——— Worcestershire and Herefordshire Worcester Division, annual meeting, 196 ; election of officers, ib. ; consultation between medical witnesses, ib. ; medical practitioners and hydropathic establishments, ib
——— Yorkshire, annual report of, 83
——— Yorkshire, Bradford Division, confirmation of minutes, 31 ; medical orgrnization, ib. ; contract medical practice, ib. , ethical rules, ib.
——— Yorkshire, Halifax Division annual meeting, 194 , the Association and medical defence, ib. ; medical practitioners and hydropathic establishments, ib ; consultation between medical witnesses, ib. ; election of officers, ib , vote of thanks, ib.
——— Yorkshire, Harrogate Division, election of officers 193 , committee, ib. ; the Association and medical defence, ib , consultation between medical witnesses, ib. ; hydropathic establishments, 194 ; contract practice, ib , dinner, ib
——— Yorkshire, Richmond and Northallerton Division, conjoint meeting of with Harrogate Division. (Which See)
——— Yorkshire, York Division, annual meeting, 194 , election of officers, ib
Branches, Colonial, representation of on Council, 2, 15 , rules of, 2, 4, 15, 16, 112 , ethical rules of, 3 ; boundaries, of, 15, 16 ; finances of, 15 ; report of Organization Committee on representation of on Council, 15 ; resolutions of Council as to grouping of 95 ; grants from to Divisions, 112 , grouping of, ib
Brisbane and Queensland Branch See Branch
British Dental Association. See Association.
——— Guiana Branch See Branch.
——— Medical Association. See Association
——— Medical Journal See Journal
Bulletins, correspondence as to, 8
Burmah Branch. See Branch
By-laws, amendment of, 2 , 15

C.

Cambridge and Huntingdon Branch. See Branch
Cape of Good Hope Branch. See Branch
Certificates leaving school 5 , medical, for school-children, 105
Charges by a member of one Division against a member of another, 9
Chaveen, school, medical certificates for, 105
Circular to honorary secretaries of Divisions, 107
Colombo Branch. See Branch
Colonial Branches. See Branches
——— Committee. See Committee.
Committee, Annual Meeting (Sections), proceedings of election of chairman, 15 ; recommendations, 15, 117
——— Assistant Secretary, proceedings of appointment of assistant secretary, 19 ; resolutions, ib.
——— Colonial, proceedings of : election of chairman, 15 ; supernumerary members, ib. , proposed Transvaal and Orange Colony Branches, 116 ; constitution of Committee, ib. ; medical registration in British colonies and dependencies, 117
——— Departmental, on Poor-law Medical Relief in Scotland, report of, 86
——— Ethical, proceedings of : medical men practising as dentists, 8 ; trade advertisements, 8, 111 ; bulletins, 8 ; medical announcements, ib. ; rules of Divisions and Branches, 9 , contract practice, , 111 , charges by a member of one Division against another, ib , the advertising of medical practitioners in connexion with hydropathic establishments, 9, 44 111 , reports of medical lectures in lay papers, ib , the title of "doctor, , ethical rules, 111 , special cases, ib
Committee Hospitals, proceedings of : election of chairman, 1 , hospital administration, ib ; proposed inquiry, ib. ; constitution of the Committee, 112 , hospital management, 112, 113 , rate support of general hospitals, ib.
——— Journal and Finance proceedings of : financial, 19, 111 , a popular lecture at the annual meeting, 19
——— Medical Defence, proceedings of : memorandum on income of association, 9 ; financial questions, 1 ; expenses of existing Defence Societies, ib. ; special subscription necessary, ib. ; adoption of the principle of medical defence, ib ; memorandum by the Treasurer, ib. ; consideration of recommendations, 11 draft scheme recommended to the council, ib , text of scheme of, 31 , explanatory memorandum, 32, 112 ; minority report, 33
——— Medico-Political, proceedings of : Coroners Bill, 4, 63 ; local organization, 4 , the Spectacle Makers' Company, ib ; Irish Poor-law medical officers, ib. ; the British Dental Association and the Medical Acts Amendment Bill, ib ; death registration, ib. ; Death Registration Acts Amendment Bill, ib. ; security of tenure of sanitary officers, ib. ; proposed amendment, of the Pharmacy Act, 5 ; matters referred from representatives' meeting, ib , medical witnesses, 5, 44, 105 ; direct representatives on the General Medical Council, 5 ; conference of with medical members of Parliament, ib ; contract practice, 5, 105 ; registration of nurses, 6 ; leaving school certificates, ib , conference of with Public Health Committee, ib. : Public Health Committee of, M.P.'s, 106 ; Nurses' Registration Bills, ib. ; Midwives Act, ib ; coroners, 107 ; registration of deaths and stillbirths, 107 , constitution of the Local Government Board, ib vaccination and revaccination, ib. ; dispensers in public institutions, ib. ; medical certificates for school children, ib. ; sight testing, ib. ; Medical Acts Amendment Bill, ib ; reports to Council on the Revaccination Bill, insurance fees, unduly repeated dispensing of prescriptions, and memorandum on Parliamentary matters of interest to the medical profession, 1 , the National Deposit Trading Society, 132 ; circular to honorary secretaries of Divisions, 107
——— Organization, proceedings of : rules of Divisions and Branches, 15, 1, 41 , boundaries of Divisions and Branches, 15, 16, 112 , Branch and Division Finance 15 amendment of Articles and By-laws, 15, 17 , Colonial Branches, 16 ; proposed Conference of Secretaries ib , scheme of as to Divisions of Metropolitan Counties Branch, ib. ; report of as to the representation of the Colonial Branches on the Council, ib. : memorandum as to representation of Colonial Branches on Council, 15 grants from Branches to Divisions, 112 , temporary vacancies, ib. ; Forest of Dean Section, ib : Division libraries and Division finance, ib. ; grouping of Branches, ib.
——— Premises and Library, proceedings of , report of librarian 15 , report of 117
——— Public Health, conferences of with Medico-Political Committee, 7 , proceedings of : vaccination 8 ; instruction, ib health and temperance, 8, 119, 111 , constitution of the Local Government Board, 11 overlying of infants, ib , vaccination and revaccination, ib , inspection, ib ; notification of infectious diseases, ib. ; Public Health Committee of M.P.'s, ib , security of tenure of medical officers of health 11 Workmen's Compensation Act, 111 , the scope of the Committee's work, ib.
——— Public Health of M.P.'s, formation of, 106, 110
——— Royal Naval and Military, proceedings of : Indian Medical Service 11, 111, 116 , memorandum by the Editor on the Indian Medical service, 12 War Office reconstitution, 114, 115 , British medical officers in Majors R.A.M.C in India, 115 112 resignation, 115
——— Scientific Grants, proceedings of : election of chairman, 15 ; research scholar, ib. ; inspection, ib.
——— Scottish, proceedings of election of chairman, 15 ; resolutions, ib. ethical questions, 112 , vacancies ib
Company, the Spectacle Makers', advertisements by Fellows of, 4
Conference in the matter of the coroner for South-West London, 109
——— on the ethical procedure of Divisions, 1, 10
Conference of Medico-Political Committee, with medical members of Parliament 5
——— proposed of secretaries, 16
Conferences of Medico Political and Public Health Committees, proceedings of , vaccination, , terseness of the conference, ib , reconstitution of the Local Government Board, 7 , security of tenure, ib , Local Government Board Bill, ib
Consultations between medical witnesses, 5, 44, 105, 111, 112, 113, 114, 115, 162, 164, 186, 187, 188, 189, 191, 192, 193, 194, 195
Contract practice, information as to, 6, 9 ; interim report to the annual representative meeting of, 107 , scheme for warning notices in JOURNAL as to, 111
Coroner for South-West London conference in the matter of, 109
Coroners, information to from medical practitioners, 107
Coroners' Bill. See Bill
——— Society See Society
Council, proceedings of, 1, 93 ; representatives of Colonial Branches on, 2, 15, 17 report of, 7
——— General Medical. See Medical
County Council of London, the, and the overlying of infants, 94

D.

Davidson, Dr. A., resolution of condolence on death of, 94
Death, registration of, 4, 107
——— Registration Acts Amendments Bill. See Bill
Defence, medical, memorandum by General Secretary on, 9 ; financial questions, 10 ; expenses of existing Defence Societies, ib , special subscription necessary, ib. ; adoption of the principle of, ib ; memorandum by Treasurer on, ib ; draft scheme of recommended to Council, 11 , the Monmouthshire Division on, 31 , text of scheme of recommended to Council, 31 ; explanatory memorandum as to, 32 ; minority report on, 33 ; resolution of Branches and Divisions as to, 31, 34, 35, 117, 118, 134, 135, 144, 162, 163, 164, 186, 196, 121, 162, 163, 164, 195, 197
Dental Section. See Section
Dentists, medical men practising as, 8
Departmental Committee. See Committee
Diseases, infectious, international notification of, 110
Dispensary medical service. See Ireland and Poor-law
Dispensers in public institutions, 107
Division, charges by member of against a member of another Division, 9
Divisions, rules of, 2, 4, 15, 16, 112 , boundaries of, 15, 16, 112 finances of, 15, 16, 17 , letters referred to, 20 ; conference on the ethical procedure of, 11 , grants from Branches to, 112 , libraries and finance of, 112 , circular to honorary secretaries of, 107
"Doctor," the title of, 9
Dorset and West Hants Branch. See Branch.
Dundee Branch. See Branch

E

East Anglian Branch See Branch
——— York and North Lincoln Branch See Branch
Edinburgh Branch. See Branch
Editor memorandum by on Indian Medical Service, 12
Elliston, Mr G. See General Secretary
Ethical Committee. See Committee
Ewart, Surgeon-General, co-opted member of Council, 4
Examinations medical See Medical
Excursions at the annual meeting at Oxford, 197 198

F

Fees, under Midwives Act, 106 ; insurance, report to council on, 109
Ferguson, Dr. G. B., invited to give Free and Popular Lecture at Oxford, 2
Fife Branch, See Branch
Finances of Divisions and Branches, 15
Financial Statement. See Balance Sheet
Fleming, Mr. C. S., resignation of from Council, 94
Forest of Dean Section, 112

G

General Medical Council. See Medical
——— Secretary, memorandum by on receipts and expenditure of the Association, 9
Glasgow and West of Scotland Branch. See Branch
Gloucester Branch. See Branch

Grahamstown and Eastern Province Branch. See Branch
Grants from Branches and Divisions, 112
Grouping of Branches, 95, 112

H.

Health., instruction in, 8, 110, 111
Hewetson, Dr. J. T., elected research scholar, 3
Hong Kong and China Branch. See Branch
Hospitals, questions as to out-patients at, 12; answers to questions, 112; general, rate support of, 113
Hospitals Committee. See Committee
Hydropathic establishments, advertising of medical practitioners in connexion with, 9, 44, 73, 74, 78, 79, 133, 134, 135, 172, 174, 177, 178, 179, 191, 192, 193, 194, 195, 197; medical men as directors of, 111
Hygiene, instruction in, 8, 110, 111

I.

Illustrations:—The Hall, Staircase, Christ Church, 178; New College Gardens, 166; the Cloisters, Magdalen, 168; Wadham Gardens, 176; St. John's College, 1b.
India, Majors, R.A.M.C., in, 115, 116
——— **Office, the, and the Indian Medical Service**, 12
Indian Medical Service, the India Office and, 12, 115, 116; memorandum by Editor on, 12
Infants, the London County Council and the overlying of, 94
Ireland, Poor-law medical officers in, 4; the Poor-law medical system in, 49, 162

J.

JOURNAL, BRITISH MEDICAL, advertisements in, 29
——— **and Finance Committee. See Committee**

K.

Kyrsew, Sir W., resolution of Council as to death of, 1

L.

Lancashire and Cheshire Branch. See Branch
Lawford, Mr. A. H., appointed Assistant Secretary, 2
Lecture, a Popular, at the annual meeting, 218
Lectures, medical, reports of in lay papers, 9
Leicester Branch. See Branch.
Libraries, report of, 19
Library, list of presentations of books to, 124
Life assurance, report of Norwich Division on medical examinations for, 38
Local Government Board. See Board
——— **Government Board Bill. See Bill**
Lodging houses, etc., at Oxford meeting, 172, 184
London County Council. See County
London Act, Amendment Bill. See Bill
——— legislation, 149

M.

Major R.A.M.C., in India, 115, 116
Malta and Mediterranean Branch. See Branch
Medical Act Amendment Bill. See Bill
Medical Council, General direct representation of, by British Medical Association on, 1, 162, 177; and trade advertisements, 8, 111; new [illegible] as to presidents address, 1b; Business of Council, 9; results of examinations, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147; [illegible] examinations, 1b; [illegible] post-graduate [illegible] 1b; [illegible] without examination, 1b; [illegible] 1b; [illegible] 1b; [illegible]

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 30TH, 1904.

CONTENTS.

PROCEEDINGS OF COUNCIL ... ... Page 1

PROCEEDINGS OF STANDING COMMITTEES:

Medico-Political Committee.—Coroners Bill. Local organization. The Spectacle Makers' Company. Irish Poor-law Medical Officers. The British Dental Association and the Medical Acts Amendment Bill. Death Registration. Death Registration Acts Amendment Bill. Society of Teachers of Sanitary Officers. Proposed Amendment of the Pharmacy Act. Matters referred from Representative Meeting.—Medical Witnesses. Direct Representation on the General Medical Council.—Conference with Medical Members of Parliament.—Contract Practice. Registration of Nurses. Leaving School Certificates ... 4

Conferences of the Public Health and Medico-Political Committees.—Vaccination.—Business of the Conference.—Reconstitution of the Local Government Board. Secretary of State. Memorandum on Local Government Board Bill. Draft of a Bill to amend the Constitution of the Local Government Board ... 7

Public Health Committee.—Vaccination. Health and Temperance 8

Ethical Committee.—Medical Men Practising as Dentists.—Trade Advertisements.—Bulletins.—Medical Announcements.—Rules of Divisions and Branches.—Contract Practice.—Charges by a Member of one Division against a Member of another.—The Advertising of Medical Practitioners in Connexion with Hydropathic Establishments. Reports on Medical Lectures in Log Papers. The Titles of Doctor ... 8

Medical Defence Committee. Memorandum on Receipts and Expenditure of the British Medical Association. Financial questions. Expenses of Existing Defence Societies. Special Subscription Necessary.—Adoption of the Principle of Medical Defence.—Memorandum by the Treasurer.—Consideration of Recommendations.—Draft Scheme recommended to the Council 9

Hospitals Committee. Election of Chairman. Hospital Administration.—Proposed Inquiry ... 11

Royal Naval and Military Committee. Indian Medical Service. Memorandum by the Indian Registration. Hospital System. The Injustice of the "Overlanding System." Pay Generally 12

Scottish Committee. Election of Chairman. Election of Secretary.—Resolutions 14

Colonial Committee.—Election of Chairman.—Supernumerary Members 15

Scientific Grants Committee.—Election of Chairman.—Research Scholar.—Inspection 15

Organization Committee. Rules of Divisions and Branches. Boundaries of Districts and Branches. Branch and Divisional Finance.—Amendment of Articles and By-laws.—Colonial Branches. Proposed Conference of Secretaries. Report as to the Representation of the Colonial Branches on the Council of the British Medical Association. Amendment of By-laws ... 16

Journal and Finance Committee. Assistant Secretary. Financial. A Popular Lecture at the Annual Meeting ... 18

Assistant Secretary Committee 19

Annual Meeting (Sections) Committee.—Election of Chairman. Recommendations to Council 19

Premises and Library Committee. Report of Librarian ... 19

MEETINGS OF BRANCHES AND DIVISIONS:

Bath and Bristol Branch. Trowbridge Division 19
Birmingham Branch 19
Border Counties Branch: West Cumberland Division 19
Brisbane and Queensland Branch 20
Lancashire and Cheshire Branch. Altrincham Division. Blackpool Division 20
Metropolitan Counties Branch: Central Division 20
Hampstead Division 20
South-Eastern Branch: Chichester and Worthing Division ... 20

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held in the Council Room of the Association, 429, Strand, W.C., on Wednesday, January 20th, 1904.

Present:

Mr. Andrew Clark, Chairman of Council, in the Chair.
Dr. T. Peyslwyn Griffiths, President.
Dr. William Collier, President-elect.
Sir Victor Horsley, F.R.S., Chairman of Representative Meeting.
Dr. E. Markham Skerritt, Treasurer.

Dr. Edgar G. Barnes, Eye.
Dr. James Barr, Liverpool.
Dr. Michael Beverley, Norwich.
Dr. J. Brassey Brierley, Old Trafford.
Dr. Duncan Bulkeley, Sheffield.
Dr. R. C. Buist, Dundee.
Dr. W. A. Catlin, Lincoln.
Dr. Edward J. Cave, Bath.
Dr. James Craig, Dublin.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Brigade-Surgeon-Lieutenant-Colonel F. F. Drake Brockman, South Indian and Madras Branch, London.
Mr. George Eastes, M.B., London.
Professor David W. Finlay, M.D., LL.D., Aberdeen.
Mr. C. E. S. Flemming, Bradford-on-Avon.
Dr. Edward Lawrence Fox, Plymouth.
Dr. John H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. Joseph Groves, Carisbrooke.
Dr. James Hamilton, Glasgow.
Dr. W. M. Harman, Winchester.
Mr. W. F. Haslam, Edgbaston.
Dr. G. A. Heron, London.
Dr. James H. Hunter, South Shields.
Mr. Evan Jones, Aberdare.
Mr. R. H. Kinsey, Bedford.
Dr. C. H. Milligen Hall.
Dr. C. G. Drummond Mercer (South Australia), London.
Mr. W. Lones Morris, Portmadoc.
Dr. James Murphy, Sunderland.
Mr. D. A. O'Sullivan, London.
Mr. Edmund Owen, London.
Mr. C. H. Watts Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Mr. H. Betham Robinson, M.S., London.
Dr. J. Maxwell Ross, Dumfries.
Professor Robert Saundby, M.D., LL.D., Birmingham.
Mr. W. D. Spanton, Hailey.
Dr. John Robertis Thomson, Bournemouth.
Dr. W. J. Tyson, Folkestone.
Mr. T. Jenner Verrall, Brighton.
Dr. Norman Walker, Edinburgh.

Dr. D. Burgess, Representative of the Yorkshire Branch, *vice* Dr. Goyder, and Mr. D. A. O'Sullivan, a co-opted member, were introduced to the Council on attending for the first time since their election.

Letters were read of apology for non-attendance from Sir Francis Lovell, K.C.M.G., Dr. Adolph Bronner, Dr. Langley Browne, Mr. T. H. Cheatle, Brigade-Surgeon Moriarty, Dr. J. Murray, Dr. R. W. Philip, and Mr. J. Lynn Thomas, C.B.

Four names, duly nominated in accordance with By-law 29, had been received for co-option by the Council to the vacancy caused by Dr. Woodcock's death. On a ballot being taken, none of the candidates nominated having obtained the requisite number of votes, the vacancy was not filled.

Resolved: That the Council desires to record its deep sense of the loss the British Medical Association has sustained by the death of Dr. Sam. Woodcock, whose sound judgement, genial humour, and practical counsels will be much missed at all Association meetings, at which he was so regular and welcome an attendant. The Council further desires to offer its sincere condolence and deep sympathy with Mrs. Woodcock and family in their sudden and irreparable bereavement.

Resolved: That the Council of the British Medical Association regrets to learn of the death of Theophilus W. Trend, M.D., who represented the Southern Branch on this Council for 10 years, and desires to express to the family its sincere sympathy in their loss.

Resolved: That the Council of the British Medical Association desires to place on record its regret at the death of Sir William Kynsey, K.C.M.G., a former member of the Council and a past President of the Ceylon Branch.

The Chairman of Council reported that he had corresponded with Sir Arthur Bigge, Private Secretary to the Prince of Wales, regarding the presentation of a Certificate for Honorary Membership. The following is a copy of Sir Arthur Bigge's last letter.

Marlborough House, Pall Mall, December 14th, 1903.

Dear Sir,—In reply to your letter of the 10th instant, I am sorry to say it is not possible to fix a date for the Prince of Wales to receive the Diploma of Honorary Membership of the British Medical Association until after His Royal Highness comes into permanent residence at the beginning of February. With your permission I will then write to you and endeavour to fix a day.—Yours very faithfully,

ARTHUR BIGGE.

Andrew Clark, Esq., F.R.C.S., Chairman of Council,
British Medical Association, 429, Strand, W.C.

Resolved: That, upon hearing further from Sir Arthur Bigge, a deputation, consisting of the officers of the Association, wait upon His Royal Highness the Prince of Wales to present him with the Certificate of Honorary Membership.

Read acknowledgements to resolutions of condolence passed at the last meeting of the Council upon the deaths of Sir George F. Duffey, Mr. T. R. Jessop, Mr. W. L. Burr (Financial Secretary to the Association), and Mr. J. N. Honeyman.

Resolved: That the same be received and entered on the Minutes.

In reference to continued minutes of Council, the General Secretary reported receipt of the following reply to his communication, asking the President of the Local Government Board to receive a deputation from the Association on the question of future vaccination legislation:

Local Government Board, Whitehall, S.W.,
December 14th, 1903.

I am directed by the Local Government Board to acknowledge the receipt of your letter of the 10th instant, requesting that the President would fix a date for the reception of a deputation from the British Medical Association on the question of future vaccination legislation.

In reply I am to state that the President does not consider that the present time would be opportune for the reception of the proposed deputation.—I am, Sir, your obedient servant,

H. C. MONRO.

[illegible] Esq., Assistant Secretary.
General Secretary to the
British Medical Association.

Resolved: That the same be received and entered on the Minutes.

Read resolution passed by the Medical Guild of Manchester regarding the Association taking up medical defence, and forwarded to the General Secretary for submission to the Council.

Resolved: That the same be received and entered on the Minutes.

Resolved: That George Bagot Ferguson, M.D., M.Ch.Oxon., F.R.C.S., be invited to give the Free and Popular Lecture at the ensuing meeting at Oxford.

A resolution was passed congratulating Professor Bayliss upon the issue of the trial of the action recently brought by him against the Honorary Secretary of the Antivivisection Society.

The Chairman of Council reported receipt of a communication from the British Dental Association forwarding a petition asking that a Section in Dental Surgery should be formed in connexion with the annual meetings of the Association.

The Standing Orders having been suspended by the requisite majority,

Resolved: That the expediency of forming a Dental Section be referred to a Committee for consideration and report, the Committee to consist of the President, the President-elect, the Chairman of Council, Dr. Radcliffe Crocker, Mr. George [illegible], Mr. Edmund Owen.

The question of centres was then considered, when the Secretary reported with regret that one of the Honorary Secretaries, J. E. Wellford, R.A.M.C., had, since accepting the appointment, been killed in Somaliland.

Resolved: That the under-mentioned candidates whose names appear on the circular concerning the meeting be and they are hereby elected members of the British Medical Association.

Read application from the Sanitary Institute inviting the Council of the British Medical Association to appoint delegates to represent the Sanitary Institute Congress to be held at Portsmouth from July 21st to 26th, 1904:

Resolved: That the Sanitary Institute be informed that as their Congress meets at the same time as the Annual Meeting of the British Medical Association, the Council is unable to appoint any delegates.

Resolved: That the minutes of the Journal and Finance Committee of November 26th, 1903, and January 20th, 1904, be received.

Resolved: That Mr. Arthur H. Lawford be appointed Assistant Secretary, on probation, for a period of six months at a salary of £250 per annum.

Resolved: That the accounts for the quarter ending December 31st, 1903, amounting to £11,109 0s. 6d., be received and approved, and it be recommended that the Treasurer be empowered to pay those remaining unpaid, amounting to £2,712 15s. 9d.

Resolved: That the minutes of the Assistant Secretary Committee of November 6th and 20th, 1903, and January 19th, 1904, be received.

Resolved: That in future the title of Organizing Secretary be changed to "Medical Secretary."

Resolved: That the minutes of the Colonial Committee of November 4th, 1903, be received.

In reference to a recommendation that a request be made to the Council for the Colonial Committee to be empowered to elect as supernumerary members of the Committee any colonial members of the Association who happen to be in Great Britain, it was resolved: That the Colonial Committee may invite to its meetings any member who has been a resident member of any Colonial Branch. These shall have consultative privileges only.

Resolved: That the Colonial Committee be requested to consider the desirability of instructing the General Secretary to communicate with the Colonial Branch Secretaries asking that he may be advised of the names of Colonial members visiting England.

Resolved: That the minutes of the Organization Committee of November 10th and December 8th, 1903, be received.

Resolved: That the Council approve the rules of the following Branches and Divisions:

Branches.—Aberdeen, Cambridge and Huntingdon (subject to certain modifications being made by the Branch, as recommended by the Organization Committee), Edinburgh, Glasgow and West of Scotland, Gloucestershire, North Wales and Shropshire, Worcester and Hereford, Natal.

Also a new rule of the Dorset and West Hants Branch.

Divisions.—Bury (except Rule 15), Cleveland, Denbigh and Flint, Isle of Wight, Liverpool (Western), Glasgow (N.W.), North Carnarvonand Anglesea, North Northumberland, South Carnarvon and Merioneth, South Suffolk, Shropshire, Tyneside, and Worcester.

Resolved: That the Council accede to the petition from members resident in Balham, Tooting, and Merton that this area be transferred from the Norwood Division of the South-Eastern Branch to the Wandsworth Division of the Metropolitan Counties Branch.

Resolved: That the Divisions, and boundaries thereof, in the area of the Metropolitan Counties Branch be henceforth as proposed in the scheme submitted to the Council by the Metropolitan Counties Branch Council, except as affecting (*a*) the boundary between the Branch and the Oxford and Reading Branch, and (*b*) the boundary between the Hampstead and Watford Divisions, and that pending further consideration by the Organization Committee the boundaries (*a*) and (*b*) remain as for the present unaltered. [The scheme will be found at p. 16.]

Resolved: That the Alnwick and Berwick Divisions be combined to form the North Northumberland Division, having the area formerly assigned to the said two Divisions.

Resolved: That the Council approve the following recommendations contained in the report (p. 17) of the Organization Committee as to grouping of the Colonial Branches for representation on the Central Council:

(*a*) That no attempt be made for the present to decide the grouping of the Colonial Branches; that the Colonial Branches be requested to consider the adoption of rules in pursuance of Bye-law 25, a draft rule being suggested by the Council to provide for the qualification of representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904–5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation, namely:

"That the Colonial Branches be invited to appoint the Council annually representatives of their Council but not entitled to vote."

(*b*) That in connexion with the question of the election of members of Council the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the representative governing body of the Association under the present Constitution is the Representative Meeting, and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next Annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so which in their opinion can be overcome.

(*c*) That the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial

Branches be taken into consideration in a comprehensive manner, either by the Colonial Committee, or by a larger body composed of the representatives of all Colonial Branches on the Council, together with a proportionate number of representatives of the Central Council.

Resolved: That the Colonial Branches be asked if they have any comment to make on the report of the Organization Committee.

Resolved: That the Council bring before the next Annual Representative Meeting certain proposed amendments of the existing By-laws, and certain new By-laws.

Resolved: That the minutes of the Medical Defence Committee of November 12th, December 10th, 1903, and January 10th, 1904, be received.

Resolved: That the Report of the Committee on Medical Defence be referred to the Divisions, together with a full explanation of the considerations arrived at by the Committee. Further, that the Divisions be requested to poll their members with the view of ascertaining the number of members of each Division willing to join.

Resolved: That the minutes of the Hospitals Committee of November 13th, 1903, be received, and that its action in communicating with the various hospitals and institutions be approved.

Resolved: That the minutes of the Scottish Committee of November 20th, 1903, be received.

Resolved: That the Council remit to the Scottish Divisions the question whether it is advisable that a consultation take place between the medical witnesses on both sides engaged in any legal case.

Resolved: That the Council take action to secure that in criminal cases medical representatives of the defence be permitted to be present, though not to interfere, at the official necropsies.

In reference to the following recommendation:

Resolved: That ethical matters should be considered in the first instance by the local Division Committee or Branch Council and that no comments should appear in the Association JOURNAL until the question has been reported on locally,

Resolved: That the minutes of the Scottish Committee as to the ethical matters being considered in the first instance by Divisions or Branches, and the minute of the Ethical Committee in reference thereto, be referred back to the two Committees with a view to their arriving at a conclusion on the matter acceptable to both, and reporting thereon to the Council.

Resolved: That the minutes of the Annual Meeting (Sections) Committee of December 7th, 1903, be received.

Resolved: That a small standing Committee of the Council be appointed to supervise the work of the Sections, and to report to the Council at the April and July meetings.

Resolved: That this Committee be authorized to write to the office-bearers in the various Sections and to obtain from them information respecting the progress of the Sectional arrangements in time for these reports.

Resolved: That it be the duty of this Committee to afford all information and assistance to the officers of the Sections in making their Sectional arrangements.

Resolved: That the Memorandum for officers of Sections now issued by the General Secretary in future be sent out by this Committee, and be modified from time to time as required.

Resolved: That the Annual Meeting (Sections) Committee be reappointed as a Standing Committee.

Resolved: That the minutes of the Medico-Political Committee of December 10th, 1903, and January 14th, 1904, be received.

In reference to the following minute of the Medico-Political Committee of December 10th, 1903:

Resolved: That the Pharmaceutical Society be thanked for their communication informing the British Medical Association of the amendment which it is proposed to introduce into the Pharmacy Bill, and be informed that the Committee cordially approves the Bill so amended, and is recommending the Association to support the same.

An amendment was moved and seconded:

That no fresh legislation by the Pharmaceutical Society is satisfactory unless it secures, beyond doubt, the ancient privilege of medical practitioners dispensing their own drugs either by themselves or by their own assistants qualified or unqualified.

The amendment, having been put from the Chair, was declared to be lost.

Resolved: That the Council support the Pharmacy Bill, when reintroduced into the House of Commons, subject to the amendment promised by the Pharmaceutical Society.

Resolved: That it be referred to the Divisions in England and Wales to consider the advisability of consultations between medical witnesses engaged in legal cases.

Resolved: That the Council address a memorandum to the Board of Education relative to the fact that the said Board has now under consideration a Government secondary leaving certificate, and bringing to the notice of the Board the views held by the British Medical Association as to the standard of general (secondary) education requisite in persons entering the medical profession.

Resolved: That Mr. D. A. O'Sullivan be appointed a member of the Medico-Political Committee in the place of Dr. Woodcock, deceased.

Resolved: That the minutes of the Conference between medical Members of Parliament and the Medico-Political Committee of December 10th, 1903, be received.

Resolved: That the minutes of the Conference between the Medico-Political Committee and Public Health Committee, December 3rd, 1903, and January 14th, 1904, be received.

In reference to the following recommendation:

Resolved: That provision for security of tenure and adequate salaries and superannuation is essential to the efficiency of the Public Health Service so that the best talent of the profession may be at its disposal,

An amendment was moved:

That after the word "superannuation," in the second line of the minutes of the Conference of December 3rd, 1903, the following words be inserted: "In case of combined areas or where the whole time of each officer is employed."

The amendment having been put from the Chair was declared to be lost.

Resolved: That it is desirable that the Local Government Board be remodelled on the form of the Board of Admiralty, with a Cabinet Minister as President, and the head of the Medical Department as one of its members.

Resolved: That the Local Government Board be urged to obtain the necessary powers to secure, whenever it is in their opinion desirable, combinations of districts for sanitary purposes, with medical officers of health devoting a large part or the whole of their time to their duties, and to secure power to prevent the disintegration of these combinations.

Resolved: That the best thanks of the Council be given to the Editor of the JOURNAL for his valuable Memorandum on the proposed reconstitution of the Local Government Board. [The Memorandum was printed in the BRITISH MEDICAL JOURNAL of January 2nd, p. 27.]

Resolved: That a Draft Bill to reconstitute the Local Government Board as amended be referred to a Parliamentary draughtsman to prepare a Bill on the lines agreed upon by the Conference between the Public Health and Medico-Political Committees on January 14th, 1904. Further, that the necessary steps be taken to have the proposed Bill introduced into the House of Commons.

Resolved: That the minutes of the Ethical Committee of December 18th, 1903, be received.

Resolved: That the Council approve the Ethical rules of the following bodies:—

Branches:—Cambridge and Huntingdon, and North Wales and Shropshire.

Divisions:—Ashton (except Rule 4), Bradford (those rules submitted by the Chairman of the Ethical Committee as being in accordance with rules previously sanctioned), Cleveland (as submitted by the Executive Committee, subject to adoption by the Division), Glasgow (North-West), Isle of Wight, Liverpool (Western), North Northumberland, Norwich, and Tyneside.

Resolved: That the question of advertising of medical practitioners in connection with Hydropathic Establishments be referred to the Divisions, and that the Chairman and Secretary of the Ethical Committee prepare a circular, based on the Chairman's memorandum, to be issued to the Divisions.

Resolved: That the minutes of the Royal Naval and Military Committee of January 12th, 1904, be received.

Resolved: That a copy of the recommendations of the Committee as to improving the conditions of service in the Indian Medical Service be forwarded to the Secretary of State for India.

Resolved: That the General Secretary be instructed to forward a letter to the India Office setting out the text of the complaint from a correspondent upon the subject of promotion in the Indian Medical Service, requesting the India Office to advise how they would propose to overcome this anomaly.

Resolved: That the minutes of the Scientific Grants Committee of January 13th, 1904, be received.

Resolved: That Dr. John T. Hewetson be elected Research Scholar in the place of Dr. G. A. Watson resigned.

Resolved: That the minutes of the Public Health Committee of January 14th, 1904, be received.

Resolved: That in the opinion of the Council it is of urgent importance that elementary scientific instruction in Health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and as far as possible prevented.

Resolved: That a copy of the foregoing resolution be forwarded to the Board of Education, together with a covering letter setting out the facts, to be prepared by the Chairman of the Public Health Committee.

Resolved: That steps be taken to revise and edit the present vaccination literature of the Association, with a view to its future circulation to the public, and further that Dr. John C. McVail be invited to undertake this task.

Resolved: That the minutes of the Premises and Library Committee of January 19th, 1904, be received.

MEDICO-POLITICAL COMMITTEE.

A MEETING of the Medico-Political Committee was held on December 10th, 1903, when there were present: Dr. G. A. Heron, and afterwards Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. H. Langley Browne, Mr. T. Garrett Horder, Dr. J. A. Macdonald, Dr. Major Greenwood, Mr. G. Jackson, Mr. M. A. Messiter, Dr. C. H. Milburn.

CORONERS' BILL.

A letter was read from a member of the Coroners' Society, a solicitor, expressing surprise and regret at finding from the report of the Coroners' Society for 1902-3 that the Council of the Society had declined to co-operate with the British Medical Association in the matter of the Coroners' Bill, which in his opinion was very fair and such as ought to be passed into law. The writer further stated that in his experience doctors suffered great injustice under the existing law, and he trusted that the Association would be able to introduce the Bill and would renew their efforts to obtain the co-operation of the Coroners' Society.

The Committee resolved to make inquiries as to the probability of obtaining the support of the Coroners' Society if the matter were again brought officially before them.

LOCAL ORGANIZATION.

A letter was read from Dr. R. Macartney, of Lismore, stating that medical men of the Forest of Dean colliery district proposed forming themselves into an association for mutual protection and to endeavour to get payment for certain duties imposed or about to be imposed upon them in relation to appointments to collieries. Dr. Macartney asked for information as to the points in which the British Medical Association was likely to help in the future in matters of this kind.

The MEDICAL SECRETARY reported that he had replied, stating the assistance which it was believed that the British Medical Association could render in such cases, more particularly to those who were members of a Division, and the advantages which medical men consequently derived in dealing with such matters through the Divisions of the Association, and that he had received a further letter from Dr. Macartney requesting him to attend a meeting which was to be held at Cinderford on December 11th, 1903.

The CHAIRMAN stated that, having read the correspondence, he had authorized the attendance of the Medical Secretary at the proposed meeting.

THE SPECIALITY MAKERS' COMPANY.

A letter was read from a medical man drawing attention to what he considered objectionable advertisements by a Fellow of the Speciality Makers' Company. The writer was directed to be informed that the Committee was already in communication with the Company, and was asked to supply further information.

IRISH POOR-LAW MEDICAL OFFICERS.

The CHAIRMAN reported that he had received a reply from Mr. Redmond, M.P., to the letter which he had written at the request of the Committee with a view to Parliamentary action in respect of the grievances of the Irish Poor-law medical officers, and that Mr. Redmond had expressed sympathy with the position of the said officers, and had promised to meet the Chairman of the Medico-Political Committee in January.

THE BRITISH DENTAL ASSOCIATION AND THE MEDICAL ACTS AMENDMENT BILL.

A letter was read from the British Dental Association expressing a desire to submit certain suggestions as to the Medical Acts Amendment Bill, as affecting dental practitioners, for the consideration of the Medico-Political Committee, either in writing, or by a conference, or a deputation.

The British Dental Association was directed to be informed that the Medico-Political Committee is at present awaiting the answers of the Divisions of the British Medical Association on the first draft of the Bill. That, when these have been considered, the Committee will be glad to arrange to receive a deputation, and that in the meantime the Committee will be glad to receive in writing from the British Dental Association a draft of such amendments as the Association considers desirable in the Bill as it stands.

DEATH REGISTRATION.

A letter was read from the Secretary of the Life Assurance Medical Officers' Association, replying to a letter from the Medical Secretary, to inquire whether the Society desired to co-operate with the British Medical Association in bringing under the notice of the Government reforms required in death registration, and stating that the Council of the Society considered that it would be beyond its scope to participate in the proposed action.

A letter from the editor of the *Journal of the American Medical Association* was read, in response to a request from the Medico-Political Committee for information as to the American laws concerning death registration, stating that the letter had been handed to Mr. G. W. King, the Chief Statistician in the Bureau of the Census, Washington, who it was believed would be able to supply the information desired.

A letter from Mr. G. W. King giving an account of the general principles upon which the law as to death registration were based in most parts of the United States was read, and Dr. Simmons and Mr. King were thanked for their courteous assistance.

The report of the Emergency Subcommittee on death registration was considered clause by clause, amended, and, as amended, approved as follows:

DEATH REGISTRATION ACTS AMENDMENT BILL.

Provisions which the Medico-Political Committee recommends for submission to the Registrar-General and Government

1. Every death must, if possible, be certified by a registered medical practitioner who has been previously in attendance upon the deceased. It shall be the duty of such practitioner to view the body after death prior to certifying.

2. For such certificate and visit a fee shall be paid by the local sanitary authority, such fee to be 2s. 6d. for a case seen within a distance of one mile from the practitioner's registered address, and an additional 2s. for each mile, or part of a mile, beyond such distance.

3. The medical practitioner shall transmit to the Registrar direct the certificate in a sealed envelope.

4. The certificate shall be a confidential document subject to the discretion of the Registrar-General.

5. All deaths which are not certified by a registered medical practitioner shall be referred to the coroner, or, in Scotland, to the procurator fiscal.

6. In every coroner's district there shall be appointed by the county council a special medical officer, whose duty it shall be to examine the body and report to the coroner in all cases of death where no registered medical practitioner is able to give a certificate. In such investigation the special medical officer shall have associated with him the usual medical adviser (if any) of the deceased, or any registered medical practitioner who may have been called to see the deceased at or about the time of death.

7. Every case of stillbirth shall be registered on the certificate of a registered medical practitioner, and no registrar's certificate for burial of a stillborn child shall be given except after receipt by the registrar of a medical certificate. It shall be the duty of such practitioner to view and examine the body prior to certifying.

It was resolved that arrangements be made, if possible, for a deputation to wait on the Registrar-General to bring before him the recommendations as to death registration.

SECURITY OF TENURE OF SANITARY OFFICERS.

The resolution of the Conference of Medico-Political and

Public Health Committees on this subject was read, and it was resolved:

That it be left to the Chairman and Secretary to prepare a memorandum on the subject of security of tenure for medical officers of health, to be circulated to Secretaries of Divisions with a suggestion that the Divisions should make representations to their respective representatives in Parliament on the points set forth in the memorandum.

The MEDICAL SECRETARY reported the result of personal inquiries which he had made into the conditions of contract practice in the following towns which he had visited in connexion with Division meetings: Margate, Southampton, Chesterfield, and Newport. It was resolved to defer the consideration of this report, together with such further information as the Secretary might be able to obtain with reference particularly to the National Deposit Friendly Society, to a special meeting of the Committee to be held on January 14th, 1904.

The MEDICAL SECRETARY submitted also a draft letter which it was proposed to print and supply to Division Secretaries in order that it might be signed and sent by them to medical men, along with the questions as to contract practice already approved. The letter was approved, and it was resolved that the questions be prepared in three forms—for ordinary clubs, family clubs, and private clubs respectively.

PROPOSED AMENDMENT OF THE PHARMACY ACT.

The Pharmacy Bill, promoted by the Pharmaceutical Society in the last session of Parliament, was considered, and the following letter from the Registrar of the Pharmaceutical Society in relation thereto, was read:

Pharmaceutical Society of Great Britain,
17, Bloomsbury Square, London, W.C.
October 12th, 1903.

Dear Sir,—I am directed by my Council to convey to you the following Clause which it has been decided shall be inserted in any future Pharmacy Bill introduced into Parliament next session.

"The provisions of this Act shall not interfere with or abrogate any of the rights reserved by Section XVI of the Pharmacy Act, 1868, or by Section I of the Pharmacy Act (1868) Amendment Act, 1869."

I may say that it has never been the intention of my Council to interfere with the medical profession, and as soon as we heard that our Bill of last session was capable of bearing a different interpretation, my Council at once decided to make the intention plain, and has done so in the above mentioned Clause. May I express the hope that the Parliamentary Bills Committee of the British Medical Association may see their way to support this Society in its efforts to obtain the necessary powers for protecting the public from incompetent retailers?

I am, yours faithfully,
RICHARD BREMRIDGE, Secretary.
Chairman of the Parliamentary Bills Committee
of the British Medical Association.

It was resolved:

That the Council be recommended to support the Pharmacy Bill, when reintroduced into the House of Commons, subject to the amendment promised by the Pharmaceutical Society.

It was further resolved:

That the Pharmaceutical Society be thanked for their communication informing the British Medical Association of the amendment which it is proposed to introduce into the Pharmacy Bill, and be informed that the Committee cordially approves the Bill so amended, and is recommending the Association to support the same.

MATTERS REFERRED FROM REPRESENTATIVE MEETING.

The MEDICAL SECRETARY reported as to replies received from Divisions on the Vaccination resolutions, Medical Acts Amendment Bill, and on other matter referred to them by the Representative meeting and Council, and that there was reason to expect further replies. The Committee resolved:

That the consideration of the replies of Divisions be deferred until the next quarterly meeting of the Committee, and that the Secretary be instructed to prepare an analysis for circulation to the Committee.

MEDICAL WITNESSES.

The resolutions of the Scottish Committee with reference to the desirability of a consultation between medical witnesses on both sides engaged in any legal case, and as to action which should be taken to secure in criminal cases medical representatives of the defence to be present at official autopsies was considered, and the Committee resolved as follows:

That the Chairman be requested to move, on behalf of the Committee, in the Council that it be referred also to the Divisions in England and Wales to consider the advisability of consultations between medical witnesses engaged in legal cases.

That inquiry be made of the Solicitor of the Association as to the present law and practice concerning the presence of medical witnesses for the defence at official autopsies.

DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL.

The following draft scheme for nomination by the Association of candidates for the office of Direct Representatives on the General Medical Council for England and Wales was considered:

DRAFT SCHEME.

1. On or before October 1st, 1904, the Medico-Political Committee shall cause to be circulated a notice to every Division in England and Wales advising the Division of the fact that an election of Direct Representatives on the General Medical Council for England and Wales will in the ordinary course take place in November, 1906, and requesting that the matter be taken into consideration, and that the Committee be informed not later than March 31st, 1905, of the names of any person or two persons, legally qualified for election, whom the Division may deem suitable to be nominated on behalf of, and supported by the Association, and who shall have signed the declaration appended hereto.
2. The Committee shall cause a list to be prepared of those persons, legally qualified for election, who shall have been named by Divisions in the manner provided in Clause 1. The said list shall be printed in the BRITISH MEDICAL JOURNAL at the same time as the Notices of Motion for the Annual Representative Meeting, and each constituency shall be requested to adopt such resolutions as may enable its Representative at the ensuing Annual Representative Meeting to give effect to the wishes of the constituency in a ballot taken in the manner hereinafter prescribed.
3. —At the time of the Annual Representative Meeting a Special Meeting of Representatives of Divisions in England and Wales shall be convened, to select from the list of nominees of Divisions two persons for nomination as candidates. Voting shall be by card, each voter being entitled to vote for two candidates and to give to each as many votes as there are members in the constituency represented by the voter. The two candidates who receive the greatest number of votes shall be deemed to be the candidates selected for support by the Association.
4. —The Medico-Political Committee shall arrange that the persons so selected shall be duly nominated, on behalf of the Association, as candidates for the office of Direct Representatives on the General Medical Council, and every effort shall be made by the Executive of the Association to secure the election of the said candidates.

DECLARATION BY CANDIDATES.

I, the undersigned, hereby consent that my name be submitted to the Divisions of the Association as willing, if duly elected, to be nominated on behalf of the Association as a candidate at the election in 1906, of Direct Representatives on the General Medical Council for England and Wales. I agree that, if not selected for nomination by the Association, I will not allow myself to be nominated as a candidate in opposition to any candidate so selected.

I agree, further, that if nominated by the Association and elected as a Direct Representative on the General Medical Council, I will, in my capacity as such Representative, endeavour in every way in my power to give effect to the wishes and opinions of the British Medical Association as lawfully declared for the time being by the bodies constitutionally authorized to declare such wish and opinions.

Signed .....
Qualifications .....
Address .....

The draft scheme was approved and ordered to be reported to the Divisions.

CONFERENCE WITH MEDICAL MEMBERS OF PARLIAMENT.

A CONFERENCE of medical Members of Parliament with the Medico-Political Committee of the British Medical Association was held on December 10th, 1903, when there were present:—Members of Parliament: Sir Michael Foster, M.P., Dr. Charles Frederick Hutchinson, M.P. Members of the Medico-Political Committee: Dr. T. D. Griffiths (President) in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Mr. Andrew Clark (Chairman of Council), Dr. H. Langley Browne, Dr. G. A. Heron, Mr. T. Garrett Horder, Dr. T. A. Macdonald, Dr. Major Greenwood, Mr. G. Jackson, Mr. M. A. Messiter, Dr. C. H. Milburn. The General Secretary, the Medical Secretary, and the Editor attended.

A letter addressed by instruction of the Committee to all medical Members of Parliament, inviting them to confer with the Committee as to the possibility of forming a Public Health Committee of the House of Commons was read, and the SECRETARY reported that letters of apology had been received from Dr. R. Farquharson, Sir Walter Foster, Mr. R. J. Price, Dr. E. C. Thompson, and Sir J. Batty Tuke, and that

most of these gentlemen expressed willingness to co-operate in the formation of a Committee as proposed:

The following correspondence was read:

Royal Societies Club,
St. James's Street, S.W.
December 3rd, 1903.

J. Smith Whitaker, Esq., Organizing Secretary, B.M.A.

Dear Sir,—If the medical Members of the House of Commons and others who take special interest in public health matters form a Committee, I shall be glad to join it, but I am of opinion that such Committee should be initiated in the House itself, and should be entirely independent of any Association or Society.

I am, yours faithfully,
JOHN BATTY TUKE.

British Medical Association,
Medico-Political Committee,

Organizing Secretary's Office,
429, STRAND, W.C.
December 4th, 1903.

Dear Sir,—In reference to your letter of December 3rd, in which you point out that it is essential for the successful formation of a Public Health Committee among members of the House of Commons, that such formation should be initiated by members of the House, and that it should be independent of any medical association or society, I am authorized to say that, so far as the British Medical Association is concerned, this is fully realized.

The ideas underlying the action taken in convening the conference to be held on the 14th inst. are:

(a) To secure the aid of Members of Parliament, as those to whom the profession outside Parliament has more particularly to look for advice on Parliamentary matters, as to the possibility of the formation of such a committee.

(b) To ask if they will take the initiative in forming such a committee.

(c) To ascertain whether any assistance can be given to them by the Association in forming the committee, for instance by inducing from members of the profession throughout the country as to the views of various lay Members of Parliament who might possibly join the committee.

(d) To ascertain in what way the British Medical Association, and other medical societies, could most effectively assist such a Committee when formed, as, for instance, by collecting information, and by inducing medical men in the constituencies to draw the attention of those Members of Parliament who ordinarily do not take any special interest in public health questions, to the nature and importance of questions that may be coming before Parliament.

The conference is essentially preliminary. If the outcome is favourable to the formation of a committee, it is assumed that those Members of Parliament who think it desirable will themselves take the necessary steps. Were the committee organized with a chairman and secretary chosen from among its members, the British Medical Association would, like other medical societies, have the advantage of knowing with whom it has to officially communicate concerning public health questions coming before the House.

I am, yours faithfully,
J. SMITH WHITAKER,
Organizing Secretary.

Sir John Batty Tuke, M.P.

The PRESIDENT OF THE ASSOCIATION (Dr. T. D. Griffiths) having explained the objects which the Medico-Political Committee had in view in suggesting that a Public Health Committee should be formed in the House of Commons, and other members of the Committee having discussed certain details in connexion with the formation of such committee, Sir Michael Foster and Dr. Hutchinson expressed their willingness to take part in constituting a committee on the lines indicated by Sir John Batty Tuke in his letter which had been read to the Conference.

The CHAIRMAN expressed the thanks of the Medico-Political Committee to Sir Michael Foster and Dr. Hutchinson for their courtesy in attending to confer with the Committee, and for the readiness with which they had accepted the suggestion brought under their notice by the Committee.

A Special meeting of the Committee was held on January 14th when there were present Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Mr. T. Garrett Horder, Mr. G. Jackson, Dr. J. A. Macdonald, Dr. J. Murphy.

THE COLONIAL BILL.

The MEDICAL SECRETARY reported that acting upon instruction of the Committee, he had made inquiries from Dr. Danford Thomas as to the possibility of the Coroners' Society being induced to support the Coroners Bill put forward by the Association. It was resolved

That the Secretary be authorized to meet the Council of the Coroners Society, if desired, in order to explain the views of the Committee as to the kind of support which it is hoped that the Coroners' Society may give to the Bill.

CONTRACT PRACTICE.

A memorandum prepared by the Medical Secretary, in conformity with the instructions of the Committee, containing information obtained with relation to the National Deposit Friendly Society, was considered, together with the rules of the Society, and correspondence between the General Secretary of the Society and the Medical Secretary.

On the motion of Mr. T. GARRETT HORDER, seconded by Mr. G. JACKSON, a Subcommittee, consisting of Dr. H. Langley Browne, Mr. T. Garrett Horder, and Dr. J. Murphy, with the Chairman of the Committee and the President of the Association, and Chairman of Council, *ex officio*, was appointed to prepare a memorandum on the National Deposit Friendly Society suitable for circulation to the Divisions, and to submit the same at the next meeting of the Committee.

A report was received from the Medical Secretary of information as to contract practice obtained in the course of visits to Divisions, and the advisability of submitting to Divisions certain general questions concerning the attitude of the profession towards contract practice was considered. Certain heads were agreed upon, and the Chairman and Medical Secretary were instructed to prepare a memorandum embodying the resolutions arrived at to be considered by the Committee at its next meeting.

REGISTRATION OF NURSES.

A Bill, prepared by the Society for the State Registration of Trained Nurses, and a synopsis of a Bill prepared by the Royal British Nurses' Association, were referred to the Emergency Subcommittee to consider and report thereon to the next meeting of the Committee.

LEAVING SCHOOL CERTIFICATES.

The CHAIRMAN brought to the notice of the Committee the fact that the Board of Education was now considering a Government Secondary Education Leaving Certificate, which would replace many of the present entrance examinations, and it was resolved:

That the Council be recommended to address a Memorandum to the Board of Education relative to the fact that the said Board has now under consideration a Government Secondary Education Leaving Certificate, and bringing to the notice of the Board the views held by the British Medical Association as to the standard of general secondary education requisite in persons entering the medical profession.

CONFERENCES OF THE PUBLIC HEALTH AND MEDICO-POLITICAL COMMITTEES.

A CONFERENCE of the Public Health and Medico-Political Committees was held on December 3rd, 1903, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. J. Groves, Dr. G. A. Heron, Mr. George Jackson, Dr. J. A. Macdonald, Dr. J. Herbert Manley, Dr. C. H. Milburn, Dr. James Murphy, Dr. Arthur Newsholme, Dr. C. H. W. Parkinson, and Dr. S. Woodcock.

VACCINATION.

The GENERAL SECRETARY raised the question whether the President of the Local Government Board should be asked to receive a deputation on the question of future vaccination legislation, and it was agreed that a communication should be addressed to the Local Government Board on the subject.

BUSINESS OF THE CONFERENCE.

The GENERAL SECRETARY reported that the Council had referred to the Conference the following recommendations which it had received from the Public Health and Medico-Political Committees respectively:

From the Public Health Committee:

That it be recommended to the Council to take steps to obtain security of tenure for medical officers of health, adequate salaries and pensions, and to increase the control of the central authority by improving the constitution of the Local Government Board for England and Wales and its Veterinary Department; that it be suggested that the Local Government Board should be included on the [illegible] of the Board of Admiralty, with a Cabinet Minister as President and the head of the medical department as one of its members.

From the Medico-Political Committee:

That the Memorandum [illegible] on the security of tenure of public health officers, for communication to the President of the Local Government Board, be referred to a joint meeting of the Public Health and Medico-Political Committees.

The Conference also had before it the following resolution passed in the State Medicine Section:

The State Medicine Section, while tendering their acknowledgements to the Council, and thanking them for the efforts they are making to secure continuity of office to sanitary officers, venture to suggest the advisability of keeping the questions before the Divisions through the Representative Meeting.

The following documents had been circulated to the members of the Conference:

That part of the President's address at Swansea dealing with the reorganization of the Public Health Services; an address by Dr. Bushnell delivered before the Sanitary Institute at Bradford, recommending the creation of a Ministry of Public Health; also a memorandum from Dr. Roberts Thomson on the question of security of tenure of sanitary officers; and a memorandum by the Editor of the JOURNAL, published in the JOURNAL of January 2nd, 1904, p. 26.

The CHAIRMAN suggested that the subjects of reference might conveniently be considered under the following heads:

I. The proposed general reorganization of the Local Government Board, with special reference to public health.

II. Reforms proposed in local sanitary administration under the existing system of central control.

III. The proposal to make public health the subject of a separate Government department presided over by a Minister of Health.

RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

The memorandum and other documents were considered, and the following resolutions were adopted:

Moved by the PRESIDENT, seconded by Dr. GROVES:

That it is desirable that the Local Government Board be remodelled on the form of the Board of Admiralty, with a Cabinet Minister as President, and the head of the Medical Department as one of its members.

It was resolved also:

That the best thanks of this Conference be given to the Editor of the JOURNAL for his valuable Memorandum, and that it be published in the JOURNAL.

It was moved by Sir VICTOR HORSLEY, seconded by Dr. MACDONALD, and resolved:

That pending the next meeting of the Conference a Subcommittee be appointed consisting of the President, Dr. Groves, and Dr. Newsholme, together with the assistance of the Editor, to draft a scheme on the basis of the Editor's Memorandum for circulation to the Conference prior to presentation to the Government.

SECURITY OF TENURE.

With regard to this subject the conference, after discussion, adopted the following resolutions:

Moved by the PRESIDENT, seconded by Dr. BUIST:

That provision for security of tenure and adequate salaries and superannuation is essential to the efficiency of the Public Health Service so that the best talent of the profession may be at its disposal.

Moved by Dr. NEWSHOLME, seconded by Dr. GREENWOOD:

That the Local Government Board be urged to obtain the necessary powers to secure, whenever it is in their opinion desirable, combinations of districts for sanitary purposes, with medical officers of health devoting a large part or the whole of their time to their duties, and to secure power to promote the desirable combinations.

Moved by Mr. PARKINSON, seconded by Sir VICTOR HORSLEY:

That the Medico-Political Committee be requested to refer the question of security of tenure of sanitary officers to the Divisions, for them to ascertain from their respective candidates for the House of Commons if they the candidates will pledge themselves to support such a Bill on the same lines as the Act in favour of Poor-law officers.

The conference adjourned until January 14th.

At the adjourned meeting of the conference on January 14th the following were present: Mr. Andrew Clark (Chairman of Council), in the chair; Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. J. Groves, Mr. T. Garrett Horder, Mr. George Jackson, Dr. J. A. Macdonald, Dr. J. Herbert Manley, Dr. James Murphy, Mr. C. H. W. Parkinson, Dr. J. Maxwell Ross.

RECONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

The conference considered paragraph by paragraph the draft prepared by the subcommittee in accordance with the instructions of the last meeting authorizing the Subcommittee to draft a scheme on the basis of the memorandum regarding the reconstitution of the Local Government Board. The draft as amended was approved, and referred to the Parliamentary draftsman to prepare a Bill on the lines agreed upon for the consideration of the Council. The Bill as settled by the draftsman is as follows:

LOCAL GOVERNMENT BOARD BILL.

MEMORANDUM.

THE object of this Bill is to substitute for the Local Government Board as at present constituted a Board containing a Parliamentary president and vice-president and four expert members. The Board would continue, as at present, to have a Parliamentary secretary, and so would have three instead of two representatives in Parliament.

The present Board was constituted in 1871 on the analogy of these Government Departments which represented as a matter of history Committees of the Privy Council. It comprises as *ex-officio* members the principal Secretaries of State and some other great officers of the Crown, but it is not, and probably never was, intended to be a working body for the dispatch of business. It is believed never to have met.

The work of the Local Government Board is growing in variety and importance, and can only be transacted with the aid of persons possessing high professional qualifications. At present the expert officers of the Board are merely its servants, and can tender advice only upon invitation. It is considered that the efficiency of the Board would be increased if the Board itself comprised expert members who could initiate matters for discussion. A third Parliamentary representative, who might be a Peer, would also be of advantage.

A precedent for the change proposed will be found in the constitution of the Local Government Board for Scotland (*see* the Local Government (Scotland) Act, 1894), which includes two professional men. The Local Government Board as proposed to be reconstituted would also be similar to the present Board of Admiralty.

The Bill proposes to recognize the importance of the office of the President of the Local Government Board by raising him to the rank of a Secretary of State.

The amendments and repeals introduced into the Bill are merely consequential on the foregoing proposals.

DRAFT OF A BILL

TO AMEND THE CONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

BE IT ENACTED BY THE KING'S MOST EXCELLENT MAJESTY by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same as follows:

Changes in the Constitution of the Local Government Board.

1. From and after the passing of this Act the following changes shall be made in the constitution of the Local Government Board (in this Act called "the Board"):

(1) The president of the Board shall be a Secretary of State.

(2) The *ex-officio* members shall cease to be members of the Board.

(3) There shall be a vice-president of the Board, who shall be appointed by His Majesty at any time after the passing of this Act, and shall hold office during His Majesty's pleasure.

(4) There shall be four additional members of the Board who shall be appointed by His Majesty on the recommendation of the president of the Board at any time after the passing of this Act, and from time to time as vacancies shall occur, and shall hold office during His Majesty's pleasure.

(5) Of the additional members of the Board one shall be a barrister-at-law or solicitor of the Supreme Court of not less than twelve years' standing in either case one shall be a person qualified to be appointed the medical officer of health of a county under Subsection 2 of Section 18 of the Local Government Board Act, 1888, one shall be a member or associate member of the Incorporated Institution of Civil Engineers, and one shall be a person experienced in the administration of the Poor-law Acts.

(6) There shall be paid out of moneys provided by Parliament to the Vice-President and the additional member of the Board such salaries as the Treasury may from time to time determine. An additional

member shall not engage in private practice or employment, but an inspector or other officer of the Board may be appointed an additional member.

Amendments of Local Government Board Act. [34 & 35 Vict. c. 70.]

2. The word "vice-president" shall be inserted in Section 4 of the Local Government Board Act, 1871, after the words "the president," and in the second paragraph of Section 5 of that Act after the words "the president or" and the words "and the office of vice-president" shall be inserted in Section 4 of that Act after the words "the office of president."

Short Title and Construction.

3.—(1) This Act may be cited as the Local Government Board Act, 1904, and shall be construed as one with the Local Government Board Act, 1871, and that Act and this Act may be cited together as the Local Government Board Acts 1871 and 1904.

(2) The enactment specified in the Schedule to this Act is hereby repealed to the extent mentioned in the third column of that Schedule.

SCHEDULE.

ENACTMENT REPEALED.

Session and Chapter.	Short Title.	Extent of Repeal.
34 and 35 Vict. c. 70.	The Local Government Board Act, 1871.	Section 3 from "and of the following *ex officio* members" to "Chancellor of the Exchequer," and from "no payment" to "the Local Government Board but." In Section 4 the words "one of the *ex officio* members."

The Conference requested the Council to take the necessary steps to have the Bill introduced into the House of Commons.

Two other matters raised in the Editor's memorandum, namely, the transfer of duties under the Medical and Dental Acts from the Privy Council to the Local Government Board, and the provision to be made for the international notification of infectious diseases were referred to the Medico-Political Committee and Public Health Committees respectively.

PUBLIC HEALTH COMMITTEE.

A MEETING of the Public Health Committee was held on January 14th, 1904, when there were present: Dr. J. Groves (Chairman), in the chair; Dr. T. D. Griffiths (President); Dr. Herbert Manley, Dr. Maxwell Ross, and Mr. C. H. W. Parkinson.

VACCINATION.

The GENERAL SECRETARY reported that he had received a communication from the Local Government Board stating that the President "does not consider that the present time would be opportune for the reception of the proposed deputation."

On the motion of Dr. MAXWELL ROSS, seconded by Dr. MANLEY, it was resolved: "That it be recommended to the Council that steps be taken to revise and edit the present vaccination literature of the Association, with a view to its future circulation to the public, and, further, that Dr. John C. McVail be invited to undertake this task."

HEALTH AND TEMPERANCE.

The following resolutions were adopted, on the motion of the CHAIRMAN, seconded by Dr. MANLEY: (1) "That in the opinion of this Committee it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and so far as possible prevented." (2) "That it be recommended to the Council that a copy of the foregoing resolution be forwarded to the Board of Education, together with a covering letter setting out the facts, to be prepared by the Chairman of this Committee."

ETHICAL COMMITTEE.

A MEETING of the Ethical Committee was held on December 18th, 1903, when there were present: Professor R. Saundby, in the chair; Mr. Andrew Clark (Chairman of Council); Mr. H. A. Ballance, Dr. A. G. Bateman, Dr. Bruce Goff, Dr. J. Barr, Mr. C. H. Eccadbent, Mr. R. H. Kinsey.

MEDICAL MEN PRACTISING AS DENTISTS.

A letter was read from a medical man in Dublin, asking whether, without having any special qualification or being on the *Dentists' Register*, but being a registered medical practitioner, he could assume the title of "Dentist," and the reply of the Medical Secretary stating that the Penal Clauses of the Dentists Act do not apply to registered medical practitioners, and that he was not aware of any restriction to prevent a registered medical practitioner from assuming the title of "Dentist."

The Medical Secretary's reply was approved.

Correspondence was read with a medical man, surgeon of a Friendly Society in a provincial town, whose name had been advertised by the Society in a circular, for canvassing purposes, to which the attention of the Committee had been drawn. The medical man concerned stated that he had been unaware of the issue of the circular in question, and on the receipt of the Medical Secretary's letter at once took steps to stop it, obtaining an apology from the Secretary of the Society for having issued the circular without his knowledge, and an undertaking that it should not recur. The Committee expressed its satisfaction with the result of the action taken.

TRADE ADVERTISEMENTS.

The Medical Secretary's report upon the manner in which he had dealt in pursuance of the instructions of the Committee with trade advertisements containing the names of members of the Association, or of other members of the medical profession, was received and approved, and filed for reference.

The MEDICAL SECRETARY reported that, in pursuance of instructions, he had brought before the General Medical Council the advertisement of an establishment for "Treatment," and that the following reply had been received from the Registrar of the General Medical Council.

General Council of Medical Education and
Registration of the United Kingdom,
299, Oxford Street, London, W.
No. 1[illegible]

The Secretary, The Ethical Committee,
British Medical Association.

Dear Sir,—I have to inform you that the complaint brought by you against Dr. [illegible] was considered by the Penal Cases Committee on 21st inst., and that it was resolved that the matter should be reported to the licensing bodies whose qualifications he holds as one which appears to come within the province of their disciplinary powers.

I am therefore directed to ask you to be good enough to supply me with a certified copy of the case, in order that I may be able to put the case in a complete shape before these bodies.—Yours faithfully,

H. L. ALLEN, Registrar.

BULLETINS.

The Medical Secretary reported having sent letters, as instructed, to London newspapers, concerning the publication of the names of medical men.

The following reply from the editor of the *Times* was read, and the Editor of the *Times* was thanked for his reply.

The *Times*, Printing House Square, E.C.,
October [illegible], 1903.

J. Smith Whitaker, Esq.,
Organising Secretary
British Medical Association, 429, Strand, W.C.

Dear Sir,—I am directed by the Editor to acknowledge your letter of October [illegible] with its enclosures. The names of medical practitioners in attendance on prominent persons are not often given in the *Times*, except in the case of members of the Royal Family, but every note has sometimes been inquired into, and the Editor will in future bear the request of your Council in mind.

I remain, yours faithfully,
E. W. M. [illegible].

A letter was read from a member suggesting that a letter should be sent to provincial newspapers, similar to that sent to London newspapers, drawing attention to the objection of the profession to the insertion of notices containing the names of medical men. The writer was directed to be informed "that the Committee could only deal with specific cases," and that the Secretary be instructed to write to any provincial newspaper brought under the notice of the Committee, as making such announcements.

MEDICAL ANNOUNCEMENTS.

The Medical Secretary submitted a draft letter which he had prepared in accordance with the instructions of the Committee.

The Medical Secretary's report of action taken in pursuance

of instructions of the Committee with reference to newspaper announcements of the days of attendance of hospital staffs was approved.

RULES OF DIVISIONS AND BRANCHES.

Rules of Divisions and Branches were considered, and the following resolutions adopted:

That the Council be recommended to approve the Ethical Rules of the Ashton Division, except Rule 4.

That the Chairman of the Committee be authorized to bring before the Council for approval such rules of the Cleveland Division as he thinks are in accordance with the principles already approved.

That the Council be recommended to approve the Ethical Rules of the Tyneside and Northern Divisions and of the North Wales and Shropshire Branch.

CONTRACT PRACTICE.

In connexion with the investigation into contract practice the Medical Secretary reported the following questions which had been put to him in towns which he had visited, and his replies thereto:

(*a*) In a town where over 95 per cent. of the medical practitioners had agreed not to accept club appointments of a particular class except under certain prescribed conditions, which certain of the clubs affected had refused to concede, a member of the Association, having no previous connexion with the town, had come into the town to take up appointments vacated in consequence of the dispute. He asked whether the medical men as a body were justified in ostracizing him on account of such action, and the answer given was that he appeared to have no just ground for complaint against those who so ostracized him, having regard to the fact that he had wilfully placed himself in a position of antagonism to the profession in its conflict with the clubs.

(*b*) In a colliery district in which it was thought possible that two neighbouring Divisions might adopt different rules with respect to appointments on certain specified terms, it was asked whether a member of a Division could accept an appointment in the neighbouring Division upon terms disapproved by the Division in the area of which the colliery was situated, but not disapproved by the Division of which he was already a member. The reply given was that the general principles of medical ethics would appear to preclude any member of the Association from accepting an appointment which should have been vacated under the conditions stated, and upon terms disapproved by the members of the Association in the district in which the appointment lay.

The Committee approved the replies given by the Secretary.

CHARGES BY A MEMBER OF ONE DIVISION AGAINST A MEMBER OF ANOTHER.

A letter was read from the Secretary of a Division, asking whether in the case of a charge of unprofessional conduct brought by a member of the Association, Y, against a member, Z, belonging to a different Division the case should be considered by Y's Division or by Z's Division, and reply from the Secretary to the effect that the course contemplated in the model ethical rules which had been suggested by the Committee would appear to be that such a matter should be considered in the first instance by Z's Division, but that it might afterwards be found necessary to refer it to a joint committee, or meeting, of the two Divisions, or to the Branch Council, if, as in the case under notice, the Divisions belonged to the same Branch.

The Medical Secretary's reply was approved.

In the case of complaints by a medical man that slanderous charges had been made against him by another medical man in reference to a club appointment and other matters it was resolved that as the complainant had not furnished reasonable evidence of the alleged offence no action could be taken.

A complaint received concerning the advertisements of medical practitioners in connexion with hydropathic establishments was considered, and the following memorandum, prepared by the Chairman of the Committee, was read:

THE ADVERTISING OF MEDICAL PRACTITIONERS IN CONNEXION WITH HYDROPATHIC ESTABLISHMENTS.

Complaints frequently reach the Editor of the JOURNAL of the advertising of medical practitioners in connexion with hydropathic establishments. These complaints usually come from other medical men in the neighbourhood who are not connected with any hydropathic establishment, and the grievance seems to be that the practitioners so advertised are also engaged in general family practice, and are thus the competitors of the complainants, who feel that these advertisements are therefore unfair.

A connected grievance is that many of the hydropathic establishments try to compel all their visitors to accept the services of the medical officer of the establishment, and oppose the employment by visitors of any outside medical practitioner.

So long as the medical officers of hydropathic establishments were resident officials, and gave their whole time to the work, these complaints do not seem to have been made, although the way in which they were and still are advertised at railway stations and in railway guide books is not in accordance with the general rules of the profession respecting advertising. This seems to have been the thin end of the wedge by means of which a very undesirable practice has grown up until it has obtained dimensions which make it necessary to consider whether any steps can be taken to check it. It would be obviously unfair to condemn without due notice those who have been allowed for many years to have their names advertised, but a reasonable course would be to send a draft statement to the Divisions asking them to express their opinion as to whether such advertisements should be allowed.

It was resolved:

That it be recommended that the matter be referred to the Divisions, and that the Chairman and Secretary prepare a circular based on the Chairman's Memorandum, to be issued to the Divisions.

REPORTS OF MEDICAL LECTURES IN LAY PAPERS.

Certain reports appearing in lay newspapers of lectures and demonstrations on medical subjects were considered, and it was resolved:

That the matter of the report of a demonstration of hospital cases by certain medical men to a newspaper reporter be referred to the Branch of which the medical men concerned are members.

That the newspaper report of a lecture given before a medical society be brought under the notice of the officials of that society.

THE TITLE OF "DOCTOR."

Letters received protesting against the expression of opinion by the Committee at its last meeting that medical men who have not taken the degree of M.D. or M.B. should not claim the title "Doctor" were read, and after considering a memorandum on the subject by the Chairman of Committee, the Committee resolved:

That those who have protested be informed that the opinion expressed by the Committee was believed to be in accordance with the prevailing opinion of the profession, but that if they desire to raise the question it is open to them to bring it before their respective Divisions.

MEDICAL DEFENCE COMMITTEE.

A MEETING of this Committee was held at the offices of the Association, 429, Strand, W.C., on November 12th, 1903, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Lucas Morris, and the following gentlemen attended at the invitation of the Committee, Dr. E. Markham Skerritt (Treasurer), Dr. A. G. Bateman (Medical Defence Union), Dr. Hugh Woods (London and Counties Medical Protection Society).

The GENERAL SECRETARY submitted the following Memorandum setting out the receipts and expenditure of the British Medical Association, together with the balance of income over expenditure for the past five years, showing an average surplus of close on £5,000 a year:

Memorandum.

Year.	Total Income.	Total Expenditure.	Surplus.
1[illegible]	£42,924	[illegible]	£4,736
1[illegible]	[illegible]	[illegible]	£6,272
1[illegible]	[illegible]	[illegible]	£4,476
1[illegible]	[illegible]	[illegible]	£4,963
1[illegible]	£45,014	£40,515	£4,499

The income of the Association is derived practically from three sources: (1) Members' subscriptions, (2) advertisements in the JOURNAL, and (3) sundry sales of the JOURNAL, rents from properties owned by the Association, etc.

These three sources of revenue for the past five years are shown below:

Year.	Subscriptions.	Advertisements.	Sundry Sales, Rents, etc.	Total Income.
1898...	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
1899	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
1900	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
1901	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
1902	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]

To show the geographical membership of the Association the following figures are appended, showing as nearly as possible the membership as it stands in October of the current year and the three preceding years:

Year.	England and Wales.	Scotland.	Ireland.	Outside United Kingdom.	Total Members.
1900 ...	[illegible]	[illegible]	[illegible]	4,378	18,402
1901 ...	[illegible]	1,699	893	[illegible]	[illegible]
1902 ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1903 ...	[illegible]	[illegible]	941	[illegible]	[illegible]

On the foregoing figures, after allowing for losses from arrears estimated at 2 per cent., the annual geographical earnings from subscriptions may be apportioned as follows:

Year.	England and Wales.	Scotland.	Ireland.	Outside United Kingdom.	Total Subscriptions.
1901	£ [illegible]	£ [illegible]	£ [illegible]	£4,591	£ [illegible]
1902	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]
1903	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]	£ [illegible]

Expressed in percentages the estimated geographical earnings from subscriptions for the current year would be: United Kingdom 70 per cent. (England, 62 per cent.; Scotland, 9 per cent.; Ireland, 5 per cent.); outside United Kingdom, 24 per cent.

FINANCIAL QUESTIONS.

The Committee then proceeded to consider, in conjunction with the Memorandum of the General Secretary, the financial aspect in the event of the Association undertaking Medical Defence when it was moved by Dr. BEVERLEY, seconded by Dr. BRUCE GOFF and resolved:

That this Committee shall first endeavour to ascertain the probable cost of Medical Defence should same be undertaken by the Association.

EXPENSES OF EXISTING DEFENCE SOCIETIES.

Whereupon, at the request of the Chairman, Dr. A. G. BATEMAN, Secretary of the Medical Defence Union, submitted figures as shown below, setting out the number of members, the legal, and the legal and general expenditure of the Medical Defence Union since the year 1889 down to the close of 1902:

Medical Defence Union Income and Expenditure.

Year.	Members.	Income.	Legal Expenditure.	Legal and General Expenditure.	Per Head.
1889	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1890	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1891	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1892	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1893	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1894	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1895	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1896	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1897	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1898	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1899	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1900	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1901	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1902	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

From the above table it will be noted that over a period of fourteen years the average cost of legal proceedings per head works out at 4s. 10d., while the total legal and general expenditure, including all office and working expenses, averages 9s. 1d. per member.

Dr. HUGH WOODS, the Honorary Secretary of the London and Counties Medical Protection Society, then submitted figures covering a period of the last ten years, recording the cost per member of the London and Counties Medical Protection Society. The returns went to prove that the working and legal expenses of these two medical protection societies were almost identical per member.

SPECIAL SUBSCRIPTION NECESSARY.

After discussion, but without passing any formal resolution, it was agreed that if medical defence should be undertaken by the British Medical Association it would be necessary that the advantages offered should have to be optional on the part of members. Further, that an additional subscription would probably have to be levied at the rate of 10s. per head to such members desirous of enjoying the advantage of medical defence at the hands of the Association.

ADOPTION OF THE PRINCIPLE OF MEDICAL DEFENCE.

Full discussion followed and finally it was formally moved by the PRESIDENT, seconded by Sir VICTOR HORSLEY:

That it is desirable that a department for medical defence should be formed within and by the Association, and that the advantages afforded by such a defence department should be extended only to those members who voluntarily agree to pay a special subscription for those advantages.

The motion on being put from the Chair was declared carried by 5 to 3.

Sir VICTOR HORSLEY and Dr. HERON undertook to prepare and submit a detailed scheme for the proposed carrying out of medical defence for consideration at the next meeting of the Committee.

A further meeting of the Medical Defence Committee was held on December 10th, 1903, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron, Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris.

MEMORANDUM BY THE TREASURER.

The Committee proceeded to consider a scheme for the provision of medical defence to its members by the British Medical Association, drafted by Sir Victor Horsley, F.R.S., and Dr. Heron, together with the following Memorandum by the Treasurer:

Supposing all the members of the British Medical Association in the United Kingdom to subscribe for medical defence, the figures for 1902 would be as follows:

	Membership.	Subscription.
England and Wales ...	[illegible]	£ [illegible]
Scotland	[illegible]	£ [illegible]
Ireland	[illegible]	£ [illegible]
Totals ...	[illegible]	£ [illegible]

The figures of the Medical Defence Union for 1902 are: Membership, 5,534; expenditure £2,732, with one office only and a "part time" general secretary. The membership of the British Medical Association would thus be about two and three-fifths times that of the Medical Defence Union.

It would appear that it is assumed (Clause 10) that the expenditure would be greater in proportion than that of the Medical Defence Union. It is not stated what is the intended application of the 2s. capitation grant to the Scottish and Irish Committees, or whether the Central Committee would retain any control over it.

The provision of Clause 10, whereby it is proposed to appropriate a sum of "not less than" £1,000 annually from the general funds of the Association, would appear to be contrary both to the principle already adopted by the Committee and to the constitution of the Association.

At the meeting on November 12th, it was the general feeling of the Committee that no contribution to Medical Defence could be made from the general funds of the Association.

And further (Article VII and By-law 14), it would appear to be inconsistent with the constitution of the Association that any member should be called upon to contribute towards any object in which he has no share. Under the proposed scheme those who derive no advantage from the arrangements for Medical Defence will be:

1. Those members residing within the United Kingdom who do not subscribe for Medical Defence.

2. All members residing outside the United Kingdom.

It is not stated how these could be exempted from contributing *pro rata* to the grant from the general funds; nor is it apparent how such exemption could be secured.

If therefore, this contention is correct, the scheme for Medical Defence must be wholly self-supporting. Further, the valuable statistics placed at the disposal of the Committee by the Medical Defence Union and the London and Counties Medical Protection Society, with a combined membership of 7,848 and double administration expenses, prove that the annual expenditure cannot be estimated at much less than the amount of the proposed subscription.

Provided, however, that the response of the members of the Association is fairly general, and that the work of Medical Defence is conducted on the admirable lines of the above Societies, it is not apparent why the cost of the scheme need exceed the income derived from the annual subscription. But to this end very careful supervision of the expenditure, and especially that of the local Committees, would be essential. Taking the full membership of the Association in the United Kingdom as two and three-fifth times that of the Medical Defence Union, on the figures of the latter for 1902, the expenditure on the principal items might be as follows:

	£	s.	d.
On legal expenses	3,853	0	0
,, remuneration of Secretaries ...	1,133	0	0
,, railway fares of Committees ...	429	0	0
,, rent of offices, etc.	291	0	0
,, payments to clerks	551	0	0

It is, however, plain that the scheme cannot be financially sound unless it provides for a reserve or guarantee fund to meet contingencies. This could well be done by requiring every member joining to give a guarantee of £1, as in the case of the Medical Defence Union; this on the whole membership would amount to £14,719.

It is obvious that there can be no definite decision as to the practicability of a scheme for Medical Defence until it is known how many members of the Association are prepared to subscribe to it. The above figures, however, would probably admit of a reduction of 25 or 30 per cent., and still form a practicable working basis, and more especially so long as Clause 2 holds good.

E. MARKHAM SKERRITT.

Clifton, December 7th, 1903.

CONSIDERATION OF RECOMMENDATIONS.

After full discussion a series of recommendations, nine in number, to the Council were adopted. These are set out in the report of the meeting of January 19th.

Another meeting of the Medical Defence Committee was held on January 19th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. Bruce Goff, Dr. G. A. Heron, Dr. J. H. Hunter, Dr. G. Balfour Marshall, Mr. M. A. Messiter, Mr. W. Jones Morris. Dr. Beverley was unable to be present.

DRAFT SCHEME RECOMMENDED TO THE COUNCIL.

The Committee resumed the consideration of the draft recommendations to the Council, and finally after four meetings, and full consideration, the following scheme for medical defence was, on the motion of SIR VICTOR HORSLEY, seconded by Dr. HERON, adopted as a recommendation for the consideration of the Council.

1. Confirmation by the Representative Meeting of the resolutions passed at Birmingham on July 13th, 1896, confirmed at Carlisle July 28th, 1896, and registered at Somerset House, August 11th, 1896, altering the Memorandum of Association and establishment of the same before the Courts.

2. Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like societies engaged in medical defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

3. Election by the Representative Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members.

Every member of a Defence Committee must be a subscriber to the medical defence department of the Association.

4. Establishment by the Central Defence Committee of a register of the names of those members of the Association who wish to receive the benefits of medical defence, and who for that purpose are willing to pay an annual subscription of ten shillings in advance, in addition to the annual subscription to the Association of twenty-five shillings.

5. Appointment by the Council of a Medical Defence Secretary of the Association and appointment by the Scottish and Irish Medical Defence Committee of a Secretary respectively. Of these officers the first shall be a whole-timed salaried officer of the Association, if necessary.

The Central Defence Committee to have power to appoint additional officers should occasion arise.

6. The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

7. All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

8. The Central Defence Committee to have absolute control of the funds allotted to it for the Medical Defence Department of the Association.

9. The Central Defence Committee to allow the Scottish and Irish Defence Committee to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association of that country.

10. (*a*) Every member of the British Medical Association subscribing for medical defence shall become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; and the sum total of the amount thus guaranteed shall be entitled "The Medical Defence Guarantee Fund," and shall be subject to the call of the Medical Defence Committee.

(*b*) On the application of the Medical Defence Committee in case of emergency, the Treasurer shall, out of the available funds of the Association, from time to time advance to the said Committee on the security of the Medical Defence Guarantee Fund, and on such terms as shall be approved by the Council such sum or sums of money as shall be required by the said Committee; always provided that the total amount of such sums thus advanced shall at no time exceed two-thirds of the amount of the uncalled Medical Defence Guarantee Fund. The Treasurer shall, subject to the approval of the Council, require from time to time of the Medical Defence Committee, the repayment of the sum or sums thus advanced, or of any part thereof, together with all charges thereon.

11. Until the income of the Defence Department admits of the Representative Meeting directing any other course, the Central Defence Committee shall strictly confine its expenditure to the purposes of the defence of individual members.

In view of Recommendation 10, Dr. HERON proposed, and the PRESIDENT seconded,

12. That the appointment, dismissal, suspension, regulation of pay and of work and all salaried officers of the Medical Defence Department shall rest with the Central Committee of that Department, and from their decisions on those questions there shall be no appeal; except that the Scottish and Irish Defence Committees shall each elect or dismiss it own Secretary without reference to the Central Committee.

On a division being taken on the whole scheme of Medical Defence 6 voted for and 1 against.

Mr. MESSITER desired it to be recorded on the minutes that he voted against the scheme.

(As will be seen by the report of the meeting of the Council on January 20th, this scheme was referred to the Divisions of the Association for their consideration).

HOSPITALS COMMITTEE.

THE Council by resolution has appointed a Hospitals Committee as follows: The President and Chairman of Council *ex-officio*, Dr. M. Beverley, Dr. J. Brassey Brierley, Dr. E. L. Fox, Dr. J. R. Hamilton, Dr. T. A. Helme, Mr. T. Garrett

Horder, Professor J. T. J. Morrison, Mr. Edmund Owen, and Dr. F. M. Pope.

A meeting of the Committee was held on November 13th, 1903, when there were present Mr. Andrew Clark, Chairman of Council (subsequently Dr. J. Brassey Brierley) in the chair, Dr. T. D. Griffiths (President), Dr. E. L. Fox, Dr. J. R. Hamilton, Mr. T. Garrett Horder.

ELECTION OF CHAIRMAN.

Dr. Michael Beverley, of Norwich, was appointed Chairman of the Committee for the ensuing twelve months.

HOSPITAL ADMINISTRATION.

In accordance with notice given, Dr. Brassey Brierley called attention to the continuous treatment of accidents at medical charitable institutions, to the widespread complaints of the poverty of medical charities, and also to the question of the "fixity of tenure" of hospital medical officers. After discussion it was decided to defer these questions to some later meeting of the Committee.

PROPOSED INQUIRY.

The Committee having discussed generally the lines upon which it should prosecute its investigations, the General Secretary was instructed to draft a letter inviting replies to the following questions:

1. What is the method you adopt for admission of out-patients?
2. Have you any system of inquiry in operation with a view to check the admission of persons not eligible for charitable relief: (*a*) in-patients, (*b*) out-patients. If so, by whom is the inquiry made?
3. Are subscribers' letters necessary?
4. Do you admit medical or domestic servants without payment?
5. Are all accidents seen, or has the resident medical officer power to reject any trivial accident in an ineligible patient?
6. Are any steps taken to impress patients with the fact that hospitals are founded and maintained for the benefit of the sick poor?
7. Do the patients who receive treatment chiefly reside in the immediate neighbourhood of your hospital or come from long distances?
8. Do you require payment from out-patients, and if so, how much?

The General Secretary was further instructed to forward these questions to the following hospitals:

London: Brompton Hospital, Great Northern Hospital, London Hospital, Middlesex Hospital, National Hospital for Paralysis, Royal Free Hospital, Royal London Ophthalmic Hospital, St. Bartholomew's Hospital, St. George's Hospital, Skin Hospital (Leicester Square), Throat Hospital (Golden Square).

Provincial and Welsh: Birmingham General Hospital, Cardiff Infirmary, Devon and Exeter Hospital, Leeds Infirmary, Newcastle Infirmary, Norfolk and Norwich Hospital, Royal Infirmary, Liverpool; Royal Infirmary, Manchester.

Scotch: Royal Infirmary, Edinburgh.

Irish: Belfast Hospital, Cork Hospital, Dublin Hospital.

ROYAL NAVAL AND MILITARY COMMITTEE.

A MEETING of the Royal Naval and Military Committee was held on January 12th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council, in the Chair), Surgeon-Lieutenant-Colonel Dormas Curme, Brigade-Surgeon-Lieutenant E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, and the following officers of the Indian Medical Service: Lieutenant-Colonel Andrew Duncan, Lieutenant-Colonel P. J. Dwyer; the Editor, Dr. Dawson Williams, attended by request.

INDIAN MEDICAL SERVICE.

The Committee proceeded to consider the reply from the India Office to the representations of the British Medical Association [illegible] the India Office Memorandum of October last, [illegible] information supplied by the Editor of the Indian Medical Journal, compiled from correspondence he has received from various officers in the Indian Medical service.

[illegible]
Wimbledon, London, S.W.
[illegible]

[illegible] letter of [illegible] Indian Medical [illegible] Council of the British Medical Association, [illegible] Medical Association [illegible]

With reference to the representations [illegible] 17, 18, 23, and 24, I am to point out that the matters referred to were very fully considered by the Secretary of State in Council after consultation with the Government of India, and he does not see sufficient grounds for departing from the decisions arrived at in the Memorandum.

With regard to the remaining representations I am to inform you as follows:

[illegible] The Government of India will be asked to report the number [illegible] to the special appointments proposed.

[illegible] question of the pay of officers of the Indian Medical Service [illegible] employ is under consideration by the Government of India, [illegible] the result will be communicated to the Council as soon as possible.

[illegible] The Government of India will be asked whether [illegible] ties can be granted to enable medical officers to pass the Lower Standard Urdu examination as soon as possible after their arrival in India.

[illegible] The rate of Rs. 1,000 pay after twenty-four years service will be brought to the notice of the Government of India, and they will be asked whether they recommend any increase. I am to point out that the leave pay of [illegible] a year is only drawn by a combatant officer after the commencement of his fourteenth year of service, and that a medical officer of similar length of service would in almost all cases be holding a civil or administrative appointment carrying at least as high a rate of leave pay.

[illegible] and 7.—When the memorandum is reprinted the words "in India" will be struck out. It is not intended to imply that the leave referred to in Clause 23 must be spent in India.

Passing to the memorandum forwarded with your letter of August 4th, I am to inform you that a copy thereof will be forwarded to the Government of India for their information, and that any recommendations they may desire to make on points which have not been considered.

I am, Sir, your obedient servant,

HENRY E. WAITOLE.

The Secretary,
British Medical Association,
429, Strand, W.C.

MEMORANDUM BY THE EDITOR.

Indian Medical Service.

LANGUAGE EXAMINATION: TRAINING IN MILITARY SURGERY AND TROPICAL DISEASES.

The Committee is gratified to learn that the Secretary of State in Council will represent to the Government of India **the desirability of granting to medical officers facilities for** passing the Lower Standard Urdu examination as soon as possible after their arrival in India. It ventures to submit the following suggestions which it is believed would tend to increase the efficiency of the junior grades of the Indian Medical Service, while at the same time removing a disability which is undoubtedly keenly felt by these junior officers.

The Committee is completely in sympathy with what it takes to be the object of Clause 23, namely, that for the efficient discharge of his duties a medical officer ought to have an adequate acquaintance with the vernacular. An examination of the Indian Army List appears to prove that on the average it takes a medical officer as long as a year and a-half to pass the Lower Standard in Urdu, and that there are even officers of captain's rank who have not passed. The Committee is of opinion that this long delay is not merely detrimental to the individual officers, but must, *ex hypothesi*, diminish the efficiency of the services which they are capable of rendering to the Government of India. It is, therefore, to the interest of that Government to discover the causes of the delay and to apply a remedy.

Facts well within the knowledge of the Committee amply justify the statement that the chief cause of the delay is to be found in the frequent moves to which a medical officer in his first two years is subjected. He may be moved as often as twelve or more times, and instances are known in which the number of moves has equalled the number of months of service. In some cases the cause of the delay is to be found in the fact that the medical officer has, at a very early stage, been posted to a Pathan or Ghurkha regiment, stationed in a district where Urdu is not spoken.

These frequent moves have other attendant disadvantages. A young medical officer on first landing in India is not only, in common with all other officers, **under the disadvantage of** being suddenly called upon to deal with a people having habits and customs with which he is unfamiliar, but he is under the special difficulty that he is called upon to treat patients who, in large proportion, are suffering from types of disease with which he can have gained only a limited and in the main theoretical acquaintance. This affords further ground for the recommendation that a medical officer, on first reaching India, should be attached to a large civil hospital for six months. He would there learn something of hospital administration and would rapidly become acquainted with the types of disease peculiar to India and other tropical or subtropical countries. He could also study the pathology and bacteriology of tropical

diseases, could attend in the *post-mortem* room, and could gain some acquaintance with the special conditions of medico-legal work in India. It would be easy also for him to obtain special training in practical surgery, first as an assistant at operations and afterwards as an operator under the supervision of senior officers. The training of an operating surgeon in a European centre extends over a considerable period. First he becomes a house surgeon, and is allowed to do minor operations at first under supervision and afterwards independently and assists at major operations; then, probably after a period of probation during which he acts as private assistant to an operating surgeon, he becomes assistant-surgeon to a hospital. The same sort of training could easily be given by the senior officers of the Indian Medical Service to the most junior, and owing to the immense amount of operating work at a large hospital in India, experience would be gained very rapidly.

The Committee is so impressed with the importance of this point that it would be prepared to see existing regulations as to attendance for four months at Netley abolished. After passing the competitive entrance examination the young medical officer might be given one month to prepare for sailing, and on arrival in India be posted at once to a large civil hospital in the command for six months. At the end of that period he would go to his regiment, having probably passed in the language, and having certainly gained a knowledge of the people, as well as a good deal of special medical and surgical experience. The knowledge gained in administration would stand him in good stead when subsequently transferred to civil employ.

The incumbents of the specialist appointments about to be made would doubtless be stationed at the principal centres, and would therefore be available to assist in the training of the junior lieutenants. (A correspondent states, under date December 1st, 1903, that "the 'Specialist' Department of the Indian Medical Service is inaugurated with the Civil Department and in Madras consists of about six (*sic*) vacancies: (1) sanitary, (2) chemical examiner, (3) ophthalmic, (4) obstetric, (5) lunacy." He adds that there appears to be no specialist's pay, except possibly for the first two, who are not allowed private practice.

Regimental Hospital System.

The correspondence received by the Editor shows that opinions on the question whether the Regimental Hospital ought to be replaced by the Station Hospital system are very divergent. It is proposed shortly to publish an analysis of the letters received setting out the arguments for and against a change, and to invite further opinions as the number so far received is small.

The Injustice of the "Officiating" System.

The principle upon which the strength of the Indian Medical Service is determined is to recruit for a certain number of *cadre* appointments *plus* 25 per cent., namely, 20 per cent. to cover sick and other leave, and 5 per cent. to cover casualties. The system is of course sound in principle, but it is susceptible of abuse, and as the emoluments of an officer who is "officiating" are lower than those of an officer who holds a substantive or permanent[1] post there is a certain temptation to effect petty economies in this way at the expense of the officers of the Indian Medical Service.[2]

At the beginning of their service Indian Medical Service officers "officiate" for several years, generally four or five, in military employ; they are then posted to substantive charge of a native regiment, and receive increased emoluments.

The Indian Army List, April, 1903, shows that the posting of lieutenants was then as follows:—In permanent charge, 1; on field service (Somaliland), 8; in officiating charge (about), 150. Of junior captains in military employ who are liable for service in any part of India:—In permanent charge, 25; on field service (Somaliland), 3; in officiating charge, 11.

Several correspondents maintain that under the new regulations lieutenants in officiating charge of a native regiment receive less pay than under the old. Formerly the maximum might be Rs. 450 (grade pay 350 + staff pay 100), now they receive Rs. 425 (grade pay 350 + half staff pay 75).

Over 70 per cent. of the officers Indian Medical Service, however, are in civil employ, and, as a rule, within a short time of being posted to substantive charge of a regiment an officer is transferred to the civil side, and receives an "officiating" appointment. He is still kept on the strength of the regiment for three years or until he is posted to a permanent appointment, it may be, in five or six years. Meanwhile another officer is "officiating" for him with the regiment. Both officers receive the lower scale of pay. Further, an officer "officiating" in civil employment may be sent on active service, and then receives "unemployed" pay. The system is undoubtedly complicated, but will easily be understood by readers familiar with the plan on which the tea party in *Alice in Wonderland* was managed.

An officer "officiating" in civil employ does not come under the civil leave rules until he receives a permanent appointment, or until he has spent three years in civil employ, whichever occurs first. Further, he does not come under the civil rules for furlough until he gets a permanent appointment, however long this may be delayed; he is earning civil furlough, but cannot get it except on medical certificate.

Suggestions.—Let the transfer of I.M.S. officers to civil employ be put on the same footing as the transfer of an officer of the India Army to civil employ in the Foreign Department or in the "non-Regulation" Provinces (for example, Burmah, Punjab, or North-West Frontier Province), or as the transfer of an officer Royal Engineers to civil employ in the Indian Public Works Department; that is to say, let the Indian Medical Service officer be transferred permanently from military to civil, and let his name be struck off the strength of the regiment, and put on the supernumerary list in the *Army List*. He would then come under the rules for full civil privileges—leave, and pay, and full military privileges if sent on active service. The vacancy on the *Army List* created by the removal of his name from the strength of the regiment would be filled by the appointment of a substantive incumbent.

Pay.

The correspondence received by the Editor indicates quite clearly that the increases in pay will not make the Service contented. In addition to the point as to the pay of lieutenants and junior captains referred to above, it is pointed out that for those above the rank of captain 10 years, and below that of lieutenant-colonel under 25 years, there is no increase, and the rates compare unfavourably with those received by the Royal Army Medical Corps. It is urged that the following points should be noted: (*a*) During the second decade of his service an officer's subscriptions (Indian Family Pension Fund, band, mess, and regimental subscriptions and donations) are very much increased; (*b*) having regard to the fact that the service is continuous in India, there should be an equitable increase of pay or a grant of passage money to defray the cost of journey to England, at any rate if invalided; (*c*) the fact that if the medical officer marries, he must, as a rule, keep his wife and children, or his children at least, in England ought to be considered in fixing his pay in his second decade of service; (*d*) having regard to the many stations at which it is absolutely necessary for a medical officer to keep a horse, he should receive horse allowance, and a free railway pass for his horse when he is ordered to move.

Generally:

Most correspondents express the hope that the Committee will maintain all the points in its Memorandum of August, 1903.

The Committee having considered the letter from the India Office, dated 21st December, 1903, clause by clause, recommends that the following further representations be forwarded to the India Office.

Clause 5.—Adverting to this Clause in the Memorandum of the India Office, dated October, 1903, the Committee from information collected attaches great importance to its recommendation that the Director-General of the Indian Medical Service should be granted the rank of Lieut.-General so as to correspond with that of the Director of the Army Medical Service. The Committee regrets that the Secretary of State in Council, after consultation with the Government of India, cannot see sufficient grounds for departing from the decisions embodied in the memorandum. The Committee would urge the India Office to further reconsider its decision on the following grounds:

(*a*) The great importance of the service, and to the fact that several officers of the rank of surgeon-general are serving under the Director-General.

(*b*) The analogy already urged of the Indian Medical Service to the Army Medical Department.

[1] "Substantive" and "permanent" are terms used with the same meaning in army and civil regulations respectively.

[2] An extreme instance of the abuse of the system of officiating appointments is afforded by the case of the Extra Assistant Judicial Commissioners; almost the whole of that service is "officiating."

(c) That the Director-General is at the head of the Sanitary Department in India, and is the adviser of the Indian Government on all sanitary matters.

Clauses 16 and 17. The Committee regrets that the India Office cannot see its way to adequately pay officers of the Indian Medical Service. The Committee is convinced that until there is a reasonable and adequate increase the India Office will not have a contented service, as is evidenced by the large mass of correspondence received since the issue of the Memorandum of the India Office 1st October. The Committee would respectfully urge the India Office, in the best interests of the public service, to reconsider the question, and to introduce a bold and comprehensive scheme likely to satisfy the officers of the Indian Medical Service. It should be borne in mind that service is continuous in India, and therefore there should be an equitable increase of pay. Further, that during the second decade of his service an officer's subscriptions (Indian Family Pension Fund, band, mess, and regimental subscriptions and donations) are very much increased.

Clause 18. The Committee is glad to learn that the Government of India has been asked to report on the number and nature of the specialist appointments proposed, and the Committee would respectfully express the hope that such report may be forthcoming at an early date.

Clause 19. The Committee is also gratified to learn that the question of the pay of officers of the Indian Medical Service in Civil employ is under consideration by the Government of India.

Clause 24. The Committee is gratified to learn that the Secretary of State in Council will represent to the Government of India the desirability of granting to medical officers facilities for passing the Lower Standard Urdu examination as soon as possible after their arrival in India. It ventures to submit the following suggestions, which it is believed would tend to increase the efficiency of the junior grades of the Indian Medical Service, while at the same time removing a disability which is undoubtedly keenly felt by these junior officers:

(a) This Committee is completely in sympathy with what it takes to be the object of Clause 23, namely, that for the efficient discharge of his duties a medical officer ought to have an adequate acquaintance with the vernacular. An examination of the Indian Army List appears to prove that on the average it takes a medical officer as long as a year and a half to pass the Lower Standard in Urdu, and that there are even officers of captain's rank who have not passed. The Committee is of opinion that this long delay is not merely detrimental to the individual officers, but must, *ex hypothesi*, diminish the efficiency of the services which they are capable of rendering to the Government of India. It is, therefore, to the interest of that Government to discover the causes of the delay and to apply a remedy.

(b) Facts well within the knowledge of this Committee amply justify the statement that the chief cause of the delay is to be found in the frequent moves to which a medical officer in his first two years is subjected. He may be moved as often as twelve or more times, and instances are known in which the number of moves has equalled the number of months of service. In some cases the cause of the delay is to be found in the fact that the medical officer has, at a very early stage, been posted to a Parbat or Punjab regiment, stationed in a district where Urdu is not spoken.

Clause 25. The Committee awaits with keen interest the decision of the Government of India on the matter of Leave Rules.

Clauses 29 and 30. The Committee regrets that the India Office has not conceded the points already urged on Clauses 31 and 32. By withholding this equitable concession a grave injustice is done to officers who have rendered valuable service. The Committee would, therefore, again urge upon the India Office the justice of favourably considering its original recommendations transmitted to the Secretary of State for India. The provision in Clause 33 only partially meets their hardship.

In conclusion, the Committee would respectfully reiterate the grave necessity of favourably considering the representations here made, and sincerely hopes and honestly believes that by granting these recommendations the result will be to continue to attract to the Indian Medical Service men of the highest scientific attainments.

Moved by Brigade-Surgeon-Lieutenant-Colonel DRAKE-BROCKMAN, seconded by Brigade-Surgeon-Lieutenant-Colonel ELLISTON, and

Resolved: That it be recommended to the Council that a copy of these representations be forwarded to the India Office.

The Committee deferred consideration of the following questions contained in the Editor's memorandum: Abolition of the four months' course at Netley; regimental hospital system; the injustice of the officiating system; and the regimental system in India.

The following abstract of a letter from a captain of the Indian Medical Service in Bengal was then considered:

"Dear Sir, As far as I remember the regulations, an officer of the R.A.M.C. can by passing various examinations so accelerate his promotion that he may become a major after some ten years' service. This privilege or opportunity is denied to the I.M.S., consequently it must in future often happen that R.A.M.C. men of junior service will be senior in rank to I.M.S. men of longer service. This, apart from the question of one or two years' earlier receipt of major's pay, will make a serious disadvantage on active service, where one D.S.O. or C.I.E. is given to the Senior M.O. of a brigade. More than this, it will put to an even greater extent than at present the senior military appointments, with their patronage of cantonment hospitals, and so on, into the hands of R.A.M.C. officers.

"I am sure this point has only to be considered by you for its importance to be realized."

Resolved: That it be recommended to the Council that the General Secretary be instructed to forward a letter to the India Office setting out the text of the complaint, and requesting the India Office to advise how they would propose to overcome this anomaly.

A reply was read from the War Office in reference to the following resolution passed at the meeting of the Committee held on July 7th, 1903:

Resolved: That in consequence of the difficulty experienced by most volunteer medical officers to spare time to attend the School of Instruction at Aldershot for a month, it is desirable that some further inducement be given by the Government for these officers to qualify themselves by knowledge to obtain the certificate of proficiency required by the regulations, as for example the establishing of classes at different centres, and by the shortening of the course of instruction at Aldershot to a fortnight.

Resolved: That a copy of the foregoing resolution be forwarded to His Majesty's Secretary of State for War.

No. [illegible] No. 4[illegible] A.M.D. 11

War Office, London, S.W.,
[illegible]th November, 1903.

SIR, With reference to your letter of the 21st July, 1903, I am directed by the Secretary of State for War to inform you that the recommendation of the Council of the British Medical Association that the question of affording further facilities to volunteer medical officers to obtain the Proficiency Certificate should be considered with other proposals on the subject of the course of instruction for Auxiliary Forces

I am, Sir, your obedient servant,

The General Secretary, GUY LLOYD-WILLIAMS.
British Medical Association,
429, Strand, W.C.

On the motion of the CHAIRMAN, seconded by Brigade-Surgeon-Lieutenant-Colonel ELLISTON, the reply was received and entered on the minutes.

With regard to Malaria Medical Officers, Surgeon-Lieutenant-Colonel CORNE reported that, in accordance with a recommendation at the Committee meeting of July, 1903, Surgeon-Colonel Combs wrote to a member of the War Commission, received a reply, and is summoned to give evidence before the Commission on January 13th. Surgeon-Lieutenant-Colonel Corne, under these circumstances, proposes to await results before asking the Committee to take any action.

SCOTTISH COMMITTEE.

A meeting of the Scottish Committee was held at the Station Hotel, Perth, on November 20th, 1903, when there were present Dr. Bruce Gouldie (Chairman) in the chair, Dr. Cochrane Baird, Dr. Balfour Graham, Dr. H. M. W. Gray, Mr. G. Halley, Dr. Hamilton, Dr. Munro Moir, Dr. J. E. Moorhouse, Dr. James Murray, Dr. Maxwell Ross, Dr. W. A. Taylor.

ELECTION OF CHAIRMAN.

It was resolved that Dr. Bruce Goff be appointed Chairman of the Committee.

ELECTION OF SECRETARY.

It was resolved that Dr. Buist be appointed Secretary to the Committee.

RESOLUTIONS.

The following resolutions were adopted:

That having considered the remit on the matter of the nomination and support by the British Medical Association of candidates for the office of Direct Representative for Scotland on the General Medical Council, the Committee unanimously recommends that the Association take no action.

That the Committee recommends the Council to remit to the Scottish Divisions the question whether it is advisable that a consultation take place between the medical witnesses on both sides engaged in any legal case.

That the Council be recommended to take action to secure that in criminal cases medical representatives of the defence be permitted to be present, though not to interfere, at the official autopsies.

A letter was read from the Medical Secretary and the following resolution adopted:

That ethical matters should be considered in the first instance by the local Division Committee or Branch Council, and that no comments should appear in the Association JOURNAL until the question has been reported on locally.

It was proposed by Dr. MAXWELL ROSS and seconded by Dr. MURRAY:

That the Committee recommends the Council to consider the advisability of issuing a circular letter to the press generally as to the undesirability of inserting paragraphs regarding medical practitioners which may seem to be of the nature of advertising them.

The previous question was proposed by Dr. MOORHOUSE, and on a division was carried by 5 to 4. The motion was lost.

The following resolution was also adopted:

That the Committee is strongly of opinion that security of tenure and superannuation are necessary for the efficiency of the Public Health, Poor Law, and Vaccination Services, and requests the Scottish representatives to state this view to the joint meeting of the Medico-Political and Public Health Committees.

The Committee approved generally of the suggested proposals for amendment of the Death Registration Acts, and determined that the arrangement of future meetings should be left to the Chairman and Secretary, but that no meeting be called on a Saturday.

COLONIAL COMMITTEE.

BY a resolution of the Council this Committee consists of Dr. J. Groves and Mr. Edmund Owen, together with five members to be appointed by the representatives of the Colonial Branches on the Council. The Colonial representatives met and elected the following to serve on the Committee: Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Mr. James Cantlie, Dr. C. G. Gooding, Sir Francis Lovell, K.C.M.G., and Dr. C. G. Drummond Morier.

A meeting of the Committee was held on November 4th, 1903, when there were present Mr. Edmund Owen, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Mr. James Cantlie, Dr. C. G. Gooding, Dr. J. Groves, and Dr. C. G. Drummond Morier.

ELECTION OF CHAIRMAN.

Mr. Edmund Owen was appointed Chairman of the Committee for the ensuing twelve months.

SUPERNUMERARY MEMBERS.

It was resolved to request the Council to empower the Committee to elect as supernumerary members any Colonial members of the Association who happened to be in Great Britain. [See also pp. 16, 17.]

SCIENTIFIC GRANTS COMMITTEE.

A MEETING of the Scientific Grants Committee was held on January 13th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, Dr. T. D. Griffiths (President), Dr. James Barr, Dr. Wm. Collier, Mr. H. Betham Robinson, M.S., Professor R. Saundby, Professor E. H. Starling, F.R.S.

ELECTION OF CHAIRMAN.

It was moved by the PRESIDENT, seconded by Professor SAUNDBY, and resolved:

That the Chairman of Council be appointed Chairman of the Committee.

RESEARCH SCHOLAR.

The CHAIRMAN reported that the applications which had been received for the unexpired portion of research scholarship rendered vacant by the resignation of Dr. George A. Watson, and the Committee resolved to recommend that Dr. John T. Hewetson be appointed to the vacant research scholarship for the unexpired term, namely, June next.

INSPECTION.

The question of the inspection of scholars' work was considered in accordance with the following resolution passed by the Scientific Grants Committee on October 2nd, 1902:

That the scholars' work be subject to inspection, and the actual out-of-pocket expenses of such inspection shall be borne by the Association. Further, that the Committee meet in January in each year to direct the necessary steps to be taken.

The Committee resolved:

That the Chairman of Council and Professor Starling, F.R.S., be appointed a subcommittee with full powers to carry out the foregoing resolution relating to the inspection of scholars and grantees and to report to the next meeting of the Committee.

ORGANIZATION COMMITTEE.

A MEETING of the Organization Committee was held on November 10th, 1903, when there were present: Mr. T. Jenner Verrall, in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

The MEDICAL SECRETARY reported on his visits to meetings of certain Divisions and stated that he had engagements during the next month to attend meetings of other Divisions.

RULES OF DIVISIONS AND BRANCHES.

It was resolved:

That the Council be recommended to approve the rules of the following Branch and Divisions: North Wales and Shropshire Branch: Denbigh and Flint, North Carnarvon and Anglesea, South Carnarvon and Merioneth, Shropshire, and Tyneside Divisions; and a new rule of the Dorset and West Hants Branch relative to sponsors for candidates for membership.

BOUNDARIES OF DIVISIONS AND BRANCHES.

A proposal to include Walsall in the Central (Birmingham) Division was considered, and it was resolved:

That if the Birmingham Branch agrees to the desire of the Walsall members that they should be included in the Birmingham Central Division, the Committee hereby expresses its approval of such arrangement.

A petition from the Isle of Man Division asking to be made a separate Branch, and an expression of opinion from the Lancashire and Cheshire Branch thereon, were considered, and a communication was directed to be addressed to the Isle of Man Division.

A communication from the Wandsworth Division asking that the name of the Division should be changed to "South-West London Division" was deferred until the opinion of the Metropolitan Counties Branch could be obtained.

BRANCH AND DIVISION FINANCE.

The consideration of certain matters affecting the financial arrangements of Branches and Divisions deferred from the meeting of October 13th was resumed. An opinion furnished by the Solicitor to the Association was submitted, and Mr. Hempson attended for the purpose of advising the Committee. After discussion it was resolved:

That the Chairman, the Solicitor, and the Secretary be instructed to prepare a statement embodying the purport of Mr. Hempson's opinion to be circulated to the Secretaries of Divisions and Branches.

It was further resolved:

That the Organizing Secretary write to the Branch which raised the question of giving an honorarium to a Branch Secretary pointing out that the propriety of any given payment, whether by way of honorarium or otherwise, rests upon the interpretation of Clause 4 of the Memorandum of Association, read in conjunction with the Articles of Association and By-laws, and that the Committee cannot reply on any individual case without knowing the specific circumstances under which the payment is proposed to be made.

In reply to questions Mr. HEMPSON expressed the opinion (1) that By-law 8 contemplated that the Council should pre-

scribe in advance the particulars which the Branches and Divisions should furnish in the financial statement to be rendered annually. (2) With respect to the interpretation of the provision of By-law 16, that each Branch "shall pay to each Division of the Branch such sum per member as the Branch Council may consider necessary to defray the expenses of the Divisions," Mr. Hempson advised that in his opinion it was not obligatory upon a Branch Council to make the same capitation grant to each of its Divisions, but that it might make in the same year different grants per head to different Divisions, and might also from year to year vary the amount granted to each according to what such Branch Council might deem necessary to enable each Division adequately to carry out the objects of the Association within its area.

The Committee adopted the following resolutions:

That in the opinion of the Committee it is desirable that in conveying to Divisions and Branches the requirements of the Council under By-law 9, a model tabulated form be supplied to be suggested as convenient for use by Division and Branch secretaries in preparing the necessary financial statement.

That the reply of the Solicitor as to the interpretation of By-law 16 be communicated to Divisional Secretaries together with the other replies which are to be circulated by instruction of the Council.

AMENDMENT OF ARTICLES AND BY-LAWS.

The following instruction of the Council to the Committee was then dealt with:

That the Organization Committee be instructed to consider and report to the Council upon such amendments of the Articles and By-laws as it may be deemed expedient to submit to the next General and Representative Meetings.

The Committee appointed the Chairman and Secretary a subcommittee to draft, with the assistance of the Solicitor, amendments of the Articles and By-laws for submission to the next meeting.

COLONIAL BRANCHES.

In consequence of a resolution of the Council referring to the Committee the question of grouping Colonial Branches for representation on the Council, members of the Colonial Committee attended, and a memorandum was laid before the Committee showing the membership of the Colonial Branches, the representation thereof proposed by the Colonial Committee, the representation which would result from an approximately proportional system of allotting one representative for about 200 members, and the present proportional representation of the United Kingdom Branches.

The further consideration of the memorandum was deferred until the next meeting, and the Medical Secretary was instructed to draw up a draft report thereon.

A FURTHER meeting of the Organization Committee was held on December 8th, 1903, when there were present Mr. T. Jenner Verrall in the chair, Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

The MEDICAL SECRETARY reported as to Division meetings which he had attended.

PROPOSED CONFERENCE OF SECRETARIES.

A suggestion made by Dr. W. J. Greer, Honorary Secretary of the Monmouthshire Division, that it would be useful to hold occasionally a conference of Division and Branch Secretaries to consider matters of administration was considered. The Committee directed Dr. Greer to be informed that while not averse to the principle, it thought that the time was not ripe for carrying it into effect.

RULES OF DIVISIONS AND BRANCHES.

The Committee resolved to recommend the Council to approve the rules of the Cleveland Division, Glasgow (North West) Division, Aberdeen Branch, and Edinburgh Branch.

SECRETARIES OF DIVISIONS AND BRANCHES.

A communication from the Metropolitan Counties Branch Council was considered, stating:

That the question of the boundaries of Divisions throughout the Branch had been carefully considered by a Subcommittee composed of the Secretaries of all Divisions of the Branch, who had recommended certain changes, and that the Branch Council had approved, and requested the Council of the Association to approve.

The scheme, as finally approved by the Council on January 20th, was as follows:

Divisions of the Metropolitan Counties Branch.

1. CITY.—To include the Boroughs of Stoke Newington, Hackney Green City, Finsbury, Stoke Newington, and Hackney, with Stamford Hill Hackney.
2. STEPNEY.—To include the Boroughs of Stepney, East and West Ham and Poplar, with Leyton and Romford.
3. WALTHAMSTOW.—To include Walthamstow, Chingford, Leyton, Leytonstone, Snaresbrook, Wanstead and Woodford, to Chipping Ongar and Epping Western Railway.
4. ST. PANCRAS.—To include the Boroughs of Islington, Highgate and St. Pancras.
5. HAMPSTEAD.—To include the Borough of Hampstead, and districts of Barnet, Elstree, Edgware, Hendon, Kenton, Wembley, Wealdstone, Pinner, Harrow, Mill Hill, and Totteridge.
6. TOTTENHAM.—To include Tottenham, Edmonton, Ponder's End, Enfield, Waltham Abbey, Chestnut Seven Sisters, Wood Green, Harringay Park, Hornsey, and Barnet.
7. WATFORD AND ABBOTSLEY.—To include Chesham, Amersham Beaconsfield, Chorley Wood, Watford, Pinner, Harrow, Bushey, Stanmore, Aldenham.
8. EALING.—To include Acton, Ealing, Hanwell, Hayes, Southall, Uxbridge, West Drayton, Colnbrook, Osterley, Hounslow, Brentford, extending east to the boundaries of the County of London with the River Thames, and south on the boundaries of the County of London as far as the boundary of Division, thus including Bedford Park, Turnham Green, and Chiswick.
9. MARYLEBONE.—To include the Borough of Marylebone.
10. WESTMINSTER.—To include the Boroughs of Holborn and Westminster.
11. KENSINGTON.—To include Kensington, Hammersmith, and Paddington.
12. CHELSEA.—To include the Boroughs of Chelsea and Fulham.
13. RICHMOND.—To include the whole of the Parliamentary Division of Kingston, with Richmond, Barnes, and Mortlake.
14. WANDSWORTH.—To include the Borough of Wandsworth except Streatham, the Borough of Battersea, and Wimbledon and Merton.
15. LAMBETH.—To include the Borough of Lambeth except Tulse Hill and Norwood, together with Southwark and Bermondsey, Camberwell and Peckham.

It was resolved:

That the Divisions, and boundaries thereof, in the area of the Metropolitan Counties Branch be henceforth as proposed in the scheme submitted to the Council by the Metropolitan Counties Branch Council, subject to the following reservations:—(1) those changes only are approved, at present, which do not affect the boundaries of the Branch; (2) the boundary between the Hampstead and Watford Divisions remains for the present unaltered.

The Council was recommended in accordance with the wishes of the members concerned to approve the suggestion that the Alnwick and Berwick Divisions should henceforth form one Division, to be called the North Northumberland Division.

COLONIAL BRANCHES.

The following report on the proposed grouping of Colonial Branches, prepared in accordance with instructions, was adopted by the Committee:

REPORT OF THE ORGANIZATION COMMITTEE AS TO THE REPRESENTATION OF THE COLONIAL BRANCHES ON THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

The Organization Committee has considered the matters referred to it under the following instruction of the Council:

That before deciding upon the grouping of the Colonial Branches for representation on the Council, the matter be referred to the Organization Committee,

and has had before it

(1) The By-laws relative to the subject, especially the following provisions:

From By-law 21: "The grouping of Branches not within the United Kingdom for the purpose of electing members of the Council shall be determined by the Council, provided that the total number of members of Council who such Branches are entitled to elect shall not be less in proportion to their total membership thereof than those elected by the Branches in the United Kingdom."

From By-law 22: "The eligibility for election as a member of Council by a Branch not in the United Kingdom shall be such as may be determined by the laws of the said Branch."

(2) The recommendations of the Colonial Committee in connexion with which the instruction was given, as appended.

At a meeting of the Colonial Subcommittee, held at the office of the Association, 429, Strand, on Monday, May 18th, 1903, to consider the question of grouping Colonial Branches for the purpose of representation on the Council, there were present: Mr. J. Cantlie, Lieutenant-Colonel Drake Pedlar, Sir Thomas Lauder Brunton, Mr. Dudley Buxton, and Mr. Dudley W. Buxton. The Chairman of Council was elected to the chair.

It was resolved that the following grouping should be recommended for adoption:

CANADA	Montreal Branch Halifax and Nova Scotia Branch Bermuda Branch	1 Representative.
	Toronto Branch Manitoba Branch	1 "
	British Columbia Branch	

AUSTRALASIA	Western Australia Branch	1 Representative.
	Sydney and New South Wales Branch	2 ,,
	Adelaide and South Australia Branch	1 ,,
	Melbourne and Victoria Branch	1 ,,
	Brisbane and Queensland Branch	1 ,,
	New Zealand Branch	1 ,,
WEST INDIES	Jamaica, Trinidad, Leeward Islands, and British Guiana Branch	1 ,,
INDIA ...	North West Provinces, Oudh, Bombay, and Punjab Branch	1 ,,
	Bengal and Burmah Branch	1 ,,
	South India and Madras, and Deccan Branch	1 ,,
	Colombo and Ceylon Branch	1 ,,
THE FAR EAST ..	Malaya, Hong Kong, and China Branch	1 ,,
SOUTH AFRICA	Cape of Good Hope Branch	1 ,,
	Grahamstown Branch	
	Griqualand West Branch including Orange River Colony and Transvaal	1 ,,
	Natal Branch	1 ,,
MEDITERRANEAN	Malta Branch	1 ,,
	Gibraltar Branch	

(c) A table, also appended, showing the membership of the Colonial Branches and their representation on a basis of one representative to every 200 members approximately.

Memorandum as to Representation on Council of Colonial Branches.

Country.	Branch.	No. of Members.	Proposed by Colonial Committee.	Proportional (approximate) 1 to 200.
CANADA	Montreal	[illegible]		
	Halifax and Nova Scotia ..	[illegible]	1	
	Bermuda	[illegible]		2
	Toronto	[illegible]		
	Manitoba	[illegible]	1	
	British Columbia	[illegible]		
	Total...	317	2	-
AUSTRALASIA ..	Sydney and New S. Wales	472	2	2
	Adelaide and South Australia...	127	1	1
	Western Australia	57	1	-
	Melbourne and Victoria	[illegible]	1	1
	Brisbane and Queensland	113	1	1
	New Zealand...	273	1	1
	Total...	1,242	7	6
WEST INDIES ...	Barbadoes	30		
	Jamaica	5		
	Trinidad	[illegible]	1	1
	Leeward Islands	17		
	British Guiana	[illegible]		
	Total...	17	1	1
INDIA	Bombay	[illegible]	1	
	Punjab	[illegible]		
	Bengal and Branch ..	80		-
	Burmah	[illegible]	1	
	S. India and Madras ..	[illegible]	1	
	Colombo and Ceylon ..	[illegible]	1	
	Total...	43	4	-
THE FAR EAST ...	Malaya	[illegible]	1	1
	Hong Kong and China ..	[illegible]		
	Total..	144	1	1
SOUTH AFRICA ..	Cape of Good Hope ..	[illegible]	2	
	Grahamstown ..	[illegible]		
	Griqualand West includ ing Orange River Colony and Transvaal..	109	1	2
	Natal	[illegible]	1	
	Total...	355	-	2
MEDITERRANEAN	Malta	[illegible]	1	-
	Gibraltar	[illegible]		
	Total..	39	1	

Total number of proposed Representatives of Colonial Branches
(a) Proposed by Colonial Committee = 14
(b) Proportional, 1 to 200 = 14
..200 Members .. Representatives = 1[illegible] per Representative
.. .. 34 .. = 1[illegible] .. ..
.. .. 15 .. = 2[illegible] .. ..
United Kingdom Branches 15,000 to 50,000 = 1 .. ..

The Committee has further had the advantage of a conference on the subject with members of the Colonial Committee. After careful consideration of the whole matter the Organization Committee begs to report as follows:

Report.

From By-law 21 it is clear that, in any grouping of the Colonial Branches for the purposes of electing members of the Central Council that may be deemed necessary or expedient, the Council is bound to provide that the Colonial Branches shall at least not be under-represented on the Council in comparison with the United Kingdom Branches. Thus if the United Kingdom members were 15,000, the United Kingdom members of Council 50, and the Colonial members 2,700, the Colonial members of Council must be 9 at least. The Council is free to allot such larger number of Colonial Representatives as may be deemed advisable to the general interest of the Association.

The reasons urged in favour of a disproportionately large Colonial representation on the Council are (1) the great extent of many Colonial Branches and the distances between their principal centres, making it impossible for practitioners, even in adjacent Colonies, to have such community of interests as will render it possible for those in each Colony of a group to be adequately represented by the same member of Council. (2) The great distance of most Colonial Branches from the meeting place of the Council and the consequent difficulty in obtaining Representatives who can attend with regularity. (3) That, therefore, even though a disproportionately large measure of representation were granted to the Colonial Branches, such Representatives could not attend in sufficient numbers to increase unduly the size of the Council, or give to Colonial Branches undue weight in its deliberations.

In applying these considerations to practice it seems necessary to observe that the first, if logically applied, would lead practically to independent representation of every Colonial Branch however small. This, however, does not appear to be proposed by any one. For instance, it is proposed by the Colonial Committee to group Montreal with Nova Scotia, and British Columbia with Manitoba and Toronto. Such an arrangement is not obviously less objectionable, on the grounds now under consideration, to the members of those Branches than it would be for the members of the West Australian Branch, for example, to be represented on the Council by the same representative as South Australia, or for Madras and Ceylon to be grouped.

The question on which the Committee is asked to report is, therefore, essentially one of degree, of arrival at a basis of representation which shall afford a fair compromise between the extreme of strict proportional representation and the extreme of representation of every Branch independently.

The second and third reasons assigned in favour of considerable over-representation of Colonial Branches appear to be subject to this qualification, that the difficulty of finding representatives is conditional on the restriction which the Colonial Branches may choose to impose upon themselves by such rules, if any, as they may adopt in pursuance of By-law 25. It is observed that those Colonial Branches which have adopted rules, and submitted the same for consideration of the Central Council, do not appear as yet to have made any provisions under this head. It is gathered, however, from members of the Colonial Committee that, in their belief, Colonial Branches would not feel themselves adequately represented by, and would not in practice elect, any but Colonial members having an intimate recent acquaintance with Colonial conditions.

If Colonial Branches were to restrict their choice of representatives to those who have been members of such Branches within a comparatively recent period, it is not probable that there would be any effective over representation of the Colonial Branches beyond the degree that the Council would consider desirable; but if the Colonial Branches should elect as representatives English practitioners who had only a remote connexion with such colonies, and whose domicile and interests were essentially English, the membership of the Council would be considerably increased, and its decisions might be considerably influenced by the practitioners thus selected on grounds having no special connexion with the interests of the Colonial Branches.

It appears, therefore, to the Organization Committee that the decision of the matter by the Council would be facilitated if it had the advantage of having before it rules adopted by the Colonial Branches with reference to the qualifications as to membership which they will require in those whom they elect as their Representatives on the Central Council, and the Committee would recommend, as one course

open to the Council, that no attempt be made for the present to decide the grouping of the Colonial Branches; that the Colonial Branches be requested to consider the adoption of rules in pursuance of By-law 25, a draft rule being suggested by the Council to provide for the qualification of Representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904-5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation, namely:

Resolved: That it be recommended that for the year 1903-4 the Council accept the Representatives of those Colonial Branches making a return.

As an alternative course the Committee would recommend that the Colonial Branches be allotted Representatives in the proportion, approximately, of one for every 200 members, and that they be grouped in the manner which shall appear most convenient to them consistently with this basis.

It appears to the Organization Committee desirable that in connexion with the question of the election of members of Council, the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the Representative governing body of the Association under the present Constitution is the Representative Meeting; and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so which in their opinion can be overcome.

In this connexion the Committee would draw the attention of the Council to the following extracts from the Report of the Constitution Committee as approved by the annual general meeting at Cheltenham, and would suggest that the consideration of the present question indicates that it would be advantageous for the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial Branches to be taken into consideration in a comprehensive manner, either by the Colonial Committee, or by a larger body composed of the representatives of all Colonial Branches on the Council together with a proportionate number of representatives of the Central Council.

In the report on grouping of Colonial Branches, the Committee recommends either: (a) That no attempt be made for the present to decide the grouping of the Colonial Branches that the Colonial Branches be requested to consider the adoption of rules in pursuance of By-law 25, a draft rule being suggested by the Council to provide for the qualification of Representatives of grouped Branches; and that the Council give notice that it will renew for the year 1904-5 the resolution of the Council of April 22nd, 1903, with respect to Colonial representation, namely

Resolved: That it be recommended that for the year 1903-4 the Council accept the Representatives of those Colonial Branches making a return.

Or (b) That the Colonial Branches be allotted Representatives in the proportion, approximately, of one for every 200 members, and that they be grouped in the manner which shall appear convenient to them consistently with this basis.

The Committee also recommends, (c) that in connexion with the question of the election of members of Council, the attention of the Colonial Branches be drawn to the fact that the Council is essentially an executive body, and that the representative governing body of the Association under the present Constitution is the Representative Meeting; and that, therefore, the Colonial Branches be requested to take into consideration the possibility of sending representatives to the next Annual Representative Meeting, and to point out to the Council any difficulties in the way of doing so, which in their opinion can be overcome.

And (d) that the whole subject of the adaptation of the present Constitution to the special requirements of the Colonial Branches be taken into consideration in a comprehensive manner either by the Colonial Committee, or by a larger body composed of the representatives of all Colonial Branches on the Council together with a proportionate number of representatives of the Central Council.

Amendments of Articles and By-laws.

Certain amendments of articles and by-laws drafted by the Chairman and Secretary, with the assistance of the Solicitor, in accordance with the instructions of the previous meeting of the Committee were considered, and Mr. Hempson attended to advise the Committee.

Professor Wurtz proposed that Article XXVII be amended so as to provide that a constituency composed of grouped Divisions in the United Kingdom may have the same option as Branches not in the United Kingdom, to elect its Representative by voting papers, instead of in a meeting of the constituency, if preferred.

This, on being put to the vote, was defeated by 5 to 1.

The Medical Secretary was instructed to prepare a report, to be laid before the Committee at its next meeting, showing the numbered Divisions that would be enfranchised by lowering the limit for independent representation from 50 to 40, and also the number that would be enfranchized by lowering the limit to 30.

The Committee resolved to present the following interim report to the Council, recommending that the Council should bring before the next Annual Representative Meeting the following amendments of By-laws and proposed new By-laws

Amendments of By-laws.

1. In By-law 32 add at the end: "In addition to the report hereinbefore named the Council shall have power to present to any Annual Representative Meeting such further report or reports as it may deem advisable, and such report or reports shall be published in the Journal if time permits."

2. In By-law 20, Section C, delete the words "elected by the members of the Association attached," etc., down to and including the words "sanction of the Council," and insert in place thereof the words "and of one member each of the Royal Naval Medical Service, the Army Medical Service, and the Indian Medical Service, annually appointed by the Council to represent the said service respectively on the Council."

3 (New By-law). In the month of May in each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, By-law 18, By-laws 21 and 22, and By-law 7.

4. Insert at the end of By-law 15 the following words: "For the purposes of this By-law those named in the annual list of members, prepared in May in any year, as members of any Branch, shall be deemed to be members of the said Branch for the said year, and those elected by any Branch Council whose membership dates from July 1st in any year shall be deemed to be members of the said Branch for the ensuing half year."

5. In By-law 27 Delete the words "one month," and substitute the words "seven days (or such longer period as the Branch may by its rules prescribe)."

6 (New By-law). The powers conferred under Article XXX upon any constituency to appoint a substitute in the place of a representative unable or unwilling to attend a Representative Meeting shall be exercised by the said constituency in General Meeting, or by such officer or member of the Division or Divisions composing the constituency as shall have been authorized by the rules of the said Division or Divisions, or by a resolution of the said constituency, to exercise such powers.

7. That those provisions in the By-laws which were inserted at the time of the adoption of the new regulations in order to provide for temporary conditions, and are now no longer required, be deleted, namely: From By-law 10 delete Section (a) and the words in Section (b) "at any time after the 1st January, 1903." Section (b) to become (a), and (c) to become (b). From By-law 20 delete Sections (a) and (b) and the words in Section (c) "after the first day of the Annual Meeting of 1903." delete also the letter (c).

JOURNAL AND FINANCE COMMITTEE.

A special meeting of the Journal and Finance Committee was held on November 20th, 1903 when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. James Barr, Dr. H. Langley Browne, Dr. H. Radcliffe Crocker, Dr. J. H. Galton, Mr. W. Jones Morris, Mr. C. H. W. Parkinson, Dr. F. M. Pope, Dr. Norman Walker. The meeting was called for the purpose of receiving the recommendation of the Sub-committee regarding the election of an Assistant Secretary. The Committee had before it three names, and after a ballot Mr. Arthur H. Lawford was found to have been elected, and was accordingly recommended for the appointment of Assistant Secretary on pro-

lation for a period of six months at a salary of £250 per annum.

A MEETING of the Journal and Finance Committee was held on January 20th, 1904, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. E. Markham Skerritt (Treasurer), Dr. Edgar Barnes, Dr. James Barr, Dr. H. Radcliffe Crocker, Dr. J. H. Galton, Mr. W. Jones Morris, Mr. C. H. W. Parkinson, Dr. F. M. Pope, Dr. J. Roberts Thomson, Dr. Norman Walker.

FINANCIAL.

The accounts for the quarter ending December 31st, 1903, were submitted and approved, and the Treasurer was instructed to pay those remaining unpaid. The auditor's report was also received.

A POPULAR LECTURE AT THE ANNUAL MEETING.

The Committee recommended that a sum not exceeding £ to be granted for the expenses attendant on the delivery of a free and popular lecture at the forthcoming annual meeting at Oxford, in accordance with the resolution of Council passed October 21st, 1903.

ASSISTANT SECRETARY COMMITTEE.

THIS Committee was appointed to select candidates suitable for the post of Assistant Secretary, and report to the Journal and Finance Committee. It was also instructed to consider and report on certain other matters relating to the organization of the office work. At a meeting on November 6th, 1903, it was resolved to notify the vacancy in the office of Assistant Secretary at a salary of £250 per annum, and Sir Victor Horsley undertook to prepare a statement with regard to the organization of the office work.

A further meeting was held on November 20th, when, after interviewing six candidates, the Subcommittee recommended three names to the Journal and Finance Committee.

A further meeting was held on January 19th, 1904, when all the members were present, namely: Mr. Andrew Clark (Chairman of Council) in the chair; Dr. T. D. Griffiths (President); Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting); Dr. J. Barr; Dr. F. M. Pope; Dr. J. Roberts Thomson.

A memorandum submitted by Sir Victor Horsley with regard to the working of the office of the British Medical Association was considered, and the Committee adopted the following resolutions:

That in future the title of Organizing Secretary be changed to "Medical Secretary."

That the work of the Public Health Committee be transferred to the Medical Secretary.

ANNUAL MEETING (SECTIONS) COMMITTEE.

A MEETING of the Annual Meeting (Sections) Committee was held on Monday, December 7th, 1903, when there were present: Professor R. Saundby, M.D., in the chair, Dr. T. D. Griffiths, (President), Mr. Andrew Clark, (Chairman of Council), Dr. E. Markham Skerritt, (Treasurer), Dr. W. J. Tyson, Dr. Norman Walker.

ELECTION OF CHAIRMAN.

It was resolved that Professor Saundby be appointed Chairman.

The Committee, after discussion, resolved to make the following recommendations to the Council.

1. That a small standing Committee of the Council be appointed to supervise the work of the Sections, and to report to the Council at the April and July meetings.

2. That this Committee be authorized to write to the office-bearers in the various Sections and to obtain from them information respecting the progress of the Sectional arrangements in time for these reports.

3. That it be the duty of this Committee to afford all information and assistance to the officers of the Sections in making their Sectional arrangements.

4. That the Memorandum for officers of Sections now issued by the General Secretary in future be sent out by this Committee and be modified from time to time as required.

PREMISES AND LIBRARY COMMITTEE.

A MEETING of the Premises and Library Committee was held on January 19th, 1904, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. E. Markham Skeritt (Treasurer), Dr. Edgar Barnes, Dr. J. H. Galton, Dr. Bruce Goff, Dr. Holman, Dr. F. M. Pope.

The LIBRARIAN reported that there had been 1,448 attendances recorded during the quarter, as compared with 1,458 for the corresponding period of 1902. A complete set of the *Thèses de Lyon* for 1902-3, comprising 109 separate theses and 127 of *Thèses de Paris* for 1903-4 had been received. The report also enumerated the books presented to the Libary.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of this Division was held on December 8th, 1903, at Trowbridge, Mr. G. C. TAYLER, President, in the chair. The meeting was attended by a large number of members of the Division and a number of visitors from neighbouring Divisions were present.

Paper.—Mr. ALBERT CARLESS, Surgeon to King's College Hospital, read a paper entitled Some Dangers and Difficulties in the Surgical Treatment of Appendicitis. A vote of thanks to Mr. Carless for his admirable and thoroughly practical paper was proposed by the PRESIDENT, seconded by Dr. FLEMMING, and supported by Drs. PEARSE, AMBROSE, and CAMPBELL. The meeting was the means of bringing a number of medical men together, who, although living comparatively near to each other, had not previously met. The hope was generally expressed that there should be many such meetings as a means tending to promote the more cordial relations of the profession.

Letters of Apology. The Honorary Secretary, Dr. TUBB THOMAS, read letters of regret from a number of members who were unable to be present.

A Question of Ethics.—The action of the Honorary Secretary with regard to an ethical question concerning a member of the Division met with the approval and confirmation of the Division.

BIRMINGHAM BRANCH.

THE second ordinary meeting of the session was held in the Medical Institute, Edmund Street, Birmingham, on Thursday, November 12th, 1903, Mr. JORDAN LLOYD (President) in the chair. There were fifty-three members and one visitor present.

Confirmation of Minutes.—The minutes of the previous meeting were read, confirmed, and signed.

Inclusion of Walsall in the Central Division.—A communication signed by the majority of the members residing in Walsall having been read, it was resolved:

That, with the sanction of the Organization Committee on behalf of the Council of the Association, Walsall be included in the area of the Central Division of the Branch.

BORDER COUNTIES BRANCH.

WEST CUMBERLAND DIVISION.

AN ordinary meeting of this Division was held at Cockermouth on December 22nd, 1903. Dr. G. J. MURIEL was in the chair, and there were nine other members present.

The late Dr. Ormerod.—The following vote of condolence, proposed by the CHAIRMAN, and seconded by Mr. DUDGEON, was passed:

That this meeting of the members of the West Cumberland Division of the British Medical Association wish to express their sincere sympathy with Mrs. Ormerod and her family in their recent bereavement, and to record their own sense of loss by the death of one who has always taken an active interest in the welfare of the Association.

Next Meeting.—It was decided to hold the next meeting at Workington instead of Maryport, so as not to interfere with the arrangements of the Branch.

Communications.—Dr. J. R. BURNETT recorded a case of spina bifida with double equino-varus, and also one of middle-ear disease.—Dr. DUDGEON read notes and exhibited the specimen of an obscure kidney case.—Dr. FLETCHER showed a specimen of miscarriage at the seventh month, in which there had been a condition of placenta praevia, the whole mass coming away intact.—Dr. GOVAN showed a specimen of a monster which had been delivered prematurely.

Medical Acts Amendment Bill. The Secretary read the report of the Subcommittee on the proposed Medical Acts Amendment Bill. This was discussed, and on the motion of Dr. Burnett, seconded by Dr. Dobeson, the report was unanimously adopted.

BRISBANE AND QUEENSLAND BRANCH.

The annual meeting of this Branch was held on Friday, December 4th, 1903, at Brisbane, Dr. Hopkins (President) being in the chair.

Election of Officers.—The election of officers for 1904 was announced: *President:* W. S. Byrne, M.B., M.R.C.P. *Vice-Presidents:* G. H. Hopkins, L.R.C.S., and W. N. Robertson, M.B. *Treasurer:* A. J. Turner, M.D. *Council:* J. Cameron, M.B., A. B. Carvosso, M.B., A. C. F. Halford, M.B., and D. Wield, M.A., M.D. *Curator of Library and Museum:* R. O'Brien, M.B. *Auditors:* M. Culpin, L.R.C.P. and S., J. Thomson, M.B. *Secretary:* A. B. Brockway.

Report of Council. The Council's report and Treasurer's statement were read and adopted; the latter showed a credit balance of £91 8s. 5d.

Presidential Address.—Dr. Hopkins, the retiring President, read an address, and Dr. W. S. Byrne then took the chair.

Vote of Thanks.—A vote of thanks was passed to the retiring Council, coupled with the names of the President and Secretary, who replied, Dr. Hopkins making eulogistic reference to the work of the Hon. Curator, Dr. C. S. Hawkes.

LANCASHIRE AND CHESHIRE BRANCH:

Altrincham Division.

The quarterly meeting, being the fourth general meeting, was held at Altrincham on Thursday, November 19th, 1903.—Dr. C. J. Renshaw presided over a meeting which numbered 13 members, and one visitor (Dr. S. Woodcock, of Old Trafford). Six other members sent apologies for absence, and five members and one visitor (Dr. Helme, Branch Secretary), who had intended to be present, were unavoidably detained at the last moment.

Confirmation of Minutes. The minutes of the last meeting were passed as correct.

Reports of Officers and Committees. The Committee on Membership reported the issue of certain circulars as instructed. The Honorary Secretary reported the loss of two members from the total strength, owing to removal.

Financial Statement.—A financial statement was submitted and received, showing a small excess of expenditure over income.

Matters Referred to Divisions.—Various items on the agenda were referred to the Committee, or postponed, in order to allow a discussion on the Medical Acts Amendment Bill. The resolutions of the Division have been duly communicated to the General Secretary.

Education Committee. An offer was received from the Altrincham Education Committee to pay a fee of 1s. per certificate in cases of children absent from school on account of illness. This was agreed to for children already receiving medical attendance, on condition the fee be raised to 2s. 6d. for children specially examined.

Dinner. After the meeting a dinner was held at the Unicorn Hotel, where the Chairman and six members entertained Dr. Woodcock.

Blackpool Division.

A special general meeting of this Division was held on Wednesday, December 2nd, 1903, fourteen members being present.

Circular to New Members.—It was decided to issue a circular to medical men in the district not members of the Association, pointing out the advantage of membership under the new conditions.

Rules of the Division.—It was resolved

[illegible] the rules [illegible] be printed and a copy sent to each member.

Matters Referred to Divisions.—The meeting then considered the matters referred to the Divisions from the Swansea meeting and the Medical Acts Amendment Bill, and instructed the Honorary Secretary to convey the opinion of the Blackpool Division thereon to the General Secretary of the Association.

METROPOLITAN COUNTIES BRANCH.

Central Division.

A general meeting of the Central Division was held at the rooms of the Medical Society of London, Chandos Street, on Wednesday, December 16th, 1903, at 5 p.m., Professor Howard Marsh in the chair, for a session of the Medical Acts Amendment Bill, the Vaccination Acts, and the representation of the British Medical Association upon the General Medical Council.

Matters Referred to Divisions. The Draft Medical Acts Amendment Bill, the suggestions for the improvement of the Vaccination Acts, and the question of the representation of the British Medical Association on the General Medical Council, were considered, and the opinion of the meeting has been reported to the Medico-Political Committee.

Advertisements in the "British Medical Journal." Dr. Seymour Taylor drew attention to the way in which advertisements were inserted in the British Medical Journal, more especially to the fact that certain advertisements were inserted in the centre of the paper among the scientific papers. He strongly deprecated such abuse of the Journal, and proposed a motion, which was seconded by Dr. Dutton, that this method of inserting advertisements should be discontinued.—Dr. Heron supported Dr. Taylor, and also took exception to the terms in which the advertisements had been written, and did not think that the Association should allow such misleading advertisements to be inserted in the Journal. Mr. Andrew Clark pointed out that the Journal was bound so that the advertisements could be torn out, and drew the attention of the meeting to the fact that the only means by which the British Medical Association could pay its way was to insert these advertisements or raise the subscription of the members very considerably; also that the advertisements which were inserted in the middle of the Journal were very highly paid for. Sir Victor Horsley pointed out that the greatest care was taken by the proper authorities with regard to what advertisements were inserted, and that of course the British Medical Association was not in any way liable for the wording of them. After some further remarks from Dr. O'Connor, Dr. Seymour Taylor withdrew his motion on Mr. Andrew Clark intimating that he would report to the Manager of the Journal and the Journal and Finance Committee the discussion that had taken place with respect to these advertisements. It was then proposed by Dr. F. J. Smith, seconded, and carried unanimously, that Mr. Andrew Clark should report in addition that

This meeting is of opinion that it would be advisable to print in bold type, and in some prominent position of the Journal, a notice to the effect that the British Medical Association was not in any way responsible for the truth or otherwise of any of the statements inserted in its Journal.

Mr. Andrew Clark promised to do this.

Hampstead Division.

A meeting of this Division was held at the Hampstead Conservatoire, Swiss Cottage, on Wednesday, December 2nd, 1903. Dr. Ford Anderson presided.

Confirmation of Minutes. The minutes were read and confirmed.

Matters Referred to Divisions.—The report of the Executive Committee on the Draft Medical Acts Amendment Bill was received, the Bill was discussed at length, and the opinion of the meeting has been communicated to the Medico-Political Committee. The representation of the British Medical Association on the General Medical Council was referred to the Executive Committee for report in January.

Letters. Letters were read from the Medical Secretary of the Association and from the Hampstead Health Society.

SOUTH EASTERN BRANCH:

Chichester and Worthing Division.

A meeting of this Division was held at the Norfolk Hotel, Bognor, on November 26th, 1903. The chair was taken by Dr. J. C. Thorowgood, and there were present fourteen members and visitors.

Confirmation of Minutes. The minutes of the last meeting were read and confirmed.

Next Meeting. It was decided to hold the next meeting at Worthing.

Matters Referred to Divisions. The consideration of the proposed Medical Act Amendment Bill was adjourned for reconsideration at the next meeting. The resolution passed by the Council with regard to improving the existing Vaccination Acts was discussed. The opinion of the meeting with regard to representation on the General Medical Council has been communicated to the Medico-Political Committee.

Dinner. After the meeting the members dined together at the hotel.

Printed and published by the British Medical Association at their Office, No 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 19TH, 1904.

CONTENTS.

Page.

MEDICAL ORGANIZATION. An Address by J. SMITH WHITAKER, L.R.C.P., M.R.C.S., Medical Secretary, British Medical Association. The Relation of the Association to Outside Societies. The Manchester Conference.—Local Medical Societies and the Association. Defective Organization. The Relation Between Members of the Association and the Members of the Association of Registered Medical Practitioners. Special Difficulties of Reorganized Association.—Social Union.—Scientific Work.—Medical Political Work.—Defective Organization shown by Midwives Question.—Medico-Political Work not Entirely Satisfactory.—Medical Registration.—Local Provident Contract Practice.—Ethical Matters.—Divisions and Local Societies.—Questions for Consideration.—Medical Defence.—The Interest of the Profession.—The Interest of the Public.—The Members of the Association 1

MEETINGS OF BRANCHES AND DIVISIONS:

Border Counties Branch 27
Cumberland and Westmorland Branch 27
Cumberland and Eastern Counties Sub-Branch—Annual Meeting ... ...
Hexham Division 28
Lancashire and Cheshire Branch: Altrincham Division ... 29
Medical Men's Defence Union 24
Metropolitan Counties Branch: St. Pancras Division ... ...
" " " Tottenham Division ... ...
" " " Wandsworth Division ...

Page.

North of England Branch ... ...
South Wales and Monmouthshire Branch: Cardiff Division ...
" " " Monmouthshire Division ...
Sydney and New South Wales Branch ...
Ulster Branch 1
Yorkshire Branch: Bradford Division 31

THE ASSOCIATION AND MEDICAL DEFENCE: THE MEDICAL DEFENCE COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.—The Scheme.—Explanatory Memorandum.—Minority Report. 1

MEDICAL EXAMINATIONS FOR LIFE ASSURANCE REPORT ...

THE LOCAL GOVERNMENT BOARD BILL ... ...

A BILL FOR THE REGISTRATION OF NURSES AND OF PRIVATE NURSING HOMES ... ...

A BILL TO REGULATE THE QUALIFICATION OF TRAINED NURSES AND TO PROVIDE FOR THEIR REGISTRATION ...

MEDICAL ACT (1886) AMENDMENT BILL ... ...

REVACCINATION BILL ... ...

A BILL TO AMEND THE VACCINATION ACTS ...

THE WEIGHTS AND MEASURES (METRIC SYSTEM) BILL ... 33

PHARMACY BILL 42

BRITISH MEDICAL ASSOCIATION: SEVENTY-SECOND ANNUAL MEETING 43

CONSULTATION BETWEEN MEDICAL WITNESSES ... ...

HYDROPATHIC ESTABLISHMENTS ... ...

An Address

ON

MEDICAL ORGANIZATION.

Delivered before a Meeting of Medical Practitioners at Bradford.

BY J. SMITH WHITAKER, L.R.C.P., M.R.C.S.,

Medical Secretary, British Medical Association.

A MEETING of the medical practitioners of Bradford and District convened by the Bradford Division of the British Medical Association and the Bradford and West Riding Medico-Ethical Union was held at Bradford on Wednesday, February 17th, for the purpose of hearing an address as above.

Dr. GOYDER, Chairman of the Bradford Division of the British Medical Association, presided. The officers of the neighbouring Divisions of the Yorkshire Branch had been invited and several attended. There were about 80 present. Dr. Metcalfe, Joint Honorary Secretary both of the Bradford Division and of the Medico-Ethical Union, mentioned the names of several gentlemen who had written expressing their regret at inability to be present.

MEDICAL ORGANIZATION.

Mr. WHITAKER expressed his appreciation of the privilege of being able to address a meeting not only of Bradford members of the British Medical Association, but representing the whole of the medical practitioners in that important centre. The fact that there were amongst his audience members of the Bradford Medico-Chirurgical and Medico-Ethical Associations would considerably smooth his way in dealing with certain points upon which he understood it was particularly desired that he should address the meeting.

The Relation of the Association to Outside Societies.

It had been his duty during the last eighteen months or so to address a good many meetings of medical practitioners upon the question of medical organization, and though at the beginning of that period he was desired to speak chiefly upon the nature of the new Constitution of the Association, the functions of its relative parts and so forth, it was not long before he began to find another series of questions becoming prominent. Medical men began to say to themselves, "This British Medical Association is going to do some work, and some work which other people have been doing. What is going to be the relation of this Association under its new constitution to those medical societies which have been doing certain work in the past?" Though he avoided alluding to the subject in his addresses, yet in the discussions which followed he had been asked again and again, "What can the British Medical Association do for the profession? Do we need these other societies if the British Medical Association is going to do this work?" Such were the questions which had arisen elsewhere, and such were the questions which it was particularly desired, he understood, that he should deal with that evening.

To go into that fairly, he must be, to some extent, retrospective. As medical men they all appreciated that they could not thoroughly master the facts of anatomy or physiology without a certain understanding of embryology. Similarly they could not understand the present position of medical organization unless they traced the development of medical organization.

The facts might be very familiar to some of them. A good deal had been published upon this subject in the BRITISH MEDICAL JOURNAL, and of course he took it for

granted that every one present who was a member of the British Medical Association read the JOURNAL through from cover to cover. But those who were not members would desire to know what the Association was proposing to do, and therefore he would ask the members to bear with him whilst he went somewhat closely into these matters. Further, some questions involved, which had given rise to some unpleasant feelings and some confusion, could only be mastered if they were studied in a proper perspective, and they would naturally get the proper perspective by studying the matter historically.

The Manchester Conference.

He would go back no further in the first instance than the year 1900. In that year certain feelings of discontent, both in the British Medical Association and in the ranks of the profession outside the Association, came to a focus. In May of that year a conference was held, at Manchester, of medical societies, in which the Bradford Medico-Ethical Society took part through its representative, Dr. Hime. The fundamental object of that conference was to study medical organization, and they spent three days over it. During the first two and a-half days they gave themselves a kind of object lesson. They considered the Midwives Bill, contract practice, death registration, the constitution of the General Medical Council, and all kinds of subjects, the only practical business outcome of these discussions being to enable them to realize what what could be done by a representative organization of the profession. There was a good deal of criticism in the medical journals upon the amount of time they had so spent. "Mere grievance mongering" one prominent journal called it, but in point of fact it was to them a valuable object lesson; and on the afternoon of the third day, after having thus prepared their minds, they grappled with the real subject, namely, what could be done to improve the state of medical organization, what kind of organization they would need, and how to go about getting it.

Local Medical Societies and the Association.

He drew attention to the fact that those present at that Conference chiefly represented local medical societies which had grown up during the ten or twenty years previous to the meeting. Sir Victor Horsley's recent analysis of the growth of local medical societies in this country showed the remarkable development of such societies which took place in the last twenty years of the last century. If they took the trouble to go into the history of that period they would find that many of these societies owed their being to the feeling that the existing powerful organizations of the profession were not doing all the work which the profession needed. Take the British Medical Association for example. He did not disparage the work which the British Medical Association had done in the past. He had never been one of those medical reformers who said everything was to be started anew, and that they were going to do something which had never been done before. If anybody would only take pains to study the matter fully he would find that the British Medical Association throughout its history had done a great deal of work for the profession. He referred them to the "Brief History of the Association" in the *Year Book* to show that its aims were never sectional, but generous from the foundation. It had high ideals and great aims not selfish aims, but aims for the good of the medical profession. Sir Charles Hastings, in his inaugural address, stated as an object of the Association, the improvement of the organization of the profession, pointing out that "This subject was closely connected with the advancement of science, for if the profession were organized as it ought to be the harmony which would be established could not fail to be the means of more cordial and efficient co-operation in extending the science and improving the practice of medicine."

The aims of the Association, then, had been generous, and even in its very early history they found that it had been able to exercise a considerable influence on the progress of medical legislation in this country.

Defective Organization.

At the same time there was a feeling felt amongst those who were gathered together at Manchester that the British Medical Association was failing in one particular, and through a single defect in its organization. He would take the example of the Yorkshire Branch. The Branch practically covered the county of York. The work of a society like the British Medical Association must largely be done by means of meetings, and the meetings would be successful and useful almost exactly in proportion to the extent to which their members attended. If they had to draw medical practitioners for a meeting from the whole of a large county like Yorkshire, how could they possibly have anything approaching a representative meeting? They all knew that was impracticable. The defect that they could all see in the organization of the Association at that time was that most of the Branches were too large to carry on effectually the local work which such a society ought to be doing; that the British Medical Association was not drawing together sufficiently the medical practitioners in the various towns in the country neighbours and colleagues who ought to be co-operating for their own good and for the good of the public; and therefore these various local societies had been springing up for the purpose of doing this work which the British Medical Association was failing to do.

That was one side of the matter. Then they turned to examine the position of these local societies. Those who had had experience of the working of such societies found that they were in many cases very united and harmonious, and felt that great benefit had been derived from them: that the creation of such societies had not only improved the conditions of practice, but had made them better practitioners than before, and had thus done good work for the profession and for the public, as well as for them individually. But on the other hand, they continually found themselves brought up short by their isolation. They felt the pressure of the fact that they had no effective central federation, and therefore no effective means of co-operating with other similar societies throughout the country for carrying out their common aims in regard to those things which could not be dealt with by purely local action.

The Remedy.

So they had before them the elements of the problem on the one hand, local societies ineffective for anything but purely local action because of want of central federation; on the other hand, the British Medical Association, a powerful and influential organization, but ineffective for local purposes because it had not a satisfactory local organization. The statement of the problem suggested the solution. It was evident that they must have for effective medical organization the basis of local societies, and they must have also a national or imperial federation of such societies. Dr. Crawshaw, the Secretary of the Manchester Conference, brought before them three resolutions upon those lines that an effective medical organization must rest upon the basis of local societies; that there must be an annual conference of representatives of these local societies, to bring their opinions to a focus; and that there must be a council or executive, responsible to these representatives, to carry out what they wished to have done.

That was a practical organization. But then another problem arose, namely, whether they should try to create a new national organization of the medical profession, or should try to make use of some existing agency. As practical politicians they came to the conclusion that to create a new medical association in the United Kingdom was the work of a generation at least, and nothing in the desired direction would be done for the medical profession in their life time if they were to attempt that task with the British Medical Association already in the field. Dr. Cox, of Gateshead, therefore proposed and carried a resolution to the effect that the size and wealth and influence of the British Medical Association made it the only satisfactory body to work through if they could get it to reorganize itself upon the lines that they had already laid down as essential.

Reorganization of the Association.

Thus the outcome of the Conference was that they must have a national organization based on local societies, and must endeavour to induce the British Medical Association to make itself such an organization. A Committee was appointed to carry on the work of the Conference, and by a fortunate coincidence, from the point of view of the Conference, it happened that that same summer an agitation as to the powers of the Council, which had long been going on in the British Medical Association, also came to a focus. Sir Victor Horsley carried in the annual meeting at Ipswich a resolution that a Committee should be appointed to consider what amendments were necessary in the Constitution of the Association. A deputation from the Manchester Conference having been permitted to lay its conclusions before the Council of the Association, three representatives of the Conference were included in the Committee which was appointed, a most representative Committee composed of twenty-six members of the Association. After the most

careful deliberation the Committee reported in favour of a scheme of constitutional reform, embodying those principles which the Manchester Conference had formulated; and after full consideration by the Branches and by general meetings, new Articles and By-laws giving effect to that scheme were adopted in July, 1902, and were now the Constitution of the Association.

The Action of the Association a Response to the Needs of the Profession.

The point which he particularly wished to impress upon them in connexion with that piece of history was that the demand for the British Medical Association to reorganize itself upon those particular lines arose from outside the Association. It was a call from local medical societies to the Association to reorganize itself upon those lines which it was thought would be most beneficial to the profession. He laid great stress upon that point because some appeared to entertain, in regard to the relation of the Association to local medical societies, what he could not but feel to be an unjust jealousy of the Association; as though the possible absorption of these medical societies into the Association were contemplated purely from the point of view of the aggrandizement of the Association and its own selfish interests. He thought they would see from the history which he had given them that the object of the Association in its reorganization had been to do what it could to promote the welfare of the medical profession.

Capabilities of Reorganized Association.

Let them now look at the present Constitution of the Association and see what work they believed it could do, comparing their local medical societies with a Bradford Division of the British Medical Association. The purposes which any local medical society could serve, or which a Division of the Association could serve, might be grouped under four heads—social, scientific, political, and ethical.

Social Union.

Social purposes were certainly not the least important. No greater bond of union existed among medical men than that they should be drawn socially into friendly relations—into fellowship—with one another. He knew from experience what it was for medical men in one town to be brought together in a medical society and acquire the habit of meeting; how those petty jealousies and suspicions which existed among men who did not meet—the unfriendly feelings often resting on tales of patients having no foundation in fact—melted away as each became really acquainted with his colleagues. Even in the largest centres he could not but think that one of the first objects of medical union was union which could serve them in all sorts of ways but was also an end in itself, and that end they believed the Divisions could achieve.

Scientific Work.

In the second place, why should not the Divisions do the scientific work of the profession? What was to hinder them? Did it really matter very much under what name the Bradford practitioners assembled for the discussion of matters that concerned them in their daily duties as practitioners? The men being the same and the work they met to do being the same, the only questions to be considered were, not names, but the distinct and specific advantages of one form of organization over another. He was told, however, that there were difficulties as to libraries; he was told that there were questions of old societies having great traditions. Well, of course the British Medical Association had great traditions which were not quite of yesterday. As to the matter of libraries, he thought he was free to say that those Divisions of the Association that desired to establish libraries would have every assistance that could be given by the central organization in establishing and carrying on these libraries, and the matter was now under consideration as to how such assistance could most effectively be rendered. He might mention one point which had been thought of. They had a large library in London, and naturally a good many surplus books accumulated. Grants of these surplus books had been made from time to time to various societies, but there was a strong feeling that their own Divisions, if they chose to establish libraries, had the first claim upon these books. There were financial difficulties about the establishment of libraries, but these were difficulties of the kind which should be raised only in order to see how they could be overcome, and these difficulties, he had no doubt, could be overcome with a little patient consideration.

Medico-Political Work.

Then he came to what many people, he was sorry to say, regarded as the sole object of the new Constitution. He did not belittle that object, because he thought that it was most important, but it was not the sole object he meant the political work of the Association. This was a matter upon which both local societies and the British Medical Association had come to grief from time to time. To give them an example of how the central organization of the profession showed its weakness in the hour of trial he would mention the midwives question.

Want of such Organization shown by Midwives Question.

There was a long controversy in the profession. A certain number of medical men said there ought to be no registration of midwives. Some went as far so to say that there ought to be no midwives. They had again some who seemed prepared to register the midwives on almost any terms. But the point that he wanted to bring home to their minds was that to this day nobody knew what was the opinion of the medical profession upon the midwives question. Some said one thing and claimed to represent the profession; others said exactly the opposite and also claimed to represent the profession. Which of these did actually represent the profession? He doubted if they knew; certainly he did not know. His private opinion was that the opinion of the rank and file of the profession, if it could have been properly gathered up, would have been between these two extremes. It would have recognized certain practical needs and recognized also that certain practical precautions ought to be taken. But then they knew that the rank and file of the profession had no means of giving expression to their opinion, for no agency existed by which that opinion could be gathered up. So it came about that in the end Parliament legislated upon that subject, and the Midwives Act was adopted, but the medical profession, who ought to be the advisers of the community upon questions of public health, as being those who had first-hand knowledge of the facts, were not consulted, their opinion was not taken, because they had no coherent means of expressing their opinion. That was an object lesson with reference to political action in the profession.

Medico-Political Work not merely Selfish.

People talked as if medico-political action was a mere matter of what was called "trades unionism"; that all they had in view was the pecuniary interest of the present generation of medical practitioners; but he thought they would bear him out that really a mere consideration of the pecuniary interest of the present generation of practitioners would not carry them very far in any political questions affecting the profession. The medical profession by the very essence of its being must, to a great extent, be a self-sacrificing profession, taking broad and generous views of public needs. Above all other professions medical men were the servants of the community. The good of the medical profession and the good of the community must in the long run be identical. If they claimed that the conditions of medical practice should be improved in certain particulars, it was not merely the direct pecuniary interest of the individual practitioner that they looked at. How much for instance would they have put in their pocket by any particular legislation on the midwives question? What they looked at was the question, "Are the conditions of medical practice to be such that the practitioner must spend his life in arduous drudgery and be unable to give the best of his mind to the best aspects of his profession; that he is to be so exhausted by routine work as to have hardly time or energy to do his duty by his patients, certainly no time and no energy for the study of medical science and the advancement of medical knowledge"? These were the matters they were considering when they spoke of "the interests of the medical profession." They desired to see the conditions such that the medical practitioner should be able to earn a reasonable livelihood, and at the same time do his duty by his patients and by medical science; that the best men who had gifts for medical practice should be drawn into the profession, that a young man who was considering what career he should take up should not say "I am not going to be a doctor; it is a dog's life." It was in the interest of the community that the conditions of medical practice should be such that men who would be a credit to the profession, and

whose work would be to the good of the community, should be drawn into the ranks of the profession.

Machinery required.

But how were they going to bring medical opinion to a focus for purposes of that kind? The only two ways of doing it were indicated by the present Constitution of the British Medical Association, by forming opinion locally and gathering it up through a central organization. In the first place they must have opinion formed in the way in which Englishmen did form opinion: that was to say, by free discussion. The foundation of opinion in this country was free discussion, and the way Englishmen carried on their political work was by meetings. Then for such work they must have meetings which members of the profession could easily attend, and this means the Association hoped it had provided for by the formation of the Divisions.

Local Problems.

These meetings would consider not only questions of national policy such as he had indicated, but also various local questions. For instance, it must from time to time happen that municipal problems arose which had a medical bearing. They knew how such questions were sometimes dealt with, how the opinion of a medical man, a member of a Town Council or Board of Guardians, would be taken as being the opinion of the profession. Of course, it was not the opinion of the profession but only the opinion of an individual. In one instance the medical man consulted replied that he had no authority to give an opinion for his colleagues, but suggested that the clerk of the local authority concerned should write to the secretary of the local medical society, and put to him the questions it was desired to have answered, and thus they would obtain an official answer which would really be the answer of the medical profession of the town. That seemed to him to be the way in which such an opinion should be expressed, in an authoritative way and not simply by the opinion of certain individuals, and the Divisions, if they included a sufficient proportion of the profession, could do such work for the profession.

Contract Practice.

Take, again, the great question of club or contract practice which was causing so much strife at present. That would be solved effectively in one way only, namely, by medical men setting themselves deliberately to consider the facts. First of all they must get at the facts. Were the rates which were paid for contract practice such as gave the medical man a sufficient remuneration for the work which he did? Was this practice subject to certain abuses, and could these abuses be remedied? He knew no way of getting an answer to these questions except by medical men meeting and discussing them amongst themselves and coming to their own conclusions. The problems of contract practice varied from town to town and village to village. There were different conditions in different districts, rates of wages and the conditions of workmen differed; the ordinary usages of medical practice differed in different districts, so that contract practice must be dealt with as a local question to a large extent; but the foundation of the study of the question must be free discussion to get at the facts and that was the kind of thing which it was believed Divisions of the Association could promote. Then, when they had gathered up opinion in their own several local districts, some central agency was required to bring local opinion to a focus and get some kind of common national action, and in the Representative Meeting and the central executive of the Association they had effective [illegible] for these purposes.

Ethical Matters.

Lastly, we came to what might be called the ethical work of the profession. That, of course, was a somewhat distasteful subject. It consisted very largely of finding fault which was a thing that they desired to avoid if possible. At the same time they ought to bear in mind that the medical profession presupposed [illegible] a code of honour and a discipline of its own, and had [illegible] for itself the right to judge its own members. It claimed for itself the right if it considered that members of the profession had behaved in a way which was unbecoming, to refuse to recognize those individuals as members of the profession. He thought they would agree with him that if such powers were to be exercised it should be in a cautious, deliberate, and judicial manner, and not in a haphazard manner, and not according to the whim of a few individuals. If a question arose whether the conduct of a particular medical practitioner had been unworthy of the honourable brotherhood to which he claimed to belong, the tribunal by which he was to be judged should be a tribunal of the whole body of his medical brethren in the district in which he practised. That was a sound principle surely. If there was no such arrangement they would not be able to prevent individual medical men from judging of the conduct of their colleagues and acting upon their judgement, an arbitrary judgement, with the probability that much injustice would result. Such work as that they believed the Divisions of the Association could very well do if they were made fully representative of the profession in the district as they should be. Many of these questions raised points of great difficulty upon which the local medical practitioners might feel some doubt in pronouncing a judgement of their own. In such cases the world-wide organization of the British Medical Association offered them an opportunity of having their problems considered practically by the whole profession, and the opinion and the action of the Division guided in that way.

Divisions and Local Societies.

Having thus seen how the Divisions could work and could co-operate through the central organization, let them consider the problem of the relationship of the Division of the British Medical Association and the purely local medical society. It had been suggested that there was an attempt on the part of the Association to coerce local medical societies. There was nothing of the kind. The matter was entirely one for the members of local medical societies themselves. It was for them to judge to what extent they cared to devote their energies to carrying on two or three societies if they were of opinion that one society could do the whole of the work. If they thought that they needed two, three, four, or six societies by all means have them.

Questions for Consideration.

He only asked them to consider these points. If they had so many societies they had to find officers to staff them, and so far as he could perceive the number of men in any district who would be found willing to give the time and energy, and who were efficient officers, was strictly limited. In the second place, if through that multiplication of societies they had so many sets of meetings carried on instead of having meetings of one strong society, there would not be such good attendances at the meetings. Again, if they had so many societies they would have small jealousies arising between one society and another, and men would take advantage of these jealousies, some to remain attached to one society and some to another, and so they fostered that kind of cliquism which was the death of medical union. What he suggested for their consideration was that, as a matter of efficiency, it was better to have one strong society than several societies less strong. He suggested, again, that if they came to the conclusion that one society could do the work they would then consider which it should be a purely local society whose efforts must practically end with itself, or the Division of the British Medical Association, which not only was able to do all the local work which they wanted to have done, but also had a central organization which enabled it to carry its work to a more complete issue than any purely local society could expect. They would observe that there was no suggestion of coercion in all that. He simply tried to put the facts before them and asked them to consider these facts for themselves and not to-day, to-morrow, next week, or next month, but some time in the future, at their own discretion, to come calmly and deliberately to a conclusion as to whether it was necessary for Bradford to have more than one society to carry on the social, scientific, political, and ethical work of the profession.

Medical Defence.

This question of separate societies arose in another connexion just now. They might be aware that a Committee had been appointed by the British Medical Association to consider whether the Association should undertake medical defence and had prepared a report, which they would find in the Supplement of the British Medical Journal for January 9th. That report was about to be sent down to the Divisions of the Association for consideration, and they would be asked to express an opinion whether the Association should establish a medical defence department. Of course, at once there arose a question of the position of the very successful medical defence societies which were already at work.

and he suggested that they should consider that problem in exactly the same way as he had asked them to consider the purely local problem. Let them ask themselves whether there was any really tangible reason why the British Medical Association, through a medical defence department, should not be able to do the work of medical defence equally as well as the existing medical defence societies. There was nothing to prevent those who had shown conspicuous ability in the work of medical defence in connexion with the existing societies from doing exactly the same work on behalf of the British Medical Association. If they were satisfied that the British Medical Association could do the work, the question next arose for what reasons they needed separate societies for the purpose. Had the separate society any real advantage over the Association? and had it not the disadvantage, which he had already laid before them, of tending to division of interests and waste of energy in the profession?

The Interest of the Profession.

They came back at last to the point that they started from, the interest of the medical profession. Medical societies existed for the profession and not the profession for societies. It was as true of societies as it was of individuals, that "It is not all of life to live nor all of death to die." If the work of a society could be done effectively without that society, why should the existence of that society be continued? There was a tendency for the existence of a society to come to be an end in itself instead of the means to an end, and that, he thought, was a danger against which they in the medical profession particularly needed to guard themselves. More, perhaps, than any other profession, their time was strictly limited. The amount of time that they could give to the work of medical organization was very limited, and the waste of energy by the multiplication of societies perhaps fell more heavily upon the medical profession than upon any other.

The Interest of the Public.

He only wanted to make two further remarks in conclusion. He wanted to emphasize again what he had already said, that the work which they had to do through their medical associations did not end at the peculiarly selfish interests of the profession; that they had the good of the public at heart, and desired to make the medical profession a more efficient instrument for serving and promoting the health of the community.

The Members are the Association.

In the second place he asked them to remember that the British Medical Association under its present organization was essentially representative and democratic. It resulted from the principles embodied in the Constitution that the decisions of the Association did not rest with councils, or committees, or officials, and they must not blame councils, committees, or officials if things went wrong, but must blame themselves. If they wanted to see things done right they must see to it themselves. At Division meetings he had been asked what the Association was going to do in certain matters. His answer was that it was not for him to say what the Association was going to do, but for the members before him. They, the members, were the Association, and the Association would do exactly these things which the general body of its members desired it to do. If it was successful the Association owed its success to the general body of its members. If it should fail it would owe its failure to the general body of its members.

The Chairman intimated that Mr. Whitaker would be glad to answer questions, and it was agreed that these should be submitted and dealt with in the course of a general discussion.

Dr. Bird (Pudsey) said that he had taken a little interest in the midwives question which had been mentioned by Mr. Whitaker, and had endeavoured to get signatures to a petition. He succeeded in getting forty-five signatures against the Midwives Bill, and found only two medical men who were in favour of it; but it was certainly very obvious that the feeling of the profession generally upon that question was not taken.

Dr. Bronner thanked Mr. Whitaker for his interesting and instructive address, and stated that he himself belonged to all the societies in Bradford, but felt quite sure that if they could join in one society it would be a very good thing for Bradford. The British Medical Association was not acting, as had been suggested, in the interests of a certain sect, or a certain set of savants, in London or elsewhere, but on behalf of the large body of general practitioners who managed the Association, whose wishes the Council simply carried out. They should try to join together and form one society, and put aside all petty jealousies and personalities, so that they could have one central society of a more powerful character, and embracing all sections of the medical profession.

Dr. Mitchell sent up the following questions: "The Association at the present moment has large sums of money invested in valuable buildings in London which are a benefit to metropolitan medical men chiefly. Might not less pretentious premises be sufficient for the London premises, and the surplus property sold, and the money realized be given in large centres of population to help the local societies to establish libraries, etc.?"

Mr. Whitaker said that on the question of fact raised, namely, "that the valuable buildings in London were chiefly of benefit to metropolitan members," the only part of the premises which could be said to be especially useful to London men was the library, which was a single room in a very large building. Even that had to be given up regularly every quarter for the Council meeting because there was no other room for the purpose. The library, of course, was used by country members when they were in town; and he supposed that if there was to be a central library at all, London was the most convenient place for it. There was also a question of principle involved. If there was to be any change such as Dr. Mitchell suggested, the constitutional means by which such a proposal would come before the Association were that Dr. Mitchell, as a member of the Bradford Division, should ask the Division to carry a resolution to that effect to come before the annual Representative Meeting of the Association. The matter would be considered in the three months between April and July by all the Divisions, and if, as a result, the annual Representative Meeting approved, the thing would be done.

Dr. Horrocks asked whether it had been considered in any Division an advantage that the divisional meetings should be held alternately in different towns in the Division.

Mr. Whitaker said that certain Divisions held their meetings in different places in turn. Again, in one or two Divisions, members in special districts were proposing to hold separate meetings of their own for the consideration of matters peculiar to themselves, while wishing to remain free to attend the general meetings of the Division.

Dr. Campbell said he thought it would be of the greatest service if some opinion could be taken that night as to whether the majority of the gentlemen present thought it advisable to unite the separate societies into one under the British Medical Association. He did not mean that he wished them to commit themselves, but simply to obtain the general view of those present. If it was found to be the general opinion of that meeting, then the different societies might take the matter into consideration, and there might be a conference of the three societies to bring the matter actually to a head. He gave an illustration of the difficulties under which they were now labouring in consequence of having three societies in the district, and that hence some men belonged to one society only, some to others, and no society was really representative. If the general feeling were in favour of one society as a Bradford Division of the Association, a sufficient number of new members might be brought into the Division to make one strong powerful society which in every respect represented the feelings of the whole profession in Bradford and the district.

The Chairman asked whether the feeling of the meeting was that they should take a vote as to whether or not any steps should be taken in the direction which Dr. Campbell recommended.

Dr. Hime was strongly inclined to agree with the feeling as to having one strong society, but he should feel sorry if they were to pass a resolution even in favour of his own views until gentlemen who might have known nothing whatever about the proposal before coming to that meeting had had time to think it over. In the interests of the success of the movement itself he would strongly deprecate any such action that night.

The Chairman pointed out that the suggestion of a vote entirely originated with Dr. Campbell, and in any case the question would have to be pondered by the local societies.

Dr. Rabagliati said that before Dr. Campbell had made his suggestion it had been in his mind to make such a proposal, but on the whole he thought now that they were getting a sufficient indication of the feeling of the meeting without any show of hands. There were many things to be

considered. There was a matter of sentiment, for instance. Some of them had belonged to the Medico-Chirurgical Society ever since its inception, and they might have some sentimental feeling against bringing to an end the career of a society which had been so extremely useful. Then, again, a great deal of organization would have to be dealt with before such a step as the proposed amalgamation could be taken. No doubt they would have to have very much more frequent meetings, and there would be many things to arrange. He agreed with Mr. Whitaker's suggestion that they should take time to consider a question of this sort. Apart from the sentimental feeling which still clung to him somewhat, he felt that on the whole his reason tended in the direction in which Dr. Hime said that his did, namely, for the amalgamation of the three societies into one large and powerful society.

Dr. Mitchell said he wished to raise a rather important question with respect to finance. The annual expenditure of the Medico-Chirurgical Society was about £60 a year so far as he could remember. Could the Yorkshire Branch of the British Medical Association make a sufficient grant in aid to the Division to carry on similar meetings, or must the local subscription be increased per head to make up for the increased cost. Personally, he should be in favour of amalgamation if it could be properly worked, but he thought there would have to be separate sets of officers, to take up various aspects of the work.

Mr. Whitaker replied that under the present constitution of the Association power was given to the Division—if indeed power was needed—to raise by voluntary subscription whatever amounts they might need for special local purposes from those who availed themselves of the benefits conferred. A library in particular might very well be supported in part or entirely by a local voluntary subscription from those who intended to use the library. With regard to the other expenses, he of course did not know the details of the £60 a year which Dr. Mitchell was speaking of. The present financial position of the Division was that it got a grant from the Branch. The Branch received from the central Association 1s. per member, and was required to make therefrom to its Divisions a grant per head per annum. The Branch Council determined the amount of the grant per head, and could make a grant of one amount to one Division and another to another Division. If they found one Division doing good work they could make them a large grant. If they found another Division doing very little work, they could make a smaller grant, as small a grant as they thought proper. Here the democratic principle came in again. The Branch Council was a representative body; not representative of the Branch but of the Divisions, since every Division of the Branch was entitled to be represented on the Branch Council in proportion to its membership. Thus the Branch Council was really a Council of the Divisions of the Branch, the constituencies being the Divisions, and it was for them to instruct their representatives upon the Branch Council as to what they wished them to do. The Branch Council so elected and so instructed apportioned these grants; but of course they must cut their coat according to their cloth. Every body had 1s. per head for all purposes.

Dr. Mitchell said that raised another question. Many societies had a considerable balance at the bank. Supposing one of the absorbed societies had such an accumulation what were they to do with the money?

Mr. Whitaker said that would surely be a matter for the members of the absorbed society at the time of dissolving. Before the new Constitution was adopted the Branches had funds at their own, but since the new Constitution there were no separate Branch funds. The large balances which some Branches had before the property of the members of those Branches at the time were the change in the Constitution came into force. Several Branches voted the money to carry on the work of the Branch under the new Constitution. In the event of the proposed amalgamation the members of the local medical societies could so far as he knew, divide their assets if they thought fit amongst themselves or could devote them to any purpose for the benefit of the practitioners of Bradford that they thought proper. He took it that the members of the Medico-Chirurgical Society would be disposed to regard their money as part of that which had been subscribed for the good of the profession in past years, and, though it need not necessarily be handed over to the Bradford Division of the Association, he should think it would be devoted to some purpose which was thought to be beneficial to the practitioners of Bradford.

Dr. Campbell explained that he had not proposed that they should pass a resolution that there should be an amalgamation of the societies. That meeting was not competent to pass any such resolution, but he had thought that they had an exceedingly representative meeting that night, and that if they, in that very representative meeting, were of opinion that amalgamation would be wise, an expression of that opinion, though not binding, would strengthen the hands of the officials of the various societies in summoning a conference to consider the question among themselves, or, if they liked, at a meeting of all the societies together.

Dr. Drury said it appeared to him that the discussion had already answered all the purposes that Dr. Campbell could fairly claim, from a meeting convened in this manner. The tone of the meeting was shown distinctly to be in favour of some union of the medical profession. Upon that point every one of them appeared to be practically in agreement. He thought the veil they put over themselves in connexion with pecuniary matters was drawn too close. They must live, and they saw methods being adopted which older practitioners did not approve of, but all that would be altered by some such organization as had been suggested by Mr. Whitaker, which could voice the opinion of the whole profession. Mr. Whitaker had referred to the fact that the British Medical Association did not get the voice of the profession upon the Midwives Bill. He thought it was greatly to the discredit of the Association that it did not do so, because the voices of these practitioners could have been heard. The value of organization was shown by the work of the Association of Public Vaccinators. The Association of Public Vaccinators took action a little time ago in the matter of the Local Government Board inquiry into the expenses of vaccination administration, and three representatives of that Association were welcomed at Whitehall to speak of the difficulties under which they worked. The question was there impressed upon them as to whether they represented the public vaccinators, and it was said that if they did their word would be of considerable value. Therefore he would say that a scheme by which the voice of the medical profession should be really and distinctly heard would be of the greatest value. He should like to ask Mr. Whitaker whether it had occurred to those in authority in London in connexion with the British Medical Association that some scheme could be arranged by which associations could be affiliated for the time being or co-ordinated with the British Medical Association, in such a manner that on points of great interest to the whole profession, or even on special points affecting particular localities, the voice of the associations which already existed could be centralized and focussed; whether some kind of graduated steps could be taken, some scheme of affiliation by which the societies would be more or less amalgamated by some more gentle process. He was a member of a medical society which by resolution had expressed the view that they should not amalgamate; but he knew that all its members were really willing for something of the kind which Mr. Whitaker had been putting before them that night. Had any kind of scheme been suggested by which some gradual process could be carried out?

Mr. Whitaker, with reference to Dr. Drury's suggestion that it was undesirable to the British Medical Association that they had not ascertained the views of the members of the Association on the Midwives Bill, said the answer was that the Council of the Association did as well as they could with the means at their disposal at the time, by using postcard votes and reference to the Branches, both of which proved unsatisfactory. The point was that the means then at the disposal of the Council were insufficient. Hence the reorganization. As to the kind of semi-detached relations suggested by Dr. Drury between local medical societies and the Association, he saw a good many practical difficulties, which if time had permitted he should have asked Dr. Drury to consider. For instance, as to finance: the central work of the British Medical Association was somewhat expensive work. Would these societies support the Association in that respect? But the point he had always urged referred not to societies but to individuals that they should support the Association directly by becoming members. It seemed to him that a man must be a member of the Association or not, and he could see no half-way house between those two positions. If they were members of the Association it was a matter for themselves entirely how many other societies they chose to carry on.

Dr. Horrocks, in proposing a vote of thanks, said he

thought that Mr. Whitaker had answered some of the points that had been raised at the meeting, and had made out a very good case indeed for amalgamating with the British Medical Association. He had shown them how ineffectual, comparatively, the isolated efforts of the Medico-Ethical and the Medico-Chirurgical Societies must be. It was true that in the Medico-Ethical Society they had a sort of feeling that it was more local in its work, but he thought that that work could be quite well taken up by the Bradford Division of the Association. As regarded the Medico-Chirurgical Society, the scientific society for that town, he experienced very much the same feeling which Dr. Rabagliati had expressed. Their meeting together at one place, in the old library of the Bradford Infirmary, had been homely and pleasant to him. It was a very difficult matter exactly to balance political work and scientific work, and, unless there were two separate sets of meetings, one dealing with political and ethical work and the other dealing with scientific work, he felt sure that one would be likely to push the other out. Then he felt, too, that there might be difficulties in regard to the money matter. The whole trend of the present policy of the British Medical Association, however, was for ideas to originate below and travel up and culminate above, and if they wished their different societies to coalesce amicably with the British Medical Association it was better that this matter should originate in the local societies and end in the British Medical Association.

Dr. HIME seconded the resolution. He said Mr. Whitaker had come there in the aspect of an official of the British Medical Association to spread the gospel of union among the scattered population of that wild district of Yorkshire. That a strong, united society representing the interests of the medical profession was much wanted in the country he believed they all felt convinced, but that did not say that there was not a good deal of difficulty to be overcome before that was likely to be accomplished. The efforts of those who took part in the Manchester Conference had borne good fruit, and they managed eventually to bring about the reform of the British Medical Association. One of the difficulties which seemed to him to exist was connected with the conduct of the JOURNAL. It had not always been the case that the JOURNAL had represented the views of the Association as expressed at the annual meeting. They knew that strong resolutions had been passed at annual meetings, and that the line of action approved by those resolutions had been absolutely negatived by that exceedingly powerful and ably-conducted JOURNAL. He trusted that under the new *régime* that would be impossible. He did not wish it to be supposed that he thought it was not possible to bring a scheme of this kind to a successful issue, but he wished that the matter should be carefully considered, and was exceedingly glad that the suggestion of pressing a resolution upon that meeting had not been carried out, for he thought that the very best means of promoting harmony and unity and goodwill was to allow them ample opportunity of considering the proposal.

The CHAIRMAN said before he put the resolution he wished to remark, with regard to Dr. Horrocks's statement, that he did not see any difficulty in such an amalgamation as had been thought of taking place, by the Medico-Ethical and the Medical-Chirurgical Societies becoming a part of the Division. He had always maintained the opinion that scientific subjects were better separated from ethical subjects, and if this amalgamation took place there would be no difficulty in setting apart evenings for scientific discussion, and other evenings for other classes of work.

The resolution was then put and carried.

Mr. WHITAKER, in reply, thanked them for the kind way in which he had been received. He thought his thanks were due to them for assembling in such numbers to hear an address upon what was often thought to be a somewhat dry subject, and for the very attentive hearing which they had given him. He should be very glad if the result of his visit was to prove to be of some benefit: he would not say to the Bradford Division, but to the medical practitioners of Bradford and the medical profession of this country.

Dr. MCGEE moved a vote of thanks to the Chairman, and said they could honestly congratulate Dr. Goyder upon the judgement and tact with which he had conducted the meeting, and had met what at one time had appeared to be a difficulty.

Dr. RABAGLIATI seconded the resolution, and it was carried.

The CHAIRMAN briefly replied in acknowledgement, and the meeting ended.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BORDER COUNTIES BRANCH.

A GENERAL meeting of this Branch was held in the Dumfries and Galloway Royal Infirmary, Dumfries, on December 11th, 1903. The PRESIDENT, Dr. Maxwell Ross, was in the chair, and about thirty members were present.

The PRESIDENT referred to the great loss which the Branch had suffered through the death of its last year's President, Dr. Gray Ormrod, of Workington. He referred to the deep and active interest which Dr. Ormrod took in the affairs of the Branch and how hard he had worked on its behalf. He reminded the members present of the exceptional position which Dr. Ormrod occupied as "Medallist of the Association" in recognition of his courage and pluck; and he moved a resolution expressing the sympathy of the meeting towards his widow and children, which was unanimously agreed to. The President then dwelt, in some detail, upon the Medical Acts Amendment Bill, and a discussion followed in which several members took part.

COLOMBO, CEYLON BRANCH.

A PATHOLOGICAL meeting was held on Friday, June 19th, 1903, Dr. SINNETAMBY in the chair. Seventeen members were present.

Paper.—Dr. S. C. PAUL read a paper on Serum Reactions.

Specimens.—Dr. A. J. CHALMERS exhibited the following specimens: Microscopical and macroscopical specimens of inflammations of the kidney in Ceylon; a method of preserving pathological specimens specially suited to Ceylon; osteoporosis in horses in Ceylon and saffranine test for sugar in urine; Dr. V. VAN LANGENBERG showed the clinical method of determining blood pressure; Dr. DAVID ROCKWOOD showed physiological method of determining blood pressure.

A CLINICAL meeting of this Branch was held on Saturday July 18th, 1903. The chair was taken by the President, Dr. T. F. GARVIN, and there were nine members present.

Confirmation of Minutes.—The minutes of the two previous meetings were read and confirmed.

Letter from General Secretary. The SECRETARY read a letter dated May 13th, 1903, from the General Secretary of the Association regarding the dispatch of the report of Council as to the general state and proceedings of the Association since the last annual meeting, together with the financial statement for the year 1902, and the estimate of probable income and expenditure for the current year, also a copy of the notices of motion given for the Annual Representative Meeting.

Clinical Cases.—Dr. V. VAN LANGENBERG exhibited a case of myxoedema.—Dr. S. C. PAUL showed a case of cancer of the breast and syphilitic necrosis of frontal bone.—Dr. M. SINNETAMBY: A case of hysteria.—Dr. DAVID ROCKWOOD showed a case of myxoedema.—Dr. W. H. DE SILVA showed ophthalmic cases of double anophthalmos with congenital cysts.—Dr. A. J. CHALMERS exhibited *post-mortem* specimens of fat necrosis from suppurative pancreatitis and haemorrhagic pancreatitis.

Vote of Thanks.—The meeting terminated with a vote of thanks to the chair.

AN ordinary meeting was held on Saturday, October 24th, 1903. The chair was taken by the President, Dr. T. F. GARVIN, and there were ten members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Notification of Infectious Diseases.—The SECRETARY read a letter from the Colonial Secretary, Colombo, dated July 30th, 1903, acknowledging the receipt of the letter of July 23rd, 1903, sent by a committee of this Branch, regarding the Report on the Notification of Infectious Diseases.

The late Dr. T. Morgan.—It was decided that a letter of sympathy and regret should be sent to the family of the late Dr. T. Morgan, who was a member of the Association.

Colonial Medical Library.—It was proposed by Dr. M.

Sinnetamby and seconded by Dr. H. Bawa that a sum of Rs.10 be given to the Honorary Secretary of the Colonial Medical Library, Colombo, being half the expense for repairing the punka of the Colonial Medical Library, as it is more often used by the British Medical Association Ceylon Branch. This was carried unanimously.

The British Medical Journal.—It was unanimously decided that the Registrar of the Ceylon Medical College be allowed to take on loan weekly from the honorary secretary of this Branch, one copy of the British Medical Journal, out of the extra two copies, for the Medical Students' Library, and to return the same after a week.

Communications. Mrs. S. C. K. Rutnam read notes of a rare case of amenorrhoea.—Dr. Sinnetamby read a paper entitled, Some Thoughts on the Physiology of Menstruation and Amenorrhoea.—Dr. Chalmers showed specimens of pancreatic disease.

GRAHAMSTOWN AND EASTERN PROVINCE, SOUTH AFRICA, BRANCH.

Special Meeting.

A special general meeting of this Branch was held at Steinman's Hotel on January 21st.

Admission of Visitors. After discussion as to the advisability of admitting persons eminent in allied sciences, such as bacteriology or chemistry, as non-medical visitors, it was resolved:

That a sub-committee be appointed to revise the rules of the Branch at the end of the "Model Rules" of the British Medical Association, and that it be proposed at next meeting the Branch Council to nominate not more than two visitors for the session, and the President to admit to any meeting distinguished visitors passing through the town.

Proposed Medical Library. A discussion followed on the question of a medical library for the Eastern Province Branch, and the possibility of housing it in the Reference Library of the town.

New Member. R. C. Mullins, M.B., B.Ch., was elected a member of the British Medical Association by the Council, after due notice on the circular convening the meeting.

Annual Meeting. The annual meeting was held at Steinman's Hotel. Present: Drs. J. T. Bays, J. A. Coutts, W. R. Chew, G. E. Douglas, J. F. Davis, E. G. D. Drury, A. Edington, C. L. Fitzgerald, J. B. Greathead, F. Leslie, R. C. Mullins, G. C. Purvis, L. A. Saunders.

Confirmation of Minutes. The minutes of the last meeting were read and confirmed.

Secretary's Report. The Secretary's report for 1903 was read and adopted.

Repeal of Meetings. It was resolved that Branch meetings be reported quarterly to the British Medical Journal and the South African Medical Record.

Financial Statement. The financial statement for 1903 was read showing a balance of £21 7s. 3d. The statement was adopted.

Election of Officers. The following were elected officers for 1904: *President*, Dr. G. C. Purvis. *Vice-President*, Dr. J. T. Bays. *Secretary and Treasurer*, Dr. E. G. Douglas Drury. *Council*: Drs. J. B. Greathead, T. D. Greenlees, Alex. Edington, W. R. Chew (Port Elizabeth), J. Conry (Fort Beaufort), G. W. Smith (Aliwal).

Vote of Thanks to Retiring President. A vote of thanks to the retiring President was passed.

The Annual Meeting at Oxford. A letter was read from Dr. Clutterbuck, President of the British Medical Association, suggesting that a party of the delegates from the Branch at Oxford in July. Resolved:

[illegible]

Dr. Greathead promised to attend.

The Medical Officers Regulations. The Secretary read a memorandum on the proposed Medical Officers Regulations under the revised system of administration. A discussion followed.

Revision of Rules. A sub-committee to revise the rules was then appointed consisting of President, Vice-President, and Secretary.

HONG KONG AND CHINA BRANCH.

The annual meeting of this Branch was held at the Sanitary Board offices on December 21st, when the Hon. Dr. J. M. Atkinson, President, in the chair. There were present Colonel W. E. Webb, R.A.M.C., Dr. F. O. Stedman, Dr. W. V. M. Roch, Dr. Maclean Gibson, Dr. O. Marriott, Dr. Hall Wright, Staff Surgeon Handyside, Staff Surgeon Parker, Surgeon Nicholson, R.N., Surgeon Hall, R.N., Surgeon Wallis, R.N., Surgeon Miller, R.N., Dr. E. A. R. Laing, Hon. Secretary and Treasurer.

Confirmation of Minutes. The minutes of a meeting held on April 30th, 1903, were read and confirmed.

Financial Statement. The annual statement of accounts duly audited was presented.

Election of Office-bearers. The President announced that the Council of the Branch recommended the following as office-bearers for the coming year: *President:* Colonel W. E. Webb, P.M.O., R.A.M.C.; *Vice-President:* Hon. Dr. J. M. Atkinson, P.C.M.O.; *Council:* Dr. F. O. Stedman, Dr. G. P. Jordan, Staff Surgeon Parker, Dr. William Hunter, Lieutenant Lambelle, R.A.M.C.; *Hon. Secretary and Treasurer:* Dr. E. A. R. Laing. The recommendation of the Council was adopted *nem. con.*

New Members. The following were elected as members of the Branch and of the British Medical Association: Surgeon H. C. Woodyatt, R.N.; Surgeon W. H. Pope, R.N.; Dr. E. C. Davenport, Dr. F. W. Hall Wright, Surgeon Wm. L. Martin, R.N., Lieutenant F. W. Lambelle, R.A.M.C.

By-laws. The by-laws of the Branch, which were revised by the Council on December 7th were adopted.

Election of Representative on General Council. The Hon. Dr. J. M. Atkinson proposed, and Colonel Webb, R.A.M.C., seconded:

That Mr. James Cantlie be elected as Branch representative on the General Council for 1904.

Carried.

Retiring President's Address.—The Hon. Dr. J. M. Atkinson, in a valedictory address, briefly reviewed the work of last session, and stated that there were more meetings than formerly, and all were well attended. He elected to address the members of the Branch on the "Annual Recurrent Attacks of Plague in the Colony," and referred to the recent researches of Professor Simpson and Dr. William Hunter, who proved how easily chickens, ducks, etc., contracted the disease, both when inoculated with a culture of the bacillus pestis, or fed on plague material. In one case at his own house where a fowl died from plague, the bacillus was found by the Government bacteriologist in scrapings from the fowl-house. Attention was drawn some time ago to numbers of fowls dying in the public market, fowls imported from Canton and Chinese villages. All the bodies were sent to the Government bacteriologist, who found that nearly all had died from plague. On June 4th one fowl, five ducks, and one quail were examined *post mortem*, and three were found to have died from plague. In his Dr. Atkinson's opinion, it was very probable that infection was from the food. The fact of fowls, pigs, and such like domestic animals being able to contract the disease might well explain the annual recurrence of plague in Hong Kong.

Presentation to Vice-President. The Hon. Dr. J. M. Atkinson having received a vote of thanks as retiring President and for his address vacated the chair, which was taken by Colonel Webb, President for 1904.

A meeting of this Branch was held at the Sanitary Board Offices on Monday, January 25th, Colonel W. E. Webb, P.M.O., President, in the chair. There were present the Hon. Dr. J. M. Atkinson, P.C.M.O., Dr. F. O. Stedman, Surgeon R. H. Nicholson, Surgeon E. F. Dartnell, Dr. O. Marriott, Staff Surgeon Handyside, Staff Surgeon Parker, Surgeon J. D. Miller, Dr. Maclean Gibson, Surgeon R. W. E. Hall, Lieutenant F. L. T. Parker, R.A.M.C., Surgeon Drew, Major Strickland, I.M.S., Surgeon C. Rendal Busk, Surgeon Woodyatt, Surgeon Martin, Surgeon Raymond, Surgeon Mackenzie, Lieutenant Lambelle, R.A.M.C., Dr. W. V. M. Roch, Dr. Bateman Barnett and Dr. E. A. R. Laing, Honorary Secretary and Treasurer.

Confirmation of Minutes. The minutes of a meeting held on December 21st, 1903, were read and confirmed.

New Members. The following gentlemen were elected as members of the Branch: Surgeon Jean Verdon, H.M.S. *Barham*, surgeon Llewellyn Lindo, H.M.S. *Leander*.

Presentation to Sir Frederick Treves. It was proposed, seconded, and carried unanimously, that Sir Frederick Treves, K.C.V.O., C.B. be entertained to a dinner by the Branch during his visit to the Colony.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE quarterly meeting, being the fifth general meeting of the Division, was held at the Brooklands Hotel, Sale, on February 17th, Dr. C. J. RENSHAW presiding over a meeting which numbered 17. Intimation of inability to attend had been received from 13 other members; and 6 members who had intended to attend were prevented; making a total of 35 who replied to the circular.

Confirmation of Minutes.—The minutes of the last meeting were signed as correct.

Reports of Officers and Committees.—The Executive Committee reported on routine matters. The Honorary Secretary and Treasurer reported alterations in the list of members, showing a present strength of 58; and that the Branch had discharged the liabilities of the Division up to December 31st, 1903.

Matters Referred to Divisions.—Resolved that further discussion on the Medical Acts Amendment Bill be adjourned *sine die*. Resolutions were passed on the vaccination questions (4) and (6), and have been communicated to the General Secretary.

Boundary.—The Honorary Secretary was instructed to apply for an alteration of the boundary of the Division so as to include Partington.

Circular Letter from Medical Secretary was read.

Ethical Rules.—The draft model ethical rules were considered, and were adopted without amendment.

Alcoholic Poisoning.—The CHAIRMAN introduced a discussion on the advisability or otherwise of using the words "alcoholic poisoning" in death certificates, but no resolution was proposed.

Pharmacy Act.—Dr. I. J. E. RENSHAW introduced a discussion on this subject, and it was resolved:

That this Division unreservedly disapproves of any attempt to debar medical practitioners from providing medicines for their patients.

Work of the Division.—In closing the meeting, the CHAIRMAN congratulated the members on the increasing interest taken in the work of the Division, as evidenced by the steadily increasing numbers of those present at meetings.

Dinner.—After the meeting a very enjoyable dinner was held, eight members being present.

MALTA AND MEDITERRANEAN BRANCH.

A GENERAL meeting of this Branch was held at Valetta on February 8th at the Industrial Hall, Professor S. CASSAR in the chair. Twenty-two members attended the meeting.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Vacancies on Council.—The SECRETARY called the attention of the meeting to the fact that Major-General O'Farrel P.M.O., R.A.M.C., having left the island, a seat in the Council of the Branch was now vacant, and that it was also necessary to replace Lieutenant-Colonel C. B. Hill, R.A.M.C., on the Branch Council, that officer having also left the station. The Secretary proposed Lieutenant-Colonel W. O. Wolseley, R.A.M.C., who was pleased to accept the post, and was elected unanimously. In lieu of Lieutenant-Colonel C. B. Hill, Lieutenant-Colonel WOLSELEY proposed Major W. L. Gray; this proposal was seconded by Surgeon Lieutenant-Colonel L. MANCHÉ, and approved unanimously.

Papers.—Surgeon R. T. GILMOUR, R.N., read a paper on the isolation of the micrococcus melitensis from the synovial fluid of a knee-joint, and showed various cultures of the micrococcus, which he had isolated. A discussion followed, in which Dr. T. ZAMMIT, Captain LAWSON, and Major GRAY took part.—Dr. G. DEBONO next read a paper on the treatment of locomotor ataxia by means of calomel injections. A few remarks on this paper were made by Lieutenant-Colonel WOLSELEY and further explanations given by Dr. DEBONO.

METROPOLITAN COUNTIES BRANCH:

ST. PANCRAS DIVISION.

AN ordinary meeting of this Division was held at University College Hospital on February 25th. Dr. WYNN WESTCOTT was in the chair, and there was a good attendance of members.

Medical Men in Parliament.—Dr. WALTER SMITH, in an earnest speech, introduced a debate on the question of the presence of medical men in the House of Commons, and moved the following resolution:

That notice of motion be given to the Representative Meeting on behalf of the St. Pancras Division: That it is advisable that [illegible] Association should be applied to secure the presence in Parliament of medical men who are willing to represent the opinion of the profession, and that the Council be instructed to consider how this can be most effectively carried out.

The majority of the members took part in the discussion that followed, and the CHAIRMAN having summed up, the resolution was carried.

TOTTENHAM DIVISION.

A MEETING of this Division was held at the Tottenham Hospital on Friday, January 29th. Dr. HOOLER MAY presided.

Medical Acts Amendment Bill.—Mr. J. S. WHITTAKER, the Medical Secretary, attended and introduced a discussion on the Medical Acts Amendment Bill, some of the most important clauses of which were discussed by those members who were present. The proposed Bill was approved as a whole, but more decided opinion and voting on the various clauses were deferred to a subsequent meeting.

WANDSWORTH DIVISION.

A MEDICO-POLITICAL meeting was held on Thursday, January 28th, at the Town Hall, Wandsworth, Dr. M. G. BIGGS in the chair, and thirteen other members and three guests attended.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Hospital Abuse.—The Representative on the Branch Council reported what had taken place in the interval. Resolutions with reference to hospital abuse were proposed and discussed, the Secretary having previously briefly reported the tabulated result of replies received from eighty hospitals showing their various systems in vogue to prevent abuse. These resolutions passed were forwarded for the consideration of the Representative Meeting at Oxford. Colonel Montefiore, who attended, explained the views of the Charity Organization Society.

The Removal of King's College Hospital.—In response to a letter received from the Medical Board of King's College Hospital a special committee of Drs. Biggs, Lyster, and Rowland Fothergill was formed to combine with the Lambeth and Norwood Divisions in taking steps to arrange a scheme satisfactory to the local practitioners with regard to the out-patient and in-patient departments of this hospital at their new site in South London.

The Annual Meeting, 1905.—Dr. MACMANUS proposed, Dr. FRAZER seconded, and it was carried unanimously:

That the Central Council should be approached with the view of urging them to arrange for the 1905 annual meeting to be held in Ireland, and so to aid by their presence the local practitioners.

Expenses of Divisional Representation at Oxford.—Dr. BIGGS proposed, Dr. LYSTER seconded, and it was carried unanimously:

That every member be asked to make a voluntary subscription of at least 2s. in order to defray the expenses of the Divisional representative attending the Oxford meeting.

The Midwives Act.—The Midwives Act (1902) Committee having forwarded a resolution as being urgent, it was unanimously resolved:

That the Central Council be asked to approach all religious bodies at [illegible] to the importance of Form 9 certificate only being given to bona-fide midwives by the clergy as individuals.

Vote of Thanks.—A vote of thanks to Colonel Montefiore for his attendance was cordially approved.

NORTH OF ENGLAND BRANCH.

A MEETING of the Council of this Branch was held in Sunderland on January 28th, Dr. BURMAN, the President, in the chair. There were present Drs. Robson, McDowall, Lachlan Fraser, Hall, Dagger, Blacklock, D. F. Todd, Modlin, Waterson, Davis, Watson, Knott, Jepson, Murphy, Hunter, Cox (Honorary Secretary), and Mr. Rutherford Morison. Apologies for non-attendance from Drs. J. Drummond, Lyle, and Howell were read.

Election of Members.—Sixteen candidates were unanimously elected.

Deputation from the Northumberland and Newcastle Medical Association.—Professor GEORGE MURRAY attended as a deputa-

tion from this Association, and said he had come in answer to the invitation virtually given to associations such as theirs, by the resolution passed by the Branch Council, and confirmed by the Branch, declaring the ability and willingness of the Branch to undertake all work of interest to the profession, and including that done by the county unions. His Association had very carefully considered the matter by means of a Committee which had had a good deal of information laid before it, and they had finally come to the conclusion that they would be doing a good thing for the profession and for the members of their Association if they became absorbed by the Branch. Before they dropped their organization they must be convinced that the work they had been doing would not be neglected, and in order that they should be convinced of this they would lay down certain conditions which must be fulfilled. He then proceeded to specify the conditions, and said that if these could be met they would wind up their Association, and could promise to bring into the British Medical Association at least twenty new members who would otherwise probably remain outside. Considerable discussion took place on the subject, and the general feeling was that there would be little, if any, difficulty in satisfying the conditions as laid down by Professor Murray. It was resolved that a committee be formed to consist of six members of the Branch Council (together with the President and Honorary Secretary *ex officio*) along with three members appointed by the Northumberland and Newcastle Medical Association; this committee to consider the whole question and report to an early meeting of the Council. Drs. Murphy, Jepson, Davis, Hall, Todd, and Dagger were selected to represent the Branch Council. (Professor Murray, Dr. W. S. Campbell, and Mr. Rutherford Morison have since been nominated by the N. and N.M.A.)

Reports from Divisions.—Reports from the Divisions were then read, showing that in most of them good work is being done. Several seem as yet hardly to have grasped the possibilities of Division work.

Financial Statement.—Dr. Cox then made a statement of income and expenditure of the Branch up to the end of the year, and also gave an estimate for the incoming year. A discussion took place on these statements, and the opinion was expressed that the financial state of the Branch seemed to warrant it undertaking the responsibilities of the work suggested by the deputation from the Northumberland and Newcastle Medical Association.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

Cardiff Division.

A general meeting of this Branch was held on January 21st, Dr. W. T. Edwards in the chair.

Local Administration of Midwives Act. Dr. E. Walford, Medical Officer of Health, Cardiff and Port Districts, contributed a paper on the Local Administration of the Midwives Act, 1902. After describing the general provisions of the Act and alluding to the constitution and rules of the Central Midwives Board, Dr. Walford referred to the fact that the Act provided no security for the payment of the fee of the medical man who was liable to be called in; the council of the county borough of Cardiff had appointed the Health Committee of that council as the local supervising authority, and that Committee had appointed their medical officer of health as the executive officer. They had further appointed a woman inspector, and already sixty to seventy applications had been received and twelve notifications of intention to practise. Very few of these women could read or write and doubtless there would for some time be considerable difficulty in insisting on the due fulfilment of regulations as to filling in reports, etc. He (Dr. Walford) would suggest the establishment of a training centre for midwives in Cardiff. With all its difficulties of administration, the Act would prove beneficial in regulating the practice of midwives. The mortality from puerperal fever was always higher where the proportion of labours attended by midwives was larger. That proportion was in Wales very large and the mortality from puerperal fever varied from 6·7 in N. Wales to 6·1 in South Wales, while the average rate in England and Wales was 4·7. Several members joined in the discussion which followed, and it was unanimously agreed on the motion of the Honorary Secretary, seconded by Dr. John Powell, to empower the Executive Committee of the Division to appoint a deputation from among the members of the Division to wait upon the local supervising authority, with especial reference to the securing of the payment of a fee to the medical man who might be called in by the midwife under the rules of the Central Midwives Board.

Monmouthshire Division.

The quarterly meeting of this Division was held at the Asylum, Abergavenny, on Friday, February 26th, Dr. J. W. Mulligan in the chair. The members present were: Drs. Lloyd, Redwood, Hamilton, Glendinning, Coulter, Essex, D. J. Jones, Howard-Jones, J. McGinn, Nelis, E. Y. Steele, W. D. Steel, S. H. Steel, and Greer.

Confirmation of Minutes.—The minutes of the previous meeting at Newport were read and confirmed. Expressions of regret at inability to attend the meeting were read from Drs. G. A. Brown and L. D. Gamble.

Reports.—The report of the Branch Council was approved on the motion of Dr. W. D. Steel, seconded by Dr. Redwood. The report from the Medical Secretary of the Association, giving the opinion of the solicitor to the Association on the regulations was read and accepted.

Letter from General Secretary. A letter was read from the General Secretary of the Association declaring that it was intended to include three members who were resident in Monmouthshire in another Division. There was a considerable amount of discussion on this subject. Dr. Glendinning proposed and Dr. D. J. Jones seconded, and it was carried unanimously:

That all members of the Association resident in Monmouthshire shall be members of the Monmouthshire Division.

The Association and Medical Defence. Dr. W. D. Steel moved:

That the members of this Division approve of the Association taking up the defence of its members for such additional subscription as the Defence Committee may decide. That steps be taken to amalgamate such Defence Department with the existing Medical Defence Unions and Societies.

Dr. Steel, in moving the resolution, spoke of the great importance of medical defence; he quoted local cases in which a defence society had acted with the greatest satisfaction to the members interested and to the profession. He showed how specially liable medical men were to attacks on their character and to insinuations and charges of want of skill. He said that it was most essential to the success of the scheme that amalgamation with the other societies be secured.

Dr. Hamilton, in seconding the resolution, said that it would be a calamity if amalgamation were unsuccessful; that it would be a danger to the profession to have a number of competing societies; he hoped Dr. Steel would introduce into his motion a clause making this amalgamation an absolute necessity to the carrying out of the scheme.

Dr. Redwood said that he did not feel inclined to leave his present Society for any new society.

Dr. Howard-Jones pointed out that it was part of the scheme of the Association that the various societies should merge themselves in one professional department for the provision of medical defence.

Mr. R. J. Coulter and Dr. D. J. Jones also insisted on the necessity for amalgamation.

Dr. T. E. Lloyd suggested that there be added to the resolution a clause:

That the subscription be not more than £5.

This was accepted by Dr. Steel.

Dr. S. H. Steel thought that the Division had no power to define the amount of the subscription. It might really work out at less than this amount. The resolution which finally took shape and passed unanimously was

That the members of the Monmouthshire Division approve of the Association taking up the defence of its members, provided that there be amalgamation of the Defence Department of the Association with the existing Defence Unions and Societies, and the annual subscription to the Defence Department shall not exceed £5.

A vote of thanks to Dr. Glendinning for his kind hospitality was proposed by Dr. W. D. Steel, seconded by Dr. Essex, and carried unanimously.

Dr. Essex and Dr. D. J. Jones offered the hospitality of the Pentypool Hospital to the members of the Division when the time came to arrange a meeting there. These gentlemen were thanked for their very kind invitation, and a pleasant meeting terminated.

SYDNEY AND NEW SOUTH WALES BRANCH.

The regular monthly meeting of the Branch was held on Friday, October 30th, 1903, at the Royal Society's Room, Sydney; Dr. Brady, President, in the chair. There were 47 members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Lodge Practice.—A letter was read from Dr. Kinross, of Inverell, asking for the co-operation of members of the Branch re the lodge practice in that town.

New Member.—The President announced the election of Dr. Effie Stillwell.

Communications.—Dr. Binney read notes on puerperal sepsis. A discussion ensued, in which Drs. MacCulloch, Worrall, Palmer, Cragg, Sydney Jones, Stacy, Gordon Craig, and Mary Booth took part; and Dr. Binney replied.—Dr. Scot Skirving read notes on the clinical signs and pathological conditions in a case of Addison's disease. Professor Welsh read notes on the same case. Dr. Macdonald Gill made remarks on a case of Addison's disease, and exhibited the adrenals from a case of Addison's disease. Dr. Jamieson exhibited some pathological specimens. Drs. Geddes, Flynn, Cragg, and Brady made some remarks on the case; Dr. Scot Skirving and Professor Welsh replied.—Dr. Stacy exhibited an anatomical specimen, kidney with accessory renal artery.—Dr. Sandes exhibited: (1) Skiagraph showing a probably hydatid of the lung; (2) photograph showing a congenital displacement of the kidney.—Dr. Herschell Harris exhibited the "spintharioscope," an instrument designed by Sir Wm. Crookes, showing the scintillations of radium.

ULSTER BRANCH.

The winter meeting of the Branch was held in the Medical Institute, Belfast, on Wednesday, January 27th, at 4 p.m.; Dr. Thos. McLaughlin (Derry), President of the Branch, in the chair. Forty-two members were present.

Confirmation of Minutes.—The minutes of the autumn meeting were read and confirmed.

Report of Council.—The Honorary Secretary (Dr. Calwell) reported that the Council had passed one account of 10s. 6d., and recommended for election seven new members. The Council also recommended that 3 p.m. be the hour of meeting in Belfast, instead of 4 p.m., and that the spring meeting be held in Portadown.

YORKSHIRE BRANCH:

Bradford Division.

An ordinary meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, January 12th.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Medical Organization.—Dr. Metcalfe (one of the Honorary Secretaries) proposed, and Mr. H. E. Taylor seconded, the following resolution:

That the Bradford Division invite Mr. Whitaker, Medical Secretary of the British Medical Association, to address the medical practitioners of the district on the best organization, and that the Bradford and West Riding Medico-Ethical Union be asked to join with the Division in carrying out the suggestion

—This was unanimously agreed to.

Contract Medical Practice.—A letter was read from the Honorary Secretary of the Shipley Medico-Ethical Society asking for the help of the Division in the dispute between the medical men of Shipley and the Oddfellows. The sympathy of the Division was extended to the Shipley medical men, and further action in the matter was referred to the Ethical Committee.

Ethical Rules.—The rules suggested for the guidance of the Division in ethical matters, and drawn up by the Ethical Committee, were considered seriatim and approved. The Secretaries were instructed to forward them to the Ethical Committee of the Association for approval.

BRITISH MEDICAL ASSOCIATION.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

Guy Elliston, *General Secretary.*

THE ASSOCIATION AND MEDICAL DEFENCE.

The Medical Defence Committee of the British Medical Association.

The following is the text of the scheme for medical defence prepared by the Medical Defence Committee of the British Medical Association, and directed by the Council to be remitted, together with the explanatory memorandum, adopted by the Committee at a subsequent meeting, to the Honorary Secretaries of Divisions for circulation to every member, and for the purpose of taking a poll:

The Scheme.

1. *Confirmation of Special Resolutions.*—Confirmation by the Representative Meeting of the Resolutions passed at Birmingham on 13th July, 1896, confirmed at Carlisle on 28th July, 1896, and registered at Somerset House, 11th August, 1896, altering the Memorandum of Association and establishment of the same before the Courts.

2. *Amalgamation of Existing Societies.*—Invitation to the Medical Defence Union, to the London and Counties Medical Protection Society, and to the Medical and Dental Defence Union of Scotland, and other like Societies engaged in Medical Defence, to merge themselves in the British Medical Association to form one professional department for the provision of medical defence.

3. *Election of Central Committee.*—Election by the Representative Meeting and Council of a Central Medical Defence Committee (this Committee also to act for England and Wales). The Central Medical Defence Committee to consist of 15 members, including a representative from the Scottish and Irish Committees respectively, together with 6 members elected by the Council and 7 by the Representative Meeting.

Election of Scottish and Irish Committees respectively.—Election by the representatives from Scotland and Ireland present at the Annual Representative Meeting of a Scottish Medical Defence Committee, and an Irish Medical Defence Committee respectively. The Scottish Committee to consist of 10 members and the Irish Committee of 8 members. Every member of a Defence Committee must be a subscriber to the Medical Defence Department of the Association.

4. *Register of Members.*—Establishment by the Central Defence Committee of a Register of the names of those Members of the Association who wish to receive the benefits of Medical Defence, and who for that purpose are willing to pay an annual subscription of ten shillings in advance, in addition to the Annual Subscription to the Association of twenty-five shillings.

5. *Appointment of Secretaries and Additional Officers.*—Appointment by the Council of a Medical Defence Secretary of the Association and appointment by the Scottish and Irish Medical Defence Committee of a Secretary respectively. Of these officers the first shall be a whole-timed salaried officer of the Association, if necessary. The Central Defence Committee to have power to appoint additional officers should occasion arise.

6. *Central Committee's Decision to be Final.*—The final decision whether the Association shall take up the defence of any given case shall be vested wholly and without reserve in the Central Defence Committee.

7. *Disputes to be Decided by Arbitration.*—All disputes which arise between members of the Medical Defence Department of the Association and which are referred to the Defence Department shall be decided, if necessary, by arbitration.

The arbitrators shall be selected by the disputants, subject to the approval of the Central Defence Committee.

8. *Control of Funds by the Central Committee.*—The Central Defence Committee to have absolute control of the funds allotted to it for the Medical Defence Department of the Association.

9. *Capitation Grant to Scottish and Irish Committees.*—The Central Defence Committee to allow the Scottish and Irish Defence Committee respectively to expend a sum not exceeding 2s. per head of the membership of the defence section of the Association of that country.

10. *(a) Member to become Guarantor.*—Every member of the British Medical Association subscribing for Medical Defence shall become a guarantor of not less than £1 for the purposes of the Medical Defence Committee; and the sum total of the amount thus guaranteed shall be entitled "The Medical Defence Guarantee Fund," and shall be subject to the call of the Medical Defence Committee.

(b) *The Treasurer to Advance Money upon Security of Guarantee Fund for Engagement of Advocate.* On the application of the Medical Defence Committee in case of emergency the Treasurer shall, out of the available funds of the Association, from time to time advance to the said Committee on the security of the Medical Defence Guarantee Fund, and on such terms as shall be approved by the Council, such sum or sums of money as shall be required by the said Committee; always provided that the total amount of such sums thus advanced shall at no time exceed two-thirds of the amount of the uncalled Medical Defence Guarantee Fund. The Treasurer shall, subject to the approval of the Council, require from time to time of the Medical Defence Committee the repayment of the sum or sums thus advanced, or of any part thereof, together with all charges thereon.

11. *Income to be Expended Solely for Industrial Defence.*—Until the income of the Defence Department admits of the Representative Meeting directing any other course, the Central Defence Committee shall strictly confine its expenditure to the purposes of the defence of individual members.

12. *Tenure of Office of Salaried Officials—Scottish and Irish.*—That the appointment, dismissal, suspension, regulation of pay and of work of all salaried officers of the Medical Defence Department shall rest with the Central Committee of that Department, and from their decisions on those questions there shall be no appeal; except that the Scottish and Irish Defence Committees shall each elect or dismiss its own Secretary without reference to the Central Committee.

EXPLANATORY MEMORANDUM.

At the commencement of its deliberations the Committee found that the Association was unable, under its Memorandum of Association, and on the basis of its present subscription, at once to establish a Department of Medical Defence open to all the Members of the Association. Further, the Committee found that at the present time the Association was carrying on, to a large extent through its Standing Committees, the work of general or collective defence, and that through its ethical organizations it was already in part fulfilling the requirements of individual defence. The chief need, therefore, to be provided for at present was the individual defence of members of the Association. The Committee consequently has constructed a scheme whereby members of the Association who desire the privileges of individual medical defence and who are willing to pay a special subscription for the purpose shall have the advantages of medical defence under the organization, prestige, and help of the British Medical Association.

Paragraph 1.—It is necessary in order that the Association should carry on the work of the defence of its individual members that the Memorandum of Association should be altered in certain particulars. The decision to take this step has already been determined upon by the Association in General Meeting, specially summoned for the purpose at Birmingham on July 15th, 1885 (confirmed at Carlisle July 28th 1885, Registered Somerset House, August 11th, 1886).

The Resolutions then agreed to were as follows:

"That the provisions contained in the Memorandum of Association with respect to the objects of the Association be altered as follows:

1. By substituting for paragraph (*a*) the following paragraph, namely:

(*a*) To hold the meetings of the Association in different parts of the United Kingdom and different parts of the British Empire.

2. By substituting for paragraph (*d*) the following paragraph, namely:

(*d*) To defend the character and professional interests of members of the Association or Members of the Medical Profession practising in the United Kingdom, by such means and in such manner as the Council of the Association may think fit, including the payment of costs and expenses of actions and proceedings at law or in equity, and of opposing Bills in Parliament.

3. By substituting for paragraph (*e*) the following paragraphs, namely:

(*e*) By undertaking any duties that may seem to the Council of the Association directly or indirectly conducive to the interests of the medical profession.

(*f*) By delegating to any members of the Association in the United Kingdom or elsewhere any of the powers of the Association as in the opinion of the Council of the Association it shall be expedient to delegate.

(*g*) And by such other lawful means as in the opinion of the Council of the Association shall seem best calculated to promote the medical and allied sciences or to maintain the honour and interests of the medical profession."

By omitting from Clause 6 of the Memorandum of Association the words "Committee of."

These Resolutions, with such necessary modifications as may be determined upon, will, it is proposed, be again submitted to the Representative Meeting for the further affirmation by the Association in consequence of the long period that they have been allowed to remain in abeyance. The procedure to be followed is that, after adoption by the Representative Meeting the permission of the High Court must be obtained for the alterations to be made in the Memorandum in accordance with the Resolution of the Meeting. This done the Association with them have the necessary power under the Companies Acts to carry out the purposes of Medical Defence.

Paragraph 2. Inasmuch as the idea of establishing by means of the British Medical Association a Medical Defence Department for the whole profession is to secure concentration of the strength of the profession, the Committee proposes to invite the existing Defence Societies to co-operate in this object. Further, by the establishment of such a Department it is hoped that the unification of interests thus secured will obviate the disadvantages attendant on the existence of various Societies instituted for the same purpose and yet competing against each other.

This consideration is intensified by the fact that the *personnel* of the Societies and the Association is largely the same. To make Medical Defence completely efficient it must be carried on by a single professional organization representing the profession at large. This, in the opinion of the Committee, cannot be attained by any one of the existing Societies. The fact that the membership of each of the Societies has increased as the members of the profession have realized that medical defence is an essential adjunct to practical work is itself a cause of an increasing divergence between the Societies. If the Societies agree to combine together in the single Defence Department proposed by the Committee's scheme the profession will gain and the success of the Association's work will be assured by the fact that the business of the Department may be transacted by the highly trained officers who have already brought the work of the existing Societies through so many difficulties to a successful issue.

Paragraph 3. This article provides for the government and administration of the Defence Department. Inasmuch as certain special knowledge is requisite for the economical and successful administration of defence work, it is suggested in the scheme of constitution of the Department that there shall be a Central Committee which shall co-ordinate the work, and which would also carry out the business arising in England and Wales; and, further, that there shall be also a Committee for Scotland and another for Ireland. In providing for the election of these Committees, it will be noted that some of the members of the Representative Meeting voting in the election of the members of their respective Committees possibly may not be subscribers to the Defence Department. In the opinion of the Committee this is not a matter of moment in view of the large amount of defence work the Association is already carrying on in the interests of the profession; and, in fact, under the circumstances it seems only right that each of the Representatives of the Association in the Representative Meeting should take part in the election.

Paragraph 5. The establishment of a Register of members who join the Defence Department is, of course, necessary until the privileges can be extended to all the members.

The annual payment proposed to be paid as Annual Subscription is taken from the experience of the existing Societies which was kindly furnished to the Committee by their Secretaries. Of course, the estimates thus obtained included expenditure for many purposes which are at present already provided for by the Association out of the ordinary annual subscription. For the reasons set out in the scheme, however, the Committee considered it wise to propose the sum of 10s. per annum as being [illegible] annual expenditure.

Paragraphs 10 and 12. As regards the appointment of Secretaries to the Committees, while it was clear that there should be a Secretary for each of the Scottish and Irish Committees, it was thought that they should appoint their own officers, two alternative proposals

were formulated for the appointment of the Secretary to the Central Defence Committee—that is, of the Department as a whole.

It is therefore left to the consideration of the Divisions whether (1) the Council should appoint a Chief Secretary of the Department, or whether (2) the Central Committee, being more intimately acquainted with the work required, should appoint an officer. With this point must be considered the further extension of the latter principle embodied in the proposals contained in Paragraph 12.

Paragraphs 6, 7, and 8.—The conditions laid down in these paragraphs are those which have been found by the experience of twenty years work to be necessary to Medical Defence administration.

Paragraph 9.—The question of finance involves two considerations in expenditure—for example, general and local. To meet the incidental expenses of each Committee it is suggested that a sum of two shillings per head should be devoted from the Central Fund.

Paragraph 10.—This paragraph is drafted to provide that the Medical Defence Department shall not only possess the support and prestige of the Association, but that it shall also obtain strength from the financial stability of the Association. To provide that the Defence Department should be secured against any special and large calls which may be made upon it, and, at the same time, to arrange that the Association should, as far as possible, be protected from unreasonable risk, the Committee propose that the Association should, if necessary, advance money on the security of a Guarantee Fund established by the Medical Defence Department. The establishment of a Guarantee Fund is the system existing at present among the Defence Societies, and it may here be observed that no call has ever been made of the kind referred to, nor if the Central Committee exercise the same judgement and care in administration as has signalized the work of the existing Societies, does it appear likely that the necessity for a call will ever arise. Further, it is to be noted that under the Constitution of the Association all the financial work will be examined first by the Central Defence Committee, and finally transacted by and through the Council.

Paragraph 11.—This provision is inserted in the scheme, not only for the reason that the general defence work is already being carried on by the Standing Committees of the Association, but also because until the resources of the Defence Department have considerably accumulated the matter requiring immediate attention is, in the opinion of the Committee, the personal defence of the individual members of the Association.

In conclusion, this scheme is purely an optional one, and it is for every member of the British Medical Association to decide for himself whether or not he will avail himself of the advantages of this plan of Medical Defence.

Minority Report.

The following report of a minority of the Medical Defence Committee was read to the Council at its meeting on January 20th by Dr. Beverley. It will be remembered that the report of the Medical Defence Committee at which the scheme was finally adopted had been held on the previous day.

The undersigned of the Committee beg to disagree with the Majority Report, upon the following grounds:

The original intention of those who formulated a scheme at Swansea was that there should be one and only one, Society for Medical Defence, and that that society should be the British Medical Association; the scheme at present adopted by the Committee simply originates a new competing body to be added to the existing defence societies: there being already the Medical Defence Union, the London and Counties Medical Protection Society, a Scotch society, and an Irish one.

To enter into such competition, the British Medical Association must provide a better organization than those already existing in which the work can be accomplished with greater efficiency, greater promptness, and at less cost. How far the first of these propositions can be carried out time alone will show, but the cheapness is by no means apparent.

The Medical Defence Union has a subscription of 10s. and an entrance fee of 10s., making a total of £1 for the first year, and after that 10s. per annum. To enable a member of the profession to get the advantage of the British Medical Association scheme, it is firstly necessary that he should be a member of the Association, that is, he must pay 25s. per annum, and then in addition to this he will be required to pay 10s. a year, and also subscribe to the guarantee fund, making a total annual subscription of 35s. against the 10s. per annum of the existing societies. It will therefore be more expensive.

In addition to this it is clear, from the scheme as formulated, that the Committee will be merely an outside body, only in connexion with the Association in name, no more part and parcel of that body than the Medical Defence Union, as its funds are not to be touched, except as a loan applicable for the purposes of the Committee.

Thus a Committee will be using the name of the British Medical Association, although the Council and general body of members will, unless they be individual subscribers, have no control over it at all; it will be an outside independent additional organization.

M. Arden Messiter.
Michael Beverley.

MEDICAL EXAMINATIONS FOR LIFE ASSURANCE.

The following Report of a Committee appointed by the Norwich Division of the British Medical Association to investigate and report on the present Scales of Remuneration offered for Medical Examinations by Insurance Companies in Norwich, and the character of the Examinations demanded, will be presented to the next meeting of the Division, and is here published in advance for the information of other Divisions which may be intending to consider the subject:

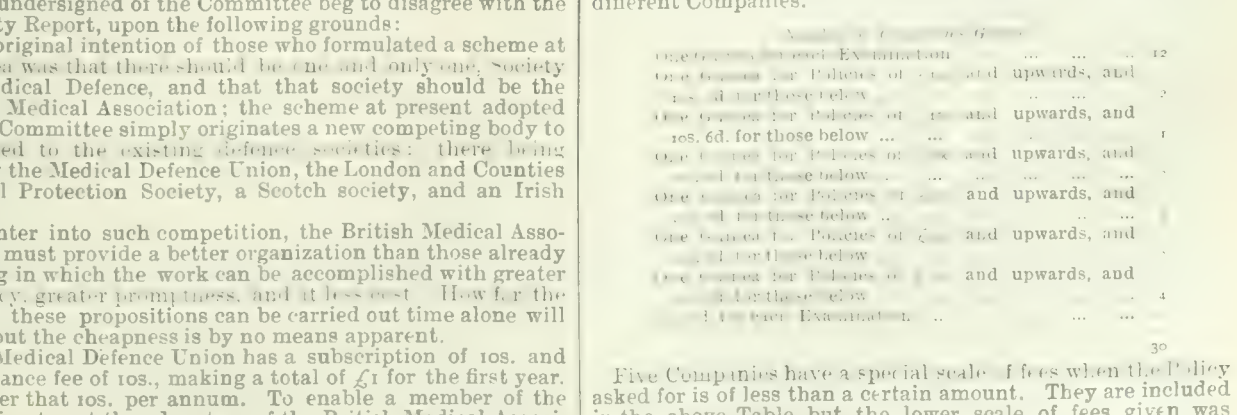
REPORT.

This Report is based on information obtained concerning thirty-three Life and Sickness Insurance Companies having Offices or Agents in the city of Norwich. The remunerations given for Medical Examinations by thirty of these Companies were ascertained, and twenty-two different specimens of the Reports required from the Medical Examiner were procured. The Committee thinks that, although the information it has obtained is by no means exhaustive, there being several Companies trading in Norwich whose action in the matter under consideration was not ascertained, yet it has had sufficient facts before it on which to base this Report.

From the point of view of the Medical Examiner, the value of "Insurance work" as a source of income depends, first, on the amount of the fee offered for each examination; and, secondly, on the quality and quantity of the work required in each case; and a consideration of the latter is necessary for a proper estimation of the adequacy of the former.

In this city, too, almost every Company employs several medical men to conduct its examinations, so that the total received in fees by any one of them during the year does not amount to much; and it stands to reason that the remuneration for casual professional work should be on a more generous scale than that offered for continuous employment.

Taking first the amount of the remuneration received for a medical examination, it will be seen from the following table that there is a great diversity in the scales of fees given by different Companies.



Five Companies have a special scale of fees when the Policy asked for is of less than a certain amount. They are included in the above Table, but the lower scale of fees given was ascertained in four cases.

Two offer fees for Policies up to £
fees for Policies from £ to £
fees for Policies £ to £
Another offers fees up to £
fees from £ to £
fees from £ to £
The fourth offers fees up to £
fees from £ to £

The principle which apparently actuates these various Companies in drawing up their Scale of Fees is that the higher the sum insured for the larger the fee paid by the Company for the Medical Examination.

This the Committee considers to be most unfair.

The Medical Examiner is a servant of the Company, is acting in its interests, and is paid by it; his dealings with a Society, which according to its own statements is generally in a highly prosperous condition, should not, therefore, be dependent on the financial condition of the candidate for insurance.

Considering next the character of the report asked for from the Medical Examiner, there is no reason to suppose that a less thorough examination is required when the fee given is half a guinea than when it is a guinea. Some Companies want a smaller report when the amount insured for is under a certain sum, but in these cases the fee given for the examination is generally less than half a guinea, and in some instances this smaller report differs little, as regards the amount of work to be done, from the larger report.

Of the sixteen Companies in the preceding table offering fees of half a guinea or a guinea, according to the amount of the sum insured for, the report required is exactly the same in either case.

The Committee is of opinion that those Companies whose financial condition only enables them in certain cases to pay a smaller fee, for example half a guinea, should ask for a proportionately shorter report.

In several of the reports some of the investigations asked for go beyond the limits of what is ordinarily accepted as necessary in conducting an examination for life insurance, and if strictly carried out would be as objectionable to the Candidate as to the Examiner. The following are examples:

1. Do you find, after careful inquiry and physical examination, any evidence of past or present disease of the eyes or skin
2. If there is any deafness, the condition of the tympana must be determined by actual examination
   If there has been stricture at any time, the Examiner should ascertain by actual examination that it is cured

Most medical men would be puzzled to answer the following questions, asked by one Company:

a. Do you find, after physical examination, any evidence of disease of the *middle* ear?
   Is his candidate's build a family characteristic or individual to party

There is one company which requires the Medical Examiner to visit Candidates in their own homes, if requested to do so. If they live at a distance from this city, the expense of the journey has to be borne by the Medical Examiner, and it has happened that his arrival has been by no means welcome.

In great measure these misunderstandings may be the fault of the Company's Agent, but the pledge exacted by the Company from the Medical Officer, that he shall visit Candidates at his own expense, is corroborative of the general tendency, shown by most of the facts mentioned in this Report, for many Insurance Companies to require an amount of work from their Medical Officers quite disproportionate to the remuneration given.

In order to give an idea of the nature of the work asked for by some Companies, copies of three different reports are appended, and the amount (not the maximum) of the fee given to the Medical Referee for each, stated.

The Committee considers that in these instance the remuneration is much too low for the amount of work demanded.

Reports A and C are for small Policies, as a rule, taken out chiefly by members of the working class, and they both show how, while the Medical Officers' fee dwindles proportionately to the value of the Policy, till it almost reaches the vanishing point, the number of questions to be answered remains substantially the same. Report B, though possibly an extreme instance, is unfortunately by no means unique as regards the character and number of the questions asked.

In many reports the Medical Officer is asked whether he considers the applicant able to keep up the policy. The Committee considers that such inquiries should not form part of a medical examination. The Medical Officer should merely report on the physical condition of the applicant; the latter's financial condition should be ascertained by the Agent.

The Committee desires to state that many of the Companies included in this report treat their Medical Referees fairly, both in the matter of fees and reports.

The names of those which, as far as could be ascertained, give One Guinea for all examinations, irrespective of the value of the Policy, are: the *Norwich Union*, the *Equitable*, the *Law Union and Crown*, the *New York Mutual*, the *Liverpool, London, and Globe*, the *Clergy Mutual*, the *Standard Life*, the *Scottish Widows*, the *Legal and General*, the *Economic Life*, the *National Provident Institution for Mutual Life Assurance*, and the *Friends' Provident Institution*.

The *Law Union and Crown* has, however, since this investigation was begun, shown a desire to lower its fees, and until the profession takes up a definite attitude on this question and insists on adequate fees, others must be expected to follow suit.

It will be remembered that in the autumn of 1900 the action of the New York Life Insurance Company, in lowering its fees to the present standard, aroused considerable dissatisfaction amongst the profession, and inspired numerous letters to the Editor of the BRITISH MEDICAL JOURNAL. Many facts mentioned in this report were then made public, and a general desire was manifested that the profession at large should take the matter up. There seems, however, to have been no practical outcome of the agitation, and the Insurance Company obtained the terms it asked for. There is apparently no reason why, under existing circumstances, the tactics of three years ago should not be repeated, and a further decrease in the fees paid to the Medical Examiners result.

The Committee holds that the system of a sliding scale of fees is neither a proper nor a suitable way of remunerating a Medical Examiner.

It is of opinion that the fee he receives should be proportionate to the amount of work done by him, and that for every full and careful report he should receive One Guinea, while for half that sum the examination demanded should entail less work and the report be materially shorter.

It considers that the Division should take no steps to remedy the existing grievances until the subject has been thoroughly investigated by other Divisions, and if possible by the Association, and some common action decided upon. It would suggest that for the present all the Insurance Companies trading in Norwich should be written to and the facts, as stated in this report, together with the general opinion of the Division thereon, brought to their notice, so that if any of them felt inclined to express an opinion on this matter they could do so before the Division had pledged itself to definite action.

We are,

Yours faithfully,

(Signed) M. BEVERLEY, Chairman.
D. D. DAY.
E. W. EVERETT.
J. FIELDING.
S. H. LONG.
R. J. MILLS.
J. H. STACY.
A. J. CLEVELAND, Hon. Sec.

INDUSTRIAL BRANCH ASSURANCE

MEDICAL REFEREE'S REPORT

QUESTIONS

1. What is the personal appearance and general conformation of the proposer?
2. Does the proposer appear in good circumstances and able to keep up the Assurance?
3. What is the apparent age?
4. Has proposer any intemperate habits?
5. Has proposer the scheme of hernia and if so, are you satisfied a proper truss is worn? Has the proposer any physical defect or infirmity?
6. Has the proposer ever suffered from asthma, bronchitis, gout, rheumatic fever, or any serious illness? If so please state date and duration of illness, and whether the proposer has fully recovered therefrom.
7. Are the organs of circulation in a healthy condition?
8. Are there any external or internal tumours?
9. Has proposer ever suffered from apoplexy, epilepsy, apoplexy, or insanity?
10. Is there any reason to suspect liver or kidney disease?

11. Are the heart and lungs normal in every respect and perfectly free from disease?

12. Are the parents alive? If not, state age at death and cause of death?

13. Have any of the brothers or sisters died from phthisis, or is any member of the family now suffering from that disease? If so, please give particulars.

14. Are there any other circumstances connected with the proposer with which you think the Company should be made acquainted?

B.—ORDINARY LIFE ASSURANCE.

MEDICAL REFEREE'S REPORT.

Re, *Proposal* No. .....

Questions to be put by the Medical Examiner, and the Answers to be Recorded by Him.

1. What is your occupation?
2. How long have you been engaged in your present occupation?
3. What was your previous occupation?
4. Do you contemplate making any change, temporary or permanent, in your occupation? If so, give full details.
5. Do you contemplate changing your residence or making a journey, or is there any probability that you will do either? If so, give full details.

In what countries have you lived the last ten years, and which years in each?

6. Have you now any connexion, direct or indirect, with the manufacture or sale of wines, spirits, or malt liquors?
7. Have you ever had any such connexion? If so, give full details.
8. What is your daily consumption of wines, spirits, or malt liquors?
9. Have you at any time used any of them to excess?
10. Have you ever raised or spat blood?
11. What is the name of the Agent who induced you to make this present application?
12. Have you ever been examined for insurance without receiving a policy?
13. What illnesses, diseases, or accidents have you had since childhood? The Examiner should satisfy himself that the applicant gives full and careful answers to this question. Space is left here for *Nature of Illness*, *Name of Attendant*, *Date*, *Duration*, *Symptoms*, and *Results*.
14. How long since you consulted or have had the care of a physician?
15. If so, for what ailment. Name and address of physician.
16. Family record. Space is left for: Age, if living; condition of health with full details if not good; age at death; cause of death; duration of illness and details; and previous health of father, mother, brothers, sisters, and all four grandparents.
17. Have any of your uncles or aunts suffered from consumption?

Questions to be put by the Medical Examiner.

1. Rate of the pulse. Its character.
2. Age. Does age as stated seem correct?
3. Exact height and weight.
4. Girth of chest at fourth rib and of abdomen at umbilicus.
5. How well do you know party?
6. Complexion, colour of hair and eyes.
7. Is party's general appearance healthy?
8. Is party deformed, lame, or maimed?
9. Is party a Caucasian? If not, what is his race?
10. Has party recently gained weight? If so, how much and to what is it due?
11. Has party recently lost weight? If so, how much and to what is it due?
12. Is his build a family characteristic or individual to party?
13. Are there any marks of small-pox or of successful vaccination?
14. Do you find, after careful inquiry and physical examination, any evidence of past or present disease—
15. Of brain or nervous system?
16. Of the heart or lungs?
17. Of the stomach or any of the abdominal organs?
18. Of rheumatism or gout?
19. Of the skin, middle ear, eyes, or any part of the body? If so, give full details.
20. Does chemical examination of the party's urine show albumen or sugar even in traces or any abnormality?
21. State specific gravity, and if it is below 1015 or above 1025; give your opinion as to the cause.
22. Has party ever had any genito-urinary ailment (syphilis, stricture, etc.)? If so, give full details.
23. Have you any reason to suppose that the party is now or ever has been intemperate in the use of alcohol or drugs?
24. Have you reviewed all answers in this report and application, and are you sure they are clear and complete? (Any erasures or alterations should be initialled by the examiner.
25. Do you believe that party has given full and true information in all respects?

In a special note at the end of the report, the medical examiner is requested "... to make every endeavour to make this report as complete and precise as possible; the object being to give the Company a pen picture of the applicant as he presents himself to you."

Re, *Proposal* No. .....

Questions to be put by the Medical Examiner.

1. Is the proposer known to you? If so, how long?
2. What age is he stated to be, and does he appear to be the age stated?
3. Has he any physical defect or deformity?
4. Has he had any illness that has left permanent effects?
5. State the frequency and character of the pulse.
6. Are the sounds of the heart normal?
7. Has the proposed any enlarged or varicose veins?
8. Is the respiration normal?
9. Do the lungs expand properly and equally in inspiration?
10. Are the general shape and capacity of the chest satisfactory?
11. What is the condition of the tongue, stomach, and bowels?
12. Is there any reason to suspect disease of the liver?
13. Is the proposed the subject of hernia? If so, state nature and duration.
14. Is a proper truss worn?
15. Are there any external signs of abscess, struma, or exfoliation of the bone?
16. Has the proposed resided in tropical or unhealthy climates?
17. Has he suffered in any way in consequence?
18. Has the proposed had rheumatic fever?
19. Is he subject to rheumatism or gout?
20. Is there any reason to suspect kidney disease? Please make an examination of the urine.
21. Is there any reason to suspect disease of the urinary or generative organs?
22. State height and weight.
23. Do their relations to each other indicate proportional physical development?
24. Has the proposed suffered from insanity, epilepsy, or St. Vitus's dance? If so, give particulars and duration.
25. Has the proposed ever suffered from any serious disease? If so, what, and how long was he ill?
26. Do you suspect that the proposed is, or has been, addicted to irregular or intemperate habits, or is his occupation likely to shorten life?
27. Family history. [Space is left for details of father's, mother's, brothers', and sisters' health or death.]
28. Is the father's family healthy?
29. Is the mother's family healthy?
30. Is any near relative suffering from consumption?

The examiner is then required to place the life in one of four classes, and to state briefly his reasons for doing so, and to give his opinion of the health and constitution of the proposed.

NOTE.—If the sum is assured for less than £500, the examination of the urine is to be omitted, and if for less than £25, the fee for this report is Half-a-Crown.

In proposing the adoption of the report at the next meeting of the Norwich Division Dr. Cleveland will move:

That in the opinion of the Division the remunerations offered by many insurance companies for medical examinations of candidates are inadequate and that some definite action be taken by the Division with a view to raise the standard of the fees in these cases, and that the matter be referred to the Executive Committee to decide upon the best course to be adopted.

THE LOCAL GOVERNMENT BOARD BILL.

THIS Bill, as finally settled by the draughtsman and approved by the Conference between the Public Health and Medico-Political Committees, was submitted to the Council of the British Medical Association at its meeting on January 20th, when the Council adopted the following resolution:

That a draft Bill to reconstitute the Local Government Board as amended be referred to a Parliamentary draughtsman to prepare a Bill on the lines agreed upon by the conference between the Public Health and Medico-Political Committees on January 14th, 1904. Further, that the necessary steps be taken to have the proposed Bill introduced into the House of Commons.

A deputation representing the British Medical Association had an interview with the President of the Local Government Board on February 23rd, and Mr. Long undertook to convey the views of the Association to the Committee on the Organization, Duties, and Pay of the Board of Trade and the Local Government Board, which is presided over by the Earl of Jersey. An offer was made to this Committee to give evidence, but the Secretary of the Committee replied that the Committee would prefer to receive a statement in writing. The following Memorandum has therefore been forwarded to Lord Jersey's Committee:

MEMORANDUM.

To the Committee on the Organization, Duties, and Pay of the Board of Trade and the Local Government Board.

I. The British Medical Association, as representative of the

Medical Profession in the United Kingdom, desires most respectfully to draw the attention of the Committee appointed to consider the Organization, Duties, and Pay of the Board of Trade and the Local Government Board to certain conclusions at which the Association has arrived concerning the organization of the Local Government Board, which, organization in its working most materially affects the efficiency of Public Health Administration in England and Wales.

II. The conclusions of the Association are based upon the following facts and considerations:

(1) The facts coming constantly under the notice of all medical practitioners, and especially of those who are officially concerned in Sanitary Administration, as to (*a*) the prevalence of preventable disease, and (*b*) physical unfitness, among the population of this country, due to causes which it is believed could in a great degree be removed by better central and local administration.

(2) It is recognized by the Association that the causes which have thus come under its notice as prejudicially affecting the health of the community are in part due to the ignorance and vice of individuals, in part to the lack of instructed public opinion among the electors and members of Local Authorities, and in part to a want of co-ordination of Local Authorities dealing directly or indirectly with questions of Public Health; but it is also believed that many grave evils are directly traceable to defective organization of those Departments of the Central Government which deal with matters of Public Health, and to a want of proper co-ordination of these Departments with one another and with Local Sanitary Authorities.

(3) The British Medical Association believes that the first and most pressing public need in this matter is the establishment of an efficiently constituted Central Department, to which all matters affecting Public Health should be specifically referred.

(4) It is not, however, suggested that this should be a new separate branch of the Government.

The Association appreciates that in this country the principle of extensive devolution of sanitary administration to Local Authorities must be fully recognized in any attempt to deal comprehensively with the organization of such administration, and that it follows from the acceptance of this principle that the central administration of Public Health cannot, with advantage, be taken from the department which is concerned with Local Government in general, and, therefore, that attempts to make more efficient the central organization of Public Health Administration must be directed to reform in the organization of the Local Government Board.

(5) The defects in the present organization of the Local Government Board are traceable chiefly to circumstances in its origin and development, to which reference must briefly be made.

In theory, the Local Government Board is a Committee of the Privy Council. In practice the responsibilities and duties of the President of the Local Government Board are exactly analogous to those of a Secretary of State. The fact that the President is not a Secretary of State detracts from his influence with Local Authorities and diminishes the status and emoluments of the officers of his Department. It has been said on behalf of the Department that the reason why the position and salaries of officers in the Local Government Board are inferior to those of officers in the office of a Secretary of State is that the duties discharged by the officers of the Local Government Board are of less importance to the State than those discharged by the officers in the office of a Secretary of State.

The Association ventures most strongly to dissent from this view, and to assert that the duties of the Local Government Board are of the first importance to the welfare of the country, in that they relate partially to Public Health, mainly to the [illegible] water supply and drainage and sanitary circumstances generally, and to improper conditions of housing and employment in producing [illegible] and [illegible] and the organization of [illegible] affecting the distribution of the population.

The Medical Department of the Local Government Board was transferred to it from the Privy Council, at the time when the Act of 1871 came into force. The personnel of the Department has since been largely increased, and the responsibilities and duties placed upon it have grown in importance with the progress of sanitary legislation, but the status of the Department has not undergone any corresponding improvement.

III. Having regard to the foregoing facts and considerations, the Association has arrived at the following conclusions which it ventures most respectfully to urge upon the Committee, namely:

(1) That the President of the Local Government Board should be a Secretary of State, and that that Department in all matters of status and emoluments should be raised to an equality with the existing Departments of Secretaries of State.

(2) That the President should be assisted and advised by a Board consisting for the transaction of business and consisting of, in addition to himself, a Vice-President and a Parliamentary Secretary, each of whom should be a Peer or a Member of the House of Commons, and of a certain number of expert members. It will be observed that such a constitution would be in accordance with the precedent established by the creation of the Scottish Local Government Board, and follows also the analogy of the Admiralty Board and the Army Council.

(3) That, inasmuch as Public Health Administration would be an important function of the Board, one of such experts should be a Registered Medical Practitioner, who should have had special experience in Public Health Administration.

Having regard to the fundamental importance of these proposals the Association has had prepared the Bill, embodying the said proposals, of which a copy is appended to this Memorandum.

The Association would further venture to suggest that in connection with the proposed reorganization of the Board, (*a*) the duties of the Department should be extended so as to comprehend the duties in respect of the administration of the Medical Acts, the Dentists Act, the Midwives Act, and the Pharmacy Act, which are at present imposed upon the Privy Council; and that (*b*) the propriety of transferring the duties under the Adulteration Acts and Factories Acts to the Local Government Board as the Central Health Authority, also arises for consideration.

REGISTRATION OF NURSES AND OF PRIVATE NURSING HOMES.

A BILL

To provide for the better Training and Registration of Nurses and for the Voluntary Registration of Private Nursing Homes.

Introduced by Mr. Charles Hay, Mr. Reginald Mr. H. D. Greene, Captain Egerton, Lord Cecil Manners, and Mr. Maconochie.

Be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons in this present Parliament assembled, and by the authority of the same, as follows:

1. [illegible] of August 1st Thousand and after the first day of January one thousand nine hundred and eight no person shall practise as a registered nurse unless such person be registered under this Act, any person so acting without being registered under this Act shall be liable on summary conviction to a penalty not exceeding [illegible]

2. [illegible] no person shall be registered under this Act unless such person has complied with the rules and regulations to be laid down in pursuance of this Act and unless such person shall have attained the age of twenty-one years and shall have had three years previous training in nursing and midwifery training which shall be evidenced by the production of certificates [illegible] shall include [illegible] general and surgical nursing, [illegible] cookery, and sanitation.

3. [illegible] Existing Nurses. (1) Any person who, within two years from the date of this Act coming into operation, claims to be registered under this Act shall be so registered, provided that such person holds a certificate of at least two years' training from any institution recognized by the

Central Board, or produces evidence, satisfactory to the Board, that, at the passing of this Act such person has been for at least five years in bona-fide practice as a trained nurse, and bears a good character.

Nurses Trained in the Colonies.—III. Any person who shall produce evidence satisfactory to the Board of having been trained and examined as a nurse in any part of the British dominions beyond the seas shall be registered, provided such person passes an examination approved by the Board, and bears a good character.

Constitution of the Central Board.—IV. On the passing of this Act the Lord President of the Privy Council shall take steps to secure the formation of a Central Board, which shall consist of—

(1) Three registered medical practitioners to be appointed for terms of three years. Two to be appointed by the Lord President of the Council, and one to be appointed by the British Medical Association.

(2) Three persons to be appointed for terms of three years by the Lord President of the Council, one to represent England, one to represent Scotland, and one to represent Ireland; and

(3) Three representatives to be appointed for terms of three years, one to be appointed by the Medical Director-General of the Navy and the Medical Director-General of the Army conjointly, one by the Royal British Nurses' Association, and one by the Queen Victoria Jubilee Institute for Nurses, and

(4) Five fully-trained nurses who shall be matrons or lady-superintendents of hospitals or Poor-law infirmaries with training schools attached, to be elected for terms of three years: one to be elected by the matrons and lady-superintendents of the metropolitan hospitals, one to be elected by the matrons and lady-superintendents of metropolitan Poor-law infirmaries, one to be elected by the matrons and lady-superintendents of provincial hospitals, one to be elected by the matrons and lady-superintendents of hospitals in Scotland, and one to be elected by the matrons and lady-superintendents of hospitals in Ireland; and

(5) Seven fully-trained nurses to be elected for terms of three years: three to be elected by nurses on the Register who are resident in the metropolis, one of whom shall be a mental nurse and one a fever nurse, twenty nurses on the Register who are resident in the provinces and Wales, one by nurses on the Register who are resident in Scotland, and one by nurses on the Register who are resident in Ireland.

The members first elected under subsections (4) (5) shall not be elected until the expiration of six calendar months from the date of the first registration of nurses in the Register, and they shall only be elected for so long as remains of the period of three years for which the Board then existing has been appointed. Any vacancy occurring by resignation or death shall be filled up by the body which appointed or elected the member who has resigned or died, and the person appointed or elected shall continue as a member only so long as the person for whom he or she has been substituted would have remained a member without reappointment or reelection. On the termination of the period for which the members have been appointed or elected they shall be eligible for reappointment or re-election for a like period.

Duties of the Central Board.—V. The duties and powers of the Central Board shall be as follows:

(1) To frame rules:
- (*a*) Regulating their own proceedings:
- (*b*) Regulating the issue of certificates and the conditions of admission to the Register of nurses:
- (*c*) Regulating the course of training and the conduct of examinations and the remuneration of the examiners:
- (*d*) Regulating the admission to the Register of women already in practice as nurses at the passing of this Act:
- (*e*) Regulating, supervising, and restricting within due limits the duties of nurses:
- (*f*) Deciding the conditions under which a nurse may be suspended from practising as a registered nurse.

(2) To appoint examiners;

(3) To decide upon the places where, and the times when, examinations shall be held:

(4) To publish annually a register of nurses who have been duly certified under this Act:

(5) To decide upon the removal from the register of the name of any nurse for disobeying the rules and regulations from time to time laid down under this Act by the Central Board, or for other misconduct, and also to decide upon the restoration to the register of the name of any nurse so removed:

(6) To issue and cancel certificates:

And generally to do any other act or duty which may be necessary for the due and proper carrying out of the provisions of this Act.

All rules framed under this Section shall be valid only if approved by the Privy Council.

Appeal from Decision of the Central Board.—VI. Any registered nurse who is aggrieved by any decision of the Central Board removing his or her name from the register, may appeal therefrom to the High Court of Justice within six months after the notification of such decision to such nurse. The Central Board shall not suspend or remove any nurse's name from the register without sending to such nurse a statement in writing of the conduct imputed to him or her, and without affording an opportunity of giving an explanation in writing or in person.

Fees and Expenses.—VII. There shall be payable by every person who comes up for examination and registration such fee as the Central Board may from time to time determine. All such fees paid by nurses in practice at the passing of this Act, and by candidates for examination shall be paid to the Central Board. The said Board shall devote such fees to the payment of expenses connected with the examination and registration, and to the general expenses of the Board. The Board shall, as soon as practicable after the thirty-first day of December in each year, publish a financial statement made up to that date, and showing the receipts and expenditure, including liabilities of the Board, during the year, which statement shall be certified as correct by an accountant, who shall be a member either of the Institute of Chartered Accountants or of the Incorporated Society of Accountants.

Nurses' Register.—VIII. There shall be a register of nurses containing

(1) The names of those nurses who have been registered under Section II of this Act;

(2) The names of those nurses who have been registered under Section III of this Act;

(3) The names of all other nurses who have been registered under this Act.

The entry in the register shall, in every case, indicate the conditions in nature of which the registration was made.

Badges.—IX. All persons registered under this Act shall be entitled to wear such distinctive badge as has been previously approved by the Central Board, and any person whose name does not appear on the register who shall wear a similar badge, or any imitation thereof, shall be liable, on summary conviction, to a fine not exceeding £5.

Duty of Central Board to Inspect and Register Private Nursing Homes.—X. The Central Board shall, upon the written request of any person or persons who own or manage a private nursing home, cause such home to be inspected, and shall upon compliance by such person or persons with the regulations framed by the Board with respect to private nursing homes, register the same.

Powers of the Central Board in respect to the Inspection and Registration of Private Nursing Homes.—XI. The powers of the Central Board in respect to the registration of private nursing homes shall be as follows:

(1) To frame regulations;

(2) To appoint visitors;

(3) To fix and collect fees for registration of private nursing homes;

(4) To keep and publish annually a register of private nursing homes which have been duly registered under this Act;

(5) To decide upon the removal from the register of any private nursing home where the regulations made from time to time, under this Act, by the Central Board are not observed or continued in force, and also to decide upon the restoration to the register of any private nursing home so removed.

Regulations framed under this section shall be valid only if approved by the Privy Council.

Appeal from Decision of Central Board.—XII. The owners or managers of any private nursing home thinking themselves aggrieved by any decision of the Central Board removing the private nursing home which they own or manage from the register may appeal therefrom to the High Court of Justice within three months after the notification of the decision to them, but no further appeal shall be allowed.

Appointment of Secretary and Supplemental Provisions as to Registration. XIII. The Central Board shall appoint a secretary and such other officers as may be required, and every person so appointed shall be paid such salary as the Board may approve, and shall be removable at the pleasure of the Board. The secretary shall be charged with the custody of the registers.

A copy of the Register of Nurses or of the Register of Private Nursing Homes purporting to be printed by the authority of the Board, or to be signed by the secretary to the Board, shall be evidence in all courts that the persons and the private nursing homes therein specified are registered under this Act; and the absence of the name of any person or of any private nursing home from such copy shall be evidence until the contrary be made to appear that such person or such private nursing home is not registered under this Act: Provided always that, in the case of any person or any private nursing home whose name does not appear in such copy, a certificate, under the hand of the secretary, of the entry of the name of such person or such private nursing home on the register shall be evidence that such person or such private nursing home is registered under this Act.

Penalty for obtaining Registration by False Representation. XIV. Any person who procures, or attempts to procure, registration under this Act by making or producing, or causing to be made or procured, any false and fraudulent declaration, certificate, or representation, either in writing or otherwise, shall be guilty of a misdemeanour, and shall, on conviction thereof, be liable to be imprisoned, with or without hard labour, for any term not exceeding twelve months.

Penalty for wilful Falsification of the Registers.—XV. Any person wilfully making, or causing to be made, any falsification in any matter relating to the Register of Nurses or the Register of Private Nursing Homes shall be guilty of a misdemeanour, and shall be liable to be imprisoned, with or without hard labour, for any time not exceeding twelve months.

Appeal. XVI. Where any person deems him or herself aggrieved by any determination of any court of summary jurisdiction under this Act, such person may appeal therefrom to the Court of Quarter Sessions.

Definitions. XVII. In this Act—

The term "nurse" means a man or woman who is registered under this Act, unless the context otherwise requires.

"Private nursing home" means a private nursing home which is registered under this Act, unless the context otherwise requires.

"Central Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

Short Title and Commencement. XVIII. This Act may be cited as the Nurses Registration Act, 1904. It shall, except as otherwise provided by this Act, come into operation on the first day of January, one thousand nine hundred and five.

A BILL TO REGULATE THE QUALIFICATION OF TRAINED NURSES AND TO PROVIDE FOR THEIR REGISTRATION.

Presented by Dr. Farquharson, supported by Mr Haldane, Sir Thomas Wrightson, Sir James Joicey, Sir John Tuke, Mr. Hudson Kearley, Mr. Munro Ferguson, Mr. Tennant, Mr. Black, Mr. Cameron, Mr. Evershed, Dr. Thompson.

Whereas it is expedient that persons requiring nursing assistance should be enabled to distinguish qualified from unqualified nurses:

Be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Short Title.

1. This Act may for all purposes be cited as the Nursing Act, 1904.

Commencement of Act.

2. This Act shall commence and take effect from the first day of October, One thousand nine hundred and four.

Interpretation.

3. In this Act "the Council" means the General Council of Nursing Education and Registration of the United Kingdom. The term "Direct Representatives" means the nurses elected as provided by Section 7 of this Act. The term "Trained Nurse" or "Registered Nurse" means a nurse whose name appears in "The Nursing Register."

Council Incorporated.

4. For the purposes of this Act, a Council shall be and is hereby incorporated by the name of "The General Council of Nursing Education and Registration of the United Kingdom," and by that name shall be a Body Corporate having a perpetual succession and a Common Seal, with power to purchase and hold, sell, or dispose of property and land for the purposes of this Act.

Constitution and Appointment of Council.

5. The Council shall consist of thirty-one persons to be appointed or elected as follows:

(a) Two persons to be appointed by His Majesty's Privy Council, of whom one shall be a registered medical practitioner, and one shall be a nurse.

(b) Five Registered Medical Practitioners who shall be Lecturers or Teachers of Nursing in Nurse Training Schools approved by General Hospitals, to be appointed by the General Council of Medical Education and Registration of the United Kingdom, of whom three shall be appointed to represent schools in England, one to represent schools in Scotland, and one to represent schools in Ireland.

(c) One Registered Medical Practitioner who shall be engaged in general practice to be appointed by the British Medical Association.

(d) Two matrons of General Hospitals in London with Medical schools attached who shall be elected by the Matrons of General and Special Metropolitan Hospitals containing not less than [illegible] beds.

(e) Two matrons of Provincial or Welsh General Hospitals, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than [illegible] beds in the Provinces and in Wales.

(f) One matron of a Scotch General Hospital, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than [illegible] beds, in Scotland.

(g) One matron of an Irish General Hospital, who shall be elected by the Matrons of the County Hospitals or General and Special Hospitals containing not less than [illegible] beds, in Ireland.

(h) Two matrons of Poor Law Infirmaries containing not less than [illegible] beds one for the Metropolitan Infirmaries and one for the Provincial Infirmaries, who shall be elected by the Matrons of such Infirmaries respectively.

(i) Six nurses who shall be elected by the registered nurses resident in England and Wales.

(j) Two nurses who shall be elected by the registered nurses resident in Scotland; and

(k) Two nurses who shall be elected by the registered nurses resident in Ireland.

(l) One nurse to represent Naval and Military nursing and who shall be appointed by the Council for five years, by the First Lord of the Admiralty or by the Secretary of State for War.

(m) One nurse to be appointed by the Matrons' Council of Great Britain and Ireland.

(n) One nurse to be appointed by the Queen Victoria's Jubilee Institute for Nurses.

(o) One nurse to be appointed by the Royal British Nurses Association.

(p) Two persons who must be either a Registered Medical Practitioner or a nurse to be appointed by the Associated Women's Organisations.

(q) A district nurse to be elected by the district Nursing Councils [illegible] and who shall be an [illegible] elected member of the Council.

Every nurse appointed or elected as aforesaid shall be eligible to be, and shall in due course be, registered under the provisions of this Act.

Election of Representatives of Hospital and Infirmary Matrons.

6. The representatives of Hospital and Infirmary Matrons shall be elected in such manner as the Council at its first meeting shall determine.

Election of Direct Representatives.

7. The "Direct Representatives" shall be elected in the first instance by the votes of such nurses as have been registered under the provisions of this Act before the first day of March, One thousand nine hundred and five, and thereafter by the whole body of registered nurses in such manner as the Council with the approval of His Majesty's Privy Council shall from time to time determine.

Term of Office.

8. The members of the Council shall each be elected or

appointed for a term of five years, and shall be capable of re-election or reappointment, and any member may at any time resign his or her office by letter addressed to the President of the Council, and upon the death or resignation of any member of the Council, some other person shall be constituted a member of the Council in his or her place in manner hereinbefore provided; but shall vacate office at the time the member whose place he or she has taken would have vacated office; but it shall be lawful for the Council during such vacancy to exercise the powers by this Act conferred upon the Council.

Power to Lord President of Privy Council to Obtain Appointment of Council.

9. Within one month from the commencement of this Act the Lord President of the Privy Council shall take such steps as he may deem advisable to obtain the appointment of members of the Council as specified in Section 5, Subsections *(a)*, *(b)*, *(c)*, *(d)*, *(m)*, *(n)*, *(o)*, *(p)*.

First Meeting of Council.

10. The appointed members of the Council shall hold their first meeting within two months from the commencement of this Act, in such place and at such time as the Lord President of the Privy Council shall appoint, and shall make such arrangements as to Section 6 as to them shall seem expedient.

Power to President to Summon Meeting in Certain Events.

11. In the absence of any rule or regulation as to the summoning of a meeting of the Council, or in any case of urgency, it shall be lawful for the President to summon a meeting at such time and place as shall seem expedient by letter addressed to each member; and at every meeting, in the absence of the President, some other member to be chosen from the members present shall act as President; and all acts of the Council shall be decided by the votes of the majority of the members present at any meeting, the whole number present not being less than fifteen; and at all such meetings the President for the time being shall, in addition to one vote as a member of the Council, have a casting vote, in case of an equality of votes; the Council may appoint an Executive Committee of their own body, of which the quorum shall not be less than six, and delegate to such Committee any of the powers and duties vested in the Council.

Appointment of Officials.

12. The Council shall appoint one of their number as Treasurer, and shall also appoint a Registrar, who shall act as Secretary of the Council, and shall also appoint such clerks and servants as may be necessary; and every person so appointed shall be removable at the pleasure of the Council, and shall be paid such salary as the Council shall from time to time determine.

Register of Trained Nurses to be Kept.

13. It shall be the duty of the Registrar to keep a correct Register of Trained Nurses, to be called "The Nursing Register," in accordance with the provisions of this Act, and the Orders and Regulations of the Council, and to erase the names of all registered persons who shall have died, and from time to time to make the necessary alterations in the addresses or qualifications of the persons registered under this Act.

Duties and Powers of Council.

14. The duties and powers of the Council shall be as follows:

I. To frame rules—(*a*) regulating their own proceedings; (*b*) regulating the issue of certificates and the conditions of admissions to the Register of Trained Nurses; (*c*) regulating the course of training and the conduct of examinations, and the remuneration of the examiners; (*d*) regulating the admissions to the Register of persons already in practice as trained nurses at the commencement of this Act; (*e*) regulating, supervising, and restricting within due limits the practice of registered nurses; (*f*) defining the particulars required to be given in any notice under this Act;

II. To appoint examiners;

III. To decide upon the places where, and the times when, examinations shall be held;

IV. To issue and cancel certificates;

V. To publish annually a Register of Trained Nurses containing the names, addresses, and qualifications of nurses who have been duly certified under this Act;

VI. To decide upon the suspension or removal from the Register of the name of any trained nurse for any breach of the rules and regulations from time to time laid down under this Act by the Council, or for conduct disgraceful in a professional respect, and also to decide upon the restoration to the Register of the name of any trained nurse so suspended or removed;

And generally to do any other act necessary for the due and proper carrying out of the provisions of this Act.

No rules framed under this section shall take effect until the same have been approved by His Majesty's Privy Council.

Provision for Existing Nurses.

15. Any person who, within two years from the commencement of this Act, claims to be certified thereunder shall be so certified provided such person is at least twenty-one years of age, and (1) holds a three years' certificate of training from a hospital approved by the Council, and is of good character, or (2) produces evidence of training satisfactory to the Council and has been for at least three years in bona-fide practice as a nurse, and is of good character. At the expiration of the said term of two years any nurse claiming to be certified under this Act shall have completed a three years' term of training in hospital wards approved of by the Council, and shall verify his or her qualifications for being so certified by such means as the Council may prescribe.

Fees and Expenses.

16. There shall be payable by every candidate for examination or registration such fee as the Council may, with the approval of His Majesty's Privy Council, from time to time determine, such fee not to exceed the sum of two guineas. All fees, fines, and penalties paid or recovered under this Act shall be paid to the treasurer of the Council, and shall be devoted to the payment of expenses connected with the examination of candidates, and to the general expenses of the Council, and of carrying this Act into execution. The Council shall, as soon as practicable after the 31st day of December in each year, publish a statement made up to that date, audited and certified as correct by an accountant who shall be a member either of the Institute of Chartered Accountants or of the Incorporated Society of Accountants, showing the receipts and expenditure during the year, and also the assets and the liabilities of the Council at the aforesaid date.

Provision as to Fees and Expenses of Council.

17. There shall be paid to the members of the Council such fees for attendance and such reasonable travelling expenses as shall from time to time be allowed by the Council.

Penalties.

18. From and after the commencement of this Act any person who attempts to personate any nurse certified under this Act, or who not being certified thereunder takes or uses the name or title of registered nurse (either alone or in combination with any other word or words, or letters), or any name, title, addition, or description implying that he or she is certified under this Act, or is recognized by law as a Registered Nurse, shall be liable on summary conviction to a fine not exceeding ten pounds, or in default thereof to three months' imprisonment.

Provision as to Non-recovery of Charges by Unregistered Persons.

19. From and after the commencement of this Act no person who assumes to be a registered nurse shall be entitled to sue for or recover any charge in any court of law for any nursing assistance or attendance on the sick unless such persons prove that he or she is registered under this Act.

Copy of Nursing Register to be Evidence.

20. A copy of the Nursing Register, purporting to be printed by the authority of the Council, shall be evidence in all courts of law that the nurses whose names are therein specified are registered under this Act; and the absence of the name of any nurse from the said Register shall be evidence, until the contrary be made to appear, that such nurse is not registered under this Act. Provided always that, in the case of any nurse whose name does not appear in such Register, a printed certificate under the hand of the Registrar of the Council that the name of such nurse has been entered on the

Register shall be evidence that such nurse has been duly registered under this Act.

Penalty for Obtaining a Certificate by False Representation and for Falsification of Register.

21. Any person who (1) procures or attempts to procure a certificate under this Act by making or causing to be made or produced, any false and fraudulent declaration, certificate, or representation, either in writing or otherwise, or (2) wilfully makes or causes to be made any falsification in any matter relating to the Register of Trained Nurses shall be guilty of a misdemeanour, and shall on conviction thereof be liable to be imprisoned, with or without hard labour, for any term not exceeding twelve months.

Prosecution of Offences.

22. Any offences under this Act may be prosecuted by authority of the Council.

Appeal from Division of General Nursing Council.

23. Any registered nurse aggrieved by a decision of the Council removing his or her name from the Register of Trained Nurses may appeal therefrom to the High Court of Justice within three months from the notification of such decision, and such appeal shall be final.

Construction of Act.

24. This Act shall not be construed to affect or apply to the gratuitous nursing of the sick by friends or members of a family and, also, it shall not apply to any person attending the sick for hire but who does not in any way assume to be a registered nurse.

No Authority to Practise Medicine.

25. Nothing contained in this Act shall be considered as conferring any authority to practise medicine or to undertake the treatment or cure of disease.

MEDICAL ACT (1886) AMENDMENT BILL.

This Bill introduced by General Laurie is backed by Sir Walter Foster, Sir John Tuke, Mr. Rothschild, Sir Howard Vincent, Mr. Middlemore, and Sir Mancherjee Bhownaggree.

MEMORANDUM.

In order to facilitate the admission of colonially-trained and registered medical men to practise in Great Britain and hold appointments in the Imperial service, the Act of 1886 provided for reciprocity between the mother country and such of the self governing colonies as might comply with certain conditions; but that Act expressly stipulates that when any colony had a provincial and a federal organization, such reciprocal arrangements should be entered into with the federal Government and not the provincial. In the case of Canada the British North America Act of 1867, enacted by the Imperial Parliament, expressly provides that education shall be entirely under the control of the provincial and not the federal Governments, so that it is impossible to bring the Act of 1886 into accordance with Canada. It is impracticable to amend the British North America Act of 1867, and to transfer the control of education to the federal authorities, and therefore it is the object of this Bill to amend the Medical Act of 1886 [illegible] in any way interfering with the principle, and to enable reciprocal arrangements to be entered into either with the federal or provincial Governments.

A BILL TO

Amend the Medical Act 1886.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same, as follows:

1. *Amendment of 49 and 50 Vict. c. 48, s. 21.* For the purposes of the Medical Act 1886 where any part of a British possession is [illegible] and also under a local legislature, His Majesty may, if he thinks fit, by Order in Council, declare that the part which is under the local legislature shall be deemed a country within that possession.

2. *Short title.* This Act shall be cited as the Medical Act (1886) Amendment Act 1904.

REVACCINATION BILL.

Introduced by Sir John Tuke, and supported by Sir Michael Foster, Mr. Haldane, Dr. Farquharson, Captain Jessel, Mr. Malcolm, Mr. T. P. O'Connor, Mr. Heywood Johnstone, Mr. Cohen, Mr. Moon, Sir Charles Dalrymple, and Sir John Dorington.

MEMORANDUM.

This Bill proposes to apply to revaccination the provisions of the Vaccination Acts, 1867 to 1898, subject to the same safeguards, penalties, and exemptions, and subject in particular to the provisions of the first paragraph of Section 11 of the Vaccination Act, 1898, exempting the "conscientious objector" from penalties.

ARRANGEMENT OF CLAUSES

Clause
1. Revaccination within six months after age of 12.
2. No penalties in certain cases.
3. Certificate of successful revaccination to be transmitted to vaccination officer.
4. Lists of children to be furnished.
5. Contracts to be made with guardians.
6. Appointment of public vaccinators and vaccination officers.
7. Incorporation of certain provisions of Vaccination Acts, 1867 to 1898.
8. Application of Act to children whether primarily vaccinated or not.
9. Saving as to provisions of Vaccination Acts, 1867 to 1898, with respect to revaccination.
10. Scotland or Ireland.
11. Commencement.
12. Short title.
Schedule.

A BILL TO

Provide for the Revaccination of Children after the Age of Twelve.

Whereas it is expedient to provide for the revaccination of children after the age of twelve years:

Be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Revaccination within six months after age of twelve.* From and after the commencement of this Act the parent or other person having the custody of a child shall cause the child, within six months of its attaining the age of twelve years, to be revaccinated either by a public vaccinator in the manner hereinafter provided, or by some medical practitioner, and in the event of the revaccination being unsuccessful such parent or other person shall cause the child to be forthwith again revaccinated.

2. *No penalties in certain cases.* (1) No parent or other person shall be liable to any penalty under section twenty nine or section thirty one of the Vaccination Act, 1867, as incorporated with this Act, if, within four months from the time at which a child attaining the age of twelve years, he satisfies two justices in petty session that he conscientiously believes that vaccination would be prejudicial to the health of the child, and within seven days thereafter delivers to the vaccination officer for the district a certificate by such justices or magistrate of such conscientious objection.

(2) This section shall come into operation on the passing of this Act but in its application to a child who shall have attained the age of twelve years before the passing of this Act there shall be substituted for the period of four months from the date at which such child attained the age of twelve years the period of four months from the passing of the Act.

3. *Certificate of successful revaccination to be transmitted to vaccination officer.* Every public vaccinator who shall have performed the operation of revaccination upon any child, and have ascertained that the same has been successful, shall, within twenty one days after the performance of the operation (notice of it by post or otherwise to the vaccination officer a certificate in such form as may be prescribed by the Local Government Board certifying that the said child has been successfully revaccinated, and the fee or remuneration to be received by the public vaccinator in respect of such revaccination shall be determined in accordance with section twenty two of the Vaccination Act, 1867, as incorporated with this Act.

4. *Lists of [illegible] children to be furnished.* (1) The local edu-

cation authority of every district as defined in the Education Acts, 1870 to 1903 the headmaster or headmistress of every school which is not under the control of the local education authority, the master of every workhouse, and the head of every orphanage in every district, within fourteen days after the *first day of May*, and also within fourteen days after the *first day of November*, in each year, shall prepare or cause to be prepared a list of all children attending any school, or who may be in any workhouse or orphanage under their or his or her supervision, direction, or care, who shall have attained the age of twelve years in the six months then next preceding, and shall transmit such list by post or otherwise to the vaccination officer of the district in which such school, workhouse, or orphanage is situate.

(2) There shall be paid by the guardians to every person forwarding any such list in accordance with this section such fee as may be ordered by the Local Government Board.

(3) Every person who shall refuse or neglect to prepare and forward, or cause to be prepared and forwarded, any such list in accordance with the provisions of this section, shall be guilty of an offence, and shall be liable to be proceeded against summarily, and upon conviction to pay a penalty not exceeding forty shillings.

5. *Contracts to be made by guardians.* The guardians shall, with the consent of the Local Government Board, make stipulations and conditions in their contracts to secure the due revaccination of all children between the ages of twelve and thirteen, and the observance of all the provisions of this Act on the part of the public vaccinators, and no contract for such revaccination shall be valid until the same has been approved of by the Local Government Board, and such Board may, at any time after such contract shall have been approved of by them, determine the same either forthwith or at a future day.

6. *Appointment of public vaccinators and vaccination officers.*—The provisions of the Vaccination Acts, 1867 to 1898, relating to the appointment, duties, and remuneration of public vaccinators and vaccination officers shall be construed as applying to this Act.

7. *Incorporation of certain provisions of Vaccination Acts, 1867 to 1898.* Subject to the provisions of this section the provisions of the Vaccination Acts, 1867 to 1898, mentioned in the schedule to this Act are hereby incorporated with and declared to form part of this Act: Provided that in each and every of such incorporated provisions there shall be substituted for the words "vaccinating," "vaccinate," or "vaccinates," wherever they occur, the words "revaccinating," "revaccinate," or "revaccinates" respectively; for the word "vaccinated," wherever it occurs, the word "revaccinated;" and for the word "vaccination," wherever it occurs (except when it occurs in conjunction with the word "officer"), the word "revaccination":

Provided also that there shall be inserted after the words and figures "Vaccination Act, 1867," wherever they occur in the said incorporated provisions, the words "as incorporated with this Act":

Provided also that there shall be substituted for the forms marked "B," "C," and "D," referred to in sections eighteen, twenty, and twenty-three respectively of the Vaccination Act, 1867, as incorporated with this Act, such forms as may be issued by the Local Government Board: Provided also that in section thirty-one of the Vaccination Act, 1867, as incorporated with this Act, there shall be substituted for the words "under the age of fourteen," which occur in the said section, the words following, that is to say, "above the age of twelve."

8. *Application of Act to children whether primarily vaccinated or not.*—The provisions of this Act with regard to revaccination shall apply to every child between the ages of twelve and thirteen years, whether or not such child shall have been previously vaccinated, either in accordance with the provisions of the Vaccination Acts, 1867 or 1898, or otherwise, and whether or not such child shall have been granted a certificate of exemption in accordance with section two of the Vaccination Act, 1898.

9. *Saving as to provisions of Vaccination Acts, 1867 to 1898, with regard to revaccination.*—Nothing in this Act shall be taken to repeal or modify any of the provisions of the Vaccination Acts, 1867 to 1898, with regard to revaccination.

10. *Scotland or Ireland.*—This Act shall not extend to Scotland or Ireland.

11. *Commencement.*—This Act shall come into operation on the *first day of January one thousand nine hundred and five.*

12. *Short title.*—This Act may be cited as the Revaccination Act, 1904.

SCHEDULE.

TABLE OF PROVISIONS OF THE VACCINATION ACTS, 1867 TO 1874, WHICH ARE INCORPORATED WITH THIS ACT IN AND SUBJECT TO THE PROVISIONS OF SECTION 7 OF THIS ACT.

Session and Chapter.	Short Title.	Provisions Incorporated.
30 and 31 Vict. c. 84	The Vaccination Act, 1867	Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35.
34 and 35 Vict. c. 98	The Vaccination Act, 1871	Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and so much of the Schedule of Forms as affects Section 29 of the Vaccination Act, 1867.
37 and 38 Vict. c. 75	The Vaccination Act, 1874	Section 2, Subsection (1), Sections 3, 4, 5, 6, 7, and 8, and so much of the Schedule of Repeals as affects Sections 29 and 31 of the Vaccination Act, 1867, and Section 11 of the Vaccination Act, 1871.

A BILL TO AMEND THE VACCINATION ACTS.

INTRODUCED by Mr. Broadhurst, supported by Mr. Thomas Bayley, Sir John Rolleston, Mr. Channing, Mr. Levy, and Mr. Corrie Grant.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Repeal of 30 and 31 Vict., c. 84, ss. 29-31, as to compulsory vaccination.*—From and after *the passing of this Act* no parent or person having the custody of a child shall be compelled or ordered to vaccinate such child by any justice, court, or other person having authority hitherto to so compel or order, and so much of sections twenty-nine and thirty-one of the Vaccination Act of 1867 as enacts that any parent or person having the custody of a child shall be compelled or ordered as aforesaid is hereby repealed.

2. *Short title and construction.* This Act may be cited as the Vaccination Act, 1904, and the Vaccination Act, 1898, the Vaccination Act, 1867, the Vaccination Act, 1871, the Vaccination Act, 1874, and this Act shall be construed together as one Act, and may be cited collectively as the Vaccination Acts, 1867 to 1904.

3. *Application.* This Act shall not apply to Scotland or Ireland.

THE WEIGHTS AND MEASURES (METRIC SYSTEM) BILL.

THIS Bill, which was read a second time in the House of Lords on February 22nd and referred to a Select Committee, would provide for the compulsory adoption in the United Kingdom of the metric system of weights and measures after an interval of about two years.

Clause I would substitute new standards of weight and measure according to the metric system for existing imperial standards.

Clause II would direct the Board of Trade to prepare and deposit, in place of the existing standards, copies of the substituted imperial standards in the metric system.

Clause III would direct the Board of Trade to prepare secondary standards of weight and measure, being either equivalent to, or multiples or aliquot parts of, the new standards.

Clause IV would legalize the equivalents, expressed in terms of the metric system, of the existing imperial weights and measures contained in the table set out in the schedule of the Order in Council dated May 19th, 1898.

Clause V would provide for the periodical verification of parliamentary copies of the new imperial standards.

Clause VI would direct that the metric system of weights and measures shall be used in all future deeds, contracts, etc.

Clause VII would direct that all reference to imperial weights or measures in Acts of Parliament shall be deemed to be, and construed as, references to the respective prescribed equivalents expressed in terms of the metric system.

Clause VIII would make a similar provision with regard to weights and measures in by-laws, rules, regulations, deeds, contracts, or agreements.

Clause IX repeals certain parts of the Weights and Measures Acts, 1878 and 1897.

Clause X applies certain provisions of these Acts to the Bill.

The following is the schedule of the Order in Council of May 19th, 1898, referred to above:

Equivalents of Metric Weights and Measures in Terms of Imperial Weights and Measures for Use in Trade.

METRIC TO IMPERIAL.

Linear Measure.

1 millimetre (mm.)	=	0.039 inch
1 centimetre (1/10 m.)	=	.393 "
1 decimetre (1/10 m.)	=	3.937 "
1 metre	=	39.371 "
		1.094 yard
1 decametre (10 m.)	=	10.936 "
1 hectometre (100 m.)	=	109.361 "
1 kilometre (1,000 m.)	=	0.621 mile

Square Measure.

1 square centimetre	=	0.155 sq. inch
1 sq. decimetre (100 sq. centimetres)	=	15.500 " "
1 sq. metre (100 sq. decimetres)	=	1.196 " feet
		1.196 " yards.
1 are (100 sq. metres)	=	119.603 " "
1 hectare (1 centare or 100 sq. metres)	=	2.471 acres.

Cubic Measure.

1 cubic centimetre...	=	0.061 cubic inch
1 cubic decimetre (c.d.) (1,000 cubic centimetres	=	61.024 " "
1 cubic metre (1,000 c.d.)	=	35.315 feet.
cubic decimetres)	=	1.308 yards.

Measures of Capacity.

1 centilitre (1/100 litre	=	0.176 gill
1 decilitre (1/10 litre	=	0.176 pint
1 litre	=	1.75980 "
1 dekalitre (10 litres	=	2.200 gallons
1 hectolitre (100 litres	=	2.75 bushels

Weights.

1 milligram (1/1000 grm.)	=	0.015 grain
1 centigram (1/100 grm.)	=	0.154 "
1 decigram (1/10 grm.)	=	1.543 "
1 gramme (1 grm.)	=	15.432 "
1 dekagram (10 grm.)	=	5.644 drams.
1 hectogram (100 grms.	=	3.527 oz.
1 kilogram (1,000 grms.	=	2.2046223 lb., or
		15 oz. 4 drs. 4 grains.
1 myriagram (10 kilogs.	=	22.046 lb.
1 quintal (100 kilogs.	=	1.968 cwt.
1 tonne (1,000 kilogs.	=	0.984 ton

Troy Weight.

1 gramme (1 grm.) ...	=	0.032 oz. troy
		1.543 grains

Miscellaneous Weights.

1 carat (1 grm.) ...	=	3.086 grains
		0.205 gramme.

IMPERIAL TO METRIC.

Linear Measure.

1 inch	=	25.400 millimetres.
1 foot (12 inches) ..	=	0.30480 metre.
1 yard (3 feet) ...	=	0.9144 metre.
1 fathom (2 yards)	=	1.8288 metre.
1 pole (5½ yards)	=	5.029 "
1 chain (22 yards)	=	20.117 "
1 furlong (220 yards)	=	201.168 "
1 mile (8 furlongs) ...	=	1.6093 kilometres.

Square Measure.

1 square inch	=	6.4516 square centimetres.
1 square foot (144 square inches)	=	9.290 sq. decimetres.
1 square yard (9 sq. feet)	=	0.836 sq. metre.
1 perch (30¼ square yards)	=	25.293 square metres.
1 rood (40 perches)...	=	10.117 ares.
1 acre (4,840 square yards)	=	0.40468 hectare.
1 square mile (640 acres)	=	259.00 hectares.

Cubic Measure.

1 cubic inch ...	=	16.387 cubic centimetres.
1 cubic foot (1,728 cubic inches)	=	0.028317 cubic metre.
1 cubic yard (27 cubic feet	=	0.764553 cubic metre.

Measures of Capacity.

1 gill	=	1.42 decilitres.
1 pint (4 gills)... ...	=	5.68 "
1 quart (2 pints) ...	=	1.1 litre.
1 gallon (4 quarts)...	=	4.54 litres.
1 peck (2 gallons ...	=	9.09 "
1 bushel (8 gallons)	=	36.37 decilitres.
1 quarter (8 bushels)	=	2.909 hectolitres.

Apothecaries' Measure.

1 minim ...	=	0.059 millilitre.
1 fluid scruple ...	=	1.184 "
1 fluid drachm (60 minims)	=	3.552 "
1 fluid ounce (8 fluidrachms)	=	2.84123 centilitres.
1 pint	=	0.568 litre.
1 gallon (8 pints or 160 fluid ounces)	=	4.5459631 litres.

Avoirdupois Weight.

1 grain	=	0.0648 gramme.
1 dram	=	1.772 "
1 oz. (16 drams) ...	=	28.350 "
1 pound (16 ounces or 7,000 grains)	=	453.592 grammes.
1 stone (14 lb.) ...	=	6.350 kilograms.
1 quarter (28 lbs.)	=	12.700 "
1 hundredweight (4 qrs. 112 lbs.)	=	50.802 "
cwt. (112 lbs.)	=	1 quintal
1 ton (20 cwt.	=	1.016 kilograms

Troy Weight.

1 grain	=	0.0648 gramme.
1 pennyweight (24 grains)	=	1.5552 "
1 troy ounce (20 pennyweights)	=	31.1035 "

Apothecaries' Weight.

1 grain	=	0.064 gramme
1 scruple (20 grains)	=	1.296 "
1 drachm (3 scruples	=	3.888 "
1 oz. (8 drachms	=	31.1035 "

NOTE.—Approximately 1 litre equals 1,760 cubic centimetres, and 1 millilitre equals 1.760 cubic centimetres.

PHARMACY BILL.

THIS Bill, introduced by Mr. Lough, and ordered to be printed on February 29th, is backed by Mr. Henniker Heaton, Mr. Wanklyn, Mr. Marshall Hall, Mr. Remnant, Mr. Ellis Griffith, Mr. James Reid, Mr. M'Crae, Sir Mancherjee Bhownaggree, Mr. John Burns, Mr. Tomkinson, and Mr. Osmond Williams.

MEMORANDUM.

The objects of this Bill are

(*a*) To check the modern and growing practice on the part of a duly-qualified person to open and carry on divers shops for the sale of poisons whereby adequate protection is not afforded to the persons frequenting the same by providing that every such shop shall be under the bona-fide personal conduct and supervision of a duly-qualified person:

(*b*) To put an end to the abuses at present attending the hawking of poisons, and to better regulate the sale of the same by providing that no poison shall be sold except in a shop which shall first have been duly registered:

(*c*) To provide for the maintenance of a register of shops where poisons may be sold, and also a register of the duly-qualified chemists bona fide conducting each such shop, and to enable the registrar from time to time to make corrections in and additions to the same:

(*d*) To provide that the compounding of prescriptions shall be in the hands only of persons duly qualified to sell "poisons":

(*e*) To provide that companies keeping open shops for the sale of poisons shall be managed by duly qualified chemists and druggists:

(*f*) To extend to corporate bodies certain of the provisions of the Pharmacy Acts, 1852 and 1868, from which they are at present exempt by reason of the decision of the House of Lords in the case "The Pharmaceutical Society *v.* The London and Provincial Supply Association, Limited," Law Reports, 1880, Appeal Cases, 857:

(*g*) To facilitate the examination of persons desiring to qualify as chemists and druggists, and to enable the Pharmaceutical Society to accept certain certificates of kindred bodies in lieu of examination.

A BILL TO

Provide for the further Regulation of the Sale of Poisons and the Compounding of Medical Prescriptions, and to amend the Pharmacy Acts 1852 and 1868.

BE it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. In this Act "the society" shall mean the Pharmaceutical Society of Great Britain, "registered person" shall mean a pharmaceutical chemist or a chemist and druggist registered as such within the meaning of the Pharmacy Act, 1868, "registrar" shall mean the registrar of the society.

2. From and after the [illegible] it shall be unlawful for any person or any company firm or partnership, or body of persons to keep any open shop or shops for the retailing dispensing or compounding of poisons or of medical prescriptions, unless such shop shall be bona fide conducted by a registered person, and it shall be unlawful for any person to be retailed or attempt to be retailed, dispensed, or compounded otherwise than by or under the superintendence of a registered person. And it shall be unlawful for any person or any company firm or partnership or body of persons to keep any such shop unless the [illegible] have been registered upon the register of the society under this Act and the name and address of the registered person to be in the bona fide conduct of such shop shall have been [illegible] and such person shall be in the bona fide conduct of such shop to the best of his knowledge and belief, and also shall be unlawful for any person [illegible] or bodies or persons to sell [illegible] by retail of any [illegible] at or upon any premises [illegible] upon the said register.

3. [illegible] The address of the regis-

tered shop whereat a sale of poison takes place shall be the address of the seller for the purpose of the labelling required by section seventeen of the Pharmacy Act, 1...

4. *Re...*—It shall be the duty of the registrar to make and keep a register of shops, and also a register of persons to be in the bona fide conduct of shops in accordance with the provisions of this Act, and to make such alterations in the said registers as shall from time to time become necessary. No entry shall be made in either of the said registers until receipt by the registrar of a request in writing for the purpose by an owner of the shop made in a form in that behalf appearing in the Schedule to this Act. The council of the society may make regulations under which either of the several entries in the said registers may be inspected, or may be removed therefrom, and under which a certified extract of any entry may be obtained. There shall be payable to the society in respect of each request aforesaid, and also in respect of each certified extract aforesaid, a fee of ... and also in respect of each inspection of an entry a fee of .... Any certified extract as aforesaid under the hand of the registrar shall without proof as to his signature be evidence in all courts and before all justices of the peace and others of the matters thereby certified.

5. *...*—It shall be unlawful for any person other than a shop or building separately rated to the poor to be entered or continued on the said register of shops.

6. *...*—It shall be unlawful for one and the same registered person to be at one and the same time entered upon the said register of persons in the bona-fide conduct of shops in respect of more than one shop, provided always that any entry upon the register of persons in the bona fide conduct of shops may, upon request in writing signed by the person on whose application such entry was made, or the person whose name is registered and delivered to the registrar, become removed therefrom.

7. *...*—It shall be unlawful for any company incorporated under the Acts in force regulating joint stock companies to retail, dispense, or compound poisons or medical prescriptions unless the business of such company shall be managed by one or more director or directors, who or all of whom shall be registered persons not directors of any other company carrying on the like business, and who shall exercise all such powers of the company as are not by the Companies Acts required to be exercised by the company in general meeting.

8. *...*—The registrar may from time to time either by letter signed by him as registrar or verbally by himself or by a person authorized in writing by him for the purpose make such inquiries as he shall think fit of any person retailing, dispensing, or compounding poisons or medical prescriptions at, or of any owner of, a registered shop; and it shall be unlawful for such person or owner to refuse or neglect to furnish (by writing signed by him if so required) the information inquired for.

9. *...*—Any registrar who shall wilfully make or cause to be made any falsification in any matter relating to the said registers, and any person who shall wilfully procure or attempt to procure any registration under this Act by making or producing or causing to be made or produced, any false or fraudulent representation or declaration, either verbally or in writing, and any person aiding or assisting him therein shall be deemed guilty of a misdemeanour in England, and in Scotland of a crime or offence punishable by fine or imprisonment, and shall on conviction thereof be sentenced to be imprisoned for any term not exceeding *twelve* ....

10. *Examinations.*—The society shall have power by by-laws duly confirmed to authorize the persons from time to time appointed by the council of the society to conduct examinations to require from persons who shall present themselves for any examination evidence of their having received systematic training in some university or other place for learning approved by the council of the society, and to divide any examination into two or more portions with or without an interval of time between the same portions, and to authorize the said council to accept in lieu of certificates of the said examiners such certificates of competent skill and knowledge granted by legally constituted pharmaceutical authorities in the United Kingdom or in any colony or possession thereof as may to the said council seem fitting, provided always that no certificate shall be accepted which has been granted to the holder without examination, or which he has obtained without having first received such systematic training as aforesaid, and to prescribe the fees to be payable by persons tendering for acceptance the certificates aforesaid of competent skill and knowledge.

11. *Offences.*—Any act or omission which would be an offence under the Pharmacy Act, 1852, or the Pharmacy Act, 1868, if committed by a person, except the offence of selling or keeping open shop for the retailing, dispensing, or compounding of poisons by a person not registered under the said Acts, shall be an offence if committed by any company, firm, co-partnership, or body of persons, and any company, firm, co-partnership, or body of persons committing any such offence shall be liable to the penalty by the said Acts provided for the same.

12. *Penalty.*—For every offence under this Act the offender shall be liable to pay a penalty or sum of ....

13. *Recovery of penalties.*—Except where in this Act it is otherwise provided, any penalties incurred under or by virtue of any of the provisions of this Act, or the Pharmacy Act, 1852, or the Pharmacy Act, 1868, may be sued for, recovered, and dealt with in the manner provided by the Pharmacy Act, 1852, for recovery of penalties under that Act, without prejudice, however, to the provisions of the Summary Jurisdiction (Scotland) Acts, 1864 and 1881, and the Criminal Procedure (Scotland) Act, 1...., with reference to proceedings thereunder taken in Scotland for any contravention of this or either of the other beforementioned Pharmacy Acts.

14. *Saving.*—The provisions of this Act shall not interfere with or abrogate any of the rights reserved by section sixteen of the Pharmacy Act, 1..., or by section one of the Pharmacy Act, ...

15. *Extent of Act.*—This Act shall not extend to Ireland.

16. *Short title.*—This Act may be cited as the Pharmacy Act, 1....

Appended to the Bill are schedules, being models for the registering of open shops and persons and of forms of application for such registration.

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING.

The seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

Programme.

President: Thomas Dryslwyn Griffiths, M.D.Lond., M.R.C.S., Swansea.

President-elect: William Collier, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: Andrew Clark, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: Edward Markham Skerritt, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital; Professor of Medicine, University College, Bristol.

An Address in Medicine will be delivered by Sir William Selby Church, Bart., K.C.B., M.D.

An Address in Surgery will be delivered by Sir William Macewen, M.D., F.R.C.S., LL.D.

The scientific business of the meeting will be conducted in thirteen Sections, as follow, namely:

Medicine.

President: Walter Tyrrell Brooks, M.B., Oxford. *Vice-Presidents:* Patrick John Cremen, M.D., Cork; Theodore Dyke Ackland, M.D., London; Gustave Schorstein, M.B., London. *Honorary Secretaries:* Ashley Watson Mackintosh, M.D., 9, Bonaccord Square, Aberdeen; William Cecil Bosanquet, M.D., 117A, Harley Street, W.; William Arthur Pernow Waters, M.B., 99, Holywell, Oxford.

Surgery.

President: Horatio Percy Symonds, F.R.C.S.Edin., Oxford. *Vice-Presidents:* William Bruce Clarke, F.R.C.S., London; Richard Hy. Anglin Whitelocke, F.R.C.S., Oxford; William Frederick Brook, F.R.C.S., Swansea. *Honorary Secretaries:* Herbert Edward Counsell, F.R.C.S., 27, Banbury Road, Oxford; David Wallace, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

Obstetrics and Gynaecology.

President: Francis Hy. Champneys, M.D., London. *Vice-Presidents:* Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Thomas Babington Grimsdale, M.B., Liverpool; John Campbell, M.D., Belfast. *Honorary Secretaries:* Frank Grégoire Proudfoot, M.D., 43, St. Giles, Oxford; John Shields Fairbairn, M.B., 60, Wimpole Street, W.

State Medicine.*

President: John Scott Haldane, M.D., F.R.S., Oxford. *Vice-Presidents:* Thomas Stevenson, M.D., London; Innes Griffin, M.R.C.S., Banbury; Arthur Newsholme, M.D., Brighton. *Honorary Secretary:* Harold Meredith Richards, M.D., Town Hall, Croydon; Arthur Latham Ormerod, M.D., Oxford.

* There will be a Subsection of Forensic Medicine over which Dr. Stevenson will preside.

Psychological Medicine.

President: Charles Arthur Mercier, M.D., London. *Vice-Presidents:* Ernest William White, M.B., Dartford; James Neil, M.D., Oxford; Thomas Seymour Tuke, M.B., London. *Honorary Secretaries:* Wm. Ford Robertson, M.D., 7, Hill Square, Edinburgh; Reginald Langdon Langdon-Down, M.B., 47, Welbeck Street, W.

PATHOLOGY.

President: JAMES RITCHIE, M.D., Oxford. *Vice-Presidents:* HUMPHRY DAVY ROLLESTON, M.D., London; Professor JAMES LORRAIN SMITH, M.D., Belfast; WILLIAM BULLOCH, M.D., London. *Honorary Secretaries:* STUART MCDONALD, M.B., care of Fairbairn, 82, Marchmont Crescent, Edinburgh; ERNEST WILLIAM AINLEY WALKER, M.D., University College, Oxford.

PHYSIOLOGY.

President: Professor FRANCIS GOTCH, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor WILLIAM HY. THOMPSON, M.D., Dublin; MARCUS SEYMOUR PEMBREY, M.D., London. *Honorary Secretaries:* WALTER RAMSDEN, M.D., Pembroke College, Oxford; HORACE MIDDLETON VERNON, M.D., 3, Bevington Road, Oxford.

ANATOMY.

President: Professor ARTHUR THOMSON, M.D., Oxford. *Vice-Presidents:* Professor JOHNSON SYMINGTON, M.D., F.R.S., Belfast; Professor ROBERT HOWDEN, M.B., Newcastle-on-Tyne; THOMAS H. BRYCE, M.D., Glasgow. *Honorary Secretaries:* WILLIAM WRIGHT, F.R.C.S., The University, Birmingham; GUSTAV MANN, M.D., the University Museum, Oxford.

OPHTHALMOLOGY.

President: ROBERT WALTER DOYNE, F.R.C.S., London. *Vice-Presidents:* GEORGE EDWARD WHERRY, F.R.C.S., Cambridge; CYRIL HUTCHINSON WALKER, F.R.C.S., Bristol; FERGUS MENTEITH OLIVER, F.R.C.S., Oxford. *Honorary Secretaries:* SYDNEY STEPHENSON, F.R.C.S.Edin., 33, Welbeck Street, W.; FRANK GRIFFITH THOMAS, M.B., 2, Brunswick Place, Swansea.

DERMATOLOGY.

President: THOMAS COLCOTT FOX, M.B., London. *Vice-Presidents:* JAMES HERBERT STOWERS, M.D., London; JAMES LIMONT, M.B., Newcastle-on-Tyne; LESLIE ROBERTS, M.D., Liverpool. *Honorary Secretaries:* ERNEST MALLAM, M.B., 3, Holywell Street, Oxford; EDWARD STAINER, M.B., 60, Wimpole Street, W.

LARYNGOLOGY AND OTOLOGY.

President: CHARTERS JAMES SYMONDS, M.S., London. *Vice-Presidents:* FRANK MARSH, F.R.C.S., Birmingham; CECIL EDWARD SHAW, M.D., Belfast; HARRY LAMBERT LACK, M.D., London. *Honorary Secretaries:* WALTER JOBSON HORNE, M.D., 27, New Cavendish Street, W.; EDMUND CECIL BEVERS, M.B., 117, Woodstock Road, Oxford.

TROPICAL DISEASES.

President: ALEXANDER CROMBIE, C.B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel GEORGE MACNAGHTEN, M.D., Aberdeen; JOHN WILLIAM WATSON STEPHENS, M.D., Liverpool. *Honorary Secretaries:* HENRY EDWARD ANNETT, M.D., Crofton Lodge, Higher Runcorn, Cheshire; ROBERT FIELDING OULD, M.D., 94, Mount Street, Berkeley Square, W.

NAVY, ARMY, AND AMBULANCE.

President: Surgeon-General A. FREDERICK BRADSHAW, C.B., K.H.P., M.R.C.S., Oxford. *Vice-Presidents:* Surgeon-General GEORGE JOSEPH HAMILTON EVATT, C.B., M.D., Junior United Service Club, London; Fleet Surgeon JOHN LLOYD THOMAS, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. [illegible] Societe, M.D., V.D., R.A.M.C. Vol., London. *Honorary Secretaries:* Major THOMAS M'CULLOCH, R.A.M.C., 65, Victoria Street, S.W.; Staff-Surgeon H. W. GIBBS DOYNE, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain [illegible] M. CALLENDER, M.D., 30, Connaught Square, Hyde Park, W.

HONORARY LOCAL SECRETARIES.

[illegible] DELL, F.R.C.S., Wadh. Hall, St. Aldates, Oxford; WILLIAM DUGGAN, M.B., 66, Woodstock Road, Oxford; ARTHUR PERCY FORBES, F.R.C.S., 2, Holywell Street, Oxford.

[illegible]

[illegible] Meeting followed by Representative Meeting.

[illegible]

[illegible]

[illegible] Meeting.

[illegible] Meeting.

[illegible] Representative Meeting (if business not already concluded).

[illegible] Dinner of the Association.

FRIDAY, JULY 29TH.

[illegible] Meeting of Council.

[illegible] Sectional Meetings.

[illegible] Representative Meeting (if business not already concluded).

SATURDAY, JULY 30TH.

Excursions.

CONSULTATION BETWEEN MEDICAL WITNESSES.

THE following circular letter has been sent to the Honorary Secretaries of Divisions in Great Britain by direction of the Council:

DEAR SIR,

On the recommendation of the Medico-Political Committee the Council has resolved that the Divisions in England and Wales should be asked, as the Divisions in Scotland are also being asked, to consider:

"Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation."

Your Division will appreciate the advantages which are anticipated to accrue from the adoption of the procedure suggested, namely, that the medical witnesses in a case should consult together before the hearing of the matter in Court.

It is believed by the Medico-Political Committee that if this course is invariably followed medical evidence will be placed before the judicial tribunals in a form most conducive to the just decision of cases turning upon such evidence, and that a great deal of inconvenient conflict of opinion will be avoided. If your Division is cognizant of any practical difficulties in connexion with such proposed procedure, the Committee will be glad to receive notes of the same or presentation to the Representative Meeting of the Association.

As the result of the discussion thus initiated in the Divisions it is hoped that definite conclusions may be arrived at by the Annual Representative Meeting at Oxford in July, and that instructions will then be given to the Medico-Political Committee to take the steps necessary for carrying such conclusions into practical effect.

It will be of much convenience if your Division is able to return to me its opinion on this matter at an early date. I am, Yours faithfully,

J. SMITH WHITAKER, *Medical Secretary.*

HYDROPATHIC ESTABLISHMENTS.

[illegible]

[illegible]

[illegible]

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 30TH, 1904.

CONTENTS.

	Page
ANNUAL REPORTS OF BRANCHES	
Aberdeen Branch	77
Bath and Bristol Branch (Bath Section)	77
Bath and Bristol Branch (Bristol Section)	77
Birmingham Branch	78
Border Counties Branch	78
Cambridge and Huntingdon Branch	
Dorset and West Hants Branch	78
Dundee District Branch (and Division)	78
East Anglian Branch	
East York and North Lincoln Branch	79
Edinburgh Branch	79
Fife Branch	79
Glasgow and West of England Branch	80
Grahamstown and Eastern Province (South Africa) Branch	80
Lancashire and Cheshire Branch	80
Leinster Branch	80
Malta and Mediterranean Branch	
Metropolitan Counties Branch	80
Midland Branch	81
Northern Counties of Scotland Branch	81
North of England Branch	81
North Lancashire and South Westmorland Branch	81
Oxford and Reading Branch	81
Perthshire Branch	82
South-Eastern Branch	82
South Midland Branch	82
South Wales and Monmouthshire Branch	82
South-Western Branch	82
Staffordshire Branch	82
Stirling Branch	82
Ulster Branch	82
West Somerset Branch	83
Yorkshire Branch	83
British Guiana Branch	
Cape of Good Hope Branch	
Colombo and Ceylon Branch	
Hong Kong Branch	
Natal Branch	
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Bath Division	
Border Counties Branch: West Cumberland Division	83
Edinburgh Branch: South-Eastern Counties Division	83
Lancashire and Cheshire Branch: Altrincham Division	84
Metropolitan Counties Branch: Hampstead Division	84
" " " Stratford Division	84
" " " Tottenham Division	4
South-Eastern Branch: Canterbury Division	84
" " Faversham Division	85
" " Isle of Thanet Division	85
" " Sevenoaks Division	85
South Wales and Monmouthshire Branch: Cardiff Division	85
Staffordshire Branch	86
West Somerset Branch	86
POOR-LAW MEDICAL RELIEF IN SCOTLAND: REPORT OF DEPARTMENTAL COMMITTEE.—Dwelling Houses for Medical Officers should be provided in Certain Parishes.—Additional Medical Attendance in Certain Highland and Island Parishes.—The Tenure of Medical Officers as affecting the Efficiency of the Poor-law Medical Relief System.—Summary of Recommendations as to Indoor and Outdoor Medical Relief and Grant in Aid of Medical Relief	
LOCAL GOVERNMENT (SCOTLAND) ACT (1894) AMENDMENT BILL	9
POOR-LAW MEDICAL OFFICERS' (IRELAND) SUPERANNUATION BILL	92

British Medical Association.

ANNUAL REPORTS OF BRANCHES.

By-law 3 "..... every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."]

Aberdeen Branch.—The Aberdeen Branch held six ordinary meetings for scientific and other purposes during 1903. The average attendance at these meetings was 28. The summer meeting was held at Braemar.

Income £37 17s. 0d. Expenditure £23 6s. 2d. Balance £14 10s. 10d.

Bath and Bristol Branch (Bath Section).—The number of members for this Section, including Bath and Trowbridge Divisions, is as follows: At the commencement of the year 123, and since 11 have been lost and 18 gained, leaving a present total of 130. The Branch did not make a capitation grant to the Divisions for the first year, but the Branch paid all formation expenses. For 1904 the grant to the Bath and to the Bristol Divisions is 6d. a head, and to the Trowbridge 1s.

Income £42 7s. 1d. Expenditure £24 7s. 11½d. Balance £17 19s. 1½d.

Bath and Bristol Branch (Bristol Section).—Number of members March 5th, 1904, 250. The Council has to report that during the year 1903 the meetings of the Branch had been held at the usual times, and were well attended. It regrets to announce the loss by death of Mr. W. M. Barclay, Senior Surgeon to the Bristol General Hospital, and of Mr. H. T. Rudge. Obituary notices of these gentlemen will be found in the BRITISH MEDICAL JOURNAL for June, 1903. Instead of the monthly meeting of the Branch in May, the first annual meetings of the Divisions were held on the same day. A second meeting of the Division was held in November, when the Draft Medical Acts Amendment Bill was discussed. Both Divisional meetings were very poorly attended. Ten new members were elected during the year. Dr. E. J. Cave and Mr. C. E. S. Flemming were elected representatives of the Branch on the Central Council of the Association. At the annual meeting in June Dr. Waldo resigned the Presidential chair to Dr. Barclay J. Baron, and Mr. R. J. H. Scott (Bath) was elected President-elect. Several meetings of the Council of the Branch, mostly dealing with matters concerning the administration of the Branch, have been held. At one of these it was decided to adopt 6d. per head for the expenses of the Division during the coming year. At the annual meeting of the Bristol Division Dr. E. Markham Skerritt was elected Chairman; Dr. Barclay J. Baron, Vice-Chairman; Dr. Michell Clarke, Secretary and Treasurer and also Representative at the Representative Annual Meeting. To fill two vacancies on the Council Drs. E. Markham Skerritt and Hedley Hill were elected.

Income £45 4s. 0d. Expenditure £19 11s. 10d. Balance £25 12s. 2d.

Birmingham Branch.—The Branch has held six ordinary meetings, one special meeting, and its annual general meeting. Papers and other scientific communications were contributed by the following members, namely, Mr. Haslam, Mr. Heaton, Mr. Barling, Dr. McCardie, Mr. Jordan Lloyd, Mr. J. W. Taylor, Dr. Perry, Mr. Milward, Mr. Morrison, Mr. Martin, Dr. Ratcliffe, Dr. W. R. Jordan, Mr. W. E. Bennett, Mr. Lucas, Dr. Foxwell, Mr. Hall-Edwards, Mr. D'Arcy Ellis, Mr. W. Thomas, Dr. Sydenham, and Dr. Plummer. New rules for the Branch, based on the draft model rules, were adopted. There have also been six meetings of the Pathological and Clinical Section, twelve meetings of the Council, and meetings of each Division. During the year 37 new members were elected, and 13 other members added by the inclusion of Walsall. The membership was thus raised to 512, distributed in the Divisions as follows: Bromsgrove, 21; Central, 288; Coventry, 36; Dudley, 40; Nuneaton and Tamworth, 21; Warwick and Leamington, 56; West Bromwich, 50. The Branch desires to impress upon the Central Council that the present capitation grant is inadequate to meet the due requirements of the Branch, together with its Section and seven Divisions.

Income	£90 10s. 0d.	Deficit ...	£1 5s. 11d.
Expenditure	£91 15s. 11d.		

Border Counties Branch.—The Council of the Border Counties Branch have to report that during the year 1903 there have been three general meetings of the Branch—namely, at Penrith in February, Carlisle in June, and Dumfries in December, and is pleased to be able to state that the attendance at these meetings showed a gratifying increase in the number of members present; this, it feels confident, is the outcome of the new Constitution. It was contemplated having a fourth meeting at St. Boswells, and the meeting had, in fact, been arranged; but when the new boundaries of the Branch were finally settled in the autumn, St. Boswells was excluded from this District, and therefore that meeting had reluctantly to be abandoned. At the three meetings held numerous papers were read, and an unusual amount of "material" was exhibited and aroused considerable interest on account of its noticeable character. At the Dumfries meeting the Medical Acts Amendment Bill was before the Branch, arousing general discussion, and was finally referred to the Divisions of the Branch for further consideration, and for them to report to a future meeting what amendments, if any, they thought ought to be introduced into this important Bill. During the year the Council has held eight meetings. Usually these meetings are held at Carlisle, it being found most central for the whole Branch. There have been sixteen new members elected by the Council, whilst on the other hand, the Council regret to have to report that they have lost through death their Vice-President, Dr. Craig Council of Workington, who was the President of the Branch for 1902-3 which, with those members of the Association who have come to reside within the area of the Branch, makes the membership 164. The draft rules were submitted to the annual general meeting of the Branch, and, with a few slight modifications, were adopted and issued to each member, and have proved a valuable alteration. The Branch much regret that the Council did not see their way to grant to this Branch a Representative of their own on the Central Council of the Association, in accordance with the unanimous application of the Branch. Not only is this one of the oldest Branches of the Association, but it embraces a very large area, and it is felt that it is too Herculean a task for the one representative of the district to represent an area stretching almost from the Firth of Forth to the estuary of the Mersey. The Branch Council hope that the Council will reconsider their decision in this matter, and accede to what appears to the Branch to be a perfectly legitimate request, and one which it is felt would materially benefit not only the Branch, but the Association itself. The three Divisions of the Branch hold their annual meetings in the autumn, and it is gratifying to be able to report that the attendance at all the meetings showed a very marked enthusiasm as a result of the new scheme, since that date each of the Divisions has held another meeting, and has arranged for the early holding of future meetings. The Branch Council are especially gratified to be able to report that, owing to careful and economical working, they are able to present a credit balance of £6 9s. 3d. after settling every liability for the year 1903, the expenses of the Divisions having been defrayed entirely by the Branch, the Council having felt that by adopting this plan for the first year, they would be able to form an estimate of what would be a sufficient capitation grant to allow each Division in the future.

Income ...	£30 2s. 0d.	Balance	£6 9s. 3d.
Expenditure	£23 12s. 9d.		

Cambridge and Huntingdon Branch.—The Branch Council begs to report that the membership to date is 150. The Council has met on several occasions to elect members and discuss various matters. Two general meetings have been held, one the annual general meeting at Saffron Walden on Thursday, July 2nd, when the following papers were on the agenda:—Dr. Sprague: Motor vehicle for medical men. G. Wherry, F.R.C.S.: Remarks on ophthalmia neonatorum. Dr. Armistead and Dr. Anningson: Cases of varicella resembling varioloid. Dr. Laurence Humphry and Mr. T. St. Strangeway: An unusual form of typhoid fever. Mr. H. C. Bartlett: The vagaries of movable kidney. The second general meeting was held to consider Branch rules, etc.

Income	£37 10s. 0d.	Balance	£24 13s. 0d.
Expenditure	£13 2s. 3d.		

Dorset and West Hants Branch. During the past year four meetings of the Branch have been held, namely, at Poole, Weymouth, Ringwood, and Bournemouth, the first under the presidency of Mr. A. G. S. Mahomed, and the others under the presidency of Dr. John Moorhead. The average attendance, including a few visitors, was 41.75. The subjects for discussion, which are chosen beforehand by the President and Vice-Presidents, were: Some unusual gouty affections: some of the effects of influenza, the treatment of acute abdominal disorders. Pathological specimens were exhibited, medical and surgical communications were read, and patients shown. New by-laws for the Branch were considered and approved, and the area of the Divisions decided on. The Branch now numbers 190 members, embracing the Bournemouth Division with 113, and the West Dorset with 77 members. The President-elect for 1904 is Mr. A. J. H. Crespi, of Wimborne; the Vice-Presidents are Mr. J. A. Hosker, of Bostombe, and Mr. P. J. Kingston, of Yeovil. Mr. C. H. W. Parkinson, of Wimborne, was elected the Representative on the Central Council (with the West Somerset Branch), and Dr. William Vawdrey Lush, of Weymouth, was elected the Branch Honorary Secretary. The Branch has to regret the loss by death of four members—Dr. Edward Monro Spooner, of Blandford, a former President; Dr. David James Lawson, of Portland, Dr. Herbert Alfred Lawton, of Poole, both former Vice-Presidents; and Major Allan Ewan Grant, I.M.S., of Boscombe.

Income	£38 4s. 0d.	Balance	£17 0s. 4½d.
Expenditure	£20 17s. 7½d.		

Dundee District Branch (and Division). The work of the past year presents no feature of outstanding importance, but the Council is pleased to be able to report that the affairs of the Branch are in a prosperous condition. The membership varies slightly, as the Branch is the medium for the entrance of many to the hospital and asylum assistants to the Association, but the proportion of those actually engaged in local practice remains almost constant. In view of the great developments in professional practice and the wide powers of initiative which local practitioners now have, it seems desirable that many of the interesting practical questions which arise in the area should enter the Association. The Council would also urge the practitioners in the various towns to again consider whether they will not organize themselves into small Divisions, with possibly conjoint representation at the annual meeting of the Association. The Council wishes to draw attention to the fact that the Representative Meeting at Swansea on the initiative of this Branch established a Scottish Standing Committee, and that this has held two successful meetings. Some questions raised in this Committee by the Branch Representatives have been referred to the Divisions for their consideration, with a view to resolutions being adopted at the Representative Meeting in Oxford. From these two illustrations members may more easily realize how efficiently the views of the locality may now be laid before the Association and secure its support. No questions of purely local politics, and none of personal conduct, have been dealt with during the year. The Honorary

reasurer reports a credit balance of £7 7s. 2d. on the year's working.

Income	£10 0s. 0d.	Balance	£7 7s. 2d.
Expenditure	£11 13s. 4d.		

East Anglian Branch. The Council has the pleasure to report a prosperous condition of the Branch: 49 new members have been elected, 40 members removed from the area, 14 members resigned, and 11 died; there are 424 members in the Branch, exclusive of 7 associate members. The spring meeting was held at Wymondham in March. The Model Rules for the administration of the Branch were considered and adjusted according to the wishes of the members and the needs of the Branch. It was unanimously resolved to invite Mr. H. B. Walker, of Lowestoft, to undertake the office of President-elect, which office and honour he cordially accepted. Dr. Francis Ward resigned the office of Secretary for Suffolk. A resolution was passed thanking him for his efficient work. Dr. Gutch, of Ipswich, kindly accepted the vacant office. Papers were read by Sir Alan Reeve Manby, Mr. W. K. Hatch, F.R.C.S., and Mr. W. Wyllys. The Council desires to express its thanks to Mr. David Hughes and to the Rev. the Hon. Arch. Parker, Vicar of Wymondham, for their kind hospitality. The annual meeting was held at Chelmsford, under the presidency of Dr. J. C. Thresh, in June. The meeting was largely attended and most successful. The following ladies and gentlemen, for the interest they have shown and the work done by them for the East Anglian Branch, were elected by the Council associate members: Mrs. Garrett Anderson, M.D., Miss L. Garrett Anderson, M.D., Miss Jane Walker, M.D., Mr. Andrew Clark, F.R.C.S., Dr. Clifford Allbutt, M.D., Dr. P. W. Latham, and Mr. Joseph Griffiths, F.R.C.S. The General Secretary announced the election of the following officers:—*President:* Dr. J. C. Thresh (Chelmsford). *President-elect:* Mr. H. B. Walker (Lowestoft). *Vice-Presidents:* Dr. E. L. Fenn (Colchester), Dr. C. Scott Kilner (Bury St. Edmunds), and Mr. W. E. Wyllys (Great Yarmouth). *Elective Members of Council:* Edgar G. Barnes, M.D. (Eye), and Michael Beverley, M.D. (Norwich). *Secretary for Essex:* B. H. Nicholson, M.B. (Colchester). *Secretary for Norfolk:* H. A. Ballance, M.S. (Norwich). *Secretary for Suffolk:* J. Gutch, M.D. (Ipswich). *General Secretary of Branch:* B. H. Nicholson, M.B. (Colchester). The luncheon given by the President was attended by 70 members and friends, including the Mayor of Chelmsford. The President addressed the members on County Sanitary Administration in Essex. At the conclusion a hearty vote of thanks was accorded to the President for his interesting and valuable paper, and for his kind hospitality. Interesting papers were read by Dr. Herbert H. Brown, Mr. Creswell, and Dr. H. C. Thompson. The Council desires to express its warm thanks to Dr. and Mrs. Thresh for their unbounded hospitality to every one present. The autumn meeting was held at Sudbury in September, in conjunction with members of the Cambridge and Huntingdon Branch as guests. The new sewage works were inspected, the members and guests being conducted by the Mayor of Sudbury and Dr. Sinclair Holden, who explained the working of the system. At the Council meeting Professor Howard Marsh, F.R.C.S., of Cambridge University, was unanimously elected an associate member. Interesting papers were read by Professor Howard Marsh and Dr. Sinclair Holden. Mr. Joseph Griffiths showed many excellent specimens from his collection. The Council is indebted to Dr. Sinclair Holden for the trouble he took in connexion with the meeting and for his kind hospitality. Three special Council meetings were held for the election of new members and for the discussion of the Ethical Rules. With some slight alterations from the Model Ethical Rules, they will be submitted to the members at the spring meeting for confirmation. Thereafter rules for the government of the Branch will be printed and circulated; a small map of the East Anglian Branch with the several Divisions will be added. Considering the first year of its adoption the work of the Divisions has been satisfactory. Reports received show that the resolutions submitted to them by the General Representatives Meeting at Swansea have been discussed. Their utility and usefulness are felt to be of growing interest and advantage to the members. At many of them papers dealing with professional and scientific subjects have been read. The Council regret to record the death of Mr. W. Cadge, F.R.C.S., of Norwich. He was President of the Branch in 1861, and read the Address in Surgery at the Annual Meeting of the British Medical Association held at Norwich in 1874. The loss of this distinguished surgeon, and one who always took a deep interest in the Association and Branch, was keenly felt by the members of the Branch. The Council records with pleasure and satisfaction the honours conferred on Sir Alan Reeve Manby by His Majesty King Edward and by the King of Denmark. It congratulates him most heartily, and feels that the honours have been well merited.

Reports of Divisions Summary.

Division	No. of Meetings.	Capitation Grant	Expenses
		£ s. d.	£ s. d.
North-East Essex ...		11 (1s. per member)	1
Mid-Essex	2	1 17 (1s. " ")	1
Norwich	1	1 (1s. " ")	1
Mid-Norfolk	5	2 1 (1s. " ")	1 14
West Norfolk ...	4	(1s. " ")	1 1
East Norfolk			
South Suffolk		10 (1s. " ")	1 2
West Suffolk	2	1 (1s. " ")	0 17 1
North Suffolk	3	(1s. " ")	1 13 2

Income	£79 9s. 0d.	Balance	£16 1s. 6½d.
Expenditure	£63 7s. 5½d.		

East York and North Lincoln Branch.—The Branch included 135 members in its two Divisions, 112 in the East York, and 23 in the North Lincoln Division. The East York Division has carried on the usual sessional meetings, held in the winter months, of the old Branch. The North Lincoln Division has been organized, and has started monthly meetings with the new year (1904). The annual meeting (forty-seventh) of the Branch was held at the Royal Infirmary, Hull, on June 30th, 1903, when thirty members attended. Messrs. Down Bros., Allen and Hanburys, and Arnold and Sons gave an exhibition of surgical instruments in the central hall of the infirmary. Dr. G. J. Briggs, the new President, took the chair vacated by Dr. A. T. Brand. The report of the Council was read, and the officers for the ensuing year were duly elected. The decision of the Organizing Committee to group this Branch with the Cambridge and Huntingdon Branch for the purpose of electing a representative on the Central Committee was announced. The report of the Representative on the Council was read and adopted, and the balance sheet was passed. The President then read his address on Some Men I met at the Old School (Hull School of Medicine). The annual dinner was held at the Imperial Hotel in the evening. Six Council meetings were held during 1903, the chief business, apart from the election of members, being the question of the representation of the Branch on the Central Council.

Income ...	£38 10s. 10d.	Balance	£18 11s. 8d.
Expenditure	£19 19s. 2d.		

Edinburgh Branch.—The annual meeting of the Branch was held in the Royal College of Physicians on June 19th, 1903. The rules were adopted, and the office-bearers for the year elected. The only other meeting of the Branch was the very successful clinical meeting, which was held in the Royal Infirmary on February 12th. Between two and three hundred members attended the meeting, a large number of interesting cases were shown, and the new pavilions were shown by the surgeon in charge. In the evening over one hundred members of the Association attended the annual dinner in the North British Station Hotel, when representatives from all the other Scottish Branches were present.

Income ...	£81 13s. 0d.	Balance ...	£38 11s. 3d.
Expenditure	£43 2s. 3d.		

Fife Branch.—This Branch was formed on March 18th, 1903, and started with a membership of 58; at present the number stands at 69 and one "associate" member. It has held, besides the initial meeting, an annual general meeting in June last, an ordinary general meeting in October, and the Council has met four times. Rules and by-laws have been adopted pretty much on the lines suggested by the Association, and these have been printed and circulated amongst the members. The Branch at the ordinary general meeting held in October considered the various matters referred to the Divisions from the Representative Meeting—namely, the Council's recommendations regarding the Vaccination Acts, the resolution regarding the alteration in the composition of the General Medical Council and the

Medical Acts Amendment Bill, and the result of the deliberations at said meeting has been communicated to the General Secretary. The Division sent a Representative to the Representative Meeting, and, in conjunction with Edinburgh, the Branch elects two members to the Central Council of the Association. The Fife Colliery Surgeons' Association, which existed to look after the interests of colliery surgeons in the county, agreed to dissolve and merge its interests in this Branch, provided a Committee was appointed to continue the objects of the Colliery Surgeons Association. At the ordinary general meeting of the Branch at which this business was brought up it was cordially agreed to appoint such a Committee, the same to consist of all colliery surgeons who are members of the Branch, and Dr. Dickson (Lochgelly) was appointed Convener and also to act as Secretary, and with instructions to report the deliberations of the Committee to the Branch Council from time to time. The Honorary Secretary of the Branch, as an *ex-officio* member, attended the two meetings of the Scottish Committee, which have been held since its institution, the first being at Perth on November 29th last and the second at Edinburgh on February 12th. Matters of much interest to the profession in Scotland and elsewhere were discussed at these meetings, and the result of the deliberations will appear in the JOURNAL from time to time.

Income	£11 18s. 0d.	Balance	£6 4s. 1d.
Expenditure	£5 13s. 11d.		

Glasgow and West of Scotland Branch.—During the past year two Branch meetings have been held, and six meetings of the Council. The Council has elected 32 members, while 23 members have been lost by resignation, and 3 by deaths, showing a net gain of 6 on the year. The membership of the Branch as given in the *Year Book* stands at 682.

Income	£132 14s. 0d.	Balance	£74 10s. 0d.
Expenditure	£57 18s. 0d.		

Grahamstown and Eastern Province (South Africa) Branch. The following meetings were held during 1903: January 30th, annual meeting, present eleven members; paper by Dr. Greenbees, the history of insanity. May 15th, general meeting, present eleven members; paper by Dr. Saunders, abiotrophy. July 25th, general meeting, present six members; paper by Dr. Purvis, etiology of cancer. October 12th, general meeting, present nine members; paper by Dr. Saunders, pyroplasma hominis (?). During these meetings three matters of importance to the welfare of the Branch were brought forward: (1) The delimitation of the Eastern Province Branch under the new Articles of Association, and dependent on this the revision of its rules. (2) the question of framing a rule to admit non-medical visitors to the meetings of the Branch, such visitors to take no part in the business nor vote (that is, bacteriologist, chemistry professor, dentist, and others). (3) the purchase of books for the Branch, and the housing of such a medical library. None of these matters have up to the present been finally decided.

Income	£32 17s. 3d.	Balance	£21 7s. 3d.
Expenditure	£11 10s. 0d.		

Lancashire and Cheshire Branch. The Branch has during the year 1903 held two meetings, one general meeting in Liverpool and the annual meeting in Chester. The following gentlemen have been elected extraordinary associate members: Dr. G. E. Shuttleworth, 27, New Cavendish Street, London, W.; Dr. D. A. O'Sullivan, 56, Charleville Road, West Kensington, W. The Council has met on ten occasions. A preliminary grant of 10s. per head was made to the Divisions, and, except in the case of two Divisions this amount has more than met the current expenditure, and all the Divisions which have sent in a financial report to the Branch Council. Five Divisions namely, Barrow, St. Helens, Stockport, Warrington, and Wigan have failed to submit their financial report. In addition to the above grant, the Council has provided stationary and copying presses for the Divisions. The membership of the Branch is approximately 1,600 (the list is now under revision).

Income	£13 13s. 6d.	Balance	£12 2s. 11d.
Expenditure	£1 10s. 7d.		

Leinster Branch.—Practically the whole work of the Leinster Branch is performed by the Council, hence the Branch held but one general meeting during the year. At this meeting, which was well attended, a resolution was unanimously adopted relative to the position of the Poor-law medical officers in Ireland. This resolution was subsequently accepted by the Representative Meeting. The Council of the Branch met fourteen times during the year, and elected 23 new members of the Association. The membership of the Branch stood at the end of the year at about 370. Much of the time of the Branch Council was occupied with the question of reorganization, and during the months of June and July the Secretary of the Branch summoned meetings, which he also attended, in the various Divisional centres, with the result that out of the six nominal Divisions in the Branch area three were successfully inaugurated. In regard to the country Divisions, each with an area comprising two counties, the difficulty of getting members to attend meetings will always be great; and at present it is almost impossible to secure any attendance, owing to the fact that most of the country members of our Branch are also members of the Irish Medical Association, and attendance at the county branch meetings of the latter is as much as they can manage. The Dublin and East Leinster Divisions, however, promise to be very active and useful. During the year the Branch sustained a severe loss in the death of its founder, Sir George Duffey.

Income	£63 0s. 0d.	Deficit	10s. 0d.
Expenditure	£63 10s. 0d.		

Malta and Mediterranean Branch.—During the year 1903 this Branch has convened two meetings, one in January and the other in May; twenty-two members attended the first meeting, and two papers were read and discussed. A Branch Council consisting of seven members was elected for the first time. The second meeting was attended by thirteen members. One paper was read, and the rules of the Branch were discussed and approved. It is very satisfactory to note that the Branch is growing more popular every day, this is shown by the fact that the membership is yearly increasing, which is undoubtedly due to the new rules which govern the Association. The finances of the Branch are likewise satisfactory, as shown in the balance sheet. It is to be noted, however, that the great saving which has been hitherto effected is mainly due to the fact that no house rent had to be paid by the Branch as the Malta Society of Arts, Manufactures, and Commerce has been kind enough to give us the required accommodation in the Industrial Hall. This building is now required by the Local Government, and we shall have to seek accommodation elsewhere, which will certainly entail an additional expense in the future, but not a heavier one than this Branch can bear.

Income	£6 10s. 0d.	Balance	£2 0s. 7d.
Expenditure	£4 15s. 5d.		

Metropolitan Counties Branch.—This is the first occasion upon which, as required by the new By-laws, the annual report of Council is presented in March, and consequently the period included in the present report is only nine months. Since the last report the Council has to deplore the loss by death of 20 members of the Branch, including a past President (Sir Edward Sieveking), two former members of Council (Professor Corfield and Mr Walsham), and two distinguished members of the profession in Dr George Thin and Mr Smith Turner. The present membership of the Branch numbers 2,610, and is divided as follows:

[illegible]	[illegible]	Lambeth Division	174	Tottenham Division	116
[illegible]	111	Marylebone	111	Wandsworth	[illegible]
[illegible]	138	Richmond	137	Wandsworth	142
[illegible]	111	St Pancras	172	Watford	[illegible]
[illegible]	131	Stratford	115	Westminster	[illegible]

The Council has held four meetings since the last annual meeting, and its principal work has been connected with the arrangements for carrying on the Branch and its Divisions under the new regulations. In November, 1903, a Committee was formed to consider the boundaries of the Divisions of the Branch. As a result of the labours of this Committee numerous changes in the Divisions were made by the Organization Committee. Several Divisions were defined more clearly by utilizing the

areas of the metropolitan boroughs for the purpose. The Brixton and Weybridge Divisions no longer exist as such, the former having been incorporated with the Lambeth and Wandsworth Division and the latter being merged with the Richmond Division. The Central Division is now divided into the Marylebone and Westminster Divisions, and the Kennington Division has parted with the boroughs of Chelsea and Fulham, which now become the Chelsea Division. The new Divisions are now in process of organization. The boundaries of the Wandsworth Division are further increased by the addition of Tooting and Balham, which have hitherto formed part of the South-Eastern Branch. The question of the expenditure of the Branch and Divisions has been considered by a Committee, which has made certain recommendations that it is hoped will facilitate the financial management of the Divisions. Most of the Divisions are now in full working order, and while some have little to report the Council is much gratified to notice that others display great activity. It is a matter of regret that enough interest has not yet been shown among members in the district to permit of the organization of the Watford Division.

Income	£310 14s. 0d.	Balance	£313 18s. 5d.
Expenditure	£202 10s. 1d.		

Midland Branch.—The Branch numbered 515 at the commencement of the year; it now numbers 520. The Branch Council held four meetings during the year and elected 25 members. The annual meeting of the Branch was held at Derby on June 5th, 1903: 45 members were present. The rules of the Branch as printed were adopted. The President, Mr. C. H. Hough, gave an interesting address on a visit to the West Indies.

Abstract of Reports and Financial Position of the Several Divisions.

Division.	Members.	Meetings in 1903.	Grants from Branch	Amount Spent.	Balance in Hand.	Remarks.
			£ s. d.	£ s. d.	£ s. d.	
Boston ...	31	2	12 0	4 11 0	0 3 11	Deficit.
Derby ...	144	4	15 11 3	9 16 8	5 14 7	
Leicester ...	115	2	12 5 9	7 8 0	4 0 9	
Lincoln ...	54	1	5 17 6	1 15 0	4 2 6	
Nottingham	150	3	15 15 9	4 10 5½	11 2 3½	
Stamford ...	26	1	3 1 9	0 15 2	2 6 7	This Division has now no secretary.
Income ...	£92 15s. 7d.		Balance ...		£17 14s. 0d.	
Expenditure	£75 1s. 7d.					

Northern Counties of Scotland Branch.—This Branch embraces the Northern Counties of Scotland, the Western portion of Banff, Elgin, Inverness, and the Counties of Scotland north of these. The Orkney and Shetland Islands were formerly attached to this Branch, but on the reconstitution of the Association it was considered expedient to join them to the Aberdeen Branch, it being easier for the members resident in these islands to attend meetings in Aberdeen than in Inverness. There is only one Division of the Branch—Inverness—as it was considered, on account of the wide area of the North of Scotland and from the fact that the members live at long distances from one another, it would be impossible to form more than one Division. The membership of the Branch at December 31st, 1903, was 111. The annual meeting was held at Strathpeffer in June, when the office-bearers were appointed: Dr. T. R. Macdonald (Inverness), *President*; Dr. Allan (Evanton), *President-elect*; Dr. Murray and Dr. Ogilvie Grant, *Vice Presidents*; Dr. J. Munro Moir, *Honorary Secretary and Treasurer. Members of Council:* Drs. Cruikshank (Nairn), Sutter (Nairn), Mackay (Elgin), Mackenzie (Inverness). *Representative of Branch in Representative Meeting:* Dr. J. Munro Moir. *Representative on Council of the Association*, Dr. James Murray. The code of rules for the management of the Branch as well as the rules for the regulation of ethical procedure were adopted. The autumn meeting was held at Elgin in October. At this meeting Dr. J. W. N. Mackay—who was one of the original promotors of the Northern Counties Branch and its Honorary Secretary for nearly forty years—was presented with an address by the members on the occasion of his attaining his fiftieth year as a general practitioner. At this meeting the Representative Member gave an account of the proceedings of the Representative Meeting at Swansea. Three Council meetings were held at which ordinary routine business was transacted.

Income ...	£22 6s. 0d.	Deficit	£7 2s. 5d.
Expenditure	£29 8s. 5d.		

North of England Branch.—This Branch has during the year 1903 held its usual three meetings. Two of these were fairly well attended, the other being one of the best meetings it has held for a very long time. Its scientific work has suffered to some extent from the amount of detail which required to be brought before it in connexion with the new order of things in the Association, but it is hoped that much of that kind of work will now be undertaken by the Branch Council and various Committees, thus leaving the Branch meetings for scientific and social purposes. The newly-organized Branch Council has proved a great success, introducing many new workers. Three well-attended meetings have been held, and many of the members came long distances and at much inconvenience. As to the number of members, 125 new members were elected during the past year, being a great advance on anything achieved in this way before. Owing to the constant changes going on in the Branch area, and there being no official list showing the membership at the close of the year, it is difficult to state the membership exactly, but the *Year Book* (which is an invaluable addition to the Branch Secretary's library) gives the number as 564. Finance: The statement of account shows a balance in the hands of the Branch of £59 16s. 10d. The expenditure has been large, but much of it may be termed extraordinary, as it was incurred owing to the great change which has recently taken place in the government and constitution of the Association. This Branch determined to bring the Association before the notice of every practitioner in the Branch area and do everything it could to make it impossible for a respectable practitioner to remain outside the ranks of the Association. To this end a large number of meetings have been held, and a great deal of circularizing has been done. Judging from the large increase in membership, and the probability of a still larger in the near future, the Branch thinks the money has been well spent. The grants to the Divisions have not been put down at so much per head, as the Branch Council thought the simplest plan was to pay the legitimate expenses incurred by the several Divisions, and this met with the approval of the representatives of the Divisions.

Income ...	£218 13s. 5d.	Balance ...	£59 16s. 10d.
Expenditure	£158 16s. 7d.		

North Lancashire and South Westmorland Branch.—In presenting the report of our first year's work we have much pleasure in assuring you of the success of this Branch, which was constituted by your resolution of January 21st, 1903. Our numbers originally were 95. We have since elected 29 new members, 4 members of the Association have come into the district, and we have lost 7 by removal and death, leaving a membership at the end of the year of 121, a net increase of 26. The Divisions are in full working order, and have each held several meetings. We have allowed them 1s. per annum for each member, which has been sufficient to cover all expenses. The enclosed statement of account shows that we have a balance of £6 3s. The Branch has held three meetings at Ulverston, Lancaster, and Kendal, with an average attendance of thirty-three. The work done has been almost entirely scientific, the ethical and medico-political business being left as far as possible to the Divisions. This Council considers that, so far, the new organization has answered well in this district, and expects a further increase in membership during the coming year.

Income ...	£21 8s. 0d.	Balance ...	£6 3s. 0d.
Expenditure	£15 5s. 0d.		

Oxford and Reading Branch.—The annual meeting was held at Oxford on July 3rd, 1903; Mr. R. W. Doyne, President, in the chair. The officers for 1903-4 were duly elected, and Dr. Macnamara of Shrivenham and Dr. Ross of Reading were elected new members. Mr. Doyne read a paper on the treatment of certain eye diseases with retinal extract. Mr.

J. H. Walters read notes about a case of bifid uterus, and exhibited the morbid specimen. Mr. N. Daly read notes of a case of uraemia treated with morphine. Mr. H. P. Symonds exhibited three cases of tuberculous disease of the knee-joint treated with formalin. Mr. H. A. Whitelocke exhibited a case of partial excision of tarsus. All the papers and cases were freely discussed. The members subsequently dined together at Exeter College. The next annual meeting and meeting of the Council of the Branch will be held in Reading in June, 1904.

Income ...	£49 8s. 6d.	Balance ...	£37 13s. 0d.	
Expenditure	£11 15s. 0d.			

Perthshire Branch.—During the past year four meetings of the Branch were held, two ordinary, one clinical, and one special. Two meetings of the Council were held. The financial statement shows:

Income	£10 18s. 6d.	Balance ...	£13 19s. 2d.	
Expenditure	£5 19s. 4d.			

South-Eastern Branch.—The Divisions of this Branch have, for the most part, been organized so far as the election of officers goes and the adoption of rules, but in many cases they are not yet doing active work. Several of the Divisions have not held meetings except those for their inception. In others two or three meetings have been held, and the various questions referred to the Divisions have been discussed. The value of the voting on these matters is discounted by the smallness of the gatherings. In the main, approval was expressed of the proposal in favour of revaccination and disapproval of any representation of the Association on the General Medical Council. Some small meetings discussed the Medical Acts Amendment Bill and expressed a general approval thereof. The financial report gives no reliable guide to the funds needful for carrying on the work of the Branch in the future, seeing that the machinery of the Divisions is in very few cases thoroughly in working order. The Branch held its annual meeting in June, at which the routine business was transacted.

Income	£238 0s. 7d.	Balance ...	£159 10s. 1d.	
Expenditure	78 8s. 9d.			

South Midland Branch.—Proceedings of Branch for 1903: Council met at Northampton on March 14th for election of officers and appointing place and time of annual meeting. Draft Model Rules approved of. Special Council, Northampton, May 21st. Proposed amalgamation with Cambridge Branch "not accepted." Enlargement of Aylesbury Division to include Amersham, Chesham, Great and Little Missenden, and Princes Risborough agreed to. Branch Council Wellingborough, June 18th. Elected 6 new members, and announced that Mr. Kinsey had been elected Representative on Central Council. Annual meeting, Wellingborough, June 18th. Mr. Vadland (President) and 22 members. For full account see BRITISH MEDICAL JOURNAL. Branch Council, Bedford Hospital, October 15th. Elected 6 members. Autumnal meeting, Bedford Hospital, October 15th. See JOURNAL. During the year 16 new members joined, 3 removed to other Branches, 2 resigned, and 2 died.

Income	£17 11s. 0d.	Balance ...	£19 0s. 7d.	
Expenditure	£28 18s. 7d.			

South Wales and Monmouthshire Branch. The annual meeting of the Branch was held at Swansea in June, 1903, at which the Model by-laws, with some slight modifications, were adopted. In order to assist the Divisions to get into working order, the Branch Council decided to limit the number of Branch meetings this year, and accordingly in addition to the annual meeting only two general meetings—one at Cardiff in December and one at Swansea in March—have been held. The attendance at both was good. The number of members of the Branch is now 214.

Income	£[illegible]	Balance ...	£4 4s. 3d.	
Expenditure	£28 [illegible]			

South-Western Branch. The Branch Council has pleasure in submitting to the Central Council its 31st annual report. Strength of the Branch. The present membership is 418. During the past year 22 new members have been enrolled, 16 have been transferred from other Branches to this Branch, 10 have been transferred from the South-Western Branch to other Branches, 2 have died, 10 have resigned, and 2, being in arrears of subscription, have been removed from the list of members, thus making a net gain of 14 to the Branch membership. Meetings: Intermediate meetings have been held at Plymouth, January 21st; Exeter, April 1st; Liskeard, October 7th, 1903, all of which were well attended. The annual meeting was held at Launceston on June 3rd, before which members were hospitably entertained at luncheon by the President-elect, Dr. W. T. Thompson. The questions which have chiefly engaged the attention of the Branch during the year have been the reorganization of the Branch so as to meet the requirements of the new Articles of the Association. New rules have been drawn up which have received the sanction of the Central Council, and are now in force. The Council has reason to believe that the new constitution will greatly increase the influence and prestige of the South-Western Branch.

Income ...	£63 9s. 0d.	Balance ...	£18 16s. 1d.	
Expenditure	£44 12s. 2d.			

Staffordshire Branch.—During the past year there have been four meetings of the Branch. Nine new members were elected and one associate member. Otherwise the attention of the Council was directed to drafting the new rules of the Branch and arranging for the starting of the Divisions and Branch under the new Constitution. The Branch has held four meetings—one at Stoke, two at Stafford, and one at Wolverhampton. The average attendance at these meetings was 23. On February 20th, 1903, a meeting was held at Stafford: the whole time was given to scientific matters. On April 23rd a meeting was held at Wolverhampton; this also was entirely concerned with scientific matters. On June 11th the annual meeting was held at Stafford; the report of the Council of the Branch was adopted, also the financial statement, showing a balance of £18 7s. 6d. The new rules drafted by the Council were submitted and approved, and the President delivered his address. On November 28th a meeting was held at Stoke-upon-Trent: it was entirely connected with scientific matters. At the middle of the year the Branch numbered 202 members. During the latter part of the year 20 have either resigned or been transferred to other Branches, including 10 members elected since January, 1903, the Branch numbers 192 members and 1 associate member; 4 applicants are now awaiting election.

Income	£39 7s. 6d.	Balance ...	£18 7s. 6d.	
Expenditure	21 0s. 0d.			

Stirling Branch. The first annual meeting of the Branch, after the reconstruction of the Association, was held on May 7th, 1903. At that meeting new rules for the Branch were adopted, and office-bearers and associate members were elected. An address on surgery was delivered by Mr. Stiles (Edinburgh). A general meeting was held in October, when various matters referred to the Division by the Central Council were considered. An address in gynaecology was delivered by Dr. Balfour Marshall (Glasgow). The Branch began the year with a membership of 74. Of these 1 has died, 2 resigned, 1 has been expelled for non-payment of subscriptions, and 7 have been transferred to other Branches. This reduced the membership to 63, but the addition of one new member (transferred) raises the number to 64.

Income	£3 8s. 0d.	Balance ...	£0 16s. 1d.	
Expenditure	£2 11s. 3d.			

Ulster Branch. The Council of the Ulster Branch of the British Medical Association, in presenting the twenty-sixth annual report has pleasure in stating that the Branch continues to prosper. The new organization is working satisfactorily, for the Council regrets that the Omagh, the Enniskillen, and the Monaghan and Cavan Divisions have not yet formed themselves. The remaining four Divisions are active. The total membership is now 383. The Council regrets to record the death of Mr. William Dobbin, F.R.C.S.E., Edinburgh. Through the kindness of the Council of the Ulster Medical Society the Branch has the advantage of holding its Belfast meetings in the Medical Institute, Belfast. The Branch met

four times during the year 1903, three times in Belfast, and once in Derry. The Council met five times during the year, and the attendances of the individual members were as follows: *President:* Dr. Thos. M'Laughlin, 2 *Vice-Presidents:* Dr. E. B. Boyd, Ballymoney, 0; Dr. E. B. Coates, Belfast, 0; Dr. Jas. Craig, Derry, 0; Dr. S. E. Martin, Newry, 0. *Members:* Dr. J. T. Creery, Coleraine, 0; Dr. David Huey, Bushmills, 0; Dr. J. C. Martin, Portrush, 3; Dr. J. A. Craig, Belfast, 0; Dr. John Campbell, Belfast, 1; Dr. Alex. Dempsey-Belfast, 0; Dr. J. A. Lindsay, Belfast, 1; Dr. Cecil Shaw-Belfast, 5; Sir Wm. Whitla, Belfast, 0; Dr. Donnan, Holywood, 0; Dr. St. George, Lisburn, 0; Dr. Stuart, Ballymena, 0; Dr. J. G. Cooke, Derry, 2; Dr. Agnew, Lurgan, 2; Dr. Dongan, Portadown, 0. *Representative on Central Council:* Dr. Byers, 2. *Hon. Treasurer:* Dr. Darling, Lurgan, 4. *Hon. Secretary:* Drs. Calwell, 5; Mitchell, 3; Sinclair, 3; Lindsay, 1; McKisack, 1; Gray, Armagh, 1. A large number of professional contributions were received during the year.

Income	£100 6s. 5d.	Balance	£43 1s. 8d.
Expenditure	£57 4s. 9d.		

West Somerset Branch. During the year 1903 three meetings have, as usual, been held—all at Taunton. The average attendance at these meetings has been just over 20, an improvement on former years. At the spring meeting, when Mr. Frossard of Bishop's Lydiard was President, the Branch adopted new rules for the government of the Branch, and also rules for regulating ethical procedure. It also approved of the suggested scheme of being grouped with the Dorset and West Hants Branch for the purpose of returning a member of the Council of the Association, with the result that Mr. Parkinson of Wimborne Minster now represents both Branches. At the same meeting cases of clinical interest were shown by Dr. Rutherford and Mr. Morton, and Dr. Weatherly of Bath kindly attended and gave an address on insanity- some points of mutual interest to the alienist and general practitioner. At the annual meeting in June, Dr. David Brown (Taunton) succeeded Mr. Frossard as President, Mr. A. W. Sinclair being appointed President-elect. Dr. Macdonald (Taunton) was elected Representative of the Branch at Representative Meetings, and Dr. Winterbotham (Bridgwater) was cordially thanked for his services, extending over ten years, as member of the Council of the Association. The President's address was on some medical uses of chloroform. At the autumn meeting, Mr. H. Percy Dean, Surgeon to the London Hospital, kindly gave an address on jaundice, its causes and treatment from a surgical standpoint. The fourth annual West Somerset medical dinner was held after the meeting.

Income	£24 18s. 0d.	Balance	£16 18s. 3d.
Expenditure	£7 19s. 9d.		

Yorkshire Branch.—Four meetings have been held at Leeds, Halifax, Sheffield (annual), and Scarborough. Thirty-four new members were elected and the Branch now numbers 795 members. Slight alterations were made in the boundaries of the Branch, Middlesbrough, Todmorden, Saddleworth, and Market Weighton having joined neighbouring Branches. Branch and Ethical Rules were adopted and circulated. The Ethical Committee had one case brought before it. Only two Divisions sent in an annual report. During the year the Branch has sustained a great loss through the death of Mr. Jessop, who always took an active interest in the Branch and was a representative on the Central Council for many years. The expenses of the Branch have been heavy—£47 9s. 2d.: a large part of this (£26) was spent in the drawing up of a map of the Branch, showing the various Divisions, a copy of which was sent to each member. £24 0s. 9d. has been paid to the various Divisions, £147 12s. has been received, and there is a balance in hand of £76 2s. 1d. without bank interest; total expenditure, £71 9s. 11d.

Income	£147 12s. 0d.	Balance	£76 2s. 1d.
Expenditure	£71 9s. 11d.		

The following Colonial Branches have rendered their financial statement, but have not yet forwarded reports:

British Guiana Branch:

Income ...	£6 8s. 0d.	Deficit ..	6s 10½d.
Expenditure	£6 14s. 10½d.		

Cape of Good Hope Branch:

Income ...	£13 16s. 0d.	Deficit ..	£15 19s. 0d.
Expenditure	£29 15s. 0d.		

Colombo and Ceylon Branch:

Income ...	2,798 Rupees	Balance ...	251 Rupees
Expenditure	2,546 Rupees	@ 1s. 4d. about	£16 13s. 9d.

Hong Kong Branch:

Income ...	$240	Balance ...	$215
Expenditure ..	$25	@ 1s. 9d. about	£18 16s. 3d.

Natal Branch

Income	£6 16s. 0d.	Deficit ...	19s. 9d.
Expenditure	£7 15s. 9d.		

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH:

BATH DIVISION.

A MEETING of this Division was held at Bath on April 2nd. Mr. R. J. H. SCOTT was in the chair, and there were present ten members.

Consultations between Medical Witnesses. It was resolved:

That in the opinion of this meeting consultations between medical men in legal cases are not at present advisable.

Medical Practitioners and Hydropathic Institutions. With regard to the question referred to the Division, relative to the advertising of medical practitioners in connexion with hydropathic institutions it was resolved:

That the whole question of medical advertising is so involved that it is impossible for this Division to come to any definite conclusion on the opinion asked for.

New Member.—G. P. Tayler, M.B., of Trowbridge, was elected a member of the Trowbridge Division of the Branch.

BORDER COUNTIES BRANCH:

WEST CUMBERLAND DIVISION.

AN ordinary meeting of this Division was held in the Workington Infirmary on March 1st. The Chairman, Dr. G. J. MURIEL, was in the chair, and Drs. Dudgeon, Coles, Fletcher and Matthews were present. Owing to the lack of a quorum there was no Committee meeting.

Annual Meeting.—Dr. G. J. MURIEL proposed and Dr. DUDGEON seconded that the next annual general meeting be held at Whitehaven on May 17th. Carried unanimously.

Election of Vice-Chairman.—It was decided to defer the election of a Vice-Chairman, vacant by the death of Dr. Ormrod, until the annual general meeting.

Communications.—Dr. DUDGEON exhibited cases of interest in the wards of the infirmary, and read a short paper on the treatment of empyema. Dr. Crerar wrote regretting his inability to be present; his paper was, therefore, unread.

EDINBURGH BRANCH:

SOUTH-EASTERN COUNTIES DIVISION.

A MEETING of this Division was held in the Railway Hotel, Newton St. Boswells, on Friday, April 8th, Dr. BLAIR, Jedburgh, presiding.

Confirmation of Minutes. The minutes of last meeting were read, approved, and signed by the Chairman.

Medical Defence. The first business under discussion was Medical Defence. Dr. HAMILTON moved that the meeting dis-

approves of the British Medical Association taking up Medical Defence. Dr. SOMERVILLE seconded, and quoted the protest issued by the Medical Defence Association of which he was a member. Dr. CARLYLE JOHNSTONE moved an amendment to the effect that the meeting approved of the scheme. He thought this was a natural development. It was the duty of the Association to protect the interests of its members, and the latter ought to do everything that was fair and honourable to bring all the medical men in the United Kingdom into the British Medical Association; in time he thus hoped to see such a body of Medical Defence as had never existed before. Dr. CALVERT seconded. The CHAIRMAN then put it to the vote when it was found that opinion on the matter was equally divided. Dr. JOHNSTONE then moved that the meeting approve of the general principles and details of the scheme. Dr. CALVERT seconded. Dr. SOMERVILLE proposed as an amendment that the meeting expresses no opinion at all. Dr. HAMILTON seconded. On a vote being taken the motion of approval was carried by four votes to three.

Advertising of Medical Practitioners in Connexion with Hydropathic Establishments.—The recommendation of the Ethical Committee that this question be referred to the Divisions was considered.—Dr. HADDON said the correspondence column of the JOURNAL was the proper place to discuss this. They saw advertising in connexion with illnesses of Royal personages and in connexion with insurance companies. He did not see why if he set up a hydropathic establishment he should not advertise it. Dr. JOHNSTONE held that it ought to be the aim of the Association to discountenance all advertising, and he moved that the Division, while discountenancing everything in the shape of advertising on the part of members of the Association, considered the question in regard to hydropathic establishments as a very small part of a much larger one, and expressed no opinion on the subject.—This was carried unanimously.

Consultation between Medical Witnesses.—In regard to this question "whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation," Dr. CALVERT moved that the Division consider it advisable.—Dr. JOHNSTONE seconded.—Dr. SOMERVILLE moved the previous question, and this was seconded by Dr. YOUNG. The motion approving of consultation between medical witnesses was carried after discussion by four votes to three.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

A SPECIAL meeting of this Division was held on March 30th, to consider the various questions that had been recently remitted to Divisions by the Council. Dr. C. J. RENSHAW presided, and nine members were present.

Matters referred to Divisions.—Favourable replies were returned to the General Secretary and to the Medical Secretary on the questions of (1) Medical Defence, (2) Hydropathic Advertising Prohibition, and (3) Consultation of Witnesses in Legal Cases.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A meeting of this Division was held in the Hampstead Conservatoire on March 2nd. Dr. FORD ANDERSON presided. Dr. J. F. WOODS, Medical Superintendent, Hoxton House Asylum, read a paper on "Psycho-Therapeutics, or the Treatment by Suggestion with and without Hypnosis." Questions on the paper were asked by the Chairman, Drs. Morton, Harman, Wilson, Armit, Hall, Jessop, Dobbie and others. Dr. MORTON proposed, Dr. JESSOP seconded, a hearty vote of thanks to Dr. Woods for his paper.

A MEETING of the Division was held at the West Hampstead Town Hall, on Friday, April 8th, at 4.30 p.m. Dr. FORD ANDERSON presided. The minutes were read and confirmed. The following motions for the Annual Representative Meeting were proposed and carried unanimously:

1. That Mr. A. Wood's motion be withdrawn from the British Medical Journal, these two be separated into the supplement so that the [illegible] be put [illegible].

2. That the good idea of the Year Book be developed, that it should contain the names and addresses of all licensed medical regulations, and other details of general medical interest to make it a real handbook.

That having regard to the purity and efficiency of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of [illegible] lymph.

The meeting then discussed the communications received from the Ethical, Medico-Political, and Medical Defence Committees. The following resolutions were passed:

1. In the opinion of this meeting no medical practitioner should allow his name to appear in the advertisement of any hydropathic or any similar institution carried on for a profit.

2. In the opinion of this meeting it is not advisable that the medical witnesses engaged on each side in legal cases should meet in consultation.

3. This meeting approves of the idea of the Association undertaking medical defence.

Drs. BENSLEY, LEWIS, MACEVOY, and HARMAN spoke strongly against the scheme and motion, which was only carried by 6 to 4.

STRATFORD DIVISION.

A MEETING of this Division was held in the Committee-room of the Stratford Town Hall on Thursday, March 31st, Dr. SANDERS in the chair. Present: Drs. Sanders, Dale, Parker, Black, Frederick, Wareham, Rose, Hay, Grogono, Sutcliffe, Beadles, and Nicoll.

Confirmation of Minutes.—The minutes of the previous meeting were read and approved.

Medical Acts Amendment Bill.—Dr. PERCY ROSE moved the following resolution, of which due notice had been given:

That to Clause 21 of the new Medical Acts Amendment Bill should be added the words "And such registration shall confer the title of doctor."

This was seconded by Dr. PARKER and carried unanimously.

Regulations of Central Midwives Board.—These regulations were next considered, and after some discussion it was unanimously carried, on the motion of Dr. HAY seconded by Dr. FREDERICK:

That this meeting approves generally of the regulations.

Dr. ROSE moved and Dr. SUTCLIFFE seconded a proposal to the effect:

That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of the payment of medical practitioners for services rendered when required in midwives cases.

Branch Representative.—Dr. CONNER's resignation of the post of Branch Representative was received with regret, and on the motion of Dr. PARKER, seconded by Dr. HAY, Dr. Sanders was unanimously elected to fill the vacancy.

Medical Defence.—The question of Medical Defence was discussed at length, and ultimately Dr. ROSE proposed and Dr. BLACK seconded:

That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

Hydropathic Establishments and Consultations between Medical Witnesses.—On the motion of Dr. GROGONO, seconded by Dr. ROSE, the Division decided unanimously:

(a) That it disapproved of the advertising of medical practitioners in connexion with hydropathic establishments; (b) it agreed that it was advisable for medical witnesses engaged on each side in legal cases to meet in consultation.

Expenses of Branch Representative.—A suggestion that a voluntary levy should be made on each member of the Division towards the expenses of the Branch representative at the annual meetings was favourably received.

TOTTENHAM DIVISION.

A MEETING of this Division was held at the Tottenham Hospital on Thursday, March 24th, Dr. HOOPER MAY in the chair. Dr. MITCHELL BRUCE read a paper on "The Action and Uses of Digitalis in Diseases of the Heart."

SOUTH-EASTERN BRANCH:

CANTERBURY DIVISION.

AT a meeting at the Canterbury Hospital on Friday, April 15th, Dr. GOULARTY presiding, the following business was transacted:

Combined Meeting.—The minutes of the previous meeting having been approved, it was resolved that a combined meeting of the Faversham, Thanet, and Canterbury Divisions be organized at the end of May next for the purpose of electing a Representative for the Representative Council, and that the Folkestone, Dover, and Ashford Divisions be invited to join in a general meeting and dinner afterwards.

Annual Meeting of Branch.—The proposition of the South-Eastern Branch to hold the annual meeting of June, 1905, at Canterbury was approved and it was resolved that Dr. Whitehead Reid be asked to preside, with Dr. Ewart (Eastbourne) and Mr. Frank Wacher as Vice-Presidents.

Resignation of Divisional Secretary.- The resignation of the Honorary Divisional Secretary was accepted, and on the motion of Mr. Z. Prentice, seconded by Dr. Whitehead Reid, Dr. Henchley (Canterbury) was appointed his successor.

Vaccination Bill.—The final clause of the proposed Vaccination Act was again discussed, and finally the whole was approved *nem. con.*

Medical Acts Amendment Bill.—The Medical Acts Amendment Bill was considered and approved generally.

The General Medical Council.—The question as to the representation of the British Medical Association on the General Medical Council was debated, and finally approved by 4 votes to 2.

Hydropathic Advertisements.—It was resolved that the question of the advertising of medical practitioners in connexion with hydropathic establishments was only part of the general question of medical advertising, and should be dealt with by the General Medical Council.

Medical Witnesses.—Regarding the question of medical witnesses engaged on each side in legal cases meeting in consultation, the meeting saw so many objections that it was decided that the procedure could not be recommended.

Medical Defence.—The proposed scheme of medical defence was discussed, and the Hon. Secretary pointed out that, although he had sent out full particulars of the scheme to each member of the Division, no favourable answers had been received. It was therefore resolved that the Division was not in favour of the Association taking up medical defence.

Faversham Division.

A meeting of this Division was held at Sittingbourne on March 10th. Eight members were present.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Medical Acts Amendment Bill.—After careful consideration the proposed Bill was approved by the meeting.

Fees for Life Insurance Examination.—It was resolved;

That the present system of payment for life assurance examination in proportion to the amount insured is inequitable, and that payment should be made in all cases in proportion to the amount of professional work done.

The Association and Medical Defence.—The following resolution was passed:

That this meeting does not see that the draft scheme of the British Medical Association offers any advantages for Medical Defence over those which can be obtained elsewhere.

Consultation between Medical Witnesses.—The following resolution was passed:

That we consider the proposition of medical witnesses meeting in consultation to be of doubtful advantage.

Medical Practitioners and Hydropathic Institutions.—The following resolution was passed:

That this meeting disapproves of the advertising of medical practitioners connected with hydropathic establishments.

Paper.—Dr. Grayling read an exceedingly interesting paper on The Anatomical Researches of Sir Christopher Wren.

Isle of Thanet Division.

The fourth meeting of this Division was held at St. Mildred's Hotel, Westgate, on March 22nd. Dr. A. F. Street in the chair. There were present eighteen members of the Division and two visitors.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Proposed Combined Meeting.—Letters were read from Dr. Channing Pearse, Hon. Sec., Canterbury Division, saying that he had been unable to arrange a meeting of the Divisions which formed the old East Kent District. It was decided to let the question of a combined meeting rest until the Divisions were approached again on the subject.

Finances of Branches and Divisions.—A letter was read from the Medical Secretary dealing with the question of the Finances of the Branches and Divisions of the Association.

Case.—Dr. Berry showed a case of lupus treated by the ultra-violet lamp. The case was discussed.

The Association and Medical Defence.—The scheme of Medical Defence prepared by the Medical Defence Committee of the Association was discussed, a letter from the Medical Secretary (Mr. J. Smith Whitaker) was read, and also the circular from the Medical Defence Union.

Consultations between Medical Witnesses.—The memorandum from the Medico-Political Committee with regard to the advisability of consultations between medical witnesses was discussed. Dr. Bertram Thornton proposed and Dr. Treves seconded:

That this Division is of opinion that under existing circumstances no general rule on the subject of consultations between medical witnesses is likely to meet with practical results.

This was carried unanimously.

Medical Practitioners and Hydropathic Institutions.—The memorandum from the Ethical Committee with regard to the question of advertising of medical practitioners in connexion with hydropathic establishments was discussed. Dr. Nichol proposed and Dr. Sutcliffe seconded:

That the advertisement of medical practitioners engaged in general practice in connexion with hydropathic establishments is not in accordance with the general rules of the profession respecting advertising, and that the attention of the General Medical Council be called thereto.

This was carried.

Next Meeting.—It was decided to hold the next meeting of the Division at Minster, Thanet, in June, and that Dr. Watts be asked to take the chair.

Vote of Thanks.—A vote of thanks was passed to Dr. A. F. Street for taking the chair at the meeting.

Dinner.—A dinner was held after the meeting in a private room of the hotel, and was attended by nine members.

Sevenoaks Division.

A meeting of this Division was held on Thursday, March 24th, at the Royal Oak Hotel, Sevenoaks, Dr. Ievers (Tonbridge) in the chair. Eleven members were present. The minutes of the last meeting were read and confirmed.

Consultations between Medical Witnesses.—The question whether medical witnesses engaged in legal cases should meet in consultation before going into court was discussed, but it was felt that there was an absence of knowledge to determine the point, and on the proposition of Mr. Maude (Westerham) the discussion was adjourned *sine die.*

Medical Practitioners and Hydropathic Establishments.—The question of the advertising of medical practitioners in connexion with hydropathic eatablishments was discussed, and it was resolved that such practitioners should not allow their names to appear on advertisements unless they were resident in the establishments and not engaged in private practice.

The Association and Medical Defence.—The scheme of Medical Defence of the Association was then discussed and a majority were in favour of Dr. Marriott's (Sevenoaks) resolution that it was inadvisable for the Association to undertake Medical Defence.

Conditions Simulating Appendicitis.—A paper was read by Mr. Maude (Westerham) on conditions simulating appendicitis. A discussion followed, in which Dr. Ievers (Tonbridge), and Mr. Walker (Ightham) related cases illustrative of these conditions.

Specimens, etc.—Specimens of bilharzia ova in the urine were exhibited by Dr. Alliott (Sevenoaks). Mr. Watts (Tonbridge) showed a case of congenital morbus cordis, and Dr. Marriott a specimen of periosteal sarcoma of the tibia in a child. A series of microscopical and lantern slides on the zoological distribution of cancer (kindly lent by the Executive Committee of the Cancer Research Fund) were exhibited and explained by Dr. Dick (Sevenoaks) and reference made to the recent researches of Mr. Farmer on the mitotic division of cells in malignant growths.

Dinner.—The members dined together at the hotel after the meeting.

South Wales and Monmouthshire Branch: Cardiff Division.

A general meeting was held on Thursday, March 17th, Dr. Garrett Horder and Dr. Rhys Griffiths successively in the chair.

Standing Orders.—Standing orders, as recommended by the Executive Committee, were adopted.

The Midwives Act.—The Hon. Secretary read the report of the deputation to the local supervising authority under the Midwives Act, 1902. The address to the authority dealt especially with the equity of providing a fee for the qualified medical man called in by the midwife under the rules of the Central Midwives Board. The following letter had been received by Dr. Thos. Wallace, the leader of the deputation:

Town Hall, Cardiff.

Dear Sir,—Adverting to the attendance of your deputation before the Health Committee on the 8th March, 1904, I am desired to inform you the following resolution has been adopted by the Council, namely:

"That the deputation be informed this Committee is unable to grant fees where registered medical practitioners are called in (under the

Midwives rules) and the patients are unable to pay, inasmuch as no provision is made therefor in the Midwives Act, 1902. The Committee, however, is of opinion that the Central Midwives Board and the British Medical Association should take such steps as may be necessary in order that an amending Act of Parliament might be passed providing for the payment of legally qualified medical practitioners where called in by midwives in difficult cases."

Yours faithfully,

J. L. Wheatley, Town Clerk.

On the motion of Dr. Chas. Vachell, seconded by Dr. Walford, it was agreed to send a copy of the above resolution to the Central Midwives Board and to the Council of the Association. On the proposal of Dr. Walford, seconded by Dr. P. Rhys Griffiths, a committee was appointed, with power to add to their numbers, to submit a scheme for the establishment of a local training centre for midwives to the next meeting of the Division.

STAFFORDSHIRE BRANCH.

The second ordinary meeting of this Branch was held at the North-Western Hotel, Stafford, on Thursday, March 3rd. The President (Mr. F. Milnes Blumer) took the chair, and twenty-six members were present. After the exhibition of pathological specimens by Drs. Edge, Shaw, Hughes, Blumer, Marson, and the relation by Dr. George Reid of the histories of two outbreaks of food poisoning, Drs. McAldowie and Codd opened a discussion on the provision of a sanatorium for phthisis in Staffordshire by the County Council. On the motion of Mr. Hartill, seconded by Dr. Ridley Bailey, the discussion was then adjourned to a meeting to be held on March 24th, at Stafford.

This meeting was held at Stafford on the date named, the President being in the chair, and twenty-five members present. The following resolution was moved and seconded by Drs. McAldowie and Codd:

That the members of this Branch present at this meeting, noting with much satisfaction that the County Council are considering the question of providing a sanatorium in the county for cases of pulmonary tuberculosis, desire to express their keen appreciation of the need for such an institution and their hope that a scheme with that object in view will successfully be carried through; they also desire to emphasize the fact that in their opinion sites are available in the county which are in every way suited for the purpose, and that it is desirable that such an institution should be situated in some central locality as far as possible midway between the populous centres in the north and south.

That a copy of this resolution be sent to the Clerk of the County Council, to the Clerks of the District Councils and Boards of Guardians throughout the county, and to the public press.

Dr. T. Bamford moved, and Dr. E. Mackenzie seconded the following amendment:

That we, the members present at the adjourned meeting of the Staffordshire Branch of the British Medical Association, resolved to express the pleasure with which we, as Staffordshire by the County Council, heartily congratulate that authority on considering the question of the prevention and cure of this disease, but strongly urge them to exercise those powers they already have to become better sanitary conditions for the people, to secure the power of compulsory notification of the disease, and to educate the public by means of lectures and the distribution of pamphlets, etc. This meeting is of opinion that these means for the education of the public will be far more efficient and would be carried out at less cost than by building a sanatorium for educational purposes.

The original motion was ultimately carried by 17 to 3.

WEST SOMERSET BRANCH.

The spring meeting of this Branch was held at the Taunton and Somerset Hospital on Tuesday, March 22nd, at 3.30 p.m., the President, Dr. David Bewley, in the chair. There were present twenty-two members and one guest.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Introduction of Mr. Parkinson.—The President introduced Mr. C. H. W. Parkinson (Wimborne), the joint representative of this Branch on the Council of the Dorset and West Hants Branch on the Council of the Association, who was making his first appearance at a West Somerset meeting.

Hydropathic Establishments.—The question of advertising of medical practitioners in connexion with those referred to the Branch by the Ethical Committee was discussed, and the following resolution was carried unanimously:

That the advertisements of medical practitioners in connexion with hydropathic establishments are undesirable, and that the Council of the Somerset and West Dorset Branch of the British Medical Association expect that the Ethical Committee will take steps to deal with the matter.

Consultations between Medical Men.—This matter, referred from the Medico-Political Committee, was discussed at some length, and eventually the following resolution was put to the meeting and carried:

That it is desirable that medical witnesses engaged in legal cases should meet in consultation before appearing in court only when so desired by their respective parties.

Clinical Cases.—Mr. A. Joscelyne (Taunton) showed three cases of skin diseases successfully treated by *x* rays, and afterwards answered several questions put to him on the subject.

Paper.—Dr. Killick (Williton) read a very instructive paper on scarlet fever with special reference to septic factors often present. An interesting discussion followed, and after a vote of thanks to Dr. Killick, the members present partook of tea before dispersing.

POOR-LAW MEDICAL RELIEF IN SCOTLAND.

REPORT OF DEPARTMENTAL COMMITTEE.*

In July, 1902, the Local Government Board for Scotland appointed a Departmental Committee to inquire into and report on the methods and conditions under which Poor-law medical relief is at present administered in Scotland, and on what changes, if any, it is advisable to make in regard thereto, or in the regulations for distributing the sum contributed from the Local Taxation Account to the cost of Poor-law medical relief and trained sick nursing, or in the rules and regulations for the management of poorhouses. The members of the Committee were Mr. J. Patton Macdougall, one of the members of the Board; Mr. W. Leslie Mackenzie, M.A., M.D., Medical Inspector; Mr. R. B. Barclay, General Superintendent of the Poor, with Mr. J. Jeffrey of the Local Government Board as Secretary. The report of this Committee, which is signed by all the members, has recently been presented to both Houses of Parliament.

The Committee at the commencement of its inquiry drew up a memorandum, which was issued to persons interested or concerned in Poor-law administration in Scotland, including the Scottish Poor-law Medical Officers' Association. The Committee held forty meetings, at eighteen of which it examined witnesses to the number of thirty-three. It also visited certain poorhouses and workhouses in Scotland, and for the purpose of obtaining further information on certain administrative points relating to Poor-law medical relief and nursing, it visited certain workhouses in England and Ireland.

Medical Officers Necessary in all Parishes.

The report points out that the primary weakness of the system of outdoor medical relief in Scotland is that the Legislature has placed no duty on the local bodies to appoint medical officers to attend the outdoor sick poor, although the deficiency has been rectified to a large extent, administratively, by means of the conditions attached to the grant in aid, the most important of which has been the appointment of a medical officer at a fixed salary. It is added that there are still sixty-two parishes where such appointments have not been made. The Committee expresses the opinion that what has been a recognized principle of Poor-law administration since 1848 should no longer depend for its existence upon the willingness of parish councils to accept an imperial contribution under certain prescribed conditions. By homologating and stereotyping the conditions of participation in the grant, Parliament has so far approved the principle of appointing outdoor medical officers as part of the Poor-law organization. The Committee therefore recommends that it should be made obligatory, under statute, on all parish councils to appoint a medical officer or medical officers for outdoor work at a fixed salary or salaries, to be approved by the Local Government Board; or, in other words, that the appointment of outdoor medical officers be put practically on the same statutory footing as that of medical officers of poorhouses. The following passages are quoted from the report in full:

Dwelling-houses for Medical Officers should be Provided in Certain Parishes.

"In some parishes, especially in the Highlands, a difficulty seems to exist in obtaining a suitable house for the medical officer; and this fact is said to account, in some measure, for

* Edinburgh: Oliver and Boyd. London: Eyre and Spottiswoode. Dublin: E. Ponsonby. Price 1s. 1d. (Cd. 2063.)

the absence of candidates and the reluctance to accept employment in those parishes. The Board have frequently had representations from parish councils on the subject, of which we give specimens in the Appendices. This difficulty, we think, should be removed, and a parish council ought to be permitted to acquire, or erect, a dwelling-house for the medical officer. Such privilege ought to be subject to the sanction of the Local Government Board, as in the case of other buildings under the Act of 1845. The evidence of Mr. Millar, one of the Board's General Superintendents of Poor, on this subject shows its importance:

> I should be inclined to suggest that parish councils should be entitled to provide houses for their medical officers, with sufficient land for grazing a horse. In many parishes a house is not available, and in others a suitable house is not to be had. I have no doubt this is one cause of medical officers frequently leaving a certain parish. Some parishes have provided houses, but charge a rent, and bind the medical officer to occupy the house and keep it in repair as well as pay the taxes. The Board should have power to approve the plans, etc. I have seen a house provided for a doctor which was not fit for a labouring man, and over which the parish council had obtained a heavy bond. The house, when exposed for sale, would not bring sufficient to pay off the bond.

Additional Medical Attendance in certain Highland and Island Parishes.

"In dealing with the general conditions affecting outdoor medical relief, a matter has been brought under our notice which, although not strictly a part of Poor-law administration, has an important bearing upon the well-being of the community. We refer to the need that appears to exist for further medical relief to the *inhabitants* of certain parishes in the Highlands and Islands. While no one suggests or expects that medical attendance should be or could be provided to the inhabitants of sparsely-populated Highland districts on the same scale as in the more densely-populated parts of the country, we are satisfied from the evidence that has been adduced, and from our official experience, that a genuine need exists for a more complete system of medical attendance in many Highland and Island parishes. Mr. Ross, Chairman of the parish council of Lochbroom, an extensive parish on the west coast of Ross-shire,[1] stated that the doctor charges as much as three guineas for each visit to patients in districts remote from his residence. To quote Mr. Ross:

> That has the effect of impoverishing the people, and it has also this effect, that it is only in extreme cases that a doctor will be called.

"At first sight, three guineas per visit seems a heavy fee for those whose circumstances are not far removed from pauperism. When, however, the physical conditions of the district are taken into account, it will be seen, we think, that the fee is not excessive. To quote Mr. Ross again:

> When you consider the details, that is only a small fee for the doctor, because he has his hire, which costs him so much to the centre of the district, and he may have to go another stage when he arrives there, the results being that he does not have it to himself, and he has to spend two days for a case like that.

"Mr. Ross further cites a case in which a crofter was reduced to pauperism through having to pay a doctor's account. In his words:

> A man's wife became ill, and continued to be ill for some time. The doctor had to visit frequently over a long period, with the result that the man became pauperized; he had to sell out his stock to pay the doctor. . . . . I don't think that he ever got anything approaching what would be reasonable for his services in that case. The important point was that the man became a pauper although he had a very good croft.

"Mr. Ross further states that this is not an isolated case. Sir Kenneth Mackenzie (Gairloch) and Dr. Bell (Kirkwall) also spoke to the long distances that medical practitioners have to travel, and to the hardships they have to undergo to reach some of their patients; and Dr. Bell cited several cases illustrative of the amount of suffering that the inhabitants of some of the remote islands of Orkney endure from the want of medical attendance. Further proof of the same condition of matters will be found in the annual reports of Dr. Ogilvie Grant, Medical Officer of Health for the county of Inverness, in which he draws attention to the large proportion of uncertified deaths that occur among the inhabitants of the parishes and islands in the west of Inverness-shire[2]. Thus in 1899 he reports:

> It appears to me to be a sad condition of matters that so many are allowed to go to their graves without relief from their sufferings which a medical man would at any rate be able to give them, if not able to check the fatal disease. These long lists of uncertified deaths must mean a sum total of much suffering. There is a large number of people too poor to employ a medical man, but not poor enough, or not desirous, to accept parochial relief. Almost invariably the country doctor attends to this class. Still, there may be some, knowing that they are unable to pay, who may not care to send for the doctor.[3]

"In his report for 1900 Dr. Ogilvie Grant records the fact that during that year, nearly 400 persons[4] in Inverness-shire died and were buried without having been seen by a doctor, and that, during ten years, 3,967 persons had died under similar conditions. In some parishes the majority of the deaths are uncertified—the percentages for the year 1900 being as follows:

Kilmuir	70	per cent. uncertified.
South Uist	67	" " "
Durinish	64	" " "
Harris ...	51	" " "

"In recalling the attention of the Local Government Board to the subject, in his report for the year 1902, Dr. Ogilvie Grant quotes the following extract from a report by Dr. M'Kenzie, North Uist:

> As I have frequently pointed out already, the want of sufficent medical attendance and nursing have a most prejudicial effect on the well-being of the district. The loss of life, hardship, and misery which this implies cannot be calculated. To a certain extent the physical evil is evident, while it tends to produce a callousness to suffering and death that becomes only too apparent in the number of uncertified deaths, especially among the aged. For this the only remedy is an increased medical grant in aid to enable the district to employ an additional medical man and two trained nurses.

"The medical officers of health of the other Highland and Island counties do not, in their official reports, appear to have drawn special attention to the subject of uncertified deaths; but, from the annual statements of sickness and mortality which they submit to the Local Government Board, it would appear that this heavy incidence of uncertified deaths is not confined to the county of Inverness. During the year 1901,[5] out of a total of 4,998 deaths in the counties of Zetland, Orkney, Sutherland, Ross, Inverness, and Argyll, 1,098, or 22 per cent. were uncertified: the figures in the different counties fluctuate from 11 per cent. in each of the counties of Argyll and Orkney to 38 per cent. in Zetland. This contrasts most unfavourably with the average of such deaths for the rest of Scotland, which is slightly over 1 per cent. While the primary cause of this large percentage of uncertified deaths is the fact that a doctor was not called in, we think it will be admitted, in the light of the evidence, that the main cause of this omission was the cost, which the family could not afford. A doctor's account, in the circumstances described by Mr. Ross, impoverishes, if it does not pauperize, the people who have to pay it. From the large number of uncertified deaths in these counties, it may be inferred that a number of births take place also without any medical attendance.

"In view of these statements and figures, it appears to us that some further provision should be made to secure skilled attendance in such cases. The difficulties are twofold, arising (*a*) from the general poverty of the population and their inability to pay for such attendance, and (*b*) from the sparseness of the population and the long distances which have to be covered by a doctor in making his visits, often along bad roads and across arms of the sea.

"Various remedies have been suggested—the most common being, that the medical relief service in these parishes should be further subsidized out of the existing grant. This seems to us impracticable so long as the grant remains at the present figure of £20,000 and is devoted to medical relief of the poor generally, in lowland as well as in Highland and Island parishes. Besides, the £20 000 is a grant in aid of medical relief to the legal poor, whereas the service that it is proposed to subsidize is largely for the benefit of the inhabitants generally. We are therefore unable to recommend that any additional charge should be placed on the £20,000 in the interests of the latter.

"At the same time it is no doubt the case that in some remote parishes, mainly in the Highlands and Islands, the salaries of medical officers for Poor-law work are already disproportionately large. These high salaries are necessary to provide the nucleus of a living for a medical man, and are really larger than mere attendance on the poor would justify. Indeed, in some instances, doctors could not be obtained if it were not for the high parochial salaries that are offered. Nevertheless it is clear that, in these areas with which we

[1] Lochbroom contains about 260,000 acres; has a population of about 3,200, of whom 200 are paupers; and has only one medical practitioner in the parish. (See Ross, 5167-9.)

[2] Annual reports as medical officer of health for years 1898-1902.

[3] The Select Committee of the House of Commons on Death Certification remarked upon the large number of uncertified deaths in Inverness-shire. (See Report 7th, 1893, p. viii.)

[4] In 1902 the number was 355.

[5] See Eight Annual Report of the Local Government Board.

have been dealing, medical attendance on the inhabitants is inadequate, and ought to be supplemented. But without further pecuniary assistance we do not see how the want is to be supplied.

"We ought to add that, in some six or eight parishes in the North, the Club System is in existence. Under that system there is a voluntary assessment in the parish to secure an addition to the salary of the Poor-law medical officer, in return for which he attends the members of the Club for such fee as may be arranged. Those who are not members of the Club are charged a higher fee. There are Clubs in the county of Inverness, Sutherland, Orkney, and Caithness, and, where the system has been tried, it appears to work well on the whole.

"We were told by Mr. Millar, General Superintendent of Poor for the Northern Highland District, that in one parish the salary of the doctor is guaranteed and paid by the proprietor. The Parish Council refund him what they would in ordinary circumstances pay to their medical officer, and the proprietor further recoups himself by levying 2s. 6d. per head from each crofter—the balance, if any, being met by the proprietor out of his own pocket. We think it right to mention this fact, without comment or criticism, merely as an illustration of the methods sometimes used to overcome the difficulties of the situation by those who have the interests of their people at heart.

"An alternative might be to institute a system similar to the Irish dispensary system, which we have seen in operation. If introduced into Scotland it must always be subject to adequate safeguards and regulations.

Conveyance of Medicines to Paupers.

"Where a medical officer, under his agreement with the parish council, supplies medicines from his own laboratory, he is required, under Rule 7, to afford

every reasonable facility for sending or conveying the medicines and appliances . . . to paupers who are unable to go or to send for them; but when it is necessary to send a messenger expressly for that purpose, he may call upon the inspector in writing to provide such messenger.

"And the inspector, when so called upon, is responsible for the delivery. It has been stated that friction sometimes arises between the medical officer and the inspector over the interpretation to be placed on the words 'every reasonable facility.' Occasions must arise when it is extremely difficult to determine what is 'reasonable' in connexion with the conveyance of medicines, and we do not attempt to give a definition, but shall only express the hope that in cases of difficulty parish councils will arrange accordingly, in the interests of the poor, as they are empowered to do. We are of opinion that the best course is that medicines should be supplied by a druggist, but in certain Highland parishes, where there are no druggists, the institution of dépôts at convenient centres for the supply of medicines seems very desirable. Wherever there is any aggregation of population there is a schoolhouse, and we suggest that school premises might perhaps be utilized for this purpose."

THE TENURE OF OFFICE OF MEDICAL OFFICERS AS AFFECTING THE EFFICIENCY OF THE POOR-LAW MEDICAL RELIEF SYSTEM.

"It is considered that medical officers of poorhouses have the same tenure of office as inspectors of poor;[6] that is, they can be dismissed only by the Local Government Board.

"The case is, however, different with medical officers appointed to attend the outdoor sick poor. As we have pointed out (paragraphs 15 and 143), the statute does not require the appointment of such an officer that being secured only in those parishes which agree to comply with the rules regulating the distribution of the medical relief grant. Under these rules it is provided that

If any medical officer shall fail, or neglect, or refuse to perform the duties of his office, or shall be found [otherwise] incompetent to discharge the same, the Local Government Board shall have power to dismiss him.

"He may, however, also be dismissed, or his services may be dispensed with, by the parish council, at any meeting which has been duly called on ten days' notice, without any reasons being assigned.

"It will thus be observed that, while adequate means have been taken to secure the interest of the sick poor, nothing has been done to protect medical officers against unjust or capricious dismissals by parish councils. This has been a long-standing grievance with parochial medical officers, and it is clear that, with a fear of dismissal always present, the efficiency of the service may be greatly impaired.

"Although the terms of our remit did not specifically cover the tenure of outdoor medical officers, it appeared that, in view of the widely-expressed feeling on the subject, our inquiry would be incomplete if we did not at least endeavour to ascertain whether the efficiency of the Poor-law medical relief service was prejudiced by the existing system. Accordingly, we have received evidence on the subject from a number of witnesses.

"Our great difficulty, in pursuing our investigations in this matter, has been to get direct evidence from medical officers, who are personally aggrieved, the reason for withholding it being that it might be used against those that supplied it. It was represented to us, on behalf of the Poor-law Medical Officers' Association, that:

The Association has received numerous complaints of injustice on the part of parish councils towards their medical officers . . . how some have been dismissed from office for causes other than those of failure or neglect to perform their duties, or for unfitness or incompetence to discharge them. Cases of dismissal have also occurred in which medical officers have done their duty five, ten, fifteen, and even twenty years, and on the election of a new parish council have been dismissed without reason assigned.

"It was also stated on behalf of that Association, and on behalf of the Society of Inspectors of Poor, that in some parishes it is the practice to appoint in rotation to the office of Poor-law medical officer the various medical practitioners resident in the parish. In this connexion, it was further stated, by the late Mr. Wallace of Govan, that:

There is a feeling in the minds of my own council not to appoint every year, but to have a change, and to give some younger doctors a chance.

Dr. Bell stated:

I know of one case where the medical officer, who lived six miles from the centre of the parish, was asked to resign because a young medical man offered to settle in the parish.

"Dr. Bell cited another case where he alleged that the medical officer would have insisted upon the removal of a lunatic to an asylum, 'if it had not been for fear of getting into hot water with the parish council.' We have also seen, in a report to the Local Government Board, dated 1st June, 1895, the following statement by Mr. Falconar-Stewart, now Secretary of the Board:

In a rural parish with but a small population, and with some sixteen paupers, I find that an agitation has been got up to get rid of a medical officer who has served the parochial board since [illegible], not upon any plea of inefficiency, but simply because a younger medical man has taken up his residence in the village.[7]

"According to a Parliamentary return[8] it appears that, during the seven years 1895-1901, sixteen medical officers were dismissed by parish councils within the Highland crofting counties of Argyll, Caithness, Inverness, Orkney, Ross, Sutherland, and Zetland. In ten cases no cause was assigned for the dismissal. According to another Parliamentary return,[9] it appears that, in 42 per cent. of the parishes within the same counties, the office of resident parochial medical officer was vacant once or oftener during the last seven years; in one case it was seven times vacant. The maximum time that the office remained continuously vacant in any parish was fifteen months.

"We are satisfied that the administration of Poor-law medical relief would be more efficient if the approval of the Local Government Board were required before the services of the outdoor medical officer could be dispensed with. All the arguments that we have advanced in favour of his being made a statutory official are equally relevant to the question of tenure. This conclusion is, we think, established by the evidence of the great majority of the witnesses whom we have examined on the subject, and especially by the official evidence kindly supplied by Dr. Downes and Dr. Bagger, of the English and Irish Local Government Boards respectively. In England and Ireland the tenure of the Poor-law medical officer is even more secure than what we are now suggesting for Scotland.

"A similar recommendation was made in 1871 by the Select Committee of the House of Commons on the Poor-law (Scotland),[10] and the following is the latest official declaration of the Local Government Board for Scotland on the question of tenure:

The Board are clearly of opinion that the protection enjoyed by Medical Officers of Health should be extended to medical officers

[6] Cf. sections 72 and 73 of Poor Law Act, 1845; also Board of Supervision v. Parochial Board of Old Monkland, 1871, Guthrie, 1870, R. 4[illegible].

A similar case, but hypothetical, though no doubt based on his official experience, was figured by Sir John Skelton, in his book on *Functions and Powers of Boards of Poor Law Guardians*, Preface, p. xviii.

[8] House of Commons, Return, dated 8th August, 1902, and BRITISH MEDICAL JOURNAL, 1902, vol. ii., p. 472.

[9] House of Commons Return, dated 14th August, 1902.

[10] See Report, p. 13.

[11] Second Annual Report of Local Government Board, 1889-90, p. 22.

appointed under the Poor-law Act. By section 54 4 of the Local Government Act, 1894, it is provided that "every medical officer and every sanitary inspector appointed under this Act or under the Public Health Acts shall be removable from office only with the sanction of the Board of supervision." The claim has been frequently preferred by the representatives of the parochial medical officers, and clauses have been introduced into Bills with the view of giving effect to the claim, but from one cause or other the Bills have failed to pass. The claim was warmly supported by the Board of supervision, for the members had reason to know that medical officers had good reason to complain in many cases of the injustice with which they had been treated, and it appeared to them, moreover, that it was in the public interest that these officers should not be subject to arbitrary dismissal by the local Boards."

"We think it right to place on record that between the years 1855 and 1902 inclusive, 139 complaints against parochial medical officers have been made to the Central Department. After inquiry, it was ascertained that in 88 cases the complaint was unfounded. In 28 cases the medical officer was censured; in 12 cases he was allowed to resign; and in 11 cases only was it found necessary for the Central Department to dismiss him from his office. Looking to the fact that there are about one thousand medical officers always in office throughout Scotland, we consider such a record, extending as it does over the long period of forty-eight years, eminently satisfactory. It contrasts very strongly with the figures given above as to dismissals without assigned cause by parish councils in the crofting counties. The inference we draw is that the sanction of the Central Department is needed in the interests of efficiency and of justice.

"Accordingly, we repeat our recommendation that the medical officer be made a statutory official, as he already is *de facto* in the large majority of parishes; and we further recommend that the tenure of parochial medical officers be placed on the same footing as that of Medical Officers of Health and Sanitary Inspectors under the Public Health (Scotland) Act, 1897. We are not favourable to the proposal of an *ad vitam aut culpam* tenure.

"To the tenure above recommended the only objection that appeals to us is, that in some Highland parishes where the amount of fees from private practice is insignificant (see paragraph 39), and the Poor-law medical officer has a monopoly, he might take up the position that he has no duty except to those on the roll of poor; and an instance where such an attitude was adopted has lately been brought under the notice of the Board. He might further fix a scale which would be prohibitive to the poorer ratepayers, who could not pay for the services of another doctor.

"But we think that little or no difficulty would be found in meeting this objection, even if it be serious or widespread, which we cannot suppose it is."

SUMMARY OF RECOMMENDATIONS.

The following is the text of the Summary of Recommendations:

"Indoor Relief.

"*Poorhouse Rules and Regulations.*

"The rules are out of date in many respects. A new code, on the lines set forth in the revision to be found in the Supplement, should be adopted.

"*Poorhouse Hospitals and Sick Wards.*

"Certain combinations, where the poorhouses have comparatively few inmates, might be amalgamated, and

"(i) if it be expedient to retain the existing poorhouses, each might be adapted and used for a separate class of inmates; or,

"if any poorhouse should be no longer required, it might be adapted to some other public local object.

"The sick should be accommodated.

"(i) in rooms apart from those for the other inmates, and,

"(ii) where practicable, in a building detached from the poorhouse proper.

"The sick wards might, in some instances, be smaller, but more numerous.

"An observation ward, or wards, should be provided for the reception and treatment of cases of threatening insanity.

"Accommodation should be provided,

"(i) for the isolation of cases of infectious disease pending removal to hospital,

"and,

"(ii) for the treatment of such cases as cannot be removed and dealt with by the public health authority.

"A properly-equipped operating room should be provided in poorhouses of a certain size, under certain conditions.

"Balconies and outside iron stairs should be provided where the sick are accommodated in wards above the ground level.

"Ventilation and heating should be improved.

"Bathrooms should be within the same building as the dormitories; lavatories for sick wards should be conveniently situated.

"Iron bedsteads, with spring mattresses, should be provided for the sick.

"The accommodation for the sick should be improved generally,

"(i) By raising the minimum standard of cubic space per bed;

"(ii) By providing sufficient beds to accommodate inmates requiring hospital treatment.

"Each ward should be sanctioned (or licensed) for occupation by a certain number of inmates; and the governor should report whenever a ward is occupied beyond its sanctioned (or licensed) capacity.

"*Treatment of Tuberculosis, etc.*

"Means should be taken to ascertain the number of phthisical cases among the outdoor poor.

"Outdoor relief should not be withheld from a phthisical case simply because of a refusal to be treated in a poorhouse hospital.

"Much of the unoccupied space in poorhouses might, with slight alteration, be profitably used in the treatment of phthisis.

"Phthisical cases should be segregated, for administrative reasons as well as on medical grounds.

"But, owing to want of power to detain persons in a poorhouse, better results might follow from sending cases to a sanatorium dissociated from a poorhouse.

"Cases of malignant and offensive diseases should, as far as possible, be segregated.

"*Classification of Inmates.*

"The medical officer should classify inmates as regards their physical condition and capacity for work on admission, and thereafter should have power to revise the classification when necessary.

"The accommodation of the poorhouse should be so arranged as to isolate one class from another.

"In many poorhouses no need exists for retaining the class of 'infirm' inmates.

"Classification according to character should be attempted.

"Parents should have access to their children at reasonable times.

"*Admission of Inmates.*

"A more immediate and a more thorough medical examination of inmates should be made on admission.

To assist in this, the information supplied by the certifying outdoor medical officer should be more complete.

"In many parishes, a room might be provided for the medical examination of applicants for relief.

"An attendant should always accompany cases removed to the poorhouse by ambulance.

"The governor should be empowered, in an emergency, to admit cases without the necessary papers.

"*Discharge of Inmates.*

"Better arrangements should be made for the discharge of inmates that may have become able-bodied.

"*Diet of Inmates.*

"A more varied dietary should be allowed.

"The diets prescribed by the dietary scale being minimum diets, the food provided for any inmate should be not less than the dietary allows.

"The routine use of stimulants should be checked.

"The cooking and cooking appliances should be improved.

"The medical officer should have the following additional powers and duties:

"(i) To advise the House Committee in framing a dietary suitable for use in the poorhouse.

"(ii) To advise the House Committee if, at any time, a temporary change of food is essential to the health of the inmates or to any class of them.

"iii) To revise the diet of each sick inmate at least once in every four weeks.

"(iv) To frequently inspect the food, cooked and uncooked.

"(v) To prescribe a special diet for any inmate when necessary.

"(vi) To revise, at intervals of not more than eight days, every order for stimulants supplied to an inmate.

"*Discipline and Punishment of Inmates.*

"The whole question of poorhouse discipline and punishment should be reconsidered, and

"(i) Discipline should be enforced, as far as possible, by the withholding of privileges or of diet and by rewarding good behaviour.

"(ii) When such punishment is too mild, the case should, whenever possible, be handed to the police to deal with.

"(iii) When it is proposed to inflict punishment (for example, extra work, deprivation of food, confinement in a cell) within the poorhouse, the medical officer should certify that the inmate is fit to bear it.

"(iv) Corporal punishment of girls and the use of penal dress should be prohibited.

"(v) The structure and condition of confinement cells should be improved.

"(vi) Smoking in the poorhouse should be allowed under regulation.

"*Bathing of Inmates.*

"Should be regularly carried out, and superintended by paid officials, under the advice, where necessary of the medical officer.

"*Complaints by Inmates.*

"Better arrangements should be made for the medical officer seeing every inmate that complains of illness.

"Any inmate, that so desires, should be allowed to make a complaint to the Visiting Committee, without the officials being present.

"*Deaths of Inmates.*

"Sudden and unexpected deaths should be reported more systematically to the Procurator-Fiscal and to the Board.

"Any other deaths, occurring within twenty-four hours of admission to the poorhouse or of removal from the ordinary to the sick wards, should be reported to the Board.

"The medical officer should keep a register of deaths.

"*Dispensing and Supplying Medicines.*

"Rules should be drawn up in terms of Section LXVI of the Poor Law Act, 1845.

"Medicines should, as far as possible, be obtained under contract at scheduled prices.

"The medical officer should be responsible for the stock of medicines kept in the poorhouse.

"A visiting or a resident dispenser should be appointed to some of the largest poorhouses.

"*Medical Officer.*

"The powers of the medical officer should be enlarged, and in addition to the duties above mentioned, he should

"(i) be responsible for the management of the sick wards, but, where he is non-resident, the governor should assist him in maintaining discipline.

(ii) enter his instructions as to the treatment of a sick patient on a bed card. (Bed cards and a new register of sick should be instituted.)

(iii) visit the children's wards at least once a week and prescribe for such children and infants as require treatment.

(iv) report, quarterly, the ventilation, heating, and general sanitary condition of the poorhouse.

(v) be given facilities for calling in another medical practitioner in consultation, when required.

(vi) have power to recommend that a patient be sent to a general hospital for special treatment.

(vii) render an annual report.

(viii) be obliged to name a substitute.

"(ix) be obliged in certain circumstances to reside in the poorhouse.

"*Salaries of Medical Officers.*

"These seem to call for revision in some cases.

"*Governor, Matron, and Subordinate Officials.*

"The officers of governor and matron should be made statutory, as is that of the inspector of poor.

"Some of the governor's duties should be transferred to the medical officer.

"Where the matron is qualified, she should in certain poorhouses be allowed to perform the duties of trained nurse.

"In other poorhouses she could have no jurisdiction within the sick wards, but she should be responsible for

"(i) Cooking the food and washing the clothes for these wards.

"(ii) Selecting inmate helpers for scrubbing, etc.

"Subordinate officials should be required to report

"(i) Any defect they may observe in the sanitary arrangements.

"(ii) Any inmate who complains of illness or who may appear to be out of health.

"*Trained Sick Nursing.*

"Pauper nursing should be abolished and a general system of trained nursing introduced.

"To promote this, the Board should have more direct control over poorhouse nursing.

"As regards the standard of training:

"(i) the present minimum of two years' training should be maintained, but

"(ii) an effort should be made to encourage the appointment of nurses with three years' training.

"As regards the supply of nurses:

"(i) it would be highly expedient to staff the poorhouses with nurses specially trained to work under Poor-law conditions.

"(ii) This being so, pecuniary inducements should be held out

"(*a*) To probationers.

"(*b*) To certain large poorhouses to become training institutions.

"(*c*) To other poorhouses to co-operate with the training institutions, and

"(iii) A portion of the medical relief grant might be devoted to this purpose.

"(iv) The arrangements as to training, etc., should be under the direction of the Board.

"As regards the proportion of nurses to patients:

"(i) Fewer patients should be allowed to each nurse.

"(ii) The number of nurses required for each poorhouse should be determined after inquiry into its circumstances.

"(iii) Night nursing should be more efficient.

"(iv) Constant attention should be provided for dying cases.

"Rules for nurses should be drawn up defining their relation to the medical officer, governor, and matron.

"*Visitation of the Poorhouse.*

"More regular visitation might be secured if visiting members were allowed to visit either conjointly or separately.

"Employment of inmates, as practised by the Edinburgh Society, should be encouraged.

"Outdoor Medical Relief.

"*Governs' Orders, etc.*

"The Board should have more direct control over the medical relief arrangements in a parish.

"Every parish ought to furnish medical relief at least equal to that provided by the present rules.

"The appointment of medical officers in each parish should be required by statute.

"Dwelling-houses for medical officers should be provided in certain parishes.

"Additional medical attendance should be provided in certain Highland and Island parishes.

"The supply of medicines under either of the following methods should be discontinued

"(i) By the medical officer in respect of his salary.

"(ii) By the medical officer or by a druggist in respect of a fixed annual payment.

"Parochial dépôts for medicines should be established in outlying districts; school premises might be made available for this purpose.

"The advertisement at present required when a vacancy occurs in the medical officership of a parish might be curtailed.

"*Tenure of Office of Outdoor Medical Officers.*

"Parish medical officers should have the same tenure as medical officers of health and sanitary inspectors under the Public Health Act, 1897.

"*The Duties of the Medical Officer and the Inspector of the Poor.*

"Nutritious diet, cordials, etc., should be provided in accordance with existing rules, unless in parishes where these are impracticable.

"An inspector of poor who, in the exercise of his discretion, does not implement an order by the medical officer should be required to report accordingly forthwith.

"The medical officer should be obliged to name a substitute.

"Lists of aged and infirm need no longer be sent to the medical officer, who should be required to attend a poor person on presentation of the pay ticket.

"When, on the order of a member of the Parish Council, the medical officer attends a poor person in a case of sudden and urgent necessity, he should notify the inspector of poor.

"The medical officer's register of sick should be more systematically kept; a second register should be introduced, and a periodical report of work done should be submitted to the Parish Council and to the Board.

"*Nursing of Outdoor Poor.*

"Parish Councils should be encouraged to subscribe to the funds of voluntary nursing associations.

"Such subscriptions might be allowed to rank against the medical relief grant.

"*Boarded-out Children.*

"The method of supplying medical attendance adopted by the larger parishes should be made general.

"The expediency of holding an inquiry into the boarding-out system should be considered.

"*Casual Sick Poor.*

"Accommodation for casual sick poor should be more generally supplied.

"The provision of such accommodation, if required by the Board, should form a condition of participation in the medical relief grant.

"*Tramps—not Paupers—Found Lying Ill*

"Should be dealt with by the Poor Law, Police, or Sanitary Authorities, according to circumstances.

"*Parochial Lodging-houses.*

"As regards what may be termed non-statutory poorhouses:

"(i) Further inquiry might be made into their history and equipment:

"(ii) if they are to be continued their medical relief arrangements should be periodically inspected by officers of the Board.

"As regards what may be termed dwellings for outdoor poor:

"(i) They afford, under certain conditions, a means of providing accommodation for infirm paupers who are without relatives or friends, and who refuse to go to the poorhouse or cannot be removed thereto.

"*Compulsory Removal of Poor Persons to a Poorhouse.*

"It is for consideration whether Parish Councils should not be empowered to remove a poor person to a poorhouse on a medical certificate and a judicial warrant affirming that the condition of the poor person or of his surroundings justifies such removal.

"*Compulsory Detention of Poor Persons in the Sick Wards of a Poorhouse.*

"It is for consideration whether Parish Councils should not be empowered to detain in a poorhouse hospital any sick poor person who is certified to be unfit to leave it on a judicial warrant following thereon.

"*Convalescent Homes.*

"The practice of subscribing to and of sending patients to convalescent homes, etc., should be left to the discretion of Parish Councils.

"Grant in Aid of Medical Relief.

"*Basis of Distribution.*

"The basis should continue to be vouched expenditure in the meantime at least.

"The proposed grant for probationers should form a first charge against the £20,000, the balance to be distributed proportionally in aid of outdoor and indoor medical relief expenditure (including trained sick nursing).

"Unless the total grant be increased, a slight reduction should be made in the amount allowed in respect of each trained nurse.

"Grant to combination poorhouses should be paid to House Committees.

"After a few years, the grant to each authority might be fixed for a stated period.

"*Conditions of Participation.*

"The present 'minimum expenditure' should be abolished.

"Neither a 'minimum' nor a 'maximum' expenditure would be required if the Board had fuller powers to revise the salaries of medical officers.

"The salaries of all medical officers, so far as they rank as a claim against the grant, should be reviewed and rearranged on an equitable basis.

"No grant should be paid in aid of outdoor medical relief unless trained sick nursing is provided.

"Reciprocal medical relief obligations between parishes should be extended to medicines.

"*Items of Expenditure Claimable against the Grant.*

"In addition to the proposed grant for probationers, the admissible expenditure should include the cost of providing trained nursing to the outdoor poor.

"Subscriptions to hospitals should be carefully scrutinized, but existing powers would appear to be sufficient.

"Medical officers should perform all medical and surgical work without extra fee, but, where extra advice or assistance is needed, it should be paid for and allowed against the grant.

"Recommendations Involving Legislation.

"It may here be useful to specially set forth the more important recommendations of a general nature, which cannot be given effect to without legislation:

"(i) The stereotype imposed in Section 22 (4) of the Local Government (Scotland) Act, 1889, should be removed, and the Board empowered to make orders for the administration of medical relief under the same safeguards and restrictions as exist in England and in Ireland.

"(ii) Power should be obtained to pay the proposed grant to probationer nurses.

"(iii) The basis of the Local Taxation contributions to Parish Councils should be revised so as to provide a larger sum in aid of medical relief, both indoor and outdoor, and, *inter alia*, towards securing medical attendance, where necessary, to the non-pauper population of remote districts.

"(iv) The position of outdoor medical officers and of governors and matrons of poorhouses should be placed upon a statutory footing.

"We regret that we have been unable to issue our report sooner. The delay is mainly attributable to the wide scope of the remit and the practical character of the questions submitted to us. The inquiry has involved the consideration of much detail. The revision of the poorhouse rules and regulations (which number roughly 180) has alone taken up much time and required much thought. In making our recommendations we trust that we have been able to hold an even balance between the well-being of the poor, outdoor and indoor, and the interests of the ratepayers by whom they are supported.

"In conclusion, it is our duty and our pleasure to testify to the able and assiduous services rendered by our Secretary, Mr. Jeffrey, who has spared neither time nor trouble from beginning to end of our labours.

"We have the honour to be,

"Gentlemen,

"Your obedient Servants,

"J. PATTEN MACDOUGALL.
"W. LESLIE MACKENZIE.
"R. B. BARCLAY.

"J. Jeffrey, *Secretary*,
"*17th March, 1904.*"

It will be recalled that the Medico-Political Committee of the British Medical Association at its meeting on January 9th, 1903, had before it the Local Government (Scotland) Act Amendment Bill then before Parliament, and that the following resolution was then adopted by the Committee:

That the Council be recommended to give the support of the Asso-

tion to the following addition to the said Bill: "That all medical officers holding office under the Poor law (Scotland) Act be only dismissible by, or with the consent of, the Local Government Board."

This resolution was subsequently approved by the Council of the Association, and was referred to in the report presented to the Annual Representative Meeting at Swansea. The Bill did not obtain a favourable place in the House of Commons, and was not proceeded with.

LOCAL GOVERNMENT (SCOTLAND) ACT (1894) AMENDMENT BILL.

THE following is the text of the Bill to amend the Local Government (Scotland) Act (1894) introduced on March 7th by Mr. Cathcart Wason and backed by Sir William Arrol, Mr. Weir, Sir Andrew Agnew, Mr. Eugene Wason, Mr. Alexander Cross, Mr. Harmsworth, Colonel Denny, Mr. Ainsworth, Mr. James Reid, Mr. John Dewar, and Sir J. Batty Tuke.

MEMORANDUM.

1. Under the Poor Law (Scotland) Act, 1845, medical officers of poorhouses cannot be removed from office without the consent of the Local Government Board (Scotland), while outdoor medical officers may be dismissed at short notice by their respective parish councils without reason assigned.

2. A clause was introduced into the Local Government (Scotland) Act, 1894, to protect outdoor medical officers against parish councils interfering with their duties or emoluments without the consent of the Local Government Board, but it did not protect them from arbitrary dismissal from office.

By a slight addition to Section LI of the Local Government (Scotland) Act, 1894, it is proposed to assimilate the law of Scotland to that of England and Ireland and make the consent of the Local Government Board necessary for the dismissal of medical officers.

A BILL TO

Amend the Local Government (Scotland) Act, 1894.

Be it enacted by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:

1. *Short title and commencement.* This Act may be cited as the Local Government (Scotland) Act, 1894, Amendment Act, 1903, and shall come into operation immediately after the *passing thereof.*

2. *Amendment of Section 51 of 57 and 58 Vict., c. 58.* At the end of subsection (1) of Section LI of the Local Government (Scotland) Act, 1894, the following words shall be added: And that such medical officers shall be removable from office only by or with the consent of the Board.

POOR-LAW MEDICAL OFFICERS' (IRELAND) SUPERANNUATION BILL.

THE following is the text of a Bill to provide superannuation for Poor law medical officers in Ireland, introduced into the House of Commons by Mr. T. W. Russell on April 18th, and backed by Mr. Harrington and Dr. Thompson:

A BILL TO

Provide Superannuation for Poor-law Medical Officers in Ireland.

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same, as follows:

1. *Short title.*—This Act may be cited as the Poor-law Medical Officers Superannuation (Ireland) Act, 1904.

2. *Amendment of power of granting superannuation allowances to poor-law medical officers.*—From and after the passing of this Act the Boards of Guardians of every union in Ireland shall, with the sanction of the Local Government Board for Ireland (in this Act called "the Local Government Board"), notwithstanding anything in the Union Officers Superannuation (Ireland) Act, 1857, or the Acts amending the same, grant to any medical officer belonging to any such union who shall become incapable of discharging the duties of his office with efficiency by reason of permanent infirmity of mind or body, or of old age, upon his resigning or ceasing to hold his office otherwise than as the result of any neglect or default on his part in executing the duties thereof, a superannuation allowance according to the following scale (that is to say):

Rate of superannuation allowance. To any medical officer who shall have served in some or one or more unions in Ireland for *ten years* and upwards, and under *eleven years*, an annual allowance of *ten-sixtieths* of the annual salary and emoluments of his office:

For *eleven* and under *twelve years*, an annual allowance of *eleven-sixtieths* of such salary and emoluments:

And in like manner a further addition to the annual allowance of *one sixtieth* of such annual salary and emoluments in respect of each additional year of such service until the completion of a period of service of *forty years*, when an annual allowance of *forty-sixtieths* shall be granted:

Age and period of service. No medical officer shall be entitled to such allowance on the ground of age who shall not have completed the full age of *sixty years*, and shall not have served as a medical officer in some one or more unions in Ireland for *twenty years*. But nevertheless the Board of Guardians under which any such medical officer shall have last served may declare that the special circumstances of the case justify the grant of a superannuation allowance after a shorter period of service than *twenty years*, and, provided that the Local Government Board for Ireland shall sanction such special grant, such allowance may be made by such Board of Guardians.

Average calculation. For the purposes of this Act the annual salary and emoluments of a medical officer shall be calculated on the average of the three years ending with the quarter day next before he ceases to hold his office.

3. *Amendment of powers of granting superannuation allowance to medical officers of health.* The provisions of this Act shall, notwithstanding anything in section seven of the Public Health (Ireland) Act, 1890, or in section ten of the Local Government (Ireland) Act, 1902, or the Acts amending the same sections respectively, apply to district councils in Ireland and their medical officers in like manner as nearly as may be as they apply to Boards of Guardians in Ireland and their medical officers.

4. *Additional years' service to be added.* A number of years not exceeding twenty, as the Local Government Board, having regard to the circumstances of each case shall see fit and direct, shall, in computing the amount of superannuation allowance to be granted to any medical officer under this Act, be added to the number of years during which such medical officer may have actually served in one or more unions in Ireland.

5. *Funds from which superannuation allowance to be paid.* Every superannuation allowance to be made under the provisions of this Act shall be paid in the same proportions from the same funds as the salary payable at the time of his retirement to the medical officer to whom such superannuation allowance is being granted.

6. *Provisions as to existing rights.*—Nothing contained in this Act shall lessen or prejudice the right or title (if any) of any such medical officer to or a superannuation allowance computed in accordance with the provisions in that behalf of the Local Government (Ireland) Act, 1898.

7. *Interpretations.* The term "medical officer" shall mean

(1) A duly qualified medical practitioner in the service of a Board of Guardians holding an office under the provisions of the Act for the more effectual relief of the destitute poor in Ireland or the Medical Charities Act, 1851, and the Acts amending the same respectively;

(2) A medical officer of health of a sanitary district under the Public Health (Ireland) Act, 1878, or any Act or Acts amending the said Act; or

(3) A registrar of births, deaths, and marriages, holding such office contingent on his position as dispensary medical officer.

The annual report of the Council of the British Medical Association, the Proceedings of the Council at its meeting on April 26th, and reports of the Proceedings of Committees of the Association, will be published in an early issue.

Printed and published for the Proprietors at the Office, No. 429 Strand, in the Parish of St. Mary-le-Strand, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 7TH, 1904.

CONTENTS.

	Page
PROCEEDINGS OF COUNCIL	93
REPORT OF COUNCIL	96
The Prince of Wales	96
Death of a Member of Council	96
Deaths of Former Members of Council	96
Deaths of Members of the Association	96
Death of the Financial Secretary	97
Representation of the Services	97
Brussels Medical Congress	97
Sanitary Institute Congress	97
Medical Charities	97
Programme of the Oxford Meeting	97
Free and Popular Lecture at the Annual Meeting	97
The JOURNAL	97
Association "Year Book"	100
The [illegible] Balance Sheet	100
Superannuation Fund	100
Auditors' Report	100
Estimate of Receipts and Expenditure for 1904	100
COMMITTEES: Annual Meeting Sections) Committee.—Colonial Committee.—Ethical Committee.—Hospitals Committee.—Medical Defence Committee.—Medico-Political Committee.—Organization Committee.—Premises and Library Committee.—Public Health Committee.—Royal Navy and Military Committee.—Scientific Grants Committee.—Scottish Committee.—Special Chloroform Committee ...	100
The Library	105
BRITISH MEDICAL ASSOCIATION BALANCE SHEET 31ST DECEMBER, 1903	98
BRITISH MEDICAL ASSOCIATION — PROCEEDINGS OF COMMITTEES:	
MEDICO-POLITICAL COMMITTEE.—Public Health Committee of M.P.s.—Consultations between Medical Witnesses.—Nurses Registration Bills.—Midwives Act.—Coroners.—Contract Practice.—Registration of Deaths and Stillbirths. Constitution of the Local Government Board.—Vaccination and Revaccination.—Dispensers in Public Institutions.—Medical Certificates for School Children.—Sight Testing.—Medical Acts Amendment Bill.—Reports to Council... ...	106
CONFERENCE IN THE MATTER OF THE CORONER FOR SOUTH-WEST LONDON...	109
CONFERENCE ON ETHICAL PROCEDURE OF DIVISIONS ...	110
PUBLIC HEALTH COMMITTEE.—Instruction in Hygiene and Temperance.—Constitution of the Local Government Board.—Overlying of Infants.—Vaccination and Revaccination.—International Notification of Infectious Diseases.—Public Health Committee of M.P.s.—Security of Tenure of Medical Officers of Health.—Workmen's Compensation Act.—Hygiene and Education.—The Scope of the Committee's Work ...	11
ETHICAL COMMITTEE.—Ethical Rules.—Contract Practice.—Hydropathic Establishments.—Special Cases	111
ORGANIZATION COMMITTEE.—Grants from Branches to Divisions. Rules and Boundaries of Divisions and Branches.—Temporary Vacancies.—Forest of Dean Section.—Division Libraries and Division Finance. Rules of Divisions and Branches.—Changes of Boundaries of Divisions.—Grouping of Branches	111
MEDICAL DEFENCE COMMITTEE.—Minority Report.—Explanatory Memorandum	112
HOSPITALS COMMITTEE.—Constitution of the Committee.—Hospital Management.—Rate Support of General Hospitals ...	112
ROYAL NAVAL AND MILITARY COMMITTEE.—War Office (Reconstitution) Committee.—Militia Medical Officers.—Indian Medical Service.—Majors R.A.M.C. in India—Resignation ...	114
SCOTTISH COMMITTEE.—Ethical Questions.—Vacancies ...	116
COLONIAL COMMITTEE.—Proposed Transvaal and Orange River Branches.—Constitution of Committee.—Medical Registration in British Colonies and Dependences	116
JOURNAL AND FINANCE COMMITTEE.	117
ANNUAL MEETING (SECTIONS) COMMITTEE	117
PREMISES AND LIBRARY COMMITTEE	117
MEETINGS OF BRANCHES AND DIVISIONS:	
East Anglian Branch	117
Grahamstown and Eastern Province Branch...	117
Worcestershire and Herefordshire Branch	117
ANNUAL REPORTS OF BRANCHES	118
NOTICE OF MEETINGS:	
ANNUAL GENERAL MEETING 1904, ...	118
ANNUAL REPRESENTATIVE MEETING	118
REPRESENTATIVE MEETING AT OXFORD:	
NOTICES OF MOTION	118
BRITISH MEDICAL ASSOCIATION: SEVENTY-SECOND ANNUAL MEETING AT OXFORD	120
PATHOLOGICAL MUSEUM	123
BRITISH MEDICAL ASSOCIATION LIBRARY	124

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held in the Council Room of the Association, 429, Strand, W.C., on Wednesday, April 20th, 1904,

Present:

Mr. ANDREW CLARK, Chairman of Council, in the Chair.
Dr. T. DRYSLWYN GRIFFITHS, President.
Dr. WILLIAM COLLIER, President-elect.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meeting.
Dr. F. MARKHAM SKERRITT, Treasurer.

Dr. EDGAR G. BARNES, Esq.
Dr. JAMES BALL, Liverpool.
Dr. MICHAEL BEVERLEY, Norwich.
Dr. J. BRASSEY BERKELEY, Old Trafford.
Dr. H. LANGLEY BROWNE, West Bromwich.
Dr. R. C. BUIST, Dundee.
Mr. JAMES CANTLIE, London (Hong Kong Fever).
Dr. W. A. CARLINE, Lincoln.
Mr. T. H. CREAGH, Ilford.
Dr. JAMES CRAIG, Dublin.
Dr. H. RADCLIFFE CROCKER, London.
Dr. GEORGE W. CROWE, Worcester.
Dr. P. MAURY DEAS, Exeter.
Brigade-Surgeon-Lieutenant-Col. E. F. DRAKE-BROCKMAN (South Indian and Madras Branch), London.
Mr. GEORGE EASTES, M.B., London.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Dr. EDWARD LAWRENCE FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood.
Dr. BRUCE GOFF, Bothwell.
Dr. JOSEPH GROVES, Carisbrooke.
Dr. JAMES HAMILTON, Glasgow.
Dr. W. M. HARMAN, Winchester.
Dr. T. ARTHUR HELME, Manchester.
Dr. G. A. HERON, London.
Mr. EVAN JONES, Aberdare.
Mr. R. H. KINSEY, Bedford.
Dr. C. H. MILBURN, Hull.
Dr. C. G. DRUMMOND MORIER (South Australia Branch), London.
Mr. W. JONES MORRIS, Portmadoc.
Dr. JAMES MURRAY, Inverness.
Mr. D. A. O'SULLIVAN, London.
Mr. EDMUND OWEN, London.
Mr. C. H. WATTS PARKINSON, Wimborne Minster.
Dr. ROBERT W. PHILIP, Edinburgh.
Mr. H. BEITHAM ROBINSON, M.S. Lond., London.
Dr. J. MAXWELL ROSS, Dumfries.
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham.
Mr. J. LYNN THOMAS, C.B., Cardiff.
Dr. JOHN ROBERTS THOMSON, Bournemouth.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.

The minutes of the last meeting having been printed and circulated and no objection having been received were taken as read and signed as correct.

Read letters of apology for non-attendance from the Past-President, Dr. Bronner, Dr. Burgess, Dr. Cave, Brigade-Surgeon Moriarty, Dr. James Murphy, Dr. Pope and Mr. Spanton.

The General Secretary reported the resignation of Mr. C. E. S. Flemming, Representative of the Bath and Bristol Branch on the Council, which was accepted with regret and ordered to be entered on the minutes.

The Chairman of Council reported that he had received through Sir Arthur Bigge intimation that His Royal Highness the Prince of Wales would receive the certificate of Honorary Membership of the Association personally from him. He therefore attended at Marlborough House and presented the certificate, which His Royal Highness graciously accepted and expressed his gratification at being elected an Honorary Member of the British Medical Association, of which His Majesty the King was Patron.

The Chairman of Council regretted to have to report the deaths of Sir Edward H. Sieveking and Dr. Alexander Davidson.

Resolved: That this Council desires to express its sympathy with Mr. H. E. Sieveking in the loss he has sustained by the death of his distinguished father, the late Sir Edward H. Sieveking, M.D., F.R.C.P., LL.D. Sir Edward was a representative of the Metropolitan Counties Branch on the Committee of Council from 1879-1883, and gave the Address in Medicine when the Association met in Sheffield in 1876, proving himself at all times a valuable adviser of the Association.

Resolved: That this Council regrets to learn of the death of Dr. Alexander Davidson, who represented the Lancashire and Cheshire Branch on the Council from 1879-1889, and for some years acted as Hon. Secretary to that Branch and as Hon. Local Secretary when the Association met in Liverpool in 1883. Dr. Davidson by his kindly tact and hard work succeeded in making the Lancashire and Cheshire one of the most important Branches of the Association.

Read acknowledgements from Mrs. Woodcock and Miss Trend to the resolutions of sympathy passed by the Council, which were ordered to be entered on the minutes.

The Chairman of Council reported that owing to the death of Dr. Woodcock, a co-opted member of the Council, a vacancy had been created. Scrutineers having been appointed and a ballot taken, Surgeon-General Evatt, C.B., was declared duly elected.

Read reply from the London County Council to Minute 450, asking the London County Council to consider the possibility of framing By-laws to try to prevent the overlying of infants in bed:

County Hall, Spring Gardens, S.W.,
February 4th, 1904.

Sir,—In reply to your letter of October 29th last, asking the Council to consider the possibility of framing by-laws for the prevention of the overlying of infants in bed, I am directed to state that the Public Health Committee of the Council, while deploring the mortality which is due to this cause, do not see their way to advise the Council to promote legislation in the direction indicated, as, if the powers to make by-laws on this subject were obtained, which is very problematical, it appears to the Committee that it would be very difficult, if not entirely impracticable, to enforce such by-laws.

I am, Sir, your obedient servant,

G. J. Gomme,
Clerk to the Council.

The General Secretary,
British Medical Association, 429 Strand, W.C.

Resolved: That the same be received and entered on the minutes and referred to the Public Health Committee which is now considering the question.

Read acknowledgement of resolution of Council, congratulating Professor Bayliss, F.R.S., on the issue of his action against the Honorary Secretary of the Antivivisection Society, which was ordered to be entered on the minutes.

The reply was read of the Board of Education (vide Minutes of the Public Health Committee, page 1103) acknowledging the communication by the Council of the resolution concerning elementary school instruction in health subjects in primary schools, which was forwarded in pursuance of the minute of the Council of January 28th (vide JOURNAL SUPPLEMENT, January 30th, page 41) was referred to the Public Health Committee.

On the reception of the minutes of the Premises and Library Committee of April 14th, 1904, it was resolved:

That the accounts for the quarter be received and the Treasurer be empowered to pay them.

That the Librarian be authorized to purchase the Royal Society's *International Catalogue of Scientific Literature*.

That the thanks of the Council be given to Mr. Spanton for presenting to the Library a copy of the minutes of the North Staffordshire Medical Society, 1854-85.

On the reception of the minutes of the Trust Funds Committee of April 14th, 1904, it was resolved:

That if the Trust Funds Committee find it to be possible, the administration of the income of the Middlemore Fund shall be transferred to the Scientific Grants Committee for the provision of a Middlemore Grant for Research in Ophthalmic Medicine and Surgery.

On the reception of the minutes of the Journal and Finance Committee of April 20th, 1904, after considering the Financial Statement for the year ending December 31st, 1903 (p. 98), it was resolved:

That the Financial Statement for the year ending December 31st, 1903, as certified by the auditors be received and approved and circulated, together with the estimate of receipts and expenditure for the year ending December 31st, 1904, to the Secretaries of Branches and Divisions and published in the JOURNAL, in accordance with By-law 32.

That the thanks of the Council be accorded to the Treasurer and permanent officials of the Association for the satisfactory Financial Statement presented for the year ending December 31st, 1903.

That the Financial Statement, as submitted to the Council, be published.

That the accounts for the quarter ending March 31st last, amounting to £9,034 9s. 1d., be received and approved, and the Treasurer be empowered to pay those remaining unpaid, amounting to £3,015 8s. 9d.

That it be a recommendation to the annual General Meeting that a sum of £300 be voted to the Superannuation Fund for the Office Staff.

That a further grant of £100 be made to the Special Chloroform Committee.

On the reception of the minutes of the Hospitals Committee of January 28th, March 3rd and 24th, 1904, it was resolved:

That the Hospitals Committee be empowered to fill up the vacancy among its members.

That the draft memorandum be referred back to the Committee for further consideration (see p. 113).

On the reception of the minutes of the Dental Section Committee of February 3rd, 1904, it was resolved:

That it is desirable that a Section in Dental Surgery be established in connexion with the annual meetings of the Association.

That the first meeting of such a Section be held at Oxford.

On the reception of the minutes of the Royal Naval and Military Committee of February 8th and 15th, and March 29th, 1904, it was resolved:

That while the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the empire, such as is outlined in the new scheme of War Office reform, it regrets to observe that notwithstanding the experience gained in the South African war, after which Mr. Brodrick's Committee gave to the Army Medical Service direct representation on the Army Board, no such similar provision appears to have been made for the direct representation of the Medical Service of the Army on the now proposed Army Council.

That the British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would therefore respectfully urge on His Majesty's Government to take such steps as will ensure the direct representation of the Army Medical Service on the Army Council, or whatever the central governing body of the War Office may be designated.

That notwithstanding the arguments adduced in support of the proposal set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical Service of the army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the army that the medical services shall be administered by an army medical officer who shall have a seat on the Army Council.

That this Council, recognizing the inadequacy of the pay of officers of the Military Medical Staff, do write to the Secretary for War calling his attention to the injustice suffered in this matter, and recommend that the pay and

allowances of officers of the Militia Medical Staff should be at least equal to those of the officers of the Royal Army Medical Staff Corps according to rank and service.

On the reception of the minutes of the Organization Committee of February 9th and April 12th, 1904 it was resolved:

That the boundary between the Metropolitan Counties and Oxford and Reading Branches be modified in the way proposed and approved by the two Branches.

That it be suggested to each Division that it is desirable to adopt a rule empowering its Executive Committee to fill vacancies amongst its officers and to appoint deputies for officers unable to act, and that the Medical Secretary be instructed to draft a model rule to be circulated to the Divisions as suitable for that purpose.

The Council approved the proposed formation by the Gloucestershire Branch of a Section for the Forest of Dean on the lines embodied in Rules submitted by the Organization Committee.

The Rules of the following Divisions and Branches were approved:

Branches: Hong Kong (except Rules 2, 7, and 13, and subject to certain additions), and Malaya.

Divisions: Blyth, Edinburgh (North-East), Glasgow (Eastern), Glasgow (Southern), Hartlepool, Singapore, and Sunderland.

With reference to the grouping of Divisions and Branches for electoral purposes for the ensuing year, the Council resolved:

That the grouping of Branches in the United Kingdom for representation on the Central Council be the same as last year, and that independent representation be granted to the same Branches as last year:

That the following Divisions, which last year were grouped for the election of representatives in the Representative Meeting, and which now have at least fifty members each, be made independent constituencies for the election of representatives: Cleveland, Hereford, Lancaster, and Reigate.

That the Isle of Wight be made an independent constituency if reaching fifty members by the day of election.

That the Fermanagh, Monaghan and Cavan, and Omagh Divisions be grouped with the three Divisions of Connaught to form one constituency for the election of a Representative.

That the constituencies of the Representative Meeting in the United Kingdom, other than those affected by the foregoing proposals, be the same as last year, except in the case of Divisions then grouped, which may be found when the list of members is published to have more than fifty members, and except also in the case of any Division thus recommended for independent representation which may then be found to have fewer than fifty members; and that in respect of such excepted cases the Council do delegate to the Organization Committee authority, at the first meeting of the Committee held after the publication of the annual list of members, to grant independent representation to such Divisions as shall then have at least fifty members, and to group such Divisions as shall then have fewer than fifty members, in each case in which the Committee shall deem such action expedient.

The minutes of the Medical Defence Committee of February 11th, 1904, were received, and it was reported that the Scheme together with explanatory notes had been forwarded to the Divisions, with a request that the Division Secretaries should poll their members.

On the reception of the minutes of the Scottish Committee of February 12th, 1904, it was resolved that the Council give notice of motion that By-law 28 be amended to read as follows:

Any casual vacancy occurring in the Council, not less than four months before the annual general meeting, may be filled up by any Branch, or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the rules of the said Branch. Any person so chosen shall retain his office so long as the member in respect of whom such casual vacancy may have occurred would have retained the same.

On the reception of the minutes of the Colonial Committee of March 4th, 1904, it was resolved. That a letter be addressed to the Colonial Office pointing out that medical registration prevails in certain of His Majesty's Colonies and Dependencies, and respectfully urging upon His Majesty's Secretary of State for the Colonies that the time has now arrived to require compulsory registration in every British Colony and Dependency.

On the reception of the minutes of the Ethical Committee of March 18th, 1904, it was resolved:

That the Council approved the rules of ethical procedure of the following Divisions: Altrincham, Brighton, Cardiff, Glasgow (Southern), Hartlepool, Newcastle, Stockport, and Sunderland, and certain special rules of the Norwich Division.

It was decided that notices relative to contract practice appointments should be inserted in the advertisement columns of the JOURNAL in accordance with the scheme stated in the minutes of the Ethical Committee (*vide* Minutes of Ethical Committee, p. 111).

On the reception of the minutes of the Medico-Political Committee of March 23rd and April 13th, 1904,

The Council approved the report (A) on the Nurses' Registration Bills now before Parliament (*vide* minutes of March 23rd, 1904, p. 10.)

The Council also approved the Memorandum (B) on the present position of registered medical practitioners in the matter of furnishing certain information to coroners (*vide* minutes of March 23rd, 1904, p. 12), and ordered that it be forwarded to the Divisions.

The Council having considered recommendations by the Medico-Political and Ethical Committees concerning a proposed model Rule (Z) for adoption by Divisions drawn up in pursuance of the instructions of the Conference on Ethical Procedure of Divisions of February 10th (*vide* Minutes of Conference, page 110), approved the principle of the Rule, but referred it back to the Ethical Committee, in order that certain provisions might be included, and also referred it to the Scottish Committee to consult a Scottish lawyer thereon.

The Council expressed sympathy with the action of the Public Dispensers' Association in the matter referred to in the Memorandum (D) (*vide* minutes of March 23rd, 1904, p. 14.)

The Council, having received the Report (A), (*vide* Minutes of Medico-Political Committee of April 13th, 1904, p. 109), on the Revaccination Bill, now before Parliament, decided to support strongly the said Bill, having regard to the views expressed by the Divisions with reference to the Resolutions on Vaccination submitted to them by instructions of the last Representative Meeting; and also decided to take all necessary steps to oppose the Vaccination Act Amendment Bill (abolition of compulsory vaccination).

The Memorandum (B) on Fees for Life Assurance Examinations presented by the Medico-Political Committee was approved (*vide* minutes of April 13th, p. 109).

The Council also approved the Report (C) on the Unduly Repeated Dispensing of Prescriptions and adopted the recommendations therein (*vide* minutes of April 13th, p. 109).

It was resolved that the following Memorandum (D), of Parliamentary matters of interest to the medical profession, be circulated to the Divisions, together with an explanatory Memorandum.

MEMORANDUM OF PARLIAMENTARY MATTERS OF INTEREST TO THE MEDICAL PROFESSION.

1. Vaccination and Revaccination.
2. Death Registration.
3. Coroner's Law. (Medical witnesses).
4. Pharmacy. (Proposed removal of restrictions as to poisons).
5. Company Legislation. (Medical, Dentists, and Pharmacy).
6. Security of Tenure of Sanitary Officers, and of Parochial Medical Officers in Scotland.
7. Local Government Board Reform.

On the reception of the minutes of the Annual Meeting (Sections) Committee of March 28th, 1904, it was resolved: That it is desirable that abstracts of all papers should be published, if possible, in the Special Number of the JOURNAL to be published the first week in June, and that a circular be issued to the officers of Sections asking them to do their best to obtain such abstracts in time for publication in this number.

The minutes of the Public Health Committee of March 29th, 1904, having been received, it was resolved that the Coroners' Society be asked to confer with the British Medical Association on the subject of the overlying of infants.

The Council approved the principle of the Clause relating to International Notification of Infectious Diseases, which was omitted from the Draft Bill on the Reconstitution

of the Local Government Board, and resolved that communications on the subject be addressed to the Local Government Board, the Foreign Office, Colonial Office, and also to the House of Commons Public Health Committee.

It was decided to represent to the Government: That, having regard to the influence of the conditions of education upon public health, it is advisable (1) that the Board of Education should include in its staff a medical adviser to the Board, and (2) that each local education authority should have a medical adviser.

The Council resolved to give notice of motion for the Annual Representative Meeting that By-law 39 (3) be amended as indicated in the minutes of the Public Health Committee (see p. 111).

On consideration of candidates for election, it was resolved that the forty-seven candidates whose names appear on the circular convening the meeting be, and they are hereby, elected members of the British Medical Association.

The report of Council was then considered, when it was resolved that the Report as amended be received and approved and submitted to the Secretaries of each Branch and Division, and published in the JOURNAL, in accordance with By-law 22.

REPORT OF COUNCIL, 1903-4.

IN meeting you on the occasion of the seventy-second annual meeting of the British Medical Association at Oxford, your Council is gratified to report continued and steady progress. The membership has increased in a highly satisfactory degree, while the work accomplished by the Committees, your Council believes, is doing much to improve the conditions of medical practice. The Committee work has been particularly heavy, necessitating a large number of meetings and sacrifice of time and trouble on the part of members, and your Council thinks that the thanks of the Association are due to the Chairmen and members of the many Committees who have so unselfishly given such close attention to the many matters that have come under their consideration.

On meeting you at Swansea, your Council ventured to prophesy that the new Constitution would tend to make the British Medical Association a more powerful factor for the influencing of legislation and for the advancement of the good of the community and the medical profession. This prophecy promises to be fulfilled. The stimulated interest, so marked throughout the Divisions, has attracted attention to many important problems, so much so that the public is beginning to realize that the interests of the community and the interests of the medical profession are identical.

THE PRINCE OF WALES.

At Swansea the Prince of Wales paid a compliment to the Association and the Municipality by consenting to follow the precedent of His Majesty the King, Patron of the Association, by accepting the Honorary Membership. Although it was not possible for His Royal Highness to be present at Swansea to accept the Certificate of Honorary Membership at the hands of the President, or to visit Oxford during the [illegible] meeting, His Royal Highness received the Chairman of your Council at Marlborough House and accepted personally at his hands the Certificate of Honorary Membership, and expressed his deep interest in the work of your Association.

DEATH OF A MEMBER OF COUNCIL.

Last year your Council had to report the death of a member of the Council, and it has a similar melancholy duty to perform this year. Dr. Samuel Woodcock, a co-opted member, died on December 16th, 1903, within a few days of attending a Committee in London. The loss to your Council and to the Association at large is difficult to gauge, as Dr. Woodcock, by his advice and courtesy will not only endeared himself to all who had the privilege of working with him, but rendered his counsels of inestimable value in the guidance of the affairs of your Association.

DEATHS OF FORMER MEMBERS OF COUNCIL.

Your Council also has to deplore the death of former colleagues. Sir George Duffey, one of the original members of the Dublin Branch, elected in 1853, and one who did so much to advance the interests of the British Medical Association in Ireland. Mr. T. J. Jones, who for many years acted as representative for the Aberystwyth [illegible] and filled with distinction various offices in the Sections at the annual meetings, being in 1894 the President of Section of Surgery; Dr. Theophilus W. Orme, who represented the Southern Branch from 1884 to 1894; Sir William Kynsey, K.C.M.G., a former representative and past President of the Ceylon Branch; Sir Edward H. Sieveking, who was a representative of the Metropolitan Counties Branch on the old Committee of Council from 1879 to 1888, and gave the Address in Medicine in 1870 when the Association met at Sheffield, and Dr. Alexander Davidson who had a seat on the old Committee of Council from 1874 to 1887, as representing the Lancashire and Cheshire Branch, of which he was a most active and energetic Secretary for many years. Dr. Davidson also acted as Honorary Local Secretary of the annual meeting of the Association when it met at Liverpool in 1883.

DEATHS OF MEMBERS OF THE ASSOCIATION.

Your Council regrets to have to record the deaths of the following members of the Association: Dr. Sidney James Allden, Colonel William Briggs Allin, M.B., Surgeon-Lieutenant-Colonel Robert Vacy Ash, Dr. George William Balfour, Mr. Wilfred Martin Barclay, Mr. Richard Barnard, Mr. Joseph Blackstone, Dr. Alexander Blair, Dr. Brookes of Adelaide, Mr. Thomas William Bullock, Mr. William Cadge, who delivered the Address in Surgery when the Association met at Norwich in 1874; Mr. H. Boyd Cardew, Mr. Adolphus Wm. W. Caudle, Deputy Surgeon-General H. Cayley, C.M.G., Honorary Surgeon to the King; Mr. Fielding Clarke, Dr. William Henry Corfield, Inspector-General Michael Waistell Cowan, M.D., R.N., Miss Lucy Elizabeth Cradock, L.R.C.P.I., Sir Robert Martin Craven, F.R.C.S., who held office as President of the East York and North Lincolnshire Branch; Dr. Richard Crean, Dr. Robert James Blair Cunynghame, Mr. John Brendon Curgenven, at one time a member of the Parliamentary Bills Committee of the Association; Surgeon-Major-General J. Davies, Mr. Edward Courtenay Drake, Dr. William Dobbin, Mr. Thomas Anthony Dodd, Dr. William Donald, Dr. Edward George Dutton, Dr. Henry Samuel Fairbank, Dr. James Ferguson, Secretary and afterwards President of the Perthshire Branch; Mr. James Fergusson, Dr. Wm. Findlay, Mr. R. Vicars Fletcher, Surgeon-General Archibald Henry Fraser, Mr. John Charles Galton, Dr. Robert John Garden, Major Allan Ewen Grant, Dr. Alexander Grant, Dr. George Grey, who filled the offices of both President and Treasurer of the North of Ireland (now Ulster) Branch of the Association; Mr. Charles Godson, Lieutenant-Colonel Hare, R.A.M.C. (Ret.), Mr. George Harrison, Mr. H. J. Hawthorn, Mr. Thomas Highton, Mr. Thomas Hunter Hughes, Mr. W. E. Image, President of the East Anglian Branch, 1864; Captain Robert Dalkeith Jepson, Mr. David Jones, Mr. David Illtyd Jones, Mr. Edward Francis Jones, Mr. George Kimball Jones, Mr. William Jones, Dr. William Henry Kempster, Dr. David Kennard, Mr. Herbert Arthur Kent, Fleet Surgeon Gilbert Kirker, M.D., who died of blood poisoning through pricking his finger during an operation, a Vice-President of the Section Navy, Army, and Ambulance at the Manchester meeting; Dr. David James Lawson, Dr. Herbert Alfred Lawton, Mr. Edward T. Lister, Mr. Frederick Lord, Dr. William Macleod, Dr. Frederic Norton Manning, Dr. William Morrison, Dr. George Colville Milligan, Dr. Charles Frederick Moore, Major Langton Philip Mumby, R.A.M.C., Dr. John Ivor Murray, Dr. Robert Milne Murray, Dr. Wm. Newman, Vice-President of the Section of Surgery at the Nottingham meeting, Surgeon-General Stewart Watson Ogg, M.B., Dr. Charles Edmund Oldman, Dr. Thomas O'Meara, Dr. Fray Ormrod, awarded the Gold Medal of the British Medical Association for courageous bravery in rescuing and attending the miners injured in the Workington Colliery explosion in April, 1888, President of the Border Counties Branch, 1902; Lieutenant-Colonel Thomas William Patterson, D.S.O., Lieutenant-Colonel Henry James Pearl, C.M.G., Mr. George Edmund Large Pearse, Dr. James Phillips, Dr. William Smoult Playfair, Dr. F. W. Howe Popham, Mr. T. F. Reay, Mr. Joseph Peel Reynolds, Mr. George Righton, Mr. Henry Thomas Rilot, Dr. Charles Edward Saunders, Colonel Frederick Beaufort Scott, M.D., C.M.G., Dr. William Tocher Scott, Dr. Henry Blackburn Smith, Sir Philip Crampton Smyly, M.D., F.R.C.S.I., who held the office of Vice-President in the Section of Laryngology at the London Annual Meeting, 1895; Dr. James Stuart, ex-President of the North of Ireland (now Ulster) Branch; Dr. Edward Monro Spooner, Mr. S. D'Arcy Spedan, Mr. William Parker Tait, Surgeon-Major Hamilton, Dr. Latham, Dr. John Latham, Sir Henry Thomp-

son, Bart., F.R.C.S., Surgeon-Colonel Sir George Thomson, K.C.B., M.D., Dr. John Knowsley Thornton, Vice-President of the Section of Obstetrics at the London meeting; Major George Jerry Arthur Tuke, Mr. Arthur Cromack Turner, Mr. J. Smith Turner, Mr. William Johnson Walsham, F.R.C.S., Vice-President, Section of Anatomy, 1885, and Secretary, Section of Surgery, 1886; Mr. George Samuel Watson, Mr. Thomas Buchanan Whitelaw, Mr. John Wilson, Mr. Robert H. Woodhouse, Dr. John Woodman, Mr. Albert Wright, Brigade-Surgeon Thomas William Wright, and Dr. John Macrae Yair.

Death of the Financial Secretary.

Your Council regrets to report that Mr. W. L. Burr, who was appointed Assistant Secretary in 1883 and Financial Secretary in 1898, died last September while on his holiday. This necessitated a readjustment in the office, and your Council appointed Mr. A. H. Lawford Assistant Secretary.

Representation of the Services.

Since the change in the constitution of the Association, the difficulty of appointing a member to serve on your Council as a representative of the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively has been appreciated, and your Council feels that By-law 20c as it now stands is inoperative so far as the Services are concerned. A recommendation will be put forward elsewhere suggesting that representatives of these Services should in future be nominated by your Council, as no other practical means of securing representatives from His Majesty's forces have been suggested.

Brussels Medical Congress.

On the occasion of the eleventh International Congress of Hygiene and Demography, held in Brussels in September last, your Council was represented by Mr. C. H. Watts Parkinson and Dr. G. E. Shuttleworth.

Sanitary Institute Congress.

Your Council received from the Sanitary Institute an invitation to appoint delegates to attend its Congress to be held during the last week in July at Glasgow. As this Congress will clash with the annual meeting of the Association your Council did not appoint delegates. Your Council regrets, in the interests of the Sanitary Institute, that it should have fixed its Congress at a time invariably identified with the annual meeting of the British Medical Association.

Medical Charities.

As a result of the General Secretary being permitted to collect moneys on behalf of the British Medical Benevolent Fund and Epsom College, during the year 1903 a total of £645 was received on behalf of these charities. Commencing this year your Council has also authorized the General Secretary to receive moneys on behalf of the Royal Medical Benevolent Fund Society of Ireland, and since January a total sum of £643 has been received and distributed to the charities in accordance with the wishes of the individual donors.

Programme of the Oxford Meeting.

Your Council, having regard to the wishes expressed by Representatives at Swansea, has most carefully considered the hours for holding the General and Representative Meetings, and it trusts that the times arranged will prove satisfactory to all concerned. The first Annual General Meeting will be held at 12 noon on the Tuesday, instead of at 2 o'clock as in former years, to be immediately followed by the Representative Meeting, when, if thought desirable, there can be a short adjournment. On the Wednesday the adjourned General Meeting has been fixed for 2 o'clock, and immediately on its conclusion the Representative Meeting will resume its session. On the Thursday, should the business of the Representative Meeting not have been completed, it will meet at 3.30 after the Address in Surgery, while on Friday, if there is still work to transact, it will meet at 2 o'clock.

Free and Popular Lecture at the Annual Meeting.

Your Council decided that on the occasion of the Oxford meeting a free and popular lecture should be given to the public, and unanimously resolved to invite George Bagot Ferguson, M.D., M.Ch.Oxon), F.R.C.S., who so ably presided over the Association at its meeting at Cheltenham in 1901, to give this lecture. Your Council hopes that the public will evince sufficient interest in the experiment to justify the inclusion of other popular lectures at future annual meetings of the British Medical Association.

The Journal.

In the conduct of the Journal your Council has kept constantly in view the objects with which the British Medical Association is established—the promotion of medical and the allied sciences and the maintenance of the honour and interests of the medical profession.

The foundation of the respect in which the medical profession is held by the public must in the last resort rest on the efficiency with which it discharges its primary function of preventing and curing disease. It has always been the policy of your Council to render the Journal a first-rate medical periodical, affording to members prompt and authentic information as to advances made at home and abroad in clinical medicine, surgery, and midwifery, in pathology, and in hygiene. The number of records from general practice is increasing both in the form of short independent communications and of cases read to Divisions, and there are indications that the latter source of supply may grow richer in the near future.

Your Council has also long recognized that in the Journal your Association possesses a valuable means of disseminating information and forming opinion on matters touching the honour and interests of the profession. The new Constitution, the outcome of the growing interest in medico-political questions, has already had the effect of greatly increasing the amount of attention given to the economic aspects of medical life, and to efforts to bring about a better adjustment of the relations between the profession and the public. The net result is that the mass of material which has to be dealt with is very great, and the endeavour to meet this without either an excessive increase in the size of the Journal (already one of the largest in the world), or undue compression of matter, is inevitably a task of considerable difficulty. One of the ways in which the growing call has been met during the past year has been by the issue of Supplements, containing records of matters appertaining to the business and medico-political aims of the Association, including the proceedings of the Council, the reports of standing committees, and the business proceedings of Branches and Divisions. In the Supplements have also been placed the principal Bills of a medical character brought before Parliament, so as to enable the members of the Association to make themselves conversant with measures the fate of which it must often be in their power to influence materially, whether as private individuals or as members of a great professional Association.

The position of the British Medical Journal as an exponent of medical opinion on social, political, and public health questions is recognized by the lay press. Occasions are taken to discuss such subjects upon the basis of full inquiry from the most authentic sources. A series of articles on contract practice, containing information kindly supplied by members who had recent experience of its evils and difficulties, was published in the first volume for 1903, in the belief that such information would be not only of assistance and guidance to those who were engaged in attempts to improve the conditions under which medical attendance to the working classes is given, but, on account of the principles involved, of interest also to every member of the Association. In the same volume a full account was given of the insanitary conditions under which milk is now too commonly supplied to large towns, and there is ample evidence that the articles have played an important part in arousing the attention of the profession and of the public to a question of great importance in relation to the physical development of the youth of the nation. The causes of the large amount of physical unfitness in the population were investigated in another series of articles published during the past winter, and conclusive evidence was adduced that in grappling with this question it is essential in the first place to remedy the injurious influences which affect the mother during her pregnancy, chief among which are bad housing, factory labour, an unphysiological diet, and alcoholism; in the second place to instruct mothers in the proper way of rearing infants, and to safeguard the purity of the milk which must be the staple diet of infants brought up by hand; and in the third place to provide systematic physical training and adequate opportunities for recreation for children in elementary schools.

The grievances of the Irish Poor-law Medical Service were brought to the notice of the Representative Meeting

British Medical Association.

Balance Sheet 31st December, 1903.

Dr. Cr.

LIABILITIES.

	£	s.	d.
[illegible]	251	7	6
Accounts [illegible]	90	15	1
[illegible]	111	3	
[illegible]	87	7	6
[illegible]	116	6	7
Printing Charges	4	7	
Premises Account	717	14	4
Miscellaneous Printing	32	4	1
Stationery	69	17	2
Repairs	69	18	2
Legal Charges	25	15	2
Rates, Taxes, Insurance, Ground Rents	412	5	1
Postages	52	9	8
Electric Lighting	27	12	9
Sundries	28	4	2
Travelling Expenses	8	5	
Income Tax	28	2	4
Advertisements & Postages	559	6	0
Loan from Bankers	450	17	8
Subscriptions due to Branches on December 31st, 1903	648	18	1
TOTAL LIABILITIES	6,081	17	3
„ Surplus Account—			
Balance at January 1st, 1903	91,926	17	5
Transferred to Office Staff Superannuation Fund	38	1	0
Amount voted to Office Staff Superannuation Fund	38	10	4
	77	0	4
	91,049	17	5
Balance of Income over Expenditure for 1903 carried to Revenue Account	5,571	10	1
„ Insurance Fund (Excess of Assets over Liabilities)	96,621	7	6
	£103,789	4	9

ASSETS.

	£	s.	d.
By Stock of Publications	1,178	18	8
„ Advertisements	111	0	
„ Sundries	24	5	7
„ Furniture and Fittings	1,000		10
„ Leases	2,000	00	0
„ Premises	1,402	12	11
Account Book	344	15	6
„ Investment of £4,000 Harrow Buildings, Tenth Rent Public Account 1884	4,000	00	0
„ Freehold Premises, Nos. 2, 3, 4 & 5, Agar Street			
„ Rates, Taxes, Insurance, Ground Rents			
„ Investment of £8,000 Consolidated 2½ per cent. Annuities, Account of General Office Superannuation Fund	7,780	0	0
„ Investment of £4,000 Bank of England Stock at 80—			
Market Value £4,320	3,200	00	0
„ Cash in Office	17	4	
„ Cash at Bankers (Ordinary Balance £645 18s. 1d.; Subscriptions in hand Dec. 31st, 1903, £1,000)	1,645	18	1
	£103,789	4	9

Revenue or Profit and Loss Account for Year ending 31st December, 1903.

		1902. £ s. d.	1903. £ s. d.
Editorial	See *Abstract A*		6,098 10 0
[illegible]	*B*	21 [illegible] 7 2	20,897 8 1
[illegible]	*C*	[illegible] 0 12	5,347 10 5
[illegible]	*D*	[illegible] 6 1	3,892 11 4
[illegible]	*E*	1,149 8 7	1,806 4 3
[illegible]	*F*	246 2 6	257 13 9
Writing off Depreciation			250 0 0
[illegible]		[illegible]	—
[illegible] Depreciation		[illegible]	500 0 0
			2,955 16 10
[illegible]			619 0 0
[illegible] Writing off Bad Debts Account	*A*	[illegible] 7	611 7 5
[illegible]		[illegible]	43,236 2 1
[illegible]		1,149 8 7	5,571 10 1
		£48,024 9 9	£48,807 12 2

		1902. £ s. d.	1903. £ s. d.
[illegible]		[illegible]	23,721 18 6
[illegible]		[illegible]	442 13 0
Advertisements		[illegible]	20,480 5 5
Sales [illegible]		[illegible]	870 4 8
„ „ Reprints	*A*	[illegible]	182 17 11
„ „ Reports		[illegible]	119 7 8
Investments [illegible] Rents		[illegible]	1,041 13 6
Rents [illegible]		[illegible]	66 1 3
Sundry Receipts		[illegible]	32 12 8
Discount, Printing Paper	*A*	[illegible]	849 17 3
		£48,024 9 9	£48,807 12 2

[illegible]

		1902. £ s. d.	1903. £ s. d.
[illegible]		[illegible]	1,000 0 0
[illegible]		[illegible]	78 0 0
[illegible]		[illegible]	185 15 0
[illegible]		[illegible]	366 18 3
[illegible]		[illegible]	2,918 10 6
[illegible]		[illegible]	283 10 8
[illegible]		[illegible]	397 8 8
[illegible]		[illegible]	29 14 4
[illegible]		[illegible]	79 19 5
[illegible]		[illegible]	116 9 11
[illegible]		[illegible]	4 15 6
		[illegible]	£6,898 10 6

[illegible]

		1902. £ s. d.	1903. £ s. d.
[illegible]		[illegible]	8,228 9 8
[illegible]		[illegible]	8,809 12 2
[illegible]		[illegible]	3,743 16 4
[illegible]		[illegible]	418 18 2
		[illegible]	£20,897 8 1

Abstract C.

GENERAL ASSOCIATION EXPENSES.

	1902. £ s. d.	1903. £ s. d.
Annual Meeting—Cost of *Daily Journal*, etc.	125 7 0	129 8 0
,, ,, Expenses of Sections	16 0 8	36 0 9
Auditors' Fee	105 0 0	105 0 0
Bank Charges	22 8 1	45 3 10
Cleaning Offices	161 18 1	158 17 0
Coals and Coke	44 18 0	52 2 6
Compositors' Sick Fund	1 10 0	—
Donation to Charing Cross Hospital	10 10 1	10 10 0
General Repairs	741 6 1	155 11 11
Imperial Vaccination League, grant to		100 0 0
Legal Expenses	204 2 10	200 0 6
Miscellaneous Printing	456 10 9	500 17 7
Office General Postage	447 0 0	476 15 11
Office Petty Cash	107 10 5	107 10 4
Pension, late General Secretary	600 0 0	600 0 0
Rates and Taxes, Insurance, Gas and Electric Light	742 10 0	794 4 4
Reporting Council and Finance Committee Meetings	61 19 0	102 18 0
Reprints	111 16 1	66 12 1
Research Scholarships	600 0 0	612 10 0
Scientific Grants	350 0 0	350 0 0
,, ,, Special Grant Chloroform Committee	100 0 0	100 0 0
Stationery for Office	328 13 5	332 13 11
Sundries	268 7 9	154 13 1
Travelling Expenses	112 19 6	156 0 8
	£5,579 0 10	£5,347 10 5

Abstract D.

OFFICE SALARIES AND WAGES.

	1902. £ s. d.	1903. £ s. d.
General Secretary	825 0 0	600 0 0
Medical Secretary	200 0 0	600 0 0
Financial Secretary the latter, January to September	100 0 0	300 0 0
Assistant Secretary	225 0 0	—
Clerical Staff	2,036 6 1	2 392 11 4
	£3,756 6 1	£3,892 11 4

Abstract E.

REPRESENTATIVE MEETING, COUNCIL AND COMMITTEE EXPENSES.

	1902. £ s. d.	1903. £ s. d.
ANNUAL REPRESENTATIVE MEETING—Railway Fares	—	255 8 5
COUNCIL—Railway Fares	763 16 0	703 0 4
COMMITTEES—Railway Fares, &c.—		
Annual Meeting Committee	17 1 1	15 5 2
Arrangement Committee	12 17 10	18 2 3
Assistant Secretary Committee		4 4 0
Chloroform Committee	—	46 6 0
Colonial Committee	2 0 0	8 2 1
Constitution Committee	232 15 4	
Coroners Acts Committee	2 16 8	—
Crown Colonies and Protectorates Medical Service Committee	7 6	—
Ethical Committee	11 0 8	52 3 3
General Practitioners Committee	1 7 6	
Hospitals Committee	—	19 2 10
Income Tax Committee	—	1 12 6
Index Medicus Committee	2 8 6	—
Indicates Committee	1 8 2	—
Joint Committee of British Medical Association and Medico Psychological Association	3 9 1	1 17 8
Joint Committee on Fees to Medical Witnesses	—	3 14 8
Journal and Finance Committee—Special Meeting	—	20 18 4
Medical Charities Committee	3 19 0	—
Medical Defence Committee	—	92 16 0
Medico Political Committee	20 2 10	122 17 5
Organization Committee	113 4 4	147 8 0
Parliamentary Bills Committee	52 16 8	—
Preliminary General Education Committee	13 6 0	—
Premises and Library Committee	68 15 7	216 0 11
Public Health Committee	7 11 10	29 8 5
Reorganization Committee	152 17 6	4 9 10
Royal Naval and Military Committee	—	9 14 8
Scientific Grants Committee	17 2 5	22 19 4
Scottish Committee	9 0	10 12 2
Superannuation Committee	4 12 1	—
	£1,449 8 7	£1,806 4 3

Abstract F.

LIBRARY.

	£ s. d.	£ s. d.
To Balance brought forward from 1902	4 0 3	By Librarian's Salary 250 0 0
,, Purchase of Books	73 9 1	,, Printing and Posting of Circulars and Insurance 7 13 9
,, J. N. Honeyman for Binding	58 2 9	257 13 9
,, Librarian's Salary	250 0 0	,, Amount written off for Depreciation 250 0 0
,, Printing and Postage of Circulars and Insurance	7 13 9	,, Balance carried to Balance Sheet 2,255 12 1
	£2,763 5 10	£2,763 5 10

TRUST FUNDS.

Stewart Fund.

Investment of £579 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1903.	£ s. d.	1903.	£ s. d.
Jan. 1. To Balance brought over from 1902	42 8 10	Aug. 1. By Award, Dr. F. W. Mott	50 0 0
Dec. 31. ,, Interest	21 19 0	,, Stanley, Engrossing Certificate	1 17 6
		,, Balance carried down	12 10 4
	£64 7 10		£64 7 10

Middlemore Fund.

Investment of £266 13s. 4d. 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

1903.	£ s. d.	1903.	£ s. d.
Jan. 1. To Balance brought over from 1902	88 14 4	Dec. 31. By Balance carried down	107 13 5
Dec. 31. Interest	18 19 1		
	£107 13 5		£107 13 5

Office Staff Superannuation Fund.

1903.	£ s. d.	1903.	£ s. d.
To transfer from Surplus Account	877 0 4	By Balance carried forward being Investments at cost £900, Cape of Good Hope 3 per cent. Stock, bought Dec., 1902 558 1 0	
,, Interest received	8 8 9	,, £300 Bank of England Stock, bought Dec., 1903 318 19 4	
			877 0 4
		,, Cash at Bank	8 8 9
	£885 9 1		£885 9 1

We certify, in accordance with the provisions of the Companies Act, 1900, that all our requirements as Auditors have been complied with. Having examined the above Balance Sheet, dated 31st December, 1903, with the books and vouchers of the Association, and having inspected the Deeds of the properties, 429, Strand, 2, 3, 4 and 5, Agar Street, and 2 and 5, Harley's Buildings deposited with your Bankers, and having verified the investments held on account of the Association and of the above Trust Funds, we report that the Balance Sheet is in our opinion properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs as shown by the books of the Association.

3, Frederick's Place, Old Jewry, E.C.,
30th March, 1904.

PRICE, WATERHOUSE & CO.

of Swansea, which adopted resolutions supporting the action taken by the medical profession in Ireland. With the assistance of many members of the Association in that country, and some of the officers of the Irish Medical Association, the JOURNAL was enabled to make a thorough inquiry on the spot, and the results of that inquiry prove that the deplorable state of the Irish Poor-law dispensary system has been by no means exaggerated. The Commissioner of the JOURNAL, who visited many parts of Ireland, and conferred not only with dispensary medical officers and members of the profession in the chief centres, but also with representatives of other professions and interests in Ireland, was led to conclude that an extensive reform of the present system of giving medical relief in Ireland, and of granting pay and allowances to the medical officers, is urgently necessary. The report has been widely discussed in the Irish papers, and communications received from practitioners in many parts of Ireland show that its publication has caused much satisfaction among medical officers of the Irish dispensary service. They are sanguine that the British Medical Association will take up their cause and take effective steps for the remedy of grievances which have been aggravated rather than diminished by recent legislation.

Association "Year Book."

For some time your Council has felt that a book of reference on the work of the Association should be published, and in consequence it issued early in the year the Association *Year Book*. It is hoped that this publication will be found useful to all members, but more especially to Secretaries of Branches and Divisions. It contains a monthly calendar, showing as far as possible the meetings of the Standing Committees, Council meetings, and other dates of interest to members of the Association; lists of Council and Committees; a brief history of the Association; provisions of the present Constitution; a review of the work during 1903; a *précis* of the Swansea meeting; the programme for the Oxford meeting; a chronological list of the places of meeting with the names of the officers since the foundation of the Association in 1832; some notes on the BRITISH MEDICAL JOURNAL and a list of Editors; figures showing the financial progress of the Association, with the balance sheet for 1902; the names of General Secretaries with the dates of their election; and finally a complete list of the home and colonial Branches and Divisions of the Association, with the names of the various officers and special local information. Your Council realizes that in some details this *Year Book* is not as complete as it would have desired, but in a first publication this is often inevitable; certain items in particular should certainly have been included—a list of Representatives elected to attend the Representative Meetings, and the addresses of Honorary Secretaries of Branches and Divisions, and it is confidently hoped that each successive year will tend to make the *Year Book* of greater use to every member who has the interest of the Association at heart.

The 1903 Balance Sheet.

Your Council submits with special interest the Balance Sheet for the year ending December 31st, 1903, showing as it does the results of the first clear year's working under the new Constitution, and is gratified to present a statement of financial progress and prosperity. Consequent upon the change in the constitution of your Association, resulting in additional work and activity, an increase of expenditure was to be anticipated. This expectation, however, has not been borne out in fact, any extra expenditure being more than counterbalanced by economies in the management of your business. It is true that the revenue account shows an increase in expenditure of nearly £2 000, but as a set-off against this sum the capitation grant to Branches of £[illegible] may be deducted, leaving the expenditure for the year 1903 still less than for 1902. In reviewing the individual heads of expenditure, it will be observed that there is a small increase in the Editorial and other expenses, due mainly to the travelling expenses of Representatives, Council, and Committees. This last item is accounted for by the payment of the railway fares of Representatives attending the annual meeting. The alterations to your offices [illegible] considerable expenditure, the total cost amounting to £[illegible]. As these alterations have materially enhanced the value of your property, only £[illegible] of this amount has been charged against revenue, the balance of £[illegible] being transferred to capital account. Against these increased [illegible] economies have been effected in the production of the JOURNAL and in general Association expenses, amounting to close on £1,300. Your Council has thought it prudent to write off £250 against the depreciation of your library. Nothing has been written off the value of furniture and fixtures, as your Council believes that this item in the balance sheet has already been sufficiently written down. Your Council is also gratified to report that it has been necessary to write off only £600 against anticipated losses by deaths, arrears, etc., on the subscriptions, a sum nearly £400 less than in the preceding year. Turning to the sources of revenue, your Council is pleased to report an increase in the subscriptions. The figures show close on £3,300, but in this amount is included the full 25s. per member as against 21s. in previous years, and nearly £3,000 of this apparent increase has therefore been disbursed in capitation grants to the Branches. The advertisements in the JOURNAL show an increase; this is the more satisfactory when it is recollected that it has been earned in spite of severe trade depression, the year 1903 being admittedly one of the worst on record for advertising. In connexion with the revenue derived from advertisements it is a matter of congratulation that this considerable sum has been earned without incurring any serious bad debts. Your investments and rents have shown an increased return, and your Council is pleased to report that none of your premises have been unoccupied during the past year. In conclusion, your Council is able to report for the year 1903 a balance of receipts over expenditure amounting to just on £5,600. Such satisfactory results can only be achieved by the loyal co-operation of the whole of your office staff, and your Council takes this opportunity of placing on record its thanks for the good work accomplished in a year of exceptional pressure.

Superannuation Fund.

Last year your Council reported that it had transferred the sum of £558 18s., being the balance of moneys collected to defray the cost of a memorial to the late Sir Charles Hastings, M.D., one of the founders of your Association, to form the nucleus of a superannuation fund for your office staff. In addition, the Annual General Meeting voted a sum of £300 to supplement this fund, which with interest now amounts to £885 9s. 1d. Your Council hopes that this Superannuation Fund may again receive generous consideration at the hands of the General Meeting.

Auditors' Report.

Your Council has again to acknowledge the services of Messrs. Price, Waterhouse and Co., who have audited the books of your Association during the past year. They offer themselves for re-election in accordance with the requirements of the Companies Act, 1900.

Estimate of Receipts and Expenditure for 1904.

Your Council submits the following estimate of the probable receipts and expenditure for the year ending December 31st, 1904:

Income.	£ s. d.	*Expenditure.*	£ s. d.
By Subscriptions	4,[illegible] 0 0	To Printing JOURNAL	[illegible] 0 0
„ Advertisements	[illegible] 0 0	„ Editorial	[illegible] 0 0
„ Sundries	[illegible] 0 0	„ General Association Expenses	1,800 0 0
„ Investments and Rents	1,600 0 0	„ Office Salaries and Wages	4,[illegible] 0 0
		„ Representative Meeting, Council and Committees	[illegible] 0 0
		„ Library	[illegible] 0 0
		„ Plant depreciation	[illegible] 0 0
		„ Grants to Branches	[illegible] 0 0
		„ Subscriptions written off	[illegible] 0 0
		„ Estimated Balance	[illegible] 0 0
£[illegible] 0 0			£[illegible] 0 0

COMMITTEES.

Annual Meetings (Sections) Committee.

Your Council has had under consideration the regulations governing the arrangements of the Sections at annual meetings and its controlling power over officers of Sections in the performance of their duties. As a result, a Standing Committee has been appointed to supervise the work of the Sections, to obtain information from office-bearers as to progress in Sectional arrangements, and to render them information and assistance in the preparation of the Sectional work. Your Council believes that such a Committee will be of great

service in the advancement of the scientific work of the Association.

COLONIAL COMMITTEE.

This Committee has again had under its consideration the question of the representation of the Colonial Branches on your Council. As a result of recommendations your Council has decided to accept the return of any Colonial Branch for the year 1903-4, and in the meantime has remitted to the Colonial Branches the report of a conference on the subject between this and the Organization Committee for their comment.

The Committee has long felt it would be of considerable advantage, when considering Colonial matters, to have the assistance of representatives in actual touch with the Colonies, and to meet this your Council has sanctioned the attendance of resident members of Colonial Branches who may happen to be in Great Britain. In order to carry this out your Council has requested Colonial Branch Secretaries to notify the General Secretary of the names of Colonial members visiting England. It is hoped by this more intimate exchange of views on Colonial questions to bind still closer to the parent Association the Colonial Branches, which are, perhaps, the most striking feature of your great Association.

The Committee has had under consideration the question of the inequality of salaries obtaining in the medical departments of the Malay Straits in comparison with other branches of the Civil Service, and evidence is being collected in the hope that these inequalities may be removed.

It has also represented to the India Office the absence of representatives of medicine and sanitary science on the Council of the Viceroy of India, but so far without satisfactory results.

This Committee proposes to take up the question of Colonial registration and medical reciprocity in Australasia, of which reports will be made in due course.

ETHICAL COMMITTEE.

The Ethical Committee has met three times since the last Annual Meeting, and has been called upon to consider a large number of questions submitted by members of the Association, and also to advise your Council on Rules submitted by many Divisions and Branches.

Sixteen Branches and seventy Divisions have adopted, with slight modifications, the model Rules of ethical procedure proposed by the Committee, and your Council has, on the advice of the Committee, approved such rules, as well as special ethical Rules submitted by the Ashton, Bradford, Cleveland, and Norwich Divisions.

In connexion with the Rules of Divisions which have from time to time been sanctioned by your Council, in which it is provided that members of a Division should not, except in cases of urgency, accord professional recognition to medical practitioners whose conduct has been held by the Division to be detrimental to the honour and interests of the medical profession, a question has arisen as to the best manner in which the members of the Division may be informed of the names of offenders.

A model Rule and form of notice for this purpose have been drafted, after very careful consideration, and approved in principle by your Council, on the recommendation of the Ethical and the Medico-Political Committees. Certain details in connexion therewith are still under consideration by the Ethical Committee.

The action systematically taken, under the supervision of the Committee, in reference to trade advertisements containing the names of medical practitioners, has resulted in the withdrawal of many such advertisements. In one case of the kind, in which the medical man concerned declined to withdraw the advertisement at the instance of the Committee, the matter has been referred to the General Medical Council, who referred it again to the licensing bodies from whom the practitioner had received his diplomas, and as the result of the action of one of these bodies the advertisement has been withdrawn and an undertaking given not to repeat the same.

The action recommended by the Committee, and approved by the Annual Representative Meeting of 1903, in reference to the advertising in the local newspapers of the medical officer for the week of hospitals, or the days of attendance of members of the staff, has been carried out in the few cases to which attention has been drawn. Your Council regrets to report that in one or two instances the Boards of hospitals have refused to comply with the request of the staff, but it is gratifying to know that in general the opinion of the medical profession on this matter is receiving recognition.

On the recommendation of the Committee a memorandum has been submitted to the Divisions on the advertising of medical practitioners attached to hydropathic establishments, and recommendations based on the replies of the Divisions will be made to the Representative Meeting.

The question of the connexion of medical practitioners with the management of hydropathic establishments and similar institutions having come before the Ethical Committee, the Committee has reported that it appears preferable that medical practitioners, who can be held responsible by the profession, should be concerned in their management, than that they should fall entirely into the hands of lay persons, who are beyond professional control.

In order to assist those members of the profession who are struggling to improve the status and remuneration of contract practice, on the recommendation of the Ethical Committee, your Council has decided that a warning notice should be inserted in the advertisement columns of the BRITISH MEDICAL JOURNAL, asking all medical men, before they apply for appointments in connexion with contract practice in districts in which disputes are in progress, to communicate first with the Honorary Secretary of the Division, or with the Medical Secretary of the Association.

Various matters which have been brought under the notice of the Ethical Committee have from time to time been referred by the Committee to the Divisions or Branches to which the practitioners concerned belonged, for preliminary investigation of the facts, and your Council has approved this practice as generally desirable.

HOSPITALS COMMITTEE.

At Swansea your Council appointed a special Committee, with wide reference, for the purpose of investigating the management of hospitals throughout the country. The Committee has collected much information, and is preparing some Model Principles for the conduct of in-patient, out-patient, and casualty departments.

It is hoped, when these principles are decided upon, to invite certain laymen, specially versed in the management of hospitals, to confer with the Committee. Your Council feels that it is desirable that any principles laid down for guidance in the management of hospitals should be endorsed not only by the medical profession but also by lay representatives of medical charitable institutions.

MEDICAL DEFENCE COMMITTEE.

At Swansea your Council appointed a Committee to consider whether the general or individual medical defence of its members should be undertaken by the British Medical Association; and if such Committee should report in favour of medical defence, it was requested at the same time to prepare a scheme whereby the Association could safely and efficiently carry out the work. This Committee held several meetings, and gave careful consideration to this difficult problem, and as a result reported in favour of a Medical Defence Department being established, and submitted a scheme which was published in full in the SUPPLEMENT to the JOURNAL of January 30th. The scheme has been remitted to the Divisions, and the Secretaries have been requested to poll their Divisions to ascertain what members desire to avail themselves of medical defence should the scheme be carried out. Your Council at the time of drafting this report has not learned the result of the poll of the Divisions, but it expects to be in a position to lay full details before the Representatives at the Oxford meeting.

MEDICO-POLITICAL COMMITTEE.

The Medico-Political Committee has held six meetings since the annual meeting of the Association, and many questions of importance affecting the public relations of the profession have received attention. The Committee has been materially assisted by the labours of the Emergency Subcommittee, which has met three times, and of two special Subcommittees on the Nomination of Candidates for the General Medical Council and on the National Deposit Friendly Society, which have met once and twice respectively.

Parliamentary Matters.—The following (*a*) Bills prepared by the Association, and (*b*) Bills, dealing with matters of interest to the medical profession, brought before Parliament by bodies other than the Association, have been fully considered by the Committee:

(*a*) Coroners Act Amendment Bill.
Local Government Board Bill
Security of Tenure (Sanitary Officers) Bill.
Medical Acts Amendment Bill.

(*b*) Revaccination Bill (Imperial Vaccination League)
Vaccination Acts Amendment (abolition of compulsory vaccination) Bill (introduced by Mr. Broadhurst and others).
Pharmacy Acts Amendment Bill (Pharmaceutical Society.
Nurses Registration Bills (Royal British Nurses Association and Society for the State Registration of Nurses).

For reasons stated in the present report in connexion with the subjects to which the Bills severally relate, none of the Bills of the group (*a*) have been introduced into Parliament during the present session.

While the influence of the Association will be exercised in opposition to the Bill for the abolition of compulsory vaccination, with reference to the Bills in the group (*b*) the Council, on the recommendation of the Medico-Political and Public Health Committees, is supporting the Revaccination Bill.

Approval of the Pharmacy Acts Amendment Bill has been expressed.

No action will be taken for the present on the Nurses Registration Bills.

Your Council is gratified to be able to report that as a result of a conference between the Medico-Political Committee and medical members of Parliament, convened by the Committee, several members of the House of Commons have constituted themselves into a Public Health Committee to watch over questions in the House affecting public health, medical, and kindred questions. Dr. Farquharson and Sir Michael Foster have been appointed Chairman and Secretary respectively of the Committee.

Having regard to the possibility of a general election at an early date, the Medico-Political Committee has formulated a list of subjects, which is being circulated, with an explanatory Memorandum, for the assistance of Divisions who may desire to bring to the notice of Parliamentary candidates the views of the medical profession on matters of special interest to the profession which Parliament is likely to be called upon to consider.

Public Health.—The Medico-Political Committee has co-operated with the Public Health Committee in considering certain important proposals affecting the central administration of Public Health in England and Wales. The conclusions of the Committees, and the action taken, upon their recommendation, in framing a Bill for the reorganization of the Local Government Board, and bringing the same under the notice of the President of the Local Government Board and of the Inter-Departmental Committee now sitting to consider the constitution of the Board, are stated in the portion of the present Report of the Council, which deals with the work of the Public Health Committee. Reference is also made in the same portion of the Report to the reasons which have prevented introduction of the Security of Tenure (Sanitary Officers) Bill in the present session of Parliament.

Vaccination. The replies of the Divisions on the questions submitted by instruction of the Representative Meeting showed general approval of the principles formulated by the Medico-Political and Public Health Committees.

A report based on the replies will be published in the Journal in due course.

In accordance with the opinions of the Divisions thus expressed, your Council has decided to support the Revaccination Bill now before Parliament.

Your Council has also, on the recommendation of the Medico-Political Committee, decided to oppose in every way possible the Bill now before the House of Commons for the abolition of compulsory vaccination.

Your Council, on the recommendation of the Committee, has addressed to the Committee of the Local Government Board [illegible] the expenses of Public Vaccinators' representation in the matter of maintaining the fees of the Public Vaccinators at not less than the maximum at present paid under the Board.

Irish Poor-law Medical Service.—In pursuance of the instructions of the Representative Meeting that action should be taken in support of the Irish Poor-law medical officers, in respect of adequate salary, superannuation, and annual holiday, efforts have been made to obtain the support of influential members of Parliament, and to secure the favourable consideration of the Government, but it has not yet been possible to achieve any definite result.

Investigation and Registration of Cause of Death.—In accordance with the instruction of the Representative Meeting, your Council has extended the inquiry which had been previously made by the Medico-Political Committee into the subject of the registration of uncertified deaths, to cover the whole subject of the amendments required in the law as to death certification and registration. The Medico-Political Committee has formulated certain recommendations on the subject which have been approved by your Council, and which have been submitted by a deputation from the Association to the Registrar-General. These proposals are also being brought under the notice of the Local Government Board.

The methods of investigation of the cause of death adopted by coroners have also received consideration by the Committee, and the procedure adopted by coroners in obtaining information from medical men as to the cause of death, otherwise than by evidence at inquests, is the subject of a special report, which your Council has adopted and is communicating to the Divisions.

That payment should be made for the information referred to in the last paragraph was one of the proposals contained in the Coroners Bill, prepared by a special Committee of the Association in 1902. Before introducing this Bill into Parliament it was thought desirable to bring it to the notice of the Coroners' Society. Your Council is glad to be able to report that while the Coroners' Society considers itself to be debarred by its special position from actively supporting a Bill of this character, it has expressed sympathy with the effort to improve the position of medical witnesses.

Inquiries are being made into the requirements of the law concerning the attendance of medical witnesses for the defence at official necropsies.

Medical Witnesses. On the recommendation of the Medico-Political Committee the opinion of the Divisions is being ascertained as to the desirability of consultation between the medical witnesses on either side in legal cases, and a report based on the replies received will be laid before the Representative Meeting.

Contract Practice. In carrying out the investigation ordered by the Representative Meeting into the economic conditions of contract practice, the Medico-Political Committee has prepared a series of questions addressed to individual medical practitioners engaged in such practice, which are being circulated with the assistance of the Divisions. The Medical Secretary has also, on behalf of the Committee, visited several Divisions in which disputes as to contract practice were in progress, or which for other reasons were specially interested in the subject, and has reported thereon to the Committee.

On the basis of information obtained in the last mentioned and other ways, the Committee has found itself in a position to formulate a series of propositions concerning the regulation of contract practice, which will be submitted as an interim report to the Representative Meeting.

A special report will also be presented to the Divisions on the working of the National Deposit Friendly Society.

The Medico-Political Committee has been called upon to consider, as a matter affecting the interest of the medical profession in its relation to the public, a draft model Rule, and form of notice, for adoption by Divisions, which are referred to in the portion of the Report of your Council which deals with the work of the Ethical Committee. The Medico-Political Committee concurred with the Ethical Committee in recommending your Council to approve such rule and notice.

Nomination of Candidates for General Medical Council.—In pursuance of the instructions of the Representative Meeting, the Medico-Political Committee has formulated a scheme whereby the Association may nominate candidates for the office of Direct Representatives of the profession on the General Medical Council, and the scheme is being laid before the Divisions.

Preliminary Education.—Your Council, having regard to the fact that the Board of Education has under consideration a form of leaving certificate for secondary schools, has approved that a Memorandum be addressed to the Board expressive of the views of the Association as to the standard of general (secondary) education requisite in persons entering the medical profession.

Medical Acts Amendment Bill. The Medical Acts Amendment Bill, which by resolution of your Council was referred to the Divisions in August last, has been reported upon by more than half the Divisions in the United Kingdom, and the

replies received have been considered by the Medico-Political Committee. A report by the Committee on the subject will be laid before the Representative Meeting.

An application, received from the British Dental Association, that certain amendments should be introduced into the Bill in the interests of Dentists, has been referred to the Medico-Political Committee, and the Committee has advised that the Association should accept the co-operation of the British Dental Association, and should make such amendments in the draft Bill, in matters affecting Dentists, as may be agreed upon between the two Associations.

Pharmacy Law.—The attention of the Association having been drawn to the proposals of the Departmental Committee of the Privy Council for making certain changes in Schedule A of the Pharmacy Act, which in the opinion of the Council of the Association would be contrary to the public interest, as tending to diminish the safeguards provided by the present law concerning the sale of poisons, representations on the subject have been made by your Council to the Privy Council.

The Pharmaceutical Society having communicated to the Association the text of certain amendments which it was proposed to introduce into the Pharmacy Bill, promoted by the Society, in order to remove the objections entertained by the medical profession to the Bill as formerly drafted, the Medico-Political Committee has carefully considered the amended Bill, and the Committee having reported that the position of the medical profession is not prejudicially affected, your Council has decided to support the Bill when introduced into Parliament.

Your Council has expressed sympathy with a communication addressed by the Public Dispensers' Association to the President of the Local Government Board concerning the necessity of employing fully qualified dispensers in public institutions.

Attention having been drawn by correspondence in the BRITISH MEDICAL JOURNAL to the dangers attending the present system of unlimited repetition of prescriptions, the Medico-Political Committee has had the matter under consideration, and has presented a Report as to the measures which might be adopted for the greater protection of the public in this respect.

Midwives Act.—The operation of the Midwives Act is being watched by the Committee with the assistance of those Divisions who have given special attention to the subject. On the suggestion of a member of the Midwives Board, and at the instance also of the Cardiff Division, inquiries are being made as to the provisions, if any, adopted by local supervising authorities for the payment of medical men called upon to assist midwives.

On the suggestion of the Wandsworth Division, an effort is being made through the religious newspapers to draw the attention of ministers of religion to the importance of satisfying themselves concerning the qualification of midwives whom they may be called upon to certify as suitable for registration under the Midwives Act of 1902. The possibility of improper canvassing or advertising by midwives is also receiving consideration.

Nurses Registration Bills.—The Medico-Political Committee has carefully considered the two Bills promoted respectively by the Royal British Nurses' Association and the Society for the State Registration of Nurses.

A report has been prepared as to the salient features of each Bill, and will be laid before the Divisions in due course. As it is not anticipated that either Bill will be passed by Parliament in the present session, the Council has not deemed it necessary to take any immediate action in the matter, but awaits a pronouncement by the Representative Meeting on the general principle of the registration of nurses.

Spectacle Makers' Company.—The attention of the Association has frequently been drawn to advertisements issued by persons holding the diploma of the Spectacle Makers' Company, which appeared to the Association to be misleading and improper, and the Medico-Political Committee is now engaged in correspondence with the Spectacle Makers' Company on the subject, the result of which will be reported in due course.

Insurance Fees.—A resolution of the Dublin Division with reference to fees paid by Life Insurance Companies for medical examinations and a valuable report by a Special Committee of the Norwich Division on the same subject have been referred to the Medico-Political Committee for consideration, and the Committee has presented a report thereon which is being published in the JOURNAL.

ORGANIZATION COMMITTEE.

The Organization Committee has held five meetings since the Annual Meeting of the Association, and has considered and advised your Council upon various changes proposed in the Boundaries and Divisions of Branches, upon Rules submitted by various Divisions and Branches for the approval of your Council, upon changes required in the By-laws of the Association, and upon other important questions affecting the organization of the Association.

Experience of the working of the Divisions and Branches constituted during the year 1902-3 has resulted in a few instances in proposals for certain changes of boundaries, which the Council, on the recommendation of the Committee, has carried out in every case in which it was believed that the proposed change was generally desired by those locally concerned. The most important of such changes has been the readjustment of the boundaries of Divisions in the area of the Metropolitan Counties Branch.

Thirty-three Branches and 115 Divisions in the United Kingdom have submitted Rules for approval, such Rules being in every case the Model Rules prepared by the Committee with only slight modifications. Such alterations as the Committee has in a few instances found it necessary to suggest have been adopted by the local bodies concerned.

In consequence of communications received, indicating that certain doubts and difficulties existed, in the minds of those concerned in the management of Divisions and Branches, as to the precise effect of certain regulations of the Association, the Committee addressed certain inquiries to the Solicitor, and a memorandum embodying his replies was, by instruction of the Committee, communicated by the Medical Secretary to the Secretaries of Divisions and Branches.

The matters dealt with therein related to: (1) The power of a Branch to make a payment to its Honorary Secretary in recognition of services rendered; (2) that the balance of the annual capitation grant to any Branch remaining at the end of the year, after defraying the working expenses of the Branch and its Divisions for the year, may remain in the hands of the Branch; (3) that the expenditure by Branches of the grants received must in all cases be confined within the limits imposed by the Memorandum of Association; (4) that it is not necessary for a Branch Council, under By-law 16, to make a capitation grant of the same amount to each Division of the Branch.

The Committee, in response to further inquiry, has pointed out that the grant by Branches to Divisions must, under By-law 16, take the form of a capitation grant.

The Committee, also, having its attention drawn to the difficulties experienced by the Division Secretaries in ascertaining the exact membership of their respective Divisions, recommended, and the Council approved, that arrangements be made whereby Division Secretaries might be informed once a month of changes in the lists of members of the respective Divisions.

The Medical Secretary has attended meetings of the following Divisions: Isle of Thanet, Reigate, Croydon, Wandsworth, Hampstead, Wigan, Nottingham, St. Pancras, Derbyshire (Chesterfield and Derby), Monmouthshire (Newport), Cardiff, Gloucestershire (Forest of Dean), Tottenham, Bradford, and Norwood, and has reported from time to time to the Committee on the progress of the Association as indicated by such meetings. The most important matters thus reported, as affecting the organization of the Association, have been the relation to the Association of outside medical societies, and, in connexion therewith, the arrangements which could be made to enable the Divisions to carry on the various work now done by such societies. Certain financial questions involved, particularly as to the management of libraries by Divisions, are receiving the careful attention of the Committee.

As a result of the visit of the Medical Secretary to the Forest of Dean, the practitioners of that district resolved, instead of forming a new local society, to organize themselves in connexion with the British Medical Association, on the understanding that arrangements suited to their special requirements could be made. As the arrangements desired appeared to involve a new departure in the organization of the Association they have received very careful consideration by the Committee, which has taken the opinion of the Solicitor of the Association thereon, with the result that your Council, on the advice of the Committee, has approved the recognition of the said members as constituting a "Section" of the Gloucestershire Division and Branch, subject to certain special Rules of the Branch.

The Annual Representative Meeting having instructed your Council to consider the best means whereby substitutes might be appointed for representatives absent from the meeting, and proposals for other changes in the Articles and By-laws having been received, your Council instructed the Organization Committee to consider and report upon such changes as might appear expedient.

As a result, your Council, on the recommendation of the Committee, has given notice for the ensuing Annual Representative Meeting of proposed amendments of By-laws 2, 10, 15, 20, and 32, and of two new By-laws.

The representation of Colonial Branches on the Central Council has been considered by the Organization Committee in conference with the Colonial Committee, and the Organization Committee, on the instruction of your Council, has submitted a report on the subject, upon which the Colonial Branches have been asked to furnish to your Council their comments. Pending the receipt of such comments, your Council has resolved that the nominations by Colonial Branches of representatives on the Central Council be accepted for the year 1903-4, as they were for the year 1902-3.

The grouping of the Divisions and Branches in the United Kingdom for electoral purposes for the year 1904-5 has been duly considered, and on the recommendation of the Organization Committee certain changes have been made in the grouping of Divisions, consequent on the fact that certain Divisions, which were grouped last year, have this year attained the membership qualifying for independent representation in the Representative Meeting.

Premises and Library Committee.

It will be within the recollection of members that last year your Council reported that it was considering the necessity of improving and increasing the office clerical accommodation. This has been done, and your Council is satisfied that the alterations carried out have materially improved the conditions of the housing of your staff and the conduct of the business, and, at the same time, considerably enhanced the value of your property.

At the commencement of the 1904 Session no Bills were lodged by promoters of Tube Railways in the neighbourhood of the Strand, seeking powers for compulsory acquirement of property. Probably it is felt that, pending the report of the Royal Commission on underground railways, Parliament will withhold fresh powers from all new undertakings.

Public Health Committee.

The Public Health Committee has held four meetings since the annual meeting.

Considerable attention has been given to the question of the reforms necessary in the organization of Public Health administration in England and Wales, and joint meetings of the Medico-Political and Public Health Committees have been held for the purpose of considering various proposals directed to this end.

After carefully weighing the proposals before them, including that of establishing a separate Ministry of Public Health, the two Committees recommended and your Council approved that the efforts of the Association for the improvement of the central administration of Public Health should be devoted to reform in the constitution of the Local Government Board.

The reforms recommended were: (1) That the President of the Board should be a Secretary of State; (2) that the Department should be administered by a real instead of, as at present, by a merely nominal, Board; and (3) that a medical expert should be a member of the Board. These proposals were embodied in a Bill which was approved by your Council.

The President of the Local Government Board, on February 23rd, received a deputation from the Association on the subject when a copy of the Bill was presented to him. Copies of the Bill, with an explanatory memorandum, have also been furnished to the Inter-Departmental Committee, which is now sitting, to consider the organization, duties, and pay of the Board of Trade and the Local Government Board.

Your Council has also approved a recommendation of the two Committees named in favour of the permanent combination of rural sanitary districts where desirable and practicable.

A measure which the Association has long regarded as essential to efficiency of public health administration—namely, the Bill for giving to sanitary officers in England and Wales the same security of tenure as is enjoyed by Poor-law officers, is still awaiting a favourable opportunity for securing the attention of Parliament.

On the subject of vaccination, the Divisions have had before them, by instruction of the Annual Representative Meeting of 1903 the six resolutions originally formulated by the Medico-Political and Public Health Committees, and 105 Divisions have sent replies thereon, such replies being favourable by very large majorities to all the resolutions, except the second, dealing with conscientious objection, on which the majority was 57 for and 41 against.

Having regard to these replies the Medico-Political and Public Health Committees have recommended your Council strongly to support the Revaccination Bill promoted by the Imperial Vaccination League, and introduced into Parliament by Sir John Batty Tuke.

Application was made by your Council to the President of the Local Government Board to receive a deputation on the subject of vaccination, but an unfavourable reply was received.

On the recommendation of your Committee your Council has requested Dr. J. C. McVail to revise and edit the present vaccination literature of the Association, and he has undertaken the task.

On the recommendation of the Public Health Committee your Council has drawn the attention of the Board of Education to the importance of simple instruction in hygiene, including temperance, as a part of the regular course of instruction in public elementary schools, and a sympathetic reply has been received from the Board of Education.

Having regard to the great influence of educational conditions upon the health of the community, your Council has further resolved, on the recommendation of the Public Health Committee, to urge upon the Board of Education that there should be a medical adviser to the Board itself, and that there should be medical advisers to all local education authorities.

Other matters which have engaged the attention of the Committee have been (*a*) the desirability of co-operation by this country in a system of International Notification of Infectious Diseases; (*b*) improvement of the standard of Ventilation in Factories and Workshops; (*c*) proposals to extend the Workmen's Compensation Act to include incapacity arising from certain diseases of occupation.

Action has been taken with reference to the two matters first mentioned, while the last is still awaiting consideration.

The attention of the Council has been drawn by the Committee to the restricted terms of the reference to the Committee contained in the existing By-law 39, Section (3), by which the matters to be referred to the Committee are confined to the Public Health Service, the Poor-law Medical Service and the Vaccination Service. The present report illustrates the fact that in practice it is convenient that all questions of Public Health, in the broadest sense, should be referred to the Public Health Committee. The Council, therefore, on the recommendation of the Committee, proposes that the By-law be amended so that the precise terms of reference may be in harmony with the procedure which experience has shown to be expedient.

Royal Naval and Military Committee.

Owing to many representations on the unfavourable conditions of service prevailing in the Indian Medical Service, your Council has given the question its most serious consideration, and on August 5th, 1903, forwarded to the Secretary of State for India a Memorandum setting out certain grievances complained of and suggesting remedies. A copy of this document was also forwarded to the Universities and members of Parliament, and on the Indian Budget being taken Sir Michael Foster, M.P., pointed out to Lord George Hamilton the widespread dissatisfaction in the Indian Medical Service, both military and civil, and urged upon the Indian Government the necessity of removing these causes of complaint if it desired to continue to attract men of the highest character and brightest intellect.

The causes of discontent were divided into: (1) Grievances affecting all members of the service; (2) those affecting its military branch, and (3) those affecting its civil branch.

In October the India Office published a memorandum showing certain alterations in the conditions of service. Your Council, however, regrets that this memorandum fails to remove the causes of complaint. The Director-General has not been granted the rank of lieutenant-general. The pay and allowances have been somewhat improved, but even now your Council considers that these are too low, having regard to the continuous service in India. The salaries of the administrative grades are inadequate. The number and nature

of specialist appointments have not been indicated. No alteration has been made in the pay of officers in the Civil Medical Department, but the Under-Secretary for India has informed your Council that the question is under the consideration of the India Office. The regulations for acquiring a knowledge of Urdu still entail great hardships on younger officers. The furlough pay is unsatisfactory when compared with that of officers serving in the Indian Army. Your Council welcomes the provision for granting extra furlough to officers pursuing special courses of study. The retiring pensions and half-pay still do not allow that every year's service over twenty-five years should qualify an officer for an additional pension of £50 a year. This is a real drawback to the conditions of service, when it is borne in mind that as officers of the rank of lieutenant-colonel and major may be compulsorily retired at 55, and the average age of entry into the service is over 25, it is impossible for many officers to attain to the full retiring pension by serving the necessary thirty years laid down in the regulations.

Your Council, therefore, again approached the India Office, urging it to reconsider the recommendations set out in the memorandum transmitted on behalf of the Association on August 5th, 1903, and to introduce a bold and comprehensive scheme likely to satisfy the officers of the Indian Medical Service; and has been informed that a copy of the recommendations has been forwarded to the Government of India for information and report. Your Council believes that only by adopting these recommendations can men of the highest scientific attainments continue to be attracted. The action of your Council has been watched with keen interest by officers serving in the Indian Medical Service, as has been evidenced by the number of its officers who have recently joined your Association.

Reorganization of the War Office.—On the publication of the report of the War Office (Reconstitution) Committee, your Council observed with regret that on the new Army Council the Army Medical Service is to have no direct representative, and at once took action through the Royal Naval and Military Committee to make representations to the War Office asking for this omission to be rectified. Your Council considers the absence of direct representation on the Army Council of so important a branch as the medical service a retrograde movement, and one that can only tend to interfere with the efficiency of the Army. It has therefore urged upon His Majesty's Government the grave necessity of including a representative of the Army Medical Service on the Army Council.

Militia Medical Officers.—Your Council appreciates the inadequacy of the pay of officers of the Militia Medical Staff, and has called the attention of His Majesty's Secretary of State for War to the matter, recommending that the pay and allowance of officers of the Militia Medical Staff should be at least equal to those of officers of the Royal Army Medical Staff Corps, according to rank and service.

Volunteer Medical Officers.—Your Council represented the difficulty experienced by most Volunteer medical officers to spare time to attend the school of instruction at Aldershot for one month, and it has been informed by the War Office that the question of affording further facilities to Volunteer medical officers to obtain the proficiency certificate is being considered, and your Council has reason to believe that these arrangements will shortly be made public.

Scientific Grants Committee.

During the past year your Council voted £800 to the Scientific Grants Committee. This sum was distributed—£350 in twenty-three grants in aid of research work and £450 to four research scholars. The present research scholars are Dr. F. A. Bainbridge, Dr. J. O. Wakelin Barratt, Dr. John T. Hewetson, and Dr. Walter Jobson Horne, the Ernest Hart Memorial Scholar.

Scottish Committee.

The Committee held, in Perth and Edinburgh respectively, two meetings at which the questions of politics and ethics as they concern the profession in Scotland were dealt with and recommendations made to your Council or the other Standing Committees, in whose reports the matters again appear. The important question of medical evidence in legal cases has been referred to the Divisions. On the recommendation of the Committee, your Council has given notice of motion for the Annual Representative Meeting that By-law 28 be so amended that casual vacancies arising in the Representation of Branches on the Council can be filled otherwise than by voting papers sent to each member, if Branches so provide by their Rules.

Special Chloroform Committee.

Your Committee has to report that it has held two meetings and has been engaged upon the following work, a full report of which it proposes to submit in due course. Examination of blood taken from animals in different degrees of chloroform narcosis and at the moment of chloroform death. On this point a number of preliminary observations and experiments have had to be made and are being continued. This inquiry is important, as, although the Committee has been able to advance evidence of the percentage of inhaled chloroform which will produce anaesthesia, it has not at present arrived at (1) what amount this represents in the blood stream; and (2) what minimum percentage is to be taken as the lethal one for animals. Your Committee has also pursued its research into the question of dosage of the isolated mammalian heart by chloroform. Blood instead of an artificial circulating fluid was employed, and extremely important results have been obtained.

Further clinical trials with the chloroform regulator designed by Mr. Vernon Harcourt have been made by your Committee.

The Library.

The use of the Library has been somewhat interrupted during the past year, owing to the structural alterations of the premises making it necessary to close it for a considerable period. In spite of this there have been 4,945 attendances registered, showing the sustained interest members continue to exhibit in the Library. Your Council has again to thank numerous members (authors and others) for new books, new editions, and the many volumes of Society *Transactions* and *Reports* that have been presented during the year. In this way some 600 volumes have been received. In several instances blank periods have been filled in the series that are being filed, and in other cases better copies have come to hand than those formerly possessed, all of which have improved the Library. The several series of French *Thèses* and the collection of medical officer of health reports are now becoming extensive, and continue to be very useful. Files of the leading periodicals are being kept as far as possible up to date, and further shelf-space for this purpose has recently been added.

April 20th, 1904. ANDREW CLARK, *Chairman of Council.*

The Annual Reports of Branches forwarded in accordance with By-law 8 were then considered, and it was resolved that the reports be received and published in the JOURNAL (see SUPPLEMENT, April 30th, pp. 77 to 83).

Read resolution passed by the Leinster Branch Council commenting on the non-representation of Dublin among the officers of Sections for the Oxford meeting.

Resolved: That the same be received and entered on the minutes.

Read resolution from the Wandsworth Division requesting the Council to arrange for holding the 1905 annual meeting somewhere in Ireland; when it was reported that such an arrangement was not at present possible.

Read resolution from the Bradford Division, Yorkshire Branch:

That the Bradford Division of the Yorkshire Branch of the British Medical Association expresses its strong disapproval of the use, by medical practitioners, of medical or surgical degrees or titles conferred by institutions which are not recognized by the General Medical Council; and that this resolution be forwarded to the Yorkshire Branch and to the General Council of the Society, with the request that steps may be taken to put a stop to the objectionable practice referred to.

Resolved: That the resolution be referred to the Ethical Committee.

In consideration of a communication from the Royal Institute of Public Health asking for the appointment of delegates to attend their forthcoming Congress to be held at Folkestone from July 21st to 26th, 1904, it was resolved that the Council regrets it is unable to appoint delegates to attend the forthcoming Congress of the Royal Institute of Public Health.

Read invitation from the Canadian Medical Association asking for the appointment of delegates to attend their Congress to be held in Vancouver on August 23rd to 26th next, when it was resolved that Dr. T. G. Roddick, of Montreal, be asked to represent the Association at the forthcoming Congress of the Canadian Medical Association.

In reference to the notices of motion for the Annual Representative Meeting, it was

Resolved: That the officers of the Association be hereby authorized and instructed in conference with the Solicitor of the Association to determine the position in which the new by-laws this day made by the Representative Meeting shall be placed among the existing by-laws, to number the said new by-laws accordingly, to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the references contained in any of them to the numbers thereof (of by-laws).

Resolved: That this Council instructs the Scientific Grants Committee to consider and report on the advisability of giving an annual scholarship for research (if the funds permit) in tropical medicine.

Resolved: That Mr. W. E. Hempson be reappointed solicitor to the Association for the ensuing twelve months on the same terms as before.

PROCEEDINGS OF COMMITTEES.

MEDICO-POLITICAL COMMITTEE.

A MEETING of the Medico-Political Committee was held on March 23rd, when there were present Sir Victor Horsley, F.R.S., in the chair, Dr. T. D. Griffiths (President of the Association), Mr. Andrew Clark (Chairman of Council), Dr. E. Markham Skerritt (Treasurer), Dr. H. Langley Browne, Dr. R. C. Buist, Dr. Major Greenwood, Dr. G. A. Heron, Mr. T. Garrett Horder, Mr. G. Jackson, Dr. L. Kidd, Dr. J. A. Macdonald, Mr. M. A. Messiter, Dr. J. Murphy, and Mr. D. A. O'Sullivan.

PUBLIC HEALTH COMMITTEE OF M.P.'S.

The MEDICAL SECRETARY reported that a letter had been received from Sir Michael Foster, informing the Association that a committee had been formed by the medical members of the House of Commons to watch over matters affecting public health, that he had been asked to act as secretary, and that he would always be ready to receive communications from the Medico-Political Committee.

CONSULTATIONS BETWEEN MEDICAL WITNESSES.

The CHAIRMAN reported that the Council had approved the suggestion of the Committee that the question of the advisability of consultations between medical witnesses engaged in legal cases should be referred to the Divisions in England and Wales as well as in Scotland. The letter, dated March 2nd, had in consequence been addressed to the Honorary Secretary of each Division. This letter was published in the SUPPLEMENT of the JOURNAL of March 19th, p. 44.]

It was resolved to ask the opinion of the Irish Divisions also on the subject.

NURSES REGISTRATION BILLS.

The minutes of the Emergency Subcommittee of February 19th were received; the following memorandum prepared by instruction of that Subcommittee was approved and directed to be forwarded to the Council:

MEMORANDUM ON NURSES REGISTRATION BILLS.

The Medico-Political Committee has had under consideration two Bills aiming at providing a system of State Registration of Nurses, which are referred to respectively in this Memorandum as (*A*) and (*B*).

(*A*) has been prepared, and is being promoted in Parliament by the Association for the State Registration of Nurses.

(*B*) has been prepared, and is being promoted in Parliament by the Royal British Nurses Association.

The Medico-Political Committee begs to submit, in the present Memorandum, particulars of the said Bills and certain considerations in relation thereto, for the assistance of the Divisions in the discussion of the matter preparatory to consideration by the Annual Representative Meeting of the opinion of the Association (1) as to the general advisability of the State Registration of Nurses, and (2) as to the provisions of the schemes which have been framed for this purpose by the two Societies named.

I. Particulars of the Bills.

1. Objects.

The *objects* of the Bills are identical, namely:

(*a*) To promote the training of nurses, and secure that the sick shall be able to distinguish between qualified and unqualified.

(*b*) To protect the knowledge and skill of the trained nurses.

(*c*) To create certain machinery for carrying out the foregoing objects.

2. In respect of *machinery*, the Bills agree in that each seeks to create a body, partly nominated and partly representative, called in (*A*) a General Council and in (*B*) a Central Board, whose functions shall be to examine, certify, and register nurses; each Bill provides certain means of enforcing the judgement of the said Council or Board with respect to trained nurses, and each provides certain penalties against persons who may falsely claim to be registered.

3. Central Board or Council. Each Bill provides that the Central Board or Council shall contain representatives of the following persons or aggregates:

(1) The general public through nomination by the Crown.
(2) The medical profession.
(3) Nurses in general, through direct representatives.
(4) The following special class of nurses: (*a*) matrons of general hospitals, (*b*) the Poor-law nurses, (*c*) the asylum nurses.

It will be observed that in order to provide adequate representation of all the various interests stated, it would be necessary to provide a very large Board or Council, and the administration must be consequently expensive.

The duties and powers of the Council or Central Board are practically identical in the two Bills, namely:—

(*a*) To frame rules to regulate the training of nurses.
(*b*) To examine and register nurses.
(*c*) To carry out, when necessary, certain penal procedures for the suspension of registered nurses.
(*d*) To protect registered nurses by taking proceedings against unregistered persons who may claim to be registered.

The cost of administration is to be met under (*A*) by a registration fee not exceeding two guineas, under (*B*) the expenses are to be met by such charges as the Central Board may find necessary.

(*A*) provides that a nurse may be registered at the age of 21, (*B*) prescribes the age 22.

II. Comments by the Committee.

(*a*) As to the constitution and composition of the Central Board or Council, the Committee would suggest that under either Bill the Board proposed is unduly large, and that in the interests of nurses themselves the attempt to give separate representation to so many bodies and institutions should be abandoned.

In particular the Committee would suggest that the medical profession would be adequately represented by three registered medical practitioners, of whom one should be nominated by the Crown, one by the General Medical Council, and one by the British Medical Association, as representative of the general body of the medical profession.

(*b*) The provisions as to the examination, certification, and registration of nurses, and as to the disciplinary powers of the Council or Central Board for registered nurses do not appear to call for detailed notice from the Association, except that the Committee is strongly of opinion that 24 should be suggested by the Association as the earliest age at which nurses should be registered, and that training should usually be commenced at the age of 21.

(*c*) Under the penal clauses of both Bills it is observed that it is only proposed to protect the work of registered nurses: a fine of £5 being proposed in each case as the penalty for infringement by unregistered persons.

In the opinion of the Committee it is also desirable that a specific clause should be inserted in order clearly to provide that such penalties would not apply (1) to a nurse who acts gratuitously, (2) to a nurse who nurses for hire but does not claim to be registered.

The Bills referred to in this memorandum were published in the SUPPLEMENT to the JOURNAL of March 19th pp. 50 and 51.

MIDWIVES ACT.

It was resolved to obtain further information with respect to arrangements to be made by local supervising authorities for the payment of fees of medical men called in to assist midwives. A resolution of the Wandsworth Division suggesting that the Council of the Association should take steps

to call the attention of all ministers of religion in England and Wales to the importance of satisfying themselves before giving the certificate set out in Form 9 of the Midwives Board that the applicants had actually to their personal knowledge been engaged for the required period in bona-fide practice as midwives, as defined by the Midwives Act, 1902, and the rules based thereon by the Central Midwives Board, was considered. The Committee resolved that a circular on the subject should be addressed to the religious newspapers.

The following further resolution of the Wandsworth Division was considered:

That in view of the fact that there seem to be no regulations passed by the Central Midwives Board controlling the actions of midwives certified under the Act to prevent them touting, advertising, or otherwise unfairly competing with the registered medical practitioners, it is hoped that the Central Council of the British Medical Association will approach the Midwives Board with the object of having some such regulations drawn up.

The Committee directed that the Wandsworth Division should be informed that the Committee had the matter under consideration, and would take action whenever definite evidence of the practices referred to should be before it.

CORONERS.

The following memorandum, drafted by the Medical Secretary in accordance with the instructions of the Emergency Subcommittee on February 19th, was recommended to the Council for approval and report to the Divisions:

MEMORANDUM ON THE PRESENT POSITION OF REGISTERED MEDICAL PRACTITIONERS IN THE MATTER OF FURNISHING CERTAIN INFORMATION TO CORONERS.

Cases which have from time to time been brought to the notice of the Medico-Political Committee clearly indicate the unsatisfactory position in which medical men are placed at present in the matter of furnishing information to Coroners upon which decisions as to the propriety of holding inquests may be based.

Medical practitioners throughout the country have made a practice of supplying to Coroners such particulars of facts within their knowledge concerning the death of patients attended by them as may assist the Coroner in deciding whether an inquest is necessary, and, if necessary, what evidence shall be called thereat. In a few districts the services thus rendered by practitioners in their professional capacity to the State have been duly recognized by Coroners by the payment of suitable fees. This, however, is not the rule, and several instances have been reported to the Committee in which Coroners have not even thought it necessary to accord a courteous acknowledgement of the help they have thus received. There are, again, cases in which Coroners have accused medical men of neglect of duty in not supplying such information.

Such attitude on the part of Coroners must be interpreted as indicating that they hold an entirely erroneous view of the position and duties of registered medical practitioners in respect of cases in which the circumstances attending the death of patients under their care may be the subject of inquiry, and such an erroneous view is apparently also prevalent among the public, and even among many members of the medical profession.

The question arises, therefore, of the advisability of a pronouncement by the British Medical Association, with the object of securing a proper recognition of the true relation of medical practitioners to the State in this matter. In such a pronouncement it would appear that the following considerations should receive notice:

(1) That no legal obligation rests at the present time on medical practitioners, as such, to render any assistance to Coroners in the investigation of the cause of death, other than that of making a *post-mortem* examination when so ordered by a Coroner in writing, and that of attending to give evidence at an inquest when duly summoned so to do.

(2) That, under present conditions, the practice whereby medical practitioners furnish to Coroners information of the kind considered in this memorandum, not being defined or required by law, is entirely informal and irregular.

(3) That if a preliminary inquiry by the Coroner is to be regarded as an integral part of the procedure sanctioned by the State for the investigation of the cause of death, it would appear that the procedure therein should be definitely regularized by legislation, which should prescribe the respective obligations of Coroners, medical practitioners, and others who may assist in the inquiry, and that definite provision should be made for the adequate remuneration of the several parties concerned in respect of the services thus rendered.

(4) That, pending such action by the Legislature, it is necessary to lay stress upon the fact that medical practitioners, who furnish the information indicated, are rendering services to the State in excess of any obligations resting upon them; and that where the assistance thus voluntarily given is not duly recognized by Coroners, members of the medical profession may find themselves compelled to refuse to continue such assistance.

CORONERS' SOCIETY.

The MEDICAL SECRETARY reported that in accordance with the instructions of the Committee he had waited upon the Council of the Coroners' Society, and read a letter received subsequently from the Honorary Secretary of the Society, intimating that the following resolution had been adopted by the Council:

That whilst the Council of the Coroners' Society would always welcome any proposal for the fair treatment of medical witnesses, yet in view of the former resolution of the members of the Society passed at the last annual meeting, to which the Council must adhere, it cannot offer any official support of the Bill, especially as if brought before the House of Commons it might be referred by the Home Office for the consideration of the Council.

CONTRACT PRACTICE.

The following memorandum on contract practice was approved as an interim report of the Committee to the Annual Representative Meeting:

INTERIM REPORT TO THE ANNUAL REPRESENTATIVE MEETING ON CONTRACT PRACTICE.

The Medico-Political Committee has given careful consideration at several meetings to the matters arising out of the following instruction of the Annual Representative Meeting of 1903.

"That it be an instruction to the Medico-Political Committee to investigate the economic conditions of contract practice as carried on in various ways in this country, to report thereon to the next Annual Representative Meeting, and to present an interim report to the Council on any points which appear to call for action during the year."

It has appeared to the Committee necessary that the investigation which it was instructed to make into the economic conditions of contract practice should be conducted in two principal branches, namely:

(*a*) By addressing direct inquiries to those medical practitioners who are actually engaged in such practices;

(*b*) By collating the information derived from the reports of various medical societies which have given special consideration to the subject, and from the reports of the Secretary of the Committee on the conditions found in various Divisions which he has been called upon to visit.

For the purpose of the inquiries under head (*a*), the Committee has formulated a series of questions, of which copies are appended to this report,[1] and which, with the sanction of the Council, and by the kind assistance of the Hon. Secretaries of Divisions, are being distributed through the agency of the Divisions to individual medical practitioners.

From the information obtained under head (*b*), the Committee has been enabled to arrive at the conclusion, that, while on certain aspects of contract practice any definite pronouncement by the Association must be deferred until the results are ascertained of the inquiries addressed to individual practitioners, there are other aspects on which opinion has already ripened sufficiently for certain propositions of an axiomatic character to be formulated at the present stage for consideration by the Divisions.

These propositions are as follows:

(1) That it is inevitable in present conditions that there should be in some parts of the United Kingdom some system of contract medical service of the poor.

[1] These questions have not been reproduced here. It is believed that they have reached the hands of all members interested.

(2) That where the department of contract practice relates wholly to medical work, it is essential that medical men should be adequately represented on the management.

(3) That it should be a fundamental principle of the constitution of all such departments, that every medical practitioner, in the district for which the service provides, who wishes so to act, should be a medical officer of the service, provided that he conforms to the rules of the service.

(4) That, in present conditions, the lowest fee to be fixed in any district as the maximum to be paid to each medical officer annually for each individual whom he is under contract to attend, should be 5s., subject to such composition fee, if any, as may be locally determined upon in the case of families having more than three children.

(5) That children under the age of 5 should not be admitted under contracts at minimal rates, except in the case of the family composition fees included in Clause 4.

(6) That in all such contracts the right be reserved to each medical officer to decline to attend as a member of such service any person whom he may consider to be unfit for membership in respect of financial position, but that such provision should be made as the governing body of the service may approve to prevent hardship resulting from the retrospective application of this rule.

(7) The rates above specified are not intended to apply to night visits, obstetric cases, operations, or serious accidents, by the term "serious accident" being meant an accident which causes incapacity for more than a week.

Registration of Deaths and Stillbirths.

The Chairman reported that a deputation had waited upon the Registrar-General to lay before him the conclusions of the Committee on Death and Stillbirth Registration. The deputation was composed of the following members of the Committee: Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings and of the Medico-Political Committee), Mr. Andrew Clark (Chairman of the Council), Dr. Major Greenwood, Dr. Heron, and Mr. O'Sullivan, together with Mr. W. E. Hempson (Solicitor to the British Medical Association and the Medical Defence Union), and Dr. A. G. Bateman (representing the Medical Defence Union), and the General and Medical Secretaries of the Association.

Mr. Hempson, as Solicitor to the British Medical Association and to the Medical Defence Union, and as having, in the latter capacity, previously interviewed the Registrar-General on the subject, introduced the deputation, and made certain observations on the registration of uncertified deaths. Sir Victor Horsley, on behalf of the deputation, laid before the Registrar General the six resolutions as to the registration of deaths, and the resolution as to registration of stillbirths, which had been formulated by the Medico-Political Committee and adopted by the Council. These resolutions were published in the Supplement to the Journal of January 30th, p. 4. The Registrar-General, having discussed with the deputation the various matters submitted, stated that on certain points he would communicate with the Home Office and the Local Government Board.

The Committee resolved to communicate with the Medical Defence Union, inquiring whether that body would be disposed to join in a deputation on the question of death registration which the Committee intended to request the President of the Local Government Board to receive.

Constitution of the Local Government Board.

The Chairman made a report as to the deputation to the President of the Local Government Board, similar to that made to the Public Health Committee by its Chairman at its meeting on March 24th. The memorandum prepared and forwarded by Lord Jersey's Committee was approved by the Medico-Political Committee. The memorandum was published in the Supplement to the British Medical Journal of March 26th, p. 81.

Vaccination and Revaccination.

The Committee had before it an analysis prepared by the Medical Secretary of the replies received from Divisions with reference to the six resolutions on vaccination formulated by the Medico-Political and Public Health Committees jointly, which by instruction of the Annual Representative Meeting at Swansea were circulated to the Divisions in August, 1903. The Committee resolved that a report should be prepared based on the replies suitable for publication in the British Medical Journal.

The Committee resolved also in view of the answers received from Divisions, to recommend the Council strongly to support the Revaccination Bill, and to take all necessary steps to oppose the Vaccination Act Amendment Bill, which proposed the abolition of compulsory vaccination. The text of these Bills was published in the Supplement to the Journal of March 26th, pp. 4 and 11.

Dispensers in Public Institutions.

The Committee resolved to recommend the Council to express its sympathy with the following memorial, dated March 7th, 1904, presented by the Public Dispensers' Association to the President of the Local Government Board:

Right Honourable Sir,

Your attention having been called to the lamentable occurrence at the Portsmouth Asylum, where four persons were poisoned by the administration of a strong solution of chloral hydrate, and having regard to the fact that large quantities of poisonous preparations are daily dispensed in all our large public institutions, we most respectfully beg to point out to you that by the provisions of the Pharmacy Act, passed for the protection of the public it is unlawful for any person to compound, dispense, and sell poisons unless he shall hold the qualifying certificate of the Pharmaceutical Society and be a duly registered chemist and druggist.

The patients treated at the various public institutions being largely of the working classes, the poor, the ignorant and often illiterate, are in great need of the safety provided by this Act.

The authorities of many large public institutions for medical treatment recognise this fact by insisting that only pharmaceutically trained and registered chemists and druggists be appointed to dispense poisons. Amongst these may be mentioned the London County Council, the Metropolitan Asylums Board, His Majesty's Postmaster-General, His Majesty's Prison Commissioners, the Royal Navy, the Commissioners of Police and most of the large hospitals, dispensaries and infirmaries. The various supply associations, stores, and limited liability companies having dispensing departments are compelled to employ the services of duly registered chemists and druggists to compound and dispense medicines.

We therefore respectfully ask that your honourable Board shall direct that the appointment in the institutions under your control only of such persons as are qualified and registered by the Pharmaceutical Society.

A meeting of the Medico-Political Committee was held on Wednesday, April 13th, when there were present Sir Victor Horsley, F.R.S. (and afterwards Dr. E. Markham Skerritt, Treasurer), in the chair, Mr. Andrew Clark (Chairman of Council), Dr. Major Greenwood, Dr. G. A. Heron, Dr. J. Macdonald, Mr. T. Garrett Horder, Mr. G. Jackson, and Mr. D. A. O'Sullivan.

Medical Certificates for School Children.

The Medical Secretary reported the receipt of an inquiry from the Honorary Secretary of a Branch as to the payment made by educational authorities to medical men for medical certificates of the unfitness of children to attend school. The Medical Secretary was instructed to address an inquiry on the subject to county councils.

Sight Testing.

The Chairman reported that correspondence had passed with the Spectacle Makers' Company and others concerning advertisements issued by dispensaries of the Company and the appointment of a medical examiner for the Company. The matter was deferred pending the receipt of further information.

Medical Acts Amendment Bill.

The Committee considered the Medical Acts Amendment Bill, having before it a précis prepared by the Medical Secretary of the replies of Divisions, and also certain amendments which the British Dental Association desired to have incorporated in the Bill. The following resolutions were adopted:

That it be recommended that the Association accept the co-operation of the British Dental Association in promoting the Medical Acts Amendment Bill, and that such amendments on matters affecting dentists be inserted in the Bill as shall be agreed upon between the two Associations.

That the Committee consider in the present meeting modifications of principle only, and that the consideration of details be deferred.

The Committee then considered the Bill clause by clause, along with the replies from the Divisions, and adopted a

series of resolutions for the guidance of a subcommittee, consisting of the Chairman, the Medical Secretary, and Solicitor, which was instructed to redraft the Bill. It was arranged that the new draft should be circulated to the Committee prior to its meeting on May 4th.

REPORTS TO COUNCIL.

The Committee then considered draft reports on the following subjects, and adopted them after emendation as follows:—

(I) ON THE REVACCINATION BILL.

The Bill which has been under the consideration of the Committee is formulated by the Imperial Vaccination League, and supported in the House of Commons by members of all parties.

Clause 1.—In this clause the object of the Bill is stated, namely, to secure revaccination of children after the age of 12.

Clause 2.—This clause embodies the "conscientious objector" principle. While the Committee considers that the principle of admitting conscientious objection is a wrong one and detrimental to the working of a Vaccination Act, it must report that, in answer to the queries submitted to the Divisions by instruction of the Representative Meeting, out of 103 Divisions who have replied on this point, 57 have voted in favour and 41 against.

Though the opinion of the Association is apparently divided on the point, the Committee believes that those who have supported the clause have done so from the view that such a step is necessary to secure the passage of a Revaccination Act through the House of Commons.

Clause 4.—By this clause it is provided that the educational authorities and teachers of the district shall furnish twice a year to the vaccination officer, lists of all children attaining, to their knowledge, the age of 12 years, and that any person not fulfilling this duty shall be liable to a penalty.

The Committee supports this proposition as eminently likely to further the objects of the Act.

Clauses 5, 6 and 7.—These clauses are adopted to secure correlation of this Act with the existing Vaccination Act.

Clause 8.—In this clause provision is made so that a child who may by exemption or otherwise have escaped primary vaccination shall nevertheless be vaccinated with the rest at the age of 12.

The Commitee recommends that the Bill should receive the support of the Association, and that the Medico-Political Committee be instructed to give effect to this as far as possible.

(II) ON INSURANCE FEES.

The Committee has fully considered the report of the Committee appointed by the Norwich Division, on the scale of remuneration offered by insurance companies for medical examinations, and the character of such examinations, and concurs with the finding of the Norwich Division, namely, that for every full and careful report upon the state of a person's health the practitioner should receive not less than one guinea.

Upon this the Committee would further express the opinion that there are many cases in which one guinea is an inadequate fee.

The Committee is of opinion that the reports which are contained in the appendix to the Norwich Division report, headed A, B, C, are of such a character that a fee of not less than one guinea should be paid for each.

[The report of the Norwich Division was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 33.]

(III) ON THE UNDULY REPEATED DISPENSING OF PRESCRIPTIONS.

In the opinion of the Committee the construction of a prescription should be such that the prescriber retains the power of deciding how often it shall be taken.

The necessity of this is obvious, since a prescription when handed to a patient becomes the property of the patient, and if no limit is expressed by the prescriber, the prescription may be made up indefinitely.

The Committee would therefore recommend:

1. That the prescriber should state on the prescription that "This prescription shall be dispensed ... times only."
2. That it should be made the duty of the dispenser to stamp each prescription every time that it is dispensed, with the date of such dispensing.
3. That in every case in which a prescription shall, as shown by the date stamped thereon in accordance with the foregoing recommendation, have already been dispensed for the number of times indicated by the prescriber, and in every case in which the period indicated by the prescriber for the repetition shall have expired, it should be the duty of every qualified dispenser to whom such a prescription may be submitted for dispensing, to refuse to dispense the same.

In the opinion of the Committee it would only be possible to carry out the foregoing recommendations by alteration of existing legislation.

The Committee desires further to recommend that the Pharmaceutical Society be approached with a view to a conference on the subject.

(IV) MEMORANDUM ON PARLIAMENTARY MATTERS OF INTEREST TO THE MEDICAL PROFESSION.

The Committee recommended that a memorandum, with regard to subjects on which Parliamentary candidates might be approached, should be circulated to the Divisions, together with an explanatory note to be prepared by the Chairman and Secretary of the Committee. The memorandum as finally approved by the Council is as follows:

1. Vaccination and revaccination.
2. Death registration.
3. Coroner's Law. (Medical Witnesses).
4. Pharmacy. (Proposed removal of restrictions as to poisons).
5. Company Legislation. (Medical, Dentists, and Pharmacy).
6. Security of Tenure of Sanitary Officers in England and Wales, and of Parochial Medical Officers in Scotland.
7. Local Government Board Reform.

CONFERENCE IN THE MATTER OF THE CORONER FOR SOUTH-WEST LONDON.

A CONFERENCE of representatives of medical societies, acting together in the matter of the Coroner for South-West London, was held at the offices of the Association on Thursday, January 28th. Present: Mr. Andrew Clark (Chairman of Council), in the chair. Dr. A. G. Bateman, Mr. W. E. Hempson, Dr. G. A. Heron, Sir Victor Horsley, F.R.S., Dr. M. Macintosh, Dr. Hugh Woods.

THE CONSTITUTION OF THE CONFERENCE.

The year of office of Surgeon-Major Robinson as President of the South-West London Medical Society having expired, he was thanked for the valuable assistance he had rendered to the conference, and Dr. Wyatt who had succeeded him as President of the Society, was recognized as a member of the Committee in his place.

REPORT AND CORRESPONDENCE.

Correspondence was read between Sir Victor Horsley and the Secretary to the Lord Chancellor, in which Sir Kenneth Mackenzie, replying to Sir Victor Horsley's inquiry on behalf of the Conference, stated that he was unable to say when the Lord Chancellor would reply to a communication addressed to him in July, 1903.

The Secretary read a *précis* of seven cases, particulars of which had come to him through the Medico-Political Committee of the British Medical Association, the BRITISH MEDICAL JOURNAL, and the Medical Defence Union, all illustrating the continuance by Mr. Troutbeck of those practices to which the Conference had taken exception.

The Conference adopted the following resolution:

That a further letter be addressed to the Lord Chancellor by the Chairman and Secretary on behalf of the conference in which reference should be made to the date of the former communication and the interest of the profession in the matter pointed out, and attention should be drawn to the fact that the former letter furnished categorical proof of the position that Mr. Troutbeck had repudiated; and that a memorandum be appended giving particulars of the seven cases reported to the conference, and of any others which the Secretary might receive, and which, with the approval of the solicitor, it might be thought desirable to add, in evidence of the continuance by Mr. Troutbeck of the practices to which the attention of the Lord Chancellor had already been drawn.

CONFERENCE ON ETHICAL PROCEDURE OF DIVISIONS.

A CONFERENCE on the procedure to be followed by Divisions in certain special cases was held at the office of the Association on Wednesday, February 10th, between Mr. Andrew Clark (Chairman of Council) in the chair, Sir Victor Horsley (Chairman of the Medico-Political Committee), Professor Saundby (Chairman of the Ethical Committee), the Honorary Secretaries of certain Divisions, namely, Mr. H. A. Ballance (Norwich), Dr. A. Cox (Gateshead), Dr. R. E. Howell (Cleveland), Mr. J. Metcalfe (Bradford), and Mr. W. E. Hempson, Solicitor to the Association.

The following resolutions were adopted:

That the Medical Secretary be instructed to draft and submit to the solicitor for approval a form of rule for adoption by Divisions who have passed rules forbidding their members to recognise professionally medical practitioners whose conduct in the opinion of the Division is detrimental to the honour and interests of the medical profession such rule to prescribe the procedure whereby the names of such practitioners shall be officially notified to each member of the Division.

That a copy of such draft rule, and a report of the proceedings of the Conference, be laid before the next meetings of the Medico-Political and Ethical Committees.

PUBLIC HEALTH COMMITTEE.

A MEETING of the Public Health Committee was held on March 29th when there were present Dr. J. Groves in the chair, Dr. T. D. Griffiths (President of the Association), Mr. Andrew Clark (Chairman of Council), Dr. J. H. H. Manley, and Mr. C. H. Watts Parkinson.

INSTRUCTION IN HYGIENE AND TEMPERANCE.

The SECRETARY read the following letter which had been addressed to the Board of Education in pursuance of the resolution of the Council adopted on January 20th, requesting the Chairman of the Public Health Committee to transmit the resolution of the Council on this subject to the Board of Education with a covering letter. The resolution of the Council was in the following terms:

That in the opinion of the Council it is of urgent importance that elementary scientific instruction in health subjects, including temperance, should be provided in all the primary schools by the educational authorities, in order that the conditions which lead to deterioration of the national physique may be understood and, as far as possible, prevented.

The letter addressed to the Board of Education and the reply received from the Secretary of the Board are as follows:

SIR,—The Council of the British Medical Association, the representative body of an Imperial society of some twenty thousand medical men, being strongly impressed by the evidences before them of rapid physical deterioration among considerable sections of the population, have felt it their duty to place upon record their opinion that the most practical method of dealing with some of the causes of this national calamity is to be found in connexion with the educational system of this country. They beg, therefore, to submit to the Board of Education a copy of the resolution they have unanimously adopted, in the hope the Board may see fit to include in their code forthwith the compulsory teaching in the schools under their control of the simple principles of personal hygiene, including temperance and domestic hygiene. They are informed that such instruction is given to twenty-two million children undergoing tuition in the United States of America, and in the public elementary schools in the large self-governing colonies, in many of which physical training, as contradistinguished from military drill, is also compulsory, and exercise of the muscles involves the training and development of the brain and nervous system.

It may be said the subject is included already so numerous it would be difficult to increase them, but the Council of the British Medical Association would venture to suggest that the necessity of these subjects are not to be considered with those of the next resolution in importance either to the individual or the State.

I have the honour to be, SIR,

Your obedient servant,

The Secretary to the Board of Education. J. GROVES.

Board of Education, Whitehall, S.W.

February 25th, 1904.

SIR,—Adverting to your letter of the 23rd instant, I am directed to state that the Board have had under consideration the resolution of the 20th January with which it was accompanied, and to inform you that it will be very carefully considered by the Board of Education when preparing the Code for the next ensuing year.

The Board fully appreciate the importance of the subject with which the resolution is concerned, and will do all in their power to promote the physical well-being of all children in public elementary schools.

The subject is indeed receiving most careful and detailed consideration by the Department's Committee on Physical Degeneration, upon which this Board, as also the Home Office and the Local Government Board, have a representative.

I have the honour to be, SIR,

Your obedient servant,

J. Groves, Esq., ROBERT L. MORANT.

British Medical Association, W.C.

The Committee expressed satisfaction at the reply received.

CONSTITUTION OF THE LOCAL GOVERNMENT BOARD.

The CHAIRMAN reported that a deputation from the Medico-Political and Public Health Committees had waited upon the President of the Local Government Board to lay before him the views of the Association with respect to the constitution of the Local Government Board. Dr. C. F. Hutchinson, M.P., had introduced the deputation, for whom the President of the Association, and the Chairmen of the Medico-Political and Public Health Committees had addressed the President of the Local Government Board; Mr. Long in replying undertook to convey the views laid before him to the Committee, presided over by the Earl of Jersey, which was then sitting to consider the subject.

The CHAIRMAN further reported that application had been made to Lord Jersey's Committee to hear witnesses on behalf of the Association. A reply had been received from the Committee that it did not think it necessary for witnesses to attend, but would be glad to have the the views of the Association laid before it in writing. A memorandum had, therefore, been prepared and forwarded to Lord Jersey's Committee [see SUPPLEMENT to the JOURNAL of March 19th, p. 35]. The Committee approved the action taken by the Chairman in the matter.

OVERLYING OF INFANTS.

The Committee resolved to recommend the Council to ask the Coroners' Society to confer with the British Medical Association on the subject of the overlying of infants.

VACCINATION AND REVACCINATION.

The Committee concurred with the resolution of the Medico-Political Committee instructing the Medical Secretary to prepare a report on the replies received from Divisions with reference to the six resolutions as to vaccination formulated conjointly by the Medico-Political and Public Health Committees and referred by the Representative Meeting to the Divisions. The Committee resolved to concur in the recommendation of the Medico-Political Committee to the Council strongly to support the Revaccination Bill introduced into the House of Commons by Sir John Batty Tuke on behalf of the Imperial Vaccination League.

INTERNATIONAL NOTIFICATION OF INFECTIOUS DISEASES.

The Committee considered the following clause omitted from the draft of the Local Government Board Bill:

INTERNATIONAL NOTIFICATION OF INFECTIOUS DISEASES.

His Majesty's Principal Secretary of State for Foreign Affairs shall forthwith transmit copies of all notifications received by him under the provisions of any International Sanitary Convention to which Great Britain is a party to the President of the Local Government Board, and the said President shall, once in every week or oftener if need be, transmit to His Majesty's Principal Secretary of State for Foreign Affairs a statistical statement of epidemic and infectious diseases prevailing in the United Kingdom, and the secretary of the Local Government Board in Scotland and the secretary of the Local Government Board in Ireland shall in like manner transmit a statistical statement of epidemic or infectious diseases prevailing in Scotland or Ireland respectively to the President of the Local Government Board, at such dates as His Majesty by and with the advice of the Local Government Board shall direct.

The Committee resolved to recommend the Council to approve the principle of the clause and to address a communication on the subject to the Local Government Board, the Colonial and Foreign Offices, and the Public Health Committee of Members of Parliament.

PUBLIC HEALTH COMMITTEE OF M.P.'S.

The MEDICAL SECRETARY reported the receipt of an intimation from Sir Michael Foster that a Public Health Committee had been formed among members of the House of Commons, to which Sir Michael Foster had been asked to act as Secretary.

SECURITY OF TENURE OF M.O.H.

The CHAIRMAN reported that in response to an inquiry as to the prospects of the introduction of the Security of Tenure (Sanitary Officers) Bill in the present session, he had received a letter from Sir Michael Foster, in which he said

that while the subject had long been in his mind he feared that nothing could be done this year. In his opinion it was only one part of a sadly-needed reform of the sanitary administration, for which, however, it might be necessary to wait a long time. Sir Michael Foster added that if he were in the House next year he would consider whether he could do anything useful in the matter.

After consideration the Committee adopted the following resolution:

That no action be taken with respect to the Security of Tenure of Sanitary Officers in the present session of Parliament, but that the matter be brought before the next meeting of the Committee in order that effective action may be taken next session, and that, in the meantime, the Medical Secretary be instructed to write to the Sanitary Inspectors' Association on the subject.

WORKMEN'S COMPENSATION ACT.

A communication was read from the Legal Secretary of the Women's Trade Union League, asking the Association to support proposals to extend the Workmen's Compensation Act to include incapacity arising from certain specified diseases of occupation.

It was resolved that further inquiries should be made, and the matter considered at the next meeting.

HYGIENE AND EDUCATION.

The Committee resolved to recommend the Council to make representations on behalf of the Association to the Government to the following effect: That having regard to the influence of the conditions of education upon public health, it is advisable (1) that the Board of Education should include in its staff a medical adviser to the Board, (2) that each local education authority should have a medical adviser, and (3) that such local officer should where possible be the medical officer of health.

THE SCOPE OF THE COMMITTEE'S WORK.

The Committee recommended the Council to propose an amendment of By-law 39, Section (3), under which the Committee is constituted, in order to include in the reference to the Committee all matters relating to public health, and not simply the Public Health Service.

ETHICAL COMMITTEE.

A meeting of the Ethical Committee was held at the office of the Association on Friday, March 18th. Dr. BRUCE GOFF, in the absence of the Chairman, took the chair. The other members present were Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Mr. G. H. Broadbent, Dr. W. A. Elliston, Dr. E. Jepson, and Mr. R. H. Kinsey.

TRADE ADVERTISEMENTS.

A communication was received from the Registrar of the General Medical Council intimating that in the matter of the conduct of a medical practitioner, reported by the Committee to the General Medical Council, and as to which that body had already reported[1] that they had referred the matter to the licensing corporations from whom the medical practitioner in question obtained his diplomas, the Council had now received a reply from the Royal College of Physicians of Edinburgh to the effect that that College had drawn the attention of the medical man in question to the impropriety of his conduct, and had received from him an undertaking not to repeat the offence.

ETHICAL RULES.

The Committee resolved to make the following recommendations to the Council:

To approve the Rules of Ethical Procedure of the following Divisions: Altrincham, Brighton, Glasgow (Southern), Newcastle, Stockport, and Sunderland.

That the Rule and Notice drawn up in pursuance of the resolution of the special conference held on February 10th be approved by the Council, subject to the opinion of the Solicitor to the Association on certain amendments proposed by the Committee.

That some financial recognition be made of the assistance rendered to the Association by the County of Durham Medical Union and the Northumberland Medical Association in furnishing copies of a statement of case and Council's opinion thereon.

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 30th, 1904, p. 8.

CONTRACT PRACTICE.

The Committee recommended the Council to approve a scheme submitted by the Medical Secretary to provide for the insertion, already authorized in principle by the Council (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL for October 31st, 1903, p. cevii) of a warning notice in the JOURNAL concerning districts in which there are disputes arising out of contract practice.

The scheme approved was as follows:

(*a*) That a notice in the following form be inserted weekly in the BRITISH MEDICAL JOURNAL among the advertisements relating to appointments of the kind referred to:

> Medical men are requested not to apply for appointments in connexion with Clubs and other forms of Contract Practice in any of the towns and districts named in the following table without first communicating with the Honorary Secretary of the Division, whose name is given in the second column of the table, or with the Medical Secretary of the British Medical Association, 429, Strand, W.C.:

Town or District.	Hon. Sec. of the Division.

(*b*) That the Medical Secretary be responsible for preparing the list and keeping it corrected up to date.

(*c*) That names of places be inserted in the list only in response to an application from the Honorary Secretary of the Division concerned, or, if applications are received from other persons, with the concurrence of the Honorary Secretary of the Division.

(*d*) That no name of a place should be retained on the list for more than four consecutive weeks except upon a renewed application from the Secretary of the Division concerned.

Resolved: That it be recommended to the Council that notices be inserted in the JOURNAL according to the scheme submitted by the Medical Secretary.

HYDROPATHIC ESTABLISHMENTS.

An inquiry having been received as to whether it was permissible for a medical man to become managing director and resident physician of a hydropathic establishment, owned by a limited company, the Committee considered a memorandum on the matter which the Medical Secretary had drawn up by instruction of the Chairman, and the following resolution was adopted:

That in the opinion of the Committee, it would appear to be better that medical men should be on the directorate of such an institution, than that the entire control should pass into the hands of laymen, who would be less likely to conform to what the medical profession would regard as sound principles of management; but a medical man who accepts such an office must equally accept responsibility to the profession for the mode in which the establishment is conducted.

SPECIAL CASES.

The MEDICAL SECRETARY reported a number of individual cases in which advice had been given, and the action was approved in each case. The questions raised included the following:

(*a*) That a medical man should not have his doorplate affixed to premises of which he has no effective tenancy, but that the facts of any particular case of such alleged use of doorplates may be a question for primary investigation by a Division of the Association.

(*b*) That a medical man who was the victim of newspaper notices which he had not authorized and did not desire, and who feared that personal remonstrance might only result in adding to the annoyance, could, if a member of the Association, bring the matter before his Division, which might take action on his behalf.

An inquiry had been received from a lay manager of a Sick Club connected with a religious organization, as to the propriety, as affecting the Medical officer of the Club, of the issue of certain handbills by the Club. Advice had been given, upon which the manager had intimated that the Club would act.

Several other matters to which the attention of the Committee had been drawn had been referred to Divisions or Branches for primary investigation, and the Chairman was authorized by the Committee to follow the same course, in the intervals between Committee meetings, whenever in his opinion advisable.

ORGANIZATION COMMITTEE.

A MEETING of the Organization Committee was held at the office of the Association on Tuesday, February 9th, when, in the absence of the chairman of the Committee, the chair was

taken by Mr. Andrew Clark, Chairman of Council. The other members present were Dr. T. D. Griffiths (President), Mr. H. A. Ballance, Dr. S. Crawshaw, Dr. J. C. McVail, Professor J. T. J. Morrison, Professor A. H. White.

GRANTS FROM BRANCHES TO DIVISIONS.

The Committee considered an inquiry from the Honorary Secretary of a Division, who stated that the Branch Council required Division accounts to be presented to the Branch Treasurer for payment, and asked whether this was not contrary to By-law 16. The Committee expressed the opinion that under By-law 16 the form of payment by a Branch Council to a Division must be that of a capitation grant.

RULES AND BOUNDARIES OF DIVISIONS AND BRANCHES.

The Committee had before it certain matters with reference to the rules of Divisions and Branches and the delimitation of boundaries, and made the following recommendations to the Council:

1. That the Council approve the Rules of the North-East Edinburgh Division.
2. That the boundary between the Metropolitan Counties and Oxford and Reading Branches be modified in the way proposed and approved by the two Branches.

The question of the grouping of Divisions and Branches for electoral purposes was discussed and the further consideration of the subject adjourned to the next meeting.

A meeting of the Organization Committee was held on Tuesday, April 12th, when there were present Mr. T. Jenner Verrall (in the chair), Mr. Andrew Clark (Chairman of Council), Mr. H. A. Ballance, Professor J. T. J. Morrison, and Professor A. H. White.

TEMPORARY VACANCIES.

The Committee considered a case brought before it of a difficulty arising through the resignation of the Honorary Secretary of a Division, of which the Rules gave no power to the Executive Committee to provide for such emergencies.

The Committee resolved to recommend the Council to suggest to each Division that it is desirable to adopt a rule empowering its Executive Committee to fill vacancies amongst its officers and to appoint deputies for officers unable to act, and instructed the Medical Secretary to draft a model rule to be circulated to the Divisions as suitable for the purpose.

FOREST OF DEAN SECTION.

The Committee, having consulted the Solicitor and being satisfied that the proposal was not in conflict with the letter and spirit of the Articles and By-laws, resolved to recommend the Council to approve the formation by the Gloucestershire Branch of a Section for the Forest of Dean, and to approve rules relating to the Section which had been considered by the Committee after consultation with the Solicitor.

DIVISION LIBRARIES AND DIVISION FINANCE.

The MEDICAL SECRETARY presented an interim Report on Division Libraries and Division Finance, prepared by instruction of the Committee, and was instructed to make further inquiries and report thereon.

RULES OF DIVISIONS AND BRANCHES.

The rules of the following Divisions and Branches were approved:

Branches—Hong Kong (except Rules 7, 8, and 13, and subject to certain additions).
Malaya.
Divisions—Bath.
Glasgow Southern.
Glasgow Eastern.
Hartlepool.
Skegness.
Sunderland.

CHANGES OF BOUNDARIES OF DIVISIONS.

The Committee, in exercise of the authority conferred upon it by the Council to make changes in the boundaries of Divisions as to which there was no local opposition, approved the following changes in the boundaries of Divisions:

From	To	To
Warrington and Dunham	Northwich Division	Belfast Division
Mossley	Ashton	North Manchester Division
Farnworth	Accrington	West Manchester Division
Norbury	Crewe	Nottwood Division
Water Orton	Central Birmingham Division	Nuneaton Division

CIRCUITING OF BRANCHES.

The following resolutions were adopted:

That the grouping of Branches in the United Kingdom for representation on the Central Council be the same as last year and that independent representation be granted to the same Branches as last year.

That the following Divisions, which last year were grouped for the election of representatives in the Representative Meeting, and which now have at least 50 members each, be made independent constituencies for the election of Representatives: Cleveland, Hereford, Lancaster, and Reigate.

That the Isle of Wight be made an independent constituency if reaching 50 members by the day of election.

That the Fermanagh, Monaghan and Cavan, and Omagh Divisions be grouped with the three Divisions of Connaught to form one constituency for the election of a representative.

That the constituencies of the Representative Meeting in the United Kingdom, other than those affected by the foregoing proposals, be the same as last year, except in the case of Divisions then grouped, which may be found when the list of members is published to have more than 50 members, and except also in the case of any Division thus recommended for independent representation which may then be found to have fewer than 50 members; and that in respect of such excepted cases the Council do delegate to the Organization Committee authority, at the first meeting of the Committee held after the publication of the annual list of members, to grant independent representation to such Divisions as shall then have at least 50 members, and to group such Divisions as shall then have fewer than 50 members, in each case in which the Committee shall deem such action expedient.

MEDICAL DEFENCE COMMITTEE.

A MEETING of the Medical Defence Committee was held on February 11th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), SIR VICTOR HORSLEY (Chairman of Representative Meeting), Dr. M. Beverley, Dr. Bruce Goff, Dr. G. A. Heron.

MINORITY REPORT.

The minority report signed by Mr. Messiter and Dr. Beverley was considered and ordered to be entered on the minutes. (This was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 19th, p. 33.)

EXPLANATORY MEMORANDUM.

The Committee then considered the Explanatory Memorandum which was published in the SUPPLEMENT to the JOURNAL of March 19th, p. 32.

The Committee resolved that the Explanatory Memorandum, together with the Scheme, should be forwarded to the Divisions, with a request that the secretaries of Divisions should poll the members. The General Secretary was instructed to prepare a form of application for those members who were willing to join the Medical Defence department of the British Medical Association in the event of such a department being formed.

HOSPITALS COMMITTEE.

A MEETING of the Hospitals Committee was held on January 28th, 1904, when the following were present: Dr. Michael Beverley (Chairman), in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. J. Brassey Brierley, Dr. E. Lawrence Fox, Dr. John R. Hamilton, Mr. T. Garrett Horder, Mr. Edmund Owen, Dr. Frank M. Pope.

CONSTITUTION OF THE COMMITTEE.

On the suggestion of Mr. GARRETT HORDER and on the motion of Dr. BRASSEY BRIERLEY, seconded by Mr. GARRETT HORDER, it was resolved that some member of the staff of a large London hospital to be nominated by the Chairman, should be invited to serve on the Committee in the place of Professor Morrison, who had consented to act as a corresponding member.

HOSPITAL MANAGEMENT.

The GENERAL SECRETARY reported that he had sent the questions as to hospital management, approved by the Committee on November 13th, and printed in the SUPPLEMENT to the JOURNAL of January 30th, 1904, p. 12, and that he had

received replies from all the hospitals applied to, namely:

London.

The Hospital for Consumption, Brompton
The Great Northern Central Hospital.
The Hospital for Diseases of the Throat.
The London Hospital.
The Middlesex Hospital
The National Hospital for the Paralysed and Epileptic.
The Royal Free Hospital
The Royal London Ophthalmic Hospital.
St. Bartholomew's Hospital.
St. George's Hospital.
St. John's Hospital for Diseases of the Skin.

Provinces.

The Birmingham General Hospital.
The Leeds Infirmary.
The Liverpool Royal Infirmary.
The Manchester Royal Infirmary.
The Newcastle Royal Infirmary.
The Norfolk and Norwich Hospital
The Royal Devon and Exeter Hospital.

Wales.

The Cardiff Infirmary.

Scotland.

The Edinburgh Royal Infirmary.

Ireland.

The North Charitable Infirmary, Cork.
The Royal Victoria Hospital, Belfast.
Dr. Steevens's Hospital, Dublin.

Proposed Draft Rules.

Before considering these replies the Committee resolved to discuss a Memorandum for the Guidance of Hospital Managers submitted by Dr. Pope. After discussion, a series of resolutions were adopted as a basis for model rules (see report of meeting on March 24th).

RATE SUPPORT OF GENERAL HOSPITALS.

The GENERAL SECRETARY reported, as bearing upon the work of the Committee, that the following communication from the Local Government Board had been addressed to the Tottenham Urban District Council:

Local Government Board, Whitehall, S.W.
November 26th, 1903.

SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 18th inst., with reference to a proposal of the Tottenham Urban District Council to contribute to the funds of a general hospital situated in their district, and, in reply, I am to state that it appears to the Board to be competent to the District Council to make a contribution to the funds of an established hospital in pursuance of an agreement with a view of obtaining the benefits indicated in Section CXXXI of the Public Health Act, 1875.

I am, Sir, your obedient servant,
JOHN LITHIBY Assistant Secretary.

The Clerk to the Urban District Council, Tottenham.

It was resolved:

That the interpretation by the Local Government Board of Section CXXXI of the Public Health Act, 1875, be referred to the Solicitor of the Association for his opinion.

A meeting of the Hospitals Committee was held at the office of the Association, 429, Strand, W.C., on Thursday, March 3rd, 1904, when there were present, Dr. Michael Beverley (Chairman) in the chair, Dr. E. Lawrence Fox, Dr. John R. Hamilton, Dr. T. Arthur Helme, Mr. T. Garrett Horder, Dr. F. M. Pope. Letters apology for non-attendance were read from the President, the Chairman of Council, Dr. Brassey Brierley, and Mr. Edmund Owen.

RATE SUPPORT OF GENERAL HOSPITALS.

The following opinion of the Solicitor to the Association on this matter was read and entered on the minutes:

February 10th, 1904.

Dear Sir,—I beg to acknowledge the receipt of your letter of the 9th inst. with the copy letter from Mr. John Lithiby, the Assistant Secretary to the Local Government Board, written to the Clerk of the Tottenham Urban District Council, having relation to a proposal of the District Council to contribute to the funds of a general hospital situated within their district, and in connexion with which my opinion is desired upon the interpretation placed by Mr. Lithiby upon Section CXXXI of the Public Health Act, 1875.

I have not before me the letter of the Clerk of the District Council to Mr. Lithiby, to which that which you send me is in answer, but I infer it to have been written on the instructions of his Council with the view of ascertaining officially from the Local Government Board whether or not that which was proposed was *intra vires* of the District Council.

I annex to this letter a copy of Section CXXXI of the Public Health Act, 1875, on which Mr. Lithiby founds his opinion as to it being competent to the District Council to make the proposed contribution in order that you may have the full text of such section before you.

In my opinion the interpretation which Mr. Lithiby, in his letter to the Clerk, places upon the section is correct.

I am, dear Sir, yours faithfully,
W. E. HEMPSON.

Guy Elliston, Esq.,
General Secretary, British Medical Association,
429, Strand, W.C.

Public Health Act, 1875. Part III Sanitary (Infectious Diseases, etc.).
38 and 39 Vict., c. 55.

HOSPITALS.

131. Any local authority may provide for the use of the inhabitants of their district, hospitals or temporary places for the reception of the sick, and for that purpose may:

Themselves build such hospitals or places of reception; or
Contract for the use of any such hospital or part of a hospital or place of reception; or
Enter into any agreement with any person having the management of any hospital, for the reception of the sick inhabitants of their district on payment of such annual or other sum as may be agreed on.
Two or more local authorities may combine in providing a common hospital.

HOSPITAL MANAGEMENT.

Out-patient Departments.

The consideration of the memorandum submitted by Dr. Pope was resumed, and a draft of proposed model rules for the guidance of hospitals, submitted by Mr. Garrett Horder, was considered. (The memorandum as finally settled and reported to the Council will be found in the report of the meeting of the Committee on March 24th).

A communication was read from Dr. H. C. Mactier, of Wolverhampton, regarding hospital management. Dr. Mactier forwarded replies to the eight questions recently submitted to the various hospitals as concerning Wolverhampton, and pointed out that in his opinion the present abuse of hospitals is due to the general impression held by the public that honorary medical officers are paid.

Special Hospitals.

The consideration of proposed model rules for special hospitals prepared by Mr. Garrett Horder was deferred.

A report of the Committee of the Hospital Reform Association on the working of the special hospitals of London, published in the *Lancet* of April 10th, 1897, was ordered to be entered on the minutes for reference.

A meeting of the Hospitals Committee was held at the office of the Association on Thursday, March 24th. Present: Dr. Michael Beverley (Chairman), in the chair, Dr. T. D. Griffiths (President), Mr. Andrew Clark (Chairman of Council), Dr. E. Lawrence Fox, Dr. John R. Hamilton, Dr. T. Arthur Helme, Mr. T. Garrett Horder, Mr. Edmund Owen, Dr. Frank M. Pope. A letter of apology for non-attendance from Dr. J. Brassey Brierley was read.

HOSPITAL MANAGEMENT.

The Committee resumed consideration of certain proposed draft rules for special hospitals submitted at the previous meeting of the Committee by Mr. Garrett Horder.

The Committee resolved to recommend that in all hospitals there should be an age limit for all medical officers.

The Committee resolved to recommend the Council to empower it to invite certain persons not exceeding twelve in number, with special knowledge of hospital management, to confer with the Committee on the following draft memorandum for hospital management.

MEMORANDUM.

Out-Patients.

That the system of the admission of out-patients by letters of recommendation is antiquated, liable to abuse, and entirely unsatisfactory. This Committee is of opinion that the system should be abolished. Sickness and poverty should be the only recommendation to procure the admission of proper cases for the out-patient department.

That all cases of serious accident and severe sudden illness shall be attended to on their first application and if deemed eligible for further treatment, shall then be referred to the appropriate department of the institution, but if ineligible shall then be referred for treatment elsewhere.

That all cases of trivial accident or illness deemed in-

eligible for the out-patient department shall, after having been attended to, be referred for treatment elsewhere.

That it is inexpedient that any patient should be able to leave the institution without having been seen by a registered practitioner.

That an investigating officer shall be appointed, whose duty shall be to inquire into the eligibility of all applicants.

That no payment as such shall be received from any out-patient for treatment or medicine.

That the number of new cases to be seen on any one day by an honorary medical officer shall not exceed twenty.

In-patients.

That no charges for the treatment of any patient shall be made except in the case of patients who, although able to pay a medical attendant, have been admitted owing to the urgent nature of their accident or illness, but contributions towards their expenses may be received from patients.

That, except in case of emergency, before a patient is admitted into any hospital, sufficient evidence should be obtained by the hospital authorities on two points (*a*) that the patient is not in a position to pay for treatment at home; (*b*) that the case is, from a hospital point of view, suitable for treatment.

Special Hospitals.

That special hospitals should treat only those cases that come strictly within the scope of their work.

That no charges for the treatment of any patient shall be made except in the case of patients who, although able to pay a medical practitioner, have been admitted owing to the urgent nature of their accident or illness, but contributions towards their expenses may be received from such patients.

ROYAL NAVAL AND MILITARY COMMITTEE.

A meeting of the Royal Naval and Military Committee was held on February 8th, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, T. D. Griffiths (President), Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, Inspector-General Alex. Turnbull, M.D., R.N.

War Office Reconstitution.

The Chairman stated that the meeting had been called for the purpose of considering the report of the War Office (Reconstitution) Committee, published on February 1st, and certain correspondence which had passed with the Secretary of that Committee. The Committee, having considered the scheme, resolved that the following recommendations should be forwarded to His Majesty's Secretary of State for War.

> While the British Medical Association would welcome any measure which will tend to increase the efficiency of the military organization of the empire, such as is outlined in the new scheme of War Office Reform, it regrets to observe that, notwithstanding the experience gained in the South African war, after which Mr. Brodrick's Committee gave to the Army Medical Service direct representation on the Army Board, no such similar provision appears to have been made for the direct representation of the Medical Service of the Army on the new proposed Army Council.
>
> The British Medical Association considers the absence of direct representation on the Army Council of so important a branch of the military service a retrograde movement, and one that can only tend to handicap the efficiency of this branch of the service. It would therefore especially urge on His Majesty's Government to take such steps as will ensure the direct representation of the Army Medical Service on the Army Council, or whatever its central governing body in the War Office may be designated.

A further meeting of the Committee was held on February 15th, when there were present: Mr. Andrew Clark (Chairman of Council), in the chair, Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, Inspector-General Alex. Turnbull, M.D., R.N.

War Office Reconstitution.

The Chairman read the following letter received from the War Office in reply to the recommendations passed at the last meeting of the Committee:

War Office,
February 4th, 1904.

Dear Sir,—I am desired by Mr. Arnold-Forster to acknowledge the receipt of your letter of the 9th inst., forwarding certain recommendations of the British Medical Association, and to say that the new Army Council is in no way a representative body, but is constituted in the same manner as the Admiralty. Under these circumstances it is not considered necessary that the Army Medical Service should be directly represented.

Believe me, yours faithfully,
H. Shute.

Guy Elliston, Esq.

A draft memorandum on the effects likely to be produced by the report of the War Office (Reconstitution) Committee on the relation of the Army Medical Service to the Secretary of State for War was then considered. It was adopted in the following terms, and directed to be forwarded to the Secretary of State for War, to Lord Esher, and to members of Parliament. The Chairman of Council was requested to draw up a letter based on the Memorandum for circulation to the press.

Memorandum on the Effects likely to be Produced by the Report of the War Office (Reconstitution) Committee on the Relation of the Army Medical Service to the Secretary of State for War.

It is a matter of the highest importance to the Army Medical Service—and through it to the whole question of army efficiency—that the most careful attention should be given to all recommendations made by the War Office (Reconstitution) Committee, which has just made its report.

Under this Committee's report a very drastic change has been made in War Office organization.

One of the most gladly-welcomed reforms carried out under Mr. Brodrick's administration was the appointment of the Director-General of the Army Medical Service to be a member of the Army Board. The constitution of the new Army Council without any medical representative seems by comparison with this reform a retrograde step.

Practically, the outcome of the War Office Committee report is the formation (1) of a Defence Department working directly under the Prime Minister of the day; (2) an Army Council like the Board of Admiralty; and (3) an Inspector-General and staff to do army inspections.

With the first and third of the proposed formations the British Medical Association has not any special remarks to make, feeling sure that, so far as these particular proposals are concerned, the interests and requirements of the Army Medical Service will be duly considered. But as to the formation of an Army Council on the same lines as the Board of Admiralty the British Medical Association feels considerable anxiety as to its working.

The Army Council consists of 7 members, namely:

1. The Secretary of State for War.
2. }
3. } Military Members.
4. }
5. }
6. } Civilian Members.
7. }

All the branches of the army are to be subordinated to the Army Council, and its forms the "supreme administering body" of the Army.

While the Army Council is made the supreme administering body of the Army there is no direct representative skilled in the technical work of the Army Medical Service able to advise the Council on medical and sanitary requirements.

In studying the various duties assigned to the members of the Army Council, no mention is made of sanitation, prevention of diseases, nor of the care of the sick and wounded. So far as the assignment of duties is concerned all reference to medical and sanitary matters is entirely absent.

In the opinion of the British Medical Association this is unsatisfactory, and it views with grave anxiety the injurious effect on military medical efficiency that must result.

While the Army Council may from its composition deal efficiently with army matters in general, and arrive at sound conclusions, it seems illogical to suppose that, in matters so highly technical as medical and sanitary work, the Council without any trained expert member can efficiently discharge the work of administration of these directors.

The British Medical Association therefore feels that it would fail in its duty if it did not bring this condition of affairs to public notice, and strongly urge that the Army Medical Service should be represented on the Army Council by an officer of that service, who would personally represent the sanitary requirements and general and medical needs of the army.

The proper method of dealing with the Medical Service of the army is to give it responsibility and power. To secure these essentials the British Medical Association considers that direct representation on the Army Council is of vital importance to the army and to the nation.

MILITIA MEDICAL OFFICERS.

Surgeon-Lieutenant-Colonel CURME called attention to the inequalities in the rate of pay of officers of the Militia Medical Staff and those of the Militia Medical Staff Corps. The following resolution was adopted on the motion of Surgeon-Lieutenant-Colonel CURME, seconded by Surgeon-General EVATT:

That this Committee recognizes the inadequacy of the pay of officers of the Militia Medical Staff and recommends that the British Medical Association should write to the Secretary for War calling his attention to the injustice they suffer in this matter, recommending that the pay and allowances of officers of the Militia Medical Staff should be at least equal to those of the officers of the Royal Army Medical Staff Corps according to rank and service.

A meeting of the Royal Naval and Military Committee was held at the office of the Association on Tuesday, March 29th, when there were present: Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths, Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., Major Valentine Matthews, and Dr. J. Roberts Thomson.

WAR OFFICE RECONSTITUTION.

The GENERAL SECRETARY reported that in accordance with the minute of the last meeting, he had forwarded a copy of the Memorandum of the Committee dealing with the Report of the War Office (Reconstitution) Committee to the Secretary of the State for War, Lord Esher, and to members of both Houses of Parliament: that the Secretary of State for War and Lord Esher had both replied stating that the matter was receiving careful consideration. He reported also that he had received many letters from members of Parliament expressing sympathy with the aims of the Committee.

The CHAIRMAN reported that he had written to the daily Press regarding the Committee's Recommendations of February 15th, 1904, and that he had replied to the article in the *Times* criticizing the representations of this Committee as to a direct representative on the Army Council.

The Final Report of the War Office (Reconstitution) Committee as published in the *Times* of March 26th, 1904, was then considered at length and the Committee adopted the following resolution:

That notwithstanding the arguments adduced in support of the proposals set out in the War Office (Reconstitution) Committee Report, Part III, the British Medical Association still adheres to its opinion that the Medical Service of the Army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the Army that the Medical Services shall be administered by an Army Medical Officer who shall have a seat on the Army Council.

INDIAN MEDICAL SERVICE.

It was reported that a letter had been received from the India Office stating that the recommendations of the Committee passed on January 12th, 1904, criticizing the memorandum of the India Office, dated October, 1903, had been forwarded to the Government of India for information and report.

A further letter was read from the India Office stating that the fact to which the Committee had drawn attention that it was possible for an officer of the R.A.M.C. by passing various examinations so to accelerate his promotion as to become a major after ten years' service while a corresponding advantage was denied to the officers of the I.M.S., had not been overlooked but was now receiving the consideration of the Government of India.

MAJORS R.A.M.C. IN INDIA.

A communication was received from a Major R.A.M.C. pointing out that while under the last Royal warrant majors received an increase of 3s. 6d. a day pay at home or in the Colonies, the Indian Government had given no corresponding increase. It could not be assumed that majors received charge pay, for in the quarterly Indian Army List for January of 85 majors shown as serving in India only 33 were shown as commanding station hospitals, and of these 33 charges many were not of sufficient magnitude (50 beds) to give charge pay. The Committee resolved to draw up a memorandum on the subject and transmit it to the India Office.

A further meeting of the Committee was held on April 27th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Surgeon-Lieutenant-Colonel Decimus Curme, Brigade-Surgeon-Lieutenant-Colonel E. D. Drake-Brockman, Brigade-Surgeon-Lieutenant-Colonel G. S. Elliston, Surgeon-General G. J. H. Evatt, C.B., and Major Valentine Matthews.

WAR OFFICE RECONSTITUTION.

The Chairman of Council reported that in accordance with the request of the last meeting of the Committee he had transmitted the following letter to Lord Esher, Mr. Arnold-Forster, and Mr. A. J. Balfour:

"British Medical Association,
"429, Strand, London,
"April 12th, 1904.

"Sir,—With reference to the Memorandum forwarded to you in February last, setting out the objections of the British Medical Association to the War Office (Reconstitution) Committee Report, the Association has since seen Part III of the Report. After careful consideration, and notwithstanding the arguments adduced in support of the proposals set out in the Report, the British Medical Association still adheres to its opinion that the Medical Service of the Army now occupies so important a position in safeguarding the health and life of the soldier in peace and in war, that in order to secure the highest state of efficiency it is essential in the best interests of the army that the Medical Services shall be administered by an Army Medical Officer, who shall have a seat on the Army Council.

"The British Medical Association has also noticed with regret that it is proposed that the Army Hospitals Committee shall be altogether independent both of the Director-General of the Army Medical Services and of the Advisory Board, and it is to be responsible solely to the Civil members of the Army Council. Further, that it is proposed to abolish the Sanitary Committee, a Committee which has rendered incalculable services to the army. In view of this the British Medical Association feels that it would be neglecting its duty if it failed to call attention to these matters and do all in its power to prevent the passing into law of any regulations whereby the Army Medical Services are likely to be rendered less efficient.

"I am, Sir, your obedient servant,
"ANDREW CLARK,
"Chairman of Council."

The following reply had been received:

"War Office (Reconstitution) Committee,
"April 18th, 1904.

"Sir,—I am directed by the War Office (Reconstitution) Committee to acknowledge the receipt of your letter of the 12th inst.

"The Committee regret that they have failed to prove to the satisfaction of the British Medical Association that the Medical Service of the Army will, under their proposals, occupy a position of distinctly greater influence than at present.

"With regard to the question of standing Committees, I am desired to point out that you appear to be labouring under a misconception.

"No change of any kind has been proposed as regards the Army Hospitals Committee except to bring this valuable body into touch with the new Barrack Branch under the Civil member of the Army Council, and further to provide that it shall 'send a representative to attend the Army Council when required.' As the duty of 'reporting upon all plans for new hospitals and standard plans for barracks and standing camps, and of selecting sites for new hospitals' is already assigned to the Army Hospitals Committee, it was evidently necessary to establish touch with the new Works Branch. In every other respect the functions and position of this Committee remain as at present.

"Similarly, the Advisory Board remains unaffected except that Lord Esher's Committee has laid down that the Director-General, if necessary associated with a Civil representative of the Board, should be summoned to the Army Council 'whenever his advice and specialist knowledge' are required.

"The functions of the Army Sanitary Committee, which it is proposed should be abolished, can evidently be better discharged by the new Medical bodies recently constituted. It is essential to prevent overlapping of work, and the present arrangement under which two separate bodies—the Army Hospitals Committee and the Army Sanitary Committee—are directed to report "in conjunction, appears contrary to the principles of sound administration. Exclusive of the Nursing Board, there will remain three bodies dealing with Medical Services generally, the large department of the Director-General, the Advisory Board, and the Army Hospitals Committee. These, in the opinion of Lord Esher's Committee, should constitute an ample guarantee that the vitally important question of Military Hygiene will be efficiently and adequately dealt with in the future.

"I have the honour to be, Sir,

"Your obedient Servant,

"G. F. Ellison, Lieut.-Col.,

"Secretary.

"Andrew Clark, Esq., F.R.C.S.,
"Chairman of Council of British Medical
"Association, 429, Strand, W.C."

The Chairman of Council reported that he had also forwarded copies of the resolution on the proposed War Office changes passed at the last meeting of the Committee to certain members of Parliament, and had received acknowledgements from the Archbishop of York, Mr. Wyndham, Mr. A. J. Balfour, and Mr. Arnold-Forster.

The subject having been fully discussed, the Chairman undertook to transmit the following letter to the War Office (Reconstitution) Committee:

"British Medical Association,
"429, Strand, London, W.C.,
"April 27th, 1904.

"Sir,—In reply to your letter of the 18th inst., I beg to say that the arguments therein advanced have been very carefully considered, but they only serve to confirm the opinion expressed by the British Medical Association that it is essential for the welfare of the soldier and the efficiency of the army that the Army Council shall comprise an expert officer acquainted with the sanitary and medical needs of the army.

"The scheme propounded by Lord Esher's Committee provides three more or less independent bodies, the Director-General's Office, the Advisory Board, and the Army Hospitals Committee. No head is appointed to these Services, nor any other means of co-ordinating their work, except through the Adjutant-General, who is not an expert in medical and sanitary questions.

"The British Medical Association cannot accept the view that the report embodies a scheme which will 'constitute an ample guarantee that the vitally important question of Military Hygiene will be efficiently and adequately dealt with in the future.'

"On the contrary, the Army Council may take the most momentous decisions without receiving any advice upon its sanitary aspects from the Director-General, associated or not with a Civil representative of the Board, since the members of the Army Council may not have perceived that it was one upon which 'his advice and specialist knowledge' are required.

"I am, Sir,

"Your obedient servant,

"Andrew Clark,

"Chairman of Council.

"Lieut.-Col. G. F. Ellison, C.B.,
"Secretary, War Office (Reconstitution) Committee,
"3, Gospel Place, Delahay Street, S.W."

Majors R.A.M.C. in India.

The anomaly with regard to the pay of Majors R.A.M.C. serving in India was further discussed, and the following letter was directed to transmitted to the India Office:

"Sir,—I am instructed by the Council of the British Medical Association to call your attention to the [illegible] relating to the pay of Majors of the R.A.M.C. when [illegible] India.

"For some time [illegible] the R.A.M.C. have not received that they should not be paid the full rate of Indian pay equivalent to converted money English pay plus Indian allowances.

"Recently when the War Office issued a New Warrant for the R.A.M.C., the Indian Government raised the pay in certain ranks to a comparative equivalent to the English pay plus Indian allowances.

"In the Majors' grade this has not been done and officers of this rank are thus serving in India at a lower rate of pay than duty demands.

"The British Medical Association [illegible] that a grievance thus exists [illegible] loss to officers of Major's grade of the R.A.M.C. while serving in India, and in calling your attention to the foregoing facts would respectfully hope that it may be possible to remedy these disadvantages.—I am, Sir,

Your obedient servant,

G. F. Ellison,

General Secretary.

Indian Medical Service.

The General Secretary was instructed to communicate with the India Office to ascertain if the Government of India had arrived at any decision as to pay in civil employ in the Indian Medical Service.

Resignation.

The resignation of Inspector-General Turnbull, R.N., in consequence of ill-health was accepted with regret, and the Committee placed on record its high appreciation of the valuable services rendered by Inspector-General Turnbull to the Association, more particularly in connexion with the work of the Royal Naval and Military Committee.

SCOTTISH COMMITTEE.

A meeting of the Scottish Committee was held in Edinburgh on February 12th, when there were present Professor Finlay (in the chair in the absence of Dr. Bruce Gold), Dr. R. Cochrane Buist, Dr. Balfour Graham, Dr. H. M. W. Gray, Mr. G. Halley, Dr. James Hamilton, Dr. Munro Moir, Dr. J. E. Moorhouse, Dr. James Murray, Dr. J. H. Nicoll, Dr. W. A. Taylor, Dr. Norman Walker.

Ethical Questions.

The following motion, proposed by Dr. Moir and seconded by Dr. Nicoll, was adopted, together with the following rider, proposed by Dr. Buist and seconded by Dr. Moorhouse:

That ethical questions concerning individual members of the profession should, in the first instance, be referred by the Editor or by the Ethical Committee to the Council of the Division or Branch within the area of which the practitioner affected resides, and that no comments thereon should appear in the JOURNAL until the local report has been received.

This resolution is not intended to interfere with the freedom of the Editor in dealing with cases under initials.

Vacancies.

It was resolved that when a vacancy occurs in the representation of a Branch or Division, the power of temporarily filling the vacancy should be by by-law vested in the Council of the Branch or Division.

COLONIAL COMMITTEE.

A meeting of the Colonial Committee was held at the office of the Association on Friday, March 4th. In the unavoidable absence of the Chairman, Mr. Edmund Owen, the chair was taken by Mr. Andrew Clark, Chairman of Council; there were also present Mr. James Cantlie, Dr. J. Groves, and Dr. C. G. Drummond Morier.

Proposed Transvaal and Orange River Branches.

The General Secretary reported that by the instructions of the Chairman he had invited the attendance of Dr. Fox-Symons, of Pretoria, with a view to the Committee considering the desirability of the formation of Branches in the Transvaal and Orange River Colony. Dr. Fox-Symons pointed out that in his opinion the medical profession practising in these Colonies would welcome such a proposal, and the Committee adopted the following resolution:

That a copy of the [illegible] supplied to the Committee the General Secretary be instructed to communicate with the Honorary Secretaries of the [illegible] and ascertain their views on the proposal to form [illegible] in the Transvaal and Orange River Colony respectively.

Constitution of Committee.

In accordance with the resolution of Council of January 26th, the Committee elected Mr. Donald Armour to represent

Canada), Dr. Francis W. Clark (representing China), and Dr. R. Fox-Symons (representing South Africa) should be invited to attend the meetings of the Colonial Committee.

MEDICAL REGISTRATION IN BRITISH COLONIES AND DEPENDENCIES.

The Committee resolved to recommend the Council to address a letter to the Colonial Office, pointing out that medical registration prevails in certain of His Majesty's Colonies and Dependencies, and that the British Medical Association would respectfully urge upon His Majesty's Secretary of State for the Colonies that the time has now arrived to require compulsory registration in every British Colony and Dependency.

JOURNAL AND FINANCE COMMITTEE.

A MEETING of the Journal and Finance Committee was held on Wednesday, April 20th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meeting), Dr. Edgar Barnes, Dr. James Barr, Dr. Langley Browne, Dr. H. Radcliffe Crocker, Dr. J. H. Galton, Dr. T. Arthur Helme, Mr. W. Jones Morris, Mr. C. H.W. Parkinson, Dr. J. Roberts Thomson, and Dr. Norman Walker.

The financial statement for the year ending December 31st, 1903, was received and approved, and transmitted to the Council with a recommendation that it be published as submitted to the Council (see page 98). The thanks of the Committee were accorded to the Treasurer and permanent officials of the Association for the satisfactory nature of the statement.

The Committee resolved to advise the Council that it should be a recommendation to the Annual General Meeting to vote a sum of £300 to Office Staff Superannuation Fund.

The attention of the Committee was called to the publication of the proceedings of medical societies in the JOURNAL by Dr. T. A. HELME, and a subcomittee consisting of the President and Chairman of Council *ex officio*, Dr. Helme, Dr. Radcliffe Crocker, and the Treasurer was appointed to confer with the Editor on the subject, and report to the Committee.

The Committee recommended the Council to make a further grant of £100 to the Special Chloroform Committee, and to accord some financial assistance to the County of Durham Medical Union and the Northumberland Medical Association.

The General Secretary reported that the total cost of the Year Book amounted to £498 11s. 6d., while the receipts from advertisements were £433 16s. 8d.

ANNUAL MEETING (SECTIONS) COMMITTEE.

A MEETING of the Annual Meeting (Sections) Committee, held at the office of the Association on Monday, March 28th, when there were present: Professor R. Saundby, M.D., Chairman, in the chair; Mr. Andrew Clark, Chairman of Council; Dr. E. Markham Skerritt, Treasurer; Dr. W. J. Tyson; Dr. Norman Walker.

A memorandum from the Editor was considered, and the Committee resolved:

That it was desirable that abstracts of all papers should be published, if possible, in the JOURNAL in the first week in June, and that a circular be issued to the officers of Sections asking them to do their best to obtain such abstracts in time for publication in this number.

PREMISES AND LIBRARY COMMITTEE.

A MEETING of the Premises and Library Committee was held on Tuesday, April 19th, when there were present Mr. Andrew Clark (Chairman of Council) in the chair, Dr. T. D. Griffiths (President), Dr. Edgar Barnes, Dr. J. H. Galton, and Dr. Bruce Goff.

The GENERAL SECRETARY reported that in accordance with the instructions of the Committee additional shelving space had been provided for 3,000 books at a cost of £63 2s. 6d.

The CHAIRMAN OF COUNCIL reported that the alterations in the general office had been completed, and that the total cost amounted to £2,030, being £300 less than the original estimate.

The LIBRARIAN reported that there had been 1,440 attendances during January, February, and March, and submitted a list of books presented, which will be published. Certain books, the purchase of which had been suggested by readers, were directed to be obtained and the Librarian was authorized to purchase the Royal Society's *International Catalogue of Scientific Literature*.

The thanks of the Committee were given to Mr. Spanton for presenting to the library a copy of the minutes of the North Staffordshire Medical Society 1864 to 1885.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EAST ANGLIAN BRANCH.

The spring meeting of this Branch was held at the White Hart, Manningtree, on Thursday, April 14th, being preceded by a Council meeting. Richard Worthington, M.B., B.C., Lowestoft, was elected a member of the Association, and the following officers were nominated for election by the annual meeting of the Branch to be held at Lowestoft on June 23rd:—*President:* Mr. H. B. Walker (Lowestoft). *President-Elect:* S. Barton, M.D. (Norwich). *Vice-Presidents:* C. Scott Kilner, M.B. (Bury); Mr. W. G. Wyllys (Yarmouth); J. C. Thresh, M.D. (Chelmsford). *Secretary for Essex:* B. H. Nicholson, M.B. (Colchester). *Secretary for Norfolk:* H. A. Ballance, M.S. (Norwich). *Secretary for Suffolk:* J. Gutch, M.D. (Ipswich). *General Secretary and Treasurer:* B. H. Nicholson, M.B. (Colchester)

The General Meeting was held after lunch. The ethical rules for the Branch were considered and passed. Mr. BALLANCE propose the following resolution, and it was unanimously carried:

That in future a candidate for election to the Association by the East Anglian Branch shall furnish a certificate from two members of the Association to whom he is personally known.

—Dr. ANTON LIEVEN (Aix-la-Chapelle) read an excellent paper on the cure at Aix.—Mr. T. H. MORSE, F.R.C.S. (Norwich) read a paper on twenty one cases of intrauterine fetation treated by operation, with special reference to diagnosis and removal before rupture.—Dr. SIDNEY BREE (Manningtree) showed an interesting specimen of thyroid adenoma, with notes.—Afternoon tea was kindly provided by Dr. and Mrs. Baxter.—Messrs. Down Bros. showed surgical instruments.—There were about thirty members present.

GRAHAMSTOWN AND EASTERN PROVINCE BRANCH.

AN ordinary meeting of this Branch was held on March 12th, at Steinman's Hotel, Grahamstown. Dr. PURVIS, President, was the chairman; Dr. Bays, Vice President; Drs. Coutts, Drury, Edington, Fitzgerald, Greathead, Hawes, and Mullins were present.

New Members.—The Branch Council met previous to the general meeting, and elected Mr. G. E. Douglas, L.R.C.S., L.R.C.P., of Alexandria, C.C., and Dr. Robert Ainslie Ross, M.B., B.S.Edin., of Bedford, C.C., members of the Association.

Confirmation of Minutes.—The minutes of the meeting held on January 21st were read and confirmed.

Branch Library.—The question of a Branch library, arising out of the minutes was postponed *sine die* after hearing the correspondence with the Public Library.

Draft Rules.—The draft rules of the Branch, as drawn up by the Subcommittee, were then read and discussed *seriatim*. The Subcommittee was instructed to make necessary alterations and report to the Council, with a view to circulating a printed rough draft for consideration by every member of the Branch.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

A MEETING of this Branch was held at the Worcester Infirmary on March 15th. Mr. A. O. HOLBECHE, M.R.C.S., President, in the chair.

Medical Defence.—A discussion took place on this subject, and the following resolution was proposed by Dr. POLLARD and seconded by Dr. MABYN READ:

That in the opinion of this meeting there is no sufficient reason why Medical Defence should be undertaken by the British Medical Association seeing that the medical defence of members is already well provided for by existing societies.

Whereupon the following amendment was proposed by Dr. Crowe, seconded by Mr. Bates, and carried by a large majority:

That the consideration of this matter be deferred until replies have been received to the circular about to be sent out to each member of the Branch.

Consultations of Medical Witnesses in Legal Cases. A discussion took place on this subject, and the matter was referred to the Divisions.

Certificate C. in Cases of Cremation. The meeting was of opinion that for the present the minimum fee in such cases should be five guineas.

Clinical Cases. Mr. Gosling showed a case of abscess of the lung following tooth extraction. The abscess was opened and drained, a portion of the eighth and ninth rib at the back being removed. Dr. Crowe showed a case of paramyoclonus multiplex in a young girl.

British Medical Association.

ANNUAL REPORTS OF BRANCHES.

ADDENDUM.

[By-law 8 "..... every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."].

Gloucester Branch:

Income ...	£33 15s. 0d.	Balance ..	£14 10s. 1d.
Expenditure	£19 4s. 11d.		

Munster Branch:

Income ..	£20 15s. 8d.	Balance ..	£16 5s. 8d.
Expenditure	£4 10s. 0d.		

North Wales and Shropshire Branch:

Income .	£58 18s. 0d.	Balance	£8 12s. 9d.
Expenditure	£50 5s. 3d.		

Southern Branch:

Income	£120 18s. 1d.	Balance	£33 13s. 4d.
Expenditure	£87 4s. 9d.		

South-East of Ireland Branch:

Income	£15 9s. 0d.	Deficit	£1 1s. 7d.
Expenditure	£16 10s. 7d.		

Worcestershire and Herefordshire Branch. The Branch has held one meeting during the year 1903, a report of which was published in the Supplement to the British Medical Journal of July 18th, 1903, p. clxxiii.

Income	£21 14s. 6d.	Balance	£10 18s. 5d.
Expenditure	£10 10s. 1d.		

COLONIAL.

Burmah Branch:

Income	1,067 Rupees	Balance	72 Rupees
Expenditure	341 Rupees	or 18. 4d. about	£1 8s. 0d.

New Zealand Branch:

Income	£52 9s. 3d.	Balance	31 8s. 3d.
Expenditure	£21 0s. 11d.		

South Indian and Madras Branch:

Total income	3,033 Rupees	Balance	111 Rupees
Expenditure	2,921 Rupees	[illegible]	£7 6s. 3d.

The following notices were printed in the British Medical Journal of April 23rd, p. 984, and are reprinted here for the convenience of members:

NOTICE OF MEETINGS.

ANNUAL GENERAL MEETING 1904.

The Annual General Meeting of the British Medical Association will be held in the Examination Schools, Oxford, on Tuesday, July 26th, at 12 o'clock noon, and Wednesday, July 27th, at 2 p.m.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Examination Schools, Oxford, on Tuesday, July 26th, immediately after the Annual General Meeting which will be held at 12 noon: on Wednesday, July 27th, after the Annual General Meeting at 2 p.m., and on Thursday, July 28th, at 3.30 o'clock in the afternoon, if required; also at 2 o'clock in the afternoon on Friday, July 29th, if required.

By Order,

April 21st, 1904. Guy Elliston, *General Secretary.*

REPRESENTATIVE MEETING AT OXFORD.

Tuesday, July 26th, 1904.

NOTICES OF MOTION

The following notices of motion have been given for discussion by the Annual Representative Meeting at the Annual Meeting of the Association to be held at Oxford, July 26th, 1904, and following days.

A.—Notices concerning alteration of the By-laws of the Association.

By the Council of the Association:

1. That By-law 2 be amended in the following respect—namely, that the words "one month" occurring in the last line but one thereof be deleted, and that the words "seven days or such longer period as the Branch may by its rules prescribe" be inserted in substitution therefore.

2. That By-law 12 be amended in the following respects, namely

(A.) That so much of such said by-law as is contained in Section (a) thereof be deleted and no longer form part of such by-law.

(B.) That the words "At any time after January 1st, 1905," with which Section (b) of such by-law commences be deleted.

(C.) That Section (c) of such said by-law, as thus amended, be designated Section (a) thereof, and that Section (d) be designated Section (b).

That By-law 15 be amended by the addition of the following clause at the end thereof, namely: "For the purposes of this by-law, those named in the Annual List of Members, prepared in May in any year, as members of any Branch, shall be deemed to be members of the said Branch for the said year, and those elected by any Branch Council, whose membership dates from July 1st in any year, shall be deemed to be members of the said Branch for the ensuing half year."

4. That By-law 21 be amended in the following respects, namely

(A.) That so much of such said by-law as is contained in Sections (a) and (b) thereof be deleted and no longer form part of such said by-law.

(B.) That the letter (c) prefixing the third section of such said by-law and the words "After the first day of the annual meeting of 1905," with which the said section commences, be deleted and no longer form part of such said by-law.

(C.) That the words "elected by the members of the Association attached to the Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service respectively in such manner as may be determined by the said services respectively, subject to the sanction of the Council," in Section (c) of such said by-law, be deleted, and that the following words, "and of one member of the Royal Navy Medical Service, one member of the Army Medical Service, and one member of the Indian Medical Service, and shall be appointed by the Council to represent the said services respectively on the Council" be inserted in substitution thereof, so that the by-law as thus amended shall read as follows:

The Council shall be composed of the officers and ex officers named as members of the Council, [illegible], in Article XXXVIII of the [illegible] regulations together with the representatives elected or appointed by the Branches and other bodies [illegible] by the by-laws to elect or appoint members of the Council, and of one member of the Royal Navy Medical Service, one member of the

Army Medical Service, and one member of the Indian Medical Service, annually appointed by the Council to represent the said services respectively on the Council, and of members annually co-opted by the Council in manner hereinafter provided."

5. That By-law 18 be amended in the following respect, namely: That after the words "Annual Election" occurring in the fifth line thereof, the following words be inserted and form part of such said by-law: "Or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch," so that the by-law as thus amended shall read as follows:

"Any casual vacancy occurring in the Council, not less than four months before the annual general meeting, may be filled up by any Branch or body the representation of which may have become vacant, and such election shall be conducted in the same manner as the annual election, or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch. Any person so chosen shall retain his office so long as the member in respect of whom such casual vacancy may have occurred would have retained the same."

6. That By-law 20 be amended by the addition of the following clause at the end thereof, namely: "In addition to the above-mentioned report the Council shall have power to present to any Annual Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the JOURNAL if time permits."

7. That Section (2) of By-law 22 be amended in the following respect, namely: That the words "The public health service, the Poor-law medical service, and the vaccination service" be deleted, and that the words "public health and the Poor-law medical service" be inserted in substitution therefor.

8. That the following new by-law be made, and form one of the by-laws of the Association, namely: "In the month of May in each year a list of members of the Association shall be prepared and published showing the ordinary membership of each Division and Branch as shown by the register of members of the Association on April 30th of that year, and those named in the said list as members of any Division or Branch shall be deemed to be the ordinary members of such Division and Branch for the purpose of Article XXVII, and for the purposes of By-laws 7, 18, 21 and 22."

9. That the following new by-law be made and form one of the by-laws of the Association, namely: "The powers conferred under Article XXX upon any constituency to appoint a substitute in the place of a Representative unable or unwilling to attend a Representative Meeting, shall be exercised by such constituency in general meeting, or by some officer or member of the Division or Divisions composing the constituency who shall have been authorized by the rules of the said Division or Divisions, or shall by a resolution of the said constituency be authorized to exercise such powers."

That the officers of the Association be hereby authorized and instructed, in conference with the Solicitor of the Association, to determine the respective positions in which the new by-laws made this day by the Representative Meeting shall be placed among the existing by-laws, to number the said new by-laws accordingly, to make such alterations in the numbering of the existing by-laws as may be necessary, and to alter accordingly the numerical references contained in any of them.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

By-law 22 of the British Medical Association

The elective members of Council shall be elected by voting papers sent to each elector by post, the said voting papers containing the names of those candidates who have been nominated each by three electors in writing to the Secretary of the Branch, on or before an appointed day, of which not less than fourteen days' notice has been given in the JOURNAL.

Proposed (a) That the words "or by a Division" be inserted after the word "writing."

(b) Any Branch can require by its rules that a nomination, not by a Division, be signed by such number of members exceeding three as the Branch may deem expedient.

By the WALTHAMSTOW DIVISION (Metropolitan Counties Branch):

To amend By-law 18, substituting the word "twenty" for the words "a majority"—to read: "Voting shall be, as a rule, by show of hands, unless before such vote is taken twenty of those present determine that the vote shall be taken by card, in which case every Representative shall record as many votes as there are members in the constituency which he represents."

B.—Other Notices of Motion:

By BIRMINGHAM (CENTRAL) DIVISION (Birmingham Branch):

That the representation of the medical profession in Parliament at the present time is inadequate, and in the interests of the public and profession alike should be improved, and that the Council be instructed to consider how this may best be effected.

By BRADFORD DIVISION (Yorkshire Branch):

That the Council be instructed to transfer annually from the central funds such amount as the Council shall deem expedient, having due regard to the expenditure necessary to carry out other objects of the Association, to a special fund to be designated "The Supplementary Grants Fund," and that out of such fund grants be made from time to time to such Divisions and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available.

By CARDIFF DIVISION (S. Wales and Monmouth. Branch):

That steps be taken by the British Medical Association to secure direct representation of the profession in the House of Commons.

By the FOLKESTONE DIVISION (South-Eastern Branch):

1. That the present method of election by the Branch Council is unsatisfactory, and that new members should be elected by the members of the Division in which they reside.
2. That all members of over thirty years' standing should be made honorary members of the Association.

By GATESHEAD DIVISION (North of England Branch):

(A.) That a prominent place shall be reserved in the BRITISH MEDICAL JOURNAL for notices from Divisions and Branches where disputes are taking place as to contract terms, etc., and from which districts it is advisable that decent members of the profession shall keep away. Each such notice shall be repeated, free of charge, until in the opinion of the Division or Branch in question the necessity for it has disappeared.

(B.) That the Council of the Association be instructed forthwith to take the steps necessary to obtain the alterations in the Memorandum of Association contained in the Birmingham resolutions, subject to such modifications as are required to harmonize them with the present articles, submitting the same for adoption by extraordinary general meeting in their amended form as a special resolution, before application to the High Court, if legally advised necessary.

By HAMPSTEAD DIVISION (Metropolitan Counties Branch):

1. That it is advisable that all Association Business Notices be withdrawn from the JOURNAL and be collected and published in the SUPPLEMENT, so that the JOURNAL be purely medical.
2. That it is advisable that the good idea of the Year Book be developed; that it should contain the names and addresses of all members, medical regulations, and other details of general interest to make it a real handbook of medical information.
3. That it is advisable that, having regard to the purity and reliability of the lymph supplied to the public vaccinators by the Local Government Board, every practitioner should be put on the same footing as public vaccinators in respect to the Government supply of vaccine lymph.

By PORTSMOUTH DIVISION (Southern Branch):

That in recording the votes of members of Divisions on matters to be referred to Representative Meetings the following plan should be adopted, namely: The number voting affirmative present; the number voting negative present; the number absent.

By STRATFORD DIVISION (Metropolitan Counties Branch):

(A.) That to Clause 21 of the new Medical Acts Amendment Bill should be added the words, "and such registration shall confer the title of Dr."

(B.) That this Division requests the Annual Representative Meeting of the British Medical Association to take into consideration the question of payment of medical practitioners for services rendered when required in midwives cases.

(C.) That the Council of the British Medical Association be asked to consider what steps are advisable to increase the Association's membership, and that this resolution be submitted to the Annual Representative Meeting.

By WANDSWORTH DIVISION (Metropolitan Counties Branch):

(A.) That it be referred to the Central Council to consider whether it would not be possible that all announcements of births, marriages, and deaths should be inserted free of charge for members of the Association and their immediate family, and

also to charge members of this Association for advertisements at a much lower scale of fees than at present in cases where these are of a private and non-professional character and at the same time, by appending to all such advertisements special sign, to indicate that the advertisements are those of members, and in their private capacity

(B.) That it be referred to the Central Council to consider whether it would not be an advantage to charge for the British Medical Journal, from the beginning of 1905, sevenpence a copy to all non-members of this Association. (75,000 copies are annually sold besides those sent to members

(C.) In order to reduce the present misuse of Charity Trust Funds put at the disposal of hospitals, the constant necessity for hospital appeals, the indiscriminate issuing of "commends" for treatment, as also the consequent gradual reduction now taking place in the scope offered for practice to general practitioners through this largely increasing attendance of the laity at hospital out-patients' departments, hospital authorities should endeavour to make obligatory:

1. The presentation of a form signed by a medical practitioner.
2. That this form should be produced by all before they receive a *second* gratuitous visit or consultation, or apply for admission to the hospital for treatment.

(D.) That a copy of the above resolution be sent (by a deputation if possible) to the King Edward Hospital Fund Committee, as also to all hospital and other similar committees, together with a copy of a proposed form, and, after pointing out the necessity for same, a hope be expressed that they will use their influence to have it adopted, either alone or in conjunction with any subscriber's recommend at present in use.

(E.) That the Central Council of the Association are hereby asked to carry out the above resolutions and to take into their consideration the desirability of offering to make donations towards the salaries of almoners properly trained, who could thus be expected, while safeguarding the expenditure of Charity Trust Funds, to indirectly aid the interests of the local general practitioners.

That in the opinion of this Representative Meeting, the time has come that the Central Council should take into its consideration the advisability of forming a Printing and Stationery Department of the Association, not necessarily at the head office, from which all necessary stationery, circulars, and general printing could be supplied and charged to the Branches and Divisions at a sum only sufficiently over cost price to cover working expenses.

(G.) That it is desirable that the Central Council draw the attention of the Medical Profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

(H.) That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a Committee to investigate the subject either alone or in connection with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the Law.

By the Wigan and Leigh Divisions (Lancashire and Cheshire Branch):

That in the opinion of the Representative Meeting all medical practitioners are entitled to use the title "Dr."

GUY ELLISTON,
General Secretary.

ELECTION OF MEMBERS.

Any candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are entitled to use the Library and Writing Rooms of the Association are fitted up for the accommodation of the members by appointment at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

GUY ELLISTON, *General Secretary.*

British Medical Association.

SEVENTY-SECOND ANNUAL MEETING AT OXFORD.

The seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

President: Thomas Dryslwyn Griffiths, M.D.Lond., M.R.C.S., Swansea.

President-elect: William Collier, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: Andrew Clark, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: Edward Markham Skerritt, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital; Professor of Medicine, University College, Bristol.

GENERAL ARRANGEMENTS.

The Reception Room will be arranged in the Examination Schools, High Street.

The General and Representative Meetings will also be held in these Schools.

The general Addresses will be delivered in the Sheldonian Theatre.

An Address in Medicine will be delivered by Sir William Selby Church, Bart., K.C.B., M.D.

An Address in Surgery will be delivered by Sir William Macewen, M.D., F.R.C.S., LL.D.

A popular lecture will be delivered by Dr. G. B. Ferguson, who was President of the British Medical Association when the annual meeting was held in Cheltenham in 1901. The lecture will be given in the Town Hall on Thursday evening, July 28th.

SECTIONS.

The annual meeting this year will comprise 14 Sections as shown in the subjoined list. Except where otherwise stated each Section will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th, at 10 a.m. on each day and will adjourn at 1 p.m.

The president, vice-president and secretaries of each Section constitute a committee of reference for that Section.

No paper must exceed 15 minutes in reading, and no subsequent speech must exceed 10 minutes.

The text of papers submitted for publication in the British Medical Journal as part of the report of the Section should represent what is actually read in the Section.

Each author should hand the text of his paper in proper form for publication to one of the honorary secretaries of the Section immediately after its reading, or at the latest at the end of the day's meeting of the Section.

Papers read are the property of the British Medical Association and cannot be published elsewhere than in the British Medical Journal without special permission. Papers cannot be taken as read. If not read they form no part of the proceedings of the Section.

In response to a desire expressed by many members it is proposed to publish in the British Medical Journal abstracts of papers introducing the special discussions in the several Sections at an earlier date than usual. It is therefore particularly requested that members or visitors who have promised to introduce discussions will forward an abstract of their intended remarks to one of the Honorary Secretaries of the Section in which the discussion is to take place not later than May 31st.

MEDICINE.

President: Walter Tyrrell Brooks, M.B., Oxford. *Vice-Presidents:* Patrick John Clemes, M.D., Cork; Theodore Dyke Acland, M.D., London; Gustave Schorstein, M.D., London. *Honorary Secretaries:* Ashley Watson Mackintosh, M.D., 9, Richmond Square, Aberdeen; William Cecil Bosanquet, M.D., 117A, Harley Street, W.; William Arthur Forsaith Waters, M.B., 99, Holywell, Oxford.

The Committee of Reference for the Section of Medicine have chosen the following subjects for discussion:

1. The Treatment of Tuberculous Pleural Effusion and Pneumothorax. Introduced by Professor W. Osler, F.R.S., Professor of Medicine in the Johns Hopkins University, Baltimore. Who will be followed by Sir W. Whitla, Professor Finlay, Dr. J. Mitchell Bruce, Dr. A. James, Dr. G. A. Gibson, Dr. Philip, Mr. Stanley Boyd, Dr. J. J. Perkins, and Dr. N. Raw.

2. The Serum Treatment of Disease. (Joint Discussion with the Section of Pathology.) Introduced by Dr. E. W. Goodall, Medical Superintendent of the Eastern Hospital, N.E., who will be followed by Professor G. Sims Woodhead, Dr. F. F. Caiger, Dr. C. J. Martin, F.R.S., Dr. A. E. Wright, Mr. Cantlie, and Dr. W. Bulloch.

3. The Treatment of Chronic Renal Disease. Introduced by Dr. W. Hale White, Physician to Guy's Hospital. Who will be followed by Professor v. Noorden, Sir John William Moore, Sir W. Whitla, Dr. Goodhart, Dr. Byrom Bramwell, Professor R. Saundby, Dr. J. Finlayson, Dr. Samuel West, and Dr. J. Rose Bradford, F.R.S.

A paper on the Maternal Heart in Pregnancy, and the Management of Cases in which Pregnancy is Complicated by Disease of the Heart, will be read by Drs. J. Mackenzie, of Burnley, and H. O. Nicholson, of Edinburgh, and will precede the discussion on Serum Treatment.

The time remaining after the discussions will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

SURGERY.

President: HORATIO PERCY SYMONDS, F.R.C.S Edin., Oxford. *Vice-Presidents:* WILLIAM BRUCE CLARKE, F.R.C.S., London; RICHARD HY. ANGLIN WHITELOCKE, F.R.C.S., Oxford; WILLIAM FREDERICK BROOK, F.R.C.S., Swansea. *Honorary Secretaries:* HERBERT EDWARD COUNSELL, F.R.C.S., 27, Banbury Road, Oxford; DAVID WALLACE, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

Special discussions have been arranged to take place on the two following subjects:

1. The Present Aspects of Asepsis and Antisepsis. To be introduced by Professor Watson Cheyne.

2. The Indications for and Methods of Performing Hysterectomy. To be introduced by Professor Bland-Sutton.

OBSTETRICS AND GYNAECOLOGY.

President: FRANCIS HY. CHAMPNEYS, M.D., London. *Vice-Presidents:* Sir ALAN REEVE MANBY, M.V.O., M.D., East Rudham; THOMAS BABINGTON GRIMSDALE, M.B., Liverpool; JOHN CAMPBELL, M.D., Belfast. *Honorary Secretaries:* FRANK GRÉGOIRE PROUDFOOT, M.D., 43, St. Giles, Oxford; JOHN SHIELDS FAIRBAIRN, M.B., 60, Wimpole Street, W.

It has been arranged that on Wednesday, July 27th, and Friday, July 29th, the first part of the meeting of this Section will be occupied by a discussion on the following subjects:

1. Wednesday, July 27th.—The Treatment of Accidental Haemorrhage. To be introduced by Sir Arthur V. Macan.

2. Friday, July 29th.—The So-called Ovarian Pain; its Causes and Treatment. To be introduced by Dr. Herman.

STATE MEDICINE.

President: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford. *Vice-Presidents:* THOMAS STEVENSON, M.D., London; INNES GRIFFIN, M.R.C.S., Banbury; ARTHUR NEWSHOLME, M.D., Brighton. *Honorary Secretary:* HAROLD MEREDITH RICHARDS, M.D., Town Hall, Croydon; ARTHUR LATHAM ORMEROD, M.D., Oxford.

The following subjects have been already selected, and it is proposed that as far as possible they shall be taken at the beginning of each of the three days of meeting, and that other subjects should be subsequently discussed as far as time may permit:

July 27th.—Standards of Ventilation. To be introduced by the President and Dr. M. H. Gordon.

July 28th.—The Control of the Milk Supply. To be introduced by Dr. Geo. Newman.

July 29th.—Poverty and Public Health. To be introduced by a paper on Pauperization by Mrs. Bosanquet and a paper on Alcohol by Mr. T. P. Whittaker, M.P.

Dr. McCleary will read a paper on the Influence of Antenatal Conditions on Infantile Mortality.

The following subjects are suggested as suitable for papers:

Physical Degeneration.
Direct Infection in Enteric Fever.
The Teaching of Hygiene in Elementary Schools.
The Causes of Infantile Mortality.
Tramps and Disease.
The Application of Statistical Methods to Public Health Problems.
Return Cases of Scarlet Fever and Diphtheria.
The Supervision of Houses let in Lodgings.
The Administrative Control of Diphtheria.

Subsection of Forensic Medicine.

On July 27th there will be a meeting of the Forensic Medicine Subsection, over which Dr. Stevenson will preside. The Provisional Programme is as follows:

Name.	Subject.
Dr. Waldo	(Title to follow).
Dr. Graham Smith ...	Blood Tests (probably).
Dr. Willcox	Arsenic.
Dr. H. Littlejohn ...	Wounds of the Throat.
Dr. F. Smith	Civil Responsibility of the Insane

PSYCHOLOGICAL MEDICINE.

President: CHARLES ARTHUR MERCIER, M.D., London. *Vice-Presidents:* ERNEST WILLIAM WHITE, M.B., Dartford; JAMES NEIL, M.D., Oxford; THOMAS SEYMOUR TUKE, M.B., London. *Honorary Secretaries:* WM. FORD ROBERTSON, M.D., 7, Hill Square, Edinburgh; REGINALD LANGDON LANGDON-DOWN, M.B., 47, Welbeck Street, W.

The following subjects have already been arranged by the committee of reference:

Wednesday, July 27th.—Criminal Responsibility and Degeneracy. To be introduced by Dr. Charles A. Mercier.

Thursday, July 28th.—Heredity. To be introduced by Dr. J. Beard (Biological Aspect) and Dr. W. König, Dalldorf Asylum, Berlin (Psychiatrical Aspect).

Friday, July 29th.—Dementia Praecox. To be introduced by Dr. Conolly Norman.

The time remaining after the discussion on each morning will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

On each day there will be one or more microscopical demonstrations upon subjects connected with the pathology of insanity. Any member wishing to contribute to this part of the work of the Section is requested to communicate with one of the Honorary Secretaries without delay, in order that the necessary arrangements may be made regarding the provision of the number of microscopes required.

PATHOLOGY.

President: JAMES RITCHIE, M.D., Oxford. *Vice-Presidents:* HUMPHRY DAVY ROLLESTON, M.D., London; Professor JAMES LORRAIN SMITH, M.D., Belfast; WILLIAM BULLOCH, M.D., London. *Honorary Secretaries:* STUART MCDONALD, M.B., F.R.C.P., 40, Marchmont Road, Edinburgh; ERNEST WILLIAM AINLEY WALKER, M.D., University College, Oxford.

On July 27th there will be a discussion upon Immunity, opened by the President of the Section, in which the following gentlemen are expected to take part: Professor Ehrlich, Professor Bordet, Professor Madsen, Professor Wright, Professor Muir, Professor C. J. Martin, and Dr. Bulloch.

N.B.—The question of serum-therapeutics will be discussed in the Section of Medicine on Friday, July 29th.

On July 28th the subject for discussion will be the Rôle of the Lymphocyte. Drs. Drysdale, Lovell Gulland, Mott, Beattie, Whitfield, Houston, Melland, and Ferguson will take part in the discussion.

On July 29th the subject is the Chemical Pathology of Gout. The discussion will be opened by Professor von Noorden, and Drs. Garrod, Smith-Jerome, and Walker Hall are expected to speak.

PHYSIOLOGY.

President: Professor FRANCIS GOTCH, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor WILLIAM HY. THOMPSON, M.D., Dublin; MARCUS SEYMOUR PEMBREY, M.D., London. *Honorary Secretaries:* WALTER RAMSDEN, M.D., Pembroke College, Oxford; HORACE MIDDLETON VERNON M.D., 3, Bevington Road, Oxford.

The following subjects have been selected for discussion:

July 27th.—Colour Vision. To be introduced by Professor Francis Gotch.

July 28th (jointly with the Section of Anatomy).—The Thalamic Region. To be introduced by Dr. Gustav Mann.

July 29th.—Chloroform Anaesthesia. To be introduced by Sir Victor Horsley. Professor Sherrington and Dr. C. J. Martin will take part in the discussion.

The proceedings will also include papers and demonstrations on other physiological subjects. The following have already been arranged:

1. Drs. A. P. Beddard and E. J. Spriggs. Some Points in the Metabolism of Diabetes with Reference to Present-day Treatment.

2. Dr. A. P. Beddard: Subcutaneous and Intravenous Injection of Saline Purgatives.

3. Dr. A. E. Boycott: Observations upon the Respiration of Intestinal Worms.

It is proposed also to hold an exhibition of apparatus and objects of physiological interest. Every care will be taken of exhibits, which should be sent to one of the Honorary Secretaries, addressed "Physiological Laboratory, University Museum, Oxford," if possible by July 21st, and should be accompanied by a short description.

ANATOMY.

President: Professor ARTHUR THOMSON, M.D., Oxford. *Vice-Presidents:* Professor JOHNSON SYMINGTON, M.D., F.R.S., Belfast; Professor ROBERT HOWDEN, M.B., Newcastle-on-Tyne; THOMAS H. BRYCE, M.D., Glasgow. *Honorary Secretaries:* WILLIAM WRIGHT, F.R.C.S., The University, Birmingham; GUSTAV MANN, M.D., the University Museum, Oxford.

The meetings of this Section will be held on July 27th and 28th.

Special discussions for these dates have been arranged on the two following subjects:

1. Giants and Dwarfs. To be introduced by Professors Cunningham and Windle.

2. The Thalamic Region (jointly with the Section of Physiology). To be introduced by Dr. Gustav Mann and Sir Victor Horsley.

Any member who desires to exhibit anatomical or histological preparations, or any apparatus, is requested to send it, accompanied by a short description, to Dr. Gustav Mann, the University Museum, Oxford, on or before July 20th, in order that all necessary arrangements may be made.

OPHTHALMOLOGY.

President: ROBERT WALTER DOYNE, F.R.C.S., London. *Vice-Presidents:* GEORGE EDWARD WHERRY, F.R.C.S., Cambridge; CYRIL HUTCHINSON WALKER, F.R.C.S., Bristol; FERGUS MENZIETH OGILVIE, F.R.C.S., Oxford. *Honorary Secretaries:* SYDNEY STEPHENSON, F.R.C.S.Edin., 33, Welbeck Street, W.: FRANK GRIFFITH THOMAS, M.B., 2, Brunswick Place, Swansea.

The following subjects have been selected for discussion:

1. Retro-ocular Neuritis, to be opened by Mr. R. Marcus Gunn, F.R.C.S.

2. Intraocular Haemorrhage and Systemic Disease, to be opened by Dr. Hill Griffith.

3. Keratitis Profunda, to be opened by Mr. W. T. Holmes Spicer, F.R.C.S.

It is suggested to those taking part in these discussions that it would be advisable to condense their remarks and to present them to the meeting in the form of a short paper, lest digressions should absorb an undue share of the time allowed by the rules of the Association to each speaker. The difficulty of compressing into a ten minutes' speech observations upon a subject that has taken up much thought and research need not be dwelt upon. There is little doubt, moreover, that the time limit will have to be strictly observed, in order to give all who desire to do so an opportunity of speaking.

The following gentlemen have expressed their willingness to read papers:

1. Short Note on Two Cases of Disease of the Canaliculi. Dr. A. H. Benson.

2. (*a*) On Operations and Glaucoma Operations. (*b*) On Visual Efficiency after Accident to Sight from the Point of View of Employers' Liability. Dr. G. A. Berry.

3. The Operative Treatment of High Myopia. Mr. W. Adams Frost.

4. Reforms in the Notation of the Acuteness of Vision. Dr. Leslie Lloyd Paul.

5. Title not yet announced. Mr. W. H. H. Jessop.

6. Sepsis and Intraocular Inflammations. Mr. W. Lang.

7. The Temperature of the Cornea and its Relation to Corneal Therapeutics. Dr. Angus McCorquodale.

8. Upon the Malformation and Extraction of Senile Cataract. Professor M. McHardy.

9. Conclusions as to the Vision of Birds based upon a Consideration of Mimetic Colour and Pattern in Insects. Professor Poulton, F.R.S.

10. Visual Acuity in Savage Races. Dr. W. H. R. Rivers.

11. (A subject bearing upon Glaucoma.) Mr. Priestley Smith.

12. Ophthalmoplegia Externa. Dr. James Taylor.

13. Paracentesis of the Cornea for the Relief of Tension Consequent upon Tearing Opaque Capsule. Mr. T. Pridgin Teale.

The following gentlemen have already intimated their intention of being present at the meeting, and those whose names are marked with an asterisk of taking part in the discussions:

Mr. A. H. Benson	Mr. E. E. Maddox
Mr. G. A. Berry*	Mr. A. McGillivray
Mr. T. H. Bickerton*	Professor M. McHardy*
Mr. W. A. Brailey*	Mr. E. Nettleship
Mr. A. Bronner*	Mr. F. M. Ogilvie
Mr. L. V. Cargill	Professor Poulton
Sir William J. Collins*	Mr. H. Power
Sir Anderson Crichett*	Mr. A. M. Ramsay
Mr. R. Cross	Dr. W. H. R Rivers
Mr. W. A. Frost*	Mr. A. Q. Silcock
Mr. C. E. Glascott	Mr. P. Smith
Mr. A. H. Griffith*	Mr. W. T. H. Spicer
Mr. R. M. Gunn*	Mr. H. R. Swanzy
Mr. G. Hartridge*	Dr. James Taylor
Dr. E. Javal	Mr. T. P. Teale
Mr. W. H. H. Jessop	Mr. J. T. Thompson
Mr. H. E. Juler	Mr. John Tweedy
Mr. W. Lang	Mr. C. H. Walker
Mr. J. B. Lawford	Mr. G. Wherry
Mr. G. Mackay	

Keble College, Oxford, has been retained for the accommodation of members attending the Section of Ophthalmology. There are, however, many arrangements to be made: the number of rooms at the College is limited; and numerous American and foreign guests are expected. It is therefore important that members who propose to attend the Section should notify one of the Honorary Secretaries of their intention.

The time at the disposal of the Section is limited. Consequently those gentlemen only who send in their names beforehand can depend upon being called upon to speak in the discussions. Finally, attention may be directed to the subjects selected for discussion, which offer a wide field for research. It is hoped that gentlemen having charge of, or access to, ophthalmic departments will make efforts to collect data between the present time and the date of the meeting.

DERMATOLOGY.

President: THOMAS COLCOTT FOX, M.B., London. *Vice-Presidents:* JAMES HERBERT STOWERS, M.D., London; JAMES LIMONT, M.B., Newcastle-on-Tyne; LESLIE ROBERTS, M.D., Liverpool. *Honorary Secretaries:* ERNEST MALLAM, M.B., 3, Holywell Street, Oxford; EDWARD STAINER, M.B., 60, Wimpole Street, W.

The following discussions have been arranged:

July 27th. The Treatment of Pruritus Ani. To be introduced by Mr. Malcolm Morris.

July 28th. The comparative value of old and new methods of Treatment of Lupus and other Skin Diseases. To be introduced by Dr. J. H. Sequeira.

July 29th. On the relative importance of the Bacterial and other Factors in the Causation of Skin Diseases. To be introduced by Dr. Arthur Whitfield.

Other papers will be read.

It is proposed to form a collection of recently-executed drawings and photographs of Cutaneous Diseases of interest. Members desiring to contribute to the collection are requested to communicate with the London Secretary.

LARYNGOLOGY AND OTOLOGY.

President: CHARTERS JAMES SYMONDS, M.S., London. *Vice-Presidents:* FRANK MARSH, F.R.C.S., Birmingham; CECIL EDWARD SHAW, M.D., Belfast; HARRY LAMBERT LACK, M.D., London. *Honorary Secretaries:* WALTER JOHNSON HORNE, M.D., 27, New Cavendish Street, W.; EDMUND CECIL BEVERS, M.B., 117, Woodstock Road, Oxford.

The following subjects have been selected for special discussion:

Wednesday, July 27th. The Treatment of Non-suppurative Disease of the Middle Ear.

Thursday, July 28th. The Etiology, Treatment, and Prognosis of Innocent Growths of the Larynx.

Friday, July 29th. Intranasal Disease as a Determining Factor in the Production of Laryngeal and Pulmonary Affections (Spasmodic and Catarrhal).

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Foreign and Colonial visitors will be cordially welcomed in the Section, and such as may desire to attend are requested to send in their names as soon as possible to the Honorary Secretaries, together with the titles of any papers they may wish to read.

The offer of a paper will not be accepted on its title alone. Offers of papers will not be accepted in excess of the number likely to be read. As the ratio between the number of papers sent in and the time available for reading them at the Annual Meeting will probably be very disproportionate, preference will be given in the case of communications of equal importance to those which are first received.

Communications relating to the exhibition of preparations, instruments, etc., may be addressed to Dr. E. C. Bevers, 117, Woodstock Road, Oxford; and all others relating to papers and discussions to Dr. Jobson Horne, 27, New Cavendish Street, W., and marked "Section of Laryngology and Otology."

TROPICAL DISEASES.

President: ALEXANDER CROMBIE, C.B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel GEORGE MACONACHIE, M.D., Aberdeen; JOHN WILLIAM WATSON STEPHENS, M.D., Liverpool. *Honorary Secretaries:* HENRY EDWARD ANNETT, M.D., Crofton Lodge, Higher Runcorn, Cheshire; ROBERT FIELDING-OULD, M.D., 94, Mount Street, Berkeley Square, W.

The following subjects have been selected for discussion:

Wednesday, July 27th.—Trypanosomiasis. The discussion will be opened by Colonel D. Bruce, F.R.S.

Thursday, July 28th.—The Prophylaxis of Malaria. The discussion will be opened by J. W. W. Stephens, M.D.

Friday, July 29th.—The Significance of the Leishman-Donovan Bodies. The discussion will be opened by Major W. B. Leishman.

The following gentlemen have already promised to take part in the discussions or to contribute papers: Sir Patrick Manson, Professor R. Boyce, Major C. Donovan, Dr. A. Duncan, Major Mathias, Dr. L. Sambon, Captain E. P. Sewell, and Captain Anderson.

Papers bearing on the discussions or otherwise will be read for gentlemen who are unable to be in England for the meeting. It is also hoped that pathological specimens, drawings, photographs, and microscopic preparations will be lent for exhibition.

NAVY, ARMY, AND AMBULANCE.

President: Surgeon-General A. FREDERICK BRADSHAW, C.B., K.H.P., M.R.C.S., Oxford. *Vice-Presidents:* Surgeon-General GEORGE JOSEPH HAMILTON EVATT, C.B., M.D., Junior United Service Club, London; Fleet-Surgeon JOHN LLOYD THOMAS, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. EDWARD SQUIRE, M.D., V.D., R.A.M.C. (Vol.), London. *Honorary Secretaries:* Major THOMAS MCCULLOCH, R.A.M.C., 68, Victoria Street, S.W.; Staff-Surgeon H. W. GIBBS DOYNE, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain EUSTACE M. CALLENDER, M.D., 40, Connaught Square, Hyde Park, W.

The following discussions have been arranged:

1. On Malta Fever, to be opened by Brevet-Colonel David Bruce, F.R.S., R.A.M.C.
2. On the organization during peace of Civil Medical and Ambulance Aid to ensure an immediate reserve of trained assistance on the outbreak of war, to be opened by Colonel J. Edward Squire, M.D., V.D., R.A.M.C. (Vol.).

The following subjects are suggested for papers:

Navy.

1. The Effect of Radical Cure for Hernia in the Service.
2. Hospital Ships.
3. The Various Causes of Invaliding in the Navy.
4. The present Dietary on Board a Man-of-War.
5. The Teeth and their Treatment in the Service.
6. What Surgeons must look for in the next Naval Action.

Army.

1. The Duties of a Medical Officer in charge of a Regimental Unit on Field Service.
2. Campaigning Therapeutics.
3. Camp Sanitation, with special reference to the disposal of excreta and refuse.
4. The Prevalence of Tuberculous Disease in the Army, its cause and prevention.
5. The General Hospital in War, its working and staff.
6. The First Field Dressing.

Ambulance.

1. Is the widespread slight training in Ambulance Work beneficial to the Community, or would it be better to make the training more thorough at the expense of numbers?
2. First Aid in civil life.
3. The medical equipment and transport for volunteer brigades.
4. The Red Cross Badge—its use and abuse and the steps which should be taken to prevent it being used for trade purposes.

DENTAL SURGERY.

President: EDMUND AUGUSTINE BEVERS, M.R.C.S., Oxford. *Vice-Presidents:* JOHN HOWARD MUMMERY, M.R.C.S., L.D.S., London; FRANK EARLE HUXLEY, M.R.C.S., L.D.S., Birmingham. *Honorary Secretaries:* JOHN MCKNO ACKLAND, M.R.C.S., L.D.S., 24, Southernhay, Exeter; KENNETH WELDON GOADBY, L.R.C.P., L.D.S., 21, New Cavendish Street, Cavendish Square, W.

PATHOLOGICAL MUSEUM.

IT is intended that the Pathological Museum shall be, as far as possible, of general interest to all the Sections. It will be arranged in a readily-accessible situation, and the exhibits will be demonstrated individually at stated times.

The subjoined letter dealing with the formation of the Museum has been circulated, and is republished here for the information of members interested.

Pathological Museum.

Committee:

Dr. Ritchie — Dr. Walker, Secretary.
Dr. Waters — Dr. Ormerod.

Dear Sir,—In connexion with the above meeting it is proposed to arrange a Pathological Museum under the following headings:

1. Specimens and photographs illustrating the latest advances in medicine, surgery, and pathology.
2. Instruments for *x*-ray work and skiagraphs.
3. Colour photography as applied to medical, surgical, and pathological work.
4. Photomicrographs and instruments for photomicrography.
5. Instruments for clinical diagnosis.
6. Surgical anatomy.

Provision will also be made for specimens bearing on any of the discussions in the various sections.

The Committee solicit your co-operation, and I shall be glad to hear if you are willing to make an exhibit. If there is any subject not mentioned above in which you are interested, and in connexion with which you can furnish specially interesting specimens, I shall be glad to hear from you.

The Pathological Museum will occupy the dissecting room at the Department of Human Anatomy, University Museum, and thus will be in close contiguity to the meeting places of all the Sections.

It is hoped that it will be possible to arrange for demonstrations of specimens and instruments by the exhibitors, at stated times, during the evening.

I remain, yours faithfully,

E. W. AINLEY WALKER.

University College, Oxford, November, 1903.

EXHIBITION.

A collection of medical, surgical, dietetic and sanitary apparatus, medical books, and hospital appliances will be arranged in the Examination Schools, High Street, Oxford, in the same building as the Reception Room.

HONORARY LOCAL SECRETARIES.

ARTHUR JOHN DREW, F.R.C.S., Water Hall, St. Aldates, Oxford; WILLIAM DUIGAN, M.B., 66, Woodstock Road, Oxford; ARTHUR PERCY PARKER, F.R.C.S., 2, Hollywell Street, Oxford.

TUESDAY, JULY 26TH.

7 a.m. Council Meeting.
[illegible] Sectional Meetings.
1 p.m. Annual Representative Meeting, followed by Representative Meeting.
8 p.m.—President's Address.

WEDNESDAY, JULY 27TH.

7 a.m. Meeting of New Council.
10 a.m. to 1 p.m. Sectional Meetings.
2 p.m. Annual Representative Meeting, followed by Representative Meeting.
8 p.m.—Address in Medicine.

THURSDAY, JULY 28TH.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m. Sectional Meetings.
2 p.m. Address in Surgery.
3.30 p.m. Representative Meeting, if business not already concluded.
7.30 p.m.—Annual Dinner of the Association.

FRIDAY, JULY 29TH.

9 a.m.—Meeting of Council.
10 a.m. to 1 p.m. Sectional Meetings.
2 p.m. Representative Meeting, if business not already concluded.

SATURDAY, JULY 30TH.

Excursions.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Presentation of Books, etc.

Presented by the AUTHORS:

Monro, T. K. A Manual of Medicine. 1903.
Watkins Pitchford. Observations on Upwards of 1,100 Cases of Enteric Fever in Natal. 1902.

Presented by Messrs. CASSELL AND CO.

Gould, A. Pearce. Surgical Diagnosis. New edition. 1903.
Treves, Sir Frederick. Manual of Operative Surgery. New edition. 2 vols. 1903.

Presented by the CENTRAL MIDWIVES BOARD.

The Rules framed by the Board. 1903.

Presented by Sir JOSEPH FAYRER, K.C.S.I.:

Amesbury. Cholera. 1902.
Army Medical School, Netley. Regulations. 1903.
Chervin. Begnement. 1903.
Deval. Traité des Maladies des Yeux. 1903.
Dobson, Monograph on the Resection of [illegible]
Flint, A. Medicine of the Future. 1880.
Manual for Nurses in India. 1877.
Mayer, L. Diabetes and Heart Disease. 1903.
Oppert, F. Visceral and Hereditary Syphilis. 1903.
Philip, A. P. W. Means of Preserving Health. 1902.
Power, R. D. Pulmonary Consumption. 1903.
United States Cholera Epidemic. 1872.
United States War Department:
Reports on Barracks and Hospitals. 1877.
Cholera and Yellow Fever. 1878.
Gunshot Injuries. 1880-2.
On Materials for a Medical and Surgical History. 1880.

Presented by Dr. DUNDAS GRANT.

Obrodt. Anatomie und Physiologie der Keldkopfnerven. 1903.

Presented by the MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD.

Dr. Bruce Clarke. On Water Supply of Bridgend. 1903.
Dr. Eaton. On Limits of Liability: Cerebro-Spinal Meningitis. 1903.
Dr. Mair. On Throat Diseases in Leeds. 1903.
Dr. Reese. On Sanitary Condition of Speke Moor. 1903.

Presented by Messrs. WILLIAM WOOD AND CO. Limited.

[illegible] Diseases of the Skin. Vol. II. 2nd Ed. 1903.

Presented by the EDITOR OF THE BRITISH MEDICAL JOURNAL.

[illegible] Vol. II. New Ed. 1904.
[illegible] Part III. 1903.
[illegible] Vol. II. 1903.
[illegible] Vol. II. New Ed. 1904.
[illegible] Vol. II. 1903.
[illegible] Vol. II. 1903.
[illegible] Vol. II. 1903

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 28TH, 1904.

CONTENTS.

Page.

MEDICAL ACTS AMENDMENT BILL:
- Explanatory Memorandum ... 132
- Revised Draft of Bill ... 137
- Schedule I ... 138

PROCEEDINGS OF STANDING COMMITTEES
- Medico-Political Committee.—National Deposit Friendly Society 132

REPORTS OF BRANCH MEETINGS
- Birmingham Branch: Coventry Division ... 134
- Dorset and West Hants Branch ... 134
- Edinburgh Branch: South Edinburgh Division ... 134
- Glasgow and West of Scotland Branch: Glasgow Southern Division 134
- Gloucestershire Branch 134
- Lancashire and Cheshire Branch: Altrincham Division ... 134
- ... ... Blackburn Division ... 135
- Leinster Branch 135
- Metropolitan Counties Branch: Chelsea Division ... 135
- ... ... City Division ... 136
- ... ... St. Pancras Division 136
- ... ... Walthamstow Division ... 136
- ... ... Wandsworth Division ... 136
- Midland Branch: Leicester Division 140
- Oxford and Reading Branch 140
- South-Eastern Branch: Eastbourne Division... 140
- ... ... Reigate Division 140
- Southern Branch: Isle of Wight Division ... 140

LUNACY ACTS AMENDMENT BILL 140

British Medical Association.

MEDICO-POLITICAL COMMITTEE.

REVISED DRAFT OF

MEDICAL ACTS AMENDMENT BILL

WITH

EXPLANATORY MEMORANDUM.

MEMORANDUM.

THE Medico-Political Committee in again submitting the Medical Acts Amendment Bill for the consideration of the Divisions, preparatory to an expression of opinion thereon by the Annual Representative Meeting at Oxford, begs to report as follows:

1. As the result of the preliminary discussion of the original draft Bill by the Divisions, consequent upon the circulation of the Bill by order of the Council in August, 1903, expressions of opinion were received by the Committee from 109 Divisions, prior to April 13th, when the Committee commenced the work of revision.

2. The Committee has given the most careful attention to the replies of the Divisions, and in revising the Bill has adopted (*a*) those changes in the draft previously submitted which have appeared to the Committee to be generally desired; (*b*) many valuable suggestions made by individual Divisions on points of detail.

3. The Committee has also taken into consideration, and in many instances adopted, amendments in the Bill which have been put forward by the British Dental Association. The circumstances in which such amendments received consideration from the Committee are stated in the proceedings of the Committee, published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of May 7th, 1904 (pp. 108 and 109).

4. The Bill as amended by the Committee has been submitted to an expert Parliamentary draftsman and by him recast into its present form.

5. The Committee is of opinion that in a matter of such consequence to the medical profession as an extensive amendment of the Medical Acts it is highly desirable that no measure should be laid before Parliament by the British Medical Association until time has been allowed for all the consideration necessary not only to perfect every detail of the proposals made, but also to secure the greatest attainable agreement in the profession.

6. The Committee therefore recommends to the Representative Meeting that after matters of principle have been determined by the approaching meeting at Oxford, the Bill should be referred back to the Committee for further consideration of details and points of drafting, and submitted again to the Divisions with a view to final consideration and adoption if approved, by the Annual Representative Meeting of 1905.

7. If the Divisions approve the foregoing recommendation they may find it sufficient at the present stage to give such consideration to the Bill as will prepare the way for a decision of the principles thereof.

8. The Committee, for the assistance of Divisions in considering the Bill, has authorized the preparation of the Memoranda presented herewith, (I) to explain the principles on which the Bill is based, (II) to explain the principal points of difference between the Bill as submitted to the Divisions in August last and as now submitted.

I.—PRINCIPLES OF THE BILL.

A. GENERAL REMARKS.

1. *Purpose and Form of the Bill.*—The Bill being framed for the amendment of the Medical Acts, is drafted in such form as to be construed with those Acts. From this principle of construction it follows:

(*a*) That it is not proposed to repeal any of the Medical Acts except so far as may be necessary to bring these Acts into agreement with the Bill.

(*b*) That provisions which are contained in the Acts are not repeated in the Bill except when needful for clearness, as, for example, certain provisions as to nomination of members of the General Council by the Crown.

(*c*) That terms, such as "the General Council," which are defined in the Acts, are used in the same sense in the Bill, without further definition.

2. *Provisions as to Dentists.*—In the Bill the provisions of the Medical Acts of 1858 and 1886, which included provisions affecting both the medical and dental professions, have been followed, in preference to that of the Dentists' Act, 1878, which affected one profession only. If this principle receives the approval of the British Medical Association, as has that of the British Dental Association, and if it is sanctioned by

Parliament, the legislation affecting the constitution, duties, and powers of the General Medical Council will be brought into more convenient form for practical purposes.

3. *Arrangement of the Bill.*—The Bill is divided, for convenience of reference, into Parts, each of which relates to a definite group of reforms. In each of the following sections of this Memorandum one Part of the Bill is dealt with.

B. CONSTITUTION OF THE GENERAL COUNCIL (PART I.).

The principles underlying this Part of the Bill are:

1. That the representation of the Crown on the Council should remain unaltered.

2. That those existing universities which have medical faculties should be represented on the Council, and that, as such representatives sit on the Council primarily as educational experts to advise the Council in its duty of controlling medical education and examinations, each university should be permitted to appoint its representative in such manner as it may deem most expedient.

3. That inasmuch as the medical corporations, with one exception, are not educational bodies, and no longer discharge those functions on behalf of the medical profession for which their charters were originally conferred, they should not be represented on the Council on an equality with the universities, but that their historic position should be recognized by representation in a reduced degree.

4. That the direct representation of the medical profession should equal that of all the bodies above named, and that, to secure adequate representation of every part of the United Kingdom, a topographical method of election should be adopted.

5. That the principle of direct representation on the Council should be extended to the dental profession.

Other amendments have been included in this part which are consequential on the foregoing or will simplify the procedure of election.

Statutory provision is proposed for the election of a Vice-President of the Council.

C. BRANCH COUNCILS AND FINANCE (PART II.).

The objects of this Part of the Bill are:

1. To simplify the administration of the Council, and reduce expenditure by doing away with the cumbrous machinery consequent upon the Branch Council system provided by the Act of 1858. Experience has shown (*a*) that no advantage results from the division of the work of registration; (*b*) that apart from registration no duties devolve upon Branch Councils which could not be performed equally well by the Committees proposed under the Bill.

2. To simplify the financial arrangements of the Council, and thus also promote economy in administration.

3. To give statutory powers to the Council to provide pensions or contribute to superannuation funds for its officers. (Section 6 is so drawn as to enable the Council to adopt any kind of superannuation scheme which may be found suitable.)

D. REGISTRATION (PART III.).

The provisions of this Part fall under two principal heads: (1) Affecting the students' registers; (2) affecting the medical and dentists' registers.

1. The statutory creation of a students' register under the absolute control of the Council is provided for.

The necessity for such a register has long been recognized by the General Medical Council, but the efforts of the Council to establish it have been thwarted by the determination of the English Royal Colleges to maintain against the Council what they conceive to be the privileges conferred upon them by their charters.

The success attending the students' register would further [illegible] upon the Council duties to control over preliminary examinations, thus ensuring uniformity of standards in this most important matter. (2) By the grant of examinations qualifying for registration in accordance with Pre-registration Curricula approved by the British Medical Association.

2. With respect to the medical and dentists' registers it is proposed that this Part

(a) [illegible] keeping the registers correct and to facilitate the erasure of unregistered practitioners, especially of those who practise by [illegible]

(b) [illegible] annual fee should be paid instead of a single payment of £10 as at present, the object being to raise the income of the Council to adequate amount.

The necessity for this proposal is shown by the following considerations:

(i) The present income of the General Medical Council is insufficient for its present expenditure, and even under the existing law the work of the Council is crippled by want of funds.

(ii) The provisions of the Bill as to the increase of direct representation, as to the conduct of final examinations by the Council (the "one-portal system"), and as to the prohibition of unqualified practice, making it the duty of the Council to protect the profession and the public by enforcing the penal clauses (Part V), will entail considerable increase of expenditure. Such expenditure will be in the interest of the profession as well as of the public, and the only funds out of which it can be defrayed are those derived from medical and dental registration fees.

(c) The privileges conferred by registration upon medical and dental practitioners in respect of their practice are clearly defined, the anomalies and injustice of the existing law being removed. Among the privileges of medical registration it is proposed to include the right to use the style of "doctor" as a prefix to the name, thus recognizing by statute the customary usage of the public in reference to medical practitioners, and doing away with distinctions which the great differences in status of nominally equal qualifying examinations have rendered arbitrary and unjust.

E. EXAMINATIONS (PART IV.).

The principal changes in this Part of the Bill are:

1. The institution of the "one-portal" system for admission to both the medical and dentists' registers, by means of final (State) examinations under the absolute control and sole management of the Council.

2. Definite statutory provision for complete control by the Council of the medical curriculum, beginning with the preliminary examination, and for the effective supervision and control of the intermediate examination, subject only to a possible appeal by examining bodies to the Privy Council.

F.—OFFENCES (PART V.).

The provisions of this Part fall under the heads of (1) those affecting registered persons, whether students or practitioners, (2) those affecting unregistered persons.

(1) As regards offences by registered persons:

(*a*) It is sought under Sections 21 and 22 to extend or improve the powers and procedure of the General Council in certain matters, the importance of which has been shown by experience. These matters are:

(i) That the Council be enabled to inflict minor penalties, and therefore to adjust penalties to offences.

(ii) That the Council should be able to compel the attendance of witnesses, to take evidence on oath, and to award costs.

(iii) That removal from the register should involve, under penalties, disuse of medical degrees (including diplomas, etc.)

(*b*) In view of the creation of a statutory students' register, students are brought within the disciplinary powers of the Council.

(*c*) Section 27, which prohibits certain acts of registered practitioners, is directed against abuses which tend to facilitate practice by unregistered persons.

(2) Other sections of this part are designed for the more effectual protection of the public and the profession against various forms of unqualified practice, *Section* (25) definitely prohibiting medical or dental treatment for gain, and also [illegible] dental practice. Section (24) dealing with [illegible] with bogus "diplomas" and Section (26) with the directions for use by trustees of the names of medical or dental practitioners, while Section (28) provides against the [illegible] of company practice.

Sections 24 and 26 are to be read in connexion with the determinations in section 21 (Part V.).

In Part VI. Section 31, the second schedule is repealed. It has been thought desirable to delay the promulgation of these sections, which are largely technical matters, until the questions of the first two years shall have been definitely decided by the Representative Meeting.

II.—COMPARISON OF THE BILL AS NOW SUBMITTED WITH THE DRAFT SUBMITTED TO THE DIVISIONS IN AUGUST, 1903.

A.—CHANGES IN THE BILL AS A WHOLE.

1. *Changes in Form.*—In respect of form the Bill has been entirely revised, and made more simple and concise in language. While this has necessitated some rearrangement of the Parts, the general order of the Bill has been preserved as far as possible.

Provisions as to Branch Councils, formerly contained in Part I. have been consolidated with the former Part V to form Part II of the present draft. Part II of the former draft concerning students' registration, together with Part IV, concerning the system of annual registration, together form Part III of the present draft. The other Parts retain their former order, but are renumbered.

2. *Dentists' Acts Amendments.*—The incorporation in the Bill of amendments of the Dentists' Act has occasioned consequential changes in every Part, except Part II.

CHANGES MADE IN THE SEVERAL PARTS OF THE BILL.

B.—CONSTITUTION OF THE COUNCIL (PART I).

1. Objections raised by many Divisions to the suggested *grouping of Universities*, and to the *plural voting* resulting from the system proposed in the former draft for electing university and corporate representatives, have been very carefully considered by the Committee.

The purpose of the former proposal was to reduce the size of the Council simultaneously with an increase in the ratio of direct representatives to other members of the Council.

To abandon the grouping of universities while maintaining the relative strength of the direct representatives involves the creation of a numerically large Council. Full consideration, however, of the greatly increased duties which would devolve upon the Council under the Bill leads the Committee to conclude that the Council, as now proposed to be constituted, would not have too many members for the work to be done, in Committees and otherwise. The Committee therefore has modified its former recommendation on this point as regards the universities, but, for reasons indicated in the former part of this Memorandum, still recommends the grouping of Corporations.

The Committee recognizes also that the opinion of the Association, as expressed by the Divisions, is unfavourable to the proposal that each existing medical practitioner should vote (*a*) as a registered practitioner in the election of a direct representative, and also (*b*) as a graduate or diplomate in the election of a representative or representatives of any body or bodies whose degree or diploma he may hold. The Committee recommends that the direct representation of all registered practitioners should be maintained, and that no provision be made in the Bill concerning the mode of appointment of representatives of universities and corporations.

2. In accordance with the opinions expressed by many Divisions, a topographical system of election of direct (medical) representatives is proposed, and a draft schedule of electoral areas is submitted for consideration.

3. The Committee recommends that in the larger Council now proposed the dental profession should be accorded three direct representatives.

C. BRANCH COUNCILS AND FINANCE (PART II).

The proposals under these heads formerly submitted received the general approval of the Divisions. On the advice of the draftsman the abolition of the Branch Councils has been carried out in the present draft in form, as it was in the previous draft in substance, except for certain advisory functions for which Committees are now proposed to be constituted.

D.—REGISTRATION (PART III).

1. *Registration of students.*—The provisions relative to the registration of students, contained in Part II of the former draft, having been generally approved, have undergone no change of substance, except that of incorporating therein (*a*) the principle approved by the Association, that medical study shall not commence before the age of 17 years, and (*b*) the provision that the name of a student who has ceased medical study shall be removed from the register, subject to provision for reinstatement.

2. *Provisions as to annual registration.*—Exception has been taken by many Divisions to different aspects of these proposals, but the majority of Divisions have approved the principle of annual registration and also the principle of an annual fee. A consensus of opinion has been shown in favour of allowing a longer period for the payment of the fee, and of facilitating restoration to the register of names removed through illness or inadvertence. Provisions to meet these requirements are contained in the draft now submitted.

3. *Privileges of registration.*—Many Divisions have pointed out that no provision is made for any recognized title to be conferred on those passing the State medical examination, and several Divisions have proposed that the title "doctor" should be accorded to all registered practitioners. The Committee recommends that this proposal be adopted, and Section 13, Subsection (3) is inserted for the purpose.

E. EXAMINATIONS (PART IV).

The provisions of this Part, which corresponds generally with Part III of the former draft, have received general approval from the Divisions. The principal changes made are:

1. *Curriculum.*—The omission, to which certain Divisions drew attention, of any specific provision giving the Council control over the medical curriculum, has been remedied Section 19).

2. *Assistant Examiners.*—Objection having been taken by some Divisions to the clauses relative to the appointment and remuneration of assistant examiners, the Committee has withdrawn the proposal that such examiners should be paid by the examining body whom they are appointed to assist, and now recommends that they should be paid, if at all, by the Council.

3. *State Examinations.*—The section relative to the State medical examination (in which provision is also made now for State dental examinations) has been made more general in terms, the more detailed regulations being left to the Council.

F.—OFFENCES (PART V).

The important clauses contained in this Part, which corresponds to Part VI. of the former draft, have received the most careful consideration from the Committee, from the Solicitor of the Association, and from Counsel, who has redrafted the Bill. As affecting the dental profession, they have also been considered by the legal adviser of the British Dental Association, by whom valuable practical suggestions have been made. The previous draft having been generally approved by the Divisions (except as regards the former Clause 34), the changes made will be found to be mainly of a drafting nature, devised more effectively to secure the objects of this part of the Bill.

The changes of substance are:

1. In *Section 25*, corresponding with former Clause 29, provision has been inserted to exempt recognised universities from the operation of the Section, the object of which is to prevent the issue of bogus diplomas.

2. In *Section 27*, corresponding with former Clause 34, to which in its previous form exception was taken by a large number of Divisions, words have been inserted to meet the chief objections raised, namely:

(*a*) The clause will no longer apply to a *locum tenens* or assistant, acting as such for a shorter period than three months.

(*b*) Charitable institutions are exempted.

3. The important *Section 30*, to prevent medical or dental practice by companies, has been inserted.

G.—SUPPLEMENTARY PROVISIONS (PART VI).

No changes have been made in this Part which appear to require comment in this Memorandum.

(DRAFT) MEDICAL ACTS AMENDMENT BILL.

ARRANGEMENT OF SECTIONS.

PART I.—*Constitution of the General Council.*

Section.
1. Members of General Council.
2. Tenure of office of members of General Council.
3. Regulations for election of direct representatives.
4. Election of Vice-President of General Council.

PART II.—*Branch Councils and Finance.*
5. Abolition of Branch Councils.
6. Power to pension officers of Council.

PART III. *Registration.*
7. Registrar to be a medical practitioner.
8. Provision of a students' register.

9. Examinations to be confined to registered students.
10. Removal of student's name who has ceased to study.
11. Regulations for annual registration.
12. Provision for certified copies of dentists' register.
13. Privileges of registered practitioners.

PART IV.—*Examinations.*

14. Passing of examinations requisite for admission to register.
15. Provisions as to registration of persons passing examinations.
16. Provisions as to intermediate examinations.
17. Control by Council of intermediate examinations.
18. Provision for defects in intermediate examinations.
19. General Council to prescribe courses of study.
20. State medical and dental examinations.

PART V. *Offences.*

21. Removal of name from register.
22. Procedure and powers of General Council on an inquiry.
23. Prohibition of practice by unregistered persons.
24. Prohibition of unregistered person signing certificate.
25. Penalty for granting unrecognized degrees.
26. Prohibition of improper use of name of registered practitioner.
27. Prohibition of certain acts of registered practitioners.
28. Application of penalties.
29. As to prosecutions.
30. Provision against offences by companies.

PART VI. *Supplementary Provisions.*

31. Definitions.
32. Exception for foreign practitioners.
33. Saving for midwives.
34. Repeals and amendments.
35. Short title and construction.

A BILL to amend the Medical Acts and to further regulate the practice of Medicine, Surgery, Midwifery, and Dentistry.

BE IT ENACTED by the King's Most Excellent Majesty by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled and by the authority of the same as follows:—

PART I.—CONSTITUTION OF THE GENERAL COUNCIL.

1. *Members of General Council.*—(1) The General Council shall consist of the following members:

(a) Five members nominated from time to time by His Majesty with the advice of His Privy Council three of whom shall be nominated for England and Wales one for Scotland and one for Ireland.

(b) One member chosen from time to time by each of the following bodies:

The University of Oxford.
The University of Cambridge.
The University of London.
The University of Durham.
The Victoria University of Manchester.
The University of Birmingham.
The University of Liverpool.
The University of Edinburgh.
The University of Glasgow.
The University of Aberdeen.
The University of St. Andrews.
The University of Dublin
The Royal University of Ireland.

(c) One member chosen from time to time by each of the following groups of medical bodies:

(i) The Royal College of Physicians of London the Royal College of Surgeons of England and the Royal College of Surgeons of Ireland.

(ii) The Royal College of Physicians of Edinburgh the Royal College of Surgeons of Edinburgh and the Royal Faculty of Physicians and Surgeons of Glasgow.

(iii) The Royal College of Physicians in Ireland and the Royal College of Surgeons in Ireland.

(d) Twenty-three members (in this Act called direct representatives) elected by the registered medical practitioners resident in England and Wales

(i) Seven by the medical practitioners registered as resident in England and Wales.

(ii) Three by the medical practitioners registered as resident in Scotland.

(iii) Two by the medical practitioners registered as resident in Ireland.

(iv) Three by the dental practitioners registered as resident in the United Kingdom.

(2) No person shall be qualified for membership of the General Council unless he shall be a registered medical practitioner or in the case of a direct representative elected by the dental practitioners (in this Act called a dental representative) a registered licentiate in dental surgery or a person who has passed the state dental examination mentioned in this Act.

(3) If at any time by any Act of Parliament relating to any university or any medical or other body the number of the members of the General Council other than the direct representatives be increased the number of the direct representatives shall be increased by the like amount.

2. *Terms of office of members of General Council.*—(1) The direct representatives shall be elected to hold office for the term of five years and may be re-elected.

(2) The other members shall be appointed for a term not exceeding five years and may be reappointed.

(3) Any member may at any time resign his membership by letter addressed to the President of the General Council.

(4) If any member shall be found by inquisition in England and Wales or Ireland to be lunatic or found upon inquiry in Scotland to be insane or shall become bankrupt his place shall thereupon be vacant.

(5) If the place of any member of the General Council be vacant some other person shall be elected or appointed but in the case of a direct representative that other person shall remain a member only for the remainder of the term for which the member whose place is vacant was elected provided that if a vacancy occur at a time when not more than twelve months remain unexpired of the term for which the direct representative whose place is vacant was elected an election shall not be held until the expiration of that term.

(6) The powers of the General Council shall not be affected by the happening of any vacancy.

3. *Regulations for election of direct representatives.*—(1) The direct representatives other than the dental representatives shall be elected each for one of the electoral areas specified in the first schedule to this Act by the medical practitioners registered as resident in that area.

(2) It shall be lawful for the General Council with the sanction of the Privy Council to alter the electoral areas and in the event of an increase in the number of direct representatives to increase the number of electoral areas and generally to make provision for the election of the additional representatives.

(3) The registrar of the General Council shall be the returning officer for the election of direct representatives and he shall not less than twenty-eight days nor more than three months before the expiration of each period of five years for which the direct representatives are elected provide for another election of direct representatives. The registrar shall also as soon as conveniently may be after the occurrence of any vacancy in the place of a direct representative provide for an election of a new direct representative for the vacant place.

(4) The election of the direct representatives shall be conducted in such manner as may be provided by regulations to be made by the General Council with the sanction of the Privy Council provided as follows:—

(a) The nomination shall be in writing and the nomination paper of each candidate shall be signed by not fewer than twelve persons entitled to vote in the election.

(b) If more than one candidate shall be nominated for a vacancy a poll shall be taken by voting papers and the registrar shall send a voting paper to each person entitled to vote at his registered address but the accidental omission to send a voting paper in any particular case shall not avoid the election and any person entitled to vote to whom a voting paper has not been sent in pursuance of this Act may on application to the registrar obtain one from him.

(c) In the election of dental representatives each person entitled to vote may vote for any number of candidates not exceeding the number of vacancies but not more than one vote may be given to any one candidate.

(*d*) In the case of an equality of votes on any poll the President of the General Council shall be entitled to a casting vote.

(5) The registrar shall certify the number of votes recorded on a poll for each candidate and the persons not exceeding the number of vacancies who have the greatest number of votes shall be certified in writing by the registrar to be and thereupon shall be elected.

(6) The registrar's expenses attending any election shall be defrayed as part of the expenses of the General Council.

(7) The existing members of the General Council shall hold office until the thirty-first day of December one thousand nine hundred and five and no longer.

(8) The first election of direct representatives under this Act shall be held in the month of December one thousand nine hundred and five,

4. *Election of vice-president of General Council.*—The General Council shall annually elect one of their number to be Vice-President.

PART II.—BRANCH COUNCILS AND FINANCE.

5. *Abolition of Branch Councils.*—On and after the thirty-first day of December one thousand nine hundred and five:—

(1) All expenses of carrying the Medical Acts into effect shall be defrayed by the General Council.

(2) The Branch Councils shall cease to exist and the local registers shall be discontinued.

(3) Subject to the provisions of this Act all such entries as would but for this Act have been made in any local register by the registrar of a Branch Council shall be made in the general register by the registrar of the General Council.

(4) All property of the Branch Councils shall pass to and vest in the General Council and all debts and liabilities of the Branch Councils shall become debts and liabilities of the General Council.

(5) The officers and servants of the Branch Councils shall become officers and servants of the General Council.

(6) The members of the General Council elected or appointed from or for Scotland and Ireland respectively shall form committees to which the General Council shall refer such matters specially affecting Scotland or Ireland as the General Council may think fit.

6. *Power to pension officers of council.*—The General Council may award to any registrar or other officer on his retirement from office such pension or gratuity as the General Council having regard to his services may think just.

PART III. REGISTRATION.

7. *Registrar to be a medical practitioner.*—A person shall not be qualified to be appointed registrar of the General Council unless he shall be a registered medical practitioner provided that this section shall not affect the tenure of office of a registrar appointed before the commencement of this Act.

8. *Provision of a students register.*—(1) The registrar shall keep a register of medical and dental students in the same manner and on the same conditions as nearly as may be as the registers of medical and dental practitioners and shall enter therein the name of every person who shall—

(*a*) have passed a preliminary examination approved or held by the General Council;

(*b*) be not less than seventeen years of age;

(*c*) have paid to the General Council a fee of one pound.

(2) The register shall be in two parts one for medical students and one for dental students and shall show the place and date of birth of each student, the place where he proposes to study and the nature of the preliminary examination passed by him.

(3) The registrar shall at any time upon the request in writing of any student and on payment of such fee not exceeding one pound as the General Council may prescribe transfer his name from one part of the register to the other part.

9. *Examinations to be confined to registered students.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to an intermediate examination hereinafter provided for unless he is registered as a medical student.

(2) After the thirty-first day of December one thousand nine hundred and no person shall be admitted to the state dental examination hereinafter provided for unless he is registered as a dental student.

(3) The General Council shall have power if after due inquiry sufficient cause be shown to antedate the registration of any student.

10. *Removal of student's name who has ceased to study.*—(1) The General Council may remove from the register the name of any student who has in the opinion of the Council ceased for a period of not less than five years to pursue a course of professional study.

(2) The General Council may restore to the register any name so removed on the payment of a further registration fee of one pound.

11. *Regulations for annual registration.*—(1) Every registered medical or dental practitioner shall on or before the thirty-first day of December in each year send to the registrar an application for continuance of the entry of his name on the medical or dentists' register for the ensuing year together with a fee of one pound and the registrar shall thereupon cause the applicant's name to be entered on the register for the ensuing year and shall send to him a certificate of registration.

(2) The registrar shall on or before the tenth day of November in each year send to every registered medical or dental practitioner a form of application for registration and a notice requesting payment of the registration fee and containing a warning to the effect that if it be not paid and application made for continuance of the entry of the name before the first day of March next the name of the registered practitioner in default will be removed from the medical or dentists' register of that year and the registrar shall remove the name of a practitioner in default accordingly.

(3) A medical or dental practitioner registered before the passing of this Act shall not be affected by the provisions of this section until five years from the passing of this Act and this section shall not apply to any practitioner so long as he holds a commission in His Majesty's navy or army and is not engaged in private practice within the United Kingdom.

(4) The registrar shall at any time restore to the medical or dentists' register the name of any practitioner which has been removed under this section in consequence of his absence from the United Kingdom, illness, inadvertence, or otherwise, upon satisfactory proof being given of the identity of the applicant and on the payment of the registration fees in arrear.

12. *Provision for certified copies of dentists' register.*—If the name of any dental practitioner does not appear in the copy of the dentists' register printed under the direction of the General Council, a certified copy under the hand of the registrar of the entry of the name of that practitioner on the dentists' register shall be evidence that he is registered under the Dentists Act, 1878.

13. *Privileges of registered practitioners.*—(1) Subject to the provisions of this Act no person other than a registered practitioner shall practise medicine surgery midwifery or dentistry or any branch thereof habitually and for gain in the United Kingdom.

(2) Registered dental practitioners who are not also registered medical practitioners, shall be limited to the practic of dentistry.

(3) A registered medical practitioner may use the style of doctor as a prefix to his name.

PART IV.—EXAMINATIONS.

14. *Passing of examinations requisite for admission to register.*—(1) After the thirty-first day of December one thousand nine hundred and no person shall be registered as a medical practitioner unless he has passed an intermediate examination and also a final examination (in this Act called the "state medical examination") and no person shall be registered as a dental practitioner unless he has passed a final examination (in this Act called the "state dental examination").

(2) Any person who shall produce to the registrar on an application for registration as a medical practitioner such evidence of his having passed the state medical examination or on an application for registration as a dental practitioner of having passed the state dental examination and in either case such evidence of identity as the General Council may require shall on payment of a fee of one pound be entitled to be registered as a medical or dental practitioner as the case may be.

15. *Provisions as to registration of persons passing examinations.*—(1) The medical and dentists' registers shall in the case of a person registered under the last preceding section show the fact that the practitioner has passed the state medical examination or state dental examination as the case may

be and shall also show any medical degree granted to the practitioner by any recognized university or medical body.

(2) The registrar may require the production of such evidence and the payment of such fee as the General Council may prescribe before entering any such medical degree on the register.

16. *Provisions as to intermediate examinations.*—(1) The intermediate examination shall be an examination in such subjects as the General Council may prescribe and may be held by any recognized university or medical body.

(2) Any body by this section authorized to hold an examination may combine with any other such body situate in the same part of the United Kingdom for holding a joint examination.

(3) If in the opinion of the General Council an insufficient number of intermediate examinations shall have been held in any part of the United Kingdom before the first day of November in any year the General Council may hold an intermediate examination.

17. *Control by Council of intermediate examinations.*—As to any intermediate examination held after the thirty-first day of December one thousand nine hundred and five

(1) The General Council may give such directions as it may think fit as to the standard of proficiency to be required thereat and generally as to the conduct thereof and the examining body shall conform to any directions so given notwithstanding any special privilege or exemption contained in any Act of Parliament or Charter.

(2) The General Council may appoint examiners with or without remuneration to act with the examiners appointed by the examining body, provided that no member of the General Council shall be appointed examiner at a remuneration.

18. *Provision for defects in intermediate examinations.*—(1) The General Council may at any time on the report of an examiner appointed by them by resolution declare that the standard of proficiency required by an examining body at an intermediate examination is insufficient and thereupon unless the examining body shall within three months of the date of the resolution present an appeal to the Privy Council the examinations of that body shall on the expiration of those three months cease to rank as intermediate examinations for the purposes of this Act.

(2) On an appeal under this section by an examining body the Privy Council may after giving the General Council an opportunity of being heard report to His Majesty as to the standard of proficiency required at the examinations of that body and thereupon it shall be lawful for His Majesty by Order in Council to direct that the examinations of that body either shall or shall not continue to rank as intermediate examinations for the purposes of this Act.

19. *General Council to prescribe courses of study.*—(1) The General Council shall prescribe such courses of study as they think proper as qualifications for admission to the state examinations and shall have power to make regulations with respect to the nature and periods of such courses of study, to the [illegible] they shall be undertaken, whether before or after the intermediate examination, and to the places where they shall be undertaken, provided that no recognition shall be given to any course of study pursued by any student before the entry of his name in the students' register.

(2) The General Council shall have power for the purposes of this section to appoint inspectors with or without remuneration to visit any medical school or hospital provided that no member of the General Council shall be appointed inspector at a remuneration.

20. *State medical and dental examination.*—(1) The state medical examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise medicine, surgery and midwifery and shall be held [illegible]

(2) No candidate shall be admitted to the state medical examination unless he shall have produced satisfactory evidence to the General Council of having completed courses of study prescribed by the General Council and also shall have passed an intermediate examination and shall have paid such fee as the General Council may prescribe.

(3) The state dental examination shall be an examination held by the General Council for the purpose of testing the fitness of persons to practise dentistry and any branch thereof.

(4) No candidate shall be admitted to the state dental examination unless he shall have produced satisfactory evidence to the General Council of having completed courses of study prescribed by the General Council and also shall have paid such fee as the General Council may prescribe.

(5) The state medical examination and the state dental examination shall each be held once at least in the year one thousand nine hundred and [illegible] and every succeeding year in London Edinburgh Dublin and such other places (if any) as the General Council may think fit.

(6) The written questions in any one state examination shall be identical and set simultaneously in every place of examination but such part of any of an examination as may consist of oral questions may be held at the different places of examination either in succession or simultaneously.

(7) Subject to the provisions of this Act the General Council shall have the entire management and control of the state examinations and shall have power to make regulations in respect to

(a) Times, places, mode of conduct and notice of examinations.

(b) The appointment and removal of examiners and their remuneration by fees or otherwise provided that no member of the General Council shall be appointed examiner.

(c) Any other matter or thing as to which the General Council may think it expedient to make regulations for the purposes of this section.

PART V. OFFENCES.

21. *Removal of name from register.*—(1) Where a registered practitioner or student either before or after the commencement of this Act and either before or after registration has been convicted in His Majesty's dominions of any felony or misdemeanour or elsewhere of an offence which if committed in England would be a felony or misdemeanour or has been guilty of conduct infamous or disgraceful in a professional respect or unfitting him for admission to the profession that practitioner or student shall be liable to have his name removed from the register.

(2) The General Council may cause inquiry to be made into the case of a person alleged to be liable to have his name removed under this section and on proof of such conviction (not being a conviction for a political offence out of His Majesty's dominions or for an offence which does not in the opinion of the General Council either from its trivial nature or other circumstances disqualify a person for professional practice) or of such infamous or disgraceful or unfitting conduct shall cause the name to be removed from the register.

(3) The removal of a name from the register under this section may be either indefinite in time or for such period as the General Council may think proper and the General Council may at any time either after or without inquiry as they might think fit restore to the register a name removed under this section upon payment of such fee not exceeding any unpaid annual registration fees as the General Council may fix or may vary the period of removal.

(4) A name removed from the register under this section shall not be restored except by order of the General Council or by order of a court of competent jurisdiction.

(5) Any person whose name is removed from the register under this section and who shall during the period of removal [illegible] shall be deemed to have committed an offence against this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

22. *Procedure and powers of General Council on an inquiry.*—Upon or for the purposes of any inquiry held or to be held under this part of this Act:

(1) The General Council may employ such legal or other assessors or assistants as they may think necessary or proper.

(2) The registrar and the person whose name is alleged to be liable to be removed from or is sought to be restored to the register may sue out a writ of subpœna ad testificandum or a writ of subpœna duces tecum.

(3) The High Court or a judge thereof may order that any such writ may issue to compel the attendance before the General Council of a witness wherever he may be within the United Kingdom and also may order that a writ of habeas corpus ad testificandum shall issue to bring up a prisoner for examination before the General Council:

(4) The General Council may administer oaths or take the affirmations of witnesses.

(5) The General Council may assess the costs of the inquiry and if they think fit may direct payment thereof either by the person whose name is in question or by any complainant and the person directed to pay the costs shall pay the same to the General Council or as they may direct accordingly;

(6) A certificate under the seal of the General Council that a sum is owing by any person for costs under this section shall be conclusive evidence of the fact.

23. *Prohibition of practice by unregistered persons.* Any person other than a registered medical or dental practitioner who

(1) applies any medical or dental treatment to any person without the supervision of a registered medical or dental practitioner and demands or receives any valuable consideration for such treatment whether by way of remuneration gratuity or otherwise or

(2) holds himself out as practising or competent to practise medicine surgery midwifery or dentistry or takes or uses the style or title of physician surgeon doctor of medicine or dentist or any other style or title whether expressed by words or by letters only implying that he possesses the skill or knowledge necessary for that practice

shall be deemed to have committed an offence under this Act and shall be liable on conviction on indictment to imprisonment for six months with or without hard labour and alternatively or in addition to a penalty not exceeding one hundred pounds for each offence and on summary conviction to a penalty not exceeding forty pounds for each offence.

24. *Prohibition of unregistered person signing certificate.*—Any person not being a registered medical practitioner who shall sign any certificate of death still-birth or sickness or any certificate purporting to be a medical certificate or by the issue of which it is implied that the person signing it as a person possessed of medical skill or knowledge shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

25. *Penalty for granting unrecognized degrees.*—Any person other than a recognized university or medical body who shall grant any medical degree to a person not being a registered medical or dental practitioner shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding fifty pounds.

26. *Prohibition of improper use of name of registered practitioner.*—Any person who shall in selling or advertising for sale any article of food or drink or any medicine drug potion wash or ointment or any preparation or apparatus intended for use in medicine surgery dentistry or midwifery or alleged to possess curative or preservative qualities when applied to the human body:—

(1) make any false representation as to an act done or opinion expressed by any person then or formerly registered as a medical or dental practitioner whether alive or dead or

(2) use the name of any such person after receipt of notice from him or his legal personal representative or from the General Council requesting that the use be discontinued;

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty for each offence not exceeding twenty pounds.

27. *Prohibition of certain acts of registered practitioners.*—Any registered medical or dental practitioner who:—

(1) practises under any name other than that under which he is registered; or

(2) practises for a period exceeding three months whether as principal or as assistant to or deputy of another practitioner in or from any building not being a hospital or other institution of a charitable or public nature and does not cause his name to be displayed in legible characters on the outside of that building

shall be deemed to have committed an offence under this Act and shall be liable on summary conviction to a penalty not exceeding twenty pounds for every day on which he has so practised.

28. *Application of penalties.*—Any sum of money arising from a conviction and the recovery of penalties under this Act shall be paid to the General Council whether the conviction takes place within the Metropolitan Police District or elsewhere.

29. *As to prosecutions.*—A prosecution for any offence mentioned in this part of this Act may be instituted by the General Council.

30. *Provision against offences by companies.*—(1) In this part of this Act the word person includes a corporation and any body of persons corporate or unincorporate.

(2) Every director or other officer of any company who shall knowingly and wilfully authorize or permit the commission by the company of an offence under this Act shall be liable to the same penalty or term of imprisonment as that to which the company is liable or would be liable if it were a natural person.

(3) If a company shall make default for seven days in payment of any penalty imposed under this Act, that company shall be deemed to be unable to pay its debts within the meaning of the Companies Act 1862 and may be wound up by the Court upon the petition of the General Council.

PART VI.—SUPPLEMENTARY PROVISIONS.

31. *Definitions.*—In this Act the expression "medical or dental treatment" includes the application of any real or pretended art science method or system relating to the prevention cure or alleviation of any disease or defect of or any injury to the human body and the performance of any surgical or dental operation.

The expression "medical degree" includes every degree title diploma certificate or licence having reference to medical or dental knowledge or skill or capacity to apply medical or dental treatment.

The expression "recognized university or medical body" means a university or medical body entitled either alone or jointly to choose a member of the General Council.

32. *Exception for foreign practitioners.*—Nothing in this Act shall prevent any person not being a British subject who shall have passed the regular examinations entitling him to practise medicine or dentistry in his own country from being called into the United Kingdom for the purpose of consultation with a registered medical or dental practitioner and duly acting for the time being as a registered practitioner or from being and acting as the resident physician or medical officer or dentist of any hospital established exclusively for the relief of foreigners in sickness provided always that he does not habitually engage in medical or dental practice in the United Kingdom except as such resident physician medical officer or dentist.

33. *Saving for midwives.*—Nothing in this Act shall affect or modify the provisions of the Midwives Act 1902 or render illegal any act or thing done by any woman in connexion with midwifery which would not have been illegal if this Act had not been passed.

34. *Repeals and amendments.*—The enactments mentioned in the second schedule annexed hereto are hereby repealed to the extent mentioned in the third column of that schedule and are hereby amended to the extent mentioned in the fourth column of that schedule.

35. *Short title and construction.*—(1) This Act may be cited as the Medical Act 1905 and may be cited and shall be construed as one with the Medical Acts.

(2) The expression "the Medical Acts" shall include the Dentists Act 1878 and that Act shall be deemed to be included in the group of the "Medical Acts" mentioned in the Second Schedule to the Short Titles Act 1896.

SCHEDULE I.

ELECTORAL areas for the election of Direct Representatives on the General Medical Council:

A.—ELECTORAL AREAS IN ENGLAND AND WALES.

NAME.	AREA.
I. NORTH OF ENGLAND *(1,340 Practitioners).	The Counties of Northumberland, Cumberland, Westmorland, and Durham. In the County of Lancaster, the North Lonsdale and Lancaster Parliamentary Divisions. In the County of York, the Cleveland Parliamentary Division, and the Borough of Middlesbrough.

II. West Lancashire and Cheshire (1,420 Practitioners).	In the County of Lancaster, the following Parliamentary constituences, namely :— Blackpool, Preston, Chorley, Wigan, Hindley, Leigh, Newton, Warrington, St. Helens, Widnes, Liverpool, Bootle, Ormskirk, and Southport. The County of Chester, *except* the Hyde Parliamentary Division and the Boroughs of Stalybridge and Stockport.
III. East Lancashire (1,450 Practitioners).	In the County of Lancaster, the following Parliamentary constituencies, namely : Darwen, Blackburn, Clitheroe, Burnley, Accrington, Rossendale, Middleton, Rochdale, Heywood, Bury, West Houghton, Bolton, Ratchliffe-cum-Farnworth, Prestwich, Oldham, Ashton, Gorton, Manchester, Salford, Stretford, and Eccles. In the County of Chester, the Hyde Parliamentary Division, and the Boroughs of Stalybridge and Stockport.
IV. Yorkshire, North and West (1,390 Practitioners).	The North Riding of the County of York, *except* the Cleveland Parliamentary Division, and the Borough of Middlesbrough. The West Riding of the County of York, *except* the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Parliamentary Borough of Sheffield. The City of York.
V. North-East Midland (1,440 Practitioners).	The East Riding of the County of York. In the West Riding, the Parliamentary Divisions of Hallamshire, Rotherham, Doncaster, and Osgoldcross, and the Borough of Sheffield. The Counties of Derby, Nottingham, and Lincoln.
VI. Wales and the Border Counties (1,390 Practitioners).	Wales. In England, the Counties of Shropshire, Hereford, and Monmouth.
VII. West Midland (1,360 Practitioners).	The Counties of Stafford, Warwick, and Worcester.
VIII. East and East Midland (1,410 Practitioners).	The Counties of Leicester, Rutland, Northampton, Bedford, Huntingdon, Cambridge, Norfolk, and Suffolk.
IX. South Western (1,420 Practitioners).	The Counties of Somerset (*except* so much of the Parliamentary Borough of Bristol as is situated therein), Dorset, Devon, and Cornwall.
X. South Midland and Severn (1,340 Practitioners).	The County of Gloucester, with the Parliamentary Borough of Bristol. The County of Wiltshire. In the County of Oxford the Banbury and Woodstock Parliamentary Divisions and the City of Oxford. The County of Hereford (*except* the Ewyas Harold and Petersfield Parliamentary Divisions.
XI. South Eastern (1,420 Practitioners).	The County of Kent, *except* the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. The County of Sussex. In the County of Surrey, the Guildford Parliamentary Division.
XII to XVII. Metropolitan (3,420 Practitioners; to be divided into six electoral areas).	The Counties of Middlesex, Essex, and Hertfordshire. The County of Surrey, *except* the Guildford Parliamentary Division. In the County of Kent, the Parliamentary Divisions of Sevenoaks and Dartford, and the Boroughs of Greenwich, Lewisham, and Woolwich. In the County of Hampshire, the Basingstoke and Petersfield Parliamentary Divisions. The Counties of Berkshire and Buckinghamshire. In the County of Oxford, the Henley Parliamentary Division.

B. ELECTORAL AREAS IN SCOTLAND.

Name.	Area.
I. North Scotland (960 Practitioners).	The Counties of Inverness, Perth, Stirling, Clackmannan, Kinross, Forfar, and the Counties north thereof.
II. West Scotland (1,400 Practitioners).	The Counties of Lanark, Renfrew, Dumbarton, Argyll, and the Isles.
III. South and South East Scotland (1,330 Practitioners).	The remaining Scottish Counties.

C. ELECTORAL AREAS IN IRELAND.

Name.	Area.
I. North Ireland (1,200 Practitioners).	The Provinces of Ulster and Connaught. In the Province of Leinster, the Counties of Longford, West Meath, Louth, and King's County.
II. South Ireland (1,230 Practitioners).	The Province of Leinster, *except* the Counties of Longford, West Meath, Meath, Louth, and King's County. The Province of Munster.

* It will be understood that the particulars as to number of practitioners are entirely approximate, and stated for the assistance of the Lords of the Committee. They would not form part of the actual Schedule of the Bill.

NATIONAL DEPOSIT FRIENDLY SOCIETY.

At a meeting of the Medical Defence Committee held on this day, a draft report on the National Deposit Friendly Society, prepared by a special Subcommittee, was considered and the following text adopted, and directed to be reported to the Divisions :—

Report on National Deposit Friendly Society.

The Medical Defence Committee has fully inquired into the relations of the work of the National Deposit Friendly Society to that of the medical profession.

In regard to its relations to the medical profession, the National Deposit Friendly Society differs from other Friendly Societies in the fact of paying in each district to certain members of the profession fees for services rendered; also in that the Society professes to recognise no individual practitioner as distinctly an officer of the Society but,

represents that every member may be attended by any registered medical practitioner in the district whom he may select. The medical men thus acting for the Society do so under the special circumstances about to be described.

The scale of fees paid by the Society is determined by Rule XVI, Section XII, Subsection 1, as follows:

"Subsection 1. The following charges are authorized to be made by the medical practitioners. They are subject to modifications by the General Committee for special reasons, on the application of any medical officer, and the recommendation of any Divisional Committee:

"Medical Cases.

	£	s.	d.
Operation and [illegible] ...		5	
Each consultation with other medical men			1
Every [illegible]			This charge [illegible] ...		5	
One attendance at surgery [illegible] two days ...		2	
One fresh supply of medicine [illegible]			[illegible]
If the number of visits [illegible] sick pay extra per visit at [illegible]			
Extra per visit between the hours of 9 p.m. and 9 a.m. the following day			1
Extra per attendance at surgery between the same hours			

"Surgical Cases.

	£	s.	d.
Consultation [illegible] ...			
Compound [illegible] [illegible] the leg			
Amputation of leg [illegible]			
Treatment of [illegible]			
Treatment of simple fractures or simple dislocations of thigh or leg	3	0	0
Removal of cancerous or other tumours of magnitude ...	3	0	0
Treatment of dislocations [illegible] ...		1	
Treatment of fracture of clavicle or ribs	1	0	0
Treatment of dislocation of lower jaw ...		1	
Minor operations without anaesthetic (teeth extraction excepted)	0	10	6
Minor operations with anaesthetic	1	1	0
Passing catheter	0	2	6
Passing catheter, if at patient's house, extra	0	2	6
Tooth extraction, if at surgery, or by qualified dentist ...	0	1	0
Fee to be paid by candidate for examination: [illegible]		1	
For each [illegible] part thereof, after the first, in the same visit, extra			

The rates prescribed under the said rules are, in the opinion of the Committee, too low.

The local agent of the Society often visits the practitioners in a district, and invites them to accept work under the terms of the Society, that is, according to the scale of fees determined by the rule above mentioned.

It naturally follows, when it becomes known that individual medical practitioners will accept the Society's scale, that those members of the public who belong to the Society will employ those practitioners, to the exclusion of their neighbours, and thus underselling is brought about.

There is the further danger that the scale of fees of the Society will become recognized in the district as adequate and customary.

To be consistent with the claim stated in Clause (2), the wording of the rule cited should be altered so as to make clear that the provisions as to fees, stated therein, relate entirely to the agreement between the Society and its members, and do not affect the charges made by medical practitioners to members of the Society.

The Committee has had evidence before it, moreover, that in point of fact medical officers are appointed by the Society, either as consultants or otherwise, and that their names have been published in prospectuses issued by Divisions of the Society. On this point it is stated by the General Secretary of the Society that the appointment of these medical officers is purely honorary.

It is also to be noted that the Society does, in fact, in each district distinguish between those medical practitioners who have indicated willingness to accept the scale of charges drawn up by the Society and those who do not.

Conclusion.

Until the rules of the Society are amended it is not, in the opinion of the Committee, desirable that individual medical men should allow themselves to be recognized, directly or indirectly, as specially acting for the Society in any district, or as willing to accept payment on the scale laid down in the rules of the Society.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

Coventry Division.

THE annual meeting of this Division was held at the Coventry and Warwickshire Hospital on May 17th. Dr. MILNER MOORE, the Chairman, presiding. Thirty-two members were present out of a membership of 30. An apology for non-attendance through illness was received from Dr. Webb Fowler.

Matters Referred to Divisions.—On matters referred to the Division, the following resolutions were passed:

That this Division considers that it is advisable that medical witnesses engaged on each side in legal cases should meet in consultation.

That the present practice of advertising medical men in connexion with hydropathic establishments, sanatoria, and similar institutions in lay newspapers, railway guides, or by any other means which appeal directly to the public, is open to grave objection and should be discontinued.

That in the opinion of this Division the British Medical Association should not undertake medical defence.

New Rule.—A new rule was adopted limiting papers to half-an-hour and speeches to ten minutes.

Election of Officers.—The following officers were appointed for the ensuing year: *Chairman:* Dr. Webb Fowler. *Vice-Chairman:* Dr. Davidson. *Secretary:* Dr. Snell. *Representative on Branch Council:* Dr. Milner Moore. *Executive Committee:* Drs. Collington, Harman Brown, J. Orton, Bankes-Price, Pickup, and Hadley.

DORSET AND WEST HANTS BRANCH.

THE annual meeting was held at the Dorset County Hospital, Dorchester, on May 18th; Mr. A. J. H. CRESPI, President. There were present thirty-seven other members and visitors.

Vote of Thanks.—A hearty vote of thanks was given to Dr. Moorhead, the retiring President, for his able services during his year of office.

Vote of Condolence.—It was resolved that the members of the Dorset and West Hants Branch express their sincere regret at the death of their former Vice-President, Dr. Herbert Alfred Lawton, Major Allan Ewan Grant, I.M.S., Dr. Sydney James Allden, and Mr. Herbert Arthur Kent; and desire to convey to their widows and families their sympathy in their sorrowful bereavement.

Address.—A very able address was given by the PRESIDENT on the medical attendance on the poorer classes.

Vote of Sympathy.—A vote of sympathy to the Irish Dispensary Service was passed unanimously.

Communication.—Dr. RAMSEY read notes on a successful case of resection of bowel on a child aged five years.

Summer Meeting.—It was resolved that the summer meeting be held at Swanage, if practicable, on July 14th; if not practicable, at Blandford.

Luncheon.—The members and their friends lunched together at the King's Arms Hotel before the meeting; and were entertained after the meeting to tea by Mr. Fisher.

EDINBURGH BRANCH:

South Edinburgh Division.

THE annual meeting of this Division was held in the Oddfellows' Hall, Forest Road, Edinburgh, on May 17th, Dr. DUDDINGSTON WILSON in the chair.

Confirmation of Minutes.—The minutes of last meeting were read and approved.

Report of Council.—The adoption of the annual report and financial statement was moved by the CHAIRMAN, seconded by Dr. CULLEN, and unanimously passed.

Financial Statement.—The TREASURER'S statement, showing a credit balance of 6d., was audited by Drs. CATTANACH and MORRISON MILNE.

Amendment of Rule.—Dr. MATHESON moved, and Dr. SALT seconded, a resolution that Rule 6 should now read:

The officers shall be elected annually in the annual meeting of the Division, the Chairman being eligible for election for three consecutive years.

As there was no amendment the motion was unanimously adopted.

Re-election of Officers.—The re-election of Dr. D. Wilson as Chairman, Dr. Matheson as Vice-Chairman, Dr. Dewar as Secretary and Treasurer, Drs. Wilson and Dewar as Representatives on the Branch Council, and Dr. Simla Paterson as Representative to the Representative Meetings was carried unanimously.

Executive Committee.—Nominations for the Executive Committee were invited, and nine members were duly elected.

Consultation between Medical Witnesses.—The question whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation was considered. After considerable discussion, taken part in by the CHAIRMAN, Drs. CLOUSTON, WEBSTER, PROUDFOOT, CULLEN, and PORTER, the following resolution, proposed by Dr. CLOUSTON and seconded by Dr. CULLEN, became the finding of the meeting:

That this Division is of opinion that it is desirable that medical men on each side should meet in criminal cases, where facts are dealt with, but that in all cases where medical evidence determines the main issue of any kind a medical assessor to the Court should be appointed, or a written opinion should be taken from specially qualified medical men or definite points fixed by the Court.

Dr. WEBSTER moved an amendment that the last clause be deleted, but as no one seconded, the amendment fell to the ground, and Dr. Clouston's resolution was adopted, Dr. Webster dissenting.

Medical Practitioners and Hydropathic Establishments.—The question of advertising of medical practitioners in connexion with hydropathic establishments was next discussed. The meeting expressed its strong disapproval of advertising of any kind.

The Association and Medical Defence.—The scheme of medical defence was then considered. The SECRETARY reported that 15 out of 118 members had returned forms of application. After some discussion, joined in by Drs. CLOUSTON, MCLAREN, PORTER, WEBSTER, WALKER, PATERSON, and the CHAIRMAN, Dr. CLOUSTON moved that the discussion be adjourned to a future and early meeting, with a request to the Secretary to post-card the members of the Division, and thus give them an opportunity to say definitely whether they approved or disapproved of the scheme. The motion was adopted.

The Post of Medical Officer of Health (Edinburgh).—Dr. MATHESON moved:

That the meeting is of opinion that the City of Edinburgh should have a medical officer of health, who shall devote his whole time to the duties of the post.

In speaking to the motion, Dr. Matheson remarked that he was not actuated by any personal feeling whatever, but thought that it was perfectly impossible for the present medical officer of health, holding so many positions, to carry out satisfactorily to the public the duties of the public health office. The general feeling of the meeting was that, while in sympathy with this motion in abstract, no further steps should be taken in the matter, but that plurality of offices in connexion with any future appointment should be opposed.

The Out-patient Department of the Royal Infirmary.—Dr. CULLEN gave notice that at the adjourned meeting he would bring forward a motion regarding the manner in which the out-patient department of the Royal Infirmary was conducted.

Votes of Thanks.—The meeting then adjourned, a vote of thanks being accorded to the Chairman.

GLASGOW AND WEST OF SCOTLAND BRANCH.

GLASGOW SOUTHERN DIVISION.

A [illegible] meeting of this Division was held in the rooms of the Medical Officers, 5 South Portland Street, on Thursday, May 5th, Dr. C. H. [illegible] in the chair. The questions referred to this Division from the Ethical and Medico-Political [illegible] Association were considered.

Medical Practitioners and Hydropathic Establishments.—After discussion the following resolution was adopted:

That [illegible] reasonable and that its [illegible] shall fall [illegible] Association [illegible]

Consultation between Medical Witnesses.—The opinion expressed in the circular was to the effect that though such consultations may be [illegible] likely to lead to a better understanding of the [illegible] case, on matters of opinion they were not desirable for various reasons, for example, an [illegible] the opinion of a junior or more modest man. Further, discussions in law courts being of some educative value should not be curtailed. On the whole question, the Division was not in favour of the Association taking action in the matter.

GLOUCESTERSHIRE BRANCH.

A general meeting of this Branch was held at the General Hospital, Cheltenham, on Thursday, April 21st, Mr. F. C. CREES, in the absence through illness of the President, occupying the chair. There were twenty other members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Association and Medical Defence.—The CHAIRMAN, in introducing the medical defence scheme of the Association for discussion, said that for his own part he was totally opposed to the suggested scheme. The existing societies were doing the work excellently; they would not allow themselves to be amalgamated into the British Medical Association. Less than half the members of the medical profession in the British Isles were members of the British Medical Association, and a fair proportion of these who were not members would wish to belong to a Defence Union without being compelled in addition to pay a subscription of 25s. to the British Medical Association. Again, the directors of the existing societies were men who by this time had gained valuable insight into methods of economically carrying on this kind of work, whilst this might not be the case with those appointed on the Medical Defence Committee, some of whom, indeed, would be appointed by representatives at the annual meeting whether those representatives were subscribers to the Defence Fund or not. Dr. BAYLIS also dwelt upon the very satisfactory way in which defence work was carried on by the existing societies and so would strongly oppose the scheme. He would hesitate before adding to the duties of the Central Council that of supervising so important a matter as medical defence. He proposed the following resolution:

That this Branch having considered the scheme of medical defence as proposed by the Medical Defence Committee of the Association expresses its disapproval of it, and further considers that any such scheme under the auspices of the Association is unnecessary.

—Mr. FIRMIN CUTHBERT, in seconding the resolution, spoke of his favourable experience of the work of the Medical Defence Union. Dr. HOBBS supported the resolution, and it was carried unanimously.

Medical Practitioners and Hydropathic Institutions.—A recommendation of the Ethical Committee that the question of advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions was next considered. The PRESIDENT, Dr. HOBBS, Dr. SOUTAR, Dr. W. B. ROBERTSON, Mr. FOSTER, Dr. ELLINGER, Mr. CUTHBERT, and Dr. MCVAIL-BROWN took part in the discussion.—It was proposed by Mr. HOWELL, seconded by Dr. SOUTAR, and unanimously agreed that the advertising of medical practitioners in connexion with hydropathic establishments does not call for any interference.

Medical Witnesses.—With regard to a recommendation from the Medico-Political Committee of the Association, it was proposed by Dr. HOBBS, seconded by Dr. MCVAIL-BROWN, and unanimously agreed that the meeting in consultation before the trial of medical witnesses engaged on each side would be more likely to frustrate than promote justice.

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE annual meeting was held in Altrincham on May 18th. Dr. C. J. BENSHAW first, and Dr. JOYNSON afterwards afterwards, presided over a meeting numbering eighteen. As this [illegible] the attendance was very disappointing to the officers who had taken much trouble to make the meeting attractive, and had widely advertised it. Five members who had intended to be present were unavoidably prevented, and apologies for absence were received from seven members, and six [illegible] visitors. The minutes of meeting of February 17th and March 9th were read and signed as correct. The minutes of committee meetings of February 24th and April 20th were read and adopted as a report from the committee.

Dr. JOYNSON was elected Chairman for the year 1904-5, and Dr. [illegible] Vice-Chairman. The other officers and the committee were re-elected without change. Mr. J. SMITH WORTHLEY, Medical Secretary of the Association, delivered an instructive address on The Uses of the British Medical

Association to the General Practitioner.—After the meeting six members and three guests dined together at the Unicorn hotel and spent a very pleasant evening.

BLACKBURN DIVISION.

THE annual meeting was held at the Old Bull Hotel, Blackburn, on Wednesday, May 11th, 19 members being present.

Annual Report.—The minutes having been confirmed, the SECRETARY read the annual report on the work carried out by the Division during the year ending May, 1904, of which the following is an abstract. The Division now numbers 72 members, against 68 last year. Five meetings were held during the year: On May 22nd, 1903; members present, 17. On June 26th, 1903; members present, 17 (joint meeting of the Blackburn and Burnley Divisions). On February 26th, 1903; members present, 11. On March 31st, 1903; members present, 13. On April 31st, 1903, members present, 11. Important resolutions were passed regarding medical defence, medical evidence, hydropathic establishments, Medical Acts Amendment Bill, Vaccination Acts, etc. On the motion of Dr. NASH, seconded by Dr. CRAIG, it was resolved that a copy of the annual statement should be supplied annually to each medical man in the district in order to indicate the useful work being done by the British Medical Association.

Meeting of Branch.—A letter was read from Dr. Helme regarding the forthcoming meeting of the Branch in Blackburn in June. It was resolved that the Secretary be instructed to write to each medical man in the district asking him to subscribe towards this meeting's expenses. A Subcommittee was selected to make all arrangements for the meeting together with the President (Dr. Barr) and the Secretary (Dr. Greenwood).

Election of Officers.—The officers for the ensuing year were then elected:—*Chairman:* Dr. Barr. *Vice-Chairman:* Dr. Ballantyne. *Secretary and Treasurer:* Dr. Greenwood. *Representative in Representative Meetings:* Dr. Nash. *Branch Council:* Drs. Moir and Nash. *Executive Committee;* Drs. Craig, Martin, Baxter, and Wallers.

Resolutions.—The following resolutions were duly proposed and carried:

1. That in future one of the two members of the Branch Council shall be from Blackburn and one from the outside districts. (2) That this Division approves of a parliamentary inquiry into the State registration of nurses.

Vote of Thanks.—A vote of thanks to the President and Secretary was carried.

LEINSTER BRANCH.

THE 27th annual general meeting was held in the Royal College of Physicians, Dublin, on Wednesday, May 18th, Dr. J. MAGEE FINNY, President, in the chair. Amongst those present were R. A. Burnes, John D. Hillis, J. A. Watson, Dr. Moran, E. H. Bennett, M.D., James F. Polglenny, Sir John Moore, James Craig, M.D., Dr. John Morgan, Lieutenant-Colonel G. Macneece, A. M. C. O'C. J. Delahoyde, Thomas J. M'Grath, J. Mason, M.D., Reginald Peacocke, J. Wallace Boyce, M.D., Alfred E. Boyd, Dr. Charles M. Benson, Dr. John Murphy Trevor, Dr. N. Smith, Dr. Joseph M. A. Kenny, Dr. Magennis, Sir Wm. Thomson, Dr. Nolan Macmahon, H. C. Mooney, Joseph Redmond, M.D., Dr. Robert Rowlette, Dr. John G. Cronin, Dr. Michael Strahan, James Little, M.D., Dr. Isaac Usher, Dr. Thos. Donnelly, H. T. Bewley, Albert Griffith, Wm. J. Thompson, Fred Kidd, Sir Lambert Ormsby, W. J. Beveridge, J. C. M'Walter.

Report of the Council.—Your Council met fourteen times during the year, and elected twenty-four new members. The Branch membership now stands at 350, as compared with 330 last year. Your Council hopes that the time is not far distant when the membership will reach 400, so that the Branch may be entitled to elect a second representative on the Council of the Association. At present the Branch is linked with the South-Eastern Branch for purposes of representation on the Central Council—the joint representatives being Dr. James Craig and Dr. Denis Walshe. During the past year your Council suffered most severe loss through the death of two of its most prominent members—Sir George Duffey, the founder of the Branch and its first Honorary Secretary, and Sir Philip Smyly, President-elect. Under Rule 8, Dr. O'Carroll, the senior Vice-President, was co-opted President-elect, and Dr. James Craig was elected to fill the vacant Vice-Presidency. Under Rule 7, your Council elected Mr. Andrew Clark Chairman of the Central Council; Dr. Dawson Williams, Editor of the BRITISH MEDICAL JOURNAL; and Surgeon-General Evatt, Honorary or Associate members of the Branch. During the past year much of the time of the Council was occupied with the question of reorganization; and during the months of June and July your Secretary summoned meetings which he also attended in the various Divisional centres, with the result that out of the six nominal Divisions in the Branch area three were successfully inaugurated. These Divisions have each been allowed by your Council a capitation grant of 1s. per head to defray working expenses. Owing to these grants and to the reorganization, the Branch expenditure has been larger than usual, and exceeded the income of £73 by 10s. It is a source of great gratification to your Council that the action taken by the Branch last year in regard to the grievances of the Poor-law medical officers was heartily endorsed by the Representative Meeting at Swansea and that the Central Council was instructed to take the steps best calculated to bring about the early adoption of the necessary reforms.

The annual report was adopted on the motion of Dr. BENNETT, seconded by Sir J. W. MOORE.

The officers for the year were then elected as follows: *President:* Joseph O'Carroll, M.D. *President elect:* Sir Thomas Myles, F.R.C.S. *Vice Presidents:* James Craig, M.D., and J. Lentaigne, F.R.C.S. *Honorary Secretary and Treasurer:* Professor White, Royal College of Surgeons, Dublin.

Dr. O'CARROLL, the new President, then took the chair amidst applause.

On the motion of Mr. CHANCE, V.P.R.C.S., seconded by Sir WILLIAM THOMSON, C.B., the thanks of the Branch were given to Dr. FINNY for his services as President.

Dr. FINNY replied.

Dr. O'CARROLL then delivered an able address dealing with the question of the dispensary doctors. In many cases the salaries of dispensary doctors who had to keep a horse was not more than Lady Dudley had estimated to keep a nurse with a bicycle in one of the remote districts. As to the proposal to make the service a Government one by means of entrance by a Government examination, it would be very generally objected to in Ireland. To his mind the question at the bottom of the whole matter was one of finance, and in three-fourths of Ireland it was impossible to squeeze any more money for dispensary doctors. In conclusion, he said the great point was to educate the public as to their grievances. They should educate the Irish people and combine, so that standing by one another and their country they would obtain the largest amount of support from their country and their countrymen. The result would come gradually, and he believed that if they educated the country and stood well together theirs would be one of the first instalments paid.

Mr. ANDREW CLARK, Chairman of the Central Council of the the Association, in proposing a vote of thanks to the President for his address, dealt at considerable length with the British Medical Association and the objects it had in view. The Council would do all that was possible to ameliorate the grievance of the Irish Poor-law medical officers, and although he was not sanguine of immediate success he believed that in due course something would be done.

Dr. F. W. KIDD, in seconding, said that as to the Chairman's remark regarding the formation of a service, the vote at the Irish Medical Association was taken after a good many of the country members had left the room.

The resolution was unanimously carried, and in the evening the usual dinner took place, Dr. O'Carroll in the chair. Among the speakers were the Chairman, Dr. James Little, Mr. Andrew Clark, Sir William Thomson, the Provost of Trinity College, Sir James Dougherty, C.B., Sir John Moore, and Dr. White.

METROPOLITAN COUNTIES BRANCH:

CHELSEA DIVISION.

THE inaugural meeting of this Division was held at the Chelsea Town Hall on Tuesday, May 17th, and was well attended.

After Sir Charles Gage Brown had been elected Chairman, Mr. Rowell shortly explained the aims and objects of the Division.

Mr. P. H. Parsons was elected Secretary *pro tem.;* Dr. Bonney as Representative at the annual meeting; Dr. Keen as Representative on the Branch Council.

It was unanimously decided to defer the consideration of the rules for the Branch and the ethical rules till the next meeting, which is to be held on May 31st, when it is expected that an even larger number of members will be present. The

Division starts under the most favourable auspices, as there are nearly one hundred members on the roll.

After a hearty vote of thanks to the Chairman the meeting was adjourned.

CITY DIVISION.

A MEETING of this Division was held on April 27th at the Walthamstow Hospital, Mr. FREDERICK WALLACE, the Chairman, presiding.

Resolutions.—The following resolutions were carried:

1. That this Division deprecates the advertising of medical officers of hydropathic institutions by placing their names in conspicuous positions on the outside of such institution facing public thoroughfares.

That this Division is of the opinion that it is inadvisable that the medical witnesses engaged on each side in legal cases should meet in consultation.

Combined Meeting with Walthamstow Division.

After this meeting a combined meeting was held with the Walthamstow Division, Dr. WISE in the chair, at which Dr. HUGH WILLIS read a paper on forms of joint disease met with in medical practice.

ST. PANCRAS DIVISION.

A MEETING of this Division was held at St. Mary Islington Infirmary on March 24th, Dr. W. W. WESTCOTT in the chair: 16 members were present.

Medical Men and Hydropathic Institutions. Dr. WALTER SMITH proposed:

That it is undesirable that any medical man, whose name is advertised as connected with any hydropathic establishment, boarding house or hotel, should practise outside the institution.

Dr. LAVELL seconded, and the resolution was carried.

Members' Witnesses.—Dr. LAVELL proposed:

That it is undesirable that the medical witnesses engaged on each side in legal cases should meet in consultation.

This was seconded by Dr. CRABB.

Cases.—Dr. ROBINSON showed several most interesting cases, also electric bath and *x* rays.

Tea.—Dr. ROBINSON also entertained the members to tea.

WALTHAMSTOW DIVISION.

AT a meeting on April 26th the following resolutions were carried with regard to the scheme of Medical Defence remitted to the Divisions:

1. That Medical Defence should be undertaken by the Association.
2. That the scheme proposed by the Council is inadequate, that any scheme should include all members resident in the United Kingdom, and that the necessary alterations in the Memorandum of the Association be made.

WANDSWORTH DIVISION.

AN ordinary meeting of this Division was held in the Officers Mess Room of the 9th Volunteer Battalion East Surrey Regiment, St. John's Hill, on Thursday, May 12th, Dr. W. C. BOSS in the chair. In addition to members of the Division there were also present by invitation SIR VICTOR HORSLEY, Dr. HORTON, Dr. BATEMAN, Dr. WOODS, Dr. ALLAN, and Mr. WHITAKER.

The CHAIRMAN stated that the object of the meeting was to consider the question of the advisability of medical defence being taken up by the British Medical Association. The work of medical defence in the past had been done by the Medical Defence Union and the London and Counties Protection Society and the profession owed to those societies a debt of gratitude for what they had done and he thought they deserved to be treated with the utmost consideration. He was glad to find that in the proposed scheme they had been invited to join in the event of the British Medical Association taking up medical defence. He first wished to invite the members to discuss whether at their meeting it was desirable that the British Medical Association should take up the question of medical defence. After that he would ask the question in the affirmative that they had to consider the scheme, but if they decided the question in the negative it would be no occasion to discuss the scheme.

Dr. GEORGE WILSON then proposed that the British Medical Association should take up the question of medical defence. He thought it was very desirable that the British Medical Association should undertake such a matter, and he was glad to see the Council had done so. Such a scheme were started the existing societies who had done such good work in the past, would be favourably considered. The British Medical Association was now taking a much more important part in the welfare of its members than it had done for many years, and he thought it would be a great advantage if such a scheme were formed.

Dr. ARTHUR-ROE seconded.

Dr. WILLIAMS, as a member of the Medical Defence Union, said he had always been satisfied with the way the work of that society had been done, and therefore he moved an amendment that the existing defence societies should be continued.

Dr. BRADYN seconded this, when the CHAIRMAN pointed out that the proposed amendment was not really an amendment at all, but a direct negative to the resolution. He then asked the members of the Division to speak to the resolution, but become resolutionless.

Dr. BATEMAN then said that he was present by the courtesy and invitation of the Secretary of the Division, and he would endeavour to explain to the members present the position which the British Medical Association had taken up with reference to the matter. That position had been made clear, he thought, to a great number of the profession by a circular which had been sent out to the members, and which had also been published in the BRITISH MEDICAL JOURNAL, and commented upon by the *Lancet*. He then proceeded to read the circular which had been sent out by the Medical Defence Union. Having stated that circular, the Council of the Medical Defence Union received hundreds of letters from their members in all parts of the country, not only endorsing what they had done, but stating that, even if the Council were desirous of winding up, and did wind up, they would form a new Medical Defence Union immediately, and on many instances members said that, rather than give up their membership of the Union, they would give up their membership of the British Medical Association. He was not antagonistic to the British Medical Association: he had been a member of it for many years. All the members of their Council were members of the British Medical Association, and a great many members of the Council were members of the Council of the British Medical Association and served on its Committees. If the proposed scheme were carried through, it would mean a monopoly of medical defence, and those outside the Association would be left without any defence or protection. The Medical Defence Union did not think monopolies were good, but that healthy competition was much better, and therefore they had no intention whatever of winding up their Union, which would take years to carry out.

Sir VICTOR HORSLEY expressed his pleasure at being present at the meeting of what was, in the way of activity, the premier Division of the Association. He understood that for the moment they were discussing the question from a general point of view and without reference to the scheme. Dr. Bateman had referred to the circular which had been issued by the Medical Defence Union, his connexion with which in past years he looked back to with the utmost pleasure and gratification. But in many respects that circular was most misleading, and he should like to have an opportunity later on of dealing with it. Dr. Bateman had said that the Council of the Medical Defence Union was opposed to monopolies. When the word "monopoly" was used what did it usually mean? Used in a bad sense it meant that a particular body of men were going to try and gather into their grasp a trade in one direction, and that they alone would make a profit out of it. He submitted that the use of the word "monopoly" in connexion with medical defence was wholly and absolutely unjustifiable. There was no parallel whatever between what was understood by monopoly outside that room and what had been proposed by the British Medical Association. What had been proposed by the Association was a union of as many members of the profession as they could possibly get together to help each other. If that was a monopoly he was very glad to be a monopolist, but the question went a good deal further than that. In the case of the Medical Defence Union, under some fanciful influence which he regretted seemed to think that the medical practitioners of this country were made for the Union, when he was President of the Union his view was that the Union was made for the practitioners, and that was the attitude he wished to see maintained now. But the Council of the Medical Defence Union in its country said that it felt that it ought to keep the Union in existence. Why? Surely it could only be in the interests of the members that it meant the country. It could not be in the interests of anybody else. Therefore they ought to approach the subject, not from the point of view merely

of how to preserve the Medical Defence Union and its existing machinery, but to discuss the way in which they could extend the principles of medical defence to the largest number in the profession. That was his personal view. Their whole idea was to unite together to defend themselves against the public, and that could only be done by their combining together. The only other question was, had the defence societies considered this matter from the point of view of the requirements of the practitioners in the country at large? He did not think they had. He had seen in the correspondence in the JOURNAL statements that they would have to destroy the existing machinery. If there were better machinery in the market surely it was best for the Association to put the old machinery on the scrapheap, and employ the new. It might be thought that he was looking at it from a cold-blooded point of view, but these questions were to be regarded from that point of view and not from the point of view of sentiment. He had seen in recent correspondence in the JOURNAL that the question of finance had been also raised. He remembered some time ago, when some members were interested in getting the British Medical Association reformed, they were told that they would ruin the Association and that they would become penniless. But what was the result? Why, this: they had now got a larger balance of profit in the Association than they had done before. Therefore as regarded finance it was quite obvious that if they had an Association whose annual turnover was £40 000 that that was *per se* a much stronger thing than an organization with a turnover of £3,000 or £4,000. Therefore if they wanted to get a machine of the greatest power the wisest thing for them to do was to take the British Medical Association and make that their machine for the purpose of medical defence. He submitted that to have one complete organization for the profession was a wiser and a more statesman-like thing than continuing smaller organizations simply because they had existed and done good work in the past.

Dr. ALLAN made some remarks as to the work done by the British Medical Association in welding the profession together, the financial value of the JOURNAL, and the possibility of throwing medical defence into the work done for the present subscription.

Dr. WOODS, speaking on behalf of the London and Counties Medical Protection Society, stated that they had decided to do nothing until they had the scheme before them. Personally, he was in favour of the British Medical Association taking up medical defence because it was obvious that they could do it enormously better than any one else. Small societies could not do it as well as the British Medical Association could do it; and any body having at heart the promotion of medical defence must wish that the British Medical Association should take it up if a method could be devised by which it could be done as well—he would not say better—by the Association as by the existing societies. If the Association did it in as good a way as those societies were doing it it would be able necessarily to do it better, because it was a much more powerful body.

Dr. TURNER thought there was a question of principle underlying this question which had not been given due weight to, and that was the question of unity. He thought that the medical practitioners ought to combine more than they had done.

Dr. HERON did not wish to repeat what Sir Victor Horsley had said because those who had read what had been written about this subject knew that Sir Victor Horsley and he thought practically alike. Dr. Bateman had said practically that if the British Medical Association took up medical defence the Medical Defence Union would not give it its assistance, and he also said that it would take years to train the British Medical Association in the work of medical defence. He ventured to think that medical defence was very well understood even outside the lines of the Medical Defence Union. There was another society in existence which had not done badly in the matter, and those who were working upon the scheme were quite sure that from among the Branches of the British Medical Association they could get an ample supply of men perfectly competent to carry on medical defence on behalf of the Association quite as well as it was carried on now by the Medical Defence Union and the Medical Protection Society. He was surprised to find it was not understood that those two societies, though they had done good work, were really a source of weakness to one another. The success of the Medical Protection Society meant in a certain and a material sense taking away a little from the success of the Medical Defence Union, and the success of the Medical Defence Union meant taking away from the strength of the London and Counties Protection Society. Such a state of things he thought was by no means creditable to the profession. He thought a most important argument in favour of medical defence being taken up by the Association was that they would then have all their interests under one roof, governed by men who were of themselves, and to whom they had access. Dr. Bateman had said it would take years to wind up the Medical Defence Union, and that they could not come into the Association's medical defence for years. He ventured to suggest that if Dr. Bateman would submit the business of the Union to half a dozen competent business men they would wind it up in as many months, in spite of the difficulties represented. If the medical profession could not come together in this matter of medical defence, and show that they meant to stand by one another under all circumstances when any member was attacked unjustly, and show that to the whole world, then he thought the sooner they gave up medical defence the better.

Dr. GREENWOOD thought the question was whether the British Medical Association, taking up any scheme of medical defence, would do the work better than it had been hitherto done by the existing societies. With regard to Sir Victor Horsley's statement as to a monopoly, he did not think that Sir Victor Horsley was quite fair to Dr. Bateman with regard to that. He took it that Dr. Bateman's chief point was whether it would be right as a matter of principle to say that no medical practitioner should have medical defence unless he joined the British Medical Association. Then with regard to one of the different societies, the one to which he belonged, registered dentists had been allowed to join them. They could not have been accepted by the British Medical Association. If his particular society were to wind up and join in the proposed scheme, it must at once without any real reason say to those dentists, "You must go and find medical defence for yourselves." Therefore he thought they must be doubly convinced that in doing what was proposed they were acting for the good of the profession. Sir Victor Horsley had spoken about the money available, and that the turnover of the Association was £40,000 a year as compared with £3,000 or £4,000 a year. If they were to add the accounts of the London and Counties Medical Protection Society to the Medical Defence Union it would be more than £3,000 or £4 000, but it was to be remembered in those societies the turnover was simply for medical defence, and nothing else; and if £38,000 out of the £40,000 to which Sir Victor Horsley had referred had to go to something else, it did not prove much; and the question must be ascertained how much of the income coming to the British Medical Association could be devoted to medical defence. On the question as to who should conduct medical defence if it could be done, he agreed that it should be conducted by the British Medical Association.

Dr. MILLER criticized the analogy drawn by Sir Victor Horsley between scrapping out-of-date machinery and the present proposal, which would lead to the substitution of the machinery of the British Medical Association for that of existing defence societies. He agreed that the existence of two societies was a source of weakness, but thought it would be increased by the creation of a third.

Dr. RICHARDS advocated a policy of delay in dealing with the question until the British Medical Association was further developed.

The CHAIRMAN then put the resolution to the meeting that the British Medical Association take up medical defence. Sixteen members of the Division voted in favour of the resolution and 7 against it, and the resolution was therefore carried. The Chairman then asked the members to consider the scheme sent out for consideration of Divisions.

Sir VICTOR HORSLEY, rising by request, said that as a member of the Committee responsible for drafting the scheme, and as former President of the Medical Defence Union, he felt very keenly on this matter. It was not a question of antagonism exactly; it could not be between bodies of men who were brought together for the same purpose and with the same aspirations. There could not be antagonism in the ordinary sense of the word, but there might be friction. When he was President of the Union the officials of both the societies were occupied practically fifteen months trying to unite the two societies, and he felt quite sure that if the British Medical Association had then had before it the present scheme of medical defence, and were prepared to offer something to the profession as an im-

partial body, both societies at that period would have gone in, and then there would have been a complete union throughout the profession. The opportunity, however, did not come then, and so the negotiations failed. He wished to take serious exception to paragraph 8 in the circular which had been issued by the Medical Defence Union. That paragraph said "That the proposed new department will only defend its members; that is to say, limit its work to individual defence; whereas the Medical Defence Union has for many years done good work in collective defence, such as the prosecution of unqualified practitioners and the like. The method of election to the Committee appears open to criticism as involving no continuity of office." There was not a single word there of what the British Medical Association had done, and were doing, by way of collective defence of members of the profession. The British Medical Association had spent thousands of pounds in that very work, and were doing so now. If the circular had really dealt with the question fairly on that point, reference ought to have been made to the fact that the British Medical Association was, even with its present somewhat imperfect Memorandum and Articles of Association, doing collective defence. Dr. Greenwood had misunderstood the trend of his remarks as to the turnover of the Association. He only quoted that to show that a body with a large financial income and expenditure was a stronger body than one with a nominal income and expenditure. If the members had time to go through the statement of the expenditure of the Association, which would be in the hands of the Representatives of the Association at Oxford, and had been published in the BRITISH MEDICAL JOURNAL, to see what the Association was spending on collective defence at the present moment, they would be surprised to find what a large sum of money it was. But they wanted to go further than that. In the scheme of the British Medical Association which had been put forward there were two great principles: The first was that the previous action of the Association should be carried out. It was to be remembered that this was no new matter. He was not one to do things in a hurry, and he did not think he could accuse himself of having proposed anything in the Association in a hurry or anything that had not subsequently been carried out. He thought they ought not to delay the matter but ought to act now. This matter had been before the Association for ten years. At Birmingham they carried in the teeth of what he might call the reactionary party of the Association resolutions to alter the Memorandum of Association in order that they might carry out the individual defence of members and in order that they might extend their powers of collective defence, but those resolutions had never been put in force. They were now antiquated in form on account of the alteration in the Constitution. The present scheme as put forward by the Committee provided that the Association should go forward with the proposals to alter the Memorandum and to make it possible for them to defend the members of the Association, not merely collectively but on a larger scale and with greater freedom of expenditure individually. That point had been overlooked in the recent correspondence in the JOURNAL, and had been entirely overlooked by Dr. Miller when he said, if it was wrong to have two societies how much worse it was to have three. In making that a prominent point in his argument he (Dr. Miller) was doing the Committee of the Association unwittingly a very serious injustice, because one of the points of the scheme was that the existing societies should be invited to merge themselves in the Association, and the Committee had every reason to hope that the sense of patriotism towards the profession at large would induce the existing societies to do that. Nothing had caused members of the Committee more pain than to find that that paragraph in the scheme had been entirely overlooked in the sense in which it was offered to the Association. It was closed to the Association to [illegible] of the fundamental suggestions. If the societies were not willing to come in then he himself felt it was a very open question whether they ought to institute a third. The Committee had put the matter prominently in the scheme because they knew that the existing societies had thought exactly as the time to merge the members into one body. What was that body going to be? Would it be the Association or [illegible] proposed to the Association himself said the very same men who were carrying on the defence would be the men if they [illegible] the British Medical Association. They were not [illegible] that they were unable to take about the Medical Defence [illegible] the Medical Protection Society and the British Medical Association when it was proposed that identically the same men should do the same work. If they were two rival companies composed of different individuals that would be another matter. The Committee proposed nothing of the kind. The Committee simply said to the members of the Association, "If you look into the matter you will find that a majority of the members of the Association, actuated by the same principles and the same desires, simply ask the members of the defence societies to come in and do the work together instead of apart. He could not conceive any proposal more serious or more earnest but he must repeat that it was a proposal which had not been discussed in the spirit in which it was offered. One other point had been made, and that was about raising the subscription. Years ago in sharing in the work of altering the Constitution of the Association, he endeavoured to get the subscription raised to 30s. Several of his friends also tried to carry that in the Constitutional Committee, but they failed; they were defeated on the vote, and the subscription was made 25s. He proposed that it should be 30s. for a specific reason, which was well known to the reactionary party: and that was because he knew in his own mind judging from the balance sheet, that if they had a subscription of 30s. the Association could at once have taken up the defence of all its members. It was quite true, in the working of the present societies, the expenditure came out at nearly 10s. a head; but he was quite sure that that was an unnecessary expenditure, and that if in the British Medical Association they had available profits amounting to even 5s. per head that would be enough to do the work, and if the subscription had been 30s. they could have got it up to 7s. 6d. But the members of the Committee who had passed the scheme having before them the experience of the existing societies thought it was not safe to propose anything other than a mechanism by which an extra subscription of 10s. per annum was to be obtained. He did not quarrel with that. He thought it was an outside sum, but as a member of the Committee he would abide by its vote. Some members of the Association felt that they ought to carry out the defence for the present 25s. a year subscription. He had gone into that question and he did not think it was financially possible, but he thought it was very nearly possible. If under their new organization they could find out some new source of income apart from the advertisements, or they could find some philanthropist who would give the Association (and he had asked one or two but he was sorry to say without success) a donation of £10 000 they could start it to-morrow, but until they got that gift to the funds they could not safely proceed on the present subscriptions. The Committee felt that under those circumstances there was nothing for it but to bring in the existing societies on the 10s. basis and to go on that line. He would like to say in support of what might be considered by some to be an optimistic view on his part of the financial state of the Association that the profit this year was £5,500, and of the 25s. certain fraction was sent to each Branch, namely, 4s. per head. In the Report in the SUPPLEMENT of the JOURNAL they found that only two Branches had failed to make both ends meet, and that of the sum which was sent to the Branches no less than £250 was in the hands of the members of the Association, so that the actual profit of the Association stood at nearly £7,000. If they could make a profit of £7000 per annum a few years' saving would give them £10 000 which would be sufficient to secure their financial stability in starting medical defence on the present subscription. For the present he suggested that they should get in the existing societies, and charge the members who join the scheme 10s. and then, when the Association was rich enough, to do it on the usual subscriptions.

Dr. F. ROSLAND FORRESTER (Honorary Secretary to the Division) moved as an amendment that "no scheme submitted by the Central Council will allow of the Association carrying on medical defence satisfactorily and efficiently until it has been considered by a Committee, referring, in the official capacity, to the various medical defence societies, if they are willing to join in, and after duly considering its report thereon." He did not wish to say a great deal about the matter because he did not know much about it. He thought the fact of the whole scheme was that the Committee proposed the scheme without consulting anybody. When he read the scheme he expected to see the opinions of some of the officials of the two societies as to it but they were met with a scheme which did not ask them even to come in. That was why one delegate

society was very greatly against the scheme, because they were cut up, that they in their official capacity had nothing to do with the scheme. They had simply had a scheme sent to them to pass or decline, and he did not think that was the way the Association should be treated. He thought such a scheme should not have been sent out until after the Central Committee had consulted the individual members of the various Divisions. He thought this scheme was faulty in consequence of that fact. He then proceeded to criticize the scheme, and said that if they wanted men to come in who were not members they must offer them some inducement. They had got to offer them some inducement in return for the extra subscription which they asked them to pay. After some remarks on the financial administration of the British Medical Association, he said there had been no attempt in preparing the scheme to consult those who had had experience. It had been proposed by one man—he said that with deference to that one man who was a very capable one—but it was a one-man scheme, and it could not be expected that you should get from one man the experience of forty-nine. He thought they ought to have consulted the defence societies and individual members of the Divisions, and asked their opinion before drawing up a scheme.

Sir VICTOR HORSLEY, in answer to these statements, said that on the Committee which drew up the scheme were the President of the Medical Defence Union and the Treasurer of the London Counties Medical Protection Society; and finally both the Secretaries of the two Societies were officially invited to appear before the Committee. Both societies were fully represented on the Committee and gave their views.

Dr. FOTHERGILL inquired if they drew up the scheme, because their signatures were not at the end.

Dr. BATEMAN said he was asked to attend before the Committee to give evidence, but beyond that he had nothing to do with the scheme, and never saw it until it was published in the JOURNAL. It was true that Dr. Messiter was on the Committee and that another member of the Union was on the Committee, but they both voted against it.

Dr. WOODS, speaking on behalf of the London and Counties Protection Society, said that it was fully represented on the Committee, and he did not think they could complain in any way.

Dr. MILLER, in seconding the amendment, said the only objection he had to the proposed scheme was that it was too good to be true. He thought they were rather anticipating if they said, "Let the Association take up medical defence," and then take in the two existing societies. He thought they ought to get their consent to come in first, and then form the Association, which should be a successful Association, embracing the former societies. If that could be done, he should be perfectly willing to agree to it. The only objection he had outside that was all the members of the present defence societies were not members of the British Medical Association, and he thought it would be very hard on those individual members of the defence societies that they should be told, 'You have either got to fight for yourselves or come into an Association, whether you like it or not."

Dr. BALLANCE (Secretary of the Norwich Division) said that in his opinion it would not have helped the matter forward if each Division had been asked to draft a scheme before the proposed scheme was laid before the general body. It would have been an idle procedure. It was for the people at headquarters to draft a scheme and then for the Divisions to deal with it. That was what the executive was for and what the Divisions were for.

Dr. BATEMAN regretted that he found himself in opposition to Sir Victor Horsley. Judging from what he had read in the BRITISH MEDICAL JOURNAL the scheme was practically dead. As, however, it was not actually dead, he would like to speak of it as it was. They had nothing official from the British Medical Association except that two members of the Medical Defence Union were on the Committee, and those members who were members of the Council of the Union promptly voted against the scheme. They reported that to the Union and the Council of the Union felt it was absolutely necessary to declare its policy. It was for that reason that the circular which had been referred to was published. They had sent a copy of the circular to their members, and, with the exception of one, no one had dissented from it. Therefore, it might be taken for granted that the view of the Council was the view of their members.

Dr. HERON thought it was an unfortunate thing that anybody should say that this scheme was the scheme of one man. It never was the scheme of one man, and he was not aware that any one who had taken the trouble to ascertain facts had ever made such a statement. It was greatly to be deplored, also, that they should hear from the representative of the Medical Defence Union the statement that, because two members of the Council of the Medical Union took the course they did, and withdrew their consent from the scheme and published that minority report, therefore the Defence Union were justified in taking towards the scheme the attitude it had assumed. He thought it was a most unfair attitude. With regard to his own society, he wished to be quite frank, and he hoped that no member of the Council on the London and Counties Protection Society would think he was breaking confidence in saying that the Council of the London and Counties Medical Protection Society considered the scheme, and they came to the conclusion by a majority of those present that it was not a scheme which they could approve; but when the annual meeting was held of that Society it was considered, and they came to the conclusion that the best plan was to wait until they were officially communicated with by the British Medical Association, and then to give the scheme submitted to them by the Association their best and, if possible, their favourable consideration. That was a much more charitable and more kindly attitude towards the question of medical defence than the attitude of stubborn opposition to it which had been shown so plainly by Dr. Bateman on behalf of his society, and which he regretted to have heard. As to the clause of the scheme which gave power to the Council to advance money for a reserve fund, he said the reason why the reserve fund was proposed was that it was felt necessary to have such a fund. Those who had any knowledge of medical defence would be aware of the fact that suddenly they might have a big case thrown upon their resource, and it would be a deplorable thing if for the want of necessary funds an association like the British Medical Association could not fight the case in more courts than one. The object that the Committee had in view was that they should have a fund to fall back upon in the event of such an unlikely emergency occurring. It was all very well to say it had never happened, but in going into a scheme such as they had before them, and considering the reputation of the Association, they had to regard every reasonable possibility, and it was a reasonable possibility that an Association like theirs might have to take a case of medical defence to the House of Lords, which neither of the existing societies could afford to do unless they called in their guarantee funds, which would mean closing their doors. In regard to the amount per head required for medical defence, he rather differed from Sir Victor Horsley. He did not believe that at first they would be able to bring the expenses of the British Medical Association in the matter of medical defence to a less figure than that which was now required by the existing two societies, namely, practically 9s. per head, but by-and-by they would be able to run it at less when they had started their machinery and got the thing going. Then the necessity of an extra subscription would cease to exist, and they would be able to run it with perfect ease. He thought they must come back to the proposed scheme or some modification of it. He was not wedded to it. He was quite open to have his opinion on the scheme modified, but they must come back to a scheme such as that before them, which started with a subscription of 10s., or some other sum to suit the machinery of medical defence. Those who chose to take up medical defence on those terms would get it, and those who did not choose to take it up would be outside. A good deal had been said about the man who was not a member of the British Medical Association. He had no sympathy with such a man; he ought to be a member of the Association, and if he did not choose to come into a scheme of that sort let him stay out. He hoped the meeting would endorse the principle of the scheme that medical defence in connexion with the British Medical Association should be paid for, for the present, by a special subscription, until such a time as the medical defence department was able to run on its own and pay its own way.

After some little discussion the CHAIRMAN put Dr. Fothergill's amendment to the meeting; seven voted for it and ten against it. The Chairman declared the amendment lost.

Dr. MCMANUS then proposed that the scheme should be adopted, and that the scheme itself should be referred to the Committee of the Division.

Dr. HOWARD EVANS seconded the motion, and this was carried.

The CHAIRMAN then proposed, and it was [illegible] hearty vote of thanks be given to those gentlemen who had attended the meeting at great personal inconvenience, and he

thanked them for the views which they had put before the meeting. A vote of thanks was also passed to the officers of the regiment for their kindness in allowing the Division the use of their room.

MIDLAND BRANCH:
Leicester Division.

At the annual meeting on May 11th the following resolutions were passed:

[illegible] that this meeting supports the Ethical Committee of the British Medical Association in [illegible] a stop to advertising of [illegible] practitioners in connexion with [illegible] etc.

[illegible] That it is [illegible] that medical witnesses engaged on each side in legal cases should meet in consultation.

Vote of Thanks.—A resolution was passed thanking Mr. C. J. Bond and Dr. A. V. Clarke, for their services as Chairman and Honorary Secretary respectively during the past year.

Election.—The following were elected officers for 1904-5: *Chairman:* R. Pratt, M.D. *Vice-Chairman:* H. J. Blakesley, F.R.C.S. *Honorary Secretary:* R. Sevestre, M.D., 119, London Road, Leicester. *Representative on General Council:* F. M. Pope, M.D. *Representatives on Branch Council:* R. Pratt, M.D., R. Sevestre, M.D., J. T. Tibbles. *Representative of the Division in Representative Meeting of Association:* R. Sevestre, M.D. *Other Members of the Executive Committee:* R. Ballard, W. E. Gibbons, H. R. Hancock, J. E. S. Burkitt, A. V. Clarke, J. N. Thomas, J. Stamford.

OXFORD AND READING BRANCH.

The annual meeting of this Branch was held at Reading on May 6th, Dr. G. H. R. Holden, President, in the chair.

Registration of Nurses. Dr. W. Collier opened a discussion on the desirability of registering nurses. There was much difference of opinion about this. The majority of the members were in favour of the registration of all nurses who had undergone a course of three years' approved training. Some members strongly held the view that nurses less expensively trained, and who would be willing to accept a lower fee than those more highly trained, would still be very frequently needed.

Dinner. About eighty members attended the meeting, and thirty-five of them subsequently dined together.

The Organization of the Profession. After dinner Mr. J. Smith Whitaker made some remarks about the organization of the profession.

SOUTH EASTERN BRANCH:
Eastbourne Division.

The annual meeting of this Division was held at Eastbourne on May 5th.

Election of Officers. The following were elected officers for the ensuing year: *Chairman:* Dr. Muir Smith. *Vice-Chairman:* Dr. [illegible]. *Representative on Branch Council:* Mr. J. H. Evans. *Honorary Secretary:* Dr. W. J. C. Merry. *Executive Committee* (in addition to *ex officio* members): Dr. Watson (Pevensey), Dr. H. S. Gabbett, Dr. Ch. Harper, Dr. C. N. Hayman, Dr. A. P. Sherwood.

Reigate Division.

A meeting of this Division was held at the White Horse Hotel, Dorking, on May 12th, Dr. John Walters, J.P., of Reigate, in the chair.

Election of Dr. Herman as Honorary Member. It was unanimously resolved:

[illegible] That Dr. Herman be elected an honorary member of the Division, in recognition of the great work he has done in the cause of Medical reform, and especially for the Medical Defence Union.

Vote of Thanks. The best thanks of the meeting were given to Dr. Dyce Duncan for his valuable address on The Preventive Side of the Profession of Medicine.

Representative at Meeting. Dr. John Walters was elected Representative at the Meeting.

SOUTHERN BRANCH
[illegible] Division.

At the annual meeting held on May 11th, the following officers were elected: Chairman: Dr. Thomas Eccles. Vice-Chairman: Dr. Charles [illegible]. Representative of Division on Branch Council: Dr. [illegible]. Representative on General Council: Dr. Robertson (Portsmouth). Honorary Secretary and Treasurer: Dr. C. Seymour Wood. The report [illegible] was unanimously confirmed.

That the time had not arrived for the British Medical Association to take up medical defence.

Out of fifty-one circulars sent out five replies were received in favour of the scheme; none of these members were present at the meeting.

LUNACY LEGISLATION.

The following is the text of the Bill to amend the Lunacy Acts introduced into the House of Commons on May 18th by the Attorney-General and the Solicitor-General:

A BILL to amend the Lunacy Acts.

BE IT ENACTED by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Visits to licensed houses.* Notwithstanding anything in section one hundred and ninety-one of the Lunacy Act, 1890 (herein-after referred to as the principal Act), the Commissioners may by order direct that until further order any licensed house, whether licensed by them or by justices, and not authorized by the licence to receive more than ten patients, may be visited by one Commissioner.

2. *Temporary care of incipient lunatics.* (1) If a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding *six months*, then during that period the provisions of section three hundred and fifteen of the principal Act shall not apply.

(2) The certificate must not be signed by the person under whose care the patient is to be placed.

(3) Where a medical practitioner signs any such certificate he shall, within one clear day after signing it, send a copy of it to the Commissioners, and the Commissioners may visit the patient to whom the certificate refers.

(4) The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception, and if the patient dies, or the residence of the person receiving him is changed, within the period mentioned in the certificate, shall within two clear days give notice of the death or change of residence to the Commissioners.

(5) He shall also, within two clear days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient at an earlier date then within two clear days after that earlier date, send a report to the Commissioners stating whether the patient recovered, and, if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

(6) If default is made in sending any notice or report required by this section, the person in default shall be guilty of a misdemeanour and be liable to a penalty not exceeding *fifty pounds*.

(7) No person shall under this section receive more than one patient at the same time.

(8) After the expiration of the period mentioned in the certificate another certificate under this section in respect of the same patient shall not be given within *two years* from the date of the expiration.

3. *Amendment of* s. 116 (1) (d) *of principal Act.* Section one hundred and sixteen of the principal Act (which relates to the administrative powers of the Judge in Lunacy) shall have effect as if in paragraph (*d*) of subsection one the words "or arrest of mental development" were inserted after the word "decay."

4. *Jurisdiction of Masters in Lunacy.* Subject to rules of court, the jurisdiction of the Judge in Lunacy including power to make orders in lunacy and such orders as may be made in the Chancery Division of the High Court may be exercised by the Masters, and every order of a Master in that behalf shall take effect unless annulled or varied on appeal in manner provided by such rules.

5. *Short title, construction, and commencement.* (1) This Act may be cited as the Lunacy Act, [illegible] and shall be construed as one with the Lunacy Acts, [illegible] 1891, and the Acts and the Lunacy Acts, [illegible] 1891, may be cited together as the Lunacy Acts, [illegible] 1904.

(2) This Act shall come into operation on the *first day of January* [illegible].

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 4TH, 1904.

CONTENTS.

GENERAL MEDICAL COUNCIL:

WEDNESDAY, MAY 25TH, 1904.—New Members. President's Address. Business Committee. Results of Examinations. Vote of Thanks.—Apothecaries' Society, London.—Report of the Executive Committee.—Dental Business 141

THURSDAY, MAY 26TH, 1904.—Disciplinary Cases.—Election of Committees 143

FRIDAY, MAY 27TH, 1904.—Minutes. Preliminary Scientific Education and Examination ... 145

SATURDAY, MAY 28TH, 1904.—The Conjoint Board in England and the First Year.—Visitation of Preliminary Scientific Examinations.—Marking at Examinations.—Postponement of Motion.—Instruction without Examination 147

MONDAY, MAY 30TH, 1904.—The Registration of Students.—Visitation of Preliminary Scientific Examination.—Apothecaries' Hall, Dublin.—Royal College of Surgeons of England.—Report of Education Committee.—Report of Students' Registration Committee. 151

TUESDAY, MAY 31ST, 1904.—Preliminary Scientific Committee.—Report of Education Committee.—Report of Finance Committee.—Appointment of a Treasurer.—Finance Committee.—Executive Committee.—Penal Cases Committee.—Report of Public Health Committee.—Report of Pharmacopoeia Committee.—Report of Dental Education and Examination Committee.—Practice by Companies.—The Medical Act (1886) Amendment Bill.—Canvassing.—Medical Certificates given by Chemists.—Unprofessional Conduct.—The General Registrar.—Length of Speeches.—Penal Inquiries.—Vote of Thanks 156

MEETINGS OF BRANCHES AND DIVISIONS:

North of England Branch 161

" " " Tyneside Division... 161

South-Eastern Branch: Folkestone Division 162

" " Hastings Division 162

" " Sevenoaks Division 162

Metropolitan Counties Branch: City Division ... 163

" " Wandsworth Division ... 163

South Midland Branch: Bedford and Herts Division 163

Midland Branch: Lincoln Division 164

Ulster Branch 164

North Wales and Shropshire Branch: North Carnarvon and Anglesea Division 164

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1904.

REPORTS OF PROCEEDINGS.

Wednesday, May 25th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

The PRESIDENT mentioned, with great regret, the absence of Mr. Tomes through illness.

New Members.

Dr. NORMAN MOORE introduced Henry Morris, Esq., F.R.C.S., in the place of Mr. Bryant, who had resigned, as the representative of the Royal College of Surgeons of England. Mr. YOUNG introduced R. Caton, Esq., M.D., as the representative of the University of Liverpool.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his address, which was published in the BRITISH MEDICAL JOURNAL of May 28th, pp. 1280-1.

Dr. MACALISTER moved, Dr. NORMAN MOORE seconded, and it was agreed, that the President be thanked for his address, and he be requested to allow it to be printed and entered on the minutes.

BUSINESS COMMITTEE.

Sir JOHN BATTY TUKE proposed, Dr. LITTLE seconded, and it was agreed, that Dr. MacAlister, Mr. Windle, Dr. Bruce, and Sir Christopher Nixon should constitute the Business Committee, Dr. MacAlister to be Chairman.

Dr. MACALISTER moved, Dr. NORMAN MOORE seconded, and it was agreed, that the Council do adjourn at 4 p.m. to enable certain Committees to meet for the completion of their reports.

RESULTS OF EXAMINATIONS.

Dr. MACALISTER moved that the following tables be received and entered on the minutes:

(*a*) I. and II. Tables showing Results of Professional Medical Examinations during 1903.

(*b*) Table showing Results of Professional Examinations for Qualifications in Sanitary Science, Public Health, or State Medicine during 1903;

(*c*) Table showing Results of Professional Dental Examinations during 1903;

(*d*) Table showing Results of Preliminary Examinations during 1903;

(*e*) Answers sent by the Medical Authorities as to the exemptions granted by them in any part of their Examinations during the year 1903;

(*f*) Table showing Results of Competition held on November 18th, 1903, for Commissions in the Medical Staff of the Royal Navy;

(*g*) Table showing Results of Competition held in January, 1904, for Commissions in the Army Medical Service;

(*h*) Table showing Results of Competition held in January, 1904, for Commissions in the Indian Medical Service.

This was seconded by Sir P. HERON WATSON and agreed to.

The following is an analysis of tables (*f*) (*g*) and (*h*) mentioned in the foregoing paragraph, compiled upon the same lines as last year:

TABLE I.—*Showing the Extent of the Competition for each Service.*

Services.	No. of Examinations.	No. of Vacancies.	No. of Candidates.	Average number per Vacancy.
Royal Naval Medical Service	1	30	[illegible]	[illegible]
Indian Medical Service ...	1	20	[illegible]	[illegible]
Royal Army Medical Corps ...	1	62	[illegible]	[illegible]
Totals	3	112	[illegible]	

TABLE II. *Showing since the Candidates Received their Qualifications.*

Licensing Body	Total Number of Candidates	Proportion of Entire Candidates
English Colleges and Universities		per cent
Scotch		
Irish		
Madras University	1	
Total ...	111	

TABLE III. *Showing the Proportion of the Vacancies Filled by the Candidates of each Country.*

Country	Number of Successful Candidates	Proportion of all Vacancies.
England		per cent
Scotland ...		
Ireland		
Madras ...		
Total.		

TABLE IV. *Showing the Relative Success of the Candidates of each Country in Proportion to the Respective Numbers.*

Country	Total Candidates.	Successful.	Proportion of Success to Candidates.
England			out of every candidates
Scotland ...			24
Ireland ...			
Madras ...			
Total ...			

TABLE V. *Showing the Qualifications Held by the Candidates.*

English Candidates.	Scotch Candidates.	Irish Candidates.
Conjoint Colleges alone ...	Conjoint Colleges alone ...	Irish Colleges alone ...
Conjoint and English Degrees	Degrees alone	Irish Degrees ...
Conjoint and Apothecaries'	Scotch and Ft.	
Apothecaries' Society alone ...		
Apothecaries' Society and English Degrees		
English Degrees alone ...		
Total...	Total	Total

TABLE VI. *Showing the Percentage of Candidates who passed the Qualifying Standard, including those who Gained Honourable Distinction.*

Country	Number who passed	Proportion to the Total
England		
Scotland		
Ireland		
Madras		

TABLE VII. *Showing the Number of Candidates who Failed Finally to pass the Examination of each Country.*

Country	Number who failed finally
England	
Scotland	
Ireland	
Madras	

TABLE VIII. *Showing the Relative Success of Every Class of Candidate.*

Qualifications	Number of Candidates.	Number Successful.	Percentage of Success
English Conjoint Colleges alone	97		85
English Conjoint Colleges and Oxford University ...	1	1	—
English Conjoint Colleges and London University ...	6	6	—
English Conjoint Colleges and Cambridge University ...	1	1	—
English Conjoint Colleges and Apothecaries' Society ...	1	1	—
Apothecaries' Society alone ...	1	1	—
Durham University alone ...	4	2	50
Manchester University alone ...	2	1	50
Birmingham University alone ...	1	1	—
Scotch Conjoint Colleges alone	11	6	54
Edinburgh University alone ...	15	7	47
Glasgow University alone ...	2	1	50
Aberdeen University alone ...	4	3	75
Irish Conjoint Colleges alone ...	5	3	60
Royal University of Ireland alone	8	6	75
Dublin University	10	7	70
Madras	1	0	—
Totals	112	[illegible]	—

VOTE OF THANKS.

Sir P. HERON WATSON then proposed:

That the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy, the Director-General of the Army Medical Service, and the Under Secretary of State for India respectively for the returns which they have respectively again furnished to the Council, with the request that these returns may in the future continue to be furnished to the General Medical Council.

This was seconded by Dr. MCVAIL and agreed to.

APOTHECARIES' SOCIETY, LONDON.

Sir HUGH BEEVOR proposed, Mr. MORRIS seconded, and it was agreed:

That Mr. Charles Stonham, F.R.C.S., be appointed as Assistant Examiner in Surgery to the Apothecaries' Society of London for a period of four years, vice Mr. Marmaduke Sheild, who retires by rotation.

REPORT OF THE EXECUTIVE COMMITTEE.

Dr. MACALISTER moved, Sir P. HERON WATSON seconded, and it was agreed that the following report from the Executive Committee with regard to the inspection and examination be received and entered on the minutes:

The Executive Committee report that it has appointed Mr. Bryant to be Inspector of Final Examinations during the year [illegible] and it recommends that, in view of the additional duties devolving on the Inspector in consequence of the reinspection of certain bodies, the salary of the Inspector for the present year should be [illegible].

Dr. MACALISTER said it would be remembered that the Council remitted to the Executive Committee the duty of appointing the Inspector. That was done by the Executive Committee on Tuesday, but the Standing Order provided that the stipend should be only £200 a year. The Executive Committee thought there were two exceptional circumstances in connexion with this case which made it desirable that the salary should be somewhat greater. The first was that, through the death of Sir George Dutfey, only a half year's stipend was paid to him and there was, therefore, £100 left, and some inspections were not complete. Mr. Bryant would have to complete those inspections, and he would also have to inspect over again the examinations of the University of London and University of Oxford, which had recently been ordered to be re-inspected. Therefore his year's duty would include more than the year's duty for the original inspection, and the Committee recommended that the salary should therefore be £300.

Sir CHRISTOPHER NIXON seconded.

Sir VINCENT RICHARDS had no objection to raise with regard to the amount of the proposed salary, but he did not recollect that the matter had been remitted to the Executive Committee. After what had fallen from the Chairman of the Executive Committee, he had no doubt it was; but he did not find it upon the minutes. He felt he must enter a protest against the appointment of Mr. Bryant. He understood that he was appointed for only one year.

The CHAIRMAN remarked that that was so.

Sir VINCENT RICHARDS said that greatly mitigated any evil he imagined to exist from the appointment, but he thought

in appointing an Inspector for the final examinations, especially in surgery, a man ought to be appointed who was in touch with the schools and the hospitals. It was fifteen or sixteen years since Mr. Bryant resigned his position at Guy's Hospital, and he (Sir Victor Horsley) thought they could have done better by appointing a younger gentleman than one who was so recently a member of this Council.

Mr. GEORGE BROWN agreed with Sir Victor Horsley, and asked the Chairman of the Business Committee if Mr. Bryant would have anything to do with the Apothecaries' Hall in Ireland.

Dr. MACALISTER replied that he would not without a special appointment.

The PRESIDENT said he did not wish to reargue the reasons why Mr. Bryant was selected, as he had already given those in his address, and nothing that had fallen from any speaker had led him to alter his opinion.

Sir JOHN MOORE asked, in reference to the statement of the Business Committee that £100 had been saved owing to Sir George Duffey's illness and death, whether Sir George Duffey was appointed for the whole of the year 1903, because if he were, he (Sir John Moore) thought that Sir George Duffey's representatives were entitled to a certain proportion of the salary payable.

The PRESIDENT pointed out that by the Appointment Act the cessation of emoluments terminated on the death of the person holding the appointment.

Sir JOHN MOORE replied that he gathered from Dr. MacAlister that Sir George Duffey was paid for only the first half of the year, and he did not die until the middle of October.

Dr. MACALISTER remarked that when Sir George Duffey resigned, an arrangement was made for which Sir George Duffey expressed his most cordial thanks.

The resolution was then put and agreed to.

DENTAL BUSINESS.

Dr. MACALISTER then brought up the report from the Executive Committee on the dental business transacted since the last meeting of the Council, and moved that it be received and entered on the minutes.

Report.

1. The prescribed conditions having been duly fulfilled in each case, the names of the under-mentioned persons have been restored to the *Dentists' Register*, from which they had been erased in conformity with the provisions of section XII of the Dentists Act, 1878:

Davis, Reuben	Sleigh, William H
Neep, George	Wilkinson, Alice
Parsons, Ellis	

2. The Committee considered an application from Mr James Dickson Hamilton, a registered dentist of New South Wales, requesting that his name might be placed on the Colonial List of the *Dentists' Register* of the United Kingdom, and directed that this application should be referred to the General Council, and that Mr. Muir Mackenzie should frame an answer for the consideration of the Council.

Dr. MACALISTER said this answer would be laid before the Council later.

3. The Committee also considered an application from Mr. Edwin Burton Roper, a dentist of British nationality but domiciled in France, requesting that his name might be placed on the Foreign List of the *Dentists' Register* in virtue of his French Diploma of Chirurgien Dentiste, which he had obtained after passing three examinations held by the Faculté de Médecine de Paris.

The Committee referred the application to the Dental Education and Examination Committee for consideration and report to the General Council during the present session.

This was the first instance of the kind, and the merits of the diploma would have to be investigated.

4. The Committee received from the Privy Council Office a copy of a circular respecting a Dental Congress at St. Louis to be held in August next.

5. The Committee received from the Colonial Office a copy of an Ordinance of the Orange River Colony on the subject of the registration of medical practitioners, dentists, chemists and druggists, midwives and nurses in that Colony, which embodied the provisions contained in a proclamation which had been transmitted to the Council in 1902. (Minutes, vol. xxxiv, p. 223.)

6. The Committee received from the Colonial Office a copy of an Act to consolidate and amend the law relating to dentists in Tasmania, and entered it on its minutes.

The Executive Committee expressed its great satisfaction that provisions were included in the Ordinance which might have been included in any legislation which might be introduced into this country, because it prevented unqualified practice in any of the departments of medicine, dentistry, and so on, and more than that, it took precautions which seemed to the Executive Committee sufficient to prevent practice by joint stock companies. It thought it well to communicate to the Secretary of State for the Colonies its satisfaction at the character of the Ordinance.

7. The Committee received from the Irish Branch of the British Dental Association a communication calling attention to a judgement in regard to medical or dental joint stock companies.

Dr. LINDSAY STEVEN seconded, and the resolution was agreed to.

Mr. GEORGE BROWN inquired whether it was intended to take any official action in regard to the last paragraph.

Dr. MACALISTER replied that the Executive Committee thought the matter of such importance that it should be considered by the whole Council.

Dr. MACALISTER proposed, Sir VICTOR HORSLEY seconded, and it was agreed that the following communication be received and entered on the minutes:

The Royal College of Surgeons,
Stephen's Green, Dublin.

We venture to draw your attention, as a member of the General Medical Council, to the decision of the Court of King's Bench (Ireland) in the case of "O'Duffy *v.* Jaffe," herewith enclosed. The action was taken under the Dentists Act of 1878, but the judgement of the Court demonstrates the total inadequacy of existing laws to protect the public from unqualified practice, under misleading titles, of medicine, surgery, or dentistry: inasmuch as any individual can place himself outside the penal operation of the Medical or Dental Acts by the simple expedient of forming a joint stock company, the Court holding that the Act as worded applies to a "natural person" only, and not to a "company." Furthermore, it appears that the title assumed by such company on its formation becomes its "own proper name," and there seems to be no legal means of restraining the assumption of any title (however misleading to the public), whether it be "Stiles, Doctors of Medicine," "Noaks, Physicians and Surgeons," or "Jaffe, Surgeon Dentists, Ltd."

In the judgement the Court consents to the view that "the general intention of the Legislature in regard to the protection of the public has been frustrated," and is unanimously of opinion that the phrasing of the Act does not enable it to "reach the mischief," and suggests that "the Legislature can, if it think fit, pass a statute specially directed against" it. We therefore respectfully ask you to support action on the part of the General Medical Council towards petitioning the Privy Council to initiate the necessary legislation.

The Council then went into *camera*.

Thursday, May 26th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

DISCIPLINARY CASES.

A Divorce Case.

THE Council proceeded to the consideration of a charge against a registered medical practitioner to the effect that he had committed adultery with a patient—a married woman whom he was attending professionally—and that he had been found guilty by the decree of the Divorce Court. The charge having been read, the representative of the respondent opened the case and desired to read a statutory declaration made by her; the counsel for the defendant practitioner objected, and the objection was upheld by the Council. The counsel for the defendant then asked that the hearing might be adjourned in order that he might take steps for the prohibition of the inquiry. The Council having considered the matter *in camerâ*, resolved to adjourn the case until next session to give counsel for the defendant an opportunity for taking such steps as he might think necessary to question the Council's decision.

Alleged Canvassing.

The Council then proceeded to the consideration of the case of Harold Augustus Easton, of 92, Brigstock Road, Thornton Heath, registered as Mem. R. Coll. Surg. Eng. 1902, Lic. R. Coll. Phys. Lond. 1902, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor:

That you, being a registered medical practitioner have systematically sought to attract to yourself patients by the employment of persons to canvass on your behalf for subscribers to a medical club instituted by you, and by the distribution of the rules of the said club.

Mr. Muir Mackenzie appeared as legal assessor; Mr. Winterbotham appeared as solicitor to the Council; Dr. Hugh Woods appeared for the London and Counties Protection Society.

Dr. HUGH WOODS said that his Society had received complaints to the effect that wholesale canvassing of patients to join a medical club had been carried on in the neighbourhood of West Croydon. The result of inquiries instituted was now laid before the Council in the form of statutory declarations. The question was whether Dr. Easton had employed a canvasser to canvass the patients of other medical men to become members of the club which Dr. Easton had instituted.

Dr. Woods then read statutory declarations from a number of persons to the effect that they had been solicited to join the club, and that Dr. Easton had employed a paid canvasser. These facts, Dr. Woods submitted, clearly established a case for Dr. Easton to answer.

Dr. EASTON, who appeared in person, stated that it was a fact that he had employed a person who collected subscriptions of members of a club which he had formed, but he was convinced that the proceedings which he had adopted were not canvassing such as had been referred to. He called Mr. Brisley, builder, formerly an insurance collector, who stated that Dr. Easton had engaged him as a collector and had paid him 20 per cent. of the entrance fees. He had strict instructions to do nothing in the nature of canvassing. He had had an experience of ten years, seven of which had been with one medical practitioner. He had done just the same in this case as in any other, and had not been found fault with. He denied that he had canvassed people to join the club in any way.

By Sir JOHN BATTY TUKE: He was a collector for doctors.

By Sir VICTOR HORSLEY: He had not taken any particular precaution against canvassing. He was anxious to put a shilling or two into his pocket, and for that purpose he went to people whether they were attended by medical men or not. At the time he was making his living as an insurance agent.

Mrs. FLOODGATE said she called on Dr. Easton about the club, and he gave her some leaflets in connexion with it. These she distributed among her friends, and they called for more. She did this on her own initiative.

Cross-examined by Dr. HUGH WOODS: She only had four leaflets; one she gave to a woman, and the other she put in letter boxes. It was untrue that she had canvassed for Dr. Easton.

Dr. HUGH WOODS, in reply, submitted that the evidence clearly proved that canvassing had taken place. Although Dr. Easton's contention was that it was not done with his authority, Dr. Easton, in engaging such a person as Mr. Brisley, must have known that he would canvass all and any person he thought likely to join the club, and, in fact, he did canvass in that way. The evidence, he (Dr. Woods) had read, and which had been called by Dr. Easton, gave the Council a clear view of had happened, and showed that Dr. Easton had wilfully permitted canvassing to be done on his behalf.

Strangers and parties were ordered to withdraw. On re-admission

The PRESIDENT announced the decision of the Council as follows

That the [illegible] alleged against Mr. Harold Augustus Easton—namely, that he had systematically canvassed for patients—had not been proved to the satisfaction of the Council.

The President added that, probably owing to his youth and inexperience, he had pursued a course of conduct which had brought him under the notice of the Council, and that he should be warned by that day's proceedings to be very careful in regard to his professional conduct in that respect in the future.

Case of Robert Fawcitt Granger.

The case of Robert Fawcitt Granger, registered as 85, Church Street, Whitby, with the triple qualification of Scotland, which had been heard by the Council on November 26th, 1903, was further considered.

Mr. CHANNELL appeared and submitted a certificate by Dr Robert Milne and also a statement by himself to the effect that he had found great difficulties to overcome in connexion with obtaining a practice; but he had been appointed visiting medical officer to St. Andrews Dispensary. He thought his prospects were much better than they had been for the last [illegible] three years, and he had carried out the promise he had made to the Council in November, 1903.

Strangers were ordered to withdraw. On re-admission:

The PRESIDENT addressed Mr. Granger as follows

[illegible] letter, a letter [illegible] to the Council, chiefly to [illegible] decided on your case [illegible] to ease your case from the [illegible]

The President expressed the hope that the proceedings which had been taken would be a warning to Mr. Granger and that he would give no cause for complaint as to his conduct in the future.

THE "DENTISTS REGISTER" OF NEW SOUTH WALES.

The Council then proceeded to consider an application from Mr. James Dickson Hamilton for registration as a dentist in the United Kingdom, considered by the Executive Committee on February 22nd, 1904, and by them referred to the General Medical Council:

On October 7th, 1903, an application was received from Messrs. Sparke and Angus, a firm of solicitors in Sydney on behalf of Mr. James Dickson Hamilton, that he might be registered as a Colonial Dentist in the [illegible] under section [illegible] of the Dentists Act, 1878, the grounds of the application being that he was already registered under the Dentists Act of New South Wales, and that this should be recognized, as they understood had been the case with the Victorian Act of 1900.

On the Council's instruction Mr. MUIR MACKENZIE had framed the following answer to Messrs. Sparke and Angus's communication.

Gentlemen,—In reply to your letter of November 23rd, 1903, I have to inform you that the application of Mr. James Dickson Hamilton, and the documents which accompanied it, and your letter, have been considered by the General Medical Council.

The Council does not recognize that the certificate under the Dentists Act of New South Wales No. [illegible] of 1901, of which you have recorded a copy to the Council, furnishes sufficient guarantee that a holder of the certificate possesses the requisite knowledge and skill for the efficient practice of dentistry or dental surgery.

The Council does not recognize a certificate issued under the Dentists' Act 1900 Victoria to a person who has no dental diploma or qualification other than the qualification of having practised dentistry before the passing of that Act. An application by the holder of such a certificate to have his name registered in the Colonial Register was refused by the General Medical Council on the ground that the Council could not recognize the certificate. The applicant appealed from the Council's refusal to the Privy Council, and the appeal was dismissed. The case will be found recorded in the published Minutes of the Council for 1901, pp. [illegible], 1902, pp. [illegible], 1903, pp. [illegible].

With reference to the case of Mr Oldfield, his name was not registered in the Colonial Register on the ground that the Council had determined to recognize a certificate under the Dentists Act, 1900 Victoria, issued to a person whose qualification was that he had practised dentistry before the passing of the Act. Mr. Oldfield made two applications for registration, the first of which was refused, but the second of which was granted, in the special circumstances stated in the second application, a special order being made for the registration of the name. The facts relating to Mr. Oldfield's applications will be found in the published Minutes of the Council for 1901, pp. 210, 222, 1902, pp. [illegible] and 1903, pp. [illegible].

The application of Mr. Hamilton has therefore been refused by the Council, on the grounds above stated.

On the motion of Sir VICTOR HORSLEY, seconded by Dr. MACALISTER, it was resolved:

That the answer to the application of Mr. James Dickson Hamilton be in the terms of the answer drafted by Mr. Muir Mackenzie.

ELECTION OF COMMITTEES.

Moved by Dr. MACALISTER, seconded by Dr. NORMAN WALKER, and resolved that the following nominations to Committees be approved:

EXAMINATION COMMITTEE.

[illegible] Dr. Eye Smith, Dr. Payne, and Mr. Young.

[illegible] Sir Patrick Heron Watson, Professor Dudley, and Dr. McVail.

[illegible] Sir Charles Ball, Dr. Little, and Sir William Thomson.

[illegible]

[illegible] Dr. William Moore, Dr. MacAlister, and Dr. Windle.

[illegible] Sir John Batty Tuke, Dr. Metcalf Anderson, and Dr. Mackay.

[illegible] Dr. Bennett, Sir Christopher Nixon, and Sir William Thomson.

[illegible] HOUSE COMMITTEE.

[illegible] Sir George Thompson, Mr. Power, and Mr. Watson.

[illegible] Dr. Lindsay Steven, Dr. McVail, and Dr. Bruce.

[illegible] Sir Charles Ball, Mr. Tweedie, and Dr. Bennett.

[illegible] LIBRARY COMMITTEE.

Mr. Morris (for the place of Mr. Lucas). The Deputy Comptroller to [illegible] Sir Charles Ball, Sir Patrick Heron Watson, Mr. Power, and Mr. Penry Morris.

[illegible] EXAMINATION COMMITTEE.

Mr. Tweedie, Mr. Young, Dr. Lindsay Steven, Dr. Payne, Sir Charles Ball, Dr. [illegible], and Mr. Henry Morris.

[illegible] COMMITTEE.

Dr. MacAlister, Sir George Thompson, Sir John Batty Tuke, Dr. Mackay, and Mr. Tweedie.

[illegible] EXAMINATION COMMITTEE.

Dr. Bruce, Dr. MacAlister, Sir John Batty Tuke, Dr. Mackay, Sir [illegible], and Sir William Thomson.

The Council then adjourned.

Friday, May 27th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

MINUTES.

THE minutes as altered were signed by the Chairman.

PRELIMINARY SCIENTIFIC EDUCATION AND EXAMINATION.

Dr. NORMAN MOORE moved that the report from the Committee on Preliminary Scientific Education and Examination be received and entered on the minutes. A joint Committee of the Education and Examination Committee was appointed to go into the whole question of preliminary and scientific education and examination. The report contained a valuable collection of information on the subject. With the aid of the President the Committee obtained information from all the licensing bodies of the United Kingdom, and from many medical and scientific institutions. Some of the medical schools in London, considering that they were a part of the University of London, intimated that they would reply through the University. The University had not asked each school to express an opinion, so that only one or two medical schools of London had actually replied to the Council. The others would have been willing to do so had the University seen fit to consult them on the matter. The answers had been carefully summarized, and there was no very great difference of opinion among the bodies, and the Committee, having thoroughly discussed and digested the reports, had drawn up eight recommendations, which they suggested should be communicated to all the licensing bodies. Those resolutions practically embodied what the licensing bodies and the teaching institutions approved, for though not absolutely unanimous their general agreement was obvious.

The motion was seconded by Dr. WINDLE, and this was agreed to.

RECOMMENDATIONS.

The Committee have carefully considered the whole question, and beg leave to recommend that the following resolutions be adopted by the Council, and communicated to all the licensing bodies:

I. That an examination in chemistry, in order to be sufficient, should comprise a written paper, a practical examination, and an oral examination.

II. That, in respect of chemistry, a synopsis of subjects should be issued by each licensing body; and that the scope of the examination in chemistry should not fall below that which has been indicated in the report of the Visitors, and has been generally approved by the licensing bodies.

III. That the examination in practical chemistry should not be limited to simple qualitative analysis, but should include easy preparations and simple experiments illustrating important principles.

IV. That an examination in physics, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on the use of physical instruments and apparatus.

V. That, in respect of physics, a synopsis of subjects should be issued by each licensing body; and should include the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity.

VI. That elementary biology should be retained in the curriculum.

VII. That an examination in elementary biology, in order to be sufficient, should comprise a written paper and an oral examination, the latter to include practical questions on specimens and dissections and on methods of microscopical investigation.

VIII. That, in respect of elementary biology, a synopsis of subjects should be issued by each licensing body.

On the motion of Dr. NORMAN MOORE seconded by Dr. WINDLE, Paragraph I was agreed to.

Dr. NORMAN MOORE then moved and Dr. WINDLE seconded the adoption of Paragraph II.

Dr. MACALISTER said that the publication of a synopsis of subjects was useful not only to the student as a guide, and to the examiner as a control, but also to other bodies and to the Council itself in estimating the scope of examination. General approval had been given by the various experts of different licensing and public bodies to the outlined sketch of an examination in chemistry submitted to them by Dr. Campbell Browne.

Sir JOHN MOORE suggested that the words "or syllabus" should be inserted. That was the recommendation of the Irish Royal Colleges. A syllabus gave a little more information to the student than a synopsis.

Dr. NORMAN MOORE thought there was no objection to the addition of the words.

The resolution was then put as altered and carried.

Dr. NORMAN MOORE next proposed, and Dr. WINDLE seconded, Paragraph III.

Mr. TICHBORNE wished to add after the word "preparations" the words "simple volumetric analysis."

Dr. BRUCE seconded; it was an essential part of chemistry, and was not very difficult.

Dr. PYE-SMITH expressed the opinion that to make this compulsory would be to press things too far.

Dr. PAYNE thought that if volumetric analysis was not in some way introduced the syllabus would be defective.

Mr. GEORGE BROWN supported the amendment.

After some discussion,

The words as suggested by Mr. Tichborne were inserted, and the resolution was agreed to.

Dr. NORMAN MOORE then proposed the adoption of Paragraph IV.

This was seconded by Dr. WINDLE and agreed to.

Dr. NORMAN MOORE, in proposing Paragraph V, said that it was merely a reaffirmation of a resolution of the Council of many years' standing. The words "or syllabus" of course would be added.

Dr. WINDLE seconded and the resolution was carried.

Dr. NORMAN MOORE then proposed Paragraph VI, which he said perhaps of all the resolutions gave the greatest room for discussion. The reports received, however, justified the statement that the conclusion the Committee had come to was that which at the present time was the feeling throughout the world of medical education.

Dr. WINDLE seconded.

Dr. MACKAY said that if necessary he would move an amendment which would really embrace Paragraphs VI, VII, and VIII. The question of curriculum had not been really touched upon otherwise in the report. Many who were engaged in the instruction of medical students knew the difficulties into which during the first years of their studies medical students were plunged by the faults of the curriculum. While retaining elementary biology in the curriculum it should be excluded from the examination; but in his opinion the discussion on the subject should be postponed, and he moved as an amendment:

That the subject of biology should be retained in the curriculum, but it should not be regarded as necessary that a professional examination in the subject should be demanded, provided that the student has attended and duly performed the work of a satisfactory course of instruction in the subject as a part of the curriculum of a university or duly recognized college or school of medicine

Sir JOHN BATTY TUKE seconded the amendment, especially as it brought before the Council a new principle, the principle of instruction without examination.

Sir VICTOR HORSLEY was going to move an amendment, when

Dr. MCVAIL, on a point of order, said Dr. Mackay's amendment was not relevant to Paragraph VI.

Dr. MACKAY thought the general principle should be discussed before going into the question of detail. He did not object to the subject of biology being retained subject to the limitation with regard to examination.

On the motion of Dr. NORMAN MOORE, seconded by Sir VICTOR HORSLEY, the Council went into Committee to consider Paragraphs VI, VII, VIII.

Dr. MACALISTER moved that Paragraph VI be a resolution of the Council, because it was not finally adopted by the Council until all the conditions were attached to it.

Sir VICTOR HORSLEY remarked that the question was an extremely large one, and of vital importance to the medical student. The amendment he was going to propose was:

That the further consideration of Paragraphs VI, VII, and VIII of the Report on the Preliminary Scientific Education and Examination be suspended, and that a Committee be appointed and constructed to report upon the course of study and synopsis of the subject of the preliminary scientific education and examination, with a special reference to the nature of biology as a subject of study and examination

Applying himself as a hostile critic of the Committee, he thought the reference was far wider than the Committee appeared to have accepted. The recommendations of the Committee dealt only with the subject of examination; but certainly it was in their minds that the Committee was, in the terms of its remit, to consider the several questions raised, which included the old question of preliminary scientific education and examination. Nowhere in the report was any information on the subject given. It was a pity the Council owed to the licensing body to indicate what it said should be the course of study of subjects at these scientific examinations, and until the Council did that he thought it

had not done its duty towards the medical student. The only way to do that was to retain the Committee and ask it to report next session. The Council must have from the Committee advice and instruction, and it was with the view of obtaining that that he framed the amendment, which he thought covered Dr. Mackay's point.

Sir Charles Ball seconded.

Dr. MacAlister thought it was quite impossible for the Council without taking expert advice and advice from many quarters to frame anything like an ideal, universal, and uniform syllabus on the subject. The inquiries made showed that the licensing bodies were almost unanimous that biology should be retained in the curriculum as a compulsory subject. If the subject were explicitly excluded by the Council from examination it would be soon excluded from the curriculum.

Sir William Thomson entirely approved of the suggestion for investigation. Dr. Mackay's suggestion was a most important one, and was entirely new, but if they applied it to biology they must apply it to other subjects in the curriculum. He would like the Council to suggest some means by which, if this became an instructional course, it should be a bona-fide one and should not be a farce. The Council should not associate itself with any arrangement which could be avoided by any corporation or teaching body; it should take care that its wishes in the matter, so far as possible, should be carried out.

Sir Charles Ball was of opinion that the matter was not in any way ripe for decision, and entirely concurred in the suggestion that there should be further delay.

Sir Christopher Nixon agreed with Dr. MacAlister if they laid down a rule excluding biology as a subject of examination it would be excluded from the subjects of instruction; no student would take up a subject which was not examined into.

Dr. Pye-Smith agreed with Sir Victor Horsley that it was a very vital question in the curriculum of the student, but he ventured to think it would be a great pity if the Council did not stand by what it had already done. It had gained a great deal of knowledge from the admirable report made by Dr. Windle and Professor Campbell Browne, and the report of the Committee which they were discussing was very valuable. He urged the Council not to let all that pass and adjourn this important subject until November. He deprecated very much trying what he might call experiments in this matter. The Council ought to act on the almost unanimous opinion of the licensing body and not try to fetter in a minute manner the way in which this subject was to be taught.

Dr. Windle supported the postponement of the consideration of the subject. The question was what was the best way to teach biology. Biology was essentially a growing subject, and one on which great elasticity should be allowed to teachers, and in which experiments should be tried; it was therefore difficult to draw up a syllabus. The difficulty with regard to those bodies which were examining but not teaching bodies could be got over by those bodies satisfying themselves that the instruction given in the schools was of a proper character. He agreed with Dr. Mackay that it was a subject which could be very well taught in the first year.

The President, at the request of Dr. McVail, having explained the position in which the debate stood,

Dr. MacAlister moved as an amendment that the Committee should not come to any decision at all on the subject. He thought it important that the one point should come before them that elementary biology should be retained in the curriculum.

Sir Victor Horsley, on a point of order, submitted that this was not an amendment.

Dr. McVail thought Dr. MacAlister's amendment was not a true one, but he was going to vote against Sir Victor Horsley's motion, as nothing had been said to show him how the Committee could bring up any satisfactory report. He contended that it was not possible for the Committee to lay down any such minimum syllabus of biology as the Council would be justified in enforcing in examination and in demanding that the licensing bodies should adhere to. He strongly advocated the retention of biology. Anything more retrograde than the proposal of Dr. Mackay he had not heard for a long time.

Dr. Norman Moore said that in the discussions of the Committee the point Sir Victor Horsley had taken was not lost sight of. If the answers from the different licensing and teaching bodies were read it would be seen that the Committee, which was not composed of physiologists nor of biologists in the most exalted sense of either term, could not possibly have arrived at any authoritative conclusion from those answers. All the Committee could do was to put those answers before the Council, and he thought that no profit would come out of their again discussing the subject. He concluded by moving as an amendment to Sir Victor Horsley's resolution that, instead of postponing the consideration of the report of the Committee, Paragraphs VI, VII, and VIII be approved by the Council in Committee.

Mr. Henry Morris seconded the amendment because it seemed to him that to refer the matter again to the Committee would not bring to the Council any further information. Looking at the questions which had been sent out, the large number of answers which had been received, the great unanimity of these answers, and the very admirable, concise, and clear report itself, further information could not be expected six months hence. He could not but think that any subject which was introduced into a curriculum which was not followed by an examination would be a dead letter.

Sir Victor Horsley, on a point of order, submitted that the amendment was only an amendment to the end and not the beginning of his motion. He did not consider it was a proper amendment. In his previous remarks he only dealt with examination and not with courses of study. He had therefore in his motion put foremost the advisability of the Committee considering the courses of study in each of the three subjects—chemistry, biology, and physiology.

The President pointed out that the first part of Sir Victor Horsley's motion was that the further consideration be suspended that was to say, postponed with a certain object, and Dr. Norman Moore's amendment was that it be not postponed.

Sir Victor Horsley said that was his point; it was a direct negative and not an amendment.

The President replied that the amendment went on to say that Paragraphs VI, VII, and VIII should be approved.

Sir Victor Horsley said that was a separate resolution.

The President thought perhaps the best way would be to divide the motion and the amendment into two parts.

Sir Victor Horsley remarked that he was quite willing.

The President suggested that the word "postponing" in the amendment should be altered to "suspended."

Sir Victor Horsley said that showed it was not an amendment.

Dr. Norman Moore wished his amendment to remain as he had drawn it.

Dr. McVail though a way out of the difficulty would be found by allowing Dr. Norman Moore's amendment to be carried, because when it was put as a substantive motion it would be open to Sir Victor Horsley to move an amendment and bring in the points he wished to raise.

After some further discussion, the President put Dr. Norman Moore's amendment, when 10 voted in favour of it and 10 against. He thereupon declared it carried, and then put the amendment as a substantive motion.

Dr. Macnay wished to move an amendment for the purpose of taking the opinion of the Council upon his own proposal.

Dr. McVail thought notice ought to be given, and that it should come on later as a special business. After a little discussion it was arranged that either Dr. Mackay or the Chairman of the Business Committee (Dr. MacAlister) should draft a motion and put it on the paper.

Sir Victor Horsley speaking to the motion then before the Council, quite agreed that elementary biology should be retained in the curriculum; that was to say so far as he could frame his own ideas upon the subject. Before he agreed to the resolution he wanted to know what he was voting for and what was meant by elementary biology. Paragraphs VI, VII, and VIII referred only to examinations, but the curriculum consisted of more than that; it contained courses of professional study and examinations. He was quite ready to vote for the Paragraphs on the ground of pure examinational requirements, but he must have some sort of idea what the subjects or courses of study for those examinations were. He asked whether, if he voted for Paragraphs VI, VII, and VIII, that would preclude him from bringing forward the first half of his original motion.

The President took it that there was nothing in Paragraphs VI, VII, and VIII to define what the course of elementary biology was to be. It was merely a general proposition. The feeling of the Committee, of which he was Chairman, was that they should not define elementary biology in any minute sense, but that it should be left to the educational bodies and the licensing bodies themselves to stipulate what course of study they would require

for their examinations. The Committee felt it was not for them to prescribe any general system.

Sir VICTOR HORSLEY said his only object in asking the question was that he should not prejudice his position by voting as he intended to do for Paragraphs VI, VII, and VIII. The recommendation of the Committee only dealt with examinations, and not the courses of study. He wanted to take the opinion of the Council by a clear vote on the matter, and he asked whether he should be able to do so after Paragraphs VI, VII, and VIII had been passed.

Dr. MCVAIL suggested that Paragraphs VI and VII should be agreed to, and that Paragraph VIII should stand over.

Sir VICTOR HORSLEY did not agree that the Council's curriculum only included the subjects necessarily examined into, because it contained subjects which might not be examined into in the true sense of the word. Paragraph VII would be very important, because it placed biology on exactly the same footing as chemistry and physics; but personally he did not feel that it should be on the same footing.

Dr. Norman Moore's amendment was then put as a substantive motion and agreed to.

On the motion of Dr. NORMAN MOORE the Council then resumed.

On the motion of Dr. MACALISTER, seconded by Dr. NORMAN MOORE, the report of the Committee of the whole Council that Paragraphs VI, VII, and VIII be adopted by the Council was agreed to.

Dr. NORMAN MOORE moved, and Mr. HENRY MORRIS seconded, and it was agreed, that Paragraphs I to VIII adopted by the Council be communicated to all the licensing bodies.

Dr. MACKAY moved:

That the Committee be reappointed, and that the following suggestions submitted to the Council should be referred to them for report. The suggestion was that the subject of biology should be retained in the curriculum, but that it should not be regarded as necessary that a professional examination in the subject should be demanded, provided the student has attended and duly performed work in the subject as a part of the curriculum at a duly-recognized college or school of medicine.

Dr. NORMAN MOORE seconded.

Professor FINLAY thought it a pity to make the reference too narrow, and that it should be enlarged so that the Committee should take up the question of non-examination subjects generally.

Mr. HENRY MORRIS thought the general principle should be considered by the Committee as to whether it was or was not desirable that subjects that were not to be examined into should be included in the curricula, and if Professor Finlay moved an amendment to that effect he would be happy to second it.

Dr. LINDSAY STEVEN agreed that it was a mistake to narrow down so important a principle to one subject alone, and he was willing to support any amendment which would make the reference general.

Dr. BRUCE hoped Dr. Mackay would modify his motion.

Dr. CATON expressed the opinion that the subject was so extremely important and carried with it such weighty issues, that the application which appeared to be now urgently necessary in the case of biology might be lost sight of altogether by the inclusion of other subjects.

Professor FINLAY moved and Mr. HENRY MORRIS seconded:

That the Preliminary Scientific Committee be reappointed, and instructed to consider the report as to the advisability of dispensing with examination in the case of any of the subjects in which courses of study are prescribed by the licensing bodies.

A discussion then took place as to the advisability of sending the resolutions to the licensing bodies while at the same time that they were being remitted to the Committee for further consideration and report.

Dr. BENNETT moved the previous question on the amendment as follows:

That the Council instead of proceeding to deal with the amendment do pass to the next item on the programme of business.

This was seconded by Dr. MCVAIL. On the motion being put 13 voted for and 14 against, and it was declared lost. At the request of Sir P. HERON WATSON the names and numbers were taken down.

Dr. MACKAY, after consultation with Dr. MACALISTER, desired to withdraw his motion and put it on the programme for consideration on the next day.

Professor FINLAY would not assent to this course being adopted as he considered it a waste of time.

The amendment was then put when 16 voted for and 12 against.

The PRESIDENT declared the amendment carried.

Dr. MCVAIL requested the names and numbers to be taken when 16 voted for, 12 against, 2 did not vote and 2 were absent.

The PRESIDENT then put the amendment as a substantive motion and declared it lost.

The names and numbers being taken down 13 voted for, 15 against, 2 did not vote, and 2 were absent.

Sir VICTOR HORSLEY and Dr. MACKAY gave notice of their intention to move resolutions on the subject, and the Council adjourned.

Saturday, May 28th, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

THE CONJOINT BOARD IN ENGLAND AND THE FIRST YEAR.

The PRESIDENT stated that the first item of business consisted of certain communications from the Royal College of Physicians of London and the Royal College of Surgeons of England. Those communications were as follows:

(*a*) From the Royal College of Physicians of London.

Royal College of Physicians,
London, S.W.,
April 20th, 1904.

Dear Sir,—I am directed by the President and Fellows of this College to forward to you, for the information of the General Medical Council, the following resolutions and synopses having reference to the first year of the curriculum of professional study, and the subjects of and mode of conducting the first professional examination of the Conjoint Board in England, which have now been adopted by this College and by the Royal College of Surgeons of England.

These resolutions and synopses will be incorporated in the Regulations of the Conjoint Board, and take effect from March, 1905.

I am, dear Sir,
Faithfully yours,
EDWD. LIVEING, M.D.,
Registrar.

H. E. Allen, Esq.,
Registrar, General Medical Council.

COURSES OF INSTRUCTION.

1. That a minimum length of courses be required in Chemistry, Physics, and Biology before candidates are admitted to examination in these subjects.

2. That the minimum course in the several subjects be:
In Chemistry 180 hours' instruction and laboratory work.
In Physics 120 " " " "
In Biology 120 " " " "

3. That these courses need not run concurrently, nor be completed within one year.

4. That these courses may be commenced or attended before the required Preliminary Examination in general education is passed.

5. That study at an institution other than a recognized medical school be counted for not more than six months of the curriculum.

6. That the study of Anatomy and Physiology be not recognized until after the First Examination in Chemistry, Physics, and Biology has been passed.

7. That no student be admitted to examination in Medicine and Surgery until he has completed five years of professional study after passing the Preliminary Examination in general education, towards which six months' study at a recognized Institution may be counted, if taken subsequently to passing such Preliminary Examination.

FIRST PROFESSIONAL EXAMINATION.

That Part I. Chemistry, Part II. Physics, Part III. Biology, and, at the option of the candidate, Part IV. Practical Pharmacy, be the subjects of the First Examination.

CHEMISTRY.

1. That the paper in Chemistry do consist of nine questions, six to be answered and no more, for which three hours shall be allotted.

2. That the time for the Practical Examination be extended from two to three hours.

3. That the use of books and tables be allowed in the Practical Examination.

PHYSICS.

4. That there be a separate paper in Physic consisting of six questions, four to be answered and no more, for which two hours shall be allotted.

5. That there be a practical Examination on the use of Physical Instruments.

6. That candidates be required to pass in both Chemistry and Physics at one and the same time; that the marks awarded in Chemistry and Physics be considered together; and that candidates who obtain 45 per cent. of the total of the two subjects shall pass, provided that they obtain not less than 20 per cent. in either subject.

BIOLOGY.

7. That, in addition to the *vivâ voce* Examination, there be a paper in Biology, for which two hours shall be allotted, consisting of six questions, four to be answered and no more.

That each candidate be examined orally for 15 minutes.

Then follow synopses.

(*b*) From the Royal College of Surgeons of England.

Royal College of Surgeons of England,
Lincoln's Inn Fields,
London, W.C.,
May 3rd, 1904.

Dear Sir,—With reference to previous correspondence between the General Medical Council and this College regarding the regulations of the Conjoint Examining Board in England for the first year of the curriculum of professional study and the First Examination, I am now directed by the President to forward to you, for the information of the General Medical Council, the accompanying copy of resolutions and synopses, which have been adopted by this College and by the Royal College of Physicians of London.

I am to add that the resolutions and synopses will in due course be incorporated in the regulations of the Board and will take effect from March, 1905.

I am, dear Sir,
Yours faithfully,
S. Forbes Carfell,
Secretary.

H. E. Allen, Esq., Registrar, General Medical Council.

The information as to the courses of instruction and First Professional Examination is identical with that from the Royal College of Physicians.

(*c*) From the Royal College of Physicians of London, enclosing a copy of the full regulations of the Examining Board in England as now revised:

Royal College of Physicians,
London, S.W.,
May 11th, 1904.

Dear Sir,—Referring to my previous letters for a statement of the circumstances which have been the cause of unavoidable delay in the matter, I am glad to be able at length to send you a reply to the letter of Sir William Turner, dated December 5th, 1903, addressed to myself as Registrar of this College.

In that letter a series of questions, raised by a Report of the Visitors of the Council on the Examinations in Chemistry, Physics, and Biology, held by the Licensing Corporations in the United Kingdom were submitted to observations thereon by the College. I now enclose, by direction of the College, for the information of the President and Council, a copy of the questions with the answers to them in a parallel column adopted at a general meeting of the Fellows held yesterday, May 10th.

I am requested to enclose at the same time a copy of the Regulations of the Examining Board in England revised in accordance with the amended notice of instruction and examination in Chemistry, Physics, and Biology forwarded with my letter of April 30th last, also lists of (1) schools other than Medical, recognised by the Royal College for instruction in those subjects, (2) Recognised Medical schools, (3) Recognised Preliminary Examinations in subjects of general education.

I am, dear Sir,
Faithfully yours,
Edward Liveing, M.D.,
Registrar.

H. E. Allen, Esq.,
Registrar.

Dr. Norman Moore moved, Mr. Henry Morris seconded, and it was agreed that these communications be received and entered on the minutes.

Sir Victor Horsley then moved:

That the courses of study laid down in the new regulations of the Examining Board in England by the Royal College of Physicians, London, and of the Royal College of Surgeons, England, taking effect in March, 1905, are, in the opinion of the Council, insufficient.

He said he felt it was his duty to put this motion on the paper because he moved in a previous session a resolution to which the Council agreed, namely, that the then courses of study and examinations of the Conjoint Board of England were insufficient. At that session they were given to understand in the course of the discussion that the Conjoint Board of England and its constituent parts, were considering this matter, and that they had already published a kind of preliminary account of what they meant to do, and it was obvious that that kind of preliminary account satisfied the members of the Council to a large extent, at any rate the matter proceeded no further at that time. The members of the Council had now before them these new regulations, the synopses relating to those regulations. Synopsis and course of study could not be regarded as synonymous terms. Synopsis was only part of the documents relating to a course of study. The details of the courses of study were of importance and required a great deal of consideration. He should like, in order to make a move that with regard to something that had occurred on the previous day. When he moved a certain resolution he spoke of the "professional" members of the Council, and Dr. Norman Moore interrupted him, and the word should be "professional." He had accepted the correction at the time because he did not wish to haggle over the word, but of course Dr. Norman Moore knew perfectly well that the word used by the Council in speaking of its curriculum was "requirements."

Dr. Norman Moore said he was not aware of it.

Sir Victor Horsley replied that he was afraid that Dr. Norman Moore did not know the principal document of the Council, which laid down what the Council required: the word used was "requirements." The Council was the supreme authority on medical education. Dr. Norman Moore and Mr. Henry Morris were there to tell them it was not. In that respect there was a variance of opinion that the courses of study and the examinations were "required" by this Council. That governed the position of matters, as it appeared to him. The communication from the Royal College consisted of two parts—it dealt with the courses of study and it dealt with the examinations. It told them what the Colleges proposed to do with each of those two parts. His resolution only related to the first part, namely, the courses of study, because he personally was quite satisfied that the details of examinations coincided practically with what the Council had passed on the previous day, but then came the fundamental question, what were the courses of study for a student after he had registered himself and shown that he was possessed of the requisite scientific knowledge. He did not think that biology deserved the same time as physics, but when he looked at paragraphs 3, 4, 5, 6, and 7 of the communication from the Colleges, he found the opposite of what he expected to see after the discussion at the last session. At the last session he really thought, from what fell from Dr. Norman Moore and others, that a kind of *modus vivendi* was being arrived at in the minds of the members of the Council. But they found that, with the one exception of halving the year, precisely the points to which the Council had taken exception in the past, and had voted against, were again put forward; in other words, that the previous debates of this Council, and the money of the profession that had been expended on this question had been thrown away if these regulations were now to be accepted by the Council as adequate. Take No. 3: "That these courses need not run concurrently nor be completed within one year": that was to say, in other words that they might begin at any age when a boy was at school, even the age of 10. No. 4 was "That these courses may be commenced or attended before the required preliminary examination in general education is passed." He was quite sure he was reflecting the opinion of the majority of the Council when they laid down that the curriculum of education of medical students should be divided in an orderly manner; that he should have done with his preliminary education; that he should then take his general scientific education, and then go on with anatomy and physiology. The Council had decided against that very No. 4. With regard to No. 5, that was the only concession that the Colleges had made: they had knocked off six months of a student's school life, and the Colleges only asked the Council to recognize six months. That, therefore, did not affect the general issue. No. 6 showed the difference the Colleges were making in their treatment of the scientific education of the student on the one hand and his education in anatomy and physiology on the other. To his mind the scientific education of the student was of as great importance as learning anatomy and physiology correctly. His general education, in a sense, ought to be treated on exactly the same footing. The Colleges said that anatomy and physiology were not to be recognized until the scientific part had been got rid of. Precisely the same treatment ought to be meted out to the scientific part of the examination if it was of equal importance. If the Colleges took the line that it was not of such importance, that was a legitimate position, but of that they must satisfy the Council, because the Council had decided the opposite. No. 7 showed that the curriculum, as the majority of the Council understood it, was definitely to be evaded by the Royal Colleges. The time was not to be five years but practically 4 years. He would not labour that point because it had been discussed in the Council again and again. Coming back to general principles, he said it was clear that these regulations failed to carry out what had been laid down, after long debates, for nearly ten years. He submitted, therefore, that whatever step the Council took through its Committee in regard to preliminary scientific education, it ought not to accept these regulations as being satisfactory.

Sir William Turner seconded.

The President asked if any members wished to make any remarks.

Dr. BRUCE thought they should hear something from the representatives of the Colleges.

Mr. GEORGE BROWN also thought that the speech they had just heard deserved some reply.

Dr. MCVAIL desired to draw Sir Victor Horsley's attention to the minutes of the Council in December, 1894. The first great point in dispute between the General Medical Council and the Royal Colleges in England was that the latter were admitting men who had taken their scientific courses before they had passed their preliminary examination. That was keenly felt for two or three years, but in the end the Council gave way upon the point, and authorized any body to admit men who had taken those courses prior to the preliminary examination, on condition, however, that the curriculum should be five years from the time of registration. The next great subject in dispute was in regard to the institutions at which these subjects might be studied. That began about 1898, within a few years after conceding the other point to the Royal Colleges. He thought Sir Victor Horsley would see that the minutes did not bear out his view of the requirements of the Council. He agreed with Sir Victor Horsley in principle that these subjects should be taken after the preliminary examination was passed, but the Council for nine and a-half years had practically conceded that point to the Royal Colleges.

Dr. MACALISTER thought it was desirable to emphasize these points. A new departure had been made by the Royal Colleges themselves. It was very important for the Council to consider whether or not the substance of what it had been contending for had now been obtained even although the form in which it was presented might be different. First of all this was the first time that the length of a course of instruction in chemistry, physics, and biology had been prescribed. The discussion between the Council and the Colleges as to what it should be, whether ordinary school work or special lectures and at medical schools turned very largely on the question of what was the kind of instruction that was given at ordinary secondary schools, not whether the appliances were adequate, but whether the instruction received by the boy was adequate. On that point the inquiry made by the Education Committee seemed to afford evidence that much was still to be desired in the requirements of the Royal Colleges in that respect. It appeared that in some schools the number of hours a week given to the subject were not sufficient to make any student thoroughly acquainted with the subject. But now the Colleges proposed that the minimum course in chemistry should be 180 hours instruction and laboratory work, in physics 120 hours, and in biology 120 hours. Looking at what happened in ordinary medical schools and in universities and other institutions for higher instruction, he had no hesitation in saying that the minimum course was at least equal, and in many cases he would say superior, to what, at present, was received by the ordinary medical student so far as duration was concerned. Therefore the Council might be assured that such instruction as was required by the Royal Colleges on those three subjects would be comprehensive and cover a sufficient amount of time. The second point was that even if a student spent three years in that way he would not get the credit for the three years' study or even one but at the most six months. It was quite true that he might pass his preliminary scientific examination immediately after his preliminary examination in arts, but that was permitted by their regulations, and was not contrary to anything the Council had laid down; the course of instruction, however long it might be, would not be reckoned as more than six months. Lastly, it could not even be reckoned as six months, unless the six months had been taken subsequent to the passing of the preliminary examination. That brought it into line with the recommendations of the Council. The Royal Colleges had gone further than that. They had laid down a regulation, which did not exist in its full severity in any of the courses that he knew of, and that was, that until the student had passed his examination in chemistry, physics, and biology, no study in anatomy and physiology would be recognized at all. All those who were familiar with medical education knew that it constantly happened that a student took the courses and counted them, but the Royal Colleges said that no one should begin that study as a requisite element in the curriculum until he had passed the first examination. Therefore he could not help thinking on the whole, although the Colleges had not put themselves exactly in line with what the Council had laid down, the conditions now laid down by the Colleges were more drastic than the Council would have been prepared to insist upon. He thought that although the conditions might not be perfectly happy in their form, it would be unjust for the Council to say that the conditions were insufficient.

Mr. GEORGE BROWN would have been glad if the motion had been in such a form that a vote might have been taken on the regulations *seriatim*, instead of condemning them *en bloc*; but if they were not taken in that way, he should vote in favour of Sir Victor Horsley's motion.

Dr. WINDLE said that as to the use of the word "requirements" it simply meant that when the General Medical Council laid down something as a requirement if that was not carried out the Council was at liberty to report the body to the Privy Council. He thought that the proposed course met a great many of the difficulties previously felt in connexion with these examinations. The point which principally affected him previously was that there were no definite instructions given as to the courses. That came out clearly in the reports. That must have been a new fact to the members of the Management Committee of the Conjoint Board. They could not have known that, or they would have given some guidance to these institutions. Now they had full guidance—first, as to what was the length of time; and, secondly, they had information as to the kind of subjects they were required to teach. Neither of those things had previously been before the bodies. He was perfectly certain they would be able to carry out those instructions, but he regretted that some regulation was not laid down as to the length of time over which this instruction might be spread, because there was something to be said for intensity of instruction as well as for length. He thought, however, if it was looked at from a common sense point of view it was extremely unlikely that any boy would go up for examination in chemistry and succeed who had spread his one hundred and eighty hours over six years' work; if it did occur the boy would be a very brilliant boy. Therefore he did not regard that as a reason for considering the regulations insufficient. He thought the Council had got now from the Conjoint Board a very great deal more than it got from the London University, about which no complaint was heard, and he saw no reason to regard the instruction as other than sufficient. Then with regard to Clauses 6 and 7 it was perfectly true that the student might obtain his qualification in four years and six months after leaving school, but how many would do so? When this regulation had been in operation a few years he should like a table showing the length of time taken by the student in carrying it out; because he thought it would be found to come to a six years' instead of a five years' curriculum. He quite agreed with Dr. MacAlister that although the regulation in one respect did not perhaps conform with the letter, it more than conformed with the spirit of the recommendation of the Council, and under those circumstances he could not give his vote that the regulation was insufficient.

Sir CHRISTOPHER NIXON said he should give his vote against Sir Victor Horsley's resolution because he thought the position of the Colleges very favourable for medical education, as it emphasized the principle that the subjects of chemistry, physics, and biology might be taken before passing the preliminary examination. He was inclined to support the action of the Colleges in this matter. He thought they had given way very considerably indeed, and the differences between the Colleges and the Council were very trivial.

Dr. MACKAY said, as he understood the matter, there was a certain licence given to candidates for what might be called free preliminary study, and that study was under two conditions. It might be in the medical school or university, and in that case the whole medical sciences might be taken in the medical school or university before the preliminary examination was taken. If they were taken in an institution other than a medical school he understood that six months of such study was allowed to count, and that six months must be after passing the preliminary examination. As a matter of fact, no study in any institution other than a medical school was requisite prior to the passing of the preliminary examination.

Dr. NORMAN MOORE pointed out that it would count as part of the medical curriculum whenever it was carried out. The five years could not begin till after the preliminary examination in Arts was passed, whenever the study was begun.

Dr. MACKAY, continuing, said that Sir Victor Horsley remarked that a student might begin to study at the age of 10, but he thought the age would more probably be 12, and there would be very few at that age even. He thought that in sub-

stance these regulations did not transgress any of the regulations of the Council; on the other hand, he thought they were in keeping with all it had laid down.

Sir John Batty Tuke considered the regulations of the Colleges were the result of an earnest and magnanimous effort on the part of the Colleges to bring themselves into line with the Council. The regulations of the Colleges exceeded considerably those of any other body, and he wished most sincerely that all the bodies in the country would come up to the same line. He could not see that there was any justification for such a resolution as was now before the Council, and he should certainly vote against it.

Sir P. Heron Watson, in regard to No. 7, which stated that "no student be admitted to examination in medicine and surgery," and so on, wished to know why midwifery had been left out.

Dr. Norman Moore replied that no alterations had been made in the regulations about midwifery.

Mr. Henry Morris stated that candidates were admitted to midwifery examinations at the end of the fourth year, but that they were not admitted to medicine and surgery until the five years were completed, and they could not get a diploma in anything until they had passed in all the subjects.

The President rather thought that the words should be "in the subjects of the final examinations," and inquired of Dr. Norman Moore if his College divided their final examination into two parts with an interval of a year between midwifery, medicine, and surgery.

Dr. Norman Moore replied that it was not compulsory. The regulations were sent to the Council every year, and this point had not been raised before. If it was not regular, no doubt the Colleges would immediately alter it. This was a point on which there was a considerable difference of opinion.

Dr. McVail thought the matter was quite clear from the regulations, and he was afraid that Dr. Norman Moore had not understood them. They could present themselves in midwifery at the end of four years, but they could not present themselves for medicine and surgery until the end of five years. He thought that was in accordance with the requirements of the Medical Act, which regarded medicine, surgery, and midwifery as being all taken together. He thought probably the Colleges might be continuing some old arrangement, but now that Dr. Norman Moore's attention had been called to it he would no doubt attend to the matter.

Dr. MacAlister pointed out that the whole subject was discussed in 1890, and the Council got an opinion from the legal adviser, which was communicated to all the bodies and acted upon by many of them. According to that opinion, what Parliament meant was that each candidate should satisfy the examining body that he was qualified in each of the subjects that the examination must be one examination, in the sense that one medical authority must conduct the whole examination; that a student must be examined in all three subjects by one medical authority, but there was nothing to prevent the medical authority which held the examination from separating the parts of the examination and holding them at different times.

Sir William Thomson said he had not intended to speak until after he had heard the representatives of the Colleges, but as they had not favoured the Council with any observations, and the matter was about to close, he should like to say a few words. He was not sure that if he had drawn up the notice of motion himself he should have put it in the precise terms in which it now appeared, but to the spirit of it he was in entire accord. This matter was a very old and very painful story during all the years that he had been on the Council. When he was a very young member of the Council he had protested against the action which these two English Colleges had taken in assuming to themselves a position hostile to the views and rules which this Council had laid down, and which this Council insisted that other bodies less strong, perhaps, and less pernicious, should carry out. That always seemed to him to be an extraordinary position, and, as the Council knew, this matter had come up year after year. That was the position to-day. After years of conflict and bewilderment they were in this position, that, after telling the Council last year that the Colleges were bringing in a scheme to satisfy all the Council's requirements, they had brought in a scheme to-day which, although it had been described as being entirely satisfactory in spirit, yet still allowed the Colleges to retain the position that they had all along maintained—a position of independence of interpretation and independence of action in regard to the Council. He had said more than once before that either the Council had the power to deal with educational matters or it had not. If it had the power then some respect ought to be paid to the views which it from time to time expressed and to the regulations which it submitted for the guidance of licensing bodies. Some of those who had spoken had maintained that the regulation that had been brought in was one that in spirit really did more than the Council had ever required, and that these bodies, which had been wandering sheep in the past, had come back into the fold and were to be used as an example to other bodies. He was not prepared to accept that position. It was true that they came in but they said "We will have four years and six months as the time." He supposed the Council, as it had adopted the views of the Colleges on other occasions, would accept that position, but he did not think that was a satisfactory position for the Council to be in. The view he held of the matter was that if there was to be perpetual wrangling over this subject, it would be far better for the peace of the Council and the various bodies and far better for the higher education of their students if these subjects were made the subjects of an entrance examination, and the true professional subjects limited to a minimum of four years. That was the position he could understand the Council taking up, but as it was at present in his opinion the relegation of these subjects (and the Council had agreed to it, under certain conditions he was sorry to say) to various non-medical schools institutions they were called many of them were at all events recognized as grammar schools was derogatory to the whole system of medical education. That being the present position they were simply perpetuating it, and if it were proposed that they should cut off all these subjects from the medical course altogether he should be a strong supporter. It would be a great deal better for the whole system of medical education, and would take away what was to his mind a blot on the whole scheme. The interference with the general education of the pupil before he came to medicine was a very unsatisfactory state of things. He held that the attitude of the Colleges to the Council was not what it ought to be. They were old and distinguished bodies, and they ought to be the leaders in acquiescing and acknowledging the authority of the Council. They ought not to set the example of resistance to the regulations that were made by a body which, at all events in the opinion of the Council itself, was a superior body even to the English Colleges. If they had suggestions to make, the Council would always receive them, and perhaps even adopt them; but what they wanted to arrive at was a scheme that would be best for the development and promotion of medical education, and he hoped that in the future the Colleges would come absolutely into line with the Council.

Sir Victor Horsley, in reply, said Dr. McVail had unintentionally done him a great injustice. The resolution of December, 1894, which dealt with the teaching institutions recognized by the licensing bodies, had been entirely set aside by the subsequent action of the Council. The question was where the courses of study were to be carried out, and six months ago the Council said that these schools *en bloc* were unsatisfactory.

Dr. McVail pointed out that while voting against the resolution he was in no way giving an opinion as to the schools; he was thinking of what was in the document sent by the Royal Colleges, where not a word was said with regard to any particular institution.

Sir Victor Horsley maintained that the principle of teaching institutions was in their minds, although not expressly stated, and it was that principle which had been affirmed year after year by this Council which was directly negatived by these proposed regulations. He wanted to dissociate himself from the idea that the differences between the Council and the Royal Colleges were trivial; the Royal Colleges were in the position that they could recognize any institution they liked. The courses of study were not sufficiently safeguarded by the Royal Colleges, and he took the vote simply from a public point of view, and, as he originally thought, the view of consistency of the Council.

The resolution was then put and declared lost.

At Sir Victor Horsley's request the names and numbers were taken down, when it appeared 6 voted for, 22 against, 3 did not vote, and 1 was absent.

Mr. George Brown moved, and Dr. Bruce seconded:

That the scheme of courses of study contained in the new regulations of the Examining Board in England by the Royal College of Physicians of London and the Royal College of Surgeons of England be referred to the Education Committee for consideration and report at the November session.

The PRESIDENT, in reply to Sir CHRISTOPHER NIXON, said the vote on Sir Victor Horsley's motion did not involve the implication that the new regulations were sufficient.

The motion was put and declared lost.

At Mr. GEORGE BROWN'S request the names and numbers were taken down, when 11 voted for, 13 against, 7 did not vote and 1 was absent.

VISITATION OF PRELIMINARY SCIENTIFIC EXAMINATIONS.

Sir P. HERON WATSON moved, and Dr. MCVAIL seconded:

That the Council complete the visitation of the Preliminary Scientific Examinations held by the bodies mentioned in schedule A by appointing Visitors to visit these examinations in the Universities.

Dr. MACALISTER suggested that the Council might postpone the visitation till next year, and give the bodies an opportunity to consider the new regulations.

Dr. MACKAY thought there was no necessity at the present moment to continue the inspection of preliminary scientific examinations.

Sir JOHN BATTY TUKE placed such confidence in the work of the universities that he considered it unnecessary to go to the trouble and expense to prove what the Council must know was satisfactory.

Dr. NORMAN MOORE said that when the inspection was undertaken by the Council the intention was to review the whole subject of education, and to give it up when one part—and a very essential part—had come to an end, would appear to put the Council in the unpleasant light of not having carried out a general intention but only a particular one.

Dr. LINDSAY STEVEN agreed that the investigation should not cease at the point which had been reached, and it would be little less than injustice if the Council did not carry it through to the end.

Dr. MCVAIL thought no better time could be selected for visiting university examinations than the present, and therefore he hoped the Council would be consistent, and carry out the policy it had laid down.

Dr. PYE-SMITH, as Treasurer, protested against this wanton expenditure. The controversy had gone on so long that surely they ought not to begin again to stir up strife.

Dr. MACALISTER moved an amendment:

That the visitation in the University Examinations in Chemistry, Physics, and Biology be not continued until after the visitation of the Final Examination is completed.

Dr. WINDLE seconded.

Dr. MCVAIL pointed out that the Committee was simply carrying out the instructions of the Council.

Sir VICTOR HORSLEY submitted that the Council ought not to consider the question of expense in connexion with the visitation, and he hoped the work would be carried out for the sake of scientific education generally.

Dr. PAYNE, in Committee, assented to the resolution as the logical outcome of what had gone before; but, nevertheless, he was glad to grasp such a way of escape as was presented by the amendment.

The amendment was then put and declared carried.

At Sir PATRICK HERON WATSON'S request the names and numbers were taken down, when 19 voted for, 10 against, 2 did not vote, and 2 were absent.

The PRESIDENT then put it as a substantive motion, and it was carried.

At Sir PATRICK HERON WATSON'S request the names and numbers were again taken, with the same result.

MARKING AT EXAMINATIONS.

Dr. MCCALL ANDERSON moved:

That the Registrar be instructed to communicate with each of the licensing bodies recommending a uniform system of marking in all cases in connexion with their examinations.

He wanted to direct attention to the great variety in the system of marking adopted by the various licensing bodies. It appeared to him that the best system of marking was a percentage system.

Dr. BRUCE seconded.

Dr. PAYNE hoped the motion would not be pressed as it was an exceedingly difficult subject to deal with.

Dr. MACALISTER moved an amendment

That it be referred to the Education Committee to be dealt with when they receive the result of the whole inspection.

Sir JOHN BATTY TUKE seconded.

The PRESIDENT pointed out that so far back as 1895 the Council passed a recommendation in favour of adopting a uniform system of marking, and the result had been *nil*. He ventured to think that if the Council reaffirmed it the result would be the same. They must leave it to the licensing bodies, who had experience to guide them, to decide whether in their judgement a man was competent to pass or not, and put it in such a form as they thought best; it was quite absurd to go into all this minutiae of marking.

After some further discussion the motion and the amendment were by leave of the Council withdrawn.

POSTPONEMENT OF MOTION.

Sir VICTOR HORSLEY desired to postpone a motion standing in his name till Monday, as it was of importance and there was not sufficient time to discuss it; but

Dr. NORMAN MOORE protested against this as he desired to move an amendment, when

Sir VICTOR HORSLEY, at the President's suggestion, moved:

That the consideration of the motion be postponed till Monday.

Dr. WINDLE seconded and it was agreed.

INSTRUCTION WITHOUT EXAMINATION.

Dr. MACKAY moved:

That the Education Committee be requested to collect information and report on the subject of the possibility of including certain subjects in the curriculum without requiring examination in them.

This was really an important question, and he asked that the matter might be referred to the Education Committee, which seemed to him was the proper body to take up any such proposal; it was merely an effort to obtain light on the subject.

Dr. NORMAN MOORE thought it was a subject which pre-eminently ought to be discussed, and therefore he had pleasure in seconding the motion.

Sir JOHN BATTY TUKE was of opinion that it would be impossible to get the information.

Mr. HENRY MORRIS considered that a curriculum that included subjects which were not necessarily examined into was not desirable and would not be found to work.

After some further conversation the motion was put and declared carried.

At Dr. MCVAIL'S request the names and numbers were taken down, when 13 voted for, 11 against, 4 did not vote, and 4 were absent.

The Council then adjourned.

Monday, May 30th, 1904.

Sir WILLIAM TURNER, K.C.B., in the Chair.

THE REGISTRATION OF STUDENTS.

The PRESIDENT announced that the first business on the programme was a notice of motion by Sir John Batty Tuke, but before that was taken he thought it right to make a preliminary statement so that the Council might know the position of matters, and as the statement he had to make would require his calling attention to certain official communications he had received, he thought it right that his preliminary statement should be made *in camerâ*. He should like to say that the Council going into *camera* merely applied to his preliminary statement, and did not apply to the discussion or consideration of Sir John Batty Tuke's motion.

Dr. MACALISTER moved, Dr. LINDSAY STEVEN seconded, and it was agreed:

That strangers do withdraw in order that the President may make a statement to the Council before it proceeds to consider the motion of which Sir John Tuke has given notice.

Strangers were then directed to withdraw; on their re-admission,

Sir JOHN BATTY TUKE said in introducing his motion that he should occupy the time of the Council at no great length, for the majority of the members knew the position of this matter by reason of their being on the Council, and the absolutely clear and succinct statement which the President had just made would have explained the position to those members who had recently joined the Council. He supported the President's opinion with regard to the position taken up by the authorities of the Privy Council. That opinion was that the adoption of the registration fee for students was the most convenient way of adding to the resources of the Council. But apart from those authorities he had consulted men versed in affairs, much more than he was, and he had explained to them the position, and without exception they had given an opinion, that the Privy Council having made the statement they had upon the matter, it was advisable for this Council to follow that advice. They recognized that an increase of the registration fee for admission to the *Medical Register* would be somewhat difficult to carry through, and they also recognized that the line taken by the Privy Council was one of least resistance, and they

had advised him that the proposal of the Privy Council was the most likely one to accomplish the object which they desired. For those reasons and for others which he would shortly give, he had tabled this motion. The proposal required to be regarded from two points of view first the monetary, and secondly the administrative, point of view. As to the monetary point of view, the report which the Finance Committee had placed in their hands was not altogether a satisfactory one. He was not going to trench on the duty of the Treasurer, but it would easily be seen that if they went on as they were going, the Council was within easy measurable distance of bankruptcy. He had taken the five years ending 1903, and he found that during those five years the average of expenditure over revenue was £1,325; in other words, in those five years they had eaten into capital to the amount of £7,300. No one doubted that money must be got somehow. The Council had on its own motion exercised certain economies; it had reduced the fees payable to members, and it had added extra fees in regard to certain registrations which it was within their power to increase. He expressed the hope that in the next few years they would have a stoppage of the cycles of inspections. They had had very fair results in regard to the last cycle just concluded. Bodies that were criticized had accepted those criticisms in the best spirit, and had either introduced reform or intimated their intention of bringing about reforms. If they accepted the proposed Bill, and that Bill passed, they would be in receipt of an increase of revenue of £1,700. He thought that was a low calculation. He based it upon the fact that during each of the five years ending 1903, 1,715 students registered 1,518 in medicine and 195 dental. He had a strong suspicion that he might place the increase at something higher than £1,700, for, judging from the figures of a report which he would have later on to submit to the Council, the suspicion arose in his mind that a not inconsiderable number of students neglected to register, for he found that in England 629 students registered, and 568 in Scotland, and he was not aware of any material increase in the number of students in Scotland, or of any decrease in England, to such an extent as was indicated by those figures. He might be wrong perhaps in that. If he was right in his suspicion he thought there was all the more necessity for this Bill; but he was quite content to base his calculation on an increase of receipts of £1,700. He believed that with the economies and extra fees which they charged the surplus would be between £1,000 and £1,200, and that would be absolutely necessary to acquire. They must in the next few years lay by a surplus in order to perform the statutory duties of inspection in future years, and for other purposes and amongst those purposes he should like to mention that they would probably require more money for the *Pharmacopœia*. At the present time they were dependent, to a very great extent, on almost gratuitous services and he did not think that was a position the Council should be in, because it was a false position. Coming to the proposed tax of £1 upon every student registering, he asked, was it fair or unfair? He held that it was a reasonable initial expense. It must be remembered that under existing circumstances the Council went to considerable expense in this matter. It had to maintain a staff; it had to print the schedules and copies of the regulations, and had to keep a *Students' Register*. All that cost money, and that money came out of the pockets of practitioners. Having thus roughly foreshadowed what he believed to be the monetary effect, he proceeded to state his view as to how it would affect administration. The President had read the section of the Draft Bill which gave upon the registration of students. In what he was going to say he would be entirely frank as to what his own opinion was on the questions which such a Bill should it become law would have to be framed by the Council. In the first place the Council would by legislative enactment, be made responsible for the carrying out of registration of students and if so it would be its duty to lay down conditions. That power of laying down conditions would be an absolute equivalent to the existing power to register students. He would now [illegible] what the Council would gain and what the licensing bodies would lose. The Council would gain assurance that its principal and great requirement he used the word "requirement" advisedly that the study of medicine for five years after registration would be complied with by all. At the present moment they had no [illegible] assurance that this chief requirement was complied with in the case of students who neglected to register. Secondly, the Council could assure itself that each student had passed a satisfactory examination in arts; and, thirdly, the Council would have the power to approve or disapprove of those institutions recommended by the various bodies at which medical study would have begun, and the Council would be able to put in force what it at present laid down as a regulation, but which was not universally followed. In plain terms, there would be compulsory registration under the Council's conditions. Every member of the Council would admit, he thought, that such a state of things would be highly convenient to the Council, to the profession, and the public. [No, no.] He used the word "public," and he should like to repeat an expression which he had used before, namely, that after all the public was a part of the community whose interests required to be carefully looked after. He would like to ask what would the licensing bodies lose? He meant by that every one of the licensing bodies in the kingdom, universities and corporations alike. They would merely lose the right to maintain an independent list of educational bodies whose examinations in general education were accepted by them; and the right to nominate bodies at which medical education should be begun. In no other respect whatever would the autonomy of any individual body be interfered with. When they considered the important bearing that such a measure as the one before them would have on medical education at large, he asked whether it was worth while fighting over the supersession of such comparatively unimportant powers? In the working of such a scheme all causes of friction would disappear: the poor student would not be bewildered between his duty to the Council and the body whose school he attended, and all the bodies would come into line on equal terms. He thought it was extremely likely, from his general experience on this and other Councils, that his motion would be met by a suggestion for delay and a suggestion that the bodies should themselves be first consulted. He hoped the Council would not agree to that. The members of the Council were appointed by the Crown by the various licensing bodies, and by the profession to decide the general merits of any new measure. If they went to the bodies direct they could not obtain the opinion of the representatives of the Crown, and he suspected it would be difficult to obtain the opinion of the general profession, and therefore on the preliminary measure and on the preliminary consideration of the case one-third of the Council would be silent. He hoped the Council would take the ordinary constitutional method of either passing or rejecting the motion. If it passed it the licensing bodies could express their opinion on the action of their representatives, and it would be left to each body to take action and further the interests of the Bill, or procure its rejection when it was before Parliament. He concluded by moving

That the Lord President of the Privy Council be requested to introduce into Parliament a Bill to confer upon the General Medical Council statutory power to establish and maintain registers of medical and dental students and to impose a fee not exceeding £1 for registration thereof.

Sir Victor Horsley said Sir John Batty Tuke had asked him to second this resolution, and as he (Sir Victor Horsley) was entrusted with the matter of laying the Draft Bill of 1902 before the Council, he had great pleasure in seconding the motion, which was an embodiment of Section IV of the Draft Bill. He would not detain the Council on the general question of finance, as the Council had for six years advanced to him the courtesy of listening to him on the subject. He wished to speak solely in support of this motion from the point of view of the interests of the profession and the interests of the public, the material interests of both. As to the interests of the profession surely it must be plain that if a proposal were laid before them entailing the imposition of a new registration fee, that of itself was a better method than the raising of an existing registration fee. Secondly, if the new fee was to be taken from the pockets of the public rather than from the pockets of the practitioner, that again was in itself good, because, after all, the object of the registration of students was to improve the registration of practitioners and medical education throughout the country, and the only persons who would derive benefit from that were the public at large. Then if the interests of the profession were thus safeguarded he thought the interests of the public would be dealt with in a

much more favourable way on the lines which Sir John Batty Tuke had laid down. Every one interested in medical education knew that the registration of a student was an essential to the perfection of a medical curriculum. That essential had hitherto been wanting, and this motion proposed to establish it. He believed that the real difficulty which had surrounded this question in the previous debates of the Council had been as to what was the line of the least resistance. That day for the first time they had heard that in the Central Government the feeling was that this was the line of least resistance. Surely that should be sufficient for all who supported the motion. In regard to the so-called autonomy of the licensing bodies in this matter, if the question was looked at from a broad point of view the autonomy of the licensing bodies was not touched upon at all. They had no autonomy in that Council. By the Act of 1886 it was hoped that individual interests of the licensing bodies would be harmonized, or, if necessary, superseded in the discussions of the Council, and that the decrees and decisions passed by the Council would represent the feelings of those anxious to advance medical education independent of the automatic interests of any licensing body. He was sure that was the feeling of the profession at large. As to the autonomy of the licensing bodies, surely they had an absolute remedy (if any of them considered themselves injured) in the House of Commons. The Council had only to support this motion from the point of view of the improvement in medical education in the interests both of the profession and of the public.

Dr. PAYNE thought it was a good thing, speaking generally, that every medical student should in some way make his existence known to the Council by being registered; but if what Sir John Batty Tuke had said was correct the Council might make certain conditions now, and thus have unlimited power year after year to alter them to any extent it liked, and he did not think that was a power that would be conferred upon the Council by any Act of Parliament. There was only one way in which the registration could be made compulsory, and that would be to lay down that unless a student registered himself at the present time under proper regulations he should not be admitted as a practitioner when he had passed his examinations. It would be a good thing if they could simplify that question of preliminary education by saying that one body only, namely, the Council, should have the right of laying down what preliminary education was necessary for the medical student.

Dr. NORMAN MOORE said there were two things which the Council wanted—first, money, and secondly, for which it had a larger appetite than even money, power. Every session motions were brought forward to try and increase those powers, and was it in the interest of the public that those powers should be continually increased? The Council discharged an important duty under the Act of Parliament of preserving a medical register and with regard to education and qualification to the fullest possible extent; but it had never been given the power of absolute supremacy on every point in relation to medical practitioners throughout the country, and he hoped it never would have. That it should be given that power was constantly suggested in the Council, and also that it was the only body that should lay down what should be studied in the first stages of medical education and where it should be studied, and it had an inclination which it had not yet completely fulfilled to lay down what were the requirements at every stage of medical education with regard to what candidates were to be examined in and what they should study. He thought that power ought not to be taken away from the universities and given to the Council; in his opinion the universities were far better qualified to determine what was necessary for the students of the several Faculties than the Council. The Council had endeavoured to force upon the public its views with regard to scientific education, and tried to enforce its views by saying it would not admit certain students to the *Register*; that was an illustration of the fact that the Council acted in an arbitrary and ill-considered manner when it had the power. These were a few points to show that this desire on the part of the Council for increased power ought to be resisted. Then what would it give the student for his sovereign? Nothing. What would it give the public? Nothing. He opposed the proposal, first of all because he thought it would give the Council a power which it had already shown by its acts ought not to be given to it; and, secondly if it did not give it the compulsory power, it proposed to impose a fee upon students without giving them, or without giving the public, anything in return he opposed it in every particular.

Sir WILLIAM THOMSON observed that the Council had been described as if the members were a lot of bandits setting out to assault the unfortunate and innocent student and extract from his pocket a pound, not for his benefit or for the benefit of the public, but for the benefit of the members of the Council. That was an aspect of the question which was hardly justified by the speeches of the proposer and seconder of the resolution. The speech was a manifesto which perhaps would be adopted by other bodies in regard to their relations with the Council, by one of the most ancient institutions of the country of what he might call rebellion against the powers conferred on the Council by Act of Parliament. The question before the Council was one of money not of power, and the method which was proposed was one which ought to commend itself to the Council as it did to him as an individual member of it. It was unfortunate that the Council, representing as it did all the licensing bodies of the country, and representing the general body of the profession, should be described as a sort of insatiable monster wanting to get into its grasp the whole control and direction of the profession. The Council was a special body, and every member of it had a special knowledge of the duty which he was sent there to discharge; the Council was capable of discharging that duty, and, in spite of the challenge they had heard that day, he should continue to discharge his.

Mr. HENRY MORRIS hoped he would not give offence when he said that in his opinion this attempt to get compulsory registration with the charge of a fee was a backstair way of getting another object which the Council had in view—namely, the control over early education and control over the bodies which had been recognized by the various institutions. Differences of opinion were, and must be, held with regard to what was the best and most advantageous course of preliminary scientific education, just as differences of opinion were, and must be, held with regard to what was the best form of liberal education. The effect of passing this resolution would no doubt be to threaten the charter powers of the licensing bodies; and if the Council persisted in passing the resolution it would have to meet the opposition of the licensing bodies. In saying this he wished especially to tell the Council that the Council of the College which he represented would consider with due deference and respect every suggestion that came down to it, and there was nothing more it desired that to act in consonance and harmony with this Council with regard to all recommendations which did not encroach upon the chartered rights and powers of that body; in other words, the attitude of his College, and he felt quite sure it was equally true of the College of Physicians, was simply, so far as any opposition was concerned, one of defence, and not one of defiance.

Dr. BENNETT opposed the motion for the reason that there was no provision in the proposed Act to preserve and protect in any way the charters of existing bodies.

Dr. MACALISTER would have preferred to raise the fees of registered medical practitioners, and voted in favour of that in the Draft Bill, but as there was no chance of getting that he thought the Council would be well advised to support the present proposal, the result of which would be to give the Council statutory power to establish a *Student's Register*. This was and always had been since 1858 the necessary logical completion of the powers given to the Council, which was omitted from the Act rather by an oversight, he thought, than by any deliberate intention of the Legislature.

Dr. LITTLE could foresee difficulties in carrying out the details of the scheme, but he was prepared to support it. The Council had never exceeded its proper functions in making supervision and giving advice; and he thought some of the bodies had not shown a proper attitude in not resisting its supervision, but in resisting its advice.

Sir CHRISTOPHER NIXON said there was no intention on the part of the Council to interfere with the rights of corporations, or, above all, to interfere in any way with the regulations which universities might make with regard to their own students; but what it was concerned in was that all the men who passed a registrable examination in medicine, surgery, and midwifery, and who were entitled to be put upon the *Register* should be sufficiently educated. He hoped that there would be no delay in passing the resolution.

The Council had considered the matter very fully, and not the slightest advantage was to be gained by sending the matter to a committee. He thought, in view of the present condition of things, that the recommendation of Sir John Batty Tuke establishing students' registration was the only one that was practicable, and he strongly urged the Council to accept it inasmuch as it would bring into line all the bodies that were represented on the Council. He thought he was justified in saying that the collective wisdom of all the universities and licensing corporations in the country must be a little superior to a small minority. He thought the proposition would be in the interests of the profession at large. What had been most satisfactory to the Council and had helped to put it in the high position it was in the estimation of the public and the profession, was that its regulations had been made not in the interests of any corporation or university, but in the interest of the profession at large.

Dr. Pye-Smith said that he must vote against the resolution on purely financial ground, if for no other reason. The remarks which Sir William Thomson had made, he thought, were not only dignified and moderate, but were entirely worthy of him and the country which he represented.

Dr. Mackay deeply regretted the opposition that had been applied to the motion by the representatives of the Colleges and others, because in the proposal there was no attempt to interfere with the rights or privileges of any one of the licensing bodies as guaranteed under the Medical Act. All that was proposed by the present resolution was that a duty which the Council had imposed upon itself should become a statutory duty.

Mr. George Brown, in supporting the motion, ventured to think that the views which the representatives of the Colleges had expressed were not the views of the Colleges they represented. When this question first came before the Council in the first year of its existence, the representatives of the Colleges and the other bodies represented unanimously agreed that it was desirable at the commencement of the education of a student that he should be registered, but they allowed that the initial registration to be carried out by the registrars or secretaries of the various corporations and universities. He was sorry they could not go before the Privy Council with a resolution which was passed unanimously, and he had every confidence that if the matter was put before the Members of the Colleges of Physicians and Surgeons that the majority of the Members of those bodies would be in favour of the course propcsed.

Sir John Moore could not agree with Dr. Norman Moore that it was not the bounden duty of the Council to decide what education from the start to finish was necessary for those who were to be members of the great profession of medicine. The Medical Acts up to the present time had been distinctly defective in not giving the Council more power in regard to the registration of students. That registration meant that the Council should know about the ages of the students, what they had been taught, and their antecedents. Law students had to pay a registration fee of one guinea, and he thought they might well make the registration fee of a student one guinea instead of £1. Then it was asked, where was this money coming from? He thought it would come, not out of the pocket of the student, but out of the pocket of the parent or guardian. It would not amount to more than three guineas per annum. The money that would have to be paid for the medical education of the student.

Mr. Hunt said he supported the resolution and thought that the fee which was proposed was a very reasonable one. He also thought it was unfortunate that the proposition should be so strongly opposed by certain representatives on the Council.

The President said that he should like the permission of the Council to make a few remarks upon the resolution. He thought he was entitled to ask the Council to allow him to do so, because, although the views of the Council had been expressed with the utmost courtesy, still there were certain statements in the resolution which he desired to correct in the preliminary remarks which the Council had overheard. He would like to call the Council's attention exactly to the terms of the motion, because it seemed to him that some of the arguments which had been advanced against it were entirely irrelevant to the terms of the resolution, to which they considered might be the nature of the Bill which the Council was asking the Lord President to introduce. It invited the Council to ask the Bill to specify in the Bill exactly what the "statutory power" was to be. All they were asking was that a Bill should be introduced into Parliament to confer on the General Medical Council statutory power. They must wait till the Bill was drafted before they knew what that power was to be. One or two points had occurred to him in connexion with the matter. Some members had objected to the fee. He thought that the fee of £1 was a very proper fee to be paid by a student as an entrance fee to the study of a profession of which he was anxious to become a member. It was an initial payment which conferred upon him the privilege of becoming a medical student, and being entered on the *Students' Register*. For his part he could not see any hardship in the imposition of that fee, and he did not think that the student or his parents or guardians would consider it a hardship. It was simply an entrance fee, which would find its way into the purse of the General Medical Council and which would enable the Council to conduct its business. They had heard reference made to charters and the possibility of this Bill being an infringement of those charters. It was a somewhat interesting matter in connexion with the discussion that had taken place in the Council Chamber from time to time during some years past that those references to charters proceeded from a very limited number of members of the Council. But the institutions represented by those members were not the only institutions which were in possession of a charter. All the universities were in possession of charters, and other important licensing bodies were in possession of charters, yet those universities and institutions were not continually displaying their charters in their arguments. He was familiar with the whole question of the registration of the medical student from the commencement, and he knew perfectly well that when it was proposed that there should be established a register for medical students naturally the various bodies eduucationally interested in the matter, and interested as examining bodies in the matter who were represented on the Council, took to their respective bodies the information that the Council was desirous of establishing a register of students, on a voluntary principle. He knew perfectly well what took place in the University of Edinburgh, and it was suggested that whilst the registration was to be voluntary, the University, so far as regarded its own work, would not confer its qualifications upon a student or candidate unless he were registered. The University could have acceded to that request, but it did not do so for a very good reason; it looked at the general interests of medical education, and the profession at large felt that those general interests would be greatly advanced if it, along with the other teaching and examining bodies, fell into line with the General Medical Council. He thought he was perfectly right in saying that from the time when the University of Edinburgh did fall into line—and that was very early in this matter—down to the present day, it had loyally acted up to the decision which it came to. He could not help thinking that they should not be altogether blinded by their charters. They should keep in view that there was something beyond what might be contemplated in a charter granted one hundred years ago. The medical profession had not been standing still since those ancient charters were given. The medical profession had been advancing on great and important lines, and he should like to think that all the great educational and examining bodies that were represented on the Council were trying to work with the Council in improving and developing the education of students, and in enabling the Council to see that those who aspired to come within their professional ranks had gone through that preliminary education which they considered to be necessary, and by having their names inserted on the Students' Register they had given evidence to the Council that they had gone through the medical education [illegible] with a very strong conviction, and perhaps the Council would see that he had spoken as one having a very strong conviction on this matter that he thought that the Council might be sure in the direction which was indicated in the motion that had been framed by Sir John Batty Tuke. (Applause.)

Sir John Batty Tuke, in reply, said that he had heard no opposition brought against the scheme which required to be [illegible].

The President then put the resolution, which he declared to be carried in favour of it, and passed it.

At the request of Sir Francis Henry Wyndham, the names of members were taken and found to be as follows:

For, 20.

Dr. MacAlister.	Dr. Lindsay Steven.	Dr. Windle.
Sir John Moore.	Mr. Brown.	Dr. Finlay.
Mr. Young.	Mr. Tickborne.	Sir Wm. Thomson.
Dr. McVail.	Mr. Jackson.	Dr. Bruce.
Sir P. Heron Watson.	Sir C. Nixon.	Dr. Little.
Dr. McCall Anderson.	Sir Victor Horsley.	Sir Hugh Beevor.
Sir Charles Ball.	Sir [illegible] Philipson.	Sir John Tuke.
Dr. Mackay.		

Against, 5.

Dr. Norman Moore.	Dr. Payne.	Sir J. Williams.
Mr. Morris.	Dr. Pye Smith.	Dr. Bennett.

Did not vote, 1.
The President.

Absent, 3.

Mr. Power.	Mr. Tomes.	Dr. Caton.

The PRESIDENT stated that he would forward to Mr. Fitzroy for presentation to the Lord President of the Privy Council a copy of the minutes.

VISITATION OF PRELIMINARY SCIENTIFIC EXAMINATIONS.

Sir VICTOR HORSLEY moved:

That the Preliminary Scientific Committee be reappointed, and instructed to consider and report upon the existing courses of study in the branches of elementary biology.

He stated that he brought this motion forward because personally he wanted more information on the subject. Being a teacher himself he was aware of the difficulties of the subject. The Committee at the end of its report had collected a large number of facts, but it had not given its view of those facts in a digested form. He wanted the mature consideration of the Committee upon these facts for this reason: when the question came up of teaching institutions which should be recognized by the Council and which had been in many respects hostilely criticized, he took advantage of having to go to certain parts of the country where those institutions were to inquire from the teachers themselves what their personal view was, especially on the subject of biology, as to the gain to the student; and although he noticed in the facts in the report of the Committee that the institutions as a whole had voted in favour of the biological system which was being conducted, the teachers themselves were not satisfied that the student was a great gainer by the courses actually administered to him. If there was that doubt in the minds of some of the teachers there was considerable doubt in his own mind, and he therefore wanted the considered report of the Committee upon the courses of study.

Mr. JACKSON seconded, and stated that he thought it was understood that matter was to be reported on by the Committee, but it had not done so.

Dr. MACALISTER, as a member of the Committee, did not quite understand what Sir Victor Horsley asked the Committee to do. The Committee obtained information in full, and had digested it for the Council as clearly as the ordinary limits of space would allow.

Sir VICTOR HORSLEY thought the matter was perfectly clear. The facts in the report were practically hurled at the Council in a digested form, but not in the form of a digest. They had no information as to how far the various courses of study in the opinion of the Committee met the requirements of the medical student.

Dr. MACALISTER stated that the Committee had not the means of giving the further information asked for by Sir Victor Horsley. The Committee had carefully considered what was being done and what could be said on the subject of elementary biology, and it came to the conclusion to advise the Council that the subject of elementary biology should be retained in the curriculum.

Sir VICTOR HORSLEY replied that all the Committee did was to report that a subject called "elementary biology" was to be retained, but not a word was said as to what was meant by that term. The facts produced by the Committee were in a confused disorder, and they had not been tabulated or considered or reported upon by the Committee.

Dr. NORMAN MOORE stated, as a member of the Committee, that there were many directions in which they thought biology would be useful; but there was not the time to say that any particular one would.

Sir VICTOR HORSLEY remarked that that was not to be found in the report.

Dr. MCVAIL thought there would be no harm in referring the matter to the Preliminary Scientific Committee on the condition that Sir Victor Horsley joined it.

Sir VICTOR HORSLEY assented.

The motion was then put and carried.

Moved by Dr. MCVAIL, seconded by Dr. BRUCE, and resolved that Sir Victor Horsley be added to the Committee.

APOTHECARIES' HALL, DUBLIN.

Sir PATRICK HERON WATSON moved, Dr. LITTLE seconded, and it was resolved:

That the report from the Examination Committee on the Inspection of the Final Examination held by the Apothecaries' Hall, Dublin, in January last, be received and entered on the minutes.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

On the motion of Sir PATRICK HERON WATSON, seconded by Dr. FINLAY, the report of the Examination Committee on a communication from the Royal College of Surgeons of England, having reference to the last Report of the Visitor and Inspector on the Final Examinations of the Examining Board in England, was received and entered on the minutes.

Report.

The Examination Committee have received from the Executive Committee a Report forwarded by the Royal College of Surgeons of England containing remarks by their Court of Examiners on the last Report of the Visitor and Inspector of the General Medical Council relating to their Final Examination. The Examination Committee, having already presented a Report on this matter, which has been accepted by the Council, are not now in a position to discuss the remarks of the Court of Examiners: but recommend that it be entered in the minutes of the Council for future reference.

On the motion of Sir P. HERON WATSON, seconded by Dr. FINLAY, it was resolved that the recommendations contained in the report be adopted.

Mr. GEORGE BROWN moved, Dr. LINDSAY STEVEN seconded, and it was resolved:

That the further reply of the Royal College of Surgeons, England, to the Report of the Visitor and Inspector of the General Medical Council on the third or Final Examination of the Conjoint Examining Board in England be referred to the Examination Committee for further consideration and report.

REPORT OF EDUCATION COMMITTEE.

Sir JOHN BATTY TUKE moved, Dr. NORMAN MOORE seconded, and it was resolved:

That the following report from the Education Committee be received and entered on the minutes.

Report.

I.—*Ages of Medical Students at the Date of Registration.*

The Education Committee begs leave to submit the following table showing the result of a preliminary inquiry into the ages of students at the date of registration. The new regulation, under which applicants are required to give in writing the precise date of their birth, did not come into force until April 1st, 1903. Up to that date satisfactory evidence that the student had attained the age of 16 years was alone required. In future years the data at the disposal of the Committee will be more exact.

Table Showing the Ages of Medical Students Registered during 1903 by the Respective Branch Registrars.

Age of Students at Date of Registration.	England.	Scotland.	Ireland.	Total.
Between 16—16½	8	12	4	24
,, 16½—17	22	20	3	51
,, 17—18	77	139	44	271
,, 18—19	150	102	57	309
,, 19—20	131	93	26	227
,, 20—21	51	49	19	119
,, 21—22	34	24	12	70
,, 22—23	13	26	8	47
,, 23—24	15	25	5	45
,, 24—25	10	10	5	30
,, 25—26	11	23	—	34
,, 26—27	7	15	—	22
,, 27—28	8	11	—	19
,, 28—29	4	8	2	14
,, 29—30	2	2	1	5
,, 30—31	3	4	1	8
,, 31—45	14	23	3	40
Precise age unspecified	45*	—	41†	86
Total	629	568	225	1,422

* Of the 45 students it is known at the office that they had all passed such examinations—mostly at Cambridge—as could not have been undertaken by boys under 16.

† These 41 students belong to the Dublin School of Physic, and are registered without filling up separate forms. The Registrar of the University of Dublin states that their average age is 19 years and 2 months.

It is of importance to note that only 24 out of a total of 1,422 students in Great Britain and Ireland began professional study before the age of 16, or at the rate of 1·7 per cent., and only 75 before the age of 17, or at the rate of 5·2 per cent.

In these circumstances the Committee does not think it necessary at present to advise the Council to raise the age at which registration is allowed. The recent increase in the Council's requirements as regards preliminary education has evidently been effective in preventing premature registration. It may be inferred that those registering at the age of from 16 to 17 years are clever or industrious students, to whom it might be a hardship to delay the commencement of professional study.

II. *Recognition of Certain Preliminary Examinations.*

The Committee has had before it applications from various examining bodies for the recognition of certain of their examinations. After consideration of these, the Committee proposes to include in the List of Recognized Preliminary Examinations the following:

University of Oxford: Higher Local Examinations. (Certificates to include the required subjects.)

Victoria University of Manchester, University of Liverpool, and University of Leeds: Matriculation Examination. (Certificate to include the required subjects.)

This latter examination, conducted by a Joint Board of the three Universities, will take the place of the Preliminary Examination of the Victoria University at present included in the list.

Communications have been received from most of the Colonial and other bodies holding examinations included in Section I. of the Council's List. The information therein contained will enable the Committee at the November meeting of the Council to formulate its proposals as to the revision of this section of the List.

III. *Conference with the Consultative Committee on School Leaving Examinations.*

In accordance with the resolution of the Council on November 24th, 1903, Sir John Tuke and Dr. MacAlister attended a conference with the Consultative Committee of the Board of Education, and explained to that body the relations of the Council to the question of examinations in subjects of general education. No official intimation has yet been received as to the conclusions arrived at by the Consultative Committee of the Board of Education on the important suggestion that a system of School Leaving Examinations for England and Wales should be established.

JOHN BATTY TUKE, Chairman.

REPORT OF STUDENTS' REGISTRATION COMMITTEE.

On the motion of Sir HUGH BEVOR the report of the Students' Registration Committee was received, entered on the minutes, and adopted.

The report gave details with regard to a number of cases in which students had been allowed to antedate the commencement of professional study, and also of applications to be registered without further preliminary examination, some of which were granted.

The Council adjourned.

Tuesday, May 31st, 1904.

Sir WILLIAM TURNER, K.C.B., President, in the Chair.

PRELIMINARY SCIENTIFIC COMMITTEE.

Sir VICTOR HORSLEY moved and Dr. MACVAIL seconded the addition of Mr. Jackson's name to the Preliminary Scientific Committee.

Dr. [illegible] MACVAIL thought the Committee was already [illegible] Sir Victor Horsley's name had been added to it on the previous day, because it was not quite clear what it was that he proposed.

Sir VICTOR HORSLEY said it was not quite clear to all the Committee.

Dr. MACVAIL hoped the motion would not be pressed.

The President [illegible] the Council that Mr. Jackson's name be added to this Committee, which is voted in favour of [illegible] agreed. He [illegible] declared the motion carried.

EDUCATION COMMITTEE.

Sir JOHN BATTY TUKE moved the adoption of the Report by the Education Committee [illegible] proceedings of May 24th. The 31st section dealt with the [illegible] medical students at the date of registration. The table showed the result of a preliminary inquiry into the ages of students at the date of registration. The new regulation under which applicants were required to give in writing the precise date of their birth did not come into force until April 1st, 1903. Up to that date satisfactory evidence that the student had attained the age of 16 years was alone required. In future years the data at the disposal of the Committee would be more exact. Out of 1,422 students only 24, or 1·7 per cent., so far as could be ascertained, began their study before the age of 16, and only 75, or 5·2 per cent., before the age of 17. In these circumstances the Committee did not think it necessary at present to advise the Council to raise the age at which registration was allowed. The recent increase in the Council's requirements as regards preliminary education had evidently been effective in preventing premature registration. It might be inferred that those registering at the age of from 16 to 17 years were clever or industrious students, to whom it might be a hardship to delay the commencement of professional study. It would also be seen that 61 more students were registered in England than were registered in Scotland, and that the number of students who registered between the ages of 31 and 45 was over 140. In moving the adoption of this report he wished to say that this was the last report he should have the honour of presenting to the Council as Chairman of the Education Committee, and he would congratulate the Council on having obtained the services of Dr. Windle, who was intimately acquainted with all the branches of medical education.

Dr. WINDLE, in seconding the adoption of the report, stated that the number of students who had entered in Birmingham for the last twelve years was 551, of whom 26 were under 17, that was to say, that during the past twelve years very much the same percentage as shown by the table: 526 were over 17, 465 were over 18, the largest number being between 17 and 18—that was 107—and the oldest student entering was between 41 and 42. Of the 26 who entered under 17, 2 actually entered under 16. One of them who had since qualified went out to South Africa as a civil surgeon and remained there. He (Dr. Windle) received a letter from him the other day saying that he had achieved the ambition of his life in getting 100 guineas for an amputation. The other was not yet qualified, but might be regarded as above the average. Of the remaining 24, 11 were qualified, 10 were on the way, and 3 had to give up. They gave up at the end of the first year. That he thought was a very proper thing for a student to do if he found that he was not fitted for the profession. These figures, he thought, corroborated the statement in the Education Committee's report that it was the clever and industrious student who desired to enter before 17: he ought not to be prevented from doing so.

Section I. of the report was then adopted.

Sir JOHN BATTY TUKE then moved Section II. The Committee, he said, had had before it applications from various examining bodies for the recognition of certain examinations, and after consideration the Committee proposed to include in the list of recognized preliminary examinations the examinations indicated in the report. The examination conducted by a Joint Board of the three Universities of Manchester, Liverpool, and Leeds would take the place of the preliminary examination of the Victoria University at present included in the list.

The motion was seconded by Dr. WINDLE and agreed to.

Dr. WINDLE said that the proposal referred to in Section III was initiated by the Council, and had been under the consideration of the Consultative Committee for more than a year. That Committee prepared a scheme which had been very well received generally. It was at present in the hands of the Board of Education, which would, he hoped, deal with it without very great delay. He was not at liberty to say anything about the total of the examinations, but at best the effect would be to add another to the already long list of examinations. But he hoped the ultimate effect would be to clear out a good many examinations.

REPORT OF FINANCE COMMITTEE.

Dr. EYE SMITH then moved, and Dr. BENNETT seconded, the adoption of the following report of the Finance Committee, and the recommendations therein contained were carried.

Members.

Dr. EYE SMITH, Chairman.
Sir PHILIP HEREON WAGSTAFF. Dr. BENNETT

The Finance Committee have to report that the income of the General and Branch Councils for the year ending December 31st, 1903, was £10,220 10 7
The expenditure for the same period was 10,305 12 3

Consequently there is a deficit on the year's working of £2 105 1 8

From Table A it will be seen that the receipts from fees show an increase of £[illegible] 5s. 6d., the English Branch having received £143 7s. 6d. more, the Scottish Branch £[illegible] 8s. more, and the Irish Branch £[illegible] 10s. less; the General Council has received £78 less for Colonial registrations, and the net increase, therefore, is only £28 5s. 6d.

It will be remembered that in July last the fees for the registration of additional qualifications and for restoration to the *Register* were raised from five shillings to one pound. The result of this is shown in the following table:

	1902. No. of Fees.	1903. No. of Fees.	1902 Cash Received.	1903 Cash Received.
			£ s.	£ s.
English Branch ...	[illegible]	[illegible]	142 5	204 5
Scottish Branch ...	[illegible]	[illegible]	9 11	112 5
Irish Branch	[illegible]	[illegible]	18 5	25 15
Total	[illegible]	[illegible]	£[illegible] 5	£4 2 5

The increased fee has only been in force for five and a-half months, but it will be seen that the number of fees received is slightly larger than before, and the net result from the point of view of the Council's finances is certainly satisfactory.

The Irish Branch shows a decrease of thirty-two in the number of original registration fees received, but the English and Scottish Branches show an increase of four and three respectively.

In Table B will be found a statement of expenditure compared with former years. The following items call for explanation:

(*a*) The increase of £181 8s. in General Council fees is due to the fact that the meetings occupied two days more than in 1902, and the new scale of travelling allowances, which results in a saving of about £80 per annum, only came into force during the latter part of the year. There was again a special session, which cost over £[illegible].

The increase of £93 14s. in Executive Committee fees is due to the fact that the special session did not, as last year, coincide with the February meeting of the Committee, and the travelling expenses had therefore to be paid.

(*b*) The increase of £124 13s. 7d. for printing of minutes and programmes is due to the number of inspection reports. Against this may be set the decrease of £60 19s. 6d. in the cost of miscellaneous printing.

(*c*) The index to the Minutes cost £[illegible] for labour and £76 4s. for printing, making a total of £181 4s. The cost of the former index, published in 1887, was £311 17s. for labour and £283 3s. for printing, making a total of £595 2s.

(*d*) The increase of £186 1s. 11d. in the cost of inspection of examinations is due to the larger number of these under review. Owing to the unfortunate illness and death of the Inspector the series of inspections was not completed; thus the increase in this item is not so large as it would otherwise have been.

Table C shows, comparatively, the income and expenditure of the three Branch Councils for the past three years. Although no outlay was incurred by the expense of an election (£350), the deficit of the English Branch is over £[illegible] more than last year, and the Scottish Branch shows an increased deficit of almost the same amount; these are due to the heavy contribution called for by the General Council.

The Committee are pleased to note the reduction of £140 3s. 3d. in the office expenses of the Irish Branch.

From Table D it will be seen that the excess of expenditure over income exceeds the average of the past five years by about £[illegible], though the average has risen £[illegible] since last year. It must be remembered that last year the Council received £400 for the surrendered sinking fund policy, which decreased the deficit by that amount.

The percentage-rate is 110.31—that is to say, the Branches have had to pay the General Council £110 for every £100 received, and to meet their own expenses besides.

Table E shows the assets of the Branches compared with those of previous years.

The *Pharmacopoeia* accounts, as will be seen from Table F, show that the balance of profit in hand is £[illegible] 15s. 4d., of which £500 has been lent to the General Council at 3 per cent. interest. The stock in hand (shown in the left-hand column), on which all charges have been paid, will, if all sold, add £912 12s. 2d. to the profits.

Irish Branch.—It may be assumed that, unless the contribution to the expenses of the General Council is again unusually heavy, the expenses of the Branch will be about £[illegible]; there is a balance of cash in hand of £80, and the receipts will probably be about £[illegible]. On this basis there will be deficiency at the end of the year of about £120, and the Committee therefore recommend that a grant of £150 be made to the funds of the Branch.

Dental Fund. Table G shows that the income exceeded the expenditure by £84 14s. 6d.

With regard to the current year the Committee hope for a considerable reduction in the expenses, unless there should again be a special session. The savings that may be looked for are as follows: On Council fees, £700; on printing, £100; on index, £80; and on the grant to the Irish Branch, £150; making a total of £1,130, more or less. So that with care the deficit at the end of the year should not exceed £1,000.

RECOMMENDATIONS.

1. That the report be received and entered in the minutes.
2. That a grant of £150 be made towards the expenses of the Irish Branch Council during the current year.

May 25th, 1904. P. H. PYE-SMITH, Chairman.

Appended to the report were tables showing the income and expenditure of the Council and Branch Councils.

APPOINTMENT OF A TREASURER.

The PRESIDENT stated that from communications which had been made to him by various members of the Council he had satisfied himself that there was a very defined feeling in the Council that Mr. Tomes should be second Treasurer associated with Dr. Pye-Smith; Mr. Tomes had been very seriously ill, but was going on favourably, and was ready to accept the office. The President then moved from the Chair that Mr. Tomes be one of the two Treasurers.

Dr. PYE-SMITH said he was quite sure that the selection of Mr. Tomes was in accordance with the desire and wish of the Council. Personally he could not think of any one whom he should prefer as a colleague. Mr. Tomes had a remarkable scientific knowledge, and, moreover, what was more to the point on this occasion, he had a very remarkable acquaintance with business, and a facility for summing up figures which he confessed outstripped him, and Mr. Tomes had a still greater advantage, that when he summed up those figures they always came right.

The PRESIDENT put the resolution, which was carried unanimously.

FINANCE COMMITTEE.

The Treasurers, Sir P. Heron Watson, and Dr. Bennett were appointed members of the Finance Committee.

EXECUTIVE COMMITTEE.

The following gentlemen were elected as members of the Executive Committee:

From the English Branch Council: Dr. Payne, Dr. MacAlister, Dr. Pye-Smith, and Mr. Tomes.

From the Scottish Branch Council: Sir John Batty Tuke and Sir P. Heron Watson.

From the Irish Branch Council: Sir Charles Ball and Sir Christopher Nixon, with the President *ex-officio*.

PENAL CASES COMMITTEE.

The following members were elected as the Penal Cases Committee:

From the English Branch Council: Sir Victor Horsley, Dr. Windle, Mr. Tomes, and Sir Hugh Beevor.

From the Scottish Branch Council: Sir Patrick Heron Watson and Dr. Finlay.

From the Irish Branch Council: Sir William Thomson and Sir Christopher Nixon.

REPORT OF PUBLIC HEALTH COMMITTEE.

Dr. BRUCE moved that the report of the Public Health Committee be received, entered on the minutes, and approved:

1. The Committee reported that it had considered a communication from the Advisory Board of the War Office and had unanimously agreed to [illegible] the Council [illegible] to the present list of districts and [illegible] stands recognised as suitable for the purpose of outdoor training in Hygiene under Rule [illegible] of the Council's Resolutions and Rule [illegible] Diplomas in Public Health the following additional military commands, namely: Madras, with a civil population of 72,000; Bengal, with a civil population of [illegible] and the Punjab, with a civil population of 42,000.

The Committee had also considered an application from Dr. [illegible] Inspector-General of the Sanitary Department of the Ministry of Interior of Egypt for recognition as competent to give the certificates required by Rule 3. The Committee recommended that this application should not be granted. The Sanitary Department of the Ministry of Interior

Egypt is not under the control of the Director-General of the British Army Medical Department, and is in no sense comparable with the districts and commands as defined in Rule [illegible] of the Council's Resolutions and Rules for Diplomas in Public Health.

SIR CHARLES BALL, in seconding, pointed out that all the sanitary districts and commands authorized by Parliament had now been fully settled, and that as far as possible, these applications completed the list.

The report was adopted.

REPORT OF PHARMACOPOEIA COMMITTEE.

DR. MACALISTER moved:

That the report of the Pharmacopoeia Committee be received and entered on the minutes.

Report.

The Pharmacopoeia Committee have to report that from November 25th, 1903, to May 24th, 1904, the sales of the *British Pharmacopoeia* (1898) were 166 copies, and of the *Addendum* (1900) 130 copies. Thus up to May 24th, 1904, 35,197 copies of the *Pharmacopoeia* 1898, and 4,204 copies of the *Indian and Colonial Addendum* 1900 (including the Government of India edition) have been sold. The stock remaining in hand of the *Pharmacopoeia* is 1,834 copies, and of the *Addendum* 2,113. It will therefore be unnecessary to print a fresh issue this year.

The Executive Committee has referred to the Pharmacopoeia Committee for consideration and report the appended memorial from the Decimal Association, and other papers relative to the Weights and Measures (Metric System) Bill, which after amendment by a Select Committee has passed the House of Lords, and is now awaiting consideration by the House of Commons.

The Committee have also had before them the notice of motion on the subject which has been placed on the Council's Programme by Mr. Jackson.

The Committee are strongly impressed with the imporance of bringing the weights and measures of the *British Pharmacopoeia* into accord with the international system which is current in the pharmacopoeias of all other countries. In the *Pharmacopoeia* of 1898 what may be described as a transitional method was adopted. Doses were expressed in the familiar Imperial system only, the directions for pharmaceutical processes in both the Imperial and the metric system, and the directions for analytical operations in the metric system only. Were the metric system to become within a few years the one legal system employed in this country, the work of the Committee would be appreciably simplified, though it would probably still be necessary to insert, in reference to dosage at least, equivalents expressed in the old Imperial terms.

The Committtee are therefore of opinion that the Council may properly use its influence in favour of the legislation referred to in the memorial of the Decimal Association, and in the motion of which Mr. Jackson has given notice.

A report with reference to the tests for the detection of arsenic in the drugs of the *Pharmacopoeia* prepared for the Committee by Professor W. R. Dunstan, F.R.S., with the help of Mr. H. H. Robinson, M.A., has just been received and will receive careful attention.

The Committee are also indebted to Mr. Tichborne for a number of valuable investigations on points of pharmaceutical chemistry which he has kindly undertaken at their request.

The Committee desire to express their thanks to Dr. L. E. Shore, of St. John's College, Cambridge, for an interesting and valuable addition to their library, namely, a copy of the *Pharmacopoeia Londinensis*, 1651.

APPENDIX

TO THE [illegible] AND MEMBERS OF THE GENERAL MEDICAL COUNCIL.

The Memorialists of the Decimal Association respectfully showeth.

Whereas the General Medical Council is charged by statute with the preparation and publication of the [illegible] which has to regulate the [illegible] not only in the practice of medicine, but also in pharmacy and analysis.

Whereas in recent editions the metric system has been recognized and [illegible] in the work.

Whereas it is desirable that steps should now be taken to the utmost [illegible] uniformity.

It is petitioned that the Council should [illegible] in favour of the Bill now before Parliament for the [illegible] system throughout the kingdom, whether by making a suitable representation to His Majesty's Government or otherwise as they may deem expedient.

And your Memorialists will ever pray.

Signed on behalf of Members of the Decimal Association by

[illegible] *President.*
[illegible] STEVENSON, *Vice-President.*
[illegible] DAWSON, *Chairman of Executive.*
KELVIN,
HENRY [illegible],
ALEX. [illegible],
[illegible], *Members of Executive.*
E. [illegible], *Secretary.*

DR. NORMAN MOORE, in seconding, urged the Council to do everything in its power to facilitate the introduction of the metric system of weights and measures. The report was adopted.

MR. JACKSON moved:

That the President with the Chairman of the Pharmacopoeia Committee be requested to inform the Lord President of the Privy Council that in the opinion of the Council it is desirable that after a sufficient period, to be fixed by law, the metric system of weights and measures should become the one legal system for the preparation and dispensing of drugs and medicines; that the Council would view with favour the passing into law of a Bill, such as that now before Parliament, entitled the "Weights and Measures Metric System Bill," and that in that event the Council would be prepared to take all necessary steps to give effect to the law by making the proper modifications in the *British Pharmacopoeia*.

He pointed out that the metric system was introdnced into this country by one James Watt as far back as the year 1764, but with our usual insular pride we would have nothing to do with it. There had been petitions in favour of the compulsory adoption of the system presented to the House of Lords, and it had the approval of 332 members of Parliament. Further, he had made inquiries from schoolmasters and others, and out of 197 replies 161 said the time saved would be one year, 36 two years, and 6 said three years, and this time the boys could devote to a more useful subject. With regard to the objection that it would create confusion, he was sure that the people of this country would become accustomed to it as readily as the people of Germany.

MR. TICHBORNE seconded, and the motion was carried unanimously.

THE PRESIDENT said that steps would be taken to communicate the motion to the Lord President of the Privy Council.

REPORT OF DENTAL EDUCATION AND EXAMINATION COMMITTEE.

SIR CHARLES BALL moved, and DR. LINDSAY STEVEN seconded, and it was resolved:

That the report by the Dental Education and Examination Committee be received and entered on the minutes.

The Committee met on Thursday, May [illegible]th, 1904.

The Committee, having read the application from the Dental Board of Victoria, which appears as Appendix I to this report, resolved, as requested to afford Mr. A. P. Merrill an opportunity of an interview with the Committee before coming to a decision.

The application of Mr. Edward Parton Roper, which appears as Appendix II to this report, was considered, and it was resolved

That as Mr. Edward Parton Roper seeks to register a diploma which is not at present a recognised certificate within the meaning of Section [illegible] of the Dentists Act, 1878, the Committee recommend that the application be not granted.

An Adjourned meeting of the Committee was held on Friday, May [illegible]th, 1904.

Mr. Merrill attended before the Committee and admitted that the examinations demanded by the Dental Board of Victoria did not fulfil the requirements of the General Medical Council in respect of the subjects [illegible] and clinical surgery. The Committee therefore recommend the Council not to grant the application.

CHARLES BENT BALL,
May [illegible]th, 1904. *Chairman.*

SIR CHARLES BALL moved the first recommendation:

THAT the Application of Mr. Edward Parton Roper for registration as a [illegible] under the provisions of Section X of the Dentists Act [illegible] be not acceded to.

It opened a very large question, namely, whether the curriculum of a French college was comparable with those the Council had already accepted, and there was not sufficient evidence before the Committee to enable it to form an opinion upon that subject; the question of reciprocity was involved, and therefore the Committee recommended that the application be not granted.

DR. LINDSAY STEVEN seconded, and the resolution was carried.

SIR CHARLES BALL moved the second recommendation:

That the application of the Dental Board of Victoria for the recognition of the diploma in Dental Surgery of Victoria be not acceded to.

This was a formal application from the Dental Board of

Victoria that their diploma should be recognized for registration, but from the large body of evidence which was before the Committee it was clear that a student could obtain a diploma without having seen a dental patient, and the Committee therefore recommended that the application should not be granted.

Dr. LINDSAY STEVEN seconded the resolution, which was agreed to.

PRACTICE BY COMPANIES.

Sir CHARLES BALL moved:

1. That copies of the judgements in the cases O'Duffy *v.* Jaffe, Surgeon Dentists, Limited, and the King (Rowell) *v.* Registrar of Joint Stock Companies, together with the following resolutions of the General Medical Council, be sent to the Lord President of the Privy Council for his information.

2. That, in view of the judgement of Chief Baron Palles, the General Medical Council hopes that the Government will take such steps as may be necessary.

(*a*) To restrain the Registrar of Joint Stock Companies from registering any new company unlawfully using the term dentist or any similar title which would be likely to lead the public to believe that the members of such company were registered dentists when such is not the case.

(*b*) To prevent companies already registered from continuing unlawfully to use the term dentist or any similar title which would be likely to lead the public to believe that the members of such companies were registered dentists when such is not the case.

(*c*) To in like manner prevent the use by companies of unlawful titles which would be likely to lead the public to believe that the members of such companies were registered medical practitioners when such is not the case.

In his opinion these decisions had an important bearing not only on the dental, but also on the medical and surgical, profession. Under Section III of the Dentists Act it had been held that an unqualified person could not adopt the title of "dentist;" and therefore, in order to obviate this difficulty, a number of companies were formed and registered under the Joint Stock Companies Act which embodied in their title and name words which, if adopted by an individual who was not a registered dentist, would have rendered him liable to criminal proceedings. A lot of such companies had been formed, and the Dentist Association of Ireland took action in order to test the legality of the proceeding, and it was held that the company was not—and could not—be a "person" within the meaning of the Act, and could not be prosecuted criminally. Against this decision they appealed, but the appeal was dismissed. The prosecution against the individuals failed for want of identification with the use of the name. The result of the decision was a large increase in the number of companies. The Board of Trade began to think this was a serious matter, and suspended the registration of these companies. Then a gentleman named Rowell, considering he was not properly treated by not having his company registered, applied for a mandamus to compel the Registrar of Joint Stock Committees to register his company. This application was postponed to give the Board of Trade and the Dentist Association of Ireland an opportunity to show cause against the rule. The Board of Trade appeared but did not offer evidence either way and definitely stated it would be bound by any decision which the Court arrived at. The gist of the whole judgement, he considered, was contained in one or two passages Chief Baron Palles said:

It is said that the use by the company of such a name would involve a false representation, which would reasonably tend to deceive the public, and that therefore, as one must be deemed to intend the reasonable consequences of his act, the purpose for which such a company would be formed would not be a "lawful purpose" within the meaning of Section VI of the Companies Act, 1862. Even had there not been an express enactment, limiting the purpose for which a company may be formed to lawful purposes, I apprehend there could be no doubt there is not a right to form a company under a name the use of which would reasonably tend to mislead the public in a matter in which they were entitled to know the truth.

On the point of "lawful," he asked one of the judges who tried the Jaffe case whether, in the event of his (Sir Charles Ball) with the aid of six corner boys, forming a company and registering it as "Bill Sykes and Co., Limited, Burglars," and then proceeded in the night to the judge's house, not in their individual capacity but in their corporate capacity, and attempted to lift his plate, what would happen? The Judge gave what he considered was the correct view of the law, namely, that they would be sent to gaol. It was obvious that a company could not practise such an unlawful business as burglary; and it was equally certain from the judgement of the Chief Baron that a company could not unlawfully adopt a title which would tend to deceive the public on a subject on which it was entitled to know the truth. The Chief Baron proceeded:

We have, therefore to consider whether the use of the intended name by the company would involve a false representation. I assume that "person," in the second sentence of the third section of the Dentists Act, 1878, is limited to natural person as was decided in O'Duffy *v.* Jaffe. I also assume because it was so stated in the judgement in that case, although I do not think it is exactly identical with the point decided there, that "person" in the first sentence of the third section also is limited to natural persons, but I desire to say that whilst deferring to the authority of that case, I express neither approval nor disapproval of it. Any such expression of opinion is not the function of a Court which is bound by a decision. My approval could not add to, nor could a contrary opinion by me detract from either its authority or its weight. These assumptions, however, appear to me not to touch the question here. It seems to me that upon the true construction of the Act it contains a statutory definition of the word "dentist," or its equivalent "a person specially qualified to practise as a dentist," and declares the meaning of those expressions to be a person registered under the Act, so that the statement that an unregistered person is a dentist made by a person other than himself, although not a criminal offence, is an untrue statement.

That pronouncement seemed the most important in the whole judgement. Then the learned judge concluded by saying:

Upon the whole I am satisfied that the true meaning of the statute is that in the view of the Legislature an unregistered person is not a dentist, and although the statement by one person that an unregistered person (other than himself) is a dentist is not a criminal offence because it is not so constituted by statute, it is still a false statement.

The explanation of that was that if Tom Smith an unregistered dentist called himself a dentist he was criminally responsible, but if William Jones said that Tom Smith was a dentist, he was not criminally responsible, but was only making an untrue statement. That was what the Board of Trade had been doing; they had been calling these companies what they could not possibly be, and untruthfully calling them dentists, because the word dentist applied to a registered practitioner. Then the judge went on:

I hold that if it should be read as meaning registered dentist a false statement would be involved, because the company is not (and could not be) registered under the Act. Instead of those two statements appearing to be contrary to each other, the second was the logical sequence of the first. If a company was not a person within the meaning of the Act to render itself liable to prosecution, it was equally clear it was not a person that could offer itself for examination and obtain a diploma to be registered as a dentist.

The learned judge concluded by saying:

This, in my opinion, concludes the whole case. I think that this company is applying to be registered under a name, in consequence of which every one of its acts, every use of its name, will involve a false representation, at least with the knowledge that its effect will be to represent to the public that the business of dentist is being carried on by a company through the agents who are persons "specially qualified to practise dentistry," when in fact the agents so acting either are not, or at least need not necessarily be so specially qualified. As the assistance of this Court and of the prerogative writ of mandamus cannot be granted for the purpose or with the effect of perpetrating a fraud, this application ought to be refused, and of course refused with costs.

That seemed extremely important. In a conversation which he had had with one of the law officers of the Crown, who taken a considerable interest in this matter, and who had interviewed the other law officers and the President of the Board of Trade, he distinctly said that in his opinion there was not the slightest difficulty in putting an end to all this trouble without legislation. If legislation were necessary they all knew what difficulties there were in obtaining it, but the method which the law officer suggested was this. He thought when the matter was brought before the Board of Trade they would take their own initiative and refuse to register any company in regard to which these untrue terms were used, and in that way the formation of companies of this sort would be stopped. Paragraph 2 (B) in the resolution was important, because, when the *Dentists' Register* was started, a large number of people became registered dentists with more or less qualification to be registered as such. By degrees those people were dying out, and eventually they would disappear. That was not the case with a company. A company once started might, as far as they could tell, go on for ever, and if this Jaffe Company remained using the title of "surgeon dentists," there was nothing to prevent them opening branches in every town in the United Kingdom and continuing to do so in the future. He suggested that if the use of those terms was likely to defraud the public or make the public believe that those people were registered dentists when such was not the case, they could be enjoined, at the suit of the Attorney-General, from

continuing to make use of those titles. Whether the initiative for the proceeding should come from the Government itself, or whether it should come from some of the dental societies, he was not prepared to say. He thought that possibly the end might be put to this without fresh legislation. It affected the medical and surgical profession exactly in the same way as the dentists. The Board of Trade had been registering medical companies of this kind since the decision he had referred to. He concluded by moving the adoption of the resolution.

The PRESIDENT inquired if Sir Charles Ball could tell them whether decisions of the Court over which Chief Baron Palles presided would apply to England and Scotland as well as to Ireland.

Sir CHARLES BALL replied that he had asked Mr. Muir Mackenzie about the matter. The decision of the Chief Baron in the Rowell case was subject to appeal to the House of Lords, but the other one was not. Mr. Rowell had not appealed to the House of Lords.

The PRESIDENT pointed out that he had time yet to do so.

Sir CHARLES BALL said that if they had the decision of the House of Lords that would be absolutely binding on the English, Irish, and Scottish Courts, but although the decision of the King's Bench in Ireland could not be held to be binding on the English and Scottish Courts, yet it would undoubtedly receive full consideration if any similar case came before those Courts. If the Board of Trade thought fit they could simply refuse to register these companies in England, Scotland, and Ireland, as it did for a time in Ireland. If that decision was upset by the House of Lords, or if a contrary decision was come to in England or in Scotland, then it was time to look for fresh legislation; but if it was not upset and not overridden by the House of Lords, then the Board of Trade might continue to refuse to register these companies.

Mr. TICHBORNE, in seconding the resolution, called attention to the fact that this question was raised four years ago in the Council. He was extremely glad to find that they had a judgement upon which they could act. Up to the time of this case the matter had come up both in England and in Ireland, but in every case the decision had gone in favour of the limited liability company.

The PRESIDENT then put the resolutions to the Council, and they were agreed to.

Sir CHARLES BALL then moved, and Mr. TICHBORNE seconded, and it was agreed to:

That the two judgements should be placed upon the minutes of the Council.

THE MEDICAL ACT (1886) AMENDMENT BILL.

The Council next proceeded to consider a communication from the Privy Council as to General Laurie's Bill to amend the Medical Act (1886).

Dr. MACALISTER stated that the Bill had been remitted to the Council for its information. It was a private Bill, and the chances of its passing were very small unless something was done to facilitate its progress. Action had been taken in Canada under their Medical Act 1902, which all but did what was wanted, but progress was stopped. This was a method of getting over the deadlock in Canada; but it still remained to be seen whether those responsible for the administration of the Canadian Medical Act 1902 would feel that this was the most desirable method of carrying out what so many provinces in Canada had approved. The Council could not venture an opinion for or against that question. It still remained unsolved. He thought the Council should indicate its general willingness to see any effective step taken which would remove the difficulty that had arisen. He concluded by moving

[illegible]

Sir ALEXANDER HORSLEY seconded, and this was agreed to.

[illegible]

Dr. LINDSAY STEVEN moved:

[illegible]

His chief reason for moving this resolution was that the [illegible] Bill was [illegible] the Medical Act.

attention of the Council as well as the attention of the public at large should be directed to a charge which had been made against a practitioner during the present session. That was a charge which ought to be carefully considered by the Council as well as by the whole profession. One of the functions of the Council was to guide the ethics of the medical profession. The charge he referred to opened up a new offence. It raised the question whether a practitioner so acting was not really trying to evade a previous resolution of the Council. It was the case of a medical man instituting a club himself, employing a collector to collect the entrance money and the subscriptions in order that he might carry on a system of practice which in many respects was not to be distinguished from that which the Council had already expressed its disapproval of. The question was, What could the Council do? The Council might say that it would do nothing, but that every case ought to be considered upon its merits. If the Council could see its way to formulate a resolution similar to those it had passed in regard to Medical Aid Associations and unqualified assistants, as a guide to the profession, he thought the necessity of considering these cases upon their merits would disappear.

Mr. GEORGE BROWN thought the Council ought to formulate something which would be a guide to medical men in this matter.

Dr. MACALISTER was of opinion that the Council ought to be cautious before it fixed a definition of a new offence. He thought that if it now attempted to formulate a definition of the kind of canvassing which was unprofessional it might omit what the next case showed ought to have been included. The Council ought to have more experience before laying down a hard-and-fast rule.

Dr. LINDSAY STEVEN was willing to bow to Dr. MacAlister's longer experience in these matters, and with the consent of his seconder (which was given with some reluctance) he obtained the leave of the Council to withdraw the motion for the present.

In the absence of Sir Victor Horsley, in whose name the motion stood, Mr JACKSON moved

That No. [illegible] of the minutes of the Executive Committee of May 24th [illegible] be referred again to that Committee in consultation with the legal advisers as to the action to be taken in regard to the issue of medical certificates contrary to the provisions of the Medical Acts.

Dr. BRUCE seconded.

MEDICAL CERTIFICATES GIVEN BY CHEMISTS.

The following communication from the Medico-Political Committee of the British Medical Association, forwarding a communication from the Education Committee of the Borough of Bootle in regard to the giving of a medical certificate by a local chemist and druggist in the case of a girl unable to attend school was put in

British Medical Association
Medico-Political Committee
Medical Secretary's office,
429 Strand, W.C.
May [illegible] 1904.

Dear Sir,—The enclosed letter and certificate having been brought to the notice of the Medico-Political Committee of the Association, I am instructed to forward them to you, in order that they may be laid before the General Medical Council.

I am, yours faithfully,
J. SWAIN WILLIAMS.
Medical Secretary.

[illegible] Esq., M.D., F.R.C.P., etc., Strand, General Medical Council.

Borough of Bootle Education Committee.
Elementary Education Department.
Offices, Balliol and Stanley Roads,
Bootle, February [illegible], 1904.

Dear Sir,—I am directed by the Education Committee to forward herewith a certificate purporting to be a medical certificate given by a local chemist and druggist in this district. I have [illegible] to bring under the notice of the Committee [illegible] Mr. Chester Williams, [illegible] Bootle, has stated [illegible] in respect of a child in a district which [illegible]

[illegible]
J. W. [illegible]
Secretary to Elementary Education [illegible]

The General Secretary,
British Medical Association.

[illegible] the attention of the Medico-Political Committee of the British Medical Association has been called to Section XXVIII. of the Medical Act, 1886, [illegible] that on the face of it the certificate appears to be invalid under the Act, and that the Council [illegible] to certificates given by chemists who [illegible]

Dr. NORMAN MOORE thought the Committee ought to be sup-

ported in their decision. They had all the papers before them, and went into the matter thoroughly.

Dr. LINDSAY STEVEN agreed with the last speaker.

Dr. MACALISTER said their legal adviser was present when they discussed the matter, and the question was entirely a legal one. It was therefore no use sending the matter back.

After some further discussion, the PRESIDENT put the resolution, and declared it lost.

UNPROFESSIONAL CONDUCT.

The REGISTRAR then read the following letter, which he had received.

County of Durham Medical Union,
42, Old Elvet, Durham,
May 25th, 1904.

Dear Sir,—I beg leave to ask if the General Medical Council will consent to receive a deputation from the County of Durham Medical Union, to lay before them some of the difficulties experienced by the said Union in their dealings with medical men who do not behave in a professional manner.

I am, dear Sir,
Yours respectfully,
EDWARD JELSON, M.D.,
President.

To H. E. Allen, Esq., LL.B.

The PRESIDENT stated that in accordance with the Standing Orders this letter was referred to the Business Committee to consider.

Dr. MACALISTER, the Chairman of the Business Committee moved:

That the President of the County of Durham Medical Union be informed that the Council will be prepared to receive a written communication from that body respecting the difficulties to which they refer and the Council will then be in a position to decide whether any further conference is necessary.

This was seconded by Professor FINLAY and agreed to.

THE GENERAL REGISTRAR.

The PRESIDENT then proposed the reappointment of Mr. Allen as General Registrar. They had all had many years' experience of Mr. Allen's admirable qualities as registrar. He declared Mr. Allen elected unanimously.

LENGTH OF SPEECHES.

Dr. PAYNE gave notice that he would move at the next session of the Council the following resolution:

That in order to economize the time of the Council it was desirable to place a limit upon the length of speeches of individual members.

PENAL INQUIRIES.

Sir WM. THOMSON, with the permission of the Council as the motion did not appear on the programme of business, and did not arise out of anything which was before the Council, moved the following resolution:

That it be remitted to the Executive Committee to consider and draft an instruction to the Penal Cases Committee to ascertain in each case when a person or persons who had lodged a complaint against a practitioner whether the complainant or complainers had brought to the notice of the practitioner charged their disapproval of his conduct.

He said that the motion had reference to an incident which happened the other day in which a practitioner had received no notice from the complainer of the proceedings that were pending.

Dr. MCVAIL seconded the resolution, and it was carried.

VOTE OF THANKS.

Dr. NORMAN MOORE proposed a hearty vote of thanks to the President for his conduct in the chair throughout the session.

This was seconded by Sir WILLIAM THOMSON and carried unanimously.

The proceedings then terminated.

British Medical Association.

ELECTION OF MEMBERS.

ANY candidate for election should forward his application upon a form, which will be furnished by the General Secretary of the Association, 429, Strand. Applications for membership should be sent to the General Secretary not less than thirty-five days prior to the date of a meeting of the Council.

GUY ELLISTON, *General Secretary.*

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

NORTH OF ENGLAND BRANCH.

A BRANCH Council meeting was held in the Royal Infirmary, Newcastle-on-Tyne, at 3.30, Tuesday, May 3rd. The President-elect (Dr. JAMES DRUMMOND) took the chair in the unavoidable absence of the President.

Apologies for absence were received from the President and Drs. Murphy and Crease.

New Members.—The sixteen candidates whose names appeared on the list were unanimously elected.

Annual Meeting of Branch.—The President-elect fixed Wednesday, June 8th, as the most suitable date. Meeting to be held at South Shields, and further arrangements were left to the President-elect and Secretary. It was arranged that a Branch Council meeting should be held immediately before the Annual Meeting.

Combination of Divisions for Annual Representative Meeting Purposes. It was agreed that, subject to the approval of the Organization Committee, the meetings of Constituencies should take place as follows: North Northumberland, Blyth and Morpeth Divisions, at Blyth. Newcastle-on-Tyne, Hexham and Tyneside Divisions to meet in the Tyneside Division. South Shields, Gateshead and Consett, at Gateshead. Sunderland, Hartlepools, Stockton, and Darlington Divisions at Stockton. Durham, Chester-le-Street and Bishop Auckland Divisions to meet as arranged by the Division Secretaries. Cleveland at Middlesbrough.

BRANCH MEETING.

The spring meeting of the Branch was held immediately after the Branch Council meeting, and was very well attended. Mr. RUTHERFORD MORISON was voted to the chair in Dr. Burman's absence.

Absorption of the Northumberland and Newcastle Medical Association. The HONORARY SECRETARY read the report of the Joint Committee of the two Associations which had been appointed specially to consider whether the local Association could be merged in the Branch, and, if so, on what conditions. The Branch Council had accepted this report, and recommended the Branch to accept the scheme, which included: (1) The Branch shall undertake to carry out the work hitherto done by the Northumberland and Newcastle Medical Association—that is, the protection of its members engaged in colliery and other forms of contract work. (2) In order that continuity shall be ensured, the Branch shall empower its Council to form a Committee to be called the Northumberland Committee, whose special duties shall be as above, and which shall include at first as many of the members of the Northumberland and Newcastle Medical Association as are members of the Branch. Also the President of the Northumberland and Newcastle Medical Association (Mr. Rutherford Morison) shall be asked to become chairman of the Committee. (3) The Secretary of the Northumberland and Newcastle Medical Association shall be employed by the Branch to act as Secretary to this Committee at a salary of £25 per annum, acting under the supervision of the Honorary Secretary of the Branch. (4) The Northumberland and Newcastle Medical Association agree to dissolve and bring in at least twenty new members of the Branch.—The HONORARY SECRETARY said that if the Branch approved this scheme, an addition to the rules of the Branch would be proposed at the annual meeting legalizing the new Committee.—The CHAIRMAN formally moved, and Dr. JAMES DRUMMOND seconded the adoption of this scheme.—Dr. F. C. MEARS opposed. He wanted more information as to the work and rules of the Northumberland and Newcastle Medical Association which it was proposed to take over. He thought the method adopted was unbusiness-like and illegal. He moved as an amendment:

That this matter be adjourned until the next meeting, and that in the meantime full information on the points named be sent to each member.

—Dr. LACHLAN FRASER seconded briefly.—Professor G. MURRAY pointed out that the Branch had approached the Association on the matter, and that it had been under consideration in different forms for a long time,

and had in no way been sprung on the Branch. Dr. Cox said he had been quite taken aback by this belated opposition, as the matter had been in the air ever since the new constitution of the British Medical Association had come into force. The general principle of the absorption of the local associations had been discussed several times, and had been adopted by the Branch. They had long ago made up their minds that the existence of two or more societies professing to do exactly the same work was wasteful, and this was the first step towards a more economical method. He further pointed out that it was the British Medical Association that was absorbing the Northumberland and Newcastle Medical Association, and not vice versa, so that they were not in any way adopting their rules.—The amendment was rejected by a large majority, and the scheme carried.

Irish Dispensary Service.—Dr. Cox then moved:

That this Branch thanks the Editor of the BRITISH MEDICAL JOURNAL and his Special Commissioner for the able report on the Irish Dispensary Service which appeared in the SUPPLEMENT to the JOURNAL of March 26th, 1904, expresses its hearty sympathy with the members of that service in the deplorable situation in which they are placed, and urges the Council of the Association to spare no practical aid which can be given by the Association.

In briefly moving the resolution Dr. Cox said that the report was one of the most moving and able things he had ever read in the JOURNAL, and he hoped the Branch would show its sympathy for their Irish colleagues by passing the resolution unanimously.—Dr. J. H. HUNTER formally seconded, and the resolution was unanimously carried, and the Honorary Secretary directed to report the same to the Secretary of the Association and to the Editor of the JOURNAL.

TYNESIDE DIVISION.

THE annual meeting of this Division was held at Whitley Bay on May 11th. Dr. PEART (Chairman) presided, and the meeting was well attended.

Confirmation of Minutes. The minutes of the last meeting were read and confirmed.

Annual Report. The annual report was read, and showed that three ordinary and one clinical meetings had been held, in addition to a dinner, which it is hoped might become an annual event. The membership now stood at 39.

Election of Officers.—The following were elected for the ensuing year: *Chairman:* Dr. R. S. Peart. *Vice-Chairman:* Dr. T. M. Young. *Honorary Secretary:* Dr. Lachlan Fraser. *Representatives on Branch Council:* Dr. H. Adams and Dr. Lachlan Fraser. *Committee:* Drs. Barker, Brumwell, Campbell, Gofton, Holgate, Ingram, Martin, Mears, Wilkinson, and Woodhouse.

Clinical Meetings. On the proposal of Dr. FRASER seconded by Dr. MARTIN, it was resolved

That a clinical meeting be held on the third Tuesday in each month from October to March at 8 p.m.

Local Medical Library.—Dr. BAKER proposed, Dr. FRASER seconded, and it was duly carried:

That the Committee be instructed to inquire into the practicability of a medical library being formed in the Division, and to report to next general meeting.

Medical Defence. A long discussion took place on the medical defence scheme of the Association. Dr. CAMPBELL moved, and Dr. ADAMS seconded, the following resolution, which was carried unanimously:

That this Division while approving of the principle of the Association taking up medical defence does not approve of the present medical defence scheme of the Association.

Hydropathic Establishments.—Dr. YOUNG moved, and Dr. ADAMS seconded, the following resolution, which was carried unanimously:

That the members of this Division are opposed to the advertising of the services of medical practitioners in connexion with hydropathic establishments.

Canadian Medical Association. The SECRETARY read a letter of invitation to the members of the Tyneside Division to attend the annual meeting at Vancouver. He was instructed to send a suitable reply.

Consultation of Medical Witnesses. This question was very thoroughly discussed. Dr. CAMPBELL moved the following resolution, which was seconded by Dr. MEARS and carried unanimously:

That the Hon. Secretary be instructed to write to Mr. Smith Whitaker pointing out [illegible] suggestion.

Votes of thanks to Drs. Peart, Young and Fraser concluded the business of the evening.

SOUTH-EASTERN BRANCH:

FOLKESTONE DIVISION.

A MEETING of the Folkestone Division was held at Hotel Wampach, on April 15th, Dr. PERRY in the chair. There were seventeen members present, and two unattached.

Confirmation of Minutes. The minutes of the last meeting were read and confirmed.

Vaccination Bill.—The final clause of the vaccination matters referred to the Divisions, and which was deferred from the last meeting for reconsideration, was passed—14 for and 3 against.

Medical Acts Amendment Bill.—This Bill, which was deferred from the last meeting for reconsideration, was approved unanimously.

Representation on the General Medical Council.—This was also deferred from the last meeting for reconsideration, and was approved unanimously.

Hydropathic Advertisements.—The meeting carried unanimously that it disapproved of the advertising by medical practitioners connected with hydropathic establishments.

Medical Witnesses.—The question of the advisability of medical witnesses engaged on each side in legal cases meeting in consultation was unanimously and cordially approved.

Medical Defence.—It was proposed and seconded that:

The British Medical Association should not take up medical defence.

An amendment was proposed and seconded that:

The British Medical Association take up medical defence, but that this Division does not approve of the scheme as it is at present drawn up.

This was lost by 10 to 6. The original proposition that the British Medical Association should not take up medical defence was carried by 13 to 4. On polling the number of members who were willing to join the medical defence department in the event of such a department being formed, only one name was received.

Dinner.—After the meeting 19 members dined together.

THE annual meeting of this Division was held at Hotel Wampach on Friday, May 27th.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman:* Dr. C. E. Perry. *Vice-Chairman:* Dr. P. C. Lewis. *Representative on Branch Council:* Dr. T. Eastes. *Honorary Secretary:* Dr. P. V. Dodd. *Representative of Division in Representative Meetings:* Dr. A. E. Larking. *Deputy Representative of Division in Representative Meetings:* Dr. P. V. Dodd. *Executive Committee:* Mr. W. P. Barrett, Mr. W. F. Chambers, Dr. T. Streatfield.

HASTINGS DIVISION.

THE annual meeting of this Division was held on Thursday, May 19th, at the East Sussex Hospital, Hastings. The chair was taken by Dr. BAGSHAWE. Eighteen members were present.

Election of Officers. The following were elected officers for ensuing year: *Chairman:* Dr. Allfrey; *Vice-Chairman:* Dr. Wills; *Honorary Secretary:* Dr. G. Vickerman Hewland, 4, Eversfield Place, St. Leonards-on-Sea; *Representative on Branch Council:* Mr. Kaye Smith; *Representative of the Division in Representative Meeting of Association:* Dr. Allfrey; *Other Members of the Executive Committee:* Dr. Bagshawe, Dr. Batterham, Dr. Brodie, Dr. Skinner, Mr. Paget.

Case. Dr. REDMAYNE showed a case of bronchiectasis treated by incision and drainage. Case will be reported *in extenso* in BRITISH MEDICAL JOURNAL.

SEVENOAKS DIVISION.

THE summer meeting of the Sevenoaks Division was held in the Council Room of the Castle at Tonbridge on May 20th.

Election of Officers. The following officers were elected: *Chairman:* Dr. Marriott. *Vice-Chairman:* Dr. Tew. *Representative to the Branch:* Mr. Maude. *Honorary Secretary:* Dr. Blomfield. *Committee:* Dr. Alliott, Dr. Fraser, and Dr. Ievers.

Medical Examination of School Children. Dr. MARRIOTT introduced a discussion of the scheme of the Kent Education Committee for the appointment and remuneration of medical men as examiners and certifiers of children unable to attend public elementary schools. It was resolved that it was the strong opinion of that meeting that the examination and certification of children unable to attend school in consequence of illness should be made by the ordinary medical attendant of the family. It was further resolved that a copy of the resolution be brought before the Kent Education Committee.

Dinner. The members subsequently dined together at the Rose and Crown Hotel, Tonbridge.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

THE second annual general meeting of this Division was held at the London Institution, Finsbury Circus, at 4 p.m., on May 20th. The Chairman of the Division, Mr. FREDERICK WALLACE, presided.

Election of Officers.—The following members were elected officers and members of the Executive Committee for the ensuing year: *Chairman:* Mr. Hope Grant. *Vice-Chairman:* Dr. J. W. Hunt. *Honorary Secretary and Treasurer:* Dr. E. W. Goodall. *Representatives on the Council of the Branch:* Mr. Frederick Wallace, Mr. H. E. Powell, and the Honorary Secretary. *Representatives in Representative Meetings of the Association:* Dr. E. W. Goodall. *Other Members of the Executive Committee:* Mr. J. Adams, Mr. J. Beddow, Mr. T. L. Brown, Dr. A. T. Davies, Mr. A. R. F. Evershed, Dr. E. N. Féré, Dr. Major Greenwood, Dr. F. H. Kyngdon, Mr. E. A. Lermitte, M.B., Dr. J. W. Oliver, Mr. C. R. Salisbury, Mr. J. S. Sequeira, Mr. A. G. Southcombe, Mr. J. King Warry, Mr. H. Chisholm Will.

Report of Executive Committee.—The report of the Executive Committee on the work of the past year was read and adopted. It was resolved that twelve be the quorum of a general meeting.

Medical Defence.—The SECRETARY reported that he had polled the Division, but had received only 24 forms of application from members who were willing to join the Medical Defence Department out of a membership of 172. After considerable discussion, from which it appeared that while the majority of those present were in favour of medical defence being undertaken by the Association, yet none were favourable to the scheme that had been put forward, the two following resolutions were carried:

1. That in the opinion of this Division it is advisable that the British Medical Association should undertake medical defence.
2. That this Division does not approve of the general principles and details of the scheme.

Representative Meeting.—The meeting then considered the notices of motion for the Representative Meeting at Oxford and the report of the Council. It was finally resolved:

That it be left to the representative of the Division to vote as he thinks fit on the motions to be brought before the Representative Meeting at Oxford.

Contract Practice.—The SECRETARY stated that he had been instructed by the Executive Committee to forward to all medical practitioners resident within the Division, with some exceptions, the letters of inquiry that had been sent to him by the Council of the Association.

Medical Examinations for Insurance.—The SECRETARY drew the special attention of the meeting to the memoranda of the Council on fees for medical examinations for insurance and on the present position of medical practitioners with respect to coroners.

Vote of Thanks to Retiring Chairman.—A hearty and unanimous vote of thanks was accorded to the outgoing Chairman, Mr. Frederick Wallace, for his services to the Division during his term of office.

WANDSWORTH DIVISION.

THE annual meeting of this Division was held on May 26th, at Crichton's Restaurant, Clapham Junction, being preceded by a dinner, at which 17 members were present, and Colonel Sully, Mr. Giles, and Dr. Martin were guests. At the subsequent meeting Dr. M. G. Biggs took the chair, and twenty-five members were present.

The Association and Medical Defence.—The report of the Committee on the Medical Defence scheme was received and approved.

Central Council.—Resolutions referring to the Central Council initiating only urgent matters were submitted and passed unanimously.

Rules of Division.—The Committee was authorised to take into its consideration the present rules of the Division, and to submit any alterations or additions at a subsequent meeting.

Election of Officers.—The following were elected to serve as officers and Committee for the ensuing year:—*Representative at Representative Meetings:* Dr. M. G. Biggs. *Representatives on the Branch Council:* Dr. H. Kerr, Dr. L. Williams. *Chairman:* Dr. G. Walker. *Vice-Chairman:* Dr. L. S. McManus. *Honorary Treasurer and Secretary:* Dr. E. Rowland Fothergill. *Committee:* Drs. E. R. Badcock, G. F. McCleary, A. D. Roe, P. C. Smith, E. F. White.

The Agenda for the Representative Meeting was considered in detail.

Special Representatives Expenses Fund.—The special representative expenses fund of £3 17s. 8d. was augmented by an impromptu collection by Dr. Miller of £2 12s.

MEDICAL DEFENCE.

SIR,—Reading over your report of a special meeting of this Division held to discuss the above subject, apart from several instances of what we must consider to be slips in reporting, I see you have it stated that on the recommendation of one of our members this Division adopted the scheme. Now, this is incorrect. At the last moment when time was short, and in spite of a suggestion of Sir Victor Horsley's that the discussion should be adjourned, it was proposed and carried (Sir Victor Horsley having also suggested it) that the principle of the scheme be approved, and that it be left to the committee to consider it in detail and to report. A very different conclusion; and I would wish you for the sake of this Division to correct this wrong impression if you kindly would. Also with your courtesy I would ask you to print the report of the committee I now enclose, as having been approved at a meeting of the Division held on the 26th inst. It will be of interest, I think, to many of those who attended the original debate from a distance and at some personal inconvenience.—I am, etc.,

E. ROWLAND FOTHERGILL,
Honorary Secretary, Wandsworth Division.

Southfields, S.W., May 27th.

P.S.—A few of the 1,000 members of the Defence Union ask the question, "Why ask us to join you, why do you not join us." The Association has some twenty or more irons in the fire; defence will be one more only. The Union can only have one iron at most.

"REPORT ON SCHEME OF MEDICAL DEFENCE SUBMITTED BY THE CENTRAL COUNCIL.

"Your Committee recommend that as it will be necessary to alter the Memorandum of Association in order to carry out medical defence at all, it is advisable to so alter it as to allow the Association including medical defence as an integral part of its work but limited to its members resident in the United Kingdom.

"*If this alteration is made* (1) then your Committee recommends that other defence societies be invited to merge themselves, and that in the event of any society declining officially to do so, a clause be added to the scheme whereby members (either medical or dental) of any defence society on or before January 1st, 1905, who may not be also members of the Association, be allowed to join the defence department at a yearly subscription of 10s. each and on a guarantee of at least £1.

"(2) Your Committee does not see the necessity for special Scotch and Irish Committees, nor do they see any necessity for an allowance of 2s. a head to these parts of the country, as local solicitors can very well be appointed who will act under the direction of the Central Defence Committee.

"(3) It is the opinion of your Committee that although at the first outset the Association may possibly not be able to carry out defence of all its members resident in the United Kingdom on an increased subscription of only 5s. a member; yet, seeing they have large accumulated funds, they could well afford to do so by using if necessary a portion of such funds as have been subscribed by members resident in the United Kingdom, until the department were in full working order.

"They therefore recommend an annual subscription for members resident within the United Kingdom of 30s. each, which shall include medical defence.

"(4) The Defence Committee should only be re-elected annually so far as a-fifth of the members of that Committee are concerned.

"*If the proposed alteration of Memorandum be not made*, then your Committee considers the new proposed defence department should be carried on entirely separate from the Association; that the officials should be elected only by those joining that department; that the Association should not be allowed to lend money to this department on what would be unmarketable security; also that the members of the defence department should themselves, by guarantee or deposit of a fixed amount at interest, meet their own unusual liabilities should they ever be called on to do so."

SOUTH MIDLAND BRANCH:

BEDFORD AND HERTS DIVISION.

THE annual meeting of this Division was held at the Bedford County Hospital on May 3rd. The following members

were present: Dr. Major, Mr. Kinsey, Dr. Spence, Dr. Snell, Mr. Chillingworth, Dr. Hartley, Dr. Ross, and Dr. Savory.

Confirmation of Minutes. The minutes of the last annual meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman:* Dr. H. C. Major. *Vice-Chairman:* Dr. Lovell Drage. *Secretary and Treasurer:* Dr. Savory. *Representative of the Division in Representative Meetings:* Dr. R. H. Coombs. *Executive Committee:* Dr. Major (*ex-officio*), Dr. Coombs (*ex-officio*), Dr. Lovell Drage, Dr. Butters, Dr. Skelding, Dr. Temple, Dr. Savory.

Ethical Committee.—It was resolved that the Executive Committee act as Ethical Committee, and have power to add to their number from members of the Division.

Vote of Thanks to Dr. Ross. It was resolved that the best thanks of the Division are due and are hereby tendered to Dr. Ross for his valuable services during the past year.

Matters Referred to Divisions.—In reference to the matters referred to the Division by the Central Council the following propositions were carried:

1. That it is highly desirable that the witnesses engaged on each side in legal cases should meet in consultation.

2. That all advertising of medical men in connexion with hydropathic establishments is highly objectionable and should be dealt with.

MIDLAND BRANCH:

Lincoln Division.

A fairly well attended meeting of this Division was held on Thursday afternoon, May 26th, at the Guildhall, Lincoln, Dr. Carline, Chairman of the Division, presiding.

Confirmation of Minutes. The minutes of the last meeting were read and confirmed.

Balance Sheet. The Honorary Treasurer's balance-sheet for the year was passed.

Election of Officers.—The meeting then proceeded to elect officers for the ensuing year, with the following result: *Chairman:* Dr. W. A. Carline (Lincoln). *Vice-Chairman:* Mr. F. S. Lambert (Lincoln). *Honorary Secretary and Treasurer* (in place of Dr. Mansel Sympson, resigned): Dr. J. S. Chater (Lincoln). *Representative for Representative Meetings:* Dr. Genney (Lincoln). *Member of Branch Council:* Dr. Harrison (Lincoln). *Members of Divisional Council:* Dr. W. H. B. Brook (Lincoln), Dr. Levinson (Gainsborough), and Dr. Ellis (Metheringham).

Consultations between Medical Witnesses.—After a full consideration of the first subject for discussion, it was proposed by Mr. Lambert, seconded by Dr. Mansel Symeson, and carried with one dissentient:

That this Division thanks that the meeting in consultation of medical witnesses engaged on each side in legal cases not being practicable, is inadvisable.

Medical Practitioners and Hydropathic Establishments.—On subject No. 2 the following resolution was proposed by the Chairman, seconded, and carried

Inasmuch as there are no hydropathic establishments in this neighbourhood in which, so far as the members are aware, objectionable advertising of the medical officers takes place this Division would rather leave the matter in the hands of those with more knowledge of the subject.

The Association and Medical Defence. A long discussion then took place on the question of medical defence, and it was ultimately resolved, with one dissentient, on the proposition of Dr. Farrar, seconded by Dr. Genney

That this Division is of opinion that the British Medical Association should not take up medical defence.

Associate Members. Mr. F. Newcombe Caythorpe House, Grantham, and Mr. J. C. Gray, Tattiford House, Horncastle, were elected associate members of the Division.

Votes of Thanks. Cordial votes of thanks to the Mayor of Lincoln for the use of the Guildhall, to the Chairman for presiding, and to the retiring Honorary Secretary and Treasurer (who has not been able to spare the time he devoted to the duties of the post without the Division concluded the business, and the members adjourned to tea, on the invitation of the ex-Secretary (Dr. Mansel Sympson), in the adjacent Cathedral Close.

ULSTER BRANCH.

The spring meeting of the Ulster Branch was held in the Town Hall, Portadown, on May 5th, Dr. Denis Milligan (Derry), President, in the chair, and thirty-seven members were present.

Confirmation of Minutes. The minutes of the winter meeting were read and confirmed.

The late Dr. Donaldson. On the motion of Dr. Cecil Shaw (Belfast), a resolution of condolence on the death of Dr. E. Donaldson (Derry) was passed and a copy ordered to be sent to Mrs. Donaldson.

New Members. The Secretary (Dr. Calwell) reported that the Council had elected William Andrew Simpson, M.B.R.U.I., L.M.Rot.Dub. (7, John Street, Dungannon), a member, and that Colonel Adams (Tullylish House, Gilford) had joined the Branch.

Irish Dispensary Doctors.—Professor Byers (Belfast) proposed, Dr. Thompson, M.P., seconded, and Professor Sinclair supported the resolution which was published in the British Medical Journal of May 14th, p. 1158. This resolution was passed with acclamation.

Tea. After the meeting tea was kindly supplied by the Portadown and Lurgan members of the Portadown Division.

NORTH WALES AND SHROPSHIRE BRANCH:

North Carnarvonshire and Anglesea Division.

The annual meeting of this Division was held at the British Hotel, Bangor, on Wednesday, May 25th, at 2 p.m.; Dr. Emyr Owen Price (Bangor) in the chair. There were 17 members present.

Election of Officers.—The following officers and representatives were elected for the ensuing year:—*Chairman:* Dr. John Roberts (Menai Bridge). *Vice-Chairman:* Dr. J. Lloyd-Roberts (Colwyn Bay). *Honorary Secretary:* Dr. H. Jones Roberts (Penygroes), re-elected. *Representative on the Representative Committee:* Dr. Emyr Owen Price (Bangor). *Representatives on the Council of the Branch:* Dr. R. Arthur Prichard (Conway), Dr. Price Morris (Old Colwyn), Dr. Robert Parry (Carnarvon). *Representatives on the Executive Committee of the Division:* Dr. T. E. Jones (Llanrwst), Dr. R. H. Mills-Roberts, C.M.G. (Llanberis), Dr. John Evans (Carnarvon), Dr. J. R. Prytherch (Llangefni).

Report of Executive Committee. The report of the Executive Committee, which congratulated the Division upon the success of its meetings during the first year, and urged every member to do his best to secure those non-members who reside in his immediate neighbourhood to join the Association, was received and adopted.

Annual Representative Meeting. The business of the annual representative meeting to be held at Oxford in July next, as set down in the Supplement to the British Medical Journal for May 7th, was considered. It was resolved:

1. That this Division is favourable to all the proposed amendments in the by-laws.

2. That this Division is also favourable to the first notice of motion given by the Folkestone Division—South Eastern Branch, namely: "That the present method of election by the Branch Council is unsatisfactory, and that new members should be elected by the members of the Division in which they reside.

That in all other matters coming before the meeting a free hand should be given to our representative.

The Association and Medical Defence. Dr. W. Jones Morris (the Representative of the Branch on the Council of the Association) explained the position taken by the Association with regard to medical defence. The Honorary Secretary reported that seventeen members of this Division had intimated their willingness to join the Medical Defence Department in the event of its being formed.

Contract Practice. Attention was called to the inquiry forms sent out re contract practice, and members who have contracts were urged to fill up the form applicable to such contract, and to forward it to the Medical Secretary of the Association in order to facilitate the work undertaken.

Medical Acts Amendment Bill. The proposed Medical Acts Amendment Bill was discussed, special attention being called to Clauses 9, 13, and 30. It was finally resolved that all the clauses as set down in the draft be approved of.

Discussion. Dr. James Craig (Llandudno) opened a discussion on the prevention and treatment of tuberculosis, in which Drs. Leaser (Carnarvon), J. Lloyd Roberts (Colwyn Bay), and the Chairman took part. A vote of thanks was accorded to Dr. Craig for his excellent introduction of the subject.

Next Meeting. Dr. Emyr O. Price (Bangor) was requested to open a discussion at the next meeting, and to select his own subject.

Reports of several Divisions have had to be held over owing to want of space.

Printed and published by the British Medical Association, at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 11TH, 1904.

CONTENTS.

	Page.
BRITISH MEDICAL ASSOCIATION: SEVENTY SECOND ANNUAL MEETING AT OXFORD *(Illustrated)*	165
THE CITY OF OXFORD: The College Gardens.—New College. Christ Church Hall.—The Cathedral.—Magdalen College.—Other Places not to be missed.—Other Entertainments. Woodstock and Blenheim.—The River.—Saturday Excursions	165
GENERAL ARRANGEMENTS	169
SECTIONS:	
Medicine	169
Surgery	169
Obstetrics and Gynæcology	170
State Medicine	170
Psychological Medicine	170
Pathology	172
Physiology	172
Anatomy	172
Ophthalmology	172
Dermatology	174
Laryngology and Otology	174
Tropical Diseases	177
Navy, Army, and Ambulance	178
Dental Surgery	180
PATHOLOGICAL MUSEUM	180
SPECIAL RAILWAY ARRANGEMENTS	180
LIST OF LODGINGS AT OXFORD	181
MEETINGS OF BRANCHES AND DIVISIONS:	
North Wales and Shropshire Branch: North Carnarvonshire and Anglesea Division	186
North Lancashire and South Westmorland Branch: Lancaster Division	186
South Eastern Branch: Croydon Division	186
Maidstone Division	186
South Wales and Monmouthshire Branch: Cardiff Division	187
Monmouth Division	187
East Anglian Branch: South Essex Division	188
Metropolitan Counties Branch: Marylebone Division	189
Lancashire and Cheshire Branch: Blackpool Division	189
Glasgow and West of Scotland Branch	189
Bath and Bristol Branch: Bristol Division	189
South-Western Branch: Truro Division	189

SEVENTY-SECOND ANNUAL MEETING

OF THE

British Medical Association.

OXFORD, 1904.

Copyright Jas. Salmon & Co., Oxford

The Hall staircase, Christ Church.

IN a former article in this JOURNAL in December last a general idea was given of the attractions, scientific and artistic and social, which await in Oxford the members of the British Medical Association who attend the annual meeting. It was then pointed out that Oxford is a city particularly suitable for such a visit, and that it offers opportunities for the gratification of many various tastes. It is now proposed to enter more into detail, and to describe the arrangements, so far as they are at present completed, for the entertainment of the visitors and for the forwarding of the scientific objects of the meeting.

Members will find no difficulty in filling up their spare time. Oxford is always a show place. It is one of the first cities in England to be visited by the American and the foreigner, and, above all, it possesses the advantages of concentration. All the objects of interest can be reached by a few minutes' walk, in various directions, from the headquarters of the meeting; and it must be borne in mind that members of the Association, through the kind co-operation of the University and civic authorities, will have many more privileges and opportunities of seeing everything worthy of attention than has the casual visitor.

THE COLLEGE GARDENS.

Amongst the most characteristic and impressive features of Oxford are the College Gardens. Such a series of lovely pleasaunces, with their velvet lawns and grand old trees, with glimpses through the foliage here and there of picturesque buildings, pinnacles, towers, and battlements, is to be found nowhere else in the world, except perhaps at Cambridge. Full use will be made of them during the visit of the Association. All the gardens will be open; in one or other of them there will be a promenade concert every afternoon, and in two—Wadham and New College—special entertainments will be given. During the afternoon of Wednesday, July 27th, the President of the Association and the members of the Oxford Division will hold a reception in Wadham Gardens, and an exhibition of duelling and fencing will be given. This will probably be a novelty to many of the visitors, for, in contrast with the widespread interest in fencing on the Continent, there are few places in England where the art is practised. Oxford, however, possesses a flourishing fencing club, several prominent members of which are medical men, and this club will display its quality in Wadham Gardens. In the course of the afternoon there is to be an *epée* contest between representatives of Oxford and Cambridge, which is expected to be especially keen and exciting.

New College.

A more peaceful entertainment will be given on Thursday evening in the beautiful gardens and hall of New College, where the Oxford ladies will receive the lady visitors and any of the members who are not dining in Christ Church Hall. Those who attend the dinner will have an opportunity of joining the others later. New College Gardens are among the finest in Oxford. They are entered from the Garden Quad, by lofty iron gates, once the property of the Duke of Chandos, now, with their spiky tops, a formidable obstacle to even the most athletic belated undergraduate. On three sides the gardens are enclosed by the old city walls, inclined to moulder, but kept in repair by the College, in accordance with a covenant between the Founder and the city authorities. At one corner of the walls rises the massive square bell-tower, standing detached, and apart, and gloomy as to its history. For here the Protestant members of the College were imprisoned by the Warden during the reign of Henry VIII, and one of the Fellows is said to have died of cold and starvation.

The Ladies Committee is arranging a musical entertainment to take place during the evening in New College Hall, the oldest hall in the University, large and lofty, with fine oak panelling and roof. New College was founded in 1380 by William of Wykeham, Bishop of Winchester, "who," says Froissart, "was so much in favour with King Edward III that everything was done by him and nothing done without him." The principal object of the new foundation was to provide a seminary for the support of the old Church against the doctrines of Wyclif, shortly before Master of Balliol. Over the door in the fine gateway tower is an image of the Virgin Mary, with an angel kneeling on one side and the Founder on the other. The buildings are grand, and served as a model for all the greatest subsequent foundations both in Oxford and Cambridge. There is a fine series of monumental brasses in the chapel, and the music here shares with that of Magdalen the highest reputation in the University.

New College Gardens. [Photo. C. Ovenell.

Christ Church Hall.

The Hall of Christ Church, where the annual dinner will be held, is full of historic interest. It is approached from the great quadrangle by a very beautiful staircase, whose delicate fan-roof springing from a single pillar, is shown in the accompanying photograph. This roof was built in 1640 by one Smith, of London, working, it is supposed, from plans and drawings left behind by Cardinal Wolsey. The hall was designed and finished by Wolsey himself, the date of its completion 1529 being visible, together with the arms of Henry VIII and Catherine of Aragon, on the pendants from the carved oak ceiling. Sovereigns who visit Oxford are usually received in this hall, and on the list of royal visitors are the names of Henry VIII, Elizabeth, James I, Charles I, George III and George IV. Elizabeth and Charles I witnessed plays performed in the hall by the students, and scenery and stage machinery were apparently used here before they made their appearance in any London playhouse, the credit of their invention is attributed to Oxford scholars. In this hall, too, met the remains of the Parliament of Charles I, 48 Peers and 118 Commoners, and were addressed by the King. Round the walls are many interesting portraits, portraits of Wolsey, the Founder, of Henry VIII his patron, and of Queen Elizabeth, besides many later nobilities, some of them painted by Hogarth, and Lawrence, and Reynolds, and Gainsborough. Close to the hall is the great kitchen, which was also built by Wolsey himself, built in fact before all the rest of the College, a circumstance which has given opportunity to irreverent jesters. It will, perhaps, be unwise to visit the kitchen near the time of the annual dinner, as its occupants will probably be too busy to welcome strangers, but it is well worth seeing on some other occasion. Wolsey's great gridiron is still shown, and there also remain traces of three original huge fireplaces.

The Cathedral.

On the east side of the great quadrangle of Christ Church is the entrance to the Cathedral, which also serves the purpose of College Chapel, while the Dean is Head of the College. The Cathedral is chiefly Norman, and though comparatively small is very impressive; it was consecrated in 1180. Perhaps its most interesting features, apart from the Norman arches, are the magnificent roof of the choir with pendants brought from the old Abbey of Osney, the Latin Chapel surrounded by the stalls and desks originally placed by Wolsey in the choir, and the "Watching Chamber," from which the priests were wont to keep an eye on the shrine of St. Frideswide with its valuable offerings. The shrine itself has disappeared. In the Cathedral a service will be held on the morning of Tuesday, July 26th, and the preacher appropriately invited is the Master of University College, the son of Dr. Bright, whose name is universally known in relation to kidney diseases. It is worthy of notice that there are three Heads of Colleges living within a stone's throw of one another whose names are eminent in the history of medicine — Mr. Monro, Vice-Chancellor and Provost of Oriel; Dr. Bright, Master of University; and Mr. Heberden, Principal of Brasenose.

The afternoon of Tuesday, the first day of the meeting, is left free from organized entertainment, and visitors will have an opportunity of gaining a general impression. There will be provided for every member a guidebook, which will enable him to devote particular attention to such places as may specially appeal to his tastes, but there are a few visits which no one should fail to pay.

Magdalen College.

The first to Magdalen College. James I, sententious as usual, declared this to be the "most absolute thing in Oxford." The College stands a little apart, outside the old East Gate of the city, so that it required its own battlements and fortifications. Seen from almost any point, the group of buildings, with the magnificent tower, is wonderfully picturesque, and from within the various quads and the gardens the views are even more beautiful. Passing through the gateway one sees to the right, close to the entrance of the Chaplain's Quad, an outdoor pulpit of stone, projecting from the wall. From this pulpit was formerly preached, every year, on St. John the Baptist's day, the University sermon,

while the court below was strewn with rushes and brushwood to commemorate the preaching of the Baptist in the wilderness. After long disuse the custom has lately been partially revived. A little further on is the Founder's Tower, covered with creepers, and under it a doorway leads through a beautiful vault to the cloisters. These are simply perfect. From the north side of the cloisters one may pass out into the gardens, and, over a little bridge, into the water walks—long avenues of great trees, which follow the winding branches of the Cherwell. On a hot summer's day, the shade and the beauties of the scene are delightful beyond description. One of the avenues is known as Addison's Walk, and was the favourite strolling place of the poet. On the other side of the College is the little deer park.

OTHER PLACES NOT TO BE MISSED.

To tear oneself away from Magdalen is not easy, but there are other places which really must be seen, either now or at some future time, during the visit—Merton, coeval with the House of Commons and the earliest of English colleges; University, and All Souls. The gardens of St. John's, with the battlemented garden front of the college, form another picture which cannot be neglected; and one must go also to Worcester College, and stroll down to the lake past the queer little group of huddled buildings, old monastic dwellings, which are the remnants of Gloucester Hall, founded in 1283. If it should happen that one day be wet, as seems not impossible, the visitor may easily console himself. He will find a score of places of indoor resort, in any one of which he may easily spend a few hours. The University Galleries, the Bodleian Library, the Museum, the colleges' libraries, halls, and chapels are open to him; and let him especially not omit to visit the Burne Jones tapestry at Exeter. If he cares for none of these things he may enjoy all the advantages of a large and luxurious club at the Union, which society has hospitably ordered its doors to be opened to the members of the Association, during their visit.

The Cloisters, Magdalen.

OTHER ENTERTAINMENTS.

Thursday evening has already been accounted for. On Tuesday evening the new President, Dr. W. Collier, will deliver his address, and foreign and Colonial representatives will be introduced.

On Wednesday evening there is to be a *conversazione* at the Museum, given by the Vice-Chancellor and members of the University. The Museum is very convenient for such a purpose; there is a great central hall, surrounded by arcaded galleries, and a quite interminable series of side rooms, laboratories, and lecture theatres, in which will be shown many of the latest objects of scientific interest. The permanent collections to be seen in the Museum are also very good and well arranged. The Hope Museum, in one of the galleries, contains an immense collection of insects from all parts of the world, some of the cases specially arranged by Professor Poulton to illustrate his researches on mimicry. There is a pretty little collection of precious stones in the main court, which may also specially be mentioned, and the Pitt-Rivers Anthropological Museum, in an annexe, is unique. It contains a multitude of objects illustrating the evolution of arts, and crafts, and manners, amongst the different races of mankind. Altogether, *soirées* in the Museum, which are not infrequent in Oxford, are invariably very successful.

On Thursday afternoon there will be two garden parties, one given by Dr. and Mrs. Neil, at the Warneford Asylum; and the other by Mr. Morell, M.P., and Mrs. Morell, in their beautiful grounds on Headington Hill, overlooking the towers and spires of the city.

Finally, on Friday evening, the Mayor of Oxford, Mr. E. A. Bevers, M.R.C.S., kindly invites the Association visitors to a reception in the City Buildings.

WOODSTOCK AND BLENHEIM.

On the Friday afternoon there will be a garden party at Blenheim Palace, Woodstock, the magnificent home of the Duke and Duchess of Marlborough. In the time of the Norman kings Woodstock was a favourite royal demesne, and a great hunting place. Henry I built a high wall, seven miles in circumference, round the park, where, "beside great store of deer, he appointed divers strange beasts to be kept and nourished, which were brought and sent to him from foreign countries far distant, as lions, leopards, lynxes, and porcupines." Here, too, was the maze in which Henry II secreted Fair Rosamund, whose story is certainly not altogether a myth, for there is evidence in old manuscripts, still preserved at Woodstock, that the King came thither to visit at the Manor House a lady whose name was Rosamund. Probably, however, the dagger and poison incident was added to the story by a later inventive narrator, and Rosamund really died in a less romantic manner, but in the odour of sanctity as a nun in the convent at Godstowe, the ruins of which are now occupied by cattle sheds and other farm buildings. Rosamund's well can still be seen near the reputed site of the maze.

Woodstock was given by Queen Anne to the conquering John Churchill, Duke of Marlborough, and with the help of half a million of money voted by a grateful Parliament, but never fully paid, was built the Palace of Blenheim, "as a monument of his glorious actions." The architect, Vanbrugh, thereby earned his epitaph from a Don of St. John's College:

> Under this stone, reader, survey
> Dead Sir John Vanbrugh's house of clay.
> Lie heavy on him, earth, for he
> Laid many a heavy load on thee.

The Palace is heavy, indeed, but splendid. The beautiful park is nine miles round; it abounds with fine old oaks and cedars, and is stocked with deer. The trees were originally planted in groups, so as to form a plan of the arrangement of the forces at the battle of Blenheim, each plantation representing a battalion of soldiers. The lake is a very fine sheet of water, and no one would now imagine that it was artificially formed by digging out a hollow and damming up a little rivulet. With the gardens, it testifies to the powers of the celebrated landscape gardener, "Capability Brown." The

gardens are wonderful, and contain many rare trees and shrubs. There are to be seen a Temple of Health, erected on the recovery of George III from his illness, and an Ionic Temple of Diana. There is an artificial waterfall, and a fountain copied from that in the Piazza Navona at Rome. Almost everything is artificial, but the work was so skilfully done originally, and the lapse of 150 years has been of so much assistance, that there are no glaring incongruities, and the whole seems harmonious and natural. Antiquarians will find interest in two old houses in the Park—one the High Lodge, which was the residence of the notorious Earl of Rochester, Ranger of Woodstock in the time of Charles II, and the other the reputed home of Chaucer. The majority of the renowned collection of pictures in the Palace were sold by the late Duke, but some fine portraits still remain.

Wadham Gardens.

The River.

The river is one of the greatest attractions of Oxford, and a fleet of crafts of all sorts is ready for hire. The stream below Folly Bridge is called the Lower River, while the reaches to the north of the city go by the name of the Upper River; in addition there is the more secluded Cherwell, which winds through the Parks and Magdalen meadows to join the main stream amongst the college barges. If any one is tired of punting and interested in natural history let him take a punt at Folly Bridge and turn aside into the Cherwell, here he will find delicious shade and peace to his heart's content.

St. John's College.

Small steamers will ply daily on the Lower River, taking visitors to Iffley and to the woods of Nuneham, a favourite place for picnics; it is expected, too, that a boat-race will be arranged.

A cricket match and golf match are contemplated, and lawn tennis and croquet will be available for the visitors.

It is thus probable that the desires of all, whether they aim at scientific improvement or a pleasant holiday or both, have good chance of satisfaction. If any of the members have not seen Oxford before they have a rare pleasure in prospect, a pleasure of which no idea can be given by any written description of the place. Forty years ago a celebrated American man of letters was wise enough to omit all such description. "I take leave of Oxford," he says, "without even an attempt to describe it, there being no literary faculty attainable or conceivable by me which can avail to put it adequately or even tolerably on paper."

Saturday Excursions.

The Excursions Committee, in view of the fact that Oxford itself contains so much of interest, much more than can possibly be exhausted in five days, has not drawn up any elaborate scheme of excursions for the Saturday. Few people, it is presumed, would wish for a journey in a hot and crowded railway-train, in order to visit places less pleasant than that in which they already find themselves. However, one very attractive excursion has been arranged, which will especially appeal to those who are leaving, for home or further travel, by the Great Western Railway, in a northerly direction. This is to Leamington and Warwick. Leamington, named since Queen Victoria's visit in 1838 "Royal Leamington Spa," is a very pleasant place, and its mineral waters are of long-standing repute. Camden mentions them in 1586, and Dugdale, in the *Antiquities of Warwick*, published in 1656 tells us that "there is a spring of salt water, whereof the inhabitants make much use in seasoning their

meat." Leamington is now, of course, a fashionable watering-place; the pump rooms, the baths, and the gardens beside the River Leam, are excellently arranged, and well worth visiting. The waters contain principally chlorides and sulphates of sodium, calcium, and magnesium, with a minute proportion of oxide of iron. The town is well situated, bright, and clean. The Corporation hospitably invites those who attend the excursion to lunch, and every opportunity will be given to view the spa and the baths. In the afternoon the Countess of Warwick will give a garden party at Warwick Castle. In contrast with modern Leamington, Warwick was "founded by King Cymbeline, in the twilight ages, a thousand years before the mediaeval darkness"; such, at least, is the tradition. The castle is splendid, an ideal mediaeval stronghold, and the view of it, from the Bridge over the Avon, is not easily forgotten.

Visitors who are returning to London may, if they please, travel as far as Henley, or any less distance, by Salter's steamer on the river; and, given a fine day, no better remedy could be found for a possible surfeit of meetings and entertainments. It is a very leisurely, lazy journey, and there is every opportunity for enjoying the peaceful scenery of the Thames.

General Arrangements.

THE seventy-second annual meeting of the British Medical Association will be held at Oxford on Tuesday, Wednesday, Thursday, and Friday, July 26th, 27th, 28th, and 29th, 1904.

President: THOMAS DRYSLWYN GRIFFITHS, M.D.Lond., M.R.C.S., Swansea.

President-elect: WILLIAM COLLIER, M.D., F.R.C.P.Lond., Physician, Radcliffe Infirmary, Oxford, and Litchfield Lecturer in Medicine, University of Oxford.

Chairman of Council: ANDREW CLARK, F.R.C.S., Surgeon to the Middlesex Hospital and Lecturer on the Principles and Practice of Surgery.

Treasurer: EDWARD MARKHAM SKERRITT, M.D., F.R.C.P. Lond., Senior Physician to the Bristol General Hospital; Professor of Medicine, University College, Bristol.

The Reception Room will be arranged in the Examination Schools, High Street.

The General and Representative Meetings will also be held in these Schools.

The general Addresses will be delivered in the Sheldonian Theatre.

An Address in Medicine will be delivered by Sir WILLIAM SELBY CHURCH, Bart., K.C.B., M.D.

An Address in Surgery will be delivered by Sir WILLIAM MACEWEN, M.D., F.R.C.S., LL.D.

A popular lecture will be delivered by Dr. G. BAGOT FERGUSON, F.R.C.S., M.Ch.Oxon., who was President of the British Medical Association when the annual meeting was held in Cheltenham in 1901. The lecture will be given in the Town Hall on Thursday evening, July 28th.

SECTIONS.

The annual meeting this year will comprise 14 Sections as shown in the subjoined list. Except where otherwise stated each Section will meet on Wednesday, July 27th, Thursday, July 28th, and Friday, July 29th, at 10 a.m. on each day and will adjourn at 1 p.m.

The president, vice-president and secretaries of each Section constitute a committee of reference for that Section.

No paper must exceed 15 minutes in reading, and no subsequent speech must exceed 10 minutes.

The text of papers submitted for publication in the BRITISH MEDICAL JOURNAL as part of the report of the Section should represent what is actually read in the Section.

Each author should hand the text of his paper in proper form for publication to one of the honorary secretaries of the Section immediately after its reading, or at the latest at the end of the day's meeting of the Section.

Papers read are the property of the British Medical Association and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL without special permission. Papers cannot be taken as read. If not read they form no part of the proceedings of the Section.

In response to a desire expressed by many members it is proposed to publish in the BRITISH MEDICAL JOURNAL abstracts of papers introducing the special discussions in the several Sections at an earlier date than usual. Such abstracts as have already been received will be found below and it is requested that those who have consented to introduce discussions will forward a corresponding abstract to one of the Honorary Secretaries of the Section in which the discussion is to take place at as early a date as possible.

MEDICINE.

President: WALTER TYRRELL BROOKS, M.B., Oxford. *Vice-Presidents:* PATRICK JOHN CREMEN, M.D., Cork; THEODORE DYKE ACLAND, M.D., London; GUSTAVE SCHORSTEIN, M.B., London. *Honorary Secretaries:* ASHLEY WATSON MACKINTOSH, M.D., 9, Bonaccord Square, Aberdeen; WILLIAM CECIL BOSANQUET, M.D., 117A, Harley Street, W.; WILLIAM ARTHUR PERNOW WATERS, M.B., 99, Holywell, Oxford.

The Committtee of Reference for the Section of Medicine have chosen the following subjects for discussion:

1. The Treatment of Tuberculous Pleural Effusion and Pneumothorax. Introduced by Professor W. Osler, F.R.S., Professor of Medicine in the Johns Hopkins University, Baltimore. Who will be followed by Sir W. Whitla, Professor Finlay, Dr. J. Mitchell Bruce, Dr. A. James, Dr. G. A. Gibson, Dr. Philip, Mr. Stanley Boyd, Dr. J. J. Perkins, and Dr. N. Raw.

2. The Serum Treatmen of Disease. (Joint Discussion with the Section of Pathology.) Introduced by Dr. E. W. Goodall, Medical Superintendent of the Eastern Hospital, N.E., who will be followed by Professor G. Sims Woodhead, Dr. F. F. Caiger, Dr. C. J. Martin, F.R.S., Dr. A. E. Wright, Mr. Cantlie, and Dr. W. Bulloch.

In his introduction of the discussion on the serum treatment of disease, Dr. E. W. Goodall will summarize as shortly as possible the present knowledge of serumtherapeutics, dealing with the subject from the practical point of view. He will refer to all the diseases in which the method has been employed with any measure or expectation of success, and will discuss the question of dosage. He will also consider briefly the use of sera prophylactically.

3. The Treatment of Chronic Renal Disease. Introduced by Dr. W. Hale White, Physician to Guy's Hospital. Who will be followed by Professor v. Noorden, Sir John William Moore, Sir W. Whitla, Dr. Goodhart, Dr. Byrom Bramwell, Professor R. Saundby, Dr. J. Finlayson, Dr. Samuel West, and Dr. J. Rose Bradford, F.R.S.

A paper on the Maternal Heart in Pregnancy, and the Management of Cases in which Pregnancy is Complicated by Disease of the Heart, will be read by Drs. J. Mackenzie, of Burnley, and H. O. Nicholson, of Edinburgh, and will precede the discussion on Serum Treatment.

The time remaining after the discussions will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

SURGERY.

President: HORATIO PERCY SYMONDS, F.R.C.S Edin., Oxford. *Vice-Presidents:* WILLIAM BRUCE CLARKE F.R.C.S., London; RICHARD HY. ANGLIN WHITELOCKE, F.R.C.S., Oxford; WILLIAM FREDERICK BROOK, F.R.C.S., Swansea. *Honorary Secretaries:* HERBERT EDWARD COUNSELL, F.R.C.S., 27, Banbury Road, Oxford; DAVID WALLACE, C.M.G., F.R.C.S.Edin., 11, Rutland Street, Edinburgh.

Special discussions have been arranged to take place on the two following subjects:

1. The Present Aspects of Asepsis and Antisepsis. To be introduced by Professor Watson Cheyne.

2. The Indications for and Methods of Performing Hysterectomy.

In his introduction of the discussion on this subject Professor Bland-Sutton will endeavour to show that the surgery of the uterus has been advanced and placed upon a secure foundation by the fact that the efforts of surgeons made a proper clinical and pathological investigation of its diseases possible.

The subjects will be treated under the following sub-headings:

1. Hysterectomy for malignant disease, such as cancer and decidnoma malignum.

2. Fibroids and sarcomata of the uterus and the value of myomectomy, enucleation, including hysterotomy, and the age-value of the ovary.

3. The relative advantage and disadvantage of supravaginal hysterectomy and panhysterectomy.

4. Removal of the uterus in diffuse adenomyoma, uterine fibrosis, and septic diseases of the endometrium.
5. Hysterectomy for the tubo-uterine (interstitial) variety of tubal pregnancy and in cornual pregnancy.
6. The ethics of hysterectomy.
7. The technique of operations for the removal of the uterus.

OBSTETRICS AND GYNAECOLOGY.

President: FRANCIS HY. CHAMPNEYS, M.D., London. *Vice-Presidents:* Sir ALAN REEVE MANBY, M.V.O., M.D., East Rudham; THOMAS BABINGTON GRIMSDALE, M.B., Liverpool; JOHN CAMPBELL, M.D., Belfast. *Honorary Secretaries:* FRANK GRÉGOIRE PROUDFOOT M.D., 43, St. Giles, Oxford; JOHN SHIELDS FAIRBAIRN, M.B., 60, Wimpole Street, W.

It has been arranged that on Wednesday, July 27th, and Friday, July 29th, the first part of the meeting of this Section will be occupied by a discussion on the following subjects:

1. Wednesday, July 27th.—The Treatment of Accidental Haemorrhage. To be introduced by Sir Arthur V. Macan.
2. Friday, July 29th.—The So-called Ovarian Pain; its Causes and Treatment. To be introduced by Dr. Herman.

STATE MEDICINE.

President: JOHN SCOTT HALDANE, M.D., F.R.S., Oxford. *Vice-Presidents:* THOMAS STEVENSON, M.D., London; INNES GRIFFIN, M.R.C.S., Banbury; ARTHUR NEWSHOLME, M.D., Brighton. *Honorary Secretary:* HAROLD MEREDITH RICHARDS, M.D., Town Hall, Croydon; ARTHUR LATHAM ORMEROD, M.D., Oxford.

The following subjects have been already selected, and it is proposed that as far as possible they shall be taken at the beginning of each of the three days of meeting, and that other subjects should be subsequently discussed as far as time may permit:

July 27th.—Standards of Ventilation. To be introduced by the President and Dr. M. H. Gordon.

July 28th.—The Control of the Milk Supply. To be introduced by Dr. Geo. Newman.

Dr. Newman, in the paper by which he will introduce the discussion on this subject, deals in the first place with the reasons why it is necessary to exercise a strict control of the milk supply. He then discusses the various methods of control to be exercised by the State and by the milk trade, in addition to various subsidiary considerations such as means of transit, supervision of milkshops, etc.

July 29th. Poverty and Public Health. To be introduced by a paper on Pauperization by Mrs. Bosanquet and a paper on Alcohol by Mr. T. P. Whittaker, M.P.

Dr. McCleary will read a paper on the Influence of Antenatal Conditions on Infantile Mortality.

The following subjects are suggested as suitable for papers:

Physical Degeneration.
Direct Infection in Enteric Fever.
The Teaching of Hygiene in Elementary Schools.
The Causes of Infantile Mortality.
Tramps and Disease.
The Application of Statistical Methods to Public Health Problems.
Return Cases of Scarlet Fever and Diphtheria.
The Supervision of Houses let in Lodgings.
The Administrative Control of Diphtheria.

Subsection of Forensic Medicine.

On July 27th there will be a meeting of the Forensic Medicine Subsection, over which Dr. Stevenson will preside. The Provisional Programme is as follows:

Name.	Subject.
Dr. Waldo	(Title to follow).
Dr. Graham Smith	Blood Tests (probably).
Dr. Welbeck	Arsenic.
Dr. H. Littlejohn	Wounds of the Throat.
Dr. F. Smith	Civil Responsibility of the Insane

PSYCHOLOGICAL MEDICINE.

President: CHARLES ARTHUR MERCIER, M.D., London. *Vice-Presidents:* ERNEST WILLIAM WHITE, M.B., Dartford; JAMES NEIL, M.D., Oxford; THOMAS SEYMOUR TUKE, M.B., London. *Honorary Secretaries:* WM. LOGIE ROBERTSON, M.D., 7, Hill Square, Edinburgh; REGINALD LANGDON LANGDON-DOWNS, M.B., 47, Welbeck Street, W.

The following subjects have already been selected for discussion by the Committee of Reference:

Wednesday, July 27th.—Criminal Responsibility and Degeneracy. To be introduced by Dr. Charles A. Mercier. Dr. Max Nordau will take part in the discussion.

Thursday, July 28th.—Heredity. To be introduced by Dr. J. Beard (Biological Aspect) and Medizinalrath Dr. W. König, Dalldorf Asylum, Berlin (Psychiatrical Aspect).

The following is a general account of Dr. Beard's paper on Heredity.

The phenomena of heredity and genetic variation are germinal in nature and in the sense of a handing-on of anything there is no such thing as heredity. The individual is merely a lateral and terminal offshoot of a morphologically continuous chain of germ cells. In the higher animals direct development, epigenesis, and a somatic origin of germ-cells do not exist. The recapitulation theory, according to which every animal in the course of its development "climbs its own genealogical tree," is merely an illusion of the imagination and without any basis in fact. The mode of development is not "egg—embryo—egg—embryo, etc.," but in a mammal or a man it is "egg—a sexual generation (chorion)—primary germ-cells—secondary germ-cells (oogonia, etc.)—oöcytes, etc. gametes (eggs and sperms), "the embryo" arising by the unfolding of one primary germ-cell. The formation of an embryo is a mere incident in a certain chain of phenomena. The phenomena, however, to which the term heredity is applied, have their basis in certain facts of embryology. Given in any life-history the period of the formation of the primary germ-cells, and for simplicity let there be of these but two, AB and BA. On one will fall the lot of developing into an embryo, while the other will furnish the sexual products of this. The two cells are in all respects similar or equivalent, so much so that if both form embryos these are identical twins. In the ancestry neither cell had ever been a higher animal, neither they nor their ancestors had ever formed parts, that is to say, been somatic cells, of an animal body. But this ancestry is continuous with a long line of germ-cells, and at regular intervals these were exactly like certain sister-cells, which did develop and form individuals. Although one of the two, AB, does not itself give rise to an embryo, in the meantime it retains for itself and for all its immediate progeny the properties of BA, those characters, which, were it or any of its progeny to develop, would make it or them identical twins with BA, the other cell, which did develop. But the foregoing takes no account of two things: that the conjugation of two germ-cells at fertilization is the joining-together, loose and without blending, of two complete sets of potential characters, of two individualities, and that as living entities the germ-cells like all living things must be influenced by and react to their total environment. This introduces the important factor of genetic variation.

As Wallace has said, the foundation of the Darwinian theory is the variability of species. It does not attempt to explain the cause of variation, but starts from the fact of its existence. Under this theory resulting from the struggle for existence there is a survival of the fittest. The only adequate cause of genetic variation yet suggested is Weismann's germinal selection. This is purely a mental concept, in its nature it is very complicated, and being quite without connexion with any known phenomenon or epoch of the development, it hangs entirely in the air. As defined by Weismann, the process would furnish a very great variety of gametes or conjugating cells, and these would be so varied in their characters or qualities that the resemblances rather than the differences among the progeny would require explanation. The problem of the true cause of variation belongs to embryology. For various reasons each and every egg or sperm must be regarded as containing one complete set of all the characters or qualities necessary to form an individual of the species. At fertilization two sets of these are somewhat loosely joined together. In the developing embryo only one complete set of characters is made use of, and while the other corresponding qualities remain more or less dormant in its cells, that set or pack actually employed may be made up of any characters taken from either of the two packs, but so as to make up one complete pack. Turning then to the germ-cells, each of these possesses the duplicated set, and later on at the so-called "reduction" that is, at the final division of the oogonia into oöcytes, and of the spermatogonia into spermatocytes, prior to the formation of conjugating cells or gametes, the twofold set becomes diminished to one pack only by the elimination of one complete pack. The true meaning of the reduction of chromosomes is the elimination of one set of characters or qualities, such that if among those of the original

sets there be any unsuitable ones these are rejected. The union of two sets of characters at conjugation is in animals retained by the germ-cells, until the period of the reduction, by the embryonic cell, until the commencement of its development, when it becomes latent, and in plants during the whole life-period of the flowering plant (sporophyte). The two sets cannot be identical at the start. As living entities they must be influenced by the total environment, nutrition, climate, disease, toxins, etc. To all these influences they will react. The effect of all the factors will be a different one on the differently-constituted characters. Some it will favour, and these will flourish and increase in import. Others will be unfavourably influenced or neglected, and these will diminish. At the reduction there will be a settling-up, and if the environment have not been a constant one, some of the characters will have become better than other corresponding ones, a new pack will be chosen, and the less favourable characters rejected. This elimination of characters may on occasion become an elimination of complete individualities, or what is the same thing as a casting out of "ancestors." Moreover, because the two sets have been conjoined under the influences of the environment, and have reacted to this, the process becomes a self-adjusting mechanism, the up and down oscillations of the characters of the two sets endeavouring to follow and compensate the changes in the environment, and the result must be variation. This process may be defined as germinal election and elimination in adaptation to the environment. The Darwinian theory is undoubtedly largely based upon the analogy of artificial selection. Nature is supposed by natural selection, resulting from the struggle for existence, to eliminate all the unsuitable individuals, and thereby to select those for the continuance of the race which are most or more suitable for the environment. Even if she did this its results would be as nothing compared with those of germinal election of fit and elimination of unsuitable characters, which at its basis is also a weeding out of unsuitable individualities. A selection of individuals can give no certain results for either natural or artificial selection. Nature goes to the root of the matter, she makes no selection of individuals, for about these she cares nothing. She can exert her choice, and she does it among the germ cells, and not merely in these, but among the characters or qualities the germ-cells possess. In this it would be futile to attempt to bind her down by cast-iron laws of inheritance, to dictate that "the average contribution" of a father should be so much, of a grandfather so much, and so on. This may hold good in cases, but only with a constant environment. When the latter obtain, if all the characters or qualities be equally good, then, as in the Mendelian experiments in intercrossing peas, the election and elimination may be left to the mathematical laws of probability; they may be taken apparently at random, and in this way it may become possible to speak of sexual reproduction as sometimes an "amphimixis" or mingling of characters, and to set up laws of inheritance by average contribution. With a constant environment, or with what is assumed to be such, man first rejects (individuals of) certain varieties, and in this way favours (individuals of) some particular variety. By closely intercrossing these he accentuates particular points, because, of course, even in the characters of germ cells suited to a particular environment there may be degrees. In this man takes a course the reverse of that adopted by Nature. Her method may be slower, but it is sure. When she causes variation, she initiates it by altering the environment. While some one or more varieties of a species may be able to adapt themselves to the new conditions others will fail in this, and these will be eliminated either as individuals, or, even if fertile with the favourable variety or varieties, then by germinal elimination. Germinal election and elimination appear to offer adequate and simple explanations of all the phenomena—at any rate, the author has encountered no real difficulties. They throw light upon the Mendelian cases of intercrossing peas, etc., on mimicry, protective coloration, bud variation, and the loss of organs, such as the hind limb of the Greenland whale, for which latter cases Weismann found it necessary to call in a new principle—that of "panmixie," or the cessation of natural selection. They explain why the giraffe, for example, has a long neck; this is not because, as the Lamarckians assert, it was in the habit of stretching its neck, the effects of this being handed on by the inheritance of acquired characters; and again, not because, as the Darwinians maintain, by natural selection Nature picked out those individuals whose necks tended to be long, and destroyed those with shorter necks; but simply because Nature eliminated in the germ-cells those characters which tended to the production of a short neck, while she fostered those other characters of the other parental line, which tended to the formation of a longer neck, and she increased the value of these characters from generation to generation. The principle resulting in the self-regulating mechanism offers a simple construction of all the phenomena of variation, an ultimate and a far more natural one than "natural selection" or the "germinal selection" of Weismann. Indeed, under it there is no necessity to invoke these: by germinal election and elimination their positions are completely and decisively outflanked and rendered untenable.

Under the views here advanced the words "parent," "ancestor," "offspring," and "reversion" become meaningless. In the same way any "appeal to ancestry" (Weldon) is barred by the non-existence of any "ancestors" to appeal to. In the union of egg and sperm we witness the joining together of but two sets of characters and not that of "x" sets, derived from as many "ancestors." In the development of the individual only one of these becomes manifest, but the other may reappear in the gametes. As in the reproduction of dioecious individuals these unite with the gametes of other individuals, in this union *a priori* there would be for any particular character four possibilities. To illustrate this, take the four grandparents, and consider only one character in the gamete of each. Assume, further, that in the two following generations there be no complete elimination of any character and that this reappear in some of the gametes. The characters may be called A, b, C, d, the first two being conjoined in the germ cells of the father, the second two in those of the mother, and the large letters being dominant or prepotent. In the gametes of the parents the representative of this character may be either the dominant one or the latent one. That is to say, any particular gamete may contain any one of the four characters, A, b, C, d, and suppose then that b and C be conjoined to form the grandchild and that C be dominant in it, its gametes will then contain either character b or character C. Therefore, if this character b unite with another e, and if in the development b be the dominant one, the result will give the appearance of a "reversion" to the grandparent b, after a dormancy through two generations. But there is no room for more "ancestors." Similarly, such a latency may extend over more generations. Much attention is being devoted to the statistical study of variation, in the hope of increasing our knowledge of heredity. Such investigations to be of value should include all the essential factors. But in none of the published investigations is due heed given to the influence of the environment. For the modern biometrician as a factor worthy of consideration it might be non-existent; he attaches as little weight to its influence as he does to the importance of making any distinction between somatic and genetic variations. In his published researches he ignores the effects of the environment, and slumps somatic and genetic variations together!

The environment is all-powerful for the individual and for the germ-cells too! A constant environment induces no change, and thus permits of the operation of the mathematical laws of probability in the selection and elimination of characters. A bad environment, leading to the mating of the unfit with the unfit, and in this way to the selection of the unsuitable, not in the individuals but among the characters or qualities of the germ-cells, can but result in deterioration and physical, mental, and moral degeneration. Finally, a good and favourable environment, with an approach at complete adaptation to it on the parts of the individuals and of the germ-cells, must be the prime cause of advance, and with this of the ever greater and greater improvement of the stock.[1]

Friday, July 29th.—Dementia Praecox. To be introduced by Dr. Conolly Norman.

Other Business of the Section.

The time remaining after the discussion on each morning will be devoted to the reading of such papers as may have been selected by the Committee of Reference.

On each day there will be one or more microscopical demonstrations upon subjects connected with the pathology of insanity. Any member wishing to contribute to this part of the work of the Section is requested to communicate with one of the Honorary Secretaries without delay, in order that

[1] For fuller information the reader should consult: J. Beard, A Morphological Continuity of Germ-cells as the Basis of Heredity and Variation, in *Review of Neurology and Psychiatry*, vol. ii, 1904; and W. Ford Robertson, The Pathology of Chronic Alcoholism, in *British Journal of Inebriety*, April, 1904.

the necessary arrangements may be made regarding the provision of the number of microscopes required.

Pathology.

President: James Ritchie, M.D., Oxford. *Vice-Presidents:* Humphry Davy Rolleston, M.D., London; Professor James Lorrain Smith, M.D., Belfast; William Bulloch, M.D., London. *Honorary Secretaries:* Stuart McDonald, M.B., F.R.C.P., 40, Marchmont Road, Edinburgh; Ernest William Ainley Walker, M.D., University College, Oxford.

Each meeting will be occupied chiefly by a discussion on a subject arranged. The discussion will begin with the reading of set papers (by persons who have worked at the subject) bearing on particular portions of the subject and correlated to the whole. The discussion will then be thrown open to all speakers who desire to take part, not excluding those who have read papers on the subject.

The first discussion is upon Immunity; it will be opened by the President (Dr. Ritchie), who will discuss the broad physiological aspects of the question. Professor Wassermann (Berlin) and Dr. Madsen (Copenhagen) will read papers (Professors Ehrlich and Bordet cannot come). Professor Wright's paper will deal specially with Opsinines and his own special views upon immunity. Professor Muir will treat specially of Haemolytic Sera in Relation to Immunity; Professor C. J. Martin specially of Snake Venoms in Relation to Immunity; Dr. Bulloch specially of the Cellular Aspects of Immunity.

The second discussion is on the Rôle of the Lymphocyte. Dr. Lovell Gulland and Professor Muir will deal with the Origin and Development of the Lymphocyte. Dr. J. H. Drysdale will discuss the Clinical Significance of Lymphocytosis and its relation to Special Pathological Conditions, and Dr. Beattie the Relation of the Lymphocyte to Inflammation; Dr. Whitfield, the Relation to Inflammation and to Skin Diseases; Dr. Houston (Belfast), its Relation to Leucocythaemia; Dr. C. Melland (Manchester), the same; Dr. A. Ferguson (Glasgow), its Relation to Small-pox; Dr. W. J. MacCallum (Johns Hopkins University), its Relation to Typhoid Fever Lesions; Dr. Gillman Moorhead (Dublin), its Relation to Typhoid Fever; Dr. Mott, its Relation to Pathological Changes in the Central Nervous System.

The third discussion is on the Chemical Pathology of Gout. It will be opened by Professor von Noorden, and there will be papers by Dr. A. Garrod, Dr. Smith-Jerome, Dr. Walker Hall, and Dr. W. Bain.

Physiology.

President: Professor Francis Gotch, M.R.C.S., F.R.S., Oxford. *Vice-Presidents:* Professor William Hy. Thompson, M.D., Dublin; Marcus Seymour Pembrey, M.D., London. *Honorary Secretaries:* Walter Ramsden, M.D., Pembroke College, Oxford; Horace Middleton Vernon, M.D., 3, Bevington Road, Oxford.

The following subjects have been selected for discussion:

July 27th.—Colour Vision. To be introduced by Professor Francis Gotch.

July 28th (jointly with the Section of Anatomy). The Thalamic Region. To be introduced by Dr. Gustav Mann.

July 29th.—Chloroform Anaesthesia. To be introduced by Sir Victor Horsley, Professor Sherrington and Dr. C. J. Martin will take part in the discussion.

The proceedings will also include papers and demonstrations on other physiological subjects. The following have already been arranged:

1. Dr. A. P. Beddard and E. J. Spriggs: Some Points in the Metabolism of Diabetes with Reference to Present-day Treatment.

2. Dr. A. P. Beddard: Subcutaneous and Intravenous Injection of Saline Purgatives.

3. Dr. A. E. Boycott: Observations upon the Respiration of Intestinal Worms.

It is proposed also to hold an exhibition of apparatus and [illegible] Intending exhibitors should communicate with the Honorary Secretaries, Physiological Laboratory, University Museum, Oxford, by July 21st, and should be accompanied by a short description.

Anatomy.

President: Professor Arthur Thomson, M.D., Oxford. *Vice-Presidents:* Professor Isaac Stevenson, M.D., F.R.S., Belfast; Professor George Hewer, M.B., Newcastle-on-Tyne; Thomas H. Bryce, M.D., Glasgow. *Honorary Secretaries:* William Wright, F.R.C.S., The University, Birmingham; Gustav Mann, M.D., the University Museum, Oxford.

The meetings of this Section will be held on July 27th and 28th.

Special discussions for these dates have been arranged on the two following subjects:

1. Giants and Dwarfs. To be introduced by Professors Cunningham and Windle.

2. The Thalamic Region (jointly with the Section of Physiology). To be introduced by Dr. Gustav Mann and Sir Victor Horsley.

Any member who desires to exhibit anatomical or histological preparations, or any apparatus, is requested to send it, accompanied by a short description, to Dr. Gustav Mann, the University Museum, Oxford, on or before July 20th, in order that all necessary arrangements may be made.

Ophthalmology.

President: Robert Walter Doyne, F.R.C.S., London. *Vice-Presidents:* George Edward Wherry, F.R.C.S., Cambridge; Cyril Hutchinson Walker, F.R.C.S., Bristol; Fergus Menteith Ogilvie, F.R.C.S., Oxford. *Honorary Secretaries:* Sydney Stephenson, F.R.C.S.Edin., 33, Welbeck Street, W.; Frank Griffith Thomas, M.B., 2, Brunswick Place, Swansea.

Retro-ocular Neuritis.

Mr. Marcus Gunn will open a discussion on Retro-ocular Neuritis based upon the following sketch. The term retro-ocular or retro-bulbar neuritis is used to indicate cases that show evidence of the optic nerve being impaired by an inflammatory affection, which exerts its chief influence behind the papilla. The evidence is, as a rule, entirely clinical, and the diagnosis, for a time, may rest solely on the subjective symptoms. But ophthalmoscopic changes come to our aid, either early in the affection by the neuritis invading the papilla, or after the lapse of some weeks by the optic disc becoming pale. In exceptional cases only do opportunities occur of examining the affected nerve, and then nearly always long after the inflammatory stage has passed away.

Put very broadly, this discussion is open to a consideration of all cases in which there is evidence of the optic nerve being inflamed, apart from such as are generally recognized and classed as papillitis. But we are confronted by two questions: (1) How are we to recognize a neuritis when the papilla presents a normal aspect? (2) How are we to differentiate between retro-ocular neuritis involving the papilla, and a pure papillitis occurring without evidence of intracranial or other disease calculated to produce it? The reply must be that we are now dealing with a well recognized clinical group of cases, associated with certain definite subjective symptoms, namely, rapid failure of vision, particularly affecting the macular area, often in one eye only, usually accompanied by pain and tenderness in the orbit. The other chief clinical characters consist in impaired pupil reaction to light, an absence of early ophthalmoscopic changes, and a tendency to recovery. It is not denied that slighter or anomalous forms of retro-ocular neuritis may occur without these symptoms, and any evidence of the occurrence of such forms will be valuable. There is no doubt that, occasionally at any rate, an optic neuritis descends, for example, from an anterior basal meningitis involving the papillae finally. In its earlier course this is truly a retro-ocular neuritis, but its local intensity behind the papilla is never, so far as I am aware sufficient to produce the usual subjective symptoms, and we rightly class this optic nerve affection as a papillitis.

In rare cases of retro-ocular neuritis there is complete blindness for a time, while in others the loss, instead of being central, affects other parts of the visual field.

Very similar symptoms occasionally occur in central retinal affections, and the differential diagnosis is often difficult during the early stages. In such conditions the prominent symptom is central visual failure in one eye, and at first there are no definite ophthalmoscopic changes, so that there is considerable similarity between these cases and retro-ocular neuritis. The chief distinguishing feature in the retinal cases is the absence of associated pain, there is also sometimes micropsia, or a positive scotoma, with a history of recent exposure to excessive light. We do not usually get the late pallor of the optic disc, but frequently find oedema and round pale yellow spots in the macular region.

In the early stages, so long as our diagnosis rests merely on subjective symptoms, retro-ocular neuritis is liable to be con-

fused with functional amblyopia, but a careful examination of the character of the reaction of the pupil to light should always serve to distinguish between them. The reaction is invariably impaired when there is decided amblyopia from neuritis, while it remains normal in cases of functional origin.

Failure of Vision.—The amount of amblyopia varies very much in different cases. There may be absolute blindness for a time in the most severe form. On the other hand, occasionally complaint is made of recent visual failure, even though the acuity is ⅚. In the latter very slight cases the test-letters are read slowly and with difficulty, the patient stating that there seems to be a mist obscuring their outline; this is particularly evident on comparison with the other eye, for these slight forms are practically always uniocular. A relative colour scotoma at or near the fixation point can, I believe, always be found in these mild cases.

Visual acuity in retro-ocular neuritis is worse in a very bright light, and excessive light leads to further temporary deterioration, probably from the physiological degeneration so induced in the ill-nourished axis cylinders. Occasionally complaint is made of seeing objects as through a moving haze, like that seen on a sunny day near the ground. This may possibly be explained by imperfect insulation of the axis cylinders, from breaking down of their medullary sheaths, a change which is known to occur early in retro-ocular neuritis. Or, it may be that this shimmering effect is due to the fact that the affected axis cylinders, though able to conduct momentarily, are rapidly exhausted; the alternate action and loss of function of contiguous fibres, as they are earlier or later exhausted, may thus lead to confused perception and an apparent movement from the irregularity of the visual stimuli transmitted and received.

The light sense is markedly deficient. This is presumably to be accounted for by the imperfect and irregular conductivity of neighbouring fibres, so that the difference in the impression obtained by the visual centre is no longer dependent on the amount of stimulus, but largely and irregularly on the differences in the conducting power of individual fibres.

One of the distinguishing features of retro-ocular neuritis is the rapidity of the visual failure. This is in contrast with the length of time that a papillitis may exist without the nerve function being affected, and with the usually gradual failure when it does occur in the latter. The visual failure in retro-ocular neuritis very frequently takes the form of an absolute central scotoma, surrounded by an area in which the colours red and green are recognized imperfectly or not at all. This visual loss is due undoubtedly to interference with the conducting efficiency of the macular fibres. These fibres form a well-marked bundle, which occupies the outer part of the nerve at first, but quickly approaches the centre as they ascend in the nerve trunk, so that they soon reach a median position, which they maintain in the rest of their course to the chiasma. Their peculiar proneness to suffer in this affection, although occupying the central part of the nerve trunk, as just mentioned, will be discussed, and an explanation suggested and invited.

Lastly, there is much more tendency to recovery, even in severe forms of retro-ocular neuritis, than would be expected, judging from our experience of other optic nerve lesions. At the same time there are exceptional cases in which no recovery takes place, and others where there is a liability to recurrence so that ultimately the visual result is disappointing.

The relation of age, sex, etiology, etc., to the prognosis will be considered at some length, and facts bearing upon this will be much appreciated.

As already mentioned, the ophthalmoscopic evidence of neuritis may not be present until late in the attack. When the papilla is inflamed early it indicates that the affected area of nerve is close to the scleral opening. Not infrequently the vision has already begun to improve before the papilla is involved. In a considerable number of cases the first ophthalmoscopic change is a consecutive pallor, occurring some weeks after the beginning of the attack, and often present even when the visual recovery is quite satisfactory. The amount of pallor that may coincide with practically perfect vision after a retro-ocular neuritis is very remarkable, and its nature deserves our consideration.

The etiology of retro-ocular neuritis is often obscure. This subject will be considered under three headings, namely:

1. Inflammation communicated to the nerve from neighbouring structures (for example, from cellulitis or periostitis in the orbit).

2. Nerve affected by a local manifestation of a general disease (for example, in syphilis and in tuberculosis).

3. Neuritis of toxic origin (for example, in connexion with influenza).

Toxic amblyopias proper, as from tobacco, will not be considered in this discussion, except such forms as show evidence of actual neuritis.

The association between retro-ocular neuritis and insular sclerosis will be considered at some length.

A short account will be given of the pathological changes met with in retro-ocular neuritis, and it is hoped that microscopical preparations may be exhibited at the meeting.

Intraocular Haemorrhage.

The following are notes of the paper by which Dr. Hill Griffith will open the discussion on Intraocular Haemorrhage and Systemic Disease. Primary intraocular haemorrhage appears to be rather infrequent; among 6,500 consecutive private patients I found only 33 examples, a proportion of 0.5 per cent., all in the retina or vitreous. I have never seen spontaneous haemorrhage into the anterior chamber, nor have I seen, as far as I know, choroidal haemorrhage apart from staphyloma posticum, choroiditis, and growths. I have records of 44 hospital cases, which must be only a very small proportion of what I have seen. These 77 cases may be classed as follows: Retinal haemorrhages, 34; haemorrhagic retinitis, 23; subhyaloid haemorrhages, 12; haemorrhage into vitreous, 8; total 77. As the result of an ophthalmoscopic examination of some 500 cases of all kinds in the medical wards of the Royal Infirmary, which I was enabled to undertake by the kindness of my colleagues, I found retinal haemorrhages in 12 patients only, or only 2.4 per cent. Nature appears to be very well able to safeguard the eye even in grave disorders of the general circulation, but against changes in the blood she is not so efficient.

Keratitis Profunda.

A discussion on Keratitis Profunda will be opened by Mr. W. T. Holmes Spicer by a paper of which the following is an abstract:

Many cases of interstitial keratitis are met with in which no trace nor history of syphilis, congenital or acquired, can be obtained. For such the term deep keratitis or keratitis profunda is a convenient one; in broad features they resemble greatly interstitial keratitis.

The cases may be arranged in three groups:

1. Those in which the corneal change is central.

2. Those in which the corneal change starts at the periphery.

3. Those characterized by deposits on the back of the cornea (keratitis punctata) in which the actual change in the cornea appears to be secondary.

1. In the first group, a grey disc of opacity appears in the centre of the cornea with fairly defined edges; the surface of the cornea over it is oedematous, and frequently covered with many large blebs, due to epithelial changes. The opaque disc is in the deepest part of the cornea, and in the earliest stage is often made up of striated lines radiating from the centre, or arranged almost vertically. After a few days the striation gives way to a uniform grey haze. If a few drops of fluorescein of the ordinary strength be placed in the conjunctival sac and allowed to remain there, the central disc takes on a bright green stain, the surface of the cornea not staining. The seat of the stain is probably the endothelium. The central disc is sometimes less dense at its centre, so that the appearance is that of a ring of opacity surrounding a comparatively clear centre. In other cases the central disc is surrounded by a separate opaque ring made up of coalesced maculae.

2. In the second group the opacity begins at the periphery of the cornea, and consists of a grey cone advancing slowly across the cornea; the striation of the posterior surface is here often visible, the lines running directly towards the centre of the cornea. The surface is oedematous and frequently has many small epithelial vesicles on it. A growth of vessels frequently invades the cornea, running in the same direction as the striated lines. In the peripheral form staining by fluorescein of the endothelium is less easily obtained.

In both groups there is ciliary congestion of dusky character, some pain and photophobia, and great impairment of vision. There is generally some uveitis present, either posterior synechiae or deposit on the back of the cornea—keratitis punctata.

3. The third group is that in which the keratitis punctata is for long the most marked feature; the corneal opacity appears

later; in some cases a fine punctate staining can be obtained by fluorescein. In some cases, probably tuberculous, there are nodular deposits in the angle of the anterior chamber.

Deep keratitis occurs generally in older people than those subject to the interstitial keratitis of congenital syphilis, and commonly only one eye is affected; its course is slow, and considerable opacities may be left behind, especially in the aged.

Causes. Deep keratitis occurs frequently with disorder of the gastro-intestinal tract—indigestion, overfeeding, constipation, chronic diarrhoea or dysentery, uterine disorders, alleged rheumatism and gout.

The local treatment is hot fomentation and atropine, with leeches in severe cases; subconjunctival injections are useless, and sometimes harmful. The underlying cause must be treated.

Pathology.—Where the central disc is the prominent feature the earliest pathological change is an endothelial one, as shown by the deep staining of the cornea by fluorescein; the appearance of the opacity in the substance of the cornea is a subsequent one, dependent on the loss of endothelium, the latter acting as a protection to the back of the cornea against the action of the aqueous. The striation of the cornea is due to folds or wrinkles in Descemet's membrane; the whole cornea is oedematous, the surface being markedly so, the epithelial cells and spaces between them being distended with fluid and frequently forming vesicles on the surface.

The underlying cause is probably a vascular one, an arterial ischaemia due to disease of the long ciliary arteries, or a venous congestion due to blocking of the venae vorticosae, the experiments of Wagenmann of cutting the long ciliary arteries, those of Koster of ligaturing the venae vorticosae, and those of v. Hippel resulted in the production of well-marked parenchymatous keratitis.

As far as possible investigation by the ophthalmoscope of the anterior part of the choroid has been carried out, but without result; the changes, if there be any, lie too far forward to be visible.

It is suggested to those taking part in these discussions that it would be advisable to condense their remarks and to present them to the meeting in the form of a short paper, lest discussions should absorb an undue share of the time allowed by the rules of the Association to each speaker. The difficulty of compressing into a ten minutes' speech observations upon a subject that has taken up much thought and research need not be dwelt upon. There is little doubt, moreover, that the time-limit will have to be strictly observed, in order to give all who desire to do so an opportunity of speaking.

The following gentlemen have expressed their willingness to read papers:

1. Short Note on Two Cases of Disease of the Canaliculi. Dr. A. H. Benson.

2. (*a*) On Glaucoma and Glaucoma Operations. (*b*) On Visual Efficiency after Accidents to Sight from the Point of View of Employers' Liability. Dr. G. A. Berry.

3. The Operative Treatment of High Myopia. Mr. W. Adams Frost.

4. Reforms in the Notation of the Acuteness of Vision. Dr. Emile Javal, Paris.

5. (Title not yet announced.) Mr. W. H. H. Jessop.

6. Sympathetic and Intraocular Inflammations. Mr. W. Lang.

7. The Temperature of the Cornea and its Relation to Corneal Transparency. Dr. Angus McGillivray.

8. Upon the Maturation and Extraction of Senile Cataract. Professor M. Mc Hardy.

9. Contributions as to the Vision of Birds based upon a Consideration of Muscular Colour and Pattern in Insects. Professor Poulton, F.R.S.

10. Visual Acuity in Savage Races. Dr. W. H. R. Rivers.

11. (A subject bearing upon Glaucoma.) Mr. Priestley Smith.

12. Ophthalmoplegia Externa. Dr. James Taylor.

13. Paracentesis of the Cornea for the Relief of Tension Consequent upon Tearing Opaque Capsule. Mr. T. Pridgin Teale.

The following gentlemen have already intimated their intention of being present at the meeting, and those whose names are marked with an asterisk intend taking part in the discussions:

Mr. A. H. Benson	Mr. E. E. Maddox
Mr. G. A. Berry*	Mr. A. McGillivray
Mr. T. H. Bickerton*	Professor M. Mc Hardy*
Mr. W. A. Bradley*	Mr. L. Nettleship
Mr. A. Bremner*	Mr. F. M. Ogilvie
Mr. L. V. Cargill	Professor Poulton
Sir William J. Collins*	Mr. H. Power
Sir Anderson Critchett*	Mr. A. M. Ramsay
Mr. R. Cross	Dr. W. H. R. Rivers
Mr. W. A. Frost*	Mr. A. Q. Silcock
Mr. C. E. Glascott	Mr. P. Smith
Mr. A. H. Griffith*	Mr. W. T. H. Spicer
Mr. R. M. Gunn*	Mr. H. R. Swanzy
Mr. G. Hartridge*	Dr. James Taylor
Dr. E. Javal	Mr. T. P. Teale
Mr. W. H. H. Jessop	Mr. J. T. Thompson
Mr. H. E. Juler	Mr. John Tweedy
Mr. W. Lang	Mr. C. H. Walker
Mr. J. B. Lawford	Mr. G. Wherry
Mr. G. Mackay*	

Keble College, Oxford, has been returned for the accommodation of members attending the Section of Ophthalmology. There are, however, many arrangements to be made: the number of rooms at the College is limited; and numerous American and foreign guests are expected. It is therefore important that members who propose to attend the Section should notify one of the Honorary Secretaries of their intention.

The time at the disposal of the Section is limited. Consequently those gentlemen only who send in their names beforehand can depend upon being called upon to speak in the discussions. Finally, attention may be directed to the subjects selected for discussion, which offer a wide field for research. It is hoped that gentlemen having charge of, or access to, ophthalmic departments will make efforts to collect data between the present time and the date of the meeting.

Dermatology.

President: Thomas Colcott Fox, M.B., London. *Vice-Presidents:* James Herbert Stowers, M.D., London; James Limont, M.B., Newcastle-on-Tyne; Leslie Roberts, M.D., Liverpool. *Honorary Secretaries:* Ernest Mallam, M.B., 3, Holywell Street, Oxford; Edward Stainer, M.B., 60, Wimpole Street, W.

The following discussions have been arranged:

July 27th. The Treatment of Pruritus Ani. To be introduced by Mr. Malcolm Morris.

July 28th. The comparative value of old and new methods of Treatment of Lupus and other Skin Diseases. To be introduced by Dr. J. H. Sequeira.

July 29th. On the relative importance of the Bacterial and other Factors in the Causation of Skin Diseases. To be introduced by Dr. Arthur Whitfield.

Other papers will be read.

It is proposed to form a collection of recently-executed drawings and photographs of Cutaneous Diseases of interest. Members desiring to contribute to the collection are requested to communicate with the London Secretary.

Laryngology and Otology.

President: Charters James Symonds, M.S., London. *Vice-Presidents:* Frank Marsh, F.R.C.S., Birmingham; Cecil Edward Shaw, M.D., Belfast; Harry Lambert Lack, M.D., London. *Honorary Secretaries:* Walter Johnson Horne, M.D., 27, New Cavendish Street, W.; Edmund Cecil Bevers, M.B., 117, Woodstock Road, Oxford.

The following subjects have been selected for special discussion:

The Treatment of Non-suppurative Disease of the Middle Ear.

Professor Urban Pritchard will introduce the subject on the following lines:

The classification of the conditions included under non-suppurative disease of the middle ear is not yet agreed upon, but for discussion of treatment the following rough divisions will suffice:

1. Acute non-suppurative otitis media.
2. Early stages of chronic non-suppurative catarrh.
3. Advanced stages of the same.
4. Middle ear adhesions the result of former acute inflammation.
5. Sclerosis resulting from disease of the bony capsule

enclosing the internal ear, and forming the inner wall of the tympanic cavity.

1. *Treatment of Acute Non-suppurative Otitis Media.*—In the earliest stages gentle, not forcible, politzerization (not catheterization) will often relieve the pain at once and tend to cut short the attack. Counter-irritation behind the ear is always most valuable, and will often arrest the otitis and relieve the pain. Instillations are occasionally advisable; when used should be strong anodyne solutions (for example, cocaine or morphine) in an antiseptic medium. Glycer acid carbol. has been strongly recommended; also adrenalin with cocaine.

Heat in the form of very hot fomentations, or hot bran bags, is very useful. Leeches in front and below the ear are valuable in very acute cases.

Incision of the membrane is called for when there is marked bulging of the membrane. The meatus must be purified and afterwards dressed antiseptically to avoid suppuration.

Purgatives are nearly always necessary. Phenacetin or antipyrin, etc., may be given to relieve the pain. Pharyngeal treatment is usually required, but nasal douches or irrigations must absolutely be avoided,

After-treatment.—Politzerization should always be employed; will restore the hearing and prevent adhesions. If adenoids are present they must be removed.

2. *Treatment of the Early Stages of Chronic Non-suppurative Catarrh*, in which there is exudation into the mucous membrane and from its surface, hence stenosis of the Eustachian and more or less fluid in the tympanic cavity.

Politzerization is preferable to catheterization. This should be repeated at intervals of one, two, or three days, according to the relief obtained as ascertained by the amount of improvement to hearing. This must not be continued when it increases the deafness.

Incision of the membrana tympani may be practised if there is much fluid in the tympanic cavity, but this is practically a rare condition. The operation should be performed antiseptically.

Local medicinal treatment is most valuable. Sterile alkaline nasal irrigation (for example, borax and sodium bicarbonate) to be preferred to the nasal douche, as the latter occasionally will produce acute otitis. Mild astringent sprays are often beneficial. Inhalations of pine oil, eucalyptus oil, or still better of fumes of ammonium chloride, are most valuable.

Adenoids and also enlarged tonsils, if present, must be operated on; and any nasal stenosis must also be removed, to allow of free nasal breathing.

Internal medicinal treatment is rarely needed, except for general health.

Climatic treatment is important. Damp situations, such as river valleys of gravel with clay subsoil, should be avoided. High, dry, and sunny positions selected. Warm and well-drained seaside resorts are good, whereas cold damp seashores with northern aspects must be avoided. High sunny alpine valleys are often very beneficial; but on rapidly descending from these Valsalva's inflation should be practised. Early and continued treatment of these stages of catarrh is most important, and will often prevent the advanced stages.

3. *Treatment of Advanced Stages of Chronic Middle-ear Catarrh.*—This is much less satisfactory, on account of the adhesions causing retraction of the membrane and fixation of the membrane and ossicles.

Mechanical.—Catheterization is often preferable to politzerization, but the value of courses of repeated inflations has been much overrated. Patients must be warned against the constant recourse to Valsalva's method of inflation; at the same time, cautiously employed it is of value. Gentle suction by means of Delstanche's masseur is occasionally of value, but may easily be overdone. We have yet to learn the value of the rapid suction massage recently introduced. The Eustachian bougie has been overrated. The objections to it use are: First, the risk of injury to the delicate ciliated mucous membrane; the narrow part of the tube being bony it cannot be dilated except at the expense of this mucous membrane; secondly, in advanced cases the loss of hearing power is almost always due to changes in the tympanic cavity and not in the Eustachian tube.

Operations.—All these up to the present have been futile.

Local Medicinal Treatment.—Nasal irrigations of sterile alkaline and saline solutions are of much value. Inhalations of the ammonium chloride fumes, with cautious Valsalva's inflation to introduce them through the Eustachian tubes, form a most valuable treatment, but long-continued use, with intervals of rest, is necessary. Injections through the Eustachian catheter are much employed by some surgeons, and are occasionally of value; probably a sterile solution of sodium bicarbonate is the most efficacious.

Internal Medicinal Treatment.—Occasionally, when the mucous membrane is glazed and dry, small doses of potassium iodide with ammonia, so as to produce slight symptoms of coryza, combined with some form of inflation, will yield excellent results. Turkish baths are of value in some of the less advanced cases.

Climate.—The same holds good as with the early stages of the disease, but has far less effect.

4. The treatment of middle-ear adhesions of old standing is most unsatisfactory. Operative interference has as yet signally failed, though there may be a future for this. In fact, at present these cases only make the surgeon regret that active treatment was not adopted directly after the acute inflammation which resulted in the adhesions.

5. Treatment of sclerosis is still more hopeless, and in a pure case no treatment is of any avail—mechanical, medicinal, operative, and climatic treatments are alike useless. All that we can do is to use such general treatment—for example, iron, arsenic, etc.—as will keep up the general health in the hope that this may help to arrest the disease. We have yet to learn whether the high-frequency electric treatment will yield any results.

In conclusion, although very much may be done in acute otitis and in the early stages of chronic catarrh, yet in the advanced stages of chronic catarrh the aural surgeon can do very little. This is very much to be deplored, as these cases are so very common.

Some of us are too apt to give up the advanced cases at once as quite hopeless, forgetting the fact that even a small improvement in hearing is of value to a very deaf patient. Whereas others, being over enthusiastic, vaunt the value of this or that treatment, which seems to have benefited, perhaps temporarily, one or two cases.

The writer knows of no condition in which treatment should be considered more judicially, avoiding hasty conclusions for or against any proposed treatment. And certainly do not let us judge harshly of our over-enthusiastic *confrères* who may be unduly vaunting some new process, having been carried away by a few apparent successes.

Etiology, Treatment, and Prognosis of Innocent Growths of the Larynx.

Dr. Dundas Grant's introduction to this discussion will be based upon the following sketch:

Consideration will be limited to non-malignant growths found in the interior of the larynx, and chiefly to those points which are of practical importance with regard to treatment. The etiology is a question of practical weight, and it is only to be regretted that it is often veiled in obscurity. The removal of the cause is an essential step in treatment in medicine, and to a less extent in surgery; in the particular branch of laryngology under discussion it is obviously of secondary importance as compared with the operative removal or destruction of the growth, but it is of the greatest value in prophylaxis and in the prevention of recurrence after extirpation.

Many growths in the larynx are so closely related to inflammatory products that they cannot be distinguished from them, and, indeed, are identical with them in their anatomical structure. Their diversity depends mainly upon which elements in the composite structure of the laryngeal mucous membrane are chiefly affected.

Among the commonest growths in the larynx we find papillomata (pachydermia verrucosa) essentially identical with the pachydermia found in its most typical form on the vocal processes and in the interarytenoid space. Such growths as fibromata, fibro-papillomata, fibro-adenomata, cysts, and angiomata are also explicable as the results of inflammatory conditions. In many cases the sequence of events from an acute to a chronic inflammation, with such subsequent hyperplasia as to constitute a tumour, is evident; in other cases it is most obscure.

Those parts of the vocal cords which undergo the greatest amount of mutual concussion and attrition, such as the junction of the anterior and middle thirds (the most frequent nodal point during phonation), the vocal processes and the inter-arytenoid space, would seem to be most liable to chronic inflammatory and neoplastic changes. In the inter-arytenoid space the result is a diffuse thickening (pachydermia) at the vocal process, the typical pachydermic nodule. At the junction of the anterior and middle thirds of the cords there may

be a "singer's nodule," consisting of a simple epithelial thickening (a miniature corn), a smaller or larger papilloma generally of soft consistence or a sessile or pendulous oedematous fibroma which may exceptionally contain glandular structure.

Growths at the anterior commissure may depend on the same causes, but it seems likely that they are at times of developmental origin, and are really embryonic remains allied to those congenital diaphragms sometimes occupying more or less of the space between the anterior parts of the cords.

The chief causes of irritation of the larynx are over-use or wrong use of the voice and irritating vapours or dusty atmosphere—for example, the black-board chalk in the case of teachers. Excess in tobacco smoke (especially "inhalation" of cigarette-smoke) may also be quoted. Nasal obstruction leading to mouth-breathing or purulent nasal discharges inhaled into the larynx are among the most potent contributories. Syphilis and tuberculosis may induce such chronic inflammatory changes as predispose to the development of new growths, but the irritation of the microbes of pulmonary phthisis—the tubercle bacilli as well as the accompanying micrococci—is known to be capable of exciting the growth of papillomata. It is probable that laryngeal papillomata when multiple are due to microbic infection.

The prognosis of innocent laryngeal growths is dependent mainly upon their accessibility for removal and the possibility of avoidance of the predisposing and exciting causes.

If not removed their tendency is to increase of growth leading to fatal obstruction to respiration, all the more rapid in supraglottic or intraglottic growths, also to continued and increased impairment of voice, more rapid in intraglottic or infraglottic growths (in the latter case still more if the growth is sufficiently mobile to be driven up between the cords during expiration). Spontaneous disappearance is possible in the case of papillomata, but cannot be counted upon.

After operation recurrence is probable unless the removal is complete. The writer's experience would lead him to the view that single pediculated growths at the anterior commissure are unlikely to recur, whereas sessile ones at the junction of the anterior and middle thirds of the vocal cord are very likely to do so, as also are multiple papillomata.

The question of malignant transformation of benign growths cannot be left unconsidered. Practically, it only arises in connexion with papillomata, which, in exposed parts of the body, have a tendency, under repeated or continued irritation, to develop into epitheliomata. There is no reason for immunity on the part of the larynx, but the results of Semon's collective investigation seem convincing as to its extreme rarity. Moreover, the evidence that while it occurred in 1 in 211 of the cases on which no operation was performed and in only 1 in 249 of those operated on, allows a margin in favour of operation. This is a complete answer to those who have been inclined to attribute to the traumatism effected by intralaryngeal operation a tendency to bring about malignant changes in innocent laryngeal growths.

In the few cases related by Fauvel the removal of the growth was followed by long-continued cauterization with nitrate of silver.

Treatment is not necessarily always operative. The avoidance of exciting and predisposing causes—for example, complete silence or limitation of voice to a whisper for several months—is sometimes sufficient in cases of very small nodules due to over-use or misuse of the voice. Coughing cannot be absolutely prohibited or prevented. Avoidance of smoking or smoky atmosphere and moderation or abstinence in regard to alcohol and other causes of gastro-hepatic disturbance are also valuable prophylactic and therapeutic factors. The correction of errors in voice production is of vital importance. The writer is convinced of the beneficial effect of the vocal exercises devised by Holbrook Curtis and of a rational method of respiration in the use of the voice. The occasional application of astringents may contribute.

In other growths removal is the only treatment and it should be carried out *per vias naturales*. The form of instrument employed varies with the special experience of the operator.

The following practical hints, founded on the writer's practice, may meet with the approval of those who are accustomed to Morell Mackenzie's form of handle, and the forceps referred to are modifications of those with which he did his finest work.

Pendulous growths at the anterior commissure call for the cold snare, and, if it fails, Powell's or Lack's forceps with anteflexed tips. Similar growths on the edge of the cord may be removed with snare or Grant's safety forceps. For sessile growths on the edge of the cord, the latter instrument is pre-eminently adapted. For growths in the posterior commissure Wolfenden's or Lake's forceps, and for those on the upper surface of the cord, Whistler's, are very useful.

Krause's handle is much used abroad and his is the best known tube forceps to which various double curettes and other blades can be adapted. The advantages of these blades combined with a handle acting like that of Morell Mackenzie's are obtained by means of Watson Williams's recently devised instrument. A cutting punch-forceps with blades adapted for the four cardinal points has been invented by Jurasz, and the writer has found it invaluable for the removal of portions of growths for microscopical examination.

Cutting ring knives (Luc) and guillotines (Chappell) have been used by some, but British operators in general seem to pin their faith to some adaptation of Morell Mackenzie's instruments.

For the destruction of the stump various caustics have been employed, such as nitrate of silver, formalin, chromic, trichloracetic or salicylic acid, the last named being in the writer's opinion particularly valuable for papillomata. The writer's recent experience impressed him very favourably with the value and practicability of the fine galvano-caustic point.

Among other means must be mentioned an instrument like O'Dwyer's intubation tube with thin-walled tubes having fenestrae cut in such positions as to engage the growth (usually papilloma in children) and snip it off. Tracheotomy has sometimes led to the disappearance of papillomata in children, but not constantly.

Cysts on the lingual aspect of the epiglottis may be avulsed, or elsewhere they may be incised, preferably by means of the galvano-caustic knife. Angiomata may be destroyed by means of the galvano-cautery.

Anaesthesia by means of cocaine has rendered many of these operations easy which were formerly impossible. The best method seems to be the slow injection of about 5 minims of a 20 per cent. solution of hydrochloride of cocaine, by means of a laryngeal syringe, so that the liquid is allowed to trickle over the edge of the epiglottis (Westerman). The combination of local anaesthesia (cocaine) and general anaesthesia (chloroform) introduced by Scanes Spicer has added still further to our possibilities. Lastly, the use of Mount-Bleyer's "epiglottis lifter" has greatly facilitated the writer's examinations and operations. Escat, of Toulouse, and Lambert Lack have devised somewhat similar instruments. Kirstein's method of autoscopy is available for growths situated close to the upper orifice of the larynx.

The distance from the dorsum of the tongue to the vocal cord is sometimes very considerable and beyond the reach of ordinary laryngeal forceps—say fully 4 in. In such a case the writer eradicated a papilloma of the size of a split pea by a few touches of the fine galvano-cautery point.

Are there any circumstances which call for removal of non-malignant intralaryngeal growths by external operation? Fauvel, with characteristic decision, rejected this absolutely. Certainly the cases in which it is justifiable are extremely few (we are not considering growths on the outer aspect of the framework of the larynx). When, however, all endolaryngeal methods in the most skilled hands available have failed, or the size or vascularity of the tumour make intralaryngeal measures impracticable, external methods are called for.

Tracheotomy may be practised in children with papillomata, who may not be amenable to endolaryngeal treatment, more especially if breathing is obstructed, in the hope that spontaneous disappearance of the growths may take place. It is also useful for the removal of a growth so low in the larynx as to be beyond the reach of intralaryngeal instruments.

Infrahyoid laryngotomy is adapted only for growths which should be reached through the mouth.

Thyrotomy had formerly a high mortality, but is practically nearly as safe as tracheotomy. It should, however, be avoided for fear of impairment of voice as the result of imperfect coaptation of the vocal cords. No doubt a more complete extirpation may be effected in this way than by the natural passages. Recurrence is thus made less probable, but it is by no means excluded.

In the complete paper the writer will cite cases illustrating the points touched on in this summary.

Disease as a Determining Factor in the Production of Laryngeal and Pulmonary Affections.

The discussion will be opened by Dr. Greville Macdonald (London) and by Dr. Samuel West (London).

Dr. Greville Macdonald has forwarded the following abstract of his paper:

Referring to the unsatisfactory condition of a subject where the conflict of clinical facts, the contradictory opinions deduced by authorities, and the small help afforded by the physiologist, preclude the possibility of establishing a scientific basis for future investigation, the paper offers a working generalization which may be a step towards the establishment of a definite law.

The writer deals with his own observations and divides his cases into three classes:

1. Those pointing to the relief or cure of asthma by removing obstruction to easy breathing or obstruction causing pressure.

2. Those where the treatment of any other sort of abnormality in the nose is similarly successful.

3. Those where the mere cauterization of the mucous membrane in a healthy nose results in relief or cure.

These three classes are then discussed seriatim. In the first, the most favourable forms of obstruction are, first, anterior hypertrophy of the inferior turbinals, second, septal spurs and deviations, third adenoids and, lastly, polypus. In the second class are found general oedema of the mucous membrane especially when associated with excessive sneezing, frequently also with chronic bronchitic asthma. Not infrequently the cure of these cases is effected by the electric cautery. Atrophic rhinitis may also be responsible for asthma, and the amelioration of nasal condition may result in cure of the bronchial symptoms. In the third class the writer endorses the valuable observations of Dr. Alexander Francis as to the frequent relief, and even cure, of asthma from the mere cauterization of the mucous membrane covering the upper part of the triangular cartilage in perfectly healthy noses.

So far the clinical facts of the association of the nose with asthma are obvious enough. But they are further emphasized by the observation that occasionally the removal of polypus sometimes originates, for the first time, the onset of asthma.

Passing now to his promised generalization, the writer invites attention to three points of collateral evidence:

1. That whenever a patient complains of frequent and severe cold-taking and we find any abnormalities whatever in the nose, we can almost promise to cure his cold-taking by curing the nasal abnormality.

2. That whenever a patient complains of paroxysmal sneezing, whether of daily attack or of longer interval, we are tolerably sure of curing him by correcting his nasal disease or malformation.

3. That a patient with polypus, less often with other form of obstruction, sometimes takes cold often severely, in the form of rhinitis, laryngitis, or bronchitis, after the removal of the obstruction. Probably the sudden exposure of a protected mucous membrane to cold air accounts for each of these accidents as well as the asthma.

Remembering these three points, which will be conceded by many observers, this generalization may be formulated:

Any treatment that allays the irritability of the Schneiderian, whether by operation and the ventilating of abnormally protected areas of mucous membrane, or by hardening the hyperaesthetic areas with the electric cautery or by the exhibition of such local remedies as cocaine, or the very useful but pernicious nostrum known as "Tucker's cure," any such treatment of the nose may modify or arrest the onset of catarrhal attacks whether they manifest themselves in symptoms of sneezing, laryngitis, bronchitis, and asthma.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that the Committee of the Section may make arrangements to form a special exhibit of such objects.

Foreign and Colonial visitors will be cordially welcomed in the Section, and such as may desire to attend are requested to send in their names as soon as possible to the Honorary Secretaries, together with the titles of any papers they may wish to read.

The offer of a paper will not be accepted on its title alone. Offers of papers will not be accepted in excess of the number likely to be read. As the ratio between the number of papers sent in and the time available for reading them at the Annual Meeting will probably be very disproportionate, preference will be given in the case of communications of equal importance to those which are first received.

Communications relating to the exhibition of preparations, instruments, etc., may be addressed to Dr. E. C. Bevers, 117, Woodstock Road, Oxford; and all others relating to papers and discussions to Dr. Jobson Horne, 27, New Cavendish Street, W., and marked "Section of Laryngology and Otology."

TROPICAL DISEASES.

President: ALEXANDER CROMBIE, C.B., M.D., London. *Vice-Presidents:* Brigade-Surgeon-Lieutenant-Colonel GEORGE MACONACHIE, M.D., Aberdeen; JOHN WILLIAM WATSON STEPHENS, M.D., Liverpool. *Honorary Secretaries:* HENRY EDWARD ANNETT, M.D., Crofton Lodge, Higher Runcorn, Cheshire; ROBERT FIELDING-OULD, M.D., 94, Mount Street, Berkeley Square, W.

Wednesday, July 27th.—Trypanosomiasis. The discussion will be opened by Colonel D. Bruce, F.R.S.

Trypanosomiasis.

The discussion of this subject will be opened by Colonel D. Bruce, F.R.S., R.A.M.C., who, after a review of the state of knowledge on the matter at the date of the last annual meeting, will sustain the following propositions:

1. The trypanosomes found in the blood of natives on the West Coast of Africa and in Uganda and those found in cases of sleeping sickness are identical.

2. The so called trypanosoma fever is the first stage of sleeping sickness.

3. Neither the native nor the European is immune to this disease.

4. As regards prognosis, instead of being favourable, so far as is known the mortality is 100 per cent. in both coloured and uncoloured races.

5. Up to the present time no evidence has been brought forward to show that any of the lower animals take any part in the spread of human trypanosomiasis.

6. Several of the lower animals are, however, susceptible to sleeping sickness by artificial inoculation.

7. Sleeping sickness is conveyed from the sick to the healthy by means of a biting fly (*Glossina palpalis*).

8. Other members of this genus are also able to convey the virus, and this constitutes a danger that this disease may spread into the British East African and other tsetse fly zones.

9. There is no proof that other genera of biting flies, such as *stomoxys* or *tabanus*, carry the infection under natural conditions.

10. There is no proof that *Trypanosoma gambiense* passes through any metamorphosis in *G. palpalis*, but that the transference of the parasites from one animal to another by the tsetse flies is purely mechanical.

11. The present evidence goes to show that all the stages in the development of *T. gambiense* take place within the human host.

12. Measures to prevent the spread of sleeping sickness should aim at preventing, as far as possible, the movement of natives from sleeping sickness areas into any part of the country where any species of tsetse fly is found.

13. Measures to prevent the movement of natives into the sleeping sickness areas.

Measures calculated to arrest the progress of the disease in areas in which it already exists, such as evacuation of the areas, destruction of the tsetse flies, and prophylactic treatment may also be considered.

Thursday, July 28th.—The Prophylaxis of Malaria. The discussion will be opened by J. W. W. Stephens, M.D.

Prophylaxis of Malaria.

Dr. J. W. W. Stephens has supplied us with the following abstract of the paper by which he will introduce the discussion on this subject:

Preliminary Considerations.—Malaria is endemic in the native population of tropical regions, and it is by the native that Europeans are infected. The virulence of parasites is increased in the European. Infected *Anophelines* are dangerous, and not *Anophelines* as a whole; these *Anophelines* exist in abundance in all native huts. As only infected *Anophelines* are dangerous it is important to answer the question which of the *Anophelines* transmit malaria? Incomplete state of our knowledge on this point. Another important practical question is, how far do the *Anophelines* fly? There are many erroneous views of this point. A complete study of

the breeding places of the *Anophelines* is required: a complete study of the breeding places of "domestic" and "wild" mosquitos, etc. Increased study and complete knowledge on these and other points necessary before the problem can be attacked effectively and economically.

Prophylaxis.—1. Antilarval measures. Drainage the fundamental method, pétrolage, etc., subsidiary. Limits of method.

2. Quinine prophylaxis, efficiency, limits of method.

3. Segregation of Europeans from source of infection. Urgent necessity for European cantonment and native bazaar system in India. Beneficial results of segregation.

4. Subsidiary measures. Protection against mosquitoes. Wire netting. Personal prophylaxis.

Success of operations, how measured. Definition of endemic index one of the best tests of malarial intensity. Hospital statistics. Examples of antimalarial operations. Successes, failures. The extirpation of malaria a sanitary reform. Progress necessarily costly and slow.

Friday, July 29th. The Significance of the Leishman-Donovan Bodies. The discussion will be opened by Major W. B. Leishman.

The Significance of the Leishman-Donovan Bodies.

Major W. B. Leishman, R.A.M.C., in opening the discussion on this subject, will review the present state of knowledge with regard to the nature and significance of these bodies under the following heads:

1. The geographical distribution of the cases in which the presence of the parasites has been recorded.

2. The distribution of the parasites in the body.

3. The symptomatology of the morbid conditions associated with their presence.

4. Their occurrence in kala-azar and their connexion with that disease.

5. The structure and biological relationships of the parasites.

As time will only permit of one of these subjects being dealt with at considerable length, the last has been selected for special treatment, partly because of the divergence of opinion which exists in respect of it and partly because little progress in the direction of prophylaxis and treatment can be expected until the life-history of the parasite is better known.

Three views have been advanced as to the nature of these parasitic bodies, in the following chronological order:

1. Major Leishman's own view that they probably represent a stage in the life-history of a flagellate organism closely resembling a trypanosoma.

2. Laveran's view that they belong to the piroplasmata, and form a new species of that genus, to which he gave the name *Piroplasma donovani*.

3. That of Ross, who, differing both from Laveran and from Major Leishman, considers that the bodies represent an entirely new genus, which he has named *Leishmania*.

After a review and comparison of these three conceptions as to the nature of the bodies, a more detailed account will be given of the reasons for which Major Leishman is disinclined to abandon this view as to their probable flagellate origin, and this theory will be discussed in the light of the recent researches of Schaudinn, Prowazek, Wright, Christophers, and of Marchand and Ledingham.

Stained specimens and sketches will be shown illustrating the close resemblance between the new bodies and the involution forms of trypanosomata.

The following gentlemen have already promised to take part in the discussions or to contribute papers: Sir Patrick Manson, Professor R. Boyce, Major C. Donovan, Dr. A. Laveran, Major Mathias, Dr. L. Sambon, Captain E. P. Sewell, and Captain Anderson.

Papers bearing on the discussions or otherwise will be read for gentlemen who are unable to be in England for the meeting. It is also hoped that pathological specimens, drawings, photographs, and microscopic preparations will be lent for exhibition.

NAVY, ARMY, AND AMBULANCE.

President: Surgeon-General A. Frederick Bradshaw, C.B., K.H.P., M.E.O.S., Oxford. *Vice-Presidents*: Surgeon-General George Joseph Hamilton, Exam. C.E., M.D., Junior United Service Club, London; Fleet-Surgeon John Lloyd Thomas, R.N., H.M.S. *Excellent*, Portsmouth; Colonel J. Edward Squire, M.D., V.D., R.A.M.C. (Vols.), London. *Honorary Secretaries*: Major Thomas McCulloch, R.A.M.C., 68, Victoria Street, S.W.; Staff-Surgeon H. W. Gibbs Doyne, L.R.C.P., R.N., H.M.S. *Mercury*, Portsmouth; Surgeon-Captain Eustace M. Callender, M.D., 40, Connaught Square, Hyde Park, W.

The following subjects are suggested for papers:

Navy.

1. The Effect of Radical Cure for Hernia in the Service.
2. Hospital Ships.
3. The Various Causes of Invaliding in the Navy.
4. The present Dietary on Board a Man-of-War.
5. The Teeth and their Treatment in the Service.
6. What Surgeons must look for in the next Naval Action.

Army.

1. The Duties of a Medical Officer in charge of a Regimental Unit on Field Service.
2. Campaigning Therapeutics.
3. Camp Sanitation, with special reference to the disposal of excreta and refuse.
4. The Prevalence of Tuberculous Disease in the Army, its cause and prevention.
5. The General Hospital in War, its working and staff.
6. The First Field Dressing.

Ambulance.

1. Is the widespread slight training in Ambulance Work beneficial to the Community, or would it be better to make the training more thorough at the expense of numbers?
2. First Aid in civil life.
3. The medical equipment and transport for volunteer brigades.
4. The Red Cross Badge—its use and abuse—and the steps which should be taken to prevent it being used for trade purposes.

The following discussions have been arranged:

1. On Malta Fever, to be opened by Brevet-Colonel David Bruce, F.R.S., R.A.M.C.

Malta Fever.

The discussion will be introduced by Colonel D. Bruce, F.R.S., R.A.M.C., by a paper in which he will raise the following questions:

1. *The Natural History of the Micrococcus Melitensis.* What is its habitat outside the body? What are the conditions under which it can lead a saprolytic existence? How long can it sustain life in various kinds of water, food stuffs, soils, dust, refuse, etc.? The possibility of it having, under natural conditions, hosts other than man. Can it be found in the air or dust of infective places? What are the best conditions for its artificial cultivation? How does it behave under various conditions of cold, heat, light and darkness, etc.? How can it best be separated from other species of micro-organisms in air, water, soil, etc?

2. *Mode of Entrance of the Micrococcus Melitensis into Man.* Is it by way of the alimentary canal, lungs, tonsils, mucous membrane of nose and eye, or skin? What is the smallest quantity of the virus necessary to set up the fever? Is it possible to convey it from the sick to the healthy by means of biting insects?

3. *Mode of Exit.* Is it excreted in the breath, sputum, urine by way of the intestine, or by means of insects from the blood?

4. *Epidemiology.* What are the conditions which favour the spread of this fever?

5. *Protective Inoculation.* Is there any possibility of preparing a serum or vaccine to protect against this disease?

The Organization during Peace of Civil Medical and Ambulance Aid to ensure an Immediate Reserve of Trained Assistance on the Outbreak of War.

The following sketch by Colonel Squire, M.D., V.D., R.A.M.C. (Vols.), is designed to facilitate the discussion on the Organization during Peace of Civilian Aid to the Sick and Wounded in War which he is to open.

In a war of any magnitude it is necessary to supplement the military organization for the care of the sick and wounded by civilian aid. Such aid is essentially of two kinds:

A. Surgeons, nurses, and orderlies who are temporarily employed by the military authorities, receiving pay through the War Office.

B. *Personnel* and stores provided by voluntary subscription. Voluntary aid may be wasteful and embarassing or may be misapplied if no statement of probable requirements and no

regulations for their employment has been previously laid down. Organization during peace is essential to ensure the best provision and to avoid unnecessary waste in war. Both A. and B. have occasionally been employed with our troops for example, in the Crimea, Zululand, Egypt, and the Soudan but without previous organization and with consequent waste. The recent war in South Africa found us for the first time with the germ of an organization, not yet sufficiently developed to meet the requirements of a big campaign, but which nevertheless was of considerable practical value.

The Central British Red Cross Committee has been instituted as the organizing body for civilian aid with troops in war. Is it calculated to ensure what is required? To answer this question it is necessary to consider certain points, namely:

1. What is needed to supplement the Army Medical Service in war?
2. What means exist of supplying this need?
3. How can the means of supply come into touch with the Army Medical Department?

We can then consider whether the existing conditions are satisfactory or in what direction improvement is required. With regard to 1, we may consider (*a*) *personnel* and (*b*) stores.

(*a*) *Personnel*.—Directly employed by the War Office. Surgeons and nurses adequately trained in their professional work are to be obtained in sufficient numbers to allow of selection, but in order to obtain at short notice the best professional aid selection must have been made previously. A list should therefore be kept at the War Office of suitable persons who are willing to serve if required, who might be further classified according as they are willing to serve "at home only" or "wherever required," and "at any time" or on "national emergency." The list should be revised annually, so that inclusion in the list would entail liability for the year only. Such a list would represent a true Army Medical Reserve.

Orderlies.—A roll of men willing to serve as orderlies might be kept in the same way, the special qualifications of each being entered against his name. Conditions of service and a scale of pay for the various duties should be laid down, and application to be included in any list would be made to imply acceptance of the conditions (including rate of pay) if called out for service. For the *personnel* serving under some authorized voluntary aid society or committee the conditions of service and rates of pay would be drawn up by the body engaging their services, but would have to come within the terms of requirements previously formulated by the Central Red Cross Committee, and communicated to the body offering aid. It is desirable that all persons serving under contract with some voluntary aid society should wear a distinguishing uniform, so that they should not be mistaken for regular soldiers.

Stores.—Hospital equipment, surgical stores, medicines, etc., are needed in war, greatly in excess of peace requirements. Many of these are perishable, and cannot with advantage be kept in store. By previous arrangement with large firms, almost everything needed could be procured as required. What is necessary is a list, kept at the War Office, of firms able and willing to supply materials, detailed as follows—Name of firm: Articles which can be supplied: Number or quantity which can be delivered at once with notice: Agreed price: All absolute necessaries should be supplied by the military authorities: it should not be necessary to apply to voluntary organizations for hospital equipment, surgical and medical stores, or food for patients as appears to have been occasionally done in South Africa (vide Report of the Central British Red Cross Committee, 1902).

Voluntary Aid Societies' Contributions and Individual Gifts.—The supply of comforts both for the troops in the field and for patients in hospitals comes within the scope of voluntary aid. These include such things as Crimean helmets, housewives, books and papers, writing materials, sleeping suits (toilet requisites) as well as beef juice and special invalid foods. A list of articles which would be especially acceptable should be drawn up and sent to all applicants at the beginning of a campaign.

The organization of this department, the storage and distribution of these gifts should be carried out by some authorized organization or society acting under the Central Red Cross Committee. This is provided for in the regulations of the Committee.

Supplementary hospitals, hospital ships and trains may be organized, equipped and maintained by voluntary subscriptions under regulations to be previously drawn up by the Central Red Cross Committee. Voluntary efforts should also provide assistance to the sick and wounded whilst journeying along the lines of communications and on arrival at the base or at home. Accommodation at suitable places should be arranged for convalescents at home.

All these matters require carefully arranging and organizing beforehand and it is essentially the duty of the permanent voluntary aid societies—such as the Red Cross Society—to perfect such organization during peace.

It is very desirable that there should be some organization, with branches throughout the country by means of which individuals wishing to help when a war breaks out could at once be brought into touch with a central body which is in direct communication with the War Office. These local committees should be permanently established under some central organization preferably not connected with the War Office with its head office in London.

As the basis on which to build up the organization that is required we have the British Red Cross Society (British National Society for Aid to the Sick and Wounded in War), the St. John Ambulance Association, the St. Andrew Ambulance Association, various nursing associations, and since 1898 the British Central Red Cross Committee.

The British Red Cross Society, founded during the Franco-Prussian war in 1870, has supplied aid to several foreign countries and to the British troops in several campaigns, but it hibernates during periods of peace, and only wakes to activity when a war breaks out, instead of spending the leisure time of peace in organizing for war.

The St. John Ambulance Association, primarily originated to provide instruction in first aid treatment in case of accidents in civil life, has comparatively recently considered the possibility of providing supplementary aid to the troops during war, but when the South African war commenced it had made no provision for training in the duties required by orderlies and nurses for military service. Nevertheless the Association was able to furnish a large number of willing though imperfectly trained men to the army in South Africa, the conditions of service and rate of pay being perhaps as moderate as could be expected, considering that the bargain with the War Office was made when the emergency was pressing. The St. John Ambulance Association being now officially recognized by the Central Red Cross Committee as a body from which hospital *personnel* can be obtained during war, it is to be supposed that regulations for training and a reasonable rate of pay have already been formulated by that Committee. Where the present machinery for the organization of civilian aid seems to be faulty is in the chain of connexion between the War Office on the one hand and the public which supplies the *personnel* service, money and gifts which the War Office would utilize in war.

The British Central Red Cross Committee appears to be closely modelled on the German organization for voluntary aid, though the military and official systems of the two countries are widely different. In Germany the army is the nation, and the whole life of the people runs in official grooves. The Red Cross Society and the various orders of knighthood (St. John, etc.) are quasi-official units of the State organization.

With us the army forms but a small section of the community, and the official and social relations of the people are kept distinct, whilst the Red Cross Society and the various ambulance associations are private organizations independent of the State machinery. The public has not always been in exact accord with army methods of organization, and might possibly be more disposed to send money and gifts to the troops through some organization outside the army than through a committee directly connected with the War Office. So too, though in Germany it may be wise to restrict the offer of aid to certain specified organizations; this seems hardly necessary or advisable with us.

The representation of certain organizations (Red Cross Society, St. John Ambulance Association) on the Central Red Cross Committee seems calculated to arouse that jealousy which it is recognized by its founders, should be avoided. It would seem desirable that the Central Red Cross Committee—consisting of military and civilian members—should be advisory rather than executive; deciding on the requirements and drawing up regulations under which voluntary aid can be accepted by the army, but leaving it to the voluntary societies to organize and provide the aid. This Committee would be the one and only means of communication between the various voluntary aid societies and individuals offering aid and the War Office. When war broke out the

officials at the War Office, who have their hands full with the work of mobilization and all that this entails, would not have their time occupied with the various suggestions and offers of help of the different societies, etc., but would be relieved of this by the Committee.

The British Red Cross Society would seem to be the body which should organize the voluntary aid during peace, and it should establish local centres throughout the country. In war time it might well carry out the duties allocated to it by the Central Red Cross Committee in their present regulations, one of the most important of these duties being the collecting and distributing of funds.

The object of the discussion is not to emphasize the errors of the past nor any defects in the present organization, though it is necessary, in opening the discussion, to point out where these may possibly be found. What is desired is that suggestions may be brought forward which will ensure efficient organization in the near future.

Dental Surgery.

President: Edmund Augustine Bevers, M.R.C.S., Oxford. *Vice-Presidents*: John Howard Mummery, M.R.C.S., L.D.S., London; Frank Earle Hunley, M.R.C.S., L.D.S., Birmingham. *Honorary Secretaries*: John McKno Ackland, M.R.C.S., L.D.S., 24, Southernhay, Exeter; Kenneth Weldon Goadby, L.R.C.P., L.D.S., 21, New Cavendish Street, Cavendish Square, W.

THE PATHOLOGICAL MUSEUM.

In the whole programme of the annual meeting of the Association perhaps no single section possesses greater possibilities for usefulness than those enjoyed by the Pathological Museum; yet, certainly, none may more easily entirely fail to fulfil its purpose.

It is, indeed, no easy task for those who are responsible for the Museum to steer a middle course between the Scylla of rejecting valuable and instructive material and the Charybdis of presenting merely an ill-assorted series of heterogeneous specimens on which the visitor can at best bestow but a cursory glance.

The considerations which should govern the collection and arrangement of the Annual Museum are clearly emphasized in the letter published in the Journal of June 4th over the signature of Mr. Jonathan Hutchinson. The aim in view should be to present as far as possible a visible summary of what has been achieved most recently in medical science, and to bring before the Association generally the knowledge gained by the research of individual members.

We understand that the Local Committee in Oxford has been keenly alive to the importance of the points we have mentioned, since it is felt that, especially in Oxford, where, as Mr. Hutchinson points out, the Annual Museum first saw the light, no effort should be spared to ensure an exhibition of exceptional interest.

The Committee are anxious to secure the assistance of all members of the Association who can lend instructive specimens or apparatus. With this object a circular was prepared in November last and distributed widely as a general appeal for assistance; and lest this should fail to reach some members who might be able to afford important service in this direction, a copy of the circular was published in the British Medical Journal for December 12th, 1903, p. 1554, and in the Supplement to the Journal of May 7th, 1904, p. 123.

In order to render the material as accessible as possible, it is proposed to arrange the exhibits under the following heading:

1. Specimens, photographs, drawings, etc., illustrating recent advances in medical science.
2. Skiagraphs and apparatus for skiagraphy.
3. Colour photography in relation to medical, surgical, and pathological work.
4. Photomicrographs and apparatus for photomicrography.
5. Instruments for clinical diagnosis.
6. Surgical anatomy.
7. Specimens bearing on any of the discussions in the various sections.

A very considerable number of important exhibits have been promised already, but we understand that the Secretary of the Museum Committee, Dr. Ainley Walker, University College, Oxford, will be very glad to receive further offers and to supply any information desired by intending exhibitors.

An attempt will be made to give exhibitors an opportunity of personally demonstrating their specimens or apparatus at stated times during the course of the meeting.

In view of the letter from Mr. Hutchinson we may mention specially that skiagraphs, drawings, photographs, and colour photographs already form a considerable part of the exhibits promised; but more are required, especially such as bear on dermatology and on the injuries and diseases of the bones.

Among the important contributions which will be displayed in the museums are exhibits bearing on ankylostomiasis, miners' lung disease, tropical diseases, cell division in carcinoma, prostatic disease, congenital dislocation of the hip before and after treatment by Lorenz's method, the estimation of the phagocytic power of the blood, the estimation of the purin bodies in the urine, etc.

The Museum is being kept quite separate from the trade exhibits, and will be located in an entirely different building. It will be arranged in the large, well lighted, ground-floor rooms of the Anatomical Department of the University, and will thus be in the immediate neighbourhood of the meeting places of all the various sections.

Exhibition.

A collection of medical, surgical, dietetic and sanitary apparatus, medical books, and hospital appliances will be arranged in the Examination Schools, High Street, Oxford, in the same building as the Reception Room.

Honorary Local Secretaries.

Arthur John Drew, F.R.C.S., Water Hall, St. Aldates, Oxford; William Duigan, M.B., 66, Woodstock Road, Oxford; Arthur Percy Parker, F.R.C.S., 2, Holywell Street, Oxford.

Programme of Business.

Tuesday, July 26th

9 a.m. — Council Meeting.
10 a.m. — Service in Christ Church Cathedral.
12 noon — Annual General Meeting, followed by Representative Meeting.
8 p.m. — President's Address.

Wednesday, July 27th

9 a.m. — Meeting of Council's New Council.
10 a.m. to 1 p.m. — Sectional Meetings.
2 p.m. — Adjourned General Meeting, followed by Representative Meeting.
8 p.m. — Address in Medicine.

Thursday, July 28th.

9 a.m. — Meeting of Council.
10 a.m. to 1 p.m. — Sectional Meetings.
2 p.m. — Address in Surgery.
2 p.m. — Representative Meeting if business not already concluded.
7 p.m. — Annual Dinner of the Association.

Friday, July 29th

9 a.m. — Meeting of Council.
10 a.m. to 1 p.m. — Sectional Meetings.
2 p.m. — Representative Meeting if business not already concluded.

Programme of Entertainments.

Wednesday.

[illegible] — Reception by the President, Dr. W. Collier, F.R.C.P., and members of the Oxford Division in Wadham College Gardens. Bowling and putting exhibition [illegible] contest between Oxford and Cambridge.
[illegible] — Soirée at the Museums, given by the Vice-Chancellor and members of the University.

Thursday.

[illegible] — Garden Party given by Mr. H. Morrell, M.P., at Headington.
Garden Party by Dr. Neil at the Warneford Asylum.
Promenade Concert in a College Garden.
Annual Dinner in Christ Church Hall.
Ladies' Entertainment in New College Gardens and Hall.

Friday.

[illegible] — Garden Party at Blenheim Palace.
Music in a College Garden.
[illegible] — Reception by the Mayor, Mr. E. A. Bevers, M.R.C.S., in the City Buildings.

Saturday.

[illegible] — Excursion to Leamington and Warwick. The Corporation of Leamington provides lunch. The Countess of Warwick gives a Garden Party in the afternoon.
River Excursion to Reading and Henley.

To be Stamped with a Penny Stamp and Posted.

BRITISH MEDICAL ASSOCIATION.

SEVENTY-SECOND ANNUAL MEETING.

JULY 26th, 27th, 28th, and 29th, 1904.

Members of the British Medical Association who intend to visit **OXFORD** during the Annual Meeting will greatly facilitate the labours of the Local Committee if they will fill up the following form and forward it by post as addressed on the other side. This will eventually be sent to the General Secretary of the Association, who will then send a certificate to enable members to obtain Railway Tickets at reduced fares.

MEMBERS DESIRING ACCOMMODATION ARE REFERRED TO NEXT PAGES.

The Forms are intended for the use of Members of the British Medical Association exclusively.

---

*It is my intention to be present at the ANNUAL MEETING in OXFORD, and I expect to be accompanied by** .....

Name .....

Address .....

* Here indicate whether by one or more ladies, as separate vouchers are required to enable Members to obtain Railway Tickets at reduced fares.

It is my intention to be present at the ANNUAL DINNER of the Association on Thursday Evening, July 28th, and I herewith enclose Cheque (or P.O.O.).†

Signature .....

† DINNER TICKET, with Wine inclusive, £1 1s. DINNER TICKET without Wine, but inclusive of Aerated Waters, 15s.

Cheques and Postal Orders should be made payable to the Secretary of the Dinner Committee, H. A. WHITELOCKE, Esq., F.R.C.S., and enclosed in an envelope, together with this form, directed as on the reverse.

Early application for Tickets is requested by the Committee, to enable them to provide accommodation and allot seats.

SEVENTY-SECOND ANNUAL MEETING, OXFORD, July 26th, 27th, 28th, and 29th, 1904

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES.

Name and Address	Notes
CENTRAL.	
Broad Street.	
1, 2 [illegible] M[illegible]	
3 H[illegible] M[illegible]	
4 W[illegible] B. J.	
5 P[illegible] J.	
New College Street.	
1 D[illegible] J.	
Museum Road.	
1 N[illegible] M[illegible]	
H[illegible] M[illegible]	
H[illegible] M[illegible]	
S[illegible] M[illegible]	
S[illegible] M[illegible]	
I[illegible] M[illegible]	
I[illegible] M[illegible]	Double Bs.
P[illegible] M[illegible]	
H[illegible] M[illegible]	Double Bs.
[illegible]	

Name and Address	Notes
Parks Road.	
2 S[illegible] W[illegible]	
3 S[illegible] M[illegible]	
4 B[illegible] W.	
6 Bellamy, Mrs.	
Blackhall Road.	
1 Allnutt, Miss	
2 S[illegible] W.	
New-Inn-Hall Street.	
2 P[illegible] J.	Double Beds.
2a [illegible] J.	
11 [illegible] G.	Double Beds.
George Street.	
C[illegible] Mr.	
Ship Street.	
[illegible] M.	
B[illegible] M[illegible]	
D[illegible] M[illegible]	
1 D[illegible] J.	
[illegible] M[illegible]	

Penny Stamp.

H. A. WHITELOCKE, Esq., F.R.C.S.,

6, Banbury Road,

OXFORD.

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES *Continued*

Name and Address	No. of Sitting Rooms and Bedrooms	Bedrooms	Breakfast	Luncheon	Dinner	Full Rate per Day for Board and Lodging	Notes
St. Michael's Street.							
10 White, W.	3		3/6	1/-	2	6/6	
11 Hubert, Mrs.	3		4	1/6	2	7/6	
19 Burrows, Mrs.	3		4	1	2/6 to 3/6		
21 Haynes, J.	3		3/	1/6	2/6	6	
24 McIntyre, Mrs.	3					10/-	
Magdalen Street.							
14-15 Watson, Miss		2/6	1/6	1/6	2/6	7	Boarding House
Tarl Street.							
15 Hedgecock, Mrs.	5	1	1	1/6			
16 Addis, Mrs.	3	1	1/6 to 2/6	1/6	3/-	6/6	
High Street.							
20-21 Taylor, T.	6			1/6	2/6	6	
22 Bassett, Miss	2	2				7/6	
37 Clements, Miss	1	1	3/	6d.	2/6	7/6	
43 Prince, Miss	2					6	Party of four.
44-45 Taylor, Mrs.	4	1	3/	1	2/	8/6	
46 Adams, T. J.	2	1		1/6	4/-	7/6	
47 Carter, F.	4		3/	1	2	6/6	
48 Galpin, Mrs.	4		3/	2	3/	10/-	Board party of nine or ten.
49 Pickering, F. O. ...	3	2	3/	1/6		10/-	
50 Davis, Mrs.	6	1	4	1/6	3/-	8/6	
52 Herbert, N. S.	4		3/	1/	2/6	8/-	
53 Hopkirk, Mrs.	2	2	3/6	1/6	2/6	6/6	
58 Cruickshank, J.	4					10/6	
59 Quartermain, Mrs.	2	1	3/	2/-	3/6	10/-	
60 Hussey, R.	2	3	5/-	1/6	3	7/6	Boarding House
65 Cooper, G. J.	3	1	4/6	1/-	2/6	8/-	Party of five.
67 Penny, Mrs.	2	1	3/			7/-	
68-70 Andrews, W. H.	3	3	4/-	2	3	8/6	
87 Parson, Miss	4	1	3/	2/6	3	12/6	
90 Shillingford, J. ...	10		4	1/6	2	7/-	
96 Haycraft, Mrs.	4		4/6	1/6	2/6	6/6	
97 Gunner, Mrs.	4	1	4	6d.	2	7/6	
102-103 Perry, F. C.	14		3/	1/6	2/	6/-	Boarding House
104-105 Chaundy, Mrs.	3	1	4/-	2	3/-	10/-	
106 Wheeler, W. H. ...	4	1	3/6	1	2	8/-	
116 Freeman, J.	3					7/-	
117 Goodall, E. E.	2	1	4	1/6	3/-	6/-	
124 Garlick, J.	12		3/6	1/-	3/-	7/-	For 12 persons.
127-129 Flight, Mrs.			3			6/-	Boarding House
135 Clayton, Mrs.		1/6				6/-	Boarding House
		1/6					
King Edward Street.							
1 Rumsh, W. H. G.	5	1				10/-	Boarding House
Gosmer, W. H.	2					10/-	
4 Hunscomb, Mrs.	3		4/6	1/6	2/6	8/-	
7 Locke, Miss	2		4/6	1/	2/6	9/-	
8 Sadler, ...	3		4/6	1/6	2/6	8/6	
7 Bowden, F.	3	1	5/-	2/-	3/-	11/-	
8 Clarke, E.	9		5/-	1/6	2/6	7/6	Party of 15 at 7/6 each per day
14 Oliver, Mrs.	3	2				7/6	
King Street, High St.							
4 Ham, J. E.	3		4/6	1	2/6	7/6	
Grove Street.							
5 Collins, Miss	4		3/6	2/-	2/6	8/-	
11 Tarrer, T.	2		4/6	3/6	2	6/2	
13 Bunce, W. H.	2/		4/6	1/6	3/-	8/-	1Double Bed
Merton Street.							
12 Tranke, Mrs.	3			1/-	2/-	6/-	
14 Walton, W.	2	2	4/	1/6		6/-	Party of five.
15 Johnson, T. H.	3		4	1/6	2/6	8/-	
16 Weedon, Miss	3					10/-	Party of four.
Oriel Street.							
6 Jeffs, F. W.	2	3		1	2/6	6/6	For party.
7 Scrimpshon, Mrs.	2	2		1/-	2/6	7/6	
8 Herbert, A. J.	3			1/-	2/6	7	
14 Faulkner, Mrs.	2	6	4	1/-	2/-	6/-	
15 Gibbens, C. R.	6		3/	6d. to 1/-	2/6	6/6	
Holywell Street.							
9 Hinton, Mrs.	2						
10 Chambers, W.	3	1	3/-	6d. to 1/-	2/6	7/6	
14 Giles, Mrs.	10					7/6	Party.
51 Vincent, Mrs.	2	1	4/-	6d.	2/6	7/-	
54 Price, G. W. J.	1	1	4/-	8d.	2/6	7/6	
55 Dix, Mrs.	3					6/-	
61 Huckerby, W.	3		3/6			6/-	
64 Adamson, Miss	3	1	4/-	1/6	2/6	7/6	
98 Brown, Mrs.	2	2	4/6	1/6	2/6	8/-	
Bath Place, Holywell.							
5 Walklett, Mrs.	2		4/-	1/-	2/6	7/6	

Name and Address	No. of Sitting Rooms and Bedrooms	Bedrooms	Breakfast	Luncheon	Dinner	Full Rate per Day for Board and Lodging	Notes
Manor Road, Holywell.							
2 Ockenden, Miss	2/			1/-	2/-	7/6	1Double Bed.
3 Saunders, Miss	2	1	4/-	6d. to 1/2	2/6	7/6	
4 Calcott, Mrs.	2	1/	3/6	1/-	1/6	6/-	1Double Bed.
6 Phillips, L.	2		3/-	6d. to 1/-	2/6		
7 Wren, C.	2		3/-	9d. to 1/6	2/-	7/-	
8-9 de Enciso, Mrs.	4	1	4	1/-	2/6	7/6	
Manor Place, Holywell.							
1 Clarke, Miss	2		3/-	6d	2/-	7/6	
6 Phillips, L.	2		3	1/-	2/6		
12 Price, Mrs.	1		3/6	1/-	2/-	7/6	
14 Sykes, Mrs.	1						
16 Rowlands, Mrs.	2						
18 Tuble, Mrs.	2		3/6	1/-	2/-	6/6	
20 Price, Mrs. I.	2		3/-	1/-	2	6/6	
Long Wall Street.							
Loxley, Miss, Long Wall House	5		3/-	1/6	2/6	8	
1 Clarke, Miss ..	2		3/-	6d	2	7/-	
4-5 Kingston, H.	3	2	4	1/6	2/6	9/6	
8 Hoare, C.	5					10/-	
9 Batchan, Mrs.	2		3/-	1/6	2/6	8/-	
10 Barnes, Mrs.	2		4/6	2/6		11/-	
12 Mansell, Mrs.	2		4/-	1/6	2/6	8/-	
15 Bateman, Mrs.	3		3/6	1/-	2/6	7/6	
17 Nicholson, Mrs.	2		4/-	6d. to 1/-	2/6	6/6	
Mansfield Road.							
1 Crane, Mrs.	2	1	4	1/6	2/6	7/6	

SOUTH.

St. Aldate's Street.							[For party of six 2 double beds
67 Thornton, W. J.	2	1	4/6	1/6	3/-	6/-	
70 Baycock, Mrs.	2	1	2/6	1/6	2/6	7/-	
80 Addis, W.	3		4	6d. to 1/-	2	6/-	For party.
90 Wessell, H.	2		4/6	1/6	2/6	8/-	
Gorman, G. W. Y. House	3		4/-	1/6	2/6	8/-	
95-96 D'Arcy, Mrs.	12	3/6	1	2	3/-		Boarding House According to requirements
97 Hall, Mrs.	3						
98 Bridges, Miss	4		4/6	9d. to 1/-	3/-	8/-	
Rose Place, St. Aldate's							
1 Bossom, Mrs.	2		3/6	1/6		6/6	
6 Smithers, Mrs.	2		3/6	1	3/-	7/-	
Blue Boar Street.							
10 Bedow, H.	2		3/6	1/-	2	6/6	
Brewer Street.							
1 Armstrong, Mrs.		12	3/6	1/-	2/6	6/-	Boarding House
6 Swift, T.	6	2	3/-	2	3/-	11/-	
Pembroke St. (St. Aldate's)							
12-13 Daniel, Mrs.	5		4/6	2	2/6 to 4/6	8/6 to 8/6	
21 Mallett, Mrs.	2		3/6	1/-	2	7/6	
Isis Street.							
1-2 Benwell, Mrs.	4	2	3/-	2		9/-	
Mitchell, W. H.	3		3/6	1/6	2	7/-	
18 Lavis, Mrs.	1	1	3/6	1/6	2/6	7/-	
Speedwell Street.							
10 Lewings, Mr.	1		3/6	2	3/-	8/6	
***Marlborough Road.**							
18 Bates, F.	1		3/6	9d. to 1/6	2/6	7/6	
***Western Road.**							
12 Townsend, F.	2		4/6	1/6	3/6	9/-	
***Botley Road.**							
New Railway Station							
Smith, A. A.	2		3/-	1/-	1/-	4/-	

WEST CENTRAL.

Beaumont Buildings.							
17, Norgrove, Mrs.	1		4/-	1/2	2/6	7/6	
Alfred St. (St. Giles').							
2 Ponsford, Miss	2		4	1/-	2/-	7	

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES—*Continued*

Name and Address	No. of Rooms set apart for Patients	Sitting Room and Bedroom	Bedroom	Attendance	Dinner	Rate per Week for Board and Lodging	Notes
Beaumont Street.							
14 Foster, C. W.	4		1	1/6	2/6	7/6	
15 Phillips, Mrs.	2	1	1/6	1/-			
18 Whitting, Mr.	2		1/6	1/-	2/-	7/6	
St. John Street.							
Sisters of St. John's Home				1/6			
Locum Cottage			1	1/6	2/6	7/6	
1 Bird, G.				1/-	2/-	7/6	
Hall, W. H.	2			1/6		9/-	
9 Hall, Mrs.	2	1	1/-	1/-	2/6	10/-	
27 Newport, Miss	3	1		1/-	2/-	7/-	
32 Rees, C. G.			1	1/-	1/6	6/6	
			1/6	2/-	2/-	7/6	
15 Price, Mrs.			1/-	1/-	2/-	7/-	
20 Knapp, Mrs.	1		1/-	1/-	2/-	7/-	
23 Mullins, Mrs.	3		1/-	1/-	2/6	8/-	
25 Pennington, Mrs.	1		1/-	1/-	2/6	7/-	
27 Hall, Mrs.	2			1/-	1/6	6/6	
					2/6		
29 Jennings, Mrs.	2		1/-	1/6	2/-	7/-	
33 Prosser, C. A.	1		2/-	1/-	2/-	7/6	
36 Wright, Mrs.			1/6	1/-	2/-	6/-	
				1/-	2/6		
38 Cooper, Mrs.			1/-	1/-	2/-		
Thomas, Mrs.		1/-	1/6	1/-	2/-	6/6	/Double Bed.
42 Knight, Miss	4	1	2/-	1/-	2/6	7/6	
				1/6			
Stapp, Mrs.						7/6	
Lowe, Mrs.	1/-		2/6	1/-	2/-	9/-	d Double Bed.
Wagstaff, Mr.			1/-	1/6	2/6	7/6	
Sawyer, C.	2			1/-	2/-	7/6	
Wellington Square.							
Johnson, Mrs.		1	1/-	2/-	2/6	7/-	
Price, A.						7/6	
Sale, E. J.	3		1/-	1/-	2/6	7/6	
Worcester, Mrs.			2/6	1/-	2/-	7/-	
Dixon, Mr.		1	1/-	2/-		1/-	/1 Double Bed.
Rowles, Mrs.			1/-	1/-	1/6	1/-	
					2/-	7/-	
16 Ray, Mrs.	2			1/-	2/-	7/-	For Party
Quartermain, A. E.		1		1/-	2/-	7/-	
Newman, J.							
19 Cooper, Mr.	2	1		1/-	2/-	7/6	
22 Price, Mrs.			1/-	1/6	2/-	6/6	
24 Gardner, Mrs.		2			2/-	6/6	
26 Dixon, G. H.							
28 Dixon, Mrs.		2	1	1/6	2/-	8/-	
30 Dixon, Mrs.		1	1/-	1/-	2/-	7/6	
			1/-1	1/-	1/-	7/-	
Watson, H.			1/-	1/-	2/-	7/6	
Taylor, Mr.			1/-	1/-	2/-	7/-	
3 Newman, A. D.	2	2				6/-	
4 White, Mrs.	2	1	1/6	1/-	2/-	6/-	
5 Newman, Mrs.	1		1/-	1/-	2/-	7/6	
6 Gardner, Mrs.	2	1		1/-	2/-	7/6	
7 Dixon, Mrs.	2	2		1/-	2/-	7/6	
8 Dixon, Miss	2			1/-	2/-	7/6	
9 Price, Mrs.		1		1/6	2/-	7/-	Party of six.
NORTH.							
St. Giles' Street.							
Hall, Mrs.	2	1	1/-	1/-	2/-	7/-	
Quinton,	1		1/-	1/-	2/-	7/-	
Winchester Road.							
Dixon, Mrs.	1		1/-	1/-	2/-	7/-	
Banbury Road.							
Hall, Mrs.			1/-	1/-	2/-	7/-	
Hall, Mrs.			1/-	1/-	2/-	7/-	
Dixon, Mrs.			1/-	1/-	2/-	7/-	
Beech Croft Road.							
Hall, Mrs.			1/-	1/-	2/-	7/-	
NORTH-WEST.							
Woodstock Road.							
Dixon, Mrs.	1		1/-	1/-	2/-	7/-	
Hall, Mrs.			1/-	1/-	2/-	7/-	
Little Clarendon St.							
Dixon, Mrs.			1/-	1/-	2/-	7/-	
Hall, Mrs.			1/-	1/-	2/-	7/-	
Chalfont Road.							
Hall, Mrs.			1/-	1/-	2/-	7/-	Evening Party

Name and Address	No. of Rooms set apart for Patients	Sitting Room and Bedroom	Bedroom	Attendance	Dinner	Rate per Week for Board and Lodging	Notes
Walton Street.							
Bruce, Mr.	2	1	1/-	1/-	2/-	7/-	
Brown, Mrs.	2	1	1/-	1/-	2/-	7/-	
Chapman, G. J.	2		2/-	1/-	2/-	7/-	
Pearson, Mr.	2		1/-	1/-		1	
Green, Mr.	2	2/-	1/-	1/-	2/-	7/-	/1 Double Bed
Jones, Mr.	1		1/-	1/-	2/6	7/6	
Hughes, G.	2		1/6				
Eiles, Mr.	2						
Lewis, Mr.	1	1	1/-	2/6	1/6	10/-	
Lewis, Mr.	1	1	1/-			6/-	
Quartet, Mrs.	1	2/d	1/-			7/-	/1 Double Bed
Bennett, W. J.	2		2/6	1/-	1/6	7/-	
Burgess, G.	2	1	1/-	1/-	2/-	7/-	
Bowering, Mrs.	1	1	1/-	1/-	1/6	7/-	
Watts, J. H.	2	1	1/-	1/-	1/-	7/-	
Bennett, A.			1/-	1/-	1/-	7/-	
Mullings, Miss	2	1		1/-	1/-	7/6	
Pollicott, W. R. ...	2		1/-				
Dixon, Mrs.	2	1		1/-	2/-	7/-	
Dawson, H.	2	1	2/6	1/6	2/-	9/-	
157 Palmer, J. F.	3						
Wright, Mrs.	2	1	1/-	2/-	1/-	7/6	
Hucks, Mrs.	3	1		1/-	1/-		
161 Piper, E. R.	1	1/d					/1 Double Bed
162 Lamey, Mrs.	3		2/6	1/-	1/6	1/-	
				1/6			
163 Peach, A. E.... ...	3	1	1/-	1/-	2/-	7/-	
			1/-	2/1	2/6	6/-	
165 Pratt, Mrs.	2	2	1/-	1/6	2/6	7/-	
166 Smith, W. J.	3	1	1/-	2/-	2/6	8/-	
Worcester Place.							
14 Higgs, Miss	2		1/-	1/-	2/-	7/-	
15 Sharpe, Mrs.	2		1/-	1/-	1/6	6/-	
16 Hart, Mrs.	2	1	1/-	1/-	2/-	7/-	
17 Salaman, Mrs.	1	1	1/-	1/-	2/6	7/6	
				1/6			
20 Preston, Miss	2		1/6			9/-	
21 Pearson, Mrs.	2					6/-	
22 Brown, W. H.	2	1					
Richmond Road.							
Kendall, Mrs.	1	1		1/-	2/-	7/6	
14 Young, Mrs.	2		1/-	1/-	1/6	6/-	
16 Owen, Miss	2	1	1/-	1/-	2/-	8/6	
17 Krug, J.	1		1/-	1/-	1/6	7/-	
				2/-			
18 Lavell, Mr.	2		2/6	1/-	1/6	7/-	
				1/6			
27 Morris, J. R.	2		1/6	1/6	2/-	7/6	
				1/-			
26 Blake, Mrs.	2	1	2/-	1/-	2/-	7/-	
28 Cousins, Mrs.	2		1/-				
Sutcliffe, T.	1	1		9d.	1/-	4/9	
41 Berry, Mrs.	1		1/-	1/-	2/-	7/-	
				1/-			
Walton Crescent.							
Dodd, Mrs.	2	2	1/-	1/-	2/-	7/-	
Cooper, Mr.	2		1/-	1/6	2/-	7/-	
Pearson, W. J.	1		1/-	1/-	2/-	7/-	
Price, Mrs.	1		1/-	1/-	2/-	7/-	
Cox, Mr.				1/-			
Cox, G. H.	2		1/-	1/-	2/-	7/-	
Sutcliffe, W. H.	2			1/-		7/-	
Lewis, J.	2			1/-	2/-	7/-	
Dodd, Mrs.	2	2					/1 Double Beds
Price, G.			1/-		2/-		
Nash, G.	1/d						/1 Double Bed
Cox, E. H.	1		1/-	1/-	2/-	7/-	
Walton Well Road.							
Smith, J.		1					
Morris, Mr.			1/-	1/-	2/-	7/-	
Price, Mr.			1/-	1/-	1/6	7/-	
Cox, Mr.		1	1/-	1/-	2/-	7/-	
St. John's Road.							
Hall, Mrs.	1	1	1/-	1/-	2/-	7/-	
Smith, Mrs.			1/-	1/-	2/-	7/-	
Cox, Mrs.			1/-	1/-	1/6	7/-	
Kingston Road.							
Hall, Mrs.			1/-	1/-	2/-	7/-	
Price, Mrs.			1/-	1/-	2/-	7/-	
Cox, Mrs.			1/-	1/-	2/-	7/-	
Smith, Mrs.			1/-	1/-	2/-	7/-	
Cox

LIST OF LODGING-HOUSES, WITH SCALE OF CHARGES—*Continued.*

Name and Address.	No. of Sitting Rooms and Bedrooms	Extra Bedrooms	Extra Breakfast	Luncheons	Dinner	Full Board per day	Notes.
***Leckford Road.**							
10 Osmond, Mrs.	1	1				7/-	
***Longworth Road.**							
6 Cheshire, J.	2						
***Southmoor Road.**							
10 James, C.	1					1/-	
17 Hayward, W. H.	2						
19 Thurland, J.	2						
31 Frimley, Mrs.	1						
37 Spencer, Mrs.	2	1					
43 Williams, J.	2						
45 Adams, T.	2						
48 Bone, Mrs.	2						
48 Bushy, T. W.	2						
58 Hall, Mrs.	2	1					
68 Tester, Mrs.	2						
90 Kennard, Mrs.	2	1					
92 Keene, L.	2						
94 Tucker, T. J.	1						
97 Farrington, Mrs.	2						
99 Williams, Miss	1						
100 Davis, Miss	1	1					
120 Poulton, Mrs.	1	1					
SOUTH-EAST. Beyond Magdalen Bridge.							
St. Clement's Street.							
4 Wells, Mrs.	2						
London Pl. St. Clement's							
12 Ayers, Mrs.	3						
37 Panting, Mrs.	2						
***Regent Street.**							
1 Gribble, R.	1	2					
5 Tustin, J. W.	1	1					
30 Medcraft, G.	2	1					
40 Kay, A. J.	1	1					
†East Avenue.							
27 Buckland, Mrs.	1						
31 King, F.	1						
Alma Place.							
7 Pitt, J.	2	1					
24 Pike, Mrs.	1						

Name and Address.	No. of Sitting Rooms and Bedrooms	Extra Bedrooms	Extra Breakfast	Luncheons	Dinner	Full Board per day	Notes.
Iffley Road.							
1 Clark, Mrs.	2						
5 Penstone, Miss	2	1					
7 Beesley, H.	2	1					
19 Beesley, C. H.	2	1					
21 Horser, Mrs.	2	1					
29 Shrubb, Mrs.	1	1					
34 Pinckford, Miss	2						
37 Clare, A.	2	1					
39 Mundy, A. J.	2	2					
41 Chapman, Mrs.	2						
47 Ware, Mrs.	3	2					
49 51 53 Jeffrey, Mrs.		12					Boarding House
65 Osborne, Mrs.	2	1d					1 Double Bed
81 Warwick, Mrs.	2	1					
91 Harris, Mrs.	2			9d.	1/-		
***Argyle Street.**							
Liddell, A. B. M.	1	1					
***St. Mary's Road.**							
84 Neville, Mrs.	1d						d Double Bed.
Cowley Road.							
1 Wyatt, Mrs.	2						
2 Hawtin, Mrs.	2			6d.			
44 Pipes, L. E.	2			6d.			
59 Abbey, T.	2	1					d Double Bed.
69 Allward, Mrs.	2			9d.			
81 McDonald, Mrs.	2						
83 Barnard, W. G.	0						
William Street.							
25 Clarke, Miss	2						
Stockmore Street.							
1 Osmond, Mrs.	2						
Marston Street.							
46 Fuckett, Miss	2	1					
†Crown Street.							
14 Wilkins, Mrs.	1						
†Hurst Street.							
20 Massingham, Mrs.	1					7/-	
†Bartlemas Road.							
18 Street, Mrs.	2d						1 Double Bed.

PRINCIPAL HOTELS.

	Accommodation.
* **CLARENDON**, Corn-Market Street	50
CASTLE (Temperance), near Stations	18
CROWN, Corn-Market Street	12
EAST GATE, High Street	20
GEORGE, Corn-Market Street	12
GOLDEN CROSS, Corn-Market Street	12
KING'S ARMS, Parks Road	12
JONES'S HOTEL, Park End St., near Stations	12
MITRE, High Street	50
* **RANDOLPH**, Beaumont Street	90-100
ROEBUCK, Corn Market Street	20
WILBERFORCE (Temperance), Queen Street	16

*Luncheon will be provided at the Clarendon and Randolph Hotels, at a charge of 2/6 per head.

NOTICES.

This list of Hotels and Lodging-Houses has been prepared for the convenience of visitors, who must communicate with them *direct, and not through the Reception Committee.*

In communicating with any of the lodging-house keepers, visitors should quote the terms indicated in the list. A *set* of rooms consist of one sitting-room and one bedroom.

All the lodging-houses in the following list are situated within about half a mile radius of the Reception Room (Examination Schools), with the undermentioned exceptions:—

Streets marked with an *asterisk* (*) are beyond this radius.

Streets marked with a *dagger* (†) are within about half-a-mile of the University Museum, where the Sections will meet.

The lodging-houses are for the most part within easy reach of tram-lines or omnibus routes.

*** **To obtain a revised List of Lodgings please communicate with the Secretary of Lodgings, British Medical Association, The Student's Delegacy, High Street, Oxford.**

SPECIAL RAILWAY ARRANGEMENTS.

To members and their friends attending the annual meeting at Oxford the railway companies of the United Kingdom will grant return tickets, on payment at the time of booking, at a single fare and a quarter. To secure this concession each passenger must produce a special voucher, and these may be obtained on application to the General Secretary, 429, Strand, London, W.C. The reduced fares will be available from July 22nd to August 2nd, both dates inclusive.

Those members desiring to travel to the places where they reside during the meeting of the Association may obtain return tickets at a single fare and a quarter (minimum charge 1s.) on production of cards of membership, from Oxford to any station not more than fifty miles distant to which through bookings are in operation available to return on the same or following day.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

NORTH WALES AND SHROPSHIRE BRANCH.

NORTH CARNARVONSHIRE AND ANGLESEA DIVISION.

A meeting of this Division was held at Bangor on April 20th, Dr. EMYR O. PRICE in the chair.

1. *Vaccination Laws.* It was resolved:

That all the clauses as set down by the Council for presenting to the President of the Local Government Board for the improvement of the existing Vaccination Acts be approved of.

2. *Representation of British Medical Association on the General Medical Council.*—The following resolution was passed:

That the resolution passed by the Representative Meeting at Swansea in 1[illegible] be approved of.

Medical Practitioners and Hydropathic Establishments.—It was suggested that if the practice be prohibited in connexion with hydropathic establishments, it should also be prohibited in connexion with other institutions such as sanatoria, homes for inebriates, hospitals, and insurance companies, but no resolution was passed.

Consultation between Medical Witnesses. As the subject appeared to present many difficulties in the carrying out of it (if such a resolution was adopted) this Division resolved that no resolution be passed on the subject.

THE annual meeting of this Division was held at Bangor on May 25th, Dr. EMYR O. PRICE in the chair.

Election of Officers. The following officers and representatives were elected for the ensuing year: *Chairman:* John Roberts, M.D., Menai Bridge. *Vice-Chairman:* John Lloyd-Roberts, M.B., Colwyn Bay. *Honorary Secretary:* Mr. H. Lloyd Roberts, Penygroes (re-elected). *Representative for Representative Meetings:* Emyr Owen Price, M.D., Bangor. *Representatives on the Council of the Branch:* Mr. R. Arthur Pritchard, Mr. Price Morris, Robert Parry, M.B. *Executive Committee:* Mr. T. L. Jones, R. H. Mills-Roberts, C.M.G., John Evans, M.D., J. R. Prytherch, M.B.

Medical Acts Amendment Bill. It was resolved:

[illegible] agreement with all the principles set forth in the draft [illegible]

Amendments in By-laws. It was resolved:

[illegible] to all the proposed amendments.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

LANCASTER DIVISION.

THE annual meeting of this Division was held on May 16th.

Election of Officers. The following officers were elected for the ensuing year: *Chairman:* Dr. R. Bradley. *Vice-Chairman:* Dr. R. G. Heathcote. *Representative to Representative Meeting:* Dr. H. E. Oldham. *Representatives on Branch Council:* Dr. W. Hall and Dr. Oldham. *Secretary:* Dr. J. A. Gibson. *Committee:* Dr. W. W. Wingate Saul, Dr. C. R. Parker, and Dr. W. D. Barlow.

SOUTH-EASTERN BRANCH:

CROYDON DIVISION.

THE annual meeting of this Division was held at the Croydon General Hospital on May 19th, Dr. CARPENTER in the chair. Forty-seven members were present.

Election of Officers.—The following officers were elected for the ensuing year. *Chairman:* Dr. W. Rosser. *Vice-Chairman:* Dr. Carpenter. *Honorary Secretary:* Mr. Willock. *Representatives on Branch Council:* Dr. Parsons Smith, Dr. Adams. *Direct Representative:* Dr. Macan. *Members of the Executive Committee:* Dr. Duncan, Dr. Fowler, Dr. Wayte, Mr. Newby, Mr. Reid, Dr. Redfern, Mr. Cressy, Dr. Gripper, Dr. Hugo, Mr. Wray, Dr. Meredith Richards.

Vote of Thanks to Retiring President. A cordial vote of thanks was given to Dr. Duncan, the retiring President.

Next Meeting.—It was arranged that the next meeting should be held at Sutton on October 20th.

Consultation between Medical Witnesses.—The following resolution, proposed by Dr. Meredith Richards, was carried unanimously:

That this Division is not prepared to recommend that medical witnesses should be required to consult together before giving evidence in Court.

Medical Practitioners and Hydropathic Establishments. The following resolution, moved by Dr. MACAN, was adopted without dissent:

That this meeting disapproves of the advertising of medical practitioners in connexion with hydropathic establishments in any but medical papers.

Cases, Etc.—The following cases were shown:—Dr. WALE: Transposition of viscera. Mr. CRESSY read notes of nineteen consecutive cases of appendectomy, and showed specimens of appendices removed.—Dr. CARPENTER: Congenital deformities of the metacarpus, with skiagraphs.—Mr. WRAY: (1) retinitis proliferans, (2) spring catarrh.—Dr. ADDEY: (1) cerebral syphilis, (2) palmar eczema with hyperidrosis.—Dr. WAYTE: (1) Psoas abscess treated by aspiration and the injection of iodoform emulsion, (2) osteomyeletis.

MAIDSTONE DIVISION.

THE annual meeting of this Division was held on May 26th.

Annual Representative Meeting.—Dr. W. Douglas was elected representative at the forthcoming Representative Meeting.

Election of Officers.—The following officers were elected for the ensuing twelve months:—*Chairman:* Dr. C. P. Oliver. *Vice-Chairman:* Dr. T. Joyce. *Honorary Secretary and Treasurer:* Mr. A. T. Falwasser. *Representative on Branch Council:* Mr. A. H. B. Hallowes. *Other Members of Executive Committee:* Dr. E. Ground, Mr. A. H. Roberts, Mr. F. T. Travers, Mr. G. M. Tuke.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

THE annual meeting of this Division was held on May 19th, Dr. W. T. EDWARDS and Dr. THOMAS WALLACE successively in the chair. There were twenty-eight members present.

Confirmation of Minutes. The minutes of the previous meeting were read and confirmed.

Election of Officers. The following members were elected for the ensuing year in the various capacities named: *Chairman:* Dr. Thomas Wallace. *Vice-Chairman:* Dr. Charles Vachell. *Honorary Secretary:* Dr. Ewen J. Maclean. *Representative in the Representative Meetings of the Association:* J. Tatham Thompson, M.B. *Representatives on the Branch Council:* Dr. D. R. Paterson, Mr. J. Lynn Thomas, C.B., Dr. P. Rhys Griffiths, Dr. Alfred Sheen. *Further Members of Executive Committee:* Mr. W. Sheen, Mr. T. Garrett Horder, Dr. W. Mitchell Stevens, Dr. W. B. C. Treasure.

Vote of Thanks to Retiring Chairman.—On taking the chair, subsequent to his election, Dr. T. WALLACE moved a hearty vote of thanks to Dr. Edwards, the retiring Chairman, expressing for himself and for the Division the sense of deep obligation under which Dr. Edwards had laid the cause of Welsh education in general and the interests of the medical profession in Cardiff in particular during his long and distinguished career. This having been seconded by Dr. ALFRED SHEEN, was put and carried unanimously.

Report of Executive Committee.—The SECRETARY read the annual report of the Executive Committee, which was received and adopted. The report showed that during the year there had been an accession of 14 new members, bringing the present total to 126. This satisfactory increase was in part attributable to the circularization of non-members within the Division area. During the year there had been 7 general meetings (5 being ordinary and 2 special), with an average attendance of 21. Besides the matters referred to the Divisions generally, the working of the Midwives Act and the question of the establishment of a training centre for midwives had received careful attention. Nine papers had

been contributed on medical and surgical subjects. The Division expenses up to December 31st, 1903, had been £8 3s. 3d., and this had been met by a cheque from the Branch Treasurer.

Annual Representative Meeting.—The agenda of the Oxford Representative Meeting were considered in detail and instructions given to the newly-elected representative on the various sections and clauses.

The University of Wales.—The following resolution was agreed to *nem. con.*:

That this meeting of the Cardiff Division of the British Medical Association heartily approves of the application by the Court of the University of Wales for a supplemental charter to enable the University to confer degrees in medicine, expresses its appreciation of the fact that the application has support of His Royal Highness the Prince of Wales, the Chancellor of the University, and hereby records its opinion that from such a charter much benefit would accrue to the people of Wales.

Central Midwives Board.—The SECRETARY reported that he had received a letter from the Secretary of the Central Midwives Board, intimating that the members of the Board commended the lines on which the Midwives Committee of the Division were working in the matter of establishing a local training centre for midwives.

Vote of Thanks to Retiring Officers.—A vote of thanks to the retiring officers, the ex-Representative, and to the Chairman, concluded the business of the meeting.

Annual Dinner.—In the evening the first annual dinner of the Division was held at the Royal Hotel. There were forty present, and the Chairman (Dr. Thos. Wallace) was supported by Dr. W. T. Edwards (ex-Chairman), Principal Griffiths, and Professor Hepburn. Amongst others who attended were the Rev. D. Davies, the Rev. Father Brady, Dr. Evan Davies (Honorary Secretary North Glamorgan Division), Dr. Greer (Honorary Secretary Monmouth Division), and Dr. T. H. Morris (Chairman of the County Education Committee). The Principal and Professor Hepburn, in responding to the toast of "Cap and Gown," referred to the great facilities offered by a centre, such as Cardiff could claim to be, for the establishment of a full medical, surgical, and obstetric curriculum, and expressed the hope that with the assent to the recent application for a supplemental charter by the University of Wales, to empower the conferring of a degree in those subjects, full advantage would be taken of those facilities. Did they but appreciate the benefits which would accrue to them from the adoption of such a course, the people of Wales would not be wanting in the contribution of the necessary funds. Songs and a reading were interspersed between the toasts, and before the close of the proceedings Dr. Wallace, on behalf of the Executive Committee, presented to the Honorary Secretary of the Division a handsome gold sovereign purse in recognition of his services in that capacity during the past year.

MONMOUTH DIVISION.

THE annual meeting of this Division was held in the Newport and County Hospital on Friday, May 27th, at 3.30 p.m., Dr. J. W. MULLIGAN in the chair.

Election of Officers.—The officers elected for the ensuing year were:—*Chairman:* G. A. Brown. *Vice-Chairman:* J. Glendinning, M.D. *Honorary Secretary:* W. J. Greer. *Representative:* W. D. Steel, M.D.; *Representatives on Branch Council:* J. W. Mulligan, M.D., L. D. Gamble, M.B., R. J. Paton, M.D. *Executive Committee:* S. B. Mason, J. Howard-Jones, M.D., E. M. Griffith, M.D., T. M. Thomas, M.D.

Vote of Thanks to Retiring Chairman.—A vote of thanks was unanimously accorded to Dr. Mulligan for the able manner in which he had conducted the Division through a critical period in the life of the Association; Dr. BROWN then took his seat in the chair.

Confirmation of Minutes.—The minutes of the last meeting at Abergavenny were read and confirmed.

Report of Executive Committee.—The first annual report of the Executive Committee was read. This showed that the meetings in the past year were very successful, and that the membership was steadily increasing. The Committee strongly recommended that the members should support the candidature of Dr. Essex for the Central Council. They also expressed the opinion that as the annual meeting of the Branch was to be held soon in Newport, the Division should entertain the members to tea, lunch being already provided for by the President-elect, Dr. Marsh, Newport. The report was adopted. —On the motion of Dr. GLENDINNING, seconded by Dr. W. D. STEEL, the Secretary was directed to draw up a circular to be sent to members urging the candidature of Dr. Essex.

Annual Representative Meeting.—The business of the Annual Representative Meeting was carefully considered and instructions given to the representative.

The Title of "Dr."—Dr. HAMILTON'S motion on the agenda:

That all registered medical practitioners are entitled to use the title "Dr."

was taken with the business of the Representative Meeting. The speaker reviewed some of the correspondence which had appeared in the BRITISH MEDICAL JOURNAL, and said that evidently many men felt that it would be of advantage to them to be able to use the title by right as well as by courtesy, and that as a graduate himself he did not feel or assume any superiority over his brethren who were licentiates.—The HONORARY SECRETARY seconded the resolution. —The discussion was carried on by Drs. HOWARD-JONES, GLENDINNING, COUMBE, PATON, GRATTE, BASSETT, VINES, and the CHAIRMAN.—The previous question was put, and an amendment was put and lost, the resolution being carried.

Protected Titles of Drug Preparations.—The resolution of Dr. J. B. COUMBE was then taken:

To call attention to the disadvantage to the profession and to the public of prescribing drugs under the protected titles "tabloid," "jelloid," "cocoid," etc.

—After considerable discussion the resolution of the Wandsworth Division was adopted:

That it is desirable that the Central Council draws the attention of the medical profession individually to the fact that by recommending by name certain drugs and certain preparations of those drugs, they are not only allowing themselves to be used indirectly as touts for wholesale druggists, but are also helping their patients to form, either in themselves or others, serious habits of drug abuse.

That with the view of checking the indiscriminate dispensing of dangerous drugs, the Central Council of this Association be requested to appoint a committee to investigate the subject, either alone or in conjunction with the Pharmaceutical Society, and to report what steps they would recommend should be taken to remedy the present grave defect in the law.

Future Meetings.—It was decided that the meetings should be held quarterly as before. The annual meeting to be on the last Friday in May at Newport, a meeting to be at Pontypool on the first Friday in September, the other meetings to be on the last Fridays of November and February at Newport and Abergavenny respectively.

Consultation between Medical Witnesses.—The recommendation of the Medico-Political Committee:

Whether it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation

was considered.—Dr. HAMILTON thought that it was not advisable, that no good could be arrived at, and that the legal profession would be likely to object.—Dr. GRATTE said that there ought to be some means of bringing the medical witnesses together before going into court. Dr. LAWRENCE believed that it was not possible for this to be carried out, that opinions would often differ.—Dr. MULLIGAN emphasized the rule that no medical man should allow himself to be an advocate; if men fairly judged and adhered to the facts there would be very little difference of opinion. Dr. NEILSON held that the recommendation was ideal, but that it could not be carried out in practice. The HONORARY SECRETARY thought that it might be best to put it that medical witnesses should consult if the parties desired it.—The CHAIRMAN considered that the resolution was a counsel of perfection, that it was almost impossible in practice, and that medical assessors should be made use of.—The discussion was continued by Drs. PATON, MARSH, FROST, and MCGINN, the general feeling of the meeting being that the resolution was impracticable.

Medical Practitioners and Hydropathic Establishments.—The recommendation of the Ethical Committee:

That the question of the advertising of medical practitioners in connexion with hydropathic establishments be referred to the Divisions.

was next discussed. The opinion of the meeting was that the name of a medical man ought not to be used in these advertisements unless the medical man devoted his whole time to the establishment.

Votes of Thanks.—Dr. MARSH proposed, Dr. VINES seconded, and it was carried unanimously:

That the best thanks of the meeting be given to Dr. Brown for so ably presiding.

A hearty vote of thanks was accorded to the Directors of the Newport and County Hospital for their very kind hospitality to the Division during the year.

Members Present.—The members present at the meeting were: Drs. Brown, Mulligan, Frost, Paton, Vines, Marsh, Neilson, P. McGinn, Hamilton, Gratte, Bassett, Glendinning,

Howard Jones, Tonks, Lewis, J. McCann, Coombe, Mason, Green, Lawrence, Steel, T. M. Thomas.

EAST ANGLIAN BRANCH:

SOUTH ESSEX DIVISION.

THE annual meeting was held at Southend-on-Sea, on Thursday, May 26th; A. CLOUGH WATERS, M.B., J.P., in the chair. An address by T. H. OPENSHAW, C.M.G., M.S., F.R.C.S., on "The ambulatory treatment of fractures of the lower extremity, by Hoefflicke's modified Hessing's splint case appliance," elicited much interesting discussion. Patients were shown with the splint applied, and the saving of long and tedious confinement to bed was commented upon.—The CHAIRMAN showed an ovarian cyst with strangulated pedicle, recently removed from a patient, who made a satisfactory recovery, and Dr. RAPER exhibited a case of infantile paralysis.

Medical Practitioners in Hydropathic Establishments.—It was resolved:

That this Division disapproves of the advertising of medical officers of hydropathic institutions.

Consultations between Medical Witnesses. The following resolution was passed:

That in a majority of cases it is advisable that the medical witnesses engaged on each side in legal cases should meet in consultation.

Election of Officers. The following officers were appointed for the ensuing year: *Chairman:* Dr. Clough Waters. *Vice-Chairman:* Dr. Raper. *Secretary:* Dr. Cardy Bluck. *Representative with Mid Essex:* Lieut.-Col. Westcott, R.A.M.C., C.M.G. *Representative on Branch Council:* Dr. Forsyth. *Executive Committee:* Drs. Bridger, Forge, Forsyth, G. F. Jones-Nash, Ward, and Lieut.-Colonel Westcott, R.A.M.C., C.M.G.

METROPOLITAN COUNTIES BRANCH

MARYLEBONE DIVISION.

THE annual meeting of this Division was held on Tuesday, May 31st, in the rooms of the Medical Society of London, Chandos Street, Sir VICTOR HORSLEY in the chair.

Election of Officers.—Chairman: Mr. Andrew Clark. *Vice-Chairman:* Dr. de Havilland Hall. *Honorary Secretary and Treasurer:* Dr. Comyns Berkeley. *Representatives of the Division on the Council of the Metropolitan Counties Branch:* Dr. F. Dutton, Dr. Hawthorne, Dr. S. Spicer, Dr. Hugh Woods, Mr. Ernest Clarke, Mr. F. Lee, and Mr. H. R. Walker. *Representative of the Division at the Annual Representative Meeting at Oxford:* Sir Victor Horsley, who was given a free hand to vote as he thought best at that meeting.

Report of Executive Committee. The annual report of the executive officers was received, adopted, and ordered to be entered on the minutes.

Letter of Thanks to Retiring Chairman: It was proposed by Sir Victor Horsley, seconded by Mr. ANDREW CLARK, and carried by acclamation, that a letter be sent to Professor Howard Marsh, thanking him for the very able, kind, and courteous manner in which he had filled the office of Chairman of the Division during the past year.

LANCASHIRE AND CHESHIRE BRANCH:

BIRKENHEAD DIVISION.

THE annual general meeting of this Division was held in the Town Hall, Birkenhead, on May 31st, the PRESIDENT, Dr. DAY, in the chair. Thirteen members were present.

Confirmation of Minutes. The minutes of the last general meeting were read and confirmed.

Report of Executive Committee. The annual report of the Executive Committee was read and approved.

Election of Officers. The following were elected officers and Committee for the ensuing year: *President:* Dr. W. E. [illegible]. *Vice-Presidents:* Dr. A. M. [illegible]. *Honorary Secretary:* Dr. F. H. H. Cairns. *Representative on Branch Council:* Dr. P. H. Day. *Executive Committee:* Drs. J. Stockman, F. Poath, C. Camp, P. H. Day, E. H. W. [illegible], D. Easton, J. Hutton, W. H. Williams. With regard to the representatives for the Representative Meeting, the Division decided to [illegible] the Council with regard to the question of the Inland Mail Deputation, provided that the new Division should be represented for the purposes of the deputation.

Meeting between Divisions. The meeting considered the matters referred to the Division and instructed the Secretary to receive the [illegible] of the British Medical Journal and the Secretary of the Association.

Annual Representative Meeting. The meeting then proceeded to discuss the notices of motion for the Annual Meeting of Representatives, and instructed their representative thereon.

Other Business.—A memorandum from the Exeter Division was then read on the subject of the government of the medical profession.

Contract Medical Practice.—The matter of contract practice in connexion with the recent circular letter from the Medical Secretary of the Association was considered.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE annual meeting of the Branch was held in the Royal Infirmary, Glasgow, on May 20th. The business meeting was held in the Board Room of the Infirmary at 3 o'clock.

Introduction of New President. Dr. EBENEZER DUNCAN, the retiring President, introduced as his successor in the chair, Dr. J. C. McVail, the President-elect.

Reports.—The annual report of the Branch Council, the financial statement of the Branch, and the report of the Medico-Ethical Committee were submitted and adopted.

Election of Officers.—The following office-bearers were unanimously elected: Dr. John Macintyre (Glasgow), President-elect, and Drs. Jas. H. Nicoll and Jas. Hamilton, Honorary Secretaries.

Vote of Thanks to Retiring President.—On the motion of the PRESIDENT the meeting passed a unanimous and hearty vote of thanks to the retiring president, Dr. Eben. Duncan, for his most efficient work as President during a year of active and somewhat critical change in the history of the Branch.

Mr. ANDREW CLARK, the Chairman of Council of the Association, who was present as the guest of the Branch, addressed the meeting on the functions of the Branch, Branch Council, and Divisions, as constituted under the reorganization scheme. (See BRITISH MEDICAL JOURNAL, May 28th, p. 1276).

Demonstration. At 4 p.m. a large audience of medical men and women assembled in the new Electric Pavilion where Dr. JOHN MACINTYRE gave a demonstration on Recent Electro-Therapeutic Methods of Treatment. The demonstration covered the whole field of modern electro-therapeutics, and was followed with much interest by the members.

Dinner. In the evening members dined in the St. Enoch Hotel, Glasgow, Dr. J. C. McVail in the chair, the guest of the evening being Mr. Andrew Clark, Chairman of Council of the Association. The toast list was as follows: "The King," Chairman; "The British Medical Association," Dr. Eben. Duncan; reply, Mr. Andrew Clark, F.R.C.S.; "The University," Dr. Wm. Findlay; reply, Professor McCall Anderson; "The Faculty of Physicians and Surgeons," Dr. Wm. Frew; reply, Mr. Henry E. Clark, C.M.G.; "The Branch," Dr. Norman Walker; reply, Dr. J. C. McVail; "The Other Scottish Branches," Dr. D. C. McVail; reply, Dr. R. G. Highet; "The Royal Infirmary," Dr. Bruce Goff; reply, Dr. Maxtone Thom; "The Chairman," Mr. Andrew Clark, F.R.C.S.

BATH AND BRISTOL BRANCH:

BRISTOL DIVISION.

THE annual meeting of this Division was held in Bristol on May 19th, Dr. E. MARKHAM SKERRITT in the chair. Twenty-six members were present.

Election of Officers. The following were elected officers for the ensuing year: *Chairman:* Dr. Barclay J. Baron. *Vice-Chairman:* Dr. E. Markham Skerritt. *Honorary Secretary and Treasurer:* Dr. Newman Neild. *Council of Branch:* Dr. Shaw. *Representative of Division in Representative Meetings:* Dr. Michell Clarke.

Annual Report. The annual report was received and adopted.

Alteration of Rules. The rule as to alteration or repeal of rules was altered.

SOUTH WESTERN BRANCH:

DEVON DIVISION.

THE annual meeting of this Division was held on May 19th.

Election of Officers. The following officers were elected for the ensuing year: *Representatives of Council:* Dr. Cuthbert Lennox Walker, Monkokehampton; Dr. R. E. Stephens, St. Austell; [illegible] Dr. Richard Gayford, Truro. *Representative at Representative Meeting:* Dr. W. Whitworth, St. Agnes. *President of the Division:* Dr. F. Charles Elusking, Falmouth. *Vice-President:* Dr. Richard Gayford, Truro. *Honorary Secretary and Treasurer:* Dr. M. R. Taylor, Cross Street, Helston.

Printed and published by the British Medical Association at their Office, No. 429 Strand, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 25TH, 1904.

CONTENTS.

	Page.
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Trowbridge Division	1..
Birmingham Branch: Nuneaton and Tamworth Division	191
Cape of Good Hope (Western) Branch	1..
Cape of Good Hope (Eastern Province) Branch	197
Dundee Branch	1..
East Anglian Branch: North Suffolk Division	1..
South Suffolk Division	..
South and West Suffolk Divisions	1..
Edinburgh Branch: South-Eastern Counties Division	1..
South Edinburgh Division	1..
Glasgow and West of Scotland Branch: Lanarkshire Division	1..
Hong Kong and China Branch	1..
Lancashire and Cheshire Branch: Blackburn Division	1..
Burnley Division	1..
Chester Division	1..
Liverpool (Bootle) Division	1..
Liverpool (Western) Division	1..
Preston Division	1..
Stockport and Macclesfield Division	1..
Malta and Mediterranean Branch	1..
Metropolitan Counties Branch: Hampstead Division	194
Stratford Division	194
Metropolitan Counties Branch: Tottenham Division	194
Westminster Division	194
Munster Branch	1..
Northern Counties of Scotland Branch	1..
North Wales and Shropshire Branch: Denbigh and Flint Division	192
South-Eastern Branch: Horsham Division	191
Isle of Thanet Division	195
South-Eastern of Ireland Branch	196
South Midland Branch: Aylesbury Division	1..
South Wales and Monmouthshire Branch: South-West Wales Division	19..
Staffordshire Branch: North Staffordshire Division	1..
Ulster Branch. Belfast Division	1..
Derry Division	193
Worcestershire and Herefordshire Branch: Worcester Division	1..
Yorkshire Branch: Halifax Division	194
Harrogate and Richmond and Northallerton Divisions	193
York Division	194
MEDICO-POLITICAL COMMITTEE:	
Circular to Honorary Secretaries of Divisions	197
INDEX TO VOL. I FOR 1904	199

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

PRESTON DIVISION.

THE annual meeting of this Division was held in the Town Hall, Preston, on April 28th, the President, Dr. R. C. BROWN, in the chair. Eighteen members were present.

Confirmation of Minutes.—The minutes of the last general meeting were read and confirmed.

Election of Officers.—The following were elected officers and Committee for the ensuing year:—*President:* Dr. R. C. Brown; *Vice-President:* Dr. Garner. *Honorary Secretary and Treasurer:* Dr. W. H. Irving Sellers. *Representative on the Council of the Branch:* Dr. Rayner. *Representative in Representative Meetings of the Association:* Dr. D. Turnbull Smith. *Executive Committee:* Drs. Anderson, Jones, Lonie, and Mooney

The Association and Medical Defence.—This question was discussed, and the majority suggested that some means of amalgamation should be arranged with the existing Defence Societies.

The Medical Acts Amendment Bill.—The proposed Medical Acts Amendment Bill was discussed, special attention being called to Clause 34. It was resolved that the clauses be endorsed and approved of.

Medical Practitioners and Hydropathic Establishments.—It was resolved:

That this Division objects to the public advertising of the names of men attending hydropathic establishments. This Division would also draw the attention of the Ethical Committee to the fact that this direction is subverted by Clause 34, Part VI, of the British Medical Association Draft Medical Act Amendment Bill, 1903.

Consultation between Medical Witnesses.—A resolution was passed advocating that such consultations should take place with the consent of counsel and clients.

Vaccination Draft Laws.—All clauses as set down were endorsed and approved of by a majority of 11 for and 2 against Clause 6.

LIVERPOOL (WESTERN) DIVISION.

THE annual meeting of this Division was held on May 17th at the Liverpool Medical Institution.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Election of Officers.—The following members were elected, or re-elected, respectively for the following year, namely:—*Chairman:* Dr. James Barr. *Vice-Chairman:* Mr. Thelwall Thomas. *Secretary:* Dr. Karl Grossmann. *Representatives on Branch Council:* Dr. Grossmann and Mr. F. C. Larkin. *Representative in the Representative Meeting of the Association:* Dr. Grossmann. *Other Members of the Executive Committee:* Dr. Drummond, Dr. N. Raw, Dr. Stookes, Mr. R. Williams.

LIVERPOOL (BOOTLE) DIVISION.

AT the annual meeting of this Division the following officers were elected: *Chairman:* Joseph Walker. *Vice-Chairman:* Robert Turner, M.D. *Honorary Secretary:* W. J. Fleetwood, M.D. *Representative:* W. J. Fleetwood, M.D. *Representatives on Branch Council:* T. M. Wills, F.R.C.S.I.; W. J. Fleetwood, M.D.

BURNLEY DIVISION.

The annual meeting of this Division was held on May 27th.

Election of Officers.—The following officers were elected: *Chairman:* R. Crawshaw Holt, M.D. *Vice-Chairman:* C. M. Mitchell, M.D. *Representative on the Branch Council:* Mr. J. M. Ferguson. *Honorary Secretary:* James Haworth, M.B. *Executive Committee:* The existing Executive Committee was reappointed.

CHESTER DIVISION.

THE annual meeting of this Division was held in association with the Crewe Division in the Board-room of the Chester General Infirmary on May 31st. Dr. MANN, Vice-Chairman, presided. Letters, telegrams, etc., were read from Dr. Hamilton (Chairman) and Dr. Brierley regretting inability to attend.

Confirmation of Minutes. The minutes of the last annual meeting and of the last meeting of the Executive Committee were confirmed.

Committee's Report and Financial Statement.—The Committee's annual report and the financial statement were read and approved of.

Election of Officers.—The following were elected:—*Chairman:* Dr. James Taylor. *Vice-Chairman:* Dr. F. M. Granger. *Honorary Secretary and Treasurer:* Dr. H. W. King. *Representative on the Branch Council:* Dr. Atkinson. *Representative of the Divisions of Chester and Crewe in Representative Meetings of the Association:* Dr. H. W. King. *Executive Committee* (in addition to the *ex-officio* members): Drs. Parry, Duff, Jephcott, and Cahill.

Consultation between Medical Witnesses.—After a short discussion, the following resolution was proposed by Dr. KING and seconded by Dr. PARRY:

That it is desirable that, with the concurrence of the principals on both sides, consultation between the medical witnesses on both sides should take place.

This was carried *nem. con.*

Other Business.—A letter from Dr. Finny (Ellesmere Port) to the Chairman was then read, with an enclosure dated May 26th from the Secretary of the Insurance, Provident, and Pensions Societies, London and North-Western Railway. It dealt with the fact that up to April 30th, 1904, the London and North-Western Railway paid a lump sum to their certifying surgeons for medical certificates of sickness, etc. Since the above date this practice had been discontinued, and any doctor could certify. The grievance was, however, not so much this as that the certificate given to the sick member was permitted by the railway officials to be copied for the secretaries of other, often two or three quite different, clubs, and vice versâ copied by the railway officials from other certificates, the sum chargeable for each certificate being thus lost to the medical officers of the respective clubs. The letter from the Secretary to the Insurance, Provident, and Pension Societies of the London and North-Western Railway, Euston Station, was to the effect that as the rules of the Societies did not disallow it, he was obliged to accept the copies. Dr. CAHILL brought the matter forward for Dr. FINNY, and gave some further explanations. After a short discussion it was suggested by Dr. TAYLOR that if the words "not to be copied" were written across the certificate the object desired would be attained.—This concluded the business of the meeting.

STOCKPORT AND MACCLESFIELD DIVISION.

THE annual meeting of this Division was held at the Stockport Infirmary on June 1st, Dr. JAMES BRIERLEY HUGHES, President of the Division, in the chair. Thirteen members were present.

Election of Officers.—The President, and Mr. B. W. Hingsman, F.R.C.S., Vice-Presidents, and Edwin Rayner, M.D., the Honorary Secretary, were re-elected for the ensuing year. Alfred Gordon, M.B., and Edwin Rayner, M.D., were re-elected Representatives on the Branch Council, and Mr. John Brierley Hughes, M.B., Representative of the Division in Representative Meetings of the Association; the other members of the Executive Committee being Dr. Arrowsmith, Dr. Brownie, Dr. Carruthers, and Dr. E. A. Cumpston.

Report of Committee.—In the report of the Committee, regret was expressed at the apathy which was so marked a feature of and so detrimental to the profession.

The Association and Medical Defence.—The medical defence scheme of the Association did not meet with general acceptation, many of the members being also members of the Medical Defence Union.

BLACKBURN DIVISION.

Committee Meeting.

A COMMITTEE meeting was held at the Old Bull Hotel, Blackburn, at 8.30 p.m. on Thursday, June 9th. Present: Drs. Ballantyne, Wallers, Nash, Stephenson, and Greenwood.

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Excursions.—The HONORARY SECRETARY reported receipt of a permit for the Lancashire and Cheshire Branch to visit Hoghton Towers on June 30th. He also reported the receipt of letter from Dr. Helme *re* Stonyhurst morning trip. Dr. NASH also reported that on Wednesday, June 8th, the Lancashire and Cheshire Branch vetoed this trip. It was resolved that the Honorary Secretary write to Dr. Helme asking for official intimation to this effect, so that he might forward it to the Rector of Stonyhurst cancelling the trip.

General Meeting.

A meeting of the Division was held at the Old Bull Hotel, Blackburn, on Thursday, June 9th. Present: Drs. Ballantyne, Martin, Baillie Craig, Heywood, Steele, Baxter, Taylor, G. H. Davies, Stevenson, Bannister, Wallers, Prebble, Cumming, Cunliffe, Smith, Moir, Craig (Darwen), Gregson, Scott Heyliger, Nash, Greeves, Miller, Ramsay, Wells, and Greenwood. The chair was taken by Dr. BALLANTYNE (Vice-President).

Confirmation of Minutes.—The minutes of the last meeting were confirmed.

Club Practice.—A deputation from the Darwen Medical Society was then received, and Dr. BAXTER opened a discussion on club practice, stating that the Darwen Co-operative Society was about to form a Medical Aid Association, and had circularized all the medical men in Darwen to this effect. Several members took part in the discussion, and the following resolution was proposed by Dr. CRAIG and seconded by Dr MARTIN:

That, having heard from the Darwen Medical Society their conduct in declining to have any connexion with a proposed Medical Aid Association, this meeting of the Blackburn Division of the Lancashire and Cheshire Branch of the British Medical Association unreservedly approves of their dignified attitude, and pledges itself to give them every reasonable support in resisting the formation of Medical Aid Societies.

An amendment was proposed by Dr. NASH and seconded by Dr. MOIR as follows:

That this Division approves of and confirms the dignified attitude of the Darwen Medical Society with the Darwen Co-operative Society, and wishes to emphasize the fact that any medical man taking up the position offered by the Darwen Co-operative Society will at once imperil his position on the *Medical Register*.

Eight voted for the amendment and ten against. The original proposition was then put and carried.

Entertainment of Branch.—The SECRETARY reported that he would be willing to receive further subscriptions towards entertaining the Lancashire and Cheshire Branch at Blackburn on June 30th.

Annual Representative Meeting.—Dr. NASH as Representative was then instructed to give notice at the Oxford meeting in July next that he would inquire into the statement that the Editor and Sub-editor of the BRITISH MEDICAL JOURNAL received extra money in addition to salaries for editorials in the JOURNAL, and that this Division disapproved of the principle.

BATH AND BRISTOL BRANCH:

TROWBRIDGE DIVISION.

A MEETING of this Division was held at Trowbridge on May 11th, Dr. KEIR in the chair. There were present Drs. W. J. A. Adye, Dalby, Flemming, Haydon, Locket, Pearse, G. C. Taylor, H. P. Taylor, C. R. Wood, and Tubb-Thomas, Secretary.

Election of Officers.—Dr. C. R. Wood was elected Chairman for the ensuing year; Dr. Haydon Vice-Chairman; J. Tubb-Thomas, re-elected as Secretary and Treasurer. The Executive Committee and Representatives on Branch Council were re-elected.

Area of Division.—It was resolved:

That the Council of the Association be petitioned to enlarge the area of the Division so as to include the whole of that portion of Wiltshire which is excluded in the Bath and Bristol Branch.

Consultation between Medical Witnesses.—It was resolved:

That in the opinion of the Division, it is not desirable that medical witnesses engaged on each side in legal cases should meet in consultation.

It was further resolved:

That in the opinion of the Division the difficulty would be largely

ıt by appointing medical assessors to sit with magistrates and judges cases turning upon medical evidence.

Medical Practitioners and Hydropathic Establishments.—It ıs resolved:

That advertising of medical practitioners in connexion with hydro- thic establishments and sanatoria is undesirable except in medical pers.

The Association and Medical Defence.—It was resolved:

That it is undesirable at present for the British Medical Association take up the question of medical defence.

SOUTH-EASTERN BRANCH:

HORSHAM DIVISION.

HE annual meeting of the Division was held at Horsham on ay 18th, Mr. E. J. BOSTOCK in the chair; seven members ere present.

Confirmation of Minutes.—The minutes were read and con- med.

Election of Officers.—The officers were all re-elected, and r. F. A. Juckes was elected on the Executive Committee, in e place of Sir W. Kynsey.

New Member.—Mr. Fred. W. Lee, of Storrington, was elected member of the Division.

Medical Practitioners and Hydropathic Establishments.—The uestion of advertising by medical practitioners attached to dropathic establishments was discussed, and it was unani- ously agreed that the system was very undesirable.

Consultations between Medical Witnesses.—The question of nsultations between medical witnesses in legal cases was scussed, and it was decided that such a suggestion was practicable.

Address.—Dr. H. LEWIS JONES (London) gave a very inte- sting address on the Recent Advances in Electro-thera- utics, dealing with radium (of which he showed a small mple), *x* rays, high-frequency current, and the electric binet, describing the various diseases and mode of action applying each method.

BIRMINGHAM BRANCH:

NUNEATON AND TAMWORTH DIVISION.

MEETING of this Division was held on May 19th at Nuneaton eneral Hospital.

Consultation between Medical Witnesses.—The following solution was passed:

The Division is of opinion that in the majority of cases, more pecially in those where there is prospect of settlement out of court, e consultation of medical witnesses is advisable.

The Association and Medical Defence.—It was resolved:

That the Division is unanimously of the opinion that as it seems im- ssible that the two Societies now doing such excellent work can be corporated with the medical defence department of the British edical Association, it is wiser not to proceed in the matter.

o favourable replies had been received to the circular sent the members of the Division.

Medical Practitioners and Hydropathic Establishments.—The llowing resolution was passed:

That the advertising of medical practitioners in connexion with dropathic establishments is contrary to the ethics of the profession; id it is exceedingly derogatory for medical men to allow their services be forced on visitors to these institutions against their wish.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

HE annual meeting of the Branch was held at Elgin on lay 21st, Dr. ALLAN, President, in the chair. Twenty-two iembers were present. The SECRETARY read a letter from r. T. R. Macdonald (now of Hawick) stating that on account f having removed from the district he regretted he would e unable to occupy the President's chair at this meeting. pologies for inability to attend were read from Drs. Bruce Dingwall), Simpson (Golspie), Maclachlan (Dornoch), Duncan Strathpeffer), and others.

Confirmation of Minutes.—The minutes of the previous meet- ıg were read and approved.

The late Dr. Milligan.—It was resolved to record on the ıinutes the loss the Branch had suffered by the death of r. Milligan (Forres), who had been a member of the Branch or many years and took a warm interest in its proceedings. t was resolved to forward a minute of condolence to Mrs. Milligan.

Election of Officers.—The office-bearers for the ensuing year ere appointed:—*President:* Dr. Allan. *President-elect:* Dr. clanders. *Vice-Presidents:* Dr. Murray and Dr. Ogilvie rant. *Representative in Representative Meetings:* Dr. J. Munro Moir. *Representative on Central Council:* Dr. James Murray. *Honorary Secretary and Treasurer:* Dr. J. Munro Moir. *Members of Council:* Dr. Mackay, Dr. Cruickshank, Dr. Sutter, Dr. Mackenzie, Dr. Adam, and Dr. Forsyth.

Future Meetings.—It was resolved to hold the autumn meeting at Forres. Regarding the meeting place for next year, the members, while anxious to give those resident in the northern parts of the Branch an opportunity of attending an annual meeting, were influenced in their finding—that it should be held in Inverness—by the fact stated by Dr. Asher (Thurso) that neither Tain, Dornoch, nor Golspie would suit members living beyond Dingwall or in the west, as the time left at their disposal—not more than an hour or two—was very limited, and that members living in the Northern Division of the Branch as well as those in the Southern, in order to attend a meeting at either of the places named, would have to go there the previous night and to leave comparatively early next day; for this reason the meeting decided on Inverness as the most convenient centre for the annual meeting.

Consultations between Medical Witnesses.—Dr. MURRAY moved:

That it is not desirable that the medical witnesses engaged on each side in legal cases should meet in consultation.

This was seconded by Dr. DUGUID (Buckie). Dr. MACKAY (Elgin) moved the previous question. This was seconded by Dr. MACKENZIE (Inverness). The motion was carried.

Medical Practitioners and Hydropathic Establishments.—With regard to the question of the advertising of medical practitioners at hydropathic establishments it was considered by the meeting that it saw no objection to hydropathic establishments announcing the names of their medical attendants provided it was understood that any other medical practitioner was allowed to attend visitors if they—the visitors—so desired.

The Association and Medical Defence.—The question whether the Association should undertake medical defence gave rise to considerable discussion. The SECRETARY stated that at a meeting of the Branch on June 9th, 1897, the following resolution was unanimously adopted:

That in the opinion of the Branch it is not desirable that the Association should institute medical defence.

Dr. DUGUID (Buckie) moved a resolution similar to the above, which was seconded by Dr. ADAM (Forres). Dr. MACKENZIE (Inverness) moved an amendment:

That the Association take up the question of medical defence.

This was seconded by Dr. IRONSIDE (Fochabers). On a vote being taken 13 voted for the motion and 8 for the amendment. The motion was declared carried. With reference to this matter the SECRETARY intimated that he had sent out 112 circulars asking the members whether they would be willing to acquiesce in any defence scheme which the Association took up. He had only received 14 replies in favour of the scheme proposed, 2 replied that they were in favour of it provided terms were arranged with the existing Medical Defence Unions.

Paul Memorial Fund.—Dr. MACKAY (Elgin) made a statement with reference to the Paul Memorial Fund which was raised by subscription a number of years ago to perpetuate the memory of Dr. Paul, a well-known practitioner in Elgin, who died about 1865. It was remitted to Dr. Mackay to make the necessary arrangements to carry out the wishes of the subscribers.

EAST ANGLIAN BRANCH:

NORTH SUFFOLK DIVISION.

THE annual meeting of this Division was held on Wednesday, May 25th, at the Y.M.C.A., Lowestoft, Mr. H. B. WALKER and Dr. W. M. CROWFOOT successively in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* Dr. W. M. Crowfoot. *Vice-Chairman:* Mr. H. B. Walker. *Honorary Secretary and Treasurer:* Dr. W. Tyson. *Representative on Branch Council:* Mr. H. B. Walker. *Executive Committee:* Messrs. Ransome, Hubert Warwick, and Hudson.

Report of Executive Committee.—The annual report of the Executive Committee was read and approved.

Paper.—Mr. RANSOME read a paper on a case of angio-neurotic oedema, and an interesting discussion followed.

Matters Referred to the Divisions.—The meeting considered the matters referred to the Divisions.

GLASGOW AND WEST OF SCOTLAND BRANCH:

LANARKSHIRE DIVISION.

THE annual meeting of this Division was held on May 26th, in the Royal Hotel, Hamilton, Dr. BRUCE GOFF in the chair.

Confirmation of Minutes.—The minutes of last meeting were read and approved of, and were signed by the Chairman.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman:* Dr. Bruce Goff. *Vice-Chairman:* Dr. John Fotheringham. *Honorary Secretary:* Dr. Livingstone Loudon. *The Council of the Division* was re-elected as formerly (the name of Dr. Livingstone Loudon as Secretary being substituted for that of Dr. R. H. Watson resigned). *Council:* Dr. Bruce Goff, Dr. M'Phail, Dr. Millar, Dr. L. Loudon, Dr. Fotheringham, Dr. Kirkland, Dr. Lindsay. *Member of Council to Branch Council:* Dr. Bruce Goff. *Representative to Branch Council:* Dr. Livingstone Loudon. *Extra Representative to Branch Council:* Dr. Bruce Goff. A letter was read from Dr. R. H. Watson, Honorary Secretary of Division, of date March 25th, 1904, resigning with regret the office of Secretary. On the motion of Dr. BRUCE GOFF, seconded by Dr. JONES, Dr. Livingstone Loudon was unanimously appointed Secretary.

Vote of Thanks to Retiring Honorary Secretary.—Thereafter it was moved by Dr. BRUCE GOFF, and seconded by Dr. LIVINGSTONE LOUDON:

That the Lanarkshire Division takes this opportunity of recording its regret at Dr Watson's resignation. Dr Watson has acted as secretary with much acceptance since the Division was started, and his laborious services have been greatly appreciated by all. More particularly does the Division regret that the unsatisfactory state of Dr Watson's health has been the cause of his resigning the office of Secretary and having to go abroad. In taking farewell of Dr Watson it desires to thank him for [illegible] and express the wish that his health may be restored, and his estate prosperous.

This was unanimously agreed to, and the Secretary was instructed to write to Dr. Watson in terms of the resolution.

The Division and Representative Meetings.—The SECRETARY intimated that the number of members presently "on the strength" of the Division was 60, and that consequently the Division was eligible to form an independent constituency for the election of a representative in Representative Meetings for the ensuing year.

Medical Practitioners and Hydropathic Establishments.—The question of advertising in connexion with hydropathic establishments was fully discussed; and it was proposed by Dr. JOHN FOTHERINGHAM, seconded by Dr. MACPHERSON (Bothwell), and unanimously agreed to:

[illegible] the Association in putting the veto on advertising of [illegible] hydropathic establishments.

Consultations between Medical Witnesses.—In regard to consultations of medical witnesses in medico-legal cases it was unanimously resolved:

[illegible] such a consultation as that suggested by the [illegible] should be encouraged.

The Association and Medical Defence.—In the matter of medical defence the Secretary reported that sixty-four circulars and copies of the scheme of medical defence had been sent out to the Division, and that the following was the result of the poll:

[illegible]

Resolved that the Division should take [illegible] Yes [illegible] No [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Provincial Meeting.—The Division then discussed the question of holding a Provincial Meeting in Glasgow, and resolved that, except in Ethical [illegible] it be agreed that the Executive Committee should be left to arrange with the Medical Committee. The Draft Model Rules as published in the Supplement to the British Medical Journal of March 19th, 1904, were approved of and adopted.

Contract Medical Practice.—The Secretary was instructed to ascertain the cost and if reasonable make arrangements for enrolling all the panel practitioners in the Division as members of the Association, pending the result of the inquiry.

SOUTH WALES AND SHROPSHIRE BRANCH:

DENBIGH AND FLINT DIVISION.

THE annual meeting of this Division was held on May 27th at the Imperial Hotel, Wrexham. Dr. J. MORGAN HUGHES, Ruthin, president, and [illegible] members were present.

Election of Officers.—The following officers and representatives were elected for the ensuing year:—*Chairman:* Dr. Medwyn Hughes. *Vice-Chairman:* Dr. Enoch Moss. *Honorary Secretary:* Mr. E. D. Evans. *Representative on the Representative Committee:* Mr. L. D. Evans. *Representatives on the Council of the Branch:* Dr. J. E. H. Davies and Dr. B. J. Wright. *Representatives on the Executive Committee of the Division:* Dr. Eyton Lloyd, Dr. Richard Owen, Dr. J. [illegible] Davies, and Dr. Richard Evans.

The Constitution and Work of the Association.—Dr. W. JONES MORRIS, Portmadoc, the Representative of the Branch on the Council of the Association, was present at the meeting and delivered a short address on the present constitution of the British Medical Association, referring to the benefits and advantages accruing to the general body of medical practitioners from the reorganization of the Association. Dr. Jones Morris also referred briefly to the work of the Ethical and Medico-Political Committees, dealt with the question of medical defence, contract practice, etc., and other questions at present before the Association. A hearty vote of thanks was accorded Dr. Jones Morris for his kindness in attending the meeting and for the interesting address he delivered.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Annual Representative Meeting.—It was resolved:

That a free hand should be given to the Representative in all matters to be considered, under "notices of motion," at the annual Representative Meeting.

Medical Acts Amendment Bill.—The report of the Committee appointed to consider the clauses of the Medical Acts Amendment Bill, after a discussion in which several members took part, was received and adopted.

Paper.—A paper on Red Light in the Treatment of Small-pox was read by Dr. A. J. Esslemont.

Vote of Thanks.—The meeting terminated with a cordial vote of thanks to Dr. Esslemont for his valuable paper.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

SOUTH-WEST WALES DIVISION.

THE annual meeting of this Division was held at the Stepney Hotel, Llanelly, on May 31st. Mr. D. J. WILLIAMS, F.R.C.S., presided, when twenty members attended, out of a membership of eighty-one.

President's Address.—The PRESIDENT spoke of the general tendency of unions of all kinds, benefit societies, clubs, industrial appointments, to sweat the profession in the economic sense, and to lower the status of the profession generally. On the other hand, there were no conditions prevailing inside the profession at the present time, to meet such combinations. If a combination benefit society, a large works, colliery or what not, determined to lessen the existing modest scale of payment to the medical man, and he was not complaisant another medical man was ready to accept. Again, if a surgical such a society endeavoured to get better terms other surgeons were always ready to accept the appointment at the lower scale. The remedy for this condition of things was to be found inside the ranks of the profession. Was it too utopian to hope that some combination, with certain limits might be formed to withstand the encroachments that were being made on the profession, both in the matter of status and pay? He was referring only to combinations; personally he believed the British Medical Association was more alive than formerly to this economic aspect of the profession, and he felt sure that any well-considered programme from the Branches, towards this purpose would have support at headquarters.

Confirmation of Minutes.—The minutes of last meeting were read and confirmed.

The Work of the Division.—The SECRETARY then gave an account of the work done by the Division during the year. The total membership had increased from sixty to eighty-one. The expenses incurred by the Division amounted to [illegible].

Election of Officers.—The following were elected officers for the ensuing year: *President:* D. J. Williams, F.R.C.S. *Vice-President:* Dr. Owen Williams. *Honorary Secretary and Treasurer:* S. Glanville Morris, M.D. *Representative on Council:* Dr. J. Edgar P. Davies, Dr. D. R. Price, Dr. T. Criswick Williams. *Members of Executive Committee:* Dr. Sidney J. Roderick, Dr. E. Evans, Dr. Cook, Dr. T. R. Williams, Dr. Stephens, Dr. J. B. Hamilton, Dr. D. Phillips, Dr. R. Hopkins, Dr. F. M. Knowling. *Representative of Division on Representative Meetings:* D. J. Williams, F.R.C.S.

Next Meeting.—It was decided that the next meeting of the Division be held at Llandilo in October. The hope was ex

pressed that every member would make an effort to bring another with him.

The Association and Medical Defence.—Dr. J. T. Creswick Williams proposed:

That in the opinion of this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association, the time has arrived when the Association should undertake the defence of its members.

Dr. R. Hopkin seconded, and it was carried unanimously.—The Secretary reported that ten members had intimated their intention of joining a medical defence union, should such be formed.

Consultation between Medical Witnesses. The consultation of medical witnesses on each side in legal cases was discussed, and a resolution passed to the following effect:

That this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association, is of opinion that the meeting in consultation of medical witnesses on each side in legal cases, not being practicable, is inadvisable.

Medical Practitioners and Hydropathic Establishments. The President moved, and Dr. Owen Williams seconded, the following resolution, which was carried:

That members of the South-West Wales Division are strongly opposed to the advertising of names of medical practitioners in connexion with hydropathic or any other such establishments.

Contract Practice and the Midwives Act.—Contract practice and the Midwives Act, through lack of time, were left over undiscussed till the next meeting.

University of Wales. The following resolution was carried *nem. con.*:

That this meeting of the South-West Wales Division of the South Wales and Monmouthshire Branch of the British Medical Association heartily approves of the application for a supplemental charter to enable the University of Wales to grant degrees in medicine and surgery, and hereby records its opinion that under such a charter much benefit would accrue to the people of Wales.

Communications.—Dr. Sidney J. Roderick showed eleven cases illustrating *x*-ray and ultra-violet-ray treatment in the following cases: Rodent ulcer, epithelioma of lip, glandular swelling in jaw and axilla, sycosis, carcinoma, caries of spine, and lupus. He showed that the *x*-ray treatment appeared to destroy the diseased tissue and at the same time stimulate the growth of healthy tissue.—Dr. Edgar Davies read a paper on inversion of uterus, which was afterwards discussed by Dr. Maclean (Cardiff) and other members.

Votes of Thanks.—Votes of thanks to the President, the Honorary Secretary, and Dr. Roderick and Dr. Davies (for their papers) having been passed, the meeting terminated; the members afterwards dined together at the (Stepney) hotel in which the meeting had been held.

Luncheon.—Previous to the meeting the President entertained the members to luncheon at his residence.

ULSTER BRANCH:

Derry Division.

The annual meeting of this Division was held on June 1st in the Guildhall, Londonderry, Dr. S. H. B. Allison, Vice-Chairman of the Division, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following were elected for the ensuing year: *Chairman:* Dr. S. H. B. Allison. *Vice-Chairman:* Dr. Hunter. *Hon. Secretary:* Dr. Cooke. *Representative for Representative Meetings:* Dr. J. Galwey Cooke. *Representatives on Council of Branch:* Dr. Thos. MacLaughlin and Dr. Jas. Craig. *Council of Division:* Drs. W. Bernard, Rankin, Hetherington, Thos. MacLaughlin, Fras. M'Laughlin, Cuningham, Jas. Craig.

The Association and Medical Defence.—It was resolved by a majority of one:

That the Division does not approve of the Association adopting medical defence as per scheme submitted to it.

It was ordered that the members be polled to obtain their individual opinions on the scheme.

Consultation between Medical Witnesses.—It was resolved:

That in all cases possible it is advisable that medical witnesses should meet in consultation in legal cases.

Medical Practitioners and Hydropathic Establishments.—A resolution with regard to advertising of medical men attached to hydropathic establishments was marked read. The resolution forwarded by the Exeter Branch with regard to government of the profession was marked read.

Treasurer's Statement.—The Treasurer's statement of accounts for the past year was passed.

Belfast Division.

The annual meeting of this Division was held in the Medical Institute, College Square North, Belfast, on June 1st. The chair was occupied by the President, Dr. Stanley B. Coates, and there was a large attendance of members.

Exhibits. A number of interesting exhibits were shown, including a fetal monstrosity of mermaid form and a large fibroid tumour of the uterus containing over 3 pints of pus exhibited by John Campbell, F.R.C.S.; an apparatus for utilizing the municipal electrical supply for medical purposes by R. M. Fraser, M.D.; microscopic specimens of hydronephrosis, infiltration of subcutaneous tissue with paraffin, exhibited by A. Fullerton, F.R.C.S.I., and a series of plates illustrating varieties of lupus and drug eruptions by William Calwell, M.D.

Papers.—The following papers were contributed: (1) Short notes of 4 cases of erysipelas treated successfully with anti-streptococcus serum, by G. St. George, M.R.C.P.I.; (2) a criticism of the methods of suturing the stomach and bowel, by John Campbell, F.R.C.S.; and (3) a case of appendicitis complicated by hydronephrosis, by Andrew Fullerton, F.R.C.S.I.

Matters referred to Divisions. The various matters referred to the Divisions by the Council were then discussed, a large number of members taking part in the discussion. The following resolutions were unanimously adopted:

1. That the Division approves of the formation of a department of medical defence.

2. That in the opinion of this meeting the time has come when a change should be made in the present method of giving medical evidence in legal cases, either in the direction of the previous consultation of medical witnesses on lines to be laid down by a committee of the Association, or in calling in a medical assessor.

3. That the meeting disapproves of the practice of the advertising of medical practitioners in connexion with hydropathic or other similar establishments.

Election of Officers.—The following office-bearers were elected for the ensuing year:—*President:* Wm. Calwell, M.A., M.D. *Secretary:* J. A. Craig, M.B., F.R.C.S.Eng. *Representative:* A. B. Mitchell, M.D., F.R.C.S.I. *Executive Committee:* Sir Wm. Whitla, M.D., John Campbell, M.D., F.R.C.S.Eng., C. Shaw, M.D., J. A. Lindsay, M.D., F.R.C.P.Lond., A. Fullerton, M.D., F.R.C.S.I., G. St. George, M.R.C.P.I., William Donnan, M.D., H. J. Boyd, L.R.C.P.and S.Edin.

EAST ANGLIAN BRANCH:

South Suffolk Division.

The annual meeting of this Division was held on June 2nd.

Election of Officers.—The officers of the Division were elected.

Ethical Rules.—The draft model ethical rules were adopted without modification.

Annual Representative Meeting.—The business of the annual Representative Meeting was discussed and instructions given for the guidance of the Representative of the Division.

Medical Certificates.—A discussion was introduced by Dr. Barnes on the subject of medical certificates as required by the East Suffolk County Education Committee and it was resolved that the subject should be brought before the meeting of the Branch at Lowestoft.

South and West Suffolk Divisions.

At a joint meeting of the South and West Suffolk Divisions held on June 2nd, Mr. G. S. Elliston (Ipswich), was elected joint Representative of the two Divisions at the Representative Meeting at Oxford.

YORKSHIRE BRANCH:

Harrogate, and Richmond and Northallerton Divisions.

A meeting was held on Wednesday, May 25th, at the Hotel Majestic, Harrogate, Dr. H. J. Hunt, J.P., in the chair.

Election of Officers.—The following officers were elected:—*Chairman:* Dr. J. Liddell. *Vice-Chairman:* Dr. E. Solly. *Honorary Secretary:* Dr. C. Gibson. *Representative at Annual Meeting:* Dr. C. Gibson. *Representative at Branch Meetings:* Dr. E. Solly.

Committee.—Drs. Lever, Green, Daggett, Holroyd, Mackay, Garrard, J. Atkinson, Chamberlain, Solly, Crawford Watson, Bertram Watson, Collier.

The Association and Medical Defence.—An animated discussion took place as to the desirability of the British Medical Association undertaking medical defence, which was negatived.

Consultation between Medical Witnesses.—The Division then

considered as to the advisability of medical witnesses engaged on each side in a case meeting in consultation, and was of opinion that, when possible, it was desirable.

Hydropathic Establishments.—As to the question of the advertising of medical practitioners in connexion with hydropathic establishments, the Division disapproved of advertising medical men by hydropathic or any other companies.

Contract Practice.—The following resolutions were passed as to contract practice:

1. That the minimum rate be not less than 5
2. That the wage limit should not exceed per week.
3. That children under years of age and women should not be included in contract practice.
4. That no direct subcontract with the members or their families should be made.

Dinner.—The members afterwards dined together.

York Division.

THE annual meeting of this Division was held on Thursday, June 2nd.

Election of Officers.—The following officers were elected for the year: *Chairman*: Dr. Ramsey. *Vice-Chairman*: Dr. Swanson. *Honorary Secretary*: Dr. Goode. *Representative in Representative Meetings*: Mr. W. H. Jaccard. *Representatives on Branch Council*: Dr. W. J. Corby and Mr. H. C. Shaw. *Executive Committee*: Mr. F. Sharp, Dr. Evelyn, Mr. F. Wright, Mr. Faulkner, Dr. Bedford Pierce, Dr. Turner, Dr. Ferguson, Dr. Hassell, and Mr. W. Draper.

Halifax Division.

THE annual meeting of this Division was held on June 3rd, Dr. OAKLEY in the chair.

The Association and Medical Defence.—Dr. MANTLE moved, and Dr. OAKLEY seconded, the following resolution, which was carried:

That this Division approves of medical defence being taken up by the British Medical Association.

Dr. ELLIS moved, and Dr. MANTLE seconded, and it was carried:

That the Division approves of the general principle and details of the scheme.

Medical Practitioners and Hydropathic Establishments.—Dr. MANTLE moved, and Dr. LUSH seconded, the following resolution which was carried:

That in the opinion of this Division medical practitioners living in the immediate neighbourhood of hydropathic establishments are advertised should be allowed to attend cases in such establishments.

Consultation between Medical Witnesses.—Dr. DOLAN moved, and Dr. ELLIS seconded, the following resolution, which was carried:

That the fees payable for medical men engaged on each side in legal cases be raised.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*: F. West Symes, M.D., J.P. *Vice-Chairman*: Priestley Lush, M.D., F.R.C.S. *Committee*: Alfred Mantle, M.D., M.R.C.P.E., J. E. Woodyatt, M.R.C.S., W. M. Beanson, L.R.C.P. *Secretary and Treasurer*: Edward Ellis, L.R.C.P.

Vote of Thanks.—Votes of thanks to the Chairman and Secretary concluded the business of the meeting.

Metropolitan Counties Branch

Tottenham Division.

THE annual general meeting of this Division was held on June 20th, Dr. [illegible] in the chair.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman and Representative on the Branch Council*: Dr. W. A. [illegible]. *Vice-Chairman*: Dr. [illegible]. *Secretary and Treasurer*: Dr. [illegible]. *Representative to the Representative Meeting*: Dr. Percy Hasse. Dr. [illegible] were also appointed [illegible] Executive Committee, owing to the meeting [illegible] Chairman, and, in addition to the [illegible] members already on the Committee, the names of Dr. George [illegible], Medical Officer, H.M. Prison, Wormwood Scrubbs, and Dr. Parker [illegible], were added to the Executive Committee to fill vacancies.

Alteration of Rules.—After considerable discussion, on the motion of Dr. [illegible], seconded by Dr. [illegible], it was resolved:

That Rule 17, Division to consist of members of the Association [illegible] Division, be amended to read as follows: Division to consist of members of the Association [illegible] Division.

Annual Representative Meeting.—A discussion took place on the motion: That the representative at the annual Representative Meeting should have his expenses paid when [illegible] necessarily.

Tottenham Division.

THE annual meeting of the Division for 1904 took place on Friday, May 27th, at the Tottenham Hospital, Dr. HOOPER MAY in the chair. The Medical Acts Amendment Bill was again discussed and approved as it appeared in the revised draft.

Election of Officers.—The following officers were elected for the season 1904-5. *President*: Dr. G. P. Chappel; *Vice-President*: Dr. E. Hooper May; *Representative on Branch Council and at Annual Meeting*: Dr. J. R. Fuller. *Honorary Secretary (pro tem.)*: Dr. Tresilian.

Hampstead Division.

THE annual meeting of this Division was held, on Friday June 3rd.

Election of Officers.—Mr. R. H. Wellington was elected Representative of the Division at Representative Meetings of the Association, and received instructions for the meeting at Oxford. Other officers were elected as follows: *Chairman*: Dr. Heath Strange. *Vice-Chairman*: Dr. Winslow Hall. *Secretary*: Mr. J. Dill Russell, F.R.C.S. *Representative on Branch Council*: Dr. Macevoy and Mr. F. R. Humphreys.

Westminster Division.

A MEETING of this Division was held on Tuesday, June 14th, at 20, Hanover Square. Sir ISAMBARD OWEN was in the chair and there were nine members and five visitors present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—Mr. E. Lloyd-Williams was elected to the vacancy on the Executive Committee, and Dr. William Ewart was appointed to act as the Representative for the Representative Meeting at Oxford in place of Dr. Cautley, who was unable to attend the annual meeting.

Notices of Motion.—The meeting then proceeded to discuss the notices of motion to be brought forward at the Representative Meeting at Oxford, and to instruct their representative how to vote on the several motions. It was decided to support all the notices concerning the alteration of the By-laws of the Association, and also to support the Walthamstow Division's proposition; to leave those of the Birmingham (Central) and the Bradford Division to the discretion of the representative; to negative those of the Cardiff and Folkestone Divisions; to support those of the Gateshead Division; to leave the first two motions of the Hampstead Division to the discretion of the representative, with instruction to support the third motion; to negative that of the Portsmouth Division; to support A of the Stratford, and leave B and C to the the discretion of the representative, and also to his discretion A and B of the Wandsworth Division, and to refer C and D to the Hospitals Committee; support F and H, and leave G to the representative's discretion; and support the motions of the Wigan and Leigh Division.

The Association and Medical Defence.—The meeting then opened a discussion on the question of the Association adopting a scheme of medical defence. Mr. BLAND-SUTTON inquired as to the position of the present Defence Societies if the Association took up the subject. Mr. ANDREW CLARK explained how the whole question had arisen from what was known as the Birmingham resolution passed some years ago, namely, that the Association should take up medical defence. Recently the Council had appointed a Committee to consider and report on the subject. This Committee had now propounded a draft scheme. If the Association took up medical defence it was hoped to draw in the two separate societies at present existing. Unfortunately the one society the Medical Defence Union had adopted a hostile attitude, and advised their members not to join the Association department if it were started. The Medical Protection Society, on the other hand, had passed no resolution on the subject, the Council desiring to find out the opinion of the individual members first. Whether the Association scheme would, therefore, draw in these two societies remained to be seen, but the Association's present desire was to ascertain the opinion of its members. Dr. HASLIP then proposed:

That the Association do take up medical defence.

He said he was at present a member of the Defence Union, but if the Association afforded the same or greater advantages he would himself leave the Union for that of the Association. He considered it much in the light of the Government taking up a public question and offering to take over private bodies previously interested in the subject. The motion was seconded by Dr. KNOWSLEY SIELEY. Dr. HERON explained

that the Medical Protection Society had passed no resolution, but they would listen with favour to any scheme put forward by the Association. They had no wish to compel any one to come in. The difficulty was, of course, one of subscription. At present the subscription to the Association was 25s. a year, and they had a surplus of £6,000. Medical defence required two financial considerations—income and reserve fund—and they ought to look to the Association for the reserve fund to meet emergencies. He did not consider it would be right to invite members to come in unless they were prepared at present to pay something for it, but he thought they might look forward to the time when, the machinery having been set going and things were working smoothly, with funds in hand, they might very well throw in medical defence in addition to other benefits. He, however, urged for subscriptions in the first place. Above all things he desired unity in the profession, and to see all their interests placed under one roof. If they could only pull together and say to the public "We are defended in all our various interests by the British Medical Association," they would be in a far stronger position than now, when they were only defended by various small more or less private societies. After Sir VICTOR HORSLEY had made a few remarks of explanation the motion was put to the meeting and carried unanimously.

The Westminster Coroner.—It was decided to hold an early meeting to discuss the question of the Westminster coroner and his pathologist.

Vote of Thanks.—Sir ISAMBARD OWEN proposed a vote of thanks to the visitors, who had kindly attended the meeting by invitation.

EDINBURGH BRANCH:

SOUTH EDINBURGH DIVISION.

THE adjourned annual meeting of this Division was held in Oddfellows Hall, Forest Road, on June 7th, Dr. DUDDINGSTON WILSON in the chair.

The Association and Medical Defence.—The medical defence scheme of the Association was further considered. The SECRETARY reported that a poll of the Division had been taken, and out of a membership of 120 there had been 44 replies, of which 36 were in favour, 5 against, and 3 neutral. Dr. KENNEDY moved, and Dr. DEWAR seconded:

That this Division approves generally of the medical defence scheme of the British Medical Association, without committing itself to details.

Dr. CULLEN moved an amendment that the scheme be disapproved of. This was not seconded, and the motion became the finding of the meeting.

Abuse of Out-patient Departments.—Dr. CULLEN moved:

That it be remitted to the Executive of this Division to draw up a memorandum for presentation to the infirmary managers, the said memorandum to set forth the injustice to the medical profession, and to the patients themselves, attendant upon the present administration of the out-patient departments.

Dr. PROUDFOOT seconded. The previous question was moved by Dr. CATTANACH and seconded by Dr. GOODALL. After considerable discussion, joined in by Drs. WEBSTER, SMITH PATERSON, MATHESON, LYON WILSON, KENNEDY, and DARLING, the motion was carried by a majority of 20 to 4. The Secretary received instructions to secure if possible the co-operation of the other Divisions in the city.

Contract Practice.—The attention of the meeting was called to the schedules on contract practice, which had been distributed throughout the Division.

Letters.—Letters were read from the Canadian Medical Association and the Exeter Division.

Vote of Thanks to Chairman.—The meeting was closed with a vote of thanks to the Chairman.

SOUTH-EASTERN COUNTIES DIVISION.

THE annual meeting was held in the King's Arms Hotel, Melrose on the afternoon of Thursday, June 16th, Dr. BLAIR, of Jedburgh, presiding.

Confirmation of Minutes.—The minutes of last meeting were read, approved, and signed by the Chairman.

Letter of Apology.—The SECRETARY read an apology for absence from Dr. Somerville, Galashiels, who regretted that he could not stand as representative at the annual meeting this year. The Secretary was instructed to intimate the regret of the Division that he could not again accept office.

Election of Office-bearers.—Dr. Carlyle Johnstone was elected Chairman; Dr. Cullen Vice-Chairman; Dr. Calvert was re-elected Secretary and Treasurer; Dr. Hamilton was re-elected Representative of Division on the Branch Council; Dr. Blair was elected Representative at Representative Meetings of the Association.

Executive Committee.—Drs. Young, Muir, Macvie, and Haddon were re-elected. and Drs. Barrie and Henderson were elected to fill the vacancies.

Meeting of Branch.—Dr. HAMILTON, with the consent of members present. withdrew his first motion, and altered his second as follows:

That the Division suggests that a meeting of the Branch be held in one of the county towns within its area in 1905.

This was unanimously carried.

Annual Representative Meeting.—The agenda of the annual Representative Meeting, to be held at Oxford, were considered, and the representative was instructed as to what lines to follow on the various questions which were to be discussed.

Contract Practice.—In regard to contract practice, the members unanimously condemned the present action of the Post Office in regard to attendance on its staff, and the hope was expressed that a strong protest would be made by the Association at the Representative Meeting at Oxford. The Secretary was instructed to put the nomination of members of Council on the agenda of the spring meeting so as to be able to take action if required.

MUNSTER BRANCH.

A MEETING of this Branch was held on June 4th; Dr. O. G. WOODS, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Medical Practitioners and Hydropathic Establishments.—It was resolved:

That this general meeting of the Munster Branch of the British Medical Association disapproves in the strongest manner of any form of advertising by medical practitioners who are visiting physicians to hydropathic establishments.

Draft Bill Registration of Nurses.—Read.

Memorandum of Exeter Division.—Read.

New Members.—The following were unanimously elected members of the Association: Thomas Hennessey, F.R.C.S.I.; Joseph Power, M.S.Univ. Dub.; James Johnston Horty, M.R.C.P. and S.I.

Council of Association.—Joseph J. Giusani, M.D., was unanimously elected member of Council for session 1904-5.

Annual Representative Meeting.—Professor H. Corby, M.D., was unanimously re-elected Representative to Representative Meeting.

SOUTH-EASTERN BRANCH:

ISLE OF THANET DIVISION.

THE annual meeting of this Division was held in the Board Room of the Union, Minster, on June 9th, Dr. A. M. WATTS in the chair. There were present twelve members of the Division and one visitor.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Various Business.—The HONORARY SECRETARY read (1) a letter from the Medical Secretary of the Association; (2) a memorandum from the Exeter Division; (3) the motion of Dr. Larking on the agenda of the next meeting of the South-Eastern Branch proposing the dividing of the Branch into two separate Branches. This received the strong support of the meeting.

Election of Officers.—Officers were then elected for the year. Dr. Brightman was to be asked to take the chair at the next meeting. Dr. Hugh M. Raven was re-elected Honorary Secretary and Treasurer and Representative of the Division on the Branch Council. Dr. Gosse had been appointed Representative of the Division at a meeting held at Canterbury on May 19th. Drs. Halstead, Courtney, Sutcliffe, and Watts were elected members of the Executive Committee.

Annual Report and Financial Statement.—The Chairman of the Executive Committee presented the annual report and financial statement of the Division, which were unanimously adopted.

Annual Representative Meeting.—The business of the Annual Representative Meeting was discussed, and the opinions of the Division were taken, to be conveyed to Dr. Gosse for representation.

Additional Meetings.—A discussion followed on the question as to the possibility of diminishing the amount of medico-political business on the agenda of the meetings, leaving more room for clinical subjects. Dr. POWELL proposed, and

Dr. Wrights seconded, the motion that there be two additional meetings of the Division during the year, at which clinical subjects only should be discussed. This was carried unanimously. Dr. Powell read notes upon and demonstrated cases in the wards of the Union Infirmary: (1) Tuberculous laryngitis; (2) scurvy; (3) tuberculous glands; (4) cancer of breast; (5 and 6) diabetic gangrene; (7) a case of abdominal tumour.

Votes of Thanks.—A vote of thanks was passed to the Board of Guardians for the use of the Board Room, and one to Dr. Watts for presiding at the meeting.

Executive Committee.—Previous to the meeting the Executive Committee met. Dr. Halstead was voted unanimously into the chair. The Honorary Secretary presented the annual report of the Division, which was approved for presentation to the Division. The statement of accounts of the Division were audited.

Dinner.—After the meeting a dinner was held at the Bell Inn, Minster, at which five members of the Division were present.

DUNDEE BRANCH.

THE Branch met in the Royal Hotel, Dundee, on Friday, June 3rd. The business meeting was preceded by a luncheon. [illegible] in the absence of Professor Waymouth Reid, Dr. [illegible], President-elect, presided. Twenty-one members were present.

Medical Defence.—The SECRETARY [illegible] the result of the postcard vote on the report of the Committee on Medical Defence, and was instructed to enter [illegible] the minutes to the effect of the Branch. Number of [illegible] issued 105, returned 33. The following is an analysis of the voting: (1) Change of the Memorandum of Association [illegible] as to disapprove 31; (2) that the Association undertake medical defence (approve 20, disapprove 12); (3) scheme [illegible] Executive Committee (approve 17, disapprove 12).

Election of Officers.—The officers and Council for 1904-5 were elected as follows: *President*: E. Grant. *President-elect*: F. Martin White. *Past President*: E. Waymouth Reid. *Vice-Presidents*: V. Stone and W. Kinmear. *Council*: G. Berry, G. Lawson, D. Waldrop, D. Lennox, J. D. Gilruth, and J. S. Rogers. *Honorary Treasurer*: D. M. Greig. *Honorary Secretaries*: R. C. Buist and A. P. Low. *Representative on Council of the Association*: R. C. Buist. *Representatives on Representative Meeting*: D. M. Greig.

Annual Representative Meeting.—The business of the Representative Meeting was then considered. Dr. Buist gave explanations of the reports of the Council and of the Medico-Political Committee. It was proposed by Dr. SINCLAIR, seconded by Dr. STARKEY, and resolved

[illegible] the Medico-Political Committee on the [illegible] be approved.

Dr. [illegible] was moved by Dr. BUIST and Dr. KERR, [illegible] was [illegible]. No other resolutions [illegible]. Mr. D. M. Greig was then appointed Representative to the Representative Meeting.

International Congress on Home Rule.—Dr. Stalker was [illegible] to the International Congress on Home Rule [illegible].

Vote of Thanks to the President.—On the motion of Dr. [illegible] a vote of thanks was awarded to the President.

STAFFORDSHIRE BRANCH.

NORTH STAFFORDSHIRE DIVISION.

[illegible] Division was held on Friday, May 27th.

Election of Officers.—The following officers were [illegible]: [illegible] (*Chairman*): King Alcock, M.D. [illegible]: Mr. W. D. Spanton, F.R.C.S. *Secretary*: [illegible] Alcock, M.D. *Representative on the Lower Medical [illegible]*: Alcock Hird, M.D., F.R.C.S. *[illegible] on the Branch Council*: Dr. McAldowie, Dr. King Alcock, Mr. Russell. *Executive Committee*: Mr. T. Clare, Dr. [illegible], Dr. [illegible].

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

WORCESTER DIVISION.

The annual meeting of this Division was held on June 10th at Worcester Infirmary. Mr. A. C. Hemming in the chair.

Election of Officers.—Dr. Mellar Ranking was elected Chairman for the ensuing year, and Mr. Maurice Vanderpump Deputy-Chairman. Dr. Clowe was re-elected Honorary Secretary. Dr. Sidney Haynes was elected Representative of the Division at Representative Meeting of the Association.

Consultation between Medical Witnesses.—The meeting was of opinion that this was impracticable, and that judges and the public might distrust the bona fides of medical witnesses or suspect collusion between them.

Medical Practitioners and Hydropathic Establishments.—The meeting thought this highly objectionable if those practitioners also engaged in private practice outside their establishments. The same applied to sanatoriums, etc.

SOUTH MIDLAND BRANCH:

AYLESBURY DIVISION.

THE annual meeting of this Division was held at the Eight Bells Hotel, at Bletchley, on Thursday, May 26th. The scheme of medical defence gave rise to considerable discussion. It was agreed: First, that the Association should take up medical defence. Secondly, that the Division agreed to the general principles of the scheme, provided it was possible to merge the existing societies and retain their officials, and that medical men not members of the Association should have the advantage of defence on payment of the usual fee for that only. It was decided to write to the Bucks Education Committee *re* certificates for school children. It was decided that it was inadvisable for medical witnesses in legal cases to meet in consultation; also that the Division condemned the advertising of medical practitioners in connexion with hydropathic establishments.

Election of Officers. Chairman: P. B. Giles. *Vice-Chairman:* J. C. Baker, M.B. *Honorary Secretary:* Mr. Horace Rose. *Representative at Representative Meeting:* E. O. Turner. *Executive Committee:* V. Howard, T. L. Kennish, and C. J. Haynes.

SOUTH EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held in Kilkenny.

Election of Officers.—The following officers were elected for the ensuing twelve months:—*President:* Dr. Laffan. *President-elect:* Dr. Wynne. *Honorary Secretary:* Dr. Farmer. *Honorary Treasurer:* Dr. Carey. *Representative at Representative Meeting:* Dr. O'Brien. *Representative on Council of Association:* Dr. Walshe. *Branch Council:* Kilkenny—Drs. James and Morris; Waterford—Drs. Mackesy, Shee, O'Brien; Carlow—Drs. O'Meara and Orpen.

Address by President.—Dr. LAFFAN, on taking the chair, addressed the meeting at some length on several points of interest connected with the medical profession, which were also discussed by several members present.

Luncheon.—The meeting having been adjourned, luncheon was subsequently served in the Victoria Hotel.

MALTA AND MEDITERRANEAN BRANCH.

THE annual meeting was held at Valletta on May 30th, Lieutenant-Colonel R. P. SAMUT in the chair. The following members were present: Colonel Wolseley, R.A.M.C.; Lieutenant-Colonel Jennings, R.A.M.C.; Major Gray, R.A.M.C.; Major Lawson, R.A.M.C.; Captain Harvey, R.A.M.C.; Captain Kennedy, R.A.M.C.; Dr. P. Micallef, Dr. Marsden; Professor Grech, M.D.; Dr. Ellul Grech, and the Secretary.

Confirmation of Minutes.—The minutes of the preceding [illegible] were read and confirmed.

Election of Officers.—The election of the officers and members of the Branch Council was then proceeded with, when the following members were elected. *President:* Colonel W. O. Wolseley, R.A.M.C. *Vice-President:* Professor S. Grech, M.D. *Secretary and Treasurer:* Thom Zammit, M.D. *Members of Council:* Lieutenant-Colonel R. P. Samut, Major W. L. Gray, R.A.M.C., Professor S. Cassar, M.D.; Surgeon R. T. Gilmour, R.N.

Representative on Association Council.—The election of Representative was then proceeded with. It was pointed out by the Secretary that the Branch had, so far, no Representative on the Council of the Association, and that it was proper to elect such a Representative in this annual meeting. The SECRETARY then proposed the name of Professor W. R. Smith, of King's College, residing at 74, Great Russell Street, W.C., who is a member of the Westminster Division and an Associate Member of the Branch, the election to stand good for two years. Colonel WOLSELEY seconded, and the proposal was carried [illegible].

Delegates to Annual Meeting.—The following gentlemen were then appointed delegates to the Oxford meeting and as representatives to the Representative Meetings: Professor S. Grech, M.D., and Major T. H. F. Clarkson, R.A.M.C.

Grouping of Malta and Gibraltar Branches.—The SECRETARY then submitted the proposal of the Organization Committee to group, for the purposes of representation on the Council, the Malta and the Gibraltar Branches together. No objection was raised against the proposal.

Meetings.—On Major GRAY's motion it was agreed to hold meetings at fixed dates and that four ordinary meetings should be held on the first Monday of the months of November, January, March, and May.

Compulsory Revaccination.—Dr. MANCHÉ called the attention of the meeting to the advisability of having revaccination compulsory in the island. He pointed out the importance of this measure in relation to the spread of small-pox, and promised to read a paper on the subject at the next meeting.

Premises.—The Secretary was directed to take steps to secure better accommodation for the Branch, the premises being deemed insufficient to accommodate all members in general meetings.

CAPE OF GOOD HOPE (WESTERN) BRANCH.

A MEETING of this Branch was held on April 22nd at Capetown, Dr. STEVENSON, President, in the chair. Thirty-two members were present.

The late Sir William Fergusson.—Dr. MURRAY, on behalf of Miss Chiappini, presented a framed portrait of the late Sir William Fergusson to the Branch, and the PRESIDENT expressed the cordial thanks of the members to the donor.

Proposed Chairs of Anatomy and Physiology.—Dr. DODDS moved:

That in view of the proposed foundation of Chairs of Anatomy and Physiology in connexion with the South African College, a committee of this Branch of the British Medical Association be appointed to render all possible assistance and support to the scheme, and in particular to endeavour to associate this Branch with the foundation of the Chair of Anatomy.

Drs. MURRAY and FULLER spoke in favour of the scheme. Dr. DARLEY HARTLEY stated that he had very grave doubts as to whether they would be right in embarking on the scheme or in asking the Government to do so while there were so many more important matters in connexion with the profession which might be done, instancing the foundation of pharmacological and pathological institutes. Dr. M. HEWAT moved as an amendment to Dr. DODD's motion:

That this Branch of the British Medical Association, hearing that the South African College is about to found Chairs of Anatomy and Physiology, is of the opinion that the time has not yet arrived for the endowment of these Chairs in this Colony.

Dr. Hewat's amendment was carried by a very large majority.

Amendment of Medical Acts.—Dr. DARLEY HARTLEY then moved:

That a Committee be appointed by the Branch to consider and report upon the desirability of amendments to the Medical Acts, with an instruction to the said Committee to place itself in communication with the sister Branches of the Colony with a view to these Branches appointing similar committees.

This was carried unanimously.

Paper.—Dr. PARKER (Caledon) read a paper on rheumatoid arthritis, drawing upon his experience at the Mineral Water Hospital at Bath and at the Caledon Sanatorium.

CAPE OF GOOD HOPE (EASTERN PROVINCE) BRANCH.

AN ordinary meeting of this Branch was held at Steinman's Hotel, Grahamstown, on May 14th. Present: Drs. Purvis, Bays, Edington, Greenlees, and Drury.

Confirmation of Minutes.—Minutes of meeting of March 12th read and confirmed.

Purchase of Microscope.—The purchase of a portable microscope lamp for demonstrations at the meetings was authorized.

Communications.—Dr. T. D. GREENLEES read a paper on "Circulatory Changes in General Paralysis of the Insane." The paper was based on 54 necropsies at the Grahamstown Asylum and sphygmographic tracings from 30 patients in all stages of the disease. Dr. Greenlees connected a definite character of pulse and sphygmograph with each of the three clinical stages of general paralysis. He used a Dudgeon's sphygmograph with a pressure of $3\frac{1}{2}$ oz. to 4 oz. as a rule. The paper was further illustrated by drawings of degenerate arteries and a slide showing the "scavenger cells" in the cortex of the brain. All present joined in the discussion, and a vote of thanks to Dr. Greenlees was passed

A special meeting of the Branch was held at 8 o'clock on Saturday, May 14th at Steinman's Hotel, Grahamstown.

New Rules.—Previous to the meeting a copy of the proposed new rules had been posted to every member of the British Medical Association residing in the proposed area of the Branch and to the Secretaries of other South African Branches. The business of the meeting was to discuss and adopt the new rules. No criticisms having been received by post, a letter was read from Dr. J. B. Greathead, who had been deputed to confer at Capetown with Drs. Stevenson and Richardson of Capetown, and Dr. Russell, of Kimberley, on the sub division of the Cape Colony. After slight alterations the draft rules were passed *seriatim* and as a whole, and directions given to send twenty copies to the Central Council for confirmation.

Area of the Branch.—Dr. GREATHEAD announced that the area proposed for the Eastern Province Branch had been accepted by the delegates.

Name of the Branch.—It was resolved:

That the name of the Branch be the Cape of Good Hope (Eastern Province) Branch, bringing the name more into harmony with the Cape of Good Hope Western Branch, and eliding the local name Grahamstown.

HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held at the Sanitary Board Offices, Hong Kong, on March 25th, Colonel W. E. WEBB (President) in the chair. The following were present:—The Hon. Dr. J. M. Atkinson (Vice-President), Dr. F. O. Stedman, Staff-Surgeon Parker, R.N.; Dr. G. P. Jordan, Dr. William Hunter, Dr. O. Marriott, Dr. McLean Gibson, Dr. W. V. M. Koch, Major C. S. Sparkes, R.A.M.C.; Dr. Robert Gibson, Staff Surgeon Austen, R.N.; Staff-Surgeon Clayton, R.N.; Surgeon F. D. Lumley, R.N.; Surgeon R. W. B. Hall, R.N.; Surgeon George Ross, R.N.; Major P. C. Strickland, I.M.S.; Captain Stephen, I.M.S.; Dr. E. A. R. Laing, Honorary Secretary and Treasurer.

Confirmation of Minutes.—The minutes of a meeting held on January 25th, 1904, were read and confirmed.

New Members.—The following gentlemen were elected as members of the Branch:—Surgeon R. W. B. Hall, R.N.; Lieutenant B. A. Craig, R.A.M.C.; Major P. C. Strickland, I.M.S.; Surgeon George Ross, R.N.; Dr. Harold Macfarlane, Fleet-Surgeon George Wilson, R.N.; Staff-Surgeon F. H. A. Clayton, R.N.; Fleet-Surgeon, R. H. Nicholson, R.N.; Surgeon J. K. Raymond, R.N.; Fleet-Surgeon P. B. Handyside, R.N.; Surgeon James Mowat, R.N.: Surgeon H. H. Gill, R.N.

British Medical Association.

MEDICO-POLITICAL COMMITTEE.

The following letter has been issued by the Medical Secretary by instruction of the Medico-Political Committee to the Honorary Secretaries of Divisions in the United Kingdom. All the reports to which allusion is made in the letter have already been printed in SUPPLEMENTS to the BRITISH MEDICAL JOURNAL and references thereto are given in footnotes.

REPORTS BY THE COMMITTEE TO THE DIVISIONS AND REPRESENTATIVE MEETING.

MEDICAL SECRETARY'S OFFICE,
429, Strand, W.C.,
June 16th, 1904.

DEAR SIR,

I enclose herewith a print containing (*a*) several reports by the Medico-Political Committee on matters referred to it by the Representative Meeting or by the Council, and (*b*) the Medical Acts Amendment Bill (p. 14) as revised by the Medico-Political Committee, prefaced by an explanatory Memorandum (p. 9), which has been prepared by instruction of the Committee for the assistance of Divisions when reconsidering the Bill.

[illegible] all [illegible] published already in SUPPLEMENTS to the BRITISH MEDICAL JOURNAL, but it is thought that it will be most convenient to Honorary Secretaries of Divisions to have them in a collected form.

I am instructed to add that any suggestions as may be of assistance to your Executive Committee in considering what steps should be taken in dealing with these various matters before the Divisions and in the Division in deciding upon the most convenient form in which to frame its resolutions thereon. The reports are numbered for reference.

The date of the reports to the Representative Meeting of Council published in accordance with instructions received from the last Annual Representative Meeting.

The matters dealt with in both these Reports must, therefore, form part of the business upon which the Representative of your Division will be asked to vote in the Representative Meeting and a resolution upon either matter, duly submitted in accordance with the requirements of the Association (as to which I would refer you to paragraph 12 of By-law 18, and Article XXXV will be a binding decision of the Association. It is important, therefore, that your Division should at once take before the Annual Representative Meeting to submit to consider these matters and to obtain your Representative's views.

With reference to (1) the Nomination of Candidates for the General Medical Council I am instructed to point out that the Association has not yet expressed an opinion upon the advisability of such nomination by the Association. The Representative Meeting will therefore have before it, first, that question and, secondly, the question whether the Scheme submitted is suitable for the purpose.

On the report (2) as to Contract Practice, I have specially to draw your attention to the fact that this is only an Interim Report, prepared for the information of your Division and in preparation for discussion at the subject at the Representative Meeting, and that the Committee in pursuance of its instructions will present a further Report when having before it the information obtained through the inquiry which is now being carried out through the agency of Divisions.

Reports (3) and (4) on the Nurses Registration Bills and on certain other [illegible] matters which have been brought under the notice of the Committee during the year, and upon which it has appeared to the Committee advisable that the opinion of the Association should be authoritatively expressed at an early date. Both these reports have been approved by the Council of the Association for presentation to the Divisions.

The report (5) upon Nurses Registration has special reference to the Bills which were published by the Journal Supplement of March 19th last (p. 58).

You will observe that the Committee has not offered any [illegible] upon the principle of the Registration of Nurses, the object with which the present Report is [illegible] being simply to facilitate the consideration of the matters by the Divisions in order that at the Representative Meeting in October the policy of the Association upon this important question should be authoritatively declared.

The report (6)[1] relating to [illegible] requires the Committee to consider the considerations which appear desirable upon this matter, and the Association should make its views known, and your Division will therefore, [illegible] the Representative in possession of its opinion thereon.

(7) [illegible] report of the Committee appointed by the Council to [illegible] the Conference [illegible] Report [illegible] published in the Journal of March 19th (p. 58).

The report recommends [illegible] to facilitate the [illegible] duties of the Secretaries through the formation of a [illegible] public conference to [illegible] and recommends [illegible] as to the payment of the [illegible] Annual Representative Meeting.

[illegible] is called to the [illegible] request of a number of [illegible] information has been supplied, [illegible] should be [illegible] Representative Meeting.

The report [illegible] practical action by the Association in furtherance of the interests of the profession in matters which are likely to come before Parliament in the immediate future. An explanatory Memorandum on the matters specified is in course of preparation, and will be forwarded to you shortly.

The Report on the National Deposit Friendly Society [illegible] has been prepared in compliance with requests which have from time to time been made, that some definite declaration should be made by the Association for the guidance of its Members as to the attitude to be adopted by medical practitioners towards this Society, which differs in material respects from the ordinary Friendly Societies. The Report now presented may assist Divisions [illegible] to decide upon the course of action to be taken by the profession locally; [illegible] to express their opinion as to the action, if any, to be taken by the Association as a whole.

The Medical Acts Amendment Bill[2] is dealt with in the special Memorandum by which it is preceded.

The following table summarizes the information above stated:

Report	Subject	Origin and Purpose	Action by Division suggested.
1	Nomination of candidates for General Medical Council	Report to Medico-Political Committee to Annual Representative Meeting of 1904, presented by instruction of Annual Representative Meeting of 1903	Instruct Representative
2	Contract Practice	Report to Annual Representative Meeting of 1904, on subject on which Committee was instructed by Annual Representative Meeting of 1903 to investigate. A [illegible] Report on the Reports received in answer to the Committee's Inquiries will be issued and presented to the Council before the Annual Meeting at Oxford	Consider [illegible]
3	Nurses Registration	Report of Committee appointed by the Council of the Division [illegible] Council	Consider the Principle of [illegible] Bills [illegible] and instruct Representative thereon
4	[illegible] published as Medical News [illegible]	Report of Committee submitted [illegible] Secretary of Council	Instruct Representative
5	[illegible] Bill [illegible] Local Government Board	Report of Committee on matters brought under notice of Nurses Registration Committee appointed by Council for consideration by Divisions	Consider [illegible]
6	[illegible] Conference [illegible] Public Health Service	Report of Committee appointed by Council to [illegible] Conference of Divisions [illegible] Council of the Association [illegible] Division	Consider with a view to [illegible] upon Members [illegible] and to taking any other action [illegible]
7	National Deposit Friendly Society	Report prepared in response to [illegible] Divisions [illegible] Committee [illegible] Society	Consider [illegible]
8	[illegible] Medical Acts Amendment Bill	[illegible] Report [illegible] Council [illegible] Representative Meeting	Instruct Representative

I [illegible] further information or assistance which you may require in relation to any of the matters referred to in this letter.

I am,
Yours faithfully,
J. Storrs Watkins
Medical Secretary.

[1] (6) The Memorandum of the Committee appointed by the Council to [illegible] Conference of Divisions [illegible] Report [illegible] Journal of March 19th, 1904, p. 58.

[2] The Medical Acts Amendment Bill was [illegible] the House of Commons May 20th, 1904, as [illegible]

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EPITOME

OF

Current Medical Literature.

JANUARY TO JUNE, 1904.

London:

PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

INDEX TO THE EPITOME FOR VOLUME I. 1904.

The Figures in this Index refer to the Number of the Paragraph NOT the Page.

A.

Abdomen, treatment of penetrating wounds of.
Abdominal pain.
— wall, method of incision of in the performance of laparotomy.
Abel, vaginal or abdominal operations in gynæcology, 175
Abortion, kidney phthisis following, 111; traumatic tubal, at 5th month, 201
Abrin, poisoning by, 1
Abscess of the liver in temperate climates, 125; puerperal, of uterus, death, 163
Absorption of fat, 135
Acidalise, secondary perineorrhaphy in childbed.
Accouchement forcé and premature labour, 23
Acetabulum, rectal exploration in fracture of the, 1
Acid treatment. Leoni of pruritus.
Acne, hypertrophic, of the nose, treatment of, 471
Acro-hyperplasia, a case of, 273
Actinomycosis, circumscribed mobile intestinal tumours due to
Adeno-carcinoma of uterus in age.
Adeno-myomata of the uterine end of the Fallopian tubes.
Adolescence, osteitis deformans in.
Adrenalin and ovarian
Aelargin, gonorrhoeal vulvo-vaginitis of children treated by, 323
Age, cancer and uterine fibroid in, 234; adeno-carcinoma of uterus in
Agglutination of staphylococci,
Air passages, upper, the relation of tuberculous diseases of to phthisis, 1
Albumel diet in the
Alcoholism, disease of corpus callosum caused by, 171
Alkan, theocin,
Alopecia areata, treatment of, 98
Ammonium and phosphataria
Amputation of cervix, dystocia after.
Ancel, surgical importance of hepatic accessory
Ancylostomiasis.
Antitoxin, diphtheria, the stability of, 366
Aorta, percussion of the vertebrae in diseases of,
Aponeurosis, prevention of post-operative abdominal hernia by
Appendicitis in the French
Appendicular origin, errors of diagnosis caused by
Appendix vermiformis, the
Aristochin, note on,
Army, French, appendicitis in the, 76
Arnheim, theocin,
Arsenic, action of on the kidneys of children, 97
Arthritis, gonorrhoeal and liver
Articulation, crico-arytenoid rheumatism of the.
Asphyxia, traumati

Association, American Climatological, stages of pulmonary tuberculosis,
Atkinson, pneumonia,
Atresia, traumatic, of the vagina. Caesarean hysterectomy in.
Auto-suggestion, hysterical, in children, 183
Auvergne, central rupture of the perineum by the elbows in breech presentations, 160

B.

Bacilli, of tubercle, in the urine, of tubercle, in milk, in different tuberculous diseases, human and bovine tubercle.
Bacillus, an antituberculous, the Koch-Weeks, a present in syphilitic lesions,
Bacteriology of variola, of blood in hernial
Bakes, a new procedure for the operative treatment of chronic nephritis,
Ballantyne, Bossi's dilator,
Banti, leukaemia,
Banti's disease. See Disease
Bar, glycosuria and hypertrophied thyroid in pregnancy, 332; urinary chlorides and pulmonary œdema in pregnancy,
Barjou, the curve of Damoiseau,
Basedow's disease. See Disease
Battara, prophylaxis against malaria,
Battlefield, first dressing on the.
Baum, aristochin,
Baumgarten, rheumatism of the crico-arytenoid articulation, genital tuberculosis,
Bayliss, proteolytic action of pancreatic juice,
Beach, traumatic asphyxia,
Beck, human and bovine tubercle bacilli,
Beck, lecithin,
Bee, sore, rays, action of on the skin,
Behring, treatment of gonorrhoea in the male,
Bendix, urticaria in childhood,
Berger, surgical treatment of cancer of the tongue,
Bernard, pneumonia treated by calomel,
Besta, penicillin glaucum and the pathogenesis of pellagra,
Betti, treatment of galactophoritis in the newborn,
Biggs, prevention of tuberculosis in children,
Bigwood, disease of corpus callosum caused by alcoholism,
Bile ducts, aberrant, cystadenoma of,
Biliary passages, surgery of the,
Bilroth cases, solvent of calculi,
Bisphosphate of chromium,
Blackwater fever. See Fever haemoglobinuric
Bladder injected in error in absence of vagina,
Blastomycetic treatment of vaginal infection in pregnancy,
Blood, detection of acetone in the
— changes in diabetic paralysis,
Bloodletting in the treatment of
Bockenheimer, agglutination of staphylococci,
Boissard, dystocia after amputation of cervix,
Bókay, v., Moser's polyvalent scarlatina strepto-
Bone, simple
Borelius, circumscribed mobile intestinal
Bossi, dilatation and
Bossi's dilator,
Bouffée de Saint Blaise, obstruction to suckling, imperfect nipples, cyst of nipple,
Bouland, action of x rays upon nutrition,
Bourcart, resuscitation by sub-diaphragmatic massage of the heart in,
Brain, the effect of certain common essences on the circulation in the, ; gunshot wound of the, ; the manifestation of tumours of the motor region of the,
Brasch, hetol in tuberculosis,
Braun, cocaine and adrenalin,
Brazil, cystadenoma of aberrant bile ducts, ; report of French mission to on yellow fever,
Breech presentation, central rupture of the perineum by the elbow in,
Brinda, action of arsenic on the kidneys of children,
Bromide (dietetic) treatment of epilepsy,
Bryant, digestibility of vegetables,
Buckmaster, the dry mouth of fevers,
Burger, prolapse in a newborn child,
Burckhardt, inherited predisposition to phthisis,

C.

Caesarean section, vaginal, and uterine
, three cases in one patient,
Calculi, renal, infusion of birch leaves as a solvent of,
Calculus, incision of hepatic duct for in the ureter,
Calkins, the life-history of the organism of small-pox,
Calomel, pneumonia treated by,
Campanella, the symptomatology of dyspepsia,
Campani, desquamation in pneumonia,
Camphor, percutaneous application of in tuberculosis,
Cancer see Carcinoma
Canton, passage of food fluids from the stomach,
Carcinoma, gastric, surgical treatment of, ; secondary, of ovary, its clinical import, ; of peritoneum, uterine, and vaginal Caesarean section, ; the treatment of by
, the tongue, surgical treatment of, ; primary, of the vagina and, ; removal of the uterus for, ; primary, of the bulbous urethra, ; of clitoris in a woman aged ; of ovaries in a girl aged ; and sarcoma of body of uterus
Carnett, surgical treatment of sterility in the
Carrier, the x rays in mycosis fungoides,
Cathcart, on the local treatment of disease of the stomach,
Cavazzani, digastroscopy,
Cells with eosinophile granulations,
Cellular changes in the formation of hyperplastic tissue,
Ceni, penicillum glaucum and the pathogenesis of
Cephalopin, note on,
Cerebral. See Brain
Cervix uteri. See Uterus
Chaput, the surgical
Charcot, pseudo-tabes of
Chauvel, pyelonephritis of the
Child, injury to eyes of in difficult labour, ; newborn,
Childbed, secondary perineorrhaphy in,

Crurin in gonorrhœa, 27

Dreyer, the treatment of sensitized tissue by

Falkenstein, treatment of gout, 178

Fever, the treatment of phthisis, 15
—— enteric, diagnosis of, 181; serum treatment of, 239; with arterial complication, 260
—— hay, serum treatment of,
—— treatment of
haemoglobinuria, preventive treatment of
—— nervous, note on, 4
—— scarlet, protozoon like bodies in, 17
—— yellow, report of French mission to Brazil on, 205
Fevers, the dry mouth of
Fibroid malignant uterine uterine in age, coincident, 305
Fibromyoma of the round ligament of the uterus, 362
Fibromyomata of the uterus, see robosis in,
Finsen's light treatment, heat rays in,
First-degree burns, treatment of,
Fisher, diagnosis of enteric fever,
Fissure of the anus,
Fistula, ureter-vaginal, treatment of, by nephrectomy,
Fistulæ, pulmonary, treatment of,
Fistulæ in spleen and omentum, 142
Fluid, ascitic, adeno-carcinoma of the, in ovarian tumour,
Fluid in the treatment of ozæna with paraffin,
Food, bacteriological bacteriology of,
Food, passage of, from the stomach,
Forceps, treatment of delivery by,
Fracture, vertebral, spinal pulse in the, in cirrhosis of the liver,
Fractures in the stomach,
Frenkel, bodies, external œsophagotomy in cases of,
Fungoid hypertrophy of the fetal thyroid,

Gall-stones, treatment of,
Gangrene, treatment of,
Gastritis,
Gastro-enterostomy, in cases of cancer of the stomach,
Gastrostomy, in cases of cancer of the œsophagus,
Gauze, iodoform, in the treatment of
Gelatine, sterilized, in the treatment of
Gland, thyroid, in the treatment of
Glands, lymphatic, in the treatment of
Glands, mammary, in the treatment of
Glands, parotid, in the treatment of
Glands, pituitary, in the treatment of
Glands, prostate, in the treatment of
Glands, salivary, in the treatment of
Glands, suprarenal, in the treatment of
Glands, thymus, in the treatment of
Glands, thyroid, in the treatment of
Glycerine, in the treatment of
Gonorrhœa, in the treatment of
Gout, in the treatment of
Gout, treatment of,
Gout, uric acid in the treatment of,
Gout, vaccine treatment of,
Gout, vegetable,
Gout, treatment of,
Gout, treatment of,
Gout, treatment of

Gerngross, perityphlitis and leucocytosis, 71
Gestation beyond term in rudimentary cornu, 79
Ghillini, treatment of club-foot, 61
Gillmore, catarrhal enteritis and pelvic disease, 189
Girl, aged 14, cancer of ovaries in, 41
Gland, vulvo-vaginal, primary cancer of the, 251
Glockner, secondary cancer of ovary, its clinical import, 81; removal of the uterus for cancer, 301; cancer and fibroid of the body of uterus coincident, 395
Glycosuria, and the iodophile reaction in pertussis, 182; and hypertrophied thyroid in pregnancy, 332
Goitre, exophthalmic, 120; a study of sixty cases of, 181
Goitre operations, local anaesthesia in, 174
Goldberg, action of Becquerel rays on the skin, 298
Gonorrhoea, crurin in, 27; in the male, treatment of, 255
Gottschalk, operation for myoma of the cervix, 321; cancer and uterine fibroid in age, 324
Gout, pathology of, 42; treatment of, 175
Greeff, action of the radium rays on the healthy and blind eye, 334
Grocco, exophthalmic goitre, 120; treatment of obesity, 320
Gualdrini, haemostasis in hepatic surgery, 185
Guibé, rectal exploration in fracture of the acetabulum, 150
Guinard, errors of diagnosis caused by pain of appendicular origin, 154
Gunshot injury, simultaneous, of liver and femoral artery, 106
Gunshot wound of the brain, 120
Guyot, treatment of acute osteo-myelitis of the upper extremity of the femur, 391
Gynaecology, stypticin in, 9; vaginal or abdominal operations in, 175

H.

Haematocele and tubal pregnancy, operation or expectant treatment, 137
Haematometra in undeveloped uterine cornu, 324
Haemoglobinuria, paroxysmal, 211
Haemoglobinuric fever. See Fever
Haemorrhage traumatic, of spleen, suture of, treatment of, 124; post-partum, treatment of, 14
Haemostasis in hepatic surgery, 18
Hahn, resistance of fetus to maternal disease, 321
Halberstädter, light treatment by Dreyer's method, 399
Hall, effects of purin on the body tissues, 81
Hall, cystadenoma of aberrant bile ducts, 100; primary carcinoma of the bulbous urethra, 325
Hamilton, tuberculin as a means of diagnosis, 11
Hand infection, peculiar forms of, 41
Handfield Jones, retroversion of the gravid uterus, 321
Harris, treatment of penetrating wounds of the abdomen, 322
Hartmann, accidental wounding of the inferior vena cava in nephrectomy, 150; thoracoplasty at, 150
Hartwig, acute primary pyelitis in infants, 45
Haskins, antagonistic action of drugs, 65
Hay fever. See Fever
Head, torn-off fetal, in parametritis, 79
Heart, resuscitation by subdiaphragmatic massage of in chloroform syncope, 15; wounds of the, 52; chorea of the, 210; percussion of the vertebrae in disease of, 300
Heat rays in Finsen's light treatment, 399
Heidenhain, cyst of mesentery, obstruction after operation, 380
Helmitol note on, 398
Henkel, death caused by uterine sound, 65
Henrotay, cyst of cervix simulating fibrous polypus, 255
Hepatic. See Liver
Hepato-cholangio-enterostomy, 21
Hernia, of the ovary, 150; obturator, of ovary associated with osteomalacia, 189; ventral, ovarian tumour in a, 241; post-operative abdominal, the prevention of by overlapping of the aponeuroses, 241; of ovaries, absence of uterus and vagina, 251
Heroin as an anaphrodisiac, 69
Herpes zoster as a complication of mumps, 41
Herxheimer, the external treatment of psoriasis, 254
Hess, Vincent's angina, 5
Hetol in tuberculosis, 257
Hip, voluntary dislocation of the, operative treatment of old dislocation of, 2
Hirst, eclampsia, 249
Histology, pathological of Hodgkin's disease, 170
Hitschmann, venous pulse in the forearm in cirrhosis of the liver, 153
Hochaus, miliary phthisis following abortion, 111
Hodara, chrysarobin in ringworm, 65
Hodgkin's disease. See Disease
Hoelscher, human perspiration, 208
Hofia, diseases of the knee, 141
Hopagan and ektogan, 167
Hragh, pyaemia from the local application of chrysarobin, 20
Hueppe, neutralization of toxins, 274; on tuberculosis, 387
Hueter, urogenital tuberculosis, 337
Hydramnion and eclampsia, 219
Hydrargyrum hermophenylicum, 25
Hydrobromatie of scopolamine, the uses of, 322
Hydrocele, treatment of, 342
Hygric sensibility altered, case of, 335
Hyperchlorhydria, etiology of, 16
Hypernephroma, definition of, 150
Hypertrophy, of the fetal thyroid, 255; of the os uteri, 331
Hysterectomy, successful vaginal, in grave puerperal infection, 37; malignant degeneration of cervix uteri after, 78; Kelly's, protection of ureters by, 94; vaginal, rectal fistula after, 250; Caesarean in traumatic utresia vaginae, 317
Hysteria simulating gastric ulcer, 246
Hysteropexy, dangers of a utero parietal band, 11

I.

Icterus. See Jaundice
Immunity, natural, new studies in, 70
Incision, of hepatic duct for calculus, 81; of abdominal wall in laparotomy, method of, 261
Incontinence, nocturnal, of faeces due to enlarged tonsils, 236
Inertia of the uterus, 120
Infants, acute primary pyelitis in, 45
Infection, grave puerperal, successful vaginal hysterectomy, 37; mixed, in phthisis, treatment of, 165; of hands, peculiar form of, 213
Inhalation of lime dust and tuberculosis, 56
Injections of antidiphtherial serum, the therapeutic value of, 202; Durante's on the treatment of phthisis in, 265; epidural, 332
Inoscopy, Jousset's, value of, 224
Iodine, test for, 3
Iodism, the recognition of prevention of, 88
Iodophile reaction, the, and glycosuria in pertussis, 182

J.

Jaboulay, the surgical treatment of nephritis, 4
Japha, spasmodic croup in children, 15
Jassniger, value of Jousset's inoscopy, 224
Jaundice, contagiosity of, 225; pathogenesis of, 242, 305
Jayle, bilateral tubal pregnancy, 409
Joachim, detection of traces of blood in the stools, 373
Johnson, effect of smokeless powder on the skin, 377
Joint, new, formation of by metallic supports, 1
Jonnesco, resection of the cervical sympathetic in Basedow's disease, 12
Joseph, crurin in gonorrhoea, 27; eugleuronum solubile, 22
Jousset's inoscopy, value of, 224

K.

Kamann, rectal fistula after vaginal hysterectomy, 250
Karpow, traumatic tubal abortion at fifth month, 161
Kaufmann, the albumen diet-cure, 5
Kaurin, nervous fever, 4
Kehr, hepato-cholangio-enterostomy, 215
Keleman, helmitol, 398
Kelly's hysterectomy. See Hysterectomy
Kidneys, of children action of arsenic on, 27
Kiparski, gestation beyond term in rudimentary cornu, 79
Kirmisson, a special variety of acquired deformity of the leg, 257
Klein, tubal pregnancy and haematocele, operation or expectant treatment, 137
Klopstock, agglutination of staphylococci, 40
Knee, diseases of the, 141; outward luxation of complicated with laceration of the external popliteal nerve, 314
Koch, percutaneous application of camphor in tuberculosis, 56
Kochmann, the preparations of valerian, 115
Koelnsch, rheumasan, 15
Koehler, Leo's acid treatment of pruritus, 321
Koenig, eclampsia and large placenta, 108; bone suture in simple fractures, 340
Koermoeczi, value of Jousset's inoscopy, 224
Koetschau, does symptomless retroflexion require treatment, 111
Koplik's spots as an early symptom of measles, 2
Korakow's psychosis, 11
Kouznet-sky, cancer of ovaries in a girl aged 14, 361
Kraemer, urogenital tuberculosis, 337
Kramm, trifferrin, 166
Kraus, Theinhard's soluble food for children, 307
Kufferath, grave puerperal infection, successful vaginal hysterectomy, 37

L.

Labour, premature, and "accouchement forcé," 23; vaginal ovariotomy during, 65; some of the obstructions to, 92; difficult, injury to child's eyes in, 263; premature, the induction of, 300
Laceration of the external popliteal nerve complicating outward luxation of the knee, 314
Lambotte, ligature of the lateral sinus in formidable operations on the neck, 230
Laparotomy, method of incision of the abdominal wall in, 261
Lassar, treatment by radium, 365
Lavenson, chronic polyarthritis, 12
Laveran, trypanosomes, 371
Lavy, congenital torticollis, 118
Lead poisoning, the appendix and, 57
Lécene, juxta-intestinal cyst of intestinal structure, 150
Leg, a special variety of acquired deformity of the, 257
Legueu, simultaneous gunshot injury of liver and femoral artery, 106
Leo's acid treatment of pruritus, 321
Lepage, obstruction to suckling, 131; puerperal abscess of uterus, death, 163; elderly primiparae with fibroid uterus, 1
Lepine, action of the x rays upon nutrition, 11; antithyroid serum, 134
Leprosy, red mangrove bark in, 117
Lesser, the recognition and prevention of iodism, 88
Leucocytosis and perityphlitis, 71
Leukaemia, paper on, 24
Levi, surgical treatment of sterility in the male, 5
Liebreich, fetron ointment, 270
Liepelt, the uses of hydrobromate of scopolamine, 322
Life history of the organism of small-pox, 15
Ligament, round, of uterus, fibromyoma of, 362
Ligaments, accessory hepatic, surgical importance of, 21
Ligature of the lateral sinus in formidable operations on the neck, 230
Light-treatment, of sensitized tissues, 14; Finsen's heat rays in, 381; by Dreyer's method, 399
Lime dust, inhalation of and tuberculosis, 56
Lindenmeyer, eumydrin, a new mydriatic, 41
Lithopaedion, does it demand operation or expectant treatment, 204
Littauer, obturator hernia of ovary associated with osteomalacia, 189; dermoid of both ovaries and pregnancy, 150
Liver, and femoral artery, simultaneous gunshot injury of, 102; abscess of in the temperate climates, 122; venous pulse in the forearm in cirrhosis of the, 153; haemostasis in surgery of the, 185
Locomotor ataxy and syphilis, 172
Lomer, does lithopaedion, demand operation or expectant treatment, 204
London, action of Becquerel rays on the skin, 298
Longcope, pathological histology of Hodgkin's disease, 170
Loose bodies in the peritoneum, 149
Lordosis, oesophageal stenosis from, 299

perforating ulcer of stomach,
[illegible] ulcer in pregnancy,
[illegible] treatment of pernicious fevers, 14
[illegible] a ventral hernia, 2
[illegible] treatment by high frequency sparks,

[illegible] outward of the knee, complicated with [illegible] of the external popliteal nerve, 14

M

[illegible] pleurisy, 15
[illegible] one purgative,
[illegible] by [illegible]
[illegible] the [illegible] Act, [illegible] practitioner [illegible] section,
[illegible]
[illegible] [illegible] [illegible] [

Pyæmia from the local application of chrysarobin, 57
Pyelitis, acute primary, in infants, 48
Pyosalpinx, rupture of, death, 235
Pyramidon in the treatment of sciatica, 71

Q

Quenu, splenectomy for Banti's disease, 21

R.

Rabinowitsch, tubercle bacilli in milk, 235
Radio-active and x ray solutions, the relation of to examination of the stomach, 244
Radium, action of rays of on the healthy and blind eye, 244 treatment by,
Rahn, dionin, 244
Rapport, the relation of non-tuberculous diseases of the upper air passages to phthisis, 17
Ravenna, the pathogenesis of icterus, a case of altered hygrosensibility, the influence of bovine tuberculosis on human health, 351
Raymond, late epilepsy, 207 hysteria simulating gastric ulcer, 24
Rectal dilatation in stricture of the acetabulum, 150
Removal of the prostate, 142
Resection of the cervical sympathetic (Bassdow's disease, 89
Resuscitation by subdiaphragmatic massage of the heart in chloroform, spinal anæsthesia, 2
Retroflexion, symptomless, does it require treatment? 121
Retroversion of gravid uterus, 2
Rheumatism, nodose, 1
Rheumatism of the crico-arytenoid articulation, 234
Ricci, osteitis deformans in adolescence, 36
Richelot, malignant degeneration of cervix uteri after hysterectomy, 57
Riedel, "wooden" inflammation of the pancreas, treatment of the stump of the appendix, 49 local anæsthesia in gall-stone operations, 178
Ringworm of the scalp, 142
Ritzmann, cholæmia in the newly born, 176
Robecchi, the indication of premature labour, 350
Rodella, bacteriology of fluid in hernial sacs, 235
Roentgen-ray and radio-active solutions, relations of to examination of the stomach, 244
Roentgen rays, action of upon nutrition, 144 in the treatment of lupus, 144 in mycosis fungoides, 221; action of in sarcoma, 240 operations under the direct guidance of, 341; tracheoma treated with,
Roesler, diagnosis of phthisis, 88
Rogovin, tests for proteine, 3
Rosenhaupt, clinical aspects of tumour of the pituitary body, 88
Rosenthal, foreign bodies in the stomach, 20; a new serum for the treatment of dysentery, 347
Rossi, abrin poisoning, 1
Rostoski, perityphlitis in pregnancy, 2
Rowland, intra-cranial hæmorrhage
Rupture, central perineal by elbow, breech presentation, of pregnant uterus, death,
Rydygier, partial perineal prostatectomy, operative treatment of old dislocation of the hip, 28

S

Saboraud, x rays in the treatment of tinea,
Sac, hernial, bacteriology of fluid in,
Salimbeni, on yellow fever
Salinari, surgery of the biliary passages,
Salivary duct, occlusion of,
Saniter, two asynchronous pregnancies in the same tube, 164
Sarcoma, action of x rays in, 240
Scarlet fever. See Fever
Schiassi, fixation of spleen and omentum, 142
Schlatter, fissure of the tibia,
Schmitzler, hernia of the ovary, 130
Schoetz, tuberculosis of the pharynx in children,
Scholtz, heat rays in Finsen's light treatment, 381
Schonholzer, surgical treatment of gastric cancer, 7
Schulz, perityphlitis, 18
Scialleto, cephalopia,
Sciatica, pyramidon in the treatment of 271
Scleroketatitis rheumatica, 125
Scoliosis, action of arsenic in the kidneys of children, 97
Scopolamine hydrobromate, the uses of, 322
Seaside, the indications and contra-indications of the treatment at the, 147
Seegall, hydrargyrum hermophenylicum, 25
Seitz, rupture of pyosalpinx, death,
Senecrt, surgical importance of accessory hepatic ligaments, 1
Senn, surgical treatment of traumatic haemorrhage of the spleen, 14 first dressing on the battlefield, 21
Sensibility, altered hygric, case of, 335
Serum, antithyroid, 14; antidiphtherial, the therapeutic value of injections of, 2 Moser's polyvalent scarlatina streptococcus, treatment of typhoid fever by, 230; Dunbar's, treatment of hay fever by, a new, for the treatment of dysentery,
Serumtherapy of plague, 147
Sigel, some new preparations,
Signorelli, diagnosis of rebal colic, percussion of the vertebræ in diseases of the heart and aorta,
Silvestre, nocturnal incontinence of faeces due to enlarged tonsils,
Simond on yellow fever
Simpson, coincident tubal and intrauterine pregnancy, 52
Sinclair, Cæsarean section three times in one patient, 217, hypertrophy of the ovaries,
Sinus, lateral, ligature of the in cranial operations on the ear,
Sippel, interstitial pregnancy and ovarian tumour,
Siredey, precocious menopause
Skin, action of the nuclei of on the, effects of smokeless powder on the
Small-pox, the life-history of the organism of,
Somers, serum treatment of hay fever,
Sorgo, the treatment of laryngeal tuberculosis with reflected sunlight,
Sound, uterine, death caused by,
Sparks, high frequency, treatment of lupus and malignant growths by
Spencer, fibromyoma of the round ligament of the uterus,
Spencer, twisted pedicle of ovarian pelvis, surgical treatment of traumatic haemorrhage of the, fixation of,
Spleen, tonsils or Banti's disease,
Spondylitis, syphilitic,
Spondylolisthesis, case of,
Spondylosis, rhizomelic, and tuberculosis,
Stability of diphtheria antitoxin,
Staphylococci, agglutination of,
Steele, gastroptosis,
Steiner, typhoid fever with arterial complications,
Stenosis, oesophageal from bougie-ing,
Sterility in the male surgical treatment of,
Stern, on diabetes,
Stomach, colloid penetrating ulcer of, surgical treatment of cancer of, foreign bodies in the, action of radium on the mucous of, cytophare in the local treatment of diseases of the, the relation of x-ray and radio-active solutions to examination of, passage of food stuffs from the,
Stools, detection of traces of blood in the,
Strauss, epidural injection,
Strebel, treatment of lupus and malignant growths by high-frequency sparks,
Stump, treatment of the in appendectomy,
Syphilis in gynæcology,
Sucking closure of the,
Sugg, the bacteriology of variola,
Sun, chronic effects of, treatment of laryngeal tuberculosis with,
Surgery of the biliary passages, gastric and duodenal, hepatic, nephrostasis in,
Surgical treatment, of nephritis, of sterility in the male,
Suture of ruptured perineum,
Sympathetic cervical, resection of, Bassedow's disease,
Symptomatology of dyspepsia,
Syncope, chloroform, resuscitation by subdiaphragmatic massage of the heart in,
Synechiae, anterior, persistent pupillary membrane with,
Syphilis, pregnancy with, and locomotor ataxy, as a cause of the neuroses, 57
Syphilitic lesions, a bacillus present in,

T.

Tabes, "family" spasmodic,
Tenesmy, calculus of the ureter,
Terrier, extra intestinal cysts of intestinal fracture,
Tetanus, traumatic, treatment of,
Theinhard's soluble wool for children,
Theocin, note on,
Thiocol, note on,
Thorndike hypernephroma,
Thyroid gland, functions of and epilepsy: fetal, hypertrophy of, hypertrophied, and glycosuria, elegiasy,
Tibia, fissure of the
Tinea, the x rays in the treatment of,
Tissue, hyperplastic, cellular changes in
Tissues, sensitized, treatment by light of the body, effects of perins on,
Toepfer, oxaluria,
Tongue, surgical treatment of cancer of,
Tonsils, enlarged, nocturnal incontinence of faeces due to,
Torticollis, congenital,
Toubert, external oesophagotomy in cases of foreign body,
Tousey, the relation of x-ray and radio-active solutions to examination of the stomach,
Toxin, its own, treatment of cancer by,
Toxins, intracellular, neutralization of,
Trachoma, treated with Roentgen rays,
Trierrin, note on,
Trypanosomes, reports on,
Tube, the same, two asynchronous pregnancies in,
Tuberculin as a means of diagnosis,
Tuberculosis, pulmonary, the relation of non-tuberculous diseases of the upper air passages to, of the pharynx in children, inhalation of lime dust and, pulmonary, diagnosis of, miliary pulmonary following abortion, thoracic spondylosis and, pulmonary, treatment of fever in, pulmonary, treatment of mixed infection in, laryngeal, treatment of with reflected sunlight, in different species, pelvic in, pulmonary, stages of, urogenital, infantile, bovine, influence of on human health, pulmonary, inherited predisposition to, 355; percutaneous application of camphor in, 367; pulmonary, Durante's injections in the treatment of, prevention of in children, Professor Koch's on,
Tuberculous diseases, different bacilli in,
Tubes, Fallopian, adeno-myomata of the uterine end of,
Tumour of the pituitary body, clinical aspects of, ovarian, and uterine pregnancy, ovarian, in a ventral hernia,
Tumours, circumscribed mobile intestinal, due to, of the motor region of the brain, the manifestation of
Turro, new studies in natural immunity,
Twins and pregnancy,
Typhoid fever See Fever,

U

Ugon, poisonousness of
Ulcer, colloid penetrating, of stomach, gastric, hysteria simulating, gastric, perigastritis, gastric, experimental production of,
Ulcerating, malignant uterine fibroid,

Ureter, calculus in the,
Ureteritis in the female,
Ureters, protection of by Kelly's hysterectomy,
Urethra, bulbous, primary carcinoma of the,
Urine, the, in pregnancy, tubercle bacilli in the,
Urticaria in childhood,
Uterus, necrobiosis in fibromyomata of the, gravid, retroversion of, operation for myoma of cervix, malignant fibroid of, inoperable procidentia of, perforation of cervix of, death caused by sound of, malignant degeneration of cervix of after hysterectomy, gestation in bicornate, twin pregnancy in rudimentary cornu of, hæmatometra of the cancer of and vaginal Cæsarean section, puerperal abscess of, death, cyst of cervix of simulating fibroid polypus, dystocia after plastic operation on cervix of, sarcomatous degeneration of myoma of in young subject, fibroid of and cancer, age, cancer, adenocarcinoma of age,

Vaginismus, absence of the minute structure of Negri's bodies, 174
Vaginitis, abscess of the liver in, in temperate climates, 1
Vulvovaginitis, gonorrhœal, of children, treated with albargin, 1

Wiltestein's persistent pupillary membrane with absence of synechiæ, 144
Woman, aged 82, cancer of clitoris in, 312
Woolsey, surgical treatment of acute pancreatitis, 296
Wound of the heart, 80
Wounds, accidental, of the inferior vena cava with laceration, 1
Wounds, penetrating, of the abdomen, treatment of, 2
Wyeth, gunshot wound of the brain, 12

W

Wachs, bacillus present in syphilitic lesions, 174
Wagner, modified Porro operation, 4
Wallace, method of incision of the abdominal wall in laparotomy, 271
Weber, cancer of the clitoris in a woman aged 82, torsion of pedicle of fatal head in parametritis, 3
Weissbein, E., fissure of the tibia, 272
Weissbein, I. W., veronal, 24
Weissbart, styptheum in gynæcology, 1
Welch, pneumonia, 1
Westphal, Korsakow's psychosis, 311
Wettendorff, the indications and contraindications of treatment at the seaside, 1
Wherry, the Koch-Weeks bacillus, 1
Whitla, peculiar forms of hand infection, 1
Whooping cough, the iodophile reaction and glycosuria in, 12
Williams, W., premature labour and "accouchement forcé", 1
Willson, the urine in pregnancy, 150
Wynn, students' outdoor obstetric practice, 1
Winslow, the prevention of abdominal hernia by overlapping of the aponeuroses, 4
Winternitz, infusion of birch leaves as a solvent of renal calculi, 2

X

X rays. See Roentgen

Y

Yellow fever. See Fever
Young subject, sarcomatous degeneration of uterine myoma in a, 232

Z

Zweifel, suture of ruptured perineum, 1
Zweifel, pseudo-eclampsia, 24

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(1) Vincent's Angina.

O. HESS (*Deut. med. Woch.* October 15th, 1903) deals with the clinical aspect and bacteriological find of *angina ulcerosa* or *à bacilles fusiformes et spirilles*, or Vincent's angina. He states that this condition is important for the following reasons: (1) It is characterized by exudation on the tonsils, swelling of the glands in the neck, difficulty in swallowing, and fever, and has therefore a likeness to diphtheria, but runs a rapid and mild course; (2) it can be confounded with syphilis; (3) it is easily recognized by the bacteriological find: this consists in the most characteristic cases in a symbiosis of a bacillus and a spirillus. The clinical conditions are typical. On the first day one tonsil shows an easily detachable exudation, on the second day this membrane is found to rest on an ulcerated surface, and on the third and fourth days it becomes thicker and softer. In a few cases the membrane then becomes detached at its edges, and this is then either coughed up or swallowed. The surface is slightly ulcerated. On it a new thin membrane forms, which is got rid of in the course of a few days. There is moderate fever and swelling of the cervical glands. These cases are termed "croupous," and only the fusiform bacillus is found. In the majority of cases the ulceration deepens under the membrane during the first four days. The pseudo-membrane is soft, grey, yellowish-grey, or greenish in colour, the surrounding tissue is reddened and oedematous. Swallowing becomes very difficult: there is much salivation, and there is fetor *ex ore*. As a rule, the constitutional changes are mild in comparison with the local condition, but these may also be severe. After about eight or ten days the membrane becomes detached, and the ulcerated surface soon gets clean. Complete removal of symptoms and signs rapidly follows. However, there are some cases in which the local and general changes lasted much longer. The prognosis is good, and while the former class of cases resembles diphtheria closely, the more common form is only diphtheria-like at first, and later becomes ulcero-membranous. The bacillus fusiformis is distinguished from the Loeffler bacillus by its length, which is from 6 to 12 μ, and by its arrangement. It is pointed at its ends, and is somewhat bulging in its centre. The bacilli are arranged frequently in pairs as diplobacilli, in bundles, radiating or at an acute angle to one another; at times they lie irregularly. They form vacuoles and other degeneration forms, and do not form spores. They do not stain by Weigert or Gram, but take up fuchsin and methylene blue, but the staining is often irregular, since the centres are more intensely stained than the extremities. The bacillus is possessed of long flagellae, one at each end and two on each side, and has very free movement. Pure cultures have not been made. The spirillus (spirochaetis dentico la) is thin and long, does not stain by Gram, and does not take up fuchsin so readily as the bacillus, has free movement, but no flagellae. It has not been cultivated in pure culture. Hess goes into details of the cultural characteristics of both micro-organisms in the presence of other bacteria. Both are regarded as saprophytes of cavity of the mouth, but both can overcome their saprophytic habit and become pathogenic in the presence of other micro-organisms.

(2) Koplik's Spots as an Early Symptom of Measles.

THE opinions expressed as the significance of Koplik's spots in measles differ considerably, although the majority of observers regard the spots of diagnostic importance. M. Manasse (*Die Medicinale*, vii, No. 10) has been able to see 48 cases of measles in a very early stage, and has watched for Koplik's spots. These spots are small bright red spots, with irregular shape and with bluish-white glittering centres, and occur especially opposite the molars on the buccal mucous membrane or on the palate. In 45 of his 48 cases, the spots were well marked and appeared about twenty-four hours after the initial symptoms, and could be easily separated from the actual eruption of measles, which appeared two, three, four, and even five days after the beginning. In cases of rötheln and scarlatina the spots were not to be found, and he therefore comes to the conclusion that Koplik's spots are easily differentiated from the real exanthem of measles, and are seen in the majority of cases; when seen they form an important early diagnostic sign.

(3) Tests for Iodine.

ROGOVIN enumerates the known tests for iodine (qualitative) and gives the results of his applications of each test (*Berl. klin. Woch.*, September 21st, 1903). He used the urines and exudations of patients who were taking potassium iodide in definite doses by mouth, as well as iodine added to urine and to water, to determine the sensibility of each test. The patients were convalescing from acute diseases, and received no other medicaments at the time of testing. The urine was passed half an hour after the dose, and was examined by all the methods. As an example he cites the case of a young lady, aged 29 years, who was given 0.01 gram of potassium iodide. The urine gave the following reactions: with nitric acid, weakly positive; with nitric and sulphuric acids (Harnack's method), strongly positive with sulphuric acid and potassium nitrate strongly positive; with nitric acid and starch paste, with Bourget starch paper and with Deniges's starch paper, weakly positive; with sulphuric and nitric acids and starch paste, strongly positive; while Jaffe's, Obermeyer's, and Jolles's tests, and with the perchloride of iron and the chlorine bromine tests, it was negative. He found that one could mostly find iodine in the urine, after a single dose of 0.005 gram of potassium iodide, and even after 0.002 to 0.003 gram. The two methods of Harnack (nitric acid and sulphuric acid, and nitric acid, sulphuric acid and starch paste) proved to be the most sensitive. Sandland's method is also capable of detecting small quantities of iodine, but the pink colour disappears very rapidly, and when there is an excess of sodium nitrite solution the test may fail to demonstrate the iodine. The nitric acid test is much less delicate. Rogovin gives an example of the incorrectness of Jolles's statement, that his test is more reliable and more delicate than Sandland's and the other tests. In this case the patient was given 0.0025 gram of potassium iodide, and 600 c.cm. of urine was collected or examination. All the tests proved negative save the nitric acid, sulphuric acid and starch paste, and the nitric acid, sulphuric acid and chloroform. Jolles's method has the great disadvantage that urine containing indican gives the same reaction as that containing iodine, and further that the urine in Jolles's test often assumes a pink tint, which is also the case in urine containing skatol. When there is a large quantity of iodine present, one can avoid this confusion by shaking up with chloroform, but when there is only a trace this method must be regarded as unreliable.

(4) Nervous Fever.

EDVARD KAURIN (*Tidskrift for den Norske Laege*, p. 1, 1903) calls attention to the changes in temperature which are frequently observed in patients resident in sanatoria for tuberculosis. Nervous fever appears to depend upon some nerve or functional change in the centres for the regulation of heat. The temperatures are raised when the patient is in fair health and when no objective changes are visible. The condition is most frequent amongst women and in those who know that much depends upon changes in their body temperature. Kaurin has found that this condition rapidly disappears if a thermometer is used in which the graduation is concealed from the patient's view.

SURGERY.

(5) Callous Penetrating Ulcer of the Stomach.

DURING the past few years a number of cases of a certain type of ulcer of the stomach have been described; and when Brenner called them callous penetrating ulcers, he had already had a fair number in his own practice. These ulcers are characterized by the capability of spreading into the neighbouring organs, for example, liver, spleen, pancreas, etc., and in causing a great deal of connective tissue formation, so that the walls of the penetrated ulcers form considerable tumours. H. Lorenz (*Wien. klin. Woch.*, No. 41) says that this type of ulcer of the stomach is by no means rare. Although Brenner obtained very excellent results by means of treating these ulcers by resection, Lorenz thinks that few surgeons would be able to get equally good results on account of the great difficulty of the operations and the considerable skill required in the performance. In order to show that one can obtain a perfect cure without resection, he describes two cases operated on by Hochenegg. The first was a woman, 57 years old, who was first attacked

with ... pains in the epigastrium. ... flatulence ... vomiting, and the symptoms ... spirits and the remedies which ... relief. Hæmatemesis disappeared after a ... at Carlsbad but returned a little ... and during the following six years the patient was troubled with the symptoms from time to time, the intervals becoming shorter and shorter. She became very much affected, both in mind and body, and had recourse to morphine. She made several attempts to commit suicide. In the beginning of 1901, she was so tired of her sufferings that she applied to the General Polyclinic in Vienna for operative treatment. Her history made a median epigastric incision. The stomach was found to be contracted and to be lying low down. The greater curvature was natural in appearance, while the lesser curvature was entirely covered by the contiguous lobe of the liver. On attempting to raise the liver it was found that the left lobe was firmly adherent to the lesser curvature, and that the anterior wall of the stomach was inflamed and infiltrated. In attempting to detach the adhesions the base of the ulcer tore and was left firmly attached to the liver. The opening in the stomach was larger than a crown piece. The condition of the patient and the extensive adhesions ... resection, and the infiltrated and ... of the ulcer soon proved ... Instead of bringing my sutures which ... edges together. Hochenegg ... succeeded in reducing the ... the perforation to a very slight ..., and thereupon packed it with ... gauze, placed a drainage tube ... the space between the liver and ... curvature, and performed gastro-enterostomy retrocolica posterior. The patient did very well. The drain and ... were removed on the eighth day, and the wound behaved well, and ... three weeks later. Since then the patient has enjoyed excellent health, and there is now no trace of any ... existing in the old site. The second ... was in a woman, aged 52 years. She had been gradually becoming mentally ... for some years, and on ... December, 1902, she had suffered from gastric pain after food. The patient had recently lost ... rapidly, and on February 1st she was ... with a profuse hæmatemesis, and became unconscious. ... all the symptoms of gastric trouble ... In March she was ... able to go out, but the symptoms ..., and a tumour in the epigastric ... was admitted under the care of Hochenegg on April 16th. ... a tumour of about ... size of an apple which was very ... and did not move much with ... the left costal arch. ... was pushed down with a mass of ... covering the ... of the stomach. ... Laparotomy ... were found to be ... by the pancreas and ... and firmly adherent to the left lobe of the liver. ... attempting with great care to loosen ... adhesions some more ... bleeding ... took place from a small opening which lay in a ... attached part. A tube was in-

troduced into the stomach through this opening, and the contents of the stomach removed. Around this tube he packed some strips of gauze. Gastro-enterostomy retrocolica posterior with ... was performed. The uppermost part of the ... as near as possible to the lesser ... being chosen for anastomosis. Two layers of gauze were laid above to the right and below to the left and these with the packing around the tube were brought out at the upper angle of the wound. In spite of difficulty which was experienced in feeding the ... patient, the wound healed well, and eventually the patient was able to leave the hospital on June 23rd in a good state of health. Lorenz discussed the possibility of the accidental tearing open of the ulcer playing a part in the ultimate healing of the condition. He says that it is just possible that by draining the ulcer one may succeed in rendering the condition for healing more favourable than by leaving it quite alone. The tissue becomes more mobile, and the walls and edges are relieved of tension. He thinks that these two cases show that gastro-enterostomy and drainage of the ulcer form a safe and good method of treating callous penetrating ulcer of the stomach.

(6) Incision of Hepatic Duct for Calculus.

DELAGENIÈRE, of Le Mans (*Arch. Prov. de Chir.*, April, 1903) about five years since operated on a case of calculus in the hepatic duct (ob., 1898). He broke up the stone by external manipulation, and then slit up the cystic duct and the adjacent part of the hepatic duct the calculus could then be extracted in fragments. Early this year he operated on a case where the calculus lay high up in the hepatic duct, and concealed a second. The patient was a woman, aged 41, subject for over ten years to attacks of biliary colic with jaundice. A free incision was made along the right rectus. The gall bladder was much contracted and hidden in adhesions, which included a small calculus that had escaped through an old rupture in its walls. The gall bladder and cystic duct were slit up, after the operation's method to reach a calculus which could be felt in the transverse fissure. Then it became clear that the calculus lay very high up. The edge of the liver was drawn upwards, and pushed back by a retractor, a small incision was made through the duct, over the calculus with a bistoury, and enlarged by ... until the stone could be removed; the incision reached up to the liver tissue. A second calculus was now detected, and proved difficult to remove. The ... lay in a wide dilatation of the hepatic duct. The edges of the duct were closed by a continuous ... Then a drainage tube was passed into the ... gall bladder, which was also closed by suture. Lastly, a ... drain was passed under the ducts and the gall bladder. At first bile ... away from the wound, especially through the tube inserted into the gall ... but the duct was completely ... by the nineteenth day. Delagenière ... advocates the free ... of the gall bladder and even of the cystic duct as far as the common ... if necessary, calculi in the latter can often be extracted with ease in that manner. But direct incision of an obstructed common duct has often been practised, even close to the duodenum, and Delagenière claims by the success of his case that incision of the hepatic duct under the same circumstances is good surgery. A duct or gall bladder thus opened should always be closed by suture when the calculus has been extracted, whilst drainage through the fundus of the gall bladder will prevent both tension on the sutures and the risk of effusion of bile into the peritoneal cavity.

(7) Surgical Treatment of Gastric Cancer.

SCHONHOLZER (*Beitrag. z. klin. Chir.*, Bd. xxxix, 1903) reports on 264 cases. Of these 67 were inoperable, or declined operation; in 73 exploratory laparotomy was done; 74 were treated by gastro-enterostomy and 50 by resection. Of the first set (exclusive of 14 who refused operation and who lived for an average of 200 days) life was prolonged for an average of 73 days. Hereditary taint was present in 13 per cent. The mortality of the exploratory cases was 9½ per cent.; that in the gastro-enterostomy cases 24 per cent. The patients were lightly anaesthetised with ether during the skin incision, but not during the rest of the operation. Seventeen cases lived an average of 410 days; 17, 141; and 21 an average of 64 days. The author regards the operation a beneficial one when the disease is not too extensive.

MIDWIFERY AND DISEASES OF WOMEN.

(8) Ureteritis in the Female.

GARCEAU (*Amer. Journ. of the Med. Sci.*, February, 1903) publishes a long article on the above subject. Simple acute or chronic ureteritis is generally part of some other affection of the genito-urinary tract, and its symptoms are masked by those of the bladder or kidney. The valve at the ureteral opening in the bladder probably acts as a strong barrier against the entrance of germs from the bladder. The most important sign on physical examination is the increased tenderness of the affected ureter when pressed upon vaginally. This pressure usually causes a strong desire to urinate. On cystoscopic examination distinct swelling of the ureteral eminence on the diseased side may be observed; it is invariably red and at times streaky. The urine from that side (best collected by Kelly's instrument) is distinguished by a predominance of desquamated epithelium, especially when compared with the amount of pus. The amount of urea is diminished on that side. The prognosis is poor if the disease has lasted long, but if recognized early and suitably treated, it is encouraging. All possible sources of disease elsewhere should be removed, the diet regulated, plenty of water drunk, and the skin functions attended to. If the urine is acid, potassium acetate in large doses is useful, as are sandal-wood oil, sodium bicarbonate, urotropin, and general tonics. Morphine should be religiously avoided. Trional is useful for the sleeplessness. Vesical lavage with 5 to 10 per cent.

$AgNO_3$, 5 per cent. protagol, or 50 per cent. ichthyol are useful. The author has used with success injections of boracic acid 2 per cent. and $AgNO_3$ 1 per cent. into the ureter itself by means of a special instrument. If these measures fail, the only remedy left is to make a vesico-vaginal fistula. He next discusses ureteral obstruction (partial or complete). Gonorrhoea is the usual cause of the fibrous strictures. Dilatation by ureteral bougies is successful in some cases, or the ureter may be exposed extraperitoneally, the stricture dealt with, or the ureter transplanted into the summit of the bladder (if the stricture is near the bladder). It should be remembered that there are normal narrowings in the ureter, (1) 4 to 7 cm. from the renal pelvis, (2) where the ureter curves over the pelvic brim, (3) at the junction of the vesical and ureteral portions. In complete obstruction, the kidney becomes hydronephritic and may sometimes go on to complete destruction without any pronounced symptoms. Whatever nephrectomy should be performed or after removal of the obstruction, attempts be made to wash out the renal pelvis with antiseptic solutions, is discussed by the author. Calculous and tuberculous ureteritis also receive consideration. In tuberculous ureteritis attacks of colic with passage of shreds of tissue should excite suspicion as to the nature of the disease. The good results obtained up to now by total or partial ureterectomy encourage the belief that this operation will be performed more commonly in the future. If left alone future complications are pretty sure to set in.

(9) Stypticin in Gynaecology.

IN giving his opinion of stypticin in gynaecological practice, Weissbart (*Die Heilk.*, vii. No. 10) says that at first sight it would seem superflous to report on a drug which has been in use for ten years, but as different clinicians have come to such different conclusions as to its action, it appears to him to be wise to study the subject carefully, and to publish his results. He classifies his cases as follows: Pure climacteric haemorrhage, in three cases the drug answered exceedingly well, arresting the loss without producing any unpleasant side-effects; menstrual haemorrhage, these cases did not include cases with changes in the uterus or appendages. In some the drug acted well, and in others it failed; the latter result was met with in two cases, while in all others arrest of the bleeding was obtained. The drug did not produce any sedative effect. In reflected haemorrhage of the uterus it acted particularly well, the action being prompt and certain. In fungoid endometritis it was absolutely powerless, and the bleeding only stopped after curetting. In subinvolution *post partum* and *post abortum* it acted well; in these cases he found stypticin more active than ergot or hydrastis, and when it failed to arrest the loss he always found that remnants of membranes were left in the uterus. In two cases of threatening abortion he employed stypticin; in the one it stopped the bleeding, but did not prevent the expulsion of the uterine contents, while in the second case it—together with opium—succeeded in preventing the abortion. It did not induce any pain, and in fact the contractions of the uterus ceased after giving the two drugs. He therefore believes that stypticin is a very useful drug for arresting haemorrhage in gynaecological conditions, and recommends it for general use. He usually gives it in tablet form, each tablet containing 0.05 gram, of which he gives two three times a day making a daily dose of 0.3 gram, or about 5 grs. At times he found that the patients did not take the tablets willingly, and then he prepared a solution of 1 gram of stypticin in 10 grams of cinnamon water, of which he gave ten drops three times a day.

(10) Necrobiosis in Fibromyomata of the Uterus.

J. S. FAIRBAIRN contributes to the *Journ. of Obstet. and Gyn. of the Brit. Emp.*, August, 1903, a study of one of the varieties of necrotic change—the so-called necrobiosis—in fibromyomata of the uterus. He proposes that the traditional classification of uterine fibroids into hard and soft varieties should be abandoned. The softened tumours are merely examples of the ordinary fibroids which have undergone retrograde change and not a distinct variety. On external examination nothing is noticed beyond softness. On section a fleshy red staining is usually seen, but it varies much in intensity. The mass usually has a slight stale smell, probably due to amines formed as a result of the breaking down of the proteids of the tumour. It attacks especially interstitial fibroids of medium size, and is found probably in about 6 per cent. of fibromyomata removed by operation. Pregnancy—quite apart from the accidents of labour or the puerperium—seems to have some influence in the causation of this necrotic process. As to the immediate causation of the change no satisfactory evidence is forthcoming. Most of the explanations offered assume the existence of some interference with the circulation, but such interference has not been proved to exist. Probably the last change undergone by the softened tumour is a cystic transformation. The general symptoms of the degenerative change are those of an auto-intoxication—dirty, sallow complexion, chronic gastric disturbances, feeble circulation, nervousness, and hypochrondriasis. They are the symptoms usually present in patients who have long suffered from fibroids. Additional evidence of auto-intoxication is afforded by the presence of acetone and indican in the urine. But the indican is perhaps more likely to be caused by a coincident constipation than by absorption from the tumour. Another important symptom is pain. Cullingworth, in his analysis of 100 cases of fibromyoma, found pain a well-marked symptom in two-thirds of the necrotic cases, but he also calls attention to the fact that pain was found in about one-third of the uncomplicated cases—cases where there was nothing to account for it. The temperature is usually normal or very slightly raised.

(11) Resistance of Fetus to Maternal Disease.

HAHN (*Zentralbl. f. Gynäk.*, No. 43) discussed the important question before a meeting of the Versammlung deutscher Naturforscher und Aerzte in Kassel. He had observed some cases of acute infective diseases during pregnancy. One of his patients had erysipelas in the ninth month; she recovered, and a live child was born fourteen days after the disappearance of the rash. In a second case typhoid fever occurred during the eighth month, it passed away without fatal results, and a child was delivered alive seventeen days over the calculated date of term. Another patient had an attack of pneumonia in the middle of the seventh month. After convalescence a living child was born at term. Hahn further reported several instances, in his experience of tuberculosis and pleurisy with temperatures in pregnancy, followed by the safe delivery of living children. These cases showed that the resisting power of the fetus may be very strong, at least in respect to several acute diseases.

THERAPEUTICS.

(12) Resuscitation by Sub-diaphragmatic Massage of the Heart in Chloroform Syncope.

BOURCART gives a short historical summary of the literature of resuscitation in death under chloroform (*Rev. Méd. de la Suisse Romande*, October, 1903). Among recent writers, Batelli published certain experiments on dogs, in which he succeeded in restoring animation even after the heart had ceased to beat for fifteen minutes by rhythmical massage of the heart by the hand introduced through a thoracic incision combined with artificial respiration. But the animals survived the operation at most a few days. Similar operations in man, in which both the thorax and pericardium were opened, have been performed by Tuffier and Hallion, Maag, Prus, and others, but always unsuccessfully. To avoid the dangers inherent to massage of the heart after thoracotomy and pericardiotomy Bourcart recommends that laparotomy should be performed and the heart compressed through the diaphragm. His experiments were all performed on dogs. In order to secure complete relaxation of the diaphragm the animals were placed on their backs with the hind-quarters slightly raised, and the usual apparatus to fix the limbs in an extended position was dispensed with. Chloroform was given until the respiration and heart-beats had ceased completely. Tracheotomy or intubation was then performed, and the tube was connected with the bellows of an artificial respiration apparatus. Median laparotomy was performed, and three or four fingers, or even the whole right hand, according to the size of the animal, were introduced through the wound, and passed above the stomach and liver to the diaphragm, which was not incised. Artificial respiration was begun simultaneously with cardiac massage. This consisted in rhythmical compression of the heart between the fingers, passed behind it nearly to the base and the thoracic wall in front. At the end of each squeeze the heart was allowed to glide away from the fingers, but never to elude the finger tips completely. The left hand was placed on

the middle of the chest and controlled the position of the right. Occasionally, owing to the relaxed condition of the diaphragm, the heart may be displaced upwards under the sternum. Before massage is begun it must be gently replaced, otherwise the bronchi may be compressed and artificial respiration is impeded. If the heart begins to beat massage should be discontinued, but the hand should not be removed until the occurrence of spontaneous respiratory movements, and of contraction of the pupil, the re-establishment of diaphragmatic tonicity, and the regularity of the cardiac beats indicate that recovery is permanent. The writers' experiments are divisible into two groups. The first demonstrated that subdiaphragmatic massage of the heart is powerful enough to maintain the blood pressure at its normal height after the heart has ceased to beat. In the second attempts at resuscitation were made. In one of four animals the heart began to beat about ten minutes after apparent death. The laparotomy wound was closed and the animal recovered. In another case the animal was resuscitated, but died the following morning from oedema of the lungs, though the accidental aspiration of septic matter was at the time of the experiment. In the third the cardiac beats were re-established, but spontaneous respiration could not be restored. In the fourth the animal was inverted with spontaneous efforts at respiration and cardiac movements appeared. Massage was then continued without it being perceived that the heart had become displaced upwards and was compressing the bronchi. Bonnet point out that subdiaphragmatic cardiac massage would be easier in man owing to the width of the thorax than it is in dogs. He is apparently unaware that this method has already been employed successfully by Abbattucci Lacy, in a case in which, during an operation for appendicitis, pulse and respiration stopped together (*Lancet*, November 22nd, 1902).

(14) Rheumasan.

E. Harrison (*Deut. med. Woch.*, September 17th) reports on a new antirheumatic preparation called rheumasan. It is an ointment-like soap cream containing 5 per cent. of free salicylic acid, which is easily absorbed and is also fairly stable. It has a pleasant odour. Rheumatic conditions are treated by rubbing in into a large surface, which had previously been well washed and dried, repeating the rubbing with a thin layer of wool. He used it to relieve a toothache and removed it after [illegible]. In [illegible] rheumatic [illegible] it relieved pain, but [illegible] results and sometimes [illegible]. He points out that [illegible] of treatment [illegible] in a normal [illegible] the [illegible] the lighting [illegible] [illegible] the treatment. He [illegible] the favourable effects [illegible] acted very well. It failed only in one case of trigeminal neuralgia, in one case of arthritis of the elbow joint, and in one case of hemiplegia with pain, as well as the latter case already mentioned. In all others the pain was either completely removed or at all events greatly diminished. He found that at times the preparation produced an irritating effect on the skin when applied twice a day, and therefore advises that it should be rubbed in as a rule only once in twenty-four hours.

(13) The Treatment of Sensitized Tissues by Light.

GEORGES DREYER (*Dermat. Zeit.*, Bd. x. H. 5, p. 578), continuing his researches on the action of light rays on animal tissues sensitized by the preliminary injection of erythrosine solution (BRITISH MEDICAL JOURNAL, November 28th, 1903), gives details as to the practical application of his method to the therapeutical treatment of lupus and other cutaneous lesions. One part of erythrosine (Grübler) is dissolved in 1 000 parts of sterile 0.85 per cent. sodium chloride solution. From ½ c.cm. to 1 c.cm. of this is injected into the cutis (after Schleich's method) or the subcutaneous tissue over an area from 4 to 6 sq. cm., and four to eight hours later the area so sensitized is exposed to the cone of light rays from a Finsen lamp or other strong source of light for from fifteen to twenty minutes. If the sensitized area involves cicatricial tissue the exposure should be shorter. It may be added that the author will be glad to hear of the results obtained by this treatment.

PATHOLOGY.

(15) The Life-History of the Organism of Small-pox.

GARY N. CALKINS delivered a lecture on this subject at a meeting of the Biological section of the New York Academy of Sciences on November 9th, 1903 (*Medical Record*, November 14th, 1903). He said that Councilman had pointed out that the organisms found in vaccinia were limited to the cell bodies of the Malpighian layer of the skin, whereas in small-pox they were found both in the cell bodies and the cell nuclei. He also showed that the inclusions were protozoa. The lecturer said that in the parasite's passage to the previous there was usually some phase of the disease which corresponded with some phase in the asexual development of the parasite. The ordinary asexual development of the organisms took place in the cell bodies of the Malpighian layer of the skin, while the more amplified sexual reproductive processes occurred in the nuclei of those cells. Calkins had been fortunate enough to be selected by Councilman to work out the life-history of the organism of small-pox, and through the courtesy and liberality of the same gentleman he was permitted to present these results at this time. Most of the work had been done in connexion with the epidemic of small-pox in Boston. His own work had been done mainly on 22 cases, representing nearly every variety of small-pox. It was below the pustule that one found the organism of small-pox. This organism was a minute, homogeneous body situated in the cell protoplasm. Calkins described in detail the various phases of the life-history of this organism, the Cytoryctes variolae Guar, by the aid of a series of lantern slides, many of them photographs from actual specimens. He pointed out that in vaccinia only gemmules formed, the remainder of the process of development being, for some reason, inhibited. In the late vesicle stage of true small-pox there was found a most characteristic process of reproduction, an auto-infection, that is, the formation of the pan-sporoblast. As long ago as 1896, while making some cultures from the protozoa of another class, Calkins had noticed that the nucleus of these forms was invested in many cases by a peculiar body, at the time unknown to him. The specimen was labelled "A Parasite in the Nucleus," and was not thought of again until he became acquainted with Councilman's specimen in the spring of 1903. The specimen was then looked up, and found to be apparently identical with the small-pox germ. Although there was about one chance in several millions that this specimen represented the exogenous phase of the small-pox organism, it was thought proper to study it thoroughly, and remove every doubt on this point. Personally, however, he believes it was a similar parasite, but not identical with the small-pox organism. In conclusion, he compared the cycle of malaria, a disease due to a protozoon, with the cycle of small-pox. Brinckerhoff, in discussing this paper, said that he had inoculated twelve apes with this organism, and in each case there had been a development of a lesion analogous to the vaccinia lesion; indeed, the disease in the monkey was found to be comparable in its clinical course, in the evolution of the lesions, and in the general constitutional reaction with variola inoculata in man. In every case in which a secondary exanthem developed, the lesion was found in that. It had been possible by this mode of experimentation to determine quite accurately the time relation between the various stages of the parasite and the evolution of the lesion, and these findings were perfectly in accord with the results obtained by Calkins on the human lesion. The monkey was subject to both vaccinia and variola, and hence this animal was particularly well suited for the final demonstration of the minute details of the complete life history of the organism of variola.

(16) The Ætiology of Hyperchlorhydria.

BORGHILDE AXEL (*Nordsk. med. Ark.*, p. 11, 1903) reports some clinical studies upon 278 cases of digestive disorders. In these he observed hyperacidity in 93 cases. The condition was most frequent in persons whose ages ranged from 20 to 40 years, 46 per cent. were men, 22 per cent. women; in 67.7 per cent. there was marked chronic constipation, and this symptom was almost invariably the first sign of the condition, whilst its treatment yielded the best results. The author remarks that of the men 50 per cent. smoked and drank in excess. In these cases he found that the alone meat diet was of no practical value.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(17) The Relation of Non-tuberculous Diseases of the Upper Air Passages to Phthisis.

LOELLER and RAVENNAT (*Zeitschrift für Hygiene, und Infekt.*, Bd. xliv.) attribute great importance in disease of the upper air passages as a predisposing factor to tuberculous disease of the lungs. The upper respiratory passages, besides forming a channel for air to enter and warm it. To the last function the authors attach little importance, since air entering by the mouth is of the same temperature as air entering by the nose. The moisture received by the air in passing through a healthy nose is of great importance, and prevents the air from irritating the delicate epithelium of the lower air passages. But the most important function of the nose is that of cleansing, by its epithelium and its mucous secretion, the incoming air, which is frequently laden with bacilli of various kinds and other small foreign bodies in the shape of dust. Any disease of the nose, pharynx, larynx, or mucosa changes the character of the mucus and weakens its bactericidal power. Most of the more common diseases of the nose, for example, hypertrophic rhinitis, polypi, deviations of the septum, cysts, and sinuses, tumours cause obstruction to nasal respiration and lead to mouth breathing with complete loss of the respiratory functions of the nose. To some extent the same thing holds good of the opposite condition of atrophy of the nasal mucous membrane, and in cases of ozæna bacteria grow freely in the nasal secretions. In all such cases the patient is very liable to suffer from chronic irritation of the mucous membrane of the pharynx, larynx, trachea, and bronchi. The most striking instance of this sequence of events is in the bronchitis of children, following enlargement of tonsils. On all such conditions pulmonary tuberculosis is apt to supervene. A well-known instance of such infection is the supervention of tuberculosis on the chronic pulmonary processes due to the inhalation of dust in some industrial employment—for example, siderosis in tin miners and anthracosis in coal miners the dust causing a locus minoris resistentiae, and the tubercle bacillus fixing on this weak spot. A disease of the upper air passages, which to a very special degree predisposes to phthisis, is ozæna. Alexander found in 50 cases of ozæna, 22 cases of pulmonary phthisis, 7 suspected cases, 4 cases of non-tuberculous disease of the lungs, and 17 cases free from lung disease. The same author, examining the records of *post-mortem* examinations in 22 cases of ozæna, found that phthisis was well established in 68 per cent., was the cause of death in the greater number of cases and was only completely absent in on one case. The secretions in ozæna no longer wash the nasal mucous membrane or destroy the growth of micro-organisms, but dry up into a scab and allow numerous kinds of bacteria to flourish. Thus what should be a filtering apparatus becomes a focus of infection and the unfiltered air causes severe irritation in the lower air passages. These more general considerations are supported by the account of a detailed inquiry into 120 cases of phthisis in which the nose, pharynx, larynx, and ears were carefully examined and classified as normal or pathological with further information in the pathological cases. The authors regret that they are unable to compare these statistics with similar figures for 120 non-tuberculous cases, but they had no such cases at hand and the figures obtained are sufficiently striking to establish the point raised without control observations on the air passages of healthy people. The essential fact is that in 120 phthisical patients 84 per cent. had disease of the nose, 76 per cent. of the pharynx, 42 per cent. of the larynx and only 20 per cent. of the ears. The diseases of these organs were usually some form of chronic inflammation, or in the case of the nose some nasal obstruction. The ear disease was probably in many cases secondary to nasal disease and the authors do not suggest that it was a cause of phthisis. The bacteriological part of the examination was carried out by inoculating glycerine-agar plates with the nasal secretions and incubating at 37° C. In healthy noses the micro-organisms were for the most part confined to the area within 2 or 3 centimetres of the anterior extremity of the nostril, the parts behind this being found sterile. Twenty different sorts of bacilli are enumerated as having been found by the authors in one or more of their 120 cases. They found that the cultivations from diseased noses gave many more colonies than those from healthy noses. They investigated the virulence of similar bacteria cultivated from healthy noses and from noses the subjects of coryza and found that there was no appreciable difference of virulence—the distinction was one of quantity rather than quality. Friedlaender's bacillus, sometimes in almost pure culture, was obtained especially from cases of ozæna. Pseudo-diphtheria bacilli were found in some cases, but never true diphtheria bacilli. In cases of otitis media purulenta they found usually either streptococcus pyogenes, staphylococcus pyogenes, or diplococcus pneumoniae.

(18) Perityphlitis.

SCHULZ offers some remarks from his experience and some advice on the subject of perityphlitis to the general practitioner (*Deut. med. Woch.*, October 22nd, 1903). The first point dealt with is that of an early diagnosis. When the cardinal symptoms are present there is no difficulty; these are pain, fever, and vomiting, to which may be added stoppage of the bowels, tympanites, and perityphlitic tumour. However, these symptoms are only rarely all present, and for this reason the diagnosis is very often not easy. Pain is the most constant sign, but it is by no means always localized to the right iliac fossa. When the peritoneum is affected widely the pain will be diffuse, and there may not even be tenderness particularly marked in the region of the vermiform appendix. However, pain and tenderness must remain a valuable symptom in this condition. Neither fever nor vomiting are characteristic of the affection in themselves, and it must be borne in mind that the severity of the case must not be judged by the height of the fever. Intractable vomiting is a bad sign, but vomiting at the beginning of an attack may be of no importance. Tumour or resistance in the ileo-caecal region is met with in a certain number of cases, but at times the resistance may be felt at other portions of the abdomen, where the caecum occasionally is placed. Meteorism is mostly present, but at times, even in very severe cases, this too may be absent, and may lead to a wrong diagnosis until the affection is far advanced. As a rule the bowels are confined, but there may be diarrhœa at the beginning, or in the pre-febrile stage. It usually lasts for five or more days, and if it is associated with profuse vomiting, it may be taken as a bad prognostic sign. It appears therefore necessary that the general practitioner must always bear in mind those diseases which may be confounded with perityphlitis if he would improve his diagnosis of this condition. In the first place, Schulz says that obstruction of the intestine by scybala may present much the same clinical picture as perityphlitis. The effect of enemata and castor oil will, however, help to clear up this point. Next he mentions inflammatory and ulcerative processes of other portions of the intestines, including duodenal ulcer, catarrhal, diphtherial, tuberculous, and at times also typhoid ulcers of the gut. These are often only to be distinguished from perityphlitis by the localization of the pain and tenderness. Gall stones and affections of the gall bladder may also simulate perityphlitis. The same may be said of renal calculi and inflammatory affections of the uterine appendages. Tumours and actinomycosis must also be borne in mind. In touching on the point of prognosis he states that a large number of cases are naturally mild, and may with safety be treated throughout medically. To his mind, the pulse offers valuable evidence as to the severity of the case. In proportion to the temperature it is neither very small, nor very rapid, in mild cases, and may be relied on. But one should always remember that mild cases may develop into stormy ones at any moment, and the practitioner must be careful in making a prognosis. He goes on to describe that moderately severe and severe cases depend on the extent and nature of the anatomical lesion, and refers the reader to such classical accounts as that of Rose, Sonnenburg, and others. Dealing with the treatment, he finds that the usual means adopted are ice, opium, milk diet, absolute rest in bed. He finds that hydropathic applications, such as cold compresses or poultices, may be used at times, and he feels inclined to advise ice only when the temperature is very high and when the abdomen is not too distended. With regard to opium, he states that one should never give it during the first few

SURGERY.

(19) "Exochleation" of the Prostate. RIEDEL has often noticed that the liver and prostate present a tough and firm consistency after death, but during life are both friable and soft. If one drew conclusions from the post mortem conditions, it would appear practically impossible to apply exochleation to the prostate. But in reality this is quite [illegible] May 29th, 1903. He states that it is quite easy to remove large or small portions of the prostate gland with a sharp spoon, and not only of the glands in retention but also of the surrounding tissue. His first attempt in this direction was a case of chronic specific urethritis complicated with chronic prostatitis in a [illegible] with retention. The patient had been forced to use a catheter for two years, as he was unable to pass his urine spontaneously. At the operation the prostate was exposed, and a [illegible] small portion from each side of the organ. But this did not suffice to relieve the retention. The patient was accordingly sent home with a catheter in the hope that the [illegible] of the prostate would [illegible] the urine. The necessity of extensive suprapubic prostatectomy was thus avoided. He thinks that [illegible] with chronic retention [illegible] the bladder [illegible] a catheter [illegible] the urine [illegible] the prostate [illegible] the urine [illegible] the prostate [illegible] the urine [illegible] the prostate

normal, and in both the pregnancy in question had advanced to between the fourth and fifth months. About a month before admission both suffered from retention of urine, followed by frequency of micturition and by incontinence. The first patient on admission was found to have a temperature of 100.2°, pulse 80 to over 100, and 45 oz. of offensive alkaline urine were withdrawn by catheter. A vaginal examination showed the cervix high up, immediately behind the symphysis, and a rounded elastic swelling occupying the upper part of the hollow of the sacrum. It was judged that interference with the flow of urine and pressure on the lower part of the bladder had set up a septic process in the lining membrane of the bladder. The patient was put to bed, directed to assume the genu-pectoral position for a quarter of an hour three or four times daily, the part of the uterus lying in the pelvic cavity was pushed up each day, and the bladder washed out with boracic acid lotion. While under treatment the patient passed two casts of the bladder, the first somewhat of the nature of a diphtheral exudation, the second an exfoliation of the mucous membrane of the bladder, together with some of the deeper tissues of its wall. The patient improved, and a healthy child was born at term; the incontinence of urine finally disappeared only after the confinement. The second patient when seen before admission was unable to lie down because of the tense and distended state of the abdomen. A swelling, dull on percussion, reached to within two finger-breadths of the xiphoid cartilage, and urine was constantly dribbling away. Per vaginam a large elastic swelling filled the pelvis and pushed down the posterior vaginal wall almost to the vulvar orifice; 144 oz. of foul blood-stained alkaline urine were withdrawn by catheter, and attempts having been made unsuccessfully to push up the uterus, a large ring pessary was inserted and the patient put to bed. Under treatment during the next seven days the uterus rose somewhat, but a considerable part remained in the pelvis; the urine became clearer and less offensive. The patient's condition then began to grow steadily worse, signs of intestinal obstruction became apparent, while the womb still seemed unable to rise out of the pelvis. An operation was decided upon, and on opening the abdomen it was found that the bladder wall was thickened and adherent on all sides to omentum and loops of small intestine; the uterus was held down by the adherent coils, and intestinal obstruction was being caused by the forward growth of the intestine. Some of the adhesions were separated, but it was not found possible to separate all, nor could the uterus be raised from the pelvis. Room to allow the uterus to develop anteriorly had, however, been secured, and nothing further was attempted, as the patient's condition had become critical. She died later in the day. The necropsy gave the following results: The uterus was enlarged by a five-months pregnancy, its walls thin and its tissue extensively degenerated; a widespread peritonitis surrounded it, causing numerous adhesions to neighbouring structures. The mucous membrane of the bladder presented the appearance of diphtherial cystitis and small cavities containing pus were widely scattered throughout the thickened walls. These two cases demonstrate the serious complications which may arise from unrelieved retroversion of the gravid uterus.

(23) Premature Labour and "Accouchement Force."

IN contracted pelves, W. Williams (*Amer. Gynec.*, July, 1903) is against the induction of premature labour—nearly 70 per cent. of the cases are born spontaneously, and the chances of life in premature children are small, at any rate amongst the poor. He lets his patients go to term, and go on to the second stage of labour, and if at the end of two hours of this the head shows no sign of engaging, and the mother and child are in good condition, Caesarean section should be performed. This, however, is rarely necessary. The only cases where the author would induce labour in contracted pelvis are those where, in a prolonged pregnancy, labour does not come on at the expected time, or where, from the previous history, one is led to suspect an unusually large child. Induction of labour is indicated in marked toxaemia where uraemic symptoms occur—the amount of urea steadily decreasing whilst the albumen increases. In placenta praevia again, the author advises the induction of labour as soon as a positive diagnosis is made. In ordinary cases the best method of inducing labour is the introduction of a sterile bougie. Champetier de Ribes bag is more rapid in its action. When more rapid dilatation is needed (*accouchement forcé*), as, for example, in eclampsia, the author speaks most highly of Harris's method, which is available as soon as one finger can be introduced into the cervical canal—the thumb is gradually forced up alongside it, then two fingers and a thumb, etc., the back of the thumb being used as a dilator. By this method the canal can be dilated in five or six minutes, but it is better to take twenty or thirty minutes over it. The author has practised this method in 87 cases (eclampsia 30, toxaemia 13, placenta praevia 10, to hasten labour 34), with three deaths directly attributable to the operation. To the average practitioner it is a safer method than the use of metallic dilators—for example, Bossi's.

THERAPEUTICS.

(24) Veronal.

L. W. WEBER (*Deut. med. Woch.*, October 1st, 1903) has tested the action of veronal, a new hypnotic, which has been introduced by E. Fischer and v. Mering, and which has been favourably reported on by various observers. He points out that the action of a narcotic depends on its sleep inducing properties, on its quieting properties, and, lastly, on its anodyne effects. Veronal was tried on the inmates of the Psychiatrical Clinic in Goettingen, and the effects in all the three directions were carefully noted. The influence of suggestion was excluded as far as possible by administering the drug at times in tea, beer, wine, and soup, without calling the attention of the patients to the fact that they were receiving any hypnotic. As a rule, 0.6 to 1 gram were given, while the highest dose employed was five times 0.3 gram. in one day. No effect could be detected on the quality of the pulse, respiration, temperature, blood pressure, or urine. In cases needing treatment for simple sleeplessness, 0.6 gram produced sleep in from half to one hour as a rule. The cases which reacted best to the drug were those in which the sleep necessary for the recovery and improvement of metabolism was wanting on account of overexertion or mild apprehensive excitability. These cases did not react to mechanical or hydropathic means. Weber finds that the action is like that of hedonal, but requires less large doses; he prefers this drug to chloral, trional, and sulphonal. It acts less well in the sleeplessness of recent exhaustion-psychoses and of mild maniacal excitability. Turning to the second action, he found that veronal is well adapted for combatting conditions of excitability. For the patients who were suffering from hallucinations with marked excitability it acted extremely well. He exemplifies the action by citing some cases in which it worked rapidly and effectually. In epileptical mania it acts well and promptly if the condition is not very extreme; while in the motor restlessness of the mania of general paralytics it also acted as a rule. The effect of veronal on pain could only be controlled in one case of tabes, in which it worked satisfactorily. The action lasted for a considerable time in all cases, and it appears to Weber that in veronal one has a reliable hypnotic. The effect of the drug seems to become less powerful after about four days' administration. Ill-effects have not been observed by him.

(25) Hydrargyrum Hermophenylicum.

G. SEEGALL (*Berl. klin. Woch.*, October 19th, 1903) has experimented with a mercury preparation, which has been particularly recommended by some French observers. This preparation is called hydrargyrum hermophenylicum, and is obtained by dissolving the oxide of mercury in bisulphite of carbolic sodium. It has the chemical formula $C_6H_5OSO_2Na\ Hg$, and occurs in the form of a white amorphous powder, containing 40 per cent. of Hg. It is extremely soluble in water, and is said to act bactericidally, but not to irritate the tissues or to produce poisonous symptoms. Seegall describes the accounts which the French observers give of its use. He tried it in 32 cases of secondary syphilis and 3 of tertiary affections. At first he injected 4 c.cm. of a ½ per cent. solution subcutaneously, but as this method produced pain he changed the injections to intramuscular. The dose was gradually increased, but lately he has found that it is safe to use 1, and later 2, per cent. solutions, and to inject first 1 gram and later 2 grams. In 9 cases he observed intoxication symptoms, including gingivitis, stomatitis, mercurial exanthema, and diarrhoea. Albumen did not appear in the urine of any case, and, indeed, in one case of albuminuria, in which other preparations of mercury had been productive of signs of irritation of the kidneys, the amount of albumen diminished during the exhibition. The infection had taken place from five weeks to eleven years

the treatment was begun. In 7 [illegible] the treatment and anti-streptococcic [illegible]. As a rule, the symptoms vanished after about five injections, [illegible] disappeared. In all cases this preparation did not [illegible] cure them to stay cured. In the tertiary cases it acted promptly but [illegible] controlled by [illegible] the results. Sequin [illegible] the conclusion that Hg heterophyllous [illegible] is not reliable in its [illegible] certainly not so valuable as the preparations of Hg. The insoluble salts of Hg. [illegible] [illegible] of this conclusion. He [illegible] it [illegible] to try the effect of [illegible] since it is said to be non-irritating and to act as a bactericide. [illegible] that [illegible] to [illegible] that [illegible] complete [illegible] cure [illegible] one case with the [illegible] the discharge [illegible] by this treatment alone [illegible] to overcome the [illegible] discharge after [illegible] [illegible] and the [illegible] had to be dealt with by [illegible] other [illegible] other cases [illegible] were not [illegible].

(26) Pyæmia from the Local Application of Chrysarobin.

J. Hutchinson (*Brit. med. Journ.*, July 11th, [illegible] case of a soldier who [illegible] hospital [illegible] vomiting and [illegible]. The [illegible] under bismuth and diet. It was [illegible] that [illegible] patches [illegible] the [illegible] on July 2nd [illegible] of chrysarobin ointment [illegible] and were continued [illegible] until August 11th, when [illegible] symptoms, and vomiting appeared. The chrysarobin [illegible] on August 9th. On August [illegible] the [illegible] were continued till [illegible], but was then found [illegible] and the temperature [illegible]. There [illegible] diffuse [illegible] and [illegible] swelling [illegible] the right [illegible] and [illegible] the left [illegible] with [illegible] breathing. [illegible] was [illegible] and [illegible] symptoms were diagnosed. There [illegible] the [illegible] and [illegible] the [illegible] [illegible] [illegible]

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(30) Tuberculosis of the Pharynx in Children.

ALTHOUGH it was believed but a few years ago that children do not suffer from tuberculosis of the pharynx, some cases have been recorded during recent years, and Seifert makes the statement that faucial tuberculosis may affect persons of any age. P. Schoetz has had two such cases under his care in the early part of last year, and reports on them in the *Deut. med. Woch.* of October 15th, 1903. The first patient was 10 years of age, and was brought to the hospital on January 8th on account of sore throat, which had been present for five days. There was a general extensive pharyngitis, the soft palate was reddened and swollen, and the nasopharynx, the posterior pharyngeal wall, and velum were covered by a tough adherent whitish membrane. The epiglottis was oedematous, and the voice was somewhat hoarse. The regional glands were enlarged and the temperature was raised. The case was considered to be one of diphtheria, and transferred to a colleague to be treated at home. After four weeks the practitioner who had been treating the case returned the child, with the remark that repeated bacteriological examinations had proved negative, and that the clinical course did not correspond to diphtheria. On examination, Schoetz now found that all the membrane had disappeared, the velum presented a bright red, glossy, swollen appearance, and was speckled with grey and yellow points; at one situation there was a superficial lentieular tumour. The posterior pharyngeal wall presented the same appearance, and the lymphatics were more swollen than previously. There were difficulty of swallowing, regurgitation of fluids through the nose, as well as fever up to 104.4°, and physical signs of tuberculosis of the left apex, including tubercle bacilli in the sputum. On account of the bad prognosis which Schoetz made and told to the parents, the child was taken to a herbalist, whose treatment failed to check the progress of the disease. She was then admitted into a hospital, and on March 15th it was found that she was in a very pitiable condition. The mucous membrane of the velum, uvula, fauces, and posterior pharyngeal wall showed greyish-white, dirty, ulcerated surfaces. The lymphatic glands had become greatly enlarged, and one had broken down into an abscess. The pulmonary tuberculosis had likewise made vast progress. The child died on March 25th, but no necropsy was allowed. The second case was that of an 8-years-old boy. He was first seen on February 15th, when the whole posterior pharyngeal wall showed greyish-white filmy exudation and general swelling. The velum was slightly oedematous and was occupied by many grey nodules. There was retronasal pharyngitis. The lymphatic glands at the angle of the jaw were indolent and hard. Some catarrhal reddening of the interior of the larynx and nose was seen. No tubercle bacilli were found in the exudation in the throat, but only streptococci and diplococci. There were moderate general symptoms, but after a few days the temperature began to be considerably raised, and the patient was admitted into the wards. On March 1st several superficial ulcers were seen on the pharynx; a few days previously there had been some left-sided otorrhoea. On March 10th a profuse rash appeared over the arms, chest, and abdomen, and some on the back. This proved to be erythema exudativum multiforme. The ulcers on the pharynx spread during the following days, but on the 26th appeared to be becoming cleaner. The left tympanum showed a second perforation, and a little later the right ear began to discharge also. The lungs began to be affected, and diarrhoea set in. The patient passed a number of segments of tapeworm, and he complained of great pain in the abdomen and at the anus. He wasted rapidly, and died on May 6th. Schoetz discusses the points of interest in these two cases, and also the salient points in the few other published cases of tuberculosis of the pharynx in children.

(31) "Family" Spasmodic Tabes.

PERUGIA (*Gazz. degli Osped.*, July 26th, 1903) reports two cases of spasmodic tabes occurring in the same family. The parents were alive and well, but very poor. The father was of low intelligence. Five brothers healthy in mind and body. Both children (boy and girl) were born normally at term, and were well up to about a year old, when they had bowel trouble. Their mental development was very slow, their speech elementary and poor. Nocturnal enuresis was present. At the time of examination the boy was 19, the girl 25. Both suffered from ataxic, hesitating uncertain gait, with muscular rigidity of the lower limbs, and a marked exaggeration of the tendon reflexes. The superficial reflexes exhibited nothing special. The general sensibility and muscular sense were unaffected. There were no marked disturbances of electrical excitability or of vasomotor irritability, and the sphincters were normal. No muscular atrophy was present. The pupils were equal, and reacted to light and accommodation. On closing the eyes marked swaying of the body occurred in the erect position. Mentally they were torpid and semi-imbecile. Strabismus was present. The thyroid was slightly enlarged in the boy, and in the girl the left lobe was considerably enlarged. There was no epilepsy. Some good result may be brought about by careful training in these cases if they are taken early enough.

(32) Splenic Puncture in Diagnosis.

MICHELAZZI (*Gazz. degli Osped.*, November 8th, 1903) pleads in favour of the practice of splenic puncture in the differential diagnosis of typhoid. His experience has taught him that pure Eberthian infection is comparatively rare; other micro-organisms are constantly present, some of which—for example, the staphylococcus pseudotyphus—give clinical symptoms almost exactly like typhoid. Cultivations made from liquid taken by puncture of the spleen offer this advantage over blood cultures, that they give positive results quite early in the disease, and before certain results can be obtained from the blood in the ordinary way. The importance of this in differential diagnosis is obvious, for it is just in the early stages of a supposed typhoid that the difficulties in diagnosis are most severely felt. By this method the author was able in the early stages of the disease to classify two cases of supposed typhoid into streptococcaemia, one into B. coli infection, and one into miliary tuberculosis.

(33) Human Plantar Reflexes.

IN a paper read before the Royal Society of Edinburgh (May 18th, 1903) Dr. Alex. McAldowie states that the human plantar reflexes possess the distinctive features of adaptation—they are movements of defence or preservation adapted to withdraw the part from the source of irritation. The purely spinal plantar reflex is seen in the case of the infant before it begins to walk. If the sole of the foot is tickled, the great toe is at once drawn upwards (extension), then the rest of the toes are extended and separated, the foot is everted and the ankle dorsiflexed, after which the knee and hip are drawn up. This infantile plantar reflex differs materially from the later or adult plantar reflex. The infant's foot has a tendency to make prehensile or grasping movements. Hepburn has shown that the muscles leave their imprint on the skin of the sole of the foot, which is thrown into folds separated by grooves, and that in the foot of the apes and of newborn infants the same general arrangement of transverse and longitudinal lines prevails. After the child's food has become an organ of support and locomotion the character of the grooves undergoes change. The primitive grooves are smoothed out while a new set makes its appearance. The plantar extensor reflex of the infant is a modified prehensile reflex, as it withdraws the foot from contact with any irritating object to which the sole might be applied. Collier states that this infantile reflex is precisely similar to the plantar reflex of monkeys. If, on the other hand, we stimulate the sole of the foot of a child after it has learnt to walk, the character of the movements elicited is the exact antithesis of the preceding. The thigh is the first to respond. It is drawn up, then the ankle is dorsiflexed, the toes are fixed and adducted, and the foot is inverted. This is a plantigrade reflex, and is gradually developed as the use of the limb is acquired for support and locomotion. The economic significance of this reflex is clear. In plantigrade progression, if an irritating object comes in contact with the sole of the foot, the flexors of the hip, acting at a greater mechanical advantage than any other muscles, withdraw the foot from the offending object, "while the flexion of the toes and the inversion of the foot render the skin of the sole lax, so that any sharp object will penetrate less rapidly." This second-stage reflex appears in perfection only after the second year. The reflex function of the

...centre is not ... and it only requires withdrawal of the inhibitory influence for the primary reflex to manifest itself. If, owing to disease, the secondary reflex is destroyed or abolished the primary reflex reasserts itself in the form of the very well known Babinski's reflex. Such abolition may be brought about by alcoholic or uraemic poisoning, or by severe epileptic fits, which produce a state of brain exhaustion, or by disease or degeneration affecting the cortical motor pyramidal cells or the pyramidal tract. But, whatever the theory of its origin, the fact remains that we are possessed of two distinct and antagonistic plantar reflex responses which predominate and the absence of which is abnormal during health.

SURGERY.

(34) The Surgical Treatment of Nephritis. ... November 17th, 1903) gives an extract upon this subject from his book, which is shortly to be published. Although this therapeutic measure has been criticized as ... by some and illogical by others, he maintains that his results are ... to both these objections. He relates the case of a woman, aged 21, who enjoyed excellent health until the age of 15. She had never suffered from scarlet fever or other infectious disease except measles; she had borne four children without complication. For three years she suffered from attacks of a dull heavy pain in the right lumbar region, followed on the next day by the passage of a blood-red ... In addition ... was ever seen. As the pain passed off the urine resumed its normal colour. The attacks becoming more frequent, and dyspnoea developing, ... At one time was the patient the character of ... made the operation ... A ... was effected in the ... the ... was passed ... and ... kidney ... felt, ... The ... and ... The ... and ... The ... and

4th, 1902, undelivered after being in labour, near term, for several days. The waters had begun to escape nearly a week before admission, the pains were strong and rapid, the breech presented. The patient showed marked symptoms of sepsis, pulse 130, temperature 105°, and there was a very fetid vaginal discharge. The patient had been three times pregnant before, and gestation went to term twice, but ended in the seventh month on the third occasion. The left hip was ankylosed, but the pelvis was normal. The child was delivered under chloroform; it was a male and living, yet a quantity of fetid fluid escaped from the uterine cavity after its extraction. One hour later it was found necessary to detach the placenta manually, considerable flooding ensued. Antiseptic intrauterine injections, swabbing of the uterine walls with a concentrated solution of carbolic acid and iodoform-gauze drainage were practised. During the ensuing week the lochia became more and more fetid, and rigors and sweats occurred. As the uterus was evidently the focus of sepsis, vaginal hysterectomy was performed on November 11th. A rigor, followed by free perspiration, occurred half an hour later, the temperature rising to 104°. Artificial serum was injected, a bedsore formed on the buttocks, but the patient recovered. The interior of the uterus showed no traces of placental relics, the tissues were sloughy. In this case the infection had become well established before delivery, its source remained undiscovered. It was not true puerperal septicaemia, where the infective process repeats itself in organs beyond that wherein it arose. It was putrid infection caused by germs which had no diablastic properties, but infiltrated the uterus, whence their toxins and ptomaines were distributed through the circulation. The necrosing uterus was removed, and the patient was cured, the seat of infection being extirpated. Had the affection been true puerperal septicaemia, no local operation, from injections to hysterectomy, could have saved the patient. The distinction between putrid infection and septicaemia is, therefore, most important as regards treatment.

(38) Suture of Ruptured Perineum.

A MEDICAL man in Germany can be fined 900 marks (about £45) and sentenced to three years' imprisonment, beside having to pay compensation to the patient, for neglecting to suture a ruptured perineum. Dealing with an actual case in which a medical man was charged with this neglect, Zweifel (*Deut. med. Woch.*, January 1st, 1903) puts the matter in a clear light. He does not regard the position of the general practitioner as being worse in this respect than that of any other man, since there is no suggestion that he is responsible for the rupture. He is, however, responsible for the discovery of the rupture, and for an attempt to rectify it. The defence in this form of case may rely on an opinion that ruptures are capable of healing spontaneously. Zweifel says that he, at all events, has never seen a ruptured perineum heal up, that is the torn surfaces were never approximated in those cases in which the healing was left to Nature. Dealing with ruptures of the third degree, he says that every one will have the same opinion that spontaneous repair is impossible. Since the law will not allow for any lack of knowledge in a practitioner, this defence must fail in the court. The next possible defence is that exhaustion on the part of the practitioner, or severe flow of blood, which could occlude the view of the parts might hinder the suture, but this is no excuse for not suturing it the next day. Another excuse offered in this particular case was that the practitioner did not feel justified in giving an anaesthetic by himself, and he could not obtain the services of another practitioner. Zweifel points out that the injection of a 1 per cent. solution of cocaine will overcome the difficulty. The last defence offered was that an attempt to repair a rupture of the third degree would have been unsuccessful, and therefore he thought it wiser to advise the patient to have the repairing operation performed by a specialist after she had got over her lying-in. Zweifel thinks that there is good reason to advise primary suture, since this is much more likely to lead to good results than the second operation. He admits that it is frequently a failure on account of faulty methods, and to avoid this disappointment he gives a clear account of what he regards to be the best method of performing the operation, and of conducting the after-treatment. This description is easily understood by glancing at the diagrams which he appends to his paper, and to which we must refer the reader.

---

(39) Operation for Myoma of the Cervix.

GOTTSCHALK (*Deut. med. Woch.*, October 2nd, 1903) describes an operation for the removal of myoma of the cervix per vaginam, which he claims offers several advantages over other methods. Pure submucous myomata are mostly removed through the vagina, but the majority of surgeons are afraid of attacking large interstitial myomata, although they are easily reached through the vagina. The usual mode of procedure has proved to be very dangerous, as the cervix is always considerably damaged, and it is impossible to produce a satisfactory reposition of the whole uterus after this operation. The patients mostly die of sepsis. Gottschalk has operated on a case by a new method, with complete success, and says that the dangers of the ordinary vaginal operation do not apply to his operation. The patient was 51 years of age, and complained of symptoms of pressure on the bladder, so that she could only pass a few drops of urine at a time, and of much bearing down. There was also irregular haemorrhage. On examination a large interstitial submucous myoma of the cervix was found to fill the whole pelvis. The anterior cervical lip was represented by a very small ridge, which it was just possible to seize with forceps, but not to draw down. The vagina was therefore incised *in situ*, and the neck of the uterus was divided from the bladder and broad ligament. Next, the posterior wall of the vagina was separated from the rectum, and Douglas's pouch was pushed upwards but not opened. In the posterior portion of the tumour, which was thus exposed, an incision of about 2 in in length was made to the right and behind the external os in an oblique sagittal direction, through the neck of the uterus. In order to protect Douglas's pouch from being damaged, the posterior edge of the wound was provisionally sutured to the posterior edge of the vaginal wound. The tumour was then shelled out of the surrounding wall as far as possible by the finger, and a wedge-shaped piece cut out and removed. The rest of the tumour was then removed piecemeal, until the last segment, which was about the size of a fetal head, was removed, when considerable haemorrhage took place from the cavity of the uterus. Intrauterine packing with iodoform gauze soon arrested this. The sac in which the tumour had been situated, after the latter had been removed, lay inverted, hanging out of the wound in the neck of the uterus. This was pulled as far as possible out of the wound, and ligatured above a clamp close to the uterus. It was then cut off between the clamp and the ligature, and after Gottschalk had satisfied himself by digital examination that the mucous lining of the cervix was in good apposition and quite smooth, the vaginal vault was again closed, care being taken that the wound in the cervix was well covered. Packing behind the uterus acted as a counterpressure to the intrauterine packing. The case did well. He claims for this operation that it is conservative, that it is comparatively free from danger, the ureters being secured against wounding, and severe bleeding being avoided, that the bed of the growth is very simply dealt with, and that the mucous membrane of the uterus is not touched. In this way the chances of sepsis are reduced to a minimum.

THERAPEUTICS.

(40) An Antituberculous Bacillus.

AT a meeting of the New Haven Medical Association held on December 16th, Stephen J. Maher read a paper on Some Investigations of Bacterial Treatment of Tuberculosis (New York *Med. Rec.*, December 26th, 1903). Six years ago he found that the last micro-organism to remain alive in some samples of milk from a tuberculous cow was a sporogenic, liquefying, facultative-anaërobic bacillus. Later he learned that this bacillus could be injected into animals without harming them, and was closely akin to, if not identical with, bacillus mycoides III (Conn.). He had injected pure live cultures of this bacillus into nearly one hundred patients suffering from pulmonary tuberculosis. He emphasized the following points: (1) This bacillus can with safety be injected alive and in pure culture into the human system. (2) After its injection it remains alive in the human system often for weeks, and does no other harm than occasionally to cause slight suppuration. (3) After its injection it causes a variable febrile reaction which is never serious. (4) After its injection it has been found in the urine, blood, and sputa. (5) After its injection into the groins of persons suffering from tuberculosis there is often a subjective

of local reaction at the site of the tuberculous lesion. (6) After its injection into the connective tissue about a tuberculous lesion in man a marked appreciable effect, even to the closing of the sinus, was followed. (7) A case of tuberculous cystic mastitis in several instances full medical injection of the cultures. (8) After its application on gauze or cotton packing to sinuses leading from caseous lymph-nodes probably tuberculous such sinuses have healed with surprising promptness. (9) Its hypodermic injection into patients suffering from tuberculosis of the lungs has been followed in many cases by relief of such symptoms as cough, fever, night-sweating, wasting, anorexia, diarrhœa, and hæmoptysis. (10) Its instillation into the open tuberculous pleural cavity has caused the drying up of a purulent discharge that was resistant to ordinary methods of treatment. (11) Its hypodermic injection into consumptive patients has in several demonstrable cases been followed by the apparent cure of the disease. (12) As a vulnerie scavenger of the tuberculous human system, this [illegible] the most of the medicinal products of the materia medica, that it grows in spite of the drug, that its growth is alkaline, that it grows in the presence or absence of air, that it feeds only on dead matter, that it grows more rapidly and has more vitality than the ordinary pus-producing germs and that its introduction into the human tissues is followed by a partial destruction of the [illegible] of pus-producing germs present in the body. (13) Some as yet incomplete—investigations would seem to show that this bacillus acts without beneficial effect in other pathological conditions than tuberculosis. In conclusion Maher said that while he believed that many of his statements needed confirmation by other investigators, and that it was possible that some of them would fail of such confirmation, still he had felt that it was time to invite his brother physicians to look at the vision that had been before his eyes for so long.

(41) Eumydrin, a New Mydriatic.

[illegible] (*Arch. Ophth. Wien.*) reports on a new mydriatic called eumydrin. It is a white crystalline powder, which is easily soluble in water. It is stated [illegible] and is supposed to be so constituted that while its action in the eye is most [illegible] on the central nervous system is greatly limited. It is said to be fifty times less poisonous than atropine. [illegible] became [illegible] and [illegible] in solutions of 1 per cent. [illegible] of the pupil after ten to twenty minutes, while the dilatation [illegible] attains its maximum in from [illegible] hours. The duration of this paralysis varies very markedly according to the age of the patient and to other factors, 5 and 10 per cent. solutions produce the dilatation of the pupil after from eight to fifteen minutes. The maximal dilatation is reached after from twenty to thirty minutes, and the size of the pupil becomes again normal after from three to five days in the case of the 5 per cent. solution, and after from four to seven days in the case of the 10 per cent. solution. The accommodation paralysis is complete in every case with both strengths. In nearly all the cases the paralysis of accommodation cleared up at the same time or before the mydriasis. In no case did he see any toxic symptoms. In normal eyes he found that the weaker solutions took a midway position between 1 per cent. homatropine and atropine, while the stronger solutions were nearly as active as atropine and the paralysis of accommodation did not last so long as with the last named. He then tested it in pathological cases, and employed the weaker solutions in irritative conditions, such as phlyctenular affections, foreign bodies in the cornea, etc. In this class of case homatropine produces too short a dilatation, while atropine produces an unnecessarily long-continued action. The solutions were highly satisfactory. With the stronger solutions he was able to break down adhesions (synechiæ) in iritis, and when it failed he found that atropine also was incapable of doing better. He found it useful in both acute and chronic iritis cases. He does not think that eumydrin should be used instead of homatropine for dilating the pupil for diagnostic purposes, for he considers the production of a paralysis of accommodation lasting two or three days unjustifiable. In no case did the preparation produce any ill-effects, and the patients only occasionally complained of a slight burning sensation after the drops had been applied.

(42) Therapeutic Massage.

CARLO CORONEO (*Giorn. Med. Italiana*, December 17th, 1903) gives an account of numerous experiments on the effect of massage, and deduces from them the following conclusions: (1) After massage of the muscles there is always a rise of blood pressure, which is greater or less according to the greater or less extent of the body surface to which the massage has been applied (except when the abdominal surface has been massaged). (2) The increase of pressure is found in all energetic forms of massage of the muscles, varying in degree according to the method employed. With deep [illegible] from 65 mm. to 110 mm. of mercury; with kneading from 70 mm. to 120 mm. of mercury; with percussion from 65 mm. to 115 mm. of mercury. After percussion the increase of blood pressure reaches the highest point, but the subsequent change from this high pressure to normal [illegible] more rapidly after percussion than after deep friction or kneading. (3) Light and gentle massage in the form of stroking and vibrations produces a very slight increase of blood pressure, sometimes almost imperceptible. This is more noticeable in massage of the muscles of the limbs and back than in abdominal massage. (4) Mixed massage of the muscles of the limbs and of the back followed energetically with all the manipulations—deep friction, kneading, and percussion—produces a rise of blood pressure (from 64 mm. to 120 mm. of mercury) which lasts for a considerably longer time than that caused by any one of the methods used separately. This elevation does not reach beyond that caused by percussion alone. (5) Energetic massage of the abdomen always causes a distinct lowering of the blood pressure (from 15 mm. to 30 mm. of mercury) whatever form of massage is employed. (6) The effects of mixed general massage, extended over the whole surface of the body (limbs, back, thorax, and abdomen) and applied energetically with all the massotherapeutic manipulations (deep friction, kneading, stroking and percussion) are complex and vary according to whether the massage of the abdomen precedes or follows that of the muscles of other regions. In both cases there is a moderate rise of blood pressure (from 60 mm. to 85 mm. or 95 mm. of mercury) which returns gradually to normal limits in the first case, and in the second case falls suddenly (to 75 mm. of mercury) before becoming normal. (7) The pulse, the respiration, and the rectal temperature follow in every case an opposite course, but with an intensity proportional to that of blood pressure. The more the blood pressure rises the more the pulse frequency, the rate of respiration, and the rectal temperature diminish and vice versa. There is, however, an exception to this rule in the case of gentle massage (stroking and vibrations) to whatever part is is applied, whether to the abdomen or to the muscles. In this case there is an increase of pulse-frequency, of respiration-rate, and of rectal temperature, although the blood pressure is raised.

PATHOLOGY.

(43) Pathology of Gout.

IN the *Zeit. f. phys. Chemie*, for December, 1903, three papers are devoted to the study of gout. The first by Pfeil, records a number of observations on the excretion of uric acid on various diets in normal individuals, and in the two subsequent papers Soetbeer compares with these normal figures those which he obtained from the study of gouty patients. It is known that the administration of nucleic acid, which usually is followed by an increased secretion of uric acid does not produce the same effect in the gouty. In agreement with this, Soetbeer found that during an acute attack feeding with [illegible] was followed by no rise of uric acid in the urine. In chronic gout, at a time when there were no attacks, the addition of meat to the diet was followed by the usual rise in uric acid, but the excretion of that substance was irregular. Analyses of the total acids and bases in the urine were made, the ammonia and the potassium were found to be diminished in quantity, a comparison of the two and the total bases in one gouty and two healthy individuals showed also the higher acidity of the gouty urine.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(41) Tuberculin as a Means of Diagnosis. HAMMER (*Beit. f. Klin. der Tuberk.*, Band i, Heft 4) has during the last two years employed tuberculin in the out-patient department for purposes of diagnosis. Each patient is instructed how to take and register his own temperature. This is done four times a day, the injection not being made until the temperature has been normal for eight days. The injections are made with antiseptic precautions in the suprascapular or interscapular regions, not oftener than twice in a week. The doses administered are, as a rule, those recommended by Beck—namely, 1 mg., 5 mg., and 10 mg. successively, the last dose being repeated if necessary. When Hammer first began this treatment doses of 1 mg., 3 mg., 6 mg., and 10 mg. successively were more generally given, and the same course is still followed when the general condition points to the likelihood of a severe reaction. Where Beck's doses were used it was found that an average of three doses per patient was needed, while 3.2 doses were needed with the milder method. Since the latter method was used where a severe reaction was expected, it seems probable that with parallel cases Beck's method calls for decidedly fewer injections than the other. With the milder method the height of reaction is more slowly attained, and there is probably somewhat less risk of serious symptoms. As soon as the injections are begun the temperature is taken six times a day instead of four, the patients are told to go to bed as soon as the reaction sets in, and, if necessary, to call in a district doctor. They are provided with suitable bottles for the collection of sputum, in order that the effect of the tuberculin on the sputum may be traced. The results of treatment of 180 cases are given. In 164, that is, 91 per cent., the result was positive, and in 16 cases, that is, 8.9 per cent., negative or doubtful. One hundred and thirty of the cases were in the first stage of phthisis, 8 in the second, and 1 in the third. In 41 no local signs were present, except that there was occasionally deficient mobility of one side of the chest, but the general condition led to the suspicion of phthisis. Of the 16 negative or doubtful cases 7 showed no rise of temperature. One of these had been treated a year before by tuberculin as a curative measure, and the absence of reaction, combined with an absence of perceptible change in the local condition, led to the conclusion that there was no active tuberculous mischief. The remaining 9 cases showed a transitory rise of temperature up to 99.7° F., occurring usually on the day of the injection. They suffered also from night sweats, loss of appetite, headache, and in one case great general weakness. Subsequent injections produced no further reaction. Such cases might be kept under observation to see whether phthisis developed, or to make further injections after an interval. The typical reaction was ushered in by a rigor, and a feeling of intense heat accompanied by sweating. There was loss of appetite, *malaise*, intense headache, and often dizziness. Pains in the back and limbs sometimes suggested an attack of influenza. The patient's appearance was often that of a severe illness. The sleep was usually disturbed, there was some excitement, and in one case there was delirium at the height of the fever. Nausea was frequent; actual vomiting rare. There was pain in the abdomen with or without diarrhoea; an enlargement of the spleen could occasionally be detected, and in one case enlargement of the liver. The urinary system was, as a rule, unaffected, but pain on urination and polyuria were sometimes found, and febrile albuminuria was not uncommon. Tachycardia and irregularity of the pulse, with palpitations and occasionally angina-like pain were the most serious cardiac symptoms. A cough was often present during the reaction, seldom needing treatment, and disappearing with the fever. An already existing cough was not, as a rule, aggravated. The sputum if changed in character, became more fluid and serous, or thicker and more purulent, and it was occasionally blood-stained. In one case bacilli were demonstrated in the sputum after injection where they had been absent before. The following objective signs were among those detected in the lung in the different cases: The appearance of rhonchi, their constant instead of occasional presence, change in the character of the rhonchi, and the appearance of prolonged instead of normal expiration. Two deaths occurred in the 180 cases. In one case the patient had an attack of typhoid three weeks after the injection, and after his recovery developed a general miliary tuberculosis of lung. In the second the tuberculin as a cause of death could be positively excluded. Although there were in the 180 cases no complications such as to detract seriously from the value of tuberculin as a means of diagnosis, the number of cases was small, and it is well to study also the serious complications recorded by other authors. Among these may be mentioned the aggravation of an already existing nephritis, cardiac weakness resulting in death in three cases, dyspnoea especially severe in lupus or laryngeal tuberculosis, and in one case necessitating tracheotomy, the onset in one case of fever and haemoptysis, fresh infiltration of large parts of the lung and gangrene at the site of injection. These serious complications are only found, however, in cases where the phthisis is at an advanced stage at the time of the injection, and especially where in addition there is tuberculosis of some other organ. They demonstrate the extreme care which should be employed in the selection of cases, and are not any contraindication to the treatment when properly carried out. The value of the treatment has been already recognized in the case of animals, where the correctness of the results can be afterwards tested on *post-mortem* sections. The value of so exact a method of early diagnosis cannot be exaggerated, especially at the present time, when advanced cases are rejected by sanatoria. Yet the subject is one which still requires more investigation; and it is conceivable that the risks of the method may finally prove too great and lead to its rejection.

(45) Acute Primary Pyelitis in Infants. M. HARTWIG (*Berl. klin. Woch.*, November 20th, 1903) deals with a condition which he considers may not be very rare. The difficulty in securing the urine in infants is probably the reason why this condition has not attracted attention until now. He finds that acute primary pyelitis is more like typhoid clinically than anything else. At first the temperature rises and no other sign is present. The spleen cannot be definitely made out to be enlarged, Widal's test is negative, and there are no physical signs in the lungs. The diagnosis of meningitis may be thought of, but the want of other symptoms soon puts this out of court. If the urine is then examined it is found to be turbid, full of bacteria and pus cells; there are no casts, and the amount of albumen corresponds to the amount of pus. The treatment appears to be a thorough cleaning of the genitals, and urotropine and turpentine. Hartwig suggests that symptomatic antipyresis and sodium bromide may assist in warding off eclamptic symptoms. He makes a special point of the separation of these cases from those of secondary pyelitis, dependent on pyaemia, vulvovaginitis, and says that if one will only take the opportunity of examining the urine in cases of infants who have febrile disturbances, insufficient to explain the cause of the fever, it will soon be found that primary pyelitis is by no means rare.

(46) Mitral Pseudo-Insufficiency. FERRANNINI (*Clin. Mod.*, August, No. 39) under this title describes certain physical signs and clinical conditions met with in cardiopaths, resembling in many respects those of true mitral insufficiency, but not associated with this condition pathologically. He gives details of some illustrative cases. Just as in true mitral insufficiency an apex murmur systolic in time, and with its maximum intensity at the apex, signs of pulmonary stasis and lowered blood pressure in the arteries may exist, but the lesions actually present vary from slight mitral stenosis, with thickening of the mitral valve (but no insufficiency) to stenosis of the pulmonary veins or ectasia of the first part of the aorta, or again, chronic arterio-sclerotic myocarditis, with pericardial thickening and compression of the coronary artery, aneurysm of the pulmonary artery, or lastly, transitory functional insufficiency. In doubtful cases, if the systolic murmur is heard along the paravertebral line in the posterior cardiac area (fourth to eighth dorsal vertebra) we have to do with a true mitral insufficiency or aneurysm of the descending thoracic aorta. In other cases the presence of a clanging first sound is of assistance, this being against the presence of mitral insufficiency. Variability in appearance, left-sided ventricular dilatation, with ptosis of the left note of ascending aorta and vertical cardiac distopia are also in favour of pseudo-insufficiency. Neither the

presence of right-sided ventricular dilatation and reduplication of the second pulmonary sound is a certain sign of mitral (aortic) stenosis, whether organic or not.

SURGERY.

(47) Surgery of the Biliary Passages.

SALVATORE SALVATORI (*Boll. del Scien. Med.*, for September, October, and November, 1903) discusses the surgery of the biliary passages, finishing with a confessedly incomplete bibliography containing references to more than 80 papers on the subject. For calculous obstruction of the hepatic duct he recommends the digital fragmentation of the calculus whenever possible, if the fingers can be got beyond the stone so that the operator may be sure that he is not pushing it back towards the liver. Where calculi are embedded in the liver itself it is impossible to give any rules for operation. The difficulty of the cases depends partly on the difficulty of diagnosis before exploration, and partly on the fact that the septic cases differ much from one another. For cicatricial obliteration of the ductus choledochus the best operation is cholecystenterostomy, but if any special condition of the gall bladder makes this impossible it may be necessary to excise the obliterated part and join the two ends or to make a biliary fistula. Cholecystenterostomy is a long and a delicate operation. If possible the gall bladder should be united to the duodenum; if that be impossible the colon at any rate should be avoided. When the operation has to be performed quickly, Murphy's or some similar button should be used. When the patient can stand a rather longer operation the author prefers suture by Czerny's method. With regard to the acute dilatation of the stomach sometimes met with after such operations he states that the proper treatment is prevalently hygienic and dietetic, but that when the condition is established the stomach should on no account be washed out, as the treatment should be purely expectant. A second attack of gall stones after the gall bladder and duct have been thoroughly cleared, as may sometimes be the case when an empyema has been of long duration, usually arises either from some complication of the primary trouble or from some altogether unconnected with the biliary passages. In these cases therefore no operation protecting the gall bladder can be a matter of certainty, but the possibility of a relapse cannot be considered sufficient reason for withholding the operation, which is to the patient's advantage. [illegible] plugged with tampons of iodoform gauze. The excision of the neighbouring lymphatic glands is attended with great danger to the vena porta, the hepatic duct, and the ductus choledochus, and has seldom been attempted. If the growth be too extensive for removal, or too adherent to the neighbouring parts cholecystostomy is generally indicated, and extension of the growth to the pylorus may make it necessary to perform gastro-enterostomy at the same time. In a strictly limited cancer of the hepatic duct it might be possible to excise the growth and fix the stump in the small intestine, but it has not yet been successfully accomplished. A cancer limited to the ductus choledochus might conceivably be removed and the extremities of the divided duct reunited. When this is impossible the next best course is to tie both ends and make use of the gall bladder by performing a cholecystenterostomy. Usually the tumour involves the insertion of the choledochus in the small intestine, and cannot be completely removed. Palliation may then be attempted by making a communication between the small intestine on the one hand and the gall bladder, the hepatic duct, or the ductus choledochus on the other. The bile ducts are sometimes compressed by tumours of the head of the pancreas. There is then sometimes the opportunity of choosing between cholecystenterostomy and cholecystostomy. The former operation is the better, having in several cases been followed by a prolongation of life for from five to fourteen months, besides being attended by less immediate danger to life; but it takes longer to perform, and can hardly be done if the patient be much debilitated. The author recommends that all operations of this sort should be sparingly performed in cases of malignant disease, since the best success is the prolongation of an existence worse than death, and death after operation is likely to be attributed to the operation rather than to the disease. For primary infections of the biliary passages the author recommends cholecystostomy. In suppuration round the gall bladder the abscess cavity should be opened, and the gall bladder, if inflamed, should be opened, washed out, and fixed. If the removal of the gall bladder be necessary, it should be performed after the subsidence of the acute symptoms. Chronic affections of the gall bladder, the result of adhesions or tuberculosis, should not be interfered with, but acute abscesses may be opened when the gall bladder is found [illegible] to the abdominal wall. If the affection be limited to the gall bladder, that may be excised. The best treatment for a wound of the gall bladder is the removal of the organ, though there are [illegible] cases reported in which it has been successfully sutured to the abdominal wall. The cystic duct, if practicable, should be ligatured and the gall bladder should then be excised. Wounds of the hepatic duct are [illegible] The only possible immediate treatment is drainage when [illegible] In suture of the ductus choledochus may be tried, but it is best to insert also a [illegible] and gauze. A safer procedure is to tie the two extremities of the duct and perform cholecystenterostomy. Intervention in wounds of the biliary passages may also take the form of removing collections of bile from the abdominal cavity. This has been known to cure, but such a result can hardly be expected.

(48) Treatment of the Stump in Appendectomy.

RIEDEL (*Zentralbl. f. Chir.*, No. 51, 1903) holds that the usual method of dealing with the stump after removal of a diseased appendix, by stitching over it a dissected cuff of periosteum, is very questionable practice. If the sutures remain in place the apposed serous surfaces very soon adhere together, and the end of the stump is enclosed within the cavity of the caecum, where it can do very little if any harm. On the other hand, however, if the serous and muscular coats of the caecum be soft in consequence of inflammatory infiltration, the stitches may be detached and the stump exposed on the free surface of the intestine. If the ligature also be detached a free communication is thus established between the interior of the intestine and the general peritoneal cavity. Efficient drainage of the wound might protect the patient against a fatal result of such accident, but a faecal fistula is likely to occur. A description is given of the method of covering the stump of the appendix that has been practised in the author's clinic at Jena in both acute cases and in "interval" operations, with, it is held, very satisfactory results. This method which seems to differ but slightly from other modifications that have elsewhere been practised, is intended to combine the advantage of dispensing with a ligature around the buried or inverted stump, and that of preventing during this final stage of appendectomy any discharge over the seat of operation of the faecal contents of the large intestine. The appendix, after it has been detached from its mesentery, is constricted near its attachment to the caecum by a temporary ligature of catgut and afterwards divided midway between this ligature and a second one applied about 1 cm. on the distal side. The extremity of the stump is now deprived of its mucous lining, and the opposed margins of the serous and muscular coats are brought together by three interrupted sutures. The catgut ligature around the base of the stump is cut away, and the stump after it has been inverted into the caecal cavity is now completed buried by two rows of sutures, the first of silk the second of catgut, including the serous and muscular coats of the caecum.

MIDWIFERY AND DISEASES OF WOMEN.

(49) Errors of Diagnosis in regard to Extrauterine Pregnancy.

A. SPENCER (*Amer. med. Week.*, October 8th, 15th, and 22nd, 1903) discusses the difficulties and common errors of diagnosis in connexion with extrauterine pregnancy, pointing out that although there is a typical clinical picture of this condition, one not infrequently meets with cases which offer many

possibilities of mistake. First, he finds that in the early months of ectopian gestation the signs may be so masked that the fetal sac lying near the uterus may be mistaken for a simple tumour of the uterine appendages. When the usual signs of pregnancy are present the body of the uterus may be enlarged and the diagnosis be made of normal pregnancy complicated with tumour of the appendages; or, if the fetal sac lies close behind the uterus in Douglas's pouch, it will be mistaken for a retroflexed gravid uterus. Conversely, a retroflexed or laterally-flexed gravid uterus may be mistaken for an extrauterine pregnancy, or even, in the absence of a pregnancy, a tumour of the appendages, leading to enlargement of the uterus and metrorrhagia, which are so often associated with ectopic gestation, may give rise to the same diagnostic error. In the second half of pregnancy the signs of pregnancy are unmistakable, but even then the extrauterine position of the fetal sac may be overlooked when it lies close to the body of the uterus, or when in a normal pregnancy the uterine wall is very thin the fetal parts may be so plainly felt that the condition is taken for an ectopic gestation with the fetus lying free in the abdominal cavity, or when the thinning of part of the wall leads to a lateral pouching of the body of the uterus, this may be regarded as the ectopic fetal sac. In forming a diagnosis the symptom of shedding the decidua must be borne in mind, but unfortunately this only occurs in a very small proportion of cases, and when it does the diagnosis is already clear in a certain number. Even if the decidua be obtained for examination by curetting, one is not protected from a wrong diagnosis. Anomalies of uterine bleeding are also another important sign, but cannot always be relied on. Dealing with cases in which the ectopic gestation is overlooked, Sittner says that the most common erroneous diagnosis made is incomplete abortion. In this case there has been a missing of one or more menstrual periods; then there has been irregular haemorrhage and passing of shreds of decidua. There are colicky pains, the uterus is found on examination to be enlarged and the os patulous, and above it are felt loose shreds of membranous substance. The danger of such a mistake lies in the probability of the practitioner undertaking a curetting, and thereby rupturing the sac. The next most common error is diagnosing an early ectopic gestation as an attack of perityphlitis. This error is extremely common, and at times a correct diagnosis is almost impossible. Gall-stone colic may also be diagnosed in error, and it must be borne in mind that beside the possibility of the pains in ectopic gestation being very much like those of this condition, both in situation and character, there may be jaundice in the extrauterine pregnancy, due to either general circulatory difficulties or by intraperitoneal haemorrhage lowering the portal tension, and causing a suction of bile into this portion of the circulation. Inflamed or non-inflamed tumours of the appendages of the uterus may also be diagnosed instead of extrauterine gestation, and ovarian cysts, pyosalpinx, myoma, parametric exudation, haematocele, and other conditions have been diagnosed by eminent observers and extrauterine pregnancy found at the operation. Sittner deals at some length with the mistakes made in mistaking the condition under consideration for a pregnant uterus, and emphasizes the dangers of rupture of the sac in attempting to replace a supposed retroflexion. In the second class of mistakes an ectopic gestation may be diagnosed when another condition is present. It is possible that this diagnosis might be made after rupture of the pregnant uterus and escape of the fetus into the abdominal cavity. Such cases have been reported, and in one case, after an abortion, a chorionic epithelioma destroyed the uterine wall and escaped free into the abdominal cavity. In these cases the collapse and signs of internal haemorrhages can easily simulate a rupture of an extrauterine pregnancy. He explains how it comes about that tumours and other affections of the uterine appendages have led to mistaken diagnoses of extrauterine pregnancy, and mentions especially salpingitis haemorrhagica and retrouterine haematocele, as favourable for this mistake. Lastly, he mentions the mistake of diagnosing an extrauterine pregnancy when there is a normal pregnancy. This may be caused by a thinning of the uterine wall, as has been already mentioned, in response to excessive physiological pregnancy, softening of tissues, or in response to pathological processes, as metritis, perimetritis, degeneration of the myometrium, etc. Such cases have been operated on, and only after the abdomen has been opened has the true condition of things been recognized. One must bear in mind that the thinning of the wall may be complete or may be partial, in which latter case palpation may lead to the belief that the pouch-like portion of the uterus is a fetal sac outside the uterus. Malformations of the uterus also can lead to the same result. Having dealt with the mistakes not uncommonly made, he recites a very instructive case in which no less than eight mistakes in diagnosis were made one after the other. (For details of this case we must refer the reader to the original paper.) He points out that one will avoid some of the mistakes by bearing in mind the possibility of such mistakes being made, and that it is important that one should know which conditions may be confounded with ectopic gestation.

(50) Twisted Pedicle of Spleen (?) in Pelvis.

POZZI (*Rev. de Gynéc. et de Chir. Abd.*, September-October, 1903) received recently into his wards a young woman with a pelvic tumour which was diagnosed as intra-ligamentary, though whether a cyst or a fibroma was not clear, since palpation was apparently difficult. An operation was undertaken, and then a tumour of the size of a fetal head was detected between the uterus and bladder. It was oblong, tuberous, and very dark; above it was covered with the great omentum which formed for it a kind of pedicle bearing engorged veins. Extirpation was easy. On examination a large infarct was detected in the interior of the tumour, which showed none of the appearances seen in tumours of pelvic origin. The tissues were very degenerate, and though much trabecular structure recalling what is seen in the spleen was detected, not a trace of a Malpighian corpuscle was to be found. Pozzi considers that as the patient was at Jaffa when a child and had malarial fever, followed by enormous enlargement of the spleen, the tumour which he removed was undoubtedly splenic. It had twisted, atrophied, and become adherent by inflammatory bands to pelvic structures. Pozzi could only find 17 analogous cases reported. Delbet, in discussion, stated that he once operated for what seemed to be salpingitis on the right side. The swelling proved to be a contracted kidney which had burrowed between the layers of the broad ligament. Lejars was well aware that all kinds of errors of diagnosis were possible in cases of displaced and axially rotated spleens. Chronic torsion of the splenic pedicle was quite a different complication from acute torsion. He once operated to remove a tumour which seemed to be a new growth in the omentum or mesentery, but when exposed it was found to be a very hard deformed spleen invested with omentum and intestine; its pedicle was twisted twice. Routier suggested that in Pozzi's case the spleen had separated after torsion of its pedicle, for malarial spleens are usually very friable.

THERAPEUTICS.

(51) Dietetic Bromide Treatment of Epilepsy.

IN 1889 Richet and Toulouse introduced a method of treating epilepsy by limiting the amount of chlorides in the diet and thus giving the bromides a better chance of acting. The diet suggested consisted of 1 litre of milk, 300 grams of beef, 300 grams of potatoes, 200 grams of flour, 5 eggs, 100 grams of coffee, and 40 grams of butter, all prepared without the addition of salt. It has been estimated that such a diet supplies the patient with not more than 2 grams of NaCl pro die. Since this time the diet has been modified by various clinicians, but the point of the whole question lies in the value of hypochlorizing, that is, reduction of chlorides to a minimum. R. Meyer has made some observations in Jolly's clinic and publishes his results in the *Berl. klin. Woch.*, November 16th, 1903. He submitted four patients to a test treatment. Three of these were observed for two, three, and five months respectively. In each of these cases the diet consisted of cocoa or coffee, made with water, 2 litres, milk 3 litres, bromopan (that is, bread made with bromide of sodium instead of common salt), 3 eggs, and fruit. The bromopan contained 1 gram of NaBr per 150 grams of bread, and each patient received 450 grams, that is, 3 grams of bromide of sodium pro die. The effect on the three patients was a good one; the attacks became weaker and less frequent, but in two cases the number of attacks was increased at first. After from three to ten days the improvement was

marked. In the fourth case Meyer kept the patient under observation for twelve months (with an interruption of fourteen days). The tests were carried out in five periods as follows: First period: Four weeks of bromopan diet. The attacks were frequent during the first ten days, but during the next twenty-one days no fits occurred. During the last six days only 1.5 gram of NaBr was given each day, and then this was stopped. In the course of a few days the old type of attacks again returned. Second period: Ordinary diet with NaBr, starting with 3 grams, gradually increasing to 8 grams, then diminishing to 3 grams, and lastly ceasing (seven to eight weeks). When 8 grams of bromide were reached the attacks ceased for twenty days, but returned and became frequent as soon as 3 grams were again reached, and when the bromide was stopped there was an increased number of strong fits. Towards the end of this period the type of the epilepsy changed—free intervals of from three to eight days, and then one to three fits in one day. Third period: Six weeks with ordinary diet and Poehl's [illegible]. Not the least change took place in this period. Fourth period: Bromopan and 3 grams NaBr pro die for eight weeks. The diet was adhered to for two and three-quarter months. After fourteen days during which time the fits took place as before, no more took place for two and a half months. The first ten days after the end of this period no fits took place, then six very slight ones on one day. The patient then spent a fortnight at home, and returned with the epilepsy again in full swing. Fifth period: Five weeks without medicament; the bromopan treatment, which had been unsuccessful, was discontinued as the patient wanted to return home. On the whole the fits took place less frequently than before the beginning of the treatment, and the mind was in general clearer. After two and a-half months the patient was suddenly taken in a state of stupor, and admitted in this condition into hospital. Meyer points out that one must be particularly careful that the patients eat the diet prescribed. Surprises of weight will be found to be due to the abstaining from food rather than to the effect of the drugs, for the bromopan diet is tempting to the patient. The patient usually gains in weight during the first few days, and quickly [illegible] to one pound per day. [illegible] the withdrawal of the bromide [illegible]. At the end of each period it will be necessary to be careful and [illegible] the [illegible] to begin the [illegible] for [illegible]. He suggests [illegible] a trial to [illegible].

(52) The Albumen Diet-Cure.

KAUFMANN (*Zeitschr. f. Inn. u. Physik. Therap.*, November 1st, 1903) has made a large number of experiments upon the excreta of patients treated on Weir-Mitchell's system and fed on greater or less quantities of proteids. He holds that the present state of our knowledge does not admit us to give a definite answer as to the optimum amount of proteids which should be given in a diet-cure; the probability is that this amount will vary with different circumstances and for different patients. In one class of cases in which an increase in the body fat would be harmful, but an improvement in the proteid content is desirable, it would be a mistake to attempt to improve this by increasing the carbohydrates and fats in the food; it is much better to augment the nutritive proteid according to the method of Bornstein. On the other hand, in cases where the subject requires fattening, it is advisable to give the other proximate principles as well, if the proteid content is to be assisted. The two methods will obviously have exactly the opposite indications, and it is to decide what these are that further research is so necessary. Bornstein has drawn a somewhat doleful picture of the unhappy subject of the Weir-Mitchell treatment, isolated, with nothing to think of but his ailments, and gradually approaching the condition of an animal being crammed for market. Kaufmann, however, would not restrict the application of the treatment to so great an extent as Bornstein has suggested. He does not deny that the severity of the method was formerly apt to be too great; he does not think that it need always be carried out with the utmost rigour, but prefers, in mild cases, to allow the patient to be out of bed most of the day, and even to permit him a little walking exercise. Patients also need not, in his opinion, be deprived of their freedom or isolated with absolute strictness. He believes that exercise is indeed of some value as helping in the absorption of proteid when taken together with large quantities of fat. By this method he claims that, almost without exception, 10 lb. to 15 lb. weight may be gained without detriment, and his investigations upon chloride metabolism convince him that at the same time the proteid content of the patient is favourably influenced. He concludes therefore that a carefully conducted diet-cure is, nowadays, in a better established condition than ever.

(53) Chrysarobin in Ringworm.

HODARA (*Journ. des Mal. Cut. et Syph.*, August, 1903) uses a solution of equal parts chloroform and glycerine, containing 5 to 10 per cent. chrysarobin. After shaving the hair this is applied to the patches daily; if the case is disseminated the whole scalp is treated. The lotion is applied till erythema and slight oedema are produced. All traces of chrysarobin are thus removed, and the treatment omitted till the irritation has subsided. The head is then washed with soap, and the application renewed. This continued till a cure takes place, usually in four or five months. The scalp is covered with a light woollen cap. The author continues treatment for a month after apparent cure to prevent relapse. The histological changes are oedema of the epidermis, the upper layers of which become desquamating and parakeratotic. These lamellae contain the trichophyton, and are thrown off, being replaced by a new stratum corneum containing no parasite. At the follicular orifices a similar oedema and desquamation take place in the root sheath, and the lamellae accumulate at the follicular orifices, and surround the débris in the follicles of the old trichophytous hairs, and thus eliminate the parasite.

(54) Pneumonia Treated by Calomel.

BERTAZZOLI (*Gazz. degli Osped.*, November 15th, 1903) reports 6 cases of pneumonia successfully treated by free doses of calomel. The author adds scammony to the calomel, and as the result of some years' experience believes this method of treating pneumonia to be worthy of imitation. By this means, he says, he reduces fever, cerebral congestion, and delirium, and helps the system to get rid of the poisonous products of disease, and checks the phenomena of absorption. In other words, by its diuretic, vasomotorial, disinfecting, and purgative action, calomel may be looked upon as one of the most active and most efficacious remedies in the treatment of pneumonia.

PATHOLOGY.

(55) Malignant Uterine Fibroid.

ULESKO-STROGANOWA (*Monats. f. Geb. u. Gyn.*, September, 1903) has had opportunities of examining no less than 12 cases of malignant fibroid or leiomyoma malignum uteri; in two of this series she was able to examine sections, but not the tumours themselves. She claims to have distinguished two forms of malignant fibroid, the first being practically sarcoma, though the muscle cells undergo changes; this form, "myoma malignum," is very malignant. In 5 cases the character of the tumour was proved by metastases and by recurrence. (1) Removal of ovaries for checking the growth of a fibroid; later on, supravaginal hysterectomy, and four months later a mass reached to above the umbilicus and downwards to the posterior fornix, and death occurred within two months. Sarcoma of the abdomen and metastases in the omentum and lungs were discovered. (2) A metastatic growth was noted in one round ligament when the uterus was removed entire for malignant myoma; recovery, but no further history. (3) Panhysterectomy, very rapid recurrence, death three months later. (4) Panhysterectomy, a few distinct growths were noted in both round ligaments. A large tumour developed, and the patient died within six months. (5) Panhysterectomy, some sarcomatous bodies were detected in the posterior part of the inner wall of the uterus near the fundus. Shortly after convalescence the patient died with symptoms attributed to metastases in the right lung. Ulesko-Stroganowa distinguishes a second form where structures with the characters of young plain muscle cells make up the tumour, this form is leiomyoma malignum proper. It is a little less malignant than myoma malignum. These malignant changes are most frequent in pure myomata, rarer in fibro-myomata.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(36) Inhalation of Lime Dust and Tuberculosis.

WORKMEN suffering from tuberculosis with bacilli in their sputum were said to have recovered after some months' employment with burned lime, or to have considerably improved. This was reported from Ovenstaedt, and on inquiry from other lime works it was stated that there had been no cases of tuberculosis among the workmen. The same report was received from the managers of a certain plaster-of-paris work, where no consumption had been known of during seventeen years. That lime and plaster-of-paris dust are less harmful than other forms of dust has long been recognized, and some observers have gone as far as to consider that the workers in lime dust acquire an immunity against pulmonary tuberculosis. In order to form an opinion as to the effect of lime dust on the tuberculous process in the lungs, P. Reckzeh (*Berl. klin. Woch.*, November 9th, 1903) treated 8 cases of phthisis by inhalations of this dust. He gives the physical signs and past history of each case briefly. These cases include mild affections of one apex as well as severer cases, and even the worst cases of destructive processes of both lungs. The lime was freshly baked and very finely divided, and the inhalations were carried out by enclosing the dust in linen bags, hung up close to the patient, and made to pervade the air freely by tapping of the bags. The inhalations were continued at first for five minutes once a day, but later they were given more frequently and for longer periods, between the meals, so that disturbance of appetite might be avoided. The eyes and ears were protected during the inhalations. Before he subjected his patients to this treatment, Reckzeh convinced himself by experiment on himself and on a colleague that the dust did not produce any unpleasant effects beyond a slight burning in the throat and stimulation to coughing. In no case were either the physical signs or the body weight or temperature influenced by the inhalations. He finds that there is not the least ground for supposing that any effect is produced on the tuberculous process by the lime dust, but believes that the reason why it does not act harmfully on the lung tissue is mechanical. One has only to compare the magnified appearance of lime dust with granite dust to understand how the latter can damage the lungs, and not the former. In his cases he kept an accurate count of the number of bacilli in each field of the sputum preparations which were made daily, but failed to find any diminution. Nearly all the patients complained of the unpleasant effects of the inhalations, which consisted in increase of cough, headache—which was at times very severe—loss of appetite and nausea, while in one case there was considerable vomiting. He is, therefore, forced to come to the conclusion that further experiments with lime-dust inhalation as a method of treatment for phthisis are not needed to show that it is of no use, and is mostly accompanied with unpleasant and undesirable symptoms.

(37) The Appendix and Lead Poisoning.

TENDERNESS over McBurney's point may occur in other conditions than appendicitis, for instance, in spastic constipation, and, as the ureter is in this position accessible to palpation, in renal colic. J. Donath (*Wien. klin. Rundsch.*, October 25th, 1903) has frequently observed it in lead colic. (1) The colic may be limited entirely to the ileo-caecal region or be most intense over the appendix. McBurney's point is exceedingly tender. Usually the attack begins in this way, and later becomes generalized over the abdomen; but in slight cases the initial localization may persist to the end. Some believe that the symptoms are due to a combination of appendicitis and lead poisoning, but this view is improbable in the absence of dullness, resistance to pressure, and pyrexia. A worker in lead was seized with abdominal pain of a spasmodic character, and chiefly localized in the right side. There were constipation, nausea, vomiting, and a blue line on the gums, and the urine contained lead. The temperature was normal or subnormal. The abdomen was rigid, and McBurney's point extremely tender. There was no dullness over the right iliac fossa, and no swelling could be felt. Similar attacks of colic recurred frequently, but after four days' treatment the pain and tenderness over McBurney's point had almost disappeared. (2) In other cases of lead poisoning McBurney's point is tender, though there is at the time no colic, or at most slight diffuse pain. There is usually a history of former attacks of colic, or the tenderness appears as the colic is subsiding, or more rarely as the first symptom of a typical attack. Thus a man had repeated attacks of lead colic. The whole abdomen was somewhat tender, though most markedly at the umbilicus and McBurney's point and over the descending colon. After the attacks of colic had ceased, the tenderness at McBurney's point persisted for several days. It is common for tenderness to be present over McBurney's point in lead workers who have no acute symptoms of poisoning. Cases have been published by French writers in which laparotomy was performed for appendicitis, when the true condition was lead poisoning. Possibly appendicular colic occurs both in appendicitis and lead poisoning. In the former the cause is an obstructed lumen, in the latter it is the irritation of lead.

(38) The Diagnosis of Enteric Fever.

M. FICKER (*Berl. klin. Woch.*, Nov. 9th, 1903) considers that although the Gruber-Widal serum test of enteric fever is of the utmost importance, it is highly desirable to introduce a method which is more simple and more easily at the disposal of the practitioner. In attempting to improve on the test for practical purposes, he kept the following points in mind. (1) The test must be carried out without the necessity of employing living typhoid cultures; (2) the material, which contains the specific agglutinating body, must be stable, and not lose its power rapidly; (3) it must not tend to clear spontaneously during the time allotted for the reaction; (4) the reaction must be clear to the naked eye, and be absolutely definite in its result; (5) the reaction must be completed in a comparatively short time, and not occupy two hours of the practitioner's time, as is necessary at present; (6) it must be carried out at ordinary room temperature, and not in an incubator; (7) the preparation must be influenced by the measured dilutions of the serum in precisely the same way and to the same degree as is the living suspension of B. typhosus. Ficker states that he has succeeded in preparing a fluid, which is capable of replacing the culture of living typhoid bacilli. The third and seventh conditions were very difficult to fulfil, but he has been able to overcome these difficulties. His preparation is a slightly turbid sterile fluid, which can be kept for more than nine months if preserved in a cool and dark place. It ought to be shaken up from time to time. He advises that the serum which is to be examined should be diluted with ten times its bulk of sterile physiological solution, and 0.2 c.cm. and 0.1 c.cm. of this be transferred to a suitable tube, No. 1 and No. 2 respectively. The tube No. 1 contains 0.8 c.cm. of the diagnostic fluid, and tube No. 2 0.9 c.cm. A third tube contains only the diagnostic fluid. The tubes are then corked up and the contents well mixed. They are then set aside at ordinary room temperature, but not in a strong light. After ten, twelve, or fourteen hours the result will be clear, and therefore the physician may leave the tubes and return to them after the lapse of this time. The tubes must not be left longer than twenty hours. The positive reaction will be clearly seen by the clearing up of the turbidity of the fluid, while if one uses tubes pointed below one can also see the clumping together of the agglutinating substance. In this way Ficker claims that he has been able to offer the practitioner a method of carrying out the agglutination test for enteric fever without the living culture, without an incubator, and without a microscope. He says that the results which have been obtained in some large clinics with this preparation testify that the method is reliable.

SURGERY.

(39) A Wound of the Heart.

ORLANDI (*Il Morgagni*, October, 1903) records a remarkable case of perforation of the left ventricle, fatal only after two and a-half hours. The patient, a man of 26, walked home a distance of about 190 metres before discovering that he was seriously injured. He then began to bleed profusely, and set out to walk to the hospital, but only managed to walk 150 metres, being carried the rest of the way. An hour and three-quarters after the infliction of the wound, the

thorax was opened, and the wound on the front of the left ventricle closed by two silk sutures. The patient survived the operation and retained consciousness until he died three-quarters of an hour after the end of the operation. At the necropsy the pericardium was full of blood, and the left pleural cavity three-quarters full. The knife had pierced the third left intercostal space, wounded the left pleura, and entered the left ventricle, half way from apex to base and one centimetre from its left edge, inflicting on it a V shaped wound two centimetres in length, dividing its substance in a more or less transverse direction, and raising a flap of the heart wall which had been accurately sutured in position at the operation. Both sutures were found to be in position and well tied, but broken. On the inner surface of the ventricle it was at first difficult to find the wound, but when the tendons of the papillary muscles were cut, an irregularly quadrilateral wound measuring two centimetres across became evident in front of and close to the base of the anterior papillary muscle. The case suggests an inquiry why the patient lived so long, and why, after so long a time and after the completion of an operation which the necropsy showed to have been well executed, he died. Orlandi answers that he was a strong man with a strong and thick-walled heart, while the wound was small and oblique but that the chief reason why the patient survived so long and was capable of so much exertion was that from the position of the wound on the inner surface of the ventricle it was almost closed during diastole by the anterior papillary muscle, while during systole the V-shaped flap cut on the outer surface of the ventricle acted as a valve and to some extent prevented the haemorrhage which would otherwise have occurred. Under these comparatively favourable conditions recovery might have seemed possible, but the transverse direction of the wound on the outer side of the heart made it impossible to avoid an enormous strain on the sutures at each systole. It was therefore merely a question whether the heart substance or the stitches should yield. In an earlier work Orlandi has pointed out that a transverse wound of the ventricle causes much more profuse haemorrhage and much more rapid death than a similar but vertical wound. This case shows that even temporarily successful application of sutures does not invariably do the trick. Possibly some further development of the technique of the operation may improve the prognosis. The distance travelled by the patient may well give the case medico-legal importance. It also [illegible] medico-legal point of great interest. [illegible] of knife-wound of the heart examined by Orlandi [illegible] of the same sort, but [illegible] the rule that the dilatation of the wound caused by the energetic movements of the heart especially at its first [illegible] effect during systole makes it impossible to draw any conclusions from the shape of the wound as to the instrument with which it was effected or the relative positions of the sufferer and the striker.

258

(60) Local Anaesthesia.

Connell (*Ann. of Surg.*, December, 1903) though not an advocate of the promiscuous use of local anaesthesia, urges an appreciation of the fact that Schleich's infiltration method is safe and practicable, and better than general anaesthesia in many cases in which the latter is commonly employed. There can be no rational doubt, he states, that there are many cases in which local anaesthesia is markedly contraindicated, but on the other hand, it may be accepted as a fact that general anaesthesia is often employed unnecessarily. The following are given as the chief advantages to be derived from the use of local anaesthesia: (1) Removal of the danger of death on the table; (2) avoidance of the after-effects of general anaesthesia on the heart, liver, kidney and lung; post-operative pneumonia, it is asserted, seems to occur about as frequently after local as after general anaesthesia; (3) no period of post-operative nausea, vomiting or unconsciousness; (4) patient being conscious is able to assist the operator in various ways. Reference is made to the practice advocated by Braun of adding adrenalin chloride to the infiltration solution. This agent is thus used as a cardiac stimulant for overcoming the depressing effect of cocaine or eucaine, and also on account of its haemostatic action. In the proportion of from 1 to 5,000 or even 1 to 20,000 it will be found, Connell states, to decrease the capillary haemorrhage to practically nothing. Adrenalin, however, cannot be regarded as an absolutely safe addition to an anaesthetic injection, as it has been recently pointed out by Neugebauer (*Zentralbl. f. Chir.*, No. 51) that when used with cocaine or eucaine with the object of rendering the seat of operation anaemic, it is liable to result in local gangrene of the skin.

(61) Treatment of Club-foot.

Cesare Ghillini, of Bologna, (*Bollettino delle Scienze Mediche*, October, 1903) looks upon congenital club-foot as an instance of the adaptation of shape to external conditions, and regards it as of hopeful prognosis whatever be the gravity of the case or the age of the patient. He quotes Dupuytren's case of spontaneous cure at the age of 12 years and Young's at the age of 36 years. Ghillini begins treatment on the first day of life by gently manipulating the deformed foot and applying more force later on if necessary. If cure be not effected by the age of 1 year he cuts the tendon of Achilles subcutaneously and makes an open incision through the soft parts from a point corresponding to the internal malleolus to the inner side of the neck of the astragalus, cutting through all the tissues which resist the effort to place the foot in good position. If this incision (Phelps's operation) prove insufficient, which it very rarely is, never in Ghillini's congenital cases, he cuts through any bony obstacle to good position, laying down no rules except that the bones are to be interfered with as little as possible. To obtain good position is not usually difficult. To maintain it is not so easy, and [illegible] equally important. After the operation Ghillini puts up the leg on a [illegible] wooden splint. After eight days the wound is dressed for the first time, and the foot is put up in plaster with the deformity somewhat over-corrected. After another eight days an opening is made through the plaster to dress the wound, which is treated in this way until cicatrization is complete. Plaster, renewed every month, is kept on for a long time (for example, for seven months in a child of 2 years). The results obtained have always been very good, both for shape and function. Perfect cure has resulted from this operation in the case of a patient 16 years of age. In conclusion, Ghillini repeats that club-foot is much more a disease of muscles than of bones, and that operative interference with the bones is seldom necessary or desirable.

MIDWIFERY AND DISEASES OF WOMEN.

(62) Inoperable Procidentia.

Mouchet and Dreyfus (*Bull. et Mém. de la Soc. Anat. de Paris*, June, 1903) report the last illness and necropsy of a woman, aged 62, subject for twelve years to prolapse. She had only twice been pregnant, but was very fat, and had a small umbilical and a large primary ventral hernia. Palliative treatment had recently been tried, whilst, as the patient had chronic bronchitis and heart disease, no operation was attempted. A large characteristic mass projected from the vulva, a small fissure at its most prominent part represented the os externum. The patient died rather suddenly. At the necropsy it was found impossible to reduce the prolapse before opening the abdomen, but when the peritoneal cavity was laid open the small intestines were found free, whilst the brim of the pelvis seemed covered over by a floor of peritoneum. The great intestine passed through this floor posteriorly, a small fold in front of it representing the neck of the sac. Not a trace of the internal genitals nor of the bladder could be seen. Pressure was applied to the prolapse from outside, as in a living patient, whilst the bowel was pulled upwards from the abdominal side. Then the prolapse was reduced, though with some difficulty. First, a long piece of rectum came up, then the uterus and appendages, lastly the bladder. A capacious sac, big enough to receive two fists, was left behind. It is interesting to find that the uterus was quite normal and, like the ovaries and Fallopian tubes, atrophied as in a subject of the same age without prolapse. A calculus of the size of a cobnut lay in the bladder. The kidneys were placed very low in the loins, in other words, they were drawn down. There was pyonephrosis on both sides, and extensive disease of the glandular tissue; the ureters were torn when the kidneys were drawn upwards to their normal level, and much green pus escaped. The ureters were much dilated and their walls thickened; no less than 9 m. of these ducts lay in the sac of the prolapse. This case, the authors observe, shows the futility of operations in advanced cases of prolapse in old subjects. The removal of the uterus in this case would only have removed one feature in the lesion; indeed, that organ was small and healthy. Independently

of the dangers due to renal complications, an old-standing prolapse is too complex for operative treatment.

(63) Vaginal Ovariotomy during Labour.

GEISTHÖVEL (*Monats. f. Geb. u. Gyn.*, October, 1903) describes a case where a primipara was in labour at term. The pelvis was normal. Labour was impeded by a cyst in the pelvic cavity, which had hitherto escaped observation. The os was fully dilated, the membranes had ruptured over fifteen hours when Geisthövel was called in, and after twenty-four hours since the beginning of the pains the fetal head was still arrested in the pelvis. A firm, elastic tumour was detected, impacted between the head and the sacrum. An attempt to push up the tumour under anaesthesia failed. The patient lived seven miles away from the nearest hospital. It was thought better to operate at her home, so an incision was made into Douglas's pouch, and the tumour opened and gently drawn out of the vaginal wound. The pedicle, very thin, was ligatured and divided; it at once retracted into the peritoneal cavity. No sutures were applied to the vaginal wound. Two hours later the child was delivered alive by forceps. The patient recovered. The tumour was a dermoid, over a pound in weight. In discussing this case Neugebauer preferred abdominal section, and utterly deprecated paracentesis. Müller of Bern considered the vaginal operation dangerous, as the toilet of the peritoneum could not be carried out thoroughly.

(64) Fracture of Forceps in Delivery: Perforation of Cervix.

COURT (*Quarterly Med. Journ. for Yorkshire and Adjoining Counties*, vol. xi, pt. 2, 1903) employed a Simpson's long forceps in a case of lingering labour; the presentation was vertex, arrested at the brim. The patient was 40 years old and in her eighth labour. The application seemed easy, but after a few minutes' traction the patient screamed and Court removed the lower blade, but found that he could not extract its fellow. The posterior limb of the upper blade passed into the uterus through the os externum, but the anterior limb entered the uterus through the anterior fornix. After careful exploration it became evident that there was no rent in the os, but a gap in the anterior limb of the forceps which had cracked 1½ in. above its insertion into the handle. At the moment that the limb snapped it must have allowed the margin of the os to enter the fenestrum, and then on closing had perforated the uterus. Being far from home, Court was compelled to use a carpenter's file to release the blade, removing with it about an inch of the broken limb below the fracture, a manœuvre which under the circumstances proved difficult. After liberating the instrument delivery was completed by another pair of forceps. There was no ill-effect of any kind.

(65) Death caused by Uterine Sound.

HENKEL (*Monats. f. Geb. u. Gyn.*, October, 1903) recently exhibited before the Berlin Obstetrical Society the internal organs of a woman aged 20 who had died of tuberculous meningitis after a sound had been passed into the uterus. After death a tuberculous focus was found in the tissue of the fundus; there was tuberculous inflammation of the left tube, and a cyst of the size of an apple was intimately connected with the back of the uterus. The diagnosis had been "haematometra with retroflexion fixed by adhesions."

THERAPEUTICS.

(66) Influence of Faradization on the Functions of the Stomach.

E. CIONINI (*Il Morgagni*, September, 1903) points out that there is practically complete unanimity as to the increase of gastric secretion which follows faradization of the stomach, but there seems to be no agreement as to the effect of electricity on the motor function of the stomach. The faradization of the stomach is confidently recommended by some on the ground that it increases the contractions of the stomach walls when applied through the skin. To test the effect of faradization on secretion, Cionini kept two dogs fasting for twenty-four hours, and having then faradized the stomach through the skin, opened it and found in it a thick yellowish fluid containing hydrochloric acid. As a control experiment he made a gastric fistula in a dog, and, after keeping the animal fasting for twelve hours and making sure that the stomach was empty, massaged the organ through the skin. After a few minutes there flowed from the fistula a liquid identical with that obtained by faradization. He therefore concludes that the secretion obtained by faradization is probably due to the mechanical stimulation of the abdominal walls, necessarily involved in such treatment. To determine the motor effects of gastric faradization applied through the skin, Cionini employed a bladder introduced into the stomach and inflated with air. The bladder communicated also with a tube, at the top of which a feather, rising and falling with the expressed air, recorded on a drum the variations of pressure inside the stomach. A similar and simultaneous record was made in every experiment of the movements of the abdominal wall due to respiration. When the faradic current was turned off the two records showed two series of waves closely resembling one another, and in each series, respiration being regular, the waves were alike. The experiments were made on patients suffering from dilatation of the stomach, on healthy persons, and on dogs. Five graphic records are shown marking the points at which faradization began, and, if it was of more than instantaneous duration, the points at which it was discontinued. These records show that the rhythmical movements of the abdominal walls were interrupted or varied by the application and during the continuance of faradization. They show also that such irregularities were communicated to the stomach, and there determined variations of pressure sometimes very closely resembling the variations in the abdominal movements, but at other times slight and hardly noticeable. In no case is there any indication of independent stimulation of the stomach walls. Cionini therefore concludes that faradization of the stomach through the abdominal walls is of no use as a means of determining contraction of the stomach walls. He thinks it probable that the same thing is true of galvanism, and bearing in mind the results of his experiments showing that the increased secretion attributed to faradism was really due to mechanical stimulation of the parietes, he attributes to suggestion and to massage any good results which may follow the electrical treatment of the stomach through the skin.

(67) Exodin.

W. EBSTEIN (*Deut. med. Woch.*, January 1st, 1903) reports on exodin. It is an oxyanthrachinon derivative, as are emodin and purgatin. Its chemical composition is diacetyl-rufigallic acid-tetramethyl-aether. It exists as a yellow powder, melting at 180° to 190° C. It is insoluble in water, little soluble in alcohol, and has neither smell nor taste. In doses of 0.5 and 0.75 gram (about 7½ and 11¼ gr.) it is said to induce semisolid motions in human beings. Ebstein has given it in a number of cases, and says that it does not produced any unpleasant effects, either in the mouth or stomach. The appetite is not affected, and it does not cause any nausea or belching. It does not appear to matter whether the patient takes it after food or on an empty stomach, and the motion follows in from eight to twelve hours. The effect is painless and without difficulty. In cases of severe constipation with hard scybala in the lower bowel, it occasionally produces some colic, and Ebstein does not advise it for such cases. Exodin rarely fails to open the bowels, and although it produces a soft motion as a rule, it hardly ever causes a diarrhoeic stool. Its action lies midway between the laxatives and the purgatives. In the cases of spastic constipation with scybala in the colon, sigmoid, and rectum he finds it necessary to soften the hardened masses with oil injections, and often this will not have the effect of driving the stool out of the bowel. As a means of obtaining the motion after the faeces have been softened, he finds that exodin acts very well. In comparing the action of exodin with purgatin, he points out that the latter stains the urine and the linen, which latter is particularly unpleasant to the patient. Exodin darkens the colour of the urine, but does not stain linen. In other respects he prefers the action of exodin, which is given in smaller doses than purgatin. Emodin, the other purgative obtained in a similar manner, is so dear that it cannot be employed at present in ordinary practice. The dose of exodin is 0.5 gram for children and up to 1.5 gram for adults. He finds that tablets containing 0.5 gram useful, but advises that the tablets be allowed to break up in water before they are swallowed. The preparation can also be given in powder form.

(68) Antagonistic Action of Drugs.

HASKINS (*Amer. Journ. of Med. Sci.*, December, 1903) conducted several experiments to ascertain whether drugs which were antagonistic in their effect also lessened the histological lesions.

The effect of strychnine on alcohol poisoning was negative, since the alcohol did not produce the lesions expected, and the strychnine did not in any marked degree prevent the alcohol symptoms. Four experiments upon cats and guinea-pigs resulted in no constant difference being observed between nerve cells from the normal and from the poisoned animals. In order to study the effects of the simultaneous action of stimulants and depressants on yeast cultures, the influence of certain drugs upon the quantity of gas formed by yeast was investigated by specially-modified methods, control experiments being conducted in each instance. No reliable stimulant was discovered, alcohol giving various results, and bichloride of mercury showing but slight action at temperatures above 30° C. In another series of experiments the effect of different temperatures was ascertained, it being found that between 35° and 40° C. was the best for fermentation in undrugged tubes. The action of drugs was the same at 30° C. as at 37° to 40° C., but in the case of mercury showed marked stimulant action at 30° C., but very little at higher temperatures. All the drugs used were either those reported as stimulating yeast activity or those having a known stimulant action upon animal cells. Further experiments were made upon the effect of heat as a physical stimulant and of the antagonistic action of strychnine in preventing the precipitation by elevation of temperature. Heat was found to be a reliable stimulant, but the antidotal action of strychnine, by not giving uniform results at successive temperatures, showed that its antagonism was not a simple one. The conclusions resulting from these experiments were that the poisons do not seem to be affected by strychnine given simultaneously with alcohol, though strychnine appears to counteract the depressing effect of [illegible] on the respiration, and to delay the onset of paralytic symptoms. It seems probable that strychnine in large doses would prove useful in the treatment of poisoning from lethal doses of alcohol.

(69) Heroin as an Anaphrodisiac.

[illegible] *Arch. Ital. de Biol.*, November [illegible] the anaphrodisiac action of heroin is known to [illegible] In order to obtain an action on the sexual organs [illegible] maximum dose [illegible] during which the animals [illegible] their power. [illegible] after three days when the drug was [illegible] Phthisical [illegible] an anaphrodisiac in [illegible]

In gonorrhœa, in which cases the heroin prevents the erections but does not act as an analgesic; pathological increase of sexual inclination: to prevent erections during and after operations on the penis; and, lastly, repeated pollutions. Becker says that he has not had any experience with this drug in the treatment of sexual neurasthenia, but warns us that we were promised great things in the treatment of various forms of neurasthenia by codeine some years ago without the promise having come true. In all Becker considers that we have a valuable drug in heroin for the diminution of sexual excitability, and that it may take an important place in the local and general treatment of gonorrhœa in the future.

PATHOLOGY.

(70) New Studies in Natural Immunity.

TURRO (*Arch. Ital. de Med. et de Biol.*, November 20th, 1903) records a series of experiments on the stimulation by various substances of the bacteriolytic power of rabbits. He made a fluid, which he calls oviserum, by dissolving the yolk of egg in its own white; he finds that this solution acquires, in the space of twenty days or a month, an enormous bacteriolytic power, so that it will destroy a culture of anthrax bacilli equal to one-fourth of its own weight; this power is not lost in the process of destruction, for the experiments can be repeated two or three times. When 5 gram of this serum per kilo. of body-weight are injected subcutaneously into a rabbit, and anthrax virus is inoculated one or two days later, the death of the animal is delayed for from nine to seventeen days, as compared with a control subject. Intravenous injection of 5 grams of oviserum in 45 grams of distilled water, produces the same effects: 2½ grams delay death for from five to nine days; 1 gram has no appreciable effect, and doses larger than 5 grams produce no further result. If anything happens to disturb the normal physiological condition of the rabbit between the time of the injection and that of the inoculation, the immunizing action of the oviserum is diminished or abolished, as this immunizing action does not appear for some time it appears probable that the cause of the increased resisting power, acquired by the rabbit, is the addition of the bacteriolytic power of the oviserum by a process of physiological synthesis to that of the alexins which are normally present in the body fluid. A 1 per cent. emulsion of the splenic pulp in physiological saline solution produced similar effects in rabbits to those of the oviserum. The injection of 20 grams of pure physiological saline solution per kilo. of body weight, followed twenty-four hours later by an inoculation of a drop of anthrax virus, retards the death of rabbits from the latter for [illegible] to fourteen hours. The injection of 10 grams per kilo. in similar [illegible] produces a most extraordinary phenomenon, according to the author the rabbits do not die from the bacterial infection. The action is [illegible] lasting only from one to three [illegible]

(71) Perityphlitis and Leucocytosis.

R. GERNGROSS (*Munch. med. Woch.*, September 15th, 1903) reports some observations which he has made with regard to the leucocytosis in connexion with perityphlitis. Curschmann, who first drew attention to the subject, says that cases without abscess formation either show no increase of the white blood cells, or show a slight rise in the number during the beginning of the illness, which rapidly passes away. Distinct increase of the number of leucocytes only occurs in non-suppurating cases at the onset, and rarely exceed 20,000 to 22,000. When the number is raised materially, and all other causes of leucocytosis—for example, pneumonia—can be excluded, one can definitely diagnose abscess and proceed to operate. Gerngross first gives the clinical details of cases, in which the number of leucocytes were either only temporarily raised or were not raised at all, and coincided with the mild clinical course. In one case the count showed 12 000 on the first, 30,000 on the second, and 22,000 on the third day, after which the number sank to 10,000. In all the 12 cases recorded he found that the absolute height of the number of leucocytes was not so important as the gradual rise, and he considers that one can be more safely guided by the curve of the number of leucocytes than by a single record. The next series of cases exemplifies the fact that when the leucocytes increase in number, the condition of the patient becomes proportionately worse. In two cases an operation was performed once in response to the result of an exploratory puncture, and once on account of the general condition. In both the leucocytes were increasing in number. In a third case the gradual increase went hand in hand with the deepening of signs and symptoms, and diminished as these passed off. He gives an account of a case in which the perityphlitis took a favourable course, and an operation was postponed until after the recovery from the attack. Here the number gradually diminished from the beginning. He next exemplifies the absence of leucocytosis in a rapidly fatal case, in which perforation of the gangrenous appendix led to purulent peritonitis. In another case the leucocytosis rapidly passed off after perforation, probably because the organism was so weakened that it was incapable for reaction in the usual way. In conclusion, he finds that his experience supports Curschmann's statements, and that the count of the colourless blood cells is a useful diagnostic help, although it must not be taken as a sure indication for or against an operation. The general condition of the patient and the physical signs must decide this point.

(72) Cellular Changes in the Formation of Hyperplastic Tissue.

A. MAXIMOW (*Centralbl. f. Pathol.*, 1903, p. 741) says the greater part of the cells appearing in the tissue near to an inflammatory focus consist of mononuclear leucocytes which have emigrated from the dilated vessels. The smaller number arise from the clasmatocytes of the part. After emigration the small lymphocytes change into round amœboid polyblasts, and later become fixed clasmatocytes.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(73) Diagnosis of Phthisis.

O. Roepke (*Beit. zur Klinik der Tuberkulose*, Band i, Heft 3) has carefully examined 298 cases of phthisis under treatment at his sanatorium with respect to their previous history, the method of diagnosis, and the condition on admittance. The patients were all men, of whom 57 per cent. were married. The age of onset of phthisis was in 75 per cent. of the cases between the 18th and 35th year; 65 per cent. had previously been employed in indoor work. The social position of the patients is roughly indicated by the fact that only 16 per cent. paid their own expenses at the sanatorium, but before admission the majority at all events had had enough food, and those married men who did not live in large towns had been well housed. The unmarried men had often slept in overcrowded, badly-ventilated rooms. Although the history of cases in the third stage of the disease may be unnecessary either for diagnosis or prognosis, it was nevertheless always carefully taken, and is useful in the early stages for prognosis, for deciding on the advisability of sanatorium treatment, for insurance purposes, and to some extent for diagnosis. Thus it may aid in determining whether a haemorrhage has been from the lung or stomach, whether a cavity is tuberculous or bronchiectatic in nature, and whether a lung is tuberculous or syphilitic. Of the 298 patients, 144, or 48.5 per cent., were in the first stage, 22.5 per cent. in the second, 29 per cent. in the third. In 65 the disease was hereditary, in 233 non-hereditary. Those in whom the disease was hereditary had suffered to a substantially greater extent in childhood from lung affections, and decidedly fewer of them had been considered fit for military service at the normal age. It would appear indeed that a constitutional weakness due to the presence of phthisis in the family tends to declare itself especially at puberty. In 23 per cent. of the whole number of patients the onset of phthisis had followed some other lung affection, which in all probability had itself been tuberculous in character. Although the work of the lower classes almost necessarily predisposes to phthisis, the occupations can be divided into the more and less dangerous, and to the former division 50 per cent. of the cases belonged. The time of entering the sanatorium was, as a rule, early, 30 per cent. having come in the first three months of illness. Many of those in the first stage came straight from work, and here the prognosis was good both with regard to recovery and to a return to full work. In 42 per cent. haemoptysis was the initial symptom, and was the cause of the patients consulting a doctor at an early period. A cough was present in nearly all cases of the first stage. In 16 per cent. the cough was hard and dry, and thus very characteristic of early phthisis; 55 per cent. complained of pain. A complaint of pain in the shoulder is of importance, and the pain should not be confounded with rheumatism. Wasting, combined as a rule with a good appetite and sufficient food, was present in 66 per cent. of the early cases; 26 per cent. were still in a state of good nutrition on admission, but in 58 per cent. the general appearance or that of the chest suggested the presence of phthisis. In auscultation Roepke urges the importance of listening to the breath sound immediately after a cough, as the fine dry *râles* are then most readily elicited. Clinically he divides all cases into three classes: (1) With physical signs of catarrh, (2) of infiltration, (3) of infiltration, with catarrh going on to cavity formation. Of the cases in the first stage, 4.2 per cent. belonged to the first class, 25.7 per cent. to the second, and about 30 per cent. might, therefore, be said to present difficulties in diagnosis; 10 per cent. more of the hereditary than the non-hereditary cases showed the presence of a cavity. The disease at an early stage was more frequently at the right than the left apex, perhaps because of the position and greater capacity of the right bronchus, which offers a more easy passage for dust, etc., to the lung than does the left bronchus. Two of the cases where the disease was at the left apex were left-handed, a fact pointing to the muscular activity of the right side as a possible predisposing cause. In 77 per cent. the disease was bilateral; 18 per cent. showed laryngeal complications, and this was more frequent in the hereditary than the non-hereditary. Only 7.7 per cent. of the patients had tuberculosis of other organs, and complications of a non-tuberculous nature were also rare. Roepke suggests that the albuminuria of early phthisis noted by many observers may often be transitory in character and due to over-nutrition. The examination of the sputum is of the utmost importance, but the results may be misleading. In a third of the patients in the second stage the results were negative, while in some cases with scanty sputum the presence of the pseudo-tuberculous bacillus may lead to error. The use of tuberculin is indicated for suitable cases. In 99 per cent. of 3,000 cases Koch obtained by its use a correct diagnosis, and *post-mortem* results have confirmed its accuracy. The reaction is obviously an unpleasant matter, and the tuberculin should be so given as to obtain the reaction speedily. Pickert's method of small doses combines certainty of diagnosis with a minimum of unpleasantness; 145 of the author's patients received injections. The results were negative in two instances, and, as the physical signs pointed to the same conclusion, these cases are not among those described in the article. Fifty-nine per cent. reacted after the first injection, 28.5 per cent. after the second, and thus in almost 90 per cent. a positive diagnosis was arrived at within week. Fever contra-indicated the use of tuberculin.

(74) Proteolytic Action of Pancreatic Juice.

Bayliss and Starling point out (*Journ. of Phys.*, August 24th, 1903) that all our modern ideas on this subject are based on experiments not made with the juice, but with extracts of the gland. They confirm the original statement of Claude Bernard that the real juice has no action on proteids. A substance, enterokinase (Pawlow) which is present in the succus entericus, is necessary to "activate" the juice—that is, to make active trypsin out of its inactive precursor, trypsinogen. By an interesting series of experiments they show that trypsinogen cannot be converted into trypsin by any other means than the action on it of enterokinase. Trypsin is not a mixture of enterokinase and trypsinogen, but is a specific substance; it is the most powerful proteolytic ferment known and digests itself rapidly, especially if no dissolved proteid is present for it to act upon. Observations have also been made upon enterokinase, and these observers conclude that this substance is a true ferment, and is produced only in the small intestine.

SURGERY.

(75) Morphine-Scopolamine Anaesthesia.

Since Schneiderlein first introduced his method of anaesthesia in 1900, 280 cases have been published by various observers, and although the advantages of this form of anaesthesia are generally accepted, great differences of opinion have been expressed as to the proper dosage, and recently a few accidents have also been reported. G. Volkmann publishes the results of his observations, which extend over a series of 17 ases. (*Deut. med. Woch.*, 17th December, 1903). To these 17 cases he is able to add 3, which were anaesthetised in Zimmerman's private practice, so that he is able to report on 20 cases in all. The operations included removal of the vermiform appendix, laparotomy for extrauterine gestation, removal of goître, gastrostomy, and the like. Instead of injecting 3 or 4 mg. (about 0.045 gr. or 0.06 gr.) of scopolamine and 1 cg. (about 0.15 gr.) of morphine as recommended by Schneiderlein, he found it advisable to give 12 mg. (about 0.18 gr.) of scopolamine and 1½ cg. (about 0.23 gr.) of morphine, four hours before the operation, he then repeats the same doses two hours later, and ¼ of an hour before the operation, he gives 3 mg. (about 0.045 gr.) of scopolamine and 0.5 cg. (about 0.075 gr.) of morphine. A few times, in the case of old people, or patients suffering from diseases of the internal organs, he found it wiser to employ smaller doses. In 3 out of the 20 cases, the dosage given sufficed to keep the patient anaesthetic during the operation, and in the rest of the cases, the anaesthesia had to be deepened by ether inhalation (given drop by drop). In the majority of these cases, the quantity of ether used was very small and did not exceed 40 grams in the hour. Volkmann emphasizes the fact that he did not inject larger quantities of morphine as some others have done, as he regards the bad effects in some published cases as being due to overdoses of this drug, for example, 12 cg. (about 1⅓ gr.). It is quite possible that one may do without any ether inhalation if one uses these large doses of morphine, but Volkmann

body upon the other as rather an advantage than a disadvantage. The action of scopolamine on the mucous membranes is to paralyse the glandular activity, and since ether irritates the mucous membranes and increases the secretion of the glands it may be that the small dose may act as a corrective to the alkaloid and as an adjuvant to the anæsthetic action of morphine. He never experienced any retching or vomiting, tracheal gurgling or asphyxia, and in not a single case was there any ill side-effect. The patients always lost consciousness by means of the injections even when the anæsthesia had to be supported by ether, and since this unconsciousness is attained before the operation, while the patient is still in bed, there is none of that disagreeable struggling and anxiety which are so often seen with inhalation anæsthesia. The sleep induced is an hypnoid one, however, the chief characteristic being the loss of the muscle tone. The muscles were completely relaxed in 4 cases, while in the others they lost markedly in tone and relaxation was easily obtained by a few inhalations of ether. The vessels of the skin become dilated, showing the action of scopolamine over the peripheries. The pulse was generally increased in rate to from 90 to 100, and the pressure was also increased. He recommends this anæsthetic especially for hospital practice, but points out that it requires to be carefully watched, and that its use should be restricted to those cases in which it is specially indicated until more experience has been gained.

(76) Appendicitis in the French Army.

Gazette Hebdomadaire de Médecine et de Chirurgie (November 3rd, 1904) states that statistics recently published as to the results of the treatment of appendicitis in the French army in 1903 have been misinterpreted as indicating an extremely high rate of mortality, whereas they were based only upon severe cases of special clinical interest. He has now ascertained that the operations for this disease have been performed in the French army during the years 1902 and 1903 in 1,000 cases with 7 deaths in 1902 and 6 deaths in 1903, and in 1,000 cases with 10 deaths in 1902 and 7 deaths in 1903. In 1902 there were 21 deaths, and in 1903 there were 13 deaths, making a total of 34 deaths in 2,000 cases, with a mortality of 1·7 per cent. Among the troops in the interior the mortality was only 1·4 per cent. Among the troops in Algeria it was 2·1 per cent., and among the troops in Tunis 2·5 per cent. Among the French troops in Algeria and Tunis the proportion was 0.64 per 1,000, or just one half, while among the native troops in Algeria it was only 0.14 per 1,000. Similar results are recorded by Schneider, the Chief Physician of the Sick at Tunis, and both he and Chauvel believe that the rarity with which Mohammedans are affected is due to the fact that their dietary is largely vegetarian, and that when meat is eaten it is always overcooked. Among Europeans living in Mussulman countries the liability to appendicitis appears to vary directly with the persistence with which they maintain Western methods of alimentation. Moreover, appendicitis appears to be increasing among the Algerian and Tunisian soldiery owing to many of them adopting European notions as to diet. In the discussion which followed Chauvel's paper, his views were strongly supported by Lucas-Championnière.

(77) Syphilitic Spondylitis.

SYPHILITIC disease of the vertebrae is seldom seen by pathologists, as it usually subsides under treatment. The following case described by Neumann (*Wien. med. Presse*, January 3rd, 1904), which was under observation for eleven years and in which a necropsy was held, is thus of special interest. A man, aged 37, contracted syphilis in April, 1892. In January, 1893, an ulcer appeared on the posterior pharyngeal wall. Between 1897 and 1899 there was ulceration of the lips and of the skin over the temples and forehead, and the uvula and left half of the soft palate were destroyed. In the spring of 1900 the ulcer of the pharynx was of the size of a florin and covered with a thick yellowish slough. At its upper part a probe reached to rough exposed bone. In January, 1901, there were pain and tenderness over the spinous processes of the third and fourth cervical vertebrae, and movements of the neck were considerably restricted. The pharyngeal ulcer had increased in size, had yellow edges, and a funnel-shaped necrotic base, at the bottom of which was bare bone. There were dry crepitations over both lungs and constant occipital pain. In April, 1903, he wore a jury-mast to the neck and was extremely emaciated. There were crepitations at the apices of both lungs. The mouth could scarcely be opened, even to its fullest extent. The head was held rigidly, and could not be extended. There was dullness over the left lung, especially at the apex, and dry crepitations over both sides. The pupils reacted normally, and the patellar reflexes were not exaggerated. Speech and deglutition became more painful, but he was fairly comfortable up to July 4th, 1903, when great dyspnœa with dullness at both bases of the chest set in. A pulsating tumour appeared above the sternal notch, and a fatal hæmorrhage occurred. A pulsating tumour was found in the upper part of the thoracic cavity, and the first and second thoracic vertebrae were found to be destroyed. The pharyngeal ulcer communicated with the œsophagus, and the larynx was also ulcerated. The third cervical vertebra and had destroyed the intervertebral disc between the third and fourth vertebrae, so as to produce a forward dislocation of the fourth cervical vertebra on the third. The bodies of the third and fourth vertebrae were carious. From the front of the longi colli muscles on either side the pus had tracked forwards along the ribs, and on the right side had ruptured into the pleural cavity, and produced an encapsuled empyema beneath the posterior ends of the fourth and fifth ribs. There were purulent bronchitis, patches of broncho-pneumonia, and amyloid degeneration of the spleen. Microscopically the changes were those of inflammation, and were not typical of syphilis. Thus the pharyngeal gumma had eroded the periosteum and the bone, but the terminal suppuration with evening rises of temperature was due to a mixed infection with ordinary pyogenic organisms. The cervical spinal cord was intact, though there was purulent pachymeningitis. Including this case 36 cases of syphilitic disease of the cervical vertebrae have been reported. Thirty occurred in males and 6 in females. Twenty-one ended in recovery and 15 (= 40.5 per cent.) were fatal. These 36 cases form the great majority of all reports on syphilitic spondylitis. The atlas was affected in 6, the odontoid process of the axis in 10, the third cervical vertebra in 11, the fourth in 9, the fifth in 5, the sixth in 1, and the seventh in 2 cases. The disease of the bone was usually secondary to gummatous ulceration of the posterior pharyngeal wall. Occipital pain and tenderness of the spinous processes of the affected vertebrae were almost always present. Sometimes sequestra were extruded per os. The anterior arch of the atlas, a portion of the second cervical vertebra, and the transverse process of the axis have all been obtained in this way, and in one case the patient himself extracted almost the entire fourth cervical vertebra with the intervertebral disc and a portion of another bone. Disease of the odontoid process has been followed by dislocation or fracture with symptoms of compression of the cord or sudden death. In one case there was angular lordosis opposite the seventh cervical vertebra. In later cases the syphilitic process arises in the spinous or transverse processes of certain vertebrae, and leads to tenderness, localised periosteal thickenings, and eventually to exostoses. The roots of the spinal nerves are not infrequently compressed, and radiating neuralgic pain results. In this form the spinal cord is never affected. On the other hand, extension of syphilitic disease from the spinal cord or medulla oblongata to the vertebrae has been observed in children by Hutchinson.

MIDWIFERY AND DISEASES OF WOMEN.

(78) Malignant Degeneration of Cervix Uteri after Hysterectomy.

L. Cuenod (*Revue de Gynécologie et de Chirurgie abdominale*, No. 4, 1904) points out that the vagina is subject to the same diseases as the rest of the genital tract, and that epithelioma and the papillomatous operation. He admits that the latter is accident, indeed it is pro-

ferable under two conditions, first, when the lower segment and cervix are greatly involved, and secondly, when the abdominal walls are very thick and the uterus almost fixed so that the surgeon is obliged to operate at a disadvantage especially as to manipulations deep in the pelvis. But the stump is a source of danger after the operation. It is useless and may become the seat of cancer. Richelot admits that this complication is rare, but it has occurred three times in his own practice. The first patient was 30 six months after the operation cancer of the vaginal portion of the cervix was detected, invading the vagina. He admits that the disease possibly existed at the time of the operation and was overlooked; but this possibility must be taken into account in any case and the operator must bear in mind that incipient cancer cannot always be recognized during a supravaginal hysterectomy. The second patient was 38, three years after the operation advanced cancer of the "portio" was detected. Lastly, Richelot detected the same complication in a woman from whom another surgeon had amputated the fibroid uterus above the cervix. Experience is very varied, however, and several authorities consider that cancer of the stump is so rare that it need not be taken into consideration in respect to the merits of the supravaginal operation (Zweifel, Bouilly). Still a certain number of cases have been recorded, and are quoted by Richelot; sarcoma, not unknown, must be remembered, it probably implies in every case that the fibroid was a myosarcoma, a recognized condition. A fibroid does not become carcinomatous, but the hypertrophied glands of unhealthy uterine and cervical mucosa are very possible foci of cancerous degeneration. For that reason Richelot holds that the cervix should be removed with the fibroid uterus and further maintains that myomectomy, save in cases where the uterus can evidently be left fit for future pregnancy after removal of the fibroid is a bad operation on pathological and surgical grounds. It leaves behind a useless organ liable to very prejudicial changes. Tuffier recently exhibited a cancerous uterus which he removed some time after successful myomectomy. Had he left no uterus at the first operation, there would have been no subsequent cancer.

---

(79) Gestation beyond Term in Rudimentary Cornu.

Kiparski (*Monats. f. Geb. u. Gyn.*, November, 1903) reported a case where the patient was 23 and had borne a child 2 years before observation. The puerperium was normal, but the child died two weeks old. Then the period appeared, but in the fifth week intermittent fever set in and the period ceased for a whole year. At first, for three months, the abdomen enlarged, then it began to diminish in size, and at the end of the year the period returned. It had ceased for eight weeks when the patient was examined. The uterus was anteverted and enlarged, as in the second month of pregnancy; the left appendages felt swollen. A firm tumour, hard in places and softer in others, without fluctuation being perceptible at any point, lay to the left of the uterus, and connected with the corresponding cornu by a distinct pedicle as thick as a little finger. At first either ovarian dermoid or fibromyoma was diagnosed, but on further examination crepitation was detected and the fontanelles of a fetal skull defined. Then it was evident that there was either an interstitial tubal pregnancy or cornual gestation. Abdominal section was performed, and the latter condition detected. The placenta lay on the lower part of the inner wall of the cornu. The patient recovered.

---

(80) Perityphlitis in Pregnancy.

Rostoffzeff (*Zentralbl. f. Gynäk.*, No. 49, 1903) sums up the previous literature on this subject, and reports 12 cases under observation in a Russian hospital. In 6 the disease was circumscribed, in 6 diffused; 6 died. In 6 cases an operation was performed; 2, in both of which the disease was diffused, ended fatally: 3 unoperated cases died, all of the diffused type; 1 death was unclassified. In 4 out of 9 of the above patients it was recorded that spontaneous abortion or premature delivery occurred; 4 cases died after artificial induction of labour. Thus the combination of perityphlitis and pregnancy is an exceedingly unfavourable condition. Infection having its primary seat in the vermiform appendix may extend to the placenta, and cause not only abortion but also secondary puerperal infection. The transit of the infective process to the placenta may be effected through the peritoneum (as when general peritonitis occurs), through the ligamentum appendiculo-ovaricum, or through adhesion of the uterus to a perityphlitic focus. Secondary infection of the appendix from puerperal sepsis is rare. Early operative interference is indicated when perityphlitis occurs in pregnancy. Rostoffzeff notes how very unsatisfactory are the results of inducing abortion, a practice which must be utterly rejected under these circumstances.

---

(81) Secondary Cancer of Ovary: Its Clinical Import.

Glockner (*Monats. f. Geb. u. Gyn.*, August, 1903) analyses 10 cases of secondary cancer of the ovary. The primary seat was the stomach in 6, the uterus in 2, the intestine in 1, and the breast in 1. He believes that in many cases of bilateral cancer of the ovaries the disease is secondary. Indeed, the primary tumour is not rarely overlooked. On that account the alimentary canal and uterus should always be submitted to careful clinical examination. The curette and examination of scrapings is to be employed when there is the least suspicion of uterine disease.

THERAPEUTICS.

(82) Some New Preparations.

Although it is impossible to test the actions of all the new pharmaceutical preparations which are thrown on the market, it appears to be considered a duty to employ some of the more promising drugs on the patients in Ewald's clinic in Berlin. J. Sigel (*Berl. klin. Woch.*, January 4th, 1903) reports briefly on some of the new preparations which he has studied clinically. First he deals with pegnin, which has been introduced by von Dungern. It is a combination of rennet and milk sugar, and has the property of coagulating milk outside the body and the coagulum, when formed, is capable of being finely divided by shaking or beating up. The milk is boiled in a glass bottle for a half an hour and then allowed to cool to 32° R. (= 104° F.), when one tablespoon of pegnin powder is added to each litre. In a few minutes the milk will curdle, and then one shakes the bottle vigorously until the coagulum disappears. The milk is then ready for use, but must not be heated much again. The taste and nutrient properties are not altered. It has been used chiefly for infants, but Sigel has given it largely to adults suffering from chronic gastritis, achylia gastrica, neuroses of the stomach, and for gastric ulcer. He feels justified in recommending it in these conditions. Pneumin is a creosote preparation, which is said to have certain advantages over other creosote preparations. It is obtained by allowing formaldehyde to act on creosote, and exists as a yellow-white powder, having little smell or taste. Patients take it well in doses of ½ gram three or four times a day. In expressing his opinion of its therapeutic value, Sigel says that it is difficult to estimate how far any beneficial effects are due to the pneumin and how far to other measures, among which he mentions specially hydrotherapeutic treatment. He found that pneumin has a favourable action on the appetite during the first weeks, and does not irritate the digestive functions, but after a few weeks this effect appears to become weaker. In some cases the cough and sputum were diminished. He does not feel inclined to hazard an opinion as to whether the pneumin was active in the general improvement which took place in many of the patients; but, nevertheless, he is inclined to prefer it to other creosote preparation, since it is easy to give, is pleasant to take, and is not dear. Hetol, which Landerer introduced as a means to treating phthisis, has already been tried in Ewald's clinic, but Sigel has continued testing the efficacy of it in some 50 fresh cases. Ewald stated that the intravenous injections of hetol did not produce the results which the experience of Landerer and others had led one to hope for, but considered that it was worth a more extensive trial. In the majority of the cases Sigel obtained the same results as had before been obtained in the clinic: in laryngeal phthisis it proved absolutely negative, and the same was seen in 2 cases of early lung disease. The rest of the cases, except 2 very advanced cases, showed very varying results. He recites the histories of 2 cases which appear to have been greatly influenced by the hetol injections. These were cases of severe acute disease, and it therefore appears that Landerer's indications for the treatment—namely, that it should be applied in early cases with little fever—meet some contradiction. He cannot explain the results obtained. Rodagen has been recommended for the treatment of Graves's disease. It is

dried powder of milk, obtained from thyroidectomized animals. The doses given are 10 grams daily. In three cases Sipol was unable to obtain the least beneficial effect, but although he does not wish to express an opinion on the value of the powder from such a small experience, he considers it his duty to report negative as well as positive results. Atoxyl is an anilide preparation of arsenic, and is applied by intramuscular injections of a 20 per cent. solution. He gives 0.05 gram at the first injection, and then doubles the dose until 0.02 gram is reached. Then he injects the same dose every other day. In this dosage the preparation is absolutely non-poisonous. The tonic effect in several cases was unmistakable, and the alterations in the blood improved considerably. It was used for blood diseases. He speaks well of this new remedy. Theocin: This is a valuable diuretic, especially suited for cases of cardiac and kidney affections, complicated by ascites and oedema. The action is prompt, and during the first few days the amount of urine secreted is enormous, the secretion then diminishes somewhat rapidly, but it can be again increased by giving the patient a rest from the drug for several days. He gives it in doses of 0.3 gram twice or three times a day. The only undesirable effect was the occurrence of vomiting, but this could be avoided when once it had taken place by giving the drug in suppositories. He did not see any signs of irritation of the nervous system. Veronal is a new hypnotic, which he finds acts well in all sorts of sleeplessness, if given in doses of 0.25 gram to 0.5 gram. One gives 1 gram to heavy drinkers. It also acts well as a sedative. It rarely fails to work, but in a few cases the patient remains very confident for the following twenty four hours. Isopral is a combination of [illegible] and chloral hydrate. It is recommended for nervous affections in doses of from 0.5 gram to 1.5 gram. He has found that its action was quite good, but in 2 of these cases he noted a very severe after-effect. He fails to appreciate the advantages of this and similar [illegible] preparations. Mosetin is a salicylic acid preparation which is applied externally. He obtained very [illegible] results with it in rheumatic affections, [illegible] the disappearance of the pain and swelling in a short time. It has been suggested that it acts by its conversion into salicylic acid in the blood, but this he considers improbable. Its action is more rapid than that of salicylic acid, and it is free from the disagreeable effects of the latter drug. It has been suggested that the [illegible] of mosetin with [illegible] may be dangerous, but he has not found this to be the case. He has used it in [illegible] cases, and has found that it usually relieves the pain in a few hours, and the swelling in a few days. He has found that it is especially useful in cases of gonorrhoeal rheumatism. He has also used it in cases of sciatica, and has found that it relieves the pain in a few hours. He has also used it in cases of [illegible] and has found that it relieves the pain in a few hours. He has also used it in cases of [illegible] and has found that it relieves the pain in a few hours.

diminished in 2 others, while in the fourth case no improvement took place, and the patient died a few days later of coma. He agrees with Moir that oatmeal is the best known treatment for acid auto-intoxications, whether diabetic or not.

(83) The Action of Saline Purgatives.

The action of the saline purgatives is usually explained by saying that these salts are absorbed with difficulty; if they are administered in strong solution they are believed to cause the passage of water into the intestine from the lymph and blood by their osmotic pressure; if sufficient water is given with the salt then the result is the same, the quantity of saline solution filling the gut stimulates contraction of its walls, and the whole is passed out together with the faecal contents. J. B. McCallum (*Amer. Journ. Phys.*, November, 1903) has recently published a series of experiments carried out on rabbits, which furnish a striking challenge to the usually accepted theories. He states that in general the saline purgatives act not only when introduced into the intestine, but also when injected subcutaneously or intravenously. Sodium citrate solution, for example, injected into a vein of a rabbit produced peristalsis within one minute; if given subcutaneously, or by the intestine, peristalsis did not take place for ten or fifteen minutes. Similar results can be obtained with sodium fluoride, sulphate, tartrate, oxalate, and phosphate. This peristalsis, the first effect, is followed by a secretion of fluid into the intestine simultaneous with an increased flow of urine and of saliva. This is the opposite to the usual theories, according to which the peristalsis follows after the accumulation of fluid in the gut. Since the intravenous administration acts more rapidly than the intraintestinal, the inference is that normally the salt must first be absorbed into the blood before it can act on the intestine. The purging action of these salts is attributed to a hypersensitive condition of the nervous system controlling the intestine which is produced by these substances, and such a condition can also be induced in the skeletal neuro-muscular apparatus by larger doses of the same drugs. It has long been pointed out that the salts which have sensible calomel compounds have the strongest purgative action. McCallum has found that the active peristalsis produced by the intravenous injection of a minimal dose of any purgative salt can be almost entirely opposed by the subsequent injection of an equivalent quantity of calcium chloride solution. This striking experiment suggests that the purgation is produced by the abstraction of calcium ions from the tissues, and this is in line with the observations of Loeb that the salts which produce hydraemic oedema, by withdrawing calcium ions from the tissues, are liable to increase the excitability of the [illegible] tissues. The question is a very difficult one, and many conditions suggest themselves in which the possibility of salts acting [illegible] a saline [illegible] [illegible] [illegible] [illegible] would [illegible] good.

(84) The Treatment of Gall Stones.

Corsini (*Gazz. degli Osped.*, November 15th, 1903) in reporting a case of typhoid fever with gall-stone colic as a complication or early sequela takes occasion to discuss the medical treatment of gall-stones. For the attack itself, if it is at all severe, morphine is practically the only effectual remedy, although good results have been obtained with dionin. In milder attacks hot fomentations, drinking hot water, chloroform (but if slight anaesthesia, troublesome reflex is apt to occur, and deeper narcosis brings risks of its own, moreover there is the danger of inducing violent vomiting), belladonna, which is supposed to paralyse the sphincter muscles near the ampulla of Vater, chloral again or antipyrin, are occasionally useful. In the intervals between the attacks attempts at "dissolving" the calculi may be made, and probably the free drinking of warm alkaline waters, preferably at a spa (for example, Carlsbad, Gerez, Vichy, Marienbad, etc.), holds out the best prospect, not so much in virtue of rendering the bile alkaline, but more likely by diluting it, increasing the flow and generally stimulating action. Salol and salophen are more useful than salicylic acid or the salicylates. Oleate of soda may be beneficial and favourable reports have been given of a mixture of turpentine and sulphuric ether. In cases associated with constant pain and fever, calomel has proved useful. Large doses of oil (olive, cod-liver and castor mixed) if tolerated may do good. When the stomach resents this treatment lipanin may be tried, or glycerine in Vichy water.

PATHOLOGY.

(85) Occlusion of the Salivary Duct.

Marcucci (*Arch. per le Scienze Med.*, vol. xxvii, No. 13), as the result of experimental work on this question, finds that simple occlusion of the excretory duct of the salivary gland leads with variations according to the animal employed in the experiment to atrophy of the gland itself, but never to cystic formation. The secretion, which in the early days of the occlusion is still produced by the gland, may form a temporary cyst, but the contents are soon absorbed by the parietes and passed into the surrounding connective tissue. To form true retention cysts other factors must come into play beside mere occlusion of the duct. There must be some diminution or suppression of the absorptive power of the parietes of the glandular apparatus. Probably, also, there is a diminution in the resisting power of the walls of the excretory ducts and of the acini.

(86) The Effects of Purins on the Body Tissues.

Walter Haig (*Lancet*, April 30) [illegible] that hypoxanthin injected into rabbits does not produce any increase in the blood pressure. When a small daily dosage is employed over several months, it is followed by a definite increase in the leucocytic constituents of the blood, and slight perivascular and cellular changes in the tissue of the liver. Whether similar results occur in man is yet to be determined.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(87) Clinical Aspects of Tumour of the Pituitary Body.

In recording a case of sarcoma of the pituitary body, H. Rosenhaupt (*Berl. klin. Woch.*, September 28th, 1903) points out some facts connected with the physiological functions of this organ. The patient was a woman, aged 39 years, and was admitted into hospital on April 2nd, 1902. She stated that she had been taken ill four weeks previously, with symptoms of fever, increased thirst and much increased diuresis. During the four weeks she had suffered from very acute headaches and the skin of the head had become very tender. She further complained of indistinctness of vision. During the four weeks she had been losing blood almost continuously per vaginam. On examination the isthmus of the thyroid gland was found to be nodular and to be very hard. The lobes were not enlarged or hardened. A few scattered bronchial *rales* were heard all over the lungs; the heart was natural, pulse rapid and soft, but regular and not dicrotic. The spleen was enlarged; otherwise no physical signs revealed abdominally. Urine, acid, no sugar or albumen, very plentiful. Eyes, right convergent strabismus, fundus (right), the papilla was somewhat reddened on the temporal half. Knee-jerks slightly increased, otherwise no abnormal signs in examining the nervous system. On April 4th the temperature rose, and the patient became increasingly drowsy. On April 6th she felt well, but had great thirst, and passed a large quantity of urine. She complained later of sore throat, and a few enlarged glands were felt in the submaxillary region. On April 8th, 100 gr. of glycose were given, but only traces of sugar were found in the urine. On the following day, she was attacked with fits of sneezing; the eosinophile cells in the blood were found to be increased in number. No headache on April 11th, but on April 12th again severe headache; in spite of the serious condition of the patient, and in spite of the fact that she was fully conscious, she maintained a childishly-happy, almost skittish, mood. On April 14th more sore throat and difficulty in swallowing; coughed after drinking; the thyroid gland was much swollen, the respiration impeded, and the pulse small. During the night she died suddenly. The necropsy revealed sarcoma of the pituitary body and of the isthmus and right lobe of the thyroid gland and thrombosis of the right jugular vein. There was also a myoma of the uterus. On taking the brain out it was seen that the hypophysis was enlarged and transformed into a white mass; the region of the infundibulum was thickened and likewise transformed into a white tumour, which was intimately connected with the altered hypophysis cerebri. The clinical course of the illness suggested some inflammatory change, and as the thyroid was steadily increasing in size from day to day the diagnosis of strumitis was reasonable. The fever and the quantity and quality of the urine were difficult to reconcile together, while the only signs pointing definitely to changes in the central nervous system were the optic neuritis and the fits of sneezing. It was only after death, which took place suddenly and was ushered in by difficulty in swallowing and oedema of the lungs, that the diabetes insipidus could be definitely ascribed to a central change, and the most probable location was thought to be the floor of the fourth ventricle. In discussing the peculiarities of the case, Rosenhaupt says that, according to Cyon, the pituitary body possesses a chemical and a mechanical function. The former is analogous to that of the thyroid gland, and consists in the secretion of a substance which excites the regulating nerves of the heart and its vessels. Pressure on the body is said to strengthen the beat of the heart, to slow the rate, and to increase blood pressure. Friedmann and Mass, on the other hand, found that the pituitary body can be removed without disturbing the vital conditions of the whole body or interfering with the growth of it. Rosenhaupt is loth to assume that the polyuria and the fever in his case were due to the changes in the hypophysis cerebri, since there are no physiological grounds to support this view, but suggests that in view of the hyothetical existence of a so-called diabetes centre close to the centre for heat, the tumour may have exercised pressure through the tuber cinereum on these two centres and so produced the symptoms of polyuria and fever. The small amount of changes in the optic nerve was possibly due to the fact that the chief pressure of the tumour was in the direction of the infundibulum, and therefore very little was produced on the optic nerve or its vessels. In conclusion, he says a few words on the coexistence of sarcomatous growths in the pituitary body and the thyroid gland.

(88) The Recognition and Prevention of Iodism.

Lesser (*Deut. med. Woch.* November 12th, 1903) says that it has been supposed that the symptoms of iodism are caused by the setting free of iodine by the nitrous salts which are formed in the organism. This nitrite hypothesis has, however, been disproved and various other explanations have been suggested. Lesser points out that it is by no means proved that the poisoning symptoms are in reality due to free iodine. It is said that since no free iodine has ever been found after taking pure iodides, the free iodine is at once bound by the albuminous substances. He therefore tested the blood after giving alkaline iodides, and failed to find any compound of iodine and albumen, but that all the iodine was present in the form of iodide. He even found iodide in the blood corpuscles, and therefore feels justified in stating that there is every evidence that iodides are not split up, but act as iodides. Other authors have also been able to prove that after giving alkaline iodides no albuminous compounds of iodine can be found in the organs, with the exception of the thyroid, which normally contains an iodine albumen compound. He next deals with iodipin, which has the characteristic of never producing iodism when injected subcutaneously, but producing it freely when taken by the mouth. He found by careful analysis that in both cases iodipin is excreted in the urine as iodides, but that the difference lay in the quantity of circulating iodide at any given time. Iodipin taken by the mouth behaves much as alkaline iodine does, that is, it is rapidly transformed into iodide and appears in the blood after a few minutes. After subcutaneous injection, however, it is only very slowly absorbed, and he found that if 20 c.cm. of iodipin are injected daily for 10 days iodides can be detected after six months. In this case, the largest quantity of iodide circulating in the blood and in the organism in one day was 0·3 gram. Iodism therefore depends on a mass absorption of the iodine compound, in the form of iodide. So far neither free iodine nor albumen iodine compounds have been found in the organism, and Lesser believes that we ought to speak of alkaline iodism, and not iodism. The methods which he suggests for preventing these symptoms are as follows: (1) By giving iodides in slimy substances, such as mucilages, which prevent the rapid absorption of the iodide; (2) by dividing the daily doses into a number of small single dose; (3) by giving enemata of sodium iodide per rectum, possibly together with opium, in order to slow the absorption; (4) by substituting for iodides albuminous iodine compounds, and; (5) by injecting iodipin subcutaneously. This latter method has the disadvantage that too little iodine is absorbed at one time to act sufficiently, but in cases of idiosynerasy against iodides it may be used with advantage.

SURGERY.

(89) Partial Perineal Prostatectomy.

Rydygier (*Zentralbl. f. Chir.*, No. 1, 1904) claims priority for the introduction into practical surgery of a partial and yet efficient method of resection in cases of hypertrophy of the prostate. This method, described as intracapsular resection or rather eccochleation of the gland, was devised with the object of meeting the indication that in very old and decrepit subjects it is necessary to diminish as far as possible the risks of operative treatment. The external wound in the author's operation is a simple median incision extending from the posterior insertion of the scrotum to the front of the anus, this being regarded as less serious than the curved incision made from side to side. The capsule of the enlarged prostate having been exposed by careful dissection, is incased on one side, preferably the left, of the median line. Through this slot in the capsule as much as possible of the prostatic tissue is enucleated without opening the urethra or bladder. It is held, that total extirpation, provided the operation be an intracapsular one, is impossible, and that any attempt to remove the whole gland under this condition is likely to result in wounding of the urethra, the bladder, and the rectum.

Perforation of the walls of the urinary or intestinal tracts must, it is held seriously interfere with the success of the operation, and care in avoiding such complication is much more urgently indicated, the author believes, than any endeavour to make a total extirpation of the enlarged prostate. It is pointed out that in partial removal or enucleation of the enlarged gland, it is possible to save the ejaculatory ducts, and thus avoid any cause of complaint as to the results of their operative treatment by patients not very far advanced in years. It is pointed out that as the prostate is not only a secreting gland but also a muscular valve at the outlet of the bladder, total or very extensive removal of this body is not unlikely to result in incontinence of urine. Partial intracapsular resection, the author holds, cannot fail to be sound, even though it be not completely successful, in all cases except those of simple enlargement of the middle lobe of the prostate in which other operative treatment is indicated. The author states that partial intracapsular resection of the prostate, which is regarded as much less severe than other operations and not likely to be followed by any bad effects, should be performed in an early stage of the disease. The sooner the mechanical obstruction to the flow of urine from the bladder is removed, the more effectually will the patient be protected against the bad results of morbid changes in the vesical walls.

(90) Surgical Treatment of Acute Pancreatitis.

Western *Medical Surgery*, November, in a paper on the diagnosis and treatment of acute pancreatitis gives a summary of three cases of this affection successfully dealt with by laparotomy and drainage. The first two cases were operated on in the early stage, the first on the third day, and the second twelve hours after the onset. The first case was a hæmorrhagic one, and showed fat necrosis; the second case showed no fat necrosis or bloody fluid, but the patient died on the removal of the gauze drain two days after the operation. In the third case there was [illegible] glycosuria. The [illegible] likely to be confounded with acute pancreatitis and to give rise to [illegible] in the upper part of the abdomen and peritonitis from perforating gastric or duodenal ulcer, but, as stated, it is pointed out, can often be relieved by surgical treatment.

[illegible] early operation [illegible] in which the symptoms [illegible] of commencing [illegible] operation. The author, it is held, should not be delayed until the symptoms [illegible] period that this condition may be mistaken for [illegible] the [illegible] to be safe, and therefore not wise, to wait until the patient has got over the collapse and the symptoms of obstruction, and has developed a local abscess. The high mortality of an early operation in acute cases is attributed to the fact that in many of these fatal instances intestinal obstruction was suspected, and the collapsed patients were subjected to a prolonged search for the seat of the supposed intestinal lesion. The author, in a cursory review of recent literature, has found several successful cases to add to the three recorded in this paper, and sums up his views by stating that if by a simple operation in the acute stage of pancreatitis, performed under cocaine anæsthesia, we can both combat the collapse and remove the morbid condition, the operation not only may but should be done.

(91) Splenectomy for Banti's Disease.

Quénu and Duval (*Revue de Chir.*, No. 10, 1903), in discussing the scanty results of operative intervention in cases of primary enlargement of the spleen complicated with anæmia and hepatic cirrhosis, a condition known as Banti's disease, consider under what conditions and at what stage of this disease splenectomy is indicated. From a careful study of this subject the authors conclude that operative treatment is indicated by extreme enlargement of the spleen. Such treatment, it is urged, is required not in every case of Banti's disease, but only in those in which the patient is suffering from splenomegaly. Splenectomy acts on the general condition and probably on the hepatic lesions, but it cannot be positively admitted that the operation itself can ameliorate or cure them. Beyond an enormous increase of the volume of the spleen, together with consequent abdominal troubles and intense anæmia, there are no other indications for operative treatment in cases of Banti's disease. In a paper on the same subject in the *Annals of Surgery* for October, Levison reports a case in which he removed the spleen in Banti's disease with good results. An instructive review of our present knowledge is here given, and reference is made to a number of cases of splenic anæmia and Banti's disease treated by splenectomy which, in the author's opinion, prove that much can be accomplished by surgical measures. In conclusion, he holds that Banti's disease forms a distinct chapter in the surgery of the spleen, and that early operation offers a favourable prognosis. The gravity of the operation, it is pointed out, increases *pari passu* with the size of the spleen, and the disease, if not surgically treated usually terminates in death.

MIDWIFERY AND DISEASES OF WOMEN.

(92) Some of the Obstructions to Labour.

L. Dupuy (*Bull. and Mem. Société*) [illegible] to labour produced by [illegible] of disease of the maternal [illegible] to certain cases [illegible] of the pelvis. The first [illegible] was that of a flattened [illegible] The patient had had [illegible] labour both at the seventh month, with a macerated fetus, and one full-time pregnancy at the end of which perforation and craniotomy had to be performed. The conjugata vera measured 2¼ in. As the patient was extremely anxious to have a live child, and the measurements of the pelvis lay been relative and absolute indications for Cæsarean section, it was decided to carry this out. The patient was removed into hospital after she had been in labour for three hours. The membranes ruptured during the transport, and the cord prolapsed on arrival. Chloroform was administered at once, but the patient took it badly, owing to a quantity of food in the stomach. She vomited a great deal. On account of the condition of the woman, as soon as the child was delivered and made to breathe, the uterus was included by a ligature around the cervix, and removed above the ligature. The patient developed a severe bronchitis on the second day, and died of broncho-pneumonia on the eighteenth day. The wound had healed by first intention and the peritoneum was intact. The second case was that of a primipara, with a flattened rickety pelvis, with a conjugata vera of 2¾ in. The child was freely movable above the inlet of the pelvis, with the vertex presenting in the second position. The fetal head appeared to be large, and as it could not be pressed into the pelvis it was decided to perform Cæsarean section. The operation was carried out without difficulty, and the child was delivered alive through a longitudinal incision in the anterior wall of the uterus. The tubes were tied in two places and divided in between the ligatures. The patient left hospital well in three weeks. The points in favour of this case were intact membranes, no infection of the uterus, and good heart sounds of the fetus. The next case was that of a woman in the ninth month of pregnancy who had borne four children with instrumental help, of which three had died during the birth. The pelvis was a flattened rickety one, with a conjugata vera of 3¾ in. An attempt to induce labour prematurely by means of bougies caused profuse hæmorrhage but no pains. It was therefore decided to wait till the end of the pregnancy and then to perform Cæsarean section, but after ten days the membranes ruptured and profuse bleeding again took place. Placenta prævia was diagnosed and the vagina was plugged. As the hæmorrhage continued in spite of this, the patient was removed into hospital and Cæsarean section was performed. The fetal heart sounds could not be heard and the cervix was found to be pervious for one finger, through which placental tissue but no fetal parts could be felt. The uterus was incised transversely through the fundus and a dead child was extracted. Porro's operation was completed, as the woman was so anæmic that it was necessary to curtail the length of the operation. The stump was dealt with extraperitoneally. The patient made a good recovery. The next case was that of a woman with an osteomalacic pelvis. She had gone through five labours, of which the last three were supposed to have been breech. At each pregnancy she had suffered from "joint rheum-

atism." This got better after each birth. She presented herself in the second month of pregnancy, and the diagnosis of osteomalacia with a typical pelvis was easily arrived at. She was treated with phosphorus and cod-liver oil for seven months but without effect. It was therefore considered advisable to suggest Caesarean section to the patient, and, as she agreed to this, she was admitted into hospital eight days before the expected full time. Porro's operation was carried out, and both mother and child left the hospital six weeks later well. The second series of cases deal with obstruction to labour due to the condition of the pelvic organs. The first case was that of a woman with cervical carcinoma of the size of a goose's egg in the ninth month of pregnancy. The patient was chloroformed; laparotomy was performed. The child was delivered through a longitudinal incision in the anterior wall; the uterus was then amputated supravaginally and an elastic ligature applied. The abdominal wound was closed. The carcinoma of the cervix was removed with the Paquelin cautery per vaginam and the stump of the vagina extirpated. She made a good immediate recovery, but died three years later of a recurrence in the left parametrium. Puppel discusses the advantages of this method of dealing with such a case as against empytying the uterus after dilating the cervix and then vaginal total extirpation, against the classical total extirpation per abdomen, against the classical extirpation per vaginam, and against vaginal Caesarean section with total extirpation. He next deals with cases of myomata of the uterus, obstructing labour. In one case the midwife had examined freely per vaginam before sending for assistance, and on admission into hospital there was already a fetid discharge. In this case he carried out a Porro's operation. The lower pelvis was completely filled by a large myoma. A second case was peculiar. The child was born spontaneously, but was found to be dead and macerated. The placenta did not follow. Expression and attempts to remove it manually failed, and on examination by the gynaecologist from the hospital, it was found that the uterus was very large and hard; the cervix was dilated to allow two fingers to pass, and was extremely long. At about the level of the internal os a myoma of the posterior uterine wall was felt. The cervix was plugged, and the patient removed into hospital. There was no haemorrhage. As a curette could not be passed, the cervix was again plugged and the uterus was washed out. During the next few days the patient had several rigors. The cervix was then incised and an attempt to remove the placenta was made; this, however, was again unsuccessful. The cervix was therefore sutured and a total extirpation of the uterus through the abdominal wall was carried out. Lastly, he deals with 2 cases of labour obstructed by ovarian tumour. He says that in the case of ovarian cysts one should always puncture during labour, and undertake the removal at a later date, but with solid tumours, if the tumour cannot be replaced, Caesarean section must be considered.

(93) Secondary Perineorrhaphy in Childbed.

Abuladse (*Monats. f. Geb. u. Gyn.*, September, 1903) believes that a ruptured perineum should be carefully repaired during the later stage of the puerperium. As an operation performed for the repair of a damage during labour, it should be undertaken during convalescence from that labour, so as to anticipate very disagreeable complications as well as cicatricial changes prejudicial to the success of a surgical proceeding later on. It is simple under the circumstances, free from danger, and, as a rule, successful. Hence it is, in Abuladse's opinion, obligatory on the obstetrician to repair a torn perineum at the end of the puerperium when discharges have ceased. The primary operation, undertaken immediately after labour, obviates complications if successful, but the writer knows that it is by no means always followed by success, and a weak perineum is a frequent result. Indeed it is unsurgical to sew up a deep rent with lacerated edges. He gives a series of secondary operations in his own practice, where in several cases he had failed in a primary operation, the sutures cutting through or the wound suppurating. All his secondary operations proved successful. He adds much evidence in favour of his practice from older records.

(94) Protection of Ureters by Kelly's Hysterectomy.

Faure (*La Gyn.*, August, 1903) dwells on the great dangers to which the ureters are exposed during the enucleation of large uterine tumours opening up the broad ligament and of burrowing or widely adherent ovarian tumours. In one case of the latter type, where the uterus was drawn high up on the anterior surface of a multilocular cyst, the bladder happened to be similarly displaced and was wounded during the opening of the abdominal cavity. The laceration was closed and the bladder dissected down off the face of the tumour, which was then tapped. In separating adhesions on the left side the iliac vessels were laid bare, the parietal peritoneum covering them being pushed inwards. With the displaced piece of peritoneum went the upper pelvic portion of the ureter, and Faure feared to damage that duct by working in the dark from above downwards. He therefore determined to work the other way, and divided the supravaginal cervix with scissors. A long-bladed pressure forceps was placed on the lower end of the uterus, which was next drawn up. Then the uterus and appendages were detached from below upwards, a manœuvre which proved quite easy. The displaced parietal peritoneum, with the left ureter, was then exposed and easily pushed back. The tumour being removed, the cervix was closed with a catgut continual suture and the pelvic peritoneum repaired; the pelvic cavity was drained and the patient recovered. Faure speaks in the highest terms of Kelly's method of beginning an operation of this kind by dividing the uterus at the isthmus and dissecting it upwards with its appendages. Bisection is also very useful in many cases. It allows of the removal of a large tumour much more rapidly than by working from above downwards, and moreover saves the ureters from damage.

THERAPEUTICS.

(95) Digestibility of Vegetables.

Although many observations are recorded of the digestibility of various vegetables *in vitro* and in animals, very few attempts have been made to estimate accurately their values in man. Bryant and Milner (*Amer. Journ. of Phys.*, October, 1903) report careful observations made upon themselves and a student. A diet consisting of constant proportions of meat, bread, butter, milk, and sugar was taken for some days, and the composition of the food and of the faeces determined. Then a vegetable, either cabbage, potatoes, beetroot, apple sauce, or green corn was added, and the effect upon the composition of the faeces ascertained. The results of most practical interest were those relating to potatoes and cabbage. The former food can be classed as one of the most digestible for a healthy man; 91 per cent. of the total energy of the potato was available in the body. Cabbage proved, as would be expected, not so digestible, less than 60 per cent. of its energy being available. Beetroot and apple sauce were, like potato, mostly utilized. As regards proteid or fat, these substances are, as is well known, of little value, but the carbohydrate, which they contain in large quantity, is well digested and absorbed. The effect produced, however, does not entirely depend on the value of the vegetables themselves, for it was found that the digestibility of the rest of the diet may be improved by the addition of these foods. Vegetables supply organic acids and mineral salts, make the diet pleasanter to eat, and by their bulk maintain a healthy activity of the intestine, and their beneficial action is probably largely due to these factors.

(96) The Treatment of Galactophoritis in the Newborn.

Betti (*Il Morgagni*, November, 1903) considers that inflammation of the breast is more common in newly-born children than has been supposed. He has attempted without success to find evidence in favour of the view that it is usually caused by blows. He considers the treatment with compresses moistened with boracic acid solution inadequate, and recommends that as soon as swelling and redness show the onset of inflammation sublimate of mercury solution (1 in 3,000) should be used for preparing the compresses. In female children even slight suppuration in the breast may lead to serious results, and Betti recommends that as soon as there is any appearance of pus the puriform liquid in the breast should be carefully squeezed out, as recommended by Budin. If the patient's breast and the operator's hands have been properly prepared no bad result can follow this operation, which should be performed without waiting for the onset of fever or lymphangitis. Compresses of some efficient antiseptic should be applied again after the operation, and cure may be expected in a day or two, as in the two cases of his own which Betti quotes.

(97) The Action of Arsenic on the Kidneys of Children.

[illegible] Bienfait have reported that the therapeutic use of arsenic causes [illegible] granular cylinders, of renal epithelium and of red blood corpuscles in the urine. To investigate this observation Comasse (*Archives de la R. Accad. Med.*, [illegible] November, 1903) carefully examined the sediment from the urine of 22 children all treated hypodermically or by the mouth, by large [illegible] In three of the cases the drug was pushed beyond the limits of tolerance, but the symptoms were gastro-intestinal, not renal. In no case were casts, renal epithelium, or blood corpuscles discovered in spite of repeated examination. Comasse therefore concludes that in the case of children whose kidneys are healthy to begin with, the therapeutic use of arsenic is free from danger.

(98) Treatment of Alopecia Areata.

[illegible] *Med. Abs.*, p. 345, [illegible] that alopecia areata develops by preference on a nervous soil. General treatment is hence important, and [illegible] massage, etc., are recommended. Internally arsenic and preparates are useful. Locally the author recommends epilation round the periphery of the patches, as it causes a slight irritation of the skin. Acetic acid is applied to the bald places either [illegible] as follows: ether 25, hydrate of chloral 1 to 4, acetic acid [illegible] parts. The author also uses [illegible] ichthyol cake up with [illegible] and vaseline. In rebellious cases a blister may be used, followed by the application of silver [illegible] In addition to the local treatment the circulation is to be incited by friction with the following lotion: [illegible] per cent., eau de cologne alcohol [illegible]; bichloride of mercury, [illegible] gram; tincture of cantharides, [illegible] tincture of chloral, 5; castor oil, [illegible] Other methods, such as massage, [illegible] application high frequency currents and light treatment have been used, but rarely act in the same way by causing irritation.

PATHOLOGY.

(99) Intracellular Toxins.

[illegible] von Eisler publish researches on the [illegible] constituents of the typhoid bacillus (*Centralbl. f. Bakt.*, [illegible] October 5th, 1903). The investigation had [illegible] chiefly, the [illegible] of the intracellular [illegible] bacillus in certain [illegible] and [illegible] example, the diphtheria bacillus. The fresh cell plasma of the organism was in the next series of experiments obtained by triturating large quantities of culture and filtering with the aid of a hydraulic press. The fluid obtained was used for immunizing experiments, and these showed that the typhoid cell plasma possesses active physiological properties, and that on injection it affords a certain protection against virulent typhoid organisms in virtue of specific bacteriolytic properties developed in the blood of the treated animals. In these observations, while the immunizing properties of the cell juices, as regards the typhoid organism, had been demonstrated, acute and definite toxic effects had proved remarkable by their absence. As an intoxication of the system in the case of enteric fever is a grave and perhaps the cardinal factor to be considered in the treatment of the disease, the search for an active toxin in the cell plasma is the matter of greatest importance. It seemed probable that the lack of success in demonstrating the presence of such a toxin was due to the filtering method employed. The disintegration of the organisms by a method which did not necessitate filtration was attempted and successfully carried out by trituration in a frozen condition at the temperature of liquid air. In addition to the typhoid bacillus, other bacteria and other types of vegetable cells, also animal tissues, were treated in this way, and their intracellular juices obtained. The results which are now published concern the typhoid organism. The mass obtained by trituration at 190° C. was mixed with salt solution and centrifugalized. The fluid obtained on inoculation into animals in small doses invariably proved toxic or fatal, and it was therefore concluded that the typhoid bacillus contains within itself an intracellular toxin. The toxicity of the fluid varied directly with the virulence of the living bacilli, 1 c.cm. in one instance a 10 per cent. toxin was obtained, of which 0.003 c.cm. killed within twenty four hours. The specificity of the fluid was demonstrated by the constant appearance in the blood of agglutinating properties. The fluid was then used for immunizing experiments, and it was shown that the serum of the monkey after injection of the typhoid cell juices possessed antibacterial and antitoxic properties, and also curative and preventive properties. [illegible] observation has for the first time established [illegible] that in the case of one species of pathogenic organism the intracellular [illegible] when injected into a suitable animal give rise to the production of a serum which is both bactericidal to the organism itself and antitoxic to [illegible] contained in its substance. The method promises a possibility of obtaining bacterial vaccines of greater purity and capable of more complete [illegible] in the case of enteric fever, cholera, and other diseases, the symptoms of which may depend upon the presence of intracellular toxins in [illegible] organisms.

(100) Abrin Poisoning.

Ehrlich and Hellin (*Deutsche Med. Woch.*, December 24th, 1903), with a view to further studies on the alterations of development of the eggs of hens recently immunized against abrin, has investigated the lesions produced in fowls by abrin poisoning. He injected into the peritoneal cavity 4 mg. of the poison for each kilog. of the bird's weight, choosing healthy and well-grown birds weighing 2,500 grams or a little more. The six animals experimented upon all died with similar symptoms in from thirty to eighty hours. Rossi supplies a detailed account of the histological examination of one of the birds which died between thirty and forty hours after the injection. The conclusions at which he arrived are as follows: Fowls possess no natural immunity against abrin. The alterations produced by the poison do not differ much from those produced by the same poison in mammals or from those produced in mammals by ricin poisoning. All the organs are more or less profoundly altered, and the longer the duration of the case the more distinct are the alterations. Vascular congestion is one of the most noticeable points, small haemorrhages being scattered through all the organs. Cellular alterations also are everywhere to be found, the liver and intestine being most affected and the kidneys comparatively, but not absolutely, unchanged. In none of the glandular organs, with the exception of the kidneys, was it possible to find any sign of granules of secretion. This relative immunity of the kidneys, both from congestion and cellular degeneration, is probably the result of the route by which the poison tends to be eliminated from the body. It leaves the body by the intestine, and it is in the intestine that the changes are best marked. Though the vascular congestion, with extravasations and other circulatory changes, was everywhere found, there seems to be no reason for agreeing with Werlzovsky that the changes in the organs are entirely secondary to circulatory disturbance. On the contrary, there is a general toxic action. In fowls in which the course of the illness lasted two or three days the congestive phenomena were diminished and the cellular alterations were more profound and more widely diffused.

(101) Causes of Death in Diphtheria.

Erik Faber, in a dissertation for the M.D. degree of Copenhagen, points out that the cause of death in diphtheria depends upon the intensity of the infection, the disturbance of the circulatory apparatus, and the respiratory lesions, paresis and general complications. Out of 56 cases of which he studied with special regard to the changes in circulation, he was able to [illegible] five distinct series of alterations. In two groups death occurred through the action of the toxin upon the vasomotor centre, in another the lethal symptoms were those of poison by carbon dioxide, in another group there were no important changes in the circulatory [illegible] Faber did not observe any distinct cardiac paralysis. He considers that death in this group was due to paralysis of the respiratory centre. In most of the cases the blood pressure was unaltered, in the worst cases it always fell during the first fourteen days, and only returned to normal about the beginning of the fifth week.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(102) Abdominal Pain.

At a meeting of the Medical Society of the State of New York held on January 26th, 27th, and 28th (*Medical Record*, January 30th), abdominal pain formed the subject of a discussion. John H. Musser (Philadelphia), speaking of spasm, or rigidity of the abdominal muscles, said it should be remembered that in women with enormously distended and relaxed abdominal walls rigidity was not likely to be present. If toxaemia were present, or there were a moderate leucocytosis, too much stress must not be laid upon muscular spasms as an evidence of pain. On the other hand, in athletic individuals even moderate abdominal pain was likely to give rise to excessive muscular spasm. It had long been known that in some cases of Bright's disease, particularly in pregnant women, pain occurred in the upper half of the abdomen as a forerunner of an attack of uraemia. Then there might be cases of supposed abdominal pain dependent upon hysteria. In considering abdominal pain the occurrence of rheumatism of the diaphragm and diaphragmatic pleurisy should not be forgotten. With the onset of pneumonia, particularly in children, the symptoms complained of might be entirely abdominal and lead to a suspicion of appendicitis or a localized peritonitis. Pain due to gastric disease was not by any means confined to the region of the stomach. Pyloric spasm was often confounded with gall-bladder disease. A large proportion of the cases of supposed gastralgia that he saw proved to be cholelithiasis. Pericarditis and angina pectoris were well known to be associated with pain referred to the abdomen. Every known method of investigation must be employed in differentiating gastric, hepatic, renal, and pancreatic pain. The disappearance of pain was often also of much significance, pointing frequently to the onset of toxaemia. Again, there were cases in which pain was absent when it should be present. A notable example of this was intestinal obstruction with paresis of the bowel.—J. D. Bryant (New York) read a paper on abdominal pain referable to the abdominal walls. He said that inflammation of the visceral layers of the peritoneum did not cause pain of such severity as to be of much diagnostic importance in most instances. The nerve supply of the abdominal walls should be borne in mind in connexion with this subject. A hyperaesthetic surface sometimes overlaid an inflamed area of peritoneum. Involvement of that portion of the pleura supplied by the dorsal nerves would sometimes cause pain, hyperaesthesia, and rigidity of the abdominal wall. An infection localized in the abdominal wall itself might be mistaken for intra-abdominal involvement.—F. H. Wiggin (New York) dealt with abdominal pain of intestinal origin. He said that abdominal pain was common to all disorders of the intestine. In a general way, sharp persistent abdominal pain indicated involvement of the peritoneum, while dull aching pain indicated involvement of the connective tissue. Tenesmus pointed to implication of the lower third of the intestinal tract. Colicky pains occurring several times a year, in a person not constipated, pointed strongly to ventral stenosis. Involvement of the colon was shown by diarrhoea, limitation of the pain, and sensitiveness of the course of the large bowel. Colicky pain in the left iliac fossa, with tenesmus and blood-stained stools, suggested inflammation of the sigmoid flexure of the rectum. In disease of the upper part of the duodenum there was pain in the right hypochondrium, and occurring a few hours after eating. The diagnosis of appendicitis should never be made until after exploration of the chest had excluded disease of the lungs or pleura. Severe abdominal pain in the region of the umbilicus, associated with constipation and collapse, suggested external hernia, and should lead to a careful examination of all the various hernial openings, and also a search for a tumour in the linea alba. Subacute symptoms of obstruction, occurring in a man over 40 years of age, giving a history of constipation and associated with rapid distension of the bowel, pointed to volvulus. In all cases of persistent abdominal pain of obscure origin, exploratory operation should be done. R. F. Weir (New York) called attention to a recent communication by Ellsworth Eliot (New York) on the behaviour of the aortal arches as an aid to diagnosis. If, with the thumbs directed towards the sternum and the fingers crowding the aortal arches inwards and towards the vertebral column, an abnormal resistance was encountered, it was very significant of some pathological condition in the region of the liver, pancreas, duodenum, or pylorus, and was sometimes present when there was no rigidity of the rectus muscles. With this resistance there was oftentimes an additional pain. Eliot had met with one case of pancreatitis in which leucocytosis was present; so the surgeon could no longer rely implicitly upon absence of leucocytosis as an indication of pancreatitis. McBurney had told the speaker of one case in which the rigidity of the abdominal wall was not due to some intra-abdominal lesion but to beginning tetanus. Although it has been shown that "McBurney's point" did not accurately represent the position of the appendix, the method of examination known as "finger pressure" suggested by McBurney was in itself so valuable as to warrant the association of his name to it. It was often exceedingly difficult to feel the appendix, and it was well to remember that this palpation could be very greatly facilitated by directing the patient to raise the leg a little outside of the median line. This would cause the psoas muscle to contract, and as the appendix was usually resting on this muscle or near it the appendix would be lifted up within reach of the examining finger. In the case of a young child much information could be obtained by passing the finger up into the bowel.

SURGERY.

(103) Formation of New Joint by Metallic Supports.

Pascale (*Rif. Med.*, December 2nd, 1903) in the first part of an interesting communication reports the case of a lad, aged 19, whose humeral head and part of the shaft of the humerus were removed for a sarcomatous growth, and a new joint made by attaching the humerus to the scapula by means of stout metallic wire. The result so far is excellent, both as to function and non-return of growth. Another case of the author's similarly treated concerned the ileo-femeoral articulation. The first patient dated his trouble from a fall on December 3rd, 1901. As pain and swelling occurred he consulted various surgeons, and in January, 1902, he was narcotized and the arm thoroughly examined with a view to a possible dislocation; no displacement was, however, detected. At the further operation a distinct sarcomatous tumour was found growing from the head of the humerus. The upper and external segment of the humeral head was unaffected, but the tumour affected the remaining portions and spread down below the surgical neck and into the attached muscles. All these diseased parts were freely removed, but it was found possible to preserve part of the attachment of the deltoid and pectoralis major. After the haemorrhage, which was troublesome, was arrested, the various muscles were carefully attached, a stout thread of silver was passed through the whole of the shaft of the humerus and thickest part of the glenoid cavity and twisted up on the external surface of the humerus. The post-operative course was excellent, and after twelve days the large wound was completely healed. The limb was fixed for about twenty days, and after that passive movements were commenced. About a month later the limb was found very little shorter, the shoulders lowered, and less prominent, but covered with a good firm mass of muscle tissue. There was no pain and the junction was good. The patient was able to dress himself unaided, and except the movements of abduction and elevation which were diminished, had an excellent range of movement.

(104) Persistent Pupillary Membrane with Anterior Synechiae.

Wintersteiner (*Graefe's Archiv f. Ophthal.*, October 13th, 1903) discusses the above condition with regard to its etiology and subsequent course. The following are his conclusions: That the cause of anterior synechia of a persistent pupillary membrane is (though not invariably) to be found in a blenorrhoea neonatorum which has led to ulceration and perforation with prolapse of the fetal pupillary membrane, which at that early age has not yet entirely disappeared, and with adhesion formation between it and the corneal cicatrix, which develops later. That the cicatrix clears up later, leaving a very small scar which lies in the deepest layers of the cornea. All previous observations have been made clinically on cases which have arrived at a stationary condition, coming under observation some months or years after birth, which

...ridge as to how far resolution has taken place impossible. Winterstein has examined most minutely a case of an infant of six weeks old, the mother of which was the following: central, fresh, richly vascularised corneal cicatrix, perforating the entire depth of the cornea centrally, and connected with the lens by a strand of loose tissue, and with the pupillary edge by a persistent pupillary membrane; commencing anterior polar cataract. That the anterior synechia really consists of pupillary membrane and not of inflammatory new-formed connective tissue there can be no doubt on account of the appearance and non-inflammatory nature of the tissue. (2) Its origin from the anterior surface of the iris, near its pupillary margin. The nature of the anterior adhesion of the lens is more doubtful, whether it is to be regarded also as a pupillary membrane or as new-formed connective tissue from the cornea. In cases previously observed no synechiæ between lens and cornea have been found, but these cases were seen at a much later period, and if the synechiæ are but remains of pupillary membrane nothing is more likely than that an almost complete resolution takes place, leaving the lens free and posteriorly only an anterior polar cataract, as evidence of the previous adhesion. It may be expected that in the case described the corneal scar was thick and extensive while in the cases previously observed the cornea was, for the most part, clear and only opaque at a point corresponding to the point of attachment, but to those who have observed the almost incredible capacity for resolution in the cornea of young children this difficulty will not be a serious one. He cites two other cases, of 5 and 7 years respectively, to prove his position.

---

(105) External Œsophagotomy in Cases of Foreign Body.

In the *Bull. et Mem. de la Soc. de Chir. de Paris*, No. 35, 1903, Terrier communicates a case of successful removal of a coin by external œsophagotomy of a fracture situated in the cervical region and complicated with abscess. The surgeon points out that in cases of this kind it is advisable to practise immediate external œsophagotomy without making any attempt to extract the foreign body by the mouth. Such attempts, he thinks, are useless, and in most instances quite unjustifiable, as the removal of the coin or of the metallic object, even with the forceps, is rendered impossible by the swelling and inflammation of the parts which surround the foreign body. The latter, he says, is generally lodged in the œsophagus at the level of the cricoid cartilage, and the operation is rendered difficult and dangerous by the presence of the thyroid gland, which is pushed on one side or the other by the foreign body. The œsophagus can be reached by an incision along the anterior border of the sterno-mastoid muscle, which is pushed outwards, and the foreign body is then easily detected by œsophagoscopic examination, which, in cases of impacted body in the œsophagus, may be regarded as an indispensable method, and is very useful in facilitating extraction. Instead of attempting external extraction, and in order to avoid any difficult and dangerous attempt to extract it by the natural passages,

---

(106) Simultaneous Gunshot Injury of the Liver and the Femoral Artery.

In the *Bull. et Mem. de la Soc. de Chir. de Paris*, No. 35, 1903, Reynès reports a case of deep gunshot injury of the right lobe of the liver successfully treated by laparotomy and plugging of the hepatic wound. The patient, a young woman aged 22, was found collapsed when first seen about two hours after the receipt of the injury, and the peritoneal cavity contained a large quantity of coagulated blood. The incision in the abdominal wall was made over the outer margin of the right rectus muscle. On the upper surface of the liver was a wound into which the whole length of the finger could be passed, and on the inferior surface near the hilum was found the orifice of the exit. After an interval of twelve days a radiographic examination was made of the patient with the object of finding the bullet, which, to the author's surprise, was finally discovered in the upper part of Scarpa's triangle of the right thigh. Extraction was immediately followed by free arterial haemorrhage, and it was made out that the bullet had produced a lateral wound of the femoral artery. As it was impossible to arrest the bleeding by ligature the opening in the vessel was closed by pressure forceps. The patient ultimately made a complete recovery.

MIDWIFERY AND DISEASES OF WOMEN.

(107) Pregnancy with Nephritis and Syphilis.

Manoukhine (*Bull. et Mem. de la Soc. Anat. de Paris*, June, 1903) reports a case where the relationship of these three conditions was very uncertain. The patient was a short, pale, emaciated single woman, aged 24. She had never been pregnant before, and the present pregnancy had reached the fifth month, whilst the dates of syphilitic infection and impregnation must have been close or even simultaneous. She was admitted into the Broca Hospital, Paris. Roseola was observed with severe stomatitis and diarrhœa; she stated that she had been taking mercurial pills from the beginning of her illness. There was also severe nephritis, with scanty excretion of highly albuminous urine. It was difficult to determine what was primarily due to the endocrine, to the kidney disease, to the presence of syphilis, to the evident mercurial poisoning and to the pregnancy. The patient was retained in hospital until delivery at term and puerperium. The stomatitis was treated locally, the patient kept on milk diet for several weeks, then vegetables, thick soups, and eggs allowed. Mercury could not be given save in small doses, and for a very short time, as severe ptyalism reappeared quickly. The child died within a few hours after birth. The patient went home and rested, but did not confine her diet to milk. Some mucous patches appeared in the vagina, no mercury was taken. Four months after delivery she was re-admitted with threatening stomatitis, diarrhœa, giddiness and vomiting had existed for several days. The urine almost solidified on boiling. An attack of uræmic convulsions occurred and the patient died within a few minutes in the middle of the night. The kidneys showed advanced inflammatory lesions, both interstitial and parenchymatous. Endarteritis was particularly evident. Mantoux believes that this vascular change might be imputed to syphilis, even so recent as in this instance. Brault has noted widespread endarteritis, largely obstructive in a case of renal syphilis. Massalongo detected this change as the predominating appearance in a case of nephritis in a syphilitic infant aged 6 months; albuminuria and anasarca preceded death. Lastly, however, Mantoux reminds us that the auto-intoxication of pregnancy and the mercurial poisoning must have played an important part in respect to the kidney disease in his patient. The extreme susceptibility to salivation in this case prevented perfect antisyphilitic treatment during pregnancy, so that the share of syphilis in causing the advance at least of the kidney disease may have been considerable. It is remarkable that no fresh syphilitic symptoms developed during the patient's residence in hospital.

---

(108) Eclampsia and Large Placenta.

Koenig (*Zentralbl. f. Gyn.*, No. 40, 1903) publishes a case where these two conditions were combined, yet he could not feel certain whether there were or were not any causal connexion between them. The patient was a small, sickly woman, aged 36, her two previous labours were instrumental, the pelvis was of the flat, rickety type. On this occasion labour set in at term, with headache and œdema of the legs. A severe fit occurred; Bossi's dilator was used; the forceps could not be applied; craniotomy was practised, but the cranioclast proved a failure, and turning was necessary to complete delivery. This manœuvre was very difficult owing to the rotation of the fœtal body being impeded by a bulky placenta, which was afterwards detached manually. It weighed 1,620 grams, or over 3½ lb., while the fœtus weighed but 3,360 grams, or hardly 7 lb. 6 oz. The diameter of the placenta was 10 in., its thickness 2½ in. Neither to the naked eye nor microscopically did its tissues show any morbid condition. The patient had two more violent fits. Vapour baths and other remedies were given, but she died a few hours after delivery. Koenig admits that in seven cases of severe eclampsia recently under his observation the placenta was normal. A big placenta is nearly always associated with a large fœtus, especially in robust, big-boned multipara with flabby uterus. Syphilis, according to Pinard, plays a part in causing hypertrophy of the placenta. In this case the fœtus was small, whilst the placenta was nearly half its weight. Possibly it played a prejudicial part in fœtal tissue changes, and was thus more or less associated with the eclampsia.

---

(109) Carcinoma of Clitoris.

Bierkowski (*Mittheil. aus der gynäk. Klinik des Prof. Engström*, vol. vii., 1903) has recorded 68 cases recorded in literature, adding 2 in Engström's practice. The first patient was a girl aged 21; in her case there was a distinct history of a blow on the part caused by a fall, the neighbouring lymphatics were enlarged.

both the clitoris and the infected glands were removed. A year later recurrence was observed, and it soon proved fatal. The second patient was 49, recurrence followed removal of the clitoris about as soon as in the previous case. Traumatism and pruritus seem to be definite exciting causes of this disease. The climacteric does not seem to be a predisposing cause. Many of the patients had repeatedly been pregnant. Carcinoma of the clitoris is not satisfactory for surgical treatment. About 7 months' immunity from recurrence and one year of life after operation are the very unsatisfactory averages given by the 70 cases in Bjorkquist's statistics.

(110) Hysteropexy: Dangers of a Utero-parietal Band.

Michel (*Zentralbl. f. Gynäk.*, No. 39, 1903) describes a case where a fibrous band nearly 6 in. long was found running between the parietal peritoneum and the fundus uteri, three years and five months after a Fritsch's hysteropexy had been performed for retroflexion of a bulky uterus, at the same time that a large dermoid cyst of the left ovary was removed. Abdominal pains became frequent, especially during constipation. A small hernial protrusion was detected by Michel in the upper part of the abdominal cicatrix, there was also a reducible inguinal hernia on the right side. The uterus was small and anteflexed. The herniae were treated radically and when the peritoneal cavity was opened the band was discovered. It was as thick as a stout straw and is figured in Michel's report. A portion of the tissue of the fundus was excised with the uterine attachment of the band and the other end was dissected from the peritoneum. The uterus was once more fixed to the parietes by two silkworm-gut sutures passed through the uterine attachment of the round ligaments. The dangers of a band of this kind, already detected in other cases where hysteropexy has been performed, are self-evident.

(111) Does Symptomless Retroflexion Require Treatment?

Koetschau (*Monats. f. Geb. u. Gyn.*, October, 1903) answers this question in the affirmative, denying that it is old-fashioned (unmodern) to treat a case where the uterus is distinctly bent backwards on the cervix but has not given rise to pain or complications. Küstner has shown that retroflexion represents a distinct disturbance of the equilibrium of the pelvic organs, and inevitably leads if untreated to descent or prolapse. The displacement must therefore be treated independently of symptoms.

(112) Miliary Phthisis following Abortion.

Hochaus of Cologne (*Monats. f. Geb. u. Gyn.*, November, 1903) writes of a woman, aged 22, who aborted at the fourth month, and became feverish on the fifth day. There was no discharge except a little leucorrhoea, which ceased after injections and the use of the curetting. There was dullness at the right apex and bronchitis, but no tubercle bacilli were detected in the sputum. The fever and high pulse continued, and death occurred on the thirty-eighth day. Diffused miliary tubercle was discovered, involving lungs, liver, spleen, and peritoneum. An old focus occupied the apex of the right lung. Lastly, there was not only cheesy salpingitis, but also a caseating focus at the placental side on the inner wall of the uterus. Hochaus considered that the focus at the apex was undoubtedly the origin of the tuberculous disease which involved the genital tract, but the latter was no doubt the source of the general infection after abortion, which proved fatal to the patient.

THERAPEUTICS.

(113) The Action of X Rays upon Nutrition.

The destructive action of the x rays upon the skin and nerve centres, and the fact that they have caused retrocession of malignant tumours in many reported cases have caused Lépine and Boulud to make a series of experiments with penetrating rays upon animals (*Lyon Méd.*, December 13th and 20th, 1903). The first guinea-pig died on the seventh day, having had one to two hours' exposure per diem to the rays. It had lost only 18 per cent. of its original weight, but the nitrogenous food given had been insufficient. The second animal, also a guinea-pig, was exposed twice daily for three-quarters of an hour at once. For the first four days the appetite remained good, and the only apparent effect of the rays was a rise of temperature. On the fifth day it became collapsed and convulsed, and death seeming imminent it was killed in order to estimate the amount of glycogen in the liver, but this was too small for accurate estimation, although the loss of weight was only 6 per cent. Schiele, Langhans, and others having found considerable amounts of glycogen in tumours, especially when growing rapidly, it was sought to determine whether the rays had a definite glycolitic action or no. The liver of a fresh-killed healthy guinea-pig was therefore divided transversely; both parts were placed in the same chamber at the same temperature, but only one was exposed to the action of the rays (with the interposition of a thin plate of aluminium). The glycogen isolated from 100 gr. of the exposed liver was 3.17 gr., while from the same quantity of the part which had not been under the rays 3.63 gr. was obtained. Next, the blood from the carotid of a dog was allowed to flow into three sterilized test tubes. One was kept as a control test, the other two were submitted to the rays, one behind an aluminium plate, the other without interposition. All three were kept at a temperature of 20° C. After half an hour sugar was added to the three tubes. The reducing matter in the control tube was 0.66 gr.; the other two each contained 0.54 gr. Another more elaborate experiment showed the rays to cause a distinctly glycolytic power in the blood without inducing any change in polarimetric deviation. In other cases, however, the deviation has been sensibly increased. The pancreas of a dog was also used for experiment. The part exposed to the rays for one and a-half hour caused increased conversion of starch to sugar, the proportion of sugar to that in the control test being 471 : 413 after four hours' action upon the starch. In all the experiments it was found that the interposition of the aluminium plate prevented the oppressive lassitude and anorexia which the direct action of the rays tends to produce.

(114) The Effect of Certain Common Essences on the Cerebral Circulation.

By means of a series of carefully-devised experiments on dogs A. D'Ormea (*Arch. Italiennes de Biologie*, T. xl, Fas. 1) has discovered that the essences of aniseed, lemon, mint, cinnamon, and camphor, which are used not only as medicinal agents but also, freely, for flavouring purposes, have a very decided effect on the cerebral circulation, which is entirely independent of the general condition of the vascular system. All the essences mentioned produce a very decided fall in the blood pressure in the vessels of the circle of Willis at the base of the brain, whilst, at the same time, they cause a distinct rise of the subarachnoid pressure. They are not, however, equally potent, camphor being the most active; whilst aniseed and lemon are least active, and mint and cinnamon occupy an intermediate position. Although the effect of these commonly-used preparations is very evident they are none of them so powerful as absinthe, which had previously been investigated by Cavazzani, and which produces similar but more powerful results. The investigators believe that the results they have observed are due to the chemical action of the agents on vaso-motor centres which govern the vessels in the brain substance, and if this is the case it is obvious that the use of the essences should be carefully avoided in certain cerebral conditions.

(115) The Preparations of Valerian.

Many centuries ago Columella recommended the root of valerian for the treatment of epilepsy, and since that time one has learned that valerian preparations have a distinct pharmacological action. In more recent times, however, some observers have doubted whether this drug is of any practical value in the treatment of disease. M. Kochmann (*Deut. med. Woch.*, January, 1904) finds that the preparations are very unstable, and has inquired into the cause of the changes which take place. He states that the active principle is the oleum valerianae. This oil is gained from the dried root and in its fresh condition is yellowish or light brownish in colour, has a slightly acid reaction, and possesses a very characteristic, not unpleasant, odour. Old oil is dark brown in colour, is very acid, and has a very unpleasant smell. This change is due to the splitting up of the left bornyl-ester of acetic, butyric, and valerianic acids by the action of air and water into left bornyl and the volatile acids. Kochmann tested a variety of preparations, including the officinal oil, the tincture valerianae, tinctura valerianae aetherea, an infusion of valerian root (5 per cent.), Kneipp's tincture and the dialysatum radicis valerianae, and lastly diethyl-amide of valerianic acid (valyl). The tests were carried out by testing the reaction with litmus paper, then titrating with soda solution or sulphuric acid, the indicator being phenolphtalin;

then allowing 3 c.cm. of each preparation to be exposed to the air in open vessels for two days, and afterwards repeating the titration. The watery preparations were further subjected to the influence of a stream of air, sucked through the fluid by the water pump. The tinctures proved to most varying in their stability, and were all distinctly acid from the first; the oil and infusions, as well as the dialysate, also showed a considerable degree of variability, and isovalerianate of bornyl ester was also unsatisfactory. Valyl alone appeared to remain neutral and not to increase in acidity. Kochmann hopes that the reputation of valerian may be regained by the freer use of valyl.

(116) The Dry Mouth of Fevers.

A. H. Buckmaster of the University of Virginia (New York *Med. Journ.* and Philadelphia *Med. Journ.*, January 30th.) says that about ten years ago he saw a case of typhoid fever in consultation. It was suspected, at first, that the case was one of pelvic abscess, but when he reached the patient the symptoms were unmistakable. At that time the young woman was lying in a condition of semi-consciousness with a dry mouth and sores on the tongue, which was dry and cracked. The practitioner who asked him to see the patient complained that he knew no way of preventing this distressing symptom so often found in bad cases of continued fever. He had used the usual remedies but they were unsatisfactory. Since then the treatment by the cold bath has done much to prevent, but has not entirely prevented, the dry mouth. At the time Buckmaster suggested that, as the trouble arose from the weakness of the patient allowing the mouth to remain open, thus permitting evaporation from the moist surfaces of the tongue and buccal cavity, the use of an apparatus such as is customarily with a fractured jaw might, by keeping the mouth closed, relieve the trouble. Quite recently the doctor mentioned this case, and said that he had frequently made use of the suggestion with surprising success. Whenever, in such cases, the mouth became dry he used a wine cup and bandage under the lower jaw, and in a few hours relief was always obtained.

(117) Red Mangrove Bark in Leprosy.

Dyer (*Journ. Cut. Dis.*, [illegible], 1903) says that in 1899 P. [illegible] West suggested called attention to the use of this remedy, and A. [illegible] employed the special preparation of the bark, resulting in [illegible] Except in [illegible] ety, little attention [illegible] Within the past two years [illegible] Alleyne in Demerara [illegible] given the matter special attention [illegible] Vianna [illegible] this treatment. In the treatment Dyer with Muir believes that the [illegible] dent in early cases [illegible] to the [illegible] The [illegible] ployed are a very [illegible] the red mangrove (*Rhizophora mangle*), a fluid extract after [illegible] and salves made from powdered bark. The powder itself is employed in the baths. Ten grams of the extract are given night and morning, with a daily increase until 50 to 100 grams are taken each day. Duque is quite enthusiastic over the treatment, but no results have been published yet. A series of cases at the Louisiana Leper Home were put on dried extract of the mangrove bark in 1899, and this treatment was maintained for nearly two years, without result. It is fair to say, however, that there was no systematic observation of the cases at that time, and the treatment may have been irregular. It is proposed to essay a new set of cases, under strict observance of the Havana *régime*, both as to medication and bathing as well as diet.

PATHOLOGY.

(118) Congenital Torticollis.

Gallavardin and Lavy (*Lyon Méd.*, November 22nd, 1903) have recently made a histological examination of the nervous system in a case of congenital torticollis. Their patient died at 60 years of age from cancer of the œsophagus. He had suffered from torticollis since birth, the face being rotated to the left, and the right sterno-mastoid forming a hard, prominent cord. The right side of the face and head were atrophied, both the soft parts and bones being involved. At the necropsy a careful dissection showed that the sternal half of the muscle had undergone tendinous transformation throughout its whole extent, from the sternum to the mastoid process. It formed a large uniform cord, with no sign of localized sclerosis or cicatrix. The clavicular half had not undergone fibrous transformation, but was shortened and ill-developed or atrophied. Nothing abnormal was found on examination of the peripheral nerves, although the spinal roots, the trunk of the cervical sympathetic, and the sympathetic ganglia, upper and lower, were all examined under the microscope, but sections of the upper cervical portion of the spinal cord showed well-marked atrophy of the right anterior horn, the cells of which were much diminished in size. There were, however, no pigmentary deposits nor chromatolysis, nor signs of neuroglial sclerosis. There was simple atrophy without inflammatory signs. It would seem, then, that the changes in the sterno-mastoid and facial and cranial tissues were due to a primary medullary lesion, an anterior poliomyelitis. (The facial and cranial atrophy had been seen in syringomyelia involving chiefly the cervical cord.) But against this hypothesis it might be urged that there were no signs of old inflammation in the cord, and that the atrophy of the anterior horn might be retrograde or secondary to the muscular lesion. On the other hand, there were no inflammatory signs in the muscle itself, no [illegible] such as [illegible] would leave, and an absolute separation of the two halves of the [illegible] fibrous transformation, would be most improbable if a [illegible] had been [illegible] Again the involvement of the cranial [illegible] the right side argues [illegible] of primary medullary origin. The inflammatory changes of the cord might well leave little trace in sixty years, and, although the disease had always been attributed by the patient and his mother to instrumental delivery, it was not absolutely certain that they were really congenital. Even if the onset of the disease occurred in early infancy, it would bring the so-called congenital torticollis into very close relationship with infantile paralysis.

(119) Rhizomelic Spondylosis and Tuberculosis.

In 1898 M. P. Marie gave the name "rhizomelic spondylosis" to an affection characterized by rigidity of the spinal column with more or less ankylosis of the hip-joints and shoulder-joints. Pic and de Villiers (*Lyon Méd.*, October 4th, 1903) record two cases in which the symptoms correspond with Marie's definition. Their first patient, a man 44 years of age, had suffered from torticollis with radiating pain for four years. So localized was the pain on pressure that a diagnosis of caries was made and temporary relief was obtained from a support. The pain afterwards spread to the shoulders, the dorsal and lumbar regions, and to the hips. The spine became rigid and kyphotic, movement at the hip-joints and shoulder-joints became less and less possible, and the patient died from pulmonary tuberculosis. At the necropsy the intervertebral discs were found thinned and containing islets of bone. The hip-joints and shoulder-joints were the sites of chronic inflammation with bony overgrowth. In the second case the patient also died of pulmonary tuberculosis. At the necropsy tuberculous broncho-pneumonia was seen and also old-standing tuberculous patches. The spinal lesions were the same as in the first case, but there was true bony ankylosis of the hip-joints. The spinal curvature in this disease is more or less characteristic. The lower two-thirds are almost flat, at the junction of the upper and middle thirds is a sharp kyphotic curve, often associated with scoliosis. In both cases the hip-joints were involved before the shoulders, and at the necropsies their lesions were much more severe. The gait was peculiar, the patients walking with bent knees, and rotating the whole trunk at each step. In one case the pain persisted intermittently till the end, in the other pain was only a prominent symptom at the beginning of the illness. In neither case was there any history of gonorrhœa. One of the patients had had a chancre, but there were no signs of syphilis. In July of last year Poncet showed a man at Paris suffering, as he said, from ankylosing tuberculous rheumatism, whose skeletal symptoms were those of Marie's rhizomelic spondylosis, and he suggested that this last disease was a variety of tuberculous rheumatism. In the two cases recorded fibrous transformation was seen in various situations, such as the lungs, pleura, myocardium, and kidneys. No direct evidence of tuberculosis was obtained from the bone lesions, but it is at least possible that these lesions were the result of a fibro-formative evolution of chronic tuberculosis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(120) Exophthalmic Goitre.

P. Grocco (*Rif. Crit. di Clin. Med.*, January 2nd, 1904) discusses the cardiac symptoms of Basedow's disease with a special view to diagnosis. During the attacks of tachycardia, even in the earliest stages of the disease, dilatation of the heart is never wanting, though it may be transitory and very slight. It may be brought on, for diagnostic purposes, by slight fatigue, as in climbing steps or lifting a weight. In neurotic palpitation of the heart such exertion will not cause dilatation. There is usually an intimate connexion between the amount of dilatation and the degree of general asthenia, not necessarily between either of these and the severity of the tachycardia. Severe dilatation of the heart involves auricles as well as ventricles, and even when there is a relative insufficiency of the auriculo-ventricular valves the dilatation of the auricles may go beyond the natural consequences of such insufficiency. Rapid, intense, and transitory changes in the sounds and shape of the heart are a marked feature of the disease. In many cases the aorta is dilated, and the resonance on percussion over the sternum is diminished. The dilatation of the large vessels causes throbbing at the root of the neck, and arterial pulsation in the liver and spleen and under the nails. Very similar symptoms may also arise in this disease as a result of mitral incompetency. It is best not to make sure that the cardiac symptoms of exophthalmic goitre are permanent. In some cases they disappear completely. In other cases all the other symptoms may clear up and the heart remain hypertrophied, though free from valvular lesions. The disease is not unlikely to recur after an apparently complete recovery. From cardiac disease arising from other sources Basedow's disease may be distinguished, even in the infrequent event of thyroid enlargement and exophthalmos being absent, by the predominance of tachycardia and by the aspect of the patient, who almost always presents a characteristic look of terror, with agitation and psychical depression. Angina pectoris may be closely simulated, but Grocco has not met with true, typical angina as a complication of Basedow's disease. It is most important to distinguish exophthalmic goitre from chronic myocarditis, since the prognosis must be very much worse in the latter case than in the former. The sequence of events is different in the two cases, and rapid changes in the heart murmurs, the size of the cardiac cavities, and the resonance over the sternum are not found in simple degeneration of the heart wall. It must be remembered that rheumatic or other disease of the heart may complicate Basedow's disease, and the presence of one is an insufficient ground for affirming the absence of the other. It is also not improbable that Basedow's disease predisposes to endocarditis.

(121) Ehrlich's Dimethylamidobenzaldehyde Reaction.

In a short paper on Ehrlich's reaction Proescher gives a brief account of the work done by German observers and deals in more detail with the result of Papenheim's observations. (*Deut. med. Woch.*, December 3rd, 1903.) The urine contains a substance which gives the reaction in normal as well as pathological conditions, but the red coloration is always pathological. Papenheim considers that this substance is urobilin. The author points out that in a previous communication he stated that the reaction does not take place with any of the known constituents of urine. That it is not urobilin is proved by the fact that, extracting this by shaking the urine up with chloroform and testing, the urobilin-chloroform solution yields negative results. Again, if one saturates the urine, which has previously been acidified with hydrochloric or sulphuric acid, with ammonia sulphate, the precipitate will contain practically all the urobilin. After filtering the filtrate gives the reaction well, but the dissolved precipitate does not do so. This precipitate can be shown by chloride of zinc solution to contain urobilin (fluorescence). He further points out the errors of Papenheim's arguments. So far he has been able to show that the substance which produces the reaction is probably an acetyl-glucosamin; the pento-acetyl-glucosamin which can be obtained by allowing acetic acid to act on glucosamin does not give the colour change, but it drives off some of the acetyl by crystallization; the remaining fluid gives the reaction typically. Whether this is a mono or di-acetyl-glucosamin he leaves undecided until he has completed his researches on the subject.

(122) Chronic Polyarthritis.

Edsall and Lavenson (*Amer. Journ. of Med. Sci.*, December, 1903) investigated the suggested possibility that some cases of chronic rheumatism, arthritis deformans, and even conditions simulating acute rheumatism, might be due to a form of tuberculosis of the joints. By the use of tuberculin in 18 cases, including arthritis deformans and chronic rheumatism, results were obtained suggestive of the fact that tuberculosis was the cause in several instances. The frequent occurrence of pulmonary tuberculosis in the subjects of chronic polyarthritis and in the family history of such cases, together with several instances in which injections of fluid from such joints produced tuberculosis in guinea-pigs, point to the existence of certain relations between joint tuberculosis and chronic polyarthritis. In a series of skiagraphs obtained by other observers the characteristic points of rarefaction in the ends of the bones were considered as being identical with the condition found in tuberculosis of the epiphyses. In one case—an instance of Still's type of chronic polyarthritis associated with marked glandular and splenic enlargement—intense local symptoms in the joints followed tuberculin injections. From the further fact that the glandular enlargement, both in its situation and progress, was in apparent relation with, and followed the onset of, the joint disease, it was inferred that the latter condition was in close causative relation with the glandular enlargement, and that the same factor produced both. From this and other cases examined it seems probable that many cases of chronic polyarthritis of the type described by Still may constitute a peculiar form of tuberculosis of the joints; and if this be so the virulence of the affection would appear to be of a lower degree than ordinary joint or bone tuberculosis. In three other cases the effect of tuberculin was definite in its reaction either by the production of fever or by setting up marked pain and tenderness in the joints. The reactions in the other cases cannot be regarded as of the same importance from the point of view under consideration, since the existence of pulmonary mischief or the absence of joint symptoms negatived their value in this respect. Although healthy joints may become painful after tuberculin injections, thus showing that the development of a tuberculin reaction in chronic joint disease must not be regarded as conclusive, the authors consider that their observations in one marked instance point to the possibility of the reactions in the remaining cases being due to tuberculosis of the joints. The value of deductions from *x*-ray pictures are questionable, as it is exceedingly doubtful how much reliance can be placed upon such methods for a final proof of the presence of tuberculosis in bone.

SURGERY.

(123) Abscess of the Liver in Temperate Climates.

Vragnizan (*l' Policlin.*, An. 9, f. 51), whilst admitting the influence of hot climates in the causation of liver abscess, points out that the *modus operandi* is probably somewhat the same in hot and in temperate climates—namely, through the gastro-enteric tract. In hot climates abscess of the liver accounts for 5 per cent. of the total death-rates, whilst in temperate climates it is only from 0.66 to 1.55 per cent. In Dalmatia the author believes this percentage is higher, as he himself has treated some 25 cases. One of the chief difficulties in the diagnosis lies in the polymorphic character of the symptoms, depending as these do so much on the stage and situation of the disease. Increase in size in the liver, especially in malarious districts, unless the increase is rapid, is not of much aid in differential diagnosis. As for contraction of the right abdominal rectus, the author never observed it in a single case. Pain over the liver or in the right shoulder is not a constant symptom. Marked jaundice was only seen once, but there was generally some change in the complexion, which became earthy, pallid, or sub-icteric. Pyrexia was usually of the intermittent type. True rigors were never observed, but slight shivering was fairly common. As to the existence of the so-called hepatic cough the author is a little doubtful. In treatment the author prefers laparotomy in two stages, opening the abscess on the second operation some eight or ten

days after the preliminary opening of the abdominal cavity.

(124) The Surgical Treatment of Traumatic Haemorrhage of the Spleen.

Senn (*Jour. Amer. Med. Assoc.*, November 21st, 1903) points out that in the spleen as in the liver and kidneys the loss of blood in injury is more frequently due to parenchymatous and venous than arterial hæmorrhage. Reference to the recent statistical researches of Berger on injuries of the spleen and their surgical treatment, and a report of a series of experiments by which Senn has proved the haemostatic value of marginal crushing of wounds of this organ, are followed by a discussion of the different methods of dealing with splenic haemorrhage due to injury. Splenectomy, it is stated, is the operation of necessity in such cases if the organ itself is diseased or if the wound implicates the main trunk of the splenic artery. If the lower part of the spleen has been extensively crushed or lacerated, or if a transverse wound has divided two-thirds of the diameter of the organ, removal of the injured or partially detached portion of the organ is indicated. The amputation should be effected by crushing forceps, and the crushed tissue should be covered by omentum stitched over the raw surface with catgut sutures. Suturing as a means of haemostasis has had, the author asserts, a fairly good record and may be resorted to in appropriate cases. In bullet wounds a circle of through-and-through mattress sutures will usually succeed in arresting the flow of blood. Aseptic tamponade in cases of wound of the spleen meets with a decided disadvantage in the absence of an adequate resistance to pressure. It will prove of value if the haemorrhage be venous or parenchymatous, but cannot be relied on in the treatment of arterial hæmorrhage. The actual cautery has an exceedingly limited, if any, sphere of usefulness, as it is not reliable and may inflict serious damage on important adjacent structures. The author finds that the most reliable procedure in severe traumatic haemorrhage from the spleen in all cases in which the patient's strength can be saved is marginal crushing, followed by suturing the crushed margins with catgut. Sometimes an accident like the slipping of the forceps may prevent the forceps are applied, and the bleeding vessels in the crushed tissues are effectually occluded by the silkworm sutures, the occurrence of the bleeding being thus prevented.

(125) Sclerokeratitis Rheumatica.

Fuchs, Adam (*Wien. Klinische Rundschau*, No. 1, 1904) records a typical case of sclerokeratitis rheumatica in a healthy man, occurring simultaneously with sudden subjective symptoms. At first he was in doubt as to the nature of the disease, but treated the case as a rheumatic affection. He was only put on the track of their etiology by their marked reaction to large doses of the salicylates. The symptoms complained of in these cases vary from a slight feeling of a foreign body in the eye to the most acute ciliary neuralgia, in the same way the objective findings vary from slight perilimbal reddening to the involvement of the whole conjunctiva, in the latter case iritis was always present. The corneal opacities are found deep in the parenchyma, of porcelain-white appearance, old foci appearing to be more superficial, dull grey, and slightly excavated, simulating an ulcer, the epithelium over the affected part often has a stippled appearance. The foci approach the limbus, from which they are usually separated by a clear zone, over which fine vessels from the limbus are seen to cross. Either one focus is present, or several, which have a chain-like appearance, the single foci often confluescing. Fluorescin seems to have no certain colouring effect, and he quotes Pfalz, who says that in 4 of his cases, two only, which showed also hyperæmia of the iris were stained with fluorescin. These cases occur in damp and cold periods of the year, and tend to appear in damp localities. The disease seems to occur not only in rheumatic individuals, but also in otherwise apparently health persons, as result of sudden chill, etc. The average of the 13 patients was 50 years, only 2 patients being under 40. He concludes (1) that these cases present the clinical picture of sclerokeratitis described by Pfalz; (2) That salicin is to be recommended in these cases, also when the diagnosis is still doubtful, particularly when the patient is suspected to be a rheumatic subject.

(126) Gunshot Wound of the Brain.

At a recent meeting of the Medical Society of the State of New York, John A. Wyeth reported a case of gunshot wound of the brain (*Med. Rec.*, January 30th). The patient was a man of 23, who had received a pistol-shot wound of the head on August 11th, 1903. The wound was 1 in. to the right of the median line, and about the same distance from the junction of the interparietal with the fronto-parietal suture. No effort was made to locate or remove the missile. There was mental impairment from the time of the injury, and, on coming under Wyeth's observation five months later, he talked incoherently and was restless. The bullet was located. The skull was cut through just above the eyebrow, and a rubber drainage tube was inserted to drain an abscess that had formed. Although there had been considerable loss of the substance of the right anterior lobe, the man recovered promptly with only slightly diminished intelligence.

(127) The Surgical Anatomy of the Ductus Choledochus.

Pauchet (*Ann. de Méd. Navale*, November last) points out that the incomplete frequency of autopsies in connection with the rare cases in which the operation of an exact knowledge of their calibre. Some well-known anatomical authorities give no precise information on this point, and those give figures which differ widely. One only point on which they agree is that the cholédochus is the largest of the bile ducts. Padula states that for purposes of measurement it must be divided into three parts. The first part runs in the epiploon, forming the hepatic pedicle of Winslow, from the extremity of the hepatic duct to the posterior portion of the duodenum, and is called by Padula the epiploic or supraduodenal portion. The second or retroduodenal portion runs between the duodenum and the head of the pancreas, sometimes in a groove on the pancreas and occasionally in a canal through the substance of the gland. The third or transduodenal part runs in the wall of the duodenum. The first part of the duct is larger than the hepatic duct. It gradually diminishes in calibre, and the second part is as narrow as the hepatic duct or sometimes more narrow. The third part is as narrow as the cystic duct or sometimes more narrow. To be more exact, in a well-developed adult, the first portion attains, with the distention which produces injection on the cadaver, a diameter of seven or eight millimetres, or even eight and a half; the second portion does not surpass five, and the last does not surpass three and a half. These limits differ very widely from any of those quoted by Padula from other authors. Very exceptionally only in 3 cases out of 165 examined by him—the author finds that the epiploic portion of the ductus choledochus, of normal size at its commencement, may diminish gradually to a diameter of five millimetres. Thus the three determining causes of stoppage of a calculus in the ductus choledochus are: (1) Spasm of the sphincter of Oddi; (2) the calculus catching in a depression of the mucosa of the choledochus; (3) a reduction of the normal diameter of the duct.

MIDWIFERY AND DISEASES OF WOMEN.

(128) Inertia of the Uterus.

G. Balfour Marshall (*Journ. of Obstet. and Gynæc. of the Brit. Empire*, November, 1903) describes a case of complete inertia of the uterus occurring during the first stage of labour. The patient first came under observation in 1899, when the right annexa were removed for an unruptured tubal gestation, about the fifth week. She was at that time a woman of 32, who had been married six years, and was the mother of two children. She had three subsequent confinements. In the second of these the second stage was prolonged owing to inertia, and delivery was effected by forceps. In her last confinement, the one now under consideration, the membranes ruptured when the os was the size of a two-shilling piece and from that time there was cessation of pain with complete inertia, in spite of frequent hot douching. After twenty-six hours the cervix was dilated by a succession of Barnes's rubber bags, followed by Champetier de Ribes's bag, forceps were applied, and the child delivered. No chloroform was used for fear of *post partum* haemorrhage, and ergot was injected as the head was passing over the perineum. The uterus contracted well, and remained hard and contracted till after death; there was no *post partum* haemorrhage. The patient was exhausted, but not abnormally so after the termination of labour. An hour after birth she suddenly complained of a choking sensation, oppression in the cardiac region, and a great fear of impending death. The face became pale and covered with cold sweat, the lips blush, and the extremities cold.

Respiration was rapid and the pulse rapid, small, and feeble. In spite of treatment no improvement took place, and the patient died in about five and a-half hours. In considering the cause of death, it is to be remembered that the patient was in good health, and muscularly well developed; the uterine muscle had not been exhausted by frequent pregnancies; there was no obstruction to labour, and uterine fatigue did not play any part. Although deficiency of liquor amnii and dry labour, by permitting the uterus to contract on the fetus, may render it incapable of exerting its normal force, it is not easy to discover in this case the cause of the early rupture of the membranes, nor of the complete inertia. The diagnosis of the cause of death rests between shock, rupture of the uterus, and pulmonary embolism. Shock is excluded by the late onset of the symptoms. Rupture of the uterus in the absence of retractions could only occur through violence. This can be excluded, as neither the dilatation of the cervix nor the delivery presented special difficulty, and no tear was discovered when an intrauterine douche was given after labour. The symptoms were in the main characteristic of pulmonary embolism, in spite of the absence of air hunger. The last point of interest in the case is that the child suffered from slight intracranial haemorrhage, although the only visible injury was a slight bruising of one side of the scalp.

(129) Uterine Cancer and Vaginal Caesarean Section.

Orthmann (*Monats. f. Geb. u. Gyn.*, November, 1903) discusses at full length the question of uterine cancer and the merits and technique of vaginal Caesarean section. He demonstrates by numerous tables the relative merits of abdominal and vaginal section, and publishes full records of his own experience of the latter operation. It is not easy to come to any very definite conclusions, since the cases are seldom homologous, early pregnancy with incipient cancer being a very different condition from early pregnancy with advanced cancer and so forth, whilst the pregnancy itself may be quite normal in one instance and very complicated in a purely obstetrical sense in another. Orthmann points out the high fertility of cancer patients. In his own opinion in all cases where the vaginal operation is to be taken into account so far as the extent of the malignant disease is concerned, and where at the same time delivery through the natural passages is obstetrically possible, then that operation is the right course both as good surgery and good midwifery. In most cases, particularly in multiparae, simple opening up of the anterior wall of the uterus will allow of the delivery of the child even at term. Turning and extraction are the best means of ending the obstetrical stage of the operation. Excellent results follow the subsequent immediate removal of the uterus through the vagina, provided the cancer is limited to the portio or only involves a small area of the cervix. But in all cases of advanced cancer of the cervix preference must be given to the old abdominal operation.

(130) Hernia of the Ovary.

Schnitzler (*Zentralbl. f. Gyn.*, No. 51, 1903) recently exhibited before a society in Vienna an ovary and tube with strongly twisted pedicle discovered in the sac of a left inguinal hernia. It was compared with similar cases reported by Lockwood and Edmund Owen. The patient was a girl aged six months when the operation was performed; the case was not of the type where hermaphroditic malformation is present. Shortly after birth the rupture was detected; it ultimately became irreducible. A radical operation was performed; the ovary being sloughy was removed with the tube. Wertheim, in discussion on this case, related another where a young woman suffered for several years from bad pains in the right iliac fossa. He found the right ovary extremely tender and much displaced forwards, yet deep in the pelvis, and advised the patient to send for him when a bad attack of pain came on. She sent for him accordingly, and he found the ovary greatly swollen. The attacks grew so distressing that she begged for operative relief. Wertheim operated, and found the ovary incarcerated in a serous pouch behind the broad ligament. He drew it out and sewed up the pouch. Three periods occurred after convalescence whilst the patient was still under observation, and contrary to what had been the case before operation they were unaccompanied by any pain.

(131) Obstructions to Suckling: Imperfect Nipples: Cyst of Nipple.

Bouffée de Saint Blaise (*Comptes Rendus de la Soc. d'Obstét., de Gyn., et de Péd. de Paris*, vol. v., 1903) writes a full clinical report of a woman, aged 37, delivered of her fifth child. An abscess developed in the right breast at the sixth month of the fifth pregnancy. That breast, however, had never discharged its functions, but its fellow, though never the seat of abscess, was also useless for suckling. Milk filled both after each pregnancy, and the right breast had already suppurated twice. On further inquiry it transpired that this patient had been warned before the birth of her first child, by her own mother, who had borne ten children and suckled them all from the left breast only. The patient herself had given up all attempts to suckle after her second pregnancy. The nipples were retracted, yet easily drawn out, not a trace of any duct orifice could be detected on the right side, but one, and one only, was discovered in the left nipple, a little milk exuding after firm pressure. The breasts were strapped and their secretion suppressed.—Lepage (ib.) reports a case where a primipara, aged 29, was unable to suckle from the right breast. A pedunculated papilloma two-fifths of an inch in length was attached to the inner aspect of the nipple. The infant insisted on drawing it, and not the rest of the nipple, into its mouth. The tumour was therefore excised under chloride of ethyl analgesia, and the child afterwards took the nipple naturally.

(132) Twin Tubal Pregnancy.

Lucas-Championnière (*Rev. de Gynéc. et de Chir. Abdom.*, July-August 1903) operated on a doubtful case of abdominal effusion, suspected to be appendicitis. No distinct swelling could be detected in the region of the uterine appendages. A quantity of blood was found free in the peritoneal cavity; then a tubal sac was discovered. It was not ruptured, but bled freely from its surface. In raising it laceration occurred and a pair of fetuses escaped. The sac was removed, The patient recovered.

THERAPEUTICS.

(133) The Treatment of Cancer by its own Toxin.

At a recent meeting of the Medical Society of the State of New York, P. J. McCourt (*Med. Rec.*, January 30th) read a paper on this subject. He said that the method of preparing this toxin had been described by him in a paper read in November, 1899. In cases of cancer death commonly resulted from a toxaemia produced by the cancer cells. The accuracy of this statement, he declared, was attested by a very large number of cases. In his first communication he had made no claims further than that this treatment afforded marked relief. Since that time he had furnished the toxin to practitioners applying for it in all parts of the world. All stimulants, and especially malt liquors, were poison to the cancer patient, and served to hasten the fatal climax. The diet should be carefully regulated, and but little meat should be taken. A suitable dose of the toxin was usually administered morning and evening when the stomach was empty. It produced the following effects: (1) Diuresis and the discharge of much fetid dark urine; (2) local exudative erythema; (3) diarrhoea, and (4) diaphoresis. There was rarely elevation of the temperature, and all symptoms were markedly relieved in a short time. In 5 per cent. of advanced and extremely malignant cases this method of treatment was entirely valueless; 90 per cent. were relieved of pain, fetor, haemorrhage, insomnia, vesical and rectal tenesmus, etc., general improvement occurred and life was materially prolonged. In 14 per cent. of the cases indurated glands had become normal, ulcers had healed, body-weight had increased, there had been complete cessation of objective and subjective symptoms, and the patients were apparently cured.

(134) Antithyroid Serum.

Jean Lépine (*Lyon Méd.*, November 29th, 1903) has obtained a serum for the treatment of Basedow's disease by a method analogous to that used in the preparation of antidiphtherial serum. The serum obtained from thyroidectomized animals by Burghardth and Blumenthal and others has caused distinct amelioration of the symptoms of certain patients suffering from hyperthyroidism, but it has not been very satisfactory, and has caused serious symptoms when given in large doses. Lépine attempted to immunize a goat by feeding it with gradually-increasing quantities of the thyroid gland of a sheep or another goat. Injections of the triturated gland were also tried, but were discontinued on account of the impossibility of securing asepsis. It

...ly [illegible] enough to begin with four ... at a time, thyroid to the mouth, ... three days. Large ... caused diarrhœa, tachycardia, exophthalmos, and dyspnœa. After several months the animal could ... to the ... of the gland without suffering from any poisonous symptoms. The serum obtained from the goat was then injected into the ... tissue of a dog. In doses of ... it caused diminution of the excretion of urea and increase of weight. When 20 c.cm. were given ... was observed, with loss of ... and slight slowing of the heart. The temperature was not ... Even after large doses the toxic symptoms were not comparable in severity to those caused by the serum of thyroidectomized animals.

(135) The Treatment of Fever in Phthisis.

H. L[EICHS] (*Zeit. f. Tub. und Heilst.*, Bd. V, Heft 2) emphasises the importance of absolute rest in bed in the treatment of fever in phthisical patients. It has been proposed to employ antipyretics to reduce the temperature, and to then allow a limited amount of movement. At Hälsä in Finland when this course has been adopted even to the extent of allowing the patient to sit in the open air during the day, the influence on the temperature has been less and the daily ... has been greater. Whatever ... may be whether the patient has got such absolute rest during the day as whether the sharp ... is due to which he is exposed, it ... clearly. At any rate that he is better in bed in a ... ventilated room than ... in the open air. A great ... in the progress of phthisis is the ... of lung tissue involved, a ... termination being possible ... the formation of a cavity if ... inflammatory process ... The importance of a ... temperature is very great, ... it is the guide of an active ... Motion on the part of the patient tends to the spread ... process, and it is well worth ... by keeping the patient in bed even ... the ... to ... its limit. ... ordinary ... and ... are not ... Cases are ... and ... ... The ... with diluted ... ally useful and ... [illegible] ... The ... in ... ...

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(139) Spasmodic Croup in Children.

CERTAIN local cramps in children are regarded by some observers as being nologous to tetany in adults. A. Japha eals with this subject in the *Berl. klin. Woch.*, December 7th, 1903). After total xtirpation of the thyroid gland, and in onsequence of severe motor disturbnces of the stomach, adults sometimes xhibit tetany, which is evidenced by ramp attacks affecting the hands and eet, and between the attacks by the so-alled latent symptoms. These latent ymptoms are divided into three groups 1) Chvostek's phenomenon, which consists in a contraction of the muscles of he face on the same side, and at times n the opposite side also, after percussion of a branch of the facial nerve elow the hyoid bone; (2) Trousseau's henomenon, which consists in the production of the "gynaecological" position of the hand after pressure on the nternal bicipital groove; and (3) Erb's henomenon, which consist in the increased irritability of the nerves to lectric currents. The reasoning for onsidering spasmodic croup of children s a tetany is that these local cramps, general convulsions, and croup accompany one another as the nervous symptoms of rickets. Much difference of opinion has been expressed as to the correctness of this view, and several eminent observers refuse to regard any case without the manifest cramps as tetany, even when the three classical symptoms of latent tetany are present. Of the last-named symptoms, the facial phenomenon is without doubt of the least diagnostic importance, and it may be met with in other conditions. Most authorities regard Erb's phenomenon as more important than the median nerve reflex, and Japha therefore turns his attention especially to it. It is not all easy to determine whether the irritability of a nerve to electrical stimuli is increased or not, since it is not fair to compare the results with various faradic apparatus and with galvanic currents, taking the kathodal closing contraction (KCC) as the test, not only will very weak currents elicit a contraction, but normally the strength will be found to vary within wide limits. Mann and Thiemich have offered a solution to this problem by showing that there is a law of contractions: if one places one electrode of a galvanic current on the sternum, as the "indifferent" electrode, and the other on the nerve as the "different" electrode, and passes a very weak current through, one will be able to determine the time when a contraction is only obtained on closing the current when the different electrode is represented as the kathode. On increasing the strength of the current one obtains an increased kathodal closing contraction (KCC), and also an anodal closing contraction (ACC); when the current is still further strengthened there is added an anodal opening contraction, and, when it is still further increased, a kathodal opening contraction as well. The order of the law of contraction is therefore: KCC, ACC, AOC, KOC. They found that in tetany at times the AOC appeared before the ACC, and, more frequently still, one obtains a KOC with quite weak currents. There can be no doubt that there is increased electric irritability when a KOC is obtained by currents of under 1 milliampère. Japha tested all the cases of children whose mothers stated that the child had suffered from croup, numbering 119 in all, and found increased Erb's phenomenon in 71 per cent.; but, since some of these must be excluded from belonging to true cases of spasmodic croup, he estimates that the real percentage will lie between 80 and 90 per cent. In order to give this find a good ground he tested normal children, and found that among 304 17 per cent. only showed any departure from the contraction law. He, however, points out that many of the children had suffered from various nervous disorders, and that some of them may, perhaps, have been disposed to a form of tetany. With regard to Trousseau's phenomenon, he found that only 44 per cent. of the children suffering from spasmodic croup whom he examined for it showed the peculiar position of the hand, and states that in 22 per cent. of the children there was a spontaneous "gynaecological" position of the hand. In dealing with the pathogenetic conditions of spasmodic croup he states that very little is known as to the actual causes of it, but as the attacks are most frequent in winter time, when the hygienic house conditions are at their worst and the disease is only met with in children who are fed on cow's milk, one can assume some causal connexion between these factors and the disease. The cramps often disappear rapidly on stopping the milk from the diet, and, with careful dieting, one may succeed in preventing a recurrence of the symptoms. The influence of the diet appears, however, only to make itself evident secondarily in response to a functional disturbance of various organs.

(140) Blood Changes in Dementia Paralytica.

DIEFENDORF (*Amer. Journ. of Med. Sciences*, December, 1903) gives the results of regular and systematic microscopical examinations of the blood in 11 cases of dementia paralytica. The haemoglobin was uniformly estimated with a Fleischl's haemometer and the erythrocytes counted with a Thoma-Zeiss haemocytometer, and the greater part of the work was done by one observer. The examinations were made weekly and sometimes biweekly, at the same time of the day, upon the same day of the week, the diet of all the patients being uniform. The haemoglobin in all the cases showed a moderate anaemia, becoming more marked as the disease advanced. During the terminal state the average percentage was higher than during the immediately preceding period. The erythrocytes showed a normal average in nearly all the cases, and in no instance was there an average subnormal count, though occasionally the number of cells sank to a low normal. During the period immediately prior to the terminal state the erythrocytes tended to sink, but during the terminal state a marked rise was noted which was even greater in degree than that seen in the haemoglobin during that state. Observations upon the relationship between the condition of nutrition and the number of erythrocytes showed that the slight diminution in the number of cells corresponded as the disease advanced with the gradual loss of weight, but in the terminal state, when the loss of weight was exceedingly marked, the number of cells increased considerably. The examination of the leucocytes did not give any uniform results. In three of the cases a gradual fall was noted, while in three others in which they were low at the time of the first examination they remained low, and in three more they varied during the whole period. In all these cases, however, a rise in the number of leucocytes, amounting in most to a leucocytosis, was recorded during and immediately preceding the onset of the terminal state. In examining the percentage of the different forms of leucocytes by differential counts a uniform pathological increase of the polymorphonuclear variety occurred in all but one of the 11 cases. This increase was most pronounced during the terminal stage with the exception of one case, in which it was at its height during a stage of excitement some months before, though in this case the average highest percentage occurred during the terminal state. The progressive moderate anaemia, involving especially the haemoglobin, and the tendency to a polycythaemia and an increase in the percentage of the haemoglobin in the terminal state were the conditions of most importance noted; while of the pathological conditions in the leucocytes the most important were the appearance of a terminal leucocytosis and the presence of a leucocytosis in paretic attacks of an epileptiform nature, together with the uniform increase throughout the disease of the polymorphonuclear variety. The presence of a leucocytosis in the terminal state and during paralytic attacks suggests the toxic origin of the disease.

SURGERY.

(141) Diseases of the Knee.

A. HOFFA deals with some of the more common diseases of the knee-joint, which have one symptom in common, on account of which the patient usually seeks advice, namely, pain in the knee (*Berl. klin. Woch.*, January 4th and 11th, 1904). The conditions were formerly classified together under the collective name of joint neuralgia. The first condition is arthritic muscle atrophy. Typically the patient is a strong, otherwise healthy man, who has fallen on his knee, and a bloody effusion takes place into the joint. The knee becomes swollen and very painful, and is treated by rest and applications. After about a week he is able to resume his occupation, but still has pain in the joint. In spite of bandaging, massage, and the like, the pain does not disappear. On examining the joint at this stage one finds that there is no inflammation, and indeed is objectively absolutely normal.

On turning one's attention, however, to the condition of the extensor muscles, one finds a very marked atrophy of the quadriceps. The rectus femoris appears to be mostly affected, and is not only smaller than the corresponding muscle on the unaffected side, but is very much weaker. The quadriceps extensor is the muscle which renders the capsule of the joint tense, and when this set of muscles is affected the capsule becomes slack. In this condition the capsule is frequently jammed between the patella and condyles of the femur or between the condyles of the femur and of the tibia. This jamming of the capsule is the cause of the pain. The treatment consists in the application of massage and gymnastics to the quadriceps. As a result it is possible to cure the condition in about six weeks. Hoffa emphasizes the importance of examining to examine the condition of the quadriceps in cases where the patient complains of pain in the knee-joint. The next affection of the knee-joint is the so-called internal derangement, in which the articular cartilages [illegible] away from their attachments. It is rare that the cartilages are dislocated, or, to speak more correctly, displaced, after a trauma of the ligaments. The most common is the detachment of the anterior portion of the inner cartilage. As a rule, the trauma which leads to the condition is not very severe, and generally takes the form of a sudden rotating movement. At times a series of slight injuries lead to it. The typical condition is that the patient experiences pain at the time of the accident, and the joint swells and becomes useless. The leg cannot be fully extended, and the patient walks on his toes. On the outer or inner side of the joint he finds an elastic soft swelling, which is very tender to pressure. On applying rest, massage, and cold applications the joint [illegible] and the swelling disappears, but the joint does not become normal. Attacks of pain and effusion in nothing take place from time to time. On examining the joint [illegible] it appears as if [illegible] ought to be artificially created, but it will be found that the [illegible] cannot be flexed, and the [illegible] pain in the [illegible] [illegible] in the case of displacement of the [illegible] and [illegible] in the case of displacement of the outer cartilage. On palpating the space between the condyles of the femur and tibia one finds that the spot in which the [illegible] [illegible] to bring it [illegible] This [illegible] is [illegible] and of great diagnostic importance. Mostly [illegible] [illegible] upon a [illegible] [illegible] which [illegible] [illegible] [illegible]

before the development of ascites, and for the splenomegalic cirrhosis of the Popoff-Gilbert type.

MIDWIFERY AND DISEASES OF WOMEN.

(143) The Treatment of Post-partum Haemorrhage.

DURING the last thirty years new theories and new methods of treatment have been freely brought forward with regard to *post-partum* haemorrhage, but nearly all of these have been found to fail just when the practitioner is most in need of a reliable method of treatment. H. Fritsch describes the methods which he has employed during the past thirty years which have always stood him in good stead, and warmly recommends them to the general practitioner (*Deut. med. Woch.*, January 1st, 1903). In the first place, one must be able to distinguish without loss of time whether the haemorrhage is due to uterine atony or to tears. In the first case, he states that one can do much prophylactically. If the uterus is pressed on or massaged immediately after the birth of the child one must expect that the placenta will be partly detached and therefore the conditions for *post-partum* haemorrhage will be present. Still, in certain cases one will not be able to avoid it. Bleeding from atony is particularly dangerous in those cases where we are called in after the baby has been born, and where the midwife has been clumsy or impatient in trying to get the placenta away. One sees the patient lying almost bloodless, and on making the attempt to express the after-birth one is surprised that it comes away so easily. It had become detached in the interval since the midwife has been expressing. At times one has to insert the hand, but one rarely finds any difficulty in delivering the placenta. The high degree of anaemia has rendered uterine contraction almost impossible, and if one attempts to apply massage, cold, or ergotin the patient will probably die. The haemorrhage is the cause of renewed haemorrhage. Fritsch recommends the following method for these cases: The hand is pressed between the recti muscles in a sort of massage like manner, and the uterus is caught hold of. The blood which it contains is already lost for the patient, and must therefore be expressed. One then brings the uterus forwards by pressing both hands behind it, and forces it into a position of anteflexion, over the symphysis pubis. In this way there will be a deep funnel-shaped hole behind the uterus, into which one packs towels, or balls of wool if one has it at hand. A binder (a bandage) or two towels fastened together are then very tightly applied, so that the pad is firmly driven downwards, while the uterus is held in front of the pubes by the same bandage. It is impossible for any further bleeding to take place while the binder lies *in situ*. After twelve hours it can be taken off, when it will be found that the vessels have thrombosed. The patient does not attempt to move; she has the fear of death on her, and as a rule her sensorium is affected. The head is kept low, and the foot of the bed is raised. Hot-water bottles, ether, camphor, and saline fluid injection can be carried out without disturbing the position; and later, if there is need, the catheter can be passed. In pointing out the advantages of this method, he says that the pressure on the abdomen answers better than temporary pressure on the abdominal aorta, and then bandaging of the legs. (2) The bleeding cannot return, since the cavity of the uterus does not exist as long as the binder is in position. (3) Tamponade is by no means easy, and in the hands of an inexperienced practitioner the patient will often bleed to death before he has been able to pack the interior of the uterus. (4) One loses no time in disinfecting since the whole of the method can be applied from without. (5) After the binder and pad are in place, the patient is not disturbed. (6) Since one does not work through the vagina, there is no risk of sepsis. Lastly, there is no need of an after-treatment. On taking the binder and pad away, the uterus falls into its place. The second cause of *post-partum* haemorrhage is laceration. This can be recognized without difficulty, for the bleeding takes place directly after the birth of the infant. The uterus is small and hard, and one can often feel the sudden giving way of the uterus during the birth. Fritsch has not found suture reliable in these cases, and explains the reason of this. The tear is not only in the cervix; it extends far into the parametrium, and sometimes creates a very deep cavity, in which large vessels are torn across. To pull the cervix down by vulsella and to suture the tear in the cervix must be useless, for one cannot pull the parametrium down at the same time. Plugging, too, cannot reach the bleeding vessels, and therefore will prove useless frequently. In these cases he applies double pressure. First, he expresses or extracts the placenta, which is always easy in these cases. As soon as the after-birth is delivered, he presses with the right hand firmly on the antiflexed uterus as deep into the pelvis, until all coagulum is expelled; then he forces the labia majora with the left hand as far as possible upwards toward the sacral prominence, as if he wished to push the whole of the pelvic floor into the cavity of the pelvis. In a woman, who has just been delivered, it will be found quite easy to apply the pressure from above and from below, so that no further bleeding can take place. The left arm can rest on the bed and will not tire easily, but if the right hand finds difficulty in keeping up the pressure, the nurse or some other person can be instructed to press with both hands on the practitioner's right hand. It does not matter if the tear is situated to the right or left, one must always press directly in the middle line. After half, three-quarters of an hour, or even longer, the pressure is gradually taken off. The right hand is first taken away, and it will be found that the uterus remains lying low down, and that the bleeding has ceased. In the place of the hand, one places a sandbag or some other weighty substance, of about 3 kilos. The patient is kept quite still and then the left hand is taken away. No after-treatment is required, and it will be found that even enormous haemorrhages can be stopped almost at once by this method, not to recur again.

(144) Interstitial Pregnancy and Ovarian Tumour.

SIPPEL (*Monats. f. Geb. u. Gyn.*, December, 1903) diagnosed interstitial or tubo-uterine gestation before rupture and operated. The patient had twice been pregnant, labour being normal in both cases. When a period was fourteen days overdue she believed that she must again be pregnant, and complained of severe pains in both iliac fossae. Examined under anaesthetics the uterus could be felt to be somewhat enlarged, a tense elastic tumour as big as a hen's egg lay on its right side. A prominence of the size of a cherry could be defined on the left cornu and was taken to be a myoma; the tube could be felt running from it, and the left ovary was in its normal situation. The diagnosis was left tubal gestation, with haematoma (*sic*), fibroid in the left cornu. At the operation the left tumour was found to be a unilocular ovarian cyst, and the swelling in the left cornu an interstitial pregnancy. Both tumours were removed, the fetal sac being detached by a wedge-shaped incision in the cornu; the ovum lay in a dilatation of the uterine portion of the Fallopian tube. Sippel remarks that had exploration been practicable without narcosis, the tense ovarian cyst might have been correctly diagnosed, since it would not have been tender to touch like a tense tubal sac.

THERAPEUTICS.

(145) The Treatment of Lupus and Malignant Growths by High-frequency Sparks.

H. STREBEL reports on his method of treating lupus by continuous, high tension, high-frequency spark currents, which he believes causes a molecular disintegration of the growth (*Deut. med. Woch.*, January 7th, 1904). Several investigators, especially French, have attempted to treat lupus by means of high-frequency currents, but have not obtained definite results. Strebel, however, has modified the method and has obtained excellent results. He uses a large induction machine, such as is employed for Roentgographic work; the secondary current is directed to the usual primary solenoid; and from thence to a properly constructed resonator. He lays great stress on the last item. The sparks obtained from his apparatus flow almost continuously, and as soon as the electrode is approached to the skin of the patient long sparks pass. These are of no value, but the sparks which he uses are obtained when the point of the electrode is within 1 mm. or 2 mm. from the skin. After about five seconds, a white spot appears on the treated portion of the skin, the epidermis becomes raised, at times cracks, and any visible blood vessels disappear. He applies the sparks for about ten to twenty-five seconds. The patient feels a sharp burning of the part, but this pain is not of such a character to necessitate any local or general anaesthesia. On the following day, the skin will be found to

have been tested and an artificial ulcer will have formed. The inflammation is [illegible] and lasts for about three weeks and resolves in the formation of [illegible] tissue. He claims to have obtained excellent curative and cosmetic results not only in lupus vulgaris [illegible] but also in [illegible]. In a very few words he mentions that he has further tried this treatment on malignant growths, but that his investigations in this direction are not yet completed. He finds that an enormously powerful [illegible] is necessary for these experiments, the usual induction machines even with long spark lengths being unsuitable.

(146) Cataphoresis in the Local Treatment of Diseases of the Stomach.

Ferranini (*Il Morgagni*, January 4th, 1904) commences by some remarks on the relatively little importance of a drug which appears to be wasted as compared with the small percentage of it to which the improvement in the local conditions may be attributed. has tried to increase the local action of drugs by cataphoresis, and for this purpose took diseases of the stomach as [illegible]. Cataphoresis consists in the transmission of [illegible] by means of the electric current from the positive to the negative pole. The ordinary electrical [illegible] was used, the oval end was connected with the positive pole, whilst the negative pole was applied to the sternum by means of a large [illegible]. A [illegible] was the strength of the current, and the application lasted from five to ten minutes. In some preliminary experiments a solution of [illegible] (1 grain in 100 water) was injected into the stomach, care being taken that none got into the mouth, and the influence of electricity on the [illegible] was noted. It was constantly found that [illegible] absorption was much quicker—for example, [illegible] could be detected in the saliva five minutes after injection into the stomach when electricity was used, whereas without electricity it appeared only after [illegible] minutes. [illegible] were obtained in patients [illegible] one case with [illegible] of hydrochloric acid, [illegible] ordinary treatment [illegible] two cases [illegible] Cataphoresis was also employed with [illegible] and hypophosphites.

(147) The Serumtherapy of Plague.

[illegible] the [illegible] Congress of Internal Medicine [illegible] the treatment of plague by serum [illegible] of the [illegible] twenty-four hours [illegible] this means [illegible] of [illegible] [illegible] [illegible]

AN EPITOME
of
CURRENT MEDICAL LITERATURE.

MEDICINE.

(151) The Symptomatology of Dyspepsia.
Campanella (*Gaz. degli Osped.*, October 11th, 1903) divides the symptoms of dyspepsia into three groups: (1) Chemical: for example, hyperchlorhydria and hypochlorhydria, achlorhydria, and organic hyperacidity. (2) Neuromotor symptoms: for example, vomiting, pyrosis, cramps, tormina, eructations, atony, and insufficiency. (3) Sensory: for example, gastralgia, hyperaesthesia, anaesthesia, nausea, and anomalies of the appetite. In hyperchlorhydria starchy foods are slowly digested, whilst albuminoids are rapidly consumed; hence albuminoid diet eases these patients; whilst on the other it aggravates pyrosis and the gastralgia of fermentation. Gastralgia is usually aggravated by taking food, whereas in hyperchlorhydria food often gives temporary relief. Myalgia has to be differentiated from true gastralgia. Asthenic dyspepsia is essentially characterized by a sense of fullness and tension, with pains in the epigastrium and general torpor. Gastric distension tends to work upwards against the thorax, whilst in gastric dilatation the tendency is downwards. The specific characters of hyperchlorhydria are abundance of gastric juice, little mucus, few alimentary residues, no fermentation, appetite unimpaired, but pain and epigastric fullness. In gastro-succorhoea the gastric juice is increased in amount, there are frequent fermentations, polydipsia, hyperorexia, intense pain reaching its maximum intensity (in the shape of colic) at the end of digestion, dilatation, meteorism, and hyperaesthesia. In hyperchlorhydria or achlorhydria fermentations are excessive, the mouth is slimy, there is a bitter taste and foul breath, vomiting is severe, diarrhoea or constipation, and the food is slightly digested or not at all. In organic hyperacidity the symptoms are very much like those of hyperchlorhydria, but the burning sensation and the pyrosis are more marked. Pain is spasmodic and often accompanied by vomiting. It is in this form of dyspepsia that examination of the gastric juice is most useful.

(152) Gastroptosis.
Steele and Francine (*Univ. of Penn. Med. Bull.*, December, 1903) give the results of two years' experience in gastroptosis embracing observations upon over 100 cases. Their data were based upon a series of 28 cases which have been kept under observation for a year or more. The position of the stomach in every instance was determined by inflation with air and the chemical analysis of the gastric contents was confirmed by several examinations after test breakfasts and test meals. Gastroptosis appeared to be directly responsible for the symptoms in 11 of the cases since downward pyloric displacement was the only lesion discoverable and external mechanical support alone gave relief. In these there was found a moderate diminution of hydrochloric acid secretion, the stomach being free from organic disease and presenting no dilatation or impaired motility. The symptoms were those of malnutrition, gastric fermentation, frontal headache, and a sense of dragging and lack of support in the abdomen. The condition, may, however, be entirely unaccompanied by symptoms, the downward displacement of the pylorus being incidentally discovered during a routine examination. It may also form part of the symptom-complex of other morbid states: for example, gastric neuroses from nerve exhaustion, gastric motor insufficiency and dilatation, and passive congestion of the stomach from weakness of the cardiac muscle; and in such connexion its importance as a complication was shown by the great relief afforded by mechanical support. All the primary and uncomplicated cases were distinctly improved and remained practically free from symptoms for more than a year. In these cases no other treatment was adopted beyond external support with the exception of a suitable diet and attention to the bowels, cascara being given when needed, and hydrochloric acid or an alkaline antiseptic mixture to check any excessive fermentation, but drugs were used so little that the improvement could not have been due to their employment. In 18 cases where the condition was merely a part of the symptom-complex of other morbid states relief was obtained by mechanical support, but it was found that, although this was effectually applied over long periods, averaging 17 months, the stomach was not permanently restored to its normal position. In two cases, however, the belt was discarded at the end of a year without a return of the symptoms, and in these cases it is probable that, although displacement still existed, a compensatory change had been brought about, enabling the stomach to perform its function successfully.

(153) Venous Pulse in the Forearm in Cirrhosis of the Liver.
Hitschmann (*Zentralbl. f. inn. Med.*, January 16th, 1904) has frequently observed that the subcutaneous veins of the forearm in cases of atrophic hepatic cirrhosis pulsate vigorously. The pulsation is synchronous with the cardiac action. Inspiration produces marked collapse of the vein, and there is a negative venous pulse. This applies also to the jugular veins. The phenomenon may be temporary or may persist during the whole course of the disease. It is most marked in the cutaneous veins on the radial side of the arm. If it temporarily disappears it can be made to return by warming the arm or allowing it to hang by the side until the veins become distended. Aspiration of ascitic fluid has practically no influence on it. The variety of cirrhosis is immaterial, and a venous pulse may occur in alcoholic, syphilitic, or cardiac cirrhosis in the atrophic stage. It is, therefore, probably due to a modification of the venous circulation by pressure on the portal vein at the porta hepatis.

(154) Leukaemia.
G. Banti read a paper on leukaemia before the Congress of the Italian Society of Pathology, October, 1903 (*La Sperimentale*, Fasc. vi, 1903). He classifies the disease as lymphatic and myelogenous. With regard to lymphatic leukaemia, he states that there exists in the lymphatic organs a lymphadenoid tissue, atypical both in the quality of its cells and the character of its reticular formation. This invades other organs, while the follicles with their germinating centres atrophy and disappear. It invades the capsule of the gland and then the periglandular tissues. It invades the walls of the blood vessels, at first only up to the endothelium, but it afterwards penetrates the endothelium, and its cellular elements mingle with the normal elements of the blood. We find, also, a true metastasis of this lymphadenoid tissue in parts where normally no lymphatic tissue exists. By the atypical character of this lymphadenoid tissue, which is substituted for the normal lymphatic tissue, by its tendency to invade neighbouring tissues, by its invasion of the vessel walls and destruction of the endothelium, and by the existence of metastases leukaemia lymphatica presents the morphological characteristics of neoplastic rather than of hyperplastic growth. Similar statements may be made with regard to myelogenous leukaemia. The myeloid tissue existing first in the medulla of the long bones, and afterwards in other organs is usually atypical, both in its cells and its reticulum. There is invasion of the vessel walls, and the penetration within them of myeloid elements. These, transported to other organs, determine the production of metastatic foci of myeloid growth. Thus the extra white cells circulating in the blood are not lymphocytes or myelocytes, but neoplastic sarcomatous cells, and the author defines leukaemia as a systematic lymphadenoid sarcomatosis of the lympho-poietic and haemopoietic organs. The author states that leukaemia is one of the infective diseases, but he offers no opinion as to its etiology, his researches having hitherto been without result. Banti defined, also, a pseudo-leukaemia, lymphatic and myeloid, differing from the true leukaemia only in the fact that the newly-formed lymphadenoid or myeloid tissue may invade the vessel walls, but does not pass the endothelium, and there is, therefore, no excess of white cells in the circulation.

SURGERY.

(155) Drainage of the Pericardium.
Mintz (*Zentralbl. f. Chir.*, No. 3, 1904) states that resection of the fifth costal cartilage for the exposure and incision of the pericardium in cases of suppurative pericarditis fails to afford efficient drainage, as the opening in the thoracic wall does not correspond with the lowest part of the pericardial sac. Dissections of this region in a large number of subjects, of varying ages from 9 to 70 years, have convinced the author that by the following method the heart can be readily and promptly exposed without wounding of the pleura

(156) Rectal Exploration in Fracture of the Acetabulum.

(157) Removal of the Prostate.

(158) Accidental Wounding of the Inferior Vena Cava in Nephrectomy.

HARTMANN (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 2, 1904) publishes a case in which in the course of removal of a large suppurating kidney by the anterior and transperitoneal method the vena cava was accidentally torn across its right lateral margin. During the hæmorrhage which immediately followed the digital pressure the author found that the tear, which was about 1 cm. in length, was situated about 2 cm. from the renal pedicle. The vena cava was then pressed above and below the wound in its wall. The patient, who was a man of 40 years of age, made a good recovery. Slight thrombosis occurred in the ensuing 24 hours, but there was no embolism. The author points out that the only chance of success in such cases as this lies in the prompt application of digital pressure above and below the wound in the vessel. He considers that it is a case of hæmorrhage of this kind which is most likely to be attributed to the operation of the renal vein, which sometimes occurs in the course of nephrectomy for tuberculous disease of the kidney.

MIDWIFERY AND DISEASES OF WOMEN.

(159) Catarrhal Enteritis and Pelvic Disease.

E. F. GILLMORE (*Am. Journ. of Obstet.*, December, 1903) describes cases of catarrhal enteritis in women, which may simulate pelvic disease. The patients are often treated by gynæcologists without success, and they are finally labelled as neurasthenics. Among the primary causes of catarrhal enteritis perhaps the chief is the ingestion of unsuitable food, especially of large amounts of uncooked fruit and fresh vegetables. A neurotic temperament has not appeared to the author to be a predisposing cause. In one of his cases enteritis followed an attack of bloody dysentery, but none of the others has it followed any previous serious disease. The symptoms vary. The most constant is that of alternating constipation and diarrhœa. There are bearing-down sensations in the lower part of the abdomen, simulating the approach of a menstrual period, soreness in various parts of the abdomen, distension after food, colicky and lancinating pains, especially noticeable before an action of the bowels, nausea and sometimes vomiting. Frequently there is irregular menstruation, especially amenorrhœa and leucorrhœa. Slow progressive loss of flesh, anæmia, exhaustion, desire for sleep, nervousness and depression may all be present. The alternating constipation and diarrhœa is frequently not mentioned by the patient until she is closely questioned, and without this symptom the simulation of pelvic trouble is marked. The examples given emphasize the difficulties of diagnosis. One patient had previously been treated for congested and prolapsed ovaries, another for inflammation of the womb, another had undergone laparotomy by way of achieving a psychical cure, while still another had been suspected of early pregnancy. Catarrhal enteritis may also be mistaken for chronic catarrhal appendicitis, floating kidney, and tuberculous enteritis. The diagnosis is best made by examination of the stool. This varies in colour and consistency, but the pale clay-coloured stool is specially pathognomonic. The fæces are frequently filled with bubbles and froth due to fermentation, and in the majority of cases there are small undigested particles of food. When the small intestine is involved, small pieces of mucus are found. It is well to point out to the patient these peculiarities of the stool before obtaining her specimen, to prevent misconception as to its character. The treatment is mainly dietetic in character. In acute cases the diet may be restricted to soups, eggs, one or two quarts of milk daily, buttermilk, rice, mealy potatoes, zwieback, toast, oysters, custard and butter scotch, all may be given. Vegetables are at first entirely forbidden as well as all uncooked fruits, pastry, cakes etc. The action of the bowels is carefully regulated, and enemata especially is useful in these cases. No treatment gives perfect, but the results obtained are decidedly satisfactory. The psychological effect on the patient is also good, as her attention is diverted from the pelvic

gion, to which it may have been directed for years.

(160) Central Rupture of the Perineum by the Elbow in a Breech Presentation.

CENTRAL perineal ruptures are rare. R. Zwanger (*Wien. med. Presse*, January 31st, 1904) records a case which is probably unique. He was called to a healthy, well-built primipara, aged 22, when the breech, which was in the second position, had already engaged in the pelvis. When such progress had been made that the breech could just be seen between the labia, a strong pain occurred and the half breech was born. On gently raising the breech a conical mass of the size of a pigeon's egg was seen to protrude between the posterior commissure and the anus. It was the left elbow. Before the advent of the next pain it was replaced in the vagina and delivered without rupture of the bridge of perineum, measuring about 1 in., which remained behind the vagina. The rupture became complete when the head was delivered. At the moment when the strongest pain occurred the left arm of the child was doubtless in the direct line of pressure.

(161) Traumatic Tubal Abortion at Fifth Month.

SARLOW (*Monats. f. Geb. u. Gyn.*, November, 1903) reports a case where a woman in the fifth month of pregnancy believed to be normal, slipped off a stool, and at once felt violent pain, vertigo, and faintness. The abdomen was tender, and there was hypogastric fullness, reaching to within three-fingerbreadths of the umbilicus; fluctuation was distinct. Soft resistance, such as is produced by coagula, was detected in the posterior and lateral vaginal fornices, much dark blood and clot was found free in the peritoneal cavity; the uterus was of about the size reached in normal pregnancy at the third month. The left tube was as thick as two fingers: the placenta was becoming extended from its dilated and patulous ostium. Thence the umbilical cord ran up to the left of the epigastrium, where a fetus of the fifth month was found. The tube was removed with the placenta and fetus. A severe attack of pneumonia followed, complicated by pleurisy, for which resection of a rib was necessary. Ultimately the patient recovered.

(162) Vesicular Mole and Bilateral Ovarian Cysts.

DESENISS (*Monats. f. Geb. u. Gyn.*, October, 1903) removed a pair of cystic ovaries twelve days after a vesicular mole had been expelled from the uterus. Three weeks after the ovariotomy he was sent for on account of severe internal haemorrhage. The uterus was removed entire by the combined operation, the cervix being first freed from the vagina, and the whole organ then removed through an abdominal incision. The patient recovered quickly. A tumour had developed in the muscular tissue, and had produced perforation, detected during the operation. When preparations from the tumour were exhibited before the Hamburg Obstetrical Society, doubt was expressed by Desseniss whether it was a true chorion-epithelioma.

(163) Puerperal Abscess of Uterus: Death.

LEPAGE (*Rev. de Gyn. et de Chir. Abdom.*, July-August, 1903) reports a case in which a woman had a rise of temperature on the fourth day of her fourth confinement, accompanied by high pulse, vomiting, and pain in the right iliac fossa. Appendicitis was diagnosed, and medical treatment proved satisfactory for a few days. But a fortnight later the symptoms recurred, with all the signs of a peritonitis. Abdominal section was performed, and an abscess was found in the region of the right cornu of the uterus. It had opened spontaneously. The patient died a day later. Possibly appendicitis and disease of the right appendages coexisted, the two purulent foci separating when the uterine abscess gave way; but it appears that there was no necropsy. Lepage considers that hysterectomy should have been performed. Porak observed that abscess of the uterus was very rare, but Schwartz remarked that 10 cases had been collected. Pinard considered that a solution of this question was difficult, as the symptoms of abscess of the uterus are not definite.

(164) Two Asynchronous Pregnancies in One Tube.

SANITER (*Monats. f. Geb. u. Gyn.*, October, 1903) exhibited in June before the Berlin Obstetrical Society a Fallopian tube removed by abdominal section. It contained two fetal sacs, both ruptured and apparently in different stages of pregnancy. The larger corresponded in size to a two-months pregnancy, the fetus was 1½ in. long, the smaller had hardly reached the fourth week, according to its dimensions. The elder ovum lay nearer the ostium, the younger nearer to the uterus. A corpus luteum was found in the corresponding ovum. Saniter believed that this case might have been an instance of superfetation with external migration, but he admitted that it might have been a double-ovum twin pregnancy, the development of one fetus being delayed by some complication.

THERAPEUTICS.

(165) Treatment of Mixed Infection in Phthisis.

ALTHOUGH the production and maintenance of a raw suppurating surface was at one time highly esteemed as a treatment for many diseases, it has of late fallen into complete disuse. H. W. Blöte (*Zeit. für Tuberk. und Heilstätt.*, Bd. v, Heft 2) recommends its reintroduction in the treatment of phthisis. A chief cause of death in phthisis is the occurrence of a mixed infection, staphylococci and streptococci being the bacilli most frequently found. Went examined the sputa of 24 phthisical patients and found streptococci present in all, while Schroeder and Mennes only once failed to find the same organism in 30 specimens of sputum from 21 patients. Wherever a caseous area communicates with the air this infection may occur, and the pyogenic organisms are able to attack and destroy tissues already weakened by the action of the tubercle bacilli. This theory of the virulence of the pyogenic organisms in phthisis is not generally accepted. Schroeder and Mennes assert that they do no harm, or next to none, in phthisis, but other observers have isolated bacilli of great virulence from the sputum of tuberculous patients. According to Went, they can only play an active part in tissue destruction when the patient's strength is diminished and his tissue vitality lowered. In support of his opinion he cites the long-continued immunity of the walls of bronchi and alveoli, although they are constantly in contact with infected sputum. Blöte explains this immunity as the result of antitoxins formed in the body, whose action is not strong enough, however, to protect the lung tissue already attacked by tubercle bacilli. That antitoxins are formed when suppuration is present is shown by the failure of pus from an abscess to infect other wounds in the same patient, in spite of being dangerous to another person. The production of a suppurating wound in a phthisical patient will therefore lead to a greater formation of antitoxins, and will be an additional protection to the lung tissue against the action of pyogenic bacilli. Few risks are run from the presence of a suppurating ulcer. In the *Archives Générales de Médecine* from 1822-77, when the use of the seton was common, only one case of necrosis is reported and from it the patient recovered. The danger of amyloid disease cannot be forgotten, but in none of ten patients who had each had an open wound for more than three years could any sign of it be discovered. In case of need the healing of the ulcer is only a matter of a few days. To produce the ulcer an incision of about 2 cm. length is made on the left arm above the elbow, an irritant placed in the wound and a plaster bandage applied. At first the doctor controls the wound and applies fresh irritants if there is a strong tendency to healing. When the operation is a prophylactic measure to prevent suppuration in the lung, precautions are taken to avoid a very acute suppuration in the arm at first, but there is no danger of this kind if the suppuration in the lung be already well established. Blöte's conclusions are that a suppurating wound will immunize a tuberculous patient against purulent infection of the lung, or, if such infection is already present, will increase the tendency towards healing and limit the extent of the destructive process in the lung.

(166) Triferrin.

THE new iron preparations with which the market has been flooded of late have been for the most part complicated organic substances, holding iron in firm combination, and whose animal prototype is haemoglobin. The more experienced physicians have remained more or less true to the older preparations, the metallic iron, the inorganic and organic iron salts, and organic iron substances containing iron in loose combination. W. Kramm (*Therap. Monats.*, October, 1903) recognizes that under these conditions a new iron preparation can awaken interest only if it be superior to others in being more pleasant to take, causing less digestive disturbance, and being more readily absorbed. Such superiority he claims for triferrin. It is a brownish yellow powder, insoluble in water and in weak acid solution, soluble

the tolerance with any regularity. In the remaining cases the results were excellent in that the percentage of haemoglobin rose from 35 to 80 in another from 45 to 90, and in the end of treatment it was only, in 4 cases, as low as 75. A phthisical patient with hiccough showed no other ill. Before her admittance to a sanatorium, and after she left, the blood condition improved under triferrin; but while she was in the sanatorium, and triferrin was no longer given, the blood condition deteriorated, in spite of improvement in other respects.

(167) Hopogan and Ektogan.

FRAENKEL (*Deutsche Aerztl. Zeitung*, January 10th) recommends hopogan, the magnesium peroxide, and ektogan, the peroxide of zinc, the former as an internal, the latter as an external antiseptic. Both substances readily give up free oxygen in the presence of an acid. They have previously not been much employed as therapeutic agents because of the technical difficulties in their production but they can now be obtained from the firm of Kirchhoff and Neirath in Berlin. Hopogan is prepared in two forms as compressed tablets or as a powder. Six to eight of the tablets or three to four teaspoonsful of the powder in water may be taken daily. The powder acts more rapidly than the tablets. The action of the gastric secretion causes hopogan to give up its free oxygen, and in this way to act as a strong but harmless antiseptic in the stomach. Hopogan gives excellent results in the treatment of flatulence due to fermentative processes in the stomach, and of pyrosis. It acts well also, in the different forms of anaemia, in general weakness, and loss of appetite. This is consistent with the well-known improvement in blood or general conditions which follows the removal of gastric disorders, and it seems probable, also, that hopogan, in addition to its antiseptic action, has a stimulating effect on the metabolism generally. It may be given for diarrhoea in the form of a pill. Ektogan makes a good dusting powder for discharging wounds but its antiseptic action is most marked when it is made into an ointment in connection with some weak acid of the salicylic type. In this form it will often lead to the healing of chronic ulcers which have resisted other treatments and have good results in cases of boils, most common furunculosis, sycosis, etc.

(168) Veronal in Mental Disease.

MEGNIN (*Ann. Méd.-Psych.*, November and December) has tried with success the hypnotic veronal in mental cases of early dementia. Veronal is a white crystalline, inodorous, slightly bitter powder, only slightly soluble in cold water. Two doses of half a gramme in a glass of milk or beer sufficient to produce sleep. As a rule, veronal is well borne, but in a few cases (among the latter two in the insane) it produced vomiting, and in one case a rash. The author considers that veronal is a valuable hypnotic, and in cases of insomnia after repeated usage in the same patient. The pulse and respiration were only slightly affected by the drug. In some cases (including dipsomania, chronic nurses, and vomiting) veronal failed to produce sleep.

PATHOLOGY.

(169) Protozoon-like Bodies in Scarlet Fever.

MALLORY (*Journ. Med. Research*, January, 1904) found in the skin of a boy who died forty-eight hours after the appearance of a scarlet fever eruption certain bodies which he considers of protozoal nature. They were present in the protoplasm of the epithelial cells of the epidermis, between these cells and free in the lymph vessels and spaces of the corium beneath the epidermis. They vary in size from a little less than 2 microns to 7 microns in diameter; they present a series of forms with definite morphology, suggesting that they are the various developmental stages of a protozoon. In this case they were not found in the blood or in any internal organ. In 3 other cases examined they were also found; in the second case they were numerous in the skin; in the third they occurred occasionally as small clumps in the skin and in the fourth they were found in small numbers only in the epidermis of the tongue. In 6 other cases where death occurred early in the disease no bodies were found, and a number of cases in the desquamating stage were examined with negative results. The skin was fixed in Zenker's fluid and stained with methylene blue and eosin. Mallory does not consider that the bodies can be either artefacts or degenerations; they form a series including the formation of definite rosettes with numerous segments which are closely analogous to the series seen in the sexual development of the malaria parasite.

(170) Pathological Histology of Hodgkin's Disease.

LONGCOPE (*Bull. of the Am. Clin. Laboratory*, Pennsylvania Hospital, No. 1, October, 1903) has prepared an interesting monograph on Hodgkin's disease with numerous drawings of cases, lymphoid tumours, and microscopic sections from clinical material in the Pennsylvania Hospital. From his own observations he feels justified in drawing the following conclusions: (1) Hodgkin's disease should be considered as a distinct clinical and pathological entity. (2) The lesions in the lymph glands and other organs are specially characterised by the early increase in the lymphadenoid tissue, with later proliferation of endothelioid cells, formation of uninuclear and multinuclear giant cells, the coming of the reticulum, and final overgrowth of connective tissue. Eosinophiles though not so frequently found in great abundance. Together with the abundance of eosinophiles in the lymph glands, the eosinophile leucocyte and myelocytes of the bone marrow are increased. (3) The process originates in lymphoid tissue and during the course of the disease new lymph glands are constantly being formed which ultimately become the seat of the lymphomatous growth. (4) In rare instances the retroperitoneal lymph glands may be the only group affected. (5) The etiology of Hodgkin's disease is so far unknown. The tubercle bacillus plays no part in the production of the lesions.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(171) Disease of Corpus Callosum caused by Alcoholism.

MARCHIAFAVA AND BIGNAMI (*Rivista di Patologia nervosa e Mentale*, December, 1903) describe three cases of alcoholic patients, in all of whom the necropsies revealed a well-marked and clearly circumscribed affection of the corpus callosum not previously observed. The first case has been already published by Cardacci in 1898. It was that of a peasant, aged 50, a great drinker, who had presented for three years before his death symptoms of mental disorder attributed to alcoholism. In February, 1898, he fell into a state of depression, and on March 4th had an attack of clonic convulsions limited to the right half of the body, and lost consciousness. Similar attacks occurred on several successive days, but in the intervals he was able to walk, but not to talk or to retain his urine. Four days before his death he fell into a state of coma, with deviation of the head to the right side and a temperature of 39° C. In the urine were found cylindrical casts and albumen. At the necropsy, besides the cephalic conditions described below, nothing noteworthy was found except broncho-pneumonia with fibrinous pleurisy. About the symptoms of the second case nothing is known, but he was certainly alcoholic. The third patient was also alcoholic, and was not syphilitic. He was 65 years of age. About two years before his death he had suffered from frontal headache and convulsive attacks. There was some disturbance of his articulation. In March, 1903, he again suffered from intense headache, with convulsions. He became comatose, and died a week after the beginning of the attack. He was found to have granular kidneys and diffuse arterio-sclerosis, as well as hyperaemia of the cerebral meninges and the peculiar condition of the corpus callosum which remains to be described. In all these three cases there was no abnormality of the cortex, the grey masses at the base of the brain, the cerebellum, the pons, or the medulla. The corpus callosum showed, on section, a diffused grey colour, though on its surfaces, both dorsal and ventral, there was still visible the mother-of-pearl white of ordinary white brain matter. This alteration ceased abruptly a few millimètres from the emergence of the bundles of nerve fibres from the hemispheres. Pieces of the corpus callosum were kept in Müller's liquid treated with alcohol and coloured with carmine, haematoxylin, and eosin, and by the Weigert-Pal method. Sections then presented the appearance of three zones—a middle zone, to which the change was confined, and dorsal and ventral zones, running the whole length of the corpus callosum, and presenting no change. The middle zone, when examined with low powers of the microscope, differed from the normal tissue chiefly in being less compact and in being manifestly more vascular and having its vessels full of blood. The nuclei of the neuroglia were increased in number, but not much. Examination with higher powers showed that the vessel walls were not much infiltrated or thickened, but the nuclei of the neuroglia and the epithelial nuclei in the vessel walls were somewhat swollen. Some of the vessels, especially the small arterial, were surrounded by a zone of hyaline substance, probably due to hyaline degeneration of perivasal neuroglia. The great mass of the tissue was composed of a network of neuroglia and naked cylinders which had lost their medullary sheaths. To this loss of medullary sheaths the grey colour and the rarefaction of the tissue were due. In some preparations in which the degeneration was less advanced there was a certain amount of cellular infiltration, and small accumulations of granular cells were found round the vessels. In preparations with more advanced degeneration small serous cysts were found surrounded by neuroglia. There were also small haemorrhagic infiltrations, evidently of very recent date, since the red corpuscles were unchanged. The degeneration was of much the same intensity in all parts affected except in the neighbourhood of the median sagittal line, where it was less intense. Preparations stained by the Weigert-Pal method showed a few fibres of a varicose appearance running through the degenerate zone and drops of myelin representing the remains of the medullary sheaths. The thickness of the normal zones as compared with the whole thickness of the corpus callosum was substantially the same throughout. The striae of Lancisi were normal. Microscopic investigation showed the degeneration extending a few millimetres into the substance of the centrum ovale and then ceasing abruptly. The convolutions of the cortex, the internal capsule, and the bundles of fibres running across the walls of the ventricles were all normal. There was thus a complete absence of secondary degenerations. The authors consider that the affection begins as an interstitial change of the neuroglia of an irritative and proliferative character, determining a secondary degeneration confined to the medullary sheaths, and they entertain no doubt as to the alcoholic origin of the whole process.

(172) Syphilis and Locomotor Ataxy.

W. ERB (*Berl. klin. Woch.*, January 4th, 11th, 18th, and 25th, 1904) separates male patients into two classes—those of the upper classes, that is, of education, and those of the lower level of life. The statistics gained from the former are much more reliable than those gained from the latter or from females of either class. Dealing with the first class, he finds that of 1,100 cases of tabes 89·45 per cent. certainly had syphilis previously, while of the remaining presumably not infected 10·54 per cent., only 2·8 per cent. gave a history and presented signs which revealed no trace of syphilis. Comparing these figures with those gained from 10,000 persons of the same class suffering from illnesses other than tabes, he found that only 21·5 per cent. had previously been infected, and 78·5 per cent. revealed no grounds for a diagnosis of previous syphilis. He thinks these comparative figures must prove a causal connexion between the two diseases. Dealing with the date of the appearance of the tabes after the infection with syphilis, he finds that this is much more common between six and twenty years after the infection than earlier or later. In dealing with males of the lower orders and with females, he says that one must be prepared to find syphilis denied much more frequently than in males of the educated classes. His statistics in these directions show this, but in the comparative figures give about the same result as with the educated classes. In his opinion, therefore, he is justified in stating that in the overwhelming majority of cases syphilis is the most important of the conditions which are connected with tabes. In the next place he inquires how gonorrhoea and tabes stand together. It appears that 90 per cent. of his tabes cases of the educated males had had this disease, while 50 per cent. of males over the age of 25 of the same class suffering from diseases other than tabes had had gonorrhoea. But he points out that the men who have put themselves into a position of acquiring syphilis have run the risk of gonorrhoea as well, and as the latter is much more common than the former, one must be careful not to exaggerate the importance of a previous attack of gonorrhoea. Of the men who had had gonorrhoea and afterwards became tabetic, 88 per cent. had had syphilis as well for certain. Returning to syphilis, he objects to the argument at times used in opposition to his views, that one should inquire how many syphilitics become tabetic. Many other undoubted syphilitic manifestations are rare, but are nevertheless syphilitic. Erb comes then to the conclusion that tabes is a somewhat rare post-syphilitic affection. Erb believes that there are other conditions which are necessary to produce tabes as well as syphilis. Cold, exertion, trauma, sexual excess, congenital or acquired weakness of the nervous system, certain poisons, such as alcohol, tobacco, ergotin, certain infectious illnesses especially influenza and probably many other factors play a part in determining an attack of tabes. Erb has continued his investigations as to the anti-syphilitic treatment of certain cases of tabes and many are "practically cured" by this method. In conclusion, Erb states that tabes is undoubtedly in the majority of cases a syphilogenic affection, but at present it cannot be said for certain, although it is highly probable, whether it is always so.

SURGERY.

(173) Gastric and Duodenal Surgery.

VON MIKULICZ (*Ann. of Surg.*, No. 2, 1904) in opening the discussion of a paper communicated by Mayo to the Philadelphia Academy of Surgery, stated that the important question as to which is the best operation for establishing a new communication between the stomach and the small intestine has not yet been finally decided. From the standpoint that the best operation

that which most completely restores the physiological relations, pyloroplasty [illegible] the best. Next in importance is gastro-enterostomy. If these operations should not be feasible, the surgeon has then to consider posterior gastro-jejunostomy, which, if carefully performed, yields excellent results. Last to be recommended is the operation of [illegible] which von Mikulicz considers [illegible] the only [illegible] carcinoma in which the normal acidity of the gastric juice is absent. This surgeon, though he does not use Murphy's button in operations for benign affections of the stomach, states that he has found it very useful in operations for gastric carcinoma and in resection regards it as indispensable. In considering the relation between the number of benign and malignant diseases of the stomach he has been impressed with the fact that in America the former, especially gastric ulcer, formed the more numerous class, while carcinoma of the stomach [illegible] relatively less frequently. In discussing this peculiarity he [illegible] suggests that it may be connected with the not very natural nourishment which the American ingests, namely, iced [illegible] drinks and [illegible] food. With regard to the [illegible] operative interference in cases of gastric ulcer, it is pointed out that in this disease medical treatment is able to contribute much [illegible]. Surgical experience in this direction is still [illegible] to be able one to positively contend that in operative treatment there is an infallible remedy for gastric ulcer itself. [illegible] as a rule, from looking for the [illegible] after and before gastro-enterostomy, and [illegible] a jejunostomy. In cases of [illegible] operation the patient can be excluded [illegible] only [illegible] that one can [illegible] of the stomach [illegible] Although [illegible] gastro-enterostomy [illegible] which is usually [illegible] operation. [illegible] [illegible] [illegible]

learn this operation from books, but one must watch some one else who knows how to operate correctly. In the first place the method has a great advantage after laparatomy in the case by which one can keep the peritoneum aseptic. That the vagina is not free from bacteria cannot be cited as an objection, for in practice infection of the peritoneum is far less common than after the abdominal operation. It is further a mistake to suppose that the uterus is more pulled about when exposed through the vulva than through the abdominal wall. Vaginal coeliotomy may be employed instead of laparotomy for misplacements of the uterus, new growths of the appendages, inflammatory conditions of the tubes and ovaries, tubal gestation, and myoma of the uterus. In recommending the method for fixed retroflexion of the uterus Abel deals in some detail with the reasons why he considers that it is best to operate in all cases rather than to try the various treatments. Of the ovarian growths which are suitable for the method of operation he says that cysts, dermoid cysts, and small solid tumours can readily and safely be dealt with, but malignant tumours and solid tumours of a size of over a child's fist must be dealt with per abdomen. In all Abel has performed 121 vaginal coeliotomies, and has lost 2 cases—that is, 1.6 per cent. mortality. As additional advantages of the method, he adds that a scar hernia has not yet been described in the vagina, that convalescence after this operation is infinitely less severe than after laparotomy, and lastly, the patients consent more readily to the operation when they hear that the belly is not to be cut open. In dealing separately with the question of the treatment of myoma uteri, he states that it may be a serious mistake to discard the idea of an operation because the disease is benign. The symptoms which are frequently produced by myomata are actually threatening to life, and the most important of these are bleeding and secondary heart degeneration. Next he mentions twisting either of the whole myomatous uterus or of the pedicle of a subserous tumour, with subsequent gangrene and death from peritonitis. If one waits before operating until the heart has degenerate.. or until the patient's life is threatened by profuse bleeding, anaemia, or peritonitis, one will often operate too late, and fail to save the patient. One has no hesitation in removing a myoma, if one discovers it accidentally as an obstruction to a birth, and Abel is at a loss to see why one should not remove it when one finds it gynaecologically, since the vaginal operation offers a safe method. The only rational treatment for uterine myomata is removal.

(176) The Urine in Pregnancy.

Willson (*Amer. Journ. of Med. Sci.*, February, 1904) discusses from experience the significance of the analysis of the urine in pregnancy, with especial reference as a warning of impending eclampsia. As a general rule, normal urinary findings are indicative of normal conditions in pregnancy, but abnormalities may exist in the specific gravity, urea excretion, and in the presence of albumen or glucose, which are followed by normal labour. Of a considerable number of urine analyses during pregnancy only a small percentage showed entire freedom from albumen and glucose, but in no instance, provided there was no serious renal change, did the urine fail to return to normal after labour, except in a few cases where fatal eclampsia occurred. Small traces of albumen may be due to pressure by the gravid uterus causing renal congestion, but careful microscopic examination for granular and epithelial casts affords the only reliable guide as to the state of the kidneys themselves. The presence of glucose in small quantities is in itself of little moment as regards the outcome of the pregnancy, but when it represents a diabetic condition it is of grave import. After advocating the periodical examination of the urine in all cases of pregnancy, and with greater frequency as term is approached, the author points out that the most dependable indications of impaired renal function and possible eclampsia are the presence of decided quantities of serum-albumin, the diminution in urea excretion, and the presence of casts, etc. In young women even with normal urine the possibility of eclampsia must be borne in mind, and, should it arise, it may be equal in severity to those cases in which morbid conditions of the urine have given warning of its occurrence. Though not an unfailing guide, urine analysis affords the most trustworthy warning of danger that we possess, and, in the event of eclampsia arising, venesection and normal saline transfusion are the most reliable remedies.

(177) Sarcomatous Degeneration of Fibroids.

Evelt (*Monats. f. Geb. u. Gyn.*, November, 1903) recently opened an instructive discussion on this subject, especially in relation to the relative merits of supravaginal amputation and panhysterectomy. Out of 120 cases of fibroids the subject of operation, afterwards examined by Evelt, sarcomatous degeneration was detected in 3. He dwelt (1) on the rarity of this condition, especially of primary melano-sarcoma observed in one of his cases; (2) on the difficulty of clinical diagnosis; one case had been for ten years under the observation of several competent doctors, who had all diagnosed the tumour as myoma, the second was diagnosed as such just before the operation, but no malignancy was suspected until sections were examined microscopically; on the other hand, sarcoma was suspected in the third case, although no very distinct malignancy was to be seen in pieces of the tumour removed from the uterine cavity seventeen days before the operation; (3) on the age of the patients, the first being 58, the second 42, and the third only 30; (4) on the fact that in all cases the tumour was primarily a fibromyoma in a distinct capsule; (5) on the after-histories. The first case died eight months after hysterectomy in consequence of widespread metastases. The second case, where the tumour was a primary melano-sarcoma, underwent a second operation thirteen months later on account of a hernia, yet no metastases could be found. The third case had but recently left hospital. Abdominal panhysterectomy was performed in all three cases, which in Evelt's opinion showed how the innocence of a myoma is uncertain, and how necessary is operative interference when a tumour of this class suddenly begins to increase in size. In the discussion Klein declared that he had observed 3 cases of sarcomatous degeneration in 120 operations. Mirabeau discovered degeneration of a fibroid of very long standing in a case of fatal obstruction; the growth had burst into intestine. In three other cases he traced the malignant change to the connective tissue; not to the muscle cells. Von Winckel found that recurrence might occur in two years, but sarcomatous degeneration of a myoma was so rare that he had failed to detect it in a whole decennium of his practice. Therefore he preferred supravaginal amputation to panhysterectomy, which was liable to be followed by great discomfort. Klein observed that he also saved the cervix and as much of the uterine body as possible. Evelt, in reply, stated that in his cases it was the muscle cells themselves that were the origin of sarcomatous degeneration.

THERAPEUTICS.

(178) Treatment of Gout.

Falkenstein (*Berl. Klin. Woch.*, January 18th, 1904) finds that there is only one fact in regard to the pathology of gout on which all observers are agreed, namely, that there is an excessive quantity of uric acid in the organism. It is still impossible to prove whether there is an excessive production or a diminished destruction of the acid, or a lessened excretion of it, and whether the condition is due to a primary kidney lesion, or to a lesion in the liver or to a neurosis. The author points out that clinically a peculiar form of dyspepsia is found to be present in gout cases. This has long been recognized. In order to make himself clearly understood, he briefly describes the function of the gastric glands. Beside the glands, which secrete pepsin, certain cells in the fundus of the stomach have the capability of secreting hydrochloric acid. It is only when the gastric juice is acid that pepsin is able to dissolve insoluble or coagulated albumen. The pepsin is not used up, while the acid is, so that if one adds fresh acid to the gastric juice, additional quantities of fibrin can be digested, without any further replacing of pepsin. When the acid secreting cells are diseased, not only will the digestion be insufficient, but the substances from which the hydrochloric acid is derived in the blood will lead to pathological conditions in the body. One regards a gouty person as a person who abuses the pleasures of the table, but in reality, he is incapable of digesting the ordinary food stuffs. His gastric glands are diseased. Excess of food is negotiated in healthy subjects by increased supplies of hydrochloric acid, and the products are oxidized to urea, but in the gouty there is abnormal fermentation, insufficient oxidation, and the substances containing quantities of nuclein are partly prevented from being further split up, and partly favour the synthetic formation of uric acid. In this way the faulty secretion of the gastric glands leads to an exces-

formation of uric acid. The gastric juice, however, is frequently deficient, and this is due to organic acids, such as oxyuric lactic, and acetic acids. Basing his treatment on these facts Falkenstein tried an infusion, as well as a number of patients, the following. He administered to the drops of pure hydrochloric acid in a large quantity of effervescing water each day. The water is drunk during the meals, and the quantity is arranged so that the patient is struck by the acid taste. The diet is then an ordinary one. The dyspeptic symptoms disappeared and the attacks of gout became less frequent and much less severe. Pfeiffer's experiments with injecting uric acid appear to have led to the same results. Uric acid dissolved in salt solution injected hypodermically always led to an attack of gout, but when the patient was given 5 to 8 c.cm. of hydrochloric acid in water, no attack took place. He believes it acts through the agency of his treatment. In discussing the older methods of treating gout, he points to the action of mercury, as not only relieving the pain but by favouring perspiration as being curatively on the gout. The purins, and especially sodium urate. Dr. Goldbloom says that he is convinced that it does much harm. It may shorten an attack and lessen the pain, but inasmuch as it interferes with the excretion of uric acid, it does so by preventing a condition of [illegible] and is therefore likely to lead to a rapid return of the symptoms.

(1528) The Treatment of Laryngeal Tuberculosis with Reflected Sunlight.

[illegible] (*Wien. klin. Woch.*, January 14th, 1904) reports a case of laryngeal tuberculosis with reflected sunlight with [illegible] results. At first the laryngeal mirror had to be held in position by the patient himself, but later the apparatus was fixed to the chair. He sat astride a seat with the head in front. An oil lamp is kinglamp was fixed to the back of the chair, and arranged so that the light was concentrated on the larynx. The patient acquired such dexterity that he could get the right [illegible] with the mirror in position. [illegible] pathological conditions [illegible] Dr. Goldbloom has frequently used this method. He has found it very useful in the treatment of the [illegible] largely attributable to the [illegible] to the [illegible] to the [illegible]

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(182) The Iodophile Reaction and Glycosuria in Pertussis.

D. CRISAFI (*Il Morgagni* October, 1903) insists first on the difference between iodophile granules and eosinophile granules. It was pointed out by Ehrlich and Frerichs that the presence of granules of glycogen in some leucocytes might be shown by exposing them to the action of iodine or its vapour, after which exposure the granules showed a deep mahogany-red colour. Some investigators have been satisfied with a yellowish coloration—a less significant phenomenon. The eosinophile granules, at a certain focal distance, may appear to be of a brownish colour, but never of the characteristic red. The difference between the two sets of granules is evident when it is stated that iodophile granules are found in lymphocytes and in polymorphonucleated neutrophile cells. Crisafi's method was to make cover-slip films of blood, dry them in the air, and suspend them for half an hour just over a vessel containing crystals of iodine. They were then examined with an immersion lens on white slides—a greenish slide would obscure the red colour. In cases yielding a positive reaction one then saw in the protoplasm of the neutrophile leucocytes, less often in the eosinophiles, and still more rarely in the lymphocytes, one, two, or three small granules of a colour (from mahogany-brown to wine-red, surrounded by a clear zone without any yellow tint. In some rare cases where the granules were abundant they were disposed in clumps towards the periphery of the leucocyte. Examining 20 cases of pertussis, Crisafi found that 16 of them gave a positive and 4 a negative reaction. Ehrlich and Frerichs originally described the reaction as frequent in the blood of diabetic patients, and rare under other circumstances. Glycosuria has also been said to be frequent in pertussis, and it is natural to ask whether the iodophile reaction is common in pertussis simply because glycosuria is common in pertussis. Examining his patients for glycosuria, Crisafi found that only four of them presented this symptom, and in only one of the four cases was it well marked. The relation therefore between the symptoms is not of the simple character suggested above. On the other hand, the existence of some relation is made more probable by the observation that the blood of animals previously giving no iodophile reaction can be made to give it by injecting sugar into the abdominal cavity or by extirpating the pancreas. Crisafi's explanation is that in pertussis the specific toxins which cause the convulsive cough by stimulating the peripheral terminations of the vagus and the fifth nerve caused in the same manner a liberation of glycogen by the liver, leading to hyperglycæmia, to the presence of glycogen granules in the leucocytes, and whenever the oxidative power of the organism is defective, to glycosuria. Whether the theory be correct or not, Crisafi anticipates that his observations, when confirmed, will supply an additional means of diagnosis for obscure cases of pertussis.

(183) Hysterical Autosuggestion in Children.

C. A. EWALD (*Berl. klin. Woch.*, September 21st, 1903) discusses cases of less fully developed types of hysteria in children, which he considers are best termed "hysterical autosuggestion." Such cases, he says, are not uncommon in practice, and the diagnosis presents considerable difficulties. The first case was that of a boy of 9 years, whose family history did not suggest any neuropathic taint. In September of 1900 he had an attack of hepatic inflammation with jaundice, which was said to have been followed by an affection of the brain. The practitioner who undertook the treatment of the case, however, had no knowledge of the brain affection. In November Ewald was called to see the child, on account of intractable vomiting, which had lasted for over four weeks, when the boy was supposed to have swallowed a small bone. The boy believed that he felt the bone in the left iliac fossa, and the practitioners in charge were seriously considering the advisability of performing laparotomy. The child had been fed by nutrient enemata for the last two days, since which time the vomiting had diminished somewhat. The general condition was very good considering the fact that the child had taken food badly for some time. His account was given with marked clearness. There were absolutely no physical signs to be made out, and the urine contained neither albumen, sugar, nor an increased amount of indican. Regarding the case as one of some neurotic and probably hysterical nature, he arranged for the child to be placed in a home, where he could be kept under observation and medical control. After a short time, during which attention was paid to the digestive functions, the boy was told that the bone had been found in the motions, and from that time the vomiting gradually got less and less, and eventually he was able to be sent home well. In January, 1902, he again complained of feeling unwell. At first the symptoms were limited to sleeplessness and constipation, and in April the old pains in the left inguinal region returned. He did not ascribe the pains this time to the swallowed bone, but appeared to be attacked suddenly with recurring severe pains. The pains only appeared when he had been walking or playing, but were absent during rest in bed. He gave a very exact account of the method of onset, situation, and character of the pains. No improvement followed the various forms of treatment carried out (Ewald again took the view that the condition was hysterical), although no physical signs could be made out. Before giving up the "suggestion" treatment in favour of laparotomy, Ewald had the child put under the influence of an anæsthetic, and made an incision of about 1½ in. in length, only dividing the skin. This incision was reunited by means of two sutures, and properly dressed. The child had submitted to the prospective operation with suspicious readiness, and took a morbid interest in describing to the nurses all about the two sutures, but was very disappointed that he did get "wound fever." He watched the process of healing with anxiety, and felt the pains in the wound. He had been carefully told that at the operation the affected part would be removed so that the pains would not return. He was kept in bed for eight days, and from that time there have been no further returns of the pains. Ewald next describes another case of a child of 7 whose symptoms pointed to the existence of perityphlitis. Here, too, Ewald succeeded in banishing the pains by assuring the mother in his presence that there was no perityphlitis, and by applying a small umbilical pad over an insignificant umbilical hernia. The third case which he relates was that of a 9-year-old Jewish boy, who was a very self-willed spoiled child. Vomiting had appeared shortly after he had been in for and had passed a small examination, and lasted for six weeks. On going with his mother into the country the vomiting disappeared, but returned when he came back and had to go to school again. On being admitted to the "home" he exhibited well-marked signs of being a spoiled child. Yelling when his father left him for a minute, and refusing all food or vomiting it when forced upon him, it was clear to Ewald that what was wanted was more in the nature of disciplinary than medical treatment. Sending the father away, he had a "serious talk" with the young gentleman, and succeeded in reducing some of the yelling and noise. The child was kept in bed and fed for three days exclusively per rectum. At first he succeeded in bringing up a good amount of mucus from the stomach, and as the enemata began to be returned after three days, and the pulse and general condition showed signs of failing, he was given some milk, sugar, and tea. The abdomen was galvanized with weak currents, and later he was given tepid douches. The diet was fairly rapidly supplemented, and the child was allowed to get up. There was a slight relapse during this treatment, but in the course of twenty-one days Ewald was successful in obtaining normal conduct. In conclusion, Ewald points out that the saying that it is not the medicine but the doctor who cures hysteria might be extended in the case of children to "it is not the doctor but the disciplinarian who cures."

SURGERY.

(184) Errors of Diagnosis caused by Pain of Appendicular Origin.

IN a communication presented to the Paris Société de Chirurgie on January 20th (*Sem. Méd.*, January 27th) Guinard called attention to a series of errors of diagnosis committed in the case of patients suffering from chronic appendicitis, of very mild type, without crises, and presenting only one symptom—namely, pain (appendicalgia). This pain is not always referred to McBurney's point; the site of greatest intensity is often found lower down near Poupart's ligament, sometimes even on

the left side. Guinard refers to a case of appendicalgia in a woman who had been treated successively for gastric disturbance, hepatic colic, uterine fibroma, and femoral hernia. In a man who came to be operated on for an inguinal hernia of old standing he found a diseased appendix which certainly was the starting point of paroxysms of pain from which the patient had frequently suffered and which had been supposed to be due to renal colic. In a third case Guinard, after performing a radical cure of hernia, was compelled to do a further operation for the removal of the appendix, as the pain of which the patient had previously complained did not cease after the operation and were certainly connected with the appendix. On the other hand, uterine fibroids are not painful unless they are associated with tubal lesions, and when a woman suffering from fibroma complains of pain on the right side, the surgeon should always think of the possibility of a concomitant appendicitis. Of 18 women operated on by Guinard for fibroids who complained of pain, the appendix was diseased in 12, while the others had an affection of the adnexa. The pain from which women with ovarian cysts sometimes suffer originates most frequently from changes in the appendix, as was shewn in 2 cases operated upon. Guinard has also observed 11 cases in which appendicalgia coincided with tubal lesions. A sclero-cystic ovary may also be the cause of error in diagnosis. Thus a woman who complained of abdominal pain, and who had been operated on five years before by a surgeon for sclero-cystic ovary did not get rid of her pain till the appendix, which contained a calculus, had been removed. In 2 cases Guinard erroneously attributed appendicalgia to movable kidney, having neglected the existence of lesions of the appendix. In another case he performed perineorrhaphy for prolapse of the uterus in a woman suffering from appendicalgia whose appendix had afterwards to be removed. He also curetted and amputated the cervix in a woman suffering from abdominal pain which he failed to connect with appendicular trouble; some time afterwards a typical attack of appendicitis occurred for which an operation was performed by another surgeon. In a patient under treatment for metritis who had for four years suffered from pain, a purulent collection was found in the right Douglas's pouch, which was taken to be due to the metritis, and therefore Guinard, instead of performing laparotomy, treated the uterus. Ultimately healthy; the case consisted of the adherent epiploon and the appendix which he removed, probably with the starting point of the symptoms. In two other cases of similar nature the pain ceased after removal of the appendix. Guinard concludes that pain in a case of pelvic affection of the uterus or its appendages is not a contra-indication to operation, but that the surgeon should always bear in mind the possibility of appendicitis. When laparotomy is performed, the appendix should be examined, for the appendix has been overlooked.

(185) Haemostasis in Hepatic Surgery.

Gerard (*Rev. de Chir.*, February 25th, 1904) discussing the various methods for arresting haemorrhage in the liver finds they may all be reduced to (1) simple suture, (2) intrahepatic ligature, (3) pegged sutures, (4) thermo-cautery, (5) superheated steam, (6) plugging with gelatine, fibrin, decalcified bone, gauze, epiploon, and intestinal parietes, (7) tamponnment. Each method is carefully discussed and its merits and demerits pointed out. In wounds of the liver where prompt intervention is necessary the author recommends plugging with epiploon or gauze; simple suture may sometimes give good results in these cases. He records one case where epiploon was used with good results, but some months later a second laparotomy had to be performed for pyloric stenosis due to the formation of bands, after these were freed the patient remained uninterruptedly well. The hepatic scar was sound. Adrenalin is a valuable additional haemostatic. The author has carried out a series of experiments with parenchymatous injection of adrenalin which lead him to assert that it may safely be trusted as a haemostatic as far as the small vessels are concerned. If secondary vaso-dilatation occurs it comes on so long after the vasal constriction that there is little fear of its causing haemorrhage. The larger vessels would, however, need tying as before.

(186) Juxta-Intestinal Cyst of Intestinal Structure.

Terrier and Leclne (*Rev. de Chir.*, No. 2, 1904) publish a review of our present knowledge, both pathological and clinical, of the rare form of cystic growth known as juxta-intestinal cyst presenting intestinal structure, for which the name "enteroid" is suggested. This review is based on a full clinical report of a case in which Terrier removed from the postero-external surface of the caecum in a woman, aged 25 years, a loose subperitoneal cyst of the size of a large orange, which contained a clear fluid, and the inner surface of which was studded over by polypoid vegetations. In their comments on this case the authors state that several varieties of cyst differing in origin and structure have been observed in more or less intimate relation with intestine and the mesenteries. Of these the most frequent are lymphatic cysts, which are usually multilocular. Closely allied with regard to structure to these lymphatic cysts are the very rare cystic lymphangiomata of the mesentery. To these two forms of juxta-intestinal cyst may be added dermoid and hydatid cysts, and, lastly, the variety of cyst of which the growth removed by Terrier affords a good example, the wall of which is formed by smooth muscular fibres resembling the muscular structure of normal intestine, and the inner lining by mucous membrane provided with cylindrical epithelium and often with Lieberkühn's glands. These cysts, known as "juxta-intestinal cysts of intestinal structure," have been found in a very large majority of cases at the caecal end of the ileum or in the ileo-caecal angle; they are almost always unilocular and contain ropy fluid varying in colour from pale yellow to brown. The situation of the cyst in relation to the intestinal wall varies in different cases: the growth may be submucous, intramuscular, or subserous, and, as a rule, it does not communicate with the intestinal lumen. This form of juxta-intestinal cyst has been usually observed in young infants. The submucous cyst is probably developed at the expense of débris of the omphalo-mesenteric duct, and consequently may be regarded as closely allied to Meckel's diverticula. The intramuscular and subserous forms may be due, the authors suggest, to a detachment and secondary inclusion of a portion of intestinal wall in the course of development. These cysts, which are usually unexpectedly revealed in necropsies, have no special symptoms, but, like other growths in connexion with intestine, may cause stenosis, invagination, occlusion by flexure, or volvulus. The authors doubt whether it will ever be possible to make a clinical diagnosis of this variety of juxta-intestinal cyst without an operation. The growth is usually a small one, not larger than an apple or an orange; it causes no symptoms peculiar to itself, and the surgical interventions in the course of which it has been exposed have always been practised for some secondary affection such as occlusion. The sole point of importance is that the surgeon should be aware of the existence of this form of cyst and of its anatomical connexions, and thus, if he meet with such a growth in the course of an abdominal operation, know how to deal with it. The treatment would consist, according to the situation of the tumour with regard to the intestinal wall, either in simple enucleation or in resection of the involved portion of intestine.

MIDWIFERY AND DISEASES OF WOMEN.

(187) Tubal Pregnancy and Haematocele: Operation or Expectant Treatment?

Klein (*Monats. f. Geb. u. Gyn.*, December, 1903) disputes Veit's well-known theory that when the ovum has died in early tubal pregnancy an operation is indicated if it still lies in its tubal sac, whilst, when it has been expelled from the sac, expectant treatment will be sufficient unless symptoms of severe haemorrhage recur. In rupture of the tubal sac operation is always indicated. Klein, while agreeing with Veit as to conditions where the latter advocates operation, is opposed to expectant treatment, even when the dead ovum has been expelled and all symptoms of haemorrhage have subsided. In the course of eleven years, ending in the summer of 1903, Klein has treated 22 cases of tubal pregnancy. In 15 of this series the sac was amputated, and through an abdominal incision in all but one instance, where it was removed through the vagina. Two out of the 15 operative cases were unconscious through extreme acute anaemia, and died when the abdominal incision had just been completed, no anaesthetic was administered in either case. One out of the 7 cases treated expectantly was lost: the patient in this case had a distinctly definable haematocele following symptoms of internal haemorrhage after the

period had ceased. Five days later the pulse suddenly became worse: the patient died whilst preparations were being made to operate. There was a well-encapsuled haematocele: nevertheless, a second and fatal attack of haemorrhage had occurred. A discussion followed the reading of Klein's paper. Gossmann advocated morphine injections into the sac to kill the ovum, but admitted that it was not always easy to be sure that the ovum was not dead already, and that the morphine had not entered a haematocele instead of a tubal sac. As a haematocele so often subsides statistics of this form of treatment were unreliable. Early "prophylactic" diagnosis of tubal gestation was not practicable. The majority probably ended in very early death of the ovum, with more or less haemorrhage. Hofmann, in the course of a very wide experience in *post-mortem* work for the legal authorities in Vienna, came across eight cases of fatal haemorrhage from tubal gestation in twelve years. No doubt the eight might all have been saved by an experienced operator, but it was a mistake to teach the profession in general that every tubal sac should be treated as a malignant tumour. Diagnosis and operation were alike difficult to doctors not specially experienced in gynaecology. Gossmann declared that he knew that the mortality of operated cases in the hands of the inexperienced was at least as high as that of non-operated cases under their care. Fatal haemorrhage was an unfortunate exception. Klein differed entirely from Gossmann. In many cases reported as tubal gestation cured by expectant treatment error of diagnosis was possible, and proof of spontaneous healing was at the same time wanting, whilst evidence of death from haemorrhage obtained unexpectedly at a necropsy was of course convincing. There must remain many cases of sudden or relatively sudden death from rupture of a tubal sac which are never recognized, and are lost to clinical literature. Like Gossmann, Klein admitted the danger of inexperienced operating, but it supported his views that in one case an incision had been made into the sac through the vagina and infection ensued, he removed the sac by an abdominal operation, and succeeded in saving the patient. Amann and Brannings both agreed with Klein as to negative evidence. Thus in Bavaria when the cause of sudden death is certified as "perforating gastric ulcer," no necropsy is required, and in cases of slower death errors of diagnosis must be very often registered in certificates.

(188) Cyst of Cervix simulating Fibrous Polypus.

Henrotay (*Bull. de la Soc. Belge de Gyn. et d'Obst.*, vol. xiv, No. 3, 1903-4) attended a single lady aged 43, who, after two years of irregular menstruation as in a menopause, noticed that a slight discharge of blood had continued without any cessation, though without any increase in quantity, for two months. Henrotay recognized her as a patient upon whom he had performed Cittadini's modification of Alexander's operation five years previously to his entire satisfaction. On examination a little, firm, hard tumour, as big as a nut, could be detected on the anterior wall of the cervical canal; the os externum was patulous. Fibroid polypus was very reasonably diagnosed. An operation was performed under chloroform as the hymen had to be incised. On applying the volsella to the tumour it burst and some opalescent fluid escaped; then it became evident that there was no polypus, but a cyst, the pathological nature of which was not evident.

(189) Obturator Hernia of Ovary associated with Osteomalacia.

Littauer (*Zentralbl. f. Gyn.*, No. 1, 1904) treated a patient under his observation for years with phosphates for mollities. At length she died of pulmonary disease. He preserved the pubic bones with the symphysis and a hernial sac occupying the left obturator foramen. The sac contained no intestine, but half of the corresponding ovary, which was easily drawn out, being free from adhesions. Littauer, when exhibiting the specimens at Leipzig, was able to declare that the patient had never suffered pelvic pains even at period, nor was there ever any kind of symptom indicating obturator hernia.

(190) Dermoid of Both Ovaries and Pregnancy.

Littauer (*Zentralbl. f. Gyn.*, No. 1, 1904) removed both ovaries from a pregnant woman. The stage of gestation is not stated, but, although there was no febrile reaction nor other complication frequently associated with ovariotomy, abortion occurred on the sixth day. The left tumour was a dermoid of the usual type; the right was smaller, and contained a cavity of the size of a walnut, from the inner wall of which sprang a small outgrowth bearing a single tooth. There was also the corpus luteum corresponding to the pregnancy in the same ovary. Littauer remarked that almost at the same time he removed a single dermoid ovary from a pregnant woman without interrupting the pregnancy.

THERAPEUTICS.

(191) Cocaine and Adrenalin.

In dealing with the action of local anaesthetics H. Braun (*Berl. Klin.*, January, 1904) speaks chiefly of cocaine. Introduced in 1884 by Koller, this medicament has gradually gained a firm place in our list of therapeutic agents. Corning pointed out that any drug which possessed a marked chemical affinity for the peripheral nerves must act powerfully on the heart and central nervous system, if it enters the circulation in concentrated solution. Cocaine is found to have a local toxic effect on all forms of protoplasm, and if it is introduced or obtains access into the circulation in sufficient quantities and sufficiently rapidly it exerts a general poisoning. It therefore follows that the slower it is absorbed from the point of injection, the more active it will be as a local agent. Constricting an extremity will be sufficient to alter a fatal poisoning into a mild one, and cooling the part, for example, with an ether spray, also delays the resorption of the solution. A more important means of delaying the absorption is found in the action of adrenalin. It has been found that mere traces (0.000000245 gram of an extract of the gland per kilo. for a dog) will cause a rise in blood pressure. The action of the suprarenal capsules depends on the contraction of the blood vessels, by direct action on the contractile tissue of the vessels. It acts powerfully locally. Injecting solutions of adrenalin in strengths of 1 in 1,000,000 subcutaneously, the tissue becomes bloodless, and when stronger solutions are employed even arteries and veins of medium size scarcely bleed when cut through. Even large arteries can be almost completely contracted by the injection of strong solutions. Very small quantities of adrenalin with cocaine increase the local anaesthetic action of the latter. In employing this combination for local anaesthesia it is necessary to determine a safe dosage. On a mucous surface the drug does not act toxically; Doenitz found that $\frac{1}{2}$ mgr. of adrenalin in a solution of 1 in 2,000 could be injected into the subdural sac of human beings without ill-effect. Subcutaneous injections, however, have to be carried out with great caution, and in order to fix a safe dose, Braun experimented on himself; 0.0005 gram in solution of 1 in 1,000 produced general symptoms. Five minutes after the injections he felt a sense of oppression on the chest, palpitation, and had to lie down. These symptoms passed off in one and a-half minute. The drug produced less effect on Doenitz. If one injects $\frac{1}{2}$ mgr. of adrenalin with cocaine, the patient may feel a tightness of the chest, but this passes off without any further symptoms. Braun recommends using the solution of adrenalin in a dilution of 1 in 10,000, and points out that very weak solutions of cocaine will have the same anaesthetic effect if combined with the adrenalin as strong solutions without it. One has to be careful in using the mixture to avoid the occurrence of secondary haemorrhage. If the adrenalin acts strongly, even large vessels may be firmly contracted, and may escape the notice of the surgeon. If they are not ligatured, they will naturally bleed later. It is therefore necessary to plug the wound or to seek every vessel of any size, before closing it. Care has to be used, too, with cocaine when introduced into the bladder, as a 1 per cent. solution may give rise to alarming symptoms. The addition of adrenalin to very weak solutions of cocaine will be found advisable. Braun describes the method which he employs for anaesthetising the female urethra. He dips a plug of wool into 1 c.cm. of a 1 per cent. solution of cocaine to which 3 drops of a 1 in 1,000 solution of adrenalin have been added, and swabs out the urethra with this. For infiltrating according to Schleich, he finds that a solution of cocaine of 0.01 per cent., with 3 to 5 drops of adrenalin solution (1 in 1,000) to each 100 cm. added, absolutely sufficient. He points out that an inflamed region should never be directly infiltrated, but one should always make a circular infiltration. The same solution can be used for Oberst's method of injecting into the subcutaneous tissue in the neighbourhood of nerve trunks, for anaesthetising a finger and the like. For extraction of teeth he recommends 0.01 to 0.015 gram of cocaine in from 1 to

... of saline fluid, with the addition ... 2 to 3 drops of adrenalin solution. Half of this is injected behind the tooth and half in front of it, about the level of the fang, and as near the periosteum as possible. The condition of the tooth may be as bad as possible: with this injection one will be able to extract it without pain. Lastly, he mentions Bonnet's experiments with intradural injection of 1 c.cm. of adrenalin (1 in 1,000), to be followed by 0.05 to 0.07 gram of cocaine. The anæsthesia is said to be very satisfactory after this method, and no ill-effects were noted.

(192) Treatment of Ozæna.

Luna (Di Donato) describes (*Gazz. Med. Ital.*, Jan. 23rd and February 4th) his method, for the purpose of treating ozæna, of Finsen's treatment. In a preliminary discussion of the nature and customary treatment of ozæna he adopts the hypothesis that the cause is a phlegmonous, causing atrophy of the mucosa and the bones of the turbinated and a characteristic change in the secretion which loses its bacterial power in contact with water, and easily dries into crusts. He denies the possibility of cure by cleansing and antiseptic injections though they are necessary to the patient's comfort, and in many cases the application suffices to prevent putrefaction as long as they are regularly used. He has also obtained good results but not cure from vibratory treatment which stimulates the circulation and the glandular secretions. He disapproves of all the methods of treatment which involve any destruction of tissue to other tissues on the ground that the disease quickly spreads again and involves the whole area within the nose. The chief modification introduced into Finsen's treatment by the author are that he produces anæmia of the tissues by cocaine and adrenalin rather than by pressure and that instead of operating on a small area at a time he projects the rays freely into the nose and thus treats a large surface at once. His apparatus consists of an incandescent lamp of 300 candle power surrounded by a glass screen containing water in circulation, to intercept the ultra-violet rays. Each application of the rays lasts two hours, and then the patient is left in the habit of combining resistance to atrophy for the cure of a severe case, and to attempt for a mild case. That is, he holds the characteristic feature to be atrophy, which irrigation is regularly employed to counteract, but since the introduction of the method has been discovered the necessity of treatment being ... Notice is given of ... [illegible] though others have been treated in the same way and ... In nearly all the cases it is stated that the ... [illegible] maintained after the treatment has been discontinued, sometimes for a year. The ... [illegible] after a ... [illegible] ... [illegible] ... [illegible]

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(195) Diabetes.

A FEATURE of the annual meeting of the Medical Society of the State of New York held on January 26th, 27th, and 28th was a "symposium" on diabetes (*Medical Record*, January 30th). Heinrich Stern, New York, discussed the occurrence of diabetic and non-diabetic glycosuria in the same individual. He said that the diabetic state might be well established before glucose was excreted by the urine. Diabetic glycosuria was nothing more than the salient feature of the second stage of the diabetic deterioration. Glycosuria was a symptom of manifold other disturbances of ectogenous as well as of endogenous causation. With the assistance of various discrepitant factors we were enabled to differentiate clinically between the diabetic and non-diabetic forms of glycosuria, Duplex melituria was the result of two concurrent or intercurrent affections of dissimilar character having the one symptom, glycosuria, in common. The recognition of duplex melituria depended on the alternate prominence of one set of symptoms including the respective glycosuria. Discussing the pathology of the disease, R. M. Pearce, of Albany, said that in only half of the cases of diabetes could any gross lesion of the pancreas be found. He showed two definite forms of chronic pancreatitis: (1) An interlobular; (2) an interacinar form. The latter also invaded the islands of Langerhans. In the first variety diabetes practically never occurred, but in the second variety diabetes was present in 1 out of the 20 cases studied. He had collected 23 cases of cancer of the pancreas, and in only 3 had glycosuria been present. Two of these 3 were typical cases of diabetes. In both diabetic cases the cancer was in the heads of the pancreas and obstructed the pancreatic duct. In both cases also, it should be noted, there was distinct involvement of the islands of Langerhans by fibrous tissue. He had traced the development of these islands, and had found that they arose from the true secreting glands, but, at a certain stage, took on a new form and became thoroughly differentiated. It was well known that there was seldom any such special differentiation without the structure being endowed with a special function. It was also significant that the islands of Langerhans were more resistant than other parts of the pancreas to destructive processes. Pearce did not believe that all forms of diabetes were due to the pancreas, but recent additions to our knowledge had certainly given us a more satisfactory basis. David Edsall, of Philadelphia, dealing with the physiological chemistry of diabetes, said that it was no longer believed that there existed in the blood stream any important glycolytic ferment. It had been shown that diabetes did not occur if the liver as well as the pancreas were extirpated in birds and frogs. It was a remarkable fact that in birds extirpation of the pancreas caused a disappearance of the glycogen from the tissues and an excess of sugar in the blood, and yet glycosuria did not occur. Sugars were probably far more varied in their nature than they were now known to be. The difficulty in diabetes might be one of glycogen construction or one of excessively rapid conversion of glycogen into sugar. William H. Thomson, New York, discussed the medical treatment of diabetes. A glycosuria lasting more than a year he generally pronounced diabetes. The presence of diacetic acid in the urine was generally indicative of confirmed diabetes. The younger the patient the worse the prognosis. The daily output of urea should be determined, for, even though the patient was obese, if the percentage of urea were continuously high emaciation was really going on. He very rarely prescribed codeine or any other of the opium derivatives in diabetes; on the contrary, he condemned their use, for he believed that medicines of this class "functional medicines" could not permanently affect the tissues. For many years he had advocated cod-liver oil for diabetes, and especially urged its use in young subjects. This was an undoubted empirical fact, though he was unable to state the nature of its action in this disease. Nevertheless, obesity contraindicated the use of cod-liver oil, and its administration was not advisable in persons leading a sedentary life. Next to cod-liver oil he would place iron. Arsenic was also beneficial, and was given by him usually in the form of arsenious acid. When the output of sugar was so large as to require prompt relief, he gave 15 gr. each of antipyrin and sodium benzoate four times a day. After a time he would substitute 15 gr. of aspirin and 10 gr. of bismuth salicylate. Alkaline waters had for a long time deservedly held a high place, but it should be remembered that the continued use of such waters in persons who were emaciating was always prejudicial. Diabetes was always a very grave disease, because it necessitated the elimination of an important element from the diet, and eventually the system would secure the sugar it so much craved by the conversion of its own proteids. Then would come a condition of toxaemia. An impending diabetic coma was often heralded by the kidneys in the deposition of a peculiar form of casts. With regard to the general management of diabetes, F. C. Shattuck, of Boston, said very little could be done in the preventive treatment. Except in very mild cases the diet should be at once restricted. If diacetic acid and acetone were present in the urine a radical change in diet was dangerous. The patient should be weighed at short intervals, and should learn in a general way the quantity of each of the articles of diet to be taken. In the milder cases a strict diet should be maintained for a month or two, and then the toleration of starch should be tested. In the severer cases one must be more careful in giving bread. He made but little use of the manfactured diabetic breads, having found them unreliable. No diabetic bread which was palatable was safe to use for any great length of time. If in spite of a rigid diet the sugar in the urine persisted, a certain amount of bread should be allowed. Diabetics were sensitive to cold and, therefore, should be warmly clothed. Rest both of body and mind was highly important. Exercise should be taken in moderation, and the best general rule in this regard was that, if after exercise and rest for an hour the feeling of weariness had not passed off, too much exercise had been taken.

(196) Typhoid Pericarditis.

PERICARDITIS is a rare complication of typhoid fever, and but few cases are on record. Delsart describes some, and summarizes the literature on the subject (*Thèse de Paris*, 1903). The evolution of typhoid pericarditis varies according to the form taken by the latter disease. The course and duration of typhoid do not seem to differ in those cases in which pericarditis is a complication. Friction diminishes slowly, and disappears by the time the pyrexia subsides. In some cases friction persists during the whole period of convalescence, and only disappears by the time the patient is completely restored to health. The writer has not been able to trace any fatal cases of typhoid directly to pericarditis. In some cases the myocardium appeared to be severely affected. To this death may be attributed rather than to pericarditis. Thus, in the event of pericardial friction being heard in a case of typhoid, careful attention must be paid to the pulse and the character of the sounds, for irregularity of the former, feebleness and incompetence of the latter with cyanosis, and cold of the extremities, indicate a myocardial extension. Typhoid pericarditis occurs as a rule in the sero-fibrinous form. Purulent pericarditis is very insidious, as the symptoms and signs are masked by myocarditis on one hand and typhoid on the other. Purulent effusion forms rapidly in some cases of typhoid, and a fatal termination may be expected in six or seven days.

SURGERY.

(197) The Surgical Treatment of Pancreatitis.

AT a meeting of the Medical Association of the Greater City of New York, held on February 8th, John B. Deaver, Philadelphia, presented a communication on the surgical treatment of pancreatitis (*Med. News*, March 5th). He said that the indications for operation in acute pancreatitis were furnished by the pathology of the disease and the history of the cases so far reported. The extraordinary rapidity with which death so often followed shortly after the onset made any delay inadvisable; yet the diagnosis was so difficult and the symptoms so ill-defined that the mortality following operation was very high. In many forms of acute pancreatitis the disease appeared to be a destructive infiltration of tissues by ferment, often associated with infection, and only in those cases where local areas of pus produced necrotic foci did it limit itself. For this reason he believed that the early operation, rationally conducted, as Mikulicz expressed it, would finally give the best re-

the diagnosis. The gall bladder should

the pancreatic duct be a calculus, the operation re-

islands of Langerhans were not dependent on any

the pancreatic

cases could the cyst be dissected out.

Aspiration of the cyst should be performed only when the patient was seriously ill from diabetes or the effects of pressure. Whenever practicable the abdomen should be opened by a median incision above the umbilicus, through either the gastro-colic omentum or the transverse mesocolon, after which the contents of the cyst should be withdrawn by an aspirator, the puncture being closed with one or more haemostats as the needle is removed. The cyst wall was next drawn to the wound, sutured to the parietal peritoneum, and drained. When the cyst was small and could not be brought to the abdominal wound, a rubber drainage tube should be introduced into the cyst cavity, surrounded by gauze packing to prevent leakage.

(1098) Treatment of Utero-vaginal Fistula. Henri Cabrol (*Gaz. Méd. Nant.*, February 25th, 1904) describes Boari's method of implantation of the ureter on the bladder and gives a detailed description of a completely successful case performed by himself. The method is founded on the anatomical investigations of Margarucci, who showed that the ureter depends for its main blood supply on a small artery passing from the under surface of the renal artery, running a short space on the anterior surface of the ureter, and then dividing into two branches, one on every side of the ureter which accompany it to its lower extremity, giving off several branches to form a plexus in the wall; thus in case of necessity with the [illegible] uterus, the arterial system [illegible] supply the ureter with sufficient blood [illegible] and therefore the lower end of the ureter

puts

which im-

tact with the bladder. More substantial adhesion is obtained by stitching together the peritoneal and peri-ureteral tissues, and by cutting two small flaps from the muscular layer of the bladder and fixing them a little way up the sides of the ureter. A further advantage obtained from this last manœuvre is that the ureter is made to enter the bladder obliquely, as it does in its natural position. The operation is complete when the button has come away in the bladder and been removed, leaving the ureter and bladder finally adherent, with an unobstructed passage for the urine. Cabrol states that 47 cases of implantation of the ureter on the bladder are on record, 16 of them being operations of necessity and 31 operations of election. Eight different operators in ten operations have employed Boari's button. Garovi's own operation was done on a woman of 30, who after a severe instrumental labour suffered from vesico-vaginal fistula, passing all her urine through the vagina. The fistula was closed by a plastic operation, and it was then discovered that a little urine entered the vagina, though there was no longer any direct communication between that cavity and the bladder. A minute fistulous communication between ureter and vagina was thus discovered. The operation was carried out with the patient in the Trendelenburg position, and was impeded by old pelvic adhesions, by the small size of the pelvis, and by the presence of the uterus and its adnexa, organs which have often been removed before this operation is necessary. There was no fever after the operation, though the patient, by injudicious [illegible] on the second day, brought on a violent attack of vomiting, which left her so weak that for thirty-six hours she was in great danger of dying. She was able to leave her bed on the thirteenth day. On the seventeenth day the ligature became free in the bladder, and caused slight tenesmus till it was removed through the dilated urethra. On the twenty-third day from the operation the patient left the hospital completely cured.

MIDWIFERY AND DISEASES OF WOMEN.

(1099) Students' Outdoor Obstetric Practice. [illegible] Wynn's report of his students' outdoor obstetric practice at the University College of Medicine, Richmond, Virginia, is published in the *Journal of the* [illegible] *Medical Association*, October 1st, 1903. The total number of cases was 1,000. The continuity was [illegible] the whole number, or one-half of 1 per cent., one death occurred from post-partum hæmorrhage, one from [illegible] one from septic peritonitis [illegible] one from [illegible] pneumonia, one [illegible] by autopsy, one from [illegible] complicated by late lesions of [illegible] and the [illegible] ordered by [illegible], the [illegible] rate connected with [illegible] and [illegible] was 2·6 per cent. This [illegible] the general [illegible] in point of low mortality, the [illegible] referred to being the Dresden [illegible], Berlin, the Rotunda Clinic, Dublin, [illegible] Clinic, Paris, [illegible] and the [illegible] Lying-in Hospital, New York City. Considering that most

of the deliveries were under insanitary surroundings, the results were all the more satisfactory. The aim had been to impress on the students the danger of infection, and, without making any great array of aseptic paraphernalia, to reduce the system of disinfection to the simplest possible technique. Special care was observed in making vaginal examinations, but the ante-partum vaginal douche was not employed. Efforts were made to keep the hands, and particularly the examining hand, sterile, and both general and hand disinfection was repeated before each examination. Vaseline was not employed as a lubricant. Reliance was placed on thorough scrubbing of the hands and forearms of each attendant, followed by immersion in mercury bichloride, 1 to 1,000, not less than five minutes, and in lysol 1 drachm to the pint. The very favourable results were believed to be due in part to the scrupulous care bestowed on the genital tract during the third stage of labour, not only in guarding against the invasion of pathogenic organisms, but also in observing the time for and the manner of delivering the placenta. The author holds that the hasty or precipitate resort to Credé's method is largely responsible for the incomplete delivery of the placenta and membranes and for the sepsis frequently dependent thereon. For this reason the management of this important part of delivery is based upon the cardinal principle that Nature has her own time for separating and expelling the placenta at full term, as indicated by a signal easy of recognition, and that any method designed to excite uterine contraction before Nature indicates that the placenta is ready to be cast off must be regarded as not in accord with natural processes. The uniform rule in Winn's clinic is to place no hand over the uterus immediately after the child is born; but no friction is made, nor is any effort exerted to excite uterine contractions so long as the uterus remains firm. The slight rising of the fundus, while firm, is the signal that the uterus is ready to expel the placenta. The lifting up of the uterus may occur before the average "twenty minutes" or it may be delayed. As soon as it is observed by the "sentinel hand," the uterus is grasped firmly with one or both hands and pressed downward in the axis of the superior strait. If, after waiting three-quarters of an hour, there is still no sign of placental separation, the Credé method is resorted to without further delay. The membranes, instead of being twisted into a rope, as recommended by many, are allowed to trail out, which they will readily do during that normal relaxation which follows uterine contraction. In a general way, all attendants act on the principle that every placenta, at full term, has its own time to separate, and that it is better to wait until that time arrives before resorting to artificial stimulation of the uterus. By the rigid observance of this rule it has been a rare occurrence to have even a retained placenta, and no cases of adherent placenta have been met with at all. All students are strictly enjoined to avoid interference with the genital tract after the child is born, and experience has demonstrated that, just in proportion as this rule is regarded, the puerperium is marked by fewer deviations from the normal.

(200) Dystocia after Amputation of Cervix.

Boissard and Coudert (*L'Obst.*, January, 1904) report a labour in the eighth month, where the patient had undergone, five years previously, amputation of the cervix uteri by Schröder's method for hypertrophic metritis. The pelvis was contracted. A few hours after the first pains the patient's general condition became unfavourable, the cervical canal was slightly opened by clots, and the fetal heart sounds had disappeared. Retro-placental haemorrhage was diagnosed. The membranes yielded, but no dilatation followed. The os was represented by a firm cicatricial ring, not half an inch in diameter. Dilatation by the fingers proved impossible. Morphine injections and saline solutions were administered, and the patient was benefited by rest. By the morning the os was as wide as a 5-franc piece. Tarnier's *écarteur* was applied with great difficulty. About twenty-four hours after the beginning of the labour basiotripsy was practised, not without much trouble owing to the cicatricial tissue and the narrowness of the pelvis. About 2 lb. of clot came away from behind the placenta. On the fourth day signs of infection appeared and caused anxiety for a week. The cause of haemorrhage and detachment of a normally-inserted placenta was not clear. There was neither traumatism nor a violent act of passion, nor fear, nor shortness of the cord. Pinard prefers an abdominal operation in a case of this kind, but Boissard and Coudert observe that, the child being dead, it was not right to put the mother to risk. Should she become pregnant again Caesarean section was indicated.

THERAPEUTICS.

(201) Aristochin.

H. Baum (*Die Heilkunde*, June, 1903) has used aristochin, a derivative of quinine, in the treatment of malaria as an antipyretic and as an analgesic. He describes its effect on 7 cases of malaria. The first was that of a child, 12 years of age, suffering from a severe form of malaria with high fever, vomiting, great enlargement of the spleen, and before treatment was begun frequent relapses. A dose of ½ gram (7·7 gr.) of aristochin given four hours before the rise of temperature was expected produced no effect, and in spite of it the temperature rose to 104·9 F. On the next day 3 grams were given in ½-gram doses, but the temperature again rose, this time to 104° F. On the following day 3½ grams were given, and on this day the temperature remained normal and the spleen began to diminish in size. Smaller doses were given each day for the next fortnight and no further relapses occurred. In the other 6 cases three ½-gram doses were given daily while the fever lasted, and the same or a smaller quantity for a few days afterwards to prevent any fresh access of fever. In the second case described the treatment did not prevent the occurrence of two relapses in the first fortnight, but after that time the patient remained well. In a third case aristochin was given for three days before the temperature finally became normal. In a fourth there were two relapses in spite of treatment with aristochin. The supply of this drug then gave out and another quinine derivative was employed. After a third relapse the patient permanently recovered. The occurrence of relapse under both drugs points to some peculiarity of the case other than the particular form of quinine employed being responsible for the return of the fever. In 2 of the cases the symptoms disappeared finally within 24 hours from the beginning of treatment. The last case was one of a febrile malaria where the diagnosis rested on the presence of the malarial parasite in the blood. The symptoms were fairly typical, and there was concomitant neuralgia. Aristochin brought about the disappearance of both the general symptoms and the neuralgia. To test the antipyretic action of the drug it was given to more than 40 cases of erysipelas, 1 of typhoid, 3 of severe sepsis, but in all the cases except one little or no effect could be demonstrated either on the temperature or the general condition. In one case, a relapse after a severe attack of erysipelas, there was a marked fall of temperature and in the case of typhoid the aristochin was thought to have a good effect. The author believes that these results show the slight influence of quinine itself on fever as such rather than any failing in the special derivative employed. As an analgesic aristochin gave moderately good results. Its effect was produced fairly quickly, but did not last very long. The dose was 1 gram or more generally ½ gram given three times three, two, and one hour before the pain was expected to begin. Aristochin is insoluble in saliva, and is thus tasteless and readily taken by the patients. Although used in 70 cases, in two only were unpleasant after-effects observed, in one vomiting and in the other the development of a rash. Baum's conclusions are that aristochin possesses the advantages of quinine without its disadvantages, and is (1) a specific against malaria, (2) an antipyretic in certain forms of fever, and (3) a fairly good analgesic for periodical neuralgia.

(202) The Therapeutic Value of Injections of Antidiphtherial Serum.

L. Chevalier (*Ann. de l'Inst. Pasteur*, January, 1904) has made some experimental observations relative to the dosage, the repetition and the method of administration of antidiphtherial serum. The experiments were made on guinea-pigs inoculated in one series with cultures in a second series with the toxin; they were designed to answer the questions whether massive doses are more efficacious than mean doses, whether there is advantage in repeating doses, and what method of injection is to be preferred. The results obtained in the first series were as follows. Subcutaneous injection of ⅒ c.cm. of serum was successfully used ten hours after inoculation of the

animals with a standard lethal dose of culture, the period was extended to twelve hours by the injection of massive doses and typhoid was also lengthened the period of successful injection. Intravenous injection further lengthened the period to from twelve to fourteen hours, but intravenous injection was still more efficacious up to about sixteen hours. In the second series in which the animals were inoculated with toxin similar effects were obtained intravenous injection being effective later than either subcutaneous or intraperitoneal. The writer considers from his experiments that in diphtheria as in tetanus there is a period after which antitoxin is of no use when administered, the incubation a primary disease does not exist and necessary; the period at which unexpected at least in all serious cases, intravenous injections are more efficacious than the subcutaneous but intravenous injection is the method of choice and a most valuable therapeutic measure.

(203) Treatment of Pleural Effusion.

A writer in the *Medical Record* (March 3rd, 1904) says rational treatment includes early and complete removal of fluid and the reduction of the pleural sac to the smallest possible size by the production of a virtual atmospheric cavity. The ordinary method of simple aspiration as practised with Potain's apparatus rarely effects complete removal of fluid, as it does not overcome the pressure of constriction of the chest, and in chronic pleural cavity, which irritates portions of the effusion, and is responsible for the necessity of repeated aspiration. A further disadvantage is the danger of oedema of the lung. All these accidents are avoided by the use of pneumatic suction or pneumatic aspiration, in which sterilized air is made to take the place of the effusion. The fluid is withdrawn. Care is taken to prevent air entering the pleural cavity by the aspirating needle. A little practice renders this perfectly easy. After aspiration the patient is placed in the recumbent position, and the patient is not allowed to sit up until the pleural cavity is filled with fluid. The method is particularly suitable for cases of pleural effusion in children, as it is painless and does not frighten the child as the ordinary method of aspiration does. At the end of twenty-four hours the fluid has usually been absorbed, and the aspiration may be repeated if necessary. The writer has treated many cases in this way, and has found it very successful in practice.

(204) X Rays in the Treatment of Lupus.

[illegible] necessary, [illegible] action on the part of the operator, [illegible] to apply the rays systematically to small [illegible]

[illegible] accidents in the use of the method and to regulate the intensity of the application and the limitation of the area treated. A Crookes-Villers tube is used at a distance of 15 cm., the resistance is checked by the radiochromometer of Benoist, and the rays measured by the apparatus of Holzknecht. The resistance is maintained at a constant point by the use of the so-called osmoregulator of Villars and the detonators of Beclere and Williams. The restriction of the area to be treated is regulated by metallic cylinders of varying diameters, which are applied to the head of the patient. The length of the exposure usually necessary is about forty minutes with this apparatus. It is necessary to use rays with a mean penetration, the less penetrating are liable to give rise to dermatitis. Experiments showed that it is possible to use five exposures consecutively of forty minutes each on a child's head without bad effects, but it is impossible to command immobility of the head for such a length of time. Much care is necessary in mapping out the areas to be acted upon by the rays. About seven days after the application the hairs fall out spontaneously and leave the patch entirely bare.

PATHOLOGY.

(205) Yellow Fever.

THE report of the French Mission, consisting of Drs. Marchoux, Salimbeni, and Simond, sent to Brazil to investigate the etiology of yellow fever was published in the *Annales de l'Institut Pasteur* for November, 1903. The following are their conclusions: (1) The serum of a patient is virulent on the third day of the disease. (2) On the fourth day the blood no longer contains virus even when fever runs high. (3) One-tenth of a cubic centimetre of virulent serum injected under the skin is sufficient to produce yellow fever. (4) The virus deposited on an abrasion of the skin caused by removal of the epidermis does not produce the disease. (5) In the serum of a patient the virus passes through the Chamberland F filter without dilution. (6) In similar conditions it seems not to pass through filter B. (7) Virulent serum kept exposed to the air at a temperature of 37° C. is inert at the end of forty-eight hours. (8) In defibrinated blood kept under vaseline oil at a temperature of 25 to 30° C. the microbe of yellow fever is still living at the end of five days. (9) At the end of eight days defibrinated blood kept under similar conditions no longer contains active virus. (10) Virulent serum becomes harmless after exposure for five minutes to a temperature of 55° C. (11) A protective bacterial serum that has been [illegible] produces a relative immunity which is followed by the inoculation of a very small quantity of virus, and becomes complete. (12) The injection of defibrinated blood kept in a laboratory under vaseline oil for at least eight days produces relative immunity. (13) The serum of a convalescent possesses definite preventive properties. (14) The immunity produced by the serum of a convalescent is still appreciable at the end of twenty-six days. (15) The serum of a convalescent appears to have therapeutic properties. (16) As has been shown by Reed, Carroll, and Agramonte, yellow fever is produced by the bite of *Stegomyia fasciata*. (17) For the production of the disease in man, it is necessary that that used should first have infected itself by absorbing blood from a patient suffering from yellow fever during the first three days of his illness. (18) The infected mosquito is dangerous only after an interval of at least twelve days has elapsed since the ingestion of the toxic blood. (19) The bite of two infected mosquitos may give a grave form of the disease. (20) The mosquito seems all the more dangerous the longer after the time of infection he bites. (21) The bite of infected mosquitos does not certainly produce yellow fever. (22) When it has had no effect, the bite of infected mosquitos does not produce immunity against an injection of virus. (23) In the region of Rio de Janeiro as in Cuba no other species of *Culex* but the *Stegomyia fasciata* plays a part in the transmission of yellow fever. (24) Contact with a patient, his clothes, or his excreta cannot produce yellow fever. (25) Apart from the bile of an infected *Stegomyia*, the only known means of producing the disease is the injection into the tissues of a susceptible individual of blood from a person suffering from the disease obtained during the first three days of the illness. (26) Yellow fever can assume a contagious character in regions where the *Stegomyia fasciata* is found. (27) The prophylaxis consists entirely in the adoption of measures to prevent that insect from biting sufferers and healthy people. (28) The fact must be kept in view that the period of incubation may be prolonged to thirteen days. (29) The *Stegomyia fasciata* is frequently infested by parasitic fungi, yeasts, and sporozoa; no such parasite hitherto met with has any relation to yellow fever. (30) Neither in the mosquito nor in the blood have Marchoux, Salimbeni, and Simond so far succeeded in discovering the causative agent of the disease.

(206) Bacteriology of Fluid in Hernial Sac.

ROBELLA (*Clif. Med.*, November 18th 1903) examined the fluid contained in the hernial sac of 5 cases of strangulated hernia. In 1 case the hernia had been strangulated for three days. In every case the bacteriological results were completely negative both in aerobic and in anaerobic cultures. Some authors believe this result is due to a supposed bactericidal action of the hernial fluid but *in vitro* hernial fluid has only a very weak bactericidal action, and cases of infective hernial fluid have been described. A more probable explanation is to be found in the sterile character of the small intestine when empty, as shown by the recent experiments of Kehlhugge on animals. With a view to ascertain how far this explanation can be applied to human beings, the author suggests that in the course of a laparotomy the small intestine might be punctured with a fine needle and its contents examined bacteriologically.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(207) Late Epilepsy.

In a clinical lecture delivered at the Salpêtrière Raymond states that epilepsy occurring in late life may give rise to difficulty in diagnosis (*Journ. de Méd. et de Chir. Prat.*, December 10th, 1903). A patient, aged 50, and who had always enjoyed good health, had a convulsion when 20 years of age. He remained free till 35, when other seizures appeared, occurring more and more frequently and severely, especially after the age of 40. The patient would go to bed in his usual health and sleep quietly for a couple of hours. He would then become restless, muttering incoherently, walk about his room, open doors, and perform other purposeless acts, these symptoms lasting from ten to fifteen minutes. He would then return to bed, or lie down on the floor, and be seized by a convulsion in a very short time. During the attacks involuntary micturition occurred. On waking up he would not remember anything that had passed. The following day there would be a sense of fatigue and slight restlessness. The indications, therefore, of this case were, first, a period of agitation and restlessness; secondly, a convulsive crisis. The diagnosis of such a case might present considerable difficulty unless one were fully acquainted with its history and course. Such cases might be mistaken for somnambulism. It is usually stated that late epilepsy is rare, but Raymond believes that such is not the case. In his opinion cases easily escape recognition on account of the unusual characters they present. The older the patient the more serious he considers the disease. In the case under consideration energetic treatment resulted in complete suppression of the seizures. He recommends ammonium, strontium, and potassium bromide and salts given in one dose at night. The amount which the patient can tolerate must be ascertained in every case, and it is well to add arsenic. An important item in the treatment is to disinfect the intestinal tract, and for this he recommends salol. As far as possible the diet ought to be lacto-vegetarian.

(208) Human Perspiration.

Julius H. Hoelscher, of Chicago, has published reports of experiments on the human perspiration under the influence of drugs and in certain pathological conditions (*Medical News*, March 5th). After a thorough cleansing he enveloped his subjects in sterile gauze, and over this secured an oil cloth. The subject was then subjected to dry heat, not over 120° F., for one to two hours. When the point of tolerance had been reached, the soaked gauze was quickly removed, submitted to pressure, and the sweat collected, the amounts ranging from 3 oz. to 32 oz. He offers the following deductions from the experiments conducted: (1) The hot air causes an aseptic fever or temperature elevation, despite the antipyretic action of acetanilide, sodium salicylate, and quinine; (2) the hot-air bath is of decided value in acute and chronic uraemia, shown by the fact that the perspiration contains a considerable excess of urea and nitrogen; (3) in articular rheumatism in conjunction with salicylates the hot-air bath gives more rapid results and lessens cinchonism; (4) certain types of myocarditis seem to be benefited by the hot-air bath, and he reports a case; (5) pilocarpin should never be used without the aid of hot-air application to the body; so combined there is no sialagogue and less toxic drug effect and far more sweating than otherwise; (6) three cases of catarrhal jaundice were sweated; all the tests failed to show bile pigments, only the epithelial débris containing bile deposits; (7) modern sugar tests failed to reveal sugar in the sweat from diabetes; (8) a case of chronic constipation and indicanuria did not disclose the presence of indol or skatol in the sweat; (9) as regards the function of eliminating normal and abnormal substances, the skin is not to be compared with the kidneys; (10) free sweating seems to favourably affect psoriasis, though further study is required, as also the effect on other skin diseases; lastly, 1,000 c.cm. of sweat contains about 11.5 grams of solids (nearly 3 drachms), one-half inorganic and one-half organic, and about 0.6 gram (9 gr.) of urea and 0.47 gram (8 gr.) of nitrogen.

(209) Desquamation in Pneumonia.

Campani (*Gazz. degli Osped.*, December 27th, 1903) reports 5 cases of pneumonia occurring in young soldiers, followed by desquamation, without any previous skin eruption. All the cases recovered, and in each case the pneumonia was on the right side, benign, and without complication. In 4 out of the 5 the right lower lobe was the part affected. The cases occurred in the springtime. The desquamation always affected the face, and particularly the nose, and had the same objective and subjective characters in each case, and was never preceded by any exanthem whatever. Philipponisch's palmo-plantar symptom was present, and one case had jaundice. The scales were irregular, lamelliform, and of various sizes, but never very large, easily detached, and not friable; the skin underneath was pale and of normal appearance. There was no burning or itching sensation. Peeling lasted about a week.

(210) Chorea of the Heart.

Galdi (*Il Policlin.*, November 21st, 1903), after discussing and accepting the existence of true chorea of the heart, draws attention to certain signs which indicate this disease. There are, first and most important, a marked and spontaneous variability in the diameters of the heart as estimated by careful percussion and triangulation of the area of cardiac dullness. This variability is still more manifest under the influence of stimuli, whether general or local. The heart, like other parts of the system, and more particularly the psychical elements, becomes in chorea more infantile in type, and responds more readily to stimuli, whether internal or external. The other two important symptoms are arrhythmia and a murmur. As illustrating the changes in size which may occur, the author quotes the case of a girl of 16 with left hemichorea and cardiac chorea, where the base line varied in the course of forty days' observation from 9.3 to 6.5 cm., the right ventricular line 9.0 to 6.2 cm., and the left ventricular line 9.7 to 6.9 cm.

(211) Paroxysmal Haemoglobinuria.

In a synthetic review of recent work on the above disease, the writer (*Rif. Med.*, October 4th, 1902) distinguishes three main clinical types: (1) Paroxysmal or essential haemoglobinuria; (2) symptomatic; (3) forcic or experimental. Probably the first is only a variety of the third. It is a disease which as a rule does not threaten life, and in a large number of cases is clearly associated with exposure to cold. Whether the destruction of the red corpuscles takes place in the kidneys or in the circulation is still a moot question, and distinguished names are to be found on each side. In support of the haemoglobinaemic theory an abnormal condition of the haematopoietic organs has been assumed, and one cause of this abnormal condition is said to be syphilis. Paroxysmal haemoglobinuria is said to be more common in syphilitics. The red corpuscles are said to be less resistant than usual to the action of carbonic acid. The presence of a haemolytic toxin is not unlikely, and certain recent experiments have shown that the blood serum of haemoglobinurics possesses globicidal properties. In normal subjects these haemolytic toxins are excreted by the kidneys, but in haemoglobinurics some vasomotor changes occur which cause retention of these toxins, and hence destruction of the red corpuscles. The rapid destruction of red corpuscles causes albuminuria, fever, and shivering, and a certain amount of renal irritation. A certain amount of splenic and hepatic enlargement is a secondary result of the same thing.

(212) Disappearance of Endocardial Murmurs in Childhood.

Ovazza (*Giornale della R. Accad. di Med. di Torino*, November, 1903) collects a number of cases in which children have presented a mitral systolic murmur believed to be due to organic disease of the mitral orifice and have ultimately recovered completely. He quotes two cases of his own—a choreic and rheumatic child of 12 years who suffered from acute endocarditis for a month and afterwards had a systolic murmur for a year which then disappeared and remained absent for at least two years, and a child of 7 years with a murmur distinctly present till she reached the age of 13 years, but disappearing gradually during the next ten months and not returning for at least six years. Ovazza therefore does not agree with Huchard and other authors who consider such lesions incurable if they have lasted two years. He believes that the capacity for repair disappears or is much diminished as soon as puberty is established. He considers childhood a favourable time for repair of cardiac lesions because the disturbances of later life such as pregnancy, auto-intoxica-

...ism, syphilism, etc., have not begun and because the small size of the body and the large size of the arteries minimize the work of the heart, as is shown by the fact that in childhood the reserve force of the heart sometimes enables a dilated heart to carry on the circulation satisfactorily without hypertrophy. In those cases of apparent cure, though they may be of long duration, and verified as they have sometimes been by repeated careful examination under such unfavourable conditions as fatigue and fever, Ovazza recommends a guarded prognosis. He suggests that many cases classified in later life as cases of valvular disturbance may be instances of the apparent, but not really complete cure of endocarditis in childhood.

SURGERY.

(213) First Dressing on the Battlefield.

...Report from the *Journal of the Association of Military Surgeons of the United States*, 1904) a paper presented to the Military Section of the Madrid International Medical Congress, insists on the importance in military surgery of first-aid dressing applied as soon as possible after the receipt of injury. Behind the firing line preliminary disinfection of the wound is not only unnecessary but harmful. The two main principles first brought out clearly by von Bergmann and Reyher, which govern the modern treatment of gunshot wounds are the value of a first-aid antiseptic dressing in the prevention of blood infection and the importance of immediate immobilization of gunshot fractures. For obvious reasons the methods employed in military surgery must be prevention of wound infection must be made as simple and effective as possible. The ideal dressing must be of minimum size and weight, compatible with the purpose for which it is intended. The dressing material it is said, must be hygroscopic, and from it must be carefully excluded all unnecessary stuff ... wood pulp, for instance likely to interfere with the rapid drying of the wound secretion. The most desirable antiseptic agent is, in the military service, a combination of boric acid ... in the proportions of four parts of boric acid to one part of iodoform, to contain two strips of cotton gauze, one with which to bathe the wound ... one to place ... Various bandages ... and the triangular bandage ... are all available for applying the dressing. The dressing material should always be supplied with the necessary bandages, and the whole should be sterilized by the ... process ... by the dressing itself, together with the ... material to be used in applying it, should be placed in a ... envelope ... The dressing should be applied as soon as possible, and transportation of the wounded to the rear when it is safest and most practicable. In the absence of positive indications the first-aid dressings should not be removed until the wound has healed.

(214) Treatment of Traumatic Tetanus.

LUCAS-CHAMPIONNIÈRE (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 8, 1904), in the course of a discussion of a communication by Prothérat, pointed out that the question of the treatment of tetanus will always be a very difficult one to decide, as this affection, notwithstanding its grave character, is still susceptible of spontaneous or therapeutical cure. Tetanus, unlike hydrophobia, is not invariably fatal, and there is a probability to attribute to a therapeutical agent what is really the result of the patient's resisting power or of the mediocre intensity of the infective phenomena. The antitetanus serum, though a marvellous prophylactic, has not hitherto given any satisfactory therapeutical results, and its inventor has but little faith in its curative properties. Lucas-Championnière, however, has not lost faith in this agent, and he alludes to some few cases, one under his own observation, in which there were good grounds to believe that the serum had had a favourable influence. The serum treatment has undergone some developments, such as the method of intracerebral injection, and quite recently a fresh element has been imported into the question by the results of observations in which the quantities of the serum injected both into the brain and into cellular tissue have been very much increased beyond those hitherto employed. Vallas has published cases in which by daily and progressive doses of from 30 to 50 grams from 300 to 600 grams of antitetanus serum were injected into the same subject. In one case as much as 1,500 c.cm. of serum was injected into a negro. Lucas-Championnière mentions as a recent instance of this method of treatment a case in which Gallard administered to a single patient 500 grams of chloral by mouth and rectum, and subcutaneous injections of 2,350 c.cm. of antitetanus serum. The results of this treatment are not given by the speaker, but it is suggested that the successes have been sufficiently numerous to attract the attention of investigators.

(215) Hepato-Cholangio-Enterostomy.

KÖHLER (*Zentralbl. f. Chir.*, No. , 1904) reports a case of cicatricial stenosis of the common bile duct in which he carried into practice with favourable results, a plan suggested by Bardenheuer and Langenbuch of establishing a direct communication between the hepatic parenchyma and the intestinal canal. In this case the margins of an incision about 6 cm. in length made in the duodenum were sutured to the margins of a deep wound made in the lower edge of the liver. This operation to which is given the name of hepato-cholangio-enterostomy is suitable only in very rare conditions. Observation whether permanent hepatic ... operation of calculus can now be easily and in most instances readily ... by direct measures. It is not indicated, the author states, in cases of obstruction of the common bile duct caused by primary or secondary carcinomatous growths on the under-surface of the liver. If the obstruction be due to the results of inflammation, this operation may enable the surgeon to overcome threatening cholaemia and to save the patient's life. There are no indications in this case, it is stated, of any disturbance of the liver tissue in consequence of the direct contact with it of intestinal contents, but such disturbance, the author points out, can only be proved by necropsy an opportunity for which, he anticipates, will be long deferred in this instance.

(216) Surgical Importance of Accessory Hepatic Ligaments.

ANCEL AND SENCERT (*Arch. Prov. de Chir.*, No. 2, 1904) point out that from a surgical point of view the presence of accessory perihepatic ligaments has some importance in relation to the technique of operations practised on the biliary ducts. The directions usually followed in exposing the common duct will very often be found inapplicable in the numerous instances of excessive development of the cysticoduodeno-epiploic ligament. In such instances it is necessary before the duct can be explored to completely expose and divide this ligament. In drainage, which is so indispensable in operations on the biliary passages, the cysticoduodeno-epiploic and the anterior hepato-renal ligaments will enable the surgeon in a great number of cases to form a cavity closed on all sides, and which will afford a direct discharge of secreted fluids from the wound in the common duct to the surface. With regard to the topography of infrahepatic encysted collections, whatever may be the origin of these, the cavities enclosed by the accessory ligaments have, the authors state, a decided influence on the limitation of effusions.

MIDWIFERY AND DISEASES OF WOMEN.

(217) Caesarean Section Three Times in One Patient.

W. J. SINCLAIR (*Journ. of Obst. and Gyn. of the Brit. Emp.*, January, 1904) describes the successful performance of Caesarean section three times upon the same woman. The patient was much deformed, the left hip being ankylosed, with the knee pressed upon the abdomen; the true conjugate measured 2 in. The patient was first seen in April, 1896, when labour pains had already set in, and the operation was not performed until twelve hours after their commencement. It was complicated by the position of the left thigh, and from this cause some laceration of the lower end of the wound took place as the fetus was extracted. The uterine incision was made without eventration. On this but not on the following occasions a drainage tube was inserted, at the close of the operation, into the lower end of the wound and was left in position for twenty four hours. The child was healthy and vigorous. Convalescence was retarded by the slow healing of the abdominal wound, by the occurrence of bronchopneumonia caused by the

anaesthetic, and by the formation of an abscess over the sacrum. At the patient's last examination before leaving the hospital the uterus was found adherent to the abdominal wall, as after ventrifixation. The patient next presented herself in August, 1901, being then fully eight months pregnant and having experienced during pregnancy no ill-effects from the former operation. The abdomen showed an irregular, firm cicatrix. The operation was performed without waiting for the onset of labour, and the abdomen was opened through the old scar. No trace of the previous incision could be found in the uterus. The patient vomited just as the uterus was incised, and the strain caused a small opening to be made in the peritoneum. Convalescence was satisfactory, and mother and child left the hospital in good health in September. The third operation took place in June, 1903, after the beginning of labour. This time the uterus, after being emptied, did not readily contract, and there was a fair amount of haemorrhage; while, in spite of the utmost care, a small opening was again made into the peritoneal cavity. The abdominal wound healed somewhat slowly, but in other respects convalescence was not remarkable. The author holds that convalescence is, as a rule, more satisfactory when operation precedes the onset of labour; that "sterilization," if not effected at a first operation, involves in any later one such breaking-down of adhesions as to form a serious complication, and that a second operation is safer the more firm and extensive the adhesions present.

---

(218) Adeno-myomata of the Uterine End of the Fallopian Tubes.

Funke (*Deut. med. Woch.*, December 3rd, 1903) discusses the clinical diagnosis of adeno-myomata of the uterine end of the Fallopian tube (*Tubenwinkel* = angle of the tube), illustrating his remarks by cases. The first case is that of a woman of 35 years, in whom he was able to diagnose the adeno-myoma, and at the operation he was able to confirm the diagnosis. The patient made a good recovery and was freed from her symptoms by the operation. The second case was that of a voluminous adeno-myoma of the posterior wall of the uterus, growing from the angle of the tube downwards. Here, too, he was able to remove the tumour with good result. The third case was also a voluminous adeno-myoma, and the diagnosis rested between malignant disease or adeno-myoma. In both the last and second cases there were extensive adhesions, and the tubes were involved in the tumours. In the last case there was a right-sided hydrosalpinx. In discussing the first case, he states that the diagnosis of adeno-myoma of the angle of the tube can be made from the following points: First, the localization of the tumour at one or other angle of the tubal openings in the uterus; secondly, the diffusely infiltrated consistency of the growth; thirdly, the painfulness on palpation; fourthly, the severe symptoms which so small a tumour can produce; fifthly, the absolutely normal condition of the tube itself; sixthly, when there is a circumscript infiltration of part of the uterus, with healthy surroundings, this cannot be due to inflammatory processes. The diagnosis of voluminous adeno-myoma is next dealt with. Of the objective signs, the most important are the localization and direction of growth of the tumours, and the complication with chronic pelveo-peritonitis and tumour of the appendages. As a rule the tumours are situated at the posterior wall of the uterus and grow from the angle of the tube downwards. It is mostly difficult to palpate the posterior wall of the uterus in these cases, but if one presses the fundus backwards and the cervix forwards, one can tilt the whole organ backwards and thus gain access to the hinder wall. There one feels irregularities, nodules, and protrusions, which have a different consistency to the rest of the uterus. One also feels the indurated chronic inflamed tissue around. The palpation will be found to be distinguishable from that of intraparietal myoma. In speaking of the adhesions, Funke says that the voluminous adeno-myomata more frequently have firm and extensive adhesions than submucous myomata. Returning to the symptoms of adeno-myoma of the angle of the tube, he points out that dysmenorrhoea is worthy of note. The pains are referred to a circumscribed area, and are very severe during the whole period. These pains are, in his opinion, due to the marked congestion of the tumour, which is very vascular, during the menstrual flow. The tumour in itself is very tender, and when it becomes more hyperaemic than usual the pain is greatly increased.

---

(219) Hydramnion and Eclampsia.

Véron (*L'Obstét.*, January, 1904) attended a woman admitted into a maternity eight months pregnant. The breech presented, and there was marked hydramnion. Five gr. of potassium iodide were given daily, and a litre (1¾ pt.) of milk. Anasarca of the lower extremities and suprapubic integuments appeared a week later, without albuminuria. Five pints of milk ordered daily. Three weeks later the membranes ruptured at 9 a.m., the pains began three hours later, meconium was detected coming away at 4 a.m. on the next day, the os was dilating steadily. At 6.50 p.m., after a fairly easy day, a fit occurred, lasting a minute; at 7.30 p.m. another set in and was not over until two minutes had elapsed. Chloroform was then given; vomiting occurred; chloral was prescribed at 10 p.m. By 9 a.m. on the third day the patient was in a torpid condition; the fetus was delivered by Mauriceau's method, dilatation being complete at the time. The fetus was a female, weighing 7¾ lb. The placenta came away naturally, and convalescence was normal. There clearly was auto-intoxication during pregnancy in this case. Milk diet is advisable in cases of hydramnion where syphilis, heart disease, and tubercle are not present, as then auto-intoxication is highly probable even when, as in this case at first, the urine remains free from albumen. Véron observes that the eclampsia was anticipated in this case by the milk diet, yet there were two bad convulsions. Had the diet not been adopted, it is reasonable to believe that the consequences would have been very grave.

THERAPEUTICS.

(220) Euguformum Solubile

Tar preparations, in dermatological practice, have become indispensable on account of their excellent effect in quieting itching and in causing a regeneration of the epidermis. Max Joseph finds, however, that they have for the most part two disadvantages; they sometimes act as very strong irritants, and therefore do more harm than good in inflammatory conditions of the skin, and they produce a very unpleasant odour, which almost prohibits their use in better class practice (*Deut. med. Woch.*, January 21st, 1904). The best tar preparation hitherto introduced is the liq. carbonis detergens (Wright), which has the advantage of being almost colourless and odourless. Empyroform is said to be odourless, but Joseph finds that is not so; it has nevertheless excellent qualities. In some cases Joseph finds that liq. carbonis deterg. is not sufficiently active to obtain those results which one can get with the oil of cade, and in spite of its evil smell he has had to return to the latter preparation. In this respect it appears desirable to obtain some improvement on Wright's preparation, and a new substitute has recently been introduced bearing the name of euguform. It is prepared from guaiacol and formalin, and the combination of these two bodies form the methylene-di-guaiacol. This is dissolved in boiling glacial acetic acid, and by pouring the acetic solution into cold water, the preparation is purified and partly acetylified Euguform contains about 6 or 7 per cent. of acetyl. This preparation possesses an anaesthetic and an antiseptic action; it quiets itching and eases pain, and helps to dry up discharging surfaces. After much experimenting, it has been found possible to dissolve euguform, so that it may be applied as a fluid. Euguformum solubile is made by dissolving euguform in acetone, and represents a 50 per cent. solution. Max Joseph has obtained good results in prurigo, lichen simplex (chronic), and pruritus; for strophulus infantum he advises an emulsion, consisting of 10 parts of euguform. solub., 20 parts each of oxide of zinc and starch, 30 parts of glycerine and water to 100. No covering or other dressing will be found necessary over this application. For tyloma palmare et plantare, he employs euguform in the form of a 20 per cent. ointment, and gets good results. He states that he will be pleased if other observers will obtain the satisfactory results which he has got.

---

(221) The X Ray in Mycosis Fungoides.

Albert E. Carrier (*Journ. Cutan. Diseases*, February, 1904) reports a case of apparent cure of mycosis fungoides by means of the *x* ray. The patient, aged 75, was a most intelligent man, and his business (doing detail work among physicians for manufacturing drug houses) had brought him in contact with doctors, who had examined him frequently during the earlier period of the affection as well as the later, and having frequently discussed it with the patient had kept him familiar with the changes occurring during the whole course of the affection. The symptoms

ones were appearing. On September 2nd the skin had become darker in colour, but in parts there was a slight erythema. The pruritus had been entirely relieved, some of the smaller lesions that had been marked for identification had disappeared, and fewer new ones were developing. The scaling on the plaques was very slight. From the effect produced on the tumours it was decided to direct special attention to their treatment, and selecting a space 12 in. square on the left side of the thorax where 30 tumours had been counted, Carrier began with daily exposures, using a tube of higher resistance at a distance of 8 in. for five minutes. He noticed improvement from the first, the tumours rapidly disappearing, and no new ones developing. On November 10th there was present no evidence of the disease (with the exception of pigment in the sites of the larger tumours), no induration, no scaling, no erythema, no tumours and no pruritus; and whatever benefit the patient had derived must be traced to the use of the X-ray, for at no time during its use was any medicine given internally, nor was any applied externally. It was of course too soon to predicate anything for this treatment in mycosis fungoides, but in this instance it had undoubtedly stayed the progress of the disease. The patient is being kept under observation.

(222) Moser's Polyvalent Scarlatina Streptococcus Serum.

In the *Deut. med. Woch.*, of January 1st, 1903, J. von Bókay discusses the value of Moser's scarlatina serum and gives his own experience with it. The causal organisms of scarlet fever has been the subject of much dispute during the past: Moser and others consider that it is now proved that the streptococci, which are so freely found in the complications of scarlet fever, such as necrosis of the fauces, joint affections, inflammation of the serous membranes, etc., are the causal micro-organisms of the disease. Moser found that he was able to cultivate these streptococci from the heart blood of 17 out of 20 cases of patients who had died from scarlatina. In two cases he cultured the cocci from the clear cerebro-spinal fluid during life. The cultures were mostly prepared as Marmorek and Lehmann had shown that streptococcus scarlatinæ bodies in the blood of animals treated with streptococcus. Moser attempted to prove that the streptococci were the causal organisms by preparing an immune serum. Marmorek had employed streptococci which had been rendered virulent for rabbits by many passages through these animals, but in scarlatina this serum was found to be useless. Moser cultured the streptococcus scarlatinæ direct from the blood which on artificial media, not containing serum, retained its virulent properties. He used a mixture of different streptococci for his cultures, all of which were obtained from cases of scarlatina. After from seven to eight months, during which time the animals were carefully observed, Moser contends that the serum also with good results. Bókay's own experience extends over twelve severe cases, selected for the purpose. The smallest single dose injected was 100 c.cm., and the largest, 250 c.cm., while in two cases he gave a second injection, the first being 100 c.cm. and the second 100 c.cm. in each case. The first effect noted was a marked improvement in the general condition of the patient and a rapid clearing up of cerebral disturbances. During the first twenty-four hours the temperature fell from 3·4 to 0·9° C. The average fall was 2·1° C. The patients did not show any signs of collapse, in spite of a critical fall (in three cases) in the temperature. When the fever was lessened the patients took food well. The rash was also favourably influenced. Ordinarily it soon began to pale; when it was only developing it did so mildly, and in variegated exanthems or dusky papulous rashes, after twenty-four hours it became a normal punctate pale erythema. The pulse frequency was diminished and the quality of the pulse improved. Necrosis of the fauces spread less rapidly after the injections, and did not attack the tissues deeply. Two cases showed nephritic changes during convalescence: of these one took the form of a haemorrhagic nephritis, but ended in resolution, while the other cases followed a mild course. One case was attacked by multiple joint affection, and one showed a short-lived arthralgia. In 4 cases the lymphatic glands of the neck became inflamed severely. In 3 cases this went on to suppuration, and in 2 of them it led to septicopyæmia. Suppuration of the middle ear occurred in several cases, but was never severe, and did not last long. The injection in 1 case led to a local abscess, which soon healed. In 7 cases there was an antitoxin rash, and were not severe. The 2 cases of septicopyæmia, following severe suppuration of the lymphatic glands in the neck, died. In all, he is satisfied that the serum exerts an antitoxic action, in spite of the fact that he has only been able to test it, so far, on a small number of cases. The serum is now being prepared by a large manufacturing chemist, but it will be several months before it can be obtained by the medical profession. He warns the practitioner not to confuse Moser's serum with that of Aronson, which is entirely different.

PATHOLOGY.

(223) Tubercle Bacilli in the Urine.

V. Maragliano (*Gazz. degli Osped.*, January 17th, 1904) has examined the urine of 12 cases of pulmonary tuberculosis (the urinary tract being unaffected) to see if tubercle bacilli could be detected. Although several methods were tried, the result was completely negative in every case. The urine was repeatedly centrifugalized, and the sediment mixed with a drop of glycerinated albumen, fixed by heat, treated with alcohol and ether to remove all fat and stained by Ziehl's fluid. Even under the most favourable mode of preparation recommended by Jousset, no bacilli could be detected. Injections of the centrifugalized fluid proved sterile in guinea-pigs.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(224) The Value of Jousset's Inoscopy.

E. Kormoczi and K. Jaszniger discuss the question of the tuberculous etiology of the so-called "primary" pleurisies (*Deut. med. Woch.*, March 3rd, 1904). The methods, both direct and indirect, to prove the tuberculous origin of the affection are all more or less open to objection. Cultural means, either in the test tube or in the animal body, take too long to be of great service, and the modern "cyto-diagnosis" yields results which are so contradictory that this method cannot be relied on at present. They therefore have been interested in testing a method which Jousset recently introduced, which is said to render the bacilli more easily findable than any other. This method is called inoscopy (*ἰς*, *ἰνός* = fibre). The exudation is collected into vessels which have been cleaned with scrupulous care, and it is then allowed to stand until the fibrin flakes have formed. The fibrin is then caught up in a cloth filter which has been boiled in an alkaline solution; then the fibrin is washed with distilled water, and scraped from off the cloth with a sterile platinum spatula. This fibrin suspension is then thrown into a vessel provided with a glass stopper, and to it is added from 10 to 30 c.cm. of the digesting fluid, according to the size of the flakes. The digestion is allowed to go on for from two to three hours in a temperature of 38° C., the fluid being shaken up every half hour. The fluid contains 1 to 2 per cent. of pepsin (Pepsin en paillettes, titre 10 de Cadeac) 1 per cent. each of pure glycerine and hydrochloric acid, 3 per cent. sodium fluorate, in distilled water. According to Jousset tubercle bacilli can be detected by this method with certainty. The authors followed out the directions most carefully, save that they relaxed the precautions as to perfect asepsis, this not being necessary in the tests which they were carrying out. As far as technical difficulties are concerned, they found that it was very difficult to fix the particles, which were gained from the fluid after digestion and centrifugation, on the cover-slips. Again, they found that very small scratches on the cover-glass often take up the stain and give the same appearance as tubercle bacilli, but with a little care this source of error can be almost entirely eliminated. The third possibility of error rests on the production of blood-pigment crystals, which are somewhat altered by the decolorization fluid, and may present great likeness to bacilli. They examined pleuritic effusions, blood from a corpse dead of miliary tuberculosis, blood of a corpse dead of tuberculous meningitis, and the like, and ascitic fluid from cases of simple hepatic cirrhosis and from tuberculous peritonitis. Only 3 of the 8 cases of pleural effusions disclosed tubercle bacilli, while the signs of tuberculosis were absolutely manifest (tubercle bacilli in sputum, and so on). Only 1 case of tuberculous blood out of 4 samples revealed the bacilli, and both classes of ascitic fluid failed to show any tubercle bacilli. They therefore come to the conclusion that Jousset's method is not capable of helping the diagnosis in all cases.

(225) Diphtheria and its Bacteriological Diagnosis.

Alberto Michelazzi (*Il Policlin.*, February, 1904) first discusses the opinions of other writers on the subject of micro-organisms in diphtheria, and then quotes the histories of 37 consecutive cases of infection of a diphtherial nature as far as clinical characteristics went, with the results of bacteriological examination in every case except one. It is known that false membranes of a diphtherial appearance are not always the result of the action of the Loeffler bacilli. They may be caused by streptococci or staphylococci, and Seitz describes a case where the only micro-organism present was the bacterium coli. To the number of bacilli which can cause lesions simulating diphtheria Michelazzi adds Friedlaender's diplo-bacillus, which was found in 2 of his cases. The author's 37 cases were all of them clinically indistinguishable from diphtheria. Only 15 of them were found to contain Loeffler's bacillus, 19 were due to different forms of cocci, 2 to Friedlaender's diplo-bacillus, while in 1 case it was impossible to obtain material for a satisfactory examination. Of the 15 cases of true diphtheria, 8 needed tracheotomy, and out of these all but two recovered, the two exceptions being children who were very seriously ill on admission and died from cardiac paralysis. Amongst the 21 non-diphtherial cases were 12 cases of tracheotomy, all but one of them being unsuccessful. These failures were not due to operative difficulties but to subsequent infection of the lungs. All the cases were treated by prompt and repeated injections of antitoxin, irrespective of bacteriological diagnosis. These injections did not give, in the streptococcal cases, the obviously good results obtained in the cases in which Loeffler's bacillus was found, but the author recommends them for all cases of either kind. Michelazzi concludes that true diphtheria is a much less common disease than is supposed by those who rely only on clinical characteristics, the greater number of cases thus classified depending in reality on cocci, especially streptococci; that diagnosis is impossible without bacteriological examination, since all the symptoms of diphtheria, including paralysis, may be present without Loeffler's bacillus; that, in particular, it is a mistake to suppose that the localization of the disease in the larynx raises any presumption of the existence of true diphtheria; that the prognosis is decidedly worse in the coccal than in the true diphtherial form of infection, the greater danger from pulmonary complications in the former case outweighing all other considerations.

(226) The Contagiosity of Icterus.

S. Costa (*Rec. de Méd.*, February 10th, 1904) relates the history of an epidemic of icterus, in which he is convinced that the disease spread by contact. The epidemic occurred in a battalion of infantry, consisting of six companies. In all, from July 7th to January 24th, 77 cases of jaundice were treated. The disease was mild in form, and many cases occurred in which the patients did not report themselves sick. The ordinary symptoms of epidemic icterus were noted discoloration of the skin, increase of urinary pigment, vomiting, and occasionally clay-coloured stools. The average duration of the cases was about fifteen days. The troops were operating in a hilly country, where malaria was unknown, and none of the civilian population were known to have suffered from jaundice. Until towards the end of the epidemic the recruits and young soldiers escaped, only the old soldiers being attacked. The recruits were separated from the regular men. The six companies, being engaged in manœuvres, were constantly being moved, and as each was moved near to a company already infected, the jaundice spread to it. At first the water supply of the camp in which the main body of troops was stationed was suspected, and the men were prevented drinking the water and served with tea at meal times. This did not check the spread of the epidemic, and cases occurred in the neighbouring camp, which had a different and irreproachable water supply. In the course of the operations there was only one stretch of country which all six companies had traversed. Cases of jaundice occurred in all the companies, but the first case of the epidemic was found in a company which did not perform this journey till a week after the man attacked had been sent to hospital. The two last patients were young soldiers who did not join the battalion till November after the manœuvres were over. They were not affected until twenty-four days after the case immediately preceding. Their illness was slight. Costa believes that this epidemic proves the contagiosity of icterus.

(227) Thyroid Functions and Epilepsy.

Crisafulli (*Il Morgagni*, April, 1903) reports the case of a man, aged 20, who began to suffer from epileptic fits and simultaneously enlargement of the thyroid gland. Two years of bromide had no effect. Treatment of the thyroid with electricity and iodine brought about a reduction in size of the thyroid and complete cessation of fits. The positive electrode was wrapped in wool, soaked in iodine, and applied to the gland. Other writers have proved that there is a definite relationship between epilepsy and the thyroid, and this is supported by experiments on animals.

SURGERY.

(228) The Operative Treatment of Cancer of the Tongue.

Berger (*Bull. et Mém. de la Soc. de Chir.*, No. 11, 1904), in a discussion on a communication by Poirier, who advocates extensive excision of glands on both sides of the neck, in removal of cancer of the tongue, stated that such a procedure would increase very much the length of the operation and the risks attendant on prolonged anaesthesia and shock. Special attention, it was held,

should be sent to the glands in the floor of the mouth, and those seated in the submaxillary region and at the angle of the mandible. As the subsequent method of removing the cancerous tissue (see table 1), Berger's experience is not sufficient access to the tumour, this organ, and free removal of adjacent structures in the floor of the mouth, by a median incision, in cases in which extensive and almost total removal of the tongue is indicated, median section of the lower jaw, and removal of the submaxillary glands. Excisive operations of this kind are, it is admitted, very severe, and attended with a mortality of almost 50 per cent. death being due to shock or exhaustion, rather than to septic events, which it is held, are avoided by free drainage and hæmostasis. If the tongue, however, is successful, however, such formidable procedures are followed by complete and durable recovery. Simple removal of the cancerous portion of the tongue, though very rapidly fatal results as a rule in speedy recurrence of the disease, by enabling the surgeon to remove a much larger portion of the tongue, is considered by Berger to be the best method of treating the cancerous tissue, and free access to the tumour, it is held, should be secured in cases of cancer of limited extent, in which they may be followed by excellent and durable results. Although even under the most favourable conditions the patient cannot be entirely relieved from the danger of recurrence, Berger has been convinced by his own observations that recurrence takes place not so frequently in the cicatrix as in the lingual stump, the tissues of which was invaded by cancerous deposit at the time of the operation.

(229) The Treatment of Penetrating Wounds of the Abdomen.

Henry [illegible] Surg. March, 1904) has reported a series of cases of penetrating wounds of the abdomen in the light of the experience gained in the Russo-Japanese war, and has arrived at the conclusion that in the majority of cases operative interference is necessary. Of 11 cases of penetrating wounds of the abdomen, 8 were operated upon, and of these 5 recovered. Of the 3 cases which died, 2 were operated upon at the earliest possible moment in order to anticipate the advent of peritonitis. No time, the author holds, should be wasted in attempting to demonstrate the presence or absence of intestinal perforation by such means as the rectal insufflation of gases or vapours, or the analysis of air or liquids injected into and withdrawn from the peritoneal cavity. It is held to be essential to systematically examine the entire gastro-intestinal canal in all cases, regardless of the point of entrance of the wounding body. The point of entrance of a bullet or its apparent direction is regarded as absolutely useless as evidence upon which to speculate that this or that portion of the intestine cannot have been injured. Whenever the alimentary canal has been perforated suitable drains should be placed either through the operative incisions or through counter-incisions.

(230) Ligature of the Lateral Sinus in Formidable Operations on the Neck.

Lambotte (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 1, 1904) reports a case in which as a hæmostatic measure in the removal of a large ulcerating cancerous growth of the parotid, he exposed and ligatured the lateral sinus midway between the occipital protuberance and the mastoid process. Having failed in his original intention of ligaturing also the carotid below the growth, the hæmorrhage from this vessel and its two branches was arrested during the operation by the application of two forceps which were afterwards kept in place for twenty-four hours. The author states that there was very little hæmorrhage during the operation, although the internal jugular vein was freely torn. The patient recovered from the immediate effects of the operation, but on the twentieth day, when apparently in a state of convalescence, died suddenly in consequence of sudden and profuse arterial hæmorrhage from the ulcerating surface on the side of the neck. This case, the author states, presents two points of interest. In the first place, ligature of the lateral sinus proved certainly useful in diminishing the loss of blood at the time of the operation, and secondly the hæmorrhage which proved fatal in the case of the patient would have been impossible, the common carotid having been tied at the same time by ligaturing between the internal jugular vein and the vertebral artery, the latter being, it is likely, the artery which bled to death. Preventive ligature of the lateral sinus

cystic tumours of the clitoris were possibly confounded in some instances with molluscum: and Tarnier of Bourges admitted that he diagnosed molluscum in a case under his observation, but it proved to be a polycystic tumour. Tedenat of Montpellier had never seen a cyst of this type on the clitoris, but he had on several occasions detected cystic growths precisely similar on the labia minora.

(234) Cancer and Uterine Fibroid in Age. Gottschalk (*Monats. f. Geb. u. Gyn.*, January, 1904) exhibited before the Berlin Society on November 2nd a cancerous growth which had developed on the mucous membrane over a submucous fibroid of the size of a foetal head in a patient, aged 77. The fibroid lay in the posterior wall. The malignant growth was absolutely limited to the mucosa. It was removed through the vagina without anæsthesia, the patient did not feel much pain. Locally all went well, but the patient died of cerebral haemorrhage four weeks later.

(235) Protracted Pregnancies: Large Fetus. Engel (*Inaug. Dissert.*, Leipzig, 1903) follows up the researches of von Winckel, and has made use of the register of the Leipzig Maternity for the seventeen years preceding the issue of this thesis. In 175,333 births there were 821 children over 4 kilog. (9 lb.) in weight and over 50 cm. (19½ in.) in length. The ratio of female to male infants was 100:110; 264 mothers had correctly reckoned term from the first day of the last period, 61 from the last coitus, and 81 from both factors. In 40 of these accurately reckoned cases the period lasted over 302 days, the maximum being 321. The average length of the children in these cases was 53.5 cm. (20 in.).

(236) Ovarian Tumour in a Ventral Hernia. Lucas-Championnière (*La Gynec.*, December, 1904) discovered an ovarian cyst in a capacious ventral hernia the result of a previous operation. The tumour lay almost entirely outside the abdominal cavity and was surrounded by thinned integument and a peritoneal sac to which it adhered completely. The greater part was removed, but the base of the cyst had to be "marsupialized." The fluid contents amounted to about 10 pints. Pozzi once removed a pedunculated fibroid from a ventral hernia.

(237) Rupture of Pyosalpinx: Death. Seitz (*Monats. f. Geb. u. Gyn.*, December, 1903) reports a case where a pyosalpinx ruptured into the rectum, but it is important to note that it was developed in association with very acute puerperal sepsis after abortion. The patient was 24 years old, and had been delivered of a child at the seventh month, five months before she came under observation when she was admitted into hospital a week after an abortion at the sixth week. The ovum had been removed manually, and hypogastric pain and fever had set in. Left parametritis and general peritonitis were diagnosed. Death occurred on the second day. There was chronic suppurative peritonitis with bilateral pyosalpinx and secondary perforation of the right suppurating tube into the rectum. This tube was dilated to the size of a fist and communicated with an abscess cavity representing Douglas's pouch. The cavity had opened into the rectum more recently. There was suspicion that the original lesion in the tubes was tuberculous.

THERAPEUTICS.

(238) Prophylaxis against Malaria. R. Battara (Supplement to *Rivista Medica*, 1903, Comm. 15), after an introductory statement of the problem and account of its difficulties, relates with full details his own very satisfactory experiments in the protection against malaria of the inhabitants of Nona. He states that man is the only host capable of harbouring the malaria parasite all the year round, and the mosquito the only means by which infection can be carried from man to man. Hence the importance of regarding every patient with malaria as a public danger. The effect of introducing malaria into a community of healthy men is shown by the history of the epidemic on the little island of Turi in 1901. Turi is 20 kilometres from the mainland. Its only water supply is a collection of rain-water at the bottom of the valley, in which almost all the inhabitants live. In spite of this the island was singularly healthy, and malaria was unknown. In June, 1901, a malarial patient came to his house at Turi from the mainland. At the end of June other cases began to appear, until, two months later, out of a population of 534, there had been 105 cases, with 5 deaths. The epidemic then came to an end, and its cessation is ascribed to the fact that a very hot summer dried up the pond of rain-water—the only water supply of the island—and drove away the mosquitos which had flourished there so completely that it was impossible to find any when they were sought for to explain the epidemic. Malaria may be prevented by destroying the parasites in man or by destroying, through a wide region, the *Anopheles* which cause fresh infection. The direct destruction of *Anopheles* by petroleum and similar agents is very difficult to carry out completely. The experiments of Rivas, undertaken at Koch's suggestion in the island of Brioni, were only partially successful. If all are not destroyed the remainder multiply, and the work has to be done again. Even complete temporary success is not necessarily final. The *Anopheles* are transported far and easily, and may thus be reintroduced into a region apparently free from them. At any rate such means are only suited to islands and other secluded neighbourhoods. The drainage of swamps is often useful, but it is extremely expensive, and has not yet succeeded in freeing any Italian district from malaria. We are therefore reduced to the method of destroying the parasite in man. Quinine is the agent to which one turns first, and its success in curing acute malarial fevers has led to the hope that it may also serve as a prophylactic. But quinine is not fatal to the parasite in all stages of its existence. In small doses it is useless, and in large doses it cannot be taken long with impunity. The most favourable results obtained from the prophylactic use of quinine alone are those of Duncan, who states that it reduces by one-half the number of attacks of malaria. A systematic attempt was made by Koch and Frosch to stamp out malaria in Brioni in 1901 by means of quinine. All cases were treated with a gram of quinine daily for three days, and afterwards on the tenth and eleventh days. Similar treatment was carried out at the nearest places on the mainland in order to prevent the importation of the parasite. The results seemed satisfactory as long as treatment continued, but the disease reappeared in the spring of 1902, when the dose of quinine was doubled, and attempts were also made by mosquito nets and by systematic destruction of the *Anopheles* to protect the inhabitants. The results again fell short of success. The author's own scheme of prophylaxis is on different lines. It is based on the radical cure of all cases of malaria, acute and chronic, and he suggests that if this be carried out in the non-malarial season when there are no adult mosquitos, the next season's mosquitos will have no means of infecting themselves and subsequently communicating malaria to man. He considers that in a malarious district, any one with an enlarged spleen and an earthy pallor of the skin is almost certainly suffering from chronic malaria, and if there be a history of intermittent fever no microscopical examination of the blood is considered necessary. In several cases a hasty examination of the blood was made, but parasites were found only in one case, that of a patient suffering at the time from fever. The town of Nona, the scene of the experiments, is situated in a swamp. The inhabitants almost all suffer from malaria. They have enlarged spleen and profound anaemia. They are listless and indolent, and quite resigned to their sufferings. They make some attempt to protect themselves by bitter decoctions and small doses of quinine taken irregularly. At first they objected strongly to the examination and medication instituted by the author, but he implies that after experience of his method and its results they have become convinced of its advantages. Out of the 288 inhabitants 266 stated that they had suffered from malaria within the last year, and 45 were actually suffering from intermittent fever when the experiment began in July, 1902. Fifteen refused to be examined, and in only 19 out of the remaining 273 cases was it impossible to feel the spleen. In 70 cases the spleen reached down to or below the umbilicus. It was therefore decided to treat all the inhabitants on the assumption that they suffered from malaria, and each adult received six pills every morning, which he was expected to take two at 5 o'clock, two at 8 o'clock, and two at 11 o'clock. Pregnant women took their six pills daily with longer intervals, and did not seem to receive so much benefit as others. Children received proportionally equivalent quantities of a liquid preparation with the same ingredients as the pills. Each pill contained bichlorate of quinine 0.1 gr., citrate of iron [illegible] gr., arsenious acid 0.001 gr., and bitter extract 0.15 gr.

(239) **Serum Treatment of Typhoid Fever.**

[illegible] relatively large [illegible] when the [illegible] markedly diminished.

(240) **Action of the X Rays in Sarcoma.** W. B. COLEY (*New York Med. Journ.*, August 8th, 1903) reports on 30 cases of inoperable sarcoma with the X rays. In 2 cases the tumours disappeared entirely, but in each case there was recurrence. With regard to the relative merits of the mixed toxins and the X rays in treatment, Coley considers that experience is too limited to decide at present. In several cases in which the toxins had been tried and failed the X rays caused disappearance of the tumours, but with speedy recurrence. On the other hand, the tumours have disappeared under the toxins and remained well for three to seven years. In sparsely cellular sarcoma the toxins have a better effect than the X rays. The X rays have the better effect in round-celled sarcoma. In operated cases with the toxins or with them the rays. Better results may follow the combination of both methods. The danger of the X rays consists in the possibility of toxæmia, which may follow too rapid breaking down of tissue due to a too powerful application of the rays. In conclusion, Coley thinks that X rays should only be used in inoperable cases except in [illegible] the toxins will be used [illegible]. The rays have been shown to have a decided inhibitory [illegible] certain cases subsequent to [illegible] of the tumour. But there is a tendency [illegible] and in instances [illegible] the patient [illegible].

(241) **Meningism.**

[illegible] the symptomology varies considerably. Some authors make a special type of the last group under the name pseudo-meningitis psychogena. Owing to the variability in symptoms it is almost impossible to give a schematic definition of the disease, it is a clinical phenomenon and not a true morbid entity. Briefly speaking, the symptoms may comprise all or any of those which are usually associated with true inflammatory meningitis. The best aid in differential diagnosis is to be found in careful examination of the cerebro-spinal fluid. The most important criteria here are the clinical, microscopic, and bacteriological characters of the fluid. The presence of albumen in any marked degree is very strong evidence in favour of true meningitis as against meningism. The presence, too, of leucocytes, mononucleated or lymphocytic cells speaks in favour of meningitis. If bacteriological research is positive, that is definite evidence, but the absence of bacteria is no proof against meningitis, as they may be engaged in the meshes of the inflammatory process, or may have disappeared. Further aid may be gained from an examination of the urine in relation to its phosphates. In meningitis the normal relation between the earthy and alkaline phosphates (1 and 3) is maintained, whilst in meningism, as in hysteria, this relation is either inverted or the phosphates are present in pretty nearly equal quantities. Kernig's sign, which was thought to be present only in true meningitis, is not reliable in differential diagnosis, as it has been found indifferently in both types.

PATHOLOGY.

(242) **The Pathogenesis of Jaundice.**

[illegible] AND MAYOCCHI (*Il Policlin.*, October, 1903) record the results of 12 experiments on dogs, whose bile and thoracic ducts they tied, coming to the conclusion that biliary absorption occurs through each set of vessels. They found that whenever the ductus choledochus was ligatured, whether the thoracic duct was tied or not, jaundice supervened. In many experiments it was found that the bile appeared in the lymphatics before it could be detected in the blood, but it should be remembered that the dilution in the blood is much greater and the detection of small quantities of bile not easy. That absorption takes place by the blood vessels only when the thoracic duct is closed is disproved by certain experiments made by the authors, for jaundice occurred equally well when this duct was slit so as to make a fistula instead of being ligatured. If a double intracellular reticulum exists, as is described recently, but which the authors were unable to recognize, the problem of biliary absorption would be much simplified. Absorption of bile may take place in the interlobular spaces, or within the lobule by the passage of the bile from the intercellular biliary ducts into the lymphatic vessels, or again it may be transferred to the small canaliculi which carry the glycogen and urea into the blood. Probably what determines which of these three modes of absorption should take place is the nature and duration of the obstruction

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(243) Digastroscopy.

A. Cavazzani (*Il Clin. Med.*, January 9th, 1904) describes a new method of investigating the existence and the degree of gastroptosis or gastrectasis. The method is founded on the observation of Bouveret and Chapotot, that after the division of the stomach into two main cavities connected by a constricted portion, a condition sometimes found as a result of tight lacing, diaphragmatic respiration causes a gurgling sound produced by the liquid and gaseous contents of the stomach rolling from one cavity to the other. The patient lies on a couch, bares his abdomen, and relaxes the abdominal muscles as much as possible. The observer, placing his hand at right angles to the plane of the couch, and transversely to the abdomen, exercises with the radial border of the hand a steady pressure on the abdominal wall between the sternum and the umbilicus so as to bring the abdominal wall as far back as possible towards the vertebral column. The dilated stomach is thus temporarily divided into two cavities, and when the patient breathes with the diaphragm, the observer's other hand laid flat on the abdomen can distinguish the fremitus caused by the gas and liquid passing backwards and forwards. In this manner the limits of the stomach may be rendered perfectly clear. When the abdominal walls are thin and yielding it is often possible to see the disturbance caused by the action of the diaphragm. The method is not invariably successful, and greater importance is to be attached to a positive than to a negative result. The author has used it for two years, and finds that it yields important evidence in the great majority of cases. It has an advantage over some other methods of diagnosis in gastric cases, inasmuch as it causes no inconvenience to the patient. In many cases, after the size of the stomach has been estimated by digastroscopy, the estimate has been proved to be very exact by insufflation through the oesophageal tube. The method is liable to fail in cases of complete ptosis of the stomach, and in the very rare cases where the dilated stomach is completely empty of gas and liquids. It cannot be applied very well when the abdominal walls are very thick. An excessive dilatation of the colon may also be a source of error in very rare cases, though the author has not found it to be so in any of the cases tested by the use of the oseophageal tube.

(244) Phosphaturia and Ammonuria.

A. Freudenberg points out that we are taught that normal urine is either acid or neutral, when voided, or alkaline by fixed alkalies. Occasionally it has been said that normal freshly voided urine contains mere traces of ammonia. Marked ammoniacal urine is said always to be urine in which the urea has been decomposed into ammonium carbonate by the action of bacteria. He states, however (*Deut. med. Woch.*, September 17th, 1903), that there is an exception to this rule. Phosphatic urines have always an ammoniacal reaction. In typical and uncomplicated phosphaturia there are no bacteria in the urine, and therefore the ammonia must be formed in the organism and passed out in the urine as such. At times the urine in these conditions is alkaline from fixed alkalies, but this need not be the case. Freudenberg speaks of the urines which contain phosphates and carbonates in excess and are rendered turbid as "real or manifest phosphaturia." The urines which are clear when passed, but which become clouded on boiling, may be termed "latent phosphaturia." It is only a slighter degree of the manifest phosphaturia. It, too, shows an ammoniacal reaction. In the case of the manifest phosphaturia it is sufficient to hold a piece of sensitive litmus paper, which has been moistened over the urine glass at the ordinary temperature. In the case of the latent phosphaturia it is necessary to heat the urine and allow the steam to act on the wet red litmus paper. The reaction is best carried out by filling a test tube two-thirds full with urine and spreading a piece of the wet litmus paper over the top. The upper layer of the urine is heated, care being taken not to allow the fluid to boil up, so that it might come into contact with the paper. Of course the water which is used to moisten the red litmus paper must be free from alkali, and one must see that the part of the test tube where the paper is resting is not wet with urine. A still slighter degree of the same condition is met with, and he chooses to call this "ammonuria." The urine remains clear on boiling, and has an acid reaction when the litmus paper is dipped into it. In spite of this, there is a distinct ammoniacal reaction. All three forms occasionally occur in healthy persons, in response to an alkaline diet or mental over-exertion, etc.: and very rarely one meets with it without being able to ascribe any cause. In cases where the reaction is constant one may regard it as a sign of neurasthenia. Freudenberg does not suggest that one should base a diagnosis of neurasthenia on this sign alone, but considers that it may be looked on as a suspicious sign. He has not come across ammonuria in hysterical subjects, but states that the majority of his neurasthenic patient gave the reaction.

(245) Epistaxis and Diphtheria.

Ernest Vieillard has collected a series of observations, in which he points out the importance of coryza and epistaxis in diphtheria (*Journ. de Méd. et de Chir. Pratiques*, December 10th, 1903). Epistaxis in diphtheria does not always depend upon the separation of false membranes. It appears sometimes at the beginning of, and even before, the symptoms of coryza, and thus belongs to the prodromal period. Appearing thus early, it is a grave symptom, even should the amount be small. In some cases, on the other hand, there may be a considerable amount of haemorrhage. The writer refers to a case of nasal diphtheria quoted by Sanne which ended fatally at an early date. In all cases of diphtheria haemophilic patients run a great risk of severe haemorrhage. The earlier the appearance of epistaxis the worse the prognosis, and, in cases of intensely malignant angina, epistaxis is an initial symptom. Thus, in 25 cases of epistaxis occurring before the appearance of coryza death occurred in 20 (80 per cent.). In all cases in which epistaxis appeared at a later date—that is to say, consecutive to diphtherial coryza—the mortality was 70 per cent. In a series of 6 cases of early epistaxis collected by Geyott (*Thèse de Paris*, No. 445) 5 terminated fatally. Such haemorrhages, he says, are of considerable importance from the point of view of prognosis, as they are an indication of the severity of the infection. It is in these cases that sudden death from cardiac toxemia occurs. Vieillard states that occasionally the discharge from the nose may be an oozing the colour of liquorice juice. Examination of the nasal mucosa shows that it is covered by bloody mucus and dark-coloured false membrane, or even blood clot. He regards all cases in which such discharge occurs as particularly malignant.

(246) Hysteria Simulating Gastric Ulcer.

The following case recorded by Raymond (*Journ. de Méd. et de Chir. Pratiques*, December 10th, 1903) shows the importance of carefully examining patients previous to major operations, which are now so common. A woman, aged 27, had suffered in girlhood from indigestion. Later she had frequent attacks of vomiting. A month after admission to hospital she had a severe attack of vomiting, suggesting the existence of gastric ulcer, only there was no haematemesis. The abdominal cavity was opened, with a view to surgical treatment of an ulcer. None was found. She recovered completely from the operation, but her symptoms were unaffected. A little later a small cyst was removed from the thyroid gland. After the operation she had periods of aphonia. Since then from time to time she has had gastric crises, left hemianaesthesia, and mental symptoms of hysteria, together or alternating. This case demonstrates the importance of always bearing in mind the possible presence of hysteria in female patients who complain of subjective gastric symptoms. Unfortunately, a surgical operation in such cases does not even present the consolation of having a good moral effect, as in the experience of the writer the hysterical symptoms are often aggravated.

SURGERY.

(247) The Manifestations of Tumours of the Motor Region of the Brain.

Duret (*Rev. de Chir.*, No. 3, 1904), in the introduction to an important contribution on cerebral surgery, points out that the manifestations of tumours of the Rolandic region have especial interest from the facts that with regard to topographical diagnosis, on the one hand, they present a character of reliable precision, and, on the other hand, they can, as a rule, be readily determined. Up to the present time surgical interventions have for the most part been practised in this region. In a

mation by overlapping, in doubling the strength of the aponeurotic layers, doubles the strength of the abdominal wall at the seat of incision, holds that it is advisable to employ this principle in closing abdominal wounds. The following description is given by the author of the technique practised for closing an incision made in the middle line, or one for attacking a diseased appendix or gall bladder. The integument and subcutaneous tissue are incised down to the aponeurosis, which is then laid bare by reflecting back the skin and fat for an extent of an inch and a-half on each side of the incision. The aponeurosis is next incised in the same line and directly beneath the skin incision, and two flaps, one on each side of the incision, are raised from the underlying muscle by blunt dissection, one flap of aponeurosis being freed for an inch or so from its cut margin; the other for about half that distance. The incision through the rest of the abdominal wall is then completed. When the wound is closed the peritoneum is approximated by a continuous suture. The muscular layers if well developed are brought together by interrupted sutures. Then the cut margin of the aponeurotic flap which was but slightly freed is stitched to the base of the opposing flap by interrupted or mattress sutures. The free margin of the opposing flap is lapped over the other flap and stretched down to its surface. The margins of the skin are then brought together in the usual way.

MIDWIFERY AND DISEASES OF WOMEN.

(249) Eclampsia.

Barton Cooke Hirst (*Proc. Penn. Co. Med. Soc.*, December 31st, 1903) gives the results of his experience of more than 100 cases of eclampsia. He says there are three points on which clinical experience throws light: etiology, the premonitory signs and the treatment, preventive and curative. In regard to etiology, he says it has been his experience that pregnant women with nephritis or with a hereditary predisposition thereto, almost invariably require active treatment to combat a gestational toxaemia, and usually a premature termination of pregnancy is necessary. There is nothing therefore in clinical experience to shake belief in insufficient renal activity as a cause of eclampsia, and we should hold fast to the lesson taught by many a bitter experience that nephritis in pregnancy is one of the gravest complications, demanding constant care and never to be regarded with indifference. Among the premonitory signs of eclampsia there is nothing comparable in value to the experienced physician, with albumen in considerable and increasing quantities in the filtered urine. It is true that a certain proportion of cases occur without previous albuminuria, but their proportion is not nearly so large as one would infer from the report of sporadic cases with which recent medical literature is filled. In all his cases there were only two in which albumen was absent. In one of these the necropsy showed a chronic nephritis dating from an attack of scarlet fever five years before. In a recent report of 322 cases of eclampsia from the Charité in Berlin albumen was absent in only 6. There is no other symptom of a gestational toxaemia and threatened eclampsia so constant and characteristic as this. The urea excretion is valueless in comparison. Pregnant women excrete anything from 3 to over 30 grams a day, but usually less than the normal 20 to 24 grams. He has repeatedly seen a very low output without the slightest disturbance of health, and occasionally a rapidly increasing toxaemia with an excretion of more than 30 grams. Any one who is ill-advised or inexperienced enough to attach much importance to urea elimination as a sign of gestational toxaemia or threatened eclampsia will be constantly making blunders in diagnosis and treatment. Casts other than hyaline should of course be looked for, but their quantity cannot be measured. It is a clinical rule, with few exceptions, that albuminuria precedes the other signs of gestational toxaemia, that the gravity of the woman's condition can be measured by the steady increase in the amount of albumen in spite of treatment, and constant premonitory sign of eclampsia that we possess at present. The preventive treatment consists, as every one knows, of mild diet, diaphoresis, diuresis, and catharsis, with extra precautions against chilling the skin. The use of thyroid extract as proposed by Nicholson is still on trial. Increasing experience has forced Hirst to the conclusion that the rapid evacuation of the uterus is not the proper treatment. He is better satisfied with the treatment directed solely to the eclampsia without regard to the uterine contents until such a degree of dilatation of the os is secured spontaneously that delivery can easily be secured without violence. In antepartum eclampsia evacuation of the uterus is only indicated if, after the eclampsia is controlled, the patient's urine is persistently albuminous and filled with casts, or if other symptoms of gestational toxaemia continue to a degree that excites anxiety. In such a case it is better, if possible, to induce slowly by bougies or the Voorhees bags rather than to resort to a forced delivery. Meanwhile the eliminative treatment by diuresis, catharsis, and diaphoresis should be actively employed. It necessarily follows that any one holding these views cannot approve of Caesarean section for eclampsia. There is no treatment of the disease with such a high mortality except the pilocarpin treatment. One has a mortality of over 30, the other of over 60 per cent. As to the treatment of the convulsions, it is well understood that we must employ two sets of remedies: one to eliminate the poison, the other to quiet nervous irritability and muscular activity. It is generally agreed that normal salt injections, sweats, and purgation are the most reliable measures under the first heading. Diuretics during eclampsia are of no use, because the kidneys during the attack are practically non-existent as excretory organs. There is usually anuria or a scanty quantity of bloody, albuminous urine, in which, by the way, the percentage of urea is often

normal for a pregnant woman. Venesection should be classed among the eliminative measures; but after resorting to it almost routinely at first, he now rarely does so. Among the sedatives, chloral and opium dispute the field. Hirst confesses to a prejudice against the latter, because it antagonizes the eliminative treatment, and there is, it would seem, danger of fatal poisoning from the large doses required, in view of the inactivity of the kidneys. For the relief of the arterial tension and spasmodic contraction of the arterioles we have always used veratrum viride. An experience of twenty years with it confirms the good impression originally conceived. Finally, he urges the advantages of treating eclampsia in a well appointed hospital. Nothing is more disheartening than the inadequacy of this treatment observed, in consulting practice in private houses. If cases of eclampsia were transported in an ambulance without delay to a hospital well appointed for their treatment and with a staff thoroughly drilled in the management of such cases, the mortality could be kept at or under 13 per cent., which is less than half what it is in private practice. In other words, a patient would have more than double the chance of recovery that she has in her own home.

(250) Rectal Fistula after Vaginal Hysterectomy.

Kamann (*Zentralbl. f. Gynäk.*, No. 5, 1904) reports that Strassmann operated successfully for a very high recto-vaginal fistula, the result of a total extirpation of the uterus undertaken seven years earlier. No less than nine attempts had been made to close the fistula; it opened high in the rectum above the dilatation, which was dragged forward by the cicatricial process so that a large diverticulum had developed. Strassmann dissected away the fistula and then made a long incision, beginning in the anterior vaginal wall just in front of the hysterectomy scar, and carried downwards along the left side of the vaginal wall to the same side of the anus. The vagina was dissected from the rectum, the hysterectomy scar from the bladder, and the bladder from the higher part of the large intestine in the pelvis. The rectum was next set free from its attachments to the left side of the pelvis and its diverticulum resected. The bowel was closed with silk sutures tied on the inner side after the muscular and fibrous coats had been sutured separately with catgut. The vaginal incision was then sutured with silk. The rectum was attached to the left side of the pelvis by catgut. The lower part of the long incision involving the perineum was not completely closed with sutures, whilst the big pararectal wound was drained with sanoform gauze. The rectum healed thoroughly.

(251) Primary Cancer of Vulvo-vaginal Gland.

Von Ferisch (*Monats. f. Geb. u. Gyn.*, January, 1904) reports a case of this rare condition under his own observation, adding references to the few earlier cases recorded in medical literature. His own patient was 77 years old, and had enjoyed perfect health until three years before observation. She had borne eight children, and the menopause had set in at 50. A mucous discharge set in when she was 74, and soon a swelling was noticed in the vulvar cleft. The discharge grew fetid. There was a very granular mass of the size of a walnut attached to the right side of the vulvar orifice posteriorly; it was covered with transparent mucus, which welled up again directly it was wiped away. There was enlargement of the inguinal glands on both sides. The vagina and uterus were healthy. As the patient had emphysema and arterial sclerosis local anaesthesia was employed when the tumour was removed with the right labium minus. Microscopically, the new growth resembled a papilloma of the bladder, and was seen to arise from the duct of the vulvo-vaginal gland. The glandular tissue of that structure had entirely disappeared as a normal result of senile atrophy. There were distinct evidences of inflammatory changes in the new growth itself, including a small suppurating focus. The surface of the tumour was ulcerated. Hence the enlargement of the inguinal glands seemed largely due to inflammation rather than to infection. The patient recovered from an attack of bronchitis and pleurisy during convalescence after the operation, but no further after-history is published.

THERAPEUTICS.

(252) The Treatment of Ozaena with Paraffin.

Since Gersuny introduced injections of hard paraffin into the subcutaneous tissue for the filling up of defects in the scrotum, in the palate, etc., the uses of these injections have been considerably extended. Among the conditions for which it has been employed one finds the atrophic form of rhinitis with ozaena. H. Fliess says that inasmuch as there is a connexion between ozaena and abnormal wideness of the nasal passages he has tried the paraffin injections into the inferior turbinated, in order to narrow the passage and thus to influence the course of the ozaena (*Berl. klin. Woch.*, March 7th, 1904). The technique, he says, is very simple. He prefers to follow Eckstein's instructions, but chooses a longer needle shaped like a bayonet. The nasal cavity is first carefully cleaned from all crusts, then cocainized, especially in the region of the lower turbinated, the floor, and the septum. The syringe should have been prepared during the time which is used for preparing the nose, and as soon as the cocaine has acted sufficiently he injects the paraffin into that portion of the lower turbinated which shows the most atrophy. He finds it necessary to vary the procedure according to the conditions, but as a rule he succeeds in narrowing the nose sufficiently at one sitting. So far he has treated twelve patients in this way, and although he realizes that one cannot speak of cures, since the cause of the ozaena is not alone the enlargement of the nose, the results have been very satisfactory. He has obtained much more relief by this means than he has ever been able to get with any other form of treatment. He used paraffin with a melting point of from 50° to 52° C., because no case of pulmonary embolism has yet been observed with this, while with the softer forms having a melting point of from 36° to 42° C. severe and even fatal cases of embolism of the lung, of the central retinal artery, etc., have been recorded. From a symptomatic point of view the treatment yields the best possible results, and he recommends it for this reason.

(253) Theocin.

L. Alkan and J. Arnheim (*Therap. Monats.*, January, 1904) have tested the action of theocin and the similar preparation theophyllin, in order to find how far they replace the older diuretics such as diuretin, calomel, and digitalis, and how far they may be advantageously employed in combination with one of the latter. No difference was noted between the action of theocin and theophyllin. The following were typical examples of the results obtained. The first case was that of a man 72 years of age with general arterio-sclerosis, chronic interstitial myocarditis, much oedema and ascites; treatment by digitalis had been ineffectual. Three doses of theocin in all 0.6 gram, were given on the first day, with the result that the amount of urine excreted rose from about 400 to 6,500 c.cm. in the twenty-four hours. On the next day, although theocin was still given, only 480 c.cm. of urine were passed and no further substantial increase followed. After some days digitalis was again tried, this time with excellent results, and the oedema disappeared within three weeks. A different course of events was noted in the case of a woman suffering from chronic interstitial nephritis, myocarditis, and arterio-sclerosis, with oedema of the legs and ascites. Theocin was no benefit until the oedematous fluid had been removed by scarification and the heart muscle somewhat recovered itself. The use of theocin for the next six days resulted in an output of 1,200 c.cm. of urine a day instead of the 400 c.cm. which had been passed before; on the sixth day the amount diminished. The heart now reacted to digitalis, although the amount of urine passed increased only slowly. The treatment adopted was, therefore, to give, first, digitalis for several days, next theocin for one day, and so on. The amount of urine increased, and on the three days after the administration of theocin was 2,000 c.cm., 4,000 c.cm., and 3,000 c.cm. respectively. The patient was able to leave the hospital free from symptoms. A case in which theocin was absolutely useless was that of a man in whom the return of blood from the lower half of the body was obstructed by the pressure of a growth on the vena cava. In a case of large white kidney, where the illness was of a year's duration, administration of the sodium derivative of theocin resulted in an increase of the quantity of urine, but also in a large increase in the amount of albumen in the urine and of erythrocytes, that is, a fresh inflammatory process was set up. It would appear that theocin acts as an irritant of the healthy kidney tissue, and has no influence primarily on the heart or the pulse tension. With such a mode of action theocin succeeds or fails in cases

of dropsy, whether cardiac, hepatic, or renal in origin, according to the state of the kidneys. The best results are obtained in cases of chronic interstitial nephritis, where there is always some failing kidney tissue to react to the drug. It should never be continued for more than two days at a time, and in the intervals digitalis, calomel, or diuretin should be given. In diffuse injury to the kidney from general or local obstruction, theocin acts only after the removal of obstruction, by some other method, as by the use of digitalis or in the example above, by the removal of enormous fluid. Should it be impossible, as in the third case quoted, to abolish or lessen the cardiac lesion, theocin is contra-indicated, whenever there is diffuse injury to the kidney parenchyma following acute inflammation, and also in recent inflammation of the kidney, even although only slight.

(354) The External Treatment of Psoriasis.

R. HERXHEIMER (*Derm. med. Woch.*, January 9th, 1904) deals with the external treatment of psoriasis, but points out that it is not safe to advise external treatment to the exclusion of internal treatment with arsenic, but that he suspects it touches with the latter, as chrysarobin and pyrogallic acid, he has not had disadvantages, and many patients have only too well known how disappointing the results of these drugs often are. He considered that it would be worth while studying the effect of oxidation of the part, and chose the ointment of zinc peroxide as the most likely, expecting the result he obtained. Unna had previously employed the peroxide locally chiefly for acne and furunculosis, and claimed that it acted by decomposing and so oftentimes destroying the air. He found its action to be paralleled by the zinc compound, while the latter possessed the disadvantage of a whole crystalline compound and relatively pure from a chemical point of view. Hydrargyrum oxydatum via humida is a yellow powder. The preparation was applied to the skin in the form of an ointment, which may be used with it. He generally employed a 10 per cent. ointment of zinc peroxide, but sometimes used a 20 per cent. ointment, and in cases of [illegible] a 5 per cent. ointment. The average duration of treatment was [illegible] days, and although he used [illegible] ointment, he found that [illegible] and although he used [illegible] ointment, he found that [illegible]

PATHOLOGY.

(355) Indian Cobra Poison.

A PAPER on the Action of Indian Cobra Poison, by Captain R. H. Elliot, I.M.S., was communicated to the Royal Society on February 25th. The object of the research was to ascertain the precise part played by the various important centres, nerves, and organs in the production of death from cobrasm. His conclusions are summarized as follows: (1) Cobra venom acts directly on the unstriated tissue of the blood vessels, or through their vasomotor nerve endings, contracting the arterioles, and thus raising the arterial blood pressure. It probably affects all organs alike. In the finer vessels the action can be traced down to dilutions of 1 in 10 000 000. In a cobra-bitten man the concentration of venom in the blood is probably at least thirty times as great as this. (2) Cobra venom also acts directly on the isolated frog ventricle, killing it in a position of firm systole, if the solution be concentrated, and stimulating it if a weaker strength be employed. The limit of the speedy lethal action on the isolated heart is reached at a concentration of about 1 in 500 000. The stimulating action can be traced down to a dilution of 1 in 10,000,000. This action of cobra venom brings it into line with the glucosides of the strophanthin group. Its action is more rapid than that of strophanthin, and is certainly not inferior to it in strength. Atropine sulphate and cobra venom, when acting in the same solution, intensify each other's action, and produce more summation of effect than one would have anticipated. This detracts from the value of the atropine salt in the treatment of cobraism and makes it a dangerous remedy. The blood-pressure work has confirmed this view of the case. (3) Cobra venom powerfully affects the isolated mammalian heart, when solutions of it are perfused through the coronary circulation. The action appears to be a dual one—namely, (*a*) a direct action on the muscular fibre, or on the nerve endings, closely resembling that which is produced on the isolated frog ventricle; and (*b*) an action on the intracardiac vagal mechanism which makes for inhibition. Cobra venom interferes with the circulation through the heart in a marked manner; this is probably due (*a*) to a constriction of the coronary vessels, brought about by the direct action of the venom on the vessel walls, and (*b*) to the condition of tonus into which the heart is passing to pass. (4) When given subcutaneously in lethal doses cobra venom kills by paralysing the respiratory centre. There is a gradually increasing venosity of the blood, and in consequence those of all the terminal effects of slow asphyxiation are produced. By applying extra [illegible] to the exposed medulla of the rabbit, the respiratory movements can be prolonged with the [illegible] ends of the heart being [illegible]. If very large doses are injected death may occur from cardiac failure before the respiratory centre has given way. [illegible] cobra venom [illegible] in low [illegible] only raise the blood pressure. In [illegible] asphyxia, [illegible] which [illegible] death, a further steep rise of blood pressure takes place; this is soon followed by a sudden and very rapid fall to death. (6) Cobra venom, when injected in large doses, and especially when given intravenously, causes (*a*) a sudden fall of blood pressure, (*b*) a subsequent rise, provided the dose has not been too large, and (*c*) a final fall to zero. When the dose of venom is a very large one the direct muscular stimulation may be so intense as to overcome the maximum inhibitory impulse, and then the heart dies in systole with a quickened beat, and is found after death as hard as a contracted *post-partum* uterus.

(356) The Koch-Weeks Bacillus.

MCDILL AND WHERRY (*Reports from Government Biological Laboratory at Manila*, No. 10, 1903) describe two cases of acute suppuration of the hand due to an infective organism which was found to exhibit the cultural characters of the Koch-Weeks bacillus or bacillus conjunctivitidis. The first case was that of a hospital surgeon who had previously been treating some cases of acute suppurating conjunctivitis, and had also operated on a case of leg infection which ended in septicæmia. The second case occurred in a nurse who lanced the doctor's hand and pricked her own finger during the operation. The clinical symptoms were severe in both cases, and the nurse's finger required amputation owing to the incidence of gangrene. Great difficulty was found in obtaining the first culture as the organism would not grow upon ordinary media; but at length success was obtained with ascitic fluid agar. It was then subcultured with ease upon ordinary media. From its similarity of behaviour upon culture media, its staining reactions, and its morphological characters, the authors believe that the organism is identical with or closely allied to the Koch-Weeks bacillus.

(357) Tubercle Bacilli in Milk.

LYDIA RABINOWITSCH (*Zeits. f. Tierm.*, Bd. viii, 1904, p. 202) reviews recent literature on the controversy as to the infectivity of milk obtained from tuberculous cows. She maintains her opinion, previously expressed at the London Tuberculosis Congress, that cows which react to tuberculin may secrete tubercle bacilli in their milk without there being any clinical indications of udder disease. Various authors have investigated the question by testing, with the aid of animal experiments, the milk of cows which reacted to tuberculin but had no disease of the udder. Their results are at variance with one another, some authors maintaining whilst others deny the danger of infection. In criticising the experiments which gave negative results Rabinowitsch points out the fallacy which may arise through inoculating too small a number of animals or animals which are not highly susceptible. Streptococci, for example, obtained negative results from attempts with the milk of tubercle cows, but he only inoculated 81 guinea-pigs altogether, and so of these were rabbits. Moreover, though a cow may secrete tubercle bacilli in its milk their presence is not constant but varies from day to day.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(258) Early Treatment of Acute Nephritis. De Rossi (*Il Policlin.*, February, 1904) describes and justifies Baccelli's treatment of acute nephritis in its earliest stage. The essential points in the treatment are bleeding from the foot and a restricted diet, with the free administration of distilled water. The amount of bleeding recommended is 30 c.cm. or more for an adult, and proportionately less for a child. If necessary, this may be repeated on the same day or on later days, the operation being performed in some cases as often as four times. This treatment is advised on the ground that in all severe cases of nephritis a venous stasis in the kidneys plays an important part. It is this which makes the elimination of toxic substances difficult, and, by injuring or destroying the renal epithelium, prevents recovery. The blood is to be taken from a vein in the foot, on the ground that the greater the distance between any organ and the vein from which blood is drawn the greater is the relief afforded to the organ. Bleeding in this affection was recommended by Bright and other authors at a time when it was a more fashionable therapeutic measure than now, and fell into disfavour along with bleeding for other phlogistic diseases. There have always been those who recommended bleeding as a treatment of uraemia; but this is quite a different thing from Baccelli's treatment, which is based on a consideration of the special circumstances of the circulation through the kidney, which are such as to expose the renal epithelium to irreparable injury if congestion be not quickly relieved. The treatment cannot be begun too soon, and is useless if delayed till the epithelium has been destroyed. Baccelli denies that the loss of such an amount of blood as he removes can exercise a debilitating effect on the patient. He rejects the suggestion that congestion should be reduced by nephrotomy, considering that too dangerous an operation. His method has been in use for some years in the Royal Medical Clinic at Rome, and has given very good results, being especially attended in most cases by a well-marked and immediate diminution in the amount of blood in the urine. Any good results which can be obtained by cupping or leeching the lumbar region he claims as an additional proof that his measures will do still more good. In opposition to Senator, who advises local bleeding for the relief of very severe pain, and for that only, he argues that such pain can only be relieved by relieving the renal congestion, and therefore any measure which relieves pain must promote recovery. Baccelli's second maxim—that large doses of distilled water are to be given with a milk or milk and hydrocarbon diet—was enunciated many years ago, on clinical grounds, and has been justified by recent researches into the action of neutral salts in cases of oedema. Widal and Javal found that, without making any other change in diet or treatment, they could increase or diminish oedema at will by suddenly increasing or diminishing the amount of sodium chloride administered. Achard increased the amount of pleural effusion in a patient with heart failure by giving a large dose of sodium chloride. Strauss has pointed out that a large excretion of the same salt forms part of the polyuria which sets in when cardiac compensation is re-established by means of drugs after a long period of insufficient action of the heart. Baccelli's treatment is also sustained by the results of Loeper's researches into the effect on the excretion of water of liquids with different osmotic tensions. He found that hypotonic solutions quickly produced polyuria with the excretion of substances dissolved in the blood.

(259) Urticaria in Childhood. The frequent occurrence of urticaria in early childhood, its chronic course, frequent relapses, and difficulty of treatment make it a subject of importance to children's doctors. B. Bendix (*Deut. Aertze Zeit.*, January, 1904) describes a case in which acute urticaria with oedematous swelling of parts of the face invariably followed the ingestion of an egg. The child when first seen was 13 months old, and had typical urticaria on the chin and cheeks and oedematous swelling of the eyelids. The skin over the rest of the body was unaffected, and except for slight signs of rickets the child was healthy and well developed. The mother stated that the eruption had first appeared, when the child was 4 months old, after she had given him egg albumen as treatment for intestinal catarrh. He had a second similar attack from the same cause when he was 7 months old, and the mother began to suspect the egg albumen as the cause, because between the attacks he had never tasted an egg. When he grew older and the milk diet began to be occasionally varied by an egg it was found that urticaria always followed in whatever form the egg was given. Bendix found on three occasions that the reaction followed the administration of an egg in five, seven, and eight minutes respectively. On the last occasion the whole face became covered with typical wheals, the eyelids were swollen so as to half close the eyes, and the conjunctivae were injected. There was much itching. The attack only lasted for a quarter of an hour. To prove that it was caused by absorption from the intestine egg albumen was rubbed on the skin and gave rise to no reaction. The child was able to take the albumen of milk or meat without trouble. Cases in which acute urticaria has followed the ingestion of a sound egg are very rare, but Baginsky gives two examples, both occurring in young children. These cases suggest the possibility that eggs may be harmful in the diet of adult patients suffering from urticaria, and that they should be forbidden absolutely at first and only gradually returned to. The author has adopted this treatment for two chronic cases with success. The only local treatment he now employs for urticaria is the use of an ointment of which anaesthesine and menthol are the chief constitutents, usually in equal parts. The ointment is applied after the child has been first bathed and rubbed with acetic acid and the skin allowed to dry. The itching diminishes in a few hours, and the swollen and reddened places dry up. Medicinal treatment by salicin, antipyrin, and calcium chlorate is adopted to prevent a fresh attack, and should these measures fail a course of treatment at Carlsbad or Kissingen may be tried.

(260) Typhoid Fever with Arterial Complication. Steiner (*Amer. Journ. Med. Sci.*, February, 1904) reports a case of typhoid fever with an arterial complication, which was probably an arteritis. After reference to previously reported cases in which the symptoms were attributed to thrombosis, he suggests that, as some of the cases were in young patients with ultimate complete recovery, an arteritis only existed, as would seem to have occurred in the instance recorded. A boy, aged 9, complained of headaches and general *malaise*, which ultimately necessitated his going to bed. On examination, about a fortnight after he first complained of feeling ill, his temperature was 101.8° and his pulse 100, and there was a systolic apical cardiac murmur extending upwards and heard loudest over the pulmonic area. No rose spots were present, and there was no abdominal distension, though palpation elicited pain generally and not localized. Widal negative. The following day abdominal distension occurred, followed by rose spots, and the spleen became palpable. On the twenty-second day of the illness a relapse occurred, accompanied by a fresh crop of rose spots and marked bronchitis. Fourteen days later he became delirious, with a small thready pulse, which recovered under treatment, and in four days his temperature was normal. After an interval of two days, on the forty-first day of his illness, he complained of numbness and tingling in the right index finger, and on the following day the right radial pulse was distinctly smaller in volume than the left, while pain radiated along the course of the brachial artery, though there was no swelling or tenderness on pressure. The next day the pulse in the right radial, brachial, and axillary arteries was absent, and the vessels could be felt, the overlying skin being somewhat swollen and inflamed. The right upper extremity was colder than the left, and the hand and fingers became blue and cyanotic, giving fears of gangrene. With the exception of a return of the axillary pulse, the condition remained stationary for about two days, during which the temperature showed a slight evening rise, but at the end of this time the temperature rose, and two days later reached 105.2°, with a fresh crop of rose spots and intense delirium. During this period coarse mucous *râles* were present over the whole of the right lung, and a systolic murmur, loudest at the aortic area, was detected. For the next few days the patient seemed almost moribund, but on the fourth day the delirium ceased and improvement began. It was not, however, until the thirty-fifth day after the onset of the arteritis that returning pulsation in the right radial and brachial arteries was

SURGERY.

(261) Method of Incision of the Abdominal Wall in the Performance of Laparotomy.

A. J. WALLACE (*Journ. of Obst. and Gyn. of the Brit. Emp.*, December, 1903) reviews the different methods of the abdominal wall used in the performance of laparotomy. The attempts at improvement made of late have been in the direction of varying the methods of closing the wall, the tissues also still remaining the site of incision, although the fact that the normal linea alba is often found in parts weakened and thinned points to its being naturally a weak part of the wall, and one, therefore, to be avoided if possible when making an incision. Moreover, the present method of suturing the edges of each component part of the abdominal wall separately to one another is not in itself an adequate protection. It is difficult to secure accurate apposition of the edges; eversion frequently occurs, and bags of fat are often caught between the edges as the sutures are tightened. Still more important is it that the resulting cicatrix does not differ practically from that obtained by mass suture. A cicatrix is efficient only when its continuity is interrupted by the interposition of intact muscular fibre to support and protect tissue weakened by incision, and when there is no interference with the freedom of movement possessed originally by each separate layer. WALLACE recommends the following procedure. A skin incision is made about 1 in. from the mid-line on the right side. The sheath of the rectus is clearly exposed and a blood-vessel ligatured. The sheath is then cut about $\frac{1}{2}$ in. from the linea alba to the opposite edge of the rectus muscle and the inner half of the sheath separated but by the blades of the scissors from the underlying muscle. At this stage the patient is placed on the left-hand lateral position. The rectus is then retracted outwards and the posterior sheath with the peritoneum is opened. The peritoneum is closed by a continuous suture, and the posterior sheath of the rectus is sutured to the anterior sheath with the edges of the rectus between. The left side is then treated in a similar manner. Drainage was employed throughout. The author regards the ultimate completion as one of the peritoneal surfaces, since the carefully constituted sheath of rectus and its blood-supply is thereby preserved. The objection of stumblers to operation, while the peritoneum is sutured for the second time, is met by the fact that the sutures are placed in the sheath of the rectus, and not in the peritoneum. The sheath of the rectus is attached to the inner border of the sheath by one stitch, or two, the anterior sheath closed by a continuous suture and the skin edges brought together by a continuous subcuticular catgut suture. To prevent haematoma a flat sandbag, whose weight varies from 6 lb. to 9 lb. according to the amount of fat in the abdominal wall is placed over the dressings and kept in position for twelve hours. When drainage is needed a slight modification of the above procedure enables a glass tube to be inserted, but for the most part in such cases WALLACE has employed a gauze drain passing externally per vaginam. He has employed his incision in forty-eight cases for the pathological conditions usually found in the female pelvis. The cases chosen have been clean at the outset, for the risk of infecting extensive connective tissue planes would be too great to justify its use in cases known to be infective before opening the abdomen. Up to the present time there has been no failure, even where suppuration has occurred, and no patient has subsequently needed to wear an abdominal belt. Pfannenstiel has recommended a transverse incision of the anterior sheaths of both recti. His method is good, but has the disadvantage of wounding the linea alba. When modified so as to leave this intact, Pfannensteil's incision is admirably adapted to the performance of ventrifixation of the uterus.

(262) Fissure of the Tibia.

SCHLATTER has recently demonstrated by means of radiography the true nature of a hitherto unsuspected lesion of the knee. Frequently pain in the right knee and limping is due to a fissure of the tibia. L. WEBER (*Rev. Méd. de la Suisse Rom.*, November 20th, 1903) describes such a case. A boy, aged 14, had complained for several days of pain in the right knee, which was not severe, and caused a scarcely perceptible limp. The pain was aggravated by attempts to run, prolonged walking, and extension of the quadriceps extensor. There was localized tenderness over the internal surface of the right superior epiphysis of the tibia, and especially over the tubercle to which is attached the ligamentum patellæ, which was slightly more prominent than the left tubercle. The insidious onset, the localization of the pain and swelling over the tubercle, its aggravation by extension of the quadriceps and the retention of the power to walk were together characteristic of lesions of the upper epiphysis of the tibia. This disease is vertical, and runs from below upwards and backwards behind the tubercle, which belongs to the upper epiphysis, and is thus separated from the diaphysis. To appreciate its three-dimensional relationships skiagraphs should be taken in profile. Lesions usually between the ages of 12 and 17, and usually as the result of traumatism, which is not necessarily violent, to cause early direct injury. The bone is almost invariably the seat of inflammation of the bursa under the ligamentum patellæ or for tuberculous synovitis or osteitis, especially as the child's disability in walking prevents rubbing the nature of the lesion is recognized for weeks or months. The treatment consists in immobilization of the limb; recovery is then rapid and complete. The lesion appears to be common, as a number of cases have been diagnosed since the appearance of SCHLATTER's paper in the *Beiträge zur klin. Chir.*, Bd. XXXVIII., fasc. 3.

MIDWIFERY AND DISEASES OF WOMEN.

(263) Injury to Child's Eyes in Difficult Labour.

In a paper published in the *Transactions of the Ophthalmological Society*, vol. XXII., W. Ernest Thomson (Glasgow) records three cases in which injury of the cornea was caused in infants during difficult labours and delivery with forceps. At first there was subconjunctival ecchymosis and opacity of the cornea, and after a few weeks the haze became less, and finally showed only as a white linear scar extending obliquely across the cornea. The first case was seen a year later, and although the scar was distinctly visible, yet it was not so dense as it had been. In the next volume (XXIII.) of the *Transactions* this subject is dealt with in an exhaustive paper by Thomson and Leslie Buchanan, and after examining much material they come to the conclusion "that almost anything is possible in the nature of injury to internal structures." The literature of the subject is fully entered into, and the clinical history of six cases they have been able to observe is given. They recognize traumatic keratitis in three forms: (1) indeterminate in shape and position, due to oedema of the cornea; (2) is due to the formation of scar tissue, and follows a rupture of the posterior elastic lamina, and sometimes of the corneal laminae themselves, these remaining more or less permanent; and (3) an intermediate condition between these two, in which there is oedema with inflammation following it in some instances, while in others there is in addition a stripping off of the posterior elastic lamina, which gives rise to a diffuse opacity which is permanent. As the result of very great pressure such as that exerted in craniotomy, the lens and vitreous have been found to be retroverted, and the eyeball has been known to be extruded.

(264) Does Lithopædion Demand Operation or Expectant Treatment?

LOMER (*Centralbl. f. Gynäk.*, No. 7, 1904) discussed before a German medical society a case which had been under his observation for over fourteen years. Three years earlier STAUDE had operated on the patient, opening the peritoneal cavity; he detected the tumour, closely covered in by multiple adhesions and apparently immovable; but it appeared that he also detected a tumour that was renal or at least certainly retroperitoneal. Diagnosis was not clear, but afterwards the tumour assumed the characters of a lithopædion. Later times the patient frequently consulted him for occasional attacks of peritonitis. On the whole, the patient's health was fairly good, and she refused operative interference from first to last on that account. The circumference of the abdomen was 35 in. in 1899, 41 in. in 1902, and once more just under 40 in.

in 1903. There was some discussion as to whether adhesions around sacs did not break down, or at least, soften in course of time. Lomer admitted this possibility, but since Staude's operation there had been repeated attacks of peritonitis, so that adhesions were probably denser than ever. Lomer admitted that the Roentgen rays could not be successfully used, as the tumour followed closely the respiratory movements. Absolute certainty of diagnosis remained to be determined.

(265) Hypertrophy of the Fetal Thyroid.

W. E. Fothergill (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, January, 1904) reports a case of hypertrophy of the fetal thyroid with maternal eclampsia. The case is an example of the use of thyroid in the management of eclampsia and as being one of five recorded instances of hypertrophy of the fetal thyroid following the administration of potassium chlorate to the mother during pregnancy. The patient was a stout woman, 37 years of age, of gouty ancestry. She had suffered from repeated abortions, and during the pregnancy in question potassium chlorate was given on the hypothesis that the abortions had been caused by placental thrombosis. Slight swelling of the hands and feet occurred in the eighth month of pregnancy, and 0.2 per cent. of albumen was found in the urine. The patient was ordered to rest, to have vegetarian diet, and to take 10 gr. of thyroid substance daily. The condition improved, but later, after an unsuitable meal, headache and vomiting set in. Anuria followed, and the patient finally had two prolonged eclamptic seizures and became comatose. The anuria persisted for two days after the seizures; on the first day nine 5-gr. tabloids of thyroid were given and on the second seven tabloids. Urine was then passed. Labour began on the following day, a small female child being safely delivered. The child was alive at birth, but died after a few minutes from the presence of a large solid tumour, comprising the whole thyroid gland. The mother suffered from complete anuria for twenty-four hours after delivery, and took during this time 30 gr. of thyroid. She then passed urine and her condition steadily improved, becoming normal in a few days. After his experience in this case the author would give thyroid substance an extended trial in the auto-intoxications of pregnancy. The case is a good example also of the non-obstetric treatment of eclampsia, and because it may be reasonably supposed that patients have at times succumbed to the combined effects of eclampsia and *accouchement forcé* who would have survived eclampsia alone, the author would use the artificial induction of labour as a preventive measure, but not when convulsions or coma have supervened. On examining the fetal tumour all the elements of the thyroid were found to be hypertrophied and the gland to be about seventeen times heavier than normal. From the records of the administration of potassium chlorate during pregnancy it may be stated that: (1) In many cases of habitual abortion continuous administration of small doses of potassium chlorate is frequently followed by the extension of pregnancy to its normal limit. (2) Microscopic examination of the abortive ova expelled by these patients shows that the death of the ovum is due as a rule to extensive thrombosis within the intervillous spaces. (3) Large doses of potassium chlorate are known to produce destructive changes in the blood, the therapeutic use of the drug having occasionally caused death in this way. The conditions under which hypertrophy of the fetal thyroid followed the administration of potassium chlorate to the mother in five instances are not understood.

(266) Menopause at 19.

Hartmann (*Comptes Rendus de la Soc. d'Obstét. de Gyn. et de Paed. de Paris*, January, 1904) describes a remarkable case. The patient was an artist's model, aged 24. At 15 the catamenia appeared and were regular; six months later she cohabited and the period ceased for four months, so that pregnancy was suspected, but they returned and became regular, painless, and scanty, as before, lasting only for a day. When the patient was 19 they ceased abruptly. In the course of the next year she was troubled with flushings, replaced a year later by attacks of sickness when she lowered her head. When 22 the gastric symptoms ceased, and painful periodical swellings of the breasts occurred. These attacks ended within a year, and since then the patient has had no local or constitutional troubles. The uterine body was found to be ill-developed, otherwise there was no abnormal condition in the genital tract or elsewhere.

THERAPEUTICS.

(267) Hetol in Tuberculosis.

G. Brasch (*Deut. med. Woch.*, February 25th, 1904) considers that in hetol we have the best method of treating tuberculosis known up to the present time. He has employed it in some 52 cases, and these he divides into four classes (after Landerer): First, patients with moderately advanced lung changes, without fever, and with fairly good body nutrition. Of these he had 28 patients, and claims that 9 have been completely cured, 8 have been so far improved that they can follow their employment (*Wirtschaftlicheheilung*), 7 were only under treatment for a short time, and have not been followed up, and 4 are still under treatment. Of the 8 improvements, he says that he is sure that they might have been cures, had the patients not discontinued the treatment so soon. The second group includes advanced lung changes with cavity formation, reduced body nutrition, but no fever; of these he treated 7, 1 of which is completely cured, and 4 *Wirtschaftlichegeheilt*; 2 interrupted the treatment. The third group includes cases with advanced lung signs, continuous fever, and very reduced nutrition. Of these he treated 8; 1 was improved, 1 was not improved, 1 died, and 5 discontinued the treatment. The fourth group includes those cases generally known as "galloping consumption." He improved 1, 1 was discharged unimproved, and 7 died. He found that even tuberculous laryngitis was healed up at times by the hetol treatment. The difficulty in the treatment appears to be that a certain amount of skill is required to carry out the intravenous injections correctly. Hetol is put up in tubes containing 1, 2, and 5 per cent. solutions, all properly sterilized and ready for use. Each tube contains 1 c.cm. of the solution. The syringe must be kept for the purpose, and may not be used for anything else. It is best kept in sterile water in some suitable vessel, and the needle in alcohol. The technique is easily learned, and when the injections are properly carried out there is no danger. He has injected hetol more than 6 000 times, and has not made one bad experience. At first one gives 1 mg.—that is, $\frac{1}{5}$ of a c.cm. of a 1 per cent. solution. The injections are carried out three times a week, and the temperature is taken regularly three times a day. The dose is increased by $\frac{1}{2}$ to 1 mg. until 10 mg. are reached. At times he went up to 15 mg. or even to 20 mg., but this is seldom necessary. The injections can be carried out in the consulting room, and the patients can go to their business immediately after. This, of course, applies to feverless patients. The symptoms rapidly disappear, and the patients soon much improve in general health. Weight is gained early. He warns one not to use a bottle of hetol solution after it has been open for any time, but always to use fresh bottles.

(268) Infusion of Birch Leaves as a Solvent of Renal Calculi.

Infusion of birch leaves has been recommended by Winternitz as a bland diuretic, Jaenicke (*Zentralbl. f. inn. Med.*, April 2nd, 1904) states that its diuretic action is unimportant, but that it is a good solvent of renal calculi. In one case an eminent surgeon had decided to operate, and the presence of calculi had been demonstrated by radiography. For two years the man had had pain in the left side which radiated downwards to the sacrum and forwards to the thigh. The urine became turbid and there was occasional haematuria. Treatment by mineral waters and drugs was useless. Later renal colic appeared. Before consenting to an operation the patient consulted the writer. About 35 oz. of urine were passed in the twenty-four hours. It was acid turbid, yellowish-white, and occasionally haemorrhagic. On standing a grey or reddish-grey sediment appeared, which consisted of pus cells, urates, renal epithelium, and a few hyaline casts. There was from 3 to 5 per mille albumen. A cupful of infusion of birch leaves was ordered to be taken twice daily, and Lig. ferri perchlor. was given to combat the haemorrhage. A generous meat diet with sometimes a small amount of wine was substituted for one which consisted chiefly of milk. Six weeks later the general condition had improved, the attacks of colic were less severe and less frequent, and the strangury was scarcely noticeable. The condition of the urine was practically unchanged. But after another six weeks the general condition was excellent. No severe attack of colic had occurred for some time, and the urine was in all respects normal. There was

neither pain nor stringency, and the patient could go long walks without fatigue. He has remained in good health ever since (about nine months). A radiograph recently taken gave no indication of any remaining calculi. The patient stated that after he had taken the "tea" for some time the stone began to be dissolved and was passed in the urine in fragments, some of which were of the size of peas. Later only rough sand was passed. He gained 12 lb. in weight. The birch leaves should be collected early in summer and dried. A heaped teaspoonful of the powdered leaves is infused for five minutes in about 9 oz. of boiling water. The infusion is then boiled for five minutes and strained. This quantity is freshly prepared and taken twice daily, before breakfast and at 5 p.m. It should be taken continuously for six months and then during alternate months for some time. The writer claims to have cured many cases of renal calculi by this means.

(269) Cephalopin.

SCALFERO (*Rif. Med.*, January 27th, 1904) describes certain experiments with an oily extract of cerebral substance. There are objections to the glycerine extracts. The author found that the same effects were produced by oily solutions of cerebral substance as by the cerebral substance itself; and that chemical examination gave corroborative results. Perhaps the most definitely ascertained action of cerebral substance is its antispasmodic action. So, too, it was found that an oily extract materially lessened the effects of strychnine in patients. Whilst the ordinary extracts in doses of 1 c.cm. contained 300 anti-strychnine units, 1 c.cm. of the oleous cephalopin contained 900 antistrychnine units. A dose of 2 c.cm. of cephalopin rendered many animals immune against a fatal dose of strychnine even when inoculated one or two days after. Clinically it seems most likely to be of use in neurasthenia, hysteria, tic, chorea, and epilepsy. In seven cases of epilepsy treated with 1 to 3 c.cm. the results appear to have been encouraging, and no ill-effects were reported.

(270) Fetron Ointment.

O. LEMANSKI (*Berl. Klin. Woch.*, March 21st, 1904) states that the medication by ointments has been more or less saved and placed into scientific safety by the study of lanolin. The quality of the vehicle of an ointment is a matter of great importance, and while ointments meant to be absorbed are usually made up with lanolin, those which are meant to protect the surface are made up with a clinic. Fetron, which Liebreich has recently introduced into medical practice, takes a midway position between these two named vehicles, and, while it has a certain receptive faculty, its high melting point and other chemical properties render it more valuable than vaseline as a protective. The esters of fatty acids with three atomic alcohols have the character of very readily becoming rancid, while those combinations of monatomic alcohols with certain fatty acids do not possess this quality. Liebreich mentions a number of these compounds which he states have not been introduced into "ointment therapy." Of these compounds he found that stearine acetanilid is one of the most staple of all, and is not even decomposed after prolonged heating in watery alkalies. When mixed with paraffin or vaseline the melting point is actually raised. He therefore mixes American vaseline with 3 per cent. of the anilid, and the resulting mixture has a melting point of between 45 and 50 C. This mixture he calls fetron. Fetron possesses a fair capability of taking up water, which is necessary when one wishes to include aqueous solutions of drugs, and this can be materially increased if one adds some anhydrous lanolin. Liebreich has employed fetron in combination with a large number of drugs, and states that the results obtained in practice were absolutely satisfactory. He recommends the use of fetron to all dermatologists.

(271) Pyramidone in the Treatment of Sciatica.

BOCCHI (*Giazz. degli Osped.*, January 10th, 1904) speaks favourably of the above drug in the treatment of sciatica. Pyramidone is a derivative of antipyrin, being a dimethyl-amido antipyrin. It is a crystalline, yellowish-white powder, almost tasteless and soluble in water (1 to 10). The usual dose is 25 gr. to 30 gr. The author used a syrupy solution of 1 gram in 100 and administered four to five spoonfuls of this per diem. No ill-effects were observed and in the 10 cases where it was administered, very distinct relief was obtained.

PATHOLOGY.

(272) The Minute Structure of Negri's Bodies.

G. VOLPINO (*Gazz. Med. Ital.*, March 31st, 1904) refers to his previously-expressed opinion that the bodies described by Negri in cases of rabies are not parasitic protozoa, because they have no nuclei, show no reproductive forms, give no evidence of protoplasmic structure, and have a great affinity for eosin and picric acid. Moreover, he has never succeeded in reproducing experimentally the bodies of Negri in animals experimented upon by him. He now describes the bodies as special dispositions of hyaline substance produced by the action of the virus in the protoplasm of the nerve cells. involution forms due to the specific action of parasites contained within the bodies and now first described by himself. He does not propose to publish a complete description of his methods of histological examination until they have been perfected. The bodies of Negri are round or elongated formations containing small masses. In very thin sections it is possible by a special method of coloration to see inside these contained masses very minute corpuscles. Using the ferric hæmatoxylin stain, in a special manner which Volpino does not explain, one sees that the formations described by Negri inside his bodies appear uncoloured like clear spaces. Inside each of these clear spaces are large numbers of minute corpuscles. Colouring the sections with a mixture of methyl-blue and eosin in a manner not yet described, one sees these corpuscles of an azure colour, whilst all the remaining substance, forming the groundwork of Negri's bodies, is coloured red. Thus the minute corpuscles are clearly distinguished from the rest of the bodies. They are of very various forms, rod-like, punctiform, rounded, and annular. Assuming the specificity of Negri's bodies, and being satisfied for the reasons mentioned above that they are not protozoa, the author considers it extremely probable that these minute bodies described by himself are the real infecting elements of rabies. Such a fact would be in keeping with what, from filtration experiments, we already know of the very small dimensions of the infecting agent in rabies.

(273) A Case of Acro-hyperplasia.

UNDER the above title, Arnone (*Rif. Med.*, March 30th, 1904) describes a peculiar form of gigantism affecting the extremities only. The patient was 2 years old, and presented an abnormal length of digits in both upper and lower extremity—for example, the three phalanges of the right index finger measured 5.8 c.cm. in length, and similarly for all the other phalanges. The fingers and toe were not only exceptionally long but also slender and tapering. The limbs were fairly well developed. There was some scoliosis of the spinal column from the fourth dorsal to the fifth lumbar vertebra, and the skull presented dystrophic stigmata (marked dolicocephaly, frontal bosses, and marked depression behind the fronto-parietal suture). In other respects the child was healthy. There was a well-marked history of syphilis in the father. Syphilis, it is well known, may be a cause of gigantism, and is probably a chief cause in the local gigantism which this child presents acting by influencing the growth of the germinal buds. The author enters fully into the possible mode in which the result before us is brought about by syphilis or by other toxic agents, but syphilis is by far the most potent of those hitherto recognized. Photographs and radiographs are given to illustrate the case.

(274) Neutralization of Toxins.

HEGLER, in a critical article (*Festschrift zum sechzigsten Geburtstage von Robert Koch*, Jena, Gustav Fischer, 1903, p. 403) on the action of antitoxins and their therapeutical application, expresses the view that the specificity of the body cells is the true ground for the specificity of toxin neutralization. This specific effect is therefore nothing more than the intensification of a natural and inherited property of the protoplasm in the tissue cells. Susceptibility to toxic infection is not to be regarded as the mere negation or absence of immunity, but as something of a positive nature. It constitutes the phase of incomplete development of the defensive mechanism, and an artificial advance to the stage of toxin neutralization is only possible as a further development of this hereditary receptivity in response to specific stimuli. Susceptibility and resistance to toxic infection are therefore correlative properties, and not independent of, or antagonistic to, each other.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(275) Effect of Posture on Pulse-rate in Health and Disease.

G. GALLI (*Il Policlin.*, March, 1904) describes and explains his researches into the variations of the pulse-rate which depend on changes in position. He agrees with other observers that in health there is a difference of from fourteen to seventeen pulsations a minute between the pulse-rates in the vertical and horizontal positions. In convalescents and in patients suffering from other diseases than those of the heart Galli finds that this normal physiological relation is maintained or exaggerated. Thus an anaemic person or one convalescent from typhoid may have a pulse-rate higher by forty or fifty in the vertical than in the horizontal position. One suffering from aneurysm or arterio-sclerosis without valvular or myocardial complications will probably show the normal relation between the two rates. In cases of cardiac disease the rule is not found to hold good, except when the disease is recent or in process of formation, and the myocardial force good. When the disease is well compensated there is a difference of from four to six beats per minute between the pulse-rates in the horizontal and the vertical position. When compensation fails and there is visceral stasis the pulse-rates in the two positions tend to approximate, and the pulse-rate in the vertical position may even become lower that in the horizontal position. The relation between the two pulse-rates is much more variable in cases of mitral than in cases of aortic disease, probably because of the greater strength of the left ventricle. These generalizations are subject to exceptions, of which Galli quotes several instances. Galli considers that the differences depend mainly on disturbances of the cerebral circulation, but that alterations of blood pressure, increase of muscular contraction in the vertical position, and altered action of the vasomotor nerves, all play their part, and the complexity of the conditions determining the existence of the exceptions noted above. To determine the effect of changes of the cerebral circulation, Mantegazza, experimenting on rabbits, found that tying the carotid arteries increased the pulse-rate and tying the jugular veins lowered it. Both these results failed when the vagi were cut. He concluded that anaemia of the bulb caused an increase, and congestion of the bulb caused a diminution in the pulse-rate. Galli attempted to verify this principle by experiments carried out harmlessly on human beings. He produced cerebral congestion by suspending the subject by his feet, or by raising the foot of the bed on which the subject lay, but this congestion was attended by a distinct increase in the pulse-rate. He concludes that in human beings cerebral congestion increases the pulse-rate. In most cardiac diseases cerebral congestion is present, and is relieved by raising the head. Thus the patient finds his most comfortable position to be with the head and shoulders raised in bed, and in correspondence with this fact is the clinical observation that in this position the pulse-rate is lower than in the horizontal position.

(276) Tuberculous Meningitis.

MARAGLIANO (*Gazz. degli Osped.*, January 10th, 1904) points out the unsatisfactory character of that conception of tuberculous meningitis which rests satisfied with the view of the disease as an inflammation of the cerebral meninges, due to tuberculosis, associated with certain symptoms, and always fatal. A more careful pathological study helps to explain some of the clinical phenomena. He draws attention to the moniliform distribution of the granulations along the vessels and lymphatics, to the varieties and distribution of the exudation with its compressive and adhesive effects on the brain substance and cranial nerves, to the effect of blockage of arterioles on the nutrition of the brain, to the state of the ventricles, which if full may place the brain substance between two fires, as it were—pressure from internal secretion and from external exudation as well. *Pari passu* with these various pathological changes the clinical symptoms may be observed to vary also. Death is certainly not due to toxaemia alone, although this may play a part, but the chief cause is the complexion; and, although there might be some hope that a tuberculous antitoxin could relieve the symptoms so far as they were due to toxaemia, it is not reasonable to suppose to suppose they could do much *qua* the exudation, which unfortunately is the chief cause of death. Valuable as the diphtheria antitoxin has proved, it will not alone and unaided by the knife remove the products of exudation when they threaten life mechanically. One should bear in mind these facts in considering statements as to the specific treatment of tuberculous meningitis made by those whose life is passed in the midst of thermostats and culture tubes rather than at the bedside or in the *post-mortem* room.

(277) The Nose and Malaria.

ZIEM (*Arch. Ital. di Otol., Rinol., e Laringol.*, November, 1903) publishes a number of opinions and observations on malaria not altogether in accordance with the generally received views. He states that malaria is caused: (1) By injection of malarial blood; (2) by mosquito bites: (3) by bad drinking water; (4) by inhalation of putrid marsh vapours; and he considers the last of these causes the most frequent and important. He attributes suppurations of nose and breast, often of an obstinate nature until their cause is recognized, to the malarial exhalations from marshy ground, from damp cellars, and to the inhabitation of houses built on infected earth. Hence the danger of sleeping on the bare earth; but if the couch be raised from the ground he considers it safe to sleep without special protection from mosquitos, such as is afforded by nets. He considers that a change from a less healthy to a more healthy house is frequently indicated in the treatment of nasal suppuration, and state that an enlargement of the spleen is frequently associated with an infective coryza. He attributes some cardiac neuroses, noises in the ears, sclerosis of the middle ear, and suppuration of the hip and other joints to malaria. He illustrates the causation of these and other symptoms by a history of his own illnesses from the age of 4 years onwards. The striking features of these illnesses have been suppuration of the hip-joint, obstinate inflammation of the elbow, nasal inflammation, headache, sweating, and fever. They have proved intractable when treated by quinine, and have been treated with great success from time to time by change of residence, and by what is now known as the open-air treatment. The symptoms are all attributed to malaria, because there has been enlargement of the spleen, and the illness began when he was in the near neighbourhood of a marsh. By quotations from the *Decameron* he shows cause for believing that Boccaccio was acquainted with the connexion between malaria and nasal disease, and on the evidence of Suetonius he attempts to prove that Augustus Octavius was a sufferer from malaria.

SURGERY.

(278) Perforated Gastric Ulcer.

H. HOWITT (*Amer. Journ. of Obstet.*, November, 1903) reports a fourth consecutive successful operation for acute perforated gastric ulcer. Early diagnosis is a matter of vital importance in these cases, and is comparatively easy when a history pointing to the presence of gastric ulcer can be obtained. Even without such a history, the pronounced shock, severe pain in the epigastrium, rigidity of the abdominal walls, and the thoracic nature of the respiration help to a diagnosis. The situation of the ulcer is to a certain extent indicated by the history and the symptoms. Thus the position in which the patient has been accustomed before the perforation to obtain relief from gastric pain is of importance. Again, slight point pressure over an unperforated gastric ulcer in the anterior wall often causes severe pain, but this can only be elicited on deep pressure should the ulcer be on the posterior wall. When pain is caused by the irritation of food before perforation, it radiates to the right and perhaps downwards if the ulcer be near the pylorus, but in other cases it radiates to the left side, often to the left shoulder. After rupture the position of the pain is at first unaltered, but more agonizing pain is soon felt, which follows the passage of the contents of the stomach downwards in the abdomen. In perforation of the anterior wall this pain is quickly felt, and follows the course of the descending colon; in perforation in other situations it is slower in onset and generally follows the course of the ascending colon. With respect to the method of dealing with septic infection of the peritoneal cavity the author is in favour of a large incision and a thorough toilet of the cavity. Where abdominal distension is a prominent symptom of general infection of the peritoneum, and the stomach is collapsed and crowded under the ribs, a temporary enterotomy and evisceration is an essential pre-

luminary to a successful suture. The case recorded in the article was one of ulcer on the anterior surface of the cardiac end of the stomach. On perforation there was severe pain in the epigastrium, radiating to the left side of the thorax and the left shoulder. Later the site of most intense pain was in the left side of the abdomen, near the anterior superior spine of the ileum.

(279) Treatment of Lupus and Cancer by Light and "X" Rays.

Wild (*Med. Chron.*, December, 1903) gives the results of two and a-half years' practice in the treatment of lupus and cancer by Finsen-light and x rays. Out of 31 cases of lupus, 29 were healed and 22 much improved. The proportion of healed cases was higher in the case of Finsen light and the scars were better. The Lortet-Genoud lamp was found to be inferior in effect to the original Finsen lamp or the x rays. For large areas and ulcerated surfaces to which pressure could not be applied the x rays were preferable, but great care was necessary to avoid too strong a reaction. Wild recommends the combined treatment, using the x rays to heal the ulcerated surfaces and the Finsen light to cure the remaining nodules. For rodent ulcer the x rays alone were used. Twenty-two cases were treated, of which 13 were healed and 2 unimproved. In the 2 latter cases the ulceration had spread to the cartilage of the nose. The author believes that free excision is still the best method when practicable; but when this would cause deformity, as in the eyelids, the x rays should be used. In epithelioma the results were not satisfactory. Wild concludes that in rodent ulcer the x rays are useful, and should be continued for some time after apparent cure; but in carcinoma the rays do not appear to lessen the necessity for early and radical surgical treatment. In recurrent and inoperable cases of cancer the x rays relieve pain, reduce the bulk, and cause shrinkage of the growth.

(280) Congenital Dislocation of the Hip.

Mauro (*Arch. di Ortoped.*, An. 20, N. 3) reviews at some length recent literature on the above subject, gives his own experience and practice, and [illegible]. In congenital dislocation he ought to intervene as soon as the diagnosis is made by suitable manipulations, massage, weight extension, etc., in order to prevent further deformity. Next [illegible] to be attempted, even at [illegible] years of age, because [illegible] the dislocation is better and easier. In children [illegible] should [illegible] to avoid the [illegible]. At the initial part of the [illegible] the position of the [illegible] during [illegible] the [illegible] of the femur, the form and [illegible] the head and length and [illegible] the neck of the femur. If [illegible] follows a first attempt at [illegible] reduction it is better to try again by the same method rather than have recourse to open wound treatment. It is not necessary to use great violence in the [illegible] any [illegible] abduction, [illegible] external rotation of the limb can usually be corrected by educative treatment and by time, and seldom requires any operation.

(281) Intubation in Ulceration of the Cricoid Region.

Tommasi (*Arch. Ital. di Otol., Rinol., e Laringol.*, November, 1903) gives reasons for preferring the operation of intubation to that of tracheotomy in laryngeal stenosis, but he recognizes that there are cases where tracheotomy is to be preferred, and quotes an illustrative case of his own. A child of 4 years, who had suffered for some time from disturbed sleep and noisy respiration, always breathed through his mouth, and showed other symptoms of adenoids, was attacked by diphtheria. On the fifth day intubation became urgently necessary, and was performed only just in time. On the same day, and on several later days, he received an injection of 1,000 units of antidiphtherial serum. Two days later the tube was expelled in a fit of coughing, along with offensive pus and fragments of membrane; increasing dyspnoea made it necessary to replace the tube. Two days later the same thing happened twice over. After the eleventh day the fever disappeared, and the patient gradually gained strength, but the tube was still expelled every few days, in spite of all possible care in the selection of different sizes and patterns of tubes. At length, on the sixty-fifth day from the beginning of the illness, the patient having, while he was asleep, dislodged the tube in a fit of coughing, was unable to breathe, and died at once. When his doctor came there was still some movement of the heart, but natural respiration could not be induced, though the tube was replaced. At the necropsy it was found that the cricoid cartilage was denuded of perichondrium, and the cartilage itself was roughened. The mucous membrane showed very numerous little ulcerations and some larger areas of destruction corresponding with the sites of the chondritis and perichondritis. Commenting on the case Tommasi states that the friends of the patient would not consent to any further operation than intubation. He attributes the ulcerations not to the length of time during which the tube remained in position, for that has often been exceeded without any bad results, but to the infectivity of the original disease, and to the unhealthy condition of the mucous membranes in a patient with adenoids of old standing. His conclusions are that (1) if in a stenosis of the larynx due to an acute infection, intubation should become necessary, it does not follow that it need be repeated, especially if there be ulceration of the mucous membrane, and more particularly if we suspect perichondritis and caries of the cartilage, (2) in such a case it is more reasonable to follow up the intubation by a tracheotomy done with the fullest precautions, (3) such ulcerations [illegible] are shown by spontaneous rejection of the tube by [illegible] and blood-stained expectoration after each injection of the tube and after its insertion, and by the difficulty of keeping it in the larynx in spite of the utmost care in selecting a tube of suitable pattern and size.

(282) Large Lipoma of Spermatic Cord.

Stori (*Clin. Mod.* An. x, No. 10) reports the case of a man, aged 60, who said that the left scrotum had always been larger than the right, but the swelling had only increased rapidly since five years ago. As it continued to grow (having reached the size of a man's head) walking became difficult and advice was sought. Some caustic was applied to the lower part and caused an ulceration which did not heal. The maximum longitudinal diameter of the mass was 75 cm. and the maximum transverse diameter 49 cm. The surface was smooth, the skin normal, with considerable vascular development. There was no prolongation of the swelling into the inguinal canal. The penis was buried in the mass. The right testis could be felt and appeared normal. The left could not be felt, but testicular sensation was present on pressure. There was no translucency. The swelling was elastic (almost fluctuating in feel) and lobulated—no glands could be felt. On operation the mass was found to be a pure lipoma of the cord and weighed 8,900 grams (without the blood). About 50 c.cm. of sanguinolent serum were found in the sac. The subsequent history was satisfactory. The left testis was found normal.

MIDWIFERY AND DISEASES OF WOMEN.

(283) Amenorrhoea and Eye Disease.

Blondel and Sendral (*La Gynéc.*, February, 1904) describe an instance of grave ocular complications associated with amenorrhoea in a mature woman, and relieved by emmenagogue treatment. The patient was 34 years old. The period began at 12, and remained regular until the illness under treatment began. At 26 she miscarried and the curette was used; at 29 she lost her husband, then the period became irregular, and at the end of a year ceased altogether. At the same time the left eye became painful and vision gradually deteriorated. At the age of 32 the patient underwent sympathectomy; the pain was relieved, but the sight was lost, and then iridectomy was performed as painful symptoms recurred. The eyeball, however, became the seat of intense pain radiating to the circumorbital region. Blondel and Sendral examined the pelvis and genital tract. The uterine cavity increased 6 cm. in length. The patient was very neurotic and excitable. The left eyeball was very hard, with operative coloboma and cataract. A large vascular ulcer occupied the inner half of the right cornea, the eyeball was hard and photophobia extreme. Emmenagogue treatment was prescribed, consisting of ovarine capsules, apiol tabloids, and cachets of aloes and potasso-tartrate of iron. Within a week the pains in the left eye diminished, and the ulcer of the right cornea began to heal. At the end of a month the period reappeared, the left eye had become painless and the ulcer had healed. After three months' emmenagogue treatment the sight of the right eye was restored, though a little affected by the cicatrix of the corneal ulcer. The useless left eyeball

was removed. When the above report was published some seven months after the emmenagogues were first taken the patient was very well, the period continued although scanty and not strictly regular, and the sight of the right eye good. The drugs had been discontinued after about three months of treatment.

(284) The Benefits of Operations for Prolapse and Retroflexion.

BAUTZ (*Monats. f. Geb. u. Gyn.*, March, 1904) analyses a long series of operations of this class with after-histories, and concludes that: (1) All cases of prolapse of the vagina without retroversion of the uterus are best treated by plastic operations on the vagina itself. (2) Ventrifixation of the uterus and plastic treatment of the vaginal canal according to the circumstances of the case are indicated in all cases of prolapse of the vagina with retroversion of the uterus but without loss of mobility, in women during the child-bearing time of life, also in primary uterine prolapse in vaginal prolapse with irreducible retroflexion, and in total procidentia in women capable of bearing children. (3) Ventrifixation and plastic vaginal operations combined are also advisable in reducible retroversion and vaginal prolapse and in total procidentia in patients who have attained the change of life. (4) Ventrifixation alone is the best treatment for retroversion reducible or fixed and not complicated by vaginal prolapse. (5) Supravaginal amputation is necessary in all cases of considerable elongation or hypertrophy.

(285) Uterine Infection Due to Constipation.

CAPALDI (*Arch. di Ostet., e Ginecol*, An. x, N. 8, 1903) publishes certain experiments on the above subject which he has carried out on guinea-pigs. He produced complete faecal retention in these animals by sewing up the rectum, and in every case after a time a migration of B. coli from the intestine into the peritoneum and uterus was to be observed. No bacilli were found in the blood. The mechanical action of the loaded rectum, the absorption of putrefactive chemical products, and the slight lesions of the intestinal epithelium all render the passage of so mobile a bacillus as the B. coli an easy matter. In the endometrium distinct evidence of slight inflammation, undoubtedly due to the presence of micro-organisms, could be made out. Blood infection only occurred much later. Possibly some cases of abortion in association with constipation may be explained by migration of B. coli, and the author relates some experiments in gravid guinea-pigs which give some support to this hypothesis. The conditions of the experiments differ so much from those of constipation as usually seen in practice that too much value cannot be given to them; they, however, suggest that in addition to symptoms due to absorption of putrefactive products, some phenomena may be due to local migration of bacilli into the female genital passages.

(286) Vaginal Caesarean Section.

ALESSANDRO REGNOLI (*Il Policlin.*, February, 1904) describes 4 cases of this operation performed by him, laying special stress on the fourth case. The first operation was for eclampsia at the eighth month. Mother and child lived, and the child is now 4 years old. The second operation resulted in the recovery of the mother and the birth of a 7-months child which lived twenty-five days. The third operation was for the extraction of a dead fetus, and resulted in the recovery of the mother. The last case was one in which the placenta had become partially detached at the end of the sixth month of pregnancy. There was great haemorrhage and severe pain. There was no softening of the neck of the uterus, and the operation was decided on because of the delay and increased pain involved in forcible dilatation. Considering that in any future pregnancy the pressure of the child's head would be exercised chiefly on the anterior and lower part of the uterine wall, Regnoli determined not to incise it, and his only anterior incision was through the cervix. He made the ordinary posterior incision, extracted the child rapidly, not without some elongation of the anterior cervical incision, but without much haemorrhage and without any laceration of the peritoneum. The wounds were sutured and the patient made a good recovery, the sutures being removed on the fifteenth day. The author recommends the operation, especially with his own limitation of the anterior incision to the cervix. He states, however, that he has not yet tested the results by observing in any of his cases the course of a succeeding pregnancy and parturition.

THERAPEUTICS.

(287) Thiosinamin.

A. HARTZ (*Deut. med. Woch.*, February 18th, 1904) was induced to try the effect of thiosinamin in a case of stenosis of the pylorus, and reports on his results. Thiosinamin is an allyl-thiourea (rhodallin), and represents a substituted urea, in which an atom of hydrogen of an amido group is replaced by allyl "rest." It is prepared by heating an alcoholic solution of mustard with ammonia to 100° C. under pressure. It occurs as colourless bitter-tasting prisms, and is soluble in water, alcohol, and ether. It is said to have the physiological action of softening and stretching cicatrices. Hartz's patient was a man, aged 56 years, who had been ailing from early youth. The signs of a gastric disturbance appeared when the man was 28 years old. On two occasions he had had haemorrhage from the stomach, and at the age of 47 he had been treated by lavage and bismuth subnitrate. In 1903 the signs of fibrous stricture of the pylorus with secondary dilatation of the stomach and motor insufficiency were apparent. The operation of gastro-enterostomy was recommended, but as the patient had a great objection to an operation he sought for further advice before submitting to this. Massage was tried without success, and then Hartz thought that it might be worth while trying thiosinamin before pressing the operation. He injected a 15 per cent. solution in alcohol into the subcutaneous tissue of the back. At first he gave ½ c.cm. of the solution, and on the fourth day he injected 1 c.cm. The next four injections were made twice a week, and were 1 c.cm. each, except the last one, which was 1½ c.cm. This produced marked disagreeable symptoms of distension, etc. Subsequently he was only given 1 c.cm. The patient noticed within a short space of time that the food passed out of the stomach much more easily than before, and lavage was soon less frequently required. After the ninth injection the fluid used in the lavage returned clear. After the eleventh injection his symptoms had nearly disappeared, he could take his food well and with appetite, and the constipation had given place to a regular stool. After twenty-three injections he feels well, has no symptoms of his previous trouble, and can digest all food easily. Hartz owns that the result surprised him not a little, since he tried the remedy without much hope of attaining any benefit. He considers that suggestion or imagination could not have played any part in the good result, for the patient had been through too many varieties of treatment without success to allow of much faith in a new form of treatment. Hartz thinks that thiosinamin may prove useful in some cases of gynaecological conditions depending on scar formation.

(288) Thiosinamin for Contractures.

P. LENGEMANN (*Deut. med. Woch.*, March 24th, 1904) reports on the after-histories of two cases treated for Dupuytren's contracture with thiosinamin. He reported on the favourable effect of the treatment in June of last year, and since in both these cases no return of the contractions has taken place he feels justified in strongly recommending this mode of treatment. He is further in a position to add a third case of Dupuytren's contracture which he has cured by injections of thiosinamine. Another case treated in the same way was that of the thumb of a hand which had been injured in a printing press, and which had become useless from the contraction of the scar tissue. The result obtained was very satisfactory. He states that he has sought for reports from other practitioners who have used this preparation and has only received good reports. No case of failure has been communicated to him. In conclusion he calls attention to the fact that the injections must not be carried out instead of massage and active and passive movements, but that these must be employed as well.

(289) The Haemolytic Properties of Extracts of Internal Organs and of Malignant Growths.

MICHELI AND DONATI (*Rif. Med.*, September 23rd, 1903) have made a series of experiments on the above lines. Various animals were used, and the chief organs examined were the pancreas and the thymus. To avoid putrefaction, small doses of thymol were added. The pancreatic extracts showed strong haemolytic properties with every kind of blood; the thymic extracts were much more uncertain in their results. The haemolytic action did not cease when the acid extracts were neutralized with soda. Heat did not destroy this haemolytic property, nor alcohol. The

haemolytic substances are also soluble in ether but not with the same ease as in alcohol. Filtration through Chamberland candles weakens but does not entirely destroy the haemolytic property. The addition of blood serum (with the exception of dog serum in small doses) destroys the haemolytic power. In preparing extracts from malignant tumours fifteen deaths were recorded (six carcinoma of the breast, one sarcoma of the testicle, one thyroid, one epithelioma of the cervix uteri, one epithelioma of the mouth, two mixed-cell sarcoma and one endothelioma). Seven of these were quite inactive, but the others possessed haemolytic properties varying in degree of intensity. In each case the haemolytic substance was chemically not the same as the complement-like substance derived from serum. The inactivity of the results under certain conditions and in spite of the same theoretical haemolytic properties, their behaviour towards heat and many other agents, as well as their solubility in alcohol.

(290) Gonorrhoeal Epididymitis and its Treatment.

G. BRANDAES (*Journ. Med. Belge*, October 18th) criticises the opinions held with regard to the pathogenesis of gonorrhoeal epididymitis, and, in spite of the work of Lenard and others, holds that there is no reason to refuse the suggestion that the so-called orchio-epididymitis is the response of the organism to the gonococcus infection, but that there is but little doubt that the gonococcus usually, causing the disease in the epididymis. The pathology of the epididymitis is probably the same as that of the testicle. In support of this view he finds that the gonococcus is rarely found in the epididymis of the gonococcal orchitis, that the epididymitis is rarely suppurative, and that the epididymitis is frequently associated with syphilitic orchitis, in which the gonococcus is not present. In the treatment of the disease he advises rest in bed with the elevation of the scrotum, and, in the early stages, the application of ice. Local treatment should consist at most of [illegible]. But there are symptoms or complications which call for [illegible]. There are usually [illegible] which occur [illegible]. Complications [illegible] are [illegible] until the [illegible] has entirely disappeared. [illegible] fined [illegible] in [illegible] case an abscess [illegible] objective [illegible] more freely [illegible] degeneration. In the cases complicated with abscess there is always some hydrocele, which is due to the infection of the tunica vaginalis by the gonococci; further, that, under certain conditions, gonococci are to be found in the remains of epididymitic infiltration years after the acute attack; that those epididymitis cases which are due to, or rather follow, non-gonorrhoeic urethritis, are caused by the invasion of the local tissues by the same micro-organism causing the urethritis: that early puncture of acute [illegible] epididymis is to be recommended, since by this means pseudo-abscesses, or abscesses situated in the connective tissue may be evacuated, and the vas epididymis may be protected from being implicated in the destructive process: and, lastly, that puncture of the hydrocele is also to be recommended on the ground that the disturbed conditions of the circulation are improved, and the chances of resorption are thus favoured.

PATHOLOGY.

(291) Ileo-caecal Tuberculous Tumours.

According to Conrath, the ileo-caecal region is the seat of election of intestinal tuberculosis, and is affected in 85 per cent. of all cases. D. Epstein (*Wien. klin. Rundschau*, February 28th, 1904) states that tuberculosis in this position may occur in two forms. There may be tuberculous ulcers, which, as in other parts of the intestinal tract, may heal and be followed by stenosis, or advance to perforation. In the form which is less generally recognized the tuberculous infiltration of the caecum results in the formation of a tumour (*tumor ileo-caecalis tuberculosus*). The walls of the caecum are thickened at the expense of its lumen, which is almost always narrowed, and may become impermeable. The morbid process consists in the new formation of fibrous tissue, in which are embedded scattered tubercles. These may occur in the mucosa, submucosa, or subperitoneal tissue, or in all three layers simultaneously. The subserous form is commonest in children, and is due to direct infection from tuberculous mesenteric glands. The tubercles contain but few bacilli, and have little tendency to break down. Hence the process usually remains localized, and the lungs are seldom found to be extensively involved. The writer has collected 61 cases of tuberculous ileo-caecal tumour. The youngest patient was 12, and the oldest 61; most cases occurred in the second, third, and fourth decades. The progress of the disease is as follows. The general health fails, and there are [illegible] and diminution of [illegible] physical exertion. Local [illegible] absent, or consist at most of [illegible]. But there are symptoms or [illegible] which [illegible] alternate with [illegible]. There are usually [illegible] of colic which occur [illegible]. Constipation [illegible] is [illegible] present until the [illegible] has entirely disappeared. [illegible] fined [illegible] in [illegible] case an abscess [illegible] objective [illegible] more freely movable laterally than vertically and retains the typical shape of the caecum. Occasionally during an attack of colic a coil of intestine may be seen and felt through the thin abdominal walls. This is the lower end of the dilated and hypertrophied ileum in a state of active peristalsis. It is situated above and to the inner side of the caecum, and is perceptible as long as the attack of colic lasts. At last a hissing, splashing, or musical sound is audible, and the coil disappears from view. This phenomenon is due to the obstruction situated at the ileo-caecal valve. Tubercle bacilli may be found in the faeces. Their diagnostic value in a case of caecal infiltration is disputed. The writer reports a case which is typical in every detail except the age of the patient. A girl, aged 5½, had suffered from vague abdominal pains since 2. Emaciation and colic appeared, and the pain became localized in the caecal region. There was a tumour of the size of a goose's egg in the position of the caecum, and obstinate constipation. The temperature was normal and the lungs were not affected. Laparotomy was performed. The ileum was greatly distended. The caecum and lower part of the ascending colon were thickened and embedded in adhesions, and their peritoneal coat was studded with tubercles. There was stenosis of the ileo-caecal valve. Owing to adhesions resection of the caecum was impossible. Enter-anastomosis was therefore performed between the ileum and transverse colon. Ten months later the child was in splendid health, and had gained 22 lb. in weight. The bowels acted normally, though the tumour was still palpable in the right iliac fossa.

(292) Typhoid Fever with Absence of Widal Reaction.

BATTIGNANI (*Rif. Med.*, March 2nd, 1904) reports the case of a patient, aged 18, who was admitted into hospital and developed all the signs and symptoms of typhoid fever of fairly severe type. Many attempts were made right through the illness to obtain a Widal reaction, but the result was always negative. There was no evidence of malaria, and no trace of the malarial parasite could be detected in the blood. A bacillus was detected in the blood, which corresponded in every way to the Eberth-Gaffsky bacillus. In 98 cases of undoubted typhoid observed during the last three years in hospital at Siena the Widal reaction never failed once; but in this case, which appeared clinically to be undoubted typhoid of a fairly severe type, although not fatal, no reaction could be obtained, even in dilutions of 1 in 30. Most of the cases of typhoid where the Widal reaction fails are severe, hence it is assumed that the toxins are so powerful in these cases as to paralyse the defensive mechanism of the organism and so check the formation of agglutinating substances. In this view the production of agglutinating substances would vary inversely with the power of the toxins. Another view is that the agglutinating substance is bacteriolytic, and formed by the bacteria themselves before dying: where there is an insufficient organic reaction few bacilli die, hence few bacteriolytic enzymes are formed.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(293) Acute Pancreatitis.

WOOLSEY (*Ann. of Surg.*, November, 1903) comprehends under the term "acute pancreatitis" those cases which commence suddenly with abdominal pain, vomiting, hiccough, and intense rigidity of the abdominal muscles. The temperature is usually subnormal, the patient rapidly collapses, and dies about five days after the commencement of the illness. A mistaken diagnosis of ileus or perforation peritonitis is not uncommon. Alcoholism, adiposity, gall stones, arterio-sclerosis, and abdominal injuries predispose to the condition, which is essentially an acute infection of the pancreas. The head of this organ is enlarged: haemorrhages into its substance are not always present. In the early stages fat necrosis is usually absent, but usually appears later. The subacute cases are more difficult of diagnosis: glycosuria in the early stages often disappearing later; fat and undigested muscle in the stools are aids to diagonsis. The treatment of acute pancreatitis consists in the performance of laparotomy as early as possible, the evacuation of the infective fluid in the peritoneal cavity and drainage. Relapse may occur. The writer gives details of three cases successfully treated, two were operated on on the third day of the disease, the third twelve hours after the onset of symptoms. In one case fat necrosis was found: in all three there was enlargement of the head of the pancreas. The fluid in the peritoneal cavity contained in one case streptococci, in another diplococci, in the third it was not examined bacteriologically. The writer concludes that when such fluid is not evacuated early a general septic peritonitis must follow.

(294) Rheumatism of the Crico-arytenoid Articulation.

THE crico-arytenoid joint possesses a loose capsule, and may be implicated in rheumatism. If it is the only articulation involved, the condition is probably mistaken for acute perichondritis, as the laryngoscopic appearances are similar. Ermont Baumgarten (*Wien. med. Woch.*, October 17th, 1903) reports such a case: A man, aged 40, had had hoarseness for three days and pain on swallowing, and especially on speaking. The region of the right arytenoid cartilage, including the false vocal cord and the lower portion of the arytenoid-epiglottic fold, was greatly swollen. The true vocal cord was reddened posteriorly and was fixed almost in the middle line. The larynx was tender externally. The man had had syphilis many years previously, and incipient, probably syphilitic, perichondritis was diagnosed. But anti-syphilitic treatment was not prescribed as there were no other signs of syphilis. The swelling increased, and on the third day of observation potassium iodide was given. On the fourth day the oedema disappeared, and a few days later all signs of swelling had vanished. The iodide was discontinued. The vocal cord was still immovably fixed. It was then elicited that four weeks previously there had been acute rheumatic arthritis of the phalangeal joints of the left hand. Rheumatic arthritis of the crico-arytenoid articulation was diagnosed and daily mud-baths were ordered. A week later movement of the right vocal cord was much freer, and in a short time the function of the aryteno-epiglottic joint was normal. Rheumatic crico-arytenoid arthritis may be acute or subacute. If acute, there is always pyrexia, and the condition is bilateral, or other joints are involved. If subacute, there may be no pyrexia, and the arthritis is almost always unilateral. The crico-arytenoid may be the first joint to be attacked in acute rheumatism, or it may be involved simultaneously with, or later than, the others. In the writer's and Dr. Baurowicz's cases the arthritis of the laryngeal joint was a manifestation of a relapse. In all acute cases there is dyspnoea, and the necessity for tracheotomy may appear to be urgent. But the laryngeal symptoms subsided as rapidly as they came. In no reported case has ankylosis occurred. The following case suggests that gonorrhoeal rheumatism may attack the crico-arytenoid joint: A medical student who had gonorrhoea had been hoarse for two days, and had painful deglutition. The region of the right arytenoid cartilage from the processus vocalis to the middle line of the posterior laryngeal wall was swollen. Externally, the right side of the larynx was tender. There were no tubercle bacilli in the sputum, but tuberculous perichondritis was suspected. A fortnight later one knee became swollen and painful. The laryngeal symptoms then rapidly subsided, though abduction of the right vocal cord was restricted for long afterwards. Probably there was gonorrhoeal arthritis of both the crico-arytenoid and knee joints.

(295) Herpes Zoster as a Complication of Mumps.

ORTA (*Gazz. degli Osped.*, November 1st, 1903) reports three cases of mumps complicated by herpes zoster. The cases formed part of a general epidemic of mumps. In each case the herpes appeared in the course of the second week of the attack of mumps. The first case, aged 18, developed mumps on May 3rd, high fever two days, bilateral swelling of the parotids, headache, etc. On May 11th the parotid swelling had almost gone, and there was no fever, but there was a characteristic eruption of herpes zoster in the right intercostal region at the level of the fifth and sixth ribs. The eruption lasted fourteen to sixteen days, and pursued its usual course. (2) Aged 14, left-sided mumps May 20th; eight days later severe pain in fifth and sixth intercostal space, followed 36 hours later by a definite crop of herpes. (3) Aged 16, double parotitis, which pursued a mild course; nine days later herpes zoster in the left second intercostal space and axillary line.

(296) Nocturnal Incontinence of Faeces due to Enlarged Tonsils.

SILVESTRE (*Gazz. degli Osped.*, January 10th, 1904) reports the case of a boy, aged 7, who developed enlarged tonsils at 3 years, due to an attack of tonsillitis, and ever since had been troubled with nocturnal incontinence of faeces. Occasionally there was enuresis as well. The child always had a desire to defaecate when shut up in ill-ventilated rooms. There were no psychical defects, no epilepsy, and the child was well looked after by its parents. The curious thing was that on removal of the tonsils (which were very large) all trouble with the bowels ceased immediately and has not returned. The connexion between enuresis and adenoids has often been pointed out, and is attributed to excess of CO_2, and probably a similar explanation would be applicable in the author's case.

SURGERY.

(297) Voluntary Dislocation of the Hip.

GARAVINI (*Arch. di Ortoped.*, An. 20, f. 6, 1904) reports the case of a boy aged 11 who suffered from infantile paralysis when 8 months old, affecting the right lower limb. The leg partially recovered, but, as he was unable to use it, a complicated, heavy orthopaedic instrument was fitted, which he wore from about 4 years of age until the present time. At 5 years dislocation of the right hip was noticed after certain slight passive movements, and was reduced by severe movements; somewhat later the boy was able to produce and reduce the dislocation at will. The ease with which it slipped out effectually prevented the child from walking without artificial support. There was no history of injury, and congenital dislocation could be excluded. The whole limb was much atrophied and shortened, slightly flexed on the pelvis, abducted and rotated outwards. Passive movements were possible in every direction. The adductors of the thigh were quite atrophied. The abductors, external and internal rotators were active, but not as much as on the opposite side. The flexors were normal. To produce the dislocation the knee is slightly flexed; then the thigh, which is carried into a position of adduction as far as possible. The limb, being then left to itself, rotates and dislocates outwards. There is no pain. Radiographs showing the limb in the two positions are given. The adductor muscles gave no reaction to the induced current, whilst the glutei and flexors answered well. On May 4th, 1902, ether was administered and the joint examined. The capsule was found intact but very relaxed; the head of the femur was a little small, and the ligamentum teres sound, and about 4 cm. long. The cotyloid cavity was a little enlarged, especially above. The ligamentum teres was completely excised and the capsule shortened and sutured. At the same time an arthrodesis, with transplantation of the tendons, was performed upon the foot. The ultimate result was excellent.

(298) Action of Becquerel Rays on the Skin.

GOLDBERG AND LONDON (*Dermatol. Zeit.*, Band x). One of the authors applied 75 mg. of radium bromide to his arm for three hours. On the fourth day a red area appeared which developed a

zone of infiltration around it. A bulla formed which ulcerated, this increased in size and acquired heaped-up edges and a sloughy base. On the sixteenth day new patches formed on the same arm similar to the original one. Two weeks later patches appeared on the chin, thigh, and right hand. The original sore was unhealed three months later in spite of treatment. In 2 cases of rodent ulcer successfully treated exposures were given of one hour and a half in 1 case and one hour in the other, followed by exposures of half an hour and an hour respectively.

(299) Oesophageal Stenosis from Tordosis. Fratti (*Giazz. degli Osped.*, December 27th, 1903) reports the case of a woman, aged 65, admitted on January 23rd for simple fracture of the left thigh and left humerus, due to a fall. The patient complained of indefinite wandering pains especially down the spine, which were very susceptible to changes in the weather, but did not respond to anti-rheumatic treatment. About forty days after admission, and when the first fractures were united, the patient whilst sitting up in bed fractured her left humerus just below the original fracture; a little later she fractured her fourth and fifth ribs, apparently as the result of cough. Gradually the spinal column became more and more curved and the sternum deflected inwards in its upper third. Two months before death (on June 23rd) dysphagia set in and gradually became worse until even liquids could not be swallowed. The sound was arrested about the level of the manubrium. At the necropsy nothing abnormal was found in the oesophagus, but this was compressed between the spinal column, which showed a marked forward convexity, and the sternum which was curved inwards. The vertebral bodies were very soft and there was distinct evidence of osteomalacia. There was no lumbar lordosis.

MIDWIFERY AND DISEASES OF WOMEN.

(300) The Induction of Premature Labour. Pietro Bazzi (*Ginec. Riv. R. Accad. di Med. di Torino*, December, 1903) traces the history of this operation from the sixteenth century to the present time. [illegible] to 1890 the maternal mortality was over 25 per cent., and the fetal mortality over 50 per cent. according to Pajot. The latter estimates the fetal mortality of to-day at 30 per cent. and the maternal mortality at zero. The fetal mortality is composed of two elements, first the deaths due to premature labour and deaths due to the operation of parturition before the foetus is old enough to live [illegible] Pajot is [illegible] capable of considerable diminution by the [illegible] care in the after-treatment of premature children, by greater exactness in the determination of the period [illegible] and of the age of the foetus, and more especially by the substitution of Caesarean section for premature parturition in all cases in which the obstetric conjugate diameter at the pelvic [illegible] less than 7½ cm. Assuming that attention is paid to these points, the author enunciates the rule that premature parturition should be excited whenever the existence of pregnancy involves, or parturition at term will involve, a greater danger to the mother. After an enumeration of the many other methods of operation, he describes the method pursued in Professor Tibone's clinic at Turin, the Kiwisch-Krause-Tibone method. This consists in the passage of a sound between the uterus and the membranes in the case of primiparae and the use of Champetier de Ribes's bag in multiparae, the patient being prepared in either case, if time permits, by vaginal douching with hot water. The most careful antiseptic precautions are employed, and repeated if possible for three days before operation. The action of Champetier de Ribes's bag is assisted by fastening to it a weight of 100 to 300 gr. by a string passing over the end of a bed. The sound is succeeded by a bag, and a small bag by a larger one in all cases in which parturition is much delayed. By external manipulation the position of the placenta is discovered if possible, and the presentation is changed if necessary into a head presentation, and the condition maintained by a suitable bandage. When pains do not proceed satisfactorily after the expulsion of the bag Tarnier's dilator is used. By these methods a process is initiated which closely resembles spontaneous parturition, and in an experience of more than a hundred cases Robecchi has never known the membranes to be ruptured by the sound, nor the placenta to be partially detached. The drawback to the method is that it is very slow, the bag sometimes remaining in the uterus longer than twenty-four hours, and the sound not being dislodged for three or four days. To overcome this difficulty Robecchi has invented a method of applying electricity to the interior of the uterus which very decidedly hastens the onset of labour. The advantages of electricity are that it acts quickly and rhythmically, that the intensity of the stimulus can be accurately regulated, and that there is no danger of injuring the fetus. In all these respects its action is in marked contrast with that of ergot. Robecchi's method of applying electricity is to surround the sound near its extremity by two rings of very thin and flexible copper wire, in communication with two conducting wires which run down the inside of the sound and are united with a battery. When the instrument is used as the author recommends, the two wires are both attached to the same pole of the battery, and the other pole is attached by another wire to the skin of the abdomen above the umbilicus; a sufficient current can then be used to start uterine contractions without causing much, or perhaps any, pain to the patient. At first the current is turned on from five to seven minutes at a time, and almost immediately causes contractions, feeble at first, but gradually increasing, so that the electrical stimulation can be gradually diminished in duration and intensity. By the skilful manipulation of the button interrupting the current the contractions of the uterus may be made to simulate very closely the natural contractions of spontaneous parturition. The copper rings are near the further extremity of the sound, because in that position they stimulate the uterus near its fundus, where it is most sensitive to stimulation. By a very similar contrivance Champetier de Ribes's bag is surrounded with copper wires in communication with a battery. In this case the stimulation is applied to the inferior segment of the uterus, and has a special utility in cases of spasmodic rigidity of the neck of the uterus, which it relaxes probably by something of the nature of catalytic action. The author also recommends the bag as a useful medium for the application of electricity to the uterus in the treatment of puerperal subinvolution. Robecchi gives a full account of two cases treated by his method, and states that in no case has he known any harm caused to mother or child.

(301) Removal of the Uterus for Cancer. A. Glockner (*Die Heilkunde*, June, 1903) describes the results obtained in the treatment of cancer of the uterus at the Royal University clinic at Leipzig. The number of cases seen between April, 1887, and July, 1901, was 974, and of this number 260 or 26.9 per cent. were operated upon. The mean age of the patients was 45½ years, but the average age of these patients suffering from carcinoma of the fundus was higher than that of the patients with carcinoma of the cervix. The menopause was already passed in 23.7 per cent. of all cases, and in 78 per cent. of the cases of carcinoma of the fundus. The majority of the patients did not present themselves until more than three months from the beginning of the symptoms, and 12 not until more than twelve months. The primary position of the growth was in the cervix in 90 per cent. and in the fundus in 10 per cent. of the cases. In a third it had passed beyond its primary locality when first seen. Total extirpation of the uterus per vaginam was undertaken in 85.5 per cent. of the cases, and in four cases only the abdominal method was chosen. Twenty-two out of the 260 patients died from the operation. Of these two were suffering from diabetes and died of coma. If they are excluded the mortality from the operation itself was 7.7 per cent. The mortality from the vaginal method was 5.5 per cent. and from the sacral was 28.5 per cent. Some form of septic process was the cause of death in 82 per cent. of the cases. In giving the results of these operations a lasting cure is not said to have been obtained until a period of five years from the operation has passed without a relapse, and the results are given of those 132 operations only which took place five years or more ago. After this time relapses are so rare as to be negligible. Of the 132, 85 suffered relapse and 47, or 35.6 per cent., were cured; 34.7 per cent. of the recoveries were from carcinoma of the cervix, 69.7 per cent. of the fundus; 12 patients have now remained well for periods of ten to thirteen years; 9.7 per cent. of the whole number of cases seen, operable or inoperable, ended in permanent cure. The patients over 55 years of age gave the most favourable results, while there

were only 25 per cent. of recoveries from cancer occurring during pregnancy. Not quite half of the cases of which a favourable prognosis was given at the time of operation turned out well; more than a third recovered where the prognosis had been doubtful, and a fourth where it had been bad; 70 per cent. of all the relapses occurred in the first year and nearly 50 per cent. in the first six months. The latest relapse observed was in the fourth year. The average duration of life where a relapse occurred was nineteen months after operation.

(302) Puerperal Eclampsia masking Pleuro-pneumonia.

Maygrier (*L'Obstetrique*, January, 1904) recently reported before the Société d'Obstétrique de Paris the case of a woman admitted into the Charité, comatose through puerperal eclampsia. She was a primipara, aged 26, in the seventh month of pregnancy. Anasarca and albuminuria were marked. Thirty-eight fits occurred during the first twenty-four hours after admission, five taking place after delivery, which was spontaneous; twenty-nine were suppressed by chloroform. On the second day the patient seemed better; then bad symptoms appeared — anasarca, fetid lochia, and evidence of septicaemia. On the fifth the patient complained of severe pain in the right hypochondrium with dyspnoea and died a few hours later. At the necropsy suppurative pleuro-pneumonia was detected, with subphrenic abscess.

(303) Adeno-carcinoma of Uterus in Age.

Flaischlen (*Zentralbl. f. Gyn.*, No. 5, 1904) reports a case of some importance, as not only was it an instance of a growth rare in age, but it also, as Flaischlen stated, demonstrates the importance of the microscope in diagnosis. The patient was a virgin, aged 71, who hardly suffered from any pain, but mentioned to her family doctor that she had recently noticed slight vaginal discharge. Flaischlen examined her, and used the curette; the scrapings were inspected under the microscope, and all the appearances of typical malignant adenoma detected. The uterus was accordingly removed, and then it was seen that the new growth had already extended through the muscular tissue to the serous coat. The tissues of the anatomical structures around the parts removed were very brittle, and the ligature silks cut through them; the uterine arteries were markedly atheromatous. Nevertheless, there were no complications after the operation, and convalescence was rapid.

(304) Haematrometra in Undeveloped Uterine Cornu.

Micholitsch (*Zentralbl. f. Gyn.*, No. 51, 1903) reports an instance of this condition observed in a girl aged 21. It is important to note that she had menstruated regularly, but only from her eighteenth year. For about twelve months she had been subject to pains in the left side of the abdomen, which grew worse during period. A cystic tuberous mass could be felt in the left iliac fossa descending deeply into the pelvis; it was firmly fixed. The uterus could not be defined. Three adhesions were discovered at the operation, when they were set free, a half uterus lying in the right side of the pelvic cavity, and bearing a normal tube and ovary, came into view. The tumour was connected with the left side of this imperfect uterus by a short band of connective tissue. It was an undeveloped left cornu with highly hypertrophied walls and a cavity full of old, almost black blood. It communicated with the cavity of an obstructed left tube, converted into a haematosalpinx, which was in contact with an ovarian cyst also filled with blood.

THERAPEUTICS.

(305) Serum Treatment of Hay Fever.

A series of ten cases of hay fever treated with Dunbar's serum has lately been published by L. S. Somers (*Med. News*, April 23rd, 1904) who used the antitoxin made from the serum of animals inoculated with the pollen toxin of goldenrod, and employed it in the form of serum and powder. One or two drops of the serum are placed in each eye and nasal chamber whenever an attack of hay fever is expected, or on the presence of any irritation. The dried serum may also be employed, when mixed with an inert powder such as milk sugar, but it can only be used in the nasal chamber. The results in these ten cases proved very gratifying. The serum produces prompt amelioration of the symptoms in the majority of cases, and in a smaller number the affection may entirely disappear. Where slight or no action is seen after its use, pollen as an etiological factor does not predominate. When administered in advance of the attack or during the same, irrespective of severity, it produces marked palliation rather than absolute cure. Its effects upon future attacks is as yet unknown. The serum in powder form is slightly soothing to the mucous membranes of the nose, but has little influence upon the other symptoms, and in occasional cases may act as a direct irritant.

(306) Prevention and Treatment of Blackwater Fever.

A. Plehn (*Arch. f. Schiffs- und Trop. Hyg*, December, 1903) deals with the prevention and treatment of blackwater fever. The predisposing cause is the anaemia and functional exhaustion of the blood-forming organs due to long-continued malarial infection, and in a large majority of cases the exciting cause is the administration of quinine in an acute attack of malaria. The ideal treatment is clearly the prevention of malaria, but until that is accomplished the treatment of blackwater fever remains a matter of importance. The disease is rare during the first six months' residence in a dangerous neighbourhood, and if it occurs within this time, it usually follows a series of neglected malarial attacks, of which the last has been vigorously treated with quinine. In most cases long continued latent malaria, without an acute attack, is enough to predispose to blackwater fever, for this disease often accompanies the first such attack. Thus in a case here described the patient took quinine prophylactically during a long stay in an infective area, and never suffered from acute malaria until he ceased to take quinine immediately after his return home. He was then attacked by malaria complicated by blackwater fever. The danger of contracting the disease probably increases with the length of exposure to infection, and although it is for practical purposes impossible to limit residence in the tropics to six months, yet any shortening of length of stay is so far of benefit. A short holiday in the hills appears often to determine an outbreak of malaria, with or without haemoglobinuria. To destroy the predisposition time must be given not only for the destruction of the malarial parasite but also for the functional restoration of the blood-forming organs. Even the customary six months furlough cannot be adequate, for while, in cases given, new arrivals in the country were safe from blackwater fever for an average of 27 months, the period of immunity was only 5.2 months in those returned from furlough. While hygienic measures and improvement in nursing have materially lessened the number of cases of the fever, these measures alone are not sufficient, and the most important treatment is the prophylactic administration of half gram doses of quinine every five days. The effect of the last method increases with time, until old residents, as long as they take the customary dose, practically never suffer. Larger doses, a gram or a gram and a-half, are often recommended, but they have not been more effectual than the smaller doses in preventing malaria, while they may naturally be supposed to increase the tendency to blackwater fever. That this is not the effect of the smaller doses is shown by statistics. In 1897-9 among officials not taking quinine, one case of blackwater fever occurred, in the author's experience, for every 18.5 months of residence, as opposed to one for 74 months in those taking quinine. Ten per cent. of the cases ended fatally where quinine had not, and none where it had, been taken. It is essential that the quinine should be taken regularly, for if the dose be once omitted, an attack of malaria may follow, and the larger amounts of quinine then needed bring a certain danger of haemoglobinuria. An obvious precaution to take, where the onset of blackwater fever seems probable, is to give small doses of quinine in acute malaria. Plehn tried this method with unsatisfactory results. Where the usual 1 or 1½ grams of quinine were given the symptoms of blackwater fever, if they appeared, subsided in from one to forty-eight hours, the temperature fell, and the whole attack was over. Where small doses were given haemoglobinuria might still appear and continued after the fall of temperature, or after a temporary improvement the malarial fever returned. These cases then became difficult to treat, for large doses of quinine would certainly give rise again to haemoglobinuria, especially dangerous when the patient had become weak and anaemic. So great is the danger that Plehn sent home three such cases rather than administer quinine; of these one recovered after expectant treatment for several months, one had an attack of blackwater

cyst or the administration of quinine when he reached home, and the third died from an attack which followed the administration of quinine on board the vessel. The rule to be followed is therefore to give ordinary doses to all patients in acute attacks of malaria unless they have suffered during the preceding year from blackwater fever, and even then never to give less than 1 gram. The prophylactic use of quinine is begun again as soon as the haemoglobinuria and the albuminuria disappear, but no deliberate rise to the dose can be given. Happily the greater the tendency to haemoglobinuria the less is the dose of quinine needed to protect from malaria. Thus one patient with a marked tendency was kept in good health by taking regularly ½ gram doses of quinine. No quinine is given while haemoglobinuria is actually present. With hygienic improvements, the lessening of opportunities of reinfection, and the more general use of quinine prophylactically blackwater fever may be expected to disappear even more rapidly than malaria.

(307) Theinhardt's Soluble Food for Children.

L. KRAUS (*Zentrbl. f. die Gesam. Therap.*, March 1904) has employed Theinhard's soluble food in the treatment of infants. The food is obtained as a yellowish amorphous powder of pleasant smell and slightly sweet taste; mixed with it or water and milk in suitable proportions gives a food which differs only very slightly from human milk. For example the food prepared for 3 months old child contains, as compared with corresponding human milk, about 0.9 per cent. more albumen, 0.3 per cent. less fat, 0.3 per cent. more of soluble carbohydrates, 0.2 per cent. more salts, it contains also 0.6 per cent. of insoluble carbohydrates, and 0.2 of salts. The value of the preparation depends mainly on the fact that it contains a minute quantity only of undigested starch and that it leads to the formation of a very small curd in the stomach. The first patient to whom Kraus gave this food was a 7 weeks' old boy of a child who had been losing weight, and was passing daily from 600 to 700 c.c. of fluid stools containing much undigested food, a widespread interstitial pneumonia existed about the time. Improvement became manifest in the course of a few days and by the end of a week the stools were normal, the interstitial pneumonia cleared up, and the child began increasing in weight. The food was given in a strength of 1 per cent. to begin with, and the amount to be given per diem was calculated at 100 c.c. per kilo of body weight. The child vomited frequently for the first few days, but after that all signs of indigestion disappeared, and the child gained steadily in weight. A similar case is recorded in which a child suffering from severe diarrhoea and vomiting had been unable to retain the natural food, or any digestive preparation of cow's milk for fourteen days. Under the use of the food the diarrhoea and vomiting ceased, and the child began to increase in weight. The food may be given to healthy children as well as to those who are unable to assimilate the ordinary mixtures of albumen and fat, and to make the milk more easily digestible; secondly, it is a good form of food for under-fed and anaemic children; thirdly, it is a valuable therapeutic agent in the treatment of gastro-enteritis, and may be given without the addition of milk until the catarrh shows signs of improvement.

PATHOLOGY.

(308) The Pathogenesis of Icterus.

RAVENNA AND GENTILI (*Lo Sperimentale*, February, 1904) describe the histological results of experiments made to determine in the first place the action on the liver of some substances which destroy the red blood corpuscles, and ultimately to explain the causation of jaundice. Exhaustive experiments having been previously made on the action of chlorhydrate of phenylhydrazin and of toluylendiamin, they made only a few experiments with them. They state that repeated injections of chlorhydrate of phenylhydrazin in rabbits produce destruction of the protoplasm of the hepatic cells and fusion of their elements, intense and diffuse hyperaemia, and the appearance of free or intercellular biliary pigment. Injections of toluylendiamin determine in dogs and rabbits an intense fatty degeneration of the hepatic cells, with dilatation and stasis of the blood capillaries between the acini. These results agree with those obtained by previous observers. More numerous experiments were made with pyrogallic acid. The authors state that this poison produces necrosis of the protoplasm of the hepatic cells, with atrophy of their nuclei and anomalous distribution of the nuclear chromatin, and in all cases except when the injection was limited to a single small dose they found dilatation of the intra-acinous capillaries. They were unable to verify the description given by Afanassiew of an interstitial hepatitis resulting from pyrogallic acid, probably because the doses used by them always caused death within three or four days, while his experiments on each animal usually lasted at least twenty days. The subcutaneous injection into rabbits of 0.05 gram of pyrogallic acid determines an accumulation of granules and of concretions of biliary pigment within the hepatic cells. This pigment gradually increases until it reaches a maximum six hours after the injection. Then it gradually diminishes and disappears, returning quite often to the condition of the toxic minimum. Rabbits killed one or two days after a single subcutaneous injection of pyrogallic acid show evidences of the hepatic cells and breaking up of their protoplasmic substance with atrophy of the nuclei. A single injection of pyrogallic acid such as 1 gram, injected into the jugular vein of a rabbit causes very rapid poisoning, and the death of the animal after a few hours with symptoms of bulbar paralysis and in the liver rapid destruction of the protoplasm of the hepatic cells. Subcutaneous injections of quinic, salicylic, chlorogenic and pyrogallic acid all cause dilatation of the biliary capillaries, and determine an increase of the blood vessels of the liver, especially the intra-acinous capillaries, but biliary stasis is only caused when the icterus is very intense. As these poisons usually determine albuminuria as well as icterus, the authors also examined the kidneys, and found that all three poisons produced similar symptoms of an intensity proportional to the dose employed. These symptoms affected mainly the epithelial protoplasm of the urinifer us tubules. The process was one of necrobiosis, with fusion of the epithelial elements, breaking up of the protoplasm, and formation of a granular detritis often occupying the lumen of the urinifer ous tubule. At the same time there were similar alterations in the Malpighian glomeruli, with solution of continuity of Bowman's capsule, and the presence of a granular detritus in the dilated capsular space. Of all the changes noted by them the authors attach most importance to the granules found in the hepatic cells up to five or six hours after each injection. The theory which they base on these observations is that a moderate injection of pyrogallic acid for example, 25 cgr. sets free a quantity of haemoglobin, which is carried to the liver and there transformed into granules of biliary pigment, subsequently leaving the liver in the bile, but that large doses of the poison have a specific toxic action on the epithelial cells, and that after large doses or repeated small doses the cells are unable to eliminate in a natural manner the pigment brought to them, which has therefore no channel open to it except through the capillary blood vessels.

(309) Bacilli in Different Tuberculous Diseases.

A MOELLER (*Ztschr. f. Tuberk. und Heilstätt.*, Bd. v. Heft 1.) has examined pure cultures of bacilli in different forms of tuberculosis, to discover whether the virulence of the bacilli and their microscopical appearances are a guide to the form of tuberculosis to which they give rise. The specimens were taken from cases of acute miliary tuberculosis of lung, lupus, fistula ani, chronic and subacute phthisis. The cultures from the first three were obtained by inoculation of guinea pigs, in the case of chronic phthisis, directly from the sputum, and by both methods in the case of subacute phthisis. The culture obtained by inoculation was found to be decidedly more virulent in its action on guinea pigs than that obtained directly from the sputum. The bacilli in the sputa of the case of acute tuberculosis were small and short a fact in agreement with Frankel's observations. From the chronic case they were of various shapes, some branched, some drawn into filaments, etc., and these peculiarities were reproduced in later cultures. Those obtained from sputum were the only ones to form clumps. The order of virulence of the cultures was as follows: (1) The culture from the case of lupus; (2) of miliary tuberculosis; (3) of subacute phthisis obtained by inoculation of guinea pigs; (4) of chronic phthisis; (5) of subacute phthisis obtained directly from the sputum; (6) of fistula ani. The form of tuberculosis would therefore appear to be determined by the constitutional peculiarities of the patient rather than by the virulence of the bacillus.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(310) The Relation of the "X" Ray and Radio-active Solutions to Examination of the Stomach.

AT a meeting of the Medical Association of the Greater City of New York on March 14th, Sinclair Tousey read a paper on this subject (*Boston Med. and Surg. Journ.*, April 21st). He had repeatedly determined the presence of cancer of the stomach by the use of the *x* ray alone. At present he was inclined to rely, in stomach work, more upon the fluoroscopic than upon the skiagraphic examination. Sometimes a tumefied anterior wall or pyloric extremity could be positively made out with the fluoroscope, and be merely indicated with a reasonable degree of probability by a skiagraph. In other words, a tumour of the stomach was almost transparent to the *x* ray, and, being in constant motion during respiration, was better studied directly. Simple dilatation of the stomach and gastroptosis, without the presence of a tumour, would scarcely be capable of demonstration by the *x* ray under ordinary circumstances: and it was with a view to the diagnosis of these conditions that Tousey's experiments were undertaken. All his work with radium and radio-active solutions, both in the laboratory and in the treatment of patients, had been with a radium of 20,000 radio-activity, and the amount used in each instance was 1 decigram. The radio-active solution was prepared by immersing such a quantity of radium enclosed in a hermetically-sealed glass tube for four weeks in 16 oz. of normal saline solution contained in a stoppered glass jar. The fluorescent solutions employed were made in accordance with suggestions from Kemp. Tousey then proceeded to enumerate his observations up to the present time. Among them were the following: (1) In human subjects to whom radio-active solution was given subcutaneously or by the mouth no disturbance of any kind was produced. (2 and 3) Radio-active solutions were injected into a cat and a rabbit, in the lumbar region, every day or two for a week, without producing any symptoms. In the case of the cat there was at first a slight looseness of the bowels, which was thought to indicate that the injection was too large, and which disappeared after the amount had been reduced. (4) A dog weighing about 12 lb. was etherized, and radio-active solution injected through the left femoral vein. The right common carotid artery had been opened and connected with a mercurial manometer registering the blood pressure upon a kymograph. At first 30 c.cm. were given very rapidly, and the same quantity was added after an interval of five minutes. The only effect noted was a slight rise in blood pressure when the infusion was begun. (5) A rabbit was killed and the abdomen opened. The contents of the stomach were partially removed, and the organ was then filled up with a mixture of radio-active and fluorescent mixtures. The pylorus and cardia were ligatured, and the abdomen sewed up. When the animal was examined by the *x* ray in the dark, with all visible light from the *x*-ray tube excluded, no fluorescence was visible to the naked eye: but with the fluoroscope the stomachic region seemed very transparent, and could be mapped out exactly. An *x*-ray picture was then taken with the animal prone upon the table, and it, as may be seen, it shows the outline of the stomach in a brilliant manner. The stomach was then emptied of all contents, and another picture taken under precisely the same conditions. The conclusions reached were as follows: (1) Radio-active and fluorescent solutions are innocuous when given by the mouth or subcutaneously; (2) they do not produce, either singly or in combination, sufficient fluorescence to be of value in the examination of the stomach without the use of some additional light to excite their fluorescence; (3) they will in some cases be of the very greatest assistance in the *x*-ray diagnosis of stomach lesions; (4) they will in some cases be of value in the *x*-ray treatment of stomach lesions.

(311) Korsakow's Psychosis.

A. WESTPHAL describes a case of Korsakow's psychosis, calling especial attention to the condition of the paralysed eye muscles. (*Berl. klin. Woch.*, February, 22nd, 1904.) The patient, a man of 36 years, was taken ill suddenly in March, 1898. He was found in a dazed condition, and during the following months and years he remained in a condition of stupor, took no notice of his surroundings, and when questioned either refused to answer altogether or said "I don't know." He obviously had no idea of time or place: and his power of concentration was particularly affected. His speech was indistinct. His gait was natural, save when he turned sharply round or tried to walk in a straight line, when it was unsteady. The globes of the eyes could not be moved freely upwards or downwards, but all other movements were normal. In May, 1902, he was transferred to Westphal's care in Greifswald. It was then found that his memory for recent occurrences was much affected, he could not pay attention to what was going on, but there was no attempt at confabulation. He always answered that he did not know, and what he did not know he could not say. On no occasion did he invent an answer. He was very apathetic, did not speak spontaneously, and slept a great deal. The gait was stiff, and the posture of the arms and trunk were also stiff. The speech was hoarse and monotonous. The patella reflexes were exaggerated, and there was slight ankle clonus. No Babinski and no Oppenheim's leg phenomenon. Both pupils reacted very sluggishly to light, but reacted well to convergence. The globes could not be moved upwards or downwards, but in converging there was a slight sinking of both. Ophthalmologically, it was found that there was a slight but distinctly pathological paleing of the temporal half of the papillae. The vision was diminished. In December, 1903, he was examined for the "closure of the lid reaction." At the same time as Westphal determined that the pupils contracted by intended but prevented closure of the lids, he noticed that the globes which were paralysed for upward movement flew upwards on the attempt to close the lids being made. The movement was upward and outward, and took place very rapidly. This phenomenon was present in the closed or open other eye. Raising the lid from the globe of the eye did not prevent the upward and outward movement; when the lid was fixed so tightly that a contraction of orbicularis was almost or quite impossible, the movement was less smart. On repeating the experiment many times the movements became slower and less complete. The mental condition of the patient improved somewhat during the following one and a-half years. Etiologically, it was found that the man had been an alcoholist. The diagnosis of Korsakow's psychosis was made from the disturbance of memory, of the power of attention, by the incapability of receiving fresh impressions, coupled with a moderate retention of previously acquired knowledge, as well as bodily muscular paralysis especially of eye muscles. These symptoms following an abuse of alcohol constitute this disease. Westphal discusses minutely the eye phenomenon, and comes to the conclusion that the upward movements of the globes rest on combined movement (*Mitbewegung*) with the orbicularis.

(312) Stages of Pulmonary Tuberculosis.

THE Committee on Nomenclature of the American Climatological Association has suggested (*Med. News*, April 30th) the following classification for cases of pulmonary tuberculosis: Incipient: Slight physical and subjective signs, with history indicative of pulmonary tuberculosis. Sputa, if present without bacilli. First Stage: Definite physical signs of localized infiltration; total involvement less than half a lobe, whether at one or more points: cough and expectoration with bacilli; constitutional symptoms, slight. (In disseminated cases expectoration and bacilli may be absent with constitutional symptoms more severe.) Second Stage: Infiltration of single or multiple areas approaching or equal in amount to one lobe; or smaller area in stage of softening; cough and expectoration with bacilli; constitutional symptoms, severe. Third Stage: Infiltration in excess of one lobe, or if less in stage of well-developed excavation; more severe constitutional symptoms. They also suggest a classification of results of treatment as follows: Progressive: All essential symptoms and signs continue unabated. Quiescent: Constitutional symptoms slight or entirely absent; physical signs improved or unchanged: cough and expectoration with bacilli still present. Arrested: Absence of all constitutional symptoms: expectoration and bacilli still present; physical signs may or may not persist; foregoing to have existed for at least three months. Apparently Cured: All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

SURGERY.

(313) Peculiar Forms of Hand Infection.

Two cases of a peculiar form of hand infection, due to an organism resembling the Koch-Weeks bacillus have recently been reported by John R. McDill, Manila, and William B. Wherry, bacteriologist, Biological Laboratory, Manila (*Medical Record*, April 30th). The first case occurred in a hospital surgeon, who had been treating cases of acute suppurating conjunctivitis, and one case of leg infection, which ended in septicæmia. Soon after, a small, painful, reddish papule was noticed on the tip of the right forefinger, which gradually increased in size. The papule was twice incised to pus being found, but the nurse who lanced the finger on the second occasion pricked her own finger during the operation. After about five weeks of severe suffering the finger of the hospital surgeon gradually returned to its normal condition. The case of the nurse was, however, far more serious, resulting eventually in gangrene of all tissues of the finger implicated and necessitating amputation. The authors draw attention to the fact that surgeons treat all these inflammatory processes, usually described as panaris or panaritium, as if all were due to one causative origin, and direct all efforts to preserve the functional use of hand and fingers. "It may be questioned," they say, "if this is in accord with the present state of our knowledge of these conditions but actual results bear out the general practice in a striking way, and will continue to be so until specific agents have been produced with which one can more successfully combat the special pathogenic powers of these inflammations. Koch's culture experiments have shown that in every case, one kind of germ or another, or several together, can be found in the inflammatory exudate, and they are usually briefly described as pyogenic bacteria. Streptococci, and, in rare exceptions, bacilli such as the pyocyaneus and coli communis, have been found, and the clinical course of all seems much alike and to be modified chiefly by the anatomical peculiarities of the part first affected. McDill and Wherry state that the usual history of cases of the destructive processes [illegible] is that constitutional symptoms [illegible] the pain [illegible] tenderness [illegible] the tissues [illegible] the tissues [illegible] and deep and long-continued [illegible] Notwithstanding the difficulty experienced in obtaining the first culture the writers adopted [illegible] and gave credit [illegible] cases. There were several cases [illegible] in the hospital at the time when the [illegible] control. The [illegible] peculiarities from the [illegible] hospital surgeon [illegible] They also [illegible] and staining [illegible] bacteria and staining reactions [illegible] the [illegible] Koch-Weeks bacillus. The [illegible] isolated from various diseased [illegible] with the Koch-Weeks bacillus [illegible] a closely related [illegible]

(314) Outward Luxation of the Knee Complicated with Laceration of the External Popliteal Nerve.

VAUTRIN (*Rev. de Chir.* No. 4, 1904) describes at length the signs and complications of traumatic luxation or rather, subluxation, of the head of the tibia outwards, an injury of more frequent occurrence than might be imagined from the small number of recorded instances. A distinction is made between two well-marked varieties of this luxation: one in which the patella is not displaced, the other in which this bone has been carried over the outer surface of the external condyle. The author insists strongly on the necessity of prolonged immobilization of the joint in the treatment of the different forms of this injury. Recognizing the value of early movement and massage in injuries of such joints as the elbow, wrist and ankle, he holds that these new methods of treatment would be likely to prove faulty and injurious if applied in a case of luxation of the knee, in which the torn ligaments are incapable of maintaining the mutual relations of the bones, and there is a tendency for the bones to be displaced through strong and unopposed muscular forces. Among the complications of outward luxation of the knee, such as external wound, fracture, and injuries of important vessels and nerves, the author refers especially to the last, and puts on record a case under his own care in which the external popliteal nerve was torn through. This complication, though not previously mentioned in surgical literature, seems not unlikely to occur in outward luxation of the head of tibia if anatomical relations of this nerve be taken into consideration. It may, the author points out, escape in most instances by reason of its mobility, resistance, and elasticity, but the instance here recorded will be of service in suggesting the propriety of bearing it in mind in a recent case of luxation of the knee, so that it may at once be properly dealt with by exposure and suturing of the injured nerve.

(315) Primary Carcinoma of the Bulbous Urethra.

HALL (*Ann. of Surg.*, March, 1904) reports a case of primary carcinoma of the bulbous urethra admitted under his care into the Bradford Royal Infirmary. In this, and also in a second case treated by the author's colleague, Dr. Jason Wood, the nature of the urethral affection was proved by microscopic examination. The author has succeeded in compiling a list of 21 of undoubted cases, and states that the material he has collected apparently represents all that is known of this very rare disease. After a careful review of all the cases he is forced to the conclusion that a differential diagnosis between malignant disease and simple induration is frequently impossible prior to operation, excepting when the size of the perineal swelling is out of all proportion to that usually found associated with simple stricture. Of persons treated by resection, or some form of extirpation, the result is unrecorded in 11 of the remainder, 4 died within nine months, and 6 are stated to have had a recurrence within six months of the operation. Of the remaining 5 the subsequent history is incomplete, it being simply reported that there was no recurrence at twenty-one months, eleven months, ten months, and four months respectively. The author, whilst acknowledging that the results of operative treatment are not encouraging, thinks that extirpation is worth a trial, provided the disease be recognized in an early stage. Lymphatic infection occurs in the inguinal glands, and is therefore also amenable to surgical treatment.

MIDWIFERY AND DISEASES OF WOMEN.

(316) Elderly Primiparæ with Fibroid Uterus.

LEPAGE (*Compt. Rend. de la Soc. d'Obst. de Gyn. et de Péd. de Paris*, October, 1903) reports 2 cases of spontaneous delivery where the patients were elderly. The first patient was 57, and had not married until 35. For ten years the period had always been free. In the seventh month the uterus reached 12½ in. above the pubes; the child was living. There was a pedunculated fibroid as big as an egg on the fundus; two sessile growths of the same kind lay on the anterior wall, one rather low down. The cervix was pushed upwards and forwards by a tumour in Douglas's pouch of the size of a tangerine orange. Lepage examined her himself next term: besides the growths already detected, a firm mass was now defined in the right posterior part of the pelvis; it bulged considerably downwards. Nevertheless labour ended spontaneously at term: a female child was expelled dead; it weighed over 6 lb., and was blanched, having bled to death from the rupture of a vessel due to severe tension of the membranes and not to any fault in the cord or placenta. There was no complication during the puerperium (N.B.—The patient's age is given as 57 both loc. cit. and in a shorter report in *Ann. de Gyn. et d'Obstet.*, November, 1903). The second patient was 38, and had cohabited since 26, yet had never been pregnant before. There were several fibroids in the uterus above the pelvic brim, and a big tender growth as large as a fetal head pushed the cervix upwards against the pubes. Lepage watched her from the sixth month, and she was under observation at the Baudeloque clinic when labour set in at term. The pelvic tumour rose up above the brim, and the cervix sank downwards and backwards until it occupied the middle of the pelvic cavity. The breech presented, and the fetus was safely delivered with a little manual aid; the perineum and rectum were lacerated, but were successfully repaired nine days later. Lepage suspected that the damage to the perineum was the result of defective resistant power in its tissues due to pressure of the pelvic fibroid. Pinard, in discussing these cases, noted how ill both the patients were when admitted early in pregnancy into hospital. There was much pain, and many surgeons would have advised immediate hysterectomy. But the two women were kept in bed on a milk diet; the urinary and digestive systems were attended to, and thus in each case the uterus of an old primipara infested with fibroids, one of which

was pelvic, nevertheless carried the fetus to term and expelled it spontaneously. Pozzi admitted that hysterectomy or any other surgical intervention was not as a rule needed in cases of pregnancy in the fibroid uterus, but the patient must be watched, as haemorrhage during gestation was common, and he had recently lost a case from flooding during parturition. He and Pinard admitted that vicious insertion of the placenta was frequent in these cases.

(317) Caesarean Hysterectomy in Traumatic Atresia Vaginae.

Fournier (*L'Obstet.*, March, 1904) operated in the middle of the seventh month on a woman who had undergone two unsuccessful operations for vesico-vaginal fistula. After labour pains had continued for many hours the child died, embryotomy appeared indicated, but the vagina was blocked from the vulva upwards by tense cicatricial bands, one forming an arch running antero-posteriorly, from each side of which urine dripped continuously. Nevertheless, impregnation had occurred. The child was removed by Caesarean section and the uterus amputated above the cervix. The patient recovered, being able to leave her bed on the seventeenth day. Fournier gives reasons why he did not perform a simple Caesarean section. The chance of mortality would have been greater, the uterine contents were fetid, and the cervix lay bathed in putrid urine contained in the cavities between the cicatricial bands in the vagina. Perhaps, he admits, it would have been more simple to have removed the uterus entire without preliminary incision and extraction of the fetus, but he could not manage it on account of the shape and enlargement of the inferior segment.

(318) Cancer of Clitoris in Woman aged 78.

Weber (*Monats. f. Geb. u. Gyn.*, February, 1904) operated on a patient, aged 78, for primary epithelial cancer of the clitoris which formed a tumour of the size of a walnut. Its base was connected with the prepuce, the inguinal glands were apparently not enlarged. The tumour, which could be moved freely on its base, was excised together with the clitoris, including the crura, and the surrounding healthy mucous membrane. The wound, after all haemorrhage had been checked, was closed by suture without any stretching of the integuments. A catheter was retained for six days: union was by first intention. After Weber had recorded a second case of extensive malignant disease of the external organs involving the clitoris, removed with free dissecting off of the right inguino-femoral glands, and adjacent tissues, there was some discussion about the best operative treatment in cancer of the clitoris. Redlich preferred the thermo-cautery to the knife, as the former could not promote infection of the wound. Weber considered that the knife was preferable to the cautery, as the cancerous tissue could be enveloped in gauze and pushed aside when the healthy tissues were being incised and dissected away. The cautery did not allow of healing by first intention. Lastly, Weber never expected immunity from recurrence after operation for cancer of the clitoris and labia, it had followed in all cases under his care.

(319) Hernia of Ovaries: Absence of Uterus and Vagina.

Delay (*Lyon Méd.*, January 17th, 1904) describes a case where the ovaries lay in the inguinal canal, whilst, as is so often the case, there was arrested development of the genital tract. The patient was 28 years old; the breasts, pelvis, hips, and general appearance were perfectly feminine, but she had never menstruated. She was sent to Jaboulay for suspected strangulated hernia, but there were no distinct symptoms of that condition. A swelling of about the size of a walnut lay in each groin; it was but slightly movable. The labia and clitoris were well developed; the finger could be passed into the urethra, though there was no trouble about holding urine. The uterus and vagina were absent. An operation similar to herniotomy was performed: the swellings proved to be ovaries with senile characters and evidence of cystic degeneration; the microscope showed distinct traces of uterine and tubal tissue associated with the displaced ovaries.

THERAPEUTICS.

(320) The Treatment of Obesity.

Grocco (*Rif. Crit. di Clin. Med.*, February 27th, 1904) divides cases of obesity into two classes: those who take in too much food and drink, and those who do not excrete enough of the products of metabolism, but the distinction is not absolute, and no case should be treated as if only one thing were at fault. The objects of treatment should be: (1) To remove the etiological element which is disordering metabolism; (2) to redress any disproportion between intake and output; (3) to combat the morbid effects of the actual deposit of fat. The author attaches great importance to a dry diet where it can be tolerated, but in some it sets up gastric and intestinal disturbances, and even causes renal colic, gout, or neurasthenia. A dry diet is likely to be useful to those fat persons who habitually drink much. If the elimination of urine is unchecked the treatment is probably doing good, but if digestion is interfered with, if sweating stops, and especially if the urine becomes scanty and of high specific gravity, the treatment should be laid aside. Meals should be small and frequent—four or five in the day, and liquid should be taken about two hours before a meal. The restriction of fluids is an empirical measure, and the author does not accept any of the explanations of it which have yet appeared. The reduction of food and drink should be gradual, and not more than 1 kilogram of body-weight should be lost in one week. The albuminoids should not be reduced to such an extent that more nitrogen is lost than is supplied in the food. When allowance is made for the fact that not all the food ingested is really absorbed it is probable that the excretion of nitrogen by the kidneys should not be more than 90 per cent. of the nitrogen in the food. Repeated examinations of the urine should be made to determine the sufficiency of the nitrogen supplied, especially if there is any intolerance of treatment, for the organism may need more nitrogen at one time than at another. It is impossible to draw up a satisfactory diet sheet to suit all patients. The details must be carefully determined in each case to suit the patient's habits and convenience. The treatment ought not to be accompanied by severe hunger, but by a sense of well-being. A reduction of alimentation is only a part of the treatment—of varying importance, according to the degree to which the patient has habitually carried the abuse of food. Amongst measures for increasing the output of the system the first place is given to muscular activity, especially in the case of fat people of idle habits. Where the heart and vessels are healthy all forms of exercise are good if performed gently at first and not carried to the point of painful fatigue or oppressive dyspnoea. Massage, local and general, is indicated, especially when the fat is localized in the abdomen. Warm baths, sea-water baths, and medicated baths are recommended, especially those containing carbonic acid, the chlorides and alkalies. Of mineral waters for drinking, the author recommends especially sulphated, alkaline, chloride and alkaline, and ferruginous alkaline chloride waters. The good results obtained in the treatment of obesity at Marienbad and other places are not due simply to the waters, but to the use of the whole physico-therapeutic resources of these places, combined with restriction of diet. Those who drink the waters and do not reform their habits grow no thinner, but in some cases develop a more vigorous appetite, and become more fat than before. Unlimited sleep favours the development of obesity, and its restriction is a part of the treatment. Excessive mental work causes deficient muscular activity, and should be checked. Mental distraction and change of scene and climate are valuable aids to the reduction of obesity. Clothing should not be so warm as to prevent the cutaneous dispersion of heat. The methodical and abundant inhalation of oxygen is also recommended. The use of drugs should be for the most part confined to what is necessary in order to combat constitutional conditions which have led to obesity. Amongst these conditions Grocco mentions gout, scrofula, and chlorosis. The excessive use of purgatives, iodides, and thyroid preparations is deprecated, though all these are useful in some cases, if prescribed in moderate quantities and taken only for a moderate time. Iron, strychnine and phosphorus are useful, and in cases of cardiac weakness sparteine, caffeine, and strophanthus. In every case the treatment must be founded on a careful analysis of the intake and output of the body. Success will depend to a great extent on the stage at which treatment is begun. Treatment is especially necessary in cases of obesity beginning in early life. Cure is not complete until the patient has been relieved of his excess of fat and has settled down to a permanent way of living which does not lead to undue increase of weight. The change from a treatment of maximum intensity to a regimen involving only such restrictions as are absolutely

necessary is to be made in the same gradual manner as the progress from asthma like a treatment of maximum intensity, and throughout the whole course the greatest effort is to be made to avoid any interference with digestion, any injury to the heart or nervous system, and any wasting of the nitrogen of the body. These indications cannot be met if the physician allows the order and intensity of his treatment to be varied at the whim of a too eager patient.

(321) Leo's Acid Treatment of Pruritus.

In describing a case of pruritus to be cured according to Leo, L. Kohler (*Berl. klin. Woch.*, April 18th, 1904) says that this condition is frequently met with in conditions of abnormal chemical composition of the blood, such as gouty diabetes, and after taking certain drugs. The condition of the blood plays an important part in the production of this symptom, although it is difficult to determine the exact factor in the blood. If there is marked alkalinity, one can assume that the blood and the body juices are likewise too alkaline. Leo came to the idea that it would be of use to treat pruritus with inorganic acids in order to diminish this excessive alkalinity. Kohler's patient was under treatment in the same room at Werden, and during his stay there the pruritus developed without any apparent cause. He was treated with external applications and baths without benefit, and then Kohler tried the acid treatment. This consists of giving one tablespoonful of a 10 per cent. dilution of sulphuric acid every two hours. On the second day the urine became acid, and the appetite and digestion were not disturbed. On the fifth day the skin itching had entirely disappeared, and did not return as long as the patient was kept under observation. He regards this result as due to the acid. In connection he warns one from making on this form of treatment a certain test of cases, as Leo himself records some failures, but he considers that in a number it may be found very useful.

(322) The Uses of Hydrobromate of Scopolamine.

After reviewing the action of scopolamine and the [illegible] have been [illegible] L. Leopold (*Berl. klin. Woch.*, April 11th, 1904) considers that this drug is not to be lightly given [illegible] and the case relates his experience with it. His hospital [illegible] into three groups, [illegible] of mental disease, [illegible] to [illegible] the [illegible] He found [illegible] any unpleasant symptoms. In the maniacal [illegible] as well, and [illegible] I would wish to [illegible] the general [illegible] hypnotic [illegible] to the [illegible] hypnosis. [illegible] in the [illegible] gradually [illegible] of [illegible] and [illegible] proper. As a [illegible] it is used in [illegible] solution [illegible] gramme [illegible] gramme water. The dose will depend

on the degree of excitement of the patient, but as a rule from 0·1 mg. to 0·8 mg. (approximately $\frac{1}{600}$ to $\frac{1}{75}$ gr. will suffice). The maximum dose is placed at 1 mg. (approximately $\frac{1}{60}$ gr.) The effect appears in the majority of cases soon after injection and mostly lasts for from three to five hours. Children stand doses in proportion to their weight well. It fails from time to time to produce the desired effect like every other drug, but no harm is ever done by having given it. It will be found of immeasurable value in the treatment of troublesome cases of delirium tremens and in quieting mental cases during their removal to the asylum.

(323) Gonorrhœal Vulvo-vaginitis of Children treated with Aclargon.

VINCENZO LUZZATTO (*Rif. Med.*, November 4th, 1903) gives details of 18 cases in which he used aclargin: 15 of these were vulvo-vaginitis and 8 were definitely cured, 4 presumably, 1 improved, and 2 *in statu quo*. The 3 cases of cervicitis were much improved by treatment. The disappearance of the gonococcus varied from six to fifteen days after treatment. As to methods of using the drug, irrigation 1 to 4 per cent. was more serviceable than injection: in either case a plug of cotton wool soaked in the solution was used. No bad results were observed.

PATHOLOGY.

(324) Cells with Eosinophile Granulation.

OTT (*Amer. Journ. M. Sci.*, February, 1904) has conducted a series of observations upon the functional activities of eosinophile cells, more especially investigating their relation to nutrition. Eosinophile leucocytes are found to be widely distributed throughout the animal kingdom, though it is probable that those of mammals, while having a constant relation in different species, are not necessarily functionally comparable to the cells with eosinophile granules of lower vertebrates. In man such cells form but a small and somewhat variable proportion of the total number of leucocytes. In certain mammals the numerical relation is found to vary within wider limits, the count being much above the average in some animals as to suggest the presence of some pathological process. Blood examinations in health, together with an estimation of intestinal parasites has suggested the possibility that the absolute number of eosinophile cells bears some relation to the number of such parasites. In order to obtain a great number of observations of the behaviour of these cells under many various conditions the leucocytes were counted in fresh blood without hardening and staining, and experience showed that this method was sufficiently accurate to afford an adequate presentation of the changes undergone by the eosinophile leucocytes. That a direct relation exists between the number of eosinophile cells and the weight of the animal was clearly demonstrated, it being found that in guinea-pigs weighing less than 250 grams the proportion of these cells never exceeded 2 per cent., while for greater weights there was shown to be a sudden rise to 8 per cent. between 500 and 600 grams, more gradually increasing for still greater weights. In studying the distribution of these cells in the tissues of the guinea-pig, they were found to exist in greatest numbers in the mucosa of the gastro-intestinal tract immediately below the tubular glands, in the mucosa of the air passages, in the lymphatic tissue and spleen, these having polymorphous nuclei, and being identical with those found in the blood. Large mononuclear cells with eosinophile granulation occur in the bone marrow, and these, undergoing mitotic division, form daughter cells resembling the eosinophile leucocytes of the blood. Where accumulation of these cells has occurred in the tissues they were found to abound in the blood vessels of the part, and after manufacture in the bone marrow they reach the tissues by the blood vessels. Migration from the blood vessels into the wall of a small bronchus and thence through the epithelium into the lumen was observed. In studying the relation of eosinophile cells to nutrition it was found that complete withdrawal of food is followed by a decrease both in the proportion and in the absolute number of eosinophile leucocytes in the peripheral circulation, this being preceded by a temporary increase. A daily variation was found to exist in the number of cells, it being probable that the bone-marrow discharge of these cells into the circulation is subject to periodic variation. With the administration of food after a period of starvation the eosinophile cells gradually increase in number, but neither is this increase or that of the weight of the animal continuous. A temporary fall in weight is accompanied by a rapid increase of the eosinophile leucocytes, while a rise in weight tends to retard this increase, thus showing how close a relation exists between the nutrition of the animal and the eosinophile cells.

(325) A Case of Altered Hygric Sensibility.

RAVENNA (*Rif. Med.*, December 16th, 1903) reports the case of a general paralytic who developed alterations in his hygric sensibility. Admitted into the asylum in August, 1900; he first complained of altered tactile, thermic and hygric sensations in December, 1901. He constantly spoke of feeling as if he were being bathed. This sensation would sometimes come on independently of any external stimulus. From the necropsy made in this case, and from reports of a similar case known to the author, it seems probable that these alterations in hygric sensibility are causally associated with changes in the hippocampal convolutions. In the author's case the ganglion cells of the hippocampus showed pigmentary degeneration, hyaline neoplasms and some splitting up of the protoplasm. Towards the external surface of the convolutions there were many foci of gliosis, all more marked towards the surface than in the centre. Glycogenic bodies were numerous, and especially in the parts where the gliosis was present. Similar alterations were seen in the prefrontal lobes as regards the ganglion cells but the neuroglia were not much changed, and there were very few glycogenic bodies.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(326) Pneumonia.

At a meeting of the Section of Clinical Medicine and Surgery of the Medical and Chirurgical Faculty of Maryland, held on March 18th, this subject was discussed (*Med. News*, April 23rd). Pleasants read a paper on the statistics of pneumonia and exhibited a chart showing the mortality curve for tuberculosis and pneumonia during the past fifty years. The former had steadily fallen and the latter steadily risen. The large negro population of Baltimore accounted for a great number of the cases in that city, the total death-rate in the black race being twice that of the white. The morbidity of the disease was hard to estimate, and whether the mortality increase of the last fifty years was really due to an increased number of cases or an increase in the fatality, it was impossible to say. The following factors must be considered in explaining the increased mortality of the disease: (1) Increase in the density of the population; (2) general prolongation of life and reduction of intestinal diseases among children; (3) climatic fluctuation; (4) increase of immigration; (5) the negro element; (6) more accurate diagnosis, with better necropsies and death reports; (7) decrease of death-rate from tuberculosis; (8) the presence of influenza, with which pneumonia is evidently closely connected; (9) a theoretical increase in the virulence of the pneumococcus. Welch dwelt on bacteriological knowledge concerning pneumonia. In spite of the complete studies of the disease, this knowledge had had practically no influence on the clinical attitude. The organism first discovered by Sternberg in 1880, confused with a bacillus by Friedlaender in 1883, and clearly described in 1884 by Fraenkel and Weichselbaum, was found in all cases of true lobar pneumonia. It was a delicate organism, but by proper methods could always be demonstrated. It was characterized by short viability in cultures and in the body, and by its causing a local inflammation, but it also set free a toxin (causing the pneumonic fever of Flint). Following the discovery of the toxin of diphtheria and tetanus attempts were made to produce a similar substance for pneumonia. This, however, was bacteriologically an impossibility, and the evidence that the pneumococcus produced a toxin was entirely clinical. The organism was thought by some to be only a variety of the streptococcus. It was harboured normally by 20 per cent. of all people, and the accessory causes of pneumonia were therefore almost the efficient causes. In fact, there was no disease in which such emphasis must be laid on the so-called accessory causes. It was hard to decide precisely to what extent the disease was contagious, but there was no bacteriological basis for making it a notifiable disease. It was unknown in Arctic expeditions, a fact which would seem to be opposed to exposure as an etiological factor. It might cause septicæmia. The immunity which it produced was in human beings only transitory. A definite artificial immunity, though of not a high degree, was easily produced, and the serum from animals so immunized undoubtedly protected against the disease. But all antibacterial (as distinguished from antitoxic) sera were uncertain, and this was exceedingly true of the pneumonia serum, the clinical value of which was very doubtful. W. Osler discussed pneumonia as he had seen it in his hospital experience. One of the striking features of the disease was its sameness. In the past twenty-six years he had studied the disease in three large hospitals in various parts of North America, but its clinical features were always uniform. This was particularly true of the mortality, which Dickerson showed several years ago to remain (when large numbers of cases were considered) absolutely uniform. In the Johns Hopkins Hospital the average mortality had been 26 per cent., and the same figures held for the Massachusetts General Hospital, for the Montreal General, and for Blockley. In private practice, of course, a smaller proportion of deaths was seen, but terminal pneumonias were often overlooked there; ether pneumonias were very rarely seen, and other causes operated to reduce the mortality. Atkinson discussed the therapeutic side of pneumonia. He said pneumonia was largely a local inflammation, and it ended by crisis. The body was therefore limiting the disease anatomically, and preparing in the end to overcome it, which, if undisturbed, it could do. The indications were plainly: (1) To aid the natural tendency to recovery; (2) not to interfere with it (as, for instance, by the administration of nauseating expectorants). Some patients would die and others would get well, no matter what was done; between these two classes lay the field for therapeutic interference. There was no specific for pneumonia. Blood-letting, veratrum viride, and sera, whatever their value, were not specific. Blood-letting was too much neglected, and was of especial value when the right heart was overdistended. The therapeutic rule should be to "go slow" with treatment, to watch the case carefully, and to try to help Nature rather than to make any definite attack on the disease itself. Rest, relief of pain, and sleep should be obtained by morphine. Small doses of strychnine and alcohol provided the necessary stimulants when the heart lagged. The icebag and cold sponges should, of course, be used. Oxygen was of value if administered in time. Digitalin and nitroglycerine should be avoided, but saline infusions were of value in increasing diuresis.

---

(327) Syphilis as a Cause of the Neuroses.

AT a joint meeting of the Chicago Medical Society and Chicago Neurological Society, held April 13th, L. Harrison Mettler read a paper on this subject (*Med. News*, April 23rd). He said that the association of syphilis and functional nervous troubles had long been noted. The relationship of cause and effect between them was not so well established. On the one hand, there was no accurate knowledge as to how the syphilitic virus affected the neurones so as to cause them to function abnormally; nor, on the other hand, was it known exactly what was meant by a neurosis, its histopathology and pathogenesis. If these two questions could be solved positively the relationship of syphilis to the neuroses would be obvious. In regard to the action of the syphilis upon the neurones, he argued that it was both direct and indirect. In the direct way it in some way disturbed the normal physio-chemical activity of the neurone by a direct poisoning of its molecular contents. Indirectly it affected the nutrition of the neurone by changing the nutritive value of the blood, or limiting the blood supply by setting up disease, with all its well-known consequences, in the vascular walls. Pathologists and syphilographers were pretty well agreed that syphilis could and did thus directly affect the cellular contents so as to disturb the functions of these cells. Moreover, the relationship of syphilis to the so-called parasyphilitic diseases, as well as the part which it played in the latent form of predisposing cause to many of the organic diseases, indicated that it could influence injuriously the intimate structure of the nerve cells. This cleared the way for the acceptance of the belief that syphilis could provoke a neurosis. All irritative and pressure symptoms caused by the inflammatory products of organic syphilitic lesions, though functional in character, Mettler regarded as physiological rather than pathological, and omitted from consideration. He adopted the view that the basis of a true neurosis was a constituent change of some sort in the nerve cells; for, in his opinion, a disturbance of function sufficient to be recognized as a disease, with the preservation of normal structure, was a logical contradiction. A neurosis, therefore, was essentially an organic disease, and it was as likely to be the result of a syphilitic as of any other form of infection. In saying this, however, he was mindful of the fact that nearly all of the earliest manifestations of the syphilic organic diseases were functional in character for a time, hence, care must be exercised in making the diagnosis, for a syphilitic neurasthenia sooner or later showed signs of a meningitis, a functional paralysis became an organic paralysis, or a syphilitic chorea revealed signs of Bechterew's cerebro-spinal focal sclerosis. After discussing in detail syphilis in its casual relationship to neurasthenia, hysteria, and traumatic neuroses, epilepsy, migraine, chorea, functional paralyses, paralysis agitans, neuralgia, central torticollis, spasms from local ischaemia, paralysis of single nerves, and various other functional and convulsive disorders, Mettler drew the following practical conclusions: (1) Syphilitic infection can produce a pure neurosis. Most of the neuroses so produced, however, are but the preliminary indications of gross organic syphilitic disease of the nervous system. (2) Syphilitic neuroses are as much syphilis of the central nervous system as are the organic syphilitic diseases, and they call for the same thorough antisyphilitic treatment as the latter do.

SURGERY.

(328) The Operative Treatment of Old Dislocation of the Hip.

Eyssen (*Zentralbl. f. Chir.*, No. 13, 1904) whilst holding that surgical exposure of the displaced head of the femur is the best method of reducing an old dislocation of the hip, points out that such treatment is not free from serious risk. The chief dangers of the operation which are shock and infection, due for the most part to very forcible and violent manipulation of the displaced bone and to consequent laceration of the soft parts may, however, the author states, be prevented by selecting such a method of operation as will allow of free exposure of both the upper end of the femur and the cotyloid cavity. The method advocated in this paper is a modification of Ollier's operation, in which a curved incision with its convexity downwards is made over the outside of the joint and the tip of the great trochanter is detached by chiselling. In the author's method the lowest part of the convexity of the flap is placed about 7 cm. below the tip of the great trochanter, descending 2 cm. below the level of that of Ollier's incision. The posterior limb of the incision is carried upwards and backwards to the postero-superior spine of the ilium, and the anterior limb more directly upwards towards the antero-superior spine, over the interspace between the tensor fasciæ latæ and the gluteus medius. The trochanter major is then chiselled through very obliquely, so that after the reduction of the head of the femur, even in cases in which the muscles are much contracted, the surfaces of the fragments may be brought into contact, though this be partial, and thus reattachment of the detached trochanter and subsequent restoration of the functions of the muscles attached to the process may be assured. The author strongly advocates this operation in cases of old unreduced luxation of the hip, as he has been convinced, by his own experience of it, that it affords free exposure of the cotyloid cavity as well as of the head of the femur, and that it facilitates an easy and gentle reduction.

(329) A New Procedure for the Operative Treatment of Chronic Nephritis.

[illegible] (*Ann. of Surg.*, April, 1904) has had [illegible] experience of the [illegible] method advocated by [illegible] for the treatment of certain cases of chronic nephritis, that is, the implantation of the decorticated kidney in the abdominal cavity, and [illegible] the possibility of bringing the proper circulation of the kidney [illegible] within the peritoneal cavity, that is freely supplied with blood, with the object of establishing [illegible] circulation in the diseased organ. This object he thinks may be attained by one or other of two methods which he has practised in the animal. In the first of these methods the kidney, after the fibrous capsule has been stripped away, is enveloped in a portion of omentum drawn through a wound made in the parietal peritoneum, and secured by sutures. In the second method, which is named "intraperitoneal dislocation of the decorticated kidney," this organ is passed through a wound in the peritoneum into the abdominal cavity, and fixed there between the attached portions of the mesenteries of the small and the large intestine, the margins of the peritoneal slot being stitched around the renal hilus. The choice of method would, it is pointed out, be determined by the size of the kidney and by the condition of the omentum. If the latter structure be atrophied and short, intraperitoneal dislocation would be the only practicable method. The author has recently practised the first method—that of omental inclusion—on the living subject with promising results. In this case, although the diseased kidney was very large, the operation was not attended by any difficulty.

(330) Traumatic Asphyxia.

Beach and Cobb (*Ann. of Surg.*, April, 1904) describe a rare and remarkable condition resulting from traumatic asphyxia or apnœa, the dominant and diagnostic feature of which is a blue-black discoloration of the skin, mainly confined to the face and neck above the clavicle. In a case observed by the authors the skin of the face seemed to be dotted with countless spots, from black and reddish-black to blue in colour, very close together, while between the spots were lines or areas, very minute, of pale and normal skin. The line of demarcation in the neck in front was sharp, the transverse line running through the inner end of each clavicle. At the back of the neck there was none of the bluish-black discoloration of the skin, except within the confines of the trapezius muscle on either side. The conjunctivæ were bulged forwards prominently by extensive haemorrhages beneath. The discoloration disappeared rapidly after the third day, and at the end of the third week from the date of injury the patient's face seemed almost normal. The cause of this unusual clinical feature is admitted to be forcible compression of the chest extending over some minutes. It has long been noted that the peculiar discoloration of the face is not infrequently seen in persons pressed to death in a struggling crowd. The question of special interest in these cases is, the authors point out, the cause of the discoloration and the reason for its limitation practically to the regions of the face and neck. In the case recorded in the paper microscopic study was made of sections of skin taken from the patient, and by this study as dealt as to the minute pathology at least of the discoloration cleared away. The authors state that it is now definitely proved that this discoloration is not due to haemorrhages into the skin, and they are of opinion that it is the result of a paralytic dilatation of the veins and capillaries, with or without rupture from engorgement of [illegible] blood. As to the cause of the sharp limitation of the discoloration to the head and neck the authors have nothing new to offer, but are inclined to support the theory of Perthes, which ascribes it to the lack of valves in the jugular and facial veins.

MIDWIFERY AND DISEASES OF WOMEN.

(331) Hypertrophy of the Os Uteri.

W. J. Sinclair (*Jour. of Obst. and Gyn. of the British Empire*, September, 1903) maintains that hypertrophy and erosion of one lip of the os uteri uniformly accompany a pathological flexion of the uterus, and would estimate the result of treatment of flexion by the effect on the os. To prove that congestion of the uterus is due to flexion, not flexion to congestion, the author summarizes the arguments of Sir John Williams, whose main points are: That simple congestion of the virgin uterus is rare, while congestion with flexion is not infrequent; that effects of flexion can be observed—immediate effects, as the bending and blocking of the cervical canal, and remote effects, as the enlargement of the body of the uterus and dilatation of its cavity; and that the character of the dysmenorrhœa of acute flexion supports his view. Sinclair's observations, extending over many years, have shown that hypertrophy and erosion of the posterior lip of the os uteri are pathognomonic of retroflexion, and that similar changes in the anterior lip show a morbid anteflexion of the uterus. Careful observation, also, of cases treated by pessaries, medicated tampons, rest, etc., has proved that as the congestion begins to be relieved the erosion disappears, and that the hypertrophy of the cervix diminishes as the angle of flexion increases. Moreover, the result of ventrifixation of the uterus forms an absolute proof that the change in the cervix depends on the flexion of the uterus. Three cases are described in which erosion and hypertrophy of the posterior lip of the os disappeared after ventrifixation, and two in which similar changes in the anterior lip were associated with acute anteflexion. The author denies that there are exceptions to this rule if the examination be carefully conducted, though the conchoid uterus and the "wobbling" uterus are often mistaken for cases of retroflexion, and may thus form apparent exceptions. The following practical observations follow from the relation between flexion and congestion: (1) The treatment of "ulceration of the womb" by applications of caustic substances becomes ridiculous; (2) the abstraction of blood by puncture, or the diminution of congestion by glycerine tampons is more rational as a preliminary step to restoration of the position of the uterus. But these measures cannot do any appreciable good unless the tampons act mechanically in raising the uterus to some extent; (3) the extent to which hypertrophy with erosion diminishes is some measure of the effect of treatment, and thus, when a pessary is worn, occasional inspection of the posterior lip will show whether adequate support is being provided; (4) old-standing retroflexion, with much tissue change in the cervix and body, is difficult to cure by mechanical means, and where adhesion or great enlargement of the body exists cure can only be effected by operation. Ventrifixation is a safe and effective cure in

suitable cases of retroflexion, but the author has no experience of it in cases of antetlexion with bladder symptoms; (5) the menorrhagia which occurred in some women with chronic flexion near to the menopause may reasonably be supposed to be due to a state of the corporeal endometrium corresponding to the hypertrophy of the retroflexed body and of the cervix of the uterus. With the removal of the endometrium the haemorrhage ceases, and before strangulation of the uterus has again produced a similar growth, the menopause sets in, and menorrhagia cannot again occur; (6) hypertrophy due to laceration of the cervix and flexion cannot be rationally treated by amputation of the vaginal portion, and such an operation is only justified by the presence of malignant disease.

(332) Glycosuria and Hypertrophied Thyroid in Pregnancy.

BAR (*L'Obstétrique*, March, 1904) considers that a case under his observation seemed to show that there is a close association between eclampsia, the albuminuria of pregnancy, and certain affections of the thyroid body. The patient was six and a-half months pregnant; she had noticed that her neck had been swelling for some time; its circumference was 11½ in. above and 12¾ in. below. There was no exophthalmos or oedema, but there was a trace of albumen in the urine, which contained 3.66 grams of sugar to the litre. Under a diet of milk and meat the glycosuria vanished, but on its discontinuance sugar reappeared and continued for three weeks until delivery. At that date the circumference of the neck was still 11½ in. above, but nearly 14½ below. A fortnight after delivery sugar had disappeared from the urine, the neck showed slight reduction in circumference below (14 in.); two months later the measurement was 12½ in., as when the patient was first examined. The glycosuria—a disturbance of nutrition which in Bar's opinion is akin to albuminuria—was possibly caused by changes in the thyroid.

(333) Spondylolisthesis.

DE LEE (*Amer. Journ. Obstet.*, March, 1904) claims to have detected this condition in a woman aged 19, pregnant about three months. At the age of 6 she fell out of bed, and was laid up with spinal injury for four months, but no paralytic or other complications ensued. De Lee detected pelvic deformity when the patient consulted him about her pregnancy. The spines and crests of the ilia were at a normal distance from each other, but on taking the Baudelocque a pronounced protuberance over the upper part of the sacrum and lower lumbar region was discovered. The pelvic inclination was almost obliterated. The sacrum was hollowed out and converged towards the pubes from above downwards. Two large blood vessels, probably the internal iliacs, were palpable from the vagina without any difficulty. The walls of the pelvis and the pubes came together, making a funnel-shaped outlet. The distance between the tuberosities of the ischium did not exceed 7 cm. All these conditions pointed to spondylolisthesis. There was a family history of contracted pelvis. The patient's mother has a generally contracted rachitic pelvis; one sister has a contracted pelvis, and, after being for several days in labour, was delivered of a fetus with a dolicocephalic skull. De Lee bases his diagnosis in his own case on the prominence over the lumbar spine, the shortness of the abdomen and the loss of pelvic inclination, the anterior superior spines and crests of the ilia being almost on a level. In discussing this case Kolischer believed that it was an instance of fracture of the spine, because there was convexity and not a concavity, as was seen in spondylolisthesis. Emil Ries had examined a case of spondylolisthesis where the gibbus was absent, and where there was concavity where the lumbar vertebrae ended and the sacrum began. The absence of the pelvic inclination in De Lee's case was, Ries admitted, very well marked, but it was often found absent in other pelvic deformities. De Lee admitted difficulty in diagnosis, but considered that spondylolisthesis was more probable than fracture of the spine or kyphotic pelvis of rachitic origin, the so-called pelvis kyphotica obtecta.

THERAPEUTICS.

(334) The Action of Radium Rays on the Healthy and Blind Eye.

GREEFF speaks of the peculiarity of radium, that it can emit rays in the dark which are indirectly visible to the naked eye (*Deut. med. Woch.*, March 24th). This power of transmitting rays appears to go on indefinitely and without diminution, and in this respect as well as in others the law of the preservation of energy seems to be contradicted. Professor London published some time ago an article which offered a hope for the blind, that by means of radium they might be made to see again, and Greeff has studied the question closely, and delivers himself as to the foundations for such an opinion. His experiments were carried out with a mixture of barium chloride and radium chloride, weighing about 1 gram, and containing about 0.02 gram of pure radium. The illumination of radium in the dark as appreciated by the healthy eye consists in two kinds of light action; first a sort of fluorescence imparted to other objects, which emit indirectly ordinary light rays: and secondly the peculiar rays, which are known as radium rays. Professor London obviously did not distinguish between these two kinds of light action. The former is produced by certain rays falling on certain objects, such as paper or barium cyanurate and platinum, and the light emitted from these objects is incapable of passing through objects which are opaque to ordinary light. The direct rays of radium are perceived after the eye has become accustomed to the dark, if one approaches the eye to within about 10 cm. of the radium. The eye then distinguishes a diffuse, peculiar sea-green haze. One cannot localize the direction of this haze of light, but the light effect becomes very intense when the radium is held close to the eye. These rays can pass through all interposed objects, such as silver coins, the hand, and thick plates of steel. No distinction of bones and soft parts can be perceived when the hand is interposed, and even when the radium is placed over the temple the effect is precisely the same as it is when it is held the same distance in front of the eye. The most reasonable explanation offered for this phenomenon is that the radium rays falling on the various portions of the eye, and especially the lens and the vitreous, produce the same fluorescence as is seen on the paper, and that the appreciated light is the indirect effect of this fluorescence. In dealing with the blind, Greeff points out that London does not state the exact condition of blindness which he hopes to cure. Total blindness cannot perceive radium rays any more than ordinary light can produce an effect on such eyes. Greeff's experiments were conducted in the same manner as London's were, and the results carefully controlled. But he first tested the vision of his "blind" patients. He found that, although eyes which are not quite blind can perceive large objects in indistinct outline against the fluorescent screen, they do not see in this light, which is but ordinary visible light, any better than any other reflected light, and that there is not a vestige of hope that any blindness can be in any way influenced by radium rays.

(335) Therapeutic Experiments with Electro-magnets.

SOME years ago Konrad Mueller made some technical experiments with certain kinds of electro-magnets, and thought that he noticed that persons working with the machine derived some therapeutic benefit from the currents. T. Cohn (*Berl. klin. Woch.*, April 11th, 1904) has followed this subject out, and reports on the results of his investigations. Mueller's system consists of an arrangement for transmitting an interrupted electrical current, or a constant current transformed into an interrupted one, to a wire spiral. The spiral is wound round a hollow centre made of numerous galvanized iron platelets. The current generated is of low tension and interruption, but of comparatively high intensity. The magnet polarity reverses about 100 times per second. Paramagnetic substances, such as iron, are attracted by such a current; while diamagnetic substances, such as aluminium, are repelled. The physiological effect of this alternating magnetic field on the human body has been studied by a few observers, and the only definite data which are available are (1) that there is absolutely no action on muscle or motor nerve, and (2) that by approaching the radiator of the instrument the eye appreciates a flickering movement, which generally disappears when the eye is closed. Cohn employed a similar instrument, provided with some technical improvements, but assures the reader that it fulfilled all the functions of the Mueller's apparatus. He gives a minute description of the differences of Trueb's instrument and Mueller's. He tested the effect on a number of patients suffering from a variety of diseases, including neuralgias, neuroses, joint affections, agrypnia, Thompson's disease, intermittent limping, and chlorosis. He applied the currents for from three to fifteen minutes once or twice a day.

Vertal suggestion is that the treatment with the gout was carefully carried. Thirty patients gave the method a fair trial, and of these in 12 it proved absolutely ineffective. These were cases of trigeminal, intercostal, and lumbar neuralgia, hysteria, tic, convulsions, myotonia congenita, and a case following lightning stroke. In the last case and in one of hysterical paralysis the condition grew worse. In 4 cases there was a temporary improvement; these were for chronic sciatica, hemicrania, spermatorrhœa, sciatica, and rheumatic arthritis. The improvement, however, soon proved to be of little value. Of the remaining 12, 4 cases showed good results. These included neuralgia-like pain in the face (not true neuralgia), nervous insomnia, and [illegible] intercostal neuralgia, whose symptoms improvement took place in 2 cases of trigeminal neuralgia (one of them did not remain well), 1 of trachelagia, 1 of attacks of giddiness in an anæmic child, 1 case of sciatica, coxalgia, and 1 of intermittent limping. The results in the last 8 cases were purely subjective, and were very far from complete or lasting. He found that neuralgia yielded the worst results, and noted that the effects of the currents were very similar to those obtained by Tesla's currents. He therefore comes to the conclusion that the improvements when they take place are due to suggestion, and that until some further facts are discovered the treatment by electromagnets must be regarded as actionless.

(336) Treatment of Phthisical Patients on arrival at a sanatorium.

Franz Penzoldt (*Zeits. f. Tuberk. u. Heilstätt.*, February 1904) has observed that phthisical patients are in danger of a relapse on the third or fourth day after their arrival at a sanatorium at a high altitude. For example, one of his patients who had had two slight attacks of hæmorrhage before coming to the sanatorium suffered from a severe hæmorrhage and great increase of general weakness on the third day after his arrival. Such a relapse may be in part the result of the fatigue of a long journey and a part of the suddenly changed climatic conditions. As a precautionary measure Penzoldt advises that for the first two to twelve days the patient should be kept at rest in bed in a room that is not given during and after a hæmorrhage, and where the [illegible] precaution is very great the patient should be kept warm in the bed [illegible] the windows shut. The [illegible] should not be [illegible] by the [illegible] treatment for the first few days, but the type of view [illegible] is not to be long that they might [illegible] important loss. It might, also, be objected that he would [illegible] the stimulating effect if a sudden change of climate [illegible] he would obtain [illegible] of the [illegible] change as early [illegible] gradually, but would [illegible] the hæmorrhage.

PATHOLOGY.

(337) Urogenital Tuberculosis.

[illegible] (*Archiv. f. path. Anat.*, Bd. xxxv, H. 2 and 3) has studied the [illegible] anatomy of 41 cases of urogenital tuberculosis with special reference to the distribution of the disease and its usual primary seat. The invasion of the system by contiguity is rare, but infection of the patent tunica vaginalis, from the peritoneal cavity of the vas deferens from tuberculous coxitis, and of the kidney from tuberculous vertebral disease, have been noted. Infection of the penis and urethra from without is recorded but rare; primary disease in the system, undoubtedly usually results from infection through the blood, but anatomical proof that such lesions are the first manifestation of the disease in the body is very rarely forthcoming. Undoubtedly, however, renal tuberculosis occurs as a primary affection. ureteral tuberculosis, on the other hand, is always secondary: a primary bladder infection seldom occurs, and primary urethral tubercle probably does not occur by hæmatogenous infection. Bladder tuberculosis without infection of the kidney and ureter is very probably explained by the passage of tubercle bacilli through the latter organs without giving rise to a morbid process in them. Cases of primary urethral tubercle spreading to the bladder are not recorded, but urethral tubercle follows vesical disease in a considerable proportion of cases of the latter. It is well known that, of the testes and epididymis, tuberculosis most frequently commences in the latter and is frequently the first manifestation of the disease in the genital system; in the vas deferens it is always secondary. To what extent primary tubercle of the vesicles occurs is not known. Opinions differ as to the frequency of primary prostatic tubercle, and there is the same difference of opinion as to whether genital tubercle is usually disseminated in the same direction as the secretion stream or the opposite. From a consideration of the literature of the subject, it must be concluded that the epididymis is usually the primary seat of the disease, that it is infected through the blood stream, and that the process extends in the direction of the secretion flow. With regard to extension of the disease from genital to urinary system, or vice versa, there is no agreement among authors. From the results of the examination of his cases the writer concludes that urogenital tubercle arises by hæmatogenous infection in one or simultaneously in more than one of the following—prostate, epididymis, kidney, vesicles, and that it is disseminated in the direction of the secretion stream. Exceptions to this occur in infection of the vas deferens in vesiculitis and of the bladder in prostatitis. The prostate is frequently affected early, and probably in many cases is the primary seat. Obliteration of the vas deferens or of the ductus ejaculatorius by [illegible] or by antecedent gonorrhœa influence the distribution. Tuberculosis of the urethra may have a urinogenous, prostatogenous, or spermatogenous origin. Ectogenous infection plays no part in the development of urogenital tuberculosis. Baumgarten and Kraemer (*Archiv. ausserord. Path. Anat. Instit. z. Königsb.*) report a series of experimental observations on the development and dissemination of urogenital tuberculosis in the rabbit. The bacillus of human and that of bovine tubercle were both used: the former gave rise to localized infection, which for the most part did not spread from the point of inoculation; the latter caused a more or less widely distributed outbreak of the disease. The injections were made into the substance of the testis and epididymis, into the vas deferens after ligature of the channel below the point of injection, and also into the urethra. Injection into the testicle gave rise to a tuberculous process in the interstitial tissue, the tubules undergoing compression and the epithelium becoming necrotic; the epithelium was not observed to take part in the formation of the characteristic epithelioid and giant cells. In the animals in which the culture material was injected into the ligatured vas deferens, the tuberculous process began in the epithelium and subepithelial tissue, extending thence into the other coats; the process extended to the epididymis and backwards to the testis proper. In the latter the commencement of the process was intracanalicular, and the characteristic epithelioid cell-formation, leucocyte infiltration, necrosis and caseation were observed. The epithelioid cells appeared to develop from the undifferentiated testicular cells, the so-called cells of Tertoli. In the animals which received intraurethral injections an ulcerative tuberculosis of the floor of the bladder, prostatic and urethra and prostate was produced in many cases. In none of these, however, did the process extend to the vas deferens and testis, or to the ureters and kidneys. In seven animals injected into the vas deferens and epididymis the process extended up the vas in each case, and in five the prostate was attacked. The vas of the opposite side was affected in no case, in spite of the fact that the two unite in the rabbit, and are therefore favourably placed anatomically for the extension of disease processes from one to the other, the opposite testis and epididymis were also unaffected. When these results are compared with those obtained by intraurethral injection, they point to the following general rule that experimental urogenital tuberculosis in the rabbit always extends in the direction of the secretion stream (seminal fluid or urine), and never in the opposite direction. The writers consider that this is explained by the slight motility of the tubercle bacillus, which renders its conveyance from one part to another always a passive process; they also attach importance to the fact that it is not a "secretion parasite" like the gonococcus, the secretion acting only as a vehicle, and the organism not multiplying therein. Carried by the stream, the bacillus infects the walls of the channels through which it passes. Another channel of infection is, however, provided by the lymphatic vessels of the canals: in the vas deferens the direction of the lymph stream is the same as that of the seminal fluid: in the ureter the same conditions obtain, and the writers consider that in both cases the tuberculous process extends from the periphery to the bladder, and not in the opposite direction.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(338) Infantile Tuberculosis.

AT a meeting of the New York Academy of Medicine held on April 7th (*Med. Record*, May 7th), Rowland G. Freeman read a paper on infantile tuberculosis—its portal of entry, topography, and clinical manifestations. He said that in 1,448 successive necropsies at the Foundling and Nursery and Child's Hospitals, 158, or nearly 11 per cent., showed tuberculous disease, and this was a much lower rate than given by other writers. The assumption that the tubercle bacilli most often gained access to the human body by the respiratory tracts seemed well founded. It was still a question to what extent the tonsil was ordinarily a point of entry of the tubercle bacilli, but the lymph nodes of the neck might be safely considered as frequently the first lesion noted after the third year, and tuberculosis of these lymph nodes often existed when there were no evidences of other tuberculous lesions. Tuberculous bronchial lymph nodes certainly formed the most common lesion found at necropsy, but they were usually associated with tuberculous lesions elsewhere. Regarding the frequency of tuberculosis due to the ingestion of food containing tubercle bacilli, so far as he knew nobody in New York believed that he had ever seen many cases *post mortem* evidently due to intestinal infection, though observers in Europe reported an entirely different experience. He thought this difference might be due to a more careful search for tuberculous lesions, or to a different judgement as to what was sufficient evidence of intestinal origin. It was evident that tubercle bacilli which gained access to the body by the intestines were readily carried by the lymph stream to the thoracic duct, into the superior vena cava, the right side of the heart, and out into the lungs. Living tubercle bacilli had been found to exist fairly frequently in ordinary milk, and it had been shown by Ravenel and others that bovine tubercle bacilli were pathogenic for man. It had been demonstrated that the tubercle bacilli survived the action of the gastric juice, and the fact that lesions of undoubted intestinal origin were found confirmed the fact that they could pass through the human stomach uninjured. The statistics regarding the distribution of tuberculous lesions in children showed that the abdominal organs were fairly frequently involved. After quoting various statistics of Froebelius, Schwer, Carr, and Biedert, he thought it must be concluded that it was impossible to state the original point of invasion. He had himself tabulated the results of 158 necropsies on tuberculous children, and these showed that there were between 1 and 3 months, 4 cases; 3 and 6 months, 21 cases; 6 and 9 months, 21 cases; 9 and 12 months, 15 cases; or a total of 61 under 1 year. Between 12 and 18 months, 18 cases; and between 18 and 24 months, 16 cases; or a total of 34 between the first and second year. The average age at death was later among tuberculous children than among other children, and in infancy the disease was sufficiently acute to cause death very often before marked emaciation took place. The nutrition of the tuberculous cases was not materially worse than that of the non-tuberculous cases. The distribution of lesions in his 158 cases of tuberculosis in young children showed involvement of the bronchial lymph nodes in 126, lungs in 112, spleen in 90, liver in 66, mesenteric lymph nodes in 44, meninges in 30, small intestines in 30, mediastinal lymph nodes in 28, kidneys in 20, cervical lymph nodes in 14, and large intestine in 7. As to the general distribution of the series of 158 cases, 36 had thoracic lesions only, 92 had abdominal lesions, and 25 cranial lesions. In another table that showed the distribution of the lesions in 52 cases involving the mesenteric lymph nodes or intestines, or both, 6 cases showed thoracic lesions, but no other abdominal lesions, while 29 cases showed involvement of other abdominal organs, and the thorax and 12 cranial lesions in addition. The tuberculosis of infancy was usually an acute, widely disseminated affection which, in a considerable number of cases, involved the bronchial lymph nodes and lungs. It was usually a most obscure disease for diagnosis, and often a definite diagnosis could not be made until the meninges became involved. The lungs usually showed merely *rales* or slight changes from normal respiration, and it was only in advanced stages that consolidation appeared. The involvement of the meninges gave typical symptoms. The duration of the disease was two to three or four weeks. An unresolved pneumonia, which often it was unnecessary to differentiate from this disease, could usually be distinguished by the marked physical signs, the higher temperature, the slow course, and the much more marked emaciation. Summing up, Freeman said tuberculosis in infancy arose most often from either the respiratory or the alimentary tract, but the comparative frequency of these two modes of infection had not yet been definitely determined. The tuberculosis of early life was most common during the first year when children were on an exclusive milk diet; and much milk contained tubercle bacilli, and bovine tubercle bacilli were pathogenic for man. At this period, owing to the structure of the intestinal wall, bacteria could probably pass through, although it was uninjured. Experiments on animals showed that inhalation tuberculosis caused usually lesions of the bronchial lymph nodes and lungs alone, and, wherever the portal of entry might be, these structures became very early involved. Inoculation experiments proved that the mesenteric lymph nodes might be tuberculous without the presence of any gross lesions in them. Mesenteric or intestinal lesions could be detected on gross examination in 26 per cent. of the necropsies which he had done at the Foundling and Nursery and Child's Hospitals. The tuberculosis of infancy, unlike that of later life, was usually an acute, widely disseminated, general disease with moderate temperature and few symptoms and physical signs unless the invasion of the meninges gave rise to symptoms. Tuberculosis of the cervical lymph nodes and of the joints was rarely seen under the third year. The power to overcome a tuberculous infection that had invaded the organs apparently did not exist in infancy. While the tabulated necropsies showed a very wide distribution of the tuberculous disease in these infants, they probably indicated a much less general distribution than really existed: for the data were based on hurried gross examination without microscopical confirmation. A series of necropsies in the same institutions in which the intestines were carefully examined without separation from the mesentery, and with microscopical examination of all suspicious thickenings, he said, would probably show a much greater proportion of intestinal involvements, and a still larger proportion could be found by animal inoculations.

(339) The Diagnosis of Renal Colic.

ANGELO SIGNORELLI (*Ric. Crit. d. Clin. Med.*, April 2nd, 1904) describes a symptom of renal colic on which little stress has been laid hitherto. It is a rhythmical pulsating pain felt in the loins, and in the testicle on the side affected. He relates the history of a case in which this symptom was well marked, and states that he has observed it in other cases of renal colic, but never in any other disease. It may therefore be of importance in the differential diagnosis between renal colic on the one hand and inflammatory affections in the neighbourhood of the kidneys or the appendix on the other. The pulsations are synchronous with the cardiac pulsations, and to explain the symptom Signorelli supposes that the pain of renal colic is due not only to the pressure exercised by the stone, and to the contractions of the muscular wall of the ureter as has been hitherto believed, but also to increased tension in the kidney and its capsule. This tension would be increased at each heart-beat, and would thus cause rhythmical exacerbations of the pain.

SURGERY.

(340) Bone Suture in Simple Fractures.

KÖNIG, at a meeting of the Deutsche Gesellschaft für Chirurgie (*Deut. med. Zeit.*, May 9th, 1904), discussed the subject of bone suture in subcutaneous fractures, and expressed the opinion that where displacement is great, where the fracture is near a joint, and in fractures where union is likely to be unsatisfactory, as in the case of the femoral neck, early operative exposure, reposition, and suture is indicated. He had operated early in eleven cases and had had good results. Such interference should be undertaken within the first eight days, or the changes taking place at the seat of fracture may render the operation very difficult. The following are, in his opinion, the chief indications for the procedure: (1) Dislocation of the fragments to such a degree that a satisfactory union cannot be obtained: to this class belong many of the fractures of condyles, especially at the elbow; (2) when the fracture implicates a joint,

especially those of the humerus; (3) when the fracture is multiple or complicated by dislocation; (4) in certain fractures where imperfect union is to be feared, as in those of the femoral neck. In this case operation should be especially early, as absorption of the neck takes place rapidly. König has operated on the femoral neck in four cases, using aluminum bronze sutures and also suturing the capsule; one of these cases was a man of 70 and complete consolidation was obtained. In the discussion following Nötzel said that in Rehn's clinic the patella was always sutured also with silver wire; during the last four years thirty fractures had been sutured, including two of the lower end of the femur. He agreed with the indications given by König, and considered that the risks of the operation were inconsiderable; the indications might perhaps be further extended to cover all fractures about the femoral neck, and shortening might thereby be almost entirely avoided. Bardenheuer held that exposure of a fracture should be avoided whenever possible; even in fractures of the patella a good result could be obtained by properly-applied extension. In 13 cases of fracture of the upper end of the femur with marked displacement which he had treated by extension he had obtained union with less than 1 cm. of shortening. Satisfactory extension 15 to 25 kilog. was necessary and must be used in the direction of the displacement and with counter-extension. Similar good results could be obtained without operation in fractures of the humerus near the shoulder and the crook of extension were properly applied. Bier held that fractures which were operated on consolidated later than those treated without operation, the reason being that the presence of blood clot stimulated the process of union, and also served as nutriment to the bone. He considered Bardenheuer's extension the best method of treating serious fractures, and believed that by this means in fractures of the upper extremity of the femur union could be obtained without shortening.

(341) Operations under the Direct Guidance of the Roentgen Rays.

Perthes (*Zentralbl. f. Chir.*, No. 18, 1904) describes a method by means of which he has found it practicable to remove splinters of a broken needle from the hand by the direct guidance of the Roentgen rays. The apparatus used in this operation consisted of a small wooden table, below the top of which the Roentgen tube was placed, at some little distance a fluorescent screen working upwards and downwards like a slide at its attachments to two upright bars on one side of the table. In the centre of the top of the table could at once be overshadowed by the screen, and at another be freely exposed. Around the table were three pieces which could be moved by the operator's hand, one for steadying and lowering the screen, another for turning on and off the light, and the third for shutting off the primary current of the induction and controlling the action of the Roentgen tube. The upper extremity of the patient, which had been rendered bloodless by an Esmarch's bandage and tourniquet, was placed on the top of the small table, which together with the under surface of the fluorescent screen had been protected by aseptic cloths. The author having determined the position of the foreign bodies by the Roentgen rays, made the skin incisions under the illumination of the electric light, then lowered the screen and seized the foreign bodies by forceps, and, finally, raised the screen again, turned on the electric light, and practised extraction. This apparatus, the author states, has since done good service in the extraction of foreign bodies from the upper extremity. He thinks that by modifying its structural details it may be used on other parts of the body, and also for other purposes than the removal of metallic bodies, such, for instance, as in operations on floating articular bodies and in the treatment of fractures and dislocations.

(342) Treatment of Hydrocele.

De Smeth (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 1904), in concluding a study of the comparative value of the different methods practised for the cure of hydrocele, advocates a free and radical operative treatment. Expectation, resolvent applications, puncture with or without injection of alcohol are, he states, methods which often succeed in infants but are not to be recommended for the adult. The injection of iodine, in his opinion, is a mode of treatment which should be abandoned on account of its dangers and the uncertainty of its results. Bergmann's method—which consists in total resection of the parietal layer of the tunica vaginalis alone ensures, it is held, a rapid and positive cure. This operation has never in the author's practice been followed by any bad results, but he points out that it is necessary to carry out Bergmann's instructions thoroughly and carefully and to pay close attention to aseptic precautions. The vitality and mobility of the testes are maintained and the cure is an essentially radical one. The operation, notwithstanding the free exposure of the testis and the extensive dissection of its serous covering, is, it is stated, easy and rapid, and the patient is enabled to resume his occupation at the end of from eight to ten days, with a full assurance of freedom from subsequent relapse.

(343) The Surgical Uses of Peroxide of Zinc.

Chaput (*Bull. et Mem. de la Soc. de Chir. de Paris*, May 3rd) brings under notice the value of peroxide of zinc as a local application to fresh and granulating wounds and to certain forms of cutaneous eruption. This substance is a white powder, the chemical formula of which is ZnO_2. It is a hyperoxidized oxide of zinc, having a feeble affinity for its second atom of oxygen, which is given off very readily. Oxygenated water, which is much used by French surgeons and regarded by them as a valuable antiseptic agent, has but a restricted range of application. When used in compresses it is very irritating for a time, and as the oxygen is rapidly given off the dressing soon ceases to be more than one of simple water. Peroxide of zinc, it is stated, meets the need of a pulverulent substance for dressing purposes, that does not irritate the tissues, and is capable when in contact with wounds of giving off oxygen slowly. From a long and varied trial of this agent in actual practice, Chaput concludes that it gives excellent results in the local treatment of wounds, being neither toxic nor caustic, and capable of being readily sterilized by heat. It is not more costly than dermatol or iodoform. When applied simply as a powder, or in a gauze dressing, or in the form of ointment, it gives very good results in the treatment of both fresh and infected wounds, of sluggish wounds, and of eczematous eruptions. In uterine and vaginal dressings it has been found a useful substitute for aseptic and iodoform gauzes.

MIDWIFERY AND DISEASES OF WOMEN.

(344) Precocious Menopause.

Siredey (*Comptes Rendus de la Soc. d'Obst. de Gyn. et de Péd. de Paris*, December, 1903) relates 5 cases of this condition. Case I. Patient 35, rather stout and gouty. Period began at 17; patient married at 22, never pregnant; no genito-urinary disease. Catamenia regular till 32, then menopause symptoms complete at 33. Cervix atrophied. Case II. Patient 36; period began at 14, always regular thenceforth until nine months before observation, then they ceased completely, with mild general symptoms. The cervix was atrophied; the patient had borne a child when 25. Case III. Patient aged 26. Period began in her 17th year; at 18 she had typhoid fever severely; the period ceased never to return. Her health remained good; at 22 she married, but never became pregnant. Three years after marriage she contracted syphilis and separated from her husband. When under observation she had been successfully treated for haematemesis. The cervix was effaced. She occasionally felt flushings in the cheeks, but her health was otherwise good. Case IV. Patient 32. She had been diabetic for a year at least, probably longer; but the period had ceased entirely for six years. It appeared at 15; the patient married when 23, and was never pregnant. At 26 the catamenia ceased suddenly; mild general symptoms persisted for a few months. Emaciation and weakness followed; ultimately sugar was detected in the urine. There were large pigmentary patches on the cheeks, backs, and hands. The patient died of diabetic coma when under observation. Case V. This seems to be a true instance of superinvolution. Patient 22. The period appeared at 18; she married at 20, a few days before a period, and at once conceived. Delivered at term she suckled her child for two months, and then became a wet nurse, suckling for fourteen months another child which was reared and became strong. The catamenia never reappeared, menopause symptoms were observed. The cervix was small, and the uterine body also below the normal size observed in parous women. About a year later the process of atrophy had advanced. In none of these cases was the abnormal menopause so severe

as that which is often seen when both ovaries are removed by operation. Siredey is not certain that the menopause in Case 3 was due to the attack of typhoid fever; that disease is very common, yet it seldom affects the catamenia permanently. He doubts whether the fourth patient was diabetic when the precocious menopause was established six years before death. The diabetes which proved fatal was of a very rapid type. Lastly, Siredey dwells on the fact that the catamenia began relatively late in life in all these cases.

(345) Modified Porro Operation.

C. WAGNER (*Amer. Journ. of Obst. and Diseases of Women and Children*, February, 1904) describes a modification of Porro's operation, which consists in the removal of the body of the pregnant uterus with the fetus *in situ*. He first performed this operation upon a woman, six and a-half months pregnant, after labour pains and the loss of liquor amnii and blood had continued for two days. The patient suffered from carcinoma of the cervix, whose size and position prevented either natural delivery or vaginal Caesarean section, while the fear of the onset of puerperal fever due to the state of the cervix contraindicated abdominal Caesarean section. The operation lasted seventeen minutes; a living fetus was extracted from the amputated uterus and lived for two hours. The mother made an uneventful recovery. Wagner first saw the second patient in June, 1902, when her condition necessitated opening the abdomen to evacuate pus, raising the uterus and putting it in contact with the parietal peritoneum. She afterwards became pregnant, and two months before delivery was attacked by typhoid fever. During this illness she constantly felt pains which simulated labour pains. There appeared to be slight contractions of the uterus which caused intense pain in the median line from just below the umbilicus to the vagina. Through the thin abdominal wall a hard rigid mass could be felt distinct from the soft uterus. The patient declined to be taken to hospital until the end of the seventh day of labour, when chills, nausea, and fever up to 102.5° F. set in. An abdominal hysterectomy was decided upon for the following reasons: The fixation of the undilated cervix by adhesions prevented natural delivery, *accouchement forcé* or vaginal Caesarean section. Abdominal Caesarean section was contraindicated because of the danger of leaving a potentially infected uterus covered with raw surfaces where adhesions had been broken down; should infection not occur, these raw surfaces would lead to the formation of stronger adhesions, which might cause serious complications; finally, fatal haemorrhage might follow if contraction of the uterus were hindered by the already existing adhesions. Porro's operation was negatived as more dangerous and as offering no substantial advantage compared with Caesarean section. At the operation adhesions were present all over the uterus, and on its anterior part an adhesion 2 in. in width and ½ in. in thickness had produced an almost rectangular kink in the uterus in its lower segment. When this band was tied off and separated the uterus immediately straightened itself, but further adhesions had to be cut through before it could be drawn wholly into the abdominal cavity. The ovarian artery and broad ligament were next tied; the uterus was lifted up by an assistant and the cervix firmly grasped with the operator's left hand; four forceps were inserted into the uterine tissue just above the neck to serve as landmarks for the incision and to control the stump. The fundus was amputated with scissors, the fetal head and membranes being protected by an assistant, who pushed them back when once the uterus was opened. The procedure took only one minute. The conically-formed stump which was left was easily manipulated, the pressure of the left hand on the stump preventing haemorrhage. A healthy child was delivered from the amputated uterus, and mother and child left the hospital well at the end of twenty days.

(346) Primary Echinococcus of Uterus.

DE VRIES (*Monats. f. Geb. u. Gyn.*, March, 1904) reports a case which was recently observed in an Amsterdam hospital. The patient was a single woman, aged 20, admitted into a surgical ward for dysuria and abdominal pain. The symptoms had lasted for a week, and after constant desire to make water retention occurred. The bladder was found distended to the umbilicus but urine was dribbling away. A uterine tumour was detected. At the end of a month the tumour had not grown larger, interstitial myoma was diagnosed, but at the operation it proved to be a true hydatid cyst. The uterus was removed and the patient recovered. De Vries relates previous cases, and considers that only seven genuine examples of echinococcus of the uterus have been reported. In other alleged cases the cyst simply entered the uterus from the peritoneum or viscera through pressure absorption of its walls. Freund denied that the disease was ever primary in the uterus, but de Vries considers that the cases related by Grailly Hewitt, Beigel, Scanzer, and Treub were undoubtedly primary. The parasite usually enters the genital tract by perforating the rectal wall and passing through the pelvic connective tissue. On the other hand, primary development has certainly been observed in the uterus, tubes (Doléris and Vautein), and ovary (Schultze, Chemnitz, Generali, and Bland-Sutton). The parasite probably enters through the circulation.

THERAPEUTICS.

(347) A New Serum for the Treatment of Dysentery.

BOTH Shiga and Kruse have independently produced bactericidal sera for the treatment of dysentery, and in practice both yielded a considerable reduction in the mortality of this disease. L. Rosenthal gives the results of his investigations in the same direction (*Deut. med. Woch.*, May 5th, 1904). Working with rabbits and guinea-pigs, he succeeded in immunizing them by injecting first dead and later living cultures, and found that after much difficulty and many failures several guinea-pigs could be protected against ten or even twenty times the minimum lethal dose of the culture. The blood agglutinated in the proportion of 1 in 100 or 1 in 200, and when cultures of the bacillus of dysentery were introduced into the peritoneum of the immunized animals they (the bacilli) were rapidly killed. The serum of these animals was found to possess both protective as well as curative properties. He next attempted to produce a curative serum which could be used for human beings. Horses were immunized with cultures and toxin, and their serum was found to agglutinate dysentery cultures in a dilution of 1 in 1,500. The bacilli were killed in a space of three to seven hours. The serum could be inactivized by heating to 55° C. for half an hour, and could then be reactivized by adding fresh normal serum. In the animal body it proved to be strongly bactericidal and also antitoxic. Rosenthal employed this serum in human subjects during an epidemic of dysentery from June 14th to October, 1903; 157 patients in all were treated in this way, and of these about 15 per cent. were first injected during the first three days of the illness; in 50 per cent. it was not begun until the second half of the first week, in 25 per cent. during the course of the second week, and the remaining 10 per cent. were admitted at a still later date. No purgatives were given, and the only other medication employed was caffeine and tincture valerianae. The average dose of the serum lay between 20 c.cm. and 40 c.cm., while in the more severe cases, this dose had to be repeated a number of times. The highest number of doses of 20 c.cm. was 7. When the patients could be seen during the first few days, the illness could be cut short in from 1 to 2 days, the blood and mucus disappearing from the stools in this time, and the tenesmus and pain also being removed. The action was further distinct when the treatment was begun at the end of the first week, and recovery followed fairly soon. In all, 8 out of the 157 patients died in the hospital, and 3 others had already recovered from their dysentery, and died of phlegmonous tonsillitis and aspiration pneumonia, tuberculosis of the lung and of tuberculous meningitis. For comparison he finds that 7 deaths occurred in uncomplicated dysentery, that is, about 4½ per cent. The uncomplicated cases in other hospitals in Moscow and in the same hospital before the treatment was introduced gave a mortality percentage of from 10 per cent. to 11 per cent. In conclusion he states that the serum acts beneficially on all the subjective and objective symptoms, the course of the illness is shortened and the cases very rarely go on to a chronic form. The mortality is reduced to about one half of what it is without this form of treatment.

(348) Treatment of Paralysis Agitans.

R. FRIELLANDER (*Zeit. f. diät. und phys. Therap.*, March, 1904) discusses the treatment of paralysis agitans. Up to the present no cure has been found for this disease, and so great an authority as Oppenheim says that the doctor can do little good and much harm by treat-

...ent. The seat of the primary anatomical lesion is still not known, although modern investigators tend to locate it either in the muscles and peripheral nerves than in the central nervous system. The use of electric baths has been much recommended and Schnée ... that about 50 cases so treated ... testing improvement resulted. The author's experience of this method has not been so favourable, although temporary improvement has been obtained. The baths have a sedative effect and lessen the tremors, but they do not touch the muscular rigidity to which the main symptoms are due. He has, however, by means of passive and active movements of the affected muscles been able to obtain a certain amount of improvement and to limit the spread of the disease. Any exercises which strain the muscles are contraindicated, but passive movements carried out carefully, slowly, and without the exercise of more force than is needed to overcome the increased resistance of the flexor muscles, are found to diminish the muscular irritability. The tremors also decrease with the rigidity. The movements of each joint may be repeated five to ten times at a sitting. The parts of the body not being exercised are kept as far as possible supported and fixed. A light massage of the skin is combined with the movements. The effect is at first only momentary, but if the exercises be repeated daily a lasting improvement follows in the lighter cases, and some improvement even in those which are more severe. Active exercises are beneficial when by exertion of the will power a temporary intermission of the tremors and control of the muscles is still possible. The power of these controlling cerebral impulses may be increased by exercise. The patient at first concentrates his attention on checking the tremor of one part as of a hand or foot. Although in the beginning he can do this only for a short time, his power increases until he is finally able to accomplish without a specially strong effort what ... He is not allowed to tire himself in his attempts. He next tries to ... against the impulses of position, and practises first when sitting down ... trying to hold the different limbs ... In the intervals, by active exertion of the will he lessens the rigidity of the antagonistic flexor muscles. A ... is provided to correct ... The hand is extended at the ... and then ... and ... especially practised. Although to walk on a ... one first directly ... of the body, walking ... recording the increase of ... of the feet. Patients who are ... reading to practise the ... taking ... special exercises for the ... The method is ... and ... of the ... and ... of the ... Finally, ... the ... available.

(349) Cocaine and Adrenalin.

... [illegible] ... adrenalin mixture, the chief being that, in virtue of its vasomotor constriction and interference with absorption, the adrenalin renders the ... cocaine solutions of a dilution which without it would be useless. The addition of 3 to 5 drops of 1 to 1000 of adrenalin to 10 c.cm. of a 1-100 cocaine solution makes the latter more efficient than a 1 to 2 per cent. solution without the addition. A cocaine solution to which this proportion of adrenalin has been added may be employed for injection around an operation area for anæsthetising the sensory nerves leading therefrom. Considerable areas can be anæsthetised in this way whether inflamed or not. For tooth extraction Braun employs a solution of 1 to 1 eg. cocaine in 1 to 2 c.cm. salt solution with the addition of 2 or 3 drops of adrenalin. Half is injected in front and half behind the tooth to be extracted, at the level of the root as near the periosteum as possible. The tooth can be extracted after five minutes without pain.

(350) Trachoma Treated with Roentgen Rays.

PARDO (*Gazz. degli Osped.*, April 10th, 1904) reports 2 cases of trachoma which derived marked benefit from the application of x rays. The first case was aged 60, and had suffered from double trachoma for three years. In the right eye there was dense pannus, abundant catarrh, and congested iris. The left eye was similarly affected, but to much less degree. The second case was aged 14 and the disease had lasted two years. A Crookes's tube with a spark about 700 mm. was used at a distance of 45 to 50 cm. for four to ten minutes at a time. Only one eye was treated, the other being carefully protected with a metallic shield. About six applications were made in each case at intervals of three days. As a result of the treatment the conjunctiva became smoother the secretion ceased, the pannus cleared, and there was marked improvement in vision in the first case. In the second case many of the tarsal follicles disappeared, the secretion diminished, and there was considerable improvement in the subjective symptoms.

PATHOLOGY.

(351) The Influence of Bovine Tuberculosis on Human Health.

At a meeting of the New York Academy of Medicine on April 7th, Maryk P. Rayne read a paper on this subject (*Med. Record*, May 7th). He referred to the correctness of his belief in the intercommunicability of the disease, and to his having for years held that he had established by facts and lessons which were irrefutable. The study of the relations of the tubercle bacillus in man and in animals showed no difference that could aid in determining the origin of the disease. The tubercle bacillus had greater pathogenic power for animals experimentally. He considered the increased susceptibility in animals, the existence of the bovine ... the effects of bovine tuberculosis ... He reported cases in which there was great resistance to ordinary methods of treatment and cure only obtained after radical excision of the affected parts. He said that the belief that the dried sputum spread tuberculosis was the commonly accepted one, but this was not supported by clinical evidence. He said it was the bovine tuberculous material taken as food that played a part in causing human tuberculosis. Experiments had shown that the tubercle bacilli could penetrate the healthy mucous membrane and not leave any track, and the lungs might become affected through infection by way of the intestines. The figures regarding primary lesions were not at all to be relied upon, because they were not at all uniform. He thought that no doubt the tonsil was the portal of entry for the tubercle bacilli in many cases, although he greatly believed in infection from the ingestion of tuberculous meat from cows. Bovine tuberculosis was a scourge, specially on farms near large cities.

(352) A Bacillus Present in Syphilitic Lesions.

WAELSCH (*Arch. f. Dermat. u. Syph.*, 68, Heft 1 and 2) records observations on the presence of Niessen's bacillus in cases of syphilis, particularly with regard to its presence in the blood and cerebro-spinal fluid of syphilitics and in the discharge of primary chancres. Two excised chancres and two cases of enlarged inguinal glands associated with untreated chancres were examined bacteriologically. In 1 of 35 cases of secondary syphilis a bacillus was found in the blood identical with that of Niessen, Paulsen, and Joseph and Pierkowski; it was not present in the cerebro-spinal fluid. It was not found in the excised chancres or in gummata, but was obtained from the discharge of two chancres and in abundance from the discharge from a papular eruption of the scrotum and buttocks. From the above mentioned excised glands it was isolated in pure culture; it was not found in the blood of non-syphilitics. Inoculation of guinea-pigs and rabbits with culture was followed by a negative result, but in three pigs and an ape multiple injections produced after several weeks an erythematous, papular, and urticarial nature which did not appear to possess any syphilitic characteristics. The bacillus was not isolated from these animals, and when killed the pigs showed no lesions in internal organs, the ape only a diffuse tuberculosis. A pseudo-diphtheria bacillus, similar in all respect to Niessen's bacillus, was isolated by the author from preputial secretion, and from the skin of the genito-crural fold and the axilla. It is remarkable that a considerable number of observers have independently isolated the same bacillus from syphilitics. Waelsch comes to the conclusion that it is not the bacillus of syphilis, but an organism which gains entrance to the body through primary syphilitic lesions, being commonly present in the skin and in the preputial secretion. From the primary sore it reaches lymphatic glands, and thence the blood stream. The experiments of Niessen are subjected to an exhaustive criticism.

AN EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(353) Oxaluria.

G. TOEPFER (*Wien. klin. Therapie a. d. Ziesam. prak. Heil.*, March, 1904) discusses at length the theories and clinical facts in connexion with oxaluria. The symptoms described by different authors as accompanying the presence of calcium oxalate in the urine gives no clear idea of what state is indicated by the term oxaluria. Cantani, indeed, has drawn a comprehensive picture; but by far the greater number of observers report cases in which no such nervous symptoms as he describes accompany oxaluria, and there is no experimental evidence to connect the nervous symptoms and the oxaluria. To discover to what extent oxaluria was present in patients suffering from other diseases and how far it was merely the result of a particular diet investigations were made on hospital patients: it was found that calcium oxalate was present in the urine of not more than 5 to 6 per cent. of the patients, and that if present the amount was not increased by the ingestion of any vegetable rich in oxalic acid. It cannot, however, be denied that oxaluria may in a few cases result from the administration of oxalic acid, although in the vast majority it must follow some resorption or assimilative anomaly. It has never been definitely connected with any recognized pathological factor, such as fever, anomalies of circulation, new growth, or infective processes, nor with any affections of a particular organ; although clinically the condition may appear to depend on retarded or disturbed metabolism, there are many theoretical objections to the proposition. Some investigators deny the possibility of the oxidization of oxalic acid within the body, and if such a possibility be allowed the amount of oxalic acid found in the urine is so small compared with the whole amount of carbon taken in that its presence can hardly depend upon a defect of the metabolism of the body as a whole. It is also to be remembered that metabolism, while dependent in part on the amount of oxidization, depends also on the nature of the molecular formation of the food substances. There can be no doubt that an excess of lime in the diet—as when methyl-glycol or glycocol is given—leads to oxaluria: but this fact is obviously capable of the interpretation either that oxaluric patients take in too much lime or that the metabolism of oxaluric patients with respect to lime is abnormal. To explain the presence of nervous symptoms in some cases of oxaluria and their absence in others, we must suppose either that oxaluria is merely a prominent side-effect of an unrecognized pathological change on which, and not on the presence or absence of oxaluria, the irritation symptoms depend, or that the oxaluria is the cause of the nervous symptoms, but can only cause them when there is some local nervous defect or lowered resistance. The author would limit the name of oxaluria to those forms of illness in which, independently of ingested oxalic acid, there is an increase above the normal in the output of calcium oxalate, and in which clinical observation shows that the symptoms of the illness or a distinct increase in their severity date from the time when oxalate of lime appeared in the urine. To account for the different diet found useful in the different cases two theories may be advanced. One is that oxaluria leads to different results in different types of constitution, and thus in diabetic patients a purely meat diet does good; while in "uratic" patients meat should be altogether withdrawn. Or it may be that we have to do not with an abnormal cell metabolism, but with abnormal changes of food stuffs in the intestinal canal, the changes affecting in some cases the proteids, in others the carbohydrates. In all cases digestion should be aided in every way, and fresh air, exercise, massage, etc., are indicated. The only cases in which foods containing oxalic acid should be forbidden are those to which there is a marked tendency to the formation of calcium oxalate stones.

(354) Chronic Diphtheria.

L. NEUFELD (*Deut. med. Woch.*, May 12th, 1904) deals with the chronic forms of diphtheria. According to Concetti, diphtheria follows a chronic course in two ways; in the first form the disease sets in as an acute disease, and passes on to a chronic stage; while in the second form it may be of very long duration, extending over months or years, and present a pseudo-membranous deposit in the pharynx, or there may be no signs which point to the diphtherial nature of the condition, and only when the ulceration which is found in these cases leads one to make a bacteriological examination, is the nature discovered. Neufeld reports on such a case. The patient was a young woman of 21 years, who had been in hospital four weeks on account of a severe carbonic oxide poisoning. When she was discharged she was handed over to Neufeld for out-patient treatment, on account of some sore throat. She appeared very pale, and was very weak. In the fauces there was seen considerable reddening, and the left half of the posterior pharyngeal wall was covered by tenacious purulent secretion. The turbinated bones were swollen, especially the anterior end of the middle, and the mucosa of the nose was reddened. There was also some purulent secretion in the nose. Regarding the case as one of rhino-pharyngitis due to the CO poisoning, he proceeded to paint the affected mucous membranes with a mild astringent. The passage of a small tampon caused the patient so much pain that she fainted. On examining the throat at this juncture, he found that some blood was flowing from the naso-pharynx. This made him come to the conclusion that the case was not one of ordinary pharyngitis, and on examining the patient carefully on the following day, by clearing away the secretion, he discovered a small not very deep ulcer on the left side of the posterior pharyngeal wall, about half an inch below the uvula, and extending toward the tonsil. The diagnosis appeared to lie between tuberculous and syphilitic ulcer, but there were no other changes in any part of the body which could help him to decide which of them it was. More out of scientific curiosity than because he hoped to have the diagnosis cleared up, he made a streak culture on blood serum (Loeffler), and to his surprise he obtained a pure culture of Loeffler's diphtheria bacilli. These proved to be fully virulent. There was a history of a mild sore throat sixteen days after admission into the hospital. The ulcer did not heal up for five months, but there was not the slightest sign of any pseudo-membrane during the whole period. Neufeld discusses the association of atrophic ozaena with this condition, and speaks of a few bacteriological studies which he has made with the common form of atrophic rhinitis.

(355) Inherited Predisposition to Phthisis.

M. BURCKHARDT (*Zeit. f. Tuberk. und Heilstatten*, February, 1904) deals with the theory of hereditary predisposition as a cause of phthisis. He has examined into the history of the families of 250 tuberculous and 250 non-tuberculous patients, and has found tuberculosis present in some other member of the family in 66 per cent. of the first class and in 42 per cent. of the second. Among the brothers and sisters of the patients one or more suffered from tuberculosis in the case of 38 per cent. of the tuberculous and of 18 per cent. only of the non-tuberculous patients. This taken alone might suggest inherited predisposition, but the number of the patients' fathers who had suffered from tuberculosis was found to be practically the same for the two classes, and direct infection among the brothers and sisters rather than inheritance therefore becomes a more probable explanation. The mothers were more often affected with tuberculosis in the case of the tuberculous patients, but the opportunities of infection from mother to child are very frequent, far more so than those from father to child. Many more of the brothers and sisters of the parents of the tuberculous than of the non-tuberculous patients were affected. Here, again, it is more easy to suppose a direct infection than a latent predisposition present in the parent (as shown by the occurrence of tuberculosis in his immediate family) and transmitted to the child. The possibility even of such latent transmissible predisposition is not beyond question. Many more of the tuberculous than the non-tuberculous patients gave a history of tuberculosis occurring in a grandparent, but such a history is probably of little value. Patients have often no accurate knowledge of the cause of death of their grandparents, but if tuberculosis has caused death the fact is more likely to be remembered by a patient who himself suffers from the same disease. Burckhardt concludes that when looked at without prejudice such statistics are in favour of direct infection rather than hereditary predisposition as the cause of tuberculosis.

SURGERY.

(356) Treatment of Pulmonary Fistulae.

GARRÉ (*Deut. med. Woch.*, No. 15, 1904) discusses the operative treatment of

bronchial fistula, which condition, he points out, is a frequent result of both the spontaneous discharge and the surgical removal of the contents of suppurating cavities and of hydatid cysts in the lung. In some instances of bronchial fistula, almost exclusively those in which the canal is short and not surrounded by dense scar tissue, cure, it is acknowledged, may be effected by the application of the actual cautery, but most frequently the closure of the fistula cannot be brought about by any milder procedure than a cutting operation. The extent and nature of such treatment should depend on the varying indications presented in these cases, and on the mechanical conditions favouring the persistence of the fistula. Spontaneous closure is prevented in some cases by a thickened and indurated pleura, in some by adhesion of the pulmonary pleura to the margins of the external opening, and in others again by adhesion of the walls of the fistula to the periosteum of an overhanging rib. Hence, in one case excision of the thickened parietal pleura is indicated, in another case simple separation of this membrane from the thoracic wall, and in the third case more or less extensive resection of ribs together with removal of cicatrized skin. In closing the fistula by suturing, the author uses catgut for the pulmonary tissue and silk for the pleurae. He insists on the cautious and restricted use of the sharp spoon in dealing with an open pulmonary cavity, and points out that by too free scraping of its inner surface one or more large bronchial branches may be exposed. The difficulty often experienced in dealing with cases of bronchial fistula is shown in an instance recorded in the British Medical Journal, in which, after extensive resection of ribs and curetting and closure by sutures of a pulmonary cavity, it was found necessary at a subsequent operation to detach the greater part of the inferior lobe of the affected lung from its close attachments to the thoracic wall, in order that it could be drawn into the external wound and sufficiently exposed for the successful application of pulmonary and pleural sutures. The author is opposed to the practice of very free resection of ribs, especially when applied to young patients. To weaken the thoracic wall more than is absolutely necessary exposes the growing patient not only to the danger of curvature of the spine but also to that of persisting atelectasis and shrinking of the lung. This latter result may be best prevented, he holds, by early operation for closure of the fistula. If such treatment prove successful the lung will very speedily expand and fill up the pleural cavity, and when there has occurred bronchitis and the discharge of the pulmonary circulation will soon cease. In cases of tuberculous disease, and especially where tuberculosis is associated with bronchial fistula, it would be better, in many instances, to adopt a plan of leaving the lung rather than the thoracic wall untouched. Resection of the lung, though an operation in pulmonary surgery not to be lightly undertaken, will, it is thought, be found useful in this respect that the prospects of Delorme's method are very good when the operation is undertaken with pulmonary suturing.

(357) A Special Variety of Acquired Deformity of the Leg.

Kirmisson (*Rev. d'Orthop.*, No. 3, 1904) describes and gives clinical examples of a variety of acquired deformity of the leg, which is named floating pseudarthrosis of the tibia with luxation of the upper extremity of the fibula. This condition, which presents constant external characters, is marked by incurvation of the tibia with convexity of the knee outwards, and by luxation of the head of the fibulae. It is produced either as a result of a pseudarthrosis following resection of the tibia for osteomyelitis, or in consequence of unequal development of the two halves of the superior epiphysis of the tibia, as occurs, for example, in tuberculous osteitis. It is held that the constancy of the characters presented by this deformity gives it a special interest, and claims for it a place in the list of acquired malformations of the skeleton. The deformity in question, if there be no contraindication of operative treatment, may be successfully dealt either by resection of the tibia to such an extent as to adapt the length of this bone to that of the tibia, or by fixing the fibula to the superior fragment of the tibia with the object of rendering the first-named bone the main support of the body. In commenting on the cases observed by himself and recorded in this paper, Kirmisson expresses the opinion that primary resection of the diaphysis of a long bone for osteomyelitis is a bad operation. As the surgeon is now able by the aid of the antiseptic method to ward off the dangers of septicaemia, it is held to be better to give the periosteum time to form new bone, so that when the sequestrum is removed there will be no risk of interruption of osseous continuity.

(358) Calculus in the Ureter.

Tenny (*Boston Med. and Surg. Journ.*, No. 5, 1904) in some conclusions based on a study of 134 cases of calculus in the ureter, this list including reports of three new instances, insists on the importance of an early diagnosis, and the relative safety under such condition of extraperitoneal ureterotomy. Intermittent pain on one side, with varying amounts of red blood in the urine, are, it is pointed out, constant symptoms of stone in the ureter. The x rays cannot yet give evidence sufficient in itself to warrant the surgeon in operating or refusing to operate on certain cases. A calculus passing from kidney to bladder may be caught within an inch of one of three places the first about 7 cm. below the kidney, the second just above or below the brim of the pelvis, and the third as the ureter enters the bladder wall, all of which are accessible to the surgeon through an extraperitoneal wound. As a rule there is but one calculus, but the exception occurs, according to the author's statistics, about once in eight times. The opening in the side of the pelvis for removal of the calculus should be sutured if possible. The recovery is often delayed when sutures are not used. The information as to the operative methods practised in 122 cases upon which a cutting operation was performed are not precise, but it is stated that extraperitoneal ureterotomy has been done 34 times with 5 deaths. In conclusion, the author holds that a calculus in the ureter is a menace not only to health but to life, and its removal is an operation of low mortality, provided it be undertaken before secondary changes appear in the kidneys.

MIDWIFERY AND DISEASES OF WOMEN.

(359) Coincident Tubal and Intrauterine Pregnancy.

Simpson (*Amer. Journ. Obstet.*, March, 1904) publishes a valuable monograph on this subject, tabulating 113 cases with full references; other reported instances are rejected for reasons fully explained. In his own case diagnosis of early ruptured pregnancy was made, and then it became clear that the uterus contained an early living fetus. The abdomen was opened, a little free blood welled up, and omental adhesions were separated from the uterus, which lay rather to the left of the middle line, and was about four months pregnant. To the right posteriorly, and chiefly in the pelvis, lay a sac containing more than a pint of coagulum adherent to every structure in its neighbourhood; it was set free and removed. The uterine pregnancy was not interrupted, and delivery occurred at term; the mother and child were both saved. The parts removed consisted of the outer 3 in. of the right Fallopian tube, the right ovary, a tubal mole, an adventitious sac, and about a pint of clotted blood. The tube formed a big sac, with a ragged laceration on its upper surface three-quarters of an inch in diameter, and occupied in part by a tubal mole. The fimbriae and ostium were normal. Thus in this case there had been rupture of the tube into the peritoneal cavity and not into the broad ligament, and there was no difficulty and little risk in saving the uterus; indeed, the normal pregnancy was not affected.

(360) Bilateral Tubal Pregnancy.

Jayle and Naudrot (*Rev. de Gynec. et de Chir. Abdom.*, March-April, 1904) publish an important collection of cases illustrating this condition. No less than 29 are collected. Diagnosis is impossible under certain conditions, easy in many cases. The patient is usually a multipara. The actual coexistence of two fetuses has only been observed at operation in 10 out of 28 cases; in the others one ovum was only represented by relics of conception. There was never evidence that conception was simultaneous, nor did the two pregnancies ever develop together. There is no special line of treatment; the two tubal sacs must be removed by operation. Jayle and Naudrot favour the preservation of one ovary with the uterus. In a case in their own practice it proved very beneficial to the patient.

(361) Cancer of Ovaries in Girl aged 14.

Koltschitzky (*Ann. de Gynec. et d'Obst.*, March, 1904) had under his care in December, 1903, a girl aged 14. About a year before she passed a tapeworm and was subject to colicky pains in the abdomen. Six months later she observed that the abdomen was getting large, and the increase in size had

steadily advanced. In September, 1900 violent lancinating pains were felt; they disappeared at the end of three days: dull constant pain with exacerbations continued until admission into hospital. The period had never appeared, but the patient did not look younger than her age. A movable, somewhat tuberous mass, bigger than a fist, could be felt in the abdomen; malignant disease of the ovary or omentum was diagnosod. It was removed and was found to be a medullary carcinoma of the right ovary. The left ovary, of the size of a walnut, was also removed; it was the seat of the same form of malignant disease. During convalescence there was rise of temperature for over six weeks; the cause could not be defined. On November 24th, 1902, nearly two years after the operation, Kouznetzky examined the patient and found no local or general evidence of recurrence; the patient had grown very much, and was in excellent health.

(362) Fibromyoma of the Round Ligament of the Uterus.

H. R. SPENCER (*Journ. of Obst. and Gyn. of the Brit. Emp.*, Feb., 1904) describes a case of fibromyoma of the intra-abdominal portion of the round ligament of the uterus. The patient, an unmarried woman, 24 years of age, complained of a swelling in the abdomen, and of pain on the right side of the abdomen. Menstruation had begun at 14, and had been always regular and moderate in amount; there had always been pain at the period. The amount of the discharge had diminished during the preceding year. The abdomen was found to be distended to the size of an eight months pregnancy, by a tumour reaching to 9½ in. above the pubes, and most prominent 2½ in. above the umbilicus. The tumour was ovoid in shape, the surface slightly uneven, with the larger end upwards; it was of moderately firm consistence, but appeared to fluctuate and gave a superficial and deep thrill on palpation-percussion. The tumour was distinct from and to the left and in front of an apparently normal uterus. The hymen was intact. The diagnosis was of a multilocular cystic tumour and abdominal myomectomy was performed. The tumour proved to be a typical fibromyoma attached to the uterus by an hypertrophied right round ligament. The patient recovered satisfactorily. Spencer gives short accounts of the 13 similar cases found in the literature. The histories of the 14 cases showed that fibroids in this position usually occur in women over 40; they are more frequent on the right than on the left side, and may be double. They may occur in virgins. They do not influence menstruation, nor tend to prevent pregnancy, nor interfere with its development. The tumours are subject to lymphangiectasis and to myxomatous and calcareous degeneration; they vary in size and may be pedunculated or sessile, intraperitoneal or subperitoneal. The pedicle may be the ligament itself, or there may be a separate pedicle attaching the tumour to the ligament. Torsion of the pedicle may occur. Special symptoms due to the tumour are often not marked. Ovarian uterine and broad ligament growths may be closely simulated. The tumours should be removed as soon as they cause symptoms, or reach a considerable size. Of 11 cases operated upon 2 died, but these fatal cases occurred 20 years ago.

(363) Prolapse in a Newborn Child.

BÜRGER (*Zentralbl. f. Gynäk.*, No. 19, 1904) recently exhibited before the Obstetrical Society of Vienna a child, aged 14 days, born with prolapse of the uterus and vagina. A spina bifida was situated at the level of the fourth lumbar vertebra, and paralytic lesions of several types were observed in the lower extremities. Not only were the glutei muscles undeveloped, but the perineal muscles were also involved. Bürger considered that the case might throw some light on the causation of prolapse. In his case it was due to atrophy or imperfect development of the musculature of the pelvic floor due to a cause quite self-evident. Possibly there is more or less defect in the pelvic floor from less manifest nerve lesions in other types of prolapse.

THERAPEUTICS.

(364) The Treatment of Hay Fever.

E. FICK (*Therap. Monats.*, April 1904) deals with two methods of treating hay fever; first, by means of Dunbar's antitoxin and, secondly, by his own method by employing aristol. Dunbar's treatment is based on the assumption that all hay fever is due to the effect of the toxins of grass pollen. The author considers that Dunbar starts on a false premiss. His experiments with pollen introduced into the nose of persons and producing attacks of hay fever in those who had had this disease before, but not in others, is open to criticism since the amount of pollen introduced was enormous as compared with the number of pollen which can be gathered in the air under the most favourable circumstances. Next Dunbar refers the eye symptoms to the direct action of the pollen on the conjunctiva. Mohr has recently proved that by protecting the nose by means of a fine filter the attacks keep off altogether and no eye symptoms take place. It therefore follows that some other cause must act in producing the eye symptoms. Our experience teaches us that other things beside grass pollen can produce hay fever. For example, some people get an attack of this malady as soon as they come into contact with the blossoms of the lime tree, or of roses and many others, which the so-called autumnal fever is generally accepted as being due to the blossoms of the artemisia absinthium. Fick considers that the antitoxin which, according to Dunbar, produces a short lived immunity, does not and cannot have any action at all. In the second part of his paper he deals with his theory of the etiology of hay fever. To start with, the patient is always neurasthenic. The attacks themselves are directly caused by the action of some agent, of which grass pollen is the most common, but by no means the only one. The nasal symptoms are the direct effects, and the eye symptoms are reflex symptoms. He goes on to give his reasons for denying that the nasal symptoms are due to vasomotor disturbances, while he tries to show that irritation of the nerve endings of the trigeminal causes a hypersecretion. The hypersecretion in the case of hay fever is localized in the antrum of Highmore, and the fluid finds its way into the middle nasal fossa naturally. He states that he has found in aristol a means of curing all forms of nervous coryza, including hay fever, when it is applied locally to the affected part. He is able to pass a cannula, which is very thin and curved in correspondence to the lower turbinated bone, into the maxillary antrum in about 95 per cent. of all cases. Through this cannula he blows the aristol powder into the antrum, and finds that, as a rule, this need only be done six or seven times to produce a complete effect. By way of illustration, he appends a number of cases which have been treated successfully in this way. At first he applies the powder every day for three days, after which time the attacks become much less frequent and milder, and often stop altogether. When they recur, he again repeats the insufflation.

(365) Treatment by Radium.

O. LASSAR (*Berl. klin. Woch.*, May 16th, 1904) reports results from the application of radium. He states that he has turned his attention to the treatment of heteroplastic tumours of the surface. The application of the rays is quite harmless, and there are no side-effects of an unpleasant nature. The radium is applied by enclosing 1 mgr. of radium bromide in a small capsule, and fixing this capsule on the skin by means of strapping for one half hour each day. This is not sufficient to produce inflammatory or necrotic reactions, but pathological structures undergo shrinking, maceration, and eventual resorption and disappearance. He demonstrated cases of cancroid of the face, which had been completely healed up by these means, as well as other growths. The resulting scars were smooth and no trace of the original growths could be detected. With regard to the cost of the treatment, Lassar points out that the Roentgen apparatus is more expensive, and that when one has once purchased the radium bromide the cost is exhausted, since this substance is practically inexhaustible, whereas one has always a great deal of trouble and expense in replacing the Crookes-Hittorff tubes for the Roentgen apparatus, and that it needs a constant expenditure to keep the latter going. In order to insure that the damaging effects of radium rays do not come to pass, he insists that the treatment must always be carried under immediate medical supervision, and that the slightest trace of irritation, be it in the form of swelling, redness, or discoloration, must be the index to interrupt the treatment. He has not had occasion to regret having applied the treatment in a single case. In describing some of his cases, of which he reproduces photographs, he points out that he has been able to deal with success with cases of cancer of the breast, after operation, when there has been a local recurrence. Some cases were considered as hopeless, the recurrence being inoperable and at the time of writing, he says that there is no

longer any need for an operation. The cases are cured.

(366) The Stability of Diphtheria Antitoxin.

Marx, working at the Frankfort Institute of Experimental Therapeutics, reports (*Festschrift zum sechzigsten Geburtstage von Robert Koch*. Jena: Gustav Fischer, 1903, p. 457) that from March, 1895, to June, 1903, samples of 1,191 diphtheria antisera were tested, and out of that number 34, or 3·08 per cent., were withdrawn from circulation owing to loss of strength. Out of the 34 two were from 2 to 3 months old; 9 were from 6 to 10 months old, and 23 were between 10 and 15 months old. The sera sent to be tested were not newly-prepared sera, but were, as a rule, several weeks or months old. In the last few years there has been a marked diminution of the number of sera rejected: whereas 12 were discarded in 1895, only 2 were found deficient in 1902, and a similarly satisfactory result was obtained in 1902.

(367) Percutaneous Application of Camphor in Tuberculosis.

The effect of subcutaneous injections of camphor in the treatment of tuberculosis of the lung, especially in the advanced stages, has been reported on by Alexander in 1895. This treatment is said to have an antipyretic effect, to produce sleep and to check night sweats. W. Koch (*Berl. klin. Woch.*, May 2nd, 1904) has used camphor in phthisis for two years, and is very satisfied with the results he has obtained. While he does not claim that the treatment is specific, he considers it a very powerful aid in the therapy of the disease. In order to avoid the pain produced by ordinary injections of camphor, he carried out the injections in the muscles of the back. He found it advisable, in order to obtain a fresh and reliable fluid, to prescribe camphor 5·5 grams in ol. olivar. spt. 50 grams, which has to be especially prepared, the strength being different from the ordinary camphorated oil (ol. camphoratum, Germ. *Pharmacop.*); of this preparation he injected 1 gram. The results which he noticed in this method of treatment were: (1) The temperature sank to the normal line and remained normal for a considerable time, (2) the expectoration was lessened, and was coughed up more easily; (3) the night sweats ceased, (4) the patient gained in weight, (5) the cavities showed a tendency to close. The patients in the second stage gave still better results. Many of them lost all the symptoms of their disease and remained well. Some, however, were only relieved, it being found that it would be much more satisfactory if it could be carried on for a considerable time. Many of them were quite at work, and some pursued their business, but they were until they had been given injections. The results of camphor given by mouth were unsatisfactory, and he therefore [illegible] it through the skin as the easy of an external application. The vehicle which he employed was a preparation called pecutilin, and to 100 grams of Peru balsam of Peru camphorated oil, as a small [illegible] of the oil [illegible]

mary. He calls the complete ointment "praevalidin." It is put up in tin tubes to prevent the evaporation of the camphor, and each tube contains 20 grams, a quantity which should be rubbed in five equal parts on five successive days. The results obtained by this method are exceedingly good. He illustrates this by giving the details of selected cases. With regard to haemoptysis, he states that, contrary to some statements, he has found that it certainly does not increase this complication. In one severe case it appeared to arrest the haemorrhage and directly save the patient when other means had failed. He claims that, if one can speak of cures after three years' observation, he has some cases of complete cure in the second stage of the disease to notify. As an expectorant in empyema and bronchitis, too, he has found it of use, but he warns one to be cautious in applying it in gravid women, as it appears to be used as an abortive in the East, and in two of his cases abortion followed its use.

(368) Durante's Injections in the Treatment of Phthisis.

Salvatore D'Auria (*Il Morgagni*, April, 1904) describes 4 cases of pulmonary phthisis treated after Professor Durante's method by injections composed of 1 gram of iodine, 10 of potassium iodide, 5 of guaiacol, and 100 of sterilized olive oil. He finds the effects of the treatment to be (1) cessation of fever after a few injections; (2) modification of the physical signs of the disease, even up to the complete restoration of normal conditions; (3) complete disappearance of night sweats; (4) cessation of cough and diminution of expectoration; (5) great increase of appetite and body weight; (6) complete disappearance of Koch's bacilli from the sputa; (7) Injections well tolerated by the patients.

(369) Treatment of Elephantiasis.

Elder and Matthew (*Edin. Med. Journ.*, December, 1903) report a case of elephantiasis of the leg in a young woman, contracted in Burmah. The limb was thickened from the thigh to the foot, and the outlines of the bones were lost. The limb was hard and brawny, and the skin dry and harsh. Perspiration was absent and tactile sensation diminished. During the early years of the disease there were feverish attacks resembling influenza, which may have been the "elephantoid fever" of Fayrer. No filaria were found in the blood. Treatment consisted in rest in bed, light diet, baths and massage. The constant current and electric baths were also applied daily. By this means the leg gradually diminished in size until it differed little from the other one. Afterwards an elastic stocking was worn.

PATHOLOGY.

(370) Human and Bovine Tubercle Bacilli.

Max Beck (*Festschrift zum sechzigsten Geburtstage von Robert Koch*. Jena: Gustav Fischer, 1903, p. 111) finds the following differences between human and bovine tubercle bacilli. On all artificial media tested the bovine bacillus grew more slowly and more scantily than the human. On serum it forms a thin, uniform film projecting only slightly above the surface, in contrast to the formation of the crumbs and crusts which are typical of human strains. The addition of glycerine to the serum is favourable to the growth of the human but unfavourable to the growth of the bovine bacillus; glycerine-agar is also a distinctly more favourable medium for the former than for the latter. On broth, too, the human bacillus grows much more quickly and luxuriantly than the bovine, the latter being very reluctant to form a good surface growth, but exhibiting a tendency to grow downwards in stalactite forms and to become moist and sink to the bottom. Marked differences are also produced in experimental animals by the inoculation of equal doses of human and bovine cultures. Guinea-pigs inoculated subcutaneously die sooner when a bovine virus is used, and certain differences are found *post mortem*. The bovine bacillus produces more advanced necrotic change in the spleen and liver, but less extensive infection of the lungs than the human. When rabbits are infected either by subcutaneous, intraperitoneal, intravenous, or intraocular inoculation, bovine bacilli always prove more than virulent than human. Similar differences are obtained with mice. Subcutaneous injection with human strains rarely produces any infection beyond the glands nearest to the seat of inoculation, but with *Perlsucht* cultures the mice die in from four to five months with advanced pulmonary tuberculosis and infection of the spleen. Intraperitoneal inoculation with human cultures does not often prove fatal, though pulmonary lesions rich in bacilli can be found in mice killed six months after inoculation; similar inoculations with bovine material produce death in from one to four months with advanced pulmonary tuberculosis. Similarly, white and grey rats survive subcutaneous inoculation with human bacilli, and when killed after five or six months show only a slight degree of pulmonary infection; but with bovine bacilli they generally die within three months with generalized hepatization of the lungs.

(371) Trypanosomes.

Laveran (*Bull. de l'Acad. de Méd.*, April 26th) gives abstracts of two reports on trypanosomes. L. Cazalbon, a veterinary surgeon in the French Soudan, describes a disease of dromedaries caused by a trypanosome, probably a new one, and which is known locally by the name of "imbori." Clinically fever and emaciation are present, and the disease produces death in five or six months. The trypanosome measures 20 μ to 25 μ long by 1 μ to 2 μ broad, and in general appearance resembles that of surra. Several animals—rats, mice, etc.—are susceptible. Laveran considers that further experiments on animals immune to surra and nagana are required to decide the question of this being a new trypanosome. The second part of the paper deals with another trypanosome which affects cattle, the disease produced being locally known as "soumaya" or "souma." Cazalbon believes that a tabanus, which is very prevalent throughout the French Soudan, is the carrier of the germs from animal to animal.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

(372) Pleural Exudates.

JORGE VARGAS-SUAREZ (*Beitrage zur Klin. der Tuberk.*, March, 1904) deals with the different elements found in pleural exudates and the significance to be attached to each. Exudates may contain micro-organisms, endothelial cells, and blood corpuscles. The presence of lymphocytes in pleural exudates has long been recognized; degenerated forms are often seen and are more numerous in the older exudates. The origin of the lymphocytes has been a matter of much dispute. The author holds that they are for the most part true lymphocytes which have migrated from blood or lymph vessels, but that a few are division products of polynuclear cells. Widal and Ravant were the first to connect pleural lymphocytosis with tuberculosis. Many modern pathologists, without denying the existence of a true rheumatic pleurisy, look upon almost all pleurisies as of tuberculous origin, and clinical experience of the frequency with which tuberculosis follows pleurisy bears out this view. It is, however, difficult or impossible to demonstrate directly the tuberculous nature of the disease. Tubercle bacilli are not usually present, and inoculation experiments give negative results. The observations of primary pleurisies have shown that with a slight irritation the exudate contains at first lymphocytes, endothelial cells, and a moderate number of polynuclear cells, but that after a few days an almost pure lymphocytosis is present. Lymphocytosis may therefore be accepted as a sign of slight irritation; and as such irritation is usually tuberculous, may be accepted as a proof of the tuberculous nature of the pleurisy. The 13 cases of pleurisy with lymphocytosis of the exudate which are described support this theory. In one case there were undoubted signs of phthisis at one apex, in another general miliary tuberculosis. In several disease at one apex was suspected, in others the family history or the symptoms suggested phthisis. The exudate in secondary chronic tuberculous pleurisies is of a different character, being rich in fibrin and poor in cells, and these cells being chiefly degenerated forms. It resembles the exudate of true rheumatic pleurisy. In the case of rheumatic pleurisy described the exudate contained only some scattered cells, lymphocytes, endothelial cells, and erythrocytes. Endothelial cells in an exudate are only of diagnostic value if they are present in large numbers. They are then characteristic of dropsical effusion or new growth, and exclude the possibility of an inflammatory exudate that is, they exclude a diagnosis of tuberculous pleurisy. A large number of polynuclear leucocytes point to a more acute irritation of the pleura of an infectious nature, and are only found in tuberculous pleurisies in very recent cases or in cases of mixed infection. Eosinophile cells are found in many exudates, most frequently, perhaps, where endothelial cells are also present they, therefore, are suggestive of a non-inflammatory exudate. In the case of new growths of the pleura or peritoneum a diagnosis can often be made with certainty by an examination of the exudate. Portions of the growth can often be made out by the naked eye. Kreb cells can be distinguished as irregular clumps differing in shape and size from the endothelial cells. They contain one or more nuclei, and karyokinetic figures can often be observed. The protoplasm shows vacuolation and fatty degeneration.

(373) The Detection of Traces of Blood in the Stools.

G. JOACHIM deals with the importance of detecting traces of blood in the stools, which has been possible since Weber introduced a method some eleven years ago (*Berl. klin. Woch.*, May 2nd, 1904). This method consists in shaking up the motion with acetic acid and ether, so that in the fluid extract acetate of haematin will be found, if there is the least trace of blood, and this may be recognized by means of the guaiacum-turpentine test. All other substances which can colour the guaiacum-turpentine mixture blue are excluded by making this extract. Rossel devised an improved modification, in that he got rid of the fat from the material to be examined, and further advises the use of aloin instead of guaiacum. Joachim not only has tested the reliability of these tests, but has also examined the stools of all patients to see in which minute traces of blood can be found. With the exception of one patient, who it was afterwards found out had been eating "blood" sausage, no trace of blood was found in the stools of any of the patients, in whom such an occurrence could not be explained. After bleeding of the nose minute traces were found; less frequently was this the case after haemoptysis. Persons suffering from pneumonia with blood-stained sputum did not show any blood reaction in the stools. In cases of diseases of the digestive tract the test is of greatest importance. First he mentions malignant tumours, and found that in each case, save one of carcinoma of the oesophagus, Weber's test was positive; the colour was, it is true, rarely deep, but it was very constant. In ulcer of the stomach, although he found blood in the stools in 83 per cent., he found that it differed from the cases of malignant disease, inasmuch as it was rarely constant; but, as a rule, at one time there was a large quantity of blood present, and at another time it was absent. Other ulcerative conditions of the intestinal passages appear to lead to the appearance of blood in the stool far less often than the two named above. In tuberculous ulceration he did not find it in a single case, while in typhoid, out of six cases two showed it. In one the haemorrhage was patent macroscopically, while in the second the bleeding was very slight, and could not have been detected in any other way. In a rare case of mercurial poisoning blood was found regularly in the motion. In general congestion of organs due to cardiac disease blood was found repeatedly, but in congestion of the portal system due to cirrhosis of the liver he failed to demonstrate it. In catarrhal jaundice, at the height of the attack, it was frequently found, while in cholelithiasis it was always absent. The positive reaction in secondary carcinoma of the liver pointed to the primary growth being situated in the intestinal tract. In a case of carcinoma of the head of the pancreas no blood was found in the stool, but in haemorrhagic pancreatitis the test was positive. In testing the delicacy of the two tests he gave a person 3 grams of blood to drink, and found that both tests were positive, but the aloin test was the more distinct. At times the aloin test was positive, while the Weber's test was negative; but he advises in all doubtful cases to control the one by the other. The possible sources of error lie in the swallowing of food containing uncooked blood, and in the presence of blood from menstruation and from piles.

(374) The Passage of Food Stuffs from the Stomach.

OBSERVATIONS with the *x* rays upon cats whose food was mixed with bismuth nitrate have been carried out by W. B. Cannon (*Amer. Journ. of Phys.*, vol. x, p. xvii, February, 1904). By measuring the shadows of the food in the intestines, the proportion which had left the stomach was calculated. Carbohydrate food was found to leave the stomach more rapidly than fat, and much more than proteid. This is explained by assuming that free acid is the stimulus that opens the pylorus. Since proteid combines with the acid of the gastric juice, there is an interval until more acid has been secreted than is sufficient to combine with all the proteid present, after which, the acid being free, the pylorus opens. With carbohydrate food, since no such combination takes place in the stomach, the contents become acid sooner, and hence leave the stomach sooner. By making the proteid food acid and the carbohydrate alkaline before administration, the results were reversed, and the proteid was passed on more quickly. Cannon points out that the presence of acid chyme in the duodenum causes closure of the pylorus, which continues until the duodenal contents are made alkaline with the bile and pancreatic juice, and not until this has happened can the acid in the stomach again open the pylorus to let through more food. Thus proteids are retained in the stomach until acted upon by gastric juice, and the intestine is guarded automatically from receiving more acid food than it can deal with at one time.

SURGERY.

(375) Perigastritis consecutive to Gastric Ulcer.

DELAY AND CAVAILLON (*Rev. de Gynéc. et de Chir. Abdom.*, March-April, 1904) basing their conclusions on 14 cases under Jaboulay, are convinced that the adhesions of perigastritis represent the degree of activity of ulceration in the gastric mucous membrane. When the ulcer begins to heal the adhesions become absorbed and the pains disappear. It is rarely that the adhesions play an independent and mechanical

part in producing symptoms and complications; the authors are here alluding to those cases where a long, tough, fibrous band presses on the middle of the stomach so as to cause acute obstruction or to drag on it so as to set up pain. It is the ulcer that must be treated rather than the adhesions; operative indications must be based on pain, vomiting, the general condition of the patient and, above all, resistance in the epigastrium. The perigastric deposit implies active ulceration, and is a constant menace of perforation and suppuration. Operative interference must be thorough; mere liberation of adhesions is insufficient, and may be dangerous. Gastro-enterostomy is excellent, and allows the ulcer to heal, but it does not cure. Resection of the ulcer is the ideal operation, and suppresses the cause of the adhesions. It should always be done when the seat of disease is conveniently placed, on the anterior aspect of the stomach for example. When the whole wall of the stomach is involved, the organ being reduced to a rigid tube, total exclusion of the stomach might be practised with the view of keeping the ulcer from irritation due to contact of food and gastric secretion. Abscess and perforation are the complications of perigastritis. For abscess the usual rule must be followed—drainage without disturbing adhesions. This is very easy when the abscess has entered the gastro-hepatic or subhepatic, but very difficult and dangerous when placed behind the omentum in the lesser peritoneal cavity. The transmegacolic route with marsupialization of the cavity by fixation of the great omentum to the parietes is recommended by the authors.

(376) The Surgical Treatment of Trifacial Neuralgia.

Oppel (*Vestn. of Practitioners Med. Bull.*, No. 2, 1904) reports a case of removal of the Gasserian ganglion for recurrent trifacial neuralgia on the right side after intracranial neurectomy of the superior maxillary nerve. Eight months after the date of operation anæsthesia had persisted, but it had been found necessary to resect the right eyeball. In this case the author expresses the opinion that the best method of operative treatment in intractable trifacial neuralgia as yet known is the intracranial. In the majority of intracranial methods it is held that the mortality is high, and owing to extensive manipulation the liability of complete removal of the ganglion was diminished. Anderson, of the more peripheral branches has been recommended as likely to give permanent cure, but the results are not satisfactory. Others suggest that difficulties in the way of removal of the ganglion may be overcome by the intracranial method of Hartley-Krause, but this operation has been accompanied by many complications. The original Hartley-Krause operation has undergone several modifications. The method of Frazier may be mentioned, in which the ganglion is reached by opening a trephine hole in the skull, and the fibres of the nerve divided by preliminary ligature of the external carotid. It is pointed out that in removal of the ganglion other nerves than the ophthalmic are liable to be injured. In the author's case the third and fourth nerves were paralysed for a time after the operation and the sixth nerve was probably destroyed. The same number of this *Medical Lecturer* contains a translation of a paper by Van Gehuchten (*Le Névraxe*, vol. v) on the operative treatment of trifacial neuralgia. This author, regarding the question from the point of view as an experimental investigator in neurology, recommends as a much superior operation to simple division or resection of nerves the abrupt tearing out of the peripheral branches of the trigeminal nerve. This, which he regards as a rational method of treatment of trifacial neuralgia, ought always, he holds, to be attempted before recourse is had to Krause's method which should not be performed, as Lauwers insists, until all medical means and the whole series of rational peripheral resection, have been exhausted. If, contrary to the results of his experimental investigations recovery from trifacial neuralgia after the operation here proposed should fail, then according to the author resection of the Gasserian ganglion remains the only resource. The resection, however, in such a case should be physiological rather than anatomical, and consist simply in the division of the large root on the inner or proximal side of the semilunar ganglion. These views are based on the results of experiments, which show that the tearing out of one or the other branches is followed by rapid atrophy of the corresponding cells of the ganglion, and that division of the large posterior root results in permanent degeneration of the fibres of the central stump.

(377) Effects of Smokeless Powder on the Skin.

Johnson (*Ann. Surg.*, No. 5, 1904) publishes the results of some experiments he has recently made with the object of determining the effects on the skin and the clothing of the discharge of pistols loaded with smokeless powder. The following conclusions are drawn from these experiments, which, however, are acknowledged by the author to be few in number and by no means complete: (1) The marks upon the skin and clothing produced by smokeless powder are much less distinct and definite than those caused by black powder. (2) With the weapons used in these experiments (Colt's automatic pistol, calibre .32 and .38, the Luger automatic pistol, calibre 7.65 mm., the Mauser repeating pistol, calibre 7.63 mm.) such marks are no longer produced when the distance exceeds 1 foot and the shot is fired at the naked skin. (3) At a distance of 3 in. or less powder marks may be present, but they will always be faint, and may be in many instances be wiped away from the skin with a wet or dry cloth. (4) If the pistol be discharged at a part of the body covered by clothing no powder marks at all will be found on the skin. The clothing will never be scorched no matter how near the weapon is held. If the clothing be of wool no powder mark is likely to be detected upon it even at the closest range unless under the microscope. If the clothing be of linen a faint mark may be found on it if the weapon were discharged at a distance of 3 or 4 in. or less. If the distance much exceeded this no mark would be produced.

MIDWIFERY AND DISEASES OF WOMEN.

(378) Bossi's Dilator.

J. W. Ballantyne (*Journ. of Obst. and Gyn. of the Brit. Emp.*, February, 1904) has used Bossi's dilator in eight cases of complicated labour. The first case was one of eclampsia in a primipara. The pelvis was narrow both at the inlet and outlet, the fetal head presented in the right oblique diameter unflexed, with the forehead leading. The patient was brought to the hospital in an eclamptic fit, and the fits continued during the first two hours after her admission, while labour made no progress. Dilatation of the cervix by Bossi's dilator was then begun, and completed in twenty minutes. It was necessary to perform basilysis before the child could be extracted, and the third stage was complicated by hoemorrhage due to adhesion of the membranes to the uterine wall. The history of the puerperium was one of gradual recovery; the patient was able to leave the hospital three weeks after delivery. Bossi's dilator was used in a second case of eclampsia occuring in a primipara who was 6½ months pregnant when labour set in. The cervix was very rigid and dilatation to 3 in. took about thirty-five minutes. The fetus was easily delivered, but was not viable. The patient made an uninterrupted recovery. In a third case of eclampsia, the pregnancy had advanced to the eighth month. The patient when first seen had had twenty fits in close succession, and was in a semi-comatose state. Dilatation up to nearly 4 in. was accomplished in fifteen minutes, the child was delivered, and both mother and child did well. Ballantyne maintains that when it is necessary in cases of eclampsia to empty the uterus, Bossi's dilator is the best agent known to us at the present time. The next case in which the dilator was used was one of extreme rigidity of the cervix complicated by the presence of albumen in the urine. Uterine action was powerful but ineffective, and was not influenced by chloral or morphine; when labour pains had continued fifty hours, the os was about 2 in. in diameter. After an unsuccessful attempt at digital dilatation Bossi's dilator was employed, and by this means the os was stretched to 4 in. in about thirty minutes. The child was delivered by forceps and did well. The mother made a good recovery. In the fifth case, one of narrow pelvis, the cervix was dilated to induce premature labour in the hope of obtaining a living child. Dilatation was performed in about an hour, and the child was born alive. The mother recovered satisfactorily. The next case was one of narrow pelvis and post maturity of pregnancy. To induce labour a rectal bougie was passed, but dilatation was exceedingly slow, and was completed by means of Bossi's dilator. The seventh case showed a series of complications—hydramnion, placenta prævia, face and neck presentation, rigidity of cervix, etc. The fetus was an anencephalic monster with limbs bent until they were lying over the

dorsum. Dilatation was the more difficult because the uterus was in a state of constant spasm and there was no proper presenting part to fit into the cervix. Bossi's dilator tended to pass into the open mouth of the fetus, but in spite of this unexpected difficulty the cervix was finally stretched to a little over 3 in. The dilator was not as satisfactory in this case as in the earlier ones described. The patient recovered completely. The last case was one of severe internal and external uterine haemorrhage. In spite of every effort uterine contraction could not be excited, the haemorrhage persisted, and the patient became pulseless. Dilatation was completed by the dilator in ten minutes. The child was stillborn, and the mother succumbed to renewed haemorrhage. The eight cases described were all difficult and serious, and it is for such exceptional circumstances that Ballantyne recommends Bossi's dilator. The instrument is a powerful one and care and skill are therefore needed to prevent the production of serious lacerations. The distal ends of the blades of the dilator must be inside the os internum; the four-bladed dilator is preferable to the eight bladed one, as being more easy of insertion and as permitting the operator to introduce a finger into the cervix to note the state of the lip. The danger of septic trouble is not one that depends on the instrument in itself, but upon the complicated and dangerous nature of most of the cases in which it is usually employed.

---

(379) Urinary Chlorides and Pulmonary Oedema in Pregnancy.

BAR AND DAUNAY (*L'Obstét.*, March, 1904) note how it is retention of chlorides that provokes the oedema characteristic of Bright's disease, whilst a dechloridizing diet causes the oedema to disappear, or at least to diminish. As milk diet is eminently of this kind, it is natural that it should be so successful in the treatment of the albuminuria and oedema of pregnancy. It is systematically enforced in French maternities for oedema without albuminuria in pregnant women, whilst water diet is prescribed when there is danger of eclampsia, the oedema being considerable. Bar and Daunay recently had to deal with a patient admitted into their maternity in a desperate condition, pulmonary oedema was marked, and there was much albumen in the urine. Delivery occurred, and the general condition began at once to improve owing to the diet on which the patient had been put from the first. Water alone was allowed for a time, then when the symptoms improved water and milk were given alternately, and at length milk alone. Thus by a dechloridizing diet a very bad case was saved.

---

(380) Cyst of Mesentery: Obstruction after Operation.

HEIDENHAIN (*Monats. f. Geb. u. Gyn.*, March, 1904) operated upon a woman, aged 72, subject for many years to an abdominal tumour which had recently assumed enormous proportions, causing the parietes to bulge, especially on the right. Its surface was smooth, and it reached to the ribs above and to within two fingerbreadths of the pubes below. Resonance was dull all over except on the right superiorly, a little distance below the margin of the ribs. The genital tract appeared quite separate. An exploratory puncture was made, and fluid mixed with grease escaped. Then the abdominal cavity was opened, and a reddish orange-coloured tumour exposed. The resonant area above and to the right was due to a coil of small intestine intimately connected, not by inflammatory adhesions, to the wall of the tumour. There were no adhesions of the tumour to the parietes. The parietal peritoneum was sewn to the peritoneum over a small area bounded by a circle, then an incision was made within the limits of the circle and its edges sutured to the skin. The contents, 3½ pints of pultaceous grease, were removed by the hand which reached the attachment of the mesentery. The cyst cavity was packed with iodoform gauze. Shock was very severe. Acute obstruction set in on the third day, and it was relieved by puncture of the intestine with a trocar. Two days later the puncture was repeated. On the seventh day the gauze was removed and a quantity of fetid pultaceous material escaped. Drainage was employed and the patient recovered. Schwarz, in a discussion on this case, expressed distrust of the practice of sewing the cyst to the parietes. It seemed better to enucleate the cyst, and, should there be fear of obstruction, to resect more or less of the gut, and unite the divided ends with the aid of Murphy's button or by suture alone. This practice avoided the perils of kinking of intestine, so probable when the cyst wall is left behind and sewn to the abdominal wound.

THERAPEUTICS.

(381) Heat Rays in Finsen's Light Treatment.

THE principle of Finsen's light treatment depends on the assumption that the violet and ultra-violet rays are the chemically active rays. W. Scholtz (*Berl. klin. Woch.*, May 2nd, 1904) points out that these rays have no penetrating power, and that the action is therefore absolutely superficial. Since he has been using a special "triplet" lamp with separate pressure and cooling lenses, and exceptionally intense illuminating power, he has begun to doubt if the heat rays should be considered as undesirable in the light treatment. He gives a comparison of his lamp with the Finsen apparatus, which goes to show that his light possesses rays which traverse interposed layers of tissue more readily than the Finsen lamp. He further shows that his lamp produces a large number of heat rays, and as these have the power of penetrating into the depths of tissue, he inquires how far they are of therapeutic value. His experiments tend to show that a large amount of the action of the light treatment is due to the penetrating heat rays. He first tested the action on gelatine, which he controlled in the following manner: Taking a sheet of gelatine or agar of about 1 cm. in thickness, he allowed the light to pass through it. The result was that the yellow light was scarcely absorbed at all, and that therefore no heat action was seen. When the gelatine was coloured blue, the heat acted on the anterior surface almost immediately and soon dissolved a hole through the gelatine. If he pressed a cooling lens against the anterior surface of the coloured gelatine, then only the deeper layers became fluid. The action of the cooling lens was to prevent the local action of the heat rays. His experiments with bacteria lead to the same conclusion. Lastly, he tested the action on normal skin. Passing the rays through a pale yellow light filter through a blue light filter and also directly without any filter, each for twenty minutes, he found that in the last case, a moderate erythema developed in twenty-four hours, while in the first two cases, no change was seen. Next he passed the rays through a piece of guinea-pig's skin on to the human skin. When he used either the yellow filter or no filter, blisters or burn scabs formed after twenty-four hours, while when the blue filter was used, no alteration was found. If a few drops of a methylene-blue solution are injected into the subcutaneous tissue, the action of the penetrating rays will be found to be locally intense, producing a hard infiltration of the part. On these grounds, he considers that the deeper acting heat rays can exert an action on tissue and bacteria, which in certain conditions, such as lupus, in which the brownish nodules are found, may even act electively. He hopes that his theory of the action of the heat rays may be able to influence the effect of treatment by light considerably.

---

(382) Epidural Injections.

A. STRAUSS (*Therap. Monats.*, February, 1904) recommends that certain disorders of the genito-urinary system should be treated by epidural injections. These injections appear to owe their effect to the irritation of the roots of the cauda equina; the irritation spreads to the medullary centres, and changes their functional condition. Strauss agrees with Cathelin and Kapsammer in the view that the particular fluid employed is not of vital importance. He himself used at first Koch's salt solution, but substituted for it later Schleich's solution, No. 2, omitting the morphine, and found that this solution caused less local tenderness. Later still he omitted the strong cocaine from Schleich's solution, and could perceive no alteration in his results because of the change. He gives the results of his treatment in 32 cases. Out of 8 cases of enuresis both by day and night, complete recovery occurred in 1 case, in which an operation for phimosis was undertaken at the same time; in 2 cases the diurnal, but not the nocturnal, enuresis disappeared; in 2 cases there was permanent, and in 2 temporary, improvement. Recovery was also obtained in both of 2 cases of incontinence of urine of adults, in 2 out of 3 cases of spermatorrhoea, in a case of prostatorrhoea, in 2 out of 3 cases of impotence, and in 1 of neuropathic polyuria. In other cases there was marked improvement. In 1 case of sexual neurasthenia the improvement was possibly due to "suggestion." Great temporary relief was given to 1 severe and obstinate case of pruritus

patients. The number of injections in the earliest cases varied from 6 to 20, but as time went on the earlier injections were given more frequently than the later. In many of the cases recovery occurred after the first injection. Except for some local tenderness no unpleasant effects followed the injections. The conclusions arrived at are that the operation is free from risk, is easily carried out, and causes, with proper methods, only slight local tenderness. When all other methods have failed, epidural injections may bring about a speedy cure or improvement, but relapses are not unknown. The procedure is indicated in cases of infantile enuresis, of incontinence of faeces without mechanical cause, of spermatorrhœa, and of neuropathic polyuria, etc. It forms a real addition to the methods of treatment at present recognized and the indications for its use may well become more numerous as time goes on.

(383) The Prevention of Tuberculosis in Children.

Herman M. Biggs read a paper on this subject before the New York Academy of Medicine on April 7th (*Med. Record*, May 14th). He thought there could be no question that the factor of so-called heredity in the causation of tuberculosis was largely explained through house infection, and this is now most authorities accepted. In a family in which a case of pulmonary tuberculosis existed, an infant was seriously exposed to the danger of infection through breathing the air which might contain the bacilli, through kissing, or through the transfer of food from the mouth of the mother to that of the infant, as was frequently the case, especially among the lower classes. As the child grew older it was exposed even to a greater extent, because, while crawling on the floor the hands were likely to be soiled by the expectoration carelessly discharged on the floor or the dust that was wiped up from the floors and mopping sheets and which was transferred directly to the infant's mouth. There was also the possible infection through the use of infected eating utensils and the taking of milk from tuberculous cows. The infant of an infected family was more exposed to the possibility of infection than any other member of the family. There was comparatively little danger that young children would be seriously exposed to tuberculous disease from quite infrequently after the child had at least reached the age of 5 or 6 years, that was, outside the family. What the preventive measures might have been adopted in any case to the protection of children under 10 years. He said the principles which had been established and adopted by New York City during the past ten or twelve years, and which consisted chiefly in the provision of hospital accommodations for advanced cases of consumption in the interest of sanitation and in the education of the people in personal hygiene, as to the nature of the disease and the proper disposal of the expectoration, should receive a large degree of attention, and should be followed by lower death rates from tuberculous disease in the early periods of life. Certain data showed that during the ten-year period ending in 1900 there had been a decrease of nearly 30 per cent. and that during a period of twenty years the decrease had considerably exceeded 50 per cent. in the death rate from pulmonary tuberculosis and tuberculous meningitis in children under 15 years of age. With the extension of the regulations which were now being enforced, and a wider dissemination of information for the care of advanced cases, he looked for a still further rapid reduction in the death rate in this early period of life. It seemed to him that these data afforded perhaps greater encouragement in the crusade for the prevention of tuberculous disease than any other which were at command.

(384) Dionin.

A. Rahn (*Therap. Monats.*, May, 1904) recommends dionin either in combination with morphine or alone. It increases the effect of morphine either as a narcotic or in the treatment of irritative cough. When used as a narcotic two doses of 2 to 3 cgr. are given six and three hours respectively before the dose of morphine. If this is done ½ to ¾ cgr. of morphine taken by mouth will be enough to give sleep. In the treatment of a cough the dose of morphine can be reduced to a minimum if 1½ to 2 cgr. of dionin be given six times a day. Dionin without morphine is useful for a dry cough and in asthma, in neurasthenia, in nervous and atonic stomach disorders, in cachetic conditions, in neurasthenia of women when there is chronic disease of the adnexa, and as a sedative in the treatment of children. The dose varies from 2 to 4 or occasionally 5 cgr. In many of these conditions the author attaches importance to the drug being taken in solution, slowly, through a straw or glass tube.

(385) Treatment of Gonorrhœa in the Male.

Behring (*Therap. Monats.*, February, 1904) gives the following details of the treatment of gonorrhœa in v. During's clinic. The diagnosis having been made by the discovery of gonococci in the urethral secretion, a suspensory bandage is ordered, and the diet regulated by the exclusion of all stimulating articles of food and drink: if there be marked phimosis circumcision is performed. If injections cannot be begun immediately, sandalwood oil is ordered, or gonosan or helmitol. When acute inflammatory signs are subsiding daily irrigation is commenced with potassium permanganate 1 in 4,000. It is injected with Zeiss' hand syringe to the amount of 200 to 300 c.cm. After about fourteen days the concentration is increased to 1 in 2,000. The patient meanwhile receives two to three injections daily of argin, protargol, or nitrate of silver 1 in 1,000 to 1 in 1,500, but these injections are not returned in the urethra. After about six weeks a drop of secretion may still be expressed from the urethra, but the gonococcus is usually absent; to kill persist silver nitrate is used by the surgeon, while the patient uses permanganate at home, 1 to 3 per cent.) occasionally sulphocarbolate of zinc is used at this stage. If cure is delayed dilatation of the urethra is employed. In posterior urethritis the irrigation is carried out by passing the fluid into the bladder. If cystitis occurs, tablets of helmitol (0·3 gramme) six daily are prescribed, and if the prostate becomes involved massage is practised twice weekly.

PATHOLOGY.

(386) The Nucleus in Malignant Neoplasms.

Paterson (*Practitioner*, May, 1904) draws attention to certain characters of the nuclei of the cells of malignant neoplasms. Examination of sarcomata and carcinomata from various parts of the body has brought to his notice that many of the cell nuclei protrude processes like pseudopodia. In some cases these projections are the first stage in the formation of daughter cells by budding, but in others they are the beginning of a migration of the nucleus from its cell. When free they may remain in the connective tissue, or coalesce with a similar free nucleus or enter another cell. In the mitoses of certain of the cell nuclei extrusion of part of the chromation is to be seen, and it is suggested that the processes observed are analogous to the formation of polar bodies and the union of sexual elements. These phenomena can be observed more or less throughout the tumour mass, but in parts more particularly about the growing margin of carcinoma the epithelium is seen proliferating almost entirely by budding, and mitosis is practically absent. The appearances are the same as those in the cells of inflammatory exudates and in the corneal epithelium in ophthalmitis. The writer believes that at this stage the action is a simple inflammatory one, and that if the irritation subsided the nuclei would return to their normal condition, but should the stimulation be continued the above-sketched series of changes are initiated and the process becomes malignant.

(387) Tuberculosis.

The third of the recently-published (London: Bailliere, Tindall, and Cox, 1904) Harben Lectures, which were delivered in King's College by Professor Hueppe, of Prague, is devoted to tuberculosis. The lecturer regards human and bovine tubercle bacilli as belonging to the same species, and explains their differences as modifications brought about by adaptation to their environment within their respective hosts. In dealing with the channels of human infection he cites experiments which show that it is not possible to draw a hard-and-fast distinction between inhalation or pulmonary tuberculosis and alimentary tuberculosis. "If we infect animals by nutrition we need not get a primary tuberculosis of the intestines; we may get a primary tuberculosis of lungs; and if we infect by inhalation we can get a primary tuberculosis of intestines. In agreement with Behring and in opposition to Koch, he regards infection by nutrition as a serious danger, not merely to children but also as responsible for lung infection in adults.

AN EPITOME

OF

CURRENT MEDICAL LITERATURE.

MEDICINE.

(388) Erysipelas and Nephritis.

IN 1901 Langballe published a case in which chronic nephritis was completely cured by an attack of erysipelas. Einar Nyrop (*Zentralbl. f. inn. Med.*, April 16th, 1904) now describes a somewhat similar case. Langballe's case was as follows: A woman, aged 22, had diphtheria in November, 1899. The urine was then normal. In the following year the legs began to swell. In August, 1900, there was 1·6 per cent. albumen (Esbach). In spite of careful treatment the anasarca and albuminuria increased, and the general health deteriorated. The temperature was normal until December 13th, 1900, when it rose to 102.2° F. There was increased diuresis, the amount of urine passed in the twenty-four hours being on December 18th, 112½ oz. The pyrexia continued, and on December 21st the temperature was 100° F. The urine solidified completely on boiling. On December 22nd a transverse line of redness appeared above the pubes. The advancing edge was irregular, but not raised, and the reddened area was extremely tender and covered with papules resembling those of urticaria. The erysipelas spread over the loins on the right side, and then advanced over the thorax superiorly and the thighs inferiorly. On December 27th the urine contained no albumen. The next day the redness began to fade. On December 29th the temperature was 105.8°, and the erysipelas had spread over the whole of the anterior surface of the body as high as the chin, and as low as the legs. On December 30th the urine contained traces of albumen. On January 1st the temperature fell to 98.6°, and the urine was free from albumen. On January 5th a right serous pleural effusion was diagnosed. The condition remained unchanged for some time. There was diminished diuresis, only about 17 oz. of urine being passed daily; but the erysipelas slowly faded, the effusion was absorbed, and towards the end of February she got up. The urine remained normal, about 35 oz. being passed daily. In Dr. Nyrop's case, though no cure resulted, there was great improvement after an attack of erysipelas. A soldier, 25 years of age, had scarlet fever in December, 1900. During the following eighteen months he was well and passed the medical examination of a life assurance company. But then albuminuria was discovered. Between December, 1902, and March, 1903, there were bilateral pleural effusion and oedema of the legs. On March 28th there was 1.6 per cent. of albumen. On April 21st there was marked lumbar oedema. The temperature was usually normal, but was raised between April 23rd and May 3rd owing to an attack of pharyngitis. The anasarca increased and numerous hyaline and faintly granular casts were found. On May 16th there was 4.8 per cent. of albumen. In June over 2 pints of ascitic fluid were removed. On August 3rd 10 pints of fluid were drawn off from the legs by Southey's tubes. On August 10th he was seized with headache, nausea, and vomiting, and the next day erysipelas of the right leg appeared, the infection evidently having entered one of the punctures. The temperature rose to 104°. On August 24th he was apyretic. The albumen was less than 0.05 per cent., and for the first time since their introduction no fluid escaped through the Southey's tubes. The condition then slowly improved. The daily amount of urine increased from 24 oz. to 60 oz., the ascites disappeared, and the anasarca diminished. On October 3rd he got up. On February 17th the urine contained a few red corpuscles and isolated hyaline casts. The percentage of albumen was 0.8. Thus the erysipelas was followed by a reduction in the quantity of formed elements and albumen in the urine, and improvement in the general health.

(389) The Curve of Damoiseau.

SINCE Damoiseau first described the parabolic curve followed by the upper limit of a moderate pleuritic effusion, many explanations of its causation have been offered. Barjou (*Lyon Medical*, April 17th, 1904) enumerates and criticizes these theories, and records the conclusions which he has drawn from radioscopic examination. Damoiseau, whose paper was published in 1843, described the curve as ascending obliquely across the anterior wall of the thorax to reach its highest point in the axillary line, from which it descends obliquely, and reaches the vertebral column at the same height as that of its point of departure. He gave no explanation of this occurrence, but made some experimental injections and aspirations of air, the results of which were unsatisfactory. In 1869, Peter attributed the curve to the viscidity of the fluid, believing that the more fibrinous the effusion, the more marked was the obliquity of its upper margin. Clinically, however, it has been found that this theory is untenable, the curve occurring however thin the effused fluid. Garland believed that the lung by its retraction was the active agent in the production of the curve; and Ferber sought the explanation solely in the weight of the fluid. Barjou's radiographs showed that with great effusion the upper margin of the fluid was almost vertical, and that the smaller the quantity of fluid the more nearly the line approached to the horizontal. All the lines began from the same central position, corresponding to the position of the hilus of the lung. From his observations upon various stages of effusion Barjou concludes that three factors are implicated in the causation of the curve: (1) The weight of the fluid; (2) the retraction of the lung and its elasticity; and (3) the fixation of the lung within to the median line by its hilus. Peter's and Ferber's theories would not explain the fact that the curve only is present when the patient is in the erect posture, and disappears with decubitus. The curve necessitates for its occurrence not only the erect posture of the patient, but also a moderate quantity of fluid and a lung without adhesions to the wall of the thorax.

(390) Percussion of the Vertebrae in Diseases of the Heart and Aorta.

A. SIGNORELLI (*Il Policlin.*, April, 1904) describes a method of investigating the condition of the heart by percussing the dorsal vertebrae. Other authors have described an area of cardiac dullness in the back, but their observations have never been widely verified because the signs they describe can only be appreciated by those who have particularly acute senses. Signorelli claims that his method can be used at once by any observer without special practice. He reports a case in which its employment enabled a mistaken diagnosis to be rectified. The patient sits with the shoulders bent forward, and the vertebrae are percussed firmly, a finger of the left hand being interposed between the percussing finger and the patient. In normal cases, that is in all who do not suffer from disease of the heart, pericardium, or aorta, the first four dorsal vertebrae give a clear, high pulmonary sound, not very intense, the remainder of the vertebrae give a deeper and more intense sound. The method consists in comparing the sound obtained by percussing each vertebra with that obtained by percussing the other vertebrae and the back of the thorax. The deficiency of resonance which Signorelli speaks of is a relative deficiency. Thus, if the first six dorsal vertebrae give the same sound, he concludes that there is a deficiency of resonance over the fifth and sixth vertebrae. Deficiency of resonance over the spines of the first two or three dorsal vertebrae shows enlargement of the aorta; over the fourth, fifth, and sixth, or sometimes over the fifth alone, it shows increased size of the auricles, especially the left auricle, and therefore probably mitral disease; over the seventh and eighth it shows increased size of the ventricles, and especially of the left ventricle. The auricular dullness is a more frequent and constant sign than the ventricular, because the axis of the heart is directed downwards and forwards. These signs may also be given by pericardial effusion, or they may be prevented from manifesting themselves by pulmonary emphysema separating the heart widely from the vertebral column.

SURGERY.

(391) Treatment of Acute Osteomyelitis of the Upper Extremity of the Femur.

GUYOT (*Rev. de Chir.*, Nos. 2 and 4, 1904), in concluding a paper on acute osteomyelitis of the head and neck of the femur, based on a comparative study of 54 collected cases, discusses the treatment of this affection, which in this as in other examples of acute osteomyelitis should, it is pointed out, consist in bold and early incision of the infected joint. There is much difference of opinion amongst surgeons as to the extent of the operation to be performed, some being content with simple arthrotomy, whilst others advocate trephining of the neck of the femur, and others again insist on the necessity of resection of the upper extremity of the bone. The author is of opinion that there can be no single plan of treatment suitable in all cases, and that the indications for this or that method will

vary according to the special conditions of each. In incising the soft parts over the affected joint the posterior method of Langenbeck is preferred, as this affords more complete drainage than incisions made over the front of the inner surface of the neck of the femur. There can be no doubt, the author states, that good results have been obtained from trephining and even from simple arthrotomy, but in many cases resection of the head of the femur is indicated by the necessity of obtaining good drainage. This operation, however, is a difficult and dangerous one, and when successful leaves the patient with a shortened limb. In considering this problem the author suggests that in some cases it may be found sufficient to practise Bryant's method, which consists in a free arthrotomy with removal of the surface of the neck of the femur. This method it is acknowledged, is applicable only to cases coming under surgical observation at an early stage of the affection. When the tissue of the upper extremity of the femur has been much disorganized, and the head of the bone is detached from the neck, there ought not to be any hesitation in performing resection. In such cases, which form the majority of instances of the disease first seen by the surgeon, arthrotomy is insufficient, as it leaves the patient exposed to the dangers of septicaemic infection, and resection is the only resource.

(392) Resection of the Cervical Sympathetic in Basedow's Disease.

Jonnesco (*Bull. et Mém. de la Soc. de Chir. de Lyon*, No. 6, 1904), in a report on the present aspect of the treatment of exophthalmic goitre by resection of the cervical sympathetic, sums up his conclusions in the following propositions: (1) Resection of the sympathetic is the operation of election in the treatment of primary exophthalmic goitre; (2) this resection, to be rational and efficacious, ought to be practised on the whole of the cervical chain of ganglia and in addition, on the first thoracic ganglion; (3) the ganglion is already harmless (see [illegible]), while the object of removing [illegible] is preferable to perform it in two stages; (4) to determine the therapeutical result or prognosis of the sympathetic [illegible] surgeon should wait [illegible] days in the patient after the operation often passes through a stage commonly in which the symptoms of [illegible] days in the [illegible] (5) in the light of facts presented in Jonnesco's clinique, results of the operation [illegible] the first place the [illegible] of election to such condition being [illegible] my follow[illegible] after a [illegible] operation by resection of the sympathetic if the essential symptoms of the [illegible] disease are exhibited.

MIDWIFERY AND DISEASES OF WOMEN.

(393) Torn-off Fetal Head in Parametrium.

Weber (*Zeitschr. f. Geburtsh. u. Gynäk.*, Bd. li., Heft 2, p. 167). A practitioner sent a patient into the city infirmary with the following history. The woman was 25 years of age, and had borne two children, irregular haemorrhages had occurred during the past three weeks. Abortion was at once diagnosed, in fact the fetus was born all except the head, which lay in the cervix, whilst the os externum, resistant and as wide as a shilling, embraced the neck. In attempting to deliver the head by dragging the feet, the latter was torn off. The doctor tried to hook the head out of the uterus by means of his finger, but in so doing it suddenly slipped out of his touch and then he could feel a rent in the cervix. He naturally concluded that the head had escaped into the peritoneal cavity. Four hours later, when admitted into hospital, Weber found the patient remarkably free from shock or signs of internal haemorrhage, but she complained of severe hypogastric pains. The os admitted one finger easily, the uterus was firmly contracted, its cavity appeared empty, but no laceration could be detected, nor could the fornices be accurately explored. The patient was subjected to abdominal section, as it was evident from the history of the case that there had been a rupture of the uterus or cervix. No blood was found in the peritoneal cavity. The uterus was enlarged, and its peritoneal coat free from damage, but the right broad ligament was opened up by a mass of the size of a small apple, the nature of which was evident. The peritoneum of the broad ligament was incised and the fetal head extracted. There had been no appreciable haemorrhage into the right parametrium, a fact which should be borne in mind. The incision into the ligament was closed with catgut. Recovery was rapid, and within six weeks all traces of local damage had disappeared. Weber considers that this case is unique. The fetal head has been torn off in clumsy efforts to deliver a breech case. Indeed, it has even been cut off with a view to facilitate delivery, subsequent extraction proving difficult. The pushing of the small head of a three-months fetus into the parametrium, however, has not, Weber observes, been previously recorded. Precedents in respect to accidents during the delivery of an abortion are of importance, and Weber notes that Ortmann reports a singular example of version artificially induced where, after delivery of a three months fetus, the [illegible], from which the limbs had been torn off, was somehow pushed through a rent in the cervix into the right parametrium. Although the damage could be plainly defined by the finger, all attempts to extract the placenta through the rent were unsuccessful. After Weber's case, the abdomen was opened and the broad ligament incised. The placenta was removed and the patient recovered. In the case above related, [illegible] there was no [illegible] and the doctor, [illegible] and this point is not certain, [illegible] knew something about it, [illegible] in the uterus during parturition.

(394) Pseudo-eclampsia.

Glockner (*Zentralbl. f. Gyn.*, No. 17, 1904) records a case of a woman who had eighty-two fits during labour; they simulated puerperal eclampsia. The child was saved and the mother died. A cerebral tumour was discovered, it accounted for the convulsions.

(395) Cancer and Fibroid of Body of Uterus Coincident.

Glockner (*Zentralbl. f. Geb. u. Gyn.*, No. 17, 1904) reports a case where a uterus was amputated for fibroid disease, and cancer of the body discovered on examination of the tumour. The patient was 56, and the fibroid growth had been diagnosed twenty years previously. Recently she was troubled with obscure but distressing abdominal pains. On examination sanious discharge was detected and malignant degeneration of the tumour diagnosed in consequence. Zweifel removed the uterus by Doyen's method; recovery was speedy. The fibromyoma had its origin in the posterior wall of the uterus, and from the mucous membrane in the same region sprang a growth of the size of a pigeon's egg, which proved to be a malignant adenoma. The tumour weighed 9½ lb., and was undergoing mucoid degeneration. Glockner reports two homologous cases. The patient in the first was a virgin aged 73, and the uterus was removed through the vagina on suspicion of malignant disease. There was not only a small myoma but also a papillary mass springing from the mucosa on the right side of the uterine cavity, yet not over the seat of the myoma, and lastly a small tumour of the mucosa on the left side. The mucosa itself was atrophic, as was the muscular coat of the uterus. Yet this atrophic organ bore three new growths of different types, two of which at least were of recent origin. In the third case, of which Glockner gives no details, the patient was 55, and the menopause was established.

(396) Absence of Vagina: Bladder Injected in Error.

Mond (*Zentralbl. f. Gynäk.*, No. 7, 1904) was consulted by a lady, aged 40, on account of absolute amenorrhoea. The vagina was completely wanting and there was no trace of a uterus or ovaries to be detected on examination. Some years before she came under his care this patient consulted a doctor on account of abdominal pains. For three days injections of lysol were thrown into the bladder. The result was, as might have been expected, severe pain and vesical catarrh.

THERAPEUTICS.

(397) The Indications and Contra-indications of Treatment at the Seaside.

H. Waitz-Stoltz contributes to *La Policlinique* (April 15th, 1904) a study of the circumstances which make treatment at the seaside desirable or undesirable. The peculiarity of seaside treatment lies in the sea air. It is impossible to say dogmatically what is the most important property of sea air. Its most obvious characteristics are its purity, its richness in oxygen, its holding of ozone, its excessive transparency, and its high barometric pressure which causes respiratory movements to be slow and of increased amplitude. Its conse-

quences are seen in increase of haemoglobin and of red blood corpuscles, increase of metabolism and increase of the energy of all the organs of the body. In spite of these advantages, residence by the sea sometimes leads to harm, and it is necessary to study the drawbacks as well as the advantages of sending invalids to the sea. In his study of the differences between the air on the coast and inland, Wettendorff's remarks apply especially to the Belgian littoral, and are not therefore necessarily of universal application. The mean annual temperature of Ostend is higher than the mean annual temperature inland, and even 4 kilometres inland there is already an appreciably lower mean annual temperature. The sensation of coolness usually observed at the coast is therefore not a safe indication of temperature, but is probably due chiefly to the wind. Distinguishing between the different seasons, the temperature of sea air is slightly lower than that of inland air at the end of winter, in spring and in summer, but is higher in autumn and during the greater part of winter. So far, therefore, as temperature is concerned, there is no reason why a winter at the sea should not be recommended to delicate children, and to sufferers from scrofula, enlarged glands, tuberculosis of bones and joints, chronic abscesses, Pott's disease, osteo-arthritis, adenoids and tonsillitis, but the author does not recommend it for children suffering from tuberculosis of lungs, peritoneum, or kidneys, and in the case of the other diseases named above he assumes that the patient is under competent surveillance. Foggy and rainy days are less common at the coast than inland. The sea air is more humid than that inland, at least during winter, and on that ground the author recommends that during November and December sufferers from rheumatism, chronic bronchitis with abundant expectoration, asthma, gout, and affections of the larynx shall remain inland. In this connexion also he states that sea air is contraindicated in almost all cases of severe diabetes, pulmonary emphysema, arterio-sclerosis, organic disease of the heart, Bright's disease, renal and vesical tuberculosis, calculous affections, and severe neuroses such as epilepsy and chorea. To many invalids the violence of the winds is a matter of great importance. It is not uncommon during winter for a day or two of storm to be succeeded by many calm days, but towards the end of winter, and especially during March, April, and May, the storms tend to be longer and more frequent. Strong winds increase the frequency both of respiration and pulsation, and are injurious to sufferers from all forms of heart disease and from arterial sclerosis. In some patients these effects are much more pronounced when the wind blows from north or north-east, and they may not be observed at all in the case of a storm from south or south-west. Along the Belgian littoral the prevailing winds are from the south during winter and autumn, from the west during summer, and from north or north-east in April and May. The north and north-east winds are particularly exciting, and it is therefore advised that hysterical and neurasthenic patiens and those suffering from the congestive form of tuberculosis shall remain inland during spring. For children generally the months from August to November are the best for spending by the sea. A child who sleeps well by the sea is probably doing well there; one who gets comparatively little sleep, and that disturbed by dreams, is probably unsuited for life at the seaside, and should be quickly moved inland. A nervous child does badly at the sea, but turbulence and vivacity must not be mistaken for nervousness. Convalescents from scarlatina, measles, and diphtheria are better away from the sea during winter and spring. Hay fever is usually cured or alleviated by residence at the seaside, but in some cases the disease returns when there is a land breeze, disappearing again when the wind blows from the sea. In the treatment of tuberculosis especially it is important to choose the right cases, the best seasons, and the best places for seaside treatment. Rapidly progressive cases of phthisis do badly at the sea. The patients who do well are those predisposed to phthisis, either by inheritance or diathesis. Scrofulous patients, and those whose phthisis is apyretic, or attended only by febrile attacks of moderate intensity, do well. So far as the season is a matter of choice, it should be chosen chiefly with regard to the prevalent wind and to the prevalence of storms. Stormy weather, sudden variations of temperature, north and north-east winds, have the worst effects. For this reason the Belgian coast should be avoided in spring by phthisical patients. The Atlantic climate is stated to be much more suitable than the Mediterranean for patients with haemoptysis, the dry and variable hygrometric state of the latter provoking frequently severe haemorrhages. The author attaches very great importance to trees as a protection against violent and injurious winds. He states that a wind blowing over a low range of hills is deflected upwards by trees at the summit, and leaves the valley beyond in shelter, but a similar wind blowing over bare hills follows the course of the earth's surface and sweeps through the valley. The best places for the treatment of phthisis on the Belgian coast are those in which the sandhills parallel with the coast are of a sufficient height, are well wooded at the summit, and run within a couple of miles of the sea.

(398) Helmitol.

G. KELEMAN (*Die Heilk.*, May, 1904) has employed helmitol in the treatment of cystitis, and has obtained good results, not only in cystitis following gonorrhoea, but in cases of enlarged prostate, of stricture, and of papilloma. Helmitol is a white powder, soluble in water, especially in water containing carbonic acid, and has a not unpleasant taste: it can be obtained in the form of compressed tablets. In an alkaline solution it allows much formalin to separate off. It was tried for the most part on severe cases which had resisted other treatment. The first case was that of a man, 40 years of age, whose first attack of gonorrhoea five years before had been followed by many relapses. He complained of strangury and of periodical attacks of frequency of micturition; he had, moreover, suffered for years from chronic intestinal catarrh and from attacks of gall-stone colic. Treatment, consisting of irrigation of the intestine, washing out the bladder, and administration of calomel, salol, and urotropin, was carried out for six weeks without leading to any improvement, except a decrease in the irritability of the bladder; after a further relapse this improvement disappeared. Cystoscopic examination showed a diffuse chronic cystitis, with clear urine coming from both kidneys. The patient next began to take helmitol starting at the rate of 3 gr. daily and increasing the amount to 9 gr. The use of helmitol was intended to accompany not to supersede other treatment, but from this time the patient was unable to steadily carry out the whole system of treatment, because of frequent absences from his doctor. With helmitol the subjective symptoms were removed, the urine became clear and the irritability of the bladder decreased. Fresh attacks of cystitis could not, however, be prevented owing to the state of the intestine. The next patient had a pustular, greenish yellow urethral discharge, and suffered from strangury, pain on micturition, and tenesmus. Urine was passed every half an hour or hour, and was turbid and contained pus corpuscles and gonococci. The prostate was enlarged, hard, and tender. Daily washing out of the bladder, administration of urotropin, and massage of the prostate every other day was persisted in for three weeks without any result. Helmitol was then given in combination with astringent injections. Marked subjective improvement followed, with some improvement in the state of the urine. The treatment was continued, and rest and a milk diet ordered. After two months the urine had become clear, all subjective symptoms had disappeared, and the prostate was of normal size. Other examples are given, and in all the cases helmitol led to a lessening of the symptoms, micturition became less frequent, pain was diminished, and the urine gradually cleared up. Helmitol acts as a disinfectant and diuretic, and also as a sedative. It has no specific action on the gonococci, but disinfects the urine by rendering it acid; and it diminishes and localizes the inflammatory process. When combined with suitable injections and with washing out of the bladder it brings about a complete cure. It is readily taken by patients and has no unpleasant after-effects.

(399) Light Treatment by Dreyer's Method.

NEISSER AND HALBERSTÄDTER (*Deut. med. Woch.*, No. 8, February 18th, 1904), after a review of the historical and theoretical aspects of treatment by light, both without sensitizing (Finsen) and with it (Dreyer, see BRITISH MEDICAL JOURNAL, November 5th, 1903), give the results of their own experiments done according to Dreyer's directions. They point out that Dreyer's method has the following advantages over Finsen's: (1) Finsen's very powerful arc lamp and quartz lenses can be replaced by a much

wound some of light and ordinary glass lenses (2) a mesh lower [illegible] can be treated at one exposure; (3) the duration of each exposure is reduced to a third or a quarter of that given in the Finsen technique; (4) the reaction is not confined to the superficial layers, as it is in the Finsen treatment, but proceeds also in the deeper tissues. By submitting only the deeper tissues it is even possible to treat these without injury to the overlying unsensitized skin. The author has already treated over 25 cases, principally of the skin lupus, scrofuloderma, tuberculous glands, spina ventosa and other deep-seated tuberculous processes by Dreyer's method, and is satisfied with the results obtained so far.

(401) The Medical Treatment of Tuberculous Peritonitis.

[illegible] (*La Clin. Med.*, Aug. 10, No. 1) whilst fully recognizing the possibility of spontaneous recovery in tuberculous peritonitis and the advantages of surgical treatment in certain cases, points out that there is still a large group of cases of chronic tuberculous peritonitis which may be successfully treated by medical means and he gives two examples so treated with complete recovery. Surgical treatment is not always possible even when it seems indicated. The particular method advocated by the author is that described by De Giovanni, and consists in the application of leeches to the hypochondriac region, [illegible] with strict [illegible] at the abdominal wall by means of cotton cloth. The author's brother-in-law [illegible] with acute tuberculous peritonitis who got wet just before a menstrual period and developed a tuberculous peritonitis with right [illegible] pleurisy and ascites. The [illegible] from October 1st [illegible] On November 12th [illegible] was performed on account of urgent symptoms and the right [illegible] which, [illegible] contained some [illegible] fluid. The ascites slowly increased about a month later. In February, 1903, the leeches were applied to the hæmorrhoidal veins, two days after the abdomen was [illegible] with cotton wool and on account of the pain [illegible] [illegible] [illegible]

BINDING SECT. SEP 13 1982

R
31
B93
1904
v.1
cop.2

British medical journal
1904,

BioMed
Ser.

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY